
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Harmonic Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

77-0201147
(I.R.S. Employer Identification Number)

549 Baltic Way, Sunnyvale, CA 94089, (408) 542-2500

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Anthony J. Ley

President and Chief Executive Officer

549 Baltic Way, Sunnyvale, CA 94089, (408) 542-2500

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

**Jeffrey D. Saper
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Palo Alto, CA 94304
(650) 493-9300**

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. _____

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. _____

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.

CALCULATION OF REGISTRATION FEE

| Title of Each Class of Securities to be Registered | Amount to be Registered | Proposed Maximum Offering Price per unit(1) | Proposed Maximum Offering Price Aggregate(2) | Amount of Registration Fee |
|---|--------------------------------|--|---|-----------------------------------|
| Common Stock, \$0.001 par value | — | — | — | — |

| | | | | |
|------------------------------------|------------------|------|------------------|----------|
| Preferred Stock, \$0.001 par value | — | — | — | — |
| Debt Securities(3) | — | — | — | — |
| Warrants(4) | — | — | — | — |
| Total(5) | \$150,000,000(5) | 100% | \$150,000,000(5) | \$13,800 |

- (1) The proposed maximum offering price per unit will be determined from time to time by the Registrant in connection with the issuance by the Registrant of the securities registered hereunder.
- (2) Estimated solely for the purpose of calculating the registration fee, which is calculated in accordance with Rule 457(o) under the Securities Act.
- (3) Or (i) if any debt securities are issued at an original issue discount, such greater principal amount at maturity as shall result in an aggregate initial offering price equal to the amount to be registered or (ii) if any debt securities are issued with a principal amount denominated in a foreign currency or composite currency, such principal amount as shall result in an aggregate initial offering price equivalent thereto in United States dollars at the time of initial offering.
- (4) Includes warrants to purchase common stock.
- (5) The proposed maximum offering price per unit will be determined by us in connection with the issuance of the securities. The securities registered hereunder may be sold separately or as units with other securities registered hereby.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with section 8(a) of the Securities Act of 1933 or until this registration statement shall become effective on such date as the Commission, acting pursuant to said section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell the securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and we are not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, dated March 15, 2002

PROSPECTUS

\$150,000,000

Harmonic Inc.

By this prospectus, we may offer —

Common Stock

Preferred Stock

Debt Securities

Warrants for Common Stock

See “Risk Factors” on page 4 for information you should

consider before buying the securities.

Our common stock is listed on the Nasdaq National Market under the symbol “HLIT.” On March 15, 2002, the last reported sale price of our common stock on the Nasdaq National Market was \$11.05 per share.

We will provide specific terms of these securities in supplements to this prospectus. You should read this prospectus and any prospectus supplement carefully before you invest.

This prospectus may not be used to offer and sell securities unless accompanied by a prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

This prospectus is dated _____, 2002

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Unless stated otherwise, references in this prospectus to “Harmonic,” “we,” “us,” “its” or “our” refer to Harmonic Inc., a Delaware corporation, and its subsidiaries.

Each trademark, trade name or service mark of any other company appearing in this prospectus belongs to its holder.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated herein by reference contain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. Words such as “anticipates,” “expects,” “intends,” “may,” “will,” “should,” “potential,” “continue,” “further,” “plans,” “believes,” “seeks,” “estimates,” variations of such words and similar expressions are intended to identify such forward looking statements. These statements are not guarantees of future performance and are subject to certain risks, uncertainties and assumptions that are difficult to predict. Therefore, actual results could differ materially from those expressed or forecasted in any such forward-looking statements as a result of certain factors, including those set forth in “Risk Factors,” as well as those noted in similar sections of the documents incorporated herein by reference. In connection with forward-looking statements which appear in these disclosures, investors should carefully review the factors set forth in this prospectus under “Risk Factors.”

The cautionary statements contained in any prospectus supplement under the caption “Risk Factors” and other similar statements contained elsewhere in this prospectus, including the documents that are incorporated by reference, identify important factors with respect to such forward-looking statements, including certain risks and uncertainties that could cause our actual results, performance or achievements expressed or implied by such forward-looking statements.

Although we believe that the expectations reflected in such forward-looking statements are based upon reasonable assumptions, no assurance can be given that such expectations will be attained or that any deviations will not be material. We disclaim any obligation or undertaking to disseminate any updates or revision to any forward-looking statement contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

NO PERSON HAS BEEN AUTHORIZED TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS IN CONNECTION WITH THIS OFFERING OTHER THAN THOSE CONTAINED OR INCORPORATED BY REFERENCE IN THIS PROSPECTUS AND ANY ACCOMPANYING PROSPECTUS SUPPLEMENT IN CONNECTION WITH THE OFFERING

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DESCRIBED HEREIN AND THEREIN, AND, IF GIVEN OR MADE, SUCH INFORMATION OR REPRESENTATIONS MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED BY THE COMPANY. NEITHER THIS PROSPECTUS NOR ANY PROSPECTUS SUPPLEMENT SHALL CONSTITUTE AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY OFFERED SECURITIES IN ANY JURISDICTION IN WHICH IT IS UNLAWFUL FOR SUCH PERSON TO MAKE SUCH AN OFFERING OR SOLICITATION. NEITHER THE DELIVERY OF THIS PROSPECTUS OR ANY PROSPECTUS SUPPLEMENT NOR ANY SALE MADE HEREUNDER SHALL UNDER ANY CIRCUMSTANCES IMPLY THAT THE INFORMATION CONTAINED OR INCORPORATED BY REFERENCE HEREIN OR IN ANY PROSPECTUS SUPPLEMENT IS CORRECT AS OF ANY DATE SUBSEQUENT TO THE DATE HEREOF OR OF SUCH PROSPECTUS SUPPLEMENT.

IN CONNECTION WITH THE OFFERING OF CERTAIN OFFERED SECURITIES, CERTAIN PERSONS PARTICIPATING IN SUCH OFFERING MAY ENGAGE IN TRANSACTIONS THAT STABILIZE, MAINTAIN OR OTHERWISE AFFECT THE MARKET PRICES OF SUCH OFFERED SECURITIES OR OTHER SECURITIES OF THE COMPANY, INCLUDING STABILIZING TRANSACTIONS, SYNDICATE COVERING TRANSACTIONS AND THE IMPOSITION OF PENALTY BIDS. SPECIFICALLY, SUCH PERSONS MAY OVERALLOT IN CONNECTION WITH THE OFFERING AND MAY BID FOR AND PURCHASE THE OFFERED SECURITIES IN THE OPEN MARKET.

SUMMARY

This prospectus is part of a Registration Statement on Form S-3 that we filed with the Securities and Exchange Commission using a “shelf” registration process. Under this shelf process, we may sell any combination of securities described in this prospectus in one or more offerings, up to a total dollar amount of \$150,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may, along with information that is incorporated by reference as described under the heading “Where You Can Find More Information,” also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described below under the heading “Where You Can Find More Information.”

Harmonic Inc.

Harmonic designs, manufactures and sells a variety of broadband solutions that allow communications service providers around the world to deliver video, voice and data to their subscribers. Harmonic’s technically advanced fiber optic, digital video and data delivery systems enable network operators to provide a range of interactive and advanced digital services that include digital video, high-speed Internet access, telephony, HDTV, video and audio streaming, and video-on-demand.

Historically, almost all of our sales were derived directly or indirectly from sales of fiber optic transmission systems to cable television operators. With the introduction of digital headend products beginning in 1997, we broadened our product offering to enable delivery of digital video, voice and data over satellite and wireless networks and cable systems.

In order to further expand our digital systems capability, Harmonic entered into a merger agreement with C-Cube Microsystems Inc., or C-Cube, on October 27, 1999, pursuant to which C-Cube merged into Harmonic. Under the terms of the merger agreement, C-Cube spun off its semiconductor business as a separate publicly traded company prior to the May 3, 2000 closing. C-Cube then merged into Harmonic and Harmonic therefore acquired C-Cube’s DiviCom business, which provides MPEG-2 encoding products and systems for digital television.

The merged Company has been organized into two product divisions, Broadband Access Networks, or BAN, for fiber optic systems and Convergent Systems, or CS, for digital headend systems. While the two divisions have been organized generally around the pre-merger Harmonic fiber optics systems and the DiviCom digital headend systems, respectively, these divisions do not correspond to the pre-merger companies in significant ways. For example, certain Harmonic product lines are now part of the CS division.

Harmonic was initially incorporated in California in June 1988 and reincorporated into Delaware in May 1995. Our principal executive offices are located at 549 Baltic Way, Sunnyvale, California 94089. Our telephone number is (408) 542-2500.

The Securities We May Offer

We may offer up to \$150,000,000 of common stock, preferred stock, debt securities, and warrants to purchase common stock. A prospectus supplement, which we will provide to you each time we offer securities, will describe the specific amounts, prices, and terms of these securities.

We may sell the securities to or through underwriters, dealers or agents, or directly to purchasers. We, as well as any agents acting on our behalf, reserve the sole right to accept and to reject in whole or in part any proposed purchase of securities. Each prospectus supplement will set forth the names of any underwriters, dealers, or agents involved in the sale of the securities described in that prospectus supplement and any applicable fee, commission or discount arrangements with them.

Debt Securities

We may offer secured or unsecured obligations in the form of either senior or subordinated debt. The senior debt securities and the subordinated debt securities are together referred to in this prospectus as the “debt securities.” The unsecured senior debt securities will generally have the same rank in right of payment as our other unsecured, unsubordinated debt. The subordinated debt securities generally will be entitled to payment only after payment of our senior debt. Senior debt generally includes all debt for money borrowed by us, except debt that is stated in the instrument governing the terms of that debt to be not senior to, or to have the same rank in right of payment as, or to be expressly junior to, the subordinated debt securities.

The senior and subordinated debt securities will be issued under separate indentures between us and a trustee. We have summarized the general features of the debt securities to be governed by the indentures. These indentures have been filed as exhibits to the registration statement (No. 333-) that we have filed with the Securities and Exchange Commission (this prospectus being a part of that registration statement). We encourage you to read these indentures. Instructions on how you can get copies of these documents are provided below under the heading “Where You Can Find More Information.”

General Indenture Provisions that Apply to Senior and Subordinated Debt

- Each indenture allows debt to be issued in series with terms particular to each series.
- Neither indenture limits the amount of debt that we may issue or generally provides holders any protection should there be a highly leveraged transaction involving our company.
- The indentures allow us to merge or to consolidate with another United States entity or convey, transfer or lease our properties and assets substantially as an entirety to another United States entity, as long as certain conditions are met. If these events occur, the other entity will be required to assume our obligations on the debt securities and under the indentures, and we will be released from all liabilities and obligations, except in the case of a lease.
- The indentures provide that we and the respective trustee may generally amend the respective indenture with the consent of holders of a majority of the total principal amount of the debt outstanding in any series to change certain of our obligations or your rights concerning the debt. However, to change the payment of principal, interest, or adversely affect the right to convert or certain other matters, every holder in that series must consent.
- We may discharge the indentures and defease restrictive covenants by depositing sufficient funds with the trustee to pay the obligations when due, as long as certain conditions are met. The trustee would pay all amounts due to you on the debt from the deposited funds.

Events of Default

Each of the following is among the events of default specified in the indentures:

- Principal not paid when due;
- Sinking fund payment not made when due;
- Failure to pay interest for 30 days;
- Covenants not performed for 90 days after notice; and
- Certain events of bankruptcy, insolvency or reorganization of Harmonic.

A prospectus supplement may describe deletions of, or changes or additions to, the events of default.

Remedies

Upon an event of default, other than a bankruptcy, insolvency or reorganization, the trustee or holders of 25% of the principal amount outstanding in a series may declare the outstanding principal plus accrued

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interest, if any, immediately due and payable. However, the holders of a majority in principal amount may, under certain circumstances, rescind this action.

Subordination

The subordinated indenture provides that the subordinated debt securities will be subordinated to all senior debt as defined in the subordinated indenture.

Preferred Stock

We may issue preferred stock in one or more series. Our board of directors as a committee designated by the Board will determine the dividend, voting, and conversion rights and other provisions at the time of sale. Each series of preferred stock will be more fully described in the particular prospectus supplement that will accompany this prospectus, including redemption provisions, rights in the event of liquidation, dissolution or the winding up of Harmonic, voting rights and conversion rights.

Common Stock

We may offer our common stock, par value \$0.001 per share, either alone or underlying other registered securities convertible into our common stock. Common stock holders are entitled to receive dividends declared by our board of directors out of funds legally available for the payment of dividends, subject to rights, if any, of preferred stock holders. Currently, we do not pay a dividend. Each holder of common stock is entitled to one vote per share. The holders of common stock have no preemptive rights or cumulative voting rights.

Warrants

We may issue warrants for the purchase of our common stock.

RISK FACTORS

Before you invest in any of our securities, you should be aware of various risks, including those described below. You should carefully consider these risk factors, together with all of the other information included or incorporated by reference in this prospectus and in the prospectus supplement, before you decide whether to purchase any of our securities. The risks set out below are not the only risks we face.

If any of the following risks occur, our business, financial condition and results of operations could be materially adversely affected. In such case, the trading price of our securities could decline, and you may lose all or part of your investment.

We Depend On Cable And Satellite Industry Capital Spending For A Substantial Portion Of Our Revenue And Any Decrease Or Delay In Capital Spending In These Industries Would Negatively Impact Our Resources, Operating Results And Financial Condition.

Prior to the merger with C-Cube, almost all of Harmonic's historic sales had been derived from sales to cable television operators and we expect these sales to constitute a significant portion of net sales for the foreseeable future. Almost all of the DiviCom business' historic sales had been derived from sales to satellite operators, telephone companies and cable operators. Demand for the combined company's products will depend on the magnitude and timing of capital spending by cable television operators, satellite operators, broadcasters and telephone companies for constructing and upgrading of their systems.

These capital spending patterns are dependent on a variety of factors, including:

- access to financing;
- annual budget cycles;
- the impact of industry consolidation;
- the status of federal, local and foreign government regulation of telecommunications and television broadcasting;
- overall demand for communication services and the acceptance of new video, voice and data services;
- evolving industry standards and network architectures;
- competitive pressures;
- discretionary customer spending patterns;
- general economic conditions.

In the past, specific factors contributing to reduced capital spending have included:

- uncertainty related to development of digital video and cable modem industry standards;
- delays associated with the evaluation of new services and system architectures by many cable television operators;
- emphasis on generating revenue from existing customers by cable television operators instead of new construction or network upgrades; and
- general economic conditions in domestic and international markets.

Recent developments in capital markets have reduced access to funding for new and existing customers causing delays in the timing and scale of deployments of our equipment, as well as the postponement of certain projects by our customers. During the past two years Harmonic and other vendors received notification from significant customers, including AT&T Broadband, RCN and Bell South, that they were canceling new projects, or delaying new orders to allow them to reduce inventory levels which were in excess of their current deployment requirements.

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The timing of deployment of our equipment can be subject to a number of other risks, including the availability of skilled engineering and technical personnel, the availability of other equipment such as fiber optic cable, and the need for local zoning and licensing approvals. We believe that changes in our customers' deployment plans have in recent quarters delayed, and may in the future delay, the receipt of new orders or the release of existing backlog. Since the majority of our sales have been to relatively few customers, a delay in equipment deployment at any one customer has in the past and could have a material adverse effect on our sales in a particular quarter. In this regard, the Company's sales decreased each quarter from the second quarter of 2000 through the first quarter of 2001 and were below our expectations in the BAN and CS divisions as well as the expectations of securities analysts, and the price of our Common Stock declined significantly.

Cable television capital spending can be subject to the effects of seasonality, with fewer construction and upgrade projects typically occurring in winter months and otherwise being affected by inclement weather.

BAN division sales have decreased significantly from the third quarter of 2000 and were 57% lower in 2001 than in 2000. This was due to weak cable industry spending on transmission upgrades, particularly reduced spending by AT&T Broadband and RCN. These two customers accounted for a total of 23% of sales in 2000 compared to a combined total of less than 5% of sales in 2001. CS division sales from the second quarter of 2000 through the first quarter of 2001, consisting principally of DiviCom products, were below DiviCom's sales levels in 1999 and the first quarter of 2000, and were significantly below our expectations at the time the DiviCom merger was announced in October 1999. The lower CS sales were attributable principally to reduced spending by satellite operators. For a more detailed discussion regarding risks related to AT&T Broadband, RCN and other major customers, see "Our Customer Base Is Concentrated And The Loss Of One Or More Of Our Key Customers Would Harm Our Business. The Loss Of Any Key Customer Would Have A Negative Effect On Our Business."

CS division sales increased sequentially during the second and third quarters of 2001 and increased 58% during the second half of 2001 compared to the first half of the year, primarily due to demand for our next-generation digital systems such as the Narrowcast Services Gateway, or NSG, and the MV50 encoder. CS sales of the MV50 encoder during 2001 benefited in particular from the expansion of local channel offerings and compliance with FCC "must carry" regulations by domestic direct broadcast satellite, or DBS, operators. We anticipate that, in light of the announced merger of EchoStar and DirecTV and expectations that operators will add fewer new markets in 2002, our revenue from domestic DBS operators is likely to decline in 2002.

Due to the uncertainty of the capital spending plans of our customers and seasonal weakness, we expect a slight sequential sales decline during the first quarter of 2002. Harmonic expects to report a loss at least through the first half of 2002, and cannot predict when it will return to profitability.

Our Customer Base Is Concentrated And The Loss Of One Or More Of Our Key Customers Would Harm Our Business. The Loss Of Any Key Customer Would Have A Negative Effect On Our Business.

Historically, a majority of our sales and sales of DiviCom have been to relatively few customers, and due in part to the consolidation of ownership of cable television and direct broadcast satellite systems, we expect this customer concentration to continue in the foreseeable future. Sales to our ten largest customers in 2001, 2000, and 1999 accounted for approximately 49%, 52% and 75% of net sales, respectively. Although we are attempting to broaden our customer base by penetrating new markets such as the telco and broadcast markets, we expect to see continuing industry consolidation and customer concentration due in part to the significant capital costs of constructing broadband networks. For example, Comcast and AT&T Broadband, and EchoStar and DirecTV have announced plans to merge. Both combinations are subject to regulatory and shareholder approvals, among other conditions. In 2001, sales to DirecTV and Charter Communications accounted for 13% and 11% of net sales, respectively, compared to less than 10% for each of these customers in 2000 and 1999. In 2000, sales to AT&T Broadband accounted for 12% of net sales compared to 41% in 1999. In addition, in 2000 RCN represented 11% of net sales. No other customer accounted for more than 10% of our net sales in 2001, 2000, or 1999. The loss of DirecTV or Charter Communications, or any other

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significant customer or any reduction in orders by DirecTV, Charter Communications or any significant customer, or our failure to qualify our products with a significant customer could adversely affect our business, operating results and liquidity. We cannot currently predict the impact of the acquisition of DirecTV by EchoStar, if approved, on our future sales. In addition, we cannot assure you that sales to other customers will compensate for the reduction in sales to AT&T Broadband and RCN nor can we predict the impact of the AT&T Broadband merger with Comcast on our future sales. Our sales are made on a purchase order or system contract basis, and none of our customers has entered into a long-term agreement requiring it to purchase our products. The loss of, or any reduction in orders from, a significant customer would harm our business.

Our Operating Results Are Likely To Fluctuate Significantly And May Fail To Meet Or Exceed The Expectations Of Securities Analysts Or Investors, Causing Our Stock Price To Decline.

Our operating results have fluctuated in the past and are likely to continue to fluctuate in the future, on an annual and a quarterly basis, as a result of several factors, many of which are outside of our control. Some of the factors that may cause these fluctuations include:

- the level and timing of capital spending of our customers, both in the U.S. and in foreign markets;
- changes in market demand;
- the timing and amount of customer orders;
- the timing of revenue from systems contracts which may span several quarters;
- competitive market conditions;
- our unpredictable sales cycles;
- new product introductions by our competitors or by us;
- changes in domestic and international regulatory environments;
- market acceptance of new or existing products;
- the cost and availability of components, subassemblies and modules;
- the mix of our customer base and sales channels;
- the mix of our products sold;
- our development of custom products and software;
- the level of international sales; and
- economic conditions specific to the cable and satellite industries, and general economic conditions.

In addition, we often recognize a substantial portion of our revenues in the last month of the quarter. We establish our expenditure levels for product development and other operating expenses based on projected sales levels, and expenses are relatively fixed in the short term. Accordingly, variations in timing of sales can cause significant fluctuations in operating results. In addition, because a significant portion of our business is derived from orders placed by a limited number of large customers, the timing of such orders can also cause significant fluctuations in our operating results. Our expenses for any given quarter are typically based on expected sales and if sales are below expectations, our operating results may be adversely impacted by our inability to adjust spending to compensate for the shortfall. As a result of all these factors, our operating results in one or more future periods may fail to meet or exceed the expectations of securities analysts or investors. In that event, the trading price of our common stock would likely decline. In this regard, due to lower than expected sales in each quarter from the second quarter of 2000 through the first quarter of 2001, we failed to meet our internal expectations, as well as the expectations of securities analysts and investors, and the price of our common stock declined significantly.

As a result of the September 11, 2001 terrorist attacks in New York City and Washington, D.C., the United States and global economies have weakened and may continue to deteriorate, which may impair our

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ability to ship our products within the United States and internationally, and may result in further decreases in our revenues and cause our stock price to decline. In addition, it is anticipated that in the wake of these events, the United States and global capital markets will experience a period of continuing volatility. These events may have a negative impact on our business as a result of the cautious purchasing behavior of customers.

We May Need Additional Capital In The Future And May Not Be Able To Secure Adequate Funds On Terms Acceptable To Us.

While we expect to report a loss at least through the first half of 2002, we currently believe that our existing liquidity sources, including bank line of credit and factoring facilities will satisfy our requirements for at least the next twelve months. We may need to raise additional funds if our estimates change or prove inaccurate or in order for us to respond to unforeseen technological or marketing hurdles, or to take advantage of unanticipated opportunities. Our ability to raise funds may be adversely affected by a number of factors relating to Harmonic, as well as factors beyond our control, including increased market uncertainty following the events of September 11, 2001 and the ongoing U.S. war on terrorism. There can be no assurance that such financing will be available on terms acceptable to us, if at all.

In addition, we may review other potential acquisitions that would complement our existing product offerings, enhance our technical capabilities or expand our marketing and sales presence. While we have no current agreements or negotiations underway with respect to any potential acquisition, any future transaction of this nature could require potentially significant amounts of capital. If adequate funds are not available, or are not available on acceptable terms, we may not be able to take advantage of market opportunities, to develop new products or to otherwise respond to competitive pressures.

We Depend On Our International Sales And Are Subject To The Risks Associated With International Operations, Which May Negatively Affect Our Operating Results.

Sales to customers outside of the United States in 2001, 2000 and 1999 represented 40%, 36% and 30%, of net sales, respectively, and we expect that international sales will continue to represent a substantial portion of our net sales for the foreseeable future. Our international operations are subject to a number of risks, including:

- changes in foreign government regulations and telecommunications standards;
- import and export license requirements, tariffs, taxes and other trade barriers;
- fluctuations in currency exchange rates;
- difficulty in collecting accounts receivable;
- the burden of complying with a wide variety of foreign laws, treaties and technical standards;
- difficulty in staffing and managing foreign operations; and
- political and economic instability.

While our international sales have typically been denominated in U.S. dollars, fluctuations in currency exchange rates could cause our products to become relatively more expensive to customers in a particular country, leading to a reduction in sales or profitability in that country. Following implementation of the final phase of the Euro changeover effective January 1, 2002, we expect a higher portion of our European business to be denominated in Euros which may subject us to increased foreign currency risk. Gains and losses on the conversion to U.S. dollars of accounts receivable, accounts payable and other monetary assets and liabilities arising from international operations may contribute to fluctuations in operating results. Furthermore, payment cycles for international customers are typically longer than those for customers in the United States. Unpredictable sales cycles could cause us to fail to meet or exceed the expectations of security analysts and investors for any given period. In addition, foreign markets may not develop in the future.

We Must Be Able To Manage Expenses And Inventory Risks Associated With Meeting The Demand Of Our Customers.

From time to time, we receive indications from our customers as to their future plans and requirements to ensure that we will be prepared to meet their demand for our products. If actual orders differ materially from these indications, our ability to manage inventory and expenses may be affected. In addition, if we fail to meet customers' supply expectations, we may lose business from such customers. If we enter into purchase commitments to acquire materials, or expend resources to manufacture products and such products are not purchased by our customers, our business and operating results could suffer. In this regard, our gross margins and operating results for the last five quarters were adversely affected by provisions for excess and obsolete inventories of approximately \$49 million.

The Markets In Which We Operate Are Intensely Competitive And Many Of Our Competitors Are Larger And More Established.

The markets for cable television fiber optics systems and digital video broadcasting systems are extremely competitive and have been characterized by rapid technological change and declining average selling prices.

Harmonic's competitors in the cable television fiber optics systems business include corporations such as Arris (a company owned in part by Nortel and AT&T), C-Cor.net, Motorola, Philips and Scientific-Atlanta.

In the digital and video broadcasting systems business, we compete broadly with vertically integrated system suppliers including Motorola, Scientific-Atlanta, Tandberg, Thomson Multimedia and Philips, and in certain product lines with Cisco and Terayon and a number of smaller companies.

Most of our competitors are substantially larger and have greater financial, technical, marketing and other resources than Harmonic. Many of these large organizations are in a better position to withstand any significant reduction in capital spending by customers in these markets. They often have broader product lines and market focus and will therefore not be as susceptible to downturns in a particular market. In addition, many of our competitors have been in operation longer than we have and therefore have more long standing and established relationships with domestic and foreign customers. We may not be able to compete successfully in the future and competition may harm our business.

If any of our competitors' products or technologies were to become the industry standard, our business could be seriously harmed. For example, U.S. cable operators have to date mostly purchased proprietary digital systems from Motorola and Scientific-Atlanta. While certain operators have made limited purchases of the "open" systems provided by Harmonic, we cannot assure you that our digital products will find broad market acceptance with U.S. cable operators. In addition, companies that have historically not had a large presence in the broadband communications equipment market have begun recently to expand their market share through mergers and acquisitions. The continued consolidation of our competitors could have a significant negative impact on us. Further, our competitors, particularly competitors of our digital and video broadcasting systems' business, may bundle their products or incorporate functionality into existing products in a manner that discourages users from purchasing our products or which may require us to lower our selling prices resulting in lower gross margins.

Broadband Communications Markets Are Relatively Immature And Characterized By Rapid Technological Change.

Broadband communications markets are relatively immature, making it difficult to accurately predict the markets' future growth rates, sizes or technological directions. In view of the evolving nature of these markets, it is possible that cable television operators, telephone companies or other suppliers of broadband wireless and satellite services will decide to adopt alternative architectures or technologies that are incompatible with our current or future products. If we are unable to design, develop, manufacture and sell products that incorporate or are compatible with these new architectures or technologies, our business will suffer.

We Need To Develop And Introduce New And Enhanced Products In A Timely Manner To Remain Competitive.

Broadband communications markets are characterized by continuing technological advancement, changes in customer requirements and evolving industry standards. To compete successfully, we must design, develop, manufacture and sell new or enhanced products that provide increasingly higher levels of performance and reliability. However, we may not be able to successfully develop or introduce these products, if our products:

- are not cost effective,
- are not brought to market in a timely manner,
- are not in accordance with evolving industry standards and architectures, or
- fail to achieve market acceptance.

In addition, to successfully develop and market our planned products, we must retain and continue to attract personnel with appropriate experience and expertise. Competition for qualified personnel is intense. We may not be successful in retaining and attracting qualified personnel.

Also, to successfully develop and market certain of our planned products for digital applications, we may be required to enter into technology development or licensing agreements with third parties. We cannot assure you that we will be able to enter into any necessary technology development or licensing agreement on terms acceptable to us, or at all. The failure to enter into technology development or licensing agreements when necessary could limit our ability to develop and market new products and, accordingly, could materially and adversely affect our business and operating results.

We Need To Effectively Manage Our Operations And The Cyclical Nature Of Our Business.

The growth of our operations and cyclical nature of our business has placed, and is expected to continue to place, a significant strain on our personnel, management and other resources. This strain has been exacerbated by the acquisition of DiviCom and the subsequent loss of numerous employees, including senior management. In addition, we reduced our work force by approximately 30% during 2001 due to reduced industry spending and demand for our products. Our ability to manage our business effectively in the future, including any future growth, will require us to train, motivate and manage our employees successfully, to attract and integrate new employees into our overall operations, to retain key employees and to continue to improve our operational, financial and management systems. In particular, in April 2001 we implemented a new management information system. We believe this new system significantly affects many aspects of our business, including accounting, manufacturing operations, purchasing, sales and marketing functions. The successful operation of this system is critical to our business. While the initial phase of implementation has been successful, there can be no assurance that we will complete the transition to the new system in an efficient, cost-effective or timely manner or that the new information system will be adequate to support all of our operations. If we fail to manage our existing operations or any future growth effectively, our business could suffer.

Competition For Qualified Personnel Is Intense, And We May Not Be Successful In Attracting And Retaining Personnel.

Our future success will depend, to a significant extent, on the ability of our management to operate effectively, both individually and as a group. We are dependent on our ability to retain and motivate high caliber personnel, in addition to attracting new personnel. In spite of the current worldwide economic slowdown, competition for qualified technical and other personnel remains intense, particularly in the San Francisco Bay Area and Israel, and we may not be successful in attracting and retaining such personnel.

Competitors and others have in the past and may in the future attempt to recruit our employees. While our employees are required to sign standard agreements concerning confidentiality and ownership of inventions, we generally do not have employment contracts or noncompetition agreements with any of our

personnel. The loss of the services of any of our key personnel, the inability to attract or retain qualified personnel in the future or delays in hiring required personnel, particularly engineers and other technical personnel, could negatively affect our business.

We Are Liable For C-Cube's Pre-Merger Tax Liabilities, Including Tax Liabilities Resulting From The Spin-Off Of Its Semiconductor Business.

The spin-off of C-Cube's semiconductor business gave rise to a significant tax liability of approximately \$320 million based on a valuation of the semiconductor business of \$1.1 billion. The estimated liability was paid in 2000. Under state law, Harmonic generally is liable for all of C-Cube's debts, including C-Cube's liability for taxes resulting from the spin-off and other pre-merger tax liabilities. C-Cube retained and transferred to Harmonic in the merger an amount of cash and other consideration sufficient to pay this liability as well as all other tax liabilities of C-Cube and its subsidiaries for periods prior to the merger. The merger agreement stipulates that Harmonic will be indemnified by the spun-off semiconductor business if the cash reserves are not sufficient to satisfy all of C-Cube's tax liabilities for periods prior to the merger. If for any reason, the spun-off semiconductor business does not have sufficient cash to pay such taxes, or if there are additional taxes due with respect to the non-semiconductor business and Harmonic cannot be indemnified by C-Cube, Harmonic generally will remain liable, and such liability could have a material adverse effect on Harmonic. The spun-off semiconductor business was recently acquired by LSI Logic, which assumed these obligations to Harmonic.

Due To The Structure Of The Merger Transaction, Harmonic Is Liable For C-Cube's General Pre-Merger Liabilities And Any Liabilities Relating To C-Cube's Semiconductor Business For Which The Spin-off Semiconductor Business Is Unable To Indemnify Harmonic.

The merger of C-Cube into Harmonic, with Harmonic as the surviving entity, resulted in our assuming all of the liabilities of C-Cube at the time of the merger. Pursuant to the merger agreement, Harmonic is indemnified by the spun-off semiconductor business for liabilities associated with C-Cube's historic semiconductor business. However, if LSI Logic is unable to fulfill its indemnification obligations to Harmonic or if general liability claims not specifically associated with C-Cube's historic semiconductor business are asserted, we would have to assume such obligations. Those obligations could adversely effect our financial condition.

We May Be Subject To Risks Associated With Other Acquisitions.

We have made and may make investments in complementary companies, products or technologies. If we make acquisitions, we could have difficulty assimilating or retaining the acquired companies' personnel and operations or integrating the acquired technology or products into ours. These difficulties could disrupt our ongoing business, distract our management and employees and increase our expenses. Moreover, our operating results may suffer because of acquisition-related expenses, amortization of intangible assets and impairment of acquired goodwill or intangible assets. Furthermore, we may have to incur debt or issue equity securities to pay for any future acquisitions, the issuance of which could be dilutive to our existing shareholders. If we are unable to successfully address any of these risks, our business, financial condition and operating results could be harmed.

Difficulties In The Development And Production Of Video Encoding Chips By C-Cube's Spun-off Semiconductor Business May Adversely Impact Us.

The DiviCom business and C-Cube semiconductor business collaborated on the production and development of two video encoding microelectronic chips prior to the merger. In connection with the merger, Harmonic and the spun-off semiconductor business entered into a contractual relationship under which Harmonic will have access to certain of the spun-off semiconductor business technologies and products which the DiviCom business previously depended on for its product and service offerings.

However, under the contractual relationships between Harmonic and the spun-off semiconductor business, which was recently acquired by LSI Logic, the semiconductor business does not have a firm

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commitment to continue the development of video encoding microelectronic chips. As a result, the semiconductor business may choose not to continue future development of the chips for any reason. The semiconductor business may also encounter in the future technological difficulties in the production and development of the chips. If the spun-off semiconductor business is not able to or does not sustain its development and production efforts in this area, we may not be able to fully recognize the benefits of the acquisition. See "Supply, License and Development Agreement" at page 60 of the joint proxy statement filed with the Securities and Exchange Commission on March 23, 2000, for further details of Harmonic's business relationship with the spun-off semiconductor business after the merger.

If Sales Forecasted For A Particular Period Are Not Realized In That Period Due To The Unpredictable Sales Cycles Of Our Products, Our Operating Results For That Period Will Be Harmed.

The sales cycles of many of our products, particularly our newer products and products sold internationally, are typically unpredictable and usually involve:

- a significant technical evaluation;
- a commitment of capital and other resources by cable, satellite, and other network operators;
- capital expenditures;
- time required to engineer the deployment of new technologies or services within broadband networks; and
- testing and acceptance of new technologies that affect key operations.

For these and other reasons, our sales cycles generally last three to six months, but can last up to 12 months. If orders forecasted for a specific customer for a particular quarter do not occur in that quarter, our operating results for that quarter could be substantially lower than anticipated.

As a result of the merger, a significant portion of our revenue is derived from solution contracts. A substantial portion of CS division revenues are from solution contracts that include a combination of product sales as well as design, installation and integration services. Revenue forecasts for solution contracts are based on the estimated timing of the design, installation and integration of projects. Because the solution contracts generally span several quarters and revenue recognition is based on progress under the contract, the timing of revenue is difficult to predict and could result in lower than expected revenue in any particular quarter.

Our Failure To Adequately Protect Our Proprietary Rights May Adversely Affect Us.

We currently hold 39 issued United States patents and 8 issued foreign patents, and have a number of patent applications pending. Although we attempt to protect our intellectual property rights through patents, trademarks, copyrights, licensing arrangements, maintaining certain technology as trade secrets and other measures, we cannot assure you that any patent, trademark, copyright or other intellectual property rights owned by us will not be invalidated, circumvented or challenged, that such intellectual property rights will provide competitive advantages to us or that any of our pending or future patent applications will be issued with the scope of the claims sought by us, if at all. We cannot assure you that others will not develop technologies that are similar or superior to our technology, duplicate our technology or design around the patents that we own. In addition, effective patent, copyright and trade secret protection may be unavailable or limited in certain foreign countries in which we do business or may do business in the future.

We believe that the future success of our business will depend on our ability to translate the technological expertise and innovation of our personnel into new and enhanced products. We generally enter into confidentiality or license agreements with our employees, consultants, vendors and customers as needed, and generally limit access to and distribution of our proprietary information. Nevertheless, we cannot assure you that the steps taken by us will prevent misappropriation of our technology. In addition, we have taken in the past, and may take in the future, legal action to enforce our patents and other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend

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against claims of infringement or invalidity. Such litigation could result in substantial costs and diversion of resources and could negatively effect our business, operating results, financial position and liquidity.

In order to successfully develop and market certain of our planned products for digital applications, we may be required to enter into technology development or licensing agreements with third parties. Although many companies are often willing to enter into such technology development or licensing agreements, we cannot assure you that such agreements will be negotiated on terms acceptable to us, or at all. The failure to enter into technology development or licensing agreements, when necessary, could limit our ability to develop and market new products and could cause our business to suffer.

Harmonic's industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. In particular, leading companies in the telecommunications industry have extensive patent portfolios. From time to time, third parties, including these leading companies, have asserted and may assert exclusive patent, copyright, trademark and other intellectual property rights against us or our customers. Indeed, a number of third parties, including leading companies, have asserted patent rights to technologies that are important to us. We expect to increasingly be subject to infringement claims asserted by third parties as the numbers of products and competitors in the telecommunications industry grow. In this regard, since December 2000, we have been in communication with several of Harmonic's customers who have been contacted by one of these leading companies that believes certain of our products require a license under a number of their patents. We currently are reviewing the identified patents to examine whether we consider a license necessary. While it is our understanding that the third party is willing to grant our customers a non-exclusive license under the identified patents, there can be no assurance that the terms of any offered license would be acceptable to our customers or that failure to obtain a license or the costs associated with any license would not cause our operating results to be materially adversely affected.

We Purchase Several Key Components, Subassemblies And Modules Used In The Manufacture Or Integration Of Our Products From Sole Or Limited Sources, And We Are Increasingly Dependent On Contract Manufacturers.

Many components, subassemblies and modules necessary for the manufacture or integration of our products are obtained from a sole supplier or a limited group of suppliers. Our reliance on sole or limited suppliers, particularly foreign suppliers, and our increased reliance on subcontractors since the merger with C-Cube involves several risks, including a potential inability to obtain an adequate supply of required components, subassemblies or modules and reduced control over pricing, quality and timely delivery of components, subassemblies or modules. In particular, certain optical components have in the past been in short supply and are available only from a small number of suppliers, including sole source suppliers. While we expend considerable efforts to qualify additional optical component sources, consolidation of suppliers in the industry and the small number of viable alternatives have limited the results of these efforts. We do not generally maintain long-term agreements with any of our suppliers or subcontractors. An inability to obtain adequate deliveries or any other circumstance that would require us to seek alternative sources of supply could affect our ability to ship our products on a timely basis, which could damage relationships with current and prospective customers and harm our business. We attempt to limit this risk by maintaining safety stocks of these components, subassemblies and modules. As a result of this investment in inventories, we have in the past and in the future may be subject to risk of excess and obsolete inventories, which could harm our business. In this regard, our gross margins and operating results for the last five quarters were adversely affected by excess and obsolete inventory charges of approximately \$49 million.

We Face Risks Associated With Having Important Facilities And Resources Located In Israel.

Harmonic maintains two facilities in the State of Israel with a total of approximately 80 employees. The personnel at these facilities represent a significant portion of our research and development operations. Accordingly, we are directly influenced by the political, economic and military conditions affecting Israel, and any major hostilities involving Israel or the interruption or curtailment of trade between Israel and its present trading partners could significantly harm our business. The September terrorist attacks, the ongoing U.S. war

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on terrorism and the escalation of terrorist attacks and hostilities within Israel have heightened these risks. We cannot assure you that the protraction or escalation of current tensions in the Middle East will not adversely affect our business and results of operations.

In addition, most of our employees in Israel are currently obligated to perform annual reserve duty in the Israel Defense Forces and are subject to being called for active military duty at any time. We cannot predict the effect of these obligations on Harmonic in the future.

We Are The Subject Of Securities Class Action Claims And Other Litigation Which, If Adversely Determined, Could Harm Our Business And Operating Results.

Between June 28 and August 25, 2000, several actions alleging violations of the federal securities laws by Harmonic and certain of its officers and directors (some of whom are no longer with Harmonic) were filed in or removed to the United States District Court for the Northern District of California. The actions subsequently were consolidated.

A consolidated complaint, filed on December 7, 2000, was brought on behalf of a purported class of persons who purchased Harmonic's publicly traded securities between January 19 and June 26, 2000. The complaint also alleged claims on behalf of a purported subclass of persons who purchased C-Cube securities between January 19 and May 3, 2000. In addition to Harmonic and certain of its officers and directors, the complaint also named C-Cube Microsystems Inc. and several of its officers and directors as defendants. The complaint alleged that, by making false or misleading statements regarding Harmonic's prospects and customers and its acquisition of C-Cube, certain defendants violated sections 10(b) and 20(a) of the Securities Exchange Act of 1934. The complaint also alleged that certain defendants violated section 14(a) of the Exchange Act and sections 11, 12(a)(2), and 15 of the Securities Act of 1933 by filing a false or misleading registration statement, prospectus, and joint proxy in connection with the C-Cube acquisition.

On July 3, 2001, the Court dismissed the consolidated complaint with leave to amend. An amended complaint alleging the same claims against the same defendants was filed on August 13, 2001. Defendants moved to dismiss the amended complaint on September 24, 2001. Pursuant to the Court's July 3, 2001 order, no hearing on the motions will be held unless the Court sets one.

A derivative action purporting to be on behalf of Harmonic was filed against its then-current directors in the Superior Court for the County of Santa Clara on September 5, 2000. Harmonic also was named as a nominal defendant. The complaint is based on allegations similar to those found in the securities class actions and claims that the defendants breached their fiduciary duties by, among other things, causing Harmonic to violate federal securities laws. The derivative action was removed to the United States District Court for the Northern District of California on September 20, 2000. All deadlines in this action have been stayed pending resolution of the motions to dismiss the securities actions. A case management conference is scheduled for April 5, 2002.

Based on its review of the complaints filed in the securities class action, Harmonic believes that it has meritorious defenses and intends to defend itself vigorously. There can be no assurance, however, that Harmonic will prevail. An unfavorable outcome of this litigation could have a material adverse effect on Harmonic's business, operating results, financial position and liquidity.

In November 2001, we were sued in Tennessee state court by a company alleging breach of contract and breach of a Tennessee statute relating to retailers and suppliers. The suit has a claim for \$2.5 million and other unspecified damages, lost profits and attorneys' fees. The suit has since been removed to Federal Court and a trial date has been set for June 2003. Harmonic believes that it has meritorious defenses and will defend the suit vigorously. However, we cannot assure you that an unfavorable outcome will not adversely impact our business, operating results, financial position and liquidity.

Our Stock Price May Be Volatile.

The market price of our common stock has fluctuated significantly in the past, particularly in recent years, and is likely to fluctuate in the future. In addition, the securities markets have experienced significant

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price and volume fluctuations and the market prices of the securities of technology companies have been especially volatile. Investors may be unable to resell their shares of our common stock at or above their purchase price. In the past, companies that have experienced volatility in the market price of their stock have been the object of securities class action litigation.

We Rely On A Continuous Power Supply To Conduct Our Operations, And California's Current Electrical And Natural Gas Crisis Could Disrupt Our Operations And Increase Our Expenses.

We rely on a continuous power supply for manufacturing and to conduct our business operations. Interruptions in electrical power supplies in California in the early part of last year could recur in the future. In addition, the cost of electricity and natural gas has risen significantly. Power outages could disrupt our manufacturing and business operations and those of many of our suppliers, and could cause us to fail to meet production schedules and commitments to customers and other third parties. Any disruption to our operations or those of our suppliers could result in damage to our current and prospective business relationships and could result in lost revenue and additional expenses, thereby harming our business and operating results.

Our Certificate Of Incorporation And Bylaws And Delaware Law Contain Provisions That Could Discourage A Takeover.

Provisions of our Amended and Restated Certificate of Incorporation, Bylaws, and Delaware law could make it more difficult for a third party to acquire us, even if doing so would be beneficial to our stockholders.

USE OF PROCEEDS

Unless otherwise indicated in the prospectus supplement, the net proceeds from the sale of securities offered by this prospectus will be used for general corporate purposes, including capital expenditures and to meet working capital needs. We expect from time to time to evaluate the acquisition of businesses, products and technologies for which a portion of the net proceeds may be used. Pending such uses, we will invest the net proceeds in interest-bearing securities.

RATIO OF EARNINGS AVAILABLE TO COVER FIXED CHARGES

The ratio of earnings to combined fixed charges and preferred stock dividends is identical to the ratio of earnings to fixed charges because we have not issued any preferred stock. The ratio of earnings to fixed charges and the ratio of earnings to combined fixed charges and preferred stock dividends for each of the periods indicated is as follows:

| | Fiscal Year Ended December 31, | | | | |
|---|--------------------------------|------|------|------|------|
| | 1997 | 1998 | 1999 | 2000 | 2001 |
| Ratio of earnings available to cover fixed charges(a) | 12:1 | — | 51:1 | — | — |

(a) Due to our losses in 1998, 2000, and 2001, the ratio coverage was less than 1:1. Additional earnings of \$21.5 million, \$1.7 billion, and \$167.2 million would have been required in each of those periods, respectively, to achieve a coverage of 1:1.

In calculating the ratio of earnings available to cover fixed charges, "earnings" consist of net income (loss) before provisions for income taxes plus fixed charges. Fixed charges consist of:

- interest expense; and
- one-third of our rental expense, which we believe to be representative of interest attributable to rentals.

DESCRIPTION OF THE DEBT SECURITIES

The debt securities may be either secured or unsecured and will either be our senior debt securities or our subordinated debt securities. The debt securities will be issued under one or more separate indentures between us and a trustee. Senior debt securities will be issued under a senior indenture and subordinated debt securities will be issued under a subordinated indenture. Together, the senior indenture and subordinated indenture are called indentures. This prospectus, together with the applicable prospectus supplement, will describe all the material terms of a particular series of debt securities.

The following is a summary of selected provisions and definitions of the indentures. The summary of selected provisions of the indentures and the debt securities appearing below is not complete and is subject to, and qualified entirely by reference to, all of the provisions of the applicable indenture and certificates evidencing the applicable debt securities. For additional information, you should look at the applicable indenture and the certificate evidencing the applicable debt security that is filed as an exhibit to the registration statement which includes this prospectus. In this description of the debt securities, the words "Harmonic", "we", "us," "its" or "our" refer only to Harmonic Inc. and not to any of our subsidiaries.

The following description sets forth selected general terms and provisions of the applicable indenture and debt securities to which any prospectus supplement may relate. Other specific terms of the applicable indenture and debt securities will be described in the applicable prospectus supplement. If any particular terms of the indenture or debt securities described in a prospectus supplement differ from any of the terms described below, then the terms described below will be deemed to have been superceded by that prospectus supplement.

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General

Debt securities may be issued in separate series without limitation as to aggregate principal amount. We may specify a maximum aggregate principal amount for the debt securities of any series.

We are not limited as to the amount of debt securities we may issue under the indentures. Unless otherwise provided in a prospectus supplement, a series of debt securities may be reopened to issue additional debt securities of such series.

The prospectus supplement relating to a particular series of debt securities will set forth:

- whether the debt securities are senior or subordinated,
- the offering price,
- the title,
- any limit on the aggregate principal amount,
- the person who shall be entitled to receive interest, if other than the record holder on the record date,
- the date or dates the principal will be payable,
- the interest rate or rates, which may be fixed or variable, if any, the date interest will accrue, the interest payment dates and the regular record dates or the method for calculating the dates and rates,
- the place where payments may be made,
- any mandatory or optional redemption provisions or sinking fund provisions and any applicable redemption or purchase prices associated with these provisions,
- if issued other than in denominations of U.S. \$1,000 or any multiple of U.S. \$1,000, the denominations in which the debt securities shall be issuable,
- if applicable, the method for determining how the principal, premium, if any, or interest will be calculated by reference to an index or formula,
- if other than U.S. currency, the currency or currency units in which principal, premium, if any, or interest will be payable and whether we or a holder may elect payment to be made in a different currency,
- the portion of the principal amount that will be payable upon acceleration of maturity, if other than the entire principal amount,
- if the principal amount payable at stated maturity will not be determinable as of any date prior to stated maturity, the amount or method for determining the amount which will be deemed to be the principal amount,
- if applicable, whether the debt securities shall be subject to the defeasance provisions described below under "Satisfaction and discharge; defeasance" or such other defeasance provisions specified in the applicable prospectus supplement for the debt securities,
- any conversion or exchange provisions,
- whether the debt securities will be issuable in the form of a global security,
- any subordination provisions applicable to the subordinated debt securities if different from those described below under "Subordinated Debt Securities,"
- any paying agents, authenticating agents, security registrars or other agents for the debt securities,
- any provisions relating to any security provided for the debt securities, including any provisions regarding the circumstances under which collateral may be released or substituted,
- any deletions of, or changes or additions to, the events of default, acceleration provisions or covenants,

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- any provisions relating to guaranties for the securities and any circumstances under which there may be additional obligors; and
- any other specific terms of such debt securities.

Unless otherwise specified in the prospectus supplement, the debt securities will be registered debt securities.

Debt securities may be sold at a substantial discount below their stated principal amount, bearing no interest or interest at a rate which at time of issuance is below market rates. The United States federal income tax considerations applicable to debt securities sold at a discount will be described in the applicable prospectus supplement.

Exchange and Transfer

Debt securities may be transferred or exchanged at the office of the security registrar or at the office of any transfer agent designated by us.

We will not impose a service charge for any transfer or exchange, but we may require holders to pay any tax or other governmental charges associated with any transfer or exchange.

In the event of any partial redemption of debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange, any debt security of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption and ending at the close of business on the day of the mailing, or
- register the transfer of or exchange any debt security of that series selected for redemption, in whole or in part, except the unredeemed portion being redeemed in part.

We have initially appointed the trustee as the security registrar. Any transfer agent, and any other security registrar, will be named in the prospectus supplement. We may designate additional transfer agents or change transfer agents or change the office of the transfer agent. However, we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

Global Securities

The debt securities of any series may be represented, in whole or in part, by one or more global securities. Each global security will:

- be registered in the name of a depository, or its nominee, that we will identify in a prospectus supplement,
- be deposited with the depository or nominee or custodian, and
- bear any required legends.

No global security may be exchanged in whole or in part for debt securities registered in the name of any person other than the depository or any nominee unless:

- the depository has notified us that it is unwilling or unable to continue as depository or has ceased to be qualified to act as depository,
- an event of default is continuing with respect to the debt securities of the applicable series, or
- any other circumstance described in a prospectus supplement has occurred permitting or requiring the issuance of any such security.

As long as the depository, or its nominee, is the registered owner of a global security, the depository or nominee will be considered the sole owner and holder of the debt securities represented by the global security

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for all purposes under the indentures. Except in the above limited circumstances, owners of beneficial interests in a global security will not be:

- entitled to have the debt securities registered in their names,
- entitled to physical delivery of certificated debt securities, or
- considered to be holders of those debt securities under the indenture.

Payments on a global security will be made to the depositary or its nominee as the holder of the global security. Some jurisdictions have laws that require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to transfer beneficial interests in a global security.

Institutions that have accounts with the depositary or its nominee are referred to as "participants." Ownership of beneficial interests in a global security will be limited to participants and to persons that may hold beneficial interests through participants. The depositary will credit, on its book-entry registration and transfer system, the respective principal amounts of debt securities represented by the global security to the accounts of its participants.

Ownership of beneficial interests in a global security will be shown on and effected through records maintained by the depositary, with respect to participants' interests, or any participant, with respect to interests of persons held by participants on their behalf.

Payments, transfers and exchanges relating to beneficial interests in a global security will be subject to policies and procedures of the depositary. The depositary policies and procedures may change from time to time. Neither we nor any trustee will have any responsibility or liability for the depositary's or any participant's records with respect to beneficial interests in a global security.

Payment and Paying Agents

Unless otherwise indicated in a prospectus supplement, the provisions described in this paragraph will apply to the debt securities. Payment of interest on a debt security on any interest payment date will be made to the person in whose name the debt security is registered at the close of business on the regular record date. Payment on debt securities of a particular series will be payable at the office of a paying agent or paying agents designated by us. However, at our option, we may pay interest by mailing a check to the record holder. The corporate trust office will be designated as our sole paying agent.

We may also name any other paying agents in a prospectus supplement. We may designate additional paying agents, change paying agents or change the office of any paying agent. However, we will be required to maintain a paying agent in each place of payment for the debt securities of a particular series.

All moneys paid by us to a paying agent for payment on any debt security which remain unclaimed for a period ending the earlier of:

- 10 business days prior to the date the money would be turned over to the applicable state, or
- at the end of two years after such payment was due,

will be repaid to us. Thereafter, the holder may look only to us for such payment.

No Protection in the Event of a Change of Control

Unless otherwise indicated in a prospectus supplement with respect to a particular series of debt series, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control).

Covenants

Unless otherwise indicated in a prospectus supplement, the debt securities will not contain any restrictive covenants, including covenants restricting either us or any of our subsidiaries from incurring, issuing, assuming or guarantying any indebtedness secured by a lien on any of our or our subsidiaries' property or capital stock, or restricting either us or any of our subsidiaries from entering into sale and leaseback transactions.

Consolidation, Merger and Sale of Assets

Unless we indicate otherwise in a prospectus supplement, we may not consolidate with or merge into any other person, in a transaction in which we are not the surviving corporation, or convey, transfer or lease our properties and assets substantially as an entirety to, any person, unless:

- the successor entity, if any, is a U.S. corporation, limited liability company, partnership or trust,
- the successor entity assumes our obligations on the debt securities and under the indentures,
- immediately after giving effect to the transaction, no default or event of default shall have occurred and be continuing, and
- certain other conditions are met.

Events of Default

Unless we indicate otherwise in a prospectus supplement, the following will be events of default for any series of debt securities under the indentures:

- (1) we fail to pay principal of or any premium on any debt security of that series when due,
- (2) we fail to pay any interest on any debt security of that series for 30 days after it becomes due,
- (3) we fail to deposit any sinking fund payment when due,
- (4) we fail to perform any other covenant in the indenture and such failure continues for 90 days after we are given the notice required in the indentures, and
- (5) certain events including bankruptcy, insolvency or reorganization of Harmonic.

Additional or different events of default applicable to a series of debt securities may be described in a prospectus supplement. An event of default of one series of debt securities is not necessarily an event of default for any other series of debt securities.

The trustee may withhold notice to the holders of any default, except defaults in the payment of principal, premium, if any, interest, any sinking fund installment on, or with respect to any conversion right of, the debt securities of such series. However, the trustee must consider it to be in the interest of the holders of the debt securities of such series to withhold this notice.

Unless we indicate otherwise in a prospectus supplement, if an event of default, other than an event of default described in clause (5) above, shall occur and be continuing, either the trustee or the holders of at least 25% in aggregate principal amount of the outstanding securities of that series may declare the principal amount of the debt securities of that series (or if any debt securities of that series are original issue discount securities, such other amount as may be specified in the applicable prospectus supplement), together with accrued and unpaid interest, if any, thereon to be due and payable immediately.

If an event of default described in clause (5) above shall occur, the principal amount of all the debt securities of that series (or if any debt securities of that series are original issue discount securities, such other amount as may be specified in the applicable prospectus supplement), together with accrued and unpaid interest, if any, thereon will automatically become immediately due and payable. Any payment by us on the subordinated debt securities following any such acceleration will be subject to the subordination provisions described below under "Subordinated Debt Securities."

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After acceleration the holders of a majority in aggregate principal amount of the outstanding securities of that series may, under certain circumstances, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal, or other specified amounts, have been cured or waived.

Other than the duty to act with the required care during an event of default, the trustee will not be obligated to exercise any of its rights or powers at the request of the holders unless the holders shall have offered to the trustee reasonable indemnity. Generally, the holders of a majority in aggregate principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting of any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee.

A holder will not have any right to institute any proceeding under the indentures, or for the appointment of a receiver or a trustee, or for any other remedy under the indentures, unless:

(1) the holder has previously given to the trustee written notice of a continuing event of default with respect to the debt securities of that series,

(2) the holders of at least a majority in aggregate principal amount of the outstanding debt securities of that series have made a written request and have offered reasonable indemnity to the trustee to institute the proceeding, and

(3) the trustee has failed to institute the proceeding and has not received direction inconsistent with the original request from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series within 60 days after the original request.

Holders may, however, sue to enforce the payment of principal, premium or interest on any debt security on or after the due date or to enforce the right, if any, to convert any debt security (if the debt security is convertible) without following the procedures listed in (1) through (3) above.

We will furnish the trustee an annual statement by our officers as to whether or not we are in default in the performance of the conditions and covenants under the indenture and, if so, specifying all known defaults.

Modification and Waiver

Unless we indicate otherwise in a prospectus supplement, Harmonic and the applicable trustee may make modifications and amendments to an indenture with the consent of the holders of a majority in aggregate principal amount of the outstanding securities of each series affected by the modification or amendment.

We may also make modifications and amendments to the indentures for the benefit of holders without their consent, for certain purposes including, but not limited to:

- providing for our successor to assume the covenants under the indenture,
- adding covenants or events of default,
- making certain changes to facilitate the issuance of the securities,
- securing the securities,
- providing for a successor trustee or additional trustees,
- curing any ambiguities or inconsistencies,
- providing for guaranties of, or additional obligors on, the securities;
- permitting of facilitating the defeasance and discharge of the securities, and
- other changes specified in the indenture.

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However, neither we nor the trustee may make any modification or amendment without the consent of the holder of each outstanding security of that series affected by the modification or amendment if such modification or amendment would:

- change the stated maturity of any debt security,
- reduce the principal, premium, if any, or interest on any debt security,
- reduce the principal of an original issue discount security or any other debt security payable on acceleration of maturity,
- change the place of payment or the currency in which any debt security is payable,
- impair the right to enforce any payment after the stated maturity or redemption date,
- if subordinated debt securities, modify the subordination provisions in a materially adverse manner to the holders,
- adversely affect the right to convert any debt security if the debt security is a convertible debt security, or
- change the provisions in the indenture that relate to modifying or amending the indenture.

Satisfaction and Discharge; Defeasance

We may be discharged from our obligations on the debt securities of any series that have matured or will mature or be redeemed within one year if we deposit enough money with the trustee to pay all the principal, interest and any premium due to the stated maturity date or redemption date of the debt securities.

Each indenture contains a provision that permits us to elect either or both of the following:

- We may elect to be discharged from all of our obligations, subject to limited exceptions, with respect to any series of debt securities then outstanding. If we make this election, the holders of the debt securities of the series will not be entitled to the benefits of the indenture, except for the rights of holders to receive payments on debt securities or the registration of transfer and exchange of debt securities and replacement of lost, stolen or mutilated debt securities.
- We may elect to be released from our obligations under some or all of any financial or restrictive covenants applicable to the series of debt securities to which the election relates and from the consequences of an event of default resulting from a breach of these covenants.

To make either of the above elections, we must deposit in trust with the trustee enough money to pay in full the principal, interest and premium on the debt securities. This amount may be made in cash and/or U.S. government obligations or, in the case of debt securities denominated in a currency other than United States dollars, foreign government obligations. As a condition to either of the above elections, we must deliver to the trustee an opinion of counsel that the holders of the debt securities will not recognize income, gain or loss for federal income tax purposes as a result of the action.

“foreign government obligations” means, with respect to debt securities of any series that are denominated in a currency other than U.S. dollars:

- direct obligations of the government that issued or caused to be issued the currency in which such securities are denominated and for the payment of which obligations its full faith and credit is pledged, or, with respect to debt securities of any series which are denominated in euros, direct obligations of certain members of the European Union for the payment of which obligations the full faith and credit of such member is pledged, which in each case are not callable or redeemable at the option of the issuer thereof; or
- obligations of a person controlled or supervised by or acting as an agency or instrumentality of that government the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by that government, which are not callable or redeemable at the option of the issuer thereof.

Notices

Notices to holders will be given by mail to the addresses of the holders in the security register.

Governing Law

The indentures and the debt securities will be governed by, and construed under, the laws of the State of New York, without regard to principles of conflicts of laws.

No Personal Liability of Directors, Officers, Employees and Stockholders

No incorporator, stockholder, employee, agent, officer, director or subsidiary of ours will have any liability for any obligations of ours, or because of the creation of any indebtedness under the debt securities, the indentures or supplemental indentures. The indentures provide that all such liability is expressly waived and released as a condition of, and as a consideration for, the execution of such indentures and the issuance of the debt securities.

Regarding the Trustee

The indentures limit the right of the trustee, should it become a creditor of Harmonic, to obtain payment of claims or secure its claims.

The trustee is permitted to engage in certain other transactions. However, if the trustee acquires any conflicting interest, and there is a default under the debt securities of any series for which it is trustee, the trustee must eliminate the conflict or resign.

Subordinated Debt Securities

The indebtedness evidenced by the subordinated debt securities of any series is subordinated to the extent provided in the subordinated indenture and the applicable prospectus supplement to the prior payment in full, in cash or other payment satisfactory to the holders of senior debt, of all senior debt, including any senior debt securities.

Upon any distribution of our assets upon any dissolution, winding up, liquidation or reorganization, payments on the subordinated debt securities will be subordinated in right of payment to the prior payment in full in cash or other payment satisfactory to holders of senior debt of all senior debt.

In the event of any acceleration of the subordinated debt securities because of an event of default, holders of any senior debt would be entitled to payment in full in cash or other payment satisfactory to holders of senior debt of all senior debt before the holders of subordinated debt securities are entitled to receive any payment or distribution.

We are required to promptly notify holders of senior debt or their representatives under the subordinated indenture if payment of the subordinated debt securities is accelerated because of an event of default.

Under the subordinated indenture, we may also not make payment on the subordinated debt securities if:

- a default in the payment of senior debt occurs and is continuing beyond any grace period (a "payment default"), or
- any other default occurs and is continuing with respect to designated senior debt that permits holders of designated senior debt to accelerate its maturity, and the trustee receives a payment blockage notice from us or some other person permitted to give the notice under the subordinated indenture (a "non-payment default").

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We may and shall resume payments on the subordinated debt securities:

- in case of a payment default, when the default is cured or waived or ceases to exist, and
- in case of a nonpayment default, the earlier of when the default is cured or waived or ceases to exist or 179 days after the receipt of the payment blockage notice if the maturity of the designated senior debt has not been accelerated.

No new payment blockage period may start unless 365 days have elapsed from the effectiveness of the prior payment blockage notice.

No nonpayment default that existed or was continuing on the date of delivery of any payment blockage notice to the trustee shall be the basis for a subsequent payment blockage notice.

As a result of these subordination provisions, in the event of our bankruptcy, dissolution or reorganization, holders of senior debt may receive more, ratably, and holders of the subordinated debt securities may receive less, ratably, than our other creditors. The subordination provisions will not prevent the occurrence of any event of default under the subordinated indenture.

The subordination provisions will not apply to payments from money or government obligations held in trust by the trustee for the payment of principal, interest and premium, if any, on subordinated debt securities pursuant to the provisions described under “— Satisfaction and discharge; defeasance,” if the subordination provisions were not violated at the time the money or government obligations were deposited into trust.

If the trustee or any holder receives any payment that should not have been made to them in contravention of subordination provisions before all senior debt is paid in full in cash or other payment satisfactory to holders of senior debt, then such payment will be held in trust for the holders of senior debt.

Senior debt securities will constitute senior debt under the subordinated indenture.

Additional or different subordination provisions may be described in a prospectus supplement relating to a particular series of debt securities.

Definitions

“designated senior debt” means our obligations under any of our senior debt that expressly provides that it is “designated senior debt.”

“indebtedness” means:

(1) all of our indebtedness, obligations and other liabilities for:

- borrowed money, including our obligations in respect of overdrafts, foreign exchange contracts, currency exchange agreements, interest rate protection agreements, and any loans or advances from banks, whether or not evidenced by notes or similar instruments, or
- evidenced by bonds, debentures, notes or similar instruments, whether or not the recourse of the lender is to the whole of our assets or to only a portion of our assets, other than any account payable or other accrued current liability or obligation incurred in the ordinary course of business in connection with the obtaining of materials or services,

(2) all of our reimbursement obligations and other liabilities with respect to letters of credit, bank guarantees or bankers’ acceptances,

(3) all of our obligations and liabilities in respect of leases required, in conformity with generally accepted accounting principles, to be accounted for as capitalized lease obligations on our balance sheet,

(4) all of our obligations and other liabilities under any other any lease or related document (including a purchase agreement) in connection with the lease of real property which provides that we are contractually obligated to purchase or cause a third party to purchase the leased property and thereby

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guarantee a minimum residual value of the leased property to the lessor and our obligations under such lease or related document to purchase or to cause a third party to purchase such leased property,

(5) all of our obligations with respect to an interest rate or other swap, cap or collar agreement or other similar instrument or agreement or foreign currency hedge, exchange, purchase or similar instrument or agreement,

(6) all of our direct or indirect guaranties or similar agreements in respect of, and obligations or liabilities to purchase or otherwise acquire or otherwise assure a creditor against loss in respect of, indebtedness, obligations or liabilities of another person of the kind described in clauses (1) through (5),

(7) any of our indebtedness or other obligations described in clauses (1) through (6) secured by any mortgage, pledge, lien or other encumbrance existing on property which is owned or held by us regardless of whether the indebtedness or other obligation secured thereby shall have been assumed by us and

(8) any and all deferrals, renewals, extensions, refundings, amendments, modifications or supplements to, any indebtedness, obligation or liability of the kind described in clauses (1) through (7).

“senior debt” means the principal of, premium, if any, interest, including all interest accruing subsequent to the commencement of any bankruptcy or similar proceeding, rent and all fees, costs, expenses and other amounts accrued or due in connection with our indebtedness, including all deferrals, renewals, extensions or refundings of, or modifications or supplements to, that indebtedness. Senior debt shall not include:

- any debt that expressly provides it shall not be senior in right of payment to the subordinated debt securities or expressly provides that such indebtedness is on the same basis or “junior” to the subordinated debt securities, or
- debt to any of our subsidiaries, a majority of the voting stock of which is owned, directly or indirectly, by us.

“subsidiary” means any entity of which more than a majority of the outstanding voting stock having the power to elect a majority of the board of directors of such entity (in the case of a corporation) is, or of which at least a majority of the equity interests (in the case of an entity which is not a corporation) are at the time owned, directly or indirectly, by us or by one or more of our other subsidiaries or by a combination of us and our other subsidiaries. For purposes of this definition, “voting stock” means stock which ordinarily has voting power for the election of directors, whether at all times or so long as no senior class of stock has such voting power by reason of any contingency.

DESCRIPTION OF PREFERRED STOCK

The board of directors has the authority, without further action by the stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, without any further vote or action by stockholders. No shares of preferred stock of Harmonic are outstanding.

Our board of directors has the authority, without stockholder consent, subject to certain limitations imposed by law or our bylaws, to issue one or more series of preferred stock at any time. The rights, preferences and restrictions of the preferred stock of each series will be fixed by the certificate of designation relating to each particular series. A prospectus supplement relating to each such series will specify the terms of the preferred stock as determined by our board of directors, including the following:

- the number of shares in any series,
- the designation for any series by number, letter or title that shall distinguish the series from any other series of preferred stock,

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- the dividend rate and whether dividends on that series of preferred stock will be cumulative, noncumulative or partially cumulative,
- the voting rights of that series of preferred stock, if any,
- the conversion provisions applicable to that series of preferred stock, if any,
- the redemption or sinking fund provisions applicable to that series of preferred stock, if any,
- the liquidation preference per share of that series of preferred stock, if any, and
- the terms of any other preferences or rights, if any, applicable to that series of preferred stock.

We will describe the specific terms of a particular series of preferred stock in the prospectus supplement relating to that series. The description of preferred stock set forth above and in any description of the terms of a particular series of preferred stock in the related prospectus supplement will not be complete. You should refer to the applicable certificate of designation for such series of preferred stock for complete information with respect to such preferred stock. The prospectus supplement will also contain a description of certain U.S. federal income tax consequences relating to the preferred stock.

Although it has no present intention to do so, our board of directors, without stockholder approval, may issue preferred stock with voting and conversion rights which could adversely affect the voting power of the holders of common stock. If we issue preferred stock, it may have the effect of delaying, deferring or preventing a change of control.

DESCRIPTION OF COMMON STOCK

Harmonic is authorized to issue up to 150,000,000 shares of common stock, \$0.001 par value per share. As of March 1, 59,470,455 shares of Harmonic's common stock were outstanding. The holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders.

Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by the Board of Directors out of funds legally available for the purpose. In the event of a liquidation, dissolution or winding up of Harmonic, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock, if any, then outstanding. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and nonassessable, and the shares of common stock to be issued upon the closing of this offering will be fully paid and nonassessable.

Anti-Takeover Provisions

Certain provisions of Delaware law and Harmonic's restated certificate of incorporation and bylaws could make more difficult the acquisition of Harmonic by means of a tender offer, a proxy contest or otherwise and removal of incumbent officers and directors. These provisions, summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of Harmonic to first negotiate with Harmonic. Harmonic believes that the benefits of increased protection of Harmonic's potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure Harmonic outweigh the disadvantages of discouraging such proposals because, among other things, negotiation of such proposals could result in an improvement of their terms.

Delaware Law

We are subject to the provisions of Section 203 of the Delaware General Corporation Law, an anti-takeover law. In general, the statute prohibits a publicly-held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the

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transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. For purposes of Section 203, a "business combination" includes a merger, asset sale, or other transaction resulting in a financial benefit to the interested stockholder, and an "interested stockholder" is a person who, together with affiliates and associates, owns (or within three years prior, did own) 15% or more of the corporation's voting stock. A corporation may "opt out" of this statute, which we have not done. Existence of this provision would be expected to have an anti-takeover effect with respect to transactions not approved in advance by the Board of Directors, including discouraging attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

Certificate of Incorporation and Bylaws Provisions

Harmonic's restated certificate of incorporation and bylaws do not provide for cumulative voting in the election of directors. The authorization of undesignated preferred stock makes it possible for the Board of Directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of Harmonic. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of Harmonic.

DESCRIPTION OF THE WARRANTS

General

We may issue warrants for the purchase of our common stock. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a bank or trust company, as warrant agent. The warrant agent will act solely as our agent in connection with the warrants. The warrant agent will not have any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants. This summary of certain provisions of the warrants is not complete. For the complete terms of a particular series of warrants, you should refer to the prospectus supplement for that series of warrants and the warrant agreement for that particular series.

The prospectus supplement relating to a particular series of warrants to purchase our common stock will describe the terms of the warrants, including the following:

- the title of the warrants,
- the offering price for the warrants, if any,
- the aggregate number of the warrants,
- the designation and terms of the common stock or preferred stock that may be purchased upon exercise of the warrants,
- the number of shares of common stock or preferred stock that may be purchased upon exercise of a warrant and the exercise price for the warrants,
- the dates on which the right to exercise the warrants shall commence and expire,
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time,
- the currency or currency units in which the offering price, if any, and the exercise price are payable,
- if applicable, a discussion of material United States Federal income tax considerations,
- the antidilution provisions of the warrants, if any,
- the redemption or call provisions, if any, applicable to the warrants,
- any provisions with respect to holder's right to require us to repurchase the warrants upon a change in control, and

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- any additional terms of the warrants, including terms, procedures, and limitations relating to the exchange, exercise and settlement of the warrants.

Holders of equity warrants will not be entitled:

- to vote, consent or receive dividends,
- receive notice as stockholders with respect to any meeting of stockholders for the election of our directors or any other matter, or
- exercise any rights as stockholders of Harmonic.

As set forth in the applicable prospectus supplement, the exercise price and the number of shares of common stock purchasable upon exercise of the warrant will be subject to adjustment in certain events, including the issuance of a stock dividend to any holders of common stock, a stock split, reverse stock split, combination, subdivision or reclassification of common stock, and such other events, if any, specified in the applicable prospectus supplement.

PLAN OF DISTRIBUTION

We may sell the securities:

- through one or more underwriters or dealers,
- directly to purchasers,
- through agents, or
- through a combination of any of these methods of sale.

We may distribute the securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed from time to time,
- at market prices prevailing at the times of sale,
- at prices related to such prevailing market prices, or
- at negotiated prices.

We will describe the method of distribution of each series of securities in the applicable prospectus supplement.

We may determine the price or other terms of the securities offered under this prospectus by use of an electronic auction. We will describe how any auction will determine the price or any other terms, how potential investors may participate in the auction and the nature of the obligations of the underwriter, dealer or agent in the applicable prospectus supplement.

Underwriters, dealers or agents may receive compensation in the form of discounts, concessions or commissions from us or our purchasers as their agents in connection with the sale of securities. These underwriters, dealers or agents may be considered to be underwriters under the Securities Act. As a result, discounts, commissions, or profits on resale received by the underwriters, dealers or agents may be treated as underwriting discounts and commissions. Each prospectus supplement will identify any such underwriter, dealer or agent, and describe any compensation received by them from us. Any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

Underwriters, dealers and agents may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments made by the underwriters, dealers or agents, under agreements between us and the underwriters, dealers and agents.

We may grant underwriters who participate in the distribution of securities an option to purchase additional securities to cover over-allotments, if any, in connection with the distribution.

Some securities which we may issue under this prospectus may be new issues of securities with no established trading market. Underwriters involved in the public offering and sale of these series of securities may make a market in the securities. However, they are not obligated to make a market and may discontinue market making activity at any time. No assurance can be given as to the liquidity of the trading market for any securities.

Underwriters or agents and their associates may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

LEGAL MATTERS

Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California, will pass upon the validity of the issuance of the securities offered by this prospectus.

EXPERTS

The consolidated financial statements incorporated in this prospectus by reference to the Annual Report on Form 10-K of Harmonic Inc. for the year ended December 31, 2001 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

The financial statements of the Divicom business for each of the three years in the period ended December 31, 1999 are incorporated in this prospectus by reference from Harmonic Inc.'s Form 8-K dated on or about March 15, 2002 have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report, which is incorporated herein by reference, and have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements, and other information with the Securities and Exchange Commission. Copies of our reports, proxy statements, and other information may be inspected at the public reference facilities maintained by the SEC:

Judiciary Plaza
450 Fifth Street, N.W.
Room 1024
Washington, D.C. 20549

Citicorp Center
500 West Madison Street
Suite 1400
Chicago, Illinois 60661-2511

Copies of these materials may be obtained by mail at prescribed rates from the public reference section of the SEC at the addresses indicated above or by calling the SEC at 1-800-SEC-0330. Our reports, proxy statements and other information filed with the SEC are also available to the public over the Internet at the Commission's world wide web site at <http://www.sec.gov>.

Reports, proxy statements, and other information concerning Harmonic may also be inspected at The National Association of Securities Dealers, 1735 K Street, N.W., Washington, D.C. 20006.

This prospectus includes information that has not been delivered or presented to you but is "incorporated by reference." This means that we have disclosed important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the Commission will automatically update and supersede this information.

The following documents, which were filed by Harmonic with the SEC, are incorporated by reference into this prospectus:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2001;
- Current Report on Form 8-K filed on March 15, 2002; and
- The description of our common stock contained in our registration statement on Form 8-A, filed with the Commission on April 6, 1995 under section 12(g) of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

All documents we may file under Section 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act after the filing of the foregoing documents are incorporated by reference into and will be deemed a part of this prospectus.

You should rely only on the information contained in this prospectus or on information to which we have referred you. We have not authorized anyone else to provide you with any information.

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We will provide to each person who so requests, including any beneficial owner to whom a prospectus is delivered, a copy of these filings. You may request a copy of these filings, at no cost, by writing or telephoning us at the following address:

Harmonic Inc.

549 Baltic Way
Sunnyvale, CA 94089
Telephone: (408) 542-2500
Attention: Investor Relations

We are not making an offer of these securities in any state where the offer is not permitted. You should not assume the information in this prospectus or any prospectus supplement is accurate as of any date other than the date on the front of those documents.

We have filed a registration statement under the Securities Act of 1933 with respect to the securities we propose to issue under this prospectus. This prospectus does not contain all the information set forth in the registration statement because certain parts of the registration statement are omitted as provided by the rules and regulations of the SEC. You may obtain a copy of the registration statement at the sources and locations identified above.

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other expenses of issuance and distribution

The aggregate estimated (other than the registration fee) expenses to be paid by the registrant in connection with this offering are as follows:

| | |
|---|-----------|
| Securities and Exchange Commission registration fee | \$ 13,800 |
| Trustee's fees and expenses | 15,000 |
| Accounting fees and expenses | 200,000 |
| Legal fees and expenses of the registrant | 175,000 |
| Printing and engraving | 50,000 |
| Blue sky fees and expenses | 15,000 |
| Transfer agent fees and expenses | 15,000 |
| Miscellaneous | 16,200 |
| | <hr/> |
| Total | \$500,000 |

Item 15. Indemnification of directors and officers of Harmonic Inc.

Our Bylaws limit the liability of our directors and officers for expenses to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability (i) for any breach of their duty of loyalty to the corporation or its stockholders; (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law; (iii) for unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or (iv) for any transaction from which the director derived an improper personal benefit.

Our Certificate of Incorporation provides that we must indemnify our directors and may indemnify our other officers, employees and agents to the fullest extent permitted by law.

We have entered into agreements to indemnify our directors and officers, in addition to indemnification provided for in our Bylaws. These agreements, among other things, indemnify our directors and officers for certain expenses (including attorneys' fees), judgments, fines and settlement amounts incurred by any such person in any action or proceeding, including any action by or in the right of Harmonic, arising out of such person's services as a Harmonic director or officer, any subsidiary of Harmonic or any other company or enterprise to which the person provides services at our request.

Harmonic's Bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in such capacity, regardless of whether the Bylaws would permit indemnification. We also maintain an insurance policy insuring our directors and officers against liability for certain acts and omissions while acting in their official capacities.

Item 16. Exhibits

The following exhibits are filed herewith or incorporated by reference herein:

| Exhibit Number | Exhibit Title |
|-------------------|---|
| 1.1 | Form of Underwriting Agreement* |
| 3.1 | Restated Certificate of Incorporation, as amended** |
| 3.2 | Bylaws** |
| 4.1 | Form of Senior Indenture |
| 4.2 | Form of Subordinated Indenture |

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| Exhibit Number | Exhibit Title |
|----------------|--|
| 4.3 | Form of Senior Debt Security (included in Exhibit 4.1) |
| 4.4 | Form of Subordinated Debt Security (included in Exhibit 4.2) |
| 4.5 | Form of Certificate of Designation*** |
| 4.6 | Form of Preferred Stock Certificate*** |
| 4.7 | Form of Warrant Agreement*** |
| 4.8 | Form of Warrant Certificate*** |
| 5.1 | Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation* |
| 12.1 | Computation of Ratio of Earnings Available to Cover Fixed Charges |
| 23.1 | Consent of PricewaterhouseCoopers, LLP, independent accountants |
| 23.2 | Consent of Deloitte & Touche LLP, independent auditors |
| 23.3 | Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1)* |
| 24.1 | Power of Attorney of certain directors and officers of registrant (see page II-4 of this Form S-3) |
| 25.1 | Form T-1 Statement of Eligibility of Trustee for Debt Securities under the Trust Indenture Act of 1939 |

* To be filed by amendment or by a report on Form 8-K pursuant to Section 601 of Regulation S-K.

** Previously filed as an Exhibit to the Company's Form 10-K for the year ended December 31, 2001.

*** To be filed as an exhibit to a report pursuant to Section 13(a) or 15(d) of the Securities Act of 1934.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(a) To include any prospectus required by Section 10(a)(3) of the Securities Act,

(b) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement,

(c) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

provided, however, that clauses (a) and (b) do not apply if the information required to be included in a post-effective amendment by such clauses is contained in periodic reports filed with or furnished to the Securities and Exchange Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act") that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described under Item 15 above, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Securities and Exchange Commission under Section 305(b)(2) of the Trust Indenture Act.

SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Sunnyvale, State of California, on March 15, 2002.

HARMONIC INC.

By: /s/ ROBIN N. DICKSON

Robin N. Dickson,
Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Anthony J. Ley and Robin N. Dickson and each of them individually, as his or her true and lawful attorneys-in-fact and agents with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities to sign the Registration Statement filed herewith and any or all amendments to said Registration Statement (including post-effective amendments and registration statements filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and otherwise), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission granting unto said attorneys-in-fact and agents the full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the foregoing, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his or her substitute, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

| <u>Signature</u> | <u>Title</u> | <u>Date</u> |
|---|---|----------------|
| <hr/> <u>/s/ ANTHONY J. LEY</u> Anthony J. Ley | Chief Executive Officer and President (Principal Executive Officer) and Chairman of the Board of Directors | March 15, 2002 |
| <hr/> <u>/s/ ROBIN N. DICKSON</u> Robin N. Dickson | Chief Financial Officer (Principal Financial and Accounting Officer) | March 15, 2002 |
| <hr/> <u>/s/ DAVID R. VAN VALKENBURG</u> David R. Van Valkenburg | Director | March 15, 2002 |
| <hr/> <u>/s/ E. FLOYD KVAMME</u> E. Floyd Kvamme | Director | March 15, 2002 |
| <hr/> <u>/s/ DAVID A. LANE</u> David A. Lane | Director | March 15, 2002 |

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| <u>Signature</u> | <u>Title</u> | <u>Date</u> |
|-------------------------------|--------------|----------------|
| <u>/s/ LEWIS SOLOMON</u> | Director | March 15, 2002 |
| Lewis Solomon | | |
| <u>/s/ MICHEL L. VAILLAUD</u> | Director | March 15, 2002 |
| Michel L. Vaillaud | | |

EXHIBIT INDEX

| Exhibit Number | Exhibit Title |
|----------------|--|
| 1.1 | Form of Underwriting Agreement* |
| 3.1 | Restated Certificate of Incorporation, as amended** |
| 3.2 | Bylaws** |
| 4.1 | Form of Senior Indenture |
| 4.2 | Form of Subordinated Indenture |
| 4.3 | Form of Senior Debt Security (included in Exhibit 4.1) |
| 4.4 | Form of Subordinated Debt Security (included in Exhibit 4.2) |
| 4.5 | Form of Certificate of Designation*** |
| 4.6 | Form of Preferred Stock Certificate*** |
| 4.7 | Form of Warrant Agreement*** |
| 4.8 | Form of Warrant Certificate*** |
| 5.1 | Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation* |
| 12.1 | Computation of Ratio of Earnings Available to Cover Fixed Charges |
| 23.1 | Consent of PricewaterhouseCoopers, LLP, independent accountants |
| 23.2 | Consent of Deloitte & Touche LLP, independent auditors |
| 23.3 | Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1)* |
| 24.1 | Power of Attorney of certain directors and officers of registrant (see page II-4 of this Form S-3) |
| 25.1 | Form T-1 Statement of Eligibility of Trustee for Debt Securities under the Trust Indenture Act of 1939 |

* To be filed by amendment or by a report on Form 8-K pursuant to Section 601 of Regulation S-K.

** Previously filed as an Exhibit to the Company's Form 10-K for the year ended December 31, 2001.

*** To be filed as an exhibit to a report pursuant to Section 13(a) or 15(d) of the Securities Act of 1934.

HARMONIC INC.
TO
U.S. BANK NATIONAL ASSOCIATION
AS TRUSTEE
INDENTURE
DATED AS OF _____, 200_

SENIOR DEBT SECURITIES

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Certain Sections of this Indenture relating to Sections 310 through 318, inclusive, of the Trust Indenture Act of 1939:

| | |
|-------------------------|----------------|
| Section 310(a) (1)..... | 6.9 |
| (a) (2)..... | 6.9 |
| (a) (3)..... | Not Applicable |
| (a) (4)..... | Not Applicable |
| (b)..... | 6.8, 6.10 |
| Section 311(a)..... | 6.13 |
| (b)..... | 6.13 |
| Section 312(a)..... | 7.1, 7.2 |
| (b)..... | 7.2 |
| (c)..... | 7.2 |
| Section 313(a)..... | 7.3 |
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| (c)..... | 7.3 |
| (d)..... | 7.3 |
| Section 314(a)..... | 7.4 |
| (a) (4)..... | 10.1, 10.4 |
| (b)..... | Not Applicable |
| (c) (1)..... | 1.2 |
| (c) (2)..... | 1.2 |
| (c) (3)..... | Not Applicable |
| (d)..... | Not Applicable |
| (e)..... | 1.2 |
| Section 315(a)..... | 6.1 |
| (b)..... | 6.2 |
| (c)..... | 6.1 |
| (d)..... | 6.1 |
| (e)..... | 5.14 |
| Section 316(a)..... | 1.1 |
| (a) (1) (A)..... | 5.2, 5.12 |
| (a) (1) (B)..... | 5.13 |
| (a) (2)..... | Not Applicable |
| (b)..... | 5.8 |
| (c)..... | 1.4 |
| Section 317(a) (1)..... | 5.3 |
| (a) (2)..... | 5.4 |
| (b)..... | 10.3 |
| Section 318(a)..... | 1.7 |

NOTE: This reconciliation and tie shall not, for any purpose, be deemed to be a part of the Indenture.

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INDENTURE, dated as of _____, 200_, between Harmonic Inc., a corporation duly organized and existing under the laws of the State of Delaware (herein called the "Company"), having its principal executive office at 549 Baltic Way, Sunnyvale, California 94089, and U.S. Bank National Association, a national banking association, as Trustee (herein called the "Trustee").

RECITALS OF THE COMPANY

The Company has duly authorized the execution and delivery of this Indenture to provide for the issuance from time to time of its unsecured debentures, notes or other evidences of indebtedness (herein called the "Securities"), to be issued in one or more series as provided in this Indenture.

All things necessary to make this Indenture a valid agreement of the

Company, in accordance with its terms, have been done.

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

For and in consideration of the premises and the purchase of the Securities by the Holders thereof, it is mutually covenanted and agreed, for the equal and proportionate benefit of all Holders of the Securities or of series thereof appertaining, as follows:

ARTICLE 1

DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION

SECTION 1.1 DEFINITIONS.

For all purposes of this Indenture, except as otherwise expressly provided or unless the context otherwise requires:

(1) the terms defined in this Article have the meanings assigned to them in this Article and include the plural as well as the singular;

(2) all other terms used herein which are defined in the Trust Indenture Act, either directly or by reference therein, have the meanings assigned to them therein;

(3) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with generally accepted accounting principles in the United States of America, and, except as otherwise herein expressly provided, the term "generally accepted accounting principles" with respect to any computation required or permitted hereunder shall mean such accounting principles in the United States of America as are generally accepted at the date of such computation;

(4) all references to "\$" refer to the lawful currency of the United States of America;

(5) unless the context otherwise requires, any reference to an "Article" or a "Section" refers to an Article or a Section, as the case may be, of this Indenture; and

(6) the words "herein," "hereof" and "hereunder" and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

"Act," when used with respect to any Holder, has the meaning specified in Section 1.4.

"Affiliate" of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person.

"Authenticating Agent" means any Person authorized by the Trustee pursuant to Section 6.14 to act on behalf of the Trustee to authenticate Securities of one or more series.

"Board of Directors" means either the board of directors of the Company or any duly authorized committee of that board empowered to act for it with respect to this Indenture.

"Board Resolution" means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification, and delivered to the Trustee.

"Business Day," when used with respect to any Place of Payment, means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in that Place of Payment are authorized or obligated by law or executive order to close.

"Commission" means the Securities and Exchange Commission, from time to time constituted, created under the Exchange Act, or, if at any time after the

execution of this instrument such Commission is not existing and performing the duties now assigned to it under the Trust Indenture Act, then the body performing such duties at such time.

"Common Stock" includes any stock of any class of the Company which has no preference in respect of dividends or of amounts payable in the event of any voluntary or involuntary liquidation, dissolution or winding-up of the Company and which is not subject to redemption by the Company; provided, however, subject to the provisions of Section 14.9, shares issuable upon conversion of Securities shall include only shares of the class designated as Common Stock of the Company at the date of this Indenture or shares of any class or classes resulting from any reclassification or reclassifications thereof and which have no preference in respect of dividends or of amounts payable in the event of any voluntary or involuntary liquidation, dissolution or winding-up of the Company and which are not subject to redemption by the Company; provided, further that if at any time there shall be more than one such resulting class, the shares of each such class then so issuable shall be substantially in the proportion which the total number of shares of such class resulting from all such reclassifications bears to the total number of shares of all such classes resulting from all such reclassifications.

"Company" means the corporation named as the "Company" in the first paragraph of this instrument until a successor Person shall have become such pursuant to the applicable provisions of this Indenture, and thereafter "Company" shall mean such successor Person.

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"Company Request" or "Company Order" means a written request or order signed in the name of the Company by its Chairman of the Board, its Vice Chairman of the Board, its President or a Vice President, and by its principal financial officer, its Treasurer, an Assistant Treasurer, its Secretary or an Assistant Secretary, and delivered to the Trustee.

"control" when used with respect to any specified Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms "controlling" and "controlled" have meanings correlative to the foregoing.

"Corporate Trust Office" means the corporate trust office of the Trustee at 180 East Fifth Street, St. Paul, Minnesota 55101, Attention: Corporate Trust Department, or such other office, designated by the Trustee by written notice to the Company, at which at any particular time its corporate trust business shall be administered.

"corporation" means a corporation, association, company, joint-stock company or business trust.

"Covenant Defeasance" has the meaning specified in Section 13.3.

"Defaulted Interest" has the meaning specified in Section 3.7.

"Defeasance" has the meaning specified in Section 13.2.

"Depositary" means, with respect to Securities of any series issuable in whole or in part in the form of one or more Global Securities, a clearing agency registered under the Exchange Act that is designated to act as Depositary for such Securities as contemplated by Section 3.1.

"euro" or "euros" means the currency adopted by those nations participating in the third stage of the economic and monetary union provisions of the Treaty on European Union, signed at Maastricht on February 7, 1992.

"European Economic Area" means the member nations of the European Economic Area pursuant to the Oporto Agreement on the European Economic Area dated May 2, 1992, as amended.

"European Union" means the member nations of the European Union established by the Treaty of European Union, signed at Maastricht on February 2, 1992, which amended the Treaty of Rome establishing the European Community.

"Event of Default" has the meaning specified in Section 5.1.

"Exchange Act" means the Securities Exchange Act of 1934 and any statute successor thereto, in each case as amended from time to time.

"Expiration Date" has the meaning specified in Section 1.4.

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"Foreign Government Obligation" means with respect to Securities of any series which are not denominated in the currency of the United States of America (x) any security which is (i) a direct obligation of the government which issued or caused to be issued the currency in which such security is denominated and for the payment of which obligations its full faith and credit is pledged or, with respect to Securities of any series which are denominated in euros, a direct obligation of any member nation of the European Union for the payment of which obligation the full faith and credit of the respective nation is pledged so long as such nation has a credit rating at least equal to that of the highest rated member nation of the European Economic Area, or (ii) an obligation of a Person controlled or supervised by and acting as an agency or instrumentality of a government specified in clause (i) above the payment of which is unconditionally guaranteed as a full faith and credit obligation by the such government, which, in either case (i) or (ii), is not callable or redeemable at the option of the issuer thereof, and (y) any depositary receipt issued by a bank (as defined in Section 3(a)(2) of the Securities Act) as custodian with respect to any Foreign Government Obligation which is specified in clause (x) above and held by such bank for the account of the holder of such depositary receipt, or with respect to any specific payment of principal of or interest on any Foreign Government Obligation which is so specified and held, provided that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depositary receipt from any amount received by the custodian in respect of the Foreign Government Obligation or the specific payment of principal or interest evidenced by such depositary receipt.

"Global Security" means a Security that evidences all or part of the Securities of any series and bears the legend set forth in Section 2.4 (or such legend as may be specified as contemplated by Section 3.1 for such Securities).

"Holder" means a Person in whose name a Security is registered in the Security Register.

"Indenture" means this instrument as originally executed and as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof, including, for all purposes of this instrument and any such supplemental indenture, the provisions of the Trust Indenture Act that are deemed to be a part of and govern this instrument and any such supplemental indenture, respectively. The term "Indenture" shall also include the terms of particular series of Securities established as contemplated by Section 3.1; provided, however, that if at any time more than one Person is acting as Trustee under this Indenture due to the appointment of one or more separate Trustees for any one or more separate series of Securities, "Indenture" shall mean, with respect to such series of Securities for which any such Person is Trustee, this instrument as originally executed or as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof and shall include the terms of particular series of Securities for which such Person is Trustee established as contemplated by Section 3.1, exclusive, however, of any provisions or terms which relate solely to other series of Securities for which such Person is not Trustee, regardless of when such terms or provisions were adopted, and exclusive of any provisions or terms adopted by means of one or more indentures supplemental hereto executed and delivered after such Person had become such Trustee, but to which such person, as such Trustee, was not a party; provided, further that in the event that this Indenture is supplemented or amended by one or

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more indentures supplemental hereto which are only applicable to certain series of Securities, the term "Indenture" for a particular series of Securities shall only include the supplemental indentures applicable thereto.

"interest," when used with respect to an Original Issue Discount Security which by its terms bears interest only after Maturity, means interest payable after Maturity.

"Interest Payment Date," when used with respect to any Security, means the Stated Maturity of an installment of interest on such Security.

"Investment Company Act" means the Investment Company Act of 1940 and any statute successor thereto, in each case as amended from time to time.

"Maturity," when used with respect to any Security, means the date on which the principal of such Security or an installment of principal becomes due and payable as therein or herein provided, whether at the Stated Maturity or by declaration of acceleration, repurchase at the option of the Holder, upon redemption or otherwise.

"Notice of Default" means a written notice of the kind specified in Section 5.1(4).

"Officers' Certificate" means a certificate signed by the Chairman of the Board, a Vice Chairman of the Board, Chief Executive Officer, the President or a Vice President, and by the principal financial officer, the Treasurer, an Assistant Treasurer, the Secretary or an Assistant Secretary, of the Company, and delivered to the Trustee. One of the officers signing an Officers' Certificate given pursuant to Section 10.4 shall be the principal executive, financial or accounting officer of the Company.

"Opinion of Counsel" means a written opinion of counsel, who may be counsel for, or an employee of, the Company, and who shall be reasonably acceptable to the Trustee.

"Original Issue Discount Security" means any Security which provides for an amount less than the principal amount thereof to be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 5.2.

"Outstanding," when used with respect to Securities, means, as of the date of determination, all Securities theretofore authenticated and delivered under this Indenture, except

(1) Securities theretofore canceled by the Trustee or delivered to the Trustee for cancellation;

(2) Securities for whose payment or redemption money in the necessary amount has been theretofore deposited with the Trustee or any Paying Agent (other than the Company) in trust or set aside and segregated in trust by the Company (if the Company shall act as its own Paying Agent) for the Holders of such Securities; provided that, if such Securities are to be redeemed, notice of such redemption has been duly given pursuant to this Indenture or provision therefor satisfactory to the Trustee has been made;

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(3) Securities as to which Defeasance has been effected pursuant to Section 13.2; and

(4) Securities which have been paid pursuant to Section 3.6 or in exchange for or in lieu of which other Securities have been authenticated and delivered pursuant to this Indenture, other than any such Securities in respect of which there shall have been presented to the Trustee proof satisfactory to it that such Securities are held by a bona fide purchaser in whose hands such Securities are valid obligations of the Company;

provided, however, that in determining whether the Holders of the requisite principal amount of the Outstanding Securities have given, made or taken any request, demand, authorization, direction, notice, consent, waiver or other action hereunder as of any date, (A) the principal amount of an Original Issue

Discount Security which shall be deemed to be Outstanding shall be the amount of the principal thereof which would be due and payable as of such date upon acceleration of the Maturity thereof to such date pursuant to Section 5.2, (B) if, as of such date, the principal amount payable at the Stated Maturity of a Security is not determinable, the principal amount of such Security which shall be deemed to be Outstanding shall be the amount as specified or determined as contemplated by Section 3.1, (C) the principal amount of a Security denominated in one or more non-U.S. dollar currencies or currency units which shall be deemed to be Outstanding shall be the U.S. dollar equivalent, determined as of such date in the manner provided as contemplated by Section 3.1, of the principal amount of such Security (or, in the case of a Security described in clause (A) or (B) above, of the amount determined as provided in such clause), and (D) Securities owned by the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor shall be disregarded and deemed not to be Outstanding, except that, in determining whether the Trustee shall be protected in relying upon any such request, demand, authorization, direction, notice, consent, waiver or other action, only Securities which the Trustee knows to be so owned shall be so disregarded. Securities so owned which have been pledged in good faith may be regarded as Outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor.

"Paying Agent" means any Person authorized by the Company to pay the principal of or any premium or interest on any Securities on behalf of the Company.

"Person" means any individual, corporation, limited liability company, partnership, joint venture, trust, unincorporated organization or government or any agency or political subdivision thereof.

"Place of Payment," when used with respect to the Securities of any series, means the place or places where the principal of and any premium and interest on the Securities of that series are payable as specified as contemplated by Section 3.1.

"Predecessor Security" of any particular Security means every previous Security evidencing all or a portion of the same debt as that evidenced by such particular Security; and, for the purposes of this definition, any Security authenticated and delivered under Section 3.6 in exchange for or in

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lieu of a mutilated, destroyed, lost or stolen Security shall be deemed to evidence the same debt as the mutilated, destroyed, lost or stolen Security.

"Record Date" means any Regular Record Date or Special Record Date.

"Redemption Date," when used with respect to any Security to be redeemed, means the date fixed for such redemption by or pursuant to this Indenture.

"Redemption Price," when used with respect to any Security to be redeemed, means the price at which it is to be redeemed pursuant to this Indenture.

"Regular Record Date" for the interest payable on any Interest Payment Date on the Securities of any series means the date specified for that purpose as contemplated by Section 3.1.

"Securities" has the meaning stated in the first recital of this Indenture and more particularly means any Securities authenticated and delivered under this Indenture.

"Securities Act" means the Securities Act of 1933 and any statute successor thereto, in each case as amended from time to time.

"Security Register" and "Security Registrar" have the respective meanings specified in Section 3.5.

"Special Record Date" for the payment of any Defaulted Interest means a

date fixed by the Trustee pursuant to Section 3.7.

"Stated Maturity," when used with respect to any Security or any installment of principal thereof or interest thereon, means the date specified in such Security as the fixed date on which the principal of such Security or such installment of principal or interest is due and payable.

"Subsidiary" means a Person of which at least a majority of the outstanding voting stock having the power to elect a majority of the board of directors of such Person (in the case of a corporation) is, or of which at least a majority of the equity interests (in the case of a Person which is not a corporation) are, at the time owned, directly or indirectly, by the Company or by one or more other Subsidiaries, or by the Company and one or more other Subsidiaries. For the purposes of this definition, "voting stock" means stock which ordinarily has voting power for the election of directors, whether at all times or only so long as no senior class of stock has such voting power by reason of any contingency.

"Trust Indenture Act" means the Trust Indenture Act of 1939 as in force at the date as of which this instrument was executed; provided, however, that in the event the Trust Indenture Act of 1939 is amended after such date, "Trust Indenture Act" means, to the extent required by any such amendment, the Trust Indenture Act of 1939 as so amended.

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"Trustee" means the Person named as the "Trustee" in the first paragraph of this instrument until a successor Trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter "Trustee" shall mean or include each Person who is then a Trustee hereunder, and if at any time there is more than one such Person, "Trustee" as used with respect to the Securities of any series shall mean the Trustee with respect to Securities of that series.

"U.S. Government Obligation" means (x) any security which is (i) a direct obligation of the United States of America for the payment of which the full faith and credit of the United States of America is pledged or (ii) an obligation of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America, which, in either case (i) or (ii), is not callable or redeemable at the option of the issuer thereof, and (y) any depositary receipt issued by a bank (as defined in Section 3(a)(2) of the Securities Act) as custodian with respect to any U.S. Government Obligation which is specified in clause (x) above and held by such bank for the account of the holder of such depositary receipt, or with respect to any specific payment of principal or interest on any U.S. Government Obligation which is so specified and held, provided that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depositary receipt from any amount received by the custodian in respect of the U.S. Government Obligation or the specific payment of principal or interest evidenced by such depositary receipt.

"Vice President," when used with respect to the Company or the Trustee, means any vice president, whether or not designated by a number or a word or words added before or after the title "vice president."

SECTION 1.2 COMPLIANCE CERTIFICATES AND OPINIONS.

Upon any application or request by the Company to the Trustee to take any action under any provision of this Indenture, the Company shall furnish to the Trustee such certificates and opinions as may be required under the Trust Indenture Act. Each such certificate or opinion shall be given in the form of an Officers' Certificate, if to be given by an officer of the Company, or an Opinion of Counsel, if to be given by counsel, and shall comply with the requirements of the Trust Indenture Act and any other requirements set forth in this Indenture.

Every certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture shall include,

- (1) a statement that each individual signing such certificate or opinion has read such covenant or condition and the definitions herein

relating thereto;

(2) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;

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(3) a statement that, in the opinion of each such individual, he or she has made such examination or investigation as is necessary to enable him or her to express an informed opinion as to whether or not such covenant or condition has been complied with; and

(4) a statement as to whether, in the opinion of each such individual, such condition or covenant has been complied with.

SECTION 1.3 FORM OF DOCUMENTS DELIVERED TO TRUSTEE.

In any case where several matters are required to be certified by, or covered by an opinion of, any specified Person, it is not necessary that all such matters be certified by, or covered by the opinion of, only one such Person, or that they be so certified or covered by only one document, but one such Person may certify or give an opinion with respect to some matters and one or more other such Persons as to other matters, and any such Person may certify or give an opinion as to such matters in one or several documents.

Any certificate or opinion of an officer of the Company may be based, insofar as it relates to legal matters, upon a certificate or opinion of, or representations by, counsel, unless such officer knows, or in the exercise of reasonable care should know, that the certificate or opinion or representations with respect to the matters upon which his or her certificate or opinion is based are erroneous. Any such certificate or opinion of counsel may be based, insofar as it relates to factual matters, upon a certificate or opinion of, or representations by, an officer or officers of the Company stating that the information with respect to such factual matters is in the possession of the Company, unless such counsel knows, or in the exercise of reasonable care should know, that the certificate or opinion or representations with respect to such matters are erroneous.

Where any Person is required to make, give or execute two or more applications, requests, consents, certificates, statements, opinions or other instruments under this Indenture, they may, but need not, be consolidated and form one instrument.

SECTION 1.4 ACTS OF HOLDERS; RECORD DATES.

Any request, demand, authorization, direction, notice, consent, waiver or other action provided or permitted by this Indenture to be given, made or taken by Holders may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such Holders in person or by agent duly appointed in writing; and, except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments are delivered to the Trustee and, where it is hereby expressly required, to the Company. The Trustee shall promptly deliver to the Company copies of all such instrument or instruments delivered to the Trustee. Such instrument or instruments (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the "Act" of the Holders signing such instrument or instruments. Proof of execution of any such instrument or of a writing appointing any such agent shall be sufficient for any purpose of this Indenture and (subject to Section 6.1) conclusive in favor of the Trustee and the Company, if made in the manner provided in this Section.

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The fact and date of the execution by any Person of any such instrument or writing may be proved by the affidavit of a witness of such execution or by a certificate of a notary public or other officer authorized by law to take acknowledgments of deeds, certifying that the individual signing such instrument or writing acknowledged to him or her the execution thereof. Where such

execution is by a signer acting in a capacity other than his or her individual capacity, such certificate or affidavit shall also constitute sufficient proof of his or her authority. The fact and date of the execution of any such instrument or writing, or the authority of the Person executing the same, may also be proved in any other manner which the Trustee deems sufficient.

The ownership of Securities shall be proved by the Security Register.

Any request, demand, authorization, direction, notice, consent, waiver or other Act of the Holder of any Security shall bind every future Holder of the same Security and the Holder of every Security issued upon the registration of transfer thereof or in exchange therefor or in lieu thereof in respect of anything done, omitted or suffered to be done by the Trustee or the Company in reliance thereon, whether or not notation of such action is made upon such Security.

The Company may set any day as a record date for the purpose of determining the Holders of Outstanding Securities of any series entitled to give, make or take any request, demand, authorization, direction, vote, notice, consent, waiver or other action provided or permitted by this Indenture to be given, made or taken by Holders of Securities of such series, provided that the Company may not set a record date for, and the provisions of this paragraph shall not apply with respect to, the giving or making of any notice, declaration, request or direction referred to in the next paragraph. If any record date is set pursuant to this paragraph, the Holders of Outstanding Securities of the relevant series on such record date, and no other Holders, shall be entitled to take the relevant action, whether or not such Holders remain Holders after such record date; provided that no such action shall be effective hereunder unless taken on or prior to the applicable Expiration Date by Holders of the requisite principal amount of Outstanding Securities of such series on such record date. Nothing in this paragraph shall be construed to prevent the Company from setting a new record date for any action for which a record date has previously been set pursuant to this paragraph (whereupon the record date previously set shall automatically and with no action by any Person be canceled and of no effect), and nothing in this paragraph shall be construed to render ineffective any action taken by Holders of the requisite principal amount of Outstanding Securities of the relevant series on the date such action is taken. Promptly after any record date is set pursuant to this paragraph, the Company, at its own expense, shall cause notice of such record date, the proposed action by Holders and the applicable Expiration Date to be given to the Trustee in writing and to each Holder of Securities of the relevant series in the manner set forth in Section 1.6.

The Trustee may set any day as a record date for the purpose of determining the Holders of Outstanding Securities of any series entitled to join in the giving or making of (i) any Notice of Default, (ii) any declaration of acceleration referred to in Section 5.2, (iii) any request to institute proceedings referred to in Section 5.7(2) or (iv) any direction referred to in Section 5.12, in each case with respect to Securities of such series. If any record date is set pursuant to this paragraph, the Holders of Outstanding Securities of such series on such record date, and no other Holders, shall be

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entitled to join in such notice, declaration, request or direction, whether or not such Holders remain Holders after such record date; provided that no such action shall be effective hereunder unless taken on or prior to the applicable Expiration Date by Holders of the requisite principal amount of Outstanding Securities of such series on such record date. Nothing in this paragraph shall be construed to prevent the Trustee from setting a new record date for any action for which a record date has previously been set pursuant to this paragraph (whereupon the record date previously set shall automatically and with no action by any Person be canceled and of no effect), and nothing in this paragraph shall be construed to render ineffective any action taken by Holders of the requisite principal amount of Outstanding Securities of the relevant series on the date such action is taken. Promptly after any record date is set pursuant to this paragraph, the Trustee, at the Company's expense, shall cause notice of such record date, the proposed action by Holders and the applicable Expiration Date to be given to the Company in writing and to each Holder of Securities of the relevant series in the manner set forth in Section 1.6.

With respect to any record date set pursuant to this Section, the party

hereto which sets such record dates may designate any day as the "Expiration Date" and from time to time may change the Expiration Date to any earlier or later day; provided that no such change shall be effective unless notice of the proposed new Expiration Date is given to the other party hereto in writing, and to each Holder of Securities of the relevant series in the manner set forth in Section 1.6, on or prior to the existing Expiration Date. If an Expiration Date is not designated with respect to any record date set pursuant to this Section, the party hereto which set such record date shall be deemed to have initially designated the 180th day after such record date as the Expiration Date with respect thereto, subject to its right to change the Expiration Date as provided in this paragraph. Notwithstanding the foregoing, no Expiration Date shall be later than the 180th day after the applicable record date.

Without limiting the foregoing, a Holder entitled hereunder to take any action hereunder with regard to any particular Security may do so with regard to all or any part of the principal amount of such Security or by one or more duly appointed agents each of which may do so pursuant to such appointment with regard to all or any part of such principal amount.

SECTION 1.5 NOTICES, ETC., to Trustee and Company.

Any request, demand, authorization, direction, notice, consent, waiver or Act of Holders or other document provided or permitted by this Indenture to be made upon, given or furnished to, or filed with,

(1) the Trustee by any Holder or by the Company shall be sufficient for every purpose hereunder if made, given, furnished or filed in writing (or by facsimile transmissions, provided that oral confirmation of receipt shall have been received) to or with the Trustee at its Corporate Trust Office, Attention: Corporate Trust Department, or

(2) the Company by the Trustee or by any Holder shall be sufficient for every purpose hereunder (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, personally delivered or sent via overnight courier to the Company addressed to it at the address of its principal

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office specified in the first paragraph of this instrument or at any other address previously furnished in writing to the Trustee by the Company, Attention: Chief Financial Officer.

SECTION 1.6 NOTICE TO HOLDERS; WAIVER.

Where this Indenture provides for notice to Holders of any event, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, or delivered by hand or overnight courier to each Holder affected by such event, at its address as it appears in the Security Register, not later than the latest date (if any), and not earlier than the earliest date (if any), prescribed for the giving of such notice. Neither the failure to mail or deliver by hand or overnight courier any notice, nor any defect in any notice so mailed or delivered by hand or overnight courier, to any particular Holder shall affect the sufficiency of such notice with respect to other Holders. Where this Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

In case by reason of the suspension of regular mail service or by reason of any other cause it shall be impracticable to give such notice by mail, then such notification as shall be made with the approval of the Trustee shall constitute a sufficient notification for every purpose hereunder.

SECTION 1.7 CONFLICT WITH TRUST INDENTURE ACT.

If any provision hereof limits, qualifies or conflicts with a provision of the Trust Indenture Act which is required under the Trust Indenture Act to be a part of and govern this Indenture, the latter provision shall control. If any provision of this Indenture modifies or excludes any provision of the Trust

Indenture Act which may be so modified or excluded, the latter provision shall be deemed to apply to this Indenture as so modified or to be excluded, as the case may be.

SECTION 1.8 EFFECT OF HEADINGS AND TABLE OF CONTENTS.

The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

SECTION 1.9 SUCCESSORS AND ASSIGNS.

All covenants and agreements in this Indenture by the Company shall bind its successors and assigns, whether so expressed or not.

SECTION 1.10 SEPARABILITY CLAUSE.

In case any provision in this Indenture or in the Securities shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

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SECTION 1.11 BENEFITS OF INDENTURE.

Nothing in this Indenture or in the Securities, express or implied, shall give to any Person, other than the parties hereto and their successors hereunder and the Holders, any benefit or any legal or equitable right, remedy or claim under this Indenture.

SECTION 1.12 GOVERNING LAW.

THIS INDENTURE AND THE SECURITIES SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAW OF THE STATE OF NEW YORK, WITHOUT GIVING EFFECT TO SUCH STATE'S CONFLICTS OF LAWS PRINCIPLES.

SECTION 1.13 LEGAL HOLIDAYS.

In any case where any Interest Payment Date, Redemption Date or Stated Maturity of any Security or the last date on which a Holder has the right to convert a Security at a particular conversion price shall not be a Business Day at any Place of Payment, then (notwithstanding any other provision of this Indenture or of the Securities (other than a provision of any Security which specifically states that such provision shall apply in lieu of this Section)) payment of interest or principal (and premium, if any) or, if applicable to a particular series of Securities, conversion need not be made at such Place of Payment on such date, but may be made on the next succeeding Business Day at such Place of Payment with the same force and effect as if made on the Interest Payment Date or Redemption Date, at the Stated Maturity or on such last day for conversion, as the case may be.

SECTION 1.14 INDENTURE AND SECURITIES SOLELY CORPORATE OBLIGATIONS.

No recourse for the payment of the principal of or premium, if any, or interest on any Security, or for any claim based thereon or otherwise in respect thereof, and no recourse under or upon any obligation, covenant or agreement of the Company in this Indenture or in any supplemental indenture or in any Security, or because of the creation of any indebtedness represented thereby, shall be had against any incorporator, stockholder, employee, agent, officer, or director or subsidiary, as such, past, present or future, of the Company or of any successor corporation, either directly or through the Company or any successor corporation, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise; it being expressly understood that all such liability is hereby expressly waived and released as a condition of, and as a consideration for, the execution of this Indenture and the issue of the Securities.

SECTION 1.15 INDENTURE MAY BE EXECUTED IN COUNTERPARTS.

This instrument may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

ARTICLE 2

SECURITY FORMS

SECTION 2.1 FORMS GENERALLY.

The Securities of each series shall be in substantially the form set forth in this Article, or in such other form as shall be established by or pursuant to a Board Resolution or in one or more indentures supplemental hereto, in each case with such appropriate insertions, omissions, substitutions and other variations as are required or permitted by this Indenture, and may have such letters, numbers or other marks of identification and such legends or endorsements placed thereon as may be required to comply with the rules of any securities exchange or Depositary therefor or as may, consistently herewith, be determined by the officers executing such Securities, as evidenced by their execution thereof. If the form of Securities of any series is established by action taken pursuant to a Board Resolution, a copy of an appropriate record of such action shall be certified by the Secretary or an Assistant Secretary of the Company and delivered to the Trustee at or prior to the delivery of the Company Order contemplated by Section 3.3 for the authentication and delivery of such Securities. Any such Board Resolution or record of such action shall have attached thereto a true and correct copy of the form of Security referred to therein approved by or pursuant to such Board Resolution.

The definitive Securities shall be printed, lithographed or engraved on steel engraved borders or may be produced in any other manner, all as determined by the officers executing such Securities, as evidenced by their execution of such Securities.

SECTION 2.2 FORM OF FACE OF SECURITY.

[INSERT ANY LEGEND REQUIRED BY THE INTERNAL REVENUE CODE AND THE REGULATIONS THEREUNDER.]

HARMONIC INC.

NO. _____ \$ _____
CUSIP: _____

Harmonic Inc., a corporation duly organized and existing under the laws of Delaware (herein called the "Company," which term includes any successor Person under the Indenture hereinafter referred to), for value received, hereby promises to pay to _____, or registered assigns, the principal sum of _____ dollars on _____ [IF THE SECURITY IS TO BEAR INTEREST PRIOR TO MATURITY, INSERT -- , and to pay interest thereon from _____ or from the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually on _____ and _____ in each year, commencing _____ at the rate of

___% per annum, until the principal hereof is paid or made available for payment [IF APPLICABLE, INSERT -- , provided that any principal and premium, and any such installment of interest, which is overdue shall bear interest at the rate of ___% per annum (to the extent that the payment of such interest shall be legally enforceable), from the dates such amounts are due until they are paid or made available for payment, and such interest shall be payable on demand]. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest, which shall be the _____ or _____ (whether or not a Business Day), as the case may be, next preceding such Interest Payment Date. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such

Regular Record Date and may either be paid to the Person in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Securities of this series not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of any securities exchange on which the Securities of this series may be listed, and upon such notice as may be required by such exchange, all as more fully provided in said Indenture].

[IF THE SECURITY IS NOT TO BEAR INTEREST PRIOR TO MATURITY, INSERT -- The principal of this Security shall not bear interest except in the case of a default in payment of principal upon acceleration, upon redemption or at Stated Maturity and in such case the overdue principal and any overdue premium shall bear interest at the rate of ___% per annum (to the extent that the payment of such interest shall be legally enforceable), from the dates such amounts are due until they are paid or made available for payment. Interest on any overdue principal or premium shall be payable on demand. [Any such interest on overdue principal or premium which is not paid on demand shall bear interest at the rate of ___% per annum (to the extent that the payment of such interest on interest shall be legally enforceable), from the date of such demand until the amount so demanded is paid or made available for payment. Interest on any overdue interest shall be payable on demand.]]

Payment of the principal of (and premium, if any) and [IF APPLICABLE, INSERT -- any such] interest on this Security will be made at the office or agency of the Company maintained for that purpose in _____, in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts [IF APPLICABLE, INSERT -- ; provided, however, that at the option of the Company payment of interest may be made by check mailed to the address of the Person entitled thereto as such address shall appear in the Security Register].

Reference is hereby made to the further provisions of this Security set forth on the reverse hereof, which further provisions shall for all purposes have the same effect as if set forth at this place.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Security shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____ Harmonic Inc.
By: _____
Title: _____

ATTEST:

SECTION 2.3 FORM OF REVERSE OF SECURITY.

This Security is one of a duly authorized issue of securities of the Company (herein called the "Securities"), issued and to be issued in one or more series under an Indenture, dated as of _____ (herein called the "Indenture," which term shall have the meaning assigned to it in such instrument), between the Company and U.S. Bank National Association, as Trustee (herein called the "Trustee," which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture and all indentures supplemental thereto for a statement of the respective rights, limitations of rights, duties and immunities thereunder of the Company, the Trustee and the Holders of the Securities and of the terms upon which the Securities are, and are to be, authenticated and delivered. This Security is one of the series designated on the face hereof [IF APPLICABLE, INSERT -- , limited in aggregate principal amount to \$_____].

[IF APPLICABLE, INSERT -- The Securities of this series are subject to redemption upon not less than [IF APPLICABLE, INSERT -- 30] days' notice by mail, [IF APPLICABLE, INSERT-- (1) on _____ in any year commencing with the year _____ and ending with the year _____ through operation of the sinking fund for this series at a Redemption Price equal to 100% of the principal amount, and (2)] at any time [IF APPLICABLE, INSERT-- on or after _____, 20__], as a whole or in part, at the election of the Company, at the following Redemption Prices (expressed as percentages of the principal amount): If redeemed [IF APPLICABLE, INSERT-- on or before _____, ___%, and if redeemed] during the 12-month period beginning _____ of the years indicated,

| | | | |
|------|------------------|------|------------------|
| YEAR | REDEMPTION PRICE | YEAR | REDEMPTION PRICE |
| ---- | ----- | ---- | ----- |

and thereafter at a Redemption Price equal to ___% of the principal amount, together in the case of any such redemption [IF APPLICABLE, INSERT-- (whether through operation of the sinking fund or otherwise)] with accrued interest to the Redemption Date, but interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holders of such Securities, or

one or more Predecessor Securities, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.]

[IF APPLICABLE, INSERT-- The Securities of this series are subject to redemption upon not less than [if applicable, insert 30] days' notice by mail, (1) on _____ in any year commencing with the year _____ and ending with the year _____ through operation of the sinking fund for this series at the Redemption Prices for redemption through operation of the sinking fund (expressed as percentages of the principal amount) set forth in the table below, and (2) at any time [IF APPLICABLE, INSERT-- on or after _____], as a whole or in part, at the election of the Company, at the Redemption Prices for redemption otherwise than through operation of the sinking fund (expressed as percentages of the principal amount) set forth in the table below: If redeemed during the 12-month period beginning _____ of the years indicated,

| | | |
|------|----------------------|----------------------|
| | REDEMPTION PRICE FOR | REDEMPTION PRICE FOR |
| | REDEMPTION THROUGH | REDEMPTION OTHERWISE |
| | OPERATION OF THE | THAN THROUGH |
| | SINKING FUND | OPERATION OF THE |
| YEAR | ----- | SINKING FUND |
| ---- | | ----- |

and thereafter at a Redemption Price equal to ___% of the principal amount, together in the case of any such redemption (whether through operation of the sinking fund or otherwise) with accrued interest to the Redemption Date, but interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holders of such Securities, or one or more Predecessor Securities, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.]

[IF APPLICABLE, INSERT -- Notwithstanding the foregoing, the Company may not, prior to _____, redeem any Securities of this series as contemplated

by [IF APPLICABLE, INSERT-- clause (2) of] the preceding paragraph as a part of, or in anticipation of, any refunding operation by the application, directly or indirectly, of moneys borrowed having an interest cost to the Company (calculated in accordance with generally accepted financial practice) of less than ___% per annum.]

[IF APPLICABLE, INSERT-- The sinking fund for this series provides for the redemption on _____ in each year beginning with the year _____ and ending with the year _____ of [IF APPLICABLE, INSERT-- not less than \$_____ ("mandatory sinking fund") and not more than] \$_____ aggregate principal amount of Securities of this series. Securities of this series acquired or redeemed by the Company otherwise than through [IF APPLICABLE, INSERT-- mandatory] sinking fund payments may be credited against subsequent [IF APPLICABLE, INSERT -- mandatory] sinking fund payments otherwise required to be made [IF APPLICABLE, INSERT-- , in the inverse order in which they become due].]

[IF THE SECURITY IS SUBJECT TO REDEMPTION OF ANY KIND, INSERT -- In the event of redemption of this Security in part only, a new Security or Securities of this series and of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the cancellation hereof.]

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[IF APPLICABLE, INSERT-- The Indenture contains provisions for defeasance at any time of [the entire indebtedness of this Security] [or] [certain restrictive covenants and Events of Default with respect to this Security] [, in each case] upon compliance with certain conditions set forth in the Indenture.]

[IF THE SECURITY IS CONVERTIBLE INTO COMMON STOCK OF THE COMPANY, INSERT-- Subject to the provisions of the Indenture, the Holder of this Security is entitled, at its option, at any time on or before [insert date] (except that, in case this Security or any portion hereof shall be called for redemption, such right shall terminate with respect to this Security or portion hereof, as the case may be, so called for redemption at the close of business on the first Business Day next preceding the date fixed for redemption as provided in the Indenture unless the Company defaults in making the payment due upon redemption), to convert the principal amount of this Security (or any portion hereof which is \$1,000 or an integral multiple thereof), into fully paid and non-assessable shares (calculated as to each conversion to the nearest 1/100th of a share) of the Common Stock of the Company, as said shares shall be constituted at the date of conversion, at the conversion price of \$_____ principal amount of Securities for each share of Common Stock, or at the adjusted conversion price in effect at the date of conversion determined as provided in the Indenture, upon surrender of this Security, together with the conversion notice hereon duly executed, to the Company at the designated office or agency of the Company in _____, accompanied (if so required by the Company) by instruments of transfer, in form satisfactory to the Company and to the Trustee, duly executed by the Holder or by its duly authorized attorney in writing. Such surrender shall, if made during any period beginning at the close of business on a Regular Record Date and ending at the opening of business on the Interest Payment Date next following such Regular Record Date (unless this Security or the portion being converted shall have been called for redemption on a Redemption Date during the period beginning at the close of business on a Regular Record Date and ending at the opening of business on the first Business Day after the next succeeding Interest Payment Date, or if such Interest Payment Date is not a Business Day, the second such Business Day), also be accompanied by payment in funds acceptable to the Company of an amount equal to the interest payable on such Interest Payment Date on the principal amount of this Security then being converted. Subject to the aforesaid requirement for payment and, in the case of a conversion after the Regular Record Date next preceding any Interest Payment Date and on or before such Interest Payment Date, to the right of the Holder of this Security (or any Predecessor Security) of record at such Regular Record Date to receive an installment of interest (with certain exceptions provided in the Indenture), no adjustment is to be made on conversion for interest accrued hereon or for dividends on shares of Common Stock issued on conversion. The Company is not required to issue fractional shares upon any such conversion, but shall make adjustment therefor in cash on the basis of the current market value of such fractional interest as provided in the Indenture. The conversion price is subject to adjustment as provided in the Indenture. In addition, the Indenture provides that in case of certain consolidations or mergers to which the Company is a party or the sale of substantially all of the

assets of the Company, the Indenture shall be amended, without the consent of any Holders of Securities, so that this Security, if then outstanding, will be convertible thereafter, during the period this Security shall be convertible as specified above, only into the kind and amount of securities, cash and other property receivable upon the consolidation, merger or sale by a holder of the number of shares of Common Stock into which this Security might have been

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converted immediately prior to such consolidation, merger or sale (assuming such holder of Common Stock failed to exercise any rights of election and received per share the kind and amount received per share by a plurality of non-electing shares). In the event of conversion of this Security in part only, a new Security or Securities for the unconverted portion hereof shall be issued in the name of the Holder hereof upon the cancellation hereof.]

[IF THE SECURITY IS CONVERTIBLE INTO OTHER SECURITIES OF THE COMPANY, SPECIFY THE CONVERSION FEATURES.]

[IF THE SECURITY IS NOT AN ORIGINAL ISSUE DISCOUNT SECURITY, INSERT -- If an Event of Default with respect to Securities of this series shall occur and be continuing, the principal of the Securities of this series may be declared due and payable in the manner and with the effect provided in the Indenture.]

[IF THE SECURITY IS AN ORIGINAL ISSUE DISCOUNT SECURITY, INSERT -- If an Event of Default with respect to Securities of this series shall occur and be continuing, an amount of principal of the Securities of this series may be declared due and payable in the manner and with the effect provided in the Indenture. Such amount shall be equal to -- INSERT FORMULA FOR DETERMINING THE AMOUNT. Upon payment (i) of the amount of principal so declared due and payable and (ii) of interest on any overdue principal, premium and interest (in each case to the extent that the payment of such interest shall be legally enforceable), all of the Company's obligations in respect of the payment of the principal of and premium and interest, if any, on the Securities of this series shall terminate.]

The Indenture permits, with certain exceptions as therein provided, the amendment thereof and the modification of the rights and obligations of the Company and the rights of the Holders of the Securities of each series to be affected under the Indenture at any time by the Company and the Trustee with the consent of the Holders of more than 50% in principal amount of the Securities at the time Outstanding of each series to be affected. The Indenture also contains provisions permitting the Holders of specified percentages in principal amount of the Securities of each series at the time Outstanding, on behalf of the Holders of all Securities of such series, to waive compliance by the Company with certain provisions of the Indenture and certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Security shall be conclusive and binding upon such Holder and upon all future Holders of this Security and of any Security issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Security.

As provided in and subject to the provisions of the Indenture, the Holder of this Security shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default with respect to the Securities of this series, the Holders of not less than a majority in principal amount of the Securities of this series at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable indemnity, and the Trustee shall not have received from the Holders of a majority in principal amount of Securities of this series at the time Outstanding a direction inconsistent with such request,

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and shall have failed to institute any such proceeding, for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not

apply to any suit instituted by the Holder of this Security for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Security or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Security at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Security is registrable in the Security Register, upon surrender of this Security for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Security are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed by, the Holder hereof or its attorney duly authorized in writing, and thereupon one or more new Securities of this series and of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Securities of this series are issuable only in registered form without coupons in denominations of \$_____ and any integral multiple thereof. As provided in the Indenture and subject to certain limitations therein set forth, Securities of this series are exchangeable for a like aggregate principal amount of Securities of this series and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

Prior to due presentment of this Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Security is registered as the owner hereof for all purposes, whether or not this Security be overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

All terms used in this Security which are defined in the Indenture shall have the meanings assigned to them in the Indenture.

SECTION 2.4 FORM OF LEGEND FOR GLOBAL SECURITIES.

UNLESS otherwise specified as contemplated by Section 3.1 for the Securities evidenced thereby, every Global Security authenticated and delivered hereunder shall bear a legend in substantially the following form:

THIS SECURITY IS A GLOBAL SECURITY WITHIN THE MEANING OF THE INDENTURE
HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF

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A DEPOSITARY OR A NOMINEE THEREOF. THIS SECURITY MAY NOT BE EXCHANGED IN WHOLE OR IN PART FOR A SECURITY REGISTERED, AND NO TRANSFER OF THIS SECURITY IN WHOLE OR IN PART MAY BE REGISTERED, IN THE NAME OF ANY PERSON OTHER THAN SUCH DEPOSITARY OR A NOMINEE THEREOF, EXCEPT IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE.

SECTION 2.5 FORM OF TRUSTEE'S CERTIFICATE OF AUTHENTICATION.

The Trustee's certificates of authentication shall be in substantially the following form:

This is one of the Securities of the series designated herein referred to in the within-mentioned Indenture.

U.S. Bank National Association,
as Trustee

By: _____

SECTION 2.6 FORM OF CONVERSION NOTICE.

Conversion notices shall be in substantially the following form:
To Harmonic Inc.:

The undersigned owner of this Security hereby irrevocably exercises the option to convert this Security, or portion hereof (which is \$1,000 or an integral multiple thereof) below designated, into shares of Common Stock of the Company in accordance with the terms of the Indenture referred to in this Security, and directs that the shares issuable and deliverable upon the conversion, together with any check in payment for fractional shares and any Securities representing any unconverted principal amount hereof, be issued and delivered to the registered holder hereof unless a different name has been indicated below. If this Notice is being delivered on a date after the close of business on a Regular Record Date and prior to the opening of business on the related Interest Payment Date (unless this Security or the portion thereof being converted has been called for redemption on a Redemption Date during the period beginning at the close of business on a Regular Record Date and ending at the opening of business on the first Business Day after the next succeeding Interest Payment Date, or if such Interest Payment Date is not a Business Day, the second such Business Day), this Notice is accompanied by payment, in funds acceptable to the Company, of an amount equal to the interest payable on such Interest Payment Date of the principal of this Security to be converted. If shares are to be issued in the name of a person other than the undersigned, the undersigned will pay all transfer taxes payable with respect hereto. Any amount required to be paid by the undersigned on account of interest accompanies this Security.

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Principal Amount to be Converted
(in an integral multiple of \$1,000, if less than all)

U.S.\$ _____

Dated: _____

Signature(s) must be guaranteed by an eligible guarantor institution (banks, stock brokers, savings and loan associations and credit unions with membership in an approved signature guarantee medallion program) pursuant to Securities and Exchange Commission Rule 17Ad-15.

Signature Guaranty

Fill in for registration of shares of Common Stock and Security if to be issued otherwise than to the registered Holder.

(Name)

Social Security or Other Taxpayer
Identification Number

(Address)

Please print Name and Address
(including zip code)

[The above conversion notice is to be modified, as appropriate, for conversion into other securities or property of the Company.]

ARTICLE 3

THE SECURITIES

SECTION 3.1 AMOUNT UNLIMITED; ISSUABLE IN SERIES.

The aggregate principal amount of Securities which may be authenticated and delivered under this Indenture is unlimited.

The Securities may be issued in one or more series. There shall be established in or pursuant to a Board Resolution and, subject to Section 3.3, set forth, or determined in the manner provided, in an Officers' Certificate, or established in one or more indentures supplemental hereto, prior to the issuance of Securities of any series,

- (1) the title of the Securities of the series (which shall distinguish the Securities of the series from Securities of any other series);
- (2) any limit upon the aggregate principal amount of the Securities of the series which may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of the series pursuant to Section 3.4, 3.5, 3.6, 9.6 or 11.7 and except for any Securities which, pursuant to Section 3.3, are deemed never to have been authenticated and delivered hereunder);
- (3) the Person to whom any interest on a Security of the series shall be payable, if other than the Person in whose name that Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest;
- (4) the date or dates on which the principal of any Securities of the series is payable;
- (5) the rate or rates (which may be fixed or variable) at which any Securities of the series shall bear interest, if any, the date or dates from which any such interest shall accrue, the Interest Payment Dates on which any such interest shall be payable and the Regular Record Date for any such interest payable on any Interest Payment Date (or the method for determining the dates and rates);
- (6) the place or places where the principal of and any premium and interest on any Securities of the series shall be payable;
- (7) the period or periods within which, the price or prices at which and the terms and conditions upon which any Securities of the series may be redeemed, in whole or in part, at the option of the Company and, if other than by a Board Resolution, the manner in which any election by the Company to redeem the Securities shall be evidenced;
- (8) the obligation, if any, of the Company to redeem or purchase any Securities of the series pursuant to any sinking fund or analogous provisions or at the option of the Holder thereof and the period or periods within which, the price or prices at which and the terms and conditions upon which any Securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;
- (9) if other than denominations of \$1,000 and any integral multiple thereof, the denominations in which any Securities of the series shall be issuable;
- (10) if the amount of principal of or any premium or interest on any Securities of the series may be determined with reference to an index or pursuant to a formula, the manner in which such amounts shall be determined;
- (11) if other than the currency of the United States of America, the currency, currencies or currency units in which the principal of or

any premium or interest on any Securities of the series shall be payable and the manner of determining the equivalent thereof in the currency of the United States of America for any purpose, including for purposes of the definition of "Outstanding" in Section 1.1;

(12) if the principal of or any premium or interest on any Securities of the series is to be payable, at the election of the Company or the Holder thereof, in one or more currencies or currency units other than that or those in which such Securities are stated to be payable, the currency, currencies or currency units in which the principal of or any premium or interest on such Securities as to which such election is made shall be payable, the periods within which and the terms and conditions upon which such election is to be made and the amount so payable (or the manner in which such amount shall be determined);

(13) if other than the entire principal amount thereof, the portion of the principal amount of any Securities of the series which shall be payable upon declaration of acceleration of the Maturity thereof pursuant to Section 5.2;

(14) if the principal amount payable at the Stated Maturity of any Securities of the series will not be determinable as of any one or more dates prior to the Stated Maturity, the amount which shall be deemed to be the principal amount of such Securities as of any such date for any purpose thereunder or hereunder, including the principal amount thereof which shall be due and payable upon any Maturity other than the Stated Maturity or which shall be deemed to be Outstanding as of any date prior to the Stated Maturity (or, in any such case, the manner in which such amount deemed to be the principal amount shall be determined);

(15) if applicable, that the Securities of the series, in whole or any specified part, shall be defeasible pursuant to Section 13.2 or Section 13.3 or both such Sections, or any other defeasance provisions applicable to any Securities of the series, and, if other than by a Board Resolution, the manner in which any election by the Company to defease such Securities shall be evidenced;

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(16) if applicable, the terms of any right to convert or exchange Securities of the series into shares of Common Stock of the Company or other securities or property;

(17) if applicable, that any Securities of the series shall be issuable in whole or in part in the form of one or more Global Securities and, in such case, the respective Depositaries for such Global Securities, the form of any legend or legends which shall be borne by any such Global Security in addition to or in lieu of that set forth in Section 2.4 and any circumstances in addition to or in lieu of those set forth in clause (2) of the last paragraph of Section 3.5 in which any such Global Security may be exchanged in whole or in part for Securities registered, and any transfer of such Global Security in whole or in part may be registered, in the name or names of Persons other than the Depositary for such Global Security or a nominee thereof;

(18) any addition to or change in the Events of Default which applies to any Securities of the series and any change in the right of the Trustee or the requisite Holders of such Securities to declare the principal amount thereof due and payable pursuant to Section 5.2;

(19) any addition to or change in the covenants set forth in Article 10 which applies to Securities of the series;

(20) any Authenticating Agents, Paying Agents, Security Registrars or such other agents necessary in connection with the issuance of the Securities of such series, including, without limitation, Exchange Rate Agents and Calculation Agents;

(21) if applicable, the terms of any security that will be provided for a series of Securities, including any provisions regarding

the circumstances under which collateral may be released or substituted;

(22) if applicable, the terms of any guaranties for the Securities and any circumstances under which there may be additional obligors on the Securities; and

(23) any other terms of the series (which terms shall not be inconsistent with the provisions of this Indenture, except as permitted by Section 9.1(5)).

All Securities of any one series shall be substantially identical except as to denomination and except as may otherwise be provided in or pursuant to the Board Resolution referred to above and (subject to Section 3.3) set forth, or determined in the manner provided, in the Officers' Certificate referred to above or in any such indenture supplemental hereto.

If any of the terms of the series are established by action taken pursuant to a Board Resolution, a copy of an appropriate record of such action shall be certified by the Secretary or an Assistant Secretary of the Company and delivered to the Trustee at or prior to the delivery of the Officers' Certificate setting forth the terms of the series.

SECTION 3.2 DENOMINATIONS.

The Securities of each series shall be issuable only in registered form without coupons and only in such denominations as shall be specified as contemplated by Section 3.1. In the absence of

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any such specified denomination with respect to the Securities of any series, the Securities of such series shall be issuable in denominations of \$1,000 and any integral multiple thereof.

SECTION 3.3 EXECUTION, AUTHENTICATION, DELIVERY AND DATING.

The Securities shall be executed on behalf of the Company by its Chairman of the Board, its Vice Chairman of the Board, its Chief Executive Officer, its principal financial officer, its President or one of its Vice Presidents, attested by its Treasurer, its Secretary or one of its Assistant Treasurers or Assistant Secretaries. The signature of any of these officers on the Securities may be manual or facsimile.

Securities bearing the manual or facsimile signatures of individuals who were at any time the proper officers of the Company shall bind the Company, notwithstanding that such individuals or any of them have ceased to hold such offices prior to the authentication and delivery of such Securities or did not hold such offices at the date of such Securities.

At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Securities of any series executed by the Company to the Trustee for authentication, together with a Company Order for the authentication and delivery of such Securities, and the Trustee in accordance with the Company Order shall authenticate and deliver such Securities. If the form or terms of the Securities of the series have been established by or pursuant to one or more Board Resolutions as permitted by Sections 2.1 and 3.1, in authenticating such Securities, and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall be entitled to receive, and (subject to Section 6.1) shall be fully protected in relying upon, a copy of such Board Resolution, the Officers' Certificate setting forth the terms of the series and an Opinion of Counsel, with such Opinion of Counsel stating,

(1) if the form of such Securities has been established by or pursuant to Board Resolution as permitted by Section 2.1, that such form has been established in conformity with the provisions of this Indenture;

(2) if the terms of such Securities have been established by or pursuant to Board Resolution as permitted by Section 3.1, that such terms have been established in conformity with the provisions of this

Indenture; and

(3) that such Securities, when authenticated and delivered by the Trustee and issued by the Company in the manner and subject to any conditions specified in such Opinion of Counsel, will constitute valid and legally binding obligations of the Company enforceable in accordance with their terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability relating to or affecting creditors' rights and to general equity principles.

If such form or terms have been so established, the Trustee shall not be required to authenticate such Securities if the issue of such Securities pursuant to this Indenture will affect the

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Trustee's own rights, duties or immunities under the Securities and this Indenture or otherwise in a manner which is not reasonably acceptable to the Trustee.

Notwithstanding the provisions of Section 3.1 and of the preceding paragraph, if all Securities of a series are not to be originally issued at one time, it shall not be necessary to deliver the Officers' Certificate otherwise required pursuant to Section 3.1 or the Company Order and Opinion of Counsel otherwise required pursuant to such preceding paragraph at or prior to the authentication of each Security of such series if such documents are delivered at or prior to the authentication upon original issuance of the first Security of such series to be issued.

Each Security shall be dated the date of its authentication.

No Security shall be entitled to any benefit under this Indenture or be valid or obligatory for any purpose unless there appears on such Security a certificate of authentication substantially in the form provided for herein executed by the Trustee by manual signature, and such certificate upon any Security shall be conclusive evidence, and the only evidence, that such Security has been duly authenticated and delivered hereunder. Notwithstanding the foregoing, if any Security shall have been authenticated and delivered hereunder but never issued and sold by the Company, and the Company shall deliver such Security to the Trustee for cancellation as provided in Section 3.9, for all purposes of this Indenture such Security shall be deemed never to have been authenticated and delivered hereunder and shall never be entitled to the benefits of this Indenture.

Neither the Company nor the Trustee shall have any responsibility for any defect in the CUSIP number that appears on any Security, check, advice of payment or redemption notice, and any such document may contain a statement to the effect that CUSIP numbers have been assigned by an independent service for convenience of reference and that neither the Company nor the Trustee shall be liable for any inaccuracy in such numbers.

SECTION 3.4 TEMPORARY SECURITIES.

Pending the preparation of definitive Securities of any series, the Company may execute, and upon Company Order the Trustee shall authenticate and deliver, temporary Securities which are printed, lithographed, typewritten, mimeographed or otherwise produced, in any authorized denomination, substantially of the tenor of the definitive Securities in lieu of which they are issued and with such appropriate insertions, omissions, substitutions and other variations as the officers executing such Securities may determine, as evidenced by their execution of such Securities.

If temporary Securities of any series are issued, the Company will cause definitive Securities of that series to be prepared without unreasonable delay. After the preparation of definitive Securities of such series, the temporary Securities of such series shall be exchangeable for definitive Securities of such series upon surrender of the temporary Securities of such series at the office or agency of the Company in a Place of Payment for that series, without charge to the Holder. Upon surrender for cancellation of any one or more temporary Securities of any series, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor one or more definitive

Securities of the same series, of any authorized denominations and of like tenor and aggregate

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principal amount. Until so exchanged, the temporary Securities of any series shall in all respects be entitled to the same benefits under this Indenture as definitive Securities of such series and tenor.

SECTION 3.5 REGISTRATION; REGISTRATION OF TRANSFER AND EXCHANGE.

The Company shall cause to be kept at the Corporate Trust Office of the Trustee a register (the register maintained in such office and in any other office or agency of the Company in a Place of Payment being herein sometimes collectively referred to as the "Security Register") in which, subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of Securities and of transfers of Securities. The Trustee is hereby appointed "Security Registrar" for the purpose of registering Securities and transfers of Securities as herein provided.

Upon surrender for registration of transfer of any Security of a series at the office or agency of the Company in a Place of Payment for that series, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Securities of the same series, of any authorized denominations and of like tenor and aggregate principal amount.

At the option of the Holder, Securities of any series may be exchanged for other Securities of the same series, of any authorized denominations and of like tenor and aggregate principal amount, upon surrender of the Securities to be exchanged at such office or agency. Whenever any Securities are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Securities which the Holder making the exchange is entitled to receive.

All Securities issued upon any registration of transfer or exchange of Securities shall be the valid obligations of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities surrendered upon such registration of transfer or exchange.

Every Security presented or surrendered for registration of transfer or for exchange shall (if so required by the Company or the Trustee) be duly endorsed, or be accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed, by the Holder thereof or its attorney duly authorized in writing.

No service charge shall be made for any registration of transfer or exchange of Securities, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any registration of transfer or exchange of Securities, other than exchanges pursuant to Section 3.4, 9.6 or 11.7 not involving any transfer.

If the Securities of any series (or of any series and specified tenor) are to be redeemed in part, the Company shall not be required (A) to issue, register the transfer of or exchange any Securities of that series (or of that series and specified tenor, as the case may be) during a period beginning at the opening of business 15 days before the day of the mailing of a notice of redemption of any such Securities selected for redemption under Section 11.3 and ending at the close of business on the day of such mailing, or (B) to register the transfer of or exchange any Security so selected for redemption in whole or in part, except the unredeemed portion of any Security being redeemed in part.

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The provisions of clauses (1), (2), (3) and (4) below shall apply only to Global Securities:

(1) Each Global Security authenticated under this Indenture shall be registered in the name of the Depositary designated for such Global

Security or a nominee thereof and delivered to such Depository or a nominee thereof or custodian therefor, and each such Global Security shall constitute a single Security for all purposes of this Indenture.

(2) Notwithstanding any other provision in this Indenture, no Global Security may be exchanged in whole or in part for Securities registered, and no transfer of a Global Security in whole or in part may be registered, in the name of any Person other than the Depository for such Global Security or a nominee thereof unless (A) such Depository (i) has notified the Company that it is unwilling or unable to continue as Depository for such Global Security or (ii) has ceased to be a clearing agency registered under the Exchange Act, (B) there shall have occurred and be continuing an Event of Default with respect to such Global Security or (C) there shall exist such circumstances, if any, in addition to or in lieu of the foregoing as have been specified for this purpose as contemplated by Section 3.1.

(3) Subject to clause (2) above, any exchange of a Global Security for other Securities may be made in whole or in part, and all Securities issued in exchange for a Global Security or any portion thereof shall be registered in such names as the Depository for such Global Security shall direct.

(4) Every Security authenticated and delivered upon registration of transfer of, or in exchange for or in lieu of, a Global Security or any portion thereof, whether pursuant to this Section, Section 3.4, 3.6, 9.6 or 11.7 or otherwise, shall be authenticated and delivered in the form of, and shall be, a Global Security, unless such Security is registered in the name of a Person other than the Depository for such Global Security or a nominee thereof.

SECTION 3.6 MUTILATED, DESTROYED, LOST AND STOLEN SECURITIES.

If any mutilated Security is surrendered to the Trustee, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a new Security of the same series and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

If there shall be delivered to the Company and the Trustee (i) evidence to their satisfaction of the destruction, loss or theft of any Security and (ii) such security or indemnity as may be required by them to save each of them and any agent of either of them harmless, then, in the absence of notice to the Company or the Trustee that such Security has been acquired by a bona fide purchaser, the Company shall execute and the Trustee shall authenticate and deliver, in lieu of any such destroyed, lost or stolen Security, a new Security of the same series and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

In case any such mutilated, destroyed, lost or stolen Security has become or is about to become due and payable, the Company in its discretion may, instead of issuing a new Security, pay such Security.

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Upon the issuance of any new Security under this Section, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.

Every new Security of any series issued pursuant to this Section in lieu of any destroyed, lost or stolen Security shall constitute an original additional contractual obligation of the Company, whether or not the destroyed, lost or stolen Security shall be at any time enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities of that series duly issued hereunder.

The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities.

SECTION 3.7 PAYMENT OF INTEREST; INTEREST RIGHTS PRESERVED.

Except as otherwise provided as contemplated by Section 3.1 with respect to any series of Securities, interest on any Security which is payable, and is punctually paid or duly provided for, on any Interest Payment Date shall be paid to the Person in whose name that Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest.

Any interest on any Security of any series which is payable, but is not punctually paid or duly provided for, on any Interest Payment Date (herein called "Defaulted Interest") shall forthwith cease to be payable to the Holder on the relevant Regular Record Date by virtue of having been such Holder, and such Defaulted Interest may be paid by the Company, at its election in each case, as provided in clause (1) or (2) below:

(1) The Company may elect to make payment of any Defaulted Interest to the Persons in whose names the Securities of such series (or their respective Predecessor Securities) are registered at the close of business on a Special Record Date for the payment of such Defaulted Interest, which shall be fixed in the following manner. The Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each Security of such series and the date of the proposed payment, and at the same time the Company shall deposit with the Trustee an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Interest as in this clause provided. Thereupon the Trustee shall fix a Special Record Date for the payment of such Defaulted Interest which shall be not more than 15 days and not less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such Special Record Date and, in the name and at the expense of the Company, shall cause notice of the proposed payment of such Defaulted

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Interest and the Special Record Date therefor to be given to each Holder of Securities of such series in the manner set forth in Section 1.6, not less than 10 days prior to such Special Record Date. Notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor having been so mailed, such Defaulted Interest shall be paid to the Persons in whose names the Securities of such series (or their respective Predecessor Securities) are registered at the close of business on such Special Record Date and shall no longer be payable pursuant to the following clause (2).

(2) The Company may make payment of any Defaulted Interest on the Securities of any series in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Securities may be listed, and upon such notice as may be required by such exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this clause, such manner of payment shall be deemed practicable by the Trustee.

Subject to the foregoing provisions of this Section, each Security delivered under this Indenture upon registration of transfer of or in exchange for or in lieu of any other Security shall carry the rights to interest accrued and unpaid, and to accrue, which were carried by such other Security.

Subject to the provisions of Section 14.2, in the case of any Security (or any part thereof) which is converted after any Regular Record Date and on or prior to the next succeeding Interest Payment Date (other than any Security the principal of (or premium, if any, on) which shall become due and payable, whether at Stated Maturity or by declaration of acceleration or otherwise prior to such Interest Payment Date), interest whose Stated Maturity is on such Interest Payment Date shall be payable on such Interest Payment Date notwithstanding such conversion and such interest (whether or not punctually paid or duly provided for) shall be paid to the Person in whose name that Security (or any one or more Predecessor Securities) is registered at the close of business on such Regular Record Date. Except as otherwise expressly provided

in the immediately preceding sentence or in Section 14.2, in the case of any Security (or any part thereof) which is converted, interest whose Stated Maturity is after the date of conversion of such Security (or such part thereof) shall not be payable.

SECTION 3.8 PERSONS DEEMED OWNERS.

Prior to due presentment of a Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name such Security is registered as the owner of such Security for the purpose of receiving payment of principal of and any premium and (subject to Section 3.7) any interest on such Security and for all other purposes whatsoever, whether or not such Security be overdue, and neither the Company, the Trustee nor any agent of the Company or the Trustee shall be affected by notice to the contrary.

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SECTION 3.9 CANCELLATION.

All Securities surrendered for payment, redemption, registration of transfer or exchange or for credit against any sinking fund payment shall, if surrendered to any Person other than the Trustee, be delivered to the Trustee and shall be promptly canceled by it. The Company may at any time deliver to the Trustee for cancellation any Securities previously authenticated and delivered hereunder which the Company may have acquired in any manner whatsoever, and may deliver to the Trustee (or to any other Person for delivery to the Trustee) for cancellation any Securities previously authenticated hereunder which the Company has not issued and sold, and all Securities so delivered shall be promptly canceled by the Trustee. No Securities shall be authenticated in lieu of or in exchange for any Securities canceled as provided in this Section, except as expressly permitted by this Indenture. All canceled Securities held by the Trustee shall be disposed of in accordance with its customary procedures.

SECTION 3.10 COMPUTATION OF INTEREST.

Except as otherwise specified as contemplated by Section 3.1 for Securities of any series, interest on the Securities of each series shall be computed on the basis of a 360-day year of twelve 30-day months.

ARTICLE 4

SATISFACTION AND DISCHARGE

SECTION 4.1 SATISFACTION AND DISCHARGE OF INDENTURE.

This Indenture shall upon Company Request cease to be of further effect (except as to any surviving rights of registration of transfer or exchange of Securities herein expressly provided for), and the Trustee, at the expense of the Company, shall execute proper instruments acknowledging satisfaction and discharge of this Indenture, when

(1) either

(A) all Securities theretofore authenticated and delivered (other than (i) Securities which have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 3.6 and (ii) Securities for whose payment money has theretofore been deposited in trust or segregated and held in trust by the Trustee or the Company and thereafter repaid to the Company or discharged from such trust, as provided in Section 10.3) have been delivered to the Trustee for cancellation; or

(B) all such Securities not theretofore delivered to the Trustee for cancellation

(i) have become due and payable, or

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(ii) will become due and payable at their Stated Maturity within one year, or

(iii) are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company,

and the Company, in the case of (i), (ii) or (iii) above, has deposited or caused to be deposited with the Trustee as trust funds in trust for the purpose money in an amount sufficient to pay and discharge the entire indebtedness on such Securities not theretofore delivered to the Trustee for cancellation, for principal and any premium and interest to the date of such deposit (in the case of Securities which have become due and payable) or to the Stated Maturity or Redemption Date, as the case may be;

(2) the Company has paid or caused to be paid all other sums payable hereunder by the Company; and

(3) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture have been complied with.

Notwithstanding the satisfaction and discharge of this Indenture, the obligations of the Company to the Trustee under Section 6.7, the obligations of the Trustee to any Authenticating Agent under Section 6.14 and, if money shall have been deposited with the Trustee pursuant to subclause (B) of clause (1) of this Section, the obligations of the Trustee under Section 4.2 and the last paragraph of Section 10.3 shall survive.

SECTION 4.2 APPLICATION OF TRUST MONEY.

Subject to the provisions of the last paragraph of Section 10.3, all money deposited with the Trustee pursuant to Section 4.1 shall be held in trust and applied by it, in accordance with the provisions of the Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the Persons entitled thereto, of the principal and any premium and interest for whose payment such money has been deposited with the Trustee.

ARTICLE 5

REMEDIES

SECTION 5.1 EVENTS OF DEFAULT.

"Event of Default," wherever used herein with respect to Securities of any series, means any one of the following events (whatever the reason for such Event of Default and whether it shall be

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voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body), unless in the Board Resolution, supplemental indenture or Officers' Certificate establishing such series, it is provided that such series shall not have the benefit of said Event of Default:

(1) default in the payment of any interest upon any Security of that series when it becomes due and payable, and continuance of such default for a period of 30 days; or

(2) default in the payment of the principal of or any premium on any Security of that series at its Maturity; or

(3) default in the deposit of any sinking fund payment, when and as due by the terms of a Security of that series; or

(4) default in the performance, or breach, of any covenant or warranty of the Company in this Indenture (other than a covenant or warranty a default in whose performance or whose breach is elsewhere in this Section specifically dealt with or which has expressly been

included in this Indenture solely for the benefit of series of Securities other than that series), and continuance of such default or breach for a period of 90 days after there has been given, by registered or certified mail, to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 25% in principal amount of the Outstanding Securities of that series a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a "Notice of Default" hereunder; or

(5) the entry by a court having jurisdiction in the premises of (A) a decree or order for relief in respect of the Company in an involuntary case or proceeding under any applicable Federal or State bankruptcy, insolvency, reorganization or other similar law or (B) a decree or order adjudging the Company a bankrupt or insolvent, or approving as properly filed a petition seeking reorganization, arrangement, adjustment or composition of or in respect of the Company under any applicable Federal or State law, or appointing a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or of any substantial part of its property, or ordering the winding up or liquidation of its affairs, and the continuance of any such decree or order for relief or any such other decree or order unstayed and in effect for a period of 90 consecutive days; or

(6) the commencement by the Company of a voluntary case or proceeding under any applicable Federal or State bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated a bankrupt or insolvent, or the consent by it to the entry of a decree or order for relief in respect of the Company in an involuntary case or proceeding under any applicable Federal or State bankruptcy, insolvency, reorganization or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against it, or the filing by it of a petition or answer or consent seeking reorganization or relief under any applicable Federal or State law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or of any

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substantial part of its property, or the making by it of an assignment for the benefit of creditors, or the admission by it in writing of its inability to pay its debts generally as they become due, or the taking of corporate action by the Company in furtherance of any such action; or

(7) any other Event of Default provided with respect to Securities of that series in the Board Resolution, supplemental indenture or Officers' Certificate establishing that series.

SECTION 5.2 ACCELERATION OF MATURITY; RESCISSION AND ANNULMENT.

Unless the Board Resolution, supplemental indenture or Officers' Certificate establishing such series provides otherwise, if an Event of Default (other than an Event of Default specified in Section 5.1(5) or 5.1(6)) with respect to Securities of any series at the time Outstanding occurs and is continuing, then in every such case the Trustee or the Holders of not less than 25% in principal amount of the Outstanding Securities of that series may declare the principal amount of all the Securities of that series (or, if any Securities of that series are Original Issue Discount Securities, such portion of the principal amount of such Securities as may be specified by the terms thereof), and premium, if any, together with accrued and unpaid interest, if any, thereon, to be due and payable immediately, by a notice in writing to the Company (and to the Trustee if given by Holders), and upon any such declaration such principal amount (or specified amount), and premium, if any, together with accrued and unpaid interest, if any, thereon, shall become immediately due and payable. If an Event of Default specified in Section 5.1(5) or 5.1(6) with respect to Securities of any series at the time Outstanding occurs, the principal amount of all the Securities of that series (or, if any Securities of that series are Original Issue Discount Securities, such portion of the principal amount of such Securities as may be specified by the terms thereof), and premium, if any, together with accrued and unpaid interest, if any, thereon, shall automatically, and without any declaration or other action on the part of the Trustee or any

Holder, become immediately due and payable.

At any time after such a declaration of acceleration with respect to Securities of any series has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereinafter in this Article provided, the Holders of a majority in principal amount of the Outstanding Securities of that series, by written notice to the Company and the Trustee, may rescind and annul such declaration and its consequences if

(1) the Company has paid or deposited with the Trustee a sum sufficient to pay

(A) all overdue interest on all Securities of that series,

(B) the principal of (and premium, if any, on) any Securities of that series which have become due otherwise than by such declaration of acceleration and any interest thereon at the rate or rates prescribed therefor in such Securities,

(C) to the extent that payment of such interest is lawful, interest upon overdue interest at the rate or rates prescribed therefor in such Securities, and

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(D) all sums paid or advanced by the Trustee hereunder and the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel; and

(2) all Events of Default with respect to Securities of that series, other than the non-payment of the principal of Securities of that series which have become due solely by such declaration of acceleration, have been cured or waived as provided in Section 5.13. No such rescission shall affect any subsequent default or impair any right consequent thereon.

SECTION 5.3 COLLECTION OF INDEBTEDNESS AND SUITS FOR ENFORCEMENT BY TRUSTEE.

The Company covenants that if

(1) default is made in the payment of any interest on any Security when such interest becomes due and payable and such default continues for a period of 30 days, or

(2) default is made in the payment of the principal of (or premium, if any, on) any Security at the Maturity thereof, the Company will, upon demand of the Trustee, pay to it, for the benefit of the Holders of such Securities, the whole amount then due and payable on such Securities for principal and any premium and interest and, to the extent that payment of such interest shall be legally enforceable, interest on any overdue principal and premium and on any overdue interest, at the rate or rates prescribed therefor in such Securities, and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

If an Event of Default with respect to Securities of any series occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders of Securities of such series by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.

SECTION 5.4 TRUSTEE MAY FILE PROOFS OF CLAIM.

In case of any judicial proceeding relative to the Company (or any other obligor upon the Securities), its property or its creditors, the Trustee shall be entitled and empowered, by intervention in such proceeding or otherwise, to take any and all actions authorized under the Trust Indenture Act in order to have claims of the Holders and the Trustee allowed in any such proceeding. In

particular, the Trustee shall be authorized to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same; and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee and, in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any

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amount due it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 6.7.

No provision of this Indenture shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting the Securities or the rights of any Holder thereof or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding; provided, however, that the Trustee may, on behalf of the Holders, vote for the election of a trustee in bankruptcy or similar official and be a member of a creditors' or other similar committee.

SECTION 5.5 TRUSTEE MAY ENFORCE CLAIMS WITHOUT POSSESSION OF SECURITIES.

All rights of action and claims under this Indenture or the Securities may be prosecuted and enforced by the Trustee without the possession of any of the Securities or the production thereof in any proceeding relating thereto, and any such proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Securities in respect of which such judgment has been recovered.

SECTION 5.6 APPLICATION OF MONEY COLLECTED.

Any money collected by the Trustee pursuant to this Article shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money on account of principal or any premium or interest, upon presentation of the Securities and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due the Trustee under Section 6.7;

SECOND: To the payment of the amounts then due and unpaid for principal of and any premium, if any, and interest on the Securities in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the amounts due and payable on such Securities for principal and any premium, if any, and interest, respectively; and

THIRD: The balance, if any, to the Company or any other Person or Persons entitled thereto.

SECTION 5.7 LIMITATION ON SUITS.

No Holder of any Security of any series shall have any right to institute any proceeding, judicial or otherwise, with respect to this Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless

(1) such Holder has previously given written notice to the Trustee of a continuing Event of Default with respect to the Securities of that series;

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(2) the Holders of not less than 25% in principal amount of the

Outstanding Securities of that series shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder;

(3) such Holder or Holders have offered to the Trustee reasonable indemnity against the costs, expenses and liabilities to be incurred in compliance with such request;

(4) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding; and

(5) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in principal amount of the Outstanding Securities of that series; it being understood and intended that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture to affect, disturb or prejudice the rights of any other of such Holders, or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all of such Holders.

SECTION 5.8 UNCONDITIONAL RIGHT OF HOLDERS TO RECEIVE PRINCIPAL, PREMIUM AND INTEREST AND TO CONVERT.

Notwithstanding any other provision in this Indenture, the Holder of any Security shall have the right, which is absolute and unconditional, to receive payment of the principal of and any premium and (subject to Section 3.7) interest on such Security on the respective Stated Maturities expressed in such Security (or, in the case of redemption, on the Redemption Date), to convert such Securities in accordance with Article 14 to the extent that such right to convert is applicable to such Security, and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such Holder.

SECTION 5.9 RESTORATION OF RIGHTS AND REMEDIES.

If the Trustee or any Holder has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case, subject to any determination in such proceeding, the Company, the Trustee and the Holders shall be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

SECTION 5.10 RIGHTS AND REMEDIES CUMULATIVE.

Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities in the last paragraph of Section 3.6, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and

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in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

SECTION 5.11 DELAY OR OMISSION NOT WAIVER.

No delay or omission of the Trustee or of any Holder of any Securities to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee (subject to the limitations contained in this Indenture) or by the Holders, as the case may be.

SECTION 5.12 CONTROL BY HOLDERS.

The Holders of a majority in principal amount of the Outstanding Securities of any series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee, with respect to the Securities of such series, provided that

(1) such direction shall not be in conflict with any rule of law or with this Indenture and the Trustee shall not have determined that the action so directed would be unjustly prejudicial to Holders of Securities of that series, or any other series, not taking part in such direction; and

(2) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction or this Indenture.

SECTION 5.13 WAIVER OF PAST DEFAULTS.

The Holders of not less than a majority in principal amount of the Outstanding Securities of any series may on behalf of the Holders of all the Securities of such series waive any past default hereunder with respect to such series and its consequences, except

(1) a default in the payment of the principal of or any premium or interest on any Security of such series as and when the same shall become due and payable by the terms thereof, otherwise than by acceleration (unless such default has been cured and a sum sufficient to pay all matured installments of interest, principal and premium, if any, has been deposited with the Trustee), or

(2) to the extent such right is applicable to such Security, a failure by the Company on request to convert any Security into Common Stock; or

(3) in respect of a covenant or provision hereof which under Article 9 cannot be modified or amended without the consent of the Holder of each Outstanding Security of such series affected.

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Upon any such waiver, such default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other default or impair any right consequent thereon.

SECTION 5.14 UNDERTAKING FOR COSTS.

In any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken, suffered or omitted by it as Trustee, a court may require any party litigant in such suit to file an undertaking to pay the costs of such suit, and may assess costs against any such party litigant, in the manner and to the extent provided in the Trust Indenture Act; provided that neither this Section nor the Trust Indenture Act shall be deemed to authorize any court to require such an undertaking or to make such an assessment in any suit instituted by the Company or in any suit for the enforcement of the right to convert any Security in accordance with Article 14.

SECTION 5.15 WAIVER OF USURY, STAY OR EXTENSION LAWS.

The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any usury, stay or extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture; and the Company (to the extent that it may lawfully do so) hereby expressly waives all benefit or advantage of any such law and covenants that it will not hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

THE TRUSTEE

SECTION 6.1 CERTAIN DUTIES AND RESPONSIBILITIES.

The duties and responsibilities of the Trustee shall be as provided by the Trust Indenture Act. Notwithstanding the foregoing, no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it. Whether or not therein expressly so provided, every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee shall be subject to the provisions of this Section.

SECTION 6.2 NOTICE OF DEFAULTS.

If a default occurs hereunder with respect to Securities of any series, the Trustee shall give the Holders of Securities of such series notice of such default as and to the extent provided by the Trust Indenture Act; provided, however, that except in the case of a default in the payment of

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principal of (or premium, if any) or interest on any Securities of such series or in the payment of any sinking fund installment or any conversion right applicable to Securities of such series, the Trustee shall be protected in withholding such notice if and so long as a trust committee of directors and/or Responsible Officers of the Trustee in good faith determine that the withholding of such notice is in the interests of the holders of Securities of such series; provided, further, however, that in the case of any default of the character specified in Section 5.1(4) with respect to Securities of such series, no such notice to Holders shall be given until at least 60 days after the occurrence thereof. For the purpose of this Section, the term "default" means any event which is, or after notice or lapse of time or both would become, an Event of Default with respect to Securities of such series.

Except with respect to Section 10.1, the Trustee shall have no duty to inquire as to the performance of the Company with respect to the covenants contained in Article 10. In addition, the Trustee shall not be deemed to have knowledge of an Event of Default except (i) any Default or Event of Default occurring pursuant to Sections 5.1(1) 5.1(2) and 5.(3) (defaults in payments on the Securities) or (ii) any Default or Event of Default of which the Trustee shall have received written notification or obtained actual knowledge.

Delivery of reports, information and documents to the Trustee under Section 7.4 is for informational purposes only and the Trustee's receipt of the foregoing shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of their covenants hereunder (as to which the Trustee is entitled to rely conclusively on Officers' Certificates).

SECTION 6.3 CERTAIN RIGHTS OF TRUSTEE.

Subject to the provisions of Section 6.1:

(1) in the absence of bad faith on the part of the Trustee, the Trustee may rely and shall be protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(2) any request or direction of the Company mentioned herein shall be sufficiently evidenced by a Company Request or Company Order, and any resolution of the Board of Directors shall be sufficiently evidenced by a Board Resolution;

(3) whenever in the administration of this Indenture the Trustee shall deem it desirable that a matter be proved or established prior to

taking, suffering or omitting any action hereunder, the Trustee (unless other evidence be herein specifically prescribed) is entitled to and may, in the absence of bad faith on its part, rely upon an Officers' Certificate;

(4) the Trustee may consult with counsel and the written advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;

(5) the Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders pursuant to this Indenture, unless such Holders shall have offered to the Trustee reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction;

(6) the Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to

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make such further inquiry or investigation, it shall be entitled to examine the books, records and premises of the Company, personally or by agent or attorney; and

(7) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder.

SECTION 6.4 NOT RESPONSIBLE FOR RECITALS OR ISSUANCE OF SECURITIES.

The recitals contained herein and in the Securities, except the Trustee's certificates of authentication, shall be taken as the statements of the Company, and neither the Trustee nor any Authenticating Agent assumes any responsibility for their correctness. The Trustee makes no representations as to the validity, sufficiency or priority of this Indenture or of the Securities. Neither the Trustee nor any Authenticating Agent shall be accountable for the use or application by the Company of Securities or the proceeds thereof.

SECTION 6.5 MAY HOLD SECURITIES AND ACT AS TRUSTEE UNDER OTHER INDENTURES.

The Trustee, any Authenticating Agent, any Paying Agent, any Security Registrar or any other agent of the Company, in its individual or any other capacity, may become the owner or pledgee of Securities and, subject to Sections 6.8 and 6.13, may otherwise deal with the Company with the same rights it would have if it were not Trustee, Authenticating Agent, Paying Agent, Security Registrar or such other agent.

Subject to the limitations imposed by the Trust Indenture Act, nothing in this Indenture shall prohibit the Trustee from becoming and acting as trustee under other indentures under which other securities, or certificates of interest of participation in other securities, of the Company are outstanding in the same manner as if it were not Trustee hereunder.

SECTION 6.6 MONEY HELD IN TRUST.

Money held by the Trustee in trust hereunder need not be segregated from other funds except to the extent required by law. The Trustee shall be under no liability for interest on any money received by it hereunder except as otherwise agreed with the Company.

SECTION 6.7 COMPENSATION AND REIMBURSEMENT.

The Company agrees:

(1) to pay to the Trustee from time to time reasonable compensation for all services rendered by it hereunder (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust);

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(2) except as otherwise expressly provided herein, to reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any provision of this Indenture (including the reasonable compensation and the expenses and disbursements of its agents and counsel), except any such expense, disbursement or advance as may be attributable to its negligence or bad faith; and

(3) to indemnify the Trustee for, and to hold it harmless against, any loss, liability or expense incurred without negligence or bad faith on its part, arising out of or in connection with the acceptance or administration of the trust or trusts hereunder, including the costs and expenses of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder.

When the Trustee incurs expenses or renders services after an Event of Default specified in Section 5.1(5) or Section 5.1(6) hereof occurs, the expenses and the compensation for the services (including the fees and expenses of its agents and counsel) are intended to constitute expenses of administration under any applicable bankruptcy, insolvency, reorganization or similar law.

SECTION 6.8 CONFLICTING INTERESTS.

If the Trustee has or shall acquire a conflicting interest within the meaning of the Trust Indenture Act, the Trustee shall either eliminate such interest or resign, to the extent and in the manner provided by, and subject to the provisions of, the Trust Indenture Act and this Indenture. To the extent permitted by the Trust Indenture Act, the Trustee shall not be deemed to have a conflicting interest by virtue of being a trustee under this Indenture with respect to Securities of more than one series.

SECTION 6.9 CORPORATE TRUSTEE REQUIRED; ELIGIBILITY.

There shall at all times be one (and only one) Trustee hereunder with respect to the Securities of each series, which may be Trustee hereunder for Securities of one or more other series. Each Trustee shall be a Person that is eligible pursuant to the Trust Indenture Act to act as such and has (or if the Trustee is a member of a bank holding company system, its bank holding company has) a combined capital and surplus of at least \$50,000,000. If any such Person or bank holding company publishes reports of condition at least annually, pursuant to law or to the requirements of its supervising or examining authority, then for the purposes of this Section and to the extent permitted by the Trust Indenture Act, the combined capital and surplus of such Person or bank holding company shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time the Trustee with respect to the Securities of any series shall cease to be eligible in accordance with the provisions of this Section, it shall resign immediately in the manner and with the effect hereinafter specified in this Article.

SECTION 6.10 RESIGNATION AND REMOVAL; APPOINTMENT OF SUCCESSOR.

No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article shall become effective until the acceptance of appointment by the successor Trustee in accordance with the applicable requirements of Section 6.11.

The Trustee may resign at any time with respect to the Securities of one or more series by giving written notice thereof to the Company. If the instrument of acceptance by a successor Trustee required by Section 6.11 shall not have been delivered to the Trustee within 30 days after the giving

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of such notice of resignation, the resigning Trustee may petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Securities of such series.

The Trustee may be removed at any time with respect to the Securities of any series by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series, delivered to the Trustee and to the Company.

If at any time:

(1) the Trustee shall fail to comply with Section 6.8 after written request therefor by the Company or by any Holder who has been a bona fide Holder of a Security for at least six months, or

(2) the Trustee shall cease to be eligible under Section 6.9 and shall fail to resign after written request therefor by the Company or by any such Holder, or

(3) the Trustee shall become incapable of acting or shall be adjudged a bankrupt or insolvent or a receiver of the Trustee or of its property shall be appointed or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation, then, in any such case, (A) the Company by a Board Resolution may remove the Trustee with respect to all Securities, or (B) subject to Section 5.14, any Holder who has been a bona fide Holder of a Security for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee with respect to all Securities and the appointment of a successor Trustee or Trustees.

If the Trustee shall resign, be removed or become incapable of acting, or if a vacancy shall occur in the office of Trustee for any cause, with respect to the Securities of one or more series, the Company, by a Board Resolution, shall promptly appoint a successor Trustee or Trustees with respect to the Securities of that or those series (it being understood that any such successor Trustee may be appointed with respect to the Securities of one or more or all of such series and that at any time there shall be only one Trustee with respect to the Securities of any particular series) and shall comply with the applicable requirements of Section 6.11. If, within one year after such resignation, removal or incapability, or the occurrence of such vacancy, a successor Trustee with respect to the Securities of any series shall be appointed by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series delivered to the Company and the retiring Trustee, the successor Trustee so appointed shall, forthwith upon its acceptance of such appointment in accordance with the applicable requirements of Section 6.11, become the successor Trustee with respect to the Securities of such series and to that extent supersede the successor Trustee appointed by the Company. If no successor Trustee with respect to the Securities of any series shall have been so appointed by the Company or the Holders and accepted appointment in the manner required by Section 6.11, the retiring Trustee may petition, or any Holder who has been a bona fide Holder of a Security of such series for at least six months may petition, on behalf of himself and all others similarly situated, any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Securities of such series.

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The Company shall give notice of each resignation and each removal of the Trustee with respect to the Securities of any series and each appointment of a successor Trustee with respect to the Securities of any series to all Holders of Securities of such series in the manner provided in Section 1.6. Each notice shall include the name of the successor Trustee with respect to the Securities of such series and the address of its Corporate Trust Office.

SECTION 6.11 ACCEPTANCE OF APPOINTMENT BY SUCCESSOR.

In case of the appointment hereunder of a successor Trustee with respect to all Securities, every such successor Trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument

accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on the request of the Company or the successor Trustee, such retiring Trustee shall, upon payment of its charges, execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of the retiring Trustee and shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder.

In case of the appointment hereunder of a successor Trustee with respect to the Securities of one or more (but not all) series, the Company, the retiring Trustee and each successor Trustee with respect to the Securities of one or more series shall execute and deliver an indenture supplemental hereto wherein each successor Trustee shall accept such appointment and which (1) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor Trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates, (2) if the retiring Trustee is not retiring with respect to all Securities, shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and (3) shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co-trustees of the same trust and that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee; and upon the execution and delivery of such supplemental indenture the resignation or removal of the retiring Trustee shall become effective to the extent provided therein and each such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates; but, on request of the Company or any successor Trustee, such retiring Trustee shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder with respect to the Securities of that or those series to which the appointment of such successor Trustee relates.

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Upon request of any such successor Trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor Trustee all such rights, powers and trusts referred to in the first or second preceding paragraph, as the case may be.

No successor Trustee shall accept its appointment unless at the time of such acceptance such successor Trustee shall be qualified and eligible under this Article.

SECTION 6.12 MERGER, CONVERSION, CONSOLIDATION OR SUCCESSION TO BUSINESS.

Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to all or substantially all the corporate trust business of the Trustee (including the administration of the trust created by this Indenture), shall be the successor of the Trustee hereunder, provided such corporation shall be otherwise qualified and eligible under this Article, without the execution or filing of any paper or any further act on the part of any of the parties hereto. In case any Securities shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities. In the event that any Securities shall not have been authenticated by such predecessor Trustee, any such successor Trustee may authenticate and deliver such Securities in either its own name or that of such predecessor Trustee, with the full force and effect which this Indenture provides for the certificate of authentication of the Trustee.

SECTION 6.13 PREFERENTIAL COLLECTION OF CLAIMS AGAINST COMPANY.

If and when the Trustee shall be or become a creditor of the Company (or any other obligor upon the Securities), the Trustee shall be subject to the provisions of the Trust Indenture Act regarding the collection of claims against the Company (or any such other obligor).

SECTION 6.14 APPOINTMENT OF AUTHENTICATING AGENT.

The Trustee may appoint an Authenticating Agent or Agents with respect to one or more series of Securities which shall be authorized to act on behalf of the Trustee to authenticate Securities of such series issued upon original issue and upon exchange, registration of transfer or partial redemption thereof or pursuant to Section 3.6, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. Wherever reference is made in this Indenture to the authentication and delivery of Securities by the Trustee or the Trustee's certificate of authentication, such reference shall be deemed to include authentication and delivery on behalf of the Trustee by an Authenticating Agent and a certificate of authentication executed on behalf of the Trustee by an Authenticating Agent. Each Authenticating Agent shall be acceptable to the Company and shall at all times be a corporation organized and doing business under the laws of the United States of America, any State thereof or the District of Columbia, authorized under such laws to act as Authenticating Agent, having (or if the Authenticating Agent is a member of a bank holding company system, its bank holding company has) a combined capital and surplus of not less than \$50,000,000 and subject to supervision or examination by Federal or State authority. If such Authenticating Agent publishes reports of condition at least annually, pursuant to law or to the requirements of said supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such

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Authenticating Agent shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time an Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, such Authenticating Agent shall resign immediately in the manner and with the effect specified in this Section.

Any corporation into which an Authenticating Agent may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which such Authenticating Agent shall be a party, or any corporation succeeding to the corporate agency or corporate trust business of an Authenticating Agent, shall continue to be an Authenticating Agent, provided such corporation shall be otherwise eligible under this Section, without the execution or filing of any paper or any further act on the part of the Trustee or the Authenticating Agent.

An Authenticating Agent may resign at any time by giving written notice thereof to the Trustee and to the Company. The Trustee may at any time terminate the agency of an Authenticating Agent by giving written notice thereof to such Authenticating Agent and to the Company. Upon receiving such a notice of resignation or upon such a termination, or in case at any time such Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, the Trustee may appoint a successor Authenticating Agent which shall be acceptable to the Company and shall give notice of such appointment in the manner provided in Section 1.6 to all Holders of Securities of the series with respect to which such Authenticating Agent will serve. Any successor Authenticating Agent upon acceptance of its appointment hereunder shall become vested with all the rights, powers and duties of its predecessor hereunder, with like effect as if originally named as an Authenticating Agent. No successor Authenticating Agent shall be appointed unless eligible under the provisions of this Section.

The Trustee agrees to pay to each Authenticating Agent from time to time reasonable compensation for its services under this Section, and the Trustee shall be entitled to be reimbursed for such payments, subject to the provisions of Section 6.7.

If an appointment with respect to one or more series is made pursuant to

this Section 6.12, the Securities of such series may have endorsed thereon, in lieu of the Trustee's certificate of authentication, an alternative certificate of authentication in the following form:

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This is one of the Securities of the series designated therein referred to in the within-mentioned Indenture.

U.S. Bank National Association,
As Trustee

By: _____
As Authenticating Agent

By: _____
Authorized Officer

ARTICLE 7

HOLDERS' LISTS AND REPORTS BY TRUSTEE AND COMPANY

SECTION 7.1 COMPANY TO FURNISH TRUSTEE NAMES AND ADDRESSES OF HOLDERS.

The Company will furnish or cause to be furnished to the Trustee

(1) semi-annually, not later than 15 days after the Regular Record Date for each respective series of Securities, a list, in such form as the Trustee may reasonably require, of the names and addresses of the Holders of Securities of each series as of such Regular Record Date, as the case may be, or if there is no Regular Record Date for such series of Securities, semi-annually, and

(2) at such other times as the Trustee may request in writing, within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished;

provided that no such list need be furnished by the Company to the Trustee so long as the Trustee is acting as Security Registrar.

SECTION 7.2 PRESERVATION OF INFORMATION; COMMUNICATIONS TO HOLDERS.

The Trustee shall preserve, in as current a form as is reasonably practicable, the names and addresses of Holders contained in the most recent list furnished to the Trustee as provided in Section 7.1 and the names and addresses of Holders received by the Trustee in its capacity as Security Registrar. The Trustee may destroy any list furnished to it as provided in Section 7.1 upon receipt of a new list so furnished.

The rights of Holders to communicate with other Holders with respect to their rights under this Indenture or under the Securities, and the corresponding rights and privileges of the Trustee, shall be as provided by the Trust Indenture Act.

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Every Holder of Securities, by receiving and holding the same, agrees with the Company and the Trustee that neither the Company nor the Trustee nor any agent of either of them shall be held accountable by reason of any disclosure of information as to names and addresses of Holders made pursuant to the Trust Indenture Act.

SECTION 7.3 REPORTS BY TRUSTEE.

The Trustee shall transmit to Holders such reports concerning the

Trustee and its actions under this Indenture as may be required pursuant to the Trust Indenture Act at the times and in the manner provided pursuant thereto.

Reports so required to be transmitted at stated intervals of not more than 12 months shall be transmitted no later than July 15 in each calendar year, commencing with the first July 15 after the first issuance of Securities pursuant to this Indenture.

A copy of each such report shall, at the time of such transmission to Holders, be filed by the Trustee with each stock exchange upon which any Securities are listed, with the Commission and with the Company. The Company will notify the Trustee when any Securities are listed on any stock exchange.

SECTION 7.4 REPORTS BY COMPANY.

The Company shall file with the Trustee and the Commission, and transmit to Holders, such information, documents and other reports, and such summaries thereof, as may be required pursuant to the Trust Indenture Act at the times and in the manner provided pursuant to the Trust Indenture Act; provided that any such information, documents or reports required to be filed with the Commission pursuant to Section 13 or 15(d) of the Exchange Act shall be filed with the Trustee within 15 days after the same is so required to be filed with the Commission.

ARTICLE 8

CONSOLIDATION, MERGER, CONVEYANCE, TRANSFER OR LEASE

SECTION 8.1 COMPANY MAY CONSOLIDATE, ETC., ONLY ON CERTAIN TERMS.

The Company shall not consolidate with or merge into any other Person (in a transaction in which the Company is not the surviving corporation) or convey, transfer or lease its properties and assets substantially as an entirety to any Person, unless:

(1) in case the Company shall consolidate with or merge into another Person (in a transaction in which the Company is not the surviving corporation) or convey, transfer or lease its properties and assets substantially as an entirety to any Person, the Person formed by such consolidation or into which the Company is merged or the Person which acquires by conveyance or transfer, or which leases, the properties and assets of the Company

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substantially as an entirety shall be a corporation, limited liability company, partnership or trust, shall be organized and validly existing under the laws of the United States of America, any State thereof or the District of Columbia and shall expressly assume, by an indenture supplemental hereto, executed and delivered to the Trustee, in form satisfactory to the Trustee, the due and punctual payment of the principal of and any premium and interest on all the Securities and the performance or observance of every covenant of this Indenture on the part of the Company to be performed or observed and the conversion rights shall be provided for in accordance with Article 14, if applicable, or as otherwise specified pursuant to Section 3.1, by supplemental indenture satisfactory in form to the Trustee, executed and delivered to the Trustee, by the Person (if other than the Company) formed by such consolidation or into which the Company shall have been merged or by the Person which shall have acquired the Company's assets;

(2) immediately after giving effect to such transaction and treating any indebtedness which becomes an obligation of the Company or any Subsidiary as a result of such transaction as having been incurred by the Company or such Subsidiary at the time of such transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, shall have happened and be continuing; and

(3) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that such consolidation, merger, conveyance, transfer or lease and, if a

supplemental indenture is required in connection with such transaction, such supplemental indenture comply with this Article and that all conditions precedent herein provided for relating to such transaction have been complied with.

SECTION 8.2 SUCCESSOR SUBSTITUTED.

Upon any consolidation of the Company with, or merger of the Company into, any other Person or any conveyance, transfer or lease of the properties and assets of the Company substantially as an entirety in accordance with Section 8.1, the successor Person formed by such consolidation or into which the Company is merged or to which such conveyance, transfer or lease is made shall succeed to, and be substituted for, and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor Person had been named as the Company herein, and thereafter, except in the case of a lease, the predecessor Person shall be relieved of all obligations and covenants under this Indenture and the Securities.

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ARTICLE 9

SUPPLEMENTAL INDENTURES

SECTION 9.1 SUPPLEMENTAL INDENTURES WITHOUT CONSENT OF HOLDERS.

Without the consent of any Holders, the Company, when authorized by a Board Resolution, and the Trustee, at any time and from time to time, may enter into one or more indentures supplemental hereto, in form satisfactory to the Trustee, for any of the following purposes:

- (1) to evidence the succession of another Person to the Company, or successive successions, and the assumption by any such successor of the covenants of the Company herein and in the Securities in compliance with Article 8; or
- (2) to add to the covenants of the Company for the benefit of the Holders of all or any series of Securities (and if such covenants are to be for the benefit of less than all series of Securities, stating that such covenants are expressly being included solely for the benefit of such series) or to surrender any right or power herein conferred upon the Company; or
- (3) to add any additional Events of Default for the benefit of the Holders of all or any series of Securities (and if such additional Events of Default are to be for the benefit of less than all series of Securities, stating that such additional Events of Default are expressly being included solely for the benefit of such series); or
- (4) to add to or change any of the provisions of this Indenture to such extent as shall be necessary to permit or facilitate the issuance of Securities in bearer form, registrable or not registrable as to principal, and with or without interest coupons, or to permit or facilitate the issuance of Securities in uncertificated form; or
- (5) to add to, change or eliminate any of the provisions of this Indenture in respect of one or more series of Securities, provided that any such addition, change or elimination (A) shall neither (i) apply to any Security of any series created prior to the execution of such supplemental indenture and entitled to the benefit of such provision nor (ii) modify the rights of the Holder of any such Security with respect to such provision or (B) shall become effective only when there is no such Security Outstanding; or
- (6) to secure the Securities, including provisions regarding the circumstances under which collateral may be released or substituted; or
- (7) to add or provide for a guaranty of the Securities or additional obligors on the Securities; or
- (8) to establish the form or terms of Securities of any series

as permitted by Sections 2.1 and 3.1; or

(9) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities of one or more series and to add to or change

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any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, pursuant to the requirements of Section 6.11; or

(10) to cure any ambiguity, to correct or supplement any provision herein which may be defective or inconsistent with any other provision herein, or to make any other provisions with respect to matters or questions arising under this Indenture, provided that such action pursuant to this clause (10) shall not adversely affect the interests of the Holders of Securities of any series in any material respect; or

(11) to supplement any of the provisions of the Indenture to such extent as shall be necessary to permit or facilitate the defeasance and discharge of any series of Securities pursuant to Articles 4 and 13, provided that any such action shall not adversely affect the interests of the Holders of Securities of such series or any other series of Securities in any material respect.

SECTION 9.2 SUPPLEMENTAL INDENTURES WITH CONSENT OF HOLDERS.

With the consent of the Holders of a majority in principal amount of the Outstanding Securities of each series affected by such supplemental indenture, by Act of said Holders delivered to the Company and the Trustee, the Company, when authorized by a Board Resolution, and the Trustee may enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or of modifying in any manner the rights of the Holders of Securities of such series under this Indenture; provided, however, that no such supplemental indenture shall, without the consent of the Holder of each Outstanding Security affected thereby,

(1) change the Stated Maturity of the principal of, or any installment of principal of or interest on, any Security, or reduce the principal amount thereof or the rate of interest thereon or any premium payable upon the redemption thereof, or reduce the amount of the principal of an Original Issue Discount Security or any other Security which would be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 5.2, or change the coin or currency in which, any Security or any premium or interest thereon is payable, or impair the right to institute suit for the enforcement of any such payment on or after the Stated Maturity thereof (or, in the case of redemption, on or after the Redemption Date), or modify the provisions of this Indenture in the case of Securities of any series that are convertible into Securities or other securities of the Company, adversely affect the right of Holders to convert any of the Securities of such series other than as provided in or pursuant to this Indenture, or

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(2) reduce the percentage in principal amount of the Outstanding Securities of any series, the consent of whose Holders is required for any such supplemental indenture, or the consent of whose Holders is required for any waiver (of compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences) provided for in this Indenture, or

(3) modify any of the provisions of this Section, Section 5.13 or Section 10.8, except to increase any such percentage or to provide that certain other provisions of this Indenture cannot be modified or waived

without the consent of the Holder of each Outstanding Security affected thereby; provided, however, that this clause shall not be deemed to require the consent of any Holder with respect to changes in the references to "the Trustee" and concomitant changes in this Section and Section 10.8, or the deletion of this proviso, in accordance with the requirements of Sections 6.11 and 9.1(8), or

(4) if applicable, make any change that adversely affects the right to convert any security as provided in Article 14 or pursuant to Section 3.1 (except as permitted by Section 9.1(9)) or decrease the conversion rate or increase the conversion price of any such security.

A supplemental indenture which changes or eliminates any covenant or other provision of this Indenture which has expressly been included solely for the benefit of one or more particular series of Securities, or which modifies the rights of the Holders of Securities of such series with respect to such covenant or other provision, shall be deemed not to affect the rights under this Indenture of the Holders of Securities of any other series.

It shall not be necessary for any Act of Holders under this Section to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such Act shall approve the substance thereof.

SECTION 9.3 EXECUTION OF SUPPLEMENTAL INDENTURES.

In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article or the modifications thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and (subject to Sections 6.1 and 6.3) shall be fully protected in relying upon, an Opinion of Counsel stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee may, but shall not be obligated to, enter into any such supplemental indenture which affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

SECTION 9.4 EFFECT OF SUPPLEMENTAL INDENTURES.

Upon the execution of any supplemental indenture under this Article, this Indenture shall be modified in accordance therewith, and such supplemental indenture shall form a part of this Indenture for all purposes; and every Holder of Securities theretofore or thereafter authenticated and delivered hereunder shall be bound thereby.

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SECTION 9.5 CONFORMITY WITH TRUST INDENTURE ACT.

Every supplemental indenture executed pursuant to this Article shall conform to the requirements of the Trust Indenture Act.

SECTION 9.6 REFERENCE IN SECURITIES TO SUPPLEMENTAL INDENTURES.

Securities of any series authenticated and delivered after the execution of any supplemental indenture pursuant to this Article may, and shall if required by the Trustee, bear a notation in form approved by the Trustee as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities of any series so modified as to conform, in the opinion of the Trustee and the Company, to any such supplemental indenture may be prepared and executed by the Company and authenticated and delivered by the Trustee in exchange for Outstanding Securities of such series.

ARTICLE 10

COVENANTS

SECTION 10.1 PAYMENT OF PRINCIPAL, PREMIUM AND INTEREST.

The Company covenants and agrees for the benefit of each series of Securities that it will duly and punctually pay the principal of and any premium and interest on the Securities of that series in accordance with the terms of the Securities and this Indenture.

SECTION 10.2 MAINTENANCE OF OFFICE OR AGENCY.

The Company will maintain in each Place of Payment for any series of Securities an office or agency where Securities of that series may be presented or surrendered for payment, where Securities of that series may be surrendered for registration of transfer or exchange, where Securities of that series may be surrendered for conversion and where notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of such office or agency. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee, and the Company hereby appoints the Trustee as its agent to receive all such presentations, surrenders, notices and demands. Unless otherwise provided in a supplemental indenture or pursuant to Section 3.1 hereof, the Place of Payment for any series of Securities shall be the Corporate Trust Office of the Trustee.

The Company may also from time to time designate one or more other offices or agencies where the Securities of one or more series may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; provided, however, that no such

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designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in each Place of Payment for Securities of any series for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency.

SECTION 10.3 MONEY FOR SECURITIES PAYMENTS TO BE HELD IN TRUST.

If the Company shall at any time act as its own Paying Agent with respect to any series of Securities, it will, on or before each due date of the principal of or any premium or interest on any of the Securities of that series, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay the principal and any premium and interest so becoming due until such sums shall be paid to such Persons or otherwise disposed of as herein provided and will promptly notify the Trustee of its action or failure so to act.

Whenever the Company shall have one or more Paying Agents for any series of Securities, it will, on or prior to each due date of the principal of or any premium or interest on any Securities of that series, deposit with a Paying Agent a sum sufficient to pay such amount, such sum to be held as provided by the Trust Indenture Act, and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of its action or failure so to act.

The Company will cause each Paying Agent for any series of Securities other than the Trustee to execute and deliver to the Trustee an instrument in which such Paying Agent shall agree with the Trustee, subject to the provisions of this Section, that such Paying Agent will (1) comply with the provisions of the Trust Indenture Act applicable to it as a Paying Agent and (2) during the continuance of any default by the Company (or any other obligor upon the Securities of that series) in the making of any payment in respect of the Securities of that series, upon the written request of the Trustee, forthwith pay to the Trustee all sums held in trust by such Paying Agent for payment in respect of the Securities of that series.

The Company may at any time, for the purpose of obtaining the satisfaction and discharge of this Indenture or for any other purpose, pay, or by Company Order direct any Paying Agent to pay, to the Trustee all sums held in trust by the Company or such Paying Agent, such sums to be held by the Trustee upon the same trusts as those upon which such sums were held by the Company or such Paying Agent; and, upon such payment by any Paying Agent to the Trustee, such Paying Agent shall be released from all further liability with respect to such money.

Any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of or any premium or interest on any Security of any series and remaining unclaimed for a period

ending on the earlier of the date that is ten Business Days prior to the date such money would escheat to the State or two years after such principal, premium or interest has become due and payable shall be paid to the Company on Company Request, or (if then held by the Company) shall be discharged from such trust; and the Holder of such Security shall thereafter, as an unsecured general creditor, look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, shall thereupon cease; provided, however, that the Trustee or such Paying Agent,

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before being required to make any such repayment, may at the expense of the Company cause to be published once, in a newspaper published in the English language, customarily published on each Business Day and of general circulation in each Place of Payment, notice that such money remains unclaimed and that, after a date specified therein, which shall not be less than 30 days from the date of such publication, any unclaimed balance of such money then remaining will be repaid to the Company.

SECTION 10.4 STATEMENT BY OFFICERS AS TO DEFAULT.

The Company will deliver to the Trustee, within 120 days after the end of each fiscal year of the Company ending after the date hereof, an Officers' Certificate, stating whether or not to the best knowledge of the signers thereof the Company is in default in the performance and observance of any of the terms, provisions and conditions of this Indenture (without regard to any period of grace or requirement of notice provided hereunder) and, if the Company shall be in default, specifying all such defaults and the nature and status thereof of which they may have knowledge. The fiscal year of the Company currently ends on December 31; and the Company will give the Trustee prompt written notice of any change of its fiscal year.

SECTION 10.5 EXISTENCE.

Subject to Article 8, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its existence.

SECTION 10.6 MAINTENANCE OF PROPERTIES.

The Company will cause all properties used or useful in the conduct of its business to be maintained and kept in good condition, repair and working order and supplied with all necessary equipment and will cause to be made all necessary repairs, renewals, replacements, betterments and improvements thereof, all as, and to the extent, in the judgment of the Company may be necessary so that the business carried on in connection therewith may be properly and advantageously conducted at all times; provided, however, that nothing in this Section shall prevent the Company from discontinuing the operation or maintenance of any of such properties if such discontinuance is, in the judgment of the Company, desirable in the conduct of its business and not disadvantageous in any material respect to the Holders.

SECTION 10.7 PAYMENT OF TAXES AND OTHER CLAIMS.

The Company will pay or discharge or cause to be paid or discharged, before the same shall become delinquent, (1) all taxes, assessments and governmental charges levied or imposed upon the Company or upon the income, profits or property of the Company, and (2) all lawful claims for labor, materials and supplies which, if unpaid, might by law become a lien upon the property of the Company; provided, however, that the Company shall not be required to pay or discharge or cause to be paid or discharged any such tax, assessment, charge or claim (i) whose amount, applicability or validity is being contested in good faith by appropriate proceedings or (ii) if the failure to pay or

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discharge would not have a material adverse effect on the assets, business, operations, properties or condition (financial or otherwise) of the Company and

its subsidiaries, taken as a whole.

SECTION 10.8 WAIVER OF CERTAIN COVENANTS.

Except as otherwise specified as contemplated by Section 3.1 for Securities of such series, the Company may, with respect to the Securities of any series, omit in any particular instance to comply with any term, provision or condition set forth in any covenant provided pursuant to Section 3.1(19), 9.1(2), 9.1(7), 10.6 or 10.7 for the benefit of the Holders of such series if before the time for such compliance the Holders of at least a majority in principal amount of the Outstanding Securities of such series shall, by Act of such Holders, either waive such compliance in such instance or generally waive compliance with such term, provision or condition, but no such waiver shall extend to or affect such term, provision or condition except to the extent so expressly waived, and, until such waiver shall become effective, the obligations of the Company and the duties of the Trustee in respect of any such term, provision or condition shall remain in full force and effect.

ARTICLE 11

REDEMPTION OF SECURITIES

SECTION 11.1 APPLICABILITY OF ARTICLE.

Securities of any series which are redeemable before their Stated Maturity shall be redeemable in accordance with their terms and (except as otherwise specified as contemplated by Section 3.1 for such Securities) in accordance with this Article.

SECTION 11.2 ELECTION TO REDEEM; NOTICE TO TRUSTEE.

The election of the Company to redeem any Securities shall be evidenced by a Board Resolution or in another manner specified as contemplated by Section 3.1 for such Securities. In case of any redemption at the election of the Company of less than all the Securities of any series (including any such redemption affecting only a single Security), the Company shall, at least 45 days prior to the Redemption Date fixed by the Company (unless a shorter notice shall be satisfactory to the Trustee), notify the Trustee of such Redemption Date, of the principal amount of Securities of such series to be redeemed and, if applicable, of the tenor of the Securities to be redeemed. In the case of any redemption of Securities prior to the expiration of any restriction on such redemption provided in the terms of such Securities or elsewhere in this Indenture, the Company shall furnish the Trustee with an Officers' Certificate evidencing compliance with such restriction.

SECTION 11.3 SELECTION BY TRUSTEE OF SECURITIES TO BE REDEEMED.

If less than all the Securities of any series are to be redeemed (unless all the Securities of such series and of a specified tenor are to be redeemed or unless such redemption affects only a single Security), the particular Securities to be redeemed shall be selected not more than 45 days

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prior to the Redemption Date by the Trustee, from the Outstanding Securities of such series not previously called for redemption, by lot, or in the Trustee's discretion, on a pro-rata basis, provided that the unredeemed portion of the principal amount of any Security shall be in an authorized denomination (which shall not be less than the minimum authorized denomination) for such Security. If less than all the Securities of such series and of a specified tenor are to be redeemed (unless such redemption affects only a single Security), the particular Securities to be redeemed shall be selected not more than 45 days prior to the Redemption Date by the Trustee, from the Outstanding Securities of such series and specified tenor not previously called for redemption in accordance with the preceding sentence.

If any Security selected for partial redemption is converted in part before termination of the conversion right with respect to the portion of the Security so selected, the converted portion of such Security shall be deemed (so far as may be) to be the portion selected for redemption. Securities which have been converted during a selection of Securities to be redeemed shall be treated by the Trustee as Outstanding for the purpose of such selection.

The Trustee shall promptly notify the Company in writing of the Securities selected for redemption as aforesaid and, in case of any Securities selected for partial redemption as aforesaid, the principal amount thereof to be redeemed.

The provisions of the three preceding paragraphs shall not apply with respect to any redemption affecting only a single Security, whether such Security is to be redeemed in whole or in part. In the case of any such redemption in part, the unredeemed portion of the principal amount of the Security shall be in an authorized denomination (which shall not be less than the minimum authorized denomination) for such Security.

For all purposes of this Indenture, unless the context otherwise requires, all provisions relating to the redemption of Securities shall relate, in the case of any Securities redeemed or to be redeemed only in part, to the portion of the principal amount of such Securities which has been or is to be redeemed.

SECTION 11.4 NOTICE OF REDEMPTION.

Notice of redemption shall be given by first-class mail, postage prepaid, mailed not fewer than 30 nor more than 60 days prior to the Redemption Date, unless a shorter period is specified in the Securities to be redeemed, to each Holder of Securities to be redeemed, at its address appearing in the Security Register.

All notices of redemption shall state:

- (1) the Redemption Date,
- (2) the Redemption Price (including accrued interest, if any),

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(3) if less than all the Outstanding Securities of any series consisting of more than a single Security are to be redeemed, the identification (and, in the case of partial redemption of any such Securities, the principal amounts) of the particular Securities to be redeemed and, if less than all the Outstanding Securities of any series consisting of a single Security are to be redeemed, the principal amount of the particular Security to be redeemed,

(4) in case any Security is redeemed in part only, that on and after the Redemption Date, upon surrender of the Security, the Holder of such Security will receive, without charge, a new Security or Securities of authorized denominations for the principal amount thereof remaining unredeemed;

(5) that on the Redemption Date the Redemption Price will become due and payable upon each such Security to be redeemed and, if applicable, that interest thereon will cease to accrue on and after said date,

(6) the place or places where each such Security is to be surrendered for payment of the Redemption Price,

(7) if applicable, the conversion price, the date on which the right to convert the principal of the Securities or the portions thereof to be redeemed will terminate, and the place or places where such Securities may be surrendered for conversion,

(8) that the redemption is for a sinking fund, if such is the case, and

(9) the CUSIP number or numbers and/or common code(s) of the Security being redeemed.

Notice of redemption of Securities to be redeemed at the election of the Company shall be given by the Company or, at the Company's request, by the Trustee in the name and at the expense of the Company and shall be irrevocable.

SECTION 11.5 DEPOSIT OF REDEMPTION PRICE.

On or prior to any Redemption Date, the Company shall deposit with the Trustee or with a Paying Agent (or, if the Company is acting as its own Paying Agent, segregate and hold in trust as provided in Section 10.3) an amount of money sufficient to pay the Redemption Price of, and (except if the Redemption Date shall be an Interest Payment Date) accrued interest on, all the Securities which are to be redeemed on that date.

If any Security called for redemption is converted, any money deposited with the Trustee or with a Paying Agent or so segregated and held in trust for the redemption of such Security shall (subject to the right of any Holder of such Security to receive interest as provided in the last paragraph of Section 3.7) be paid to the Company on Company Request, or if then held by the Company, shall be discharged from such trust.

SECTION 11.6 SECURITIES PAYABLE ON REDEMPTION DATE.

Notice of redemption having been given as aforesaid, the Securities so to be redeemed shall, on the Redemption Date, become due and payable at the Redemption Price therein specified, and from and after such date (unless the Company shall default in the payment of the Redemption Price and accrued interest) such Securities shall cease to bear interest. Upon surrender of any such

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Security for redemption in accordance with said notice, such Security shall be paid by the Company at the Redemption Price, together with accrued interest to the Redemption Date; provided, however, that, unless otherwise specified as contemplated by Section 3.1, installments of interest whose Stated Maturity is on or prior to the Redemption Date will be payable to the Holders of such Securities, or one or more Predecessor Securities, registered as such at the close of business on the relevant Record Dates according to their terms and the provisions of Section 3.7.

If any Security called for redemption shall not be so paid upon surrender thereof for redemption, the principal and any premium shall, until paid, bear interest from the Redemption Date at the rate prescribed therefor in the Security.

SECTION 11.7 SECURITIES REDEEMED IN PART.

Any Security which is to be redeemed only in part shall be surrendered at a Place of Payment therefor (with, if the Company or the Trustee so requires, due endorsement by, or a written instrument of transfer in form satisfactory to the Company and the Trustee duly executed by, the Holder thereof or its attorney duly authorized in writing), and the Company shall execute, and the Trustee shall authenticate and deliver to the Holder of such Security without service charge, a new Security or Securities of the same series and of like tenor, of any authorized denomination as requested by such Holder, in aggregate principal amount equal to and in exchange for the unredeemed portion of the principal of the Security so surrendered.

ARTICLE 12

SINKING FUNDS

SECTION 12.1 APPLICABILITY OF ARTICLE.

The provisions of this Article shall be applicable to any sinking fund for the retirement of Securities of any series except as otherwise specified as contemplated by Section 3.1 for such Securities.

The minimum amount of any sinking fund payment provided for by the terms of any Securities is herein referred to as a "mandatory sinking fund payment," and any payment in excess of such minimum amount provided for by the terms of such Securities is herein referred to as an "optional sinking fund payment." If provided for by the terms of any Securities, the cash amount of any sinking fund payment may be subject to reduction as provided in Section 12.2. Each sinking fund payment shall be applied to the redemption of Securities as provided for by the terms of such Securities.

SECTION 12.2 SATISFACTION OF SINKING FUND PAYMENTS WITH SECURITIES.

The Company (1) may deliver Outstanding Securities of a series (other than any previously called for redemption) and (2) may apply as a credit Securities of a series which have been redeemed

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either at the election of the Company pursuant to the terms of such Securities or through the application of permitted optional sinking fund payments pursuant to the terms of such Securities, in each case in satisfaction of all or any part of any sinking fund payment with respect to any Securities of such series required to be made pursuant to the terms of such Securities as and to the extent provided for by the terms of such Securities; provided that the Securities to be so credited have not been previously so credited. The Securities to be so credited shall be received and credited for such purpose by the Trustee at the Redemption Price, as specified in the Securities so to be redeemed, for redemption through operation of the sinking fund and the amount of such sinking fund payment shall be reduced accordingly.

SECTION 12.3 REDEMPTION OF SECURITIES FOR SINKING FUND.

Not fewer than 60 days prior to each sinking fund payment date for any Securities, the Company will deliver to the Trustee an Officers' Certificate specifying the amount of the next ensuing sinking fund payment for such Securities pursuant to the terms of such Securities, the portion thereof, if any, which is to be satisfied by payment of cash and the portion thereof, if any, which is to be satisfied by delivering and crediting Securities pursuant to Section 12.2 and will also deliver to the Trustee any Securities to be so delivered. Not fewer than 30 days prior to each such sinking fund payment date, the Trustee shall select the Securities to be redeemed upon such sinking fund payment date in the manner specified in Section 11.3 and cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in Section 11.4. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Sections 11.6 and 11.7.

ARTICLE 13

DEFEASANCE AND COVENANT DEFEASANCE

SECTION 13.1 COMPANY'S OPTION TO EFFECT DEFEASANCE OR COVENANT DEFEASANCE.

The Company may elect, at its option at any time, to have Section 13.2 or Section 13.3 applied to any Securities or any series of Securities, as the case may be, designated pursuant to Section 3.1 as being defeasible pursuant to such Section 13.2 or 13.3, in accordance with any applicable requirements provided pursuant to Section 3.1 and upon compliance with the conditions set forth below in this Article. Any such election shall be evidenced by a Board Resolution or in another manner specified as contemplated by Section 3.1 for such Securities.

SECTION 13.2 DEFEASANCE AND DISCHARGE.

Upon the Company's exercise of its option (if any) to have this Section applied to any Securities or any series of Securities, as the case may be, the Company shall be deemed to have been discharged from its obligations with respect to such Securities as provided in this Section on and after the date the conditions set forth in Section 13.4 are satisfied (hereinafter called "Defeasance"). For this purpose, such Defeasance means that the Company shall be deemed to have paid and

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discharged the entire indebtedness represented by such Securities and to have satisfied all its other obligations under such Securities and this Indenture insofar as such Securities are concerned (and the Trustee, at the expense of the Company, shall execute proper instruments acknowledging the same), subject to the following which shall survive until otherwise terminated or discharged

hereunder:

(1) the rights of Holders of such Securities to receive, solely from the trust fund described in Section 13.4 and as more fully set forth in such Section, payments in respect of the principal of and any premium and interest on such Securities when payments are due,

(2) the Company's obligations with respect to such Securities under Sections 3.4, 3.5, 3.6, 10.2 and 10.3, and, if applicable, Article 14,

(3) the rights, powers, trusts, duties and immunities of the Trustee hereunder, and

(4) this Article.

Subject to compliance with this Article, the Company may exercise its option (if any) to have this Section applied to any Securities notwithstanding the prior exercise of its option (if any) to have Section 13.3 applied to such Securities.

SECTION 13.3 COVENANT DEFEASANCE.

Upon the Company's exercise of its option (if any) to have this Section applied to any Securities or any series of Securities, as the case may be,

(1) the Company shall be released from its obligations under Sections 10.6 and 10.7 and any covenants provided pursuant to Sections 3.1(19), 9.1(2) or 9.1(7), or for the benefit of the Holders of such Securities and

(2) the occurrence of any event specified in Section 5.1(4) (with respect to any of Sections 10.6 and 10.7 and any such covenants provided pursuant to Section 3.1(19), 9.1(2) or 9.1(7)) and the occurrence of any other Event of Default specified pursuant to Section 3.1 shall be deemed not to be or result in an Event of Default,

in each case with respect to such Securities or any series of Securities as provided in this Section on and after the date the conditions set forth in Section 13.4 are satisfied (hereinafter called "Covenant Defeasance"). For this purpose, such Covenant Defeasance means that, with respect to such Securities, the Company may omit to comply with and shall have no liability in respect of any term, condition or limitation set forth in any such specified Section (to the extent so specified in the case of Section 5.1(4) and the occurrence of any Event of Default specified pursuant to Section 3.1), whether directly or indirectly by reason of any reference elsewhere herein to any such Section or by reason of any reference in any such Section to any other provision herein or in any other document, but the remainder of this Indenture and such Securities shall be unaffected thereby.

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SECTION 13.4 CONDITIONS TO DEFEASANCE OR COVENANT DEFEASANCE.

The following shall be the conditions to the application of Section 13.2 or Section 13.3 to any Securities or any series of Securities, as the case may be:

(1) The Company shall irrevocably have deposited or caused to be deposited with the Trustee (or another trustee which satisfies the requirements contemplated by Section 6.9 and agrees to comply with the provisions of this Article applicable to it) as trust funds in trust for the purpose of making the following payments, specifically pledged as security for, and dedicated solely to, the benefits of the Holders of such Securities,

(A) in the case of Securities of a series denominated in currency of the United States of America,

(i) cash in currency of the United States of America in an amount, or

(ii) U.S. Government Obligations which through the scheduled payment of principal and interest in respect thereof in accordance with their terms will provide, not later than one day before the due date of any payment, an amount in cash, or

(iii) a combination thereof, or

(B) in the case of Securities of a series denominated in currency other than that of the United States of America,

(i) cash in the currency in which such series of Securities is denominated in an amount, or

(ii) Foreign Government Obligations which through the scheduled payment of principal and interest in respect thereof in accordance with their terms will provide, not later than one day before the due date of any payment, an amount in cash, or

(iii) a combination thereof,

in each case sufficient, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, to pay and discharge, and which shall be applied by the Trustee (or any such other qualifying trustee) to pay and discharge, the principal of and any premium and interest on such Securities on the respective Stated Maturities, in accordance with the terms of this Indenture and such Securities.

(2) In the event of an election to have Section 13.2 apply to any Securities or any series of Securities, as the case may be, the Company shall have delivered to the Trustee an

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Opinion of Counsel stating that (A) the Company has received from, or there has been published by, the Internal Revenue Service a ruling or (B) since the date of this instrument, there has been a change in the applicable Federal income tax law, in either case (A) or (B) to the effect that, and based thereon such opinion shall confirm that, the Holders of such Securities will not recognize gain or loss for Federal income tax purposes as a result of the deposit, Defeasance and discharge to be effected with respect to such Securities and will be subject to Federal income tax on the same amount, in the same manner and at the same times as would be the case if such deposit, Defeasance and discharge were not to occur.

(3) In the event of an election to have Section 13.3 apply to any Securities or any series of Securities, as the case may be, the Company shall have delivered to the Trustee an Opinion of Counsel to the effect that the Holders of such Securities will not recognize gain or loss for Federal income tax purposes as a result of the deposit and Covenant Defeasance to be effected with respect to such Securities and will be subject to Federal income tax on the same amount, in the same manner and at the same times as would be the case if such deposit and Covenant Defeasance were not to occur.

(4) The Company shall have delivered to the Trustee an Officers' Certificate to the effect that neither such Securities nor any other Securities of the same series, if then listed on any securities exchange, will be delisted as a result of such deposit.

(5) No event which is, or after notice or lapse of time or both would become, an Event of Default with respect to such Securities or any other Securities shall have occurred and be continuing at the time of such deposit or, with regard to any such event specified in Sections 5.1(5) and (6), at any time on or prior to the 90th day after the date of such deposit (it being understood that this condition shall not be deemed satisfied until after such 90th day).

(6) Such Defeasance or Covenant Defeasance shall not cause the

Trustee to have a conflicting interest within the meaning of the Trust Indenture Act (assuming all Securities are in default within the meaning of such Act).

(7) Such Defeasance or Covenant Defeasance shall not result in a breach or violation of, or constitute a default under, this Indenture or any other agreement or instrument to which the Company is a party or by which it is bound.

(8) Such Defeasance or Covenant Defeasance shall not result in the trust arising from such deposit constituting an investment company within the meaning of the Investment Company Act unless such trust shall be registered under such Act or exempt from registration thereunder.

(9) The Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent with respect to such Defeasance or Covenant Defeasance have been complied with.

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SECTION 13.5 DEPOSITED MONEY, U. S. GOVERNMENT OBLIGATIONS AND FOREIGN GOVERNMENT OBLIGATIONS TO BE HELD IN TRUST; MISCELLANEOUS PROVISIONS.

Subject to the provisions of the last paragraph of Section 10.3, all money, U.S. Government Obligations and Foreign Government Obligations (including the proceeds thereof) deposited with the Trustee or other qualifying trustee (solely for purposes of this Section and Section 13.6, the Trustee and any such other trustee are referred to collectively as the "Trustee") pursuant to Section 13.4 in respect of any Securities shall be held in trust and applied by the Trustee, in accordance with the provisions of such Securities and this Indenture, to the payment, either directly or through any such Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the Holders of such Securities, of all sums due and to become due thereon in respect of principal and any premium and interest, but money so held in trust need not be segregated from other funds except to the extent required by law. The Company shall pay and indemnify the Trustee against any tax, fee or other charge imposed on or assessed against the U.S. Government Obligations or Foreign Government Obligations deposited pursuant to Section 13.4 or the principal and interest received in respect thereof other than any such tax, fee or other charge which by law is for the account of the Holders of Outstanding Securities. Anything in this Article to the contrary notwithstanding, the Trustee shall deliver or pay to the Company from time to time upon Company Request any money, U.S. Government Obligations or Foreign Government Obligations held by it as provided in Section 13.4 with respect to any Securities which, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, are in excess of the amount thereof which would then be required to be deposited to effect the Defeasance or Covenant Defeasance, as the case may be, with respect to such Securities.

SECTION 13.6 REINSTATEMENT.

If the Trustee or the Paying Agent is unable to apply any money in accordance with this Article with respect to any Securities by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, then the obligations under this Indenture and such Securities from which the Company has been discharged or released pursuant to Section 13.2 or 13.3 shall be revived and reinstated as though no deposit had occurred pursuant to this Article with respect to such Securities, until such time as the Trustee or Paying Agent is permitted to apply all money held in trust pursuant to Section 13.5 with respect to such Securities in accordance with this Article; provided, however, that if the Company makes any payment of principal of or any premium or interest on any such Security following such reinstatement of its obligations, the Company shall be subrogated to the rights (if any) of the Holders of such Securities to receive such payment from the money so held in trust.

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ARTICLE 14

CONVERSION OF SECURITIES

SECTION 14.1 APPLICABILITY OF ARTICLE.

The provisions of this Article shall be applicable to the Securities of any series which are convertible into shares of Common Stock of the Company, and the issuance of such shares of Common Stock upon the conversion of such Securities, except as otherwise specified as contemplated by Section 3.1 for the Securities of such series.

SECTION 14.2 EXERCISE OF CONVERSION PRIVILEGE.

In order to exercise a conversion privilege, the Holder of a Security of a series with such a privilege shall surrender such Security to the Company at the office or agency maintained for that purpose pursuant to Section 10.2, accompanied by a duly executed conversion notice to the Company substantially in the form set forth in Section 2.6 stating that the Holder elects to convert such Security or a specified portion thereof. Such notice shall also state, if different from the name and address of such Holder, the name or names (with address) in which the certificate or certificates for shares of Common Stock which shall be issuable on such conversion shall be issued. Securities surrendered for conversion shall (if so required by the Company or the Trustee) be duly endorsed by or accompanied by instruments of transfer in forms satisfactory to the Company and the Trustee duly executed by the Holder or its attorney duly authorized in writing; and Securities so surrendered for conversion (in whole or in part) during the period from the close of business on any Regular Record Date to the opening of business on the next succeeding Interest Payment Date (excluding Securities or portions thereof called for redemption during the period beginning at the close of business on a Regular Record Date and ending at the opening of business on the first Business Day after the next succeeding Interest Payment Date, or if such Interest Payment Date is not a Business Day, the second such Business Day) shall also be accompanied by payment in funds acceptable to the Company of an amount equal to the interest payable on such Interest Payment Date on the principal amount of such Security then being converted, and such interest shall be payable to such Holder notwithstanding the conversion of such Security, subject to the provisions of Section 3.7 relating to the payment of Defaulted Interest by the Company. As promptly as practicable after the receipt of such notice and of any payment required pursuant to a Board Resolution and, subject to Section 3.3, set forth, or determined in the manner provided, in an Officers' Certificate, or established in one or more indentures supplemental hereto setting forth the terms of such series of Security, and the surrender of such Security in accordance with such reasonable regulations as the Company may prescribe, the Company shall issue and shall deliver, at the office or agency at which such Security is surrendered, to such Holder or on its written order, a certificate or certificates for the number of full shares of Common Stock issuable upon the conversion of such Security (or specified portion thereof), in accordance with the provisions of such Board Resolution, Officers' Certificate or supplemental indenture, and cash as provided therein in respect of any fractional share of such Common Stock otherwise issuable upon such conversion.

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Such conversion shall be deemed to have been effected immediately prior to the close of business on the date on which such notice and such payment, if required, shall have been received in proper order for conversion by the Company and such Security shall have been surrendered as aforesaid (unless such Holder shall have so surrendered such Security and shall have instructed the Company to effect the conversion on a particular date following such surrender and such Holder shall be entitled to convert such Security on such date, in which case such conversion shall be deemed to be effected immediately prior to the close of business on such date) and at such time the rights of the Holder of such Security as such Security Holder shall cease and the person or persons in whose name or names any certificate or certificates for shares of Common Stock of the Company shall be issuable upon such conversion shall be deemed to have become the Holder or Holders of record of the shares represented thereby. Except as set forth above and subject to the final paragraph of Section 3.7, no payment or adjustment shall be made upon any conversion on account of any interest accrued on the Securities (or any part thereof) surrendered for conversion or on account

of any dividends on the Common Stock of the Company issued upon such conversion. In the case of any Security which is converted in part only, upon such conversion the Company shall execute and the Trustee shall authenticate and deliver to or on the order of the Holder thereof, at the expense of the Company, a new Security or Securities of the same series, of authorized denominations, in aggregate principal amount equal to the unconverted portion of such Security.

SECTION 14.3 NO FRACTIONAL SHARES.

No fractional share of Common Stock of the Company shall be issued upon conversions of Securities of any series. If more than one Security shall be surrendered for conversion at one time by the same Holder, the number of full shares which shall be issuable upon conversion shall be computed on the basis of the aggregate principal amount of the Securities (or specified portions thereof to the extent permitted hereby) so surrendered. If, except for the provisions of this Section 14.3, any Holder of a Security or Securities would be entitled to a fractional share of Common Stock of the Company upon the conversion of such Security or Securities, or specified portions thereof, the Company shall pay to such Holder an amount in cash equal to the current market value of such fractional share computed, (i) if such Common Stock is listed or admitted to unlisted trading privileges on a national securities exchange or market, on the basis of the last reported sale price regular way on such exchange or market on the last trading day prior to the date of conversion upon which such a sale shall have been effected, or (ii) if such Common Stock is not at the time so listed or admitted to unlisted trading privileges on a national securities exchange or market, on the basis of the average of the bid and asked prices of such Common Stock in the over-the-counter market, on the last trading day prior to the date of conversion, as reported by the National Quotation Bureau, Incorporated or similar organization if the National Quotation Bureau, Incorporated is no longer reporting such information, or if not so available, the fair market price as determined by the Board of Directors. For purposes of this Section, "trading day" shall mean each Monday, Tuesday, Wednesday, Thursday and Friday other than any day on which the Common Stock is not traded on the Nasdaq National Market, or if the Common Stock is not traded on the Nasdaq National Market, on the principal exchange or market on which the Common Stock is traded or quoted.

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SECTION 14.4 ADJUSTMENT OF CONVERSION PRICE.

The conversion price of Securities of any series that is convertible into Common Stock of the Company shall be adjusted for any stock dividends, stock splits, reclassifications, combinations or similar transactions in accordance with the terms of the supplemental indenture or Board Resolutions setting forth the terms of the Securities of such series. Whenever the conversion price is adjusted, the Company shall compute the adjusted conversion price in accordance with terms of the applicable Board Resolution or supplemental indenture and shall prepare an Officers' Certificate setting forth the adjusted conversion price and showing in reasonable detail the facts upon which such adjustment is based, and such certificate shall forthwith be filed at each office or agency maintained for the purpose of conversion of Securities pursuant to Section 10.2 and, if different, with the Trustee. The Company shall forthwith cause a notice setting forth the adjusted conversion price to be mailed, first class postage prepaid, to each Holder of Securities of such series at its address appearing on the Security Register and to any conversion agent other than the Trustee.

SECTION 14.5 NOTICE OF CERTAIN CORPORATE ACTIONS.

In case:

(1) the Company shall declare a dividend (or any other distribution) on its Common Stock payable otherwise than in cash out of its retained earnings (other than a dividend for which approval of any shareholders of the Company is required) that would require an adjustment pursuant to Section 14.4; or

(2) the Company shall authorize the granting to all or substantially all of the holders of its Common Stock of rights, options or warrants to subscribe for or purchase any shares of capital stock of any class or of any other rights (other than any such grant for which

approval of any shareholders of the Company is required); or

(3) of any reclassification of the Common Stock of the Company (other than a subdivision or combination of its outstanding shares of Common Stock, or of any consolidation, merger or share exchange to which the Company is a party and for which approval of any shareholders of the Company is required), or of the sale of all or substantially all of the assets of the Company; or

(4) of the voluntary or involuntary dissolution, liquidation or winding up of the Company;

then the Company shall cause to be filed with the Trustee, and shall cause to be mailed to all Holders at their last addresses as they shall appear in the Security Register, at least 20 days (or 10 days in any case specified in clause (1) or (2) above) prior to the applicable record date hereinafter specified, a notice stating (i) the date on which a record is to be taken for the purpose of such dividend, distribution, rights, options or warrants, or, if a record is not to be taken, the date as of which the holders of Common Stock of record to be entitled to such dividend, distribution, rights, options or warrants are to be determined, or (ii) the date on which such reclassification, consolidation, merger,

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share exchange, sale, dissolution, liquidation or winding up is expected to become effective, and the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, share exchange, sale, dissolution, liquidation or winding up. If at any time the Trustee shall not be the conversion agent, a copy of such notice shall also forthwith be filed by the Company with the Trustee.

SECTION 14.6 RESERVATION OF SHARES OF COMMON STOCK.

The Company shall at all times reserve and keep available, free from preemptive rights, out of its authorized but unissued Common Stock, for the purpose of effecting the conversion of Securities, the full number of shares of Common Stock of the Company then issuable upon the conversion of all outstanding Securities of any series that has conversion rights.

SECTION 14.7 PAYMENT OF CERTAIN TAXES UPON CONVERSION.

Except as provided in the next sentence, the Company will pay any and all taxes that may be payable in respect of the issue or delivery of shares of its Common Stock on conversion of Securities pursuant hereto. The Company shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issue and delivery of shares of its Common Stock in a name other than that of the Holder of the Security or Securities to be converted, and no such issue or delivery shall be made unless and until the person requesting such issue has paid to the Company the amount of any such tax, or has established, to the satisfaction of the Company, that such tax has been paid.

SECTION 14.8 NONASSESSABILITY.

The Company covenants that all shares of its Common Stock which may be issued upon conversion of Securities will upon issue in accordance with the terms hereof be duly and validly issued and fully paid and nonassessable.

SECTION 14.9 PROVISION IN CASE OF CONSOLIDATION, MERGER OR SALE OF ASSETS.

In case of any consolidation or merger of the Company with or into any other Person, any merger of another Person with or into the Company (other than a merger which does not result in any reclassification, conversion, exchange or cancellation of outstanding shares of Common Stock of the Company) or any conveyance, sale, transfer or lease of all or substantially all of the assets of the Company, the Person formed by such consolidation or resulting from such merger or which acquires such assets, as the case may be, shall execute and deliver to the Trustee a supplemental indenture providing that the Holder of each Security of a series then Outstanding that is convertible into Common Stock of the Company shall have the right thereafter (which right shall be the

exclusive conversion right thereafter available to said Holder), during the period such Security shall be convertible, to convert such Security only into the kind and amount of securities, cash and other property receivable upon such consolidation, merger, conveyance, sale, transfer or lease by a holder of the number of shares of Common Stock of the Company into which such Security might have

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been converted immediately prior to such consolidation, merger, conveyance, sale, transfer or lease, assuming such holder of Common Stock of the Company (i) is not a Person with which the Company consolidated or merged with or into or which merged into or with the Company or to which such conveyance, sale, transfer or lease was made, as the case may be (a "Constituent Person"), or an Affiliate of a Constituent Person and (ii) failed to exercise his rights of election, if any, as to the kind or amount of securities, cash and other property receivable upon such consolidation, merger, conveyance, sale, transfer or lease (provided that if the kind or amount of securities, cash and other property receivable upon such consolidation, merger, conveyance, sale, transfer, or lease is not the same for each share of Common Stock of the Company held immediately prior to such consolidation, merger, conveyance, sale, transfer or lease by others than a Constituent Person or an Affiliate thereof and in respect of which such rights of election shall not have been exercised ("Non-electing Share"), then for the purpose of this Section 14.9 the kind and amount of securities, cash and other property receivable upon such consolidation, merger, conveyance, sale, transfer or lease by the holders of each Non-electing Share shall be deemed to be the kind and amount so receivable per share by a plurality of the Non-electing Shares). Such supplemental indenture shall provide for adjustments which, for events subsequent to the effective date of such supplemental indenture, shall be as nearly equivalent as may be practicable to the adjustments provided for in this Article or in accordance with the terms of the supplemental indenture or Board Resolutions setting forth the terms of such adjustments. The above provisions of this Section 14.9 shall similarly apply to successive consolidations, mergers, conveyances, sales, transfers or leases. Notice of the execution of such a supplemental indenture shall be given by the Company to the Holder of each Security of a series that is convertible into Common Stock of the Company as provided in Section 1.6 promptly upon such execution. Neither the Trustee nor any conversion agent, if any, shall be under any responsibility to determine the correctness of any provisions contained in any such supplemental indenture relating either to the kind or amount of shares of stock or other securities or property or cash receivable by Holders of Securities of a series convertible into Common Stock of the Company upon the conversion of their Securities after any such consolidation, merger, conveyance, transfer, sale or lease or to any such adjustment, but may accept as conclusive evidence of the correctness of any such provisions, and shall be protected in relying upon, an Opinion of Counsel with respect thereto, which the Company shall cause to be furnished to the Trustee upon request.

SECTION 14.10 DUTIES OF TRUSTEE REGARDING CONVERSION.

Neither the Trustee nor any conversion agent shall at any time be under any duty or responsibility to any Holder of Securities of any series that is convertible into Common Stock of the Company to determine whether any facts exist which may require any adjustment of the conversion price, or with respect to the nature or extent of any such adjustment when made, or with respect to the method employed, whether herein or in any supplemental indenture, any resolutions of the Board of Directors or written instrument executed by one or more officers of the Company provided to be employed in making the same. Neither the Trustee nor any conversion agent shall be accountable with respect to the validity or value (or the kind or amount) of any shares of Common Stock of the Company, or of any securities or property, which may at any time be issued or delivered upon the conversion of any Securities and neither the Trustee nor any conversion agent makes any

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representation with respect thereto. Subject to the provisions of Section 6.1, neither the Trustee nor any conversion agent shall be responsible for any failure of the Company to issue, transfer or deliver any shares of its Common

Stock or stock certificates or other securities or property upon the surrender of any Security for the purpose of conversion or to comply with any of the covenants of the Company contained in this Article 14 or in the applicable supplemental indenture, resolutions of the Board of Directors or written instrument executed by one or more duly authorized officers of the Company.

SECTION 14.11 REPAYMENT OF CERTAIN FUNDS UPON CONVERSION.

Any funds which at any time shall have been deposited by the Company or on its behalf with the Trustee or any other paying agent for the purpose of paying the principal of, and premium, if any, and interest, if any, on any of the Securities (including, but not limited to, funds deposited for the sinking fund referred to in Article 12 hereof and funds deposited pursuant to Article 13 hereof) and which shall not be required for such purposes because of the conversion of such Securities as provided in this Article 14 shall after such conversion be repaid to the Company by the Trustee upon the Company's written request.

[The remainder of this page is intentionally left blank]

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed as of the day and year first above written.

Harmonic Inc.

By: _____

Title: _____

U.S. Bank National Association,
as Trustee

By: _____

Title: _____

HARMONIC INC.
TO
U.S. BANK NATIONAL ASSOCIATION
AS TRUSTEE
INDENTURE
DATED AS OF _____, 200_

SUBORDINATED DEBT SECURITIES

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Harmonic Inc.

Certain Sections of this Indenture relating to Sections 3.10 through 3.18, inclusive, of the Trust Indenture Act of 1939:

| | | |
|-------------|------------------|----------------|
| Section 310 | (a) (1)..... | 6.9 |
| | (a) (2)..... | 6.9 |
| | (a) (3)..... | Not Applicable |
| | (a) (4)..... | Not Applicable |
| | (b)..... | 6.8, 6.10 |
| Section 311 | (a)..... | 6.13 |
| | (b)..... | 6.13 |
| Section 312 | (a)..... | 7.1, 7.2 |
| | (b)..... | 7.2 |
| | (c)..... | 7.2 |
| Section 313 | (a)..... | 7.3 |
| | (b)..... | 7.3 |
| | (c)..... | 7.3 |
| | (d)..... | 7.3 |
| Section 314 | (a)..... | 7.4 |
| | (a) (4)..... | 1.1, 10.4 |
| | (b)..... | Not Applicable |
| | (c) (1)..... | 1.2 |
| | (c) (2)..... | 1.2 |
| | (c) (3)..... | Not Applicable |
| | (d)..... | Not Applicable |
| | (e)..... | 1.2 |
| Section 315 | (a)..... | 6.1 |
| | (b)..... | 6.2 |
| | (c)..... | 6.1 |
| | (d)..... | 6.1 |
| | (e)..... | 5.14 |
| Section 316 | (a)..... | 1.1 |
| | (a) (1) (A)..... | 5.2, 5.12 |
| | (a) (1) (B)..... | 5.13 |
| | (a) (2)..... | Not Applicable |
| | (a) (2)..... | Not Applicable |
| | (b)..... | 5.8 |
| | (c)..... | 1.4 |
| Section 317 | (a) (1)..... | 5.3 |
| | (a) (2)..... | 5.4 |
| | (b)..... | 10.3 |
| Section 318 | (a)..... | 1.7 |

NOTE: This reconciliation and tie shall not, for any purpose, be deemed to be a part of the Indenture.

INDENTURE, dated as of _____, 200_, between Harmonic Inc., a corporation duly organized and existing under the laws of the State of Delaware (herein called the "Company"), having its principal executive office at 549 Baltic Way, Sunnyvale, California 94089, and U.S. Bank National Association, a federally-chartered association, as Trustee (herein called the "Trustee").

RECITALS OF THE COMPANY

The Company has duly authorized the execution and delivery of this Indenture to provide for the issuance from time to time of its unsecured subordinated debentures, notes or other evidences of indebtedness (herein called the "Securities"), to be issued in one or more series as provided in this Indenture.

All things necessary to make this Indenture a valid agreement of the Company, in accordance with its terms, have been done.

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

For and in consideration of the premises and the purchase of the Securities by the Holders thereof, it is mutually covenanted and agreed, for the equal and proportionate benefit of all Holders of the Securities or of series thereof appertaining, as follows:

ARTICLE 1

DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION

SECTION 1.1 DEFINITIONS.

For all purposes of this Indenture, except as otherwise expressly provided or unless the context otherwise requires:

(1) the terms defined in this Article have the meanings assigned to them in this Article and include the plural as well as the singular;

(2) all other terms used herein which are defined in the Trust Indenture Act, either directly or by reference therein, have the meanings assigned to them therein;

(3) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with generally accepted accounting principles in the United States of America, and, except as otherwise herein expressly provided, the term "generally accepted accounting principles" with respect to any computation required or permitted hereunder shall mean such accounting principles in the United States of America as are generally accepted at the date of such computation;

(4) all references to "\$" refer to lawful currency of the United States of America;

(5) unless the context otherwise requires, any reference to an "Article" or a "Section" refers to an Article or a Section, as the case may be, of this Indenture; and

(6) the words "herein," "hereof" and "hereunder" and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

"Act," when used with respect to any Holder, has the meaning specified in Section 1.4.

"Affiliate" of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person.

"Authenticating Agent" means any Person authorized by the Trustee pursuant to Section 6.14 to act on behalf of the Trustee to authenticate Securities of one or more series.

"Board of Directors" means either the board of directors of the Company or any duly authorized committee of that board empowered to act for it with respect to this Indenture.

"Board Resolution" means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification, and delivered to the Trustee.

"Business Day," when used with respect to any Place of Payment, means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in that Place of Payment are authorized or obligated by law or executive order to close.

"Commission" means the Securities and Exchange Commission, from time to time constituted, created under the Exchange Act, or, if at any time after the execution of this instrument such Commission is not existing and performing the duties now assigned to it under the Trust Indenture Act, then the body performing such duties at such time.

"Common Stock" includes any stock of any class of the Company which has no preference in respect of dividends or of amounts payable in the event of any voluntary or involuntary liquidation, dissolution or winding-up of the Company and which is not subject to redemption by the Company; provided, however, subject to the provisions of Section 14.9, shares issuable upon conversion of Securities shall include only shares of the class designated as Common Stock of the Company at the date of this Indenture or shares of any class or classes resulting from any reclassification or reclassifications thereof and which have no preference in respect of dividends or of amounts payable in the event of any voluntary or involuntary liquidation, dissolution or winding-up of the Company and which are not subject to redemption by the Company; provided, further, that if at any time there shall be more than one such resulting class, the shares of each such class then so issuable shall be substantially in the proportion which the total number of shares of such class resulting from all such reclassifications bears to the total number of shares of all such classes resulting from all such reclassifications.

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"Company" means the corporation named as the "Company" in the first paragraph of this instrument until a successor Person shall have become such pursuant to the applicable provisions of this Indenture, and thereafter "Company" shall mean such successor Person.

"Company Request" or "Company Order" means a written request or order signed in the name of the Company by its Chairman of the Board, its Vice Chairman of the Board, its Chief Executive Officer, its President or a Vice President, and by its principal financial officer, its Treasurer, an Assistant Treasurer, its Secretary or an Assistant Secretary, and delivered to the Trustee.

"control" when used with respect to any specified Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms "controlling" and "controlled" have meanings correlative to the foregoing.

"Corporate Trust Office" means the corporate trust office of the Trustee at 180 East Fifth Street, St. Paul, Minnesota, 55101, Attention: Corporate Trust Department, or such other office, designated by the Trustee by written notice to the Company, at which at any particular time its corporate trust business shall be administered.

"corporation" means a corporation, association, company, joint-stock company or business trust.

"Covenant Defeasance" has the meaning specified in Section 13.3.

"Defaulted Interest" has the meaning specified in Section 3.7.

"Defeasance" has the meaning specified in Section 13.2.

"Depository" means, with respect to Securities of any series issuable in whole or in part in the form of one or more Global Securities, a clearing agency registered under the Exchange Act that is designated to act as Depository for such Securities as contemplated by Section 3.1.

"Designated Senior Debt" means the Company's obligations under any particular Senior Debt in which the instrument creating or evidencing the same or the assumption or guarantee thereof (or related agreements or documents to which the Company is a party) expressly provides that such Senior Debt shall be "Designated Senior Debt" for purposes of this Indenture (provided that such instrument, agreement or other document may place limitations and conditions on the right of such Senior Debt to exercise the rights of Designated Senior Debt). If any payment made to any holder of any Designated Senior Debt or its Representative with respect to such Designated Senior Debt is rescinded or must otherwise be returned by such holder or Representative upon the insolvency, bankruptcy or reorganization of the Company or otherwise, the reinstated Indebtedness of the Company arising as a result of such rescission or return shall constitute Designated Senior Debt effective as of the date of such rescission or return.

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"euro" or "euros" means the currency adopted by those nations participating in the third stage of the economic and monetary union provisions of the Treaty on European Union, signed at Maastricht on February 7, 1992.

"European Economic Area" means the member nations of the European Economic Area pursuant to the Oporto Agreement on the European Economic Area dated May 2, 1992, as amended.

"European Union" means the member nations of the European Union established by the Treaty of European Union, signed at Maastricht on February 2, 1992, which amended the Treaty of Rome establishing the European Community.

"Event of Default" has the meaning specified in Section 5.1.

"Exchange Act" means the Securities Exchange Act of 1934 and any statute successor thereto, in each case as amended from time to time.

"Expiration Date" has the meaning specified in Section 1.4.

"Foreign Government Obligation" means with respect to Securities of any series which are not denominated in the currency of the United States of America (x) any security which is (i) a direct obligation of the government which issued or caused to be issued the currency in which such security is denominated and for the payment of which obligations its full faith and credit is pledged or, with respect to Securities of any series which are denominated in euros, a direct obligation of any member nation of the European Union for the payment of which obligation the full faith and credit of the respective nation is pledged so long as such nation has a credit rating at least equal to that of the highest rated member nation of the European Economic Area, or (ii) an obligation of a Person controlled or supervised by and acting as an agency or instrumentality of a government specified in Clause (i) above the payment of which is unconditionally guaranteed as a full faith and credit obligation by the such government, which, in either case (i) or (ii), is not callable or redeemable at the option of the issuer thereof, and (y) any depositary receipt issued by a bank (as defined in Section 3(a)(2) of the Securities Act) as custodian with respect to any Foreign Government Obligation which is specified in Clause (x) above and held by such bank for the account of the holder of such depositary receipt, or with respect to any specific payment of principal or interest on any Foreign Government Obligation which is so specified and held, provided that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depositary receipt from any amount received by the custodian in respect of the Foreign Government Obligation or the specific payment of principal or interest evidenced by such depositary receipt.

"Global Security" means a Security that evidences all or part of the Securities of any series and bears the legend set forth in Section 2.4 (or such legend as may be specified as contemplated by Section 3.1 for such Securities).

"Holder" means a Person in whose name a Security is registered in the Security Register.

"Indebtedness" means, with respect to any Person, and without duplication, (a) all indebtedness, obligations and other liabilities (contingent or otherwise) of such Person for borrowed money (including obligations of such Person in respect of overdrafts, foreign exchange contracts, currency exchange agreements, interest rate protection agreements, and any loans or advances from banks, whether or not evidenced by notes or similar instruments) or evidenced by bonds, debentures, notes or similar instruments (whether or not the recourse of the lender is to the whole of the assets of such person or to only a portion thereof), other than any account payable or other accrued current liability or obligation incurred in the ordinary course of business in connection with the obtaining of materials or services; (b) all reimbursement obligations and other liabilities (contingent or otherwise) of such Person with respect to letters of credit, bank guarantees or bankers' acceptances; (c) all obligations and liabilities (contingent or otherwise) in respect of leases of such Person required, in conformity with generally accepted accounting principles, to be accounted for as capitalized lease obligations on the balance sheet of such Person and all obligations and other liabilities (contingent or otherwise) under any lease or related document (including a purchase agreement) in connection with the lease of real property which provides that such Person is contractually obligated to purchase or cause a third party to purchase the leased property and thereby guarantee a minimum residual value of the leased property to the lessor and the obligations of such Person under such lease or related document to purchase or to cause a third party to purchase such leased property; (d) all obligations of such Person (contingent or otherwise) with respect to an interest rate or other swap, cap or collar agreement or other similar instrument or agreement or foreign currency hedge, exchange, purchase or similar instrument or agreement; (e) all direct or indirect guaranties or similar agreements by such Person in respect of, and obligations or liabilities (contingent or otherwise) of such Person to purchase or otherwise acquire or otherwise assure a creditor against loss in respect of, indebtedness, obligations or liabilities of another person of the kind described in clauses (a) through (d) above; (f) any indebtedness or other obligations described in clauses (a) through (e) above secured by any mortgage, pledge, lien or other encumbrance existing on property which is owned or held by such Person, regardless of whether the indebtedness or other obligation secured thereby shall have been assumed by such Person; and (g) any and all deferrals, renewals, extensions and refundings of, or amendments, modifications or supplements to, any indebtedness, obligation or liability of the kind described in clauses (a) through (f) above.

"Indenture" means this instrument as originally executed and as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof, including, for all purposes of this instrument and any such supplemental indenture, the provisions of the Trust Indenture Act that are deemed to be a part of and govern this instrument and any such supplemental indenture, respectively. The term "Indenture" shall also include the terms of particular series of Securities established as contemplated by Section 3.1; provided, however, that if at any time more than one Person is acting as Trustee under this Indenture due to the appointment of one or more separate Trustees for any one or more separate series of Securities, "Indenture" shall mean, with respect to such series of Securities for which any such Person is Trustee, this instrument as originally executed or as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof and shall include the terms of particular series of Securities for which such Person is Trustee established as contemplated by Section 3.1, exclusive, however, of any

provisions or terms which relate solely to other series of Securities for which such Person is not Trustee, regardless of when such terms or provisions were adopted, and exclusive of any provisions or terms adopted by means of one or more indentures supplemental hereto executed and delivered after such Person had become such Trustee, but to which such person, as such Trustee, was not a party; provided, further that in the event that this Indenture is supplemented or amended by one or more indentures supplemental hereto which are only applicable

to certain series of Securities, the term "Indenture" for a particular series of Securities shall only include the supplemental indentures applicable thereto.

"interest," when used with respect to an Original Issue Discount Security, which by its terms bears interest only after Maturity, means interest payable after Maturity.

"Interest Payment Date," when used with respect to any Security, means the Stated Maturity of an installment of interest on such Security.

"Investment Company Act" means the Investment Company Act of 1940 and any statute successor thereto, in each case as amended from time to time.

"Maturity," when used with respect to any Security, means the date on which the principal of such Security or an installment of principal becomes due and payable as therein or herein provided, whether at the Stated Maturity or by declaration of acceleration, repurchase at the option of the Holder, upon redemption or otherwise.

"Notice of Default" means a written notice of the kind specified in Section 5.1(4).

"Officers' Certificate" means a certificate signed by the Chairman of the Board, a Vice Chairman of the Board, the Chief Executive Officer, the President or a Vice President, and by the principal financial officer, the Treasurer, an Assistant Treasurer, the Secretary or an Assistant Secretary, of the Company, and delivered to the Trustee. One of the officers signing an Officers' Certificate given pursuant to Section 10.4 shall be the principal executive, financial or accounting officer of the Company.

"Opinion of Counsel" means a written opinion of counsel, who may be counsel for, or an employee of, the Company, and who shall be reasonably acceptable to the Trustee.

"Original Issue Discount Security" means any Security that provides for an amount less than the principal amount thereof to be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 5.2.

"Outstanding," when used with respect to Securities, means, as of the date of determination, all Securities theretofore authenticated and delivered under this Indenture, except

(1) Securities theretofore canceled by the Trustee or delivered to the Trustee for cancellation;

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(2) Securities for whose payment or redemption money in the necessary amount has been theretofore deposited with the Trustee or any Paying Agent (other than the Company) in trust or set aside and segregated in trust by the Company (if the Company shall act as its own Paying Agent) for the Holders of such Securities; provided that, if such Securities are to be redeemed, notice of such redemption has been duly given pursuant to this Indenture or provision therefor satisfactory to the Trustee has been made;

(3) Securities as to which Defeasance has been effected pursuant to Section 13.2; and

(4) Securities which have been paid pursuant to Section 3.6 or in exchange for or in lieu of which other Securities have been authenticated and delivered pursuant to this Indenture, other than any such Securities in respect of which there shall have been presented to the Trustee proof satisfactory to it that such Securities are held by a bona fide purchaser in whose hands such Securities are valid obligations of the Company;

provided, however, that in determining whether the Holders of the requisite principal amount of the Outstanding Securities have given, made or taken any request, demand, authorization, direction, notice, consent, waiver or other action hereunder as of any date, (A) the principal amount of an Original Issue Discount Security which shall be deemed to be Outstanding shall be the amount of

the principal thereof which would be due and payable as of such date upon acceleration of the Maturity thereof to such date pursuant to Section 5.2, (B) if, as of such date, the principal amount payable at the Stated Maturity of a Security is not determinable, the principal amount of such Security which shall be deemed to be Outstanding shall be the amount as specified or determined as contemplated by Section 3.1, (C) the principal amount of a Security denominated in one or more non-U.S. dollar currencies or currency units which shall be deemed to be Outstanding shall be the U.S. dollar equivalent, determined as of such date in the manner provided as contemplated by Section 3.1, of the principal amount of such Security (or, in the case of a Security described in Clause (A) or (B) above, of the amount determined as provided in such Clause), and (D) Securities owned by the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor shall be disregarded and deemed not to be Outstanding, except that, in determining whether the Trustee shall be protected in relying upon any such request, demand, authorization, direction, notice, consent, waiver or other action, only Securities which the Trustee knows to be so owned shall be so disregarded. Securities so owned which have been pledged in good faith may be regarded as Outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor.

"Paying Agent" means any Person authorized by the Company to pay the principal of or any premium or interest on any Securities on behalf of the Company.

"Payment Blockage Notice" has the meaning specified in Section 15.2.

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"Person" means any individual, corporation, limited liability company, partnership, joint venture, trust, unincorporated organization or government or any agency or political subdivision thereof.

"Place of Payment," when used with respect to the Securities of any series, means the place or places where the principal of and any premium and interest on the Securities of that series are payable as specified as contemplated by Section 3.1.

"Predecessor Security" of any particular Security means every previous Security evidencing all or a portion of the same debt as that evidenced by such particular Security; and, for the purposes of this definition, any Security authenticated and delivered under Section 3.6 in exchange for or in lieu of a mutilated, destroyed, lost or stolen Security shall be deemed to evidence the same debt as the mutilated, destroyed, lost or stolen Security.

"Record Date" means any Regular Record Date or Special Record Date.

"Redemption Date," when used with respect to any Security to be redeemed, means the date fixed for such redemption by or pursuant to this Indenture.

"Redemption Price," when used with respect to any Security to be redeemed, means the price at which it is to be redeemed pursuant to this Indenture.

"Regular Record Date" for the interest payable on any Interest Payment Date on the Securities of any series means the date specified for that purpose as contemplated by Section 3.1.

"Representative" means the (a) indenture trustee or other trustee, agent or representative for any Senior Debt or (b) with respect to any Senior Debt that does not have any such trustee, agent or other representative, (i) in the case of such Senior Debt issued pursuant to an agreement providing for voting arrangements as among the holders or owners of such Senior Debt, any holder or owner of such Senior Debt acting with the consent of the required persons necessary to bind such holders or owners of such Senior Debt and (ii) in the case of all other such Senior Debt, the holder or owner of such Senior Debt.

"Responsible Officer" means, when used with respect to the Trustee, an officer of the Trustee in the Corporate Trust Office assigned and duly

authorized by the Trustee to administer its corporate trust matters.

"Securities" has the meaning stated in the first recital of this Indenture and more particularly means any Securities authenticated and delivered under this Indenture.

"Securities Act" means the Securities Act of 1933 and any statute successor thereto, in each case as amended from time to time.

"Security Register" and "Security Registrar" have the respective meanings specified in Section 3.5.

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"Senior Debt" means the principal of, premium, if any, interest (including all interest accruing subsequent to the commencement of any bankruptcy or similar proceeding, whether or not a claim for post-petition interest is allowable as a claim in any such proceeding) and rent payable on or in connection with, and all fees, costs, expenses and other amounts accrued or due on or in connection with, Indebtedness of the Company, whether outstanding on the date of this Indenture or thereafter created, incurred, assumed, guaranteed or in effect guaranteed by the Company (including all deferrals, renewals, extensions or refundings of, or amendments, modifications or supplements to, the foregoing), unless in the case of any particular Indebtedness the instrument creating or evidencing the same or the assumption or guarantee thereof expressly provides that such Indebtedness shall not be senior in right of payment to the Securities or expressly provides that such Indebtedness is "pari passu" or "junior" to the Securities. Notwithstanding the foregoing, the term Senior Debt shall not include any Indebtedness of the Company to any subsidiary of the Company. If any payment made to any holder of any Senior Debt or its Representative with respect to such Senior Debt is rescinded or must otherwise be returned by such holder or Representative upon the insolvency, bankruptcy or reorganization of the Company or otherwise, the reinstated Indebtedness of the Company arising as a result of such rescission or return shall constitute Senior Debt effective as of the date of such rescission or return.

"Special Record Date" for the payment of any Defaulted Interest means a date fixed by the Trustee pursuant to Section 3.7.

"Stated Maturity," when used with respect to any Security or any installment of principal thereof or interest thereon, means the date specified in such Security as the fixed date on which the principal of such Security or such installment of principal or interest is due and payable.

"Subsidiary" means a Person of which at least a majority of the outstanding voting stock having the power to elect a majority of the board of directors of such Person (in the case of a corporation) is, or of which at least a majority of the equity interests (in the case of a Person which is not a corporation) are, at the time owned, directly or indirectly, by the Company or by one or more other Subsidiaries, or by the Company and one or more other Subsidiaries. For the purposes of this definition, "voting stock" means stock which ordinarily has voting power for the election of directors, whether at all times or only so long as no senior class of stock has such voting power by reason of any contingency.

"Trust Indenture Act" means the Trust Indenture Act of 1939 as in force at the date as of which this instrument was executed; provided, however, that in the event the Trust Indenture Act of 1939 is amended after such date, "Trust Indenture Act" means, to the extent required by any such amendment, the Trust Indenture Act of 1939 as so amended.

"Trustee" means the Person named as the "Trustee" in the first paragraph of this instrument until a successor Trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter "Trustee" shall mean or include each Person who is then a Trustee hereunder, and if at any time there is more than one such Person, "Trustee" as used with respect to the Securities of any series shall mean the Trustee with respect to Securities of that series.

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"U.S. Government Obligation" means (x) any security which is (i) a direct obligation of the United States of America for the payment of which the full faith and credit of the United States of America is pledged or (ii) an obligation of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America, which, in either case (i) or (ii), is not callable or redeemable at the option of the issuer thereof, and (y) any depositary receipt issued by a bank (as defined in Section 3(a)(2) of the Securities Act) as custodian with respect to any U.S. Government Obligation which is specified in Clause (x) above and held by such bank for the account of the holder of such depositary receipt, or with respect to any specific payment of principal or interest on any U.S. Government Obligation which is so specified and held, provided that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depositary receipt from any amount received by the custodian in respect of the U.S. Government Obligation or the specific payment of principal or interest evidenced by such depositary receipt.

"Vice President," when used with respect to the Company or the Trustee, means any vice president, whether or not designated by a number or a word or words added before or after the title "vice president."

SECTION 1.2 COMPLIANCE CERTIFICATES AND OPINIONS.

Upon any application or request by the Company to the Trustee to take any action under any provision of this Indenture, the Company shall furnish to the Trustee such certificates and opinions as may be required under the Trust Indenture Act. Each such certificate or opinion shall be given in the form of an Officers' Certificate, if to be given by an officer of the Company, or an Opinion of Counsel, if to be given by counsel, and shall comply with the requirements of the Trust Indenture Act and any other requirements set forth in this Indenture.

Every certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture shall include,

(1) a statement that each individual signing such certificate or opinion has read such covenant or condition and the definitions herein relating thereto;

(2) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;

(3) a statement that, in the opinion of each such individual, he or she has made such examination or investigation as is necessary to enable him or her to express an informed opinion as to whether or not such covenant or condition has been complied with; and

(4) a statement as to whether, in the opinion of each such individual, such condition or covenant has been complied with.

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SECTION 1.3 FORM OF DOCUMENTS DELIVERED TO TRUSTEE.

In any case where several matters are required to be certified by, or covered by an opinion of, any specified Person, it is not necessary that all such matters be certified by, or covered by the opinion of, only one such Person, or that they be so certified or covered by only one document, but one such Person may certify or give an opinion with respect to some matters and one or more other such Persons as to other matters, and any such Person may certify or give an opinion as to such matters in one or several documents.

Any certificate or opinion of an officer of the Company may be based, insofar as it relates to legal matters, upon a certificate or opinion of, or representations by, counsel, unless such officer knows, or in the exercise of reasonable care should know, that the certificate or opinion or representations with respect to the matters upon which his or her certificate or opinion is based are erroneous. Any such certificate or opinion of counsel may be based, insofar as it relates to factual matters, upon a certificate or opinion of, or representations by, an officer or officers of the Company stating that the

information with respect to such factual matters is in the possession of the Company, unless such counsel knows, or in the exercise of reasonable care should know, that the certificate or opinion or representations with respect to such matters are erroneous.

Where any Person is required to make, give or execute two or more applications, requests, consents, certificates, statements, opinions or other instruments under this Indenture, they may, but need not, be consolidated and form one instrument.

SECTION 1.4 ACTS OF HOLDERS; RECORD DATES.

Any request, demand, authorization, direction, notice, consent, waiver or other action provided or permitted by this Indenture to be given, made or taken by Holders may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such Holders in person or by agent duly appointed in writing; and, except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments are delivered to the Trustee and, where it is hereby expressly required, to the Company. The Trustee shall promptly deliver to the Company copies of all such instrument or instruments delivered to the Trustee. Such instrument or instruments (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the "Act" of the Holders signing such instrument or instruments. Proof of execution of any such instrument or of a writing appointing any such agent shall be sufficient for any purpose of this Indenture and (subject to Section 6.1) conclusive in favor of the Trustee and the Company, if made in the manner provided in this Section.

The fact and date of the execution by any Person of any such instrument or writing may be proved by the affidavit of a witness of such execution or by a certificate of a notary public or other officer authorized by law to take acknowledgments of deeds, certifying that the individual signing such instrument or writing acknowledged to him or her the execution thereof. Where such execution is by a signer acting in a capacity other than his or her individual capacity, such certificate or affidavit shall also constitute sufficient proof of his or her authority. The fact and date of the

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execution of any such instrument or writing, or the authority of the Person executing the same, may also be proved in any other manner that the Trustee deems sufficient.

The ownership of Securities shall be proved by the Security Register.

Any request, demand, authorization, direction, notice, consent, waiver or other Act of the Holder of any Security shall bind every future Holder of the same Security and the Holder of every Security issued upon the registration of transfer thereof or in exchange therefor or in lieu thereof in respect of anything done, omitted or suffered to be done by the Trustee or the Company in reliance thereon, whether or not notation of such action is made upon such Security.

The Company may set any day as a record date for the purpose of determining the Holders of Outstanding Securities of any series entitled to give, make or take any request, demand, authorization, direction, vote, notice, consent, waiver or other action provided or permitted by this Indenture to be given, made or taken by Holders of Securities of such series, provided that the Company may not set a record date for, and the provisions of this paragraph shall not apply with respect to, the giving or making of any notice, declaration, request or direction referred to in the next paragraph. If any record date is set pursuant to this paragraph, the Holders of Outstanding Securities of the relevant series on such record date, and no other Holders, shall be entitled to take the relevant action, whether or not such Holders remain Holders after such record date; provided that no such action shall be effective hereunder unless taken on or prior to the applicable Expiration Date by Holders of the requisite principal amount of Outstanding Securities of such series on such record date. Nothing in this paragraph shall be construed to prevent the Company from setting a new record date for any action for which a record date has previously been set pursuant to this paragraph (whereupon the record date previously set shall automatically and with no action by any Person be canceled and of no effect), and nothing in this paragraph shall be construed to render ineffective any action taken by Holders of the requisite principal

amount of Outstanding Securities of the relevant series on the date such action is taken. Promptly after any record date is set pursuant to this paragraph, the Company, at its own expense, shall cause notice of such record date, the proposed action by Holders and the applicable Expiration Date to be given to the Trustee in writing and to each Holder of Securities of the relevant series in the manner set forth in Section 1.6.

The Trustee may set any day as a record date for the purpose of determining the Holders of Outstanding Securities of any series entitled to join in the giving or making of (i) any Notice of Default, (ii) any declaration of acceleration referred to in Section 5.2, (iii) any request to institute proceedings referred to in Section 5.7(2) or (iv) any direction referred to in Section 5.12, in each case with respect to Securities of such series. If any record date is set pursuant to this paragraph, the Holders of Outstanding Securities of such series on such record date, and no other Holders, shall be entitled to join in such notice, declaration, request or direction, whether or not such Holders remain Holders after such record date; provided that no such action shall be effective hereunder unless taken on or prior to the applicable Expiration Date by Holders of the requisite principal amount of Outstanding Securities of such series on such record date. Nothing in this paragraph shall be construed to prevent the Trustee from setting a new record date for any action for which a record date has previously been set pursuant to this paragraph (whereupon the record date previously set

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shall automatically and with no action by any Person be canceled and of no effect), and nothing in this paragraph shall be construed to render ineffective any action taken by Holders of the requisite principal amount of Outstanding Securities of the relevant series on the date such action is taken. Promptly after any record date is set pursuant to this paragraph, the Trustee, at the Company's expense, shall cause notice of such record date, the proposed action by Holders and the applicable Expiration Date to be given to the Company in writing and to each Holder of Securities of the relevant series in the manner set forth in Section 1.6.

With respect to any record date set pursuant to this Section, the party hereto which sets such record dates may designate any day as the "Expiration Date" and from time to time may change the Expiration Date to any earlier or later day; provided that no such change shall be effective unless notice of the proposed new Expiration Date is given to the other party hereto in writing, and to each Holder of Securities of the relevant series in the manner set forth in Section 1.6, on or prior to the existing Expiration Date. If an Expiration Date is not designated with respect to any record date set pursuant to this Section, the party hereto which set such record date shall be deemed to have initially designated the 180th day after such record date as the Expiration Date with respect thereto, subject to its right to change the Expiration Date as provided in this paragraph. Notwithstanding the foregoing, no Expiration Date shall be later than the 180th day after the applicable record date.

Without limiting the foregoing, a Holder entitled hereunder to take any action hereunder with regard to any particular Security may do so with regard to all or any part of the principal amount of such Security or by one or more duly appointed agents each of which may do so pursuant to such appointment with regard to all or any part of such principal amount.

SECTION 1.5 NOTICES, ETC., TO TRUSTEE AND COMPANY.

Any request, demand, authorization, direction, notice, consent, waiver or Act of Holders or other document provided or permitted by this Indenture to be made upon, given or furnished to, or filed with,

(1) the Trustee by any Holder or by the Company shall be sufficient for every purpose hereunder if made, given, furnished or filed in writing (or by facsimile transmissions, provided that oral confirmation of receipt shall have been received) to or with the Trustee at its Corporate Trust Office, Attention: Corporate Trust Department, or

(2) the Company by the Trustee or by any Holder shall be sufficient for every purpose hereunder (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, personally delivered or sent via overnight courier to the Company addressed to it at the address of its principal office specified in the first paragraph

of this instrument or at any other address previously furnished in writing to the Trustee by the Company, Attention: Chief Financial Officer.

SECTION 1.6 NOTICE TO HOLDERS; WAIVER.

Where this Indenture provides for notice to Holders of any event, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and mailed, first-class

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postage prepaid or delivered by hand or overnight courier, to each Holder affected by such event, at its address as it appears in the Security Register, not later than the latest date (if any), and not earlier than the earliest date (if any), prescribed for the giving of such notice. Neither the failure to mail or deliver by hand or overnight courier any notice, nor any defect in any notice so mailed or delivered by hand or overnight courier, to any particular Holder shall affect the sufficiency of such notice with respect to other Holders. Where this Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

In case by reason of the suspension of regular mail service or by reason of any other cause it shall be impracticable to give such notice by mail, then such notification as shall be made with the approval of the Trustee shall constitute a sufficient notification for every purpose hereunder.

SECTION 1.7 CONFLICT WITH TRUST INDENTURE ACT.

If any provision hereof limits, qualifies or conflicts with a provision of the Trust Indenture Act that is required under the Trust Indenture Act to be a part of and govern this Indenture, the latter provision shall control. If any provision of this Indenture modifies or excludes any provision of the Trust Indenture Act, which may be so modified or excluded, the latter provision shall be deemed to apply to this Indenture as so modified or to be excluded, as the case may be.

SECTION 1.8 EFFECT OF HEADINGS AND TABLE OF CONTENTS.

The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

SECTION 1.9 SUCCESSORS AND ASSIGNS.

All covenants and agreements in this Indenture by the Company shall bind its successors and assigns, whether so expressed or not.

SECTION 1.10 SEPARABILITY CLAUSE.

In case any provision in this Indenture or in the Securities shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

SECTION 1.11 BENEFITS OF INDENTURE.

Nothing in this Indenture or in the Securities, express or implied, shall give to any Person, other than the parties hereto and their successors hereunder, the holders of Senior Debt and the Holders, any benefit or any legal or equitable right, remedy or claim under this Indenture.

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SECTION 1.12 GOVERNING LAW.

THIS INDENTURE AND THE SECURITIES SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, WITHOUT GIVING EFFECT TO SUCH

STATE'S CONFLICTS OF LAWS PRINCIPLES.

SECTION 1.13 LEGAL HOLIDAYS.

In any case where any Interest Payment Date, Redemption Date or Stated Maturity of any Security or the last date on which a Holder has the right to convert a Security at a particular conversion price shall not be a Business Day at any Place of Payment, then (notwithstanding any other provision of this Indenture or of the Securities (other than a provision of any Security which specifically states that such provision shall apply in lieu of this Section)) payment of interest or principal (and premium, if any) or, if applicable to a particular series of Securities, conversion need not be made at such Place of Payment on such date, but may be made on the next succeeding Business Day at such Place of Payment with the same force and effect as if made on the Interest Payment Date or Redemption Date, at the Stated Maturity or on such last day for conversion, as the case may be.

SECTION 1.14 INDENTURE AND SECURITIES SOLELY CORPORATE OBLIGATIONS.

No recourse for the payment of the principal of or premium, if any, or interest on any Security, or for any claim based thereon or otherwise in respect thereof, and no recourse under or upon any obligation, covenant or agreement of the Company in this Indenture or in any supplemental indenture or in any Security, or because of the creation of any indebtedness represented thereby, shall be had against any incorporator, stockholder, employee, agent, officer, or director or subsidiary, as such, past, present or future, of the Company or of any successor corporation, either directly or through the Company or any successor corporation, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise; it being expressly understood that all such liability is hereby expressly waived and released as a condition of, and as a consideration for, the execution of this Indenture and the issue of the Securities.

SECTION 1.15 INDENTURE MAY BE EXECUTED IN COUNTERPARTS.

This instrument may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

ARTICLE 2

SECURITY FORMS

SECTION 2.1 FORMS GENERALLY.

The Securities of each series shall be in substantially the form set forth in this Article, or in such other form as shall be established by or pursuant to a Board Resolution or in one or more

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indentures supplemental hereto, in each case with such appropriate insertions, omissions, substitutions and other variations as are required or permitted by this Indenture, and may have such letters, numbers or other marks of identification and such legends or endorsements placed thereon as may be required to comply with the rules of any securities exchange or Depository therefor or as may, consistently herewith, be determined by the officers executing such Securities, as evidenced by their execution thereof. If the form of Securities of any series is established by action taken pursuant to a Board Resolution, a copy of an appropriate record of such action shall be certified by the Secretary or an Assistant Secretary of the Company and delivered to the Trustee at or prior to the delivery of the Company Order contemplated by Section 3.3 for the authentication and delivery of such Securities. Any such Board Resolution or record of such action shall have attached thereto a true and correct copy of the form of Security referred to therein approved by or pursuant to such Board Resolution.

The definitive Securities shall be printed, lithographed or engraved on steel engraved borders or may be produced in any other manner, all as determined by the officers executing such Securities, as evidenced by their execution of such Securities.

SECTION 2.2 FORM OF FACE OF SECURITY.

[INSERT ANY LEGEND REQUIRED BY THE INTERNAL REVENUE CODE AND THE REGULATIONS THEREUNDER.]

HARMONIC INC.

NO. _____ \$ _____
CUSIP: _____

Harmonic Inc., a corporation duly organized and existing under the laws of Delaware (herein called the "Company," which term includes any successor Person under the Indenture hereinafter referred to), for value received, hereby promises to pay to _____, or registered assigns, the principal sum of _____ Dollars on _____ [IF THE SECURITY IS TO BEAR INTEREST PRIOR TO MATURITY, INSERT --, and to pay interest thereon from _____ or from the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually on _____ and _____ in each year, commencing _____, at the rate of ___% per annum, until the principal hereof is paid or made available for payment [IF APPLICABLE, INSERT --, provided that any principal and premium, and any such installment of interest, which is overdue shall bear interest at the rate of ___% per annum (to the extent that the payment of such interest shall be legally enforceable), from the dates such amounts are due until they are paid or made available for payment, and such interest shall be payable on demand]. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record

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Date for such interest, which shall be the _____ or _____ (whether or not a Business Day), as the case may be, next preceding such Interest Payment Date. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Securities of this series not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of any securities exchange on which the Securities of this series may be listed, and upon such notice as may be required by such exchange, all as more fully provided in said Indenture].

[IF THE SECURITY IS NOT TO BEAR INTEREST PRIOR TO MATURITY, INSERT -- The principal of this Security shall not bear interest except in the case of a default in payment of principal upon acceleration, upon redemption or at Stated Maturity and in such case the overdue principal and any overdue premium shall bear interest at the rate of ___% per annum (to the extent that the payment of such interest shall be legally enforceable), from the dates such amounts are due until they are paid or made available for payment. Interest on any overdue principal or premium shall be payable on demand. Any such interest on overdue principal or premium which is not paid on demand shall bear interest at the rate of ___% per annum (to the extent that the payment of such interest on interest shall be legally enforceable), from the date of such demand until the amount so demanded is paid or made available for payment. Interest on any overdue interest shall be payable on demand.] Payment of the principal of (and premium, if any) and [IF APPLICABLE, INSERT -- any such] interest on this Security will be made at the office or agency of the Company maintained for that purpose in _____, in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts [IF APPLICABLE, INSERT --; provided, however, that at the option of the Company payment of interest may be made by check mailed to the address of the Person entitled thereto as such address shall appear in the Security Register].

Reference is hereby made to the further provisions of this Security set forth on the reverse hereof, which further provisions shall for all purposes have the same effect as if set forth at this place.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Security shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____

HARMONIC INC.

By: _____

Title: _____

ATTEST: _____

SECTION 2.3 FORM OF REVERSE OF SECURITY.

This Security is one of a duly authorized issue of securities of the Company (herein called the "Securities"), issued and to be issued in one or more series under an Indenture, dated as of _____, 200_ (herein called the "Indenture," which term shall have the meaning assigned to it in such instrument), between the Company and U.S. Bank National Association, as Trustee (herein called the "Trustee," which term includes any successor trustee under the Indenture), and reference is hereby made to the Indenture and all indentures supplemental thereto for a statement of the respective rights, limitations of rights, duties and immunities thereunder of the Company, the Trustee, the holders of Senior Debt and the Holders of the Securities and of the terms upon which the Securities are, and are to be, authenticated and delivered. This Security is one of the series designated on the face hereof [IF APPLICABLE, INSERT --, limited in aggregate principal amount to \$_____].

[IF APPLICABLE, INSERT -- The Securities of this series are subject to redemption upon not less than [IF APPLICABLE, INSERT -- 30] days' notice by mail, [IF APPLICABLE, INSERT -- (1) on _____ in any year commencing with the year ____ and ending with the year ____ through operation of the sinking fund for this series at a Redemption Price equal to 100% of the principal amount, and (2)] at any time [IF APPLICABLE, INSERT -- on or after _____, 20__], as a whole or in part, at the election of the Company, at the following Redemption Prices (expressed as percentages of the principal amount): If redeemed [IF APPLICABLE, INSERT -- on or before _____, __%, and if redeemed] during the 12-month period beginning _____ of the years indicated,

| YEAR | REDEMPTION PRICE | YEAR | REDEMPTION PRICE |
|------|------------------|------|------------------|
| ---- | ----- | ---- | ----- |

and thereafter at a Redemption Price equal to ____% of the principal amount, together in the case of any such redemption [IF APPLICABLE, INSERT -- (whether through operation of the sinking fund or otherwise)] with accrued interest to the Redemption Date, but interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holders of such Securities, or one or more Predecessor Securities, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.]

[IF APPLICABLE, INSERT --The Securities of this series are subject to redemption upon not less than [if applicable, insert -- 30] days' notice by mail, (1) on _____ in any year commencing with the year ____ and ending with the year ____ through operation of the sinking fund for this series at the Redemption Prices for redemption through operation of the sinking fund (expressed as percentages of the principal amount) set forth in the table below, and (2) at any time [IF APPLICABLE, INSERT -- on or after _____], as a whole or in part, at the election of the Company, at the Redemption Prices for redemption otherwise than through operation of the sinking fund (expressed

as percentages of the principal amount) set forth in the table below: If redeemed during the 12-month period beginning _____ of the years indicated,

| YEAR | REDEMPTION PRICE FOR REDEMPTION THROUGH OPERATION OF THE SINKING FUND | REDEMPTION PRICE FOR REDEMPTION OTHERWISE THAN THROUGH OPERATION OF THE SINKING FUND |
|------|---|--|
| ---- | ----- | ----- |

and thereafter at a Redemption Price equal to ___% of the principal amount, together in the case of any such redemption (whether through operation of the sinking fund or otherwise) with accrued interest to the Redemption Date, but interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holders of such Securities, or one or more Predecessor Securities, of record at the close of business on the relevant Record Dates referred to on the face hereof, all as provided in the Indenture.]

[IF APPLICABLE, INSERT -- Notwithstanding the foregoing, the Company may not, prior to _____, redeem any Securities of this series as contemplated by [IF APPLICABLE, INSERT -- Clause (2) of] the preceding paragraph as a part of, or in anticipation of, any refunding operation by the application, directly or indirectly, of moneys borrowed having an interest cost to the Company (calculated in accordance with generally accepted financial practice) of less than ___% per annum.]

[IF APPLICABLE, INSERT -- The sinking fund for this series provides for the redemption on _____, in each year beginning with the year _____ and ending with the year _____ of [IF APPLICABLE, INSERT -- not less than \$_____ ("mandatory sinking fund") and not more than] \$_____ aggregate principal amount of Securities of this series. Securities of this series acquired or redeemed by the Company otherwise than through [IF APPLICABLE, INSERT -- mandatory] sinking fund payments may be credited against subsequent [IF APPLICABLE, INSERT -- mandatory] sinking fund payments otherwise required to be made IF APPLICABLE, INSERT --, in the inverse order in which they become due].]

[IF THE SECURITY IS SUBJECT TO REDEMPTION OF ANY KIND, INSERT -- In the event of redemption of this Security in part only, a new Security or Securities of this series and of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the cancellation hereof.]

[IF APPLICABLE, INSERT -- The Indenture contains provisions for defeasance at any time of [the entire indebtedness of this Security] [or] [certain restrictive covenants and Events of Default with respect to this Security] [, in each case] upon compliance with certain conditions set forth in the Indenture.]

[IF THE SECURITY IS CONVERTIBLE INTO COMMON STOCK OF THE COMPANY, INSERT -- Subject to the provisions of the Indenture, the Holder of this Security is entitled, at its option, at any time on or before [INSERT DATE] (except that, in case this Security or any portion hereof shall be called for

redemption, such right shall terminate with respect to this Security or portion hereof, as the case may be, so called for redemption at the close of business on the first Business Day next preceding the date fixed for redemption as provided in the Indenture unless the Company defaults in making the payment due upon redemption), to convert the principal amount of this Security (or any portion hereof which is \$1,000 or an integral multiple thereof), into fully paid and non-assessable shares (calculated as to each conversion to the nearest 1/100th of a share) of the Common Stock of the Company, as said shares shall be

constituted at the date of conversion, at the conversion price of \$ _____ principal amount of Securities for each share of Common Stock, or at the adjusted conversion price in effect at the date of conversion determined as provided in the Indenture, upon surrender of this Security, together with the conversion notice hereon duly executed, to the Company at the designated office or agency of the Company in _____, accompanied (if so required by the Company) by instruments of transfer, in form satisfactory to the Company and to the Trustee, duly executed by the Holder or by its duly authorized attorney in writing.

Such surrender shall, if made during any period beginning at the close of business on a Regular Record Date and ending at the opening of business on the Interest Payment Date next following such Regular Record Date (unless this Security or the portion being converted shall have been called for redemption on a Redemption Date during the period beginning at the close of business on a Regular Record Date and ending at the opening of business on the first Business Day after the next succeeding Interest Payment Date, or if such Interest Payment Date is not a Business Day, the second such Business Day), also be accompanied by payment in funds acceptable to the Company of an amount equal to the interest payable on such Interest Payment Date on the principal amount of this Security then being converted. Subject to the aforesaid requirement for payment and, in the case of a conversion after the Regular Record Date next preceding any Interest Payment Date and on or before such Interest Payment Date, to the right of the Holder of this Security (or any Predecessor Security) of record at such Regular Record Date to receive an installment of interest (with certain exceptions provided in the Indenture), no adjustment is to be made on conversion for interest accrued hereon or for dividends on shares of Common Stock issued on conversion. The Company is not required to issue fractional shares upon any such conversion, but shall make adjustment therefor in cash on the basis of the current market value of such fractional interest as provided in the Indenture. The conversion price is subject to adjustment as provided in the Indenture. In addition, the Indenture provides that in case of certain consolidations or mergers to which the Company is a party or the sale of substantially all of the assets of the Company, the Indenture shall be amended, without the consent of any Holders of Securities, so that this Security, if then outstanding, will be convertible thereafter, during the period this Security shall be convertible as specified above, only into the kind and amount of securities, cash and other property receivable upon the consolidation, merger or sale by a holder of the number of shares of Common Stock into which this Security might have been converted immediately prior to such consolidation, merger or sale (assuming such holder of Common Stock failed to exercise any rights of election and received per share the kind and amount received per share by a plurality of non-electing shares). In the event of conversion of this Security in part only, a new Security or Securities for the unconverted portion hereof shall be issued in the name of the Holder hereof upon the cancellation hereof.]

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[IF THE SECURITY IS CONVERTIBLE INTO OTHER SECURITIES OF THE COMPANY, SPECIFY THE CONVERSION FEATURES.]

The indebtedness evidenced by this Security is, to the extent and in the manner provided in the Indenture, subordinate and subject in right of payment to the prior payment in full of all Senior Debt of the Company, and this Security is issued subject to such provisions of the Indenture with respect thereto. Each Holder of this Security, by accepting the same, (a) agrees to and shall be bound by such provisions, (b) authorizes and directs the Trustee on his behalf to take such action as may be necessary or appropriate to effectuate the subordination so provided and (c) appoints the Trustee his attorney-in-fact for any and all such purposes.

[IF THE SECURITY IS NOT AN ORIGINAL ISSUE DISCOUNT SECURITY, INSERT -- If an Event of Default with respect to Securities of this series shall occur and be continuing, the principal of the Securities of this series may be declared due and payable in the manner and with the effect provided in the Indenture.]

[IF THE SECURITY IS AN ORIGINAL ISSUE DISCOUNT SECURITY, INSERT -- If an Event of Default with respect to Securities of this series shall occur and be continuing, an amount of principal of the Securities of this series may be declared due and payable in the manner and with the effect provided in the Indenture. Such amount shall be equal to -- INSERT FORMULA FOR DETERMINING THE AMOUNT. Upon payment (i) of the amount of principal so declared due and payable

and (ii) of interest on any overdue principal, premium and interest (in each case to the extent that the payment of such interest shall be legally enforceable), all of the Company's obligations in respect of the payment of the principal of and premium and interest, if any, on the Securities of this series shall terminate.]

The Indenture permits, with certain exceptions as therein provided, the amendment thereof and the modification of the rights and obligations of the Company and the rights of the Holders of the Securities of each series to be affected under the Indenture at any time by the Company and the Trustee with the consent of the Holders of more than 50% in principal amount of the Securities at the time Outstanding of each series to be affected. The Indenture also contains provisions permitting the Holders of specified percentages in principal amount of the Securities of each series at the time Outstanding, on behalf of the Holders of all Securities of such series, to waive compliance by the Company with certain provisions of the Indenture and certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Security shall be conclusive and binding upon such Holder and upon all future Holders of this Security and of any Security issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, whether or not notation of such consent or waiver is made upon this Security.

As provided in and subject to the provisions of the Indenture, the Holder of this Security shall not have the right to institute any proceeding with respect to the Indenture or for the appointment of a receiver or trustee or for any other remedy thereunder, unless such Holder shall have previously given the Trustee written notice of a continuing Event of Default with respect to the Securities of this series, the Holders of not less than a majority in principal amount of the Securities of this series at the time Outstanding shall have made written request to the Trustee to institute proceedings in respect of such Event of Default as Trustee and offered the Trustee reasonable

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indemnity, and the Trustee shall not have received from the Holders of a majority in principal amount of Securities of this series at the time Outstanding a direction inconsistent with such request, and shall have failed to institute any such proceeding, for 60 days after receipt of such notice, request and offer of indemnity. The foregoing shall not apply to any suit instituted by the Holder of this Security for the enforcement of any payment of principal hereof or any premium or interest hereon on or after the respective due dates expressed herein.

No reference herein to the Indenture and no provision of this Security or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of and any premium and interest on this Security at the times, place and rate, and in the coin or currency, herein prescribed.

As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Security is registrable in the Security Register, upon surrender of this Security for registration of transfer at the office or agency of the Company in any place where the principal of and any premium and interest on this Security are payable, duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed by, the Holder hereof or its attorney duly authorized in writing, and thereupon one or more new Securities of this series and of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.

The Securities of this series are issuable only in registered form without coupons in denominations of \$_____ and any integral multiple thereof. As provided in the Indenture and subject to certain limitations therein set forth, Securities of this series are exchangeable for a like aggregate principal amount of Securities of this series and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

Prior to due presentment of this Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Security is registered as the owner hereof for all purposes, whether or not this Security be overdue, and neither the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

All terms used in this Security that are defined in the Indenture shall have the meanings assigned to them in the Indenture.

SECTION 2.4 FORM OF LEGEND FOR GLOBAL SECURITIES.

Unless otherwise specified as contemplated by Section 3.1 for the Securities evidenced thereby, every Global Security authenticated and delivered hereunder shall bear a legend in substantially the following form:

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THIS SECURITY IS A GLOBAL SECURITY WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY OR A NOMINEE THEREOF. THIS SECURITY MAY NOT BE EXCHANGED IN WHOLE OR IN PART FOR A SECURITY REGISTERED, AND NO TRANSFER OF THIS SECURITY IN WHOLE OR IN PART MAY BE REGISTERED, IN THE NAME OF ANY PERSON OTHER THAN SUCH DEPOSITARY OR A NOMINEE THEREOF, EXCEPT IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE.

SECTION 2.5 FORM OF TRUSTEE'S CERTIFICATE OF AUTHENTICATION.

The Trustee's certificates of authentication shall be in substantially the following form:

This is one of the Securities of the series designated herein referred to in the within-mentioned Indenture.

U.S. Bank National Association,
as Trustee

By: _____
Authorized Officer

SECTION 2.6 FORM OF CONVERSION NOTICE.

Conversion notices shall be in substantially the following form:
To Harmonic Inc.:

The undersigned owner of this Security hereby irrevocably exercises the option to convert this Security, or portion hereof (which is \$1,000 or an integral multiple thereof) below designated, into shares of Common Stock of the Company in accordance with the terms of the Indenture referred to in this Security, and directs that the shares issuable and deliverable upon the conversion, together with any check in payment for fractional shares and any Securities representing any unconverted principal amount hereof, be issued and delivered to the registered holder hereof unless a different name has been indicated below. If this Notice is being delivered on a date after the close of business on a Regular Record Date and prior to the opening of business on the related Interest Payment Date (unless this Security or the portion thereof being converted has been called for redemption on a Redemption Date during the period beginning at the close of business on a Regular Record Date and ending at the opening of business on the first Business Day after the next succeeding Interest Payment Date, or if such Interest Payment Date is not a Business Day, the second such Business Day), this Notice is accompanied by payment, in funds acceptable to the Company, of an amount equal to the interest payable on such Interest Payment Date of the principal of this Security to be converted. If shares are to be issued in the name of a person other than the undersigned, the undersigned will pay all transfer taxes payable with respect hereto. Any amount required to be paid by the undersigned on account of interest accompanies this Security.

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Principal Amount to be Converted
(in an integral multiple of \$1,000, if less than all):

U.S. \$ _____.

Dated: _____

Signature(s) must be guaranteed by an eligible guarantor institution (banks, stockbrokers, savings and loan associations and credit unions with membership in an approved signature guarantee medallion program) pursuant to Securities and Exchange Commission Rule 17Ad-15.

Signature Guaranty

Fill in for registration of shares of Common Stock and Security if to be issued otherwise than to the registered Holder.

(Name)

Social Security or Other Taxpayer Identification Number

Please print Name and Address (including zip code)

[The above conversion notice is to be modified, as appropriate, for conversion into other securities or property of the Company.]

ARTICLE 3

THE SECURITIES

SECTION 3.1 AMOUNT UNLIMITED; ISSUABLE IN SERIES.

The aggregate principal amount of Securities that may be authenticated and delivered under this Indenture is unlimited. The Securities may be issued in one or more series. There shall be established in or pursuant to a Board Resolution and, subject to Section 3.3, set forth, or determined in the manner provided, in an Officers' Certificate, or established in one or more indentures supplemental hereto, prior to the issuance of Securities of any series,

(1) the title of the Securities of the series (which shall distinguish the Securities of the series from Securities of any other series);

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(2) any limit upon the aggregate principal amount of the Securities of the series which may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of the series pursuant to Section 3.4, 3.5, 3.6, 9.6 or 11.7 and except for any Securities which, pursuant to Section 3.3, are deemed never to have been authenticated and delivered hereunder);

(3) the Person to whom any interest on a Security of the series shall be payable, if other than the Person in whose name that Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest;

(4) the date or dates on which the principal of any Securities of the series is payable;

(5) the rate or rates (which may be fixed or variable) at which any Securities of the series shall bear interest, if any, the date or dates from which any such interest shall accrue, the Interest Payment Dates on which any such interest shall be payable and the Regular Record Date for any such interest payable on any Interest Payment Date (or the method for determining the dates and rates);

(6) the place or places where the principal of and any premium and interest on any Securities of the series shall be payable;

(7) the period or periods within which, the price or prices at which and the terms and conditions upon which any Securities of the series may be redeemed, in whole or in part, at the option of the Company and, if other than by a Board Resolution, the manner in which any election by the Company to redeem the Securities shall be evidenced;

(8) the obligation, if any, of the Company to redeem or purchase any Securities of the series pursuant to any sinking fund or analogous provisions or at the option of the Holder thereof and the period or periods within which, the price or prices at which and the terms and conditions upon which any Securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;

(9) if other than denominations of \$1,000 and any integral multiple thereof, the denominations in which any Securities of the series shall be issuable;

(10) if the amount of principal of or any premium or interest on any Securities of the series may be determined with reference to an index or pursuant to a formula, the manner in which such amounts shall be determined;

(11) if other than the currency of the United States of America, the currency, currencies or currency units in which the principal of or any premium or interest on any Securities of the series shall be payable and the manner of determining the equivalent thereof in the currency of the United States of America for any purpose, including for purposes of the definition of "Outstanding" in Section 1.1;

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(12) if the principal of or any premium or interest on any Securities of the series is to be payable, at the election of the Company or the Holder thereof, in one or more currencies or currency units other than that or those in which such Securities are stated to be payable, the currency, currencies or currency units in which the principal of or any premium or interest on such Securities as to which such election is made shall be payable, the periods within which and the terms and conditions upon which such election is to be made and the amount so payable (or the manner in which such amount shall be determined);

(13) if other than the entire principal amount thereof, the portion of the principal amount of any Securities of the series which shall be payable upon declaration of acceleration of the Maturity thereof pursuant to Section 5.2;

(14) if the principal amount payable at the Stated Maturity of any Securities of the series will not be determinable as of any one or more dates prior to the Stated Maturity, the amount which shall be deemed to be the principal amount of such Securities as of any such date for any purpose thereunder or hereunder, including the principal amount thereof which shall be due and payable upon any Maturity other than the Stated Maturity or which shall be deemed to be Outstanding as of any date prior to the Stated Maturity (or, in any such case, the manner in which such amount deemed to be the principal amount shall be determined);

(15) if applicable, that the Securities of the series, in whole or any specified part, shall be defeasible pursuant to Section 13.2 or Section 13.3 or both such Sections, or any other defeasance provisions applicable to any Securities of the series, and, if other than by a Board Resolution, the manner in which any election by the Company to defease such Securities shall be evidenced;

(16) if applicable, the terms of any right to convert or exchange Securities of the series into shares of Common Stock of the Company or other securities or property;

(17) if applicable, that any Securities of the series shall be issuable in whole or in part in the form of one or more Global

Securities and, in such case, the respective Depositaries for such Global Securities, the form of any legend or legends which shall be borne by any such Global Security in addition to or in lieu of that set forth in Section 2.4 and any circumstances in addition to or in lieu of those set forth in Clause (2) of the last paragraph of Section 3.5 in which any such Global Security may be exchanged in whole or in part for Securities registered, and any transfer of such Global Security in whole or in part may be registered, in the name or names of Persons other than the Depositary for such Global Security or a nominee thereof;

(18) any addition to or change in the Events of Default which applies to any Securities of the series and any change in the right of the Trustee or the requisite Holders of such Securities to declare the principal amount thereof due and payable pursuant to Section 5.2;

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(19) any addition to or change in the covenants set forth in Article 10 which applies to Securities of the series;

(20) any Authenticating Agents, Paying Agents, Security Registrars or such other agents necessary in connection with the issuance of the Securities of such series, including, without limitation, exchange rate agents and calculation agents;

(21) if applicable, the terms of any security that will be provided for a series of Securities, including provisions regarding the circumstances under which collateral may be released or substituted;

(22) if applicable, the terms of any guaranties for the Securities and any circumstances under which there may be additional obligors on the Securities;

(23) any addition to or change in or modification to the subordinated provisions of this Indenture relating to the Securities of that series (including the provisions of Article 15), or different subordination provisions, including a different definition of "Senior Debt" or "Designated Senior Debt," will apply to Securities of the series; and

(24) any other terms of the series (which terms shall not be inconsistent with the provisions of this Indenture, except as permitted by Section 9.1(5)).

All Securities of any one series shall be substantially identical except as to denomination and except as may otherwise be provided in or pursuant to the Board Resolution referred to above and (subject to Section 3.3) set forth, or determined in the manner provided, in the Officers' Certificate referred to above or in any such indenture supplemental hereto.

If any of the terms of the series are established by action taken pursuant to a Board Resolution, a copy of an appropriate record of such action shall be certified by the Secretary or an Assistant Secretary of the Company and delivered to the Trustee at or prior to the delivery of the Officers' Certificate setting forth the terms of the series.

The Securities shall be subordinated in right of payment to Senior Debt as provided in Article 15.

SECTION 3.2 DENOMINATIONS.

The Securities of each series shall be issuable only in registered form without coupons and only in such denominations as shall be specified as contemplated by Section 3.1. In the absence of any such specified denomination with respect to the Securities of any series, the Securities of such series shall be issuable in denominations of \$1,000 and any integral multiple thereof.

SECTION 3.3 EXECUTION, AUTHENTICATION, DELIVERY AND DATING.

The Securities shall be executed on behalf of the Company by its Chairman of the Board, its Vice Chairman of the Board, its Chief Executive Officer, its principal financial officer, its President or one of its Vice Presidents, attested by its Treasurer, its Secretary or one of its Assistant

Treasurers or Assistant Secretaries. The signature of any of these officers on the Securities may be manual or facsimile.

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Securities bearing the manual or facsimile signatures of individuals who were at any time the proper officers of the Company shall bind the Company, notwithstanding that such individuals or any of them have ceased to hold such offices prior to the authentication and delivery of such Securities or did not hold such offices at the date of such Securities.

At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Securities of any series executed by the Company to the Trustee for authentication, together with a Company Order for the authentication and delivery of such Securities, and the Trustee in accordance with the Company Order shall authenticate and deliver such Securities. If the form or terms of the Securities of the series have been established by or pursuant to one or more Board Resolutions as permitted by Sections 2.1 and 3.1, in authenticating such Securities, and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall be entitled to receive, and (subject to Section 6.1) shall be fully protected in relying upon, a copy of such Board Resolution, the Officers' Certificate setting forth the terms of the series and an Opinion of Counsel, with such Opinion of Counsel stating,

(1) if the form of such Securities has been established by or pursuant to Board Resolution as permitted by Section 2.1, that such form has been established in conformity with the provisions of this Indenture;

(2) if the terms of such Securities have been established by or pursuant to Board Resolution as permitted by Section 3.1, that such terms have been established in conformity with the provisions of this Indenture; and

(3) that such Securities, when authenticated and delivered by the Trustee and issued by the Company in the manner and subject to any conditions specified in such Opinion of Counsel, will constitute valid and legally binding obligations of the Company enforceable in accordance with their terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability relating to or affecting creditors' rights and to general equity principles.

If such form or terms have been so established, the Trustee shall not be required to authenticate such Securities if the issue of such Securities pursuant to this Indenture will affect the Trustee's own rights, duties or immunities under the Securities and this Indenture or otherwise in a manner which is not reasonably acceptable to the Trustee.

Notwithstanding the provisions of Section 3.1 and of the preceding paragraph, if all Securities of a series are not to be originally issued at one time, it shall not be necessary to deliver the Officers' Certificate otherwise required pursuant to Section 3.1 or the Company Order and Opinion of Counsel otherwise required pursuant to such preceding paragraph at or prior to the authentication of each Security of such series if such documents are delivered at or prior to the authentication upon original issuance of the first Security of such series to be issued.

Each Security shall be dated the date of its authentication.

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No Security shall be entitled to any benefit under this Indenture or be valid or obligatory for any purpose unless there appears on such Security a certificate of authentication substantially in the form provided for herein executed by the Trustee by manual signature, and such certificate upon any Security shall be conclusive evidence, and the only evidence, that such Security has been duly authenticated and delivered hereunder. Notwithstanding the foregoing, if any Security shall have been authenticated and delivered hereunder but never issued and sold by the Company, and the Company shall deliver such Security to the Trustee for cancellation as provided in Section 3.9, for all

purposes of this Indenture such Security shall be deemed never to have been authenticated and delivered hereunder and shall never be entitled to the benefits of this Indenture.

Neither the Company nor the Trustee shall have any responsibility for any defect in the CUSIP number that appears on any Security, check, advice of payment or redemption notice, and any such document may contain a statement to the effect that CUSIP numbers have been assigned by an independent service for convenience of reference and that neither the Company nor the Trustee shall be liable for any inaccuracy in such numbers.

SECTION 3.4 TEMPORARY SECURITIES.

Pending the preparation of definitive Securities of any series, the Company may execute, and upon Company Order the Trustee shall authenticate and deliver, temporary Securities which are printed, lithographed, typewritten, mimeographed or otherwise produced, in any authorized denomination, substantially of the tenor of the definitive Securities in lieu of which they are issued and with such appropriate insertions, omissions, substitutions and other variations as the officers executing such Securities may determine, as evidenced by their execution of such Securities.

If temporary Securities of any series are issued, the Company will cause definitive Securities of that series to be prepared without unreasonable delay. After the preparation of definitive Securities of such series, the temporary Securities of such series shall be exchangeable for definitive Securities of such series upon surrender of the temporary Securities of such series at the office or agency of the Company in a Place of Payment for that series, without charge to the Holder. Upon surrender for cancellation of any one or more temporary Securities of any series, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor one or more definitive Securities of the same series, of any authorized denominations and of like tenor and aggregate principal amount. Until so exchanged, the temporary Securities of any series shall in all respects be entitled to the same benefits under this Indenture as definitive Securities of such series and tenor.

SECTION 3.5 REGISTRATION; REGISTRATION OF TRANSFER AND EXCHANGE.

The Company shall cause to be kept at the Corporate Trust Office of the Trustee a register (the register maintained in such office and in any other office or agency of the Company in a Place of Payment being herein sometimes collectively referred to as the "Security Register") in which, subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of Securities and of transfers of Securities. The Trustee is hereby appointed "Security Registrar" for the purpose of registering Securities and transfers of Securities as herein provided.

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Upon surrender for registration of transfer of any Security of a series at the office or agency of the Company in a Place of Payment for that series, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Securities of the same series, of any authorized denominations and of like tenor and aggregate principal amount.

At the option of the Holder, Securities of any series may be exchanged for other Securities of the same series, of any authorized denominations and of like tenor and aggregate principal amount, upon surrender of the Securities to be exchanged at such office or agency. Whenever any Securities are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Securities that the Holder making the exchange is entitled to receive. All Securities issued upon any registration of transfer or exchange of Securities shall be the valid obligations of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities surrendered upon such registration of transfer or exchange.

Every Security presented or surrendered for registration of transfer or for exchange shall (if so required by the Company or the Trustee) be duly endorsed, or be accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed, by the Holder thereof or its attorney duly authorized in writing.

No service charge shall be made for any registration of transfer or exchange of Securities, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any registration of transfer or exchange of Securities, other than exchanges pursuant to Section 3.4, 9.6 or 11.7 not involving any transfer.

If the Securities of any series (or of any series and specified tenor) are to be redeemed in part, the Company shall not be required (A) to issue, register the transfer of or exchange any Securities of that series (or of that series and specified tenor, as the case may be) during a period beginning at the opening of business 15 days before the day of the mailing of a notice of redemption of any such Securities selected for redemption under Section 11.3 and ending at the close of business on the day of such mailing, or (B) to register the transfer of or exchange any Security so selected for redemption in whole or in part, except the unredeemed portion of any Security being redeemed in part.

The provisions of Clauses (1), (2), (3) and (4) below shall apply only to Global Securities:

(1) Each Global Security authenticated under this Indenture shall be registered in the name of the Depositary designated for such Global Security or a nominee thereof and delivered to such Depositary or a nominee thereof or custodian therefor, and each such Global Security shall constitute a single Security for all purposes of this Indenture.

(2) Notwithstanding any other provision in this Indenture, no Global Security may be exchanged in whole or in part for Securities registered, and no transfer of a Global Security in whole or in part may be registered, in the name of any Person other than the Depositary for such Global Security or a nominee thereof unless (A) such Depositary (i) has notified the Company that it is unwilling or unable to continue as Depositary for such Global

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Security or (ii) has ceased to be a clearing agency registered under the Exchange Act, (B) there shall have occurred and be continuing an Event of Default with respect to such Global Security or (C) there shall exist such circumstances, if any, in addition to or in lieu of the foregoing as have been specified for this purpose as contemplated by Section 3.1.

(3) Subject to Clause (2) above, any exchange of a Global Security for other Securities may be made in whole or in part, and all Securities issued in exchange for a Global Security or any portion thereof shall be registered in such names as the Depositary for such Global Security shall direct.

(4) Every Security authenticated and delivered upon registration of transfer of, or in exchange for or in lieu of, a Global Security or any portion thereof, whether pursuant to this Section, Section 3.4, 3.6, 9.6 or 11.7 or otherwise, shall be authenticated and delivered in the form of, and shall be, a Global Security, unless such Security is registered in the name of a Person other than the Depositary for such Global Security or a nominee thereof.

SECTION 3.6 MUTILATED, DESTROYED, LOST AND STOLEN SECURITIES.

If any mutilated Security is surrendered to the Trustee, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a new Security of the same series and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

If there shall be delivered to the Company and the Trustee (i) evidence to their satisfaction of the destruction, loss or theft of any Security and (ii) such security or indemnity as may be required by them to save each of them and any agent of either of them harmless, then, in the absence of notice to the Company or the Trustee that such Security has been acquired by a bona fide purchaser, the Company shall execute and the Trustee shall authenticate and deliver, in lieu of any such destroyed, lost or stolen Security, a new Security of the same series and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

In case any such mutilated, destroyed, lost or stolen Security has become or is about to become due and payable, the Company in its discretion may, instead of issuing a new Security, pay such Security.

Upon the issuance of any new Security under this Section, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.

Every new Security of any series issued pursuant to this Section in lieu of any destroyed, lost or stolen Security shall constitute an original additional contractual obligation of the Company, whether or not the destroyed, lost or stolen Security shall be at any time enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities of that series duly issued hereunder.

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The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities.

SECTION 3.7 PAYMENT OF INTEREST; INTEREST RIGHTS PRESERVED.

Except as otherwise provided as contemplated by Section 3.1 with respect to any series of Securities, interest on any Security which is payable, and is punctually paid or duly provided for, on any Interest Payment Date shall be paid to the Person in whose name that Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest.

Any interest on any Security of any series which is payable, but is not punctually paid or duly provided for, on any Interest Payment Date (herein called "Defaulted Interest") shall forthwith cease to be payable to the Holder on the relevant Regular Record Date by virtue of having been such Holder, and such Defaulted Interest may be paid by the Company, at its election in each case, as provided in Clause (1) or (2) below:

(1) The Company may elect to make payment of any Defaulted Interest to the Persons in whose names the Securities of such series (or their respective Predecessor Securities) are registered at the close of business on a Special Record Date for the payment of such Defaulted Interest, which shall be fixed in the following manner. The Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each Security of such series and the date of the proposed payment, and at the same time the Company shall deposit with the Trustee an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Interest as in this Clause provided. Thereupon the Trustee shall fix a Special Record Date for the payment of such Defaulted Interest, which shall be not more than 15 days and not less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such Special Record Date and, in the name and at the expense of the Company, shall cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be given to each Holder of Securities of such series in the manner set forth in Section 1.6, not less than 10 days prior to such Special Record Date. Notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor having been so mailed, such Defaulted Interest shall be paid to the Persons in whose names the Securities of such series (or their respective Predecessor Securities) are registered at the close of business on such Special Record Date and shall no longer be payable pursuant to the following Clause (2).

(2) The Company may make payment of any Defaulted Interest on the Securities of any series in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Securities may be listed, and upon such notice as may be

required by such exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this Clause, such manner of payment shall be deemed practicable by the Trustee.

Subject to the foregoing provisions of this Section, each Security delivered under this Indenture upon registration of transfer of or in exchange for or in lieu of any other Security shall carry the rights to interest accrued and unpaid, and to accrue, which were carried by such other Security.

Subject to the provisions of Section 14.2, in the case of any Security (or any part thereof) which is converted after any Regular Record Date and on or prior to the next succeeding Interest Payment Date (other than any Security the principal of (or premium, if any, on) which shall become due and payable, whether at Stated Maturity or by declaration of acceleration or otherwise prior to such Interest Payment Date), interest whose Stated Maturity is on such Interest Payment Date shall be payable on such Interest Payment Date notwithstanding such conversion and such interest (whether or not punctually paid or duly provided for) shall be paid to the Person in whose name that Security (or any one or more Predecessor Securities) is registered at the close of business on such Regular Record Date. Except as otherwise expressly provided in the immediately preceding sentence or in Section 14.2, in the case of any Security (or any part thereof) which is converted, interest whose Stated Maturity is after the date of conversion of such Security (or such part thereof) shall not be payable.

SECTION 3.8 PERSONS DEEMED OWNERS.

Prior to due presentment of a Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name such Security is registered as the owner of such Security for the purpose of receiving payment of principal of and any premium and (subject to Section 3.7) any interest on such Security and for all other purposes whatsoever, whether or not such Security be overdue, and neither the Company, the Trustee nor any agent of the Company or the Trustee shall be affected by notice to the contrary.

SECTION 3.9 CANCELLATION.

All Securities surrendered for payment, redemption, registration of transfer or exchange or for credit against any sinking fund payment shall, if surrendered to any Person other than the Trustee, be delivered to the Trustee and shall be promptly canceled by it. The Company may at any time deliver to the Trustee for cancellation any Securities previously authenticated and delivered hereunder which the Company may have acquired in any manner whatsoever, and may deliver to the Trustee (or to any other Person for delivery to the Trustee) for cancellation any Securities previously authenticated hereunder which the Company has not issued and sold, and all Securities so delivered shall be promptly canceled by the Trustee. No Securities shall be authenticated in lieu of or in exchange for any Securities canceled as provided in this Section, except as expressly permitted by this Indenture. All canceled Securities held by the Trustee shall be disposed of in accordance with its customary procedures.

SECTION 3.10 COMPUTATION OF INTEREST.

Except as otherwise specified as contemplated by Section 3.1 for Securities of any series, interest on the Securities of each series shall be computed on the basis of a 360-day year of twelve 30-day months.

ARTICLE 4

SATISFACTION AND DISCHARGE

SECTION 4.1 SATISFACTION AND DISCHARGE OF INDENTURE.

This Indenture shall upon Company Request cease to be of further effect (except as to any surviving rights of registration of transfer or exchange of Securities herein expressly provided for), and the Trustee, at the expense of the Company, shall execute proper instruments acknowledging satisfaction and discharge of this Indenture, when

(1) either

(A) all Securities theretofore authenticated and delivered (other than (i) Securities which have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 3.6 and (ii) Securities for whose payment money has theretofore been deposited in trust or segregated and held in trust by the Trustee or the Company and thereafter repaid to the Company or discharged from such trust, as provided in Section 10.3) have been delivered to the Trustee for cancellation; or

(B) all such Securities not theretofore delivered to the Trustee for cancellation

(i) have become due and payable, or

(ii) will become due and payable at their Stated Maturity within one year, or

(iii) are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company,

and the Company, in the case of (i), (ii) or (iii) above, has deposited or caused to be deposited with the Trustee as trust funds in trust for the purpose money in an amount sufficient to pay and discharge the entire indebtedness on such Securities not theretofore delivered to the Trustee for cancellation, for principal and any premium and interest to the date of such deposit (in the case of Securities which have become due and payable) or to the Stated Maturity or Redemption Date, as the case may be;

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(2) the Company has paid or caused to be paid all other sums payable hereunder by the Company; and

(3) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture have been complied with.

Notwithstanding the satisfaction and discharge of this Indenture, the obligations of the Company to the Trustee under Section 6.7, the obligations of the Trustee to any Authenticating Agent under Section 6.14 and, if money shall have been deposited with the Trustee pursuant to subclause (B) of Clause (1) of this Section, the obligations of the Trustee under Section 4.2 and the last paragraph of Section 10.3 shall survive.

SECTION 4.2 APPLICATION OF TRUST MONEY.

Subject to the provisions of the last paragraph of Section 10.3, all money deposited with the Trustee pursuant to Section 4.1 shall be held in trust and applied by it, in accordance with the provisions of the Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the Persons entitled thereto, of the principal and any premium and interest for whose payment such money has been deposited with the Trustee.

ARTICLE 5

REMEDIES

SECTION 5.1 EVENTS OF DEFAULT.

"Event of Default," wherever used herein with respect to Securities of

any series, means any one of the following events (whatever the reason for such Event of Default and whether it shall be occasioned by the provisions of Article 15 or be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body), unless in the Board Resolution, supplemental indenture or Officers' Certificate establishing such series, it is provided that such series shall not have the benefit of said Event of Default:

(1) default in the payment of any interest upon any Security of that series when it becomes due and payable, and continuance of such default for a period of 30 days; or

(2) default in the payment of the principal of or any premium on any Security of that series at its Maturity; or

(3) default in the deposit of any sinking fund payment, when and as due by the terms of a Security of that series; or

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(4) default in the performance, or breach, of any covenant or warranty of the Company in this Indenture (other than a covenant or warranty a default in whose performance or whose breach is elsewhere in this Section specifically dealt with or which has expressly been included in this Indenture solely for the benefit of series of Securities other than that series), and continuance of such default or breach for a period of 90 days after there has been given, by registered or certified mail, to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 25% in principal amount of the Outstanding Securities of that series a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a "Notice of Default" hereunder; or

(5) the entry by a court having jurisdiction in the premises of (A) a decree or order for relief in respect of the Company in an involuntary case or proceeding under any applicable Federal or State bankruptcy, insolvency, reorganization or other similar law or (B) a decree or order adjudging the Company a bankrupt or insolvent, or approving as properly filed a petition seeking reorganization, arrangement, adjustment or composition of or in respect of the Company under any applicable Federal or State law, or appointing a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or of any substantial part of its property, or ordering the winding up or liquidation of its affairs, and the continuance of any such decree or order for relief or any such other decree or order unstayed and in effect for a period of 90 consecutive days; or

(6) the commencement by the Company of a voluntary case or proceeding under any applicable Federal or State bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated a bankrupt or insolvent, or the consent by it to the entry of a decree or order for relief in respect of the Company in an involuntary case or proceeding under any applicable Federal or State bankruptcy, insolvency, reorganization or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against it, or the filing by it of a petition or answer or consent seeking reorganization or relief under any applicable Federal or State law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or of any substantial part of its property, or the making by it of an assignment for the benefit of creditors, or the admission by it in writing of its inability to pay its debts generally as they become due, or the taking of corporate action by the Company in furtherance of any such action; or

(7) any other Event of Default provided with respect to Securities of that series in the Board Resolution, supplemental indenture or Officers' Certificate establishing that series.

SECTION 5.2 ACCELERATION OF MATURITY; RESCISSION AND ANNULMENT.

Unless the Board Resolution, supplemental indenture or Officers' Certificate establishing such series provides otherwise, if an Event of Default (other than an Event of Default specified in Section 5.1(5) or 5.1(6)) with

respect to Securities of any series at the time Outstanding occurs and is continuing, then in every such case the Trustee or the Holders of not less than 25% in principal

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amount of the Outstanding Securities of that series may declare the principal amount of all the Securities of that series (or, if any Securities of that series are Original Issue Discount Securities, such portion of the principal amount of such Securities as may be specified by the terms thereof) and premium, if any, together with accrued and unpaid interest, if any, thereon, to be due and payable immediately, by a notice in writing to the Company (and to the Trustee if given by the Holders), and upon any such declaration such principal amount (or specified amount) and premium, if any, together with accrued and unpaid interest, if any, thereon, shall become immediately due and payable. If an Event of Default specified in Section 5.1(5) or 5.1(6) with respect to Securities of any series at the time Outstanding occurs, the principal amount of all the Securities of that series (or, if any Securities of that series are Original Issue Discount Securities, such portion of the principal amount of such Securities as may be specified by the terms thereof) and premium, if any, together with accrued and unpaid interest, if any, thereon, shall automatically, and without any declaration or other action on the part of the Trustee or any Holder, become immediately due and payable. Any payments by the Company on the Securities following any such acceleration will be subject to the subordination provisions of Article 15 to the extent provided therein.

At any time after such a declaration of acceleration with respect to Securities of any series has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereinafter in this Article provided, the Holders of a majority in principal amount of the Outstanding Securities of that series, by written notice to the Company and the Trustee, may rescind and annul such declaration and its consequences if

(1) the Company has paid or deposited with the Trustee a sum sufficient to pay

(A) all overdue interest on all Securities of that series,

(B) the principal of (and premium, if any, on) any Securities of that series which have become due otherwise than by such declaration of acceleration and any interest thereon at the rate or rates prescribed therefor in such Securities,

(C) to the extent that payment of such interest is lawful, interest upon overdue interest at the rate or rates prescribed therefor in such Securities, and

(D) all sums paid or advanced by the Trustee hereunder and the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel; and

(2) all Events of Default with respect to Securities of that series, other than the non-payment of the principal of Securities of that series that have become due solely by such declaration of acceleration, have been cured or waived as provided in Section 5.13. No such rescission shall affect any subsequent default or impair any right consequent thereon.

SECTION 5.3 COLLECTION OF INDEBTEDNESS AND SUITS FOR ENFORCEMENT BY TRUSTEE.

The Company covenants that if

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(1) default is made in the payment of any interest on any Security when such interest becomes due and payable and such default continues for a period of 30 days, or

(2) default is made in the payment of the principal of (or premium, if any, on) any Security at the Maturity thereof, the Company will, upon demand of the Trustee, pay to it, for the benefit of the Holders of such Securities, the whole amount then due and payable on such Securities for

principal and any premium and interest and, to the extent that payment of such interest shall be legally enforceable, interest on any overdue principal and premium and on any overdue interest, at the rate or rates prescribed therefor in such Securities, and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

If an Event of Default with respect to Securities of any series occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders of Securities of such series by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.

SECTION 5.4 TRUSTEE MAY FILE PROOFS OF CLAIM.

In case of any judicial proceeding relative to the Company (or any other obligor upon the Securities), its property or its creditors, the Trustee shall be entitled and empowered, by intervention in such proceeding or otherwise, to take any and all actions authorized under the Trust Indenture Act in order to have claims of the Holders and the Trustee allowed in any such proceeding. In particular, the Trustee shall be authorized to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same; and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee and, in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 6.7. No provision of this Indenture shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting the Securities or the rights of any Holder thereof or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding; provided, however, that the Trustee may, on behalf of the Holders, vote for the election of a trustee in bankruptcy or similar official and be a member of a creditors' or other similar committee.

SECTION 5.5 TRUSTEE MAY ENFORCE CLAIMS WITHOUT POSSESSION OF SECURITIES.

All rights of action and claims under this Indenture or the Securities may be prosecuted and enforced by the Trustee without the possession of any of the Securities or the production thereof in any proceeding relating thereto, and any such proceeding instituted by the Trustee shall be brought

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in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Securities in respect of which such judgment has been recovered.

SECTION 5.6 APPLICATION OF MONEY COLLECTED.

Any money collected by the Trustee pursuant to this Article shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money on account of principal or any premium or interest, upon presentation of the Securities and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due the Trustee under Section 6.7;

SECOND: Subject to Article 15, to the payment of the amounts then due and unpaid for principal of and any premium, if any, and interest on the Securities in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the amounts due and payable on such Securities for principal and any premium, if any, and interest, respectively; and

THIRD: The balance, if any, to the Company or any other Person or Persons entitled thereto.

SECTION 5.7 LIMITATION ON SUITS.

No Holder of any Security of any series shall have any right to institute any proceeding, judicial or otherwise, with respect to this Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless

(1) such Holder has previously given written notice to the Trustee of a continuing Event of Default with respect to the Securities of that series;

(2) the Holders of not less than 25% in principal amount of the Outstanding Securities of that series shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder;

(3) such Holder or Holders have offered to the Trustee reasonable indemnity against the costs, expenses and liabilities to be incurred in compliance with such request;

(4) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding; and

(5) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in principal amount of the Outstanding Securities of that series; it being understood and intended that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any

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provision of this Indenture to affect, disturb or prejudice the rights of any other of such Holders, or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all of such Holders.

SECTION 5.8 UNCONDITIONAL RIGHT OF HOLDERS TO RECEIVE PRINCIPAL, PREMIUM AND INTEREST AND TO CONVERT.

Notwithstanding any other provision in this Indenture, the Holder of any Security shall have the right, which is absolute and unconditional, to receive payment of the principal of and any premium and (subject to Section 3.7) interest on such Security on the respective Stated Maturities expressed in such Security (or, in the case of redemption, on the Redemption Date), to convert such Securities in accordance with Article 14 to the extent that such right to convert is applicable to such Security, and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such Holder.

SECTION 5.9 RESTORATION OF RIGHTS AND REMEDIES.

If the Trustee or any Holder has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case, subject to any determination in such proceeding, the Company, the Trustee and the Holders shall be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

SECTION 5.10 RIGHTS AND REMEDIES CUMULATIVE.

Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities in the last paragraph of Section 3.6, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter

existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

SECTION 5.11 DELAY OR OMISSION NOT WAIVER.

No delay or omission of the Trustee or of any Holder of any Securities to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee (subject to the limitations contained in this Indenture) or by the Holders, as the case may be.

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SECTION 5.12 CONTROL BY HOLDERS.

The Holders of a majority in principal amount of the Outstanding Securities of any series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee, with respect to the Securities of such series, provided that

(1) such direction shall not be in conflict with any rule of law or with this Indenture and the Trustee shall not have determined that the action so directed would be unjustly prejudicial to Holders of Securities of that series, or any other series, not taking part in such direction; and

(2) the Trustee may take any other action deemed proper by the Trustee that is not inconsistent with such direction or this Indenture.

SECTION 5.13 WAIVER OF PAST DEFAULTS.

The Holders of not less than a majority in principal amount of the Outstanding Securities of any series may on behalf of the Holders of all the Securities of such series waive any past default hereunder with respect to such series and its consequences, except

(1) a default in the payment of the principal of or any premium or interest on any Security of such series as and when the same shall become due and payable by the terms thereof, otherwise than by acceleration (unless such default has been cured and a sum sufficient to pay all matured installments of interest, principal and premium, if any, has been deposited with the Trustee), or

(2) to the extent such right is applicable to such Security, a failure by the Company on request to convert any Security into Common Stock; or

(3) in respect of a covenant or provision hereof which under Article 9 cannot be modified or amended without the consent of the Holder of each Outstanding Security of such series affected.

Upon any such waiver, such default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other default or impair any right consequent thereon.

SECTION 5.14 UNDERTAKING FOR COSTS.

In any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken, suffered or omitted by it as Trustee, a court may require any party litigant in such suit to file an undertaking to pay the costs of such suit, and may assess costs against any such party litigant, in the manner and to the extent provided in the Trust Indenture Act; provided that neither this Section nor the Trust Indenture Act shall be deemed to authorize any court to require such an undertaking or to make such an assessment in any suit instituted by the Company or in any suit for the enforcement of the right to convert any Security in accordance with Article 14.

SECTION 5.15 WAIVER OF USURY, STAY OR EXTENSION LAWS.

The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any usury, stay or extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture; and the Company (to the extent that it may lawfully do so) hereby expressly waives all benefit or advantage of any such law and covenants that it will not hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

ARTICLE 6

THE TRUSTEE

SECTION 6.1 CERTAIN DUTIES AND RESPONSIBILITIES.

The duties and responsibilities of the Trustee shall be as provided by the Trust Indenture Act. Notwithstanding the foregoing, no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it. Whether or not therein expressly so provided, every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee shall be subject to the provisions of this Section.

SECTION 6.2 NOTICE OF DEFAULTS.

If a default occurs hereunder with respect to Securities of any series, the Trustee shall give the Holders of Securities of such series notice of such default as and to the extent provided by the Trust Indenture Act; provided, however, that except in the case of a default in the payment of principal of (or premium, if any) or interest on any Securities of such series or in the payment of any sinking fund installment or any conversion right applicable to Securities of such series, the Trustee shall be protected in withholding such notice if and so long as a trust committee of directors and/or Responsible Officers of the Trustee in good faith determine that the withholding of such notice is in the interests of the holders of Securities of such series; provided, further, however, that in the case of any default of the character specified in Section 5.1(4) with respect to Securities of such series, no such notice to Holders shall be given until at least 60 days after the occurrence thereof. For the purpose of this Section, the term "default" means any event that is, or after notice or lapse of time or both would become, an Event of Default with respect to Securities of such series.

Except with respect to Section 10.1, the Trustee shall have no duty to inquire as to the performance of the Company with respect to the covenants contained in Article 10. In addition, the Trustee shall not be deemed to have knowledge of an Event of Default except (i) any Default or Event of Default occurring pursuant to Sections 5.1(1) 5.1(2) and 5.(3) (defaults in payments on the Securities) or (ii) any Default or Event of Default of which the Trustee shall have received written notification or obtained actual knowledge.

Delivery of reports, information and documents to the Trustee under Section 7.4 is for informational purposes only and the Trustee's receipt of the foregoing shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of their covenants hereunder (as to which the Trustee is entitled to rely conclusively on Officers' Certificates).

SECTION 6.3 CERTAIN RIGHTS OF TRUSTEE.

Subject to the provisions of Section 6.1:

(1) in the absence of bad faith on the part of the Trustee, the Trustee may rely and shall be protected in acting or refraining from

acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(2) any request or direction of the Company mentioned herein shall be sufficiently evidenced by a Company Request or Company Order, and any resolution of the Board of Directors shall be sufficiently evidenced by a Board Resolution;

(3) whenever in the administration of this Indenture the Trustee shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Trustee (unless other evidence be herein specifically prescribed) is entitled to and may, in the absence of bad faith on its part, rely upon an Officers' Certificate;

(4) the Trustee may consult with counsel and the written advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;

(5) the Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders pursuant to this Indenture, unless such Holders shall have offered to the Trustee reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction;

(6) the Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to make such further inquiry or investigation, it shall be entitled to examine the books, records and premises of the Company, personally or by agent or attorney; and

(7) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder.

SECTION 6.4 NOT RESPONSIBLE FOR RECITALS OR ISSUANCE OF SECURITIES.

The recitals contained herein and in the Securities, except the Trustee's certificates of authentication, shall be taken as the statements of the Company, and neither the Trustee nor any Authenticating Agent assumes any responsibility for their correctness. The Trustee makes no representations as to the validity, sufficiency or priority of this Indenture or of the Securities. Neither

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the Trustee nor any Authenticating Agent shall be accountable for the use or application by the Company of Securities or the proceeds thereof.

SECTION 6.5 MAY HOLD SECURITIES AND ACT AS TRUSTEE UNDER OTHER INDENTURES.

The Trustee, any Authenticating Agent, any Paying Agent, any Security Registrar or any other agent of the Company, in its individual or any other capacity, may become the owner or pledgee of Securities and, subject to Sections 6.8 and 6.13, may otherwise deal with the Company with the same rights it would have if it were not Trustee, Authenticating Agent, Paying Agent, Security Registrar or such other agent.

Subject to the limitations imposed by the Trust Indenture Act, nothing in this Indenture shall prohibit the Trustee from becoming and acting as trustee under other indentures under which other securities, or certificates of interest

of participation in other securities, of the Company are outstanding in the same manner as if it were not Trustee hereunder.

SECTION 6.6 MONEY HELD IN TRUST.

Money held by the Trustee in trust hereunder need not be segregated from other funds except to the extent required by law. The Trustee shall be under no liability for interest on any money received by it hereunder except as otherwise agreed with the Company.

SECTION 6.7 COMPENSATION AND REIMBURSEMENT.

The Company agrees:

(1) to pay to the Trustee from time to time reasonable compensation for all services rendered by it hereunder (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust);

(2) except as otherwise expressly provided herein, to reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any provision of this Indenture (including the reasonable compensation and the expenses and disbursements of its agents and counsel), except any such expense, disbursement or advance as may be attributable to its negligence or bad faith; and

(3) to indemnify the Trustee for, and to hold it harmless against, any loss, liability or expense incurred without negligence or bad faith on its part, arising out of or in connection with the acceptance or administration of the trust or trusts hereunder, including the costs and expenses of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder.

When the Trustee incurs expenses or renders services after an Event of Default specified in Section 5.1(5) or Section 5.1(6) hereof occurs, the expenses and the compensation for the services (including the fees and expenses of its agents and counsel) are intended to constitute expenses of administration under any applicable bankruptcy, insolvency, reorganization or similar law.

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SECTION 6.8 CONFLICTING INTERESTS.

If the Trustee has or shall acquire a conflicting interest within the meaning of the Trust Indenture Act, the Trustee shall either eliminate such interest or resign, to the extent and in the manner provided by, and subject to the provisions of, the Trust Indenture Act and this Indenture. To the extent permitted by the Trust Indenture Act, the Trustee shall not be deemed to have a conflicting interest by virtue of being a trustee under this Indenture with respect to Securities of more than one series.

SECTION 6.9 CORPORATE TRUSTEE REQUIRED; ELIGIBILITY.

There shall at all times be one (and only one) Trustee hereunder with respect to the Securities of each series, which may be Trustee hereunder for Securities of one or more other series. Each Trustee shall be a Person that is eligible pursuant to the Trust Indenture Act to act as such and has (or if the Trustee is a member of a bank holding company system, its bank holding company has) a combined capital and surplus of at least \$50,000,000. If any such Person or bank holding company publishes reports of condition at least annually, pursuant to law or to the requirements of its supervising or examining authority, then for the purposes of this Section and to the extent permitted by the Trust Indenture Act, the combined capital and surplus of such Person or bank holding company shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time the Trustee with respect to the Securities of any series shall cease to be eligible in accordance with the provisions of this Section, it shall resign immediately in the manner and with the effect hereinafter specified in this Article.

SECTION 6.10 RESIGNATION AND REMOVAL; APPOINTMENT OF SUCCESSOR.

No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article shall become effective until the acceptance of appointment by the successor Trustee in accordance with the applicable requirements of Section 6.11. The Trustee may resign at any time with respect to the Securities of one or more series by giving written notice thereof to the Company. If the instrument of acceptance by a successor Trustee required by Section 6.11 shall not have been delivered to the Trustee within 30 days after the giving of such notice of resignation, the resigning Trustee may petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Securities of such series.

The Trustee may be removed at any time with respect to the Securities of any series by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series, delivered to the Trustee and to the Company.

If at any time:

(1) the Trustee shall fail to comply with Section 6.8 after written request therefor by the Company or by any Holder who has been a bona fide Holder of a Security for at least six months, or

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(2) the Trustee shall cease to be eligible under Section 6.9 and shall fail to resign after written request therefor by the Company or by any such Holder, or

(3) the Trustee shall become incapable of acting or shall be adjudged a bankrupt or insolvent or a receiver of the Trustee or of its property shall be appointed or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation, then, in any such case, (A) the Company by a Board Resolution may remove the Trustee with respect to all Securities, or (B) subject to Section 5.14, any Holder who has been a bona fide Holder of a Security for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee with respect to all Securities and the appointment of a successor Trustee or Trustees.

If the Trustee shall resign, be removed or become incapable of acting, or if a vacancy shall occur in the office of Trustee for any cause, with respect to the Securities of one or more series, the Company, by a Board Resolution, shall promptly appoint a successor Trustee or Trustees with respect to the Securities of that or those series (it being understood that any such successor Trustee may be appointed with respect to the Securities of one or more or all of such series and that at any time there shall be only one Trustee with respect to the Securities of any particular series) and shall comply with the applicable requirements of Section 6.11. If, within one year after such resignation, removal or incapability, or the occurrence of such vacancy, a successor Trustee with respect to the Securities of any series shall be appointed by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series delivered to the Company and the retiring Trustee, the successor Trustee so appointed shall, forthwith upon its acceptance of such appointment in accordance with the applicable requirements of Section 6.11, become the successor Trustee with respect to the Securities of such series and to that extent supersede the successor Trustee appointed by the Company. If no successor Trustee with respect to the Securities of any series shall have been so appointed by the Company or the Holders and accepted appointment in the manner required by Section 6.11, the retiring Trustee may petition, or any Holder who has been a bona fide Holder of a Security of such series for at least six months may petition, on behalf of himself and all others similarly situated, any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Securities of such series.

The Company shall give notice of each resignation and each removal of the Trustee with respect to the Securities of any series and each appointment of a successor Trustee with respect to the Securities of any series to all Holders of Securities of such series in the manner provided in Section 1.6. Each notice shall include the name of the successor Trustee with respect to the Securities of such series and the address of its Corporate Trust Office.

SECTION 6.11 ACCEPTANCE OF APPOINTMENT BY SUCCESSOR.

In case of the appointment hereunder of a successor Trustee with respect to all Securities, every such successor Trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor Trustee, without any

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further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on the request of the Company or the successor Trustee, such retiring Trustee shall, upon payment of its charges, execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of the retiring Trustee and shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder.

In case of the appointment hereunder of a successor Trustee with respect to the Securities of one or more (but not all) series, the Company, the retiring Trustee and each successor Trustee with respect to the Securities of one or more series shall execute and deliver an indenture supplemental hereto wherein each successor Trustee shall accept such appointment and which (1) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor Trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates, (2) if the retiring Trustee is not retiring with respect to all Securities, shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and (3) shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co-trustees of the same trust and that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee; and upon the execution and delivery of such supplemental indenture the resignation or removal of the retiring Trustee shall become effective to the extent provided therein and each such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates; but, on request of the Company or any successor Trustee, such retiring Trustee shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder with respect to the Securities of that or those series to which the appointment of such successor Trustee relates.

Upon request of any such successor Trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor Trustee all such rights, powers and trusts referred to in the first or second preceding paragraph, as the case may be.

No successor Trustee shall accept its appointment unless at the time of such acceptance such successor Trustee shall be qualified and eligible under this Article.

SECTION 6.12 MERGER, CONVERSION, CONSOLIDATION OR SUCCESSION TO BUSINESS.

Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to all or substantially all the corporate trust business of the Trustee (including the administration of the trust created by this Indenture), shall be

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the successor of the Trustee hereunder, provided such corporation shall be otherwise qualified and eligible under this Article, without the execution or

filing of any paper or any further act on the part of any of the parties hereto. In case any Securities shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities. In the event that any Securities shall not have been authenticated by such predecessor Trustee, any such successor Trustee may authenticate and deliver such Securities in either its own name or that of a predecessor Trustee, with the full force and effect which this Indenture provides for the certificate of authentication of the Trustee.

SECTION 6.13 PREFERENTIAL COLLECTION OF CLAIMS AGAINST COMPANY.

If and when the Trustee shall be or become a creditor of the Company (or any other obligor upon the Securities), the Trustee shall be subject to the provisions of the Trust Indenture Act regarding the collection of claims against the Company (or any such other obligor).

SECTION 6.14 APPOINTMENT OF AUTHENTICATING AGENT.

The Trustee may appoint an Authenticating Agent or Agents with respect to one or more series of Securities which shall be authorized to act on behalf of the Trustee to authenticate Securities of such series issued upon original issue and upon exchange, registration of transfer or partial redemption thereof or pursuant to Section 3.6, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. Wherever reference is made in this Indenture to the authentication and delivery of Securities by the Trustee or the Trustee's certificate of authentication, such reference shall be deemed to include authentication and delivery on behalf of the Trustee by an Authenticating Agent and a certificate of authentication executed on behalf of the Trustee by an Authenticating Agent. Each Authenticating Agent shall be acceptable to the Company and shall at all times be a corporation organized and doing business under the laws of the United States of America, any State thereof or the District of Columbia, authorized under such laws to act as Authenticating Agent, having (or if the Authenticating Agent is a member of a bank holding company system, its bank holding company has) a combined capital and surplus of not less than \$50,000,000 and subject to supervision or examination by Federal or State authority. If such Authenticating Agent publishes reports of condition at least annually, pursuant to law or to the requirements of said supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such Authenticating Agent shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time an Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, such Authenticating Agent shall resign immediately in the manner and with the effect specified in this Section.

Any corporation into which an Authenticating Agent may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which such Authenticating Agent shall be a party, or any corporation succeeding to the corporate agency or corporate trust business of an Authenticating Agent, shall continue to be an Authenticating Agent, provided such corporation shall be otherwise eligible under this Section, without the execution or filing of any paper or any further act on the part of the Trustee or the Authenticating Agent.

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An Authenticating Agent may resign at any time by giving written notice thereof to the Trustee and to the Company. The Trustee may at any time terminate the agency of an Authenticating Agent by giving written notice thereof to such Authenticating Agent and to the Company. Upon receiving such a notice of resignation or upon such a termination, or in case at any time such Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, the Trustee may appoint a successor Authenticating Agent which shall be acceptable to the Company and shall give notice of such appointment in the manner provided in Section 1.6 to all Holders of Securities of the series with respect to which such Authenticating Agent will serve. Any successor Authenticating Agent upon acceptance of its appointment hereunder shall become vested with all the rights, powers and duties of its predecessor hereunder, with like effect as if originally named as an Authenticating Agent. No successor Authenticating Agent shall be appointed unless eligible under the provisions of this Section.

The Trustee agrees to pay to each Authenticating Agent from time to time reasonable compensation for its services under this Section, and the Trustee shall be entitled to be reimbursed for such payments, subject to the provisions of Section 6.7.

If an appointment with respect to one or more series is made pursuant to this Section 6.12, the Securities of such series may have endorsed thereon, in lieu of the Trustee's certificate of authentication, an alternative certificate of authentication in the following form:

This is one of the Securities of the series designated therein referred to in the within-mentioned Indenture.

U.S. BANK NATIONAL ASSOCIATION

By: _____
As Authenticating Agent

By: _____
Authorized Officer

ARTICLE 7

HOLDERS' LISTS AND REPORTS BY TRUSTEE AND COMPANY

SECTION 7.1 COMPANY TO FURNISH TRUSTEE NAMES AND ADDRESSES OF HOLDERS.

The Company will furnish or cause to be furnished to the Trustee

(1) semi-annually, not later than 15 days after the Regular Record Date for each respective series of Securities, a list, in such form as the Trustee may reasonably require, of the names and addresses of the Holders of Securities of each series as of such Regular Record Date, as the case may be, or if there is no Regular Record Date for such series of securities, semi-annually, and

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(2) at such other times as the Trustee may request in writing, within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished;

provided that no such list need be furnished by the Company to the Trustee so long as the Trustee is acting as Security Registrar.

SECTION 7.2 PRESERVATION OF INFORMATION; COMMUNICATIONS TO HOLDERS.

The Trustee shall preserve, in as current a form as is reasonably practicable, the names and addresses of Holders contained in the most recent list furnished to the Trustee as provided in Section 7.1 and the names and addresses of Holders received by the Trustee in its capacity as Security Registrar. The Trustee may destroy any list furnished to it as provided in Section 7.1 upon receipt of a new list so furnished.

The rights of Holders to communicate with other Holders with respect to their rights under this Indenture or under the Securities, and the corresponding rights and privileges of the Trustee, shall be as provided by the Trust Indenture Act. Every Holder of Securities, by receiving and holding the same, agrees with the Company and the Trustee that neither the Company nor the Trustee nor any agent of either of them shall be held accountable by reason of any disclosure of information as to names and addresses of Holders made pursuant to the Trust Indenture Act.

SECTION 7.3 REPORTS BY TRUSTEE.

The Trustee shall transmit to Holders such reports concerning the Trustee and its actions under this Indenture as may be required pursuant to the Trust Indenture Act at the times and in the manner provided pursuant thereto.

Reports so required to be transmitted at stated intervals of not more than 12 months shall be transmitted no later than July 15 in each calendar year, commencing with the first July 15 after the first issuance of Securities pursuant to this Indenture.

A copy of each such report shall, at the time of such transmission to Holders, be filed by the Trustee with each stock exchange upon which any Securities are listed, with the Commission and with the Company. The Company will notify the Trustee when any Securities are listed on any stock exchange.

SECTION 7.4 REPORTS BY COMPANY.

The Company shall file with the Trustee and the Commission, and transmit to Holders, such information, documents and other reports, and such summaries thereof, as may be required pursuant to the Trust Indenture Act at the times and in the manner provided pursuant to the Trust Indenture Act; provided that any such information, documents or reports required to be filed with the Commission pursuant to Section 13 or 15(d) of the Exchange Act shall be filed with the Trustee within 15 days after the same is so required to be filed with the Commission.

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ARTICLE 8

CONSOLIDATION, MERGER, CONVEYANCE, TRANSFER OR LEASE

SECTION 8.1 COMPANY MAY CONSOLIDATE, ETC., ONLY ON CERTAIN TERMS.

The Company shall not consolidate with or merge into any other Person (in a transaction in which the Company is not the surviving corporation) or convey, transfer or lease its properties and assets substantially as an entirety to any Person, unless:

(1) in case the Company shall consolidate with or merge into another Person (in a transaction in which the Company is not the surviving corporation) or convey, transfer or lease its properties and assets substantially as an entirety to any Person, the Person formed by such consolidation or into which the Company is merged or the Person which acquires by conveyance or transfer, or which leases, the properties and assets of the Company substantially as an entirety shall be a corporation, limited liability company, partnership or trust, shall be organized and validly existing under the laws of the United States of America, any State thereof or the District of Columbia and shall expressly assume, by an indenture supplemental hereto, executed and delivered to the Trustee, in form satisfactory to the Trustee, the due and punctual payment of the principal of and any premium and interest on all the Securities and the performance or observance of every covenant of this Indenture on the part of the Company to be performed or observed and the conversion rights shall be provided for in accordance with Article 14, if applicable, or as otherwise specified pursuant to Section 3.1, by supplemental indenture satisfactory in form to the Trustee, executed and delivered to the Trustee, by the Person (if other than the Company) formed by such consolidation or into which the Company shall have been merged or by the Person which shall have acquired the Company's assets;

(2) immediately after giving effect to such transaction and treating any indebtedness which becomes an obligation of the Company or any Subsidiary as a result of such transaction as having been incurred by the Company or such Subsidiary at the time of such transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, shall have happened and be continuing; and

(3) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that such consolidation, merger, conveyance, transfer or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture comply with this Article and that all conditions precedent herein provided for relating to such transaction have been complied with.

SECTION 8.2 SUCCESSOR SUBSTITUTED.

Upon any consolidation of the Company with, or merger of the Company into, any other Person or any conveyance, transfer or lease of the properties and assets of the Company substantially as an entirety in accordance with Section 8.1, the successor Person formed by such consolidation or

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into which the Company is merged or to which such conveyance, transfer or lease is made shall succeed to, and be substituted for, and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor Person had been named as the Company herein, and thereafter, except in the case of a lease, the predecessor Person shall be relieved of all obligations and covenants under this Indenture and the Securities.

ARTICLE 9

SUPPLEMENTAL INDENTURES

SECTION 9.1 SUPPLEMENTAL INDENTURES WITHOUT CONSENT OF HOLDERS.

Without the consent of any Holders, the Company, when authorized by a Board Resolution, and the Trustee, at any time and from time to time, may enter into one or more indentures supplemental hereto, in form satisfactory to the Trustee, for any of the following purposes:

(1) to evidence the succession of another Person to the Company, or successive successions, and the assumption by any such successor of the covenants of the Company herein and in the Securities in compliance with Article 8; or

(2) to add to the covenants of the Company for the benefit of the Holders of all or any series of Securities (and if such covenants are to be for the benefit of less than all series of Securities, stating that such covenants are expressly being included solely for the benefit of such series) or to surrender any right or power herein conferred upon the Company; or

(3) to add any additional Events of Default for the benefit of the Holders of all or any series of Securities (and if such additional Events of Default are to be for the benefit of less than all series of Securities, stating that such additional Events of Default are expressly being included solely for the benefit of such series); or

(4) to add to or change any of the provisions of this Indenture to such extent as shall be necessary to permit or facilitate the issuance of Securities in bearer form, registrable or not registrable as to principal, and with or without interest coupons, or to permit or facilitate the issuance of Securities in uncertificated form; or

(5) to add to, change or eliminate any of the provisions of this Indenture in respect of one or more series of Securities, provided that any such addition, change or elimination (A) shall neither (i) apply to any Security of any series created prior to the execution of such supplemental indenture and entitled to the benefit of such provision nor (ii) modify the rights of the Holder of any such Security with respect to such provision or (B) shall become effective only when there is no such Security Outstanding; or

(6) to secure the Securities, including provisions regarding the circumstances under which collateral may be released or substituted; or

(7) to add or provide for a guaranty of the securities or additional obligors on the securities; or

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(8) to establish the form or terms of Securities of any series as

permitted by Sections 2.1 and 3.1; or

(9) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities of one or more series and to add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, pursuant to the requirements of Section 6.11; or

(10) to cure any ambiguity, to correct or supplement any provision herein which may be defective or inconsistent with any other provision herein, or to make any other provisions with respect to matters or questions arising under this Indenture, provided that such action pursuant to this Clause (10) shall not adversely affect the interests of the Holders of Securities of any series in any material respect; or

(11) to supplement any of the provisions of the Indenture to such extent as shall be necessary to permit or facilitate the defeasance and discharge of any series of Securities pursuant to Articles 4 and 13, provided that any such action shall not adversely affect the interests of the Holders of Securities of such series or any other series of Securities in any material respect.

SECTION 9.2 SUPPLEMENTAL INDENTURES WITH CONSENT OF HOLDERS.

With the consent of the Holders of a majority in principal amount of the Outstanding Securities of each series affected by such supplemental indenture, by Act of said Holders delivered to the Company and the Trustee, the Company, when authorized by a Board Resolution, and the Trustee may enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or of modifying in any manner the rights of the Holders of Securities of such series under this Indenture; provided, however, that no such supplemental indenture shall, without the consent of the Holder of each Outstanding Security affected thereby,

(1) change the Stated Maturity of the principal of, or any installment of principal of or interest on, any Security, or reduce the principal amount thereof or the rate of interest thereon or any premium payable upon the redemption thereof, or reduce the amount of the principal of an Original Issue Discount Security or any other Security which would be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 5.2, or change the coin or currency in which, any Security or any premium or interest thereon is payable, or impair the right to institute suit for the enforcement of any such payment on or after the Stated Maturity thereof (or, in the case of redemption, on or after the Redemption Date), or modify the provisions of this Indenture

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with respect to the subordination of such series of Securities in a manner adverse to the Holders of Securities of such series, or, in the case of Securities of any series that are convertible into Securities or other securities of the Company, adversely affect the right of Holders to convert any of the Securities of such series other than as provided in or pursuant to this Indenture, or

(2) reduce the percentage in principal amount of the Outstanding Securities of any series, the consent of whose Holders is required for any such supplemental indenture, or the consent of whose Holders is required for any waiver (of compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences) provided for in this Indenture, or

(3) modify any of the provisions of this Section, Section 5.13 or Section 10.8, except to increase any such percentage or to provide that certain other provisions of this Indenture cannot be modified or waived without the consent of the Holder of each Outstanding Security affected thereby; provided, however, that this clause shall not be deemed to require the consent of any Holder with respect to changes in the

references to "the Trustee" and concomitant changes in this Section and Section 10.8, or the deletion of this proviso, in accordance with the requirements of Sections 6.11 and 9.1(8), or

(4) if applicable, make any change that adversely affects the right to convert any security as provided in Article 14 or pursuant to Section 3.1 (except as permitted by Section 9.1(9)) or decrease the conversion rate or increase the conversion price of any such security.

A supplemental indenture which changes or eliminates any covenant or other provision of this Indenture which has expressly been included solely for the benefit of one or more particular series of Securities, or which modifies the rights of the Holders of Securities of such series with respect to such covenant or other provision, shall be deemed not to affect the rights under this Indenture of the Holders of Securities of any other series.

It shall not be necessary for any Act of Holders under this Section to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such Act shall approve the substance thereof.

SECTION 9.3 EXECUTION OF SUPPLEMENTAL INDENTURES.

In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article or the modifications thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and (subject to Sections 6.1 and 6.3) shall be fully protected in relying upon, an Opinion of Counsel stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee may, but shall not be obligated to, enter into any such supplemental indenture which affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

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SECTION 9.4 EFFECT OF SUPPLEMENTAL INDENTURES.

Upon the execution of any supplemental indenture under this Article, this Indenture shall be modified in accordance therewith, and such supplemental indenture shall form a part of this Indenture for all purposes; and every Holder of Securities theretofore or thereafter authenticated and delivered hereunder shall be bound thereby.

SECTION 9.5 CONFORMITY WITH TRUST INDENTURE ACT.

Every supplemental indenture executed pursuant to this Article shall conform to the requirements of the Trust Indenture Act.

SECTION 9.6 REFERENCE IN SECURITIES TO SUPPLEMENTAL INDENTURES.

Securities of any series authenticated and delivered after the execution of any supplemental indenture pursuant to this Article may, and shall if required by the Trustee, bear a notation in form approved by the Trustee as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities of any series so modified as to conform, in the opinion of the Trustee and the Company, to any such supplemental indenture may be prepared and executed by the Company and authenticated and delivered by the Trustee in exchange for Outstanding Securities of such series.

SECTION 9.7 SUBORDINATION UNIMPAIRED.

No provision in any supplemental indenture that affects the superior position of the holders of Senior Debt shall be effective against holders of Senior Debt.

ARTICLE 10

COVENANTS

SECTION 10.1 PAYMENT OF PRINCIPAL, PREMIUM AND INTEREST.

The Company covenants and agrees for the benefit of each series of Securities that it will duly and punctually pay the principal of and any premium and interest on the Securities of that series in accordance with the terms of the Securities and this Indenture.

SECTION 10.2 MAINTENANCE OF OFFICE OR AGENCY.

The Company will maintain in each Place of Payment for any series of Securities an office or agency where Securities of that series may be presented or surrendered for payment, where Securities of that series may be surrendered for registration of transfer or exchange, where Securities of that series may be surrendered for conversion and where notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of such

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office or agency. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee, and the Company hereby appoints the Trustee as its agent to receive all such presentations, surrenders, notices and demands. Unless otherwise provided in a supplemental indenture or pursuant to Section 3.1 hereof, the Place of Payment for any series of Securities shall be the Corporate Trust Office of the Trustee.

The Company may also from time to time designate one or more other offices or agencies where the Securities of one or more series may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; provided, however, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in each Place of Payment for Securities of any series for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency.

SECTION 10.3 MONEY FOR SECURITIES PAYMENTS TO BE HELD IN TRUST.

If the Company shall at any time act as its own Paying Agent with respect to any series of Securities, it will, on or before each due date of the principal of or any premium or interest on any of the Securities of that series, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay the principal and any premium and interest so becoming due until such sums shall be paid to such Persons or otherwise disposed of as herein provided and will promptly notify the Trustee of its action or failure so to act.

Whenever the Company shall have one or more Paying Agents for any series of Securities, it will, on or prior to each due date of the principal of or any premium or interest on any Securities of that series, deposit with a Paying Agent a sum sufficient to pay such amount, such sum to be held as provided by the Trust Indenture Act, and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of its action or failure so to act.

The Company will cause each Paying Agent for any series of Securities other than the Trustee to execute and deliver to the Trustee an instrument in which such Paying Agent shall agree with the Trustee, subject to the provisions of this Section, that such Paying Agent will (1) comply with the provisions of the Trust Indenture Act applicable to it as a Paying Agent and (2) during the continuance of any default by the Company (or any other obligor upon the Securities of that series) in the making of any payment in respect of the Securities of that series, upon the written request of the Trustee, forthwith pay to the Trustee all sums held in trust by such Paying Agent for payment in respect of the Securities of that series.

The Company may at any time, for the purpose of obtaining the satisfaction and discharge of this Indenture or for any other purpose, pay, or by Company Order direct any Paying Agent to pay, to the Trustee all sums held in trust by the Company or such Paying Agent, such sums to be held by the Trustee upon the same trusts as those upon which such sums were held by the Company or such

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Paying Agent; and, upon such payment by any Paying Agent to the Trustee, such Paying Agent shall be released from all further liability with respect to such money.

Any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of or any premium or interest on any Security of any series and remaining unclaimed for a period ending on the earlier of the date that is ten Business Days prior to the date such money would escheat to the State or two years after such principal, premium or interest has become due and payable shall be paid to the Company on Company Request, or (if then held by the Company) shall be discharged from such trust; and the Holder of such Security shall thereafter, as an unsecured general creditor, look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, shall thereupon cease; provided, however, that the Trustee or such Paying Agent, before being required to make any such repayment, may at the expense of the Company cause to be published once, in a newspaper published in the English language, customarily published on each Business Day and of general circulation in each Place of Payment, notice that such money remains unclaimed and that, after a date specified therein, which shall not be less than 30 days from the date of such publication, any unclaimed balance of such money then remaining will be repaid to the Company.

SECTION 10.4 STATEMENT BY OFFICERS AS TO DEFAULT.

The Company will deliver to the Trustee, within 120 days after the end of each fiscal year of the Company ending after the date hereof, an Officers' Certificate, stating whether or not to the best knowledge of the signers thereof the Company is in default in the performance and observance of any of the terms, provisions and conditions of this Indenture (without regard to any period of grace or requirement of notice provided hereunder) and, if the Company shall be in default, specifying all such defaults and the nature and status thereof of which they may have knowledge. The fiscal year of the Company currently ends on December 31; and the Company will give the Trustee prompt written notice of any change of its fiscal year.

SECTION 10.5 EXISTENCE.

Subject to Article 8, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its existence.

SECTION 10.6 MAINTENANCE OF PROPERTIES.

The Company will cause all properties used or useful in the conduct of its business to be maintained and kept in good condition, repair and working order and supplied with all necessary equipment and will cause to be made all necessary repairs, renewals, replacements, betterments and improvements thereof, all as, and to the extent, in the judgment of the Company may be necessary so that the business carried on in connection therewith may be properly and advantageously conducted at all times; provided, however, that nothing in this Section shall prevent the Company from discontinuing the operation or maintenance of any of such properties if such discontinuance is, in the

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judgment of the Company, desirable in the conduct of its business and not disadvantageous in any material respect to the Holders.

SECTION 10.7 PAYMENT OF TAXES AND OTHER CLAIMS.

The Company will pay or discharge or cause to be paid or discharged, before the same shall become delinquent, (1) all taxes, assessments and governmental charges levied or imposed upon the Company or upon the income, profits or property of the Company, and (2) all lawful claims for labor, materials and supplies which, if unpaid, might by law become a lien upon the property of the Company; provided, however, that the Company shall not be required to pay or discharge or cause to be paid or discharged any such tax, assessment, charge or claim (i) whose amount, applicability or validity is being contested in good faith by appropriate proceedings or (ii) if the failure to pay or discharge would not have a material adverse effect on the assets, business, operations, properties or condition (financial or otherwise) of the Company and its subsidiaries, taken as a whole.

SECTION 10.8 WAIVER OF CERTAIN COVENANTS.

Except as otherwise specified as contemplated by Section 3.1 for Securities of such series, the Company may, with respect to the Securities of any series, omit in any particular instance to comply with any term, provision or condition set forth in any covenant provided pursuant to Section 3.1(19), 9.1(2), 9.1(7), 10.6 or 10.7 for the benefit of the Holders of such series if before the time for such compliance the Holders of at least a majority in principal amount of the Outstanding Securities of such series shall, by Act of such Holders, either waive such compliance in such instance or generally waive compliance with such term, provision or condition, but no such waiver shall extend to or affect such term, provision or condition except to the extent so expressly waived, and, until such waiver shall become effective, the obligations of the Company and the duties of the Trustee in respect of any such term, provision or condition shall remain in full force and effect.

ARTICLE 11

REDEMPTION OF SECURITIES

SECTION 11.1 APPLICABILITY OF ARTICLE.

Securities of any series that are redeemable before their Stated Maturity shall be redeemable in accordance with their terms and (except as otherwise specified as contemplated by Section 3.1 for such Securities) in accordance with this Article.

SECTION 11.2 ELECTION TO REDEEM; NOTICE TO TRUSTEE.

The election of the Company to redeem any Securities shall be evidenced by a Board Resolution or in another manner specified as contemplated by Section 3.1 for such Securities. In case of any redemption at the election of the Company of less than all the Securities of any series (including any such redemption affecting only a single Security), the Company shall, at least 45 days prior to the Redemption Date fixed by the Company (unless a shorter notice shall be satisfactory to

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the Trustee), notify the Trustee of such Redemption Date, of the principal amount of Securities of such series to be redeemed and, if applicable, of the tenor of the Securities to be redeemed. In the case of any redemption of Securities prior to the expiration of any restriction on such redemption provided in the terms of such Securities or elsewhere in this Indenture, the Company shall furnish the Trustee with an Officers' Certificate evidencing compliance with such restriction.

SECTION 11.3 SELECTION BY TRUSTEE OF SECURITIES TO BE REDEEMED.

If less than all the Securities of any series are to be redeemed (unless all the Securities of such series and of a specified tenor are to be redeemed or unless such redemption affects only a single Security), the particular Securities to be redeemed shall be selected not more than 45 days prior to the Redemption Date by the Trustee, from the Outstanding Securities of such series not previously called for redemption, by lot, or in the Trustee's discretion, on a pro-rata basis, provided that the unredeemed portion of the principal amount of any Security shall be in an authorized denomination (which shall not be less than the minimum authorized denomination) for such Security. If less than all the Securities of such series and of a specified tenor are to be redeemed (unless such redemption affects only a single Security), the particular Securities to be redeemed shall be selected not more than 45 days prior to the Redemption Date by the Trustee, from the Outstanding Securities of such series and specified tenor not previously called for redemption in accordance with the preceding sentence.

If any Security selected for partial redemption is converted in part before termination of the conversion right with respect to the portion of the Security so selected, the converted portion of such Security shall be deemed (so far as may be) to be the portion selected for redemption. Securities that have been converted during a selection of Securities to be redeemed shall be treated by the Trustee as Outstanding for the purpose of such selection.

The Trustee shall promptly notify the Company in writing of the Securities selected for redemption as aforesaid and, in case of any Securities selected for partial redemption as aforesaid, the principal amount thereof to be redeemed.

The provisions of the two preceding paragraphs shall not apply with respect to any redemption affecting only a single Security, whether such Security is to be redeemed in whole or in part. In the case of any such redemption in part, the unredeemed portion of the principal amount of the Security shall be in an authorized denomination (which shall not be less than the minimum authorized denomination) for such Security.

For all purposes of this Indenture, unless the context otherwise requires, all provisions relating to the redemption of Securities shall relate, in the case of any Securities redeemed or to be redeemed only in part, to the portion of the principal amount of such Securities which has been or is to be redeemed.

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SECTION 11.4 NOTICE OF REDEMPTION.

Notice of redemption shall be given by first-class mail, postage prepaid, mailed not fewer than 30 nor more than 60 days prior to the Redemption Date, unless a shorter period is specified in the Securities to be redeemed, to each Holder of Securities to be redeemed, at its address appearing in the Security Register.

All notices of redemption shall state:

- (1) the Redemption Date,
- (2) the Redemption Price (including accrued interest, if any),
- (3) if less than all the Outstanding Securities of any series consisting of more than a single Security are to be redeemed, the identification (and, in the case of partial redemption of any such Securities, the principal amounts) of the particular Securities to be redeemed and, if less than all the Outstanding Securities of any series consisting of a single Security are to be redeemed, the principal amount of the particular Security to be redeemed,
- (4) in case any Security is to be redeemed in part only, that on and after the Redemption Date, upon surrender of such Security, the Holder of such Security will receive, without charge, a new Security or Securities of authorized denominations for the principal amount thereof remaining unredeemed,
- (5) that on the Redemption Date the Redemption Price will become due and payable upon each such Security to be redeemed and, if applicable, that interest thereon will cease to accrue on and after said date,
- (6) the place or places where each such Security is to be surrendered for payment of the Redemption Price,
- (7) if applicable, the conversion price, the date on which the right to convert the principal of the Securities or the portions thereof to be redeemed will terminate, and the place or places where such Securities may be surrendered for conversion,
- (8) that the redemption is for a sinking fund, if such is the case, and
- (9) the CUSIP number or numbers and/or common codes of the Security being redeemed.

Notice of redemption of Securities to be redeemed at the election of the Company shall be given by the Company or, at the Company's request, by the Trustee in the name and at the expense of the Company and shall be irrevocable.

SECTION 11.5 DEPOSIT OF REDEMPTION PRICE.

On or prior to any Redemption Date, the Company shall deposit with the Trustee or with a Paying Agent (or, if the Company is acting as its own Paying

Agent, segregate and hold in trust as provided in Section 10.3) an amount of money sufficient to pay the Redemption Price of, and (except if the Redemption Date shall be an Interest Payment Date) accrued interest on, all the Securities which are to be redeemed on that date.

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If any Security called for redemption is converted, any money deposited with the Trustee or with a Paying Agent or so segregated and held in trust for the redemption of such Security shall (subject to the right of any Holder of such Security to receive interest as provided in the last paragraph of Section 3.7) be paid to the Company on Company Request, or if then held by the Company, shall be discharged from such trust.

SECTION 11.6 SECURITIES PAYABLE ON REDEMPTION DATE.

Notice of redemption having been given as aforesaid, the Securities so to be redeemed shall, on the Redemption Date, become due and payable at the Redemption Price therein specified, and from and after such date (unless the Company shall default in the payment of the Redemption Price and accrued interest) such Securities shall cease to bear interest. Upon surrender of any such Security for redemption in accordance with said notice, such Security shall be paid by the Company at the Redemption Price, together with accrued interest to the Redemption Date; provided, however, that, unless otherwise specified as contemplated by Section 3.1, installments of interest whose Stated Maturity is on or prior to the Redemption Date will be payable to the Holders of such Securities, or one or more Predecessor Securities, registered as such at the close of business on the relevant Record Dates according to their terms and the provisions of Section 3.7.

If any Security called for redemption shall not be so paid upon surrender thereof for redemption, the principal and any premium shall, until paid, bear interest from the Redemption Date at the rate prescribed therefor in the Security.

SECTION 11.7 SECURITIES REDEEMED IN PART.

Any Security which is to be redeemed only in part shall be surrendered at a Place of Payment therefor (with, if the Company or the Trustee so requires, due endorsement by, or a written instrument of transfer in form satisfactory to the Company and the Trustee duly executed by, the Holder thereof or its attorney duly authorized in writing), and the Company shall execute, and the Trustee shall authenticate and deliver to the Holder of such Security without service charge, a new Security or Securities of the same series and of like tenor, of any authorized denomination as requested by such Holder, in aggregate principal amount equal to and in exchange for the unredeemed portion of the principal of the Security so surrendered.

ARTICLE 12

SINKING FUNDS

SECTION 12.1 APPLICABILITY OF ARTICLE.

The provisions of this Article shall be applicable to any sinking fund for the retirement of Securities of any series except as otherwise specified as contemplated by Section 3.1 for such Securities.

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The minimum amount of any sinking fund payment provided for by the terms of any Securities is herein referred to as a "mandatory sinking fund payment," and any payment in excess of such minimum amount provided for by the terms of such Securities is herein referred to as an "optional sinking fund payment." If provided for by the terms of any Securities, the cash amount of any sinking fund payment may be subject to reduction as provided in Section 12.2. Each sinking fund payment shall be applied to the redemption of Securities as provided for by the terms of such Securities.

SECTION 12.2 SATISFACTION OF SINKING FUND PAYMENTS WITH SECURITIES.

The Company (1) may deliver Outstanding Securities of a series (other than any previously called for redemption) and (2) may apply as a credit Securities of a series which have been redeemed either at the election of the Company pursuant to the terms of such Securities or through the application of permitted optional sinking fund payments pursuant to the terms of such Securities, in each case in satisfaction of all or any part of any sinking fund payment with respect to any Securities of such series required to be made pursuant to the terms of such Securities as and to the extent provided for by the terms of such Securities; provided that the Securities to be so credited have not been previously so credited. The Securities to be so credited shall be received and credited for such purpose by the Trustee at the Redemption Price, as specified in the Securities so to be redeemed, for redemption through operation of the sinking fund and the amount of such sinking fund payment shall be reduced accordingly.

SECTION 12.3 REDEMPTION OF SECURITIES FOR SINKING FUND.

Not fewer than 60 days prior to each sinking fund payment date for any Securities, the Company will deliver to the Trustee an Officers' Certificate specifying the amount of the next ensuing sinking fund payment for such Securities pursuant to the terms of such Securities, the portion thereof, if any, which is to be satisfied by payment of cash and the portion thereof, if any, which is to be satisfied by delivering and crediting Securities pursuant to Section 12.2 and will also deliver to the Trustee any Securities to be so delivered. Not fewer than 30 days prior to each such sinking fund payment date, the Trustee shall select the Securities to be redeemed upon such sinking fund payment date in the manner specified in Section 11.3 and cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in Section 11.4. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Sections 11.6 and 11.7.

ARTICLE 13

DEFEASANCE AND COVENANT DEFEASANCE

SECTION 13.1 COMPANY'S OPTION TO EFFECT DEFEASANCE OR COVENANT DEFEASANCE.

The Company may elect, at its option at any time, to have Section 13.2 or Section 13.3 applied to any Securities or any series of Securities, as the case may be, designated pursuant to Section 3.1 as being defeasible pursuant to such Section 13.2 or 13.3, in accordance with any

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applicable requirements provided pursuant to Section 3.1 and upon compliance with the conditions set forth below in this Article. Any such election shall be evidenced by a Board Resolution or in another manner specified as contemplated by Section 3.1 for such Securities.

SECTION 13.2 DEFEASANCE AND DISCHARGE.

Upon the Company's exercise of its option (if any) to have this Section applied to any Securities or any series of Securities, as the case may be, the Company shall be deemed to have been discharged from its obligations, and the provisions of Article 15 shall cease to be effective, with respect to such Securities as provided in this Section on and after the date the conditions set forth in Section 13.4 are satisfied (hereinafter called "Defeasance"). For this purpose, such Defeasance means that the Company shall be deemed to have paid and discharged the entire indebtedness represented by such Securities and to have satisfied all its other obligations under such Securities and this Indenture insofar as such Securities are concerned (and the Trustee, at the expense of the Company, shall execute proper instruments acknowledging the same), subject to the following which shall survive until otherwise terminated or discharged hereunder:

(1) the rights of Holders of such Securities to receive, solely from the trust fund described in Section 13.4 and as more fully set forth in such Section, payments in respect of the principal of and any premium and interest on such Securities when payments are due,

(2) the Company's obligations with respect to such Securities under

Sections 3.4, 3.5, 3.6, 10.2 and 10.3, and, if applicable, Article 14,

(3) the rights, powers, trusts, duties and immunities of the Trustee hereunder, and

(4) this Article.

Subject to compliance with this Article, the Company may exercise its option (if any) to have this Section applied to any Securities notwithstanding the prior exercise of its option (if any) to have Section 13.3 applied to such Securities.

SECTION 13.3 COVENANT DEFEASANCE.

Upon the Company's exercise of its option (if any) to have this Section applied to any Securities or any series of Securities, as the case may be,

(1) the Company shall be released from its obligations under Sections 10.6 and 10.7 and any covenants provided pursuant to Sections 3.1(19), 9.1(2) or 9.1(7) for the benefit of the Holders of such Securities,

(2) the occurrence of any event specified in Sections 5.1(4) (with respect to any of Sections 10.6 and 10.7 and any such covenants provided pursuant to Section 3.1(19), 9.1(2) or 9.1(7)) and the occurrence of any Event of Default specified pursuant to Section 3.1, shall be deemed not to be or result in an Event of Default, and

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(3) the provisions of Article 15 shall cease to be effective,

in each case with respect to such Securities or series of Securities as provided in this Section on and after the date the conditions set forth in Section 13.4 are satisfied (hereinafter called "Covenant Defeasance"). For this purpose, such Covenant Defeasance means that, with respect to such Securities, the Company may omit to comply with and shall have no liability in respect of any term, condition or limitation set forth in any such specified Section (to the extent so specified in the case of Section 5.1(4) and the occurrence of any Event of Default specified pursuant to Section 3.1) or Article 15, whether directly or indirectly by reason of any reference elsewhere herein to any such Section or Article or by reason of any reference in any such Section or Article to any other provision herein or in any other document, but the remainder of this Indenture and such Securities shall be unaffected thereby.

SECTION 13.4 CONDITIONS TO DEFEASANCE OR COVENANT DEFEASANCE.

The following shall be the conditions to the application of Section 13.2 or Section 13.3 to any Securities or any series of Securities, as the case may be:

(1) The Company shall irrevocably have deposited or caused to be deposited with the Trustee (or another trustee which satisfies the requirements contemplated by Section 6.9 and agrees to comply with the provisions of this Article applicable to it) as trust funds in trust for the purpose of making the following payments, specifically pledged as security for, and dedicated solely to, the benefits of the Holders of such Securities,

(A) in the case of Securities of a series denominated in currency of the United States of America,

(i) cash in currency of the United States of America in an amount, or

(ii) U.S. Government Obligations which through the scheduled payment of principal and interest in respect thereof in accordance with their terms will provide, not later than one day before the due date of any payment, an amount in cash, or

(iii) a combination thereof, or

(B) in the case of Securities of a series denominated in currency other than that of the United States of America,

(i) cash in the currency in which such series of Securities is denominated in an amount, or

(ii) Foreign Government Obligations which through the scheduled payment of principal and interest in respect thereof in accordance with their

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terms will provide, not later than one day before the due date of any payment, an amount in cash, or

(iii) a combination thereof,

in each case sufficient, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, to pay and discharge, and which shall be applied by the Trustee (or any such other qualifying trustee) to pay and discharge, the principal of and any premium and interest on such Securities on the respective Stated Maturities, in accordance with the terms of this Indenture and such Securities.

(2) In the event of an election to have Section 13.2 apply to any Securities or any series of Securities, as the case may be, the Company shall have delivered to the Trustee an Opinion of Counsel stating that

(A) the Company has received from, or there has been published by, the Internal Revenue Service a ruling or

(B) since the date of this instrument, there has been a change in the applicable Federal income tax law,

in either case (A) or (B) to the effect that, and based thereon such opinion shall confirm that, the Holders of such Securities will not recognize gain or loss for Federal income tax purposes as a result of the deposit, Defeasance and discharge to be effected with respect to such Securities and will be subject to Federal income tax on the same amount, in the same manner and at the same times as would be the case if such deposit, Defeasance and discharge were not to occur.

(3) In the event of an election to have Section 13.3 apply to any Securities or any series of Securities, as the case may be, the Company shall have delivered to the Trustee an Opinion of Counsel to the effect that the Holders of such Securities will not recognize gain or loss for Federal income tax purposes as a result of the deposit and Covenant Defeasance to be effected with respect to such Securities and will be subject to Federal income tax on the same amount, in the same manner and at the same times as would be the case if such deposit and Covenant Defeasance were not to occur.

(4) The Company shall have delivered to the Trustee an Officers' Certificate to the effect that neither such Securities nor any other Securities of the same series, if then listed on any securities exchange, will be delisted as a result of such deposit.

(5) No event which is, or after notice or lapse of time or both would become, an Event of Default with respect to such Securities or any other Securities shall have occurred and be continuing at the time of such deposit or, with regard to any such event specified in Sections 5.1(5) and (6), at any time on or prior to the 90th day after the date of such deposit

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(it being understood that this condition shall not be deemed satisfied until after such 90th day).

(6) Such Defeasance or Covenant Defeasance shall not cause the Trustee to have a conflicting interest within the meaning of the Trust

Indenture Act (assuming all Securities are in default within the meaning of such Act).

(7) Such Defeasance or Covenant Defeasance shall not result in a breach or violation of, or constitute a default under, this Indenture or any other agreement or instrument to which the Company is a party or by which it is bound.

(8) Such Defeasance or Covenant Defeasance shall not result in the trust arising from such deposit constituting an investment company within the meaning of the Investment Company Act unless such trust shall be registered under such Act or exempt from registration thereunder.

(9) At the time of such deposit,

(A) no default in the payment of any principal of or premium or interest on any Senior Debt shall have occurred and be continuing,

(B) no event of default with respect to any Senior Debt shall have resulted in such Senior Debt becoming, and continuing to be, due and payable prior to the date on which it would otherwise have become due and payable (unless payment of such Senior Debt has been made or duly provided for), and

(C) no other event of default with respect to any Senior Debt shall have occurred and be continuing permitting (after notice or lapse of time or both) the holders of such Senior Debt (or a trustee on behalf of such holders) to declare such Senior Debt due and payable prior to the date on which it would otherwise have become due and payable.

(10) The Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent with respect to such Defeasance or Covenant Defeasance have been complied with.

SECTION 13.5 DEPOSITED MONEY, U.S. GOVERNMENT OBLIGATIONS AND FOREIGN GOVERNMENT OBLIGATIONS TO BE HELD IN TRUST; MISCELLANEOUS PROVISIONS.

Subject to the provisions of the last paragraph of Section 10.3, all money, U.S. Government Obligations and Foreign Government Obligations (including the proceeds thereof) deposited with the Trustee or other qualifying trustee (solely for purposes of this Section and Section 13.6, the Trustee and any such other trustee are referred to collectively as the "Trustee") pursuant to Section 13.4 in respect of any Securities shall be held in trust and applied by the Trustee, in accordance with the provisions of such Securities and this Indenture, to the payment, either directly

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or through any such Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the Holders of such Securities, of all sums due and to become due thereon in respect of principal and any premium and interest, but money so held in trust need not be segregated from other funds except to the extent required by law. Money, U.S. Government Obligations and Foreign Government Obligations so held in trust shall not be subject to the provisions of Article 15.

The Company shall pay and indemnify the Trustee against any tax, fee or other charge imposed on or assessed against the U.S. Government Obligations or Foreign Government Obligations deposited pursuant to Section 13.4 or the principal and interest received in respect thereof other than any such tax, fee or other charge which by law is for the account of the Holders of Outstanding Securities.

Anything in this Article to the contrary notwithstanding, the Trustee shall deliver or pay to the Company from time to time upon Company Request any money, U.S. Government Obligations or Foreign Government Obligations held by it as provided in Section 13.4 with respect to any Securities which, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, are in excess of the amount thereof which would then be required to be deposited to effect the

Defeasance or Covenant Defeasance, as the case may be, with respect to such Securities.

SECTION 13.6 REINSTATEMENT.

If the Trustee or the Paying Agent is unable to apply any money in accordance with this Article with respect to any Securities by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, then the obligations under this Indenture and such Securities from which the Company has been discharged or released pursuant to Section 13.2 or 13.3 shall be revived and reinstated as though no deposit had occurred pursuant to this Article with respect to such Securities, until such time as the Trustee or Paying Agent is permitted to apply all money held in trust pursuant to Section 13.5 with respect to such Securities in accordance with this Article; provided, however, that if the Company makes any payment of principal of or any premium or interest on any such Security following such reinstatement of its obligations, the Company shall be subrogated to the rights (if any) of the Holders of such Securities to receive such payment from the money so held in trust.

ARTICLE 14

CONVERSION OF SECURITIES

SECTION 14.1 APPLICABILITY OF ARTICLE.

The provisions of this Article shall be applicable to the Securities of any series which are convertible into shares of Common Stock of the Company, and the issuance of such shares of Common Stock upon the conversion of such Securities, except as otherwise specified as contemplated by Section 3.1 for the Securities of such series.

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SECTION 14.2 EXERCISE OF CONVERSION PRIVILEGE.

In order to exercise a conversion privilege, the Holder of a Security of a series with such a privilege shall surrender such Security to the Company at the office or agency maintained for that purpose pursuant to Section 10.2, accompanied by a duly executed conversion notice to the Company substantially in the form set forth in Section 2.6 stating that the Holder elects to convert such Security or a specified portion thereof. Such notice shall also state, if different from the name and address of such Holder, the name or names (with address) in which the certificate or certificates for shares of Common Stock, which shall be issuable on such conversion, shall be issued. Securities surrendered for conversion shall (if so required by the Company or the Trustee) be duly endorsed by or accompanied by instruments of transfer in forms satisfactory to the Company and the Trustee duly executed by the Holder or its attorney duly authorized in writing; and Securities so surrendered for conversion (in whole or in part) during the period from the close of business on any Regular Record Date to the opening of business on the next succeeding Interest Payment Date (excluding Securities or portions thereof called for redemption during the period beginning at the close of business on a Regular Record Date and ending at the opening of business on the first Business Day after the next succeeding Interest Payment Date, or if such Interest Payment Date is not a Business Day, the second such Business Day) shall also be accompanied by payment in funds acceptable to the Company of an amount equal to the interest payable on such Interest Payment Date on the principal amount of such Security then being converted, and such interest shall be payable to such Holder notwithstanding the conversion of such Security, subject to the provisions of Section 3.7 relating to the payment of Defaulted Interest by the Company. As promptly as practicable after the receipt of such notice and of any payment required pursuant to a Board Resolution and, subject to Section 3.3, set forth, or determined in the manner provided, in an Officers' Certificate, or established in one or more indentures supplemental hereto setting forth the terms of such series of Security, and the surrender of such Security in accordance with such reasonable regulations as the Company may prescribe, the Company shall issue and shall deliver, at the office or agency at which such Security is surrendered, to such Holder or on its written order, a certificate or certificates for the number of full shares of Common Stock issuable upon the conversion of such Security (or specified portion thereof), in accordance with the provisions of such Board Resolution, Officers' Certificate or supplemental indenture, and cash as provided therein in respect of any fractional share of such Common Stock otherwise issuable upon such conversion. Such conversion shall

be deemed to have been effected immediately prior to the close of business on the date on which such notice and such payment, if required, shall have been received in proper order for conversion by the Company and such Security shall have been surrendered as aforesaid (unless such Holder shall have so surrendered such Security and shall have instructed the Company to effect the conversion on a particular date following such surrender and such Holder shall be entitled to convert such Security on such date, in which case such conversion shall be deemed to be effected immediately prior to the close of business on such date) and at such time the rights of the Holder of such Security as such Security Holder shall cease and the person or persons in whose name or names any certificate or certificates for shares of Common Stock of the Company shall be issuable upon such conversion shall be deemed to have become the Holder or Holders of record of the shares represented thereby. Except as set forth above and subject to the final paragraph of Section 3.7, no payment or adjustment shall be made upon any conversion on account of any interest

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accrued on the Securities (or any part thereof) surrendered for conversion or on account of any dividends on the Common Stock of the Company issued upon such conversion.

In the case of any Security which is converted in part only, upon such conversion the Company shall execute and the Trustee shall authenticate and deliver to or on the order of the Holder thereof, at the expense of the Company, a new Security or Securities of the same series, of authorized denominations, in aggregate principal amount equal to the unconverted portion of such Security.

SECTION 14.3 NO FRACTIONAL SHARES.

No fractional share of Common Stock of the Company shall be issued upon conversions of Securities of any series. If more than one Security shall be surrendered for conversion at one time by the same Holder, the number of full shares which shall be issuable upon conversion shall be computed on the basis of the aggregate principal amount of the Securities (or specified portions thereof to the extent permitted hereby) so surrendered. If, except for the provisions of this Section 14.3, any Holder of a Security or Securities would be entitled to a fractional share of Common Stock of the Company upon the conversion of such Security or Securities, or specified portions thereof, the Company shall pay to such Holder an amount in cash equal to the current market value of such fractional share computed, (i) if such Common Stock is listed or admitted to unlisted trading privileges on a national securities exchange or market, on the basis of the last reported sale price regular way on such exchange or market on the last trading day prior to the date of conversion upon which such a sale shall have been effected, or (ii) if such Common Stock is not at the time so listed or admitted to unlisted trading privileges on a national securities exchange or market, on the basis of the average of the bid and asked prices of such Common Stock in the over-the-counter market, on the last trading day prior to the date of conversion, as reported by the National Quotation Bureau, Incorporated or similar organization if the National Quotation Bureau, Incorporated is no longer reporting such information, or if not so available, the fair market price as determined by the Board of Directors. For purposes of this Section, "trading day" shall mean each Monday, Tuesday, Wednesday, Thursday and Friday other than any day on which the Common Stock is not traded on the Nasdaq National Market, or if the Common Stock is not traded on the Nasdaq National Market, on the principal exchange or market on which the Common Stock is traded or quoted.

SECTION 14.4 ADJUSTMENT OF CONVERSION PRICE.

The conversion price of Securities of any series that is convertible into Common Stock of the Company shall be adjusted for any stock dividends, stock splits, reclassifications, combinations or similar transactions in accordance with the terms of the supplemental indenture or Board Resolutions setting forth the terms of the Securities of such series.

Whenever the conversion price is adjusted, the Company shall compute the adjusted conversion price in accordance with terms of the applicable Board Resolution or supplemental indenture and shall prepare an Officers' Certificate setting forth the adjusted conversion price and showing in reasonable detail the facts upon which such adjustment is based, and such certificate

shall forthwith be filed at each office or agency maintained for the purpose of conversion of Securities pursuant to Section 10.2 and, if different, with the Trustee. The Company shall forthwith cause a notice setting forth the adjusted conversion price to be mailed, first class postage prepaid, to each Holder of Securities of such series at its address appearing on the Security Register and to any conversion agent other than the Trustee.

SECTION 14.5 NOTICE OF CERTAIN CORPORATE ACTIONS.

In case:

(1) the Company shall declare a dividend (or any other distribution) on its Common Stock payable otherwise than in cash out of its retained earnings (other than a dividend for which approval of any shareholders of the Company is required) that would require an adjustment pursuant to Section 14.4; or

(2) the Company shall authorize the granting to all or substantially all of the holders of its Common Stock of rights, options or warrants to subscribe for or purchase any shares of capital stock of any class or of any other rights (other than any such grant for which approval of any shareholders of the Company is required); or

(3) of any reclassification of the Common Stock of the Company (other than a subdivision or combination of its outstanding shares of Common Stock, or of any consolidation, merger or share exchange to which the Company is a party and for which approval of any shareholders of the Company is required), or of the sale of all or substantially all of the assets of the Company; or

(4) of the voluntary or involuntary dissolution, liquidation or winding up of the Company; then the Company shall cause to be filed with the Trustee, and shall cause to be mailed to all Holders at their last addresses as they shall appear in the Security Register, at least 20 days (or 10 days in any case specified in Clause (1) or (2) above) prior to the applicable record date hereinafter specified, a notice stating (i) the date on which a record is to be taken for the purpose of such dividend, distribution, rights, options or warrants, or, if a record is not to be taken, the date as of which the holders of Common Stock of record to be entitled to such dividend, distribution, rights, options or warrants are to be determined, or (ii) the date on which such reclassification, consolidation, merger, share exchange, sale, dissolution, liquidation or winding up is expected to become effective, and the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, share exchange, sale, dissolution, liquidation or winding up. If at any time the Trustee shall not be the conversion agent, a copy of such notice shall also forthwith be filed by the Company with the Trustee.

SECTION 14.6 RESERVATION OF SHARES OF COMMON STOCK.

The Company shall at all times reserve and keep available, free from preemptive rights, out of its authorized but unissued Common Stock, for the purpose of effecting the conversion of Securities, the full number of shares of Common Stock of the Company then issuable upon the conversion of all outstanding Securities of any series that has conversion rights.

SECTION 14.7 PAYMENT OF CERTAIN TAXES UPON CONVERSION.

Except as provided in the next sentence, the Company will pay any and all taxes that may be payable in respect of the issue or delivery of shares of its Common Stock on conversion of Securities pursuant hereto. The Company shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issue and delivery of shares of its Common Stock in a name other than that of the Holder of the Security or Securities to be converted, and no such issue or delivery shall be made unless and until the

person requesting such issue has paid to the Company the amount of any such tax, or has established, to the satisfaction of the Company, that such tax has been paid.

SECTION 14.8 NONASSESSABILITY.

The Company covenants that all shares of its Common Stock that may be issued upon conversion of Securities will upon issue in accordance with the terms hereof be duly and validly issued and fully paid and nonassessable.

SECTION 14.9 PROVISION IN CASE OF CONSOLIDATION, MERGER OR SALE OF ASSETS.

In case of any consolidation or merger of the Company with or into any other Person, any merger of another Person with or into the Company (other than a merger which does not result in any reclassification, conversion, exchange or cancellation of outstanding shares of Common Stock of the Company) or any conveyance, sale, transfer or lease of all or substantially all of the assets of the Company, the Person formed by such consolidation or resulting from such merger or which acquires such assets, as the case may be, shall execute and deliver to the Trustee a supplemental indenture providing that the Holder of each Security of a series then Outstanding that is convertible into Common Stock of the Company shall have the right thereafter (which right shall be the exclusive conversion right thereafter available to said Holder), during the period such Security shall be convertible, to convert such Security only into the kind and amount of securities, cash and other property receivable upon such consolidation, merger, conveyance, sale, transfer or lease by a holder of the number of shares of Common Stock of the Company into which such Security might have been converted immediately prior to such consolidation, merger, conveyance, sale, transfer or lease, assuming such holder of Common Stock of the Company (i) is not a Person with which the Company consolidated or merged with or into or which merged into or with the Company or to which such conveyance, sale, transfer or lease was made, as the case may be (a "Constituent Person"), or an Affiliate of a Constituent Person and (ii) failed to exercise his rights of election, if any, as to the kind or amount of securities, cash and other property receivable upon such consolidation, merger, conveyance, sale, transfer or lease (provided that if the kind or amount of

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securities, cash and other property receivable upon such consolidation, merger, conveyance, sale, transfer, or lease is not the same for each share of Common Stock of the Company held immediately prior to such consolidation, merger, conveyance, sale, transfer or lease by others than a Constituent Person or an Affiliate thereof and in respect of which such rights of election shall not have been exercised ("Non-electing Share"), then for the purpose of this Section 14.9 the kind and amount of securities, cash and other property receivable upon such consolidation, merger, conveyance, sale, transfer or lease by the holders of each Non-electing Share shall be deemed to be the kind and amount so receivable per share by a plurality of the Non-electing Shares). Such supplemental indenture shall provide for adjustments which, for events subsequent to the effective date of such supplemental indenture, shall be as nearly equivalent as may be practicable to the adjustments provided for in this Article or in accordance with the terms of the supplemental indenture or Board Resolutions setting forth the terms of such adjustments. The above provisions of this Section 14.9 shall similarly apply to successive consolidations, mergers, conveyances, sales, transfers or leases. Notice of the execution of such a supplemental indenture shall be given by the Company to the Holder of each Security of a series that is convertible into Common Stock of the Company as provided in Section 1.6 promptly upon such execution.

Neither the Trustee nor any conversion agent, if any, shall be under any responsibility to determine the correctness of any provisions contained in any such supplemental indenture relating either to the kind or amount of shares of stock or other securities or property or cash receivable by Holders of Securities of a series convertible into Common Stock of the Company upon the conversion of their Securities after any such consolidation, merger, conveyance, transfer, sale or lease or to any such adjustment, but may accept as conclusive evidence of the correctness of any such provisions, and shall be protected in relying upon, an Opinion of Counsel with respect thereto, which the Company shall cause to be furnished to the Trustee upon request.

SECTION 14.10 DUTIES OF TRUSTEE REGARDING CONVERSION.

Neither the Trustee nor any conversion agent shall at any time be under any duty or responsibility to any Holder of Securities of any series that is convertible into Common Stock of the Company to determine whether any facts exist which may require any adjustment of the conversion price, or with respect to the nature or extent of any such adjustment when made, or with respect to the method employed, whether herein or in any supplemental indenture, any resolutions of the Board of Directors or written instrument executed by one or more officers of the Company provided to be employed in making the same. Neither the Trustee nor any conversion agent shall be accountable with respect to the validity or value (or the kind or amount) of any shares of Common Stock of the Company, or of any securities or property, which may at any time be issued or delivered upon the conversion of any Securities and neither the Trustee nor any conversion agent makes any representation with respect thereto. Subject to the provisions of Section 6.1, neither the Trustee nor any conversion agent shall be responsible for any failure of the Company to issue, transfer or deliver any shares of its Common Stock or stock certificates or other securities or property upon the surrender of any Security for the purpose of conversion or to comply with any of the covenants of the Company contained in this Article 14 or in the applicable supplemental indenture, resolutions of

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the Board of Directors or written instrument executed by one or more duly authorized officers of the Company.

SECTION 14.11 REPAYMENT OF CERTAIN FUNDS UPON CONVERSION.

Any funds which at any time shall have been deposited by the Company or on its behalf with the Trustee or any other paying agent for the purpose of paying the principal of, and premium, if any, and interest, if any, on any of the Securities (including, but not limited to, funds deposited for the sinking fund referred to in Article 12 hereof and funds deposited pursuant to Article 13 hereof) and which shall not be required for such purposes because of the conversion of such Securities as provided in this Article 14 shall after such conversion be repaid to the Company by the Trustee upon the Company's written request.

ARTICLE 15

SUBORDINATION OF SECURITIES

SECTION 15.1 AGREEMENT OF SUBORDINATION.

Except as otherwise provided in a supplemental indenture or pursuant to Section 3.1, the Company covenants and agrees, and each Holder of Securities issued hereunder by its acceptance thereof likewise covenants and agrees, that all Securities shall be issued subject to the provisions of this Article 15; and each Person holding any Security, whether upon original issue or upon transfer, assignment or exchange thereof, accepts and agrees to be bound by such provisions.

The payment of the principal of, premium, if any, and interest on all Securities (including, but not limited to, the redemption price with respect to the Securities called for redemption in accordance with Article 11 as provided in the Indenture) issued hereunder shall, to the extent and in the manner hereinafter set forth, be subordinated and subject in right of payment to the prior payment in full of all Senior Debt, whether outstanding at the date of this Indenture or thereafter incurred.

No provision of this Article 15 shall prevent the occurrence of any default or Event of Default hereunder.

SECTION 15.2 PAYMENTS TO HOLDERS.

No payment shall be made with respect to the principal of, or premium, if any, or interest on the Securities (including, but not limited to, the redemption price with respect to the Securities to be called for redemption in accordance with Article 11 as provided in the Indenture), except payments and distributions made by the Trustee as permitted by the first or second paragraph of Section 15.5, if:

- (i) a default in the payment of principal, premium,

if any, interest, rent or other obligations due on any Senior Debt occurs and is continuing (or,

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in the case of Senior Debt for which there is a period of grace, in the event of such a default that continues beyond the period of grace, if any, specified in the instrument or lease evidencing such Senior Debt) (a "Payment Default"), unless and until such default shall have been cured or waived or shall have ceased to exist; or

(ii) a default, other than a Payment Default, on any Designated Senior Debt occurs and is continuing that then permits holders of such Designated Senior Debt to accelerate its maturity and the Trustee receives a notice of the default (a "Payment Blockage Notice") from a holder of Designated Senior Debt, a Representative of Designated Senior Debt or the Company (a "Non-Payment Default").

If the Trustee receives any Payment Blockage Notice pursuant to clause (ii) above, no subsequent Payment Blockage Notice shall be effective for purposes of this Section unless and until at least 365 days shall have elapsed since the initial effectiveness of the immediately prior Payment Blockage Notice. No Non-Payment Default that existed or was continuing on the date of delivery of any Payment Blockage Notice to the Trustee shall be, or be made, the basis for a subsequent Payment Blockage Notice.

The Company may and shall resume payments on and distributions in respect of the Securities upon the earlier of:

(1) in the case of any Payment Default, the date upon which the Payment Default is cured or waived or ceases to exist, or

(2) in the case of a Non-Payment Default, the earlier of (a) the date upon which such Non-Payment Default is cured, waived or ceases to exist or (b) 179 days after the date on which the applicable Payment Blockage Notice is received by the Trustee,

unless this Article 15 otherwise prohibits the payment or distribution at such time.

Upon any payment or distribution of assets of the Company of any kind or character, whether in cash, property or securities, to creditors upon any dissolution or winding-up or liquidation or reorganization of the Company, whether voluntary or involuntary or in bankruptcy, insolvency, reorganization, liquidation, receivership or other proceedings, or upon an assignment for the benefit of creditors or any marshalling of the assets and liabilities of the Company, or otherwise, all amounts due or to become due upon all Senior Debt shall first be paid in full in cash or other payment satisfactory to the holders of such Senior Debt, or payment thereof in accordance with its terms provided for in cash or other payment satisfactory to the holders of such Senior Debt, before any payment is made on account of the principal of, premium, if any, or interest on the Securities (except payments made pursuant to Article 4 from monies deposited with the Trustee pursuant thereto prior to commencement of proceedings for such dissolution, winding-up, liquidation, reorganization, assignment for the benefit of creditors or the marshalling of assets and liabilities of the Company); and upon any such dissolution, winding-up, liquidation, reorganization, assignment for the benefit of creditors or marshalling of assets and liabilities of the Company or bankruptcy, insolvency, receivership or other proceeding, any payment by the Company, or distribution of assets

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of the Company of any kind or character, whether in cash, property or securities, to which the Holders of the Securities or the Trustee would be entitled, except for the provision of this Article 15, shall (except as aforesaid) be paid by the Company or by any receiver, trustee in bankruptcy,

liquidating trustee, agent or other Person making such payment or distribution, or by the Holders of the Securities or by the Trustee under this Indenture if received by them or it, directly to the holders of Senior Debt (pro rata to such holders on the basis of the respective amounts of Senior Debt held by such holders, or as otherwise required by law or a court order) or their Representative or Representatives, or to the trustee or trustees under any indenture pursuant to which any instruments evidencing any Senior Debt may have been issued, as their respective interests may appear, to the extent necessary to pay all Senior Debt in full, in cash or other payment satisfactory to the holders of such Senior Debt, after giving effect to any concurrent payment or distribution to or for the holders of Senior Debt, before any payment or distribution or provision therefor is made to the Holders of the Securities or to the Trustee.

For purposes of this Article 15, the words, "cash, property or securities" shall not be deemed to include shares of stock of the Company as reorganized or readjusted, or securities of the Company or any other corporation provided for by a plan of reorganization or readjustment, the payment of which is subordinated at least to the extent provided in this Article 15 with respect to the Securities to the payment of all Senior Debt which may at the time be outstanding; provided that (i) the Senior Debt is assumed by the new corporation, if any, resulting from any reorganization or readjustment, and (ii) the rights of the holders of Senior Debt (other than leases which are not assumed by the Company or the new corporation, as the case may be) are not, without the consent of such holders, altered by such reorganization or readjustment. The consolidation of the Company with, or the merger of the Company into, another corporation or the liquidation or dissolution of the Company following the conveyance or transfer of its property as an entirety, or substantially as an entirety, to another corporation upon the terms and conditions provided for in Article 8 shall not be deemed a dissolution, winding-up, liquidation or reorganization for the purposes of this Section 15.2 if such other corporation shall, as a part of such consolidation, merger, conveyance or transfer, comply with the conditions stated in Article 8.

In the event of the acceleration of the Securities because of an Event of Default, no payment or distribution shall be made to the Trustee or any Holder of Securities in respect of the principal of, premium, if any, or interest on the Securities (including, but not limited to, the redemption price with respect to the Securities called for redemption in accordance with Article 11 as provided in the Indenture), except payments and distributions made by the Trustee as permitted by the first or second paragraph of Section 15.5, until all Senior Debt has been paid in full in cash or other payment satisfactory to the holders of Senior Debt or such acceleration is rescinded in accordance with the terms of this Indenture. If payment of the Securities is accelerated because of an Event of Default, the Company shall promptly notify holders of Senior Debt of the acceleration.

In the event that, notwithstanding the foregoing provisions, any payment or distribution of assets of the Company of any kind or character, whether in cash, property or securities (including, without limitation, by way of setoff or otherwise), prohibited by the foregoing, shall be received by the Trustee or the Holders of the Securities before all Senior Debt is paid in full in cash or other

payment satisfactory to the holders of such Senior Debt, or provision is made for such payment thereof in accordance with its terms in cash or other payment satisfactory to the holders of such Senior Debt, such payment or distribution shall be held in trust for the benefit of and shall be paid over or delivered to the holders of Senior Debt or their Representative or Representatives, or to the trustee or trustees under any indenture pursuant to which any instruments evidencing any Senior Debt may have been issued, as their respective interests may appear, as calculated by the Company, for application to the payment of all Senior Debt remaining unpaid to the extent necessary to pay all Senior Debt in full in cash or other payment satisfactory to the holders of such Senior Debt, after giving effect to any concurrent payment or distribution to or for the holders of such Senior Debt.

Nothing in this Section 15.2 shall apply to claims of, or payments to, the Trustee under or pursuant to Section 6.7. This Section 15.2 shall be subject to the further provisions of Section 15.5.

SECTION 15.3 SUBROGATION OF SECURITIES.

Subject to the payment in full of all Senior Debt, the rights of the Holders of the Securities shall be subrogated to the extent of the payments or distributions made to the holders of such Senior Debt pursuant to the provisions of this Article 15 (equally and ratably with the holders of all indebtedness of the Company which by its express terms is subordinated to other indebtedness of the Company to substantially the same extent as the Securities are subordinated and is entitled to like rights of subrogation) to the rights of the holders of Senior Debt to receive payments or distributions of cash, property or securities of the Company applicable to the Senior Debt until the principal, premium, if any, and interest on the Securities shall be paid in full; and, for the purposes of such subrogation, no payments or distributions to the holders of the Senior Debt of any cash, property or securities to which the Holders of the Securities or the Trustee would be entitled except for the provisions of this Article 15, and no payment over pursuant to the provisions of this Article 15, to or for the benefit of the holders of Senior Debt by Holders of the Securities or the Trustee, shall, as between the Company, its creditors other than holders of Senior Debt, and the Holders of the Securities, be deemed to be a payment by the Company to or on account of the Senior Debt; and no payments or distributions of cash, property or securities to or for the benefit of the Holders of the Securities pursuant to the subrogation provisions of this Article 15, which would otherwise have been paid to the holders of Senior Debt shall be deemed to be a payment by the Company to or for the account of the Securities. It is understood that the provisions of this Article 15 are and are intended solely for the purposes of defining the relative rights of the Holders of the Securities, on the one hand, and the holders of the Senior Debt, on the other hand.

Nothing contained in this Article 15 or elsewhere in this Indenture or in the Securities is intended to or shall impair, as among the Company, its creditors other than the holders of Senior Debt, and the Holders of the Securities, the obligation of the Company, which is absolute and unconditional, to pay to the Holders of the Securities the principal of (and premium, if any) and interest on the Securities as and when the same shall become due and payable in accordance with their terms, or is intended to or shall affect the relative rights of the Holders of the Securities and creditors of the Company other than the holders of the Senior Debt, nor shall anything herein or therein prevent the Trustee or the Holder of any Security from exercising all remedies otherwise

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permitted by applicable law upon default under this Indenture, subject to the rights, if any, under this Article 15 of the holders of Senior Debt in respect of cash, property or securities of the Company received upon the exercise of any such remedy.

Upon any payment or distribution of assets of the Company referred to in this Article 15, the Trustee, subject to the provisions of Section 6.1, and the Holders of the Securities shall be entitled to rely upon any order or decree made by any court of competent jurisdiction in which such bankruptcy, dissolution, winding-up, liquidation or reorganization proceedings are pending, or a certificate of the receiver, trustee in bankruptcy, liquidating trustee, agent or other person making such payment or distribution, delivered to the Trustee or to the Holders of the Securities, for the purpose of ascertaining the persons entitled to participate in such distribution, the holders of the Senior Debt and other indebtedness of the Company, the amount thereof or payable thereon and all other facts pertinent thereto or to this Article 15.

SECTION 15.4 AUTHORIZATION TO EFFECT SUBORDINATION.

Each Holder of a Security by the holder's acceptance thereof authorizes and directs the Trustee on the holder's behalf to take such action as may be necessary or appropriate to effectuate the subordination as provided in this Article 15 and appoints the Trustee to act as the holder's attorney-in-fact for any and all such purposes. If the Trustee does not file a proper proof of claim or proof of debt in the form required in any proceeding referred to in Section 5.4 hereof at least 30 days before the expiration of the time to file such claim, the holders of any Senior Debt or their representatives are hereby authorized to file an appropriate claim for and on behalf of the Holders of the Securities.

SECTION 15.5 NOTICE TO TRUSTEE.

The Company shall give prompt written notice in the form of an Officers' Certificate to a Responsible Officer of the Trustee and to any Paying Agent of any fact known to the Company which would prohibit the making of any payment of monies to or by the Trustee or any Paying Agent in respect of the Securities pursuant to the provisions of this Article 15. Notwithstanding the provisions of this Article 15 or any other provision of this Indenture, the Trustee shall not be charged with knowledge of the existence of any facts which would prohibit the making of any payment of monies to or by the Trustee in respect of the Securities pursuant to the provisions of this Article 15, unless and until a Responsible Officer of the Trustee shall have received written notice thereof at the Corporate Trust Office from the Company (in the form of an Officers' Certificate) or a Representative or a holder or holders of Senior Debt or from any trustee therefor; and before the receipt of any such written notice, the Trustee, subject to the provisions of Section 6.1, shall be entitled in all respects to assume that no such facts exist; provided that if on a date not fewer than two Business Days prior to the date upon which by the terms hereof any such monies may become payable for any purpose (including, without limitation, the payment of the principal of, or premium, if any, or interest on any Security) the Trustee shall not have received, with respect to such monies, the notice provided for in this Section 15.5, then, anything herein contained to the contrary notwithstanding, the Trustee shall have full power and authority to receive such monies and to apply

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the same to the purpose for which they were received, and shall not be affected by any notice to the contrary which may be received by it on or after such prior date.

Notwithstanding anything in this Article 15 to the contrary, nothing shall prevent any payment by the Trustee to the Holders of monies deposited with it pursuant to Section 4.1, and any such payment shall not be subject to the provisions of Section 15.1 or 15.2.

The Trustee, subject to the provisions of Section 6.1, shall be entitled to rely on the delivery to it of a written notice by a Representative or a person representing himself to be a holder of Senior Debt (or a trustee on behalf of such holder) to establish that such notice has been given by a Representative or a holder of Senior Debt or a trustee on behalf of any such holder or holders. The Trustee shall not be required to make any payment or distribution to or on behalf of a holder of Senior Debt pursuant to this Article 15 unless it has received satisfactory evidence as to the amount of Senior Debt held by such person, the extent to which such person is entitled to participate in such payment or distribution and any other facts pertinent to the rights of such person under this Article 15.

SECTION 15.6 TRUSTEE'S RELATION TO SENIOR DEBT.

The Trustee in its individual capacity shall be entitled to all the rights set forth in this Article 15 in respect of any Senior Debt at any time held by it, to the same extent as any other holder of Senior Debt, and nothing in this Indenture shall deprive the Trustee of any of its rights as such holder.

With respect to the holders of Senior Debt, the Trustee undertakes to perform or to observe only such of its covenants and obligations as are specifically set forth in this Article 15, and no implied covenants or obligations with respect to the holders of Senior Debt shall be read into this Indenture against the Trustee. The Trustee shall not be deemed to owe any fiduciary duty to the holders of Senior Debt and, subject to the provisions of Section 6.1, the Trustee shall not be liable to any holder of Senior Debt (i) for any failure to make any payments or distributions to such holders or (ii) if it shall pay over or deliver to Holders of Securities, the Company or any other Person money or assets to which any holder of Senior Debt shall be entitled by virtue of this Article 15 or otherwise.

SECTION 15.7 NO IMPAIRMENT OF SUBORDINATION.

No right of any present or future holder of any Senior Debt to enforce subordination as herein provided shall at any time in any way be prejudiced or impaired by any act or failure to act on the part of the Company or by any act or failure to act, in good faith, by any such holder, or by any noncompliance by the Company, the Trustee or any Holder of Securities with the terms, provisions

and covenants of this Indenture, regardless of any knowledge thereof which any such holder may have or otherwise be charged with.

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SECTION 15.8 CERTAIN CONVERSIONS/EXCHANGES DEEMED PAYMENT.

For the purposes of this Article 15 only, (1) the issuance and delivery of junior securities upon conversion or exchange of Securities in accordance with Article 14 or otherwise (except upon conversion of the Securities in accordance with their terms) shall not be deemed to constitute a payment or distribution on account of the principal of (or premium, if any) or interest on Securities or on account of the purchase or other acquisition of Securities, and (2) the payment, issuance or delivery of cash (except in satisfaction of fractional shares pursuant to Section 14.3), property or securities (other than junior securities) upon conversion or exchange of a Security shall be deemed to constitute payment on account of the principal of such Security. For the purposes of this Section 15.8, the term "junior securities" means (a) shares of any stock of any class of the Company, or (b) securities of the Company which are subordinated in right of payment to all Senior Debt which may be outstanding at the time of issuance or delivery of such securities to substantially the same extent as, or to a greater extent than, the Securities are so subordinated as provided in this Article. Nothing contained in this Article 15 or elsewhere in this Indenture or in the Securities is intended to or shall impair, as among the Company, its creditors other than holders of Senior Debt and the Holders of Securities, the right, which is absolute and unconditional, of the Holder of any Security to convert such Security in accordance with Article 14.

SECTION 15.9 ARTICLE APPLICABLE TO PAYING AGENTS.

If at any time any Paying Agent other than the Trustee shall have been appointed by the Company and be then acting hereunder, the term "Trustee" as used in this Article shall (unless the context otherwise requires) be construed as extending to and including such Paying Agent within its meaning as fully for all intents and purposes as if such Paying Agent were named in this Article in addition to or in place of the Trustee; provided, however, that the first paragraph of Section 15.5 shall not apply to the Company or any Affiliate of the Company if the Company or such Affiliate acts as Paying Agent.

The Trustee shall not be responsible for the actions or inactions of any other Paying Agents (including the Company if acting as its own Paying Agent) and shall have no control of any funds held by such other Paying Agents.

SECTION 15.10 SENIOR DEBT ENTITLED TO RELY.

The holders of Senior Debt (including, without limitation, Designated Senior Debt) shall have the right to rely upon this Article 15, and no amendment or modification of the provisions contained herein shall diminish the rights of such holders unless such holders shall have agreed in writing thereto.

SECTION 15.11 RELIANCE ON JUDICIAL ORDER OR CERTIFICATE OF LIQUIDATING AGENT.

Upon any payment or distribution of assets of the Company referred to in this Article, the Trustee and the Holders shall be entitled to rely upon any order or decree entered by any court of competent jurisdiction in which such dissolution, winding-up, liquidation, reorganization, assignment for the benefit of creditors or marshalling of assets and liabilities of the Company or bankruptcy, insolvency, receivership or other like proceeding is pending, or a certificate of

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the trustee in bankruptcy, liquidating trustee, custodian, receiver, assignee for the benefit of creditors, agent or other person making such payment or distribution, delivered to the Trustee or to the Holders, for the purpose of ascertaining the persons entitled to participate in such payment or distribution, the holders of Senior Debt and other indebtedness of the Company, the amount thereof or payable thereon, the amount or amounts paid or distributed thereon and all other facts pertinent thereto or to this Article.

15.12 Trust Monies Not Subordinated.

Notwithstanding anything contained herein to the contrary, payments from money, U.S. Government Obligations and/or Foreign Government Obligations held in trust under Article 4 or Article 13 by the Trustee for the payment of the principal of, premium, if any, and interest on the Securities shall not be subordinated to the prior payment in full of any Senior Debt of the Company or subject to the restrictions set forth in this Article 15, and none of the Holders shall be obligated to pay over any such amount to the Company or any holder of Senior Debt of the Company or any other creditor of the Company.

[The remainder of this page is intentionally left blank]

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IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed as of the day and year first above written.

HARMONIC INC.

By: _____

Title: _____

U.S. BANK NATIONAL ASSOCIATION

By: _____

Title: _____

HARMONIC INC.

COMPUTATION OF RATIO OF EARNINGS AVAILABLE TO COVER FIXED CHARGES

(IN THOUSANDS, EXCEPT FOR RATIO AMOUNTS)

| | FISCAL YEAR ENDED DECEMBER 31, | | | | |
|---|--------------------------------|-------------|-----------|----------------|--------------|
| | 1997 | 1998 | 1999 | 2000 | 2001 |
| Pre-tax income (loss) | \$ 5,188 | \$ (21,453) | \$ 31,573 | \$ (1,672,579) | \$ (167,213) |
| Total fixed charges | 482 | 630 | 630 | 2,026 | 3,700 |
| Total earnings (losses) before fixed charges ... | \$ 5,670 | \$ (20,823) | \$ 32,203 | \$ (1,670,553) | \$ (163,513) |
| Interest expense | -- | 80 | 60 | 28 | 125 |
| Interest attributable to rentals (a) | 482 | 550 | 570 | 1,998 | 3,575 |
| Total fixed charges | \$ 482 | \$ 630 | \$ 630 | \$ 2,026 | \$ 3,700 |
| Ratio of earnings to fixed charges (b) | 12:1 | -- | 51:1 | -- | -- |

(a) Interest attributable to rentals includes one-third rental expense.

(b) Due to Harmonic's losses in 1998, 2000, and 2001, the ratio coverage was less than 1:1. Additional earnings of \$21.5 million, \$1.7 billion, and \$167.2 million would have been required in each of these periods, respectively, to achieve a coverage of 1:1.

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated January 25, 2002 relating to the financial statements and financial statement schedule, which appears in Harmonic Inc.'s Annual Report on Form 10-K for the year ended December 31, 2001. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers, LLP

San Jose, California
March 14, 2002

INDEPENDENT AUDITORS' CONSENT

We consent to the incorporation by reference in this Registration Statement of Harmonic Inc. on Form S-3 of our report dated April 28, 2000 (May 3, 2000 as to Note 1), on the consolidated statements of net investment of the DiviCom Business, (an operating unit of C-Cube Microsystems Inc.), as of December 31, 1998 and December 31, 1999, and the related consolidated income statements, statements of changes in net investment and cash flows for each of the three years in the period ended December 31, 1999, appearing in the Current Report on Form 8-K of Harmonic Inc. dated on or about March 14, 2002. We also consent to the reference to us under the heading "Experts" in such Form S-3.

/s/ Deloitte & Touche LLP
San Jose, California
March 14, 2002

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM T-1

STATEMENT OF ELIGIBILITY UNDER THE TRUST INDENTURE ACT OF 1939 OF A CORPORATION DESIGNATED TO ACT AS TRUSTEE Check if an Application to Determine Eligibility of a Trustee Pursuant to Section 305(b)(2) _____

U.S. BANK NATIONAL ASSOCIATION (Exact name of Trustee as specified in its charter)

31-0841368 I.R.S. Employer Identification No.

180 EAST FIFTH STREET ST. PAUL, MN 55101 (Address of principal executive offices) (Zip Code)

Julie Eddington U.S. Bank National Association 180 East Fifth Street St. Paul, MN 55101 (Name, address and telephone number of agent for service)

HARMONIC INC. (Issuer with respect to the Securities)

HARMONIC INC. (Exact name of Registrant as specified in its charter)

DELAWARE 77-0201147 (State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification No.)

549 Baltic Way Sunnyvale, CA 94089 (Address of Principal Executive Offices) (Zip Code)

DEBT SECURITIES (TITLE OF THE INDENTURE SECURITIES)

FORM T-1

ITEM 1. GENERAL INFORMATION. Furnish the following information as to the Trustee.

- a) Name and address of each examining or supervising authority to which it is subject. Comptroller of the Currency Washington, D.C. b) Whether it is authorized to exercise corporate trust powers. Yes

ITEM 2. AFFILIATIONS WITH OBLIGOR. If the obligor is an affiliate of the Trustee, describe each such affiliation.

None

ITEMS 3-15 Items 3-15 are not applicable because to the best of the Trustee's knowledge the obligor is not in default under any Indenture for which the Trustee acts as Trustee.

ITEM 16. LIST OF EXHIBITS: List below all exhibits filed as a part of this statement of eligibility and qualification.

1. A copy of the Articles of Association of the Trustee.*
2. A copy of the certificate of authority of the Trustee to commence business.*
3. A copy of the certificate of authority of the Trustee to exercise corporate trust powers.*
4. A copy of the existing bylaws of the Trustee.*
5. A copy of each Indenture referred to in Item 4. Not applicable.
6. The consent of the Trustee required by Section 321(b) of the Trust Indenture Act of 1939, attached as Exhibit 6.
7. Report of Condition of the Trustee as of December 31, 2001, published pursuant to law or the requirements of its supervising or examining authority, attached as Exhibit 7.

* Incorporated by reference to Registration Number 333-67188.

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NOTE

The answers to this statement insofar as such answers relate to what persons have been underwriters for any securities of the obligors within three years prior to the date of filing this statement, or what persons are owners of 10% or more of the voting securities of the obligors, or affiliates, are based upon information furnished to the Trustee by the obligors. While the Trustee has no reason to doubt the accuracy of any such information, it cannot accept any responsibility therefor.

SIGNATURE

Pursuant to the requirements of the Trust Indenture Act of 1939, as amended, the Trustee, U.S. BANK NATIONAL ASSOCIATION, a national banking association organized and existing under the laws of the United States of America, has duly caused this statement of eligibility and qualification to be signed on its behalf by the undersigned, thereunto duly authorized, all in the City of St. Paul, State of Minnesota on the 6th day of March, 2002.

U.S. BANK NATIONAL ASSOCIATION

By: /s/ Julie Eddington

Julie Eddington
Assistant Vice President

By: /s/ Joel Geist

Joel Geist
Vice President

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EXHIBIT 6

CONSENT

In accordance with Section 321(b) of the Trust Indenture Act of 1939, the undersigned, U.S. BANK NATIONAL ASSOCIATION hereby consents that reports of examination of the undersigned by Federal, State, Territorial or District authorities may be furnished by such authorities to the Securities and Exchange Commission upon its request therefor.

Dated: March 6, 2002

U.S. BANK NATIONAL ASSOCIATION

By: /s/ Julie Eddington

 Julie Eddington
 Assistant Vice President

By: /s/ Joel Geist

 Joel Geist
 Vice President

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EXHIBIT 7
 U.S. BANK NATIONAL ASSOCIATION
 STATEMENT OF FINANCIAL CONDITION
 AS OF 12/31/2001
 (\$000'S)

12/31/2002

ASSETS

| | |
|---|---------------|
| Cash and Due From Depository Institutions | \$ 9,775,116 |
| Federal Reserve Stock | 0 |
| Securities | 26,316,516 |
| Federal Funds | 1,261,731 |
| Loans & Lease Financing Receivables | 109,012,892 |
| Fixed Assets | 1,414,464 |
| Intangible Assets | 8,158,687 |
| Other Assets | 6,637,699 |
| | ----- |
| TOTAL ASSETS | \$162,577,105 |

LIABILITIES

| | |
|-----------------------------------|---------------|
| Deposits | \$104,077,584 |
| Fed Funds | 4,365,180 |
| Treasury Demand Notes | 0 |
| Trading Liabilities | 313,719 |
| Other Borrowed Money | 25,030,765 |
| Acceptances | 201,492 |
| Subordinated Notes and Debentures | 5,348,437 |
| Other Liabilities | 3,894,231 |
| | ----- |
| TOTAL LIABILITIES | \$143,231,408 |

EQUITY

| | |
|-----------------------------------|--------------|
| Minority Interest in Subsidiaries | \$ 981,870 |
| Common and Preferred Stock | 18,200 |
| Surplus | 12,068,893 |
| Undivided Profits | 6,276,734 |
| | ----- |
| TOTAL EQUITY CAPITAL | \$19,345,697 |

TOTAL LIABILITIES AND EQUITY CAPITAL \$162,577,105

To the best of the undersigned's determination, as of this date the above
financial information is true and correct.

U.S. Bank National Association

By: /s/ Julie Eddington

Assistant Vice President