

As filed with the Securities and Exchange Commission on April 16, 2002

Registration No. 333-

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Amendment No. 1 to

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:

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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
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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(6)

- (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.
- (6) Registration fee previously paid.

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 April 16, 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 April 15, 2002, the last reported sale price of our common stock on the Nasdaq National Market was \$10.20 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

TABLE OF CONTENTS

[SUMMARY](#)
[RISK FACTORS](#)
[USE OF PROCEEDS](#)
[RATIO OF EARNINGS AVAILABLE TO COVER FIXED CHARGES](#)
[DESCRIPTION OF THE DEBT SECURITIES](#)
[DESCRIPTION OF PREFERRED STOCK](#)
[DESCRIPTION OF COMMON STOCK](#)
[DESCRIPTION OF THE WARRANTS](#)
[PLAN OF DISTRIBUTION](#)
[LEGAL MATTERS](#)
[EXPERTS](#)
[WHERE YOU CAN FIND MORE INFORMATION](#)
[SIGNATURES](#)
[EXHIBIT 5.1](#)
[EXHIBIT 23.1](#)
[EXHIBIT 23.2](#)

TABLE OF CONTENTS

	Page
SUMMARY	1
RISK FACTORS	4
USE OF PROCEEDS	15
RATIO OF EARNINGS AVAILABLE TO COVER FIXED CHARGES	15
DESCRIPTION OF THE DEBT SECURITIES	15
DESCRIPTION OF PREFERRED STOCK	24
DESCRIPTION OF COMMON STOCK	25
DESCRIPTION OF THE WARRANTS	26
PLAN OF DISTRIBUTION	28
LEGAL MATTERS	28
EXPERTS	29
WHERE YOU CAN FIND MORE INFORMATION	29

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

[Table of Contents](#)

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. 333-84430) 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

[Table of Contents](#)

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. Concerns over high debt levels, and in particular, recent disclosures of off-balance sheet financing by Adelphia Communications, have pressured the market values of cable operators and may further restrict their access to capital. Adelphia accounted for less than five percent of our revenues in 2001. In addition, 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.

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

[Table of Contents](#)

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

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

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

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

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. At an April 5, 2002 case management conference, the court continued the conference until June 7, 2002. The court stated that the parties need not appear if no decision on the motions to dismiss the securities action had been issued by that date.

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 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.

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,

[Table of Contents](#)

- 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 depositary, or its nominee, that we will identify in a prospectus supplement,
- be deposited with the depositary 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 depositary or any nominee unless:

- the depositary has notified us that it is unwilling or unable to continue as depositary or has ceased to be qualified to act as depositary,
- 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 depositary, or its nominee, is the registered owner of a global security, the depositary or nominee will be considered the sole owner and holder of the debt securities represented by the global security

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."

[Table of Contents](#)

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.

[Table of Contents](#)

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”).

[Table of Contents](#)

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

[Table of Contents](#)

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,

[Table of Contents](#)

- 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

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

[Table of Contents](#)

- 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 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.

[Table of Contents](#)

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
Total	<u>\$500,000</u>

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†

[Table of Contents](#)

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 initial filing 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.

† Filed previously.

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.

(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, as amended, 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 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Sunnyvale, State of California, on April 16, 2002.

HARMONIC INC.

By: /s/ ROBIN N. DICKSON

Robin N. Dickson,
Chief Financial Officer

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:

Signature	Title	Date
<u>*</u>		
Anthony J. Ley	Chief Executive Officer and President (Principal Executive Officer) and Chairman of the Board of Directors	April 16, 2002
<u>/s/ ROBIN N. DICKSON</u>		
Robin N. Dickson	Chief Financial Officer (Principal Financial and Accounting Officer)	April 16, 2002
<u>*</u>		
David R. Van Valkenburg	Director	April 16, 2002
<u>*</u>		
E. Floyd Kvamme	Director	April 16, 2002
<u>*</u>		
David A. Lane	Director	April 16, 2002
<u>*</u>		
Lewis Solomon	Director	April 16, 2002
<u>*</u>		
Michel L. Vaillaud	Director	April 16, 2002
By: <u>/s/ ROBIN N. DICKSON</u>		
Robin N. Dickson, Attorney-in-Fact		

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 the initial filing 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.

† Filed previously.

[Letterhead of Wilson Sonsini Goodrich & Rosati, P.C.]

April 16, 2002

Harmonic Inc.
549 Baltic Way

Sunnyvale, CA 94089

RE: HARMONIC INC.--REGISTRATION STATEMENT ON FORM S-3

Ladies and Gentlemen:

At your request, we have examined the Registration Statement on Form S-3 (No. 333-84430), including Amendment No. 1 thereto (the "REGISTRATION STATEMENT"), filed or to be filed by Harmonic Inc., a Delaware corporation (the "COMPANY"), with the Securities and Exchange Commission (the "COMMISSION") in connection with the registration pursuant to the Securities Act of 1933, as amended (the "ACT"), of the Securities (as defined below). The Registration Statement relates to the proposed issuance and sale, from time to time pursuant to Rule 415 under the Act as set forth in the Registration Statement, the prospectus contained therein (the "PROSPECTUS") and the supplements to the prospectus referred to therein (the "PROSPECTUS SUPPLEMENTS"), of up to an aggregate offering price of \$150,000,000 or the equivalent thereof, of the Company's senior and subordinated debt securities (the "DEBT SECURITIES"), shares of the Company's preferred stock, \$0.001 par value per share (the "PREFERRED STOCK"), shares of the Company's common stock, \$0.001 par value per share (the "COMMON STOCK"), and warrants to purchase shares of the Company's Common Stock (the "WARRANTS") (the Debt Securities, the Preferred Stock, the Common Stock, and the Warrants are collectively referred to herein as the "SECURITIES").

The Debt Securities are to be issued pursuant to a senior debt securities indenture (the "SENIOR INDENTURE") and a subordinated debt securities indenture (the "SUBORDINATED INDENTURE"), as applicable, both of which have been filed as exhibits to the Registration Statement (the "INDENTURES") and are to be entered into, in each case, between the Company and U.S. Bank National Association, as trustee (the "TRUSTEE"). The Securities are to be sold pursuant to an underwriting agreement (the "UNDERWRITING AGREEMENT") in substantially the form to be filed under a Current Report on Form 8-K. The Debt Securities are to be issued in the forms set forth in the Indentures filed as exhibits to the Registration Statement. Each indenture may be supplemented, as applicable, in connection with the issuance of each such series of Debt Securities, by a supplemental indenture or other appropriate action of the Company creating such series (each, a "SUPPLEMENTAL INDENTURE").

Harmonic Inc.

April 16, 2002

Page 2

We have examined instruments, documents, certificates and records which we have deemed relevant and necessary for the basis of our opinion hereinafter expressed. In such examination, we have assumed (i) the authenticity of original documents and the genuineness of all signatures; (ii) the conformity to the originals of all documents submitted to us as copies; (iii) the truth, accuracy, and completeness of the information, representations and warranties contained in the records, documents, instruments and certificates we have reviewed; (iv) the Registration Statement, and any amendments thereto (including post-effective amendments), will have become effective under the Act; (v) a prospectus supplement will have been filed with the Commission describing the Securities offered thereby; (vi) all Securities will be issued and sold in compliance with applicable Federal and state securities laws and in the manner stated in the Registration Statement and the applicable prospectus supplement; (vii) a definitive purchase, underwriting or similar agreement with respect to any

Securities offered will have been duly authorized and validly executed and delivered by the Company and the other parties thereto; (viii) any Securities issuable upon conversion, exchange, redemption, or exercise of any Securities being offered will be duly authorized, created and, if appropriate, reserved for issuance upon such conversion, exchange, redemption, or exercise; and (ix) with respect to shares of Common Stock or Preferred Stock offered, there will be sufficient shares of Common Stock or Preferred Stock authorized under the Company's organizational documents and not otherwise reserved for issuance.

Based on such examination, we are of the opinion that:

1. with respect to Debt Securities to be issued under either the Senior Indenture or Subordinated Indenture, when (a) the Trustee is qualified to act as Trustee under the Senior Indenture or Subordinated Indenture, as applicable, (b) the Trustee has duly executed and delivered the Subordinated Indenture or Senior Indenture, as applicable, (c) the Senior Indenture or Subordinated Indenture, as applicable, has been duly authorized and validly executed and delivered by the Company to the Trustee, (d) the Senior Indenture or Subordinated Indenture, as applicable, has been duly qualified under the Trust Indenture Act of 1939, as amended, (e) the Board of Directors of the Company or a duly constituted and acting committee thereof (such Board of Directors or committee being hereinafter referred to as the "BOARD") has taken all necessary corporate action to approve the issuance and terms of such Debt Securities, the terms of the offering thereof and related matters, and (f) such Debt Securities have been duly executed, authenticated, issued and delivered in accordance with the provisions of the Senior Indenture or Subordinated Indenture, as applicable, and the applicable definitive purchase, underwriting or similar agreement approved by the Board, such Debt Securities will be validly issued and will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms entitled to the benefits of the applicable Indenture;

2. with respect to any particular series of shares of Preferred Stock, when both (a) the Board has taken all necessary corporate action to approve the issuance and terms of the shares of Preferred Stock, the terms of the offering thereof, and related matters, including the adoption of a certificate of designation relating to such Preferred Stock conforming to the Delaware General

Harmonic Inc.

April 16, 2002

Page 3

Corporation Law (a "CERTIFICATE") and the filing of the Certificate with the Secretary of State of the State of Delaware, and (b) certificates representing the shares of Preferred Stock have been duly executed, countersigned, registered and delivered in accordance with the applicable definitive purchase, underwriting or similar agreement approved by the Board, upon payment of the consideration therefor (not less than the par value of the Preferred Stock) provided for therein, then the shares of Preferred Stock will be validly issued, fully paid and nonassessable;

3. with respect to shares of Common Stock, when both (a) the Board has taken all necessary corporate action to approve the issuance of and the terms of the offering of the shares of Common Stock and related matters and (b) certificates representing the shares of Common Stock have been duly executed, countersigned, registered and delivered either (i) in accordance with the applicable definitive purchase, underwriting or similar agreement approved by the Board, or upon the exercise of Warrants to purchase Common Stock, upon payment of the consideration therefor (not less than the par value of the Common Stock) provided for therein, or (ii) upon conversion or exercise of any other Security, in accordance with the terms of such Security or the instrument governing such Security providing for such conversion or exercise as approved by the Board, for the consideration approved by the Board (not less than the par value of the Common Stock), then the shares of Common Stock will be validly issued, fully paid and nonassessable; and

4. with respect to the Warrants, when both (a) the Board has taken all necessary corporate action to approve the issuance of and the terms of the Warrants and related matters and (b) the Warrants have been duly executed and

delivered against payment therefor, pursuant to the applicable definitive purchase, underwriting, warrant or similar agreement duly authorized, executed and delivered by the Company and a warrant agent and the certificates for the Warrants have been duly executed and delivered by the Company and such warrant agent, then the Warrants will be validly issued, fully paid and nonassessable.

Our opinion that any document is legal, valid and binding is qualified as to:

(a) limitations imposed by bankruptcy, insolvency, reorganization, arrangement, fraudulent conveyance, moratorium or other laws relating to or affecting the rights of creditors generally;

(b) rights to indemnification and contribution which may be limited by applicable law or equitable principles;

(c) general principles of equity, including without limitation concepts of materiality, reasonableness, good faith and fair dealing, and the possible unavailability of specific performance or injunctive relief and limitation of rights of acceleration, regardless of whether such enforceability is considered in a proceeding in equity or at law.

Harmonic Inc.

April 16, 2002

Page 4

Attorneys at our Firm are admitted to the practice of law in the States of New York and California and we express no opinion as to the laws of any other jurisdiction other than the Federal laws of the United States of America and the General Corporation Law of the State of Delaware.

We hereby consent to the filing of this opinion as an exhibit to the above-referenced Registration Statement and to the use of our name wherever it appears in the Registration Statement, the Prospectus, the Prospectus Supplement, and in any amendment or supplement thereto. In giving such consent, we do not believe that we are "experts" within the meaning of such term as used in the Act or the rules and regulations of the Commission issued thereunder with respect to any part of the Registration Statement, including this opinion as an exhibit or otherwise.

WILSON SONSINI GOODRICH & ROSATI
Professional Corporation

/s/ Wilson Sonsini Goodrich & Rosati, P.C.

CONSENT OF INDEPENDENT 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.

PricewaterhouseCoopers LLP

San Jose, California
April 15, 2002

INDEPENDENT AUDITORS' CONSENT

We consent to the incorporation by reference in this Amendment No. 1 to the Registration Statement of Harmonic Inc. on Form S-3 (No. 333-84430) 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 March 15, 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
April 15, 2002