

PROSPECTUS

286,123 Shares

HARMONIC LOGO

HARMONIC INC.

Common Stock

This prospectus relates to the public offering, which is not being underwritten, of up to 286,123 shares of our Common Stock which is held by some of our current stockholders. The selling stockholders identified in this prospectus acquired their shares of our Common Stock in a private transaction in which Harmonic Inc. acquired all of the capital stock of Cogent Technology, Inc., a Delaware corporation.

The prices at which such stockholders may sell the shares will be determined by the prevailing market price for the shares or in negotiated transactions. We will not receive any of the proceeds from the sale of the shares.

Our Common Stock is listed on the Nasdaq National Market under the symbol "HLIT." On August 25, 2000, the closing price for our Common Stock was \$28.75 per share.

INVESTING IN THE COMMON STOCK INVOLVES CERTAIN RISKS. SEE "RISK FACTORS" BEGINNING ON PAGE 3.

THE SECURITIES AND EXCHANGE COMMISSION AND STATE SECURITIES REGULATORS HAVE NOT APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus is September 15, 2000.

No person has been authorized to give any information or to make any representations other than those contained in this prospectus in connection with the offering made hereby, and if given or made, such information or representations must not be relied upon as having been authorized by Harmonic Inc. (referred to in this prospectus as "Harmonic," the "Company" and "we"), any selling stockholder or by any other person. Neither the delivery of this prospectus nor any sale made hereunder shall, under any circumstances, create any implication that information herein is correct as of any time subsequent to the date hereof. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any security other than the securities covered by this prospectus, nor does it constitute an offer to or solicitation of any person in any jurisdiction in which such offer or solicitation may not lawfully be made.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference rooms in Washington, D.C., New York, New York and Chicago, Illinois. Please call the SEC at 1-800-SEC-0330 for further information on the public conference rooms. Our SEC filings are also available to the public from the SEC's web site at <http://www.sec.gov>.

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and later information filed with the SEC will update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the SEC under Section 13a, 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 until our offering is completed.

(a) The Registrant's Annual Report on Forms 10-K and 10-K/A filed on March 30, 2000 and May 15, 2000, respectively, for the year ended December 31, 1999 filed pursuant to Sections 13(a) or 15(d) of the Securities Exchange Act, as amended (the "Exchange Act").

(b) The Registrant's quarterly reports on Forms 10-Q for the quarters ended March 31, 2000 and June 30, 2000, respectively, filed pursuant to Section 13(a) or 15(d) of the Exchange Act.

(c) The Registrant's Amended Current Report on Forms 8-K and 8-K/A filed on May 4, 2000 and July 17, 2000, respectively.

(d) The description of the Registrant's Common Stock contained in the Registrant's Registration Statement on Form 8-A dated April 6, 1995, filed pursuant to Section 12 of the Securities Exchange Act of 1934, as amended, including any amendment or report filed for the purpose of updating such description.

All documents filed by the Registrant pursuant to Section 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this registration statement and prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be part hereof from the date of filing such documents.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address:

Robin N. Dickson
Chief Financial Officer
Harmonic Inc.
549 Baltic Way
Sunnyvale, California 94089
(408) 452-2500

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You should rely only on the information incorporated by reference or provided in this prospectus or the prospectus supplement. We have authorized no one to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or the prospectus supplement is accurate as of any date other than the date on the front of the document.

HARMONIC

Harmonic Inc. ("Harmonic" or the "Company") designs, manufactures and markets digital and fiber optic systems for delivering video, voice and data services over cable, satellite and wireless networks. Historically, almost all of our sales have been derived directly or indirectly from sales of fiber optic transmission systems to cable television operators. With the introduction of our TRANsend digital headend products in 1997 and the subsequent purchase of New Media Communication Ltd., which changed its name to Harmonic Data Systems Ltd., 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, the Company entered into an Agreement and Plan of Merger and Reorganization with C-Cube Microsystems, Inc. ("C-Cube") on October 27, 1999, pursuant to which C-Cube merged into Harmonic (the "Merger Agreement"). Under the terms of the Merger Agreement, C-Cube spun off its semiconductor business as a separate publicly traded company. 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 merger was structured as a tax-free exchange of stock and has been accounted for under the purchase method of accounting. In the merger, each share of common stock of C-Cube was converted into 0.5427 shares of Harmonic common stock. The purchase price, including merger-related costs, was approximately \$1.8 billion.

The merger closed on May 3, 2000, and Harmonic has consolidated the results of the DiviCom business in its financial statements from that date forward. The merged company has been organized into two operating segments, Broadband Access Networks ("BAN") for fiber optic systems and Convergent Systems ("CS") for digital headend systems. While the two segments have been organized generally around the pre-merger Harmonic fiber optics systems and the DiviCom digital headend systems, respectively, these segments do not correspond to the pre-merger companies in significant ways. For example, Harmonic's TRANsend and CyberStream product lines are now part of the CS segment. Each of these segments has its own separate management team, with a worldwide sales, sales support and systems integration group supporting both segments.

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," "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 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."

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RISK FACTORS

You should carefully consider the risks described below before making an investment decision. The risks and uncertainties described below are not the only ones facing our company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations.

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

This prospectus also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere in this prospectus.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk represents the risk of loss that may impact the financial position, results of operations or cash flows of Harmonic due to adverse changes in market prices and rates. Harmonic is exposed to market risk because of changes in interest rates and foreign currency exchange rates as measured against the U.S. Dollar and currencies of Harmonic's subsidiaries.

From time to time Harmonic enters into contracts with customers which are denominated in foreign currencies and which, if not hedged, expose Harmonic to market risk from changes in foreign currency exchange rates. In addition, Harmonic has subsidiaries in Israel and the United Kingdom which incur expenses principally in local currencies, although sales are generally denominated in U.S. dollars. While Harmonic does not anticipate that near-term changes in exchange rates will have a material impact on future operating results, fair values or cash flows, Harmonic cannot assure you that sudden and significant changes in the value of foreign currencies, particularly the Israeli Shekel or British Pound, would not harm Harmonic's financial condition and results of

operations.

Harmonic's exposure to market risk for changes in interest rates relates primarily to its investment portfolio of marketable debt securities of various issuers, types and maturities. Harmonic does not use derivative instruments in its investment portfolio, and its investment portfolio only includes highly liquid instruments with an original maturity of less than two years. These investments are classified as available for sale and the Company states its investments at fair value, with unrealized gains and losses reported in other comprehensive income. While Harmonic generally holds its investment securities to maturity there is risk that losses could be incurred if it were to sell any of its securities prior to maturity.

FACTORS THAT MAY AFFECT FUTURE RESULTS OF OPERATIONS

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 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;

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- our unpredictable sales cycles;
- our ability to integrate the acquired DiviCom business into Harmonic's operations;
- 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 in any given quarter, the adverse impact of the shortfall on our operating results may be magnified 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 to AT&T, and lower than expected sales in the CS segment, we failed to meet our internal expectations as well as the expectations of securities analysts and investors during the second quarter of 2000, and the price of our common stock declined significantly.

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 broadcasters, and it expects these sales to constitute a substantial majority for the foreseeable future. Almost all of the DiviCom business' historic sales have been derived from sales to satellite operators, telephone companies and cable operators. Demand for the combined company's products in the future will depend on the magnitude and timing of capital spending by cable television operators, broadcasters, satellite operators 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 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;

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- 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 marketing and customer service strategies by cable television operators instead of construction of networks; and
- general economic conditions in international markets.

While our net sales increased during the last eight quarters from the level achieved in the first quarter of 1998 due primarily to increased spending in the North American cable television industry, spending by cable television operators outside of North America generally remained weak. While net sales outside of North America increased during the last three quarters compared to the first quarter of 1998 we cannot predict if cable television spending outside of North America will continue to grow. Although the Company's sales increased significantly in the second quarter of 2000 compared to the first quarter of 2000, sales were below our expectations within each operating segment. BAN sales were lower than expected and below the level achieved in the first quarter of 2000 due to reduced sales to AT&T, which have continued to decline from levels achieved in the third quarter of 1999. For a more detailed discussion regarding risks related to AT&T 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 AT&T Or Any Other Key Customer Would Have A Negative Effect On Our Business" below. The lower CS sales are due in part to slower spending by satellite operators and to the impact of organizational changes resulting from the C-Cube merger. The Company is unable to predict when cable and satellite industry spending will increase. In addition, 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.

OUR CUSTOMER BASE IS CONCENTRATED AND THE LOSS OF ONE OR MORE OF OUR KEY CUSTOMERS WOULD HARM OUR BUSINESS. THE LOSS OF AT&T OR ANY OTHER KEY CUSTOMER WOULD HAVE A NEGATIVE EFFECT ON OUR BUSINESS.

Historically, a significant majority of our sales and sales of DiviCom have been to relatively few customers. Sales to Harmonic's ten largest customers in 1998, 1999 and the first half of 2000 accounted for approximately 66%, 75% and 61% of net sales, respectively. Due in part to the consolidation of ownership of domestic cable television systems, we expect that sales to AT&T, RCN and relatively few other customers will continue to account for a significant percentage of net sales of the combined company for the foreseeable future. In the second quarter of 2000, sales to AT&T accounted for 10% of our net sales compared to 28% in the prior quarter and 40% in the second quarter of 1999. Sales to AT&T have continued to decline from a record 52% of net sales in the third quarter of 1999. We cannot assure you that sales to other customers will compensate for any further reduction in sales to AT&T. Sales to RCN accounted for 12% of our net sales in the second quarter of 2000 compared to 15% in the prior quarter and less than 10% in the second quarter of 1999. Almost all of 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.

WE HAVE EXPERIENCED DIFFICULTIES INTEGRATING THE DIVICOM BUSINESS OF C-CUBE.

In addition to the risks generally associated with acquisitions, there are a number of significant risks directly associated with our merger with C-Cube. In particular, the successful combination of Harmonic

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and C-Cube requires substantial attention from management. The anticipated benefits of the merger will not be achieved unless the operations of the DiviCom business of C-Cube are successfully combined with those of Harmonic in a timely manner. To date, we have had difficulty in assimilating and integrating disparate information systems and personnel into a combined corporation. These difficulties are increased due to our limited personnel, management and other resources. The successful combination of the two companies requires integration of the companies' product offerings and the coordination of their research and development and sales and marketing efforts. The process of combining the two organizations has caused interruption of, and a loss of momentum in, the activities of both of the organizations' businesses, and we believe that this diversion may have caused certain customers to defer purchasing decisions. The diversion of the attention of management from the day-to-day operations of the combined company, or difficulties encountered in the transition and integration process, could materially and adversely affect our business, financial condition and operating results. In addition, our success depends, in part, on the retention and integration of key management, technical, marketing, sales and customer support personnel of the DiviCom business, and, in particular, the retention of these key employees during the transitional period following the merger. We have experienced the loss of certain key employees since the merger, principally due to intense competition for qualified technical and other personnel in the San Francisco Bay Area. The loss of key employees and managers has adversely affected the acquired DiviCom business and could continue to adversely affect our business and operating results.

WE DEPEND ON OUR INTERNATIONAL SALES AND ARE SUBJECT TO THE RISKS ASSOCIATED WITH INTERNATIONAL OPERATIONS, WHICH MAY NEGATIVELY AFFECT OUR PROFITABILITY.

Sales to customers outside of the United States in 1998, 1999 and first half of 2000 represented 43%, 30% and 35% 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 are typically 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. 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. Further, foreign markets may not continue to develop.

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. In the past, however, we have received such indications but, on occasion, we did not ultimately receive purchase orders for our products. We must be able to effectively manage expenses and inventory risks associated with meeting potential demand for our products. In addition, if we fail to meet customers' supply expectations,

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we may lose business from such customers. If we expend resources and purchase materials to manufacture products and such products are not purchased, our business and operating results could suffer.

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 significantly larger corporations such as ADC Telecommunications, ANTEC, a company owned in part by AT&T, General Instrument, which has been acquired by Motorola, Philips and Scientific-Atlanta. Additional competition could come from new entrants in these markets, such as Lucent Technologies and Cisco Systems.

In the digital and video broadcasting systems business, we compete with vertically integrated system suppliers including Motorola, Scientific-Atlanta, Tandberg, Thomson Broadcast Systems and Philips, as well as more specialized suppliers including SkyStream and Terayon.

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.

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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 for digital applications, we will be required to retain and attract new personnel with experience and expertise in the digital arena. 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 GROWTH.

The growth in our business has placed, and is expected to continue to place, a significant strain on our personnel, management and other resources. Our ability to manage any future growth effectively will require us to attract, train, motivate and manage new employees successfully, to integrate new employees into our overall operations, to retain key employees and to continue

to improve our operational, financial and management systems. If we fail to manage our 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. Competition for qualified technical and other personnel is 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.

THE C-CUBE MERGER HAS RESULTED IN THE RECORDING OF SUBSTANTIAL GOODWILL AND OTHER INTANGIBLE ASSETS AND REPORTING OF SUBSTANTIAL NET LOSSES WITHOUT ANY CORRESPONDING TAX DEDUCTION.

Goodwill and other intangible assets of approximately \$1.7 billion were recorded in connection with the merger as disclosed in Note 7 to the unaudited Condensed Consolidated Financial Statements for the three months ended June 30, 2000. Goodwill and intangibles are being amortized over 5 years, and this

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amortization is expected to result in substantial net losses over the amortization period. The amortization of goodwill and intangibles are not deductible for tax purposes which will result in a provision for income taxes despite a substantial reported net loss.

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. This liability is payable on or before August 15, 2000. C-Cube determined the valuation by using the volume weighted average price on May 3, 2000, the first trading day following the spin-off, which resulted in a share price of \$21.74. 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. 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. Harmonic will also 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, Harmonic generally will remain liable, and such liability could have a material adverse effect on 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 SPUN-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 the spun-off semiconductor business 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 have a material adverse effect on us.

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 profitability may suffer because of acquisition-related costs or amortization costs for acquired goodwill and other 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, the semiconductor business does not have a firm commitment to continue the development of video

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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;
- delays associated with cable, satellite, and other network operators' internal procedures to approve large 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 will be derived from solutions contracts. A substantial part of the CS Division's revenues are from solutions contracts which include a combination of product sales as well as design, installation and integration services. Revenue forecasts are based on estimated timing of the systems design, installation and integration. Because the solutions contracts on the average span three quarters, 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 29 issued United States patents and 9 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

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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 harm our business and operating results.

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.

As is common in our industry, we have from time to time received notification from other companies of intellectual property rights held by those companies upon which our products may infringe. Any claim or litigation, with or without merit, could be costly, time consuming and could result in a diversion of management's attention, which could harm our business. If we were found to be infringing on the intellectual property rights of any third party, we could be subject to liabilities for such infringement, which could be material, and could be required to seek licenses from other companies or to refrain from using, manufacturing or selling certain products or using certain processes. Although holders of patents and other intellectual property rights often offer licenses to their patent or other intellectual property rights, we cannot assure you that licenses would be offered, that the terms of any offered license would be acceptable to us or that failure to obtain a license would not cause our operating results to suffer.

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 increasing reliance on subcontractors 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 been recently 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 (including the acquisition of Etek Dynamics and the proposed acquisition of SDL Inc. by JDS Uniphase) and the small number of viable alternatives have limited the results of these efforts. Certain key elements of our digital headend products are provided by a sole foreign supplier. 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 may be subject to an increasing risk of inventory obsolescence in the future, which could harm our business.

WE MAY NEED ADDITIONAL CAPITAL IN THE FUTURE AND MAY NOT BE ABLE TO SECURE ADEQUATE FUNDS ON TERMS ACCEPTABLE TO US.

We currently anticipate that our existing cash balances including cash received pursuant to the merger, and available line of credit and cash flow expected to be generated from future operations will be sufficient to meet our liquidity needs for at least the next twelve months. However, 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.

In addition, we expect to review other potential acquisitions that would complement our existing product offerings or enhance our technical capabilities. While we have no other current agreements or

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negotiations underway with respect to any potential acquisition, any future transaction of this nature could require potentially significant amounts of capital. Funds may not be available at the time or times needed, or available on terms acceptable to us. 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 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 90 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.

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.

SECURITIES CLASS ACTION CLAIMS.

On June 28, 2000, a securities class action captioned Smith v. Harmonic Inc., Et. Al., Civil Action No. C-00-2287-PJH was filed against Harmonic and several of its officers and directors in the United States District Court for the Northern District of California. Additional actions containing similar allegation have since been filed. These complaints allege violations of the federal securities laws, specifically Section 10(b) of the Securities Exchange Act of 1934, and seek unspecified damages on behalf of a purported class of purchasers of Harmonic common stock during the period from March 27, 2000 through June 26, 2000. The various actions have not yet been consolidated and no trial date has been scheduled.

On June 29, 2000, a securities class action captioned Krim v. Harmonic Inc., Et. Al., Civil Action No. CV 790816 was filed against Harmonic and several of its officers and directors in the California Superior Court for the County of Santa Clara. The complaint alleges violations of the federal securities laws,

specifically Section 11 of the Securities Act of 1933, and seeks unspecified damages on behalf of a purported class of persons who acquired Harmonic common stock pursuant to a Form S-4 Registration Statement filed March 23, 2000, concerning a transaction completed on May 3, 2000. On July 26, 2000, the action was removed to the United States District Court for the Northern District of California. No trial date has been scheduled.

While the Company believes these class actions to be without merit and is vigorously defending against them, there can be no assurance that the Company will prevail. An unfavorable outcome of this litigation could have a material adverse effect on the Company's consolidated financial position, liquidity or results of operations.

OUR STOCK PRICE MAY BE VOLATILE.

The market price of our common stock has fluctuated in the past 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 are currently the object of securities class action litigation, and this could result in substantial costs and a diversion of management's attention and resources.

While the Company believes these class actions to be without merit and is vigorously defending against them, there can be no assurance that the Company will prevail. An unfavorable outcome of this

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litigation could have a material adverse effect on the Company's consolidated financial position, liquidity or results of operations.

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.

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USE OF PROCEEDS

Harmonic will not receive any of the proceeds from the sale of the shares offered by this prospectus. All proceeds from the sale of the shares offered hereby will be for the account of the selling stockholders, as described below. See "Selling Stockholders" and "Plan of Distribution."

SELLING STOCKHOLDERS

The following table sets forth as of the date of this prospectus, the name of each of the selling stockholders, the number of shares of Common Stock that each selling stockholder owns, the number of shares of Common Stock owned by each selling stockholder that may be offered for sale from time to time by this prospectus, and the number of shares of Common Stock to be held by each selling stockholder assuming the sale of all the Common Stock offered hereby.

Some of the selling stockholders may distribute their shares, from time to time, to their limited and/or general partners, who may sell shares pursuant to this prospectus. Each selling shareholder may also transfer shares owned by him by gift, and upon any such transfer the donee would have the same right of sale as the selling stockholder.

The shares being offered by the selling stockholders were acquired in connection with our acquisition of all of the capital stock of Cogent Technology, Inc., a Delaware corporation, on July 1, 2000. We may amend or supplement this prospectus from time to time to update the disclosure set forth

herein.

NAME OF SELLING STOCKHOLDER	SHARES BENEFICIALLY OWNED PRIOR TO OFFERING(1)		NUMBER OF SHARES BEING OFFERED	SHARES BENEFICIALLY OWNED AFTER OFFERING(1)	
	NUMBER	PERCENT		NUMBER	PERCENT
Dave Arnold.....	10,842	*	10,842	10,842	*
Greg Baker.....	19,173	*	19,173	19,173	*
Phil Beekman.....	34,507	*	34,507	34,507	*
Rob Carpenter.....	6,899	*	6,899	6,899	*
Robert Clasen.....	493	*	493	493	*
Michael Collette.....	5,234	*	5,234	5,234	*
Ron Donati.....	34,745	*	34,745	34,745	*
Chin Wei Fan.....	119	*	119	119	*
Michael E. Filice, Jr.....	1,194	*	1,194	1,194	*
Michael E. Filice, Sr., as Trustee of the Filice Living Trust dated 6-11-96.....	1,194	*	1,194	1,194	*
Richard Fuller.....	115	*	115	115	*
Donald A. Gaubatz.....	2,146	*	2,146	2,146	*
Donald A. Gaubatz and Linda Kroll.....	2,529	*	2,529	2,529	*
Van Thanh and Denise Hua, as Trustees of the Hua Family Trust.....	2,111	*	2,111	2,111	*
John Kau.....	11,335	*	11,335	11,335	*
William Mears.....	45,191	*	45,191	45,191	*
David Osborne.....	10,160	*	10,160	10,160	*
Elizabeth Picco.....	22,522	*	22,522	22,522	*
Marty Picco.....	22,670	*	22,670	22,670	*
Julie Reynolds.....	821	*	821	821	*
Steve Rose.....	867	*	867	867	*
Jim Summers.....	2,236	*	2,236	2,236	*
Jim and Cynthia Summers, as Trustees for the Jim A. Summers and Cynthia B Summers Living Trust 7-1-89.....	34,499	*	34,499	34,499	*

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NAME OF SELLING STOCKHOLDER	SHARES BENEFICIALLY OWNED PRIOR TO OFFERING(1)		NUMBER OF SHARES BEING OFFERED	SHARES BENEFICIALLY OWNED AFTER OFFERING(1)	
	NUMBER	PERCENT		NUMBER	PERCENT
Harry and Sue Tredennick.....	2,534	*	2,534	2,534	*
Nick Tredennick, Ph.D.....	246	*	246	246	*
David and Nancy Wang, as Trustees of the David and Nancy Wang Trust.....	2,111	*	2,111	2,111	*
Mei Wang.....	119	*	119	119	*
Michael P. Wang.....	4,861	*	4,861	4,861	*
Yangbin Wang.....	4,535	*	4,535	4,535	*
Stephen M. Wurzburg.....	115	*	115	115	*
Total.....	286,123	*	286,123	286,123	*

* Less than 1%.

(1) Based on 57,310,809 shares outstanding as of June 30, 2000.

PLAN OF DISTRIBUTION

The shares covered by this prospectus may be offered and sold from time to time by the selling stockholders. The selling stockholders will act independently of Harmonic in making decisions with respect to the timing, manner and size of each sale. The selling stockholders may sell the shares being offered hereby on the Nasdaq National Market, or otherwise, at prices and under terms then prevailing or at prices related to the then current market price, at varying prices or at negotiated prices. The shares offered hereby may be sold, without limitation, by one or more of the following means of distribution: (a) a block trade in which the broker-dealer so engaged will attempt to sell such shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction; (b) purchases by a broker-dealer as principal and resale by such broker-dealer for its own account pursuant to this prospectus; (c) an over-the-counter distribution in accordance with the rules of the Nasdaq National Market; (d) ordinary brokerage transactions and transactions in which the broker solicits purchasers; and (e) in privately negotiated transactions. To the extent required, this prospectus may be amended and supplemented from time

to time to describe a specific plan of distribution.

In connection with distributions of the shares offered hereby or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of Harmonic's common stock in the course of hedging the positions they assume with selling stockholders. The selling stockholders may also sell Harmonic's common stock short and deliver the shares offered hereby to close out such short positions. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to such broker-dealer or other financial institution of shares offered hereby, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). The selling stockholders may also pledge the shares offered hereby to a broker-dealer or other financial institution, and, upon a default, such broker-dealer or other financial institution, may effect sales of the pledged shares pursuant to this prospectus (as supplemented or amended to reflect such transaction). In addition, any shares offered hereby that qualify for sale pursuant to Rule 144 may, at the option of the holder thereof, be sold under Rule 144 rather than pursuant to this prospectus.

Any broker-dealer participating in such transactions as agent may receive commissions from the selling stockholder and/or purchasers of the shares offered hereby (and, if it acts as agent for the purchaser of such shares, from such purchaser). Usual and customary brokerage fees will be paid by the selling stockholder. Broker-dealers may agree with the selling stockholder to sell a specified number of shares at a stipulated price per share, and, to the extent such a broker-dealer is unable to do so acting as

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agent for the selling stockholder, to purchase as principal any unsold shares at the price required to fulfill the broker-dealer commitment to the selling stockholder. Broker-dealers who acquire shares as principal may thereafter resell such shares from time to time in transactions (which may involve cross and block transactions and which may involve sales to and through other broker-dealers, including transactions of the nature described above) in the over-the-counter market, in negotiated transactions or otherwise at market prices prevailing at the time of sale or at negotiated prices, and in connection with such resales, may pay to or receive from the purchasers of such shares commissions computed as described above.

To comply with the securities laws of certain states, if applicable, the shares offered hereby will be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states the shares offered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of the shares offered hereby in the market and to the activities of the selling stockholders and their affiliates. In addition, we will make copies of this prospectus available to the selling stockholders and have informed them of the need for delivery of copies of this prospectus to purchasers at or prior to the time of any sale of the shares offered hereby. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

Some of the selling stockholders may distribute their shares, from time to time, to their limited and/or general partners, who may sell shares pursuant to this prospectus. Each selling shareholder may also transfer shares owned by him by gift, and upon any such transfer the donee would have the same right of sale as the selling stockholder.

At the time a particular offer of shares is made, if required, a prospectus supplement will be distributed that will set forth the number of shares being offered and the terms of the offering, including the name of any underwriter, dealer or agent, the purchase price paid by any underwriter, any discount, commission and other item constituting compensation, any discount, commission or concession allowed or reallocated or paid to any dealer, and the proposed selling price to the public.

INDEMNIFICATION OF DIRECTORS AND OFFICERS

Our Bylaws limits 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

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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.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or persons controlling Harmonic pursuant to the foregoing provisions, we have been informed that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is therefore unenforceable.

LEGAL MATTERS

Certain legal matters relating to the validity of the securities offered hereby will be passed upon for Harmonic by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California.

EXPERTS

The 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, 1999 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 consolidated statements of net investment of the DiviCom business ("DiviCom" or the "Company"), (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, which have been incorporated by reference in this registration statement of Harmonic Inc. on Form S-3, have been audited by Deloitte & Touche LLP, independent auditors, as stated in their audit report appearing in the Form 8-K/A of Harmonic Inc. dated July 17, 2000, and are so incorporated by reference in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

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