

HARMONIC INC  
Form S-3  
April 04, 2005

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**As filed with the Securities and Exchange Commission on April 4, 2005**

**Registration No. 333-**

**SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**Form S-3  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**HARMONIC INC.**

*(Exact name of Registrant as specified in its charter)*

**Delaware**

*(State or other jurisdiction of  
incorporation or organization)*

**77-0201147**

*(I.R.S. Employer  
Identification Number)*

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

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

**Anthony J. Ley  
President and Chief Executive Officer**

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

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

*Copies to:*

**Robert G. Day  
Michael A. Occhiolini  
Wilson Sonsini Goodrich & Rosati  
Professional Corporation  
650 Page Mill Road  
Palo Alto, CA 94304  
(650) 493-9300**

**Approximate date of commencement of proposed sale to the public:** As soon as practicable 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, 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

<b>Title of Each Class of Securities to be Registered</b>	<b>Amount to be Registered</b>	<b>Proposed Maximum Offering Price Per Unit(1)</b>	<b>Proposed Maximum Offering Price Aggregate(2)</b>	<b>Amount of Registration Fee</b>
Common Stock, \$0.000 par value(3)				
Preferred Stock, \$0.001 par value				
Debt Securities(4)				
Warrants to purchase Common Stock				
<b>Total(5)(6)</b>	<b>\$126,590,000(5)(6)</b>	<b>100%</b>	<b>\$126,590,000(5)(6)</b>	<b>\$14,899.64</b>

(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) Each share of Common Stock includes a right to purchase one one-thousandth of a share of Series A Participating Preferred Stock. In addition to the securities registered hereunder, the registrant is also registering in indeterminate number of shares of Common Stock as may be issued upon exchange or conversion of securities issued directly hereunder. No separate consideration will be received for any shares of Common Stock so issued upon conversion or exchange.

(4) 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.

(5)

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Pursuant to Rule 429 of the Securities Act of 1933, as amended, securities having an aggregate initial offering price of \$73,410,000 are being carried forward from Registration Statement No. 333-84430. \$13,800 of the filing fee previously paid in connection with such registration statement is associated with these securities.

- (6) The proposed maximum offering price per unit will be determined by us in connection with the issuance of the securities. The securities registered hereunder may be sold separately or as units with other securities registered hereby.

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

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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 4, 2005**

**PROSPECTUS**

**\$200,000,000**  
**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 1, 2005, the last reported sale price of our common stock on the Nasdaq National Market was \$9.55 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 \_\_\_\_\_, 2005

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

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

**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 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.**

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**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 \$200,000,000. 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.**

We design, manufacture and sell digital video systems and fiber optic systems that enable network operators to provide a range of interactive and advanced digital services that include digital video, video-on-demand (VOD), high definition television (HDTV), high-speed Internet access and telephony. Historically, most of our sales have been derived from sales of digital headend products and fiber optic transmission systems to cable television and direct broadcast satellite operators. We also derive a growing portion of our sales from telephone companies that offer video services to their customers.

The construction of new networks or the upgrade and extension of existing networks to facilitate high-speed broadband video, voice and data services requires substantial expenditure and often the replacement of significant portions of the existing infrastructure. The economic success of incumbent and new network operators in a competitive environment will depend to a large extent on their ability to offer a choice of attractively priced packages of voice, video and data services to consumers, and to do so with high reliability and easy access to their network. Personalized video services, such as VOD, and the availability of TV sets equipped for HDTV will require increasing amounts of bandwidth to the home in order to deliver maximum choice and flexibility. In addition, certain operators have initiated trials to deliver live television to cellular telephones and other mobile devices. Compression of video and data to utilize effectively the available bandwidth, the cost-effective transport of digital traffic within networks, and the construction of robust fat pipes for distribution of content are all essential elements in the ability of operators to maximize revenue and minimize capital expenditures and operating costs.

Harmonic's products are organized in two principal groups, Convergent Systems and Broadband Access Networks. In addition, Harmonic provides technical support services to its customers worldwide.

***Convergent Systems products***

The Convergent Systems division develops standards-based solutions that enable operators to increase the capacity of their broadband networks with advanced compression and stream processing technology. Our CS division's advanced digital video solutions enable satellite, cable, telco, broadcast, and wireless operators around the world to offer digital video services to their customers. As video, data and voice services continue to converge, effectively managing and processing these bandwidth-intensive applications becomes critical to the long-term viability of an operator's network.

***Broadband Access Networks products***

The Broadband Access Networks division applies its strengths in optics and electronics, including expertise with lasers, modulators, and radio frequency technology, to develop products which provide enhanced network reliability and allow broadband service providers to deliver advanced services, including two-way interactive services. We provide the operator with end-to-end capability in the fiber portion of the network.

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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 \$200,000,000 of common stock, preferred stock, warrants to purchase common stock and debt securities. 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.

**Common Stock**

We may offer our common stock, par value \$0.001 per share, either alone or underlying other registered securities convertible or exercisable 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.

**Preferred Stock**

We may issue preferred stock, par value \$0.001 per share, 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.

**Warrants**

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

**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 previously filed with the Securities and Exchange Commission, and are incorporated by reference into this 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**.



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***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 any 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 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.

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**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 and cash flows.***

A significant portion of Harmonic's sales have been derived from sales to cable television and satellite operators, and we expect these sales to constitute a significant portion of net sales for the foreseeable future. Demand for our products will depend on the magnitude and timing of capital spending by cable television operators, satellite operators, telephone companies and broadcasters for constructing and upgrading 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, including pricing pressures;

discretionary customer spending patterns; and

general economic conditions.

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

uncertainty related to development of digital video industry standards;

delays associated with the evaluation of new services, new standards, and system architectures by many cable and satellite television operators;

emphasis on generating revenue from existing customers by operators instead of new construction or network upgrades;

a reduction in the amount of capital available to finance projects of our customers and potential customers;

proposed business combinations and divestitures by our customers and regulatory review thereof;

economic and financial conditions in domestic and international markets; and

bankruptcies and financial restructuring of major customers.

The financial difficulties of certain of our customers and changes in our customers' deployment plans adversely affected our business throughout 2002 and in the first half of 2003. Two of our major domestic customers, Adelphia Communications and Winfirst, declared bankruptcy during the first half of 2002, while

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NTL, a major international customer, emerged from bankruptcy in 2003. Furthermore, we believe that our net sales to satellite customers were adversely affected by the uncertainty related to the prolonged regulatory review of the proposed acquisition of DIRECTV by EchoStar in 2002, which was ultimately rejected by regulators. These events, coupled with uncertain and volatile capital markets, also pressured the market values of domestic cable operators and restricted their access to capital. This reduced access to funding for new and existing customers caused delays in the timing and scale of deployments of our equipment and also resulted in the postponement or cancellation of certain projects by our customers. Several customers also canceled new projects or delayed new orders to allow them to reduce inventory levels that were in excess of their deployment requirements. We believe that these factors contributed to decreased net sales in both our CS division and our BAN division during the second half of 2002 and the first half of 2003 compared to the first half of 2002.

We believe that the financial condition of many of our customers has stabilized or improved, and our net sales increased in 2004 compared to 2003. However, another economic downturn or other factors could cause additional financial difficulties among our customers, and customers whose financial condition has stabilized may not purchase new equipment at levels we have seen in the past. Continued financial difficulties among our customers would adversely affect our operating results and financial condition. In addition, industry consolidation has, in the past and may in the future, constrain capital spending among our customers. In this regard, we believe that the proposed sale of Adelphia Communications and the recent privatization of Cox Communications have led to capital spending delays at these customers. We cannot currently predict the impact of the proposed sale of Adelphia Communications or the privatization of Cox Communications on our future sales. As a result, we cannot assure you that we will maintain or increase our net sales in the future.

Major U.S. cable operators have indicated that the substantial completion of major network upgrades, which involved significant labor and construction costs, will lead to lower capital expenditures in the future. If our product portfolio and product development plans do not position us well to capture an increased portion of the capital spending of US cable operators, our revenue may decline and our operating results would be adversely affected.

***Our customer base is concentrated and the loss of one or more of our key customers would harm our business.***

Historically, a majority of our sales 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 2004, 2003, and 2002 accounted for approximately 55%, 65% and 61% of net sales, respectively. Although we are attempting to broaden our customer base by penetrating new markets such as the telecommunications and broadcast markets and expand internationally, 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 acquired AT&T Broadband in November 2002, thereby creating the largest U.S. cable operator, reaching approximately 22 million subscribers. In the DBS segment, The News Corporation Ltd. acquired an indirect controlling interest in Hughes Electronics, the parent company of DIRECTV in 2003. In addition, the sale or financial restructuring of companies such as Adelphia Communications and several European operators may lead to further industry consolidation. In 2004 and 2003, sales to Comcast accounted for 17% and 32%, respectively, of net sales. In 2002, sales to Charter Communications and Comcast accounted for 18% and 10% of net sales. If Comcast and AT&T Broadband had been combined for all of 2002, total revenues for the combined entity would have been 17% of net sales. The loss of Comcast or any other significant customer or any reduction in orders by Comcast or any significant customer, or our failure to qualify our products with a significant customer could adversely affect our business, operating results and liquidity. In this regard, sales to Comcast declined in 2004 compared to 2003, both in absolute dollars and as a percentage of revenues. The loss of, or any reduction in orders from, a significant customer would harm our business.

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***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 orders, especially from significant customers;
- the timing of revenue recognition from solution contracts which may span several quarters;
- the timing of revenue recognition on sales arrangements, which may include multiple deliverables;
- the need to replace revenue from a major project for a Japanese customer that was completed in 2004 with other domestic or international customers;
- competitive market conditions, including pricing actions by our competitors;
- seasonality, with fewer construction and upgrade projects typically occurring in winter months and otherwise being affected by inclement weather;
- our unpredictable sales cycles;
- the amount and timing of sales to telcos, which are particularly difficult to predict;
- 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;
- changes in our operating expenses and extraordinary expenses;
- the impact of FAS 123R, a new accounting standard which requires us to expense stock options;
- our development of custom products and software;
- the level of international sales; and
- economic and financial conditions specific to the cable and satellite industries, and general economic conditions.

For example, 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 compatible set top boxes, and our customers' need for local franchise and licensing approvals.

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. 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 during the third quarter of 2002, the first quarter of 2003, and the third quarter of 2004, 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, in some cases significantly.

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***Our future growth depends on market acceptance of several emerging broadband services, on the adoption of new broadband technologies and on several other broadband industry trends.***

Future demand for our products will depend significantly on the growing market acceptance of several emerging broadband services, including digital video; VOD; HD television; very high-speed data services and voice-over-IP (VoIP) telephony.

The effective delivery of these services will depend, in part, on a variety of new network architectures, such as:  
FTTP networks;

new video compression standards such as MPEG-4/ H.264 and Microsoft's Windows Media 9 broadcast profile (VC-1);

the greater use of protocols such as IP; and

the introduction of new consumer devices, such as advanced set-top boxes and personal video recorders (PVRs).

If adoption of these emerging services and/or technologies is not as widespread or as rapid as we expect, or if we are unable to develop new products based on these technologies on a timely basis, our net sales growth will be materially and adversely affected.

Furthermore, other technological, industry and regulatory trends will affect the growth of our business. These trends include the following:

convergence, or the desire of certain network operators to deliver a package of video, voice and data services to consumers, also known as the triple play ;

the use of digital video by businesses, governments and educators;

the privatization of state-owned telcos around the world;

efforts by regulators and governments in the U.S. and abroad to encourage the adoption of broadband and digital technologies; and

the extent and nature of regulatory attitudes towards such issues as competition between operators, access by third parties to networks of other operators, and new services such as VoIP.

If, for instance, operators do not pursue the triple play as aggressively as we expect, our net sales growth would be materially and adversely affected. Similar, if our expectations regarding these and other trends are not met, our net sales may be materially and adversely affected.

***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;

fail to achieve market acceptance; or

are ahead of the market.





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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.

Our CS division is currently developing and marketing products based on new video compression standards. Encoding products based on the current MPEG-2 compression standards have represented a significant portion of the Company's sales since the acquisition of DiviCom in 2000. New standards, such as MPEG-4/ H.264 and Microsoft's Windows Media 9 broadcast profile (VC-1), are being adopted which are expected to provide significantly greater compression efficiency, thereby making more bandwidth available to operators. Harmonic is developing products based on these new standards in order to remain competitive and is devoting considerable resources to this effort. There can be no assurance that these efforts will be successful in the near future, or at all.

Our BAN division is currently marketing products for FTTP networks which telcos have begun to build. Although we believe that a number of our existing products can be deployed successfully in these networks, we will need to devote considerable resources to obtaining orders, qualifying our products and hiring knowledgeable personnel, and we may make significant financial commitments. There can be no assurance that these efforts will be successful in the near future, or at all.

***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;

time required to engineer the deployment of new technologies or new broadband services;

testing and acceptance of new technologies that affect key operations; and

test marketing of new services with subscribers.

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. In this regard, our sales cycles with our current and potential telco customers are particularly unpredictable. Additionally, orders may include multiple elements, the timing of delivery of which may impact the timing of revenue recognition. Quarterly and annual results may fluctuate significantly due to revenue recognition policies and the timing of the receipt of orders. For example, revenue from two significant customer orders in the third quarter of 2004 was delayed due to these factors until the fourth quarter of 2004.

In addition, a significant portion of our revenue is derived from solution sales that principally consist of and include the system design, manufacture, test, installation and integration of equipment to the specifications of Harmonic's customers, including equipment acquired from third parties to be integrated with Harmonic's products. Revenue forecasts for solution contracts are based on the estimated timing of the system 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.

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***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 U.S. in 2004, 2003 and 2002 represented 42%, 29% and 29% of net sales, respectively, and we expect that international sales will continue to represent a meaningful portion of our net sales for the foreseeable future. Furthermore, a substantial portion of our contract manufacturing occurs overseas. In addition, a portion of our research and development occurs overseas, including at our facilities in Israel, and, following our acquisition of Broadcast Technologies Ltd., also in the United Kingdom. Our international operations, the international operations of our contract manufacturers, and our efforts to increase sales in international markets, 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;

political and economic instability; and

changes in economic policies by foreign governments

During 2004, a significant percentage of our international revenues were derived from a major upgrade by a Japanese customer of its satellite facilities. That upgrade has now been completed, and we expect sales to this customer to decline in 2005, which could adversely affect our sales to international customers.

Certain of our international customers have accumulated significant levels of debt and have announced during the past three years, reorganizations and financial restructurings, including bankruptcy filings. Even if these restructurings are completed, we cannot assure you that these customers will be in a position to purchase new equipment at levels we have seen in the past.

While our international sales and operating expenses 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 Euro in January 2002, a higher portion of our European business is 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 U.S.. 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. Any or all of these factors could adversely impact our business and results of operations.

***Pending business combinations and other financial and regulatory issues among our customers could adversely affect our business.***

The telecommunications industry has been particularly impacted by the recent economic recession, adverse conditions in capital markets and financial difficulties in both the service and equipment sectors, including bankruptcies. Many of our domestic and international customers accumulated significant levels of debt and announced reorganizations and financial restructurings during the past three years, including bankruptcy filings. In particular, Adelphia Communications, a major domestic cable operator, declared bankruptcy in June 2002. The stock prices of other domestic cable companies came under pressure following the Adelphia bankruptcy due to concerns about debt

levels and capital expenditure requirements for new and expanded services, thereby making the raising of capital more difficult and expensive. New operators, such as

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RCN and WinFirst, also had difficulty in accessing capital markets. Both subsequently filed for bankruptcy. In Europe, rapid consolidation of the cable industry through acquisition also led to significant levels of debt at the major MSOs, and companies such as NTL and UPC went through bankruptcy proceedings. European digital broadcasters, such as ITV Digital, Kirsch and Quiero, also filed for protection from creditors.

While the capital market concerns about the domestic cable industry have eased, market conditions remain difficult and capital spending plans are generally constrained. It is likely that further industry restructuring will take place via mergers or spin-offs, such as the Comcast/ AT&T Broadband transaction in 2002 and the acquisition by The News Corporation Ltd. in December 2003 of an indirect controlling interest in Hughes Electronics, the parent company of DIRECTV. This transaction followed regulatory opposition to the proposed acquisition of DIRECTV by EchoStar. We believe that uncertainty during 2002 regarding the proposed DIRECTV and EchoStar merger adversely affected capital spending by both of these parties as well as other customers. More recently, restructuring of the industry has continued with the privatization of Cox Communications, the planned sale of Adelphia Communications out of bankruptcy, and the proposed sale of Cablevision's VOOM! satellite assets to Echostar. In addition, further business combinations may occur in our industry, and these further combinations could adversely affect our business. Regulatory issues, financial concerns and business combinations among our customers are likely to significantly affect the industry, its capital spending plans, and our levels of business for the foreseeable future.

***Changes in telecommunications regulations could harm our prospects and future sales.***

Changes in telecommunications regulations in the U.S. and other countries could affect the sales of our products. In particular, regulations dealing with access by competitors to the networks of incumbent operators could slow or stop additional construction or expansion by these operators. Increased regulation of our customers' pricing or service offerings could limit their investments and consequently the sales of our products. Changes in regulations could have a material adverse effect on our business, operating results, and financial condition.

***Competition for qualified personnel, particularly management personnel, can be intense. In order to manage our growth, we must be successful in addressing management succession issues and attracting and retaining qualified 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 must successfully manage transition and replacement issues that may result from the departure or retirement of members of our senior management. We are dependent on our ability to retain and motivate high caliber personnel, in addition to attracting new personnel. Competition for qualified management, technical and other personnel can be intense, 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 non-competition 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 senior management and engineers and other technical personnel, could negatively affect our business.

***Recent and proposed regulations related to equity compensation could adversely affect earnings, affect our ability to raise capital and affect our ability to attract and retain key personnel.***

Since our inception, we have used stock options as a fundamental component of our employee compensation packages. We believe that our stock option plans are an essential tool to link the long-term interests of stockholders and employees, especially executive management, and serve to motivate management to make decisions that will, in the long run, give the best returns to stockholders. The Financial Accounting Standards Board (FASB) has announced changes to U.S. GAAP, effective for fiscal periods beginning after June 15, 2005, that will require us to record a charge to earnings for employee stock option grants and employee stock purchase plan rights. This regulation will negatively impact our earnings and may affect our ability to raise capital on acceptable terms. In addition, new regulations implemented by The Nasdaq National

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Market requiring stockholder approval for all stock option plans could make it more difficult for us to grant options to employees in the future. To the extent that new regulations make it more difficult or expensive to grant options to employees, we may incur increased compensation costs, change our equity compensation strategy or find it difficult to attract, retain and motivate employees, each of which could materially and adversely affect our business.

***We are exposed to additional costs and risks associated with complying with increasing and new regulation of corporate governance and disclosure standards.***

We are spending an increased amount of management time and external resources to comply with changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002, new SEC regulations and Nasdaq Stock Market rules. Particularly, Section 404 of the Sarbanes-Oxley Act requires management's annual review and evaluation of our internal controls over financial reporting, and attestation of the effectiveness of our internal controls over financial reporting by management and the Company's independent registered public accounting firm in connection with the filing of our annual report on Form 10-K for the fiscal year ended December 31, 2004, and with each subsequently filed annual report on Form 10-K. We have documented and tested our internal control systems and procedures and have made improvements in order for us to comply with the requirements of Section 404. This process required us to hire additional personnel and outside advisory services and has resulted in significant additional accounting and legal expenses. While our assessment of our internal controls over financial reporting resulted in our conclusion that as of December 31, 2004, our internal control over financial reporting was effective, we cannot predict the outcome of our testing in future periods. If we conclude in future periods that our internal controls over financial reporting are not effective or if our independent registered public accounting firm is unable to provide an unqualified opinion as of future year-ends, investors may lose confidence in our financial statements, and the price of our stock may suffer.

***We may need additional capital in the future and may not be able to secure adequate funds on terms acceptable to us.***

We have generated substantial operating losses since we began operations in June 1988. Although we generated a small net profit in 2004 after several years of losses, future profitability is highly uncertain, and we may never achieve sustained profitable operations. We have been engaged in the design, manufacture and sale of a variety of broadband products since inception, which has required, and will continue to require, significant research and development expenditures. As of December 31, 2004 we had an accumulated deficit of \$1.9 billion. These losses, among other things, have had and may have an adverse effect on our stockholders' equity and working capital.

We believe that the proceeds of the stock offering we completed in November 2003, together with our existing liquidity sources, will satisfy our cash requirements for at least the next twelve months, including the final settlement and payment of C-Cube's pre-merger tax liabilities. However, we may need to raise additional funds if our expectations are incorrect, to fund our operations, to take advantage of unanticipated strategic opportunities or to strengthen our financial position. The stock offering we completed in November 2003 related to a registration statement on Form S-3 declared effective by the SEC in April 2002. In April 2005, we filed this registration statement on Form S-3 with the SEC. Pursuant to the registration statement on Form S-3 declared effective by the SEC in April 2002 and this registration statement on Form S-3, we will continue to be able to issue common stock, preferred stock, debt securities and warrants to purchase common stock from time to time, up to an aggregate of approximately \$200 million, subject to market conditions and our capital needs. 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 conditions in capital markets and the cable, telecom and satellite industries. There can be no assurance that such financing will be available on terms acceptable to us, if at all.

In addition, from time to time, we review potential acquisitions that would complement our existing product offerings, enhance our technical capabilities or expand our marketing and sales presence. Any future transaction of this nature could require potentially significant amounts of capital to finance the acquisition and

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related expenses as well as to integrate operations following a transaction, and could require us to issue our stock and dilute existing stockholders. 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 may raise additional financing through public or private equity offerings, debt financings or additional corporate collaboration and licensing arrangements. To the extent we raise additional capital by issuing equity securities, our stockholders may experience dilution. To the extent that we raise additional funds through collaboration and licensing arrangements, it may be necessary to relinquish some rights to our technologies or products, or grant licenses on terms that are not favorable to us. If adequate funds are not available, we will not be able to continue developing our products.

***If demand for our products increases more quickly than we expect, we may be unable to meet our customers requirements.***

Our net sales increased approximately 36% in 2004 from 2003. If demand for our products continues to increase, the difficulty of accurately forecasting our customers requirements and meeting these requirements will increase. Forecasting to meet customers needs is particularly difficult in connection with newer products. Our ability to meet customer demand depends significantly on the availability of components and other materials as well as the ability of our contract manufacturers to scale their production. Furthermore, we purchase several key components, subassemblies and modules used in the manufacture or integration of our products from sole or limited sources. Our ability to meet customer requirements depends in part on our ability to obtain sufficient volumes of these materials in a timely fashion. Also, in recent years, in response to lower net sales and the prolonged economic recession, we significantly reduced our headcount and other expenses. As a result, we may be unable to respond to customer demand that increases more quickly than we expect. If we fail to meet customers supply expectations, our net sales would be adversely affected and we may lose business.

***We must be able to manage expenses and inventory risks associated with meeting the demand of our customers.***

If actual orders are materially lower than the indications we receive from our customers, our ability to manage inventory and expenses may be affected. 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 have been in the past adversely affected by significant provisions for excess and obsolete inventories.

***We face risks associated with having important facilities and resources located in Israel.***

Harmonic maintains a facility in Caesarea in the State of Israel with a total of 62 employees as of December 31, 2004, or approximately 11% of our workforce. The employees at this facility consist principally of research and development personnel involved in development of certain products for the CS division. In addition, we have pilot production capabilities at this facility consisting of procurement of subassemblies and modules from Israeli subcontractors and final assembly and test 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 trading partners could significantly harm our business. The September 2