

HARMONIC INC
Form 424B5
October 23, 2007

Table of Contents

The information in this prospectus supplement and the accompanying prospectus is not complete and may be changed. This prospectus supplement and the accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-123823

**Subject to Completion
Preliminary Prospectus Supplement dated October 23, 2007**

**PROSPECTUS SUPPLEMENT
(To prospectus dated April 22, 2005)**

12,900,000 Shares

Common Stock

Harmonic is selling all of the shares. The shares are quoted on the Nasdaq Global Market under the symbol HLIT. On October 22, 2007, the last sale price of the shares as reported on the Nasdaq Global Market was \$11.62 per share.

Investing in the common stock involves risks that are described in the Risk Factors section beginning on page S-7 of this prospectus supplement.

	Per Share	Total
Public offering price	\$	\$
Underwriting discount	\$	\$
Proceeds, before expenses, to Harmonic	\$	\$

The underwriters may also purchase up to an additional 1,935,000 shares from Harmonic at the public offering price, less the underwriting discount, within 30 days from the date of this prospectus supplement to cover overallotments.

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

The shares will be ready for delivery on or about November , 2007.

Merrill Lynch & Co.
Sole Book-Running Manager

Lehman Brothers

Jefferies & Company

Merriman Curhan Ford & Co.

The date of this prospectus supplement is _____, 2007.

TABLE OF CONTENTS**Prospectus Supplement**

	Page
<u>About This Prospectus Supplement</u>	ii
<u>Prospectus Supplement Summary</u>	S-1
<u>The Offering</u>	S-5
<u>Summary Consolidated Financial Data</u>	S-6
<u>Risk Factors</u>	S-7
<u>Forward-Looking Statements</u>	S-27
<u>Use Of Proceeds</u>	S-28
<u>Price Range Of Common Stock</u>	S-29
<u>Dividend Policy</u>	S-29
<u>Capitalization</u>	S-30
<u>Dilution</u>	S-31
<u>Management</u>	S-32
<u>Underwriting</u>	S-34
<u>Legal Matters</u>	S-38
<u>Experts</u>	S-38
<u>Where You Can Find More Information</u>	S-38
<u>Incorporation By Reference</u>	S-39

Prospectus

<u>Summary</u>	1
<u>Risk Factors</u>	4
<u>Special Note Regarding Forward-Looking Statements</u>	19
<u>Use Of Proceeds</u>	19
<u>Ratio Of Earnings Available To Cover Fixed Charges</u>	20
<u>Description Of Common Stock</u>	21
<u>Description Of Preferred Stock</u>	22
<u>Description Of Debt Securities</u>	25
<u>Description Of Warrants</u>	34
<u>Plan Of Distribution</u>	35
<u>Legal Matters</u>	37
<u>Experts</u>	37
<u>Where You Can Find More Information</u>	37

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not, and the underwriters have not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference is accurate only as of their respective dates.

Our business, financial condition, results of operations and prospects may have changed since those dates.

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of the offering of common stock and also adds to, updates and supersedes information contained in the accompanying prospectus and the documents incorporated by reference into the accompanying prospectus. The second part is the accompanying prospectus, which provides more general information. To the extent there is a conflict between the information contained in this prospectus supplement and any information incorporated by reference herein, on the one hand, and the information contained in the accompanying prospectus and any information incorporated by reference therein, on the other hand, you should rely on the information in this prospectus supplement or incorporated by reference herein. You should read both this prospectus supplement and the accompanying prospectus together with additional information described below under the headings **Where You Can Find More Information** and **Incorporation by Reference**.

Unless stated otherwise, references in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference to **Harmonic**, **we**, **us**, **its** or **our** refer to Harmonic Inc., a Delaware corporation, and its subsidiaries. Each trademark, trade name or service mark of any other company appearing in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference belongs to its holder.

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained in this prospectus supplement and the accompanying prospectus. Because it is a summary, it does not contain all the information you should consider before investing in our common stock. You should read this entire prospectus supplement and the accompanying prospectus carefully, including the Risk Factors section, and our consolidated financial statements and the related notes and the other information incorporated by reference, before making an investment decision.

Overview

We design, manufacture and sell versatile and high performance video products and system solutions that enable service providers to efficiently deliver the next generation of broadcast and on-demand services, including high-definition television, or HDTV, video-on-demand, or VOD, networked personal video recording and time-shifted TV. Historically, the majority of our sales have been derived from sales of video processing solutions and edge and access systems to cable television operators and from sales of video processing solutions to direct-to-home satellite operators. We also provide our video processing solutions to telecommunications companies, broadcasters and Internet companies that offer video services to their customers.

Industry Background

Demand for Broadband and Digital Video Services

The delivery to subscribers of television programming and Internet-based information and communication services is converging, driven in part by advances in technology and in part by changes in the regulatory and competitive environment. Viewers of video increasingly seek a more personalized and dynamic video experience that can be delivered to a variety of devices ranging from wide-screen HDTVs to mobile devices, including cellular phones. Today, there are a number of developing trends which impact the broadcasting and television business and that of our service provider customers, which deliver video programming. These trends include:

On-Demand Services. The introduction of digital video recorders and network-based VOD services is leading to changes in the way subscribers watch television programming. Subscribers are increasingly utilizing time-shifting and ad-skipping technology. Further advances in technology are likely to accelerate these trends, with cable, satellite and telecommunications, or telco, operators announcing initiatives, often in conjunction with network broadcasters, to increasingly personalize subscribers video viewing experience.

High-Definition Television. The increasing popularity of HDTV and home theater equipment is putting pressure on broadcasters and pay-TV providers to offer additional HDTV content and higher quality video signals for both standard and high definition services. For example, DIRECTV recently announced that it will offer 100 national HDTV channels to its subscribers by the end of 2007, and other service providers are also rapidly introducing expanded HDTV offerings for their subscribers.

The Internet and Other Emerging Distribution Methods. Several companies, including Google, Yahoo! and Apple, have recently announced their entry into the video distribution business and enable their customers to download video content to PCs and mobile devices. We believe it is likely that the entry of these companies into the video distribution business will further change traditional video viewing habits and distribution methods.

Mobile Video. Several telcos in the U.S. and abroad have launched video services to cellular telephones and other mobile devices. Certain cable operators have entered into agreements with mobile phone operators that are likely to

lead to further expansion of mobile video services.

These trends are expected to increase the demand from service providers for sophisticated digital video systems and optical network products, which are required to acquire video content from a variety of sources and deliver it to the subscriber.

S-1

Table of Contents***The Market Opportunity***

Competition among traditional service providers in the cable, satellite and telco markets has intensified as offerings from nontraditional providers of video, such as Internet companies and mobile operators, are beginning to attract subscribers. The economic success of existing and new operators in this increasingly competitive environment will depend, to a large extent, on their ability to provide a broader range of offerings that package video, voice and data services for subscribers. These services all need to be delivered in a highly reliable manner with easy access to a service provider's network.

Personalized video services, such as VOD, and the increasing amounts of high definition content, as well as an increasing amount of data being transmitted over communications networks, will require greater bandwidth to the home in order to deliver maximum choice and flexibility to the subscriber. In addition, the delivery of live television and downloadable content to cellular telephones and other mobile devices creates bandwidth constraints and network management challenges. The demand for more bandwidth-intensive video, voice and data content has strained existing communications networks and created bottlenecks, especially in the headends and in the last mile of the communications infrastructure where homes connect to the local network. The upgrade and extension of existing networks or the construction of completely new network environments to facilitate the delivery of high-speed broadband video, voice and data services requires substantial expenditure and often the replacement of significant portions of the existing infrastructure. As a result, service providers are seeking solutions that maximize the efficiency of existing available bandwidth and cost-effectively manage and transport digital traffic within networks, while minimizing the need to construct new networks for the distribution of video, voice and data content.

Products

Our products generally fall into two principal categories, video processing solutions and edge and access products. In addition, we provide network management software and have recently introduced and acquired new application software products. We also provide technical support services to our customers worldwide. Our video processing solutions provide broadband operators with the ability to acquire a variety of signals from different sources, in different protocols, and to organize, manage and distribute this content to maximize use of the available bandwidth. Our edge products enable cable operators to deliver customized broadcast or narrowcast on-demand services to their subscribers. Our access products, which consist mainly of optical transmission products, node platforms and return path products, allow cable operators to deliver video, voice and data services over their networks.

Customers

We sell our products to a variety of broadband communications companies. Set forth below is a representative list of our significant direct and integrator/distributor customers based on net sales during the six month period ended June 29, 2007.

United States

Cablevision
Charter Communications
Comcast
Cox Communications
DIRECTV
EchoStar
Time Warner Cable

International

Alcatel-Lucent	PCCW Limited
Astra Platform Services	Simac Broadcast
Media Cruise Solutions	Telindus
Nokia-Siemens Networks	Virgin Media

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 for the foreseeable future. Net sales to our ten largest customers in the first six months of 2007 and the fiscal years 2006 and 2005 accounted for approximately 53%, 50% and 54% of net sales, respectively. In the first six months of 2007, and the fiscal years 2006 and 2005, Comcast accounted for 19%, 12% and 18% of net sales, respectively.

S-2

Table of Contents

Sales to customers outside of the U.S. in the first six months of 2007, and the fiscal years 2006 and 2005 represented 43%, 49% and 40% of net sales, respectively. We expect international sales to continue to account for a substantial portion of our net sales for the foreseeable future.

Strategy

Our objective is to be the leading provider of products and solutions that enable the delivery of high-quality broadcast and on-demand digital video services over any network to any device. Key elements of our strategy include the following:

Continue expanding our platform of leading digital video delivery products. Our research and development efforts focus on expanding our platform of leading video delivery products. Over the past two decades, we have gained an expertise in designing video processing and delivery products for cable, direct-to-home satellite and, more recently, telco operators. Our digital video delivery products enable these service providers to offer an increasing array of broadcast and on-demand services to subscribers, such as digital broadcast, HDTV and VOD. We intend to continue leveraging our technological and market expertise to deliver new products and system solutions that enable the growing deployment of these new video services.

Enable incremental revenue streams for service providers. We intend to further leverage our technology and market expertise to enable new video delivery business models and revenue streams for our service provider customers. We are focused on developing new video delivery technologies that expand the range of video viewing platforms, including PCs and mobile devices, and new system solutions that enable the personalization of content and advertisements.

Extend our software offerings. We recently expanded our portfolio of software-based products and substantially enhanced our software development capabilities through the acquisition of Rhozet and the video networking software business of Entone. We intend to further expand our software-based products and solutions in order to enable our service provider customers to deliver innovative and flexible new on-demand and personalized video services to consumers.

Leverage our global installed base of service providers. We have a global footprint with industry-leading service providers, including many of the world's largest cable and direct-to-home satellite operators. We intend to leverage these relationships as these service providers strive to compete and grow through the introduction of innovative new video services. We believe our close relationship with these service providers allows us to design and build video delivery products that address the specific challenges of providing competitive video services within current network environments.

Focus on expanding new vertical markets and geographies. As new video service-based business models proliferate worldwide, we intend to penetrate new service provider markets, including IPTV, Internet and mobile, and strengthen our business in international geographies. We believe that our platform and capabilities will enable us to bring the benefits of our video delivery products to new customers across a broad range of geographies and we plan to continue expanding our sales and marketing efforts to increase our presence in areas where service provider penetration is growing as well as in international markets.

Recent Developments

On October 23, 2007, we announced our unaudited financial results for the quarter ended September 28, 2007. For the third quarter of 2007, we reported net sales of \$82.3 million, up 31% from \$62.9 million in the third quarter of 2006. For the first nine months of 2007, net sales were \$223.8 million, up 30% from \$172.3 million in the same period of

2006. Net income for the third quarter of 2007 was \$9.4 million, or \$0.12 per diluted share, compared to net income of \$4.0 million, or \$0.05 per diluted share for the same period of 2006. Net income for the first nine months of 2007 was \$16.8 million, or \$0.21 per diluted share, compared to a net loss of \$4.0 million, or \$0.05 per diluted share for the same period of 2006.

S-3

Table of Contents

Corporate Information

Harmonic was initially incorporated in California in June 1988 and reincorporated into Delaware in May 1995. The Company is organized as one operating segment.

Our principal executive offices are located at 549 Baltic Way, Sunnyvale, California 94089. Our telephone number is (408) 542-2500. Our website is www.harmonicinc.com. Information on our website is not part of this prospectus supplement or the accompanying prospectus.

S-4

Table of Contents

The Offering

Common stock offered by Harmonic	12,900,000 shares
Shares outstanding after the offering	92,309,833 shares
Use of proceeds	We estimate that our net proceeds from this offering, without the exercise of the underwriters' overallotment option, will be approximately \$141.7 million, based on an assumed public offering price of \$11.62 per share. We intend to use these net proceeds for possible acquisitions of businesses, technologies, assets and product lines that we believe complement or expand our existing business. In addition, we may use the net proceeds from this offering for working capital and general corporate purposes. See "Use of Proceeds."
Risk factors	See "Risk Factors" and other information included in this prospectus supplement for a discussion of factors you should carefully consider before deciding to invest in shares of the common stock.
Nasdaq Global Market symbol	HLIT

The number of shares outstanding after the offering is based on the number of shares outstanding on June 29, 2007, and excludes:

10,125,256 shares of common stock issuable upon exercise of outstanding options as of June 29, 2007 granted under our stock option plans, with a weighted average exercise price of \$11.12 per share;

4,204,609 additional shares of common stock available for future issuance under our stock option and employee stock purchase plans as of June 29, 2007, of which 544,810 shares of common stock or options to purchase shares of common stock were issued between June 30, 2007 and October 22, 2007; and

1,105,656 shares of common stock that have been issued or may in the future be issued to former shareholders of Rhonet in connection with the acquisition.

The number of shares outstanding after the offering assumes that the underwriters' overallotment option is not exercised. If the overallotment option is exercised in full, we will issue and sell an additional 1,935,000 shares.

Table of Contents**SUMMARY CONSOLIDATED FINANCIAL DATA**

We have derived our consolidated statement of operations data for the years ended December 31, 2004, 2005 and 2006 from our audited consolidated financial statements incorporated by reference in this prospectus supplement. We have derived our consolidated statement of operations data for the years ended December 31, 2002 and 2003 from our audited consolidated financial statements not included or incorporated by reference in this prospectus supplement. We have derived our consolidated balance sheet data as of June 29, 2007 and consolidated statement of operations data for each of the six months ended June 30, 2006 and June 29, 2007 from our unaudited consolidated financial statements incorporated by reference in this prospectus supplement. The unaudited consolidated financial statement data include, in our opinion, all adjustments (consisting only of normal recurring adjustments) that are necessary for a fair presentation of our financial position and results of operations for these periods. Operating results for the six months ended June 29, 2007 are not necessarily indicative of the results that may be expected for the fiscal year ending December 31, 2007. In addition, due to the acquisitions we have made, our results of operations are not necessarily comparable between periods presented. You should read the summary financial data set forth below in conjunction with Management's discussion and analysis of financial condition and results of operations and with our consolidated financial statements and related notes incorporated by reference in this prospectus supplement.

The as adjusted column of the consolidated balance sheet data reflects our sale of common stock in this offering at an assumed public offering price of \$11.62 per share, after deducting the estimated underwriting discount and estimated offering expenses payable by us.

Consolidated Statement of Operations Data:	2002	Year Ended December 31,				Six Months Ended	
		2003	2004	2005	2006	June 30, 2006	June 29, 2007
						(Unaudited)	(Unaudited)
(In thousands, except per share data)							
Sales	\$ 186,632	\$ 182,276	\$ 248,306	\$ 257,378	\$ 247,684	\$ 109,491	\$ 141,110
Operating profit	54,429	60,603	104,495	93,948	101,446	41,486	55,489
Operating loss from operations	(77,349)	(30,545)	1,436	(7,044)	(3,722)	(9,874)	(5,489)
Operating income (loss)	(76,918)	(29,433)	1,574	(5,731)	1,007	(8,051)	(7,489)
Operating income (loss) per share:							
	\$ (1.29)	\$ (0.47)	\$ 0.02	\$ (0.08)	\$ 0.01	\$ (0.11)	\$ (0.11)
Adjusted	\$ (1.29)	\$ (0.47)	\$ 0.02	\$ (0.08)	\$ 0.01	\$ (0.11)	\$ (0.11)

Consolidated Balance Sheet Data:	As of June 29, 2007	
	Actual	Adjusted
	(Unaudited, in thousands)	
Cash, cash equivalents and short-term investments	\$ 82,219	\$ 223,897
Working capital	119,794	261,472
Total assets	270,703	412,381
Long term debt, including current portion		
Total stockholders' equity	158,419	300,097

A \$1.00 increase or decrease in the assumed public offering price of \$11.62 per share would increase or decrease each of our as adjusted cash, cash equivalents and short-term investments, working capital, total assets, and total stockholders' equity by \$12.3 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus supplement, remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us.

Table of Contents

RISK FACTORS

You should carefully consider the following factors and other information in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference before deciding to invest in our common stock. You should also consider carefully the other information contained, or incorporated by reference, in this prospectus supplement or the accompanying prospectus. The actual results of our business could differ materially from those described as a result of the risks and uncertainties described below and elsewhere. In such case, the trading price of our common stock could decline, and you may lose all or part of your investment.

We depend on cable, satellite and telecom 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 operating results and financial condition and cash flows.

A significant portion of our sales have been derived from sales to cable television, satellite and telecommunications 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, telecommunications 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 consumer 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 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 and completed 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.

S-7

Table of Contents

The financial difficulties of certain of our customers and changes in our customers' deployment plans adversely affected our business in recent years. An economic downturn, tightening of credit, or other factors could also 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. 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, constrained capital spending among our customers. As a result, we cannot assure you that we will maintain or increase our net sales 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 U.S. 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, or a failure to diversify our customer base, could 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 the first six months of 2007 and the years 2006 and 2005 accounted for approximately 53%, 50% and 54% 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 2002, thereby creating the largest U.S. cable operator, reaching approximately 22 million subscribers. The sale of Adelphia Communications' cable systems to Comcast and Time Warner Cable has led to further industry consolidation. NTL and Telewest, the two largest cable operators in the UK, completed their merger in 2006. In the direct broadcast satellite, or DBS, market, The News Corporation Ltd. acquired an indirect controlling interest in Hughes Electronics, the parent company of DIRECTV, in 2003. News Corporation announced its intention to sell its interest in DIRECTV to Liberty Media in December 2006. In the telco market, AT&T completed its acquisition of Bell South.

In the first six months of 2007 and the years 2006 and 2005, sales to Comcast accounted for 19%, 12% and 18%, respectively, of our 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 2006 compared to 2005, 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.

In addition, historically we have been dependent upon capital spending in the cable and satellite industry. We are attempting to diversify our customer base beyond cable and satellite customers, principally into the telco market. Major telcos have begun to implement plans to rebuild or upgrade their networks to offer bundled video, voice and data services. While we have recently increased our revenue from telco customers, we are relatively new to this market. In order to be successful in this market, we may need to build alliances with telco equipment manufacturers, adapt our products for telco applications, take orders at prices resulting in lower margins, and build internal expertise to handle the particular contractual and technical demands of the telco industry. In addition, telco video deployments are subject to delays in completion, as video processing technologies and video business models are new to most telcos and many of their largest suppliers. Implementation issues with our products or those of other vendors have caused, and may continue to cause, delays in project completion for our customers and delay the recognition of revenue by Harmonic. As a result of these and other factors, we cannot assure you that we will be able to increase our revenues from the telco market, or that we can do so profitably, and any failure to increase revenues and profits from telco customers could adversely affect our business.

Table of Contents

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 timing of completion of projects;
- 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 products sold and the effect it has on gross margins;
- changes in our operating expenses and extraordinary expenses;
- impairment of goodwill and intangibles;
- the outcome of litigation;
- write-downs of inventory;

the impact of SFAS 123(R), an accounting standard which requires us to record the fair value of stock options as compensation expense;

changes in our tax rate, including as a result of changes in our valuation allowance against our deferred tax assets and our expectation that we would experience a substantial increase in our effective tax rate in periods following a potential release of our valuation allowance;

the impact of FIN 48, a recently adopted accounting interpretation which requires us to expense potential tax penalties and interest;

our development of custom products and software;

the level of international sales; and

economic and financial conditions specific to the cable, satellite and telco industries, and general economic conditions.

Table of Contents

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 a decrease in gross profit percentage in 2005, and lower than expected sales during the first and second quarters of 2006, 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.

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, HDTV, IPTV, mobile video services, very high-speed data services and voice-over-IP, or VoIP.

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

- new video compression standards such as MPEG-4 AVC/H.264 for both standard definition and high definition services;

- fiber to the premises, or FTTP, and digital subscriber line, or DSL, networks designed to facilitate the delivery of video services by telcos;

- the greater use of protocols such as IP;

- the adoption of switched digital video; and

- the introduction of new consumer devices, such as advanced set-top boxes and personal video recorders, or 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 service;

- the entry of telcos into the video business;

growth in HDTV, on-demand services and mobile video;

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

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, local franchising requirements for telcos to offer video, and new services such as VoIP.

S-10

Table of Contents

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.

We are currently developing and marketing products based on new video compression standards. Encoding products based on the MPEG-2 compression standards have represented a significant portion of our sales since our acquisition of DiviCom in 2000. New standards, such as MPEG-4 ACV/H.264 have been adopted which provide significantly greater compression efficiency, thereby making more bandwidth available to operators. The availability of more bandwidth is particularly important to those DBS and telco operators seeking to launch, or expand, HDTV services. We have developed and launched products, including HD encoders, based on these new standards in order to remain competitive and are devoting considerable resources to this effort. There can be no assurance that these efforts will be successful in the near future, or at all, or that competitors will not take significant market share in HD encoding. At the same time, we need to devote development resources to the existing MPEG-2 product line which our cable customers continue to require.

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 agreements 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.

Broadband communications markets are 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, telcos 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. Also, decisions by customers to adopt new technologies or products are often delayed by extensive evaluation and qualification processes and can result in delays in sales of current 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.

The markets in which we operate are intensely competitive.

The markets for digital video systems are extremely competitive and have been characterized by rapid technological change and declining average selling prices. Pressure on average selling prices was particularly severe during the most recent economic downturn as equipment suppliers competed aggressively for customers' reduced capital spending. Our competitors for fiber optic products include corporations such as Motorola, Cisco Systems and C-COR, which has recently agreed to be acquired by Arris. In our video processing and edge and access products, we compete broadly with products from vertically integrated system suppliers including Motorola, Cisco Systems, Thomson Multimedia and Tandberg Television, which was recently acquired by Ericsson, and, in certain product lines, with a number of smaller companies.

S-11

Table of Contents

Many of our competitors are substantially larger and have greater financial, technical, marketing and other resources than us. 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 may not be as susceptible to downturns in a particular market. These competitors may also be able to bundle their products together to meet the needs of a particular customer and may be capable of delivering more complete solutions than we are able to provide. Further, some of our competitors have greater financial resources than we do, and they have offered and in the future may offer their products at lower prices than we do, which has in the past and may in the future cause us to lose sales or to reduce our prices in response to competition. 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, which would 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, new standards for video compression are being introduced and products based on these standards are being developed by us and some of our competitors. If our competitors are successful in bringing these products to market earlier, or if these products are more technologically capable than ours, then our sales could be materially and adversely affected. 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.

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 nine 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 satellite and telco customers are particularly unpredictable. Orders may include multiple elements, the timing of delivery of which may impact the timing of revenue recognition. Additionally, our sales arrangements may include testing and acceptance of new technologies and the timing of completion of acceptance testing is difficult to predict and 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, and delays in the completion of certain projects underway with our international telco customers in the second quarter of 2006 resulted in lower revenue.

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 our customers, including equipment acquired from third parties to be integrated with our products. Revenue forecasts for solution contracts are based on the estimated timing of the system design, installation and integration of projects. Because solution contracts generally span several quarters and revenue

S-12

Table of Contents

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.

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 charges for excess and obsolete inventories.

In addition, we must carefully manage the introduction of next generation products in order to balance potential inventory risks associated with excess quantities of older product lines and forecasts of customer demand for new products. For example, in 2005, we wrote down approximately \$8.4 million for obsolete and excess inventory, with a major portion of the write-down being the result of product transitions in certain product lines. We also wrote down \$1.1 million in 2006 as a result of the end of life of a product line. There can be no assurance that we will be able to manage these product transitions in the future without incurring write-downs for excess inventory or having inadequate supplies of new products to meet customer expectations.

We may be subject to risks associated with acquisitions.

As part of our business strategy, from time to time, we have acquired, and continue to consider acquiring, businesses, technologies, assets and product lines that we believe complement or expand our existing business. For example, on December 8, 2006, we acquired the video networking software business of Entone Technologies, Inc. and, on July 31, 2007, we completed the acquisition of Rhozet Corporation, and we expect to make additional acquisitions in the future.

We may face challenges as a result of these activities, because acquisitions entail numerous risks, including:

- difficulties in the assimilation of acquired operations, technologies and/or products;
- unanticipated costs associated with the acquisition transaction;
- the diversion of management's attention from other business;
- difficulties in integrating acquired companies' systems controls, policies and procedures to comply with the internal control over financial reporting requirements of the Sarbanes-Oxley Act of 2002;
- adverse effects on existing business relationships with suppliers and customers;
- risks associated with entering markets in which we have no or limited prior experience;
- the potential loss of key employees of acquired businesses;
- difficulties in the assimilation of different corporate cultures and practices;
- substantial charges for the amortization of certain purchased intangible assets, deferred stock compensation or similar items;

substantial impairments to goodwill or intangible assets in the event that an acquisition proves to be less valuable than the price we paid for it; and

delays in realizing or failure to realize the benefits of an acquisition.

For example, we recently closed all operations and product lines related to Broadcast Technology Limited, which we acquired in 2005 and we have recorded charges associated with that closure.

S-13

Table of Contents

Competition within our industry for acquisitions of businesses, technologies, assets and product lines has been, and may in the future continue to be, intense. As such, even if we are able to identify an acquisition that we would like to consummate, we may not be able to complete the acquisition on commercially reasonable terms or because the target is acquired by another company. Furthermore, in the event that we are able to identify and consummate any future acquisitions, we could:

- issue equity securities which would dilute current stockholders' percentage ownership;
- incur substantial debt;
- assume contingent liabilities; or
- expend significant cash.

These financing activities or expenditures could harm our business, operating results and financial condition or the price of our common stock. Moreover, even if we do obtain benefits from acquisitions in the form of increased sales and earnings, there may be a delay between the time when the expenses associated with an acquisition are incurred and the time when we recognize such benefits. We expect to utilize at least some of the proceeds from this offering to acquire businesses, technologies, assets and products lines that we believe complement or expand our existing business, and our failure to apply these proceeds from this offering effectively could harm our business.

If we are unable to successfully address any of these risks, our business, financial condition or operating results could be harmed.

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

We maintain a facility in Caesarea in the State of Israel with a total of 70 employees as of June 29, 2007, or approximately 12% of our workforce. The employees at this facility consist principally of research and development personnel. 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. Any recurrence of the recent conflict in Israel and Lebanon could have a direct effect on our business or that of our Israeli subcontractors, in the form of physical damage or injury, reluctance to travel within or to Israel by our Israeli and foreign employees, or the loss of employees to active military duty. Most of our employees in Israel are currently obligated to perform annual reserve duty in the Israel Defense Forces and several have been called for active military duty recently. In the event that more employees are called to active duty, certain of our research and development activities may be adversely affected and significantly delayed. In addition, the interruption or curtailment of trade between Israel and its trading partners could significantly harm our business. Terrorist attacks and hostilities within Israel, the hostilities between Israel and Hezbollah, the election of Hamas representatives to a majority of the seats in the Palestinian Legislative Council and the recent conflict between Hamas and Fatah in Gaza have also heightened these risks. We cannot assure you that current or future tensions in the Middle East will not adversely affect our business and results of operations.

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 the first six months of 2007 and the years 2006 and 2005 represented 43%, 49% and 40% 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. 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;

S-14

Table of Contents

fluctuations in currency exchange rates;

difficulty in collecting accounts receivable;

potential tax issues;

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, including risks related to terrorist activity; and

changes in economic policies by foreign governments.

Certain of our international customers have accumulated significant levels of debt and have undertaken reorganizations and financial restructurings, including bankruptcy proceedings. 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. A significant 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 further develop in the future. Any or all of these factors could adversely impact our business and results of operations.

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

Changes in telecommunications legislation and 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. Local franchising and licensing requirements may slow the entry of telcos into the video business. 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.

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. For example, in May 2006 we announced that our then Chairman, President and Chief Executive Officer, Anthony J. Ley, had retired from his position as President and Chief Executive Officer effective immediately, and that he was being succeeded by our then Executive Vice President,

Patrick J. Harshman. In addition, in November 2006, we announced that our Senior Vice President of Operations and Quality, Israel Levi, retired from his position and was succeeded by Charles Bonasera as Vice President of Operations. We also recently announced the appointment of Matthew Aden as our new Vice President of Worldwide Sales and Service. We cannot assure you that changes of management personnel will not cause disruption to our operations or customer relationships, or a decline in our financial results.

In addition, 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

Table of Contents

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.

Accounting standards and stock exchange regulations related to equity compensation could adversely affect our earnings, our ability to raise capital and 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) issued SFAS 123(R) that requires us to record a charge to earnings for employee stock option grants and employee stock purchase plan rights for all periods from January 1, 2006. This standard has negatively impacted and will continue to negatively impact our earnings and may affect our ability to raise capital on acceptable terms. For the six months ended June 29, 2007, stock-based compensation expense recognized under SFAS 123(R) was \$2.8 million, which consisted of stock-based compensation expense related to employee and consultant equity awards and employee stock purchases.

In addition, regulations implemented by the Nasdaq Stock 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 accounting standards 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, SEC regulations and the Nasdaq Stock Market rules. Particularly, Section 404 of the Sarbanes-Oxley Act requires management's annual review and evaluation of our internal control over financial reporting and attestation of the effectiveness of our internal control over financial reporting by management and the Company's independent registered public accounting firm in connection with the filing of the annual report on Form 10-K for each fiscal year. 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 expenses. While our assessment of our internal control over financial reporting resulted in our conclusion that as of December 31, 2006, 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 control over financial reporting is 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. We have been engaged in the design, manufacture and sale of a variety of video products and system solutions since inception, which has required,

and will continue to require, significant research and development expenditures. As of June 29, 2007 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.

S-16

Table of Contents

We believe that our existing liquidity sources will satisfy our cash requirements for at least the next twelve months, including our contractual obligation to invest \$2.5 million in Entone's consumer premises equipment business, which was funded in July 2007, the payment of \$5.2 million as the cash portion of the Rhozet acquisition, of which \$2.0 million was paid in August 2007, and the final settlement and payment of C-Cube's pre-merger 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. In April 2005, we filed a registration statement on Form S-3 with the SEC. Pursuant to the registration statement on Form S-3 to which this prospectus supplement relates, and after giving effect to this offering, we are able to issue registered common stock, preferred stock, debt securities and warrants to purchase common stock from time to time, up to an aggregate of approximately \$50.1 million, based on an assumed public offering price of \$11.62 per share, or up to an aggregate of approximately \$27.6 million if the underwriters' overallotment option is exercised in full, subject to market conditions and our capital needs. Our ability to raise funds may be adversely affected by a number of factors relating to us, as well as factors beyond our control, including conditions in capital markets and the cable, satellite and telco industries. There can be no assurance that such financing will be available on terms acceptable to us, if at all.

In addition, we actively 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 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. For example, debt financing arrangements may require us to pledge assets or enter into covenants that could restrict our operations or our ability to incur further indebtedness. 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.

If demand for our products increases, the difficulty of accurately forecasting our customers' requirements and meeting these requirements will increase. For example, we had insufficient quantities of certain products to meet customer demand late in the second quarter of 2006 and, as a result, our revenues were lower than internal and external expectations. Forecasting to meet customers' needs and effectively managing our supply chain 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 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.

Table of Contents

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. For example, we depend on a small private company for certain video encoding chips which are incorporated into several new products. Our reliance on sole or limited suppliers, particularly foreign suppliers, and our increased 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 in the past been in short supply and are available only from a small number of suppliers, including sole source suppliers. While we expend resources to qualify additional component sources, consolidation of suppliers in the industry and the small number of viable alternatives have limited the results of these efforts. We do not generally maintain long-term agreements with any of our suppliers. Managing our supplier and contractor relationships is particularly difficult during time periods in which we introduce new products and during time periods in which demand for our products is increasing, especially if demand increases more quickly than we expect. Furthermore, from time to time we assess our relationship with our contract manufacturers. In 2003, we entered into a three-year agreement with Plexus Services Corp. as our primary contract manufacturer, and Plexus currently provides us with a substantial portion of the products that we purchase from our contract manufacturers. This agreement has automatic annual renewals unless prior notice is given and has been renewed until October 2008.

Difficulties in managing relationships with current contract manufacturers, particularly Plexus, could impede our ability to meet our customers' requirements and adversely affect our operating results. An inability to obtain adequate deliveries or any other circumstance that would require us to seek alternative sources of supply could negatively 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 certain components, subassemblies and modules. As a result of this investment in inventories, we have in the past and in the future may be subject to risk of excess and obsolete inventories, which could harm our business, operating results, financial position and liquidity. In this regard, our gross margins and operating results in the past were adversely affected by significant excess and obsolete inventory charges.

Cessation of the development and production of video encoding chips by C-Cube's spun-off semiconductor business may adversely impact us.

Our DiviCom business, which we acquired in 2000, and the C-Cube semiconductor business (acquired by LSI Logic in June 2001) collaborated on the production and development of two video encoding microelectronic chips prior to our acquisition of the DiviCom business. In connection with the acquisition, we have entered into a contractual relationship with the spun-off semiconductor business of C-Cube, under which we have access to certain of the spun-off semiconductor business technologies and products on which the DiviCom business depends for certain product and service offerings. The current term of this agreement is through October 2008, with automatic annual renewals unless terminated by either party in accordance with the agreement provisions. On July 27, 2007, LSI announced that it had completed the sale of its consumer products business (which includes the design and manufacture of encoding chips) to Magnum Semiconductor, and we expect, but cannot be certain, that the agreement providing us with access to certain of the spun-off semiconductor business technologies and products will be assigned to Magnum Semiconductor. If the spun-off semiconductor business is not able to or does not sustain its development and production efforts in this area, our business, financial condition, results of operations and cash flow could be harmed.

We need to effectively manage our operations and the cyclical nature of our business.

The cyclical nature of our business has placed, and is expected to continue to place, a significant strain on our personnel, management and other resources. We reduced our work force by approximately 44% between December 31, 2000 and December 31, 2003 due to reduced industry spending and demand for our products. If demand for products increases significantly, we may need to increase our headcount, as we did

S-18

Table of Contents

during 2004, adding 33 employees. In the first quarter of 2005, we added 42 employees in connection with our acquisition of BTL, and in connection with the consolidation of our two operating divisions in December 2005, we reduced our workforce by approximately 40 employees. Following the closure of our BTL operations in the first quarter of 2007, we reduced our headcount by 29 employees in the UK. Our purchase of the video networking software business of Entone in December 2006 resulted in the addition of 43 employees, most of whom are based in Hong Kong, and we added approximately 15 employees on July 31, 2007, in connection with the completion of our acquisition of Rhozet. Our ability to manage our business effectively in the future, including any future growth, will require us to train, motivate and manage our employees successfully, to attract and integrate new employees into our overall operations, to retain key employees and to continue to improve our operational, financial and management systems.

We are subject to various environmental laws and regulations that could impose substantial costs upon us and may adversely affect our business, operating results and financial condition.

Some of our operations use substances regulated under various federal, state, local and international laws governing the environment, including those governing the management, disposal and labeling of hazardous substances and wastes and the cleanup of contaminated sites. We could incur costs and fines, third-party property damage or personal injury claims, or could be required to incur substantial investigation or remediation costs, if we were to violate or become liable under environmental laws. The ultimate costs under environmental laws and the timing of these costs are difficult to predict.

We also face increasing complexity in our product design as we adjust to new and future requirements relating to the presence of certain substances in electronic products and making producers of those products financially responsible for the collection, treatment, recycling, and disposal of certain products. For example, the European Parliament and the Council of the European Union have enacted the Waste Electrical and Electronic Equipment (WEEE) directive, effective August 13, 2005, which regulates the collection, recovery, and recycling of waste from electrical and electronic products, and the Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) directive, effective July 1, 2006, which bans the use of certain hazardous materials including lead, mercury, cadmium, hexavalent chromium, and polybrominated biphenyls (PBBs), and polybrominated diphenyl ethers (PBDEs) that exceed certain specified levels. For some products, substituting particular components containing regulated hazardous substances is more difficult or costly and redesign efforts could result in production delays. Selected electronic products that we maintain in inventory may be rendered obsolete if not in compliance with the new environmental laws and we may have unfulfilled sales orders, which could negatively impact our ability to generate revenue from those products. Legislation similar to RoHS and WEEE has been or may be enacted in other jurisdictions, including in the United States, Japan, and China. Our failure to comply with these laws could result in our being directly or indirectly liable for costs, fines or penalties and third-party claims, and could jeopardize our ability to conduct business in such countries. We also expect that our operations will be affected by other new environmental laws and regulations on an ongoing basis. Although we cannot predict the ultimate impact of any such new laws and regulations, they will likely result in additional costs or decreased revenue, and could require that we redesign or change how we manufacture our products, any of which could have a material adverse effect on our business.

We are liable for C-Cube's pre-merger liabilities, including liabilities resulting from the spin-off of its semiconductor business.

Under the terms of the merger agreement with C-Cube, we are generally liable for C-Cube's pre-merger liabilities. As of June 29, 2007, approximately \$6.7 million of pre-merger liabilities remained outstanding and are included in accrued liabilities. We are working with LSI Logic, which acquired C-Cube's spun-off semiconductor business in June 2001 and assumed its obligations, to develop an approach to settle these obligations, a process which has been

underway since the merger in 2000. These liabilities represent estimates of C-Cube's pre-merger obligations to various authorities in nine countries. We paid \$2.4 million to satisfy a portion of this liability in January 2007, but are unable to predict when the remaining obligations will be paid. The full amount of the estimated obligations has been classified as a current liability. To the extent

S-19

Table of Contents

that these obligations are finally settled for less than the amounts provided, we are required, under the terms of the merger agreement, to refund the difference to LSI Logic. Conversely, if the settlements are more than the remaining \$6.7 million pre-merger liability, LSI Logic is obligated to reimburse us.

The merger agreement stipulates that we will be indemnified by the spun-off semiconductor business if the cash reserves are not sufficient to satisfy all of C-Cube's liabilities for periods prior to the merger. If for any reason, the spun-off semiconductor business does not have sufficient cash to pay such taxes, or if there are additional taxes due with respect to the non-semiconductor business and we cannot be indemnified by LSI Logic, we generally will remain liable, and such liability could have a material adverse effect on our financial condition, results of operations or cash flows.

We rely on value-added resellers and systems integrators for a substantial portion of our sales, and disruptions to, or our failure to develop and manage, our relationships with these customers and the processes and procedures that support them could adversely affect our business.

We generate a substantial portion of our sales through net sales to value-added resellers, or VARs, and systems integrators. We expect that these sales will continue to generate a substantial percentage of our net sales in the future. Our future success is highly dependent upon establishing and maintaining successful relationships with a variety of VARs and systems integrators that specialize in video delivery solutions, products and services.

We have no long-term contracts or minimum purchase commitments with any of our VAR or system integrator customers, and our contracts with these parties do not prohibit them from purchasing or offering products or services that compete with ours. Our competitors may be effective in providing incentives to our VAR and systems integrator customers to favor their products or to prevent or reduce sales of our products. Our VAR or systems integrator customers may choose not to purchase or offer our products. Our failure to establish and maintain successful relationships with VAR and systems integrator customers would likely materially and adversely affect our business, operating results and financial condition.

Our failure to adequately protect our proprietary rights may adversely affect us.

We currently hold 39 issued U.S. patents and 19 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 patents and patent applications are not currently significant to our business, and investors therefore should not rely on our patent portfolio to give us a competitive advantage over others in our industry. We believe that the future success of our business will depend on our ability to translate the technological expertise and innovation of our personnel into new and enhanced products. We generally enter into confidentiality or license agreements with our employees, consultants, vendors and customers as needed, and generally limit access to and distribution of our proprietary information. Nevertheless, we cannot assure you that the steps taken by us will prevent misappropriation of our technology. In addition, we have taken in the past, and may take in the future, legal action to enforce our patents and other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the

proprietary rights of others, or to defend against claims of infringement or invalidity. Such litigation could result in substantial costs and diversion of resources and could negatively affect our business, operating results, financial position or cash flows.

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

S-20

Table of Contents

many companies are often willing to enter into 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 or desirable, could limit our ability to develop and market new products and could cause our business to suffer.

Our products include third-party technology and intellectual property, and our inability to use that technology in the future could harm our business.

We incorporate certain third-party technologies, including software programs, into our products, and intend to utilize additional third-party technologies in the future. Licenses to relevant third-party technologies or updates to those technologies may not continue to be available to us on commercially reasonable terms, or at all. In addition, the technologies that we license may not operate properly and we may not be able to secure alternatives in a timely manner, which could harm our business. We could face delays in product releases until alternative technology can be identified, licensed or developed, and integrated into our products, if we are able to do so at all. These delays, or a failure to secure or develop adequate technology, could materially and adversely affect our business.

We or our customers may face intellectual property infringement claims from third parties.

Our industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. In particular, leading companies in the telecommunications industry have extensive patent portfolios. From time to time, third parties have asserted and may assert patent, copyright, trademark and other intellectual property rights against us or our customers. Our suppliers and customers may have similar claims asserted against them. A number of third parties, including companies with greater financial and other resources than us, have asserted patent rights to technologies that are important to us. Any future litigation, regardless of its outcome, could result in substantial expense and significant diversion of the efforts of our management and technical personnel. An adverse determination in any such proceeding could subject us to significant liabilities, temporary or permanent injunctions or require us to seek licenses from third parties or pay royalties that may be substantial. Furthermore, necessary licenses may not be available on satisfactory terms, or at all.

On July 3, 2003, Stanford University and Litton Systems filed a complaint in U.S. District Court for the Central District of California alleging that optical fiber amplifiers incorporated into certain of our products infringe U.S. Patent No. 4859016. This patent expired in September 2003. The complaint sought injunctive relief, royalties and damages. On August 6, 2007, the District Court granted our motion to dismiss. The plaintiffs have appealed this motion. At this time, we are unable to determine whether we will be able to settle this litigation on reasonable terms or at all, nor can we predict the impact of an adverse outcome of this litigation if we elect to defend against it. No estimate can be made of the possible range of loss associated with the resolution of this contingency and accordingly, we have not recorded a liability associated with the outcome of a negotiated settlement or an unfavorable verdict in litigation. A settlement or an unfavorable outcome of this matter could have a material adverse effect on our business, operating results, financial position or cash flows.

Our suppliers and customers may receive similar claims. We have agreed to indemnify some of our suppliers and customers for alleged patent infringement. The scope of this indemnity varies, but, in some instances, includes indemnification for damages and expenses (including reasonable attorney's fees).

We are the subject of securities class action claims and other litigation which, if adversely determined, could harm our business and operating results.

Between June 28, 2000 and August 25, 2000, several actions alleging violations of the federal securities laws by us and certain of our officers and directors (some of whom are no longer with us) were filed in or removed to the United

States District Court for the Northern District of California. The actions subsequently were consolidated.

A consolidated complaint, filed on December 7, 2000, was brought on behalf of a purported class of persons who purchased our publicly traded securities between January 19, 2000 and June 26, 2000. The

S-21

Table of Contents

complaint also alleged claims on behalf of a purported subclass of persons who purchased C-Cube securities between January 19, 2000 and May 3, 2000. In addition to us and certain of our officers and directors, the complaint also named C-Cube Microsystems Inc. and several of its officers and directors as defendants. The complaint alleged that, by making false or misleading statements regarding our prospects and customers and its acquisition of C-Cube, certain defendants violated Sections 10(b) and 20(a) of the Securities Exchange Act. The complaint also alleged that certain defendants violated Section 14(a) of the Exchange Act and Sections 11, 12(a)(2), and 15 of the Securities Act by filing a false or misleading registration statement, prospectus and joint proxy in connection with the C-Cube acquisition.

On July 3, 2001, the District Court dismissed the consolidated complaint with leave to amend. An amended complaint alleging the same claims against the same defendants was filed on August 13, 2001. Defendants moved to dismiss the amended complaint on September 24, 2001. On November 13, 2002, the District Court issued an opinion granting the motions to dismiss the amended complaint without leave to amend. Judgment for defendants was entered on December 2, 2002. On December 12, 2002, plaintiffs filed a motion to amend the judgment and for leave to file an amended complaint pursuant to Rules 59(e) and 15(a) of the Federal Rules of Civil Procedure. On June 6, 2003, the District Court denied plaintiffs' motion to amend the judgment and for leave to file an amended complaint. Plaintiffs filed a notice of appeal on July 1, 2003. The appeal was heard by a panel of three judges of the United States Court of Appeals for the Ninth Circuit on February 17, 2005.

On November 8, 2005, the Ninth Circuit panel affirmed in part, reversed in part, and remanded for further proceedings the decision of the District Court. The Ninth Circuit affirmed the District Court's dismissal of the plaintiffs' fraud claims under Sections 10(b), 14(a), and 20(a) of the Exchange Act with prejudice, finding that the plaintiffs failed to adequately plead their allegations of fraud. The Ninth Circuit reversed the District Court's dismissal of the plaintiffs' claims under Sections 11 and 12(a)(2) of the Securities Act, however, finding that because those claims did not allege fraud, they met the applicable pleading requirements. Regarding the secondary liability claim under Section 15 of the Securities Act, the Ninth Circuit reversed the dismissal of that claim against Anthony J. Ley, our Chairman and former Chief Executive Officer, and affirmed the dismissal of that claim against us, while granting leave to amend. The Ninth Circuit remanded the surviving claims to the District Court for further proceedings.

On November 22, 2005, both the defendants and the plaintiffs petitioned the Ninth Circuit for a rehearing of the appeal. On February 16, 2006 the Ninth Circuit denied both petitions. On May 17, 2006 the plaintiffs filed an amended complaint on the issues remanded for further proceedings by the Ninth Circuit, to which the defendants affiliated with Harmonic responded with a motion to dismiss certain claims and to strike certain allegations. On December 11, 2006, the Court granted the motion to dismiss with respect to the Section 12(a)(2) claim against the individual director and officer defendants affiliated with Harmonic and granted the motion to strike, but denied the motion to dismiss the Section 15 claim. A case management conference was held on January 25, 2007, at which the Court set a trial date in August 2008, with discovery to close in February 2008. The Court also ordered the parties to attend a settlement conference with a magistrate judge or a private mediation before June 30, 2007. A mediation session was held on May 24, 2007 at which the parties were unable to reach a settlement.

A derivative action purporting to be on our behalf was filed against its then-current directors in the Superior Court for the County of Santa Clara on September 5, 2000. We were also named as a nominal defendant. The complaint is based on allegations similar to those found in the securities class action and claims that the defendants breached their fiduciary duties by, among other things, causing us to violate federal securities laws. The derivative action was removed to the United States District Court for the Northern District of California on September 20, 2000. All deadlines in this action were stayed pending resolution of the motions to dismiss the securities class action. On July 29, 2003, the Court approved the parties' stipulation to dismiss this derivative action without prejudice and to toll the applicable limitations period pending the Ninth Circuit's decision in the securities action. Pursuant to the stipulation, defendants have provided plaintiff with a copy of the mandate issued by the Ninth Circuit in the securities action.

Table of Contents

A second derivative action purporting to be on our behalf was filed in the Superior Court for the County of Santa Clara on May 15, 2003. It alleges facts similar to those previously alleged in the securities class action and the federal derivative action. The complaint names as defendants our former and current officers and directors, along with former officers and directors of C-Cube Microsystems, Inc., who were named in the securities class action. The complaint also names us as a nominal defendant. The complaint alleges claims for abuse of control, gross mismanagement, and waste of corporate assets against the defendants affiliated with Harmonic, and claims for breach of fiduciary duty, unjust enrichment, and negligent misrepresentation against all defendants. On July 22, 2003, the Court approved the parties' stipulation to stay the case pending resolution of the appeal in the securities class action. Following the decision of the Ninth Circuit discussed above, on May 9, 2006, defendants filed demurrers to this complaint. The plaintiffs then filed an amended complaint on July 10, 2006, which names only the defendants affiliated with Harmonic. The defendants filed demurrers to the amended complaint and the parties have stipulated to several continuances of the hearing on the demurrers, which currently is set for December 14, 2007.

On July 3, 2003, Stanford University and Litton Systems filed a complaint in U.S. District Court for the Central District of California alleging that optical fiber amplifiers incorporated into certain of our products infringe U.S. Patent No. 4859016. This patent expired in September 2003. The complaint sought injunctive relief, royalties and damages. On August 6, 2007, the District Court granted our motion to dismiss. The plaintiffs have appealed this motion.

An unfavorable outcome of any of these litigation matters could require that we pay substantial damages, or, in connection with any intellectual property infringement claims, could require that we pay ongoing royalty payments or could prevent us from selling certain of our products. In addition, we may decide to settle any litigation, which could cause us to incur significant costs. A settlement or an unfavorable outcome of these litigation matters could have a material adverse effect on our business, operating results, financial position or cash flows.

We are subject to import and export controls that could subject us to liability or impair our ability to compete in international markets.

Our products are subject to U.S. export controls and may be exported outside the United States only with the required level of export license or through an export license exception, in most cases because we incorporate encryption technology into our products. In addition, various countries regulate the import of certain technology and have enacted laws that could limit our ability to distribute our products or could limit our customers' ability to implement our products in those countries. Changes in our products or changes in export and import regulations may create delays in the introduction of our products in international markets, prevent our customers with international operations from deploying our products throughout their global systems or, in some cases, prevent the export or import of our products to certain countries altogether. Any change in export or import regulations or related legislation, shift in approach to the enforcement or scope of existing regulations, or change in the countries, persons or technologies targeted by such regulations, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential customers internationally.

In addition, we may be subject to customs duties and export quotas, which could have a significant impact on our revenue and profitability. While we have not encountered significant difficulties in connection with the sales of our products in international markets, the future imposition of significant increases in the level of customs duties or export quotas could have a material adverse effect on our business.

The terrorist attacks of 2001 and the ongoing threat of terrorism have created great uncertainty and may continue to harm our business.

Current conditions in the U.S. and global economies are uncertain. The terrorist attacks in the U.S. in 2001 and subsequent terrorist attacks in other parts of the world have created many economic and political uncertainties that have severely impacted the global economy, and have adversely affected our business. For example, following the 2001 terrorist attacks in the U.S., we experienced a further decline in demand for our

S-23

Table of Contents

products. The long-term effects of the attacks, the situation in Iraq and the ongoing war on terrorism on our business and on the global economy remain unknown. Moreover, the potential for future terrorist attacks has created additional uncertainty and makes it difficult to estimate the stability and strength of the U.S. and other economies and the impact of economic conditions on our business.

We rely on a continuous power supply to conduct our operations, and any electrical and natural gas crisis could disrupt our operations and increase our expenses.

We rely on a continuous power supply for manufacturing and to conduct our business operations. Interruptions in electrical power supplies in California in the early part of 2001 could recur in the future. In addition, the cost of electricity and natural gas has risen significantly. Power outages could disrupt our manufacturing and business operations and those of many of our suppliers, and could cause us to fail to meet production schedules and commitments to customers and other third parties. Any disruption to our operations or those of our suppliers could result in damage to our current and prospective business relationships and could result in lost revenue and additional expenses, thereby harming our business and operating results.

The markets in which we, our customers and our suppliers operate are subject to the risk of earthquakes and other natural disasters.

Our headquarters and the majority of our operations are located in California, which is prone to earthquakes, and some of the other locations in which we, our customers and suppliers conduct business are prone to natural disasters. In the event that any of our business centers are affected by any such disasters, we may sustain damage to our operations and properties and suffer significant financial losses. Furthermore, we rely on third-party manufacturers for the production of many of our products, and any disruption in the business or operations of such manufacturers could adversely impact our business. In addition, if there is a major earthquake or other natural disaster in any of the locations in which our significant customers are located, we face the risk that our customers may incur losses, or sustained business interruption and/or loss which may materially impair their ability to continue their purchase of products from us. A major earthquake or other natural disaster in the markets in which we, our customers or suppliers operate could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Some anti-takeover provisions contained in our certificate of incorporation, bylaws and stockholder rights plan, as well as provisions of Delaware law, could impair a takeover attempt.

We have provisions in our certificate of incorporation and bylaws, each of which could have the effect of rendering more difficult or discouraging an acquisition deemed undesirable by our Board of Directors. These include provisions:

authorizing blank check preferred stock, which could be issued with voting, liquidation, dividend and other rights superior to our common stock;

limiting the liability of, and providing indemnification to, our directors and officers;

limiting the ability of our stockholders to call and bring business before special meetings;

requiring advance notice of stockholder proposals for business to be conducted at meetings of our stockholders and for nominations of candidates for election to our Board of Directors;

controlling the procedures for conduct and scheduling of Board and stockholder meetings; and

providing the Board of Directors with the express power to postpone previously scheduled annual meetings and to cancel previously scheduled special meetings.

These provisions, alone or together, could delay hostile takeovers and changes in control or management of us.

In addition, we have adopted a stockholder rights plan. The rights are not intended to prevent a takeover of us, and we believe these rights will help our negotiations with any potential acquirers. However, if

S-24

Table of Contents

the Board of Directors believes that a particular acquisition is undesirable, the rights may have the effect of rendering more difficult or discouraging that acquisition. The rights would cause substantial dilution to a person or group that attempts to acquire us on terms or in a manner not approved by our Board of Directors, except pursuant to an offer conditioned upon redemption of the rights.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation law, which prevents some stockholders holding more than 15% of our outstanding common stock from engaging in certain business combinations without approval of the holders of substantially all of our outstanding common stock.

Any provision of our certificate of incorporation or bylaws, our stockholder rights plan or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

Our common stock price may be extremely volatile, and the value of your investment may decline.

Our common stock price has been highly volatile. We expect that this volatility will continue in the future due to factors such as:

general market and economic conditions;

actual or anticipated variations in operating results;

announcements of technological innovations, new products or new services by us or by our competitors or customers;

changes in financial estimates or recommendations by stock market analysts regarding us or our competitors;

announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;

announcements by our customers regarding end market conditions and the status of existing and future infrastructure network deployments;

additions or departures of key personnel; and

future equity or debt offerings or our announcements of these offerings.

In addition, in recent years, the stock market in general, and the Nasdaq Stock Market and the securities of technology companies in particular, have experienced extreme price and volume fluctuations. These fluctuations have often been unrelated or disproportionate to the operating performance of individual companies. These broad market fluctuations have in the past and may in the future materially and adversely affect our stock price, regardless of our operating results. In the event our stock price declines, you may be unable to sell your shares at or above the public offering price.

Our stock price may decline if additional shares are sold in the market after the offering.

Future sales of substantial amounts of shares of our common stock by our existing stockholders in the public market, or the perception that these sales could occur, may cause the market price of our common stock to decline. For example, we are contractually obligated to register with the SEC approximately 1.1 million shares of our common stock for resale by stockholders who acquired our shares in connection with our purchase of Rhomet Corporation. In addition, our executive officers and directors have entered into lock-up agreements with the underwriters, pursuant to which they have agreed not to sell shares of our common stock for a period of 90 days after the date of this prospectus supplement. One of our executive officers and one of our directors are permitted to sell, in the aggregate, up to 125,000 shares of our common stock under the terms of their lock-up agreements. In addition, we may be required to issue additional shares upon exercise of previously granted options that are currently outstanding. Increased sales of our common stock in the market

S-25

Table of Contents

after exercise of currently outstanding options could exert significant downward pressure on our stock price. These sales also might make it more difficult for us to sell equity or equity-related securities in the future at a time and price we deem appropriate.

If securities analysts do not continue to publish research or reports about our business, or if they downgrade our stock, the price of our stock could decline.

The trading market for our common stock relies in part on the availability of research and reports that third-party industry or financial analysts publish about us. Further, if one or more of the analysts who do cover us downgrade our stock, our stock price may decline. If one or more of these analysts cease coverage of us, we could lose visibility in the market, which in turn could cause the liquidity of our stock and our stock price to decline.

We have broad discretion in the use of the net proceeds from this offering.

We expect to use the net proceeds from this offering for possible acquisitions of businesses, technologies, assets and product lines that we believe complement or expand our existing business, and may also use the net proceeds from this offering for working capital and general corporate purposes. However, we cannot specify with certainty the particular uses of the net proceeds we will receive from this offering. Our management will have broad discretion in the application of the net proceeds. Accordingly, you will have to rely upon the judgment of our management with respect to the use of the proceeds, with only limited information concerning management's specific intentions. Our management may spend a portion or all of the net proceeds from this offering in ways that our stockholders may not desire or that may not yield a favorable return. The failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

Table of Contents

FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, as amended. Words such as anticipates, expects, intends, may, will, should, potential, continue, further, plans, believes, seeks, estimates, variations of such words and similar expressions are intended to identify such forward-looking statements. In addition, forward-looking statements include, but are not limited to, statements about:

the trends in our business and the industry in which we operate;

our expectation that the majority of our net sales will continue to be to relatively few customers and that international sales will continue to account for a significant portion of our net sales for the foreseeable future;

our expectation that sales to VARs and system integrators will continue to generate a substantial portion of our revenue;

our expectation that sales to cable television, satellite and telco operators will constitute a significant portion of net sales for the foreseeable future;

our plans for future products;

our existing and new customer relationships;

our expectations regarding the expansion of our sales and marketing efforts;

our plans for future acquisitions;

our belief that our existing liquidity sources will satisfy our cash requirements for at least the next twelve months;

our expectation that operating results are likely to fluctuate in the future;

our expectation that our operations will be affected by new environmental laws and regulations on an ongoing basis; and

our expectation regarding the use of the net proceeds from this offering.

These statements are not guarantees of future performance and are subject to certain risks, uncertainties and assumptions that are difficult to predict. Therefore, actual results could differ materially from those expressed or forecasted in any such forward-looking statements as a result of certain factors, including those set forth in Risk Factors, as well as those noted in similar sections of the documents incorporated herein by reference. Investors should carefully review the factors set forth in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference under Risk Factors.

Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or

the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Before investing in our common stock, investors should be aware that the occurrence of the risks, uncertainties and events described in the section entitled "Risk Factors" and other similar statements contained elsewhere in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference, could have a material adverse effect on our business, results of operations and financial condition.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations.

S-27

Table of Contents

USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately \$141.7 million from the sale of 12,900,000 shares of our common stock offered by us in this offering at an assumed public offering price of \$11.62 per share, after deducting the estimated underwriting discount and estimated offering expenses payable by us (or \$163.0 million if the underwriters' overallotment option is exercised in full). A \$1.00 increase or decrease in the assumed public offering price of \$11.62 per share would increase or decrease the estimated net proceeds to us from this offering by \$12.3 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus supplement, remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us.

The principal purpose of this offering is to obtain additional capital for possible acquisitions of businesses, technologies, assets and product lines that we believe complement or expand our existing business. We have no current agreements or commitments with respect to any material acquisitions.

In addition, we may use the net proceeds from this offering for working capital and other general corporate purposes. Accordingly, management will have broad discretion as to the application of the offering proceeds.

We currently have no specific plans for the use of the net proceeds to us from this offering. The amounts and timing of our actual expenditures will depend on numerous factors, including the amount of cash used in or generated by our operations, sales and marketing activities and competitive pressures. We therefore cannot estimate the amount of the net proceeds to be used for any of the purposes described above.

Pending the uses described above, we intend to invest the net proceeds from the sale of shares of our common stock sold by us in this offering in short-term, interest bearing, investment grade securities. We cannot predict whether the net proceeds will yield a favorable return.

Table of Contents**PRICE RANGE OF COMMON STOCK**

Our common stock trades on the Nasdaq Global Market under the symbol HLIT. The following table sets forth the quarterly range of high and low reported sale prices of our common stock on the Nasdaq Global Market for the periods indicated:

	High	Low
Year ending December 31, 2007		
Fourth Quarter (through October 22)	\$ 12.06	\$ 10.53
Third Quarter	\$ 10.86	\$ 7.76
Second Quarter	\$ 11.18	\$ 7.94
First Quarter	\$ 11.07	\$ 7.04
Year ended December 31, 2006		
Fourth Quarter	\$ 8.67	\$ 6.92
Third Quarter	\$ 7.75	\$ 3.90
Second Quarter	\$ 6.85	\$ 3.79
First Quarter	\$ 6.95	\$ 4.78
Year ended December 31, 2005		
Fourth Quarter	\$ 5.98	\$ 4.08
Third Quarter	\$ 6.21	\$ 4.81
Second Quarter	\$ 9.98	\$ 4.25
First Quarter	\$ 12.40	\$ 7.22

On October 22, 2007, the last reported sale price of the common stock as reported on the Nasdaq Global Market was \$11.62 per share. As of October 18, 2007, there were approximately 437 record holders of our common stock.

DIVIDEND POLICY

We have not paid dividends on our common stock. We currently do not intend to pay dividends and intend to retain any earnings for use in our business and the financing of our capital requirements for the foreseeable future. Our bank line of credit facility with Silicon Valley Bank includes covenants prohibiting the payment of dividends. The payment of any future cash dividends on our common stock will necessarily be dependent upon our earnings and financial needs, along with applicable legal and contractual restrictions.

Table of Contents**CAPITALIZATION**

The following table sets forth our capitalization as of June 29, 2007:

on an actual basis; and

on an adjusted basis giving effect to our sale of the common stock in this offering at an assumed public offering price of \$11.62 per share, after deducting the estimated underwriting discount and estimated offering expenses payable by us.

This table should be read in conjunction with Management's discussion and analysis of financial condition and results of operations and our consolidated financial statements and the related notes incorporated herein by reference.

	As of June 29, 2007	
	Actual	As adjusted
	(Unaudited, in thousands, except par value)	
Cash, cash equivalents and short-term investments	\$ 82,219	\$ 223,897
Long-term debt, including current portion		
Stockholders' equity:		
Preferred stock (\$0.001 par value, 5,000 shares authorized; no shares issued or outstanding)		
Common stock (\$0.001 par value, 150,000 shares authorized; 79,410 shares issued and outstanding, actual; 92,310 shares issued and outstanding, as adjusted)	79	92
Capital in excess of par value	2,086,992	2,228,657
Accumulated deficit	(1,928,442)	(1,928,442)
Accumulated other comprehensive loss	(210)	(210)
Total stockholders' equity	158,419	300,097
Total capitalization	\$ 158,419	\$ 300,097

A \$1.00 increase or decrease in the assumed public offering price of \$11.62 per share would increase or decrease each of as adjusted cash, cash equivalents and short-term investments, capital in excess of par value, total stockholders equity, and total capitalization by \$12.3 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus supplement, remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us.

The table above excludes:

10,125,256 shares of common stock issuable upon exercise of outstanding options as of June 29, 2007 granted under our stock option plans, with a weighted average exercise price of \$11.12 per share;

Edgar Filing: HARMONIC INC - Form 424B5

4,204,609 additional shares of common stock available for future issuance under our stock option and employee stock purchase plans as of June 29, 2007, of which 544,810 shares of common stock or options to purchase shares of common stock were issued between June 30, 2007 and October 22, 2007;

1,105,656 shares of common stock that have been issued or may in the future be issued to former shareholders of Rhozet in connection with the acquisition; and

1,935,000 shares of common stock issuable upon exercise of the underwriters' over-allotment option.

S-30

Table of Contents**DILUTION**

The net tangible book value of our common stock on June 29, 2007 was approximately \$106.7 million, or \$1.34 per share. Net tangible book value per share is equal to the amount of our total tangible assets, less total liabilities, divided by the number of our shares of our common stock outstanding. Dilution in net tangible book value per share represents the difference between the amount per share paid by the purchasers of shares of our common stock in this offering and the net tangible book value per share of our common stock immediately afterwards. After giving effect to our sale of the 12,900,000 shares of common stock we are offering through this prospectus supplement at an assumed public offering price of \$11.62 per share, and after deducting the estimated underwriting discount and estimated offering expenses payable by us, our net tangible book value as of June 29, 2007 would have been approximately \$248.4 million, or \$2.69 per share. This represents an immediate increase in net tangible book value of \$1.35 per share to existing stockholders and an immediate dilution of \$8.93 per share to new investors purchasing our common stock in this offering. The following table illustrates this dilution:

Assumed public offering price per share		\$ 11.62
Net tangible book value per share as of June 29, 2007	\$ 1.34	
Increase per share attributable to new investors	\$ 1.35	
Net tangible book value per share after this offering		\$ 2.69
Dilution per share to new investors		\$ 8.93

If the underwriters exercise their overallotment option in full, our net tangible book value per share after this offering would increase to \$2.86, which represents an increase in the net tangible book value of \$1.52 per share to our existing stockholders and an immediate dilution in net tangible book value of \$8.76 per share to new investors purchasing shares of common stock in this offering.

A \$1.00 increase or decrease in the assumed public offering price of \$11.62 per share would increase or decrease our net tangible book value after this offering by \$12.3 million, our net tangible book value per share after this offering by \$0.13 per share, and the dilution per share to new investors by \$0.87 per share, assuming the number of shares offered by us, as set forth on the cover page of this prospectus supplement, remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us.

The foregoing table does not take into effect further dilution to new investors that could occur upon the exercise of outstanding options and excludes:

10,125,256 shares of our common stock issuable upon exercise of outstanding options as of June 29, 2007 granted under our stock option plans, with a weighted average exercise price of \$11.12 per share;

4,204,609 additional shares of common stock available for future issuance under our stock option and employee stock purchase plans as of June 29, 2007, of which 544,810 shares of common stock or options to purchase shares of common stock were issued between June 30, 2007 and October 22, 2007; and

1,105,656 shares of common stock that have been issued or may in the future be issued to former shareholders of Rhomet in connection with the acquisition.

Table of Contents**MANAGEMENT**

The following table sets forth certain information regarding our executive officers and directors and their ages as of October 1, 2007:

Name	Age	Position
Patrick Harshman	42	President and Chief Executive Officer, Director
Robin N. Dickson	60	Chief Financial Officer
Nimrod Ben-Natan	39	Vice President, Product Marketing, Solutions & Strategy
Charles J. Bonasera	50	Vice President, Operations
Neven Haltmayer	42	Vice President, Research & Development
Anthony J. Ley	69	Chairman of the Board of Directors
Harold Covert	60	Director
Patrick Gallagher	52	Director
E. Floyd Kvamme	69	Director
William F. Reddersen	60	Director
Lewis Solomon	74	Director
David R. Van Valkenburg	65	Director

Patrick Harshman joined us in 1993 and was appointed President and Chief Executive Officer in May 2006. In December 2005, he was appointed Executive Vice President responsible for the majority of our operational functions, including the unified digital video and broadband optical networking divisions as well as global manufacturing. Prior to the consolidation of our product divisions, Dr. Harshman held the position of President of the Convergent Systems division and, for more than four years, was President of the Broadband Access Networks division. Prior to this, Dr. Harshman held key leadership positions in marketing, international sales, and research and development. Dr. Harshman earned a Ph.D. in Electrical Engineering from the University of California, Berkeley and completed an Executive Management Program at Stanford University.

Robin N. Dickson joined us in 1992 as Chief Financial Officer. From 1989 to March 1992, Mr. Dickson was Corporate Controller of Vitelec Corporation, a semiconductor manufacturer. From 1976 to 1989, Mr. Dickson held various positions at Raychem Corporation, a materials science company, including regional financial officer of the Asia-Pacific Division of the International Group. Mr. Dickson holds a Bachelor of Laws from the University of Edinburgh and is a member of the Institute of Chartered Accountants of Scotland.

Nimrod Ben-Natan joined us in 1997 and was appointed Vice President of Product Marketing, Solutions and Strategy in 2007. Mr. Ben-Natan initially joined us as a software engineer to design and develop our first-generation video transmission platform, and in 2000, transitioned to product marketing, solutions and strategy to develop the digital video cable segment. From 1993 to 1997, Mr. Ben-Natan was employed at Orckit Communications Ltd., a digital subscriber line developer. Previously, Mr. Ben-Natan worked on wireless communications systems while with the Israeli Defense Signal Corps. Mr. Ben-Natan holds a B.A. in Computer Science from Tel Aviv University.

Charles J. Bonasera joined us in November 2006 as Vice President, Operations. From 2005 to 2006, Mr. Bonasera was Senior Director-Global Sourcing at Solectron Corporation, a global provider of electronics manufacturing services and supply chain solutions. From 1999 to 2005, Mr. Bonasera held various key positions in outsourcing strategies, commodity management, supply management and supply chain development at Sun Microsystems, Inc.

Neven Haltmayer joined us in December 2002 and was appointed Vice President, Research and Development in November 2005. Prior to November 2005, Mr. Haltmayer was Director of Engineering of Compression Systems and managed the development of Harmonic's MPEG-2 and MPEG-4 AVC/H.264 encoder and DiviCom Electra product lines. Between 2001 to 2002, Mr. Haltmayer held various key positions including Vice President of Engineering and was responsible for system integration and development of set top box middleware and interactive applications while at Canal Plus Technologies. Mr. Haltmayer holds a B.S. in Electrical Engineering from the University of Zagreb, Croatia.

S-32

Table of Contents

Anthony J. Ley was elected Chairman of the Board of Directors in February 1995. Prior to his retirement, he served as Harmonic's President and Chief Executive Officer from November 1988 to May 2006. From 1963 to 1987, Mr. Ley was employed at Schlumberger Limited, both in Europe and the United States, holding various senior business management and research and development positions, most recently as Vice President, Research and Engineering at Fairchild Semiconductor/Schlumberger in Palo Alto, California. Mr. Ley holds an M.A. in Mechanical Sciences from the University of Cambridge and an S.M.E.E. from the Massachusetts Institute of Technology, is named as an inventor on 29 patents and is a Fellow of the I.E.E. (U.K.) and a senior member of the I.E.E.E.

Harold Covert has been a director since June 2007. Since October 2007, Mr. Covert has served as Chief Financial Officer of Silicon Image, Inc., a semiconductor company. From 2005 to 2007, Mr. Covert was Executive Vice President and Chief Financial Officer of Openwave Systems Inc., a software applications and infrastructure company. Prior to Openwave, Mr. Covert was Chief Financial Officer at Extreme Networks, Inc. and Silicon Graphics, Inc., as well as at Adobe Systems Incorporated. He is a Director and Chairman of the Audit Committee at both JDS Uniphase Corporation and Thermage, Inc. He holds a B.S. in Business Administration from Lake Erie College and an M.B.A. from Cleveland State University and is also a Certified Public Accountant.

Patrick Gallagher has been a director since October 2007. From 2003 to 2006, Mr. Gallagher served as Co/Vice Chairman and Chief Executive Officer at FLAG Telecom, an international network transport and data services provider. From 1985 to 2002, Mr. Gallagher held senior management positions at British Telecommunications Plc, including as Group Director of Strategy & Development, President of BT Europe and a member of the BT Executive Committee. Mr. Gallagher serves on the board of Getronics NV, a provider of information and communication technology services and solutions, and Golden Telecom, Inc., a provider of integrated telecommunications and Internet services.

E. Floyd Kvamme has been a director since 1990. Since 1984, Mr. Kvamme has been a General Partner and now serves as a Partner Emeritus of Kleiner Perkins Caufield & Byers, a venture capital firm. Mr. Kvamme is also a director of National Semiconductor Corporation and Power Integrations, Inc., as well as several private companies. Mr. Kvamme holds a B.S.E.E. from the University of California, Berkeley and an M.S.E. from Syracuse University.

William F. Reddersen has been a director since July 2002. Now retired, Mr. Reddersen spent 31 years at BellSouth Corp. and AT&T Inc. From 1998 to 2000, Mr. Reddersen was Executive Vice President of Corporate Strategy at BellSouth, and from 1991 to 1998, he was responsible for BellSouth's broadband strategy and business market operations. Mr. Reddersen serves as on the board of several private companies. He holds a B.S. in Mathematics from the University of Maryland and an M.S. in Management from the Massachusetts Institute of Technology, where he was a Sloan fellow.

Lewis Solomon has been a director since January 2002. He is Co-Founder and Chairman of G&L Investments, a consulting firm specializing in technology. Mr. Solomon also co-founded and was Chief Executive Officer of Broadband Services, Inc. (BSI), an outsource provider of supply chain management, network planning, and fulfillment services from 1999 to 2004. From 1983 to 1988, he served as the Executive Vice President of Alan Patricof Associates, a global venture capital firm. Mr. Solomon also spent 14 years at General Instrument Corporation, ultimately as Senior Vice President and Assistant to the Chief Executive Officer. Mr. Solomon is a director of Anadigics Inc., Artesyn Technologies Inc. and several private companies.

David R. Van Valkenburg has been a director since October 2001. Mr. Van Valkenburg currently serves as Chairman of Balfour Associates, Inc., a firm providing counsel to chief executive officers, boards of directors and private equity funds and Chairman and President of privately-held Zero Point Corporation, a computer network engineering company. From 1995 to 2000, he was Executive Vice President of MediaOne Group, Inc. While at MediaOne Group, Mr. Van Valkenburg was seconded to Telewest Communications where he served as Chief Executive Officer and

Chief Operating Officer from 1997 to 1999. He has also held the position of President at both Multivision Cable TV Corporation and Cox Cable Communications Inc. Mr. Van Valkenburg serves on the board of several private companies. He holds a B.A. from Malone College, an M.S. from the University of Kansas, and an M.B.A. from Harvard University.

S-33

Table of Contents**UNDERWRITING**

Merrill Lynch, Pierce, Fenner & Smith Incorporated is acting as representative of the underwriters named below. Subject to the terms and conditions described in a purchase agreement between us and the underwriters, we have agreed to sell to the underwriters, and the underwriters severally have agreed to purchase from us the number of shares listed opposite their names below.

Underwriter	Number of Shares
Merrill Lynch, Pierce, Fenner & Smith Incorporated	
Lehman Brothers Inc.	
Jefferies & Company, Inc.	
Merriman Curhan Ford & Co.	
Total	12,900,000

Subject to the terms and conditions set forth in the purchase agreement, the underwriters have agreed to purchase all of the shares sold under the purchase agreement if any of these shares are purchased. If an underwriter defaults, the purchase agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the purchase agreement may be terminated.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the purchase agreement, such as the receipt by the underwriters of officers' certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Commissions and Discounts

The representative has advised us that the underwriters propose initially to offer the shares to the public at the public offering price set forth on the cover page of this prospectus supplement and to dealers at that price less a concession not in excess of \$ per share. The underwriters may allow, and the dealers may reallow, a discount not in excess of \$ per share to other dealers. After this initial offering, the public offering price, concession and discount may be changed.

The following table shows the public offering price, underwriting discount and proceeds before expenses to us. The information assumes either no exercise or full exercise by the underwriters of their over-allotment option.

Per Share	Without Option	With Option
------------------	---------------------------	------------------------

Public offering price	\$	\$	\$
Underwriting discount	\$	\$	\$
Proceeds, before expenses, to Harmonic Inc.	\$	\$	\$

The expenses of the offering, not including the underwriting discount, are estimated at \$800,000 and are payable by us.

Overallotment Option

We have granted an option to the underwriters to purchase up to 1,935,000 additional shares at the public offering price less the underwriting discount. The underwriters may exercise this option for 30 days from the date of this prospectus supplement solely to cover any overallotments. If the underwriters exercise

S-34

Table of Contents

this option, each will be obligated, subject to conditions contained in the purchase agreement, to purchase a number of additional shares proportionate to that underwriter's initial amount reflected in the above table.

No Sales of Similar Securities

We and our executive officers and directors have agreed not to sell or transfer any common stock for 90 days after the date of this prospectus supplement without first obtaining the written consent of Merrill Lynch. Specifically, we and these other individuals have agreed with certain limited exceptions, not to directly or indirectly:

offer, pledge, sell or contract to sell any common stock;

sell any option or contract to purchase any common stock;

purchase any option or contract to sell any common stock;

grant any option, right or warrant for the sale of any common stock;

lend or otherwise dispose of or transfer any common stock;

request or demand that we file a registration statement related to the common stock; or

enter into any swap or other agreement that transfers, in whole or in part, the economic consequence of ownership of any common stock whether any such swap or transaction is to be settled by delivery of shares or other securities, in cash or otherwise.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for or repayable with common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition. One of our executive officers and one of our directors are permitted to sell, in the aggregate, up to 125,000 shares of our common stock under the terms of their lock-up agreements.

Electronic Distribution

In connection with the offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail. In addition, Merrill Lynch will be facilitating Internet distribution for this offering to certain of its Internet subscription customers. Merrill Lynch intends to allocate a limited number of shares for sale to its online brokerage customers. An electronic prospectus is available on the Internet website maintained by Merrill Lynch. Other than the prospectus in electronic format, the information on the Merrill Lynch website is not part of this prospectus.

Price Stabilization, Short Positions

Until the distribution of the shares is completed, SEC rules may limit underwriters and selling group members from bidding for and purchasing our common stock. However, the representative may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

If the underwriters create a short position in the common stock in connection with the offering, i.e., if they sell more shares than are listed on the cover page of this prospectus supplement, the representative may reduce that share position by purchasing shares in the open market. The representative may also elect to reduce any short position by

exercising all or part of the overallotment option described above. Purchases of the common stock to stabilize its price or to reduce a short position may change the price of the common stock to be higher than it might be in the absence of such purchases.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor any of the underwriters make any representation that the representative will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

S-35

Table of Contents

Selling Restrictions

European Economic Area

To the extent that the offer of the common stock is made in any Member State of the European Economic Area that has implemented the Prospectus Directive before the date of publication of a prospectus in relation to the common stock which has been approved by the competent authority in the Member State in accordance with the Prospectus Directive (or, where appropriate, published in accordance with the Prospectus Directive and notified to the competent authority in the Member State in accordance with the Prospectus Directive), the offer (including any offer pursuant to this document) is only addressed to qualified investors in that Member State within the meaning of the Prospectus Directive or has been or will be made otherwise in circumstances that do not require us to publish a prospectus pursuant to the Prospectus Directive.

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) it has not made and will not make an offer of shares to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of shares to the public in that Relevant Member State at any time:

to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year, (2) a total balance sheet of more than 43,000,000 and (3) an annual net turnover of more than 50,000,000, as shown in its last annual or consolidated accounts; or

in any other circumstances which do not require the publication by us of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer of shares to the public in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

The European Economic Area selling restriction is in addition to any other selling restrictions set out herein. In relation to each Relevant Member State, each purchaser of shares of common stock (other than the underwriters) will be deemed to have represented, acknowledged and agreed that it will not make an offer of shares of common stock to the public in any Relevant Member State, except that it may, with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, make an offer of shares of common stock to the public in that Relevant Member State at any time in any circumstances which do not require the publication by us of a prospectus pursuant to Article 3 of the Prospectus Directive, provided that such purchaser agrees that it has not and will not make an offer of any shares of common stock in reliance or purported reliance on Article 3(2)(b) of the Prospectus Directive. For the purposes of this provision, the expression an offer of shares to the public in relation to

any shares of common stock in any Relevant Member State has the same meaning as in the preceding paragraph.

United Kingdom

This document is only being distributed to and is only directed at (i) persons who are outside the United Kingdom or (ii) to investment professionals falling within Article 19(5) of the Financial Services and

S-36

Table of Contents

Markets Act 2000 (Financial Promotion) Order 2005 (Order) or (iii) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (e) of the Order (all such persons together being referred to as relevant persons). The shares of common stock are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such common stock will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this document or any of its contents.

Each of the underwriters has represented and agreed that:

it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000, or FSMA) received by it in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA does not apply to us; and

it has complied with, and will comply with, all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

Other Relationships

Some of the underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us. They have received customary fees and commissions for these transactions.

S-37

Table of Contents

LEGAL MATTERS

Certain legal matters will be passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California. Pillsbury Winthrop Shaw Pittman LLP, San Francisco, California is acting as counsel to the underwriters in connection with certain legal matters relating to the shares of common stock offered by this prospectus supplement.

EXPERTS

The consolidated financial statements of Harmonic Inc. and management's assessment of the effectiveness of internal control over financial reporting of Harmonic Inc. (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus supplement by reference to Harmonic Inc.'s annual report on Form 10-K for the year ended December 31, 2006 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited consolidated financial statements of Entone Technologies, Inc. included as Exhibit 99.2 of Harmonic Inc.'s current report on Form 8-K/A, filed with the SEC on February 22, 2007, have been incorporated herein by reference in reliance on the report of Deloitte & Touche LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited historical financial statements of Rhozet Corporation included as Exhibit 99.1 of Harmonic Inc.'s current report on Form 8-K/A, filed with the SEC on October 15, 2007, have been so incorporated herein by reference in reliance on the report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

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

Public Reference Room
100 F Street, NE
Washington D.C. 20549

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

We have filed a registration statement on Form S-3 regarding this offering with the SEC under the Securities Act of 1933. This prospectus supplement and the accompanying prospectus, which constitute a part of the registration statement, do not contain all the information contained in the registration statement, certain items of which are contained in the documents incorporated by reference therein or exhibits to the registration statement as permitted by the rules and regulations of the SEC. You should refer to the registration statement, the documents incorporated by reference therein and its exhibits to read that information.

Table of Contents

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, 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 supplement and the accompanying prospectus, except for information superseded by information in this prospectus supplement or the accompanying prospectus. We incorporate by reference the documents listed below. This prospectus supplement and accompanying prospectus are part of a registration statement we filed with the SEC. The documents we incorporate by reference include:

- (1) Our definitive proxy statement on Schedule 14A, filed with the SEC on April 30, 2007;
- (2) Our annual report on Form 10-K for the fiscal year ended December 31, 2006;
- (3) Our quarterly reports on Form 10-Q for the quarterly periods ended March 30, 2007 and June 29, 2007, respectively;
- (4) Our current report on Form 8-K/A, filed with the SEC on October 15, 2007, amending our current report on Form 8-K, filed with the SEC on August 6, 2007;
- (5) Our current report on Form 8-K, filed with the SEC on October 4, 2007;
- (6) Our current report on Form 8-K, filed with the SEC on August 6, 2007;
- (7) Our current report on Form 8-K, filed with the SEC on July 30, 2007;
- (8) Our current report on Form 8-K, filed with the SEC on June 27, 2007;
- (9) Our current report on Form 8-K, filed with the SEC on April 25, 2007;
- (10) Our current report on Form 8-K, filed with the SEC on March 22, 2007;
- (11) Our current report on Form 8-K/A, filed with the SEC on February 21, 2007, amending our current report on Form 8-K, filed with the SEC on December 13, 2006;
- (12) Our current report on Form 8-K, filed with the SEC on February 5, 2007;
- (13) Our current report on Form 8-K, filed with the SEC on December 13, 2006; and
- (14) The description of our common stock contained in our registration statement on Form 8-A dated April 6, 1995, including any amendment or report filed for the purpose of updating such description.

All documents filed by us with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act from the date of this prospectus supplement until the completion of the offering to which this prospectus supplement relates or this offering is terminated, shall also be deemed to be incorporated by reference in, and to be part of, this prospectus supplement from the date any such document is filed. We are not, however, incorporating, in each case, any documents or information that we are deemed to furnish and not file in accordance with SEC rules.

Any statements contained in a document incorporated by reference in this prospectus supplement or accompanying prospectus shall be deemed to be modified, superseded or replaced for purposes of this prospectus supplement and the accompanying prospectus to the extent that a statement contained in this prospectus supplement and the accompanying prospectus (or in any other subsequently filed document which also is incorporated by reference in this prospectus supplement and the accompanying prospectus) modifies, supersedes or replaces such statement. Any statement so modified, superseded or replaced shall not be deemed, except as so modified, superseded or replaced, to constitute a part of this prospectus supplement or the accompanying prospectus. Statements contained in this prospectus supplement, the accompanying prospectus and any document incorporated by reference as to the contents of any contract, agreement or other document referred to are not necessarily complete, and in each instance reference is made to the copy of the contract, agreement or other document filed as an exhibit to the registration statement or any incorporated document, each statement being so qualified by this reference.

You may request a copy of the above-documented filings at no cost by writing to us at Harmonic, Inc., 549 Baltic Way, Sunnyvale, CA 94089 or by telephoning us at (408) 542-2500.

Table of Contents

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 April 22, 2005

Table of Contents

TABLE OF CONTENTS

	<u>Page</u>
<u>Summary</u>	1
<u>Risk Factors</u>	4
<u>Special Note Regarding Forward-Looking Statements</u>	19
<u>Use Of Proceeds</u>	19
<u>Ratio Of Earnings Available To Cover Fixed Charges</u>	20
<u>Description Of Common Stock</u>	21
<u>Description Of Preferred Stock</u>	22
<u>Description Of Debt Securities</u>	25
<u>Description Of Warrants</u>	34
<u>Plan Of Distribution</u>	35
<u>Legal Matters</u>	37
<u>Experts</u>	37
<u>Where You Can Find More Information</u>	37

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

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

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.

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.

Table of Contents

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 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.

Table of Contents

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

Table of Contents

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.

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.

Table of Contents

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.

Table of Contents

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

Table of Contents

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

Table of Contents

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

Table of Contents

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 2001 terrorist attacks, the ongoing U.S. war on terrorism and the terrorist attacks and hostilities within Israel have heightened these risks. We cannot assure you that current tensions in the Middle East will not adversely affect our business and results of operations.

In addition, most of our employees in Israel are currently obligated to perform annual reserve duty in the Israel Defense Forces and several have been called for active military duty recently. We cannot predict the effect of these obligations on Harmonic in the future.

Table of Contents

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. Pressure on average selling prices was particularly severe during the recent economic downturn as equipment suppliers competed aggressively for customers' reduced capital spending. Harmonic's competitors in the fiber optics systems business include corporations such as C-Cor, Motorola, and Scientific-Atlanta. In the digital and video broadcasting systems business, we compete broadly with vertically integrated system suppliers including Motorola, Scientific-Atlanta, Tandberg Television and Thomson Multimedia, and in certain product lines with Cisco and a number of smaller companies.

Many 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 may 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, which 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, new standards for video compression are being introduced and products based on these standards are being developed by Harmonic and certain competitors. If our competitors are successful in bringing these products to market earlier, or if these products are more technologically capable than ours, then our sales could be materially and adversely affected. 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 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. Also, decisions by customers to adopt new technologies or products are often delayed by extensive evaluation and qualification processes and can result in delays in sales of current products. If we are unable to design, develop, manufacture and sell products that incorporate or are compatible with these new architectures or technologies, our business will suffer.

We 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. For example, we depend on LSI Logic for video encoding chips. Our reliance on sole or limited suppliers, particularly foreign suppliers, and our increased reliance on subcontractors since the merger with C-Cube involves several risks, including a potential inability to obtain an adequate supply of required components, subassemblies or modules and reduced control over pricing, quality and

timely delivery of components, subassemblies or modules. In particular, certain optical components have in the past been in short supply and are available only from a small number of suppliers, including sole source suppliers. While we expend resources to qualify additional optical

Table of Contents

component sources, consolidation of suppliers in the industry and the small number of viable alternatives have limited the results of these efforts. We do not generally maintain long-term agreements with any of our suppliers. Managing our supplier and contractor relationships is particularly difficult during time periods in which we introduce new products and during time periods in which demand for our products is increasing, especially if demand increases more quickly than we expect. Furthermore, from time to time we assess our relationship with our contract manufacturers. In late 2003, we entered into a three-year agreement with Plexus Services Corp. as our primary contract manufacturer. We completed the transition during the summer of 2004. Difficulties in managing relationships with current contract manufacturers, could impede our ability to meet our customers' requirements and adversely affect our operating results. An inability to obtain adequate deliveries or any other circumstance that would require us to seek alternative sources of supply could negatively 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 certain components, subassemblies and modules. As a result of this investment in inventories, we have in the past and in the future may be subject to risk of excess and obsolete inventories, which could harm our business, operating results, financial position and liquidity. In this regard, our gross margins and operating results in the past, were adversely affected by significant excess and obsolete inventory charges.

We need to effectively manage our operations and the cyclical nature of our business.

The cyclical nature of our business has placed, and is expected to continue to place, a significant strain on our personnel, management and other resources. This strain was exacerbated by the acquisition of DiviCom and the subsequent loss of numerous employees, including senior management. In addition, we reduced our work force by approximately 44% between December 31, 2000 and December 31, 2003 due to reduced industry spending and demand for our products. If demand for products increases significantly, we may need to increase our headcount, as we did during 2004, adding 33 employees. Our ability to manage our business effectively in the future, including any future growth, will require us to train, motivate and manage our employees successfully, to attract and integrate new employees into our overall operations, to retain key employees and to continue to improve our operational, financial and management systems.

We may be materially affected by the WEEE and RoHS directives.

The European Union has finalized the Waste Electrical and Electronic Equipment (WEEE) directive, which regulates the collection, recovery, and recycling of waste from electrical and electronic products, and the Restrictions on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) directive, which bans the use of certain hazardous materials including lead, mercury, cadmium, chromium, and halogenated flame-retardants. Under WEEE, we will be responsible for financing operations for the collection, treatment, disposal, and recycling of past and future covered products. Because the specific legal requirements have not been finalized, we are presently unable to reasonably estimate the amount of any costs that may be necessary in order to comply with WEEE. We cannot assure you that compliance with WEEE and RoHS will not have a material adverse effect on our financial condition or results of operations.

We are liable for C-Cube's pre-merger tax liabilities, including tax liabilities resulting from the spin-off of its semiconductor business.

Under the terms of the merger agreement with C-Cube, Harmonic is generally liable for C-Cube's pre-merger tax liabilities. As of December 31, 2004, approximately \$15.8 million of pre-merger tax liabilities remained outstanding and are included in accrued liabilities. We are working with LSI Logic, which acquired C-Cube's spun-off semiconductor business in June 2001 and assumed its obligations, to develop an approach to settle these obligations, a process which has been underway since the merger in 2000. These liabilities represent estimates of C-Cube's pre-merger tax obligations to various tax authorities in 11 countries. Harmonic paid a further \$5.8 million of these tax

obligations in February 2005, but is unable to predict when the remaining tax obligations will be paid, or in what amount. The full amount of the estimated obligation has been classified as a current liability. To the extent that these obligations are finally settled for less than the amounts provided, Harmonic is required, under the terms of the merger agreement, to refund the difference to

Table of Contents

LSI Logic. Conversely, if the settlements are more than the \$10.0 million pre-merger tax liability after the February 2005 payments, LSI Logic is obligated to reimburse Harmonic.

The merger agreement stipulates that Harmonic will be indemnified by the spun-off semiconductor business if the cash reserves are not sufficient to satisfy all of C-Cube's tax liabilities for periods prior to the merger. If for any reason, the spun-off semiconductor business does not have sufficient cash to pay such taxes, or if there are additional taxes due with respect to the non-semiconductor business and Harmonic cannot be indemnified by LSI Logic, Harmonic generally will remain liable, and such liability could have a material adverse effect on our financial condition, results of operations or cash flows.

We may be subject to risks associated with other acquisitions.

We have made, continue to consider making and may make investments in complementary companies, products or technologies. For example, on February 25, 2005, we acquired all of the issued and outstanding shares of Broadcast Technologies Ltd., a private U.K. company. In connection with this and other acquisition transactions, we could have difficulty assimilating or retaining the acquired companies' key personnel and operations, integrating the acquired technology or products into ours or complying with internal control requirements of the Sarbanes-Oxley Act as a result of an acquisition. We also may face challenges in achieving the strategic objectives, cost savings or other benefits from these proposed acquisitions and difficulties in expanding our management information systems to accommodate the acquired business. These difficulties could disrupt our ongoing business, distract our management and employees and significantly increase our expenses. Moreover, our operating results may suffer because of acquisition-related expenses, amortization of intangible assets and impairment of acquired goodwill or intangible assets. Furthermore, we may have to incur debt or issue equity securities to pay for any future acquisitions, or to provide for additional working capital requirements, 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 or operating results could be harmed.

Cessation of 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 (acquired by LSI Logic in June 2001) 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 has access to certain of the spun-off semiconductor business technologies and products which the DiviCom business previously depended for its product and service offerings. The current term of this agreement is through October 2005, with automatic annual renewal unless terminated by either party in accordance with the agreement provisions. The spun-off semiconductor business is the sole supplier of these chips to Harmonic. Several of these products continue to be important to our business, and we have incorporated these chips into additional products that we have developed. If the spun-off semiconductor business is not able to or does not sustain its development and production efforts in this area our business, financial condition, results of operations or cash flows could be harmed.

Our failure to adequately protect our proprietary rights may adversely affect us.

We currently hold 39 issued U.S. patents and 19 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.

Table of Contents

We believe that patents and patent applications are not currently significant to our business, and investors therefore should not rely on our patent portfolio to give us a competitive advantage over others in our industry. We believe that the future success of our business will depend on our ability to translate the technological expertise and innovation of our personnel into new and enhanced products. We generally enter into confidentiality or license agreements with our employees, consultants, vendors and customers as needed, and generally limit access to and distribution of our proprietary information. Nevertheless, we cannot assure you that the steps taken by us will prevent misappropriation of our technology. In addition, we have taken in the past, and may take in the future, legal action to enforce our patents and other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement or invalidity. Such litigation could result in substantial costs and diversion of resources and could negatively affect our business, operating results, financial position or cash flows.

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 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.

We or our customers may face intellectual property infringement claims from third parties.

Harmonic's industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. In particular, leading companies in the telecommunications industry have extensive patent portfolios. From time to time, third parties, including these leading companies, have asserted and may assert exclusive patent, copyright, trademark and other intellectual property rights against us or our customers. Indeed, a number of third parties, including leading companies, have asserted patent rights to technologies that are important to us.

On July 3, 2003, Stanford University and Litton Systems filed a complaint in U.S. District Court for the Central District of California alleging that optical fiber amplifiers incorporated into certain of Harmonic's products infringe U.S. Patent No. 4,859,016. This patent expired in September 2003. The complaint seeks injunctive relief, royalties and damages. Harmonic has not been served in the case. Harmonic continues to evaluate its position with respect to this patent and has engaged in discussions with the plaintiff regarding potential settlement of the matter. At this time, Harmonic is unable to determine whether Harmonic will be able to settle this matter on reasonable terms or at all, nor can Harmonic predict the impact of an adverse outcome of this litigation if Harmonic elects to defend against it. Consequently, Harmonic has made no provision in its financial statements for the outcome of a negotiated settlement or an unfavorable verdict in litigation. An unfavorable outcome of this matter could have a material adverse effect on Harmonic's business, operating results, financial position or cash flows.

Our suppliers and customers may receive similar claims. We have agreed to indemnify some of our suppliers and customers for alleged patent infringement. The scope of this indemnity varies, but, in some instances, includes indemnification for damages and expenses (including reasonable attorney's fees).

We are the subject of securities class action claims and other litigation which, if adversely determined, could harm our business and operating results.

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

A consolidated complaint, filed on December 7, 2000, was brought on behalf of a purported class of persons who purchased Harmonic's publicly traded securities between January 19 and June 26, 2000. The complaint also alleged claims on behalf of a purported subclass of persons who purchased C-Cube securities between January 19 and May 3, 2000. In addition to Harmonic and certain of its officers and directors, the

Table of Contents

complaint also named C-Cube Microsystems Inc. and several of its officers and directors as defendants. The complaint alleged that, by making false or misleading statements regarding Harmonic's prospects and customers and its acquisition of C-Cube, certain defendants violated sections 10(b) and 20(a) of the Securities Exchange Act of 1934. The complaint also alleged that certain defendants violated section 14(a) of the Exchange Act and sections 11, 12(a)(2), and 15 of the Securities Act of 1933 by filing a false or misleading registration statement, prospectus, and joint proxy in connection with the C-Cube acquisition.

On July 3, 2001, the Court dismissed the consolidated complaint with leave to amend. An amended complaint alleging the same claims against the same defendants was filed on August 13, 2001. Defendants moved to dismiss the amended complaint on September 24, 2001. On November 13, 2002, the Court issued an opinion granting the motions to dismiss the amended complaint without leave to amend. Judgment for defendants was entered on December 2, 2002. On December 12, 2002, plaintiffs filed a motion to amend the judgment and for leave to file an amended complaint pursuant to Rules 59(e) and 15(a) of the Federal Rules of Civil Procedure. On June 6, 2003, the Court denied plaintiffs motion to amend the judgment and for leave to file an amended complaint. Plaintiffs filed a notice of appeal on July 1, 2003. The U.S. Court of Appeals for the Ninth Circuit heard oral arguments on February 17, 2005, but has not ruled on the appeal yet.

A derivative action purporting to be on behalf of Harmonic was filed against its then-current directors in the Superior Court for the County of Santa Clara on September 5, 2000. Harmonic also was named as a nominal defendant. The complaint is based on allegations similar to those found in the securities class action and claims that the defendants breached their fiduciary duties by, among other things, causing Harmonic to violate federal securities laws. The derivative action was removed to the U.S. District Court for the Northern District of California on September 20, 2000. All deadlines in this action were stayed pending resolution of the motions to dismiss the securities class action. On July 29, 2003, the Court approved the parties' stipulation to dismiss this derivative action without prejudice and to toll the applicable limitations period. The limitations period is tolled until fourteen days after (1) defendants provide plaintiff with a copy of the mandate issued by the Ninth Circuit in the securities action or (2) either party provides written notice of termination of the tolling period, whichever is first.

A second derivative action purporting to be on behalf of Harmonic was filed in the Superior Court for the County of Santa Clara on May 15, 2003. It alleges facts similar to those previously alleged in the securities class action and the federal derivative action. The complaint names as defendants former and current Harmonic officers and directors, along with former officers and directors of C-Cube Microsystems, Inc., who were named in the securities class action. The complaint also names Harmonic as a nominal defendant. The complaint alleges claims for abuse of control, gross mismanagement, and waste of corporate assets against the Harmonic defendants, and claims for breach of fiduciary duty, unjust enrichment, and negligent misrepresentation against all defendants. On July 22, 2003, the Court approved the parties' stipulation to stay the case pending resolution of the appeal in the securities class action. Although the parties initially agreed in principle to a dismissal without prejudice on similar terms as in the federal derivative action, after further discussion, the parties decided that the stay currently in place suffices to protect their respective interests.

Based on its review of the complaints filed in the securities class action, Harmonic believes that it has meritorious defenses and intends to defend itself vigorously. There can be no assurance, however, that Harmonic will prevail. No estimate can be made of the possible range of loss associated with the resolution of this contingency and accordingly, Harmonic has not recorded a liability. An unfavorable outcome of this litigation could have a material adverse effect on Harmonic's business, operating results, financial position or cash flows.

On July 3, 2003, Stanford University and Litton Systems filed a complaint in U.S. District Court for the Central District of California alleging that optical fiber amplifiers incorporated into certain of Harmonic's products infringe U.S. Patent No. 4,859,016. This patent expired in September 2003. The complaint seeks injunctive relief, royalties and damages. Harmonic has not been served in the case. Harmonic is currently evaluating its position with respect to this

patent and has engaged in discussions with the plaintiff regarding potential settlement of the matter. At this time, we are unable to determine whether we will be able to settle this litigation on reasonable terms or at all, nor can we predict the impact of an adverse outcome of this

Table of Contents

litigation if we elect to defend against it. No estimate can be made of the possible range of loss associated with the resolution of this contingency and accordingly, we have not recorded a liability associated with the outcome of a negotiated settlement or an unfavorable verdict in litigation. An unfavorable outcome of this matter could have a material adverse effect on Harmonic's business, operating results, financial position or cash flows.

The terrorist attacks of 2001 and the ongoing threat of terrorism have created great uncertainty and may continue to harm our business.

Current conditions in the U.S. and global economies are uncertain. The terrorist attacks in 2001 created many economic and political uncertainties that have severely impacted the global economy. We experienced a further decline in demand for our products after the attacks. The long-term effects of the attacks, the situation in Iraq and the ongoing war on terrorism on our business and on the global economy remain unknown. Moreover, the potential for future terrorist attacks has created additional uncertainty and makes it difficult to estimate how quickly the U.S. and other economies will recover and our business will improve.

We rely on a continuous power supply to conduct our operations, and any electrical and natural gas crisis could disrupt our operations and increase our expenses.

We rely on a continuous power supply for manufacturing and to conduct our business operations. Interruptions in electrical power supplies in California in the early part of 2001 could recur in the future. In addition, the cost of electricity and natural gas has risen significantly. Power outages could disrupt our manufacturing and business operations and those of many of our suppliers, and could cause us to fail to meet production schedules and commitments to customers and other third parties. Any disruption to our operations or those of our suppliers could result in damage to our current and prospective business relationships and could result in lost revenue and additional expenses, thereby harming our business and operating results.

Our stock price may be volatile.

The market price of our common stock has fluctuated significantly 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.

Some anti-takeover provisions contained in our certificate of incorporation, bylaws and stockholder rights plan, as well as provisions of Delaware law, could impair a takeover attempt.

Harmonic has provisions in its certificate of incorporation and bylaws, each of which could have the effect of rendering more difficult or discouraging an acquisition deemed undesirable by the Harmonic Board of Directors. These include provisions:

- authorizing blank check preferred stock, which could be issued with voting, liquidation, dividend and other rights superior to Harmonic common stock;
- limiting the liability of, and providing indemnification to, directors and officers;
- limiting the ability of Harmonic stockholders to call and bring business before special meetings;

requiring advance notice of stockholder proposals for business to be conducted at meetings of Harmonic stockholders and for nominations of candidates for election to the Harmonic Board of Directors;

controlling the procedures for conduct and scheduling of Board and stockholder meetings; and

providing the board of directors with the express power to postpone previously scheduled annual meetings and to cancel previously scheduled special meetings.

Table of Contents

These provisions, alone or together, could delay hostile takeovers and changes in control or management of Harmonic.

In addition, Harmonic has adopted a stockholder rights plan. The rights are not intended to prevent a takeover of Harmonic, and we believe these rights will help Harmonic's negotiations with any potential acquirers. However, if the Board of Directors believes that a particular acquisition is undesirable, the rights may have the effect of rendering more difficult or discouraging that acquisition. The rights would cause substantial dilution to a person or group that attempts to acquire Harmonic on terms or in a manner not approved by the Harmonic Board of Directors, except pursuant to an offer conditioned upon redemption of the rights.

As a Delaware corporation, Harmonic also is subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation law, which prevents some stockholders holding more than 15% of our outstanding common stock from engaging in certain business combinations without approval of the holders of substantially all of our outstanding common stock.

Any provision of our certificate of incorporation or bylaws, our stockholder rights plan or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for Harmonic stockholders to receive a premium for their shares of Harmonic common stock, and could also affect the price that some investors are willing to pay for Harmonic common stock.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

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

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

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

USE OF PROCEEDS

Unless otherwise indicated in the prospectus supplement, the net proceeds from the sale of securities offered by this prospectus will be used for general corporate purposes, including capital expenditures and to meet working capital

needs. We expect from time to time to evaluate the acquisition of businesses, products and technologies for which a portion of the net proceeds may be used. Pending such uses, we will invest the net proceeds in interest-bearing securities.

Table of Contents

RATIO OF EARNINGS AVAILABLE TO COVER FIXED CHARGES

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

	Fiscal Year Ended December 31,				
	2000	2001	2002	2003	2004
Ratio of earnings available to cover fixed charges(1)					1.8

(1) Due to our losses in 2000, 2001, 2002 and 2003, the ratio coverage was less than 1:1. Additional earnings of \$1.7 billion, \$167.2 million, \$76.4 million and \$29.1 million would have been required in each of those periods, respectively, to achieve a coverage of 1:1.

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

interest expense; and

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

Table of Contents

DESCRIPTION OF COMMON STOCK

Harmonic is authorized to issue up to 150,000,000 shares of common stock, \$0.001 par value per share. As of April 1, 2005, 73,093,625 shares of Harmonic's common stock were outstanding. The holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders.

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

Anti-Takeover Provisions

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

Delaware Law

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

Certificate of Incorporation and Bylaws Provisions

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

Table of Contents

DESCRIPTION OF PREFERRED STOCK

The board of directors has the authority, without further action by the stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, without any further vote or action by stockholders. Other than the Series A preferred stock associated with Harmonic's rights plan described below under the Stockholder Rights Plan, no shares of preferred stock of Harmonic are outstanding.

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

the number of shares in any series,

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

the dividend rate and whether dividends on that series of preferred stock will be cumulative, noncumulative or partially cumulative,

the voting rights of that series of preferred stock, if any,

the conversion provisions applicable to that series of preferred stock, if any,

the redemption or sinking fund provisions applicable to that series of preferred stock, if any,

the liquidation preference per share of that series of preferred stock, if any, and

the terms of any other preferences or rights, if any, applicable to that series of preferred stock.

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

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

Stockholder rights plan

In July 2002, pursuant to a Preferred Stock Rights Agreement between us and Mellon Investor Services, LLC, acting as rights agent, our board of directors declared a dividend of one right to purchase one one-thousandth of a share of Series A preferred stock for each outstanding share of our common stock. The dividend was paid on August 7, 2002 to stockholders of record as of the close of business on that date. Each right entitles the registered holder to purchase from us one one-thousandth of a share of Series A preferred stock at an exercise price of \$25.00, subject to adjustment upon specified events set forth in the rights agreement.

Rights evidenced by common stock certificates. The rights will not be exercisable until the distribution date. Certificates for the rights have not been sent to stockholders and the rights will attach to and trade together with our common stock. Accordingly, common stock certificates outstanding on August 7, 2002 will evidence the related rights, and common stock certificates issued after the record date will contain a

Table of Contents

notation incorporating the rights agreement by reference. Until the distribution date (or earlier redemption or expiration of the rights), the surrender or transfer of any certificates for common stock outstanding as of the record date, even without notation or a copy of the summary of rights being attached to such certificate, will also constitute the transfer of the rights associated with the common stock represented by such certificate.

Distribution date. The rights will separate from our common stock, rights certificates will be issued and the rights will become exercisable on the distribution date which will occur upon the earlier of (a) the tenth business day (or such later date as may be determined by our board of directors) after a person or group of affiliated or associated persons has acquired, or obtained the right to acquire, beneficial ownership of 15% or more of the common stock then outstanding, or (b) the tenth business day (or such later date as may be determined by our board of directors) after a person or group announces a tender or exchange offer, the consummation of which would result in the beneficial ownership by a person or group of 15% or more of our then outstanding common stock.

Issuance of rights certificates; expiration of rights. As soon as practicable following the distribution date, a rights certificate will be mailed to holders of record of the common stock as of the close of business on the distribution date and such separate rights certificate alone will evidence the rights from and after the distribution date. The rights will expire on the earliest of (i) August 7, 2012, the final expiration date, or (ii) redemption or exchange of the rights as described below.

Initial exercise of the rights. Following the distribution date, and until one of the further events described below, holders of the rights will be entitled to receive, upon exercise and the payment of the purchase price, one one-thousandth share of the Series A preferred stock. In the event that we do not have sufficient Series A preferred stock available for all rights to be exercised, or our board decides that such action is necessary and not contrary to the interests of rights holders, we may instead substitute cash, assets or other securities for the Series A preferred stock for which the rights would have been exercisable under this provision or as described below.

Right to buy our common stock. Unless the rights are earlier redeemed, in the event that an acquiring person or group obtains 15% or more of our then outstanding common stock, then each holder of a right which has not theretofore been exercised (other than rights beneficially owned by the acquiring person, which will thereafter be void) will thereafter have the right to receive, upon exercise, common stock having a value equal to two times the purchase price. Rights are not exercisable following the occurrence of an event as described above until such time as the rights are no longer redeemable by us as set forth below.

Right to buy acquiring company shares. Similarly, unless the rights are earlier redeemed, in the event that, after an acquiring person or group obtains 15% or more of our then outstanding common stock, (i) we are acquired in a merger or other business combination transaction, or (ii) 50% or more of our consolidated assets or earning power is sold (other than in transactions in the ordinary course of business), proper provision must be made so that each holder of a right which has not theretofore been exercised (other than rights beneficially owned by the acquiring person, which will thereafter be void) will thereafter have the right to receive, upon exercise, shares of common stock of the acquiring company having a value equal to two times the purchase price.

Exchange provision. At any time after an acquiring person or group obtains 15% or more of our then outstanding common stock and prior to the acquisition by such acquiring person of 50% or more of our outstanding common stock, our board of directors may exchange the rights (other than rights owned by the acquiring person), in whole or in part, at an exchange ratio of one common stock per right.

Redemption. At any time on or prior to the close of business on the earlier of (i) the fifth day following the attainment of 15% or more of our then outstanding common stock by an acquiring person (or such later date as may be determined by action of our board of directors and publicly announced by us), or (ii) August 7, 2012, we may redeem

the rights in whole, but not in part, at a price of \$0.001 per right.

Adjustments to prevent dilution. The purchase price payable, the number of rights, and the number of Series A preferred stock or common stock or other securities or property issuable upon exercise of the rights are subject to adjustment from time to time in connection with the dilutive issuances by us as set forth

Table of Contents

in the rights agreement. With certain exceptions, no adjustment in the purchase price will be required until cumulative adjustments require an adjustment of at least 1% in such purchase price.

Cash paid instead of issuing fractional shares. No fractional common stock will be issued upon exercise of a right and, in lieu thereof, an adjustment in cash will be made based on the market price of the common stock on the last trading date prior to the date of exercise.

No stockholders' rights prior to exercise. Until a right is exercised, the holder, as such, will have no rights as a stockholder (other than any rights resulting from such holder's ownership of common stock), including, without limitation, the right to vote or to receive dividends.

Amendment of rights agreement. The terms of the rights and the Rights Agreement may be amended in any respect without the consent of the rights holders on or prior to the distribution date. Thereafter, the terms of the rights and the rights agreement may be amended without the consent of the rights holders in order to cure any ambiguities or to make changes which do not adversely affect the interests of rights holders (other than the acquiring person).

Rights and preferences of the Series A preferred stock. Each one one-thousandth of a share of Series A preferred stock has rights and preferences substantially equivalent to those of one share of common stock.

No voting rights. The rights will not have any voting rights.

Certain anti-takeover effects. The rights approved by our board of directors are designed to protect and maximize the value of our outstanding equity interests in the event of an unsolicited attempt by an acquirer to take over our company in a manner or on terms not approved by our board of directors. Takeover attempts frequently include coercive tactics to deprive our board of directors and its stockholders of any real opportunity to determine our destiny. The rights have been declared by our board in order to deter such tactics, including a gradual accumulation of shares in the open market of 15% or greater position to be followed by a merger or a partial or two-tier tender offer that does not treat all stockholders equally. These tactics unfairly pressure stockholders, squeeze them out of their investment without giving them any real choice and deprive them of the full value of their shares.

The rights are not intended to prevent a takeover and will not do so. Subject to the restrictions described above, the rights may be redeemed by us at \$0.001 per right at any time prior to the distribution date. Accordingly, the rights should not interfere with any merger or business combination approved by our board of directors.

However, the rights may have the effect of rendering more difficult or discouraging our acquisition if such acquisition is deemed undesirable by our board of directors. The rights may cause substantial dilution to a person or group that attempts to acquire us on terms or in a manner not approved by our board of directors, except pursuant to an offer conditioned upon the negotiation, purchase or redemption of the rights.

Issuance of the rights does not in any way weaken our financial strength or interfere with our business plans. The issuance of the rights themselves has no dilutive effect, will not affect reported earnings per share, should not be taxable to us or to our stockholders, and will not change the way in which our shares are presently traded.

Table of Contents

DESCRIPTION OF DEBT SECURITIES

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

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

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

General

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

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

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

whether the debt securities are senior or subordinated,

the offering price,

the title,

any limit on the aggregate principal amount,

the person who shall be entitled to receive interest, if other than the record holder on the record date,

the date or dates the principal will be payable,

the interest rate or rates, which may be fixed or variable, if any, the date interest will accrue, the interest payment dates and the regular record dates or the method for calculating the dates and rates,

the place where payments may be made,

any mandatory or optional redemption provisions or sinking fund provisions and any applicable redemption or purchase prices associated with these provisions,

if issued other than in denominations of U.S. \$1,000 or any multiple of U.S. \$1,000, the denominations in which the debt securities shall be issuable,

if applicable, the method for determining how the principal, premium, if any, or interest will be calculated by reference to an index or formula,

Table of Contents

if other than U.S. currency, the currency or currency units in which principal, premium, if any, or interest will be payable and whether we or a holder may elect payment to be made in a different currency,

the portion of the principal amount that will be payable upon acceleration of maturity, if other than the entire principal amount,

if the principal amount payable at stated maturity will not be determinable as of any date prior to stated maturity, the amount or method for determining the amount which will be deemed to be the principal amount,

if applicable, whether the debt securities shall be subject to the defeasance provisions described below under Satisfaction and discharge; defeasance or such other defeasance provisions specified in the applicable prospectus supplement for the debt securities,

any conversion or exchange provisions,

whether the debt securities will be issuable in the form of a global security,

any subordination provisions applicable to the subordinated debt securities if different from those described below under Subordinated Debt Securities,

any paying agents, authenticating agents, security registrars or other agents for the debt securities,

any provisions relating to any security provided for the debt securities, including any provisions regarding the circumstances under which collateral may be released or substituted,

any deletions of, or changes or additions to, the events of default, acceleration provisions or covenants,

any provisions relating to guaranties for the securities and any circumstances under which there may be additional obligors, and

any other specific terms of such debt securities.

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

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

Exchange and Transfer

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

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

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

issue, register the transfer of, or exchange, any debt security of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption and ending at the close of business on the day of the mailing, or

register the transfer of or exchange any debt security of that series selected for redemption, in whole or in part, except the unredeemed portion being redeemed in part.

Table of Contents

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

Global Securities

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

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

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

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

As long as the depositary, or its nominee, is the registered owner of a global security, the depositary or nominee will be considered the sole owner and holder of the debt securities represented by the global security for all purposes under the indentures. Except in the above limited circumstances, owners of beneficial interests in a global security will not be:

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

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

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

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

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

Table of Contents

Payment and Paying Agents

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

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

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

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

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

No Protection in the Event of a Change of Control

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

Covenants

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

Consolidation, Merger and Sale of Assets

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

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

certain other conditions are met.

Events of Default

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

- (1) we fail to pay principal of or any premium on any debt security of that series when due,
- (2) we fail to pay any interest on any debt security of that series for 30 days after it becomes due,

Table of Contents

- (3) we fail to deposit any sinking fund payment when due,
- (4) we fail to perform any other covenant in the indenture and such failure continues for 90 days after we are given the notice required in the indentures, and
- (5) certain events including bankruptcy, insolvency or reorganization of Harmonic.

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

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

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

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

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

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

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

- (1) the holder has previously given to the trustee written notice of a continuing event of default with respect to the debt securities of that series,
- (2) the holders of at least a majority in aggregate principal amount of the outstanding debt securities of that series have made a written request and have offered reasonable indemnity to the trustee to institute the proceeding, and

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

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

Table of Contents

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

Modification and Waiver

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

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

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

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

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

adversely affect the right to convert any debt security if the debt security is a convertible debt security, or

change the provisions in the indenture that relate to modifying or amending the indenture.

Satisfaction and Discharge; Defeasance

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

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

We may elect to be discharged from all of our obligations, subject to limited exceptions, with respect to any series of debt securities then outstanding. If we make this election, the holders of the debt securities of the series will not be entitled to the benefits of the indenture, except for the rights of holders to receive payments on debt securities or the registration of transfer and exchange of debt securities and replacement of lost, stolen or mutilated debt securities.

Table of Contents

We may elect to be released from our obligations under some or all of any financial or restrictive covenants applicable to the series of debt securities to which the election relates and from the consequences of an event of default resulting from a breach of these covenants.

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

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

direct obligations of the government that issued or caused to be issued the currency in which such securities are denominated and for the payment of which obligations its full faith and credit is pledged, or, with respect to debt securities of any series which are denominated in euros, direct obligations of certain members of the European Union for the payment of which obligations the full faith and credit of such member is pledged, which in each case are not callable or redeemable at the option of the issuer thereof; or

obligations of a person controlled or supervised by or acting as an agency or instrumentality of that government the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by that government, which are not callable or redeemable at the option of the issuer thereof.

Notices

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

Governing Law

The indentures and the debt securities will be governed by, and construed under, the laws of the State of New York.

No Personal Liability of Directors, Officers, Employees and Stockholders

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

Regarding the Trustee

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

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

Subordinated Debt Securities

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

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

Table of Contents

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

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

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

a default in the payment of senior debt occurs and is continuing beyond any grace period (a payment default), or

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

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

in case of a payment default, when the default is cured or waived or ceases to exist, and

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

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

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

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

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

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

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

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

Definitions

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

Table of Contents

indebtedness means:

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

borrowed money, including our obligations in respect of overdrafts, foreign exchange contracts, currency exchange agreements, interest rate protection agreements, and any loans or advances from banks, whether or not evidenced by notes or similar instruments, or

evidenced by bonds, debentures, notes or similar instruments, whether or not the recourse of the lender is to the whole of our assets or to only a portion of our assets, other than any account payable or other accrued current liability or obligation incurred in the ordinary course of business in connection with the obtaining of materials or services,

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

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

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

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

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

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

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

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

any debt that expressly provides it shall not be senior in right of payment to the subordinated debt securities or expressly provides that such indebtedness is on the same basis or junior to the subordinated debt securities, or

debt to any of our subsidiaries, a majority of the voting stock of which is owned, directly or indirectly, by us.

Table of Contents

DESCRIPTION OF WARRANTS

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

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

the title of the warrants,

the offering price for the warrants, if any,

the aggregate number of the warrants,

the designation and terms of the common stock or preferred stock that may be purchased upon exercise of the warrants,

the number of shares of common stock or preferred stock that may be purchased upon exercise of a warrant and the exercise price for the warrants,

the dates on which the right to exercise the warrants shall commence and expire,

if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time,

the currency or currency units in which the offering price, if any, and the exercise price are payable,

if applicable, a discussion of material United States Federal income tax considerations,

the antidilution provisions of the warrants, if any,

the redemption or call provisions, if any, applicable to the warrants,

any provisions with respect to holder's right to require us to repurchase the warrants upon a change in control, and

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

Holders of equity warrants will not be entitled:

to vote, consent or receive dividends,

receive notice as stockholders with respect to any meeting of stockholders for the election of our directors or any other matter, or

exercise any rights as stockholders of Harmonic.

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

Table of Contents

PLAN OF DISTRIBUTION

We may sell the securities:

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

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

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

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

We may also make sales through the Internet or through other electronic means. Since we may from time to time elect to offer securities directly to the public, with or without the involvement of agents, underwriters or dealers, utilizing the Internet (sometimes referred to as the world wide web) or other forms of electronic bidding or ordering systems for the pricing and allocation of such securities, you will want to pay particular attention to the description of that system we will provide in a prospectus supplement.

Such electronic system may allow bidders to directly participate, through electronic access to an auction site, by submitting conditional offers to buy that are subject to acceptance by us, and which may directly affect the price or other terms and conditions at which such securities are sold. These bidding or ordering systems may present to each bidder, on a so-called real-time basis, relevant information to assist in making a bid, such as the clearing spread at which the offering would be sold, based on the bids submitted, and whether a bidder's individual bids would be accepted, prorated or rejected. For example, in the case of debt security, the clearing spread could be indicated as a number of basis points above an index treasury note. Of course, many pricing methods can and may also be used.

Upon completion of such an electronic auction process, securities will be allocated based on prices bid, terms of bid or other factors. The final offering price at which securities would be sold and the allocation of securities among bidders would be based in whole or in part on the results of the Internet or other electronic bidding process or auction.

Many variations of Internet or other electronic auction or pricing and allocation systems are likely to be developed in the future as new technology evolves, and we may utilize such systems in connection with the sale of securities. The specific rules of such an auction would be described to potential bidders in a prospectus supplement. You should review carefully the auction and other rules we will describe in an prospectus supplement in order to understand and participate intelligently in the applicable offering.

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

Table of Contents

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

In connection with underwritten offerings of securities, underwriters may over-allot or effect transactions that stabilize, maintain or otherwise affect the market price of the offered securities at levels above those that might otherwise prevail in the open market, including by entering stabilizing bids, effecting syndicate covering transactions or imposing penalty bids, each of which is described below.

A stabilizing bid means the placing of any bid, or the effecting of any purchase, for the purpose of pegging, fixing or maintaining the price of a security.

A syndicate covering transaction means the placing of any bid on behalf of the underwriting syndicate or the effecting of any purchase to reduce a short position created in connection with the offering.

A penalty bid means an arrangement that permits the managing underwriter to reclaim a selling concession from a syndicate member in connection with the offering when offered securities originally sold by the syndicate member are purchased in syndicate covering transactions.

These transactions may be effected on the New York Stock Exchange, the Nasdaq National Market, in the over-the-counter market or otherwise. Underwriters are not required to engage in any of these activities, or to continue the activities if commenced.

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third parties in such sale transactions will be underwriters and, if not identified in this prospectus, will be identified in the applicable prospectus supplement, or a post-effective amendment.

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

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

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

Table of Contents

LEGAL MATTERS

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

EXPERTS

The consolidated financial statements incorporated in this prospectus by reference to the Annual Report on Form 10-K of Harmonic Inc. for the year ended December 31, 2004 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

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

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

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

Copies of these materials may be obtained by mail at prescribed rates from the public reference section of the SEC at the addresses indicated above or by calling the SEC at 1-800-SEC-0330. Our reports, proxy statements and other information filed with the SEC are also available to the public over the Internet at the Commission's world wide web site at <http://www.sec.gov>. Reports, proxy statements, and other information concerning Harmonic may also be inspected at The National Association of Securities Dealers, 1735 K Street, N.W., Washington, D.C. 20006.

We have elected to incorporate by reference certain information into this prospectus. By incorporating by reference, we can disclose important information to you by referring you to another document we have filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, except for information incorporated by reference that is superseded by information contained in this prospectus, any applicable prospectus supplement or any document we subsequently file with the SEC that is incorporated or deemed to be incorporated by reference in this prospectus. Likewise, any statement in this prospectus or any document which is incorporated or deemed to be incorporated by reference herein will be deemed to have been modified or superseded to the extent that any statement contained in any applicable prospectus supplement or any document that we subsequently file with the SEC that is incorporated or deemed to be incorporated by reference herein modifies or supersedes that statement. We incorporate by reference the following documents that we have previously filed with the SEC (other than information in such documents that is deemed not to be filed):

Annual Report on Form 10-K for the fiscal year ended December 31, 2004;

The description of our common stock contained in our registration statement on Form 8-A, filed with the Commission on April 6, 1995 under section 12(g) of the Exchange Act, including any amendment or report filed for the purpose of updating such description; and

Edgar Filing: HARMONIC INC - Form 424B5

The description of our Series A participating preferred stock contained in our registration statement on Form 8-A, filed with the Commission on July 25, 2002 under Section 12(g) of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

We also are incorporating by reference all future documents that we file with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 prior to the termination of the offering of the securities made hereby (other than information in such documents that is deemed not to be

Table of Contents

filed). In addition, all filings that we file with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 after the date of this amendment to the registration statement and prior to the effectiveness of the registration statement shall be deemed to be incorporated by reference herein (other than information in such documents that is deemed not to be filed).

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

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

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

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

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

Table of Contents

12,900,000 Shares

Common Stock

PROSPECTUS SUPPLEMENT

Merrill Lynch & Co.

Lehman Brothers

Jefferies & Company

Merriman Curhan Ford & Co.

, 2007