

HARMONIC INC
Form 10-K
March 01, 2010

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

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Fiscal Year Ended December 31, 2009

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File No. 000-25826

HARMONIC INC.

(Exact name of Registrant as specified in its charter)

Delaware

77-0201147

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification Number)

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

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

Securities registered pursuant to section 12(b) of the Act:

Title of each class

Name of each exchange on which registered

Common Stock, par value \$.001 per share

NASDAQ Global Market

Securities registered pursuant to section 12(g) of the Act: Preferred Share Purchase Rights

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes [] No [ü]

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Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act.

Yes [] No []

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes [] No []

Indicate by check mark whether the Registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files).

Yes [] No []

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Yes [] No []

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer []

Non-accelerated filer []

Accelerated filer []

Smaller reporting company []

(Do not check if a smaller reporting company)

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes [] No []

Based on the closing sale price of the Common Stock on the NASDAQ Global Market on July 3, 2009, the aggregate market value of the voting Common Stock held by non-affiliates of the Registrant was \$507,375,045. Shares of Common Stock held by each officer and director and by each person who owns 5% or more of the outstanding Common Stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of shares outstanding of the Registrant's Common Stock, \$.001 par value, was 96,531,622 on January 29, 2010.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the Registrant's 2010 Annual Meeting of Stockholders (which will be filed with the Securities and Exchange Commission within 120 days of the end of the fiscal year ended December 31, 2009) are incorporated by reference in Part III of this Annual Report on Form 10-K.

HARMONIC INC.

FORM 10-K

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Forward Looking Statements

Some of the statements contained in this Annual Report on Form 10-K are forward-looking statements that involve risk and uncertainties. The statements contained in this Annual Report on Form 10-K that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including, without limitation, statements regarding our expectations, beliefs, intentions or strategies regarding the future. In some cases, you can identify forward-looking statements by terminology such as, may, will, should, expects, plans, anticipates, believes, intends, es potential, or continue or the negative of these terms or other comparable terminology. These forward-looking statements include, but are not limited to:

- statements regarding new and future products and services;
- statements regarding our strategic direction, future business plans and growth strategy;
- statements regarding anticipated changes in economic conditions or the financial markets, and the potential impact on our business, results of operations and financial condition;
- statements regarding the expected demand for and benefits of our products and services;
- statements regarding seasonality of revenue and concentration of revenue sources;
- statements regarding the completion of acquisitions and resulting benefits;
- statements regarding potential future acquisitions;
- statements regarding anticipated results of potential or actual litigation;
- statements regarding our competitive environment;
- statements regarding the impact of governmental regulation;
- statements regarding anticipated revenue and expenses, including the sources of such revenue and expenses;
- statements regarding expected impacts of changes in accounting rules;
- statements regarding use of cash, cash needs and ability to raise capital; and
- statements regarding the condition of our cash investments.

These statements are subject to known and unknown risks, uncertainties and other factors, which may cause our actual results to differ materially from those implied by the forward-looking statements. Important factors that may cause actual results to differ from expectations include those discussed in Risk Factors beginning on page 16 in this Annual Report on Form 10-K. All forward-looking statements included in this Annual Report on Form 10-K are based on information available to us on the date thereof, and we assume no obligation to update any such forward-looking statements. The terms Harmonic, the Company,

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we, us, its, and our as used in this Annual Report on Form 10-K refer to Harmonic Inc. and its subsidiaries and its predecessors as a combined entity, except where the context requires otherwise.

PART I

Item 1. Business

OVERVIEW

We design, manufacture and sell versatile and high performance video infrastructure products and system solutions that enable our customers to efficiently prepare and deliver broadcast and on-demand services to televisions, personal computers and mobile devices. Historically, the majority of our sales have been derived from sales of video processing solutions and network edge and access systems to cable television operators and from sales of video processing solutions to direct-to-home satellite operators. More recently, we are providing our video processing solutions to telecommunications companies, or telcos, broadcasters and on-line media companies that offer video services. On March 12, 2009, Harmonic acquired Scopus Video Networks Ltd., a publicly traded company organized under the laws of Israel. The acquisition of Scopus, whose products are complementary to those offered by us, is intended to expand our product lines and customer base, in part by better enabling us to supply solutions to broadcasters and programmers who deliver video content to our service provider customers, and in part by extending our sales and distribution capacity in international markets.

INDUSTRY OVERVIEW

Demand for Video Services

The delivery of television programming and Internet-based information and communication services to consumers is converging, driven by changes in consumer lifestyles, advances in technology and 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 high-definition televisions, or HDTVs, to mobile devices, including smart phones. Today, there are a number of developing trends which impact the broadcasting and television business and that of our customers who originate and deliver video programming. These trends include:

On-Demand Services

The expanding use of digital video recorders and network-based video on demand, or VOD, services is leading to changes in the way subscribers watch television programming in the home. Subscribers are increasingly utilizing time-shifting and ad-skipping technology. Further advances in technology are accelerating these trends, with cable, satellite and telco operators announcing initiatives, often in conjunction with network broadcasters, to increasingly personalize subscribers video viewing experience, including the delivery of programming directly to broadband enabled TV sets and computers and mobile devices in addition to conventional television sets.

High-Definition Television

The increasing popularity of HDTV and home theater equipment is putting competitive pressure on broadcasters and pay-TV providers to offer additional HDTV content and higher quality video signals for both standard and high definition services, including initiatives to broadcast in the 1080p standard of HDTV and, more recently, 3D. At the end of 2009, both the major

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U.S. direct broadcast satellite, or DBS, operators were offering hundreds of national and local HD channels to their subscribers across the country.

The Internet and Other Video Distribution Methods

Several companies, including Google, Apple, Hulu, and Netflix, as well as traditional broadcasters such as NBC, now enable their customers to stream video content to PCs and mobile devices. Devices that link broadband connections and PCs to the television set are gaining in popularity. We believe that the delivery of video over the Internet will continue to change traditional video viewing habits and distribution methods and also potentially alter the traditional subscription business model of the major pay-TV service providers.

Mobile Video

Many telcos and other providers in the U.S. and abroad have launched both broadcast and on-demand 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 and versatile digital video processing systems, which are required to acquire video content from a variety of sources and deliver it to the subscriber on a number of different devices in a number of different formats.

The Market Opportunity

Personalized video services, such as VOD, and the increasing amounts of high definition content, as well as an expanding amount of video transmitted over Internet connections, require more sophisticated video processing capabilities and 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, especially where video is received and processed, and in the last mile of the communications infrastructure where homes connect to the local network. The upgrade and extension of existing processing capabilities and distribution networks or the construction of completely new environments to facilitate the processing and 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.

Competition and Deregulation

Competition for traditional service providers in the cable and satellite markets has intensified as offerings from non-traditional providers of video, such as telcos, on-line media companies and mobile operators, are beginning to attract customers. The economic success of existing and new service providers in this increasingly competitive environment will depend, to a large extent, on their ability to provide a broad 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. This increasingly competitive environment led to higher capital spending by many of the market participants in 2007 and 2008, in an effort to deploy attractive packages of services and to capture and retain high revenue-generating subscribers, although capital spending declined significantly in 2009 in response to the global economic slowdown. Similar competitive factors and the liberalization of regulatory regimes in foreign countries have led to the establishment abroad of new or expanded cable

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television networks, the launch of new DBS services and the entry of telephone companies into the business of providing video services. Pay-TV services have recently seen significant investments in emerging markets due to deregulation, consolidation of operators, and growing disposable incomes. Although we expect competition among our customers to remain vibrant and pay-TV services to continue to grow, we anticipate that capital spending by some of our domestic and international customers may remain weak in 2010, as a result of difficult global economic conditions and reduced access to credit.

Our Cable Market

To address increasing competition and demand for high-speed broadband services, cable operators have widely introduced digital video, voice and data services. By offering bundled packages of broadband services, cable operators seek to obtain a competitive advantage over telephone companies and DBS providers and to create additional revenue streams. More recently, cable operators have been introducing services which enable their subscribers to access programming for which they are authorized on computers and mobile devices. These services are intended to attract and retain subscribers who may otherwise choose to download and watch video programming from alternative providers on the Internet. Cable operators have upgraded their facilities and networks to offer digital video, which enables them to provide more channels and better picture quality than analog video, allowing them to better compete against the substantial penetration of DBS services. These upgrades to digital video also allow cable operators to offer HDTV and interactive services, such as VOD, on their digital platforms. Capital spending on upgrades includes investment in digital video equipment that can receive, process and distribute content from a variety of sources in increasingly complex facilities. For example, VOD services require video storage equipment and servers, systems to ingest, store and intelligently distribute increasing amounts of content, complemented by edge devices capable of routing, multiplexing and modulation for delivering signals to individual subscribers over a hybrid fiber-coax, or HFC, network. Many cable operators are now conducting trials of delivery of similar services to PCs and mobile devices. Additionally, the provision of HDTV channels requires deployment of high-definition encoders and significantly more available bandwidth than the equivalent number of standard definition channels. In order to provide more bandwidth for such services, operators are adopting bandwidth optimization techniques such as switched digital video, new standards such as Data Over Cable Service Interface Specification, or DOCSIS, 3.0, as well as making enhancements to their optical networks, including the segmentation of nodes and the extension of bandwidth from 750 MHz to up to 1 GHz.

Our Satellite Market

Over 100 satellite operators around the world have established digital television services that serve millions of subscribers. These services are capable of providing up to several hundred channels of high quality standard definition video as well as increasing numbers of high definition channels. DBS services, however, operate mostly in a one-way environment. Signals are transmitted from an uplink center to a satellite and then beamed to dishes located at subscribers' homes. This method is suited to the delivery of broadcast television, but does not allow two-way services, such as Internet access or VOD. As cable operators expand the number of channels offered and introduce services such as VOD and HDTV, DBS providers are seeking to protect and expand their subscriber base in a number of ways. Domestic DBS operators have made local channels available in all major markets in standard definition format and offer local channels in high definition in most markets. Continuing advances in digital video compression technology allow DBS operators to cost-effectively add these new channels and to further expand their video entertainment offerings. Certain DBS operators have also entered into partnerships with, or have acquired, companies which provide terrestrial broadband services, thereby allowing them to introduce two-way services such as VOD and high-speed data which are delivered over the broadband connections. The new services, particularly HDTV, pose continuing bandwidth challenges and are expected to require ongoing capital expenditures for satellite capacity and other infrastructure by such operators. Like their cable competitors, DBS companies have made acquisitions or introduced technologies that allow their subscribers to access certain programming on PCs and mobile devices.

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Our Telco Market

Telcos are also facing increasing competition and demand for high-speed residential broadband services as well as saturation of fixed-line and basic mobile services. Consequently, many telcos around the world have added video services as a competitive response to cable and satellite operators and as a potential source of revenue growth. However, the telcos' legacy networks are not well equipped to offer video services. The bandwidth and distance limitations of the copper-based "last mile" present difficulties in providing multiple video services to widespread geographic areas. Multi-channel video, especially HDTV, delivered over DSL lines has significant bandwidth constraints, but the use of video compression technology at very low bit rates and improvements in DSL technology have allowed many operators to introduce competitive video services using the Internet Protocol (IPTV). A few operators, including Verizon, are building out fiber networks to homes, enabling the delivery of hundreds of video channels as well as very high data speed delivery of data. Because of increases in network capacity and the growing capabilities of "smart phones," like Apple's iPhone, many major telcos around the world now offer a variety of mobile video services to their subscribers.

Our Terrestrial Broadcast Markets

In the terrestrial broadcasting market, operators in many countries are now required by regulation to convert from analog to digital transmission in order to free up broadcast spectrum. The conversion to digital transmission often provides the opportunity to deliver new services, such as HDTV and data transmission. These broadcasters are faced with similar requirements to cable and satellite providers in that they need to convert analog signals to digital signals prior to transmission over the air and must also effectively manage the available bandwidth to maximize their revenue streams.

We believe that our acquisition of Scopus allows us to more effectively address the needs of network broadcasters and other programmers to transmit live programming of news and sports to their studios and to subsequently broadcast their content and to deliver their content to cable, satellite and telco operators for distribution to their subscribers.

Other Markets

We have begun to address video processing opportunities with a variety of video content owners and aggregators, some of whom distribute video via traditional television channels, others who distribute video over the Internet, and many who use both methods of distribution. Our acquisitions of Entone, Rhozet and Scopus have provided us with products and solutions that allow us to offer broader solutions and products to this group of customers, including the ability to process video content into appropriate formats and the ability to then deliver the content to distributors, or directly to consumers.

Current Industry Conditions

The telecommunications and media industries have seen considerable restructuring and consolidation in recent years. For example:

In 2009, Comcast announced its intention to purchase a controlling interest in NBC Universal.

In 2008, Liberty Media acquired a controlling stake in DIRECTV from News Corp., following the sale of DIRECTV by Hughes to News Corp. a few years previously.

In 2008, EchoStar Communications acquired Sling Media, a provider of technology allowing subscribers to watch their home market TV programming in remote locations.

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In 2007, Time Warner Cable was spun out of Time Warner.

In 2007, AT&T acquired Bell South.

Regulatory issues, financial concerns and business combinations among our customers are likely to significantly affect the industry, capital spending plans, and our business for the foreseeable future.

The recent global economic slowdown led many of our customers to reduce capital expenditures for 2009, and we believe that this slowdown caused certain of our customers to reduce or delay orders for our products during 2009. Many of our international customers, particularly those in emerging markets, were exposed to tight credit markets and depreciating currencies, further restricting their ability to invest to build out or upgrade their networks. Although we saw substantially higher orders for our products in the fourth quarter of 2009 than in any other quarter of 2009, we expect many of our customers to continue to expend capital cautiously during 2010.

PRODUCTS

Harmonic's products generally fall into two principal categories: video processing solutions and edge and access products. We also provide technical support services to our customers worldwide. Our video processing solutions, which include network management software and application software products, provide broadband operators with the ability to acquire a variety of signals from different sources and in different protocols in order to deliver a variety of real-time and stored content to their subscribers. Many of our customers also use these products to organize, manage and distribute content in ways that maximizes use of the available bandwidth. Our edge products enable cable operators to deliver customized broadcast or narrowcast on-demand and data 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, data and voice services over their distribution networks.

Video Processing Products

Broadcast encoders. We offer our Electra and Ion high performance encoders, which compress video, audio and data channels to low bit rates while maintaining high video quality. Our encoders are available in the standard and high definition formats in both MPEG-2 and the newer MPEG-4 AVC/H.264, or MPEG-4, video compression standards. The recently introduced Electra 8000 encoder supports all of these formats on the same hardware platform. Compliance with these widely adopted standards enables interoperability with products manufactured by other companies, such as set-top boxes and conditional access systems. Most of these encoders are used in real-time broadcasting applications, but they are also employed in conjunction with our software in encoding of video content and storage for later delivery as VOD.

Contribution and distribution encoders. Our Ellipse encoders provide broadcasters with video compression solutions for on-the-spot news gathering, live sports coverage and other remote events. These products enable our customers to deliver these feeds to their studios for further processing. Broadcasters and other operators, such as teleports, also use these encoders for delivery of their programming to their customers, typically cable, telco and DBS operators.

Stream processing and statistical multiplexing solutions. Our ProStream platform and other stream processing products offer our customers a variety of capabilities which enable them to manage and organize digital streams in a format best suited to their particular delivery requirements and subscriber offerings. Our multi-function ProStream 1000 addresses multiplexing, encryption, ad insertion and other advanced processing requirements of MPEG video streams and can be integrated with our DiviTrackIP statistical multiplexer which enhances the bandwidth efficiency of our encoders by allowing bandwidth to be

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dynamically allocated according to the complexity of the video content. DiviTrackIP also enables operators to combine inputs from different physical locations into a single multiplex.

Content management for multi-screen applications. Our MediaPrism solution provides operators with a suite of integrated content preparation tools to create high-quality on-demand content for a variety of applications. MediaPrism incorporates a number of Harmonic hardware and software elements, including CLEARCut storage encoding, our CarbonCoder software-based transcoding solutions that facilitate the creation of multi-format video for Internet, mobile and broadcast applications, and our ProStream 4000 multi-screen real-time transcoder. Our ProStream 8000 solution allows operators to present on-screen mosaics with several channels tiled within a single video stream. Our Armada and Streamliner products enable the intelligent management of an operator's video-on-demand assets and the distribution of these assets to subscribers.

Decoders and descramblers. We provide our ProView integrated receivers-decoders to allow service providers to acquire content delivered from satellite and terrestrial broadcasters for distribution to their subscribers. These products are available in both standard and high definition formats. The ProStream 1000 can also be used as a bulk descrambler to enable operators to deliver up to 128 channels of video and efficiently descramble the content at small or remote headends.

Management and control software. Our NMX Digital Service Manager gives service providers the ability to control and visually monitor their digital video infrastructure at an aggregate level, rather than as just discrete pieces of hardware, thereby reducing their operational costs. Our NETWatch management system operates in broadband networks to capture measurement data and our software enables the broadband service operator to monitor and control the HFC transmission network from a master headend or remote locations. Our NMX Digital Service Manager and NETWatch software is designed to be integrated into larger network management systems through the use of simple network management protocol, or SNMP.

Edge and Access Products

Edge products. Our Narrowcast Services Gateway family, or NSG, is a fully integrated edge gateway, which integrates routing, multiplexing and modulation into a single package for the delivery of narrowcast services to subscribers over cable networks. The NSG is usually supplied with Gigabit Ethernet inputs, allowing the cable operator to use bandwidth efficiently by delivering IP signals from the headend to the edge of the network for subsequent modulation onto the HFC network. Originally developed for VOD applications, our most recent NSG product, the high-density, multi-function NSG 9000, may also be used in switched digital video and modular Cable Modem Termination Systems, or M-CMTS, applications as well as large-scale VOD deployments.

Optical transmitters and amplifiers. Our family of optical transmitters and amplifiers operates at various optical wavelengths and serves both long-haul and local transport applications in the cable distribution network. The PWRLink series provides optical transmission primarily at a headend or hub for local distribution to optical nodes and for narrowcasting, which is the transmission of programming to a select set of subscribers. Our METROLINK Dense Wave Division Multiplexing, or DWDM, system allows operators to expand the capacity of a single strand of fiber and also to provide narrowcast services directly from the headend to nodes. We recently introduced SupraLink, a transmitter which allows deeper deployment of optical nodes in the network and minimizes the significant capital and labor expense associated with deploying additional optical fiber.

Optical nodes and return path equipment. Our family of PWRBlazer optical nodes supports network architectures which meet the varying demands for bandwidth delivered to a service area. By the addition of modules providing functions such as return path transmission and DWDM, our configurable nodes are easily segmented to handle increasing two-way traffic over a fiber network without major reconstruction or replacement of our customers

networks. Our return path transmitters support two-way transmission capabilities by sending video, voice and data signals from the optical node back to the headend. These transmitters are available for either analog or digital transport.

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We provide consulting, implementation and integration services to our customers worldwide. We draw upon our expertise in broadcast television, communications networking and compression technology to design, integrate and install complete solutions for our customers, including integration with third-party products and services. We offer a broad range of services and support including program management, budget analysis, technical design and planning, parts inventory management, building and site preparation, integration and equipment installation, end-to-end system testing, and comprehensive training. We also provide maintenance and support services to most of our customers under service level agreements which are generally renewed on an annual basis.

CUSTOMERS

We sell our products to a variety of broadband communications companies. Set forth below is a representative list of our significant end user and integrator/distributor customers based on net sales during 2009.

United States

Cablevision Systems
 Charter Communications
 Comcast
 Cox Communications
 DIRECTV
 EchoStar
 Insight Communications
 MegaHertz
 Time Warner Cable

International

Acetel
 Bell ExpressVu
 Capella Communications
 Impeq Technologies
 PUH Klonex
 Nokia Siemens Networks
 Sky Perfect JSAT
 Star Software Technology
 Virgin Media

Historically, a majority of our sales have been to relatively few customers, and due in part to the consolidation of ownership in the pay-TV service provider industry, we expect this customer concentration to continue in the foreseeable future. Sales to our ten largest customers in 2009, 2008 and 2007 accounted for approximately 47%, 58% and 53% of net sales, respectively. In 2009, sales to Comcast accounted for 16% of net sales. In 2008, sales to Comcast and EchoStar accounted for 20% and 12% of net sales, respectively. In 2007, sales to Comcast and EchoStar accounted for 16% and 12% of net sales, respectively.

Sales to customers outside of the U.S. in 2009, 2008 and 2007 represented 49%, 44%, and 44% of net sales, respectively. We expect international sales to continue to account for a substantial portion of our net sales for the foreseeable future. In part because of the acquisition of Scopus, our international sales have increased in 2009 as a proportion of net sales. International sales 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 foreign currency exchange rates, difficulty in collecting accounts receivable, difficulty in staffing and managing foreign operations, managing distributor relations and political and economic instability. Also, additional international markets may not develop and we may not receive future orders to supply our products in international markets at rates equal to or greater than those experienced in recent periods.

SALES AND MARKETING

In the U.S. we sell our products principally through our own direct sales force which is organized geographically and by major customers and markets to support customer requirements. We sell to international customers through our

own direct sales force as well as through independent distributors and integrators. Our principal sales offices outside of the U.S. are located in Europe and Asia, and we have recently established an international support center in Switzerland to support our international

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customers. International distributors are generally responsible for importing our products and providing certain installation, technical support and other services to customers in their territory. Our direct sales force and distributors are supported by a highly trained technical staff, which includes application engineers who work closely with operators to develop technical proposals and design systems to optimize system performance and economic benefits to operators. Technical support provides a customized set of services, as required, for ongoing maintenance, support-on-demand and training for our customers and distributors both in our facilities and on-site.

Our marketing organization develops strategies for product lines and market segments and, in conjunction with our sales force, identifies the evolving technical and application needs of customers so that our product development resources can be most effectively and efficiently deployed to meet anticipated product requirements. Our marketing organization is also responsible for setting price levels, demand forecasting and general support of the sales force, particularly at major accounts. We have many programs in place to heighten industry awareness of our products, including participation in technical conferences, publication of articles in industry journals and exhibitions at trade shows.

MANUFACTURING AND SUPPLIERS

We use third party contract manufacturers extensively to assemble full turnkey products and a substantial majority of subassemblies and modules for our products. Our increasing reliance on subcontractors involves several risks, and we may not be able to obtain an adequate supply of components, subassemblies, modules and turnkey systems on a timely basis. In 2003, we entered into an agreement with Plexus Services Corp. as our primary contract manufacturer, and Plexus currently provides us with a substantial portion of the products we purchase from our contract manufacturers. This agreement has automatic annual renewals unless prior notice is given and has been renewed until October 2010.

Our manufacturing operations consist primarily of final assembly and testing of fiber optic systems. These processes are performed by highly trained personnel employing technologically advanced electronic equipment and proprietary test programs. The manufacturing of our products and subassemblies is a complex process and we cannot be sure that we will not experience production problems or manufacturing delays in the future. Because we utilize our own manufacturing facilities for the final assembly and test of our fiber optic systems, and because such manufacturing capabilities are not readily available from third parties, any interruption in our manufacturing operations could materially and adversely affect our business, operating results, financial position or cash flows.

As a result of the acquisition of Scopus, we now own Scopus manufacturing operations in Israel. Previously, Scopus assembled and tested most of its products at this facility, from components and sub-assemblies manufactured by local and international suppliers. Since October 2009, most of the products previously manufactured by Scopus have been outsourced to a third party manufacturer located in Israel. Our ability to improve production efficiency with respect to Scopus business may be limited by the terms of research grants that Scopus received from the Office of the Chief Scientist, or OCS, an arm of the Israeli government. These grants restrict the transfer outside of Israel of intellectual property developed with funding from the OCS, and also limit the manufacturing outside of Israel of products containing such intellectual property. In addition, OCS also generally requires royalty payments with respect to products developed with OCS grants.

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 are dependent 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, 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 components have in the past been in short supply and are available only from a small number of suppliers, or from sole source suppliers. While we expend

considerable efforts 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.

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We do not generally maintain long-term agreements with any of our suppliers, although the agreement with Plexus was for an initial term of three years and has been renewed until October 2010. Managing our supplier 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. An inability to obtain adequate deliveries or any other circumstance that would require us to seek alternative sources of supply could affect our ability to ship our products on a timely basis, which could damage relationships with current and prospective customers and harm our business. We attempt to limit this risk by maintaining safety stocks of 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 or cash flows.

INTELLECTUAL PROPERTY

We currently hold 44 issued U.S. patents and 18 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 our products, we may be required to enter into technology development or licensing agreements with third parties. Although many companies are often willing to enter into such technology development or licensing agreements, we cannot assure you that such agreements will be negotiated on terms acceptable to us, or at all. The failure to enter into technology development or licensing agreements, when necessary, could limit our ability to develop and market new products and could cause our business to suffer.

Harmonic's industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. In particular, leading companies in the telecommunications industry as well as an increasing number of companies whose principal business is the ownership and exploitation of patents, have extensive patent portfolios. From time to time, third parties, including certain of these companies, have asserted and may assert exclusive patent, copyright, trademark and other intellectual property rights against us or our customers. There can be no assurance that we will be able to defend against any claims that we are infringing upon their intellectual property rights, or that the terms of any license offered by any person asserting

such rights would be acceptable to us or our customers or that failure to obtain a license or the costs associated with any license would not cause our business, operating results, financial position or cash flows to be materially adversely affected.

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BACKLOG

We schedule production of our products and solutions based upon our backlog, open contracts, informal commitments from customers and sales projections. Our backlog consists of firm purchase orders by customers for delivery within the next twelve months as well as deferred revenue which is expected to be recognized within the next twelve months. At December 31, 2009, backlog, including deferred revenue, was \$85.7 million, compared to \$74.0 million at December 31, 2008. The increase in backlog at December 31, 2009 from December 31, 2008 was due in part to an increase in orders received where product shipment had not been made and the timing of the completion of projects or acceptance of products. We believe that the global economic slowdown caused certain customers to reduce or delay capital spending plans in 2009 and that these conditions could persist well into 2010. Anticipated orders from customers may fail to materialize and delivery schedules may be deferred or canceled for a number of reasons, including reductions in capital spending by cable, satellite and other operators or changes in specific customer requirements. In addition, due to weather-related seasonal factors and annual capital spending budget cycles at many major end users, our backlog at December 31, 2009, or any other date, is not necessarily indicative of actual sales for any succeeding period.

COMPETITION

The markets for digital video systems and edge and access systems are extremely competitive and have been characterized by rapid technological change and declining average selling prices. The principal competitive factors in these markets include product performance, reliability, price, breadth of product offerings, network management capabilities, sales and distribution capabilities, technical support and service, and relationships with network operators. We believe that we compete favorably in each of these categories. Harmonic's competitors in digital video solutions include vertically integrated system suppliers, such as Motorola, Cisco Systems, Ericsson and Technicolor, and in certain product lines, a number of smaller companies. In edge devices and fiber optic access products, competitors include corporations such as Motorola, Cisco Systems and Arris.

Consolidation in the industry has led to the acquisition of competitor companies such as Scientific-Atlanta, Tandberg Television and C-Cor by larger companies, such as Cisco Systems, Ericsson and Arris, respectively. Consequently, most of our principal competitors are substantially larger and have greater financial, technical, marketing and other resources than Harmonic. Many of these larger organizations are in a better position to withstand any significant reduction in capital spending by customers in these markets and are often more capable of engaging in price-based competition for sales of products. They often have broader product lines and market focus, and, therefore will 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 have more long-standing and established relationships with domestic and foreign customers. We may not be able to compete successfully in the future and competition may harm our business, operating results, financial position or cash flows.

If any of our competitors' products or technologies were to become the industry standard, our business could be seriously harmed. In addition, companies that have historically not had a large presence in the broadband communications equipment market have expanded their market presence through mergers and acquisitions. Further, our competitors 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, which could adversely affect our net sales and result in lower gross margins.

RESEARCH AND DEVELOPMENT

We have historically devoted a significant amount of our resources to research and development. Research and development expenses in 2009, 2008 and 2007 were \$61.4 million, \$54.5 million and \$42.9 million, respectively. Our

principal research and development activities are conducted in California, Israel and Hong Kong.

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Our research and development program is primarily focused on developing new products and systems, and adding new features to existing products and systems. Our development strategy is to identify features, products and systems in both software and hardware solutions that are, or expected to be, needed by, or desirable to, our customers. Our current research and development efforts are focused heavily on enhanced video compression and we also devote significant resources to stream processing solutions and stream management software. Other research and development efforts are devoted to edge devices for VOD, switched broadcast and M-CMTS, and broadband optical products that enable the transmission of video over fiber optic networks.

Our success in designing, developing, manufacturing and selling new or enhanced products will depend on a variety of factors, including the identification of market demand for new products, product selection, timely implementation of product design and development, product performance, effective manufacturing and assembly processes and sales and marketing. Because of the complexity inherent in such research and development efforts, we cannot assure you that we will successfully develop new products, or that new products developed by us will achieve market acceptance. Our failure to successfully develop and introduce new products could harm our business and operating results.

EMPLOYEES

As of December 31, 2009, we employed a total of 840 people, including 324 in research and development, 281 in sales, service and marketing, 125 in manufacturing operations and 110 in a general and administrative capacity. There were 460 employees in the U.S. and 380 employees in foreign countries located in the Middle East, Europe and Asia. We also employ a number of temporary employees and consultants on a contract basis. None of our employees is represented by a labor union with respect to his or her employment by Harmonic. We have not experienced any work stoppages and we consider our relations with our employees to be good. Our future success will depend, in part, upon our ability to attract and retain qualified personnel. Competition for qualified personnel in the broadband communications industry and in the geographic areas where our primary operations are located remains strong, and we cannot assure you that we will be successful in retaining our key employees or that we will be able to attract skilled personnel in the future.

EXECUTIVE OFFICERS OF REGISTRANT

The following table sets forth certain information regarding the executive officers of Harmonic and their ages as of February 1, 2010:

Name	Age	Position
Patrick J. Harshman	45	President & Chief Executive Officer
Robin N. Dickson	62	Chief Financial Officer
Matthew Aden	54	Vice President, Worldwide Sales
Nimrod Ben-Natan	42	Vice President, Solutions and Strategy
Charles J. Bonasera	52	Vice President, Operations
Neven Haltmayer	45	Vice President, Research and Development

Patrick J. Harshman joined Harmonic 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 marketing. Prior to the consolidation of our product divisions, Dr. Harshman held the position of President of the Convergent Systems division and, prior to that, for more than four years, was President of the Broadband Access Networks Division. Dr. Harshman has also previously 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.

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Robin N. Dickson joined Harmonic in 1992 as Chief Financial Officer. From 1989 to March 1992, Mr. Dickson was Corporate Controller of Vitelic 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. Mr. Dickson recently announced his intention to retire from Harmonic during 2010 and is expected to continue in his current position until his replacement is hired and an appropriate transition period has elapsed.

Matthew Aden joined Harmonic in October 2007 as Vice President, Worldwide Sales and Service. Mr. Aden was previously Vice President of Worldwide Sales and Customer Operations at Terayon Communications, a manufacturer of broadband systems, from July 2005 to July 2007. Prior to Terayon, Mr. Aden was at Motorola/General Instrument from 1984 until July 2005 and held a variety of positions in executive sales management. Mr. Aden holds a Bachelor's degree in Business Administration from the University of Nebraska.

Nimrod Ben-Natan joined Harmonic 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 he was with the Israeli Defense Signal Corps. Mr. Ben-Natan holds a Bachelor's degree in Computer Science from Tel Aviv University.

Charles J. Bonasera joined Harmonic 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 Harmonic 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 and 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 Bachelor's degree in Electrical Engineering from the University of Zagreb, Croatia.

ABOUT HARMONIC

Harmonic was initially incorporated in California in June 1988 and reincorporated into Delaware in May 1995.

On July 31, 2007, we completed the acquisition of Rhozet Corporation. Rhozet develops and markets software-based transcoding solutions that facilitate the creation of multi-format video for Internet, mobile and broadcast applications. With Rhozet's products, and sometimes in conjunction with other Harmonic products, Harmonic's existing broadcast, cable, satellite and telco customers can deliver traditional video programming over the Internet and to mobile devices, as well as expand the types of content delivered via their traditional networks to encompass web-based and user-generated content. The acquisition also opens up new customer opportunities for Harmonic with Rhozet's customer base of broadcast content creators and online video service providers and is complementary to Harmonic's VOD networking software business acquired in December 2006 from Entone Technologies Inc.

On March 12, 2009, we completed the acquisition of Scopus Video Networks, Ltd., a publicly traded company organized under the laws of Israel. Under the terms of the Agreement and Plan of Merger, Harmonic paid \$5.62 per share in cash for all of the

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outstanding ordinary shares of Scopus, which represented an enterprise value of approximately \$63 million, net of Scopus cash and short-term investments. The acquisition of Scopus is intended to strengthen Harmonic's position in international video broadcast and contribution and distribution markets. Scopus provides complementary video processing technology, expanded research and development capability and additional sales and distribution channels, particularly in emerging markets.

Our principal executive offices are located at 549 Baltic Way, Sunnyvale, California 94089. Our telephone number is (408) 542-2500.

Available Information

Harmonic makes available free of charge on the Harmonic website the Company's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after Harmonic files such material with, or furnishes such material to, the Securities and Exchange Commission. The address of the Harmonic website is <http://www.harmonicinc.com>.

Item 1A. Risk Factors

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 or 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 and data services;
- evolving industry standards and network architectures;
- competitive pressures, including pricing pressures;

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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;

weak or uncertain economic and financial conditions in domestic and international markets; and

bankruptcies and financial restructuring of major customers.

The financial difficulties of certain of our customers and changes in our customers' deployment plans adversely affected our business in the past. Recently, economic conditions in the countries in which we operate and sell products have been very weak, and global economic conditions and financial markets have experienced a severe downturn stemming from a multitude of factors, including adverse credit conditions, slower economic activity, concerns about inflation and deflation, rapid changes in foreign exchange rates, increased energy costs, decreased consumer confidence, reduced corporate profits and capital spending, adverse business conditions and liquidity concerns and other factors. Economic growth in the U.S. and in many other countries has slowed significantly or receded recently, and economic growth is expected by many to remain sluggish during 2010. The severity or length of time that these adverse economic and financial market conditions may persist is unknown. During challenging economic times, and in tight credit markets, many customers may delay or reduce capital expenditures, which in turn often results in lower demand for our products.

Further, we have a number of customers internationally to whom sales are denominated in U.S. dollars. Over the past two years, the value of the U.S. dollar has fluctuated significantly against many foreign currencies, which includes the local currencies of many of our international customers. If the U.S. dollar appreciates relative to the local currencies of our customers, then the price of our products correspondingly increases for such customers. These factors could result in reductions in sales of our products, longer sales cycles, difficulties in collection of accounts receivable, slower adoption of new technologies and increased price competition. If the U.S. dollar would weaken against many major currencies, there is no assurance that a weaker dollar will lead to growth in our sales. Financial difficulties among our customers could adversely affect our operating results and financial condition.

In addition, industry consolidation has in the past constrained, and may in the future constrain capital spending among our customers. As a result, we cannot assure you that we will maintain or increase our net sales in the future. Also, 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 and other major customers, our revenue may decline and our operating results

would be adversely affected.

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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 2009, 2008 and 2007 accounted for approximately 47%, 58% and 53% 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 to further 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 24 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 DBS market, The News Corporation Ltd. acquired an indirect controlling interest in Hughes Electronics, the parent company of DIRECTV, in 2003, and News Corporation subsequently sold its interest in DIRECTV to Liberty Media in February 2008. In the telco market, AT&T completed its acquisition of Bell South in December 2006.

In the fiscal year 2009, sales to Comcast accounted for 16% of our net sales. In the fiscal year 2008, sales to Comcast and EchoStar accounted for 20% and 12%, respectively, of our net sales. The loss of Comcast, EchoStar or any other significant customer or any reduction in orders by Comcast, EchoStar or any significant customer, or our failure to qualify our products with a significant customer could adversely affect our business, operating results and liquidity. The loss of, or any reduction in orders from, a significant customer would harm our business if we were not able to offset any such loss or reduction with increased orders from other customers.

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, including the telco market. Several major telcos have rebuilt or are upgrading their networks to offer bundled video, voice and data services. In order to be successful in this market, we may need to continue 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, including recent trials of mobile video services, are subject to delays in completion, as video processing technologies and video business models are relatively 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. Further, during challenging economic times, and in tight credit markets, many customers, including telcos, may delay or reduce capital expenditures. This could result in reductions in sales of our products, longer sales cycles, difficulties in collection of accounts receivable, slower adoption of new technologies and increased price competition. As a result of these and other factors, we cannot assure you that we will be able to increase our revenues from telco customers and other markets, or that we can do so profitably, and any failure to increase revenues and profits from these customers could adversely affect our business.

Our operating results are likely to fluctuate significantly and may fail to meet or exceed the expectations of securities analysts or investors, causing our stock price to decline.

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

the level and timing of capital spending of our customers, both in the U.S. and in foreign markets;

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access to financing, including credit, for capital spending by our customers;

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

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 level and mix of international sales;

the amount and timing of sales to telcos, which are particularly difficult to predict;

new product introductions by our competitors or by us;

our development of custom products and software;

changes in domestic and international regulatory environments;

market acceptance of new or existing products;

the evaluation of new services, new standards and system architectures by many operators;

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;

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the outcome of litigation;

write-downs of inventory and investments;

the impact of applicable accounting guidance that requires us to record the fair value of stock options, restricted stock units and employee stock purchase plan awards as compensation expense;

changes in our tax rate, including as a result of changes in our valuation allowance against certain of our deferred tax assets, and changes in state tax laws including apportionment, as a result of proposed amended tax rules related to the deferral of foreign earnings;

the impact of applicable accounting guidance on accounting for uncertainty in income taxes that requires us to establish reserves for uncertain tax positions and accrue potential tax penalties and interest;

the impact of applicable accounting guidance on business combinations that requires us to record charges for certain acquisition related costs and expenses instead of capitalizing these costs, and generally to expense restructuring costs associated with a business combination subsequent to the acquisition date; and

general economic conditions.

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, our customers' ability to negotiate and enter into rights agreements with video content owners that provide the customers with the right to deliver certain video content, and our customers' need for local franchise and licensing approvals.

In addition, we often recognize a substantial portion, or majority, 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 these factors, or other 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.

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 previous economic downturns as equipment suppliers competed aggressively for customers' reduced capital spending, and we have experienced similar pressure during the current economic slowdown. Our competitors for edge and access products include corporations such as Cisco Systems, Motorola and Arris. In our video processing products, we compete broadly with products from vertically integrated system suppliers including Motorola, Cisco Systems, Technicolor and Ericsson and, in certain product lines, with a number of smaller companies.

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

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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 or offer more attractive financing terms, which has in the past and may in the future cause us to lose sales or to reduce our prices in response to competition. Any reduction in sales or reduced prices for our products would adversely affect our business and results of operations. 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. If our competitors are successful in bringing their products to market earlier than us, or if these products are more technologically capable than ours, our sales could be materially and adversely affected. In addition, certain companies that have not had a large presence in the broadband communications equipment market have recently begun to expand their presence in this market through mergers and acquisitions. The continued consolidation of our competitors could have a significant negative impact on us. Further, our competitors, particularly companies that offer products that are competitive with our digital video systems, 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 revenues and decreased gross margins.

Our future growth depends on market acceptance of several 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 emerging broadband services, including digital video, VOD, HDTV, IPTV, mobile video services, and very high-speed data services.

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

- 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 further adoption of bandwidth-optimization techniques, such as switched digital video and DOCSIS 3.0; and

- the introduction of new consumer devices, such as advanced set-top boxes, personal video recorders, or PVRs and a variety of smart phone mobile devices, such as the iPhone.

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.

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

- convergence, or the need of many network operators to deliver a package of video, voice and data services to consumers, including mobile delivery options;
- the increasing availability of traditional broadcast video content on the Internet;
- the entry of telcos into the video business;
- the use of digital video by businesses, governments and educational institutions;
- efforts by regulators and governments in the U.S. and abroad to encourage the adoption of broadband and digital technologies;
- the extent and nature of regulatory attitudes towards such issues as network neutrality, competition between operators, access by third parties to networks of other operators, local franchising requirements for telcos to offer video, and other new services such as mobile video; and
- the outcome of litigation and negotiations between content owners and service providers regarding rights of service providers to store and distribute recorded broadcast content.

In 2006, Cablevision announced a plan to offer a network-based digital video recorder service to its customers. In order for Cablevision and other cable companies to deliver a network-based digital video recorder service broadly to their customers, they need to continue to enhance their networks and distribution capabilities by upgrading their video distribution hardware and software, which we believe will enhance the demand for our products and services.

Shortly following Cablevision's announcement that it planned to offer a network-based digital video recorder service to its customers, several major entertainment networks and video production studios sued Cablevision in federal court to enjoin Cablevision from offering this service without securing licensing or programming rights from the content providers. This case was resolved in favor of Cablevision. However, in the event that similar challenges against cable operators offering network-based digital video recorder services are successful, cable operators may not be able to provide a network-based digital video recorder service to their customers, which could reduce the growth in demand for our products and services.

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, among other things, 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;

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fail to achieve market acceptance; or

are ahead of the market.

We are currently developing and marketing products based on recently established 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. Newer standards, such as MPEG-4 AVC/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 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. In addition, we have recently launched an encoding platform which is capable of being configured for both MPEG-2 and MPEG-4, in both standard definition and HD formats. 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 standard which our cable customers continue to require. Also, to successfully develop and market certain of our planned products, 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. If we fail to develop and market new products, our business and operating results could be materially and adversely affected.

Conditions and changes in the national and global economic environments may adversely affect our business and financial results.

Adverse economic conditions in markets in which we operate may harm our business. Recently, economic conditions in the countries in which we operate and sell products have been weak, and global financial markets have experienced a severe downturn stemming from a multitude of factors, including adverse credit conditions, slower economic activity, concerns about inflation and deflation, rapid changes in foreign exchange rates, increased energy costs, decreased consumer confidence, reduced corporate profits and capital spending, adverse business conditions and liquidity concerns and other factors. Economic growth in the U.S. and in many other countries slowed in the fourth quarter of 2007, remained slow or stopped in 2008, and slowed further or remained relatively flat in 2009 in the U.S. and internationally. The current global economic slowdown led many of our customers to decrease their expenditures in 2009, and we believe that this slowdown caused certain of our customers to reduce or delay orders for our products. Many of our international customers, particularly those in emerging markets, have been exposed to tight credit markets and depreciating currencies, further restricting their ability to build out or upgrade their networks. Some customers have difficulty in servicing or retiring existing debt and the financial constraints on certain international customers required us to significantly increase our allowance for doubtful accounts in the fourth quarter of 2008.

During challenging economic times, and in tight credit markets, many customers may delay or reduce capital expenditures. This could result in reductions in sales of our products, longer sales cycles, difficulties in collection of accounts receivable, slower adoption of new technologies and increased price competition. If global economic and market conditions, or economic conditions in the United States or other key markets remain weak or deteriorate further, we may experience a material and adverse impact on our business, results of operations and financial condition.

Broadband communications markets are characterized by rapid technological change.

Broadband communications markets are subject to rapid changes, 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

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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.

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 in the laboratory and often in the field;
- 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. The timing of the 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.

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 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.

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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 the first quarter of 2009, we wrote down approximately \$5.8 million of obsolete inventory for product discontinuances associated with the Scopus acquisition. Also, in 2007, we wrote down approximately \$7.6 million of net obsolete and excess inventory, with a significant portion of the write-down being due to product transitions. 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.

Further, we recently executed an agreement with an Israeli contract manufacturer to assume the manufacturing of products previously manufactured by Scopus. Under the terms of this agreement, we have transferred equipment, certain employees and consigned inventory to this contract manufacturer. There can be no assurance that this transfer of manufacturing responsibilities will be successful, and we may incur unforeseen costs and delays in the delivery of products to our customers.

We have made and expect to continue to make acquisitions, and such acquisitions could disrupt our operations and adversely affect our operating results.

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 March 12, 2009, we completed the acquisition of Scopus Video Networks Ltd. pursuant to the Agreement and Plan of Merger announced on December 22, 2008. In addition, 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 Rhonet Corporation. 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 and integration of acquired operations, technologies and/or products;

unanticipated costs associated with the acquisition transaction;

the diversion of management's attention from the regular operations of the business and the challenges of managing larger and more widespread operations;

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 new and existing business relationships with suppliers and customers;

channel conflicts and disputes between distributors and other partners of us and the acquired companies;

potential difficulties in completing projects associated with in-process research and development;

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;

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difficulties in bringing acquired products and businesses into compliance with applicable legal requirements in jurisdictions in which we operate and sell products;

substantial charges for acquisition costs, which are required to be expensed under recent accounting guidance on business combinations;

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, the government grants that Scopus received for research and development expenditures limits its ability to manufacture products and transfer technologies outside of Israel, and if Scopus fails to satisfy specified conditions, it may be required to refund grants previously received together with interest and penalties and may be subject to criminal charges.

Also, we 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.

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;

incur significant acquisition-related expenses;

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. Alternatively, due to difficulties in the capital and credit markets, we may be unable to secure capital on acceptable terms, or at all, to complete acquisitions.

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.

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

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We may not realize the anticipated improvement in our operating results and other benefits expected from our recently completed acquisition of Scopus, which could adversely affect our business and cause our stock price to decline.

Our recently completed acquisition of Scopus involved the integration of two companies that had previously operated independently. The integration of two previously independent companies is a challenging, time-consuming and costly process. While the integration process began in March 2009, when the Scopus acquisition was consummated, it has taken some time to substantially complete the integration. It is still possible that the process of combining the companies could result in the loss of key employees, the disruption of our ongoing businesses, or inconsistencies in standards, controls, procedures, and policies that adversely affect our ability to maintain relationships with customers, suppliers, and employees. In addition, the successful combination of the companies requires the dedication of significant management resources, which could temporarily divert attention from the day-to-day business of the combined company. There can be no assurance that these challenges will be met, and that we will realize benefits from the acquisition of Scopus. If we are unable to realize these benefits, our business and operating results may be adversely affected, and our stock price may decline.

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 2009, 2008 and 2007 represented 49%, 44% and 44% 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:

- a slowdown in international economies, which may adversely affect our customers' capital spending;
- changes in foreign government regulations and telecommunications standards;
- import and export license requirements, tariffs, taxes and other trade barriers;
- fluctuations in currency exchange rates;
- a significant reliance on distributors, resellers and other third parties to sell our products and solutions;
- difficulty in collecting accounts receivable, especially from smaller customers and resellers;
- compliance with the U.S. Foreign Corrupt Practices Act, or FCPA;
- the burden of complying with a wide variety of foreign laws, treaties and technical standards;
- fulfilling country of origin requirements for our products for certain customers;
- difficulty in staffing and managing foreign operations;

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political and economic instability, including risks related to terrorist activity; and changes in economic policies by foreign governments.

In the past, certain of our international customers accumulated significant levels of debt and have undertaken reorganizations and financial restructurings, including bankruptcy proceedings. Even where these restructurings have been completed, in some cases these customers have not been 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 portion of our European business is denominated in Euros, which subjects 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.

Our operations outside the United States also require us to comply with a number of United States and international regulations. For example, our operations in countries outside the United States are subject to the FCPA and similar laws, which prohibits United States companies or their agents and employees from providing anything of value to a foreign official for the purposes of influencing any act or decision of these individuals in their official capacity to help obtain or retain business, direct business to any person or corporate entity or obtain any unfair advantage. Our activities in countries outside the United States create the risk of unauthorized payments or offers of payments by one of our employees or agents, including those companies to which we outsource certain of our business operations, which could be in violation of the FCPA, even though these parties are not always subject to our control. We have internal control policies and procedures and have implemented training and compliance programs for our employees and agents with respect to the FCPA. However, we cannot assure you that our policies, procedures and programs will prevent violations of the FCPA or similar laws by our employees or agents, particularly as we expand our international operations. Any such violation, even if prohibited by our policies, could result in criminal or civil sanctions, and this could have a material adverse effect on our business, financial condition and results of operations.

Any or all of these factors could adversely impact our business and results of operations.

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

When we completed the acquisition of Scopus in March 2009, Scopus was headquartered and had a substantial majority of its operations in Israel. This acquisition resulted in the addition of 221 employees based in Israel. In addition, we maintain a facility in Caesarea in Israel with a total of 84 employees. The employees at the Caesarea facility consist principally of research and development personnel. We have pilot production capabilities at this facility consisting of procurement of subassemblies and modules from Israeli subcontractors and final assembly and test operations. As of December 31, 2009, we had a total of 229 employees based in Israel, or approximately 27% of our workforce.

Accordingly, we are directly influenced by the political, economic and military conditions affecting Israel, and this influence has increased with the acquisition of Scopus. Any significant conflict involving Israel 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 those of our subcontractors, 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

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military duty in recent years. 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, and Israel and Hamas, the conflict between Hamas and Fatah, as well as tensions between Israel and Iran, have also heightened these risks. Current or future tensions in the Middle East may adversely affect our business and results of operations.

Fluctuations in our future effective tax rates could affect our future operating results, financial condition and cash flows.

We have evaluated the need for a valuation allowance based on historical evidence, trends in profitability, expectations of future taxable income and implemented tax planning strategies. As such in 2008, we determined that a valuation allowance was no longer necessary for certain of our U.S. deferred tax assets because, based on the available evidence, we concluded that a realization of these net deferred tax assets was more likely than not. We continue to maintain a valuation allowance for certain foreign deferred tax assets and recorded a valuation allowance on certain of our California deferred tax assets in the first quarter of 2009 as a result of our expectations of future usage of the California deferred tax assets. We are required to periodically review our deferred tax assets and determine whether, based on available evidence, a valuation allowance is necessary. In the event that, in the future, we determine an additional valuation allowance is necessary with respect to our U.S. and certain foreign deferred tax assets, we would incur a charge equal to the amount of the valuation allowance in the period in which we made such determination as a discrete item, and this could have a material and adverse impact on our results of operations for such period.

The calculation of tax liabilities involves dealing with uncertainties in the application of complex global tax regulations. We recognize potential liabilities for anticipated tax audit issues in the U.S. and other tax jurisdictions based on our estimate of whether, and the extent to which, additional taxes will be due. If payment of these amounts ultimately proves to be unnecessary, the reversal of the liabilities would result in tax benefits being recognized in the period when we determine the liabilities are no longer necessary. If the estimate of tax liabilities proves to be less than the ultimate tax assessment, a further charge to expense would result.

We are in the process of expanding our international operations and staffing to better support our expansion into international markets. This expansion includes the implementation of an international structure that includes, among other things, an international support center in Europe, a research and development cost-sharing arrangement, certain licenses and other contractual arrangements between us and our wholly-owned domestic and foreign subsidiaries. As a result of these changes, we anticipate that our consolidated pre-tax income will be subject to foreign tax at relatively lower tax rates when compared to the United States federal statutory tax rate and, as a consequence, our effective income tax rate is expected to be lower than the United States federal statutory rate. However, the current administration has begun to put forward proposals that may, if enacted, limit the ability of U.S. companies to continue to defer U.S. income taxes on foreign income. In addition, recent statements from the IRS have indicated their intent to seek greater disclosure by companies of their reserves for uncertain tax positions. Our future effective income tax rates could be adversely affected if tax authorities challenge our international tax structure or if the relative mix of United States and international income changes for any reason. Accordingly, there can be no assurance that our income tax rate will be less than the United States federal statutory rate in future periods.

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. 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.

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Negative conditions in the global credit and financial markets may impair the liquidity of a portion of our investment portfolio.

The recent negative conditions in the global credit and financial markets have had an adverse impact on the liquidity of certain investments. In the event we need or desire to access funds from the other short-term investments that we hold, it is possible that we may not be able to do so due to market conditions. If a buyer is found but is unwilling to purchase the investments at par or our cost, we may incur a loss. Further, rating downgrades of the security issuer or the third parties insuring such investments may require us to adjust the carrying value of these investments through an impairment charge. Our inability to sell all or some of our short-term investments at par or our cost, or rating downgrades of issuers of these securities, could adversely affect our results of operations or financial condition.

As of December 31, 2008, we held approximately \$10.7 million of auction rate securities, or ARSs, which were invested in preferred securities in closed-end mutual funds. The recent negative conditions in the credit markets restricted our ability to liquidate holdings of ARSs because the amount of securities submitted for sale has exceeded the amount of purchase orders for such securities. During 2008, we were able to sell \$24.1 million of ARSs through successful auctions and redemptions. The remaining balance of \$10.7 million in ARSs that we held at December 31, 2008 was sold at par plus interest in February 2009.

In addition, we invest our cash, cash equivalents and short-term investments in a variety of investment vehicles in a number of countries with and in the custody of financial institutions with high credit ratings. While our investment policy and strategy attempt to manage interest rate risk, limit credit risk, and only invest in what we view as very high-quality securities, the outlook for our investment holdings is dependent on general economic conditions, interest rate trends and volatility in the financial marketplace, which can all affect the income that we receive, the value of our investments, and our ability to sell them.

During 2008, we recorded an impairment charge of \$0.8 million relating to an investment in an unsecured debt instrument of Lehman Brothers Holdings, Inc. We believe that our investment securities are carried at fair value. However, over time the economic and market environment may provide additional insight regarding the fair value of certain securities which could change our judgment regarding impairment. This could result in unrealized or realized losses relating to other than temporary declines being charged against future income. Given the current market conditions involved, there is continuing risk that further declines in fair value may occur and additional impairments may be charged to income in future periods.

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, Mr. Dickson, our Chief Financial Officer, recently announced his intention to retire from Harmonic during 2010 and is expected to continue in his current position until his replacement is hired and an appropriate transition period has elapsed. We cannot assure you that changes of management personnel would 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 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

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required personnel, particularly senior management and engineers and other technical personnel, could negatively affect our business.

Accounting guidance 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 equity compensation, including stock options, restricted stock units and employee stock purchase plan awards, as a fundamental component of our employee compensation packages. We believe that our equity incentive 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, or FASB, issued guidance that requires us to record a charge to earnings for employee stock options, restricted stock unit grants and employee stock purchase plan awards for all periods from January 1, 2006. This guidance has negatively impacted and will continue to negatively impact our earnings and may affect our ability to raise capital on acceptable terms. For 2009, stock-based compensation expense recognized under this guidance was \$10.6 million, which consisted of stock-based compensation expense related to restricted stock units, stock options and employee stock purchases plan awards.

In addition, regulations implemented by the NASDAQ Stock Market requiring stockholder approval for all equity incentive plans could make it more difficult for us to grant options or restricted stock units to employees in the future. To the extent that new accounting guidance make it more difficult or expensive to grant options or restricted stock units 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 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. In particular, 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 our 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 management's assessment of our internal control over financial reporting resulted in our conclusion that as of December 31, 2009, our internal control over financial reporting was effective, and our independent registered public accounting firm has attested that our internal control over financial reporting was effective in all material respects as of December 31, 2009, we cannot predict the outcome of our testing and that of our independent registered public accounting firm 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 attestation 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 December 31, 2009 we had an

accumulated deficit of

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\$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 our existing liquidity sources will satisfy our cash requirements for at least the next twelve months. However, we may need to raise additional funds if our expectations are incorrect, to take advantage of unanticipated strategic opportunities, to satisfy our other liabilities, or to strengthen our financial position. 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 weakness in the economic conditions in markets in which we operate and into which we sell our products, increased uncertainty in the financial, capital and credit markets, as well as conditions in the cable and satellite industries. In particular, companies are experiencing difficulty raising capital from issuances of debt or equity securities in the current capital market environment, and may also have difficulty securing credit financing. 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. 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. Recent increases in demand on our suppliers and subcontractors from other parties have caused sporadic shortages of certain components and products. In response, we have increased our inventories of certain components and products and expedited shipments of our products when necessary, which has increased our costs. Also, in previous 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.

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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. These risks are heightened during the current economic slowdown, because our suppliers and subcontractors are more likely to experience adverse changes in their financial condition and operations during such a period. 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 majority 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 2010.

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. Recent increases in demand on our suppliers and subcontractors from other parties have caused sporadic shortages of certain components and products. In response, we have increased our inventories of certain components and products and expedited shipments of our products when necessary, which has increased our costs. 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 or cash flows. 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 2010, 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 the agreement provides us with access to certain of the spun-off semiconductor business technologies and products was 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.

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We rely on distributors, 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 distributors, 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 distributors, VARs and systems integrators that specialize in video delivery solutions, products and services, and our reliance on such customers has increased since the completion of our acquisition of Scopus in the first quarter of 2009.

We generally have no long-term contracts or minimum purchase commitments with any of our distributor, 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 distributor, VAR and systems integrator customers to favor their products or to prevent or reduce sales of our products. Our distributor, VAR or systems integrator customers may choose not to purchase or offer our products. Many of our distributors, VARs and system integrators are small, are based in a variety of international locations and may have relatively unsophisticated processes and limited financial resources to conduct their business. Any significant disruption to our sales to these customers, including as a result of the inability or unwillingness of these customers to continue purchasing our products, or their failure to properly manage their business with respect to the purchase of and payment for our products, could materially and adversely impact our business and results of operations. In addition, our failure to establish and maintain successful relationships with distributor, VAR and systems integrator customers would likely materially and adversely affect our business, operating results and financial condition.

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. 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 18 employees on July 31, 2007, in connection with the completion of our acquisition of Rhozet. In addition, upon the closing of the acquisition of Scopus, we added 221 employees on March 12, 2009, most of whom are based in Israel. 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 laws and regulations related to the environment and potential climate change that could impose substantial costs upon us and may adversely affect our business, operating results and financial condition.

Our operations are regulated under various federal, state, local and international laws relating to the environment and potential climate change, 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 these 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, which regulates the collection, recovery, and recycling of waste from electrical and electronic products, and the Restriction on the Use of Certain Hazardous Substances

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in Electrical and Electronic Equipment (RoHS) directive, 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. 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, Harmonic is generally liable for C-Cube's pre-merger liabilities. Harmonic and LSI Logic, which acquired C-Cube's spun off semiconductor business in June 2001 and assumed its obligations, reached a settlement agreement in the second quarter of 2009, which resulted in Harmonic reimbursing LSI Logic \$1.0 million of the outstanding liability to settle any future outstanding claims. As a result, the full amount of the estimated obligations was transferred to LSI Logic in the second quarter of 2009. To the extent that these obligations are finally settled for more than the amounts reimbursed by Harmonic, LSI Logic is obligated, under the terms of the settlement agreement, to reimburse Harmonic.

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

We currently hold 44 issued U.S. patents and 18 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, 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 or desirable, could limit our ability to develop and market new products and could cause our business to suffer.

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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. An unfavorable outcome on any such litigation matters could require that Harmonic 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 and any such outcome could have a material adverse effect on our business, operating results, financial position or cash flows.

On July 3, 2003, Stanford University and Litton Systems (now Northrop Grumman Guidance and Electronics Company, Inc.) 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 appealed this motion and on June 19, 2008 the U.S. Court of Appeals for the Federal Circuit issued a decision which vacated the District Court's decision and remanded for further proceedings. At a scheduling conference on October 6, 2008, the judge ordered the parties to mediation. Following the mediation sessions, Harmonic and Litton entered into a settlement agreement on January 15, 2009. The settlement agreement provided that in exchange for a one-time lump sum payment from Harmonic to Litton of \$5 million, Litton (i) will not bring suit against Harmonic, any of its affiliates, customers, vendors, representatives, distributors, and its contract manufacturers for any liability for making, using, offering for sale, importing, and/or selling any Harmonic products that may have incorporated technology that was alleged to have infringed on one or more of the relevant patents and (ii) released Harmonic from any liability for making, using, or selling any Harmonic products that may have infringed on such patents. Harmonic paid the settlement amount in January 2009.

Our suppliers and customers may have similar claims asserted against them. 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).

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We may be the subject of litigation which, if adversely determined, could harm our business and operating results.

In addition to the litigation discussed elsewhere in this Annual Report on Form 10-K, we may be subject to claims arising in the normal course of business. An unfavorable outcome on any litigation matter 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 on any litigation matter 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 leases on the buildings at our main campus in Sunnyvale, California expire in September 2010, and we may incur costs and experience delays in connection with moving to new facilities.

Our corporate headquarters and most of our U.S. operations are housed in two leased buildings in Sunnyvale. These leases expire in September 2010. Consequently, we recently entered into a lease to occupy a building close to our existing facilities. We are currently making plans to move to the new facility prior to the expiration of our current lease. The new facility requires substantial improvements and outfitting in order to be suitable for our occupancy. If construction is delayed, or if occupancy permits are not granted in time, we may not be able to move prior to the expiration of our current lease. If for any reason we are required to extend our current lease on a short-term basis, we could incur additional rent expenses and other costs. Additionally, we expect to incur moving costs and may also experience significant potential disruption to our business activities at the time of moving to a new facility.

The ongoing threat of terrorism has 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 products. The long-term effects of the attacks, the situation in the Middle East and the ongoing war on terrorism on our business and on the global

economy remain unknown. Moreover, the potential for

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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.

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 or 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 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.

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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. Investors may be unable to sell their shares of our common stock at or above the purchase price.

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

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. 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 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.

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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.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

All of our facilities are leased, including our principal operations and corporate headquarters in Sunnyvale, California. We also have research and development centers in New York and New Jersey, several sales offices in the U.S., sales and support centers in Europe and Asia, and research and development centers in Israel and Hong Kong. Our leases, which expire at various dates through December 2019, are for approximately 657,000 square feet of space. We recently entered into a lease to relocate our corporate headquarters to San Jose, California. This new lease has a term of ten years and is for approximately 188,000 square feet of space, which will house our manufacturing, research and development and corporate headquarters functions. We believe that these facilities that we currently occupy or intend to occupy are adequate for our current needs and that suitable additional space will be available as needed to accommodate the foreseeable expansion of our operations.

In the U.S., of the 338,000 square feet under lease for our current headquarters, approximately 178,000 square feet is in excess of our requirements and we no longer occupy, do not intend to occupy, or have subleased the excess square footage. The estimated loss on subleases has been included in the excess facilities charges recorded in 2001, 2002, 2006, 2007 and 2008. In the third quarter of 2006 we completed the facilities rationalization plan of our Sunnyvale campus which resulted in more efficient use of our leased space and we vacated several buildings and recorded a net charge of \$2.1 million for excess facilities. In the third quarter of 2007 we extended a sublease for the remaining term of a lease which resulted in a \$1.8 million reduction to the excess facilities liability. In 2007 we recorded a restructuring charge of \$0.4 million on a reduction in estimated sublease income for a Sunnyvale building, and a charge of \$0.5 million from the closure of the manufacturing and research and development activities of Broadcast Technology Limited. In 2008, we recorded a charge in selling, general and administrative expenses for excess facilities of \$1.4 million from a revised estimate of expected sublease income for buildings located in Sunnyvale and the United Kingdom. In the second quarter of 2009, we recorded a charge in selling, general and administrative expenses for excess facilities of \$0.3 million from the closure of the Scopus New Jersey office. The Sunnyvale leases terminate in September 2010, the leases for facilities in the United Kingdom terminate in October 2010 and the estimated liability is net of any estimated sublease income relating to these three locations as of December 31, 2009.

Item 3. Legal Proceedings

SHAREHOLDER LITIGATION

On May 15, 2003, a derivative action purporting to be on our behalf was filed in the Superior Court for the County of Santa Clara against certain current and former officers and directors. The derivative action alleged facts similar to those alleged in the securities class action filed in 2000 and settled in 2008. The securities class action 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 Exchange Act. The complaint in the securities class action

litigation also alleged that certain

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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 March 20, 2009, the Court hearing the derivative action granted final approval of a settlement in connection with the matter, which settlement released Harmonic's officers and directors from all claims brought in the derivative lawsuit, and the Company paid \$550,000 for the plaintiff's attorneys' fees.

OTHER LITIGATION

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. 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 appealed this motion and on June 19, 2008 the U.S. Court of Appeals for the Federal Circuit issued a decision which vacated the District Court's decision and remanded for further proceedings. At a scheduling conference on September 6, 2008, the judge ordered the parties to mediation. Following the mediation sessions, Harmonic and Litton entered into a settlement agreement on January 15, 2009. The settlement agreement provides that in exchange for a one-time lump sum payment from Harmonic to Litton of \$5 million, Litton (i) will not bring suit against Harmonic, any of its affiliates, customers, vendors, representatives, distributors, and its contract manufacturers from having any liability for making, using, offering for sale, importing, and/or selling any Harmonic products that may have incorporated technology that was alleged to have infringed on one or more of the relevant patents and (ii) released Harmonic from any liability for making, using or selling any Harmonic products that may have infringed on such patents. The Company recorded a provision of \$5.0 million in its selling, general and administrative expenses for the year ended December 31, 2008. Harmonic paid the settlement amount in January 2009.

Harmonic may be subject to claims that have arisen in the normal course of business. In the opinion of management the amount of ultimate liability with respect to these matters in the aggregate will not have a material adverse effect on the Company or its operating results, financial position or cash flows.

Table of Contents**PART II****Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities**

- (a) Market information: Harmonic's common stock is traded on the NASDAQ Global Market under the symbol HLIT, and has been listed on NASDAQ since Harmonic's initial public offering on May 22, 1995. The following table sets forth, for the periods indicated, the high and low sales price per share of the Common Stock as reported on the Nasdaq Global Market:

	High	Low
2008		
First quarter	\$ 11.35	\$ 7.40
Second quarter	10.60	7.43
Third quarter	9.78	7.42
Fourth quarter	8.89	3.76
2009		
First quarter	\$ 7.00	\$ 4.46
Second quarter	7.85	5.07
Third quarter	7.07	5.24
Fourth quarter	6.84	4.77

Holders of record: At February 18, 2010 there were 396 stockholders of record of Harmonic's Common Stock.

Dividends: Harmonic has never declared or paid any dividends on its capital stock. Harmonic currently expects to retain future earnings, if any, for use in the operation and expansion of its business and does not anticipate paying any cash dividends in the foreseeable future. Harmonic's line of credit includes covenants prohibiting the payment of dividends.

Securities authorized for issuance under equity compensation plans: The disclosure required by Item 201(d) of Regulation S-K will be set forth in the 2010 Proxy Statement under the caption "Equity Plan Information" and is incorporated herein by reference.

Sales of unregistered securities: Not applicable.

- (b) Use of proceeds: Not applicable.

- (c) Purchase of equity securities by the issuer and affiliated purchasers: During the three months ended December 31, 2009, Harmonic did not, nor did any of its affiliated entities, repurchase any of Harmonic's equity securities.

Table of Contents**PERFORMANCE GRAPH**

Set forth below is a line graph comparing the annual percentage change in the cumulative return to the stockholders of the Company's common stock with the cumulative return of the NASDAQ Telecom Index and of the Standard & Poor's (S&P) 500 Index for the period commencing December 31, 2004 and ending on December 31, 2009. The graph assumes that \$100 was invested in each of the Company's common stock, the S&P 500 and the NASDAQ Telecom Index on December 31, 2004, and assumes the reinvestment of dividends, if any. The comparisons shown in the graph below are based upon historical data. Harmonic cautions that the stock price performance shown in the graph below is not indicative of, nor intended to forecast, the potential future performance of the Company's common stock.

	12/31/04	12/31/05	12/31/06	12/31/07	12/31/08	12/31/09
Harmonic Inc.	100.00	58.15	87.17	125.66	67.27	75.90
NASDAQ Telecom Index	100.00	91.66	119.67	132.55	77.09	107.17
S&P 500 Index	100.00	104.91	121.48	128.16	80.74	102.11

Table of Contents**Item 6. Selected Financial Data**

The data set forth below are qualified in their entirety by reference to, and should be read in conjunction with, Management's Discussion and Analysis of Financial Condition and Results of Operations and the Consolidated Financial Statements and related notes included elsewhere in this Annual Report on Form 10-K.

	Year Ended December 31,				
	2009	2008	2007	2006	2005
	(In thousands, except per share data)				
Consolidated Statements of Operations Data					
Net sales	\$ 319,566	\$ 364,963	\$ 311,204	\$ 247,684	\$ 257,378
Gross profit(1)	134,360	177,533	134,075	101,446	93,948
Income (loss) from operations(1)(2)	(12,035)	39,305	19,258	(3,722)	(7,044)
Net income (loss)(1)	(24,139)	63,992	23,421	1,007	(5,731)
Basic net income (loss) per share	(0.25)	0.68	0.29	0.01	(0.08)
Diluted net income (loss) per share	(0.25)	0.67	0.28	0.01	(0.08)
Consolidated Balance Sheet Data					
Cash, cash equivalents and short-term investments	\$ 271,070	\$ 327,163	\$ 269,260	\$ 92,371	\$ 110,828
Working capital	325,185	375,131	283,276	97,398	117,353
Total assets	572,034	564,363	475,779	281,962	226,297
Long term debt, including current portion				460	1,272
Long-term financing liability	6,908				
Stockholders' equity	407,473	414,317	334,413	145,134	112,982

- The 2009 loss from operations and net loss included a charge of \$3.4 million for acquisition costs related to the Scopus acquisition completed in March 2009. In addition, the 2009 loss from operations and net loss included approximately \$8.3 million of restructuring charges related to the Scopus acquisition. These charges included approximately \$6.3 million in cost of sales primarily related to provisions for excess and obsolete inventories of \$5.8 million and \$0.5 million for severance and other expenses. Charges of approximately \$2.0 million were recorded in operating expenses related to the Scopus acquisition consisting primarily of severance costs.

The 2008 income from operations and net income included a charge of \$5.0 million for the settlement of a patent infringement claim, a restructuring charge of \$1.8 million on a reduction in estimated sublease income for Sunnyvale, California and UK buildings and an impairment charge of \$0.8 million on a short-term investment. We also recognized a benefit from income taxes of \$18.0 million resulting from the use of net operating loss carryforwards and the release of the substantial majority of our income tax valuation allowance.

The 2007 income from operations and net income included a charge of \$6.4 million for the settlement of the securities class action lawsuit, a restructuring charge of \$0.4 million on a reduction in estimated sublease income for a Sunnyvale building and a charge of \$0.5 million from the closure of the manufacturing and research and development activities of Broadcast Technology Limited. This was partially offset by a credit of \$1.8 million from a revised estimate of expected sublease income due to the extension of a sublease of a building to the lease expiration. The

acquisition of Rhozet in July 2007 resulted in a charge of \$0.7 million related to the write-off of acquired in-process technology.

The 2006 gross profit, loss from operations and net income included a charge of \$3.0 million for restructuring charges associated with a management reduction and a campus consolidation. An impairment expense of \$1.0 million was recorded in 2006 due to the writedown of the remaining balance of the BTL intangibles.

The 2005 gross profit, loss from operations and net loss included a charge of \$8.4 million for the writedown of inventory resulting primarily from the introduction of new products and the related obsolescence of existing inventory. Operating expenses included an expense of \$1.1 million for severance costs from the consolidation of the Company's two operating segments into a single segment effective as of January 1, 2006, and a benefit of \$1.1 million from the reversal of previously recorded excess facilities costs due to subleasing an excess facility.

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2. Income (loss) from operations for 2009, 2008, 2007, 2006 and 2005 included amortization and impairment expenses of intangible assets of \$11.9 million, \$6.1 million, \$5.3 million, \$2.2 million and \$2.6 million, respectively. In 2006 an impairment charge of \$1.0 million was recorded to write-off the remaining balance of the intangibles from the BTL acquisition.
3. On January 1, 2006, we adopted revised accounting guidance for share-based payments, which required the measurement and recognition of compensation expense for all share-based payment awards made to employees and directors, including employee stock options, restricted stock units and awards related to our Employee Stock Purchase Plan based upon the grant-date fair value of those awards.
4. On January 1, 2007, we adopted revised accounting guidance for accounting for uncertainty in income taxes. The effect of adopting this revised accounting guidance was an increase in the Company's accumulated deficit of \$2.1 million for interest and penalties related to unrecognized tax benefits that existed at January 1, 2007.
5. On December 8, 2006, we acquired Entone Technologies, Inc. for a purchase price of \$48.9 million. Entone markets a software solution which facilitates the provisioning of personalized video services, including video-on-demand, network personal video recording, time-shifted television and targeted advertisement insertion. See Note 3 Acquisitions of the Company's Consolidated Financial Statements for additional information.
6. On July 31, 2007, we acquired Rhozet Corporation for a purchase price of \$16.2 million. Rhozet develops and markets software-based transcoding solutions that facilitate the creation of multi-format video for Internet, mobile and broadcast solutions. See Note 3 Acquisitions of the Company's Consolidated Financial Statements for additional information.
7. On March 12, 2009, we acquired Scopus Video Networks for a purchase price of \$63.1 million, net of cash received. Scopus engages in the development and support of digital video networking products that allow network operators to transmit, process, and manage digital video content. Scopus' primary products include integrated receivers/decoders (IRD), intelligent video gateways (IVG), and encoders. In addition, Scopus markets multiplexers, network management systems (NMS), and other ancillary technology to its customers. See Note 3 Acquisitions of the Company's Consolidated Financial Statements for additional information.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

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, network 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, or telcos, broadcasters and Internet companies that offer video services to their customers.

Harmonic's net sales decreased by 12% in 2009 from 2008. The decrease in sales in 2009 compared to 2008 was primarily due to weaker demand from our domestic cable and satellite customers, and our European cable customers, for edge products and solutions primarily related to VOD, switched digital video, modular Cable Modem Termination System, or M-CMTS deployments, and HDTV. We experienced a lower gross margin percentage in 2009 compared to

2008 primarily due to manufacturing costs associated with the Scopus operations, lower gross margins on sales of edge and access products due to competitive pricing pressures and the deployment of our new Octal platform, which platform carries lower initial gross margins than our average gross margins, and increased amortization of intangibles expense. Our operating results in 2009 included a charge of \$3.4 million for acquisition costs associated with the Scopus acquisition.

Harmonic's net sales increased by 17% in 2008 from 2007. The increase in sales in 2008 compared to 2007 was primarily due to stronger demand from our domestic and international satellite operators and our domestic cable operators, and sales of our recently introduced products. We also experienced an improved gross margin percentage in 2008 compared to 2007 primarily due to higher gross margins from new products and an increase in the proportion of net sales from software, which has higher margins than our hardware products. Our operating results in 2008 included a charge of \$5.0 million for the settlement

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of a patent litigation lawsuit. We also recognized a benefit from income taxes of \$18.0 million resulting from the use of net operating loss carryforwards and the release of the substantial majority of our income tax valuation allowance.

Adverse economic conditions in markets in which we operate and into which we sell our products can harm our business. Recently, economic conditions in the countries in which we operate and sell products have become increasingly negative, and global financial markets have experienced a severe downturn stemming from a multitude of factors, including adverse credit conditions impacted by the subprime-mortgage crisis, slower economic activity, concerns about inflation and deflation, increased energy costs, decreased consumer confidence, rapid changes in foreign exchange rates, reduced corporate profits and capital spending, adverse business conditions and liquidity concerns and other factors. Economic growth in the U.S. and in many other countries slowed in the fourth quarter of 2007, remained slow during 2008, and slowed further in 2009 in the U.S. and internationally. During challenging economic times, and in tight credit markets, many customers may delay or reduce capital expenditures. This could result in reductions in sales of our products, longer sales cycles, difficulties in collection of accounts receivable, excess and obsolete inventory, gross margin deterioration, slower adoption of new technologies, increased price competition and supplier difficulties. For example, we believe that the recent global economic slowdown caused certain customers to reduce or delay capital spending plans in the fourth quarter of 2008 and most of 2009, and expect that these conditions could persist well into 2010. In addition, during challenging economic times, we are likely to experience increased price-based competition from our competitors, which may result in lost sales or force us to reduce the prices of our products, which would reduce our revenues and could adversely affect our gross margin.

Historically, a majority of our net sales have been to relatively few customers, 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. In 2009, sales to Comcast accounted for 16% of net sales. In 2008, sales to Comcast and EchoStar accounted for 20% and 12% of net sales, respectively. In 2007, sales to Comcast and EchoStar accounted for 16% and 12% of net sales, respectively.

Sales to customers outside of the U.S. in 2009, 2008, and 2007 represented 49%, 44%, and 44% of net sales, respectively. A significant portion of international sales are made to distributors and system integrators, which are generally responsible for importing the products and providing installation and technical support and service to customers within their territory. Sales denominated in foreign currencies were approximately 7%, 6% and 7% of net sales in 2009, 2008 and 2007, respectively. We expect international sales to continue to account for a substantial portion of our net sales for the foreseeable future, and expect that, partially as a result of the acquisition of Scopus, our international sales may increase.

Harmonic often recognizes a significant portion, or the majority, of its revenues in the last month of the quarter. Harmonic establishes its expenditure levels for product development and other operating expenses based on projected sales levels, and expenses are relatively fixed in the short term. Accordingly, variations in timing of sales can cause significant fluctuations in operating results. In addition, because a significant portion of Harmonic's business is derived from orders placed by a limited number of large customers, the timing of such orders, delays in project completion and revenue recognition policies can also cause significant fluctuations in our operating results. Harmonic's expenses for any given quarter are typically based on expected sales and if sales are below expectations, our operating results may be adversely impacted by our inability to adjust spending to compensate for the shortfall.

On March 12, 2009, Harmonic completed its acquisition of Scopus Video Networks Ltd., a publicly traded company organized under the laws of Israel, pursuant to the terms of the Agreement and Plan of Merger dated December 22, 2008. Under the terms of the Agreement and Plan of Merger, Harmonic paid \$5.62 per share in cash for all of the outstanding ordinary shares of Scopus, which represents an enterprise value of approximately \$63.1 million, net of Scopus cash and short-term investments. The acquisition of Scopus was intended to extend Harmonic's worldwide customer base and strengthen its market and technology leadership, particularly in video broadcast in international

markets, and the contribution and distribution markets.

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On July 31, 2007, Harmonic completed its acquisition of Rhozet Corporation, pursuant to the terms of the Agreement and Plan of Merger, or Rhozet Agreement, dated July 25, 2007. Under the Rhozet Agreement, Harmonic paid or will pay an aggregate of approximately \$15.5 million in total merger consideration, comprised of approximately \$2.5 million in cash, 1,105,656 shares of Harmonic's common stock in exchange for all of the outstanding shares of capital stock of Rhozet, and approximately \$2.8 million of cash which was paid in the first quarter of 2008, as provided in the Rhozet Agreement, to the holders of outstanding options to acquire Rhozet common stock. In addition, in connection with the acquisition, Harmonic incurred approximately \$0.7 million in transaction costs. Pursuant to the Rhozet Agreement, approximately \$2.3 million of the total merger consideration, consisting of cash and shares of Harmonic common stock, was held back by Harmonic for at least 18 months following the closing of the acquisition to satisfy certain indemnification obligations of Rhozet's shareholders pursuant to the terms of the Rhozet Agreement, and all holdback amounts were released during 2009.

On December 8, 2006, Harmonic completed its acquisition of Entone Technologies, Inc. pursuant to the terms of the Agreement and Plan of Merger, or Entone Agreement, dated August 21, 2006, for a total purchase consideration of \$48.9 million. The purchase consideration consisted of a payment of \$26.2 million, the issuance of 3,579,715 shares of Harmonic common stock with a value of \$20.1 million, issuance of 175,342 options to purchase Harmonic common stock with a value of \$0.2 million and acquisition-related costs of \$2.5 million. Under the terms of the Entone Agreement, Entone spun off its consumer premises equipment, or CPE, business into a separate private company prior to the closing of the merger. As part of the terms of the Entone Agreement, Harmonic purchased a convertible note with a face amount of \$2.5 million in the new spun off private company in July 2007. The convertible note was sold to a third party for approximately \$2.6 million during 2008.

In the fourth quarter of 2007, we sold and issued 12,500,000 shares of common stock in a public offering at a price of \$12.00 per share. Our net proceeds from the offering were approximately \$141.8 million, which was net of underwriters' discounts and commissions of approximately \$7.4 million and related legal, accounting, printing and other costs totaling approximately \$0.7 million. The net proceeds from the offering have been and are expected to continue to be used for general corporate purposes, including payment of existing liabilities, research and development, the development or acquisition of new products or technologies, equipment acquisitions, strategic acquisitions of businesses, general working capital and operating expenses.

In the third quarter of 2007, we recorded a credit of \$1.8 million from a revised estimate of expected sublease income due to the extension of a sublease of a Sunnyvale building to the lease expiration. In addition, in 2007 we recorded a restructuring charge of \$0.4 million on a reduction in estimated sublease income for a Sunnyvale building, and a charge of \$0.5 million from the closure of the manufacturing and research and development activities of Broadcast Technology Limited.

During the second quarter of 2008, we recorded a charge in selling, general and administrative expenses for excess facilities of \$1.2 million from a revised estimate of expected sublease income of a Sunnyvale building. The lease for such building terminates in September 2010 and the estimated liability is net of estimated sublease income. During the third quarter of 2008, we recorded a charge in selling, general and administrative expenses for excess facilities of \$0.2 million from a revised estimate of expected sublease income of two buildings in the United Kingdom. The leases for these buildings terminate in October 2010 and the estimated liability is net of estimated sublease income.

In the first quarter of 2009, the Company recorded a total of \$7.4 million of expenses related to activities resulting from the Scopus acquisition, including the termination of approximately 65 Scopus employees. A charge of \$6.3 million was recorded in cost of sales, primarily consisting of excess and obsolete inventories expenses from product discontinuances and severance expenses for terminated Scopus employees. Research and development expenses were \$0.6 million for terminated Scopus employees. Selling, general and administrative expenses totaled \$0.5 million consisting primarily of severance expenses for terminated Scopus employees.

In the second quarter of 2009, the Company recorded an excess facilities expense of \$0.3 million related to the closure of the Scopus New Jersey office. In addition, a charge of \$0.5 million was recorded in selling, general and administrative expenses

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related to severance expenses for terminated Scopus employees and a charge totaling \$0.5 million was recorded in cost of sales and operating expenses related to severance expenses for other terminated employees.

We are in the process of expanding our international operations and staffing to better support our expansion into international markets. This expansion includes the implementation of an international structure that includes, among other things, an international support center in Europe, a research and development cost-sharing arrangement, certain licenses and other contractual arrangements by and among the Company and its wholly-owned domestic and foreign subsidiaries. Our foreign subsidiaries have acquired certain rights to sell our existing intellectual property and intellectual property that will be developed or licensed in the future. As a result of these changes and an expanding customer base internationally, we expect that an increasing percentage of our consolidated pre-tax income will be derived from, and reinvested in, our international operations. We anticipate that this pre-tax income will be subject to foreign tax at relatively lower tax rates when compared to the United States federal statutory tax rate in future periods.

Critical Accounting Policies, Judgments and Estimates

The preparation of financial statements and related disclosures requires Harmonic to make judgments, assumptions and estimates that affect the reported amounts of assets and liabilities, the disclosure of contingencies and the reported amounts of revenue and expenses in the financial statements and accompanying notes. Material differences may result in the amount and timing of revenue and expenses if different judgments or different estimates were made. See Note 1 of Notes to Consolidated Financial Statements for details of Harmonic's accounting policies. Critical accounting policies, judgments and estimates which we believe have the most significant impact on Harmonic's financial statements are set forth below:

Revenue recognition;

Allowances for doubtful accounts, returns and discounts;

Valuation of inventories;

Impairment of goodwill or long-lived assets;

Restructuring costs and accruals for excess facilities;

Assessment of the probability of the outcome of current litigation;

Accounting for income taxes; and

Stock-based compensation.

Revenue Recognition

Harmonic's principal sources of revenue are from sales of hardware products, software products, solution sales, services and hardware and software maintenance agreements. Harmonic recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been provided, the sale price is fixed or determinable, collection is reasonably assured, and risk of loss and title have transferred to the customer.

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We generally use contracts and customer purchase orders to determine the existence of an arrangement. Shipping documents and customer acceptance, when applicable, are used to verify delivery. We assess whether the sales price is fixed or determinable based on the payment terms associated with the transaction and whether the price is subject to refund or adjustment. We assess collectability based primarily on the creditworthiness of the customer as determined by credit checks and analysis, as well as the customer's payment history.

We evaluate our products to assess whether software is more-than-incidental to a product. When we conclude that software is more-than-incidental to a product, we account for the product as a software product. Revenue on software products and software-related elements are recognized in accordance with applicable accounting guidance. Significant judgment may be required in determining whether a product is a software or hardware product.

Revenue from hardware product sales is recognized in accordance with the applicable accounting guidance on revenue recognition. Subject to other revenue recognition provisions, revenue on product sales is recognized when risk of loss and title has transferred, which is generally upon shipment or delivery, based on the terms of the arrangement. Revenue on shipments to distributors, resellers and systems integrators is generally recognized on delivery or sell-in. Allowances are provided for estimated returns and discounts. Such allowances are adjusted periodically to reflect actual and anticipated experience.

Distributors and systems integrators purchase our products for specific capital equipment projects of the end-user and do not hold inventory. They perform functions that include importation, delivery to the end-customer, installation or integration, and post-sales service and support. Our agreements with these distributors and systems integrators have terms which are generally consistent with the standard terms and conditions for the sale of our equipment to end users and do not provide for product rotation or pricing allowances, as are typically found in agreements with stocking distributors. We have long-term relationships with most of these distributors and systems integrators and substantial experience with similar sales of similar products. We do have instances of accepting product returns from distributors and system integrators. However such returns typically occur in instances where the system integrator has designed a component into a project for the end user but the integrator requests to return product that does not meet the specific project's functional requirements. Such returns are made solely at the discretion of the Company, as our agreements with distributors and system integrators do not provide for return rights. We have had extensive experience monitoring product returns from our distributors and accordingly, we have concluded that the amount of future returns can be reasonably estimated in accordance with applicable accounting guidance. With respect to these sales, we evaluate the terms of sale and recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been provided, the sales price is fixed or determinable, collectability is reasonably assured, and risk of loss and title have transferred.

When arrangements contain multiple elements, Harmonic evaluates all deliverables in the arrangement at the outset of the arrangement based on the applicable accounting guidance for revenue arrangements with multiple deliverables. If the undelivered elements qualify as separate units of accounting based on the applicable accounting guidance, which include that the delivered elements have value to the customer on a stand-alone basis and that objective and reliable evidence of fair value exists for undelivered elements, Harmonic allocates the arrangement fee based on the relative fair value of the elements of the arrangement. If a delivered element does not meet the criteria in the applicable accounting guidance to be considered a separate unit of accounting, revenue is deferred until the undelivered elements are fulfilled. We establish fair value by reference to the price the customer is required to pay when an item is sold separately using contractually stated, substantive renewal rates, when applicable, or the average price of recently completed stand alone sales transactions. Accordingly, the determination as to whether appropriate objective and reliable evidence of fair value exists can impact the timing of revenue recognition for an arrangement.

For multiple element arrangements that include both hardware products and software products, Harmonic evaluates the arrangement based on the applicable accounting guidance for non-software deliverables in an arrangement

containing more-than-incidental software. In accordance with the applicable accounting guidance, the arrangement is divided between

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software-related elements and non-software deliverables. Software-related elements are accounted for as software. Software-related elements include all non-software deliverables for which a software deliverable is essential to its functionality. When software arrangements contain multiple elements and vendor specific objective evidence, or VSOE, of fair value exists for all undelivered elements, Harmonic accounts for the delivered elements using the residual method. In arrangements where VSOE of fair value is not available for all undelivered elements, we defer the recognition of all revenue until all elements, except post contract support, have been delivered. When post contract support remains the only undelivered element for such contracts, revenue is then recognized using the residual method. Fair value of software-related elements is based on separate sales to other customers or upon renewal rates quoted in contracts when the quoted renewal rates are deemed to be substantive.

We also enter into solution sales for the design, manufacture, test, integration and installation of products to the specifications of Harmonic's customers, including equipment acquired from third parties to be integrated with Harmonic's products. These arrangements typically include the configuration of system interfaces between Harmonic product and customer/third party equipment, and optimization of the overall solution to operate with the unique features of the customer's design and to meet customer-specific performance requirements. Revenue on these arrangements is generally recognized using the percentage of completion method in accordance with applicable accounting guidance for accounting for performance of construction/production contracts. We measure performance under the percentage of completion method using the efforts-expended method based on current estimates of labor hours to complete the project. Management believes that for each such project, labor hours expended in proportion to total estimated hours at completion represents the most reliable and meaningful measure for determining a project's progress toward completion. If the estimated costs to complete a project exceed the total contract amount, indicating a loss, the entire anticipated loss is recognized. Deferred revenue includes billings in excess of revenue recognized, net of deferred costs of sales. Our application of percentage-of-completion accounting is subject to our estimates of labor hours to complete each project. In the event that actual results differ from these estimates or we adjust these estimates in future periods, our operating results, financial position or cash flows for a particular period could be adversely affected. During the years ended December 31, 2009 and 2008, we recorded losses of approximately \$0.3 million and \$0.4 million, respectively, related to loss contracts.

Revenue from hardware and software maintenance agreements is recognized ratably over the term of the maintenance agreement. First year maintenance typically is included in the original arrangement and renewed on an annual basis thereafter. Services revenue is recognized on performance of the services and costs associated with services are recognized as incurred. Fair value of services such as consulting and training is based upon separate sales of these services.

Significant management judgments and estimates must be made in connection with determination of the revenue to be recognized in any accounting period. Because of the concentrated nature of our customer base, different judgments or estimates made for any one large contract or customer could result in material differences in the amount and timing of revenue recognized in any particular period.

Allowances for Doubtful Accounts, Returns and Discounts

We establish allowances for doubtful accounts, returns and discounts based on credit profiles of our customers, current economic trends, contractual terms and conditions and historical payment, return and discount experience, as well as for known or expected events. If there were to be a deterioration of a major customer's creditworthiness or if actual defaults, returns or discounts were higher than our historical experience, our operating results, financial position and cash flows could be adversely affected. At December 31, 2009, our allowances for doubtful accounts, returns and discounts totaled \$5.2 million.

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Valuation of Inventories

Harmonic states inventories at the lower of cost or market. We write down the cost of excess or obsolete inventory to net realizable value based on future demand forecasts and historical consumption. If there were to be a sudden and significant decrease in demand for our products, or if there were a higher incidence of inventory obsolescence because of rapidly changing technology and customer requirements, we could be required to record additional charges for excess and obsolete inventory and our gross margin could be adversely affected. Inventory management is of critical importance in order to balance the need to maintain strategic inventory levels to ensure competitive lead times against the risk of inventory obsolescence because of rapidly changing technology and customer requirements.

Impairment of Goodwill or Long-lived Assets

We perform an evaluation of the carrying value of goodwill on an annual basis in the fourth quarter and long-lived assets, such as intangibles, whenever we become aware of an event or change in circumstances that would indicate potential impairment. We evaluate the recoverability of goodwill on the basis of market capitalization adjusted for a control premium and, if necessary, discounted cash flows on a Company level, which is the sole reporting unit. We evaluate the recoverability of intangible assets and other long-lived assets on the basis of undiscounted cash flows from each asset group. If impairment is indicated, provisions for impairment are determined based on fair value, principally using discounted cash flows. For example, changes in industry and market conditions or the strategic realignment of our resources could result in an impairment of identified intangibles, goodwill or long-lived assets. There can be no assurance that future impairment tests will not result in a charge to earnings. At December 31, 2009, our carrying values for goodwill and intangible assets totaled \$64.0 million and \$25.3 million, respectively.

Restructuring Costs and Accruals for Excess Facilities

For restructuring activities initiated prior to December 31, 2002 Harmonic recorded restructuring costs when it committed to an exit plan and significant changes to the exit plan were not likely. Harmonic determines the excess facilities accrual based on estimates of expected cash payments reduced by any sublease rental income for each excess facility. In the event that Harmonic is unable to achieve expected levels of sublease rental income, it will need to revise its estimate of the liability which could materially impact our operating results, financial position or cash flows. For restructuring activities initiated after December 31, 2002, Harmonic adopted revised accounting guidance, which requires that a liability for costs associated with an exit or disposal activity be recognized and measured initially at fair value only when the liability is incurred. At December 31, 2009, our accrual for excess facilities totaled \$5.3 million.

Assessment of the Probability of the Outcome of Current Litigation

Harmonic records accruals for loss contingencies when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. Based on an agreement entered into on January 15, 2009 to settle its outstanding patent infringement litigation, Harmonic believed that a probable and estimable liability had been incurred, and, accordingly, recorded a provision for \$5.0 million in its statement of operations for the year ended December 31, 2008. Based on a preliminary agreement to settle its outstanding securities litigation, Harmonic believed that a probable and estimable liability had been incurred, and, accordingly, recorded a provision for \$6.4 million in its statement of operations for the year ended December 31, 2007. In other pending litigation, Harmonic believes that it either has meritorious defenses with respect to those actions and claims or is unable to predict the impact of an adverse action and, accordingly, no loss contingencies have been accrued. There can be no assurance, however, that we will prevail. An unfavorable outcome of legal proceedings could have a material adverse effect on our business, financial position, operating results or cash flows.

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Accounting for Income Taxes

In preparation of our financial statements, we estimate our income taxes for each of the jurisdictions in which we operate. This involves estimating our actual current tax exposures and assessing temporary differences resulting from differing treatment of items, such as reserves and accruals, for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included within our consolidated balance sheet.

Significant management judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities and our future taxable income for purposes of assessing our ability to realize any future benefit from our deferred tax assets. In the event that actual results differ from these estimates or we adjust these estimates in future periods, our operating results and financial position could be materially affected. During the year ended December 31, 2008, a full release of the valuation allowance against our net deferred tax assets in the United States and certain foreign jurisdictions, based on our judgment that it is more-likely-than-not that our deferred tax assets in the United States and certain foreign jurisdictions will be recovered from future taxable income, resulted in a benefit from income taxes of \$53.5 million recorded in our Consolidated Statements of Operations and a \$3.3 million reduction in goodwill.

We are subject to examination of our income tax returns by various tax authorities on a periodic basis. We regularly assess the likelihood of adverse outcomes resulting from such examinations to determine the adequacy of our provision for income taxes. We adopted the provisions of the applicable accounting guidance regarding accounting for uncertainty in income taxes as of the beginning of 2007. Prior to adoption, our policy was to establish reserves that reflected the probable outcome of known tax contingencies. The effects of final resolution, if any, were recognized as changes to the effective income tax rate in the period of resolution. The applicable accounting guidance requires application of a more-likely-than-not threshold to the recognition and derecognition of uncertain tax positions. If the recognition threshold is met, the applicable accounting guidance permits us to recognize a tax benefit measured at the largest amount of tax benefit that, in our judgment, is more than fifty percent likely to be realized upon settlement. It further requires that a change in judgment related to the expected ultimate resolution of uncertain tax positions be recognized in earnings in the quarter of such change.

We file annual income tax returns in multiple taxing jurisdictions around the world. A number of years may elapse before an uncertain tax position is audited and finally resolved. While it is often difficult to predict the final outcome or the timing of resolution of any particular uncertain tax position, we believe that our reserves for income taxes reflect the most likely outcome. We adjust these reserves as well as the related interest and penalties, in light of changing facts and circumstances. If our estimate of tax liabilities proves to be less than the ultimate assessment, a further charge to expense would result. If payment of these amounts ultimately proves to be unnecessary, the reversal of the liabilities would result in tax benefits being recognized in the period when we determine the liabilities are no longer necessary. The changes in estimate could have a material impact on our financial position and operating results. In addition, settlement of any particular position could have a material and adverse effect on our cash flows and financial position.

Stock-based Compensation

Harmonic measures and recognizes compensation expense for all share-based payment awards made to employees and directors, including stock options, restricted stock units and awards related to our Employee Stock Purchase Plan (ESPP) based upon the grant-date fair value of those awards.

Stock-based compensation expense recognized under applicable accounting guidance on share-based payments for the years ended December 31, 2009, 2008 and 2007 was \$10.6 million, \$7.8 million and \$6.2 million, respectively.

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Applicable accounting guidance requires companies to estimate the fair value of share-based payment awards on the date of grant. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service period in the Company's Consolidated Statements of Operations.

Stock-based compensation expense recognized in the Company's Consolidated Statements of Operations for the years ended December 31, 2009, 2008 and 2007 included compensation expense for share-based payment awards granted prior to, but not yet vested as of December 31, 2005 based on the grant date estimated fair value and compensation expense for the share-based payment awards granted subsequent to December 31, 2005 based on the grant date estimated fair value in accordance with the applicable accounting guidance. As stock-based compensation expense recognized in our results for the years ended December 31, 2009, 2008 and 2007 is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures. Applicable accounting guidance requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

The fair value of stock options is estimated at grant date using the Black-Scholes option pricing model. The Company's determination of fair value of stock options on the date of grant using an option-pricing model is affected by the Company's stock price as well as the assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, the Company's expected stock price volatility over the term of the awards, and actual and projected employee stock option exercise behaviors. The fair value of each restricted stock unit grant is based on the underlying value of the Company's common stock on the date of grant.

RESULTS OF OPERATIONS

Harmonic's historical consolidated statements of operations data for each of the three years ended December 31, 2009, 2008, and 2007 as a percentage of net sales, are as follows:

	Fiscal Year Ended December 31,		
	2009	2008	2007
Net sales	100%	100%	100%
Cost of sales	58	51	57
Gross profit	42	49	43
Operating expenses:			
Research and development	19	15	14
Selling, general and administrative	26	23	23
Write-off of acquired in-process technology			
Amortization of intangibles	1		
Total operating expenses	46	38	37
Income (loss) from operations	(4)	11	6
Interest and other income, net	1	2	2

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Income (loss) before income taxes	(3)	13	8
Provision for (benefit from) income taxes	5	(5)	1
Net income (loss)	(8)%	18%	7%

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Harmonic's consolidated net sales for each of the three years ended December 31, 2009, 2008 and 2007, are presented in the table below. Also presented is the related dollar and percentage change in consolidated net sales as compared with the prior year, for each of the two years ended December 31, 2009 and 2008.

	Fiscal Year Ended December 31,		
	2009	2008	2007
	(In thousands, except percentages)		
Product Sales Data:			
Video Processing	\$ 135,034	\$ 137,390	\$ 134,744
Edge and Access	117,355	165,246	125,270
Service and Support	39,557	33,832	28,023
Software and Other	27,620	28,495	23,167
Net sales	\$ 319,566	\$ 364,963	\$ 311,204
Video Processing increase (decrease)	\$ (2,356)	\$ 2,646	
Edge and Access increase (decrease)	(47,891)	39,976	
Service and Support increase	5,725	5,809	
Software and Other increase (decrease)	(875)	5,328	
Total increase (decrease)	\$ (45,397)	\$ 53,759	
Video Processing percent change	(1.7)%	2.0%	
Edge and Access percent change	(29.0)%	31.9%	
Service and Support percent change	16.9%	20.7%	
Software and Other percent change	(3.1)%	23.0%	
Total percent change	(12.4)%	17.3%	

Net sales decreased in 2009 compared to 2008 principally due to weaker demand from domestic satellite operators and cable operators for their VOD and HDTV deployments and a decrease in sales to customers internationally. The sales of products of the video processing product line were lower in 2009 compared to 2008 primarily due to lower purchases of our products from domestic cable and satellite customers and our European cable customers. The decrease in sales of products of the edge and access product lines in 2009 compared to 2008 was primarily due to a decrease of approximately \$33.6 million in sales of our NSG edge QAM devices for VOD, switched digital and CMTS deployments by domestic and international cable operators. The sales of service and support were higher in 2009 compared to 2008 primarily from support revenue, consisting of maintenance agreements, system integration and customer repairs, principally due to an increased customer base.

Net sales increased in 2008 compared to 2007 principally due to stronger demand from domestic satellite operators and cable operators for their VOD and HDTV deployments, and an increase in sales to new customers internationally. The sales of products of the video processing product line were higher in 2008 compared to 2007 primarily due to increased purchases of our products from domestic satellite customers. The increase in sales of products of the edge and access product lines in 2008 compared to 2007 was primarily due to an increase of approximately \$65.7 million in

sales of the Company's NSG edge QAM devices for VOD, switched digital and CMTS deployments by cable operators. The sales of software, support and other products was higher in 2008 compared to 2007 primarily from software sales of new products and support revenue, consisting of maintenance agreements, system integration and customer repairs, principally due to an increased customer base.

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Harmonic's domestic and international net sales as compared with the prior year, for each of the three years ended December 31, 2009, 2008 and 2007, are presented in the table below. Also presented is the related dollar and percentage change in domestic and international net sales as compared with the prior year, for each of the two years ended December 31, 2009 and 2008.

	Fiscal Year Ended December 31,		
	2009	2008	2007
	(In thousands, except percentages)		
Geographic Sales Data:			
U.S.	\$ 162,023	\$ 205,163	\$ 175,257
International	157,543	159,800	135,947
Net sales	\$ 319,566	\$ 364,963	\$ 311,204
U.S. increase (decrease)	\$ (43,140)	\$ 29,906	
International increase (decrease)	(2,257)	23,853	
Total increase (decrease)	\$ (45,397)	\$ 53,759	
U.S. percent change	(21.0)%	17.1%	
International percent change	(1.4)%	17.5%	
Total percent change	(12.4)%	17.3%	

Net sales in the U.S. decreased in 2009 compared to 2008 primarily due to weaker demand for our products from our domestic satellite and cable operators for VOD and HDTV deployments. International sales in 2009 decreased compared to 2008 primarily due to weaker demand from cable operators, particularly in the European markets although they increased in the Asian markets, partly as a result of our sales of Scopus products following the completion of our acquisition of Scopus in March 2009. We expect that international sales will continue to account for a substantial portion of our net sales for the foreseeable future, and expect that, with the completion of the acquisition of Scopus, our international sales may increase.

Net sales in the U.S. increased in 2008 compared to 2007 primarily due to stronger demand for our products from our domestic satellite and cable operators for VOD and HDTV deployments. International sales in 2008 increased compared to 2007 primarily due to stronger demand from cable operators and an increase in the number of international customers, particularly in the European and Asian markets.

Table of Contents*Gross Profit*

Harmonic's gross profit and gross profit as a percentage of consolidated net sales, for each of the three years ended December 31, 2009, 2008, and 2007 are presented in the table below. Also presented is the related dollar and percentage change in gross profit as compared with the prior year, for each of the two years ended December 31, 2009 and 2008.

	Fiscal Year Ended December 31,		
	2009	2008	2007
	(In thousands, except percentages)		
Gross profit	\$ 134,360	\$ 177,533	\$ 134,075
As a % of net sales	42.0%	48.6%	43.1%
Increase (decrease)	\$ (43,173)	\$ 43,458	
Percent change	(24.3)%	32.4%	

The decrease in product gross profit in 2009 compared to 2008 was primarily due to lower sales of \$45.4 million, lower gross margins on sales of edge and access products due to competitive pricing pressures and the deployment of our new Octal platform, which platform carries lower initial gross margins than our average gross margins, provisions totaling \$6.3 million for excess and obsolete inventories associated with the discontinuance of certain Scopus product lines, the incurrence of manufacturing overhead costs of \$3.5 million associated with the Scopus operations and an increase of \$2.5 million from amortization of intangibles expense. The gross margin percentage of 42.0% in 2009 compared to 48.6% in 2008 was lower primarily due to lower gross margins on sales of edge and access products, increased provisions for excess and obsolete inventories primarily related to the Scopus acquisition, the incurrence of manufacturing overhead costs associated with the Scopus operations, and increased amortization of intangible assets expense. In 2009, \$8.0 million related to amortization of intangibles expense was included in cost of sales compared to \$5.5 million in 2008. We expect to record a total of approximately \$8.1 million in amortization of intangibles expense in cost of sales in 2010 related to acquisitions of Entone, Rhonet and Scopus.

The increase in gross profit in 2008 compared to 2007 was primarily due to increased sales, partially offset by an increase of \$0.8 million in amortization of intangibles expense. The gross margin percentage of 48.6% in 2008 compared to 43.1% in 2007 was higher primarily due to higher gross margins on sales of recently introduced products, increased sales of software products, which have higher margins than hardware products, and lower expense associated with excess and obsolete inventories of \$5.1 million, partially offset by increased expense from shipping costs of \$1.0 million, warranty expense of \$0.8 million and amortization of intangibles of \$0.8 million. In 2008, \$5.5 million of expense related to amortization of intangibles was included in cost of sales compared to \$4.7 million in 2007.

Table of Contents**Research and Development**

Harmonic's research and development expense and the expense as a percentage of consolidated net sales for each of the three years ended December 31, 2009, 2008, and 2007 are presented in the table below. Also presented is the related dollar and percentage change in research and development expense as compared with the prior year, for each of the two years ended December 31, 2009 and 2008.

	Fiscal Year Ended December 31,		
	2009	2008	2007
	(In thousands, except percentages)		
Research and development	\$ 61,435	\$ 54,471	\$ 42,902
As a % of net sales	19.2%	14.9%	13.8%
Increase	\$ 6,964	\$ 11,569	
Percent change	12.8%	27.0%	

The increase in research and development expense in 2009 compared to 2008 was primarily the result of increased compensation expense of \$4.4 million, increased stock-based compensation expense of \$1.0 million, increased depreciation expense of \$0.8 million and increased consulting and outside services expense of \$0.6 million. The increased compensation costs in 2009 were primarily due to increased headcount, which was primarily related to the additional personnel that we hired as a result of the acquisition of Scopus in March 2009, and increased payroll taxes. The increased stock-based compensation expense and depreciation expense were also primarily due to the acquisition of Scopus.

The increase in research and development expense in 2008 compared to 2007 was primarily the result of increased compensation expense of \$6.2 million, increased facilities expense of \$2.2 million, increased consulting and outside services expense of \$0.9 million, increased stock-based compensation expense of \$0.8 million and increased prototype material expense of \$0.3 million. The increased compensation costs in 2008 were primarily due to the increased headcount, which was primarily related to the additional personnel that we hired as a result of the acquisition of Rhozet in July 2007, higher incentive compensation expenses and increased payroll taxes.

Selling, General and Administrative

Harmonic's selling, general and administrative expense and the expense as a percentage of consolidated net sales, for each of the three years ended December 31, 2009, 2008, and 2007 are presented in the table below. Also presented is the related dollar and percentage change in selling, general and administrative expense as compared with the prior year, for each of the two years ended December 31, 2009 and 2008.

	Fiscal Year Ended December 31,		
	2009	2008	2007
	(In thousands, except percentages)		
Selling, general and administrative	\$ 81,138	\$ 83,118	\$ 70,690
As a % of net sales	25.4%	22.8%	22.7%
Increase (decrease)	\$ (1,980)	\$ 12,428	
Percent change	(2.4)%	17.6%	

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The decrease in selling, general and administrative expense in 2009 compared to 2008 was primarily due to lower litigation settlement expenses of \$5.0 million, lower bad debt expenses of \$1.6 million, lower legal expenses of \$1.6 million, lower excess facilities charges of \$1.3 million, lower consulting expense of \$0.5 million and lower depreciation expense of \$0.5 million, which were partially offset by higher acquisition costs of \$3.4 million associated with the Scopus acquisition, higher compensation expenses of \$2.0 million, higher information technology expense of \$1.8 million and higher stock-based compensation expense of \$1.4 million. The higher compensation expense was primarily related to increased headcount which was primarily related to the additional personnel that we hired as a result of the acquisition of Scopus in March 2009, which was partially offset by lower incentive compensation. The increased information technology expense was primarily due to the implementation and maintenance of enterprise software systems in the sales and marketing areas. The increased stock-based compensation expense was also primarily due to the acquisition of Scopus.

The increase in selling, general and administrative expenses in 2008 compared to 2007 was primarily due to higher compensation expenses of \$4.7 million, higher excess facilities charges of \$2.2 million, higher bad debt expenses of \$1.6 million, higher travel and entertainment expenses of \$1.0 million, higher marketing expense of \$1.0 million and higher stock-based compensation expense of \$0.6 million. The higher compensation expense was primarily related to increased headcount and incentive compensation, the increase in excess facilities charges was primarily related to a reduction in estimated sublease income of \$1.4 million in 2008 and a net credit of \$1.4 million recorded in 2007 from lease extensions of subleased facilities. The increase in marketing expenses was primarily related to trade shows.

Amortization of Intangibles

Harmonic's amortization of intangibles expense charged to operating expenses, and the amortization of intangibles expense as a percentage of consolidated net sales, for each of the three years ended December 31, 2009, 2008, and 2007 are presented in the table below. Also presented is the related dollar and percentage change in amortization of intangibles expense as compared with the prior year, for each of the two years ended December 31, 2009 and 2008.

	Fiscal Year Ended December 31,		
	2009	2008	2007
	(In thousands, except percentages)		
Amortization of intangibles	\$ 3,822	\$ 639	\$ 525
As a % of net sales	1.2%	0.2%	0.2%
Increase	\$ 3,183	\$ 114	
Percent change	498.1%	21.7%	

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The increase in amortization of intangibles expense in 2009 compared to 2008 was due to the amortization of intangibles related to the acquisition of Scopus in March 2009. Harmonic expects to record a total of approximately \$2.1 million in amortization of intangibles expense in operating expenses in 2010 related to the intangible assets resulting from the acquisitions of Entone, Rhozet and Scopus. In addition, additional amortization of intangibles expense in cost of sales is expected following the completion of the in-process research and development projects of Scopus.

The increase in amortization of intangibles expense in 2008 compared to 2007 was due to the amortization of intangibles related to the acquisition of Rhozet in July 2007.

Interest Income, Net

Harmonic's interest income, net, and interest income, net as a percentage of consolidated net sales, for each of the three years ended December 31, 2009, 2008, and 2007 are presented in the table below. Also presented is the related dollar and percentage change in interest income, net as compared with the prior year, for each of the two years ended December 31, 2009 and 2008.

	Fiscal Year Ended December 31,		
	2009	2008	2007
	(In thousands, except percentages)		
Interest income, net	\$ 3,181	\$ 9,216	\$ 6,117
As a % of net sales	1.0%	2.5%	2.0%
Increase (decrease)	\$ (6,035)	\$ 3,099	