MoSys, Inc.
Form 10-K
March 12, 2013

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the Fiscal Year December 31, 2012 or

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

Commission file number: 000-32929

MOSYS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**77-0291941**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification Number)

3301 Olcott Street
Santa Clara, California 95054
(Address of principal executive offices)
(408) 418-7500
(Registrant's telephone number, including area code)

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 $0.01 per share	Global Market of the NASDAQ Stock Market, LLC

Securities registered pursuant to Section 12(g) of the Act:

Title of each class	**Name of each exchange on which registered**
Series AA Preferred Stock, par value $0.01 per share	None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No ý

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No ý

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 ý No o

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 (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ý No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of 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. ý

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 definition of "large accelerated filer," "large accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer ý	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes o No ý

The aggregate market value of the common stock held by non-affiliates of the Registrant, as of June 30, 2012 was $116,627,970 based upon the last sale price reported for such date on the Global Market of the NASDAQ Stock Market. For purposes of this disclosure, shares of common stock held by persons who beneficially own more than 5% of the outstanding shares of common stock and shares held by officers and directors of the Registrant have been excluded because such persons may be deemed to be affiliates. This determination is not necessarily conclusive.

As of March 1, 2013, 40,391,414 shares of the registrant's common stock, $0.01 par value per share, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement to be delivered to stockholders in connection with the registrant's 2013 Annual Meeting of Stockholders to be held on or about June 4, 2013 are incorporated by reference into Part III of this Form 10-K. The registrant intends to file its proxy statement within 120 days after its fiscal year end.

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ANNUAL REPORT ON FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2012

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Part I

This Annual Report on Form 10-K and the documents incorporated herein by reference contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, which include, without limitation, statements about the market for our products, technology, our strategy, competition, expected financial performance and other aspects of our business identified in this Annual Report, as well as other reports that we file from time to time with the Securities and Exchange Commission. Any statements about our business, financial results, financial condition and operations contained in this Annual Report that are not statements of historical fact may be deemed to be forward- looking statements. Without limiting the foregoing, the words "believes," "anticipates," "expects," "intends," "plans," "projects," or similar expressions are intended to identify forward-looking statements. Our actual results could differ materially from those expressed or implied by these forward-looking statements as a result of various factors, including the risk factors described in Part I., Item 1A, "Risk Factors," and elsewhere in this report. We undertake no obligation to update publicly any forward-looking statements for any reason, except as required by law, even as new information becomes available or other events occur in the future.

Item 1. Business

Company Overview

MoSys, Inc., together with its subsidiaries ("MoSys," the "Company," "we," "our" or "us"), is a fabless semiconductor company focused on the development and sale of integrated circuits, or ICs, for the high-speed networking, communications, storage and computing markets. Our technology delivers time-to-market, performance, power and economic benefits for system original equipment manufacturers, or OEMs. We have developed a family of ICs, called Bandwidth Engine, that combines our proprietary 1T-SRAM high-density embedded memory and high-speed 10 Gigabits per second, or Gbps, serial interface, or I/O, with our intelligent access technology and a highly efficient interface protocol. As the bandwidth requirements and amount of packet processing increase in high-speed networking systems, critical memory access bottlenecks can occur. Our Bandwidth Engine IC, with its combination of serial I/O, high-speed memory, and efficient, intelligent access, drastically increases memory accesses per second, removing these bottlenecks. The first applications for our Bandwidth Engine IC are in networking and communications systems to enable next generation, high density 10 Gbps, 40 Gbps, 80 Gbps and higher solutions. Historically, our primary business was the design, development, marketing, sale and support of differentiated intellectual property, or IP, including embedded memory and high-speed parallel and serial I/O used in advanced systems-on-chips, or SoCs. We are focused on developing differentiated IP-rich IC products, such as the Bandwidth Engine, and are dedicating substantially all of our research and development, marketing and sales budget to these IC products.

Our future success and ability to achieve and maintain profitability will be dependent on the marketing and sales of our Bandwidth Engine IC products into networking, communications and other markets requiring high bandwidth memory access. Since the beginning of 2010, we have invested an increasing amount of our research and development resources towards development of our Bandwidth Engine family of ICs, and as of the end of 2012 had ceased our efforts to actively market our IP and establish license agreements for customers' new SoC development projects. However, we have made opportunistic sales of some of our IP. For instance, in December 2011, we sold a number of patents in an arrangement that provided $35 million in cash with no equity dilution to the Company and, in March 2012, we sold a portion of our SerDes technology and supporting workforce for approximately $4.3 million, of which we have received $3.6 million through December 2012.

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Due to the shift in our engineering and research and development focus and the decline in major consumer electronics applications utilizing customized versions of our 1T-SRAM technology, our competitiveness and the demand for our IP have declined since the beginning of 2011. Revenue from IP licensing and royalties did represent the majority of our revenues for 2012. We expect revenue from IP licensing and royalties to represent a significant portion of our revenues in 2013, although at a significantly reduced level. Our expectation is that our revenue will transition from primarily licensing and royalty to predominately IC product sales.

Industry Background

The amount of data being transferred by networking, storage and computing systems is increasing rapidly, primarily driven by the growth of the Internet and demand for real-time processing of bandwidth intensive applications, such as video-on-demand, Internet protocol TV, peer-to-peer and cloud computing, web2.0 applications, 3G and 4G wireless, voice-over-Internet protocol, and many others. In order to meet these demands, the network backbone, access, storage and data center infrastructure must scale in bandwidth and processing capability. In addition, system designers face the challenge of increasing the throughput of all subsystems for a variety of applications, such as video games, medical record and imaging transfers, and file sharing. These increased demands strain communication between onboard IC devices, limiting the data throughput in network switches and routers and the network backbone. To support this trend, the next generations of networking systems must offer higher levels of packet forwarding rates and bandwidth density. This in turn necessitates new generations of packet processors and improved memory subsystems to enable system performance in support of these increased demands.

Networking systems, such as routers and switches, contain network line cards. The type and number of semiconductors included on the line cards depend on the capacity, port type and target functionality of each card. Several types of semiconductors are included on each line card, including physical interface electronics, one or more packet processors and multiple memory chips. Packet processors are complex ICs developed using field programmable gate arrays, or FPGAs, application-specific integrated circuits, or ASICs, application specific standard products, or ASSPs, or network processing units, or NPUs, that perform high speed processing for functions, such as traffic shaping, metering, billing, statistics, detection and steering. Various types of memory ICs are used in order to facilitate the temporary storage and assist in the analysis and tracking of information embedded within each packet flowing through the processors. After a packet enters the line card through a physical interface, a packet or data processor helps separate the packet into smaller pieces for rapid analysis. Typically, the data is broken up into the packet header, which contains vital information on packet destination and type, such as the IP address, and the payload, which contains the data being sent. The packet header is stripped from the packet, stored in memory ICs and processed separately by a packet processing engine on the line card. The analysis of the packet header must occur at full data rates and typically requires accessing memory ICs many times. Simultaneously, the packet's payload, which may be substantially larger than the packet header, is also stored in memory ICs. Once processing is complete, the packet is re-combined to be sent from the system. Within the line card, communication between the packet processor and memory ICs occurs through either a parallel or serial interface. Combinations of physical pins on each type of chip are grouped together in a parallel or serial architecture to form a pathway, called a bus, through which information is transferred from one IC to the next.

Today, the majority of physical buses use a parallel architecture to communicate between processors and memory ICs, which means information can travel only in one direction and in one instance at a time. As processing speeds increase, in a parallel architecture the number of pins required and the speed of the bus become a limitation on system performance and capability. In a serial architecture, the number of connections is reduced substantially across fewer, higher-rate pins and data

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is transferred simultaneously in both directions. High speed serial bus architectures and more advanced I/O protocols must be supported by the various ICs included on the line card in order to remove the bottleneck and meet next generation bandwidth requirements.

The majority of networking systems sold today includes line cards that process data at speeds of 10 Gbps to 40Gbps, supporting many aggregated slower ports. To accommodate the substantial and growing increase in demand for networking communications and applications, networking equipment manufacturers are beginning to produce next-generation systems that run at aggregate speeds of 100 Gbps with plans to scale to thousands of Gbps, or Terabits, per second. Another major challenge to system designers is what we call the "memory performance barrier." Processor performance in applications such as computing and networking have continued to nearly double every 18 months, or even faster, while the performance of memory technology has generally been able to double once every 10 years. Existing memory IC solutions based on parallel I/O architecture easily support speeds up to 40 Gbps, but will struggle to meet speeds of 100 Gbps and beyond due to system-level limitations for pin counts, power and performance. Traditional memory solutions currently used on line cards include both dynamic random access memory, or DRAM, and static random access memory, or SRAM, IC solutions. Line cards in networking systems use both specialized, high-performance DRAM ICs, such as reduced-latency DRAM, or RLDRAM, low-latency DRAM, or LLDRAM, and commodity DRAM, such as double data rate, or DDR ICs. In addition, networking systems use higher-performance SRAM ICs such as quad data rate, or QDR SRAM. Substantially all of these DRAM and SRAM memory ICs use parallel interfaces, which are slower than serial interfaces and will be challenged to meet the performance requirements of networking systems greater than 40 Gbps. The result is a gap between processor and memory performance. To meet the higher performance requirements being demanded by the industry, while using current components and architectural approaches, system designers must add more discrete memory ICs to the line cards. This results in higher cost and power consumption, the use of more space on the line cards and additional communication interference between the ICs, which in turn results in additional bandwidth limitation problems.

To address the bandwidth limitations currently confronting networking system designers, we have developed our Bandwidth Engine family of ICs. We expect our Bandwidth Engine IC products to address the increasing demands placed on conventional memory technology used on the line cards in high-bandwidth networking systems. We believe that our product and technology is required as a replacement for existing memory IC solutions in order to meet the needs of the next-generation networking systems that will require a large number of packet lookups and to support aggregated rates greater than 100 Gbps.

Bandwidth Engine IC Products

Our Bandwidth Engine ICs combine: (1) our proprietary high-density, high-speed, low latency embedded memory, (2) our high-speed serial 10 Gbps serial interface technology, or SerDes, (3) an open-standard interface protocol and (4) intelligent access technology. We believe an IC combining our 1T-SRAM memory and serial I/O with logic and other intelligence functions provides a system-level solution and significantly improves overall system performance at lower cost, size and power consumption. Our first-generation Bandwidth Engine ICs can provide over two billion accesses per second, which is more than twice the performance of current memory-based solutions. They also can enable system designers to significantly narrow the gap between processor and memory IC performance. Customers that design Bandwidth Engine ICs onto the line cards in their networking systems will re-architect their systems at the line card level and use our product to replace traditional memory solutions. When compared with existing commercially available solutions, our Bandwidth Engine ICs may:

provide up to four times the performance;

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reduce power by approximately 50%;

reduce cost by greater than 50%; and

result in a dramatic reduction in IC pin counts on the line card.

The Bandwidth Engine is a memory-dominated IC that has been designed to be a high-performance companion IC to packet processors. While the Bandwidth Engine primarily functions as a memory device with a high-performance and high-efficiency interface, it also can accelerate certain processing operations by serving as a co-processor element.

Our first generation Bandwidth Engine IC contains 576 megabytes, or MB, of memory and uses 10.3 Gbps SerDes I/O technology. Variations of this IC can have up to two interface ports, with up to eight serial receiver and eight serial transmitter lanes per port for a total of 16 lanes of 10.3 Gbps SerDes interface. These ICs include an arithmetic logic unit, or ALU, that can perform read-modify-write operations. These ICs are tested to meet or exceed the standards for telecommunications carrier class and enterprise grade applications.

Our second generation Bandwidth Engine IC family and architecture was announced in late 2012. These devices will operate at up to 480 Gbps using sixteen 15 Gbps SerDes lanes. In addition to a speed improvement of up to 50%, the architecture will enable several family member parts with added specialized features. To date, we have announced three devices:

MSR620 adds burst features optimized for oversubscription buffer applications;

MSR720 adds a write cache and memory coherency capability that allows for deterministic look ups optimized for state and que type applications; and

MSR820 delivers increased intelligence for lookup, metering and statistics applications by adding dual counters, atomic and extensive metering functions.

The devices will represent a significant improvement in speed and features, supporting aggregate line rates of up to 400 Gbps and further reduce size, pin count and power. We expect to begin sampling these devices in mid-2013.

On-chip Functionality

A significant performance bottleneck in any network line card is the need to transfer data between discrete ICs. Many of these data-transfer operations are iterative in nature, requiring subsequent, back-to-back accesses of the memory IC by the processor IC. Our Bandwidth Engine ICs have an ALU, which enables the Bandwidth Engine IC to perform mathematical operations on data. By moving certain processing functions from the processor IC to the Bandwidth Engine IC through the use of this embedded ALU, the number of I/O transactions is reduced and the processor IC is freed up to perform other networking or micro-processing functions.

High-Performance Interface

High-speed, efficient I/Os are critical building blocks to meet high data transfer rate requirements for communication between ICs on network line cards. We believe that current networking equipment system requirements necessitate an industry transition from parallel I/O to serial I/O. As a result, semiconductor companies are increasingly turning to serial I/O architectures to achieve needed system performance. For example, high-performance ICs that are sold into wide markets, such as FPGAs and NPUs, are using serial I/Os to ensure they can match the performance of, and compete with ASICs. Using serial I/O, IC developers also are able to reduce pin count (the wired electrical pins that connect an IC to the network line card on which it is mounted) on the IC. With reducing geometries, the size of most high-performance ICs is dictated by the number of pins required, rather than the amount of

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logic and memory embedded in the chip. As a result, using serial I/O facilitates cost reduction and reduced system power consumption, while improving the performance of both the IC itself and the overall system.

GigaChip Interface Protocol

In addition to the physical characteristics of the serial I/O, the protocol used to transmit data is also an important element that impacts speed and performance. To address this and complement our Bandwidth Engine devices, we have developed the GigaChip Interface, or GCI, which is an open-interface transport protocol optimized for efficient chip-to-chip communications. The GCI electrical interface is compatible with the current industry standard (Common Electrical Interface, release #11 or CEI-11). GCI can enable highly efficient serial chip-to-chip communications, and its transport efficiency averages 90% for the data transfers it handles. GCI is included in our Bandwidth Engine ICs, and we are offering it to customers and prospective partners on terms intended to encourage widespread adoption.

High-Performance and High-Density Memory Architecture

The Bandwidth Engine uses our proprietary 1T-SRAM high-density memory technology to provide the density of DRAM and the speed of SRAM. The internal multi-bank memory array architecture used in our Bandwidth Engine ICs enables concurrent access operations. We believe that this architecture is also optimized for small algorithmic operations and data transfers, such as packet header analysis.

Carrier and Enterprise Grade Quality and Reliability

Networking equipment providers focused on the carrier and enterprise market have rigid performance and reliability standards that they require their IC vendors to achieve. Our Bandwidth Engine architecture and interface are designed for data robustness and employ end-to-end error checking and correction codes. Although the Bandwidth Engine functions as more than a discrete memory device, the onboard memory array represents a significant portion of the total chip area. Memory-dominated devices require substantially different and more robust testing than non-memory ICs in order to achieve the quality and reliability requirements of advanced networking systems. We have considered these requirements for our target customers and market segments and have incorporated appropriate design and manufacturing performance margins into our Bandwidth Engine IC products. As a result, our first generation Bandwidth Engine passed extensive reliability and life tests required for carrier grade qualification certification as part of its release to production.

Our Technology

Our historical business was focused on the licensing of our proprietary 1T-SRAM and SerDes I/O technologies. We leveraged our proprietary IP to design our Bandwidth Engine IC. The following discussion explains these technologies in further detail, as well as our historical licensing activities, which have generated substantially all of our revenues in 2012.

1T-SRAM

Our innovative 1T-SRAM technologies provide major advantages over a traditional SRAM in cell stability, memory density and power consumption, making it more economical for designers to incorporate large amounts of embedded memory in their designs. In addition, our 1T-SRAM technologies offer all the benefits of the traditional SRAM, such as low latency, high speed and the opportunity to use a simple interface. Our 1T-SRAM technologies can achieve these advantages while

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utilizing standard logic manufacturing processes and providing the simple, standard SRAM interface that designers are accustomed to.

High-Density

The high-density of our 1T-SRAM technologies stems from the use of a single- transistor, or 1T, which is similar to DRAM, with a storage cell for each bit of information. Embedded memory utilizing our 1T-SRAM technologies is typically two to three times denser than the six-transistor storage cells used by traditional SRAM, i.e., 6T-SRAM. Increased density enables manufacturers of electronic products, such as cellular phones, video game consoles and digital cameras and camcorders, to incorporate additional functionality into a single IC, generally a SoC, resulting in overall cost savings.

Low-power Consumption

Embedded memory utilizing our 1T-SRAM technologies can consume as little as one-half the active power and generate less heat than traditional SRAM when operating at the same speed. This reduces system level heat dissipation and enables reliable operation using lower cost packaging.

High-speed

Embedded memory utilizing our 1T-SRAM technologies typically provides speeds essentially equal to or greater than the speeds of traditional SRAM and DRAM, particularly for larger memory sizes. Our 1T-SRAM memory designs can sustain random access cycle times of less than three nanoseconds, significantly faster than embedded 6T-SRAM technology.

SerDes (I/Os)

High-speed

To meet increasing system performance requirements, which in many cases are being driven by the growth in the Internet and the need to transmit data faster, systems are requiring both more memory and faster communication between ICs in a system. Our interface technology includes high-speed serial I/Os, called SerDes. Our SerDes technology allows for fast exchange of data between ICs in the system and can support data rates of 2.5 to 11 Gbps in a number of protocols, including XAUI, 10G KR and PCI Express (generations 1 to 3). We are developing next generation SerDes solutions, which we are targeting to achieve data rates of 15 Gbps and support advanced geometry nodes, such as 28 nanometers, primarily for use in our IC products.

Interoperability

We make our I/O technologies compliant with industry standards so that they can interoperate with interfaces on existing ICs. In addition, we make them programmable to support multiple data rates, which allows for greater flexibility for the system designer, while lowering their development and validation costs. Interoperability reduces development time, thereby reducing the overall time to market of our licensees' ICs.

Low power

While SerDes I/Os provide significantly enhanced performance over parallel I/Os, SerDes I/Os have higher power consumption, which is a challenge for IC designers. Our SerDes I/Os are tuned for low-power consumption to meet our customers' stringent power consumption requirements.

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Our Strategy

Our primary business objective is to become an IP-rich fabless semiconductor company offering ICs that deliver unparalleled bandwidth performance for next generation networking systems. The key components of the expansion of our strategic plan to become an IC supplier include the following IC-focused strategies:

Target Large and Growing Markets

Our initial strategy is to target the multi-billion dollar networking and telecommunications equipment market, which includes OEM companies such as Alcatel-Lucent, Brocade Communications Systems, Inc., Cisco Systems, Inc., Tel. LM Ericsson, Fujitsu Ltd., Hitachi Ltd., Huawei Technologies, Juniper Networks, Inc., Nokia Siemens Networks, ZTE Corporation, and others. To date, we have secured two design wins with networking and telecommunications OEMs. A "design win" means that the customer has completed its prototype evaluation, frozen its line-card specification and informed us that its next generation systems will use our Bandwidth Engine IC. We are engaged with multiple other customers, where we are working to achieve design wins, and we refer to these engagements as design-wins-in-progress.

Leverage Technologies to Create New Products

Our strategy is to combine our proprietary IP and design and applications expertise to address the needs of several upcoming generations of advanced networking equipment. We believe an IC combining our 1T-SRAM and serial I/O with logic, such as in an ALU, and other functions can provide a system-level solution and significantly improve overall system performance at lower cost while using less power. We intend to develop a Bandwidth Engine product portfolio that can serve a wide range of system performance requirements and provide cost reduction options. In addition, we can provide customized IC solutions to customers using their proprietary technology and architecture, which would allow for improved communication between our Bandwidth Engine IC and the customer's packet processor.

Another strategy is to leverage our high-speed serial I/O to create non-memory denominated ICs, which will work alongside the Bandwidth Engine ICs on 100 Gbps and higher system solutions. This will provide our customers with a more complete solution, and possibly allow us to sell a chipset containing multiple MoSys ICs.

Expand Adoption of the GigaChip Interface Protocol

Our goal is for our GCI interface protocol to become an open industry standard that is designed into other ICs in the system, as we believe this will further enable serial communication on network line cards and encourage adoption of our Bandwidth Engine IC products. Since 2010, we have publicly announced the following IC providers that intend to support GCI: Altera Corporation, Avago Technologies, Inc., LSI, Inc., NetLogic Microsystems, Inc. (acquired by Broadcom Corporation, or Broadcom), Renesas Electronics Corporation, or Renesas, and Xilinx, Inc. In addition, multiple network equipment companies, including actual and prospective customers, have adopted GCI.

Build Long-Term Relationships with Suppliers of Packet Processors

A key consideration of network system designers is to demonstrate interoperability between our Bandwidth Engine IC and the packet processors utilized in their systems. To obtain design wins for our Bandwidth Engine IC, we must demonstrate this interoperability, and also show that our IC works optimally with the packet processor to achieve the performance requirements. In addition, packet processor suppliers must adopt our GCI interface. To that end, we have been working closely with FPGA, ASIC and NPU providers, to enable interoperability between our Bandwidth Engine IC products and their high-performance products. To facilitate the acceptance of our Bandwidth Engine

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ICs, we have made available development and characterization kits for system designers to evaluate and develop code for next-generation networking systems. Our characterization kits are fully-functional hardware platforms that allow FPGA and ASIC providers, and their customers, to demonstrate interoperability of the Bandwidth Engine IC with the ASIC or FPGA the designers use within their networking systems. As we engage with ASSP and NPU providers, we will be developing characterization kits to support their products as well. We believe that having long-term relationships with packet processor providers is critical to our success, as such relationships may enable us to speed our time-to-market, provide us with a competitive advantage and expand our target markets.

Licensing and Distribution Strategy for our IP

Historically, we have offered our memory and I/O technologies on a worldwide basis to semiconductor companies, electronic product manufacturers, foundries, intellectual property companies and design companies through product development, technology licensing and joint marketing relationships. We licensed our IP technology to semiconductor companies who incorporated our technology into ICs that they sold to their customers. As a result of the change in our corporate strategy, beginning in 2012, our IP licensing activities have been limited and this is expected to continue. We intend to avoid future licensing projects that require significant use of our engineering resources, as our engineering personnel are now focused on our IC products. However, during 2012, substantially all of our revenues were generated from licensing and royalties related to our existing licensing arrangements, as we continue to perform and deliver under outstanding license agreements and collect royalties from 1T-SRAM licensees. To date, we have substantially completed our performance obligations under our existing agreements, and, as a result, we expect licensing revenues to decline in 2013.

Customers in the United States accounted for 41%, 39% and 38% of our revenues for the years ended December 31, 2012, 2011 and 2010, respectively. Customers in Japan accounted for 26%, 33% and 43% of our revenues for the years ended December 31, 2012, 2011 and 2010, respectively. Customers in Taiwan accounted for 28%, 23% and 18% of our revenues for the years ended December 31, 2012, 2011 and 2010, respectively. Our remaining revenues were from customers in the rest of Asia and in Europe.

Project Licenses

Historically, we formed product development and IP licensing relationships directly with semiconductor companies. In these relationships, the prospective licensee's implementation of our technologies typically included customized development. Usually, these relationships involved both engineering work to implement our technology in the specified product and licensing the technology for manufacture and sale of the product. Although the precise terms contained in our license agreements vary, they generally include licensing fees and development fees for customizations based on the achievement of specified development milestones and royalties. The vast majority of our contracts allow for milestone billings based on work performed. If we perform the contracted services, usually the licensee is obligated to pay the license fees even if the licensee cancels the project prior to completion. The agreements often also provide for the payment of additional contract fees if we provide engineering or manufacturing support services related to the manufacture of the product. Provisions in our memory license agreements generally require the payment of royalties to us based on the future sale or manufacture of products utilizing our technologies. Generally, our project licenses grant rights on a non-exclusive, non-transferable basis, limited to the use of our technology as modified for the project covered by the license agreement. Our license agreements generally have a fixed term and are subject to renewal. Each new project requires a separate agreement or an addendum to modify an existing agreement. We are not expecting to enter into similar kinds of projects in the future, as such licenses generally require significant engineering effort and support.

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Technology Licenses

Historically, we also offered our technology to semiconductor companies and foundries through 1T-SRAM and I/O technology license agreements, under which we granted the licensee the additional right to create and modify designs to offer to its own customers or use internally. The contract fees associated with these arrangements typically require the licensee to pay us to port our technology to the licensee's manufacturing process and develop a template design that the licensee will be able to use to generate future designs. These agreements also may obligate the licensee to pay contract fees upon the achievement of specified development milestones and may provide for the payment of additional contract fees for engineering or manufacturing support services. Our memory technology license agreements include royalty provisions based on the sale or manufacture of products utilizing our technologies. The technology licenses are non-transferable and authorize the licensee to modify designs for its customers or internal use from the template design that we provide under the agreement. Typically, the template design applies only to a specified manufacturing process generation or specific application. The licensee may add future process generations or uses to the license agreement for additional contract fees.

Research and Development

Our ability to compete in the future depends on successfully improving our technology to meet the market's increasing demand for higher performance and lower cost requirements. We have assembled a team of highly skilled engineers whose activities are focused on developing higher density, higher bandwidth, higher speed and lower cost next generation IC products. Development of our Bandwidth Engine IC products requires the hiring of specialized chip design and product engineers, as well as significant fabrication and testing costs, including mask costs, as we bring these products to market. Our significant future research and development activities will include:

- designing next generation ICs with larger memory blocks and higher-speed SerDes;
- developing versions of our initial Bandwidth Engine IC with alternative features, such as lower-speed SerDes, increased intelligence or smaller memory blocks to allow us to serve a broader range of applications and systems;
- porting our 1T-SRAM and SerDes technology to more advanced foundry process nodes; and
- developing new products that can leverage our proprietary IP portfolio and expand our market opportunity.

No development efforts are being dedicated to creating new or enhanced technology solely for use in licensing offerings.

As of December 31, 2012, we employed 76 individuals in engineering and research and development, of which 17 were employed in our design center in Hyderabad, India. For the years ended December 31, 2012, 2011 and 2010, research and development expenditures totaled approximately $28.5 million, $26.2 million and $25.5 million, respectively.

Sales and Marketing

As of December 31, 2012, we had 7 sales and marketing personnel managing and supporting our efforts to secure design wins for our IC products. Our sales and marketing personnel are located in the United States, Japan and China. In addition to our direct sales team, we sell our technologies through sales representatives and distributors in the United States and Asia.

Our IP revenue has been highly concentrated, with a few customers accounting for a significant percentage of our total revenue. For the year ended December 31, 2012, Taiwan Semiconductor Manufacturing Co., Ltd., or TSMC, Broadcom and Renesas, represented 28%, 26% and 12% of total revenue, respectively. For the year ended December 31, 2011, TSMC, Renesas, and Broadcom represented 23%, 17% and 12% of total revenue, respectively. For the year ended December 31, 2010, Renesas, TSMC and Rohm Co., Ltd. represented 23%, 18% and 15% of total revenue, respectively.

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Intellectual Property

We regard our patents, copyrights, trademarks, trade secrets and similar intellectual property as critical to our success, and rely on a combination of patent, trademark, copyright, and trade secret laws to protect our proprietary rights.

As of December 31, 2012, we held approximately 70 U.S. and 35 foreign patents on various aspects of our technology, with expiration dates ranging from 2013 to 2031. We currently have approximately 80 pending patent applications in the U.S. and abroad. There can be no assurance that others will not independently develop or patent similar or competing technology or design around any patents that may be issued to us, or that we will be able to successfully enforce our patents against infringement by others.

In December 2011, we sold 43 United States and 30 related foreign memory technology patents for $35 million in cash pursuant to a patent purchase agreement. Under the agreement, we retained a license to all of the sold patents that is unlimited with respect to our development, manufacturing and distribution of our Bandwidth Engine IC product line and any other proprietary products that we develop as long as they are not DRAM ICs. We also retained the rights necessary to renew existing 1T-SRAM licenses and to grant licenses similar in scope to identified foundries. We also retained rights to grant licenses for our second source purposes, to enable certain kinds of technology development and to a limited extent, for certain ASIC products that incorporate one of our technology macros. However, the patent purchase agreement limits our rights to grant licenses under the sold patents outside the scope of our retained license and, in particular, limits the number of future licenses of 1T-SRAM memory technology that we can grant to developers of SoCs, which used to be the principal focus of our 1T-SRAM licensing activities.

The semiconductor industry is characterized by frequent litigation regarding patent and other intellectual property rights. Our licensees or we might, from time to time, receive notice of claims that we have infringed patents or other intellectual property rights owned by others. Our successful protection of our patents and other intellectual property rights and our ability to make, use, import, offer to sell, and sell products free from the intellectual property rights of others are subject to a number of factors, particularly those described in Part I, Item 1A, "Risk Factors."

Competition

The markets for our Bandwidth Engine IC products are highly competitive. We believe that the principal competitive factors are:

processing speed and performance;

density and cost;

low-power consumption;

reliability;

interface requirements;

ease with which technology can be customized for and incorporated into customers' products; and

level of technical support provided.

We believe that we can compete favorably with respect to each of these criteria. Using our proprietary 1T-SRAM embedded memory and high-speed serial I/O IP provides our Bandwidth Engine ICs with a competitive advantage over alternative devices. Alternative solutions are either DRAM or SRAM-based and can support either the memory size or speed requirements of high-performance

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networking systems, but generally not both. DRAM solutions provide a significant amount of memory at competitive cost, but DRAM solutions do not have the required fast access and cycle times to enable high-performance. The DRAM solutions currently used in networking systems include RLDRAM from Micron Technology, Inc. and Integrated Silicon Solutions, Inc., LLDRAM from Renesas and DDR from Samsung Electronics Co., Ltd., or Samsung, Micron and others. SRAM solutions can meet high-speed performance requirements, but often lack adequate memory size. The SRAM solutions currently used in networking systems primarily include QDR or similar SRAM products from Cypress Semiconductor Corporation, GSI Technology, Inc. and Samsung. The majority of the currently available SRAM and DRAM solutions use a parallel, rather than a serial I/O. To offset these drawbacks, system designers generally use more discrete memory ICs, resulting in higher power consumption and greater utilization of space on the line card. Our competitors include established semiconductor companies with significantly longer operating histories, greater name recognition and reputation, large customer bases, dedicated manufacturing facilities and greater financial, technical, sales and marketing resources. This may allow them to respond more quickly than us to new or emerging technologies or changes in customer requirements. Many of our competitors also have significant influence in the semiconductor industry. They may be able to introduce new technologies or devote greater resources to the development, marketing and sales of their products than we can. Furthermore, in the event of a manufacturing capacity shortage, these competitors may be able to manufacture products when we are unable to do so.

Our Bandwidth Engine ICs compete with embedded memory solutions, stand-alone memory ICs, including both DRAM and SRAM ICs, and ASICs designed by customers in-house to meet their system requirements. Our prospective customers may be unwilling to adopt and design-in our ICs due to the uncertainties and risks surrounding designing a new IC into their systems and relying on a supplier that has almost no history of manufacturing such ICs. In addition, Bandwidth Engine ICs require the customer and its other IC suppliers to implement our new chip-to-chip communication protocol, GCI. These parties may be unwilling to do this if they believe it could adversely impact their own future product developments or competitive advantages, or if they believe it might complicate their development process or increase the cost of their products. In order to remain competitive, we believe we must provide unparalleled memory IC solutions with the highest bandwidth capability for our target markets, which solutions are engineered and built for high-reliability carrier class and enterprise applications.

Manufacturing

We depend on third-party vendors to manufacture, package, assemble and production test our Bandwidth Engine IC products, as we do not own or operate a semiconductor fabrication, packaging or production testing facility for boards and system assembly. By outsourcing manufacturing, we are able to avoid the high cost associated with owning and operating our own facilities, allowing us to focus our efforts on the design and marketing of our products.

Manufacturing and Testing. We use TSMC to manufacture and ASE, Inc. and Evans Analytical Group, LLC, or EAG, to assemble, package and production test, our IC products. We utilize eSilicon Corporation to assist with the management and support of certain of our manufacturing and testing operations.

Quality Assurance. We maintain an ongoing review of product manufacturing and testing processes. Our IC products are subjected to extensive testing to assess whether their performance exceeds the design specifications. Our test vendors provide us with immediate test data and the ability to generate characterization reports that are made available to our customers.

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Employees

As of December 31, 2012, we had 95 employees, consisting of 76 in research and development and engineering, 7 in sales and marketing and 12 in finance and administration. By location, we had 76 employees in the United States, 17 in our development center in India and 2 sales and marketing employees in Asia. We believe our future success depends, in part, on our ability to continue to attract and retain qualified technical and management personnel, particularly highly skilled design engineers involved in new product development, for which competition is intense. We believe that our employee relations are good.

Available Information

We were founded in 1991 and reincorporated in Delaware in September 2000. Our website address is www.mosys.com. The information in our website is not incorporated by reference into this report. Through a link on the Investor section of our website, we make available our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after they are filed with, or furnished to, the Securities and Exchange Commission, or SEC. You can also read and copy any materials we file with the SEC, at the SEC's Public Reference Room at 450 Fifth Street, NW, Washington, DC 20549. You can obtain additional information about the operation of the Public Reference Room by calling the SEC at 1.800.SEC.0330. In addition, the SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including us.

Executive Officers

The names of our executive officers and certain information about them are set forth below:

Name	Age	Position(s) with the Company
Leonard Perham	69	President and Chief Executive Officer
James W. Sullivan	44	Vice President of Finance and Chief Financial Officer
Thomas Riordan	56	Chief Operating Officer and Executive Vice President

Leonard Perham, Mr. Perham was appointed President and Chief Executive Officer in November 2007. Mr. Perham was one of the original investors in MoSys and served on our Board of Directors from 1991 to 1997. In 2000, Mr. Perham retired from Integrated Device Technology, Inc., or IDT, where he served as Chief Executive Officer from 1991 and President and board member from 1986. From March 2000 to February 2012, Mr. Perham served as a member of or chairman of the board of directors of NetLogic Microsystems, a fabless semiconductor company. Mr. Perham also has been a venture partner with AsiaTech Management, a venture capital firm. Prior to joining IDT, Mr. Perham was President and CEO of Optical Information Systems, Inc., a division of Exxon Enterprises. He was also a member of the founding team at Zilog, Inc. and held management positions at Advanced Micro Devices and Western Digital. Mr. Perham received a Bachelor of Science degree in Electrical Engineering from Northeastern University.

James W. Sullivan, Mr. Sullivan became our Vice President of Finance and Chief Financial Officer in January 2008. From July 2006 until January 2008, Mr. Sullivan served as Vice President of Finance and Chief Financial Officer at Apptera, Inc., a venture-backed company providing software for mobile advertising, search and commerce. From July 2002 until June 2006, Mr. Sullivan was the Chief Financial Officer at 8x8, Inc., a provider of voice over internet protocol communication services. Mr. Sullivan's prior experience includes various positions at 8x8, Inc. and PricewaterhouseCoopers LLP.

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He received a Bachelor of Science degree in Accounting from New York University and is a Certified Public Accountant.

Thomas Riordan, Mr. Riordan became our Chief Operating Officer and Executive Vice President in May 2011. Prior to joining the Company, Mr. Riordan was President and Chief Executive Officer of Exclara, a fabless semiconductor supplier of ICs for solid-state lighting from 2006 until 2010. From 2000 to 2004, Mr. Riordan served as Vice President of PMC-Sierra's microprocessor division. Mr. Riordan joined PMC-Sierra in August 2000 when it purchased Quantum Effects Devices, which he had co-founded and served as President and Chief Executive Officer. Mr. Riordan serves on the board of directors of Mellanox Technologies and PLX Technology. Mr. Riordan holds Bachelor of Science and Master of Science degrees in Electrical Engineering as well as a Bachelor of Arts degree in Government from the University of Central Florida and has done post-graduate work in Electrical Engineering at Stanford University.

Item 1A. Risk Factors

If any of the following risks actually occur, our business, results of operations and financial condition could suffer significantly.

We have a history of losses and are uncertain as to our future profitability.

We recorded an operating loss of $31.0 million, excluding the one-time gain on sale of assets of $3.3 million, for the year ended December 31, 2012 and ended the period with an accumulated deficit of $93.0 million. We recorded an operating loss of $24.3 million, excluding the one-time gain on sale of patents of $35.6 million, for the year ended December 31, 2011 and ended the period with an accumulated deficit of $65.4 million. In addition, we recorded an operating loss of $23.2 million for the year ended December 31, 2010. We expect to continue to incur operating losses for the foreseeable future as we secure customers for and invest in the commercialization of our IC products. Due to the strong commitment of our resources to research and development and expansion of our offerings to customers, we will need to increase revenues substantially beyond levels that we have attained in the past in order to generate sustainable operating profit. Given our history of fluctuating revenues and operating losses, the expected reduction in royalty and licensing revenues and challenges we face in securing customers for our IC products, we cannot be certain that we will be able to achieve profitability on either a quarterly or annual basis in the future.

Our success depends upon the semiconductor market's acceptance of our Bandwidth Engine ICs.

The future prospects of our business depend on the adoption and acceptance by our target markets of our Bandwidth Engine ICs. In 2011, we began focusing our engineering, marketing and sales efforts on our IC products and de-emphasizing our technology licensing activities, which historically have been our primary revenue source. Our primary focus is on obtaining design wins, or winning competitive bids, in which customers select our IC products to design into their systems. Our prospective customers may be unwilling to adopt and design-in our ICs due to the uncertainties and risks surrounding designing a new IC into their systems and relying on a supplier that has almost no history of manufacturing such ICs. In addition, our Bandwidth Engine IC products require our customers and their other IC suppliers to implement our new and proprietary chip-to-chip communication protocol, GCI, which they may be unwilling to do. We have determined and negotiated prices with a few customers for our ICs and have gained only limited experience with the cost of making and selling these products. Thus, currently we do not know whether we will be able to profitably make and sell these products. We are investing significant resources to develop our next generation IC products, but may not introduce these new products successfully or obtain significant revenue from them.

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An important part of our strategy to gain market acceptance is to penetrate new markets by targeting market leaders to accept our IC solutions. This strategy is designed to encourage other participants in those markets to follow these leaders in adopting our solutions. If a high-profile industry participant adopts our ICs for one or more of its products but fails to achieve success with those products, or is unable to successfully implement our ICs, other industry participants' perception of our solutions could be harmed. Any such event could reduce the amount of future sales of our IC products.

We utilize a limited number of suppliers to manufacture our integrated circuits, and, if any of these suppliers fail to support future versions of our technology, it will be difficult for us to develop and introduce new products and our business may not grow.

We are a fabless semiconductor company and use a limited number of suppliers to manufacture our integrated circuits, and certain of these suppliers, such as our foundry, TSMC, are sole sources. We are dependent upon supply from TSMC and other suppliers to produce our integrated circuits. Furthermore, we are dependent on TSMC to support the production of wafers for future versions of our integrated circuits, and such production may require changes to TSMC's existing process technology. If TSMC elects to not alter their process technology to support future versions of our integrated circuits, we would need to identify a new foundry. Even if TSMC alters its production processes to produce wafers for future versions of our integrated circuits, we may experience lower than anticipated manufacturing yields and device reliability problems due to the introduction of changes in production processes. Our inability to obtain supply for our existing and future integrated circuit products or to obtain the support of third party foundries for the development and manufacture of our products at smaller process geometries could materially and adversely affect our ability to achieve our strategic product development objectives and limit our prospects for future growth.

In addition, we do not have long-term supply contracts with TSMC or any of our other manufacturing suppliers, and, therefore, such suppliers are not obligated to manufacture products for us or meet our supply requirements. In addition, such suppliers are under no obligation to meet our future design specifications, except as may be provided in a particular purchase order. If we are unable to obtain an adequate supply of our current or future products from our suppliers or find alternative sources in a timely manner, we will be unable to fulfill our customer orders and our operating results will be harmed.

Because the manufacturing of integrated circuits is extremely complex, the process of qualifying a new foundry and/or other suppliers is a lengthy process and there can be no assurance that we will be able to find and qualify replacement suppliers without materially adversely affecting our business, financial condition, results of operations and prospects for future growth.

We may not achieve the anticipated benefits of becoming a fabless semiconductor company by developing and bringing to market the Bandwidth Engine IC product line.

In 2010, we expanded our business model to become a fabless semiconductor company through the development of a product line of ICs called the Bandwidth Engine. Our goal is to increase our total available market by creating high-performance ICs for networking systems, using our proprietary technology and design expertise. This development effort has required that we add significant headcount and design resources, such as expensive software tools, which has increased our losses from and cash used in operations. We may not be successful in our development efforts to bring Bandwidth Engine ICs to market successfully nor be successful in selling ICs due to various risks and uncertainties, including, but not limited to:

- customer acceptance;
- adoption of the GCI protocol;

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difficulties and delays in our development, production, testing and marketing activities;

the anticipated costs and technological risks of developing and bringing ICs to market;

the willingness of our manufacturing partners to assist successfully with fabrication;

the availability of quantities of ICs supplied by our manufacturing partners at a competitive cost;

our ability to generate the desired gross margin percentages and return on our product development investment;

competition from established IC suppliers;

the adequacy of our intellectual property protection for our proprietary IC designs and technologies;

the vigor and growth of markets served by our current and prospective customers; and

our lack of recent experience as a fabless semiconductor company making and selling proprietary ICs.

If we experience significant delays in bringing our IC products to market or if customer adoption of our products is delayed, we may need to raise additional capital to support the product development efforts and fund our working capital needs.

Our main objective is the development and sale of our products to networking and communications systems providers and their subsystem and component vendors, and, if demand for these products does not grow, we may not achieve revenue growth and our strategic objectives.

We market and sell our ICs to networking and communications systems providers and their subsystem and component vendors. We believe our future business and financial success depends on market acceptance and increasing sales of these products. In order to meet our growth and strategic objectives, networking infrastructure OEMs must incorporate our products into their systems, and the demand for their systems must grow as well. We cannot provide assurance that sales of products will increase substantially in the future or that the demand for our customers' systems will increase. Our future revenues from these products may not increase in accordance with our growth and strategic objectives if instead our OEM customers modify their product designs, select products sold by our competitors or develop their own proprietary ICs. Thus, the future success of this part of our business depends in large part on factors outside our control, and sales of our products may not meet our revenue growth and strategic objectives.

The Bandwidth Engine ICs have a lengthy sales cycle, which makes it difficult to predict success in this market and the timing of future revenue.

Bandwidth Engine ICs have a lengthy sales cycle, ranging from six to 24 months from the date of our initial proposal to a prospective customer until the date on which the customer confirms that it has designed our product into its system. As lengthy, or an even lengthier period, could ensue before we would know the volume of products that such customer will, or is likely to, order. A number of factors can contribute to the length of the sales cycle, including technical evaluations of our products by the customers, the design process required to integrate our products into the customers' products and the timing of the customers' new product announcements. In anticipation of product orders, we may incur substantial costs before the sales cycle is complete and before we receive any customer payments. As a result, in the event that a sale is not completed or is cancelled or delayed, we may have incurred substantial expenses, making it more difficult for us to become profitable or otherwise negatively impacting our financial results. Furthermore, because of this lengthy sales cycle, the recording of revenue from our selling efforts may be substantially delayed, our ability to forecast our future revenue

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may be more limited and our revenue may fluctuate significantly from quarter to quarter. We cannot provide any assurances that our efforts to build a strong and profitable business based on the Bandwidth Engine ICs will succeed. If these efforts are not successful, in light of the substantial resources that we have invested, our future operating results and cash flows could be materially adversely affected.

We expect our licensing and royalty revenues to decrease compared with our historical results, and we do not expect revenues from our IC products to replace these lost revenues in the near future.

In 2011, we began to place greater emphasis on our IC business and re-deploy engineering, marketing and sales resources from IP to IC activities. We are no longer actively pursuing new license arrangements, and, as a result, our license and royalty revenues in 2012 declined when compared with prior years. We do not expect to generate sufficient revenues from our IC products to approximate the level of our historical IP revenues and allow us to achieve profitability in 2013. As a result, our operating results, cash flows and financial condition for 2013 are likely to be adversely affected.

The semiconductor industry is cyclical in nature and subject to periodic downturns, which can negatively affect our revenue.

The semiconductor industry is cyclical and has experienced pronounced downturns for sustained periods of up to several years. To respond to any downturn, many semiconductor manufacturers and their customers will slow their research and development activities, cancel or delay new product developments, reduce their workforces and inventories and take a cautious approach to acquiring new equipment and technologies. As a result, our business has been in the past and could be adversely affected in the future by an industry downturn, which could negatively impact our future revenue and profitability. Also, the cyclical nature of the semiconductor industry may cause our operating results to fluctuate significantly from year-to-year, which may tend to increase the volatility of the price of our common stock.

Royalties generated from the licensing of our memory technologies are currently a key component of revenues, and, if we fail to realize expected royalties, our operating results will suffer.

We are relying on the receipt of future royalties to provide working capital to partially fund our investment in our IC product line. Royalty payments owed to us are calculated based on factors such as our licensees' selling prices, wafer production and other variables as provided in each license agreement. The amount of royalties we will receive depends on our licensees' business success, production volumes and other factors beyond our control. This exposes our business model to risks that we cannot minimize directly and may result in significant fluctuations in our royalty revenue and operating results from quarter-to-quarter. We do not expect to enter into any new memory technology licensing activities, therefore the number of royalty-bearing agreements will not increase and contribute to our royalty stream. In addition, the production volumes of the current royalty-bearing products shipped by our licensees are expected to decrease; therefore we do not expect our royalty revenue to grow in future periods. If we are unable to generate as much royalty revenue in the future as we believe will be necessary to partially fund our investment in our IC product line, we may need to raise capital from other sources.

Our revenue has been highly concentrated among a small number of licensees and customers, and our results of operations could be harmed if we lose a key revenue source and fail to replace it.

Our overall revenue has been highly concentrated, with a few customers accounting for a significant percentage of our total revenue. For the year ended December 31, 2012, our three largest customers represented 28%, 26%, and 12% of total revenue, respectively. For the year ended December 31, 2011, our three largest customers represented 23%, 17% and 12% of total revenue

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respectively. For the year ended December 31, 2010, our three largest customers represented 23%, 18% and 15% of total revenue, respectively. We expect that a relatively small number of licensees will continue to account for a substantial portion of our revenue for the foreseeable future.

Our royalty revenue also has been highly concentrated among a few licensees, and we expect this trend to continue for the foreseeable future. In particular, a substantial portion of our licensing and royalty revenue in 2012, 2011 and 2010 has come from the license fees and royalties for integrated circuits supplied by one integrated device manufacturer, or IDM, for Nintendo® gaming devices that incorporate our 1T-SRAM technology. Royalties earned for the sale of Nintendo gaming devices from this customer represented 11%, 16% and 22% of total revenue in 2012, 2011 and 2010, respectively. In 2012, Nintendo introduced a new gaming system, which does not incorporate our technology, which will cause a reduction in royalties we receive related to the existing gaming devices.

As a result of this revenue concentration, our results of operations could be impaired by the decision of a single key licensee or customer to cease using our technology or products or by a decline in the number of products that incorporate our technology that are sold by a single licensee or customer or by a small group of licensees or customers.

Our revenue concentration may also pose credit risks, which could negatively affect our cash flow and financial condition.

We might also face credit risks associated with the concentration of our revenue among a small number of licensees and customers. As of December 31, 2012, three customers represented 100% of total trade receivables. Our failure to collect receivables from any customer that represents a large percentage of receivables on a timely basis, or at all, could adversely affect our cash flow or results of operations and might cause our stock price to fall.

Our failure to continue to enhance our products on a timely basis could diminish our ability to attract and retain customers.

The existing and potential markets for our products are characterized by ever-increasing performance requirements, evolving industry standards, rapid technological change and product obsolescence. These characteristics lead to frequent new product introductions and enhancements, shorter product life cycles and changes in industry demands. In order to attain and maintain a significant position in the market, we will need to continue to enhance and evolve our products and the underlying proprietary technologies in anticipation of these market trends.

Our future performance depends on a number of factors, including our ability to:

- identify target markets and relevant emerging technological trends;
- develop and maintain competitive technology by improving performance and adding innovative features that differentiate our products from alternative technologies;
- enable the incorporation of our products into the customers' products on a timely basis and at competitive prices;
- develop our products to be manufactured at smaller process geometries; and
- respond effectively to new technological developments or new product introductions by others.

We plan to continually introduce enhancements to our products to meet market requirements. However, we cannot be assured that these introductions will achieve market acceptance or that we will be able to sell the products on terms that are favorable to us. Our failure to develop future products that achieve market acceptance could harm our competitive position and impede our future growth.

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Our products must meet exact specifications, and defects and failures may occur, which may cause customers to return or stop buying our products.

Our customers generally establish demanding specifications for quality, performance and reliability that our products must meet. However, our products are highly complex and may contain defects and failures when they are first introduced or as new versions are released. If defects and failures occur in our products during the design phase or after, we could experience lost revenues, increased costs, including warranty expense and costs associated with customer support, delays in or cancellations or rescheduling of orders or shipments, product returns or discounts, diversion of management resources or damage to our reputation and brand equity, and in some cases consequential damages, any of which would harm our operating results. In addition, delays in our ability to fill product orders as a result of quality control issues may negatively impact our relationship with our customers. We cannot assure you that we will have sufficient resources to satisfy any asserted claims. Furthermore, any such defects, failures or delays may be particularly damaging to us as we attempt to establish our reputation as a reliable provider of IC products.

Because we sell our products on a purchase order basis and rely on estimated forecasts of our customers' needs, inaccurate forecasts could adversely affect our business.

We expect to sell our IC products pursuant to individual purchase orders, rather than long-term purchase commitments. Therefore, we will rely on estimated demand forecasts, based upon input from our customers, to determine how much product to manufacture. Because our sales will be based primarily on purchase orders, our customers may cancel, delay or otherwise modify their purchase commitments with little or no notice to us. For these reasons, we will generally have limited visibility regarding our customers' product needs. In addition, the product design cycle for networking OEMs is lengthy, and it may be difficult for us to accurately anticipate when they will commence commercial shipments of products that include our ICs. Furthermore, if we experience substantial warranty claims, our customers may cancel existing orders or cease to place future orders. Any cancellation, delay or other modification in our customers' orders could significantly reduce our revenue, cause our operating results to fluctuate from period to period and make it more difficult for us to predict our revenue. In the event of a cancellation or reduction of an order, we may not have enough time to reduce operating expenses to mitigate the effect of the lost revenue on our business.

If we overestimate customer demand for our products, we may purchase products from manufacturers that we cannot sell. Conversely, if we underestimate customer demand or if sufficient manufacturing capacity were unavailable, we would forego revenue opportunities and could lose market share in the markets served by our products. In addition, our inability to meet customer requirements for our products could lead to delays in product shipments, force customers to identify alternative sources and otherwise adversely affect our ongoing relationships with our customers.

We will depend on contract manufacturers for a significant portion of our revenue from the sale of our Bandwidth Engine products.

Many of our prospective OEM customers use third party contract manufacturers to manufacture their systems, and these contract manufacturers would purchase our products directly from us on behalf of the OEMs. Although we expect to work with our OEM customers in the design and development phases of their systems, these OEMs often give contract manufacturers some authority in product purchasing decisions. If we cannot compete effectively for the business of these contract manufacturers, or, if any of the contract manufacturers that work with our OEM customers experience financial or other difficulties in their businesses, our revenue and our business could be adversely affected. For example, if a contract manufacturer becomes subject to bankruptcy proceedings, we may not be able to obtain our products held by the contract manufacturer or recover payments owed to us by the contract manufacturer for products already delivered to the contract manufacturer. If we are unable to persuade

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contract manufacturers to purchase our products, or if the contract manufacturers are unable to deliver systems with our products to OEMs on a timely basis, our business would be adversely affected.

We rely on independent foundries and contractors for the manufacture, assembly, testing and packaging of our integrated circuits, and the failure of any of these third parties to deliver products or otherwise perform as requested could damage our relationships with our customers and harm our sales and financial results.

As a fabless semiconductor company, we rely on third parties for all of our manufacturing operations. We depend on these parties to supply us with material in a timely manner that meets our standards for yield, cost and quality. We do not have long-term supply contracts with any of our suppliers or manufacturing service providers, and therefore they are not obligated to manufacture products for us for any specific period, in any specific quantity or at any specified price, except as may be provided in a particular purchase order. Any problems with our manufacturing supply chain could adversely impact our ability to ship our products to our customers on time and in the quantity required, which in turn could damage our customer relationships and impede market acceptance of our IC solutions.

Our costs may increase substantially if the wafer foundries and assembly and test vendors that supply and test our products do not achieve satisfactory product yields, reliability or quality.

The wafer fabrication process requires extreme precision, and the slightest changes in the design, specifications or materials can result in material decreases in manufacturing yields or even the suspension of production. From time to time, we and our wafer foundries may experience manufacturing defects and reduced manufacturing yields related to errors or problems in our wafer foundries' manufacturing processes or the interrelationship of their processes with our designs. In some cases, our wafer foundries may not be able to detect these defects early in the fabrication process or determine the cause of such defects in a timely manner, which may affect the quality or reliability of our products. We may incur substantial research and development expense for prototype or development stage products as we qualify the products for production.

Our third party wafer foundries, testing and assembly vendors and sales offices are located in regions at high risk for earthquakes and other natural disasters. Any disruption to the operations of these foundries, vendors and offices resulting from earthquakes or other natural disasters could cause significant delays in the development, production, shipment and sales of our IC products.

TSMC, which manufactures our products, is located in Asia, as are other foundries we may use in the future. EAG, which handles the testing of our products, is headquartered in California. Our primary engineering design center is located in Santa Clara, California, and we have sales offices in Japan and China. The risk of an earthquake in the Pacific Rim region is significant due to the proximity of major earthquake fault lines. In September 1999, a major earthquake in Taiwan affected the facilities of several major foundries and other vendors. As a result of this earthquake, these vendors suffered power outages and disruptions that impaired their production capacity. In March 2002 and September 2003, additional earthquakes occurred in Taiwan. The occurrence of additional earthquakes or other natural disasters could result in the disruption of the wafer foundry or assembly and test capacity of the third parties that supply these services to us and may impede our research and development efforts, as well as our ability to market and sell our products. We may not be able to obtain alternate capacity on favorable terms, if at all.

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Any claim that our products or technology infringe third party intellectual property rights could increase our costs of operation and distract management and could result in expensive settlement costs or the discontinuance of our technology licensing or product offerings. In addition, we may incur substantial litigation expense, which would adversely affect our profitability.

The semiconductor industry is characterized by vigorous protection and pursuit of intellectual property rights or positions, which has resulted in often protracted and expensive litigation. We are not aware of any third party intellectual property that our products or technology would infringe. However, like many companies of our size with limited resources, we have not searched for all potentially applicable intellectual property in the public databases. It is possible that a third party now has, or may in the future obtain, patents or other intellectual property rights that our products or technology may now, or in the future, infringe. Our licensees and IC customers, or we, might, from time to time, receive notice of claims that we have infringed patents or other intellectual property rights of others. Litigation against us can result in significant expense and divert the efforts of our technical and management personnel, whether or not the litigation has merit or results in a determination adverse to us.

Royalty amounts owed to us might be difficult to verify, and we might find it difficult, expensive and time-consuming to enforce our license agreements.

The standard terms of our 1T-SRAM license agreements require our licensees to document the manufacture and sale of products that incorporate our technology and generally report this data to us after the end of each quarter. We have the right to audit these royalty reports periodically. These audits can be expensive, time-consuming and potentially detrimental to our business relationships. A failure to fully enforce the royalty provisions of our license agreements could cause our revenue to decrease and impede our ability to achieve and maintain profitability.

We might not be able to protect and enforce our intellectual property rights, which could impair our ability to compete and reduce the value of our technology.

Our technology is complex and is intended for use in complex SoCs and networking systems. Our licensees' products utilize our embedded memory and/or I/O technology, and a large number of companies manufacture and market these products. Because of these factors, policing the unauthorized use of our intellectual property is difficult and expensive. We cannot be certain that we will be able to detect unauthorized use of our technology or prevent other parties from designing and marketing unauthorized products based on our technology. In the event we identify any past or present infringement of our patents, copyrights or trademarks, or any violation of our trade secrets, confidentiality procedures or licensing agreements, we cannot assure you that the steps taken by us to protect our proprietary information will be adequate to prevent misappropriation of our technology. Our inability to adequately protect our intellectual property would reduce significantly the barriers of entry for directly competing technologies and could reduce the value of our technology. Furthermore, we might initiate claims or litigation against third parties for infringement of our proprietary rights or to establish the validity of our proprietary rights. Litigation by us could result in significant expense and divert the efforts of our technical and management personnel, whether or not such litigation results in a determination favorable to us.

Our existing patents might not provide us with sufficient protection of our intellectual property, and our patent applications might not result in the issuance of patents, either of which could reduce the value of our core technology and harm our business.

We rely on a combination of patents, trademarks, copyrights, trade secret laws and confidentiality procedures to protect our intellectual property rights. As of December 31, 2012, we held approximately 70 patents in the United States, and approximately 35 corresponding foreign patents, which expire at

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various times from 2013 to 2031. In addition, as of December 31, 2012, we had approximately 80 patent applications pending worldwide. We cannot be sure that any patents will issue from any of our pending applications or that any claims allowed from pending applications will be of sufficient scope or strength, or issued in all countries where our products can be sold, to provide meaningful protection or any commercial advantage to us. In December 2011, we sold 43 United States and 30 related foreign patents, which reduced the size of our patent portfolio and diminishes our ability to assert counterclaims in the defense of actions against us that may arise. Also, competitors might be able to design around our patents. Failure of our patents or patent applications to provide meaningful protection might allow others to utilize our technology without any compensation to us.

The discovery of defects in our technology and products could expose us to liability for damages.

The discovery of a defect in our technologies and products could lead our customers to seek damages from us. Many of our license agreements include provisions waiving implied warranties regarding our technology and limiting our liability to our licensees. We cannot be certain, however, that the waivers or limitations of liability contained in our license contracts will be enforceable.

If we fail to retain key personnel, our business and growth could be negatively affected.

Our business has been dependent to a significant degree upon the services of a small number of executive officers and technical employees. The loss of any key personnel could negatively impact our technology development efforts, our ability to successfully transition our business model from IP licensing to IC sales, our ability to deliver under our existing agreements, maintain strategic relationships with our partners, and obtain new customers. We generally have not entered into employment or non-competition agreements with any of our employees and do not maintain key-man life insurance on the lives of any of our key personnel.

Our failure to successfully address the potential difficulties associated with our international operations could increase our costs of operation and negatively impact our revenue.

We are subject to many difficulties posed by doing business internationally, including:

foreign currency exchange fluctuations;

unanticipated changes in local regulation;

potentially adverse tax consequences, such as withholding taxes;

political and economic instability; and

reduced or limited protection of our intellectual property.

Because we anticipate that integrated circuit sales to companies that operate primarily outside the United States may account for a substantial portion of our revenue in future periods, the occurrence of any of these circumstances could significantly increase our costs of operation, delay the timing of our revenue and harm our profitability.

Any acquisitions we make could disrupt our business and harm our financial condition.

In the future, we may consider opportunities to acquire other businesses or technologies that would complement our current offerings, expand the breadth of our markets or enhance our technical capabilities. Acquisitions that we may do in the future will present a number of potential challenges that could, if not overcome, disrupt our business operations, substantially increase our operating

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expenses, negatively affect our operating results and cash flows and reduce the value to us of the acquired company or assets purchased, including:

- uncertainty related to future revenues;
- increased operating expenses and cost structure;
- integration of the acquired employees, operations, technologies and products with our existing business and products;
- focusing management's time and attention on our core business;
- retention of business relationships with suppliers and customers of the acquired business;
- entering markets in which we lack prior experience;
- retention of key employees of the acquired business;
- difficulties and delays in the further development, production, testing and marketing of the acquired technologies; and
- amortization of intangible assets, write-offs, stock-based compensation and other charges relating to the acquired business and our acquisition costs.

Our failure to raise additional capital or generate the significant capital necessary to expand our operations and invest in new products could reduce our ability to compete and could harm our business.

We intend to continue spending substantial amounts to grow our business. In December 2011, we sold 43 United States patents and 30 related foreign patents in exchange for $35 million in cash. In December 2010, we completed an equity offering and issued approximately 5,000,000 shares of our common stock for approximately $20 million in net proceeds. Although we believe that we have access to capital sufficient to satisfy our working capital requirements for the foreseeable future, we believe that we need to obtain additional financing to pursue our business strategy, develop new products, respond to competition and market opportunities and acquire complementary businesses or technologies. We may not be able to obtain such financing on favorable terms or at all.

If we were to raise additional capital through sales of our equity securities, our stockholders would suffer dilution of their equity ownership. If we engage in a subsequent debt financing, we may be required to accept terms that restrict our ability to incur additional indebtedness, prohibit us from paying dividends, repurchasing our stock or making investments, and force us to maintain specified liquidity or other ratios, any of which could harm our business, operating results and financial condition. If we need additional capital and cannot raise it on acceptable terms, we may not be able to, among other things:

- develop or enhance our products;
- continue to expand our product development and sales and marketing organizations;
- acquire complementary technologies, products or businesses;

expand operations, in the United States or internationally;

hire, train and retain employees; or

respond to competitive pressures or unanticipated working capital requirements.

Our failure to do any of these things could seriously harm our ability to execute our business strategy and may force us to curtail our research and development plans or existing operations.

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Provisions of our certificate of incorporation and bylaws or Delaware law might delay or prevent a change of control transaction and depress the market price of our stock.

Various provisions of our certificate of incorporation and bylaws might have the effect of making it more difficult for a third party to acquire, or discouraging a third party from attempting to acquire, control of our company. These provisions could limit the price that certain investors might be willing to pay in the future for shares of our common stock. Certain of these provisions eliminate cumulative voting in the election of directors, limit the right of stockholders to call special meetings and establish specific procedures for director nominations by stockholders and the submission of other proposals for consideration at stockholder meetings.

We are also subject to provisions of Delaware law which could delay or make more difficult a merger, tender offer or proxy contest involving our company. In particular, Section 203 of the Delaware General Corporation Law prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years unless specific conditions are met. Any of these provisions could have the effect of delaying, deferring or preventing a change in control, including without limitation, discouraging a proxy contest or making more difficult the acquisition of a substantial block of our common stock.

Under our certificate of incorporation, our board of directors may issue up to 20,000,000 shares of preferred stock without stockholder approval on such terms as the board might determine. The rights of the holders of common stock will be subject to, and might be adversely affected by, the rights of the holders of any preferred stock that might be issued in the future.

Our stockholder rights plan could prevent stockholders from receiving a premium over the market price for their shares from a potential acquirer.

We adopted a stockholder rights plan that generally entitles our stockholders to rights to acquire additional shares of our common stock when a third party acquires 15% of our common stock or commences or announces its intent to commence a tender offer for at least 15% of our common stock, other than for one group of related stockholders, as to whom this threshold is 20%. The plan also includes an exception to permit the acquisition of shares representing more than 15% of our common stock by a brokerage firm that manages independent customer accounts and generally does not have any discretionary voting power with respect to such shares. This plan could delay, deter or prevent an investor from acquiring us in a transaction that could otherwise result in stockholders receiving a premium over the market price for their shares of common stock. Our intention is to maintain and enforce the terms of this plan, which could delay, deter or prevent an investor from acquiring us in a transaction that could otherwise result in stockholders receiving a premium over the market price for their shares of common stock.

Potential volatility of the price of our common stock could negatively affect your investment.

We cannot assure you that there will continue to be an active trading market for our common stock. Historically, the stock market, as well as our common stock, has experienced significant price and volume fluctuations. Market prices of securities of technology companies have been highly volatile and frequently reach levels that bear no relationship to the operating performance of such companies. These market prices generally are not sustainable and are subject to wide variations. If our common stock trades to unsustainably high levels, it is likely that the market price of our common stock will thereafter experience a material decline. In the past, our board of directors approved stock repurchase programs, and any future program could impact the price of our common stock and increase volatility.

In the past, securities class action litigation has often been brought against a company following periods of volatility in the market price of its securities. We could be the target of similar litigation in the future. Securities litigation could cause us to incur substantial costs, divert management's attention and resources, harm our reputation in the industry and the securities markets and negatively impact our operating results.

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Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal administrative, sales, marketing, support and research and development functions are located in a leased facility in Santa Clara, California. We currently occupy approximately 47,000 square feet of space in the Santa Clara facility, the lease for which extends through August 2020. We have leased office space in Hyderabad, India for our engineering design center and in Tokyo, Japan, and Shanghai, China for our sales and support offices. We believe that our existing facilities are adequate to meet our current needs.

Item 3. Legal Proceedings

We are not a party to any material legal proceeding which would have a material adverse effect on our consolidated financial position or results of operations. From time to time we may be subject to legal proceedings and claims in the ordinary course of business. These claims, even if not meritorious, could result in the expenditure of significant financial resources and diversion of management efforts.

Item 4. Mine Safety Disclosures

Not applicable.

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Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our common stock is listed on the Global Market of the NASDAQ Stock Market under the symbol MOSY. The following table sets forth the range of high and low sales prices of our common stock for each period indicated.

Quarter ended	High	Low
December 31, 2012	$ 4.38	$ 2.89
September 30, 2012	$ 4.04	$ 3.09
June 30, 2012	$ 3.98	$ 2.86
March 31, 2012	$ 4.44	$ 3.35
December 31, 2011	$ 4.20	$ 2.77
September 30, 2011	$ 5.83	$ 3.29
June 30, 2011	$ 6.22	$ 5.07
March 31, 2011	$ 6.58	$ 5.37

We had 18 stockholders of record as of March 1, 2013.

Dividend Policy

We have not declared or paid any cash dividends on our common stock and presently intend to retain future earnings, if any, to fund the development and growth of our business and, therefore, do not anticipate paying any cash dividends in the foreseeable future.

Stock Performance Graph

The following graph compares cumulative total stockholder return on our common stock with that of the S&P 500 Index and the S&P Technology Sector Index from 2007 through 2012. The comparison assumes that $100 was invested on December 31, 2007 in our common stock, the stocks included in the S&P 500 Index and the stocks included in the S&P Technology Sector Index. We have never paid any cash dividends to holders of our common stock.

The comparisons shown in the graph below are based upon historical data, and we caution that the stock price performance shown in the graph below is not indicative of, nor intended to forecast, the potential future performance of our common stock. Information used in the graph was obtained from Standard and Poor's website, a source believed to be reliable, but we are not responsible for any errors or omissions in such information.

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Comparison of Five-Year Cumulative Return

	12/31/2007	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012
MOSYS, INC.	$ 100.00	$ 43.30	$ 81.24	$ 117.32	$ 86.60	$ 71.75
S & P 500	100.00	61.51	78.21	144.24	147.04	167.74
S & P TECHNOLOGY SECTOR	100.00	56.32	91.04	98.63	99.61	110.30

Securities Authorized for Issuance under Equity Compensation Plan

For information regarding securities authorized for issuance under equity compensation plans, please refer to Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Item 6. Selected Financial Data

The selected financial data presented below is derived from our consolidated financial statements that are included under Item 8. The selected financial data should be read in conjunction with our

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consolidated financial statements and notes related to those statements and with "Management's Discussion and Analysis of Financial Condition and Results of Operations" included herein.

	Year Ended December 31,				
	2012(1)	2011(2)	2010(3)	2009(4)	2008(5)
	(In thousands, except per share data)				
Statement of Operations Data:					
Total net revenue	$ 6,082	$ 14,107	$ 15,563	$ 11,458	$ 14,026
Cost of net revenue	334	3,295	2,826	1,993	2,797
Gross profit	5,748	10,812	12,737	9,465	11,229
Operating expenses	33,407	(526)	35,925	29,468	31,925
Income (loss) from operations	(27,659)	11,338	(23,188)	(20,003)	(20,696)
Other income and expense, net	155	206	177	744	2,243
Income (loss) before income taxes	(27,504)	11,544	(23,011)	(19,259)	(18,453)
Income tax provision (benefit)	110	288	51	(155)	132
Net income (loss)	$ (27,614)	$ 11,256	$ (23,062)	$ (19,104)	$ (18,585)
Net income (loss) per share:					
Basic	$ (0.70)	$ 0.30	$ (0.72)	$ (0.61)	$ (0.59)
Diluted	$ (0.70)	$ 0.28	$ (0.72)	$ (0.61)	$ (0.59)
Shares used in computing net income (loss) per share:					
Basic	39,176	37,861	31,870	31,238	31,698
Diluted	39,176	40,377	31,870	31,238	31,698
Allocation of stock-based compensation to cost of net revenue and operating expenses:					
Cost of net revenue	$ 53	$ 407	$ 309	$ 250	$ 405
Research and development	2,694	1,961	1,524	1,153	1,235
Selling, general and administrative	1,064	1,398	1,465	1,651	3,103
	$ 3,811	$ 3,766	$ 3,298	$ 3,054	$ 4,743

	Year Ended December 31,				
	2012	2011	2010	2009	2008
	(In thousands)				
Balance Sheet Data:					
Cash, cash equivalents and investments	$ 40,710	$ 57,975	$ 37,544	$ 40,436	$ 67,470
Working capital	30,155	47,968	27,246	25,628	43,304
Total assets	69,534	89,637	73,966	75,543	85,933
Deferred revenue	481	920	1,801	2,671	639
Long-term liabilities	171	109	146	136	
Stockholders' equity	64,542	85,493	67,057	64,701	81,888

(1) Operating expenses include a gain on the sale of patents of $3.3 million and $1.7 million of amortization of acquired intangible assets.

(2) Operating expenses include a gain on the sale of patents of $35.6 million and $2.6 million of amortization of acquired intangible assets.

(3) Operating expenses include $2.8 million of amortization of acquired intangible assets.

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(4) Operating expenses include restructuring charges of $0.7 million and $1.5 million of amortization of acquired intangible assets.

(5) Operating expenses include restructuring charges of $1.3 million, impairment charges for acquired intangible assets of $1.4 million and $0.7 million of amortization of acquired intangible assets.

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with the accompanying consolidated financial statements and notes included in this report.

Overview

Our strategy and primary business objective is to become a fabless semiconductor company focused on the development and sale of integrated circuits, or ICs, for the high-speed networking, communications, storage and computing markets. Our technology delivers time-to-market, performance, power and economic benefits for system original equipment manufacturers, or OEMs. We have developed a family of ICs, called Bandwidth Engine, which combines our proprietary 1T-SRAM high-density embedded memory and high-speed 10 Gigabits per second, or Gbps, serial interface, or I/O, with our intelligent access technology and a highly efficient interface protocol. Historically, our primary business was the design, development, marketing, sale and support of differentiated intellectual property, or IP, including embedded memory and high-speed parallel and serial I/O used in advanced systems-on-chips, or SoCs. We are focused on developing differentiated IP-rich IC products, such as the Bandwidth Engine, and are dedicating substantially all our R&D, marketing and sales budget to these IC products.

Since the beginning of 2010, we have invested an increasing amount of our research and development resources towards development of our Bandwidth Engine family of ICs. Our future success and ability to achieve and maintain profitability will be dependent on the marketing and sales of our Bandwidth Engine IC products into networking, communications and other markets requiring high bandwidth memory access. During 2011, we began placing less emphasis on IP licensing and deploying more resources towards our IC product development and marketing efforts. In December 2011, we sold a number of patents in an arrangement that provided $35 million in cash with no equity dilution to the Company. We are using the proceeds from this sale to partially fund our investment in our Bandwidth Engine IC product line. We retained a license to the sold patents to cover our Bandwidth Engine IC product line and to execute current business with our IP technology customers and partners. However, the retained license limits, among other things, the number of future licenses of 1T-SRAM memory technology that we can grant to developers of SoCs, which, at one time, were a principal focus of our 1T-SRAM licensing activities. We still maintain a large patent portfolio with over 100 patents granted and more in process.

Historically, our primary business has been defining, designing, marketing and licensing differentiated embedded memory and high-speed parallel and serial interface IP for advanced SoCs designs. Revenue from IP licensing and royalties represented the majority of our revenues for 2012, and we expect revenue from IP licensing and royalties to represent a significant portion of our revenues in 2013. Due to the shift in our engineering and research and development focus and the decline in major consumer electronics applications utilizing customized versions of our 1T-SRAM technology, our competitiveness and the demand for our IP have declined since the beginning of 2011. As a result of our reduced licensing activities, we expect our licensing and royalty revenue to decrease in future periods. Our expectation is that our revenue will transition from primarily licensing and royalty to predominately IC product sales. To date, we have substantially completed our performance obligations under our existing agreements, and we expect licensing revenues to decline in 2013. We have also been focused on monetizing our IP portfolio to fund the change in our business. Towards this end, we have completed asset sales for proceeds of approximately $39.3 million, including our December 2011 patent sale and March 2012 SerDes technology sale.

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The 1T-SRAM is our high-density, high-performance patented memory solution that represents an alternative to traditional volatile embedded memory. Our I/O IP includes physical layer (PHY) circuitry that allows ICs to communicate with one another in the networking, storage, computer and consumer market segments. Our PHY IP supports serial interface technologies, such as 10 Gbps Base KR, XAUI, PCI Express and SATA, as well as parallel interfaces like DDR3. Our IP customers typically include fabless semiconductor companies, integrated device manufacturers (IDMs) and foundries.

Critical Accounting Policies and Use of Estimates

Our consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States of America. Note 1 to the consolidated financial statements in Item 15 of this report describes the significant accounting policies and methods used in the preparation of our consolidated financial statements.

We have identified the accounting policies below as some of the more critical to our business and the understanding of our results of operations. These policies may involve estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. Although we believe our judgments and estimates are appropriate, actual future results may differ from our estimates, and if different assumptions or conditions were to prevail, the results could be materially different from our reported results.

Revenue Recognition

Licensing

Licensing revenue consists of fees earned from license agreements, development services and support and maintenance. License fees generally range from $100,000 to several million dollars per contract, depending on the scope and complexity of the development project, and the extent of the licensee's rights. The vast majority of our contracts allow for milestone billing based on work performed. Fees billed prior to revenue recognition are recorded as deferred revenue. We recognize revenue when persuasive evidence of an arrangement exists, delivery or performance has occurred, the sales price is fixed or determinable, and collectibility is reasonably assured. Evidence of an arrangement generally consists of signed agreements. When sales arrangements contain multiple elements (e.g., license and services), we review each element to determine the separate units of accounting that exist within the agreement. If more than one unit of accounting exists, the consideration payable to us under the agreement is allocated to each unit of accounting using the relative fair value method. Revenue is recognized for each unit of accounting when the revenue recognition criteria have been met for that unit of accounting.

For stand-alone license agreements or license deliverables in multi-deliverable arrangements that do not require significant development, modification or customization, revenue is recognized when all revenue recognition criteria have been met. Delivery of the licensed technology is typically the final revenue recognition criterion met, at which time revenue is recognized. If any of the criteria are not met, revenue recognition is deferred until such time as all criteria have been met.

For license agreements that include deliverables requiring significant production, modification or customization, and where we have significant experience in meeting the design specifications involved in the contract and the direct labor hours related to services under the contract can be reasonably estimated, we recognize revenue over the period in which the contract services are performed. For these arrangements, we recognize revenue using the percentage of completion method. Revenue recognized in any period is dependent on our progress toward completion of projects in progress. Significant management judgment and discretion are used to estimate total direct labor hours. These judgmental elements include determining that we have the experience to meet the design specifications and estimating the total direct labor hours. We follow this method because we can obtain reasonably

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dependable estimates of the direct labor hours to perform the contract services. The direct labor hours for the development of the licensee's design are estimated at the beginning of the contract. As these direct labor hours are incurred, they are used as a measure of progress towards completion. We have the ability to reasonably estimate the direct labor hours on a contract-by-contract basis based on our experience in developing prior licensees' designs. During the contract performance period, we review estimates of direct labor hours to complete the contracts as the contract progresses to completion and will revise our estimates of revenue and gross profit under the contract if we revise the estimations of the direct labor hours to complete. Our policy is to reflect any revision in the contract gross profit estimate in reported income or loss in the period in which the facts giving rise to the revision become known. Under the percentage of completion method, provisions for estimated losses on uncompleted contracts are recorded in the period in which such losses are determined to be likely. If the amount of revenue recognized under the percentage of completion accounting method exceeds the amount of billings to a customer, then the excess amount is recorded as an unbilled contracts receivable.

We provide support and maintenance under many of our license agreements. Under these arrangements, we provide unspecified upgrades, design rule changes and technical support. No other upgrades, products or other post-contract support are provided. Support and maintenance revenue is recognized at its fair value established by vendor-specific objective evidence, ratably over the period during which the obligation exists, typically 12 months. These arrangements are generally renewable annually by the customer.

Royalty

Royalty revenue represents amounts earned under provisions in our memory licensing agreements that require our licensees to report royalties and make payments at a stated rate based on actual units manufactured or sold by licensees for products that include our memory IP. Our license agreements require the licensee to report the manufacture or sale of products that include our technology after the end of the quarter in which the sale or manufacture occurs. We recognize royalties in the quarter in which we receive the licensee's report. Under limited circumstances, we may also recognize prepaid post-production royalties as revenue upon execution of the contract, which are paid in a lump sum after the licensee commences production of the royalty- bearing product and applied against future unit shipments regardless of the actual level of shipments by the licensee. The criteria for revenue recognition of prepaid royalties are that a formal agreement with the licensee is executed, no deliverables, development or support services related to prepaid royalties are required, the fees are non-refundable and not contingent upon future product shipments by the licensee, and the fees are payable by the licensee in a time period consistent with our normal billing terms. If any of these criteria are not met, we defer revenue recognition until such time as all criteria have been met.

As with our licensing revenue, the timing and level of royalties are difficult to predict. They depend on the licensee's ability to market, produce and sell products incorporating our technology. Many of the products of our licensees that are currently subject to licenses from us are used in consumer products, such as electronic game consoles, for which demand can be seasonal.

IC products

Products are sold both directly to customers, as well as through distributors. Revenue from sales directly to customers is generally recognized at the time of shipment. We record an estimated allowance, at the time of shipment, for future returns and other charges against revenue consistent with the terms of sale. IC product revenue and costs relating to sales made through distributors with rights of return and stock rotation are deferred until the distributors sell the product to end customers due to our inability to estimate future returns and credits to be issued. Distributors are generally able to return up to 10% of their purchases of slow, non-moving or obsolete inventory for credit every six months. At the time of shipment to distributors, an accounts receivable for the selling price is recorded,

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as there is a legally enforceable right to receive payment, and inventory is relieved, as legal title to the inventory is transferred upon shipment. Revenues are recognized upon receiving notification from the distributors that products have been sold to end customers. Distributors provide information regarding products and quantity, end customer shipments and remaining inventory on hand. The associated deferred margin is included in the deferred revenues line item in the consolidated balance sheet. We recorded initial IC product revenue in 2012, and a significant reserve for returns has been recorded due to the product's early stage of development and testing. IC product revenue was not significant in 2012, and has been included in the licensing and other revenue line item in the consolidated statement of operations and comprehensive loss.

Fair Value Measurements of Financial Instruments

We measure the fair value of financial instruments using a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels, as follows:

Level 1 Inputs used to measure fair value are unadjusted quoted prices that are available in active markets for the identical assets or liabilities as of the reporting date.

Level 2 Pricing is provided by third party sources of market information obtained from investment advisors rather than models. We do not adjust for or apply any additional assumptions or estimates to the pricing information we receive from advisors. Our Level 2 securities include cash equivalents and available-for-sale securities, which consisted primarily of corporate debt, and government agency and municipal debt securities from issuers with high quality credit ratings. Our investment advisors obtain pricing data from independent sources, such as Standard & Poor's, Bloomberg and Interactive Data Corporation, and rely on comparable pricing of other securities because the Level 2 securities we hold are not actively traded and have fewer observable transactions. We consider this the most reliable information available for the valuation of the securities.

Level 3 Unobservable inputs that are supported by little or no market activity and reflect the use of significant management judgment are used to measure fair value. These values are generally determined using pricing models for which the assumptions utilize management's estimates of market participant assumptions. The determination of fair value for Level 3 investments and other financial instruments involves the most management judgment and subjectivity.

Valuation of long-lived Assets

We evaluate our long-lived assets for impairment at least annually, or more frequently when a triggering event is deemed to have occurred. This assessment is subjective in nature and requires significant management judgment to forecast future operating results, projected cash flows and current period market capitalization levels. If our estimates and assumptions change in the future, it could result in a material write-down of long-lived assets. We amortize our finite-lived intangible assets, such as developed technology, customer relationships and patent license, on a straight-line basis over their estimated useful lives of one to seven years. We recognize an impairment charge as the difference between the net book value of such assets and the fair value of the assets on the measurement date.

Goodwill

We review goodwill for impairment on an annual basis or whenever events or changes in circumstances indicate the carrying value of an asset may not be recoverable. We first assess qualitative factors to determine whether it is more-likely-than-not that the fair value of the reporting unit is less than the carrying amount as a basis for determining whether it is necessary to perform the two-step impairment test. If the qualitative assessment warrants further analysis, we compare the fair value of the reporting unit to its carrying value. The fair value of the reporting unit is determined using the

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market approach. If the fair value of the reporting unit exceeds the carrying value of net assets of the reporting unit, goodwill is not impaired, and no further testing is performed. If the carrying value of the reporting unit's goodwill exceeds its implied fair value, then we must record an impairment charge equal to the difference. We have determined that we have a single reporting unit for purposes of performing the goodwill impairment test. We performed the annual impairment test in September 2012, and the test did not indicate impairment of goodwill. As of December 31, 2012, we did not identify any factors to indicate there was an impairment of our goodwill and determined that no additional impairment analysis was required.

Deferred tax valuation allowance

When we prepare our consolidated financial statements, we estimate our income tax liability for each of the various jurisdictions where we conduct business. This requires us to estimate our actual current tax exposure and to assess temporary differences that result from differing treatment of certain items for tax and accounting purposes. These differences result in deferred tax assets, which we show on our consolidated balance sheet under the category of other current assets. The net deferred tax assets are reduced by a valuation allowance if, based upon weighted available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. We must make significant judgments to determine our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance to be recorded against our net deferred tax asset.

Stock-based compensation

We recognize stock-based compensation for equity awards on a straight-line basis over the requisite service period, usually the vesting period, based on the grant-date fair value. We estimate the value of employee stock options on the date of grant using the Black-Scholes model. The determination of fair value of share-based payment awards on the date of grant using an option- pricing model is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, the expected stock price volatility over the term of the awards, and actual and projected employee stock option exercise behaviors. The expected term of options granted is derived from historical data on employee exercises and post-vesting employment termination behavior. The expected volatility is based on the historical volatility of our stock price.

Results of Operations

Net Revenue.

	Year ended December 31,			Year-Over-Year Change			
	2012	2011	2010	2011 to 2012		2010 to 2011	
	(dollar amounts in thousands)						
Licensing and other	$ 1,340	$ 5,987	$ 6,468	$ (4,647)	(78)%	$ (481)	(7)%
Percentage of total net revenue	22%	42%	42%				

Licensing revenue decreased $4.6 million in 2012 due to the lack of new license agreements and a decline in the number of residual fee-generating license agreements. License revenue recognized in 2012 was generated solely from agreements entered into in 2011 and prior years. We expect our licensing revenue to decrease in 2013 as we will not be pursuing new IP licenses, and our sales and marketing personnel will be focusing on selling ICs.

Licensing revenue decreased $0.5 million in 2011 due to a decline in the number and value of new license agreements. Licensing revenue in 2011 included significant revenue recognized from the

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achievement of final milestones for two 1T-SRAM technology license agreements executed in the fourth quarter of 2009.

	Year ended December 31,			Year-Over-Year Change			
	2012	2011	2010	2011 to 2012		2010 to 2011	
	(dollar amounts in thousands)						
Royalty	$ 4,742	$ 8,120	$ 9,095	$ (3,378)	(42)%	$ (975)	(11)%
Percentage of total net revenue	78%	58%	58%				

Royalty revenue decreased $3.4 million in 2012 primarily due to a decrease in shipments by an IDM licensee whose product is used in the Nintendo Wii® game console and TSMC, a major foundry partner. We expect royalty revenues to decrease in 2013, primarily due to reduced shipments by the IDM licensee, as Nintendo has introduced a new console that does not incorporate our technology. In addition, we expect decline in shipments of units incorporating our technology by other licensees, as their products approach their end of life.

Royalty revenue decreased $1.0 million in 2011 primarily due to a decrease in shipments by an IDM licensee whose product is used in the Nintendo Wii® game console, although we did experience an increase in royalties received from TSMC and from another licensee due to higher manufacturing volumes for their products.

Cost of Net Revenue and Gross Profit.

	Year ended December 31,			Year-Over-Year Change			
	2012	2011	2010	2011 to 2012		2010 to 2011	
	(dollar amounts in thousands)						
Cost of net revenue	$ 334	$ 3,295	$ 2,826	$ (2,961)	(90)%	$ 469	17%
Percentage of total net revenue	5%	23%	18%				

	Year ended December 31,			Year-Over-Year Change			
	2012	2011	2010	2010 to 2011		2009 to 2010	
	(dollar amounts in thousands)						
Gross profit	$ 5,748	$ 10,812	$ 12,737	$ (5,064)	(47)%	$ (1,925)	(15)%
Gross margin	95%	77%	82%				

Cost of net revenue consists of personnel and related overhead allocation costs for engineers assigned to revenue-generating licensing arrangements and direct and indirect costs related to the sale of IC products.

Cost of net revenue decreased in 2012, primarily due to the lack of new licensing agreements and reduced requirements for engineering services on existing contracts. Cost of net revenue in 2012 included stock-based compensation expense of $0.1 million, a decrease of $0.3 million compared with 2011. Total gross profit decreased to $5.7 million in 2012 primarily due to the decrease in license and royalty revenues. We expect that the cost of licensing revenue will decrease in absolute dollars in the future because we anticipate entering into few, if any, license agreements. This decrease will be offset by increased IC cost of net revenue from sales of our Bandwidth Engine ICs. We expect cost as a percentage of total net revenue to increase as we generate additional revenue from the sale of ICs rather than the licensing of IP.

Cost of net revenue increased in 2011 primarily due to two 1T-SRAM projects that were substantially completed in the fourth quarter of 2011 in which we expensed $1.2 million of previously capitalized deferred costs. Cost of net revenue in 2011 included stock-based compensation expense of $0.4 million, an increase of $0.1 million compared with 2010. Total gross profit decreased to

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$10.8 million in 2011 primarily due to the lower margin contribution from the two 1T-SRAM projects and the decrease in royalty revenues.

Research and Development.

	Year ended December 31,			Year-Over-Year Change			
	2012	2011	2010	2011 to 2012		2010 to 2011	
	(dollar amounts in thousands)						
Research and development	$ 28,480	$ 26,216	$ 25,534	$ 2,264	9%	$ 682	3%
Percentage of total net revenue	468%	186%	164%				

Our research and development expenses include costs related to the development of our IC products and amortization of technology-based intangible assets. We expense research and development costs as they are incurred.

The $2.3 million increase in 2012 was primarily due to increases in our mask tooling and other fabrication costs and stock-based compensation charges, partially offset by decreases in personnel-related costs resulting from lower headcount and lower amortization costs related to acquired intangible assets.

The $0.7 million increase in 2011 was primarily due to increases in license costs for our CAD software tools, costs related to the development of our Bandwidth Engine IC and stock-based compensation charges, offset by a decrease in acquisition-related contingent compensation charges.

Research and development expenses included stock-based compensation expense of $2.7 million, $2.0 million and $1.5 million for the years ended December 31, 2012, 2011 and 2010, respectively. We expect that research and development expenses will remain flat or decrease slightly in absolute dollars and as a percentage of total revenue as our average headcount and related personnel costs are expected to be lower in 2013 as compared to 2012. The primary driver of research and development expense will be our continued investment in our current and next generation IC products.

Selling, General and Administrative.

	Year ended December 31,			Year-Over-Year Change			
	2012	2011	2010	2011 to 2012		2010 to 2011	
	(dollar amounts in thousands)						
Selling, general and administrative	$ 8,218	$ 8,869	$ 10,391	$ (651)	(7)%	$ (1,522)	(15)%
Percentage of total net revenue	135%	63%	67%				

Selling, general and administrative expenses consist primarily of personnel and related overhead costs for sales, marketing, finance, human resources and general management.

The $0.7 million decrease for 2012 was primarily due to a decrease in personnel-related, legal and stock-based compensation costs.

The $1.5 million decrease for 2011 was primarily due to a decrease in personnel-related, acquisition-related and consulting costs.

Selling, general and administrative expenses included stock-based compensation expense of $1.1 million, $1.4 million and $1.5 million for the years ended December 31, 2012, 2011 and 2010, respectively. We expect total selling, general and administrative expenses to remain flat or slightly decrease in absolute dollars.

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Gain on Sale of Assets.

	Year ended December 31,			Year-Over-Year Change			
	2012	2011	2010	2011 to 2012		2010 to 2011	
	(dollar amounts in thousands)						
Gain on sale of assets	$ 3,291	$ 35,611	$	$ (32,230)	(91)%	$ 35,611	100%
Percentage of total net revenue	54%	252%					

In March 2012, we entered into an asset purchase agreement for an exclusive license of a portion of our intellectual property pertaining to our high-speed serial I/O technology for approximately $4.3 million. As part of the agreement, we provided certain technology transfer support services, and 15 employees of our India subsidiary accepted employment with the purchaser. In 2012, we received approximately $3.4 million in cash, net of transaction costs, from this agreement, and we expect to receive an additional $0.6 million in March 2013.

In December 2011, we entered into a patent purchase agreement for the sale of 43 United States and 30 related foreign memory technology patents for $35.0 million in cash. We recognized a $35.6 million gain on this transaction. The gain was comprised of the $35.0 million of proceeds, plus $0.8 million, which we determined to be the value of our retained license to these patents, net of transaction costs.

Other Income and Expense, net.

	Year ended December 31,			Year-Over-Year Change			
	2012	2011	2010	2011 to 2012		2010 to 2011	
	(dollar amounts in thousands)						
Other income and expense, net	$ 155	$ 206	$ 177	$ (51)	(25)%	$ 29	16%
Percentage of total net revenue	3%	1%	1%				

Other income and expense, net primarily consisted of interest income on our investments, which was $0.2 million, $0.1 million and $0.3 million for the years ended December 31, 2012, 2011 and 2010, respectively. Interest income increased by $28,000 in 2012 due to a higher average investment balance and declined by $129,000 in 2011 primarily due to lower average investment balances and lower interest rates earned. The increase in interest income was offset by increases in other expenses.

Income Tax Provision.

	Year ended December 31,			Year-Over-Year Change			
	2012	2011	2010	2011 to 2012		2010 to 2011	
	(dollar amounts in thousands)						
Income tax provision	$ 110	$ 288	$ 51	$ (178)	(62)%	$ 237	465%
Percentage of total net revenue	2%	2%					

Our 2012 and 2010 income tax provisions were primarily attributable to foreign jurisdictions. Our 2011 income tax provision was attributable to the federal alternative minimum tax, as we were profitable in 2011, and foreign jurisdictions.

As of December 31, 2012, we had net operating loss carryforwards of approximately $80.6 million for U.S. federal income tax purposes and approximately $86.5 million for state income tax purposes that are available to reduce future income tax liabilities to the extent permitted under federal and state income tax laws. The federal net operating loss carryforwards expire from 2025 to 2032, and state net operating loss carryforwards expire from 2013 to 2032. In 2013, we anticipate that our effective income tax rate will continue to be less than the federal statutory tax rate because of expected losses.

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As of December 31, 2012 and 2011, we had net deferred tax assets of approximately $43.8 million and $32.4 million, respectively. Because of uncertainties regarding the realization of deferred tax assets, we had recorded a full valuation allowance as of December 31, 2012 and 2011.

Liquidity and Capital Resources

As of December 31, 2012, we had cash, cash equivalents and investments totaling $40.7 million compared with a combined balance of $58.0 million at December 31, 2011. Our principal source of cash in 2011 was the sale of patents for $35 million in December 2011. In December 2010, we sold approximately 5 million shares of common stock in a registered direct equity offering, raising approximately $20 million, net of transaction expenses of approximately $0.1 million. The offering was made under our $50 million shelf registration statement that became effective in November 2010. Our primary capital requirements are to fund working capital, including development of our IC products, and any acquisitions that we make that require cash consideration or expenditures.

In 2012, we used $22.0 million in operating activities, which primarily resulted from the net loss of $27.6 million and the $3.3 million gain on the sale of assets, adjusted for non-cash charges consisting of stock-based compensation of $3.8 million, depreciation and amortization of $2.7 million and $2.4 million generated from changes in operating assets and liabilities. The changes in assets and liabilities primarily related to the timing of billing our customers, collection of receivables, recognition of revenue related to deferred revenues and payments to vendors.

In 2011, we used $15.7 million in operating activities, which primarily resulted from the net income of $11.3 million and $1.3 million generated from changes in operating assets and liabilities, reduced by the $35.6 million gain on the sale of patents and adjusted for non-cash charges consisting of stock-based compensation of $3.8 million and depreciation and amortization of $3.7 million. The changes in assets and liabilities primarily related to the timing of billing our customers, collection of receivables and payments to vendors.

In 2010, we used $15.6 million in operating activities, which primarily resulted from the net loss of $23.1 million, partially offset by non-cash charges consisting of stock-based compensation expense of $3.3 million, depreciation and amortization of $3.8 million and $0.4 million generated from changes in operating assets and liabilities. The changes in assets and liabilities primarily related to the timing of billing our customers, collection of receivables and payments to vendors.

Our investing activities in 2012 primarily consisted of $3.4 million received, net of transaction costs, for the sale of assets and $0.7 million for purchases of fixed assets. Remaining investing activities consisted of investing our cash in marketable securities, which did not affect our liquidity.

Our investing activities in 2011 included the payment of $1.5 million in deferred consideration for the MagnaLynx acquisition in 2010 and the purchase of $0.3 million of fixed assets.

Our investing activities in 2010 included business acquisition payments of $7.9 million, of which $4.6 million related to a contingent payment related to the acquisition of Prism Circuits and $3.3 million related to the acquisition of MagnaLynx in the first quarter of 2010. In 2010, we purchased $1.4 million of fixed assets. Remaining investing activities consisted of investing our cash in marketable securities.

Our financing activities in 2012 primarily consisted of proceeds from the exercise of stock options, partially offset by a repurchase and retirement of common stock.

Our financing activities in 2011 primarily consisted of proceeds from the exercise of stock options. Our cash from financing activities in 2010 consisted of the proceeds of our registered direct offering of common stock and proceeds from the exercise of stock options.

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Our future liquidity and capital requirements are expected to vary from quarter to quarter, depending on numerous factors, including:

- level of revenue;
- cost, timing and success of technology development efforts, including meeting customer design specifications;
- fabrication costs, including mask costs of our ICs, currently under development;
- variations in manufacturing yields, materials costs and other manufacturing risks;
- costs of acquiring other businesses and integrating the acquired operations; and
- profitability of our business.

We expect our cash expenditures to continue to exceed receipts in 2013 as our revenues will not be sufficient to offset our operating expenses, which include significant research and development expenditures for the expansion and fabrication of our IC products. We believe our existing cash, cash equivalents and investments, along with our existing capital and cash generated from operations, if any, to be sufficient to meet our capital requirements for the foreseeable future. We believe that we need to obtain additional capital prior to achieving positive operating cash flows. We have not determined what actions we will take to obtain such capital. We do have a shelf registration allowing us to sell up to approximately $30 million of our securities from time to time until November 2013. We also might decide to raise additional capital at such times and upon such terms as management considers favorable and in our interests, including, but not limited to, from the sale of our debt and/or equity securities under our existing shelf registration statement. There can be no assurance that such additional funding will be available to us on favorable terms, if at all. The failure to raise capital when needed could have a material adverse effect on our business and financial condition.

Disclosures about Contractual Obligations and Commercial Commitments

The impact that our contractual obligations as of December 31, 2012 are expected to have on our liquidity and cash flow in future periods is as follows (in thousands):

	Payment Due by Period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating leases	$ 5,673	$ 739	$ 1,484	$ 1,507	$ 1,943
Purchase commitments	1,944	878	1,066		
	$ 7,617	$ 1,617	$ 2,550	$ 1,507	$ 1,943

As of December 31, 2012, our purchase commitments were for licenses related to computer-aided design tools payable through 2015. In July 2010, we entered into a 10 year operating lease agreement for approximately 47,000 square feet with Mission West Properties, Inc. (sold to M West Propco XII, LLC in December 2012) for our corporate headquarters in Santa Clara, California.

Off-Balance Sheet Arrangements

We do not maintain any off-balance sheet arrangements or obligations that are reasonably likely to have a material current or future effect on our financial condition, results of operations, liquidity or capital resources.

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Indemnifications

In the ordinary course of business, we enter into contractual arrangements under which we may agree to indemnify the counter-party from losses relating to a breach of representations and warranties, a failure to perform certain covenants, or claims and losses arising from certain external events as outlined within the particular contract, which may include, for example, losses arising from litigation or claims relating to past performance. Such indemnification clauses may not be subject to maximum loss clauses. We have also entered into indemnification agreements with our officers and directors. No material amounts are reflected in our consolidated financial statements for the years ended December 31, 2012, 2011 or 2010 related to these indemnifications.

Recent Accounting Pronouncements

See Note 1 to the Consolidated Financial Statements for a full description of recent accounting pronouncements including the respective expected dates of adoption and effects on results of operations and financial condition.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Interest rate risk

We have exposure to interest rate risk due to our investment portfolio. Our investments are made in accordance with an investment policy under the guidance of the audit committee of our board of directors. The primary objective of our investment activities is to preserve principal and meet liquidity needs. To achieve this objective, we maintain our portfolio of cash equivalents and short-term and long-term investments in a variety of securities, including U.S. government agency debt, municipal notes, corporate notes and bonds, certificates of deposit, and money market funds. We place our investments with high-credit quality issuers and, by policy, limit the amount of credit exposure with any one issuer or fund.

The investments, other than money market funds, are classified as available-for-sale and are recorded on the balance sheet at fair value with unrealized gains and losses reported as a separate component of accumulated other comprehensive income. Securities with an original maturity of three months or less are considered cash equivalents. Securities with original maturities greater than three months and remaining maturities less than one year are classified as short-term investments. Securities with remaining maturities greater than one year are classified as long-term investments. All investments have a maturity of less than two years. No single security should exceed 5% of the portfolio or $2.0 million at the time of purchase. The portfolio's dollar- weighted average maturity of investments is within 12 months. These securities, which approximated $40.4 million as of December 31, 2012 and earned an average annual interest rate of approximately 0.3% in 2012, are subject to interest rate and credit risks. As of December 31, 2012, we performed a sensitivity analysis on our investment portfolio. According to our analysis, parallel shifts in the yield curve of both +/- 0.5% would result in changes in fair market values for these investments of approximately $0.1 million. We do not have any investments denominated in foreign currencies, and therefore are not subject to foreign currency risk on such investments.

Foreign currency exchange rate risk

Currently, all of our international sales are denominated in U.S. dollars and, as a result, we have not experienced significant foreign exchange gains or losses to date. However, the expenses of our foreign subsidiaries are denominated in their local currencies, therefore we have risk of foreign exchange gains and losses through the funding of those expenditures. We do not currently enter into forward exchange contracts to hedge exposures denominated in foreign currencies or any other derivative financial instruments for trading or speculative purposes. However, in the event our exposure

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to foreign currency risk increases, we may choose to hedge those exposures. For most currencies, we are a net payer of foreign currencies and, therefore, benefit from a stronger U.S. dollar and are adversely affected by a weaker U.S. dollar relative to those foreign currencies.

Item 8. Financial Statements and Supplementary Data

Reference is made to the financial statements listed under the heading (a) (1) Financial Statements and Reports of Burr Pilger Mayer, Inc. of Item 15, which financial statements are incorporated by reference in response to this Item 8.

Quarterly Results of Operations

The following tables set forth unaudited results of operations data for each of the eight quarters in the two year period ended December 31, 2012. This unaudited information has been prepared on a basis consistent with our audited financial statements appearing elsewhere in this report and, in the opinion of our management, includes all adjustments, consisting only of normal recurring adjustments, except as disclosed below, necessary for a fair presentation of the information for the periods presented. The unaudited quarterly information should be read in conjunction with the financial statements and notes included elsewhere in this report.

	Dec. 31, 2012	Sep. 30, 2012	Jun. 30, 2012	Mar. 31, 2012	Dec. 31, 2011	Sep. 30, 2011	Jun. 30, 2011	Mar. 31, 2011
	(In thousands, except per share data)							
	(Unaudited All periods)							
Net revenue:								
Licensing and other	$ 227	$ 248	$ 644	$ 221	$ 2,668	$ 756	$ 1,216	$ 1,347
Royalty	1,368	1,079	1,092	1,203	2,501	1,351		