

MEMSIC Inc  
Form 10-K  
March 22, 2013

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-K

(Mark one)

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

For the fiscal year ended: December 31, 2012

OR

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

Commission file number: 001-33813

MEMSIC, INC.

(Exact name of registrant as specified in its charter)

DELAWARE

(State or other jurisdiction of  
incorporation or organization)

04-3457049

(I.R.S. Employer  
Identification Number)

One Tech Drive, Suite 325  
Andover, MA 01810  
Telephone: (978)738-0900

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

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

Title of each class

Name of each exchange on which registered

Common Stock, \$0.00001 par value

The Nasdaq Stock Market, LLC (Nasdaq Global  
Market)

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

None

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

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company

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

As of June 30, 2012 (the last business day of the registrant's most recently completed second fiscal quarter), the aggregate market value of voting stock held by non-affiliates of the registrant was approximately \$30,724,931.

On March 19, 2013, 24,236,386 shares of our common stock were outstanding.

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Documents Incorporated by Reference

Portions of the definitive Proxy Statement for our 2013 Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission on or before April 30, 2013 are incorporated by reference in Part III of this Annual Report on Form 10-K.

MEMSIC, INC.

ANNUAL REPORT ON FORM 10-K

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2012

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## PART I

### Item 1. Business

We provide advanced semiconductor sensor and system solutions based on integrated micro electro-mechanical systems, or MEMS, technology and mixed signal circuit design. Our revenues have derived primarily from the sale of sensor products, principally accelerometers and magnetic sensors. During 2012, we continued to make progress in our business plan to transform ourselves into a multiple-product company serving diverse markets.

#### Sensor products.

Our sensors are used primarily for motion and direction sensing applications. We combine proprietary thermal-based MEMS technology and advanced analog mixed signal processing circuitry design into a single chip using a standard complementary metal-oxide semiconductor, or CMOS, process. We believe that this approach allows us to provide sensor solutions at a lower cost, with higher performance and greater functionality than our competitors. In addition, our technology platform allows us to easily integrate additional functions or create new sensors to expand into new applications. We expect that as MEMS technology advances, it will enable electronic systems to become smaller, faster, more energy-efficient and less expensive, and that the market for MEMS sensors will continue to expand as functions and products enabled by MEMS sensor solutions achieve broader penetration in the mobile phone, consumer, automotive, aerospace, medical and industrial markets.

Our accelerometer products are used to measure tilt, shock, vibration and acceleration, and have a wide range of applications such as mobile phones, automotive safety systems, cameras and video projectors. Any product that requires the control or measurement of motion is a potential application for accelerometers. For example, in mobile phones, accelerometers enable a variety of value-added functions such as image orientation, gaming control and text scrolling.

In automotive applications, accelerometers are deployed in airbag, electronic stability control, rollover protection, and navigation systems. Our largest automotive customer is Autoliv, Inc., a leading European automotive safety systems supplier, which uses our accelerometers in its rollover protection and vehicle stability control systems.

In consumer applications, accelerometers are used in image projectors, cameras, global positioning systems, video gaming systems and interactive toys. We are among the leading providers of accelerometers for image projectors, supplying to several Japanese original equipment manufacturers (“OEMs”).

Industrial and medical applications include inclination sensing, earthquake detection and cardiac pacemakers.

We also provide MEMS-based magnetic sensors that bring enhanced digital compass capabilities for mobile applications such as cell phones, tablet personal computers (“PCs”) and personal navigation devices. Our anisotropic magneto resistance (“AMR”) based magnetic sensor is well suited for discrete and integrated mobile solutions due to its high accuracy, good sensitivity across temperature and low power consumption. As the adoption of GPS-enabled smart phones is accelerating worldwide, we have benefited from this trend through sales of our magnetic sensors to a major manufacturer of smart phones. At the same time, we are working on developing new magnetic sensor applications to be used in automotive and industrial markets.

We will continue to capitalize on our proprietary MEMS technology to develop new types of sensors that will broaden our market opportunities. Our introduction of a MEMS-based flow sensor product for use in industrial applications such as gas-flow meters is an example of an extension of our thermal accelerometer product.

System solution products.

Our system solution products consist of wireless sensors that connect the physical environment with enterprise management and information systems to provide advanced monitoring, automation and control solutions for a range of industries, as well as inertial systems that provide end-users and systems integrators with MEMS-based solutions for measurement of static and dynamic motion in a wide variety of challenging environments, including avionics, remotely operated vehicles, agricultural and construction vehicles, automotive test and wind power turbines.

We have also continued to invest in the development of next-generation, multi-sensor and micro-controller unit, or MCU integrated system products at both the integrated circuit level for the consumer and mobile market and at the module level for the high-end industrial, automotive, and general aviation markets. Our next-generation product lines will combine our core competency in cost competitive MEMS sensor IC design and manufacturing with the core competency in multi-sensor system integration that we acquired from Crossbow Technology, Inc. or Crossbow Technology, in 2010.

Our operations.

We conduct research and development at our headquarters in Andover, Massachusetts and at facilities in San Jose, California, Chicago, Illinois and Wuxi, Jiangsu Province, China. Our research and development teams work closely with each other in our product and technology research and development activities. This enables us to access experienced and creative design talent in the United States, while benefiting from competitive engineering and manufacturing costs in China. In addition, our presence in China places us in close proximity to the supply chain for the large Chinese markets for mobile phones and consumer electronics.

Our two subsidiaries in Wuxi, Jiangsu Province, China, are primarily responsible for our manufacturing operations, including product and manufacturing engineering and quality assurance, as well as application engineering, product development and sales to support the Asia market.

We manufacture our accelerometer products utilizing a “semi-fabless” model by outsourcing the production of CMOS wafers and completing the post-CMOS MEMS process in-house. By outsourcing the standard CMOS manufacturing process, we are able to leverage mature semiconductor infrastructure and standard wafer fabrication processes and, in turn, more efficiently manage our capital expenditures. Moreover, we believe that retaining the key MEMS manufacturing process in-house enables us to protect and retain control over our key proprietary technology more effectively and to create a higher barrier to entry.

We manufacture our magnetic sensor products through utilizing sensor wafers that we produce from both internal and external fabrication facilities, or fabs, and outsourcing the packaging process and completing the testing process in-house. By maintaining our own magnetic sensor fab, we can mitigate the risk of shortage of wafer supplies in case the volume of our requirements for magnetic sensors increases rapidly.

We manufacture our wireless system solution products and partial inertial system solution products through outsourcing most of the assembly process to third-party contract assembly vendors and performing final testing and programming functions in-house at our facility in Wuxi. Certain of our inertial system solution products, including FAA-certified products, have been manufactured by Crossbow Technology under a manufacturing agreement that expired on December 31, 2012. We are evaluating other FAA-certified vendors to carry on the manufacturing of our FAA-certified products in the future.

We maintain sales offices in Andover, Massachusetts and San Jose, California, in Shenzhen and Shanghai, China, in Taipei, Taiwan, and in Yokohama, Japan. We sell our products using our direct sales force, as well as through systems integrators, resellers, distributors and sales representatives worldwide.

#### Our Competitive Strengths

Our key competitive strengths include the following:

Proprietary technology enabling superior reliability, functionality and pricing. We have proprietary rights to produce MEMS accelerometers based on a unique thermal technology which has higher shock tolerance, lower failure rate and lower cost relative to alternative mechanical solutions. Our accelerometers can be manufactured on a standard CMOS process with on-chip mixed signal processing, which enables us to enhance reliability and reduces our production cost. This standardized process enables us to easily integrate additional functions or create new sensors for MEMS applications beyond accelerometers and expand into the magnetic, touch and flow sensor markets.

Comprehensive system solutions offering. Our sensor solutions involve the development of a fully-integrated sensor system on a chip, together with the reference designs, algorithms, source code and, in some cases, the application



content to facilitate rapid commercial introduction. For example, our line of magnetic sensors incorporates our Intelligent Heading Correction algorithms, which automatically calibrate the device and compensate for extraneous magnetic interference, providing high accuracy and promoting ease of use. Our Crossbow acquisition has enhanced our capabilities in designing and developing integrated “smart sensing” solutions. Integrated solutions such as this enable our customers to shorten their product development cycle and allow for rapid adoption of our products in new applications.

Leading market position and established customer relationships. We are a pioneer in providing accelerometers to China’s large mobile phone market. We are also among the leading sensor providers in a diverse range of other applications such as keystone screen adjustment sensors for image projectors, supplying to several Japanese OEMs. In addition, our accelerometers are incorporated in vehicle stability control systems for the automotive market, where Autoliv, Inc. is a major customer. We have developed close working relationships with our customers and regularly work together with them on new applications development.

Efficient semi-fabless manufacturing model creating higher entry barrier. The semi-fabless model that we utilize for our accelerometer sensors reduces capital expenditures while retaining manufacturing control over key MEMS-based process steps. We outsource the production of standard CMOS wafers, which we consider to be a commodity, to our foundry service provider, and perform in-house the proprietary post-CMOS MEMS process of building MEMS on top of the standard CMOS wafer. We believe that by performing proprietary manufacturing processes in-house, we create a higher barrier to entry.

Strong technology-driven management team. Our management team has extensive experience in the MEMS and integrated circuit design industry. Our founder and CEO, Dr. Yang Zhao, has been dedicated to the research and development of MEMS sensors since the early 1990's while he was a doctoral student at Princeton University, and is named as an inventor on twelve patents we own and six of our pending patent applications in the United States. Furthermore, our management team has successfully guided us through our rapid business expansion while maintaining focus on the development and expansion of our core technological capabilities.

### Our Strategy

Key elements of our strategy for growth include the following:

Increase penetration of existing markets and customers. We are actively seeking design wins by building on our strong existing relationships with major OEM customers in the automotive and industrial markets in China, Taiwan, Japan, Europe and the United States. Our major OEM accounts have in the past generally focused on a particular OEM system or application, and we intend to take advantage of our strong relationships in these accounts to seek new design-in opportunities in a wider range of OEM systems and applications that capitalize on the more diverse range of technologies and sensor solutions that we can now offer.

Diversify into new sensor and integrated "smart sensing" system products. We have a strong foundation and the capabilities to diversify into new sensor products, including temperature, pressure, flow sensors and gyroscopes. Emerging applications for sensors frequently lack incumbent competitors, providing an opportunity for a first-mover to define the dominant application technology. We also believe that there is an opportunity in integrated sensor products, which combine multiple sensing devices onto one chip, and "smart sensing" systems that integrate sensors with on-board processors and other elements such as wireless communications and software to provide a complete sensing solution.

Maintain cost leadership. We intend to maintain our cost advantage by developing new innovative proprietary technologies, focusing on designing products on readily available foundry processes, and leveraging our low-cost manufacturing capabilities in China. For example, an important goal in integrating the businesses we acquired from Crossbow has been to drive down the manufacturing cost of the acquired products by transitioning manufacturing to our facility in China.

Leverage cross-continental research and development model to strengthen technology platform. We have research and development teams in Andover, Chicago, San Jose and Wuxi that work closely with each other in our product and technology research and development activities. Our U.S. team is responsible for original research and development activities while our China team focuses on implementing the technology developed by our U.S. team. We believe that this cross-continental research and development model keeps us at the forefront of MEMS sensor research while maintaining a competitive cost base.

Engage in selective acquisitions to build new MEMS capabilities. We intend to evaluate and potentially make acquisitions of technologies and businesses that are complementary to our product portfolio, such as our January 2010 acquisition of business lines from Crossbow and our 2008 acquisition of industrial gas-flow meter technology from

MEMStron. We believe that there is a large market potential for integrated system-on-chip sensor products which incorporate multiple types of sensors. While we develop our technologies in-house, we are also seeking opportunities to acquire or license key technologies from third parties as well. We believe our strong core technology platform and our newly enhanced smart sensing systems design capabilities will also provide us an advantage in integrating the acquired technologies to create a broader range of sensor solutions products in the market.

#### Corporate Information

We are a Delaware corporation incorporated in February 1999. Our principal executive offices are located at One Tech Drive, Suite 325, Andover, Massachusetts 01810. Our telephone number is (978) 738-0900 and our website is [www.memsic.com](http://www.memsic.com). Information contained on our website is not part of this Annual Report on Form 10-K.

Conventions that Apply in this Annual Report on Form 10-K

Unless otherwise indicated, references in this Annual Report on Form 10-K to:

- “U.S. dollars,” “\$,” and “dollars” are to the legal currency of the United States;
- “China” or the “PRC” are to the People’s Republic of China, excluding, for the purpose of this Annual Report on Form 10-K only, Hong Kong, Macau and Taiwan; and
- “RMB” and “Renminbi” are to the legal currency of the People’s Republic of China.
- “Yen” and “Japanese Yen” are to the legal currency of Japan

Unless the context indicates otherwise, “we,” “us,” “our company,” “the Company,” “our,” and “MEMSIC” refer to MEMSIC, and its subsidiary.

This Annual Report on Form 10-K contains translations of certain RMB and Yen amounts into U.S. dollar amounts at specified rates. Unless otherwise stated, the translations from RMB and Yen to U.S. dollars were made at the buying rate in effect on December 31, 2012 in The City of New York for cable transfers of RMB and Yen as certified for customs purposes by the Federal Reserve Bank of New York, which was RMB6.23 to \$1.00 and Yen86.64 to \$1.00, respectively. We make no representation that the RMB, Yen or U.S. dollar amounts referred to in this Annual Report on Form 10-K could have been or could be converted into U.S. dollars or RMB, as the case may be, at any particular rate or at all. See “Risk Factors—Risks Related to Doing Business in China—Fluctuations in the value of RMB could negatively impact our result of operations” and “—Restrictions on currency exchange may limit our ability to receive and use our revenue effectively” for discussions of the effects of fluctuating exchange rates and currency control on the value of our common stock. On December 31, 2012, the buying rate of RMB was RMB6.23 to \$1.00 and the buying rate of Yen was Yen86.64 to \$1.00.

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, including the sections entitled “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business,” contains forward-looking statements. These statements may relate to, but are not limited to, expectations of future operating results or financial performance, capital expenditures, introduction of new products, regulatory compliance, plans for growth and future operations, as well as assumptions relating to the foregoing. Forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. These risks and other factors include, but are not limited to, those listed under “Risk Factors.” In some cases, you can identify forward-looking statements by terminology such as “may,” “will,” “should,” “could,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “intend,” “potential,” “continue” or the negative of these terms or other comparable terminology. These statements are only predictions. Actual events or results may differ materially.

There may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Except as required by applicable law, including the securities laws of the United States and the rules and regulations of the SEC, we do not plan to publicly update or revise any forward-looking statements contained in this Annual Report on Form 10-K after we file this Annual Report on Form 10-K, whether as a result of any new information, future events or otherwise. Before you invest in our common stock, you should be aware that the occurrence of any of the events described in the “Risk Factors” section and elsewhere in this Annual Report on Form 10-K could harm our business, prospects, operating results and financial condition. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements.

### Item 1A. Risk Factors

#### Risks Relating to Our Business and Industry

Uncertain prospects for the global economy could adversely affect our business, results of operations and financial condition

Global economies recently experienced a recession that affected all sectors of the economy. There is no certainty that recent improvements in economic conditions will continue, or that economic conditions will not deteriorate again in the future. These uncertainties affect businesses such as ours in a number of ways, making it difficult to accurately forecast and plan our future business activities. Weak economic conditions may lead consumers and businesses to postpone spending, which may cause our customers to cancel, decrease or delay their existing and future orders with us. Financial difficulties experienced by our suppliers or distributors could result in product delays, increased accounts receivable defaults and inventory challenges. If uncertain economic conditions continue or further deteriorate, our business and results of operations could be materially and adversely affected, as a result of, among other things:

- reduced demand for our products, particularly in industries such as the automotive industry that have been severely affected by the global recession;
- increased risk of order cancellations or delays;
- increased pressure on the prices for our products, such as we have continued to experience in the handset market;
- greater difficulty in collecting accounts receivable; and
- risks to our liquidity, including the possibility that we might not have access to our cash and investments when needed.

We are unable to predict the prospects for recovery from the recent global downturn and the longer the duration of these uncertainties, the greater the risks we face in operating our business.

Our quarterly and annual operating results have fluctuated and may continue to fluctuate and are difficult to predict and if we do not meet financial expectations of securities analysts or investors, the price of our common stock will likely decline.

Our quarterly and annual operating results have fluctuated and may continue to fluctuate as a result of a number of factors, many of which are beyond our control. Comparing our operating results on a period-to-period basis may not be meaningful, and you should not rely on our past results as an indication of our future performance. Additionally, factors such as the acquisition of our sensor solutions business from Crossbow Technology in January 2010, which has a different operating model than our historical sensor business, and the continued intense competitive pressure on prices for our sensor products used in mobile phone applications, make predicting our future performance based on the results of prior periods particularly difficult. For example, after a period of low growth from 2007 to 2010, our net sales in 2011 grew by 76.3%, from \$38.7 million in 2010 to \$68.2 million, and then declined by 6.4% to \$63.8 million in 2012. Our gross margin decreased from 39.6% in 2010 to 35.0% in 2011, but increased to 37.1% in 2012. Our net loss in 2012 was improved to \$1.0 million from \$6.1 million in 2011 and \$7.4 million in 2010. Our quarterly and annual net sales, gross margin and net profit may be significantly different from our historical amounts, and in future periods may fall below expectations. These and other risks described in this “Risk Factors” section, including the following factors, could cause our quarterly and annual operating results to fluctuate from period to period:

- the loss of one or more of our key customers;
- the cancellation or deferral of customer orders in anticipation of our new products or product enhancements, or due to a reduction in our customers' end demand;
- changes in the price we charge for our products or our pricing strategies, which may be impacted by economic conditions or the pricing strategies of our competitors;
- the cyclical nature of the semiconductor industry and seasonality in sales of products into which our products are incorporated;
  - seasonal fluctuations of some of our product application markets as well as geographical markets; and
  - the length of the product development cycle for our new products.

In addition, we plan our operating expenses, including research and development expenses, hiring of additional personnel and investments in inventory, in part on our expectations of future revenue, and our expenses are relatively fixed in the short term. However, if revenue for a particular quarter is lower than we expect, we may be unable to proportionately reduce our operating expenses for that quarter, which would harm our operating results for that quarter. If our operating results in future quarters fall below the expectations of securities analysts or investors, the market price of our common stock will likely decline.

The average selling prices of products in some of our markets have historically decreased rapidly and will likely continue to do so in the future, which could harm our revenue and gross margins.

In the semiconductor industry, the average selling price of a product typically declines significantly over the life of the product. In the past, we have reduced the average selling prices of our products in anticipation of future competitive pricing pressures, new product introductions by us or our competitors and other factors. We expect that we will have to similarly reduce our products' average selling prices over the life of any particular product in the future. Reductions in our average selling prices to one customer could also impact our average selling prices to other customers. A decline in average selling prices can harm our gross margins. Our financial results will suffer if we are unable to offset reductions in our average selling prices by increasing our sales volumes, reducing our costs, adding new features to our existing products that enable us to increase the selling price, increasing our revenues from higher-margin products such as our new sensor solution products or developing new or enhanced products on a timely basis with higher selling prices or gross margins. For example, our gross margins declined from 45.6% in 2009 to 39.6% in 2010 to 35.0% in 2011, primarily as a result of decreasing unit prices in response to competitive pressures in the mobile handset market. However, our gross margin improved to 37.1% in 2012 as we shifted our sales focus to selective customers with less pricing pressure.

Acquisitions or investments that we make to expand our business may expose us to new risks and we may not realize the anticipated benefits of these acquisitions or investments.

As part of our growth strategy, we will continue to evaluate opportunities to acquire or invest in other businesses, intellectual property or technologies that would complement our current offerings, expand the breadth of markets we can address or enhance our technical capabilities. Acquisitions or investments that we may potentially make in the future entail a number of risks that could materially and adversely affect our business, operating and financial results, including:

- problems integrating the acquired operations, technologies or products into our existing business and products;

- diversion of management's time and attention from our core business;
- adverse effects on existing business relationships with customers;
- need for financial resources above our planned investment levels;
- failures in realizing anticipated synergies;
- difficulties in retaining business relationships with suppliers and customers of the acquired company;



- risks associated with entering markets in which we lack experience;
- potential loss of key employees of the acquired company;
  - potential write-offs of acquired assets;
- potential expenses related to the amortization of intangible assets; and
  - potential goodwill impairment charges.

Our failure to address these risks may have a material adverse effect on our financial condition and results of operations. Any such acquisition or investment may require a significant amount of capital investment, which would decrease the amount of cash available for working capital or capital expenditures. In addition, if we issue new equity securities to pay for acquisitions, our stockholders may experience dilution. If we borrow funds to finance acquisitions, such debt instruments may contain restrictive covenants that can, among other things, restrict us from distributing dividends.

Our Crossbow acquisition in particular exposed us to new risks that we have not previously faced.

The product lines we acquired from Crossbow are more highly integrated than our existing products, involve different technologies, more complex manufacturing, assembly and test processes and require more technical support than those required by our current product lines. The sales process and customer base for the Crossbow products also differs substantially from those of our current products. Our manufacture and sale of the inertial navigation systems for use in general aviation that we acquired from Crossbow are subject to extensive regulatory requirements, including requirements that we obtain and maintain certifications from the United States Federal Aviation Administration, or FAA. Malfunctions in these inertial navigation systems could expose users to the risk of injury or death, and a product liability claim brought against us, even if unsuccessful, would likely be time consuming and costly to defend. Prior to 2010, we had no previous experience in designing, manufacturing, selling and supporting products of this type, and there can be no assurance that we will be successful in these endeavors. As of December 31, 2012, based on our updated forecasts, we concluded that the goodwill attributable to the Crossbow acquisition was fully impaired, and we wrote down the remaining value of \$0.6 million. We have been substantially reliant for the operation of this business on former Crossbow management, engineering, sales and marketing personnel who have become our employees, and are dependent on Crossbow to manufacture the FAA-certified products for us under the contract we entered into with Crossbow as part of the acquisition. This agreement expired on December 31, 2012, and there can be no assurance we will be able to make acceptable arrangements with another FAA-certified manufacturer to carry on the manufacture of those products. We have experienced unforeseen difficulties in transitioning the manufacture of the acquired products to our own facility in China and have not been able to achieve the product cost improvements that we anticipated for these acquired businesses. The integration of the lines of business, technologies, personnel and operations we acquired from Crossbow could result in significant diversion of our management's attention and could also require the incurrence of substantial costs, which could adversely affect our profitability in the near term. Our failure to effectively address these risks, or to successfully integrate the businesses we acquired from Crossbow, or other businesses we may acquire, could have a material adverse effect on our business, our reputation and our results of operations.

We may not be able to compete effectively and increase or maintain revenue and market share.

We may not be able to compete successfully against current or future competitors. If we do not compete successfully, our market share and revenue may decline. We and our distributors currently sell substantially all of our accelerometer and magnetic sensor products to original equipment manufacturers, or OEMs, and original design manufacturers, or

ODMs. We face competition in the sensor market primarily from traditional capacitive/piezoresistive-based accelerometer manufacturers, and hall-effect magnetic sensor manufacturers. Our Crossbow acquisition exposes us to competition from additional sources that we historically did not experience. Most of our current competitors have longer operating histories, significantly greater resources, brand recognition and a larger base of customers than we do. In addition, these competitors may have greater credibility with our existing or potential customers. Moreover, many of our competitors have been doing business with customers for a longer period of time and have established relationships, which may provide them with information regarding future market trends and requirements that may not be available to us. Additionally, some of our larger competitors may be able to provide greater incentives to customers through rebates and similar programs. Some of our competitors with multiple product lines may bundle their products to offer a broader product portfolio or integrate sensor functionality into other products that we do not sell. These factors may make it difficult for us to gain or maintain market share.

Our ability to grow depends on our ability to secure and maintain relationships with OEM and ODM customers. If we cannot continue to achieve design wins, if our design wins do not result in large volume orders, or if we fail to meet an OEM's development and service demands, our ability to grow will be limited.

Our ability to grow depends on our ability to continue to achieve design wins with OEMs and ODMs to whom we sell either directly or through our distributors. In order to achieve a design win, where our product is incorporated into an OEM's or ODM's product design, we may often need to make modifications to our products or develop new products that involve significant technological challenges. We may also incur significant product development costs by participating in lengthy field trials and extensive qualification programs. We cannot assure you that these efforts would result in a design win.

Furthermore, a design win is not a binding commitment to purchase our products and may not result in large volume orders of our products. Rather, it is a decision by an OEM or ODM to use our products in the design process of that OEM's or ODM's product. OEMs and ODMs can choose at any time to stop using our products in their designs or product development efforts. Moreover, even if our products were chosen to be incorporated into an OEM's or ODM's product, our ability to generate significant revenues from that OEM or ODM will depend on the commercial success of their products. Thus, a design win may not necessarily generate significant revenues if our customers' products are not commercially successful.

In addition, OEMs and ODMs place considerable pressure on us to meet their tight development schedules. These customers also often require extensive and localized customer support. As a result, we may be required to significantly expand our customer support organization. Devoting a substantial amount of our limited resources to one or more of these customer relationships could result in opportunity costs which detract or delay us from completing other important product development projects for our other existing customers, which could in turn impair our relationships with existing customers and negatively impact sales of the products under development.

We do not have long-term purchase commitments from our customers, including OEMs and ODMs, and our ability to accurately forecast demand for and sales of our products is limited, which may result in excess or insufficient inventory and significant uncertainty and volatility with respect to our revenue from period to period.

We do not have long-term purchase commitments from our customers, including OEMs and ODMs. Our customers may cancel or reschedule purchase orders. Our customers' purchase orders may vary significantly from period to period, and it is difficult to forecast future order quantities. The lead time required by our foundry providers for wafer production is typically longer than the lead time that our customers provide to us for delivery of our products to them. Therefore, to ensure availability of our products for our customers, we typically ask our foundry providers to start wafer production based on forecasts provided by our customers in advance of receiving purchase orders. However, these forecasts are not binding purchase commitments, and we do not recognize revenue until our products are shipped to customers. Accordingly, we incur inventory and manufacturing costs in advance of anticipated sales. We cannot assure you that any of our customers will continue to place purchase orders with us in the future at the same level as in prior periods or that the volume of our customers' purchase orders will be consistent with our expectations when we plan our expenditures in advance of receiving purchase orders. Our anticipated demand for our products may not materialize. In addition, manufacturing based on customer forecasts exposes us to risks of high inventory carrying costs and increased product obsolescence, which may increase our costs. If we overestimate demand for our products, or if purchase orders are cancelled or shipments are delayed, we may be left with excess inventory that we cannot sell. Conversely, if we underestimate demand, we may not have sufficient inventory and may lose market share and damage our customer relationships. Obtaining additional supply in the face of product shortages may be costly or impossible, particularly in the short term, which could prevent us from fulfilling orders. As a result, our results of operations may fluctuate significantly from period to period in the future.

The length of our sales cycle is unpredictable, which makes it difficult for us to forecast revenue and may increase the volatility of our operating results.

We have a lengthy sales cycle that typically begins with our receipt of an initial request from a customer and ends when our customer executes a purchase order for production quantities. We typically need to obtain a design win to receive purchase orders. In some cases, due to the rapid growth of new product applications and technologies, this process can be time-consuming and requires substantial investment of our time and resources. In addition, our OEM and ODM customers may require significant time to test, evaluate and design our products into their products. Following a design win, OEMs and ODMs may need several months to begin large-volume production of the products that incorporate our products. Many factors beyond our control could affect the length of the sales cycle of our products. The uncertainties on the sales cycle length makes it difficult for us to forecast our revenue and may increase the volatility of our operating results.

We depend and expect to continue to depend on a limited number of customers for a high percentage of our revenues. As a result, the loss of, or a significant reduction in orders from, any of these customers would significantly reduce our revenues and harm our results of operations.

For 2012, three customers, each of which accounted for 10% or more of our net sales, accounted in the aggregate for 56.3% of our total net sales. For 2011, two OEM customers, each of which accounted for 10% or more of our net sales, accounted in the aggregate for 55.7% of our total net sales. For 2010, one OEM customer, accounted for more than 10% of our net sales. If our OEM customers do not experience continued commercial success with their OEM applications incorporating our products or if it or other major customers purchase fewer of our products, defer orders or fail to place additional orders with us, our revenue could decline, and our operating results may not meet market expectations. For example, sales to our largest OEM customer delined by 27% in 2012, contributing to our year-over-year decline in revenue, and are expected to decrease further in 2013. In addition, we face credit risks on some of our significant customers that are smaller companies. If those customers order our products, but fail to pay on time or at all, our liquidity and operating results could be materially and adversely affected.

Our success depends upon our customers' ability to successfully sell their products.

The success of our products depends, in significant part, on the success of our customers' products that incorporate our products. Most of our net sales in 2012 and 2011 were attributable to sensor products that were incorporated into products such as mobile phones, projectors and automobile parts. If any of our customers are unsuccessful in their sales, whether due to lack of market acceptance of their products, general industry slowdown, changes in the product supply chain or otherwise, our sales could be adversely affected. We are not certain whether these customers will be able to achieve success in their business or whether they will remain competitive in their business even if initially successful.

We rely on a small number of third-party foundries to manufacture wafers, which are significant components in our manufacturing process. If we are unable to secure sufficient supply of wafers, or if the wafers supplied to us do not meet our quality standards, we may be unable to ship finished products and our customer relationships may be damaged.

We currently rely on one foundry service provider to manufacture wafers used in our accelerometer products and two foundry service providers to supply wafers used for magnetic sensors.

Because we outsource our wafer production, which is a critical part of our manufacturing process, we face several significant risks, including:

- lack of manufacturing capacity at these foundries;

• limited control over delivery schedules, quality assurance and control, manufacturing yields and production costs;  
and

- the unavailability of, or potential delays in obtaining access to, key process technologies.

The ability of these foundries to provide us with wafers is limited by their available capacity. We do not have a guaranteed level of production capacity with our principal foundry and it is difficult to accurately forecast our capacity needs. Furthermore, we do not have a long-term agreement with this foundry and we place our orders on a purchase order basis. As a result, if it raises its prices or is not able to meet our required capacity for any reason, including shortages or delays in shipment of semiconductor equipment or materials it uses to manufacture our wafers, or if our business relationship with our principal foundry deteriorates, we may not be able to obtain the required capacity from

it and would have to seek alternative foundries, which may not be available on commercially reasonable terms, or at all. Using foundries with which we have no established relationships could expose us to potentially unfavorable pricing, unsatisfactory quality or insufficient capacity allocation.

Furthermore, our principal foundries can allocate capacity to the production of other companies' products and reduce deliveries to us on short notice. Many of their customers are larger than we are and may have long-term agreements with the foundry and may receive preferential treatment from them in terms of capacity allocation. Reallocation of capacity by the foundry to its other customers could impair our ability to secure the supply of wafers that we need, which could significantly delay our ability to ship our products, causing a loss of revenue and damage to our customer relationships. In addition, if we underestimate our needs for foundry capacity, our foundries may not have available capacity to meet our immediate needs or we may be required to pay higher costs to fulfill those needs, either of which could materially and adversely affect our business, operating results or financial condition.

Our key foundry service provider maintains facilities that are located in a region that is subject to earthquakes, typhoons and other natural disasters, as well as geopolitical risks and social upheaval.

Currently, most of the wafers used in our sensor products are manufactured by a foundry in Taiwan. Taiwan is susceptible to earthquakes, typhoons, flood and other natural disasters, and has experienced severe earthquakes and typhoons in recent years that caused significant property damage and loss of life. In addition, this foundry is subject to risks associated with uncertain political, economic and other conditions in Taiwan and elsewhere in Asia, such as political turmoil in the region and the outbreak of contagious diseases, such as Severe Acute Respiratory Syndrome, or SARS, or any other epidemic such as avian flu. The occurrence of any of the foregoing could disrupt the foundry's operations, resulting in significant disruption or delays in deliveries of raw materials for our operations. As a result, our business operations could be significantly disrupted and deliveries of our products could be delayed.

Our products are complex and defects in our products could result in a loss of customers, damage to our reputation, decreased revenue, unexpected expenses, loss of market share and warranty and product liability claims.

Our products are complex and must meet our customers' stringent quality requirements. Such complex products may contain undetected errors or defects, especially when first introduced or when new versions are released. For example, our products may contain errors that are not detected until after they are shipped because we cannot test for all possible scenarios. Errors or defects can arise due to design flaws, defects in materials or components or as a result of manufacturing difficulties, which can affect both the quality and yield of the product. As our products become more complex, we face significantly higher risk of undetected defects. Any errors or defects in our products, or the perception that there may be errors or defects in our products, could result in customer rejection of our products, damage to our reputation, lost revenue, diversion of development resources and increases in customer service and support costs and warranty claims.

Failure of suppliers to deliver on a timely basis sufficient quantities of components or materials or licensed software used in our products may result in delays or other disruptions in introducing or shipping our products, which could adversely affect our business and operating results.

Some of the components, materials and software used in our products are purchased or licensed from a limited number of suppliers and it is difficult for us to redesign our products to incorporate components, materials or software from alternative suppliers. For example, we obtain the ceramic packaging materials that we use on our accelerometer products from only two suppliers. If any of our suppliers terminates its relationship with us, or is unable to deliver components, materials or software in accordance with our requirements, we may not be able to find alternative sources on favorable terms on short notice. Our inability to find or develop alternative sources of components, materials and software, if and as required, could result in delays or other disruptions in introducing or shipping our products. If any of these events occur, our business and operating results could be adversely affected.

Our success depends on the continuing efforts of our senior management team and other key personnel and on our ability to successfully attract, train and retain additional key personnel.

Our future success depends heavily upon the continuing services of the members of our senior management team and various engineering and other technical personnel. In particular, our founder, Chief Executive Officer and director, Dr. Yang Zhao, was and remains central to the development and advancement of the thermal MEMS technology on which our accelerometer products have been designed and developed. In addition, our engineers and other technical personnel are critical to our future technological and product innovations. We have experienced significant turnover among our senior executive personnel since our initial public offering. If Dr. Zhao or any of our other executive officers were to resign or otherwise leave our employment, we might not be able to replace them easily or at all, and our business could be disrupted and our financial condition and results of operations could be materially and adversely

affected. In addition, if any member of our senior management team or any of our other key personnel joins a competitor or forms a competing company, we may lose customers, distributors, know-how and key professionals and staff members. We may incur increased operating expenses and be required to divert the attention of other senior executives to recruit replacement for key personnel. Our industry is characterized by high demand and intense competition for talent and the pool of qualified candidates is very limited. We cannot assure you that we will be able to retain existing, or attract and retain new, qualified personnel, including senior executives and skilled engineers, whom we will need to achieve our strategic objectives. In addition, our ability to train and integrate new employees into our operations may not meet the growing demands of our business. The loss of any of our key personnel or our inability to attract or retain qualified personnel, including engineers and others, could delay the development and introduction of, and would have an adverse effect on our ability to sell, our products as well as our overall business and growth prospects.



If we are unable to effectively manage changes in our rate of growth and address related financial, operational and systems requirements, our business and operating results could be harmed.

Our future growth and expansion require that we expand our operational, engineering and financial systems, procedures and controls and to improve our information technology, accounting and other internal management systems. However, as a result of the recent global economic recession and increasing competition from mobile phone and consumer markets, we have experienced losses since 2009, which have required us to carefully control our costs and expenses in order to minimize the impact of lower gross margins on our results of operations. To the extent that such measures may have impaired or delayed our new product development activities, they could adversely affect our competitiveness. Additionally, these expense control measures could adversely affect our ability to continue to make necessary improvements to our operational, financial and management information systems. We have experienced significant turnover among our senior executive personnel. Our expense reduction measures also included headcount reductions, particularly in our sales and marketing and research and development staffs. These changes have to some extent contributed, and may in the future contribute, to the challenge of effectively managing our changing operations. If we are unable to manage our changing rate of growth effectively, we may not be able to take advantage of market opportunities, execute our business plan or respond to competitive pressures. To successfully manage our business in this rapidly changing environment, we believe we must effectively:

• hire, train, integrate and manage additional qualified engineers, senior managers, sales and marketing personnel and information technology personnel;

- implement additional, and improve existing, administrative and operational systems, procedures and controls;

• expand our finance and accounting team, which includes hiring additional personnel with U.S. GAAP and internal control expertise;

- continue to expand and upgrade our design and product development capabilities; and

• manage our relationships with semiconductor manufacturing service providers, customers, suppliers and other third parties.

Moreover, if our allocation of resources does not correspond with future demand for particular products, we could miss market opportunities, and our business and financial results could be materially and adversely affected. We cannot assure you that we will be able to manage our growth effectively in the future.

Assertions by third parties of infringement by us of their intellectual property rights could disrupt our business, result in significant costs and cause our operating results to suffer.

The semiconductor industry is characterized by vigorous protection and pursuit of intellectual property rights, which has resulted in protracted and expensive litigation for many companies. We may receive claims from various industry participants alleging infringement of patents, trade secrets and/or other intellectual property rights in the future. Any lawsuit or administrative proceedings resulting from such allegations could subject us to significant liability for damages and invalidate our existing intellectual property rights. These lawsuits, regardless of their success, would likely be time-consuming and expensive to resolve and would divert management's time and attention. Any potential intellectual property litigation or administrative proceedings also could force us to do one or more of the following:

• stop selling products that have used technology or manufacturing processes containing the allegedly infringing intellectual property;

- pay damages to the party claiming infringement;

• attempt to obtain a license for the relevant intellectual property, which may not be available on commercially reasonable terms or at all; and

• attempt to redesign those products that contain the allegedly infringing intellectual property with non-infringing intellectual property, which may not be possible.

The outcome of a dispute may result in our need to develop non-infringing technology or enter into royalty or licensing agreements. We have agreed to defend certain of our distributors and direct OEM customers against any claims by third parties of infringement of intellectual property rights and to indemnify them for all costs and damages arising from such claims. Any intellectual property dispute could have a material adverse effect on our business, operating results or financial condition.

We may not be able to prevent others from unauthorized use of our intellectual property, which could harm our business and competitive position.

We design our accelerometer and non-accelerometer products in-house and rely on a combination of patents, trademarks and employee and third-party nondisclosure agreements to protect our intellectual property. As of December 31, 2012, we owned forty-one patents and had eighteen pending patent applications in the United States, and owned forty-two patents and had twenty-nine pending patent applications and assignments in China. As of that date, we also had five issued patents and nine pending patent applications in Japan, two issued patents and five pending patent applications in Germany, three pending patent applications filed with the European Patent Office and seven pending patent applications filed under the Patent Cooperation Treaty (PCT). Policing any unauthorized use of our intellectual property is difficult and costly and the steps we have taken may be inadequate to prevent the misappropriation of our technology. Reverse engineering, unauthorized copying or other misappropriation of our technologies could enable third parties to benefit from our technologies without paying us. In addition, others may independently develop similar proprietary information and techniques, gain access to our intellectual property rights, disclose such technology or design around our patents. Additionally, we cannot assure you that any patent or registered trademark owned by us will be enforceable or will not be invalidated, circumvented or otherwise challenged in the PRC, the United States or other countries or that the rights granted thereunder will provide competitive advantages to us or that any of our pending or future patent applications will be issued with the scope of the claims sought by us, if at all. Furthermore, litigation may be necessary to enforce our patents and other intellectual property rights, protect our trade secrets, determine the validity of and scope of the proprietary rights of others, or defend against claims of infringement or invalidity. Litigation could result in substantial costs and diversion of resources which could harm our business, could ultimately be unsuccessful in protecting our intellectual property rights, and may result in our intellectual property rights being held invalid or unenforceable. Moreover, foreign intellectual property laws may not protect our intellectual property rights. Enforcement of PRC intellectual property-related laws has historically been ineffective, primarily because of ambiguities in PRC laws and difficulties in enforcement. Accordingly, intellectual property rights and confidentiality protections in China may not be as effective as in the United States or other countries. Our failure to protect our intellectual property effectively could harm our business, prospects and reputation.

Some of our key technologies and know-how are licensed from third parties, including a competing company, and the termination of any of the licenses will materially and adversely affect our business.

Our business relies on our ability to use, develop and otherwise exploit our accelerometer-related technologies and know-how. Some of our key technologies and know-how were acquired by us from Analog Devices through licensing arrangements as part of its investment in our company in 1999. All these licensing arrangements may be terminated upon the occurrence of certain events. In particular,

- Analog Devices assigned to us its license from Canada's Simon Fraser University, or SFU, on our core thermal accelerometer technology. SFU is entitled to terminate our license upon the occurrence of one of a number of events, including our failure to timely provide financial records. In addition, the license is terminated automatically upon the occurrence of insolvency, bankruptcy or other similar events.

- Analog Devices granted us an exclusive, perpetual license to its thermal accelerometer technology rights to use, make, have made, import, offer to sell, sell, develop, modify, reproduce and distribute thermal accelerometer products and agreed not to use such technology rights to make or sell thermal accelerometer products itself. Analog Devices is entitled to terminate this license if our company is dissolved or liquidated or if we breach a material provision of the license agreement.

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Analog Devices granted us a non-exclusive license to certain of its testing, wafer sawing and wafer level capping and chip-level packaging technology rights to use, make, have made, import, offer to sell, sell, develop, modify, reproduce and distribute thermal accelerometer products. Analog Devices may terminate this license if our company is dissolved or liquidated or if we breach a material provision of the license agreement.

Under our license with SFU, SFU is entitled to continue to use the licensed technology existing at the time of the license agreement, which was entered into in March 1999, as well as any related technology it develops thereafter without our support. Although we understand that SFU has not developed commercialized products based on its patented accelerometer technology to date, we cannot assure you that it will not do so in the future. If SFU seeks to develop commercialized products based on the accelerometer technology, it may deem us as a competitor and seek to terminate or limit the scope of our license, and as a result, our business, operations, financial condition and results of operation may be materially and adversely affected.

We consider Analog Devices to be a significant competitor. If Analog Devices seeks to terminate, limit the scope of, or increase the fees payable with any of our licenses granted or assigned by them, our business, operations, financial condition and results of operation may be materially and adversely affected.

The loss of the services of our independent packaging service provider could disrupt our shipments, harm our customer relationships and reduce our sales.

We outsource a portion of our product packaging process to third-party packaging service providers. As a result, we do not completely control our product delivery schedules, packaging costs or quality assurance and control for products subject to third-party packaging process. Although we have developed the capacity to perform certain product packaging activities in-house, if our third party packaging service provider experiences capacity constraints or disruption or financial difficulties, raises its prices, suffers any damage to its facilities, or terminates its relationship with us, and we have insufficient capacity in-house, we may have to seek alternative packaging services which may not be available on commercially reasonable terms, or at all. Moreover, we may be exposed to risks associated with qualifying new service providers. Because it may take us an extended amount of time to qualify third-party packaging service providers, we could experience delays in product shipments if we are required to find alternative service providers for our products on short notice. Any problems that we may encounter with the delivery or quality of our products could damage our reputation and result in a loss of customers.

We may be unable to obtain in a timely manner and at a reasonable cost the equipment necessary for us to remain competitive when worldwide economic growth resumes.

Our operations and expansion plans depend on our ability to obtain a significant amount of equipment from a limited number of suppliers and in a market that is characterized, from time to time, by intense demand, limited supply and long delivery cycles. During times of significant demand for this type of equipment, lead times for delivery can be significant. Shortages of equipment could result in an increase in their prices and longer delivery times. If we are unable to obtain equipment in a timely manner and at a reasonable cost, we may be unable to fulfill our customers' orders, which could negatively impact our financial condition and results of operations.

Our expansion plans require substantial capital expenditures and are subject to a number of uncertainties, and our failure to complete these plans would have a material adverse effect on our ability to achieve future growth.

Our future success depends on our ability to significantly increase our manufacturing capacity and research and development capabilities.

We have completed the first phase of construction of two new buildings adjacent to our current facility in Wuxi, China, comprising 20,800 square meters, consisting of 8,700 square meters for a new research and development institute and 12,100 square meters of new manufacturing facilities. Phase one included the structural construction of the two new buildings and furnishing and fitting out the research and development office building. We started using the research and development office building in the fourth quarter of 2009. The total cost for this phase was \$6.7 million. Phase two includes the furnishing and equipment of the manufacturing facility. At the end of 2011, we had furnished and equipped one third of our new manufacturing facility to meet our expected production requirements for both accelerometer products and non-accelerometer products in 2011. In 2012, we did not furnish or equip any additional manufacturing space in the new manufacturing building as the existing space was sufficient to support our 2012 sales. We may need to continue to furnishing the remaining manufacturing facility depending upon the rate of growth of the sensor business.

In 2011, we completed another manufacturing facility with 14,000 square meter total space in Wuxi, China to host the manufacturing of our system solution products. The construction site is located on the same property as our June 2010 land purchase. The construction cost of approximately \$8.1 million has been financed by the local Chinese government. We are currently negotiating with the local Chinese government concerning the terms of an arrangement under which we would either lease the building for five years with a free rent period or purchase the building at cost from the government within five years.

There are a number of events that could delay these expansion projects or increase the costs of building and equipping these or future facilities in accordance with our plans. These include:

- failure to raise sufficient funds to build, and maintain adequate working capital to operate, new facilities;
    - failure to timely obtain environmental and other regulatory approvals, permits or licenses;
    - shortages and late delivery of building materials and manufacturing equipment;
    - seasonal factors, such as a long and intensive wet season that limits construction; and
- technological, capacity or other changes to our plans for new facilities necessitated by changes in market conditions.

If we are unable to establish or successfully operate additional manufacturing facility, we may be unable to expand our business as planned. If we are unable to carry out our planned expansions, we may not be able to meet customer demand, which could result in lower profitability and a loss in market share.

Our product liability and business disruption insurance may not be sufficient.

A significant portion of our sales derive from automotive safety applications which may expose us to significant product liability claims. The aviation navigation systems business we recently acquired from Crossbow also could expose us to significant product liability claims. We maintain business disruption insurance and general liability insurance which includes product liability coverage in amounts we believe to be appropriate for our operations. However, we cannot assure you that this amount is sufficient to cover all potential claims or losses and damages we may suffer. Any product liability or warranty claim, litigation, natural disaster or other forms of business disruption may result in our incurring substantial costs and in a diversion of resources.

Compliance with environmental regulations can be expensive, and noncompliance with these regulations may result in adverse publicity, potentially significant monetary damages and fines and suspension of our business operations.

Any failure by us to control the use of, or to restrict adequately the discharge of, hazardous substances could subject us to potentially significant monetary damages and fines or suspensions in our business operations. Our manufacturing processes generate noise, waste water, gases and other industrial wastes and we are required to comply with China's national and local regulations regarding environmental protection. We believe we are currently in compliance with present environmental protection requirements and have all necessary environmental permits to conduct our business as it is presently conducted. However, if more stringent regulations are adopted in the future, the costs of compliance with these new regulations could be substantial. If we fail to comply with any future environmental regulations, we may be required to pay substantial fines, suspend production or cease operations.

We may need additional capital, and the sale of additional common stock or other equity securities could result in dilution to you.

We believe that our current cash, cash flow from operations and proceeds of the project loans from the Agricultural Bank of China and funding from the local government of Wuxi will be sufficient to meet our anticipated cash needs, including working capital requirements and capital expenditures for at least the next twelve months. Our future cash requirements will depend on many factors, including our operating income, the timing of our new product introductions, the costs of maintaining adequate manufacturing capacity, the continuing market acceptance of our products, payment terms for major contracts and customers, or other changing business conditions and future developments, including any investments or acquisitions we may decide to pursue. If our existing cash is insufficient to meet our requirements, we may seek to sell additional equity securities, debt securities or borrow from banks. We cannot assure you that financing will be available in the amounts we need or on terms acceptable to us, if at all. The sale of additional equity securities, including convertible debt securities, would be dilutive to our stockholders. The incurrence of indebtedness would divert cash for working capital requirements and capital expenditures to service debt and could result in operating and financial covenants that restrict our operations and our ability to pay dividends to our stockholders. If we are unable to obtain additional equity or debt financing, our business, operations and prospects may suffer.

We are likely to be adversely affected by the cyclical nature of the semiconductor industry.

The semiconductor industry is highly cyclical and is characterized by constant and rapid technological change, product obsolescence and price erosion, evolving standards, short product life cycles and wide fluctuations in product supply and demand. The semiconductor industry has, from time to time, experienced significant downturns, often

connected with, or in anticipation of, maturing product cycles of both semiconductor companies' and their customers' products, which may occur as of, or independently from, declines in general economic conditions. These downturns have been characterized by diminished product demand, production overcapacity, high inventory levels and accelerated erosion of average selling prices. The semiconductor industry is currently experiencing such a downturn. Prolongation or worsening of the current downturn, or the occurrence of any future downturn may reduce our revenues and result in us having excess inventory. Furthermore, any upturn in the semiconductor industry could result in increased competition for access to limited third-party foundry, assembly and testing capacity. Failure to gain access to foundry, assembly and testing capacity could impair our ability to secure the supply of products that we need, which could significantly delay our ability to ship our products, cause a loss of revenues and damage our customer relationships.



The illiquidity of the auction rate securities we hold could adversely affect our financial condition, and if a further write-down of the value of these securities were to become necessary, it would adversely affect our results of operations

As of December 31, 2012, our investments included \$2.5 million (net of \$500,000 unrealized temporary impairment loss) of auction rate securities. Auction rate securities are generally long-term fixed income instruments that are expected to provide liquidity through a Dutch auction process that resets the applicable interest rate at pre-determined calendar intervals, typically every 7, 28, 35 or 49 days. Due to liquidity issues in global credit and capital markets, the auction rate securities we hold have failed at auction, meaning that the amount of securities submitted for sale at auction exceeded the amount of purchase orders. If an auction fails, the issuer becomes obligated to pay interest at penalty rates, and the auction rate securities we hold continue to pay interest in accordance with their stated terms. However, the failed auctions create uncertainty as to the liquidity in the near term of these securities. As a result, we have classified the \$2.5 million of auction rate securities we held at December 31, 2012 as long-term investments.

Based on our expected operating cash flows and our other sources of cash, we do not expect the potential lack of liquidity in our auction rate securities classified as long-term investments to affect our ability to execute our current business plan in the foreseeable future. However, the principal represented by these investments will not be accessible to us until one of the following occurs: a successful auction occurs, the issuer redeems the issue, a buyer is found outside of the auction process or the underlying securities have matured. There can be no assurance that we would be able in the near term to liquidate these securities on favorable terms, or at all, and if we should require access to these funds sooner than we currently expect, our inability to sell these auction rate securities could adversely affect our liquidity and our financial flexibility.

If the credit and capital markets deteriorate further, the credit ratings of the issuers or the insurers of the auction rate securities are downgraded or the collateral underlying the securities deteriorates or other events occur that would affect the fair value of these auction rate securities, it is possible that we might conclude that some or all of them have sustained an other-than-temporary impairment in value, such that we would be required under GAAP to further write down their carrying value. Any such write-down could result in a charge against our earnings in the period in which the impairment is recognized, which could be material.

#### Risks Related to Doing Business in China

Adverse changes in economic and political policies of the PRC government or laws or regulations of the PRC could have a material adverse effect on the overall economic growth of China, which could materially and adversely affect our business.

All of our manufacturing operations are located in China and a significant portion of devices incorporating our products are ultimately sold to end users in China. Accordingly, our business, financial condition, results of operations and prospects are affected significantly by economic, political and legal developments in China. China's economy is in transition from a planned economy to a more market-oriented economy and differs from the economies of most developed countries in many respects, including the amount of government involvement, level of development, growth rate, level of capital reinvestment, access to financing, control of foreign exchange and allocation of resources. While the PRC economy has experienced significant growth in the past 30 years, the growth has been uneven across different regions and economic sectors of China. The PRC government has implemented various economic and political policies and laws and regulations to encourage economic development. Although we believe that such policies have had a positive effect on the economic development of China, we cannot predict the future direction of those policies or the effects those policies may have on our business or results of operations. In addition, since 2003, the PRC government has implemented a number of measures, such as raising surplus deposit reserve ratios and lending interest rates, in order to slow down the growth of certain sectors of China's economy. These actions, as well

as future actions and policies of the Chinese government, could materially affect our liquidity and access to bank financing. Furthermore, changes to the policies of the PRC government or the laws and regulations of the PRC could have a material adverse effect on the overall economic growth of China, which could adversely affect our business.

Because our business depends in part on the continued growth of the Chinese economy, any slowdown of such growth could have a material adverse effect on our business and operating results.

Our business is significantly dependent upon the economy and the business environment in China. In particular, we expect to continue to rely significantly on the growing demand in China for devices incorporating our products, which in turn may be dependent on the continuing growth of the Chinese economy. The Chinese economy experienced some inflation recently, and there can be no assurance that the growth of the Chinese economy will be steady or that any slowdown of the Chinese economy will not have a material adverse effect on our business and operating results.

China's legal system is characterized by uncertainty that could negatively impact our business and results of operations.

We conduct all of our manufacturing operations at our Wuxi subsidiaries, which are subject to PRC laws and regulations applicable to foreign investment in China and, in particular, laws applicable to wholly-foreign owned companies. Since 1979, PRC legislation and regulations have significantly enhanced the protections afforded to various forms of foreign investments in China. However, China has not developed a fully integrated legal system and recently enacted laws and regulations may not sufficiently cover all aspects of economic activities in China.

The PRC legal system is based on written statutes. The interpretation and enforcement of these laws and regulations involve uncertainties in that (i) the laws and regulations are relatively new, (ii) only limited volumes of court decisions are published, (iii) prior court decisions may be only cited for reference but have limited precedential value, and (iv) interpretation of statutes and regulations may also be subject to new government policies reflecting domestic political, economic or social changes. Such uncertainties may limit the legal protections available to us.

The enforcement of existing laws, or contracts based on existing law, may be uncertain and sporadic as well. It may be difficult to obtain swift and equitable enforcement or to obtain enforcement of a judgment by a court of another jurisdiction.

The relative inexperience of China's judiciary in many types of cases creates additional uncertainty as to the outcome of any litigation. Any litigation in China may be protracted and result in substantial costs and diversion of resources and management attention.

The PRC legal system is based in part on government policies and internal rules (some of which are not published on a timely basis or at all) that may have a retroactive effect. As a result, we may not be aware of our violation of these policies and rules until some time after the violation.

Our activities in China may be subject to administrative review and approval by various national and local agencies of the PRC government. Because of the changes occurring in China's legal and regulatory structure, we may not be able to secure the requisite governmental approval for our activities. Failure to obtain the requisite governmental approval for any of our activities could adversely affect our business and results of operations.

The discontinuation of any of the preferential tax treatments currently available to us in China could materially and adversely affect our business, financial condition and results of operations.

The PRC government or its local agencies or bureaus provides preferential tax treatment, in the form of reduced tax rates or tax holidays, to certain qualified enterprises. Our wholly-owned subsidiary, MEMSIC Semiconductor, as a PRC high-technology company operating in a designated high-tech development zone, which we refer to as a "PRC high technology company," benefits from a 15% preferential enterprise income tax rate, compared to a uniform tax rate of 25% that became effective on January 1, 2008, and was exempt from enterprise income tax for two years from 2007, the year in which it first had positive accumulated earnings, and was entitled to a 50% reduction in the enterprise income tax from 2009 to 2011. Our indirectly owned subsidiary MTS is currently subject to the uniform tax rate of 25%.

Moreover, under current PRC laws and regulations, no tax is required to be withheld by MEMSIC Semiconductor with respect to any dividend payments made by it to us, as its stockholder, and no PRC tax is payable by us on the dividends received from it provided that such profits are permitted to be paid by it in accordance with PRC laws and regulations. In addition, as a foreign invested enterprise, or FIE, MEMSIC Semiconductor enjoys certain tax deductions for purchasing equipment made in China. Under the relevant regulation, if an FIE purchases Chinese-made equipment, and the price does not exceed the total investment amount of such FIE, for projects that fall within certain specified categories, 40% of the purchase price amount may be credited against the surplus between the amount of enterprise income tax payable in the current year and the amount paid in the previous year. If the credited amount is greater than the surplus, the excess amount can be carried forward for up to five years, subject to certain exceptions. In addition, we have also benefited from rebates of value-added tax for our export products.

The discontinuation of these preferential tax treatments could materially and adversely affect our business, financial condition and results of operations. On March 16, 2007, the National People's Congress, the PRC legislature, approved and promulgated a new tax law named "Enterprise Income Tax Law," which took effect beginning January 1, 2008.

Under the new tax law, FIEs and domestic companies are subject to a uniform income tax rate of 25%. The new tax law provides a five-year transition period starting from its effective date for those enterprises which were established before the promulgation date of the new tax law and which were entitled to a preferential lower income tax rate under the then effective tax laws or regulations. The income tax rate of such enterprises will gradually transition to the uniform tax rate within the transition period in accordance with implementing rules to be issued by the State Council. For those enterprises which are enjoying tax holidays, such tax holidays may continue until their expiration in accordance with regulations to be issued by the State Council, but where the tax holiday has not yet started because of losses, such tax holiday shall be deemed to commence from the first effective year of the new tax law. While the new tax law equalizes the income tax rates for FIEs and domestic companies, preferential tax treatment would continue to be given to companies in certain encouraged sectors and to entities classified as high-technology companies supported by the PRC government, whether FIEs or domestic companies. According to the new tax law, entities that qualify as PRC high-technology companies will benefit from a tax rate of 15% as compared to the uniform tax rate of 25%. However, there are a number of requirements for a company to qualify as a PRC high-technology company, including those relating to business scope. There can be no assurances that MEMSIC Semiconductor will continue to qualify as a PRC high-technology company, that it will continue to do so in the future and continue to benefit from such preferential tax rate. Following the effectiveness of the new tax law, our effective income tax rate may increase, unless we are otherwise eligible for preferential treatment.

In addition, according to the Enterprise Income Tax Law and its implementation rules, effective January 1, 2008, any dividends payable to us by MEMSIC Semiconductor is subject to the PRC withholding tax at the rate of 10%. Although MEMSIC Semiconductor has not paid any dividends to us historically and does not intend to do so in the future, if our Wuxi subsidiary ever does pay any dividends to us in the future, our consolidated results of operations and the amount of dividends we pay to our stockholders may be adversely affected.

The new tax law provides only a framework of the enterprise tax provisions. Even with the promulgation of its implementation rules, the new tax law still leaves many details on the definitions of numerous terms as well as the interpretation and specific application of various provisions unclear and unspecified.

We may be treated as a resident enterprise for PRC tax purposes which may subject us to PRC income tax for any dividends we pay to our non-PRC stockholders.

Under the Enterprise Income Tax Law, enterprises established under the laws of non-PRC jurisdictions, but whose “de facto management body” is located in the PRC are treated as resident enterprises for PRC tax purposes. Although the implementation rules of the Enterprise Income Tax Law provides a definition of “de facto management body”, such definition has not been tested and there remains uncertainty as to which situations a non-PRC enterprise’s “de facto management body” is considered to be located in the PRC. Some members of our management team are currently based in the PRC. If we are treated as a resident enterprise for PRC tax purposes, we will be subject to PRC tax on our worldwide income at the 25% uniform tax rate, and any dividend payable by us to our non-PRC corporate stockholders will also be subject to a PRC withholding tax at the rate of 10%. If we are required under the new tax law to withhold income tax on dividends we pay to our non-PRC corporate stockholders, the amount of dividends we are able to pay may be materially and adversely affected.

The intercompany transactions between us and our Wuxi subsidiaries may be subject to scrutiny by the United States and the PRC tax authorities, and there may be material and adverse tax consequences if the United States or the PRC tax authorities determine that these transactions were not entered into on an arm’s length basis.

Our Wuxi subsidiaries are PRC companies. Our Wuxi subsidiaries generally purchase manufacturing components from third parties but purchase a small amount of manufacturing components from our U.S. headquarters at cost. To more efficiently manage our manufacturing process, we expect our Wuxi subsidiaries to purchase all manufacturing components from third parties. We purchase all of the MEMS sensors that MEMSIC Semiconductor produces and some of the system solution products that MTS produces.

We could face material and adverse tax consequences if the United States or the PRC tax authorities determine that the transactions between us and our Wuxi subsidiaries were not entered into on an arm’s length basis and they may adjust our income and expenses for United States or PRC tax purposes in the form of a transfer pricing adjustment. A transfer pricing adjustment could result in a reduction, for PRC tax purposes, of deductions recognized by our Wuxi subsidiary, or an increase, for the U.S. tax purposes, of income recognized by us on a consolidated basis, which could increase our overall tax liability and adversely affect our results of operations.

Our Wuxi subsidiaries are subject to restrictions on paying dividends or making other distributions to us.

We may rely on dividends paid by our Wuxi subsidiaries for our cash needs, including the funds necessary to pay any dividends or other cash distributions to our stockholders, service any debt we may incur and pay our operating expenses. Regulations in the PRC currently permit payment of dividends only out of accumulated profits as determined in accordance with accounting standards and regulations in China. Our Wuxi subsidiaries are required to set aside at least 10% (up to an aggregate amount equal to half of its registered capital) of its after-tax profits each year, if any, to fund certain reserve funds. These reserve funds are not distributable as cash dividends. As of December

31, 2012, MEMSIC Semiconductor has established a reserve fund of \$788,000. If our Wuxi subsidiaries incur debt on their own behalf in the future, the instruments governing the debt may restrict their abilities to pay dividends or make other distributions to us. Limitations on the ability of our Wuxi subsidiaries to pay dividends to us could adversely limit our ability to grow, make investments or acquisitions that could be beneficial to our businesses, pay dividends, or otherwise fund and conduct our business. Accordingly, if for any of the above or other reasons, we do not receive dividends from our Wuxi subsidiaries, our liquidity, financial condition and ability to make dividend distribution to our stockholders will be materially and adversely affected.

Restrictions on currency exchange may limit our ability to receive and use our revenue effectively.

The PRC government imposes controls on the convertibility of Renminbi, or RMB, into foreign currencies and, in certain cases, the remittance of currency out of China. Because all or substantially all of our net sales are denominated in U.S. dollars, but a significant portion of our expenses are denominated in RMB, any restrictions on currency exchange may limit our ability to use cash from sales generated in U.S. dollars to fund our business activities in China. The principal regulation governing foreign currency exchange in China is the Foreign Currency Administration Rules (1996), as amended. Under these rules, RMB are freely convertible for trade and service-related foreign exchange transactions, but not for direct investment, loans or investment in securities outside China unless the prior approval of the State Administration of Foreign Exchange, or SAFE, is obtained. Although the PRC government regulations now allow greater convertibility of RMB for current account transactions, significant restrictions still remain. For example, foreign exchange transactions under the capital account of our Wuxi subsidiary, including principal payments in respect of foreign currency-denominated obligations, remain subject to significant foreign exchange controls and the approval of SAFE. These limitations could affect our ability to obtain foreign exchange for capital expenditures. The PRC government may also at its discretion restrict access in the future to foreign currencies for current account transactions. If the foreign exchange control system prevents us from obtaining sufficient foreign currency to satisfy our currency demands, we may not be able to pay dividends in foreign currencies to our stockholders. In addition, we cannot be certain that the PRC regulatory authorities will not impose more stringent restrictions on foreign exchange transactions in the future.

Fluctuations in the value of RMB could negatively impact our result of operations.

The value of the RMB against the U.S. dollar and other currencies may fluctuate and is affected by, among other things, changes in political and economic conditions inside and outside of China. On July 21, 2005, the PRC government changed its policy of pegging the value of the RMB to the U.S. dollar. Under the new policy, the RMB is permitted to fluctuate within a managed band based on market supply and demand and by reference to a basket of certain foreign currencies. This change in policy has resulted in a 25.0% appreciation of the RMB against the U.S. dollar between July 21, 2005 and December 31, 2012. While the international reaction to the RMB revaluation has generally been positive, there remains significant international pressure on the PRC government to adopt an even more flexible currency policy. In the long term, the RMB may appreciate or depreciate significantly in value against the U.S. dollar, depending on the fluctuation of the basket of currencies against which it is currently valued, or whether it is permitted to enter into a full float.

Our reporting currency is the U.S. dollar and all of our sales and liabilities are denominated in U.S. dollars. Approximately one third of our operating expenses and a majority of our assets are denominated in RMB. Accordingly, as a result of China's 2005 currency policy, our operating expenses, in U.S. dollar equivalents, increased and our operating margins and net income were adversely affected. In addition, the value of our Chinese assets, in U.S. dollar equivalents, increased. To the extent that we need to convert U.S. dollars into RMB for our operations, appreciation of the RMB against the U.S. dollar would have an adverse effect on the RMB amount we receive from the conversion. Conversely, if we decide to convert our RMB into U.S. dollars for the purpose of making payments for dividends on our common stock or for other business purposes, appreciation of the U.S. dollar against the RMB would have a negative effect on the U.S. dollar amount available to us. As a result, any significant revaluation of the RMB may materially and adversely affect our cash flows, revenue, earnings and financial position, and the value of, and any dividends payable on, our common stock in U.S. dollars.

Recent PRC regulations relating to offshore investment activities by PRC residents and employee stock options granted by overseas-listed companies may increase our administrative burden, restrict our overseas and cross-border investment activity or otherwise adversely affect the implementation of our acquisition strategy. If our stockholders who are PRC residents, or our PRC employees who are granted or exercise stock options, fail to make any required

registrations or filings under such regulations, we may be unable to distribute profits and may become subject to liability under PRC laws.

The PRC State Administration of Foreign Exchange, or SAFE, recently promulgated regulations that require PRC residents and PRC corporate entities to register with local branches of SAFE in connection with their direct or indirect offshore investment activities. Under the SAFE regulations, PRC residents who make, or have previously made, direct or indirect investments in offshore companies, will be required to register those investments. In addition, any PRC resident who is a direct or indirect stockholder of an offshore company is required to file or update the registration with the local branch of SAFE, with respect to that offshore company, any material change involving its round-trip investment or capital variation, such as an increase or decrease in capital, transfer or swap of shares, merger, division, long-term equity or debt investment or creation of any security interest. Although our PRC counsel has advised us that these SAFE regulations are not applicable to us or our stockholders, we cannot assure you that SAFE will agree with our position. If SAFE disagrees with us, and if any of our PRC stockholders fails to make in a timely manner the required SAFE registration or file or update the registration, our Wuxi subsidiary may be prohibited from distributing its profits and the proceeds from any reduction in capital, share transfer or liquidation to us, and we may also be prohibited from injecting additional capital into our Wuxi subsidiary. Moreover, failure to comply with the various SAFE registration requirements described above could result in liability under PRC laws for evasion of applicable foreign exchange restrictions.



The failure or inability of our PRC resident stockholders to comply with the registration procedures set forth therein may subject us to fines and legal sanctions. In addition, because it is uncertain how the SAFE regulations will be interpreted or implemented, we cannot predict how these regulations will affect our business operations or future strategy. For example, we may be subject to more stringent review and approval process with respect to our foreign exchange activities, such as remittance of dividends and foreign-currency-denominated borrowings, which may adversely affect our results of operations and financial condition. Furthermore, if we decide to acquire a PRC domestic company, we cannot assure you that we or the owners of such company, as the case may be, will be able to obtain the necessary approvals or complete the necessary filings and registrations required by the SAFE regulations. This may restrict our ability to implement our acquisition strategy and could adversely affect our business and prospects.

On March 28, 2007, SAFE promulgated the Application Procedure of Foreign Exchange Administration for Domestic Individuals Participating in Employee Stock Holding Plan or Stock Option Plan of Overseas-Listed Company, or the Stock Option Rule. Under the Stock Option Rule, PRC citizens who are granted stock options by an overseas publicly-listed company are required, through a PRC agent or PRC subsidiary of such overseas publicly-listed company, to register with SAFE and complete certain other procedures. We and our PRC employees who have been granted stock options are subject to the Stock Option Rule as a result of our recent initial public offering. If we or our PRC optionees fail to comply with these regulations, we or our PRC optionees may be subject to fines and legal sanctions.

A number of our PRC employees exercised their stock options prior to our becoming an overseas publicly-listed company. Since there is not yet a clear regulation on how and whether these PRC employees are required to complete their SAFE registration, and it is uncertain as to how the government authorities will interpret the Stock Option Rule, it is unclear whether such exercises are permissible by PRC laws and it is uncertain how SAFE or other government authorities will interpret or administrate such regulations. Therefore, we cannot predict how such exercises will affect our business or operations.

PRC regulation of direct investment and loans by offshore holding companies to PRC entities may delay or limit us from using the proceeds of our initial public offering to make additional capital contribution or loans to our Wuxi subsidiaries.

Any capital contributions or loans, that we, as an offshore entity, make to our Wuxi subsidiaries, are subject to PRC regulations. For example, any of our loans to our Wuxi subsidiaries cannot exceed the difference between the total amount of investment that our Wuxi subsidiaries are approved to make under relevant PRC laws and the registered capital of our Wuxi subsidiaries, and any such loans must be registered with the local branch of the SAFE as a procedural matter. In addition, our additional capital contributions to our Wuxi subsidiaries must be approved by the PRC Ministry of Commerce or its local counterpart. We cannot assure you that we will be able to obtain these approvals on a timely basis, or at all. If we fail to obtain such approvals, our ability to make equity contributions or provide loans to our Wuxi subsidiaries or to fund their operations may be adversely affected, which could harm our Wuxi subsidiary's liquidity and its ability to fund its working capital and expansion projects and meet its obligations and commitments.

We are obligated to withhold and pay PRC individual income tax on behalf of our employees who are subject to PRC individual income tax. If we fail to withhold or pay such individual income tax in accordance with applicable PRC regulations, we may be subject to certain sanctions and other penalties and may become subject to liability under PRC laws.

Under PRC laws, we are obligated to withhold and pay individual income tax on behalf of our employees who are subject to PRC individual income tax. In addition, the State Administration of Taxation has issued several circulars

concerning employee stock options. Under these circulars, our employees working in China (which could include both PRC employees and expatriate employees subject to PRC individual income tax) who exercise stock options will be subject to PRC individual income tax. We are obligated to file documents related to employee stock options with relevant tax authorities and withhold and pay individual income taxes for those employees who exercise their stock options. If we fail to withhold or pay such individual income tax in accordance with applicable PRC regulations, we may be subject to certain sanctions and other penalties and may become subject to liability under PRC laws.

## Risks Related to Ownership of Our Securities

The market price for our common stock has been influenced by the recent proposal to acquire our company, and may be volatile.

There has been a history of significant volatility in the market prices of securities of technology companies. Since our initial public offering in December 2007, the market price for our common stock has ranged from a high of \$11.00 to a low of \$1.28 per share. The price of our common stock has been significantly influenced by the announcement on November 20, 2012 that our Board of Directors had received an unsolicited, non-binding proposal from IDG-Accel China Growth Fund II L.P., for itself and on behalf of its affiliated funds and certain nominees, which we refer to collectively as IDG, to acquire all outstanding shares of common stock of MEMSIC not currently owned by IDG or its affiliates for cash in the amount of \$4.00 per share. The Special Committee established by our Board is continuing to evaluate this proposal and all other strategic alternatives, consistent with the Board's fiduciary duties to act in the best interest of stockholders. We caution MEMSIC stockholders and potential purchasers of MEMSIC common stock that there can be no assurance that any definitive agreement will be executed with IDG or that any transaction will be consummated with IDG or another party. The withdrawal or abandonment of the IDG proposal or failure of any announced transaction with IDG or another party to be timely consummated would likely have a significant and immediate adverse effect on our stock price. The market price of our common stock may continue to be volatile and subject to wide fluctuations, in response to factors including the following:

- announcements or developments concerning the IDG proposal, or changes in investors' perceptions concerning the likelihood that a transaction with IDG or another party will be consummated
  - actual or anticipated fluctuations in our quarterly operating results;
  - changes in financial estimates by securities research analysts;
  - conditions in the semiconductor industry;
- changes in the economic performance or market valuations of other companies in the semiconductors industry;
- announcements by us or our competitors of new products, acquisitions, strategic partnerships, joint ventures or capital commitments;
  - addition or departure of key personnel;
  - fluctuations of exchange rates between the RMB and the U.S. dollar;
  - intellectual property litigation;
  - transfer restrictions on our outstanding shares or sales of additional shares; and
- general economic or political conditions in Asia, particularly China, the United States and Europe.

In addition, the securities market has from time to time experienced significant price and volume fluctuations that are not related to the operating performance of particular companies. These market fluctuations may also materially and adversely affect the market price of our shares.

If securities or industry analysts do not publish research or reports about our business, or if they adversely change their recommendations regarding our common stock, the market price for our common stock and trading volume could decline.

The trading market for our common stock upon listing may be influenced by research or reports that industry or securities analysts publish about us or our business. If one or more analysts who cover us downgrade our common stock, the market price for our common stock would likely decline. If one or more of these analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which, in turn, could cause the market price for our common stock or trading volume to decline.

Delaware law and provisions of our charter documents could discourage potential acquisition proposals and could delay, deter or prevent a change in control.

Our charter documents contain provisions that could discourage, delay or prevent a change in control or changes in our management that our stockholders may deem advantageous. These provisions:

- require super-majority voting to amend some provisions in our amended and restated certificate of incorporation and bylaws;
- require a staggered board of directors making it more difficult for stockholders to replace a majority of our directors;

authorize the issuance of “blank check” preferred stock that our board could issue to increase the number of outstanding shares and to discourage a takeover attempt;

provide that a special meeting of stockholders may be called only by the president, the chief executive officer or the board of directors acting pursuant to a resolution adopted by the board; and

establish advance notice requirements for nominations for election to our board by stockholders at stockholder meetings.

In addition, we are subject to Section 203 of the Delaware General Corporation Law, which, subject to some exceptions, prohibits “business combinations” between a Delaware corporation and an “interested stockholder,” which is generally defined as a stockholder who becomes a beneficial owner of 15% or more of a Delaware corporation’s voting stock for a three-year period following the date that the stockholder became an interested stockholder. Section 203 could have the effect of delaying, deferring or preventing a change in control that our stockholders might consider to be in their best interests.

These anti-takeover defenses could discourage, delay or prevent a transaction involving a change in control. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors of your choice and cause us to take corporate actions with which you may disagree.

Our principal stockholders and affiliated entities can exert substantial influence over our corporate activities.

As of March 19, 2013, our executive officers, directors and entities affiliated with them beneficially owned approximately 33.9% of our outstanding shares of common stock. These included Dr. Yang Zhao, our president and chief executive officer, who beneficially owned 3.6% of our outstanding shares of common stock and Dr. Quan Zhou, who is a Managing Director and General Partner at IDG Capital Partners, whose affiliated funds beneficially own approximately 19.5% of our outstanding shares of common stock. These stockholders, if acting together, could exert substantial influence over matters such as electing directors and approving material mergers, acquisitions or other business combination transactions. This concentration of ownership may also discourage, delay or prevent a change in control of our company, which could deprive our stockholders of an opportunity to receive a premium for their shares as part of a sale of our company and might reduce the price of our shares. These actions may be taken even if they are opposed by our other stockholders. In cases where their interests are aligned and they vote together, these stockholders will also have the power to prevent or cause a change in control. In addition, these persons could divert business opportunities from us to themselves or others.

Failure to achieve and maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act could have a material adverse effect on our business.

As a public company, we are required to document and test our internal financial control procedures in order to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act, which requires annual management assessments of the effectiveness of our internal controls over financial reporting and will require a report by our independent auditors that both addresses management’s assessments and provides for the independent auditor’s assessment of the effectiveness of our internal controls. During the course of our testing, we may identify deficiencies which we may not be able to remediate in time to meet our deadline for compliance with Section 404, and we may also identify inaccuracies or deficiencies in our financial reporting that could require revisions to or restatement of prior period results. Testing and maintaining internal controls will also involve significant costs and can divert our management’s attention from other matters that are important to our business. We may not be able to conclude on an ongoing basis that we have effective internal controls over financial reporting in accordance with Section 404. Failure to achieve and maintain an effective internal control environment could harm our operating results, could cause us to fail to meet our reporting obligations

and could require that we restate our financial statements for prior periods, any of which could cause investors to lose confidence in our reported financial information and cause a decline, which could be material, in the trading price of our common stock.

It may be difficult to enforce judgments against us in U.S. courts.

Although we are a Delaware corporation, our manufacturing subsidiaries and approximately 55.8% of our assets were located outside of the United States as of December 31, 2012. As a result, you may not be able to enforce against us in U.S. courts judgments based on the civil liability provisions of U.S. federal securities laws. It is unclear if original actions of civil liabilities based solely upon U.S. federal securities laws are enforceable in courts outside the United States. It is equally unclear if judgments entered by U.S. courts based on the civil liability provisions of U.S. federal securities laws are enforceable in courts outside the United States. Any enforcement action in a court outside the United States will be subject to compliance with procedural requirements under applicable local law, including the condition that the judgment does not violate the public policy of the applicable jurisdiction.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 2. Properties.

Our corporate headquarters are located at One Tech Drive, Suite 325, Andover, Massachusetts 01810. In addition, we also have offices in Chicago, Illinois and San Jose, California. Our Andover headquarters is responsible for sales and marketing, financing, and research and development, our Chicago office is also responsible for research and development and our San Jose office is responsible for sales and marketing, research and development for the system solution products. In addition, we have sales offices in Shanghai, China and Tokyo, Japan. We lease these premises from unrelated third parties. The lease contract on our corporate headquarters in Andover expires in June 2013.

Our current manufacturing facility and our new facility are located on a parcel of land of approximately 35,000 square meters in Wuxi, Jiangsu Province of China. We purchased the land use rights to the land in 2003. With the completion of the new research and development and manufacturing buildings in 2009, our current manufacturing facility comprises a production area of approximately 16,300 square meters and an office area of approximately 8,700 square meters. The current facility is responsible for sensor product manufacturing, product engineering, manufacturing engineering, quality assurance, packaging and testing as well as application engineering. We purchased another piece of land of approximately 66,670 square meters in Wuxi in June of 2010 for \$4.0 million, which we have used to build a manufacturing facility for our indirect Wuxi subsidiary, MEMSIC Transducer Systems Co. Ltd. ("MTS"). The building, consisting of 14,000 square meters, was completed and begun usage in the third quarter of 2011.

Item 3. Legal Proceedings.

On September 11, 2012, Trilogy Marketing, Inc. (Trilogy) commenced an action in the United States District Court for the Eastern District of Michigan, in which it alleges that MEMSIC has failed to pay sales representative commissions to Trilogy. We have not concluded that a loss of any magnitude in this matter is probable, and are unable to estimate the range of potential loss, if any, that might arise from this matter.

We are not involved in any litigation or other legal matters which, if decided adversely against us, could reasonably be expected to have a material adverse impact on our business or operations. However, many participants in our industry have significant intellectual property rights and have demonstrated a willingness to instigate litigation based on allegations of infringement. We cannot assure you that we will not receive notices of intellectual property right infringements in the future.

Item 4 . Mine Safety Disclosures.

Not applicable.

## PART II

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

The following table sets forth the high and low reported sales prices of our common stock for the periods indicated as reported by the Nasdaq Global Market.

	High	Low
Year ended December 31, 2011		
Quarter ended March 31, 2011	\$ 3.70	\$ 3.00
Quarter ended June 30, 2011	\$ 3.70	\$ 2.81
Quarter ended September 30, 2011	\$ 3.44	\$ 2.22
Quarter ended December 31, 2011	\$ 3.26	\$ 2.16
Year ended December 31, 2012		
Quarter ended March 31, 2012	\$ 5.20	\$ 2.46
Quarter ended June 30, 2012	\$ 4.62	\$ 2.08
Quarter ended September 30, 2012	\$ 2.57	\$ 1.55
Quarter ended December 31, 2012	\$ 3.34	\$ 1.63

On March 19, 2013, the last reported sale price on the Nasdaq Global Market for our common stock was \$2.62 per share. On March 19, 2013, there were approximately 21 holders of record of our common stock. This number does not include stockholders for whom our shares were held in "nominee" or "street" name.

We currently intend to retain future earnings, if any, to finance our growth. We do not anticipate paying cash dividends on our common stock in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs, restrictions in financing agreements and plans for expansion.

The net proceeds to us of our initial public offering in 2007, including the net proceeds from exercise of underwriters' over-allotment option were approximately \$60.2 million. Through December 31, 2012, we have applied approximately \$10.6 million of the net proceeds to fund capital expenditures for the expansion of our manufacturing facility in Wuxi, \$7.3 million to the construction and furnishing of two new buildings adjacent to that facility, \$4.0 million to the purchase of a piece of land for the MTS manufacturing facility and manufacturing equipment, and \$18.0 million to the Crossbow acquisition. We invested the balance of \$20.3 million of the net proceeds from our initial public offering in money market funds, bank certificates of deposit and auction rate securities, pending other uses.

For information regarding securities authorized for issuance under our equity compensation plans, see Part III, Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters."

## Item 6. Selected Financial Data

Not applicable.





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

### Overview

We provide advanced semiconductor sensor and system solutions based on integrated MEMS technology and mixed signal circuit design. We operate and manage our business in two reporting segments. We develop, design, manufacture and market:

- semiconductor sensor products, which we refer to as sensor products, based on micro-electromechanical systems (MEMS) technology and advanced integrated circuit design; and
- sensor system solution products, which we refer to as system solution products, which incorporate sensors with on-board computing, wireless communications and systems and application software solutions.

In making operating decisions, our chief executive officer, who is the chief operating decision maker, considers the gross profit results of the sensor product segment and the system solution product segment separately, but utilizes enterprise-wide operating expense and earning results.

Our sensor products combine proprietary thermal-based MEMS technology and advanced analog mixed signal processing circuitry design into a single chip using a standard CMOS process. This approach allows us to provide sensor solutions at a lower cost, with higher performance and greater functionality than our competitors. Our magnetic sensor product is based on AMR technology which provides higher accuracy, better sensitivity across temperature and lower power as compared to hall-effect based magnetic sensors. In addition, our technology platform allows us to easily integrate additional functions or create new sensors to expand into touch and flow sensors and related applications. Our sensor products have a wide range of applications such as mobile phones, automotive safety systems and video projectors.

Our system solution products consist primarily of wireless sensors that connect the physical environment with enterprise management and information systems to provide advanced monitoring, automation and control solutions for a range of industries, as well as inertial systems that provide end-users and systems integrators with MEMS-based solutions for measurement of static and dynamic motion in a wide variety of challenging environments, including avionics, remotely operated vehicles, agricultural and construction vehicles, automotive test and wind power turbines.

Our system solution products initially consisted primarily of the product lines we acquired from Crossbow Technology in January 2010, including the non-military portion of Crossbow's inertial navigation systems business and its wireless sensor network Mote and eKo environmental monitoring business

We manufacture our accelerometer products utilizing a "semi-fabless" model by outsourcing the production of CMOS wafers and completing the post-CMOS MEMS process in-house. By outsourcing the standard CMOS manufacturing process, we are able to more efficiently manage our capital expenditures and cost of goods sold.

We manufacture our magnetic sensor products through utilizing sensor wafers from both internal and external fabs, outsourcing the packaging process and completing the testing process in-house. Currently there are limited reliable AMR magnetic sensor suppliers in the world. We believe we need an internal fab to ensure a reliable supply of the magnetic sensor.

We manufacture our wireless system solution products and partial inertial system solution products through outsourcing most of the assembly process to third-party contract assembly vendors and performing final testing and programming functions in-house at our facility in Wuxi. Certain of our inertial system solution products, including

FAA-certified products, have been manufactured by Crossbow Technology under a manufacturing agreement that expired on December 31, 2012. We are evaluating other FAA certified vendors to carry on the manufacturing of our FAA-certified products in the future.

We sell our products either to distributors, which then resell to OEMs and ODMs, or to OEM and ODM customers directly. Historically, a small number of our customers have accounted for a substantial portion of our revenue, and sales to our largest distributor customers and OEM and ODM customers have varied significantly. This significant variation is in part due to the fact that our sales are made on the basis of purchase orders rather than long-term contracts. Although our distributors generally provide us with non-binding rolling forecasts, our distributors generally have up to 30 days prior to delivery to cancel or reschedule shipments pursuant to our distribution agreements. This arrangement has added to the fluctuation and unpredictability of our sales. Because our products are a component of our customers' products, our sales performance is significantly affected by the sales performance of our customers' products. It is difficult for us to accurately forecast our product demand because in the case where we sell our products to distributors, we may not know the identity of the distributor's OEM and ODM customers and information regarding their demand.

OEM and ODM customers' products are complex and require significant time to define, design and ramp to volume production. Our sales cycle begins with our marketing and sales staff and application engineers engaging with our OEM and ODM customers' system designers and management, which is typically a multi-month, or even multi-year, process. If this process is successful, an OEM and ODM customer will decide to incorporate our solution in its product, which we refer to as a design-win. Because the sales cycles for our products are long, we incur expenses to develop and sell our products, regardless of whether we achieve the design-win and well in advance of generating revenue, if any, from those expenditures. Although we do not have long-term purchase commitments from any of our distributor customers or OEM and ODM customers, once one of our products is incorporated into an OEM's or ODM's design, it is likely to remain a part of the design for the life cycle of its product. We believe this to be the case because a redesign would generally be time consuming and expensive.

#### Description of Certain Line Items

##### Net Sales

Net sales represent gross revenue net of an allowance for the estimated amount of product returns and sales rebates from our customers. Sales to distributors are made pursuant to distributor agreements, which allow for the return of goods under certain circumstances. We recognize revenue in accordance with ASC Topic 605-15, Revenue Recognition.

Historically, our revenue has been derived primarily from shipments of our sensor products. Following our Crossbow acquisition in January 2010, net sales of system solution products increased as a percentage of our net sales, and accounted for 14.6% of our net sales in 2012. The primary factors that affect our revenue are the sales volumes and average selling prices of our products. Growth in our net sales has generally been attributable to the increase in the unit volumes of our products, as the average selling prices, particularly of our sensor products have tended to decline due to the following factors, among others:

- the semiconductor component market is highly competitive, and as a result, the average selling prices of particular components generally experience rapid declines over the course of their respective product and technology life cycles. This trend has been particularly evident recently in the market for mobile phone applications. We seek to mitigate the impact of this trend on our business by continuing to rapidly design, develop and sell new generations of products with additional functionalities to replace older generation products;
- we may also reduce our product prices as we are able to increase our production yields by continuously improving the manufacturing efficiency or to reduce our manufacturing costs by re-engineering our product and reducing the overall material cost;
- changes in our product mix may affect the average selling prices of our products. For example, our products for consumer and mobile phone markets generally have lower average selling prices than products for the automotive market. The average selling prices of products may also be affected by our strategy to increase market adoption of our products in certain markets; and
- we occasionally grant discounts or modified payment terms to our large customers or OEM and ODM customers for high volume purchases.

##### Net Sales by Reportable Segment

Our sales consist of two reportable segments: sensor products that are used as components in our customers' products and system solution products that incorporate sensors with on-board computing, wireless communications and

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systems and application software solutions and offer a complete system solution to our customers. The following table sets forth our net sales by reportable segment for the periods indicated by amount and as a percentage of our net sales (dollar amounts in thousands).

	For the year ended December 31,			
	2012		2011	
	Amount	% of Sales	Amount	% of Sales
Sensor products	\$ 54,491	85.4 %	\$ 57,877	84.9 %
System solution products	9,320	14.6	10,276	15.1
Total	\$ 63,811	100.0 %	\$ 68,153	100.0 %

## Net Sales by Application

In 2012, net sales from mobile phone applications remained the largest component of our total sales, representing 45.6% of total net sales in 2012, compared to 51.9% in 2011. The percentage decrease was primarily due to the decline of the average sales price and the winding down in sales volume of the phone models at a major mobile phone manufacturer that utilized our magnetic sensors.

Net sales from automotive applications represented 21.4% of total net sales in 2012, compared to 21.1% in 2011. We have one major automotive customer which incorporates our accelerometer sensor product into vehicle rollover and electronic stability control applications. To increase net sales from the automotive market, we will continue to seek to have our sensors designed into new automotive applications and to expand our customer base. However, revenue increases, if any, from the automotive market require significant time, as the development lead time in this market is generally longer than other markets in which we participate.

In 2012, net sales from industrial and other applications represented 17.0% of total net sales, down from 17.3% of total net sales in 2011. The decrease was primarily due to the slow transition to the upgraded new products. We expect sales from industrial and other applications to be flat or slightly decrease while we work toward expanding these markets with new and upgraded products.

Net sales from consumer applications accounted for 16.0% of total net sales in 2012, compared with 9.7% in 2011. This increase was primarily due to an increase in sales of our accelerometer product in a digital camera application in the Japan market as well as the selection of our magnetic sensor product for use in tablet PCs at a major software company in the U.S. Net sales from consumer applications have fluctuated historically as a result of the generally short life cycle of consumer electronics and changes in our customer base. As our product offering and customer base for consumer applications continue to diversify, we expect net sales from consumer applications to fluctuate less.

The following table sets forth our net sales by application for the periods indicated by amount and as a percentage of our net sales (dollar amounts in thousands).

	For the year ended December 31,			
	2012		2011	
	Amount	% of Sales	Amount	% of Sales
Mobile phone	\$ 29,139	45.6 %	\$ 35,354	51.9 %
Consumer	10,208	16.0	6,629	9.7
Automotive	13,646	21.4	14,380	21.1
Industrial/other	10,818	17.0	11,790	17.3
Total	\$ 63,811	100.0 %	\$ 68,153	100.0 %

## Net Sales by Customer Base

Our customers primarily consist of OEMs and ODMs, and distributors who resell to OEMs and ODMs. Historically, a small number of our customers have accounted for a substantial portion of our net sales. Customers that individually represented 10% or more of our net sales, accounted in the aggregate for approximately 56.3% of our net sales in 2012 compared with 62.4% in 2011.

The following schedule summarizes the percent of total sales to each customer that accounted for 10% or more of our total sales in either of 2012 or 2011.



Customer	For the Year Ended December 31,			
	2012		2011	
Samsung	27.4	%	37.4	%
Autoliv, Inc	18.7		18.3	
Tokyo Electron Device Limited	10.2		6.7	
% of total sales	56.3	%	62.4	%

We have experienced and will continue to experience fluctuations in demand from a significant number of customers, including many of our largest customers. It is difficult for us to accurately forecast our product demand, particularly in the case of sales to our distributors, as we may not know the identity of the distributor's OEM and ODM customers and lack information regarding their demand.

Occasionally, design changes in the products of our OEM and ODM customers have resulted in the loss of sales. For example, a design change in a product of a large OEM customer in 2007 for mobile phone applications resulted in a decrease of our sales to such customer in 2008. That customer accounted for 44.6% of our net sales in 2007.

#### Net Sales by Geography

Our products are shipped to OEM and ODM customers worldwide. However, we focus on different application markets among geographical regions. In the greater China region, our revenue has historically been primarily derived from products for mobile phone applications. We are also seeking to expand the consumer and industrial applications markets in the greater China region, for example, through the introduction of our new MEMS-based gas flow meter. In other Asian countries (excluding China and Japan), we are seeking to grow market shares in the mobile phone and consumer applications. In Japan, our revenue has primarily been derived from products for consumer applications, particularly projectors and digital cameras. We are also seeking to penetrate the automotive market in Japan. In North America, our revenue has primarily been derived from products for automotive applications.

The following table sets forth our net sales by geographical region for the periods indicated by amount and as a percentage of our net sales (dollar amounts in thousands).

	For the year ended December 31,			
	2012		2011	
	Amount	% of Sales	Amount	% of Sales
Asia (excluding Japan)	\$ 34,469	54.0 %	\$ 39,722	58.3 %
Europe	3,396	5.3	3,433	5.0
Japan	11,472	18.0	7,996	11.7
North America	14,354	22.5	16,630	24.4
Other	120	0.2	372	0.5
Total	\$ 63,811	100.0 %	\$ 68,153	100.0 %

#### Cost of Goods Sold

We are a semi-fabless company. We outsource wafer production for our accelerometer products and for a portion of the wafers used in our magnetic sensor products to third-party foundries and complete the post-CMOS MEMS and most of the packaging, assembly and testing functions in-house. We also purchase our ceramic packaging materials



from third-party suppliers.

During 2012, our wireless system solution products and some of our inertial system solution products were manufactured by our indirect subsidiary in Wuxi, China through outsourcing most of the assembly process to third-party contract assembly vendors and performing final testing and programming functions in-house at our facility in Wuxi. Until recently, our FAA-certified products were manufactured by Crossbow Technology under an agreement that expired on December 31, 2012.

Cost of goods sold consists of: (i) cost of wafer, ceramic and other materials purchased from third parties; (ii) manufacturing overhead, primarily consisting of salaries and wages of our quality control employees and manufacturing-related management employees, depreciation, and equipment and parts; (iii) direct labor, primarily consisting of salaries and wages of our manufacturing operators; and (iv) outsourced processing fees paid to third-party packaging service providers and assembly vendors.

Our relationships with third-party foundry and packaging service providers do not provide for guaranteed levels of production capacity at pre-determined prices. As a result, our outsourcing costs relating to wafer production, and to a lesser extent, packaging services, are susceptible to sudden changes based on conditions in the global semiconductor market and our service providers' available capacity.

#### Gross Profit and Gross Margin

Our gross profit and gross margin from our sensor products have historically declined over time, due to a variety of factors, including average selling prices of our products, our product application mix, prices of wafers, excess and obsolete inventory, pricing by competitors, changes in production yields, and percentage of sales conducted through distributors. Our products for mobile phone applications have historically had lower margins than our products for automotive products. We have continuously worked to stabilize and improve our gross margin through engineering redesign of our sensor products and by seeking to improve the manufacturing process to increase manufacturing efficiency. In 2012, our gross margin improved to 37.1% from 35.0% in 2011, as a result of our cost reduction effort and the decrease of our net sales to mobile phone application as a percentage of total sales. Notwithstanding the relatively low margins in the mobile phone applications market, we will seek to increase our market share in that market by introducing products with more functionalities and at a competitive cost, in the goal of capitalizing on the significant potential for revenue growth in that market.

The gross margin from systems solution products has benefited from the reduced cost associated with our transfer of manufacturing to our Wuxi, China operations. However, the gross margin from systems solution products also fluctuate based on the mix of the product sales. Gross margins from wireless sensor network products are generally lower than those of inertial products. In 2012, the gross margin from system solution products decreased to 46.0% from 54.5% in 2011, mainly due to an increase in sales of lower margin wireless sensor network products as a percentage of our total sensor solution product sales. We expect the gross margins for our system solution products to increase in the coming year as we continue to make improvements to the manufacturing process and introduce new inertial products which will have a better cost structure.

#### Research and Development Expenses

Research and development expenses are recognized as they are incurred and primarily consist of salaries and wages of research and development employees; research costs, primarily consisting of mask costs and prototype wafers, consulting fees paid for outside design services; travel and other expenses; and stock-based compensation attributable to our research and development employees.

Historically, research and development expenses have increased both in absolute terms and as a percentage of total net sales. However, research and development expenses decreased both in absolute terms and as a percentage of total net sales in 2012, compared to 2011 due to headcount reduction. We expect our research and development expenses to increase for the foreseeable future as we committed to invest in research and development resources to develop new competitive sensor and system solution products.

#### Sales and Marketing Expenses

Sales and marketing expenses primarily consist of wages, salaries and commissions for our sales and marketing personnel; consulting expenses, primarily consisting of sales consulting services and software application consulting services; travel expenses; independent sales representatives commissions; office rental; market promotion and others expenses and stock-based compensation. We expect the sales and marketing expense to increase in the long term as we continue to invest in sales and marketing resources to develop new market applications, expand our sales marketing network and engage in additional marketing and promotional activities.



### General and Administrative Expenses

General and administrative expenses primarily consist of salaries and wages for administrative personnel; costs for professional services, including legal, tax and accounting services; depreciation and amortization expenses for non-manufacturing equipment; travel and entertainment expenses; office supply and other office-related expenses; office rental expenses; others, such as utilities, insurance and provision for accounts receivable; and stock-based compensation.

Our general and administrative expenses increased in 2012 due to the addition of corporate quality and IT resources and expanded operations in Wuxi China. We expect that our general and administrative expenses will increase moderately as we grow our business and our operations in the near future.

### Impairment of Goodwill

We recorded a goodwill impairment charge of \$0.6 million in 2012 and \$4.5 million in 2011 related to our 2010 Crossbow acquisition as a result of our annual goodwill impairment analysis.

### Other Income (Expense)

Other income (expense) primarily consists of interest income earned on our cash and cash equivalents, and interest expense incurred on our borrowings and net foreign currency exchange gains and losses.

### Provision for (Benefit from) Income Taxes

We conduct sales through our headquarters in Andover, Massachusetts. Our Wuxi subsidiary is primarily engaged in manufacturing and engineering activities and does not conduct direct sales to customers. For internal accounting and PRC tax purposes, we account for the transfers of goods from our Wuxi subsidiary to our U.S. headquarters as sales, and calculate the transfer price of such sales based on a markup of manufacturing and operating costs. We believe the prices of these sales were consistent with the prevailing market prices.

### U.S. Tax

In the United States, we are subject to the federal income tax and the Massachusetts state income tax, which are approximately at the rates of 34.0% and 8.0%, respectively. At December 31, 2012, the Company had gross U.S. net operating loss carryforwards of \$10.3 million, which expire in various amounts beginning in 2028. Included within this amount is approximately \$367,000 of excess tax deductions associated with non-qualified stock options that have been exercised. When these excess tax benefits actually result in a reduction to currently payable income taxes, the tax benefit will be recorded as an increase to additional paid-in capital. The Company's operating losses may be subject to limitations under provisions of the Internal Revenue Code.

### PRC tax

Our PRC taxes primarily consist of enterprise income tax, value-added tax, and certain other miscellaneous taxes.

### Enterprise Income Tax

Under the "Enterprise Income Tax Law" of China, which took effect on January 1, 2008, Foreign Invested Enterprises (FIEs) and domestic companies are subject to a uniform tax rate of 25%. In addition, preferential tax treatment would continue to be given to companies (FIEs or domestic) in certain encouraged sectors and to entities classified as

“high-technology companies especially supported by the PRC government”. The company needs to meet certain qualification requirements to be eligible for this preferential tax treatment. The qualification will be reviewed every three years.

MEMSIC Semiconductor has been qualified as a “high-technology company especially supported by the PRC government” since 2008 and passed the “high-technology Company especially supported by the PRC government” review in 2011. Therefore, a preferential enterprise income tax rate of 15% under the new tax law will apply to MEMSIC Semiconductor from 2012 to 2014. Prior to 2012, according to the relevant transition preferential tax policies issued by the State Council, the preferential enterprise income tax rate under the new tax law and the transition-period preferential tax policy can not apply simultaneously. MEMSIC Semiconductor chose a 50% reduction on the uniform enterprise income tax rate of 25% from 2009 to 2011, with an effective tax rate of 12.5%.

The new tax law and its implementing rules provide that dividends paid by a PRC entity to a non-resident enterprise for tax purposes is subject to PRC withholding tax at a rate of 10% subject to reduction by an applicable tax treaty with the PRC. We expect that a 10% withholding tax will apply to dividends paid to us by our Wuxi subsidiary, but this treatment will depend on our status as a non-resident enterprise of China. For detailed discussion of PRC tax issues related to resident enterprise status, see “Risk Factors -Risks Related to Doing Business in China - We may be treated as a resident enterprise for PRC tax purposes under the Enterprise Income Tax Law effective as of January 1, 2008, which may subject us to PRC income tax for any dividends we pay to our non-PRC stockholders”.

Our indirect Wuxi subsidiary and MEMSIC Semiconductor's wholly owned subsidiary MEMSIC Transducer Systems Company Limited ("MTS") is subject to the enterprise income tax rate of 25%. In 2013, MTS will apply for "high-technology Company especially supported by the PRC government". Once approved, a preferential enterprise income tax rate of 15% will apply to MTS.

See "Risk Factors—Risks Related to Doing Business in China—The discontinuation of any of the preferential tax treatments currently available to us in China could materially and adversely affect our business, financial condition and results of operations."

#### Other PRC taxes

Other miscellaneous PRC taxes primarily consist of property tax, land-use tax and stamp tax which are accounted for in our general and administrative expenses, and education surcharge and City maintenance and construction tax, which is recorded as part of our cost of goods sold.

#### Critical Accounting Policies

The preparation of our consolidated financial statements and related notes requires us to make judgments, estimates and assumptions that affect the reported amounts of assets, liabilities, net sales and expenses, and related disclosure of contingent assets and liabilities. We have based our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Our management has discussed the development, selection and disclosure of these estimates with the audit committee of our board of directors. Actual results may differ from these estimates under different assumptions or conditions.

We consider an accounting policy to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, and if different estimates that reasonably could have been used, or changes in the accounting estimates that are reasonably likely to occur periodically, could materially impact the consolidated financial statements. We believe that the following critical accounting policies are the most sensitive and are those that require the more significant estimates and assumptions used in the preparation of our consolidated financial statements. You should read the following descriptions of critical accounting policies, judgments and estimates in conjunction with our consolidated financial statements and other disclosures filed in this report.

#### Investments

We account for our investments under ASC Topic 320, Investments – Debt and Equity Securities. Marketable securities are classified as available-for-sale securities and are accounted for at their fair value. Unrealized gains and losses on these securities are reported as other comprehensive income (loss), respectively. Under ASC Topic 320-10, unrealized holding gains and losses are excluded from earnings and reported net of the related tax effect in other comprehensive income as a separate component of shareholders' equity. When the fair value of an investment declines below its original cost, we evaluate the investment in accordance with ASC Topic 320-10, which addresses the determination as to when an investment is considered impaired, whether that impairment is other than temporary, and the measurement of an impairment loss. When the fair value of an investment declines below its original cost, we consider all available evidence to evaluate whether the decline is other-than-temporary. Among other things, we consider the duration and extent of the decline and economic factors influencing the markets. If a decline in fair value is judged to be other-than-temporary, the cost basis of the individual security is written off to fair value as a new cost basis and the amount of the write-down is reflected in earnings (that is, accounted for as a realized loss). The new cost basis is not changed for subsequent recoveries in fair value. Subsequent increases in the fair value of available-for-sale securities are included in other comprehensive income; subsequent decreases in fair value, if not an other-than-temporary

impairment, also are included in other comprehensive income. The determination of whether a loss is other-than-temporary is highly judgmental and may have a material impact on our results of operations.

As of December 31, 2012, our investments included \$2.5 million of auction rate securities. Due to liquidity issues in global credit and capital markets, the auction rate securities we hold have failed at auction, meaning that the amount of securities submitted for sale at auction exceeded the amount of purchase orders. If an auction fails, the issuer becomes obligated to pay interest at penalty rates, and the auction rate securities we hold continue to pay interest in accordance with their stated terms. We have classified our auction rate securities as long-term investments since December 31, 2008, due to our assessment of the uncertainty as to the time frame within which we would likely be able to liquidate these investments under current market conditions.

We estimated the fair value of these securities at December 31, 2012 using broker valuations and internally-developed models of the expected future cash flows related to the securities as well as a third party specialist's valuation. One of the more significant assumptions made in our internally-developed models was the term of expected cash flows of the underlying auction rate securities and the discount related to the illiquidity of the investments. We developed several scenarios for the liquidation of the auction rate securities over periods that ranged from 3 to 7 years. In estimating the fair value of these investments, we considered the financial condition and near-term prospects of the issuer, the magnitude of the losses compared to the investments' cost, the length of time the investments have been in an unrealized loss position, the low probability that we will be unable to collect all amounts due according to the contractual terms of the security, whether the security has been downgraded by a rating agency, and our ability and intent to hold these investments until the anticipated recovery in market value occurs. Based on the estimated operating cash flows and other sources of cash, we intend to hold these auction rate securities for the foreseeable future.

Our valuation analysis at December 31, 2012 resulted in an increase of \$100,000 in temporary unrealized impairment loss from 2011. The total unrealized impairment loss at December 31, 2012 was \$500,000. We continue to monitor the market for auction rate securities and to assess its impact on the fair value of our investments. If current market conditions deteriorate further, we may be required to record additional temporary unrealized losses in other comprehensive income (loss) or, if the decline in fair value is judged to be other-than-temporary, the cost basis of the individual security may be written off to fair value as a new cost basis and the amount of the write-down would be reflected as a charge to earnings.

#### Revenue Recognition

We recognize revenue from the sale of our products to OEM and ODM customers when all of the following conditions have been met: (i) evidence exists of an arrangement with the customer, typically consisting of a purchase order or contract; (ii) our products have been shipped and risk of loss has passed to the customer; (iii) we have completed all of the necessary terms of the purchase order or contract; (iv) the amount of revenue to which we are entitled is fixed or determinable; and (v) we believe it is probable that we will be able to collect the amount due from the customer. To the extent that one or more of these conditions has not been satisfied, we defer recognition of revenue. An allowance for estimated future product returns and sales price allowances is established at the date of revenue recognition. An allowance for uncollectible receivables is established by a charge to operations, when in our opinion, it is probable that the amount due to us will not be collected. Historically, product returns and bad debt expense have not been significant.

Our products are warranted against manufacturing defects for twelve months following the date of sale (eighteen months following date of sale to a distributor). Products returned under the provisions of the warranty agreement require our pre-approval. Our sole obligation under the provisions of the warranty agreement is to replace or repair the product. Reserves for potential warranty claims are provided at the time of revenue recognition and are based on several factors, including historical claims experience, current sales levels and our estimate of repair costs. To date, warranty expenses have not been significant.

We sell products to OEM and ODM manufacturers as well as distributors. Sales to distributors are made pursuant to distributor agreements, which allow for the return of goods under certain circumstances. We follow the following criteria for recognition of sales to distributors: (i) the selling price to the distributor is fixed or determinable at the date of shipment; (ii) our product has been shipped and risk of loss has passed to the distributor; (iv) it is probable that the amount due from the distributor will be collected; (v) we do not have a significant future obligations to directly assist in the distributor's resale of the product and (vi) the amount of future returns can be reasonably estimated. Once these criteria are met, we recognize revenue upon shipment to the distributor and estimate returns based on historical sales returns.



#### Allowance for Doubtful Accounts

Our standard policy on payment terms is net 30 days from delivery. In 2012 and 2011, our average days sales outstanding was 28 days and 33 days, respectively. At certain times our trade accounts receivable have included balances from customers that have exceeded 10% of total accounts receivable. We have established credit limits for each of our customers and review such limits prior to product shipment. We believe that our customers are generally of high credit quality and that we are not subject to unusual risk with respect to such customers.

Allowance for doubtful accounts receivable is included as a charge to sales and marketing expense. We evaluate the sufficiency of our allowance for accounts receivable on a quarterly basis.

The sufficiency of our allowance for uncollectible accounts receivable is evaluated based on the recoverability of our accounts receivable, which is in turn based on a combination of factors, many of which are based on estimates. These factors include indicators of a specific customer's inability to meet its financial obligations to us, such as in the case of bankruptcy filings or deterioration in the customer's operating results or financial position. In addition, we may consider the length of time the receivables are past due, the financial health of the customer and historical experience. If circumstances related to specific customers change, our estimates of the recoverability of receivables could be further adjusted.

#### Inventories

Inventories are stated at the lower of cost (weighted average first in-first out) or market. We evaluate our inventory for potential excess and obsolete inventories based on forecasted demands and record a provision for such amounts as necessary.

#### Goodwill

Goodwill represents the excess cost of the Crossbow asset acquisition over the net fair value allocated to the assets acquired and liabilities assumed and to the acquired intangible asset that does not qualify for separate recognition according to ASC Topic 805. All goodwill acquired in the Crossbow acquisition was allocated to our system solutions product reporting unit.

We evaluate our goodwill annually at the end of the year and determine whether events or circumstances exist to indicate an impairment loss. We performed an annual impairment test for goodwill in December 2012 and 2011, and concluded that impairment existed as of December 31, 2012 and 2011. As a result, we recorded an impairment charge of \$0.6 million and \$4.5 million in 2012 and 2011, respectively. The goodwill was fully impaired at December 31, 2012.

During our business planning process in the fourth quarter of 2012, we continued to see weak forecast from the acquired system solution business. We concluded that this slower than anticipated growth represented an indicator of impairment of the goodwill associated with the acquired assets.

We performed the recoverability test to determine whether an impairment loss should be measured with respect to our long-lived assets of our system solution product reporting unit, including trademarks, customer relationships and developed technologies. We estimated the future net undiscounted cash flows expected to be generated from the use of the long-lived assets of the system solution product reporting unit and their eventual disposal and compared this to the carrying amount of the long-lived assets. We concluded that the estimated undiscounted cash flows exceed the carrying amount and the long-lived assets are recoverable, and that therefore, an impairment of the long-lived assets did not exist at December 31, 2012.

We performed our analysis and determined goodwill impairment according to ASC Topic 350, Goodwill and Other Intangible Assets and ASC Topic 360, Impairment or Disposal of Long-Lived Assets, using a two-step method. In the first step, we compared the estimated fair value of the reporting segment of our system solution product to its carrying amount, including goodwill, and this comparison indicated an impairment.

The determination of the fair value of our system solution product reporting unit included two valuation methods: the income approach and the market approach. Under the income approach, we considered the discounted cash flow (DCF) method. Under the market approach, we have considered the guideline public company (GPC) method. The income approach provides a method for incorporating our long term forecast into the determination of value. Judgment is required when performing adjustments to the forecast, selecting an appropriate discount rate and

determining a terminal value. The market approach provides a method for incorporating market prices and multiples into the determination of value. Judgment is required when selecting guideline companies and transactions and when adjusting the multiples. Under the guideline public company method, value was estimated based on multiples of 2012 revenues and 2013 projected revenues. We compared our system solution product reporting unit to the guideline public companies in terms of size, profit margins and revenue growth rates. The guideline public company multiples were discounted based on these comparisons. A premium for control of 15% was applied to the value indicated by the guideline public company method. We have applied equal weighting to the income and market (GPC) approaches. We tested the reasonableness of the fair value conclusion by calculating value using the DCF method and the GPC method, comparing the fair value conclusion to the market capitalization of the parent company.

As a result of this analysis, we concluded that the fair value of our system solution product reporting unit was less than the carrying amount, indicating an impairment.

According to ASC Topic 350, if the carrying amount exceeds the estimated fair value, step two is required to determine the amount of the impairment loss. Step two requires the allocation of the estimated fair value of the system solution product segment, including any unrecognized intangible assets, and liabilities in a hypothetical purchase price allocation. Any remaining unallocated fair value represents the implied fair value of goodwill, which is compared to the corresponding carrying value of goodwill to compute the goodwill impairment amount. We followed these steps and concluded the goodwill impairment to be \$0.6 million and \$4.5 million at December 31, 2012 and 2011, respectively.

## Stock-Based Compensation

### General

Share-based payments to employees, including grants of employee stock options, are recognized in our financial statements based on their fair values. The cost of equity-based service awards is based on the grant-date fair value of the award and is recognized over the period during which the employee is required to provide service in exchange for the award (vesting period). Stock-based compensation arrangements with non-employees are accounted for utilizing the fair value method or, if a more reliable measurement, the value of the services or consideration received. The resulting compensation expense is recognized for financial reporting over the term of performance or vesting.

### Valuation of Stock Options

We use the Black-Scholes option pricing model to calculate the grant-date fair value of an option award. The key input assumptions used in the Black-Scholes option pricing model include; (i) the risk-free interest rate is based on the yield available on U.S. Treasury zero-coupon bonds at the date of grant with maturity dates approximately equal to the expected life at the grant date, (ii) the expected life of the options is based on evaluations of historical and expected future employee exercise behavior; (iii) volatility is based on historic volatilities from traded shares of a selected publicly traded peer group, believed to be comparable after consideration of size, maturity, profitability, growth, risk and return on investment; and (iv) dividend yield, we have not paid dividends in the past and do not expect to in the foreseeable future. We utilize historical data to estimate pre-vesting forfeitures and records stock-based compensation expense only for those awards that are expected to vest.

### Income Taxes

Our deferred tax assets and liabilities reflect the future tax consequences of temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, and of tax credits. Deferred tax assets arise when a company's financial statements recognize charges or expenses that, for income tax purposes, will not be allowed as deductions until future periods. For example, when a corporation incurs an expense in its financial statements, such as restructuring charges, that it is not allowed to deduct on its federal tax return until paid in the future, the future tax benefit of that expense is generally recorded in the income statement as a reduction of income tax expense and in the balance sheet as a deferred tax asset. The same general treatment applies to the carry forward of unused net operating losses and unused tax credits. Deferred tax assets are often netted with deferred tax liabilities when presented in the balance sheet and are referred to as net deferred tax assets. We measure our deferred tax assets and liabilities using the tax rates and laws we expect to be in effect at the time of their reversal or utilization.

Under ASC Topic 740, Accounting for Income Tax, a net deferred tax asset may be carried on the balance sheet at its full value only if it is more likely than not that the deductions, losses, or credits giving rise to such deferred tax asset will be used in the future. We periodically evaluate our deferred tax assets for recoverability using a consistent approach that considers the relative impact of negative and positive evidence, including our historical profitability and

projections of future taxable income. Under GAAP, we are required to establish a valuation allowance for deferred tax assets and record a charge to income or stockholders' equity if we determine, based on available evidence at the time the determination is made, that it is not more likely than not that the deferred tax assets will be realized. In evaluating the need for a valuation allowance, we estimate future taxable income based on management-approved business plans and ongoing tax planning strategies. This process involves significant management judgment about assumptions that are subject to change from period to period based on changes in tax laws or variances between our projected operating performance, our actual results and other factors.

We have been in a three-year cumulative loss position since 2009 in the United States and as a result we recorded a full valuation allowance against our U.S. deferred tax assets, due to the uncertainty with respect to future taxable income in the United States. In the event we generate future taxable income, our income tax expense in future periods could be reduced to the extent those deferred tax assets are deemed recoverable.

The net deferred tax asset balance at December 31, 2012 was \$202,000, including \$179,000 related to PRC taxes applicable to our China subsidiary and \$23,000 related to Japan taxes applicable to Crossbow Japan.

We reinvest any earnings of our Wuxi subsidiary, MEMSIC Semiconductor, in its operations. We have not provided for U.S. income taxes that could result from the distribution of such earnings to us. If these earnings were ultimately distributed to the U.S. in the form of dividends or otherwise, or if the shares of the Wuxi subsidiary were sold or transferred, we would be subject to additional U.S. income taxes, net of impact of any available foreign tax credits. It is not practicable to estimate the amount of unrecognized deferred U.S. taxes on these undistributed earnings.

We have performed an analysis of our uncertain tax positions in connection with the application of ASC Topic 740 as of the year ended December 31, 2012 and concluded we have no uncertain tax positions that do not meet a more likely than not standard set forth by ASC Topic 740. Therefore, we have not recorded a tax reserve related to uncertain positions in our financial statements.

#### Advance Research Funding

Advance research funding represents grants awarded by the Chinese government to fund specific research and development projects that we undertake. The amount received is initially recorded as a liability and subsequently recognized as a credit to research and development expenses in our statements of operations, or to the carrying value of equipment purchased for the specified research and development projects on our balance sheet as we perform the project and have complied with the conditions or performance obligations attached to the related government grants. Significant judgment may be involved in assessing our completion of the project or compliance with the required application of the research funding to qualified expenses.

#### Results of Operations

The following tables set forth a summary of our consolidated statements of operations for the periods by amount and as a percentage of our total net sales. This information should be read together with our audited consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. The operating results in any period are not necessarily indicative of the results that may be expected for any future period:

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	For the year ended December 31,			
	2012	% of net sales	2011	% of net sales
	Amount	(dollar amounts in thousands)	Amount	
Net sales	\$ 63,811	100.0 %	\$ 68,153	100.0 %
Cost of goods sold	40,108	62.9	44,314	65.0
Gross profit	23,703	37.1	23,839	35.0
<b>Operating expenses:</b>				
Research and development	6,875	10.8	8,554	12.5
Sales and marketing	5,195	8.1	6,892	10.1
General and administrative	9,418	14.8	8,718	12.8
Depreciation	1,552	2.4	1,637	2.4
Amortization	1,481	2.3	1,628	2.4
Impairment of goodwill	647	1.0	4,492	6.6
Total operating expenses	25,168	39.4	31,921	46.8
Operating loss	(1,465 )	(2.2 )	(8,082 )	(11.8 )
<b>Other income:</b>				
Interest income, net	260	0.4	438	0.6
Foreign exchange gain	191	0.3	1,154	1.7
Other, net	319	0.5	564	0.8
Total other income	770	1.2	2,156	3.1
Loss before income taxes	(695 )	(1.0 )	(5,926 )	(8.7 )
Provision for income taxes	266	0.4	77	0.1
Net loss	\$ (961 )	(1.4 )	\$ (6,003 )	(8.8 )
<b>Less: net income attributable to non-controlling interests in joint ventures</b>				
Net loss attributable to MEMSIC, Inc.	\$ (988 )	(1.5 )%	\$ (6,085 )	(8.9 )%

Year Ended December 31, 2012 Compared to Year Ended December 31, 2011

Net Sales. Our net sales decreased by 6.4% to \$63.8 million in 2012 from \$68.2 million in 2011. This decrease was primarily due to a decrease in net sales of our magnetic sensor product to a major mobile phone manufacturer, whose market sales of the smart phone models in which our sensor is included have declined.

- Sales in mobile phone applications decreased 17.6% to \$29.1 million in 2012 from \$35.4 million in 2011, due to the decrease in unit sales of our magnetic sensor products to a major mobile phone manufacturer.
- Sales in automotive applications decreased 5.1% to \$13.6 million in 2012 from \$14.4 million in 2011. This decrease was primarily due to soft sales from the auto models in which our sensor is incorporated.
- Sales in consumer applications increased 54.0% to \$10.2 million in 2012, compared to \$6.6 million in 2011. This increase was primarily due to an increase in sales of our accelerometer product in a digital camera application in the

Japan market as well as the selection of our magnetic product for use in a tablet PC at one major software company in the U.S.

- Sales in our industrial and other applications decreased 8.2% to \$10.8 million in 2012 from \$11.8 million in 2011. The decrease was primarily due to the slow transition of the acquired system solution products to the upgraded new products.

Cost of goods sold. Our cost of goods sold decreased by 9.5% to \$40.1 million in 2012 from \$44.3 million in 2011. This decrease was primarily due to the decrease in the volume of units sold.

Gross profit and gross margin. Our gross profit decreased slightly to \$23.7 million in 2012 from \$23.8 million in 2011 despite a 6.4% revenue decrease. Our gross margin percentage increased by 2.1 percentage points to 37.1% in 2012 from 35.0% in 2011 primarily due to the decrease of our net sales to lower-margin mobile phone application as a percentage of total sales and our cost reduction efforts.



Our gross profits and gross margins by product type are shown in the following table (dollars in thousands):

	For the year ended December 31,			
	2012		2011	
	Gross Profit	Margin %	Gross Profit	Margin %
Sensor products	\$ 19,418	35.6 %	\$ 18,237	31.5 %
System solution products	4,285	46.0	5,603	54.5
Total	\$ 23,703	37.1 %	\$ 23,840	35.0 %

Gross profit from our sensor products increased to \$19.4 million in 2012 from \$18.2 million in 2011. This increase was primarily due to increased sales volume from our sensor product to mobile phone and digital camera applications. Gross margin of our sensor products also increased to 35.6% in 2012 from 31.5% in 2011 as a result of our continued effort in cost reduction of our magnetic sensor product through engineering redesign of the product, manufacturing efficiency enhancement and yield improvement as well as the reduction in sales of lower margin mobile phone sales as a percentage of total net sales.

Gross profit of our system solution products decreased to \$4.3 million in 2012 from \$5.6 million in 2011. Gross margin of our system solution products also decreased to 46.0% in 2012 from 54.5% in 2011. The decrease in the gross profit and the gross margin of our system solution products in 2012 was mainly due to an increase in sales of a new wireless solution product which had a low gross margin in Japan and a decrease in sales of inertial products due to product transition.

Research and development. Our research and development expenses decreased by 19.6% to \$6.9 million in 2012 from \$8.6 million in 2011. This decrease was primarily due to a reduction in engineering headcount and a decrease in consulting and testing expenses related to upgrading and reengineering of our system solutions products as well as an application of government funding to certain research project expenses. Research and development expenses, as a percentage of total net sales, decreased to 10.8% for the year ended December 31, 2012 from 12.5% for the year ended December 31, 2011. We will continue to invest in research and development resources to develop new sensor and system solution products, and as a result, we expect our research and development expense will increase in 2013.

Sales and marketing. Our sales and marketing expenses decreased by 24.6% to \$5.2 million in 2012 from \$6.9 million in 2011. The decrease was primarily due to a reduced commission expense related to lower sales to one major mobile phone manufacturer as well as a restructuring of our sales and marketing department to focus more marketing effort on developing new applications and new markets with higher gross margin. Sales and marketing expenses, as a percentage of total net sales, decreased to 8.1% for the year ended December 31, 2012 from 10.1% for the year ended December 31, 2011.

General and administrative. Our general and administrative expenses increased by 8.0% to \$9.4 million in 2012 from \$8.7 million in 2011. This increase was primarily due to the addition of corporate quality and IT resources and expanded operations in Wuxi, China. General and administrative expenses, as a percentage of total net sales, increased to 14.8% for the year ended December 31, 2012 from 12.8% for the year ended December 31, 2011.

Depreciation expense. Depreciation expense related to office equipment, computers, software, leasehold improvements and building spaces that are not used in the course of manufacturing our products. Depreciation expense was approximately \$1.6 million in 2012 and 2011, respectively.

Amortization. Amortization expense was \$1.5 million in 2012, compared to \$1.6 million in 2011.

Impairment of goodwill. We recorded a goodwill impairment charge of \$0.6 million related to our 2010 Crossbow acquisition at December 31, 2012 as a result of our annual 2012 goodwill impairment analysis.

Other income, net. Our other income, net was \$0.8 million in 2012 compared to \$2.2 million in 2011. The decrease was primarily attributable to a lower foreign exchange gain of \$191,000 in 2012, compared to a foreign exchange gain of \$1.2 million in 2011, lower interest income due to a decrease in interest rates and an accrued interest expense of \$232,000 related to construction cost of the MTS building that was financed by the local Chinese government.

Provision for income taxes. Our income tax provision was \$266,000 in 2012 compared to an income tax provision of \$77,000 in 2011. Our income tax provision for 2012 reflected a tax provision of \$104,000 related to income our subsidiary MEMSIC Semiconductor Wuxi, \$166,000 related to income in Crossbow Japan and a provision of \$1,300 related to U.S. state minimum tax, offset by a tax benefit of \$6,000 related to a change in the deferred tax assets in China.

Our income tax provision was \$77,000 in 2011 compared to an income tax benefit of \$6,000 in 2010. Our income tax provision for 2011 reflected a tax provision of \$138,000 related to income in Crossbow Japan and a provision of \$1,000 related to U.S. state minimum tax, offset by a tax benefit of \$5,000 related to a change in the deferred tax assets in China and a reversal of a provision of \$57,000 related to certain deferred tax liabilities as a result of goodwill impairment loss.

### Liquidity and Capital Resources

As of December 31, 2012, our principal sources of liquidity consisted of cash and cash equivalents of \$27.3 million. In addition, our investments included \$34.6 million of short-term investments and \$2.5 million of auction rate securities that have failed at auction and that are classified as long-term investments on our balance sheet. The principal represented by the auction rate security will not be accessible to us until one of the following occurs: a successful auction occurs, the issuer redeems the issue, a buyer is found outside of the auction process or the underlying securities have matured. Based on our expected operating cash flows, and our other sources of cash, we do not expect the potential lack of liquidity in these investments to affect our ability to execute our current business plan in the near term. There can be no assurance that we would be able in the near term to liquidate these securities on favorable terms, or at all, and if we should require access to these funds sooner than we currently expect, our inability to sell these auction rate securities could adversely affect our liquidity and our financial flexibility.

We outsource certain steps of the manufacturing process to third parties while conducting the remaining steps in-house. As a result, our principal uses of cash historically have consisted of payments to our suppliers for the costs related to the outsourcing of wafer fabrication and outsourced processing fees paid to and materials purchased from third parties, as well as payments for our manufacturing overhead and equipment purchases. Other significant cash outlays consist of capital expenditures, including the construction of our buildings in China. We also have used cash to fund salaries, wages and commissions for our non-manufacturing related employees.

On June 30, 2010, our indirect Wuxi subsidiary, MEMSIC Transducer Systems Company Limited, or MTS, obtained a \$20 million, five-year project loan from Agricultural Bank of China. Of this amount, \$15 million was used by MTS to purchase from us substantially all the assets that we purchased from Crossbow Technology, Inc., \$3 million is for working capital purposes and \$2 million for the purchase of equipment to build the manufacturing capacity for the system solution products. This loan is collateralized by the buildings and land owned by our Wuxi subsidiaries as well as the intellectual property purchased by MTS from us. The interest rate of the loan is a variable rate, adjusted semi-annually based on the LIBOR rate plus 4.00%. MTS has obtained agreement from the local Wuxi government to fully subsidize the interest expense on a quarterly basis. As of December 31, 2012, \$17,930,000 has been withdrawn, \$500,000 has been repaid and \$17,430,000 is outstanding. The repayment schedule of the principal amount is as follows:

Date	Payment Amount
June 29, 2013	\$ 1,000,000
June 29, 2014	2,500,000
June 29, 2015	13,930,000
	\$ 17,430,000

We believe that our current cash, proceeds of our project loan from the Agricultural Bank of China and cash flow from operations will be sufficient to meet our anticipated cash needs, including working capital requirements and capital expenditures for at least the next twelve months. Our future cash requirements will depend on many factors, including our operating income, the timing of our new product introductions, the costs of maintaining adequate manufacturing capacity, the continuing market acceptance of our products, or other changing business conditions and future developments, including any investments or acquisitions we may decide to pursue. If our existing cash is

insufficient to meet our requirements, we may seek to sell additional equity securities, debt securities or borrow from banks. We cannot assure you that financing will be available in the amounts we need or on terms acceptable to us, if at all. The sale of additional equity securities, including convertible debt securities, would be dilutive to our stockholders. The incurrence of indebtedness would divert cash for working capital requirements and capital expenditures to service debt and could result in operating and financial covenants that restrict our operations and our ability to pay dividends to our stockholders. If we are unable to obtain additional equity or debt financing, our business, operations and prospects may suffer.

The following table sets forth a summary of our cash flows for the periods indicated:

	Year Ended December 31,	
	2011	2010
Net cash provided by operating activities	\$ 4,720,313	\$ 4,037,259
Net cash used in investing activities	(28,797,556 )	(7,293,717 )
Net cash used in financing activities	(338,208 )	(59,727 )
Effect of exchange rate changes on cash and cash equivalents	(192,475 )	(463,892 )
Net decrease in cash and cash equivalents	\$ (24,607,926 )	\$ (3,780,077 )

### Operating Activities

Net cash provided by operating activities for 2012 was \$4.7 million, which was the result of a net loss of \$1.0 million adjusted to reflect a net increase relating to non-cash items and the net change in operating assets and liabilities. The non-cash items totaled \$6.6 million and were the result of \$4.7 million depreciation and amortization, stock based compensation of \$1.3 million, and goodwill impairment charge of \$0.6 million. The adjustments related to changes in balances of operating assets and liabilities, a net use of cash of \$0.9 million, consisted of a \$3.4 million decrease in accounts payable and accrued expenses, a \$0.4 million increase in other assets, offset by a decrease of \$1.2 million in accounts receivable and a decrease in inventory of \$1.7 million.

Net cash provided by operating activities for 2011 was \$4.0 million, which was the result of a net loss of \$6.0 million adjusted to reflect a net increase relating to non-cash items and the net change in operating assets and liabilities. The non-cash items totaled \$10.8 million and were the result of \$4.7 million depreciation and amortization, stock based compensation of \$1.6 million, and goodwill impairment charge of \$4.5 million. The adjustments related to changes in balances of operating assets and liabilities, a net use of cash of \$0.8 million, consisted of a \$2.1 million increase in inventory, an increase of \$2.4 million in accounts receivable, offset by a decrease in others assets of \$0.4 million and an increase in accounts payable and accrued expenses of \$3.3 million.

### Investing Activities

Net cash used in investing activities for 2012 was \$28.8 million primarily attributable to the \$73.9 million purchases of short-term investments and \$1.0 million used for the purchase of property and equipment, offset by proceeds from the sale of short-term investments of \$46.1 million.

Net cash used in investing activities for 2011 was \$7.3 million primarily attributable to the \$6.8 million purchases of short-term investments and \$2.9 million used for the purchase of property and equipment, offset by proceeds from the sale of investments of \$2.4 million as the result of the redemption of one of our auction rate securities.

### Financing Activities

Net cash used by financing activities for 2012 was \$0.3 million, consisting \$0.5 million repayment of bank loan by MTS and cash dividend of \$59,000 paid to the minority owner of Crossbow Japan, offset by proceeds of \$0.2 million from exercise of options to purchase common stock.

Net cash used by financing activities for 2011 was \$60,000, mainly the result of payment of a cash dividend of \$115,000 paid to the minority owner of the joint venture in Japan offset by proceeds of \$56,000 from the exercise of

options to purchase common stock.

#### Capital Expenditures

We have completed the first phase of construction of two new buildings adjacent to our current facility in Wuxi, China, comprising 20,800 square meters, consisting of 8,700 square meters for a new research and development institute and 12,100 square meters of new manufacturing facilities. Phase one included the structural construction of the two new buildings and furnishing and fitting out the research and development office building. We started using the research and development office building in the fourth quarter of 2009. The total cost for this phase was \$6.7 million. Phase two includes the furnishing and equipment of the manufacturing facility. At the end of 2011, we furnished and equipped one third of our new manufacturing facility to meet our expected production requirements for both accelerometer products and non-accelerometer products in 2011. We did not furnish or equip any additional manufacturing space in the new manufacturing building in 2012 as the current space is sufficient to support our 2012 sales.

We completed another manufacturing facility with 14,000 square meter total space in Wuxi, China in 2011 to host the manufacturing of our system solution products. The construction site is located on the same property as our June 2010 land purchase. The construction cost of approximately \$8.1 million was financed by the local Chinese government. In the third quarter of 2012, we were notified by the local Chinese government that we would be expected to make payments on the building beginning in February 2013. Upon notification, we started to accrue a financing charge using the effective interest rate method at an annual rate of 8% on the construction cost of the building, based on a 2009 memorandum with the local Chinese government, while we continue to renegotiate with the local Chinese government the payment terms of the construction cost of the building. The total accrued finance charge related to the MTS building was \$232,000 as of December 31, 2012. The \$8.1 million construction cost of the building is reflected as a long-term liability in the accompanying consolidated financial statements. Under the November 2011 MEMSIC Wuxi Wireless Sensor Network Technology Co., Ltd. Investment Contribution Agreement, our indirect subsidiary MTS is expected to increase its total registered capital to up to RMB30 million (approximately \$4.8 million) within two years. For the additional investment, MTS is expected to contribute certain intangible assets with an assessed value equal to the incremental investment of RMB16 million (approximately \$2.5 million). If the assessed value of the contributed intangible assets is less than RMB16 million, MTS will make up the deficiency in cash in order to bring the total investment from MTS to RMB20 million, representing 66.67% of the total equity.

Our capital expenditures amounted to \$1.0 million and \$2.9 million in 2012 and 2011, respectively.

#### Off-Balance Sheet Arrangements

We do not have special purpose entities. Other than operating leases for office leases, we do not engage in off-balance sheet financing arrangements.

#### Recent Accounting Pronouncements

In July 2012, the FASB issued ASU No. 2012-02, Intangibles — Goodwill and Other (ASC Topic 350), Testing Indefinite-Lived Intangible Assets for Impairment, which adds an optional qualitative assessment for determining whether an indefinite-lived intangible asset is impaired, similar to the goodwill guidance issued in ASU 2011-08. Companies have the option to first perform a qualitative assessment to determine whether it is more likely than not (a likelihood of more than 50%) that an indefinite-lived intangible asset is impaired. If a company determines that it is more likely than not that the fair value of such an asset exceeds its carrying amount, it would not need to calculate the fair value of the asset in that year. However, if a company concludes otherwise, it must calculate the fair value of the asset, compare that value with its carrying amount and record an impairment charge, if any. The guidance is effective for annual and interim impairment tests performed for fiscal years beginning after September 15, 2012. The adoption of ASU No. 2012-02 did not have a material effect on our financial position, results of operations or cash flows.

In September 2011, the FASB amended ASC Topic 350, Intangibles — Goodwill and Other. This amendment is intended to reduce the cost and complexity of the annual goodwill impairment test by providing entities an option to perform a qualitative assessment to determine whether further impairment testing is necessary. The amended provisions are effective for reporting periods beginning on or after December 15, 2011. This amendment impacts testing steps only and, therefore, adoption did not have an impact on our consolidated financial position, results of operations or cash flows.

In June 2011, the FASB issued ASU 2011-05, which amended ASC Topic 220, Comprehensive Income. This amendment was issued to enhance comparability between entities that report under GAAP and International Financial Reporting Standards (IFRS) and to provide a more consistent method of presenting non-owner transactions that affect an entity's equity. The amendment requires companies to present the components of net income and other comprehensive income either as one continuous statement or as two separate but consecutive statements. It eliminates

the option to report other comprehensive income and its components as part of the statement of changes in shareholders' equity. Furthermore, regardless of the presentation methodology elected, the issuer will be required to present on the face of the financial statements a reclassification adjustment for items that are reclassified from other comprehensive income to net income. The methodology for the computation and presentation of earnings per share remains the same. The pronouncement is effective for fiscal years beginning after December 15, 2011 and is to be applied retrospectively. As this pronouncement relates to disclosure only, the adoption did not have an impact on our consolidated financial position, results of operations or cash flows.



In May 2011, the FASB issued ASU No. 2011-04, Fair Value Measurement (ASC Topic 820), Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRS (ASU No. 2011-04). The amendments in this update apply to all reporting entities that are required or permitted to measure or disclose the fair value of an asset, a liability, or an instrument classified in a reporting entity's shareholders' equity in the financial statements. ASU No. 2011-04 does not extend the use of fair value accounting, but provides guidance on how it should be applied where its use is already required or permitted by other standards within U.S. GAAP or IFRS. ASU No. 2011-04 changes the wording used to describe many requirements in GAAP for measuring fair value and for disclosing information about fair value measurements. Additionally, ASU No. 2011-04 clarifies the FASB's intent about the application of existing fair value measurements. The amendments in this update are to be applied prospectively. For public entities, the amendments are effective during interim and annual periods beginning after December 15, 2011. The adoption of ASU No. 2011-04 did not have a material effect on our financial position, results of operations or cash flows.

Item 8. Financial Statements and Supplementary Data

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

MEMSIC, Inc.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of MEMSIC, Inc.

We have audited the accompanying consolidated balance sheets of MEMSIC, Inc. as of December 31, 2012 and 2011, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of MEMSIC, Inc. at December 31, 2012 and 2011, and the consolidated results of its operations and its cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP  
Boston, Massachusetts  
March 22, 2013

MEMSIC, Inc.  
CONSOLIDATED BALANCE SHEETS

	December 31, 2012	December 31, 2011
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$27,306,202	\$51,914,128
Restricted cash	2,867,896	3,791,189
Short-term investments	34,640,188	6,814,728
Accounts receivable, net of allowance for doubtful accounts of \$18,774 and \$6,441, respectively, as of December 31, 2012 and December 31, 2011	4,821,867	6,068,904
Inventories	9,840,659	11,459,153
Other current assets	2,285,923	2,050,787
<b>Total current assets</b>	<b>81,762,735</b>	<b>82,098,889</b>
Property and equipment, net	29,002,825	30,998,489
Long-term investments	2,500,000	2,600,000
Goodwill	-	606,976
Intangible assets, net	9,918,305	11,091,532
Other assets	144,106	136,633
<b>Total assets</b>	<b>\$123,327,971</b>	<b>\$127,532,519</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$3,778,672	\$8,439,605
Accrued expenses	3,934,975	2,630,966
Advance research funding	2,867,896	3,791,189
Current portion of note payable to bank	1,000,000	500,000
<b>Total current liabilities</b>	<b>11,581,543</b>	<b>15,361,760</b>
Note payable to bank, net of current portion	16,430,000	17,430,000
Building liability	8,135,115	8,161,288
Other liabilities	86,420	124,180
<b>Total other liabilities</b>	<b>24,651,535</b>	<b>25,715,468</b>
Stockholders' equity:		
Common stock, \$0.00001 par value; authorized, 45,000,000 shares; 24,219,685 and 23,983,813 shares issued and outstanding at December 31, 2012 and December 31, 2011, respectively	242	240
Additional paid-in capital	102,813,203	101,266,272
Accumulated other comprehensive income	4,477,071	4,363,930
Accumulated deficit	(20,896,074 )	(19,908,135 )
<b>MEMSIC, Inc. stockholders' equity</b>	<b>86,394,442</b>	<b>85,722,307</b>
Non-controlling interests related to joint ventures	700,451	732,984
<b>Total stockholders' equity</b>	<b>87,094,893</b>	<b>86,455,291</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$123,327,971</b>	<b>\$127,532,519</b>



MEMSIC, Inc.  
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,	
	2012	2011
Net sales	\$63,810,807	\$68,153,132
Cost of goods sold	40,107,592	44,313,782
Gross profit	23,703,215	23,839,350
Operating expenses:		
Research and development	6,874,962	8,553,569
Sales and marketing	5,194,733	6,892,303
General and administrative	9,417,623	8,717,322
Depreciation	1,552,345	1,637,476
Amortization	1,480,609	1,627,692
Impairment of goodwill	646,602	4,492,000
Total operating expenses	25,166,874	31,920,362
Operating loss	(1,463,659 )	(8,081,012 )
Other income:		
Interest income, net	258,516	437,655
Foreign exchange gain	191,484	1,153,822
Other, net	318,660	564,489
Total other income	768,660	2,155,966
Loss before income taxes	(694,999 )	(5,925,046 )
Provision for income taxes	266,344	77,397
Net loss	(961,343 )	(6,002,443 )
Less: net income attributable to non-controlling interests related to joint ventures	26,596	82,127
Net loss attributable to MEMSIC, Inc.	\$(987,939 )	\$(6,084,570 )
Net loss per common share attributable to MEMSIC, Inc.:		
Basic	\$(0.04 )	\$(0.26 )
Diluted	\$(0.04 )	\$(0.26 )
Weighted average shares outstanding used in calculating net loss per common share:		
Basic	24,027,523	23,827,937
Diluted	24,027,523	23,827,937

See notes to consolidated financial statements

MEMSIC, Inc.  
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

	For the year ended December 31,	
	2012	2011
Net loss	\$(961,343	) \$(6,002,443 )
Other comprehensive income (loss):		
Unrealized loss on investments	(99,812	) (197 )
Foreign currency translation adjustments	212,953	1,331,730
Comprehensive loss	(848,202	) (4,670,910 )
Less: Income attributable to non-controlling interests in joint ventures	26,596	82,127
Foreign currency translation adjustments	-	(3,025 )
Comprehensive income attributable to non-controlling interests in joint ventures	26,596	79,102
Comprehensive loss attributable to MEMSIC, Inc.	\$(874,798	) \$(4,750,012 )

See notes to consolidated financial statements

MEMSIC, Inc.  
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Shares	Stock Par Value	Additional Paid-In Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	MEMSIC, Inc. Stockholders' Equity	Non- controlling Interests in Joint Ventures	Total Stockholders' Equity
Balance at December 31, 2010	23,810,613	\$238	\$99,615,378	\$3,029,372	\$(13,823,565)	\$88,821,423	\$361,445	\$89,182,868
Net loss					(6,084,570 )	(6,084,570 )	82,127	(6,002,443 )
Foreign currency translation adjustments				1,334,755		1,334,755	(3,025 )	1,331,730
Unrealized loss on short-term investments				(197 )		(197 )		(197 )
Exercise of options to purchase common stock	33,200	1	55,661			55,662		55,662
Issuance of restricted stock award	140,000	1	(1 )					-
Stock compensation expense			1,595,234			1,595,234		1,595,234
Dividend paid to Japan non-controlling interest and other adjustments							(25,330 )	(25,330 )
Balance at December 31, 2011	23,983,813	\$240	\$101,266,272	\$4,363,930	\$(19,908,135)	\$85,722,307	\$732,984	\$86,455,291
Net income					(987,939 )	(987,939 )	26,596	(961,343 )
Foreign currency translation adjustments				212,953		212,953		212,953
Unrealized loss on investments				(99,812 )		(99,812 )		(99,812 )
	121,568	1	228,143			228,144		228,144



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Exercise of options to purchase common stock									
Issuance of restricted stock award	114,304	1	(7,224 )			(7,223 )		(7,223 )	
Stock compensation expense			1,326,012			1,326,012		1,326,012	
Dividend paid to Japan non-controlling interest								(59,129 )	(59,129 )
Balance at December 31, 2012	24,219,685	\$242	\$102,813,203	\$4,477,071	\$(20,896,074)	\$86,394,442	\$700,451	\$87,094,893	

See notes to consolidated financial statements

MEMSIC, Inc.  
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,	
	2012	2011
<b>Cash flows from operating activities:</b>		
Net loss	\$(961,343	) \$(6,002,443 )
<b>Adjustments to reconcile net loss to cash provided by operating activities:</b>		
Depreciation	3,149,138	3,114,498
Amortization	1,542,986	1,627,692
Stock compensation expense	1,326,012	1,595,234
Deferred rent	(37,760	) 34,145
Deferred income taxes	(722	) (64,664 )
Impairment of goodwill	646,602	4,492,000
<b>Changes in operating assets and liabilities:</b>		
Restricted cash	962,117	(708,501 )
Accounts receivable	1,155,241	(2,386,050 )
Inventories	1,690,243	(2,104,880 )
Other assets	(370,011	) 417,273
Advance research funding	(962,117	) 708,501
Accounts payable and accrued expenses	(3,420,073	) 3,314,454
Net cash provided by operating activities	4,720,313	4,037,259
<b>Cash flows from investing activities:</b>		
Purchase of short-term investments	(73,889,615	) (6,814,925 )
Proceeds from sale of short-term investments	46,064,540	2,420,000
Purchase of property and equipment	(972,481	) (2,898,792 )
Net cash used in investing activities	(28,797,556	) (7,293,717 )
<b>Cash flows from financing activities:</b>		
Cash dividend paid to non-controlling interest	(59,129	) (115,389 )
Proceeds from exercise of options to purchase common stock	220,921	55,662
Payment on note payable to bank	(500,000	) -
Net cash used in financing activities	(338,208	) (59,727 )
Effect of exchange rate changes on cash and cash equivalents	(192,475	) (463,892 )
Net decrease in cash and cash equivalents	(24,607,926	) (3,780,077 )
Cash and cash equivalents —beginning of period	51,914,128	55,694,205
Cash and cash equivalents —end of period	\$27,306,202	\$51,914,128

See notes to consolidated financial statements

MEMSIC, Inc.

Notes to Consolidated Financial Statements

## 1. NATURE OF THE BUSINESS AND OPERATIONS

MEMSIC, Inc. (the Company) was incorporated on March 3, 1999 as a Delaware corporation. The Company is a leading provider of semiconductor sensor systems solutions based on micro electromechanical systems (MEMS) technology and advanced integrated circuit design. The Company has integrated a MEMS technology-based inertial sensor, commonly known as an accelerometer, with mixed signal processing circuitry onto a single chip using a standard complementary metal-oxide-semiconductor (CMOS) process. This proprietary technology has allowed for sensor solutions at lower cost, higher performance and improved functionality. Utilizing a standard CMOS process allows easy integration of additional functions and the creation of new sensors to expand into magnetic, touch and flow sensors, as well as other MEMS application areas beyond accelerometers. Any application that requires the control or measurement of motion is a potential application for accelerometers. The Company's sensor and solution products have a wide range of applications for consumer electronics, mobile phones, automotive (airbags, rollover detection, electronic stability control and navigation systems), as well as business, industrial and medical applications.

MEMSIC, Inc. maintains its corporate headquarters in Massachusetts. All manufacturing operations are provided by its wholly-owned subsidiary, MEMSIC Semiconductor (Wuxi) Company Limited (MEMSIC Semiconductor) and MEMSIC Semiconductor's wholly owned subsidiary MEMSIC Transducer Systems Company Limited (MTS), which are located in the People's Republic of China (PRC).

The Company also has a majority (51%) owned and controlled joint venture, Crossbow Japan Limited (Crossbow Japan) located in Japan.

On November 23, 2011, MTS entered into an Investment Contribution Agreement ("JV Agreement") with Wuxi New District Science and Technology Financial Investment Group Co. Ltd. ("Wuxi VC Group"), a state owned Chinese venture capital fund. The JV Agreement creates a joint venture to further design, develop and market MTS' wireless sensor network technology. In connection with the joint venture, a new corporation was organized under the laws of the People's Republic of China ("PRC"), named MEMSIC Wuxi Wireless Sensor Network Technology Co. Ltd. ("Wuxi WSN"). MTS has a 66% ownership of Wuxi WSN, which began operation in January 2012.

## 2. BASIS OF PRESENTATION

The consolidated financial statements include the accounts of MEMSIC, Inc., MEMSIC Semiconductor, MTS and the Company's majority owned and controlled joint ventures, Crossbow Japan and Wuxi WSN. The Company presents all of Crossbow Japan's assets, liabilities, revenue and expenses, as well as the non-controlling interest in Crossbow Japan (representing the 49% equity interest in the entity not owned by the Company), in its consolidated financial statements. The Company also presents all of Wuxi WSN's assets and liabilities as well as the non-controlling interest in Wuxi WSN (representing 33% equity interest in the entity not owned by the Company), in its consolidated financial statements. All significant intercompany balances and transactions have been eliminated in consolidation.

## 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Advertising Costs

Advertising costs are expensed as incurred and are included in sales and marketing expenses. Advertising costs were not material for the periods presented in the accompanying consolidated statements of operations.

#### Cash Equivalents

The Company considers all highly liquid instruments with an original maturity of three months or less to be cash equivalents.

## Restricted Cash

The Company presents cash on hand associated with advance research funding received from the Chinese government as restricted cash since the cash must be maintained in a separate bank account and used only for specified research projects.

## Advance Research Funding

Advance research funding represents research funding granted by the Chinese government for specific research and development projects the Company is taking on. The amount received is initially recorded as a liability and subsequently recognized as a credit to research and development expenses in the statements of operations, or to the carrying value of equipment purchased for the projects as the Company performs the project and has complied with the conditions or performance obligations attached to the related government grants.

Advance research funding activities for year ended December 31, 2012 are as follows:

	Advanced Research Funding
Balance at January 1, 2012	\$ 3,791,189
Funds received	1,958,235
Research and development activities	(825,361 )
Property and equipment expenditures	(2,094,990 )
Foreign exchange rate impact	38,823
Balance at December 31, 2012	\$ 2,867,896

## Short-term Investments

Short-term investments consist primarily of bank certificate deposits, government and municipal bonds with maturities of one year or less. The Company classifies its short-term investments as “held-to-maturity”, which are carried at amortized cost.

## Foreign Currency

The Company’s manufacturing operations and certain other operations are conducted by MEMSIC Semiconductor, MTS and Wuxi WSN. The functional currency of MEMSIC Semiconductor, MTS and Wuxi WSN is the Renminbi. Financial transactions between the Company and MEMSIC Semiconductor and MTS are conducted in United States dollars. At December 31, 2012 and 2011, the underlying currency for approximately 54.4% and 56.4% of consolidated assets, respectively, was the Renminbi. The functional currency of the acquired joint venture Crossbow Japan is the Japanese Yen. Financial transactions between the Company and Crossbow Japan are conducted in United States dollars. At December 31, 2012 and 2011, the underlying currency for approximately 1.4% and 1.2% of consolidated assets, respectively, was the Japanese Yen. The Company does not believe that it is subject to significant foreign exchange risk and, accordingly, has not utilized hedging strategies with respect to such foreign exchange exposure.

The financial statements of MEMSIC Semiconductor, MTS, Wuxi WSN and Crossbow Japan are translated into United States dollars in accordance with United States GAAP. The functional currencies of MEMSIC Semiconductor, MTS, Wuxi WSN and Crossbow Japan are translated into United States dollars utilizing the following method: assets and liabilities are translated at the exchange rate in effect at the end of the period, and revenues and expenses are

translated at the weighted average exchange rate during the year. Cumulative translation gains and losses are included as a separate component of stockholders' equity and reported as a part of comprehensive income. Transaction gains and losses are included in the consolidated statements of operations as incurred.

Comprehensive Income (Loss)

ASC Topic 220, Comprehensive Income, established the standards for reporting and displaying comprehensive income (loss) in financial statements. Comprehensive income (loss) is defined to include all changes in stockholders' equity during the period other than those changes that result from investments by and distributions to stockholders.

### Concentration of Credit

Financial instruments that potentially subject the Company to significant concentration of credit risk consist primarily of cash and cash equivalents as well as accounts receivable. The Company's cash and cash equivalents are on deposit at financial institutions and, at times, exceed the federal insured limits. The Company believes that the financial institutions are of high credit quality and that the Company is not subject to unusual credit risk beyond the normal credit risk associated with commercial banking relationships.

The Company, as indicated below, has customers that comprise more than 10% of sales or accounts receivables for all periods presented in the accompanying consolidated financial statements. The Company establishes credit limits for each of its customers and reviews such limits prior to product shipment. The Company believes that the customers indicated below are of high credit quality and that the Company is not subject to unusual risk with respect to such customers, and generally does not require collateral. The following schedule summarizes the percent of total sales to each customer that accounted for 10% or more of its total sales in either 2012 or 2011.

Customer	For the Year Ended December 31,			
	2012		2011	
Customer I	27.4	%	37.4	%
Customer II	18.7		18.3	
Customer III	10.2		6.7	
% of total sales	56.3	%	62.4	%

The following schedule summarizes the percent of total accounts receivable balances for customers that accounted for 10% or more of the Company's total accounts receivables for either 2012 or 2011.

Customer	Year ended December 31,			
	2012		2011	
Customer I	5.8	%	37.5	%
Customer II	38.1		36.8	
Customer IV	18.3		0.7	
% of total accounts receivable	62.2	%	75.0	%

### Concentration of Supplier

The Company relies on one affiliated supplier for all wafer purchases required in the manufacturing process, other than those used in the Company's magnetic sensor products. Investment funds controlled by this supplier beneficially own approximately 9.8% of the Company's common stock, and one of the Company's directors is the managing partner and chief financial officer of these funds. Purchases from this affiliated supplier represent approximately 16% and 29% of all material costs for the year ended December 31, 2012 and 2011 respectively, presented in the accompanying consolidated financial statements. At December 31, 2012, the Company had \$595,000 of non-cancellable open purchase order agreements with this affiliated supplier, and the Company's accounts payable at December 31, 2012 include \$410,000 due to this supplier. The transactions between the Company and this affiliated supplier are on terms that the Company believes are no less favorable to the Company that it could obtain in arms-length transactions.

### Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires the Company to make estimates and assumptions that affect at the date of the financial statements the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities and the reported amounts of revenue and expenses. Actual results could differ from these estimates.



#### Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments, which include cash equivalents, short-term investments, accounts receivable, accounts payable, notes payable and accrued expenses, approximate their fair values due to the short term nature of the instruments at December 31, 2012 and 2011.

#### Income Taxes

Deferred tax assets and liabilities relate to temporary differences between the financial reporting bases and the tax bases of assets and liabilities, carryforward tax losses and available tax credits. Such assets and liabilities are measured using tax rates and laws expected to be in effect at the time of their reversal or utilization. Valuation allowances are established, when necessary, to reduce the net deferred tax asset to an amount more likely than not to be realized.

#### Intangible Assets

Intangible assets relate to issued and applied-for patents on the Company's core technology, gas meter processing know-how purchased in May 2008 and intellectual property related to the Company's January 2010 acquisition of assets from Crossbow Technology, Inc.

#### Inventories

Inventories are stated at the lower of cost (weighted average FIFO) or market. The Company evaluates its inventory for potential excess and obsolete inventories based on forecasted demand and records a provision for such amounts as necessary.

#### Net Loss per Share

Basic net loss per share is calculated by dividing net loss by the weighted-average common shares outstanding. Diluted net loss per share is calculated by dividing net loss by the weighted-average common shares and potentially dilutive securities outstanding during the period using the treasury stock method.

#### Property and Equipment

Property and equipment are recorded at cost. For financial reporting, depreciation is provided utilizing straight-line method over the estimated two to ten-year life for equipment and furniture and fixtures, the estimated twenty year life for the building in China, and the estimated forty-seven year life for land in China. Chinese statutory regulations stipulate that the ownership of land reverts back to the PRC after forty-seven years. The Company estimates a residual value of 10% of the assets' original cost in calculating depreciation for assets in China. Leasehold improvements are depreciated over the shorter of the useful life or term of the lease. Costs for repairs and maintenance that do not increase the useful life of the asset are expensed as incurred.

#### Research and Development

Research and development costs are expensed as incurred.

#### Revenue Recognition

The Company recognizes revenue from the sale of its product to end customers when all of the following conditions have been met: (i) evidence exists of an arrangement with the customer, typically consisting of a purchase order or contract; (ii) the Company's products have been shipped and risk of loss has passed to the customer; (iii) the Company has completed all of the necessary terms of the purchase order or contract; (iv) the amount of revenue to which the Company is entitled is fixed or determinable; and (v) the Company believes it is probable that it will be able to collect the amount due from the customer. To the extent that one or more of these conditions has not been satisfied, the Company defers recognition of revenue. An allowance for estimated future product returns and sales price allowances is established at the date of revenue recognition. An allowance for uncollectible receivables is established by a charge to operations when, in the opinion of the Company, it is probable that the amount due to the Company will not be collected.

The Company sells its products to distributors as well as to end customers. Sales to distributors are made pursuant to distributor agreements, which allow for the return of goods under certain circumstances. Accordingly, the Company follows the following criteria for recognition of sales to distributors: (i) the selling price to the distributor is fixed or determinable at the date of shipment; (ii) the distributor's obligation to pay the selling price is not contingent on resale of the product; (iii) the Company's product has been shipped and risk of loss has passed to the distributor; (iv) it is probable that the amount due from the distributor will be collected; (v) the Company does not have significant future obligations to directly assist in the distributor's resale of the product; and (vi) the amount of future returns can be reasonably estimated. Once these criteria are met, the Company recognizes revenue upon shipment to the distributor and estimates returns based on historical sales returns.

### Shipping and Handling costs

Shipping and handling costs incurred are included in cost of goods sold in the consolidated statements of operations.

### Stock-Based Compensation

The Company accounts for share-based payments to employees based on requirements that all share-based payments to employees, including grants of employee stock options, shall be recognized in the financial statements based on their fair values. The cost of equity-based service awards is based on the grant-date fair value of the award and is recognized over the period during which the employee is required to provide service in exchange for the award (vesting period). Stock-based compensation arrangements with non-employees are accounted for utilizing the fair value method or, if a more reliable measurement, the value of the services or consideration received. The resulting compensation expense is recognized for financial reporting over the term of performance or vesting.

### Warranty Reserve

The Company's products are warranted against manufacturing defects for twelve months following the date of sale (eighteen months following date of sale to a distributor). Products returned under the provisions of the warranty agreement require the pre-approval of the Company. The Company's sole obligation under the provisions of the warranty agreement is to replace or repair the product. Reserves for potential warranty claims are provided at the time of revenue recognition and are based on several factors including historical claims experience, current sales levels and the Company's estimate of repair costs. To date, warranty expenses have not been significant.

### Recent Accounting Pronouncements

In July 2012, the FASB issued ASU No. 2012-02, Intangibles — Goodwill and Other (ASC Topic 350), Testing Indefinite-Lived Intangible Assets for Impairment, which adds an optional qualitative assessment for determining whether an indefinite-lived intangible asset is impaired, similar to the goodwill guidance issued in ASU 2011-08. Companies have the option to first perform a qualitative assessment to determine whether it is more likely than not (a likelihood of more than 50%) that an indefinite-lived intangible asset is impaired. If a company determines that it is more likely than not that the fair value of such an asset exceeds its carrying amount, it would not need to calculate the fair value of the asset in that year. However, if a company concludes otherwise, it must calculate the fair value of the asset, compare that value with its carrying amount and record an impairment charge, if any. The guidance is effective for annual and interim impairment tests performed for fiscal years beginning after September 15, 2012. The adoption of ASU No. 2012-02 did not have a material effect on the Company's financial position, results of operations or cash flows.

In September 2011, the FASB amended ASC Topic 350, Intangibles — Goodwill and Other. This amendment is intended to reduce the cost and complexity of the annual goodwill impairment test by providing entities an option to perform a qualitative assessment to determine whether further impairment testing is necessary. The amended provisions are effective for reporting periods beginning on or after December 15, 2011. This amendment impacts testing steps only and, therefore, adoption did not have an impact on the Company's consolidated financial position, results of operations or cash flows.

In June 2011, the FASB issued ASU 2011-05, which amended ASC Topic 220, Comprehensive Income. This amendment was issued to enhance comparability between entities that report under GAAP and International Financial Reporting Standards (IFRS) and to provide a more consistent method of presenting non-owner transactions that affect an entity's equity. The amendment requires companies to present the components of net income and other comprehensive income either as one continuous statement or as two separate but consecutive statements. It eliminates

the option to report other comprehensive income and its components as part of the statement of changes in shareholders' equity. Furthermore, regardless of the presentation methodology elected, the issuer will be required to present on the face of the financial statements a reclassification adjustment for items that are reclassified from other comprehensive income to net income. The methodology for the computation and presentation of earnings per share remains the same. The pronouncement is effective for fiscal years beginning after December 15, 2011 and is to be applied retrospectively. As this pronouncement relates to disclosure only, the adoption did not have an impact on the Company's consolidated financial position, results of operations or cash flows.

In May 2011, the FASB issued ASU No. 2011-04, Fair Value Measurement (ASC Topic 820), Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRS (ASU No. 2011-04). The amendments in this update apply to all reporting entities that are required or permitted to measure or disclose the fair value of an asset, a liability, or an instrument classified in a reporting entity's shareholders' equity in the financial statements. ASU No. 2011-04 does not extend the use of fair value accounting, but provides guidance on how it should be applied where its use is already required or permitted by other standards within U.S. GAAP or IFRS. ASU No. 2011-04 changes the wording used to describe many requirements in GAAP for measuring fair value and for disclosing information about fair value measurements. Additionally, ASU No. 2011-04 clarifies the FASB's intent about the application of existing fair value measurements. The amendments in this update are to be applied prospectively. For public entities, the amendments are effective during interim and annual periods beginning after December 15, 2011. The adoption of ASU No. 2011-04 did not have a material effect on the Company's financial position, results of operations or cash flows.

#### 4. LONG-TERM INVESTMENTS

Long-term investments held by the Company at December 31, 2012 consisted primarily of auction rate securities, or ARS, and are considered available for sale. These securities reset the interest or dividend rates by auctions held at intervals of 7, 28, 35 or 49 days, and at such dates the Company has the option to sell such securities. The auction rate securities held by the Company have contractual maturities of greater than 10 years.

These investments are carried at fair value, with the unrealized gains and losses, if any, net of tax, reported in other comprehensive income. The cost of securities sold is based on the specific identification method. Interest and dividends on securities are included in interest and dividend income. Quarterly, management reviews the valuation of investments and considers whether any decline in value is deemed to be an other-than-temporary decline.

At December 31, 2012, the Company held one ARS investment: Illinois Educational Facilities Authority Select Auction Variable Rate Securities, having a value at par of \$3.0 million with a maturity date in 2028. The carrying value of this investment at December 31, 2012 was \$2.5 million, net of a \$0.5 million temporary unrealized impairment loss. The Company has classified this investment as a long-term asset due to liquidity issues experienced in global credit and capital markets as well as failed auctions since the first quarter of 2008. A failed auction means that the amount of securities submitted for sale at auction exceeded the amount of purchase orders. If an auction fails, the issuer becomes obligated to pay interest at penalty rates. The auction rate securities the Company holds continue to pay interest in accordance with their stated terms. However, the failed auctions create uncertainty as to the liquidity of these securities.

During the fourth quarter of 2011, the Company received \$2.4 million from a full redemption of the Montana Health Facility Authority Select Auction Variable Rate Securities ARS previously held by the Company.

Based on the Company's expected operating cash flows, and other sources of cash, the Company does not expect the potential lack of liquidity in this investment to affect its ability to execute its current business plan in the near term. The Company does not intend to sell the investments until the maturity date or before a recovery of cost occurs and it is not more likely than not that the Company will be required to sell the investments before recovery of their amortized cost base.

#### 5. FAIR VALUE MEASUREMENT

##### Recurring Fair Value Measurement

The Company accounts for assets and liabilities recognized or disclosed in the financial statements at fair value on a recurring basis in accordance with the provisions of ASC Topic 820.

ASC Topic 820 provides that fair value is an exit price, representing the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants based on the highest and best use of the asset or liability. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. ASC Topic 820 requires the Company to use valuation techniques to measure fair value that maximize the use of observable inputs and minimize the use of unobservable inputs. These inputs are prioritized as follows:

Level 1: Observable inputs such as quoted prices for identical assets or liabilities in active markets

Level 2: Other inputs that are observable directly or indirectly, such as quoted prices for similar assets or liabilities or market-corroborated inputs

Level 3: Unobservable inputs for which there is little or no market data and which require the Company to develop its own assumptions about how market participants would price the assets or liabilities

The valuation techniques that may be used to measure fair value are as follows:

A. Market approach - Uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities

B. Income approach - Uses valuation techniques to convert future amounts to a single present amount based on current market expectations about those future amounts, including present value techniques, option-pricing models and excess earnings methods

C. Cost approach - Based on the amount that currently would be required to replace the service capacity of an asset (replacement cost)

The following table sets forth the Company's financial instruments that are measured at fair value on a recurring basis and presents them within the fair value hierarchy using the lowest level of input that is significant to the fair value measurement at December 31, 2012 (in thousands):

	Carrying amount as of December 31, 2012	Quoted prices in active markets available (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Valuation Technique
Cash equivalents	\$ 27,306	\$ 27,306	\$ -	\$ -	(A)
Restricted cash	2,868	2,868	-	-	(A)
Short-term investments	34,640	34,640	-	-	(A)
Long-term investments	2,500	-	-	2,500	(B)
Total assets recorded at fair value	\$ 67,314	\$ 64,814	\$ -	\$ 2,500	

The reconciliation of the Company's assets measured at fair value on a recurring basis using unobservable inputs (Level 3) is as follows (in thousands):

	Auction Rate Securities
Balance at January 1, 2012	\$ 2,600
Redemptions	-
Transfers to Level 3	-
Gains and losses:	
Reported in earnings	-
Reported in other comprehensive loss	(100 )
Balance at December 31, 2012	\$ 2,500

The Company initially accounted for the ARS held in its portfolio as available-for-sale investments. The carrying value of these ARS approximated fair value due to the frequent resetting of the interest rate. While the Company continues to earn interest at the specified contractual rate on those investments involved in failed auctions, due to the ongoing failed auctions and the illiquidity of these securities under current market conditions, the Company has considered whether par value continues to be a reasonable basis for estimating the fair value of these ARS at December 31, 2012 and 2011. The Company estimated the fair value of these securities at December 31, 2012 and 2011 using broker valuations and internally-developed models of the expected future cash flows related to the securities as well as referencing a third party specialist's valuation. One of the more significant assumptions made in the Company's internally-developed models was the term of expected cash flows of the underlying auction rate securities and the discount related to the illiquidity of the investments. The Company developed several scenarios for the liquidation of the auction rate securities over periods that ranged from 3 to 7 years. In estimating the fair value of these investments, the Company considered the financial condition and near-term prospects of the issuer, the magnitude of the losses compared to the investments' cost, the length of time the investment has been in an unrealized loss position, the low probability that the Company will be unable to collect all amounts due according to the contractual terms of the security, whether the security has been downgraded by a rating agency, and the Company's ability and intent to hold these investments until the anticipated recovery in market value occurs. Based on the estimated operating cash flows and other sources of cash, the Company intends to hold the ARS for the foreseeable future.



The Company's valuation analysis for the year ended December 31, 2012 resulted in an increase of \$100,000 to the unrealized impairment loss recorded at December 31, 2010. The total unrealized impairment loss at December 31, 2012 was \$500,000. The Company continues to monitor the market for auction rate securities and to assess its impact on the fair value of the Company's investments. If current market conditions deteriorate further, the Company may be required to record additional temporary unrealized losses in other comprehensive income (loss) or, if the decline in fair value is judged to be other-than-temporary, the cost basis of the individual security may be written off to fair value as a new cost basis and the amount of the write-down would be reflected as a charge to earnings.

#### Nonrecurring Fair Value Measurement

During 2012, the Company recognized a goodwill impairment charge of \$0.6 million. This charge was based on fair value measurements derived using the income approach and market approach. The valuation methodologies incorporated unobservable inputs reflecting significant estimates and assumptions made by management. Accordingly, the Company classified these measurements as Level 3 within the fair value hierarchy. Refer to Note 8- Goodwill and Intangible Assets for further detailed information related to the significant unobservable inputs.

#### 6. INVENTORIES

Inventories consist of the following:

	December 31,	
	2012	2011
Raw materials	\$ 4,533,002	\$ 5,106,112
Work in process	3,083,008	3,258,397
Finished goods	2,224,649	3,094,644
Total	\$ 9,840,659	\$ 11,459,153

#### 7. PROPERTY AND EQUIPMENT

Property and equipment consist of the following:

	December 31,	
	2012	2011
Land	\$ 4,577,579	\$ 4,531,177
Building and improvements	19,651,110	17,642,165
Machinery and equipment	18,282,014	17,270,155
Computer hardware and software	1,442,945	1,153,730
Construction-in-progress	1,611,022	3,585,156
Total property and equipment, at cost	45,564,670	44,182,383
Less accumulated depreciation and amortization	16,561,845	13,183,894
Property and equipment, net	\$ 29,002,825	\$ 30,998,489

The Company has completed the first phase of construction of two new buildings adjacent to its current facility in Wuxi, China, comprising 20,800 square meters, consisting of 8,700 square meters for a new research and development institute and 12,100 square meters of new manufacturing facilities. Phase two includes the furnishing and equipment of the manufacturing facility. By the end of 2011, the Company completed one third of phase two to furnish and equip the new manufacturing building. The Company did not need to furnish additional manufacturing space in 2012.

In June 2010, the Company purchased a piece of land in Wuxi for approximately \$4 million to build the MTS manufacturing facility. In August 2011, the Company completed construction of the MTS manufacturing facility with 14,000 square meters of total space to host the manufacturing of its system solution products.

## 8. GOODWILL AND INTANGIBLE ASSETS

### Goodwill

Goodwill represents the excess cost of the Crossbow asset acquisition over the net fair value allocated to the assets acquired and liabilities assumed and to the acquired intangible asset that does not qualify for separate recognition according to ASC Topic 805. All goodwill acquired in the Crossbow acquisition has been allocated to the Company's system solutions product segment.

The Company evaluates the goodwill annually at the end of the year and determines whether events or circumstances exist to indicate an impairment loss.

The Company performed an annual impairment test for goodwill in December 2011 and concluded that impairment existed as of December 31, 2011 and recorded an impairment charge of \$4.5 million in 2011. The ending balance of goodwill at December 31, 2011 was \$0.6 million. As a result of the Company's December 2012 annual impairment test for goodwill, the Company concluded that the remaining balance of goodwill of \$0.6 million was fully impaired at December 31, 2012.

During the Company's business planning process in the fourth quarter of 2012, the Company's management continued to see a weak forecast from the acquired system solution business. The Company concluded that this slower than anticipated growth represented an indicator of impairment of the goodwill associated with the acquired business.

The Company determined the goodwill impairment according to ASC Topic 350, Goodwill and Other Intangible Assets and ASC Topic 360, Impairment or Disposal of Long-Lived Assets, using a two-step method. In the first step, it compared the estimated fair value of its system solution product reporting unit to its carrying amount, including goodwill and it indicated an impairment.

The determination of the fair value of our system solution product reporting unit included two valuation methods: the income approach and the market approach. Under the income approach, the Company considered the discounted cash flow (DCF) method. Under the market approach, it considered the guideline public company (GPC) method. The income approach provides a method for incorporating the Company's long term forecast into the determination of value. Judgment is required when performing adjustments to the forecast, selecting an appropriate discount rate and determining a terminal value. The market approach provides a method for incorporating market prices and multiples into the determination of value. Judgment is required when selecting guideline companies and transactions and when adjusting the multiples. Under the guideline public company method, value was estimated based on multiples of 2012 revenues and 2013 projected revenues. The Company compared its system solution product reporting unit to the guideline public companies in terms of size, profit margins and revenue growth rates. The guideline public company multiples were discounted based on these comparisons. A premium for control of 15% was applied to the value indicated by the guideline public company method. The Company applied equal weighting to the income and GPC approaches. The Company tested the reasonableness of the fair value conclusion by calculating value using the DCF method and the GPC method, comparing the fair value conclusion to the market capitalization of the parent company.

As a result of this analysis, the Company concluded that the fair value of our system solution product reporting unit was less than the carrying amount, indicating an impairment.

According to ASC Topic 350, if the carrying amount exceeds the estimated fair value, step two is required to determine the amount of the impairment loss. Step two requires the allocation of the estimated fair value of the system solution product segment, including any unrecognized intangible assets, and liabilities in a hypothetical purchase price allocation. Any remaining unallocated fair value represents the implied fair value of goodwill, which is compared to

the corresponding carrying value of goodwill to compute the goodwill impairment amount. The Company followed these steps and concluded that the remaining balance of goodwill of \$0.6 million was fully impaired at December 31, 2012.

The carrying amount of goodwill and activity for the year ended December 31, 2012 is as follows:

	Sensor business segment	System solution business segment	Total
Balance at January 1, 2012	\$ -	\$ 606,976	\$ 606,976
Impairment charge	-	(646,602 )	(646,602 )
Foreign exchange impact	-	39,626	39,626
Balance at December 31, 2012	\$ -	\$ -	\$ -

#### Intangible Assets

Intangible assets relate to issued and applied-for patents on the Company's core technology and gas meter processing know-how purchased in May 2008, as well as trademarks, customer relationships and developed technology acquired from Crossbow Technology, Inc. on January 15, 2010.

Intangible assets consisted of the following at December 31, 2012 and 2011:

	Gross carrying amount	Accumulated amortization	Net carrying amount	Expected life (Years)
<b>December 31, 2012</b>				
Patents	\$ 1,514,081	\$ (384,031 )	\$ 1,130,050	15
Know-how	564,154	(516,973 )	47,181	5
Trademarks	408,000	(408,000 )	-	2
Customer relationships	4,967,413	(1,581,208 )	3,386,205	8 - 10
Developed technology	7,622,193	(2,267,324 )	5,354,869	8 - 10
	\$ 15,075,841	\$ (5,157,536 )	\$ 9,918,305	
<b>December 31, 2011</b>				
Patents	\$ 1,219,129	\$ (277,804 )	\$ 941,325	15
Know-how	593,240	(405,563 )	187,677	5
Trademarks	408,000	(399,500 )	8,500	2
Customer relationships	4,918,690	(1,031,441 )	3,887,249	8 - 10
Developed technology	7,544,929	(1,478,148 )	6,066,781	8 - 10
	\$ 14,683,988	\$ (3,592,456 )	\$ 11,091,532	

Amortization expense expected over the next five years (2013 and beyond) is approximately \$1.5 million per year. Amortization expense amounted to \$1.5 million and \$1.6 million, respectively, for the years ended December 31, 2012 and 2011. Changes in the net carrying amount of intangible assets included the impact from foreign exchange rate.

The Company has considered the cash flows associated with the valuation of the definite-lived intangible assets and concluded that the straight-line amortization method best approximates the economic pattern of usefulness of those assets.



## 9. ACCRUED EXPENSES

Accrued expenses consist of the following:

	December 31,	
	2012	2011
Accrued compensation	\$ 1,746,032	\$ 1,244,690
Professional fees	311,781	347,242
Other	1,877,162	1,039,034
Total accrued expenses	\$ 3,934,975	\$ 2,630,966

## 10. NOTE PAYABLE TO BANK

On June 30, 2010, MTS, a wholly owned subsidiary of MEMSIC Semiconductor, entered into a five-year project loan agreement with Agricultural Bank of China. The total loan available is \$20 million, of which \$15 million was designated by the Company for the purchase of substantially all the assets acquired from Crossbow Technology, Inc., \$3 million for working capital purposes and \$2 million for the purchase of equipment to be used in the manufacture of the Company's system solution products.

The loan is collateralized by the buildings and land owned by MEMSIC Semiconductor as well as the land and intellectual property owned or to be purchased by MTS. The interest rate of the loan is a variable rate, adjusted semi-annually based on the LIBOR rate plus 4.00%. MTS has obtained agreement from the local government in Wuxi, China to fully subsidize the interest expense on a quarterly basis. No financial covenants are required for this loan. As of December 31, 2012, \$17.9 million has been withdrawn, \$0.5 million has been repaid, \$17.4 million is outstanding and \$2.1 million is available for borrowing. Interest expense paid and subsidized by the Wuxi government for the year ended December 31, 2012 was \$0.9 million. Based on the terms of the agreement, there are no circumstances in which amounts previously subsidized by the Wuxi government are repayable by the Company. In the remote event the Wuxi government is unable to fulfill its obligation to subsidize the interest payment, the Company would recognize the interest expense in its income statement. The repayment schedule of the principal amount is as follows:

Date	Payment Amount
June 29, 2013	\$ 1,000,000
June 29, 2014	2,500,000
June 29, 2015	13,930,000
	\$ 17,430,000

## 11. BUILDING LIABILITY

In June 2010, the Company purchased a piece of land in Wuxi for approximately \$4.0 million to build the MTS manufacturing facility. In August 2011, the Company completed construction of the MTS manufacturing facility with 14,000 square meters of total space to host the manufacturing of its system solution products. The construction cost of approximately \$8.1 million was financed by the local Chinese government. In the third quarter of 2012, the Company was notified by the local Chinese government that the Company would be expected to make payments on the building beginning in February 2013. Upon notification, the Company started to accrue a financing charge using the effective interest rate method at an annual rate of 8% on the construction cost of the building, based on a 2009 memorandum with the local Chinese government, while the Company is renegotiating with the local Chinese government the payment terms of the construction cost of the building. The \$8.1 million construction cost of the building is reflected as a long-term liability in the accompanying consolidated financial statements.

12. COMMON STOCK

The Company reserved 7,152,554 and 5,990,405 shares at December 31, 2012 and 2011 for outstanding options to purchase common stock.

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### 13. STOCK INCENTIVE PLANS

#### Description of Plans

On March 29, 2000, the Company's stockholders and board of directors approved the 2000 Omnibus Stock Plan (the "2000 Plan"), as amended, under which 2,969,000 shares of the Company's common stock were reserved for issuance to directors, officers, employees, and consultants. With the adoption of the 2007 Plan discussed below, the Company no longer grants awards under the 2000 Plan.

On August 22, 2007, the Company's board of directors approved the 2007 Stock Incentive Plan (the "2007 Plan"), under which up to 3,000,000 shares of the Company's common stock may become available for issuance. At the adoption date, 1,526,425 shares were reserved for issuance. The reserved amount will increase by 300,000 shares at each of the five anniversaries of the adoption date, for a maximum of 3,000,000 shares issuable under the 2007 Plan.

Options granted under the 2000 Plan and the 2007 Plan may be incentive stock options or nonqualified stock options. Both the 2000 Plan and the 2007 Plan provide that the exercise price of incentive stock options must be at least equal to the market value of the Company's common stock at the date such option is granted. For incentive stock option grants to an employee who owns more than 10% of the outstanding shares of common stock of the Company, the exercise price of the incentive stock option must be not less than 110% of market value at the time of grant. Granted options expire in ten years or less from the date of grant and vest based on the terms of the awards, generally ratably over four years.

Prior to December 19, 2007, there was no public market for the Company's common stock. Accordingly, the board of directors determined the market value of the common stock at the date of grant by considering a number of relevant factors, including the Company's operating and financial performance and corporate milestones achieved, the prices at which shares of convertible preferred stock in arm's-length transactions were sold, the composition of and changes to the management team, the superior rights and preferences of securities senior to the common stock at the time of each grant and the likelihood of achieving a liquidity event for the shares of common stock underlying stock options.

On December 9, 2009, the Company's board of directors approved the 2009 Nonqualified Inducement Stock Option Plan (the "2009 Plan") with an effective date on January 15, 2010, the closing date of the acquisition of Crossbow assets. Under the 2009 Plan, up to 1,250,000 shares of the Company's common stock may become available for issuance. On December 23, 2010, the Company's board of directors approved an Amended and Restated 2009 Nonqualified Inducement Stock Option Plan (the "Amended and Restated Plan") and an increase in shares of the Company's common stock available for issuance under the Amended and Restated Plan from 1,250,000 to 2,500,000. Except as otherwise determined by the Compensation Committee of the Company's board of directors, the form of option to be employed under the Amended and Restated Plan shall be substantially identical to the form of nonqualified option customarily used under the Company's 2007 Stock Incentive Plan.

On June 29, 2011 at our Annual Meeting of Stockholders, the Company's stockholders and board of directors approved the amendment and restatement of the Company's 2007 Plan. As amended, the 2007 Plan

- permits the granting of restricted stock units ("RSUs"), performance-based stock awards and stock appreciation rights;
- eliminates the ability to reprice options;
- extends the expiration date of the plan to June 29, 2021;
- provides that awards may qualify as "performance-based compensation" under Section 162(m) of the Internal Revenue Code of 1986, as amended; and

- incorporates certain other administrative provisions.

On June 28, 2012, the Company's shareholders voted to approve an amendment to the 2007 Plan, including increasing the number of shares of common stock issuable under the 2007 Plan by 1,500,000 shares. The maximum shares issuable under the 2007 Plan thus increased to 4,500,000 shares.

## Valuation of Stock Options

The Company uses the Black-Scholes option pricing model to calculate the grant-date fair value of an option award. The key input assumptions used in the Black-Scholes option pricing model include: (i) the risk-free interest rate is based on the yield available on U.S. Treasury zero-coupon bonds at the date of grant with maturity dates approximately equal to the expected life at the grant date, (ii) the expected life of the options is based on evaluations of historical and expected future employee exercise behavior; (iii) volatility is based on the implied volatility of the Company's common stock, which the Company believes results in the best estimate of the grant-date fair value of employee stock options because it reflects the market's current expectations of future volatility; and (iv) dividend yield of zero, as the Company has not paid dividends in the past and it does not expect to in the foreseeable future. The Company utilizes historical data to estimate pre-vesting forfeitures and records stock-based compensation expense only for those awards that are expected to vest.

During the third and fourth quarter of 2012, the Company only granted RSUs and did not grant any stock options. The weighted-average fair values per share of the options granted during 2012 and 2011 were \$1.58 and \$1.97, respectively, utilizing the following assumptions:

	For the year ended December 31,			
	2012		2011	
Volatility	67%	- 71%	64%	
Expected dividend yield	0%		0%	
Expected life (years)	5.1	- 8.5	5.6	- 5.8
Risk-free interest rate	1.15%	- 1.44%	2.20%	- 2.34%
Forfeitures	33%	- 36%	36%	- 37%

The Company has historically accounted for stock options granted to consultants using the fair value method for the calculation of compensation cost. For the years ended December 31, 2012 and 2011, the Company recorded compensation expense for stock option grants to consultants in the amount of \$5,000 and \$0, respectively.

At December 31, 2012, total unrecognized stock-based compensation expense for stock options granted to the Company's employees and directors was estimated to approximate \$1.4 million.

The stock option activity under the 2000 Plan, 2007 Plan and 2009 Stock Plan is as follows:

	Options Outstanding	Weighted Average Exercise Price	Remaining Contractual Term in Years	Aggregate Intrinsic Value
Options outstanding at January 1, 2012	2,338,805	\$ 5.00	6.5	\$ 1,131,474
Granted	615,000	2.23	-	-
Exercised	(121,568 )	1.88	-	-
Cancelled	(196,737 )	3.63	-	-
Options outstanding at December 31, 2012	2,635,500	\$ 4.59	6.3	\$ 2,014,390
	1,424,675	\$ 4.67	4.9	\$ 1,284,225

Options vested at December 31,  
2012

Available for grant at December  
31, 2012

3,823,637

The intrinsic values (aggregate market value minus aggregate exercise price) of stock options exercised during the years ended December 31, 2012 and 2011 were \$178,138 and \$34,494, respectively. The total fair value of options vested during the year ended December 31, 2012 and 2011 was approximately \$468,000 and \$1,121,000, respectively.

Stock-based compensation expenses related to stock options, restricted stock awards (“RSA”) and RSUs were charged to the following expenses:

	For the year ended December 31,	
	2012	2011
Research and development	\$ 212,869	\$ 265,953
Sales and marketing	149,387	184,431
General and administrative	963,756	1,144,850
Total	\$ 1,326,012	\$ 1,595,234

The Company accounted for RSAs and RSUs using the fair value at the date of the grant for the calculation of compensation cost. For the year ended December 31, 2012, the Company recorded compensation expense for RSA and RSU in the amount of \$139,000 and \$511,000, respectively.

As of December 31, 2012, total unrecognized compensation expenses related to non-vested RSAs and RSUs were \$121,000 and \$1.1 million, respectively. These expenses are expected to be recognized over a weighted average period of 2.3 years for RSAs and 3.0 years for RSUs.

A summary of RSA activity for the year ended December 31, 2012 is as follows:

	Shares	Weighted Average Market Value at Grant Date
Nonvested at January 1, 2012	140,000	\$ 3.41
Awarded	-	-
Vested	(87,500 )	3.41
Forfeited	-	-
Nonvested at December 31, 2012	52,500	\$ 3.41

A summary of RSU activity for the year ended December 31, 2012 is as follows:

	Shares	Weighted Average Market Value at Grant Date
Nonvested at January 1, 2012	534,000	\$ 3.12
Awarded	405,000	3.09
Vested	(117,083 )	3.14
Forfeited	(181,000 )	3.17
Nonvested at December 31, 2012	640,917	\$ 3.08

## 14. NET LOSS PER SHARE

The calculation for basic and diluted net loss per share is as follows:

	For the year ended December 31,	
	2012	2011
<b>Numerator:</b>		
Net loss attributable to MEMSIC, Inc.	\$ (987,939 )	\$ (6,084,570 )
<b>Denominator:</b>		
Basic weighted average shares	24,027,523	23,827,937
Dilutive effect of common stock equivalents	-	-
Diluted weighted average shares	24,027,523	23,827,937
<b>Net loss per common share attributable to MEMSIC, Inc.</b>		
Basic	\$ (0.04 )	\$ (0.26 )
Diluted	\$ (0.04 )	\$ (0.26 )

At December 31, 2012 and 2011, the Company had 1.3 million and 1.5 million dilutive potential common shares, respectively, in the form of stock options which were not included in the computation of net loss per diluted share because these stock options would be anti-dilutive.

## 15. INCOME TAXES

The Company is subject to United States federal and state income taxes as well as taxation rules and regulations in the PRC and Japan.

The Company's provision for income taxes consists of the following:

	Year Ended December 31,	
	2012	2011
<b>Income tax expense (benefit)</b>		
<b>Current:</b>		
Federal	\$ -	\$ -
State	1,322	1,256
Foreign	264,844	140,649
Total current	266,166	141,905
<b>Deferred:</b>		
Federal	-	(25,153 )
State	-	(1,554 )
Foreign	178	(37,801 )
Total deferred	178	(64,508 )
Provision for income taxes	\$ 266,344	\$ 77,397

The following table presents loss before income taxes for the Company and its subsidiaries:

	Year Ended December 31,	
	2012	2011

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United States	\$	(2,011,483 )	\$	(5,302,163 )
Foreign		1,316,484		(622,883 )
Loss before income taxes	\$	(694,999 )	\$	(5,925,046 )

The following table reconciles the provision for income taxes with the expected income tax obligation (benefit) by applying the United States federal statutory rate to the net income (loss):

	Year Ended December 31,	
	2012	2011
Benefit computed at statutory rate	\$ (236,299 )	\$ (2,014,516 )
State income tax, net of federal benefit	873	(197 )
Permanent differences	102,846	42,807
Research and development tax credits	(49,193 )	(634,919 )
Foreign rate difference	(323,838 )	(192,839 )
Unbenefited losses	771,955	2,877,061
Provision for income taxes	\$ 266,344	\$ 77,397

The Company has permanently reinvested any earnings of MEMSIC Semiconductor in its Chinese operations. The Company has not provided for U.S. income taxes that could result from the distribution of such earnings to the U.S. parent. If these earnings were ultimately distributed to the U.S. in the form of dividends or otherwise, or if the shares of MEMSIC Semiconductor were sold or transferred, the Company would be subject to additional U.S. income taxes, net of the impact of any available foreign tax credits. It is not practicable to estimate the amount of unrecognized deferred U.S. taxes on these undistributed earnings. As of December 31, 2012, MEMSIC Semiconductor had cumulative foreign earnings of \$9.4 million. MEMSIC Semiconductor and its subsidiary MTS are governed by the Income Tax Law of the People's Republic of China concerning Foreign Investment Enterprises ("FIE") and Foreign Enterprises and various local income tax laws (the "PRC Income Tax Law"). Beginning January 1, 2008, under the new tax law named "Enterprise Income Tax Law", FIEs and domestic companies are subject to a uniform tax rate of 25%. This tax law provides a five-year transition period starting from its effective date for those enterprises which were established before the promulgation date of the new tax law and which were entitled to a preferential lower tax rate under the then effective tax laws or regulations. In accordance with regulations issued by the State Council, the tax rate of such enterprises may gradually transition to the uniform tax rate within the transition period. For those enterprises which are enjoying tax holidays, such tax holidays may continue until their expiration in accordance with the regulations issued by the State Council, but where the tax holiday has not yet started because of losses, such tax holiday shall be deemed to commence from the first effective year of the new tax law. While the new tax law equalizes the tax rates for FIEs and domestic companies, preferential tax treatment would continue to be given to companies in certain encouraged sectors and to entities classified as "high-technology companies especially supported by the PRC government," whether FIEs or domestic companies.

Since MEMSIC Semiconductor was established in the Wuxi New District as a PRC high-technology company, it is entitled to the reduced FEIT rate of 15% and is exempt from FEIT for its first two years of profitable operations after offsetting prior year's tax losses and is entitled to a 50% reduction in its FEIT for the following three years as approved by the tax authorities in accordance with the China Income Tax Law for Enterprises with Foreign Investment and Foreign Enterprises and its Implementation Rules issued in 1991. In addition, MEMSIC Semiconductor is exempted from the 3% local income tax during the above preferential tax treatment periods of five years pursuant to the Rule Concerning Exemption or Reduction of Local Income Tax for Foreign Invested Enterprises issued by the People's Government of Guangdong Province issued in 1992.

However, according to the relevant transition preferential tax policies issued by the State Council on March 16, 2007, the preferential enterprise income tax rate under this tax law and the transition-period preferential tax policy can not apply simultaneously. MEMSIC Semiconductor chose the exemption from enterprise income tax for 2007 and 2008 and a 50% reduction on the uniform enterprise income tax rate of 25% from 2009 to 2011. The Company believes the adoption of the transition-period preferential tax policy will be more beneficial to MEMSIC Semiconductor.



Beginning in 2012, MEMSIC Semiconductor is entitled to the preferential enterprise income tax rate of 15% as a qualified high-technology company. MTS has not obtained a PRC high-technology company status and therefore is subject to the 25% uniform enterprise income tax rate in China. Crossbow Japan is subject to a 40% tax rate in Japan.

Significant components of the Company's net deferred tax assets consist of the following:

	December 31,	
	2012	2011
<b>Deferred tax assets:</b>		
Accruals and reserves	\$ 375,859	\$ 290,071
Net operating loss carryforwards	4,866,106	3,458,431
Depreciation and amortization	1,351,291	1,332,416
Stock-based compensation	1,722,200	1,753,900
Long term investment	171,400	137,100
R&D credit carryover	759,931	710,738
Deferred tax assets	9,246,787	7,682,656
Less valuation allowance	(8,944,068 )	(7,428,259 )
<b>Net deferred tax assets</b>	<b>\$ 302,719</b>	<b>\$ 254,397</b>
<b>Deferred tax liabilities:</b>		
Unremitted foreign earnings	\$ 100,600	\$ 52,100
Deferred tax liabilities	\$ 100,600	\$ 52,100
<b>Net deferred tax assets</b>	<b>\$ 202,119</b>	<b>\$ 202,297</b>

Of the \$8,944,068 and \$7,428,259 valuation allowance at December 31, 2012 and 2011, \$171,400 and \$137,100 related to temporary decline of the long-term investment balance and were recorded through other comprehensive income, respectively at December 31, 2012 and 2011.

The deferred tax assets related to temporary differences of the Company's China subsidiaries for the years ended December 31, 2012 and 2011 were \$179,474 and \$172,913, respectively. The deferred tax assets related to Crossbow Japan were \$22,645 and \$29,384 at December 31, 2012 and 2011.

During the fourth quarter of 2008, the Company entered into and has remained in a three-year cumulative loss position in the United States tax jurisdiction and therefore, concluded a valuation allowance was appropriate for its deferred tax assets in the United States. The Company recorded a full valuation allowance against its U.S. deferred tax assets for 2012 and 2011 based upon uncertainty with respect to future taxable income in the United States.

At December 31, 2012, the Company had gross United States net operating loss carryforwards of \$10.3 million, which will expire in various amounts from 2028 through 2032. Included within this amount is approximately \$367,000 of excess tax deductions associated with non-qualified stock options that have been exercised. When these excess tax benefits actually result in a reduction to currently payable income taxes, the tax benefit will be recorded as an increase to additional paid-in capital. The Company's operating losses may be subject to limitations under provisions of the Internal Revenue Code.

The Company has performed an analysis of its uncertain tax positions in connection with the application of ASC Topic 740 for the years ended December 31, 2012 and 2011 and concluded that it has no uncertain tax positions that do not meet a more likely than not standard set forth by ASC Topic 740. Therefore, the Company has recorded no tax reserve related to uncertain positions in its financial statements.

The Company files returns in many foreign and state jurisdictions with varying statutes of limitations and considers the United States, PRC and Japan to be its significant tax jurisdictions. The tax years 2008 to 2012 are open tax years

in the United States taxing jurisdiction. Although the Company believes its estimates of income tax payable are reasonable, no assurance can be given that the Company will prevail in any differences raised in a future audit. The Company believes such differences would not have a material impact on the Company's financial condition, the Company's income tax provision or operating results.

## 16. COMMITMENTS AND CONTINGENCIES

### Lease Commitments

The Company leases its United States corporate headquarter facility, its California and Chicago offices and certain equipment under noncancelable operating leases expiring through 2017. The Company owns the property utilized for manufacturing and certain other operations located in Wuxi, Jiangsu Province, in the PRC.

At December 31, 2012, future minimum annual noncancelable operating lease commitments were \$273,000, \$210,000, \$161,000, \$2,000 and \$1,000 for 2013, 2014, 2015, 2016 and 2017, respectively. Total rent expense for the years ended December 31, 2012 and 2011 was \$405,000 and \$436,000, respectively.

### Licensing Agreement and Marketing Agreements

In connection with its initial capitalization, the Company was assigned a technology license related to the design, manufacture and sale of low-cost thermal accelerometers from Analog Devices, Inc. The Company agreed to fulfill the obligations under the technology license, including royalty obligations to a university and patent prosecution expenses. While the Company believes that the agreements as a whole provide it with exclusive rights to the license and the patents, there can be no assurance that, if a third party challenges the validity of the patents, the Company will prevail and continue exclusive rights to the licensed technology and patents.

The license agreement provides that the Company must pay the university a quarterly royalty of 1% of net sales, not to exceed \$100,000 per year, during the term of the license agreement. The Company paid royalty fees in the amount of \$100,000 in 2012 and 2011, and recorded such amounts to general and administrative expenses in the consolidated statements of operations.

### MEMSIC Wuxi Wireless Sensor Network Technology Co., Ltd. Investment Contribution Agreement

Under the November 2011 MEMSIC Wuxi Wireless Sensor Network Technology Co., Ltd. Investment Contribution Agreement, Wuxi WSN is expected to increase its total registered capital to up to RMB30 million (approximately \$4.8 million) within two years. For the additional investment, MTS is expected to contribute certain intangible assets with an assessed value equal to the incremental investment of RMB16 million (approximately \$2.5 million). If the assessed value of the contributed intangible assets is less than RMB16 million, MTS will make up the deficiency in cash in order to bring the total investment from MTS to RMB20 million, representing 66.67% of the total equity.

### Employee Benefit Plan

The Company maintains a 401(k) retirement savings plan (the Plan) whereby employees may elect to defer a portion of their salary and contribute the deferred portion to the Plan. The Plan covers substantially all United States employees of the Company. The Company contributes an amount equal to 100% of the amount contributed by each employee, up to 2% of their base compensation. The Company's matching contributions vest over a four year period. Employee contributions and the Company's matching contributions are invested in one or more collective investment funds at the participant's direction. For the years ended December 31, 2012 and 2011, the Company's contributions, including administrative fees, were approximately \$31,874 and \$54,657, respectively.

### Other

On September 11, 2012, Trilogy Marketing, Inc. (Trilogy) commenced an action in the United States District Court for the Eastern District of Michigan, in which it alleges that MEMSIC has failed to pay sales representative

commissions to Trilogy. The Company has not concluded that a loss of any magnitude in this matter is probable, and is unable to estimate the range of potential loss, if any, that might arise from this matter.

The Company may be subject to claims that arise out of the ordinary course of business in legal disputes which arise in the ordinary course of business. In management's opinion, these matters will not have a material adverse effect on the financial position of the Company.

## 17. SEGMENT INFORMATION

The Company conducts its operations and manages its business in two reporting segments. The Company develops, designs, manufactures and markets (i) semiconductor sensor products ("sensor products") based on micro-electromechanical systems (MEMS) technology and advanced integrated circuit design and (ii) sensor system solution products ("system solution products") which incorporate sensors with on-board computing, wireless communications and systems and application software solutions and which initially consisted of the product lines acquired from Crossbow in January 2010. In making operating decisions, the Company's chief executive officer, who is the chief operating decision maker, considers the gross profit results of the sensor product reporting unit and the system solution product reporting unit separately, but utilizes enterprise wide operating expense and earning results. As the management resources and certain assets are shared between the reporting segments, it is not practical to report the earnings and assets separately.

## Net sales by product application

The categorization of net sales by product application is determined using a variety of data points including the technical characteristics of the product, the end customer product and application into which the Company's product will be incorporated, and requires substantial judgment. Set forth below are the Company's revenues by product application for the periods presented.

	For the year ended December 31,	
	2012	2011
Mobile phone	\$ 29,138,874	\$ 35,354,386
Consumer	10,208,363	6,629,055
Automotive	13,645,638	14,379,675
Industrial/other	10,817,932	11,790,016
Total	\$ 63,810,807	\$ 68,153,132

## Net sales and gross profit by product type

The following table summarizes net sales and gross profit by product categories.

	For the year ended December 31,	
	2012	2011
<b>Net sales</b>		
Sensor products	\$ 54,491,246	\$ 57,876,788
System solution products	9,319,561	10,276,344
Total	\$ 63,810,807	\$ 68,153,132
<b>Gross Profit</b>		
Sensor products	\$ 19,418,342	\$ 18,236,527
System solution products	4,284,873	5,602,823
Total	\$ 23,703,215	\$ 23,839,350

## Net sales by geographical region

Net sales by geographic region, based upon customer location, for the years ended December 31, 2012 and 2011 was as follows:

	For the year ended December 31,	
	2012	2011
Asia (excluding Japan)	\$ 34,468,800	\$ 39,722,012
Europe	3,395,825	3,433,387
Japan	11,471,934	7,995,759
North America	14,354,344	16,630,001
Other	119,904	371,973
Total	\$ 63,810,807	\$ 68,153,132

## Total assets by geographical region

Total assets by geographical region are as follows:

	December 31,	
	2012	2011
United States	\$ 54,509,508	\$ 54,144,187
China	67,146,027	71,877,989
Japan	1,672,436	1,510,343
Total	\$ 123,327,971	\$ 127,532,519

Total long-lived assets by geographical region are as follows:

	December 31,	
	2012	2011
United States	\$ 517,960	\$ 830,826
China	28,484,568	30,166,756
Japan	297	907
Total	\$ 29,002,825	\$ 30,998,489

Total net assets by geographical region are as follows:

	December 31,	
	2012	2011
United States	\$76,275,602	\$76,841,092
China	10,494,626	9,089,186
Japan	324,665	525,013
Total	\$87,094,893	\$86,455,291

## 18. QUARTERLY DATA (Unaudited)

	2012 Quarter Ended			
	March	June	September	December
Net sales	\$ 20,017,053	\$ 14,415,237	\$ 15,188,705	\$ 14,189,812
Gross profit	7,417,099	5,784,387	5,310,696	5,191,033
Net income (loss)	1,230,609	(477,203 )	(299,526 )	(1,415,223 )
Net income (loss) attributable to MEMSIC, Inc.	1,200,505	(461,415 )	(318,155 )	(1,408,873 )
Basic and diluted net income (loss) per common share	\$ 0.05	\$ (0.02 )	\$ (0.01 )	\$ (0.06 )
	2011 Quarter Ended			
	March	June	September	December
Net sales	\$ 12,954,920	\$ 15,372,634	\$ 18,357,300	\$ 21,468,278
Gross profit	4,941,721	4,998,169	6,201,767	7,697,693
Net loss	(1,255,708 )	(1,121,983 )	(335,872 )	(3,288,880 )
Net loss attributable to MEMSIC, Inc.	(1,328,179 )	(1,108,302 )	(368,767 )	(3,279,322 )
Basic and diluted net loss per common share	\$ (0.06 )	\$ (0.05 )	\$ (0.02 )	\$ (0.13 )

## 19. SUBSEQUENT EVENTS

On February 5, 2013, the board of directors of Crossbow Japan voted to dissolve the joint venture as of March 31, 2013. The joint venture partners are in the process of negotiating the agreements that will document the terms of the dissolution. Gain or loss as a result of dissolution of the joint venture cannot be determined as of the date of filing this report.

The Company evaluated subsequent events occurring after December 31, 2012 through the date of filing of the Annual Report on Form 10-K in which these financial statements are included, and concluded that, except as set forth above, there was no event of which management was aware that occurred after the balance sheet date that would require any adjustment to the accompanying consolidated financial statements.



Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of December 31, 2012. Based on this evaluation, our chief executive officer and chief financial officer concluded that, as of December 31, 2012, our disclosure controls and procedures were (1) designed to ensure that material information relating to our company, including our consolidated subsidiaries, is made known to our chief executive officer and chief financial officer by others within those entities, particularly during the period in which this report was being prepared and (2) effective, in that they provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable, and not absolute, assurance that the objectives of the control system will be met. In addition, the design of any control system is based in part upon certain assumptions about the likelihood of future events and the application of judgment in evaluating the cost-benefit relationship of possible controls and procedures. Because of these and other inherent limitations of control systems, there is only reasonable assurance that our controls will succeed in achieving their goals under all potential future conditions.

Based on the evaluation of our disclosure controls and procedures as of December 31, 2012, our chief executive officer and chief financial officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Internal Control over Financial Reporting

(a) Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting and for the assessment of the effectiveness of internal control over financial reporting. As defined by the Securities and Exchange Commission, internal control over financial reporting is a process designed by, or under the supervision of our principal executive and principal financial officers and effected by our Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the consolidated financial statements in accordance with U.S. generally accepted accounting principles.

Our internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the consolidated financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In connection with the preparation of our annual consolidated financial statements, management has undertaken an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2012, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission, or the COSO Framework. Management's assessment included an evaluation of the design of our internal control over financial reporting and testing of the operational effectiveness of those controls. Based on this evaluation, management has concluded that our internal control over financial reporting is effective as of December 31, 2012 based on those criteria.

(b) Changes in Internal Controls

There were no changes in our internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f), that occurred during the three-month period ended December 31, 2012 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required under this Item is incorporated herein by reference to our definitive proxy statement pursuant to Regulation 14A with respect to our 2013 annual meeting of stockholders to be filed with the Commission not later than April 30, 2013 (the "2013 Proxy Statement") under the headings "Election of Directors," "Background Information About Directors Continuing in Office," "Corporate Governance" and "Information About Executive Officers."

Item 11. Executive Compensation

The information required under this Item is incorporated herein by reference to our 2013 Proxy Statement under the heading "Executive Compensation."

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required under this Item is incorporated herein by reference to our 2013 Proxy Statement under the heading "Information About Stock Ownership and Performance" and "Securities Authorized for Issuance under Equity Compensation Plans."

Item 13. Certain Relationships and Related Transactions and Director Independence

The information, if any, required under this Item is incorporated herein by reference to our 2013 Proxy Statement under the headings "Related Party Transactions" and "Corporate Governance."

Item 14. Principal Accountant Fees and Services

The information required under this Item is incorporated herein by reference to our 2013 Proxy Statement under the heading "Principal Accountant Fees and Services."

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a)(1) Financial Statements

The following financial statements are included in Item 8:

	Page
Report of Independent Registered Public Accounting Firm	44
Consolidated Balance Sheets as of December 31, 2012 and 2011	46
Consolidated Statements of Operations for the Years Ended December 31, 2012 and 2011	47
Consolidated Statements of Comprehensive Loss for the Years Ended December 31, 2012 and 2011	48
Consolidated Statements of Stockholders' Equity for the Years Ended December 31, 2012 and 2011	49
Consolidated Statements of Cash Flows for the Years Ended December 31, 2012 and 2011	50
Notes to Consolidated Financial Statements	51

## (a)(2) Financial Statement Schedules

Financial statement schedules have been omitted since the required information is not present, or not present in amounts sufficient to require filing of the schedule, or because information required is included in the consolidated financial statements or the notes thereto.

## (a)(3) Exhibits

The following exhibits are included in this Annual Report on Form 10-K:

Exhibit No.	Description	Filed with This Form 10-K	Incorporated by Reference		
			Form	Filing Date	Exhibit No.
3.1	Second Amended and Restated Certificate of Incorporation of MEMSIC, Inc.		8-K	December 19, 2007	3.1
3.2	Amendment to Certificate of Corporation dated October 1, 2009.	X			
3.3	Amended and Restated By-Laws of MEMSIC, Inc.		S-1/A	November 30, 2007	3.4
4.1	Form of common stock certificate.		S-1/A	December 7, 2007	4.2
4.2	Fifth Amended and Restated Investor Rights Agreement.		S-1	September 28, 2007	4.3
10.1	Technology License Agreement, dated March 3, 1999, between the Registrant and Analog Devices, Inc.		S-1	September 28, 2007	10.1
10.2	License Agreement, dated December 1, 1998, between Analog Devices, Inc. and Simon Fraser University together with the Amendment No. 1, dated January 1, 2005 between the Registrant and Simon Fraser University.		S-1	September 28, 2007	10.2
10.4	MEMSIC, Inc. 2000 Omnibus Stock Plan. *		S-1	September 28, 2007	10.9
10.5	MEMSIC, Inc. 2007 Stock Incentive Plan, as amended *		Schedule 14A	June 1, 2012	Appendix A
10.6	Form of Incentive Stock Option Agreement between the Registrant and its officers and employees. *		S-1	November 21, 2007	10.12
10.7			S-1		10.13

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	Form of Non-Qualified Stock Option Agreement between the Registrant and directors, officers, employees and consultants of the Registrant *		November 21, 2007	
10.8	Form of Senior Executive Change in Control Agreement. *	S-1	September 28, 2007	10.11
10.9	MEMSIC, Inc. Amended and Restated 2009 Nonqualified Inducement Stock Option Plan *	S-8	April 9, 2010	10.9
10.10	Fixed Asset Loan Contract dated June 30, 2010	10-Q	August 16, 2010	10.2
10.11	Project Loan Interest Subsidy Agreement dated June 28, 2010	10-Q	August 16, 2010	10.6
10.12	MEMSIC Wuxi Wireless Sensor Network Technology Co., Ltd. Investment Contribution Agreement	10-K	March 16, 2012	10.12
10.13	2012 Cash Incentive Plan for Executive Officers *	8-K	June 22, 2012	
21.1	List of subsidiaries.	10-K	March 25, 2011	21.1
23.1	Consent of Ernst & Young LLP	X		
31.1	Certification of the Chief Executive Officer required by Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X		

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Exhibit No.	Description	Filed with This Form 10-K	Incorporated by Reference		Exhibit No.
			Form	Filing Date	
31.2	Certification of the Chief Financial Officer required by Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X			
32.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X			
32.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X			
101.***	The following materials from MEMSIC, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2012, formatted in XBRL (eXtensible Business Reporting Language): (i) the Unaudited Consolidated Balance Sheets; (ii) the Unaudited Consolidated Statement of Stockholders' equity; (iii) the Unaudited Consolidated Statements of Income; (iv) the Unaudited Consolidated Statements of Cash Flows and (v) the Notes to Consolidated Financial Statements, tagged as blocks of text.				

Attached as Exhibit 101 to this report are the following formatted in XBRL (Extensible Business Reporting Language): (i) Consolidated Balance Sheets as of December 31, 2012 and December 31, 2011; (ii) Consolidated Statements of Operations for the year ended December 31, 2012 and 2011; (iii) Consolidated Statements of Comprehensive Loss for the years ended December 31, 2012 and 2011; (iv) Consolidated Statements of Stockholders' Equity; (v) Consolidated Statements of Cash Flows for the year ended December 31, 2012 and 2011 and (vi) Notes to Consolidated Financial Statements.

In accordance with Rule 406T of Regulation S-T, the XBRL-related information in Exhibit 101 to this Annual Report on Form 10-K is deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act, is deemed not filed for purposes of Section 18 of the Exchange Act, and otherwise is not subject to liability under these sections.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

MEMSIC, INC.  
(Registrant)

By: /s/ Yang Zhao  
Yang Zhao, Ph.D.  
Chief Executive Officer  
and President

Date: March 22, 2013

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant in the capacities stated as of March 22, 2013.

Name	Title
/S/ YANG ZHAO Yang Zhao	Chairman of the Board, Chief Executive Officer and President (Principal Executive Officer)
/S/ Patricia Niu Patricia Niu	Chief Financial Officer (Principal Financial and Accounting Officer)
/S/ ROGER W. BLETHEN Roger W. Blethen	Director
/S/ Larry A. Kaufman Larry A. Kaufman	Director
/S/ MICHAEL TUNG Michael Tung	Director
/S/ Quan Zhou Quan Zhou	Director