

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2011

Commission file number 000-22166

AETRIUM INCORPORATED

(Exact name of registrant as specified in its charter)

MINNESOTA

(State of incorporation)

41-1439182

(I.R.S. employer identification no.)

2350 Helen Street

North St. Paul, Minnesota

(Address of principal executive
offices)

55109

(Zip code)

(651) 770-2000

(Registrant's telephone number)

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

Title Of Each Class

Name Of Each Exchange On Which Registered

COMMON STOCK, PAR VALUE \$.001 PER SHARE

The NASDAQ Stock Market LLC

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

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

Yes No

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes 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 Exchange Act Rule 12b-2). Yes No

As of June 30, 2011 (the last business day of the Registrant's most recently completed second fiscal quarter), the aggregate market value of the Common Stock of the Registrant (based upon the closing price of the Common Stock at that date as reported by The Nasdaq Stock Market), excluding outstanding shares beneficially owned by directors and executive officers, was \$18,457,000.

As of March 15, 2012, 10,781,451 shares of Common Stock of the Registrant were outstanding.

Part III of this Annual Report on Form 10-K incorporates by reference information (to the extent specific sections are referred to herein) from the Registrant's definitive Proxy Statement for its 2012 Annual Meeting of Stockholders to be held May 23, 2012 (the "2012 Proxy Statement").

Form 10-K
For the fiscal year ended December 31, 2011
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PART I

This Annual Report on Form 10-K contains certain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. For this purpose, any statements contained in this Annual Report on Form 10-K that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, words such as “may,” “will,” “expect,” “believe,” “anticipate,” “estimate” or “continue” or comparable terminology are intended to identify forward-looking statements. These statements by their nature involve substantial risks and uncertainties, and actual results may differ materially depending on a variety of factors, including those set forth under Item 1A below. We undertake no obligation to correct or update any forward-looking statements, whether as a result of new information, future events or otherwise. You are advised, however, to consult any future disclosures we may make on related subjects in future filings with the Securities and Exchange Commission. References in this Annual Report on Form 10-K to “Aetrium,” “the company,” “we” and “our,” unless the context otherwise requires, refer to Aetrium Incorporated and its consolidated subsidiary and their respective predecessors.

ITEM 1. BUSINESS.

Overview

We design, manufacture and market a variety of electromechanical and electrothermal equipment used in the handling and testing of integrated circuits, or ICs, which constitute the highest revenue component of the semiconductor industry. Our primary focus is on high volume ICs, the latest IC package designs, and ICs using advanced geometry designs. Our products are purchased primarily by semiconductor manufacturers and their foundry and assembly and test subcontractors. Our products are used in the test, assembly and packaging, or TAP, segment of semiconductor manufacturing, and also in advanced reliability test labs at wafer manufacturing sites. Our products automate critical functions to improve manufacturing yield, raise quality levels, increase product reliability and reduce manufacturing costs.

We have two principal equipment product lines:

- **Test Handler Products.** In terms of revenue, this is typically our largest product line. Our broad line of gravity feed test handler products incorporates thermal conditioning, contacting and automated handling technologies to provide automated handling of ICs during production test cycles. We also offer change kits to adapt our test handlers to different IC package configurations or to upgrade installed equipment for enhanced performance. Change kits can represent a significant part of our revenue.
- **Reliability Test Equipment.** The primary focus of our reliability test equipment is to provide semiconductor manufacturers with structural performance data to aid in the evaluation and improvement of IC designs and manufacturing processes to increase IC yield and reliability. Our reliability test equipment is focused in particular on the emerging test requirements for the most advanced IC design geometries.

Test handler products accounted for 28% and 61% of our net sales in 2011 and 2010, respectively. Reliability test equipment accounted for 39% and 22% of our net sales in 2011 and 2010, respectively. Change kits and spare parts accounted for 33% and 17% of our net sales in 2011 and 2010, respectively.

The worldwide financial collapse that became apparent by the end of the third quarter in 2008 resulted in one of the steepest declines ever in the semiconductor industry. IC unit sales decreased

significantly in the fourth quarter of 2008 and the first quarter of 2009. Notwithstanding the continuation of the worldwide financial crisis, IC unit sales increased during 2009, although they did not return to the peak production levels of 2008 and manufacturers generally operated with excess production capacity throughout the year. As a result, the TAP segment of the semiconductor equipment industry continued its decline through 2009. According to SEMI, a semiconductor equipment industry trade association, revenues for test related equipment in 2009 were almost 70% below 2007 revenues. Our performance closely followed our industry segment as our 2009 revenues were also almost 70% below our 2007 revenues.

The semiconductor industry continued to recover slowly, unevenly and hesitantly during 2010 and 2011. By the end of the first quarter of 2010, the semiconductor industry surpassed its peak production levels of 2008, and conditions in the test related segment of the semiconductor equipment industry improved for the first three quarters of 2010. However, demand slowed for semiconductors in the fourth quarter and production of semiconductors declined from third quarter to fourth quarter of 2010. As a result, revenues as reported by SEMI for test related equipment in fourth quarter of 2010 declined by more than 25% from reported third quarter revenues.

Our performance followed our industry segment in 2010. Additionally, one of our largest customers is transitioning from four site testing to eight site testing, and we believe that its extended eight site test handler evaluations in the fourth quarter of 2010 delayed handler orders from that customer, which contributed to a substantially sharper drop in our fourth quarter revenues than was experienced generally in our industry segment.

Semiconductor production increased in the first half of 2011, but remained below peak production levels of 2010. Semiconductor production flattened in the third quarter of 2011 and then declined significantly in the fourth quarter of 2011. Our test handler sales are sensitive to production capacity utilization rates because they can be purchased on an incremental basis and on relatively short lead times (as opposed to a wafer fabrication facility that may cost several billion dollars and require well in excess of a year to construct). Accordingly, as the semiconductor industry generally operated below its full production capacity throughout 2011, our customers' requirements for our test handlers were sporadic and aimed only at their fastest growing products.

Demand for our reliability test products is more based upon the test requirements of emerging technologies and advanced geometry designs, and is less sensitive to short term variances in semiconductor demand. While the semiconductor industry's general production requirements did not grow in 2011, it nevertheless invested substantially in advancing its technologies and design geometries, and our reliability test products benefited from that investment and generated revenue in 2011 substantially at the same level as 2010, and well ahead of 2008 and 2009 levels.

Analysts of the semiconductor industry are forecasting 2012 semiconductor sales to be between a low single digit decline to a mid single digit growth over 2011. Accordingly, we are preparing for the possibility of less than robust industry conditions in 2012. However, we believe that our line of product offerings, including our newest product introductions, coupled with our lean cost structure and our solid working capital base, places us in a strong position to outperform our industry segment when and as conditions improve.

Our strategy has focused on revenue growth through product line expansion, by both internal product development and acquisition of complementary technologies, businesses or product lines. We have made no acquisitions in recent years, and technologies, businesses and product lines that we have acquired in the past pursuant to this strategy have since been assimilated and consolidated into our current operations.

We were incorporated in Minnesota in December 1982. Our executive offices are located at 2350 Helen Street, North St. Paul, Minnesota 55109. Our telephone number is (651) 770-2000. Our website address is www.aetrium.com. We make available free of charge through our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and all amendments to those reports, as soon as is reasonably practicable after such material is electronically filed with or furnished to the Securities and Exchange Commission. Our website is not intended to be a part of, nor are we incorporating it by reference into, this Annual Report on Form 10-K.

Test Handler Products

Test handlers are electromechanical systems interfaced with a tester to form a test system designed to handle, thermally condition, contact and sort ICs automatically during the final test stage of the manufacturing process. ICs are loaded into the test handler from bowls, tubes, trays or strips and then, if required, transported to a temperature chamber or other temperature conditioning mechanism within the test handler where they are thermally conditioned to the required testing temperature. The ICs are then inserted into or otherwise connected to a contactor, which provides an electrical connection between the IC and the tester. After testing, the test handler may sort the ICs according to test performance as provided by the tester. In some cases, additional process steps are completed by the test handler system. These include marking or inspection of the IC packages and automatic placement of the ICs into a tube, tray or tape for shipment to the end user. Test handlers must meet industry criteria for thermal conditioning, contactor integrity and minimization of damage to the IC during the test handling cycle.

ICs are multi-function semiconductor devices that may contain millions of individual transistors, and include microprocessors, digital signal processors, and analog and memory devices. ICs come in a wide range of sizes and package types, depending upon their application.

In the testing of ICs, the device package type being tested often dictates the type of test handler used. Small outline packages, or SOPs, constituting the largest IC package segment, have leads, or electrical contacts, extending from two sides and are typically tested with gravity feed test handlers. Micro leadless packages, or MLPs (and sometimes referred to as DFNs or QFNs), have electrical contact pads flush with the sides and bottoms of the ICs. MLPs are typically tested with gravity feed test handlers, particularly for analog and linear applications, but may also be tested with prober, turret based or pick-and-place test handlers. MLPs constitute one of the fastest growing new IC package types.

More complex ICs are typically packaged in IC package families with leads more easily damaged in handling, and are not typically tested with gravity feed test handlers.

Our current test handler product lines are all gravity feed test handlers. Analog devices constitute almost half of all ICs produced, and because of their relatively small size and low lead count are typically packaged as SOPs and MLPs, and thus typically tested on gravity feed handlers. Accordingly, manufacturers of analog devices are a primary target set for our test handlers.

Gravity Feed Test Handlers

Traditionally, test handlers have used gravity to move ICs from tubes or trays through the handler system and back into tubes or trays. Typically, in gravity feed systems ICs are halted at necessary points in the handling process by stopping against other ICs or singulation mechanisms, which can result in lead damage to IC packages with more fragile leads. Accordingly, gravity feed handlers are best suited for leadless packages and IC packages with more rugged leads, which include MLPs and most SOPs.

Our gravity feed test handlers compete most favorably in high-volume applications and their high throughput rates are an added advantage in relatively short test time applications. These handlers adapt to

third party contactors, as well as our internally developed proprietary contactors, providing cost-effective solutions to a wide range of customer test requirements. Our gravity feed test handlers can heat or cool the ICs being tested to test temperatures ranging from -55 degrees Celsius to +155 degrees Celsius. They use our proprietary mechanical refrigeration system to cool ICs, which is more economical and less dangerous than liquid nitrogen, commonly used as a refrigerant in competing handlers.

Our V_{MAX} Series is our newest line of gravity feed test handlers, introduced in 2010. The principal advance of the V_{MAX} Series over our other gravity feed test handler lines and our competition is a significant improvement in up time and equipment efficiency. The V_{MAX} Series focuses on analog and logic IC applications and addresses a wide range of IC packages, including SOPs and MLPs. The V_{MAX} Series offers a small footprint, a vertical backplane that can accommodate nearly any size of test head, and our high speed test site actuator that we believe offers significant throughput advantages over our competition, depending upon device test times and thermal conditioning requirements. We offer the V_{MAX} Series in two, four and eight test site configurations.

Our V_{MAX} test handler has been in evaluation at one of our largest customers since the second half of 2010. That customer is transitioning from four site to eight site testing and is evaluating our handler and two competing handlers across a broad range of applications. We believe our handler performed very well in the evaluations, and we received our first orders for the V_{MAX} test handler from that customer in the first quarter of 2011. However, the customer has not required additional gravity feed test handlers since spring 2011 nor indicated its preference of suppliers when and as its demand for additional gravity feed test handlers resumes. Our V_{MAX} test handler is currently in evaluation at another top analog manufacturer, and we expect to undertake additional evaluations of our V_{MAX} test handler at other key customer and potential customer sites during the course of 2012.

Our 55V Series is our other principal line of gravity feed test handlers. The 55V Series focuses on the same IC applications, addresses the same wide range of IC packages, and offers the same small footprint, vertical backplane and high speed test site actuator as our V_{MAX} Series. We offer the 55V Series in one, two, four and eight test site configurations.

Each of our V_{MAX} Series and 55V Series multi-site test handlers can simultaneously test devices in each of their sites to increase productivity and reduce testing costs in certain applications.

Change Kits and Spare Parts

We have an ongoing demand for IC package change kits for our installed test handler products, including test handlers no longer in our active product lines. Change kits consist of the parts necessary to reconfigure a test handler for another type or size of device package. We sell a variety of change kits to accommodate the growing variety of device packages used in the semiconductor industry. The demand for change kits is primarily driven by the introduction of new IC package types and increased production volumes experienced by our end customers. We sell spare parts with new equipment orders as kits or separately as piece parts or in kit form as required.

Reliability Test Equipment

The IC industry's demand for higher performance devices through advanced circuit geometries has led to significant technological changes in the materials and processes used to manufacture ICs, including a continuing migration to copper materials for the increasingly minute circuitry of devices, now down to 22 nanometers in line width. These changes in technology and advances in design geometries, along with IC user demand for increased reliability, have created a need for increasingly sophisticated reliability testing of IC designs and manufacturing processes.

In 1998, we introduced our 1164 Series of reliability test equipment, including a suite of applications for customers to perform a variety of tests. We have since added many new features, including the full reliability test functionality necessary for testing an IC manufacturer's entire copper process and the latest generations of gate oxides. Our most recent new product expansions target the most advanced wafer technologies, including copper interconnects as small as 14nm, new 3D interconnects such as solder bumps and thru-silicon vias (TSV) used for flip-chip die-stacking, and high-k metal gate (HKMG) devices.

The 1164 Series utilizes a modular and highly-parallel framework that can be flexibly configured to provide a variety of different temperature chambers, test device fixtures, and electronics modules comprised of multiple types of source-measurement circuitry. Sophisticated software directs these components to execute user-defined test algorithms on sample devices that are created specifically to exemplify certain IC failure modes. The system collects detailed real-time measurements on these sample devices, while stressing them with precise levels of temperature, current, and/or voltage until they exhibit the desired failure mechanisms. The most common of these tests are known as electromigration (EM), time-dependent dielectric breakdown (TDDB), hot carrier injection (HCI), and bias temperature instability (BTI). The 1164 Series supports these tests along with several others. Test samples might be packaged for testing in the 1164's temperature chambers, or tested directly on the wafer utilizing third-party wafer-probing equipment. The resultant test data is fed into industry mathematical extrapolation models in order to predict IC lifetime performance.

All of the five largest semiconductor manufacturers in the world, as well as most of the remaining top 20, use our 1164 Series for evaluating advanced process technologies.

Competition

The semiconductor capital equipment market is highly competitive. In the market for test handler products, we compete with a number of companies ranging from very small businesses to large companies, some of which have substantially greater financial, manufacturing, marketing and product development resources than we have. Some of these companies manufacture and sell both testers and test handlers. The particular companies with which we compete vary with our different test handler products, with no one company dominating the overall test handler market. The companies with which we compete most directly in the test handler market include Multitest Electronic Systems GmbH (a Dover Corporation company), Rasco (a division of Coahu, Inc.) and Yokogawa (a division of TESEC Corporation).

We compete for test handler sales primarily on the basis of effective handler throughput, cost of ownership, temperature accuracy and other performance characteristics of our products, price, delivery, the breadth of our product lines, the effectiveness of our sales and distribution channels, the effectiveness of our post-sale support and our customer relationships. We believe we compete favorably on all of these factors.

The market for our reliability test equipment is also highly competitive and our competitors include QualiTau, Ltd., Chiron Technology Pte. Ltd., ESPEC Corp. and Reedholm Instruments Co. We

compete for reliability test system sales on the basis of test throughput, measurement sensitivity, system flexibility, price and overall system performance. We believe we compete favorably on all of these factors.

Manufacturing and Supplies

Our manufacturing operations consist of procurement and inspection of components and subassemblies, assembly and extensive testing of finished products.

We emphasize quality and reliability in both the design and manufacture of our products. We or our suppliers inspect all components and subassemblies for mechanical and electrical compliance to our specifications. We test all finished products against our specifications, and customer specifications where applicable, and fully assembled test handler products are tested at all temperatures for which they are designed and with all the IC packages to be accommodated.

A significant portion of the components and subassemblies used in our products, including machined parts, printed circuit boards, refrigeration systems, vacuum pumps and contactor elements, are manufactured by third parties on a subcontract basis. As a part of our total quality management program, we have an ongoing supplier quality program under which we select, monitor and rate our suppliers, and recognize suppliers for outstanding performance.

Certain components used in our products, including certain contactor components, printed circuit boards and refrigeration systems, are currently available from only a limited number of sources. We do not maintain long-term supply agreements with most of our suppliers, and we purchase most of our components through individual purchase orders. We may not always be able to replace all of our suppliers within a time period consistent with our business requirements. We attempt to keep an adequate supply of critical components in our inventory to minimize any significant impact the loss of a supplier may cause.

Customers

We rely on a limited number of customers for a substantial percentage of our net sales. In 2011, our top four customers accounted for 24%, 16%, 12%, and 11% of our net sales, respectively. In 2010, our top three customers accounted for 38%, 23% and 11% of our net sales, respectively. The loss of or a significant reduction in orders by these or other significant customers, including reductions due to market, economic or competitive factors in the semiconductor industry, would likely have a negative impact on our financial condition and results of operations.

Sales and Marketing

We market our products through a combination of direct salespeople, independent sales representatives and international distributors. Our direct sales organization is responsible for most domestic sales, and coordinates the activities of our independent sales representatives and international distributors and actively participates with them in selling efforts. This enables us to establish strong direct ties with our customers.

We maintain sales and service locations in North St. Paul, Minnesota, and Kuala Lumpur, Malaysia. As of December 31, 2011, we had domestic independent sales representatives located in New Hampshire and California, and international independent sales representatives or distributors located in the United Kingdom, France, Germany, Italy, Republic of Korea, Japan, Taiwan, China, Thailand, Malaysia, Singapore and the Philippines.

Our marketing efforts include participation in industry trade shows and production of product literature and sales support tools. These efforts are designed to generate sales leads for our independent sales representatives, international distributors and direct salespeople.

International shipments accounted for 68% and 88% of our net sales in 2011 and 2010, respectively. In addition, it is not uncommon for U.S. customers to take delivery of products in the United States for subsequent shipment to international sites.

We invoice all of our international sales in U.S. dollars and, accordingly, have not historically been subject to fluctuating currency exchange rates. We establish credit limits, if appropriate, on our international distributors, who purchase products from us and resell to end-users. We may also require irrevocable letters of credit from our end-user international customers to minimize credit risk and to simplify the purchasing/payment cycle.

Research and Development

We believe we must continue to enhance, broaden and modify our existing product lines to meet the constantly evolving needs of the semiconductor equipment market. To date, we have relied both on internal development and acquisitions of technology and product lines to extend our product lines, increase our customer base and avoid reliance on any single semiconductor equipment market segment. We focus our new product development efforts on what we believe to be the most compelling requirements in the largest and fastest growing segments of the IC side of the semiconductor industry, with emphasis on near term revenue potential.

Product development expenses include new product development and continuation engineering. Our continuation engineering efforts include the development of additional change kits to meet the expanding families of IC package types, further advancement of contactor technologies, and the addition of features and performance options for existing equipment.

In 2011 and 2010, our expenses relating to research and development were approximately \$2.5 million and \$3.0 million, respectively, or 28% and 19% of our net sales, respectively. Over time, our objective is to invest approximately 12% to 15% of our net sales in research and development. However, the percentage may be higher in periods of relatively low sales, as was the case in 2011 and 2010.

Intellectual Property

We attempt to protect the proprietary aspects of our products with patents, copyrights, trade secret law and internal nondisclosure safeguards. We currently hold U.S. patents ranging in remaining terms from one to seven years covering certain features of our handling systems and reliability test systems, the contactor elements incorporated in certain of our test handlers, and elements of our proprietary conductive thermal technology. The source code for the software contained in our products is considered proprietary, and we typically do not furnish source code to our customers. We have also entered into confidentiality agreements with our employees. Despite these restrictions, it may be possible for competitors or users to copy aspects of our products or to obtain information that we regard as a trade secret.

There is a rapid pace of technological change in the semiconductor industry, which in turn compels us to continually enhance and extend our product lines. We believe that patent, trade secret and copyright protection is less significant to our competitive position than factors such as the knowledge, ability and experience of our personnel, new product development, frequent product enhancements, name recognition and ongoing, reliable product maintenance and support.

Employees

As of December 31, 2011, we had 59 employees, one of whom was part-time. They consisted of 22 in manufacturing, 16 in engineering and product development, 14 in sales, marketing and customer service, and 7 in general administration and finance. In January 2012, as a part of our expense reduction measures taken to address current semiconductor industry conditions, we reduced our workforce to 43 with 15 in manufacturing, 12 in engineering and product development, 10 in sales, marketing and customer service, and 6 in general administration and finance. None of our employees are represented by a labor union or are subject to any collective bargaining agreement. We have never experienced a work stoppage, and we believe that our employee relations are satisfactory.

ITEM 1A. RISK FACTORS.

Several important risks and uncertainties exist that could have an impact on our future operating results. These factors could cause our actual results to differ materially from our anticipated results or results that are reflected in any forward-looking statements in this Annual Report on Form 10-K. These factors, and their impact on the success of our operations and our ability to achieve our goals, include the following:

Market Fluctuations in the Semiconductor Industry

Our business and results of operations depend upon capital expenditures by manufacturers of ICs. As a result, our operating results are materially dependent upon economic and business conditions in the semiconductor industry. This industry has been subject to significant market fluctuations and has experienced periodic downturns that often have had a disproportionate effect on capital equipment suppliers, such as Aetrium. In periods of excess capacity, the semiconductor industry sharply reduces purchases of capital equipment, such as our products. The worldwide financial collapse that became apparent by the end of the third quarter of 2008 resulted in an unprecedented downturn in the semiconductor industry and in the semiconductor equipment industry. Since then there has been a slow, uneven and hesitant recovery, but there can be no assurance that this trend will continue and result in self-sustaining levels of revenues for the company.

Successful Development and Introduction of New Products and Product Improvements

We operate in an industry that is highly competitive with respect to timely product innovations. The market for our products is characterized by rapid technological change and evolving industry standards. The development of more complex ICs has driven the need for new equipment and processes to produce such devices at an acceptable cost. We believe that our future success will depend in part upon our ability to anticipate and respond rapidly to changes in technologies, IC package types, market trends and industry standards. If we cannot successfully develop and introduce new and enhanced cost-effective products on a timely basis that are accepted in the marketplace, our business and operating results will likely suffer. In addition, changes in market trends, technologies and industry standards and new product introductions may render our existing products less marketable or obsolete, which could result in reduced prices for our existing products or inventory write-downs that could have a material adverse impact on our gross margins and operating results.

Reliance on Significant Customers

We rely on a limited number of customers for a substantial percentage of our net sales. A reduction, delay or cancellation of orders from one or more of these significant customers, or the loss of one or more of these customers, would likely have a negative impact on our operating results. Our new V_{MAX} test handler is currently in evaluation at one of our largest customers together with two competing test handlers. The customer is transitioning to eight site gravity feed test handlers. While we believe our test handler performed very well in the evaluations, the customer has not required additional gravity feed test handlers since spring 2011 nor indicated its preference of suppliers when and as its demand for additional gravity feed test handlers resumes. There can be no assurance that we will be successful in maintaining our position with this customer.

Impact of Competitive Markets

The markets for our main product lines are highly competitive. Some of our competitors have substantially greater financial, manufacturing, marketing and product development resources than we have. For most of our customers, we are not the sole supplier of our type of equipment. In addition, it is common for customers to evaluate more than one supplier's equipment for their emerging requirements, which is the case with the ongoing evaluation of our V_{MAX} test handler at one of our largest customers. Accordingly, we are at significant risk to lose orders to competing suppliers, and even to being displaced as a supplier to potentially significant customers, which would likely have a negative impact on our operating results.

Fixed Cost Constraints on Reduction of Expenses

Many of our expenses, particularly those relating to properties, capital equipment and certain manufacturing overhead items, are fixed in the short term. Reduced demand for our products and services causes our fixed production costs to be allocated across reduced production volumes, which negatively affects our gross margins and profitability. Our ability to reduce expenses is further constrained because we must continue to invest in research and development to maintain our competitive position and to maintain service and support for our existing customer base. Accordingly, in the event of a reduction in our revenues, resulting from an industry slowdown as occurred in fourth quarter of 2011 or otherwise, we may not be able to maintain profitable operations.

Impact of Cost Reduction Actions

In the event of a sustained downturn and continuing decline in our revenues, we may implement cost reduction actions, such as workforce reductions, pay freezes and reductions, and reductions in other expenditures. In fact we have reduced our workforce by 38% since September 2011 in response to the current downturn in the semiconductor industry. In doing so, we attempted to maintain the necessary infrastructures to allow us to take full advantage of subsequent improvements in conditions. However, there can be no assurance that reductions we have made or may make in personnel and expenditure levels and the loss of the capabilities of personnel we have terminated or may terminate would not inhibit us in the timely completion of product development efforts, the effective service of and responsiveness to customer requirements, and the timely ramp up of production in response to improving market conditions.

Listing Requirements of the NASDAQ Stock Market

To maintain our listing on the NASDAQ Stock Market we must satisfy certain minimum financial and other continued listing standards, including a \$1.00 per share minimum bid price. On December 15, 2011, the NASDAQ notified us that we no longer comply with the minimum bid price rule. We have at least until June 12, 2012, to regain compliance with the minimum bid price rule, and if we meet certain requirements, we may be granted an additional 180 day period to comply. If we do not

regain compliance with the minimum bid price rule in the requisite time period, then NASDAQ will notify us that our common stock will be delisted. At that time, the Company may appeal NASDAQ's determination.

A de-listing would likely have a negative effect on the price of our common stock and would impair your ability to sell or purchase our common stock when you wish to do so. In the event of a de-listing, we would take actions to restore our compliance with NASDAQ's listing requirements, but we can provide no assurance that any such action taken by us would allow our common stock to become listed again, stabilize the market price or improve the liquidity of our common stock, prevent our common stock from dropping below the NASDAQ minimum bid price requirement or prevent future non-compliance with NASDAQ's listing requirements.

Credit Line Agreement

Our revolving credit line agreement with a bank provides for borrowings up to \$2.0 million with advances under the agreement at the sole discretion of the bank. The agreement expires on March 31, 2012 and we do not have a commitment from the bank to extend it. We are having ongoing discussions with the bank regarding this agreement. However, there can be no assurance that the agreement will be renewed with terms favorable to us or at all or that funds will be available to us under the existing or any subsequent agreement. If we are unable to access funds under the existing or renewed agreement, or if we are unable to renew our credit line agreement on terms as favorable as those in our existing agreement, our costs of borrowing and our business may be adversely affected.

Experienced and Qualified Senior Management Team

Our success will continue to depend to a significant extent on our executive management team and the ability of other key management personnel to replace executives who retire or resign. Mr. Levesque has returned from retirement to the positions of president and chief executive officer on an interim basis until a new chief executive officer is appointed. We may not be able to retain Mr. Levesque for as long as it may require to select a new chief executive officer and we may not be able to retain our other executive officers and key personnel or attract additional qualified management personnel to replace executives who retire or resign. Failure to retain our leadership team and attract and retain new leadership and other important personnel could lead to ineffective management and operations, which could materially and adversely affect our business and operating results.

Risk Potential of Future Acquisitions

We have in the past and may in the future pursue acquisitions of complementary technologies, product lines or businesses. In addition to the risks associated with any such business that may be acquired, future acquisitions may result in potentially dilutive issuances of equity securities, the use of our cash or incurrence of debt that may reduce our ability to meet future capital expenditure and working capital requirements, the incurrence of amortization expense and/or valuation adjustments associated with goodwill and intangible assets that would reduce our profitability, difficulties in the assimilation of the operations and products of the acquired business, and diversion of management's attention from other business concerns.

Reduction in the Sales Efforts by our Current Distributors

We market and sell our test handlers and reliability test products outside of the United States primarily through international distributors that are not under our direct control. We have limited internal sales personnel. A reduction in the sales efforts by our current distributors, or the termination of one or more of these relationships with us, could negatively affect our operating results.

Risks Inherent in our International Sales

We expect that international sales will continue to account for a significant portion of our net sales. As a result, our operations are subject to a number of risks inherent in conducting business internationally, which if any of them develops could negatively impact our operating results.

Supply of Significant Components for our Products

Certain significant components used in our products, including certain contactor components, printed circuit boards and refrigeration systems, are currently available only from sole or limited sources. We do not maintain long-term supply agreements with most of our suppliers, and we purchase most of our components through individual purchase orders. Our inability to obtain components in required quantities or of acceptable quality could result in delays or reductions in our product introductions or shipments, which could damage our relationships with our customers and cause our operating results to suffer.

ITEM 2. PROPERTIES.

We conduct our corporate functions and manufacturing, product development, sales, marketing and field service activities in North St. Paul, Minnesota. We currently occupy approximately 45,000 square feet in North St. Paul under a lease that expires in August 2015, at which time we have an option to extend the lease for an additional five-year term. We consider our present facilities to be sufficient for our current operations.

ITEM 3. LEGAL PROCEEDINGS.

We are not a party to, and none of our property is the subject of, any material pending legal, governmental, administrative or other proceedings.

ITEM 4. MINE SAFETY DISCLOSURES.

Not applicable.

ITEM 4A. EXECUTIVE OFFICERS OF THE REGISTRANT.

Our executive officers, their ages and the offices they held as of March 1, 2012 are as follows:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Joseph C. Levesque	67	President, Chief Executive Officer and Chairman
Douglas L. Hemer	65	Chief Administrative Officer, Secretary and Director
Paul H. Askegaard	60	Treasurer
Timothy G. Foley	52	Vice President and General Manager— Test Handler Products
Timothy A. McMullen	44	Vice President and General Manager— Reliability Test Systems
Gary A. Quasabart	52	Vice President — Worldwide Sales

Mr. Levesque has served as president, chief executive officer and chairman of our board since 1986 except that Mr. Levesque stepped down as president in October 2009 and resumed the position in November 2011, and he retired as chief executive officer in December 2010 and resumed the position in November 2011. From 1973 to 1986, Mr. Levesque served in various capacities and most recently as executive vice president of Micro Component Technology, Inc., a manufacturer of integrated circuit testers and test handlers.

Mr. Hemer has served as one of our directors since 1986, and has served as our secretary since May 2000 and as our chief administrative officer since March 2001. He served as our group vice president from August 1998 to March 2001, as the president of our former Poway, California operations from February 1997 to August 1998 and as our chief administrative officer from May 1996 until February 1997. Mr. Hemer was a partner in the law firm of Oppenheimer Wolff & Donnelly LLP for more than 15 years before joining Aetrium in May 1996.

Mr. Askegaard has served as our treasurer since February 1992. From October 1986 to February 1992, Mr. Askegaard served as our corporate controller.

Mr. Foley has served as our vice president and general manager – test handler products since January 2012. Prior to that he served at our North St. Paul operations as our vice president – manufacturing from December 2001 to January 2012, as vice president – operations from August 1998 to December 2001, as vice president – manufacturing from October 1996 to August 1998, and in various other positions since joining us in 1988.

Mr. McMullen has served as our vice president and general manager – reliability test systems since January 2012. Prior to that, he served at our North St. Paul operations as vice president – reliability test systems from April 2007 to January 2012, as vice president – marketing/applications from February 2002 until April 2007, as product director of our reliability test equipment from March 2000 until February 2002, and as an electrical engineer since joining us in 1994.

Mr. Quasabart has served as our vice president - worldwide sales since August 2010. In March 2011, his responsibilities were expanded to include customer service activities. From July 1994 to August 2010, Mr. Quasabart served in various sales positions at the company and most recently as director of sales.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is quoted on The Nasdaq Global Market under the symbol "ATRM." The following table summarizes the high and low closing sale prices per share of our common stock for the periods indicated, as reported on The Nasdaq Global Market. These prices do not include adjustments for retail mark-ups, markdowns or commissions.

		<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
Fiscal 2011	High	\$ 2.19	\$ 1.98	\$ 1.82	\$ 1.26
	Low	\$ 1.60	\$ 1.56	\$ 1.10	\$ 0.60
Fiscal 2010	High	\$ 3.35	\$ 3.75	\$ 3.25	\$ 2.70
	Low	\$ 2.36	\$ 2.40	\$ 2.19	\$ 1.65

Holdings

As of March 15, 2012, there were 109 shareholders of record. We estimate that an additional 2,400 shareholders beneficially own stock held for their accounts at brokerage firms and financial institutions.

Dividends

We have never paid cash dividends on our common stock. We currently intend to retain any earnings for use in our operations and do not anticipate paying cash dividends in the foreseeable future.

Recent Sale of Unregistered Securities

We did not have any unregistered sales of equity securities during fiscal year 2011.

Issuer's Purchases of Equity Securities

We did not make any purchases of our common stock during the fourth quarter of fiscal 2011.

ITEM 6. SELECTED FINANCIAL DATA

As a Smaller Reporting Company as defined by Rule 12b-2 of the Exchange Act and in Item 10(f)(1) of Regulation S-K, we are electing scaled disclosure reporting obligations and therefore are not required to provide the information requested by this Item.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview:

Aetrium designs, manufactures and markets a variety of electromechanical equipment used in the handling and testing of integrated circuits, or ICs, which constitute the highest revenue component of the semiconductor industry. Our primary focus is on high volume ICs, the latest IC package designs, and ICs using advanced geometry designs. Our test handler products are purchased primarily by semiconductor manufacturers and their assembly and test subcontractors and are used in the test, assembly and packaging, or TAP, segment of semiconductor manufacturing. Our reliability test products are used to validate IC designs and evaluate and improve semiconductor wafer fabrication processes, and are used in advanced reliability test labs at wafer manufacturing sites. Our products automate critical functions to improve manufacturing yield, raise quality levels, increase product reliability and reduce manufacturing costs.

Demand for Aetrium's test handler products is driven primarily by worldwide demand for ICs, which in turn depends on end-user demand for electronic products. Demand for Aetrium's reliability test products is less sensitive to fluctuations in IC demand and is driven more by technological change in IC design and manufacturing processes. The demand for our products can fluctuate significantly from period to period due to the direct or indirect impact of numerous factors, including but not limited to changes in the supply and demand for ICs, changes in IC manufacturing capacity, advancements in industry technologies, changes in U.S. and worldwide economic conditions and competitive factors.

The worldwide financial crisis and economic recession that began to unfold in 2008 led to a significant decrease in the sales of electronic products and one of the most severe downturns ever in our industry. In mid-2009, general economic conditions began to improve and the semiconductor industry began to recover as the demand for ICs increased. However, the semiconductor industry operated at less than full capacity throughout 2009, and revenues of the TAP segment of our industry in general, and from our test handlers in particular, suffered accordingly.

Industry conditions continued to improve in 2010 and many IC manufacturers expanded their production capacity. Aetrium's results generally followed the improving trend of our industry segment. In the first nine months of 2010, our net sales increased substantially over the prior year. However, our net sales decreased significantly in the fourth quarter of 2010 due in part to a general slowdown in the semiconductor industry and also due to significantly lower sales to one of our largest customers. This customer, in addition to being impacted by the industry slowdown, was transitioning from four site testing to eight site testing, and we believe its extended eight site test handler evaluations in the fourth quarter of 2010 resulted in delayed orders from that customer. As a result of these factors, our net sales decreased to \$1.7 million in the fourth quarter of 2010. Despite the sharp drop-off in sales in the fourth quarter, net sales for fiscal year 2010 totaled \$16.3 million compared with \$8.6 million in 2009, an increase of 88%.

In 2011, worldwide economic uncertainty contributed to relatively flat and inconsistent business conditions in the semiconductor industry. Many manufacturers operated at less than full capacity throughout the year, and our sales of test handlers were adversely impacted by this industry weakness. Although the customer referenced above purchased some initial units of our new V_{MAX} eight-site test handler and related equipment in the first half of 2011, it made no further purchases of gravity feed test handlers during the remainder of 2011. Accordingly, our net sales increased sequentially to \$1.9 million and \$3.3 million in the first and second quarters of 2011, respectively. However, as business conditions in the semiconductor industry weakened further in the second half of the year, our net sales decreased to

\$1.5 million in the third quarter of 2011. Our fourth quarter net sales increased to \$2.4 million due to strong sales of our reliability test equipment products, driven by advanced IC design geometries notwithstanding weakened semiconductor demand and idle production capacity. Net sales for fiscal year 2011 totaled \$9.0 million compared with \$16.3 million in 2010, a decrease of 45%.

Semiconductor industry analyst forecasts for fiscal year 2012 are mixed. We believe that semiconductor equipment industry conditions are likely to remain weak in the first six months of the year and that production capacity utilization rates in the semiconductor industry may not improve to levels that will drive meaningful increases in purchases of production-based equipment until at least mid-year. A worsening or prolonged continuation of the slowdown in our industry would likely adversely impact the demand for and prices of our products, and in particular our test handler products, and adversely affect our future operating results and cash flows.

Results of Operations:

Selected statement of operations data as a percentage of our net sales for 2011 and 2010 were as follows:

	2011	2010
Net sales	100.0%	100.0%
Cost of goods sold	68.9	57.9
Gross profit	31.1	42.1
Operating expenses:		
Selling, general and administrative	56.6	36.0
Research and development	27.6	18.6
Total operating expenses	84.2	54.6
Loss from operations	(53.1)%	(12.5)%

Net Sales:

Our net sales by product line and as a percentage of total sales for 2011 and 2010 were as follows (dollars in thousands):

	2011		2010	
Test handler products	\$ 2,518	28%	\$ 9,971	61%
Reliability test equipment products	3,559	39	3,519	22
Change kits and spare parts	2,932	33	2,768	17
Total	\$ 9,009	100%	\$ 16,258	100%

Net sales were \$9.0 million in 2011 compared with \$16.3 million in 2010, a 45% decrease. The decrease was attributable to significantly lower sales of test handlers resulting from inconsistent and generally weak industry conditions. Sales of test handlers were \$2.5 million in 2011 compared with \$10.0 million in 2010, a decrease of 75%. Sales of reliability test equipment products were \$3.6 million in 2011, a slight increase over the \$3.5 million recorded in 2010. Sales of change kits and spare parts were \$2.9 million in 2011 compared with \$2.8 million in 2010, an increase of 6%. Sales of our reliability test equipment products were less impacted by the industry weakness as the demand for these products is driven more by technology factors and is less influenced by semiconductor production capacity. We believe sales of change kits and spare parts were less impacted by the industry slowdown because some customers continued to purchase these items to optimize the utilization of existing equipment rather than purchase new equipment, or purchased additional change kits with new equipment orders.

Gross Profit:

Aetrium's gross profit as a percentage of net sales can fluctuate based on a number of factors, including but not limited to the mix of products sold, distribution channel mix, price discounting, product maturity, inventory write downs, and the utilization of manufacturing capacity associated with varying production levels. Gross profit was 31.1% of net sales in 2011 compared with 42.1% in 2010. Our gross margin decreased in 2011 primarily due to inefficiencies associated with significantly lower production and net sales levels and due to higher charges for excess and obsolete inventories, partially offset by a more favorable product mix. In the third quarter of 2011, due to general economic uncertainties and weakening business conditions in the semiconductor industry that we believed would continue into 2012, we reviewed the potential impact of the slowdown on our sales forecasts and on our ability to fully realize our inventories. We determined that the potential to realize the full value of our inventories for certain of our older gravity test handler products had been reduced. Accordingly, we recorded a charge for excess and obsolete inventories of \$1.1 million, which represented 12.6% of 2011 net sales. In fiscal year 2010, we recorded charges for excess and obsolete inventories of \$0.4 million, which represented 2.6% of 2010 net sales. The charges in 2010 resulted primarily from product design changes and anticipated changes in future product sales mix in favor of newer products. Test handlers, which are generally lower margin sales than reliability test equipment and spare parts/change kits, represented 28% of total net sales in 2011 compared with 61% in 2010. Reliability test equipment sales represented 39% of total net sales in 2011 compared with 22% in 2010 and spares/change kit sales represented 33% of total net sales in 2011 compared with 17% in 2010. The mix of discounted sales to distributors was comparable in 2011 and 2010, representing 34% and 29% of total net sales, respectively.

Selling, General and Administrative Expenses:

Selling, general and administrative, or SG&A, expenses consist primarily of employee compensation and related costs, sales commissions and travel costs. SG&A expenses were \$5.1 million in 2011 compared with \$5.9 million in 2010, a decrease of 13%. Commissions expense decreased \$0.4 million in 2011 due to significantly lower net sales. Deferred compensation expense decreased \$0.6 million in 2011 as SG&A expenses in 2010 included a charge of \$0.6 million related to retirement benefits approved for our then chief executive officer and our current chief administrative officer. Employee compensation decreased \$0.4 million in 2011 primarily due to organizational changes and a workforce reduction and officer salary reductions implemented in September 2011. These expense decreases were partially offset by severance charges of \$0.3 million recorded in 2011 and a \$0.1 million increase in demonstration costs related to evaluations of our newer equipment products at existing and potential customer sites. In addition, SG&A expenses in 2010 included a credit of \$0.2 million related to the settlement of a legal dispute with a former subtenant with no comparable credit in 2011. See notes 4 and 6 to our consolidated financial statements for more information related to severance charges, the retirement benefits charge and the legal settlement credit.

Research and Development Expenses:

Research and development expenses were \$2.5 million in 2011 compared with \$3.0 million in 2010, a decrease of 18%. Contract engineering services and materials costs decreased \$0.6 million and \$0.2 million, respectively. These expense decreases were partially offset by a \$0.2 million increase in employee compensation and a \$0.1 million severance charge related to a workforce reduction implemented in September 2011. Research and development expenses represented 27.6% of total net sales in 2011 compared with 18.6% of total net sales in 2010. New product development is an essential part of our strategy to gain market share. Over time, we expect to invest approximately 12% to 15% of our revenues in research and development, although we may exceed this range in periods of relatively low revenues, as was the case in 2011 and 2010.

Interest Income:

Interest income amounted to approximately \$34,000 and \$71,000 in 2011 and 2010, respectively. These amounts consisted primarily of interest income from the investment of excess funds. The decrease in interest income in 2011 resulted primarily from lower average invested cash balances.

Income Tax Benefit:

We recorded no income tax benefit or expense in fiscal year 2011. Since 2009, we have maintained a valuation allowance to fully reserve our deferred tax assets. We expect to continue to maintain a full valuation allowance until we determine that we can sustain a level of profitability that demonstrates our ability to realize these assets. To the extent we determine that the realization of some or all of these benefits is more likely than not based upon expected future taxable income, a portion or all of the valuation allowance will be reversed. Such a reversal would be recorded as an income tax benefit and, for some portion related to deductions for stock option exercises, an increase in shareholders' equity. We recorded an income tax benefit of \$57,000 in 2010 related to a carryback claim filed in 2010 for a refund of federal alternative minimum taxes paid in prior years.

Financial Condition, Liquidity and Capital Resources:

Cash and cash equivalents decreased by approximately \$5.0 million in the year ended December 31, 2011 to approximately \$5.0 million. We used \$5.0 million of cash to fund operating activities during the year, including our net loss of \$4.7 million and \$1.7 million in working capital changes, partially offset by \$1.5 million in non-cash expenses. Non-cash expenses included a \$1.1 million charge for excess and obsolete inventories, depreciation expense of \$0.1 million and share-based compensation expense of \$0.3 million. Working capital changes using cash consisted primarily of a \$0.5 million increase in accounts receivable and a \$1.5 million increase in inventories, partially offset by a \$0.3 million increase in accrued severance costs. Accounts receivable increased due to an increase in net sales in the fourth quarter of 2011 compared with the fourth quarter of 2010, and the timing of collections. The increase in inventories resulted from an increase in inventories related to our new V_{MAX} eight-site test handler to meet anticipated sales demand and evaluation unit requirements for potential new accounts. Net cash flows from investing and financing activities were not significant in fiscal year 2011.

Cash and cash equivalents increased by approximately \$0.6 million in the year ended December 31, 2010 to approximately \$10.0 million. We generated \$0.2 million of cash from operating activities, which included our net loss of \$1.9 million, offset by \$1.0 million in non-cash expenses and \$1.2 million in working capital changes. Non-cash expenses included depreciation expense of \$0.1 million, share-based compensation expense of \$0.5 million, and inventory obsolescence charges of \$0.4 million. Working capital changes contributing to cash consisted primarily of a \$1.3 million decrease in accounts receivable and a \$0.3 million net increase in other accrued liabilities, partially offset by a \$0.3 million increase in inventories and a \$0.2 million decrease in accounts payable. Accounts receivable decreased due to a significant decrease in net sales in the fourth quarter of 2010 compared with the fourth quarter of 2009. The net increase in other accrued liabilities includes \$0.6 million in accrued retirement benefits partially offset by slight decreases in accrued commissions, warranty and health insurance costs. Inventories increased primarily to support customer evaluations and initial shipments anticipated for our new V_{MAX} test handler. Accounts payable decreased as we reduced expenses and inventory purchases in response to a reduction in net sales in the fourth quarter of 2010. Net cash flows from investing activities were not significant in fiscal year 2010. Net cash provided by financing activities in 2010 consisted of \$0.3 million in net proceeds from employee stock option exercises.

Historically we have supported our capital expenditure and working capital needs with cash generated from operations and our existing cash and cash equivalents. We believe our cash balance of \$5.0 million at December 31, 2011 will be sufficient to meet capital expenditure and working capital requirements for at least the next twelve months. We have a revolving credit line agreement with a bank that provides for borrowings up to \$2.0 million. Advances under the agreement are at the sole discretion of the bank. The agreement expires on March 31, 2012 and we do not have a commitment from the bank to extend it. We are having ongoing discussions with the bank regarding this agreement and we are exploring other potential sources of working capital financing as well. There can be no assurance that the existing credit line agreement will be renewed with terms favorable to us or at all, that we will obtain other financing or that funds will be available to us under any financing agreement. As discussed above, business conditions in the semiconductor industry weakened in the second half of 2011. We believe that business conditions are likely to continue to be weak in the first half of 2012. A worsening or prolonged continuation of the current slowdown in our industry would likely adversely impact the demand for and prices of our products and adversely affect our future operating results and cash flows. Also, as we continue to monitor the industry and customer needs, we may acquire other companies, product lines or technologies that are complementary to our business, and our working capital needs may change as a result of such acquisitions.

Off-Balance Sheet Arrangements:

We did not have any off-balance sheet arrangements as of December 31, 2011 or 2010.

Critical Accounting Policies and Estimates:

Management's discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions. We believe the critical accounting policies that require the most significant judgments and estimates used in the preparation of our consolidated financial statements are those related to share-based compensation, revenue recognition, accounts receivable, inventories, warranty obligations and income taxes.

Share-Based Compensation

We account for share-based compensation in accordance with the provisions of Accounting Standards Codification (ASC) 718, "Compensation – Stock Compensation," which requires the measurement and recognition of all share-based compensation using the fair value method.

We determine the fair value of share-based awards on the grant date by using the Black-Scholes option valuation model. We also use the Black-Scholes model to determine the fair value of modifications to awards by determining and comparing the fair value of the modified award with the fair value of the award immediately before the modification. Option valuation models, including Black-Scholes, require the input of subjective assumptions, and changes in the assumptions used can materially affect the calculation of the fair value of an award. These assumptions include expected stock price volatility, risk-free interest rate, expected dividend yield, and the expected life of the award. We estimate future stock price volatility based primarily on historical daily stock price observations of our common stock. Risk-free interest rate is estimated based on U.S. Treasury bill rates consistent with the expected term of an award. We assume an expected dividend yield of zero based on our intention to retain any

future earnings for use in our operations. Expected life of an award is estimated primarily based on vesting provisions, the contractual term of the award, and historical experience of previous awards with similar terms or, for situations in which historical experience is not available or is deemed unreliable, we use the simplified method for estimating the expected life of an award, as permitted by ASC 718. ASC 718 also requires that estimated forfeitures be considered in the calculation of future compensation expense at the date of grant. We use historical data, as adjusted if deemed appropriate, to estimate future option forfeiture rates for purposes of recognizing share-based compensation expense.

Revenue Recognition

We recognize revenue when there is persuasive evidence of an arrangement, the sales price is fixed or determinable, title and risk of loss have passed to the customer, delivery has occurred or service has been rendered, and collection of the related receivable is reasonably assured. Revenue on spare parts and change kits is generally recognized upon shipment. In some circumstances, revenue on equipment sales is recognized subsequent to shipment. For example, equipment sales contracts may specify that customer acceptance criteria be met. In such cases, revenue for established equipment products that have previously met a customer's acceptance criteria is generally recognized upon shipment, provided the equipment meets our final test requirements that we believe substantially demonstrate conformance to the customer's acceptance criteria. However, revenue for equipment products that are newly designed or otherwise lack a reliable history of customer acceptance is deferred until objective evidence of customer acceptance has been obtained. In situations where equipment contracts include significant post-shipment obligations to be performed by us, revenue for the entire transaction is deferred until such obligations have been completed or, if applicable, the transaction is accounted for as a multiple-element arrangement. For arrangements containing multiple elements, which may include services such as installation and/or training in addition to equipment delivery, the consideration is allocated to each element based on their relative selling prices at the inception of the arrangement and revenue is recognized for each element when the revenue recognition criteria applicable to each element have been met. Due to the nature of our products, vendor specific objective evidence and third party evidence of the selling prices of the individual elements are typically not available, so we generally estimate selling prices of the individual elements. Post-shipment obligations, if any, are typically completed within a short period following equipment delivery. Due to the high selling prices of certain types of equipment, the timing of revenue recognition of a relatively small number of transactions may have a significant impact on our reported operating results.

Accounts Receivable

We maintain an allowance for doubtful accounts that reflects our estimate of losses that may result from the uncollectability of accounts receivable. Our allowance for doubtful accounts is based on an analysis of individual accounts for which we have information indicating the customer may not be able to pay amounts owed to us. In these cases, based on the available facts and circumstances, we estimate the amount that will be collected from such customers. We also evaluate the collectability of our accounts receivable in the aggregate based on factors such as the aging of receivable amounts, customer concentrations, historical experience, and current economic trends and conditions. Individual accounts are written off against the allowance if and when the account is determined to be uncollectible. We adjust our allowance for doubtful accounts when additional information is received that impacts the amount reserved. If circumstances change, our estimates of the recoverability of accounts receivable could be reduced or increased by a material amount. Such a change in estimated recoverability would be accounted for in the period in which the facts that give rise to the change become known.

Inventories

Inventories are valued at the lower of cost or market, with cost determined on a first-in, first-out basis. We adjust our inventories for excess and obsolete items by reducing their carrying values to estimated net realizable value based upon assumptions about future product demand. We evaluate potential excess and obsolete inventory exposures by reviewing historical usage, anticipated demand based on current and projected market conditions and other factors. We also evaluate inventories for potential excess and obsolescence due to engineering design changes and the impact of new products. If actual product demand or market conditions are less favorable than those assumed, additional inventory adjustments may be required, which could have a material adverse impact on our gross margins and results of operations.

Warranty Obligations

We accrue estimated warranty costs in the period that the related revenue is recognized. Our warranty cost estimates and warranty reserve requirements are determined based upon product performance, historical warranty experience and costs incurred in addressing product performance issues. Should product performance or cost factors differ from our estimates, adjustments to our warranty accrual may be required.

Income Taxes

We record income tax expense (benefit) based on our estimate of the effective tax rates for the jurisdictions in which we do business. We record the benefit we will derive in future accounting periods from tax losses and credits and deductible temporary differences as “deferred tax assets.” If, based on all available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized, we record a valuation allowance to reduce the carrying value of our deferred tax assets to the estimated realizable amount. If the valuation allowance is increased, we record additional income tax expense in the period the valuation allowance is increased. If the valuation allowance is reduced, we record an income tax benefit. We make significant estimates and judgments in determining our income tax provision, deferred tax assets and valuation allowance recorded against our deferred tax assets. Actual results may differ significantly from those reflected in management estimates and could result in adjustments that have a material impact on our results of operations.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

As a Smaller Reporting Company as defined by Rule 12b-2 of the Exchange Act and in Item 10(f)(1) of Regulation S-K, we are electing scaled disclosure reporting obligations and therefore are not required to provide the information requested by this Item.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

The information required by this Item is included in our Consolidated Financial Statements and the report of our independent registered public accounting firm, which are included in this Annual Report on Form 10-K beginning on page F-1. The index to this report and the financial statements is included in Item 15(a)(1) below.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures:

Our chief executive officer, our chief administrative officer and our treasurer conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Securities Exchange Act Rules 13a-15(e) and 15d-15(e)). Based on their evaluation, they concluded that our disclosure controls and procedures were effective as of December 31, 2011, the end of the period covered by this annual report.

Management's Report on Internal Control over Financial Reporting:

Aetrium's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Under the supervision and with the participation of our chief executive officer, our chief administrative officer and our treasurer, our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2011.

Changes in Internal Control over Financial Reporting:

There were no changes in our internal control over financial reporting that occurred during the fourth quarter of 2011 that have materially affected, or are reasonably likely to materially affect, Aetrium's internal control over financial reporting.

Inherent Limitations of Disclosure Controls and Procedures and Internal Control over Financial Reporting:

It should be noted that any system of controls, however well designed and operated, can provide only reasonable, and not absolute, assurance that the objectives of the system will be met. In designing and operating a control system, one must consider the potential benefits of controls relative to their costs and the reality of limited resources available to allocate to control activities, particularly in smaller companies. In addition, the design of any control system is based in part upon certain assumptions about the likelihood of future events and there can be no assurance that any control will meet its objectives under all potential future conditions. Because of such inherent limitations in any control system, there can be no absolute assurance that control issues, misstatements, and/or fraud will be prevented or detected.

ITEM 9B. OTHER INFORMATION.

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

Directors of the Registrant

The information under the captions “Election of Directors —Information About Nominees” and “Election of Directors—Additional Information About the Board and Its Committees” in our 2012 Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

Executive Officers of the Registrant

The information under the caption “Item 4A. Executive Officers of the Registrant” located elsewhere in this Annual Report on Form 10-K is incorporated herein by reference.

Compliance with Section 16(a) of the Exchange Act

The information under the caption “Section 16(a) Beneficial Ownership Reporting Compliance” in our 2012 Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

Identification of Audit Committee; Audit Committee Financial Experts

The information under the caption “Audit Committee Report – Membership and Role of the Audit Committee” in our 2012 Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

Code of Ethics

The information under the caption “Code of Ethics” in our 2012 Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

ITEM 11. EXECUTIVE COMPENSATION.

The information under the captions “Election of Directors — Compensation of Non-Employee Directors” and “Executive Compensation and Other Benefits” in our 2012 Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The information under the caption “Security Ownership of Certain Beneficial Owners and Management” in our 2012 Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

Securities Authorized for Issuance under Equity Compensation Plans

The following table summarizes information about our equity compensation plans as of December 31, 2011:

EQUITY COMPENSATION PLAN INFORMATION

<u>Plan Category</u>	<u>Number of securities to be issued upon exercise of outstanding options, warrants and rights(1)</u>	<u>Weighted average exercise price of outstanding options, warrants and rights</u>	<u>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in the first column) (2)</u>
Equity compensation plans approved by security holders	1,275,640	\$2.32	880,650
Equity compensation plans not approved by security holders	None	Not applicable	None
Total	1,275,640	\$2.32	880,650

- (1) The Atrium Incorporated 2003 Stock Incentive Plan is the only equity compensation plan approved by security holders.
- (2) The number of shares available for issuance under the Atrium Incorporated 2003 Stock Incentive Plan is equal to 20% of the aggregate number of shares of our common stock outstanding less the total number of shares of common stock issuable upon the exercise or conversion of any outstanding stock options, warrants or other stock rights.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

The information under the captions “Election of Directors—Additional Information About the Board and Its Committees” in our 2012 Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.

The information concerning principal accountant fees and services and the audit committee’s pre-approval policies and procedures under the captions “Independent Registered Public Accounting Firm—Audit and Non-Audit Fees” and “Independent Registered Public Accounting Firm—Pre-approval Policies and Procedures” in our 2012 Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

(a) 1. Financial Statements of Registrant.

The following Consolidated Financial Statements of Aetrium Incorporated and the Independent Registered Public Accounting Firm's Report thereon are included herein:

<u>Description</u>	<u>Page(s)</u>
Report of Independent Registered Public Accounting Firm.....	F-1
Consolidated Financial Statements:	
Consolidated Statements of Operations.....	F-2
Consolidated Balance Sheets.....	F-3
Consolidated Statements of Changes in Shareholders' Equity	F-4
Consolidated Statements of Cash Flows	F-5
Notes to Consolidated Financial Statements.....	F-6 – F-16

(a) 2. Financial Statement Schedule of Registrant.

As a Smaller Reporting Company as defined by Rule 12b-2 of the Exchange Act and in Item 10(f)(1) of Regulation S-K, we are electing scaled disclosure reporting obligations and therefore are not required to provide the information requested by this Item.

(a) 3. Exhibits.

The exhibits to this Annual Report on Form 10-K are listed in the Exhibit Index beginning on page E-1 of this Annual Report on Form 10-K.

If you were one of our shareholders on March 26, 2012 and you want a copy of any of the exhibits listed or referred to in the Exhibit Index, we will furnish it to you at a reasonable cost upon your written request sent to Aetrium Incorporated, 2350 Helen Street, North St. Paul, Minnesota 55109, Attn.: Shareholder Relations.

The following is a list of each management contract or compensatory plan or arrangement we are required to file as an exhibit to this Annual Report on Form 10-K pursuant to Item 15(b):

1. 2003 Stock Incentive Plan (incorporated by reference to Exhibit 10.18 to our Annual Report on Form 10-K for the year ended December 31, 2002) (File No. 0-22166).
2. Form of Non-Statutory Stock Option Agreement (incorporated by reference to Exhibit 10.3 to our Annual Report on Form 10-K for the year ended December 31, 2010) (File No. 0-22166).
3. Form of Change of Control Agreement (incorporated by reference to Exhibit 10.19 to our Annual Report on Form 10-K for the year ended December 31, 2003) (File No. 0-22166).
4. Form of Amendments to Change of Control Agreement (incorporated by reference to Exhibit 10.18 to our Annual Report on Form 10-K for the year ended December 31, 2007) (File No. 0-22166).
5. Sales Incentive Program (incorporated by reference to Exhibit 10.21 to our Annual Report on Form 10-K for the year ended December 31, 2003) (File No. 0-22166).
6. Executive Officer Profit Sharing Program (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K dated January 23, 2007) (File No. 0-22166).
7. Letter Agreement with Joseph C. Levesque dated November 17, 2010 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K dated November 19, 2010) (File No. 0-22166).
8. Letter Agreement with Douglas L. Hemer dated November 17, 2010 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K dated November 19, 2010) (File No. 0-22166).
9. Letter Agreement with Joseph C. Levesque dated November 30, 2011 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K dated December 2, 2011) (File No. 0-22166).
10. Letter Agreement with John J. Pollock dated December 7, 2011 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K/A dated December 23, 2011) (File No. 0-22166).

FINANCIAL STATEMENTS OF REGISTRANT

Report of Independent Registered Public Accounting Firm

Board of Directors and Shareholders
Aetrium Incorporated

We have audited the accompanying consolidated balance sheets of Aetrium Incorporated (a Minnesota corporation) and subsidiary (the Company) as of December 31, 2011 and 2010, and the related consolidated statements of operations, changes in shareholders' equity and cash flows for each of the two years in the period ended December 31, 2011. 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. The Company is not required to have, nor were we engaged to perform an audit of its internal control over financial reporting. Our audit 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, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Aetrium Incorporated and subsidiary as of December 31, 2011 and 2010, and the results of their operations and their cash flows for each of the two years in the period ended December 31, 2011, in conformity with accounting principles generally accepted in the United States of America.

/s/ GRANT THORNTON LLP

Minneapolis, Minnesota
March 20, 2012

AETRIUM INCORPORATED
Consolidated Statements of Operations

Year Ended December 31,	2011	2010
Net sales	\$ 9,008,948	\$ 16,257,902
Cost of goods sold	6,202,287	9,412,992
Gross profit	2,806,661	6,844,910
Operating expenses:		
Selling, general and administrative	5,101,342	5,852,593
Research and development	2,486,543	3,021,784
Total operating expenses	7,587,885	8,874,377
Loss from operations	(4,781,224)	(2,029,467)
Interest income, net	33,705	70,720
Loss before income taxes	(4,747,519)	(1,958,747)
Income tax benefit	—	57,000
Net loss	\$ (4,747,519)	\$ (1,901,747)
Loss per share – basic and diluted	\$ (0.44)	\$ (0.18)
Weighted average common shares outstanding – basic and diluted	10,781,000	10,713,000

The accompanying notes are an integral part of the consolidated financial statements.

AETRIUM INCORPORATED
Consolidated Balance Sheets

December 31,	2011	2010
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 5,007,946	\$ 10,032,660
Accounts receivable, net of allowance for doubtful accounts of \$30,000 at December 31, 2011 and 2010	1,323,655	862,516
Inventories	7,731,030	7,381,986
Other current assets	53,091	67,108
Total current assets	14,115,722	18,344,270
Property and equipment:		
Furniture and fixtures	521,450	521,450
Equipment	1,319,410	1,240,224
Less accumulated depreciation and amortization	(1,731,486)	(1,663,856)
Property and equipment, net	109,374	97,818
Other asset	29,867	41,067
Total assets	\$ 14,254,963	\$ 18,483,155
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Trade accounts payable	\$ 505,802	\$ 502,148
Accrued compensation	322,850	361,013
Other accrued liabilities	727,553	353,541
Total current liabilities	1,556,205	1,216,702
Noncurrent accrued liabilities	256,275	376,700
Commitments and contingencies		
Shareholders' equity:		
Common stock, \$.001 par value; 30,000,000 shares authorized; 10,781,451 shares issued and outstanding at December 31, 2011 and 2010	10,781	10,781
Additional paid-in capital	65,385,252	65,085,003
Accumulated deficit	(52,953,550)	(48,206,031)
Total shareholders' equity	12,442,483	16,889,753
Total liabilities and shareholders' equity	\$ 14,254,963	\$ 18,483,155

The accompanying notes are an integral part of the consolidated financial statements.

AETRIUM INCORPORATED
Consolidated Statements of Changes in Shareholders' Equity

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Shareholders' Equity
	Shares	Amount			
Balance, December 31, 2009	10,605,631	\$ 10,606	\$ 64,311,125	\$ (46,304,284)	\$ 18,017,447
Exercise of stock options	363,084	363	820,437	—	820,800
Repurchase of shares in connection with exercise of stock options	(187,264)	(188)	(547,235)	—	(547,423)
Share-based compensation expense	—	—	500,676	—	500,676
Net loss	—	—	—	(1,901,747)	(1,901,747)
Balance, December 31, 2010	10,781,451	10,781	65,085,003	(48,206,031)	16,889,753
Share-based compensation expense	—	—	300,249	—	300,249
Net loss	—	—	—	(4,747,519)	(4,747,519)
Balance, December 31, 2011	10,781,451	\$ 10,781	\$ 65,385,252	\$ (52,953,550)	\$ 12,442,483

The accompanying notes are an integral part of the consolidated financial statements.

AETRIUM INCORPORATED
Consolidated Statements of Cash Flows

Year Ended December 31,	2011	2010
Cash flows from operating activities:		
Net loss	\$ (4,747,519)	\$ (1,901,747)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	67,630	62,458
Share-based compensation expense	300,249	500,676
Provision for bad debts	—	(10,000)
Provision for excess and obsolete inventories	1,131,000	423,000
Changes in assets and liabilities:		
Accounts receivable	(461,139)	1,261,593
Inventories	(1,480,044)	(332,725)
Other current assets	(12,162)	55,246
Other asset	11,200	(41,067)
Trade accounts payable	3,654	(205,162)
Accrued compensation	(38,163)	92,744
Other accrued liabilities	253,587	329,641
Net cash provided by (used in) operating activities	(4,971,707)	234,657
Cash flows from investing activities:		
Purchase of property and equipment	(79,186)	(62,439)
Collection of note receivable	26,179	111,194
Net cash provided by (used in) investing activities	(53,007)	48,755
Cash flows from financing activities:		
Proceeds from exercise of stock options	—	314,605
Repurchase of shares in connection with exercise of stock options	—	(41,228)
Net cash provided by financing activities	—	273,377
Net increase (decrease) in cash and cash equivalents	(5,024,714)	556,789
Cash and cash equivalents at beginning of year	10,032,660	9,475,871
Cash and cash equivalents at end of year	\$ 5,007,946	\$ 10,032,660
Supplemental cash flow information:		
Cash paid for income taxes	\$ 3,142	\$ 3,209

The accompanying notes are an integral part of the consolidated financial statements.

AETRIUM INCORPORATED

Notes to Consolidated Financial Statements

NOTE 1: BUSINESS DESCRIPTION

Aetrium Incorporated designs, manufactures and markets a variety of electromechanical equipment used by the semiconductor industry to handle and test integrated circuits, or ICs. Our products are sold primarily to semiconductor manufacturers and their assembly and test subcontractors located in the United States and in foreign locations. References in the Notes to Consolidated Financial Statements to “Aetrium,” “the company,” “we” or “our,” unless the context otherwise requires, refer to Aetrium Incorporated and its consolidated subsidiary and their respective predecessors.

NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation: The consolidated financial statements include the accounts of Aetrium Incorporated and its wholly owned subsidiary. All intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates: The preparation of the consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Fair Value of Financial Instruments: The carrying amounts of financial instruments, including cash equivalents, accounts receivable, other current assets, trade accounts payable, accrued expenses and other current liabilities approximate fair value due to the short term maturities of these instruments.

Cash and Cash Equivalents: At times, we may invest a portion of our cash reserves in cash equivalents, which are highly liquid investments with a maturity of three months or less when purchased. As of December 31, 2011 and 2010, our cash balances consisted primarily of deposits in bank savings and checking accounts. We may maintain our cash and cash equivalents in accounts that, at times, may exceed the insurance limits of the Federal Deposit Insurance Corporation.

Accounts Receivable and Allowance for Doubtful Accounts: Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is our best estimate of losses that may result from uncollectable accounts receivable. We determine the allowance based on an analysis of individual accounts and an evaluation of the collectability of our accounts receivable in the aggregate based on factors such as the aging of receivable amounts, customer concentrations, historical experience, and current economic trends and conditions. Account balances are charged off against the allowance when we feel it is probable the receivable will not be recovered. We do not have any off-balance sheet credit exposure related to our customers.

Inventories: Inventories are valued at the lower of cost or market, with cost determined on a first-in, first-out basis. We adjust our inventories for excess and obsolete items by reducing their carrying values to estimated net realizable value based upon assumptions about future product demand. We evaluate potential excess and obsolete inventory exposures by reviewing historical usage, anticipated demand based on current and projected market conditions and other factors. We also evaluate inventories for potential excess and obsolescence due to engineering design changes and the impact of new products.

AETRIUM INCORPORATED

Notes to Consolidated Financial Statements

Property and Equipment: Furniture, fixtures and equipment are recorded at cost and are depreciated over estimated useful lives ranging from three to seven years. When assets are retired or disposed of, the cost and accumulated depreciation are removed from the accounts. Depreciation and amortization expense amounted to \$67,630 and \$62,458 for the years ended December 31, 2011 and 2010, respectively. Maintenance and repairs are charged to expense as incurred.

Valuation of Long-Lived Assets: Aetrium reviews its long-lived assets for impairment whenever an event or change in circumstances indicates that the carrying value of an asset may not be recoverable. If such an event or change in circumstances occurs and potential impairment is indicated because the carrying values exceed the estimated future undiscounted cash flows, we would measure the impairment loss as the amount by which the carrying value of the asset exceeds its fair value. There were no impairment charges during the years ended December 31, 2011 and 2010.

Revenue Recognition: We recognize revenue when there is persuasive evidence of an arrangement, the sales price is fixed or determinable, title and risk of loss have passed to the customer, delivery has occurred or service has been rendered, and collection of the related receivable is reasonably assured. Revenue on spare parts and change kits is generally recognized upon shipment. In some circumstances, revenue on equipment sales is recognized subsequent to shipment. For example, equipment sales contracts may specify that customer acceptance criteria be met. In such cases, revenue for established equipment products that have previously met a customer's acceptance criteria is generally recognized upon shipment, provided the equipment meets our final test requirements that we believe substantially demonstrate conformance to the customer's acceptance criteria. However, revenue for equipment products that are newly designed or otherwise lack a reliable history of customer acceptance is deferred until objective evidence of customer acceptance has been obtained. In situations where equipment contracts include significant post-shipment obligations to be performed by us, revenue for the entire transaction is deferred until such obligations have been completed or, if applicable, the transaction is accounted for as a multiple-element arrangement. For arrangements containing multiple elements, which may include services such as installation and/or training in addition to equipment delivery, the consideration is allocated to each element based on their relative selling prices at the inception of the arrangement and revenue is recognized for each element when the revenue recognition criteria applicable to each element have been met. Due to the nature of our products, vendor specific objective evidence and third party evidence of the selling prices of the individual elements are typically not available, so we generally estimate selling prices of the individual elements. Sales tax billed to customers is excluded from revenue. In situations where equipment is shipped but revenue and the related receivable are not recognized, the cost of the equipment is included in inventories in our consolidated balance sheet. We often receive payments from customers prior to recognizing revenue. For example, we may receive partial payments prior to shipment, which we record as "customer deposits," or we may receive partial payments after shipment but prior to recognizing revenue, which we record as "deferred revenue." Customer deposits and deferred revenue are recorded as liabilities and included as a component of "Other accrued liabilities" in our consolidated balance sheet. There were no customer deposits or deferred revenue balances at December 31, 2011 and 2010.

In January 2011, Aetrium adopted amended accounting standards issued by the Financial Accounting Standards Board (FASB) for multiple-deliverable revenue arrangements. The amended guidance modifies the criteria for determining when the individual deliverables in a multiple-element arrangement may be treated as separate units of accounting and establishes a hierarchy for determining each unit's selling price. The amended guidance provides that total arrangement consideration be allocated to each unit of

AETRIUM INCORPORATED

Notes to Consolidated Financial Statements

accounting using the relative selling price method and prohibits the use of the residual method. The implementation of this guidance did not have a material impact on our consolidated financial position or results of operations.

Advertising Costs: Advertising costs are expensed as incurred and were immaterial for each of the years ended December 31, 2011 and 2010.

Warranty Costs: Our products are sold with warranty periods that vary by item and range up to two years. Estimated warranty costs are accrued in the period that the related revenue is recognized. The following table summarizes product warranty expense accruals and settlements for the two years ended December 31, 2011 (in thousands):

	Accrual balance at beginning of year	Accruals for warranties	Settlements made	Accrual balance at end of year
2011	\$ 64	\$ 51	\$ (73)	\$ 42
2010	82	85	(103)	64

Accrued warranty costs are included in the caption "Other accrued liabilities" in our consolidated balance sheet. See Note 4.

Research and Development: Research and development expenditures, which include software development costs, are expensed as incurred. Accounting Standards Codification (ASC) 730, "Research and Development" requires the capitalization of certain software development costs once technological feasibility is established, which we define as the completion of a working model. To date, the period between achieving technological feasibility and the general availability of such software that is embedded in our equipment has been short and software development costs qualifying for capitalization have been insignificant. Accordingly, we have not capitalized any software development costs.

Income Taxes: Income taxes are accounted for in accordance with ASC 740, "Income Taxes." We record income tax expense or benefit based on our estimate of the effective tax rates for the jurisdictions in which we do business. Deferred tax assets are recognized for deductible temporary differences and tax credit carryforwards and deferred tax liabilities are recognized for taxable temporary differences. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. We assess our income tax positions for all years subject to examination based upon our evaluation of the facts, circumstances and information available at the reporting dates. For those tax positions where it is more likely than not that a tax benefit will be sustained, we record the largest amount of tax benefit with a greater than 50 percent likelihood of being realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, no tax benefit is recorded. Interest expense associated with income taxes, if any, is classified as income tax expense. See Note 10 for additional information regarding income taxes.

AETRIUM INCORPORATED

Notes to Consolidated Financial Statements

Loss Per Common Share: Basic and diluted loss per common share is computed by dividing net loss by the weighted-average number of common shares outstanding during each period. The computation of diluted loss per share excludes the impact of stock options because they would be antidilutive.

Share-Based Compensation: We account for share-based compensation in accordance with the provisions of ASC 718, "Compensation – Stock Compensation," which requires the measurement and recognition of all share-based compensation under the fair value method. See Note 8 for additional information regarding share-based compensation and our stock incentive plan.

NOTE 3: INVENTORIES

Inventories are comprised of the following (in thousands):

December 31,	2011	2010
Purchased parts and completed subassemblies	\$ 3,688	\$ 4,004
Work-in-process	571	2,190
Finished goods, including saleable demonstration equipment	3,472	1,164
Equipment shipped, subject to revenue deferral	—	24
Total inventories	\$ 7,731	\$ 7,382

In the third quarter of 2011, due to general economic uncertainties and weakening business conditions in the semiconductor industry that we believed would continue into 2012, we reviewed the potential impact of the slowdown on our sales forecasts and on our ability to fully realize our inventories. We determined that the potential to realize the full value of our inventories for certain of our older gravity test handler products had been reduced. Accordingly, we wrote down the value of these inventories by \$1.1 million to their estimated net realizable values. We recorded a charge for this amount in cost of goods sold in the quarter ended September 30, 2011. In fiscal year 2010, we recorded charges for excess and obsolete inventories of \$0.4 million. The charges resulted primarily from product design changes and anticipated changes in future product sales mix in favor of newer products.

NOTE 4: OTHER ACCRUED LIABILITIES:

Other accrued liabilities are comprised of the following (in thousands):

December 31,	2011	2010
Accrued commissions	\$ 132	\$ 12
Accrued warranty	42	64
Accrued severance and related costs	326	—
Accrued retirement benefits – current portion	133	207
Other	95	71
Total other accrued liabilities	\$ 728	\$ 354

In September 2011, due to weakening semiconductor industry conditions that we expected would continue into fiscal year 2012, we implemented a workforce reduction in order to reduce our expense structure to be better aligned with expected sales levels. We terminated 10 employees in manufacturing, sales, and engineering. We recorded a charge of \$268,000 for severance and related costs in the third quarter of 2011. Of this amount, \$129,000 was outstanding at December 31, 2011. In December 2011, we entered into a separation agreement with our former president/chief executive officer that provided for payments of severance and certain health and dental costs. We recorded a charge of \$205,000 related to

AETRIUM INCORPORATED

Notes to Consolidated Financial Statements

our obligations under this agreement in the fourth quarter of 2011. Of this amount, \$197,000 was outstanding at December 31, 2011. Total accrued severance and related costs of \$326,000 at December 31, 2011 are scheduled to be paid approximately as follows: \$162,000 by March 31, 2012; an additional \$72,000 by June 30, 2012; the balance of \$92,000 by November 30, 2012.

In January 2012, as a part of further expense reduction measures taken to address current semiconductor industry conditions, we terminated 16 employees in manufacturing, sales, administration and engineering. We recorded a charge of \$159,000 for severance and related costs in the first quarter of 2012 of which approximately \$113,000 is scheduled to be paid by March 31, 2012 and the remaining \$46,000 by June 30, 2012.

In November 2010, our Compensation Committee approved arrangements to provide retirement benefits for our then chief executive officer and our current chief administrative officer. Based on the terms of these agreements, we recorded a deferred compensation charge of \$588,000, which is included in "Selling, general and administrative expenses" in our consolidated statement of operations for the year ended December 31, 2010. Accrued retirement benefits amounted to approximately \$380,000 (\$133,000 current, \$247,000 noncurrent) at December 31, 2011 and \$584,000 (\$207,000 current, \$377,000 noncurrent) at December 31, 2010. The current portion of accrued retirement benefits is included in "Other accrued liabilities" and the noncurrent portion is included in "Noncurrent accrued liabilities" in our consolidated balance sheet.

In November 2011, Joseph C. Levesque, the chairman of our board of directors, was appointed to serve as president and chief executive officer on an interim basis pending the appointment of a permanent replacement for these positions. We entered into an employment agreement with Mr. Levesque that provides for the payment of a majority of his base salary to be deferred until 2013. As of December 31, 2011, deferred compensation under the agreement amounted to approximately \$9,000 which amount is included in "Noncurrent accrued liabilities" in our consolidated balance sheet.

NOTE 5: CREDIT AGREEMENT

Aetrium has a revolving credit line agreement with a bank that provides for borrowings up to \$2.0 million and bears interest at the prime rate plus 1.0% with a minimum interest rate of 4.5%. Advances under the agreement are at the sole discretion of the bank. The agreement is collateralized by substantially all of our assets. The agreement expires on March 31, 2012 and we do not have a commitment from the bank to extend it. We are having ongoing discussions with the bank regarding this agreement and are exploring other potential sources of working capital financing as well. There can be no assurance that the existing credit line agreement will be renewed with terms favorable to us or at all, that we will obtain other financing or that funds will be available to us under any financing agreement. At December 31, 2011 and 2010, there were no borrowings under line of credit agreements.

NOTE 6: LEGAL SETTLEMENT

In March 2010, we settled a legal action we had filed against a subtenant of our former leased facility in Poway, California for nonpayment of rents. The settlement agreement provided that the subtenant pay us \$175,000 in cash. In addition, we reduced a related accrual for estimated legal costs by \$15,000. We recorded a credit of \$190,000 related to this settlement, which amount is included in "Selling, general and

AETRIUM INCORPORATED

Notes to Consolidated Financial Statements

administrative expenses” in our consolidated statement of operations for the year ended December 31, 2010.

NOTE 7: LEASE OBLIGATIONS

We lease our facility in North St. Paul, Minnesota from a limited liability company controlled by a shareholder of Aetrium. The shareholder is neither a director nor an officer of Aetrium, and, to our knowledge, does not own more than five percent of our common stock. The lease agreement provides for monthly base rents of \$21,734 through August 2013 with increases to \$21,995 in September 2013 and \$22,517 in September 2014. The agreement expires on August 31, 2015, at which time we have an option to extend the lease for an additional five-year term. At the time we executed the lease agreement, we agreed to pay a third-party consulting fee obligation of the lessor in exchange for reduced rent payments. The \$56,000 payment was recorded as a prepaid expense and is being amortized to rent expense over the term of the lease. The noncurrent portion of the prepaid rent balance was \$29,867 and \$41,067 at December 31, 2011 and 2010, respectively, and is classified as “Other asset” in our consolidated balance sheet.

In February 2012, we entered into an agreement to lease certain data processing equipment. The agreement provides for monthly payments of \$2,634 plus applicable sales taxes over three years. At the end of the three year term, we have the option to purchase the equipment for \$200.

As of December 31, 2011, future minimum annual lease payments under operating leases were as follows (in thousands):

2012	\$ 278
2013	280
2014	284
2015	198
2016	12
<u>Total minimum lease payments</u>	<u>\$ 1,052</u>

Rent expense, including facility and various short-term equipment operating leases, was as follows (in thousands):

<u>Year ended Dec. 31,</u>	<u>2011</u>	<u>2010</u>
Paid to company controlled by shareholder	\$ 263	\$ 276
Paid to others	34	80
Sublease/assigned lease income	—	(25)
<u>Total net rent expense</u>	<u>\$ 297</u>	<u>\$ 331</u>

NOTE 8: STOCK INCENTIVE PLAN AND SHARE-BASED COMPENSATION

In May 2003, Aetrium’s shareholders approved the adoption of the 2003 Stock Incentive Plan (Plan). Employees, officers, directors, consultants and independent contractors providing services to us are eligible to receive awards under the Plan. The number of shares available for issuance under the Plan is equal to 20% of the aggregate number of shares of common stock outstanding less the total number of shares of common stock issuable upon the exercise or conversion of any outstanding stock options, warrants or other stock rights. As of December 31, 2011, we had 880,650 shares available for issuance

AETRIUM INCORPORATED

Notes to Consolidated Financial Statements

under the Plan. The Plan is administered by the Compensation Committee of our board of directors and provides for the granting of: (a) stock options; (b) stock appreciation rights; (c) restricted stock; (d) performance awards; and (e) stock awards valued in whole or in part by reference to or otherwise based upon our stock. Options granted under the Plan may be incentive stock options or nonqualified stock options. To date, nonqualified stock options are the only awards that have been granted under the Plan. The Plan will terminate on February 28, 2013. The Plan provides that the Compensation Committee may, at its discretion, allow the exercise price of stock options to be paid, in whole or in part, by tendering previously acquired shares that have been held by the option holder for at least six months.

The following table summarizes stock option activity under the Plan for the year ended December 31, 2011:

	Number Of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contract Term	Aggregate Intrinsic Value (in thousands)
Outstanding, January 1, 2011	1,895,437	\$ 2.38		
Forfeited	(98,699)	2.34		
Expired	(521,098)	2.54		
Outstanding, December 31, 2011	1,275,640	\$ 2.32	1.9 years	\$ —
Exercisable, December 31, 2011	918,201	\$ 2.30	1.4 years	\$ —

All stock options outstanding at December 31, 2011 vest in equal monthly increments over four years and expire five years after the grant date. The aggregate intrinsic values in the table above are zero because the option exercise prices for all outstanding options exceeded Aetrium's closing stock price on December 31, 2011. There were no stock options exercised during the year ended December 31, 2011. The aggregate intrinsic value of options exercised during the year ended December 31, 2010 was approximately \$269,000. Total compensation expense recognized for options vested during the years ended December 31, 2011 and 2010 was \$300,249 and \$500,676 respectively.

During fiscal year 2010, in connection with certain stock option exercises, employees surrendered 173,307 shares (\$506,195 fair market value) and 13,957 shares (\$41,228 fair market value) of common stock as payment for the exercise prices and related withholding tax obligations, respectively, of such options.

We determine the fair value of share-based awards on the grant date using the Black-Scholes option valuation model. We also use the Black-Scholes model to determine the fair value of modifications to awards by determining and comparing the fair value of the modified award with the fair value of the award immediately before the modification. Option valuation models, including Black-Scholes, require the input of subjective assumptions, and changes in the assumptions used can materially affect the determination of the fair value of an award. These assumptions include expected stock price volatility, risk-free interest rate, expected dividend yield, and the expected life of the award. We estimate future stock price volatility based primarily on historical daily stock price observations of our common stock. Risk-free interest rate is estimated based on U.S. Treasury bill rates consistent with the expected term of an award. We assume an expected dividend yield of zero based on our intention to retain any future earnings for use in our operations. Expected life of an award is estimated primarily based on vesting provisions, the contractual term of the award, and historical experience of previous awards with similar

AETRIUM INCORPORATED

Notes to Consolidated Financial Statements

terms or, for situations in which historical experience is not available or is deemed unreliable, we use the simplified method for estimating the expected life of an award, as permitted by ASC 718. ASC 718 also requires that estimated forfeitures be considered in the calculation of future compensation expense at the date of grant. We use historical data, as adjusted if deemed appropriate, to estimate future option forfeiture rates for purposes of recognizing share-based compensation expense.

No stock options were granted in fiscal year 2011. Using the Black-Scholes option valuation model, the weighted-average fair value of options granted in 2010 was determined to be \$0.90. Assumptions used in applying the Black-Scholes option-pricing model to estimate the fair value of options granted in 2010 were as follows:

<u>Year ended December 31,</u>	<u>2010</u>
Expected dividend yield	0%
Expected stock price volatility	50%
Risk-free interest rate	1.2%
<u>Expected life of options (years)</u>	<u>3.5</u>

Share-based compensation expense included in our consolidated statements of operations was as follows (in thousands):

<u>Year ended December 31,</u>	<u>2011</u>	<u>2010</u>
Cost of goods sold	\$ 45	\$ 70
Selling, general and administrative	182	330
Research and development	73	101
<u>Total share-based compensation expense</u>	<u>\$ 300</u>	<u>\$ 501</u>

As of December 31, 2011, we had approximately \$0.3 million of unrecognized pretax share-based compensation expense, which is expected to be recognized over a weighted average period of 2.0 years.

NOTE 9: EMPLOYEE SAVINGS 401(k) PLAN

Aetrium has a 401(k) employee savings plan, which covers full-time employees who are at least 21 years of age. Our contributions to the savings plan are at the discretion of management and amounted to \$0 and \$26,893 in 2011 and 2010, respectively.

AETRIUM INCORPORATED

Notes to Consolidated Financial Statements

NOTE 10: INCOME TAXES

A reconciliation of income tax benefit computed using the federal statutory rate to the income tax benefit in our consolidated statements of operations is as follows (in thousands):

Year ended December 31,	2011	2010
Tax computed at federal statutory rate	\$ (1,614)	\$ (666)
State taxes, net of federal benefit	(54)	(14)
Expiration of state NOL	54	—
Increase (decrease) in tax from:		
Tax credits	(71)	(114)
Valuation allowance change	1,681	731
Other, net	4	6
Total income tax benefit	\$ —	\$ (57)

Deferred tax assets are comprised of the following (in thousands):

December 31,	2011	2010
Accounts receivable	\$ 11	\$ 11
Inventories	959	546
Employee compensation and benefits	625	899
Amortization of intangibles	56	126
NOL and tax credit carryforwards	26,452	24,842
Warranty accrual	15	23
Other, net	37	27
Deferred tax assets	\$ 28,155	\$ 26,474
Less valuation allowance	(28,155)	(26,474)
Net deferred tax assets	\$ —	\$ —

We record the benefit we will derive in future accounting periods from tax losses and credits and deductible temporary differences as “deferred tax assets.” In accordance with ASC 740, “Income Taxes,” we record a valuation allowance to reduce the carrying value of our deferred tax assets if, based on all available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. Since 2009, we have maintained a valuation allowance to fully reserve our deferred tax assets. We recorded a full valuation allowance in 2009 because we determined there was not sufficient positive evidence regarding our potential for future profits to outweigh the negative evidence of our three year cumulative loss position at that time under the guidance provided in ASC 740. We expect to continue to maintain a full valuation allowance until we determine that we can sustain a level of profitability that demonstrates our ability to realize these assets. To the extent we determine that the realization of some or all of these benefits is more likely than not based upon expected future taxable income, a portion or all of the valuation allowance will be reversed. Such a reversal would be recorded as an income tax benefit and, for some portion related to deductions for stock option exercises, an increase in shareholders' equity.

Aetrium has federal net operating loss carryforwards of approximately \$73 million that will begin to expire in 2020 if not utilized. We also have state net operating loss carryforwards of approximately \$23 million that will expire at various times, beginning in 2012, if not utilized. We also have federal and state research tax credit and alternative minimum tax credit carryforwards of approximately \$1.5 million that will expire at various times, beginning in 2013, if not utilized. The utilization of net operating loss

AETRIUM INCORPORATED

Notes to Consolidated Financial Statements

carryforwards and research tax credit carryforwards may be subject to annual limitations in the event of future changes in ownership pursuant to the requirements of Section 382 of the Internal Revenue Code. Such limitations could result in the expiration of net operating loss and tax credit carryforwards before utilization.

Our federal and state operating loss carryforwards include windfall tax deductions from stock option exercises. The amount of windfall tax benefit recognized in additional paid-in capital is limited to the amount of benefit realized currently in income taxes payable. As of December 31, 2011, Aetrium had suspended additional paid-in capital credits of \$1.3 million related to windfall tax deductions. Upon realization of the net operating loss carryforwards from such windfall tax deductions, we would record a benefit of up to \$1.3 million in additional paid-in capital.

We assessed our income tax positions at December 31, 2011 and 2010 for all years subject to examination and determined that our unrecognized tax positions were immaterial at those dates.

Aetrium is subject to income tax examinations in the U.S. federal and certain state jurisdictions. There are currently no income tax examinations in progress. Federal and state income tax returns are subject to review for fiscal years 2008 through 2011.

NOTE 11: PRODUCT LINE, GEOGRAPHIC, SIGNIFICANT CUSTOMER AND CONCENTRATION OF CREDIT RISK DATA

The following table sets forth the various components of net sales by product line as a percentage of total sales:

Year ended December 31,	2011	2010
Test handler products	28%	61%
Reliability test equipment products	39	22
Change kits and spare parts	33	17
Total	100%	100%

All of our long-lived assets are located in the United States. Sales by geographic area based on product shipment destination were as follows (in thousands):

Year ended December 31,	2011	2010
United States	\$ 2,916	\$ 1,936
Philippines	1,348	1,737
Korea	1,063	1,714
United Kingdom	834	367
Singapore	763	1,263
Malaysia	595	1,299
Thailand	462	6,589
Belgium	325	18
China	58	641
Other foreign countries	645	694
Total	\$ 9,009	\$ 16,258

AETRIUM INCORPORATED

Notes to Consolidated Financial Statements

Sales to customers comprising more than 10% of our total net sales and accounts receivable from customers comprising more than 10% of our total accounts receivable are summarized below:

	Percent of total sales for year ended December 31,		Percent of total accounts receivable as of December 31,	
	2011	2010	2011	2010
Customer A	24%	38%	*	29%
Customer B	16%	23%	*	*
Customer C	12%	11%	31%	*
Customer D	11%	*	15%	*
Customer E	*	*	13%	*
Customer F	*	*	30%	*
Customer G	*	*	*	45%

* Percent was less than 10% of the total.

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.

AETRIUM INCORPORATED

Date: March 20, 2012

By: /s/ Joseph C. Levesque
Joseph C. Levesque
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below on March 20, 2012 by the following persons on behalf of the registrant and in the capacities indicated.

Signature

Title

/s/ Joseph C. Levesque
Joseph C. Levesque

President and Chief Executive Officer
(principal executive officer)

/s/ Paul H. Askegaard
Paul H. Askegaard

Treasurer
(principal financial and accounting officer)

Directors:

/s/ Joseph C. Levesque
Joseph C. Levesque

Chairman of the Board

/s/ Darnell L. Boehm
Darnell L. Boehm

Director

/s/ Terrence W. Glarner
Terrence W. Glarner

Director

/s/ Daniel A. Carr
Daniel A. Carr

Director

/s/ Charles B. Westling
Charles B. Westling

Director

/s/ Douglas L. Hemer
Douglas L. Hemer

Director

AETRIUM INCORPORATED
EXHIBIT INDEX TO ANNUAL REPORT ON FORM 10-K
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2011

<u>Item No.</u>	<u>Item</u>	<u>Method of Filing</u>
3.1	Our Restated Articles of Incorporation, as amended.	Incorporated by reference to Exhibit 3.1 to our Registration Statement on Form SB-2 (File No. 33-64962C).
3.2	Amendment to Restated Articles of Incorporation	Incorporated by reference to Exhibit 3.2 to our Quarterly Report for the quarter ended September 30, 1998 (File No. 0-22166).
3.3	Our Bylaws, as amended.	Incorporated by reference to Exhibit 3.1 to our Form 8-K dated October 22, 2009 (File No. 0-22166).
4.1	Specimen Form of our Common Stock Certificate.	Incorporated by reference to Exhibit 4.1 to our Registration Statement on Form SB-2 (File No. 33-64962C).
10.1	Standard Industrial/Commercial Single-Tenant Lease, dated September 18, 1998, between W.H. Pomerado, LLC and us, including addendum and material exhibits to lease.	Incorporated by reference to Exhibit 10.16 to our Annual Report on Form 10-K for the year ended December 31, 1999 (File No. 0-22166).
10.2	2003 Stock Incentive Plan.	Incorporated by reference to Exhibit 10.18 to our Annual Report on Form 10-K for the year ended December 31, 2002 (File No. 0-22166).
10.3	Form of Non-Statutory Stock Option Agreement	Incorporated by reference to Exhibit 10.3 to our Annual Report on Form 10-K for the year ended December 31, 2010 (File No. 0-22166).
10.4	Form of Change of Control Agreement.	Incorporated by reference to Exhibit 10.19 to our Annual Report on Form 10-K for the year ended December 31, 2003 (File No. 0-22166).
10.5	Form of Amendments to Change of Control Agreement	Incorporated by reference to Exhibit 10.18 to our Annual Report on Form 10-K for the year ended December 31, 2007 (File No. 0-22166).

10.6	Sales Incentive Program.	Incorporated by reference to Exhibit 10.21 to our Annual Report on Form 10-K for the year ended December 31, 2003 (File No. 0-22166).
10.7	Commercial Lease dated August 20, 2010 between Triple Shot, LLC and us.	Incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2010 (File No. 0-22166).
10.8	Asset Purchase Agreement, dated December 28, 2006, between WEB Technology, Inc. and us.	Incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K dated January 5, 2007 (File No. 0-22166).
10.9	Executive Officer Profit Sharing Program.	Incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K dated January 23, 2007 (File No. 0-22166).
10.10	Business Loan Agreement, dated December 3, 2009, between Bremer Bank and us.	Incorporated by reference to Exhibit 10.10 to our Annual Report on Form 10-K for the year ended December 31, 2009 (File No. 0-22166).
10.11	Letter Agreement with Joseph C. Levesque dated November 17, 2010	Incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K dated November 19, 2010 (File No. 0-22166).
10.12	Letter Agreement with Douglas L. Hemer dated November 17, 2010	Incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K dated November 19, 2010 (File No. 0-22166).
10.13	Letter Agreement with Joseph C. Levesque dated November 30, 2011	Incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K dated December 2, 2011 (File No. 0-22166).
10.14	Letter Agreement with John J. Pollock dated December 7, 2011	Incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K/A dated December 23, 2011 (File No. 0-22166).
14.1	Code of Business Conduct and Ethics.	Incorporated by reference to Exhibit 14.1 to our Annual Report on Form 10-K for the year ended December 31, 2003 (File No. 0-22166).
21.1	Subsidiaries of the Registrant.	Incorporated by reference to Exhibit 21.1 to our Annual Report on Form 10-K for the year ended December 31, 2007 (File No. 0-22166).
23.1	Independent Registered Public Accounting Firm's Consent.	Filed herewith electronically.
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith electronically.

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|------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 31.2 | Certification of Chief Administrative Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. | Filed herewith electronically. |
| 31.3 | Certification of Treasurer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. | Filed herewith electronically. |
| 32.1 | Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. | Filed herewith electronically. |

Consent of Independent Registered Public Accounting Firm

We have issued our report dated March 20, 2012, with respect to the consolidated financial statements included in the Annual Report of Aetrium Incorporated on Form 10-K for the year ended December 31, 2011. We hereby consent to the incorporation by reference of said report in the Registration Statement of Aetrium Incorporated on Form S-8 (File No. 333-111748, effective January 7, 2004).

/s/GRANT THORNTON LLP

Minneapolis, Minnesota
March 20, 2012

Certification by Chief Executive Officer

I, Joseph C. Levesque, certify that:

1. I have reviewed this annual report on Form 10-K of Aetrium Incorporated;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 20, 2012

/s/ Joseph C. Levesque
Joseph C. Levesque
President and Chief Executive Officer

Certification by Chief Administrative Officer

I, Douglas L. Hemer, certify that:

1. I have reviewed this annual report on Form 10-K of Aetrium Incorporated;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 20, 2012

/s/ Douglas L. Hemer
Douglas L. Hemer
Chief Administrative Officer

Certification by Treasurer

I, Paul H. Askegaard, certify that:

1. I have reviewed this annual report on Form 10-K of Aetrium Incorporated;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 20, 2012

/s/ Paul H. Askegaard

Paul H. Askegaard

Treasurer (principal financial and accounting officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Aetrium Incorporated (“the Company”) on Form 10-K for the fiscal year ended December 31, 2011 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), Joseph C. Levesque, as Chief Executive Officer of the Company, Douglas L. Hemer, as Chief Administrative Officer of the Company, and Paul H. Askegaard, as Treasurer of the Company, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 20, 2012

/s/ Joseph C. Levesque
Joseph C. Levesque
President and Chief Executive Officer

Date: March 20, 2012

/s/ Douglas L. Hemer
Douglas L. Hemer
Chief Administrative Officer

Date: March 20, 2012

/s/ Paul H. Askegaard
Paul H. Askegaard
Treasurer (principal financial and accounting officer)