

AEHR TEST SYSTEMS  
Form 10-K  
August 28, 2014

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

FORM 10-K

(Mark One)

- Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934  
For the fiscal year ended May 31, 2014  
or  
 Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number: 000-22893.

AEHR TEST SYSTEMS  
(Exact name of registrant as specified in its charter)

CALIFORNIA  
(State or other jurisdiction of incorporation or organization) 94-2424084  
(IRS Employer Identification Number)

400 KATO TERRACE, FREMONT, CA 94539  
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (510) 623-9400

Securities registered pursuant to Section 12(b) of the Act:  
Common stock, \$0.01 par value  
Name of each exchange on which registered: The NASDAQ Capital Market  
Securities registered pursuant to Section 12(g) of the Act: None

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Securities 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

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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 (§229.405 of this chapter) is not contained herein, and will not be contained to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer

Accelerated filer

Non-accelerated filer   
(Do not check if a smaller reporting company)

Smaller reporting company

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

The aggregate market value of the registrant’s common stock, par value \$0.01 per share, held by non-affiliates of the registrant, based upon the closing price of \$2.83 on November 30, 2013, as reported on the NASDAQ Capital Market, was \$23,598,088. For purposes of this disclosure, shares of common stock held by persons who hold more than 5% of the outstanding shares of common stock (other than such persons of whom the Registrant became aware only through the filing of a Schedule 13G filed with the Securities and Exchange Commission) and shares held by officers and directors of the Registrant have been excluded because such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily conclusive for other purposes.

The number of shares of registrant’s common stock, par value \$0.01 per share, outstanding at July 31, 2014 was 11,465,718.

#### Documents Incorporated By Reference

Certain information required by Part III of this Annual Report on Form 10-K is incorporated by reference from the Registrant’s proxy statement for the Annual Meeting of Shareholders to be held on October 21, 2014 (the “Proxy Statement”), which will be filed with the Securities and Exchange Commission within 120 days after the close of the registrant’s fiscal year ended May 31, 2014.

AEHR TEST SYSTEMS  
FORM 10-K  
FISCAL YEAR ENDED MAY 31, 2014

TABLE OF CONTENTS

PART I

<u>Item 1.</u>	<u>Business</u>	4
<u>Item 1A.</u>	<u>Risk Factors</u>	9
<u>Item 1B.</u>	<u>Unresolved Staff Comments</u>	15
<u>Item 2.</u>	<u>Properties</u>	15
<u>Item 3.</u>	<u>Legal Proceedings</u>	15
<u>Item 4.</u>	<u>Mine Safety Disclosures</u>	15

PART II

<u>Item 5.</u>	<u>Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	16
<u>Item 6.</u>	<u>Selected Consolidated Financial Data</u>	18
<u>Item 7.</u>	<u>Management’s Discussion and Analysis of Financial Condition and Results of Operations</u>	20
<u>Item 7A.</u>	<u>Quantitative and Qualitative Disclosures about Market Risk</u>	27
<u>Item 8.</u>	<u>Financial Statements and Supplementary Data</u>	28
<u>Item 9.</u>	<u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	51
<u>Item 9A.</u>	<u>Controls and Procedures</u>	51
<u>Item 9B.</u>	<u>Other Information</u>	51

PART III

<u>Item 10.</u>	<u>Directors, Executive Officers and Corporate Governance</u>	52
<u>Item 11.</u>	<u>Executive Compensation</u>	52
<u>Item 12.</u>	<u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	52
<u>Item 13.</u>	<u>Certain Relationships and Related Transactions</u>	52
<u>Item 14.</u>	<u>Principal Accountant Fees and Services</u>	52

PART IV

<u>Item 15.</u>	<u>Exhibits, Financial Statement Schedules</u>	53
	<u>Signatures</u>	57

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the Private Securities Litigation Act of 1995 which involve risks and uncertainties. Unless the context requires otherwise, references in this Form 10-K to “Aehr Test,” the “Company,” “we,” “us” and “our” refer to Aehr Test Systems. The Company actual results may differ materially from the results discussed in the forward-looking statements due to a number of factors, including those described herein and the documents incorporated herein by reference, and those factors described in Part I, Item 1A under “Risk Factors.” These statements typically may be identified by the use of forward-looking words or phrases such as “believe,” “expect,” “intend,” “anticipate,” “should,” “planned,” “estimated” and “p among others. All forward-looking statements included in this document are based on our current expectations, and we assume no obligation to update any of these forward-looking statements. We note that a variety of factors could cause actual results and experience to differ materially from the anticipated results or other expectations expressed in these forward-looking statements, including the risks and uncertainties that may affect the operations, performance, development and results of our businesses. These risks include but are not limited to those factors identified in “Risk Factors” beginning on page 9 of this Annual Report on Form 10-K, those factors that we may from time to time identify in our periodic filings with the Securities and Exchange Commission, as well as other factors beyond our control.

## PART I

### Item 1. Business

#### THE COMPANY

Aehr Test was incorporated in the state of California on May 25, 1977. We develop, manufacture and sell systems which are designed to reduce the cost of testing and to perform reliability screening, or burn-in, of complex logic and memory devices. These systems can be used to simultaneously perform parallel testing and burn-in of packaged integrated circuits, or ICs, singulated bare die or ICs still in wafer form. Increased quality and reliability needs of the Automotive, Mobility and flash memory integrated circuit markets are driving additional testing requirements, capacity needs and opportunities for Aehr Test products in package and wafer level testing. Leveraging its expertise as a long-time leading provider of burn-in equipment, with over 2,500 systems installed worldwide, the Company has developed and introduced several innovative product families, including the ABTSTM and FOXTM systems, the WaferPakTM cartridge and the DiePak® carrier. The latest ABTS family of systems can perform test during burn-in of complex devices, such as digital signal processors, microprocessors, microcontrollers and systems-on-a-chip, and offers Individual Temperature Control for high-power advanced logic devices. The FOX systems are full wafer contact parallel test and burn-in systems designed to make contact with all pads of a wafer simultaneously, thus enabling full wafer parallel test and burn-in. The WaferPak cartridge includes a full-wafer probe card for use in testing wafers in FOX systems. The DiePak carrier is a reusable, temporary package that enables IC manufacturers to perform cost-effective final test and burn-in of singulated bare die.

#### INDUSTRY BACKGROUND

Semiconductor manufacturing is a complex, multi-step process, and defects or weaknesses that may result in the failure of an integrated circuit may be introduced at any process step. Failures may occur immediately or at any time during the operating life of an IC, sometimes after several months of normal use. Semiconductor manufacturers rely on testing and reliability screening to identify and eliminate defects that occur during the manufacturing process.

Testing and reliability screening involve multiple steps. The first set of tests is typically performed by IC manufacturers before the processed semiconductor wafer is cut into individual die, in order to avoid the cost of packaging defective die into their packages. This “wafer probe” testing can be performed on one or many die at a time, including testing the entire wafer at once. After the die are packaged and before they undergo reliability screening, a

short test is typically performed to detect packaging defects. Most leading-edge microprocessors, microcontrollers, digital signal processors, and memory ICs then undergo an extensive reliability screening and stress testing procedure known as “burn-in” or “cycling.” The burn-in process screens for early failures by operating the IC at elevated voltages and temperatures, up to 150 degrees Celsius (302 degrees Fahrenheit), for periods typically ranging from 2 to 48 hours. A typical burn-in system can process thousands of ICs simultaneously. After burn-in, the ICs undergo a final test process using automatic test equipment, or testers. The cycling process screens flash memory devices for failure to meet write/erase cycling endurance requirements.

## PRODUCTS

The Company manufactures and markets full wafer contact test systems, test during burn-in systems, test fixtures, die carriers and related accessories.

All of the Company's systems are modular, allowing them to be configured with optional features to meet customer requirements. Systems can be configured for use in production applications, where capacity, throughput and price are most important, or for reliability engineering and quality assurance applications, where performance and flexibility, such as extended temperature ranges, are essential.

#### FULL WAFER CONTACT SYSTEMS

The FOX-1 full wafer parallel test system, introduced in June 2005, is designed for massively parallel test in wafer sort. The FOX-1 system is designed to make electrical contact to and test all of the die on a wafer in a single touchdown. The FOX-1 test head and WaferPak contactor are compatible with industry-standard 300 mm wafer probers which provide the wafer handling and alignment automation for the FOX-1 system. The FOX-1 pattern generator is designed to functionally test industry-standard memory such as flash and DRAMs, plus it is optimized to test memory or logic ICs that incorporate design for testability, or DFT, and built-in self-test, or BIST. The FOX-1 pin electronics and per-device power supplies are tailored to full-wafer functional test. The Company believes that the FOX-1 system can significantly reduce the cost of testing IC wafers. The Company is currently in development of the next generation FOX system partially funded through a development agreement with a leading semiconductor manufacturer. The system development is expected to be completed in calendar year 2014 and the Company has already received the first production order of this next generation system.

The FOX-15 full wafer contact test and burn-in system, introduced in October 2007, is designed for use with wafers that require test and burn-in times typically measured in hours. The FOX-15 is focused on parallel testing and burning-in up to 15 wafers at a time. For high reliability applications, such as automotive, the FOX-15 system is a cost-effective solution for producing tested and burned-in die for use in multi-chip packages. Using Known-Good Die, or KGD, which are fully burned-in and tested die, in multi-chip packages helps assure the reliability of the final product and lowers costs by increasing the yield of high-cost multi-chip packages. Wafer-level burn-in and test enables lower cost production of KGD for multi-chip modules, 3-D stacked packages and systems-in-a-package.

One of the key components of the FOX systems is the patented WaferPak cartridge system. The WaferPak cartridge contains a full-wafer single-touchdown probe card which is easily removable from the system. Traditional probe cards contact only a portion of the wafer, requiring multiple touchdowns to test the entire wafer. The unique design is intended to accommodate a wide range of contactor technologies so that the contactor technology can evolve along with the changing requirements of the customer's wafers.

The full wafer contact systems product category accounted for approximately 42%, 31% and 53% of the Company's net sales in fiscal 2014, 2013 and 2012, respectively.

#### SYSTEMS FOR PACKAGED PARTS

Test during burn-in, or TDBI, systems consist of several subsystems: pattern generation and test electronics, control software, network interface and environmental chamber. The test pattern generator allows duplication of most of the functional tests performed by a traditional tester. Pin electronics at each burn-in board, or BIB, position are designed to provide accurate signals to the ICs being tested and detect whether a device is failing the test.

Devices being tested are placed on BIBs and loaded into environmental chambers which typically operate at temperatures from 25 degrees Celsius (77 degrees Fahrenheit) up to 150 degrees Celsius (302 degrees Fahrenheit) (optional chambers can produce temperatures as low as -55 degrees Celsius (-67 degrees Fahrenheit)). A single BIB can hold up to several hundred ICs, and a production chamber holds up to 72 BIBs, resulting in thousands of memory or logic devices being tested in a single system.

The Advanced Burn-in and Test System, or ABTS, was introduced in fiscal 2008. The ABTS family of products is based on a completely new hardware and software architecture that is intended to address not only today's devices, but also future devices for many years to come. The ABTS system can test and burn-in both high-power logic and low-power ICs. It can be configured to provide individual device temperature control for devices up to 70W or more and with up to 320 I/O channels.

The MAX system family, the predecessor to the ABTS family, was designed for monitored burn-in of memory and logic devices. It has 96 channels and holds 64 burn-in boards, each of which may hold up to 350 or more devices, resulting in a system capacity of up to 22,400 or more devices. The output monitor feature allows the MAX system to perform functional tests of devices and it also supports BIST or other scan features. The MAX4 extends the MAX system family to target devices that require higher current, and can provide up to 227 amps of current per BIB position. All systems feature multi-tasking software which includes lot tracking and reporting software that are needed for



production and military applications. The MAX system is nearing the end of its lifecycle and limited shipments are expected in the future.

This packaged part systems product category accounted for approximately 57%, 68% and 43% of the Company's net sales in fiscal 2014, 2013 and 2012, respectively.

## TEST FIXTURES

The Company sells, and licenses others to manufacture and sell, custom-designed test fixtures for its systems. The test fixtures include BIBs for the ABTS parallel test and burn-in system and for the MAX monitored burn-in system. These test fixtures hold the devices undergoing test or burn-in and electrically connect the devices under test to the system electronics. The capacity of each test fixture depends on the type of device being tested or burned-in, ranging from several hundred in memory production to as few as eight for high pin-count complex Application Specific Integrated Circuits, or ASICs, or microprocessor devices. Test fixtures are sold both with new Aehr Test systems and for use with the Company's installed base of systems. Test fixtures are also available from third-party suppliers.

The Company's DiePak product line includes a family of reusable, temporary die carriers and associated sockets that enable the test and burn-in of bare die using the same test and burn-in systems used for packaged ICs. DiePak carriers offer cost-effective solutions for providing KGD for most types of ICs, including memory, microcontroller and microprocessor devices. The DiePak carrier consists of an interconnect substrate, which provides an electrical connection between the die pads and the socket contacts, and a mechanical support system. The substrate is customized for each IC product. The DiePak carrier comes in several different versions, designed to handle ICs ranging from 54 pin-count memory up to 320 pin-count microprocessors.

The Company has received patents or applied for patents on certain features of the FOX, ABTS and MAX4 test fixtures. The Company has licensed or authorized several other companies to provide MAX4 BIBs from which the Company receives royalties. Royalties and revenue for the test fixtures product category accounted for less than 5% of net sales in fiscal 2014, 2013 and 2012.

## CUSTOMERS

The Company markets and sells its products throughout the world to semiconductor manufacturers, semiconductor contract assemblers, electronics manufacturers and burn-in and test service companies.

Sales to the Company's five largest customers accounted for approximately 90%, 81%, and 83% of its net sales in fiscal 2014, 2013 and 2012, respectively. During fiscal 2014, Texas Instruments Incorporated, or Texas Instruments, and Spansion Inc., or Spansion, and Micronas GMBH accounted for approximately 40%, 30% and 12%, respectively, of the Company's net sales. During fiscal 2013, Texas Instruments and Spansion accounted for approximately 32% and 26%, respectively, of the Company's net sales. During fiscal 2012, Spansion and Texas Instruments accounted for approximately 40% and 22%, respectively, of the Company's net sales. No other customers accounted for more than 10% of the Company's net sales for any of these periods. The Company expects that sales of its products to a limited number of customers will continue to account for a high percentage of net sales for the foreseeable future. In addition, sales to particular customers may fluctuate significantly from quarter to quarter. Such fluctuations may result in changes in utilization of the Company's facilities and resources. The loss of or reduction or delay in orders from a significant customer or a delay in collecting or failure to collect accounts receivable from a significant customer could materially and adversely affect the Company's business, financial condition and operating results.

## MARKETING, SALES AND CUSTOMER SUPPORT

The Company has sales and service operations in the United States, Japan, Germany and Taiwan, and has established a network of distributors and sales representatives in certain key parts of the world. See “REVENUE RECOGNITION” in Item 7 under “Management’s Discussion and Analysis of Financial Condition and Results of Operations” for a further discussion of the Company’s relationship with distributors, and its effects on revenue recognition.

The Company’s customer service and support program includes system installation, system repair, applications engineering support, spare parts inventories, customer training and documentation. The Company has both applications engineering and field service personnel located at the corporate headquarters in Fremont, California, at several locations in Texas and at the Company’s subsidiaries in Japan, Germany and Taiwan. The Company’s distributors provide applications and field service support in other parts of the world. The Company customarily provides a warranty on its products. The Company offers service contracts on its systems directly and through its subsidiaries, distributors and representatives. The Company maintains customer support personnel in the Philippines and China. The Company

believes that maintaining a close relationship with customers and providing them with ongoing engineering support improves customer satisfaction and will provide the Company with a competitive advantage in selling its products to the Company's customers.

## BACKLOG

At May 31, 2014, the Company's backlog was \$6.0 million compared with \$9.1 million at May 31, 2013. The Company's backlog consists of product orders for which confirmed purchase orders have been received and which are scheduled for shipment within 12 months. Due to the possibility of customer changes in delivery schedules or cancellations and potential delays in product shipments or development projects, the Company's backlog as of a particular date may not be indicative of net sales for any succeeding period.

## RESEARCH AND PRODUCT DEVELOPMENT

The Company historically has devoted a significant portion of its financial resources to research and development programs and expects to continue to allocate significant resources to these efforts. Certain research and development expenditures related to non-recurring engineering milestones have been transferred to cost of goods sold, reducing research and development expenses. The Company's research and development expenses during fiscal 2014, 2013 and 2012 were \$3.4 million, \$3.2 million and \$4.2 million, respectively.

The Company conducts ongoing research and development to design new products and to support and enhance existing product lines. Building upon the expertise gained in the development of its existing products, the Company has developed the FOX family of systems for performing test and burn-in of entire processed wafers, rather than individual die or packaged parts. During the first quarter of fiscal 2013, the Company entered into an agreement with a customer to develop a next generation FOX system. This new FOX system is designed to provide the customer with increased test flexibility and capability at a significantly lower cost of test than alternative solutions while also expanding the markets addressed by our FOX full wafer test products. The Company is developing enhancements to the ABTS family of products, intended to improve the capability and performance for testing and burn-in of future generation ICs and provide the flexibility in a wide variety of applications from logic to memory.

## MANUFACTURING

The Company assembles its products from components and parts manufactured by others, including environmental chambers, power supplies, metal fabrications, printed circuit assemblies, ICs, burn-in sockets, high-density interconnects, wafer contactors and interconnect substrates. Final assembly and testing are performed within the Company's facilities. The Company's strategy is to use in-house manufacturing only when necessary to protect a proprietary process or when a significant improvement in quality, cost or lead time can be achieved. The Company's principal manufacturing facility is located in Fremont, California. The Company's facility in Utting, Germany provides limited manufacturing and product customization.

The Company relies on subcontractors to manufacture many of the components and subassemblies used in its products. The Company's FOX and ABTS systems, WaferPak cartridges and DiePak carriers contain several components, including environmental chambers, power supplies, high-density interconnects, wafer contactors, signal distribution substrates and certain ICs, that are currently supplied by only one or a limited number of suppliers. The Company's reliance on subcontractors and single source suppliers involves a number of significant risks, including the loss of control over the manufacturing process, the potential absence of adequate capacity and reduced control over delivery schedules, manufacturing yields, quality and costs. In the event that any significant subcontractor or single source supplier becomes unable or unwilling to continue to manufacture subassemblies, components or parts in required volumes, the Company will have to identify and qualify acceptable replacements. The process of qualifying

subcontractors and suppliers could be lengthy, and no assurance can be given that any additional sources would be available to the Company on a timely basis. Any delay, interruption or termination of a supplier relationship could adversely affect our ability to deliver products, which would harm our operating results.

#### COMPETITION

The semiconductor equipment industry is intensely competitive. Significant competitive factors in the semiconductor equipment market include price, technical capabilities, quality, flexibility, automation, cost of ownership, reliability, throughput, product availability and customer service. In each of the markets it serves, the Company faces competition from established competitors and potential new entrants, many of which have greater financial, engineering, manufacturing and marketing resources than the Company.

The Company's FOX full wafer contact systems face competition from larger systems manufacturers that have significant technological know-how and manufacturing capability. Competing suppliers of full wafer contact systems include Advantest Corporation, Teradyne Inc., Micronics Japan Co., Ltd., and Delta V Instruments, Incorporated.

The Company's ABTS and MAX TDBI systems have faced and are expected to continue to face increasingly severe competition, especially from several regional, low-cost manufacturers and from systems manufacturers that offer higher power dissipation per device under test. Some users of such systems, such as independent test labs, build their own burn-in systems, while others, particularly large IC manufacturers in Asia, acquire burn-in systems from captive or affiliated suppliers. The market for burn-in systems is highly fragmented, with many domestic and international suppliers. Competing suppliers of burn-in and functional test systems include Dong-Il Corporation, Micro Control Company, Incal Technology, Advantest Corporation, UniTest Inc. and Blue Engineering Inc.

The Company's WaferPak products are facing and are expected to face increasing competition. Several companies have developed or are developing full-wafer and single-touchdown probe cards. As the full-wafer test market develops, the Company expects that other competitors will emerge. The primary competitive factors in this market are cost, performance, reliability and assured supply. Competing suppliers of full-wafer probe cards include FormFactor, Inc., Japan Electronic Materials Corporation and Micronics Japan Co., Ltd.

The Company's test fixture products face numerous regional competitors. There are limited barriers to entry into the BIB market, and as a result, many companies design and manufacture BIBs, including BIBs for use with the Company's ABTS and MAX systems. The Company has granted royalty-bearing licenses to several companies to make BIBs for use with the Company's MAX4 systems and the Company may grant additional licenses as well. Sales of MAX4 BIBs by licensees result in royalties to the Company.

The Company expects that its DiePak products will face significant competition. The Company believes that several companies have developed or are developing products which are intended to enable test and burn-in of bare die. As the bare die market develops, the Company expects that other competitors will emerge. The DiePak products also face severe competition from other alternative test solutions. The Company expects that the primary competitive factors in this market will be cost, performance, reliability and assured supply. Suppliers with products that compete with our DiePak products include Yamaichi Electronics Co., Ltd.

The Company expects its competitors to continue to improve the performance of their current products and to introduce new products with improved price and performance characteristics. New product introductions by the Company's competitors or by new market entrants could cause a decline in sales or loss of market acceptance of the Company's products. The Company has observed price competition in the systems market, particularly with respect to its less advanced products. Increased competitive pressure could also lead to intensified price-based competition, resulting in lower prices which could adversely affect the Company's operating margins and results. The Company believes that to remain competitive it must invest significant financial resources in new product development and expand its customer service and support worldwide. There can be no assurance that the Company will be able to compete successfully in the future.

## PROPRIETARY RIGHTS

The Company relies primarily on the technical and creative ability of its personnel, its proprietary software, and trade secrets and copyright protection, rather than on patents, to maintain its competitive position. The Company's proprietary software is copyrighted and licensed to the Company's customers. At May 31, 2014 the Company held forty issued United States patents with expiration date ranges from 2014 to 2029 and had several additional United States patent applications and foreign patent applications pending.

The Company's ability to compete successfully is dependent in part upon its ability to protect its proprietary technology and information. Although the Company attempts to protect its proprietary technology through patents, copyrights, trade secrets and other measures, there can be no assurance that these measures will be adequate or that competitors will not be able to develop similar technology independently. Further, there can be no assurance that claims allowed on any patent issued to the Company will be sufficiently broad to protect the Company's technology, that any patent will be issued to the Company from any pending application or that foreign intellectual property laws will protect the Company's intellectual property. Litigation may be necessary to enforce or determine the validity and scope of the Company's proprietary rights, and there can be no assurance that the Company's intellectual property rights, if challenged, will be upheld as valid. Any such litigation could result in substantial costs and diversion of resources and could have a material adverse effect on the Company's business, financial condition and operating results, regardless of the outcome of the litigation. In addition, there can be no assurance that any of the patents issued to the Company will not be challenged, invalidated or circumvented or that the rights granted thereunder will provide competitive advantages

to the Company. Also, there can be no assurance that the Company will have the financial resources to defend its patents from infringement or claims of invalidity.

There are currently no pending claims against the Company regarding infringement of any patents or other intellectual property rights of others. However, the Company may receive communications from third parties asserting intellectual property claims against the Company. Such claims could include assertions that the Company's products infringe, or may infringe, the proprietary rights of third parties, requests for indemnification against such infringement or suggest the Company may be interested in acquiring a license from such third parties. There can be no assurance that any such claim made in the future will not result in litigation, which could involve significant expense to the Company, and, if the Company is required or deems it appropriate to obtain a license relating to one or more products or technologies, there can be no assurance that the Company would be able to do so on commercially reasonable terms, or at all.

## EMPLOYEES

As of May 31, 2014, the Company, including its two foreign subsidiaries and one branch office, employed 76 persons collectively, on a full-time basis, of whom 21 were engaged in research, development and related engineering, 20 were engaged in manufacturing, 23 were engaged in marketing, sales and customer support and 12 were engaged in general administration and finance functions. In addition, the Company from time to time employs a number of contractors and part-time employees, particularly to perform customer support and manufacturing. The Company's success is in part dependent on its ability to attract and retain highly skilled workers, who are in high demand. None of the Company's employees are represented by a union and the Company has never experienced a work stoppage. The Company's management considers its relations with its employees to be good.

## BUSINESS SEGMENT DATA AND GEOGRAPHIC AREAS

The Company operates in a single business segment, the designing, manufacturing and marketing of advanced test and burn-in products to the semiconductor manufacturing industry in several geographic areas. Selected financial information, including net sales and property and equipment, net for each of the last three fiscal years, by geographic area is included in Part II, Item 8, Note 13 "Segment Information" and certain risks related to such operations are discussed in Part I, Item 1A, under the heading "We sell our products and services worldwide, and our business is subject to risks inherent in conducting business activities in geographic regions outside of the United States."

## AVAILABLE INFORMATION

The Company's common stock trades on the NASDAQ Capital Market under the symbol "AEHR." The Company's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports that are filed with the United States Securities and Exchange Commission, or SEC, pursuant to Section 13(a) or 15(d) of the Exchange Act, are available free of charge through the Company's website at [www.aehr.com](http://www.aehr.com) as soon as reasonably practicable after we electronically file them with, or furnish them to the SEC.

The public may read and copy any materials filed by the Company with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operations of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site, <http://www.sec.gov>, that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

In addition, information regarding the Company's code of conduct and ethics and the charters of its Audit, Compensation and Nominating and Governance Committees, are available free of charge on the Company's website

listed above.

Item 1A. Risk Factors

You should carefully consider the risks described below. These risks are not the only risks that we may face. Additional risks and uncertainties that we are unaware of, or that we currently deem immaterial, also may become important factors that affect us. If any of the following risks occur, our business, financial condition or results of operations could be materially and adversely affected which could cause our actual operating results to differ materially from those indicated or suggested by forward-looking statements made in this Annual Report on Form 10-K or presented elsewhere by management from time to time.



Periodic economic and semiconductor industry downturns could negatively affect our business, results of operations and financial condition.

Periodic global economic and semiconductor industry downturns have negatively affected and could continue to negatively affect our business, results of operations, and financial condition. Financial turmoil in the banking system and financial markets has resulted, and may result in the future, in a tightening of the credit markets, disruption in the financial markets and global economy downturn. These events may contribute to significant slowdowns in the industry in which we operate. Difficulties in obtaining capital and deteriorating market conditions can pose the risk that some of our customers may not be able to obtain necessary financing on reasonable terms, which could result in lower sales for the Company. Customers with liquidity issues may lead to additional bad debt expense for the Company. For example, as a result of Spansion declaring bankruptcy in Japan and the U.S. during fiscal 2009, the Company subsequently recorded a \$13.7 million provision for bad debts. A recurrence of these or similar conditions may also affect our key suppliers, which could impact their ability to deliver parts and result in delays in deliveries of our products.

Turmoil in the international financial markets has resulted, and may result in the future, in dramatic currency devaluations, stock market declines, restriction of available credit and general financial weakness. In addition, flash, DRAM and other memory device prices have historically declined, and will likely do so again in the future. These developments may affect us in several ways. We believe that many international semiconductor manufacturers limited their capital spending in calendar 2009 and again in calendar 2012 and 2013, and that the uncertainty of the semiconductor market may cause some manufacturers in the future to further delay capital spending plans. Economic conditions may also affect the ability of our customers to meet their payment obligations, resulting in cancellations or deferrals of existing orders and limiting additional orders. In addition, some governments have subsidized portions of fabrication facility construction, and financial turmoil may reduce these governments' willingness to continue such subsidies. Such developments could have a material adverse effect on our business, financial condition and results of operations.

The recent economic conditions and uncertainty about future economic conditions make it challenging for us to forecast our operating results, make business decisions, and identify the risks that may affect our business, financial condition and results of operations. If such conditions recur, and we are not able to timely and appropriately adapt to changes resulting from the difficult macroeconomic environment, our business, financial condition or results of operations may be materially and adversely affected.

If we are not able to reduce our operating expenses sufficiently during periods of weak revenue, or if we utilize significant amounts of cash to support operating losses, we may erode our cash resources and may not have sufficient cash to operate our business.

In prior years, in the face of a downturn in our business and a decline in our net sales, we implemented a variety of cost controls and restructured our operations with the goal of reducing our operating costs to position ourselves to more effectively meet the needs of the then weak market for test and burn-in equipment. While we took significant steps in fiscal 2009 to minimize our expense levels and to increase the likelihood that we would have sufficient cash to support operations during the downturn, from fiscal 2009 through fiscal 2013 we experienced operating losses. Should a business downturn recur, and if we are unable to reduce our operating expenses sufficiently, we may require additional debt or equity financing to meet working capital or capital expenditure needs. While we believe our existing cash balance, together with cash flows from operations, as well as funds available through our working capital credit facility, will be adequate to meet our working capital and capital equipment requirements through fiscal 2015, we cannot determine with certainty that, if needed, we will be able to raise additional funding through either equity or debt financing under these circumstances or on what terms such financing would be available.

We generate a large portion of our sales from a small number of customers. If we were to lose one or more of our large customers, operating results could suffer dramatically.

The semiconductor manufacturing industry is highly concentrated, with a relatively small number of large semiconductor manufacturers and contract assemblers accounting for a substantial portion of the purchases of semiconductor equipment. Sales to the Company's five largest customers accounted for approximately 90%, 81%, and 83% of its net sales in fiscal 2014, 2013, and 2012, respectively. During fiscal 2014, Texas Instruments, Spansion and Micronas GMBH accounted for approximately 40%, 30% and 12%, respectively, of the Company's net sales. During fiscal 2013, Texas Instruments and Spansion accounted for approximately 32% and 26%, respectively, of the Company's net sales. During fiscal 2012, Spansion and Texas Instruments accounted for approximately 40% and 22%, respectively, of the Company's net sales. No other customers accounted for more than 10% of the Company's net sales for any of these periods.

We expect that sales of our products to a limited number of customers will continue to account for a high percentage of net sales for the foreseeable future. In addition, sales to particular customers may fluctuate significantly from quarter to quarter. The loss of, reduction or delay in an order, or orders from a significant customer, or a delay in collecting or failure to collect accounts receivable from a significant customer could adversely affect our business, financial condition and operating results. For example, during fiscal 2009 Spansion, our largest customer at the time, declared bankruptcy in Japan and in the U.S. and subsequently placed lower levels of orders with the Company, which caused our net sales to drop dramatically and impacted the Company's ability to collect on accounts receivable.

A substantial portion of our net sales is generated by relatively small volume, high value transactions.

We derive a substantial portion of our net sales from the sale of a relatively small number of systems which typically range in purchase price from approximately \$200,000 to over \$1 million per system. As a result, the loss or deferral of a limited number of system sales could have a material adverse effect on our net sales and operating results in a particular period. All customer purchase orders are subject to cancellation or rescheduling by the customer with limited penalties, and, therefore, backlog at any particular date is not necessarily indicative of actual sales for any succeeding period. From time to time, cancellations and rescheduling of customer orders have occurred, and delays by our suppliers in providing components or subassemblies to us have caused delays in our shipments of our own products. There can be no assurance that we will not be materially adversely affected by future cancellations or rescheduling. For non-standard products where we have not effectively demonstrated the ability to meet specifications in the customer environment, we defer revenue until we have met such customer specifications. Any delay in meeting customer specifications could have a material adverse effect on our operating results. A substantial portion of net sales typically are realized near the end of each quarter. A delay or reduction in shipments near the end of a particular quarter, due, for example, to unanticipated shipment rescheduling, cancellations or deferrals by customers, customer credit issues, unexpected manufacturing difficulties experienced by us or delays in deliveries by suppliers, could cause net sales in a particular quarter to fall significantly below our expectations.

We rely on increasing market acceptance for our FOX system, and we may not be successful in attracting new customers or maintaining our existing customers.

A principal element of our business strategy is to increase our presence in the test equipment market through system sales in our FOX wafer-level test and burn-in product family. The FOX system is designed to simultaneously functionally test and burn-in all of the die on a wafer on a single touchdown. The market for the FOX systems is in the early stages of development. Market acceptance of the FOX system is subject to a number of risks. Before a customer will incorporate the FOX system into a production line, lengthy qualification and correlation tests must be performed. We anticipate that potential customers may be reluctant to change their procedures in order to transfer burn-in and test functions to the FOX system. Initial purchases are expected to be limited to systems used for these qualifications and for engineering studies. Market acceptance of the FOX system also may be affected by a reluctance of IC manufacturers to rely on relatively small suppliers such as us. As is common with new complex products incorporating leading-edge technologies, we may encounter reliability, design and manufacturing issues as we begin volume production and initial installations of FOX systems at customer sites. The failure of the FOX system to achieve increased market acceptance would have a material adverse effect on our future operating results, long-term prospects and our stock price.

We rely on continued market acceptance of our ABTS system and our ability to complete certain enhancements.

Continued market acceptance of the ABTS family, first introduced in fiscal 2008, is subject to a number of risks. It is important that we achieve customer acceptance, customer satisfaction and increased market acceptance as we add new features and enhancements to the ABTS product. To date, the Company has shipped ABTS systems to customers worldwide for use in both reliability and production applications. The failure of the ABTS family to maintain

revenues at or above current levels would have a material adverse effect on our future operating results.

We may experience increased costs associated with new product introductions.

As is common with new complex products incorporating leading-edge technologies, we have encountered reliability, design and manufacturing issues as we began volume production and initial installations of certain products at customer sites. Some of these issues in the past have been related to components and subsystems supplied to us by third parties who have in some cases limited the ability of us to address such issues promptly. This process in the past required and in the future is likely to require us to incur un-reimbursed engineering expenses and to experience larger than anticipated warranty claims which could result in product returns. In the early stages of product development there can be no assurance that we will discover any reliability, design and manufacturing issues or, that if such issues arise, that they can be resolved to the customers' satisfaction or that the resolution of such problems will not cause us to incur significant development costs or warranty expenses or to lose significant sales opportunities.

We sell our products and services worldwide, and our business is subject to risks inherent in conducting business activities in geographic regions outside of the United States.

Approximately 56%, 55%, and 38% of our net sales for fiscal 2014, 2013 and 2012, respectively, were attributable to sales to customers for delivery outside of the United States. We operate a sales, service and limited manufacturing organization in Germany and a sales and service organization in Japan and Taiwan. We expect that sales of products for delivery outside of the United States will continue to represent a substantial portion of our future net sales. Our future performance will depend, in significant part, upon our ability to continue to compete in foreign markets which in turn will depend, in part, upon a continuation of current trade relations between the United States and foreign countries in which semiconductor manufacturers or assemblers have operations. A change toward more protectionist trade legislation in either the United States or such foreign countries, such as a change in the current tariff structures, export compliance or other trade policies, could adversely affect our ability to sell our products in foreign markets. In addition, we are subject to other risks associated with doing business internationally, including longer receivable collection periods and greater difficulty in accounts receivable collection, the burden of complying with a variety of foreign laws, difficulty in staffing and managing global operations, risks of civil disturbance or other events which may limit or disrupt markets, international exchange restrictions, changing political conditions and monetary policies of foreign governments.

Approximately 96%, 3% and 1% of our net sales for fiscal 2014 were denominated in U.S. Dollars, Euros and Japanese Yen, respectively. Although the percentages of net sales denominated in Euros and Japanese Yen were small in fiscal 2014, they have been larger in the past and could become significant again in the future. A large percentage of net sales to European customers are denominated in U.S. Dollars, but sales to many Japanese customers are denominated in Japanese Yen. Because a substantial portion of our net sales is from sales of products for delivery outside the United States, an increase in the value of the U.S. Dollar relative to foreign currencies would increase the cost of our products compared to products sold by local companies in such markets. In addition, since the price is determined at the time a purchase order is accepted, we are exposed to the risks of fluctuations in the U.S. Dollar exchange rate during the lengthy period from the date a purchase order is received until payment is made. This exchange rate risk is partially offset to the extent our foreign operations incur expenses in the local currency. To date, we have not invested in instruments designed to hedge currency risks. Our operating results could be adversely affected by fluctuations in the value of the U.S. Dollar relative to other currencies.

The Company's business operations could be negatively impacted by earthquakes or other natural disasters.

The March 2011 Japanese earthquake and resulting tsunami seriously affected many companies in Japan, including some of our customers. Some of our customers delayed capital equipment purchases as a result of the disaster. The disaster also negatively impacted the Japanese economy as a whole, which could further impact the Company's future business prospects in Japan.

Natural disasters may impact our ability to manufacture products in the event our facility is damaged, or if operations are disrupted at a major supplier. The demand for our products may be negatively affected if a natural disaster impacts one or more of our significant customers. These events may seriously damage our ability to conduct business.

Our industry is subject to rapid technological change and our ability to remain competitive depends on our ability to introduce new products in a timely manner.

The semiconductor equipment industry is subject to rapid technological change and new product introductions and enhancements. Our ability to remain competitive depends in part upon our ability to develop new products and to introduce them at competitive prices and on a timely and cost-effective basis. Our success in developing new and enhanced products depends upon a variety of factors, including product selection, timely and efficient completion of

product design, timely and efficient implementation of manufacturing and assembly processes, product performance in the field and effective sales and marketing. Because new product development commitments must be made well in advance of sales, new pro