Setting the Test Standard for Tomorrow

December 2014
Nasdaq: AEHR
Safe Harbor Statement

This presentation contains forward-looking statements that involve risks and uncertainties relating to projections regarding industry growth and customer demand for the Company’s products. Actual results may vary from projected results. These risks and uncertainties include without limitation, acceptance by customers of the ABTS™ and FOX™ technologies, the Company’s development and manufacture of a commercially successful wafer-level test and burn-in system, world economic conditions, the timing of the recovery of the semiconductor equipment market, the Company’s ability to maintain sufficient cash to support operations, and the potential emergence of alternative technologies, which could adversely affect demand for the Company’s products in fiscal year 2015. See the Company’s recent 10-K and 10-Q reports filed with the SEC for a more detailed description of the risks facing the Company’s business. The Company disclaims any obligation to update information contained in any forward-looking statement to reflect events or circumstances occurring after the date of this presentation.
Aehr Test Systems Company Overview

Leading provider of systems that reduce the cost of testing and reliability screening of integrated circuits (ICs) used in today’s cutting edge technology.

- Listed on NASDAQ: AEHR
- HQ in Fremont, CA
- 76 employees
- 2,500 systems in production worldwide
- Current TAM: $100 million annually
- Fiscal year ends May 31:
  - FY13 rev: $16.5M, up 6%
  - FY14 rev: $19.7M, up 19%
- New emerging IC test markets:
  - SSD Flash testing market: new $200-$300 million annual market opportunity
  - Emerging Automotive IC testing market: new $50-$75 million annual market opportunity
  - Wafer Level Reliability testing market: new $50 million annual market opportunity
- New emerging test markets driving expanded TAM to $400 - $500 million

Source: Aehr Test Systems, VLSI Research 2014
Substantial Emerging Opportunities

- New Emerging IC Test Markets:
  - **SSD Flash manufacturers** ($200 - $300 million annual TAM opportunity):
    - Samsung
    - Intel
    - Micron
    - Hynix
    - Toshiba
    - SanDisk
  - **Emerging Auto IC manufacturers** ($50 - $75 million annual TAM opportunity):
    - nVidia
    - Qualcomm
    - Broadcom
    - Sierra Wireless
    - Toshiba
    - Intersil
    - TI
    - Renesas
    - Linear Technology
  - **Wafer Level Reliability testing market** ($50 million annual TAM opportunity):
    - TI
    - Fujitsu
    - Renesas
    - Infineon
    - Freescale
    - Intel
    - JDSU
    - Samsung
    - Global Foundries

Source: Aehr Test Systems, VLSI Research 2014
SSD Flash Cycling Market

NAND Application Share (2013)

Source: Storage Look, 2013

NAND Wafers by Application

Source: VLSI Research 2014

Worldwide SSD Revenue ($B)

Source: HIS iSuppli Research, 2013
# SSD Flash Wafer Level Cycling Yield Savings

## NAND FLASH SSD – Stacked die yield loss w/o WLBI

<table>
<thead>
<tr>
<th>Die Stack</th>
<th>Effective Final Yield for Stacked Die Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>98.4% 92.3% 85.1% 78.5% 72.4% 66.7% 61.4% 56.6% 52.0%</td>
</tr>
<tr>
<td>12</td>
<td>98.8% 94.2% 88.6% 83.4% 78.5% 73.8% 69.4% 65.2% 61.3%</td>
</tr>
<tr>
<td>8</td>
<td>99.2% 96.1% 92.3% 88.6% 85.1% 81.7% 78.4% 75.2% 72.1%</td>
</tr>
<tr>
<td>4</td>
<td>99.6% 98.0% 96.1% 94.1% 92.2% 90.4% 88.5% 86.7% 84.9%</td>
</tr>
<tr>
<td>1</td>
<td>99.9% 99.5% 99.0% 98.5% 98.0% 97.5% 97.0% 96.5% 96.0%</td>
</tr>
</tbody>
</table>

8 Die Stack Yield Loss w/o WLBI:
- 98.5% – 92.3% → 6%
- 97.5% – 85.1% → 12%
- 96.5% – 74.4% → 22%

## NAND FLASH SSD – Stacked die yield loss w/ WLBI

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16 Die Stack Yield Loss w/o WLBI:
- 98.5% – 85.1% → 13%
- 97.5% – 72.4% → 25%
- 96.5% – 61.4% → 35%
Emerging Auto IC Test Market Opportunity

- **Automotive IC growth** in sensors, control, information, and entertainment has substantially higher requirements for initial quality and long term reliability.
Emerging Auto IC Market Drivers

New Automotive Technology Driving Automotive IC Test Market Growth
Our Products

**ABTS**
Packaged Part Test & Burn-in Systems

**FOX™ 15**
Multiple Wafer Test & Burn-in Systems and Contactors

**FOX™ 1P**
Single Wafer Test & Burn-in Systems and Contactors

Cost-effective, reliable and highly configurable Test & Burn-in Systems

Unique solution for test & burn-in for KGD and automotive applications

Reduced cost of test with high throughput parallel test at wafer probe
Significant Worldwide Customer Base

Over 2500 Systems Shipped Worldwide

(Partial Customer List)
Aehr Burn-in & Test Innovations

### Memory
- **ATS-12000 Dynamic Burn-in**
- **MBT Test During Burn-in**
- **MTX APG Functional Test & Burn-in**
- **ABTS-M APG Functional Test & Burn-in**

<table>
<thead>
<tr>
<th>Year</th>
<th>1977</th>
<th>1980s</th>
<th>1990s</th>
<th>Today</th>
</tr>
</thead>
</table>

### Logic
- **ATS-12000 Dynamic Burn-in**
- **ATX Monitored Burn-in**
- **MAX Monitored Burn-in**
- **ABTS-L/P Functional Test & Burn-in**

Memory devices from 1977 to Today.
Addressing Test & Burn-in Needs

ABTS Family of Packaged Part Test & Burn-in Systems

- Automotive, Mobile Processors, Video/Graphics, 4G Comms, High Power SOCs, and Memory ICs
- Proprietary family of high performance thermal chambers
- Turn-key solution for individual temperature control of each device under test

ABTS
Advanced Burn-in and Test System

AEHR TEST SYSTEMS
ABTS / MAX Production Test Floor
Full-Wafer Test Roadmap

Systems

14 200mm Wafers
Active Thermal Control

15 300mm Wafers
Liquid Thermal Control

Contactors

Singulated Die Contactor/Carrier

200mm Wafer WaferPak Cartridge

300mm Wafer WaferPak Contactor

200mm Wafer WaferPak Cartridge

300mm Wafer WaferPak Cartridge
Multi-Wafer Test & Burn-in

- **Cost-effective Solution for Producing Known-Good-Die (KGD)**
  - Stacked and Multi-Chip Packages
  - Zero-defect tolerant applications

- **Wafer Level Reliability test of automotive, communication, and mission critical ICs**
  - Move packaged part test and burn-in to wafer test
  - Highest reliability and handling for zero PPM targets

- **SSD Flash Wafer Level Cycling**
  - Significantly Improves yield on Stacked Package Devices
  - Reduces wafer sort and final test costs by allowing functional test to be done at burn-in
High Volume Manufacturing Floor
FOX-1P Family of Single Wafer Test & Burn-in Systems

- **Lowest Test Cost Per Wafer** – More test is moving from packaged parts to wafer for stacked die applications
- **Industry-first Universal Channel Architecture** - Thousands of resources enable full-wafer test
- **Optimized for DFT, BIST, and Higher Parallelism**
- **Automotive ICs** – Full wafer functional, stress, and burn-in test of automotive ICs
- **Discrete and Embedded Memories** – Low cost full wafer test of discrete or embedded memories
FOX-1 Production Test Floor
Investment Considerations

- Current TAM of $100 million expanding to $400 - $500 million

- New emerging IC test markets have no incumbent test providers:
  - SSD Flash testing market ($200 - $300 million annual TAM opportunity)
  - Emerging Auto IC testing market ($50 - $75 million annual TAM opportunity)
  - Wafer Level Reliability testing market ($50 million annual TAM opportunity)

- New FOX product line uniquely positions AEHR to take advantage of substantial new IC test markets in 2015 and beyond

Source: Aehr Test Systems, VLSI Research 2014
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