

The logo for AEHR Test Systems features the company name in a bold, black, sans-serif font. To the right of the text is a graphic consisting of five horizontal orange bars of equal length.

AEHR **TEST SYSTEMS**

**Setting the Test Standard for
Tomorrow**

Nasdaq: AEHR

Forward Looking Statements

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 burn-in and test 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 2019. 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

Production Semiconductor Test & Burn-in for over 40 Years

- Technology leader in massively parallel test & burn-in systems with 2,500 systems installed worldwide
- Unique full-wafer test & burn-in systems and contactors
- High parallel wafer level and package test products



Packaged Part Test & Burn-in Solutions

Multiple Wafer / Die Level Test & Burn-in Solutions



Single Wafer Test & Burn-in Solutions

Aehr Test Systems - WW Customer Base



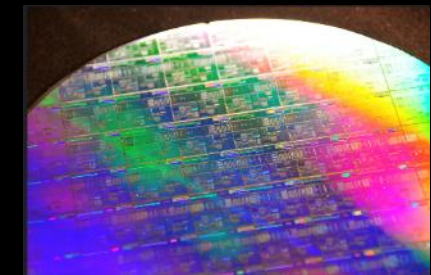
Over 2500 Aehr Test Systems shipped Worldwide!

(Partial Customer List)

Aehr Test Systems' Market Drivers

Need for cost-efficient burn-in & testing is growing rapidly due to increasing IC complexity, costs, miniaturization, and mission-critical functionality

- **Automotive IC growth** in sensors, control, information, and entertainment has substantially higher requirements for initial quality and long term reliability
- **Mobility smartphone and tablets** drive increased test, quality, reliability, and environmental demands
- **Silicon Photonics fiber optic transceivers** driving need for wafer level and singulated die test and burn in / aging to enable low cost Silicon Photonics deployment
- Ever increasing **pressure on cost of test** driving massive parallelism and design for test requirements at wafer level and packaged part test



Automotive Device Expansion

Automotive IC growth in sensors, control, information, and entertainment has substantially higher requirements for initial quality and long term reliability



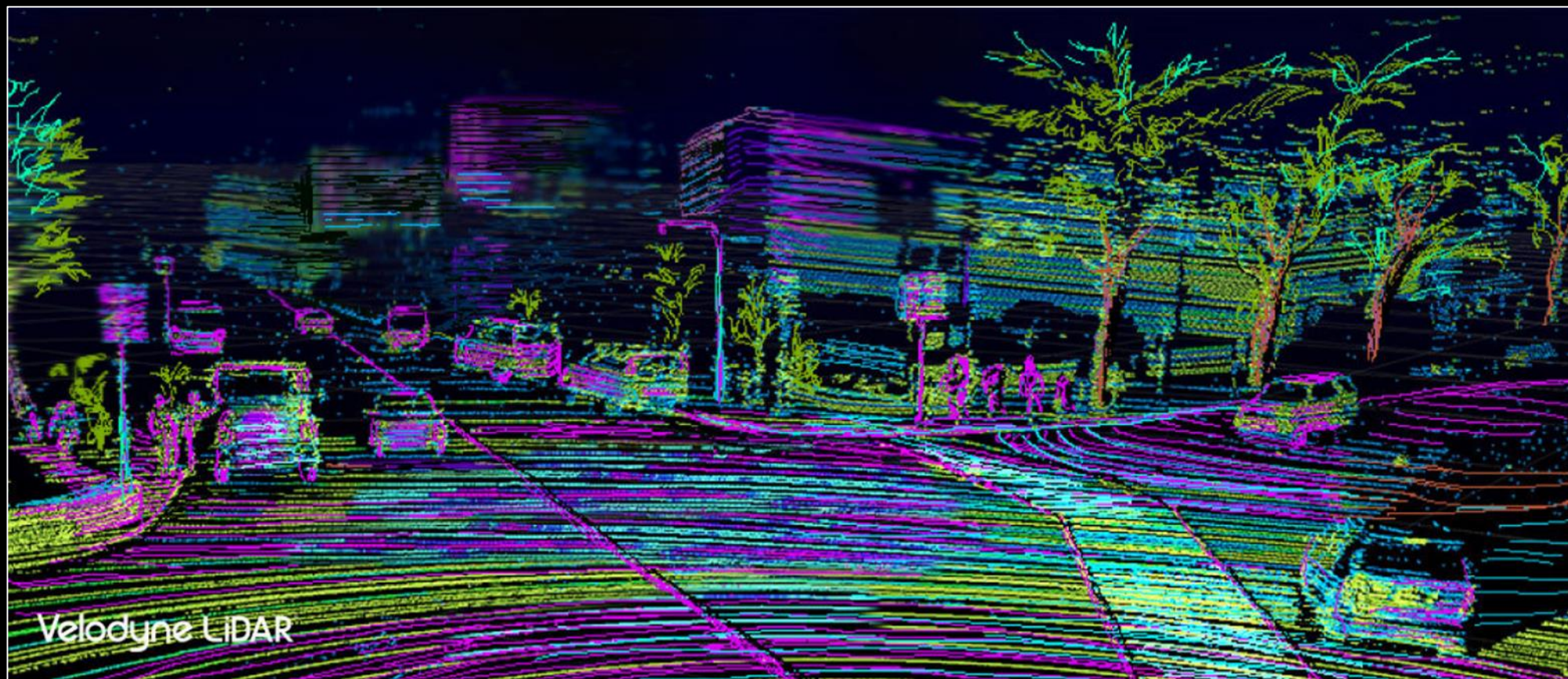
Gesture Recognition

Collision Detection



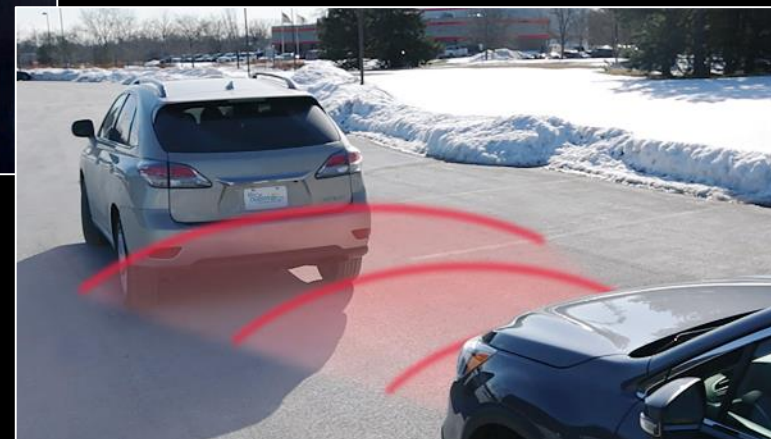
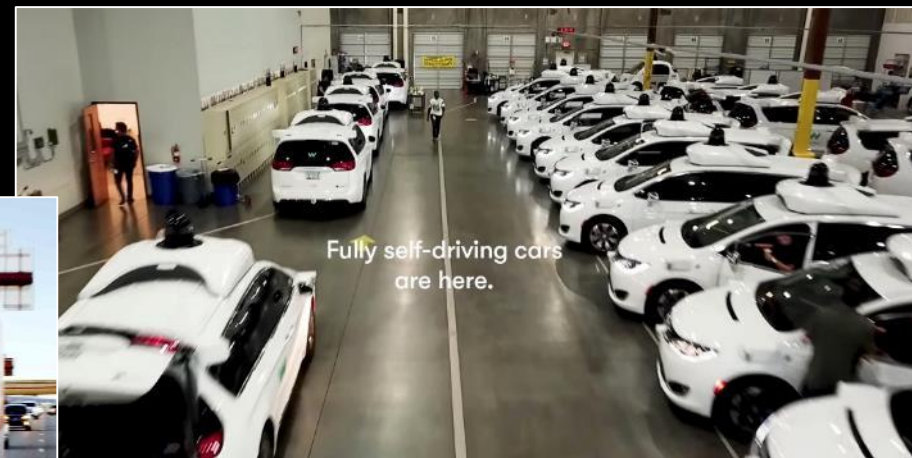
***Autonomous /
Driver Assistance***

Autonomous Vehicle Sensor Systems



*Autonomous Vehicle Sensors:
LIDAR, Radar, & Camera Systems*

Vehicle Reliability and Safety



Product Expansion in Mobility

Mobility smartphone and tablets driving increased test, quality, reliability, security, and environmental demands



***Gesture
Recognition &
Proximity Sensors***



***Biometric
Security***



***Augmented
Reality***



***Increased
Quality &
Reliability***

Silicon Photonics Market

Integrated laser devices directly on silicon transceiver drastically lowering the cost of fiber optic transceivers for data centers and the internet cloud are driving a new requirement and opportunity for wafer level and singulated die burn in and test



**Silicon Photonics Growth
driven by Data Centers,
Sensors, and Optical Switches**



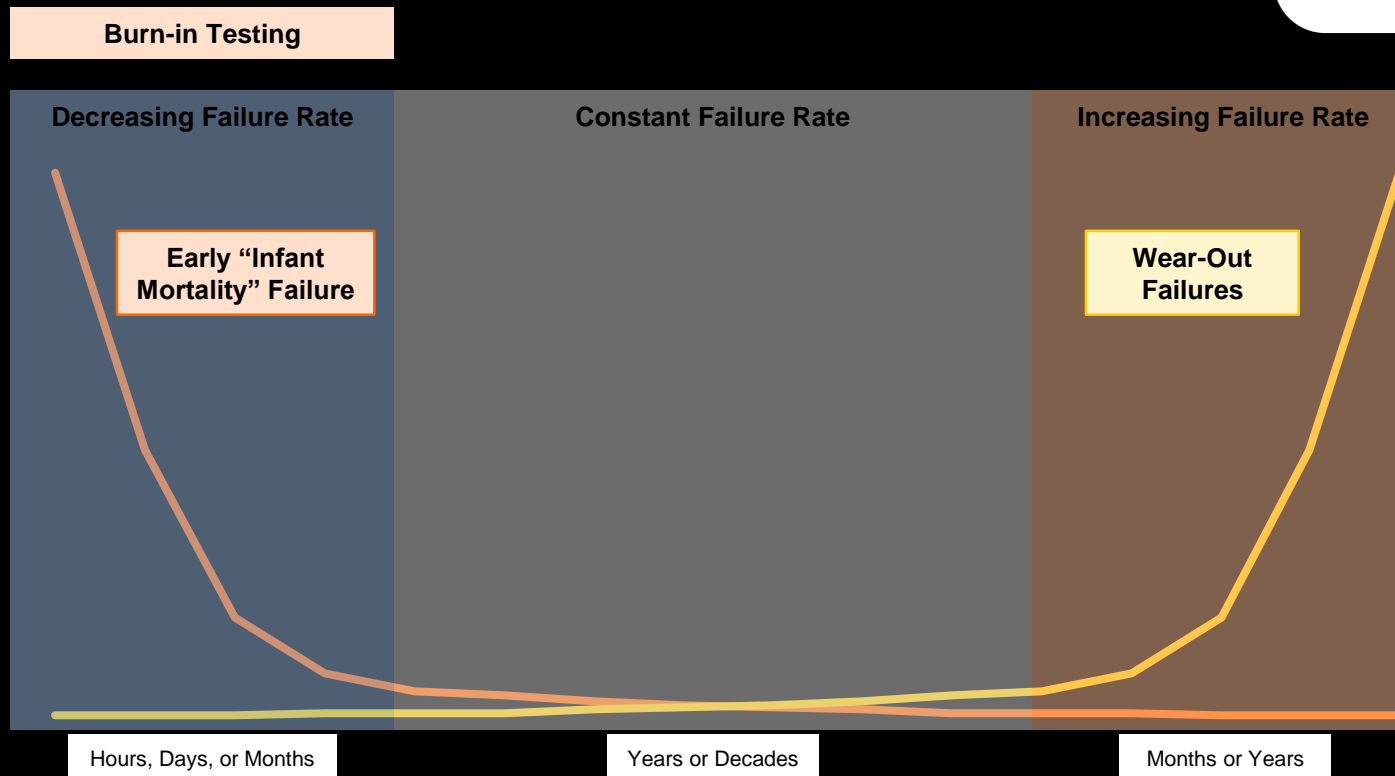
**“Lead customer for AeHR Test’s new FOX-XP
Multiwafer Test and Burn in System ramping to meet
300mm Wafer Level Burn in of Silicon Photonics
devices” – AeHR earning release April 2018**

Burn-in Testing – The Bathtub Curve

- AeHR seeks to virtually eliminate “Infant Mortality” failure in electronic components
- Burning-in components exposes them to a high-stress level and screens out infant failures prior to the components making it into a module

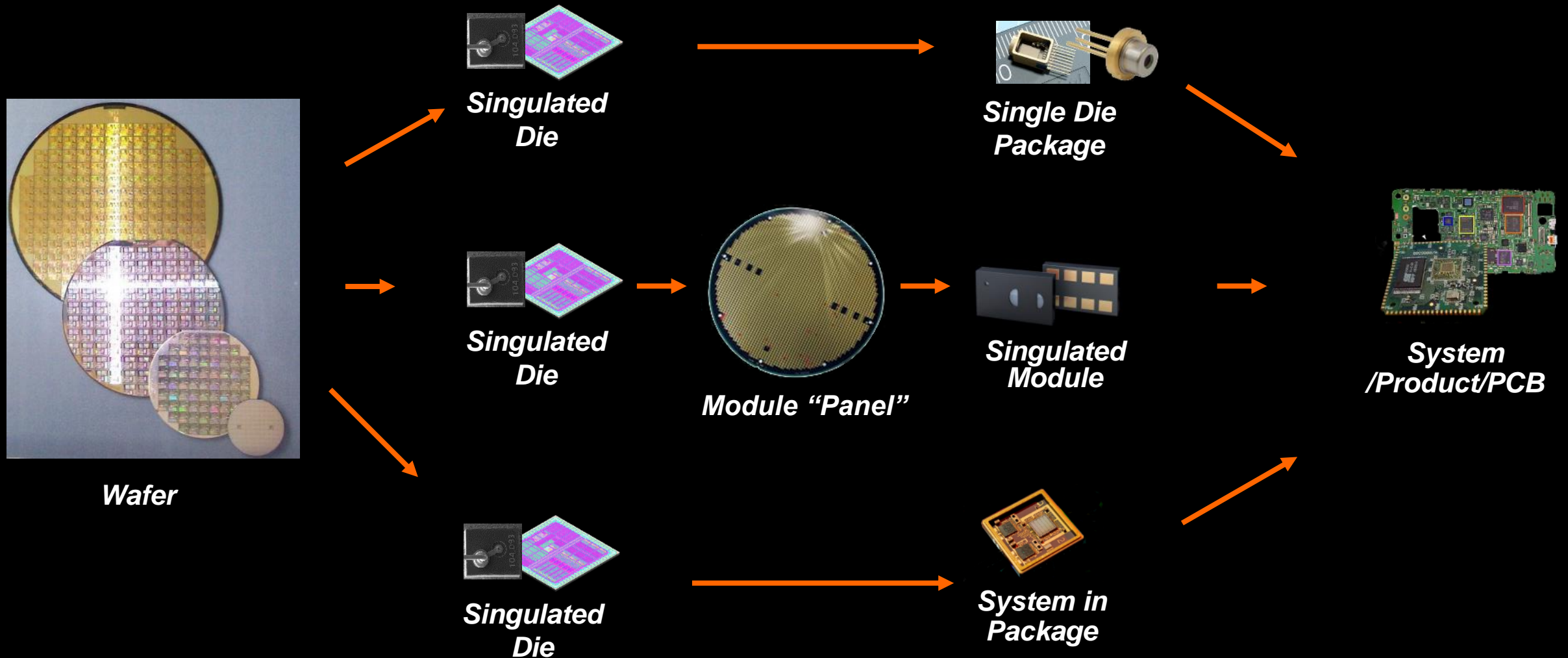
Burn-in:

A functional test in which electronic components are subject to elevated voltages and/or temperatures for a duration of time (2 – 48 hours) to screen for reliability and early failure



- Burn-in testing eliminates early “infant mortality” failure

Production Burn-in / Reliability Test Options



Wafer Level Burn-in Testing

- Package level burn-in is the current standard in the semi industry
- Wafer level and singulated die testing offers a superior value proposition, but historically has not been technologically feasible or cost-effective
- Next-generation ICs driving major need for Aehr's new wafer level testing equipment

WAFER LEVEL VALUE PROPOSITION



Significant Improvement in
Yield and throughput



Dramatic reduction in costs
and component loss



Improved Component
Reliability & Device Safety

AEHR TECHNOLOGY ADVANTAGE



Economic Price Point



Multi-Wafer Capabilities



Burn-in Test Technology



First-Mover Position



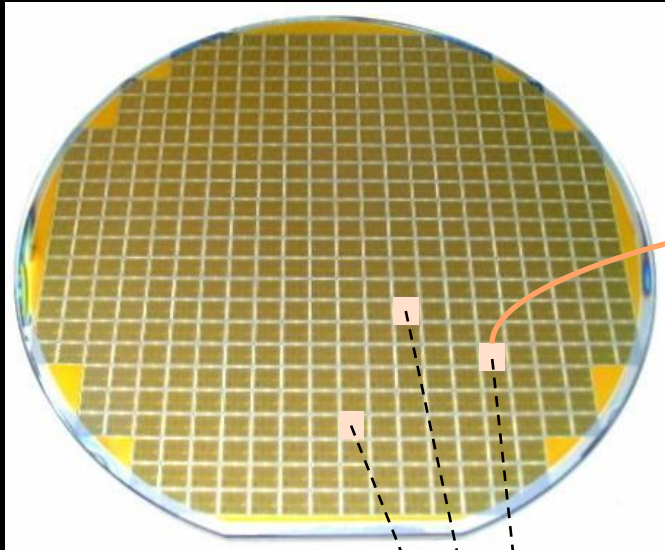
Formidable IP Barrier to Entry

Aehr's new wafer level systems have been validated & purchased by major Tier 1 customers

Wafer vs. Package Level Burn-in Testing

WAFER LEVEL / DIE TESTING

- Burn-in all individual die on the wafer
- Scrap failures prior to packaging

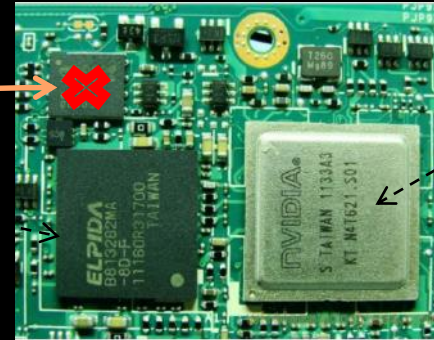


Scrap
Faulty ICs



MODULE LEVEL / PACKAGE TESTING

- Multiple ICs are tested for the first time at the package or Module level
- A single IC failure results in scrapping the entire module



Scrap Entire
Module for One
Faulty IC

Proprietary Wafer Level Enabling Technology

- Aehr's FOX-XP is capable of both functional burn-in and test solutions – leverages proprietary aligner and contactor technology
- Multi-wafer technology enables customers to achieve an overall decrease in test equipment cost and fab footprint – while increasing die yield and throughput

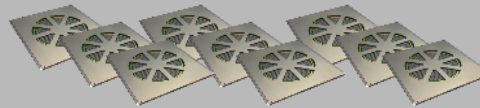
MULTI-WAFER TESTER



**FOX-XP Multi-Wafer
Test System**

- May be configured with up to 18 Blades, enabling 18 wafers to be tested in parallel – driving cost efficiency and throughput
- High performance thermal chucks allow uniform temperature control of the wafers
- Footprint similar to single wafer automated test equipment – reducing lab test space

CONTACTOR



FOX-XP WaferPaks

- Houses the wafer and distributes signals and power to the wafer itself
- The WaferPak contactor is capable of over 50,000 contacts in a single touchdown on up to 300mm wafers
- Consumable input into the test system driving recurring revenue from the installed base

ALIGNER

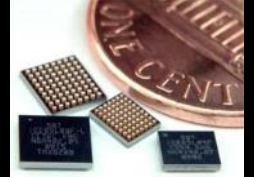


**FOX WaferPak
Aligner**

- Integral piece of test cell as it loads the wafer in the WaferPak at immense levels of precision
- By perfectly setting the wafer in a cartridge it ensures perfect contact
- Performs wafer alignment “offline” which eliminates the need for one wafer prober per wafer during long burn-in and test times

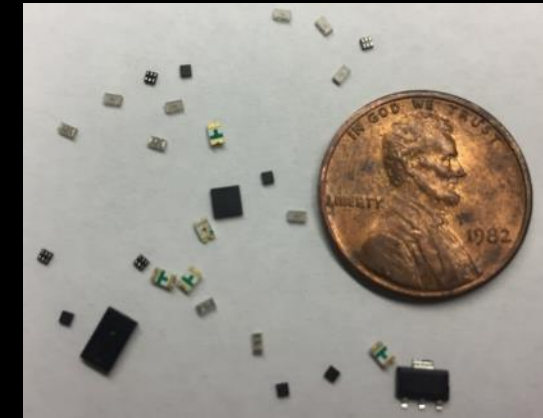
Chip-Scale Package Challenges

Chip-Scale packaging has been driven by the mobility market (smartphones). Burn-in cycling of these very tiny products – especially high power device requires new burn-in techniques.



WL-CSP devices on a U.S penny. A SOT-23 device shown for comparison

CSP devices are near die size packages ($2\text{-}15\text{ mm}^2$) with a ball pitch of 1mm or less



Various CSP and SOT-23 devices

Proprietary Module Level Enabling Technology

- Aehr's FOX-XP is capable of both functional burn-in and test solutions – leverages proprietary DiePak contactor technology
- Singulated Die / Module technology enables customers to achieve an overall decrease in test equipment cost and fab footprint – while increasing yield and throughput

MULTI-DIE/MODULE TESTER

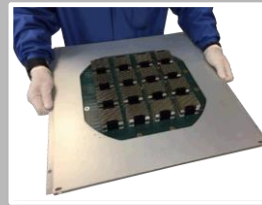
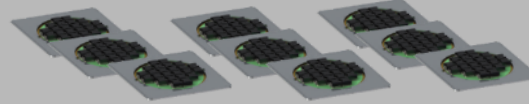


**FOX-XP Multi-Die/Module
Test System**

- May be configured with up to 9 Blades, enabling 9 multi-Die DiePaks to be tested in parallel – driving cost efficiency and throughput
- High performance thermal chucks allow uniform temperature control of the Devices in DiePaks
- Footprint similar to single automated test system – reducing lab test space



CONTACTOR



FOX-XP DiePaks

- Houses the singulated Die / Modules and distributes signals and power to the Devices
- The DiePak carrier is capable of over 50,000 contacts in a single touchdown on up to 1,024 devices
- Consumable input into the test system driving recurring revenue from the installed base



ALIGNER



**FOX DiePak
Aligner/Handler**

- Integral piece of test cell as it loads the singulated die / modules at high levels of precision
- By perfectly setting the devices in a DiePak it ensures perfect contact
- Performs device alignment “offline” which eliminates the need for one handler per DiePak during long burn-in and test times

Patent / IP Protected Wafer & Singulated Die Test Innovations



42 active patents issued and outstanding, including:

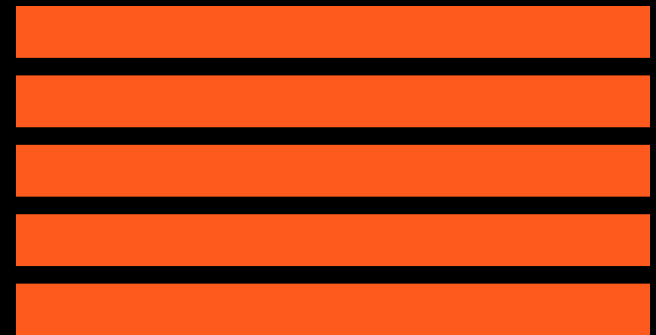
- WaferPak and DiePak temperature control methods
- Vacuum & pressure-based WaferPaks & DiePaks
- Maintaining probe contact over temp
- Electrical components in WaferPak/DiePak
- Individual DUT power supplies
- Per die current protection
- Redundant power supplies
- Portable WaferPaks
- and more . . .

Aehr Test Manufacturing Capacity

- **State of the art manufacturing facility located in Fremont, CA**
- **50,000+ sq. foot facility**
- **Ability to scale production by an order of magnitude increase in existing footprint**
- **Manufacturing capabilities and quality control procedures have passed rigorous Tier 1 customer qualification processes**



AEHR
TEST SYSTEMS



Setting the Test Standard for Tomorrow

Nasdaq: AEHR