

SONIX™ ECHO™

Sonix™ non-destructive ultrasonic testing equipment is made to increase yield, simplify testing and improve productivity and throughput on the production floor and in the lab.

New from Sonix™ only - Make set up and testing EASY by using the unique interactive touch screen and joystick controls right at the tool (patent pending).

Whether the need is detailed lab analysis or production floor throughput, Sonix™ has an easy to use software solution.

- WinIC™ Lab (Detailed Failure Analysis Tools)
- WinIC™ Production (Easy to use streamlined productivity tool, built for throughput and volume analysis)
- Analysis toolbox delivers automated pass/fail criteria



ECHO™ – The universal inspection tool for production, failure analysis and development.

FEATURES/BENEFITS

Sonix™ ECHO™ can detect defects as small as 0.05 micron and is an excellent tool for bump detection, stacked die (3D Packaging) inspection, complex flipchip inspection and more traditional plastic packages.

Improve manufacturing productivity and yield using the ECHO™ with our Production Software:

- **Easy to set up and use**
- **Pass/Fail sorting**
- **Process Quality Monitoring (Yield Monitoring)**
- **Critical Part Certification**

Sonix™ transducers range in frequency from 10MHz through 300MHz and are designed to address all types of applications and materials.

Other Key Features

- Reduced foot print (saving valuable clean room space)
- Portable (easy to move)
- Reduced tank height (for improved ergonomics)
- Maximum 360° Visibility (for ease of use)
- Slanted tank bottom (for complete draining)
- Touch screen and joystick (for ease of use)
- 2 USB ports on front console (for ease of use and added functionality)
- Slide out shelf (for part or fixture storage)
- Compact and robust system Design (for low maintenance)
- Slide out electrical panel (for easy access)
- Welded unibody frame (for improved platform stability)
- Simultaneous pulse echo and through transmission option (quick defect detection)
- Large scan area (for multiple trays or larger samples)
- Transducer based Z-axis (moves transducer instead of tray fixture)
- Will comply with European Machinery Directive
- Conformity to CE, SEMI S2, NRTL
- ESD coatings on plastic safety cover, tank and doors

SPECIFICATIONS

Scan Axis

Positioning device:	Linear Servo Motor
Servo Max Velocity:	1000 mm/sec
Servo Repeatability:	+/- 0.5 micron
Linear Encoder Resolution:	0.5 micron
Max Scan Area:	350 mm

Step Axis

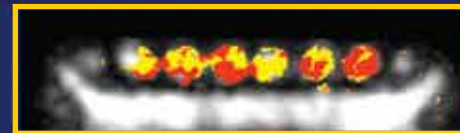
Positioning device:	Low-EMI microstep motor with zero-backlash lead screw
Step Axis Resolution:	0.25 micron
Max Scan Area:	350 mm

Focus Axis

Positioning device:	Low-EMI microstep motor with zero-backlash lead screw
Focus Axis Resolution:	0.25 micron
Max Travel:	50 mm

Fixtures

- JEDEC sized tray fixture
- Scan Platform to hold individual packages in tray fixture
- Through-transmission transducer fixture



50 nanometer thick mold-to-lead finger delaminations

Unit Dimensions

- W 31" x D 31" x H 48"
- Footprint 4.8 feet

Fluid System

- Acrylic immersion tank circulation pump and 5 micron filter

Ultrasonic Instruments

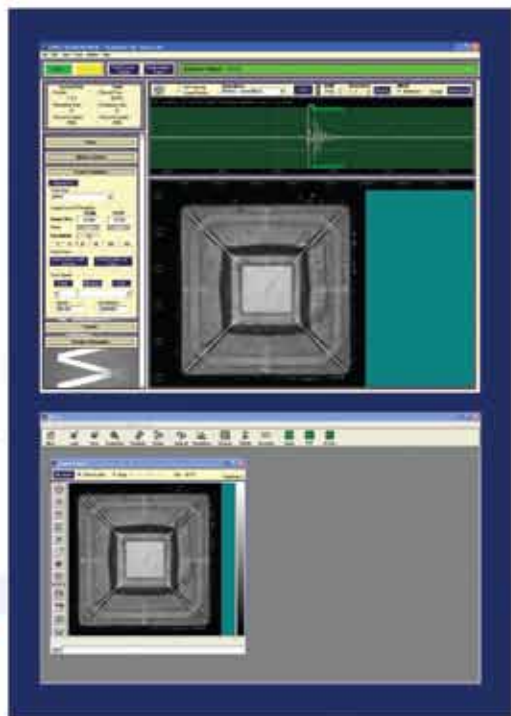
- DPR500 Receiver with L2/H4 pulser
- Optional U4 pulser with expanded bandwidth receiver

Monitor(s)

- 19" High definition monitor included
- Dual 19" monitors available (option)

Enclosure

- Includes base cabinet for computer and instrumentation, with casters and leveling feet
- Emergency off and safety interlock
- Lower load/unload area



WinIC™ SOFTWARE

The combination of the ECHO™ platform and WinIC™ software provides the user with a powerful, easy to use analysis tool. WinIC™ is the innovative software developed for Sonix™ scanning acoustic microscopes, and takes advantage of the robust features of Windows XP operating systems. WinIC™ provides advanced image analysis features to aid in quantitative and qualitative interpretation of image data. WinIC™ uses extensive graphics and on-screen guides to help all users, novice to expert.

- Supplied with Windows XP
- Other software options available, please inquire
 - TAMI™ Scan ~ Tomographic Acoustic Micro-Imaging
 - ICEBERG™ (*Digital Volumetric Interactive C-Scan Evaluation*)
 - WinIC™ Pro (*added functionality and analysis*)
 - WinIC™ Offline (*allows for remote analysis on your laptop*)
 - Waveform Simulator™ / Beam Emulator™ (*easy set up*)

Your Local Representative:

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