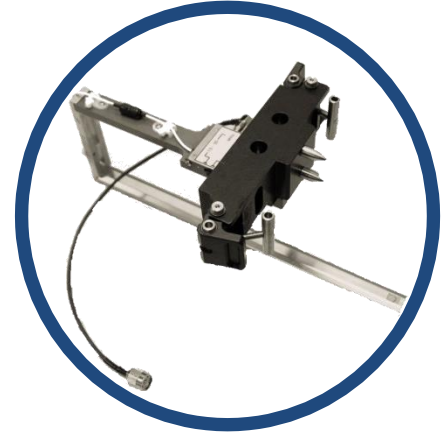


## J610™ C-SAM<sup>®</sup>

*Robustness for Large Samples*



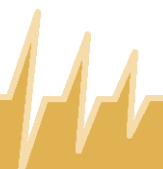
Optional Extended Thru-Scan Arm

### Semi-Automated Acoustic Micro Imaging with Large Coverage

The J610™ delivers the robustness and accuracy of Sonoscan's top lab instrument, combined with a generous 610mm x 610mm scanning area perfectly suited for large area samples such as component inspection on PC boards and multiple JEDEC trays.

#### Features:

- Extra-large inertially balanced linear scanner with counterweight to minimize vibrations and ensure optimal scanning results.
- AutoScan™ allows you to program specific scan parameters and coordinates to quickly and repeatedly analyze specific regions of interest on multiple samples.
- Digital Image Analysis (DIA)™ uses advanced algorithms to quantify the acoustic data and allows you to set accurate and automatic accept/reject criteria.
- Multi-Language OS & Sonolytics™ interface allows technicians and operators to work in their native language. Includes English, Traditional Chinese and Japanese.
- Optional water handling upgrades, integrated water heater for better transducer response and optional integrated degasification units for removal of gases from DI water.
- Quantitative B-Scan Analysis Mode (Q-BAM)™ incorporates Sonoscan's proprietary B-Scan mode to provide a virtual cross-sectional view with accurate polarity and depth data.



# C-SAM<sup>®</sup> J610<sup>™</sup>

## C-Mode Scanning Acoustic Microscope

### Specifications:

#### Available Inspection Modes

- ◆ **PolyGate<sup>™</sup>** simultaneously captures up to 100 depths of interest (gates) with independent gains, color maps and waveform analysis.
- ◆ **TDI<sup>™</sup>** (Time Domain Imaging) includes A-Scan, B-Scan, C-Scan, Surface Scan, Interface Scan, Bulk Scan, Multi-Scan and Loss of Back Echo (LoBE).
- ◆ **Q-BAM<sup>™</sup>** (Quantitative B-Scan Analysis Mode) is a nondestructive calibrated cross sectional view of a sample.
- ◆ **Waveform analysis modes:**
  - ◆ **Amplitude** measures peak-to-peak signal and polarity.
  - ◆ **Profile** analyzes distance from front surface to interface of interest.
  - ◆ **Time Difference** evaluates distance between two interfaces.
  - ◆ **Integration Mode<sup>™</sup>** allows diminished signals to stand out.
  - ◆ **ASF<sup>™</sup>** (Acoustic Surface Flatness) measures curvature or warpage of a surface.
  - ◆ **\* Thru-Scan<sup>™</sup>** (Through-transmission imaging) displays material continuity and delamination or voids.
- ◆ **Distance Measure** measures distance and time on an image or within an A-Scan.
- ◆ **STaR<sup>™</sup> \*** (Simultaneous Thru-Scan and Reflection) generates TDI and Thru-Scan images in one pass.
- ◆ **VRM<sup>™</sup> \*** (Virtual Rescanning Mode) stores 100% of A-Scan echo data to reproduce an image in any mode without rescanning the actual sample.
- ◆ **FDI<sup>™</sup> \*** (Frequency Domain Imaging) brings out frequency sensitive details and resonances that are not evident with conventional TDI<sup>™</sup>.
- ◆ **DIA<sup>™</sup> \*** (Digital Image Analyzer) advanced algorithm to quantify results to automated accept/reject criteria:
  - ◆ Area fraction analysis (including Mil-Std-883, Method 2030)
  - ◆ Multi-area analysis
  - ◆ Void quantification

#### System

- ◆ **Sonolytics<sup>™</sup>** for Windows 7<sup>®</sup> Ultimate 64-bit with multilanguage operation: English, Japanese and Traditional Chinese.
  - ◆ **Probing-Gate<sup>™</sup>** automatically configures the parameters for imaging various depths of interest sequentially, downward, upward and expanding.
  - ◆ **Pixel Pitch<sup>™</sup>** allows the operator to select the desired scan area size and data point spacing, thereby determining the C-SAM image resolution.
  - ◆ **AutoScan<sup>™</sup>** automates alignment, gain, focus and field of view for multiple locations. Also integrates with **\*DIA** analysis tools.
  - ◆ **Movement Map<sup>™</sup>** offers an interactive graphical representation of the scan area.
  - ◆ **Color Maps** for image enhancement using pre-defined or user defined color mappings.
  - ◆ **C-SAM Interactive<sup>™</sup>** provides user application support - an intuitive interaction-based learning tool.
  - ◆ Instrument settings and parameters are automatically stored for every image saved and can be used to recall previous settings.
  - ◆ **\* AIMM<sup>™</sup>** (Acoustic Impedance Measurement Module) permits characterization of the acoustic properties of materials related to elastic modulus and density on a micro scale.
  - ◆ Multiple supported digital image file outputs GIF, JPG, TIF, BMP and PNG.
  - ◆ Clean room ready with ESD Safe surfaces.
- \* Optional Feature

#### Standard Equipment

- ◆ Scans 610 x 610mm (24 x 24 in) in a full safety enclosed cabinet
- ◆ X-Y axis precision of ± 0.5 microns.
- ◆ 95 dB Gain - selectable in 0.5 dB steps
- ◆ Gates as narrow as 1nsec.
- ◆ 16 megapixel (4K) data resolution images.
- ◆ Pulser/Receiver compatible with proprietary transducers up to 230 MHz.
- ◆ Digital servo high speed scanner with controller for the fastest image acquisition time.
- ◆ **AIPD<sup>™</sup>** (Acoustic Impedance Polarity Detector) simultaneously displays both polarity (i.e., phase) and amplitude information.
- ◆ Water management with fill, drain, recirculate and has overflow protection.

#### Optional Equipment

- ◆ Up to 268 megapixels (16K) data resolution images.
- ◆ **Waterfall<sup>™</sup>** transducer is a non-immersion configuration using a column of water from above.
- ◆ Water Heater for optimum high frequency performance.
- ◆ Degasification Unit extracts trapped gases to reduce bubbles in DI water.

#### Facility Requirements

- ◆ Universal Voltage - 90V to 250V AC, Single Phase, 50/60 Hz and 15 amp circuit (120V)
- ◆ Dimensions:  
L 1.27 x W 1.04 x H 1.65m  
(L 50.0 x W 41.0 x H 65.0 in.)

US and Foreign Patents Pending.

J610-1/2016

(Note: All specifications are subject to change without notification).