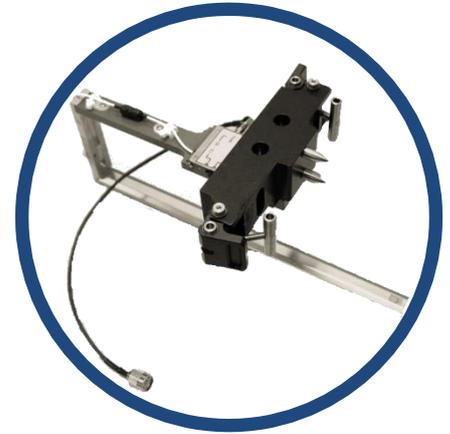


J610™ C-SAM[®]

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[®] J610[™]

C-Mode Scanning Acoustic Microscope

Specifications:

Available Inspection Modes

- ◆ **PolyGate[™]** simultaneously captures up to 100 depths of interest (gates) with independent gains, color maps and waveform analysis.
- ◆ **TDI[™]** (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[™]** (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[™]** allows diminished signals to stand out.
 - ◆ **ASF[™]** (Acoustic Surface Flatness) measures curvature or warpage of a surface.
 - ◆ *** Thru-Scan[™]** (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[™] *** (Simultaneous Thru-Scan and Reflection) generates TDI and Thru-Scan images in one pass.
- ◆ **VRM[™] *** (Virtual Rescanning Mode) stores 100% of A-Scan echo data to reproduce an image in any mode without rescanning the actual sample.
- ◆ **FDI[™] *** (Frequency Domain Imaging) brings out frequency sensitive details and resonances that are not evident with conventional TDI[™].
- ◆ **DIA[™] *** (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[™]** for Windows 7[®] Ultimate 64-bit with multilanguage operation: English, Japanese and Traditional Chinese.
 - ◆ **Probing-Gate[™]** automatically configures the parameters for imaging various depths of interest sequentially, downward, upward and expanding.
 - ◆ **Pixel Pitch[™]** allows the operator to select the desired scan area size and data point spacing, thereby determining the C-SAM image resolution.
 - ◆ **AutoScan[™]** automates alignment, gain, focus and field of view for multiple locations. Also integrates with ***DIA** analysis tools.
 - ◆ **Movement Map[™]** 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[™]** 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[™]** (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

US and Foreign Patents Pending.

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[™]** (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[™]** 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.)

J610 –1/2016

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