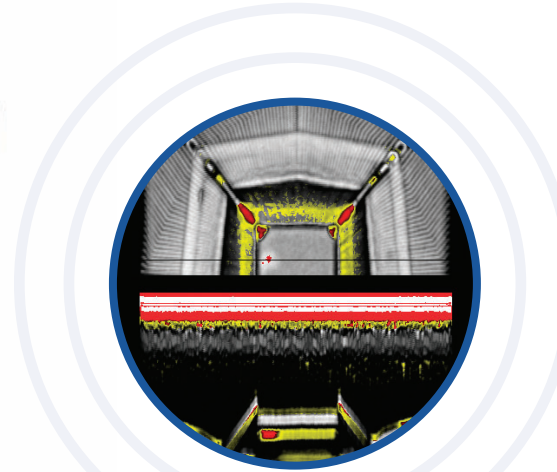


# D-9500<sup>TM</sup>

The Contemporary Standard for Acoustic Microscopes

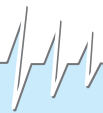


### Q-BAM<sup>TM</sup>

Quantitative B-Scan Analysis Mode delivers a "Virtual Cross-section" of the sample.

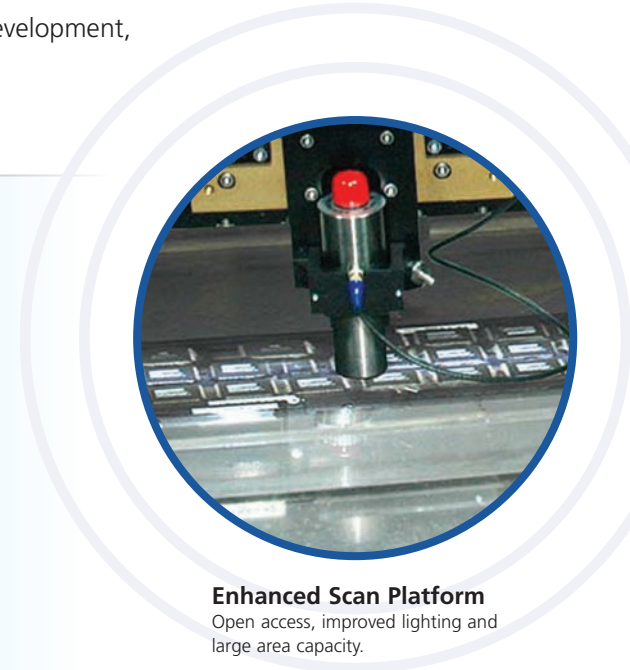
## Maximum Flexibility for Detailed Inspections

The D-9500 is the contemporary AMI powerhouse that delivers unmatched accuracy and robustness, which is ideal for failure analysis, process development, material characterization and low volume production.



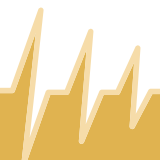
## Features

- Time Domain Imaging (TDI)<sup>TM</sup>
- Balanced Linear Scanner
- Larger Maximum Scan Area, While Maintaining Accuracy
- More Accessibility to Samples
- Multi-Language OS and Visual Acoustics<sup>TM</sup> Interface
- Digital Image Analysis (DIA)<sup>TM</sup> Optional
- Waterfall Transducer<sup>TM</sup> Optional
- Temperature Control Options
- Applications Set-up Wizard<sup>TM</sup>
- Quantitative B-Scan Analysis Mode (Q-BAM)<sup>TM</sup>



### Enhanced Scan Platform

Open access, improved lighting and large area capacity.



## C-SAM<sup>®</sup> D9500 Series

# C-Mode Scanning Acoustic Microscope

## Specifications

### Available Inspection Modes

- ◆ **Time Domain Pulse-Echo Modes** include; A-Scan, B-Scan, C-Scan, Bulk Scan and Loss of Back Echo (LOBE)
- ◆ **THRU-Scan<sup>™</sup>** (Through transmission imaging) Available up to 100 MHz in fixed field and large area scan formats
- ◆ **STAR<sup>™</sup>** (Simultaneous Thru-Scan<sup>™</sup> and Reflection) allows both image types to be obtained with one scan
- ◆ **Q-BAM<sup>™</sup>** (Quantitative B-Scan Analysis Mode) for virtual cross sectioning, while maintaining amplitude and polarity data
- ◆ **Zip Slice<sup>™</sup> & 3V<sup>™</sup>** for automated multi-focus tomographic image acquisition of up to 200 C-Mode images with digital reconstruction into an Acoustic Solid<sup>™</sup> for Virtual Volumetric Viewing (3V<sup>™</sup>)
- ◆ **Tray-Scan<sup>™</sup>** for automated data collection & analysis per accept/reject criteria of components in JEDEC style trays
- ◆ **C-SAM Interactive<sup>™</sup>** provides internal interactive help function for user applications support

### Operating System

- ◆ Visual Acoustics<sup>™</sup> for Windows<sup>®</sup> XP Pro
- ◆ Multi-Language Operation
  - ◆ English, Japanese & Trad. Chinese

### MCU (Master Control Unit)

- ◆ CPU Intel<sup>®</sup> Pentium<sup>®</sup> IV 2.8 MHz
- ◆ 1 GB RAM Memory
- ◆ 250 GB HDD
- ◆ DVD Writer with CD-R/RW Capability
- ◆ 10/100 LAN Card & 56K Modem
- ◆ 17" Flat Panel Monitors (2)

(Note: Computer configurations change as systems and specifications are updated)

### Mechanical System

- ◆ Very High Speed Large Area Access Scanner (333 x 312 mm) (13.1 x 12.3 inches)
- ◆ Repeatability x-y-z axis standard  $\pm$  0.5 microns
- ◆ Digital Servo High Speed Scanner Control with a linear bearing for the fastest image acquisition time
- ◆ Inertially Balanced, Vibration Free Scanning Mechanism (U.S. Patent 4,781,067)
- ◆ Up to 67 megapixels (8K) Very High Res<sup>™</sup> (VHR) enhanced scanning and data acquisition format with zoom enlargement (4 megapixels (2K) standard)
- ◆ Survey Mode<sup>™</sup> - Selectable pitch data acquisition to reduce scan times by 2 to 4X

### Electronic System

- ◆ 500 MHz Bandwidth Pulser/Receiver for transducers up to 300 MHz
- ◆ Transducers available from 5 to 300 MHz
- ◆ Digital gating selectable in 0.25 nsec steps
- ◆ Acoustic Impedance Polarity Detector (AIPD<sup>™</sup>) (Ref. U.S. Patent 4,866,986) simultaneously displays both polarity (i.e., phase) and amplitude information
- ◆ 95 dB Gain - selectable in 0.5 dB steps
- ◆ Dual Channel Digital Waveform Card for A-Scan data display and capture

### Facility Requirements

- ◆ 115V to 240V AC, single phase, 50/60 Hz
- ◆ 15 amps maximum current
- ◆ Select L 72" x W 30" x H 60" or ergonomic wrap-around footprint

### Standard Features

- ◆ Expanded sample accessibility and visibility with extra lighting (> 200 Lux)
- ◆ Application Set-up Wizard to assist users with system set-up (e.g., transducer selection)
- ◆ Network Ready
- ◆ SONOLINK<sup>™</sup> - direct "on-line" support via modem communication for diagnostic and application support.
- ◆ AUTOSCAN<sup>™</sup> function for auto-selection of part alignment, field of view, focus, gating and gain
- ◆ Color Management System for image enhancement (includes pre-stored and custom "user designed" color maps)
- ◆ Multiple A-Scan display corresponds to selected point on C-Scan image
- ◆ Quantitative measurements for distance and time on image or A-Scan
- ◆ Automatic storage and recall of instrument settings and parameter library when a saved image is recalled
- ◆ GIF, JPG, TIF, BMP and PCX file outputs for digital data transfer and file storage

### Optional Features

- ◆ Waterfall<sup>™</sup> Transducer for non-immersion type scanning
- ◆ Heater and/or Chiller for water temperature stability and consistency
- ◆ Digital Image Analysis (DIA) includes area fraction analysis (including Mil-Std-883, Method 2030), image enhancement, histogram, FFT, pixel amplitude analysis, plus image subtraction and addition
- ◆ VRM<sup>™</sup> (Virtual Rescanning Mode) stores 100% of A-Scan data to allow further analysis of a part no longer available. Additional Profile Imaging and Frequency Domain Imaging (FDI<sup>™</sup>) Modules are available for 3D depth and frequency related imaging, respectfully
- ◆ Additional RF Slice/Memory for multi-level data acquisition

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