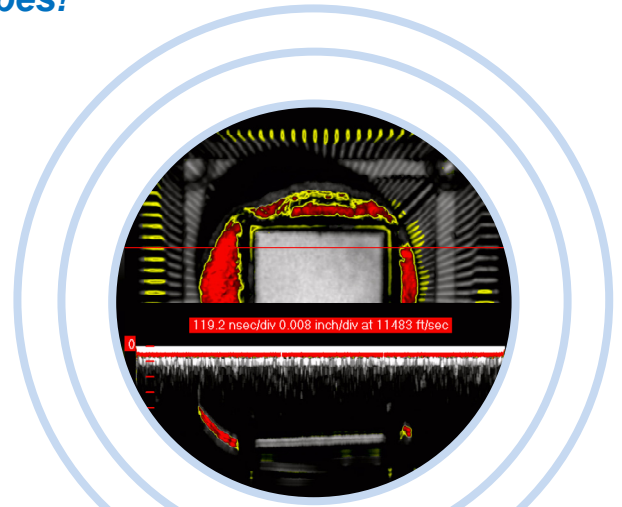


D9600™ C-SAM[®]

The Modern Standard for Acoustic Microscopes!



Q-BAM™

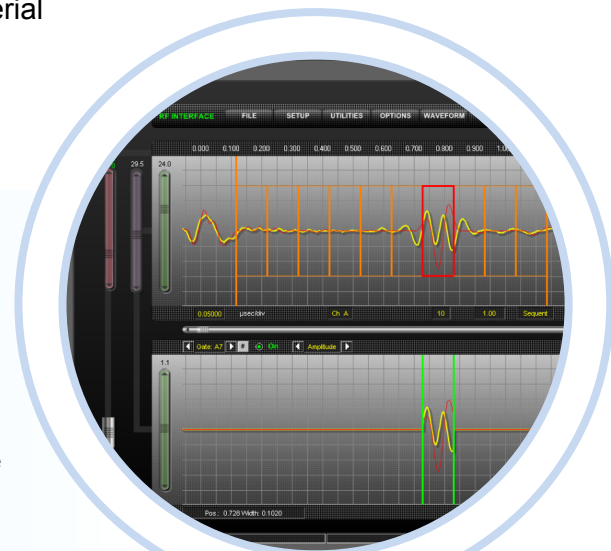
Sonoscan's exclusive Quantitative B-Scan Analysis Mode (Q-BAM) provides a virtual cross-section of a PEM. Note: Amplitude & Polarity data are retained and clearly displayed.

Maximum Flexibility for Detailed C-SAM[®] Inspections

The D9600™ is the modern Acoustic Microscope (AM) standard that delivers the same unmatched accuracy and robustness as its previous generation, plus an improved electronics and software platform by incorporating PolyGate™ technology and Sonolytics™. The D9600 is ideal for failure analysis, process development, material characterization and low-volume production environments.

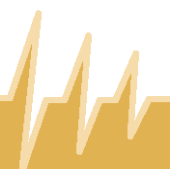
Features:

- PolyGate™ technology with Multi-Gate™ and Probing-Gate™ functions capable of single and multi-focus imaging
- Up to 100 gates per channel
- Windows® 7 Ultimate for multi-language and 64 bit capabilities
- Linear Rod Motor Scanner is capable of scanning JEDEC trays
- More precise with tower mounted scan reference platform and sample fixture
- Easy-access scanning area makes loading and unloading easier
- Quantitative B-Scan Analysis Mode (Q-BAM)™ incorporates Sonoscan's proprietary B-Scan mode to provide a virtual cross-sectional view with accurate polarity, amplitude and depth data
- Optional water recirculation, Waterfall™ transducer, and inline temperature control are available
- Optional Digital Image Analysis (DIA)™ uses advanced algorithms to quantify the acoustic data and allows you to set accurate, automatic, accept/reject criteria



Visual PolyGate™

Easy to use operator interface





C-SAM[®] D9600™ 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)
- ◆ **PolyGate™ Technology** with up to 100 gates of data acquisition per scan in either Multi-Gate or Probing-Gate imaging modes
- ◆ **Pixel Pitch™ Mode** allows the operator to select the desired data point spacing and scan area size, thereby determining the C-SAM image resolution
- ◆ **Movement Map™** links SW and HW to match X-Y location grid with the part locations
- ◆ **Q-BAM™** (Quantitative B-Scan Analysis Mode) for virtual cross sectioning, while maintaining amplitude and polarity data
- ◆ **C-SAM Interactive™** provides internal interactive help function for user applications support
- ◆ **THRU-Scan™** (Through transmission imaging) is optional for up to 100 MHz in fixed field and large area scan formats
- ◆ **STAR™** (Simultaneous Thru-Scan™ and Refection) is optional and allows both image types to be obtained with one scan

Operating System

- ◆ Sonolytics™ for Windows 7®
- ◆ Multi-Language OS Operation
 - ◆ English, Japanese & Trad. Chinese

MCU Configuration:

- ◆ CPU: Intel® Core™ 2 Quad at 2.66 GHz
- ◆ 8 GB RAM Memory
- ◆ 500 GB HDD
- ◆ DVD-R/RW / CD-R/RW SATA
- ◆ 10/100/1000 Ethernet ports
- ◆ 24" WS FP Monitor

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

Mechanical System

- ◆ Linear Motor Scanner with capability to scan 314 x 314 mm (12.4 x 12.4 in) area
- ◆ X-Y-Z axis precision of ± 0.5 microns
- ◆ Scan tower based sample reference for repeatable positioning
- ◆ Linear Motor High Speed Scanner for the fastest image acquisition time
- ◆ Up to 67 megapixels (8K) data resolution and acquisition format with zoom enlargement (4 megapixels (2K) standard)

Electronic System

- ◆ 500 MHz Digital Pulser/Receiver optimized for use with transducers up to 230MHz
- ◆ 95 dB Gain - selectable in 0.5 dB steps
- ◆ PolyGate™ Technology for Multi-Gate and Probing-Gate imaging
- ◆ 100 Gates per channel for data acquisition
- ◆ Digital Gating selectable from 1 to 10,000 ns
- ◆ Dual Channel Digital Waveform Card for A-Scan data display and capture
- ◆ Acoustic Impedance Polarity Detector (AIPD) (Ref. U.S. Patent 4,866,986) simultaneously displays both polarity (i.e., phase) and amplitude information

Facility Requirements

- ◆ Universal Voltage - 90V to 250V AC, Single Phase, 50/60 Hz and 15 amp circuit (120V)
- ◆ Configuration – Straight: L 1.89 x W 0.74 x H 1.58 m (L 74.5 x W 29.0 x H 61.9 in.)

Included Features

- ◆ Clean Room Ready System with Aluminum Table Top & ESD Safe
- ◆ Tower reference JEDEC tray holder with sample reference tray for known positioning of a matrix of parts
- ◆ Open Access for Easy Load/Unload
- ◆ Application Set-up Wizard to assist users with system set-up (e.g., transducer selection)
- ◆ SONOLINK™ Direct "on-line" support via internet for diagnostic/application support
- ◆ AUTOSCAN™ function for auto-selection of part alignment, field of view, focus, gating and gain
- ◆ Multiple A-Scan display corresponds to selected points on the C-SAM 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, PNG, JPG, TIF, BMP and IMWX file outputs for digital data transfer and file storage

Other Optional Features

- ◆ Water management system with water fill, drain, recirculation, filter functions and overflow protection
- ◆ 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
- ◆ Tray-Scan™ for automated data collection & analysis per accept/reject criteria of the components in a JEDEC style tray
- ◆ Package Region™ Analysis for ICs
- ◆ ASF™ for surface flatness measurements
- ◆ Waterfall™ Transducer for non-immersion type scanning
- ◆ Heater for water temperature stability and consistency

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

D9600 Spec 1205