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
**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 Ech (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 Reflection) 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)