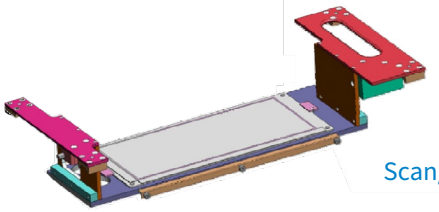
FastLine™ Model P300

C-Mode Scanning Acoustic Microscope

Introducing the new FastLine™ series of C-SAM® systems for Production line use… Model P300™

What's different about P300?

Every detail was engineered specifically to match the way customers use AM systems as part of their production and process control on the factory floor!



Scan/Transfer Fixture

Simultaneous Scanning and Safe Loading Zones

Features

- Operation has been optimized for throughput and productivity.
- Design has been integrated to minimize footprint.
- Ergonomic features provide operator comfort & efficiency.
- New electronics platform to meet current and next generation applications.
- Includes Sonolytics™, the new easy and intuitive user interface.

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TEST & INSPECTION

FastLine™ Model P300 C-Mode Scanning Acoustic Microscope

Key Features for Production

- **Increased Throughput and Productivity** with simultaneous scanning and loading zones and precise positioning transfer mechanism
- **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
- **Time Domain Pulse-Echo Modes** include; AScan, B-Scan, C-Scan, Bulk Scan and Loss of Back Echo (LOBE)
- **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
- **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

Mechanical System

- Inertially Balanced Scanner with capability to scan 317 x 317 mm (12.5 x 12.5 in) area
- X-Y-Z axis precision of + 0.5 microns
- Scan tower based sample reference for repeatable positioning
- Scan Speed up to 1016 mm/s (40 in/s) for the fastest image acquisition time
- Up to 268 Megapixels (16K) data resolution and acquisition format with zoom enlargement (4 Megapixels (2K) standard)

Electronic System

- Digital Pulser/Receiver optimized for use with 10 to 120 MHz transducers
- Compatible with 10 to 230 MHz Transducers
- 95 dB Gain - selectable in 0.5 dB steps
- PolyGate™ Technology for Multi-Gate and Probing-Gate imaging
- 100 Gates for data acquisition
- Digital Gating selectable from 1 to 10,000 ns
- 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)
- Compressed Air – Pressure: 550kPa (80 psi) & Flow Rate: 15 lpm (0.5 cfm)
- Straight Configuration - L 166 x W 76 x H 160 cm (L 65.5 x W 30.0 x H 63 in.)
- **Select Height** - Desktop 79 cm (31in) or Workbench 89 cm (35 in)

Included Features

- “L” shaped tank with simultaneous scanning and loading zones
- Two (2) sliding fixtures for handling a JEDEC style tray or sample reference tray
- Two (2) sample reference trays for known positioning of a matrix of parts
- Clean Room ready system with stainless steel tabletop & ESD ground points
- 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
- Water management sys tem with water fill, drain, recirculation, filter functions and overflow protection

Other Optional Features

- Tray-Scan™ for automated data collection & analysis per accept/ reject criteria of the components in a JEDEC style tray or sample reference tray
- Digital Image Analysis (DIA) includes area fraction analysis, image enhancement, histogram, FFT, pixel amplitude analysis, plus image subtraction and addition
- Package Region™ Analysis for ICs
- ASF™ for surface flatness measurements
- Waterfall™ Transducer for non-immersion type scanning
- Heater for water temperature stability and consistency

For more information, speak with your Nordson representative or contact your Nordson regional office

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