

DF2400 FACTS²™ C-SAM [®]

Another Step Forward in Automated Scanning!



***Improved Flexibility
and Throughput!***

2x to 7x Faster Throughput

Dual optimized scanning zones.
Simultaneous scanning and drying.

Factory Friendly

SECS-II/GEM E30 and SMEMA.
Water quality management system.

***Fully automated and also
doubles as an analytical tool***

Ensures Defect-Free Production without Sacrificing Throughput

The FACTS² model DF2400 delivers even faster automation inspection with maximized flexibility. Equipped with our industry preferred Sonolytics™ software platform, the DF2400 is the ideal solution for production environments.

Features:

- Increased throughput
 - Inertially balanced dual linear motor scanners for vibration free high speed scanning
 - Simultaneously scans two (2) modules or JEDEC trays
 - Continuously scans while parts are being dried in an isolated drying area
 - Programmable customized scanning of specific areas, thus maximizing throughput
- Flexible configuration
 - In-line operation for high volume production environments
 - Operates as a stand-alone analytical tool
 - Thru-Scan™, reflection and non-immersion scan modes
- Compatible with the Windows 7 Sonolytics software platform featuring:
 - Visual PolyGate™ technology with Multi-Gate™ and Probing-Gate™ - capable of single and multi-focus imaging.
 - Automated image analysis for accept / reject.



The DF2400 delivers state-of-the-art automated AMI inspection for quality and process control. Delivering high throughput with minimal operator interaction, the DF2400 helps ensure defect-free production.

DF2400 automatically inspects ICs in JEDEC trays or Auer Boat carriers as part of an in-line process. In addition, the DF2400 can also handle lead frame strips, IGBT power modules, multi-layer ceramic chip capacitors, flip chips and other components.

Sonoscan's proprietary non-immersion technology quickly scans each tray without loss of resolution. The DF2400 also has the ability to simultaneously scan multiple discrete levels within the packages (die face and die attach, for example) with no loss of speed.

Once inspected, trays are moved to the drying chamber while a new inspection begins. Any previously hidden internal packaging defects, including voids, disbonds, delaminations and cracks, are clearly identified. Batch and lot data can be accessed either as images or tabulated analysis data from spreadsheets and tray maps. If desired, accept/reject criteria can be set to identify defective components within the data automatically. Defects can also be sorted into various categories based on your specific quality standards.

Dual linear motor based scanners simultaneously scan two (2) trays or modules with precision of ± 0.5 microns. The scanners utilize linear motor drives and mechanisms that virtually eliminate vibration by inertial balancing. By eliminating vibration and sample motion during the scan, very narrow and precise layers of the sample can be isolated, gated and analyzed. The inertially balanced scan mechanisms also provide the **fastest image acquisition times** available.

Sonoscan's proprietary ultrasonic transducers and high frequency, high power digital pulser/receivers deliver the **clearest images**. The gain is digitally adjustable in precision 0.5dB steps. Each pulser/receiver provides a **10 to 20dB advantage** over competitive systems, allowing either deeper penetration into samples for the same transducer frequency or the use of higher frequency transducers for better resolution at the same depth within a sample.



Sonoscan[®]
Sound Technology With Vision

Leaders in Nondestructive Internal Inspection

Since its inception, Sonoscan has focused on developing superior Acoustic Micro Imaging (AMI) technologies to help our customers build higher quality products. Sonoscan remains the most trusted authority on the application of AMI for nondestructive internal inspection and analysis. Sonoscan patented systems span the laboratory and production environments and are regarded as the standard for accuracy and throughput.

Sonoscan Delivers:

- **Superior Image Quality** ensured by the designs originating from our own transducer/lens development lab and fabrication facility
- **Extraordinary Data Accuracy** through our proprietary signal-processing algorithms, analysis functions and digital image/data formats
- **High Throughput Rates** by developing the most advanced integrated features, automation and analysis functions within our instruments
- **Unsurpassed Technical Expertise** with more than 20 dedicated and highly experienced AMI applications engineers on staff

For a complete list of Sonoscan's products, please contact Sonoscan at 847.437.6400 or visit our website (www.sonoscan.com).