

The Compact Ultrasonic Analyzer

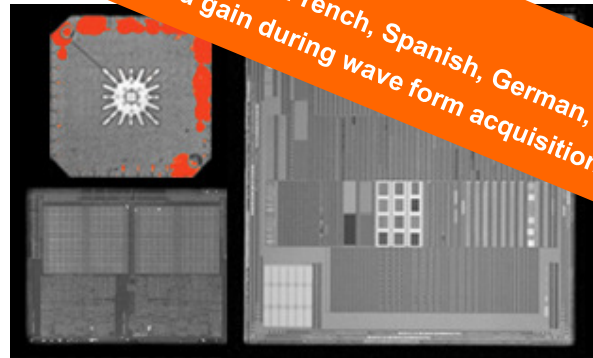
The IS series of Scanning Acoustic Microscopes integrates the finest state-of-the-art technology for high resolution, high speed, fully digital non-destructive analysis.

The IS-202 combines high resolution with a very compact set-up. It is ideally suited for mid-volume applications where high resolution and data acquisition flexibility

are crucial to obtain high quality scanning results. Due to its small dimensions the IS-202 desktop scanner easily fits in every laboratory or industrial environment.



New and Unique
 Multilingual - English, Japanese, Chinese, French, Spanish, German, ...
 DAC/TCG - Dynamic time corrected gain during wave form acquisition



Compact size, high performance

The compact IS-202 has been designed to fit into every given laboratory environment, where footprint sometimes becomes one of the most critical issues. Its removable water tank for fast and easy cleaning and its multilingual windows

software support the user during his everyday measurements and analysis. At the same time the IS-202 features a high resolution, high speed scanning mechanics for uncompromising acquisition speed and image quality.

Powerful technology

High precision scanning

Extremely low noise linear servo motor on the scan axis

High speed technology

Up to 500 mm/sec scan speed, 500 MHz receiver bandwidth, 3 GHz data sampling rate

High resolution

Down to 0.1 μm on all three x-, y-, and z-axis

Time Corrected Gain (TCG)

For counterbalancing signal loss due to absorption within large acquisition gates

Simultaneous pulse-echo and through transmission

For fast overall analysis



Wide application range

Semiconductor and micro-electronics

- CSP and Flip Chip underfill void and delamination analysis
- Integrity evaluation on power semiconductors
- Internal defect detection: Inclusions, cracks, die tilt

Material analysis

- Inclusion, crack and void detection in metals, plastics, resin
- Void evaluation in brazed interfaces

Interface analysis

- Delamination of composite materials
- Interface analysis on heterogeneous assemblies

IS-202 Standard Configurations

Model	Ultrasound frequency range	PRF range	DAC/TCG
IS-202-Universal	1 – 165 MHz (up to 300 MHz optional *)	0 – 20 kHz	Included ***
IS-202-HF	Optimum range: 40 – 165 MHz Possible range: 1 – 165 MHz **	0 – 20 kHz	Included ***
IS-202-LF	1 – 50 MHz	0 – 5 kHz	Included ***
IS-202-VLF	1 – 35 MHz	0 – 5 kHz	Included ***
IS-202 customized	500 kHz – 500 MHz	0 – 20 kHz	Included ***

* With optional ultra-high frequency remote pulser

** With optional low frequency remote pulser

*** Standard DAC/TCG included, fine tuning DAC/TCG optional

Options

Hardware options Larger tank size; PE + TT dual scan; Jog controller; Laser pointer and CCD camera on sample; Computer case

Software options InsightAnalysis for advanced offline data analysis

General Characteristics

(x,y) scan area dimension	200 × 150 mm (in PE mode)
(x,y) scan resolution	0.1 μm
Focus (z) axis stroke	50 mm
Focus (z) axis resolution	0.1 μm
Max. scan speed (in scan direction)	500 mm/sec
Number of axis	3 (x,y,z) linear axis
Inspection modes	Pulse echo (PE) or through transmission (TT)
Display mode	Ultrasonic wave form (A-scan), vertical slices (B-scan), plane images (C-scan with amplitude and phase analysis), TOF, FFT
Advanced scan features	3D sample representation, slice scan, segmentation scan, repeat scan, patch scan
Data collection method	Fully digital
Data sampling rate	250 MHz – 3 GHz
Data storage	High speed real time full waveform acquisition and storage on HD, DVD, or USB stick
Software	InsightScan for data acquisition InsightView for defect analysis and visualization
Dimensions (scanner body)	495 × 390 × 450 mm (w × d × h)
Certification	CE