OLYMPUS®
Your Vision, Our Future

Innovation in NDT™

NEW

Entry-Level Manual Phased Array Solutions

The new, low-cost, entry-level OmniScan® MX PA modules bring the advantages of phased array imaging into manual testing, while keeping all the benefits of a proven product.

If you choose a low-cost, manual OmniScan MX PA module, your phased-array technology equipment options remain open for the future. As your inspection needs grow, these modules can be upgraded to any other module in the OmniScan MX series, allowing you to gain data archiving, encoding, and automated inspection.

New Offer — Now Available

- OmniScan MX instrument
- Phased Array module dedicated for manual UT (16:16M or 16:64M)
- Various packages (including probes and wedges) available

For 12 months following purchase: **100% credit** applicable on upgrade to any other OmniScan MX module

Features

Ease of Use

- Live switch between conventional UT and phased array
- Intuitive data interpretation
- Software control of beam angle, focal distance, and spot size
- Multiple-angle inspection with a single, small, electronically controlled multielement probe
- Step-by-step calibration wizard eases the entry of every parameter, reducing errors
- Focal law calculator wizard
- Automatic probe recognition
- Minimum training required

Imaging

- Support for up to 64-element probes
- Beam forming using 16 elements
- Real-time volume-corrected representation of S-scans at 40 Hz with selectable A-scans
- Vertically projected A-scan is displayed alongside the S-scan
- “Most relevant A-scan” tracking mode
- Large 8.4 in. color display

Setup and Report

- Exportable setup parameters
- Thorough report setup including readings, images, and parameters
- On-screen interactive HTML help
- Predefined setups with preview

Detection and Sizing

- Increased probability of detection and better defect sizing
- Code compliance, in both PA and UT
- Defect sizing tools
- S-scan and image recording

Field Proven

- Rugged PA connector with automatic probe recognition
- Low-cost
- Portable, reliable, and durable
- Battery-powered (up to 8 hours)
- Upgradable and modular
- Supports multiple technologies

RD TECH®

OmniScan® MX Specifications

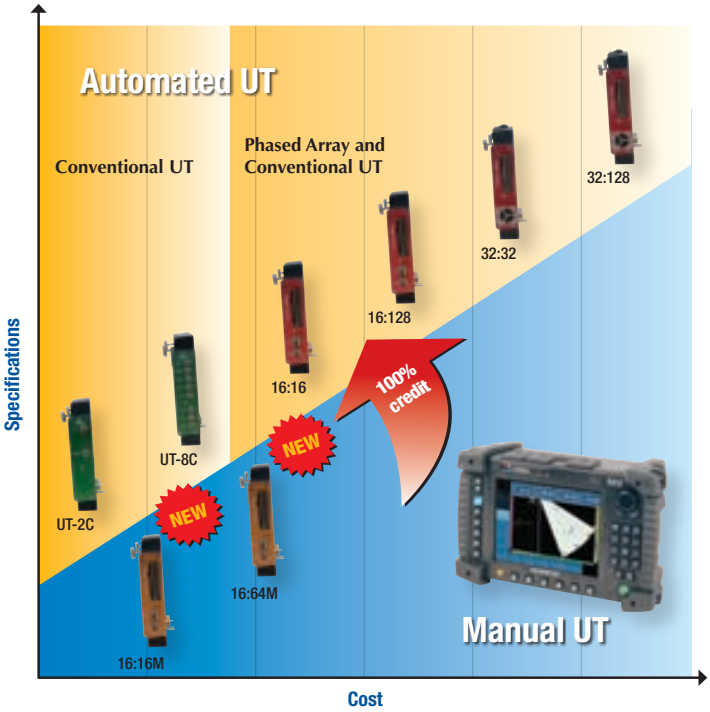
Overall dimensions	321 mm × 209 mm × 125 mm (12.6 in. × 8.2 in. × 5 in.)
Weight	4.6 kg (10.1 lb) (including module and one battery)
Data storage	
Storage devices	CompactFlash® card, most standard USB storage devices
File type storage	Report, setup, screen capture, defect table, S-scan
I/O lines	
Power output line	5 V, 500 mA power output line (short-circuit-protected)
Alarms	3 TTL, 5 V, 10 mA
Pace input	5 V TTL pace input
Display	
Display size	8.4 in. (diagonal)
Resolution	800 × 600 pixels
Number of colors	16 million
Type	TFT LCD
Power supply	
Battery type	Smart Li-ion battery
Number of batteries	1 or 2 (battery chamber accommodates two hot-swappable batteries)
Battery life	Minimum of 6 hours with two batteries; minimum of 3 hours per battery in normal operation conditions
DC-in voltage	15 V to 18 V (min. 50 W)
Environmental specifications	
Operating temperature	0 °C to 40 °C
Storage temperature	–20 °C to 70 °C
Relative humidity	0% to 95% noncondensing. No air intake.

Phased Array Module Specifications

(16:16M and 16:64M modules)

	PA	UT
Overall dimensions	244 mm × 182 mm × 57 mm (9.6 in. × 7.1 in. × 2.1 in.)	
Weight	1.2 kg (2.6 lb)	
Connectors	1 OmniScan connector	2 BNC connectors (1 pulser/receiver, 1 receiver)
Number of focal laws	256	N/A
Probe recognition	Automatic probe recognition and setup	N/A
Pulser/Receiver		
Aperture (active elements)	Up to 16 elements	1
Number of elements	16 or 64 elements	1 pulser/receiver, 1 receiver
Pulser		
Voltage	40 V or 80 V per element	50 V, 100 V, and 200V
Pulse width	Adjustable from 30 ns to 500 ns, resolution of 2.5 ns	
Fall time	Less than 10 ns	
Pulse shape	Negative square wave	
Output impedance	Less than 25 Ω	Less than 10 Ω
Receiver		
Gain	0–74 dB, maximum input signal 1.32 V p-p	0–74 dB, maximum input signal 10 V p-p
Input impedance	75 Ω	50 Ω
System bandwidth	0.75 MHz to 18 MHz (–3 dB)	0.5 MHz to 20 MHz (–3 dB)
Beam forming		
Scan type	Azimuthal and linear	N/A
Delay range transmission/ reception	0–10 µs in 2.5-ns increments	N/A
Data processing		
Rectifier	RF, full wave, halfwave +, halfwave –	
Filtering	Low-pass (adjusted to probe frequency), digital filtering (bandwidth, frequency range)	
Data visualization		
A-scan refresh rate	Real-time: 60 Hz	
Volume-corrected S-scan	Up to 40 Hz	N/A
Data synchronization		
PRF	1 Hz to 10 kHz	
Programmable time-corrected gain (TCG)		
Number of points	16 (1 TCG curve per channel for focal laws)	

OmniScan Ultrasound Products



Olympus NDT is the proven leader and innovator in ultrasound phased array technology. For more than 12 years, the Olympus NDT Québec facility has applied this ground-breaking technology to real-world applications. This leading edge and expertise has resulted in more than 1000 phased array instruments sold worldwide! Olympus NDT also offers training and unequaled competence in application support.

From portable products to large automated systems, Olympus NDT can provide you with cost-effective solutions for a wide variety of applications.

New Models

OmniScan MX PA 16:16-M	OMNI-P-PA1616M
OmniScan MX PA 16:16-M, 5L16-A1 PA probe with 60° SW wedge	OMNI-K-PA1616M1
OmniScan MX PA 16:16-M, 10L16-A00 PA probe with 60° SW wedge	OMNI-K-PA1616M2
OmniScan MX PA 16:64-M	OMNI-P-PA1664M
OmniScan MX PA 16:64-M, 5L64-A2 PA probe with 55° SW wedge	OMNI-K-PA1664M1

With any order of a new OmniScan model, a *Phased Array Technical Guidelines* booklet will be included.

Start with expert advice!

OLYMPUS®

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