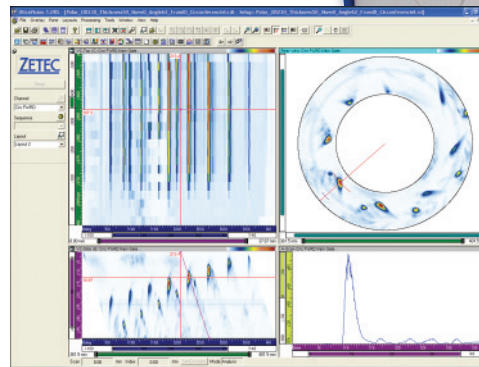


Z-SCAN UT CONVENTIONAL UT DATA ACQUISITION SYSTEM

Features

- Setup, data acquisition, and data analysis from standard PC
- Includes Zetec's UltraVision® software for setup and data acquisition (license for data analysis sold separately)
- 8 standard ultrasound channels with linear and logarithmic amplifiers
- Real-time data compression
- High pulsing rate and data throughput
- Flexible interfaces to scanners and manipulators
- Sealed enclosure is easier to use and maintain in contaminated areas



CE

Zetec's Z-Scan UT is the system of choice for any UT inspection application requiring power and portability. The Z-Scan UT is a flexible, high performance UT data acquisition system and the recommended replacement system for the Tomoscan/SV and μ Tomoscan.

While most systems now on the market use built-in computers, the Z-Scan interfaces to a standard, customer-supplied PC. Advantages to this solution include easier upgrades and more widely available service.

The Z-Scan UT operates from any desktop or laptop PC with Pentium IV processor, at least 512 MB of memory and a 100BaseT link. For optimal performance,

the PC should be configured for a specific application and take into account the data throughput and file sizes corresponding to that application.

With a Windows® OS and standard PC, the Z-Scan UT works with any PC-compatible peripherals, such as printers, disk drives, including magneto optical drives, and long distance optical link Ethernet adapters.

Many data processing functions are available with the Z-Scan UT: averaging, rectification, smoothing, data compression by n, and compression by peak detection. These functions work in combination and perform in real-time without any loss to the global system performance.

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Z-SCAN UT

CONVENTIONAL UT DATA ACQUISITION SYSTEM

Feature Comparison

Feature	µToscan	Toscan III	Z-Scan UT
Internal UT channels	1, 2, 4, 8	8, 16, [24, 32] ¹	2, 4, 8
Remote UT channels with optional remote P/R	8, 16 PR/03-16	8, 16 ² PR/05-16R	8, 16 ² PR/05-16R
Digitizer (A/D)	8 bit, 100 MHz	8 & 12 bit ³ , 100 MHz	8 & 12 bit ³ , 100 MHz
A-scan length (points)	32 to 8,096	20 to 16,328	20 to 16,328
Rectification	Analog	Digital	Digital
Smoothing (video filter)	Analog	Digital	Digital
Global data rate	600 KB/sec	> 5 MB/sec > 10 MB/sec ¹	> 5 MB/sec
Recording rate			
A-scan	1,200 8-bit A-scan/s ⁴	4,800 12-bit or 9600 8 bit A-scan/s ⁴	4,800 12-bit or 9600 8 bit A-scan/s ⁴
Peak data	5,000 peak/s	35,000 peak/s	35,000 peak/s
C-scan	20,000 C-scan pnts/s	35,000 C-scan pnts/s	35,000 C-scan pnts/s
Real-time data compression	N/A	Yes	Yes
Real-time averaging	1, 4, 8, 16	1, 2, 4, 8, 16	1, 2, 4, 8, and 16
Dynamic range (gain 0 dB) ⁵			
Linear	48 dB	54 dB	54 dB
Logarithmic	74 dB	74 dB	74 dB
Pulse output voltage	1 - 300 V	1 - 300 V	1 - 300 V
Encoder interfaces	2 quadrature-type ⁷	6 quadrature-type ⁶	2 quadrature-type ⁷
Software			
Data acquisition	UltraVision®	UltraVision®	UltraVision®
Data analysis	UltraVision®	UltraVision®	UltraVision®
Network interface	10BaseT	100BaseT	100BaseT
Vortex cooling system for contaminated areas	N/A—not required, sealed containment	Yes	N/A—not required, sealed containment
Weight	17.6 lb (8.0 kg)	44.1 lb (20.0 kg)	26.0 lb (12 kg)

General Specifications

Dimensions (W × H × D)	11.8 x 8.7 x 17.7 inches (30 x 22 x 45 cm)
Power Supply	
Voltage	120 VAC or 230 VAC
Frequency	50 HZ to 60 Hz
Maximum power	250 VA, Fuse 250V slow blow: 2.5 A at 230V, 5 A at 120V
Environment	
Operating temperature	41°F to 113°F (5°C to 45°C)
Storage temperature	-4°F to 140°F (-20°C to 60°C)
Relative humidity	95%, non-condensing
European directives and standards	The CE mark approves the conformity with all applicable directives and standards of the European community: electrical safety (EN61010-1, EMC (EN61326). The Z-Scan UT is an instrument of Class 1 and installation category II.

Ordering Information

System purchase includes: Online data acquisition software, Carrying case, Certification, and Operating Guide

1350-00-2021 Z-Scan UT system, 2 conventional UT channels - 2 pulsers and 2 receivers - with Lemo00 connectors

1350-00-2022 Z-Scan UT system, 2 conventional UT channels - 2 pulsers and 2 receivers - with BNC connectors

1350-00-2041 Z-Scan UT system, 4 conventional UT channels - 4 pulsers and 4 receivers - with Lemo00 connectors

1350-00-0042 Z-Scan UT system, 4 conventional UT channels - 4 pulsers and 4 receivers - with Lemo00 connectors - compatible with TomoS/V Remote P/R

1350-00-0043 Z-Scan UT system, 4 conventional UT channels - 4 pulsers and 4 receivers - with BNC connectors

1350-00-0044 Z-Scan UT system, 4 conventional UT channels - 4 pulsers and 4 receivers - with BNC connectors - compatible with TomoS/V Remote P/R

1350-00-0081 Z-Scan UT system, 8 conventional UT channels - 8 pulsers and 8 receivers - with Lemo00 connectors

1350-00-0082 Z-Scan UT system, 8 conventional UT channels - 8 pulsers and 8 receivers - with Lemo00 connectors - compatible with TomoS/V Remote P/R

1350-00-0083 Z-Scan UT system, 8 conventional UT channels - 8 pulsers and 8 receivers - with BNC connectors

1350-00-0084 Z-Scan UT system, 8 conventional UT channels - 8 pulsers and 8 receivers - with BNC connectors - compatible with TomoS/V Remote P/R

Notes:

¹ Needs dual processor option.

² Identical to Tomoscan/SV remote PR.

³ The digitizing resolution (8 or 12 Bit) can be chosen per channel.

⁴ A-scan of 512 points.

⁵ RMS value without averaging. Applying an average figure of, for instance, 4 will increase the given values by 6 dB.

⁶ Each encoder interface may be configured as either quadrature-type, up/down counters or clock/direction type. A total of 6 encoders can be permanently connected to the system. Three of them can be active simultaneously (in this case, the information of the third encoder is stored in the data file and can be accessed using specific application-related software).

⁷ Each encoder interface may be configured as either quadrature-type, up/down counters or clock/direction type.

ZETEC

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