

IntraSpect™ Mercury-Advanced Ultrasonic Acquisition System



System

- Single channel up to 4 channel system (for portable applications)
- 1 GBit interface
- Each channel is independent (pulse width, pulse voltage, etc.) Pulse and Receive on different channels Sequential or Parallel firing

Pulser

- Square Wave pulser from 40 ns to 1000 ns in 5 ns steps
- 50 Ohm fixed damping
- Single or Dual mode selection
- 0 to 400 V pulse voltage in 50 V steps
- Low EMI type design
- 10 kHz Rep Rate @ 400V 200ns Pulse

Receiver

- 76 dB dynamic range
- Bandwidth 100 kHz - 25 MHz
- Dual pole high pass filters (300 kHz, 1.5 MHz, 3 MHz, and 5 MHz)

Digital Signal Processing

- Sample rates from 1MHz to 100 MHz
- Low pass and high pass digital filters
- RF or Video rectified recording of data
- Video rectified data compression
- 14-bit Analog-to-Digital Converter
- Differential Signal input for lower noise/distortion

Encoder Input

- Two encoder inputs (can be used in single-ended or differential base on the scanner).

Dimensions

- Size: 10.5" x 10.25" x 4.25" (267mm x 260mm x 108mm)
- Weight 8.7 Lbs. (3.9 Kg)

Data Acquisition and Analysis Standard Features

Data Recording Modes

- Full RF Wave Data Collection/Storage Mode
- Hardware Based, Positive, Negative, or Full Wave (Selectable) Video Detection Data Collection/Storage Mode
- Peak Amplitude/Time-of-flight Data Collection/Storage Mode
- Pulse-Echo, Pitch-Catch, or Through Transmission Modes
- Data Compression Features
- Video Detection Mode Provides Data Compression and Extends A-gate Width
- Permanent Storage of Test Setups
- Complete Digital Computer Control
- Interactive Graphics Emulate Conventional Ultrasonic Instruments

Data Analysis Standard Features

- Complete Data Acquisition and Data Analysis
- Multi-tasking Operation
- Simultaneous A-, B-, and C-scan Display
- Scalable Screen Size
- C-scan Display
- Zoom Function
- Selectable as Peak & Time-of-Flight, Amplitude, Threshold Peak, Depth, dB Scale, Polarity, Power, or Ring-down Ratio
- Swap Axes Function
- Color Maps, Gates, and Variable Range can be altered for C-scan Display
- Time-of-Flight and Amplitude Based Statistics Functions
- Turntable related Polar C-scan View
- Interleave Function
- ASCII data conversion
- Hysteresis Correction Function
- Histogram Function
- Data Merge Function
- Annotation Function
- Auto Analysis Defect Sizing Function

B-scan Display

- Zoom Function
- B and B' Mode Displays
- Color and Gray Scale Mode Displays
- Time-of-Flight Tip Diffraction (TOFD) Display
- Fast Fourier Transform (FFT) Function
- Weld Overlay Function
- Calibrated Depth Measurement Function
- Curvature Correction Function
- Time Base Display Selectable as TOF or Metal Path

A-scan Display

- Zoom Function
- RF or Video Display Mode
- Time Base Display Selectable as TOF or Metal Path
- TIFF Data Conversion Function
- Volumetric Projection Analysis

