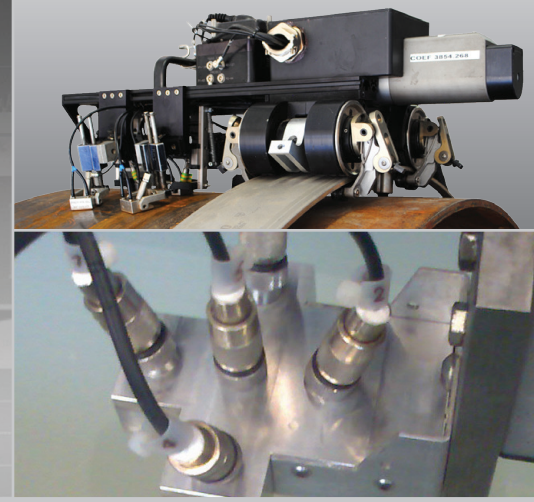
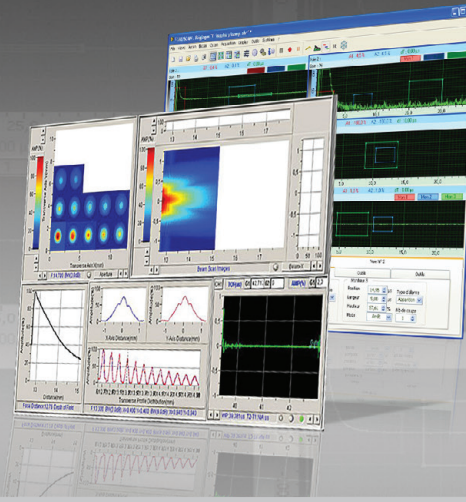


PRODUCTS & SYSTEMS

PRODUCT BULLETIN



USB-8M | Multichannel Ultrasonic System

MISTRAS presents an exciting addition to its Ultrasonic (UT) product line: the Multichannel Ultrasonic System – USB-8M. The system is the ultimate multichannel USB solution for data acquisition, imaging and analysis. It has 8 multiplexed UT measuring channels with settings for each individual channel – all powered by an easily accessible and highly portable USB link. In addition to its multichannel capabilities, the USB-8M module provides two encoder inputs that allow seamless interfacing with any mechanical part and B-Scan/C-Scan mapping.

The USB-8M's versatility and portability provide cost-effective solutions to a wide range of Ultrasonic and other non-destructive testing (NDT) applications. The multiple scan viewing capability coupled with its software and multichannel applications make the USB-8M a perfect tool in environments like railway, pipeline and weld inspections.

Available in OEM or IP65 enclosures, the USB-8M is designed for multichannel ultrasonic data acquisition, imaging and analysis in field testing, industrial plants, training centers and research laboratories. It is **ideal for embedded system and OEM multichannel application.**

FEATURES

- USB powered; compatible with Windows 7/XP/Vista (32–64 bit), MacOS, Dynamic Link Libraries (DLLs) available
- Standard USB-8M includes 2 encoder inputs and is operable in PE/TT mode. Users also have A-, B-, or C-scan viewing capabilities.
- Software development and integration of new functions into field-programmable gate arrays (FPGA) are also available upon request.

SOFTWARE SOLUTIONS

The USB-8M is used in conjunction with MISTRAS' full-featured Ultrasonic C-Scan software packages - UTwin™ and Euroscan V. Each is user-friendly with intuitive pull-down menus, independent C-scan pages and feature icons. The USB-8M's multichannel capabilities pair perfectly with UTwin™'s eight-channel support abilities and multiple real-time A,B and C-scan displays.

INDUSTRIAL APPLICATIONS

The USB-8M provides inspection for various methods of NDT: Manual & multichannel Time of Flight Diffraction inspection; Pipe, tube & plate control; Weld inspection; Composite or metallic Inspection; Process monitoring; Damage monitoring; Research & Development studies.

SPECIFICATIONS

Pulser: Type	Spike
Pulser: Voltage.....	20 to 230 V
Pulser: Width of spike	20 to 400 ns
Pulser: Resolution of width	5 ns
Pulser: Fall-time.....	4.8 ns
Pulser: Rise time.....	5.2 ns
Pulser: PRF.....	10 kHz max
Pulser: Output impedance	50 Ohms
Receiver: Amplification.....	0 to 90 dB
Receiver: Hardware Averaging	2, 4, 8, 16
Receiver: Noise.....	21 nV/Hz
Receiver: Linearity of TGC	40 dB/us
Receiver: Resolution of TGC	Down to 50 ns
Receiver: Number of TGC points	up to 256
Receiver: Bandwidth to -6 dB.....	500 to 31 MHz
Digitization: Resolution	12 bits
Digitization: Frequency.....	25, 50, 100 MHz
Filter: Type.....	FIR
Filter: Settings (mHz)	Off / 2,5 / 2,5-7,5 / 5-15
Memory: Type	SRAM
Memory: Capacity	2 MB
Memory: Resolution	16 bits
Encoders: Number.....	2 to 4
Power Consumption:.....	< 5W
Box: Waterproof	IP65
Box: Mounting.....	on RunnerM/Runner2M
.....	anything else on request
Communication: Type	USB 2.0
MUX: Type.....	Pulser & receiver separately
MUX: Number of Channels.....	8
System Parameters:	PRF, Voltage, Trigger
.....	configuration, sampling interval
Channel Parameters:	Pulse width, #Rx, #Tx, offset,
.....	scale, gates, amplification, TGC, averaging, FIR

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