

M2M PANTHER™

Industrial phased-array instrumentation with TFM



Eddyfi
Technologies

SPECIFICATIONS

GENERAL		
L x W x H: 300mm x 220mm x 155mm	Weight: 6kg	
Operating temperature range: from -10°C to 50°C 14°F to 120°F	IP54	
Storage temperature range: -10°C to 60°C 14°F to 140°F	Power supply: 240V50Hz – 110V/60Hz	
PHASED-ARRAY		
Linear scanning, sectorial scanning, parallel shooting, ultrafast mixed modes	Linear, Matrix, DLA and DMA, Annular and Daisy probes	
Scalable up to 16 Panther units (2048 channels) Maximum single aperture : 256 channels	Unlimited probe number No group limitation Up to 13100 focal laws	
Delay-law computation for standard and parametric shapes (plates, cylinders, Butt Welds, T K & Y welds, elbow, nozzle, turbine blade, nozzles,...) as well as 2D and 3D CAD	Focusing mode: true depth, sound path, projection	
REAL-TIME TFM, FMC, PWI		
Reconstruction channels: up to 128	Max number of pixels for the reconstructed image: more than 1 Million	
Max refresh rate: up to 500fps (depends on the pixel numbers)	Multiple Sound paths: direct (L or S), indirect and converted modes, Modes superposition	
PULSERS		
128 phased-array channels*:	Bipolar square pulse, width: 30ns to 2000ns	
	Voltage amplitude: max 120V with 1V step	
	Max. PRF: up to 30kHz	
RECEIVERS		
128 phased-array channels*:	Input impedance: 50 Ω	Gain: up to 120dB (0.1dB step)
	Frequency range: 0.4 to 20MHz	Cross-talk between two channels - 50 dB
	Max. input signal: 1.8Vpp	Ultralow noise amplifier
DIGITIZER		
Digitizing and real-time summation on 128 channels	Resolution: 14bit Dynamic: 16bit	
IIR filters	Max. sampling frequency: 125 MHz	
Rectified, RF, envelope	Digitizing depth up to 16k points	
Max delay: 1.6 ms	Max A-scan range 65k points	
ACQUISITION		
A-Scan/Peak data recording	800% amplitude range	
High speed FMC recording (320 MB/s)	Inspection data file size: hard drive limitation	
Acquisition trigger on time, event, encoder	Data transfer through USB3	
WIZARDS		
CAD overlay and 3D view	Amplitude balancing	
Real-time phased array calculator	Probe design Weld geometry design	
Wedge calibration (angle, height) Amplitude calibration (TCG, DAC)	Part geometry with parametric shapes (plates, cylinders, Butt Welds, T K & Y welds, elbow, nozzle, turbine blade, nozzles,...) as well as 2D and 3D CAD	
ANALYSIS		
A-Scan, B-Scan, C-Scan, D-Scan, Echodynamic, Top - Side - Front views	Amplitude range: up to 800%	
3D view, Analysis gates	CAD part geometry: plate, cylinder, T or Y section, nozzle	
Post-processing of TFM reconstruction of recorded FMC/PWI data acquisition processing in CAD geometry	CAD butt weld geometry	
Compatible with Enlight™, Enlight Plus™, CIVA and ULTIS software	Customizable inspection report	
I-O		
1 IPEX connector for phased-array (can be upgraded to 2 with splitter)	1 fiber optic port	
4 Lemo 00 3 encoder inputs	1 external trigger	
1 USB 3.0 high speed link	1 ultra high speed summation port (for summation between modules)	

The information in this document is accurate as of its publication. Actual products may differ from those presented herein.

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