

Echomac[®] PA Ultrasonic Phased Array System

For Use in Production Environments



Versatile Ultrasonic Phased Array System

MAC's Echomac[®] PA, when integrated with mechanical systems such as linear scanners, bubblers and immersion tanks, provides a convenient platform for a wide range of phased array applications including rail wheel testing and composite testing.

Echomac® PA Features

- Phased array channels 32:128 PR
- PA firing modes Up to 32 consecutive elements
- Conventional UT channels 2 channels (in Pulse/Echo or Pitch/Catch configurations)
- Pulse width 25 ns to 500 ns
- Pulse amplitude PA (at 50Ω) 35 V to 100 V
- Pulse amplitude Conventional UT (at 50Ω)
 50 V to 200 V
- A-scan length Up to 16,384 points
- Maximum number of focal laws 1,024
- Real-time averaging 1, 2, 4, 8 and 16
- Compression 1, 2, 4, 8 and 16 PRF 20 kHz
- Maximum number of samples 16,384

- Measurement gates 4 gates + 1 synchronization gate
- Data throughput Up to 30 MB/s
- Maximum data file 20 GB
- Digitizing frequency 25 MHz, 50 MHz or 100 MHz
- Bandwidth (at -3 dB) 500 kHz to 18 MHz
- Summed data amplitude resolution 16 bits
- Filters Analog/digital band-pass, high-pass and low-pass
- Gain setting range PA 100 dB
- Gain setting range for Conventional UT 94 dB
- Data interfaces Ethernet 1000Base-T
- Encoder 2 axes (quadrature, clock direction)
- Cabinet with Door Mounted 19" Screen & Touch Screen Interface.
- Windows[®] (64 bits edition), Quad-core i7, 2.5 GHz processor, 8 GB RAM, high-speed (1 Gb/s) Ethernet link, or higher configuration.
- Thermostatically controlled 1800 BTU/HR controller (for use in production environments),
- □ Cabinet dimensions: 22.88"W x 22"H x 26"D(63.19 x 55.88 x 66.04cm) Air conditioner adds 8" (20.32cm depth)

The Echomac[®] PA Phased Array Instrument is designed and sold by Magnetic Analysis Corp., a US based leader in supplying NDT instruments, systems and service for over 90 years.

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