



# Echomac<sup>®</sup> PA Ultrasonic Phased Array System

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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)
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- ❑ 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.**

[www.mac-ndt.com](http://www.mac-ndt.com)

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