



UNIQUE IN NDT

# Pioneer

- ✓ Any FMC/TFM, Phased Array & Multi-Channel All Together
- ✓ Super-Fast Data Throughput, up to 4 GB/s
- ✓ Arbitrary Waveform Generator (AWG) in option
- ✓ High channel count available up to 1024



## PULSER

Pulsar Voltage <sup>1</sup>	Up to 100V (200V in option)
Pulse Width	30 to 1000 ns (Lower Frequency in option)
Pulse Width Resolution	4 ns
Pulse Focusing Delay	0 to 40 $\mu$ s (step 4ns)
AWG	In option
Maximum PRF	20 kHz

## RECEIVER

Receiver Resolution	14 bits per Channel
Receiver Gain Range	110 dB
Receiver Bandwidth	0.3 to 20 MHz (50 kHz in option)
Receiver Focusing Delay	0 to 40 $\mu$ s at 100 MHz
Delay Resolution	5 ns
DDF	Up to 64 points
Receiver TCG	45 dB
TCG Slope	$\pm$ 20 dB/ $\mu$ s

## SIGNAL PROCESSING

FIR Filter	Up to 64 taps
Different Filter per Cycle	Choose from 15 user defined filters
Ascan Resolution	8, 16 bits
Ascan Sampling	100 MHz
Decimation	50, 33, 25, 20, 16.65, 14.28, 12.5...MHz
Ascan Compression	Yes
Acquire All Ascans	Yes
Ascan Length	Up to 8 k points in FMC Mode
Gates	4 (Amplitude, TOF)
Gate Modes	Any (Peak, Flank, Zero before crossing, Zero after crossing)
IF Gate and Ascan	Yes, no limitations Surface and backwall tracking

## COMMUNICATION

High Speed Protocol <sup>2</sup>	LAN 1, 2, 4 x 1Gb (TCP/IP), LAN 1, 2, 4 x 10 Gb in option
Max Useful UT Data Flow for 64 ch	100 MB/s, 1GB/s in option

## SYSTEM

Parallel channels	64, 128, 256, 512, 1024... More configurations in option
UT Modes	Pulse/Echo, Pitch & Catch, Through Transmission (TT) 128 Tx/128 Rx
Full-Matrix Capture	Yes (Standard), all FMC techniques available
Dimensions	450 x 390 x 220 mm 17.72 x 35 x 8.66 in.
Weights	10.0 kg / 22.0 lb
Temperature Monitoring	Yes
Open Source SDK	Yes (Fully documented API)
Software Languages	C++, Python, C#, LabVIEW, MATLAB, etc...
Operating Systems	Windows, Linux
AFM-API (High Level API)	Including TFM, Real time Acquisition & Display (optional)
Multiplatform Compatibility	With all AOS products

## I/O MANAGEMENT

Encoders	X, Y (differential, single ended), More in option
Encoder Modes	Quadrature, Quadrature 4 edges, Direction Count, Forward, Backward
Synch In	Pulse Trig, Sequence Trig, Encoders
Synch Out	Pulse Trig, Sequence Trig, Output
Pin Assignments	Programmable
Number I/O	8 Inputs, 8 Outputs or more

<sup>1</sup> According to the configuration.

<sup>2</sup> The maximum data rate can vary according to the PC, the OS setting and the software environment.  
Photos and specifications not contractual.