TPAC

UNIQUE IN NDT

Explorer 128 Max

- ✓ **Ultra High Speed PAUT & FMC/TFM**
- ✓ **Matrix Array**
- ✓ **Ultra compact**
- ✓ **Very Fast Data Throughput**

PULSER

Pulser Voltage	Up to 150 V (200 V in option)
Pulse Type	Negative Square
Pulse Width	30 to 1000 ns (lower frequency in option)
Pulse Width Resolution	4 ns
Pulse Focusing Delay	0 to 40 μs
Pulse Delay Resolution	4 ns
Maximum PRF	20 kHz

RECEIVER

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

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, 16.65, 14.28, 12.5 MHz...
Ascan Compression	Yes
Acquire All Ascans	Yes
Ascan Length	8 k points in FMC Mode
	65 k points in Beamformer Mode
Max Number of Cycles	4,096
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

Communication Link	LAN 10Gb (TCP/IP)
Usefull UT Data Flow[1]	1 GB/s

SYSTEM

Configuration	128/128
UT Modes	Pulse/Echo, Pitch & Catch, Through Transmission (TT)
Full-Matrix Capture	Yes, all FMC techniques available
Dimensions	265x142x40 mm 10.43x5.6x1.57 in.
Weights	1.5 kg / 3.3 lb
Mounting Option	Tool-free docking system
IP Rating	Designed for IP 67
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 in option)
3D Focal Law Calculator for Matrix PA	Yes

I/O MANAGEMENT

Encoders	X, Y, Z (differential, single endend)
Encoder Modes	Quadrature, Quadrature 4 edges, Direction Count, Forward, Backward
Synch In	Pulse Trig, Sequence Trig, Encoders
Synch Out	Pulse Trig, Sequence Trig
Pin Assignments	Programmable
Number I/O	14 (8 Inputs, 6 Outputs)