TPAC
UNIQUE IN NDT

Pioneer

Ultrasound Platform for Advanced TFM

Super Fast Data Throughput	Up to	High Bandwidth
100 MB/s to 3 GB/s	100 m between unit and the PC	30 kHz to 20 MHz

Pulser

Pulse Voltage	100 V
Pulse Type	Negative Square
Pulse Width	10~1000 ns (lower frequency in option)
Pulse Width Resolution	4 ns
Pulse Focusing Delay	0~40 µs
Pulse Focusing Delay Resolution	4 ns
Maximum PRF	20 kHz
Arbitrary Waveform Generation *(in option)*	• Any waveform, up to 10 ms, available during acquisition • ±100 V • Bandwidth max > 15 MHz and > 20 MHz *(in option)* • Dynamic max > 40 dB • Output impedance < 5 Ohms

Receiver

Receiver Sensitivity	14 bits
Receiver Gain Range	16~110 dB
Receiver Bandwidth	10 kHz to 20 MHz
Receiver TCG (analog)	45 dB

Communication[1]

PCI Express Interface	1~3 GB/s
LAN (1000 BT, Gigabit Ethernet)	Up to100 MB/s (Option)

[1]The maximum data rate can vary according to the PC, the OS setting and the software environment.

Acquisition

A-Scan Sampling	100 MHz
Decimation	50 MHz, 33, 25, 16.65, 14.28, 12.5
Acquire All A-Scans	Yes
A-Scan Length	Up to 16 k points

System

Configurations	32, 64, 128, 256, 512, 1024…
Max Number of Cycles	2048
Number of Sub-Cycles	128
A-Scan Resolution	8, 14 bits
Temperature Sensors	Yes
Open Source SDK	Yes (Fully Documented API)
Software Languages	C++, C#, LabVIEW, MATLAB, Python and more
Operating Systems	Windows, Linux
Full-Matrix Capture	Yes (Standard), all FMC modes available
3D Focal Law Calculator for Matrix PA	Yes (Optional Upgrade)
High Level API	Including TFM Toolbox, Real time acquisition & display

I/O Management

Encoders	3 Encoders (4 possible in option)
Encoder Modes	Quadrature, Quadrature4edges, Direction Count, Forward Backward
Synch In	Pulse Trig, Sequence Trig, Encoders
Synch Out	Pulse Trig, Sequence Trig, Output
TimeStamps	Yes (Position and Line Speed)
Pin Assignments	Programmable
Digital I/O	8 Inputs, 8 Outputs

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