

PragmaLite Platform and Phased Array Beamformer for Portable Applications



PragmaLite Modular NDT Instrument Platform

MODULAR

The platform can be used with several cartridges: one cartridge per technology, one common user interface.

PORTABLE

The form factor, the rugged aluminum frame and the battery operation makes it fully portable and adapted for harsh environments.

EASY

The scroll-wheel, the direct menu buttons, the big fonts and the line help make the interface perhaps the simplest in the industry.

IMAGING

The brilliant screen renders a clear imaging of the inspection, and the tall unusual layout is perfectly suited for B-scan display.

PAUT 16/128 Cartridge Phased Array Beamformer

BEST IN CLASS

The state-of-the-art beamformer features 16 active channels, multiplexing over 128 elements, 100 MHz sampling per channel, 16-bit A-scan and many other advanced features.

HIGH-POWER

The square-wave pulsers are running at 180 Volts peak-to-peak and feature a special circuitry to maximize the transfer of piezo-electric energy.

ADAPTIVE

Each beam signal (A-scan) can be calibrated with: Static Focusing (SPAF), Dynamic Focusing on Reception (DFR), Distance Amplitude Correction (DAC), Time Corrected Gain (TCG), and Angle Corrected Gain (ACG).

ENCODED

The pulsing and data acquisition can be running at fixed PRF or triggered by position with 1 or 2 quadrature encoders.

Specifications

PragmaLite Platform

USER INTERFACE

Display Size	7.0" diagonal, 480 x 800, 9:16 ratio
Display Type	VGA TFT, 400 nits (cd/m2)
Alarms	Four (4) Visual Alarms, configurable
Sound	One (1) Loud Buzzer
Fast Settings	One (1) Scroll-wheel, Fifteen (15) direct keys, Four (4) menu buttons
Report	HTML, PDF

CONNECTORS

Power	DC in, 24V, 3.75A
Ethernet	Ethernet 10/1000, RJ-45
USB	Type A (Host or Client)
Video	VGA Output 1024 x 768, HD-15

MEDIA

USB	USB High-speed 480 Mbps, supports mouse, keyboard, memstick, external disk, hubs. Can also expose the unit as a "New Drive" in Windows.
SD Card	SDHC, max 32 GB
Flash	Internal Flash 1 GByte
RAM Drive	Internal DDR2 RAM 512 MByte

GENERAL

Dimensions	220 x 200 x 68 mm (8.7 x 7.9 x 2.7 in.)
Weight	2.5 kg (5.4 lbs.) including battery
Battery	Single Li-Ion 14.4V, 69 Wh
Autonomy	>3 to 5 hours, depending on cartridge
Power Requirement	AC Mains: 100-240 VAC, 50-60 Hz
IP Rating	Designed to meet IP64
Construction	Cast aluminum with rubber
Operating Temperature	-10 TO 40 C (14 to 104 F)
Storage Temperature	-20 to 60 C (-4 to 140 F)

Custom Solutions

NDT Solutions, Inc. specializes in innovative designs and solutions to difficult NDT problems. Let our team of development experts build you a system customized to meet or exceed your expectations.

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PAUT 16/128 Cartridge

PULSERS

Nb of Active Channels	16
Multiplexed Elements	up to 128
Voltage	+/- 90V (180Vpp)
Waveform	Square bipolar
Burst	Up to 5 cycles
Max. Pulse Repetition	5 to 4000 Hz, manually
Pulse Width	40 to 1000ns
Pulser Delay	0 to 10.2 us, 5.0 ns step

RECEIVERS

Nb of Active Channels	16
Multiplexed Elements	up to 128
Max. Input Signal Amp.	625 mVpp
Input Impedance	50 Ohms
Input Bandwidth	0.5 to 25 MHz @ -3 dB
Gain	0 to 80 dB
Time-Corrected Gain (TCG)	0 to 80 dB, max. +/- 30 dB/us
Receiver Delay	0 to 10.2 us, 5.0 ns step
Digitizing	100 MSPS, 12 bits per channel
Digital Filters	6 presets, user adjustable
Rectification	Full, unipolar +/-, RF

BEAMFORMING

Max. Nb of Laws	128 (S-scan), 256 (L-scan)
Amplitude Calibration	Static per probe element. Dynamic per beam (ACG)
Dynamic Focusing (DFR)	Up to 5 zones

CONNECTORS

PAUT Probe	I-PEX 30046, Compatible with Omniscan
Encoders, Input/Output	LEMO 9-pin model, FGG.0B.309

GENERAL

Dimensions	160 x 200 x 45 mm (6.3 x 7.8 x 1.9 in.)
Weight	0.45 kg (1.8 lbs.)
Construction	ABS Plastics
Operating Temperature	-10 TO 40 C (14 to 104 F)
Storage Temperature	-20 to 60 C (-4 to 140 F)



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