PHASED ARRAY

PAUT ELECTRONICS FOR INDUSTRIAL INSPECTION SYSTEMS

SOCOSCAN-PA

SOCOSWIFT-PA

![SOCOMATE INTERNATIONAL logo]

SOCOMATE
INTERNATIONAL

OUR PAUT ELECTRONICS

CAN BE USED FOR ALL KIND OF INSPECTION IN MANY INDUSTRIAL ENVIRONMENTS AND INDUSTRIES THANKS TO THEIR UNIQUE PA FEATURES AND ADVANCED DESIGNS.

An extensive range of applications

- High speed plate inspection
- OCTG pipes gantry systems
- Bars and billets inspection

- Railway related inspection systems
- Aircraft forging parts inspection
- High precision tube inspection

Software Development Kit (SDK)

Thanks to our **open platform** product, take advantage of the most complete DLL to **develop your own customized software** in any languages available (C++, Visual Basic, LabView...) that work on Windows operating systems, 32 and 64 bits.

Customize our API UTView Software thanks to the provided **source codes** and benefit from concrete example of coding with Socomate's DLL.
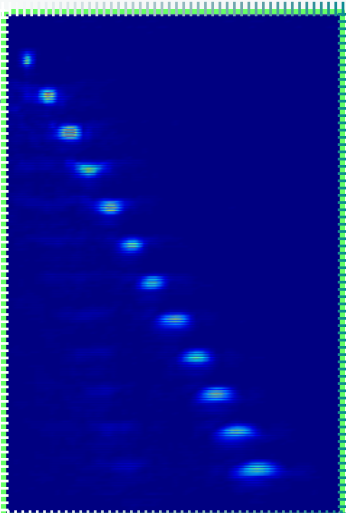
Our DLL is compatible with both complete range of conventional UT and PAUT equipment.

Multibeam

Ideal when you want to **gain time and coverage** for bar, tube and plate inspection systems.
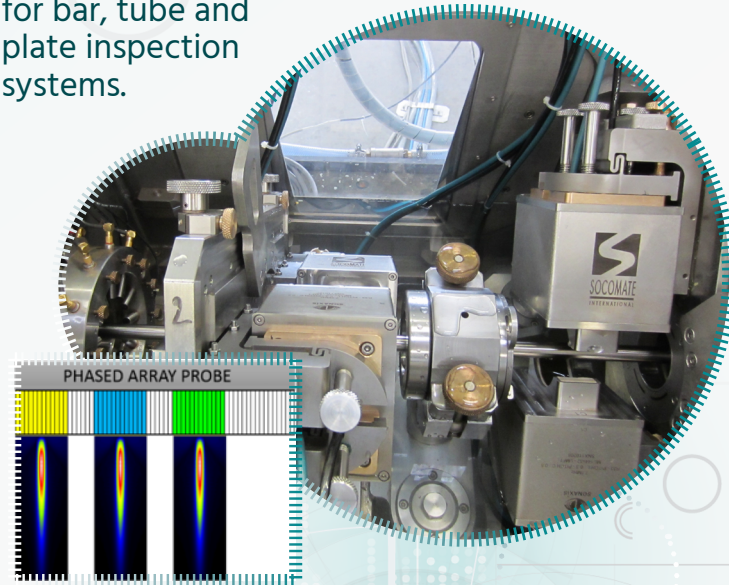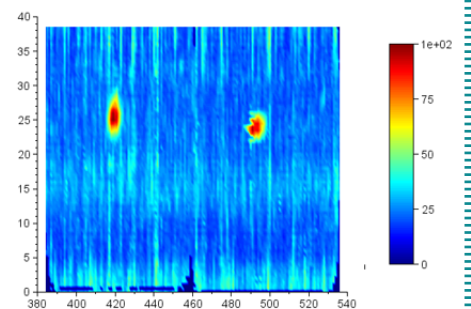

The fastest real time data processing on the market
up to 64 apertures processed in parallel with a 20 kHz PRF !

B-Scan with DDF

High speed
plate inspection

C-Scan FBH Ø 0.4 mm
100 and 150 mm depth

TECHNICAL SPECIFICATIONS

	MULTIPLEXED		PARALLEL	
	SOCOSCAN	SOCOSCAN+	SOCOSWIFT	SOCOSWIFT+
ULTRASONIC CONFIGURATION				
Configurations	16/64, 16/128, 32/64, 32/128	16/64, 16/128, 32/128, 32/256	32/32, 64/64, 96/96, 128/128, 256/256	
Max PRF	20 kHz			
Firing mode	Pulse-Echo, Transmission, Customized focusing, Electronic scanning, Sectorial scanning, DDF	Pulse-Echo, Transmission, Customized focusing, Electronic scanning, Sectorial scanning, Multibeam, DDF	Pulse-Echo, Transmission, Customized focusing, Electronic scanning, Sectorial scanning, Parallel firing, Multibeam, DDF	
Imaging	A-Scan, B-Scan, C-Scan, D-Scan, S-Scan, E-Scan			
Phased Array connections	Up to 2x Hypertronics (FRB) per instrument			

PULSER				
Pulser voltage	Adjustable up to 150V (1 V step)	Adjustable up to 250 V (1 V step)		
Pulser type	Negative Square			
Pulse width	25 ns to 500 ns (2.5 ns step)			
Delay-laws at emission	from 0 to 160 µs			
Delay-laws resolution	2.5 ns			
Fall and rise time	down to 5 ns			

RECEIVERS				
Input impedance	50 Ω			
Bandwidth	0.6 to 20 MHz			
Gain	Adjustable gain on each channel up to 134 dB			
Cross-talk between 2 channels	45 dB	50 dB		
DAC function	Dynamic : 70 dB ; Slope : ±70 dB/100 ns			

	MULTIPLEXED		PARALLEL	
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SIGNAL PROCESSING				
A-Scan length display	Up to 444 points			
Parallel firing		Up to 3 active beams	up to 4 active beams	Up to 64 active beams
Maximum number of samples	16 000 samples for post-processing or real time without limit			
Measurement Gates	4 gates IF, G1, G2 & G3			
Data throughout	Up to 50 MB/s			
Digitizing frequency	Up to 200 MHz			
Amplitude resolution	0.5 % FSH			
Filters	Multi-Band digital FIR			
Global delay	0 up to 1.6 ms / step of 20 ns			
Delays-laws at reception	0 to 40 µs, step down to 5 ns			
Range	16 bits			
FIR Filters	Yes			

INTERFACING				
Data Interfaces	Ethernet 1000Base-T			
Encoders	6 Axis (A, B and Z signals for each encoder)			

I/O MANAGEMENT				
Synch In	Cycle Trig			
Synch Out	Pulse Trig, Cycle Trig			
Pin assignments	Programmable			
Number of I/O	Up to 64 analogue outputs / Up to 128 digital outputs / 18 digital inputs / 6 trigger inputs			

CASING				
Size (H x W x D)	133 (3 U) x 450 x 500 mm (5.2 x 17.7 x 19.7 inches)			
Weight	~ 4 to 8 kg according to configuration	~ 4 to 13 kg according to configuration		

Socomate reserves the right to modify its products' specifications, at any time and in whatever manner, in order to improve their performances