

PHASED ARRAY



Excellence in UT Electronics since 1977

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 DESIGHS

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)

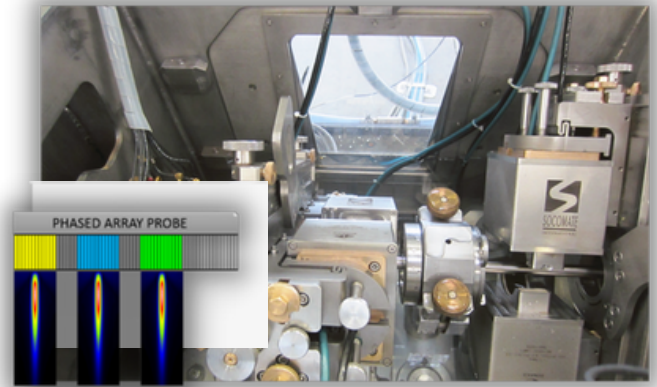
Thanks to our open platform product, take advantage of the most complete DLL to develop your own customized software in any languages available (C++, Visual Basic, LabView...) that work on Windows operating systems, 32 and 64 bits.

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.

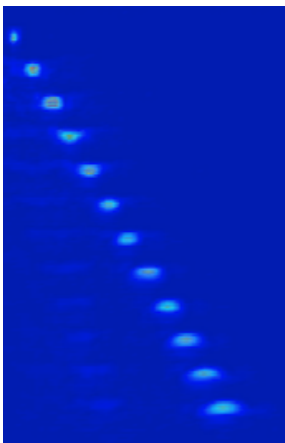
Multibeam

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 !

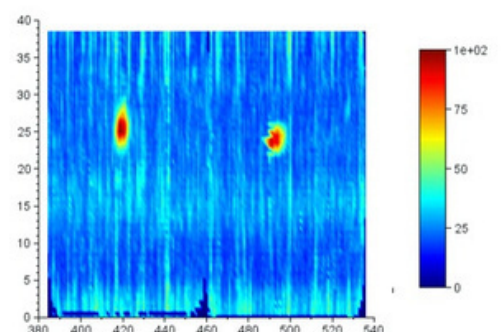
B-SCAN WITH DDF



HIGH SPEED PLATE INSPECTION



C-SCAN FBH Ø 0.4 MM 100 AND 150 MM DEPTH



TECHNICAL SPECIFICATIONS

MULTIPLEXED

PARALLEL

SOCOSCAN	SOCOSCAN+	SOCOSWIFT	SOCOSWIFT+
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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 200 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 μ s
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 : \pm 70 dB/100 ns

MULTIPLEXED

PARALLEL

SOCOSCAN

SOCOSCAN+

SOCOSWIFT

SOCOSWIFT+

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 μ s, 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