CONVENTIONAL UT

OEM UT ELECTRONICS TO BE INTEGRATED INTO INSPECTION SYSTEMS





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OUR OEM CONVENTIONAL UT ELECTRONICS

ARE DESIGNED FOR AN EASY INTEGRATION INTO ANY INSPECTION SYSTEMS, IN ALL INDUSTRIES AND IN HARSH PRODUCTION ENVIRONMENTS

An extensive range of applications

- Rotary heads
- Immersion tanks
- Bars and billets 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.

Railway related inspection systems

- Aircraft forging parts inspection
- High precision tube inspection

Stand-alone products: easy integration

Ethernet based, put the boards as close to the probes as possible to avoid noise issues.



Immersion tank for aircraft forgings inspection

POWER can be yours : 350 V pulser ! Especially useful for thick parts or high absorption material



Multi A-Scan Display for railway inspection



High precision tube rotary head inspection

TECHNICAL SPECIFICATIONS

	SOCO-1	SOCO-8S	SOCO-(4to8)P
ULTRASONIC CONFIGURATION			
Configurations	1 channel per board	8 channels per board Sequential	4 to 8 channels per board Parallel
Max PRF	20 kHz	20 kHz divided by the number of active channel	20 kHz per channel
Minimum channels		Up to 32 boards (256 channels)	
Number of gates		4 gates fully independant	
Multitest	Up to 8 sequential tests for each channel		
Power supply		External 24 V DC	\bigcirc
Power consumption	33 W max	55 W max	85 W max
Open source SDK		YES	
Software languages	C++, C#, LabView, VB, or any other on Windows		
Imaging	A-Scan, B-Scan, C-Scan, D-Scan in real time		
Operating plate form		From Win7 - 32 and 64 bits	

PULSER

Pulser voltage	Adjustable up to 250 V (1 V step) Adjustable up to 350 V (1 V step) for HV versions
Pulser type	Negative Square
Pulse width	25 ns to 500 ns (1 ns step)
Fall and rise time	down to 5 ns
Short circuit protection	YES

RECEIVERS	
Input impedance	50 Ω
Mode	Pulse echo / Through transmission
Analogue receiver bandwidth	0.6 to 27 MHz
Gain	0 dB to 80 dB (0.1 dB step)
DAC function	Dynamic : 80 dB ; Slope : ±80 dB/100 ns

	SOCO-1	SOCO-85	SOCO-(4to8)P	
SIGNAL PROCE	SIGNAL PROCESSING			
Filters		Digital Band-Pass (FIR)		
A-Scan sampling		Up to 200 MHz		
Data throughput		Up to 50 MB/s		
Compression		YES		
A-Scan Video		YES		
Acquire all A-Scan		YES		
A-Scan resolution display		up to 444 points		
Storage Full A-Scan		YES (16 bits/16000 samples)		

EVALUATION		
Amplitude resolution	0.5 % FSH	
TOF resolution	Less than 1 ns	
WT resolution	Less than 1 µm in steel material	

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

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

LAYOUT			
Size (H x W x D)	48 x 100 x 252 mm (1,9 x 3,9 x 9,9 inches)	48 x 190 x 252 mm (1,9 x 7,5 x 9,9 inches)	74 x 190 x 252 mm (2,9 x 7,5 x 9,9 inches)
Weight	0.45 kg	0.85 kg	1 kg

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