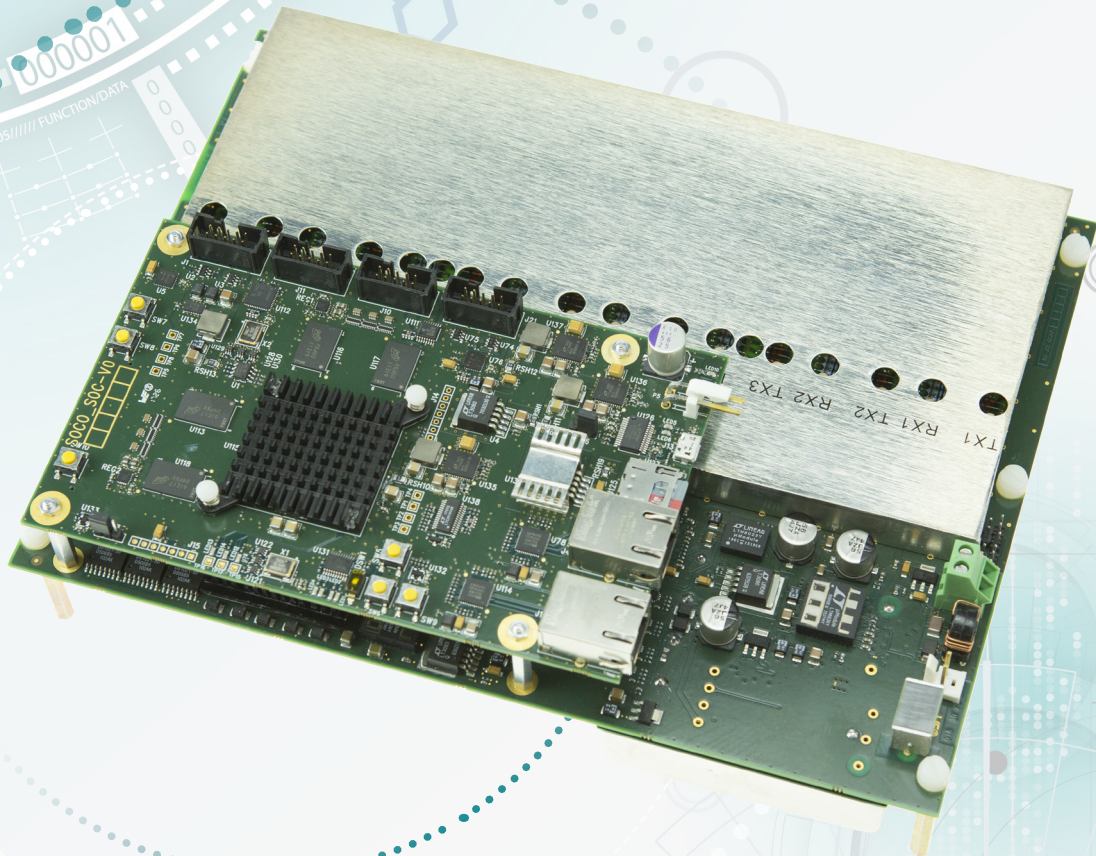


# SOCO-(4 to 8)P-UT

CONVENTIONAL OEM UT ELECTRONICS TO BE INTEGRATED  
INTO INSPECTION SYSTEMS



FROM 4 TO 8 CHANNELS FULL PARALLEL



**SOCOMATE**  
INTERNATIONAL

[WWW.SOCOMATE.COM](http://WWW.SOCOMATE.COM)

UT EXCELLENCE SINCE 1977

# STATE-OF-THE-ART OEM UT

## EASY TO INTEGRATE, RELIABLE, PERFORMING

Coming with up to 8 channels fully parallel and each delivering 20 kHz, The SOCO-(4 to 8)P-UT comes from the latest development of Socomate International in terms of conventional UT electronics. This UT instrument is a powerful tool when it comes to parallel channels as it can supply from 4 to 8 channels per board with up to 32 boards which lead to a maximum of 256 channels.

In order to ease the integration process, it only requires a 24V power supply and its ethernet based connection allows to put the board near the probes and drive it with any computer.

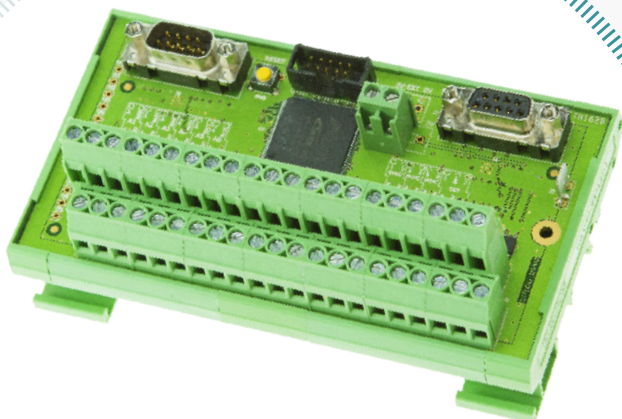
The SOCO-(4 to 8)P-UT also integrates both input and output connectors to manage encoder, external trigger, alarms and analogue outputs.



Benefit from an advanced API's as all our instruments come with an evolutive software, UTVIEW, which is use to manage all necessary UT parameters. A complete Software Development Kit (SDK) allows you to meet your most challenging requirements to create custom inspection solutions.

The supplied DLL with Socomate International product's is one of the key point of our success, as developing software has never been easier, from simple to complex software.

## EASY WAY TO MANAGE INPUT AND OUTPUTS CONNECTORS WITH TERMINAL BOARDS



### Input connector:

The Input connector is optional but very useful as it can supply up to 18 digital inputs or to manage up to 6 axis in addition to 6 external and independent triggers.

Directly compatible to an automate, it will make the integration process much easier.

# EASY WAY TO MANAGE INPUT AND OUTPUTS CONNECTORS WITH TERMINAL BOARDS

## Output connector:

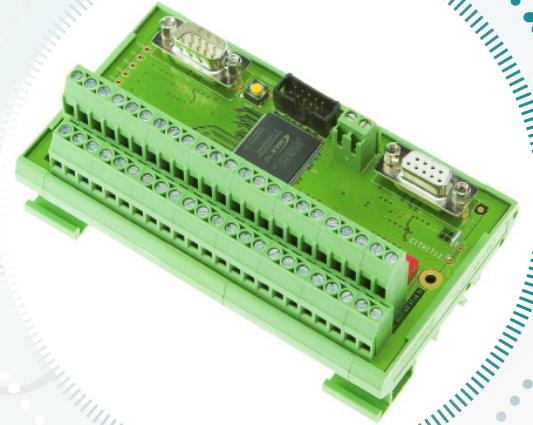
### • Alarms:

This optional but useful device will be connected to the output connector of the board through a serial bus cable, and is able to manage up to 32 Alarms output per terminal, with up to 4 terminals.

### • Analogue outputs:

Same process as for the alarms, this optional terminal offers up to 16 analogue outputs per board, with up to 4 terminals.

All these input and output connectors are optional but simplify the way to integrate the SOCO-(4 to 8)P-UT within an application. The connection between the SOCO-(4 to 8)P-UT card and the terminal boards is made by a serial bus cable, allowing short and long distance between the 2 devices.



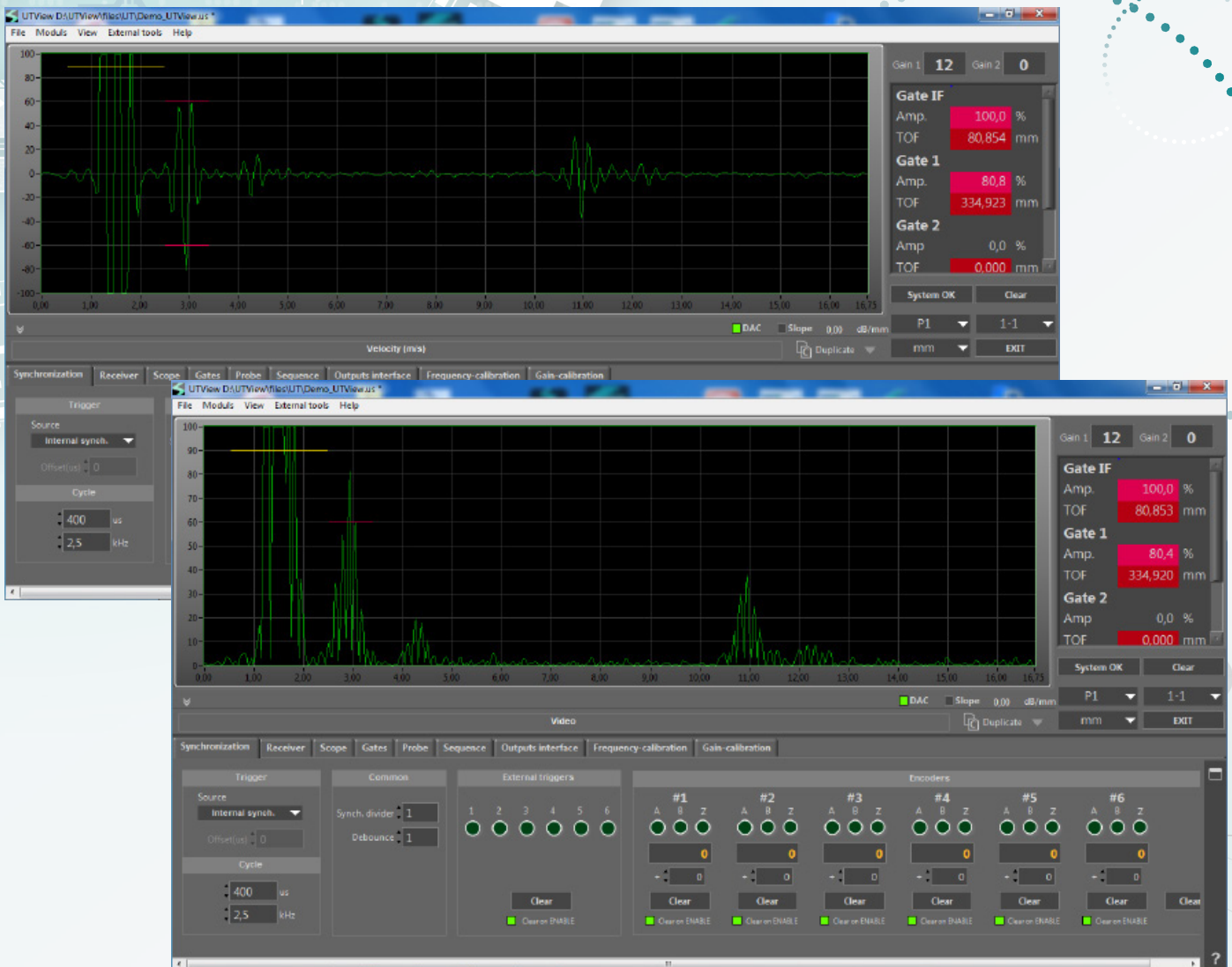
## DLL & UTVIEW

Thanks to our open platform product, take advantage of the most complete DLL to develop your own customized software in any languages available that work on operating systems from Win7, 32 and 64 bits.

The most standard languages such as C++, Visual Basic or LabView, benefit concrete example of coding with Socomate International DLL. The advantages of making its own application software is to perfectly meet your customers' requirements instead of providing a standard and often complex software.

Upon the SOCO-(4 to 8)P-UT product, Socomate's DLL is compatible for both complete range of conventional UT and PAUT equipments, avoiding redundant work when involved in various applications. Having a common DLL for all products make it more comfortable !

# UTVIEW SOFTWARE



UTVIEW is the API's delivered with all Socomate International's products, compatible with both conventional and PAUT instruments. The software provides an A-scan view and allows to set all UT parameters.

UTVIEW Software is provided with all the source codes which makes possible any customization through the open DLL.

# TECHNICAL SPECIFICATIONS

## SOCO-(4 TO 8)P-UT

Configurations	From 4 to 8 channels per board
Channel Mode	Full parallel in Emission/Reception
PRF	20 kHz per channel
Maximum Channels	Up to 32 boards in parallel (256 channels)
Number of gates	4 gates fully independant per channel
Multitest	Up to 8 sequential tests for each channel
Power supply	External 24 V DC
Power consumption	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 in real time
Operating platform	From Win7 - 32 and 64 bits

## PULSER

Pulser Voltage	Adjustable up to 250 V (1 V step)
Pulser Type	Negative Square
Pulse width	25 ns to 500 ns (1 ns step)
Fall & Rise time	5 ns
Short-circuit Protection	Yes

## RECEIVERS

Input Impedance	50 $\Omega$
Mode	Pulse-Echo / Through Transmission
Analogue Receiver Bandwidth	0.6 MHz to 27 MHz
Gain	0 dB to 80 dB (0.1 dB step)
DAC function	Slope 50 dB / 100 ns

## INTERFACING

Data Interfaces

Ethernet 1000Base-T, Gigabit transfert

## I/O MANAGEMENT

Encoders

A, B and Z signals for each encoder

Encoder Modes

Quadrature, Direction Count, Forward Backward

Synch In

Cycle Trigger

Synch Out

Pulse Trigger, Cycle Trigger

Pin Assignments

Programmable

Alarms (Optionnal)

Up to 128 outputs

Analogue Outputs (Optionnal)

Up to 64 outputs

Encoder & External trigger  
(Optionnal)

18 digital inputs / 6 axis  
6 external triggers

## 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 length display

up to 512 points

Storage Full A-Scan

16 bits / 16000 samples

## EVALUATION

Amplitude resolution

0.5% FSH

TOF resolution

Less than 1 ns

WT resolution

Less than 1  $\mu\text{m}$  in steel material

## LAYOUT

Size (H x W x D)

74 mm x 190 mm x 252 mm

Weight

1 kg

*SOCOMATE maintains the right to modify the specifications of their equipments, at any time and in whatever manner, in order to improve their performances*