SOCOMATE
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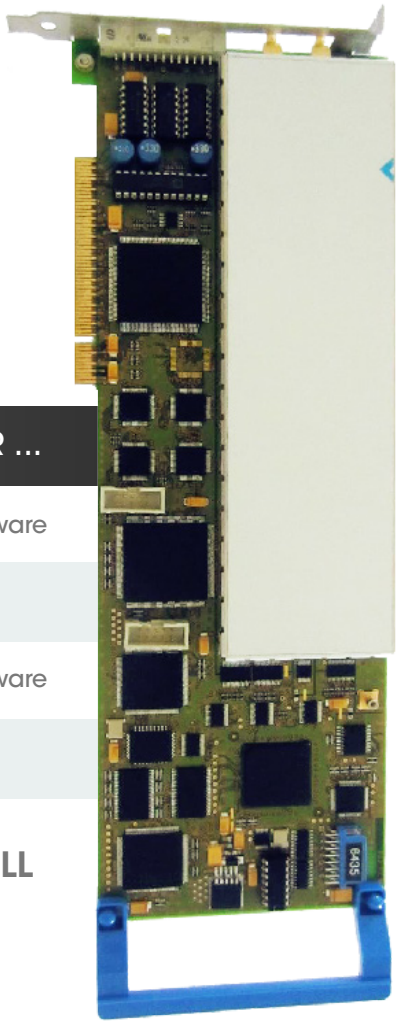
USPC7100LA

THE BENCHMARK IN PC BASED SINGLE CHANNEL PULSER-RECEIVER

Real Time Data Inputs/Outputs:

- **8 ANALOGUE Outputs:** Peak Amplitude / TOF / WT
- **9 GO/NO-GO ALARMS Outputs:** 0 to 30 Volts
- **TRIGGERS:** Internal or 5 External Inputs



SOFTWARE:

Drivers for Windows OS	XP / VISTA / SEVEN (7) / AND OVER ...
API	LabVIEW.exe & Sources, with Help ! Tutorial Software
SDK	DLL & Active-X, with Help ! Tutorial Software
Demo Acquisition Software	LabVIEW.exe & Sources, with Help ! Tutorial Software
VB, VC Examples	.exe & Sources

A & C-SCAN REAL TIME DATA TRANSFER THROUGH PCI BUS TO DLL

ANY LANGUAGE – Easy translation with .txt files (Notepad)

Unique Features:

Square Wave Pulser <5ns fall time	20 kHz PRF
0.35 to 30 MHz Bandwidth	105 dB Dynamic Range
200MHz A/D Digitizer, 10 bits	Low noise < 20% FSH (105dB/WB)
Amplifier linearity ± 0.5dB	Display Vertical linearity ±1%
Excellent Near Surface Resolution	DAC Slope ± 40dB/µs
TOF/WT Resolution better than 1µm	Multitest: Up to 8

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S.A.S au capital de 200.000,-€ - RC Meaux 92B17 - N° Siret 383 926 490 00020 - Code APE 2651B - TVA intracommunautaire FR27 383 926 490

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MAIN SPECIFICATIONS

SQUARE WAVE PULSER	Voltage: 125/250 Volts (50 Ohms). Fall-time & Rise time: 5 ns & 7.5 ns. Rep Rate: 20 to 20.000 Hz. External trigger divider: 1 up to 1024. Pulse width: 25 ns to 1000 ns. External trigger: 5 inputs.
RECEIVER/AMPLIFIER	Impedance: 50 Ohms. Bandwidth: 0.35 to 30 MHz Analogue 0.35 to 24 MHz Digital Gain: 70 dB adjustable (0.1dB step) Input Attenuator: 0/15dB Attenuator: 0/20dB Dynamic Range: 105dB Mode : Pulse-Echo/Transmission Bandwidth(MHz): 0.35-0.85/ 0.75-1.8/ 1.3-3.2/ 5-15/ 10-19.5/ WB. A-scan Rejection: 0 to 50% A-scan Base line offset: 0 to 10% RF Output: 2.0Vpp (50 Ohms) 1.5Vpp FSH Multitest: Up to 8 sequential tests per single channel PCI card.
DAC	Triggers: Initial Pulse/Interface echo/ Artificial Dynamic Range: 70 dB Slope: +/- 40 dB/ µs Segments: 30 Auto Slope Adjustment (dB/µs)
GATES	Gate IF (yellow). Gate 1 (red) & Gate 2 (blue); All gates fully independent. Start: 80 ns to 655 µs/ 20 ns step. Width: 20 ns to 655 µs/ 20 ns step. Level: 10% to 90%/ 1% step. Double threshold: Gates 1 & 2. Triggers: Not active/ Initial pulse/ Interface/ Artificial, on Gates 1 & 2, and Gate-to-Gate on Gate 2. Back-echo tracking on Gate 1.
FLAW IN-LINE	Flaw Alarm: Positive/Negative Noise suppression: 0 to 30 violations Flaw Mode: Max. or First Echo Peak Amplitude only on Gates1&2
TOF/ Wall Thickness In-line	Alarms: Min. & Max. Noise suppression : 0 to 30 violations. Mode: First echo on Gate IF and Max. or first echo on Gates 1 & 2. Origins: Peak, flank, zero crossing. Gating mode: HW+, HW-, FW & RF. WT Data process(DSP): Upper & lower limits, Max deviation, filtering, averaging, etc…
A-SCAN DISPLAY	Mode: HW+, HW-, FW & RF. Gates: Yellow (IF), Red (G1) & Blue (G2). DAC Curve: 0% to 70% FSH (0-70dB). Delay: 0 to 655 µs/ 20 ns step. Range: 1 µs to 1.3 ms/ 20 ns step. Trigger: Initial pulse/ Gate 1 Start/ Gate 2 Start/ Gate 1 Trigger/ Gate 2 Trigger. Displayed peak: Snapshot or Max. peak. Velocity: Interface and material. A-Scan length: 100 to 512 points. Acquisition mode: Free running or external. Angle beam trigonometry: Distance & depth. Units: µs/ mm/ inch/ Composite ply resitution. Moving averaging: on 1/ 2/ 4/ 8/ 16 A-Scan.
EVALUATION	Digitizer: 200MSamples/s, 10-bits. Amplitude resolution: 1% FSH. TOF Resolution: 10 ns or 5 ns. WT Resolution: < 1µm in zero crossing.
MEMORY	PCI cards allow to transfer A & C-Scan data in real time, parameter settings, A-Scan scope display, C-Scan from all Gates with amplitude/ TOF/ WT and alarms read out.
ANALOGUE OUTPUTS	Amplitude/ TOF/ WT: 0-5 Volts full scale (8-bits)/ selectable offset & range. Update Rate: At pulse repetition rate.
GO/NO-GO ALARM OUTPUTS	Loss of IF, flaw detection, TOF/ WT Min. & Max.: Open collectors for pull-up (5-30 VDC). Update rate: At pulse repetition rate.
IN/OUTPUT TRIGGERS	PRF Link: Master internal clock. External Trigger: 5 independent TTL inputs. PRF In: Slaved to PRF link or external trigger.
PCI CARD FEATURES	Bus: PCI slot 5V type. PC Bus: compatible with data signal transfer tension 3.3V. Size: 1/1 full size. TX, RX, RF: SMB connectors. In/Outputs: 8 analogue outputs, 9 Go/No-Go alarm outputs, 5 Volts, ground, 5 external trigger inputs. Consumption: +12.0V - 0.5 Amp/ +5.0V - 1.0 Amp/ +3.3V – 1.5 Amp/ -12.0V – 0.1 Amp. Operating temperature: 0° - 50°C (32° to 122°F) with air conditioning recommended. Mutliple channel operation: Parallel firing/ timed firing (post-trigger)/ sequential firing.
SOFTWARE	DSPs & FPGAs: Allowing real time stand alone running (Socomate property). Standard API (LabVIEW): USPC.exe + sources. API tutorial software: Help!. Multiple card control: Up to 64 via Ethernet
SDK	Drivers for Windows O.S.(x32): XP/ VISTA/ 7…and over. DLL with Help! tutorial software. Active X control with Help!. •LabVIEW demo acquisition software with *.exe + sources. •VB & VC samples with *.exe + sources.

STANDARDS & APPROVALS

European: EN 12668-1 / Russian: GOST / Chinese: JJG 746 – 2004 UT / GE: DFO for P29TF82 Class A,B,C and P3TF31 / RR: RPS 705 - QCTP 6265

Socomate International maintains the right to modify the specification of their equipments, at any time and in whatever manner, in order to improve their performances.

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