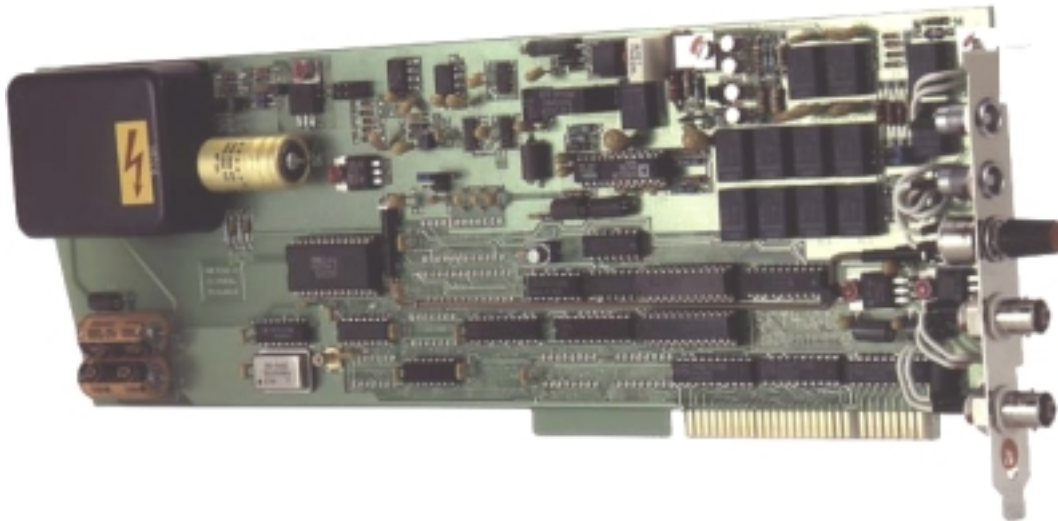




SFT 4001G

DUAL MODE PULSER (SQUARE - SPIKE) ULTRASONIC PROGRAMMABLE PC BOARD



- * Pulser section : 2 modes : square and spike.
- * Wide band receiver with programmable filters.
- * This board has 100 MHz mother clock to synchronize with Sofratest A/D converters.
- * Comes with software under Windows.
- * Microsoft C libraries and Windows DLL available.

Z.I. du Petit Parc – 78920 ECQUEVILLY - France
Tel. +33(0)1 34 75 50 00 – Fax :+33(0)1 34 75 53 41 – E-mail : sofratest@sofratest.com
Web site : www.sofratest.com

SFT 4001 G

TECHNICAL SPECIFICATIONS

PULSER SECTION	2 modes : square and spike
<u>REPETITION FREQUENCY</u>	152 to 16000 HZ continuously variable (programmable) Single shot under software control
<u>SQUARE WAVE MODE</u>	Negative pulse Programmable width (measured at 50% amplitude, 50Ω load) 30 to 500ns in 2ns steps Fall time (50 Ω) < 10 ns 10% - 90%
<u>SPIKE MODE</u>	Fall time < 8 ns 10% 90% . Energy 1 Fall time ≤ 4.9 nS Vp = 180 V . Energy 2 Fall time ≤ 6 nS Vp = 220 V . Energy 3 Fall time ≤ 7.5 nS Vp = 250 V . Energy 4 Fall time ≤ 8 nS Vp = 260 V Duration at 50%, 50 Ω load, 10 ns to 100 ns according to programmed energy setting, Energy 15 to 100 μ joules
<u>AMPLITUDE</u>	Programmable 100 - 200 - 350 volts
<u>DAMPING</u>	Fixed/variable programmable 4 fixed values 50 - 100 - 220 - 470 Ω modifiable by jumper 1 variable position 50 Ω - 1000 Ω, externally adjustable by potentiometer
<u>WORKING MODE</u>	Programmable Pulse echo/Through transmission
<u>OUTPUT CONNECTOR</u>	Lemo 0 RA 0C50S
RECEIVER SECTION	
<u>INPUT IMPEDANCE</u>	500 Ω
<u>INPUT LIMITATION</u>	4.4 Vpp without distortion
<u>INPUT CONNECTOR</u>	Lemo 0 RA 0C50S
<u>GAIN</u>	Programmable in steps (less than 1 dB) – 5.5 dB + 72.5 dB real for 50 Ω load
<u>OUTPUT</u>	RF signal on BNC socket 2 Vpp on 50 Ω (limitation 4 Vpp)
<u>BANDWIDTH</u>	18 KHz - 17 MHz at -3 dB for 30 dB gain and 2 Vpp on output
<u>FILTERS</u>	Programmable (value at –3 dB) High Pass 40 dB/dec (out = 18 KHz) 800 KHz 2.0 MHz 4.5 MHz 7.0 MHz Low Pass 60 dB/dec (out = 17 MHz) 550 KHz 1.3 MHz 5.5 MHz 10 MHz
<u>NOISE LEVEL</u>	400 mVpp at 52 dB gain, 50 Ω load, full bandwidth or 1 mVpp ref. to input. 100 mVpp at 52 dB gain, 50 Ω load, 10 MHz L.P. filter or 250 μVpp ref. to input.
MAIN CLOCK	100 MHz ; available to synchronize with optional SFT 4100 or SFT 4200 A/D board.
SYNCHRO	Initiated from pulser and programmable from 1 μs to 3.2 ms in 100 ns steps Output connector BNC socket.
BASE ADDRESS	& H 300.
POWER SUPPLIES	+ 5 V : 460 mA - 5 V : 1.2 mA + 12 V : 420 mA (250 nS rectangular / 350 V) peak 1A3 (depending on repetition rate and pulse shape) - 12 V : 112 mA
SIZE	Long slot 8/16 bits ISA bus Solder side 3mm, Component side 23mm.

OPERATING TEMPERATURE : 0 to 40°C

SOFRATEST reserves the right to revise these specifications without notice

CE