

T680 ethernet time interval counter

HIGHLAND TECHNOLOGY

Features

- · Five-channel time-interval counter and time stamper
- Five channels usable as TIC start plus four stops, or five time stampers
- 12.2 picoseconds resolution with 48-bit (3236 second) range
- Common GATE input
- 1023 sample FIFO per channel
- External universal power supply or 12-volt DC power
- 100 Mbit Ethernet and USB interfaces
- Compact extruded enclosure with optional mounting flange



The T680 contains five wide-range time stampers. Each channel can snapshot the time of the rising edge of one electrical input, to 12.2 picosecond resolution with 48 bit range. In timestamp mode, individual time stamps may be read. In TIC mode, channel 0 may be used as the "start" time reference for channels 1-4, with the option to acquire times after or before/after the start event.

Custom versions can include DRAM and perform internal histogramming or accumulate array data for applications like fluorescent decay and 2D delay line imaging.

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Specifications: T680 ethernet time interval counter

FUNCTION 5-channel time interval counter/time stamper Rising-edge trigger, 50 Ω input impedance, DC coupled Threshold is programmable from -2.5 to +2.5 volts Max safe input is ± 3.3 volts TIME RESOLUTION 12.207031 ps LSB (12.5ns/1024) 48 bit range, 3435.97 seconds DEAD TIME 100 ns max GATE INPUT 50 ohms, 2 volt minimum, active high CLOCK Internal 10 MHz, available as TTL output Lockable to external 10 MHz ±10 PPM reference, 1 volt p-p min JITTER < 50 ps typical, < 75 ps max RMS for time intervals below 1 ms < 10 ns/second for longer measurements using internal clock RELATIVE CHANNEL ACCURACY < 100 ps channel to channel CONTROL 10/100 Ethernet and USB POWER +12 volts at 500 mA nom Highland model J12 power supply furnished CONNECTORS Ch 0-4, GATE, CLOCK: SMB RJ45 Ethernet Micro/AB for USB control 2.5 mm barrel for power, center positive LED INDICATORS Green POWER Blue TRIGGER Orange COMM PACKAGING Extruded anodized aluminum enclosure		
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Highland model J12 power supply furnished CONNECTORS Ch 0-4, GATE, CLOCK: SMB RJ45 Ethernet Micro/AB for USB control 2.5 mm barrel for power, center positive LED INDICATORS Green POWER Blue TRIGGER Orange COMM	CONTROL	10/100 Ethernet and USB
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