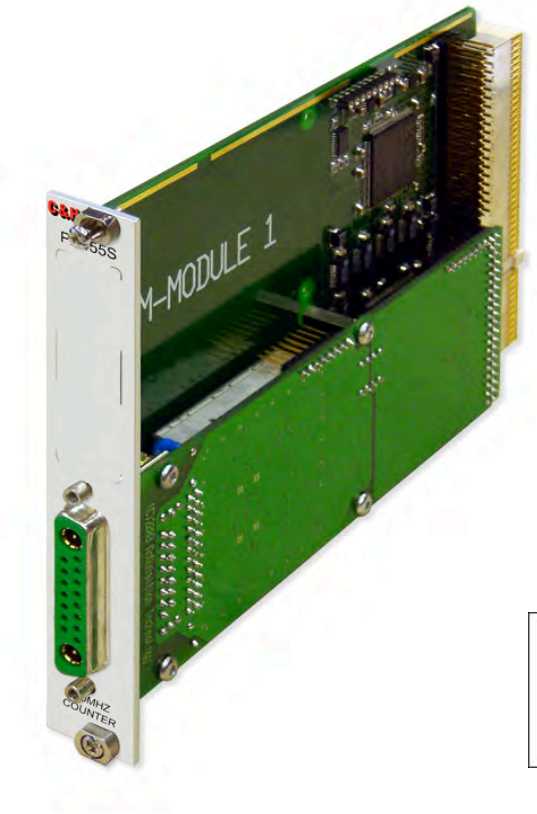
C&H Technologies, Inc. • 800 Paloma Drive, Suite 150 • Round Rock, TX 78665

(512) 733-2621 • FAX (512) 733-2629 • www.chtech.com



CAUTION
This product requires a PXI/cPCI Chassis with replaceable card guides per the Eurocard mechanical specification

PX455S 250 MHz Universal Counter/Timer Module

The PX455S is a universal counter/timer module with two (2) measurement channels. Its frequency range is up to 250MHz. Extensive input signal conditioning control is available and the normal complements of measurement functions are included.

This unit also features a position for adding one single-wide M-Module.

Specifications:

General Characteristics:

- Frequency measurement up to 250MHz
- Period measurement from 4ns to 20 sec on either input
- Time interval measurement between 2 inputs from 20ns to 20 sec
- Frequency ratio of two signals
- Totalize measurements, 32 bits, on either input
- Rise and fall time measurements from 20ns to 20 sec
- Pulse width measurements from 20ns to 20 sec
- Voltage measurements: AC, DC, minimum and maximum

Bandwidth:

DC Coupled = 0 to 250MHz
AC Coupled = 10Hz to 250MHz

Input Connector: 15 pin DSUB with 2 coax pins

AC/DC coupling: programmable

Temperature:

Operating:	0°C to 60°C
Storage:	-20°C to 70°C

Power: +5V @ 1.05 A with DC/DC

CPCI/PXI Compliance

Complies with PCI spec. 2.0 R3.0 and PCI spec 2.2

5V and 3.3V signaling voltage (VIO) supported

5V only power supply

33MHz PCI data bus

Five trigger lines compliant with PXI Specification 2.1

Form Factor: 3U

Applications

- Test & Measurement Functions

Ordering Information

Part Number 11030220-0001

Additional Information

User Manuals for C&H carriers and this module can be found on our website at www.chtech.com.

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Input Characteristics:

Input Impedance: 50Ω

Dynamic Range: 10V p-p

Signal Operating Range: +/-5V

Input Sensitivity: $35mV_{rms}$, $100mV_{pk-pk}$

Trigger:

- Level: programmable -5V to +5V, 2.5mV steps
- Hysteresis: programmable 10mV to 60mV, steps of 2.5mV

Isolation: Galvanic isolation up to 50 MHz
Use prescalers above 50 MHz to achieve isolation

Software Programmable Pre-scalers: 1, 2, 4, 8, 16

Operating Mode Specifications:

Frequency:
- Range: 0.05 Hz to 250 MHz
- Resolution: (5ns/gate time) x Frequency

Period:
- Range: 5 ns to 20 sec
- Resolution: (5 ns/gate time) x Period

Time Interval:
- Range: 20 ns to 20 sec
- Resolution: 5 ns

Time Interval Average:
- Range: 20 ns to 20 sec
- Resolution: 5 ns
- Frequency: 0.05 Hz to 50 MHz

Frequency Ratio:
- Range: 0.4E-9 to 2.5E+9

Totalize:
- Range: 0 to $1 \times 2^{32} - 1$
- Resolution: 1 count of input signal
- Types: Software or hardware (gate on Input B)

Rise/Fall Time:
- Range: 20 ns to 20 sec (single shot)
- Resolution: 5 ns

Positive/Negative Pulse Width:
- Range: 20 ns to 20 sec
- Resolution: (5 ns/Gate Time) x Pulse Width

Voltage Measurement:
- Types: AC, DC, Max and Min
- Range: +/-5 V
- Waveforms: Sine
- Method: Done through successive approximations using varying trigger levels and 4 to 40 waveform cycles (no A/D)

TCXO Time Base:

Frequency: 50 MHz

Stability:
- Aging Rate: $<1 \times 10^{-6}$ per year
- Temperature: $<1 \times 10^{-6}$ from 0°C to +60°C