

Model 1128



1pS cPCI Time Interval Counter



Features

- Two Channels (Start, Stop)
- 1 ps one-shot time resolution
- < 10ps rms time interval jitter
- ± 1 s second time interval range
- controlled via cPCI bus (6U)

Applications

- Components Test
- Jitter Analyzer for Telecom
- Metrology in R/D Lab

The Model 1128 is very precise time interval analyzer with low jitter. It has two inputs: one Start and one Stop.

The measurement data represents the time interval between one start and one stop. Trigger level and slope are adjustable on each input. The module uses a linear interpolation technique and an internal calibration to obtain very high accuracy.

The module uses an internal 10MHz very stable oscillator or an external clock. A software interface is included with the Time Interval meter analyzer and allows the programming of sample number, triggering conditions and the reading of time interval measurement.

Specifications

Inputs start or stop	
Threshold	-5 to + 5 V
Slope	Rising or falling edge
Input gate	
Threshold	+1.5 V (fixed)
Coupling	DC - 50 Ω
Time interval	
Range	- 1 to +1 second
Trigger rate	0 to 20 kHz
Resolution	< 1 ps, single shot
Error	< 250 ps + time interval x 10 ⁻⁹
RMS jitter	10 ps typically
Arming mode	On start, on stop, on gate
Event counting	
Range	0 to 10 000 000
Count rate	0 to 10 MHz
Gate	Internal 1 s, external on input gate
System	
Calibration	Internal
Functions	Time interval, event counting
Output 10 MHz	
Signal	Square wave, 2.5 V pp, ac coupling
Input 10 MHz	
Signal	1 V nominal (automatic detection)
Clock	
Time base	10 MHz ovenized
Stability	+/- 0.005 ppm
Accuracy	10 ⁻⁹
Interface	Compact PCI at 32 bits and 33 MHz
General	
Size	Single Width, 6U cPCI board
Connector	LEMO
Power	< 40 W
Software	Free driver for windows 2000 / XP
Option	
Option 1	Optical input compliant