



GFT2202

Time interval meter

- 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



Description:

The GFT2202 is very precise time interval analyzer with low jitter. It has two inputs: one Start and one Stop.

Reading data represent 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.

GFT2202 Time interval meter

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
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Input 10 MHz

Signal	1 V nominal (automatic detection)
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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 to GFT3001 for timing system measurement
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