

APPLICATIONS

- 1 PPS monitoring
- Semiconductors ATE
- Fast Production Time Analysis
- Lab / R&D Characterizations
- Variation in Pulse Timing
- PLLs and frequency modulation
- Allan Variance
- Measure jitter and skew
- Nuclear physics
- Radar & Ultrasonic timing
- Optical and magnetic disk timing

SOFTWARE SUPPORT

- Windows 32bit, 64 bit
- LINUX
- NI LabVIEW

KEY FEATURES

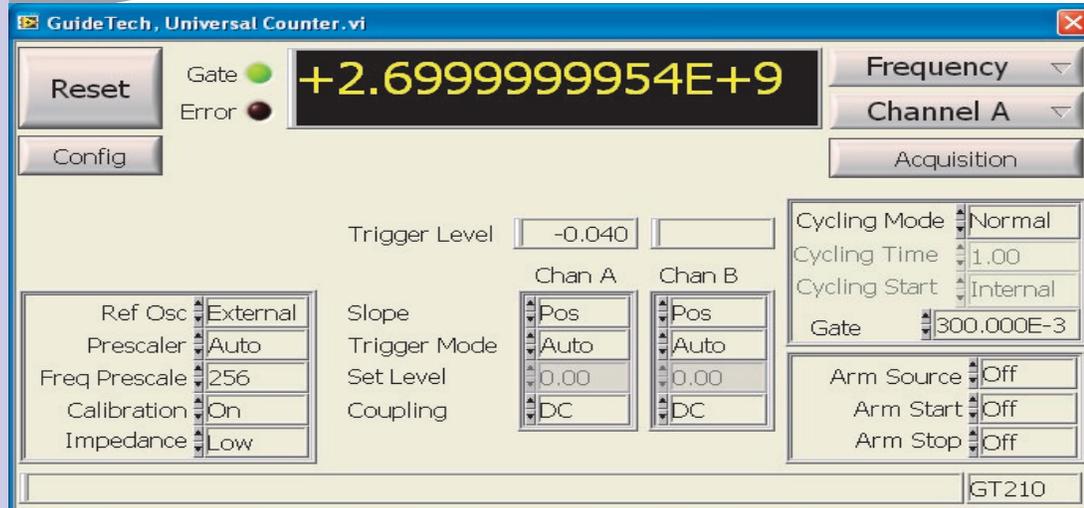
- Superior capability
- remarkably low price
- Exceptional resolution in time and frequency
- 8 pS Resolution
- 11 digits/S in frequency (8 digits in 1 mS)
- Matched 2.7 GHz input channels
- Complete instrument-on-a-card
- Easily expandable for building complete test systems
- Easy to integrate in ATE systems

GuideTech

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SUPERIOR PERFORMANCE

The **GT210** Time Interval Counters are an improved version of the popular **GT200**, which are currently in use in thousands of applications ranging from satellite tracking to monitoring of atomic clocks. They include all of the functions normally found on premium counters: Time Interval, Frequency, Period, Totalize, Ratio, Time Interval Delay, and Pulse Width. Unlike many other boards of its kind, these instruments deliver worry-free results, and their inputs are high instrumentation quality, with the sensitivity and damage protection features common to all high quality counters.

GuideTech's next generation Time Interval Counters, a smaller foot-print and much more powerful instruments to address your current and future applications.

With easy expansion and modular capabilities, **GuideTech** offers wide range of TIC solutions in PCI, PCIe, PXI, PXIe, and integrated Systems.

Achieve impressive performance and

accuracy with **GuideTech's** Time Interval Counters product line with up to 2.7GHz and noise floor of 13ps.

GuideTech's **GT210** PXI 3U form factor, meets industrial standard chassis with an expandable platform, achieving optimal test system configuration at optimal cost.

The ability to precisely resolve frequency and time, yields both increased in accuracy as well as reduced measurement time. For example, with the **GT210** you can determine any frequency to 0.01 part per million (eight digits) in just 1 mS, and resolve each time measurement to 8pS. Couple that with 2300 measurements per second, and you can acquire more data in a single second than a typical GPIB counter can in one minute! Faster measurements and higher resolution, along with built-in statistics functions give you a more thorough analysis of your signal. Standard deviation, peak to peak jitter, and/or a graph of the measurements are available at the click of a mouse.

INPUT CHARACTERISTICS

Channels A and B

Frequency range: DC to 2.7 GHz
 Signal operating range: +5 V to -5 V
 Coupling: DC or AC

Sensitivity:

- Sine: 25 mVrms DC - 100 MHz
 50 mVrms 100 MHz – 2 GHz
 100 mVrms 2GHz – 2.7 GHz
- Pulse: 50 mV pk-pk at 1.5 ns pulse width

Impedance: Software selectable, 1 K Ω || 30 pF or 50 Ω

Trigger (threshold) level:

- Range: ± 5.00 V in 0.25 mV steps
- Accuracy: $\pm 0.5\%$ of setting

Auto Trigger: Automatic selection of optimum trigger level in 40 mV steps.

- Signal repetition rate: 100 Hz to 2.7 GHz

Max. signal input:

- 1 k Ω : 15 V rms (DC to 1 MHz), 5 V rms (above 1 MHz)
- 50 Ω : 5 V rms

Oscillator Input

- Impedance: $>500\Omega$
- Max. input voltage: 15 Vrms
- Coupling: DC
- Sensitivity: 150 mV rms sine, 450 mV pk-pk pulse
- Range: ± 5.00 V
- Duty Ratio: 40% to 60%

Arm/Oscillator Input

- Impedance: $>500\Omega$
- Max. input voltage: 15 Vrms
- Coupling: DC
- Range: ± 5.00 V
- Min. pulse width: 15 ns

MEASUREMENT FUNCTIONS

- Frequency A or B
- FastFrequency A or B
- Time Interval A to B and B to A
- Totalize and Gate Totalize, A or B
- Period A or B (Single Period)
- Period A or B (Multiple Period Average)
- Frequency Ratio A/B or B/A
- Pulse Width A or B

SYSTEM & BENCH-TOP APPLICATIONS

You can operate the **GT210** counters just like conventional bench-top instruments with the standard Virtual Front Panel software which uses the power of a PC and/or PXI controller to speed and simplify data acquisition and analysis. You can view instant plots of your measurements or save them to disk without any programming.

In system applications, you can read and control the **GT210** from a test program using a set of library functions for C, a Windows DLL, or via NI LabVIEW driver.

EXCEPTIONAL VALUE

As these instruments reside inside any **PC** and/or **PXI** chassis, you will experience superior counter capability for a remarkably low price. The **GT210** is a much better choice, in terms of performance, flexibility, and ease of use, when compared to the premium priced bench-top instruments.



GT210PCI



GT210PXI



GT8000PXI