

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Microsemi / Symmetricom / TrueTime PCI-SG 2U* at our website: *Click HERE*



Model PCI-SG

Synchronized Generator for Computer Clock Synchronization

- **PCI local bus operation**
- **Zero latency**
- **IRIG A or B input**
- **IRIG B output**
- **1 PPS output**
- **Programmable pulse rate output/interrupt**
- **External event occurrence interrupt**
- **Time compare input/interrupt**
- **Optional software development kit and drivers**

The PCI-SG provides precise time, with zero latency, to computers that have PCI expansion slots. The time is derived from an IRIG A or B time code input or the internal oscillator in the stand-alone generator mode. The frequency of the internal oscillator is precisely disciplined to that of the external synchronization input. Synchronization to an external 1 PPS is also possible.

Time, microseconds through years, and status information are supplied on demand over the 32-bit PCI bus. In addition to time and status, the PCI-SG provides a 1 PPS pulse rate, a programmable time-compare register, a programmable frequency pulse rate, an external event time capture, and an IRIG B serial time code output.

Rear panel BNC connectors are used for the IRIG code input/output. A rear panel mounted multipin connector contains the 1 PPS pulse rate output, the programmable pulse rate output, the external event input signal and the input/output connections for the RS-422 versions of the input/output IRIG time code. You can also configure the analog input code to be single-ended with various input impedance choices. A transformer coupling option is also available. The output code is single ended in its standard configuration or you can specify the balanced transformer coupling option.

Information provided over the PCI bus includes time, status, and the time of occurrence of the external event. Interrupts generated by the programmable rate generator, the occurrence of an external event input, and the time compare occurrence are also provided. Depending upon the operating mode, you can program the hours offset from UTC, leap second, year and daylight savings time.

A TrueTime software development kit, SDK for PCI/CPCI, is optionally available for Windows 95/98 and Windows NT. The SDK includes a Windows NT kernel mode device driver, a Windows 95/98 VxD device driver, a DLL for accessing either of the drivers, a sample program, and code examples. This TrueTime SDK is a tremendous time saving tool for quickly integrating all of the features of the PCI-SG into an application program. Complete access to timing information, status, and control is easily available using the SDK. See the TrueTime SDK for PCI/CPCI data sheet for complete specifications.

Specifications PCI-SG

Synchronized Generator Mode

Analog Input Code: IRIG A or B

Ratio: 2:1 to 5:1

Amplitude: 0.5–10 Vpp

Impedance: 50-600-10k ohms, internal (single-ended) switch selectable

Connector: BNC

Timing Accuracy: 5 microseconds

RS-422 Input Code: IRIG A or B

Timing Accuracy: 5 microseconds

Input Termination: Selectable, 120 ohms or none

Connector: DE9

External 1 PPS Input*: 1 microsecond1 timing accuracy (uses external event input port)

Error Bypass: Factory set to three frames

Stand-Alone Generator Mode

Allows the user to preset, start and stop the PCI-SG over the PCI bus.

General Specifications

IRIG B Serial Code Output (Analog):

Amplitude: Adjustable, 0.5 to 10 Vpp into 600 ohms

Ratio: Fixed, 3:1

Connector: BNC

IRIG B Serial Code Output (RS-422):

Amplitude: RS-422 levels

Connector: DE9

Oscillator:

Accuracy: $5x10^{-8}$ (when disciplined to IRIG Code or optional GPS input)

Stability: 2.5 PPM, 0˚C to +50˚C, unlocked

1 PPS Pulse Rate Output:

Level: 0–5 Vdc**

Timing: Positive edge on time

Duty Cycle: 50%

Connector: DE9

Programmable Pulse Rate Output:

Rates: 1 PPS, 10 PPS, 100 PPS, 1 kPPS, 10 kPPS

Outputs: Interrupt and pulse

Amplitude: 0–5 Vdc**

Connector: DE9

External Event Occurrence Input:

Resolution: Microseconds–years

Output: Interrupt

Event Input: Positive edge of 2–5 Vdc pulse

Impedance: Approximately 2k ohms

Connector: DE9

Time Compare Output:

Resolution: Microseconds–years

Outputs: Interrupt and pulse at compare time

Amplitude: +5 Vdc** on compare

Connector: DE9

Mechanical/Environmental

Power: <5 watts

Size: PCI short card

Operating Temperature: 0˚C to +50˚C

Storage Temperature: -17˚C to +85˚C

Humidity: To 95%, noncondensing

Certification: CE pending, Year 2000

Software

The PCI-SG includes the TrueTime TimeServer 32 application program for Windows 95/98/NT, which provides control over time-related settings and runs as a background task keeping the computer clock synchronized to the PCI-SG card. TimeServer 32 is a 32-bit Windows application that can provide a Dynamic Data Exchange (DDE) linkage between your installed TrueTime hardware product and DDE-aware Windows applications, such as Microsoft® Excel.

Options

- TrueTime Software Development Kit (SDK) PCI/CPCI for Windows 95/98 and Windows NT
- For GPS synchronization, see the GPS-PCI data sheet
- Transformer Coupled Input Code (single ended or balanced)
- Transformer Coupled Output Code (balanced)

* When external 1 PPS is used as sync input, the external event is not available.

** 5 Vdc outputs have standard HCMOS levels.

Specifications subject to change without notice.

TrueTime is a registered trademark of TrueTime, Inc. All other trademarks are the property of their respective companies.
459-0011/GC/6K/8-99 Printed in USA.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP