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Data Sheet

August 15, 2026

ABACO SYSTEMS / CONDOR ENGINEERING

Abaco Systems / Condor Engineering PCI-1553-S MIL-STD-1553 PCI Interface

MIL-STD-1553 PCI Interface card for connecting to and communicating on a MIL-STD-1553 bus.

**MODEL****Abaco Systems /
Condor
Engineering PCI-
1553-S****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****PCI-1553-S****LISTING**<https://aumictechlabs.com/products/pci-1553-s-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Abaco Systems / Condor Engineering PCI-1553-S is a MIL-STD-1553 interface card for PCI bus architectures. It enables full-featured Bus Controller, Remote Terminal (up to 31 RTs), and Bus Monitor operation on MIL-STD-1553A/B and MacAir datalinks. The card integrates FPGA processing with an advanced API to accelerate development cycles and deliver deterministic real-time performance. Technical Specifications Protocol Support: MIL-STD-1553A/B, MacAir Bus Interface: PCI 33/66 MHz, up to 266 MB/s; PCI-X support Memory: 1 MB RAM per channel Timetags: 45-bit or 64-bit options; 25 ns message timetagging; 48-bit/100 ns time stamp capability I/O Signals: Up to 32 TTL level I/O; up to 8 RS-422 differential I/O; up to 40 single-ended TTL discretes; up to 12 differential discretes (RS-422); 8 digital and 8 avionics discrete I/Os

Bus Coupling: Transformer or direct coupling (configurable) Time Code: IRIG time code generation; IRIG-B receiver/generator with GPS synchronization Logic Voltage: 3.3 V Form Factor: Half-size PCIKey Features Real-time bus playback with RT editing capability Aperiodic message insertion and conditional BC branching Error injection and detection Programmable linked lists for BC and RT command structures "Oneshot" BC operation mode Conduction-cooled and conformal coating options availableTypical Applications Avionics test and integration, military databus emulation and monitoring, real-time protocol validation, airborne systems development.Compatibility & Integration Operating Systems: Windows (9x/2000/XP/NT/Server 2003/Vista/7), VxWorks, Linux, Integrity, LynxOS Environmental: Commercial and extended temperature models available; -40°C to +70°C on related products. Connector: 25-pin D-subminiature (transition cabling to 1553 cable jacks available).

PCI1553S Characteristics / Specifications

PARAMETER	VALUE
Model	PCI-1553-S
Instrument Type	MIL-STD-1553 PCI interface module
Card Form Factor	PCI
Mil Std Protocol	MIL-STD-1553A/B Notice II class with MacAir support family
Dual Redundant Channels This Config	1
Operating Mode This Config	single-function
Remote Terminals Emulated	up to 31
Simultaneous Bc Rt Monitor	supported on multi-function versions
Time Tag Width	45 bit
Bus Monitor Loading	100 percent of fully loaded buses
Real Time Bus Playback	supported with RT edit mode
Aperiodic Message Insertion	supported
Error Injection Detection	supported
Conditional Bc Branching	supported
Oneshot Bc Operation	supported
Irig Synchronization	not specified on Sorder code
Variable Output Voltage Family	yes
Analyzer Software Family	BusTools
Temperature Class	commercial
Ordering Alias	PCI-1553-S
Form Factor Class	PCI
Application Class	lab simulation test
Analyzer Software	BusTools
Variable Voltage Family	yes
Remote Terminals Maximum	31

PARAMETER	VALUE
Macair Protocol Family	supported
Api Platforms	Windows Linux LabWindows/CVI Visual Basic VxWorks

PCI1553S Specifications

PARAMETER	VALUE
Applications	MIL-STD-1553 lab simulation integration and maintenance on PCI hosts needing BC RT and monitor roles with API-driven test automation.
Aperiodic message insertion and Oneshot BC operation	100 percent Bus Monitor capture of fully loaded buses
Technical Specifications	Model: PCI-1553-S

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Notes

From Abaco/Condor PCI-1553 product specifications and Artisan Condor PCI-1553 feature tables for channel modes, 45-bit time-tags, BC/RT/BM concurrency, and playback/error features. PCI-1553-S is the single-function single-channel order code.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.