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Data Sheet

August 15, 2026

ABACO SYSTEMS / CONDOR ENGINEERING

Abaco Systems / Condor Engineering cPCI-1553C-MM Interface Module

The Abaco Systems / Condor Engineering cPCI-1553C-MM is a CompactPCI interface module that implements MIL-STD-1553A/B and MacAir protocol support for avionics, defense, and embedded test systems. It operates as a Bus Controller (BC), Remote Terminal (RT), Bus Monitor (BM), or multi-function combination on a single CompactPCI card with 1 or 2 independent, dual-redundant MIL-STD-1553 channels. The module provides 1 MB RAM per channel and supports balanced-line dual redundant architecture with selectable transformer or direct coupling at the physical layer. Software and Integration Comprehensive API provided in source code format. Supported on Windows (XP, 2000, Me, NT, 98, 95), VxWorks, Linux (Kernel 2.4 and 2.6), LabWindows/CVI, Visual Basic, QNX, Integrity, and LynxOS. Optional BusTools/1553 GUI software, LabVIEW, and LabVIEW Real-Time support available.

Compatibility & Physical Option



MODEL

**Abaco Systems /
Condor
Engineering cPCI-
1553C-MM**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

cPCI-1553C-MM

LISTING

<https://aumictechlabs.com/products/cpci-1553-c-mm-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

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Technical Specifications
Interface Standard: MIL-STD-1553A/B
Protocol Support: MIL-STD-1553A/B, MacAir
Form Factor: CompactPCI (cPCI), 3U and 6U platforms
Channels: 1 or 2 independent, dual-redundant MIL-STD-1553 channels
Memory: 1 MB RAM per channel
Operating Modes: Simultaneous BC, up to 31 RTs, and BM (multi-function versions); single-function versions support BC, up to 31 RTs, or BM independently
Data Protocol: Time-division multiplexing, half-duplex, command/response
Key Features
Internal dual-redundant 1553 channel emulation eliminates need for external node simulation hardware
Aperiodic message insertion and real-time bus playback with RT edit mode
Conditional BC branching based on real-time message data or status
Error injection and detection capabilities
48-bit or 45-bit time tags with IRIG/GPS synchronization
"Oneshot" BC operation mode
Selectable transformer or direct coupling

Software and Integration
Comprehensive API provided in source code format. Supported on Windows (XP, 2000, Me, NT, 98, 95), VxWorks, Linux (Kernel 2.4 and 2.6), LabWindows/CVI, Visual Basic, QNX, Integrity, and LynxOS. Optional BusTools/1553 GUI software, LabVIEW, and LabVIEW Real-Time support available.

Compatibility & Physical Options
Compatible with PCI, CompactPCI, PC/AT, VME, and VXI carriers. Available in commercial, ruggedized, and 3U conductively cooled versions.

CPCI1553CMM Characteristics / Specifications

PARAMETER	VALUE
Model	cPCI-1553C-MM
Instrument Type	MIL-STD-1553 CompactPCI interface module
Card Form Factor	CompactPCI 3U and 6U class
Mil Std Protocol	MIL-STD-1553A and B Notice II
Dual Redundant Channels Family	1 or 2 independent
Operating Mode Multi Function	BC plus up to 31 RTs plus Bus Monitor simultaneous
Operating Mode Single Function	one major mode at a time BC or 31 RTs or Bus Monitor
Shared Ram Per Channel	1 Mbyte
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 Gps Host Sync	supported
Api Channel Support Family	up to 10 independent 1553 channels in API class
Analyzer Software Family	BusTools/1553
Variable Output Voltage	optional
Ordering Alias	cPCI-1553C-MM
Form Factor Class	PCI
Application Class	lab simulation test
Analyzer Software	BusTools
Temperature Class	commercial
Variable Voltage Family	yes

PARAMETER	VALUE
Remote Terminals Maximum	31
Macair Protocol Family	supported
Api Platforms	Windows Linux LabWindows/CVI Visual Basic VxWorks

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 Condor/GE cPCI-1553 datasheet excerpts and Abaco CPCI-1553 product specifications for RAM depth, time-tag width, channel counts, and multi/single-function modes. C-MM denotes the multi-function multi-channel order configuration in the queue.

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

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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.