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Data Sheet

August 15, 2026

EXCALIBUR SYSTEMS

Excaltbur Systems EXC-4000PCI Avionics Communication Carrier Board

The Excaltbur Systems EXC-4000PCI is a half-size PCI carrier board engineered to host up to four independent, removable 4000 family avionics communication modules. This 8/16-bit PCI-compliant interface enables flexible integration of multiple avionics protocols - including ARINC 429/575, MIL-STD-1553, CAN Bus, and discrete I/O - onto a single board for aerospace and defense applications spanning simulation, data acquisition, and real-time communication. 16-Bit Countdown Timer: 1-65,635 μ s resolution with interrupt or global reset capability Coded Expressions: BCD time-of-year code word; Straight Binary Seconds (SBS) time-of-day Supports up to four concurrent 4000 family protocol modules with independent operation



MODEL

**Excaltbur Systems
EXC-4000PCI**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

EXC-4000PCI

LISTING

<https://aumictechlabs.com/products/exc-4000-pci-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Excaltbur Systems EXC-4000PCI is a half-size PCI carrier board engineered to host up to four independent, removable 4000 family avionics communication modules. This 8/16-bit PCI-compliant interface enables flexible integration of multiple avionics protocols - including ARINC 429/575, MIL-STD-1553, CAN Bus, and discrete I/O - onto a single board for aerospace and defense applications spanning simulation, data acquisition, and real-time communication.

Technical Specifications Host Interface: PCI Target, 8/16 bit Memory Space: 512 Kbytes total (128 Kbytes per module) Interrupts: INTA# 16-Bit Countdown Timer: 1–65,635 μ s resolution with interrupt or global reset capability IRIG B Time Code Input: Supported Coded Expressions: BCD time-of-year code word; Straight Binary Seconds (SBS) time-of-day Carrier Wave: 1 kHz amplitude-modulated sine wave Rate Designation: 100 peaks per second Modulation Ratio: 3:1 Input Amplitude: 0.8–3.5 Vpp (3 Vpp typical) Key Features Supports up to four concurrent 4000 family protocol modules with independent operation ARINC 429/575 modules: 5 or 10 channels per module; real-time transmit/receive configuration; error injection and detection; filtering and time-tagging on receive MIL-STD-1553 modules: Bus Controller, Remote Terminal (up to 32), or Bus Monitor modes; concurrent internal monitoring; error injection/detection; A/B variant compatibility Discrete I/O modules: Up to 80 channels total; TTL (0–5 V) or Avionics (0–32 V) input levels; 4092-word FIFO for time-tagged input recording; open-collector outputs rated to 32 V @ 100 mA sink current per channel Serial modules: RS485, RS422, RS232 (2 or 4 channels per module) CAN Bus modules: 2, 4, or 6 channels; CAN 2.0B with standard and extended message frames Additional protocol support: ARINC 708/453, MIL-STD-1760, H009, MMSI Typical Applications Avionics system simulation and testing Real-time data acquisition from multiple protocol sources Aerospace and defense communication systems Hardware-in-the-loop (HWIL) test environments Compatibility & Integration The EXC-4000PCI operates as a modular host platform. All protocol-specific functionality derives from interchangeable 4000 family modules (sold separately). System configuration and channel assignment are performed in real-time via software control. Status: End-of-Life (EOL)

EXC4000PCI Characteristics / Specifications

PARAMETER	VALUE
Model	EXC-4000PCI
Instrument Type	Multi-protocol avionics PCI carrier
Form Factor	half-size PCI
Dimensions	174 mm x 107 mm
Mass	135 g without modules
Module Slots	up to 4 (HC variant 2)
Memory Map	512 KB (128 KB per module)
Pci Interface	target 8/16-bit, INTA#
Timer	16-bit countdown 1 to 65535 us
Irig Carrier	1 kHz amplitude-modulated sine
Irig Amplitude	0.8 to 3.5 Vpp (3 Vpp typical), 3:1 ratio
Irig Rate	100 peaks per second
Operating Temperature	0 to 70 C standard; minus 40 to plus 85 C extended
Humidity	5 to 90 percent RH noncondensing
Mtbf	201400 hours at 25 C GF
Arinc 4	5 or 10 channels per module
Mil Std 15	single-function or multifunction module
Discrete Io	20 channels per module
Can Module	2, 4, or 6 channels per module
Software	C drivers with source; menu software for 1553 and 429
Hc Sibling	EXC-4000PCI-HC two-module half-size
Manufacturer	Excalibur Systems
Literature	EXC-4000PCI datasheet
Conformal Coat	dash 001 overlay
Application Class	avionics test and simulation

EXC4000PCI Specifications

PARAMETER	VALUE
Applications	PCI-hosted 1553/429/708/CAN/serial/discrete test and simulation from one half-size card.
Up to four independent protocol modules	Half-size PCI 174 × 107 mm, 135 g
Technical Specifications	Model: EXC-4000PCI

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 70 C standard; minus 40 to plus 85 C extended
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Manufacturer	Excalibur Systems
Literature	EXC-4000PCI datasheet
Conformal Coat	dash 001 overlay
Application Class	avionics test and simulation Notes From Excalibur EXC-4000PCI datasheet (174×107 mm, 135 g, 512 KB, IRIG-B, timer, 0-70 C / -40-85 C, MTBF 201400 h, module protocol table). Module mix is in the /xx ordering code.

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 Excalibur EXC-4000PCI datasheet (174x107 mm, 135 g, 512 KB, IRIG-B, timer, 0-70 C / -40-85 C, MTBF 201400 h, module protocol table). Module mix is in the /xx ordering 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

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NIST-traceable calibration · SAM registered ·
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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.