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Data Sheet

August 15, 2026

EXCALIBUR SYSTEMS

Excilibur Systems EXC-4000cPCI Avionics Communication Carrier Board

The Excilibur Systems EXC-4000cPCI is an Avionics Communication Carrier Board designed for cPCI systems. It supports various avionics communication protocols, providing a versatile solution for integrating avionics systems. It is ideal for simulation, test, and embedded applications.



MODEL

**Excilibur Systems
EXC-4000cPCI**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

EXC-4000cPCI

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Excilibur Systems EXC-4000cPCI is a CompactPCI avionics communication carrier board engineered for integration into cPCI systems supporting simulation, testing, and embedded applications. Available in 3U and 6U form factors, this modular platform accommodates up to four independent, removable protocol modules, enabling flexible customization for diverse avionics communication requirements. Technical Specifications Form Factor & Architecture 3U CompactPCI (cPCI) 6U CompactPCI (cPCI) variant available (EXC-4000cPCI6U) Supports up to four independent, removable modules (sold separately) Avionics Protocol Support The carrier board supports multiple protocol modules: ARINC 429/575: Up to 5 or 10 channels per module with error injection and detection. Receive channels feature label storage with status and time tag

information, filtering, and multi-storage modes. Transmit channels employ instruction stack scheduling. ARINC 708/453: 2 channels per module MIL-STD-1553: Single-function (BC, RT, or BM operation) and multi-function modes. Multi-function channels operate simultaneously as Bus Controller and/or multiple Remote Terminals (up to 32), or as Triggerable Bus Monitor. Supports error injection and detection. Variants include M4K1553Px (BC, multiple RTs, BC/Concurrent-RT, BM), M4K1553PxS (BC, RT, or BM with RT validation), and M4K1553Px-1760 option for MIL-STD-1760 compatibility. MIL-STD-1760: Supported Discrete I/O: Up to 80 discrete channels via M4KDiscrete module. 20 programmable I/O discretes per module. Output discretes: open collector, 0-32 V, 100 mA max sink current. Input discretes record changes with time tags via 4092 Word FIFO (1023 discrete entries). Serial Communications: RS485, RS422, or RS232 with 2 or 4 channels per module H009: CCC and/or up to 16 concurrent Peripheral Units, or Bus Monitor operation via M4KH009 module CAN: 2, 4, or 6 channels per module (CAN 2.0B standard and extended) Key Features Modular design enables protocol customization without redesigning host systems Time-tagged discrete input recording with built-in FIFO buffering Multi-function MIL-STD-1553 operation supports simultaneous BC and RT modes on single channels Error injection and detection across supported protocols Instruction stack transmission reduces host CPU intervention Typical Applications Avionics system simulation, flight test instrumentation, embedded communication processing, and protocol validation environments requiring multi-protocol support within constrained form factors. Compatibility & Integration Designed for cPCI system integration. All protocol functionality delivered through removable modules purchased separately, allowing system optimization based on specific mission requirements.

EXC4000cPCI Characteristics / Specifications

PARAMETER	VALUE
Model	EXC-4000cPCI
Instrument Type	CompactPCI multi-protocol avionics carrier
Mechanical Package	3U CompactPCI (EXC-4000cPCI6U is 6U)
Module Sites	up to four independent field-replaceable modules
Mil Std 15	up to four dual-redundant channels with M4K1553Px(S)
Remote Terminals	up to 32 RTs per multi-function 1553 channel
Arinc 4	up to forty channels any mix Tx/Rx with M4K429RT modules
Arinc 429 Five Ch Module	M4K429RT5 five programmable channels
Arinc 429 Ten Ch Module	M4K429RT10 ten programmable channels
Other Protocols	MIL-STD-1760 MMSI H009 ARINC-708/453 serial 232/422/485 discrete CAN
Irig	IRIGBdecoder implementsaglobal time stamp
Error Injection	supported on 1553 BC/RT and ARINC-429 channels
Rear Io	EXC-4000cPCI/xx-002 adds P2 rear I/O for 32-bit systems
Extended Temperature	minus 40 to plus 85 C withEsuffix
Conformal Coat	001 suffix
Software	C drivers with source, Merlin+ Windows, Exalt
Mating Connector	provided for I/O connection
Cable Adapter	X4K-xx 50 cm cable adapter optional
Bus	CompactPCI
Manufacturer	Excalibur Systems
Family	EXC-4000 multi-protocol carrier series
Discrete Module	M4KDiscrete 20 discretes TTL 0-5 V or avionics 0-32 V 100 mA OC
Discrete Fifo	4092 word FIFO storing 1023 discrete entries with time tags
Host	CompactPCI computers

EXC4000CPCI Specifications

PARAMETER	VALUE
Applications	Avionics test and simulation on CompactPCI hosts mixing 1553, ARINC-429, serial, discrete, and CAN on one slot.
Key Features	Up to four independent M4K protocol modules
Technical Specifications	Model: EXC-4000cPCI

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-4000cPCI/xx product pages (1553 Px, ARINC-429 RTx, discrete, and ordering notes).
Installed protocol mix is defined by the M4K modules in the four sites.

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.