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Data Sheet

August 15, 2026

ABACO SYSTEMS / CONDOR ENGINEERING

Abaco Systems / Condor Engineering CEI520A-0816 ARINC Interface for PCI

ARINC interface for PCI bus systems. Provides connectivity for ARINC 429 and 717 protocols.

**MODEL**

Abaco Systems /
Condor
Engineering
CEI520A-0816

CALIBRATION

Available on
request

CONDITION

Used

STATUS

In stock

RFQ / SKU

CEI520A-0816

LISTING

<https://aumictechlabs.com/products/cei520a-0816-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Abaco Systems / Condor Engineering CEI520A-0816 is a PCI-based ARINC interface card engineered for avionics databus applications. It delivers bidirectional ARINC 429 communication across up to 16 receive and 16 transmit channels, each supporting 12.5 kHz or 100 kHz data rates. The card features independent channel operation, on-board message scheduling, label and SDI filtering, multiple buffering modes (buffered, merged, and dedicated), time-tagging, and comprehensive error detection and injection capabilities. A 100 MHz Intel 80960 processor and 2 MBytes of on-board RAM enable intelligent data handling and high-throughput performance. Technical Specifications ARINC 429 Receive Channels Up to 16 channels at 12.5 kHz or 100 kHz data rates Standard input levels: ± 6.5 to ± 13 VDC (A to B) Parametric threshold levels: ± 0.1 to ± 13.5 VDC (A to B) Parity support: Odd, even, or none with parity error reporting Label

and/or SDI filtering ARINC 429 Transmit Channels Up to 16 channels at 12.5 kHz or 100 kHz data rates Standard output level: ± 10 VDC (A to B) Parametric output voltages: 0 to ± 10 VDC (A to B) Automatic slew rate adjustment Parity options: Odd, even, or none Error injection: Parity, gap, high or low bit count Discretes Inputs: 0, 8, or 16 channels (avionics-level or TTL/CMOS compatible) Outputs: 0, 8, or 16 low-side switches, 0.5 A sink capability per channel Electrical & Physical Power consumption: +5 VDC at 780 mA, +12 VDC at 100 mA, -12 VDC at 100 mA PCI short card form factor (6.8 in. $\times$ 4.2 in.) 5V signaling (CEI-520) or universal 3.3V/5V signaling (CEI-520A) Compatible with PCI-X 1.0 and PCI slots Operating temperature: 0 to +70°C (commercial); extended range available

Key Features Three receive buffering modes: per-channel circular (buffered), time-sequenced merged, and snapshot (dedicated) Fully independent channel operation with intelligent interface architecture High-level API supporting Windows, Linux, and VxWorks Development support for C/C++, C#.NET, Visual Basic (VB6 and VB.NET), and LabWindows/CVI Compatibility & Integration Standard PCI short-card integration with multi-platform software support enables rapid deployment in avionics test systems, flight simulators, and real-time embedded applications.

CEI520A0816 Characteristics / Specifications

PARAMETER	VALUE
Model	CEI520A-0816
Instrument Type	Intelligent ARINC 429 PCI interface
Card Form Factor	PCI short card 6.8 in x 4.2 in
Arinc Receive Channels This Config	8
Arinc Transmit Channels This Config	16
Discrete Inputs This Config	16
Discrete Outputs This Config	16
Family Receive Channel Maximum	up to 16
Family Transmit Channel Maximum	up to 16
Receive Data Rates	12.5 kHz or 100 kHz
Transmit Data Rates	12.5 kHz or 100 kHz
Standard Receive Input Levels	plus or minus 6.5 to plus or minus 13 VDCAtoBParametric Threshold Levels: plus or minus 0.1 to plus or minus 13.5 VDCAtoBStandard Transmit Output Level: plus or minus 10 VDCAtoBParametric Transmit Output Voltages: 0 to plus or minus 10 VDCAtoBReceive Filtering: label and or SDI
Parity Modes	odd even or none
Processor	100 MHz Intel 80960
Shared Memory	512 KB
Operating Temperature Standard	0 to plus 70 C
Extended Temperature Option	available
Discrete Output Sink Capability	0.5 A low-side switch each
Power Plus 5 Vdc Typical	780 mA
Power Plus 12 Vdc Typical	100 mA
Power Minus 12 Vdc Typical	100 mA
Pci Signaling This Product Class	Universal 3.3 V or 5 V PCI signaling CEI-520A
PciXCompatibility Cei520a	PCI-X 1.0 and PCI slots

PARAMETER	VALUE
Operating temperature	Standard: 0 to plus 70 C

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Standard: 0 to plus 70 C
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Power Plus 12 Vdc Typical	100 mA
Power Minus 12 Vdc Typical	100 mA
Pci Signaling This Product Class	Universal 3.3 V or 5 V PCI signaling CEI-520A
PciXCompatibility Cei520a	PCI-X 1.0 and PCI slots

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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Pci Signaling This Product Class	Universal 3.3 V or 5 V PCI signaling CEI-520A

PARAMETER	VALUE
PciXCompatibility Cei520a	PCI-X 1.0 and PCI slots

Optional Protocols Family: ARINC 419 561 571 573 575 582 717 and CSDB

Notes
From GE Intelligent Platforms CEI-520/CEI-520A ARINC Interface for PCI datasheet (GFA-752B) ordering table and electrical specifications. Channel and discrete counts are the OEM ordering-row values for CEI520A-0816; electrical limits are family-common.

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>

NIST-traceable calibration · SAM registered ·
30-day returns
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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.