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Data Sheet

August 15, 2026

ABACO SYSTEMS / CONDOR ENGINEERING

Abaco Systems / Condor Engineering CEI520-88 ARINC Interface for PCI

Abaco Systems / Condor Engineering CEI520-88 ARINC 429 Interface for PCI The Condor Engineering (Abaco) CEI520-88 is an intelligent ARINC 429 PCI interface in the CEI-520/CEI-520A family. OEM CEI-520/CEI-520A datasheet GFA-752B rates this ordering configuration for 8 receive and 8 transmit ARINC 429 channels with data rates 12.5 kHz or 100 kHz, 100 MHz Intel 80960 processing, 512 KB shared memory, and PCI short-card mechanics 6.8 in by 4.2 in. ARINC 429 lab simulation test and embedded avionics integration on PCI hosts needing scheduled and burst messaging with label filtering. The Condor Engineering (Abaco) CEI520-88 is an intelligent ARINC 429 PCI interface in the CEI-520/CEI-520A family. OEM CEI-520/CEI-520A datasheet GFA-752B rates this ordering configuration for 8 receive and 8 transmit ARINC 429 channels with data rates 12.5 kHz or 100 kHz, 100 MHz Intel 80960 processing, 512 KB shared memory, and PCI short-card mechanics 6.8 in by 4.2 in. ARINC 429 lab simulation test and embedded avionics integration on PCI hosts needing scheduled and burst messaging with label filtering.



MODEL

**Abaco Systems /
Condor
Engineering
CEI520-88**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

CEI520-88

LISTING

<https://aumictechlabs.com/products/cei520-88-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Abaco Systems / Condor Engineering CEI520-88 is a PCI bus ARINC interface card that processes avionics databus traffic across up to 16 simultaneous receive and 16 transmit ARINC 429 channels. The card supports multiple avionics protocols including ARINC 717, 419, 561, 571, 573, 575, 582, and CSDB, with dual-mode functionality (HBP or BPRZ) available for ARINC 717/573 configurations. Maximum data throughput flows across all channels simultaneously, backed by intelligent onboard buffering with dedicated and circular buffer modes per receive channel. On-board message scheduling, label filtering, and time-tagging capabilities streamline data acquisition and protocol management. The card includes error injection and detection, avionics-level I/O discretes supporting up to 16 inputs and 16 outputs, and independently programmable bit rates for each channel. Discrete outputs switch up to 0.5 ampere and support TTL-to-avionics voltage conversion with open-collector output flexibility. Optional features include programmable receive level thresholds, adjustable transmit output voltages, IRIG-B receiver/generator synchronization, temperature and voltage monitoring, and ruggedized configurations rated for extended operating temperatures.

Technical Specifications

Protocols: ARINC 429, 717, 419, 561, 571, 573, 575, 582; CSDB

Channels: Up to 16 Rx and 16 Tx ARINC 429 channels

Buffering: Dedicated and circular buffer modes with separate buffers per receive channel

Message Management: On-board scheduling and label filtering

Time Stamping: On-board time-tagging; optional IRIG-B receiver/generator with DC level synchronization

Error Handling: Injection and detection capabilities

I/O Discretes: Up to 16 inputs and 16 outputs; TTL-to-avionics voltage levels; open-collector outputs; 0.5 A switching capacity

Bit Rates: Independent, software-programmable per channel

Monitoring: On-board temperature and voltage monitoring

Key Features

- Maximum throughput on all channels simultaneously
- Adjustable transmit output voltages (optional)
- Programmable receive level thresholds (optional)
- Ruggedized variants with extended operating temperature ranges

Typical Applications

- Avionics system integration and test
- Aerospace and defense databus simulation
- Multi-protocol protocol validation

Compatibility & Integration

PCI bus interface CEI520 / CEI520A product family

CEI520 Characteristics / Specifications

PARAMETER	VALUE
Model	CEI520-88
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	8
Discrete Inputs This Config	8
Discrete Outputs This Config	8
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	5 V signaling CEI-520 only
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	5 V signaling CEI-520 only
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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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 CEI520-88; 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

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<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.