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Data Sheet

August 15, 2026

ABACO SYSTEMS / CONDOR ENGINEERING

Abaco Systems / Condor Engineering CEI520A-1608 ARINC Interface for PCI

ARINC interface for PCI bus systems. Designed for simulation, test, and data logging applications.

**MODEL**

**Abaco Systems /
Condor
Engineering
CEI520A-1608**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

CEI520A-1608

LISTING

<https://aumictechlabs.com/products/cei520a-1608-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Abaco Systems CEI520A-1608 is a PCI-based ARINC interface card engineered for avionics simulation, test, and data logging applications. It delivers up to 16 receive and 16 transmit ARINC 429 channels with on-board message scheduling, label filtering, and time-tagging. The card integrates a 100 MHz Intel 80960 processor, 512 KB shared memory, and intelligent buffering to handle maximum data throughput across all channels simultaneously. Beyond ARINC 429, the interface supports ARINC 419, 561, 571, 573, 575, 582, 717, and CSDB protocols. Discrete I/O includes up to 16 avionics-level and TTL/CMOS inputs and 16 outputs rated for 0.5 A sink current each. Technical Specifications Processor & Memory: 100 MHz Intel 80960; 512 KB shared memory ARINC Channels: 16 Rx / 16 Tx ARINC 429 Protocol Support: ARINC 429 base; optional 419, 561,

571, 573, 575, 582, 717, CSDB Discrete I/O: 16 inputs (avionics-level and TTL/CMOS); 16 outputs (0.5 A sink, low-side switches) Power: +5 VDC @ 780 mA (typical), +12 VDC @ 100 mA, -12 VDC @ 100 mA PCI Compatibility: Universal signaling (3.3V / 5V); PCI-X 1.0 and PCI slots Form Factor: PCI short card, 6.8" × 4.2" Temperature Range: 0 to +70°C (commercial); extended range available Error Handling: Injection (parity, gap, bit count) and detection (parity)Key Features Adjustable transmit output voltages (0 to ±10 VDC A to B) Programmable receive level thresholds On-board 3.3V generation for slot compatibility Ruggedized configurations available ARINC 573/717 Bi-Pol supportSoftware & Integration Advanced API supports Windows (XP, 2000, Me, NT, 98, 95), Linux (Kernel 2.4/2.6), VxWorks, Visual Basic, and LabWindows/CVI. Optional BusTools/ARINC Windows GUI for bus analysis included.Typical Applications Avionics test benches and HIL simulation Data acquisition and logging systems Multi-protocol databus validation

CEI520A1608 Characteristics / Specifications

PARAMETER	VALUE
Model	CEI520A-1608
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	16
Arinc Transmit Channels This Config	8
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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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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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-1608; 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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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.