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Data Sheet

August 15, 2026

ABACO SYSTEMS / GE

Abaco Systems / GE RAR-PCIE-88 ARINC High Density PCI Express Interface

ARINC-429 interface board with high-density connectors for PCI Express systems. Enables connection to ARINC-429 avionics data bus.



MODEL

**Abaco Systems /
GE RAR-PCIE-88**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

RAR-PCIE-88

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Abaco Systems RAR-PCIE-88 is a high-density PCI Express interface board for ARINC avionics databus applications. It connects and manages ARINC 429, ARINC 575, ARINC 573, and ARINC 717 protocols, plus selected 2-wire 32-bit standards, over native 4-lane PCIe. Purpose-built for simulation and test environments, it delivers comprehensive multi-protocol databus functionality with flexible channel configurations and dual-mode modulation support. Technical Specifications Interface: Native 4-lane PCI Express (PCIe) ARINC Channels: Up to 16 Receive and 16 Transmit ARINC 429 channels; configurations support combinations with ARINC 717/573 Dual-Mode functionality Dual-Mode Functionality: Programmatically selectable Harvard Bi-Phase (HBP) or Bi-Polar Return to Zero (BPRZ) encoding across multiple bit rates and subframe combinations for ARINC 717/573 On-Board RAM: 2 MBytes for transmit and receive data buffers Data Rates: Independent, software-programmable rates per channel Transmit Buffering: Scheduled and Burst

Mode (FIFO) on all ARINC 429 Tx channels Receive Buffering: Dedicated Mode (latest-data snapshot), Buffered Mode (per-channel circular buffer), or Merged Mode (time-sequenced single circular buffer) Discrete I/O: 16 inputs and 16 outputs; TTL-to-avionics voltage support; open-collector outputs Temperature & Voltage Monitoring: On-board sensors included Transmit Slew Rate: Automatic adjustment capability Error Handling: Detection and optional injection capabilities IRIG-B Support: Optional Receiver/Generator for AM or DC/TTL synchronization across multiple boards

Key Features Multi-protocol support across ARINC 429, 575, 573, and 717 standards Flexible channel mixing and independent rate programming Multiple receive buffering modes for diverse operational scenarios Discrete I/O with voltage translation for avionics-level signals Temperature and voltage monitoring for system diagnostics

Typical Applications Avionics system simulation and testing ARINC databus protocol analysis and validation Multi-board synchronized test configurations with IRIG-B timing

Compatibility & Integration High-level API for Windows (Vista, XP, 7, 8, 8.1, 10, Server 2012 R1/R2) and Linux BusTools/ARINC GUI Bus Analyzer for Windows (protocol analysis, simulation, data logging) Optional LabVIEW and LabVIEW Real-Time instrument driver support Cross-platform API supporting multiple Abaco form factors (PCIe, Mini-PCIe, PCI, PC/104-Plus, Express Card, Compact PCI, PMC, XMC)

RARPCIE Characteristics / Specifications

PARAMETER	VALUE
Model	RAR-PCIE-88
Instrument Type	ARINC 429 PCI Express interface
Bus	native 4-lane PCI Express
Rx Channels	8 ARINC 429 receive
Tx Channels	8 ARINC 429 transmit
Family Max Channels	up to 16 Rx and 16 Tx (RAR-PCIE-1616)
Data Rates	12.5 kHz, 100 kHz, or 5 kHz to 150 kHz programmable
Rx Levels	plus or minus 6.5 to plus or minus 13 VDCAtoBTx Level: plus or minus 10 VDC typicalAtoSlew: automatic slew-rate adjustment on transmitters
Parity	odd, even, or none
Filtering	label and/or SDI
Error Injection	parity, gap, high or low bit count
Discretes	16 input and 16 output avionics-level
Irig	optional IRIG-B receiver (AM or DC/TTL) and generator (DC/TTL)
Card Size	standard height half length 4.376 × 5.0 inches lo: front bezel connector
Rohs	RoHS compliant
Software Api	Windows and Linux high-level API (VxWorks listed on some releases)
Analyzer	BusTools/ARINC GUI optional
Monitoring	onboard temperature and voltage monitoring
Protocols	ARINC 429, 575; optional 573/717 dual-mode HBP or BPRZ
Manufacturer	Abaco Systems / GE Intelligent Platforms
Sibling 16	RAR-PCIE-1616 is 16 Rx / 16 Tx

RARPCIE Specifications

PARAMETER	VALUE
Applications	ARINC 429/575 simulation and monitoring on PCI Express hosts, including optional 717/573 dual-mode and IRIG time-stamp sync.
Key Features	Native 4-lane PCI Express no bridge
Programmable 12.5/100 kHz or 5 to 150 kHz	16 avionics discretes in and 16 out
Technical Specifications	Model: RAR-PCIE-88

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	
Technical Specifications	
PARAMETER	VALUE
Model	RAR-PCIE-88
Instrument Type	ARINC 429 PCI Express interface
Bus	native 4-lane PCI Express
Rx Channels	8 ARINC 429 receive
Tx Channels	8 ARINC 429 transmit
Family Max Channels	up to 16 Rx and 16 Tx (RAR-PCIE-1616)
Data Rates	12.5 kHz, 100 kHz, or 5 kHz to 150 kHz programmable
Rx Levels	plus or minus 6.5 to plus or minus 13 VDC A to B
Tx Level	plus or minus 10 VDC typical A to B
Slew	automatic slew-rate adjustment on transmitters
Parity	odd, even, or none
Filtering	label and/or SDI
Error Injection	parity, gap, high or low bit count
Discretes	16 input and 16 output avionics-level
Irig	optional IRIG-B receiver (AM or DC/TTL) and generator (DC/TTL)
Card Size	standard height half length 4.376 x 5.0 inches
Io	front bezel connector
RoHS	RoHS compliant
Software Api	Windows and Linux high-level API (VxWorks listed on some releases)
Analyzer	BusTools/ARINC GUI optional
Monitoring	onboard temperature and voltage monitoring
Protocols	ARINC 429, 575; optional 573/717 dual-mode HBP or BPRZ
Manufacturer	Abaco Systems / GE Intelligent Platforms
Sibling 1616	RAR-PCIE-1616 is 16 Rx / 16 Tx
Specifications	

PARAMETER	VALUE
Model	RAR-PCIE-88
Instrument Type	ARINC 429 PCI Express interface
Bus	native 4-lane PCI Express
Rx Channels	8 ARINC 429 receive
Tx Channels	8 ARINC 429 transmit
Family Max Channels	up to 16 Rx and 16 Tx (RAR-PCIE-1616)
Data Rates	12.5 kHz, 100 kHz, or 5 kHz to 150 kHz programmable
Rx Levels	plus or minus 6.5 to plus or minus 13 VDCAtobTx Level: plus or minus 10 VDC typicalAtobSlew: automatic slew-rate adjustment on transmitters
Parity	odd, even, or none
Filtering	label and/or SDI
Error Injection	parity, gap, high or low bit count
Discretes	16 input and 16 output avionics-level
Irig	optional IRIG-B receiver (AM or DC/TTL) and generator (DC/TTL)
Card Size	standard height half length 4.376 x 5.0 inches
Io	front bezel connector
Rohs	RoHS compliant
Software Api	Windows and Linux high-level API (VxWorks listed on some releases)
Analyzer	BusTools/ARINC GUI optional
Monitoring	onboard temperature and voltage monitoring
Protocols	ARINC 429, 575; optional 573/717 dual-mode HBP or BPRZ
Manufacturer	Abaco Systems / GE Intelligent Platforms
Sibling 1616	RAR-PCIE-1616 is 16 Rx / 16 Tx

Notes

From Abaco/GE RAR-PCIE series datasheet and ordering table (RAR-PCIE-88 = 8 Rx / 8 Tx). Confirm IRIG and 717/573 J-suffix options on the installed card.

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.