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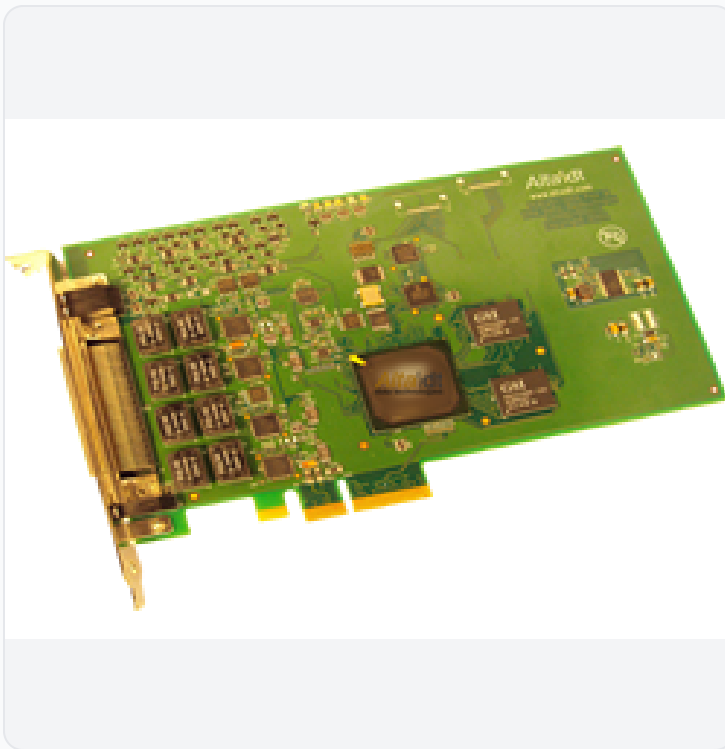
Data Sheet

August 15, 2026

ALTA DATA TECHNOLOGIES

Alta Data Technologies PCIE4L-1553-4F-AT Multi-Channel Interface for PCI Express 4 Lane Systems

The Alta Data Technologies PCIE4L-1553-4F-AT is a multi-channel interface card designed for PCI Express 4 lane systems. It provides solid MIL-STD-1553 communication capabilities, featuring multiple channels for simultaneous data transmission and reception. Ideal for aerospace, military, and industrial applications requiring reliable and high-performance 1553 interface solutions.



MODEL

**Alta Data
Technologies
PCIE4L-1553-4F-
AT**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

**PCIE4L-1553-4F-
AT**

LISTING

<https://aumictechlabs.com/products/pcie4l-1553-4f-at-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Alta Data Technologies PCIE4L-1553-4F-AT is a multi-channel interface card for PCI Express 4-lane systems, delivering independent, dual-redundant MIL-STD-1553 communication with 1 to 4 channels. Each channel includes 1 Mbyte of onboard memory and leverages the AltaCore™ FPGA protocol engine paired with AltaAPI™ software - a multi-layer architecture supporting ANSI C and Windows .NET (MSVS 2005/08/10 C++, C#, VB.NET). The card operates as a 1/2 size, PCI

Express 1.1 interface and complies fully with MIL-STD-1553B Notice II/IV, MIL-STD-1760, 1553A, and Link-16 standards. Technical Specifications Channels: 1 to 4 independent, dual-redundant (A/B) MIL-STD-1553 channels Memory: 1 Mbyte per channel PCI Express Interface: 1/2 size, 4-lane PCI Express 1.1 Protocol Engine: 32-bit 1553 FPGA architecture (AltaCore™) A/D Converter: 8-bit, 50 nsec resolution; captures 2048 samples at 20 MHz (102.4 μs total duration) Time Tags: 64-bit with 20 ns precision Operating Temperature (Optional): -40°C to +85°C (extended industrial range) Manufacturing Standard: IPC Level 3; ISO 9001:2008 Key Features Functional Modes Dual-function: Bus Controller/Monitor or Remote Terminal/Monitor Full-function: Bus Controller, Remote Terminal, and Monitor in single card Bus Controller Frame, subframe, and aperiodic message transmission Playback and signal generation with multi-branching, no-ops, delays, external trigger I/O, and interrupt support Remote Terminal Infinite linked Common Data Packet (CDP) buffers Full mode code buffering; legal and reserved mode codes supported 1553A and 1553B compatibility; 1760 extended RT addressing Error injection and detection; RT validation testing Monitor Sequential and RT-mapped monitoring with infinite linked CDP buffers Full error detection with time-tagged capture Signal Capture Single-channel analog waveform capture triggered on words or errors 20 MHz sampling rate (50 nsec intervals) Optional Features Variable voltage 1553 transmission Typical Applications MIL-STD-1553B avionics integration, weapon system test, airborne and ground-based equipment validation, 1760 Extended RT testing, and link-layer protocol verification. Compatibility & Integration AltaAPI™ software enables rapid integration across multiple development environments. Support for ANSI C and .NET languages (C++, C#, VB.NET) facilitates deployment in diverse aerospace and defense applications.

PCIE4L15534FAT Characteristics / Specifications

PARAMETER	VALUE
Model	PCIE4L-1553-4F-AT
Instrument Type	Four lane PCI Express MIL-STD-1553 interface
Family	Alta Data PCIE4L-1553
Channel Count	four independent dual redundant A/B channels
Function Set	full function BC, multi-RT, and monitor (4F)
Memory	1 Mbyte RAM per channel
Host Bus	half size 4 lane PCI Express 1.1, MSI and line interrupts
Protocol	MIL-STD-1553B Notice II and IV, MIL-STD-1760, 1553A, Link-16
Engine	AltaCore 32-bit FPGA protocol engine
Time Tags	64 bit, 20 ns
Adc Capture	8 bit, 50 ns on first channel, trigger on words or errors
Signal Generation	20 ns bit construction at 1553 PHY TX
Bc Timing	100 ns message timing accuracy, up to 15 retries
Irig	IRIG-B RX PAM and TX/RX PPS time sync
Discretes	14 avionics level, two RS-485, one trigger per channel
Rt Address	1760 extended RT address at power-up (1 channel)
Bit Features	loop-back and user BIT, dual temperature sensors
Mass	4 oz / 120 g without cable
Power Four Ch	8.5 W estimated at max bandwidth
Power One Ch	5.5 W estimated at max bandwidth
Operating Temperature	0 C to plus 70 C commercial; minus 40 C to plus 85 C extended parts
Storage Temperature	minus 55 C to plus 120 C
Software	AltaAPI ANSICand .NET, Windows/Linux/RTOS/LabVIEW
Manufacturer	Alta Data Technologies
Literature	Alta PCIE4L-1553 data sheet (1907)

PARAMETER	VALUE
Bandwidth	Power One Ch: 5.5 W estimated at max bandwidth

General Specifications & Supplementary Characteristics

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Manufacturer	Alta Data Technologies
Literature	Alta PCIE4L-1553 data sheet (1907) Notes From Alta PCIE4L-1553 datasheet. Queue suffix 4F-AT is four-channel full-function with AltaView overlay. Dual-function 4D cards areadifferent SKU.

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 Alta PCIE4L-1553 datasheet. Queue suffix 4F-AT is four-channel full-function with AltaView overlay.
Dual-function 4D cards are different SKU.

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 ·
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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.