ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

**Artisan Technology Group**
(217) 352-9330 | sales@artisantg.com | artisantg.com

**Full-service, independent repair center**
with experienced engineers and technicians on staff.

**We buy your excess, underutilized, and idle equipment**
along with credit for buybacks and trade-ins.

**Custom engineering**
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

**Expert team | Trust guarantee | 100% satisfaction**

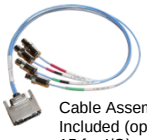
All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Alta Data Technologies PCIE1L-1553-1D* at our website: ***Click HERE***

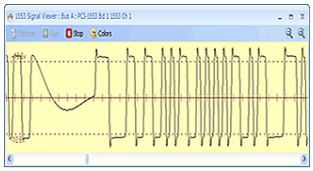
# PCIE1L-1553

## Multi-Channel 1553 Interface for Single Lane PCI Express Systems





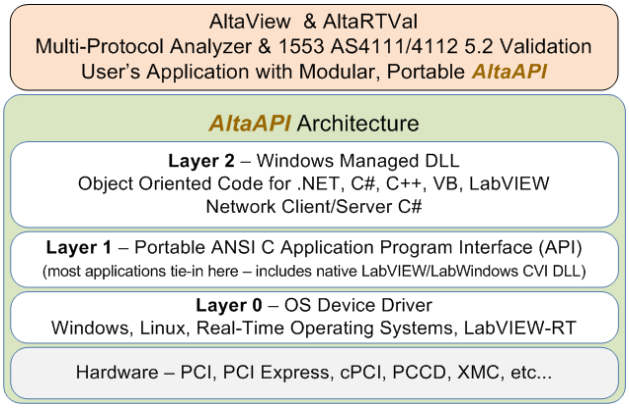
Cable Assembly Included (optional DB 15 for I/O)



Standard A/D Signal Capture on First Channel

Alta Data Technologies' PCIE1L-1553 interface module is a multi-channel (1-2), ½ size, **Low Profile**, **One Lane** PCI Express 1553 card with the latest software technologies. The PCI Express card is based on the industry's most advanced 32-bit 1553 FPGA protocol engine, ***AltaCore***™, and by a feature-rich application programming interface, ***AltaAPI***™, which is a multi-layer ANSI C and Windows .NET (MSVS 2005/08/10 C++, C#, VB .NET) architecture. This package provides increased system performance and reduces integration time.

***AltaCore-1553*** is **guaranteed** 1553B Notice II & IV **compliant** and all cards are manufactured to the highest IPC Class 3 standards and ISO/AS9100 processes. Cards are available in dual-function (BC/Mon or multi-RT/Monitor) or full-function (BC, mRT and Mon) configurations. Playback and Signal Generation are part of BC operations. Alta is committed to a risk free integration and will be glad to help with any level of your system development.




Alta's Advanced Software Architecture

### Key Features:

- One or Two Independent, Dual Redundant MIL-STD-1553 Channels
- Dual Function (BC/Mon or mRT/Mon) or Full Function (BC/mRT/Mon)
- One Mbyte of Memory per Channel
- Variable Voltage 1553 TX Optional
- Fully Compliant to MIL-STD-1553B Notice II/IV, MIL-STD-1760,1553A and Link-16
- Commercial or Industrial Extended Temperature Parts
- ***One Channel of A/D Signal Capture – View 1553 Waveforms with **AltaView**!***
  - 8-bit, 50 nSec A/D for Voltage Measurements
- Advanced 32-bit BC, RT and Monitor FPGA Design – Full 32 bit Memory.
- BC Framing/Subframing/Aperiodic
- Common Data Packets (CDP) for BC, RT and Monitor – Complete Message Info
- Advanced, Multi-layer ***AltaAPI*** Provided at No Cost with Source Code
- Windows, Linux, RTOS, LabVIEW & RT
  - .NET Managed DLLs
  - Contact Factory for Latest RTOS Support
- True HW Playback – HW Sync Channels
- Industry First: 20ns Signal Generation
  - Bit Construction – 1553 PHY TX
  - Supports RT Validation Testing
- IRIG-B RX PAM or RX/TX PPS Ext Clock
- Avionics Level & RS-485 Discretes/Clk
  - 1760 Ext RT Addressing
- Advanced BIT Features and Dual Temperature Sensors
- 1/2 Size, **Low Profile, One Lane** PCI Express 1.1
  - MSI & Regular HW Interrupt Support


www.altadt.com

4901 Rockaway Blvd., Building A Rio Rancho, NM 87124 USA
(In US): 888-429-1553 (Outside US): 505-994-3111 Fax: 805-504-8588





Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# Multi-Channel (1-2)
# **PCIE1L-1553** Specifications

## General

- ½ Size, **Low Profile**, **One Lane** PCI Express 1.1
  - Full Profile Front Panel also Provided
- One Megabyte RAM per Channel
- TX Variable Voltage Optional
- Common Data Packets (CDPs) for all BC, RT and Monitor Functions – Industry First
- MIL-STD-1553B Notice II & IV
  - MIL-STD-1760,1553A and Link-16
- Weight: 4oz/120grams (without cable)
- Power (Estimated @ Max Bandwidth)
  - 1CH@5W, 2CH@6.W
- Parts Temp (C) : -55 to +120 Storage, 0 to +70 Commercial, -40 to + 85 Extended Parts
- Cable Assembly with 1553 3-Plug Stub Cables Provided. DB15 Optional for Discrete/Clocks/Triggers.
- Micro D Honda Thumb Screw Connector
- Card Header Connector for Additional I/O
- 14 Avionics and Two RS-485 Discretes
- 1 Channel 1760 Ext RT Address Power-Up
- Loop-Back & User BIT, Dual Temp Sensors
- IRIG-B RX PAM and TX/RX PPS Time Sync
- IPC Class 3 and ISO/AS9100 Processes

## BC Features

- Simple One-Shot Lists to Advanced Message Framing and Subframing
- Message Timing with 100 nSec Accuracy
- Infinite Linked CDP Data Buffers
  - 64-Bit, 20 ns Time Tags, Interrupts, Triggers
- Low and High Priority Aperiodic Messages
- Multi Branching Per Message, No-Ops, Delays, Ext Trigger In/Out, Interrupts etc…
- Up to 15 Retries Per Message
- Legal and Reserved Mode Codes
- 1553A and 1553B Support
- Full Error Injection/Detection

## Playback/Signal Vector PHY TX

- Real Hardware Playback from Archive Files
- Multi Channel and Multi Card Playback Clock Synchronization - 100 nSec Accuracy
- Signal Vector Generation at 20 nsecs **INDUSTRY FIRST**
  - Construct 1553 Bit Signals at 20 nsecs
  - **AS4111 5.2 RT Val Protocol Capability
  - Advanced BC, RT or any 1553 PHY Signal TX

## RT Features

- Infinite Linked CDP Data Buffers
  - 64-Bit, 20 ns Time Tags, Interrupts, Triggers
- Legal and Reserved Mode Codes
  - 1553A and 1553B Support
  - Full Buffering of All Mode Codes
- Full Error Injection/Detection

## Monitor

- Sequential and RT Mapped Monitoring with Infinite Linked CDP Data Buffers
  - Available with All Card Models
  - 64-Bit, 20 ns Time Tags, Interrupts, Triggers
  - Full Error Detection
- 8-bit, 50 nSec A/D Waveform Signal Capture with Trigger on Words or Errors - First Channel Only
  - ***AltaView*** Software is Ideal for Signal Display

## Software: *AltaAPI*, *AltaView, AltaRTVal*

- Multi-Layer ***AltaAPI*** Architecture to Support Windows (.Net 2.0) and ANSI C Linux, VxWorks, Integrity, etc…
  - Contact Factory For RTOS Platforms – LabVIEW & RT
- Optional ***AltaView*** is Based on the Latest Windows MS Office User Interface Style with Ribbon-Bar
  - Full Analyzer Integration Tool
  - Multi Language Support
- Optional ***AltaRTVal*** provides full AS4111/4112 5.2 RT Validation GUI and Reports

## Part Numbers

Dual Function Models: BC/Mon or mRT/Mon

- **PCIE1L-1553-1D/2D**

Full Function Models: BC, mRT and Monitor

- **PCIE1L-1553-1F/2F**

Options: -E for Ext Temp Parts (-40 to +85C); -V for Variable Voltage Output, -A for AltaView and –B for AltaRTVal

**5 Year Limited Warranty!**

EU and China RoHS Compliant

Contact Alta for Special Lead Build Configurations

***AltaAPI*** Software with ANSI C Source, .Net Managed DLLs and LabVIEW & LabVIEW-RT Provided at No Cost.

**Alta Data Technologies LLC**
**4901 Rockaway Blvd., Building A**
**Rio Rancho, NM 87124 USA**
**888-429-1553 (in US)**
**505-994-3111 (outside US)**
**alta.sales@altadt.com**
**www.altadt.com**

Information in this data sheet is subject to change without notice. Alta is not responsible for errors or omissions. All trademarks are reserved by their respective owners. AltaCore, AltaAPI, AltaView and AltaRTVal are trademarks of Alta Data Technologies.1007 – Page 2/2

Alta dt data technologies

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

**Artisan Technology Group** is an independent supplier of quality pre-owned equipment

## Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

## We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

## Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP