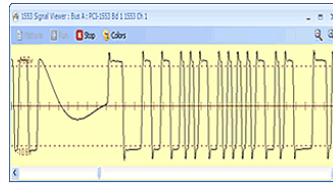




PXI Express

Multi-Channel, Multi-Protocol 1553, ARINC, WMUX Interface for 3U PXIe



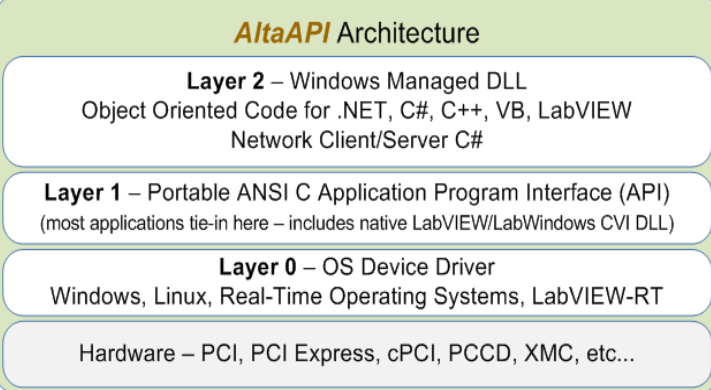
A/D Signal Capture on First 1553 Channel & First Two ARINC RX. A429 and MA4 PMC Cards Only

Alta Data Technologies' PXI Express interface modules offer a wide range of MIL-STD-1553, ARINC and WMUX configuration options using Alta's PMC cards on a single-slot PXI Express 3U carrier. The cards are based on the industry's most advanced 32-bit FPGA protocol engines, **AltaCore™**, and by a feature-rich application programming interface, **AltaAPI™** (with LabVIEW SDK).

The product is an ideal fit for your own control code, or National Instruments LabVIEW™, RT, LabWindows, TestBench, VeriStand and other test and control software environments. Native LabVIEW VISA level package with many examples makes LabVIEW and RT integration easy.

AltaCore-1553 is guaranteed 1553B Notice II & IV compliant and all cards are manufactured to the highest IPC-Class 3 standards and ISO 9001:2015 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.

AltaView & AltaRTVal
Multi-Protocol Analyzer & 1553 AS4111/4112 5.2 Validation
User's Application with Modular, Portable **AltaAPI**



Alta's Advanced Software Architecture

Key Features:

- **1-5 MIL-STD-1553 Dual Redundant Channels (Dual or Full Function)**
- **4-48 ARINC-429 Channels. Configurable and Shared Channels.**
- **1-2 Wings of PP194 WMUX**
- **Various Alta PMC-1553, PMC-MA4, PMC-A429/HD, PMC-WMUX Cards for PXIe 3U.**
- ****Capture 1553 & ARINC Waveforms****
 - First 1553 Channel & First Two ARINC RX Channels
 - 8-bit, 50 nSec for 1553 – 1 uSec for ARINC A/D for Voltage Measurements
- Advanced BC & ARINC TX Frequency Controls: 1553 Framing/Subframing;
- RT/ARINC RX Full Buffering with 64-bit 20 nsec Time Tags.
- Various ARINC-717 Channel Support.
- Advanced, Multi-layer **AltaAPI** Provided at No Cost with Source Code
- Native VISA LabVIEW & RT
- .NET or DLL Support for Your Control Code, LabWindows, TestBench, etc.
- Numerous Examples for Fast Integration
- True HW Playback (BC or TX)
- Industry First: 20/1000 ns Signal Generation
- IRIG-B RX PAM or RX/TX PPS Ext Clock
- Avionics/ RS-485 Discretes
- Advanced BIT Features and Dual Temperature Sensors
- Full HW Interrupt Features
- PXI Express Compatible

Contact Alta for Various Configurations. Straight 1553 or ARINC or Multi Protocol Models Available.

Multi-Channel, Multi-Protocol Avionics 1553, ARINC and WMUX PXI Express

General

- 3U PXI Express Compatible, Single Slot
- **1-5 1553 Channels**
- **4-48 ARINC Shared RX/TX Channels**
- **Multi 1553/429 Configurations Available**
- **1-2 Wings of PP194 WMUX**

- Dual and Full Function 1553 Channels
- ARINC-429 and 717 Support
- Weight: 10oz/300grams
- Power (Estimated @ Max Bandwidth) 8-10W
- Various Avionics Discrettes, IRIG RX, Triggers, etc...
- Loop-Back & User BIT, Dual Temp Sensors
- IRIG-B RX PAM and RX/TX PPS Time Sync
- IPC Class 3 and ISO 9001:2015 Certified

BC & ARINC TX Features

- Variable Framing and Subframing
- Schedule Message Timing in Frames or Intermessages/Label Gap Spacing
- Low and High Priority Aperiodic Scheduling
- ARINC TX Has Complete Frequency Control Per Channel – No Framing/SubFraming
- Infinite Linked Data Buffers
- Interrupts, No-Ops, Ext Trigger
- 1553 Legal and Reserved Mode Codes
 - 1553A and 1553B Support
- 64-Bit, 20 ns Time Tags
- Full Error Injection/Detection

1553 RT Features

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

ARINC RX Features – 3 RX Modes

- Channel Level Label/Word Tables
- Multi Channel Data Tables for All Channels
- Channel Level Current Value Tables
- ARINC 717 Frame Support
- 64-Bit, 20 nsec Time Tags
- Full Error Detection

Playback/Signal Vector (BC or TX)

- Real Hardware Playback from Archive Files.
- Signal Vector Generation at 20/1000 (1553/ARINC) nsecs ****INDUSTRY FIRST****
- 20 nSec 1553 Vectors and 1 uSec ARINC Vectors

1553 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 1553 and 1 uSec A/D Waveform Signal Capture. 1st Channel 1553 and First 2 RX of ARINC **AltaView** Software is Ideal for Signal Display

Software - AltaAPI and LabVIEW Support. AltaView Analyzer and AltaRTVal RT Testing

- No Cost AltaAPI-LV Native VISA Package for LabVIEW and RT
- Multi-Layer **AltaAPI** Architecture Ideal for LabWindows, TestBench Veristand, etc...
- Optional **AltaView** Windows Analyzer Based
- Optional **AltaRTVal** provides full AS4111/4112 5.2 RT Validation GUI and Reports

Part Numbers

Various COTS PMC-1553, MA4, A429 and WMUX Card Configurations. Please contact Alta for Part Number Guidance. Please let us know required channel counts of 1553 and/or ARINC-429.

NOTE: On shared ARINC channels: TX lines have an extra RX load; when powered-off, RX channels can have severe voltage drain – use only dedicated RX channels for critical systems.

5 Year Limited Warranty!

EU and China RoHS Compliant

Contact Alta for Special Lead Build Configurations

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