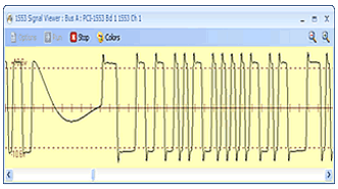
Alta dt
data technologies

PXI Express

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

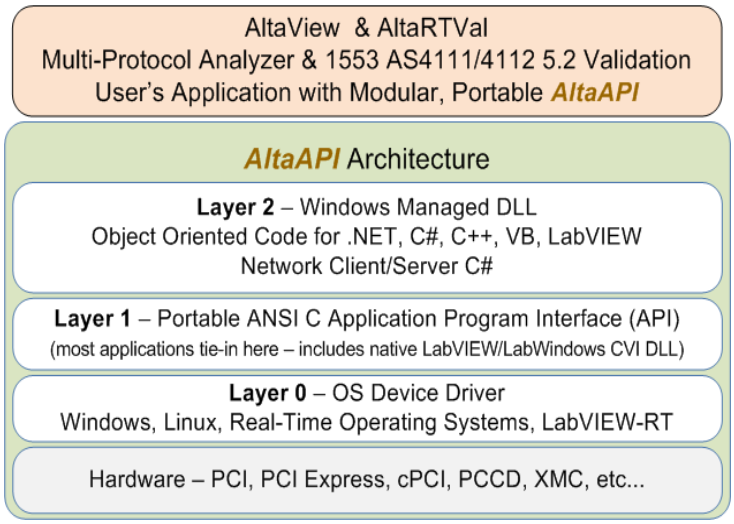


A/D Signal Capture on First 1553 Channel & First Two ARINC RX. A429 and MA4 PMC Cards Only

Alta Data Technologies' PXI Express interface modules offer a wide range of MIL-STD-1553, ARINC and WMUX configuration options using Alta's PMC & XMC 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 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:

- **1-10 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**
- **4 Async Serial Channels**
- **Various Alta PMC & XMC 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.

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

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

General

- 3U PXI Express Compatible, Single Slot
- 1-10 1553 Channels
- 4-48 ARINC Shared RX/TX Channels
- Multi 1553/429 Configurations Available
- 1-2 Wings of PP194 WMUX
- 4 Async Serial Channels

- Dual and Full Function 1553 Channels
- ARINC-429 and 717 Support
- Weight: 10oz/300grams
- Power (Estimated @ Max Bandwidth) 8-10W
- Various Avionics Discretes, 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 Intermessage/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/XMC 1553, ARINC 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

Alta dt data technologies