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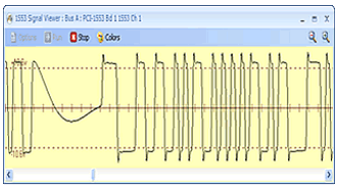
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Find the *Alta Data Technologies PCIC-MA4-1D8-T* at our website: *Click HERE*

PCIC-MA4

Multi-Channel, Multi-Protocol 1553 and ARINC Interface for PCI Systems



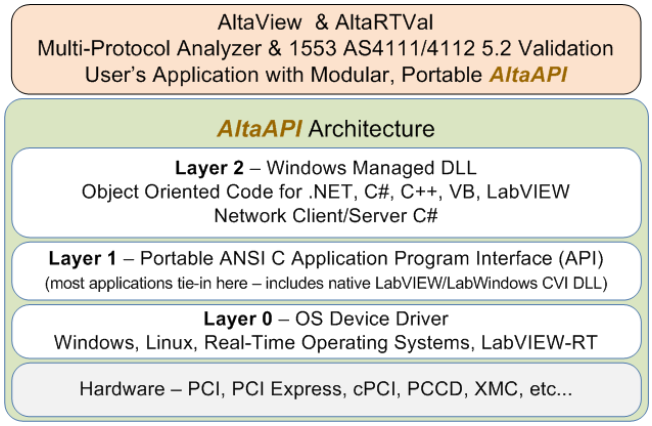


A/D Signal Capture on First 1553 Channel & First Two ARINC RX

Alta Data Technologies' PCIC-MA4 interface module is a multi-channel, multi-protocol 1553 and ARINC PCIC card supported by the latest software technologies for PCI systems. The PCIC cards (PMC PCI 32 Carrier) are based on the industry's most advanced 32-bit FPGA protocol engine, ***AltaCore***™, and by a feature-rich application programming interface, ***AltaAPI***™, which is a multi-layer ANSI C and Windows .NET 2.0 (MSVS 2005 C++, C#, VB .NET, Linux, RTOSes) architecture. This hardware and software package provides increased system performance and reduces integration time.

The PCIC-1553's BC capability includes variable message/label framing/subframing with transmission scheduling provides the most advanced control operations. ARINC TX has complete frequency control per channel. RT and ARINC RX, Monitor, Playback and Signal Generator functions also include industry leading functions to meet the most demanding requirements.

AltaCore-1553 is guaranteed 1553B Notice II & IV compliant and all cards are manufactured to the highest IPC-Class 3 standards and ISO 9001:2008 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 to Five Independent, Dual Redundant MIL-STD-1553 Channels**
- PMC on PCI 32 Carrier Configuration
- Dual Function 1553 (BC/Mon or mRT/Mon) or Full Function (BC/mRT/Mon)
- 512 Kbyte RAM per 1553 Channel
- **ARINC – 8 Channels Total:**
  - 4 Shared TX/RX & 4 Dedicated RX
  - 512 Kbyte of RAM for all Channels
- ***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
- Commercial, Industrial (Extended) Temperature
- Advanced BC & ARINC TX Frequency Controls: 1553 Framing/Subframing;
- RT/ARINC RX Full Buffering with 64-bit 20 nsec Time Tags
- 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 (BC or TX)
- Industry First: 20/1000 ns Signal Generation
  - Bit Construction
  - Supports RT or ARINC Validation Testing
- 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
- PCI 32 Bit, 33/66MHz & PCI-X Compatible

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
PCIC-MA4 Specifications

General

- 32-Bit PCI 33/66MHz/PCI-X Compatible
  - PCI-SIG PCI 2.1 Compliant
- **1-5 MIL-STD-1553B Notice II & IV Channels**
- **4 Shared RX/TX & 4 RX ARINC Channels**
- **Optional 1553 and DB50 ARINC Cable**
- Dual and Full Function 1553 Channels
- Power (Estimated @ Max Bandwidth) 8-10W
- Parts Temp (C) : -55 to +120 Storage, 0 to +70 Commercial, -40 to + 85 Extended
- 6 Avionics and 1 RS-485 Discretes
- Loop-Back & User BIT, Dual Temp Sensors
- IRIG-B RX PAM and RX/TX PPS Time Sync
- IPC Class 3 and ISO 9001:2008 Processes

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*, *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 No Cost
- 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

Add Suffix **#D** or **#F** for 1553 Dual or Full Function Channel Count (#). Further add "**8**" for ARINC.

Example: **PCIC-MA4-5D8-T**
Contact Factory for Desired Channel Configuration.
Options: -E for Ext Temp Parts (-40 to +85C);

NOTE: On shared 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!

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Contact Alta for Special Lead Build Configurations

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Alta dt data technologies

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