Amazing 16-48 Shared RX/TX Channels!
Highest Channel Count in the Industry.
PMC, PCI, PCIe, cPCI, PXI, PXIe Systems

Alta Data Technologies’ PMC-A429HD interface card offers an unparalled 16, 32 or 48 channels of ARINC-429 on a single-width, front panel PMC module. The PMC card can be used in almost any PCI based backplane system, and can encode or decode almost any ARINC-429 physical layer signal. The card can also support several 717 channels – see side bar.

The card design is based on the industry’s most advanced 32-bit ARINC FPGA protocol engine, AltaCore™, and 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, LabVIEW, RTOS) architecture. This hardware and software package provides increased system performance and flexibility while reducing integration time.

The PMC-A429HD Transmit (TX) capability includes both simple and complete frequency control options for each channel and Playback and Signal Generator modes. Three Receive (RX) functions including channel and multi-channel levels.

AltaCore is guaranteed ARINC-419/429/575/573 compliant and all cards are manufactured to the highest IPC Class 3 standards and ISO 9001:2015 processes. Alta is committed to provide each customer with a risk free integration and will help with any level of your system development.

Key Features:
- ARINC-419/429/575 Configurations:
  - 16 Shared Rx/TX Channels, or
  - 32 Shared RX/TX Channels, or
  - 48 Shared RX/TX Channels
  - For All Channels, RX Function is Always Available and TX is Software Selectable.
  - Channels Can Be Fixed on Request
- Fully Programmable Label/Word Encoding and Decoding
- Two ARINC-717 Channels are Available the 16 Channel Card. 4 ARINC-717 Channels are Available on the 32 and 48 Channel Card. Each 717 Channel Replaces 2 ARINC-429 Channels.
- Commercial or Industrial (Extended) Temp
- One Mbyte of Memory per 16 Channel Bank for RX/TX Buffering
- Channel Independent TX Label/Word Frequency Control
- Dual RX Buffering at Channel and Multi-Channel Level 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
- Industry First: 1 uSec Signal Generation
  - Bit Construction
  - Supports Advanced Validation Testing
- IRIG-B RX PAM or RX/TX PPS Ext Clock
- One Avionics Discrete/Shared Trigger, TTL & IRIG RX Clock
- Advanced BIT Features and Temp Sensors
- Full HW Interrupt Features
- PCI 32 Bit, 33/66MHz & PCI-X Compatible

Alta’s Advanced Software Architecture

200 Pin Honda Front Pin Connector. 3ft Flying Lead Cable Provided.
High Channel Density (16-48 Channels)
PMC-A429HD ARINC-429 Specifications

General
- 32-Bit PCI 33/66MHz/PCI-X Compatible
  - PCI-SIG PCI 2.1 Compliant
  - ANSI/VITA 20-2001 Compliant
- Encode or decode almost any ARINC-429 physical layer signal.
- Full Word/Label Encoding/Decoding
  - Bit Rates 512 to 200K (12.5, 50K & 100K Compliant)
- One Megabyte Per 16 Channel Bank
- Two ARINC-717 Channels are Available the 16 Channel Card. 4 ARINC-717 Channels are Available on the 32 and 48 Channel Card. Each 717 Channel Replaces 2 ARINC-429 Channels.

Software: AltaAPI, AltaView Software
- Multi-Layer AltaAPI Architecture to Support Windows & .NET, ANSI C, Linux, VxWorks, etc..
  - No Cost LabVIEW and RT Support
  - Contact Factory for Latest RTOS Platforms
- Optional AltaView is Based on the Latest Windows MS Office User Interface Style with Ribbon-Bar
  - Full Analyzer Integration Tool
  - Multi Language Support

Part Numbers (front panel only):
PMC-A429HD-16
- 16 Shared RX/TX Channels
PMC-A429HD-32
- 32 Shared RX/TX Channels
PMC-A429HD-48
- 48 Shared RX/TX Channels

100 Pin Honda Front Pin Connector. 3ft Flying Lead Cable Provided.
Options: -E for Ext Temp Parts (-40 to +85C); -F for conformal coating; -N for NVRAM Disable, -A for AltaView. Example PMC-A429HD-48-AEFN.

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!
EU and China RoHS Compliant
Contact Alta for Special Lead Build Configurations

AltaAPI Software with ANSI C Source and .Net DLL at No Cost.

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