Alta Data Technologies’ PCCD-A429 interface modules offer a variety of ARINC-429/575/717 channel configurations with software selectable Rx/Tx channels, baud rates, bit encoding and word configurations (Start/Stop/Stop length, Parity, bits/word, MSB/LSB). Encode or decode almost any ARINC-429 transceiver compatible signal.

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 PCI-A429 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-419/429/575/573/717 compliant and all cards are manufactured to the highest IPC Class 3 standards and ISO 9001:2008 processes. Alta is committed to provide each customer with a risk free integration and will help with any level of your system development.

### AltaData Technologies’ PCCD-A429 Interface Modules

- **High Density ARINC Interface** for PCMCIA (Type II) Systems

### Key Features:

- **ARINC-419/429/575/573/717 Configurations:**
  - 4 RX/TX Shared Channels
  - 4 RX/TX Shared & 4 RX Channels
  - For Shared Channels, RX Function is Always Available and TX is Software Selectable.
  - Channels Can Be Fixed on Request
- **A/D Signal Capture on First Two RX Channels!**
- **Dual ARINC-717 RX/TX Shared**
  - Replaces Corresponding 429 Channels
- **Fully Programmable Label/Word Encoding and Decoding**
  - Word Length, Start/Stop Bits, MSB/LSB, RX/TX Bit Rates, Parity, Bit Encoding Types.
- **Commercial, Industrial (Extended) Temp**
- **Channel Independent TX Label/Word Frequency Control. One Shot or List Control.**
- **Three RX Modes for Channel and Multi-Channel Buffering, each 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**
- **Two Avionics/ Two RS-485 Discretes/Clock**
- **One TTL In and Out Clock**
- **Advanced BIT Features and Temp Sensors**
- **Full HW Interrupt Features**
- **PCI 32 Bit, 33/66MHz & PCI-X Compatible**
Multi-Channel (4-8)
PCCD-A429 Specifications

General
- PCMCIA Type II – PCCARD Cardbus
- Encode or Decode Almost any ARINC-429 Physical Layer Signal.
- 8-bit, 1 µSec A/D Signal Capture on First Two RX Channels!!
- One Megabyte RAM
- Weight: 3oz/90grams
- Parts Temp (C) :-55 to +120 Storage, 0 to +70 Commercial, -40 to + 85 Extended
- Flying Lead Cable Provided (User Configured)
- Full Word/Label Encoding/Decoding
  - Bit Rates 500 to 200K
  - Bit Types, Length, Start/Stop and Parity Settings (most advanced in industry)
- 2 Avionics, 2 RS-485, One TTL In and Out
- Power-Up, Loop-Back and User BIT
- IRIG-B RX PAM and RX/TX PPS Time Sync
- IPC Level 3 and ISO 9001:2015 Processes

TX Features
- Simple or Detailed Frequency (Hz) Control Per Label/Word List
- ARINC-717 Frame Support
- Interrupts, External Trigger
- Full Error Injection

RX Features – Three Buffering Modes
- Channel Level Label/Word Tables
- Channel Level Current Value Tables
- Multi Channel Data Tables for All Channels
- ARINC 717 Frame Support
- 64-Bit, 20 nsec Time Tags
- Interrupts, External Trigger
- Full Error Detection

Playback/Signal Generator (TX)
- Real Hardware Playback from Archive Files
- H/W Playback Timing to 10 usec.
- Signal Vector Generation at 1 µSec
  **INDUSTRY FIRST**
  - Construct Bit Encoding
  - Ideal for Test Validation

Software: AltaAPI & AltaView
- Multi-Layer AltaAPI Architecture to Support Windows and C Linux, VxWorks, LabVIEW, etc..
  - Contact Factory For RTOS Platforms
- Optional AltaView is Based on the Latest Windows MS Office 2007 User Interface Style with Ribbon-Bar
  - Full Analyzer Integration Tool
  - Multi Language Support

Part Numbers
PCCD-ARINC-4
- 4 Shared Rx/TX ARINC-429 Channels
- 2 RX/2TX ARINC-717 Shared Channels
  - (Each 717 Tx or Rx Replaces Two 429 Channels)

PCCD-ARINC-8
- 4 Shared Rx/TX; 4 RX ARINC-429 Channels
- 2 RX/2TX ARINC-717 Shared Channels
  - (Each 717 Tx or Rx Replaces Two 429 Channels)

Options: -E for Ext Temp Parts (-40 to +85C), -A for AltaView Enable. 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,.Net and LabVIEW & RT provided at No Cost.

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