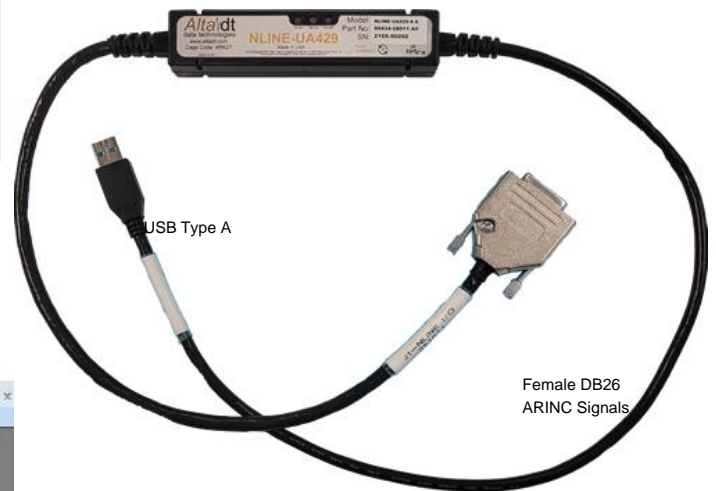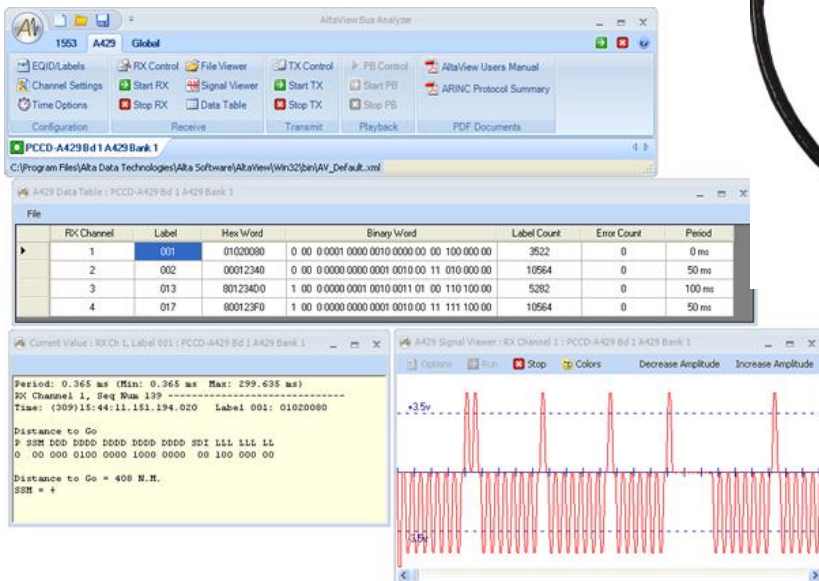# NLINE-UA429™

In-Line ARINC to USB 3.1

- USB 3.1 <-> 1-8 ARINC Channels
  - 4 Channels RX or TX; 4 RX Only Channels
- 3 Simultaneous RX Modes, and
  Advanced TX Label Scheduling
- USB 3.1 Interface.
  USB 2 Compatible, but Not Recommended
- Ideal for Lab, Sims or Rugged Deployed
- Extended Temp Parts Available
- IRIG-B RX Decode, Triggers
- Windows 8 & 10, and Linux Drivers

Full Featured Product. Small, Rugged, In-Line ARINC-USB Interface.

USB Type A

Female DB26 ARINC Signals

Optional AltaView Windows GUI. Full Label Decode/Encode. Signal Capture on First 2 RX Channels!!

NLINE-UA429™ is an innovative product of ARINC operations for USB connections, ideal for in-field applications or point-point lab usage.

Alta has combined the industry's most advanced 32-bit ARINC FPGA protocol engine, *AltaCore*™, with the same feature-rich application programming interface, *AltaAPI*™, as used with standard cards, often without even recompiling - the ultimate in code portability.

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

AltaAPI Architecture

Layer 2 – Windows Managed DLL
Object Oriented Code for .NET, C#, C++, VB, LabVIEW
Network Client/Server C#

Layer 1 – Portable ANSI C Application Program Interface (API)
(most applications tie-in here – includes native LabVIEW/LabWindows CVI DLL)

Layer 0 – OS Device Driver
Windows, Linux, Real-Time Operating Systems, LabVIEW-RT

Hardware – PCI, PCI Express, cPCI, PCCD, XMC, etc...

AltaAPI SDK is provided at no-cost with all products. The SDK is a properly layered, abstract Development tool for ARINC or 1553 products.

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
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AltaCore-A429
NLINE-UA429™ Specifications

General

- 4 or 8 ARINC Channels
  - First 4 RX/TX Selectable
    - Each Shared RX/TX has TX Electrical Load, and RX Drain When Powered-off. RX Only Option (-I) Recommended for Critical Systems.
  - Second Group of 4 RX Only
- Support ARINC-429/575/573/717
- USB 3.1
  USB 2.0 Compatible, but Not Recommended.
- 5V @ 2 Amp Power
  (Normal with USB 3.1)
- USB-A Connector
  Female DB26 for ARINC Signals
- Encode or Decode Almost any ARINC-429 Physical Layer Signal (512-200K Baud)
- Signal Capture on First 2 RX Channels
- One Megabyte RAM for Buffering
- Flash Disable Factory Setting for Secure Mem
- Parts Temp (C): -55 to +120 Storage,
  0 to +70 Commercial
  -40 to + 85 Ext Temp Parts (-E Option)
- LVTTL Trigger In and Out
- Power-Up, Loop-Back and User BIT
- Polling Interrupts
- IRIG-B PAM RX
- IPC Level 3 and ISO 9001:2015 Processes

TX Features

- Simple or Detailed Frequency (Hz) Control Per Label/Word List
- ARINC-717 Frame Support
- 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, Trigger
- Full Error Detection

Signal Capture

- 2048, 500 nSec, 8-bit A/D
- Troubleshoot Cabling, and Model Topology for Security Analysis

Playback/Signal Generator (TX)

- Real Hardware Playback from Archive Files
- H/W Playback Timing to 20 usec
- Signal Vector Generation at 1 uSec
  INDUSTRY FIRST
  - Construct Bit Encoding
  - Ideal for Test Validation

Software: *AltaAPI & AltaView*

- Multi-Layer *AltaAPI* Architecture to Support Windows and C Linux
- Optional Windows Analyzer: *AltaView*
  - Full Analyzer Integration Tool
  - RX Label Decode/TX Encode
  - Data Logging and CVT Displays
  - Multi Language Support
  - "-A" Option at end of Part Number

Part Numbers

- **NLINE-UA429-4**
  - 4 Shared RX/TX
  - 2 RX/2TX ARINC-717 Shared Channels
    - (Each 717 Tx or RX Replaces Two 429 Channels)

- **NLINE-UA429-8**
  - 4 Shared RX/TX; 4 RX Channels
  - 2 RX/2TX ARINC-717 Shared Channels
    - (Each 717 Tx or RX Replaces Two 429 Channels)

(Each Shared RX/TX has a TX Electrical Load)
Options: Add -E for Ext Temp Parts (-40 to +85C),
-I TX Inhibit, -N Flash Write Inihibit,
Add –A for AltaView Analyzer.
Example: NLINE-EA429-8-AEIN

5 Year Limited Warranty
EU and China RoHS Compliant
Contact Alta for Special Lead Build Configurations
Non-Public Telcom/CE Device

Alta Data Technologies LLC
4901 Rockaway Blvd., Building A
Rio Rancho, NM 87124 USA
www.altadt.com
alta.sales@altadt.com
888-429-1553 or 505-994-3111

Alta dt
data technologies