

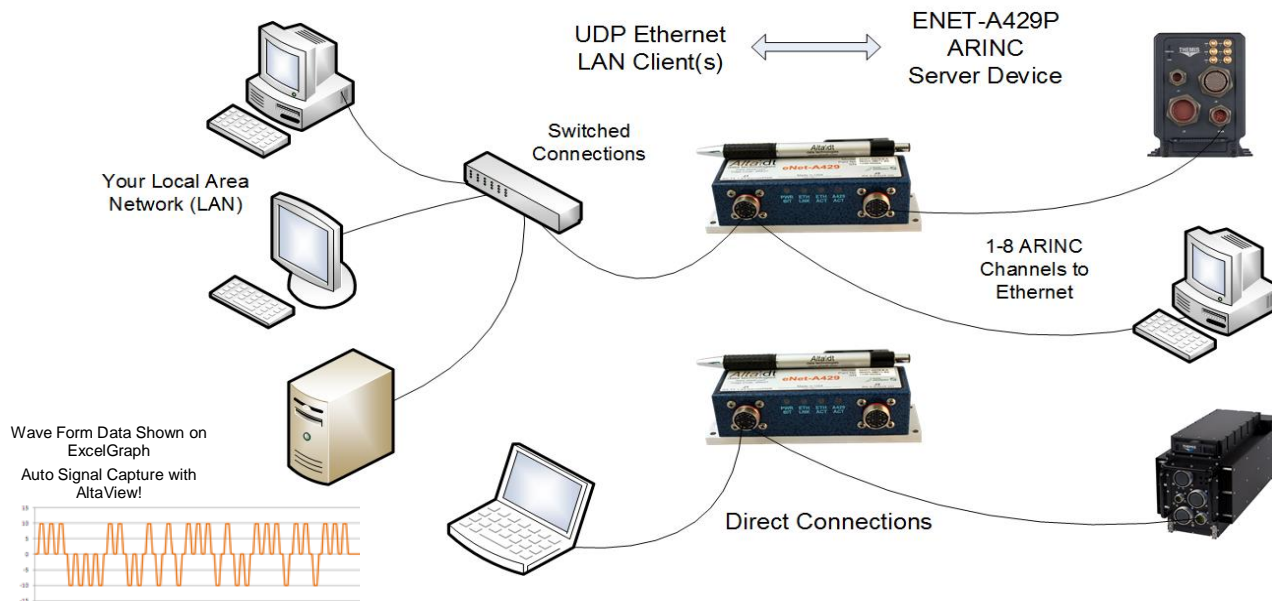


Small 13.5 x 3.7 x 4 cm  
200 grams

- 10/100/1000 Ethernet Interface to 8 ARINC Channels
  - 3 TX Variable Voltage, 1 RX/TX Shared, 4 RX
- **Advanced TX Testing Capabilities**
  - $\sim \pm 3.5 \pm 12$  Vpp Variable Voltage with  $\sim 50$  mV Steps
  - 1 uSec Signal Generator
- **8-bit, 1 uSec A/D Signal Capture on Two RX Channels!**
- Thin-Server, Real-Time UDP Ethernet
- Auto RX Mode for ARINC->Ethernet Bridging
- IRIG-B RX Decode, PPS, Trigger, 2 Avionics & RS-485 Discretes
- 5-32 VDC Power – 2 Amp USB Power OK

**Alta's ENET-A429P Provides Ethernet to ARINC Connectivity  
With Parametrics Testing**

Variable Voltage, Signal Generator and Signal Capture – The Most Advanced ARINC Testing



**eNet-A429P™** is an innovative product that provides “remoting” of ARINC operations on 10/100/1000 Ethernet IP/UDP local area networks (LAN). eNet-A429P is a small, low-power, device ideal for details ARINC signal testing with **variable voltage control of the first 3 TX channels**. Alta has combined the industry’s most advanced 32-bit ARINC FPGA protocol engine, **AltaCore™**, with a real-time IP/UDP thin server. The customer can implement their application with the same feature-rich application programming interface, **AltaAPI™**, as used with standard cards – often without even recompiling - the ultimate in code portability.

**\*\*NOTE: eNet-A429P (server) is a real-time Ethernet/ARINC device, but your computers’ (client) IP stack may not be!** The eNet-A429 device provides real-time UDP receive and transmit requests to ARINC buffers, but the client’s IP/UDP stack will induce path delays as compared to backplane cards. For many applications (<100-1000 packets per second), this product will provide unparalleled flexibility in ARINC configurations (much better than USB devices). Contact Alta for test results on various OS and computer configurations – your system results may vary.

# eNet-A429P™ Specifications

## General

- 1 RX/TX Shared Channel; 4 RX Only
- 3 TX Channels with Variable  
~±3.5-±12 Vpp Voltage with ~50 mV Steps
- TX 1 uSec Signal Generator
- 8-bit, 1 uSec A/D Signal Capture on  
RX Channels 4 & 5!
- Encode or Decode Almost any ARINC-429  
Physical Layer Signal (512-200K Baud)
  
- 2 Avionics & 2 RS-485 Discretes
- One Bi-LVTTL Clock and One LVTTL Trigger
- 13.5 x 3.7 x 4cm, 200g without cabling
- Rugged, Mountable
- Support ARINC-429/575/573/717
- Standard 10/100/1000 Ethernet UDP
- 5-32 VDC Input Accepted (USB 2 Amp)  
Power 1000E @ 40% Load: 700 mAmps  
Power 100E @ 40% Load: 600 mAmps
- Glenair Mighty Mouse Connectors.  
801-011-02M10-26PA/B Mates.
- 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 Extended Temp
- Power-Up, Loop-Back and User BIT
- IRIG-B RX PAM and RX/TX PPS Time Sync
- IPC Level 3 and ISO 9001:2008 Processes

## TX Features

- Simple or Detailed Frequency (Hz)  
Control Per Label/Word List
- First 3 TX Channels Variable Voltage
  - ~±3.5-±12 Vpp, ~50 mV Steps
- ARINC-717 Frame Support
- Interrupts, External Trigger
- Full Error Injection
- Unique 1 uSec Signal Generator  
to Test Any Digital Patterns

## 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

## Playback (TX)

- Real Hardware Playback from Archive Files
- H/W Playback Timing to 20 uSec Accuracy

## 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 Interface Ribbon-Bar
  - Full Analyzer Integration Tool
  - Multi Language Support
  - “-A” Option at end of Part Number

## Part Numbers

- **ENET-A429P-8**
  - 1 RX/TX Shared Channel; 4 RX Only
  - 3 TX Variable Voltage Channels

(Shared RX Channel is an ARINC Electrical Load)

**Options:** Add -E for Ext Temp Parts (-40 to +85C).

Add -A for AltaView Analyzer, -N For NVRAM Write Disable.  
Example: ENET-A429P-8-AEN

## Optional Cables:

- **ENETCAB-J1-01**
  - First 4 Channels (All TX and 1 Shared  
RX/TX Channel), Ethernet & USB Power
- **ENETCAB-J2-01**
  - 4 ARINC RX Only and  
Auxiliary Mini DB-26

## 5 Year Limited Warranty

EU and China RoHS Compliant

Contact Alta for Special Lead Build Configurations  
Non-Public Telcom/CE Device

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