

# ENETX-1553™

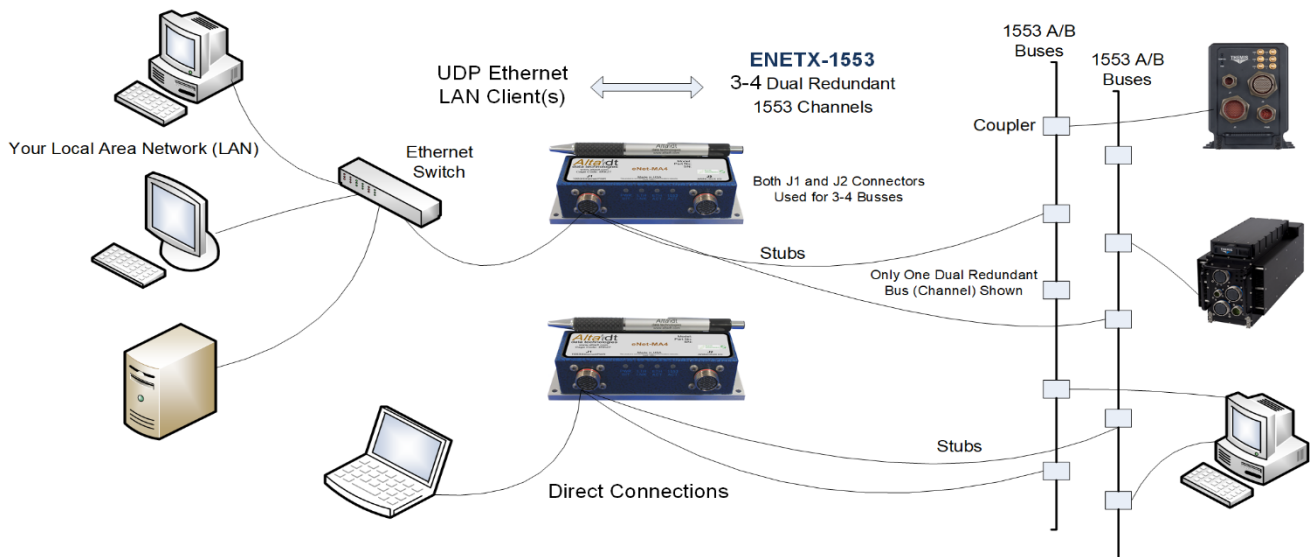
## 3 or 4 Channels (Buses) of 1553 for Real-Time Ethernet Connectivity



Only 14.2 x 7 x 3.5 cm & 280 grams  
Small, Rugged Appliance

- **3 or 4 Independent, Dual Redundant 1553 Buses**
- **Ideal for BM and Light-Moderate BC/RT Operations (<50% Bus Loading All Channels)**
  - <2000 Total Ethernet Packets/Sec for Most Computer OSes (200-500 uSec Path Delay).
- 10/100/1000 Ethernet <-> MIL-STD-1553 Applications
- Thin-Server, Real-Time UDP Ethernet to/from 1553 \*\*
- Remote 1553 Devices on the LAN – Small Size, Rugged
- Auto Load BC, RT and BM Images for Fast Startup
- Auto BM Mode for 1553->Ethernet Bridging
- Ideal for Lab or Rugged Deployed Applications
- IRIG-B RX Decode, PPS, Triggers, Discretets

### Alta's ENETX-1553 Provides Real-Time Ethernet Connectivity to 3 or 4 MIL-STD-1553 Buses Incredibly Small, Rugged Ethernet Appliance



**ENETX-1553™** is an innovative product that provides “remoting” of 1553 operations on 10/100/1000 Ethernet IP/UDP local area networks (LAN). ENETX-1553 is a small, low-power, rugged device that provides real-time Ethernet connectivity to for **three or four** dual redundant 1553 (A/B) buses (channels). Ideal for remoting 1553 connections for in-field applications or point-point lab usage.

Alta has combined the industry’s most advanced 32-bit 1553 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: ENETX-1553 (server) is a real-time Ethernet/1553 device, but your computers’ (client) IP stack may not be!** The ENETX-1553 device provides real-time UDP receive and transmit requests to 1553 buffers, but the client’s IP/UDP stack will induce path delays as compared to backplane cards. For many applications (<2000 packets per second), this product will provide unparalleled flexibility in 1553 configurations (much better than USB devices). Contact Alta for test results on various OS and computer NIC configurations –**system results may greatly vary.**

### General

- Small 14.2 x 7 x 3.5cm, 280g without cabling
- 3 or 4 Dual Redundant, Independent Buses
- Standard 10/100/1000 Ethernet UDP
- <2000 Ethernet Packets/Sec for Most OSes
- 5-32 VDC Conditioned Power
  - USB 5V 3 AMP
  - 13W 4-Channels Fully Loaded
- Temp 0-70°C Standard. Storage -55 to 120°C
- Extended Temp Parts with -E Option
  - -40°C to +85°C Bus Monitor Only
  - -40°C to +71°C Transmitting (Bus Controller or Remote Terminal)
- MIL-STD-1553/1553B Notice II & IV
- MIL-STD-1760, 1553A and Link-16
- Glenair Mighty Mouse Connectors
  - 801-011-02M10-26PA/B Mates
- One Megabyte RAM Buffering Per Channel
- Common Data Packets (CDPs) for all BC, RT and Monitor Functions
- Optional Transmit Inhibit – BM Only
- Flash Disable Factory Setting for Secure Mem
- 7 Avionics Discretes/Ext RT Addressing
- One RS-485 & 1 TTL Discretes/Ext Clock
- Advanced Startup, User and Continuous BIT
- IRIG-B PAM RX or 1, 5, 10 MHz PPS
- Static, Programmable IP Addressing
- IPV4. IP Fragmentation NOT supported

### BC Features – Full Featured

- Light-Moderate BC Packet Rates Supported
- Framing, Subframing, Retries
- Schedule Message Timing in Frames or Intermessage Gap Spacing
- Low and High Priority Aperiodic Scheduling
- Polling Interrupts, No-Ops, Ext Trigger
- Legal and Reserved Mode Codes
- 1553A and 1553B Support 64-Bit, 20 ns
- Time Tags Full Error Injection/Detection

### Playback/Signal Vector (BC)

- Real Hardware Playback from Archive Files
- Only Light Rates Supported for All Channels

### RT Features

- Light-Moderate RT Packet Rates Supported
- Infinite Linked Data/Mode Code Buffers
- 1553A and 1553B Support – 1760 Startup
- Time Tags with Full Error Injection/Detection

### Monitor (BM)

- Sequential and RT Mapped Monitor
  - **Auto start for 1553 UDP Broadcasts**
- Hardware Trigger (Input and Output)
- 64 bit, 20ns Time Tags, IRIG, Ext Clock Source

### AltaAPI, AltaView Software

- Multi-Layer, Portable **AltaAPI** Software Tool Kit. Windows™, .NET, LabVIEW™, ANSI C, Linux
- **Highly Portable BSD Socket Layer for Almost Any Operating System (OS). Contact Factory**
- Optional **AltaView** Analyzer Windows
  - Full Analyzer Integration Tool
  - Multi Language Support

### Part Numbers

Dual Function: BC/Mon or mRT/Mon

- **ENETX-1553-3D or ENETX-1553-4D**

Full Function: BC, mRT and Monitor

- **ENETX-1553-3F or ENETX-1553-4F**

Options: Add -E for Ext Temp Parts (-40 to +85C), -I TX Inhibit (BM Only), -N for NVRAM Write Protection, -F for Conformal Coating, -D Direct Coupling and -A for AltaView Analyzer.

Example: ENETX-1553-4F-ADEFIN

### Optional Cables (ordered separately):

- **ENETXCAB-1553-J1-01/02**
  - 3-4 1553 Channels, Mini DB-26 & USB Power
- **ENETXCAB-MA4-J2-02**
  - First 2 Channels of 1553, Ethernet RJ-45 & Mini DB-26

### 5 Year Limited Warranty

EU and China RoHS Compliant

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



Metromatics

For further information or pricing, please contact us:

Melbourne 03 9872 4592 Sydney 02 9460 4355  
Brisbane 07 3868 4255 Adelaide 08 8343 8516

sales@metromatics.com.au  
www.metromatics.com.au