

eNet-1553™

Remote 1553 Operations for Ethernet Networks

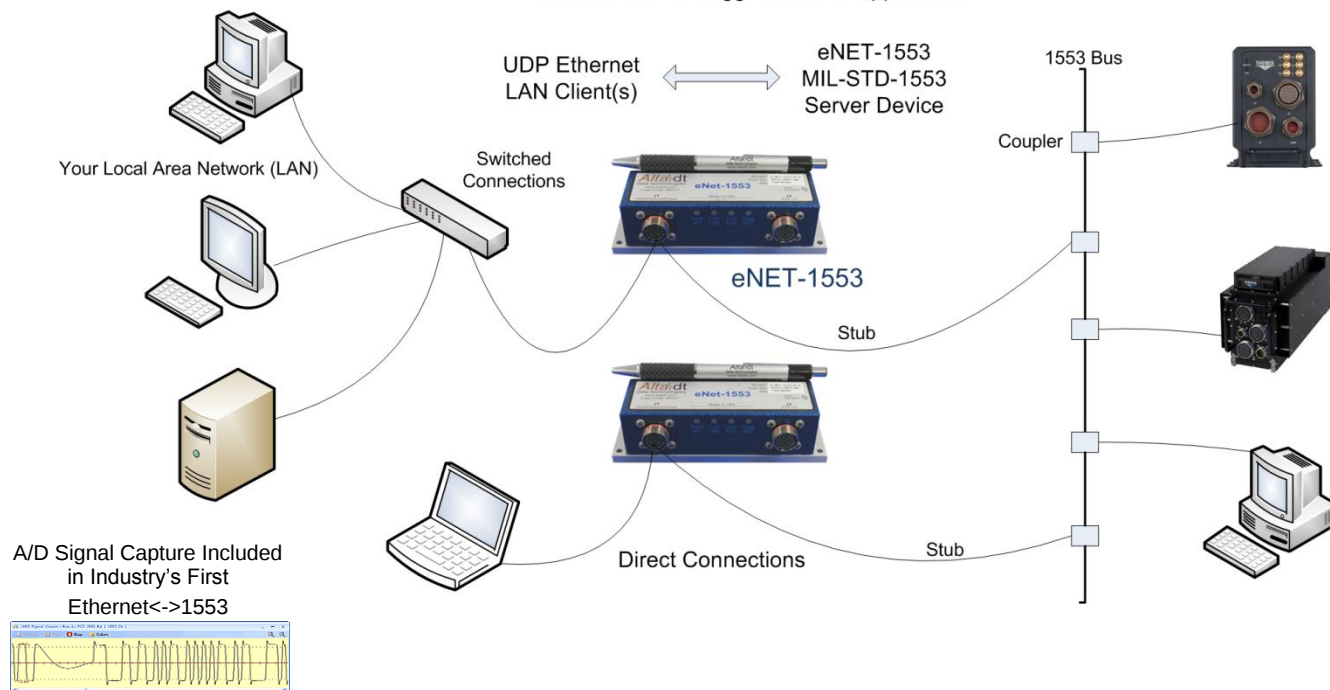


Small 13.5 x 3.7 x 4 cm
200 grams
Rugged MIL 810G Tested

- 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
- Auto Load BC, RT and BM Images for Fast Startup
- Auto BM Mode for 1553->Ethernet Bridging
- 5-30 VDC, 300-900 mA max/300-700 mA typical.
- 200g Weight, POE Optional, 1760 Startup
- Ideal for Lab or Rugged Deployed Applications
- IRIG-B RX Decode, PPS, Triggers, Discretes

Alta's eNET-1553 Provides Ethernet to MIL-STD-1553 Connectivity

Ideal for Lab or Rugged Vehicle Applications



eNet-1553™ is an innovative product that provides “remoting” of 1553 operations on 10/100/1000 Ethernet IP/UDP local area networks (LAN). eNet-1553 is a small, low-power, rugged device that provides connectivity for one dual redundant 1553 bus and is 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: eNet-1553 (server) is a real-time Ethernet/1553 device, but your computers' (client) IP stack may not be!** The eNet-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 (<100-1000 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 configurations – your system results may vary.

AltaCore-1553

eNet-1553™ Specifications

General

- 13.5 x 3.7 x 4cm, 200g without cabling. Rugged Mountable MIL 810G Tested.
- Standard 10/100/1000 Ethernet UDP
- Power 1000E @ 50% Load: 800 mAmps
Power 100E @ 50% Load: 400 mAmps
5-30 VDC Input Accepted.
POE Optional (+55C Ambient Max Temp).
USB Powered OK (1000 mAmp Source).
- Glenair Mighty Mouse Connectors.
801-011-02M10-26PA/B Mates.
- One Dual Redundant MIL-STD-1553 Interface
- One Megabyte RAM for 1553 Buffering
- Common Data Packets (CDPs) for all BC, RT and Monitor Functions
- Transmit and BC Hardware Inhibit
- Flash Disable Factory Setting for Secure Mem
- MIL-STD-1553/1553B Notice II & IV
- MIL-STD-1760, 1553A and Link-16
- Parts Temp (C) : -55 to +120 Storage, 0 to +70
Commercial, -40 to + 85 Extended Temp
- 6 Avionics Discretes/Ext RT Addressing
- Two RS-485 & 1 TTL Discretes/Ext Clock
- Advanced Startup, User and Continuous BIT
- IRIG-B PAM RX or 1, 5, 10 MHz PPS
- IP Fragmentation NOT supported.

BC Features

- Variable Framing and Subframing
- Up to 15 Retries Per Message
- 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
- Synchronized Playback with Other Alta Channels and Cards!
- Signal Vector Generation at 20 nsecs
INDUSTRY FIRST
 - Construct 1553 Bit Signals at 20 nsecs

RT Features

- Infinite Linked Data Buffers Legal and Reserved Mode Codes
- 1553A and 1553B Support – 1760 Startup
- Full Buffering of All Mode Codes 64-Bit, 20 ns
Time Tags with Full Error Injection/Detection

Monitor

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

AltaAPI, AltaView, AltaRTVal Software

- Multi-Layer, Portable **AltaAPI** Software Tool Kit.
Windows™, .NET, LabVIEW™, ANSI C, Linux
- Most RTOS Platforms, Contact Factory
- Optional **AltaView** Analyzer .NET Windows
 - Full Analyzer Integration Tool
 - Multi Language Support Optional
 - Add “-A” Option to End of Part Number
- Optional **AltaRTVal** provides full AS4111 and AS4112 5.2 Protocol RT Validation/Testing (on 2 Channel Alta Cards – not on eNet).

Part Numbers

Dual Function: BC/Mon or mRT/Mon

• eNet-1553-1D

Full Function: BC, mRT and Monitor

• eNet-1553-1F

Options: Add -E for Ext Temp Parts (-40 to +85C)
and -P for POE. Add -A for AltaView Analyzer.
Example: ENET-A429-8-AE

Optional Cables:

- **ENETCAB-1553-J1-01**
 - 1553, Ethernet & USB Power
- **ENETCAB-J2-01**
 - 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



Metromatics

For further information or pricing, please
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