



**eNet-1553-EBR™**

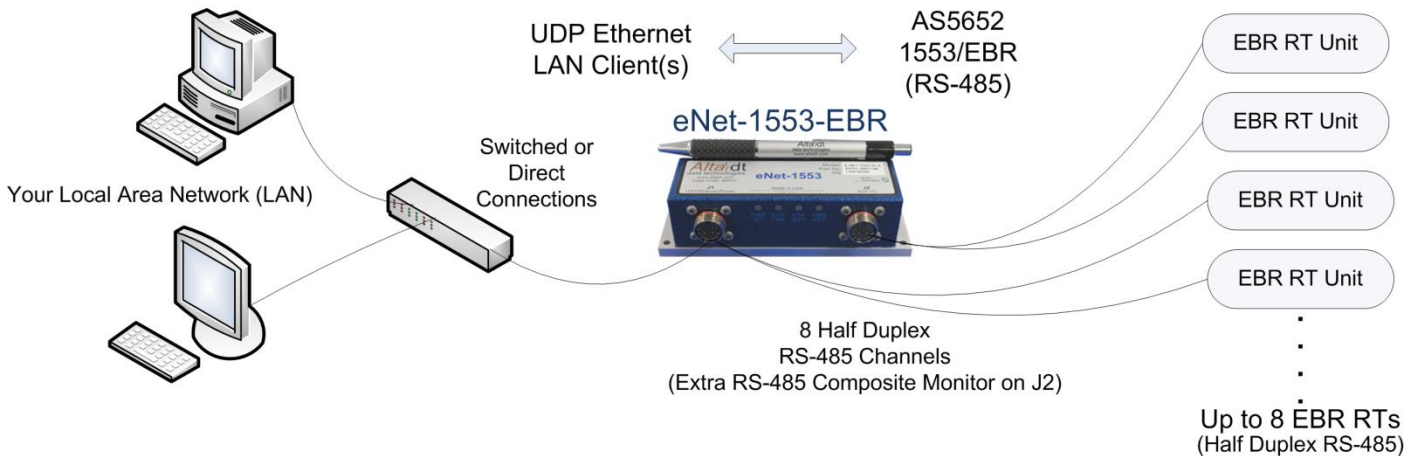
**1553-EBR AS5652 Operations  
for Ethernet Networks**



Small 13.5 x 3.7 x 4 cm  
200 grams

- 1000 Ethernet <-> MIL-STD-1553 Applications
- Thin-Server, Real-Time UDP Ethernet to/from RS-485 1553 Enhanced Bit Rate (**EBR – 10 Mbit RS-485**) \*\*
- Single Function BC, RT or BM
- 8 RT Half Duplex Link/Spec Mode Support
- 5-30 VDC, 300-800 mA max/300-600 mA typical. 200g Weight, POE Optional, 1760 Startup
- IRIG-B RX Decode, PPS, Triggers, Discretes

**Alta's ENET-1553-EBR Provides Real-Time Ethernet Connectivity  
for up to Eight AS5652 1553 EBR Devices**



**ENET-1553-EBR™** is an innovative product that provides “remoting” of EBR operations on 1000 Ethernet IP/UDP local area networks (LAN). ENET-1553-EBR is a small, low-power, rugged device that is ideal for remoting RS-485 1553-EBR connections for in-field applications or point-point lab usage.

Alta has combined the industry’s most advanced 32-bit EBR 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-EBR (server) is a real-time Ethernet/EBR devices, but your computers’ (client) IP stack may not be!** The ENET-1553-EBR device provides real-time UDP receive and transmit requests to 1553-EBR buffers, but the client’s IP/UDP stack will induce path delays. For many applications (<100-1000 packets per second), this product will provide unparalleled flexibility in EBR configurations (much better than USB devices). Contact Alta for test results on various OS and computer configurations – your system results may vary.

# AltaCore-1553 (EBR AS5652) eNet-1553-EBR™ Specifications

## General

- 8 Half Duplex RS-485 EBR Interfaces
- AS5652 Compliant: Link & Spec Mode
- 13.5 x 3.7 x 4cm, 200g without cabling.
- **Standard 1000 (1G ONLY) Ethernet UDP**
- Power 1000E @ 50% Load: 800 mAmps  
5-30 VDC Conditioned 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 Megabyte RAM for 1553 Buffering
- Common Data Packets (CDPs) for all BC, RT  
and Monitor Functions
- Flash Disable Factory Setting for Secure Mem
- Parts Temp (C) : -55 to +120 Storage, 0 to +70  
Commercial, -40 to + 85 Extended Temp
- Advanced Startup, User and Continuous BIT
- IRIG-B PAM RX or 1, 5, 10 MHz PPS
- IP Fragmentation NOT supported.

## BC Features

- Variable Framing or One Shot Lists
- RT Link and Spec Mode Support
- Intermessage Gap Spacing (4-10 minimum)
- Polling Interrupts, No-Ops, Ext Trigger
- Time Tags Full Error Injection/Detection

## RT Features

- EBR Link and Spec Mode Support
- Infinite Linked Data Buffers
- Time Tags Full Error Injection/Detection

## Monitor

- Composite Monitor on J2 RS-485 Output
- Internal Sequential Monitor
- 64 bit, 20ns Time Tags, IRIG, Ext Clock  
Source

## AltaAPI Development Software

- Multi-Layer, Portable **AltaAPI** Software Tool Kit.
- Windows 32 and 64-bit Support
- Portable Berkeley BSD Layer 0 Available (Linux,  
Unix, etc...)

## Part Numbers

- **ENET-1553-EBR-1D**
  - Single Function (BC, RT/mRT or Mon)
  - First 4 EBR Channels on J1
  - Second 4 EBR Channels and  
Composite Monitor on J2

Options: Add -E for Ext Temp Parts (-40 to +85C), -N for  
NVRAM Write Protect, -P for POE, -F for Conformal Coat.  
Example: ENET-1553-EBR-1D-EFN

## Optional J1 and J2 Cables:

- **ENETCAB-J1-01 - first four channels**
  - DB26, Ethernet & USB Power
- **ENETCAB-J2-01 – second four channels**
  - Auxiliary 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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