

# eNet-1553-EBR™

### 1553-EBR AS5652 Operations for Ethernet Networks



**ENET-1553-EBR**<sup>™</sup> is an innovative product that provides "remoting" of 1553 AS5652 EBR operations on 10/100/1000 Ethernet IP/UDP local area networks (LAN). ENET-1553-EBR is a small, low-power, rugged device that provides connectivity for up to eight AS5652 RT devices, single BC or composite monitor.

Alta has combined the industry's most advanced 32-bit EBR FPGA protocol engine, *AltaCore<sup>TM</sup>*, with a realtime IP/UDP thin server. The customer can implement their application with the same feature-rich application programming interface, *AltaAPI<sup>TM</sup>*, as used with standard cards – often without even recompiling - the utlimate 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 EBR 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 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 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 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
  - 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-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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