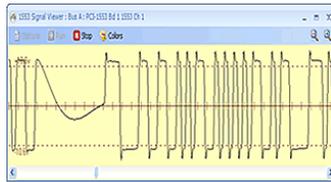




MEZ-E1553

1-2 MIL-STD-1553 Channels Small Mezzanine with Ethernet Host Interface



A/D 1553 Signal Capture Built-In!
Ideal for Bus Troubleshooting and
Cybersecurity Modeling

36.25x56mm –Actual Size Shown
Mounts to Low Cost Samtec Connector

- 1-2 Dual Redundant, Independent Channels
- Ideal for Your Custom System
- Full Design Schematics from Reference Card (below)
- Guaranteed MIL-STD-1553A/B/C Compliant
 - AS4111 5.2 Protocol Test Reports
- Auto UDP “Bridge” 1553 Bus Monitor Messages Without Programming
- Use Almost Any OS – Even DO178
Straight Berkeley Socket Layer in AltaAPI SDK
- 1553 Bus & Ethernet Activity Signals Routed
- 3.3V Power – 1.5A Max Dual Channel



Not to Scale

- **MEZDEV-E01** Development-Reference Card
Connect to Your Computer for Full Testing
- Full Schematics and Design Notes
 - Provides Example Designs and Suggested Support Parts
- RJ-45 Ethernet, USB-C Power Only & Honda Connector
 - Honda Connector for 1553 and AUX Signals. Use Alta HTKCAB-1/2-AUX01 Cables to Break-out to 1553 BJ-77 Jacks & DB26.

Key Features

- **1-2 Independent, Dual Redundant 1553 Channels on Small Mezzanine**
- **10/100/1000 Ethernet Interface**
- Reference-Development Card Available
- Full Schematics, Design Guidelines, ESS Test Examples, and 3-D STEP Files
- **Dual Function** (BC/Mon or mRT/Mon) or **Full Function** (BC/mRT/Mon)
- One Mbyte of Memory per Channel
- Fully Compliant to MIL-STD-1553B/C Notice II/IV, 1553A and Link-16
- Commercial or Industrial Extended Temperature Parts
- A/D Signal Capture for Cable Troubleshooting and Cybersecurity Modeling. First Channel Only
- MIL-1760 Ext RT Addressing First Channel
- True HW Playback – HW Sync Channels
- Industry First: 20ns Signal Generation
- IRIG-B RX PAM or RX/TX PPS Ext Clock
- AltaAPI SDK Provided. Use the Exact Same Code as Other Alta Products.
- Auto Ethernet Bridging for Bus Monitor! No Programming Needed.
- Wireshark Dissectors – Decode Auto UDP BM Messages in Wireshark!
 - 100% or Filtered Subaddress Messages
- **Advanced BIT Features and Dual Temperature Sensors**

1-2 Channel AltaCore™ MEZ-E1553 Specifications

General

- 1-2 Dual Redundant 1553 Channels
 - Dual or Full Function
- 10/100/1000 UDP Ethernet Interface
- 36.25x56mm – 8.2mm max height
 - Similar to Full Mini PCI Express Type F2
- Mounts to Common, Low Cost Samtec [HSEC8-120-01-L-RA](#) Connector
 - Not Included
 - Mounting Screws are Included
- 3.3V Power. Max: 1A Single Channel; 1.5A Dual Channel.
- One Megabyte RAM per Channel
- Common Data Packets (CDPs) for all BC, RT and Monitor Functions – Industry First
- MIL-STD-1553B/C Notice II & IV
 - 1553A and Link-16
- Parts Temp (C): -55 to +120 Storage, 0 to +70 Commercial, -40 to + 85 Extended
- Loop-Back & User BIT, Dual Temp Sensors
- IRIG-B RX PAM and TX/RX PPS Time Sync (AUX)
- 6 Avionics Discretes (MIL-1760 Ext Addr), and One RS-485 Discrete (AUX)
- Bus Activity and Ethernet Link Status Lines Provided – To LEDs on MEZDEV Reference
- Polling Interrupts
- IPC Class 3 and ISO 9001:2015 Processes

BC Features

- Simple One-Shot Lists to Advanced Message Framing and Subframing
- Infinite Linked CDP Data Buffers
 - 64-Bit, 20 ns Time Tags, Interrupts, Triggers
- Low and High Priority Aperiodic Messages
- Up to 15 Retries Per Message
- Legal and Reserved Mode Codes
- Full Error Injection/Detection

Signal Capture on First Channel!

- 2048, 50nSec, 8-bit Capture
 - First Channel Only
- Troubleshoot Cabling and Model Topology for Security Analysis

RT Features

- Infinite Linked CDP Data Buffers
 - 64-Bit, 20 ns Time Tags, Interrupts, Triggers
- Legal and Reserved Mode Codes
- First Channel MIL-1760 Addressing – Fast Startup
- Full Error Injection/Detection

Bus Monitor

- Sequential and RT Mapped Monitoring with Infinite Linked CDP Data Buffers
 - Auto UDP Bridging without Programming
 - 64-Bit, 20 ns Time Tags

Playback/Signal Vector PHY TX

- Real Hardware Playback from Archive Files
- Signal Vector Generation at 20 nsecs

Software: *AltaAPI*, *AltaView*

- Multi-Layer *AltaAPI* Architecture to Support Almost any OS. Straight Berkley Socket (BSD) Layer.
 - **Source Provided – Even Use on DO178 Systems**
- Optional Windows *AltaView* Analyzer
 - Full Analyzer Integration Tool

Part Numbers (Channel Count 1 or 2)

Dual Function: BC/Mon or mRT (Multi RT)/Mon

- **MEZ-E1553-1/2D**

Full Function: BC, mRT (Multi RT) and Monitor

- **MEZ-E1553-1/2F**

Options: -A for AltaView; -D Direct Coupling; -E Ext Temp; -F Conformal Coating; -I 1553 TX Inhibit; -N NVRAM Write Disable.

Example (alpha order): **MEZ-E1553-2F-ADEFIN**

Development Card: RJ-45, USB-C Power, Honda I/O Connector. Full Reference Schematics.

- **MEZDEV-E01**
- **HTKCAB-1/2-AUX01 Honda Connector**
 - Breaks-out 1553 Busses and AUX

5 Year Limited Warranty!

EU and China RoHS Compliant

Contact Alta for Special Lead Build Configurations

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