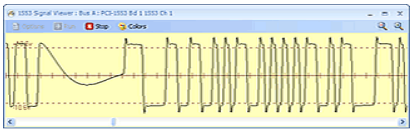
USB-MA4™

Multi-Channel 1553 and/or ARINC USB 3.0 SuperSpeed® Appliance

Industry First!
USB SuperSpeed Appliance
Full Featured 1553 & ARINC

Very Small
~110x89x17mm

O-Scope A/D Signal Capture Included on First Channel of 1553 and First 2 Channels of ARINC

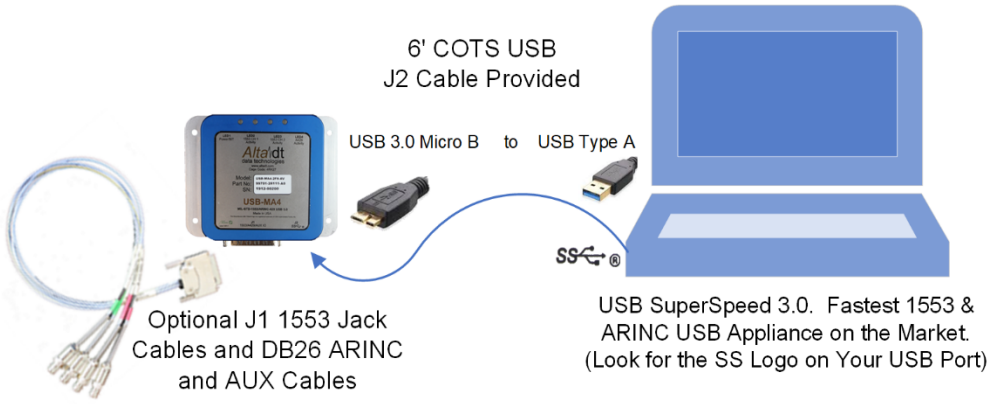


- **One or Two Dual Redundant 1553 Channels**
  - Dual (BC/BM or mRT/BM) or Full Function (BC/mRT/BM) Modes

And/Or

- **Eight ARINC-429/717 Channels**
  - 4 RX/TX & 4 RX; First 2 Channels Share 717
- **USB SuperSpeed. Compatible with USB 2**
  - **Recommend USB 3.0 SuperSpeed (SS Trident Logo) for all applications. ~5-10K Packets/Sec Total.**
  - USB 2.0 or hub performance is dramatically less. Hubs/Converters/USB 2.0 NOT recommended except for low bus loading or simple, on-demand tests.
- **AltaAPI SDK Provides Easy Integration** – Quickly code your application with our modular, portable SDK. Great NI LabVIEW/Windows support, too. Single Application Only.
  - **Windows 7/8/10 and Specific Linux Builds Only**
  - Other Windows Applications May Affect Performance

- USB 3.0 B to Host USB 3.0 A Cable Provided. Host side compatible to USB 2.0 A connectors.
- 1553, ARINC and Auxiliary (Aux) Signals via **J1** Honda Connector.
- **Optional J1 Cables:**
  - 1553 Jacks Only
  - 1553 Jacks with DB26 for ARINC and Aux
  - DB26 Only for ARINC and Aux
  - Aux Signals Include Avionics Discretes (6), Triggers, TTL and IRIG RX Clock



Optional ***AltaView*** Windows Analyzer. Full 1553 or ARINC Control with Signal Capture.

www.altadt.com

4901 Rockaway Blvd., Building A Rio Rancho, NM 87124 USA
(In US): 888-429-1553 (Outside US): 505-994-3111 Fax: 805-504-8588

AltaCore-1553/ARINC
USB-MA4 Appliance Specifications

General

- USB 3.0 SuperSpeed Recommended
  - Compatible with USB 2, but NOT recommended
- Physical: 110x89x17mm; 180grams
- 1-2 Dual Redundant Independent 1553 Busses
  - Optional 1553 Variable Voltage
- **and/or** 8 ARINC Channels: 4 RX/TX & 4 RX
  - TX Extra RX Load; Unpowered RX Drain
- One Megabyte RAM Buffering Per Channel/Bank
- USB 3.0 Spec 5V @ 3A Bus Power:
  - Idle 3.6W
  - 100% TX Load, Full Channels: ~10W
  - **USB 2 Connections Must Supply Full Power**
- 2 Temp Sensors: TX and FPGA
- Temp (C): 0-70 Operating; -55 to +120 Storage
- 5-95% humidity, non-condensing
- Transmit Inhibit Optional
- Flash Disable Factory Setting for Secure Mem
- 6 SE Avionics Discretes, One RS-485 Discrete, TTL Clock, Triggers
- IRIG-B DC or PAM RX
- Advanced Startup, User and Continuous BIT
- Single Application Only. Polling Interrupts

1553 BC & TX ARINC

- 1553 Framing, Subframing, Scheduling, Aperiodic
- ARINC TX Complete Frequency Control
- 1553 Legal and Reserved Mode Codes
  - 1553A and 1553B Support
- 64-Bit, 20 ns Time Tags
- Full Error Injection/Detection

1553 RT Features

- Circular Linked Data Buffers SAs and MCs
- Legal, Reserved, and 1553A Mode Codes
- 64-Bit, 20 ns Time Tags
- Full Error Injection/Detection

1553 Bus Monitor

- Sequential Monitor
- RT SA Map Monitor
- 64-bit, 20 ns Time Tags and IRIG Sync

ARINC RX Features – 3 RX Modes

- Channel Level Label/Word Tables
- Multi-Channel Data Tables for All Channels
- 64-Bit, 20 ns Time Tags. Full Error Detection

Playback/Signal Vector (BC or TX)

- Real Hardware Playback from Archive Files.
- Signal Vector Generation at 20/1000 (1553/ARINC) ns **INDUSTRY FIRST**
- 20 nSec 1553 Vectors and 1 us ARINC Vectors
- 8-bit, 50 ns 1553 and 1 uSec ARINC A/D Waveform Signal Capture. 1st Channel 1553 and First 2 RX of ARINC

Software – *AltaAPI & AltaView*

- Multi-Layer ***AltaAPI*** *SDK* Architecture – Windows 10, C/C++, .NET, LabVIEW/Windows, etc..
- Optional ***AltaView*** Analyzer Windows Applications.
  - Full Analyzer Integration Tool & RT Validation Tools
  - Multi Language Support
- Linux Support for Specific Kernel Builds – Contact Factory for Kernel Support Details

Part Numbers (1553 and ARINC)

1553 Dual Function: BC/Monitor or mRT/Monitor

- **USB-MA4-1D8 or USB-MA4-2D8**

1553 Full Function: BC, mRT and Monitor

- **USB-MA4-1F8 or USB-MA4-2F8**

- **For 1553 Only Substitute "-1D0" example**
- **For ARINC Only Substitute "-0D8" example**

Options: Add -N for NVRAM Write Protection, -F for Conformal Coating, -I for TX Inhibit; -V 1553 Variable Voltage, –A for AltaView Analyzer Software.
Example: USB-MA4-2F8-AFINV

6ft USB 3.0 Micro B to Host USB 3.0 A Cable Provided. (Host side backward compatible to USB 2.0 A connectors.)

Optional J1 1553/ARINC Cables:

- **PCCDCAB-1553-1-01 or PCCDCAB-1553-2-01**
  - Single or Dual Channel 1553 Jacks Only
- **HTKCAB-AUX01:** DB26 Only for ARINC and Aux
- **HTKCAB-1-AUX01:** Single Channel 1553 w/ DB26
- **HTKCAB-2-AUX01:** Dual Channel 1553 w/ DB26

5 Year Limited Warranty!

EU and China RoHS Compliant

Non-Public Telcom/CE Device/Non Safety-Mission

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