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Find the *Astronics / Ballard Technology USB MULTI* at our website: *Click HERE*

USB MULTI

Multi-Protocol Interfaces

These pocket-sized USB adapters are the easy and portable way to interface your computer to multiple avionics databuses including: MIL-STD-1553, EBR 1553, ARINC 429, ARINC 708, ARINC 717, Serial, and Discrete I/O. They enable computers to communicate with simulate, test, and monitor avionics equipment and systems.



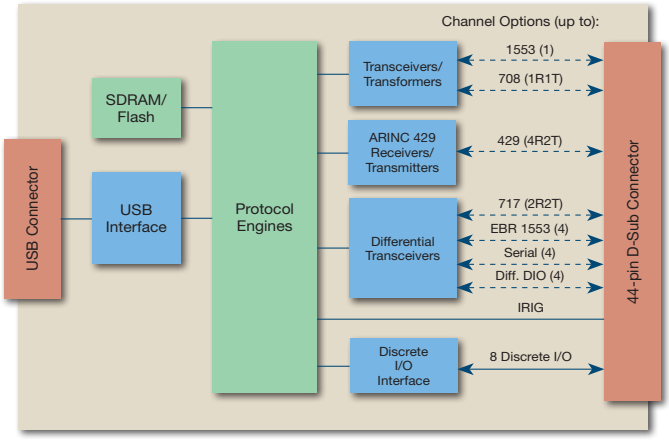
One Tool Does it All!

These rugged USB 2.0 peripherals feature a combination of different protocols in a single device, providing greater convenience and cost savings when interfacing to multiple databus types. They are compatible with virtually all modern PC laptop, desktop, and tablet computers, and all power necessary for operation is provided via the single USB port. Plug and Play and Hot Swap features make them easy to install and move between computers.

Alternatively, users can develop their own software applications with the included BTIDriver API. With only a few function calls, a program can operate the USB hardware and process messages to and from the avionics databuses. Functions include routines for transmitting, receiving, scheduling, recording, time-tagging, and manipulating data. With BTIDriver, application code migrates seamlessly to and from other Ballard devices, reducing development time and costs.

Full-Featured Software

CoPilot software, available as an option with special bundled pricing, provides easy-to-use, interactive tools for databus test, analysis, and simulation. CoPilot simplifies project development and provides added productivity through virtual instrument displays, flexible monitoring and analysis tools, and a powerful scripting engine.



USB Multi-Protocol Interface Block Diagram

KEY FEATURES

- Interface USB to multiple avionics databus protocols with a single unit
- Small, portable, and rugged
- Easy Plug and Play installation
- No external power supply needed
- Available Protocols
  - MIL-STD-1553
  - EBR 1553
  - ARINC 429
  - ARINC 708
  - ARINC 717
  - RS-422/485/232 Serial
  - Discrete I/O
- 8 Avionics Discrete I/O
- IRIG A/B PWM and AM
- USB 2.0 Bus Powered
- 32 MB Data Memory
- FCC, CE and RoHS compliant
- 3-year limited warranty standard

Available Interfaces

MIL-STD 1553

Up to 1 dual-redundant channel
BC/RT/MON (Single- or Multi-Function)
Hardware controlled transmit scheduling
CH/TA/SA filtering
Sequential monitor

ARINC 429

Up to 6 channels (4R2T)
Periodic and asynchronous messages
Hardware controlled transmit scheduling
Receive message filtering (Label/SDI)
Sequential monitor

ARINC 708

Up to 2 channels (1R1T)
Hardware controlled transmit scheduling
Receive message filtering
Sequential monitor

ARINC 717

Up to 4 channels (2R2T)
Biphase/Bipolar
Transmit and receive
Sub-frame and super-frame support
64,128,256,512,1024,2048,4096,8192wps
Sequential monitor

Differential Discrete I/O

Up to 4 programmable inputs/outputs

EBR 1553 (SAE AS5652)

Up to 4 ports (1 channel)
BC/RT/MON (Multi-Function)
Hardware controlled transmit scheduling
CH/TA/SA filtering
Sequential monitor

RS-422/485/232 Serial

Up to 4 ports
Selectable baud rates

Higher Channel Counts

Single-protocol USB interfaces are available with higher individual channel counts. Visit:

astronics.com/USB-Interfaces

Other Features

Standard Features

Model dependent protocol capability
USB 2.0 interface
8 avionics discrete I/O
Up to 4 differential discrete I/O
IRIG A/B input and output
32 MB on-board memory

Avionics Discrete I/O

8 programmable inputs/outputs
Can be used as syncs and triggers
Output: Open/Gnd, 200 mA (max), self monitoring, inductive load protected
Log transitions to sequential record

Time-tag/IRIG

48-bit hardware time-tag (1µs resolution)
IRIG A or B, AM, PWM, and PPS modes
Generate or synchronize (AM input only)
Synchronize hardware time-tags

Specifications

Component temp: -40 to +85 deg C
Storage temp: -55 to +100 deg C
I/O Connector: HD44F D-Sub
Dimensions: 3.0 x 4.45 x 0.97 in (76 x 113 x 25 mm)
Weight: under 5 oz (140 g)
Power: Single USB port
MTBF: 1,400,000 hours

Software

Universal BTIDriver API for C/C++, C#, VB, VB.Net, and LabVIEW™
Windows® and Linux® OS drivers
Translation DLLs for older Ballard devices
CoPilot analysis & test software (opt)
Call for latest language and OS support

Ordering Information

Protocol Key

A = MIL-STD-1553 (B: Bus Monitor, S: Single-function, M: Multi-function)
B = ARINC 429 (4R2T)
C = ARINC 708 (1R1T)
D = ARINC 717 (2R2T)
E = EBR 1553 (4 ports)
F = Serial (4 ports)

Hardware & CoPilot*	Hardware Only	Protocols A	B	C	D	E	F
CP-UA1503	UA1503	-	X	-	-	-	X
CP-UA1505	UA1505	-	-	-	-	X	-
CP-UA1511	UA1511	B	X	-	-	-	-
CP-UA1512	UA1512	B	X	-	X	-	-
CP-UA1513	UA1513	B	X	-	-	-	X
CP-UA1514	UA1514	B	-	-	-	-	X
CP-UA1515	UA1515	B	-	-	-	X	-
CP-UA1521	UA1521	S	X	-	-	-	-
CP-UA1522	UA1522	S	X	-	X	-	-
CP-UA1523	UA1523	S	X	-	-	-	X
CP-UA1524	UA1524	S	-	-	-	-	X
CP-UA1525	UA1525	S	-	-	-	X	-
CP-UA1531	UA1531	M	X	-	-	-	-
CP-UA1532	UA1532	M	X	-	X	-	-
CP-UA1533	UA1533	M	X	-	-	-	X
CP-UA1534	UA1534	M	-	-	-	-	X
CP-UA1535	UA1535	M	-	-	-	X	-
CP-UA1571	UA1571	-	X	X	-	-	-
CP-UA1572	UA1572	-	X	X	X	-	-
CP-UA1573	UA1573	-	X	X	-	-	X
CP-UA1574	UA1574	-	-	X	-	-	X

*Includes CoPilot analysis & test software

Options

To order, add the appropriate suffix to the above part number. Example: UA1532/NE

/FTO	Flight Test Orange case (black case is standard)
/NE	No Enclosure, Printed Circuit Board Assembly only, for embedded use
/FXY	Conformal coating (Parylene)

CONTACT INFO

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