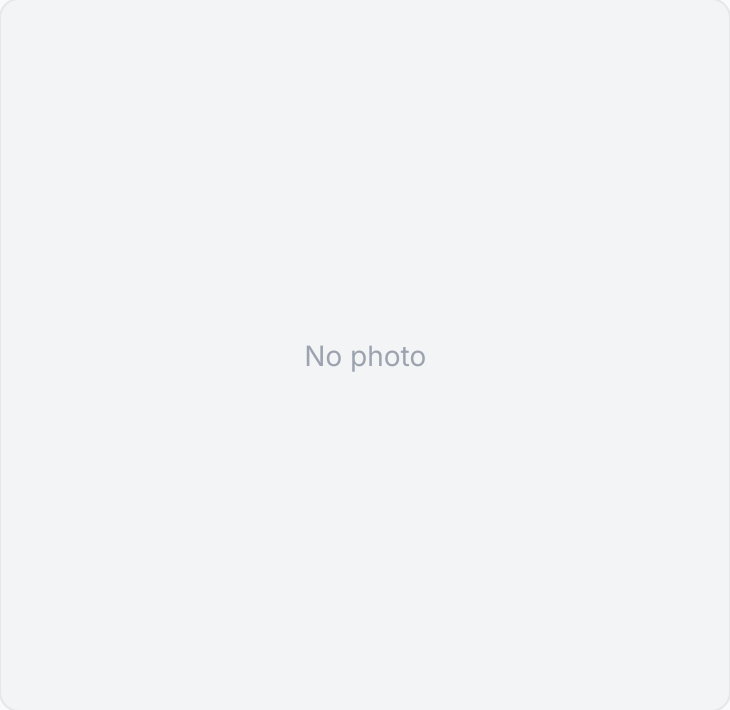
Aumictech
Test & measurement · bought, sold, repaired, calibrated

Data Sheet
August 2, 2026

BALLARD TECHNOLOGY USB

Ballard Technology USB 429 ARINC 429 and 717 Portable USB Interface

Astronics / Ballard Technology USB 429 ARINC 429 and 717 Portable USB Interface The Astronics / Ballard Technology USB 429 series comprises pocket-sized, bus-powered USB 2.0 adapters that enable computers to interface with ARINC 429 and ARINC 717 avionics databuses. Models differ by receive/transmit channel counts for 429 and 717. The hardware performs protocol processing including reception, transmission, scheduling, time-tagging, and buffering. Software development uses the BTIDriver API; optional CoPilot provides interactive test and analysis. All operating power is drawn from the USB port. The Astronics / Ballard Technology USB 429 series comprises pocket-sized, bus-powered USB 2.0 adapters that enable computers to interface with ARINC 429 and ARINC 717 avionics databuses. Models differ by receive/transmit channel counts for 429 and 717. The hardware performs protocol processing including reception, transmission, scheduling, time-tagging, and buffering. Software development uses the BTIDriver API; optional CoPilot provides interactive test and analysis. All operating power is drawn from the USB port. ARINC 429/717 analysis, test, and simulation; data loading; flightline and AOG support; lab and field portable avionics databus work; replacement for plug-in avionics interface cards.



MODEL **Ballard Technology USB 429**	CALIBRATION **N/A — off-catalog OEM datasheet**
CONDITION **See OEM documentation**	STATUS **Not listed on Aumictech inventory**
RFQ / SKU **429**	LISTING **Off-catalog — OEM dat asheet only**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

Features & description

From manufacturer datasheet

Features

• Pocket USB 2.0 bus-powered ARINC 429/717 interface family • Up to 16 ARINC 429 channels and up to 4 ARINC 717 channels (model dependent) • 8 avionics discrete I/O (programmable inputs/outputs) • IRIG A/B PWM and AM time sync/generation • 32 MB on-board memory • BTIDriver API and optional CoPilot software • HD44F D-Sub I/O connector • Maximum throughput on all ARINC channels (family class) • Plug and Play / hot swap USB peripheral

429 Characteristics / Specifications

PARAMETER	VALUE
Model	USB 429 series (examples: UA1410, UA1420, UA1440, UA1401, UA1431)
Manufacturer	Astronics Ballard Technology
Instrument Type	Portable USB ARINC 429/717 interface
Host Interface	USB 2.0 bus-powered
Power	USB bus-powered, 325 mA max
Dimensions	3.0 x 4.45 × 0.97 inch (76 × 113 × 25 mm)
Weight	under 5 oz (140 g)
Memory	32 MB on-board
I/O Connector	HD44F D-Sub
Discretes	8 avionics level I/O (Open/Gnd outputs to 35 VDC, 200 mA max class)
IRIG	A or B, AM, PWM, PPS; 48-bit hardware time-tag (1 us resolution class)
MTBF	1,200,000 hours (family datasheet)
Component Temperature	-40 to +85 degCStorage Temperature: -55 to +100 degCModel Configurations:
UA14	8R4T ARINC 429 + 2R2T ARINC 717
Software	BTIDriver (C/C++, C#, VB, VB.Net, LabVIEW); optional CoPilot (CP- prefix part numbers) Standard Operating Conditions Useaquality USB 2.0 port capable of supplying bus power. Install Ballard drivers/BTIDriver before operation. Observe avionics wiring, termination, and ESD practices at the HD44F interface.
Storage temperature	55 to +100 degCModel Configurations:

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	55 to +100 degCModel Configurations:
UA14	8R4T ARINC 429 + 2R2T ARINC 717
Software	BTIDriver (C/C++, C#, VB, VB.Net, LabVIEW); optional CoPilot (CP- prefix part numbers) Standard Operating Conditions Useaquality USB 2.0 port capable of supplying bus power. Install Ballard drivers/BTIDriver before operation. Observe avionics wiring, termination, and ESD practices at the HD44F interface.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

Specifications

PARAMETER	VALUE
UA1410	1R1T ARINC 429
UA1420	4R2T ARINC 429
UA1440	12R4T ARINC 429
UA1401	2R2T ARINC 717
UA1431	8R4T ARINC 429 + 2R2T ARINC 717
Software	BTIDriver (C/C++, C#, VB, VB.Net, LabVIEW); optional CoPilot (CP-prefix part numbers)

Technical Specifications

PARAMETER	VALUE
Model	USB 429 series (examples: UA1410, UA1420, UA1440, UA1401, UA1431)
Manufacturer	Astronics Ballard Technology
Instrument Type	Portable USB ARINC 429/717 interface
Host Interface	USB 2.0 bus-powered
Power	USB bus-powered, 325 mA max
Dimensions	3.0 x 4.45 x 0.97 inch (76 x 113 x 25 mm)
Weight	under 5 oz (140 g)
Memory	32 MB on-board
I/O Connector	HD44F D-Sub
Discretes	8 avionics level I/O (Open/Gnd outputs to 35 VDC, 200 mA max class)
IRIG	A or B, AM, PWM, PPS; 48-bit hardware time-tag (1 us resolution class)
MTBF	1,200,000 hours (family datasheet)
Component Temperature	-40 to +85 deg C
Storage Temperature	-55 to +100 deg C

Specifications

PARAMETER	VALUE
Model	USB 429 series (examples: UA1410, UA1420, UA1440, UA1401, UA1431)
Manufacturer	Astronics Ballard Technology
Instrument Type	Portable USB ARINC 429/717 interface
Host Interface	USB 2.0 bus-powered
Power	USB bus-powered, 325 mA max
Dimensions	3.0 x 4.45 x 0.97 inch (76 x 113 x 25 mm)
Weight	under 5 oz (140 g)
Memory	32 MB on-board
I/O Connector	HD44F D-Sub
Discretes	8 avionics level I/O (Open/Gnd outputs to 35 VDC, 200 mA max class)
IRIG	A or B, AM, PWM, PPS; 48-bit hardware time-tag (1 us resolution class)
MTBF	1,200,000 hours (family datasheet)
Component Temperature	-40 to +85 degCStorage Temperature: -55 to +100 degCModel Configurations:
UA1410	1R1T ARINC 429
UA1420	4R2T ARINC 429
UA1440	12R4T ARINC 429
UA1401	2R2T ARINC 717
UA1431	8R4T ARINC 429 + 2R2T ARINC 717
Software	BTIDriver (C/C++, C#, VB, VB.Net, LabVIEW); optional CoPilot (CP- prefix part numbers)

Standard Operating Conditions
Useaquality USB 2.0 port capable of supplying bus power. Install Ballard drivers/BTIDriver before operation. Observe avionics wiring, termination, and ESD practices at the HD44F interface.

Operational Notes
Confirm exact UA14xx model for 429 vs 717 channel counts. CoPilot bundles use CP- prefix (example CP-UA1431). Case color option /FTO for Flight Test Orange. Do not assumeasingle SKU covers all channel configurations.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: N/A — off-catalog OEM datasheet. See OEM documentation · Not listed on Aumictech inventory.

Request a quote: **sales@aumictech.com** · +1 (484) 841-9341

Aumictech
788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
https://aumictechlabs.com

NIST-traceable calibration · SAM registered · 30-day returns
NAICS 423690 · 811210 · 541380
Generated August 2, 2026