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Data Sheet

August 2, 2026

ASTRONICS / BALLARD TECHNOLOGY

Astronics / Ballard Technology USB 708 ARINC 708 Portable USB Interface

Astronics / Ballard Technology USB 708 ARINC 708 Portable USB Interface The Astronics / Ballard Technology USB 708 (USB708) is a pocket-sized USB 2.0 interface for ARINC 708/453 weather radar databus communication. Available configurations include UA1710 (1 receiver, 1 transmitter) and UA1720 (2 receivers, 2 transmitters). The unit is bus-powered with 32 MB on-board memory, 8 avionics discretes, and IRIG A/B time synchronization. Software support includes BTIDriver and CoPilot. The interface supports direct-coupled operation, strappable termination, and custom word length/presync settings. The Astronics / Ballard Technology USB 708 (USB708) is a pocket-sized USB 2.0 interface for ARINC 708/453 weather radar databus communication. Available configurations include UA1710 (1 receiver, 1 transmitter) and UA1720 (2 receivers, 2 transmitters). The unit is bus-powered with 32 MB on-board memory, 8 avionics discretes, and IRIG A/B time synchronization. Software support includes BTIDriver and CoPilot. The interface supports direct-coupled operation, strappable termination, and custom word length/presync settings. Portable ARINC 708/453 weather radar databus test and simulation; avionics lab and field troubleshooting; radar LRU interface development; time-stamped databus capture with IRIG A/B.



MODEL

Astronics / Ballard Technology USB 708

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

USB 708

LISTING

<https://aumictechlabs.com/products/usb-708-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Astronics/Ballard Technology USB 708 is a portable USB interface for ARINC 708 avionics data buses commonly found in weather radar systems. It enables monitoring, testing, simulation, generation, recording, and playback of ARINC 708 data in laboratory and field environments, including flightline and Aircraft On Ground (AOG) support. Bus-powered via USB 2.0, the device requires no external power supply. Technical Specifications ARINC 708 Protocol Support Supports standard ARINC 708 and ARINC 453 weather radar data buses Direct coupled channels per ARINC 708 specification Strappable on-board termination for bus connection Standard ARINC 708 message format: syncs at message beginning and end, 1600 bits per word (typically 64-bit header and 512 3-bit range bins) Custom protocols supported with variable word length (1 to 1856 bits per word) and configurable bit order (LSB or MSB first) Software-selectable word lengths and pre-sync pulses Channel Configuration Models available in 1R1T (one receive, one transmit) or 2R2T (two receive, two transmit) Up to 4 ARINC 708 channels total across available models 8 Avionics Discrete I/O channels integrated Data & Timing 32 MB on-board memory for buffering and storage Direct Memory Access (DMA) monitoring IRIG A/B Pulse Width Modulation (PWM) and Amplitude Modulation (AM) time synchronization and generation Hardware protocol processing (reception, transmission, error checking, time-tagging, buffering) Physical & Environmental Dimensions: 3.0 × 4.45 × 0.97 inches (76 × 113 × 25 mm) Weight: Under 5 oz (140 g); bare PCB 2.3 oz (65 g) Enclosure options: black, flight test orange, or no enclosure (embedded applications) Connectors: HD44F D-Sub with secure locking Operating temperature: -40°C to 85°C Storage temperature: -55°C to 100°C MTBF: 1,500,000 hours RoHS compliant Key Features USB 2.0 bus-powered operation - no external power required Two status LEDs for bus traffic, error indication, or user-controlled operation Receive, transmit, and monitoring capability on single interface Supports both standard and custom weather radar protocols On-board DMA and buffering reduce host CPU load Typical Applications Laboratory testing and validation of ARINC 708 systems, field diagnostics, aircraft maintenance, weather radar system simulation and playback, protocol development and custom data format testing. Compatibility & Integration Designed for integration with ARINC 708 avionics buses. Discrete I/O channels enable interfacing with auxiliary equipment. Time synchronization via IRIG-A/B simplifies coordination in multi-system test environments.

Features & description

From manufacturer datasheet

Features

- USB 2.0 portable ARINC 708/453 interface • Models UA1710 (1R1T) and UA1720 (2R2T) • Bus-powered operation • 32 MB on-board memory • 8 avionics discretes • IRIG A/B time synchronization • Direct coupled; strappable termination • Custom word length and presync • BTIDriver and CoPilot software support

USB708 Characteristics / Specifications

PARAMETER	VALUE
Model	USB 708 (USB708)
Manufacturer	Astronics Ballard Technology
Instrument Type	Portable USB ARINC 708/453 interface
Host Interface	USB 2.0 (bus-powered)
Protocol	ARINC 708 / ARINC 453 (weather radar databus)
Configurations	UA1710 (1R1T); UA1720 (2R2T)
Memory	32 MB
Discretes	8 avionics discretes
Time Sync	IRIG A/B
Coupling	direct coupled; strappable termination
Software	BTIDriver; CoPilot
Features	custom word length; presync configuration Standard Operating Conditions Connect via USB 2.0 host port capable of supplying bus power. Configure termination and coupling per the attached radar databus. Use Ballard drivers and CoPilot for the installed OS revision.

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
Model	USB 708 (USB708)
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Host Interface	USB 2.0 (bus-powered)
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Memory	32 MB
Discretes	8 avionics discretes
Time Sync	IRIG A/B
Coupling	direct coupled; strappable termination
Software	BTIDriver; CoPilot
Features	custom word length; presync configuration
Standard Operating Conditions	
Connect via USB 2.0 host port capable of supplying bus power. Configure termination and coupling per the attached radar databus. Use Ballard drivers and CoPilot for the installed OS revision.	
Operational Notes	
Confirm UA1710 vs UA1720 channel count on ordering label. Match ARINC 708 vs 453 operating mode and word format to the radar LRU under test. Verify IRIG A/B wiring when time-stamping captures.	

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

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

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.