

Avionics interfaces for embedded systems

Rugged embedded products

Embedded products from Astronics Ballard Technology solve avionics processing and interfacing problems on aerial platforms, ground vehicles and ships. Whether you need rugged box-level systems or high-performance interface cards, our versatile embedded products are ready for any challenge.



Rigorously qualified COTS solutions

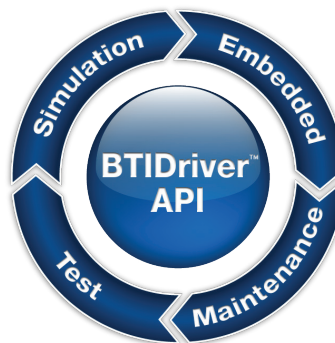
Shorten procurement times and speed program development cycles with Commercial Off-The-Shelf (COTS) solutions from Astronics Ballard Technology. These readily-available products provide value, flexibility and a choice of board, box and software solutions to meet all your project needs.

Versatile avionics computers

Solve your toughest computing and interfacing problems with Ballard's rugged avionics computers. These versatile COTS computers are rigorously qualified and include a wide variety of I/O—avionics databuses, Ethernet, USB, serial, discretes and more. Internal PMC slots provide further expansion capability.

Solutions that migrate with your project

As projects progress and evolve, it is often necessary to migrate from one interface platform or operating system to another. Ballard products share a universal API, so you won't need to rewrite code if things change. This software portability speeds deployment and protects your valuable programming investment.



Typical uses

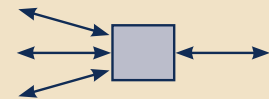
Data/protocol conversion

Enable incompatible equipment to work together by converting databus protocols, message formats, data and attributes.



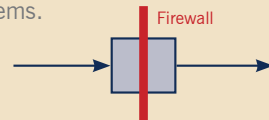
Data concentration/separation

Serve multiplexed and demultiplexed avionics data.



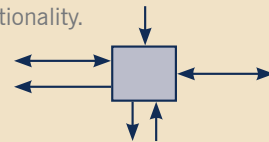
Domain isolation

Isolate and protect critical systems from interference and corruption by non-critical systems.



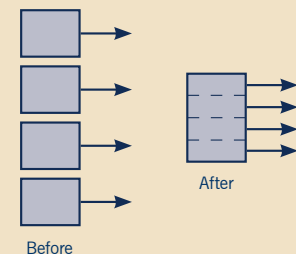
Operational processing

Execute software to provide interactive control, data processing and interface functionality.



LRU consolidation

Combine the functions of multiple LRUs into a single partitioned device.



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	Product Family	Description	Platform	Protocols (max channel count*)
	AB3000 Series	A highly flexible Intel® Atom™ based computer for demanding aerospace and ground mobile environments.	Stand-alone, Ethernet	MIL-STD-1553 (4) ARINC 429 (24) ARINC 708 (4) ARINC 717 (4) CANbus 2.0 (1) Serial (4) Discrete I/O (48) Differential I/O (8)
	AB2000 Series	Rugged computer/interface devices featuring a wide variety of expansion capabilities.	Stand-alone, Ethernet	MIL-STD-1553 (4) ARINC 429 (24) ARINC 708 (4) ARINC 717 (4) Serial (2) Discrete I/O (48)
	AB1000 Series	A small, lightweight embedded computer with built-in interfaces for avionics databuses and a variety of standard I/O types.	Stand-alone, Ethernet	MIL-STD-1553 (1) ARINC 429 (6) Serial (2) Discrete I/O (10)
	Mx5 Series	Avionics databus interface cards with high channel counts and single- or multi-protocol models.	PMC, XMC	MIL-STD-1553 (8) ARINC 429 (22) ARINC 708 (4) ARINC 717 (4) Discrete I/O (6)
	PE1000	These rugged cards enable embedded computers to interface with a variety of avionics databuses.	PCIe/104 PCI/104-Express	MIL-STD-1553 (2) ARINC 429 (20) ARINC 708 (4) ARINC 717 (4) EBR 1553 (1) Serial (4) Discrete I/O (16) Differential I/O (4)
	PM1553-5	These rugged cards enable embedded computers to interface with MIL-STD-1553 avionics databuses.	PC/104-Plus	MIL-STD-1553 (4) Discrete I/O (16)
	PM429-2	These rugged cards enable embedded computers to interface with ARINC 429 avionics databuses.	PC/104-Plus	ARINC 429 (16) ARINC 717 (4) Discrete I/O (16)
	USB to Avionics Interface Boards	Compact databus interface PCBAs (Printed Circuit Board Assemblies) provide an easy USB alternative to traditional embedded card types.	USB 2.0	MIL-STD-1553 (2) ARINC 429 (16) ARINC 708 (4) ARINC 717 (4) EBR 1553 (1) Serial (4) Discrete I/O (8) Differential I/O (4)
	Ethernet Switch Card	A full-featured Ethernet switch implemented on a rugged PMC card.	PMC	Gigabit Ethernet (1, plus 1 host port/NIC) 10/100 Mb/s Ethernet (8)
	Ethernet Switch Box	A full-featured managed or unmanaged Ethernet switch box suitable for fixed wing, helicopter and ground mobile applications.	Stand-alone, Ethernet	Gigabit Ethernet (1) 10/100 Mb/s Ethernet (8)

Optional Services (additional charges apply)

COTS Program Engagement

Configuration and obsolescence management

Extended Warranty

Multiple options to extend product warranty coverage

Get more product information at:

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* Maximum channels per protocol. Combining protocols may reduce channel counts.