Binary Armor® Avionics Guard
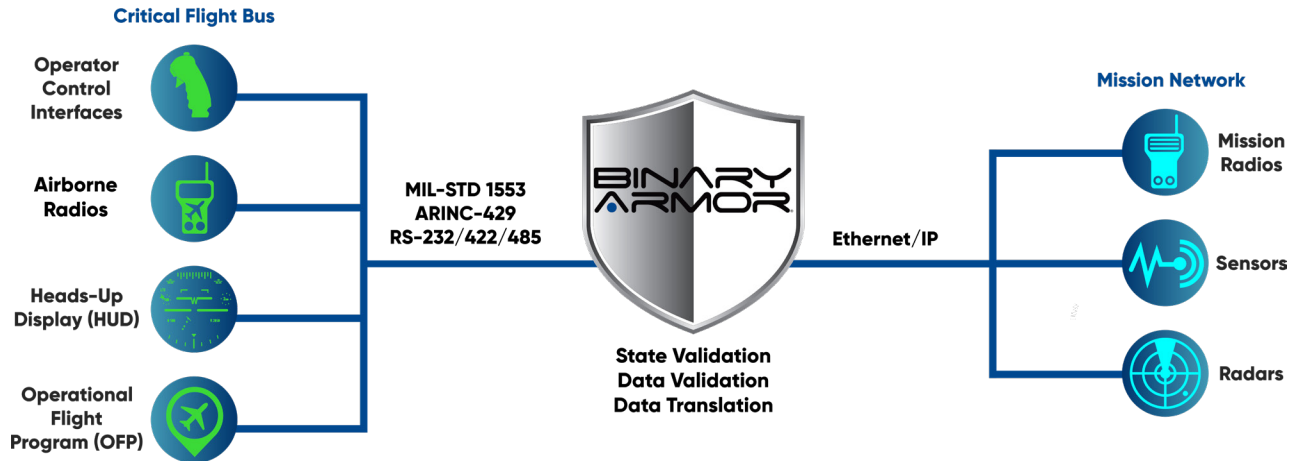## Avionics Isolator and Secure Gateway

Cyber Security for Avionics and Critical Systems

DoD weapon systems are increasing complex and intergrated, requiring avionics and critical systems to be accessible to mission systems and other networks. Binary Armor for Avionics not only bridges these communication interfaces, but it extends our patented technology to provide bi-directional security between Ethernet, avionics buses such as MIL-STD-1553, and serial communications.

Binary Armor for Avionics processes every byte of every message with a rule-set tailored to match aircraft and mission system operational logic. The ruleset leverages the Binary Armor message engine to provide data validation and state based message processing with minimal latency, and data redaction or sanitization to support real-time data buses. Binary Armor for Avionics allows users to whitelist critical message traffic to ensure only valid and safe data can be written onto flight critical message buses and can monitor avionics inputs\outputs for operational state information. Binary Armor for Avionics provides a flight hardened, lightweight, and low power avionics isolation solution to safely bridge mission networks and critical avionics.

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Secure Gateway to Bridge Mission Networks and Critical Flight Systems

Critical Flight Bus

Operator Control Interfaces
Airborne Radios
Heads-Up Display (HUD)
Operational Flight Program (OFP)

MIL-STD 1553
ARINC-429
RS-232/422/485

BINARY ARMOR

State Validation
Data Validation
Data Translation

Ethernet/IP

Mission Network

Mission Radios
Sensors
Radars

Input Voltage	12-36 VDC
Dimensions	5.0 in. (12.7 cm) D 5.5 in. (14 cm) W 1.75 in. (4.5 cm) H
Weight	2 lb. (0.91 kg)
Power	15 W Nominal
Mounting Options	Direct Mount, veritcal or horizontal base plate
Operating Temp	Temperature range: -40° C to 85° C
EMC	Mil-Std 461F
Shock & Vibration	Mil-Std-810G - 516.6 Mil-Std-810G - 514.6
Features	Enables interoperability between MIL-STD-1553, ARINC-429, RS-232/422/485, Ethernet TCP/IP
	Configurable to conform to user defined ICDs and communication protocols
	Bi-directional or data-diode modes of operation

Interfaces			
	2 dual channel 1553	2 RS-232 serial	1 DVI
	6 ARINC-429 (2 rx only)	2 ether	8 TTL
	2 RS-422/232 serial	3 USB	8 AVIO

Certifications/ Accreditations	FIPS 140-2 Compliant DISA APL and NIAP Validated

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