

Avionic Databus Cyber Protection

- Real-time detection of UN-AUTHORIZED TRANSMITTING SOURCES
- Cyber protection against Message Spoofing and DDOS for mission critical avionic systems

Real-Time

Detection (IDS) and Prevention (IPS)

Scalability

Context/Data layer independent

Deployment

FPGA IP , I/O card

Supported Networks:

- MIL-STD-1553
- ARINC429
- ARINC825
- CAN
- CAN-FD

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Available for Evaluation

- Real-time detection of message spoofing
- Protect the entire network from a single location
- Support after-production modifications
- Fully Upgradable
- SPI Interface to CPU
- C level API

Sital's FPS for Avionic Databus Protection

The Problem

Aircraft internal communication databuses are exposed for message spoofing and DDOS attacks

Legacy protocols for avionic control messages are highly optimized and lack basic capabilities for source message authentication. As a result, all mission critical avionic databuses are exposed to a verity of spoofing and DDOS attacks which **impact flight safety, navigation and weapon utilization and may result in aborted missions, aircraft flight route alterations and life threatening events**

The Solution

Sital's FPS (**Finger Printing Sensor**) technology alerts and prevents against various spoofing and DDOS attacks on mission critical avionic data buses.

Implemented as FPGA IP, the Sital FPS passively monitors the communication buses in an aircraft and provides **real-time** detection of message spoofing and DDOS attacks. In addition, the FPS also **prevents** such attacks from propagating between avionic systems and **mitigates** the risk of mission failure due to cyber attacks

Key Benefits:

- Seamless Integration – FPGA IP
- Support After Market Installations and Modifications
- Market proven in the automotive space
- DO-254 compatible
- Support the entire databus with a single installment
- Context and data layer independent
- Support all major control type databus communications

MIL-STD-1553B Key Features:

- BC Authentication – Detection of secondary malicious BC on same or redundant bus
- RT Authentication – Authentication RT messages are transmitted from a valid source

Public Cyber Attacks

AN INTEL CYBER
Wireless Hacking in Flight: Air Force Demos Cyber EC-130

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