



3U OpenVPX Avionics Modules

Rugged, low-power, high-performance, certifiable boards and modules

Build, power and certify mission subsystems quickly and cost-effectively with Mercury’s 3U OpenVPX avionics modules featuring multi-core Intel processors, high-speed video and sensor processing, fast NVMe storage and interface fabrics, and DAL-certifiable artifacts.

Mercury’s rugged avionics modules accelerate and scale data-intensive applications such as augmented reality, AI neural networks, surveillance and flight navigation, expedite the certification process, and reduce risk and integration costs for engineers and developers.

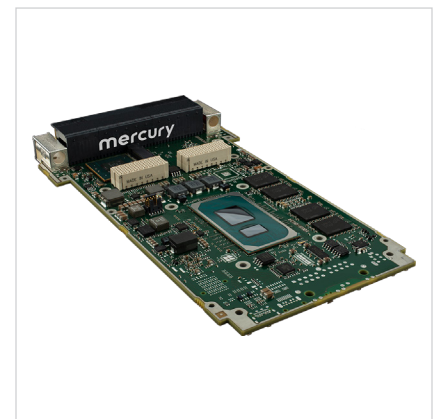
Highlights

- Latest commercial-off-the-shelf (COTS) technologies for scalability and performance
- Rugged and long lifespan for reliable operation across rigorous missions
- Proven and certified BuiltSAFE DO-254 and DO-178C hardware and software elements
- Low power and SOSA aligned to save aircraft resources and integration costs

Build a mission computer that:

- Tackles AI workloads with one of the fastest certifiable processing boards available
- Supports real-time symbolics, 4K video, sensor fusion and AI pre-processing
- Quickly records, encrypts and transfers raw mission, flight and machine learning data
- Optimizes power and operates in extreme temperatures and at high altitudes

Featured Product SBC3515-S
Single-Board Computer with BuiltSAFE



The first certifiable Intel Core i7 single-board computer with the latest-generation processor, the SBC3515-S delivers up to 40× better performance with built-in vector (AVX-512), AI accelerators, an Intel Gen12 Xe GPU and dual 10 GbE Ethernet.

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APPLICATIONS

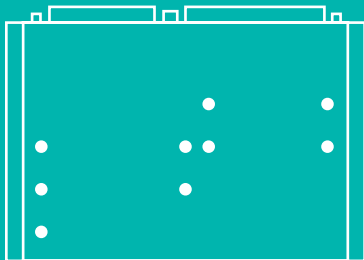
Platform management
Mission management
Flight control
Navigation
Sensor/image/display processing
EO/IR surveillance systems
Artificial Intelligence (machine vision)
Augmented reality

Degraded visual environment
Urban air mobility
Signals intelligence
Sensor fusion
Big data analytics
Image processing

AVIONICS & VETRONICS PLATFORMS

Rotary wing and fixed wing aircraft
Certifiable ground stations
Unmanned Aerial Vehicles (UAV)

Featured 3U Avionics Modules



SBC3515-S Single-board Computer with BuiltSAFE

- Intel® Core™ Gen 11 CPU
- Iris Xe Gen12 GPU
- D0-254 and 178C artifacts
- 35W, rugged, SOSA aligned

FDISK-8510 NVME Storage Module

- 16 TB NVMe storage
- 1400+ MB/s write speeds
- FIPS 140 encryption
- Rugged, built-in error correction

VCP-2867 Video and Graphics Board with BuiltSAFE

- Xilinx Kintex® UltraScale™ FPGA
- Up to 18x18 video I/O
- D0-254 artifacts
- 25 W, rugged

PSU-1449 Power Supply with BuiltSAFE

- 220 W output, 5 output channels
- 28 V DC Input
- D0-254 artifacts
- Rugged, MIL-STD-704



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