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.
3U OPENVPX AVIONICS MODULES
Rugged, low-power, high-performance and certified boards and modules

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)

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

Featured 3U Avionics Modules

SBC3515-S Single-board Computer with BuiltSAFE
- Intel® Core™ Gen 11 CPU
- Iris Xe Gen12 GPU
- DO-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

PSU-1449 Power Supply with BuiltSAFE
- 220 W output, 5 output channels
- 28 V DC Input
- DO-254 artifacts
- Rugged, MIL-STD-704

Learn more
Contact: mission@mrcy.com
Visit: mrcy.com/boards

Corporate Headquarters
50 Minuteman Road
Andover, MA 01810 USA
+1 978.967.1401 tel
+1 866.627.6951 tel
+1 978.256.3599 fax

International Headquarters
Mercury International
Avenue Eugène-Lance, 38
PO Box 584
CH-1212 Grand-Lancy 1
Geneva, Switzerland
+41 22 884 5100 tel

The Mercury Systems logo and the following are trademarks or registered trademarks of Mercury Systems, Inc.: Mercury Systems, Innovation That Matters, and BuiltSECURE. Other marks used herein may be trademarks or registered trademarks of their respective holders. Mercury believes this information is accurate as of its publication date and is not responsible for any inadvertent errors. The information contained herein is subject to change without notice.

© 2021 Mercury Systems, Inc.  8080.00E-1021-pb-3U_Avionic_Modules