**RES AERO XR5 1U**

20” Deep, Front I/O Rugged Rack Mounted Server

- Up to two Intel® Xeon® E5-2600 v4 processors with 20 cores
- Up to 2TB DDR4 ECC Memory
- Up to 2 PCIe 3.0x16 cards
- MIL-STD: 810F/G, 461F/G, 704F/G (NAVAIR)
- Manufactured in AS5553 compliant, AS9100D facilities

A part of the EnterpriseSeries®, Mercury’s fanless RES Aero 1U Server employs Intel® Xeon® E5-2600 processors to silently accelerate compute intensive workloads for airborne applications such as surveillance, signal intelligence, sensor fusion, and audio/video processing.

**Reliable Performance and Versatility**

Featuring up to two Intel® Xeon® E5-2600 v4 processors, 2TB DDR4 ECC memory, expansion slots, and enhanced reliability features, RES Aero 1U delivers superior workload-optimized performance and hardware-enhanced security. Advanced thermal and mechanical design features provide superior resilience to shock and vibration. Hardware and firmware management ensures delivery of the same server configuration over multiple years.

**Space Optimized for Airborne Environments**

Fitted to pre-existing onboard plenum enclosures, the completely fanless 18lb, 20” deep RES Aero not only saves space but also functions at high altitudes, even during loss of cabin pressure. The system has passed NAVAIR MIL-STD 461 for EMI and meets multiple military environmental specifications.

**Enhanced for the the Field**

The system includes patented memory stabilization technology to prevent disconnect during system shock and vibration. A flexible power-supply, featuring standardized connectors supports unique voltage requirements such as 270VDC to enable deployment in a wide array of platforms. Additional features, testing, and certifications are available upon customer request.

**Proven Performance**

Mercury’s EnterpriseSeries RES Servers are trusted worldwide for their high-performance, long life cycles, thermal resiliency, compatibility with industry standards, and SWaP optimization. With the latest Intel core-count processors and configurable I/O, RES servers are ideally suited to next-gen radar, mission, advanced simulation, command, control, and battle management processing mission critical applications.

**Your Reliable Teammate**

With over 30 years of technical expertise, Mercury Systems works closely with customers to design computing solutions that are easy to integrate, affordable, and reliable for years to come.

Our AS5553 compliant, AS9100D and ISO9001 facilities maintain quality and compliance to meet customer expectations.
Technical Specifications
2 Intel® Xeon® E5-2600 v4 series CPUs with up to 20 cores per processor
Up to 2TB 2666MHz memory

Patented Technologies
Memory stabilization
Remote battery

Management and Operating System
Windows®, Linux®, VMWARE® and other hypervisors
IPMI v2.0, Redfish option available
TPM 1.2 or 2.0 Support

Expansion and Modular Maintainability
Up to 2 PCIe 3.0 x16 cards

Input/Output Versatility
Front Access
1 Power/Reset Switch
1 Power On LED
2 1GBaseT or 10GBaseT Ethernet Ports (RJ45)
1 IPMI 2.0 (RJ45)
1 VGA Graphic Port
4 USB 3.0

Power Supply Options
Front access, fanless, cold swappable 270VDC (+/- 135VDC), 625W
MIL-STD-704E aircraft power requirements for high voltage 270 VDC
MIL-STD-461E for aircraft, internal
High MTBF >14,000 hrs at 35°C, airborne inhabited cargo environment

Additional Options
Slide Rails
CAC Card Reader

MIL-STD / Industrial Specifications
MIL-STD 810F/G
Shock: MIL-STD 810F/G
EMI/RFI: NAVAIR MIL-STD 461E, CE102 standard
Vibration: MIL-STD 810F/G
Temperature: MIL-STD 810F/G

Environmental*
Operating
Temperature: 0°C to 50°C (in plenum enclosure)
Humidity: 5% to 100% (non-condensing)
Shock: 3 axis, 10g, 11ms or higher
Vibration: 5Hz to 2000 Hz (SSD)
Altitude: 11,000 ASL

Non-Operating
Temperature: -40°C to 71°C
Humidity: 5% to 100% (non-condensing)
Altitude: 40,000 ASL
Conformal Coating: IPC-CC 830 (optional)

Mechanical
Height: 1U or 1.75” inches (44.45mm)
Width: 17 inches (433.3mm)
Depth: 20 inches (508mm)
Weight (Typical)*: Aluminum: 18lbs (8.16kg)
Cooling: requires Plenum cooled enclosure
19” rackmountable

* Mercury Systems designs all products to meet or exceed listed data sheet specifications. Some specifications including I/O profiles, weight, and thermal profiles are configuration dependent. Contact Mercury for information specific to your desired configuration requirements.

Modified COTS Expertise
For customized space, environmental, and performance requirements email tms@mrcy.com