

# RES-XR5 2U

*18" Deep, Up to 17 Drives, Front I/O Rugged Rack Mounted Server*

- Up to two E5-2600 v3/v4 Series Intel® Xeon® processors
- Up to 2TB DDR4 ECC Memory
- Up to 490TB of Storage and 4 PCIe 3.0 cards
- MIL-STD: 810G, 901D, 167-1, 1474D, 740-2, 461F
- Manufactured in AS5553 compliant, AS9100D facilities

A part of the *EnterpriseSeries™*, Mercury's RES-XR5 2U Server employs E5-2600 v3/v4 series Intel® Xeon® processors to accelerate compute intensive workloads for applications such as signal intelligence, cryptography, AI, sensor fusion, analytics, communications, and audio/video processing.

## Reliable Performance

Featuring up to two E5-2600 v3/v4 series Intel® Xeon® processors with AVX512, 2TB DDR4 ECC memory, 490TB of storage with up to seventeen disk drives, expansion slots, and enhanced reliability features, RES-XR5 2U delivers superior workload-optimized performance and hardware-enhanced security. Advanced thermal and mechanical design features provide superior resilience to shock, vibration, dust, sand, and temperature extremes. Hardware and firmware management ensures delivery of the same server configuration over multiple years.

## Space Optimized Stealth and Flexibility

Quiet and optimized for size, weight, and power (SWaP), the system weighs only **24lbs**, is **18" deep**, and meets multiple military environmental specifications including **airborne and structural noise**. A robust array of high speed I/O, storage options, expansion choices, and security features allow users maximum flexibility for current and future system requirements.

*Mercury Systems is a leading commercial provider of secure sensor and safety-critical processing subsystems. Optimized for customer and mission success, Mercury's solutions power a wide variety of critical defense and intelligence programs.*

## Enhanced for the Field

The system includes a system control module for remote management, a patented Aeroloc Baffle system for low airflow operations, **remote battery bypass** that enables BIOS battery replacement without system shutdown, a removable PCIe card cage to simplify sparing, and numerous enhancement options. 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.



ACQUIRE



DIGITIZE



PROCESS



STORAGE



EXPLOIT



DISSEMINATE

## Technical Specifications

2 Intel® Xeon® E5-2600 v3/v4 Series CPUs with up to 22 cores per processor  
Bronze, Silver, Gold, or Platinum  
Up to 2TB 2400MHz memory with 16 DIMM slots

## Patented Technologies

Memory stabilization  
Aeroloc baffle system  
System control module for remote management

## 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 4 PCIe 3.0 x8 cards

## Input/Output Versatility

### Front Access

Up to 17 Removable, Hot Pluggable, 2.5" SATA/SAS3 drives, U.2 NVME option available  
can configure with up to (16) 15mm and (1) 9.5mm (SATA) high drives

- 1 Power/Reset Switch
- 1 Power On LED
- 1 Quick Change CMOS Battery
- 2 1GBaseT or 10GBaseT Ethernet Ports (RJ45)
- 1 IPMI 2.0 (RJ45)
- 1 VGA Graphic Port
- 4 USB 3.0
- 1 RS-232 (optional)

### Rear Access

1 CFM Switch (optional)

## Power Supply Options

Single 100/240V VAC (47/63Hz, 400Hz)  
Single 10-36 VDC, 32 Amps  
Single 36-72 VDC, 18 Amps  
MIL-STD 461, 704F, 1399-300B

## Modified COTS Expertise

For customized space, environmental, and performance requirements email [tms@mrchy.com](mailto:tms@mrchy.com)

## Additional Options

Front Door Filter  
Slide Rails  
CAC Card Reader  
Read/Write Switches to prevent accidental rewrite

## MIL-STD / Industrial Specifications

MIL-STD 810G  
Shock: MIL-STD 901D Grade A, IEC 60068-2-27  
EMI/RFI: MIL-STD 461F, CE102 standard  
Vibration: MIL-STD 167-1, MIL-STD 810G, IEC 60068-2-64  
Airborne Noise: MIL-STD 1474D  
Structure Borne Noise: MIL-STD 740-2  
Temperature: IEC 60068-2-2 test Bb, 60068-2-1 test Ab

## Environmental\*

### Operating

Temperature: 0°C to 50°C  
Extended Temperature: -15°C to 65°C  
Humidity: 5% to 95% (non-condensing)  
Shock: 3 axis, 35g, 25ms  
Vibration: 4.76Grms, 4Hz to 2000 Hz (SSD)  
Altitude: 10,000 ASL

### Non-Operating

Temperature: -40°C to 80°C  
Humidity: 5% to 95% (non-condensing)  
Altitude: 40,000 ASL  
Conformal Coating: IPC-CC 830 (optional)

## Mechanical

Height: 2U or 3.5" inches (88.9mm)  
Width: 17 inches (431.8mm)  
Depth: 18 inches (457.2mm)  
Weight (Typical)\*:  
Steel Chassis: 24lbs (10.9kg)  
Cooling: Internal fan-cooled (rear vent) front to rear  
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.

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