

# Themis RES-NT2 1U

25" deep, 2 drive, rear I/O rugged rack mounted server

- Up to two NVIDIA® Tesla® or Quadro® GPGPUs
- Up to two E5-2600 v3/v4 Series Intel® processors
- Up to 1TB DDR4 ECC memory
- Up to 60TB of storage and 2 PCIe 3.0 cards
- MIL-STD: 810G



A part of the *EnterpriseSeries™*, Mercury's Themis RES-NT2 1U server employs the latest NVIDIA® GPU/GPUs to accelerate compute-heavy mission-critical applications such as signal intelligence (SIGINT), cryptography, deep learning, Artificial Intelligence (AI), surveillance, sensor fusion, visualization, image processing, tracking, and big data analytics.

## Accelerated Cloud Computing

Featuring up to two E5-2600 v3/v4 Series Intel® processors, 1TB DDR4 ECC memory, 60TB of storage in two disk drives, expansion slots, and enhanced reliability features, the RES-NT2 2U delivers superior workload-optimized performance for current and future system requirements.

## Designed for the Field

Optimized for size, weight, and power (SWaP), the system weighs only 24lbs, is 25" deep, and meets military environmental specifications. Dual redundant, hot swappable AC power supplies provide high availability while advanced thermal and mechanical design features to provide superior resilience to shock, vibration, dust, sand, and temperature extremes.

*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.*

## Supercomputing and AI

Designed for artificial intelligence, deep learning, and simulation applications, the RES-NT2 with NVIDIA Tesla delivers record speeds for video and signal processing, simulation, modeling, and computational physics. With teraflops of single and double precision performance, NVIDIA Tesla computing accelerators are the world's fastest and most efficient high-performance computing companion processors.

## Virtualized Cloud Computing

Fully compatible with popular virtualization technologies, the RES-NT2 with NVIDIA Quadro and vGPU software enables multiple virtual machines to have direct access to high performance graphic processing such as 3D visualization, visual simulation, and virtual reality.

## Proven Performance and Reliability

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 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.



ACQUIRE



DIGITIZE



PROCESS



STORAGE



EXPLOIT



DISSEMINATE

## Technical Specifications

2 Intel® E5 2600 series Xeon® v3/v4 processors with up to 18 cores per processor  
Up to 2 double slot NVIDIA Tesla or Quadro GPU accelerators  
Up to 1TB memory with 16 DIMM slots, 2400MHz

## Management and Operating System

Windows®, Linux®, VMWARE® and other hypervisors  
IPMI v2.0, Redfish option available  
TPM 1.2 or 2.0 support  
Onboard RAID controller  
supports SAS3/HBA controller or SATA drive onboard controller

## Expansion and Modular Maintainability

2 Disk on Module (up to 128GB per DOM)  
2 PCIe 3.0 card options:  
(1) PCIe 3.0 x16 GPU slot + (1) PCIe 3.0 x8 (in a x16 slot)

## Input/Output Versatility

### Front Access

2 removable, hot pluggable, 2.5" SATA/SAS3 drives, U.2 NVME option available  
1 power switch

### Rear Access

2 1GBaseT Ethernet Ports (RJ45)  
2 USB 3.0  
1 IPMI 2.0  
1 VGA graphic Port

## Power Supply Options

Single or Redundant 100/240V VAC (47/63Hz, 400Hz)  
Single or Redundant 10-36 VDC, 32 Amps  
Single or Redundant 36-72 VDC, 18 Amps  
MIL-STD 461

## Environmental\*

### Operating

Temperature: 0°C to 50°C  
Extended temperature: -15°C to 65°C  
Humidity: 8% to 95% (non-condensing)  
Shock: 3 axis, 35g, 25ms  
Vibration: 4.76Grms, 10Hz to 2000 Hz (SSD)

### Non-Operating

Temperature: -40°C to 70°C  
Humidity: 5% to 95% (non-condensing)

## Additional Options

Shock pins  
Front door filter  
Slide rails

## Mechanical

Height: 1U or 1.75" inches (44.45mm)  
Width: 17 inches (433.3mm)  
Depth: 25 inches (635mm)  
Weight (Typical)\*: 24 pounds (10.9kg)  
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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