GOVERNMENT AND PUBLIC SECTOR PRODUCT BRIEF

MILITARIZED AND RUGGEDIZED EDGE SERVER

TAA COMPLIANT | MIL-STD 810G | IP32 | FIPS 140-2

Highlights

- Extreme performance with 40 CPU cores and 512GiB memory[1]
- Graphical processor unit for AI/ML tasks
- Over 60TB of NVMe™ flash storage[2]
- Militarized and ruggedized for extreme environments
- Designed and tested against multiple military standards
- Built to FIPS 140–2 Level 2 standard with TPM 2.0

Ultrastar® Edge-MR Ruggedized Edge Server

Gain a Tactical Edge—Purpose-built for Extreme Conditions

High Performance Edge Server Designed for Harsh Environments

Western Digital Ultrastar Edge-MR is a militarized and ruggedized high-performance edge server that enables organizations to deploy remote data capture and analytics at the cloud edge. Processing data closer to where it is generated reduces the latency associated with sending data from a remote location to the core for processing. Remote processing reduces the amount of traffic on network backbones, delivers on-site analytics and enables faster decision making.

The ability to have low-latency processing in remote locations can also enable innovation. Organizations can deliver data center cloud-like services even when a network connection may be insecure, intermittent or non-existent. The server has 40 cores, a GPU, 512GiB of memory and over 60TB of Ultrastar NVMe flash storage, so applications that normally run on IaaS environments can easily be run remotely.

To simplify physical deployment, molded ridges on the top align with indents in the base to enable easy stacking of units. This helps with the creation of remote compute clusters, especially valuable in the rapid stand-up of regional command and control environments. A built-in Faraday cage helps protect the server from external electromagnetic events and also reduces the likelihood of detection during sensitive operations.

Ultrastar Edge-MR is designed for harsh environments. The ruggedized shell with internal suspension protects the server from shock and vibration during transit. During operation, the user can remove the front and rear end caps for airflow and attach them to the sides of the unit for easy storage during deployment. Ultrastar Edge-MR is designed and tested in accordance with MIL-STD-810G-CHG-1 standards for limits of shock and vibration, and to the MIL-STD-461G standard for electromagnetic interference. To protect the seals on the covers during transit, a bi-directional valve allows air pressure equalization, while keeping out dust and debris. Even when operating, Ultrastar Edge-MR meets IP32 ingress protection. For less demanding environments, a commercial version, Ultrastar Edge, is also available.

Specifications

	SAS Models
Max. Drives	• 8 Ultrastar DC SN640 NVMe SSDs • 7.68TB per SSD, 1 DW/D, ISE (Instant Secure Erase)
Boot Drives	• 2 M.2 NVMe 1TB SSDs
CPUs	• 2 Intel® Xeon® Gold 6230T, 2.1GHz, 20 cores each, 125W TDP
Memory	• 512GiB DDR4 Installed (8x 64GiB DIMMs)
GPU	• NVIDIA® Tesla® T4
Networking	• Dual 10GBase-T RJ-45 • Mellanox® ConnectX®-5 100GbE QSFP28
I/O	• 1 Serial DB9 Console Port
Physical Dimensions	• Height: 292mm (11.5") • Width: 609.6mm (24") • Depth: 952.5mm (37.50")
Weight	• 32.35kg (71.1lbs)
Power	• 850W, Platinum • 100–240V AC input, auto-ranging
Cooling	• 4 60mm fans
Management	• IPMI 2.0 system management • Dedicated DB9 Serial management port
Environmental	• Operating Temperature: 0°C to 43°C • Non-op Temperature: -5°C to 63°C • Operating Altitude: 3,050m (10,000ft)
Ingress Protection	• IP32 (Operating)
Physical Security	• FIPS 140–2 Level 2

[1] System memory is indicated in gibibytes (GiB) and one GiB is equal to 1,073,741,824 bytes.

[2] One terabyte (TB) is equal to one trillion bytes. Actual user capacity may be less due to operating environment.

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