

14 μ s
Latency

3.5 GB/s
Bandwidth

825k
IOPS

Huawei ES3000 V5 NVMe SSD

Faster, Smarter, Simpler

Key Specifications

- PCIe 3.0 x4 interface
- NVMe 1.3 Protocol
- 800 GB to 8 TB capacity
- Up to 825k ultra-high random read IOPS
- Up to 14 μ s ultra-low write latency
- Supports hot swap and easy maintenance
- OS native driver, plug-and-play

Faster

The ES3000 V5 series NVMe SSD uses a new-generation ASIC SSD controller developed by Huawei. It supports PCIe 3.0 interfaces and delivers up to 3.5 GB/s and 3.2 GB/s read and write bandwidth (10% and 64% higher than V3), and 825k and 300k read and write IOPS (4% and 76% increase over V3).







Smarter

The ES3000 V5 SSD supports intelligent multi-stream, enabling fine-grained service I/O adaptation and improving performance by 15%, service life by 20%. ES3000 V5 SSDs also support intelligent monitoring, management, maintenance, and service support for higher O&M efficiency.

Simpler

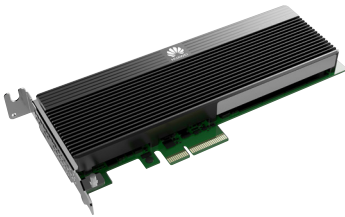
Huawei ES3000 V5 SSD is optimized for customer applications and provides a reference architecture, eliminating the need for complex selection and helping customers easily address service growth requirements. ES3000 V5 SSDs provide optimized configurations for service scenarios based on Oracle, VMware, and MySQL.

Application Benefits

 <p>Database TPS improved by 10x, latency reduced by 90%</p>	 <p>Distributed Storage I/O performance improved by over 5x</p>	 <p>Big Data 100 TB of data sorted in 98.8 seconds</p>	 <p>Content Caching Access speeds improved by over 6x</p>	 <p>Hyper-Converged Full NVMe SSDs acceleration</p>	 <p>CAD/CAM High-speed data read/write</p>
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U.2 Form Factor



Specifications

Model	ES3500P V5	ES3600P V5	ES3600C V5
Form Factor	U.2	U.2	HHHL PCIe card
Interface	PCIe 3.0 x4	PCIe 3.0 x4	PCIe 3.0 x4
NVMe Protocol	NVMe 1.3	NVMe 1.3	NVMe 1.3
NAND Flash	3D TLC	3D TLC	3D TLC
Available Capacity	1/2/4/8 TB	800 GB/1.6 TB/ 3.2 TB/6.4 TB	800 GB/1.6 TB/ 3.2 TB/6.4 TB
Sequential Read/Write Bandwidth@1MB	1 TB: 3500/1000 MB/s 2 TB: 3500/1900 MB/s 4 TB: 3500/3200 MB/s 8 TB: 3500/2600 MB/s	800 GB: 3500/1000 MB/s 1.6 TB: 3500/1900 MB/s 3.2 TB: 3500/3200 MB/s 6.4 TB: 3500/3050 MB/s	800 GB: 3500/1000 MB/s 1.6 TB: 3500/1900 MB/s 3.2 TB: 3500/3200 MB/s 6.4 TB: 3500/3050 MB/s
Random Read/Write IOPS@4KB	1 TB: 420k/63k 2 TB: 740k/90k 4 TB: 825k/110k 8 TB: 825k/150k	800 GB: 420k/115k 1.6 TB: 740k/195k 3.2 TB: 825k/300k 6.4 TB: 825k/250k	800 GB: 420k/115k 1.6 TB: 740k/195k 3.2 TB: 825k/300k 6.4 TB: 825k/250k
Average Read/Write Latency@4KB	1TB: 96 μs/17 μs 2TB: 96 μs/15 μs 4TB: 96 μs/15 μs 8TB: 88 μs/14 μs	800GB: 96 μs/15 μs 1.6TB: 96 μs/14 μs 3.2TB: 96 μs/14 μs 6.4TB: 88 μs/15 μs	800GB: 96 μs/15 μs 1.6TB: 96 μs/14 μs 3.2TB: 96 μs/14 μs 6.4TB: 88 μs/15 μs
Power Consumption	5 W (idle) 21 W (max.)	5 W (idle) 21 W (max.)	5 W (idle) 21 W (max.)
Endurance ¹	1 DWPD for 5 years	3 DWPD for 5 years	3 DWPD for 5 years
Max. Data Written ²	1 TB: 1.825 PBW 2 TB: 3.65 PBW 4 TB: 7.3 PBW 8 TB: 14.6 PBW	800 GB: 4.38 PBW 1.6 TB: 8.76 PBW 3.2 TB: 17.52 PBW 6.4 TB: 35.04 PBW	800 GB: 4.38 PBW 1.6 TB: 8.76 PBW 3.2 TB: 17.52 PBW 6.4 TB: 35.04 PBW
Weight	< 182 g		
TRIM	Supported		
Reliability	Meantime between failures (MTBF): 2.5 million hours Annual failure rate (AFR): ≤ 0.35% Uncorrectable bit error rate (UBER): 10E-18		
Temperature	Non-operational: -40°C to +70°C (-40°F to +158°F) Operational: 0°C to 70°C (32°F to 158°F) (U.2)		
Data Retention (Power-off)	3 months at 40°C (104°F)		
Supported Servers	Servers supporting U.2 NVMe SSD disks		
Certifications	China: RoHS Europe: WEEE/RoHS/REACH/CE America: FCC/NRTL/IC Japan: VCCI Australia: RCM Saudi Arabia: KSA Kuwait: KUCAS Nigeria: SONCAP Uganda: UNBS		

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Notes:

The specifications are subject to change without notice. Performance results are based on internal testing and use. Results and performance may vary according to configurations and systems, including device capacity, operating system versions, and test tools.

¹ Endurance: measured by disk writes per day (DWPD)

² Max. Data Written: measured by petabyte writes (PBW)