Huawei ES3000 V3 NVMe SSD

The ES3000 V3 series are the 6th generation of Huawei enterprise-level SSDs with high performance and high reliability. ES3000s solve HDD IO bottlenecks, significantly improve the application performance including OLTP/OLAP database, virtualization, cloud, indexing, Web, and Server SAN; and help customers reduce system TCO.

Features

- U.2 disk and HH-HL card formfactors, up to 3.2TB capacity
- PCIe Gen 3.0 interface, compatible NVMe standard
- Up to 3.2GB/s IO bandwidth and 800,000 IOPS
- U.2 disk hot-swappable, easy maintenance
- Support UEFI bootable, operating systems native driver
- SMBUS out-band management, monitoring SSD's status

Application Scenarios

- Oracle/MySQL/SQL Server Databases
- VMware/FusionSphere VM systems
- Hot-data caching and Indexing businesses
- ServerSAN distributed storage system
- Big data analytics platform
- High Performance Computing (HPC)

NVMControl technologies guarantee high-performance and high-reliability

IOControl: high-performance, low latency

- Smart FTL
- Full Multi-queue
- IO Hardware Accelerators
- CVT Scheduler

DataControl: high-reliability, safety

- Multi-level Metadata
- LDPC Recovery
- E2E Data Path Protect
- Flexible RAID
- Wear Leveling
- Data Scrubbing
- Power Down Safety

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Specifications

Model		ES3500P V3			ES3600P V3			ES3600C V3	
Interface & Form Factor		PCIe 3.0 x4, U.2 disk			PCIe 3.0 x4, U.2 disk			PCIe 3.0 x4, HH-HL card	
NAND Flash		MLC			MLC			MLC	
Available Capacity		1.2TB	2TB	3.2TB	1.2TB	1.6TB	3.2TB	1.6TB	3.2TB
LBA format: 512B	Max. Read BW (MB/s)	2,900	3,000	3,000	3,000	3,100	3,100	3,100	3,100
	Stable Read IOPS (4KB)	710,000	770,000	725,000	770,000	770,000	770,000	770,000	770,000
	Average Read Latency	88 μs	88 μs	88 μs	88 μs	88 μs	88 μs	88 μs	88 μs
	Max. Write BW (MB/s)	1,700	1,900	1,900	1,800	1,950	1,950	1,950	1,950
	Stable Write IOPS (4KB)	85,000	50,000	78,000	160,000	175,000	170,000	175,000	170,000
	Average Write Latency	18 μs	18 μs	18 μs	18 μs	18 μs	18 μs	18 μs	18 μs
	R/W:7/3 IOPS(4KB)	220,000	150,000	240,000	385,000	388,000	388,000	388,000	388,000
LBA format: 4,096B	Max. Read BW (MB/s)	2,900	3,000	3,000	3,100	3,200	3,100	3,200	3,100
	Stable Read IOPS (4KB)	710,000	770,000	730,000	800,000	800,000	800,000	800,000	800,000
	Average Read Latency	88 μs	88 μs	88 μs	88 μs	88 μs	88 μs	88 μs	88 μs
	Max. Write BW (MB/s)	1,700	1,900	1,900	1,800	1,950	1,950	1,950	1,950
	Stable Write IOPS (4KB)	85,000	50,000	78,000	160,000	175,000	170,000	175,000	170,000
	Average Write Latency	18 μs	18 μs	18 μs	18 μs	18 μs	18 μs	18 μs	18 μs
	R/W:7/3 IOPS(4KB)	220,000	150,000	242,000	387,000	390,000	390,000	390,000	390,000
Max. Power Consumption		17 W	17 W	18.5 W	21 W	18.5 W	22 W	18.5 W	22 W
Endurance		1 DWPD for 5-year			3 DWPD for 5-year				
Trim		Supported							
MTBF		2 million hours							
Operational Temperature		0~70°C							
Supported OS		Microsoft Windows: Windows Server 2012R2 Linux: RHEL 6/7, SLES 11/12, CentOS 6/7, Ubuntu 13/14 Hypervisors: VMware vSphere 5.5/6, Microsoft Hyper-V, Huawei FusionSphere							

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