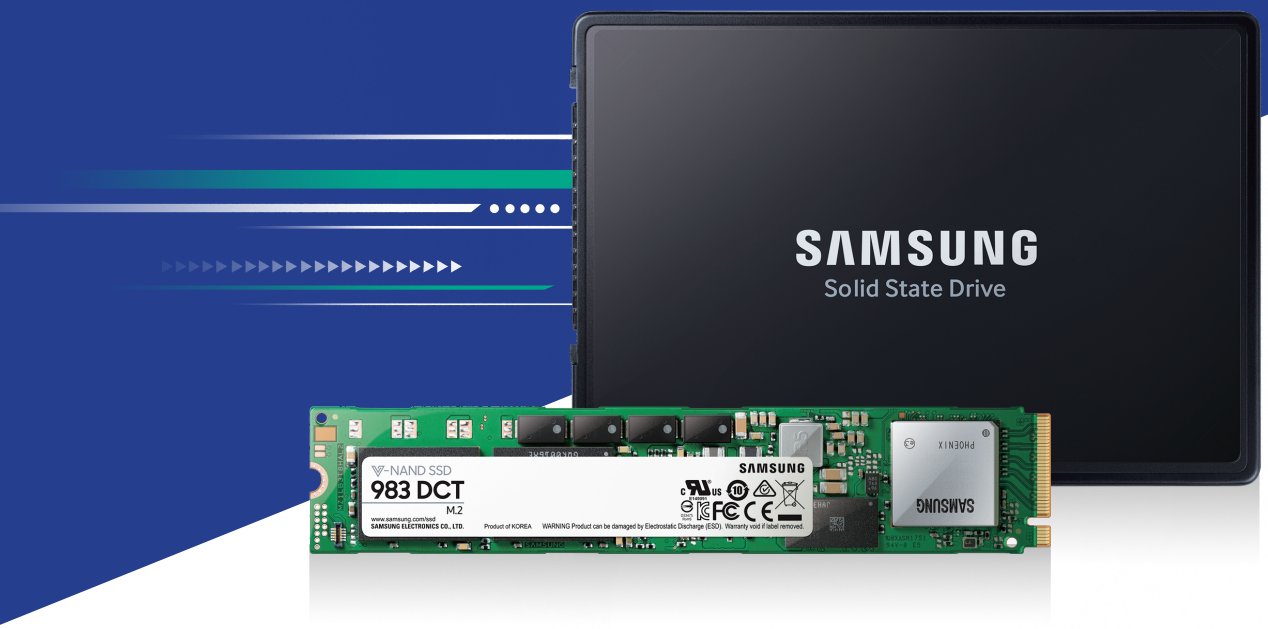

Samsung NVMe SSD 983 DCT

Enhanced for speed and reliability

The 983 DCT is the solution to achieving high responsiveness in data centers requiring accelerated performance. Available in M.2 or 2.5-inch form factors in capacities of 960GB and 1.92TB, the 983 DCT enables your business to excel in handling big data.

Seamless, high-powered performance

Get fast results with the next-gen NVMe™ interface. Sequential read/write speeds of up to 3,400/2,200 MB/s (2.5-inch), random read/write speeds of up to 580K/52K IOPS (2.5-inch), and a suberb level of QoS (quality of service) allow for real-time big data analytics.

Secure critical data

Data integrity is critical to data center SSD. The 983 DCT is safeguarded with end-to-end data protection to ensure consistency over the entire data transfer path and prevents data corruption in case of power failure with power loss protection.

Enhanced operations efficiency

Accomplish far more with less. Achieve higher efficiency and performance compared to legacy storage systems, with fewer servers, reduced power and cooling, and lower TCO, all with efficient maintenance from the advanced Samsung SSD Toolkit.

Samsung reliability and quality

Experience the superior SSD quality and reliability of in-house production using Samsung built components. Empower your 24/7 business to run faster, more efficiently, and at reduced costs with world-class dependability with a limited 5-year warranty or 0.8 Drive Writes Per Day (DWPD).

SAMSUNG

NVMe SSD 983 DCT

Taking performance to new heights.

		MZ - QLB1T9NE	MZ-QLB960NE	MZ-1LB1T9NE	MZ-1LB960NE
Capacity[1]		1,920GB	960GB	1,920GB	960GB
Form Factor		2.5" 7mmT (U.2)		M.2 (22110)	
Dimensions (WxDxH)		Max. 100.2 x 69.85 x 6.8 (mm)		Max. 110.2 x 22.0 x 3.8 (mm)	
Weight		Max. 70g		Max. 20g	
NAND type		Samsung V-NAND			
Interface		PCIe Gen 3.0 x4, NVMe 1.2b			
Performance[2]	Seq. Red (128KB)	up to 3,400 MB/s	up to 3,300 MB/s	up to 3,000 MB/s	
	Seq. Write (128KB)	up to 2,200 MB/s	up to 1,300 MB/s	up to 1,430 MB/s	up to 1,200 MB/s
	Rand. Read (4KB, QD32)	up to 580,000 IOPS	up to 440,000 IOPS	up to 480,000 IOPS	up to 400,000 IOPS
	Rand. Write (4KB, QD32)	up to 52,000 IOPS	up to 46,000 IOPS	up to 42,000 IOPS	up to 38,000 IOPS
	QoS Read (99.99%, 4KB, QD1)	up to 0.13 ms		up to 0.15 ms	
	QoS Write (99.99%, 4KB, QD1)	up to 0.09 ms		up to 0.08 ms	
Encryption Support		AES 256-bit Encryption Engine			
Average Power Consumption[3]		Active Read (Typ.) up to 8.7W, Active Write (Typ.) up to 10.6W, Idle up to 4.0W		Active Read (Typ.) up to 7.6W, Active Write (Typ.) up to 8.0W, Idle up to 2.6W	
Allowable Voltage		12.0V ± 8%		3.3V ± 5%	
MTBF[4]		2,000,000 Hours			
UBER[5]		1 sector per 10^{17} bits read			
Operating Temperature		0-70°C			
Shock		1500G, duration 0.5 ms, Half Sine Wave			
Warranty		5-year limited warranty, or 0.8 DWPD, whichever comes first			

1. 1GB = 1 Billion bytes by IDEMA. Actual usable capacity may be less (due to formatting, partitioning, operating system, applications or otherwise).
2. Based on PCI Express Gen3 x4.
· Random performance measured using FIO 2.7 in CentOS6.6 (kernel 3.14.29) with 4KB (4,096 bytes) of data transfer size in queue depth 32 by 4 workers and Sequential performance with 128KB (131,072 bytes) of data transfer size in queue depth 32 by 1 worker.
· 1MB/sec = 1,000,000 bytes/sec was used in sequential performance
3. Actual power consumption may vary depending on system hardware & configuration. Active power is measured using IOMeter2006 on Windows Server 2012.
4. MTBF is Mean Time Between Failure. By definition, Mean Time between Failures (MTBF) is the estimated time between failures occurring during SSD operation.
5. Uncorrectable Bit Error Rate (UBER) is a metric for the rate of occurrence of data errors, equal to the number of data errors per bits read as specified in the JESD218 document of JEDEC standard. For enterprise applications, JEDEC recommends that UBER should be below 10-16.
*Comparisons are based on internal test results with 2.5-inch 7200 RPM SATA HDDs.

For more information about the Samsung SSD, visit **samsung.com/business** or **samsungssd.com.**

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