



Samsung NVMe SSD 983 ZET

Drive business with ultra-low latency

Elevate performance with an innovative cache solution. The Samsung NVMe 983 ZET SSD offers businesses a powerful solution to sustaining AI, IoT, and high-performance computing applications at incredible speeds. Boosting performance and QoS with low-latency V-NAND technology, the 983 ZET delivers high throughput for state-of-the-art data analytics and processing, ideal for taking business to the next level.

Engineered for fast responsiveness

Bridging the gap between system memory and storage, the 983 ZET is powered by cutting-edge low-latency V-NAND technology to retrieve data quickly when needed. Its Impressive Quality of Service (QoS) reads and writes up to 0.03 ms, with a minimal latency of up to 20 μ s.

Performance for complex processing

Experience a new level of performance. The NVMe™ interface empowers the 983 ZET to reach sequential read/write speeds up to 3,400/3,000 MB/s and random read/write speeds up to 750K/55K IOPS, for the seamless processing of even complex computations.

Secure critical data

The 983 ZET features end-to-end data protection to ensure consistency over the entire data transfer path and power loss protection to prevent data corruption in case of power failure.

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 and more efficiently with world-class dependability with a limited 5-year warranty or up to 10 DWPD.

A new class of low-latency performance



| | | MZ-PZA960BW | MZ-PZA480BW |
|--|------------------------------|--|--|
| Capacity ¹ | | 960GB | 480GB |
| Form Factor | | Half-height Half-length (HHHL) | |
| Dimensions (WxDxH) | | 167.7 x 69.9 x 18.8 (mm) | |
| Weight | | Max. 330g | |
| NAND type | | Samsung Low Latency V-NAND | |
| Interface | | PCI Express Gen3 x4, NVMe 1.2 | |
| Performance ² | Seq. Read (128KB) | up to 3,400 MB/s | |
| | Seq. Write (128KB) | up to 3,000 MB/s | |
| | Rand. Read (4KB, QD32) | up to 750,000 IOPS | |
| | Rand. Write (4KB, QD32) | up to 75,000 IOPS | up to 60,000 IOPS |
| | QoS Read (99.99%, 4KB, QD1) | up to 0.03 ms | |
| | QoS Write (99.99%, 4KB, QD1) | up to 0.03 ms | |
| Encryption Support | | AES 256-bit Encryption Engine, TCG/Opal Compliant | |
| Average Power Consumption ³ | | Active Read (Typ.) up to 8.5W, Active Write (Typ.) up to 9.0W, Idle up to 5.5W | |
| Allowable Voltage | | 12.0V ± 10% | |
| MTBF ⁴ | | 2,000,000 Hours | |
| UBER ⁵ | | 1 sector per 10 ¹⁷ bits read | |
| Operating Temperature | | 0-55°C | |
| Shock | | 1500G, duration 0.5 ms, Half Sine Wave | |
| Warranty | | 5-year limited warranty or 10 DWPD, whichever comes first | 5-year limited warranty or 8.5 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. Actual performance may vary depending on use conditions and environment.

· Sequential performance was measured by using FIO in CentOS7.0 with queue depth 32 by 1 worker. 1MB/sec = 1,000,000 bytes/sec was used in sequential performance.

· Random performance was measured by using FIO in CentOS7.0 with queue depth 32 by 4 workers. Measurements were performed on a full Logical Block Address (LBA) span of the drive in sustained state.

3. Actual power consumption may vary depending on system hardware & configuration. Active power is measured using IOMeter2006 on Windows Server 2012 R2.

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.

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

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