Samsung 990 EVO MZ-V9E1T0BW(MZ-V9E1T0BW)

Samsung 990 EVO MZ-V9E1T0BW - SSD - encrypted - 1 TB - internal - M.2 2280 - PCIe 5.0 x2 (NVMe) - 256-bit AES - TCG Opal Encryption 2.0

The Samsung 990 EVO solid state drive combines speed, capacity, and security to offer a reliable storage solution. With a 1 TB capacity, it provides ample space for all your storage needs. The drive has impressive read speeds of up to 5000 MBps and write speeds of up to 4200 MBps, ensuring quick boot times and fast access to your data. It features PCI Express 4.0 x4 and PCI Express 5.0 x2 interfaces for versatile and high-speed connectivity. Security is a priority, with 256-bit AES hardware encryption and TCG Opal Encryption 2.0 safeguarding your sensitive data. Additionally, the Dynamic Thermal Guard protection prevents overheating, maintaining reliable performance. Whether for work or play, the Samsung 990 EVO is designed to meet the demands of high-performance computing environments.

Key Selling Points

1 TB capacity for extensive storage
Up to 5000 MBps read and 4200 MBps write speeds for rapid data access
PCI Express 4.0 x4 and PCI Express 5.0 x2 interfaces for high-speed connectivity
256-bit AES encryption and TCG Opal Encryption 2.0 for reliable data security
Dynamic Thermal Guard protection to prevent overheating

Product Features

Enhanced durability

Equipped with Dynamic Thermal Guard protection, the Samsung 990 EVO ensures optimal performance by preventing overheating, making it a reliable choice for intensive tasks.

Exceptional speed

Boasting an impressive internal data rate of up to 5000 MBps for reading and 4200 MBps for writing, this solid state drive offers swift boot times and quick access to your data.

Advanced security

With 256-bit AES hardware encryption and TCG Opal Encryption 2.0, the Samsung 990 EVO provides reliable data protection, keeping your sensitive information safe from unauthorized access.

High capacity storage

With a 1 TB capacity, this solid state drive offers ample space for your files, applications, and games, ensuring you have all your essentials at your fingertips.

Efficient power management

The Auto Garbage Collection Algorithm and Device Sleep support work together to reduce power consumption, extending the life of your drive and laptop battery.

Main Specifications

Product Description	Samsung 990 EVO MZ-V9E1T0BW - SSD - 1 TB - PCIe 5.0 x2 (NVMe)
Type	Solid state drive - internal
Capacity	1 TB
Hardware Encryption	Yes
Encryption Algorithm	256-bit AES
NAND Flash Memory Type	Triple-level cell (TLC)
Form Factor	M.2 2280
Interface	PCIe 5.0 x2 (NVMe)
Features	TRIM support, Auto Garbage Collection Algorithm, Dynamic Thermal Guard protection, Device Sleep support, Samsung V-NAND TLC Technology, S.M.A.R.T.
Dimensions (WxDxH)	22 mm x 80 mm x 2.38 mm
Weight	9 g
Manufacturer Warranty	5-year warranty

Extended Specification

General

Device Type	Solid state drive - internal
Capacity	1 TB
Hardware Encryption	Yes
Encryption Algorithm	256-bit AES
NAND Flash Memory Type	Triple-level cell (TLC)
Form Factor	M.2 2280
Interface	PCIe 5.0 x2 (NVMe)
Features	TRIM support, Auto Garbage Collection Algorithm, Dynamic Thermal Guard protection, Device Sleep support, Samsung V-NAND TLC Technology, S.M.A.R.T.
Width	22 mm
Depth	80 mm
Height	2.38 mm
Weight	9 g

Performance

Internal Data Rate	5000 MBps (read) / 4200 MBps (write)
4KB Random Read	20000 IOPS
4KB Random Write	90000 IOPS
Maximum 4KB Random Write	800000 IOPS
Maximum 4KB Random Read	680000 IOPS

Reliability

MTBF	1.500.000 hours

Expansion & Connectivity

Compatible Bay	M.2 2280

Power

Power Consumption	5.5 Watt (read) 4.7 Watt (write) 60 mW (standby)

Software & System Requirements

Software Included	Samsung Magician Software

Miscellaneous

Compliant Standards	IEEE 1667
Package Details	Box

Manufacturer Warranty

Service & Support	Limited warranty - 5 years

Environmental Parameters

Min Operating Temperature	0 °C
Max Operating Temperature	70 °C
Shock Tolerance (non-operating)	1500 g @ 0.5 ms

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