

Type

Product Type

SSD

Usage Application

Client PCs

Application

Consumer

Yes

Storage

Capacity

500GB (1GB=1 Billion byte by IDEMA) * Actual usable capacity may be less (due to formatting, partitioning, operating system, applications or otherwise)

Key Features

Sequential Read Speed

Up to 3,500 MB/s * Performance may vary based on system hardware & configuration

Random Read Speed

Random Read (4KB, QD32): Up to 480,000 IOPS; Random Read (4KB, QD1): Up to 19,000 IOPS * Performance may vary based on system hardware & configuration

Controller

Samsung Phoenix Controller

Cache Memory

Samsung 512MB Low Power DDR4 SDRAM

AES Encryption

AES 256-bit Encryption (Class 0)TCG/Opal IEEE1667 (Encrypted drive)

GC (Garbage Collection)

Auto Garbage Collection Algorithm

Device Sleep Mode Support

Yes

NVMe

Yes

General

Average Power Consumption (system level)

Series

970 EVO Plus

Interface

PCIe Gen 3.0 x 4, NVMe 1.3

Sequential Write Speed

Up to 3,200 MB/s * Performance may vary based on system hardware & configuration

Random Write Speed

Random Write (4KB, QD32): Up to 550,000 IOPS; Random Write (4KB, QD1): Up to 60,000 IOPS * Performance may vary based on system hardware & configuration

NAND Flash

Samsung V-NAND 3-bit MLC

Trim Support

Supported

S.M.A.R.T. Support

Supported

WWN Support

Not supported

Temperature proof

Yes

Gaming SSDs

Yes

Power consumption (Idle)

* Average: 5.8 W * Maximum: 9 W (Burst mode) * Actual power consumption may vary depending on system hardware & configuration

Max. 30 mW * Actual power consumption may vary depending on system hardware & configuration

Voltage

3.3 V \pm 5 % Allowable voltage

Reliability (MTBF)

1.5 Million Hours Reliability (MTBF)

Environmental Specs

Operating Temperature

0 - 70 °C Operating Temperature

Shock

1,500 G & 0.5 ms (Half sine)

Form Factor

Product

M.2 (2280)

Dimensions (W x H x D)

Product

80.15 x 22.15 x 2.38 (mm)

Weight

Product

Max 8.0 g Weight

Software

Management SW

Magician Software for SSD management

Warranty

Product

5-Year Limited Warranty or: 300 TBW Limited Warranty