

Apacer

The Most **Reliable**
Storage For Industries

PH920-M280



PH920-M280

Overview

Apacer PH920-M280 is the fastest SSD designed as M.2 2280 mechanical dimensions, providing full compliance with PCIe Gen3 x4 interface and NVMe 1.3 specifications.

Built with a powerful PCIe controller, PH920-M280 delivers outstanding performance in data transfer, reaching up to 314,000/265,000 and 1,740/1,530 MB/s in IOPS and sequential read/write. The extreme thin and light form factor makes PH920-M280 the ideal choice for mobile computing systems, which appears to be the trend in near future.

Regarding reliability, PH920-M280 supports on-the-module ECC as well as efficient Wear Leveling scheme. Furthermore, End-to-End Data Protection guarantees data integrity at multiple points in the path to enable reliable delivery of data transfers. Security-wise, Advanced Encryption Standard (AES) ensures data security and provides users with a peace of mind knowing their data is safeguarded. With Apacer's SLC-liteX technology, PH920-M280 can operate on power management modes, which greatly saves on power consumption in terms of power efficiency.



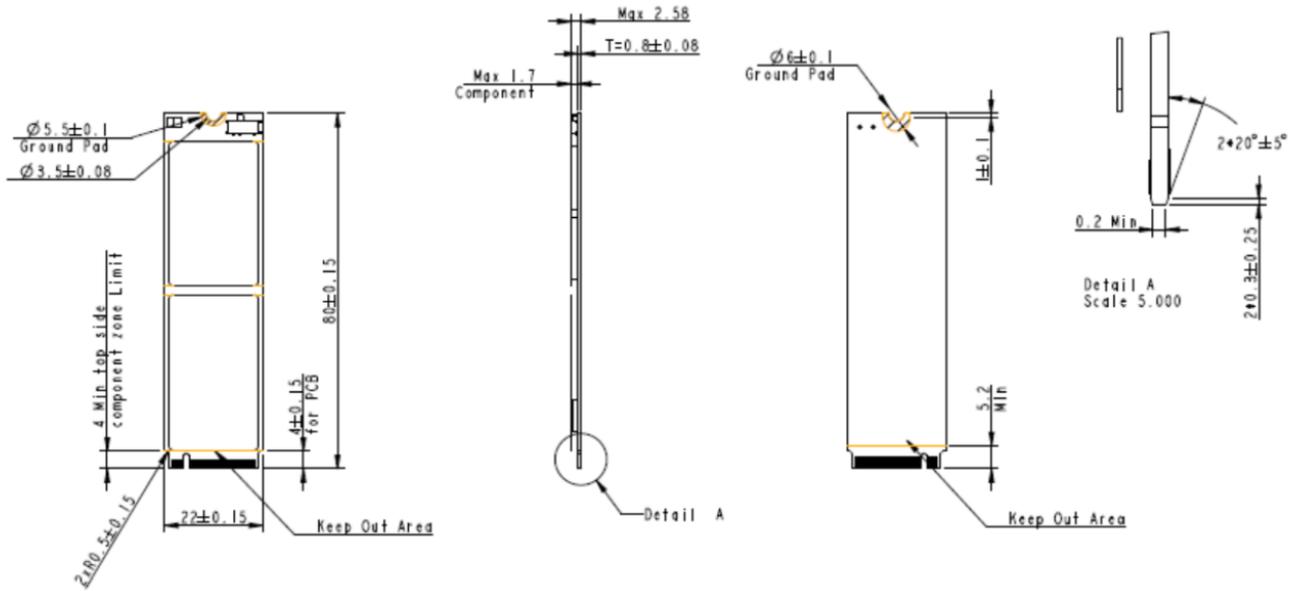
Feature

- Adopts advanced LDPC ECC engine with 3D NAND SLC-liteX technology to improve reliability
- SLC-liteX (P/E cycles: 100K)
- Global Wear Leveling
- Flash bad-block management
- Flash Translation Layer: Page Mapping
- S.M.A.R.T.
- Power Failure Management
- TRIM
- Hyper Cache Technology
- NVMe Secure Erase
- Signed Firmware

Specifications

Model	PH920-M280
Interface	PCIe Gen3 x4
Connector	M.2 M Key
Form Factor	M.2 2280 single side, M Key: 160GB M.2 2280 double side, M Key: 320GB, 640GB
NAND Flash Type	3D TLC
Capacity	Single side: 160GB Double side: 320GB~640GB
External DRAM	No
Sustained Read Performance (MB/sec)	Up to 1740
Sustained Write Performance (MB/sec)	Up to 1530
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPS (4K Random Write)	265K
Standard Operating Temperature (°C)	0 ~ + 70
Extended Operating Temperature (°C)	-40 ~ + 85
Storage Temperature (°C)	-40 ~ + 100
H/W Write Protect	Yes
Thermal Sensor	Yes
Shock	Operation: Acceleration, 50(G)/11(ms)/half sine (compliant with MIL-STD-202G) Non-operation: Acceleration, 1,500(G)/0.5(ms)/half sine (compliant with MIL-STD-883K)
Vibration	Operation: 7.69 Grms, 20~2000 Hz/random (compliant with MIL-STD-810G) Non-operation: 4.02 Grms, 15~2000 Hz/random (compliant with MIL-STD-810G)
Operating Voltage	3.3 V ± 5%
Power Consumption	Active mode: 1100 mA / Idle mode: 260 mA
Dimension (L x W x H)	Single side: 22.00 x 80.00 x 2.58 (max) (mm) Double side: 22.00 x 80.00 x 4.08 (max) (mm)
MTBF (hours)	>3,000,000

Mechanical Specification



Unit: mm

For more information,
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