

Apacer

The Most **Reliable**
Storage For Industries

ST170-M280



ST170-M280

Overview

Apacer's ST170-M280 (M.2 2280) utilizes 3D NAND for higher capacity up to 960GB and provides higher power efficiency than 2D NAND, with the aim of becoming more suitable for mobile and compact computers with standard width at only 22.00 mm. ST170-M280 appears in M.2 2280 mechanical dimensions and is believed to be the leading add-in storage solution for future host computing systems. Regarding reliability, ST170-M280 is implemented with LDPC (Low Density Parity Check) ECC engine to extend SSD endurance and increase data reliability while reading raw data inside a flash chip.



Feature

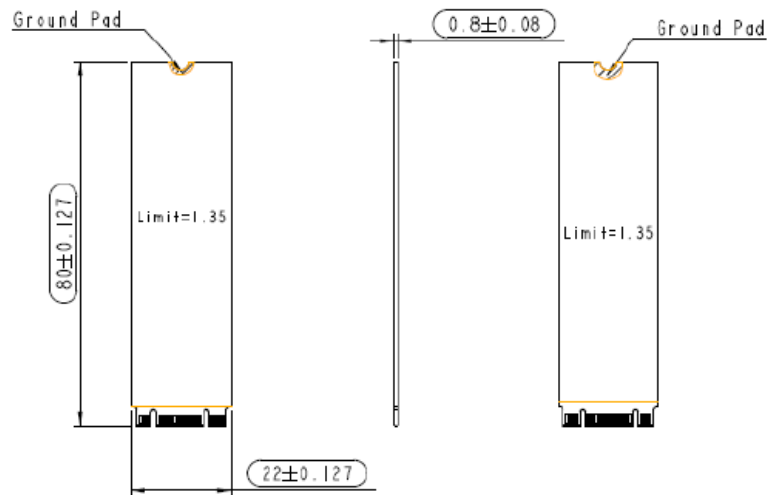
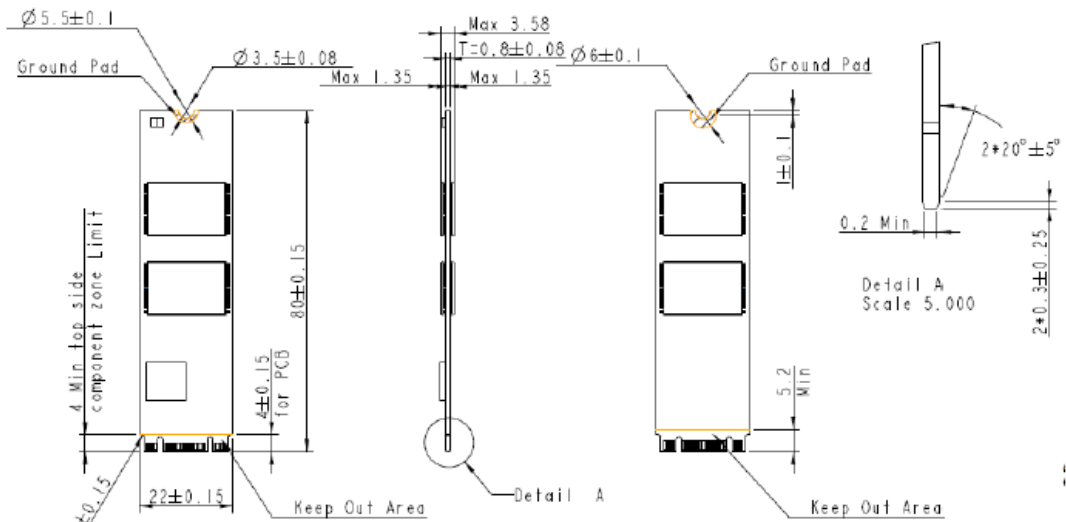
- Adopts advanced LDPC ECC engine with 3D NAND flash memory to improve reliability
- Error Detection and Correction
- Flash Bad-block Management
- Global Wear Leveling
- S.M.A.R.T.
- Power Failure Management
- ATA Secure Erase
- TRIM
- 4K Page Mapping
- DEVSLP
- Hyper Cache Technology

Specifications

Model	ST170-M280
Interface	SATA 3.2 (6Gb/s)
Connector	M.2 B & M key
Form Factor	M.2 2242-D5-B-M
NAND Flash Type	3D TLC
Capacity	30GB~960GB
External DRAM	No
Sustained Read Performance (MB/sec)	Up to 560
Sustained Write Performance (MB/sec)	Up to 515
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPS (4K Random Write)	87K
Standard Operating Temperature (°C)	0 ~ + 70
Storage Temperature (°C)	-40 ~ + 100
Housing	No
H/W Write Protect	No
Screw Hole	No
Thermal Sensor	Yes
Shock	Operation: 50G/11ms (compliant with MIL-STD-202G) Non-operation: 1500G/0.5ms (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/sine (compliant with MIL-STD-810G)
Operating Voltage	3.3V ± 5% (3.135-3.465V)
Power Consumption	Active mode: 540 mA / Idle mode: 95 mA
Dimension (L x W x H)	80.00 mm x 22.00 mm x 3.58 mm
MTBF (hours)	>3,000,000

Mechanical Specification

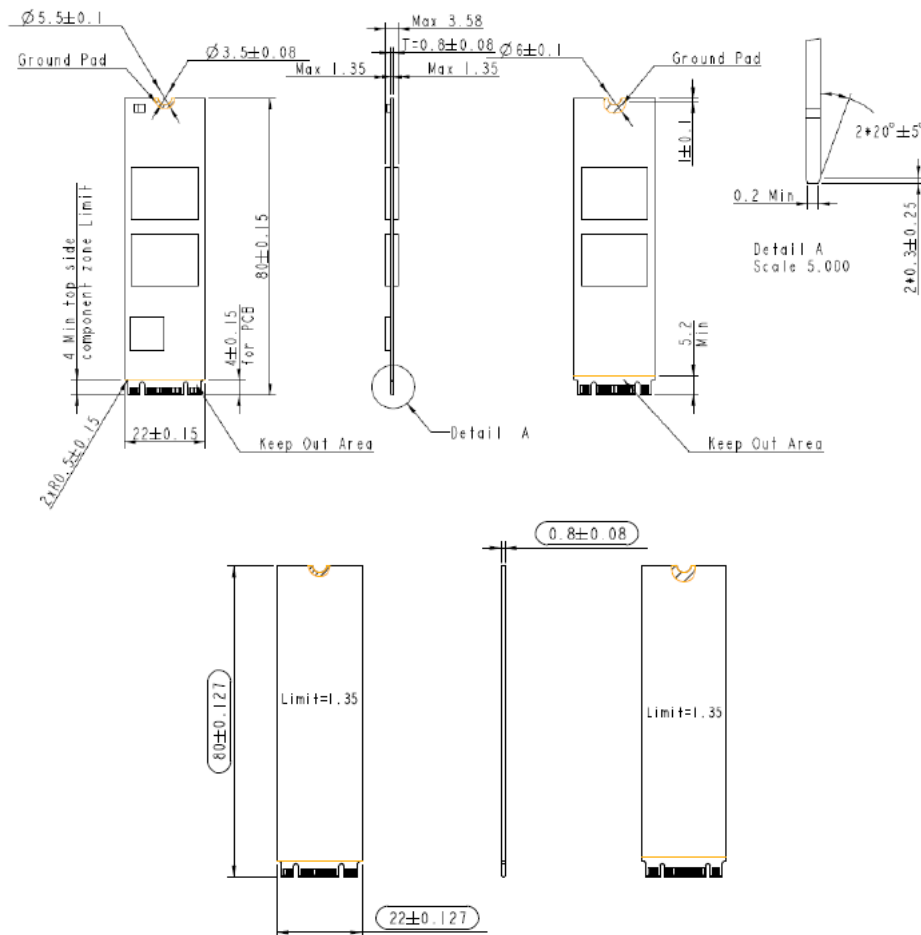
TSOP (30-60GB)



Unit: mm

Mechanical Specification

BGA (120-960GB)



Unit: mm

For more information,
contact your Apacer representative

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