

# 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

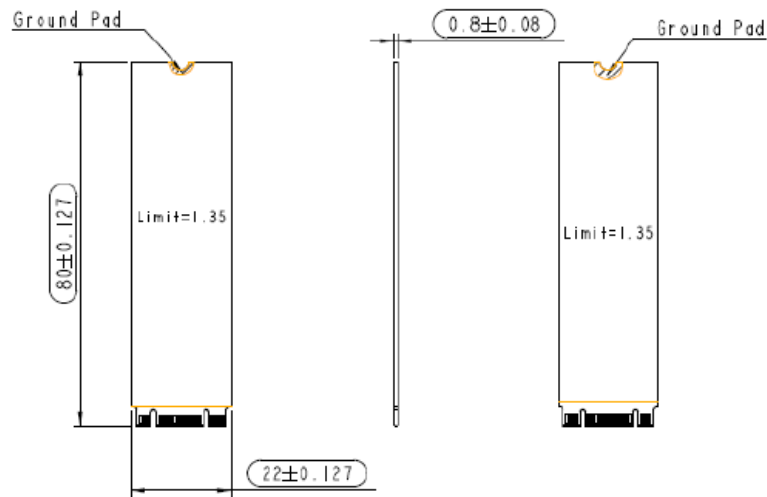
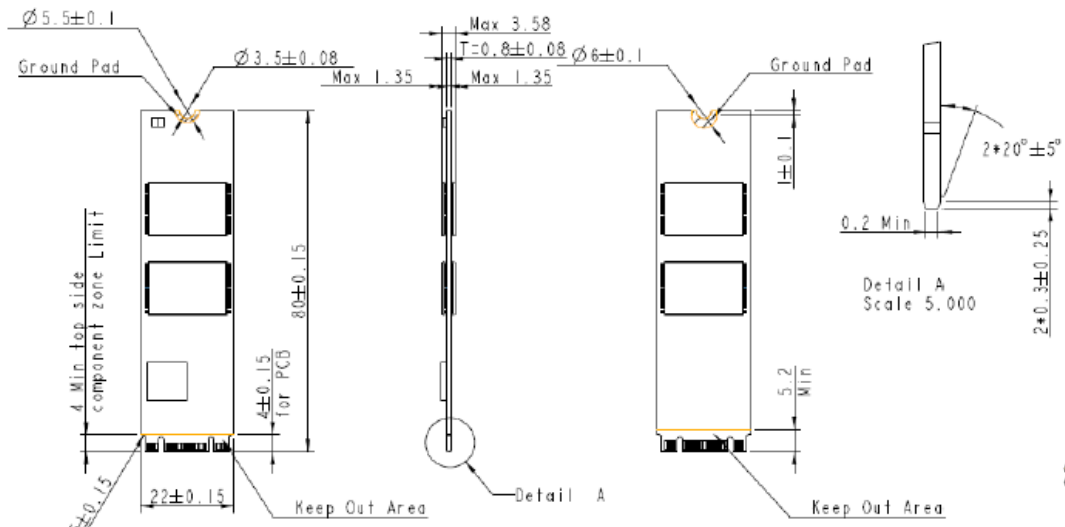
- Adopts advanced LDPC ECC engine with 3D NAND flash memory to improve reliability
- Error Detection and Correction
- Flash Bad-block Management
- Global Wear Leveling
- S.M.A.R.T.
- Power Failure Management
- ATA Secure Erase
- TRIM
- 4K Page Mapping
- DEVSLP
- Hyper Cache Technology

## Specifications

<b>Model</b>	ST170-M280
<b>Interface</b>	SATA 3.2 (6Gb/s)
<b>Connector</b>	M.2 B & M key
<b>Form Factor</b>	M.2 2242-D5-B-M
<b>NAND Flash Type</b>	3D TLC
<b>Capacity</b>	30GB~960GB
<b>External DRAM</b>	No
<b>Sustained Read Performance (MB/sec)</b>	Up to 560
<b>Sustained Write Performance (MB/sec)</b>	Up to 515
<b>ECC Engine</b>	Low-Density Parity-Check (LDPC) Code
<b>IOPS (4K Random Write)</b>	87K
<b>Standard Operating Temperature ( °C )</b>	0 ~ + 70
<b>Storage Temperature ( °C )</b>	-40 ~ + 100
<b>Housing</b>	No
<b>H/W Write Protect</b>	No
<b>Screw Hole</b>	No
<b>Thermal Sensor</b>	Yes
<b>Shock</b>	Operation: 50G/11ms (compliant with MIL-STD-202G) Non-operation: 1500G/0.5ms (compliant with MIL-STD-883K)
<b>Vibration</b>	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)
<b>Operating Voltage</b>	3.3V ± 5% (3.135-3.465V)
<b>Power Consumption</b>	Active mode: 540 mA / Idle mode: 95 mA
<b>Dimension (L x W x H )</b>	80.00 mm x 22.00 mm x 3.58 mm
<b>MTBF (hours)</b>	>3,000,000

## Mechanical Specification

### TSOP (30-60GB)



Unit: mm

