

# Apacer

The Most **Reliable**  
Storage For Industries

**SH250-M280**



## SH250-M280

### Overview

Apacer's SH250-M280 is a well-balanced solid-state disk (SSD) drive with standard form factor and great performance. Designed in SATA 6.0 Gbps interface, the SSD is able to deliver exceptional read/write speed, making it the ideal companion for heavy-loading industrial or server operations.

SH250-M280 utilizes 3D NAND for higher capacity up to 320GB and provides more power efficiency than 2D NAND. Appearing in M.2 2280 mechanical dimensions, SH250-M280 is believed to be the leading add-in storage solution for future host computing systems.

With Apacer's SLC-liteX technology, SH250-M280 performs with higher number of P/E cycles up to 30,000 times. Regarding reliability, SH250-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. In addition, the drive comes with various implementations including powerful hardware ECC engine, power saving modes, Wear Leveling, flash block management, S.M.A.R.T., TRIM and DataDefender™.

In terms of security, Advanced Encryption Standard (AES) ensures data security and provide users with a peace of mind knowing their data is safeguarded against unauthorized use at all times. Furthermore, with End-to-End Data Protection, data integrity can be assured at multiple points in the path to enable reliable delivery of data transfers.

### Feature

- Adopts advanced LDPC ECC engine with 3D NAND SLC-liteX technology to improve reliability
- Global Wear Leveling
- Supports SSDWidget S.M.A.R.T function
- End-to-End Data Protection
- TRIM Support
- Supports AES 256-bit encryption
- Supports DataDefender™ technology



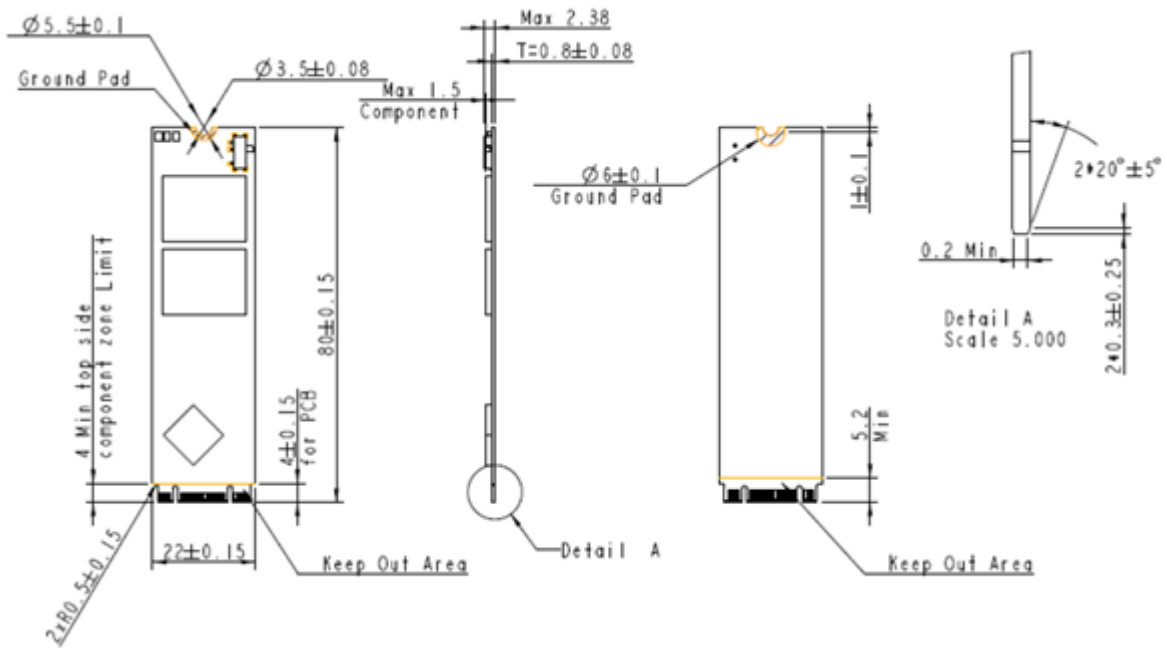
## Specifications

<b>Model</b>	SH250-M280
<b>Interface</b>	SATA 3.0 (6Gb/s)
<b>Connector</b>	M.2 B & M key
<b>Form Factor</b>	M.2 2280-D5-B-M
<b>NAND Flash Type</b>	3D TLC
<b>Capacity</b>	10GB~320GB
<b>External DRAM</b>	No
<b>Sustained Read Performance (MB/sec)</b>	Up to 560
<b>Sustained Write Performance (MB/sec)</b>	Up to 520
<b>ECC Engine</b>	Low-Density Parity-Check (LDPC) Code
<b>IOPS (4K Random Write)</b>	74K
<b>Standard Operating Temperature ( °C )</b>	0 ~ + 70
<b>Extended Operating Temperature ( °C )</b>	-40 ~ + 85
<b>Storage Temperature ( °C )</b>	-40 ~ + 100
<b>Thermal Sensor</b>	Yes
<b>Shock</b>	Operation: 50G/11ms 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>	3.3 V ± 5%
<b>Power Consumption</b>	Active mode:480 mA / Idle mode: 65 mA
<b>Dimension (L x W x H )</b>	Single side: 80.00 mm x 22.00 mm x 2.38 mm Double side: 80.00 mm x 22.00 mm x 3.88 mm
<b>MTBF (hours)</b>	>1,000,000

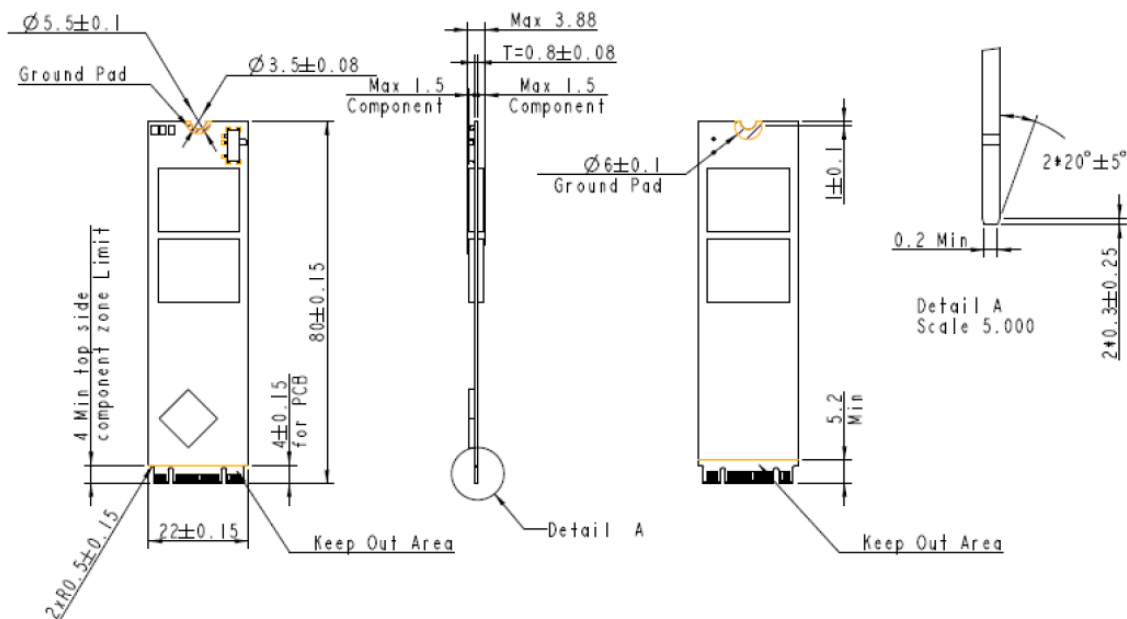
## Mechanical Specification

### BGA (120-960GB)

#### Single Side (120-480GB)

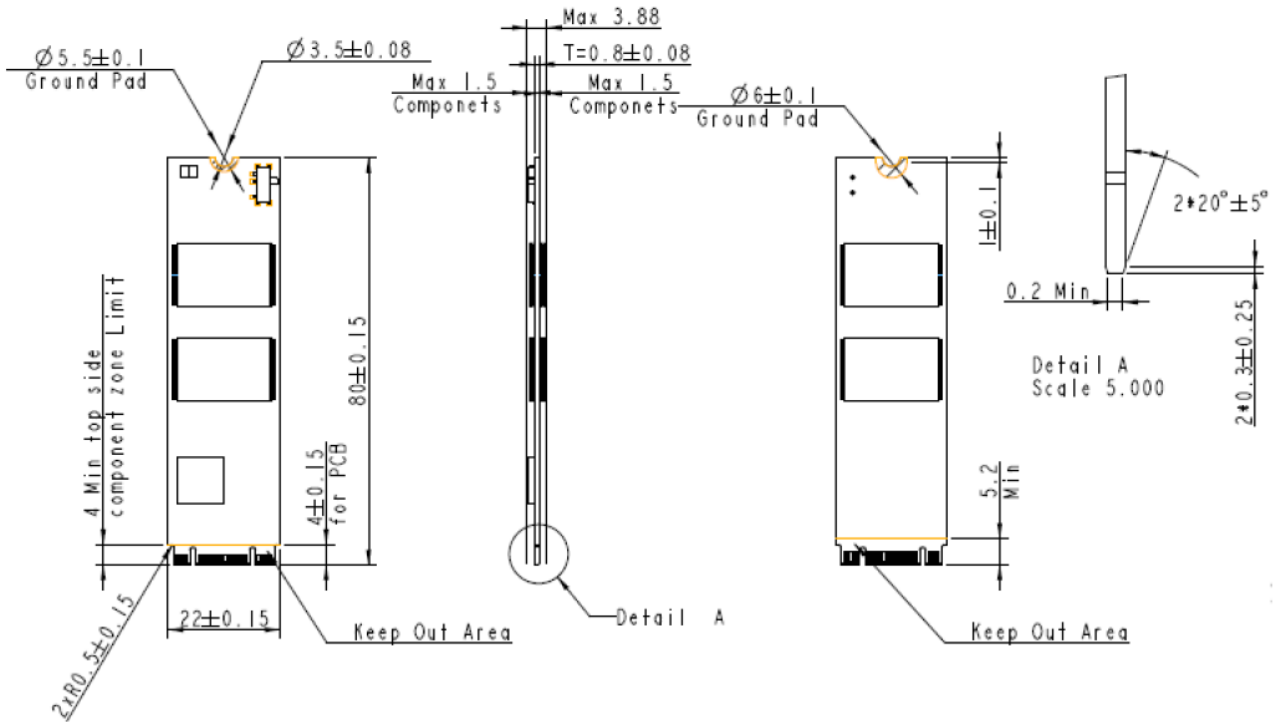


#### Double Side (960GB)



## Mechanical Specification

### TSOP Single Side (30-60GB)



Unit: mm

For more information,  
contact your Apacer representative

### Global Presence

Taiwan (Headquarters)  
Apacer Technology Inc.  
Tel: +886-2-2267-8000  
Fax: +886-2-2267-2261

Europe  
Apacer Technology B.V.  
Tel: +31-40-267-0000  
Fax: +31-40-290-0686

U.S.A.  
Apacer Memory America, Inc.  
Tel: +1-408-518-8699  
Fax: 1-510-249-9551

China  
Apacer Electronic(Shanghai)  
Co., Ltd.  
Tel: +86-21-6228-9939

Japan  
Apacer Technology Corp.  
Tel: +81-3-5419-2668  
Fax: +81-3-5419-0018

India  
Apacer Technologies Pvt. Ltd.  
Tel: +91-80-41529061~3  
Fax: +91-80-41700215