

Apacer

The Most **Reliable**
Storage For Industries

PV16E-M280



Overview

Apacer's PV16E-M280 is a high performance and high endurance solid-state drive designed with compact M.2 form factor for enterprise applications. Utilizing 3D eTLC NAND Flash with the DDR4 for higher capacity up to 1920GB and providing more power efficiency, PV16E-M280 delivers outstanding, stable performance up to 7075 MB/s for sequential read and 2260 MB/s for sequential write and ultra-low latency with optimized QoS. PV16E-M280 also presents low power consumption compared with traditional hard drives, extended lifespan and all the advantages of NAND Flash management technologies to ensure data integrity and highest levels of reliability, making it the ideal solution for read-intensive, mixed-use server applications.



PV16E-M280 features enterprise-class reliability features implemented on both hardware and firmware levels. On the hardware level, PV16E-M280 is built with a powerful PCIe Gen4 x4 controller that supports on-the-module ECC as well as LDPC (Low Density Parity Check) ECC engine to extend SSD endurance and increase data reliability. In addition, PV16E-M280 supports CorePower technology which guarantees data integrity and stability of data transmission in the event of an unexpected power loss by implementing backup power supply with tantalum capacitors that allow sufficient time to move all cached data to NAND flash.

In addition to data reliability, PV16E-M280 also incorporates a variety of cutting-edge technologies featuring multiple approaches to data security and integrity. PV16E-M280 provides exceptional performance by offloading computational tasks to a dedicated processor with AES 256-bit hardware encryption and with the hardware-based technology, PV16E-M280 offers data security to safeguard the drive against unauthorized access at all times.

PV16E-M280 is an enterprise-class SSD designed for server applications that require consistent performance, low latency and continuous large file transfers for 24/7 uptime and reliability. With superior performance, instant responsiveness, advanced power loss protection technology and highest standard of reliability – whether in terms of data security, data integrity and data protection, PV16E-M280 is an ideal solution for enterprise servers, data centers and cloud service providers.

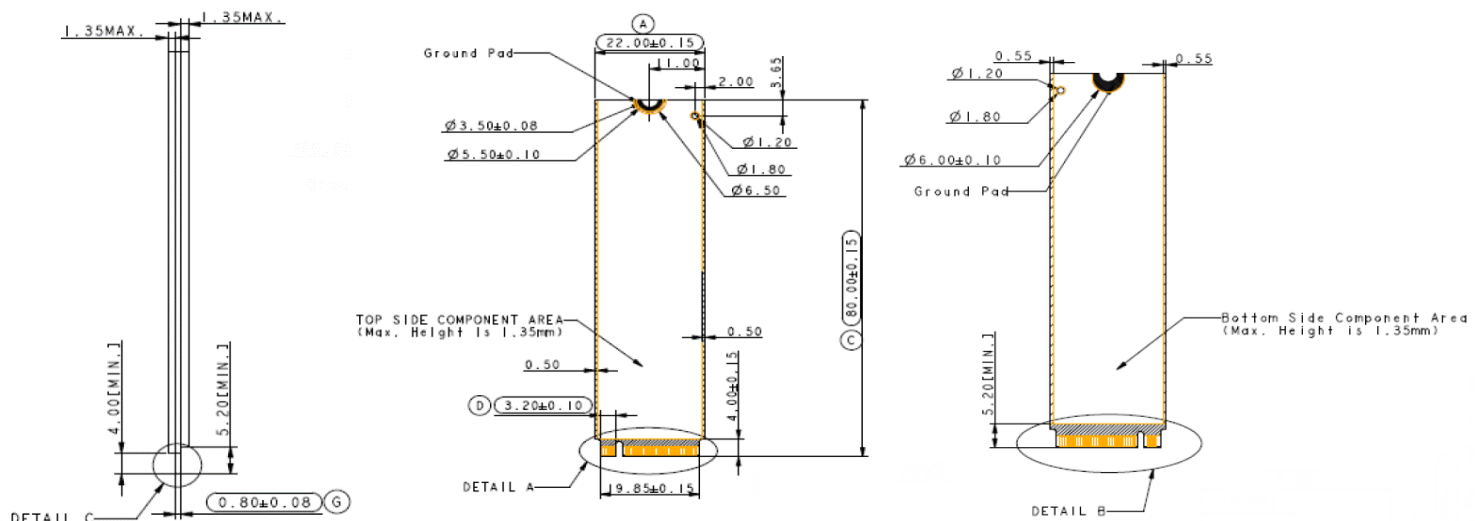
Feature

- Enterprise SSD PV16E-M280
- Core Power
- QoS 99.9%
- Warrany 5 years
- DWPD>1
- Low-Density Parity-Check (LDPC) Code
- Global Wear Leveling
- Flash bad-block management
- Flash Translation Layer: Page Mapping
- S.M.A.R.T.
- TRIM
- Over-provisioning
- SMART Read Refresh [™]
- NVMe Secure Erase
- Namespace

Specifications

Model	PV16E-M280
Interface	PCIe Gen4 x4
Connector	M Key
Form Factor	M.2 2280
NAND Flash Type	3D eTLC
Capacity	480GB~1920GB
External DRAM	Yes
Sequential Read Performance (MB/sec)	Up to 7075
Sequential Write Performance (MB/sec)	Up to 2260
Sustained Read Performance (IOPS)	800K
Sustained Write Performance (IOPS)	58K
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPS (4K Random Write)	58K
Random R/W latency	84/38 μ s
Random R/W QoS	0.10/0.02 ms
Standard Operating Temperature (°C)	0 ~ + 70
Storage Temperature (°C)	-55 ~ + 100
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	12V \pm 10%
Power Consumption	Active mode: 20.8 W/Idle mode: 7.43 W
Dimension (L x W x H)	100.10 x 69.85 x 14.65, unit: mm
MTBF (hours)	>3,000,000

Mechanical Specification



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

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

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

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

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