

M.2 2280 SSD



IM2P42B8

The ADATA IM2P42B8 PCIe Gen4x4 industrial-grade M.2 2280 SSD is NVMe 1.4 compliant, utilizing 176-layer 3D TLC NAND flash for excellent performance and high capacities, as well as a 3K P/E cycle rating for great durability. What's more, the IM2P42B8 supports a Host Memory Buffer for improved random read/write performance, LDPC ECC (error correction code), RAID Engine, and End-to-End Data Path Protection technology for optimal data integrity. Furthermore, it supports AES 256-bit encryption for improved data security. Thanks to these advantages, the IM2P42B8 is ideal for a wide range of industrial applications, including 5G, AI, networking, automation, server and surveillance.

Features

- PCIe Gen4x4 interface/ NVMe 1.4 compliant
- 176-layer 3D TLC NAND flash for higher capacities and endurance
- 3K P/E cycle rating for great durability and reliability
- Supports Host Memory Buffer
- AES 256-bit Data Encryption
- LDPC ECC error correction, RAID Engine, and End-to-End Data Path Protection
- Complies with ESD (Electrostatic Discharge) IEC/EN 61000-4-2 level 4 standard
- Suitable for 5G, AI, networking, automation, server, and surveillance applications

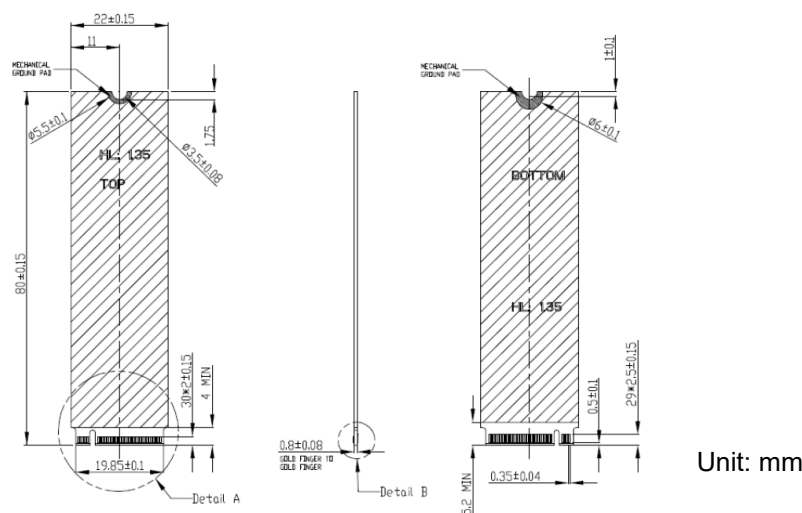
Ordering Information

Operating Temp.	512GB	1TB	2TB
0°C to 70°C	IM2P42B8-512GCTM4	IM2P42B8-001GCTM4	IM2P42B8-002GCTM4

Specifications

Model	IM2P42B8
Form Factor	M.2 2280
Capacity	512GB – 2TB
Interface	PCIe Gen4x4
Flash Type	176L 3D TLC
Dimensions (L x W x H)	80 x 22 x 2.25mm
Sequential Read (Max.)	5100MB/s
Sequential Write (Max.)	4700MB/s
Operating Temperature (Standard)	0°C to 70°C
Operating Temperature (Industrial)	N/A
Operating Voltage	3.3V
Power Consumption (Max)	4.8W
Shock Resistance	1500G/0.5ms, Half Sine Wave
Operating Humidity	5%-95% RH, non-condensing
Vibration Resistance	20G (20-2000Hz)
Technologies	LDPCC ECC, RAID Engine, Wear Leveling, SLC Cache, TRIM Command, Thermal Throttling, S.M.A.R.T. Monitor, AES 256-bit Data Encryption, Host Memory Buffer End-to-End Data Path Protection, ESD Support (IEC/EN 61000-4-2 level 4)

Diagram



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