

U.2 SSD

IU2P41BP



The ADATA IU2P41BP PCIe Gen4x4 industrial-grade SSD is designed for data-intensive and industrial applications, featuring advanced BiCS5 3D TLC NAND, combined with a PCIe Gen4x4 interface and NVMe 1.4 compliant, and supporting up to an 8-channel architecture, significantly improving data access efficiency and overall system computing performance; it is equipped with a DRAM Buffer and supports SLC Cache technology to effectively enhance random and sequential write performance. In addition, the IU2P41BP built-in Power Loss Protection (PLP) hardware protects critical data in the event of sudden power loss, preventing data loss and system anomalies. The IU2P41BP also supports AES 256-bit data encryption and TCG Opal 2.0 security mechanisms to meet enterprise data security requirements. With high compatibility and durability, the IU2P41BP is ideal for a wide range of applications such as industrial computers, AI surveillance, high-end NVR systems, and edge computing applications.

Features

- PCIe Gen4x4 interface/ NVMe 1.4 compliant
- 112-layer 3D TLC (BiCS5) NAND flash for higher capacities and endurance
- Power Loss Protection (PLP)
- Capacitors with short circuit protection mechanism
- DRAM Buffer
- AES 256-bit Data Encryption and TCG OPAL 2.0
- LDPC ECC error correction, RAID Engine, and End-to-End Data Path Protection
- Thermal Throttling automatically adjusts temperatures for prolonged product lifespan
- Suitable for industrial computers, AI surveillance, high-end NVR systems, and edge computing applications

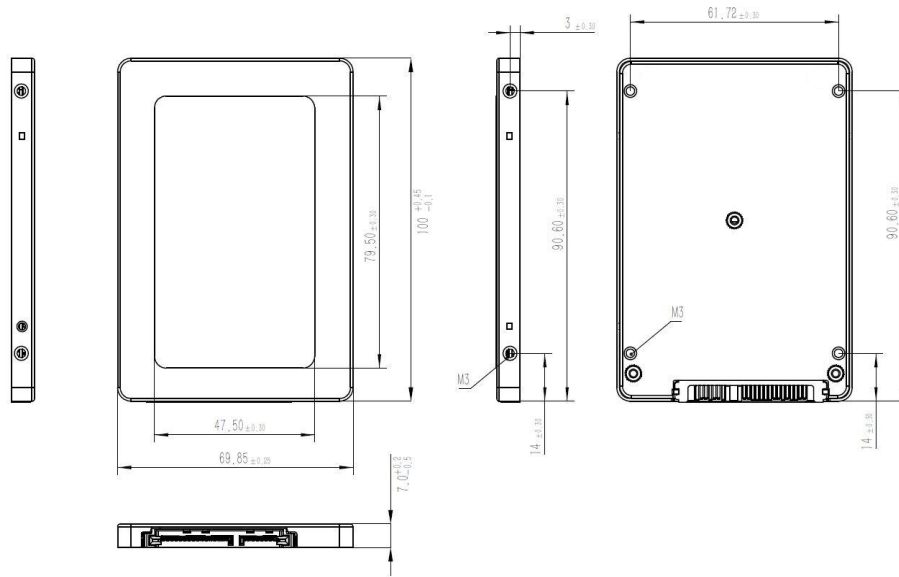
Ordering Information

Operating Temp.	512GB	1TB	2TB	4TB	8TB
0°C to 70°C	IU2P41BP-512GCTS8	IU2P41BP-001TCTS8	IU2P41BP-002TCTS8	IU2P41BP-004TCTS8	IU2P41BP-008TCTS8
-40°C to 85°C	IU2P41BP-512GITS8	IU2P41BP-001TITS8	IU2P41BP-002TITS8	IU2P41BP-004TITS8	IU2P41BP-008TITS8

Specifications

Model	IU2P41BP
Capacity	512GB – 8TB
Interface	PCIe Gen4x4
Flash Type	112-layer 3D TLC
Form Factor	U.2
Dimensions (L x W x H)	100 x 70 x 7mm
Sequential Read (Max.)	7,000MB/s
Sequential Write (Max.)	6,500MB/s
Operating Temperature (Standard)	0°C to 70°C
Operating Temperature (Industrial)	-40°C to 85°C
Operating Voltage	12V
Power Consumption (Max.)	10W
Shock Resistance	1500G/0.5ms
Operating Humidity	5%-95 RH, non-condensing
Vibration Resistance	20G (20-2000Hz)
Technologies	Power Loss Protection (PLP), AES 256-bit Data Encryption, TCG OPAL 2.0, LDPC ECC, RAID Engine, Wear Leveling, DRAM Buffer, SLC Cache, TRIM Command, Thermal Throttling, S.M.A.R.T. Monitor, End-to-end Data Path Protection

Diagram



Unit: mm

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