

RoHS Compliant PCI Express Flash Drive

Consumer AS2280P4X Product Specifications



October 18, 2023

Version 1.1

Apacer Technology Inc.

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Specifications Overview:

- **PCIe Interface**
 - Compliant with NVMe 1.3
 - Compatible with PCIe Gen3 x4 interface
- **Capacity**
 - 256, 512 GB
 - 1, 2 TB
- **Performance¹**
 - Sequential Read/Write
 - 256 GB : Up to 2,100/1,300 MB/s
 - 512 GB : Up to 2,100/1,500 MB/s
 - 1 TB : Up to 2,100/1,700 MB/s
 - 2 TB : Up to 2,100/1,700 MB/s
 - 4K Random Read/Write
 - 256 GB : Up to 165K/265K IOPS
 - 512 GB : Up to 300K/420K IOPS
 - 1 TB : Up to 530K/420K IOPS
 - 2 TB : Up to 530K/420K IOPS
- **Flash Management**
 - Global Wear Leveling
 - Bad block management
 - S.M.A.R.T.
 - Power Failure Management
 - TRIM
- **NAND Flash Type: 3D NAND**
- **MTBF: 1,500,000 hours**
- **Endurance (in Terabytes Written: TBW)**
 - 256 GB: 170 TBW
 - 512 GB: 200 TB
 - 1 TB: 350 TB
 - 2 TB: 480 TB
- **Temperature Range**
 - Operating : 0°C to 70°C
 - Storage : -40°C to 85°C
- **Supply Voltage**
 - 3.3V ± 5%
- **Power Consumption¹**
 - Active mode (Max.): 4000 mW
 - Power State (Max.): 70 mW
- **Connector Type**
 - 75-pin M.2 module pinout
- **Form Factor**
 - M.2 2280
 - Dimensions (unit: mm):
 - Single-sided: 80.00 x 22.00 x 2.25_(max.)
 - Double-sided: 80.00 x 22.00 x 3.50_(max.)
 - Net weight: 6.8g± 5%
- **Shock & Vibration²**
 - Shock: 1,500 G
 - Vibration:
 - Frequency/Displacement: 20Hz~80Hz/1.52mm
 - Frequency/Acceleration: 80Hz~2000Hz/20G
- **RoHS Compliant**

Notes:

1. Varies from capacities. The values for performances and power consumptions presented are typical and may vary depending on flash configurations or platform settings.
2. Non-operating

Product Ordering Information

Capacity	Bulk P/N	Retail P/N
256GB	AP256GAS2280P4X	AP256GAS2280P4X-1
512GB	AP512GAS2280P4X	AP512GAS2280P4X-1
1TB	AP1TBAS2280P4X	AP1TBAS2280P4X-1
2TB	AP2TBAS2280P4X	AP2TBAS2280P4X-1

Revision History

Revision	Description	Date
1.0	Initial release	7/15/2022
1.1	Added 256GB support	10/18/2023

Global Presence

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