

RoHS Compliant PCI Express Flash Drive

AS2280Q4U Product Specifications



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Version 1.0

Apacer Technology Inc.

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Specifications Overview:

- **PCIe Interface**
 - Compliant with NVMe 1.4
 - Compatible with PCIe Gen4 x4 interface
- **Capacity**
 - 512GB, 1TB, 2TB
- **Performance***
 - Seq. Read / Write:
 - 512GB : Up to 7000 / 3000 MB/s
 - 1TB : Up to 7300 / 6000 MB/s
 - 2TB : Up to 7400 / 7000 MB/s
 - (4K) Random Read / Write
 - 512GB : Up to 450K / 300K IOPS
 - 1TB : Up to 750K / 1000K IOPS
 - 2TB : Up to 1000K / 1000K IOPS
- **Flash Management**
 - Bad Block Management
 - S.M.A.R.T.
 - Advanced Wear Leveling
 - TRIM
 - Over-Provision
- **TBW**
 - 512 GB: 350 TB
 - 1000 GB: 750 TB
 - 2000 GB: 1500 TB
- **Temperature Range**
 - Operating: 0°C to 70°C
 - Storage: -40°C to 85°C
- **Supply Voltage**
 - 3.3 V ± 5%
- **Power Consumption***
 - Active mode: 9.7 W (max.)
 - Power State: 70mW (max.)
- **Connector Type**
 - 75-pin M.2 module pinout
- **NAND Flash Type: 3D NAND**
- **MTBF: 1,600,000 hours**
- **Form Factor**
 - M.2 2280
 - Dimensions:
 - Single side : 80.00 x 22.00 x 2.25, unit: mm
 - Double side : 80.00 x 22.00 x 3.5, unit: mm
 - with heat sink : 80.00 x 22.9 x 10.8, unit: mm
 - Net Weight:
 - Single side : 7.6g
 - Double side : 10.2g
- **Shock & Vibration****
 - Shock: 1,500 G
 - Vibration:
 - Frequency/Displacement: 20Hz~80Hz/1.52mm
 - Frequency/Acceleration: 80Hz~2000Hz/20G
- **RoHS Compliant**

*Varies from capacities. The values for performances and power consumptions presented are typical and may vary depending on flash configurations or platform settings.

**Non-operating

1.1 Part Number Listin

Capacity	Retail P/N
512GB	AP512GAS2280Q4U-1
1TB	AP1TBAS2280Q4U-1
2TB	AP2TBAS2280Q4U-1

Revision History

Revision	Description	Date
1.0	Preliminary release	07/15/2022

Global Presence

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