

# RoHS Compliant PCI Express Flash Drive

## AS2280P4X Product Specifications



**Jul. 15, 2022**

**Version 1.0**

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## Specifications Overview:

- **PCIe Interface**
  - Compliant with NVMe 1.3
  - Compatible with PCIe Gen3 x4 interface
- **Capacity**
  - 512GB, 1TB, 2TB
  - **Performance\***
  - Seq. Read / Write:
    - 512GB : Up to 2100 / 1500 MB/s
    - 1TB : Up to 2100 / 1700 MB/s
    - 2TB : Up to 2100 / 1700 MB/s
  - (4K) Random Read / Write
    - 512GB : Up to 300K / 420K IOPS
    - 1TB : Up to 530K / 420K IOPS
    - 2TB : Up to 530K / 420K IOPS
- **Flash Management**
  - Global Wear Leveling
  - Bad block management
  - S.M.A.R.T.
  - Power Failure Management
  - TRIM
- **Endurance (in Terabytes Written: TBW)**
  - 512 GB: 200TB
  - 1TB: 350TB
  - 2TB: 480TB
- **Temperature Range**
  - Operating : 0°C to 70°C
  - Storage : -40°C to 85°C
- **Supply Voltage**
  - 3.3 V  $\pm$  5%
- **Power Consumption\***
  - Active mode: 4000 mW (max.)
  - Power State: 70mW (max.)
- **Connector Type**
  - 75-pin M.2 module pinout
- **NAND Flash Type: 3D NAND**
- **MTBF: 1,500,000 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
  - Net Weight: 6.80 g
- **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 Listing

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

## 1.2 Revision History

Revision	Description	Date
1.0	Preliminary release	7/15/2022