

RoHS Compliant
PCI Express Flash Drive
AS2280P4 Product Specifications



Mar. 25, 2021

Version 1.2

Apacer Technology Inc.

1F, No.32, Zhongcheng Rd., Tucheng Dist., New Taipei City, Taiwan, R.O.C

Tel: +886-2-2267-8000

Fax: +886-2-2267-2261

www.apacer.com

Specifications Overview:

- **PCIe Interface**
 - Compliant with NVMe 1.3
 - Compatible with PCIe Gen3 x4 interface
- **Capacity**
 - 240GB,480GB,256GB,512GB,1TB
 - **Performance***
 - Seq. Read / Write:
 - 240GB / 256GB : Up to 2100 / 1300 MB/s
 - 480GB / 512GB : Up to 2100 / 1500 MB/s
 - 1TB : Up to 3000 / 2000 MB/s
 - (4K) Random Read / Write
 - 240GB / 256GB: Up to 165K / 265K IOPS
 - 480GB / 512GB : Up to 300K / 420K IOPS
 - 1TB : 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)**
 - 240 / 256 GB: > 200TB
 - 480 / 512 GB: > 400TB
 - 1TB: > 800TB
- **Temperature Range**
 - Operating : 0°C to 70°C
 - Storage : -40°C to 85°C
- **Supply Voltage**
 - 3.3 V ± 5%
- **Power Consumption***
 - Active mode: 4000 mW (max.)
 - Power State: 70mW (max.)
- **Connector Type**
 - 75-pin M.2 module pinout
- **NAND Flash Type: 3D TLC**
- **MTBF: 1,500,000 hours**
- **Form Factor**
 - M.2 2280
 - Dimensions:
 - Single side: 80.00 x 22.00 x 2.38, 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
240GB	AP240GAS2280P4	AP240GAS2280P4-1
480GB	AP480GAS2280P4	AP480GAS2280P4-1
256GB	AP256GAS2280P4	AP256GAS2280P4-1
512GB	AP512GAS2280P4	AP512GAS2280P4-1
1TB	AP1TBAS2280P4	AP1TBAS2280P4-1

1.2 Revision History

Revision	Description	Date
1.0	Preliminary release	4/9/2019
1.1	Add 256GB,512GB,1TB	5/20/2020
1.2	Performance upgrade (240GB / 256GB)	3/25/2021