

Gaming PCIe Gen4 M.2 2280 SSD

AG2280Q4X Product Specifications



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 Gen4 x4 interface
- **Capacity**
 - 512 GB
 - 1, 2, 4 TB
- **Performance¹**
 - Sequential read: Up to 5,000 MB/sec
 - Sequential write: Up to 4,400 MB/sec
 - Random read (4K): Up to 750,000 IOPS
 - Random write (4K): Up to 750,000 IOPS
- **Flash Management**
 - LDPC ECC
 - Global Wear Leveling
 - Bad Block Management
 - Flash Translation Layer: Page Mapping
 - Power Failure Management
 - TRIM
 - S.M.A.R.T.
- **NAND Flash Type:** 3D NAND
- **MTBF:** 1,500,000 hours
- **Endurance**
 - 512GB: 300 TBW
 - 1TB: 600 TBW
 - 2TB: 1,200 TBW
 - 4TB: 1,200 TBW
- **Temperature Range**
 - Operating: 0°C to 70°C
 - Storage: -40°C to 85°C
- **Supply Voltage**
 - 3.3V ± 5%
- **Power Consumption¹**
 - Active mode (Max.): 5,400 mW
 - Idle mode: 850 mW
- **Connector Type**
 - 75-pin M.2 module pinout
- **Physical Characteristics**
 - 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 (unit: g ± 5%):
 - Single-sided: 7.6
 - Double-sided: 10.2
- **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 performance and power consumption presented are typical and may vary depending on flash configurations or platform settings.
2. Non-operating

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Performance

Capacity	512GB	1TB	2TB	4TB
Performance				
Sequential Read (MB/s)	4,500	5,000	5,000	5,000
Sequential Write (MB/s)	2,500	4,400	4,400	4,400
4K Random Read (IOPS)	150,000	750,000	750,000	750,000
4K Random Write (IOPS)	300,000	750,000	750,000	750,000

Product Ordering Information

Capacity	Bulk P/N
512GB	AP512GAG2280Q4X
1TB	AP1TBAG2280Q4X
2TB	AP2TBAG2280Q4X
4TB	AP4TBAG2280Q4X

Capacity	Retail P/N
512GB	AP512GAG2280Q4X-1
1TB	AP1TBAG2280Q4X-1
2TB	AP2TBAG2280Q4X-1
4TB	AP4TBAG2280Q4X-1

Revision History

Revision	Description	Date
1.0	Initial release	10/1/2026