

RoHS Compliant PCI Express Flash Drive

Consumer AS2280F4 Product Specifications



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Version 1.2

Apacer Technology Inc.

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Specifications Overview:

- **PCIe Interface**
 - Compliant with NVMe 2.0
 - Compatible with PCIe Gen5 x4 interface
- **Capacity**
 - 1, 2, 4 TB
- **Performance¹**
 - Sequential Read/Write
 - 1 TB: Up to 11,500/9,000 MB/sec
 - 2 TB: Up to 12,000/11,800 MB/sec
 - 4 TB: Up to 12,400/12,000 MB/s
 - 4K Random Read/Write
 - 1 TB: Up to 1,300K/1,400K IOPS
 - 2 TB: Up to 1,400K/1,400K IOPS
 - 4 TB: Up to 1,400K/1,400K IOPS
- **Flash Management**
 - Global Wear Leveling
 - Bad block management
 - S.M.A.R.T.
 - TRIM
 - Over-provisioning
 - SMART Read Refresh™
- **Reliability**
 - Thermal Throttling
 - End-to-End Data Protection
 - Heatsink Spreader
- **NAND Flash Type: 3D NAND**
- **MTBF: >1,600,000 hours**
- **Endurance (in Terabytes Written: TBW)**
 - 1 TB: 700 TBW
 - 2 TB: 1,400 TBW
 - 4 TB: 3,000 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.): 11.5 W
 - Power State 3 (Max.): 144 mW
- **Connector Type**
 - 75-pin M.2 module pinout
- **Physical Characteristics**
 - Form factor: Double-sided M.2 2280
 - Dimensions: 80.00 x 22.00 x 3.50, unit: mm
 - Net weight: 7.6g ± 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
1TB	AP1TBAS2280F4-1
2TB	AP2TBAS2280F4-1
4TB	AP4TBAS2280F4-1

Revision History

Revision	Description	Date
1.0	Initial release	8/14/2023
1.1	- Removed Power Failure Management support - Added over-provisioning, SMART read refresh, end-to-end data protection, and heatsink design support	9/28/2023
1.2	Added 4TB support	5/23/2024

Global Presence

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