



DuraFlash™

M1400 | PCIe NVMe | M.2 2280 SSD

SMART's DuraFlash M1400 PCIe NVMe M.2 2280 SSDs, compliant with PCIe Gen3 x2 and NVMe v1.3, are offered with Triple-Level Cell (TLC) 3D NAND and advanced LDPC error correction. These products address the need for enhanced reliability by incorporating on-board error detection and correction, and static and dynamic wear-leveling algorithms to provide reliable operation over the product life cycle. S.M.A.R.T. provides health information to determine the expected life of the SSD.

The M1400 PCIe NVMe M.2 2280 SSDs are designed specifically for embedded applications, and available in both commercial and industrial temperature ranges. They are easily integrated into a host system without special BIOS modifications or additional device drivers.



Features & Benefits

- PCIe Gen3 x2 NVMe 1.3 Compliant
- Advanced Flash Management
- Supports Power Saving Modes of APST, APSM, and L1.2
- Advanced Device Security Features with Standard NVMe Format

Applications

- Data Communications
- Industrial, Embedded Applications
- Networking
- Single-Board Computers

Product Family Overview

	Capacity	Sequential Performance
M1400 PCIe NVMe M.2 2280 SSD		
2280-S3-B-M TLC	120GB to 960GB	Up to 1600MB/s Read; Up to 1000MB/s Write

Specifications

M1400 PCIe NVMe M.2 2280 SSD	
NAND Type	TLC
Performance	
Host Interface Rate (maximum)	8.0 Gbps x2
Capacities	120GB to 960GB
Sequential Read (maximum)	1600MB/s
Sequential Write (maximum)	1000MB/s
Reliability	
Data Reliability	< 1 Non-Recoverable Error in 10 ¹⁶ bits read
Data Retention	10 years >90% life remaining 1 year at the end of life
Endurance (Client Workload)	960GB: 900 TBW 480GB: 450 TBW 240GB: 230 TBW 120GB: 115 TBW
Error Correction / Error Detection	LDPC (Equivalent to 120 bits/1KB)
Environmental	
Shock – Non-Operating	1500 g half-sine, 0.5 msec, 1 shock along each axis, X, Y, Z in each direction
Shock – Operating	50 g half sine, 11 msec, 3 shocks along each axis, X, Y, Z in each direction
Vibration – Operating	20G rms 80-2000Hz, 1.52mm 20-80Hz, 3 axis
Operating Temperature	Commercial: 0°C to +70°C Industrial: -40°C to +85°C
Storage Temperature	-40°C to +85°C
Humidity	10% to 90%, non-condensing, relative humidity
Physical	
Length	80.0 mm
Width	22.0 mm
Height	2.30 mm



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