

M.2 2280 PCIe SSD ASD+E1T Series

M.2 2280 PCIe SSD for Industrial
Embedded Applications



Features

- Advanced Flash Management including static and dynamic wear leveling, bad block management, TRIM, SMART, over-provision, and firmware update
- Low Power Management including DEVSLP mode (optional) and DIPM/HIPM mode
- TCG OPAL 2.0 with Physical Presence SID (PSID)
- Operating temperature range:
C-grade 0°C to 70°C
I-grade -40°C to 85°C
- MTBF of more than 1,500,000 hours
- Vibration and shock resistance
- RoHS compliant

Introduction

ADLINK's industrial M.2 2280 PCIe SSD Series delivers all the advantages of today's flash disk technologies with PCIe Gen4x4 interface, and is fully compliant with the standard M.2 2280 form factor. Capacities of 256GB to 2TB are available and read/write speeds of up to 4900MB/s and 3700MB/s respectively are supported.

Ordering Information

ASDEM8ELC-256GT0	M.2 2280 PCIe SSD ASD+E1T Series, BiCS5 3D TLC, 256GB, 0°C to 70°C
ASDEM8ELC-512GT0	M.2 2280 PCIe SSD ASD+E1T Series, BiCS5 3D TLC, 512GB, 0°C to 70°C
ASDEM8ELC-1TBT0	M.2 2280 PCIe SSD ASD+E1T Series, BiCS5 3D TLC, 1TB, 0°C to 70°C
ASDEM8ELC-2TBT0	M.2 2280 PCIe SSD ASD+E1T Series, BiCS5 3D TLC, 2TB, 0°C to 70°C
ASDEM8ELI-256GT0	M.2 2280 PCIe SSD ASD+E1T Series, BiCS5 3D TLC, 256GB, -40°C ~ 85°C
ASDEM8ELI-512GT0	M.2 2280 PCIe SSD ASD+E1T Series, BiCS5 3D TLC, 512GB, -40°C ~ 85°C
ASDEM8ELI-1TBT0	M.2 2280 PCIe SSD ASD+E1T Series, BiCS5 3D TLC, 1TB, -40°C ~ 85°C
ASDEM8ELI-2TBT0	M.2 2280 PCIe SSD ASD+E1T Series, BiCS5 3D TLC, 2TB, -40°C ~ 85°C

Specifications

Model		ASD+ E1T Series
Capacity ¹		256GB to 2TB
Form Factor		M.2 2280 M Key 80mm(L) x 22mm(W) x 2.15mm(H)
PCIe Interface		PCIe Gen4 x4 PCI Express Base 4.0 NVMe 1.4
Flash Type		BiCS5 3D TLC
Performance ⁴		Read: up to 4900 MB/s Write: up to 3700 MB/s Random 4K Read: > 700K IOPS Random 4K Write:> 900K IOPS
Power Consumption		Active mode: <=4500mW Idle mode: <=1500mW
MTBF		More than 1,500,000 hours
Advanced Flash Management		Advanced Wear Leveling Bad Block Management TRIM S.M.A.R.T Over Provision Firmware Update
Low Power Management		DEVSLP Mode (Optional) DIPM/HIPM Mode
Temperature Range ²	Operating ³	0°C to 70°C
	Storage	-40°C to 85°C
Environment		Vibration: 20Hz to 80Hz / 1.52mm 80Hz to 2000Hz / 20Gp-p Shock (operation/non-operating): 1500G @0.5ms
RoHS compliant		Yes

Notes:

1. Other capacities may be supported in the future.
- 2.As measured by SMART temperature. Active airflow is recommended within the system for maintaining proper device operating temperature on heavier workloads.
- 3.Actual operating temperature specification may vary by model.
- 4.Performance benchmarked by CrystalDiskMark.