

M.2 2280/2242 PCIe SSD ASD+E3T Series

M.2 2280/2242 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:
E-grade -25°C to 85°C
I-grade -40°C to 85°C
- MTBF of more than 2,000,000 hours
- Vibration and shock resistance
- RoHS compliant

Introduction

ADLINK's industrial M.2 2280/2242 PCIe SSD Series delivers all the advantages of today's flash disk technologies with PCIe Gen3 x4 interface, and is fully compliant with the standard M.2 2280/2242 form factor. Capacities of 128GB to 2TB are available and read/write speeds of up to 2450MB/s and 1900MB/s respectively are supported.

Ordering Information

ASDEM8EDE-128GT0	M.2 2280 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 128GB, -25°C ~ 85°C
ASDEM8EDE-256GT0	M.2 2280 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 256GB, -25°C ~ 85°C
ASDEM8EDE-512GT0	M.2 2280 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 512GB, -25°C ~ 85°C
ASDEM8EDE-1TBT0	M.2 2280 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 1TB, -25°C ~ 85°C
ASDEM8EDE-2TBT0	M.2 2280 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 2TB, -25°C ~ 85°C
ASDEM8EDI-128GT0	M.2 2280 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 128GB, -40°C ~ 85°C
ASDEM8EDI-256GT0	M.2 2280 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 256GB, -40°C ~ 85°C
ASDEM8EDI-512GT0	M.2 2280 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 512GB, -40°C ~ 85°C
ASDEM8EDI-1TBT0	M.2 2280 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 1TB, -40°C ~ 85°C
ASDEM8EDI-2TBT0	M.2 2280 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 2TB, -40°C ~ 85°C

Ordering Information

ASDEM4EDE-128GT0	M.2 2242 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 128GB, -25°C ~ 85°C
ASDEM4EDE-256GT0	M.2 2242 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 256GB, -25°C ~ 85°C
ASDEM4EDE-512GT0	M.2 2242 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 512GB, -25°C ~ 85°C
ASDEM4EDE-1TBT0	M.2 2242 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 1TB, -25°C ~ 85°C
ASDEM4EDE-2TBT0	M.2 2242 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 2TB, -25°C ~ 85°C
ASDEM4EDI-128GT0	M.2 2242 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 128GB, -40°C ~ 85°C
ASDEM4EDI-256GT0	M.2 2242 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 256GB, -40°C ~ 85°C
ASDEM4EDI-512GT0	M.2 2242 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 512GB, -40°C ~ 85°C
ASDEM4EDI-1TBT0	M.2 2242 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 1TB, -40°C ~ 85°C
ASDEM4EDI-2TBT0	M.2 2242 PCIe SSD ASD+E3T Series, BiCS5 3D TLC, 2TB, -40°C ~ 85°C

Specifications

Model		ASD+ E3T Series	
Capacity ¹		32GB to 512GB	128GB to 2TB
Form Factor		M.2 2280 M Key 80mm(L) x 22mm(W) x 3.8mm(H)	M.2 2280 M Key 80mm(L) x 22mm(W) x 3.8mm(H) M.2 2242 M Key 42mm(L) x 22mm(W) x 3.8mm(H)
PCIe Interface		PCIe Gen3 x4 PCI Express Base 3.1 NVMe 1.3d	
Flash Type		BiCS5 pSLC	BiCS5 3D TLC
Performance ⁴		Read: up to 2450 MB/s Write: up to 1900 MB/s Random 4K Read: > 270K IOPS Random 4K Write: > 420K IOPS	
Power Consumption		Active mode: <=4000mW Idle mode: <=1500mW	
MTBF		More than 2,000,000 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	-25°C to 85°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:

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