

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 ASPM and APST
- 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		ASPM and APST	
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:

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.