2.5” NVMe PCIeExpress High Capacity Up to 16000GB pSLC & MLC Flash Disk

Photon series
AS25-NVMe_HCF

Product Overview

The Photon series presents NVMe - PCIeExpress interfaces in a standard 2.5” Form Factor pSLC and MLC Flash Drive. Asine AS25-NVMe flash drive delivers performance and proven reliability for data and mission critical systems. Added benefits of flexibility are built into Asine’s AS25-NVMe storage systems, including easy field firmware upgrades and expandable storage capacity as flash disk capacities increase. The AS25-NVMe drives support OEM application specific features such as fast sanitize erase, high grade industrial certified metal & workmanship, and more. Product is compliant to RoHS.

Sustained performance test:

Vibration test reference:

Applications

- Industrial & Commercial PC / Tablet Systems
- JBOD, NAS, SAN, RAID
- Data warehouse
- Security, HLS-Home Land Security
- ATM, Gaming, Lottery
- Automotive, Navigation, Infotainment, ECU
- Point Of Sale- POS / Kiosk, Smart Terminals
- Medical
- Industrial & Airborne Systems
- Rugged Computer
- High-Speed Data Recording
- Video Surveillance, JPEG2000 Capture
- Factory Automation
Creating Tomorrow’s Memories

**Features**

- Highest quality MLC & pSLC Flash technology
- 2000GB to 16000GB at MLC and from 1000GB up to 8000GB at pSLC of non-volatile (per model) Flash memory in a 2.5” U.2 (SFF-8639) form factor
- Interface PCIe Gen2 5Gbps, up to x4 lanes.
- NVMe specification revision 1.1a compliant
- **Fast sanitize erase** for entire media (few seconds typical) capacity dependent
- Operating temperature – Commercial 0°C to +70°C and Industrial -40°C to +85°C
- Storage temperature -55°C to +95°C
- Humidity 5% to 95% relative, non-condensing
- Altitude – operating -1000 ft. to 70,000 ft.
- High data transfer rate: pSLC Sustained Read & Write up to 1200MB/Sec any capacity. MLC Sustained Read up to 1200MB/Sec for 2/4/8TB and Write 1000Mb/Sec Write for 2TB (capacity, technology & file system dependent).
- IOPS 4KB up to 90K random Read & 80K Write (overall capacity dependent)
- Reliability – MTBF 1,500,000 hours by JEDEC-218/219
  - Embedded EDC/ECC. Bad Block Mapping and Management
  - Built-in power-up self test and automatic self-diagnostics
  - Wear-Leveling Algorithm: Dynamic & Static wear leveling
- Power: 1.5W to 3W (2TB-8TB) on Idle. Operation 6-10W on (2TB-8TB)
- TBW - MLC - up to 1PB overall for 4TB SSD, up to 2PB for 8TB SSD
- TBW - pSLC - up to 5PB overall for 2TB SSD and 10PB for 4TB SSD
- No special drivers - uses compliant NVMe Windows, Linux, VxWorks® drivers
- SSD unit sustain environmental – Operating and non-operating: Shock (operating and non-operating) 1,000 G/0.5ms. Vibration - Operating : 16.3G GRMS (10-2000 Hz)

The AS25-NVMe_HCF is a top reliable high performance mass storage Solid-State Disk with no moving parts, ideal to meet the reliability requirements for high quality storage, data store, video and audio servers, as well as broadcasting systems and general computing. The AS25-NVMe_HCF drives are designed to withstand long life true full capacity, while operating without compromising data integrity.

**Dimensions:**
100.2 L X 70 W X H
H= 9.5 mm
Weight: 90 gr. typ.

**Ordering Example:**
AS25-NVMe-4000-ZM is a 2.5” SSD with 4000GB MLC Flash, NVMe / PCIexpress I/F, operating at -40°C to +85°C