The Photon series M.2 & 2.5” SSD device TLC SATA3 interface at small package Flash Disk. Asine flash drive delivers performance and proven reliability. Added benefits of flexibility are built into Asine’s storage systems and expandable storage capacity as flash disk capacities increase. The Photon series drives support also other specific features such as AES-256 bit hardware encryption, TCG OPAL, fast sanitize erase, high grade industrial certified metal & workmanship.

Applications

- Industrial & Commercial PC/Tablet Systems
- Gaming,
- Navigation, Infotainment,
- Smart Terminals
- Airborne Systems
- Rugged Computer
- Security, HLS-Home Land Security
- High-Speed Data Recording
- Video Surveillance, JPEG2000 Capture
- JBOD, NAS, SAN, RAID
Features

- Highest quality 3D TLC Flash technology
- 240GB to 2TB @ 2.5"; 16GB-500GB @ M.2-2242; 120-2000GB M.2-2280 and M.2 type D5-BM
- I/F SATA1/2/3, Protocol SATA 3.2
- Security: AES256; Secure Erase support; ATA8 security feature set (2.5"); User selectable ATA password support (M.2); Optional OPAL
- Operating temperature — Commercial 0°C to 70°C, Industrial -40°C to +85°C
- Storage temperature -40°C to +85°C
- Humidity 5% to 95% relative, non-condensing
- High data transfer rate: Sustained Read up to 560MB/S, Write up to 520MB/Sec. (capacity & file system dependent)
- Random 4KB block size —
  - 2.5" - Read: Up to 100K IOPS. Write: Up to 91 IOPS
  - M.2 - Read: Up to 80K IOPS. Write: Up to 81 IOPS
- Reliability - MTBF - 1,500,000 hours
  - Embedded EDC/ECC, support up to 64-bit BCH Algorithm for Error
  - Built-in power-up self test and automatic self-diagnostics
  - Wear-Leveling Algorithm: Dynamic & Static wear leveling
- Power: 0.1W on Idle. Operation max. 2.1W
- TBW by JESD218 standard with 4KB random write workload —
  o 2.5" / M.2-2280 2TB: up to 1360 TBW, Enterprise: 3560TBW or 5500 TBW
  o M.2-2242 up to 500 TBW for 500GB. Enterprise: 2750 TBW @ 500GB
- No special drivers - uses existing Windows, Linux, VxWorks®, and SATA drivers
- Heat dissipation balancing for demanding applications
- SSD unit sustain environmental
  - Shock (operating and non-operating) 1,500 G/0.5ms
  - Vibration - Operating: 2-500Hz, 3.1G
  - Non-operating: 3.1 Grms (5-800Hz)

M.2 Ordering Information:
P/N Structure: AS[C/Z]S8M24-{cccc}NAET2
P/N Description
ASZS8M24-0016NAET2 M.2-2242-DS-BM TLC 16GB SATA3 Industrial temp.
ASZS8M24-0032NAET2 M.2-2242-DS-BM TLC 32GB SATA3 Industrial temp.
ASZS8M24-0064NAET2 M.2-2242-DS-BM TLC 64GB SATA3 Industrial temp.
ASZS8M24-0120NAET2 M.2-2242-DS-BM TLC 120GB SATA3 Industrial temp.
ASZS8M24-0240NAET2 M.2-2242-DS-BM TLC 240GB SATA3 Industrial temp.
ASZS8M24-0500NAET2 M.2-2242-DS-BM TLC 500GB SATA3 Industrial temp.

Opttions for M.2-2242:
Conformal coated (-00F), Enterprise(high 3X endurance)

M.2 Ordering Information:
P/N Structure: AS[C/Z]S9M28-{cccc}NAET2
P/N Description
ASC9M28-0240NAET2 M.2-2280-DS-BM TLC 240GB SATA3 Commercial temp.
ASC9M28-0500NAET2 M.2-2280-DS-BM TLC 500GB SATA3 Commercial temp.
ASC9M28-0960NAET2 M.2-2280-DS-BM TLC 960GB SATA3 Commercial temp.
ASC9M28-1920NAET2 M.2-2280-DS-BM TLC 1920GB SATA3 Commercial temp.

Opttions for M.2-2280:
Operating Industrial temperature (C>Z)(240GB to 1920GB), OPAL(A>0), conformal coated (-00F)

2.5" Ordering Information:
P/N Structure: ASC9025-{cccc}NAET2
P/N Description
ASC9025-0240NAET2 2.5" TLC 240GB SATA3 Commercial temp.
ASC9025-0500NAET2 2.5" TLC 500GB SATA3 Commercial temp.
ASC9025-0960NAET2 2.5" TLC 960GB SATA3 Commercial temp.
ASC9025-1920NAET2 2.5" TLC 1920GB SATA3 Commercial temp.

Opttions for 2.5":
Operating Industrial temperature, OPAL(A>0), PLP(N>L) (Power Lost Protection), conformal coated (-00F), conduction cooling (-00D), Coated & conduction cooling (-0DF), Enterprise (high 3X endurance)