The Photon series presents both PATA and SATA interfaces in a standard 2.5” Form Factor SLC and MLC Flash Drive. Asine AS25 flash drive delivers performance and proven reliability for data and mission critical systems. Added benefits of flexibility are built into Asine’s AS25 storage systems, including easy field firmware upgrades and expandable storage capacity as flash disk capacities increase. The AS25 drives support OEM application specific features such as automotive temperatures, conformal coating per MIL and other standards, sanitize fast secure erase (DOD 5220.22-M, AFSSI 5020, NSA/CSS 130-2, NSA912, AR380-19, NAVSO P-5239-26, RCC-TG IRIG 106-07 and more), Avionic certified metal & workmanship, conduction cool so no need for air flow, optional configuration freeze, and more.

Product is compliant to JGPSSI-JIG, REACH, and RoHS

Applications

- Military & Airborne Systems
- Rugged Storage, Military Tactical Recorder
- High-Speed Flight Data Recording
- Cockpit Voice & Data Recording, MIL 1553 / Arinc Monitoring
- Video Surveillance, Video/JPEG2000 Capture
- Telecommunications
- Factory Automation
- Automotive
- Testing Instrumentation
- Mission-Critical Applications
- JBOD, NAS, SAN, RAID
- Data Acquisition Systems
**Features**

- High quality industrial grade SLC and MLC Flash technology
- 30GB to 500GB of non-volatile SLC or MLC (per model) Flash memory in a 2.5” case
- All modes to PIO4 & UDMA6 of SATA/PATA interface, ATAPI standard compliance, supports Multi-word DMA transfer
- **Conduction Cool** for Industrial and Extreme temperatures models
- **Fast secure erase** for entire media (10 min. typical) capacity dependent.
- Full supports all sanitize standards: DOD 5220.22-M, AFSSI 5020, NSA/CSS 130-2, NSA912, AR380-19, NAVSO P-5239-26, RCC-TG IRIG 106-07, and more
- Operating temperature – Commercial 0°C to +70°C, Industrial -40°C to +85°C, and Optional: Extreme up to -50°C and to +110°C case
- Storage temperature: -55°C to +95°C
- Humidity 5% to 95% relative, non-condensing
- Altitude (operating & non-operating): 0 to 80,000 feet
- Less than 20 μsec access time
- High data transfer rate: Up to 250 MB/Sec Burst R/W, 210/140 MB/Sec Sustained Read/Write (different models to support these speeds). Optional limit to interface speed
- IOPS 4KB random Read 17,000, 0.5KB random Write: 3,000 (overall capacity & flash technology dependent)
- Reliability - MTBF: 1,000,000 hours MIL-HDBK271F
  - Embedded EDC/ECC, based on 48-bit Reed Solomon Algorithm for Error Correction Code. Bad Block Mapping and Management
  - Built-in power-up self test, manual and automatic self-diagnostics
  - Wear-Leveling Algorithm: Dynamic wear-leveling
- 0.7 W – 2.4 W max. power dissipation (depending on capacity and temp.). 0.7W on Idle
- 3,000,000 Write/Erase cycles with SLC technology; Read unlimited
- No special drivers - uses existing Windows, Linux, VxWorks®, and SATA/PATA drivers
- Conduction cooled model for harsh and rugged applications
- Conformal coating 1B31 option. Optional – Space, Military, and Medical applications coating
- SSD unit per MIL-STD-810F
  - Shock - Half Sine, 50G peak, 11ms; Half Sine, 1500G (3 axes)
  - Vibration - 16.3G RMS (Random, 20Hz to 2000 Hz, 3 vibrations axes)

The AS25-SATA/PATA is a top reliable high performance mass storage Solid-State Disk with no moving parts, ideal to meet the reliability requirements for defense, aerospace, video and audio servers, as well as broadcasting systems and enterprise computing. The AS25 drives are designed to withstand extreme shocks, vibrations and harsh environmental conditions, while operating without compromising on data integrity.

**Phisical dimensions:**

For commercial and industrial models:

100.2 L X 70 W X 9.5 H mm

For certain high capacity models:

112.2 L X 70 W X 14.2 H mm

For Extreme (~60°C to 110°C):

100.2 L X 70 W X 15 mm Height

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**Ordering Information:**

- **P/N Structure:** AS25-{SATA/PATA}-{[cap]t[c]f[h][m]}  
- **Ordering Example:** AS25-SATA-500-ZDFM is an SSD Conduction Cool MLC 500GB, 2.5”, SATA2, operating at -40°C to 85°C with conformal coating.

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**Additional Options:**

- **Made in the USA (for F M F):**  
  - *MLC only
  - Net capacity could be depended by system

- **Offset /Buy-back transactions:**

- **Customization available:**

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The information contained in this document is subject to change without notice