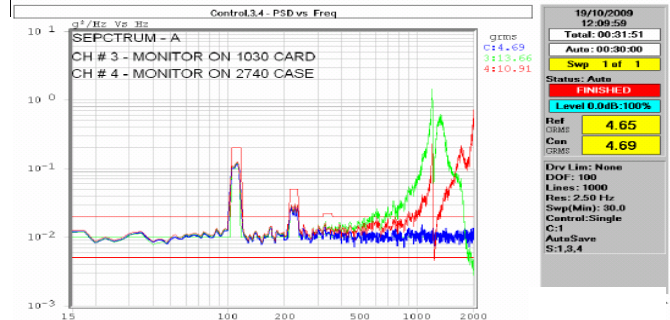


2.5" SATA / PATA SLC & MLC SSD
Flash Disk
Automotive up to -60°C and to +110°C

Photon series
AS25-SATA/PATA

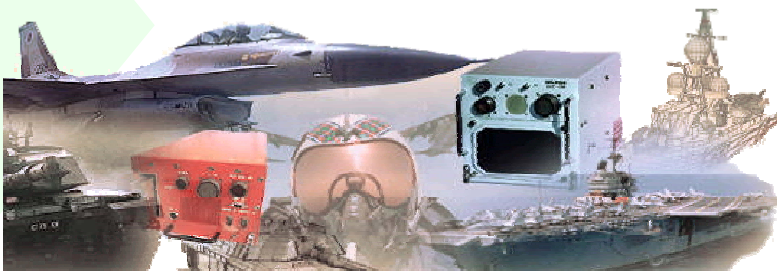
Product Overview

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.



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 SLC and MLC Flash technology
- 30GB to 500GB of non-volatile SLC or MLC (per model) Flash memory in a 2.5" case
- SATA1 & SATA2, PATA interfaces (per model)
- All modes to PIO4 & UDMA6 of SATA/PATA interface, ATA7 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 dependant.
- Operating temperature – Commercial 0°C to +70°C, Industrial -40°C to +85°C and **Optional: Extreme** up to -60°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) with limit to interface speed.
- IOPS 4KB random Read 17,000, 0.5KB random Write: 3,000 (overall capacity & flash technology dependant)
- Reliability - MTBF - 1,000,000 hours MIL-HDBK271F
 - Embedded EDC/ECC, based on 48-bit Reed Solomon Algorithm for Error Correction Code
 - Built-in power-up self test, Manual and automatic self-diagnostics
 - Bad Block Mapping and Management
 - Wear-Leveling Algorithm: Dynamic wear-leveling
- 0.7 W - 2 W max. power dissipation (depending on capacity). 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 ready 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 of the military and 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.

Physical dimensions:

For commercial and industrial:

100.2 L X 70 W X 9.5 mm (14mm@256GB) Height

For Extreme (-60°C to 110°C):

100.2 L X 70 W X 15 mm Height

Ordering Information: P/N Structure: AS25-[SATA/PATA]-[cap][t][c][f][h][m]

P/N Prefix	capacity	t	c	f	h	m
AS25-SATA SATA I/F	0030 30 GB	C 0°C to 70°C	D Conduction & Convection Cool	F Conformal Coating	W S/W Sanitize Erase	S SLC Flash
AS25-PATA PATA/IDE I/F	0060 60 GB	Z -40°C to 85°C**			H H/W & S/W Secure Erase**	M MLC Flash
	0120 120 GB	E -40°C to 70°C*				
<u>Additional Options:</u>	0240 240 GB	P -60°C to 110°C**				
• Made in the USA (for F M F)	0500 *500 GB				**SLC only	
• Made In India (For Offset)	*MLC only	*MLC only. No start at -40°C				
• Customization available	Net capacity could be depended by system	** SLC only				

Ordering Example:

AS25-SATA-0120-ZDFS is an SSD Conduction Cool SLC 120GB, 2.5", SATA2, operating at -40°C to 85°C with conformal coating.