

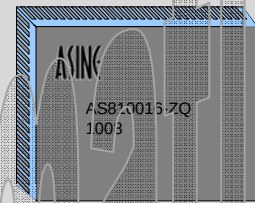
## nano PATA/SATA SLC Flash Disk SMT device

## Photon series Nano PATA/SATA

### Product Overview

The *Photon series* **nano SSD device** presents PATA/SATA interface SMT package **SLC/MLC** Flash Disk. Asine **nano** flash drive delivers high performance and proven reliability for data and mission critical systems. Added benefits of flexibility are built into Asine's storage products, including expandable storage capacity as flash capacities increase. The **nano** drives support OEM application specific features such as, fast **sanitize** erase per MIL **DOD 5220** & **AFSSI-5020** and other standards, Avionic certified material & workmanship, optional configuration freeze and more.

nano



### Applications

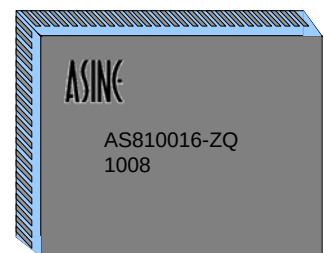
- System / board loader
- Removable Key / data storage
- Embedded F-W / Application
- BIOS / System boot
- Avionics and airborne systems
- Telecommunication Blade essential data
- Data acquisition systems
- Internet Servers
- Mission-critical applications
- Field instrumentation



## Features

- High quality SLC / MLC Flash technology
- 8GB to 60GB of non-volatile Flash memory at SMT / Edge package
- PATA or SATA interface
- All modes to PIO4 & UDMA6 of PATA/SATA interface, ATA7 standard compliance, supports Multi-word DMA transfer
- **Sanitize erase** – H/W signal at PATA device, Override power off/on cycle, Supports DOD 5220 & AFSSI-5020. Sanitize Time: 10 sec entire media (typical) capacity & standard dependant
- Operating temperature– Comercial & I-temp (-40°C to +85°C)
- 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 50 MB/Sec Write Burst & Sustained
- IOPS 4KB random Read 4,500, Sustain 8,000, 0.5KB random Write: 600 , Sustain 8,000 (capacity & technology dependant)
- Reliability - MTBF - 2,000,000 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 Managment
  - Wear-Leveling Algorithm: Dynamic wea- leveling
- 3,000,000 Write/Erase cycles with SLC technology; Read unlimited
- 0.7 W – 1.5 W max. power dissipation (depending on capacity). 0.4 W on Idle
- No special drivers - uses existing Windows, Linux, VxWorks® Integrity® SATA/PATA drivers
- Conduction cooled ready for harsh and rugged applications
- Device sustain 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 Asine **nano** is top reliable high performance storage Solid-State Disk with no moving parts, ideal to meet the reliability requirements of the military and aerospace, video and audio applications, as well as bootloader or Firmware / BIOS and embeeded high relaiability storage. The Asine **nano** component is designed to withstand extreme shocks, vibrations and harsh environmental conditions while operating without compromising on data integrity.



### Physical dimensions:

For commercial and industrial (TBD):  
30 L X 30 W X 6 mm Height

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