

## PCI Express Fast Flash Disk Module

## ASPCle670 *Photon series*

### Product Overview

The ASPCle670 Ultra speed PCIeexpress X4 Lane Fast Flash Disk Full length module plugs into a full length PCIe bus slot. Assembled with Asine *Photon series* four Solid State Disks (SSD's), the ASPCle670 shows performance of 250MB/Sec to 800MB/Sec burst and sustain R/W with up to 50,000 IOPS & can be accessed by PCIe-4X Lane bus. Available storage up to 8TB flash and RAID 0/1 capable in a single high PCIe format.

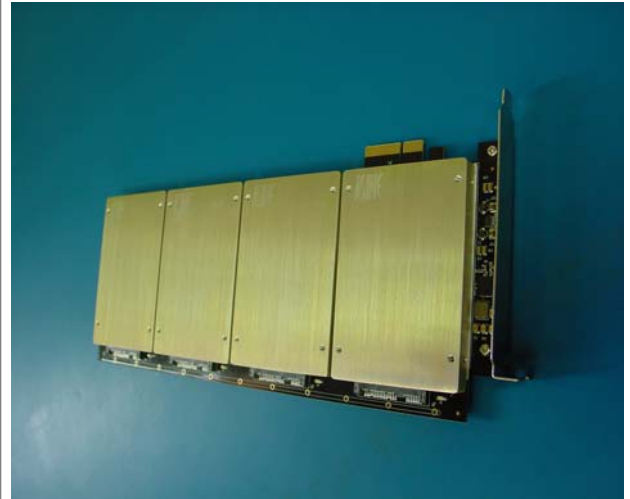
The ASPCle670 yield an added online Flash Disk storage, which is scanned and registered automatically by CPU BIOS.

Thus - No Connecting Cables or any harness are needed !

Supporting OEM specific application features such as conformal coating, conduction cool, write protect & secure erase (at specific models) and more. Supported by Windows, Linux and other.

Custom specific coating available for special environment like – medical, space, Military, Naval and more.

The ASPCle670 carries 1 year warranty and optional long term support.



### Applications

- Military & airborne systems
- Rugged Storage, Military recorder
- High-speed flight data recording
- Cockpit voice & data recording, MIL1553 / Arinc monitoring
- IT Storage
- Video Surveillance, Video/JPEG2000 capture
- Telecommunications
- Automotive
- Testing instrumentation
- Mission-critical applications
- JBOD, NAS, SAN, RAID
- Digital Recorders, Factory Automation



## Enabling *Photon series* Flash Disk Technology



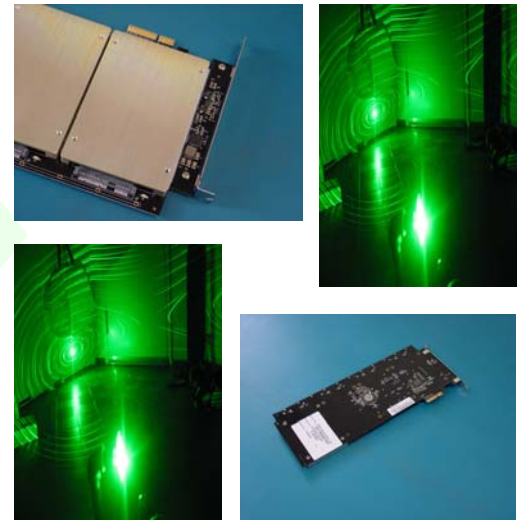
## Features

- 256GB to 4TB of non-volatile Flash Disk memory in a single PCIe 4X Lane slot
- RAID 0 & 1 support of the four SSD's
- Less than 40 µsec access time
- High data transfer rate – up to 800 MB/Sec Burst & Sustained R/W (configuration dependant)
- IOPS (4KB random): 50,000 (SSD dependant @ 4K blocks)
- Fast erase – sanitize erase of entire media per MIL/Defense Standards. Optional OEM H/W signal activation
- Reliability - MTBF > 600,000 hours (MIL-HDBK-217F, 87,600 hours mission)
- EDC/ECC On-the-fly H/W & S/W Embedded 48bit Reed Solomon algorithm
- Built-in power-up self test
- Manual and automatic self-diagnostics
- Dynamic wear leveling
- Max 18 W power dissipation (depending on capacity)
- 3,000,000 Write/Erase cycles at SLC flash; Read unlimited.
- Operating temperature – Commercial 0°C to +70°C. Optional Enhanced -40°C to +85°C (restrictions applies)
- Storage temperature -55°C to +95°C
- Humidity 5 to 95% relative, non-condensing
- Altitude (operating & non-operating) 0 to 80,000 feet
- SATA2 type internal interface (four SSD drives) with DMA6 & PIO 0-4
- O.S. Drivers - uses existing Windows, Linux. Optional VxWorks® and Integrity
- Long term product life cycle support
- Conformal coating (Humiseal 1B31 for MIL). Optional – compliant to Space and Medical applications
- unit MIL-STD 810F Compliant -
  - Shock - Half Sine, 50G, 11ms; Half Sine, 1500G, 0.5ms
  - Vibration - 16.3G RMS (Random, 20Hz to 2000 Hz, 3 vibrations axes)
- Some parameters are SSD technology dependant
- Warranty - 1 Year

## Photon series

ASPC1e670 takes advantage of the Asine *Photon series*

SLC/MLC top reliable high performance mass storage Solid State Disk. The board is designed to withstand extreme shocks, vibrations while operating without compromising data integrity, providing top disk performance and capacity.



ASPC16x0	-	Cap	For Capacity	-	t	c	f	m
7 PCIe		0240	240GB	C	0°C to 70°C	V Convection	F Conformal	S SLC Flash
		0500	500GB	Z	-40°C to 85°C	cool	Coating	M MLC Flash (0°C to 70° only)
		1000	1000GB		(SLC only)			
		2000	2000GB*					
		4000	4000GB*					

(CAP = Total board flash capacity)  
\*MLC only

### Ordering Example:

ASPC1e670-1000-CVFM is a PCIe 4X lane interface, 1 TB MLC Flash Disk capacity, convection cooled, operating at -0°C to 70°C conformal coated

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