

PCI Express Fast Flash Disk Module

ASPCIe676 *Photon series*

Product Overview

The ASPCIe676 Ultra High speed PCIexpress X1 Lane Fast Flash SSD module plugs into a single lane PCIe bus slot. Assembled with Asine *Photon series* Solid State Drive (SSD), the ASPCIe676 shows performance of up to 230MB/Sec to 220MB/Sec burst and sustain R/W with up to 15,000 IOPS & can be accessed by PCIe-X1 Lane bus. Available storage up to 500GB. Optional external extension would yield total of 1000GB flash and RAID 0/1 capable in a single high PCIe format.

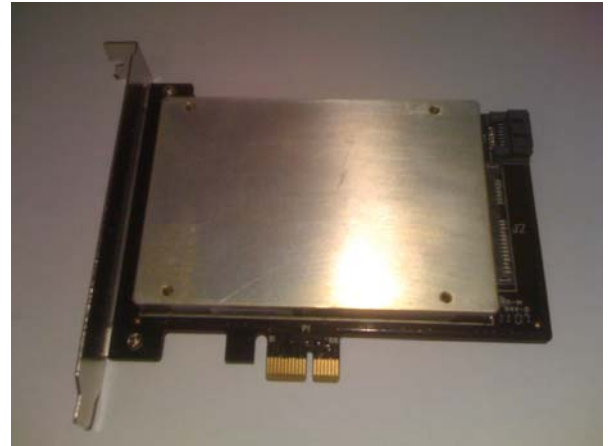
The ASPCIe676 yield an added online Flash Disk storage, which is scanned and registered automatically by CPU BIOS.

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 ASPCIe676 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



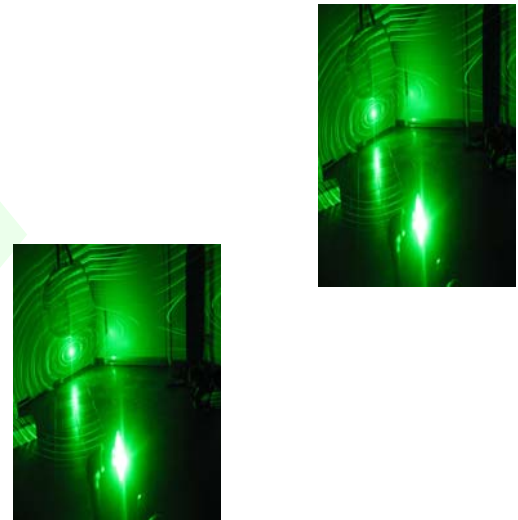
Features

- 32GB to 1000GB of non-volatile Flash Disk memory in a single PCIe 1X Lane slot
- RAID 0 & 1 support of the four SSD's
- Less than 40 µsec access time
- High data transfer rate – up to 230 MB/Sec Burst & Sustained R/W (configuration dependant)
- IOPS (4KB random): 15,000 (SSD dependant @ 4K blocks)
- Fast erase – sanitize erase of entire media per MIL/Defense Standards. Optional OEM H/W signal activation
- Reliability - MTBF > 900,000 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 5 W power dissipation (depending on capacity)
- 2,000,000 Write/Erase cycles at SLC flash; Read unlimited.
- Operating temperature – Commercial 0°C to +70°C. Optional Extended temperatures (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 with DMA6 & PIO 0-4
- O.S. Drivers - uses existing Windows, Linux.
- 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

ASPC1e676 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.



ASPC16x6	-	Cap	For Capacity	-	t	c	f	m
7 PCIe		0060	60GB	C	0°C to 70°C	V Convection cool	F Conformal Coating	S SLC Flash M MLC Flash (0°C to 70° only)
		0120	120GB					
		0240	*240GB					
		0500	*500GB					
		1000	**1000GB					

(CAP = Total board flash capacity)
*MLC only
**Added with external MLC SSD

Ordering Example:

ASPC1e676-0500-CVFM is a PCIe 1X lane interface, 500 GB 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