ASINE

Total OEM solution for Commercial to Rugged System & Embedded control

PMC
Fast Flash Disk Module

ASPMC660
Photon series

Product Overview

The ASPMC660 Ultra speed PCI Fast Flash Disk PMC modules plug into a single PMC slot and interfaces via PCI bus. Asine *Photon series* SLC Fast Flash Disk (FFD) performance of up to 100MB/Sec burst and sustain R/W can be accessed by PCI bus (PIO, DMA, Ultra DMA6) and available up to 128GB in a single high PMC format.
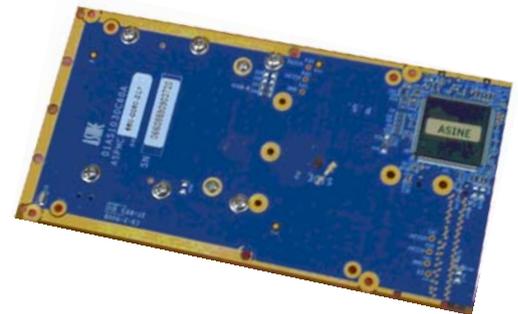
The ASPMC660 Ultra Fast Flash Disk interfaces by Jn1 & Jn2 to the PCI bus - yield an added online Flash Disk storage, which is scanned and registered automatically by CPU BIOS.

Thus - No Connecting Cables or any harness are needed !

Supporting OEM specific application features such as **conformal coating**, **conduction cool**, Integrity OS, write protect, **secure erase** (specific models) and more. Supported by Windows, Linux, VxWorks and other. Optional **configuration freeze** and **long term support**.

Custom specific **conformal coating** avaliable for special environment like – **medical, space, Military, Naval and more**.
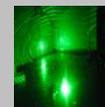
The ASPMC660 carries 1 year warranty and optional long term support.

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
- Digital Recorders
- Data acquisition systems
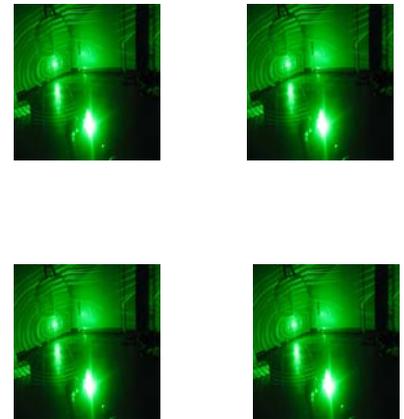
Enabling *Photon series*

Flash Disk Technology

ASPMC660 Features

- 16 GB to 128 GB Flash Disk in a single PMC slo at single high
- PCI interface
- High data transfer rate, up to: 100MB/Sec Burst R/W, 50MB/Sec Sustained Read/Write
- IOPS min.4KB random Read 17,000, 0.5KB random Write: 3,000 (overall capacity & flash technology dependant)
- Operating temperature: Commercial 0°C to +70°C, Industrail -40°C to +85°C
- Storage temperature -55°C to +95°C
- Less than 20 µsec access time
- Fast erase / Sanitize
- MTBF > 1,000,000 hours (capacity depended) MIL-HDBK271F
- EDC/ECC On-the-fly H/W & S/W based on BCH
- Dynamic wear leveling & Bad Block Management
- >3,000,000 Write/Erase cycles; Read unlimited
- Embedded EDC/ECC, based on 48-bit Reed Solomon Algorithm for ECC
- Bad Block Mapping and Managment
- Wear-Leveling Algorithm: Dynamic wear- leveling
- Built-in power-up self test, Manual and automatic self-diagnostics
- Power consumption typ/max 3W / 4.5W (for up to 128 GB capacity)
- Humidity 5 to 95% relative, non-condensing
- Altitude (operating & non-operating) +70,000 feet
- FFD unit MIL-STD 810F: Shocks - Half Sine, 1500G, 0.5ms, 40G @ 11msec. Vibrations - 16.3G RMS (Random, 20Hz to 2000 Hz, 3 vibrations axes)
- O.S. drivers - uses existing Windows, Linux and VxWorks® using Asine P/N AS660VXPPC1.0 and AS660VXPPC2.0
- Supported by Integrity™ OS, Linux/Linux-RT drivers
- Conduction cooled
- Conformal coating (Humiseal 1B31). Optional – compliant to Space, Military and Medical applications
- Warranty - 1 Year

Photon series

ASPMC660 takes advantage of the Asine *Photon series* SLC top reliable high performance mass storage Solid State Disk. The FFD is designed to withstand extreme shocks, vibrations while operating without compromising data integrity, providing top disk performance and capacity.

ASPMC6x0			−	cap		−	t		c		f	
	6	PCI		0160	16 GB		C	0°C to 70°C	C	Conduction Cool	F	Conformal Coating
				0300	30 GB		Z	−40°C to 85°C				
				0600	60 GB							
				1200	120 GB							

AS660VXPPC1.0	VxWorks® 5.x PIO0 – PIO4 driver & Project License
AS660VXPPC2.0	VxWorks® 5.x PIO0 – PIO4 & DMA0 to DMA 2, UDMA0 to UDMA5 driver & Project License

Ordering Example:
ASPMC660-0600-ZCF is a PMC Ultra Flash Disk module, with 60GB, PCI Interface, Conformal coated, Conduction cool, operating at −40°C to 85°C

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