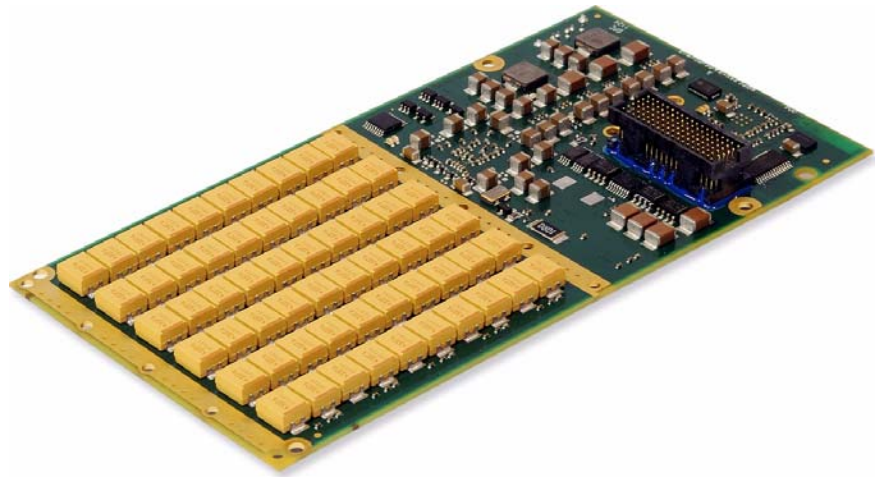




XMCF01

Add-on Solid State Memory Mezzanine Card

Features

- Up to 256 GB total capacity
- Air cooled (Levels 1-3) and Conduction Cooled (Levels 4-5) options
- Single-level Cell [SLC] Flash Technology
- High Performance
 - Sequential Read 180 MB/Sec @ 128 Kb blocks
 - Sequential Write 114 MB/Sec @ 128 kb blocks
- AES-128 Encryption
- Military Purge Algorithms
- Hardware Write Protection
- Wear Leveling
- PCIe x1
- Build in Test firmware

The XMCF01 is a rugged flash solution for integrating storage requirements into a single board computing system. An integrated flash module design implemented on a single XMC card, the XMCF01 provides high performance and high density storage capacity to any host card with an XMC site.

Using Single-Level Cell [SLC] Flash Technology modules, the XMCF01 offers up to 256 GB of storage capability, and its performance reaches up to 180 MB/Sec for sequential read and 114 MB/Sec for sequential write.

To achieve maximum benefit for the military and aerospace market, the XMCF01 is also equipped with security features such as 128-bit AES Encryption, military purge algorithms and hardware write protection capability.

Additionally, the reliability of the XMCF01 is further improved with features such as wear-leveling, which ensures erasures and re-writes are distributed evenly across the medium, and bad block management, which prevents accidental erasure of a device's bad block status.

Designed specifically for harsh environments, the XMCF01 is ideal for Mil/Aero applications where high reliability and survivability are a must. Available in five air- and conduction-cooled ruggedization levels, the XMCF01 offers a full-featured, high performance and high reliability storage add-on solution to a single board computing system

COTS software support includes OS support for Wind River's VxWorks, Windows and Open Linux.



XMCF01 Add-on Solid State Memory Mezzanine Card

Specifications

XMC Interface

- x1 PCIe

Disk Interface

- Serial ATA II (SATA 3 Gbit/s)

Technology

- SLC Solid State Flash modules

Capacity

- Up to 256 GB

Performance

- 114 MB/s write @ 128 kb blocks with encryption
- 180 MB/s read @ 128 kb blocks with encryption
- Access time: 0.3 ms

Security

- 8 Military Purge Algorithms (NSA/CSS 9-12 default)
- AES-128 bit encryption
- Hardware-enabled write protection

Power Consumption

- Less than 4W read/write with encryption

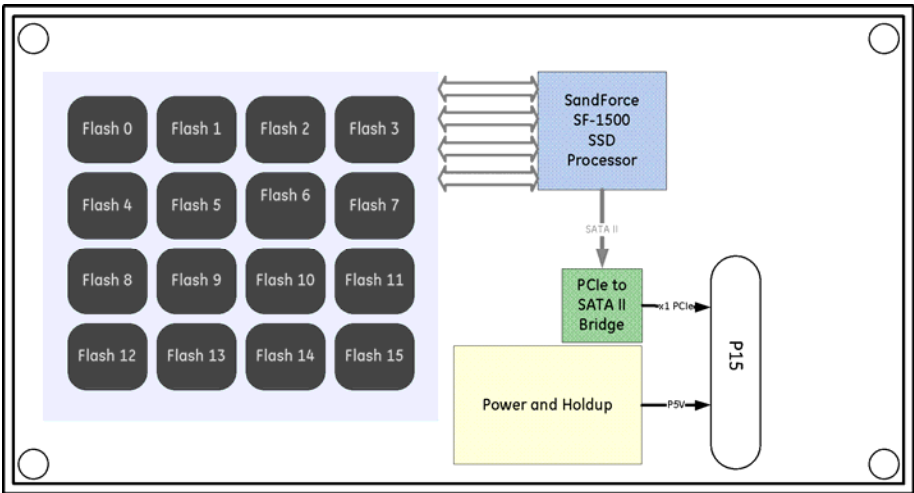
Operating Temperature

- -40° C to +85° C

Software

- COTS software support for WindRiver's VxWorks, Windows and Open Linux
- Built-in Test firmware

Block Diagram



Ordering Information

XMCF01 – ABCDE	
A	Build Level 1-5
BCD	Capacity in Gigabyte
	064 = 64 GB 256 = 256 GB
E	Flash Technology
S = Single-level Cells (SLC)	

Environmental

	Level 1	Level 2	Level 3	Level 4	Level 5
Cooling Method	Convection	Convection	Convection	Conduction	Conduction
Conformal Coating	Optional	Standard	Standard	Standard	Standard
High/Low Temp	0 to +55° C	-20 to +65° C	-40 to +75° C	-40 to +75° C	-40 to +85° C
Operational	(300 ft/m)	(300 ft/m)	(600 ft/m)	At cold wall	At cold wall
Random Vibration	0.002g ² /Hz*	0.002g ² /Hz*	0.04g ² /Hz**	0.1g ² /Hz**	0.1g ² /Hz**
Shock	20g***	20g***	20g***	40g***	40g***

* With a flat response to 1000 Hz, 6 dB/Oct roll-off from 1000 to 2000 Hz ** From 10 to 1000 Hz *** Peak sawtooth 11 ms duration

About GE Intelligent Platforms

GE Intelligent Platforms, a General Electric Company (NYSE: GE), is an experienced high-performance technology company and a global provider of hardware, software, services, and expertise in automation and embedded computing. We offer a unique foundation of agile, advanced and ultra-reliable technology that provides customers a sustainable advantage in the industries they serve, including energy, water, consumer packaged goods, government and defense, and telecommunications. GE Intelligent Platforms is a worldwide company headquartered in Charlottesville, VA and is part of GE Home and Business Solutions. For more information, visit defense.ge-ip.com.

GE Intelligent Platforms Contact Information

Americas: 1 800 433 2682 or 1 434 978 5100

Global regional phone numbers are listed by location on our web site at defense.ge-ip.com/contact.

defense.ge-ip.com

©2011 GE Intelligent Platforms. All Rights Reserved.
All other brands or names are property of their respective holders.
Specifications are subject to change without notice.

