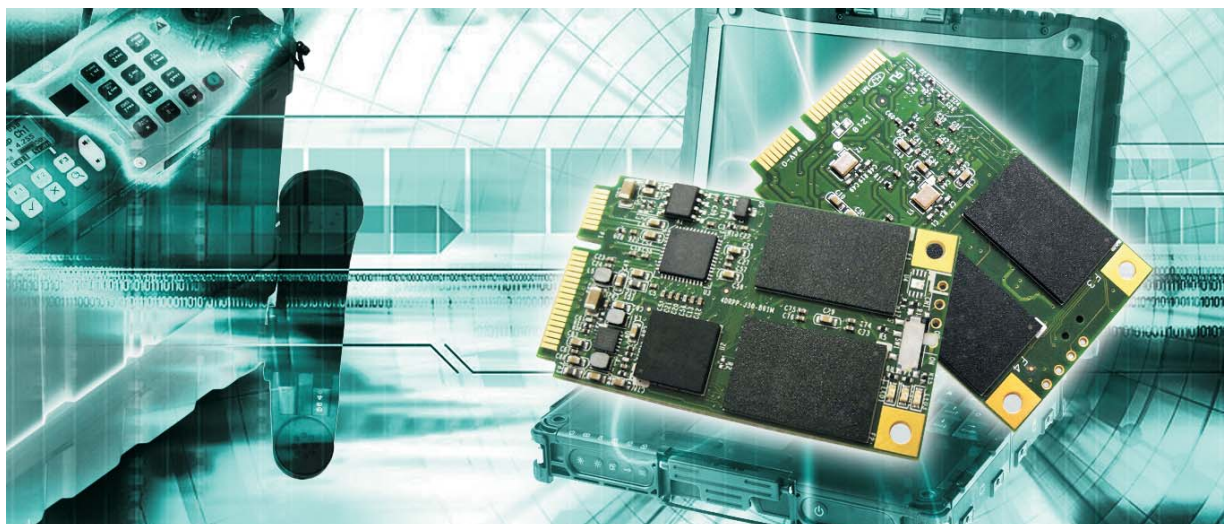


# HERMES-D Series

## Industrial mini PCI-e Flash (MPM) Module



**CF**  
Industrial  
CompactFlash  
Card

**CFast**  
Industrial  
CFast  
Card

**ATA**  
Industrial  
PCMCIA/ATA  
Card

**MIF**  
Industrial  
micro IDE Flash  
Module

**MSF**  
Industrial  
micro SATA Flash  
Module

**MUM**  
Industrial  
micro USB Flash  
Module

**MPM**  
Industrial  
mini PCI-e Flash  
Module

**MSM**  
Industrial  
mini SATA Flash  
Module

**SSD**  
Industrial  
Solid State  
Disk

**UED**  
Industrial  
Rugged Metal  
USB Flash Disk

**SD**  
Industrial  
SD & SDHC  
Memory Card

**AD**  
Industrial  
Adapter  
Card-Drive

### Product features

- ❖ SLC - NAND type flash technology
- ❖ Compliant with PCI Express Gen. 1
- ❖ Compact form factor for highly integrated system
- ❖ Supports standard ATA command
- ❖ Bootable for system installation
- ❖ Performance up to 140 MB/sec
- ❖ Capacity from 2GB up to 64GB

### Product specifications

#### Compatibility

- ❖ Compliant with PCI Express Gen. 1
- ❖ Compliant with ATA/ATAPI-7

#### Flash technology

- ❖ SLC-NAND type flash based

#### Host Interface

- ❖ mini PCI-e connector with pure 52 pins  
mini PCI-e pin out

#### Performance

- Data transfer mode ❖ PIO-4 / MWDMA-2 / UDMA-6 compatible
- Sequential read ❖ 140 MB/sec (Max. /4-channel)
- Sequential write ❖ 122 MB/sec (Max. /4-channel)

#### Environmental specification

- Operating temp. ❖ STD. 0°C ~ 70°C / IND. -40°C ~ +85°C
- Non-operating temp. ❖ STD. -20°C ~ +80°C / IND. -50°C ~ +95°C
- Humidity ❖ 10% ~ 95% non-condensing
- Vibration ❖ 15 G, compliance to MIL-STD-810G
- Shock ❖ 1500 G, compliance to MIL-STD-810G
- Altitude ❖ 70,000 feet

#### Power consumption

- Power requirement ❖ +3.3 V 5%
- Reading mode ❖ 226 mA (Max.)
- Writing mode ❖ 325 mA (Max.)
- Idle mode ❖ 128 mA (Max.)

#### Reliability

- Wear-leveling ❖ Static wear-leveling algorithms
- MTBF ❖ > 4,000,000 hours
- ECC ❖ 12 bits per 512 bytes block
- Endurance ❖ > 2,000,000 cycles
- Data retention ❖ 10 years

#### Physical specification

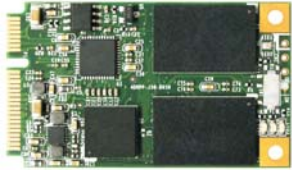
- Weight (max.) ❖ 8.0 g + 1 g / 0.3 oz.
- Dimension(W x L x H) ❖ 51.00 x 30.00 x 3.50 (mm)
- Conformal coating ❖ Option for special request

#### Warranty

- Standard grade ❖ 3 years
- Industrial grade ❖ 5 years

Operating temperature supports Standard grade 0°C ~ 70°C and Industrial grade -40°C ~ +85°C

Part number list - Industrial mini PCI-e flash module

Product picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C
	2GB	SBMPM002G-JDCSC	WBMPM002G-JDISI
	4GB	SBMPM004G-JDCSC	WBMPM004G-JDISI
	8GB	SBMPM008G-JDCSC	WBMPM008G-JDISI
	16GB	SBMPM016G-JDCSC	WBMPM016G-JDISI
	32GB	SBMPM032G-JDCSC	WBMPM032G-JDISI
	64GB	SBMPM064G-JDCSC	WBMPM064G-JDISI

Part number decoder



Example



X1 ➔

S : Standard grade operating temp. 0°C ~ 70°C  
 W : Industrial grade operating temp. -40°C ~ +85°C

X2 ➔ The material of frame kit

B : Bare (without casing)

X3 X4 X5 ➔ Product category

MPM : mini PCI-e flash module

X6 X7 X8 X9 ➔ Capacity

002G : 2GB      016G : 16GB  
 004G : 4GB      032G : 32GB  
 008G : 8GB      064G : 64GB

X11 ➔ Controller

J : JMicron (HERMES Series)

X12 ➔ Controller version

A,B,C.....D

X13 ➔ Controller grade

C : Commercial grade  
 I : Industrial grade

X14 ➔ Flash IC

S : Samsung SLC-NAND flash IC

X15 ➔ Flash IC grade

C : Commercial grade  
 I : Industrial grade

C ➔ Reserved for specific requirement

C : Conformal-coating

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