

# HERMES-D Series

## Industrial CFast Card (CompactFlash form-factor with SATA Interface)



### Product features

- RoHS compliant
- SLC-NAND flash technology
- Compliant CFast™ Specification V1.0
- CFast Type I form-factor
- 7 pins (data) + 17 pins (power) CFast interface
- Supports SATA I/II (1.5/3.0Gbps) interface
- Data transfer support UDMA-6 and backward compatible
- Supports BCH ECC 8 bits per 512 bytes
- Power supply support +3.3V ± 5%
- Capacity supports 2GB, 4GB, 8GB, 16GB and 32GB

### Product specifications

<b>Compatibility</b>	<ul style="list-style-type: none"> <li>CFA 4.1</li> <li>Serial ATA Revision 2.6</li> <li>ATA/ATAPI-7</li> </ul>	<b>Power consumption</b>	<ul style="list-style-type: none"> <li>Power requirement: +3.3V ± 5%</li> <li>Reading mode: 250 mA (Max.)</li> <li>Writing mode: 300 mA (Max.)</li> <li>Idle mode: 180 mA (Max.)</li> </ul>
<b>Form-factor</b>	<ul style="list-style-type: none"> <li>CFast Type I</li> </ul>	<b>Reliability</b>	<ul style="list-style-type: none"> <li>Wear-leveling: Static wear-leveling algorithms</li> <li>MTBF: &gt; 4,000,000 hours</li> <li>ECC: 8 bits per 512 bytes</li> <li>Endurance: Greater than 3,000,000 cycles</li> </ul>
<b>Host Interface</b>	<ul style="list-style-type: none"> <li>7 pins (data) + 17 pins (power) CFast connector</li> </ul>	<b>Physical specification</b>	<ul style="list-style-type: none"> <li>Weight (max.): 10.0 g ± 1 g / 0.35 oz.</li> <li>Dimension(W x L x H): 42.8 x 36.4 x 3.5 (mm)</li> </ul>
<b>Flash technology</b>	<ul style="list-style-type: none"> <li>SLC-NAND type flash memory</li> </ul>	<b>Conformal coating</b>	<ul style="list-style-type: none"> <li>Optional for special request</li> </ul>
<b>Transfer Mode support</b>	<ul style="list-style-type: none"> <li>SATA I/II (1.5/3.0Gbps)</li> </ul>	<b>Warranty</b>	<ul style="list-style-type: none"> <li>Standard grade: 3 years</li> <li>Industrial grade: 5 years</li> </ul>
<b>Performance</b>	<ul style="list-style-type: none"> <li>Sequential read: 134.0 MB/sec (Max.)</li> <li>Sequential write: 112.8 MB/sec (Max.)</li> <li>Random access time: 0.1 ms</li> </ul>		
<b>Environmental specification</b>	<ul style="list-style-type: none"> <li>Operating temp.: STD. 0°C ~ 70°C / IND. -40°C ~ +85°C</li> <li>Non-operating temp.: STD. -20°C ~ +80°C / IND. -50°C ~ +95°C</li> <li>Humidity: 10% ~ 95% non-condensing</li> <li>Vibration: 15G compliance to MIL-STD-810F</li> <li>Shock: 1,500G compliance to MIL-STD-810F</li> <li>Altitude: 70,000 feet</li> </ul>		

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

### Part number list - Industrial CFast card

Product picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C
	2GB	SPCFA002G-JDCSC	WPCFA002G-JDISI
	4GB	SPCFA004G-JDCSC	WPCFA004G-JDISI
	8GB	SPCFA008G-JDCSC	WPCFA008G-JDISI
	16GB	SPCFA016G-JDCMC	WPCFA016G-JDIMI
	32GB	SPCFA032G-JDCMC	WPCFA032G-JDIMI

### Part number decoder

X1 X2 X3 X4 X5 X6 X7 X8 X9 — X11 X12 X13 X14 X15 / C

### Example

S P C F A 0 1 6 G — J D C M C

**X1** ➤ Grade

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

**X12** ➤ Controller version

**A,B,C,....D**

**X2** ➤ The material of frame kit

**P** : Plastic frame kit

**X13** ➤ Controller grade

**C** : Commercial grade  
**I** : Industrial grade

**X3 X4 X5** ➤ Product category

**CFA** : CFast card

**X14** ➤ Flash IC

**S** : Samsung SLC-NAND flash IC  
**M** : Micron SLC-NAND flash IC

**X6 X7 X8 X9** ➤ Capacity

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

**X15** ➤ Flash IC grade

**C** : Commercial grade  
**I** : Industrial grade

**C** ➤ Reserved for specific requirement

**C** : Conformal-coating

**X11** ➤ Controller

**J** : JMicon (HERMES Series)

**CF**  
Industrial CompactFlash Card

**CFast**  
Industrial CFast Card

**ATA**  
Industrial PCMCIA ATA Card

**MIF**  
Industrial micro IDE Flash Module

**MSE**  
Industrial micro SATA Flash Module

**MUM**  
Industrial micro USB Module

**MPM**  
Industrial mini PCI-e Module

**SSD**  
Industrial Solid State Disk

**UED**  
Industrial Rugged Metal USB Flash Disk

**SD**  
Industrial SD & SDHC Memory Card

**AD**  
Industrial Adapter Card-Drive

**CF**  
Industrial CompactFlash Card

**CFast**  
Industrial CFast Card

**ATA**  
Industrial PCMCIA ATA Card

**MIF**  
Industrial micro IDE Flash Module

**MSE**  
Industrial micro SATA Flash Module

**MUM**  
Industrial micro USB Module

**MPM**  
Industrial mini PCI-e Module

**SSD**  
Industrial Solid State Disk

**UED**  
Industrial Rugged Metal USB Flash Disk

**SD**  
Industrial SD & SDHC Memory Card

**AD**  
Industrial Adapter Card-Drive