

# HERMES-D Series

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



### Product features

- SLC - NAND type flash technology
- Compliant CFast™ Specification V1.0
- CFast™ Type I form-factor
- 7 pins (data) + 17 pins (power) CFast™ interface
- SMART (Self-Monitoring, Analysis and Reporting Technology)
- Supports SATA I/II (1.5/3.0Gbps) interface
- Data transfer support UDMA-6 and backward compatible
- Capacity from 2GB up to 32GB
- Performance up to 134.0 MB/sec (max.)

### Product specifications

<b>Compatibility</b>	<ul style="list-style-type: none"> <li>CFast™ Specification V1.0</li> <li>SATA 1.0a and SATA 2.6</li> <li>Compatible with 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 270mA (Max.)</li> <li>Writing mode 370mA (Max.)</li> <li>Idle mode 180mA (Max.)</li> </ul>
<b>Flash technology</b>	<ul style="list-style-type: none"> <li>SLC-NAND type flash based</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>Endurance &gt; 3,000,000 cycles</li> <li>ECC 8 bits per 512 bytes block</li> <li>Data retention 10 Years</li> </ul>
<b>Form-factor</b>	<ul style="list-style-type: none"> <li>CFast™ Type I</li> </ul>	<b>Physical specification</b>	<ul style="list-style-type: none"> <li>Weight 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>Host Interface</b>	<ul style="list-style-type: none"> <li>7 pins (data) + 17 pins (power) CFast™ connector</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>Data transfer rate Serial ATA Gen-I and Gen-II (1.5Gb/s and 3.0Gb/s)</li> <li>Sequential read 134.0 MB/sec (Max.)</li> <li>Sequential write 117.9 MB/sec (Max.)</li> <li>Random access time 0.1ms (estimated)</li> </ul>		
<b>Environmental specification</b>	<ul style="list-style-type: none"> <li>Operating temp. STD. 0°C~70°C/W.T. -40°C~+85°C</li> <li>Non-operating temp. STD. -20°C~+80°C/W.T. -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(/C)	WPCFA002G-JDISI(/C)
	4GB	SPCFA004G-JDCSC(/C)	WPCFA004G-JDISI(/C)
	8GB	SPCFA008G-JDCSC(/C)	WPCFA008G-JDISI(/C)
	16GB	SPCFA016G-JDCMC(/C)	WPCFA016G-JDIMI(/C)
	32GB	SPCFA032G-JDCMC(/C)	WPCFA032G-JDIMI(/C)

### Part number decoder

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

#### Example

W P C F A 0 1 6 G — J D I M I / 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,....

**X2** The material of casing

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 flash IC

**X6 X7 X8 X9** Capacity

002G : 2GB 016G : 16GB

004G : 4GB 032G : 32GB

008G : 8GB

**X15** Flash IC grade

C : Commercial grade

I : Industrial grade

**X11** Controller

J : JMicon (HERMES Series)

**C** Reserved for specific requirement

C : Conformal-coating

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

UFD 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

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

UFD Industrial Rugged Metal USB Flash Disk

SD Industrial SD & SDHC Memory Card

AD Industrial Adapter Card-Drive