

HERMIT Series

Industrial (Rugged Metal) CompactFlash (CF) Card



Product features

- SLC - NAND type flash technology
- Compatible with CompactFlash® specification 3.0
- CompactFlash® Type I form-factor
- Optional for standard casing and rugged metal casing
- Compatible with ATA/ATAPI-6 standard
- Data transfer mode support PIO 0-4 and UDMA 0-4
- Performance up to 40 MB/sec
- Capacity from 16MB up to 32GB

Product specifications

Compatibility	<ul style="list-style-type: none"> ATAPI-6 and True IDE mode 	Power consumption	
Flash technology	<ul style="list-style-type: none"> SLC-NAND type flash based 	Power requirement	<ul style="list-style-type: none"> +5V ± 10% / +3.3V ± 5%
Form-factor	<ul style="list-style-type: none"> CompactFlash type I 	Reading mode	<ul style="list-style-type: none"> 124 mA (Max.)
Host Interface	<ul style="list-style-type: none"> Female 50 pins 	Writing mode	<ul style="list-style-type: none"> 121 mA (Max.)
Performance		Idle mode	<ul style="list-style-type: none"> 1.8 mA (Max.)
Data transfer mode	<ul style="list-style-type: none"> PIO-4 mode or UDMA-4 mode (def.) 	Reliability	
Data transfer rate	<ul style="list-style-type: none"> 66.6 MB/sec (ATA-5 / UDMA-4) 16.6 MB/sec (ATA-3 / PIO-4) 	Wear-leveling	<ul style="list-style-type: none"> Static wear-leveling algorithms
Sequential read	<ul style="list-style-type: none"> 40 MB/sec (Max. / 32GB) 	MTBF	<ul style="list-style-type: none"> > 3,000,000 hours
Sequential write	<ul style="list-style-type: none"> 27.8 MB/sec (Max. / 32GB) 	ECC	<ul style="list-style-type: none"> 4 bits per 512 bytes block
Average access time	<ul style="list-style-type: none"> 0.2 ms (estimated) 	Endurance	<ul style="list-style-type: none"> > 2,000,000 cycles
Environmental specification		Physical specification	
Operating temp.	<ul style="list-style-type: none"> STD. 0°C ~ 70°C / IND. -40°C ~ +85°C 	Weight (max.)	<ul style="list-style-type: none"> Standard casing 12.0 g / 0.42 oz. Metal casing 15.0 g / 0.53 oz.
Non-operating temp.	<ul style="list-style-type: none"> STD. -20°C ~ +80°C / IND. -50°C ~ +95°C 	Dimension(W x L x H)	<ul style="list-style-type: none"> 42.8 x 36.4 x 3.3 (mm)
Humidity	<ul style="list-style-type: none"> 10% ~ 95% non-condensing 	Conformal coating	<ul style="list-style-type: none"> Option for special request
Vibration	<ul style="list-style-type: none"> 15 G compliance to MIL-STD-810F 	Warranty	
Shock	<ul style="list-style-type: none"> 1,500 G compliance to MIL-STD-810F 	Standard grade	<ul style="list-style-type: none"> 3 years
Altitude	<ul style="list-style-type: none"> 70,000 feet 	Industrial grade	<ul style="list-style-type: none"> 5 years

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

Part number list - Industrial CF Card with standard plastic frame kit

Product picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C
	16MB	SPCFC016M-HACSCN-UF	WPCFC016M-HAISIN-UF
	32MB	SPCFC032M-HACSCN-UF	WPCFC032M-HAISIN-UF
	64MB	SPCFC064M-HACSCN-UF	WPCFC064M-HAISIN-UF
	128MB	SPCFC128M-HACSCN-UF	WPCFC128M-HAISIN-UF
	256MB	SPCFC256M-HACSCN-UF	WPCFC256M-HAISIN-UF
	512MB	SPCFC512M-HACSCN-UF	WPCFC512M-HAISIN-UF
	1GB	SPCFC001G-HACSCN-UF	WPCFC001G-HAISIN-UF
	2GB	SPCFC002G-HACSCN-UF	WPCFC002G-HAISIN-UF
	4GB	SPCFC004G-HACSCN-UF	WPCFC004G-HAISIN-UF
	8GB	SPCFC008G-HACSCN-UF	WPCFC008G-HAISIN-UF
	16GB	SPCFC016G-HACMC-UF	WPCFC016G-HAIMI-UF
	32GB	SPCFC032G-HACMC-UF	WPCFC032G-HAIMI-UF

Part number list - Industrial CF Card with rugged metal frame kit

Product picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C
	16MB	SRCFC016M-HACSCN-UF	WRCFC016M-HAISIN-UF
	32MB	SRCFC032M-HACSCN-UF	WRCFC032M-HAISIN-UF
	64MB	SRCFC064M-HACSCN-UF	WRCFC064M-HAISIN-UF
	128MB	SRCFC128M-HACSCN-UF	WRCFC128M-HAISIN-UF
	256MB	SRCFC256M-HACSCN-UF	WRCFC256M-HAISIN-UF
	512MB	SRCFC512M-HACSCN-UF	WRCFC512M-HAISIN-UF
	1GB	SRCFC001G-HACSCN-UF	WRCFC001G-HAISIN-UF
	2GB	SRCFC002G-HACSCN-UF	WRCFC002G-HAISIN-UF
	4GB	SRCFC004G-HACSCN-UF	WRCFC004G-HAISIN-UF
	8GB	SRCFC008G-HACSCN-UF	WRCFC008G-HAISIN-UF
	16GB	SRCFC016G-HACMC-UF	WRCFC016G-HAIMI-UF
	32GB	SRCFC032G-HACMC-UF	WRCFC032G-HAIMI-UF

Remarks: The optional data-transfer modes and disk types are -

- PF : optional as PIO-4 mode / Fixed disk type
- PR : optional as PIO-4 mode / Removable disk type
- PA : optional as PIO-4 mode / Fixed disk & removable disk type auto-detection
- UF : defaulted as UDMA-4 mode / Fixed disk type**
- UR : optional as UDMA-4 mode / Removable disk type
- UA : optional as UDMA-4 mode / Fixed disk & removable disk type auto-detection
- AF : optional as UDMA & PIO mode auto-detection / Fixed disk type
- AR : optional as UDMA & PIO mode auto-detection / Removable disk type
- AA : optional as UDMA & PIO mode auto-detection / Fixed disk & removable disk type auto-detection

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 Flash Module

MPM

Industrial mini PCIe 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

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 Flash Module

MPM

Industrial mini PCIe 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

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 Flash Module

MPM

Industrial mini PCIe 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

Part number decoder

X1 X2 X3 X4 X5 X6 X7 X8 X9 — X11 X12 X13 X14 X15 X16 — Z1 Z2 C

Example

S P C F C 0 3 2 M — H A C S C N — U F C

X1 ➤ **Grade**

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

X2 ➤ **The material of frame kit**

P : Plastic frame kit
R : Rugged metal frame kit

X3 X4 X5 ➤ **Product category**

CF : CompactFlash (CF) card

X6 X7 X8 X9 ➤ **Capacity**

016M : 16MB **001G** : 1GB
032M : 32MB **002G** : 2GB
064M : 64MB **004G** : 4GB
128M : 128MB **008G** : 8GB
256M : 256MB **016G** : 16GB
512M : 512MB **032G** : 32GB

X11 ➤ **Controller**

H : Hyperstone (HERMIT Series)

Z1 Z2 ➤ **Data transfer rate and disk types**

PF : optional as PIO-4 mode / Fixed disk type
PR : optional as PIO-4 mode / Removable disk type
PA: optional as PIO-4 mode / Fixed disk & removable disk type auto-detection
UF : defaulted as UDMA-4 mode / Fixed disk type
UR : optional as UDMA-4 mode / Removable disk type
UA : optional as UDMA-4 mode / Fixed disk & removable disk type auto-detection
AF : optional as UDMA & PIO mode auto-detection / Fixed disk type
AR : optional as UDMA & PIO mode auto-detection / Removable disk type
AA : optional as UDMA & PIO mode auto-detection / Fixed disk & removable disk type auto-detection

X12 ➤ **Controller version**

A,B,C.....

X13 ➤ **Controller grade**

C : Commercial grade
I : Industrial grade

X14 ➤ **Flash IC**

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

X15 ➤ **Flash IC grade**

C : Commercial grade
I : Industrial grade

X16 ➤ **New generation Flash IC**

N : Samsung New generation Flash IC

C ➤ **Reserved for specific requirement**

C : Conformal-coating