

HERMIT Series

Industrial CompactFlash (CF) Card supports Write Protect Function




Write-protect switch on CF frame kit



Operating temperature supports standard grade 0°C ~ 70°C and industrial grade -40°C ~ +85°C

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

Product picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C
	128MB	SPCFW128M-HACSC-UF	WPCFW128M-HAISI-UF
	256MB	SPCFW256M-HACSC-UF	WPCFW256M-HAISI-UF
	512MB	SPCFW512M-HACSC-UF	WPCFW512M-HAISI-UF
	1GB	SPCFW001G-HACSC-UF	WPCFW001G-HAISI-UF
	2GB	SPCFW002G-HACSC-UF	WPCFW002G-HAISI-UF
	4GB	SPCFW004G-HACSC-UF	WPCFW004G-HAISI-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

Product features

- SLC - NAND type flash technology
- Compatible with CompactFlash® specification 3.0
- CompactFlash® Type I form-factor
- Compatible with ATA/ATAPI-6 standard
- Support write protect function by switch
- Data transfer mode support PIO 0-4 and UDMA 0-4
- Performance up to 40 MB/sec
- Capacity from 128MB up to 4GB

Product specifications

Compatibility	ATAPI-6 and True IDE mode	Power consumption	Power requirement	+5V ± 10% / +3.3V ± 5%
Flash technology	SLC-NAND type flash based	Reading mode	124 mA (Max.)	
Form-factor	CompactFlash type I	Writing mode	121 mA (Max.)	
Host Interface	Female 50 pins	Idle mode	1.8 mA (Max.)	
Performance		Reliability		
Data transfer mode	PIO-4 mode or UDMA-4 mode (def.)	Wear-leveling	Static wear-leveling algorithms	
Data transfer rate	66.6 MB/sec (ATA-5 / UDMA-4) 16.6 MB/sec (ATA-3 / PIO-4)	MTBF	> 3,000,000 hours	
Sequential read	40 MB/sec (Max. /with dual flash)	ECC	4 bits per 512bytes block	
Sequential write	20 MB/sec (Max. /with dual flash)	Endurance	> 2,000,000 cycles	
Average access time	0.2 ms (estimated)	Physical specification		
Environmental specification		Weight (max.)	12.0 g / 0.42 oz.	
Operating temp.	STD. 0°C ~ 70°C / IND. -40°C ~ +85°C	Dimension(W x L x H)	42.8 x 36.4 x 3.3 (mm)	
Non-operating temp.	STD. -20°C ~ +80°C / IND. -50°C ~ +95°C	Conformal coating	Option for special request	
Humidity	10% ~ 95% non-condensing	Warranty		
Vibration	15G compliance to MIL-STD-810F	Standard grade	3 years	
Shock	1,500G compliance to MIL-STD-810F	Industrial grade	5 years	
Altitude	70,000 feet			

Write protect function

- Mechanism design
- By switch

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 Module

SSD

Industrial Solid State Disk

USB

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

SSD

Industrial Solid State Disk

USB

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 — Z1 Z2 / C

Example

S P C F W 5 1 2 M — H A C S C — 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

X3 X4 X5 ➤ **Product category**

CFW : CompactFlash (CF) card supports write protect

X6 X7 X8 X9 ➤ **Capacity**

128M : 128MB **001G** : 1GB
256M : 256MB **002G** : 2GB
512M : 512MB **004G** : 4GB

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

X11 ➤ **Controller**

H : Hyperstone (HERMIT Series)

X12 ➤ **Controller version**

A,B,C.....

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