

HERMIT Series

Industrial (Rugged Metal) PCMCIA ATA Card



Product features

- ❖ SLC - NAND type flash technology
- ❖ Compatible with PC card standard and PCMCIA V2.1
- ❖ PCMCIA Type II 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 40MB/sec
- ❖ Capacity from 128MB up to 16GB

Product specifications

Compatibility	❖ ATAPI-6 and True IDE mode	Power consumption	
Flash technology	❖ SLC-NAND type flash based	Power requirement	❖ +5V ± 10% / +3.3V ± 5%
Form-factor	❖ PCMCIA Type II form-factor	Reading mode	❖ 124 mA (Max.)
Host Interface	❖ Female 68 pins	Writing mode	❖ 121 mA (Max.)
Performance		Idle mode	❖ 1.8 mA (Max.)
Data transfer mode	❖ PIO-4 mode or UDMA-4 mode (def.)	Reliability	
Data transfer rate	❖ 66.6 MB/sec (ATA-5 / UDMA-4)	Wear-leveling	❖ Static wear-leveling algorithms
	❖ 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 512 bytes 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.)	❖ Standard casing 43.0 g / 1.52 oz.
Operating temp.	❖ STD. 0°C ~ 70°C / IND. -40°C ~ +85°C		❖ Metal casing 60.0 g / 2.12 oz.
Non-operating temp.	❖ STD. -20°C ~ +80°C / IND. -50°C ~ +95°C	Dimension(W x L x H)	❖ 85.6 x 54.0 x 5.0 (mm)
Humidity	❖ 10% ~ 95% non-condensing	Conformal coating	❖ Option for special request
Vibration	❖ 15G compliance to MIL-STD-810F	Warranty	
Shock	❖ 1,500G compliance to MIL-STD-810F	Standard grade	❖ 3 years
Altitude	❖ 70,000 feet	Industrial grade	❖ 5 years

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

Part number list - Industrial PCMCIA ATA card with standard plastic frame kit

Product picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C
	128MB	SPAFC128M-HACSC-UF	WPAFC128M-HAISI-UF
	256MB	SPAFC256M-HACSC-UF	WPAFC256M-HAISI-UF
	512MB	SPAFC512M-HACSC-UF	WPAFC512M-HAISI-UF
	1GB	SPAFC001G-HACSC-UF	WPAFC001G-HAISI-UF
	2GB	SPAFC002G-HACSC-UF	WPAFC002G-HAISI-UF
	4GB	SPAFC004G-HACSC-UF	WPAFC004G-HAISI-UF
	8GB	SPAFC008G-HACSC-UF	WPAFC008G-HAISI-UF
	16GB	SPAFC016G-HACSC-UF	WPAFC016G-HAISI-UF

Part number list - Industrial PCMCIA ATA card with rugged metal frame kit

Product picture	Capacity	0°C ~ 70°C	-40°C ~ +85°C
	128MB	SRAFC128M-HACSC-UF	WRAFC128M-HAISI-UF
	256MB	SRAFC256M-HACSC-UF	WRAFC256M-HAISI-UF
	512MB	SRAFC512M-HACSC-UF	WRAFC512M-HAISI-UF
	1GB	SRAFC001G-HACSC-UF	WRAFC001G-HAISI-UF
	2GB	SRAFC002G-HACSC-UF	WRAFC002G-HAISI-UF
	4GB	SRAFC004G-HACSC-UF	WRAFC004G-HAISI-UF
	8GB	SRAFC008G-HACSC-UF	WRAFC008G-HAISI-UF
	16GB	SRAFC016G-HACSC-UF	WRAFC016G-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

CF

Industrial CompactFlash Card

Part number decoder

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

CFast

Industrial CFast Card

Example

S P A F C 0 0 8 G — K A C S C — U F / C

ATA

Industrial PCMCIA ATA Card

X1 ▶ Grade

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

X11 ▶ Controller

H : Hyperstone (HERMIT Series)
K : KTC (CHARIOT Series)

MIF

Industrial micro IDE Flash Module

X2 ▶ The material of frame kit

P : Plastic frame kit
R : Rugged metal frame kit

X12 ▶ Controller version

A,B,C,....

MSE

Industrial micro SATA Flash Module

X3 X4 X5 ▶ Product category

AFC : PCMCIA ATA flash card

X13 ▶ Controller grade

C : Commercial grade
I : Industrial grade

MUM

Industrial micro USB Module

X6 X7 X8 X9 ▶ Capacity

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

X14 ▶ Flash IC

S : Samsung SLC-NAND Flash IC

MPM

Industrial mini PCI-e Module

X15 ▶ Flash IC grade

C : Commercial grade
I : Industrial grade

SSD

Industrial Solid State Disk

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

C ▶

C : Conformal-coating

UED

Industrial Rugged Metal USB Flash Disk

SD

Industrial SD & SDHC Memory Card

AD

Industrial Adapter Card-Drive