

HERCULES-N Series

SLC Industrial CompactFlash (CF) Card Rugged Metal Frame



Product features

- SLC - NAND type flash technology
- Compatible with CompactFlash® specification 6.0
- CompactFlash® Type I form-factor
- Compatible with ATA/ATAPI-8 standard
- S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology)
- Data transfer mode support PIO 0-6, MWDMA 0-4, UDMA 0-7
- Supports PC Card Memory mode or True IDE mode
- Performance up to: Read 116 MB/sec ; Write 96 MB/sec
- Capacities from 2GB up to 64GB

Product specifications

Compatibility	CompactFlash® specification 6.0	Power consumption	Power requirement	+5V 10% / +3.3V 5%
	Compatible with ATA/ATAPI-8		Reading mode	210 mA (Max.)
Flash technology	SLC-NAND type flash based		Writing mode	210 mA(Max.)
Performance			Idle mode	6.6 mA (Max.)
Data transfer rate	PIO 0-6, MWDMA 0-4, UDMA 0-7	Reliability	Wear-leveling	Global wear-leveling algorithms
Sequential read	116 MB/sec (dual CH. Max.)		MTBF	> 3,000,000 hours
Sequential write	96 MB/sec (dual CH. Max.)		Endurance	> 2,000,000 cycles
Random access time	0.3ms (estimated)		ECC	72 bits per 1024 bytes block
Environmental specification		Physical specification		
Operating temp.	STD. 0°C~70°C/IND. -40°C~+85°C	Weight (max.)	Plastic frame: 12.0 g / 0.42 oz.	
Non-operating temp.	STD. -20°C~+80°C/IND. -50°C~+95°C		Metal frame: 15.0 g / 0.53 oz.	
Humidity	10% ~ 95% non-condensing	Dimension(W x L x H)	42.8 x 36.4 x 3.3 (mm)	
Vibration	15G compliance to MIL-STD-810F	Conformal coating	Option for special request	
Shock	1,500G compliance to MIL-STD-810F	Warranty		
Altitude	70,000 feet	Standard grade	3 years	
		Industrial grade	5 years	

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

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

Product Picture	Capacity	0° C ~ 70° C	-40° C ~ +85° C
	2GB	SPFC002G-MNCSC-UF(/C)	WPCFC002G-MNISH-UF(/C)
	4GB	SPFC004G-MNCSC-UF(/C)	WPCFC004G-MNISH-UF(/C)
	8GB	SPFC008G-MNCSC-UF(/C)	WPCFC008G-MNISH-UF(/C)
	16GB	SPFC016G-MNCTC-UF(/C)	WPCFC016G-MNITH-UF(/C)
	32GB	SPFC032G-MNCTC-UF(/C)	WPCFC032G-MNITH-UF(/C)
	64GB	SPFC064G-MNCTC-UF(/C)	WPCFC032G-MNITH-UF(/C)

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

Product Picture	Capacity	0° C ~ 70° C	-40° C ~ +85° C
	2GB	SRCFC002G-MNCSC-UF(/C)	WRCFC002G-MNISH-UF(/C)
	4GB	SRCFC004G-MNCSC-UF(/C)	WRCFC004G-MNISH-UF(/C)
	8GB	SRCFC008G-MNCSC-UF(/C)	WRCFC008G-MNISH-UF(/C)
	16GB	SRCFC016G-MNCTC-UF(/C)	WRCFC016G-MNITH-UF(/C)
	32GB	SRCFC032G-MNCTC-UF(/C)	WRCFC032G-MNITH-UF(/C)
	64GB	SRCFC064G-MNCTC-UF(/C)	WRCFC064G-MNITH-UF(/C)

Part number decoder

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

Example

W P C F C 0 3 2 G — M N I M I — 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 casing

P : Plastic frame

R : Rugged metal frame

X3 X4 X5 Product category

CFC : CompactFlash (CF) card

X6 X7 X8 X9 Capacity

002G : 2GB 004G : 4GB 008G : 8GB

016G : 16GB 032G : 32GB 064G : 64GB

X11 Controller

M : SMI (HERCULES Series)

X12 Controller version

A, B, C,

X13 Controller grade

C : Commercial grade

X14 Flash IC

S : Samsung SLC-NAND flash IC

T : Toshiba SLC-NAND flash IC

X15 Flash IC grade

C : Commercial grade

I : Industrial grade

Z1 Z2 Data transfer rate and disk types

PF: optional as PIO-6 mode / Fixed disk type

PR: optional as PIO-6 mode / Removable disk type

UF: defaulted as UDMA-7 mode / Fixed disk type

UR: optional as UDMA-7 mode / Removable disk type

AA: optional as UDMA & PIO mode auto-detection /

Fixed disk & removable disk type auto-detection

C Reserved for specific requirement

C : Conformal-coating

CFC Industrial CompactFlash Card

CFA Industrial CFast Card

AFC 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

SDC/H Industrial 5V & 3.3V Memory Card

AD Industrial Adapter Card-Drive