

EDC / iCF 8000 Series



iCF 8000/EDC 8000 series are the best-in-class 4-channel embedded solid-state data storage systems, offering high sustained read and write speed up to 80 MB/sec and 75 MB/sec with fully support of PIO 0-4/Multiword DMA 0-2/Ultra DMA 0-6 modes.

- The iCF/EDC 8000 brings the best performance among existing products in the market.
- While in a small form factor, EDC 8000 can achieve the best performance and capacity of 16GB.

• Multi-Function Switch

EDC 8000 offers an ideal customization alternative solution. Customers can choose either one of the following functions using the Multi-function Switch:

- IDE Master/Slave select
- Write Protect on/off

• Static Wear-Leveling

The innovative "Static Wear-Leveling" technology treats all NAND components as one memory unit and evens the erase count of all blocks. This implement enables iCF/EDC 8000 lifespan to be maximized by enhancing the performance with limited memory.

EDC 8000 Specifications

Item	EDC 8000-Vertical Type
Capacity	2GB~16GB
IDE Transfer Mode	PIO Mode 0-4 MwDMA Mode 0-2 UltraDMA Mode 0-6
Interface	44pin or 40pin IDE/ATA
Data Transfer Rate	Read-80MB/sec. (max.) Write-75MB/sec. (max.)
Operation Temp.	0°C~+70°C (Standard) -40°C~+85°C (Industrial)
Storage Temp.	-55°C~+95°C
Vibration (Operation)	5G (7~2000Hz)
Shock	50G/10ms
DC Input Voltage	+3.3V/+5V single power supply operation
Power Consumption	210mA (max.)
Dimension	40 pin: 27.2 x 57.8 x 9.1mm (W x L x H) 44 pin: 27.2 x 50.2 x 7.5mm (W x L x H)



EDC 8000 40pin-Standard



iCF 8000-Standard

• Bad Block Management & Error-Correction Code

The Bad Block Management and Error-Correction Code 8bit per 512Byte support ensure the data will be read correctly and thereby improve the data reliability for industrial usage.

• Enhanced Power Cycling

Power safe protection functions are implemented to prevent data loss or damage during unexpected device power surge, power drop, and power off.



iCF 8000 Specifications

Item	iCF 8000
Capacity	2GB~16GB
IDE Transfer Mode	PIO Mode 0-4 MwDMA Mode 0-2 UltraDMA Mode 0-6
Interface	50pin Compact Flash
Data Transfer Rate	Read-80MB/sec. (max.) Write-75MB/sec. (max.)
Operation Temp.	0°C~+70°C (Standard) -40°C~+85°C (Industrial)
Storage Temp.	-55°C~+95°C
Vibration (Operation)	20G (7~2000Hz)
Shock	1500G/0.5ms
DC Input Voltage	+3.3V/+5V single power supply operation
Power Consumption	210mA (max.)
Dimension	36.4 x 42.8 x 3.3 mm (W x L x H)



EDC / iCF 4000 Series

EDC/iCF 4000 Series supports PIO/MwDMA/UltraDMA modes with IDE/ATA interface and enhances the data transfer rate up to the performance of Read/Write: 40MB/20MB per second, which speeds up the booting process and upgrades the working environment efficiently.

• Static Wear-Leveling :

The Static Wear-Leveling algorithm evenly distributes the data over the entire disk and greatly enables to extend product lifespan.

The Static Wear-leveling could prolong the programmed endurance of flash chips, comparing with dynamic wear leveling.

• Power Cycling :

A strong Power Cycling management enhances data integrity and reliability. iCF/EDC 4000 series passes complete and continuous power cycling tests more than 3000 times to achieve the high standard requirement.

Target Device	iCF4000 1GB
OS	Embedded Windows XP
Mother Board	ASUS A7N8X
Power Cycling Test	3000 Times
Test Result	Pass



EDC 4000 40pin-Standard



EDC 4000 40pin-Industrial



EDC 4000 44pin-Standard



EDC 4000 44pin-Industrial



EDC 4000 Horizontal Series



iCF 4000-Standard



iCF 4000-Industrial

EDC 4000 Specifications

Item	EDC 4000 / EDC 4000 Horizontal
Capacity	128MB~8GB(Horizontal Type up to 16GB)
IDE Transfer Mode	PIO Mode 0-4 MwDMA Mode 0-2 UltraDMA Mode 0-4
Interface	44pin or 40pin IDE/ATA
Data Transfer Rate	128MB~2GB (Single): Read-20MB/sec. (max.) Write-10MB/sec. (max.) 1GB~16GB (Dual): Read-40MB/sec. (max.) Write-20MB/sec. (max.)
Operation Temp.	0C~+70C (Standard) -40C~+85C (Industrial)
Storage Temp.	-55C~+95C
Vibration(Operation)	5G (7~2000Hz)
Shock	50G/10ms
DC input voltage	+3.3V/+5V single power supply operation
Power consumption	150mA (max.)
Dimension	40 pin: 27.8 x 60.2 x 6.4mm (W x L x H) 44 pin: 27.3 x 50.3 x 5.8mm (W x L x H)

iCF 4000 Specifications

Item	iCF 4000
Capacity	128MB~16GB
IDE Transfer Mode	PIO Mode 0-6 MwDMA Mode 0-4 UltraDMA Mode 0-4 *Comply with CF 3.0 Standard
Interface	50pin Compact Flash
Data Transfer Rate	128MB~2GB (Single): Read-20MB/sec. (max.) Write-10MB/sec. (max.) 1GB~16GB (Dual): Read-40MB/sec. (max.) Write-20MB/sec. (max.)
Operation Temp.	0°C~+70°C (Standard) -40°C~+85°C (Industrial)
Storage Temp.	-55°C~+95°C
Vibration(Operation)	20G(7~2000Hz)
Shock	1500G/0.5ms
DC input voltage	+3.3V/+5V single power supply operation
Power consumption	150mA(max.)
Dimension	36.4 x 42.8 x 3.3 mm(W x L x H)

SMART Function Write-Protect Function



Support item: iCF 4000 Series/EDC 4000 Series



iSMART EDC 4000 40/44 pin
Vertical Type



iSMART CF 4000

SMART Function

The iSMART function (Self Monitor Analysis Report Technology) is a monitoring system for flash storage device to detect and report on various indicators of reliability, in the hope of anticipating failures. InnoDisk Corp. implements iSMART function to report the status of Flash in order to realize the life time of flash and make precaution before failing :

- Initial Free Block
- Total Erase Count
- UDMA CRC Error Count
- Correctable ECC Count
- Current Free Block
- Writing Life
- ECC Error Count
- Read Data Count

iSMART Software Information

ID	Item Name	Item Value	Status
0	Initial Free Block Count	14	
1	Current Free Block Count	14	
2	Total Erase Count	0	
3	Writing Life	100%	
4	UDMA CRC Error Count	0	
5	ECC Error Count	0	
6	Correctable ECC Count	0	
7	Read Data Count	12382	

Support item: iCF 4000 Series (128MB~4GB)
iCF 8000 Series (2GB~16GB)



iCF 4000 Write-Protect Function

Write-Protect Function

InnoDisk CF card within the write-protect function prevents modification and deletion. When write-protect mode is on, CF card could only be read, that is, users could not write, edit, append data, or delete. Only while the system power-off, users could switch on write-protection.



Switch
Write-Protect