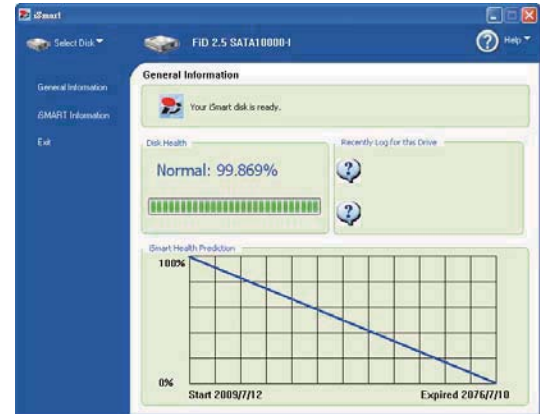


# SMART

InnoDisk iSMART software is based on the concept of Self Monitor Analysis Report Technology (SMART) that is for monitoring storage device. iSMART is a monitoring software for InnoDisk flash storage device to detect and report on critical attributes that are relevant to storage lifespan and reliability, in the hope of anticipating failures. iSMART is designed with user-friendly interface to report the status of flash in the storage device, and thus you can realize the SMART data and information of device and take precautions against failure.

Accordingly you can get the storage general information shown as disk health and health prediction. "Disk Health" is revealed the current lifespan left of the flash storage in percentage. "Health Prediction" is demonstrated the expected expired date of the flash storage which is calculated based on the usage history.



InnoDisk iSMART supports InnoDisk products, including SATA Module: SATADOM i-Series, mSATA, SATA Slim, CFast 100, SATA SSD and also iCF/EDC series.



SSD Series



SATA DOM Module Series



## Mainstream Flash Storage Interface- SATA

SATA flash storage has kept booming up during since 2008, even though ATA/IDE flash storage market share is still dominant for industrial/embedded applications. Compared with ATA/IDE, SATA interface delivers much faster data transfer rate according to the bandwidth of SATA which is up to 300MB/sec. (SATA 3.0Gbit/s) and even 600MB/sec. (SATA 6.0Gbit/s). Besides, SATA supports hot plugging and it brings more convenient and reliability.

	ATA	SATA		
Interface	Integrated Drive Electronics	Serial ATA (Advanced Technology)		
		SATA I	SATA II	SATA III
Speed	Up to 133MB/sec.	Up to 150MB/sec.	Up to 300MB/sec.	Up to 600MB/sec.
Cable length	Up to 18 inches	Up to 39 inches		
Hot Plugging Support	No	Yes		



# EDC/iCF Series

## 4000 Series

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

### Features

#### ★ 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. EDC/iCF 4000 series passes complete and continuous power cycling tests more than 3000 times to achieve the high standard requirement.

#### ★ 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.

## 8000 Series

EDC/iCF 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/MwDMA/UltraDMA modes.

- The EDC/iCF 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.

### Features

#### ★ Bad Block Management & Error-Correction Code

The Bad Block Management and Error-Correction Code 8bits per 512 Bytes support ensure the data will be read correctly and thereby improve the data transfer 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.

#### ★ 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.

#### ★ Multi-Function Switch

The multi-function switch

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

# EDC/iCF Series



Specifications	EDC 8000 / EDC 8000 Horizontal	iCF 8000
Capacity	2GB~16GB	2GB~16GB
IDE Transfer Mode	PIO mode 0-4/MwDMA mode 0-2/UltraDMA mode 0-6	PIO mode 0-4/MwDMA mode 0-2/UltraDMA mode 0-6
Interface	40pin or 44pin IDE	50pin Compact Flash
Data Transfer Rate	Read:80MB/sec.(max.) Write:75MB/sec.(max.)	Read:80 MB/sec.(max.) Write:75 MB/sec.(max.)
Operation Temp.	0°C~+70°C(Standard) -40°C~+85°C(Industrial)	0°C~+70°C(Standard) -40°C~+85°C(Industrial)
Storage Temp.	-55°C~+95°C	-55°C~+95°C
Vibration	40pin: 15G(7~2000Hz) 44pin: 20G(7~2000Hz)	20G(7~2000Hz)
Shock	1500G/0.5ms	1500G/0.5ms
DC Input Voltage	5V	+3.3V/+5V
Power Consumption	210mA (max.)	210mA (max.)
Dimension	Vertical 40 pin-27.2 x 57.8 x 9.1 mm(WxLxH) Vertical 44 pin-27.2 x 50.2 x 7.5 mm(WxLxH)	36.4 x 42.8 x 3.3 mm(WxLxH)
SMART	Support	Support
ATA Security	Support	Support
Write Protect	Support (multi-function switch, optional)	Support (optional)



Specifications	EDC 4000 / EDC 4000 Horizontal	iCF 4000
Capacity	128MB~32GB	128MB~32GB
IDE Transfer Mode	PIO mode 0-4/MwDMA mode 0-2/UltraDMA mode 0-4	PIO mode 0-4Mw/DMA mode/0-2Ultra/DMA mode 0-4
Interface	40pin or 44pin IDE	40pin or 44pin IDE
Data Transfer Rate	128MB~2GB (Single): Read-20 MB/sec.(max.) Write-10MB/sec.(max.) 1 GB~32 GB (Dual): Read-40MB/sec.(max.) Write-20MB/sec.(max.)	128MB~2GB (Single): Read-20 MB/sec.(max.) Write-10MB/sec.(max.) 1 GB~32 GB (Dual): Read-40MB/sec.(max.) Write-20MB/sec.(max.)
Operation Temp.	0°C~70°C (Standard)/-40°C~+85°C (Industrial)	0°C~70°C (Standard)/-40°C~+85°C (Industrial)
Storage Temp.	-55°C~+95°C	-55°C~+95°C
Vibration	5G(7~2000Hz)	5G(7~2000Hz)
Shock	50G/10ms	50G/10ms
DC Input Voltage	5V	5V
Power Consumption	150mA (max.)	150mA (max.)
Dimension	Vertical 40 pin-27.8x60.2 x6.4 mm(WxLxH) Vertical 44 pin-27.3x50.3x5.8 mm(WxLxH)"	Vertical 40 pin-27.8x60.2 x6.4 mm(WxLxH) Vertical 44 pin-27.3x50.3x5.8 mm(WxLxH)"
SMART	Support	Support
ATA Security	Support	Support
Write Protect	NA	Support (optional)