

# Industrial Compact Flash

## ■ CompactFlash Solution

Gaia Industrial CF series is CompactFlash Storage Card based on FLASH memory controller technology. This card complies with CompactFlash specification. It is suitable for the usage of data storage memory for PC or other electric equipment and Digital Still Camera (DSC).

This product complies ATA standard interface and is suitable for data storage media and code storage device for embedded system and boot disk. By using Card it is possible to operate good performance for the systems, which have IDE (ATA) Interface.

This Industrial CompactFlash Card is equipped with NAND type SLC FLASH memory. By using SLC FLASH memory, it is possible to provide high reliability and high performance of operation for sophisticated system applications.

With up-to-date small form factor, the applicable appliance can add or install CF storage device on its portable device or complete set.

### Product Feature

- CompactFlash™ specification 4.1 version compliant
- Following type I CompactFlash™ storage card dimensions
- PC Card ATA protocol compatible
- Support ATA SMART function
- Support PIO Mode 6, Multi word DMA mode 4, and Ultra DMA mode 4
- True IDE mode compatible
- High reliability with robust Error Correction
- Low power consumption
- Capable Operating as Boot Disk or Code Storage Device for Embedded Operating System
- Data Storage Device with capacity up to 16GB
- Voltage 3.3V or 5.0V operation





## Industrial CompactFlash™ Card

Model	Gaia Series CF Card	Standard II Series CF Card	Hi-Speed Series CF Card
Capacity	128MB ~ 16GB		32MB ~ 8GB
Power Requirement		DC +3.3V ± 5% or DC +5.0V ± 10%	
Interface		50 pin SMT interface	
Flash Technology		NAND type SLC flash based	
Standard Compliance		ATA-6 Standard	
Transfer Mode	PIO Mode:0-6 MWDMA Mode: 0-4 UDMA Mode: 0-4	PIO Mode:0-4 MWDMA Mode: 0-2 UDMA Mode: 0-2	PIO Mode:0-4 MWDMA Mode: 0-2
Sequential Read (Est.)	Dual channel:40 MB/sec Single channel:20 MB/sec	Dual channel:20 MB/sec Single channel:10 MB/sec	8.9 MB/sec
Sequential Write (Est.)	Dual channel:20 MB/sec Single channel:10 MB/sec	Dual channel:10 MB/sec Single channel:5 MB/sec	7.3 MB/sec
Power Consumption	<95mA in operation	<48mA in operation	<270mA in operation
Operating Temperature		0°C to 70°C (Industrial type), -40°C to 85°C (Wide Temperature type)	
ECC		4 Symbols Correction per 512 bytes, RS-ECC	2 Symbols Correction per 512 bytes, RS-ECC
Wear Leveling		Global Wear-Leveling	
Dimension (mm)		36.4 x 42.8 x 3.3	
Weight		<12gram	
Product Images			

## Reliability Test

Operating Humidity	10% to 95% (30°C Max. Wet Bulb Temp)
MTTF	2,000,000 hours
Inserted Durability Test	Testing Condition: 3sec/cycle – Repeated Plug/Unplug 10,000 cycles
Vibration	Sine (Non-op) : 15Grms, 10 ~ 2000Hz, Random Vibration (op) : 6Grms, 10~500Hz
Drop	75 cm height
Data Retention	10 years without requiring power support

As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, megabit per second (Mb/s) = one million bits per second, and gigabit per second (Gb/s) = one billion bits per second.