



Flash Storage Products

CoreSolid Storage provides the complete solution of DiskOnModule, Industrial CF/SD Card and Solid State Disk. SSD is a data storage device that uses flash memory to store persistent data in most applications. With high capacity of flash memory, it is also suitable for the usage of data storage memory for PC, mobile computing devices, or other electronic equipments.

DiskOnModule

PATA / SATA / USB Solution

DiskOnModule (DOM) has been well established as an industry standard. Its shock resistant and rugged qualities makes it suited to the harsh industrial environment comparing to traditional hard drives. With standard IDE interface, it can be used on IPC, thin client, POS system, GPS, Set-top-box and many more.



Solid State Disk

PATA / SATA Solution

Solid State Disk (SSD) are built with the highest quality components. Solid State Disk offers a higher capacity with different form factors for applications where superior performance is required and offer the ease of disk driving. Solid State Disk are ideal for Industrial applications where high capacities and reliable performance are essential.



Compact Flash

ICF Solution

Industrial CF Card (ICF) is made to endure severe operating conditions such as high impact, continuous vibration, low and/or high operating temperature. These cards are durable and can last long timesustained data access.



SD/SDHC Card

SD/SDHC Solution

Industrial SD/SDHC Card (ISD) is a series of memory cards that adopt flash memory technology and content protection mechanism. It provides not only greater capacity with better performance but also data security to meet environment requirements for image, video and audio consumer electronics devices.



Disk On Module

■ SATA Solution

The CoreSolid Storage SATA DOM series is Flash memory module based on FLASH memory controller technology with SATA interface. This product complies with 7 PIN or 7+15 PIN SATA standard interface in horizontal type or in vertical type, and is suitable for data storage media and code loaded device for embedded system. With high capacity of flash memory, it is also suitable for the usage of data storage memory for PC, mobile computing devices, or other electronic equipments.



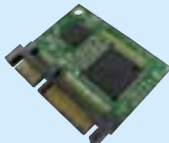
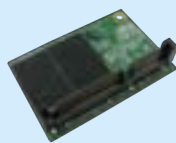
This SATA DOM is equipped with NAND type SLC FLASH memory. By selected SLC FLASH memory and the controller, it is able to provide high reliability and performance for sophisticated embedded system. With small form factor, SATA DOM can be installed on the compact mother board and rugged system.

Gaia Series Product Features



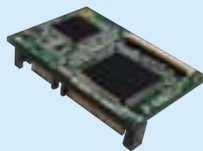
- Small form factor with SATA Standard Interface connector
- Compliant to SATA 2.6 3.0Gbs standard
- Support SMART function based on block management
- Support ATA Security feature
- Voltage 5.0V operation
- Data Storage Device up to 16GB
- Robust Error Correction
- High performance and High reliability
- Low power consumption



Gaia Series

Model	7pin Vertical	7pin Horizontal	7+15pin Vertical	7+15pin Horizontal
Capacity	128MB ~ 16GB			
Power Requirement	DC +5.0V ± 10%			
Interface	7 pin SATA interface		7+15 pin SATA interface	
Flash Technology	NAND type SLC flash based			
Standard Compliance	SATA Standard 2.6 Gen.2 (3.0Gbps)			
Transfer Mode	SATA 3.0Gbs			
Sequential Read (Est.)	Dual channel:40 MB/sec, Single channel:20 MB/sec			
Sequential Write (Est.)	Dual channel:20 MB/sec, Single channel:10 MB/sec			
Power Consumption	<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			
Wear Leveling	Global Wear-Leveling			
Dimension (mm)	28.8 x 48.9 x 9.0	24.9 x 45.5 x 15.20	36.09 x 44.0 x 7.44	30.0 x 44.0 x 10.8
Weight	<12gram	<7.5gram	<8.4gram	
Product Images				

Turbo II Series

Model	7pin Vertical	7pin Horizontal	7+15pin Horizontal
Capacity	512MB ~ 16GB		
Power Requirement	DC +3.3V ± 5%		
Interface	7pin SATA interface		7+15pin SATA interface
Flash Technology	NAND type SLC flash based		
Standard Compliance	SATA Standard 2.6 Gen.1 (1.5Gbps)		
Transfer Mode	SATA 1.5Gbs		
Sequential Read (Est.)	Dual channel:40 MB/sec, Single channel:20 MB/sec		
Sequential Write (Est.)	Dual channel:30 MB/sec, Single channel:10 MB/sec		
Power Consumption	<220mA in operation		
Operating Temperature	0°C to 70°C (Industrial type)		
ECC	4 Symbols Correction per 512 bytes, RS-ECC		
Wear Leveling	Static Wear-Leveling		
Dimension (mm)	28.8 x 48.9 x 9.0	24.9 x 45.5 x 15.2	30.0 x 44.0 x 10.8
Weight	<12gram	<7.5gram	<8.5gram
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.



Disk On Module

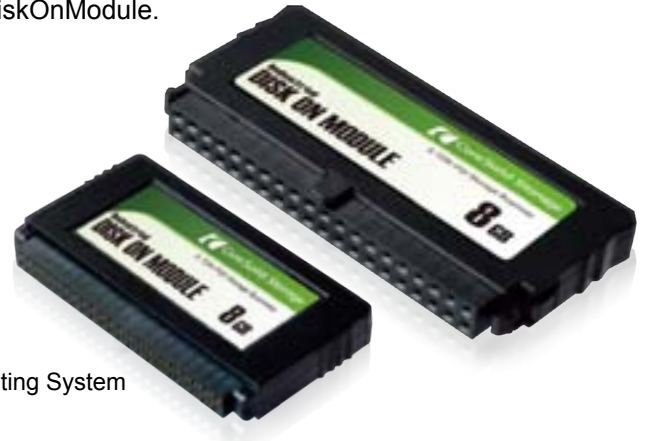
■ PATA Solution

CoreSolid Storage 40 or 44 PIN IDE DiskOnModule (DOM) is based on FLASH memory controller technology. This product complies with 40 or 44 PIN IDE (ATA) standard interface and is suitable for data storage media, code loaded device for boot disk in embedded systems, such as IPC or other electric equipments. This DOM is equipped with NAND FLASH memory. By using DOM, it is able to perform good performance for the systems, which have IDE interface. With small form factor, the IDE DOM can be installed DOM on IPC Mother Board.





40 or 44 PIN IDE DOM series provides standard security mode that allows a host to implement a security password system to prevent unauthorized data access to the DiskOnModule.

Gaia Series Product Feature

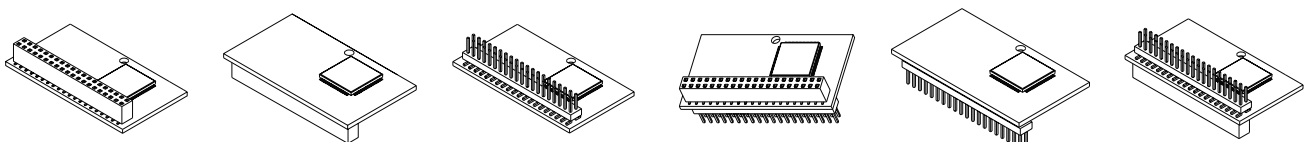
- Small form factor with IDE (ATA) Standard Interface connector
- High performance
- Support PIO Mode 4, MWDMA Mode 2, and UDMA mode 4
- High reliability with robust Error Correction
- Low power consumption
- Cable control for Master mode
- Option model with switch for hardware write protect function
- 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




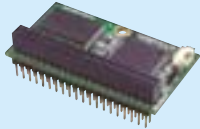


Gaia Series

Model	40 pin Vertical	40 pin Horizontal	44 pin Vertical	44 pin Horizontal
Capacity	128MB ~ 8GB	128MB ~ 16GB	128MB ~ 8GB	128MB ~ 16GB
Power Requirement	DC +3.3V ± 5% or DC +5.0V ± 10%			
Interface	40 pin IDE (ATA) interface		44 pin IDE (ATA) interface	
Flash Technology	NAND type SLC flash based			
Standard Compliance	ATA-6 Standard			
Transfer Mode	PIO Mode:0-4, Multi Word DMA Mode: 0-2, Ultra DMA Mode: 0-4			
Sequential Read (Est.)	Dual channel:40 MB/sec, Single channel:20 MB/sec			
Sequential Write (Est.)	Dual channel:20 MB/sec, Single channel:10 MB/sec			
Power Consumption	<95mA 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			
Wear Leveling	Global Wear-Leveling			
Dimension (mm)	59.1 x 27.2 x 7.4	55.2 x 30.4 x 19.4	50.2 x 27.5 x 6.5	44.1 x 32.6 x 11.77
Weight	<12gram			
Product Images				




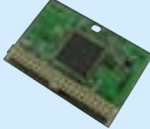
IDE DOM Type



Hi-Speed Series

Model	40 pin Vertical	40 pin Horizontal	44 pin Vertical	44 pin Horizontal
Capacity	32MB ~ 6GB	32MB ~ 8GB	32MB ~ 4GB	32MB ~ 6GB
Power Requirement	DC +3.3V ± 5% or DC +5.0V ± 10%			
Interface	40 pin IDE (ATA) interface		44 pin IDE (ATA) interface	
Flash Technology	NAND type SLC flash based			
Standard Compliance	ATA Standard			
Transfer Mode	PIO Mode:0-4, MWDMA Mode: 0-2			
Sequential Read (Est.)	7 MB/sec			
Sequential Write (Est.)	5 MB/sec			
Power Consumption	<20mA 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			
Wear Leveling	Static Wear-Leveling			
Dimension (mm)	59.1 x 27.2 x 7.4	55.2 x 30.4 x 19.4	50.2 x 27.5 x 6.5	48.1 x 32.6 x 10.5
Weight	<12gram			
Product Images				

Standard II Series

Model	40 pin Vertical	40 pin Horizontal	44 pin Vertical	44 pin Horizontal
Capacity	128MB ~ 8GB	128MB ~ 16GB	128MB ~ 8GB	128MB ~ 16GB
Power Requirement	DC +3.3V ± 5% or DC +5.0V ± 10%			
Interface	40 pin IDE (ATA) interface		44 pin IDE (ATA) interface	
Flash Technology	NAND type SLC flash based			
Standard Compliance	ATA Standard			
Transfer Mode	PIO Mode:0-4, MWDMA Mode: 0-2, UDMA Mode: 0-2			
Sequential Read (Est.)	Dual channel: 20 MB/sec, Single channel: 10 MB/sec			
Sequential Write (Est.)	Dual channel: 10 MB/sec, Single channel: 5 MB/sec			
Power Consumption	<50mA 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			
Wear Leveling	Static Wear-Leveling			
Dimension (mm)	59.1 x 27.2 x 7.4	55.2 x 30.4 x 19.4	50.2 x 27.5 x 6.5	44.1 x 32.6 x 11.77
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.

Disk On Module

■ USB Solution

CoreSolid Storage USB Disk On Module(DOM) series is based on NAND type flash memory technology. This product complies with 10 PIN embed USB interface on mother-board and is suitable for data storage memory medium for portable system which requires small capacity of main storage device or boot disk which working on Linux, WinCE operating system. By using USB DOM, it is able to perform a good performance for the embedded system which has USB interface slots on mother-board.

CoreSolid Storage USB DOM is a storage device based on flash memory technology, which emulates an ordinary magnetic hard disk. This series products provide all-in-one modularized solution for solid-state flash disk. The USB DOM is suitable for use in portable and embedded systems which have limited space and power consumption.



Unlike IDE drives, no signal cable and extra, special space is required. The USB DOM is a alternative solution for IDE Hard Disk drive, which has moving parts. This USB DOM provides a good stability in a moving system. It is also free from extra and special algorithm or some firmware driver. Just plug the USB DOM into the USB slot and play it, users can play the USB DOM as same as the Hard Disk Drives.

Product Feature

- Small form factor with USB Standard inside Interface connector
- Compliant to USB 2.0 standard (backward compatible with USB1.1)
- Support Write Protect function
- Voltage 5.0V operation
- Data Storage Device up to 16GB
- Robust Error Correction
- High performance and High reliability
- Low power consumption
- Extended temperature operations, 0°C~+70°C



Gaia Series

Model	10 pin Vertical	10 pin Horizontal
Capacity	512MB ~ 16GB	
Power Requirement	DC +5.0V ± 10%	
Interface	10pin USB	
Flash Technology	NAND type SLC flash based	
Transfer Mode	USB 2.0 / 1.1	
Sequential Read (Est.)	Single channel:20 MB/sec	Dual channel:30 MB/sec, Single channel:20 MB/sec
Sequential Write (Est.)	Single channel:15 MB/sec	Dual channel:20 MB/sec, Single channel:15 MB/sec
Power Consumption	<88mA in operation	
Operating Temperature	0°C to +70°C (Industrial Temperature type)	
ECC	13 bits Correction per 512 bytes, BCH-ECC	
Wear Leveling	Static Wear-Leveling	
Dimension (mm)	30.4 x 26.4 x 6.2	35.5 x 22.0 x 9.8
Weight	<4.5gram	<6gram
Products Images		

USB DOM Support Windows Vista ReadyBoost™ Embedded Device on Mother-Board

Industrial SD/SDHC Card

■ SD / SDHC Solution

The CoreSolid Storage Industrial SD/SDHC Memory Card is a series of memory cards that adopt flash memory technology and content protection mechanism. It provides not only greater capacity and better performance but also the data security to meet environment requirements for image, video and audio industrial electronics devices. The major feature of the CoreSolid Storage SD/SDHC Memory Card is the function of protecting intellectual property, which complies with the security of the SDMI standard. It offers a write-protect switch on the side and uses mutual authentication as well as a “new cipher algorithm” to protect the content stored in the card from illegal usage.


The CoreSolid Storage Industrial SD/SDHC Memory Card conforms to SD specifications 2.0, so it supports two alternative communication protocols: SD and SPI. Moreover, the CoreSolid Storage SD/SDHC Memory Cards offers higher capacities to meet the growing demand of mass storage in the market. The CoreSolid Storage SD/SDHC Memory Card is especially designed for portable devices, Gaming Industry and Industrial Embedded System, so it makes the CoreSolid Storage SD/SDHC Memory Card be a user-friendly product.

Product Feature

- Compatible with SD 2.0 specification
- Support SD mode and SPI mode
- Built-in Hardware ECC Function
- NAND Flash SLC chip technology
- Wear-leveling and Block Management
- Supports Auto Standby and Sleep Mode
- Support Wide Operating Temperature



Industrial SD / SDHC Card

Model	Industrial SD / SDHC Card
Capacity	1GB, 2GB and 4GB(SDHC class 6)
Power Requirement	Voltage : DC 2.7V ~ 3.6V
Interface	SD 2.0 Compliance
Flash Technology	NAND type SLC flash based
Standard Compliance	1GB, 2GB: SD 2.0 ; 4GB: SDHC class 6
Transfer Mode	SD Bus Mode and SPI Bus Mode.
Sequential Read (Est.)	22 MB/sec
Sequential Write (Est.)	14 MB/sec
Power Consumption	<35mA
Operating Temperature	0°C to 70°C (Industrial type) -25°C to 85°C, (Extended Temperature type)
ECC	8 bits Correction per 512 bytes
Wear Leveling	Global wear Leveling
Dimension (mm)	32.0 x 24.0 x 2.1
Weight	<2.5gram
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.



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 data storage memory working on IPC or other electric equipment.

This product complies ATA standard interface and is suitable for data storage media and code storage device for embedded system and boot disk. Industrial CF is able to perform good performance for the systems, which have CF card slots.

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



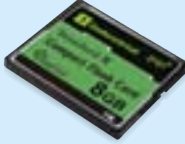

With up-to-date small form factor, industrial CF card can be installed on portable device or embedded platform.

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	Ares Series CF Card	Gaia Series CF Card	Standard II Series CF Card	Hi-Speed Series CF Card
Capacity	128MB ~ 16GB		128MB ~ 8GB	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: 0-6	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:49 MB/sec Single channel:29 MB/sec	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:42 MB/sec Single channel:25 MB/sec	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	<369mA in operation	<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	24 bit BCH-ECC can correct 24 bit per 1024 byte	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				

Industrial CFast Card

Model	CFast Card
Capacity	4GB to 16GB
Power Requirement	DC +3.3V ± 5%
Interface	7+17 pin CFast interface
Flash Technology	NAND type SLC Flash based
Standard Compliance	CFast 1.0 compliance
Transfer Mode	3.0Gbps
Sequential Read (Est.)	110MB/sec
Sequential Write (Est.)	90 MB/sec
Power Consumption	<400mA in operation
Operating Temperature	0°C to 70°C, (Industrial type)
ECC	Advanced 8/15bit BCH per 512byte
Dimension (mm)	36.4 x 42.8 x 3.6
Weight	<10.5gram
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

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Solid State Disk

■ SATA Solution

CoreSolid Storage GAIA 2.5" SSD provides rugged and cost effective flash memory drive and solution to industrial applications, the global wear leveling with 4 symbols RS-ECC was built in GAIA SSD to achieve high data reliability. A smart function called FlashMonitor is supporting GAIA SSD to give the entire flash drive life forecast, system designer and system users can get early warning when disk failure. Each unit we make is run through exhaustive inspections and quality tests, ensuring that we deliver only the best.

The low power consumption of GAIA SSD lets you program your system overall power with a best efficiency. There is no extraordinary power and thermal dissipation can be found from GAIA flash drive when working on ultra low temperature environment.

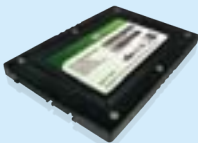
CoreSolid Storage products have been designed into some of the most sophisticated and high profile embedded system used in different industrial platforms today.

Product Feature

- 1.8 & 2.5 SATA form factor with Serial ATA Standard Interface connector
- Serial ATA Interface Standard 2.6 Gen.2 (3.0Gbps) is supported
- High performance and reliability
- Robust Error Correction
- Low power consumption
- Voltage 3.3V/5V operation




GAIA SSD

Model	Gaia 2.5" SATA 3.0Gbps SSD
Capacity	512MB ~ 32GB
Power Requirement	DC +3.3V ± 5% or DC +5.0V ± 10%
Interface	7+15 pin SATA interface
Flash Technology	NAND type SLC flash based
Standard Compliance	SATA Standard 2.6 Gen.2 (3.0Gbps)
Transfer Mode	SATA 3.0Gbps
Sequential Read (Est.)	Dual channel:40 MB/sec Single channel:20 MB/sec
Sequential Write (Est.)	Dual channel:20 MB/sec Single channel:10 MB/sec
Power Consumption	<210mA 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
Wear Leveling	Global Wear-Leveling
Dimension (mm)	100.5 x 69.8 x 9.5
Weight	<60gram
Product Images	



Turbo II Plus SSD

Model	Turbo II Plus 2.5" SATA 1.5Gbps SSD
Capacity	4GB ~ 64GB
Power Requirement	DC +5.0V ± 10%
Interface	7+15 pin SATA interface
Flash Technology	NAND type SLC flash based
Standard Compliance	SATA Standard 2.6 Gen.1 (1.5Gbps)
Transfer Mode	SATA 1.5Gbps
Sequential Read (Est.)	67 MB/sec
Sequential Write (Est.)	45 MB/sec
Power Consumption	<229mA in operation
Operating Temperature	0°C to 70°C (Industrial type)
ECC	4 Symbols Correction per 512 bytes, RS-ECC
Wear Leveling	Global Wear-Leveling
Dimension (mm)	100.5 x 69.8 x 7.9
Weight	<72gram
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.

Solid State Disk

■ PATA Solution

CoreSolid Storage designs ZIF Solid State Disk(SSD) is the storage device based on NAND flash memory technology. 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 1.8" ZIF SSD, it is possible to operate good performance for the systems, which have IDE(ATA) Interface.


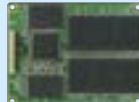
With up-to-date small form factor, the applicable appliance can add or install ZIF storage device on its portable device or complete set.

Ares 1.8" ZIF SSD Feature

- Small form factor with ZIF connector that is capable for flat cable in 0.2mm thickness
- Memory Capacities: 4GB ~ 32GB
- High performance and reliability
- Noiseless and stable installation to system
- Operating voltage 3.3V operation
- Compliance with ATA Interface
- Support ATA command Security feature set
- Support SMART function
- Operating as Boot Disk
- Data Storage Device up to 32GB
- Code Storage Device for Embedded Operating System
- Low power consumption and high booting speed
- Steel housing Material

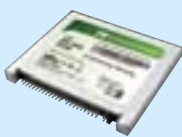





Ares 1.8" ZIF interface SSD

Model	Ares 40 pin ZIF	Ares 40 pin ZIF (barebone)
Capacity	8GB ~ 32GB	
Power Requirement	DC +3.3V ± 5%	
Interface	40 pins ZIF (ATA) interface	
Flash Technology	NAND type SLC flash based	
Standard Compliance	ATA Standard	
Transfer Mode	PIO Mode:0-4 MWDMA Mode: 0-2 UDMA Mode: 0-6	
Sequential Read (Est.)	40 MB/sec	
Sequential Write (Est.)	30 MB/sec	
Power Consumption	<70mA in operation	
Operating Temperature	0°C to 70°C (Industrial type) -40°C to 85°C (Wide Temperature type)	
ECC	24 bits Correction per 1024 bytes, BCH-ECC	
Wear Leveling	Global wear Leveling	
Dimension (mm)	71.00 x 54.00 x 5.00	70.60 x 53.60 x 2.00
Weight	<27.5 gram	<12.6 gram
Product Images		

CoreSolid Storage designs 1.8" / 2.5" IDE Solid State Disk(SSD) is the storage device based on NAND flash memory technology. With standard 1.8" / 2.5" disk form factor, the applicable appliance can add or install the device in standard PC or Complete set.

1.8" / 2.5" IDE interface SSD

Model	Gaia 1.8" IDE	Gaia 2.5" IDE	Turbo II 2.5" IDE	Hi-Speed 2.5" IDE SSD
Capacity	4GB ~ 32GB	512M ~ 32GB	4MB ~ 64GB	128MB ~ 8GB
Power Requirement	DC +5.0V ± 10%			
Interface	Standard IDE(ATA) Interface			
Flash Technology	NAND type SLC flash based			
Standard Compliance	ATA Standard			
Transfer Mode	PIO Mode:0-4 MWDMA Mode: 0-2 UDMA Mode: 0-4		PIO Mode:0-4 MWDMA Mode:0-2 UDMA Mode:5	
Sequential Read (Est.)	Dual channel:40 MB/sec Single channel:20 MB/sec		61 MB/sec	
Sequential Write (Est.)	Dual channel:20 MB/sec Single channel:10 MB/sec		33 MB/sec	
Power Consumption	<120mA in operation	<120mA in operation	<105mA in operation	<20mA in operation
Operating Temperature	0°C to 70°C (Industrial type) -40°C to 85°C (Wide Temperature type)		0°C to 70°C (Industrial type) -40°C to 85°C (Wide Temperature type)	
ECC	4 Symbols Correction per 512 bytes, RS-ECC			
Wear Leveling	Global wear Leveling		Static Wear-Leveling	
Dimension (mm)	60.0 x 70.0 x 7.0		100.0 x 69.85 x 8.45	
Weight	<22gram		<62 gram	
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.