

Solid State Disk

■ SATA Solution

CoreSolid Storage Titan II series 1.8"/2.5" SATA SSD mark use of MLC flash modules where when compared to SLC flash modules, it improves the cost structure obviously. With the use of TDK proprietary flash management method, which calculation method refines the way PC access SSD by the improved NAND flash block management system, it effectively increases flash module lifespan.

In addition to proprietary technology, AES 256-bit encryption is also implemented into CoreSolid Storage's 1.8"/2.5" SATA SSD for extra security. CoreSolid Storage's 1.8"/2.5" SATA SSD using AES 256-bit and several security functions on SSD technology to store encrypted data to prevent unauthorized personnel from accessing (direct read or recovery methods) sensitive data.

Minimum power consumption is the key to maximum battery time. When the system ceases sending instructions, CoreSolid Storage's 1.8"/2.5" SATA SSD will enter ultra low power consumption mode to maximum battery time. This is especially suited for modern day digital mobile devices.

Titan II Series 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
- Memory Capacities: 30GB, 60GB, 120GB, 240GB
- High performance and reliability
- Robust Error Correction
- Low power consumption
- Voltage 3.3V/5V operation
- AES 256-bit and several security functions



Titan II & Titan Series

Model	Titan II 2.5" SSD	Titan II 1.8" SSD	Titan 2.5" SSD	Titan 1.8" SSD
Capacity	30GB, 60GB, 120GB, 240GB		16GB ~ 64GB	
Power Requirement	DC +5.0V ± 10%	3.3V ± 5%	DC+5.0V ± 10%	3.3V ± 5%
Interface	SATA interface	Micro SATA interface	SATA interface	Micro SATA interface
Flash Technology	NAND type MLC flash based		NAND type SLC flash based	
Standard Compliance	SATA Standard 2.6 Gen.2 (3.0Gbps)		SATA Standard 2.6 Gen.1 (1.5Gbps)	
Transfer Mode	SATA 3.0Gbs		SATA 1.5Gbs	
Sequential Read (Est.)	220 MB/sec (MLC)		100 MB/sec (SLC)	
Sequential Write (Est.)	70 MB/sec (MLC)		50 MB/sec (SLC)	
Power Consumption	< 2W in operation	< 1.65W in operation	< 2W in operation	< 1.5W in operation
Operating Temperature	-15°C to 75°C, (Operating), -40°C to 85°C, (Storage)		0°C to +70°C, (Operating), -40°C to +85°C, (Storage)	
ECC	Built-in BCH 15bits/ 512 bytes		Built-in BCH 8bits/ 512 bytes	
Wear Leveling	Static Wear-Leveling		Dynamic Wear-Leveling	
Function	AES 256-bit		AES 128-bit	
Dimension (mm)	100.5 x 69.8 x 9.5	78.5 x 54 x 8	100.5 x 69.8 x 9.5	78.5 x 54 x 8
Weight	<76gram	<50gram	<65gram	<43gram
Product Images				



Gaia & Turbo II Plus SSD

Model	Gaia 2.5" SATA 3.0Gbps SSD	Turbo II Plus 2.5" SATA 1.5Gbps SSD
Capacity	512MB ~ 32GB	128MB ~ 8GB
Power Requirement	DC +3.3V ± 5% or DC +5.0V ± 10%	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)	SATA Standard 2.6 Gen.1 (1.5Gbps)
Transfer Mode	SATA 3.0Gbps	SATA 1.5Gbps
Sequential Read (Est.)	Dual channel:40 MB/sec Single channel:20 MB/sec	67 MB/sec
Sequential Write (Est.)	Dual channel:20 MB/sec Single channel:10 MB/sec	45 MB/sec
Power Consumption	<210mA in operation	<229mA 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	4 Symbols Correction per 512 bytes, RS-ECC
Wear Leveling	Global Wear-Leveling	
Dimension (mm)	100.5 x 69.8 x 9.5	100.5 x 69.8 x 9.5
Weight	<60gram	<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.


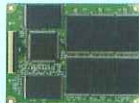
With up-to-date small form factor, the applicable appliance can add or install ZIF storage device on its portable device or complete set.

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 Plus 2.5" IDE	Hi-Speed 2.5" IDE SSD
Capacity	4GB ~ 32GB		128MB ~ 16GB	64MB ~ 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	PIO Mode:0-4 MWDMA Mode: 0-2 UDMA Mode: 0-6
Sequential Read (Est.)	Dual channel:40 MB/sec Single channel:20 MB/sec		61 MB/sec	7 MB/sec
Sequential Write (Est.)	Dual channel:20 MB/sec Single channel:10 MB/sec		33 MB/sec	5 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.