

Disk On Module PATA Solution

The Gaia PATA DOM series is DiskOnModule (DOM) based on FLASH memory controller technology with IDE interface. This product complies with 44 / 40 PIN IDE (ATA) standard interface in horizontal type or in vertical type, and is suitable for data storage media and code storage device for embedded system as the bootable disk. With high capacity of flash memory supporting, it is also suitable for the usage of data storage memory for PC, mobile computing devices, or other electronic equipments.

This DOM 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.

Product Feature

- Small form factor with IDE (ATA) Standard Interface connector
- ATA-6 standard compatible
- Support PIO Mode 6, Multi word DMA mode 4, and Ultra DMA mode 4.
- Voltage 3.3V or 5.0V operation.
- Data Storage Device up to 16GB.
- Robust Error Correction.
- High performance and High reliability.
- Low power consumption.
- Option with Master mode switch
- Optional model for wide temperature operations.



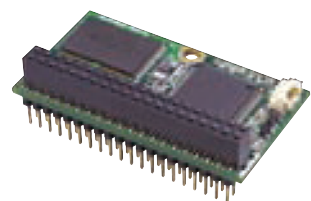
Gaia 40 Pin IDE DOM

128MB ~ 16GB
40 Pin PATA (Vertical)
Read : Est. 40 MB/sec
Write : Est. 20 MB/sec
59.1(L) x 27.2(W) x 7.4(T) mm
16 gram
Industrial / WideTemp



Gaia 44 Pin IDE DOM

128MB ~ 16GB
44 Pin PATA (Vertical)
Read : Est. 40 MB/sec
Write : Est. 20 MB/sec
50.2(L) x 27.5(W) x 6.5(T) mm
15 gram
Industrial / WideTemp



Gaia 40 Pin IDE DOM

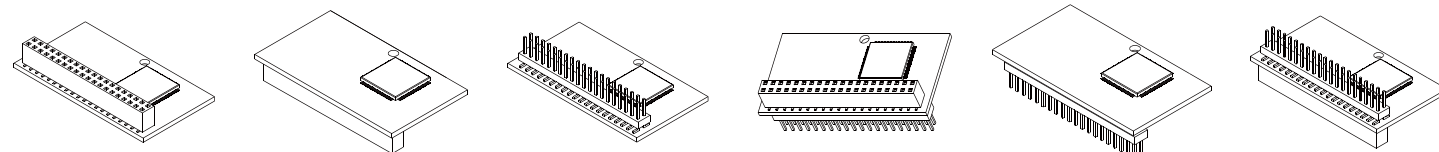
128MB ~ 16GB
40 Pin PATA (Horizontal)
Read : Est. 40 MB/sec
Write : Est. 20 MB/sec
55.2(L) x 30.4(W) x 19.4(T) mm
15.5 gram
Industrial / WideTemp



Gaia 44 Pin IDE DOM

128MB ~ 16GB
44 Pin PATA (Horizontal)
Read : Est. 40 MB/sec
Write : Est. 20 MB/sec
44.1(L) x 32.6(W) x 11.77(T) mm
15 gram
Industrial / WideTemp

40/44 Pin IDE DOM Type



Specifications

Model	Gaia	Turbo	Standard II	Hi-Speed
Capacity	40 Pin Vertical	128MB ~ 16GB	32MB ~ 4GB	32MB ~ 4GB
	40 Pin Horizontal	128MB ~ 16GB	32MB ~ 4GB	32MB ~ 4GB
	44 Pin Vertical	128MB ~ 16GB	32MB ~ 4GB	32MB ~ 4GB
	44 Pin Horizontal	128MB ~ 16GB	32MB ~ 4GB	32MB ~ 4GB
Voltage	DC +3.3V ± 5% or DC +5.0V ± 10%4			
Interface	40/44 pin IDE interface			
Standard Compliance	ATA-6 compatible	ATA-6 compatible		ATA-6 compatible
Transfer Mode	PIO mode 0~6	PIO mode 0~6		PIO mode 0~6
	MWDMA mode 0~4	MWDMA mode 0~4		MWDMA mode 0~2
	UDMA mode 0~4	UDMA mode 0~2		
Performance	Notice: The value is various bases on the testing platform.			
Sequential Read	Est. 40 MB/sec	Est. 15 MB/sec	Est. 20 MB/sec	Est. 7 MB/sec
Sequential Write	Est. 20 MB/sec	Est. 12 MB/sec	Est. 10 MB/sec	Est. 5 MB/sec
Power Consumption	<95mA	<37mA	<46mA	<26.5mA
Operating Temperature	0°C to +70°C, (Industrial)			
	-40°C to +85°C, (WideTemp)			
Operating Humidity	8% to 95%, (30°C Max. Wet Bulb Temp)			
Read/Write Cycle	2,000,000 times			
MTBF	2,000,000 hours			
Shock	1,500G			
Inserted Durability Test	Testing Condition: 3sec/cycle – Repeated Plug/Unplug 10,000 cycles			
Data Retention	10 years without requiring power support			
ECC	4 Symbols ECC per 512 bytes			2 Symbols ECC per 512 bytes
Standard	CE, FCC,RoHS			
Weight	<16 gram			



Turbo 40 Pin IDE DOM

32MB ~ 4GB
40/44 Pin PATA (Vertical)
Read : Est. 15 MB/sec
Write : Est. 12 MB/sec
Industrial / WideTemp



Standard II 40 Pin IDE DOM

32MB ~ 4GB
40/44 Pin PATA (Vertical)
Read : Est. 20 MB/sec
Write : Est. 10 MB/sec
Industrial / WideTemp



Hi-Speed 40 Pin IDE DOM

32MB ~ 6GB
40/44 Pin PATA (Vertical)
Read : Est. 7 MB/sec
Write : Est. 5 MB/sec
Industrial / WideTemp



Standard 40 Pin IDE DOM

32MB ~ 4GB
40/44 Pin PATA (Vertical)
Read : Est. 7 MB/sec
Write : Est. 5 MB/sec
Industrial / WideTemp

Disk On Module USB Solution

CoreSolid Storage USB Solid State Disk(SSD) series 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 main storage device or boot disk based on Linux, WinCE operating system. By using Solid State Disk, it is possible to operate good performance for the portable system which has USB interface slots on mother-board.

CoreSolid Storage Solid State Disk is a storage device based on flash memory technology, which emulates an ordinary magnetic hard disk. The Solid State Disk series products provide an all in one module solution for solid-state flash disk. The Solid State Disk 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 Solid State Disk is a solid-state solution for IDE Hard Disk drive, which has no moving parts. That provides a good stability in a moving system. The Solid State Disk products are also free from extra and special algorithm or some firmware driver. Just plug the Solid State Disk into the USB slot and play it, users can play the Solid State Disk as same as the Hard Disk Drives.

The Solid State Disk family provides the capacities ranging from 2GB up to 8GB. In the future, the capacity will be increased up to 4GB.

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



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



Gaia USB DOM

2GB ~ 8GB

10 Pin USB 2.0 / 1.1 (Vertical)
 Read : Est. 25 MB/sec
 Write : Est. 20 MB/sec
 30.4(L) x 26.4(W) x 6.2(T) mm
 5 gram
 Industrial



Gaia USB DOM

2GB ~ 16GB

10 Pin USB 2.0 / 1.1 (Horizontal)
 Read : Est. 30 MB/sec for Dual
 Write : Est. 25 MB/sec for Dual
 35.5(L) x 22.0(W) x 11.0(T) mm
 6 gram
 Industrial

Specifications

Model	Gaia	Turbo
Capacity	10 Pin Vertical 2GB ~ 8GB	64MB ~ 2GB
	10 Pin Horizontal 2GB ~ 16GB	64MB ~ 2GB
Voltage	DC +5.0V ± 10%	
Interface	10 pin USB 2.0 / 1.1 interface	
Standard Compliance	USB 2.0/1.1	
Transfer Mode	USB 2.0/1.1 480Mbps	
Performance	Notice: The value is various bases on the testing platform.	
Sequential Read	Est. 25 MB/sec (Single channel) Est. 30 MB/sec (Dual channel)	Est. 16 MB/sec
Sequential Write	Est. 20 MB/sec (Single channel) Est. 25 MB/sec (Dual channel)	Est. 8 MB/sec
Power Consumption	120mA	67.1mA
Operating Temperature	0°C to +70°C, (Industrial)	
Operating Humidity	8% to 95%, (30°C Max. Wet Bulb Temp)	
Read/Write Cycle	5,000,000 times	
MTBF	2,000,000 hours	
Shock	1,500G	
Inserted Durability Test	Testing Condition: 3sec/cycle – Repeated Plug/Unplug 10,000 cycles	
Data Retention	10 years without requiring power support	
ECC	13 bits errorrection per 512 bytes	4 bits errorrection per 512 bytes
Standard	CE, FCC, RoHS	
Dimension (L*W*T)mm	Vertical : 6.3 x 26.5 x 30.5 Horizontal : 22.0 x 35.5x 11.0	Vertical : 30.4 x26.4 x 6.2 Horizontal : 35.0 x 22.0 x 4.2
Weight	Vertical : < 5 gram Horizontal : < 6 gram	Vertical : < 4.7 gram Horizontal : < 4.5 gram

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



Turbo USB DOM

64MB ~ 2GB

10 Pin USB (Vertical)
 Read : Est. 16 MB/sec
 Write : Est. 8 MB/sec
 30.4(L) x 26.4(W) x 6.2(T) mm
 4.7 gram
 Industrial



Turbo USB DOM

64MB ~ 2GB

10 Pin USB (Horizontal)
 Read : Est. 20 MB/sec
 Write : Est. 15MB/sec
 35.0(L) x 22.0(W) x 4.2(T) mm
 4.5 gram
 Industrial