

Industrial Flash Module Series

The Best Flash Storage Solutions-SATA Series

What is Serial ATA (SATA)? What are the differences between SATA and ATA interface?

Serial ATA (Advanced Technology Attachment, SATA) is the next generation drive interface (connecting a computer with storage devices, such as disks) that is following the Parallel ATA (PATA). Compared with traditional ATA disks with the parallel transfer technique, SATA disks are taken advantage of a serial transfer structure which is much simpler and with less interference. That is, serial transfer technique of SATA could efficiently prevent crosstalk interference. In addition, within the simplified point-to-point data transfer, it could downsize data transfer cables and connectors and thus improve the heat delivery of internal server. Also, SATA disks features lower power consumption and less pollution since with low voltage as 3.3 V. The following table is show the comparison for ATA, SATA, and SATA II.



•ATA interface 44-pin(2.0 mm)



•SATA interface 7+15-pin

•ATA interface compared with SATA interface

Item	Interface	ATA	SATA I	SATA II
Data transfer rate		Ultra DMA mode 6 133 MB/sec.	150 MB/sec.(max)	300 MB/sec.(max)
Reliability		Fair	Better	Better
Power consumption		Higher	Lower	Lower
Heat delivery		Fair	Better	Better
support		No	Yes	Yes

SATADOM NEW Smallest DOM in the world

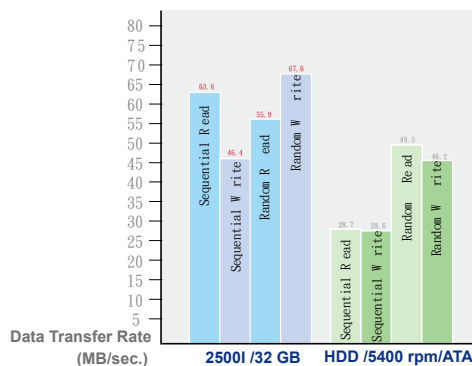
IFM-300IS SATADOM Specifications-

	SATADOM
Capacities	128 MB~8 GB
Interface	SATA I
Burst speed rate	150 MB/sec.
Data transfer rate	Read:20 MB/sec. ; Write:20 MB/sec.
Operation temp.	-10°C~+70°C
MTBF	>3,000,000 hours
Wear-leveling	Support
Dimensions	21 x 39.35 x 8 mm (WxLxH)



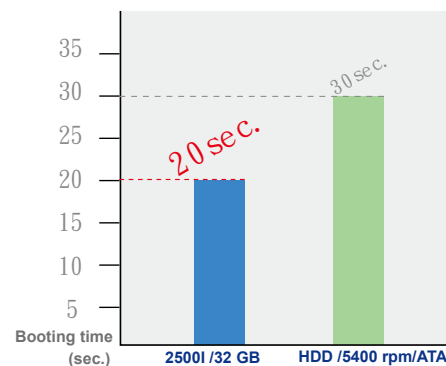
Comparison Chart : iFD SATA 2.5" 2500i & HDD

Performance testing



Item	2500i	HDD
Data transfer rate		
Sequential read	63.6 MB/sec.	28.7 MB/sec.
Sequential write	46.4 MB/sec.	28.6 MB/sec.
Random read	55.9 MB/sec.	49.5 MB/sec.
Random write	67.6 MB/sec.	46.2 MB/sec.

Booting time testing



Item	2500i	HDD
Times	20 sec.	30 sec.

Testing environment:

OS	Windows® XP SP2	Motherboard	Gigabyte 945GCM-S2
CPU	Celeron®1.60 GHz	Chipset	Inter 8280 1 GB ICH7
RAM	1 GB	HDD	Seagate 20 GB 5400 rpm PATA