

# BIWIN TECHNOLOGY LIMITED

## Industry Flash Drive for Embedded System



# About US

E I W I N

Focusing on R&D, manufacturing and selling the products based on Nand Flash, in recent years Biwin Technology Limited has been one of the fastest growing OEM/ODM suppliers providing USB flash drive and SD card.

Biwin Tech was founded at ShenZhen in 1995. From 1999, Biwin Tech began stepping into the OEM way on a large scale. Up to today, Biwin brands have embraced industry and personal electronics series. Hereinto, industry series comprises SSD hard disk, DOM electrical storage disk and CF card. And personal electronics series comprises USB flash drive, SD card, miniSD card and ancillary devices such as USB Hub, Card reader for single or multiple cards. In addition, the fingerprinter USB flash drive is ready.

Expecting better products and service, Biwin speeds the steps in connecting with

the world and strengthening the domestic company construction. Now Biwin has been got membership from SDA, USB-IF and CF organization. At the same time, all the relative certificates have been already got. Externally completing ISO9000 system construction, Biwin laid more emphasis on regulating internal working flow and stress the roles of every staff and components supplier more in order to provide high-quality products and fast response on customer request. Furthermore, precise manufacture flow, strict testing standard and shipment standard guaranty the interest of our customers up to maximum. Keeping the mind of mutual wins, Biwin is committing itself to establishing the cooperation relationship with the customers in the long term especially building the firm and co-existence development environment.





## SSD Introduction



Comparing traditionally mechanical HDD, Solid-State Disk (SSD) with Nand Flash Memory has more dooughty physical characteristics.

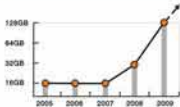
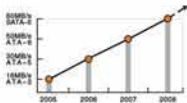
- No moving part lead to more **Reliable**
- No motor running lead to more **Efficient**
- No mechanical vibration lead to more **Silent**
- No mechanical tracking lead to less **Startup time**
- Powerful flash management lead to higher **Speed**

## SSD Application

SSD will replace HDD in all sides. From notebook to common PC, from automobile industry to aviation industry, from medical industry to IT industry, SSD will embody its tremendous value. With the development of nand flash tech and downward cost, SSD will bring more benefits to more clients.



## BIWIN SSD Trend





# SSD

## BIWIN SSD List



2.5 inch							
	Temperature Grade	Part Number	ATA mode	DMA Mode	Speed	Capacity	Flash Type
Standard Series	0 ~ +70°C	SSD301SC	ATA-3	DMA2	13MB/s	16GB	SLC
	-40 ~ +85°C	SSD301SI	ATA-3	DMA2	13MB/s	16GB	SLC
High-Speed Series	0 ~ +70°C	SSD301HC	ATA-6	UDMA5	45MB/s	16GB	SLC/MLC optional
	-40 ~ +85°C	SSD301HI	ATA-6	UDMA5	45MB/s	16GB	SLC/MLC optional

1.8 inch							
	Temperature Grade	Part Number	ATA mode	DMA Mode	Speed	Capacity	Flash Type
Standard Series	0 ~ +70°C	SSD302SC	ATA-3	DMA2	13MB/s	16GB	SLC
	-40 ~ +85°C	SSD302SI	ATA-3	DMA2	13MB/s	16GB	SLC
High-Speed Series	0 ~ +70°C	SSD302HC	ATA-6	UDMA5	45MB/s	16GB	SLC/MLC optional
	-40 ~ +85°C	SSD302HI	ATA-6	UDMA5	45MB/s	16GB	SLC/MLC optional

Comparison of SSD&HDD				
Parameter		SSD	HDD	SSDvsHDD
Interface		ATA-6	ATA-6	Same
	Burst	100MB/s	100MB/s	same
Performance	Read	47MB/s	26MB/s	2 x faster
	Write	26MB/s	20MB/s	faster
	Vista boost time	40s	55s	faster
Environment	Temperature	-40 ~ +85°C	-20 ~ +60°C	Wider
	Humidity	5 ~ 95%	5 ~ 95%	same
	Shock	1000G	500G	more durable
	Vibration	1G	0.5G	more durable
	Acoustic Noise	0dB	>20dB	no noise
Power	Reliability	>1M hours	>300k hours	3 x longer
	Spin up	0W	5W	no power
	Read&Write	0.3W	1.5W	1/5 less
	Idle	0.04W	0.2W	1/5 less



## DOM Introduction



Disk on module (DOM) with NAND flash memory has been applied for long in the embedded system. At the same time as its outlook can be customized according to actual requirement and its low cost, DOM provides an excellent solution for rigorous application. Though comparing with SSD, DOM's maximum capacity is less, it is enough for embedded OS such as WinCE, XPE and Linux.

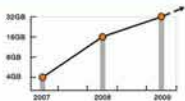
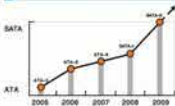
## DOM Application

Comparing with SSD&HDD, DOM have wider application scope.

- Intelligent Traffic
- Game Machine
- Industry Control
- Medical Instrument
- Monitoring System
- Set-Top Box
- POS
- Automobile



## BIWIN DOM Trend





# DOM



## BIWIN DOM List



Interface Format: IDE 40Pin  
Linker Angle: Vertical  
Capacity: 128MB-4GB  
Dimension: 28 x 24 x 1.5  
Gold plated

Part Number	Description		
	Speed	Interface	Temperature Range
DOM101-SC	14MB/s		0 ~ +70°C
DOM101-SI	14MB/s	Clock-	-40 ~ +85°C
DOM101-HC	25MB/s	wise	0 ~ +70°C
DOM101-HI	25MB/s		-40 ~ +85°C



Interface Format: IDE 40Pin  
Linker Angle: Horizontal  
Capacity: 128MB-4GB  
Dimension: 28 x 20 x 1.5  
Gold plated

Part Number	Description		
	Speed	Interface	Temperature Range
DOM201-SC	14MB/s		0 ~ +70°C
DOM201-SI	14MB/s	Clock-	-40 ~ +85°C
DOM201-HC	25MB/s	wise	0 ~ +70°C
DOM201-HI	25MB/s		-40 ~ +85°C
DOM202-SC	14MB/s		0 ~ +70°C
DOM202-SI	14MB/s	Anticlock-	-40 ~ +85°C
DOM202-HC	25MB/s	wise	0 ~ +70°C
DOM202-HI	25MB/s		-40 ~ +85°C



Interface Format: IDE 40Pin  
Linker Angle: Horizontal  
Capacity: 128MB-4GB  
Dimension: 28 x 20 x 1.5  
Gold plated



Interface Format: IDE 40Pin  
Linker Angle: Horizontal  
Capacity: 128MB-4GB  
Dimension: 28 x 24 x 1.5  
Gold plated

Part Number	Description		
	Speed	Interface	Temperature Range
DOM151-SC	14MB/s		0 ~ +70°C
DOM151-SI	14MB/s	Clock-	-40 ~ +85°C
DOM151-HC	25MB/s	wise	0 ~ +70°C
DOM151-HI	25MB/s		-40 ~ +85°C



Interface Format: IDE 40Pin  
Linker Angle: Horizontal  
Capacity: 128MB-4GB  
Dimension: 28 x 24 x 1.5  
Gold plated

Part Number	Description		
	Speed	Interface	Temperature Range
DOM251-SC	14MB/s		0 ~ +70°C
DOM251-SI	14MB/s	Clock-	-40 ~ +85°C
DOM251-HC	25MB/s	wise	0 ~ +70°C
DOM251-HI	25MB/s		-40 ~ +85°C
DOM252-SC	14MB/s		0 ~ +70°C
DOM252-SI	14MB/s	Anticlock-	-40 ~ +85°C
DOM252-HC	25MB/s	wise	0 ~ +70°C
DOM252-HI	25MB/s		-40 ~ +85°C



Interface Format: IDE 40Pin  
Linker Angle: Horizontal  
Capacity: 128MB-4GB  
Dimension: 28 x 24 x 1.5  
Gold plated

## CF Introduction

Compact flash (CF) card with nand flash memory implements a true IDE mode. It is applied more widely because it possesses the portrait of thin and stable. And approved years of compitibility running, CF card has played an important role on both industry and commercial field. For example, CF can be a startup disk instead of hard disk speeding OS. It can also be the memory in digital camera. With the requirement of higher speed, CF card will continue to improve.

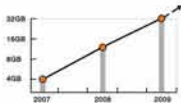
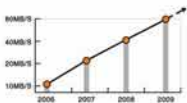


## BIWIN CF List



Part Number	Description	
	Speed	Temperature Range
CF-SC	14MB/s	0 ~ +70°C
CF-SI	14MB/s	-40 ~ +85°C
CF-HC	25MB/s	0 ~ +70°C
CF-HI	25MB/s	-40 ~ +85°C

## BIWIN CF Trend





1997 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022



## PCMCIA Introduction



PCMCIA is a wireless net protocol. As this interface satisfies the requirement of the data transfer, it can be the interface of a storage disk additionally. PCMCIA card is applied widely in notebook and some certain IPC. Like other new flash devices, PCMCIA card embodies the portrait of stable and non-volatile.

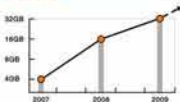
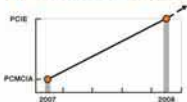
## BIWIN PCMCIA List



Capacity: 128MB-4GB  
Speed: 40MB/s  
Power: 0.20W  
MTBF: > 100,000 hours  
Dimensions: 85.6 x 54.0 mm

Part Number	Description
	Temperature Range
PCM-C	0 - +70°C
PCM-I	-40 - +85°C

## BIWIN PCMCIA Trend



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