

Company Profile

BIWIN STORAGE TECHNOLOGY CO., LTD.

BIWIN®

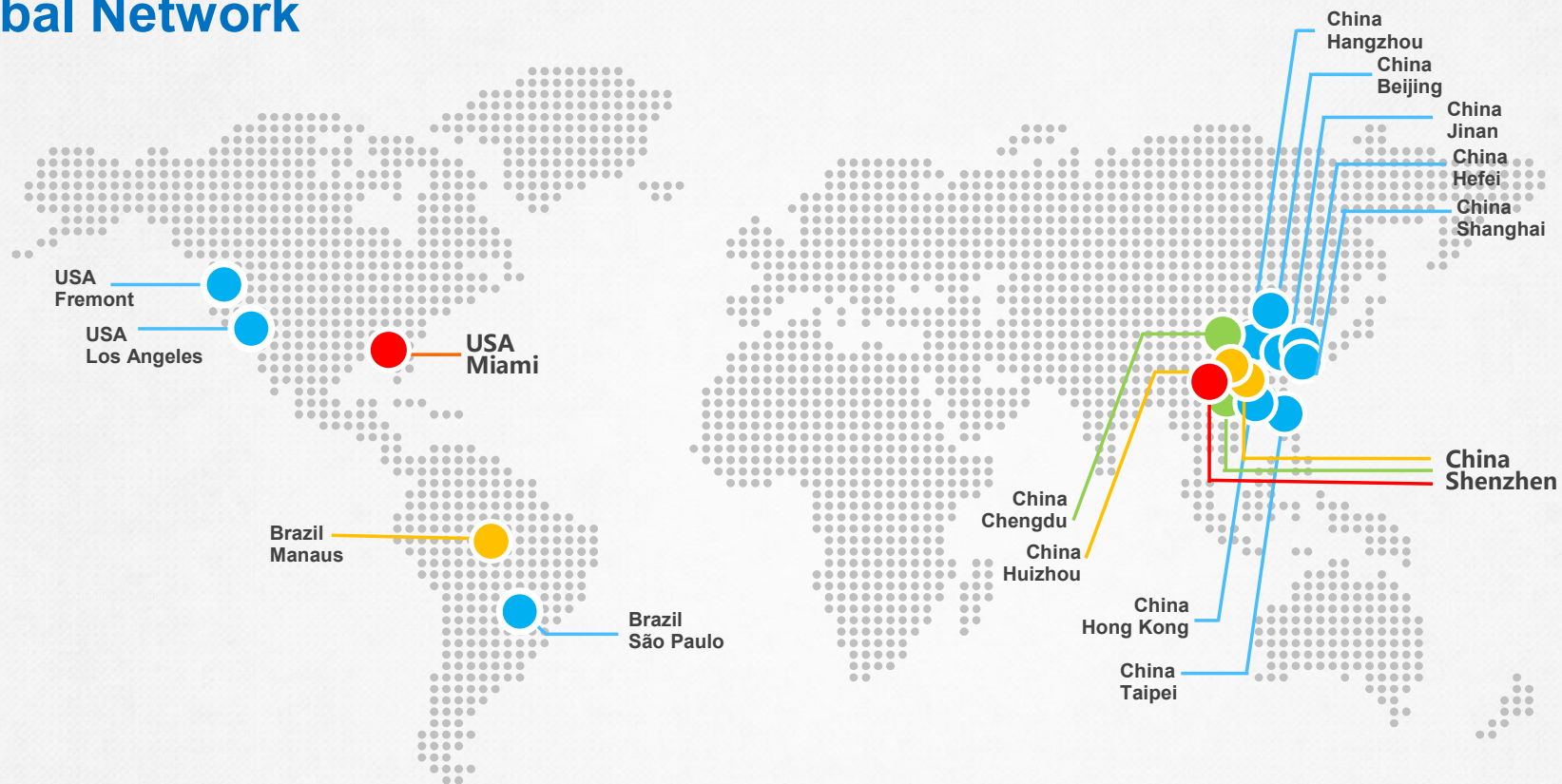
About BIWIN



- Founded in **1995**, headquarter in Shenzhen, China
- **25** years R&D in storage and micro electronics
- **12"** wafer packaging factory of Biwin built in 2009
- **11,000m²** total area of the factory
- **1K** level Dust-free workshop
- **800** staff around, multiple patents of storage core technology, self-developed software and hardware, firmware development, storage algorithm as well as craft development.
- **3** types of product & service: Storage, IOT Module, Wafer Packaging
- **One-stop service**: Circuit Design, ID Design, Module Design, Software Development, Application Development, Wafer Packaging and Testing, Turnkey Solution (Total solution).

About BIWIN

Global Network



● Headquarter

Global Headquarter: Shenzhen
 America Headquarter: Miami



● R&D center × 2

Shenzhen, Chengdu



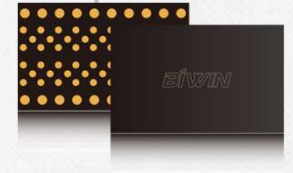
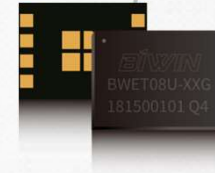
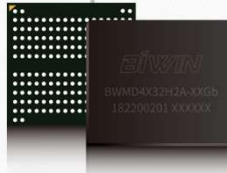
● Production location × 3

Shenzhen, Huizhou, Manaus



Overview Of BIWIN Embedded Products

R/D, Qualification,
Assembly,
Testing, SMT, Wafer PKG



eMMC

Smart phone, Tablet,
GPS, Smart TV, OTT



eMCP

Digital learning machine,
Video game player,
Smart phone



LPDDR

Mobile phone, Tablet,
GPS, Smart TV



BGA SSD

Ultrabook, 2-in-1
Laptop, tablet, Small
form factor PC, Smart
TV



SPI NAND

OTT, Optical modem,
TV set-top box



cNAND

USB drive,
Solid state drive



Overview Of BIWIN SSD

R/D, Qualification, Assembly, Testing, SMT, Wafer PKG



Industrial Storage

Monitor, Medical equipment, NC machine, Industrial Computer, ATM, POS



Enterprise Storage

Data analysis and storage, Media stream, Server, Image and video workstation



Client Storage

Laptop, Desktop, All-in-one PC



Electronic Sports

Gaming Laptop, Gaming Desktop



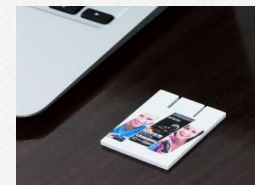
Portable SSD

Business man, Mobile Office



Customized SSD

We can provide customized service for SSD



R&D Capability

Firmware R&D

FW Front End

- Custom script testing of Test Matrix
- Adjust Front-end protocol (eMMC) process for different host platform compatibility
- Meet the front-end protocol testing requirement of eMMC 5.0



FTL

- Develop production level Independent FTL codes
- Custom FTL algorithm and architecture for different industry customers
- Fully support the script test requirements



CTL

- Quickly import various new 2D or 3D Flash; achieve MP within 1~1.5 months.
- Independent flash feature analysis team; Adjust FTL and CTL algorithm according to the analytic results of different NAND flash



MP TOOL and Self-Test FW

- Adjust mass production aging process according to different Flash features
- Advanced pilot production aging test platform and terminal customer test platform



OTA and REMP

- Complete process of OTA and REMP
- Process of debug & rework



Production-Manufacturing Capability

Factory Introduction

2009 year of foundation, Shenzhen base
Factory Areas : 12,042 square meters
Product line: embedded memory chip, USB storage module, memory card, solid state drive, package testing

	Solid State Drives (Monthly)	Flash (Monthly)	Embedded Chip (Monthly)	Package & Testing (Monthly)
SHENZHEN	350K	2M	5M	7M

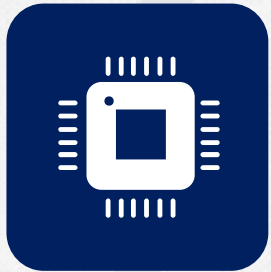
New Factory Facility (Q3/2021)

New R&D center and manufacturing based in Huizhou
Factory Areas : 110,000 m²
Production line: embedded memory chip, USB storage module, memory card, solid state drive, package testing

	Solid State Drives (Monthly)	Flash (Monthly)	Embedded Chip (Monthly)	Package & Testing (Monthly)
HUIZHOU	1.5M	20M	15M	40M

Production-Manufacturing Capability

Wafer Packaging Process



Back Grinding

Machine Model

TSK PG300RM

Precision

The wafer can be grinded to 50um thickness, tolerance +/-10um



Die Sawing

Machine Model

TSK AWD-300TXB & Disco

DFD6361

Precision

Die Sawing process is to cut the wafer into separate pieces.



Die Bonding

Machine Model

Hitachi DB700

Precision

Tolerance +/-5um



Laser Cutting

Machine Model

HAMIsemiconductor-3000

Precision

Tolerance +/-30um



Molding

Machine Model

Towa Auto Mold Y-1

Precision

Tolerance +/-0.1mm



Wire Bonding

Machine Model

K&S Iconn

Precision

Tolerance +/-5um

BIWIN Quality System Certifications



IATF:16949



AEO CERTIFICATE



IECQ-CQ 080000



ISO9001:2008



ISO14001:2015



ISO9001:2015

QCO80000/ISO14001/ISO9001/BSCI/AEO
We passed the validation of IATF:16949 in 2018

Solid State Drive

Bright Spots of BIWIN SSD



By positioning of High-end mark, we are widely accepted by customers and recognized by authorities. The Portable SSD P800 achieved CES 2018 Innovation Awards.



BIWIN STORAGE TECHNOLOGY CO., LTD.



1. **Special Field.** High-end Storage for military. Applied to Many special storage research and development projects.
2. **Financial Terminal Field.** Supplied to more than 300,000 POS Machines, ATM Machines and other high-reliability storage equipment.
3. **Vehicle-mounted Field.** Served for nearly 100,000 vehicles , and applied to High-speed train monitoring, train monitoring, bus monitoring and other mobile monitoring)



www.biwin.com.cn




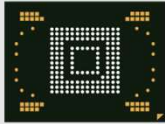

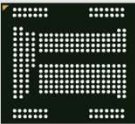











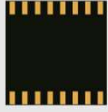



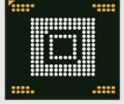
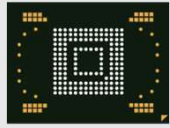


Embedded SSD Products, High speed, Thin



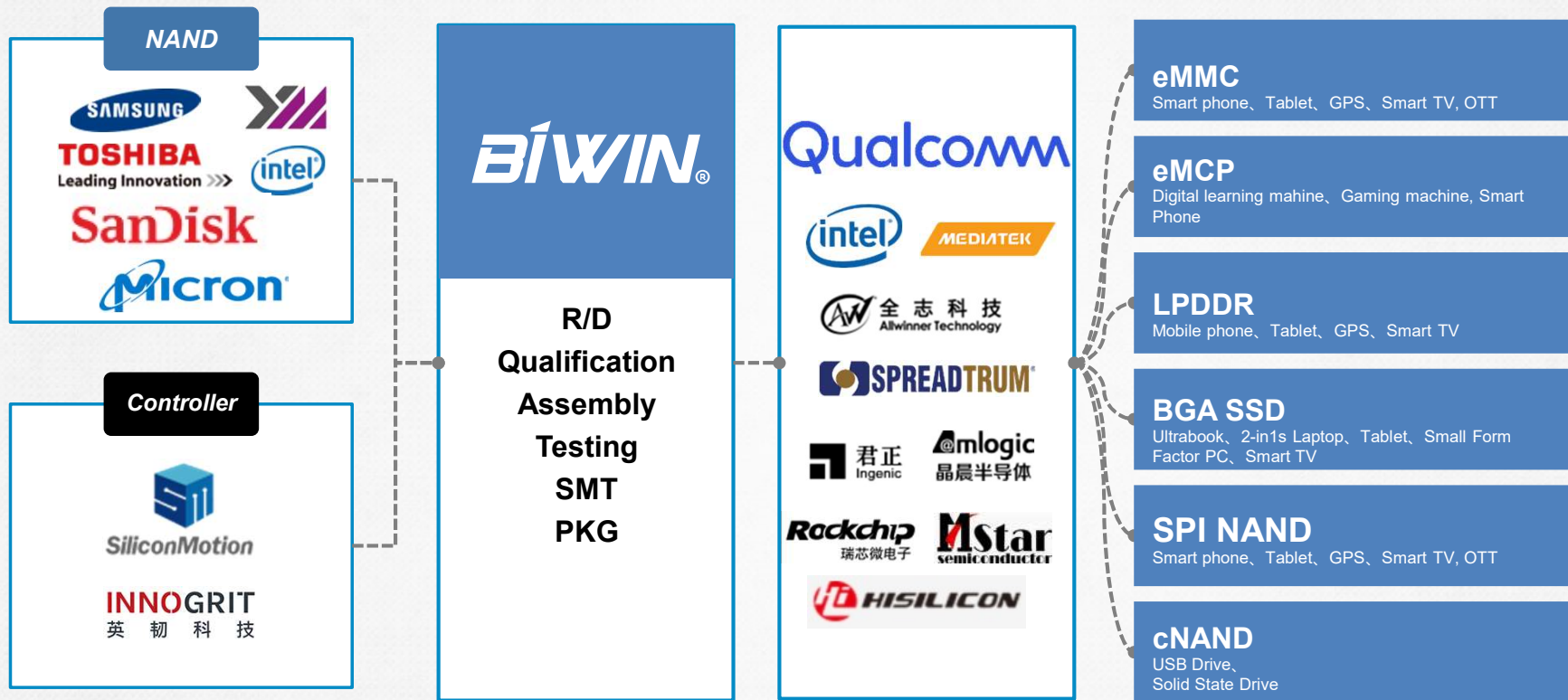
BIWIN

Embedded Product form factor

Product	eMMC				eMCP			LPDDR				ePOP
Photo												
Size(mm)	8.0×8.0	9.0×11.0	11.5×13.0	12.0×16.0 14.0*18.0	11.5×13.0	11.5×13.0 11.66×13.16	11.5×13.0 11.5X14.5	11.5×11.0	12.0×12.0	11.5×14.5	10.0×14.5	10.0×10.0
Package	LFBGA153	LFBGA153	LFBGA153	LFBGA169	LFBGA162	LFBGA221	BGA254	LFBGA178	LFBGA168	LFBGA254	LFBGA200	LFBGA136
Product	RAW NAND		nMCP		SPI NAND		DMMC			UFS		
Photo												
Size(mm)	9.0×11.0	12.0×20.0	8.0×10.5	11.5×13.0	6.0×8.0	10.3×10.6	9.0×11.00 (Controller)	12.0×20.0 (FLASH)	12.0×20.0 (FLASH)	11.5×13.0	12.0×16.0	
Package	LFBGA63	TSOP48	LFBGA162	LFBGA162	LGA 8	LGA 16	LFBGA153	BGA132	TSOP48	LFBGA153	LFBGA169	

Market and Sales

Embedded Product



Embedded Memory Chip

Bright Spots of Memory Chip



STB(Set Top Box)

Deep into China mobile set-top box market, We are STB certified original factory and the only one domestic investment NAND Flash factory.

Our annually supply of memory chips which covers nearly 20% market share. Main partner: UNIONMAN, YSTEN, Xingfei, TwoWin.



Smart Phone

With the increasing shipments to smart phone customers, our customer structure is improving. We are one of the few domestic memory chip manufacturers which can break into tier 2 mobile phone supply chain. We are stepping into Tier 1 supply chain.



Intelligent Speakers, watches, etc

The shipments to intelligent terminals, such as intelligent Speakers, Smart watch, Smart stracker and so on are growing rapidly.



Vehicle-mounted and Internet of Things

We will focus on Internet of things and on-board electronics in our future development.

We continuously supplies to Internet of things module manufacturers. We had passed the vehicle certification and began the supply.



BIWIN Strengths



Specialization

Focused on development of flash and related software products for 25 years; Relying on its leading encapsulation technology, BIWIN actively promotes storage technology and SIP to business promotion and application



Technology Advantage

Founded in 2009 with its own perfect 12' ' wafer packaging factory, BIWIN has put huge investment and energy to expand semiconductor packaging enterprise in the south of China



Quick Response

With the joint efforts of marketing team and R&D team, BIWIN constantly analyses the trend of the market, product development and customization service innovation, responses to market and customer requirements rapidly



Win-win Philosophy

Our core advantages are packaging & testing services and industry resource integration for hardware cooperations in the field of micro electronics. BIWIN is willing to work with customers on the principle of complementary advantages to develop new cooperation for storage industry

Appendix

The screenshot shows the Amazon.com website with search results for "HP SSD". The browser address bar shows the URL: amazon.com/s?k=HP+SSD&ref=nb_sb_noss_2. The Amazon logo is in the top left, and the search bar contains "HP SSD". The page shows 1-16 of 358 results. The first result is a sponsored listing for an HP S750 3D NAND 1TB Internal PC SSD, priced at \$92.99 with free shipping to Taiwan. The second result is another sponsored listing for an HP EX900 M.2 250GB PCIe 3.0 x4 NVMe 3D TLC NAND Internal Solid State Drive (SSD), priced at \$34.99 (discounted from \$49.99) with free shipping to Taiwan when spending over \$60.00. The third result is a third sponsored listing for the same HP S750 3D NAND 1TB Internal PC SSD, priced at \$92.99. The left sidebar contains filters for shipping, department, customer reviews, brand, price, and SSD size.

amazon Deliver to Taiwan All HP SSD

1-16 of 358 results for "HP SSD" Sort by: Featured

Free Shipping by Amazon
 Eligible for Free Shipping

Department
Data Storage
Internal Solid State Drives
External Solid State Drives
Laptop Computers
Traditional Laptop Computers
See All 4 Departments

Customer Reviews
★★★★★ & Up
★★★★☆ & Up
★★★☆☆ & Up
★★☆☆☆ & Up

Brand
 HP

Price
Under \$25
\$25 to \$50
\$50 to \$100
\$100 to \$200
\$200 & Above
\$ Min \$ Max Go

SSD Size

Sponsored
HP S750 3D NAND 1TB Internal PC SSD - SATA III Gb/s, 2.5", Up to 560 MB/s - 16L54AA#ABA
★★★★☆ ~ 123
\$92.99
FREE Shipping to Taiwan

Sponsored
HP EX900 M.2 250GB PCIe 3.0 x4 NVMe 3D TLC NAND Internal Solid State Drive (SSD) 2Y43AA#ABC
★★★★☆ ~ 489
\$34.99 ~~\$49.99~~
FREE Shipping to Taiwan when you spend over \$60.00 on eligible items

Sponsored
HP S750 3D NAND 1TB Internal PC SSD - SATA III Gb/s, 2.5", Up to 560 MB/s - 16L54AA#ABA
★★★★☆ ~ 123
\$92.99
FREE Shipping to Taiwan



THANKS!

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