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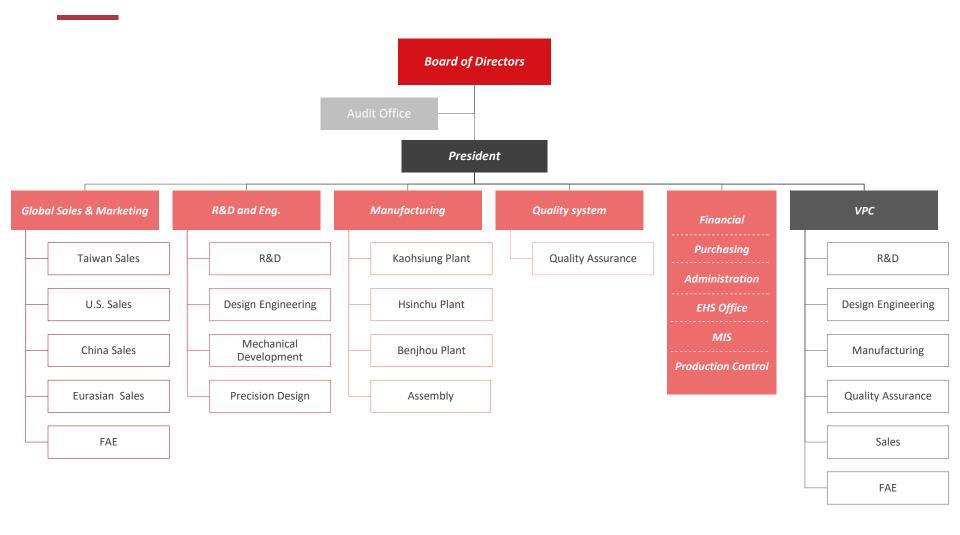


# **WinWay Introduction**

### Your trusted partner in IC testing!

Name	WinWay Technology Co., Ltd.	
Establishment Date	2001 / 04 /10	
President	Mark Wang	
Paid-in Capital	NTD 302,980,000	
Employee	592	
Location	No. 68, Chuangyi S. Rd., Nanzih Dist., Kaohsiung City, Taiwan(R.O.C)	
Business Type	Manufacturing & Wholesale Trade	
Business Item	Semiconductor testing solution	

# Organization



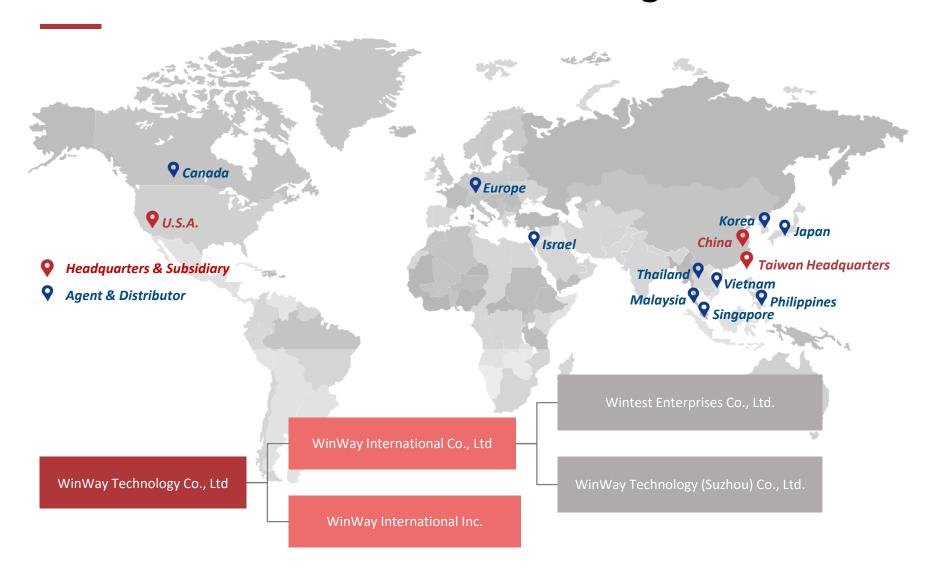


## Milestone

• 2001	Founded WinWay Tech. Co., LTD.	• 2011	Launched WLCSP fine pitch probe head/ probe card/ direct dock solution.
• 2002	Obtained various patents of semiconductor testing equipment.	• 2012	The headquarters building in Taiwan was inaugurated in December. BiTS workshop published paper
• 2004	Launched sockets for CMOS Image sensor and test fixture for BGA substrate.	• 2013	WinWay Tech. won the 22nd National Award of Outstanding Small and Medium Enterprises & the 16th Rising Star Award of the Ministry of Economic Affairs.
• 2005	Established a factory in Taoyuan.	• 2014	WinWay Technology acquired Saber Probe based vertical probe card operations of Wentworth Laboratories Inc. WinWay Technology (Suzhou) Co., Ltd. was established.
• 2006	Quality certificated with ISO-9001.	• 2015	Launched Brownie coaxial socket & E-Flux.
• 2007	Wintest Enterprises Co., Ltd and WinWay International Co., Ltd was established. Integrated Business and Service team in Hsinchu branch.	• 2016	Launched HEATCon
• 2008	WinWay International Inc. was established Launched ATC Thermal Controller.	• 2017	Launched P0.4 brownie coaxial probe head.
• 2009	Launched WLCSP Probe Head, Kelvin contact application.	• 2018	Establish the VPC division in Hsinchu branch
• 2010	Launched Sandwich Coaxial socket.	• 2019	Listed as initial Public Offering(IPO). Expand the Suzhou factory

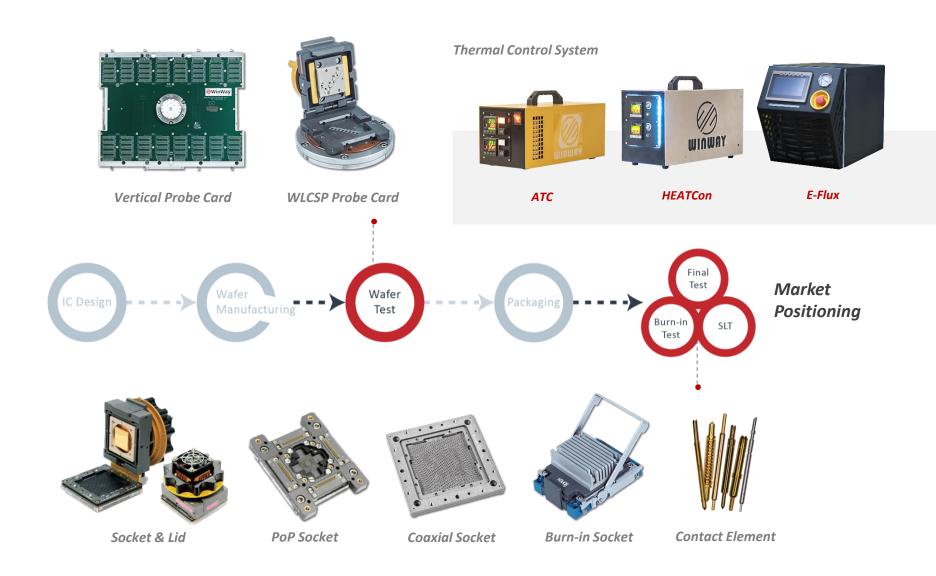


# **Subsidiaries and Service Networking**





## **Product Overview**



# **Marketing Application**











# **Product Roadmap**



#### Vertical Probe Card

- *Pitch* 80um → 60um
- *Test Temp.* -50~175°C → -50~200°C



#### WLCSP Probe Card

- Multi Site  $28 \rightarrow 32$
- **■** *Bump Count* 4500 → 5000



#### Coaxial Socket

- *Pitch* 400um → 350um
- **Speed** 56Gb/s → 112Gb/s PAM4



#### **Thermal Products**

- *Temp. Range* -60~150°C
- *High Power* 800W → 950W



#### Burn-in Socket

- High-End Customized
- Superior Precision Machining Capability

### **Market Application**



**Wireless Comm** 



Final Test

Wafer Test



A.I.



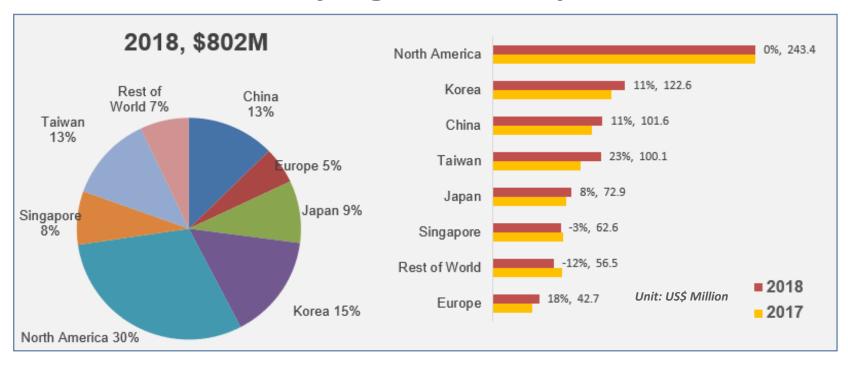


**GPU** 

### Test Socket Share 2018

Company Region		Major Product	\$M	Share %				
Cohu	Cohu North America		123.60	15.4%				
ISC	Korea	Memory	85.32	10.6%	_			
LEENO	Korea	Memory & SOC	75.80	9.4%				
Smiths Interconnect	Europe	Connector & SOC	58.30	7.3%	VLSIresearch Test Socket Share 2018			
Yokowo	Japan	Pogo Pin	Pogo Pin 54.72		Rank         Company         Share %           1         Cohu         15.4%           2         ISC         10.6%           3         LEENO         9.4%			
WinWay	Taiwan	soc	45.06	5.6%	4 Smiths Interconnect 7.3% 5 70kowo 6.8% 6 WinWay 5.6% 7 Yamaichi Electronics 4.6% 8 Enplas 3.1%			
Yamaichi Electronics	Japan	Burn-In Socket	37.25	4.6%	9 NHK Spring 3,0% 10 Johnstech 3,0%  Other 31,0%  Copyright © 2019 VLSI Research Inc. All rights reserved.			
Enplas	Japan	Burn-In Socket	24.86	3.1%	Distribution rights contained in T&Cs.  04, 2019			
NHK Spring	Japan	Pogo Pin	24.45	3.0%				
Johnstech	North America	SOC	24.00	3.0%	_			

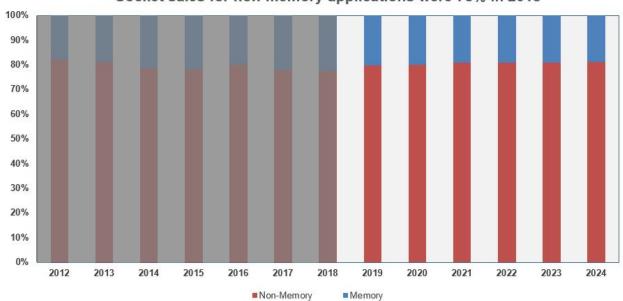
## Test Sockets by Region of Consumption 2018, \$M





### Test and Burn-in Sockets by Application

Socket sales for non-memory applications were 78% in 2018



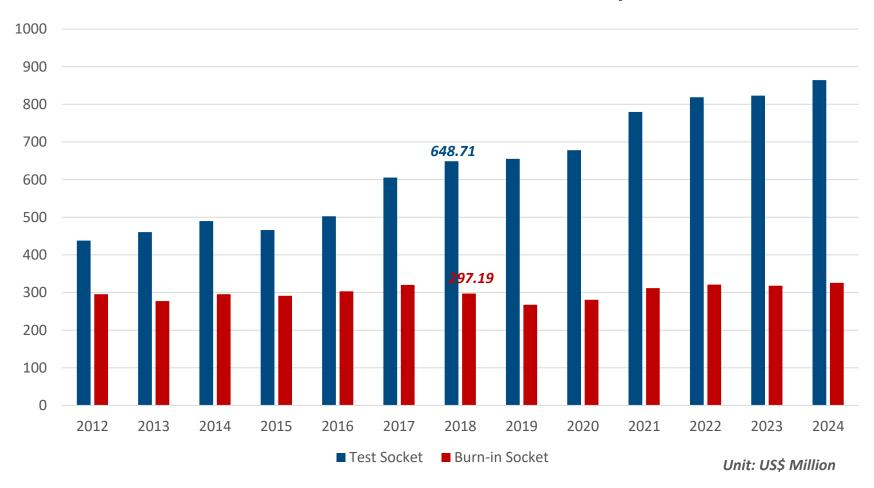
\$M

Annual Growth	3.8%	1.7%	9.7%	-2.6%	3.7%	18.3%	2.3%	-5.1%	3.8%	12.4%	4.3%	0.3%	3.9%		
Total Test and Burn-in Sockets	893.76	909.30	997.61	972.03	1007.95	1192.69	1219.58	1156.99	1200.69	1349.74	1408.41	1412.23	1467.30	6.0%	4.9%
Non-Memory	733.41	737.74	784.92	757.56	805.94	925.63	945.90	922.67	958.97	1091.58	1139.92	1140.80	1189.90	5.1%	5.2%
Memory	160.35	171.56	212.69	214.47	202.01	267.06	273.68	234.32	241.72	258.16	268.49	271.43	277.40	9.8%	3.4%
Application	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2013-2018	2019-2024
														CAGR	CAGR

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### The Test and Burn-in Socket Market for Non-Memory - Revenues, \$M





# **Core Competence**



### Soft core competence

**\** 

Worldwide 1st tier customers

**/** 

Diversified industries

 $\checkmark$ 

Complete supply chain in Taiwan

 $\checkmark$ 

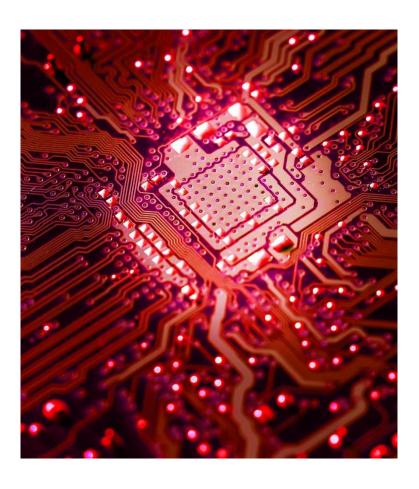
Impeccable customer service



Well-communication capability



# **Core Competence**



### **Hard core competence**



3D and simulation capability



Heavy investment in inspection equipment



Giant pin-embedding capacity



Great flexibility in lead time



Solutions to all types of packaging own 63 patents



## Certification

2006 Quality certificated with ISO-9001.

WinWay Tech. won the 22nd National Award of Outstanding
 2013 Small and Medium Enterprises & the 16th Rising Star Award of the Ministry of Economic Affairs.

 WinWay is ISO-14001 International Environmental Management System certified since 2014

Awarded the 15<sup>th</sup> Golden Torch Award for the Top Ten Outstanding and Potential Enterprises.















## **Financial Results**

