

Jingyao Technology (Shenzhen) Co., LTD

Enterprise Profile



Jingyao Technology (Shenzhen) Co., Ltd., founded in 2020, is a professional company dedicated to advanced system-level packaging design simulation, one-stop solutions for customers, and the production and sales of new energy connectors.

Core business: Advanced packaging, one-stop solutions for testing, hardware design, and processing

Application fields: industrial electronics, consumer electronics, electronic equipment, communication server equipment, new energy vehicles, energy storage and other fields.

Company policy: Create value for customers, create benefits for society, create opportunities for employees.

Catalogue



company introduction

GROUP PROFILE

01

One-stop solution

ONE-STOP SOLUTIONS

02

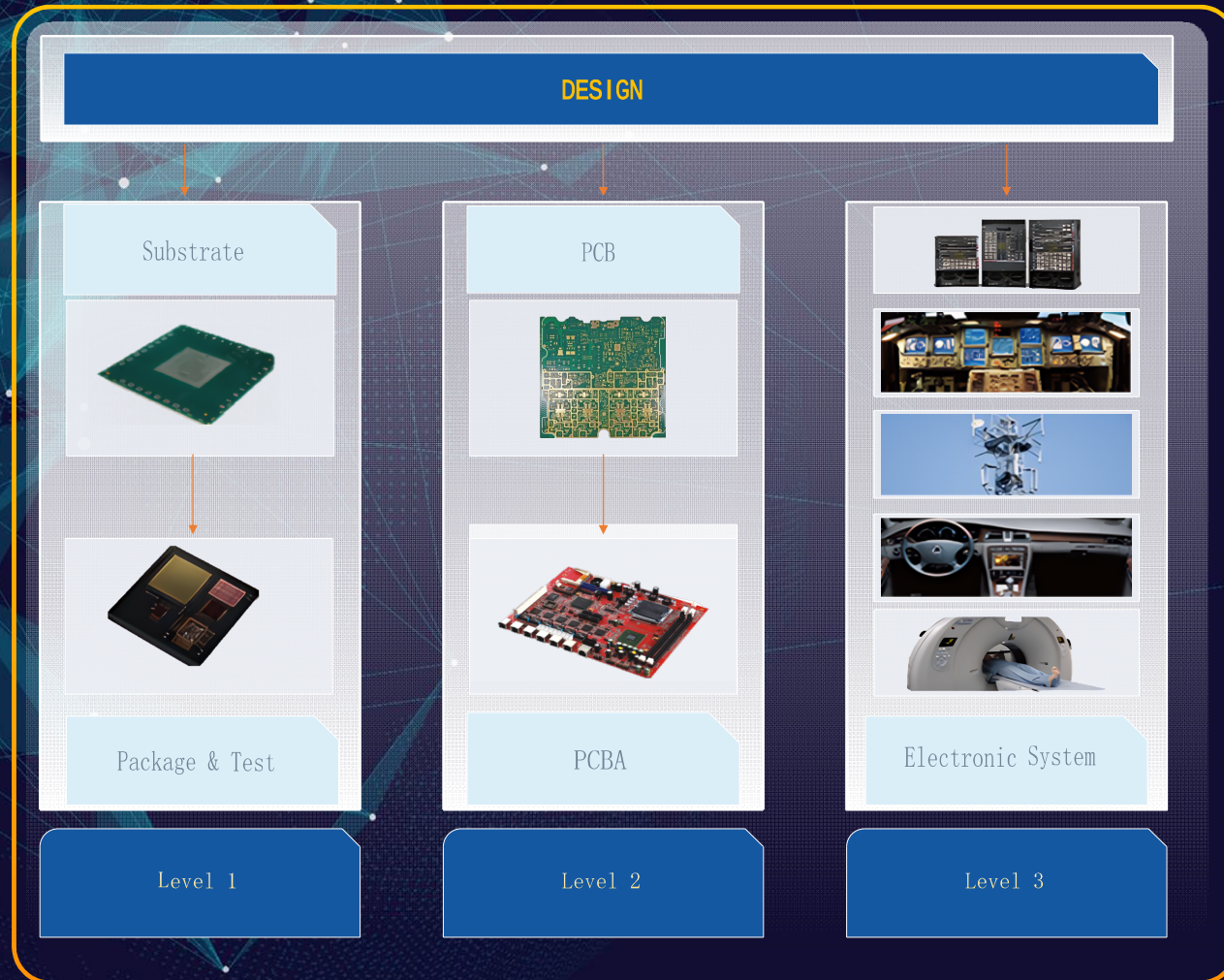
01

Company Introduction
GROUP PROFILE

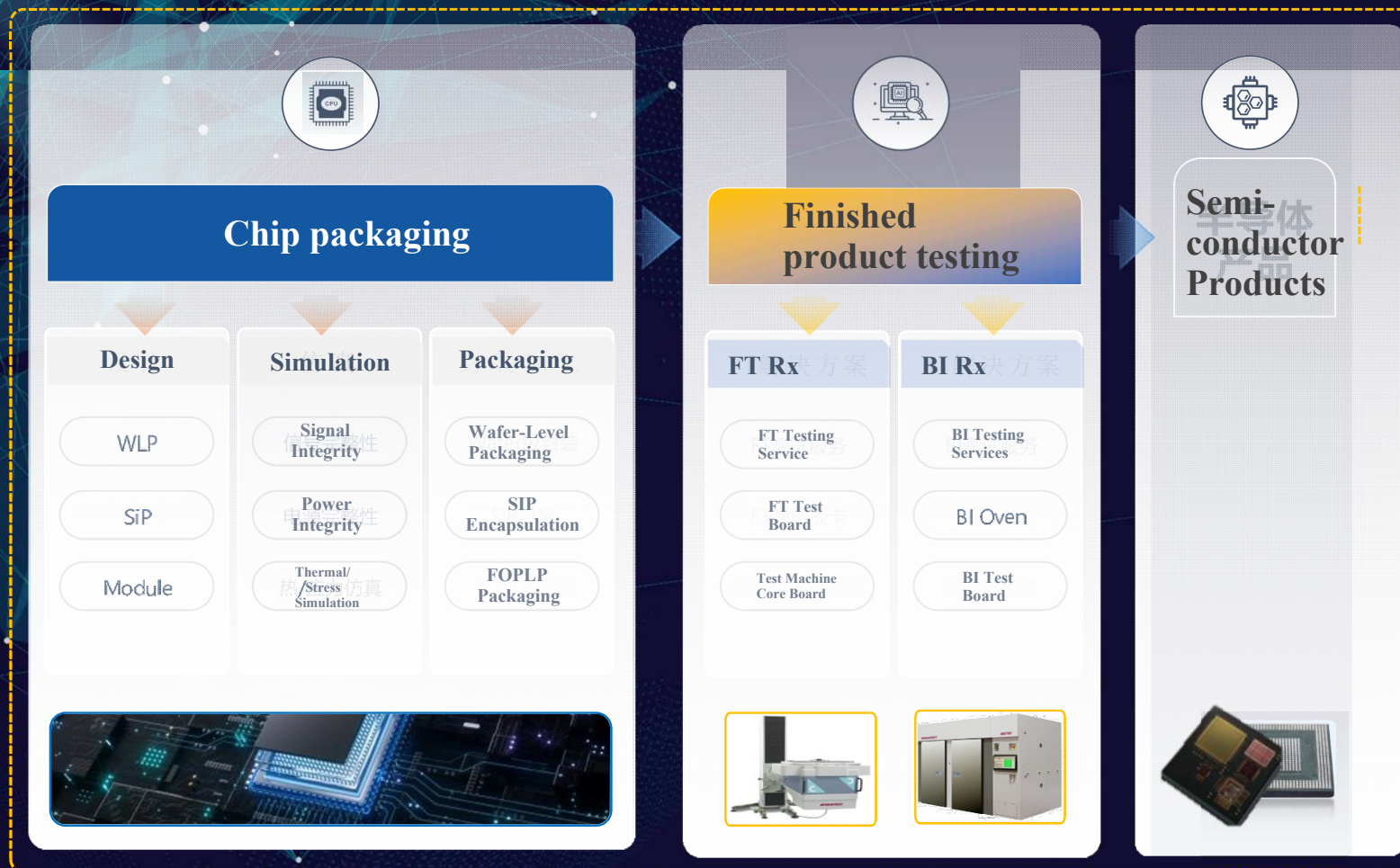
PART 01

Jingyao Technology

Main Business



One-Stop Solution



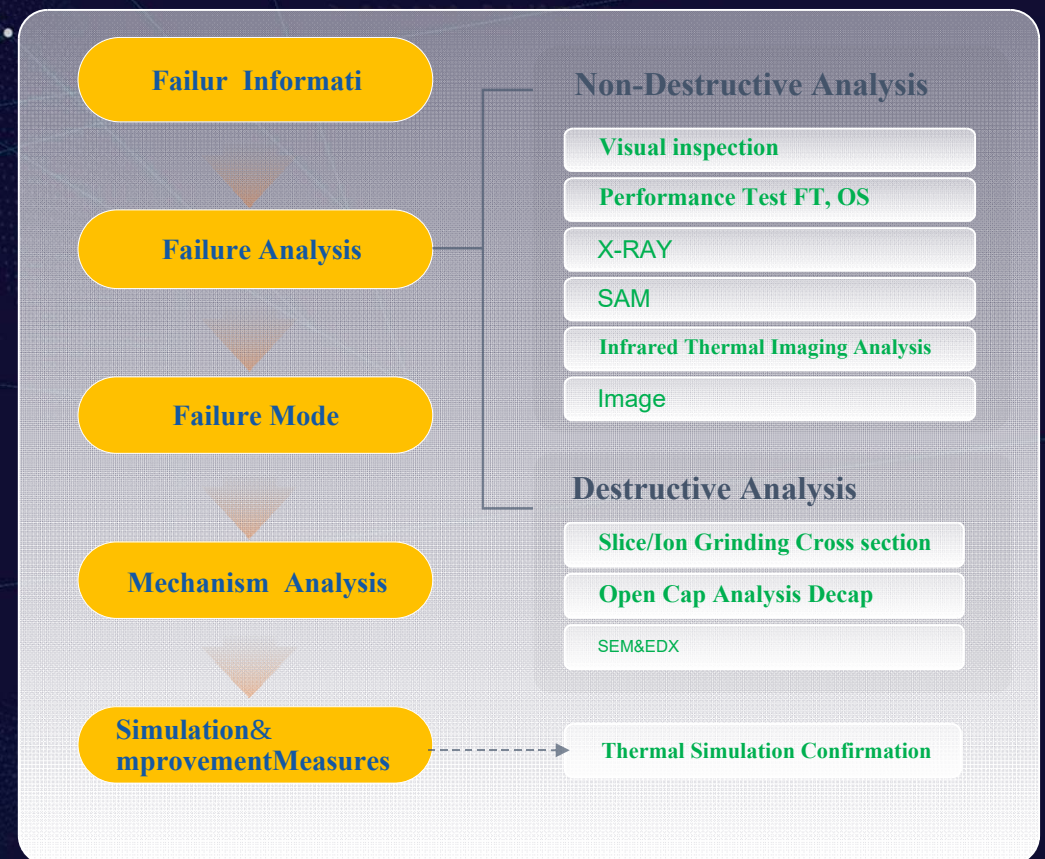
Reliability and Failure Analysis Platform



Reliability Capability



Failure Failure Capability



02

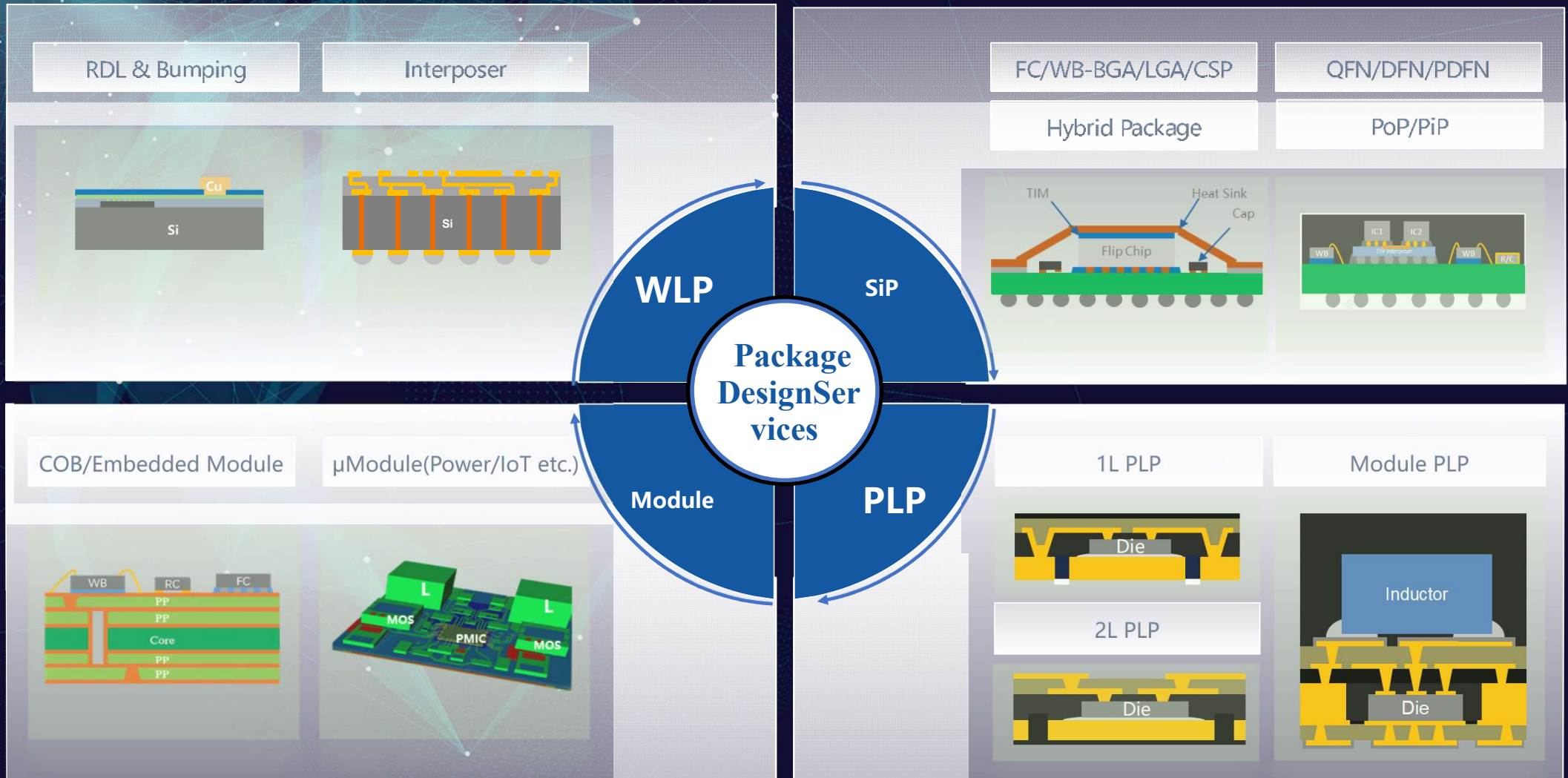
One-Stop Solution

ONE-STOP SOLUTIONS

PART 01

Advanced Packaging & SI Solution

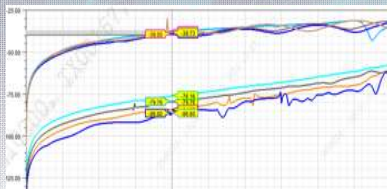
Packaging Design Service



Encapsulated Simulation Service



Signal Integrity



RLC parameter extraction

Crosstalk simulation analysis

Insertion/Return loss simulation optimization

High-speed signal impedance simulation optimization

Package Simulation Service

Power Integrity

DC pressure drop simulation optimization

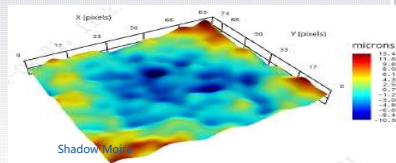
Power impedance simulation optimization

Electricity density simulation optimization

Syntony/Switch noise analysis



Mechanical Analysis



Warpage analysis

Material selection

Stress analysis

Structure optimization

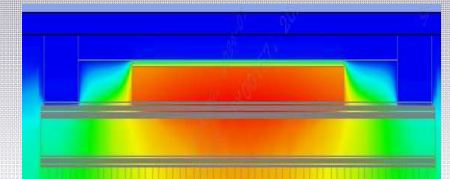
Thermal Analyses

Thermal resistance analysis

Material selection

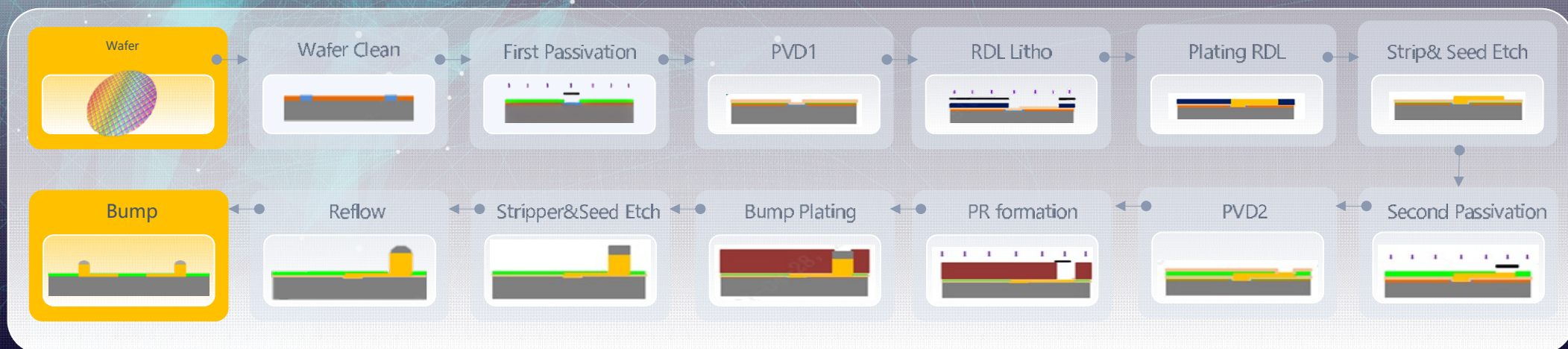
Hot spot analysis

Structure optimization
Thermal Analyses

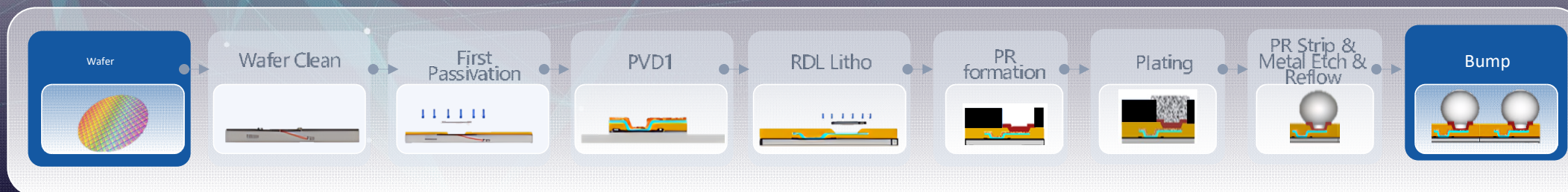


Bumping Process

Copper Pillar Bump Flow

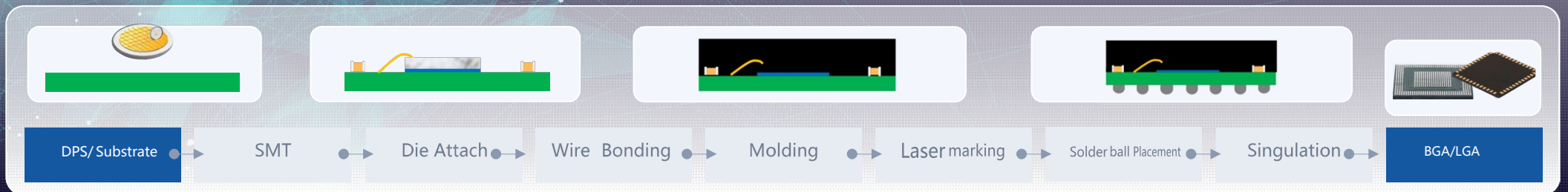


Solder Bump Flow

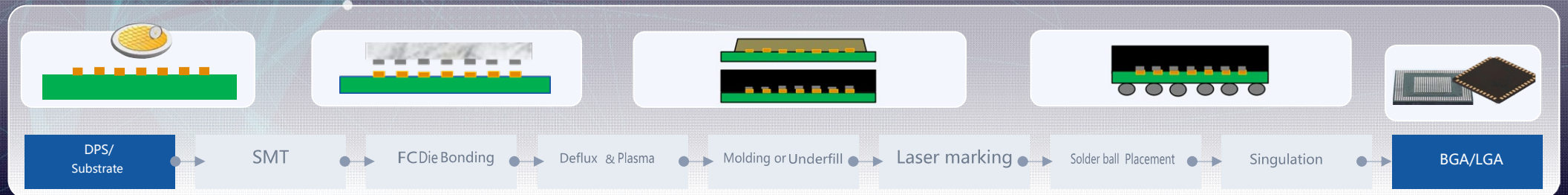


SiP/FOPLP Process

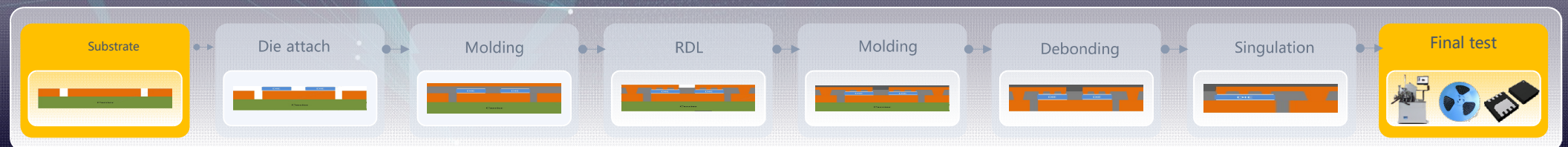
SiP-WB工艺流程



SiP-FC工艺流程



FOPLP工艺流程



Bumping Roadmap



Item		2025-HVM	2025-NPI	2026	2027
Tech node		5nm	5nm	5nm	3nm
Wafer size		8&12	8&12	8&12	8&12
Wafer type		Silicon	Silicon	Silicon, Glass carrier	Silicon, Glass carrier
Notch type		Notch	Notch	Notch, Flat	Notch, Flat
Mask layer		3P3M	3P3M	4P4M	4P4M
I/O Pin count (DIE)		40000	>45000	←	←
Bump structure	Copper Pillar	Cu/Ni/SnAg	Cu/Ni/SnAg Cu/Ni/Cu/SnAg	←	←
	Solder Bump	Cu/Ni/SnAg Cu/SnAg	Cu/Ni/SnAg Cu/SnAg	←	←
	Ball Mount	—	—	Cu/SnAg	Cu/SnAg
Min. Bump Pitch / Min. Bump Size	Copper Pillar	80/40μm	60/30μm	45/25μm	45/25μm
	Solder Bump	120/80μm	100/65μm	90/45μm	90/45μm
	Ball Mount	—	—	350/225μm	300/150μm
Max. Bump Height	Copper Pillar	110μm	110μm	110μm	←
	Solder Bump	85μm	95μm	95μm	←
RDL Process	RDL Material	Cu (+Ni/Pd/Au)	Cu (+Ni/Pd/Au)	Cu (+Ni/Pd/Au)	←
	Min. RDL L/S	8/8μm	6/6μm	4/4μm	←
	Max. RDL THK	10μm	12μm	12μm	←

SiP Roadmap



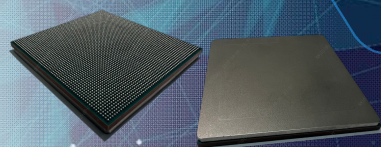
Process critical process capability	2025	2026	2027
Min. SMD	01005	008004	008004
Min. BGA pitch	0.25mm	0.20mm	0.20mm
Minimum BG Thickness	75μm	50μm	50μm
BG Tolerance	10μm	7μm	5μm
FC Bump Spacing	≥110μm	≥100μm	≥ 80μm
FC Size	0.5*0.5≤Size≤32*25mm	0.5*0.5≤Size≤32*25mm	0.5*0.5≤Size≤32*25mm
Die Thickness	≥75μm	≥50μm	≥50μm
DA Size	0.15*0.15≤Size≤30*30mm	0.15*0.15≤Size≤50*50mm	0.15*0.15≤Size≤50*50mm
WIRE Type	AU /AU-Ag Alloy/CU/Al Wire/AL Ribbon	AU /AU-Ag Alloy/CU/Al Wire/AL Ribbon	AU /AU-Ag Alloy/CU/Al Wire/AL Ribbon
WIRE Size	0.6-2.0mil	0.6-2.0mil	0.6-2.0mil
BPP/BPO	40/36μm	40/36μm	40/36μm
Mold Type	CoB/CUF/MUF/E-MUF/Double-Side		
Mold Cap	0.35/0.4/0.45/0.54/0.6/0.68/0.7/0.8/1.2/1.5/2.5/4.0/5.5		
Ball Size	P.5/B 0.3mm	P.4/B 0.25mm	P.4/B 0.25mm

Server/Communication/Industrial Control Products



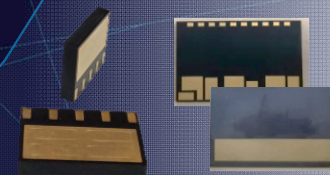
XPU

High density FC+ metal cover
Multilayer ELIC substrate



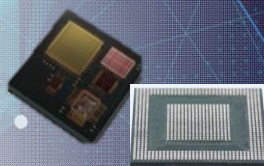
GaN Module Power

PLP+Molding
Multi Chip Module



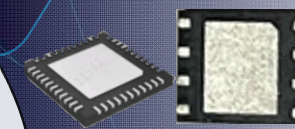
Info. Processing Module

High density FC+ metal cover
Multilayer ELIC substrate



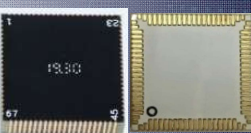
RadioFrequency Module

QFN structure
Single/multi-chip integration



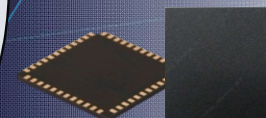
Bus Control Module

Embedded solution
Plastic package
Side half-hole structure



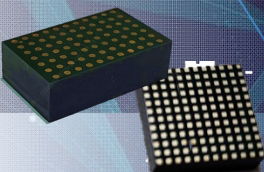
Wireless comm. Module

PiP structure
Multi-chip integration



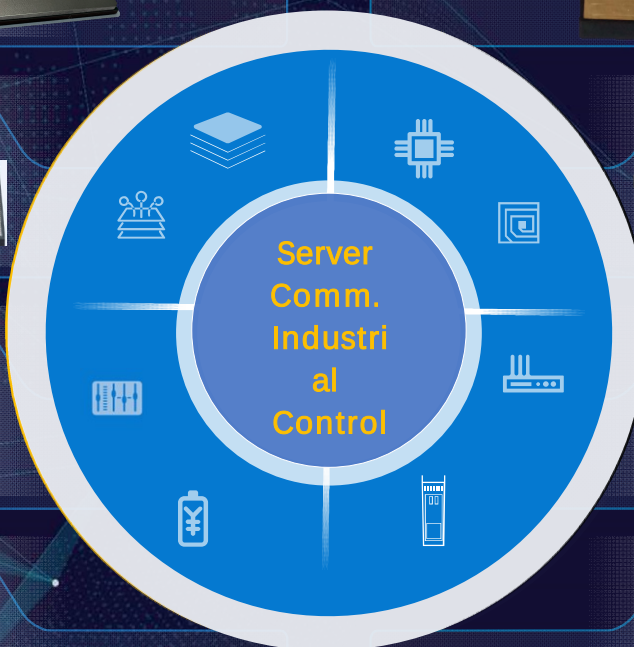
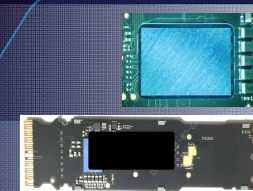
Module Power

SB/PiP structure
High heat dissipation
multi-chip integration



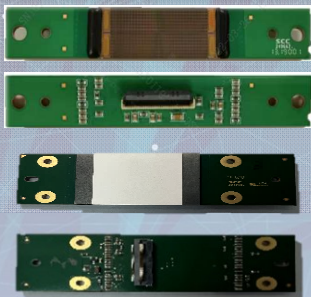
Optical Module 800G/1.6T

16L, MSAP, HDI
DSP FC on PCB



Medical Products

High-end medical CT detector



Photodiode "seamless" array

Position accuracy $\pm 15\mu\text{m}$ (Cpk@1.33)

Contour accuracy $\pm 30\mu\text{m}$ (Cpk@1.33)

Photon counting CT detector

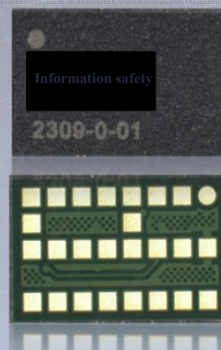


Switchboard + Stacked package

Low temperature ball grid array bonding

Pixel size $300 \times 300\mu\text{m}$
Array 24×36

Hearing aid module

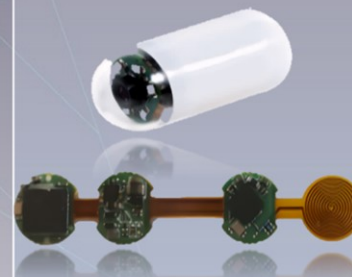


Three-dimensional integrated structure

WB/PiP process

0201 R/C is integrated on board

Capsule Endoscopes



FPC/R-FPC structure

COB process

Shape accuracy $\pm 0.1\text{mm}$

Gene detection computing module



Adapter board + Stack package

Crimping technology

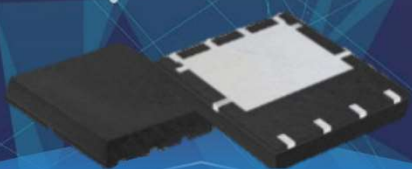
0.25mm small spacing

Automotive Products



Power
management
电池管理

PDFN5*6 (Clip)

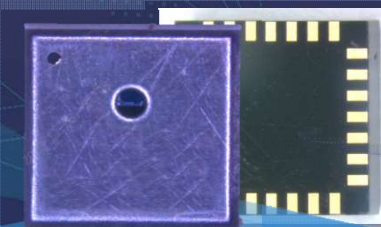


胎压传感器

TPM sensors

局部塑封
系统集成化

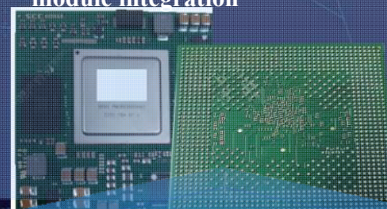
Local plastic packageSystem
integration



ADAScontrol module
ADAS控制模组

XPU封装

系统模组集成化
XPU packageSystem
module integration

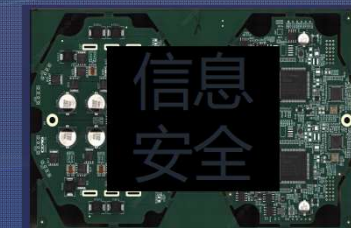


**EPS电动助力
转向控制模组**

EPS electricpower
steeringcontrol
module

MOS铜块焊接散热

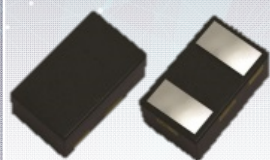
MOS copper block solderingfor heat
dissipation



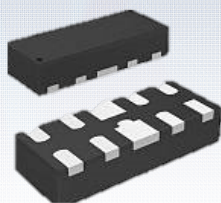
Consumer Products



TVS

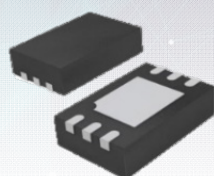


DFN0603/1006

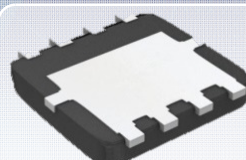


DFN2510

MOSFET

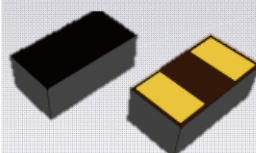


DFN3*3



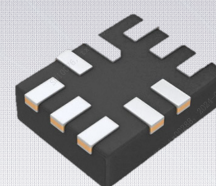
DFN3.3*3.3

PESD



PESD0201/0402/
0603/2510

PMIC



DFN2*2/3*3

Light sensing



Transparent
package isolated
transmitting and
receiving ends

Battery Protection Module



PiP structure
Rigid-Flex PCB
plastic package/Rigid
+flexible soldering

02

One-Stop Solution

ONE-STOP SOLUTIONS

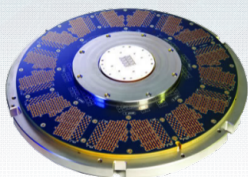
PART 02

IC Test Solution

Integrated Circuit Test Solutions



Probe Card



Load Board



CP Test Scheme

Probe Card Board + CP Test Service

CP Test Service



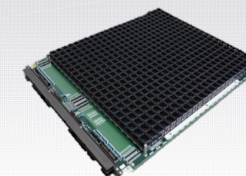
FT Test Scheme

Load Board Board + FT Test Service

FT Test Service



Burn-in Board



Burn - in test solution BIB

aging board + aging test system

Custom development of aging test system



Test Board Design Capability



Type	Test equipment manufacturer	Machine Model
CP/FT	Advantest	T2000/V93K Series WPI 、 Load Board 、 Probe Card
		T5830 Probe Card
	Teradyne	J750/J750HD/EX Load Board、 Probe Card
		Catalyst
		IFLEX/UFLEX
	LTX-CREDENCE	M2 Probe Card
		D10/DX
	NCATEST	NTS1625/NTS1625L WPB 、 Probe Card
		K8000 Load Board 、 Probe Card
	Chroma	3360/3380
Burn-in	JEC	P6502
	DI	AF8652、 AF8862、 DL600、 DL601、 DL601H2M
		DL601HV16、 DL602、 DL612H2M
	STK	SBS22010
	SSE	B1120M
	MCC	HPB5C、 LC2
	ADVANTEST	B6700

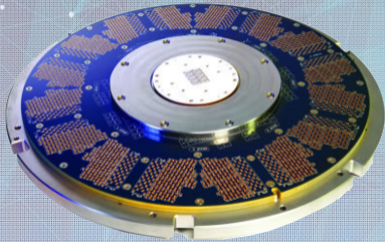
Test Board Manufacturing Capability



Project			Standard Capability	R&D Capability
PCB	BGA Pitch		0.4mm	0.35mm
	Min. Drill		0.13mm	0.10mm
	Aspect Ratio		3:3	4:0
	Layer Count		2~70L	120L
	Board Thickness		8mm (320mil)	10mm (400mil)
	Warpage Tolerance	Load Board	0.4%	0.3%
		Probe Card	0.3%	0.2%
	Impedance Tolerance	Inner Layer	±7%	±5%
		Outer Layer	±10%	±7%
	LB/PC PCB Material	HighTg FR4	EM827, 370HR, S1000-2, IT180A, T158, TU862HF	
		High Speed	Megtron6, Megtron4, Megtron7, TU872SLK, FR408HR, N4000-13 Series, MW4000, MW2000	
		High Frequency	Ro3003, Ro3006, Ro4350B, Ro4360G2, Ro4835	
Assembly	BIB PCB Material	Polyimide (135 to 180°C)	Arlon 85N/33N, ShengYi SH260	
		HighTg FR4(up to 135°C)	EM827, S1000-2, IT180A, 370HR	
	Max.PCB Size for Assembly		610*610mm	610*1068mm
	Max. Board Thickness		6mm	8mm
	Component Size		0.4*0.2--74*74mm	0.2*0.1--74*74mm

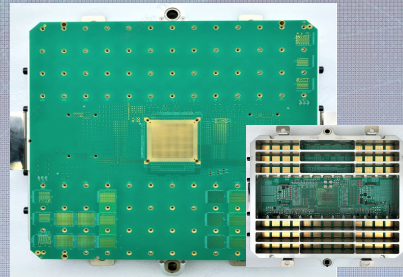
Typical Test Board Products

Probe Card



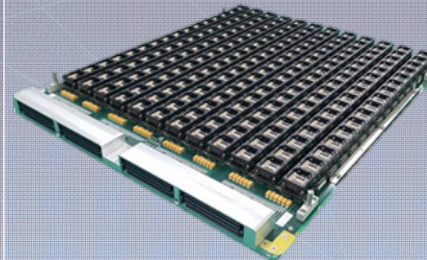
Product type	Probe Card
Application	SOC Wafer CpTestn
Material	IT80A
Layer	32L
Thickness	6.35mm
Aspect Ration	26:1
Warpage	0.2%

Load Board



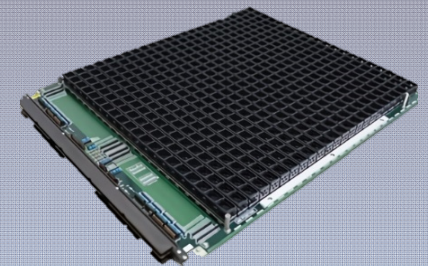
Product type	Product type
Application	SOCFTTest
Material	Megtron-6
Layer	54L
Thickness	6.0mm
Aspect Ration	30:1
Warpage	0.5mm

DDR DIB



Product type	DDR DIB
Application	DRAMBITest
Material	570*440mm
Layer	16L
Thickness	125 °C
Aspect Ration	0.8mm
Warpage	384

NAND BIB



Product type	NAND BIB
Application	FlashBITest
Material	570*440mm
Layer	1.6mm
Thickness	125
Aspect Ration	0.5mm
Warpage	320

CP/FT Test Service



Service item

TestProgram Development

Provide test program development and debugging services of mainstream test machine

TestSolution Development

Based on chip test requirements develop reasonable testing and verification schemes for customers

FT Service

Provide engineer lots verification and mass FT testing services

CP Test Service

Provide engineer lots verification and mass Cp testing services

Test machine manufacturer	Machine model	configure	Test machine manufacturer and model	configure
ADVANTEST	V93000, SoC, CTH	704CH DPS64*1 UHC4T*1, PS1600*6+PS9G*1+AVI 64 *1	Chroma	Chroma 3360 P2 Digital 256 I/O, DPS*1 (8CID) PMU*2 8CH PAWI*1
	V93000, SoC, CTH	SoC ATE 256CH DPS 128*1- WSRF*1+PS1600*2	TBS test	T-800C, SoC 512CH SMU10*1 32CH, HDM800*8
	V93000, SoC, CTH	SoC ATE 384CH DPS 128*1- WSRF*1+PS1600*3		T 800D SoC SoC ATE 512CH SMU10T*1 96CH HDM800D*1
	V93000, RF, CTH	Analog*1+RF Source*2+RF Front End*1		AdaptStar-A Digital 256 I/O DPS 8CH, PMU 8CH, TMC 8CH, HV 8CH
	T2000, SoC	512CH DPS 32A*1, MDM800*1 BWGD*1+WLS32 A*1	SANDTEK	AdaptStar-Q Digital 256 I/O DPS 8CH, PMU 8CH, TMC 8CH, HV 8CH
	FVA 100	128CH 200Mbps 8AWG-8DCIT		



V93000



T2000



T800



3360 P2/3380



Jingyao Technology

打造国际一流的半导体器件模组

一站式解决方案提供商

Become a world-class one-stop solution provider for
emiconductor device modules

