创海芯测试方案

GuangDong CHX Tech Co.,Ltd

CONTENTS

目录

1 Company Profile

2 ATE Test Solutions

3 Burn-In Test Solutions

PART 1

Company Profile

公司介绍

广东创海芯科技有限公司为专业从事存储器件测试解决方案公司，已与韩国知名测试设备厂家共同开多个MTK和英特尔方案的存储器件测试仪器。并积累丰富的经验与技术。并代理韩国Okins公司产品。（如探针、导电胶、治具、烧入板等测试部件）

Gn Electronics

ATE Test Solutions

PART 2

ATE Test Solutions

COK — Able to supply as a turnkey solutions

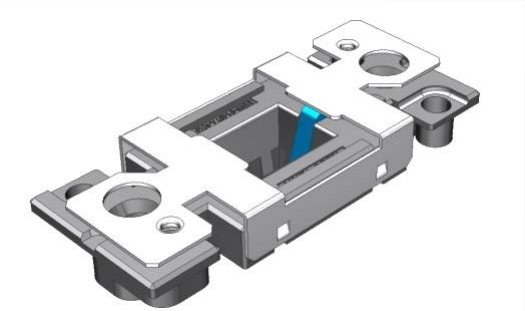
Test socket — Able to supply various types; pogo pin, stamped contact, elastomeric contact, etc

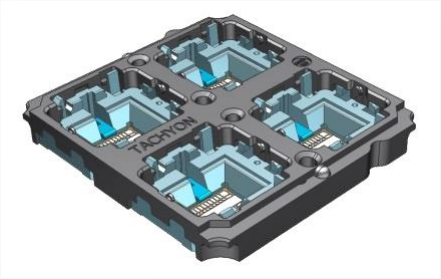
Interface — Able to supply customized connectors, cables and interface products

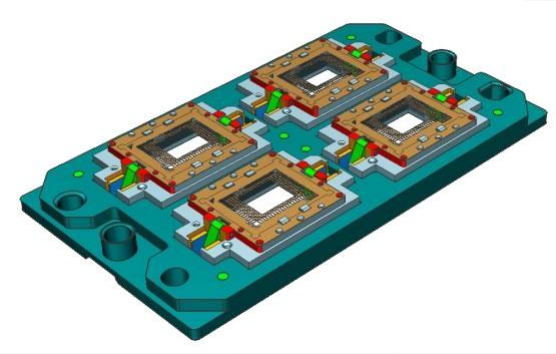
COK (Change Over Kit)

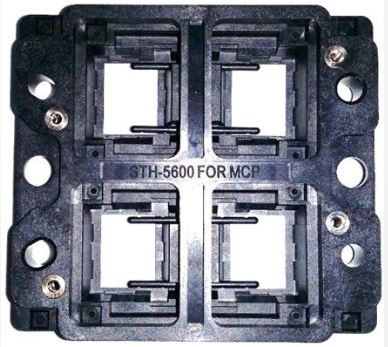
Change Over Kit (COK) is an essential part of the handler which enables to offer the optimized test condition to the test handler for the various kinds of testing package.

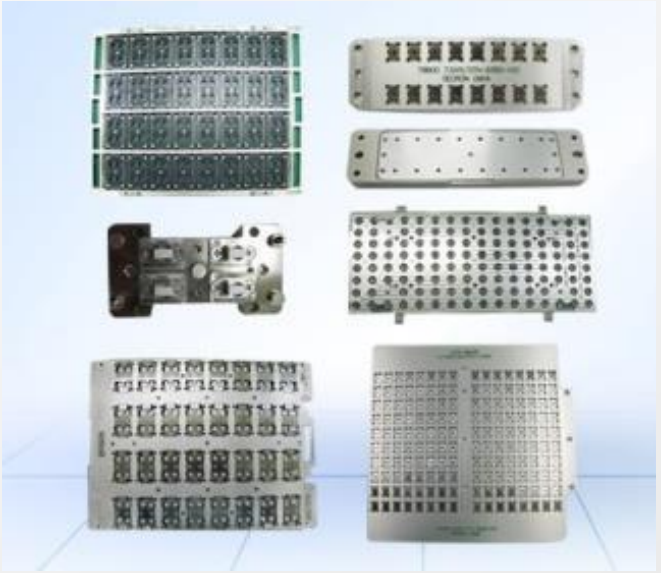
COK is needed for various package test applications, and each kit is basically designed for handler type, package specs and test socket.







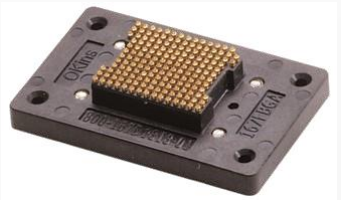


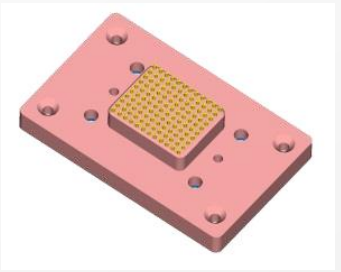
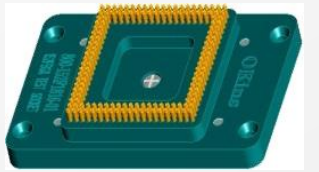
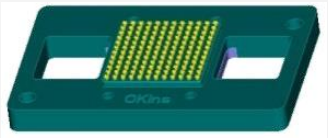
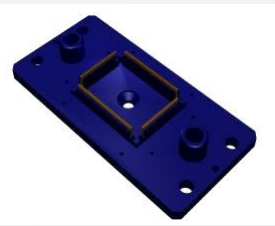
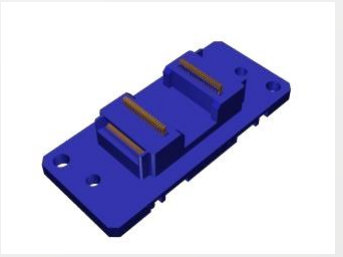


Detailed information could be available upon request.

Test Sockets

As a leading supplier of package test solution, OKins has been designing and producing DUT (Device Under Test) test contacts for memory IC products, requiring high bandwidth transmission, precise mechanical alignment and high throughput test production.
Based on a variety of experience in package test interface, OKins not only meets with but tries to exceed all of customers' expectations in this cutting-edge technology time. OKins should be able to provide the unique solution.

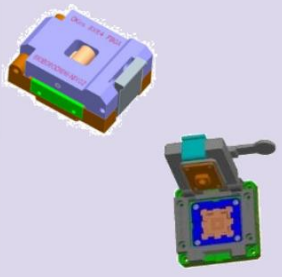
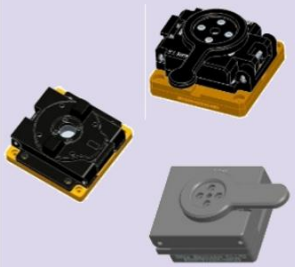
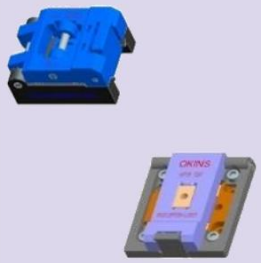
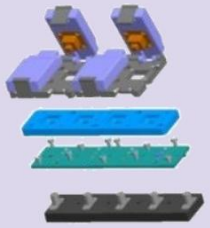
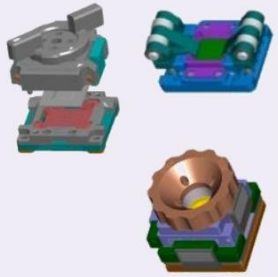
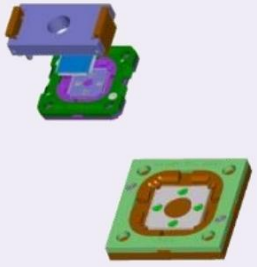
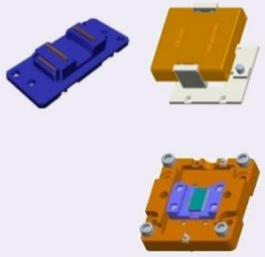
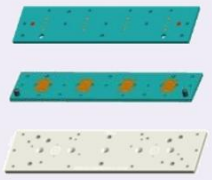


-Package: TSOP, QFP, BGA, CSP, etc
-Contacts: stamped contact, spring probes (pogo), Poly socket (elastomer)
-Handler platform: Advantest, Techwing, Mirae, Semes, etc

Test Sockets Non-memory

OKins offers high performance test sockets for both Manual andATE handler operation. Our support finds at most of semiconductor packages such as BGA, CSP, (T)QFP, (T)SOP, QFN/MLF, PLCC, CIS module,
CCM connector and LCD connector.
Our development support is based on diverse experiences and careers with requirements driven marketing activity which ultimately reaches with No Limit in capability.

		BGA/CSP	QFN/MLF	T/MQFP	T/SSOP	Strip Test
Pitch (MIN)		0.2mm	0.2mm	0.35mm	0.35mm	0.3mm
Contact		Spring probes, Genaro pin	Spring probes, Genaro pin	Spring probes, Genaro pin	Spring probes, Stamped pin	Spring probes, Genaro pin
Design	Clamshell					
	Clip-on, Bottle cap					

Kelvin Test Socket

General features of Genaro Kelvin socket

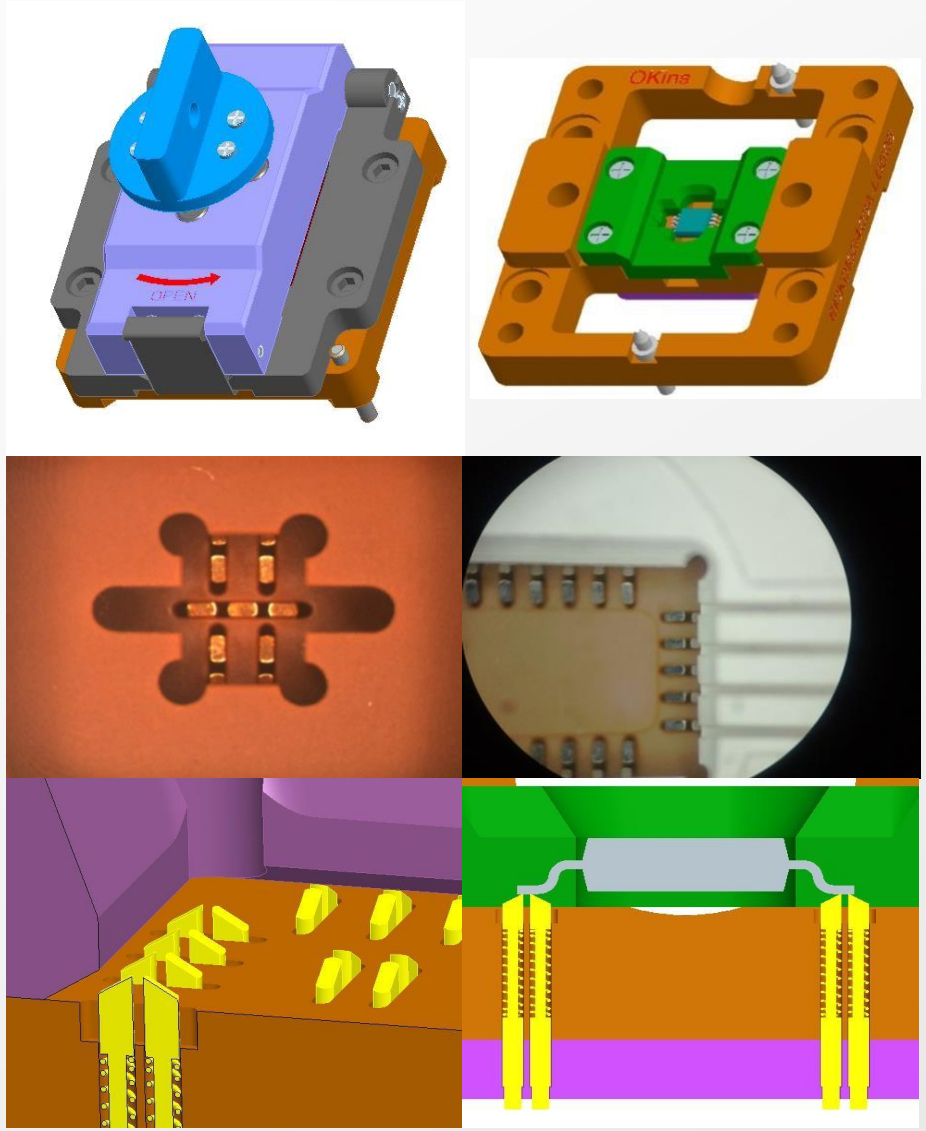
- Spring probe technology based Kelvin contact
- Off-set pointed contacts for close Kelvin matching
- Individual pin action of 2 points contact to package pad
- Capable of 0.35mm & over pitch pad for Kelvin contact
- Complete socket solution with Genaro Kelvin pin

Benefits of OKins Kelvin Test Socket

- High yield performance proven

: Especially 1st pass yield improvement

- Longer life span for cost improvement (more than 500K)
- Cater various contact design variables
- Diversified designs available for package pitch, pin length and plunger tip shape (0.35/0.4/0.5/0.8mm pitch)



Coaxial Test Socket

Precision Controlled Impedance

Design Features

- Complete 50 ohm controlled impedance

: customized impedance control

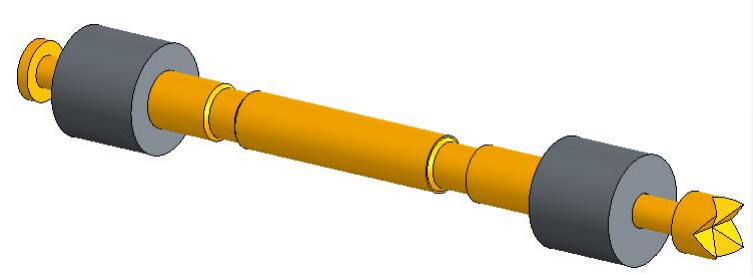
- High speed transmission

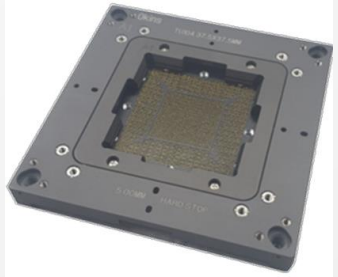
Insertion loss (S21): 106GHz@-1dB

Return loss (S11): 8.15GHz @-25dB

- Device ball pitch down to 0.7mm (available above 0.7mm)

- Designed for Ball packages (CSP, BGA, etc)





Benefits of OKins Coax Test Socket

- High speed coaxial signal transmission - with mechanical

advantages of spring probes.

- Grounded socket body - socket ground pins are connected to the

conductive socket body.

- True coax performance 1 – whole socket body & all ground pins

are grounded.

- True coax performance 2 - signal pins are isolated from the socket

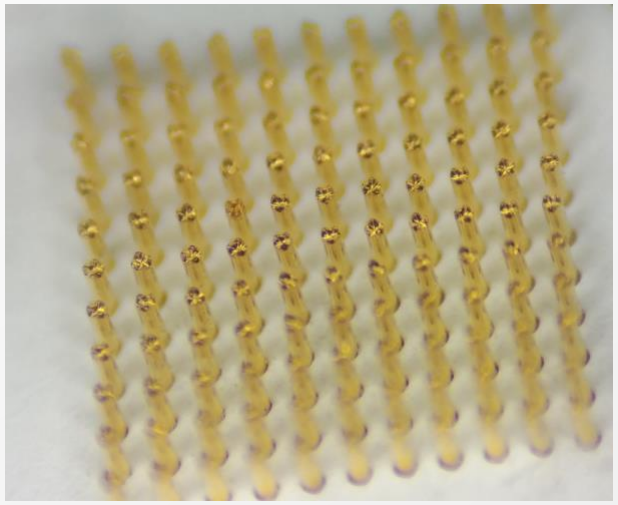
body, with excellent dielectric constant.

WLCSP Test Socket

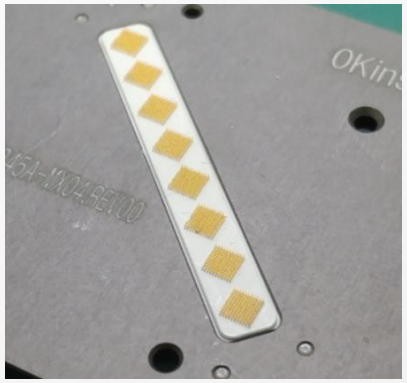
Wafer level CSP testing

Design description

- Spring probes for vertical contact
- Multi-site chip testing (wafer level)
- Design for manual & ATE operation
- Available pitch for 0.15mm and over



Socket overview



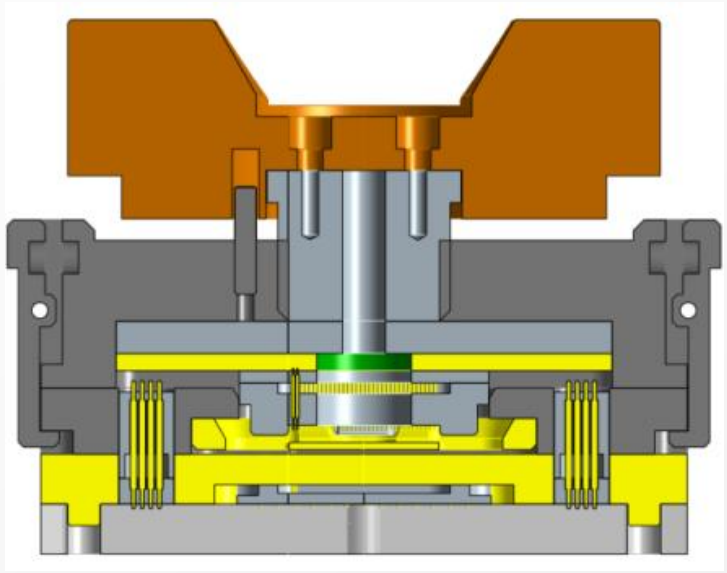
Wafer testing

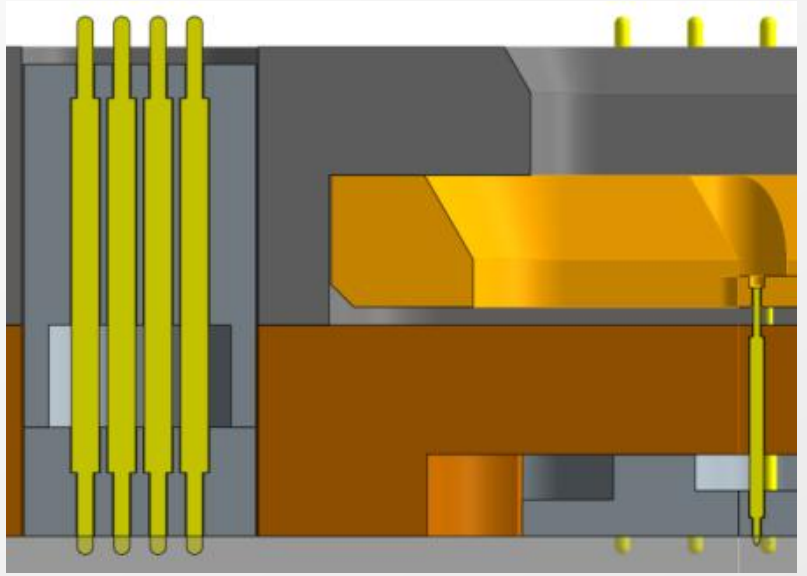
Package testing

POP Test Socket

Key Features

- Various POP package testing
- ATE handler & Manual test operation
- Fine alignment features control
- Signal integrity on both top and bottom packages
- Controlled impedance

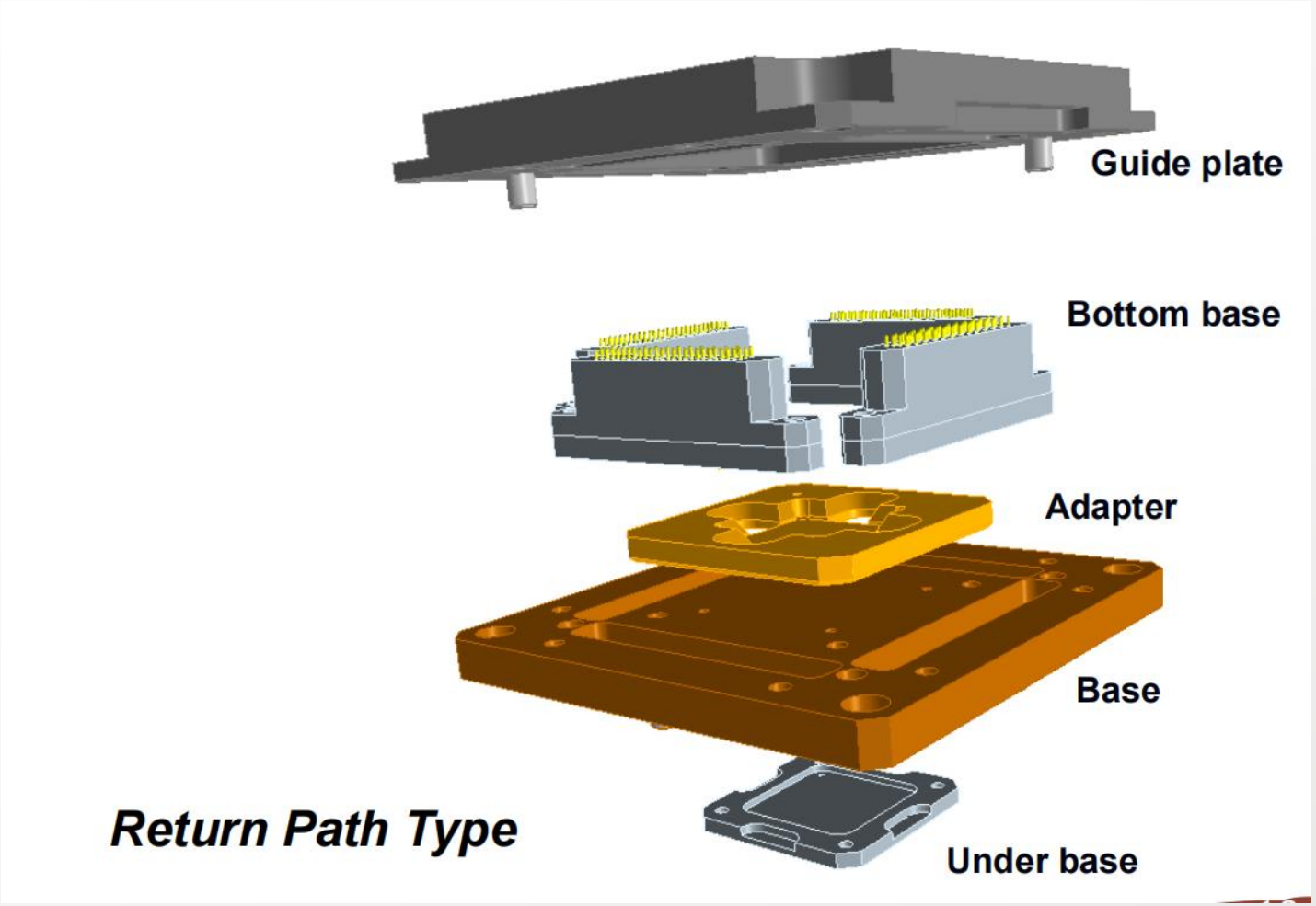




POP Test Socket

Return Path Type

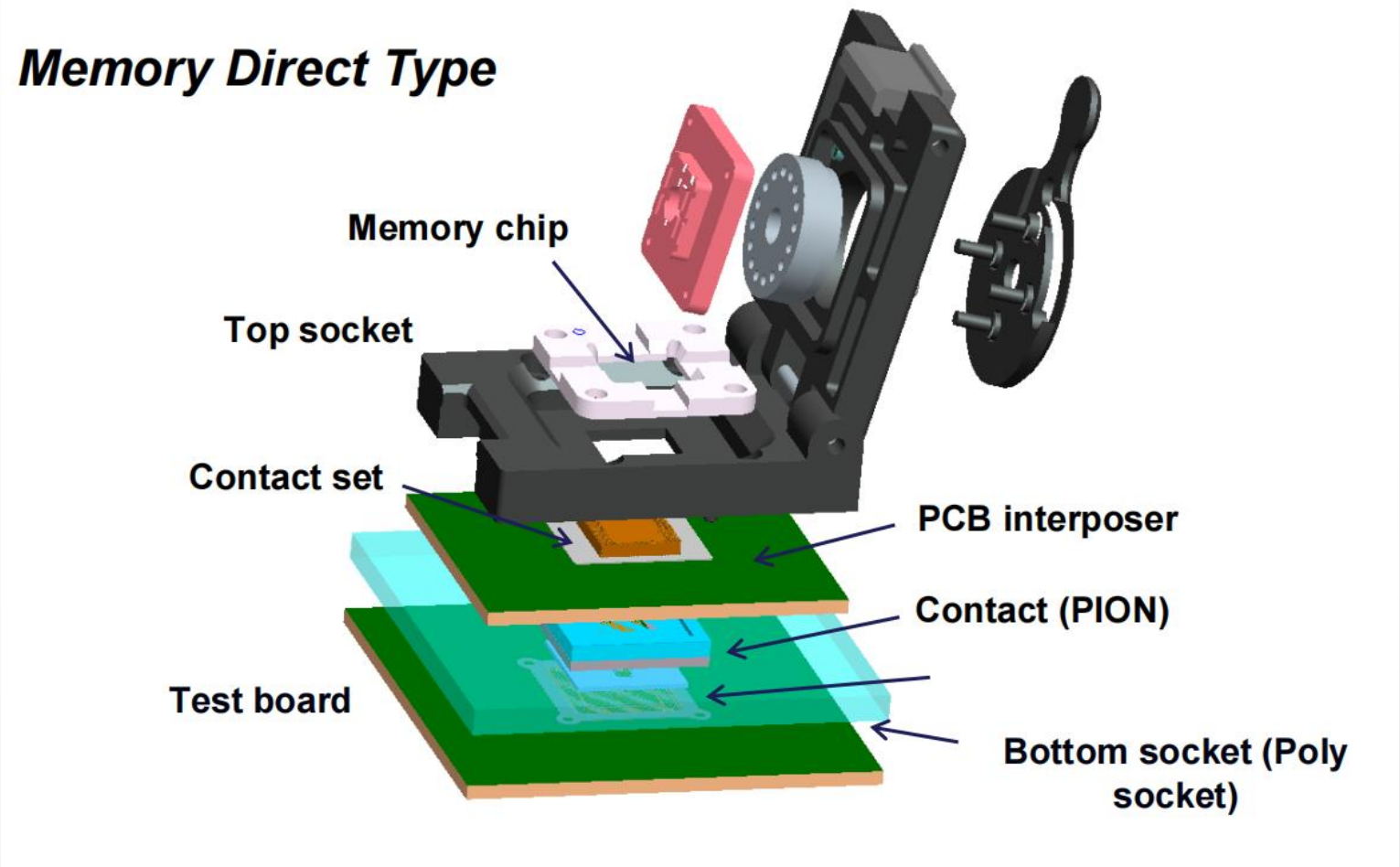
- Memory-less POP package testing
- Top and bottom access to the package balls
- Topside balls are connected through PCB interposer in the lid



POP Test Socket

Memory Direct Type

- Combined testing solution for memory chip and AP chip
- Top socket connects to top package to topside of bottom package by interposer type (spring probes, elastomer, etc)
- Bottom socket connects bottom package to test board



Spring Probes

Offering extensive spring probes (pogo pins) will enable our users to raise the efficiency of test operation. The pin design capability has been acknowledged as the best solution through the technical leadership and various field experiences.

Our innovative technical challenge promises more improvement in test yield, life time and test cost in the end.

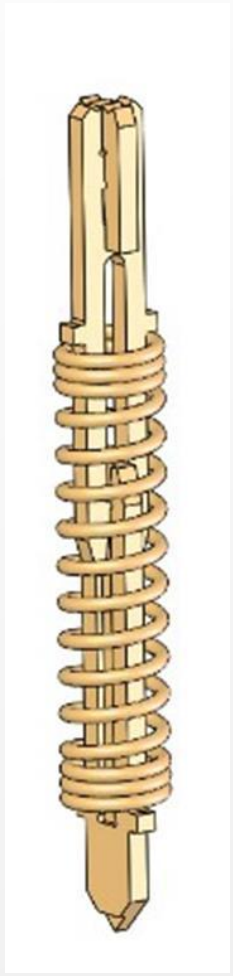
Much more designs are available.

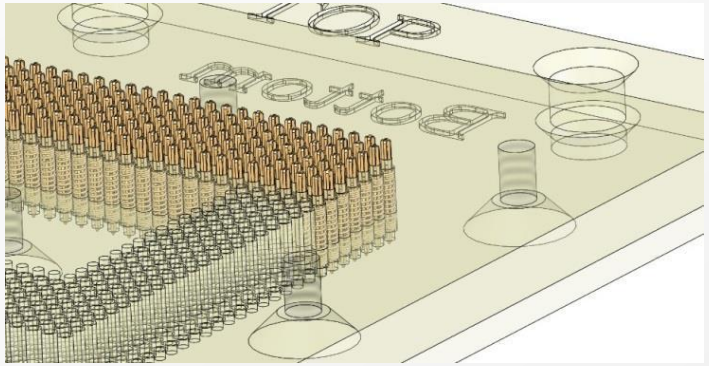
PION Contact (Fine pitch solution)

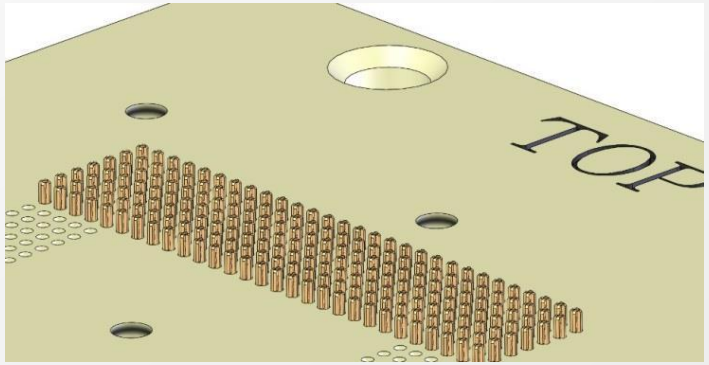
Contacts by Stamped, Etching and MEMS process

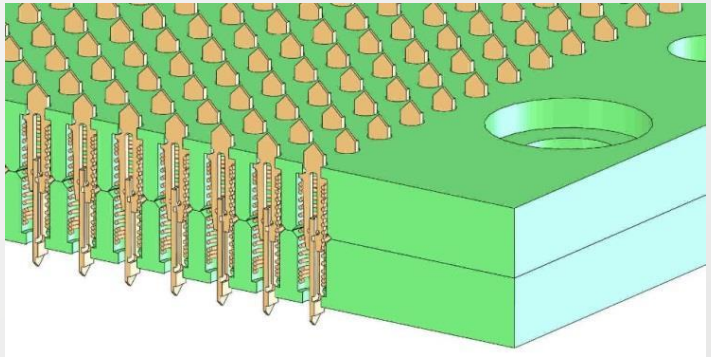
Features of the PION

- Excellent and reliable positioning accuracy with “+” shape contact and matching holder
- Low cost MEMS fabrication for high volume product
- Fine pitch solution up to 0.2mm pitch
- Customizable contact points to support various types of package
- Quick-turn design support & Various design pins available
- Suitable for package test and WLCSP bump testing

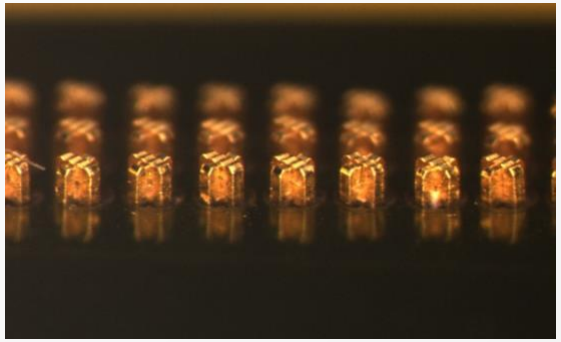


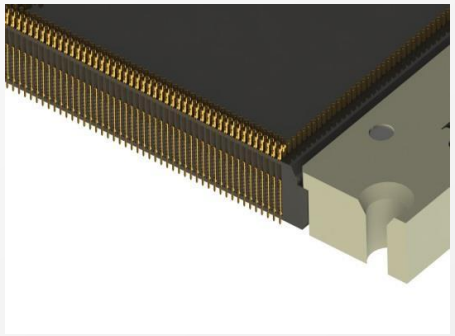






Accurate Positioning on the Device!





Detailed information available upon request.

Gn Electronics

PART
3

Burn-In Test Solutions

Burn-In Test Solutions (MBT)

BI board — Able to supply turnkey solution

BI socket — Able to supply the most competitive products

Burn-In Board

OKins burn-in board design and manufacturing capability provides high-end, low-cost and fast lead time solutions.

Our support includes High density (480 parallel) and Flexible design solution as well as High speed burn-in testing.

- Variations: DDR3, DDR4, GDDR, MCP, NAND Flash
- PCB size & THK: 450x570mm / 1.6T
- PCB layer: 4~10

Detailed information could be available upon request.

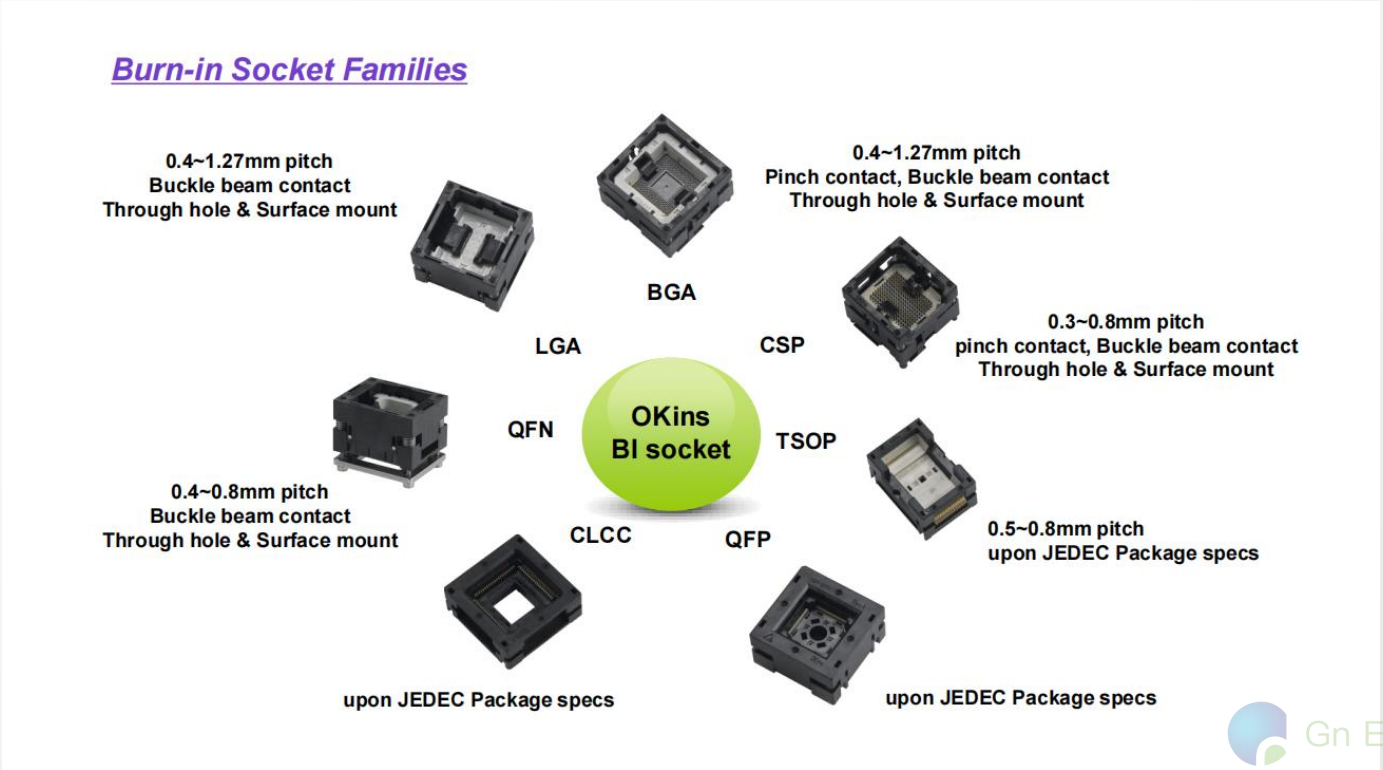
Burn–In Sockets

To Provide Proven Solutions for Interconnection !

We are proudly offer a wide selection of burn-in sockets for various device packages, from Lead packages to ball packages, these burn-in sockets support thermal and electrical stress testing of IC packagesfor cost effective and quick

lead time support with high level of quality certification.

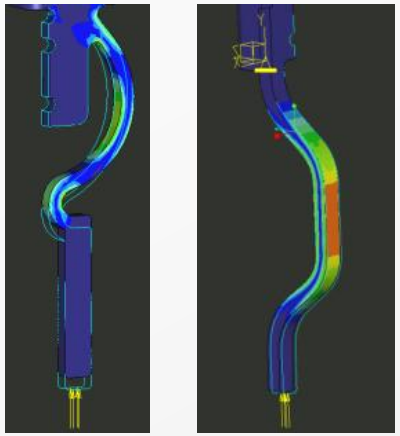
The engineering focus would be to support customers' growing change and development of the package trend, especially smaller IC size with more I/O, our fine pitch technology and small outlines of the socket will give customers more satisfaction as there have been more and more challenges in fine pitch solutions.

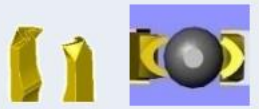
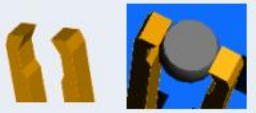
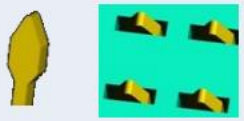


Burn–In Sockets

Technical Advantages in Burn-in Contacts

Various contacts have been developed to satisfy customers' requirements for stable and reliable contactability.
The OKins burn-in socket contact technologies have been evolved based on IC package development roadmap, such as No of IO, contact pitch, ball material, package size, etc. The engineering works are supported by 3D design tool of Pro-E and FEA analysis



Contact Style	Contacts	Socket	Ball pitch	Series	CF
4 point pinch			0.5/0.65/0.8/ 1.0/0.8x1.0/ 0.8x1.27	7A, 7B, 7C, 7D, 7F, 7G, 7H, 7I, 7J, 7CJ, 7K	7gf, 12gf, 14gf
Off-set tweezers pinch			0.8	7F, 7J, 7K	10gf
In-line tweezers pinch			0.4/0.5/0.65/0.7 5/0.8/1.0	7A, 7B, 7C, 7F ,7H, 7J, 7K	10gf, 12gf,
Buckling beam U-shape contact			0.3/0.35/0.4/0.5 /0.65/0.8/1.0/1. 27	B1, B2, B3, B6, B8, B9	12gf, 17gf
Buckling beam Pointed contact			0.4/0.5/0.65/0.8 /1.0/1.27	FB	12gf, 17gf
4 point crown buckling beam			0.4/0.5/0.65/0.8 /1.0/1.27	B1, B2, B3, B6	12gf, 17gf

Thermal Burn-In Solution

Socket Basic Concepts

-Control Device temperature during burn-intest

-ICTC(Individual Chip Temperature Control) support Optimized heat dissipation solution

-High contact performance & competitivesolution

-Thermal solution for mid & high power range temp. Efficient air-flow system with variable speed fan

-High confidence in burn-in effectiveness

Socket Features

-Clamshell socket design

-Compression surface mount

-Spring probes and stamped contacts Various pitches available

-Optional heat sink and fan attached

-Socket materials of PEI and equivalent

GN has own contact solutions for thermal high pin burn-in socket. Based on the customers'requirement, a proper contact will be adopted.

Series	Socket outlines	Max PKG size	PKG pitch	Max matrix	Max pin count	Seating height
TSH	38.0x53.0	22x20	0.4	43x46	1978	8.6
			0.8	22x23	506	8.6
TLC	57.5x68.5	37.5x37.5	0.5	55x55	3,025	6.42
			0.65	53x53	2,809	6.42
			0.8	43x43	1,849	5.12
			1.0	36x36	1,296	5.12
			1.27	28x28	784	5.12
TLH	83.15x65.00	37.5x37.5	0.5	55x55	3,025	6.42
			0.65	53x53	2,809	6.42
			0.8	43x43	1,849	5.12
			1.0	36x36	1,296	5.12
			1.27	28x28	784	5.12

- The pitches above are basic one, more options are available.
- The Max pin counts and matrix above can be changed with different pitches.


THANKS FOR YOUR ATTENTION
谢 谢 聆 听