

European technology Chinese brand

ISOMICRON

Preciseness & Intelligence

About Isomicron

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Production process

Chinese brands

European
technology

The former Fairchild Semiconductor coupler product line division

Key members form a core team and operate independently as a chip solutions company. Focus on OPTOELECTRONIC isolation devices and semiconductor optoelectronic materials design and development, for the optocoupler brands to provide design solutions and technical services.

2010

2016

2018

2020

Military Regulation Level optocoupler team to join

Chief scientist Liu Jianchao has presided over the development and manufacture of military optocouplers, We have developed common and high-speed optocouplers (single, double, quad) , optocoupler relays and Mosfet, and have more than 40 years of experience in integrated circuit design.



Industrial Interconnection chip design team to join

To provide end-to-end, chip-level solutions based on the characteristics of industrial interconnection products and customer needs. For customers to achieve remote monitoring, remote debugging, Web configuration, API interface and other functions.



Integration Team, high-speed development

At present, It has R & D Centers in Shenzhen, Hsinchu and other places. Core members from the top semiconductor team at home and abroad, in the world-class semiconductor enterprises have many years of R & D, Marketing and management experience.



Chairman
Liwen.Xiong

Professor Harbin Institute of Technology
Former senior R & D manager at Huawei Electric
Founder of Huichuan Technology (stock code 300124)

- In 1985 graduated from the Harbin Institute of Technology Electrical Automation Major, received a master's degree ▪ the same year to stay in school, and participated in major research projects of the Ministry of Space Research R & D and design work
- Industrial Automation field expert, Servo Motor Control Field expert, good at Servo and inverter design and development. Now focus on the semiconductor field of integrated circuits, power devices, optoelectronic devices and testing equipment and other industries investment.



Chief scientist
Jiancao.Liu

China Aerospace Science and Technology Group has made outstanding contributions to the young expert

- Graduated from Harbin Institute of Technology Semiconductor Physics and devices in 1982 with a bachelor's degree ▪ entered Xi'an Institute of Microelectronics Technology in 1984, studied under Huang Chang, a great master in semiconductor industry, and obtained a master's degree in Vlsi and computer science in 1987.
- He has developed a variety of optocoupler, optocoupler relay, Mosfet and other products. He has more than 40 years of experience in chip design.

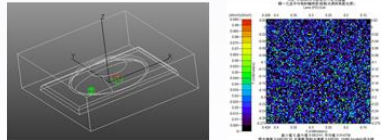
Technical advantage

Advanced Laboratory R&d equipment, with independent development Prototype and product characteristics measurement capabilities.

Provide customized service for custs

With independent R & D sample line, can not be affected by production capacity with customer sample production

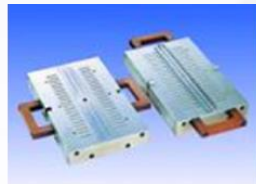
TracePro



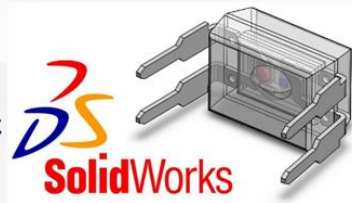
光学模拟软体
Opto Simulation

Prototype
开发
Prototype
Development

3D绘图软体
3D Drawing



样品实验模具
Bookmold



SolidWorks

先进研发测试设备
Advanced RD Test Equipment

高精度电源供应器
Power Supplies

示波器
Oscilloscope

光强度测试仪
Optometer

角度测试仪
Angle Tester

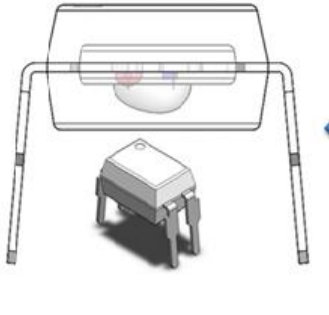
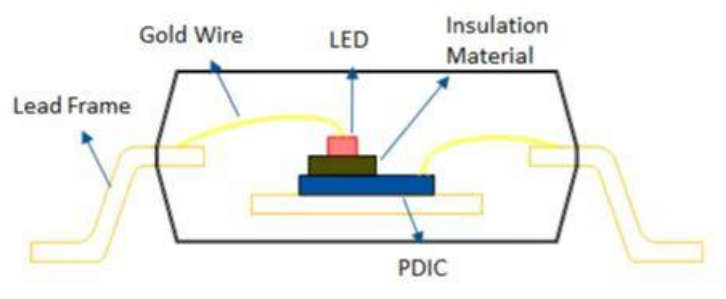
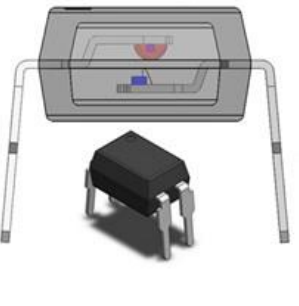
温控测试腔
Temperature Forcing System

热阻机
Thermal Analysis Tester

波型产生器
Function Generator

半导体测试仪
Curve Tracer

Technical advantage

packaging process	Structural sketch	Characteristics
Secondary Planar packaging (Isomicon unique)		For General optocoupler applications-> Good consistency, high yield, high reliability;
Wafer Stack (Isomicon unique)		For high-end coupler applications-> Fast Response Time and large driving current
Up and down opposites (Traditional)		Complex process, high cost, slightly low yield

Quality Management



ISO14001



ISO9001



IATF16949



ISO45001
(2019/12
已通過審核·
證書下發中)

ISO45001



温度循环机
TC Chamber



恒温恒湿机
Temp./Humid. Chamber



低温箱
Low Temp. Chamber



推拉力機
Push/Pull Tester



X-Ray檢測機
X-Ray Machine



盐雾测试机
Salt mist Tester



回流焊
Reflow Chamber



跌落实验台
Drop Tester



高温烤箱
High Temp. Chamber

Laboratory testable items 28

Reliability testing 20 ; Performance test 8

reliability testing items		
室温寿命(RTOL)	高温储存(HTSL)	盐雾(Salt Spray Test)
高温寿命(HTOL)	低温储存(LTSL)	硫化(Sulfur Corrosion)
低温寿命(LTOL)	高温高湿储存(HT/HH)	红墨水(Red Ink Test)
高温高湿寿命(WHTOL)	冷热循环(Thermal cycling)	高压蒸煮试验 (Pressure cooker test)
上电温度循环(PTMCL)	潮湿敏感等级(MSL)	冲击/跌落/振动(Mechanical Shock/Drop/Vibration Test)

performance testing items						
光电参数 (Photoelectricity Characteristic)	发光角度 (Light Angle)	空间光谱光度 (Gonio spectra photometers)	外观、 晶片尺寸 (Chip Cosmetic)	结温/热阻 (Junction/Rth)	I-V曲线 (I-V curve)	热漂 (Thermal drift)

58 sets of Reliability class equipment ;14 sets of photoelectric performance test equipment

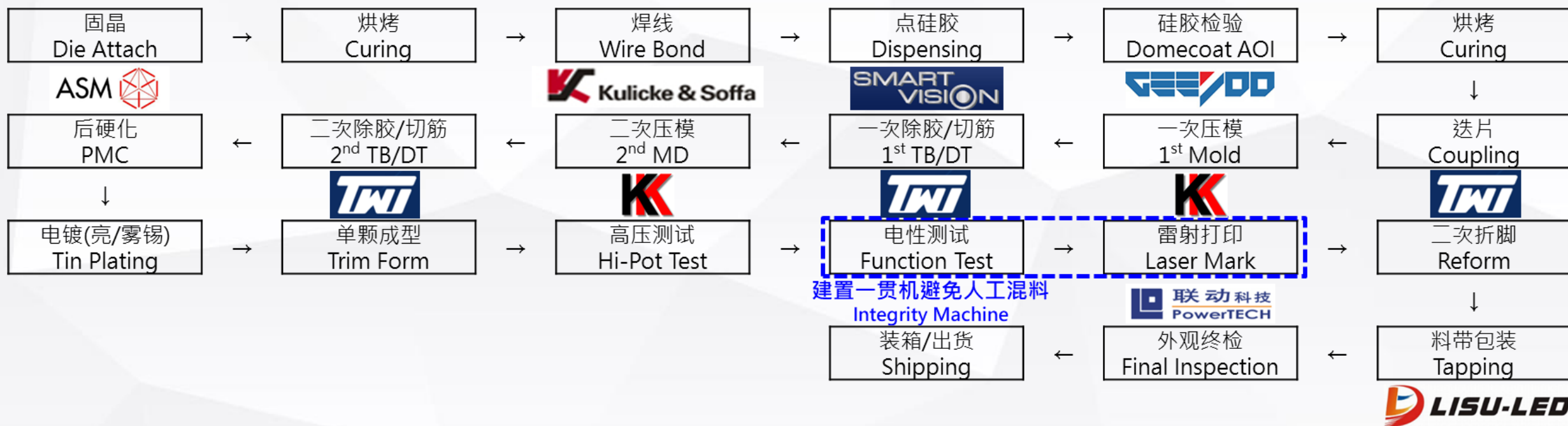
类型 (TYPE)	设备名称 (equipment name)	数量 (quantity)							
可靠性 设备类 (Reliability machines)	冷热冲击试验机 (Thermal Shock)	3							
	上电冷热循环机 (Power Temperature Cycle Machine)	1							
	恒温恒湿试验机 (Constant Temperature and Humidity)	17							
	高温恒温试验机 (Hot and constant Temperature)	29							
	低温恒温试验机 (Low and Constant Temperature)	2							
	跌落试验机(Drop)	1							
	冲击试验机(Mechanical Shock)	1							
	振动试验机(Vib Testing)	1							
	盐雾试验机(Salt Spray Machine)	1							
硫化试验机(Sulfur Corrosion Machine)	1								
仪器类 (Instruments)	蓝菲光电系统 (Labsphere Photoelectricity System)	1							
	远方光电系统 (Everfine Photoelectricity System)	4							
	空间光谱光度(Goniospectrophotometers)	1							
	光耦测试系统 (Photocoupler test System)	4							
	热漂测试仪 Thermal drift Tester	1							
	中谱光电系统 (Zhong Pu Photoelectricity System)	1							
	热阻测试仪(Thermal Transient Tester)	1							
	I-V曲线仪(I-V Testing)	1							
合计(Total)		72							

以上设备都符合JESD、IEC相应设备技术规范及测试标准。

The equipment above is compatible with relevant equipment technical codes and test standards of JESD, IEC.

Production process

- Production Line using first-class equipment with MES system for fully automated production.
- With advanced optocoupler packaging technology, can provide better high-voltage insulation stability. The product has a better operating range of temperature.
- Engineering has excellent wire welding technology to meet the needs of higher quality.
- Production has a specially designed test laser coherence machine to avoid mixing problems.



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THANKS