

昆山市华显光电科技有限公司

KUN SHAN HUA XIAN PHOTOELECTRICITY TECHNOLOGY CO.,LTD.





研发&生产基地

江苏省昆山市经济技术开发区澄湖路128号

Factory & RD Offices

No.128 Chenghu Road, Economic
Development Zone, Kunshan City, Jiangsu
Province.



华显新工业园

昆山市云雀路68号（桂花路路口）
> 25000m²，装修中2026 Q3投产
HUAXIAN New industrial park

No.68 Yunque Road, Kunshan city
2026 Q3 Launch



华显新工业园关键节点HUAXIAN New park construction milestone

- 2024年6月土地购入Land Acquisition 2024/06
- 2024年Q4动工Groundbreaking 2024/12
- 2025年5月环评批准Environmental Impact Assessment 2025/05
- 2025年7月全部封顶Structural Topping-out 2025/07
- 2026年Q1硬装装修Mechanical, Electrical, Plumbing Rough-in 2026 Q1
- 2026年Q2无尘净化房和软装Cleanroom and Interior decoration 2026 Q2
- 2026 Q3 产线导入Production Line Launch 2026 Q3
- 2026 Q3全部批量投产Mass Production 2026 Q3

2026年4月15日实拍图
On-site photo – Apr 15, 2026



HUAXIAN | 华显光电

华显新工业园室内设计图HUAXIAN New park Diagram



前台大厅Lobby & Reception



会议室Meeting Room



餐厅Canteen



展厅Showroom



产线观光道Factory Tour Route



接待室Business Lounge

成立和能力认可：华显光电科技成立于2015年，高新技术企业/科技型专精特新企业和苏南瞪羚企业，邓白氏编码:544136940，Huaxian Photoelectrcity Technology was established in 2015,High-Tech Enterprise,Technology-based SRDI Enterprises,DUNS number:544136940

市场定位：面向液晶显示交互前装市场，研发和生产：中控屏/仪表/流媒体后视镜等显控整机和LCM模组半成品，智能终端显示交互解决方案，成熟可靠优质高性价比的产品；Market：We specialize in intelligent terminal display interaction solutions products in OEM market,such as ASM-Central Control/Instruments/Streaming Media Rearview Mirrors, as well as LCM module;Reliable, High-quality, and Low-cost products

根据客户需求，从底层设计、开发、制造拥有竞争力的产品，实现共赢

Huaxian offers vertically integrated production to build competitive products for you !

全流程的生产设施：中板-偏贴-模组-背光组立-测试-贴合-组装-质检Facility Overview：

（1）Cell 切割和百级贴合车间Cell Cutting and Lamination shop：

玻璃切割+自动POL贴附产线+TP/盖板全贴合车间：百级无尘室产线2条；Cell cutting and POL Laminati,2 TP/CG OCA Full Lamination lines,Class 100 Cleanrooms.

（2）模组和背光车间LCM BONDING and ASSEMBLY Workshops：

千级无尘室2000平米，松下105CG车载显示模组智能自动产线3条，背光组装自动/半自动产线2条，LCD/OLED，0.5--17.5inch;Class 1000 Cleanrooms of 2000m² equipped with 3 Panasonic(105CG) automatic production lines for vehicle LCM modules，2 automated/semi-automated assembly lines；

（3）组装车间Assembly Wrokhhop：结构组装、软件刷写产线2条;2 Assembly & Software Flashing lines；

（4）测试老化房Testing & Aging Room：超500m²配备高温老化设备和先进的老化监控系统；

High-temperature aging equipment and advanced aging monitoring systems;

（5）研发试制工坊、品质保证的实验室、恒温防静电仓储等;R&D Prototyping Workshop and Quality Assurance Laboratory,Climate-Controlled Anti-ESD warehouse；

（6）软件系统Digital Systems：ERPlus（CRM+项目管理+问题/变更管理）、钉钉平台、ERP-U9订单物料追溯管理系统和MES生产监控记录追溯管理系统.ERPlus(CRM+PM+ Issue & Change System),DingTalk platform, ERP-U9 (order/material traceability), and MES (production monitoring/record traceability).

邓白氏DUNS Number:544136940和体系认证Certification

通过IATF16949设计和制造认证，ISO/SAE21434道路车辆网络安全认证,ISO9001质量体系认证、ISO14001环境管理体系认证；IATF16949，ISO9001，ISO14001 Certification；ISO/SAE21434; 产品开发运用：VDA6.3和VDA6.5审核；VDA6.3/VDA6.5 audit in R&D and production；

产学研合作Joint R&D withUniversity：

40余人的专业研发团队，获得专利60余项，与西北工业大学、电子科技大学、上海第二工业大学联合分别成立技术研究中心; Professional R&D team of over 40 engineers，> 60 patents；精通杰发科/全志/TI/慷智等SOC显控平台Expertised in SOC display control platforms (AutoChips, Allwinner, TI, and Cockpit).

客户Vehicle Customers：

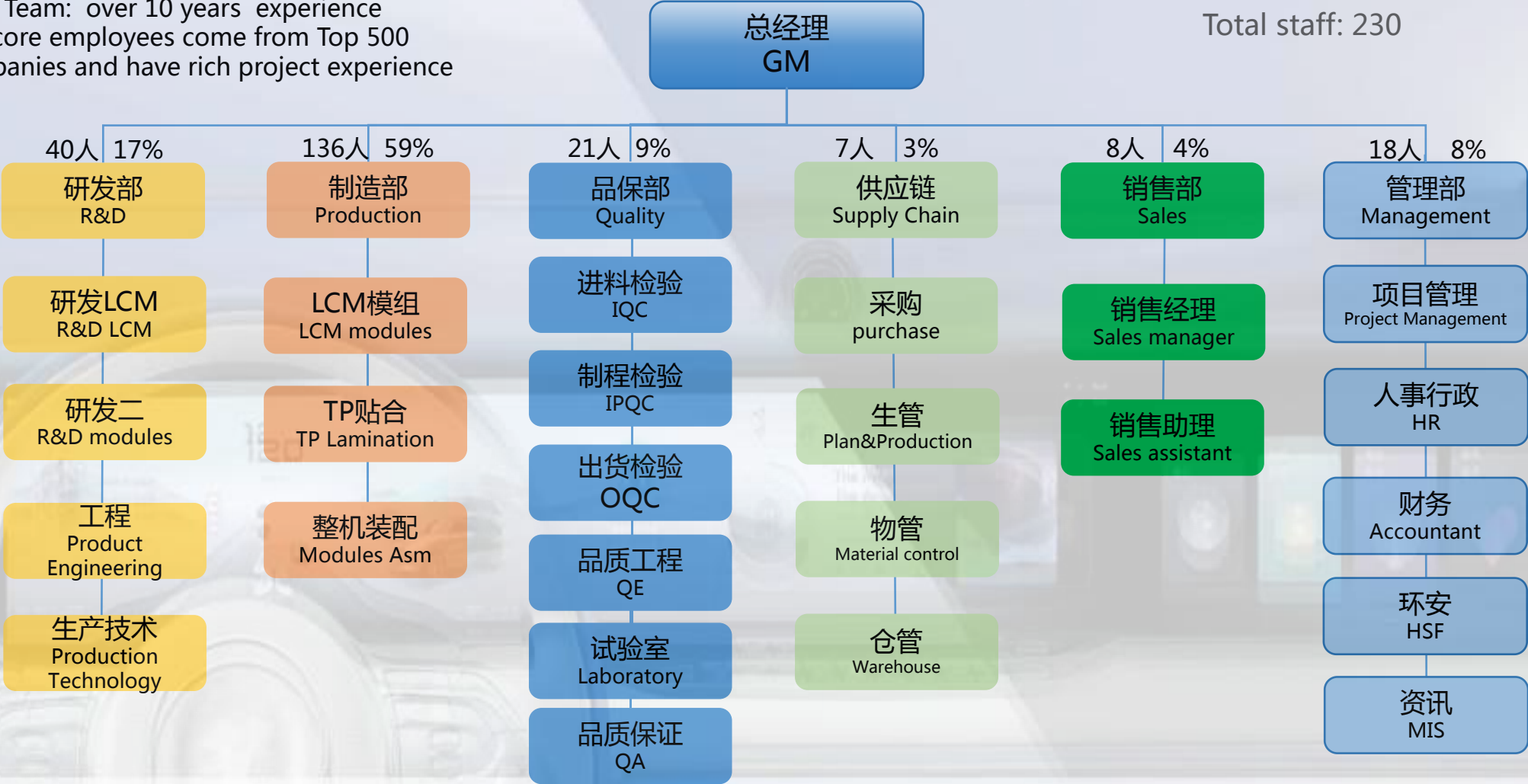
服务顶级Tier1和OEM客户--上汽乘用车、中国重汽、江淮汽车、一汽解放、北汽、马自达乘用车、越南Vinfast、印度VVDN等SAIC，Sinotruck，JAC，FAW, BAW, Mazda, Vinfast Vietnam, VVDN India

研发人员：均为10年以上工作经历
核心员工来自行业500强企业，拥有丰富项目经验
R&D Team: over 10 years experience
The core employees come from Top 500 companies and have rich project experience

组织架构

ORGANIZATIONAL STRUCTURE

员工人数：230人
Total staff: 230



消费和工业产品主要终端客户

Our Consumer and Industrial Customer



车载产品主要终端客户

Our Customer: World Class Tier1/ OEM



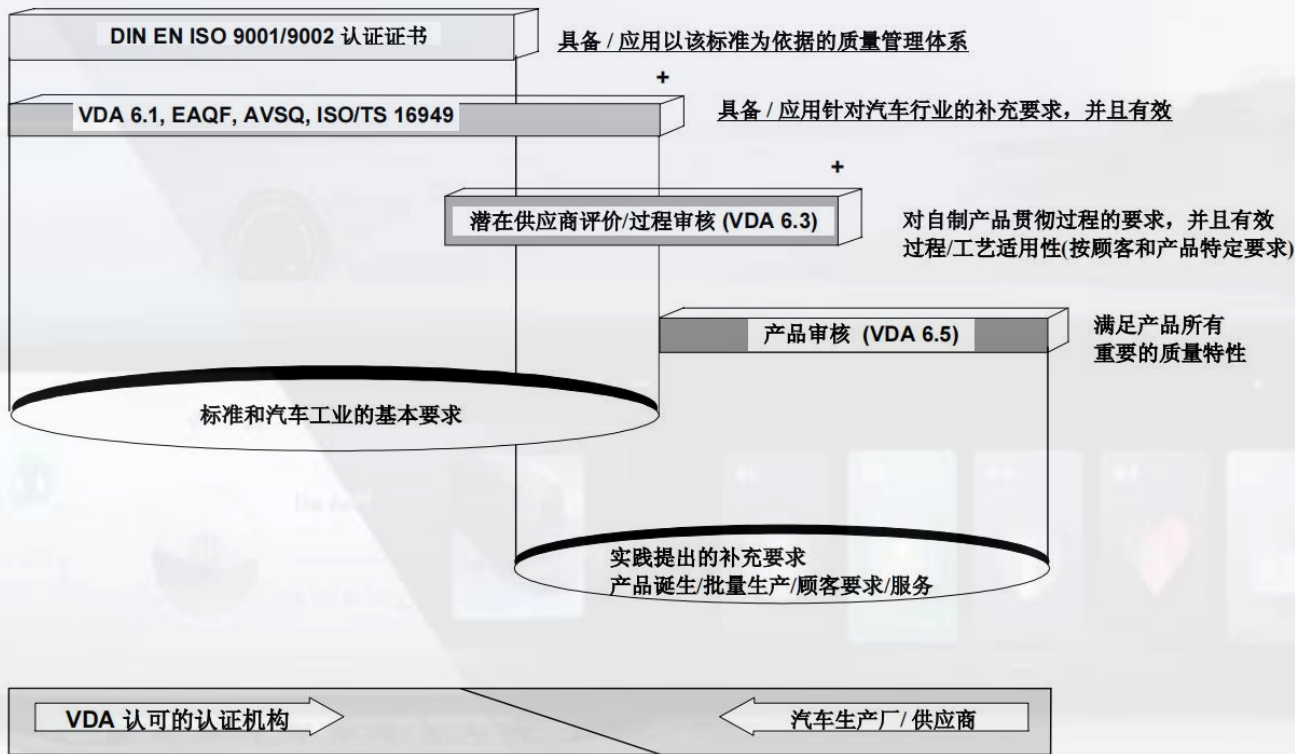
质量体系认证和OEM审核

Quality Certification and OEM Audit

华显在汽车工业质量体系认证概况 Huaxian Certification and OEM Audit

- 英国劳式ISO14001环境管理体系认证
2019年ISO14001 Environmental Certification
- 英国劳式ISO9001质量体系认证
2019 ISO9001 Quality Management Certification
- 奥世IATF16949车载产品生产认证
2022年IATF16949 Manufacturing Certification
- 2024奥世IATF16949车载产品设计和生产双认证
2024 IATF16949 Design and Manufacturing Certification
- 2026 ISO/SAE21434道路车辆网络安全认证
2026 ISO/SAE21434 Road Vehicle Network Security Management System Certification
- 汽车客户准入审核：潜在供应商审核、过程审核、产品审核
中国重汽，上汽、北京汽车，吉利汽车，长安马自达、江淮汽车、东风猛士等
Vehicles OEM Audit from SAIC/Geely/Mazda/BAW/JAC Dongfeng/VDA6.3 and VDA6.5 Audit

汽车工业的质量管理认证和审核



企业资质和文化

ESG

Certification

- IATF16949汽车行业设计和制造质量体系
- ISO/SAE21434道路车辆网络安全体系
- ISO9001质量体系
- RoHS/ISO140001环境管理体系



- ◆ 高新技术企业/专精特新企业/苏南瞪羚企业
- ◆ High Tech Enterprise
- ◆ Technology-based SRDI Enterprises



- 邓白氏DUNS number:544136940
- 企业文化Coporate Values
- 员工关怀Employee benefit
- 雇佣和帮扶残疾人Employment and Support of Persons with Disabilities



- ◆ 专利和软件著作权60+patent
- ◆ 校企合作联合研发Joint R&D center with university

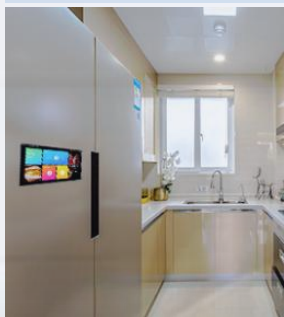


消费和工业产品

Consumer and Industrial Products

消费级产品--LCM模组/显控屏

Consumer TFT-LCM modules



我们在显示领域有成熟的产品方案，丰富的量产经验，提供可靠的质量保证，让客户的產品拥有强大的竞争力

LCM模组尺寸：0.9--17.3inch

根据客户需求，定制研发生产各个尺寸和参数的TFT-LCM模组（定制LCD/OLED/背光/FPC/触控/信号接口/Incell等）

We have mature product solutions in the display field, and provide reliable quality assurance, enabling our customers' products to have strong competitiveness.

We can customize and develop TFT-LCD modules of various sizes and parameters(LCD/OLED/Backlight/FPC/touch control/signal interface/Incell) according to customer needs.

工业级产品--LCM模组/显控屏

Industrial TFT-LCM modules



消费和工业产品

Consumer and Industrial Products



2.4inch LCM
Vanraam Tricycle

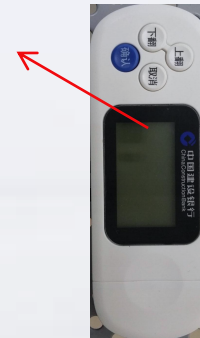


莱克咖啡机
LEXY 7inch LCM



美的Midea
2.4/10.1inch LCM

0.96inch OLED
in Bank U-key



手机模组
LCM in Smartphone

车载产品 (1) --LCM模组

TFT-LCM modules



车载产品 (2) --显控中控屏/仪表-及双联屏:LCM+TP+壳体

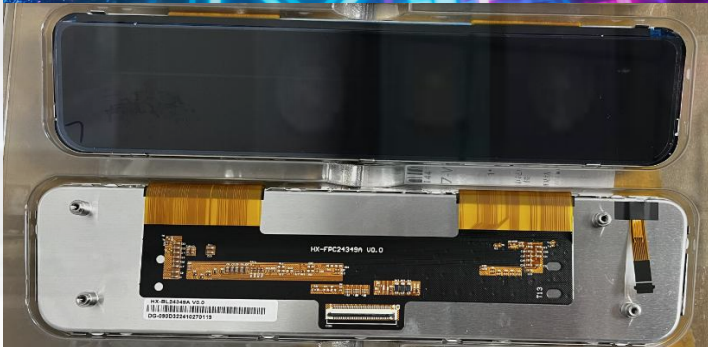
ASM-Central Control Touch Screen/Dual Screen:

LCM+TP+Housing



车载产品 (3) --CMS和流媒体后视镜

ASM-CMS/Streaming Media Rearview Mirrors



Why Choose Us

End-to-End Design & Manufacturing. Delivering diverse product forms with short lead times, rapid response, and high cost-efficiency. Built on a stable supply chain and proven reliability.

全流程设计和生产，赋予形式多样的产品
周期短、响应快、极具性价比、供应链稳定、质量可靠

车载产品 (1) --LCM模组

TFT-LCM modules

我们可根据客户需求，定制研发生产各个尺寸和参数的TFT-LCM模组（定制LCD/背光/FPC等），兼容OEM现有产品和通信协议，帮助客户快速降低成本和稳定供应链，尺寸：0.9--17.3inch.

典型尺寸Typical model size :
0.96/2.4/4.3/5/7/8/9/10.1/10.25/12.3/12.8/13.3/14/15.6/17.3

We can customize and develop TFT-LCD modules of various sizes and parameters(LCD/Backlight/FPC) according to customer needs, compatible with existing OEM products and communication protocols, to help customers quickly reduce costs and stabilize their supply chain.We are capable of developing and manufacturing vehicle model size 0.9--17.3inch.

工作温度/ operating temperature	-30°C~+85°C
储存温度/ storage temperature	-40°C~+90°C



车载屏主销列表（5寸--17寸）/LCM for vehicles（5--17inch）

尺寸/size	8"	9"	10.1"	10.25"	12.3寸	12.8"	15.6"
显示类型/display type	IPS	IPS	IPS	IPS	IPS	IPS	IPS
分辨率/resolution	1280*720	1920*384	1280*800	1920*720	1920*720	1920*1080	1920*1080
亮度/luminance	1000cd/m ² (typ.)	3000cd/m ² (typ.)	900cd/m ² (min.)	800cd/m ² (typ.)	800cd/m ² (min.)	800cd/m ² (typ.)	600cd/m ² (typ.)
显示区域/active area	176.64*99.36	224.64*44.93	216.96*135.6	243.648*91.368	292.032*109.512	309.312*173.988	344.16 *193.59
对比度/contrast ratio	1000(typ.)	1000(typ.)	1000(typ.)	1300(typ.)	1100(typ.)	1000(typ.)	1000(typ.)
可视角度/ viewing direction	85/85/85/85 (Typ.)(CR≥10)	85/85/85/85 (Typ.)(CR≥10)	80/80/80/80 (Typ.)(CR≥10)	85/85/85/85 (Typ.)(CR≥10)	85/85/85/85 (Typ.)(CR≥10)	85/85/85/85 (Typ.)(CR≥10)	85/85/85/85 (Typ.)(CR≥10)
信号接口/signal interface	LVDS	LVDS	LVDS	LVDS	LVDS	LVDS	LVDS
工作温度/ operating temperature	-30℃~+85℃	-30℃~+85℃	-30℃~+80℃	-40℃~+85℃	-30℃~+85℃	-35℃~+85℃	-35℃~+85℃
储存温度/ storage temporature	-40℃~+85℃	-40℃~+95℃	-40℃~+85℃	-40℃~+90℃	-40℃~+90℃	-40℃~+90℃	-40℃~+90℃
是否带触摸/ with touh screen or not	No	No	按需	按需	incell	按需	incell
月产能 monthly capacity	30K	30K	80K	60K	60K	30K	35K

- 一线品牌车规宽温LCD液晶
TOP brand automotive wide-temperature LCD
- 高清分辨率，高亮度
High-definition resolution and Brightness
- 90cm长条巨幕一体式OCA全贴合
90cm-long giantscreen integrated OCA full lamination
- 7H超高表面硬度玻璃盖板
7H ultra-high surface hardnessglass cover
- 防眩光、防反射、防指纹涂层
Anti-glare,anti-reflection,anti-fingerprint coating
- 一体黑设计，极窄边框
Integrated black and Ultra-narrow border design
- 各种尺寸
Typical model size :
2.4/4.3/5/7/8/9/10.1/10.25/12.3/12.8/13.5/14/15.6



核心优势Advantage：
户外电摩仪表经验丰富，拥有2.4寸、4.3寸、5寸、7寸等成熟产品，平台化模组搭配客户多样化的盖板外形需求；We offer a full range of mature products (2.4", 4.3", 5", 7") based on modular platforms, enabling rapid customization to meet diverse needs.
车规级产品，质量稳定，产能充沛，响应快
Good quality,High cost-performance,Supply chain stability

雅迪4.3寸液晶仪表YADEA TFT-LCD
装机量：600K

Item 项目	4.3inch Specifications 4.3寸规格
LCD Size 液晶显示尺寸	4.3inch
Resolution 分辨率	480 × (RGB) × 272
Display mode 显示模式	Normally Black
盖板/ CG	钠钙玻璃2.0mm
△E 一体黑	抗UV油墨，△E < 2
亮度/Luminance	Min800, Typ.1000
Module size 模块尺寸	135.55(W) ×135.55(H) ×4.75(D) mm
工作温度/ Operating Temperature	-30°C~+80°C
储存温度/ Storage Temperature	-40°C~+80°C
静电等级/ESD	Contact mode：±4KV； Air mode：±8KV
环保	符合RoHS2.0



小牛5寸液晶仪表NIU TFT-LCD
装机量：300K

Item 项目	5 inch Specifications 5寸规格
LCD Size 液晶显示尺寸	5inch
Resolution 分辨率	800 × (RGB) × 480
Display mode 显示模式	Normally Black
盖板/ CG	钠钙玻璃1.8mm
△E 一体黑	抗UV油墨，△E < 2
亮度/Luminance	Min800, Typ.1000
Module size 模块尺寸	151.01(W) ×82.43(H) ×4.74(D) mm
工作温度/ Operating Temperature	-30°C~+80°C
储存温度/ Storage Temperature	-40°C~+80°C
静电等级/ESD	Contact mode：±4KV； Air mode：±8KV
环保	符合RoHS2.0

TFT-LCM-10.25inch 1920xRGBx720 RoHS装在上汽乘用车
AP31/AP32/ZP22/ZS32平台，荣威i5/MG ZS/MG3/MG4EV等海内外车型；
Supply to SAIC platform AP31/AP32/ZP22/ZS32 for passenger vehicle
ROEWE i5/MG ZS5/MG3/MG4EV ets.
装车订单量order：600K
已交付超过300K，质量表现优异
Successfully delivered over 300K units with excellent quality performance

Item 项目	10.25inch Specifications 10.25规格
LCD Size 液晶显示尺寸	10.25 inch
Resolution 分辨率	1920 × (RGB) × 720
Display mode 显示模式	Normally Black
对比度/ Contrast Ratio	Min1100, Typ.1300
亮度/Luminance	Min835, Typ.1000
Module size 模块尺寸	255.3(W) ×106.97(H) ×5.7(D) mm
工作温度/ Operating Temperature	-30°C~+85°C
储存温度/ Storage Temperature	-40°C~+90°C
静电等级/ESD	Contact mode : 150pF 330Ω ±8KV ; class B Air mode : 150pF 330Ω ±15KV Class B
Interface 接口	LVDS
TP 触控	外挂/incell

核心优势Advantage：
产品成熟，质量稳定，高性价比，供应链稳定
High quality,High cost-performance,
Supply chain stability



7寸/10.25寸LCM+10.25寸T-LCM中控屏幕
7inch 1024X600+10.25inch 1920x720

装在北京汽车卡路里/锐胜王牌M7/EM7车型；
Supply to BAW M7/EM7.
装车订单量order：54K

Item 项目	7inch Specifications 7寸规格
LCD Size 液晶显示尺寸	7 inch
Resolution 分辨率	1024 × (RGB) × 600
Display mode 显示模式	Normally Black
对比度/ Contrast Ratio	Min. 800, Typ.1000
亮度/Luminance	Min. 700, Typ.800
Module size 模块尺寸	164.16(W) ×99.28(H) ×5.3(D) mm
工作温度/ Operating Temperature	-30°C~+85°C
储存温度/ Storage Temperature	-40°C~+90°C
静电等级/ESD	Contact mode : 150pF 330Ω ±8KV ; class B Air mode : 150pF 330Ω ±15KV Class B
Support Color 支持颜色	16.7M
Interface 接口	LVDS
TP 触控	7寸仪表+10.25触控



BAW卡路里皮卡Pickup



车载产品（2）--中控屏/仪表中控双联屏
ASM-Central Control Touch Screen/Dual Screens

T-LCM-12.8inch 1920x1080 RoHS
装在江淮钇为车型使用；
Supply to JAC Yiwei3；
装车订单量order：50K

Item 项目	12.8inch Specifications 12.8规格
LCD Size 液晶显示尺寸	12.8 inch
Resolution 分辨率	1920 × (RGB) × 1080
Display mode 显示模式	Normally Black
Dot pitch 点间距	0.1476 (H) × 0.1476 (V) mm
Active area 有效面积	283.392(W) × 159.408(H)mm
Module size 模块尺寸	301.99(W) × 183.21(H) × 7.41(D) mm
View direction 视图方向	ALL/ O' Clock
Surface treatment 表面处理	3A
Color arrangement 颜色排列	RGB-stripe
Response Time 响应时间	22 (Max.)ms
Support Color 支持颜色	16.7M
Interface 接口	LVDS
Drive IC 驱动IC	FL5893AB*3

核心优势Advantage：
产品成熟，质量稳定，成本低，供应链稳定
High quality,High cost-performance,
Supply chain stability

工作温度/ Operating Temperature	-30°C~+85°C
储存温度/ Storage Temperature	-40°C~+90°C
静电等级/ESD	Contact mode：150pF 330Ω ±8KV；class B Air mode：150pF 330Ω ±15KV Class B
对比度/ Contrast Ratio	Min.1400
亮度/Luminance	Min. 500 cd/m², Typ. 650 cd/m²
TP IC 触控IC	GA6892
Communication 通讯接口	IIC



TFT-LCM-10.1inch 1280xRGBx720 RoHS
装在一汽解放J6L/J6P；卡特彼勒；三环汽车昊龙；
Supply to FAW J6L/J6P and Caterpillar ets.
装车订单量order：50K；

Item 项目	10.1inch Specifications 10.1寸规格
LCD Size 液晶显示尺寸	10.1 inch
Resolution 分辨率	1280 × (RGB) × 720
Display mode 显示模式	Normally Black
Dot pitch 点间距	0.1755 (H) x 0.1755 (V) mm
Active area 有效面积	224.64(W) ×126.36(H)mm
Module size 模块尺寸	235(W) ×143(H) ×4.35(D) mm
View direction 视图方向	ALL/ O' Clock
Surface treatment 表面处理	/
Color arrangement 颜色排列	RGB-stripe
Response Time 响应时间	30 (Max.) ms
Support Color 支持颜色	16.7M
Interface 接口	LVDS
Drive IC 驱动IC	EK79202C5

核心优势Advantage：
产品成熟，质量稳定，成本低，供应链稳定
High quality,High cost-performance,
Supply chain stability

工作温度/ Operating Temperature	-30℃~+85℃
储存温度/ Storage Temperature	-40℃~+90℃
静电等级/ESD	Contact mode：150pF 330Ω ±8KV；class B Air mode：150pF 330Ω ±15KV Class B
对比度/ Contrast Ratio	Min. 900, Typ.1200
亮度/Luminance	Min. 500 cd/m ² Typ. 550 cd/m ²



13.3寸1920x1080中控屏幕+主机LCM+TP+Module
TFT-LCM-13.3inch 1920x1080 RoHS
装在中国重汽成都王牌V2/V3/V5/V7车型；Supply to SINOTRUK KING
platform for V2/V3/V5/V7ets.
装车订单量order：150K

Item 项目	13.3inch Specifications 13.3寸规格
LCD Size 液晶显示尺寸	13.3 inch
Resolution 分辨率	1920 × (RGB) × 1080
Display mode 显示模式	Normally Black
Dot pitch 点间距	0.153 (H) x 0.153 (V) mm
Active area 有效面积	293.76 (W) ×165.24 (H) mm
Module size 模块尺寸	324.71 (W) ×199.67 (H) ×5.23(D) mm
View direction 视图方向	ALL/ O' Clock
Surface treatment 表面处理	AG
Color arrangement 颜色排列	RGB-stripe
Response Time 响应时间	35 (Max.)ms
Support Color 支持颜色	16.7M
Interface 接口	eDP
Drive IC 驱动IC	/

核心优势Advantage：
产品成熟，质量稳定，成本低，供应链稳定
High quality,High cost-performance,
Supply chain stability

工作温度/ Operating Temperature	-30℃~+85℃
储存温度/ Storage Temperature	-40℃~+90℃
静电等级/ESD	Contact mode：150pF 330Ω ±8KV；class B Air mode：150pF 330Ω ±15KV Class B
对比度/ Contrast Ratio	Min. 600 Typ. 800
亮度/Luminance	Typ. 300 cd/m ²
TP IC 触控IC	GT9110
Communication 通讯接口	IIC



HUAXIAN | 华显光电

车载产品（2）--中控屏/仪表中控双联屏

ASM-Central Control Touch Screen/Dual Screens

14寸1920x1080中控屏幕+主机LCM+TP+Module
T-LCM-14inch RoHS
装在中国重汽海西豪曼牛气冲天/MAX车型；
Supply to SINOTRUK HOMAN MAX.
装车订单量order：36K

Item 项目	14inch Specifications 14寸规格
LCD Size 液晶显示尺寸	14 inch
Resolution 分辨率	1920 × (RGB) × 1080
Display mode 显示模式	Normally Black
Dot pitch 点间距	0.1611 (H) x 0.1611 (V) mm
Active area 有效面积	309.31 (W) ×173.99 (H) mm
Module size 模块尺寸	324.71 (W) ×199.67 (H) ×5.54(D) mm
View direction 视图方向	ALL O' Clock
Surface treatment 表面处理	AG
Color arrangement 颜色排列	RGB-stripe
Response Time 响应时间	30 (Max.)ms
Support Color 支持颜色	16.7M
Interface 接口	eDP
Drive IC 驱动IC	TC2055G

核心优势Advantage：
产品成熟，质量稳定，成本低，供应链稳定
High quality,High cost-performance,
Supply chain stability

工作温度/ Operating Temperature	-30℃~+85℃
储存温度/ Storage Temperature	-40℃~+90℃
静电等级/ESD	Contact mode：150pF 330Ω ±8KV；class B Air mode：150pF 330Ω ±15KV Class B
对比度/ Contrast Ratio	Min.800 Typ. 1200
亮度/Luminance	Typ. 300 cd/m²
TP IC 触控IC	GT9110
Communication 通讯接口	IIC

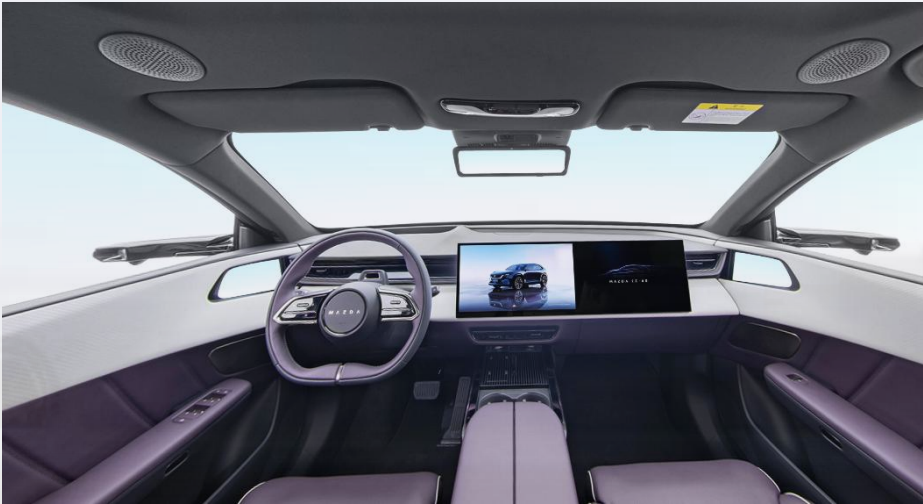


ASM-Rearview Mirrors-Streaming Media Rearview Mirrors

长安马自达EZ-60流媒体后视镜带LCD镜

Changan Mazda EZ-60 ASM-Streaming Media Rearview Mirrors with LCD mirror

分项 item	参数 Specifications
CPU	AC78046 MCU芯片
显示屏Screen	9inch LCM 1920xRGBx384
摄像头Camera	FOV185°、FOV52°，感光动态范围light dynamic range120db；1080P/60fs
Light Sensor	可以敏锐的感知环境光，来调节摄像头的曝光方案 Can sensitively perceive ambient light to adjust the exposure scheme of the camera
LCD mirror	Mirror transmission:ON≥75% OFF：10%(Typ) Mirror ReflectiveRatio:ON:8%OFF≥40% Mirror response time：≤40ms@25℃ 防眩功能
CAN	OTA
交互	视角调节/亮度调节/图像范围调节
车规级产品	通过GB15084/ECE R46标准 工作温度：-40-85℃ 存储温度：-40-95℃



9.2寸TFT-LCM-9.2inch 1920xRGBx384 RoHS
后视镜屏幕Rearview Mirrors-Streaming Media Rearview Mirrors

通过GB15084/ECE R46车规标准

装在JAC 皮卡和吉利汽车远程车型；
Supply to JAC pickup and GEELY FARIZON.
装车订单量order：20K

Item 项目	9.2inch Specifications 9.2规格
LCD Size 液晶显示尺寸	9.2 inch
Resolution 分辨率	1920 × (RGB) × 384
Display mode 显示模式	Normally Black
Dot pitch 点间距	0.1194 (H) x0.1194 (V)
Active area 有效面积	229.25(W) ×45.85(H)
Module size 模块尺寸	242.31(W) ×63.92(H) ×7.87(D)
View direction 视图方向	ALL/ O' Clock
Surface treatment 表面处理	AG、AR、AF
Response Time 响应时间	30 (Max.) ms
Support Color 支持颜色	16.7M

核心优势Advantage：
产品成熟，质量稳定，成本低，供应链稳定
High quality,High cost-performance,
Supply chain stability

工作温度/ Operating Temperature	-30℃~+85℃
储存温度/ Storage Temperature	-40℃~+90℃
静电等级/ESD	Contact mode：150pF 330Ω ±8KV；class B Air mode：150pF 330Ω ±15KV Class B
对比度/ Contrast Ratio	Min. 800, Typ.1100
亮度/Luminance	Min. 1500 cd/m²



12.3寸TFT-LCM-12.3inch 1920xRGBx720 RoHS
后视镜屏幕CMS-LCM

通过GB15084/ECE R46车规标准

装在吉利汽车远程车型；
Supply to GEELY FARIZON.
装车订单量order：20K

Item 项目	12.3inch Specifications 12.3规格
LCD Size 液晶显示尺寸	12.3 inch
Resolution 分辨率	1920 × (RGB) × 720
Display mode 显示模式	Normally Black
Dot pitch 点间距	01521 (H) × 0.1521 (V)
Active area 有效面积	292.032(W) × 109.512(H)
Module size 模块尺寸	303.04(W) × 139.43(H) × 8.02(D, 不含定位柱)
View direction 视图方向	ALL/ O' Clock
Surface treatment 表面处理	AG、AR、AF
Response Time 响应时间	30 (Max.) ms
Support Color 支持颜色	16.7M

核心优势Advantage：
产品成熟，质量稳定，成本低，供应链稳定
High quality,High cost-performance,
Supply chain stability

工作温度/ Operating Temperature	-30℃~+85℃
储存温度/ Storage Temperature	-40℃~+90℃
静电等级/ESD	Contact mode：150pF 330Ω ±8KV；class B Air mode：150pF 330Ω ±15KV Class B
对比度/ Contrast Ratio	Min. 900, Typ.1100
亮度/Luminance	Min. 800 cd/m² Typ. 900 cd/m²



自动产线和设备管理

Workshop Management

日本进口先进产线/设备Advanced Lines Imported from Japan
良好的产线/设备维护Excellent Equipment Maintenance / TPM
良好ESD防护/作业规范Strict ESD protection and SOP
良好光照和洁净度监控Excellent Lighting & Cleanliness Control
成体系的作业监控Full-scale In-Process Inspection system
专业高效的生产团队Professional and Efficient Production Team



台面/货架
ESD管理
ESD protection

静电手环
Wear an ESD wrist strap



全流程的生产设施：大板切割-POL偏贴-模组绑定-背光组立-测试/老化-贴合-组装-质检
Facility Overview : Cell Cutting→ POL Lamination→ Module Bonding→ BLU Assembly→
Testing/Ageing→ Full Lamination→ Final Assembly→ QC



核心产线稼动率Equipment Utilization Rate > 97%
核心产线良率Yield Rate大于99.5%



制程简介-切割+偏贴

切割+偏贴自动生产线：
Cell Cutting and POL
Lamination automatic
production lines+Visual
check

日本高精度设备和稳定生产
High-accuracy and
stable production

核心规格cell sizes (0.5--17.5inch)
切割压入精度:0.05mm
Cutting press-in accuracy:0.05mm
CCD对位精度：0.1mm
CCD alignment accuracy:0.1mm

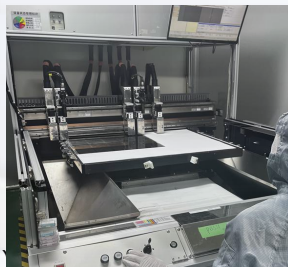
典型月产能：160K (10.25寸)
Typical monthly capacity:160K (10.25inch)



PROCESS INTRODUCTION -
Cutting and POL Lamination

自动生产线，人工检查
Automatic production lines+Visual check

百级无尘室
Class 100 dustfree workshop



1. 大板切割
Mother sheet cutting



2.cell裂片
Cell singulating



3. 裂片检验
Appearance inspection



7.脱泡
Vacuum Defoaming



6.POL CCD对位+偏贴
POL CCD alignment+lamination



5.cell研磨
Cell Fine Grinding



4. cell纯水清洗
Cell Deionized Water Cleaning

制程简介-绑定

PROCESS INTRODUCTION - BONDING

3条绑定产线：全自动松下
(105CG)COG+FOG+涂胶

3 Bonding automatic
production lines :
COG+FOG+ GLUE COATING
Panasonic(105CG)
production lines

高精度和稳定生产
high-accuracy and stable
production

核心规格cell sizes (0.5--17.5inch)
COG Bonding $\pm 2\mu\text{m}$
FOG Bonding $\pm 5\mu\text{m}$

典型月产能：400K (10.25寸)
Typical monthly capacity:300K (10.25inch)

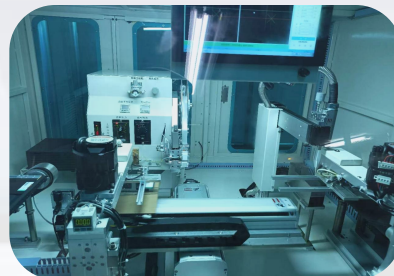


自动生产线，人工检查
Automatic production lines+Visual check

千级无尘室
Class 1000 dustfree workshop



1. 上料
Material Loading



2. 酒精布清洗/Plasma清洁
alcoholic cloth cleaning & plasma cleaning



3. 芯片绑定到玻璃上
COG Bonding $\pm 2\mu\text{m}$



4. 柔性电路板绑定到玻璃上
FOG Bonding $\pm 5\mu\text{m}$



5. 粒子AOI检查 Particle inspection(AOI)



6. 银/蓝胶涂布
Silver/Tuffy glue coating



7. 产品检查
Product inspection

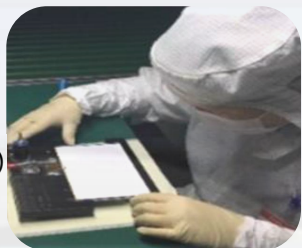
LCM组装生产线2条：
1条全自动+3条手动
组装线

LCM ASSEMBLY
production lines：
1 automatic
production lines+3
manual assembly
line

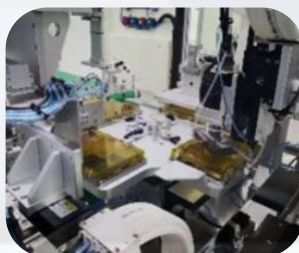
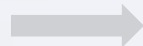


高柔性和快速生产
High flexibility and
fast production

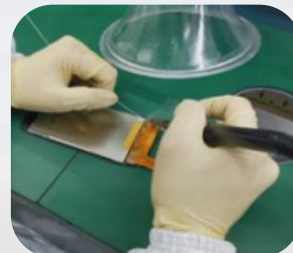
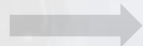
典型月产能：400K (10.25寸)
Typical monthly
capacity:400K (10.25inch)



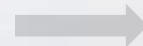
1. B/L外观&点灯检查
B/L appearance & lighting inspection



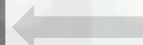
2.面板/BL自动组立
Panel & BL automatic assembly



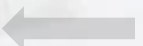
3.FPCA焊接
FPCA soldering



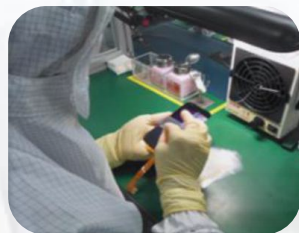
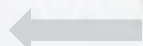
4.贴高温胶
High temperature resistant
Tape attaching



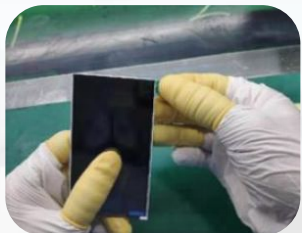
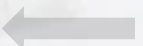
5.FPC 弯折
FPC Bending



6. 电测检查
Function test



7.外观检查
Appearance inspection



8.成品后流/易撕贴贴附
Finished product outflow/Pull tape
attaching

制程简介-全贴合

INTRODUCTION TO MANUFACTURING
PROCESS -FULL LAMINATION

自动生产线，人工检查
Automatic production lines+Visual check

百级无尘室
Class 100 dustfree workshop



全贴合生产线2条：
1条全自动+1条手动组装线
FULL LAMINATION
Production lines：1
automatic production
lines+1 manual assembly
line
高灵活性和快速生产
High flexibility and fast
production

核心规格cell sizes
(0.5--17.5inch)

CCD对位精度：0.1mm
CCD alignment
accuracy:0.1mm

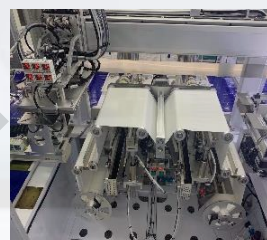
典型月产能：80K
(10.25寸)
Typical monthly
capacity:80K
(10.25inch)



1.来料外观检查
Incoming material
appearance inspection



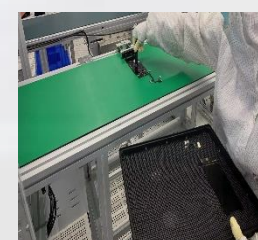
2.盖板覆膜
CG film attaching



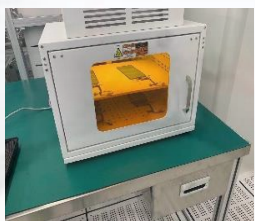
3.盖板清洁自动化
Automatic cleaning of CG



4.软(sensor)对硬(盖板)贴合
Soft to hard Laminating



5.LCD上料
LCD loading



10.老化+固化
Ageing and Curing



9.成品检查
Visual inspection of finished products



8.真空脱泡
Vacuum Defoaming



7.硬对硬压合
Hard to hard Laminating



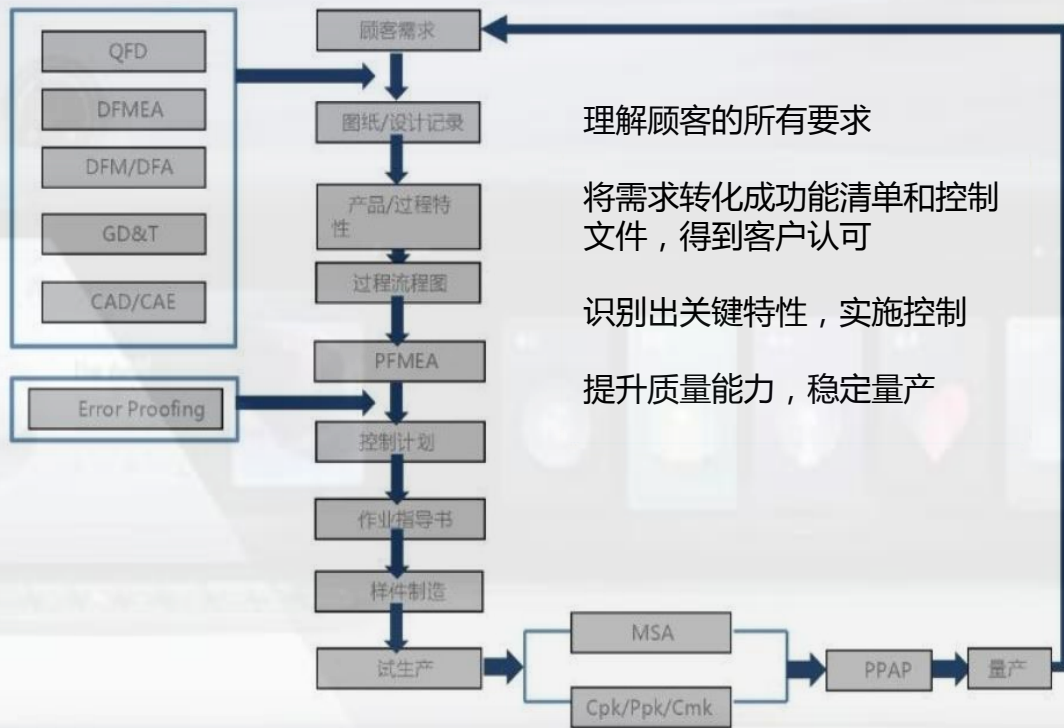
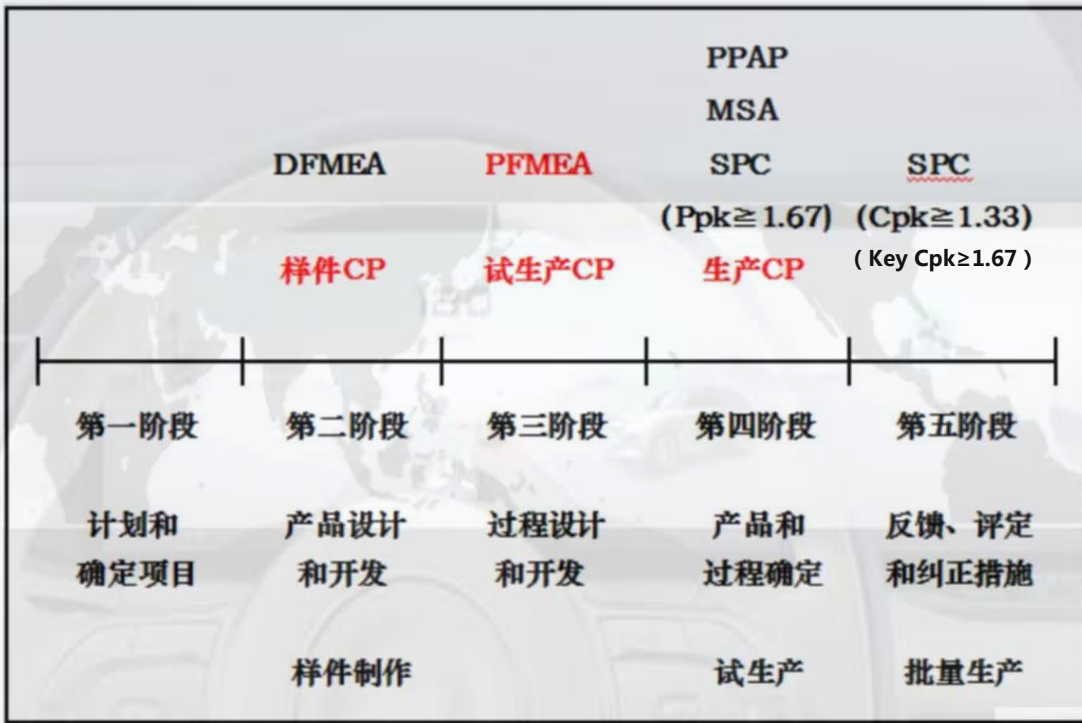
6.OCA/OCR
OCA/OCR

项目控制

PROJECT MANAGEMENT

根据客户需求和项目开发进度，按照IATF16949的APQP手册，开展先期质量策划活动，开发特殊特性清单/DFMEA/PFMEA/CP/过程流程图/MSA/SPC文件，将控制措施运用到生产和质量检查作业手册，进行高质量和稳定生产。

Based on customer and project requirements, in accordance with the APQP manual of IATF16949, carry out APQP activities, develop key and important characteristic lists/DFMEA/PFMEA/CP/process flow diagrams/MSA/SPC documents, apply control measures to production and quality inspection operation manuals, and achieve high-quality and stable production.



实验设备

LABORATORY EQUIPMENT

华显内部进行环境类/光学/运输/电性能类可靠性摸底实验，第三方进行OTS/PPAP认可试验；In-house testing for reliability. Third-party labs handle OTS/PPAP

Equipment Name	仪器名称	精度Key parameter
Thickness measurement	厚度表	±0/03mm
Electrostatic detector	静电衰减测试仪	电压：±1% 时间：±1/5%
AC millivoltmeter	交流毫伏表	±3%
Digital multimeter	数字万用表	±0.5%
Low frequency signal generator	低频信号发声器	频率：±2%
High frequency signal generator	高频信号发生器	±1.5dB
analog oscilloscope	模拟示波器	±0.5%
Torque tester	扭力测试仪	±0.05N.M
Digital Oscilloscope	数字示波器	±0.5%
DC POWER SUPPLY	直流稳压电源	DCV:±0.2% DCA:±0.5%
UV energy meter	UV能量计	±3%
Pressure gauge	压力表	±0.4%
Lumeter	照度计	±2/5%
XRF spectrometer	XRF光谱仪	±5%

华显实验室主要的测量仪器和设备
Main measuring instruments and equipment in the laboratory

In-house:
Reliability tests (Env, Optical, Shipping, Electrical).

Outsourced:
EMC

Equipment Name	仪器名称	精度Key parameter
Constant temperature and humidity machine	恒温恒湿机	温度波动度：±1.0℃ 温度均匀度：±2.0℃
Salt Spray Test Chamber	盐雾试验箱	波动度,≤±0.5℃均匀度: ≤2℃
Dust particle tester	落尘粒子测试仪	粒子浓度：±15%
Tensile Tester	拉力测试仪	±0.1kgf/cm
Vibration test bench	振动试验台	频率：±0.1Hz 振幅：±0.1mm 加速度：±0.1g
Ball pressure tester	球压测试仪	20N±0.2N
Glow Wire Tester	灼热丝试验仪	±1℃ ±0.01S
Three slot thermal shock box	三槽式冷热冲击箱	温度波动度：±1/0℃ 温度均匀度：±2/0℃
Image measuring instrument	影像测量仪	±0/003mm
Water droplet angle tester	水滴角测试仪	0~180°/0.1°
ESD GENERATOR	静电放电发生器	电压：0.20 ~ 20.0kV ±5% 增压：0.0kV ~ 10.0kV 150pF 330Ω 330pF 330Ω
BM-7 Brightness Meter	BM-7亮度计	亮度：±5% 色度：±0/04
Electrostatic impedance measuring instrument	静电阻抗量测仪	±5%

实验设备

LABORATORY EQUIPMENT

先进高精度实验室设备，进行原料检测和分析，研发试验，可靠性测试

Advanced high-precision laboratory equipment for material testing and analysis, research and development experiments, and reliability testing



设备名称：X荧光光谱仪

Name: X-ray fluorescence spectrometer

型号/model: 天瑞/EDX1800

精确度/accuracy: $\pm 5\%$



设备名称：2.5D投影量测仪

Name: 2.5D projection measuring instrument

型号/model: FH3020/KSY

精确度/accuracy: $\pm 0.003\text{mm}$



设备名称：灼热丝实验机

Name: hot wire test machine

型号/model: JK-ZRS-200

实验设备

LABORATORY EQUIPMENT



设备名称：恒温恒湿箱
Name: constant temperature and humidity chamber
型号/model: 正航仪器/ZH-TH-150D
温度范围：-40℃~ + 90℃
温度波动度：±1.0℃
温度均匀度：±2.0℃



设备名称：跌落试验机
Name: drop tester
型号/model: HT-10

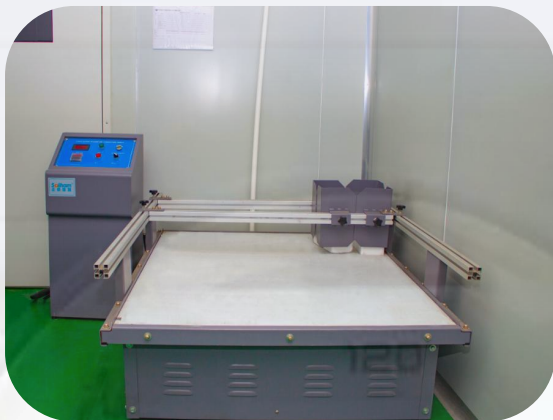


设备名称：三槽式冷热冲击箱
Name: Three groove cold and thermal shock test chamber
型号/model: 华氏特/TS-80L
温度波动度：±1.0℃
温度均匀度：±2.0℃

实验设备

LABORATORY EQUIPMENT

包装和运输试验验证，全过程保护产品
Packaging and transportation testing verification,
protecting products throughout the entire process



设备名称：陆运震动台
Name: road transport shaking table
型号/model: ZH-OAS-100



设备名称：盐雾试验机
Name: salt spray test machine
型号/model: 乐迪仪器 (LD-60A)



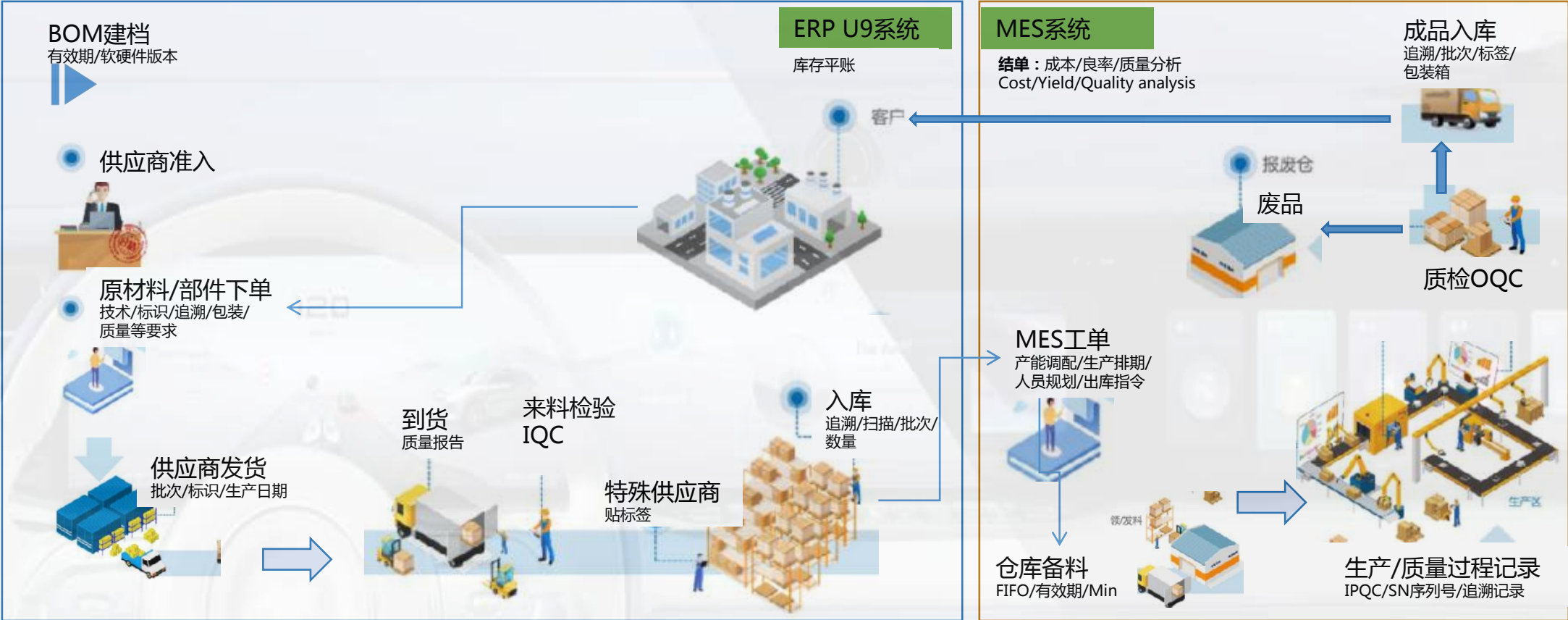
设备名称：震动试验台
Name: vibration test bench
型号/model: NEV-XTP

材料管理：ERP U9订单/FIFO/批次/有效期/追溯
 Material: ERP U9 PO/FIFO/Batch/Validity/Tracing

生产规划：MES生产排产/产能管理/人员规划等，适配客户制程
 Production planning: MES Schedule/Production capacity management/workers arrangement/Adapt to customer process

生产监控：MES监控生产过程和防错/追溯管理/质量控制IQC/IPQC/OQC
 Production monitoring: MES/tracing/quality/control/QC/IPQC/OQC

报表分析：MES成本/良率/质量分析
 Report analysis: MES cost/yield/quality analysis



HUAXIAN | 华显光电

品质全流程监控

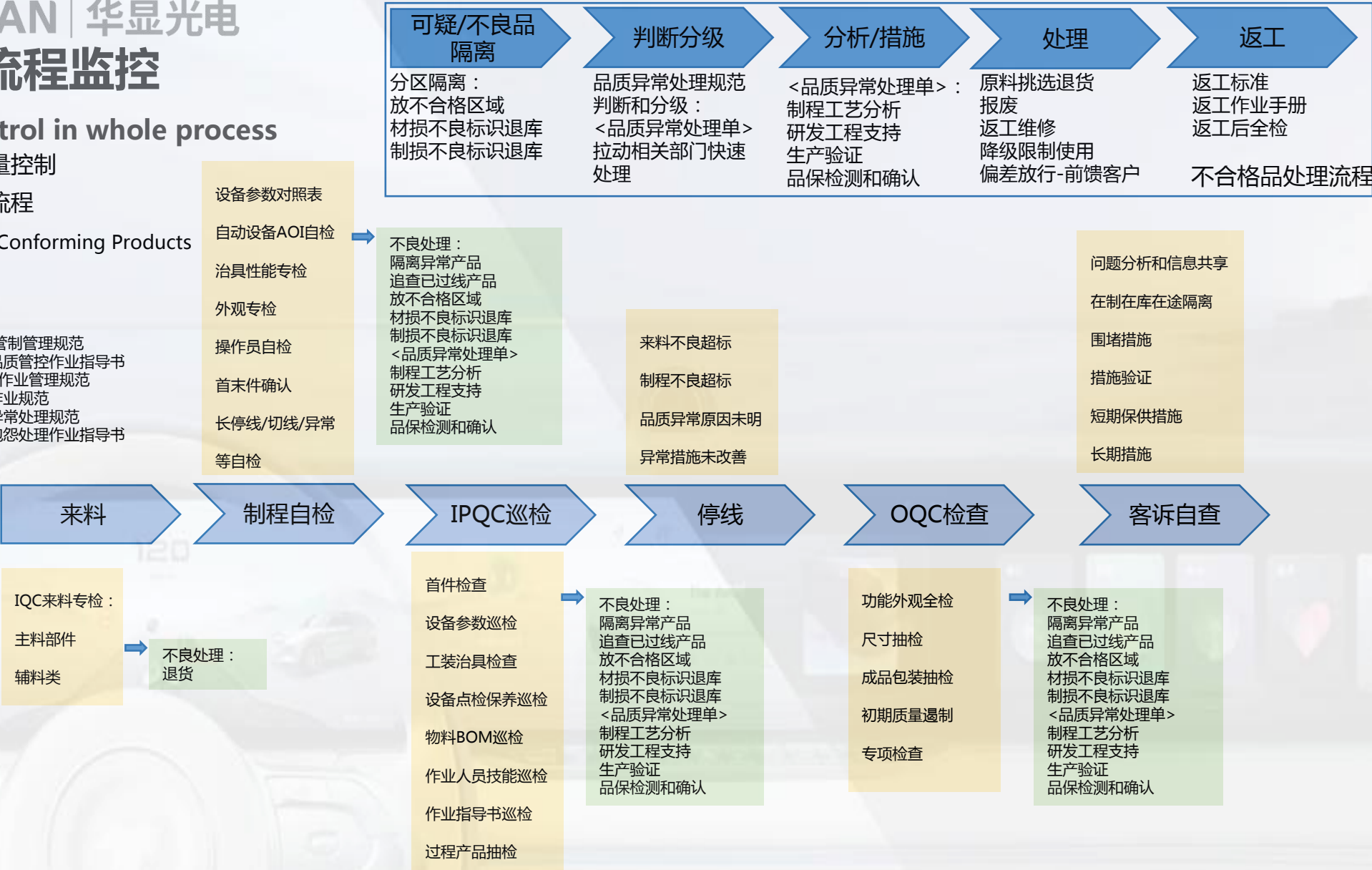
Quality Control in whole process

各环节中的质量控制

不合格品处理流程

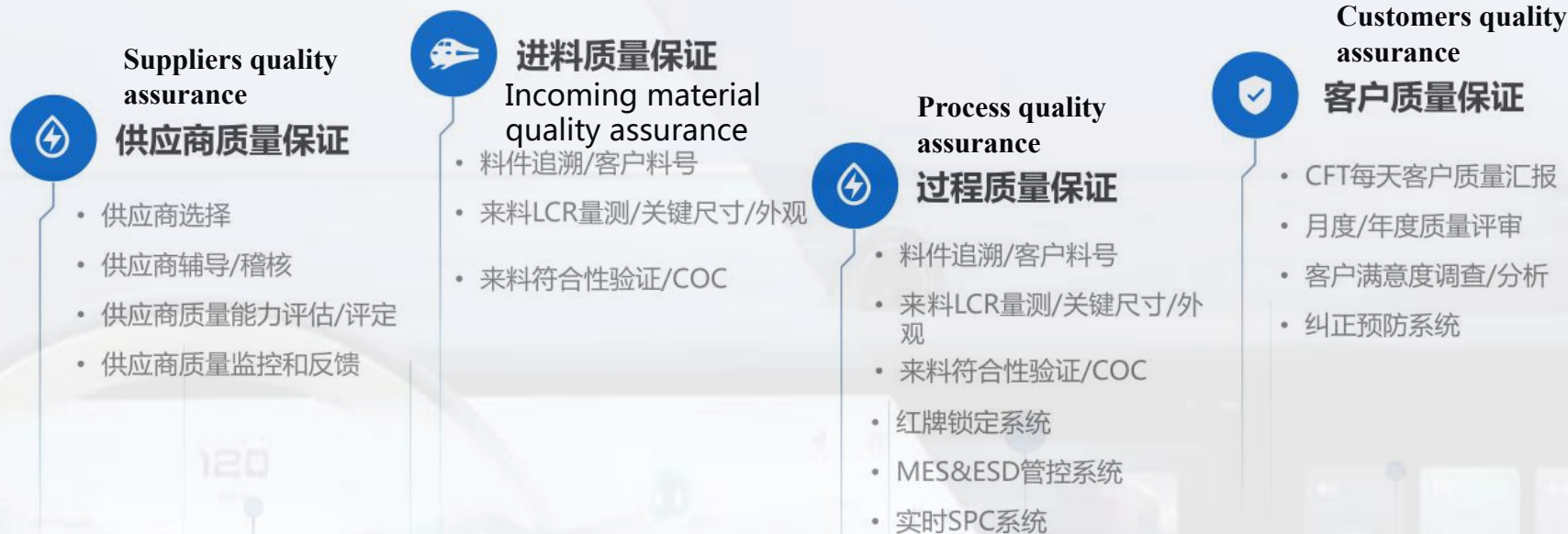
Control of Non-Conforming Products

- WI-QA01-003 进料管制管理规范
- WI-QA01-004 制程品质管控作业指导书
- WI-QA01-024 IPQC作业管理规范
- WI-QA01-033 出货作业规范
- WI-QA01-007 品质异常处理规范
- WI-QA01-006 客户抱怨处理作业指导书



质量保证系统

QUALITY ASSURANCE SYSTEM



质量保证系统

设计开发阶段严格测试
Design Stage: Rigorous in-house testing

照片 1：测试整体照-快脉冲



LABone®

检 测 报 告

报告编号: CJ2501083R01C 报告日期: 2025/02/12 页码: 2 of 18

检测结论:

项目编号	项目名称	评价*
R01	温度梯度（阶梯温度变化实验）	符合
R02	温度变化试验（温度交变实验）	符合
R03	交变湿热试验（湿热循环）	符合

报告编号: CJ2501083R01C 报告日期: 2025/02/12

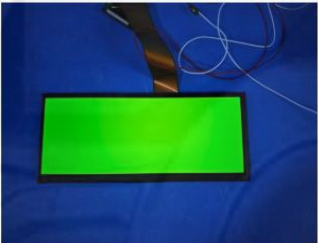
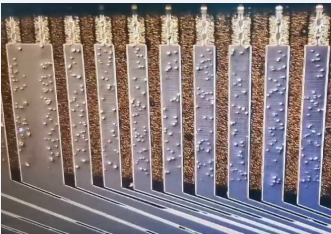


图 R02.11 测试后 功能正常（示意图）

质量保证系统

QUALITY ASSURANCE SYSTEM

试产阶段Pilot Run:
制程参数验证和确认
Process Parameter Verification & Confirmation

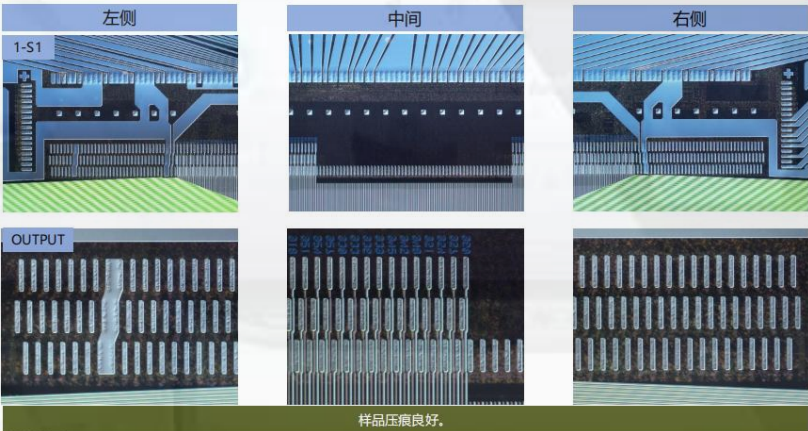


日立ACF固化率测试

4. 压着状态确认

4-1外观观察结果 样品（压痕）140deg.C

RESONAC



SZ-202501019 6

The content on this data sheet is based on typical measurements, not guaranteed ones.

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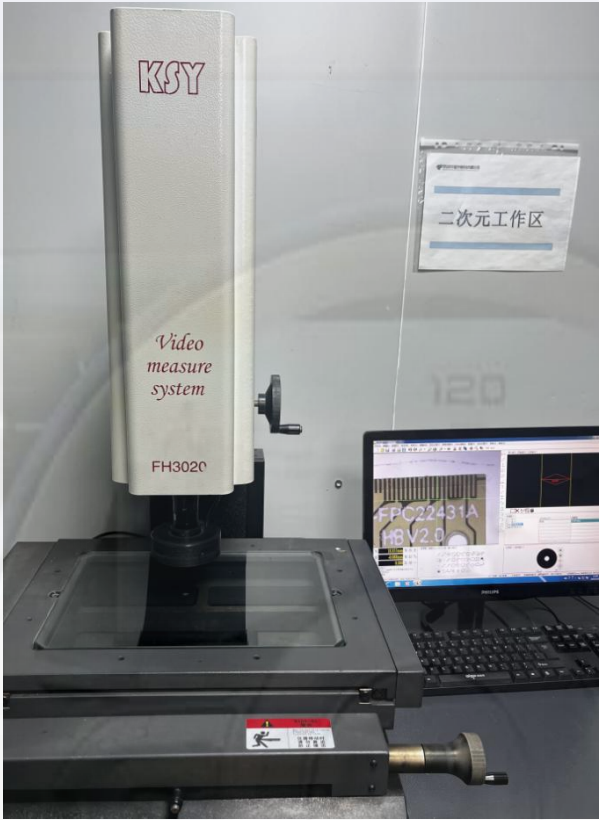
100% 加强高温老化测试
100%Enhanced Stress Aging



质量保证系统

QUALITY ASSURANCE SYSTEM

IQC二次元进料检测
Incoming Inspection by 2D Measuring Projector



IPQC电子显微镜检测
IPQC verifies critical features under an electronic microscope



OQC出货检测标准（部分截图）
Well-defined OQC Inspection Criteria

7.1 电测缺陷质量标准				
检查项目		判定基准		备注
类别	缺陷	规格	允许个数	
功能缺陷	亮线/暗线/薄亮线/薄暗线/交叉线/data open/Gate open	不允许		\
	闪屏/闪烁	Flicker 之外的画面，肉眼可察觉的闪烁	不允许	100%人工目视检验
		Flicker 画面的闪烁以光学测试为准		100%设备测试
	Cross talk	不允许		
	无显/乱显/半显/暗显	不允许		\
	颜色异常	肉眼可察觉、色坐标测试不合格的不允许		\
	视角错误	与设计不符的不允许		
	液晶气泡、漏液晶	不允许		\
	残影关机/画面切换时影像残留	>5S	不允许	关机后，还有画面显示残留，或切换画面后还留有上一画面的残留
	倒屏/翻转	不允许		画面显示上下、左右颠倒
	BL 不亮/某几颗灯不亮/BL 暗	不允许		100%检验
	NTC 阻值异常	不允许		NTC 为热敏电阻，设置在背光中，100%检验
	Open short/电流测试	不允许		100%检验
Crosstalk	银胶阻值异常	不允许		100%检验
	Touch Panel 无功能或线性不良	不允许		\
Crosstalk	垂直、水平 crosstalk	不允许		Crosstalk 画面下可见水平或垂直的拖影

合作联系方式

Contact information



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Thanks

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