



Welcome to Jingtai !
显示精彩，触动未来！

<http://www.szjingtai.net>



深圳市晶泰液晶显示技术有限公司

Shenzhen Jingtai Liquid Crystal Display Technology Co.,Ltd.



深圳市晶泰液晶显示技术有限公司

Shenzhen Jingtai Liquid Crystal Display Technology Co.,Ltd

—CONTENTS—

01

ABOUT JINGTAI

02

ENGINEERING & RESEARCH AND DEVELOPMENT

03

PRODUCTION CAPACITY & EQUIPMENT

04

QUALITY ASSURANCE

05

CERTIFICATE & HONOR



➤ Date of Establishment

Shenzhen Jingtai LCM: Sep. 2007

Huizhou Jingtai LCM: Sep. 2023

(Huizhou Jingtai is a wholly-owned subsidiary of Shenzhen Jingtai)

➤ Registered Capital (CNY) : 20 Million (Chinese Yuan)

➤ Number of Employees: Over 700

➤ Main Product : TP+TFT LCD Module (TLCM)

➤ Business Philosophy:

Dedicated to the research and production of high-tech products, providing customers with high-quality display products and contributing to the technological development of the industry

➤ Enterprise Vision:

Becoming a leading enterprise in the global display product field





ABOUT JINGTAI



Jingtai Development History



2007

**Shenzhen Jingtai
Established**

2012

Certified as a High-tech
Enterprise

2019

Huizhou Jingtai Display
Industrial Park Completed

2022

Sales Revenue
Exceeded 600
Million
Chinese Yuan

2023

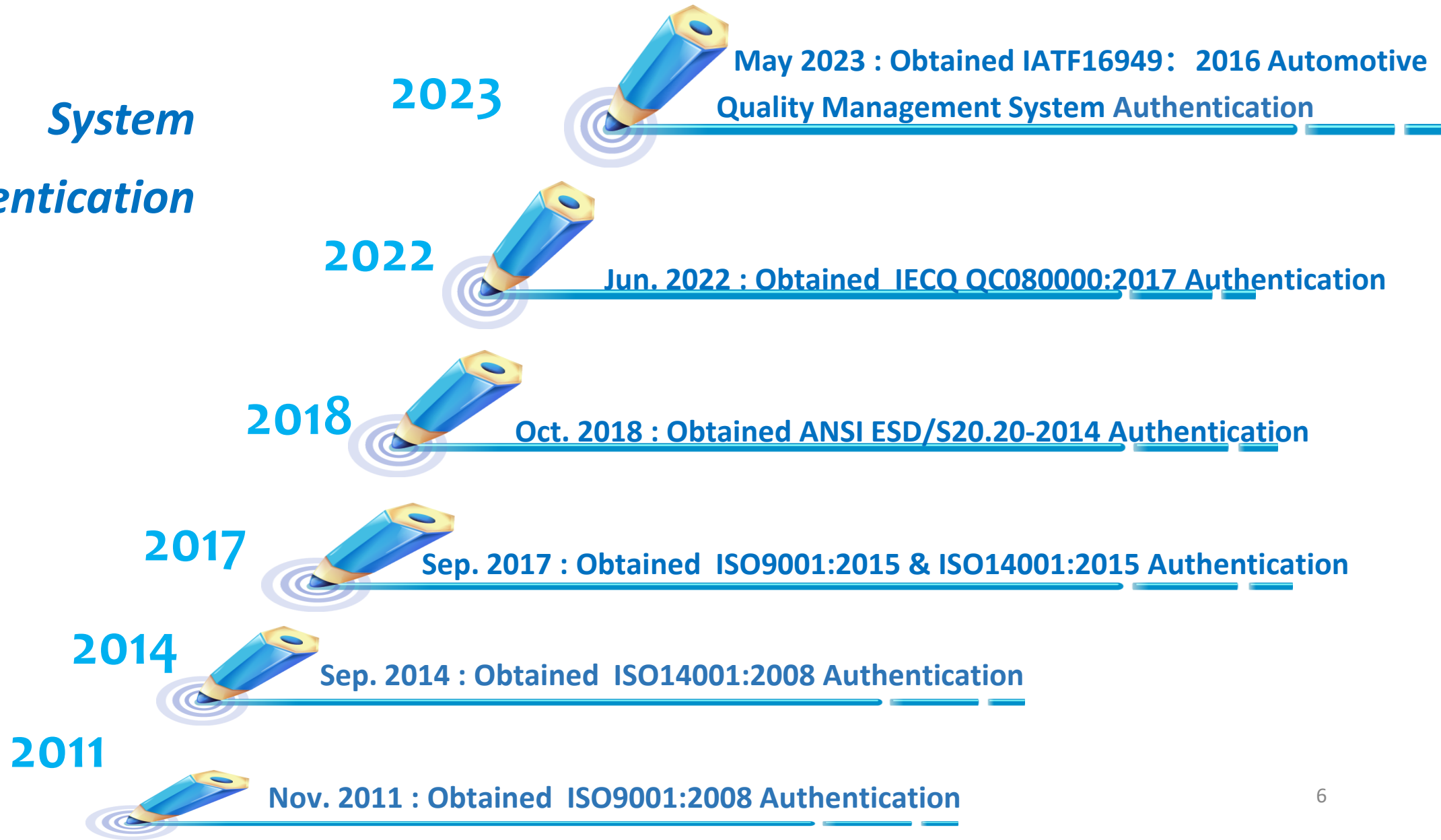
**Huizhou Jingtai
Established**



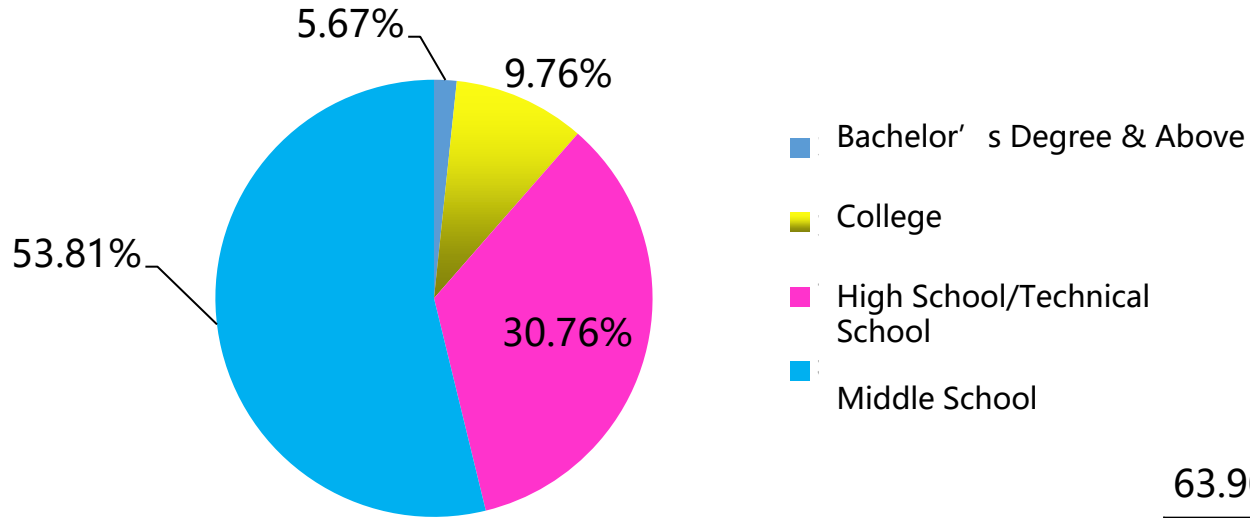
Jingtai LCM System Authentication



System Authentication

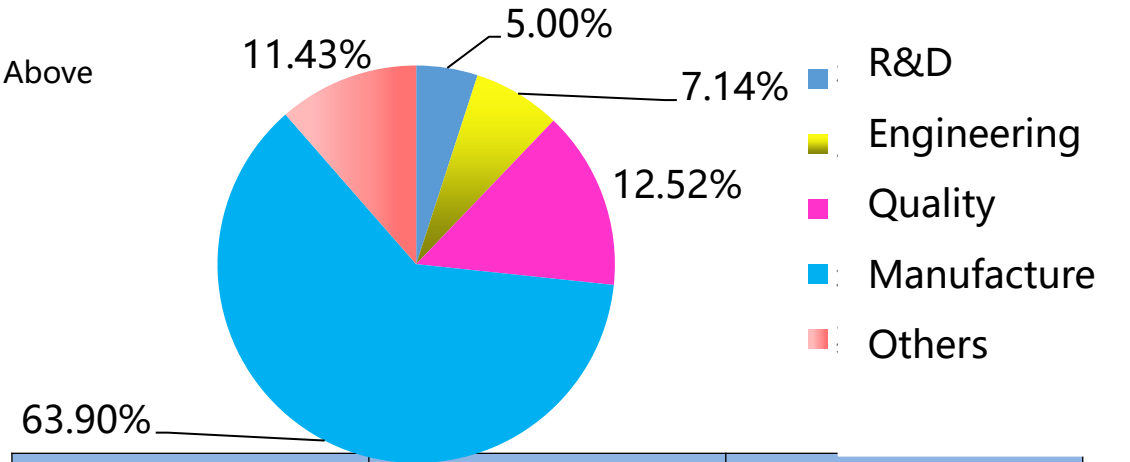


Educational Background



Educational Background	Percentage	Total Number Of Employees
Bachelor's Degree & Above	5.67%	700
College	9.76%	
High School/Technical School	30.76%	
Middle School	53.81%	

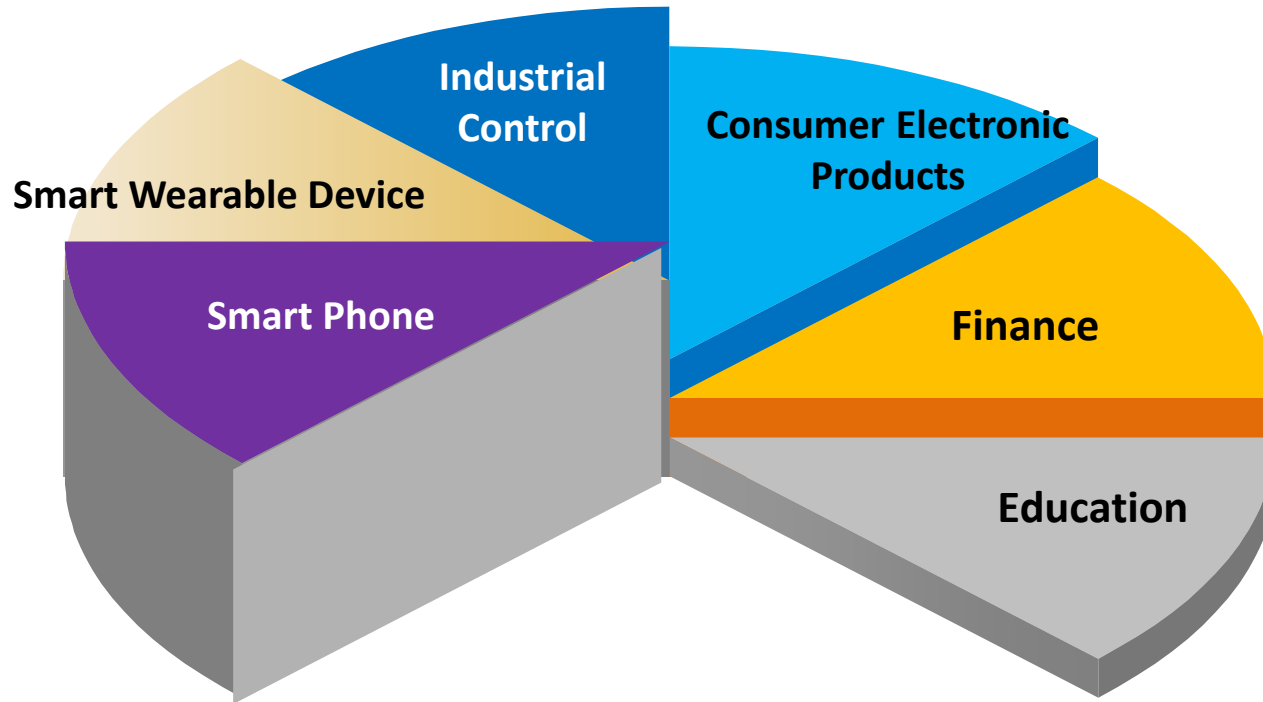
Personnel Allocation



Division	Percentage	Total Number Of Employees
R&D	5.00%	700
Engineering	7.14%	
Quality	12.52%	
Manufacture	63.90%	
Others	11.43%	



Jingtai Main Product & Application



✓ Main Product: TP+ TFT LCD Module

- From designing to manufacture
- Full lamination technology
- Blind hole phone screen

✓ Product Application:

Our LCM products can be used on smart phones, smart wearable devices, industrial control, consumer electronic products, finance, education and other electronic products.



Smart Phone



Smart Watch



POS
Machine



Smart
Home



Video
Telephone



Translation
Machine/Pen



Facial Recognition
POS Machine



About Huizhou Jingtai Industrial Park



2020: Remote Control Business Unit &

Light Guide Plate moved in

2023: Huizhou Jingtai LCM moved in

2024: Back Light Unit will move in



02

ENGINEERING & RESEARCH AND DEVELOPMENT

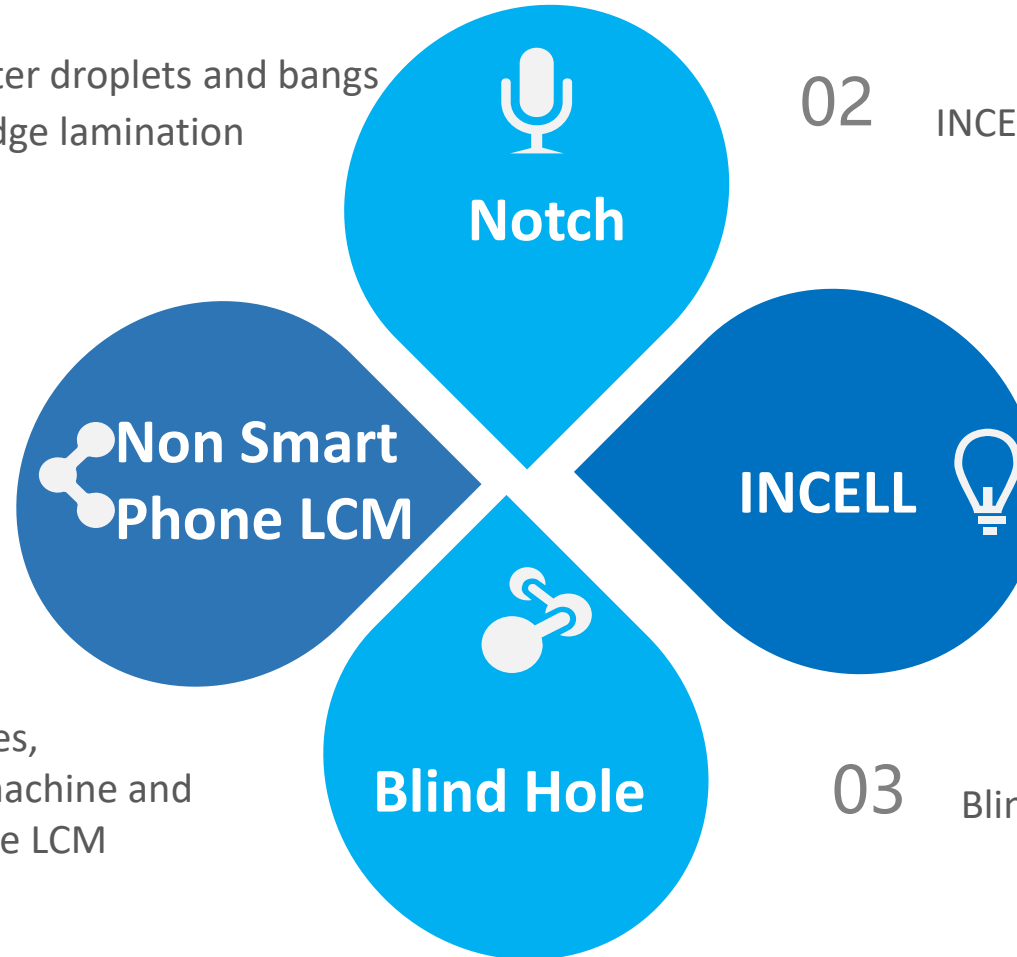


01

- Irregular screen modules such as water droplets and bangs
- Using full lamination technology or edge lamination technology
- Assembly accuracy reaches $\pm 0.1\text{mm}$

02

INCELL full lamination LCM



04

Smart wearable devices,
translation pen, POS machine and
other non smart phone LCM

03

Blind Hole full lamination LCM



LCD Module Manufacture Process

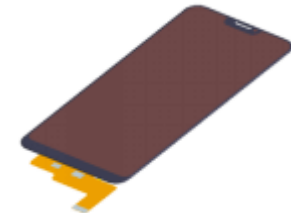
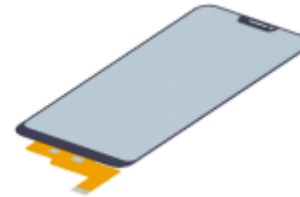
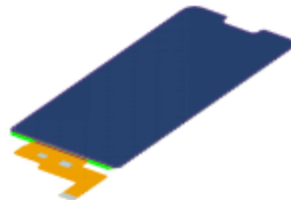
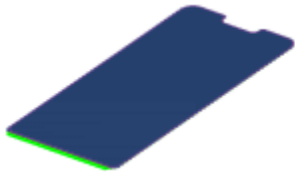


Attaching
Polarizer

IC & FPC
Bonding

Lamination

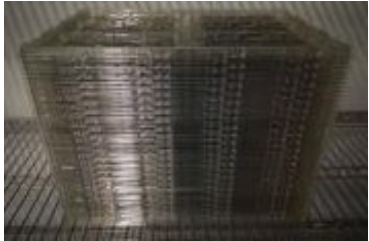
B/L
Assembly



4 Core Processes of LCM Manufacture



LCM Core Process: Attaching Polarizer & COG、FOG Bonding



Glass Inspection



Polarizer Attaching
Machines



Automatic Washing
Grinding



Automatic CF/TFT
Polarizer Attaching



Electrical Measurement
Inspection



FOG Bonding



COG Bonding



PAD Automatic
Cleaning



Visual
Inspection



Degas



AOI Automatic
Inspection



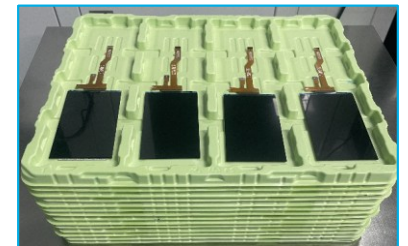
3 in 1 Glue
Dispensing



Automatic Glue
Drying



FOG Electrical
Measurement
Inspection



Visual Inspection and
Semi-product Collecting



LCM Core Process: Full Lamination



TP Functional Test



TP&CG Cleaning and Visual Inspection



Silicone Automatic Dispensing



Automatic Matching



Full Lamination Degas



OQC/TP Functional Test



OQC Functional Test



UV Oven



FOG Functional Test



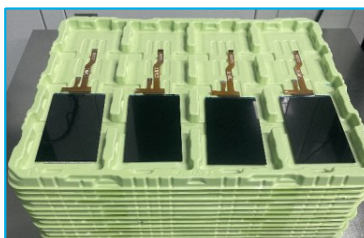
Cleaning & Visual Inspection



OQC Visual Inspection



1st Blind Hole Glue Dispensing



Semi-product Collecting



LCM Core Process: Backlight Unit Assembly



BL Automatic Loading



FOG/BL Automatic Assembly



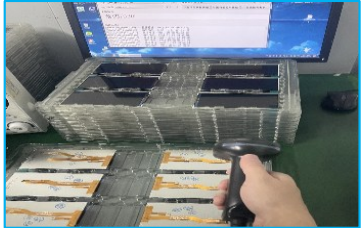
2nd Blind Hole Glue Dispensing



Blind Hole Light Leak Inspection



Automatic QR Code Printing



QR Code Scanning



OQC Visual Inspection



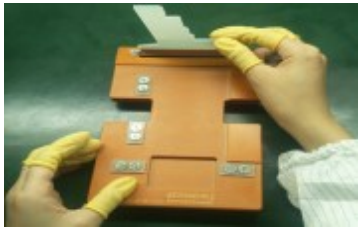
OQC Electrical Measurement Inspection



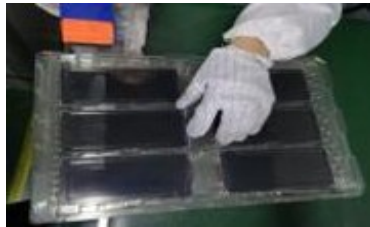
Visual Inspection



3 in 1 Automatic AOI Inspection



FPC Matching & Folding



Packaging

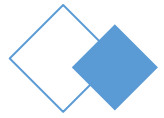


Warehousing



03

PRODUCTION CAPACITY & EQUIPMENT






➤ Production Capacity:

- **8 Automatic LCM Production Lines: Production capacity is 2.4KK a month,**
- **8 Full Lamination Lines: Production capacity is 2.4KK a month,**
- **Blind Hole Production Line: Production capacity is 800K a month**



Production Equipment: Used in Process of Polarizer Attaching






Process	Polarizer Attaching	Polarizer Attaching	Polarizer Attaching Inspection
Machine			
Machine Name	Automatic grinding, cleaning and Polarizer Attaching Machine	Automatic grinding, cleaning and Polarizer Attaching Machine	Automatic Polarizer Attaching Inspection Machine
Model	ATP-A08M-G	LCAB-A08VA-B	LH-T2000I
Number of Machine	2	4	1
Size of LCD Panel	3-8"	3-8"	0.96-11"
Production Capacity (10 h)	11K	22.5K	5K
Accuracy	X:±0.15mm,Y:±0.15mm	X:±0.1mm,Y:±0.1mm	Omission Ratio≤0.3%, Fall-out ratio < 6%



Production Equipment: Used in Process of COG&FOG Bonding (1)






Process	COG Bonding	COG Bonding	FOG Bonding
Machine			
Machine Name	Automatic COG Bonding Machine	Automatic COG Bonding Machine	Automatic FOG Bonding Machine
Model	SCL-2000	FPX-005CG	SFB-2000J
Number of Machine	4	2	4
Size of LCD Panel	3-8"	1.3-10.1"	3-8"
Production Capacity (10 h)	30K	16K	30K
Accuracy	ACF Bonding Accuracy: X:±0.2mm,Y:±0.1mm; COG Bonding Accuracy: X: ±0.03mm,Y: ±0.03mm; FPC Bonding Accuracy: X: ±0.1mm,Y: ±0.1mm		






Production Equipment: Used in Process of COG&FOG Bonding (2)



Process	FOG Bonding	AOI Inspection	3 in 1 Glue Dispensing
Machine			
Machine Name	Automatic FOG Bonding Machine	AOI Particle Indentation Inspection Machine	Automatic 3 in 1 Glue Dispensing Machine
Model	BMX-6000	AK2S1L-COF-0107/EST-AOI-2207C	CDY616
Number of Machine	2	5	6
Size of LCD Panel	1.3-10.1"	1.3-10.1"	3-8"
Production Capacity (10 h)	16K	46K	46K
Accuracy	ACF Bonding Accuracy: X:±0.2mm,Y:±0.1mm; COG Bonding Accuracy: X: ±0.03mm,Y: ±0.03mm; FPC Bonding Accuracy: X: ±0.1mm,Y: ±0.1mm;		

Production Equipment: Used in Process of Full Lamination






Process	Silicone Dispensing	Full Lamination	1 st Blind Hole Glue Dispensing
Machine			
Machine Name	Automatic Silicone Dispensing Machine	Automatic Vacuum Full Lamination Machine	Semi-automatic Round Hole Glue Dispensing
Model	CDY-909	LCAAL-A08VA-G	HSPM-AS5500
Number of Machine	2	3	3
Size of LCD Panel	3-8"	3-8"	3-8"
Production Capacity (10 h)	27K	27K	3K
Accuracy	Soft to Hard Accuracy: X:±0.1mm,Y:±0.1mm; Hard to Hard Accuracy: X: ±0.05mm,Y: ±0.05mm;		



Production Equipment: Used in Process of Backlight Unit Assembly



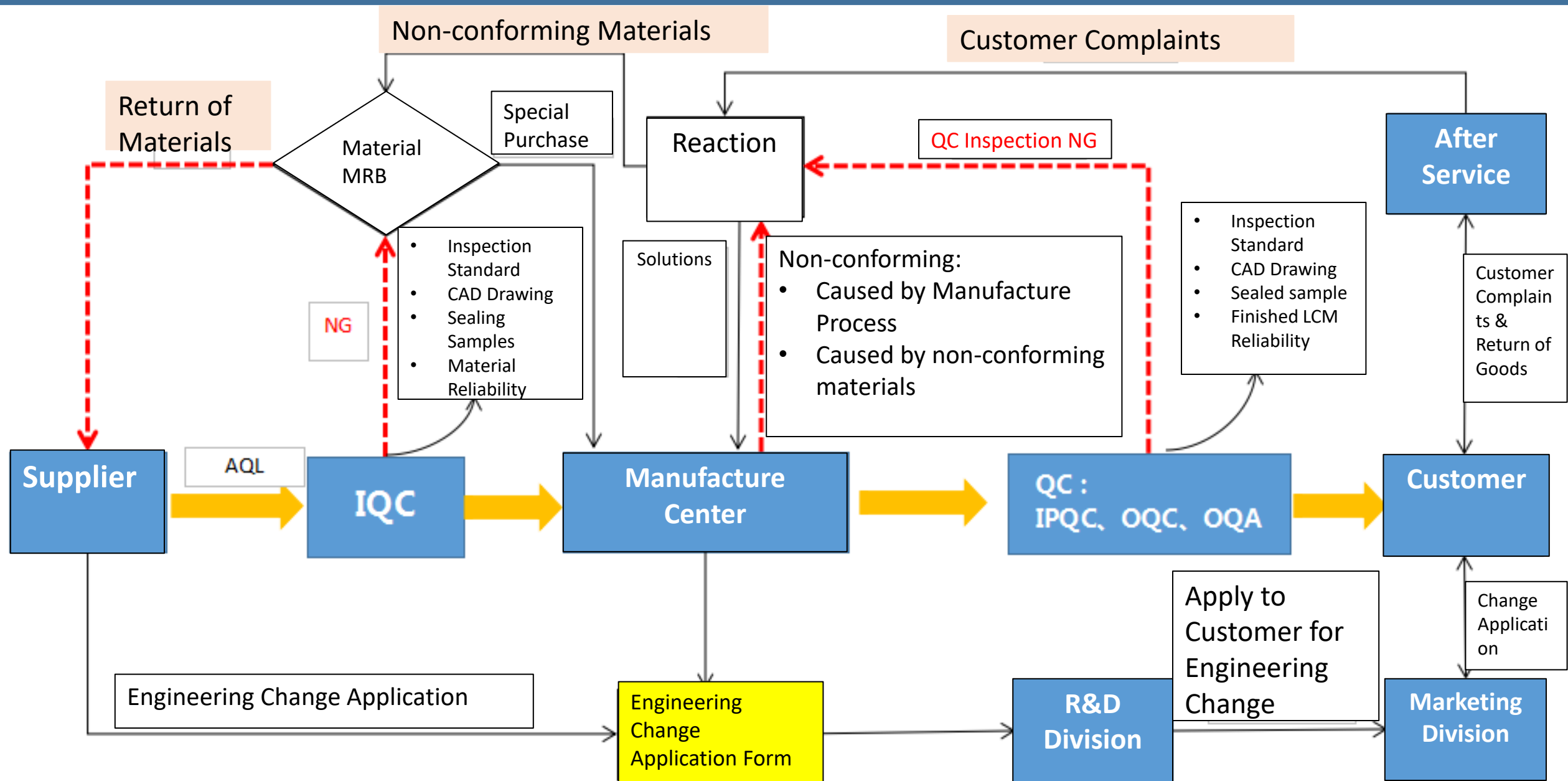
Process	Backlight Unit Assembly	2 nd Blind Hole Glue Dispensing	Finished LCM AOI Inspection
Machine			
Machine Name	Automatic B/L Assembly Machine	Semi-automatic Round Hole Glue Dispensing	3 in 1 Screen Inspection Machine
Model	KDY-BL1000T7/KDY-BL1000TX4	HSPM-AS5500	ET545
Number of Machine	6	3	8
Size of LCD Panel	1.3-8"	3-8"	3-8"
Production Capacity (10 h)	46K	3K	24K
Accuracy	B/L Assembly Accuracy: X: $\pm 0.1\text{mm}$, Y: $\pm 0.1\text{mm}$; Blind Hole Glue Dispensing: Concentricity $\leq 0.1^\circ$		



QUALITY ASSURANCE

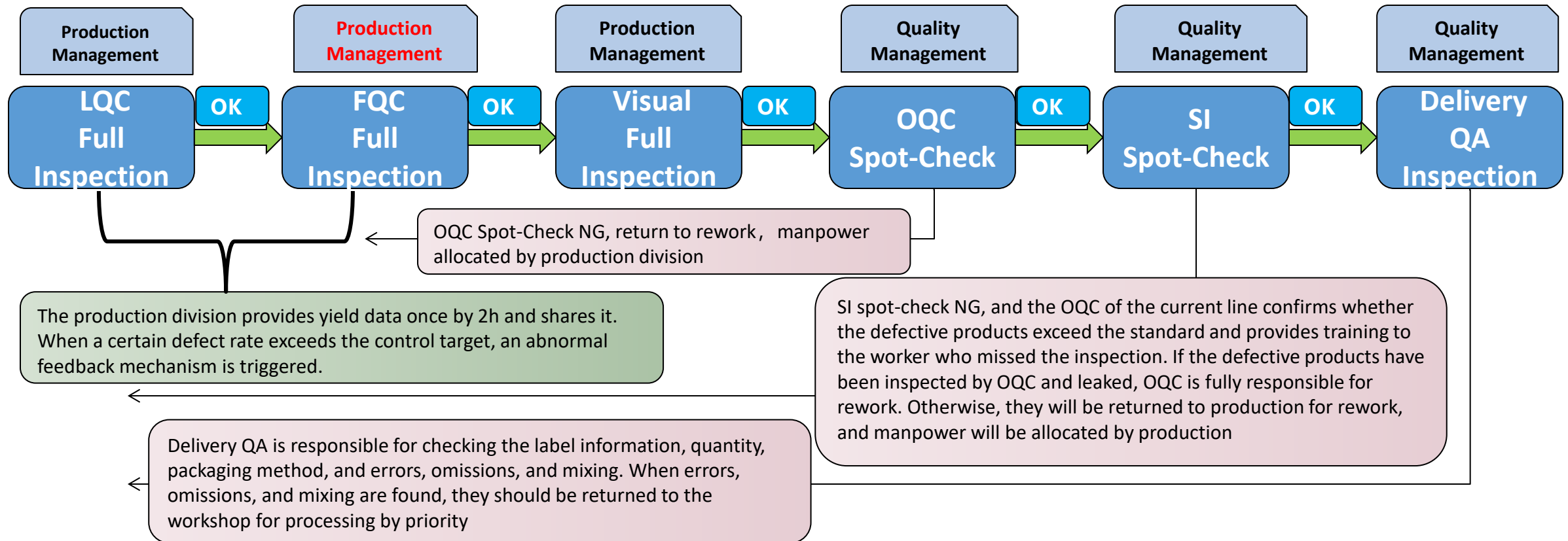


Jingtai Quality Assurance---Process Assurance





Inspection Process



OQC Requirements:

1. OQC establishes a time sharing report and provides feedback on the batch return rate every 2 hours. If the batch return rate exceeds 10%, the 2H product will be returned for production and rework. If the batch return rate exceeds 20%, the production line is required to stop and review the reasons;
2. When OQC detects functional defects such as white screen abnormal lines, the engineering analyzes the cause and OQC returns the batch+ the last two batches to production rework;
3. After batch returns and reworks, and NG occurs again in spot-check, OQC has the right to conduct trap testing on the batch of products until production rework picking out defect products;
4. Ensure customer online $\leq 2880\text{DPPM}$



New Worker Training

- a. Basic defect name legend recognition
- b. Use of inspection tools
- c. Training on inspection standards and SIP/SOP training
- d. Physical sample training

Assessment & Work Training

- a. Limited sample training, every Tuesday/Thursday training to strengthen the grasp of samples
- b. Training on omissions, OQC TOP training
- c. From OQC omissions to SI TOP training and collected 10pcs of restricted sample edges for blind testing

Standard Change & Sample Management

- a. Face to face counting and verification of restricted samples between teams, and management of duplicate samples
- b. Communication of customer standards rationality and changes, promoting electronic management of samples

Inspection
Ability
Improvement

Off-work Training Mechanism

- a. Blind test for worker who missed the inspection and returned more than 2 batches on the same day.
- b. For worker who have three batches return within 3 days, laid-off retraining will be adopted, and they can only be on work after passing the re examination.

Missing Detection DOA TOP Training

- a. Weekly CS sampling, blind inspection of defective products, and assessment of omission ratio risks.
- b. Develop a training plan after studying the differences in methods and tools for defective product inspection.

Team Leader Training

Teaching methods, participating in guidance, independent handling, etc., Y20 goal training 4 team leaders with engineer abilities, each team leader's goal is to bring out 4 multi skilled workers or job responsibilities with team leader abilities, enhancing team strength



Jingtai Quality Assurance--Reliability Assurance



Tool: constant temperature and humidity machine

Quantity: 5



Tool: Thermal Shock Tester

Quantity: 2



Tool: salt spray tester

Quantity: 1



Tool: Power Frequency Vibration Tester

Quantity: 1



Tool: UV Accelerated Weather Resistance Tester

Quantity: 1



Tool: Soft Static Pressure Tester

Quantity: 1



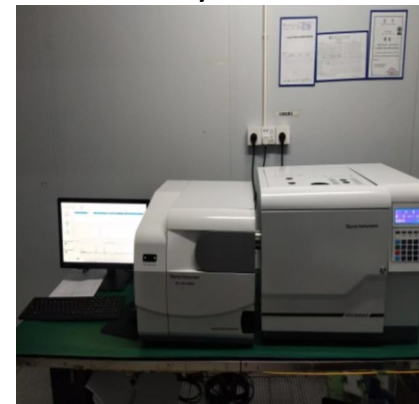
Tool: PV Impact tester

Quantity: 1



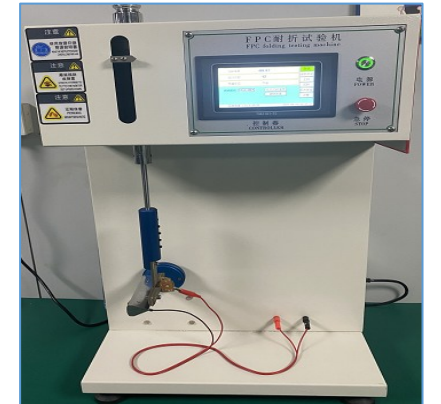
Tool: Pulling Force Tester

Quantity: 2



Tool: RoHS 2.0 Analyzer

Quantity: 2



Tool: FPC Folding Resistance Tester

Quantity: 1



Jingtai Quality Assurance—Quality Test Tools



Tool: 2D Measurement System

Quantity: 3



Tool: contact angle

Test

Quantity: 1



Tool: BM - 7A

Quantity: 1



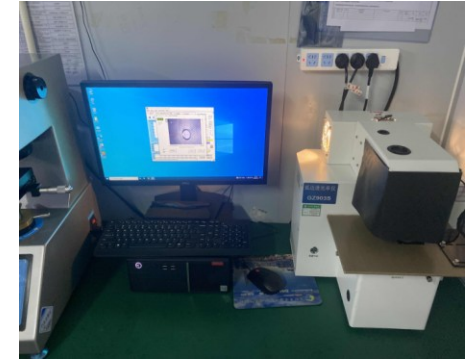
Tool: CA-310 Color Analyzer

Quantity: 2



Tool: ESD Tester

Quantity: 1



Tool: Broad Exposure 903 Tester

Quantity: 1



Tool: Particle Concentration Meter

Quantity: 1



Tool: Thrust meter

Quantity: 1



Tool: Altimeter

Quantity: 1



Tool: QR Code Classification Meter

Quantity: 1



Tool: Transmittance tester

Quantity: 1



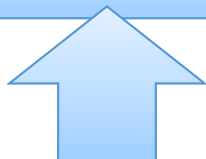
Tool: Stress Tester

Quantity: 1

Jingtai Quality Control---Client Satisfaction Assurance



Assure Cpk1.33 Standard



CA-310

2D

RA Tester

Share & Peel
off Tester

Optical Property
Grayscale
Determination &
Flicker
Uniformity
Contrast

LCM Size
Determination;
Core Dimensional
Tolerance;
BLU Assembly
Tolerance;
TP Lamination
Tolerance

Reliability Test;
Spot Check by
Product;
Monthly Spot
Check;
Spot Check by
Quantity

Bonding Test;
Spot Check by
Pressure Head;
Spot Check by
Production Team

Optical Property
Management

Product Size
Management

Reliability Assurance

Clients' Requirements

Machine	Quantity	Test
CA - 310	2	Optical Property CPP Determination
2D	3	Size CPP Determination
FPC peel off tester	1	FPC Bonding Test
IC Share Tester	1	IC Bonding Test
Height guage	1	Product Thickness CPP Determination
Optical Align	3	Panel & BLU/TP Automatic Assembly

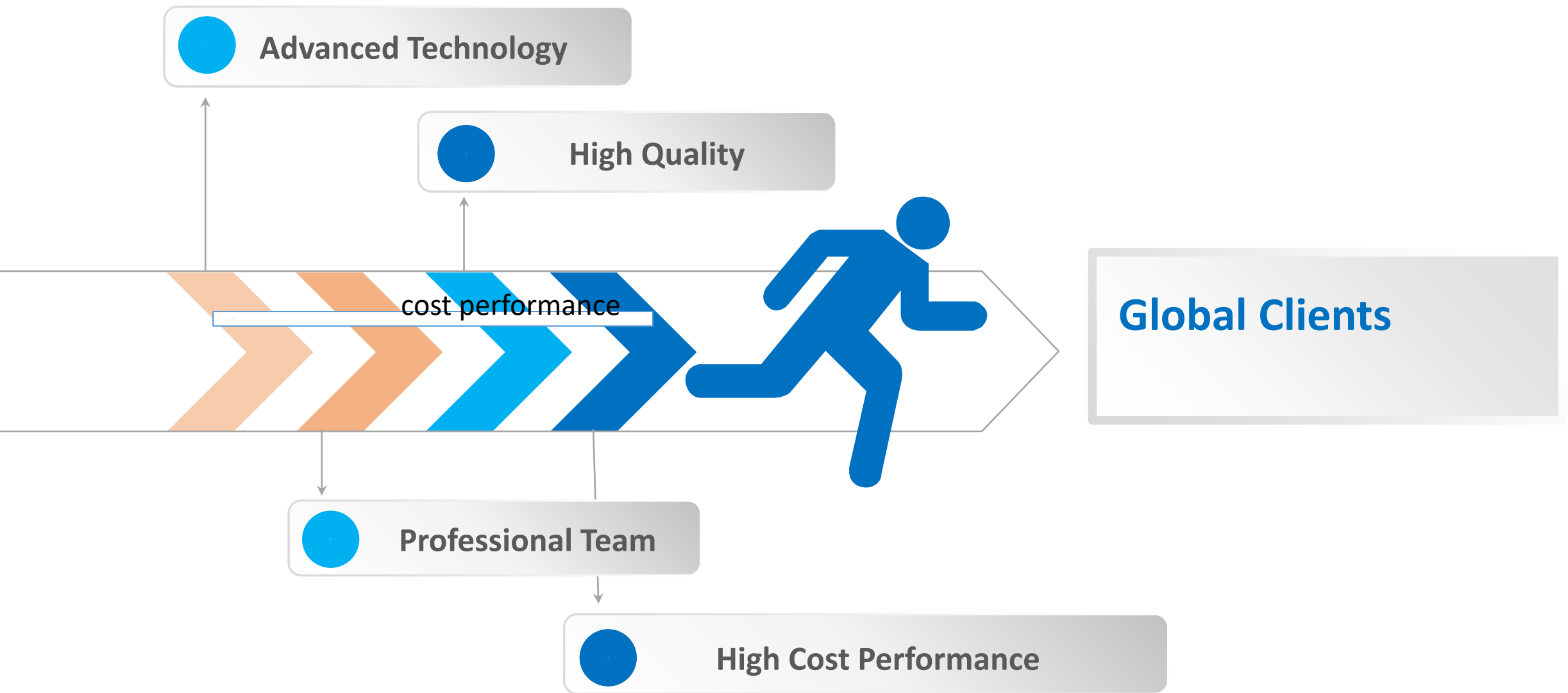


05

CERTIFICATE & HONOR



Jingtai System Authentication & Honor





Jingtai Clients



Smart Phone Clients

TRANSSION
传音控股



优利麦克



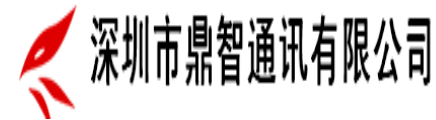
证券代码: 600203 | 福日电子旗下全资子公司



NOKIA



POS Machine Clients



新国都



金百锐





Industrial Control Clients



Smart Wearable Device Clients





Welcome to Jingtai !
显示精彩，触动未来！
<http://www.szjingtai.net>



Jingtai LCM Empower Client Success!