Superview
高展光電

广东高展光电股份有限公司
GUANGDONG SUPERVIEW OPTOELECTRONICS CO.,LTD.

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LCD MODULE
液晶显示屏模组

TOUCH DISPLAY INTEGRATED PRODUCT
触控显示一体化产品

广东高展光电股份有限公司
GUANGDONG SUPERVIEW OPTOELECTRONICS CO.,LTD.

Superview
创造晶彩视界

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Company Profile 公司介绍

GUANGDONG SUPERVIEW OPTOELECTRONICS CO.,LTD. A professional manufacturer which is a national high-tech enterprise that provides customers with LCM modules, integrated touch display modules, and intelligent display and control motherboards globally.

The product is widely used in fields such as smart wearables, children's toys, handheld devices, smart homes, automotive electronics, medical and health, industrial equipment, etc.

广东高展光电股份有限公司是一家集研发、生产、销售为一体，在全球范围内为客户提供LCM模组、触控显示一体化模组和智能显控主板业务的国家级高新技术企业。产品广泛应用于智能穿戴、儿童玩具、手持仪器、智能家居、车载电子、医疗健康、工业设备等领域。

Date of establishment：Oct, 2014
成立时间：2014年10月
Registered Capital：16 million CNY
注册资本：1600万元
Headquarters：Dongguan city, Guangdong
总部基地：广东省东莞市
Staff：Over 200 people
员工人数：200余人
Workshop Area：12,000㎡
厂房面积：12000㎡

Development history 发展历程

公司介绍 Company Profile

4F, Building 1, Guanghui Zhigu

Area 4000㎡

- LCM Workshop (Class 1,000 dust-free room)

5F, Building 1, Guanghui Zhigu

Area 3000㎡

- CTP Workshop (Class 100 dust-free room)
- Sensor Workshop (Class 100 dust-free room)

5F, Building 5, Guanghui Zhigu

Area 2500㎡

- CTP Workshop (Class 1,000 dust-free room)

7F, Building 5, Guanghui Zhigu

Area 2500㎡

- Backlight Workshop (Class 100 dust-free room)
- SMT Workshop (Class 10,000 dust-free room)

Vehicle CTP production line

4 lines

- 2 CTP production lines for vehicle specifications
- 2 CTP production lines for consumer specifications
- Monthly capacity: 1.2 million

Backlight production line

3 lines

- 1 production line for consumer specifications
- 2 production lines for vehicle specifications
- Monthly capacity:1.2 million

Fully automatic display screen production line

6 lines

- 3 CTP production lines for vehicle specifications
- 3 CTP production lines for consumer specifications
- Monthly capacity:3 million

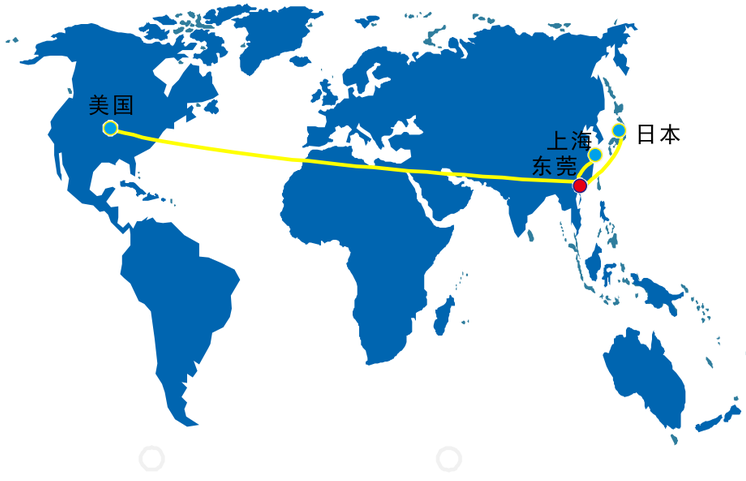
Semi automatic display screen production line

1 line

- 1 production line for vehicle specifications
- Monthly capacity:100K

Company Honors 企业荣誉

Global Strategy 全球布局



China Headquarter & Production Base
Address: No.136, Yongjun Road, Dalingshan Town, Dongguan city

China Shanghai Branch
Address: No.9, Lane 360, Feihong Road, Hongkou District, Shanghai

The US Branch, SUPERVIEW U.S.A.
Address: 20460 Carrey Road, Walnut, Ca91789

The Japanese Branch, SUPERVIEW Japan
Address: 〒 192-0153, HPrince, Tokyo Fangachi 686-25

新工厂鸟瞰图 New Factory Aerial View

Site Area
15333.52㎡

Floor Area
56357.87㎡

Factory Area
28000.00㎡

Dormitory Area
7000.00 ㎡

AOI Testing Equipment AOI全自动检查设备

- Using AOI instead of manual detection, never fatigue, greatly reducing the rate of manual misjudgment.
- After undergoing AOI testing, the functional defect rate of the product is less than 300 PPM effectively improves product quality.
- Inspection accuracy:(Bright spot defect size)5 μ M
  Abnormal object inspect size: 50 μ M
  Mura inspection accuracy: gray screen 2%
  Low contrast color deviation detection accuracy: ± 0.0002
- Defect detection types: dots (bright and darkspots), lines (bright and dark lines), backlight abnormal objects, display abnormalities, edge leakage, color temperature and color difference, and various Mura defects

LCM生产线设备 Equipment of LCM Production Line

6 sets full-automatic feeding machines

6 sets full-automatic COG&FOG bonding machine

6 sets full-automatic dispensing machines

6 sets full-automatic tin-soldering machines

6 sets full-automatic cleaning machines

6 sets automatic AOI equipment

Full-automatic backlight assembly machines

1 set full-automatic AOI module testing equipment

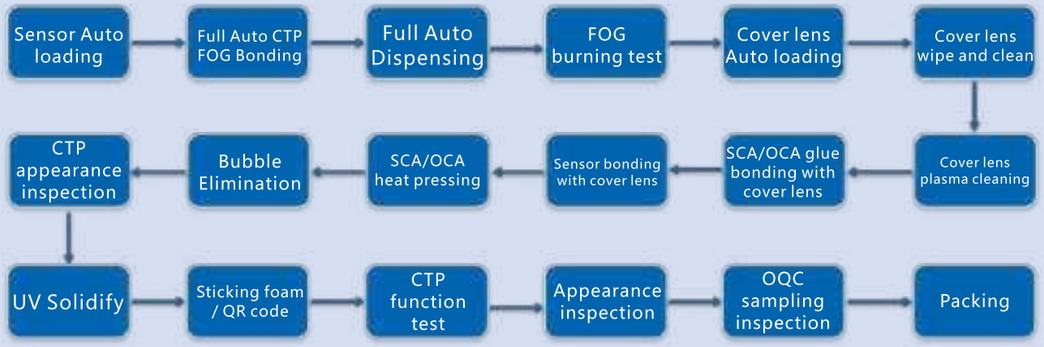
Process capability of equipment 设备制程能力

info.	Polarizer laminating	COG&FOG Bonding	Bonding AOI	Glue Dispensing
Picture				
Type	Full-Automatic	Full-Automatic	Full-Automatic	Full-Automatic
Accuracy	±0.1mm	ACF Bonding: X/Y±0.15mm, Bonding precision: ±5um	Inspection precision: ±1.5um, Detect particle count and alignment deviation to 0%	Glue dispensing accuracy ± 0.1mm, Axis positioning accuracy ± 0.1mm
Function	Polish and cleaning、bonding	Acceptable 6+4 IC Bonding	100% full inspection COG&FOG indentation	Automatic dispensing of blue glue and silver paste

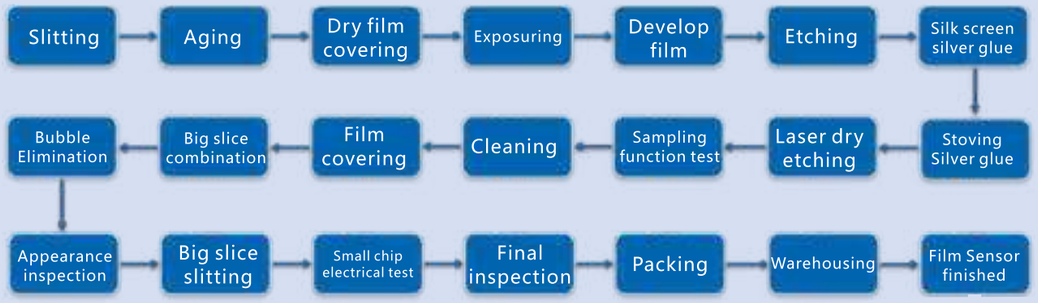
设备制程能力 Process capability of equipment

info.	BL Assemblely	Welding	AOI	OCA Bonding	Aging
Picture					
Type	Full-Automatic	Full-Automatic	Full-Automatic	Full-Automatic	Full-Automatic
Accuracy	X/Y±0.1mm	±0.15mm	False Positive Rate ≦ 5% False Negative Rate≦ 0.1%	X/Y±100um	Aging Temp±3℃
Function	Visual counterpoint	Visual counterpoint	Below 300PPM	Visual counterpoint	Chamber and visualization

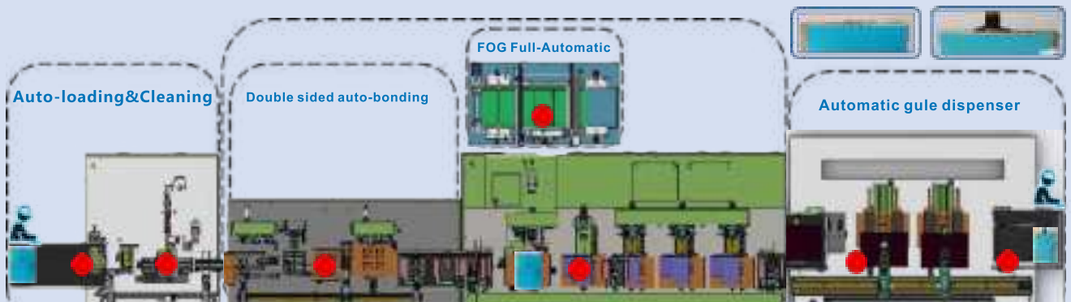
Process flowchart of CTP CTP 生产工艺流程图



ITO Film 生产工艺流程图 Process flowchart of ITO Film

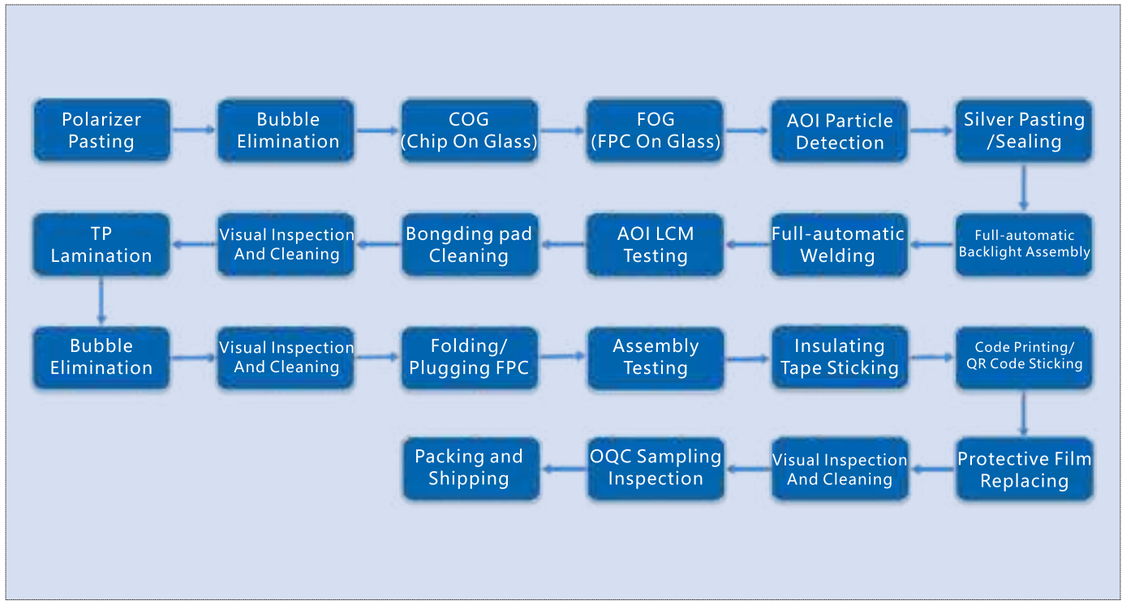


Full-automatic CTP Bonding line 全自动CTP邦定产线



Note: 1. Total length of equipment: 14 m;
2. Product size: 6-13.3 inches (4 inches: 149X89 / 15.6 inch: 300X200);
3. Capacity: 400-500 PCS / H (actual capacity is subject to production requirements);
4. This drawing is for reference only

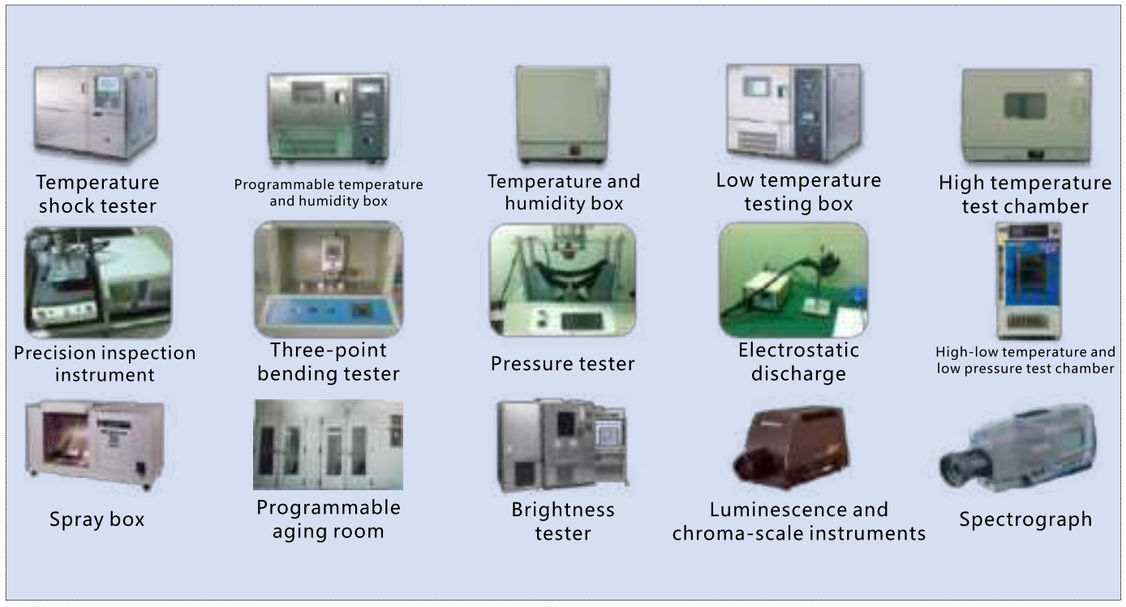
CTP+LCM生产工艺流程图 Production process flowchart of LCM +TP



Testing Project 可靠性实验项目

NO	Test Item	Reference Specification	Test Condition	Experimental Equipment
1	High Temperature Storage	IEC60068-2-2, GB2423.2	85℃±3℃, 1000H, Rh≤45%, After being left at room temperature for 2 hours, check if it is OK	Programmable High Temperature Tester
2	Low Temperature Storage	IEC60068-2-1 GB2423.1	-40℃±3℃, 1000H Restore 2H at 25℃ non-operation During -40~-30℃(ambient) , the operating performance is not guaranteed except no functional damage occur.check OK	Programmable Low Temperature Tester
3	High Temperature Operation	IEC60068-2-2, GB2423.2	85℃±3℃, 1000H Restore 2H at 25℃ Operation OK	Programmable High Temperature Tester
4	Low Temperature Operation	EC60068-2-1 GB2423.1	-30℃±3℃ 1000H Restore 2H at 25℃ Operation check OK	Programmable Low Temperature Tester
5	High Temperature & Humidity Operation	IEC60068-2-78 GB/T2423.3	85℃±2℃, 85±2%RH 1000H Operation OK	Constant Temperature and Humidity Tester

实验设备 Lab Equipment



NO	Test Item	Reference Specification	Test Condition	Experimental Equipment
6	Thermal Shock	IEC60068-2-14, GB2423.22	30min 5min 30min 1000cycle non-operation Start with cold temperature,End with high temperature,OK	Thermal Shock Tester
7	ESD (Electrostatic discharge test)	IEC61000-4-2 GB/T17626.2	C=150pF,R=330Ω 5 Point / Panel Surface Contact discharge:±8kV, 5times, Class B Air discharge: ±15kV, 5times, Class B	Electrostatic Discharge Generator
8	Mechanical Shock Test	IEC 60068-2-27-2008 GB/T 2423.5	Half Sine Wave 100G 6msec,±X,±Y,±Z 3times for each direction, Power off	Impact testing apparatus
9	Vibration Test	IEC60068-2-6 GB/T2423.10	Frequency: 8 - 33.3 Hz, Total amplitude: 1.3mm; Acceleration: 29.4 m/s² sweep time: 15 minutes 2 hours each for X and Z directions, 4 hours for Y direction (total 8 hours)non-operation	Vibration measurement instrument
10	Salt spray test	IEC60068-2-6 GB/T2423.1	Test temperature :35℃, specific gravity of brine solution: 1.020~ 1.040, PH: 6.5 ~ 7.2, sodium chloride content: 5%±1%, spraytime 24H.	Salt spraying tester

认证体系 System certification

ISO14001,EMS

ISO9001,OMS

IATF16949 , OMS

TFT Display Module TFT显示模组

LCD Module

It is processed from a color LCD display screen, supporting components, and other electronic components, and can achieve color graphic display.

We mainly offer the size from 1" to 15.6".

安全及环保标准 Safety and Environment Protection Standard

NO	Safety standards		Material involved
1	RoHS	The Directive on Restricting the Use of Certain Hazardous Substances in Electronic and Electrical Work Equipment (the RoHS Directive)	All materials
2	Phthalate(19P)	Phthalates, also known as phthalate esters, abbreviated as PAEs, is a general term for the esters formed by phthalic acid	All materials
3	EN71-3 (19E)	The European Union controls eight heavy metals in the electronics industry	Touchable part (e. g. polarizer, touch screen)
4	ASTM F963-17	Relevant safety standards	Touchable part (e. g. polarizer, touch screen)
5	PAHs (18)	multiring hydrocarbon	Touchable part (e. g. polarizer, touch screen)
6	Flame Retardant(9+2)	fire retardant	Non-metallic material
7	2009/48/ECAppendixC(BPA etc)	Related EU Directive	Materials involving the ink layer
8	Formaldehyde	formaldehyde	plastic parts
9	US CHCC	85 items of high concern for children	Touchable part (e. g. polarizer, touch screen)
10	REACH SVHC	224 high focused on substance	All materials

Capacitive Touch Panel 电容式触摸屏

- Acceptable for customized "G+G;G+FF;G+F;P+F;P+G"ect, all kinds of CTP under 32 inch。
- COVER LENS can meet any difficult requirements such as ultra-high hardness and friction resistance.
- FILM SENSOR, ODM/OEM both can be achieved, possess the stability an reliability.

CTP

A human-machine interface device that utilizes capacitance sensing and positioning between the people and TP to achieve display and information input and output.

It is composed of a protective cover lens, sensor , OCA , FPC , and touch IC.

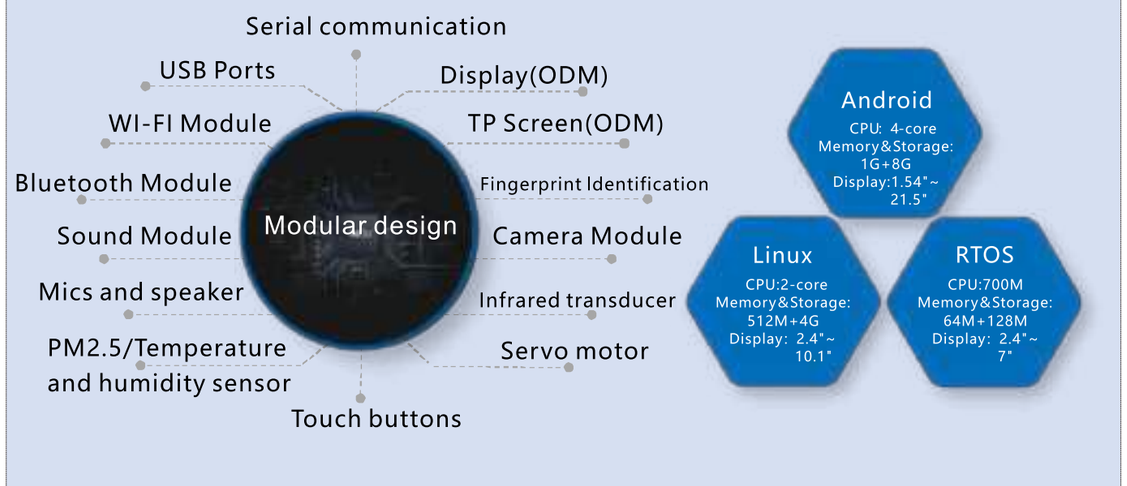
We mainly offer the size from 1" to 32".

智能显控主板 Intelligent display control board

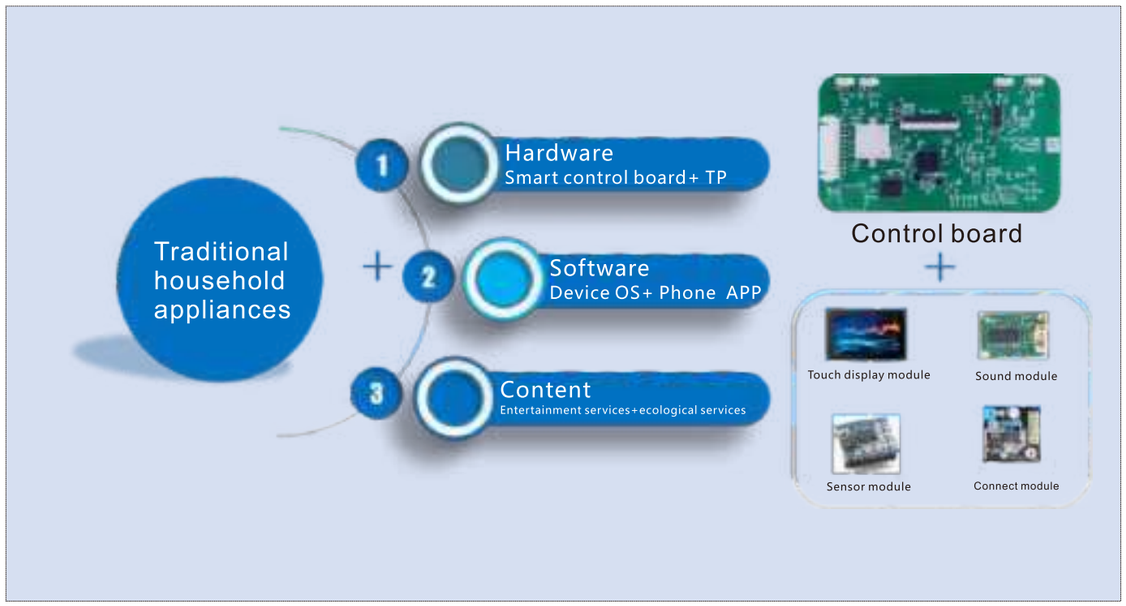
Intelligent display Control motherboard

With intelligent control board as the core and touch display integrated module as the foundation, integrating peripheral functional components, providing a complete human-machine interaction solution, plug and play.

Modular design& Multiple operating systems 模块化设计&多操作系统



智能显控主板应用 Application of the intelligent display control board



Knob display appliance 旋钮屏应用

产品清单 Product List

Panel size	Resolution	Module name	Type	LCD AA (mm)	Outline (mm)	T (mm)	Interface
1.3	240*240	G01302AB01A2	IPS	23.4*23.4	26.0*29.15	1.93	MCU
1.44	QQVGA 128*128	G14403AB01A4	TN	25.5*26.5	31.0*34.0	2.4	SPI
1.54	240*240	G15403AE01A0	IPS	27.72*27.72	31.25*33.72	1.86	SPI
1.77	QQVGA 128*160	G17703AE01A3	TN	28.032*35.04	34.0*45.8	2.4	MCU
2.0	QVGA 240*320	G02004AA01A0	IPS	30.6*40.8	35.7*51.2	2.4	MCU
2.4	QVGA 240*320	G02404AL01A3	IPS	36.72*48.96	42.72*60.26	2.4	MCU
	QVGA 240*320	G02403AD01A1	TN	36.72*48.96	42.0*58.0	2.5	MCU
2.8	QVGA 240*320	G02804AC01A1	TN/ RTP	43.2*57.6	50.0*69.2	3.35	MCU
		G02804AC01A9	TN	43.2*57.6	50.0*69.2	2.25	MCU
3.5	HVGA 320*480	G03506AC01A4	TN/ RTP	48.96*73.44	55.66*85.04	3.6	MCU
		G03506AC01A5	TN	48.96*73.44	55.66*85.04	2.4	MCU
	LQVGA 320*240	G03506AK01A4	IPS	76.84*63.84	76.84*63.84	3.32	RGB
3.97	WVGA 480*800	G39708AQ01A9	IPS	51.84*86.4	57.14*96.85	2.15	MIPI
	WVGA 480*800	G39708AP01A0	TN	51.84*86.4	57.14*96.85	2.15	MIPI

Product List 产品清单

Panel size	Resolution	Module name	Type	LCD AA (mm)	Outline (mm)	T (mm)	Interface
4.3	WQVGA 480*272	G04312AD01A0	IPS	95.04*53.86	105.4*67.1	2.95	RGB
		G04309AA01A4	TN	95.04*53.86	105.5*67.2	2.9	RGB
5	WVGA 800*480	G05012AG01A2	TN	108*64.8	120.7*75.8	2.75	RGB
	FWVGA 480*854	G49812BK01A8	TN	62.06*110.42	65.26*118.8	2.06	MIPI
	HD 720*1280	G49912AX01A5	IPS	62.1*110.4	65.26*118.9	1.56	MIPI
5.5	FHD 1080*1920	G54614AK01A0	IPS	68.04*120.96	70.44*128.11	1.35	MIPI
6.95	600*1024	G69518AA01A1	IPS	89.28*152.37	95.0*163.1	2.5	MIPI
7	WSVGA 1024*600	G07024AZ01A0	TN	154.21*85.92	163.6*96.8	2.7	MIPI
8	WXGA 800*1280	G08021AG01A2	IPS	107.64*172.22	114.6*184.1	2.6	MIPI
10.1	WXGA 800*1280	G10132AC01A5	IPS	135.36*216.57	143*228.6	2.6	MIPI
	WSVGA 1024*600	G10136AD01A0	TN	222.72*125.28	232.72*136.28	2.8	MIPI
10.36	1200*2000	G10436AB01A1	IPS	135.36*225.6	140.46*234.73	2.0	MIPI

产品清单 Product List

Over14"	14.1"1920*1080 IPS	15.6"1920*1080 IPS			
13.3"	13.3"1024*600 TN	13.3"1280*800 IPS/TN	13.3" 1920*1200 IPS		
11.6"	11.6"1366*768 IPS/TN	11.6"1920*1080 IPS			
10.1"	10.1"800*1280 IPS	10.1" 1280*800 IPS/TN	10.1"1920*1200 IPS	10.36"1200*2000 In-cell / IPS	
9"	9" 800*480 TN	9"1024*600 IPS/TN			
8"	8" 800*1280 IPS	8" 1280*800 IPS/TN			
7"	7" 800*480 TN	7" 1024*600 IPS/TN	7" 800*1280 IPS	6.95" 600*1024 IPS	
6"	6.0" 720×1280	6.0" 540×960	6.517" 480×1280 In-cell / IPS	6.745" 720×1600 In-cell / IPS	6.86" 480×1280 IPS
5.5"	5.5" 1080×1920	5.2" 1080×1920	5.5" 720×1280	5.5" 540 ×960	5.99" 720×1440 In-cell / IPS
5"	5.0" 720×1280	5.0" 800×480	5.0" 480×854	5.0" 480×272	5.0" 1080×1920
4"	4.7" 720×1280	4.7" 540 ×960	4.5" 540 ×960	4.3" 480×272	3.97" 480×800
3"	3.5" 320×480	3.5" 320×240	2.8" 240×320		
Below2.4"	2.4" 240×320	2.0" 240×320	1.77" 128×160	1.54" 320×320	1.44" 128×128

Product Showcase 产品展示

Panasonic 松下电器

Panasonic's intelligent access control phone uses our company's 7-inch main display, as well as 2.2-inch and 2.4-inch sub display.

富士电机 Fuji Electric

The FRENIC-MEGA series universal frequency converter from Fuji Electric Co., Ltd. uses our 7" display.

产品展示 Product Showcase

PAX

PAX
百富

PAX is a HK Stock Exchange listed company and the world's largest POS machine supplier, with business coverage in over 120 countries worldwide and a cumulative global shipment volume of over 56 million units.
We are the major supplier of LCD and touch screens for Pax.

vtech

Vtech
伟易达

Vtech is a listed company on the HK and London Stock Exchange, and is the world's largest enterprise in electronic learning products for infants and preschool children. They children's smart watch is a star product of Vtech.

We are the only supplier of LCD screens and touch screens for Vtech children's watches.

Product Showcase 产品展示

Baidu 百度

Xiaodu
百度

Xiaodu is an intelligent audio launched by Baidu.
According to Canalys statistics, Xiaodu Smart Screen ranks first in the total historical shipment volume of smart audio with screens worldwide.
In 2020, our company shipped over 1 million pieces to Baidu and won the first place in Baidu's quality evaluation, annual delivery excellence award, and was rated as an A-class supplier.

UNI-T 优利德

UNI-T
优利德

Electronic and electrical testing instruments, temperature and environmental testing instruments, surveying and mapping measurement instruments.
All of these products used our display screen from 1 to 15.6"

产品展示 Product Showcase

SUNMI
商米

Unveiling the first product in 2016, they have successively launched a series of commercial IoT products such as mobile terminals, payment terminals, desktop terminals, kiosks, and network &, video analytics, etc.,serving various business formats and scenarios.

We are one of their significant suppliers, mainly purchasing our 10.1" and 8" display.

SNKNEOGEO
SNK迷你游戏机

In 2019, SNK Corporation of Japan launched the KOF 40th Anniversary Edition game console. Our company has shipped a total of 150000 units, and the product quality has been widely recognized by Japanese customers.

Product Showcase 产品展示

NOBO AUTO
诺博汽车

Nobo Automobile Systems Co., Ltd. is a wholly-owned subsidiary of Great Wall Motor Co., Ltd.

It was founded in 1994 and has the complete vehicle supporting capacity.

The vehicle system adopts our 12.3" display.

FlyAudio
飞歌

FiyAudio in producing automotive audio equipment and in vehicular electronic products.

We entered their procurement system at the end of 2019 and has delivered approximately 500000 units since our cooperation.

The quality and delivery capability of us have been extremely appreciated by them.

产品展示 Product Showcase

Casarte
卡萨帝

Casarte is a upmarket home appliance brand under haier , the market share of high-quality home appliance brands in China has reached 29%.

The Casarte refrigerator adopts our 6.86" display.

SAMSUNG
Air monitor

Motorola
Baby monitor

Alibaba
Smart-light

TVT
Infrared thermometer

Tachograph

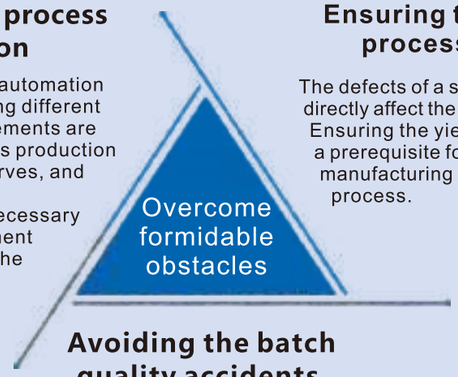
Education tablet

Children's
Electronic toy

Competitive Edges 我司优势

Integrating full process automation

To achieve full process automation and collaboration among different equipment, high requirements are placed on the company's production process, technical reserves, and personnel capabilities.
At the same time, it is necessary to achieve rapid equipment debugging and reduce the impact of debugging downtime on production capacity.



Ensuring the entire process yield

The defects of a single process would directly affect the subsequent process. Ensuring the yield of each process is a prerequisite for achieving intelligent manufacturing throughout the entire process.

Avoiding the batch quality accidents

The emergence of full process automation and intelligent manufacturing can reduce serious quality accidents caused by process defects.

合作伙伴 Cooperative Partners

Research & Development achievements 研究·研发成果

National High-Tech Enterprise

Invention letter of patent

National high-tech enterprise and integrated circuit layout design registration certificate;
We have obtained for more than 70 patents, including 8 invention patent certificates.

Company Culture 企业文化

Friendly basketball match with Dongguan University Of Technology

Team building travel