

# DLC Display Co.,Ltd



**2024 Q2**  
**[www.dlcdisplay.com](http://www.dlcdisplay.com)**

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## DLC Advantages

### What we have

**We** have focused on the design and manufacturing of small-medium size display products for more than 20 years (**Note:** DLC was established in 1998).

**We** specialize in TN/STN, CSTN, TFT and OLED display technologies. Including technologies for all the other subsidiary components related to displays.

### We are located

#### Shenzhen

Shenzhen has the greatest density of electronic component companies in the world. The DLC executive office is here, all our subsidiary component suppliers are near by.

#### Hong Kong

Hong Kong is the largest free port in the world. Our warehouse and logistic service partner are located here.



**Manager: 12**

**R&D: 23**  
**Sales: 24**  
**F&E: 4**

**Engineer: 21**  
**Quality: 45**  
**Purchaser: 11**  
**Logistics: 20**  
**Operator: 129**

**Office Area:**  
**2000 m<sup>2</sup>**  
**Factory Area:**  
**6000 m<sup>2</sup>**



## *Factory*



Office area



Full-auto Polarizer attaching



Full-auto cleaning & PLASMA



Full-auto COG bonding



Full-auto FOG bonding



ACF attaching

## Factory



Assembly line



BL Assembling



Full-auto CTP assembling



Reliability Test



Reliability Test



Aging Test

# Applications



*White Goods*

*Industrial instrument*



*Medical Equipment*

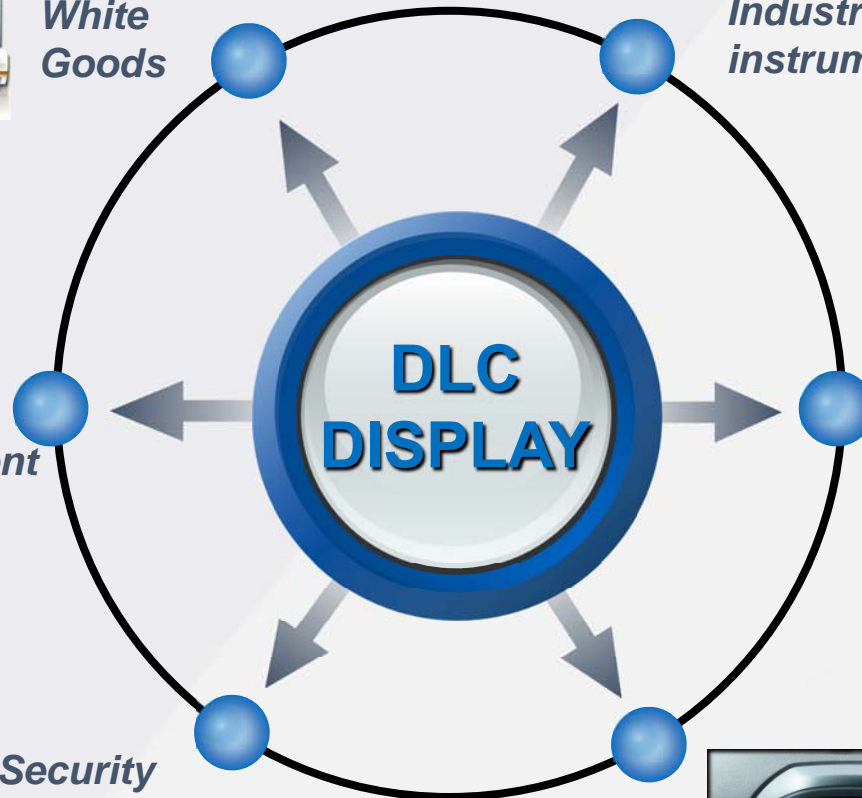


*Office Automatization*

*Security Equipment*



*Automotive Display (Aftermarket)*







## Certificate of Registration

This certificate has been awarded to

**RZW Display Technology Co., LTD**

Building A2, Xufa Science Park, Yuandengkeng Industrial Zone, Mashantou Community, Gongming Street, Guangming New District, Shenzhen City, Guangdong Province, China

In recognition of the organization's Quality Management System which complies with

**ISO 9001:2015**

The scope of activities covered by this certificate is defined below

**Design and Manufacture of Liquid Crystal Display Modules**

Certificate Number 100170/1A/0001/UK/en			
Date of Issue Certification Cycle	Issue Number	Certificate Expiry Date	Certification Cycle
18 March 2024	3	06 March 2027	3
Revision Date	Revision Number	Original Certificate Issue Date	Scheme Number
18 March 2024	0	07 March 2018	n/a

For detailed explanation for the data fields above, refer to <http://www.urs-holdings.com/legis-and-regulations>

Issued by



Mukesh Singhal - On behalf of the Schemes Manager



## Certificate of Registration

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**RZW Display Technology Co., LTD**

Building A2, Xufa Science Park, Yuandengkeng Industrial Zone, Mashantou Community, Gongming Street, Guangming New District, Shenzhen City, Guangdong Province, China

In recognition of the organization's Environmental Management System which complies with

**ISO 14001:2015**

The scope of activities covered by this certificate is defined below

**Environmental Management Activities related Design, Manufacture and Service of Liquid Crystal Display Modules**

Certificate Number 100170/1B/0001/UK/en			
Date of Issue Certification Cycle	Issue Number	Certificate Expiry Date	Certification Cycle
19 March 2023	2	18 March 2026	2
Revision Date	Revision Number	Original Certificate Issue Date	Scheme Number
19 March 2023	0	19 March 2020	n/a

For detailed explanation for the data fields above, refer to <http://www.urs-holdings.com/legis-and-regulations>

Issued by



Mukesh Singhal - On behalf of the Schemes Manager





## *Certificate of Registration*

This certifies that the Quality Management System of

### **Shenzhen RZW Display Technology Co., Ltd.**

Building A2, Xufa Technology Park, Yuandengkeng Industrial Area, Mashantou Community, Gongming Street,  
Guangming New District, Shenzhen City, Guangdong Province, China 518106

Has been assessed by NSF-ISR and found to be in conformance to the following standards(s):

### **IATF 16949:2016**

#### **Scope of Registration:**

Design and Manufacturing of Liquid Crystal Display Module



IATF Certificate Number:	0465191
Certificate Number:	CNIATF055341
Certificate Issue Date:	29-DEC-2022
Registration Date:	23-DEC-2022
Expiration Date*:	22-DEC-2025

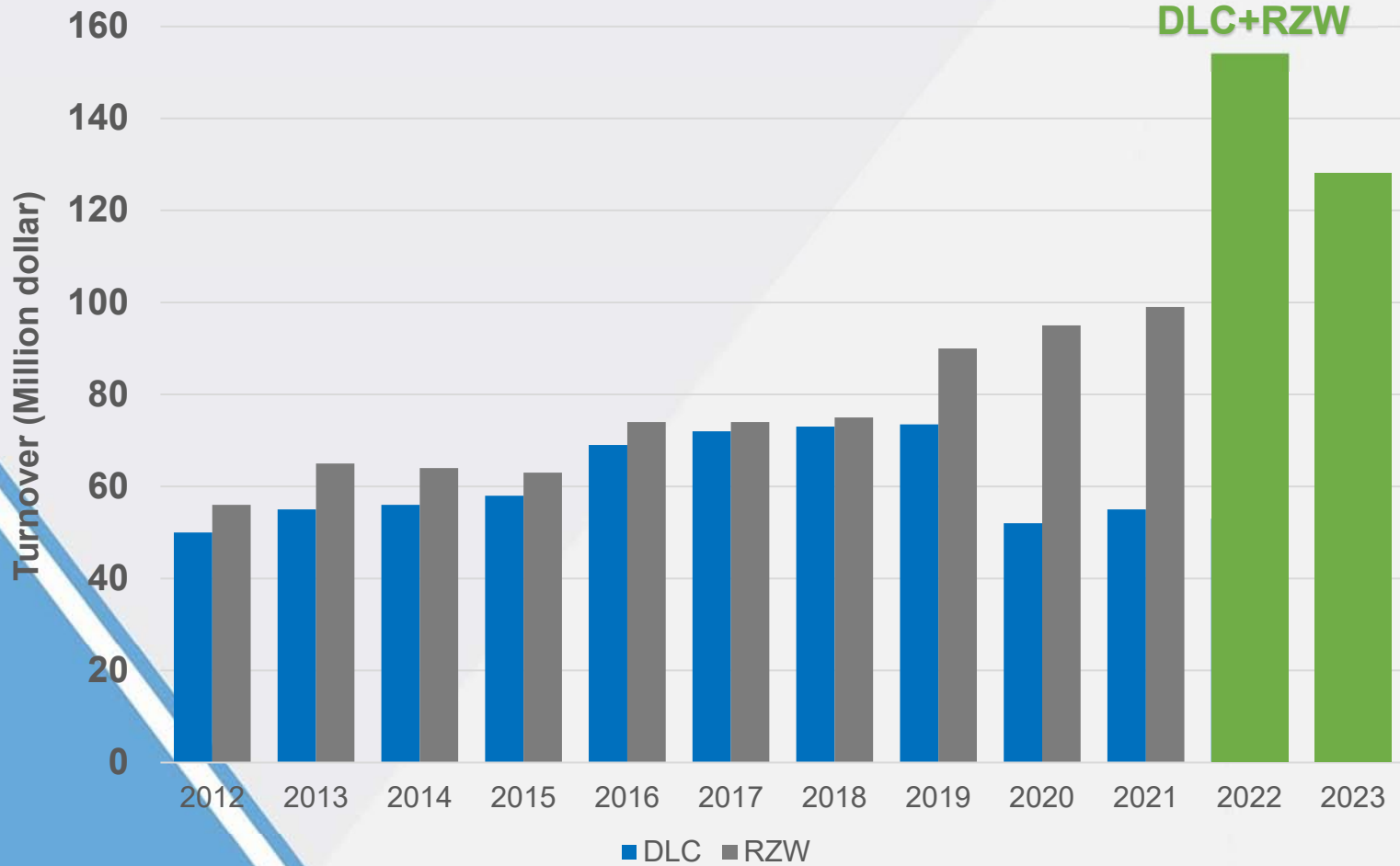
Jennifer Morecraft,  
Senior Managing Director

#### **NSF International Strategic Registrations**

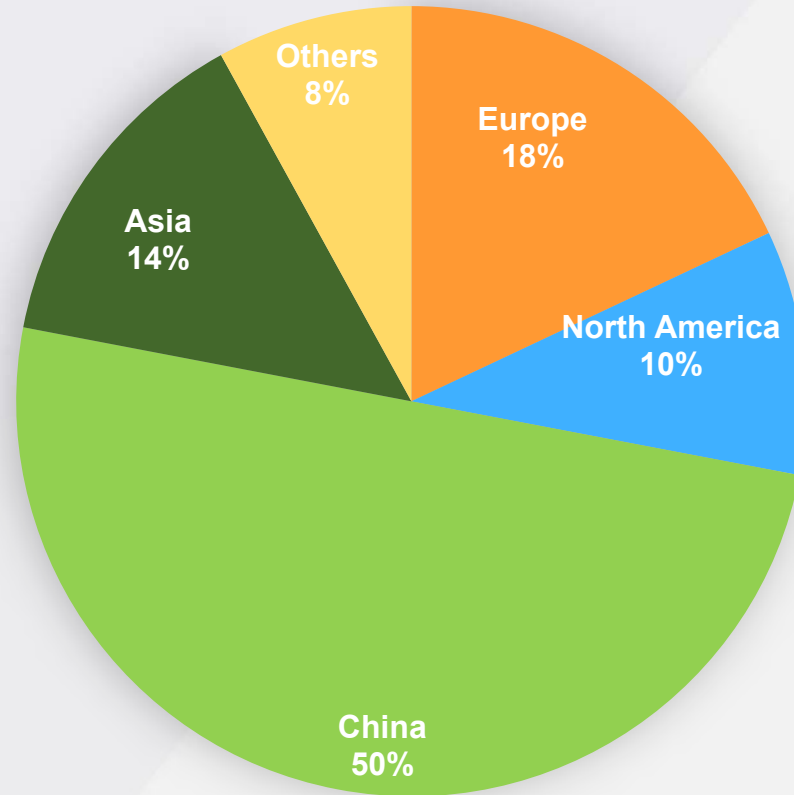
789 North Dixboro Road, Ann Arbor, Michigan 48105 | (888) NSF-9000 | [www.nsf-isr.org](http://www.nsf-isr.org)

Authorized Registration and/or Accreditation Marks. This certificate is property of NSF-ISR and must be returned upon request.  
\*Company is audited for conformance at regular intervals. To verify registrations call (888) NSF-9000 or visit our web site at [www.nsf-isr.org](http://www.nsf-isr.org)

# Sales Turnover



# Market Shares



■ Europe ■ North America ■ China ■ Asia ■ Others

# Timeline

DLC

Import two Toray automatic COG bonding machines

Import supersonic wave cleaning equipment

Pass ISO9001 certification

Pass TS16949 certification

2012

2013

2014

2015

2016

2017

2018

2019

2020

2021

Establish cooperation with companies in the Xiaomi Ecological Chain

Granted National High-tech Enterprise Certification

Pass ISO14001 certification and IATF16949 certification

Pass ISO45001 certification

Establish cooperation with Japan Pioneer

2022

DLC was acquired by RZW

RZW



## LCM

STN/TN LCM:  
500K pcs/month

TFT LCM:  
3KK pcs/month

OLED LCM:  
500K pcs/month

# Distributors



# End Customer



# End Customer





# DLC-Service

## Project Management

We welcome small quantity orders  
We offer small volume Custom-made TFT solutions/projects  
More than 200 models of standard modules are available  
Flexible production ramp plans  
Effective communications

## R&D Support

Alternative Solution  
Demo always available for all standard products  
Design proposal for customer's application  
Co-testing, GW engineer support  
Continuous improvement

## Lifetime Support

Standard lifetime:

- ≥3.5 inch: 3~5 years;
- <3.5 inch: a. Landscape version: 3~4 years;  
b. Portrait version: 1~2 years.

Mechanic and hardware will be always kept;  
Minimum of six month advance notice to customer if any parts will become obsolete;  
Special solutions for long-term support;  
<3.5": We can add additional PCB to improve the interface, and add more than 5 years to the lifetime.

## Timing Management

Prompt responses and fast design/production lead-time:  
Respond to initial inquiries in 24hours;  
3-5 days for counter drawing;  
2-3 weeks for LCD panel samples production;  
5-7 weeks for various module samples production;  
5-6 weeks for LCD panel mass production;  
7-10 weeks for various modules mass production.

**Customer Satisfaction**

**HannStar** 

**INNOLUX**  
群創光電

 **TIANMA**

 **CTC**  
深 超 光 電

  
GIANTPLUS

**IVO**

**Sitronix**

**ILITEK**  
I Love Innovation

 **Himax**

格科微  **GALAXYCORE**™

*Hitachi Chemical*

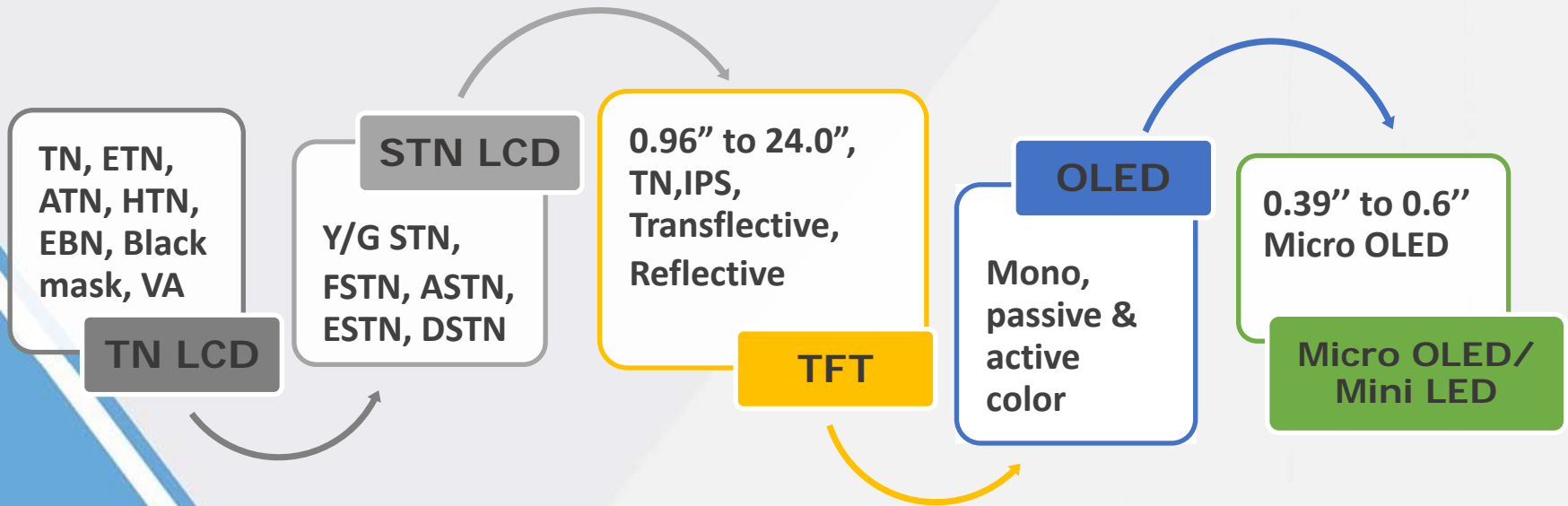
**SONY**

**FocalTech**

**GOODIX**

 **REALTEK**

**ITE**  
ITE TECH. INC.





**Application:** Mobile phone, GPS, PMP, POS, Monitor, Industrial appliance、 Electrical appliance、 others

◆ **Standard Size:** 0.96" ~ 24.0", including all popular size in the market

◆ **TFT Mode:** TN, MVA, IPS, LTPS

IPS / MVA / LTPS version:

0.96", 1.3", 1.54", 1.9", 2.0", 2.1", 2.3", 2.4", 2.8", 2.98", 3.0", 3.4", 3.5", 3.95", 4.0", 4.3", 4.7", 5.0", 5.5", 5.7", 6.86", 6.95", 7.0", 8.0", 8.4", 9.0", 10.1", 10.25", 10.4", 11.6", 12.1", 13.3", 15.0", 15.6", 16.4", 18.5", 21.0"

◆ **Wider temperature:**

Operating temperature: -30°C ~ +85°C

Storage temperature: -40°C ~ +85°C

including: 3.5", 4.0", 4.3", 5", 5.7", 6.5", 7.0", 8.0", 8.4", 9.0", 10.1", 10.25", 10.4", 12.1", 12.3", 15", 15.6", 18.5"

◆ **LED Lifetime:** Support 50K / 100K hours LED lifetime

◆ **Capacitive Touch Screen selectable:**

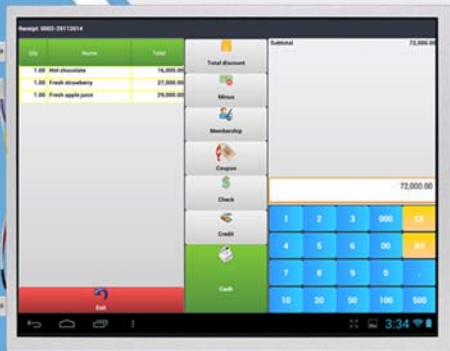
1.54", 1.90", 2.0", 3.47", 3.5", 3.95", 4.0", 4.3", 5.0", 5.5", 5.7", 6.5", 6.86", 7.0", 8.0", 8.4", 9.0", 10.1", 10.4", 12.1", 15.0", 15.6", 18.5", 19.0"

◆ **Special Interface for TFT display:**

LVDS interface: 4.3", 5.0", 5.7", 6.5", 7.0", 8.4", 10.1", 10.4", 12.1", 15.0", 18.5"

CPU interface: 1.77", 2.0", 2.83", 3.5", 4.3", 7.0"

HDMI interface: 4.3", 5.0", 6.86", 7.0", 8.0", 10.1", 11.6", 15.6"





## Sunlight Readable TFT products



**Application:** Outdoor applications, such as mobile navigation, video systems, table PC, KIOSK, POS, LCD TV

◆ **TFT Size:**

1.77", 2.0", 2.2", 2.4", 2.8", 3.0", 3.5", 4.3", 5.0", 5.6", 5.7", 7.0", 8.0", 8.4", 9.0", 10.1", 10.25", 10.4", 12.1", 12.3", 15"

◆ **Solutions:**

1. Transflective panel
2. Reflective panel
3. Transmissive panel + High luminance BL

**Note:**

Existing transflective TFT-panel:

1.77", 2.0", 2.2", 2.8", 3.0", 3.5", 5.0", 6.0"

Reflective Panel:

2.13", 4.2", 10.1"

# DLC Solutions

## *Bar type display*

2.98" by 268(RGB)x800



3.99" by 400(RGB)x960



4.5" by 800(RGB)x240



6.86" by 480(RGB)x1280



7.0" by 280(RGB)x1424



19.1" by 1920(RGB)x338



*Develop unique  
Products continually*

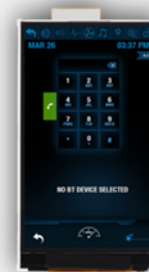
**1.77" by 160(RGB)x128**  
Transflective TFT display



**2.0" by 480(RGB)x360**  
IPS TFT display



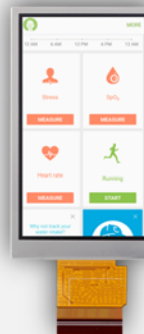
**2.45" by 272(RGB)x480**  
IPS TFT display



**2.86" by 376(RGB)x960**  
IPS TFT display



**3.0" by 360(RGB)x640**  
IPS TFT display

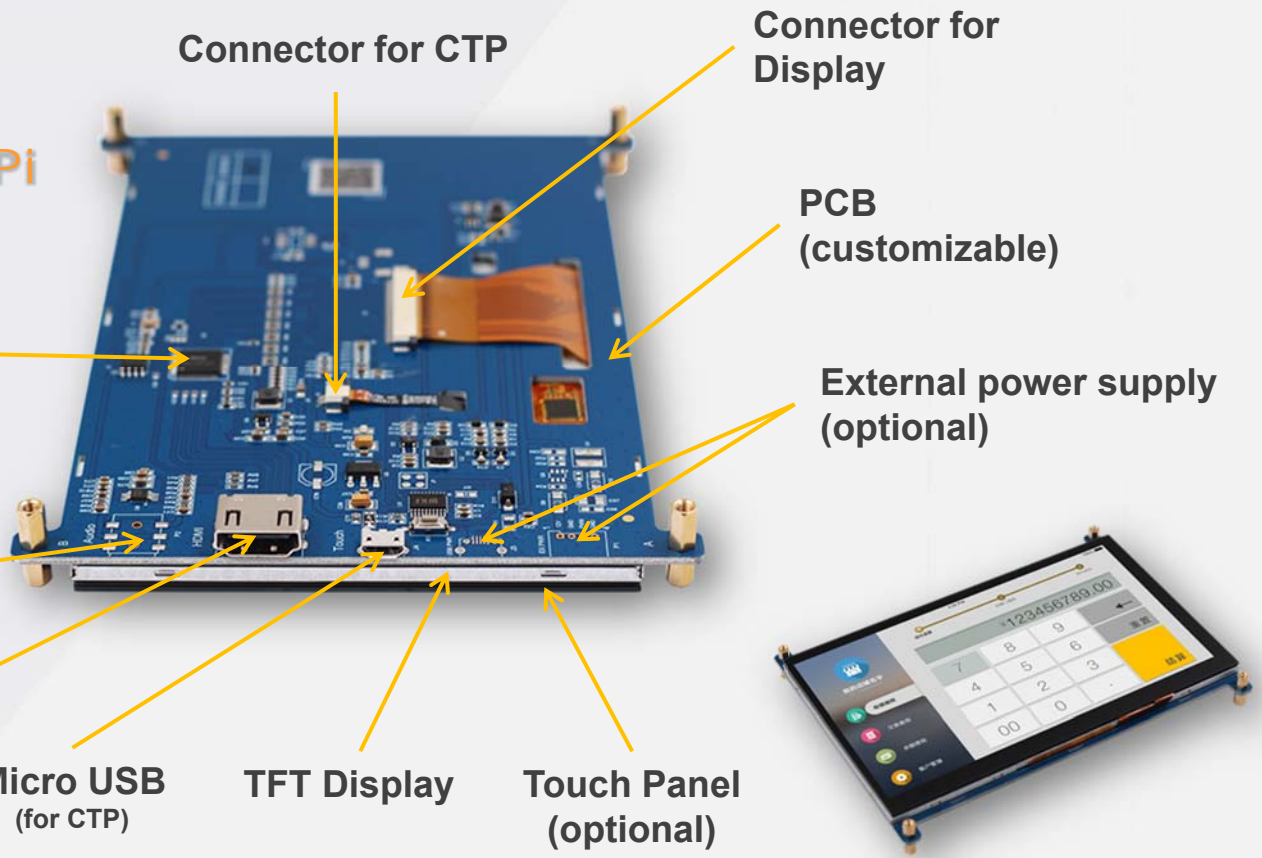


**4.0" by 720(RGB)x720**  
IPS TFT display



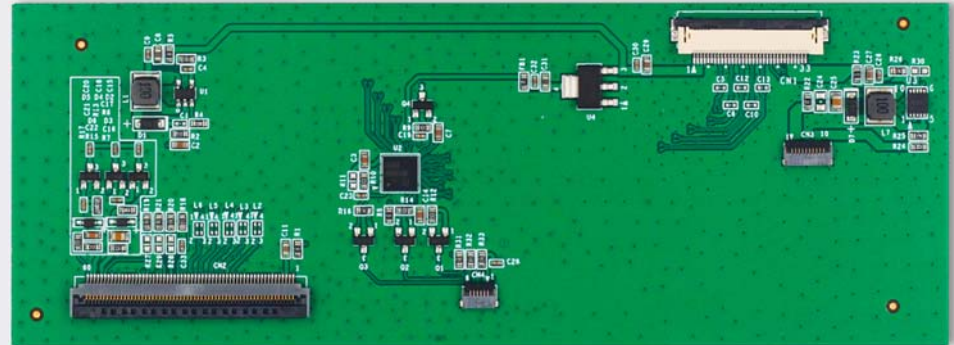
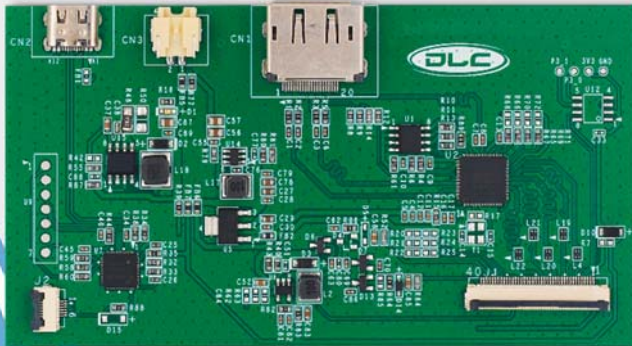
*HDMI  
display module*

**Support Android/  
Linux/ Raspberry Pi**





*Customized Converter board*



Interface	OUTPUT (屏端)				
	RGB	LVDS	MIPI	EDP	
INPUT (客户端)	RGB		√	√	√
	LVDS	√		√	√
	MIPI	√	√		√
	EDP	√	√	√	
	HDMI	√	√	√	√
	MCU	√	√	X	X



## Capacitive touch panel:

### ◆ Solutions:

1. IC solution: Focal Tech, ILITEK, Cypress , EETI, etc;
2. Structure: G+G, G+F (G means glass, F means film.);  
Note: support the cover-glass with T=10mm  
support gorilla glass with T=2mm
3. Input mode: Finger, Stylus, Glove, Water droplet
4. Support more interface: USB, IIC, SPI, RS232
5. OS support: Linux, Windows, iOS, Android

### ◆ Module assembly (TFT-LCD and TP):

- ▶ General method: Double-side adhesive tape
- ▶ For the high-end application:
  - Optically bonding LCD and Custom glass.
  - Optically bonding LCD and Capacitive TP.
  - (Two types: OCA or Liquid glue)

### ◆ Advantage

1. Lowest power consumption
2. Low reflection, enhanced readability
3. Strengthened module structure
4. Anti-dust, water proof
5. Long life span



## ◆ All One Black:

Application: Home Automation, Coffee maker, Air particulates measure meter, Intelligent wear, White goods, etc.



Coffee maker



Air particulates measure meter



Intelligent wear

# Thank You !!