





**New Launch** 

## New Launch –Bar Type TFT Series

- > Customize the display size according to customer requirements.
- Production Application:
  Coffee Machine/Smart Home/ Smart Office/POS machine/Security System/EV charger



Production Application: Coffee Machine/Smart Home/Smart Office/POS machine/ Security System

Size	Display	Resolution
7.84"	IPS	400*1280
6.75"	IPS	400*1280
6.5"	TN	800*320
4.6"	TN	800*320
3.9"	TN	800*320
2.0"	TN	320*130
2.0"	IPS	240*240
2.4"	IPS	240*240

## New Launch –High Brightness TFT STD Series

Size	YB Part No.	Resolution	Outline(mm)	Active Area(mm)	Surface brightness (Cd/m2)	TYPE	ОТ	Interface
2.0"	YB-TG240320S31A-N-A	240*320	35.43x48.23x2.51	30.6x40.8	900	IPS	-20~70	MCU/SPI/RGB
3.0"	YB-TG360640S01A-N-A	360*640	43.04x74.91x2.45	36.72x65.28	760	IPS	-20~70	RGB/MIPI
4.3"	YB-TG480272S17A-N-A	480*272	105.4x67.1x2.9	95.04x53.856	700	IPS	-20~70	RGB
4.3"	YB-TG480272S17B-N-A	480*272	105.4x67.1x2.9	95.04x53.856	700	IPS	-30~85	RGB
4.3"	YB-TG480272S18A-N-A	480*272	105.4x67.1x2.9	95.04x53.856	700	IPS	-20~70	LVDS
7.0"	YB-YG800480S05A-N-A	800*480	165.0x99.6x6.5	154.08x85.92	1900	TN	-20~70	RGB
7.0"	YB-TG1024600S11A-N-A	1024*600	164.8x99.9x2.75	154.2144x85.92	710	IPS	-20~70	LVDS
7.0"	YB-TG1024600S13A-N-A	1024*600	164.8x99.9x2.69	154.2144x85.92	1200	IPS	-20~70	HDMI
7.0"	YB-TG8001280S03A-N-A	800*1280	101.5x162.5x3.8	94.2x150.72	600	IPS	-20~70	MIPI
10.1"	YB-TG1280800S13A-N-A	1280*800	229.8x149.0x6.2mm	216.96x135.6	2600	IPS	-20~70	LVDS
10.1"	YB-TG1280800S13B-N-A	1280*800	229.8x149.0x6.2mm	216.96x135.6	2600	IPS	-20~70	HDMI
12.8"	YB-TG19201080S12A-N-A	1920*1080	292.892x173.358x7.5mm	283.392x159.408	800	IPS	-40~85	LVDS

## **HDMI Solution**

> Support : HDMI board

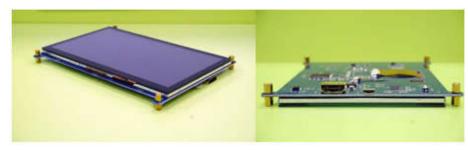
➤ Resolution above 800\*480...

> TFT interface: RGB, LVDS, EDP...

✓ It can support playing audio and video.

Size	Resolution	Signal Input	TP Interface
4.3"	800*480	номі	USB
5.0"	800*480	номі	USB
7.0"	1024*600	номі	USB
7.0"	800*480	номі	USB
8.0"	800*600	номі	USB
8.0"	1024*768	номі	USB
10.1"	1280*800	номі	USB
11.6"	1920*1080	номі	USB
13.3"	1920*1080	номі	USB
15.6"	1920*1080	номі	USB
	HDMI USB	LCD interface  Backlig	ght

### One Key Solution: HDMI Convert Board with TFT+CTP



7.0~15.6" inch TFT+CTP+HDMI Board

Application: Industrial Instrument, Control Board



## **New Launch - Smart TFT**



### Main features

Supports resolutions up to 1280\*1024, covering all sizes up to 10.1" TFT

- ◆Simple and efficient development model with low learning costs for users.
- ◆Support multiple animation effects, pop up, slide, rotate, turn pages, etc.
- ◆Controls galore, keys, text, pop-ups, full keyboard, sliders, checkboxes and more.
- Support of user data operations
- ◆Yeebo specific serial protocols, simplified protocol content.

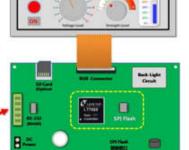
图文UI编译器 (UI\_Editor)

指令编译器 (UartTFT)









## New Launch -Smart TFT

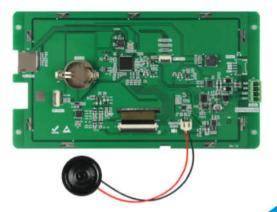
Product application	Medical
Size	3.5" 320*480
Display	IPS
Viewing angle	Free
Operating Temp.	-20 to 70°C
Storage Temp.	-30°C to 80°C





Product application	Air conditioner
Size	4.3" 480*272
Display	IPS
Viewing angle	Free
Operating Temp.	-20 to 70°C
Storage Temp.	-30°C to 80°C





# **UART/SPI Smart TFT**



Product application	Aesthetic medicine EV Charge
Size	10.1" TFT with CTP 1280*800
Display	IPS
Contrast Ratio	1000
Viewing angle	Free
Operating Temp.	-20 to 70°C
Storage Temp.	-30°C to 80°C



# **Total Solution with PCBA and Housing**



Agricultural machinery navigation



Medical



EV charge

## **New Launch- Round Type TFT**



Floor scrubber 2.1" 480\*480



Oven



**Coffee machine** 1. 8" 360\*360

Size	Display	Resolution
1.28"	IPS	240*240
1.28"	IPS	320*320
1.45"(transflective)	TN	360*360
1.8"	IPS	360*360
2.1"	IPS	480*480
4.0"	IPS	720*720
5.0"	IPS	1080*1080

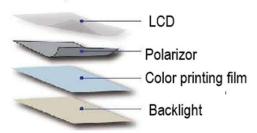
## **New launch -Color MVA for LCM**

PMVA with full viewing angle, Using Patterned Multi-Domain vertical alignment Technology

Matrix patterned	Transmittance		CR	View Cone	
Matrix patterned design	Vertical 90°	12'o clock 45 °	Vertical/12'o clock Contrast Ratio	CR=10 U/D/L/R	Remarks
Normal VA	10%	10~12%	≥1500:1	U/D ≥70°/≥30° L/R ≥70°/≥70°	Need rubbing;
MVA	9.8%	10.7%	≥1200:1	U/D ≥70°/≥70° L/R ≥70°/≥70°	OK, High CR/Tr, First preferred design
TN type TFT	5.7%(with Pol) 19.1%(without Pol)	/	Min 450:1, Typical600:1	U/D ≥45°/≥55° L/R ≥55°/≥55°	
IPS type TFT	4.47%(with Pol) 14.2%(without Pol)	/	Min 640:1, Typical800:1	U/D ≥80°/≥80° L/R ≥80°/≥80°	

### Color MVA: MVA with color ink-jet printing film

### Structure







Integrated black and Color displaying, high reliability(-40~90 °C, 85°C\*85%RH)





**Innovation for For TFT with CTP** 

# CTP Product Size-Structure-Performance

Size	0.96 <sup>~</sup> 2.0"	2.0 <sup>~</sup> 3.0"	3.0°5.0"	5. 0 <sup>~</sup> 7. 0"	7. 0 <sup>~</sup> 10. 1"	10. 1 <sup>~</sup> 15. 6"	>15.6"
G+G		Glove Touch	; Thick/Long Cove	sistant & Wet Fing r Touch; Color Prin Glass ; High therma		,	
G+FF					et Finger Touch ; ed Glass ; Anti-U		
P+G			ssive Pen ; Wate ing ; Anti-UV	er Resistant & W	et Finger Touch ;	;	
P+FF	Support	Passive Pen ; W	ater Resistant &	Wet Finger Tou	ch ; Low Cost		
GF	Single La	ayer Two-point c	or Single Point +	Gesture Control			
OGS		1-10 points, to simple operat	ion application				

# IK Rating

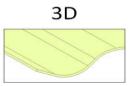
Structure	Size	CTP Type	Lens Thickness	Material	IK Rating
	3.5"	G+G	1.1	Soda-lime glass	IKO4
	3.5"	G+G	1.8	Soda-lime glass	IK06
	5.0"	G+G	1.1	Soda-lime glass	IK05
	5.0"	G+G	1.8	Soda-lime glass	IK07
	7.0"	G+G	1.1	Soda-lime glass	IK06
TFT+CTP	10.1"	G+G	4.0	Soda-lime glass	IK08
	10.1"	G+G	5.0	Aluminosilicate glass	IK10
	10.1"	G+G	5.0	Soda-lime glass	IK10
	13.3"	G+G	3.0	Soda-lime glass	IK08
	21.5"	G+G	4.0	Soda-lime glass	IK10

### **CTP/Lens Edging Treatment:**

2D



2.5D





### **CTP/Lens Surface Treatment**

### AG(Anti-Glare Glass)

	Item	Gloss(%)	Transmittance(%)	Haze(%)	Pencil Hardness	Roughness (um)
		60+/-10	>89	10+/-3	6H	0.12+/-0.03
AG	AG Etching (outsourcing)	70+/-10	>89	7+/-3	6H	0.11+/-0.03
		90+/-10	>89	5+/-3	6H	0.1+/-0.03
		110+/-10	>89	4+/-3	6H	0.07+/-0.03

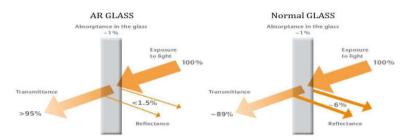
Absorptance in the glass ~ 1%

Transmittance ~ 89%
Same as uncoated glass

Note: AG glass (Anti-glare glass) is a kind of glass that is specially processed on the surface of glass. It is characterized by changing the original glass reflective surface into a matte non-reflective surface (uneven surface). The principle is that the double-sided or single-sided high-quality glass sheet is specially processed. Compared with ordinary glass, it has a lower reflectivity, and the reflectivity of light is reduced from 8% to less than 1%.

### AR(Anti-Reflection)

	Item	Transmittance	Reflectivity
AR	Normal Glass	≥89%	≤6.0%
	AR Glass	≥95%	≤1.5%



Note: Anti-Refletance (AR film) achieves the purpose of anti-reflection by increasing the light transmittance of glass and reducing the reflectivity of glass. Through careful layer design and tight control of film thickness, interference effects are used to reduce substrate surface reflections. Process AR process: Clean  $\rightarrow$  dry  $\rightarrow$  coating  $\rightarrow$  curing  $\rightarrow$  high temperature tempered AR Coating LCD display Reduce the intensity of reflected light, and the surface reflection is reduced to less than 1.5% to prevent glare

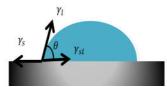


### **CTP/Lens Surface Treatment**

### AF(Anti-Fingerprint) / AS(Anti-Smudge)

AF/AS	Item	Contact Angle (Before Rubbing)	Contact Angle (After Rubbing)	Test Condition
	Plating (in house)	>110°	>100°	Rubbing Pressure: 500g N,>2000 times
	Evaporating (outsource)	>110°	>100°	Rubbing Pressure: 500g N,>8000 times





### AM(Anti-Microbial)







The method is to exchange silver ions on the glass surface, and silver ions and compounds are toxic to some bacteria, viruses, algae and fungi, but they are almost completely harmless to the human body. The antibacterial properties of silver are derived from silver ions. Because silver ions can form strong binding bonds with some substances used by microorganisms for respiration (such as some molecules containing oxygen, sulfur, and nitrogen), these substances cannot be used by microorganisms, so that microorganisms suffocate.

## **CTP solutions: Outdoor UV protection and UV resistance**

No.	TP solutions	TFT solutions	UV resistance duration	Remarks
		3M/Nitto OCA + Wide temp range TFT(ordinary front polarizer)	1000H	Permanent defense,Lens thickness≥2.0mm
/	l ' '	3M/Nitto OCA + Wide temp range TFT(ordinary front polarizer)	1000H	/
-3	· ·	3M/Nitto OCA + Wide temp range TFT(anti-UV front polarizer)	500H	Permanent defense, Lens thickness≥2.0mm
	UV resistant ink lens(1000H)+UV resistant OCA(3M) +G SENSOR	3M/Nitto OCA +Wide temp range TFT(anti-UV front polarizer)	500H	/
רי	,	3M/Nitto OCA + Wide temp range TFT(ordinary front polarizer )	10000H	Needs to define the limited sample according to the color of the CL. The available size is within 200*300mm

Note: Among these 5 options above, surface treatment can be added

## **CTP New Technology: AM(Anti-Microbial)**

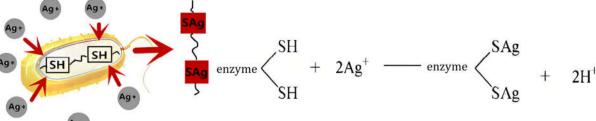
Yeebo's Anti-Microbial Glass is self-developed and produced by In-house Coating. Through high-temperature Ag+ exchange, Anti-Mocrobial factors (Ag+) are introduced into the optical glass body, exerting their strong oxidizing properties, disrupting the atomic bonding (- SH) of bacterial substances, and causing the bacteria to lose their reproductive ability, achieving antibacterial and antibacterial properties; Anti-Microbial glass prepared by ion exchange method has obvious advantages in durability, scratch resistance, and physicochemical properties; On the basis of having all the functions of self-cleaning glass, Yeebo's Anti-Microbial breaks through the dependence of ordinary self-cleaning glass on ultraviolet radiation for sterilization, achieving full functionality of sterilization and inhibition in all weather conditions



### **Processing capability**

Thickness: 0.4mm-2.0mm;

Production capacity: 300pcs/day; Size: 406\*536mm&355\*406mm;



### **Ability**

Yeebo's Anti-Microbial Glass has passed the testing of SGS Testing Center, with a sterilization rate of 99.9%; The execution standards are based on domestic standards (JC/T 1054-2007) and European Union standards (ISO22196);

### **Application:**

- \*Medical equipment;
- \*Handheld, wearable devices;
- \*Household appliance display panels with antibacterial requirements;
- \*All display panels for Human–Machine Interaction; Etc.

## **Water Resistant & Wet Finger Touch**

salt-spray resistant < 5%



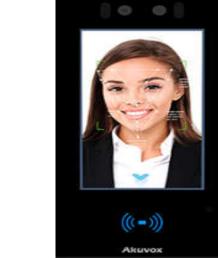




## **CTP New Technology: Black panel**



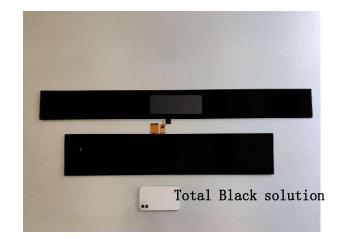
**Access control** 



### **Large size Optical Bonding Capability**

Coverlens Max Length:1000mm Optical Bonding Capability: Normal Rang: 0.96"~15.6"

Max size: 32"





## CTP New Technology: Golden/Silver/White/Wood Panel



performance after power off



performance after power on

Total wood solution



performance after power off



performance after power on



## **CTP New Technology: 3D Tracking and Gesture Control**

- True single-chip gesture solution for embedded usage
- From 0 (touch) to 20 cm detection range
- Very low-power design
- No detection blind spots
- No ambient influences (light/sound)
- Use of thin, low-cost sensing electrodes, for example a standard PCB
- Highest gesture detection reliability
- Active noise handling44 100 kHz carrier frequency; no RF interference













FIGURE 1-1: EQUIPOTENTIAL LINES OF AN UNDISTORTED E-FIELD

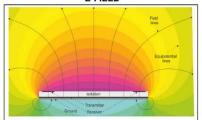


FIGURE 1-2: EQUIPOTENTIAL LINES



### **CTP Applications: Construction machinery & EV charger**

Product structure: G/P Lens + G Sensor + TFT; G/P+F/F+TFT

CTP type: Glass lens; PMMA/PC lens; Dito Glass Sensor; Film Sensor

Characteristic: High reliability; Medium to large-sized (oversized Lens + medium size TFT); Featuring a large product span (7 to 56 inches diagonally and by length 150~1400mm), high difficulty for production; Strict application environment requirements; High level requirements for IK/IP rating, etc; Multi screen bonding.

Capability: Self built production line for Lens (≤32" or 1200mm length)+

TFT( ≤ 21 inches) small batch bonding

Importing the 395/405nm high wavelength UV curing equipment









Other Product Roadmap

## **E-paper Solution**

Size	Outline Dimension(mm)	Active Area(mm)	Resolution	Dot Pitch(mm)	TCON Insid	Interface
1.54'	31.92(H)x35.44(V)x0.82(T)	27.72x27.72	200x200	0.1386x0.1386(183dpi)	√	SPI
1.54'	31.92(H)x35.44(V)x0.82(T)	27.72x27.72	152x152	0.18x0.18(130dpi)	√	SPI
2.13'	29.2(H)x59.2(V)0.82(T)	23.8×48.55	122x250	0.195x0.194(130dpi)	√	SPI
2.66'	36.3(H)x71.8(V)x0.82(T)	30.704×60.088	152x296	0.202x0.203(112dpi)	√	SPI
2.7'	70.4(H)x45.8.1(V)x0.82(T)	57.29×38.19	176x264	0.226x0.227(112dpi)	√	SPI
2.9'	80.4(H)x38.1(V)x0.82(T)	66.93×29.07	128x296	0.217x0.217(120dpi)	√	SPI
2.9'	35.568(H)x79.98 (V)x0.82(T)	29.568x67.584	168x384	0.176x0.176(144dpi)	√	SPI
3.52'	54.4(H)x84.7(V)x0.82(T)	49.67×74.51	240x360	0.196x0.196(130dpi)	√	SPI
3.71'	53(H)x92.99(V)x0.82(T)	47.04×81.536	240x416	0.196x0.196(130dpi)	<b>√</b>	SPI
3.97'	56.24(H)x96.62(V)x0.82(T)	51.84×86.40	480×800	0.108x0.108(235dpi)	√	SPI
4.2'	77(H)x91(V)x1.02(T)	63.6x84.8	300x400	0.212x0.212(120dpi)	√	SPI

### **Characteristic:**

- > Ultra-Low Power Consumption : No power is needed to hold an image.
- > Paper white background : Easy to read.
- > Reflective type: No Backlight.
- Wide View Angle

## **PMOLED Solution**

Size	Color	Resolution	Outline Dimension(mm)	A.A Size(mm)	Structure	Interface
0.69"	White	96*16	24*6.94*1.28	17.26*3.18	COG+FPC	8080/6800/SPI/I <sup>2</sup> C
0.78"	White	128*80	12.13*23.6*1.28	9.68*17.26	COG+FPC	8080/6800/SPI/I <sup>2</sup> C
0.96"	White/Blue	128*64	25*16.9*1.28	21.74*11.18	COG+FPC	8080/6800/SPI/I <sup>2</sup> C
1.12"	white	128*128	22.8*26.9*1.28	20.14*20.14	COG+FPC	8080/6800/SPI/I <sup>2</sup> C
1.30"	white	128*64	35.8*17.1*1.43	29.42*14.7	COG+FPC	8080/6800/SPI/I <sup>2</sup> C
2.80"	white	256*64	77.5*23.1*2.03	69.1*17.26	COG+FPC	8080/6800/SPI/I <sup>2</sup> C

### **Characteristic:**

➤ Wide operation temperature : -40~70° C

➤ Ultra high contrast: 10000:1

➤ Wide View Angle

> Ultra fast response time : typical 10 us



# New testing equipment

Tester	Function	Equipment picture
Haze tester	Function: Spectral transmittance curve, total transmittance, scattered transmittance, parallel transmittance, haze, spectral haze, color coordinates, color temperature, yellow index YI, etc Refer to standards such as ASTM D1003, GB/T 2410, ISO14782, JC/T2130-2013, JIS K7105-81, etc	
Glossiness tester	Mainly used for measuring the surface gloss of materials in industries such as spraying, plastic, printing, metal, ceramics, building materials, leather, paint, etc Compliant with standards: DIN 67530, ISO 2813, ASTM D 523, JIS Z8741, BS 3900 Part D5 JJG696, etc	600
Combination immunity tester	EFT group pulse: test voltage range 0.25-5KV; Source impedance: $50/1000\Omega$ ; Lightning surge: test voltage range0.3-5KV $\pm$ 10%; Source impedance: $2\Omega$ ; Voltage waveform:1.2us $\pm$ 30%/50us $\pm$ 20%; Current waveform:8us $\pm$ 20%/20us $\pm$ 20% IEC61000-4-4, IEC61000-4-5, lightning surge and group pulse testing	
Spectrum analyze + near-field prob		DE 111 : 0 0 0
4-channel oscilloscope	The oscilloscope has a simulated channel bandwidth of up to 2 GHz, with 7 instruments in one. It has a large storage depth of 500 Mbps, good waveform display effect, excellent waveform capture rate, and powerful data analysis function. It also supports real-time eye diagram measurement and jitter analysis	

