



Industrial Quality
Display Solution

Be Creative & Do Better



Ampire Co., Ltd.

4F., No.116, Sec. 1, Xintai 5th Rd., Xizhi Dist., New Taipei City 221, Taiwan (R.O.C.)

tel +886-2-2696-7269 fax +886-2-2696-7196 e-mail info@ampire.com.tw

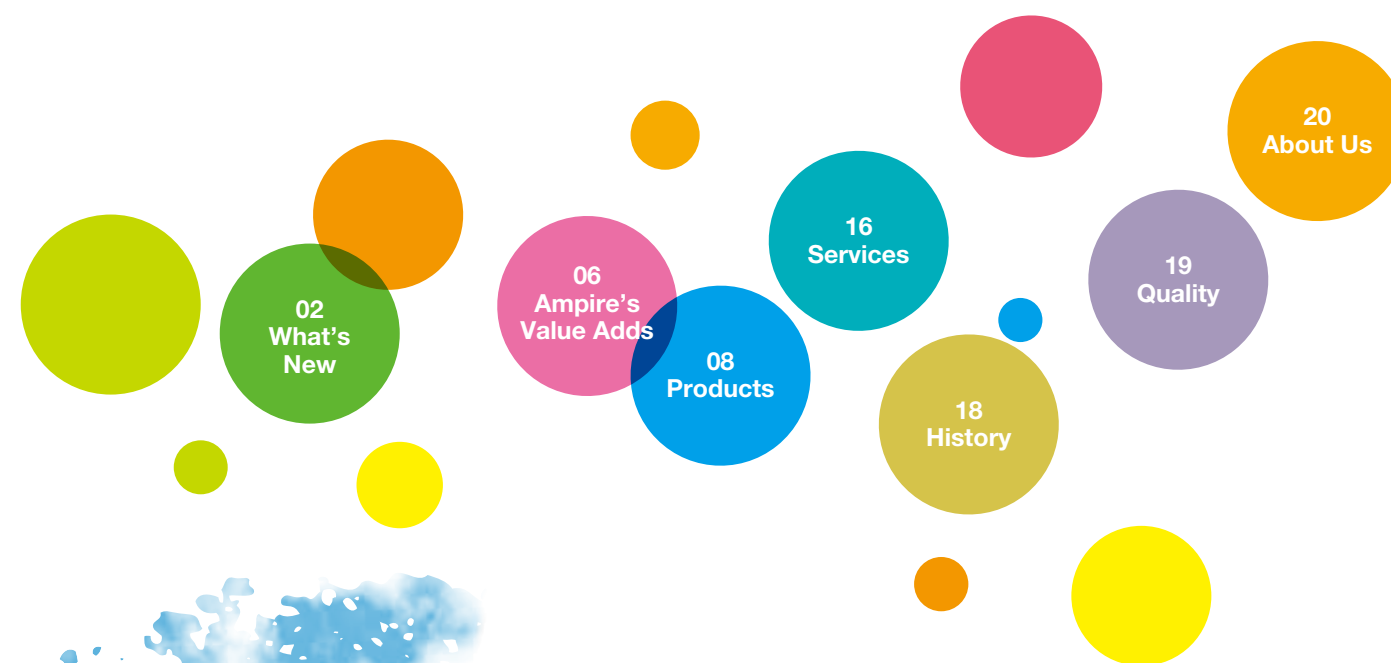
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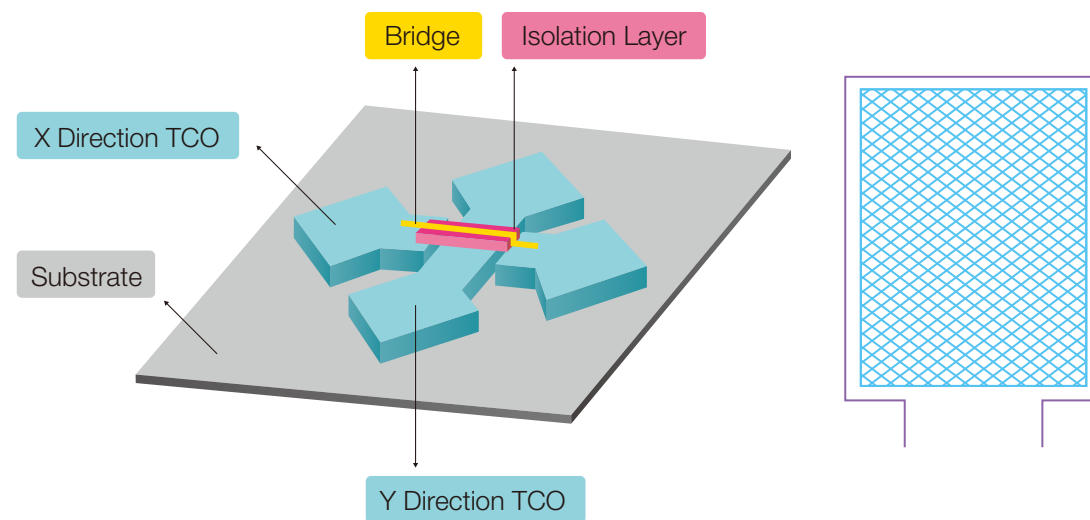
Ampire's Vision

- WE WANT** to be creative in all of our products.
- WE WANT** to configure them to what you need.
- WE WANT** to meet the highest industrial qualities.
- WE WANT** to offer the most reasonable costs.
- WE WANT** to make your life easier.
- WE WANT** to do better displays.

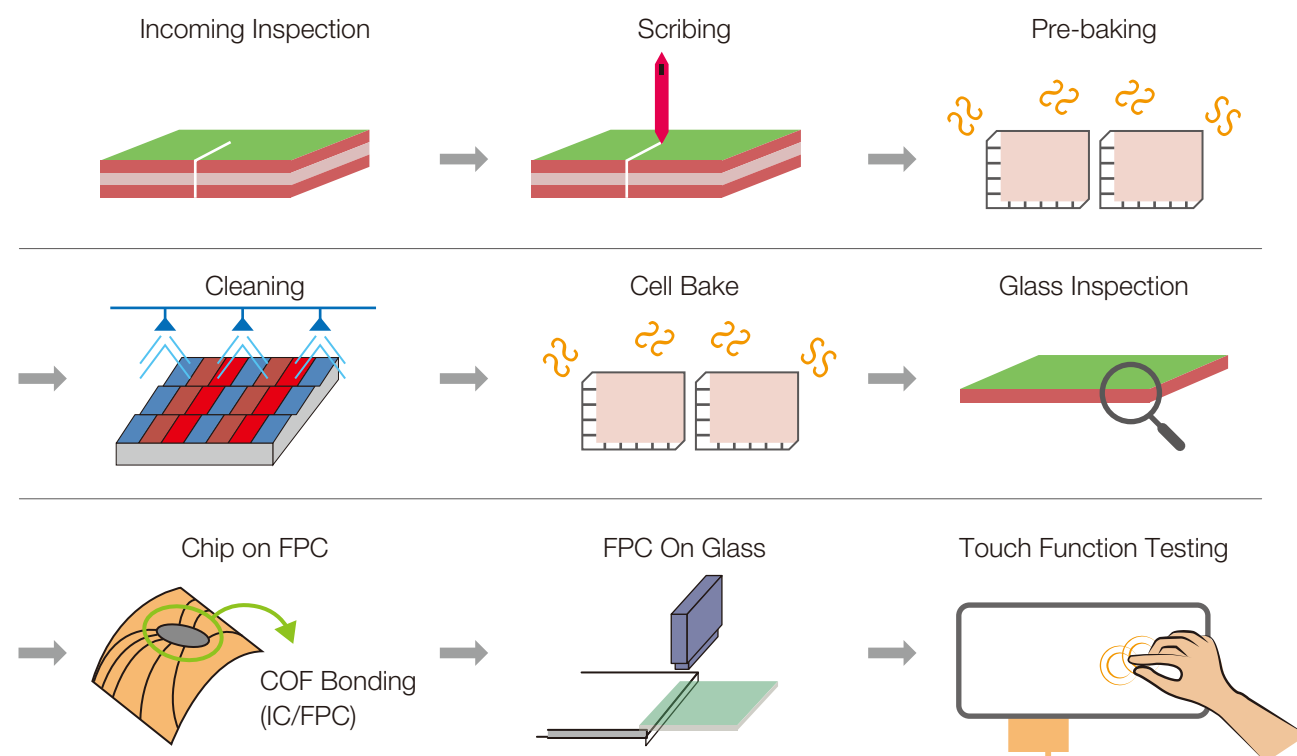


Ampire's P-cap Solutions

In housing design and production for projective capacitive touch panel.

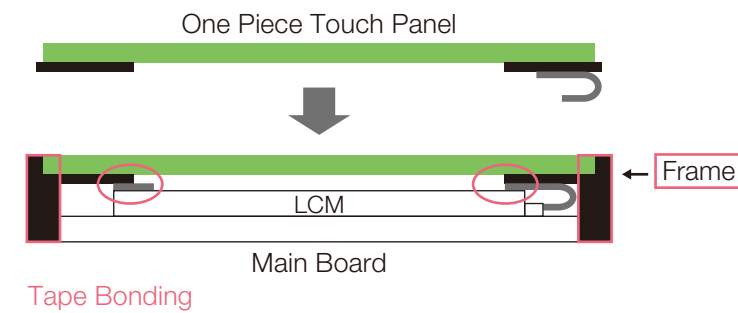


Cell Process Flow/P-Cap

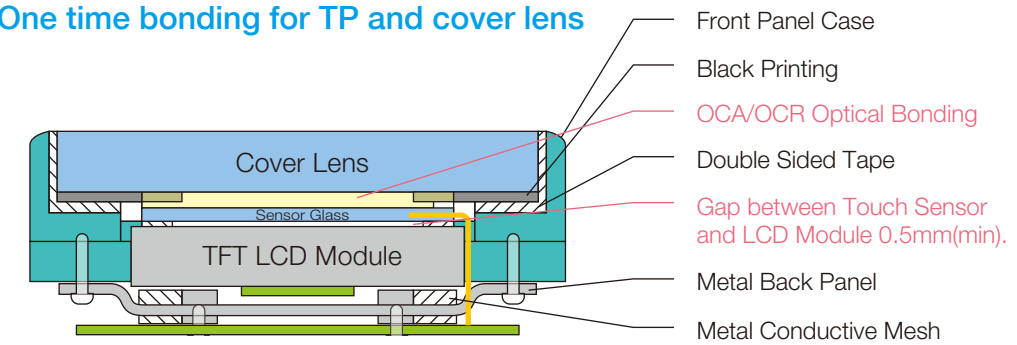


Various Structure Supports

Tape bonding and use it as OGS solution



One time bonding for TP and cover lens



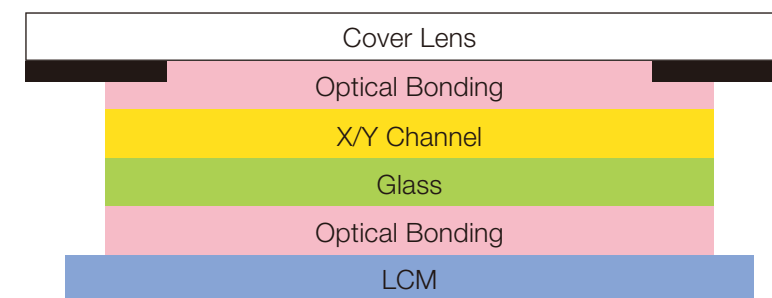
Two times bonding as sandwich design

Advantage of optical bonding:

1. Protection purpose for Vandal or weatherproof.
2. To increase the clarity and visibility by reducing the internal reflection.
3. Anti-vibration, shock, shakes protection.
4. Anti-dust and moisture-proof by filling the gaps.
5. It is applied to any kind of display, such as mono LCD, TFT, OLED.

Application:

Kiosk, military display, transportation display, fish finding



Various Structure Supports

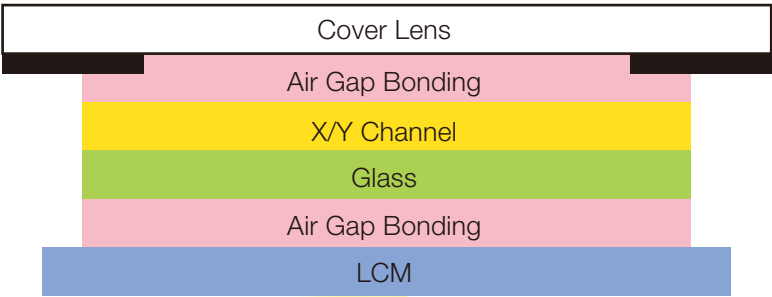
Air bonding/ No bonding needed. Saving the optical bonding cost.

Advantage of Air bonding:

- 1. Cost saving from optical bonding.
- 2. Easy installation.
- 3. Easy repairing.

Application:

outdoor application, gaming, public Kiosk



Advantage of Ampire Projective capacity touch panel:

- 1. Full sizes supporting from 3.5"~15".
- 2. Easy design – various OS supporting, tuning kit support, FW update software installing in customer system.
- 3. Air gap solution for optical bonding cost saving.
- 4. Bonding service support.
- 5. Standard cover lens as options.
- 6. Thick cover lens supporting- up to 9mm.
- 7. Glove touching supporting.
- 8. Water resistance.
- 9. Palm rejection support.
- 10. Wide OP temperature supporting- up to -30~+80 by request.

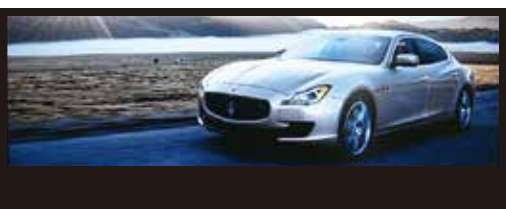
Supporting size

3.5" 4:3	4.3" 16:9	5" 16:9	5.7" 4:3	7" 16:9
8" 16:9	8" 4:3	8.4" 4:3	9" 16:9	10.1" 16:10
10.1" 128:75	10.4" 4:3	12.1" 4:3	15" 4:3	

Reshaping Display Solution

Advantage:

- 1. Low cost comparing with customized TFT glass.
- 2. Low MOQ for customized size.
- 3. Flexible size available, 5"~15".
- 4. Shorter lead time: Design duration around 12 weeks.



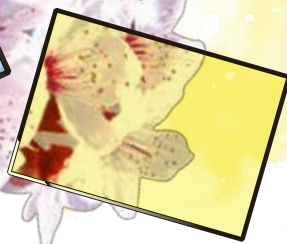
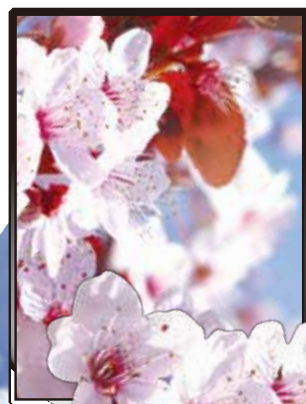
Ampire's value adds



MCU interface

It is a micro controller that receives 16-bits control data and drive a TFT display with RGB interface. It helps the customer to design TFT display through a more familiar platform. This chip is desgined and patented by Ampire. It also makes the display module option more flexible and extends the product life cycle.

- Available up to 800x480 resolution



High brightness



Ultra high brightness

Outdoor equipments are getting lighter and more powerful to handle sophisticated tasks. LCD displays are applied in more industrial equipments other than communication devices. High brightness are extremely important against sunlight. Ampire is able to implement high brightness backlight up to 1000 nits to the displays.

- High brightness available in all sizes
- Extreme high brightness available in 3.5", 4.3", 5", 5.7", 7", 8", 8.4", 9", 10.1", 10.4", 12.1", 15"



Super wide view angles

Ampire incorporates the latest IPS & MVA technologies that deliver extremely wide viewing angles up to 89 degrees. In other words, the color of the image remains the same from all directions. This is ideal to make applications that focuses on color accuracy for multiple users.

- Available in 10.1" (IPS)
- Available in 4.3", 10.4" (MVA)



LVDS

This is the most adapted interface for systems with high end processor and high resolution display panels. It has high speed data transfer and low noise level.

- Available in 640x480 resolution and up



Enhanced wide view angles

Many industrial applications do not focus on the color accuracy from all angles. Instead, the uniformity of color is more important and minor color shifting is acceptable. Ampire is able to enhance any TN glass with our EVA process. The viewing angles are uniform up to 85 degree. It also has more cost advantage than IPS technology.

- Available in all sizes up to 15"



Wide temperature tolerance (automotive grade)

This is one of the most important criteria in industrial application development. Ampire is able to build display module using materials with high temperature tolerance and design the structures with fast heat sink to tolerate high temperature environment. Heater circuit can also be built-in to tolerate low temperature environment.

- -20 °C to +70 °C in all size
- Special temperature range can be built upon requests

Products

TFT



Size	PMOLED 1.46"	PMOLED 1.8"	2.2"	2.4"	3.2"
Resolution	128 × 128	160 × 128	240 × RGB × 320	240 × RGB × 320	240 × RGB × 320
Product Line	AE-128128ZOF	AE-160128DQFET	AM-240320J4	AM-240320LG	AM-240320D5
Display Area	26.279 (W) × 26.284 (H)	35.015 (W) × 28.012 (H)	35.08 (W) × 46.24 (H)	36.72 (W) × 48.96 (H)	48.6 (W) × 64.8 (H)
Module size (mm)	33.5 (W) × 46.33 (H) × 1.61 (D)	42.8(W) × 33.5 (H) × 1.82 (D)	40.1 (W) × 71.9 (H) × 3.65 (D)	43.6 (W) × 85.5 (H) × 2.8 (T)	55.64 (H) × 77.3 (V) × 4.9 (T)
Display Color	65K / 262K	65K / 262K	65K / 262K	65K / 262K	262K
Backlight Type	N / A	N / A	LED	LED	LED
Viewing Angle (Up, Down, Left, Right)	80, 80, 80, 80	80, 80, 80, 80	80, 80, 80, 80	35, 65, 70, 70	35, 15, 60, 60
Power Supply Voltage (LCD)	Mulit-power	Mulit-power	2.8V	2.8V	3.0V
Power consumption	495mW	663mW	20mW	16.8mW	30mW
Operating Temperature	-40 ~ +70	-40 ~ +70	-20 ~ +70	-20 ~ +70	-10 ~ +60
Storage Temperature	-40 ~ +85	-40 ~ +85	-30 ~ +80	-30 ~ +80	-20 ~ +70
LCD Controller	Bulid-in	Bulid-in	Bulid-in	Built-in	Built-in
Brightness (nits)	90	80	400	220	160
Contrast Ratio	2000:1	2000:1	700:1	200:1	250:1
Response Time	10us	10us	55ms	35ms	50ms
Interface	MCU	MCU	MCU / RGB	RGB / MCU	RGB / MCU
T/P	N / A	N / A	N / A	Option	Option



MCU interface



Wide temperature tolerance



Ultra wide view angles



Extreme wide view angles



High brightness



Ultra high brightness



LVDS



Surface Capacitive



Projected Capacitive



Size	AMOLED 3.5"	3.5"	3.5"	4.3"
Resolution	320 × 480	320 × RGB × 240	320 × RGB × 480	480 × RGB × 272
Product Line	AE-320480COFET	AM-320240L Series	AM-320480B5	AM-480272H Series
Display Area	48.96 (W) × 73.44 (H)	70.08 (W) × 52.56 (H)	48.96 (W) × 73.44 (H)	95.04 (W) × 53.856 (H)
Module size (mm)	52.9(W × 120.6(H) × 1.21(D)	77.8 (W) × 64.5 (H) × 3.2 (T)	58.0 (W) × 87.0 (H) × 5.62 (D)	105.5 (W) × 114.05 (H) × 3.95 (T)
Display Color	16.7M	65K / 262K		16.7M
Backlight Type	N / A	LED	LED	LED
Viewing Angle (Up, Down, Left, Right)	85, 85, 85, 85	55, 35, 70, 70	70, 70, 70, 60	45, 45, 65, 65
Power Supply Voltage (LCD)	3.7V	3.3V	3.3V	3.3V
Power consumption	700mW	1,056mW	100mW	148.5mW
Operating Temperature	-20 ~ +60	-20 ~ +70	-20 ~ +70	-20 ~ +70
Storage Temperature	-30 ~ +70	-30 ~ +80	-30 ~ +80	-30 ~ +80
LCD Controller	Bulid-in	Option	N / A	N/A
Brightness (nits)	200	250 / 350 / 500	450	250 / 500
Contrast Ratio	100000:1	300:1	500:1	250:1
Response Time	1us	50ms	30ms	40ms
Interface	MCU / RGB	RGB / MCU	MCU / RGB / LVDS	RGB / MCU
T/P	N / A	Option	Option	Option



Products

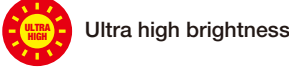
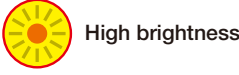
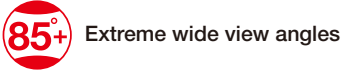
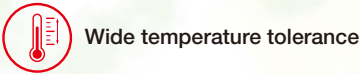
TFT



Size	4.3"	5"	5.7"	5.7"	5.7"
Resolution	480 × RGB × 272	800 × RGB × 480	320 × RGB × 240	320 × RGB × 240	320 ×RGB ×240
Product Line	AM-480272Q Series	AM-800480L Series	AM-320240N	AM-320240N1/N9	AM-320240NS
Display Area	95.04 (W) × 53.856 (H)	110.6 (W) × 67.4 (H)	115.2 (W) × 86.4 (H)	115.2 (W) × 86.4 (H)	115.2 (W) × 86.4 (H)
Module size (mm)	68.2 (W) × 105.5 (H) × 6.71 (T)	119.0 (W) × 135.0 (H) × 3.2 (T)	131.0 (W) × 102.2 (H) × 12.4 / 11.9 (T)	167 (W) × 109.0 (H) × 8.9 / 13.1 (T)	144.0 (W) × 104.6 (H) × 13.0 (T)
Display Color	262K	16.7M	262K	262K	262K
Backlight Type	White LED	LED	LED	LED	LED / CCFL
Viewing Angle (Up, Down, Left, Right)	80, 80, 80, 80	70, 50, 70, 70	70, 50, 70, 70	70, 50, 70, 70	70, 50, 70, 70
Power Supply Voltage (LCD)	3.3V	3.3V	3.3V	3.3V	3.3V
Power consumption	787mW	396mW	1,358.1mW	148.5mW	148.5mW
Operating Temperature	-30 ~ +80	-20 ~ +70	-20 ~ +70	-20 ~ +70	-20 ~ +70
Storage Temperature	-40 ~ +85	-30 ~ +80	-30 ~ +80	-30 ~ +80	-30 ~ +80
LCD Controller	N/A	Option	Option	Option	Option
Brightness (nits)	500	450	500	500	500
Contrast Ratio	500:1	250:1	350:1	350:1	350:1
Response Time	35ms	15ms	50ms	50ms	50ms
Interface	RGB / MCU	RGB / MCU	RGB / MCU	RGB / MCU	RGB / MCU
T/P	Option	Option	Option	Option	Option



Size	5.7"	5.7"	5.7"	6.5"	6.5"
Resolution	640 × RGB × 480	640 × RGB × 480	640 × RGB × 480	800 × 480	640 × 480
Product Line	AM-640480GH	AM-640480GS	AM-640480G2 Series	AM-800480AC	AM-640480N
Display Area	115.2 (W) × 86.4 (H)	115.2 (W) × 86.4 (H)	115.2 (W) × 86.4 (H)	143.4 (W) × 76.704 (H)	132.48 (W) × 99.36 (H)
Module size (mm)	131.0 (W) × 102.2 (H) × 11.6 (T)	144.0 (W) × 104.6 (H) × 12.3 (T)	127.0 (W) × 98.43 (H) × 6.6 (T)	155.2 (W) × 89.4 (H) × 5.5 (T)	153.0 (W) × 118.0(H) × 10.9 (T)
Display Color	262K	262K	262K	16.7M	262K
Backlight Type	LED	LED	LED	White LED	LED
Viewing Angle (Up, Down, Left, Right)	65, 65, 75, 75	65, 65, 75, 75	50, 70, 70, 70	50, 70, 70, 70	60, 70, 70, 70
Power Supply Voltage (LCD)	3.3V	3.3V	3.3V	3.3V	3.3V
Power consumption	270mW	270mW	270mW	1488mW	3093mW
Operating Temperature	-20 ~ +70	-20 ~ +70	-20 ~ +70	-30 ~ +85	-20 ~ +70
Storage Temperature	-30 ~ +80	-30 ~ +80	-30 ~ +80	-30 ~ +85	-30 ~ +80
LCD Controller	N/A	N/A	Option	Option	Option
Brightness (nits)	350	400	250 / 500 / 1000	500	800
Contrast Ratio	250:1	250:1	250:1	500:1	500:1
Response Time	50ms	50ms	50ms	35ms	20ms
Interface	RGB	RGB	RGB / MCU / LVDS	RGB	LVDS
T/P	Option	Option	Option	Option	N/A



Products

TFT



Size	7"
Resolution	800 × RGB × 480
Product Line	AM-800480S Series
Display Area	152.4 (W) × 91.44 (H)
Module size (mm)	165 (W) × 104.44 (H) × 9.16 (T)
Display Color	262K
Backlight Type	LED
Viewing Angle (Up, Down, Left, Right)	60, 70, 70, 70
Power Supply Voltage (LCD)	3.3V
Power consumption	405mW
Operating Temperature	-20 ~ +70
Storage Temperature	-30 ~ +80
LCD Controller	Option
Brightness (nits)	350 / 500
Contrast Ratio	400:1
Response Time	16ms
Interface	RGB / LVDS / MCU
T/P	Option



7"
800 × RGB × 480
AM-800480R Series
152.4 (W) × 94.44 (H)
165 (W) × 104.44 (H) × 6.76 (T)
262K
White LED
50, 60, 60, 60
3.3V
2700mW
-20 ~ +70
-30 ~ +80
N/A
500 / 1000
400:1
16ms
LVDS / RGB
Option



7"
1024 × RGB × 600
AM-1024600K Series
153.6 (W) × 90.0 (H)
165.5 (W) × 104.44 (H) × 7.41 (T)
16M
White LED
75, 75, 70, 75
3.3V
4495mW
-20 ~ +70
-30 ~ +80
N/A
500
700:1
10ms
LVDS
Option



8"
800 × RGB × 480
AM-800480D1
176.64 (W) × 99.36 (H)
192.8 (W) × 116.9 (H) × 6.4 (T)
16M
LED
70, 70, 50, 60
3.0V
1840mW
-20 ~ +70
-30 ~ +80
N/A
250
500:1
25ms
RGB
Option



8"
800 × RGB × 600
AM-800600P5 Series
162.0 (W) × 121.5 (H)
183.0 (W) × 141.0 (H) × 6.7 (T)
16.7M
White LED
70, 70, 50, 70
3.3V
2060mW
-20 ~ +70
-30 ~ +80
N/A
500
500:1
25ms
RGB
Option



8.4"
800 × RGB × 600
AM-800600M Series
170.4 (W) × 127.8 (H)
203 (W) × 145.5 (H) × 8.0 (T)
16M
LED
75, 75, 60, 70
3.3V
2442mW
-20 ~ +70
-30 ~ +80
N/A
500 / 350
600:1
8ms
RGB / LVDS
Option



9"
800 × RGB × 480
AM-800480AH
198.0 (W) × 111.696 (H)
211.1 (W) × 126.5 (H) × 5.9 (D)
16M
LED
70, 70, 50, 70
3.3V
800mW
-20 ~ +80
-30 ~ +80
N / A
500
500:1
25ms
LVDS
Option



MCU interface



Wide temperature tolerance



Ultra wide view angles



Extreme wide view angles



High brightness



Ultra high brightness



LVDS



Surface Capacitive



Projected Capacitive

Products

TFT



Size	10.1" (IPS)
Resolution	1280 × RGB × 800
Product Line	AM-1280800N
Display Area	216.96 (W) × 135.6 (H)
Module size (mm)	229.46 (W) × 149.1 (H) × 4.56 (D)
Display Color	16.7M
Backlight Type	LED
Viewing Angle (Up, Down, Left, Right)	85, 85, 85, 85
Power Supply Voltage (LCD)	3.3V
Power consumption	1000mW
Operating Temperature	-20 ~ +70
Storage Temperature	-30 ~ +80
LCD Controller	N / A
Brightness (nits)	350
Contrast Ratio	800:1
Response Time	25ms
Interface	LVDS
T/P	Option



10.1"	10.4"	10.4"
1024 × RGB × 600	640 × RGB × 480	800 × RGB × 600
AM-1024600L Series	AM-640480E	AM-800600K Series
222.72 (W) × 125.28 (H)	211.2 (W) × 158.4 (H)	211.2 (W) × 158.4 (H)
235.0 (W) × 145.8 (H) × 6.944 (T)	225.5 (W) × 176.3 (H) × 9.5 (T)	243.0 (W) × 185.6 (H) × 7.2 (T)
262K	262K	262K / 16M
LED	LED	White LED
70, 70, 70, 50	85, 85, 85, 85	50, 60, 70, 70
3.3V	3.3V	3.3V
480mW (min)	1485mW	4750mW
-5 ~ +60	-20 ~ +70	-20 ~ +70
-20 ~ +70	-30 ~ +80	-30 ~ +80
N/A	N/A	N/A
250 / 550 / 1000	380	500 / 1000
500:1	500:1	500:1
25ms	23ms	20ms
RGB / LVDS	RGB	LVDS
Option	Option	Option



Size	10.4"
Resolution	1024 × RGB × 768
Product Line	AM-1024768T
Display Area	211.2 (H) × 158.4 (V)
Module size (mm)	236.0 (W) × 176.9 (H) × 5.7 (D)
Display Color	262K / 16.7M
Backlight Type	LED
Viewing Angle (Up, Down, Left, Right)	75, 75, 75, 75
Power Supply Voltage (LCD)	3.3V
Power consumption	1.2W
Operating Temperature	-20 ~ +70
Storage Temperature	-30 ~ +80
LCD Controller	N / A
Brightness (nits)	350
Contrast Ratio	900:1
Response Time	16ms
Interface	LVDS
T/P	Option



12.1"	12.1"	15"
1024 × RGB × 768	800 × RGB × 600	1024 × RGB × 768
AM-1024768R	AM-800600T	AM-1024768Q
245.76 (W) × 184.32 (H)	246.0 (W) × 184.5 (H)	304.128 (W) × 228.096 (H)
279.0 (W) × 209.0 (H) × 9.0 (T)	276.0 (W) × 209.0 (H) × 9.1 (T)	326.5 (W) × 253.5 (H) × 12 (T)
16.7M	262K	16.2M
LED	LED	LED
80, 80, 80, 80	80, 80, 60, 80	80, 80, 80, 80
3.3V	3.3V	3.3V
3705mW	7731mW	825mW
-20 ~ +70	-20 ~ +70	-20 ~ +70
-30 ~ +80	-30 ~ +80	-30 ~ +80
N/A	N/A	N/A
350	300	500
800:1	800:1	800:1
16ms	30ms	25ms
LVDS	LVDS	LVDS
Option	Option	Option



MCU interface



Wide temperature tolerance



Ultra wide view angles



Extreme wide view angles



High brightness



Ultra high brightness



LVDS



Surface Capacitive



Projected Capacitive

Services

Standard LCD module production

Ampire provides all of the standard LCM models that can be found in the market.

Semi-customized LCD module production

Ampire assists the customers to add special features on standard TFT displays and to put them into mass production.

Full-customized LCD module production

Ampire listens to the customers, communicates with them and understand their requirements to make their innovative idea of STN displays from nothing to reality.

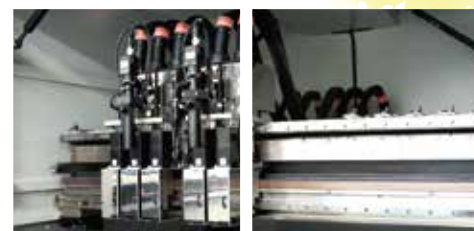
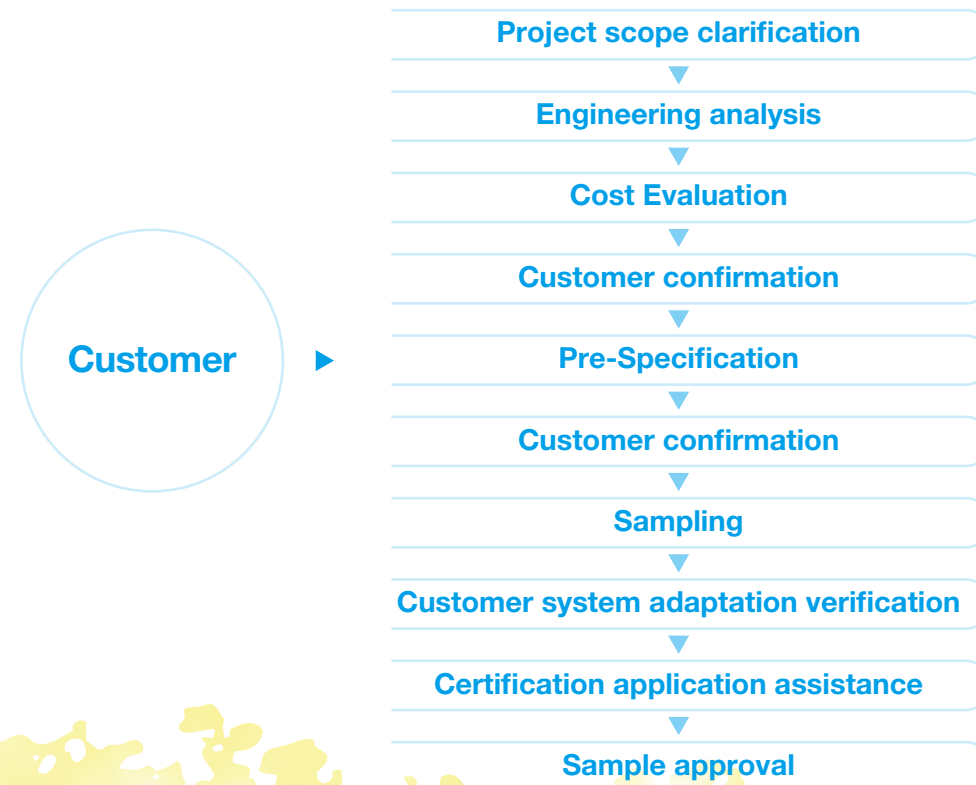
LCD backend processing

Ampire is capable of processing the LCD panels from glass cutting, liquid crystal injection to sealing.

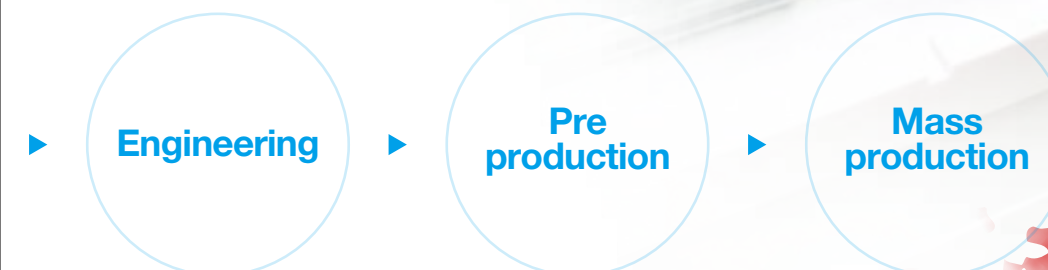
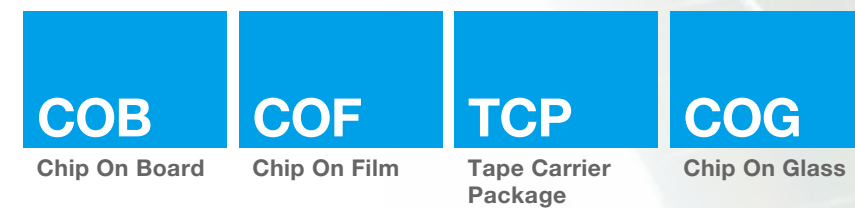
OEM

Ampire is qualified by the leaders in LCD manufacturing, such as AUO, CMI and Hannstar, Kyocera to co-work with them in their strategic production planning.

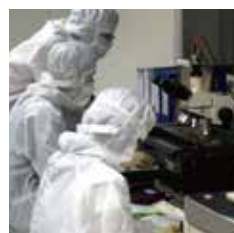
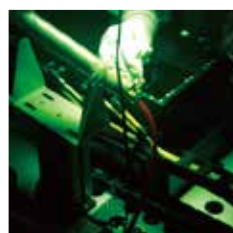
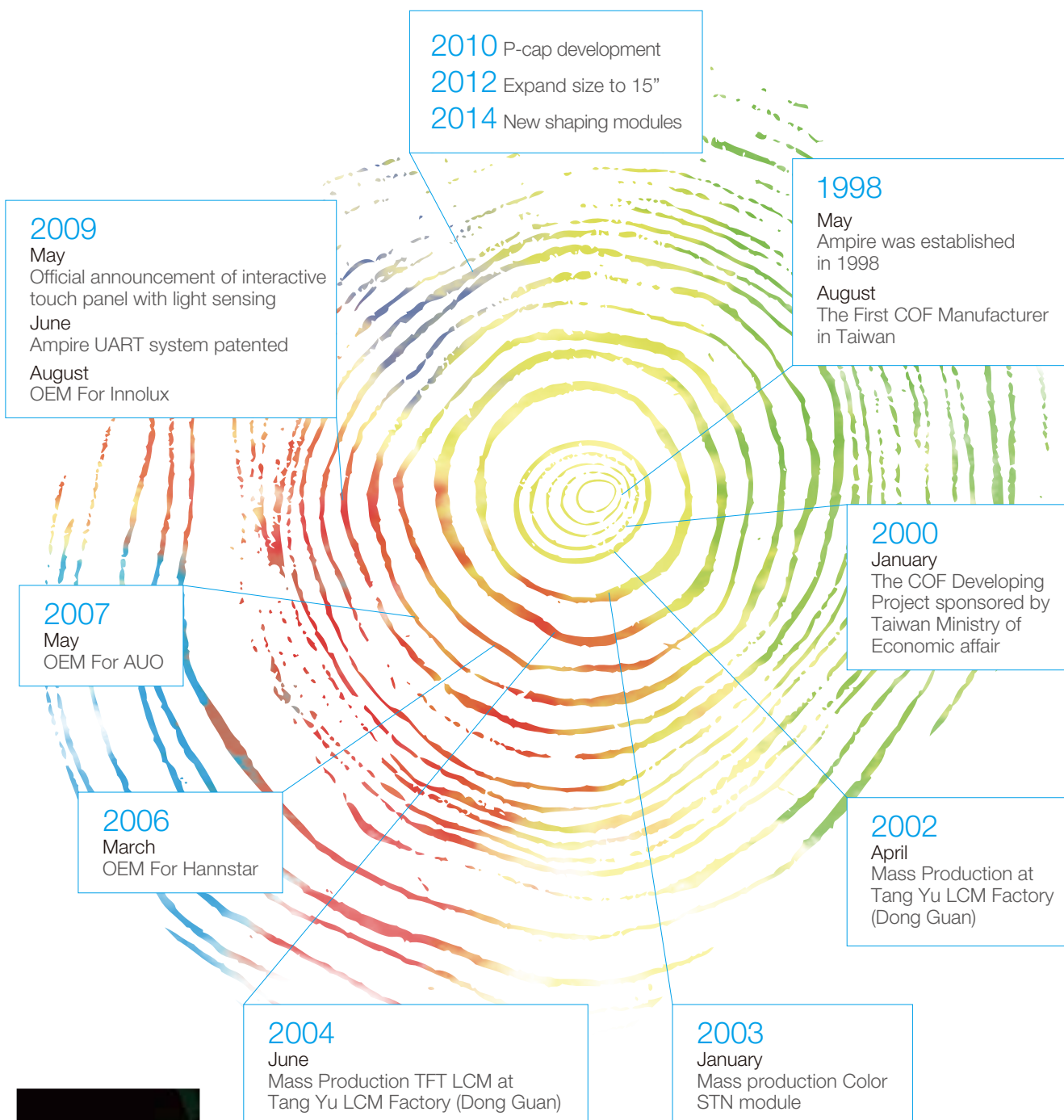
Custom design flow chart



IC Bonding



History



Quality



- 1999.03** ISO9002-1994 Certified.
- 2002.01** ISO ISO9001-2000 Certified.
- 2003.10** MDL Certified at Tang Yu (Dong Guan) LCM Factory.
- 2004.02** QS9000-1998 Certified at Tang Yu (Dong Guan) LCM Factory.
- 2006.04** ISO 14001-2004 Certified.
- 2007.01** TS16949 Certified at Ampire (Taipei) and Tang Yu (Dong Guan) LCM Factories.
- 2007.04** ISO 14001-2004 Certified at Tang Yu (Dong Guan) LCM Factory.
- 2008.03** ISO 9001-2000 Certified at Ampire (Taipei) and Tang Yu (Dong Guan) LCM Factories.
- 2008.03** UL Certifications (Home Appliance).
- 2008.10** OHSAS Certified at Tang Yu LCM Factory (Dong Guan).
- 2010.01** TS16949: 2009 Certified at Tang Yu (Dong Guan) LCM Factory.



About Us

Established in 1998, Ampire is a manufacturer with revolutionary vision and innovative ideas in small and medium size LCD modules for industrial applications.

Starting from TN models, Ampire team never stops acquiring new technologies and working synergistically with every partner. Over the years, Ampire has successfully adapted STN mono display, TFT color display, and lately, Capacitive Touch Panel solutions into the product lineup. With experience and effort, Ampire has sharpened the mastery in customization of LCD modules.

Besides providing a complete lineup of displays, our team also focuses on integrated controls and easy display system solutions. Customers in all markets, especially industrial control, can find practical solutions to adapt STN or TFT into their applications.

Our team does not only develop a piece of LCM for you. We communicate to our customers with enthusiasms and sincerities in developing their applications with right solutions of good quality. We want to assist our customers to do the right thing at the first time. Your experience and satisfaction are our top priorities. In partnership with Ampire, you are one step closer to your goal.

