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TIANMA

2022 PRODUCT CATALOG INDUSTRIAL

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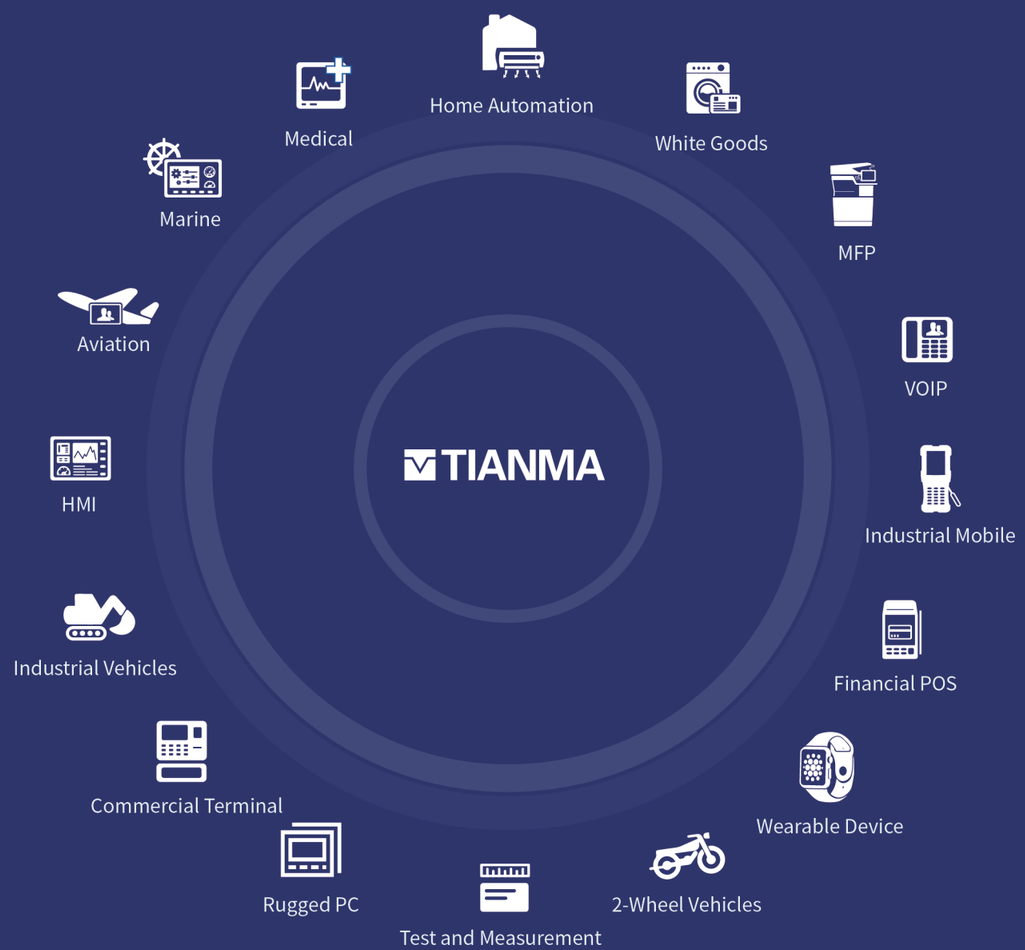
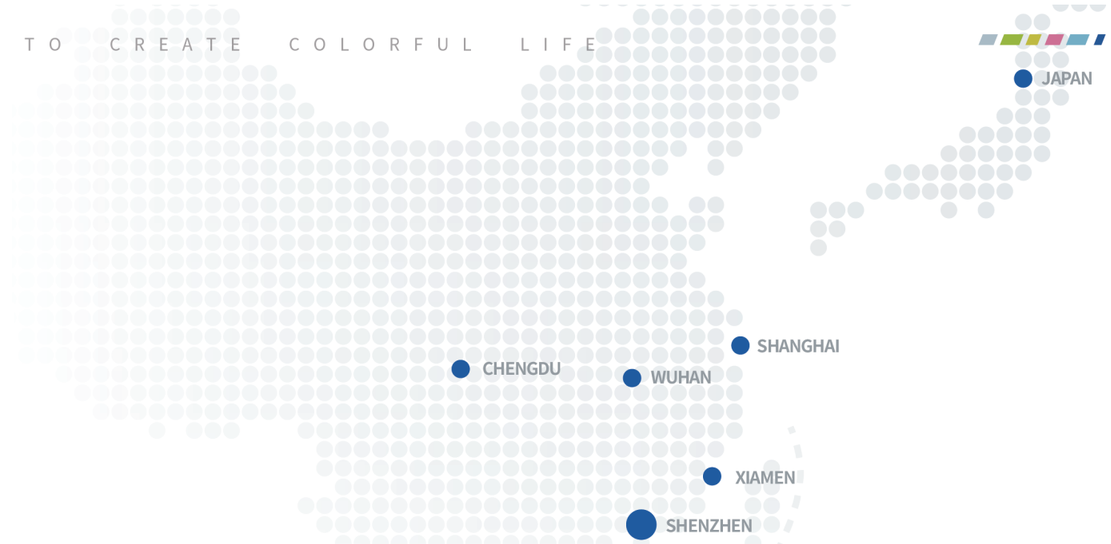
TO CREATE COLORFUL LIFE

About us

Tianma Microelectronics Co., Ltd. (Tianma) specializes in providing display solutions and efficient support services worldwide. Originally established in 1983 and publicly listed on the Shenzhen Stock Exchange (SZ. 000050) in 1995. Tianma is committed to continuous innovation, best-in-class customer service, supporting the various design requirements needed for diverse industrial applications.

Tianma industrial products are now widely used in more than thirty market segments such as medical、HMI、VOIP、MFP and marine. Our market share for high-end medical devices, marine and VOIP products maintain a leadership role in the world. Tianma continues to develop advanced technology, optimize product portfolio, and is committed to providing professional customized services to customers around the world.





Industrial Bases

1983~2003
SHENZHEN
PM-LCD

2006
SHANGHAI G4.5
TFT-LCD

2008
CHENGDU G4.5
TFT-LCD

2008
WUHAN G4.5
TFT-LCD

2009
SHANGHAI G5
TFT-LCD

2010
SHANGHAI G4.5
OLED

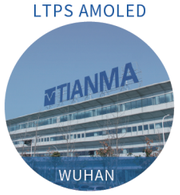
2011
XIAMEN G5.5
LTPS

2011
JAPAN G2/G3
TFT-LCD

2013
SHANGHAI G5.5
AMOLED

2014
XIAMEN G6
LTPS

2015
WUHAN G6
LTPS AMOLED



2018
WUHAN G6
LTPS AMOLED Phase II

2020
XIAMEN G6
AMOLED

Mini-LED Splicing

LED Splicing

Obvious splicing seam

Mini-LED Splicing

Seamless splicing

- High brightness
- High contrast ratio
- High reliability
- No border
- Seamless splicing for larger sizes
- Transparent display

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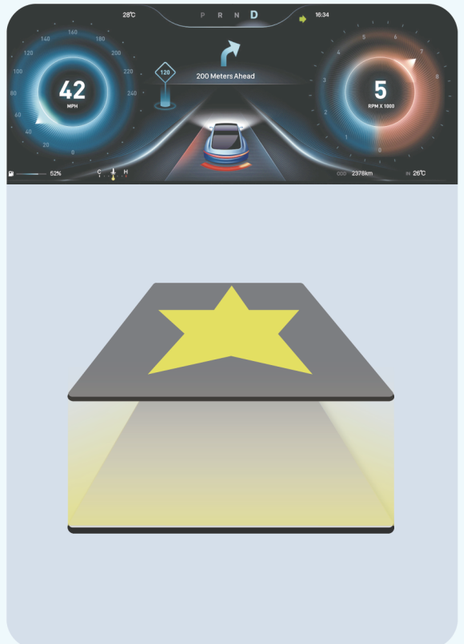
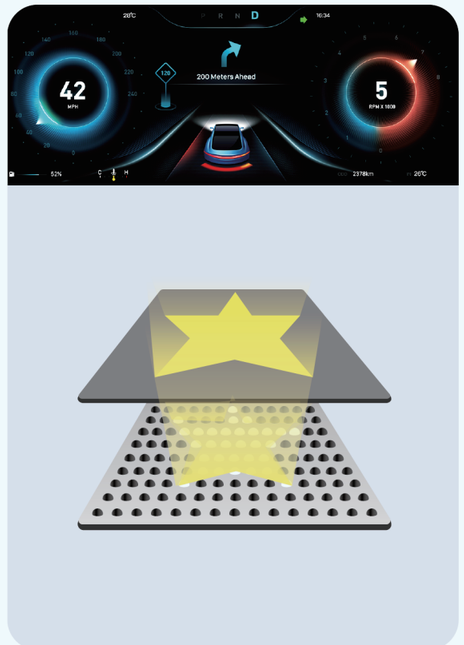
Mini-LED Backlight

Mini-LED BLU Technology: Using blue LED chip with color conversion materials to achieve white backlight, then combined with the LCD to achieve the display.

Normal



Mini-LED



- High contrast ratio
- High color gamut
- Longer life
- Low power consumption

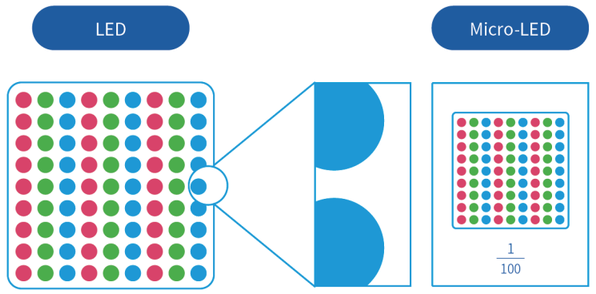
Flexible OLED Curved Display

Flexible OLED curved displays have broad application prospects in the smart mobile display segment, which use polyimide flexible substrate, thin film encapsulation technology, supporting narrow border and ultra thin design.

- Ultra thin
- Free form
- Ultra narrow border
- Bending radius

Micro-LED

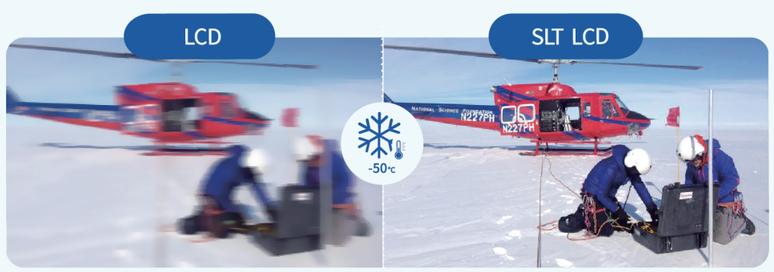
Micro-LED features miniature LED arrays, with each Micro-LED functioning as a pixel, individually driven to emit light. This enables modules to become more energy efficient, with high transmittance, high contrast, high brightness, narrow border and ultra-thin, etc.



- High transparency
- Seamless splicing
- Narrow border

Super Low Temperature (SLT) LCD

Tianma has developed a new technology designed to allow LCDs to function normally in extremely low temperatures, down to -50 deg. C. This technological advancement adopts a proprietary new design scheme, process and materials, all to solve the response time problem inherent with traditional LCDs. Tianma's SLT technology can display dynamic pictures normally in super-low temperatures, with a clear picture and no ghosting or response time delay phenomenon.

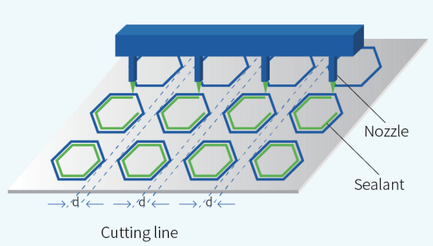


>1000ms <100ms

- Fast response time
- Super low temperature

Free Form

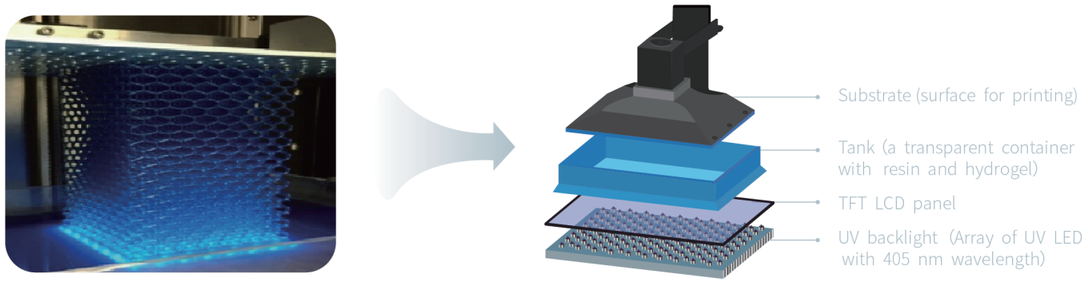
Provides more flexible design, based on customer unique display requirements. Outlines can be round, polygon, annulus or even trapezoid, instead of the traditional rectangular shapes.



- Free form
- Flexible design

3D Printing

As a programmable UV optical mask, the LCD panel solidifies the light-cured resin and achieve layer by layer printing of the light-cured resin. Through the optimization of pixel structure and the development of new materials, it's ahead of other similar products on the features of UV transmittance, UV contrast ratio, UV resistance, etc.



- High transmittance for UV-light (380nm~420nm)
- Long lifetime under UV-light (4000hrs@405nm)
- High contrast ratio & low light leakage in black pattern
- High resolution pixel pitch
- High operation temperature with low transmittance loss
- High light resistance
- Good optical uniformity for printing area >90%

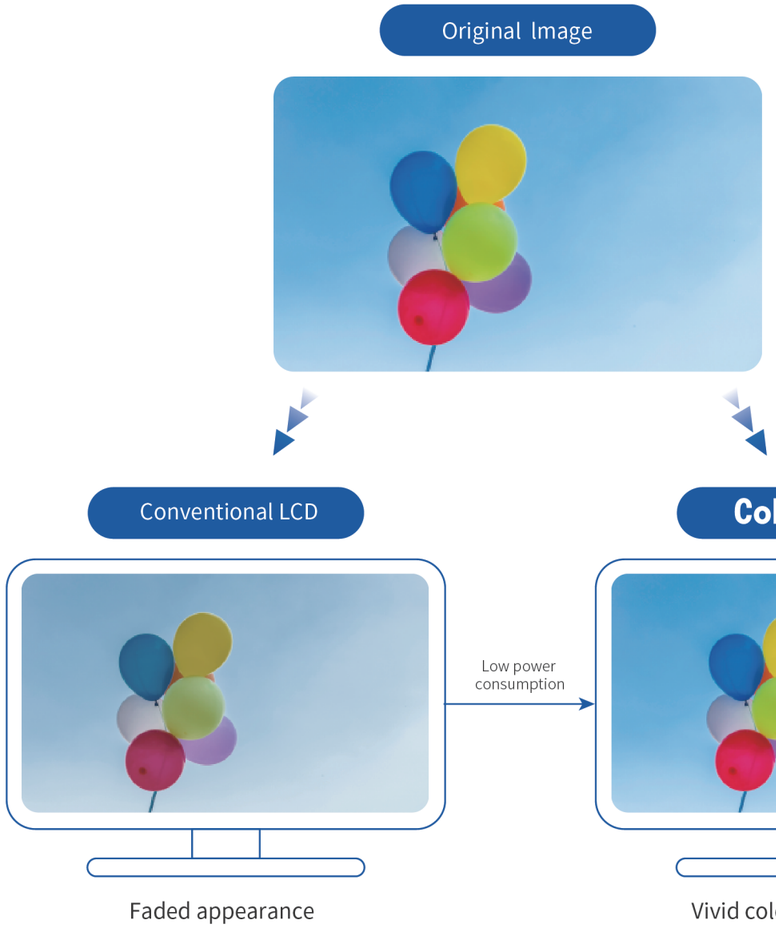
Intelligent Display Module

Intelligent display module, including LCD CTP and drivers. Only a simple interface is necessary for the clients. Capable for varied UI customization. Adaptive to multiple applications.
Abundant interfaces (Uartx4+GPIOx20+ADCx7+PWM) which make the display being able to support varied peripheral devices such as sensor, speaker, wifi module, etc.

- Intelligent display
- Serial ports
- UI customization
- Sensors & Speaker
- Support networking

ColorXcell Technology

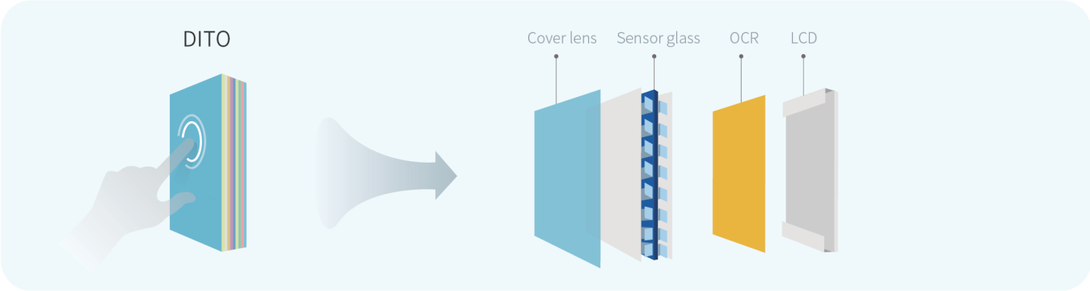
High color reproduction with low power consumption. Tianma's proprietary ColorXcell technology enables the reproduction of images that are comparable in color intensity to the original video source, without increasing power consumption.



- High color reproduction
- Environmental friendly
- Low power consumption
- Seamless black

DITO

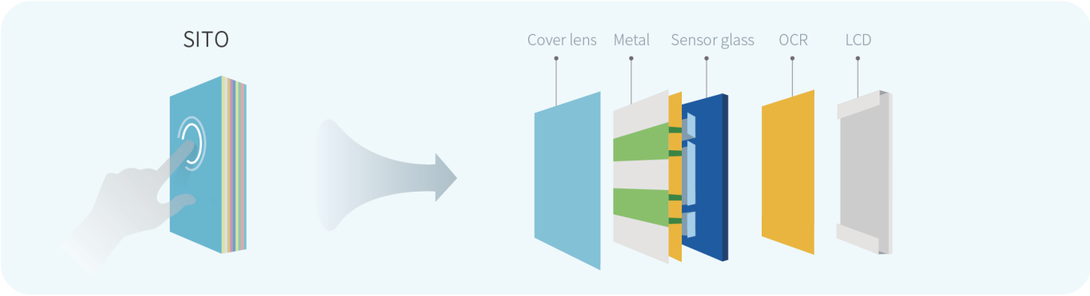
The touch pattern is composed of two layers of Indium Tin Oxide (ITO).



- ESD: Air/15kv, Contact/8kv
- Passive pen: Tip diameter ≤2.0mm
- Wet & Glove

SITO

The touch pattern consists of a single layer of Indium Tin Oxide (ITO).



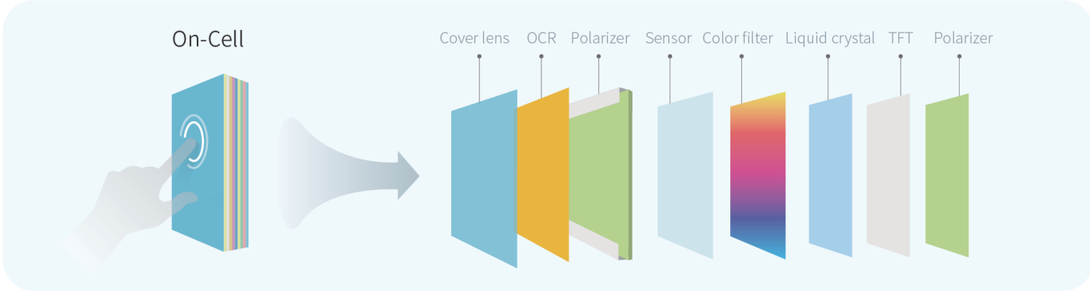
- ESD: Air/15kv, Contact/8kv
- Passive pen: Tip diameter ≤2.0mm
- Wet & Glove

∗DITO: Double ITO / ∗SITO: Single ITO

*DIOT/SITO technologies applied to P series

On-Cell

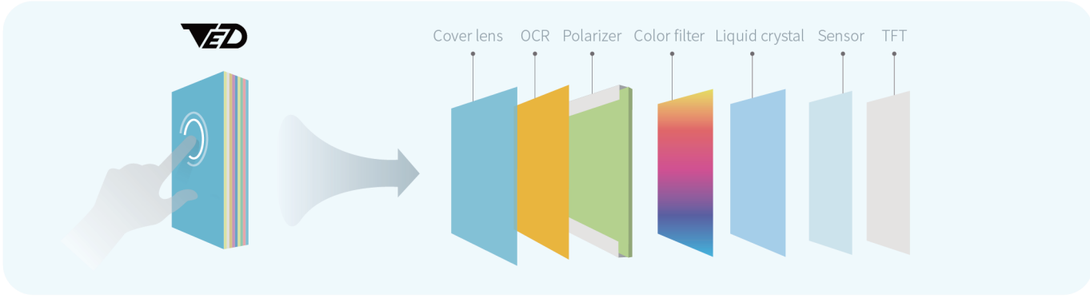
ITO pattern forms mutual capacitance electrodes on the color filter substrate.



- ESD: Air/12kv, Contact/6kv
- Wet & Glove
- High transmittance
- Narrow border

TED

Touch Embedded Display technology integrates a high performance touch function sensor inside the TFT glass cell.



- ESD: Air/15kv, Contact/8kv
- Ultra-thin
- Integrated touch
- Narrow border
- Ultra-low reflection
- Passive pen: Tip diameter ≤2.0mm
- Wet & Glove

∗TED: Touch embedded display

*On-cell/TED technologies applied to A series

High-end industry

Ultraviolet protection

UV 1120 W/m²

Dampproof

Anti-corrosion

Outdoors

Anti-vibration

Anti-vibration 10~400 Hz X/Y/Z 20 Hrs

Normal 10~50 Hz X/Y/Z 2 Hrs Total 6 Hrs

Ultraviolet protection

UV 1120 W/m²

Super low temperature

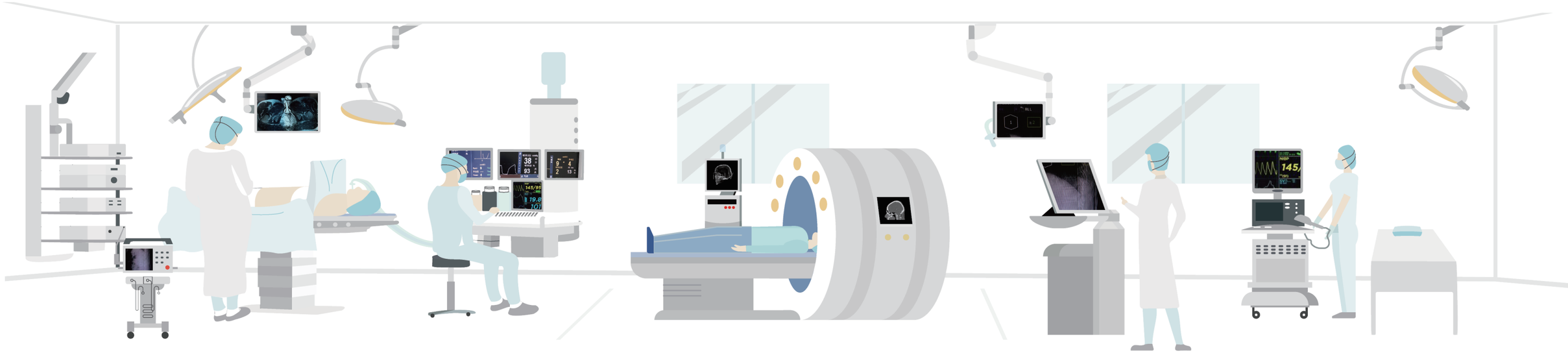
Room temperature -20 °C ~ +75 °C

Low temperature -40 °C ~ +85 °C

Longer life

>50000 hours

Medical



High brightness

1500~1800 cd/㎡

High contrast ratio

2000:1~2200:1

High black uniformity

70~75 %

High gray scale uniformity

80~85 %

High color gamut

110~120 %

Smart Home

High PPI

150~400 ppi

Free-form

4:1~8:1 & Round

2-Wheel Vehicles

Anti-vibration

Anti-vibration **10~400** Hz X/Y/Z **20** Hrs

Normal **10~50** Hz X/Y/Z **2** Hrs Total **6** Hrs

Longer life

>50000 hours

Dampproof

Main Products

Medical

15.6"	FHD(1920*1080)	
18.5"	FHD(1920*1080)	
21.3"	UXGA(1200*1600)	
21.3"	QXGA(1536*2048)	
21.3"	QSXGA(2560*2048)	real 10bits
30"	QSXGA+(3280*2048)	real 10bits

Aviation

11.6"	FHD(1920*1080)
13.3"	FHD(1920*1080)
13.3"	4K2K(3840*2160)

Industrial Vehicles

3.5"	QVGA(320*240)
5.7"	VGA(640*480)
6.5"	VGA(640*480)
7"	WVGA(800*480)
8"	WVGA(800*480)
9"	WSVGA(1024*600)
10.1"	WXGA(1280*800)
10.4"	XGA(1024*768)
10.4"	SVGA(800*600)
12.1"	XGA(1024*768)
12.1"	WXGA(1280*800)
15.6"	FHD(1920*1080)

Rugged PC

10.1"	WUXGA(1920*1200)
12"	2880*1920
13.3"	4K2K(3840*2160)
15.6"	4K2K(3840*2160)

Medical

4.3"	WQVGA(480*272)
7"	WVGA(800*480)
8.4"	SVGA(800*600)
10.1"	WXGA(1280*800)
10.4"	SVGA(800*600)
12.1"	SVGA(800*600)
12.1"	WXGA(1280*800)
15"	XGA(1024*768)
15.6"	FHD(1920*1080)

Transportation

6.5"	VGA(640*480)
8"	XGA(1024*768)
8.4"	XGA(1024*768)
10.1"	WXGA(1280*800)
10.4"	XGA(1024*768)
10.4"	WXGA(1280*800)
15"	XGA(1024*768)

Commercial Terminal

7"	WVGA(800*480)
8"	XGA(1024*768)
8.4"	XGA(1024*768)
10.1"	WXGA(1280*800)
10.4"	SVGA(800*600)
11.6"	FHD(1920*1080)
12.1"	XGA(1024*768)
15"	XGA(1024*768)
15.6"	FHD(1920*1080)

Marine

4.3"	WQVGA(480*272)
5"	WVGA(800*480)
7"	WVGA(800*480)
9"	WSVGA(1024*600)
10.1"	WXGA(1280*800)
11.6"	FHD(1920*1080)
12.1"	WXGA(1280*800)
15.6"	FHD(1920*1080)
18.5"	4K2K(3840*2160)
21.5"	4K2K(3840*2160)
23.8"	4K2K(3840*2160)
27"	4K2K(3840*2160)

HMI

3.5"	QVGA(320*240)
4.3"	WQVGA(480*272)
5.7"	VGA(640*480)
6.5"	VGA(640*480)
7"	WVGA(800*480)
7"	WSVGA(1024*600)
7"	WXGA(1280*800)
8"	SVGA(800*600)
8"	XGA(1024*768)
8.4"	SVGA(800*600)
8.4"	XGA(1024*768)
10.1"	WSVGA(1024*600)
10.1"	WXGA(1280*800)
10.4"	SVGA(800*600)
10.4"	WXGA(1280*800)
12.1"	SVGA(800*600)
12.1"	XGA(1024*768)
12.1"	WXGA(1280*800)
15"	XGA(1024*768)
15.6"	FHD(1920*1080)
18.5"	FHD(1920*1080)

Home Healthcare

2.4"	QVGA(240*320)
2.8"	QVGA(240*320)
3"	VGA+(720*480)
3"	WQVGA(480*272)
3.5"	QVGA(320*240)
4.3"	WQVGA(480*272)

VOIP

2.4"	QVGA(240*320)
3.5"	QVGA(320*240)
4.3"	WQVGA(480*272)
5"	WVGA(800*480)
5"	HD(1280*720)
7"	WVGA(800*480)
7"	WSVGA(1024*600)
8"	XGA(1024*768)

Financial POS

2.4"	QVGA(240*320)
2.8"	QVGA(240*320)
3.5"	QVGA(320*240)
4.3"	WQVGA(480*272)
5"	HD(1280*720)
5.5"	HD(1280*720)
6"	720*1440
7"	WVGA(800*480)

Home Automation

2.4"	QVGA(240*320)
2.8"	QVGA(240*320)
3.5"	QVGA(320*240)
4.3"	WQVGA(480*272)
4.3"	WVGA(800*480)
5"	WVGA(800*480)
7"	WVGA(800*480)
7"	WSVGA(1024*600)
10.1"	WXGA(1280*800)

Industrial Mobile

2.4"	QVGA(240*320)
2.8"	QVGA(240*320)
3"	SQVGA(240*400)
3.5"	QVGA(320*240)
4.3"	WQVGA(480*272)
5"	HD(1280*720)
5"	FHD(1920*1080) LTPS

2-Wheel Vehicles

3.4"	800*800
5"	WVGA(800*480)
7"	WVGA(800*480)
7"	WXGA(1280*768)
8"	HD(1280*720)

White Goods

2.4"	QVGA(240*320)
3.5"	QVGA(320*240)
3.7"	8:1(720*92)
4.3"	WQVGA(480*272)
5"	HD(1280*720)
7"	WVGA(800*480)
7.3"	5:1(1280*280)
7.8"	1:3(400*1280)
10.1"	WXGA(1280*800)
12.1"	WXGA(1280*800)

MFP

2.4"	QVGA(240*320)
2.7"	QVGA(240*320)
2.8"	QVGA(240*320)
4.3"	WQVGA(480*272)
7"	WVGA(800*480)
7"	WSVGA(1024*600)

SFT | High Brightness | High Contrast | High Color Gamut | Wide Temperature | Longer Life | +Dr

Size	3.5"	4.3"	6.5"	6.5"	7.0"	7.0"
Display Mode	SFT	SFT	SFT	SFT	TN	TN
Resolution(pixel)	320 x 240	480 x 272	640 x 480	640 x 480	800 x 480	800 x 480
Active Area(mm)	70.08 x 52.56	95.04 x 53.86	132.48 x 99.36	132.48 x 99.36	154.08 x 85.92	154.08 x 85.92
LCM Luminance (cd/m²)	350	400	1200	800	300	450
Contrast Ratio	800:1	800:1	900:1	900:1	800:1	800:1
Viewing Angle (U/D/L/R)	80/80/80/80	80/80/80/80	88/88/88/88	88/88/88/88	60/80/80/80	60/80/80/80
NTSC(%)	60	50	70	70	50	50
Interface	RGB 24 Bits	RGB 24 Bits	LVDS 6/8 Bits	LVDS 6 Bits	RGB 24 Bits	RGB 24 Bits
Operating Temperature	-20°C～+70°C	-20°C～+70°C	-30°C～+80°C	-30°C～+80°C	-20°C～+70°C	-20°C～+70°C
Storage Temperature	-30°C～+80°C	-30°C～+80°C	-40°C～+90°C	-40°C～+90°C	-30°C～+80°C	-30°C～+80°C
Module Size (WxHxD) (mm)	76.90 x 63.90 x 3.15	105.50 x 67.20 x 2.90	154.00 x121.00 x 11.00	153.00 x 118.00 x 10.90	164.20 x 99.20 x 5.54	164.90 x 100.00 x 5.70
LED Lifetime (H)	30000	30000	100000	70000	30000	50000
LED Driver	Without	Without	Without	With	Without	Without
Application	POS/MFP/HMI	VOIP/MFP/HMI	HMI/Construction/ Transportation	HMI/Construction/ Transportation	HMI/ Home Automation/ White Goods	HMI/ Home Automation/ White Goods
Remarks	SFT, Wide Temperature	SFT, Wide Temperature	SFT, High Brightness, High Color Gamut, Wide Temperature, Longer Life	SFT, High Brightness, High Color Gamut, Wide Temperature, Longer Life, +Dr	Wide Temperature	Wide Temperature

Size	7.0"	7.0"	7.0"	7.0"	8.0"
Display Mode	TN	SFT	SFT	SFT	SFT
Resolution(pixel)	800 x 480	800 x 480	800 x 480	800 x 480	1024 x 768
Active Area(mm)	154.08 x 85.92	152.40 x 91.44	152.40 x 91.44	152.40 x 91.44	162.05 x 121.54
LCM Luminance (cd/m²)	500	400	1500	1000	450
Contrast Ratio	1000:1	1000:1	1000:1	1000:1	1800:1
Viewing Angle (U/D/L/R)	60/80/80/80	85/85/85/85	88/88/88/88	88/88/88/88	85/85/85/85
NTSC(%)	50	70	70	70	50
Interface	RGB 24 Bits	LVDS	LVDS 6/8 Bits	LVDS 6/8 Bits	LVDS
Operating Temperature	-30°C~+85°C	-20°C～+70°C	-30°C～+80°C	-30°C～+80°C	-20°C~+70°C
Storage Temperature	-40°C~+90°C	-30°C～+80°C	-40°C～+90°C	-40°C～+90°C	-30°C~+80°C
Module Size (WxHxD) (mm)	164.90 x 100.00 x 5.70	167 x 106.30 x 6.80	169.80x109.70x10.87 (Max)	169.80x109.70x8.90 (Max)	183.43 x 138.35 x 3.75
LED Lifetime (H)	50000	50000	100000	70000	30000
LED Driver	Without	With	Without	With	Without
Application	2W/Marine/Outdoor	HMI/MFP/Scanner/ POS/Financial POS/ Kiosk	HMI/Construction/ Transportation	HMI/Construction/ Transportation	Home Automation/HMI/ Elevator
Remarks	Wide Temperature	SFT, Wide Temperature, +Dr	SFT, High Brightness, High Color Gamut, Wide Temperature, Longer Life	SFT, High Brightness, High Color Gamut, Wide Temperature, Longer Life, +Dr	SFT, High Contrast, Wide Temperature

SFT | High Brightness | High Color Gamut | Wide Temperature | Longer Life | +Dr

Industial Products > P Series

Size	8.4"	8.4"	8.4"	8.4"	10.1"
Display Mode	TN	TN	SFT	SFT	TN
Resolution(pixel)	800 x 600	800 x 600	1024 x 768	1024 x 768	1024 x 600
Active Area(mm)	170.40 x 127.80	170.40 x 127.80	170.50 x 127.87	170.50 x 127.87	222.72 x 125.28
LCM Luminance (cd/m²)	350	350	600	1000	450
Contrast Ratio	500:1	500:1	1000:1	1000:1	800:1
Viewing Angle (U/D/L/R)	60/70/70/70	60/70/70/70	88/88/88/88	88/88/88/88	75/80/80/80
NTSC(%)	50	50	70	70	47
Interface	LVDS 6/8 Bits	RGB 24 Bits	LVDS 6/8 Bits	LVDS 6/8 Bits	LVDS 6/8 Bits
Operating Temperature	-20°C~+70°C	-20°C~+70°C	-30°C~+80°C	-30°C~+80°C	-20°C~+70°C
Storage Temperature	-30°C~+80°C	-30°C~+80°C	-40°C~+90°C	-40°C~+90°C	-30°C~+80°C
Module Size (WxHxD) (mm)	203.00 x 142.50 x 5.70	189.75 x 149.40 x 4.80	199.50 x 149.00 x 4.80	199.50 x 149.00 x 4.80	235.00 x 143.00 x 4.90
LED Lifetime (H)	50000	30000	50000	100000	30000
LED Driver	With	Without	With	Without	With
Application	HMI/Medical	POS/Financial POS/ Kiosk/HMI	HMI/Construction/ Transportation	HMI/Construction/ Transportation	POS/VOIP/Medical
Remarks	Wide Temperature, +Dr	Wide Temperature	SFT, High Color Gamut, Wide Temperature, +Dr	SFT, High Brightness, High Color Gamut, Wide Temperature, Longer Life	High Color Gamut, +Dr

Size	10.1"	10.1"	10.1"	10.1"	10.4"
Display Mode	TN	SFT	SFT	SFT	TN
Resolution(pixel)	1024 x 600	1280 x 800	12800 x 800	1280 x 800	800 x 600
Active Area(mm)	222.72 x 125.28	216.96 x 135.60	216.96 x 135.60	216.96 x 135.60	211.20 x 158.40
LCM Luminance (cd/m²)	350	400	500	1000	400
Contrast Ratio	800:1	800:1	800:1	800:1	400:1
Viewing Angle (U/D/L/R)	75/80/80/80	85/85/85/85	85/85/85/85	85/85/85/85	60/70/70/70
NTSC(%)	47	50	50	50	50
Interface	RGB 24 Bits	LVDS 8 Bits	LVDS 6/8 Bits	LVDS 8 Bits	LVDS 6 Bits
Operating Temperature	-20°C~+70°C	-10°C~+50°C	-20°C~+70°C	-30°C~+80°C	-20°C~+70°C
Storage Temperature	-30°C~+80°C	-20°C~+60°C	-30°C~+80°C	-40°C~+80°C	-30°C~+80°C
Module Size (WxHxD) (mm)	235.00 x 143.00 x 5.00	229.46 x 149.10 x 2.50	231.22 x 150.60 x 4.30	229.80 x 149.00 x 9.11	236.00 x 176.90 x 5.60
LED Lifetime (H)	30000	30000	50000	50000	20000
LED Driver	Without	Without	With	With	Without
Application	POS/VOIP/Medical	HMI/Medical/Elevator	HMI/Medical/Elevator	HMI/Medical/Elevator	HMI/POS/Medical
Remarks	Wide Temperature	SFT, Wide Temperature	SFT, Wide Temperature, +Dr	SFT, High Contrast, Wide Temperature, +Dr	Wide Temperature

Size	10.4"	10.4"	10.4"	11.6"	11.6"
Display Mode	TN	SFT	SFT	SFT	SFT
Resolution(pixel)	800 x 600	1024 x 768	1024 x 768	1024 x 768	1024 x 768
Active Area(mm)	211.20 x 158.40	210.43 x 157.82	210.43 x 157.82	256.32 x 144.18	256.32 x 144.18
LCM Luminance (cd/m²)	350	450	1300	1600	1000
Contrast Ratio	500:1	1200:1	1000:1	900:1	900:1
Viewing Angle (U/D/L/R)	60/70/70/70	88/88/88/88	85/85/85/85	88/88/88/88	88/88/88/88
NTSC(%)	50	50	50	70	70
Interface	RGB 24 Bits	LVDS 6 Bits	LVDS 6/8 Bits	LVDS 8 Bits	LVDS 8 Bits
Operating Temperature	-20°C~+70°C	-20°C~+70°C	-30°C~+80°C	-20°C~+80°C	-20°C~+70°C
Storage Temperature	-30°C~+80°C	-30°C~+80°C	-40°C~+85°C	-30°C~+85°C	-30°C~+80°C
Module Size (WxHxD) (mm)	228.40 x 175.40 x 6.20	230.00 x 175.80 x 5.70	230.00 x 180.20 x 9.50	273.50 x 166.50 x 7.80	273.50 x 166.50 x 7.80
LED Lifetime (H)	30000	50000	100000	50000	50000
LED Driver	Without	Without	Without	Without	Without
Application	HMI/POS	HMI/POS/Medical	HMI/Construction/ Transportation	HMI/Marine	HMI/Marine
Remarks					

Size	12.1"	12.1"	12.1"	12.1"	12.1"
Display Mode	SFT	TN	SFT	SFT	SFT
Resolution(pixel)	800 x 600	1024 x 768	1024 x 768	1024 x 768	1024 x 768
Active Area(mm)	246.00 x 184.50	245.76 x 184.32	245.76 x 184.32	245.76 x 184.32	245.76 x 184.32
LCM Luminance (cd/m²)	500	450	500	1300	800
Contrast Ratio	700:1	700:1	1000:1	1000:1	1000:1
Viewing Angle (U/D/L/R)	88/88/88/88	80/80/80/80	88/88/88/88	88/88/88/88	88/88/88/88
NTSC(%)	72	55	72	72	72
Interface	LVDS 6/8 Bits	LVDS	LVDS 6/8 Bits	LVDS 6/8 Bits	LVDS 6/8 Bits
Operating Temperature	-20°C~+70°C	-20°C~+70°C	-30°C~+80°C	-30°C~+80°C	-30°C~+80°C
Storage Temperature	-30°C~+80°C	-30°C~+80°C	-40°C~+90°C	-40°C~+90°C	-40°C~+90°C
Module Size (WxHxD) (mm)	279.00 x 209.00 x 9.00	279.00 x 209.00 x 8.60	260.50 x 203.00 x 9. 50	260.50 x 203.00 x 9. 50	260.50 x 203.00 x 9. 50
LED Lifetime (H)	50000	50000	50000	100000	70000
LED Driver	With	With	With	Without	With
Application	HMI/POS/Medical	Medical/HMI	HMI/Construction/ Medical	HMI/Construction	HMI/Construction
Remarks					

Size	12.1"	12.1"	12.1"	13.3"	13.3"
Display Mode	SFT	SFT	SFT	SFT	SFT
Resolution(pixel)	1280 x 800	1280 x 800	1280 x 800	1920 x 1080	1920 x 1080
Active Area(mm)	261.10 x 163.20	261.12 x 163.20	261.12 x 163.20	293.76 x 165.24	293.76 x 165.24
LCM Luminance (cd/m²)	450	1600	1100	450	1000
Contrast Ratio	1000:1	800:1	1000:1	1000:1	1000:1
Viewing Angle (U/D/L/R)	88/88/88/88	88/88/88/88	88/88/88/88	85/85/85/85	85/85/85/85
NTSC(%)	72	72	72	72	72
Interface	LVDS 6/8 Bits	LVDS 6/8 Bits	LVDS 8 Bits	LVDS	LVDS
Operating Temperature	-20°C~+70°C	-30°C~+80°C	-30°C~+80°C	-20°C~+70°C	-20°C~+70°C
Storage Temperature	-30°C~+80°C	-40°C~+90°C	-40°C~+90°C	-30°C~+80°C	-30°C~+80°C
Module Size (WxHxD) (mm)	278.00 x 184.00 x 9.90	277.70 x 180.60 x 8.70	277.70 x 180.60 x 8.70	305.35 x 178.56 x 3.70	305.35 x 178.56 x 3.70
LED Lifetime (H)	50000	50000	50000	50000	50000
LED Driver	With	Without	Without	With	Without
Application	HMI/Medical	HMI/Medical/POS/ Marine/Construction	HMI/POS/Marine	HMI/Medical	Marine/HMI/Outdoor
Remarks					

Size	15.0"	15.0"	15.0"	15.6"	18.5"
Display Mode	TN	TN	SFT	SFT	SFT
Resolution(pixel)	1024 x 768	1024 x 768	1024 x 768	1920 x 1080	1920 x 1080
Active Area(mm)	304.12 x 228.09	304.12 x 228.09	304.12 x 228.09	344.16 x 193.59	408.96 x 230.04
LCM Luminance (cd/m²)	350	350	350	400	400
Contrast Ratio	800:1	800:1	900:1	1000:1	1000:1
Viewing Angle (U/D/L/R)	80/80/80/80	80/80/80/80	88/88/88/88	88/88/88/88	88/88/88/88
NTSC(%)	60	60	72	72	40
Interface	LVDS 1 Port	LVDS 1 Port	LVDS 1 Port	LVDS 8 Bits	LVDS 8 Bits
Operating Temperature	-10°C~+65°C	-10°C~+65°C	-20°C~+70°C	-20°C~+70°C	-20°C~+70°C
Storage Temperature	-20°C~+65°C	-20°C~+65°C	-30°C~+80°C	-30°C~+80°C	-30°C~+80°C
Module Size (WxHxD) (mm)	326.50 x 253.50 x 10.00	326.50 x 253.50 x 10.00	326.50 x 253.50 x 11.80	363.80 x 215.90 x 6.30	430.40 x 254.60 x13.50
LED Lifetime (H)	30000	30000	50000	50000	50000
LED Driver	With	With	With	With	With
Application	POS/HMI	POS/HMI	POS/HMI	POS/HMI	Aviation/Marine/ Outdoor/Medical
Remarks					

SFT | High Brightness | High Contrast | High Color Gamut | Wide Temperature | +Dr

Size	18.5"	19.0"	19.0"	21.3"	21.3"
Display Mode	SFT	SFT	SFT	SFT	SFT
Resolution(pixel)	3840 x 2160	1280 x 1024	1280 x 1024	1200 x 1600	1536 x 2048
Active Area(mm)	408.96 x 230.04	376.32 x 301.06	376.32 x 301.06	324.86 x 433.15	324.86 x 433.15
LCM Luminance (cd/m²)	1400	450	800	900	900
Contrast Ratio	1200:1	1000:1	1000:1	2000:1	2000:1
Viewing Angle (U/D/L/R)	88/88/88/88	89/89/89/89	89/89/89/89	89/89/89/89	89/89/89/89
NTSC(%)	72	72	72	92	92
Interface	EDP 1.2	LVDS 8 Bits	LVDS 8 Bits	LVDS 8 Bits	LVDS Real 10 Bits
Operating Temperature	-20°C~+70°C	0°C~+60°C	0°C~+60°C	0°C~+60°C	0°C~+60°C
Storage Temperature	-30°C~+80°C	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Module Size (WxHxD) (mm)	430.96 x 252.04 x 10.00	396.00 x 324.00 x 16.00	396.00 x 324.00 x 16.00	336.00 x 453.00 x 10.50	336.00 x 453.00 x 10.50
LED Lifetime (H)	20000	50000	50000	50000	50000
LED Driver	Without	With	With	With	With
Application	Marine/HMI/ Transportation	HMI/Medical	HMI/Medical	Medical	Medical
Remarks	SFT, High Brightness, High Color Gamut, Wide Temperature	SFT, High Color Gamut, Wide Temperature, +Dr	SFT, High Brightness, High Color Gamut, Wide Temperature, +Dr	SFT, High Brightness, High Color Gamut, Wide Temperature, +Dr	SFT, High Brightness, High Color Gamut, Wide Temperature, +Dr

Size	21.3"	21.3"	21.5"	23.8"	27"
Display Mode	SFT	SFT	SFT	SFT	SFT
Resolution(pixel)	2560 x 2048	2560 x 2048	3840 x 2160	3840 x 2160	1920 x 1080
Active Area(mm)	422.40 x 337.93	261.10 x 163.20	475.20 x 267.30	527.04 x 296.46	596.16 x 335.34
LCM Luminance (cd/m²)	2500	1100	1400	1400	1500
Contrast Ratio	2000:1	2000:1	1200:1	1200:1	1000:1
Viewing Angle (U/D/L/R)	89/89/89/89	89/89/89/89	88/88/88/88	88/88/88/88	88/88/88/88
NTSC(%)	NA (mono)	72	72	72	40
Interface	LVDS Real 10 Bits	LVDS Real 10 Bits	EDP 1.2	EDP 1.2	LVDS 8 Bits
Operating Temperature	0°C~+60°C	0°C~+60°C	-20°C~+70°C	-20°C~+70°C	-30°C~+80°C
Storage Temperature	-20°C~+60°C	-20°C~+60°C	-30°C~+80°C	-30°C~+80°C	-30°C~+80°C
Module Size (WxHxD) (mm)	354.90 x 442.30 x 20.90	354.90 x 442.30 x 20.90	495.20 x 291.90 x 10.00	546.00 x 323.40 x 9.63	630.00 x 368.00 x 25.00
LED Lifetime (H)	50000	50000	20000	20000	50000
LED Driver	With	With	Without	Without	With
Application	Medical	Medical	Aviation/Marine/ Outdoor/Medical	Aviation/Marine/ Outdoor/Medical	POS/Gas POS/Oil POS /HMI/Outdoor
Remarks	SFT, High Brightness, Wide Temperature, +Dr	SFT, High Brightness, High Contrast, High Color Gamut, Wide Temperature, +Dr	SFT, High Brightness, High Color Gamut, Wide Temperature	SFT, High Brightness, High Color Gamut, Wide Temperature	SFT, High Brightness, Wide Temperature, +Dr

SFT | High Color Gamut | Wide Temperature | On-cell

Size	2.4"	2.4"	2.83"	2.83"
Display Mode	TN	SFT	TN	SFT
Resolution(pixel)	240 x 320	240 x 320	240 x 320	240 x 320
Active Area(mm)	36.72 x 48.96	36.72 x 48.96	43.20 x 57.60	43.20 x 57.60
Contrast Ratio	500:1	800:1	500:1	800:1
Viewing Angle (U/D/L/R)	70/60/70/70	80/80/80/80	70/60/70/70	80/80/80/80
NTSC(%)	50	70	65	70
Interface	CPU 8 Bits	CPU 8 Bits	RGB	MCU 8/16 Bits
Operating Temperature	-20°C~+70°C	-20°C~+70°C	-20°C~+70°C	-20°C~+70°C
Storage Temperature	-30°C~+80°C	-30°C~+80°C	-30°C~+80°C	-30°C~+80°C
Touch Type	Without	Without	Without	Without
Application	Home Healthcare/ Industrial Mobile/POS	Home Healthcare/ Home Automation/POS/MFP	Financial POS/ Home Automation/ Industrial Mobile	Financial POS/ Home Automation/ Industrial Mobile
Remarks	Wide Temperature	SFT, High Color Gamut, Wide Temperature	Wide Temperature	SFT, High Color Gamut, Wide Temperature

Size	3.0"	3.0"	3.0"
Display Mode	Transflective	SFT+On-cell	SFT+On-cell
Resolution(pixel)	240 x 400	640 x 480	720 x 480
Active Area(mm)	38.88 x 64.80	45.00 x 60.00	62.42 x 41.62
Contrast Ratio	10:1	900:1	1000:1
Viewing Angle (U/D/L/R)	35/35/30/30	85/85/85/85	85/85/85/85
NTSC(%)	7	70	70
Interface	CPU 16 Bits	RGB/YUV	MIPI 2 Lanes
Operating Temperature	-20°C~+70°C	-20°C~+70°C	-20°C~+60°C
Storage Temperature	-30°C~+85°C	-30°C~+70°C	-30°C~+80°C
Touch Type	Without	On-cell	On-cell
Application	GPS/Industrial Mobile	DSC/Medical Small/Industrial Mobile	DSC/Medical Small/Industrial Mobile
Remarks	Wide Temperature	SFT, High Color Gamut, Wide Temperature, On-cell	SFT, High Color Gamut, Wide Temperature, On-cell

SFT | High Color Gamut | Wide Temperature | On-cell

Size	3.5"	3.5"	3.5"	3.5"
Display Mode	TN	TN	SFT	SFT+On-cell
Resolution(pixel)	320 x 240	320 x 480	320 x 240	320 x 480
Active Area(mm)	70.08 x 52.56	48.96 x 73.44	70.08 x 52.56	48.96 x 73.44
Contrast Ratio	500:1	500:1	800:1	1200:1
Viewing Angle (U/D/L/R)	60/70/70/70	70/60/70/70	80/80/80/80	80/80/80/80
NTSC(%)	50	60	60	70
Interface	RGB 24 Bits	RGB	RGB 24 Bits	MIPI/CPU/SPI+RGB
Operating Temperature	-20°C~+70°C	-20°C~+70°C	-20°C～+70°C	-20°C~+70°C
Storage Temperature	-30°C~+80°C	-30°C~+80°C	-30°C～+80°C	-30°C~+80°C
Touch Type	Without	Without	Without	On-cell
Application	Financial POS/MFP/Scanner	Financial POS/ Medical Small/HMI	Financial POS/MFP/HMI	Financial POS/ Medical Small/HMI
Remarks				

Size	3.97"	4.3"	4.3"
Display Mode	SFT	TN	SFT
Resolution(pixel)	480 x 800	480 x 272	480 x 272
Active Area(mm)	51.84 x 86.40	95.04 x 53.86	95.04 x 53.86
Contrast Ratio	800:1	900:1	800:1
Viewing Angle (U/D/L/R)	80/80/80/80	80/60/80/80	80/80/80/80
NTSC(%)	67	50	50
Interface	MIPI	RGB 24 Bits	RGB 24 Bits
Operating Temperature	-20°C~+70°C	-20°C～+70°C	-20°C～+70°C
Storage Temperature	-30°C～+80°C	-30°C～+80°C	-30°C～+80°C
Touch Type	On-cell	Without	Without
Application	Financial POS/Medical Small/HMI	MFP/HMI	VOIP/MFP/HMI
Remarks			

SFT | High Color Gamut | Wide Temperature | Touch Embedded Display

Size	4.3"	5.0"	5.0"	5.0"
Display Mode	SFT	TN	SFT	SFT
Resolution(pixel)	480 x 800	800 x 480	800 x 480	720 x 1280
Active Area(mm)	56.16 x 93.60	108.00 x 64.80	108.60 x 65.16	62.10 x 110.40
Contrast Ratio	800:1	600:1	800:1	800:1
Viewing Angle (U/D/L/R)	85/85/85/85	50/70/70/70	80/80/80/80	85/85/85/85
NTSC(%)	65	50	70	70
Interface	MIPI/SPI+RGB	RGB	RGB 24 Bits	MIPI
Operating Temperature	-20°C~+70°C	-20°C～+70°C	-30°C~+85°C	-20°C～+70°C
Storage Temperature	-30°C~+80°C	-30°C～+80°C	-40°C~+90°C	-30°C～+80°C
Touch Type	Without	Without	Without	Without
Application	Medical Small/Industrial Mobile	VOIP/Marine/HMI	2W/Industrial Vehicles	HMI/Industrial Mobile
Remarks				

Size	5.0"	5.5"	7.0"
Display Mode	SFT	SFT	TN
Resolution(pixel)	720 x 1280	720 x 1280	800 x 480
Active Area(mm)	62.10 x 110.40	68.04 x 120.96	154.08 x 85.92
Contrast Ratio	800:1	1000:1	1000:1
Viewing Angle (U/D/L/R)	80/80/80/80	85/85/85/85	60/80/80/80
NTSC(%)	70	70	50
Interface	MIPI	MIPI	RGB
Operating Temperature	-20°C～+70°C	-20°C～+70°C	-20°C～+70°C
Storage Temperature	-30°C～+80°C	-30°C～+80°C	-30°C～+80°C
Touch Type	TED	Without	Without
Application	Industrial Mobile/VOIP	Industrial Mobile/Financial POS/Medical	HMI/MFP/Scanner/POS/ Financial POS/Kiosk
Remarks			

Size	7.0"	7.0"	7.0"	7.0"
Display Mode	SFT	TN	SFT	SFT
Resolution(pixel)	800 x 480	1024 x 600	1024 x 600	1280 x 768
Active Area(mm)	152.40 x 91.44	153.60 x 90.00	154.21 x 85.92	152.45 x 91.47
Contrast Ratio	1000:1	1000:1	800:1	1000:1
Viewing Angle (U/D/L/R)	85/85/85/85	70/70/75/75	85/85/85/85	85/85/85/85
NTSC(%)	70	50	50	70
Interface	LVDS	LVDS 6 Bits	LVDS/RGB	LVDS
Operating Temperature	-20°C～+70°C	-20°C～+70°C	-20°C～+70°C	-30°C～+85°C
Storage Temperature	-30°C～+80°C	-30°C～+80°C	-30°C～+80°C	-40°C~+90°C
Touch Type	Without	Without	Without	Without
Application	HMI/MFP/Scanner/ POS/Financial POS/Kiosk	HMI/White Goods	HMI/White Goods/ Home Automation	HMI/White Goods/ Home Automation
Remarks	SFT, High Color Gamut, Wide Temperature	Wide Temperature	SFT, Wide Temperature	SFT, High Color Gamut, Wide Temperature

Size	7.0"	10.1"	10.1"
Display Mode	SFT	TN	SFT
Resolution(pixel)	800 x 1280	1024 x 600	1920 x 1200
Active Area(mm)	94.20 x 150.72	222.72 x 125.28	216.81 x 135.50
Contrast Ratio	1000:1	800:1	1000:1
Viewing Angle (U/D/L/R)	88/88/88/88	75/80/80/80	80/80/80/80
NTSC(%)	50	47	70
Interface	MIPI	RGB 24 Bits	LVDS/MIPI
Operating Temperature	-20°C～+70°C	-20°C~+70°C	-20°C～+70°C
Storage Temperature	-30°C～+80°C	-30°C~+80°C	-30°C～+80°C
Touch Type	Without	Without	Without
Application	HMI/White Goods/Home Automation	Financial POS/VOIP/Medical	HMI/Rugged PC
Remarks	SFT, Wide Temperature	SFT, Wide Temperature	SFT, High Color Gamut, Wide Temperature

Free Form

Size	2.39"	2.49"	3.71"	3.73"	7.26"
Display Mode	SFT	SFT	SFT	SFT	TN
Resolution(pixel)	260 x 640	320 x 160	240 x 960	720 x 92	1200 x 280
Active Area(mm)	22.815 x 56.16	56.64 x 28.32	91.44 x 22.86	93.96 x 12.01	180.00 x 42.00
Contrast Ratio	1000:1	800:1	1000:1	800:1	700:1
Viewing Angle (U/D/L/R)	85/85/85/85	80/80/80/80	85/85/85/85	80/80/80/80	70/70/60/70
NTSC(%)	65	70	50	70	50
Interface	MIPI	MCU/SPI/RGB	MIPI	MIPI	LVDS
Operating Temperature	-20°C～+70°C	-20°C～+70°C	-20°C～+70°C	-20°C～+70°C	-20°C～+70°C
Storage Temperature	-30°C～+80°C	-30°C～+80°C	-30°C～+80°C	-30°C～+80°C	-30°C～+80°C
Touch Type	On-cell	Without	Without	Without	Without
Application	White Goods/ Home Automation	White Goods/ Home Automation	White Goods/ Home Automation	White Goods/ Home Automation	White Goods/Medical
Remarks	SFT, Wide Temperature, Freeform, On-cell	SFT, High Color Gamut, Wide Temperature, Freeform	SFT, Wide Temperature, Freeform	SFT, High Color Gamut, Wide Temperature, Freeform	Wide Temperature, Freeform

Size	7.84"	2.36"	2.47"	3.45"
Display Mode	SFT	TN	SFT	SFT
Resolution(pixel)	400 x 1280	320 x 320	480 x 480	800 x 800
Active Area(mm)	190.08 x 59.40	60.00 x 60.00	62.64 x 62.64	87.60 x 87.60
Contrast Ratio	900:1	800:1	900:1	800:1
Viewing Angle (U/D/L/R)	80/80/80/80	70/80/80/80	80/80/80/80	80/80/80/80
NTSC(%)	70	50	65	70
Interface	MIPI	MIPI	MIPI	MIPI
Operating Temperature	-20°C～+70°C	-20°C～+70°C	-20°C～+70°C	-20°C～+70°C
Storage Temperature	-30°C～+80°C	-30°C～+80°C	-30°C～+80°C	-30°C～+80°C
Touch Type	Without	Without	Without	Without
Application	White Goods/Medical	White Goods/ Home Automation	White Goods/ Home Automation	White Goods/ Home Automation
Remarks	SFT, High Color Gamut, Wide Temperature, Freeform	Wide Temperature, Freeform	SFT, Wide Temperature, Freeform	SFT, High Color Gamut, Wide Temperature, Freeform

LTPS

Size	5.0"	5.65"
Display Mode	TN	SFT
Resolution(pixel)	1080 x 1920	1080 x 2160
Active Area(mm)	61.88 x 110.02	64.15 x 128.30
Contrast Ratio	1000:1	1000:1
Viewing Angle (U/D/L/R)	85/85/85/85	88/88/88/88
NTSC(%)	65	70
Interface	MIPI	MIPI
Operating Temperature	-20°C～+70°C	-20°C～+70°C
Storage Temperature	-30°C～+80°C	-30°C～+80°C
Touch Type	Without	Without
Application	White Goods/Home Automation/VOIP	White Goods/Home Automation/VOIP
Remarks		

Size	6.0"	7.0"
Display Mode	TN	SFT
Resolution(pixel)	1080 x 2160	1080 x 1920
Active Area(mm)	67.72 x 135.43	86.83 x 154.37
Contrast Ratio	1000:1	1000:1
Viewing Angle (U/D/L/R)	85/85/85/85	85/85/85/85
NTSC(%)	68	72
Interface	MIPI	MIPI
Operating Temperature	-20°C～+70°C	-20°C～+70°C
Storage Temperature	-30°C～+80°C	-30°C～+80°C
Touch Type	Without	TED
Application	White Goods/Home Automation/VOIP	White Goods/Home Automation/VOIP
Remarks		

PCAP

3.5"
Resolution 320 x 240
State Support

4.3"
Resolution 480 x 272、480 x 800
State Support

5"
Resolution 800 x 480、720 x 1280
State Support

5.7"
Resolution 320 x 240、640 x 480
State Support

6.5"
Resolution 640 x 480
State Support

7"
Resolution 800 x 480、1024 x 600
1280 x 800
State Support

8"
Resolution 800 x 600、1024 x 768
State Support

8.4"
Resolution 800 x 600、1024 x 768
State Support

10.1"
Resolution 1024 x 600、1280 x 800
State Support

10.4"
Resolution 640 x 480、800 x 600
1024 x 768、1280 x 800
State Support

11.6"
Resolution 1920 x 1080
State Developing

12.1"
Resolution 1024 x 768、1280 x 800
State Support

13.3"
Resolution 1920 x 1080
State Planning

15"
Resolution 1024 x 768
State Support

15.6"
Resolution 1366 x 768、1920 x 1080
State Support

18.5"
Resolution 1920 x 1080
State Support

19"
Resolution 1280 x 1024
State Support

21.5"
Resolution 1920 x 1080
State Support

23.8"
Resolution 3840 x 2160
State Planning

27"
Resolution 1920 x 1080
State Planning

The product line not mentioned can be customized according to customer needs