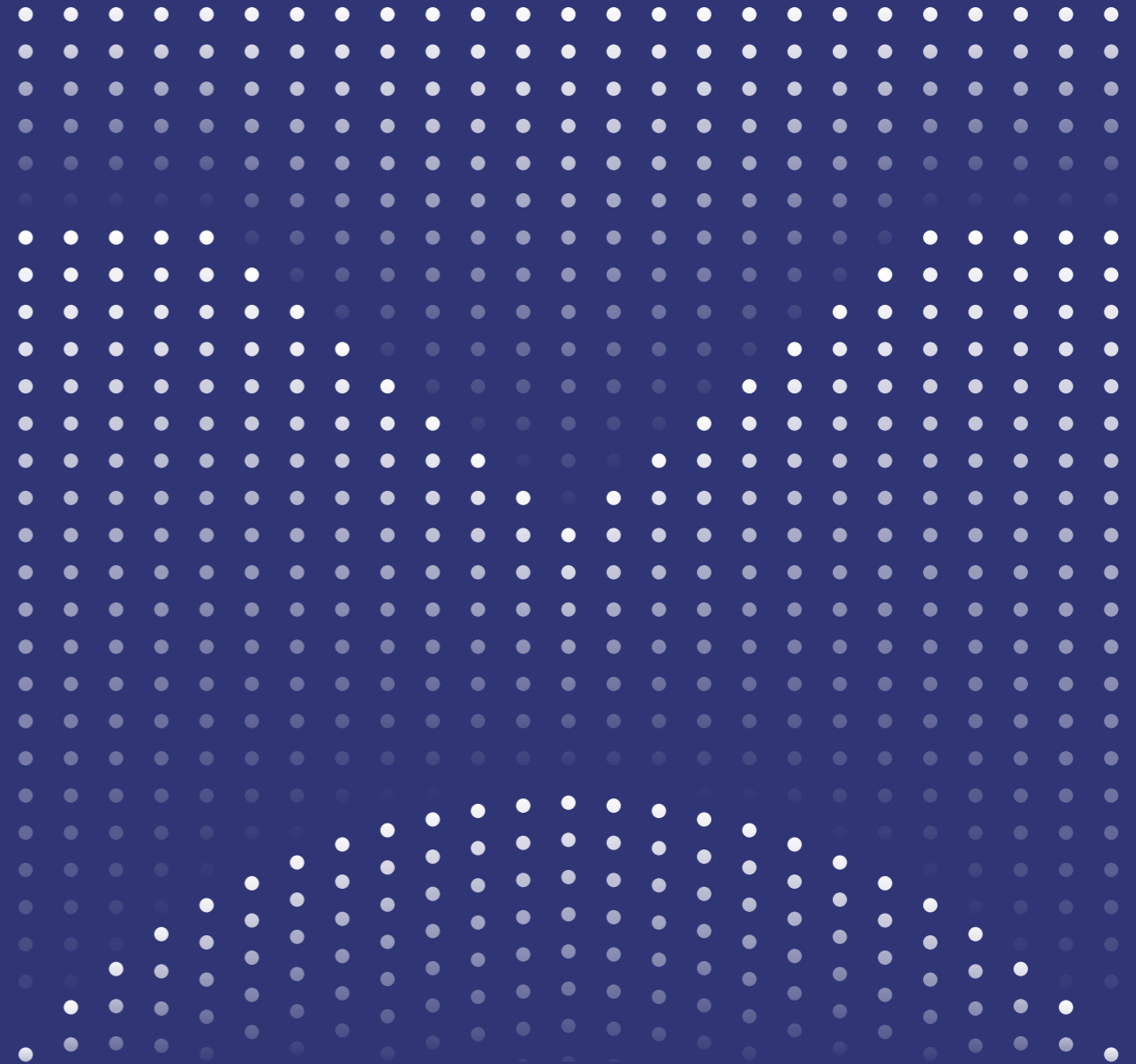


2023 PROFESSIONAL DISPLAY PRODUCT CATALOG



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About us

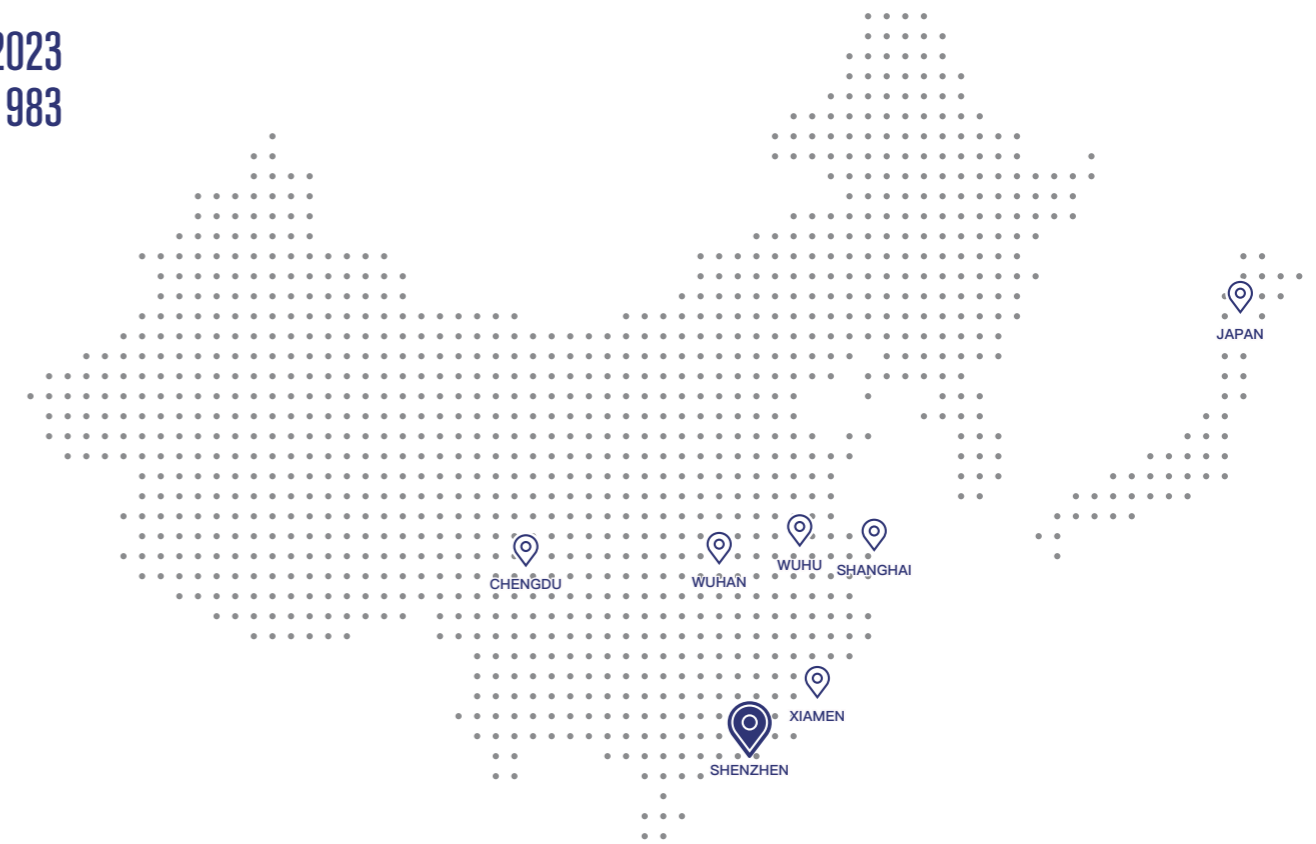
Tianma Microelectronics Co., Ltd. (Tianma) specializes in providing display solutions and associated support services worldwide. Originally established in 1983 and publicly listed on the Shenzhen Stock Exchange (SZ. 000050) in 1995.

Tianma is committed to continuous innovation, best-in-class customer service, supporting the various design requirements needed for diverse professional display applications.

Tianma professional display products are now widely used in more than thirty market segments such as medical, HMI, two-wheeled vehicles, MFP, industrial mobile and marine. Based on our ongoing success in these markets, we are a recognized leader in displays for the medical and other diverse, industrial applications. Tianma continues to develop advanced technology, to better optimize our product portfolio, and is committed to providing professional customized services to customers around the world.

Medical 	HMI 	Commercial Terminal 	Marine 	Aviation
Industrial Vehicles 	Test and Measurement 	Rugged PC 	MFP 	Industrial Mobile
Two-Wheeled Vehicles 	Home Automation 	White Goods 	VOIP 	Financial POS

2023
1983



Company History

 1983 ESTABLISHED IN SHENZHEN	 1995 PUBLICLY LISTED	 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	 2019 HUBEI YANGTZE RIVER NEW DISPLAY INDUSTRY INNOVATION CENTER FOUNDED
 2020 XIAMEN G6 AMOLED	 2022 XIAMEN G8.6 a-Si/IGZO LCD	 2022 WUHU NEW DISPLAY MODULE PRODUCTION LINE		

Mini-LED Splicing

LED Splicing

✗ Obvious splicing seam



Mini-LED Splicing


✓ Seamless splicing




 High brightness

 High contrast ratio

 No border

 Seamless splicing for larger sizes

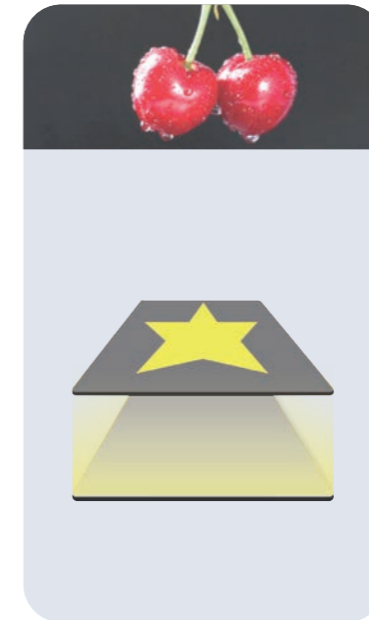
 High reliability

 Transparent display

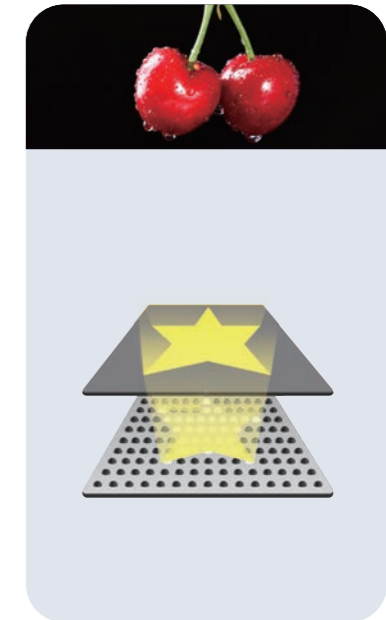
Mini-LED Backlight (BLU)


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 LED




Mini-LED



 High contrast ratio

 High color gamut





 Low power consumption

 Longer life

Flexible OLED Curved Display

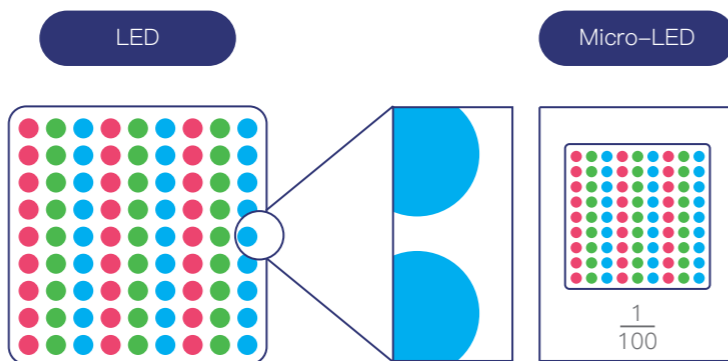
Flexible OLED curved displays have broad application prospects in the smart mobile display segment, which use polyimide flexible substrate, thin film encapsulation technology, supporting narrow border and ultra thin design.






-  Ultra thin
-  Ultra narrow border
-  Free form
-  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.



-  Seamless splicing
-  Narrow border
-  High transparency

Super Low Temperature (SLT) LCD

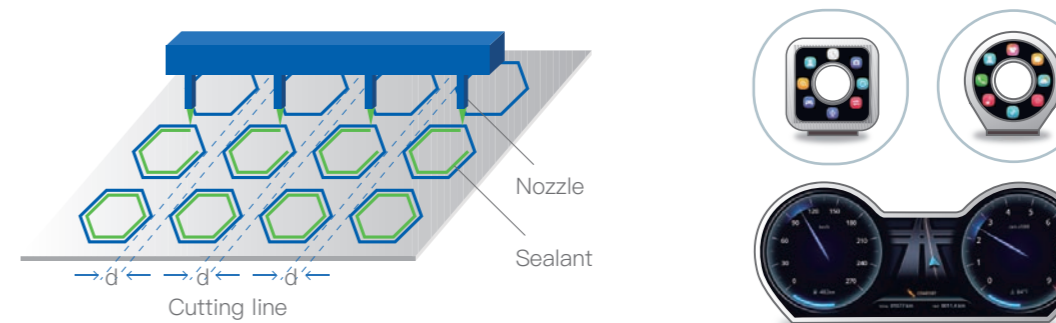
Tianma has developed a new technology designed to allow LCDs to function normally in extremely low temperatures, down to -50 deg. C. This technological advancement adopts a proprietary new design scheme, process and materials, all to solve the response time problem inherent with traditional LCDs. Tianma's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



-  Fast response time
-  Super low temperature

Free Form

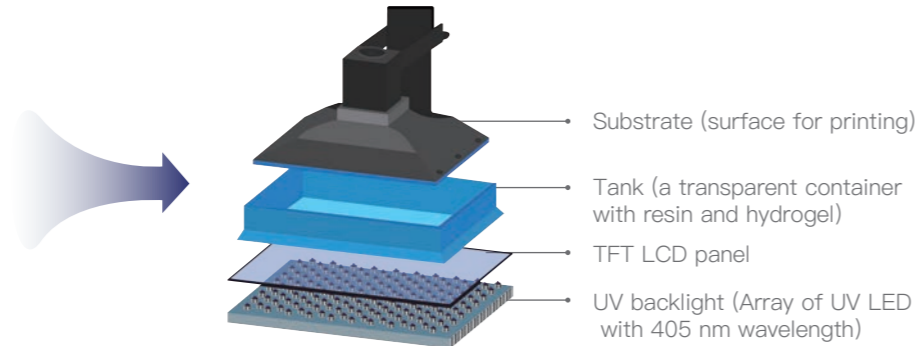
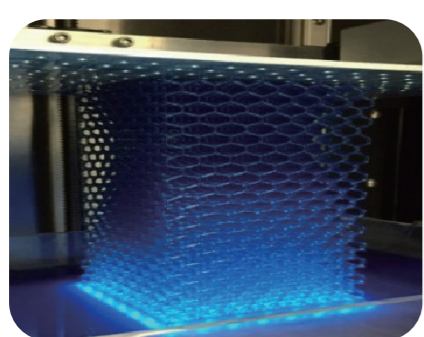
Provides more design flexibility, based on customer unique display requirements. Outlines can be round, polygon, annulus or even trapezoid, instead of the traditional rectangular shapes.



-  Flexible design
-  Free form

3D Printing

As a programmable UV optical mask, the LCD panel solidifies the light-cured resin to 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)
- High contrast ratio & low light leakage in black pattern
- Good optical uniformity for printing area >90%
- Long lifetime under UV-light (4000hrs@405nm)

- High resolution pixel pitch
- High operation temperature with low transmittance loss
- High light resistance

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) enabling the display to support varied peripheral devices such as sensor, speaker, Wi-Fi module, etc.



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

PCAP One Stop Solution

Touch control schemes covering various industries, requires more options for enhanced features and performance.

Performance

- Designed for Industrial & Medical
- Wet & Glove Support
- Anti-noise Design
- Thin & Light
- Narrow Border

Service

- In-House Bonding Options
- Interface Options (USB/IIC/UART)
- PCAP Tuning Support
- Customized Cover Glass



- Anti-Reflection
Optically cancels the reflected light. Able to keep glossy surface.
- Anti-Fingerprint
Minimize the surface tension of the cover. Avoid fingerprints and smudges.
- Impact Resistant
Chemical strengthen Thick<3mm, physical strengthen tempered glass, Thick>3mm, IK09 level

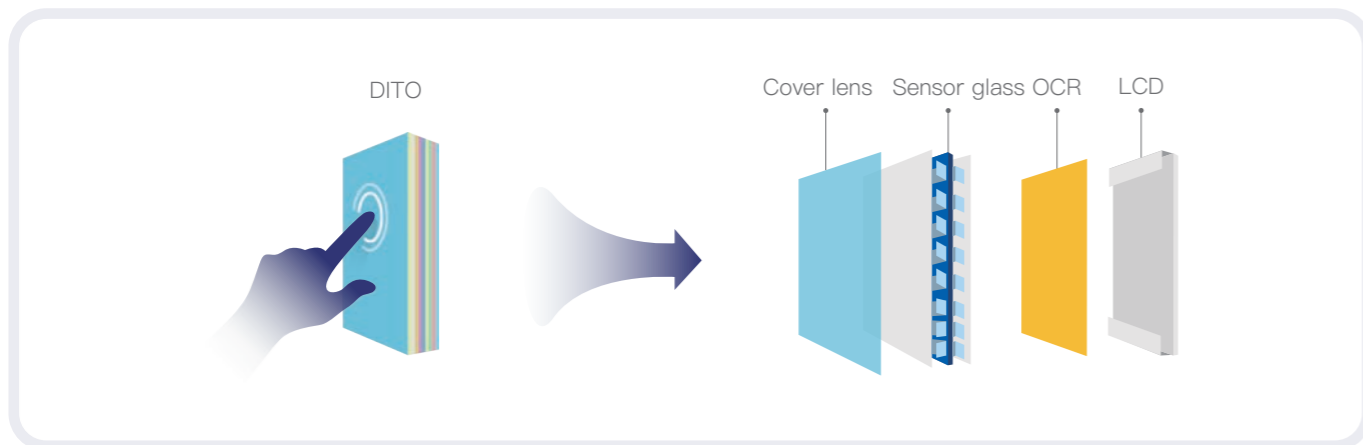
- Anti-Glare
Reduce the reflected light by matte finish surface.
- Anti-Bacterial
AG+ glass treatment to support anti-bacterial effect.

Seamless Black



Dual-ITO

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



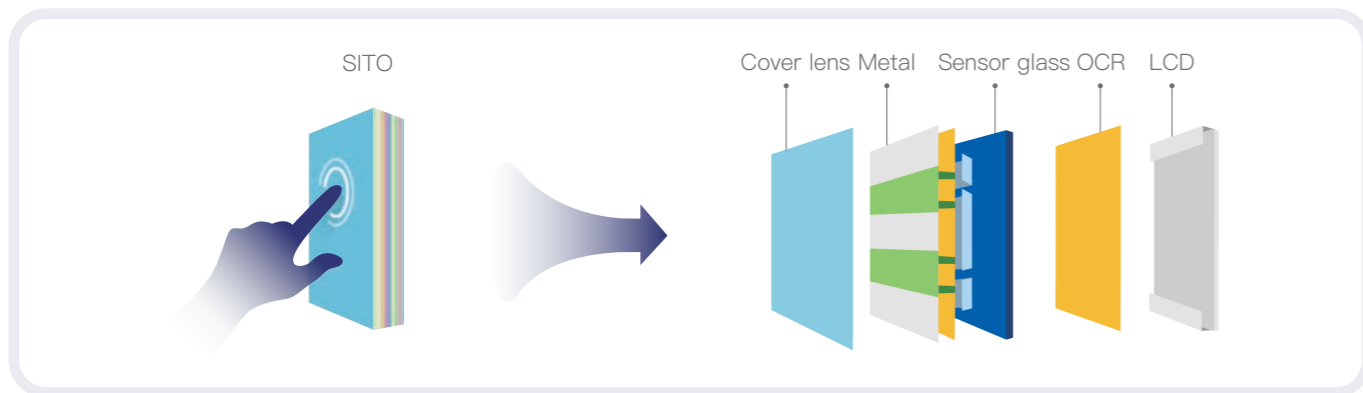
ESD: Air/15kv, Contact/8kv

Passive pen: Tip diameter $\leq 2.0\text{mm}$

Wet & Glove

Single ITO

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



ESD: Air/15kv, Contact/8kv

Passive pen: Tip diameter $\leq 2.0\text{mm}$

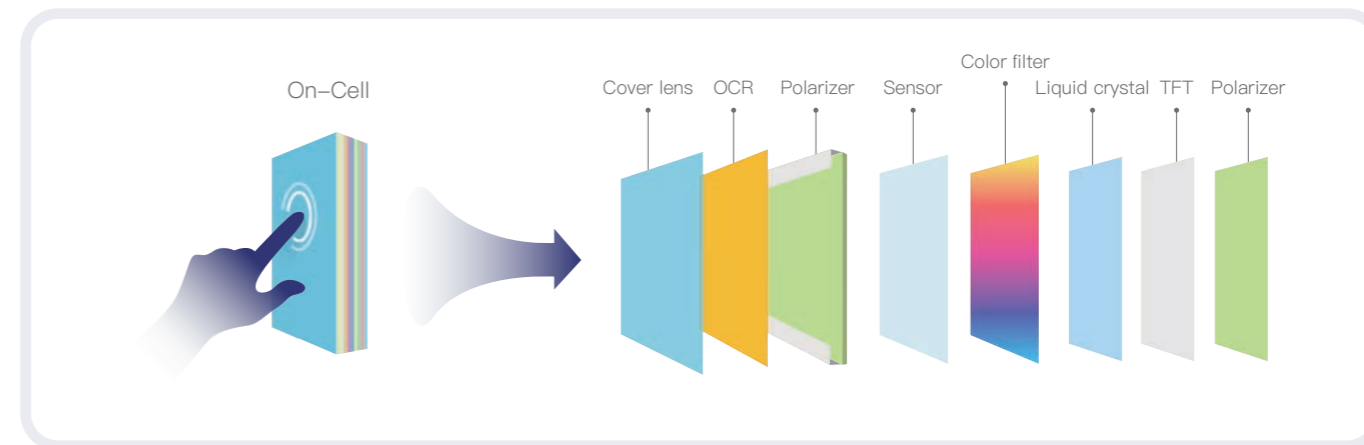
Wet & Glove

High reliability

*DITO/SITO technologies applied to P series

On-Cell

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



ESD: Air/12kv, Contact/6kv

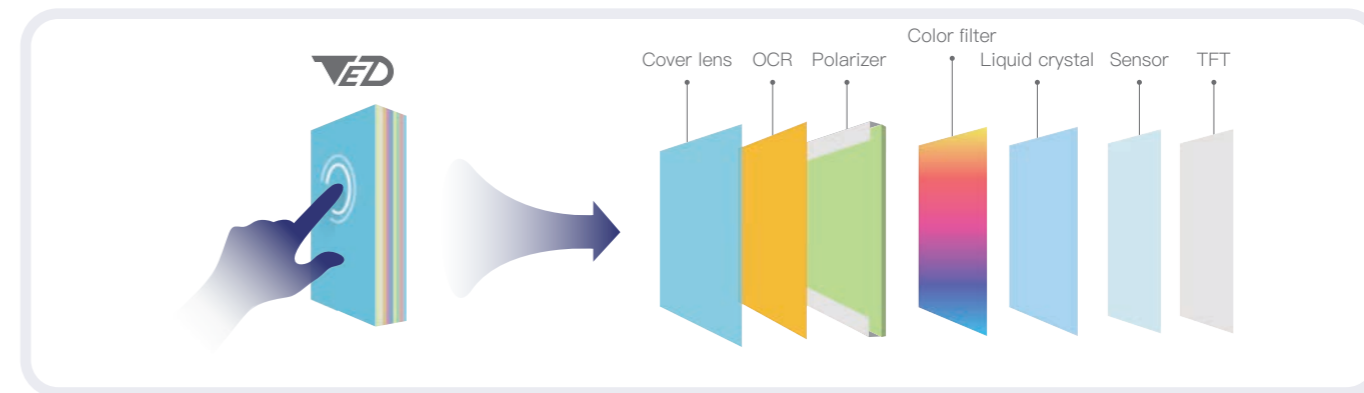
Wet & Glove

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-low reflection

Integrated touch

Wet & Glove

Passive pen: Tip diameter $\leq 2.0\text{mm}$

Ultra-thin

Narrow border

*TED: Touch embedded display
*On-cell/TED technologies applied to A series

Industrial Vehicles, Aviation, Marine



- High brightness
- Anti-Corrosion
- Anti-Glare glass
- Ultraviolet protection

- Anti-Reflection glass
- Dampproof
- Anti-Fingerprint

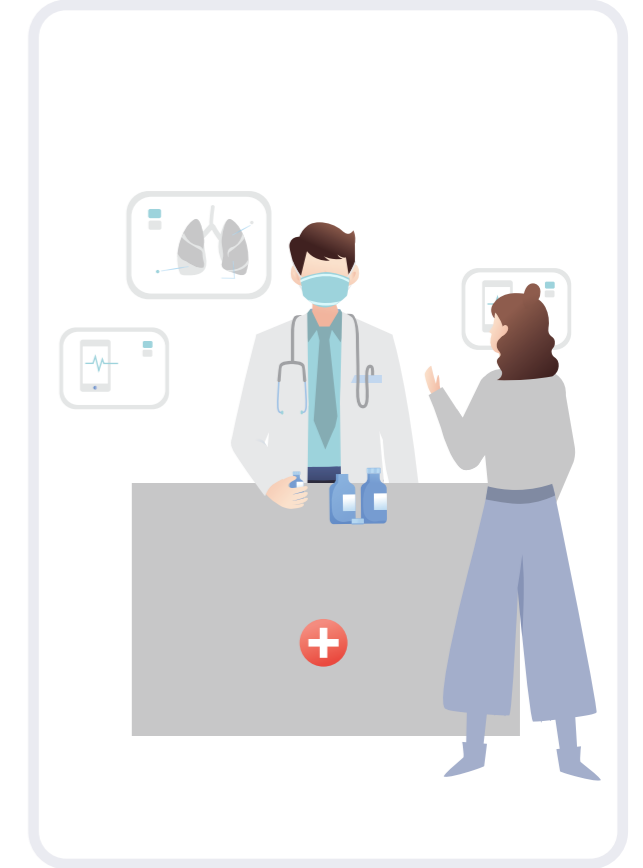
HMI, Outdoor Equipment



- Super low temperature
 - Room temperature -20 °C ~ +75 °C
 - Low temperature -40 °C ~ +85 °C
- Ultraviolet protection
 - UV 1120 W/m²

- Anti-vibration
 - Anti-vibration 15-500 Hz X/Y/Z 20 Hrs
 - Normal 10-50 Hz X/Y/Z 2 Hrs Total 6 Hrs
 - Acceleration 10G
- Longer life
 - >50000 hours

Medical



High brightness

1500~1800 cd/m²

High contrast ratio

2000:1~2200:1

Narrow border (3.5mm)

Large size: 30inch

High black uniformity

70~75 %

High color gamut

90~120 %

Color gamut (NTSC 92%)

Viewing angle CR (CR≥0.63)

High gray scale uniformity

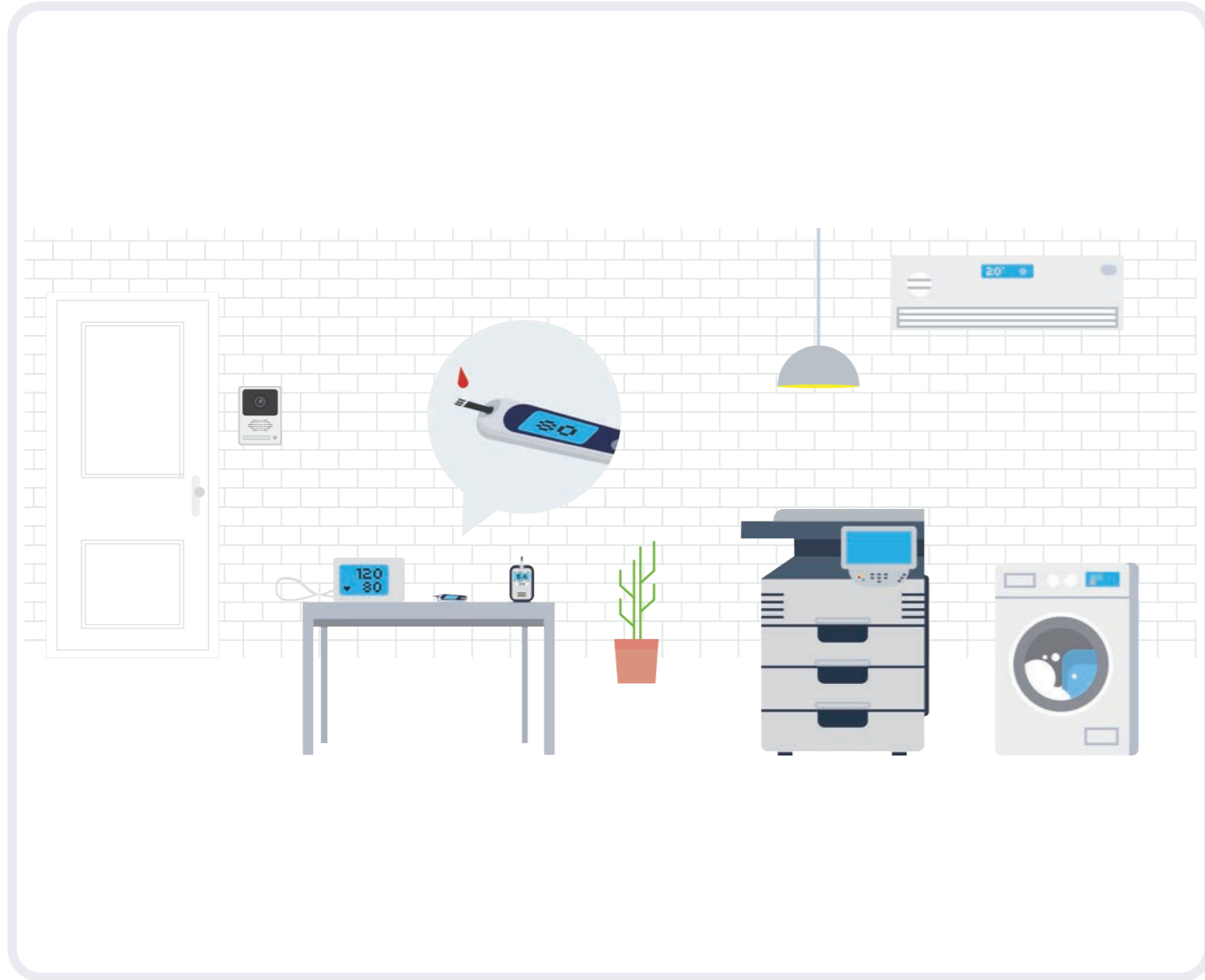
80~85 %


Color shift ($\Delta \leq 0.05$)


Color depth (Real 10 bits)

High resolution: 12M

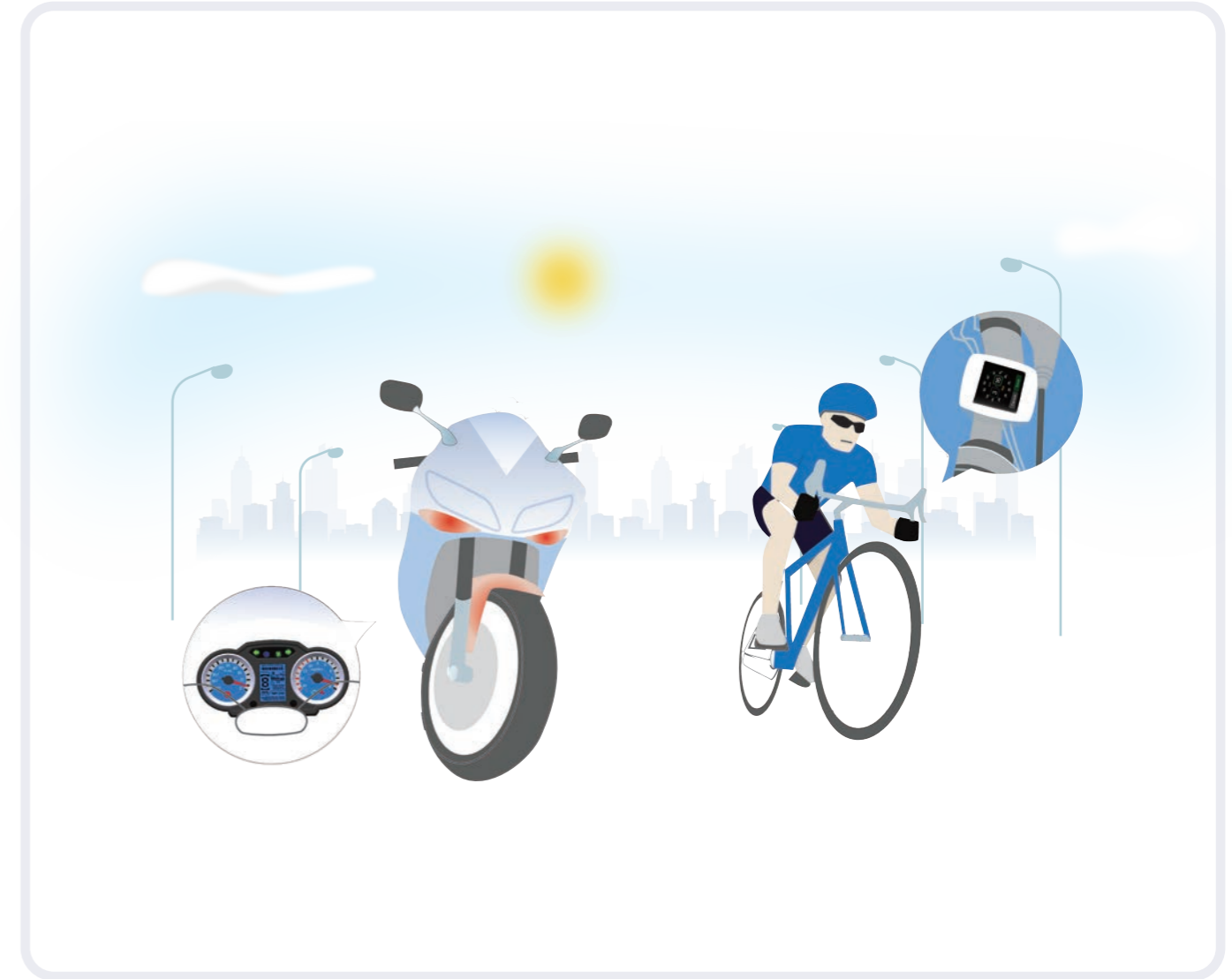
Smart Home



 High PPI
150~400 ppi


 Free-form
4:1~8:1 & Round

Two-Wheeled Vehicles




 High brightness

 Circular shape

 Resist ultraviolet

 Dampproof

 Anti-vibration
Anti-vibration 15~500 Hz X/Y/Z 20 Hrs
Normal 10~50 Hz X/Y/Z 2 Hrs Total 6 Hrs
Acceleration 10G

 Longer life
>50000 hours

Main Products

Medical

- 15.6" FHD(1920*1080)
- 18.5" FHD(1920*1080)
- 21.3" UXGA(1200*1600)
- 21.3" QXGA(1536*2048) real 10bits
- 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" XGA(1024*768)
- 12.1" WXGA(1280*800)
- 13.3" FHD(1920*1080)
- 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)
- 19" SXGA(1280*1024)
- 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" VGA+(720*480)
- 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" 320*280
- 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)
- 3.5" QVGA(320*240)
- 4.3" WQVGA(480*272)
- 5" HD(1280*720)
- 5" FHD(1920*1080) LTPS
- 5.99" 1080x2160 LTPS

Two-Wheeled Vehicles

- 2.8" QVGA(240*320)
- 3.4" 800*800
- 3.5" HVGA(320*480)
- 5" WVGA(800*480)
- 7" WVGA(800*480)
- 7" 1280*768
- 8" 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)
- 7.8" 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)

Size	3.5"	4.3"	6.5"
Display Mode	SFT	SFT	SFT
Part Number	P0350HVF1ME00	P0430WQF1ME00	P0650VGF1MA00
Resolution(pixel)	320*240	480*272	640*480
Active Area(mm)	70.08*52.56	95.04*53.85	132.48*99.36
LCM Luminance(cd/m ²)	350	400	1200
Contrast Ratio	800:1	800:1	900:1
Viewing Angle(U/D/L/R)	80/80/80/80	80/80/80/80	88/88/88/88
NTSC	60%	50%	70%
Interface	RGB 24bits	RGB 24bits	LVDS 6/8bits
Operating Temperature	-20°C~+70°C	-20°C~+70°C	-30°C~+80°C
Storage Temperature	-30°C~+80°C	-30°C~+80°C	-40°C~+90°C
Module Size(WxHxD)(mm)	76.90x63.90x3.15	105.50x67.20x2.90	154.00x121.00x11.00
LED Lifetime(H)	30000	30000	100000
LED Driver	without	without	without
Application	POS/MFP/HMI	VOIP/MFP/ HMI	HMI/Construction/Transportation
Remarks			

Size	6.5"	7.0"	7.0"
Display Mode	SFT	TN	TN
Part Number	P0650VGF1MA10	P0700WVN1ME01	P0700WVN1MB01
Resolution(pixel)	640*480	800*480	800*480
Active Area(mm)	132.48*99.36	154.08*85.92	154.08*85.92
LCM Luminance(cd/m ²)	800	300	450
Contrast Ratio	900:1	800:1	800:1
Viewing Angle(U/D/L/R)	88/88/88/88	60/80/80/80	60/80/80/80
NTSC	70%	50%	50%
Interface	LVDS 6bits	RGB 24bits	RGB 24bits
Operating Temperature	-30°C~+80°C	-20°C~+70°C	-20°C~+70°C
Storage Temperature	-40°C~+90°C	-30°C~+80°C	-30°C~+80°C
Module Size(WxHxD)(mm)	153.00x118.00x10.90	164.20x99.20x5.54	164.90x100.00x5.70
LED Lifetime(H)	70000	30000	50000
LED Driver	with	without	without
Application	HMI/Construction/Transportation	HMI/Home Automation/White Goods	HMI/Home Automation/White Goods
Remarks			

Size	7.0"	7.0"	7.0"
Display Mode	TN	SFT	SFT
Part Number	P0700WVN1MA00	P0700WVF2MB00	P0700WVF1MA00
Resolution(pixel)	800*480	800*480	800*480
Active Area(mm)	154.08*85.92	152.40*91.44	152.40*91.44
LCM Luminance(cd/m ²)	500	400	1500
Contrast Ratio	1000:1	1000:1	1000:1
Viewing Angle(U/D/L/R)	60/80/80/80	85/85/85/85	88/88/88/88
NTSC	50%	70%	70%
Interface	RGB 24bits	LVDS	LVDS 6/8bits
Operating Temperature	-30°C~+85°C	-20°C~+70°C	-30°C~+80°C
Storage Temperature	-40°C~+90°C	-30°C~+80°C	-40°C~+90°C
Module Size(WxHxD)(mm)	164.90x100.00x5.70	167.00x106.30x6.80	169.80x109.70x10.87(Max)
LED Lifetime(H)	50000	50000	100000
LED Driver	without	with	without
Application	2W/Industrial Vehicle/Outdoors	HMI/MFP/Printer/Scanner/POS/ATM/Kiosk	HMI/Construction/Transportation
Remarks			

Size	7.0"	8.0"	8.4"
Display Mode	SFT	SFT	TN
Part Number	P0700WVF1MA10	P0800XGF1ME00	P0840SVN1MB00
Resolution(pixel)	800*480	1024*768	800*600
Active Area(mm)	152.40*91.44	162.05*121.54	170.40*127.80
LCM Luminance(cd/m ²)	1000	450	350
Contrast Ratio	1000:1	1800:1	500:1
Viewing Angle(U/D/L/R)	88/88/88/88	85/85/85/85	60/70/70/70
NTSC	70%	50%	50%
Interface	LVDS 6/8bits	LVDS	LVDS 6/8bits
Operating Temperature	-30°C~+80°C	-20°C~+70°C	-20°C~+70°C
Storage Temperature	-40°C~+90°C	-30°C~+80°C	-30°C~+80°C
Module Size(WxHxD)(mm)	169.80x109.70x8.90(Max)	183.43x138.35x3.75	203.00x142.50x5.70
LED Lifetime(H)	70000	30000	50000
LED Driver	with	without	with
Application	HMI/Construction/Transportation	Home Automation/HMI/Elevator	HMI/Medical
Remarks			

Size	8.4"	8.4"	8.4"
Display Mode	TN	SFT	SFT
Part Number	P0840SVN1ME00	P0840XGF1MB00	P0840XGF1MA00
Resolution(pixel)	800*600	1024*768	1024*768
Active Area(mm)	170.40*127.80	170.49*127.87	170.49*127.87
LCM Luminance(cd/m ²)	350	600	1000
Contrast Ratio	500:1	1000:1	1000:1
Viewing Angle(U/D/L/R)	60/70/70/70	88/88/88/88	88/88/88/88
NTSC	50%	70%	70%
Interface	RGB 24bits	LVDS 6/8bits	LVDS 6/8bits
Operating Temperature	-20°C~+70°C	-30°C~+80°C	-30°C~+80°C
Storage Temperature	-30°C~+80°C	-40°C~+90°C	-40°C~+90°C
Module Size(WxHxD)(mm)	189.75x149.40x4.80	199.50x149.00x4.80	199.50x149.00x4.80
LED Lifetime(H)	30000	50000	100000
LED Driver	without	with	without
Application	HMI/POS/ATM/Kiosk	HMI/Construction/Transportation	HMI/Construction/Transportation
Remarks			

Size	10.1"	10.1"	10.1"
Display Mode	TN	TN	SFT
Part Number	P1010WSN1ME00	P1010WSN1ME01	P1010WXF1ME20
Resolution(pixel)	1024*600	1024*600	1280*800
Active Area(mm)	222.72*125.28	222.72*125.28	216.96*135.60
LCM Luminance(cd/m ²)	450	350	400
Contrast Ratio	800:1	800:1	800:1
Viewing Angle(U/D/L/R)	75/80/80/80	75/80/80/80	85/85/85/85
NTSC	47%	47%	50%
Interface	LVDS 6/8bits	RGB 24bits	LVDS 8bits
Operating Temperature	-20°C~+70°C	-20°C~+70°C	-10°C~+50°C
Storage Temperature	-30°C~+80°C	-30°C~+80°C	-20°C~+60°C
Module Size(WxHxD)(mm)	235.00x143.00x4.90	235.00x143.00x5.00	229.46x149.10x2.50
LED Lifetime(H)	30000	30000	30000
LED Driver	with	without	without
Application	VOIP/Medical/POS	VOIP/Medical/POS	HMI/Medical/Elevator
Remarks			

Size	10.1"	10.1"	10.4"
Display Mode	SFT	SFT	TN
Part Number	P1010WXF1MB10	P1010WXF1MA00	P1040SVN1ME00
Resolution(pixel)	1280*800	1280*800	800*600
Active Area(mm)	216.96*135.60	216.96*135.60	211.20*158.40
LCM Luminance(cd/m ²)	500	1000	400
Contrast Ratio	800:1	800:1	400:1
Viewing Angle(U/D/L/R)	85/85/85/85	85/85/85/85	60/70/70/70
NTSC	50%	50%	50%
Interface	LVDS 6/8bits	LVDS 8bits	LVDS 6bits
Operating Temperature	-20°C~+70°C	-30°C~+80°C	-20°C~+70°C
Storage Temperature	-30°C~+80°C	-40°C~+80°C	-30°C~+80°C
Module Size(WxHxD)(mm)	231.22x150.60x4.30	229.80x149.00x9.11	236.00x176.90x5.60
LED Lifetime(H)	50000	50000	20000
LED Driver	with	with	without
Application	HMI/Medical/Elevator	HMI/Medical/Elevator	HMI/POS/Medical
Remarks			










Size	10.4"	10.4"	10.4"
Display Mode	TN	SFT	SFT
Part Number	P1040SVN1ME10	P1040XGF1MB10	P1040XGF1MA00
Resolution(pixel)	800*600	1024*768	1024*768
Active Area(mm)	211.20*158.40	210.43*157.82	210.43*157.82
LCM Luminance(cd/m ²)	350	450	1300
Contrast Ratio	500:1	1200:1	1000:1
Viewing Angle(U/D/L/R)	60/70/70/70	88/88/88/88	85/85/85/85
NTSC	50%	50%	50%
Interface	RGB 24bits	LVDS 6bits	LVDS 6/8bits
Operating Temperature	-20°C~+70°C	-20°C~+70°C	-30°C~+80°C
Storage Temperature	-30°C~+80°C	-30°C~+80°C	-40°C~+85°C
Module Size(WxHxD)(mm)	228.40x175.40x6.20	230.00x175.80x5.70	230.00x180.20x9.50
LED Lifetime(H)	30000	50000	100000
LED Driver	without	with	without
Application	HMI/POS	HMI/POS/Medical	HMI/Construction/Transportation
Remarks			










Size	11.6"	11.6"	12.1"
Display Mode	SFT	SFT	SFT
Part Number	P1160FHF1MA00	P1160FHF1MA01	P1210SVF1MB00
Resolution(pixel)	1024*768	1024*768	800*600
Active Area(mm)	256.32*144.18	256.32*144.18	246.00*184.50
LCM Luminance(cd/m ²)	1600	1000	500
Contrast Ratio	900:1	900:1	700:1
Viewing Angle(U/D/L/R)	88/88/88/88	88/88/88/88	88/88/88/88
NTSC	70%	70%	72%
Interface	LVDS 8bits	LVDS 8bits	LVDS 6/8bits
Operating Temperature	-20°C~+80°C	-20°C~+70°C	-20°C~+70°C
Storage Temperature	-30°C~+85°C	-30°C~+80°C	-30°C~+80°C
Module Size(WxHxD)(mm)	273.50x166.50x7.8	273.50x166.50x7.80	279.00x209.00x9.00
LED Lifetime(H)	50000	30000	50000
LED Driver	with	without	with
Application	HMI/Marine	HMI/Marine	POS/HMI/Medical
Remarks			

















Size	12.1"	12.1"	12.1"
Display Mode	TN	SFT	SFT
Part Number	P1210XGN1MB00	P1210XGF1MB00	P1210XGF1MA00
Resolution(pixel)	1024*768	1024*768	1024*768
Active Area(mm)	245.76*184.32	245.76*184.32	245.76*184.32
LCM Luminance(cd/m ²)	450	500	1300
Contrast Ratio	700:1	1000:1	1000:1
Viewing Angle(U/D/L/R)	80/80/80/80	88/88/88/88	88/88/88/88
NTSC	55%	72%	72%
Interface	LVDS	LVDS 6/8bits	LVDS 6/8bits
Operating Temperature	-20°C~+70°C	-30°C~+80°C	-30°C~+80°C
Storage Temperature	-30°C~+80°C	-40°C~+90°C	-40°C~+90°C
Module Size(WxHxD)(mm)	279.00x209.00x8.60	260.05x203.00x9.05	260.05x203.00x9.05
LED Lifetime(H)	50000	50000	100000
LED Driver	with	with	without
Application	HMI/Medical	Construction/HMI/Hospital Medical	Construction/HMI
Remarks			

















Size	12.1"	12.1"	12.1"
Display Mode	SFT	SFT	SFT
Part Number	P1210XGF1MA01	P1210WXF1MB10	P1210WXF1MA00
Resolution(pixel)	1024*768	1280*800	1280*800
Active Area(mm)	245.76*184.32	261.10*163.20	261.12*163.20
LCM Luminance(cd/m ²)	800	450	1600
Contrast Ratio	1000:1	1000:1	800:1
Viewing Angle(U/D/L/R)	88/88/88/88	88/88/88/88	88/88/88/88
NTSC	72%	72%	72%
Interface	LVDS 6/8bits	LVDS 6/8bits	LVDS 6/8bits
Operating Temperature	-30°C~+80°C	-20°C~+70°C	-30°C~+80°C
Storage Temperature	-40°C~+90°C	-30°C~+80°C	-40°C~+90°C
Module Size(WxHxD)(mm)	260.05x203.00x9.05	278.00x184.00x9.90	277.70x180.60x8.70
LED Lifetime(H)	70000	50000	50000
LED Driver	with	with	without
Application	Construction/HMI	Construction/HMI	HMI/Medical/POS/Marine/Construction
Remarks			

Size	12.1"	13.3"	13.3"
Display Mode	SFT	SFT	SFT
Part Number	P1210WXF1MA01	P1330FHF1ME10	P1330FHF1MA00
Resolution(pixel)	1280*800	1920*1080	1920*1080
Active Area(mm)	261.12*163.20	293.76*165.24	293.76*165.24
LCM Luminance(cd/m ²)	1100	450	1000
Contrast Ratio	1000:1	1000:1	1000:1
Viewing Angle(U/D/L/R)	88/88/88/88	85/85/85/85	85/85/85/85
NTSC	72%	72%	72%
Interface	LVDS 8bits	LVDS	LVDS
Operating Temperature	-30°C~+80°C	-20°C~+70°C	-20°C~+70°C
Storage Temperature	-40°C~+90°C	-30°C~+80°C	-30°C~+80°C
Module Size(WxHxD)(mm)	277.70x180.60x8.70	305.35x178.56x3.70	305.35x178.56x3.70
LED Lifetime(H)	50000	50000	50000
LED Driver	without	with	without
Application	HMI/POS/Marine	HMI/Medical	Marine/HMI/Outdoor
Remarks			

Size	15.0"	15.0"	15.0"
Display Mode	TN	TN	SFT
Part Number	P1500XGN1ME00	P1500XGN1ME01	P1500XGF1MB00
Resolution(pixel)	1024*768	1024*768	1024*768
Active Area(mm)	304.12*228.09	304.12*228.09	304.12*228.09
LCM Luminance(cd/m ²)	350	350	350
Contrast Ratio	800:1	800:1	900:1
Viewing Angle(U/D/L/R)	80/80/80/80	80/80/80/80	88/88/88/88
NTSC	60%	60%	72%
Interface	LVDS 1port	LVDS 1port	LVDS 1port
Operating Temperature	-10°C~+65°C	-10°C~+65°C	-20°C~+70°C
Storage Temperature	-20°C~+65°C	-20°C~+65°C	-30°C~+80°C
Module Size(WxHxD)(mm)	326.50x253.50x10.00	326.50x253.50x10.00	326.50x253.50x11.80
LED Lifetime(H)	30000	30000	50000
LED Driver	with	with	with
Application	POS/HMI	POS/HMI	POS/HMI
Remarks	 	 	    

Size	15.6"	18.5"	18.5"
Display Mode	SFT	SFT	SFT
Part Number	P1560FHF1MB00	P1850FHF1MB01	P1850FHF1MB02
Resolution(pixel)	1920*1080	1920*1080	1920*1080
Active Area(mm)	344.16*193.59	408.96*230.04	408.96*230.04
LCM Luminance(cd/m ²)	400	400	400
Contrast Ratio	1000:1	1000:1	1000:1
Viewing Angle(U/D/L/R)	88/88/88/88	88/88/88/88	88/88/88/88
NTSC	72%	72%	72%
Interface	LVDS 8bits	LVDS 8bits	eDP 2line 8bits
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
Module Size(WxHxD)(mm)	363.80x215.90x6.30	430.40x254.60x13.50	430.40x254.60x13.50
LED Lifetime(H)	50000	50000	50000
LED Driver	with	with	with
Application	POS/HMI	Marine/Outdoor/Medical/IFE	Marine/Outdoor/Medical/IFE
Remarks	    	  	

Size	18.5"	19.0"	19.0"
Display Mode	SFT	SFT	SFT
Part Number	P1850UHF1MA00	P1900SXF1MB00	P1900SXF1MA00
Resolution(pixel)	3840*2160	1280*1024	1280*1024
Active Area(mm)	408.96*230.04	376.32*301.06	376.32*301.06
LCM Luminance(cd/m ²)	1400	450	800
Contrast Ratio	1200:1	1000:1	1000:1
Viewing Angle(U/D/L/R)	88/88/88/88	89/89/89/89	89/89/89/89
NTSC	72%	72%	72%
Interface	EDP 1.2	LVDS 8bits	LVDS 8bits
Operating Temperature	-20°C~+70°C	0°C~+60°C	0°C~+60°C
Storage Temperature	-30°C~+80°C	-20°C~+60°C	-20°C~+60°C
Module Size(WxHxD)(mm)	430.96x252.04x10.00	396.00x324.00x16.00	396.00x324.00x16.00
LED Lifetime(H)	20000	50000	50000
LED Driver	without	with	with
Application	Marine/HMI/Transportation	Medical/HMI	Medical/HMI
Remarks	     	    	    











Size	21.3"	21.3"	21.3"
Display Mode	SFT	SFT	SFT
Part Number	P2130UXF1MA00	P2130QXF1MA00	P2130QSF1MA00
Resolution(pixel)	1200*1600	1536*2048	2560*2048
Active Area(mm)	324.86*433.15	324.86*433.15	422.4*337.93
LCM Luminance(cd/m ²)	900	900	2500
Contrast Ratio	2000:1	2000:1	2000:1
Viewing Angle(U/D/L/R)	89/89/89/89	89/89/89/89	89/89/89/89
NTSC	92%	92%	NA (mono)
Interface	LVDS 8bits	LVDS real 10bits	LVDS real 10bits
Operating Temperature	0°C~+60°C	0°C~+60°C	0°C~+60°C
Storage Temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Module Size(WxHxD)(mm)	336.00x453.00xTBD	336.00x453.00xTBD	354.90x442.30x20.90
LED Lifetime(H)	50000	50000	50000
LED Driver	with	with	with
Application	Medical	Medical	Medical
Remarks	    	     	    












Size	21.3"	21.3"	21.5"
Display Mode	SFT	SFT	SFT
Part Number	P2130QSF2MA00	TBD	P2150UHF1MA00
Resolution(pixel)	2560*2048	2560*2048	3840*2160
Active Area(mm)	261.10*163.20	261.10*163.20	475.20*267.30
LCM Luminance(cd/m ²)	1100	1100	1400
Contrast Ratio	2000:1	2000:1	1200:1
Viewing Angle(U/D/L/R)	89/89/89/89	89/89/89/89	88/88/88/88
NTSC	72%	72%	72%
Interface	LVDS real 10bits	LVDS real 10bits	EDP 1.2
Operating Temperature	0°C~+60°C	0°C~+60°C	-20°C~+70°C
Storage Temperature	-20°C~+60°C	-20°C~+60°C	-30°C~+80°C
Module Size(WxHxD)(mm)	354.90x442.30x20.90	354.90x442.30x20.90	495.20x291.90x10.00
LED Lifetime(H)	50000	50000	20000
LED Driver	with	with	without
Application	Medical	Medical	Marine/Outdoor/Medical/IFE
Remarks			









Size	23.8"	27"
Display Mode	SFT	SFT
Part Number	P2380UHF1MA00	P2700FHF1MA00
Resolution(pixel)	3840*2160	1920*1080
Active Area(mm)	527.04*296.46	596.16*335.34
LCM Luminance(cd/m ²)	1400	1500
Contrast Ratio	1200:1	1000:1
Viewing Angle(U/D/L/R)	88/88/88/88	88/88/88/88
NTSC	72%	40%
Interface	EDP 1.2	LVDS 8bits
Operating Temperature	-20°C~+70°C	-30°C~+80°C
Storage Temperature	-30°C~+80°C	-30°C~+80°C
Module Size(WxHxD)(mm)	546.00x323.40x9.63	630.00x368.00x25.00
LED Lifetime(H)	20000	50000
LED Driver	without	with
Application	Marine/Outdoor/Medical/IFE	Gas/Oil POS/HMI/Outdoor
Remarks		










Size	2.4"	2.4"	2.83"	2.83"
Display Mode	TN	SFT	TN	SFT
Resolution(pixel)	240*320	240*320	240*320	240*320
Active Area(mm)	36.72*48.96	36.72*48.96	43.20*57.60	43.20*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 8bits	CPU 8bits	RGB	MCU 8/16bits
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				






Size	3.0"	3.0"	3.5"	3.5"
Display Mode	SFT+oncell	SFT+oncell	TN	TN
Resolution(pixel)	640*480	720*480	320*240	320*480
Active Area(mm)	45.00*60.00	62.42*41.61	70.08*52.56	48.96*73.44
Contrast Ratio	900:1	1000:1	500:1	500:1
Viewing Angle(U/D/L/R)	85/85/85/85	85/85/85/85	60/70/70/70	70/60/70/70
NTSC	70%	70%	50%	60%
Interface	RGB/YUV	MIPI 2lane	RGB 24bits	RGB
Operating Temperature	-20°C~+70°C	-20°C~+60°C	-20°C~+70°C	-20°C~+70°C
Storage Temperature	-30°C~+70°C	-30°C~+80°C	-30°C~+80°C	-30°C~+80°C
Touch Type	on-cell	on-cell	without	without
Application	DSC/ Small Size Medical/ Industrial Mobile	DSC/ Small Size Medical/ Industrial Mobile	Financial POS/ MFP/Scanner	Financial POS/ Small Size Medical/HMI
Remarks				












Size	3.5"	3.5"	3.97"	4.3"
Display Mode	SFT	SFT+oncell	SFT	TN
Resolution(pixel)	320*240	320*480	480*800	480*272
Active Area(mm)	70.08*52.56	48.96*73.44	51.84*86.40	95.04*53.86
Contrast Ratio	800:1	1200:1	800:1	900:1
Viewing Angle(U/D/L/R)	80/80/80/80	80/80/80/80	80/80/80/80	80/60/80/80
NTSC	60%	70%	67%	50%
Interface	RGB 24bits	MIPI/CPU/SPI+RGB	MIPI	RGB 24bits
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	on-cell	on-cell	without
Application	Financial POS/MFP/HMI	Financial POS/Small Size Medical/HMI	Financial POS/Small Size Medical/HMI	MFP/HMI
Remarks	 	   	  	

Size	5.0"	5.0"	5.5"	7.0"
Display Mode	SFT	SFT+TED	SFT	TN
Resolution(pixel)	720*1280	720*1280	720*1280	800*480
Active Area(mm)	62.10*110.40	62.10*110.40	68.04*120.96	154.08*85.92
Contrast Ratio	800:1	800:1	1000:1	1000:1
Viewing Angle(U/D/L/R)	85/85/85/85	80/80/80/80	85/85/85/85	60/80/80/80
NTSC	70%	70%	70%	50%
Interface	MIPI	MIPI	MIPI	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	TED	without	without
Application	HMI/Industrial Mobile	Industrial Mobile/VOIP	Industrial Mobile/Financial POS/Medical	HMI/MFP/Printer/Scanner/POS/ATM/Kiosk
Remarks	  	   	  	








Size	4.3"	4.3"	5.0"	5.0"
Display Mode	SFT	SFT	TN	SFT
Resolution(pixel)	480*272	480*800	800*480	800*480
Active Area(mm)	95.04*53.85	56.16*93.60	108.00*64.80	108.60*65.16
Contrast Ratio	800:1	800:1	600:1	800:1
Viewing Angle(U/D/L/R)	80/80/80/80	85/85/85/85	50/70/70/70	80/80/80/80
NTSC	50%	65%	50%	70%
Interface	RGB 24bits	MIPI/SPI+RGB	RGB	RGB 24bits
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	VOIP/MFP/HMI	Small Size Medical/Industrial Mobile	VOIP/Marine/HMI	2W/Industrial Vehicles
Remarks	 	 		  












Size	7.0"	7.0"	7.0"	7.0"
Display Mode	SFT	TN	SFT	SFT
Resolution(pixel)	800*480	1024*600	1024*600	1280*768
Active Area(mm)	152.40*91.44	153.60*90.00	154.21*85.92	152.45*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 6bits	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/Printer/Scanner/POS/ATM/Kiosk	White Goods/HMI	White Goods/HMI/Home Automation	White Goods/HMI/Home Automation
Remarks	  		 	  

Size	7.0"	10.1"	10.1"
Display Mode	SFT	TN	SFT
Resolution(pixel)	1280*800	1024*600	1920*1200
Active Area(mm)	150.72*94.20	222.72*125.28	216.81*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 24bits	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	White Goods/HMI/ Home Automation	VOIP/POS Medical	HMI/Rugged PC
Remarks			  



Size	2.47"	2.49"	3.45"
Display Mode	SFT	SFT	SFT
Resolution(pixel)	480*480	320*160	800*800
Active Area(mm)	62.64*62.64	56.64*28.32	87.60*87.60
Contrast Ratio	900:1	800:1	800:1
Viewing Angle(U/D/L/R)	80/80/80/80	80/80/80/80	80/80/80/80
NTSC	65%	70%	70%
Interface	MIPI	MCU/SPI/RGB	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	White Goods/ Home Automation	White Goods/ Home Automation	White Goods/ Home Automation/ Industrial Mobile
Remarks	  	   	   





Free Form

Size	2"	2.36"	2.39"
Display Mode	SFT	TN	SFT
Resolution(pixel)	320*280	320*320	260*640
Active Area(mm)	51.60*45.15	60.00*60.00	22.81*56.16
Contrast Ratio	800:1	800:1	1000:1
Viewing Angle(U/D/L/R)	80/80/80/80	70/80/80/80	85/85/85/85
NTSC	70%	50%	65%
Interface	MIPI	MIPI	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	on-cell
Application	White Goods/ Home Automation/MFP	White Goods/ Home Automation	White Goods/ Home Automation
Remarks		 	   

Size	3.71"	3.73"	7.84"
Display Mode	SFT	SFT	SFT
Resolution(pixel)	240*960	720*92	400*1280
Active Area(mm)	91.44*22.86	93.96*12.01	190.08*59.40
Contrast Ratio	1000:1	800:1	900:1
Viewing Angle(U/D/L/R)	85/85/85/85	80/80/80/80	80/80/80/80
NTSC	50%	70%	70%
Interface	MIPI	MIPI	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	White Goods/ Home Automation	White Goods/ Home Automation	White Goods/ Home Automation
Remarks	  	   	   

LTPS

Size	5.0"	5.99"
Display Mode	LTPS SFT	LTPS SFT
Resolution(pixel)	1080*1920	1080*2160
Active Area(mm)	61.88*110.02	68.04*136.08
Contrast Ratio	1000:1	800:1
Viewing Angle(U/D/L/R)	85/85/85/85	80/80/80/80
NTSC	65%	68%
Interface	MIPI	MIPI
Operating Temperature	-20°C~+70°C	-20°C~+60°C
Storage Temperature	-30°C~+80°C	-30°C~+70°C
Touch Type	without	TED
Application	White Goods/ Home Automation/VOIP	White Goods/ Home Automation/
Remarks		

Size	7.0"
Display Mode	LTPS SFT
Resolution(pixel)	1080*1920
Active Area(mm)	86.83*154.37
Contrast Ratio	1000:1
Viewing Angle(U/D/L/R)	85/85/85/85
NTSC	72%
Interface	MIPI
Operating Temperature	-20°C~+70°C
Storage Temperature	-30°C~+80°C
Touch Type	TED
Application	White Goods/ Home Automation/VOIP
Remarks	   

PCAP

3.5" Resolution 320*240 State Mass Production	4.3" Resolution 480*272、480*800 State Mass Production	5" Resolution 800*480、720*1280 State Mass Production	5.7" Resolution 320*240、640*480 State Mass Production
6.5" Resolution 640*480 State Mass Production	7" Resolution 800*480/1024*600 1280*800 State Mass Production	8" Resolution 800*600/1024*768 State Mass Production	8.4" Resolution 800*600/1024*768 State Mass Production
10.1" Resolution 1024*600、1280*800 State Mass Production	10.4" Resolution 640*480/800*600 1024*768/1280*800 State Mass Production	11.6" Resolution 1920*1080 State Developing	12.1" Resolution 1024*768/1280*800 State Mass Production
13.3" Resolution 1920*1080 State Planning	15" Resolution 1024*768 State Mass Production	15.6" Resolution 1366*768/1920*1080 State Mass Production	18.5" Resolution 1920*1080 State Mass Production
19" Resolution 1280*1024 State Mass Production	21.5" Resolution 1920*1080 State Mass Production	23.8" Resolution 3840*2160 State Planning	27" Resolution 1920*1080 State Planning