

- Super Fine TFT
- Ultra Wide Screen
- Multi-bonding Integrates Display
- Narrow Border
- One-stop Touch Solution
- Curve
- Freeform

## Smart Cockpit Display



Screen Size	27"	23.6"
Display Mode	[SFT]	[SFT]
Aspect Ratio	16:3	16:3
Resolution (pixel)	4032*756	3840*720
Display Color	16.7M	16.7M
Interface	eDP	2-ports LVDS
Operating Temperature	-30°C~+85°C	-30°C~+85°C
Storage Temperature	-40°C~+95°C	-40°C~+95°C
Features	[SFT] [UWS] [MBID] [NB] [OSTS]	[SFT] [UWS] [MBID] [NB] [OSTS]

Screen Size	13.2" Multiple Display with One Cover	12.3" Multiple Display with One Cover
Display Mode	[SFT]	[SFT]
Aspect Ratio	32:9	8:3
Resolution (pixel)	2560*720	1920*720
Display Color	16.7M	16.7M
Interface	2-ports LVDS	2-ports LVDS
Operating Temperature	-30°C~+85°C	-30°C~+85°C
Storage Temperature	-40°C~+95°C	-40°C~+95°C
Features	[2] [NB] [UWS] [OSTS]	[2] [NB] [UWS] [OSTS] [SFT]

- Super Fine TFT
- Narrow Border
- Signal Feedback Anomaly
- High Resolution
- Ultra-low Reflectivity
- Freeform
- Cluster

## Cluster Display



Full-LCD Cluster

Screen Size	12.3"	10.25"	10.25"
Display Mode	[SFT]	[SFT]	[SFT]
Aspect Ratio	8:3	8:3	8:3
Resolution (pixel)	1920*720	1920*720	1280*480
Display Color	16.7M	16.7M	16.7M
Interface	2-ports LVDS	2-ports LVDS	1-port LVDS
Operating Temperature	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C
Storage Temperature	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C
Features	[NB] [SFT] [UWS]	[NB] [SFT]	[SFT]



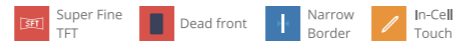
Long Shape Cluster

Screen Size	10.2"	9.2"	8.88"	6.0"
Display Mode	[SFT]	[SFT]	[SFT]	[SFT]
Aspect Ratio	11:3	15:3	12:3	11:3
Resolution (pixel)	1920*532	1920*384	1920*480	1024*274
Display Color	16.7M	16.7M	16.7M	16.7M
Interface	1-port LVDS	1-port LVDS	1-port LVDS	1-port LVDS
Operating Temperature	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C
Storage Temperature	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C
Features	[NB] [SFT] [UWS]	[NB] [SFT]	[SFT]	[SFT]

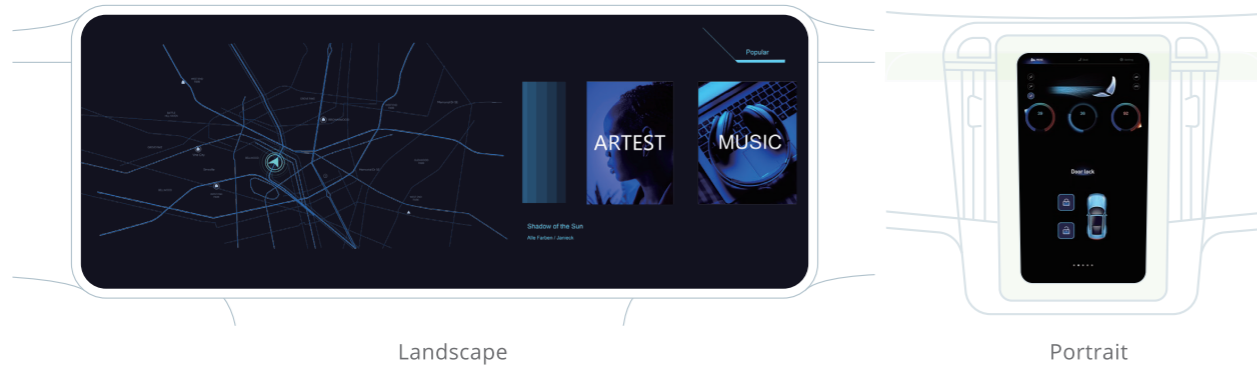


Semi-LCD Cluster

Screen Size	7.0"	7.0"	4.2"	3.5"	3.5"
Display Mode	[SFT]	[SFT]	[SFT]	[SFT]	[SFT]
Aspect Ratio	3:4	15:9	16:9	3:4	3:4
Resolution (pixel)	240*320	800*480	480*272	240*320	240*320
Display Color	262K	16.7M	262K/16.7M	262K	mono
Interface	RGB I/F	1-port LVDS	RGB I/F	RGB I/F	MCU I/F
Operating Temperature	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C
Storage Temperature	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C
Features	[SFT]	[SFT]	[SFT]	[SFT]	[SFT]



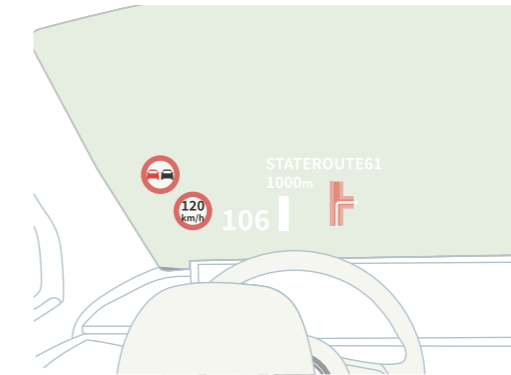
## Center Information Display



Screen Size	17.3"	15.6"	15.6"	15.4"	14.6"	14.6"	12.9"
Display Mode	[SFT]	[SFT]	[SFT]	[SFT]	[SFT]	[SFT]	[SFT]
Aspect Ratio	16:9	16:9	16:9	16:10	16:9	16:9	16:9
Resolution (pixel)	2880*1620	2560*1440	1920*1080	2560*1600	2560*1440	1920*1080	1920*1080
Display Color	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M
Interface	eDP	eDP	2-ports LVDS	eDP	eDP	2-ports LVDS	2-ports LVDS
Operating Temperature	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C
Storage Temperature	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C
Features	[SFT] [Narrow Border] [In-Cell Touch]	[SFT] [Narrow Border] [In-Cell Touch]	[SFT] [Narrow Border] [In-Cell Touch]	[SFT] [Narrow Border] [In-Cell Touch]	[SFT] [Narrow Border] [In-Cell Touch]	[SFT] [Narrow Border] [In-Cell Touch]	[SFT] [Narrow Border]



## Head-up Display



Screen Size	5.1"	4.1"	3.14"	2.6"	1.8"
Display Mode	[SFT]	[SFT]	[SFT]	[SFT]	[SFT]
Aspect Ratio	3:1	2:1	15:9	15:9	2:1
Resolution (pixel)	1440*480	1280*640	800*480	800*480	480*240
Display Color	16.7M	16.7M	16.7M	16.7M	262K
Interface	LVDS 24 bits+SPI	LVDS 24 bits+SPI	LVDS 24 bits+SPI	LVDS 24 bits+SPI	RGB 18bits
Operating Temperature	-40°C~+105°C	-40°C~+105°C	-40°C~+105°C	-40°C~+105°C	-40°C~+105°C
Storage Temperature	-40°C~+105°C	-40°C~+105°C	-40°C~+105°C	-40°C~+105°C	-40°C~+105°C
Features	[SFT] [Wide Temperature]	[SFT] [Wide Temperature]	[SFT] [Wide Temperature]	[SFT] [Wide Temperature]	[SFT] [Wide Temperature]

### Center Rear View Mirror Display

Screen Size	12.3"	10.25"	10.1"	9.0"	8.0"	7.0"	13.2"(Portrait)
Display Mode	[SFT]	[SFT]	[SFT]	[SFT]	[SFT]	[SFT]	[SFT]
Aspect Ratio	8:3	8:3	16:9	16:9	16:9	15:9	3:4
Resolution (pixel)	1920*720	1920*720	1280*720	1280*720	1280*720	800*480	1440*1920
Display Color	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M	16.7M
Interface	2-ports LVDS	2-ports LVDS	1-port LVDS	1-port LVDS	1-port LVDS	1-port LVDS	2-ports LVDS
Operating Temperature	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C
Storage Temperature	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C
Features	[Narrow Border] [In-Cell Touch]	[Narrow Border] [In-Cell Touch]	[Narrow Border]	[Narrow Border]	[Narrow Border]		[SFT] [Narrow Border] [In-Cell Touch]

Screen Size	9.3"	9.3"	9.2"	8.6"
Display Mode	[SFT]	[SFT]	[SFT]	[SFT]
Aspect Ratio	24:5	25:5	25:5	25:5
Resolution (pixel)	1920*400	1600*320	1920*384	1280*260
Display Color	16.7M	16.7M	16.7M	16.7M
Interface	1-port LVDS	1-port LVDS	1-port LVDS	1-port LVDS
Operating Temperature	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C
Storage Temperature	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C
Features	[Freeform] [FOG]	[Freeform] [FOG]	[High Brightness] [Adjustable Reflectivity] [Freeform]	[High Brightness] [Freeform]

# AUTOMOTIVE PRODUCTS

- Super Fine TFT
- Dead front
- Narrow Border
- SeamTouch Embedded Displayless
- Signal Feedback Anomaly
- One-stop Touch Solution
- Low Temperature Heating

## Side Rear View Mirror Display



Screen Size	7"	6.7"
Display Mode	[TFT]	[TFT]
Aspect Ratio	15:9	16:9
Resolution (pixel)	1280*768	1280*720
Display Color	16.7M	16.7M
Interface	1-port LVDS	1-port LVDS
Operating Temperature	-30°C~+85°C	-30°C~+85°C
Storage Temperature	-40°C~+95°C	-40°C~+95°C
Features	[Touch]	[Heating]

## Rear Seat Entertainment Display



Screen Size	17.3"	15.6"	15.6"	12.9"
Display Mode	[TFT]	[TFT]	[TFT]	[TFT]
Aspect Ratio	16:9	16:9	16:9	16:9
Resolution (pixel)	2880*1620	2560*1440	1920*1080	1920*1080
Display Color	16.7M	16.7M	16.7M	16.7M
Interface	eDP	eDP	2-ports LVDS	2-ports LVDS
Operating Temperature	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C	-30°C~+85°C
Storage Temperature	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C	-40°C~+95°C
Features	[Touch] [Pen] [I]	[Touch] [Pen] [I]	[Touch] [Pen] [I]	[Touch] [Pen] [I]

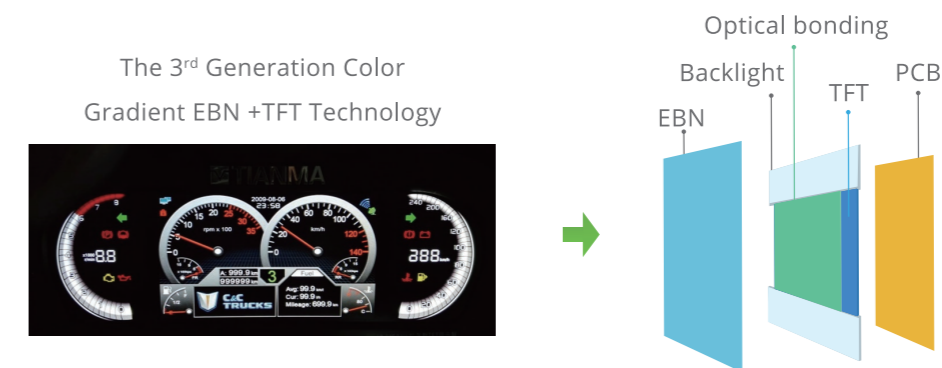
# PASSIVE PRODUCTS

## EBN + TFT



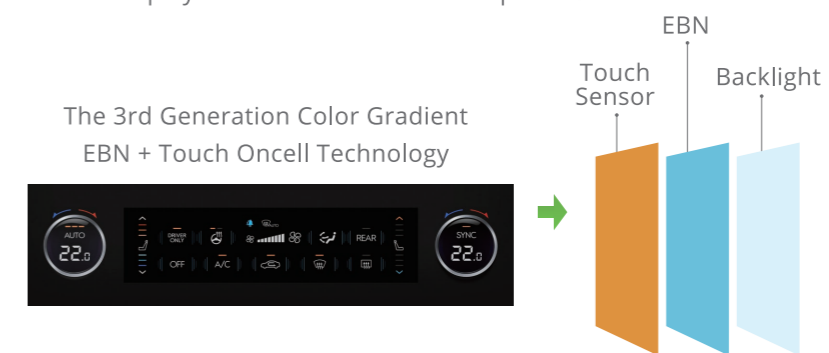
### The 3rd Generation Color Gradient EBN + TFT

Tianma can use EBN (Enhanced Black Nematic) + small size TFT technology to produce a display with same performance and content as a traditional TFT display but much more cost effectively, which can achieve multi-color gradient display and be customized per specific requirements. This technology can be used on dashboard displays.



### The 3rd Generation Color Gradient EBN + Touch Oncell

EBN (Enhanced Black Nematic) + Touch Oncell technology integrates touch functions and is thinner and more cost effective than the traditional external TP. The product appearance and color can be customized. This technology can be used on the display of air conditioner control panels.



Duty	1/1		
CR (at -30°C)	1000:1	Transmittance (%)	20%
CR (at 22°C)	2000:1	Operating Temperature	-30°C~+85°C
CR (at 85°C)	1000:1	Storage Temperature	-40°C~+95°C
Ton+Toff (-30°C)(s)	1.5	Vertical (CR>100)	-40°/+60°
Ton+Toff (22°C)(ms)	25	Horizontal (CR>100)	-60°/+60°
Ton+Toff (85°C)(ms)	10		