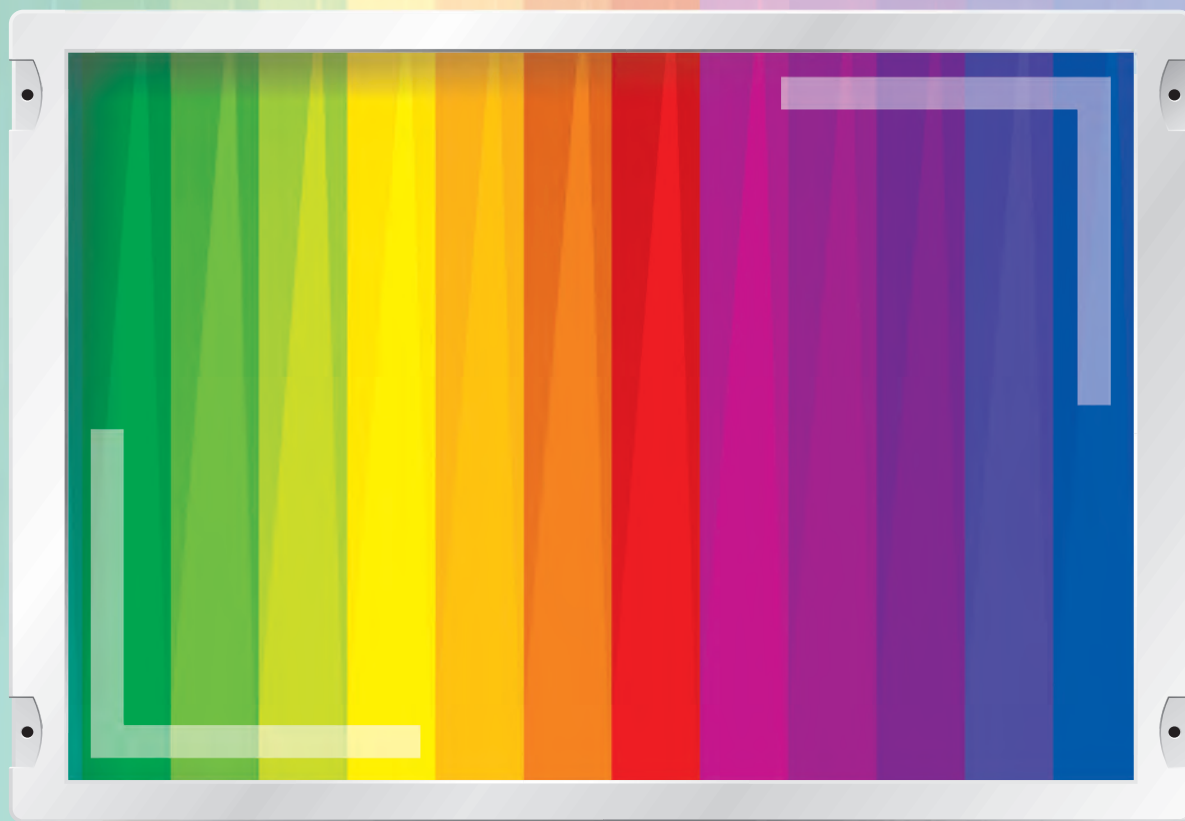




Industrial use Display modules

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Introduction

Established in 2012, Kaohsiung Opto-Electronics (KOE), a wholly owned subsidiary of Japan Display Inc (JDI), is a specialist display supplier committed to the development and supply of high performance displays designed for industrial and high reliability applications.

Inheriting a strong LCD heritage from Japanese manufacturers Hitachi, Toshiba and Sony, KOE is able to exploit the extensive technical resource of JDI to aid and assist efforts in display development, ensuring KOE remains at the forefront of evolving LCD technology.

Operating autonomously, KOE maintains a strong relationship and co-operation with its larger, consumer focused parent organisation that empowers technology transfer, material sourcing and manufacturing expertise.

Supplying displays manufactured with the ethos of high quality, effective design and efficient engineering, KOE has its own dedicated manufacturing and production facilities in Taiwan which supports design, development and procurement. Employing these principles has enabled KOE to continually develop and enhance an extensive range of high quality, performance optimised display solutions.

An expanding range of value added services and products such as glass bonding, projected capacitive touch, high brightness backlights, open frame monitors, and custom and semi-custom display development are supported. Strong partnerships with local suppliers endorses KOE's design engineers when sourcing display components, materials and sub-assemblies.

Global customer engagement is supported by JDI Europe, JDI-Display America, and KOE Asia. Each regional business focuses on sales and marketing enterprise, and supports customers with local sales teams, design focused distributors and sales representatives.



Kaohsiung Opto-Electronics Ltd

Evolving LCD technology

Developing cost effective display solutions, enhancing mature technology with new and compatible products, improving LCD optical design, introducing high reliability modules for industrial applications are just some of the challenges that KOE are

undertaking to continually evolve and develop LCD technology in the 21st century. KOE's established knowledge and experience of LCD design and development are enabling LCD technologies to progress and migrate to new and exciting display modules.



A low temperature poly-silicon (LTPS) TFT LCD, prepared by forming polycrystalline silicon on a glass substrate at relatively low temperatures, achieves high carrier mobility in TFT. Therefore, LTPS TFT LCD realizes a high resolution and high density display that cannot be achieved with A-si by integrating part of the display drive circuitry on the glass substrate. JDI has developed LTPS displays, and has introduced one of the world's highest density display prototypes.

RUGGED+

Developed using automotive display experience, KOE's Rugged+ display modules are intended for use in demanding industrial and harsh environmental conditions. KOE Rugged+ modules are capable of providing reliable and consistent operation under the severe and rigorous conditions found in some industrial applications while still providing exceptional optical performance.The entire range of Rugged+ displays feature industrial environment operating specifications with high brightness, long-life LED backlights and will provide dependable operation between -40°C and +85°C.



IPS was the first LCD technology to provide exceptional colour saturation and colour stability, excellent contrast and deep black levels with a 176° wide vertical and horizontal viewing angles. IPS has been further developed and evolved with Advanced-Super IPS, IPS Pro and most recently IPS NEO . IPS NEO has a much higher and more stable image performance over viewing angle than any other TFT technology. KOE will continue to develop and improve IPS technology to provide the best wide angle viewing TFT display solution.



KOE introduced full HD TFT displays for industrial applications
 KOE is one of the first LCD manufacturers to introduce compact, Full HD (1920x1080) display modules developed specifically for industrial applications. The TX18D200VM0EAA and TX18D204VM0BAA feature a pixel pitch of 0.081mm(W) x 0.081mm(H), equivalent to 314ppi (pixels per inch), Advanced IPS, 20-pin LVDS data interface, long-life LED backlight and wide operating temperature range. 10.1" WUXGA (1920 x 1200 pixels) display is a further high resolution display modules, which began MP since 2017. More high definition display to be introduced by KOE (see page 6).

Outdoor readable TFT Displays

The use of TFT displays in electronic equipment continues to increase. Displays are being used in a wide variety of different environments which can sometimes mean the display image is not always legible.

Outdoor readable TFT are designed specifically for use under high ambient light conditions, this is to ensure a high quality display image is maintained even under direct sunlight. The new display modules also feature an anti-glare (AG) polariser coating which helps to disperse light in multiple directions effectively eliminating reflections and therefore making them perfect for outdoor and direct sunlight applications.

Applications

Applications such as ticketing machine, POS terminals and kiosks are usually found in bright and outdoor environment. The product line-up feature high brightness, long-life LED, high contract ratio (CR) to provide strong optical performance and display images are still clear, concise and readable under bright ambient light condition.

Low Temperature Poly-silicon

- High resolution
- High aperture ratio
- System on glass
- Low power consumption

Rugged+

- Strong optical performance
- Highly resistant to ESD, mechanical shock and vibration
- WTR -40°C to +85°C
- Zero Bright Dot Defect

IPS

- Cutting-edge optical performance
- Exceptional colour stability and saturation
- 176° wide viewing angle



	1500 nits
	5.7" QVGA, Mono TFT 7" WVGA,TN 8" WVGA, TN 10.4" SVGA, TN
	1400 nits
	6.4" XGA, IPS (CR 800:1)
	1200 nits
	10.3" HD, IPS (CR 1000:1) 10.4" XGA, TN
	1000 nits
	5" WVGA, TN 6.3" HSVGA, IPS (CR 1000:1) 6.5" VGA, TN 7" WVGA, IPS (CR 1000:1) 8" WXGA, IPS (CR 1000:1) 9" WVGA, IPS (CR 800:1) 10.1" WXGA IPS (CR 1500:1) 12.3" HSXGA, IPS (CR 1000:1) 12.3" HD, IPS (CR 1300:1)
	900 nits
	8" WXGA, TN
	800 nits
	7" WVGA, IPS (CR 1000:1) 7" WXGA, IPS (CR 1000:1) 10.1" WUXGA, IPS (CR 800:1)



- IPS (high CR value) + high brightness can provide excellent readability in outdoor application.
- New development in 2019

Higher Definition TFT Displays

Higher definition display enables highly accurate representation of image detail such as colour gradients and authentic colour reproduction. Excellent optical performance is maintained with high contrast ratio and high brightness specification enabling bright, sharp display images. Exceptional colour performance and image clarity at all viewing angles are particularly important in professional broadcast and medical imaging applications

Applications

The development of higher definition TFT reflects the trend for higher pixel density and enhanced image clarity found in consumer devices such as monitors, tablets and smartphones. The use of higher resolution displays with greater pixel density enables accurate reproduction and representation of graphical information such as measurement and diagnostic images, and video reproduction.

High Definition

HD

Size	Resolution	Aspect ratio	Part Number	PPI	LCD Technology	LCD interface	Brightness cd/m²	Contrast	LED driver	Dimensions	Features highlight	
6.4"	1024 x 768	4:3	TX16D201VM0BAB	200	LTPS	IPS	LVDS	1400	800:1	Built-in	153 x 118 x 8.7	LTPS
7.0"	1280 x 768	5:3	TX18D212VM0BAA	213	A-si	IPS	LVDS	1000	1000:1	Built-in	164.4 x 105 x 8.5	New Rugged+
7.0"	1920 x 1080	16:9	TX18D200VM0EAA	315	A-si	IPS	LVDS	700	800:1	Built-in	169 x 104 x10	2-ch LVDS
8.0"	1280 x 768	5:3	TX20D201VM2BAB	187	A-si	TN	LVDS	900	500:1	n/a	189.5 x 120 x 7.5	TX20D33 mechanical compatible
10.1"	1920 x 1200	16:10	TX26D202VM0BAA	224	A-si	IPS	LVDS	800	800:1	Built-in	232 x 153.0 x 4.7	2-ch LVDS
10.3"	1920 x 720	8:3	TX26D206VM0BAA	200	A-si	IPS	LVDS	1200	1300:1	Built-in	235 x 180 x 9.5	New Rugged+
12.3"	1920 x 720	8:3	TX31D203VM0EAB	167	A-si	IPS	LVDS	1000	1300:1	Built-in	333.1 x 150.5 x 20.6	New Rugged+

Full HD

Size	Resolution	Aspect ratio	Part Number	PPI	LCD Technology	LCD interface	Brightness cd/m²	Contrast	LED driver	Dimensions	Features highlight	
7.0"	1920 x 1080	16:9	TX18D200VM0EAA	315	A-si	IPS	LVDS	700	800:1	Built-in	169 x 104 x10	FHD
10.1"	1920 x 1200	16:10	TX26D202VM0BAA	224	A-si	IPS	LVDS	800	800:1	Built-in	232 x 153.0 x 4.7	FHD

New for 2019

Size	Resolution	Aspect ratio	Part Number	PPI	LCD Technology	LCD interface	Brightness cd/m²	Contrast	LED driver	Dimensions	Features highlight	
13.3"	3840 x 2160	16:9	TX34D200VM0BAA	331	LTPS	IPS	eDP	350	1500:1	Built-in	298.46 x 175.69 x 2.0	4K QFHD



TX16D201VM0BAB

- 6.4" XGA 1024 x 768
- 1400 cd/m²
- LTPS , IPS



TX18D200VM0EAA

- 7.0" FHD 1920 x 1080
- 700 cd/m²
- 16:9, IPS

TX20D201VM2BAB

- 8" WXGA 1280 x 768
- 900 cd/m²
- Slim design

TX26D202VM2BAA

- 10.1" WUXGA 1920 x 1200
- 800 cd/m²
- 16:10, IPS

Projected Capacitive Touch screens and protective cover glass

Optical bonding technology provides a platform for the implementation of projected capacitive touch screens and protective cover glass. Projected capacitive (PCap) touch panel solutions can be considered for applications which require a robust user interface solution offering highly accurate and flexible gesture interactions.

Glass bonding coupled with an anti-reflection (AR) or anti-glare (AG) surface finish can enable improvements in optical performance. A TFT display featuring a cover glass and surface coating can reduce reflections to less than 0.2% by scattering and absorbing ambient light

Standard Pcap TP line-up

Size	Resolution	Part Number	Mode	Pcap TP interface	LCM Brightness cd/m ²
7.0"	800 x 480	TX18D205VM0BAA	IPS	I ² C/USB	800
7.0"	800 x 480	TX18D206VM0BAA	IPS	I ² C/USB	800

New for 2019

Size	Resolution	Part Number	Mode	Pcap TP interface	LCM Brightness cd/m ²
6.3"	800 x 280	TX16D204VM0BAA	IPS	I ² C	500
7.0"	1920 x 1080	TX18D200VM0EAA	IPS	USB	700
7.0"	1920 x 1080	TX18D204VM0BAA	IPS	USB	600
8.0"	800 x 480	TX20D200VM5BAA	TN	I ² C	1000
8.0"	800 x 480	TX20D200VM2BAB	TN	I ² C	1500
10.1"	1920 x 1200	TX26D202VM0BAA	IPS	USB	800
10.4"	800 x 600	TX26D200VM5BAA	TN	USB	1000
10.4"	800 x 600	TX26D200VM2BAB	TN	USB	1500
12.3"	1280 x 480	TX31D200VM0BAA	IPS	I ² C	1000

'IPS Like' UWVA (Ultra Wide Viewing Angle)

KOE's ultra wide viewing angle LCD modules are based on traditional TN (twisted nematic) TFT technology with enhancements to the optical design of the LCD cell. Many embedded, medical and industrial applications demand colour homogeneity of the display image. KOE's UWVA displays enable 'IPS like' optical performance to provide stable colour uniformity over a wide viewing angle of 80 degrees in all directions (up/down, left/right).



Analogue to digital boards

KOE's compact, embedded video driver boards enable a cost-effective and easy-to-use display enhancement.

The fully integrated analogue to digital video circuitry supports multiple interface options including VGA, DVI-D, HDMI and DisplayPort.

On-board software provides on-screen display functions for backlight dimming, image scaling and optical adjustments.



Added Value Display Solutions

An expanding range of value added services and products including projected capacitive touch screens, glass bonding, analogue to digital video cards, high brightness backlights, and semi-custom and custom display development are supported.

With the addition of a touch panel through to the development of a fully integrated open frame monitor, all display solutions can be realised to aid and enhance the user experience.

RUGGED+

Zero Bright
Dot Defect

Rugged+ TFT Displays for
Extreme Environmental Conditions

All of KOE's Rugged+ displays are designed to function in challenging and harsh environmental conditions. The entire range of Rugged+ displays feature industrial environment operating specifications with high brightness, long-life LED backlights and will ensure reliable operation between -40°C and +85°C.

Exceptional optical performance is ensured as many Rugged+ displays utilise KOE's IPS Pro technology, which delivers exceptional colour saturation, colour stability, contrast and black levels with a 176° wide vertical and horizontal viewing angle.

KOE's Rugged+ TFT displays are targeted for use in high reliability industrial, medical, marine, automotive and aerospace applications where consistent and guaranteed operation under extreme temperature, mechanical shock and vibration is a necessity.

Rugged+ TFT displays

Size	Resolution	Aspect ratio	Part Number	LCD Technology		LCD interface	Touchscreen Version	Brightness cd/m²	Contrast	LED driver	Top.(°C)	Tst.(°C)	Dimensions
3.5"	320 x 240	4:3	TX09D200VM0BAA	A-si	IPS	CMOS	TX09D200VM0BPA	600	900:1	Built-in	-30 - 85	-40 - 90	65.68 x 88.8 x 9.95
4.2"	480 x 272	16:9	TX11D201VM0BAA	A-si	IPS	CMOS	n/a	750	1500:1	Built-in	-40 - 85	-40 - 90	102.5 x 69 x 9.8
7.0"	800 x 480	5:3	TX18D35VM0AAA	A-si	IPS	CMOS	TX18D35VM0APA	450	600:1	Built-in	-30 - 80	-40 - 90	165 x 104 x 12.8
7.0"	800 x 480	5:3	TX18D35VM0AAB	A-si	IPS	CMOS	TX18D35VM0APB	800	600:1	Built-in	-30 - 80	-40 - 90	165 x 104 x 12.8
7.0"	800 x 480	5:3	TX18D37VM0AAA	A-si	IPS	LVDS	TX18D37VM0APA	450	600:1	Built-in	-30 - 80	-40 - 90	165 x 104 x 12.8
7.0"	800 x 480	5:3	TX18D37VM0AAB	A-si	IPS	LVDS	On request	800	600:1	Built-in	-30 - 80	-40 - 90	165 x 104 x 12.8
7.0"	800 x 480	5:3	TX18D205VM0BAA	A-si	IPS	CMOS	On request	800	1000:1	Built-in	-40 - 85	-40 - 90	167.7 x 109.5 x 9.0
7.0"	800 x 480	5:3	TX18D206VM0BAA	A-si	IPS	LVDS	On request	800	1000:1	Built-in	-40 - 85	-40 - 90	167.7 x 109.5 x 9.0
7.0"	1280 x 768	5:3	TX18D212VM0BAA	A-si	IPS	LVDS	n/a	800	1000:1	Built-in	-40 - 85	-40 - 90	164.4 x 105 x 8.5
8.0"	800 x 480	5:3	TX20D203VM0BAA	A-si	IPS	LVDS	On request	550	700:1	Built-in	-30 - 85	-40 - 90	189.5 x 119.4 x 11.6
9.0"	800 x 480	5:3	TX23D201VM0BAA	A-si	IPS	LVDS	TX23D201VM0BPA	1000	800:1	Built-in	-30 - 80	-40 - 90	218 x 135 x 11.15
10.3"	1920 x 720	8:3	TX26D206VM0BAA	LTPS	IPS	LVDS	n/a	1200	1300:1	Built-in	-40 - 85	-40 - 90	259 x 111.4 x 14.2
12.3"	1280 x 480	8:3	TX31D200VM0BAA	A-si	IPS	LVDS	n/a	1000	800:1	Built-in	-30 - 80	-40 - 90	320 x 130 x 12.1
12.3"	1920 x 720	8:3	TX31D203VM0EAB	A-si	IPS	LVDS	n/a	1000	1300:1	Built-in	-40 - 85	-40 - 90	333.1 x 150.5 x 20.6

New for 2019

Size	Resolution	Aspect ratio	Part Number	LCD Technology		LCD interface	Touchscreen Version	Brightness cd/m²	Contrast	LED driver	Top.(°C)	Tst.(°C)	Dimensions
6.3"	800 x 280	20:7	TX16D204VM0BAA	A-si	IPS	CMOS	On request	500	1000:1	Built-in	-30 - 85	-40 - 90	167 x 69 x 9
6.3"	800 x 280	20:7	TX16D205VM0BAA	A-si	IPS	CMOS	On request	1000	1000:1	Built-in	-30 - 85	-40 - 90	167 x 69 x 9
7.0"	800 x 480	5:3	TX18D210VM0BAA	LTPS	IPS	CMOS	On request	1000	1000:1	Built-in	-40 - 85	-40 - 90	167.7 x 109.5 x 9.0
7.0"	800 x 480	5:3	TX18D211VM0BAA	LTPS	IPS	LVDS	On request	1000	1000:1	Built-in	-40 - 85	-40 - 90	167.7 x 109.5 x 9.0
8.0"	1280 x 768	5:3	TX20D207VM0AAA	LTPS	IPS	LVDS	On request	1000	1000:1	Built-in	-30 - 85	-40 - 90	189.5 x 119.4 x 11.5
9.0"	800 x 480	5:3	TX23D202VM0BAA	A-si	IPS	LVDS	TX23D202VM0BPA	500	800:1	Built-in	-30 - 80	-40 - 90	218 x 135 x 11.15
9.0"	800 x 480	5:3	TX23D203VM0BAA	A-si	IPS	LVDS	TX23D203VM0BPA	1000	800:1	Built-in	-30 - 80	-40 - 90	218 x 135 x 11.15
10.1"	1280 x 800	8:5	TX26D207VM0AAA	A-si	IPS	LVDS	On request	1000	1500:1	Built-in	-30 - 85	-40 - 90	231 x 153.5 x 10.7

Wide Format TFT Displays

Traditional TFT technology and the migration of IPS technology to industrial and commercial displays enables KOE to offer an expanding portfolio of wide format aspect ratio TFT display solutions. Market leading optical performance, long term availability and continuity of supply can be ensured.

Applications

Wide format TFT displays will find use in many front panel, instrument console and control system designs and applications. The mechanical footprint of the wide format TFT displays is ideally suited for human machine interface applications. Information, data and graphics can be concisely represented and displayed.

Wide Format TFT Displays

Size	Resolution	Aspect ratio	Part Number	LCD Technology		LCD interface	Touchscreen Version	Brightness cd/m ²	Contrast	LED driver	Dimensions	Features highlight
4.2"	480 x 272	16:9	TX11D201VM0BAA	A-si	IPS	CMOS	n/a	750	1500:1	Built-in	102.5 x 69 x 9.8	Rugged+
4.3"	480 x 272	16:9	TX11D06VM2AAA	A-si	TN	CMOS	TX11D06VM2APA	500	500:1	n/a	105.5 x 67.2 x 2.9	24-bit
5.0"	800 x 480	5:3	TX13D06VM2BAA	A-si	TN	CMOS	TX13D06VM2BPA	1000	600:1	n/a	120 x 80.7 x 8	Compact mechanical outline
6.5"	800 x 480	5:3	TX17D200VM0BAA	A-si	IPS	LVDS	n/a	700	600:1	Built-in	154.8 x 92.7 x 10.2	Rugged+
7.0"	800 x 480	5:3	TX18D44VM2BAA	A-si	TN	CMOS	On request	400	600:1	n/a	165 x 106 x 8	Slim mechanical design
7.0"	800 x 480	5:3	TX18D45VM5BAA	A-si	TN	LVDS	On request	600	350:1	n/a	165 x 106 x 8	IPS-like
7.0"	800 x 480	5:3	TX18D46VM2BAA	A-si	TN	LVDS	On request	400	600:1	n/a	165 x 106 x 8	Slim mechanical design
7.0"	800 x 480	5:3	TX18D203VM2BAA	A-si	TN	CMOS	TX18D203VM2BPA	1500	600:1	Built-in	165 x 113 x 7.5	Outdoor readable
7.0"	800 x 480	5:3	TX18D35VM0AAA	A-si	IPS	CMOS	TX18D35VM0APA	450	600:1	Built-in	165 x 104 x 12.8	Rugged+
7.0"	800 x 480	5:3	TX18D35VM0AAB	A-si	IPS	CMOS	TX18D35VM0APB	800	600:1	Built-in	165 x 104 x 12.8	Rugged+
7.0"	800 x 480	5:3	TX18D37VM0AAA	A-si	IPS	LVDS	TX18D37VM0APA	450	600:1	Built-in	165 x 104 x 12.8	Rugged+
7.0"	800 x 480	5:3	TX18D37VM0AAB	A-si	IPS	LVDS	On request	800	600:1	Built-in	165 x 104 x 12.8	Rugged+
7.0"	800 x 480	5:3	TX18D205VM0BAA	A-si	IPS	CMOS	On request	800	1000:1	Built-in	167.7x109.5x9.0	New Rugged+
7.0"	800 x 480	5:3	TX18D206VM0BAA	A-si	IPS	LVDS	On request	800	1000:1	Built-in	167.7x109.5x9.0	New Rugged+
7.0"	1280 x 768	5:3	TX18D212VM0BAA	A-si	IPS	LVDS	n/a	1000	1000:1	Built-in	164.4 x 105 x 8.5	New Rugged+, HD
7.0"	1920 x 1080	16:9	TX18D200VM0EAA	A-si	IPS	LVDS	n/a	700	800:1	Built-in	169 x 104 x10	Full HD
7.0"	1920 x 1080	16:9	TX18D204VM0BAA	A-si	IPS	LVDS	TX18D204VM0BPA	600	800:1	Built-in	169 x 103 x 7	Full HD, slim mechanical design
8.0"	800 x 480	5:3	TX20D33VM2BAA	A-si	TN	CMOS	TX20D33VM2BPA	400	600:1	n/a	189 x 120 x 7.5	Slim mechanical design
8.0"	800 x 480	5:3	TX20D200VM5BAA	A-si	TN	LVDS	TX20D200VM5BPA	1000	400:1	Built-in	189 x 120 x 10.2	IPS-like
8.0"	800 x 480	5:3	TX20D200VM2BAB	A-si	TN	LVDS	TX20D200VM2BPB	1500	800:1	Built-in	189 x 122 x 10.2	Outdoor readable
8.0"	800 x 480	5:3	TX20D203VM0BAA	A-si	IPS	LVDS	On request	550	700:1	Built-in	189.5 x 119.4 x 11.6	New Rugged+
8.0"	1280 x 768	5:3	TX20D201VM0BAB	A-si	TN	CMOS	On request	900	500:1	n/a	189.5 x 120 x 7.5	HD
9.0"	800 x 480	5:3	TX23D201VM0BAA	A-si	IPS	LVDS	TX23D201VM0BPA	1000	800:1	Built-in	218 x 135 x 11.15	Rugged+
10.1"	1920 x 1200	16:10	TX26D202VM0BAA	A-si	IPS	LVDS	n/a	800	800:1	Built-in	232 x 153.0 x 4.7	Full HD
10.3"	1920 x 720	8:3	TX26D206VM0BAA	LTPS	IPS	LVDS	n/a	1200	1300:1	Built-in	235 x 180 x 9.5	New Rugged+, HD
12.3"	1280 x 480	8:3	TX31D200VM0BAA	A-si	IPS	LVDS	n/a	1000	800:1	Built-in	320 x 130 x 12.1	Rugged+
12.3"	1920 x 720	8:3	TX31D203VM0EAB	A-si	IPS	LVDS	n/a	1000	1300:1	Built-in	333.1 x 150.5 x 20.6	New Rugged+, HD

Ultra Wide Format TFT Displays

Size	Resolution	Aspect ratio	Part Number	LCD Technology		LCD interface	Touchscreen Version	Brightness cd/m ²	Contrast	LED driver	Dimensions	Features highlight
6.2"	640 x 240	8:3	TX16D20VM5BAA	A-si	TN	CMOS	TX16D20VM5BQA	400	400:1	n/a	173 x 70 x 7	IPS-like
6.2"	640 x 240	8:3	TX16D21VM5BAA	A-si	TN	LVDS	On request	400	400:1	n/a	173 x 70 x 7	IPS-like
10.2"	800 x 256	3:1	TX26D25VM2BAA	A-si	TN	CMOS	n/a	350	500:1	n/a	260.2 x 96.2 x 10.55	Slim mechanical design
14.9"	1280 x 242	14:3	TX38D25VM0CAA	A-si	IPS	CMOS	n/a	450	800:1	Built-in	386.82 x 85.57 x 13.06	IPS

New for 2019

Size	Resolution	Aspect ratio	Part Number	LCD Technology		LCD interface	Touchscreen Version	Brightness cd/m ²	Contrast	LED driver	Dimensions	Features highlight
6.3"	800 x 280	20:7	TX16D204VM0BAA	A-si	IPS	CMOS	n/a	500	1000	Built-in	167 x 69 x 9	Rugged+
6.3"	800 x 280	20:7	TX16D205VM0BAA	A-si	IPS	CMOS	n/a	1000	1000	Built-in	167 x 69 x 9	Rugged+, outdoor readable
7.0"	800 x 480	5:3	TX18D210VM0BAA	LTPS	IPS	CMOS	On request	800	1000:1	Built-in	167.7 x 109.5 x 9.0	Rugged+
7.0"	800 x 480	5:3	TX18D211VM0BAA	LTPS	IPS	LVDS	On request	800	1000:1	Built-in	167.7 x 109.5 x 9.0	Rugged+
8.0"	1280 x 768	5:3	TX20D207VM0AAA	LTPS	IPS	LVDS	On request	1000	1000:1	Built-in	189.5 x 119.4 x 11.5	Rugged+
9.0"	800 x 480	5:3	TX23D202VM0BAA	A-si	IPS	LVDS	TX23D202VM0BPA	500	800:1	Built-in	218 x 135 x 11.15	TX23D200 compatible, Rugged+
9.0"	800 x 480	5:3	TX23D203VM0BAA	A-si	IPS	LVDS	TX23D203VM0BPA	1000	800:1	Built-in	218 x 135 x 11.15	TX23D201 compatible, Rugged+
10.1"	1280 x 800	8:5	TX26D207VM0AAA	A-si	IPS	LVDS	On request	1000	1500:1	Built-in	231 x 153.5 x 10.7	Rugged+

Standard Format TFT Displays

As a proven TFT technology leader KOE has been a major developer and manufacturer of colour TFT displays for almost 20 years. A wide range of standard colour TFTs from 3.5" to 10.4" provide inherent quality and exceptional optical performance. Specifications and interfaces are optimised for industrial markets and ease of integration.

A vast and wide range of applications are particularly suited to the use of KOE colour TFT displays. Small, low power displays are particularly suitable for compact, portable, battery powered equipment, media players and mobile navigation systems. Medium size colour TFTs provide ideal choices for security monitoring, portable terminals and process control while larger sizes are particularly suited for online terminals, monitors and epos applications.

Applications

- navigation systems
- portable terminals
- home automation
- security systems
- online terminals
- process control
- feature phones
- media players
- epos



Standard format (4:3) TFT displays

Size	Resolution	Part Number	LCD Technology		LCD interface	Touchscreen Version	Brightness cd/m ²	Contrast	LED driver	Dimensions	Features highlight
3.5"	240 x 320	TX09D40VM3CBA	A-Si	TN	CMOS	TX09D40VM3CAA	430	300:1	n/a	64 x 86 x 3.12	TMR, Timing Controller built in
3.5"	240 x 320	TX09D30VM1CDA	A-Si	TN	CMOS	TX09D30VM1CCA	320	300:1	Built-in	64 x 86 x 6.7	TMR, Timing Controller built in, On board voltage generation
3.5"	320 x 240	TX09D200VM0BAA	A-Si	PS	CMOS	TX09D200VM0BPA	600	900:1	Built-in	65.68 x 88.8 x 9.95	Rugged+
5.0"	640 x 480	TX13D200VM5BAA	A-Si	TN	CMOS	On request	600	370:1	Built-in	119.4 x 89.1 x 9.3	IPS-like
5.0"	640 x 480	TX13D202VM5BAA	A-Si	TN	LVDS	On request	600	370:1	Built-in	119.4 x 89.1 x 9.3	IPS-like
5.7"	320 x 240	TX14D24VM1BAA	A-Si	TN	CMOS	TX14D24VM1BPA	450	600:1	n/a	167 x 109 x9.2	SP14Q/SX14Q compatible
5.7"	320 x 240	TX14D25VM1BAA	A-Si	TN	CMOS	TX14D25VM1BPA	400	600:1	n/a	131 x 102.2 x 10.9	Compact mechanical outline
5.7"	320 x 240	TX14D26VM1BAA	A-Si	TN	CMOS	TX14D26VM1BPA	800	800:1	n/a	131 x 102 x 7.1	Slim mechanical design
5.7"	640 x 480	TX14D23VM5BAA	A-Si	TN	CMOS	TX14D23VM5BPA	800	400:1	n/a	131 x 102.2 x 7.6	IPS-like
5.7"	640 x 480	TX14D23VM5BAB	A-Si	TN	CMOS	TX14D23VM5BPB	800	400:1	Built-in	131 x 102.2 x 7.6	IPS-like
5.7"	640 x 480	TX14D28VM5BAA	A-Si	TN	LVDS	TX14D28VM5BPA	800	400:1	n/a	131 x 102.2 x 7.6	IPS-like
5.7"	320x240	TX14D201MM2BAA	A-Si	Mono TFT	SPI	n/a	1500	1200:1	Built-in	131x104.2x7.8	8-bit CPU
6.4"	1024 x 768	TX16D201VM0BAB	LTPS	IPS	LVDS	On request	1400	800:1	Built-in	153 x 118 x 8.7	LTPS, HD
6.5"	640 x 480	TX17D01VM2CAA	A-Si	TN	CMOS	TX17D01VM2CPA	600	600:1	Built-in	153 x 118 x 9.1	Compact mechanical outline
6.5"	640 x 480	TX17D01VM2EAB	A-Si	TN	CMOS	TX17D01VM2CPB	1000	600:1	Built-in	153 x 118 x 9.1	AR polariser
6.5"	640 x 480	TX17D01VM5BAA	A-Si	TN	CMOS	TX17D01VM5BPA	800	350:1	Built-in	153 x 118 x 9.1	IPS-like
10.4"	800 x 600	TX26D19VM2BAA	A-Si	TN	LVDS	TX26D19VM2BPA	550	800:1	n/a	243 x 185.1 x 10	able to achieve 1000 cd/m2
10.4"	800 x 600	TX26D200VM5BAA	A-Si	TN	LVDS	TX26D200VM5BPA	1000	400:1	Built-in	243 x 185.1 x 10.1	IPS-like
10.4"	800 x 600	TX26D200VM2BAB	A-Si	TN	LVDS	TX26D200VM2BPB	1500	800:1	Built-in	230 x 180.2 x 10.1	Outdoor readable
10.4"	1024 x 768	TX26D203VM2BAA	A-Si	TN	LVDS	n/a	1200	800:1	n/a	235 x 180.2 x 9.5	18/24-bit

- TX16D201VM0BAB**
- 6.4" XGA 1024 x 768
 - 1400 cd/m²
 - LTPS, IPS

- TX14D201MM2BAA**
- 5.7" QVGA 320 x 240
 - Monochrome TFT
 - 1500 cd/m²
 - 1200:1 contrast

- TX17D01VM2EAB**
- 6.5" VGA 640 x 480
 - 70K Hour LED backlight
 - 1000 cd/m²
 - AR polarizer

- TX26D200VM2BAB**
- 10.4" SVGA 800 x 600
 - 1500 cd/m²
 - 70K hour LED backlight

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