



- ▶ HIGH CONTRAST
- ▶ SUPER HIGH BRIGHTNESS
- ▶ UNLIMITED VIEWING ANGLE
- ▶ LONGTERM AVAILABILITY

Kyocera Standard TFT Modules



The innovative TFT-LCD displays allow bright colours to be seen clearly even in intense sunlight – making them ideal for industrial applications including medical, aerospace, marine, test and measurement, and factory automation equipment for Industry 4.0.

FEATURES

- ▶ High brightness
- ▶ Wide viewing angle
- ▶ Long LED lifetime
- ▶ Wide temperature range
- ▶ Mechanical robustness
- ▶ Longterm availability
- ▶ PCAP optional
- ▶ Customisation upon request

SIZE	RESOLUTION	PART NUMBER	INTERFACE	MODULE SIZE W × H × D (mm)	CONTRAST RATIO	BRIGHTNESS (cd/m ²)	VIEWING ANGLE (U/D/L/R)	OPERATING TEMPERATURE (°C)	LED LIFETIME
3.5"	QVGA	TG035QVLAANN-GN00	CMOS+SPI	76.9 × 63.9 × 4.9	1000:1	1200	70/60/80/80	-20~70	60 Kh
	QVGA	TCG035QVLPANN-AN00	CMOS+SPI	76.9 × 63.9 × 4.9	1000:1	400	80/60/80/80	-20~70	60 Kh
	QVGA	TCG035QVLPDANN-GN50	CMOS+SPI	76.9 × 63.9 × 4.9	1000:1	1000	80/60/80/80	-20~70	50 Kh
	QVGA	TCG035QVLPDANN-GN50-S	CMOS+SPI	76.9 × 63.9 × 4.9	1000:1	1000	80/60/80/80	-20~70	40 Kh
4.3"	WQVGA	TCG043WQLBAANN-GN00	CMOS	105.5 × 67.2 × 5.9	350:1	450	60/65/70/70	-20~70	100 Kh
	WQVGA	TCG043WQLBAANN-GN50	CMOS	105.5 × 67.2 × 5.9	350:1	800	60/65/70/70	-20~70	100 Kh
5.7"	QVGA	TG057QVLGA-G00	CMOS	134.5 × 103.4 × 8	500:1	400	80/80/80/80	-20~70	70 Kh
	QVGA	TG057QVLGF-G00	CMOS	134.5 × 103.4 × 8	500:1	1000	80/80/80/80	-20~70	70 Kh
	QVGA	TCG057QVLBA-G20	CMOS	127.2 × 100.4 × 5.7	500:1	300	80/80/80/80	-20~70	40 Kh
	QVGA	TCG057QVLGA-G00	CMOS	134.5 × 103.4 × 8	500:1	500	80/80/80/80	-20~70	100 Kh
	QVGA	TCG057QVLHA-G50	CMOS	134.5 × 103.4 × 8	500:1	1000	80/80/80/80	-20~70	50 Kh
	VGA	TCG057VGLBA-G20	CMOS	127.2 × 100.4 × 5.7	500:1	500	80/80/80/80	-20~70	40 Kh
	VGA	TCG057VGLGA-G00	CMOS	134.5 × 103.4 × 8	500:1	500	80/80/80/80	-20~70	100 Kh
	VGA	TCG057VGLCS-H50	CMOS	144 × 104.8 × 13	500:1	800	80/80/80/80	-20~70	100 Kh
	VGA	TCG057VGLCS-H50-SA	CMOS	144 × 104.8 × 13	500:1	800	80/80/80/80	-20~70	50 Kh
	VGA	TCG057VGLAANN-GN20	LVDS	127.2 × 100.4 × 5.99	500:1	450	80/80/80/80	-20~70	50 Kh
6.2"	HVGA	TCG062HVLDA-G20	CMOS	173 × 70 × 6.7	500:1	300	80/80/80/80	-20~70	40 Kh
	HVGA	TCG062HVLQAVNN-GN20	LVDS	173 × 70 × 6.7	500:1	500	85/85/85/85	-20~70	40 Kh
6.6"	-	TCG066AALPAANN-GN00	CMOS	27.75 × 196.9 × 6.3	800:1	400	80/60/80/80	-20~70	70 Kh
7"	WVGA	TCG070WVLPANN-AN00	CMOS	165 × 104.4 × 8.2	500:1	350	60/80/80/80	-20~70	100 Kh
	WVGA	TCG070WVLPANN-AN00-SA	CMOS	165 × 104.4 × 8.2	500:1	450	60/80/80/80	-20~70	50 Kh
	WVGA	TCG070WVLPANN-AN50	CMOS	165 × 104.4 × 8.2	500:1	700	60/80/80/80	-20~70	100 Kh
	WVGA	TCG070WVLPANN-AN50-SA	CMOS	165 × 104.4 × 8.2	500:1	700	60/80/80/80	-20~70	50 Kh
	WVGA	TCG070WVLQCPNN-AN00	CMOS	165 × 104.4 × 8.2	500:1	350	85/85/85/85	-20~70	100 Kh
	WVGA	TCG070WVLQAPNN-AN04	CMOS	165 × 104.4 × 8.2	500:1	500	85/85/85/85	-20~70	100 Kh
	WVGA	TCG070WVLPANN-AN20	LVDS	165 × 104.4 × 8.6	500:1	350	60/80/80/80	-20~70	100 Kh
	WVGA	TCG070WVLPANN-AN30	LVDS	165 × 104.4 × 8.6	500:1	700	60/80/80/80	-20~70	100 Kh
	WVGA	TCG070WVLQEPNN-AN20	LVDS	165 × 104.4 × 8.6	500:1	350	85/85/85/85	-20~70	100 Kh
	WVGA	TCG070WVLQGPNN-AN70	LVDS	169.8 × 109.7 × 9.7	500:1	1000	85/85/85/85	-30~80	70 Kh
	WVGA	TCG070WVLQGPNN-AN40	LVDS	169.8 × 109.7 × 9.7	500:1	1000	85/85/85/85	-30~80	70 Kh
	WVGA	TCG070WVLQGPNN-AN41	LVDS	169.8 × 109.7 × 9.7	500:1	1000	85/85/85/85	-30~80	70 Kh
	WVGA	TCG070WVLSJPPA-GD20	LVDS	169.8 × 109.7 × 9.2	650:1	500	85/85/85/85	-20~70	70 Kh
	WVGA	TCG070WVLSJPPB-GA20	LVDS	169.8 × 109.7 × 10.25	650:1	500	85/85/85/85	-20~70	70 Kh

SIZE	RESOLUTION	PART NUMBER	INTERFACE	MODULE SIZE W × H × D (mm)	CONTRAST RATIO	BRIGHTNESS (cd/m ²)	VIEWING ANGLE (U/D/L/R)	OPERATING TEMPERATURE (°C)	LED LIFETIME
7.5"	VGA	TCG075VGLAANN-GN00-SA	CMOS	184 × 139.8 × 12.7	500:1	450	80/80/80/80	-20~70	50 Kh
	VGA	TCG075VGLDA-G20	CMOS	173 × 133 × 6.35	500:1	250	80/80/80/80	-20~70	40 Kh
	VGA	TCG075VGLDH-G20	LVDS	173 × 133 × 4.4	500:1	250	80/80/80/80	-20~70	40 Kh
8.4"	VGA	TCG084VGLACANN-AN00	CMOS	199.5 × 147.4 × 9	500:1	550	60/70/70/70	-20~70	100 Kh
	VGA	TCG084VGLACANN-AN00-SA	CMOS	199.5 × 147.4 × 9	500:1	600	60/70/70/70	-20~70	50 Kh
	VGA	TCG084VGLAAANN-AN50	CMOS	199.5 × 147.4 × 9	500:1	850	60/70/70/70	-20~70	70 Kh
	SVGA	TCG084SVLPAANN-AN20	LVDS	199.5 × 147.4 × 9	800:1	400	80/60/80/80	-20~70	100 Kh
	SVGA	TCG084SVLPAANN-AN20-SA	LVDS	199.5 × 147.4 × 9	800:1	400	80/60/80/80	-20~70	50 Kh
	SVGA	TCG084SVLPAANN-AN30	LVDS	199.5 × 147.4 × 9	800:1	750	80/60/80/80	-20~70	100 Kh
	SVGA	TCG084SVLQAPNN-AN20	LVDS	199.5 × 147.4 × 9	800:1	400	85/85/85/85	-20~70	100 Kh
	SVGA	TCG084SVLQAPNN-AN20-SA	LVDS	199.5 × 147.4 × 9	800:1	400	85/85/85/85	-20~70	50 Kh
	SVGA	TCG084SVLQ*PNN-AN*32	LVDS	199.5 × 149 × 11.5	500:1	600	85/85/85/85	-20~70	70 Kh
	SVGA	TCG084SVLQ*PNN-AN*33	LVDS	199.5 × 149 × 11.5	500:1	1200	85/85/85/85	-20~70	70 Kh
8.5"	VGA	TCG085WVLQDPNN-GN00	C-MOS	210 × 134 × 8.8	500:1	400	85/85/85/85	-20~70	70 Kh
10.1"	VGA	TCG101WXLPAANN-AN20-SA	LVDS	236 × 156.8 × 9.4	800:1	500	80/80/80/80	-20~70	50 Kh
10.4"	VGA	TCG104VGLAAANN-AN20	CMOS	240.7 × 180.2 × 9	500:1	400	60/70/70/70	-20~70	70 Kh
	VGA	TCG104VGLABANN-AN30	CMOS	240.7 × 180.2 × 9	500:1	800	60/70/70/70	-20~70	70 Kh
	VGA	TCG104VGLACANN-AN00	LVDS	230 × 180.2 × 10.5	500:1	1500	60/70/70/70	-20~70	70 Kh
	VGA	TCG104VGLPEANN-AN60	LVDS	240.7 × 180.2 × 9	500:1	450	60/70/70/70	-20~80	50 Kh
	SVGA	TCG104SVLPAANN-AN20	LVDS	240.7 × 180.2 × 9	900:1	450	80/60/80/80	-20~70	100 Kh
	SVGA	TCG104SVLPAANN-AN20-SA	LVDS	240.7 × 180.2 × 9	900:1	500	80/60/80/80	-20~70	50 Kh
	SVGA	TCG104SVLPEANN-AN30	LVDS	240.7 × 180.2 × 9	900:1	700	80/60/80/80	-20~70	100 Kh
	SVGA	TCG104SVLQAPNN-AN20	LVDS	240.7 × 180.2 × 9	500:1	400	85/85/85/85	-20~70	100 Kh
	SVGA	TCG104SVLQJPNN-AN40	LVDS	230 × 180.2 × 10.8	750:1	1200	85/85/85/85	-30~80	70 Kh
	SVGA	TCG104SVLQJPNN-AN41	LVDS	230 × 180.2 × 10.8	750:1	1200	85/85/85/85	-30~80	70 Kh
	XGA	TCG104XGLPAPNN-AN30	LVDS	230 × 180.2 × 10.5	700:1	600	85/85/85/85	-30~80	70 Kh
	XGA	TCG104XGLPAPNN-AN31	LVDS	230 × 180.2 × 10.5	700:1	600	85/85/85/85	-30~80	50 Kh
	XGA	TCG104XGLPAPNN-AN40	LVDS	230 × 180.2 × 10.5	700:1	1300	85/85/85/85	-30~80	70 Kh
	12.1"	SVGA	TCG121SVLPAANN-AN20	LVDS	278.3 × 207.5 × 9.5	1000:1	500	80/80/80/80	-20~70
SVGA		TCG121SVLPAANN-AN20-SA	LVDS	278.3 × 207.5 × 9.5	1000:1	550	80/80/80/80	-20~70	50 Kh
SVGA		TCG121SVLQEPNN-AN20	LVDS	265 × 207.7 × 9.6	500:1	450	85/85/85/85	-20~70	100 Kh
XGA		TCG121XGLPAPNN-AN20	LVDS	260.5 × 203.4 × 10.3	750:1	400	85/85/85/85	-30~80	50 Kh
XGA		TCG121XGLPAPNN-AN20-SA	LVDS	260.5 × 203.4 × 10.3	500:1	400	85/85/85/85	-30~80	50 Kh
XGA		TCG121XGLPBPN-AN40	LVDS	260.5 × 203 × 10.2	750:1	1200	85/85/85/85	-30~80	70 Kh
WXGA		TCG121WXLPAANN-AN20-SA	LVDS	277.7 × 182.5 × 9.8	750:1	500	85/85/85/85	-20~70	50 Kh
WXGA		TCG121WXL*VNN-AN*35	LVDS	283 × 185.1 × 10.5	750:1	(1,500)	85/85/85/85	-30~80	50 Kh

Kyocera reserves the right to modify these specifications without prior notice. Kyocera Display Europe GmbH, February 2018

Highlights

Kyocera advanced displays are more than simple touch monitors. They are intelligent HMIs which support the operator. This means to recognize their users by integrated camera function, to respond on finger pressure with a Haptivity® feedback that feels like a certain button and ensure that the machine control is kept by the human user under all environmental conditions.



Picture: courtesy by CASIO

► HAPTIVITY® TECHNOLOGY

This is the newly patented technology for haptic force feedback of displays. It can be used in touch panel or touch pad products for a broad range of applications such as automotive, medical and industrial equipment. Ceramic piezo elements assembled in the module serve as the actuators for the movement. Due to the exact adjustment capability, the user gets a real feeling which is caused by the virtual feedback. In addition, the piezo features can measure the pressure force. This allows to pretend the feeling of touching and pressing a button.

Haptivity® is a registered trade mark of Kyocera Corporation.

► REFLECTIVE TECHNOLOGY FOR WEARABLES

Kyocera developed a Memory In Pixel (MIP) technology based on LTPS. With this technology each pixel can be addressed and keeps its data without refreshing. In combination with reflective mode, this display has an extremely low power consumption. The small borders and the high contrast fit perfectly in with applications like smart watches, outdoor watches, smart meters or data loggers. The MIP technology is available in sunlight readable monochrome and from mid-2018 in colour.

