



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

**KYOCERA DISPLAYS 2020**



The innovative TFT-LCD displays allow bright colours which can be perceived clearly even at 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	MODE	RESOLUTION	PART NUMBER	INTERFACE	DIMENSIONS W × H × D [mm]	CONTRAST RATIO	BRIGHTNESS [cd/m <sup>2</sup> ]	VIEWING ANGLE [U/D/L/R]	OPERATING TEMPERATURE [°C]	LED LIFETIME [hrs]
3.5"	Mono	QVGA	TTG035QVLQAANN-GN00	CMOS+SPI	76.9 × 63.9 × 4.9	1000:1	1,200	70/60/80/80	-20~70	60,000
	TN	QVGA	TCG035QVLPAAANN-AN00	CMOS+SPI	76.9 × 63.9 × 4.9	1000:1	400	80/60/80/80	-20~70	60,000
	TN	QVGA	TCG035QVLPDANN-GN50	CMOS+SPI	76.9 × 63.9 × 4.9	1000:1	1,000	80/60/80/80	-20~70	50,000
	TN	QVGA	TCG035QVLPDANN-GN50-S	CMOS+SPI	76.9 × 63.9 × 4.9	1000:1	1,000	80/60/80/80	-20~70	40,000
4.2"	AWV II	WQVGA	TCG042AALPBVNN-AN01	CMOS	107.7 × 67.0 × 8.4	1200:1	700	80/80/80/80	-20~70	50,000
4.3"	TN	WQVGA	TCG043WQLBAANN-GN00	CMOS	105.5 × 67.2 × 5.9	350:1	450	60/65/70/70	-20~70	100,000
	TN	WQVGA	TCG043WQLBAANN-GN50	CMOS	105.5 × 67.2 × 5.9	350:1	800	60/65/70/70	-20~70	100,000
5.7"	Mono	QVGA	TCG057QVLGA-G00	CMOS	134.5 × 103.4 × 8	500:1	400	80/80/80/80	-20~70	70,000
	Mono	QVGA	TCG057QVLGF-G00	CMOS	134.5 × 103.4 × 8	500:1	1,000	80/80/80/80	-20~70	70,000
	TN	QVGA	TCG057QVLBA-G20	CMOS	127.2 × 100.4 × 5.7	500:1	300	80/80/80/80	-20~70	40,000
	TN	QVGA	TCG057QVLGA-G00	CMOS	134.5 × 103.4 × 8	500:1	500	80/80/80/80	-20~70	100,000
	TN	QVGA	TCG057QVLHA-G50	CMOS	134.5 × 103.4 × 8	500:1	1,000	80/80/80/80	-20~70	50,000
	TN	VGA	TCG057VGLAAANN-GN20	LVDS	127.2 × 100.4 × 5.99	500:1	450	80/80/80/80	-20~70	50,000
6.2"	TN	VGA	TCG057VGLBA-G20	CMOS	127.2 × 100.4 × 5.7	500:1	500	80/80/80/80	-20~70	40,000
	TN	VGA	TCG057VGLCS-H50	CMOS	144 × 104.8 × 13	500:1	800	80/80/80/80	-20~70	100,000
	TN	VGA	TCG057VGLCS-H50-SA	CMOS	144 × 104.8 × 13	500:1	800	80/80/80/80	-20~70	50,000
	TN	VGA	TCG057VGLGA-G00	CMOS	134.5 × 103.4 × 8	500:1	500	80/80/80/80	-20~70	100,000
	TN	VGS	TCG057VGLRCANN-GN50	CMOS	127.2 × 100.4 × 5.7	500:1	800	80/80/80/80	-20~70	35,000
	TN	HVGA	TCG062HVLDA-G20	CMOS	173 × 70 × 6.7	500:1	300	80/80/80/80	-20~70	40,000
	AWV	HVGA	TCG062HVLQAVNN-GN20	LVDS	173 × 70 × 6.7	500:1	500	85/85/85/85	-20~70	40,000
	TN	WVGA	TCG070WVLPAAANN-AN50	CMOS	165 × 104.4 × 8.2	500:1	700	60/80/80/80	-20~70	100,000
	TN	WVGA	TCG070WVLPAAANN-AN50-SA	CMOS	165 × 104.4 × 8.2	500:1	700	60/80/80/80	-20~70	50,000
	TN	WVGA	TCG070WVLPANN-AN00	CMOS	165 × 104.4 × 8.2	500:1	350	60/80/80/80	-20~70	100,000
7.0"	TN	WVGA	TCG070WVLPANN-AN00-SA	CMOS	165 × 104.4 × 8.2	500:1	450	60/80/80/80	-20~70	50,000
	TN	WVGA	TCG070WVLPANN-AN20	LVDS	165 × 104.4 × 8.6	500:1	350	60/80/80/80	-20~70	100,000
	TN	WVGA	TCG070WVLPANN-AN30	LVDS	165 × 104.4 × 8.6	500:1	700	60/80/80/80	-20~70	100,000
	AWV	WVGA	TCG070WVLPANN-AN00	CMOS	165 × 104.4 × 8.2	500:1	350	85/85/85/85	-20~70	100,000
	AWV	WVGA	TCG070WVLPANN-AN04	CMOS	165 × 104.4 × 8.2	500:1	500	85/85/85/85	-20~70	100,000
	AWV	WVGA	TCG070WVLPANN-AN20	LVDS	165 × 104.4 × 8.6	500:1	350	85/85/85/85	-20~70	100,000
	AWV	WVGA	TCG070WVLPANN-AN70	LVDS	169.8 × 109.7 × 9.7	500:1	1,000	85/85/85/85	-30~80	70,000
	AWV	WVGA	TCG070WVLPANN-AN40	LVDS	169.8 × 109.7 × 9.7	500:1	1,000	85/85/85/85	-30~80	70,000
	AWV	WVGA	TCG070WVLSJPPA-GD20	LVDS	169.8 × 109.7 × 9.2	650:1	500	85/85/85/85	-20~70	70,000
	AWV	WVGA	TCG070WVLSJPPB-GA20	LVDS	169.8 × 109.7 × 10.25	650:1	500	85/85/85/85	-20~70	70,000
7.5"	TN	VGA	TCG075VGLDA-G20	CMOS	173 × 133 × 6.35	500:1	250	80/80/80/80	-20~70	40,000
	TN	VGA	TCG075VGLDH-G20	LVDS	173 × 133 × 4.4	500:1	250	80/80/80/80	-20~70	40,000
	TN	VGA	TCG075VGLEAANN-GN00-SA	CMOS	184 × 139.8 × 12.7	500:1	450	80/80/80/80	-20~70	50,000

SIZE	MODE	RESOLUTION	PART NUMBER	INTERFACE	DIMENSIONS W × H × D [mm]	CONTRAST RATIO	BRIGHTNESS [cd/m <sup>2</sup> ]	VIEWING ANGLE [U/D/L/R]	OPERATING TEMPERATURE [°C]	LED LIFETIME [hrs]
8.4"	TN	VGA	TCG084VGLAAANN-AN50	CMOS	199.5 × 147.4 × 9	500:1	850	60/70/70/70	-20~70	70,000
	TN	VGA	TCG084VGLACANN-AN00	CMOS	199.5 × 147.4 × 9	500:1	550	60/70/70/70	-20~70	100,000
	TN	VGA	TCG084VGLACANN-AN00-SA	CMOS	199.5 × 147.4 × 9	500:1	600	60/70/70/70	-20~70	50,000
	TN	SVGA	TCG084SVLPAANN-AN20	LVDS	199.5 × 147.4 × 9	800:1	400	80/60/80/80	-20~70	100,000
	TN	SVGA	TCG084SVLPAANN-AN20-SA	LVDS	199.5 × 147.4 × 9	800:1	400	80/60/80/80	-20~70	50,000
	TN	SVGA	TCG084SVLPAANN-AN30	LVDS	199.5 × 147.4 × 9	800:1	750	80/60/80/80	-20~70	100,000
	AWV	SVGA	TCG084SVLQAPNN-AN20	LVDS	199.5 × 147.4 × 9	800:1	400	85/85/85/85	-20~70	100,000
	AWV	SVGA	TCG084SVLQAPNN-AN20-SA	LVDS	199.5 × 147.4 × 9	800:1	400	85/85/85/85	-20~70	50,000
	AWV	SVGA	TCG084SVLQEPNN-AN30	LVDS	199.5 × 149 × 11.5	500:1	600	85/85/85/85	-20~70	70,000
	AWV	SVGA	TCG084SVLQEPNN-AN40	LVDS	199.5 × 149 × 11.5	500:1	600	85/85/85/85	-20~70	70,000
8.5"	AWV	VGA	TCG085WVLQDPNN-GN00	CMOS	210 × 134 × 8.8	500:1	400	85/85/85/85	-20~70	70,000
10.1	TN	WXGA	TCG101WXLPAANN-AN20-SA	LVDS	236 × 156.8 × 9.4	800:1	500	80/80/80/80	-20~70	50,000
10.4"	TN	VGA	TCG104VGLAAANN-AN20	CMOS	240.7 × 180.2 × 9	500:1	400	60/70/70/70	-20~70	70,000
	TN	VGA	TCG104VGLABANN-AN30	CMOS	240.7 × 180.2 × 9	500:1	800	60/70/70/70	-20~70	70,000
	TN	VGA	TCG104VGLPEANN-AN60	LVDS	240.7 × 180.2 × 9	500:1	450	60/70/70/70	-20~80	50,000
	TN	SVGA	TCG104SVLPAANN-AN20	LVDS	240.7 × 180.2 × 9	900:1	450	80/60/80/80	-20~70	100,000
	TN	SVGA	TCG104SVLPAANN-AN20-SA	LVDS	240.7 × 180.2 × 9	900:1	500	80/60/80/80	-20~70	50,000
	TN	SVGA	TCG104SVLPEANN-AN30	LVDS	240.7 × 180.2 × 9	900:1	700	80/60/80/80	-20~70	100,000
	TN	SVGA	TCG104SVLKBANN-AN20	LVDS	240.7 × 181.4 × 9.45	900:1	350	60/80/80/80	-20~70	70,000
	AWV	SVGA	TCG104SVLQAPNN-AN20	LVDS	240.7 × 180.2 × 9	500:1	400	85/85/85/85	-20~70	100,000
	AWV	SVGA	TCG104SVLQJPNN-AN40	LVDS	230 × 180.2 × 10.8	750:1	1,200	85/85/85/85	-30~80	70,000
	AWV	XGA	TCG104XGLPAPNN-AN30	LVDS	230.0 × 180.2 × 10.5	700:1	600	85/85/85/85	-30~80	70,000
AWV	XGA	TCG104XGLPAPNN-AN31	LVDS	230.0 × 180.2 × 10.5	700:1	600	85/85/85/85	-30~80	50,000	
AWV	XGA	TCG104XGLPAPNN-AN40	LVDS	230.0 × 180.2 × 10.5	700:1	1,300	85/85/85/85	-30~80	70,000	
12.1"	TN	SVGA	TCG121SVLPAANN-AN20	LVDS	278.3 × 207.5 × 9.5	1000:1	500	80/80/80/80	-20~70	100,000
	TN	SVGA	TCG121SVLPAANN-AN20-SA	LVDS	278.3 × 207.5 × 9.5	1000:1	550	80/80/80/80	-20~70	50,000
	AWV	SVGA	TCG121SVLQEPNN-AN20	LVDS	265 × 207.7 × 9.6	500:1	450	85/85/85/85	-20~70	100,000
	AWV	XGA	TCG121XGLPAPNN-AN20	LVDS	260.5 × 203.4 × 10.3	750:1	400	85/85/85/85	-30~80	50,000
	AWV	XGA	TCG121XGLPAPNN-AN20-SA	LVDS	260.5 × 203.4 × 10.3	750:1	400	85/85/85/85	-30~80	50,000
	AWV	XGA	TCG121XGLPBPNN-AN40	LVDS	260.5 × 203 × 10.2	750:1	1,200	85/85/85/85	-30~80	70,000
	AWV	XGA CTP OB	MCG121XGLBAQGA-A**142	LVDS	260.5 × 204 × 11.3	1000:1	540	89/89/89/89	-30~80	50,000
	AWV	WXGA	TCG121WXLPAANN-AN20-SA	LVDS	277.7 × 182.5 × 9.8	750:1	500	85/85/85/85	-20~70	50,000
	AWV	WXGA	TCG121WXLRFVNN-AN40	LVDS	283.0 × 185.1 × 10.5	750:1	1,400	85/85/85/85	-30~80	50,000
	AWV	WXGA CTP OB	MCG121WXLBAQA-A**84	LVDS	302 × 204 × 12.9	1000:1	540	88/88/88/88	-30~80	50,000
15.0"	AWV	XGA CTP OB	MCG150XGLAAHGA-A**03	LVDS	346.3 × 270.3 × 11.7	2500:1	480	88/88/88/88	-30~80	70,000
15,6"	AWV	FHD CTP OB	MCG156FDLAAQGA-A**06	LVDS	363.8 × 215.9 × 9.3	800:1	450	85/85/85/85	-30~85	50,000

CTP = Capacitive Touch Panel

OB = Optical bonded Front Glass

Kyocera Advanced Displays are more than just a simple touch monitor. They are intelligent HMIs which support the operator, whose finger is guided by virtual moulds. These respond to pressure with a tactile feedback that feels like a real button and ensures that the machine control is kept by the human user under all environmental conditions.



## HAPTIVITY® 4.0

Haptivity® is a Kyocera patented touchscreen display technology, which simulates a variety of realistic tactile sensations to revolutionize the human-machine interface. It can be used in touch panels or touch pad products for a broad range of applications such as automotive, medical and industrial equipment.

A ceramic piezo element assembled in the module serves as actuator. Exact adjustment capabilities enable an innovative real touch feeling caused by virtual feedback. As a result, it pretends the feeling of touching a real button and pressing it.

Haptivity® is a registered trade mark of Kyocera Corporation.

## OPTICAL COMPONENTS

Kyocera offers lenses and optical systems for automotive, photo imaging, office automation, medical/healthcare and factory automation market with long-term experience.

Our manufacturing process ensures quality in lens element design and lens processing through stringent checks, mechanical component fabrication, optical assembly and inspection.

Kyocera provides various kinds of customized lenses. We support customers according to their unique requirements. Kyocera meets social and industrial needs in creating products that are highly innovative with a solid foundation in quality.

