



Company name:



## 3.5inch QVGA TFT panel change (TCG035QVLPDANN-GN50)

2023/08/24  
Kyocera Corporation  
Corporate Display Group  
Display Engineering Division  
Product Engineering Department

Approval	Confirmation	Create
M.Kato	T.Fukui	Yamazaki

KYOCERA Corporation

Confidential

Control No. : EDPM2-2307-A9-1386

© KYOCERA Corporation



## On the effect on characteristics



		Current product TCG035QVLPDANN-GN50	New Product TCG035QVLADANN-GN50
Product Specifications	polarizing plate	Glare Type	NO CHANGE
	Interface	CMOS	NO CHANGE
	External dimensions	76.9(W)x63.9(H)x4.9(D) mm	NO CHANGE
	Display Mode	Normally White	NO CHANGE
	Operating temperature range	-20~70°C	NO CHANGE
	Storage temperature range	-30~80°C	NO CHANGE
	Power supply voltage (LCD)	Typ. 3.3V	NO CHANGE
	Current Consumption (LCD)	Typ. 8.0mA	Typ. 12.0mA
	LED Forward Voltage	Typ. 22.1V	NO CHANGE
	LED Forward Current	IF=15mA	NO CHANGE
	Backlight lifetime	Typ. 50,000hr (IF=15mA, Ta=25°C)	NO CHANGE

Above value is tentative. Please confirm to the specifications for the final value.





## On the effect on characteristics




Ta=25°C			Current product TCG035QVLPDANN-GN50	New Product TCG035QVLADANN-GN50 TCG035QVLADANN-GN*43	
Optical properties	response speed	Rise	Typ. 8ms	NO CHANGE	
		Down	Typ. 22ms	NO CHANGE	
	Brightness (IF =15 mA, Middle)		Typ. 1000cd/m <sup>2</sup>	Typ. 1500cd/m <sup>2</sup>	
	Contrast		Typ. 1000	NO CHANGE	
	Field of view angle CR≥10	UPPER	Typ. 80deg	NO CHANGE	
		LOWER	Typ. 60deg	NO CHANGE	
		LEFT	Typ. 80deg	NO CHANGE	
		RIGHT	Typ. 80deg	NO CHANGE	
	chromaticity	Red	0.600±0.050, 0.350±0.050	NO CHANGE	
		Green	0.345±0.050, 0.580±0.050	NO CHANGE	
		Blue	0.160±0.050, 0.115±0.050	NO CHANGE	
		White	0.305±0.050, 0.320±0.050	NO CHANGE	

Above value is tentative. Please confirm to the specifications for the final value.





## On the effect on characteristics

Register setting 

← = NO CHANGE FROM ORIGINAL SETTING

Reg#	Hex Code		Description
	TCG035QVLPDANN-GN50	TCG035QVLADANN-GN50	
R01h	7300	←	Basic format
R02h	0200	←	Display driving
R03h	6464	6466	Power supply
R04h	04C7	←	Basic format
R05h	F444	←	
R06h	E860	←	Display driving
R08h	06FF	←	Power supply
R0Ah	4008	←	Display quality
R0Bh	D400	F000	Panel driving
R0Dh	422C	322A	Power supply
R0Eh	2D00	1080	
R0Fh	0000	←	Display driving
R16h	9F80	←	
R17h	2212	←	Power supply
R1Eh	006D	0067	
R30h	0001	0700	Display quality
R31h	0105	0507	
R32h	0000	←	
R33h	0102	0305	
R34h	0707	0307	
R35h	0206	0003	
R36h	0607	0207	
R37h	0201	0101	
R3Ah	1400	0000	
R3Bh	1400	0000	

Confidential

Control No. : EDPM2-2307-A9-1386

4

© KYOCERA Corporation



## reliability test



Test items	Test conditions	Judgment Criteria	N	Results
High-temperature operation	70°C/Dry/500Hr	Function/Display: No abnormalities Current consumption: no abnormality	3	Pass
High temperature and high humidity operation	60°C/90%RH/500Hr		3	Pass
low-temperature operation	-20°C/Dry/500Hr		3	Pass
thermal shock	-30°C↔80°C/240Cycle		3	Pass
Vibration	2G/10~100Hz/↔5min Sine wave/X, Y, Z/2Hr each	Function/Display: No abnormalities	2	Pass
Impact	50G/11msec/sine half wave +/- X, +/- Y, +/- Z/3 times each		2	Pass



THE NEW VALUE FRONTIER



KYOCERA Corporation

Confidential

Control No. : EDPM2-2307-A9-1386

© KYOCERA Corporation



## Revision History



Revision number	Symbols	Reviser	Revision date	Revised content
00	None	Yamawaki	2023/7/6	initial publication
01	△ 1	Yamazaki	2023/8/9	<ul style="list-style-type: none"> <li>— The values listed for current product have been changed to the latest spec values.</li> <li>P4 Add note.</li> <li>P5 Add note.</li> <li>P5 Change chromaticity</li> <li>P6 Add Register setting</li> </ul>
02	△ 2			
03	△ 3			