

Company name:



3.5inch QVGA TFT panel change (TCG035QVLPDANN-AN50)

2023/08/24

Kyocera Corporation
Corporate Display Group
Display Engineering Division
Product Engineering Department

Approval	Confirmation	Create
M.Kato	T.Fukui	Komurasaki

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Control No. : EDPM2-2307-A9-1395

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		Current product TCG035QVLPDANN-AN50	New Product TCG035QVLADANN-AN50
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. 23.68V	Typ. 22.1 
	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.



Ta=25°C			Current product TCG035QVLPDANN-AN50	New Product TCG035QVLADANN-AN50
Optical properties	response speed	Rise	Typ. 8ms	NO CHANGE
		Down	Typ. 22ms	NO CHANGE
	Brightness (IF =15 mA, Middle)		Typ. 1000cd/m ²	Typ. 1500cd/m ²
	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, 0.330±0.050	NO CHANGE 

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

Register setting

← = NO CHANGE FROM ORIGINAL SETTING

Reg#	Hex Code		Description
	TCG035QVLPDANN-AN50	TCG035QVLADANN-AN50	
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	←	
R1Eh	006D	0067	Power supply
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	

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

As a proof of reliability, the reliability test was conducted on the representative model with the above test items and test conditions. There were no particular problems found.

THE NEW VALUE FRONTIER



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Revision number	Symbols	Reviser	Revision date	Revised content
00	None	Yamawaki	2023/7/7	initial publication
01		Komurasaki	2023/8/9	— The values listed for current product have been changed to the latest spec values. P4 Add note. P4 Change LED Forward Voltage P5 Add note. P5 Change chromaticity P6 Add Register setting
02				
03				