DMG32240C028_03WTC

Features:

- **Based on T5L0, running DGUS II system, commercial grade.**
- **2.8-inch, 240*320 Pixels resolution, 262K Colors, TN-TFT-LCD, normal viewing angle.**
- **Capacitive touch screen.**



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1. Hardware and interface

1.1Hardware interface



Hardware interface

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1.2 Hardware and interface description

No.	Name	Description
1	T5L0 ASIC	Developed by DWIN. Mass production in 2020,1MBytes Nor Flash on the chip, 512KBytes used to store the user database. Rewrite cycle: over 100,000 times
2	LCM interface	FPC40_0.5mm, RGB interface
3	CTP interface	COB structure, IIC interface
4	User interface	10Pin_1.0mm latching socket for power supply and serial communication. Download rate(typical value): 12KByte/s
5	Flash	16MBytes NOR Flash, for fonts, pictures and audio files. Rewrite cycle: over 100,000 times
6	Buzzer	3V passive buzzer. Power: <1W
7	SD card interface	FAT32. Download files by SD interface can be displayed in statistics. Download rate: 4Mb/s
8	PGT05 interface	When product crashes by accident, you can use PGT05 to update DGUS kernel and make the product return to normal

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2. Specification parameters

2.1Display parameters

LCD Type	TN, TFT LCD
Viewing Angle	Normal viewing angle, 70°/70°/50°/70° (L/R/U/D)
Resolution	240×320 pixels (0°/90°/180°/270°)
Color	18-bit 6R6G6B
Active Area (A.A.)	58.30mm (W)×44.20mm (H)
View Area (V.A.)	-
Backlight Mode	LED
Backlight Service Life	>20000 hours (Time of the brightness decaying to 50% on the condition of continuous working with the maximum brightness)
Brightness	250nit
Brightness Control	0~100 grade (When the brightness is adjusted to 1%~30% of the maximum brightness, flickering may occur and is not recommended to use in this range)
Note:You can use dynamic screen saver wallpapers to avoid afterimages caused by fixed page display for a long time.	

2.2 Touch parameters

Type	CTP (Capacitive touch panel)
Structure	G+G structure with surface cover of Asahi tempered glass
Touch Mode	Single point touch, support continuous sliding touch
Surface Hardness	6H
Light Transmittance	Over 90%
Life	Over 1,000,000 times touch

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2.3 Serial interface parameters

Mode	UART2: TTL/CMOS UART4: TTL/CMOS (Only available after OS configuration)				
Voltage Level	Test Condition	Min	Typ	Max	Unit
	Output 1, Iout = -4mA	3.0	3.3	-	V
	Output 0, Iout = 4mA	-	0	0.3	V
	Input 1	2.4	3.3	5.0	V
	Input 0	0	-	0.5	V
Baud Rate	3150~3225600bps, typical value of 115200bps				
Data Format	UART2: N81 UART4: N81/E81/O81/N82 , 4 modes (OS configuration)				
Interface Cable	10Pin_1.0mm				

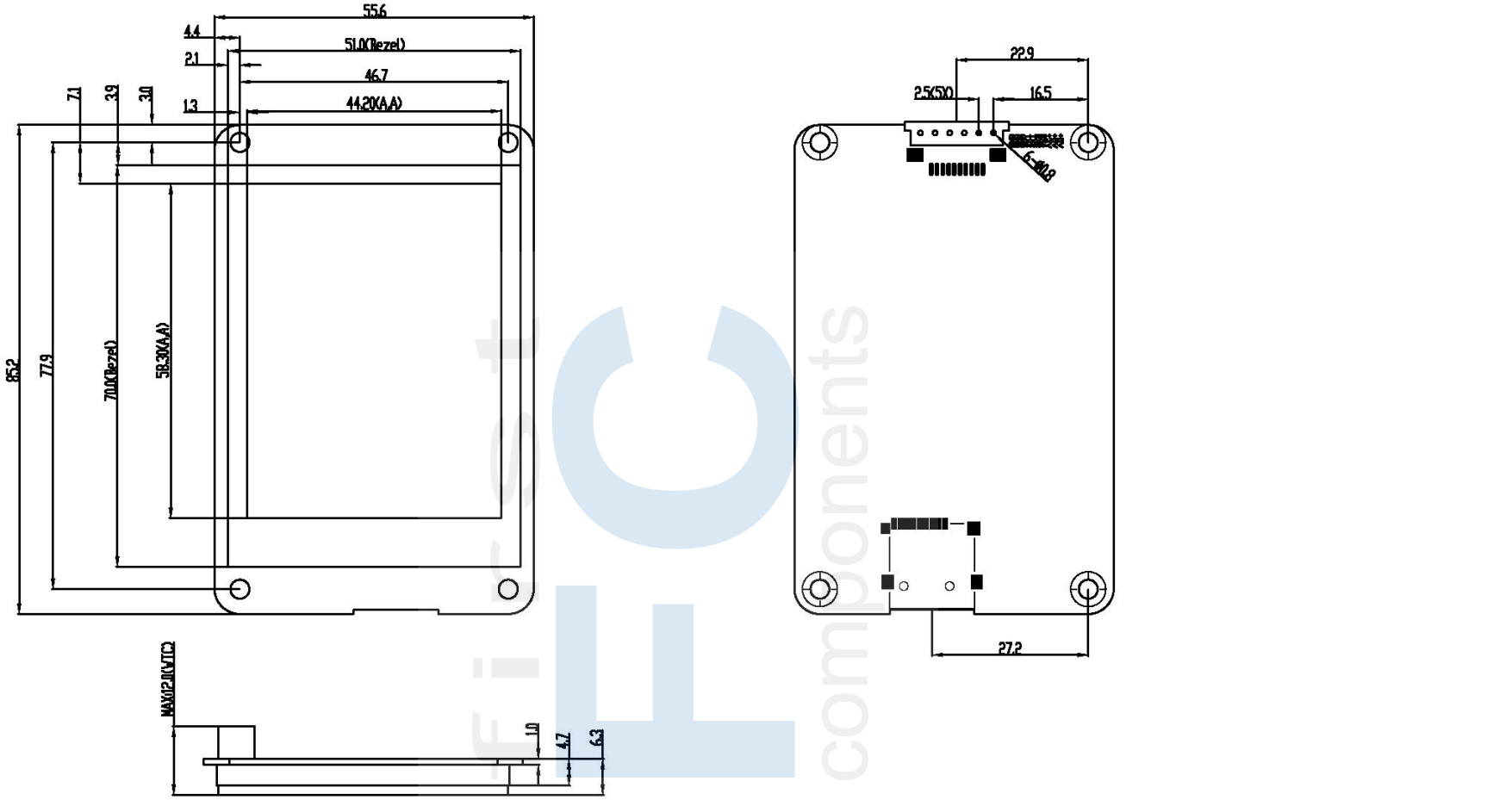
2.4 Electrical specifications

Rated Power	<5W	
Operating Voltage	4.5~5.5V, typical value of 5V	
Operating Current	130mA	VCC=5V, max backlight
	60mA	VCC=5V, backlight off
Recommended power supply: 5V 1A DC		

2.5 Operating environment

Operating Temperature	-20℃~70℃ (5V @ 60% RH)
Storage Temperature	-30℃~80℃
Conformal Coating	None
Operating Humidity	10%~90%RH, typical value of 60% RH

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Definition	Pin#	Type	Description
GND	8, 9, 10	P	GND
TX4	7	O	UART4 Output
TX2	6	O	UART2 Output
RX2	5	I	UART2 Input
RX4	4	I	UART4 Input
+5V	1, 2, 3	P	Power Input

Location hole is used as position reference.

Unmarked Tolerance is +/-0.3mm

Active area is marked in Dash lines

Model	DMG32240C028_03WTC					DWIN Technology
Drawing	A 4	Drawn	DWIN	Date		
Scale		Review		Date		
Unit	MM	Approval		Date		