Represented by:

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DMG10600T070_09WTC

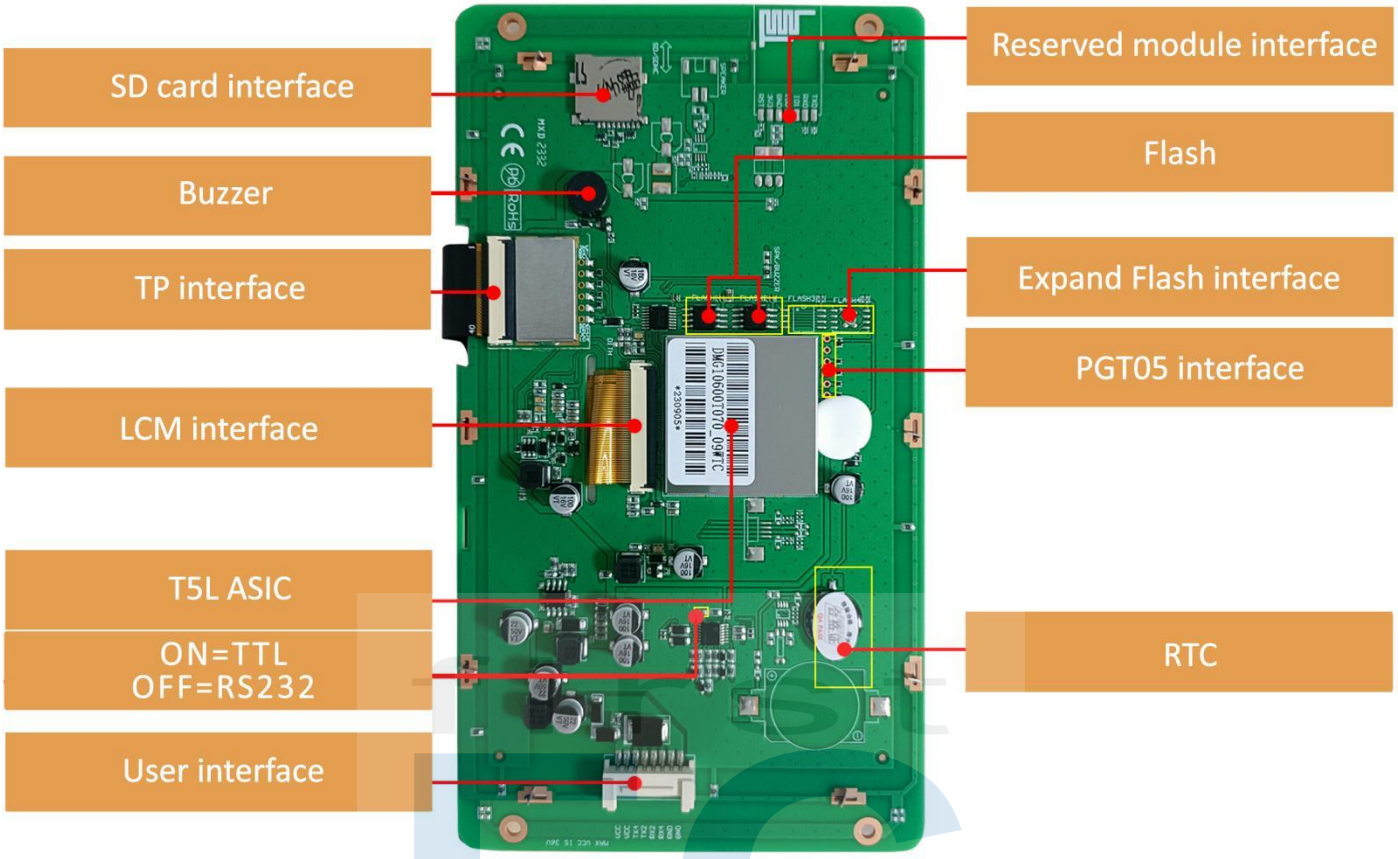
Features:

- **Based on T5L2, running DGUS II system, industrial grade.**
- **7.0-inch, 1024*600 pixels resolution, 16.7M colors, IPS-TFT-LCD, wide viewing angle.**
- **Capacitive touch screen.**
- **High brightness 650nit.**
- **Anti-UV, with conformal coating.**



1. Hardware and interface

1.1 Hardware interface



Hardware interface

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1.2 Hardware and interface description

No.	Name	Description
1	T5L2 ASIC	Developed by DWIN. Mass production in 2019,1MBytes Nor Flash on the chip, 512KBytes used to store the user database. Rewrite cycle: over 100,000 times
2	LCM interface	FPC50_0.5mm, RGB interface
3	CTP interface	COB structure, IIC interface
4	User interface	8Pin_2.0mm socket for power supply and serial communication. Download rate(typical value): 12KByte/s
5	Flash	32MBytes NOR Flash (2*16MBytes), for fonts, pictures and audio files. Rewrite cycle: over 100,000 times
6	Expand Flash	Expandable to 64Mbytes NOR Flash or 48Mbytes NOR Flash+512Mbytes NAND Flash
7	Buzzer	3V passive buzzer. Power: <1W
8	RTC	Super-capacitor for power supply. Accuracy: ±20ppm @25℃. It can work normally for 7 days after power failure
9	SD card interface	FAT32. Download files by SD interface can be displayed in statistics. Download rate: 4Mb/s
10	Reserved module interface	Wi-Fi module: connect to the cloud platform to update remotely USB module: download files by USB flash disk
11	PGT05 interface	When product crashes by accident, you can use PGT05 to update DGUS kernel and make the product return to normal

2. Specification parameters

2.1 Display parameters

LCD Type	IPS, TFT LCD
Viewing Angle	Wide viewing angle,85°/85°/85°/85°(L/R/U/D)
Resolution	1024×600 pixels（0°/90°/180°/270°）
Color	24-bit 8R8G8B
Active Area (A.A.)	154.1mm (W)×85.9mm (H)
View Area (V.A.)	154.1mm (W)×85.9mm (H)
Backlight Mode	LED
Backlight Service Life	>30000 hours (Time of the brightness decaying to 50% on the condition of continuous working with the maximum brightness)
Brightness	650nit
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 touch and support continuous sliding touch
Surface Hardness	6H
Light Transmittance	Over 90%
Life	Over 1,000,000 times touch

2.3 Serial interface parameters

Mode	UART2: ON=TTL/CMOS; OFF=RS232(Default RS232) UART4: ON=TTL/CMOS; OFF=RS232 (Only available after OS configuration)				
Voltage Level	Test Condition	Min	Typ	Max	Unit
	Output 1, Iout = 1mA	4.78	5.0	-	V
	Output 0, Iout = -1mA	-	-	0.4	V
	Input 1, Iin = 1mA	2.5	5.0	-	V
	Input 0, Iin = -1mA	-	-	1.0	V
Baud Rate	3150~3225600bps, typical value of 115200bps				
Data Format	UART2: N81 UART4: N81/E81/O81/N82 , 4 modes (OS configuration)				
Interface Cable	8Pin_2.0mm				

2.4 Electrical specifications

Rated Power	<5W	
Operating Voltage	6~36V, typical value of 12V	
Operating Current	320mA	VCC=12V, max backlight
	120mA	VCC=12V, backlight off
Recommended power supply: 12V 1A DC		

2.5 Operating environment

Operating Temperature	-20℃~70℃ (12V @ 60% RH)
Storage Temperature	-30℃~80℃
Anti-UV	Yes
Conformal Coating	Yes
Operating Humidity	10%~90%RH, typical value of 60% RH

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3. Reliability test

3.1 Electrostatic discharge test

Test temperature: 25°C. Test humidity: 50%RH.

Test process: the product was placed on the test bench to perform contact and air discharge in turn of the serial screen iron frame and display area as shown in Fig.3.1 below. During the experimental process, it was observed whether the screen is dead, black, white, splash, or reboot. According to the experiment results, the performance is in line with the criteria GB/T 17626.2 B level and above.



3.1 Electrostatic discharge test

Discharge Type	Discharge Value	Result
Contact discharge	±6KV	Normal operation
Air discharge	±8KV	Normal operation

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3.2 EFT test

Test temperature: 25°C. Test humidity: 50%RH.

Test process: the product was placed on the test bench to perform contact and the smart screen is energized by the power supply coupled with a EFT generator as shown in Fig. 3.2 below. During the experimental process, it was observed whether abnormal reset, display or touch phenomena occurs. According to the experiment results, the performance is in line with the criteria GB/T 17626.2 B level and above.



3.2 EFT test

Test Item	Test Standard	Result
Power supply	±2KV;100KHz	Normal operation

4. Packaging & dimensions

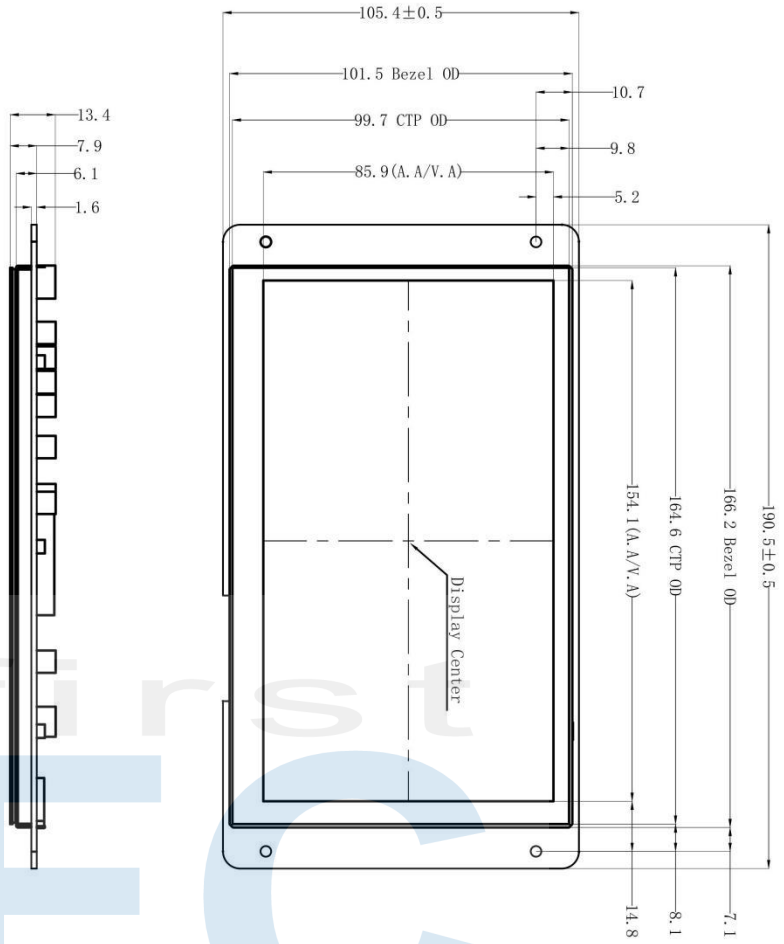
Form Factor	190.5mm (W)×105.4mm (H)×13.4mm (T)
Installation Dimensions	Positioning hole: 166.2(+0.3mm)×101.5(+0.3mm)
Net Weight	265g

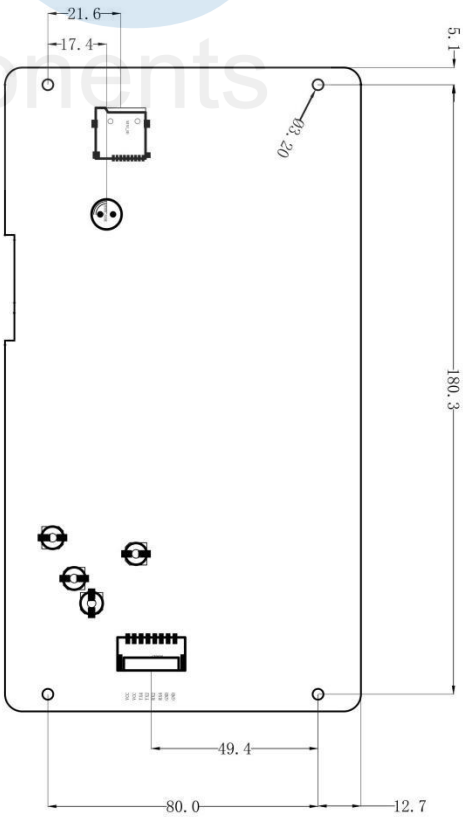
Packaging Standards

Model	Dimensions	Layer	Quantity/Layer	Quantity(Pcs)
Carton1：	220mm(L)×160mm(W)×47mm (H)	-	-	-
Carton2：	250mm(L)×200mm(W)×80mm (H)	1	2	2
Carton3：	320mm(L)×270mm(W)×80mm (H)	1	4	4
Carton4：	450mm(L)×350mm(W)×300mm(H)	2	10	20
Carton5：	600mm(L)×450mm(W)×300mm(H)	2	17	34

Disclaimer: The product design is subject to alternation and improvement without prior notice.

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





1. Location hole is used as position reference.
2. Unmarked Tolerance is +/-0.3mm

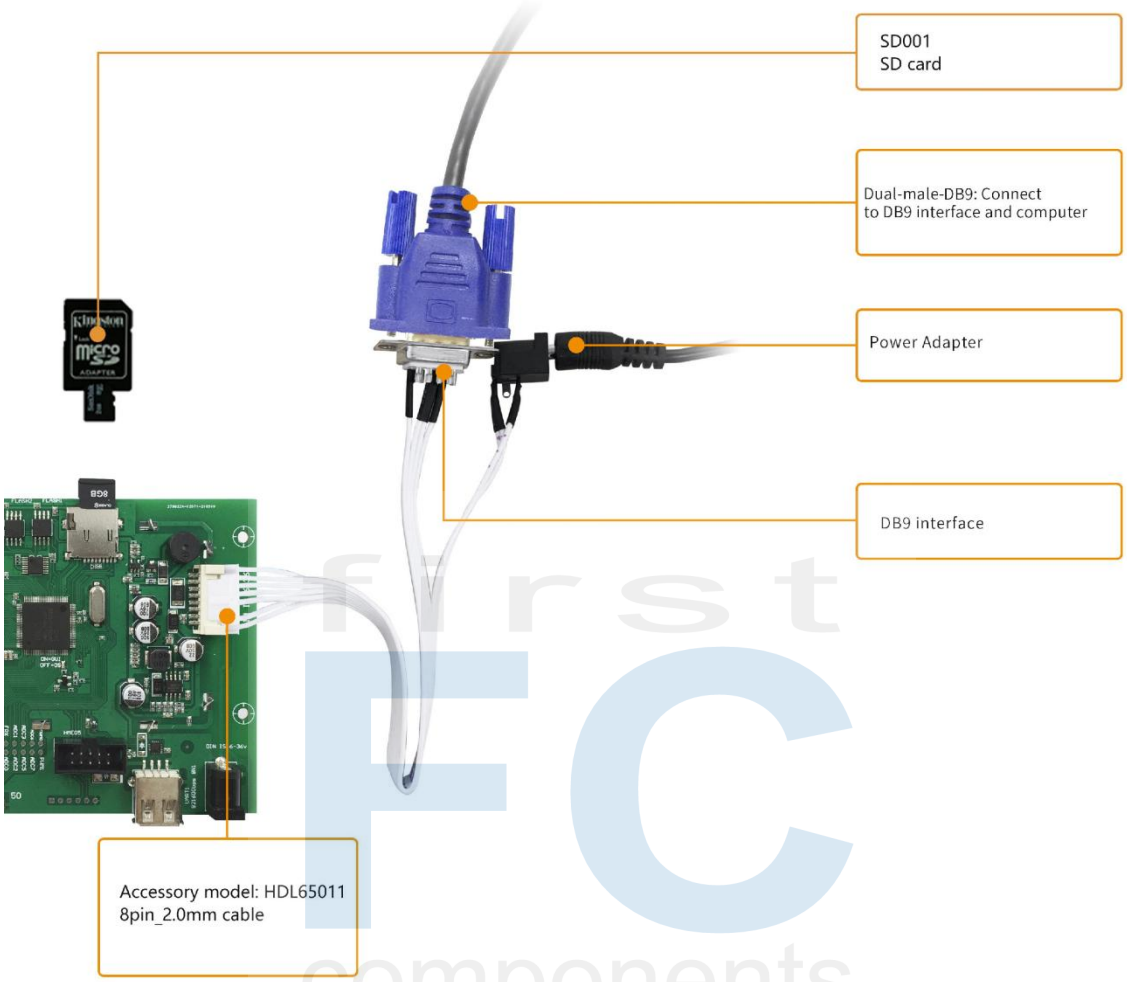
Note: Active area is marked in Dash lines

Model	DMG10600T070-09WTC				
Drawing	A 4	Drawn	DWIN	Date	2023.09.18
Scale	1:1	Review		Date	
Unit	MM	Approval		Date	

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5. Debugging tools

It is recommended for new users of DWIN smart LCMs to purchase official accessories. For more details, please refer to customer service center.



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6. Revision records

Rev	Revise Date	Content	Editor
00	2023-10-26	First Edition	Xu Ying

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