Represented by:

FIRST Components s.r.l.
www.first-components.com
technical@first-components.com
+39 0332 1888005

DMG19480C088_03WTC

DWIN Technologies Technical Document

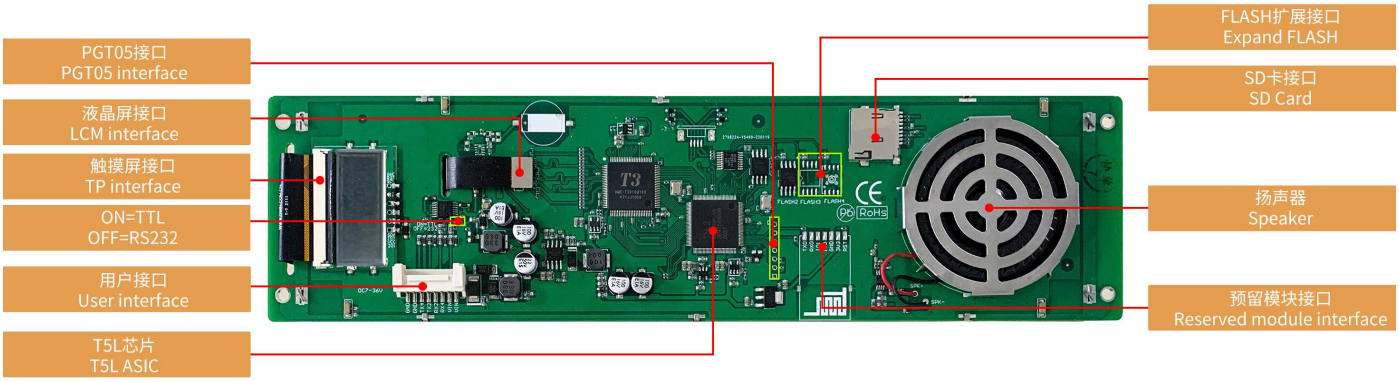
Features:

- **Based on T5L2, running DGUS II system, commercial grade.**
- **8.88-inch, 480*1920 Pixels resolution, 16.7M Colors, IPS-TFT-LCD, Wide viewing angle.**
- **Capacitive touch screen.**



1、Hardware and interface

1.1 Hardware interface



Hardware interface

迪文科技 技术文档 DWIN Technologies Tech

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	30Pin patch double row interface base, MIPI 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, for fonts, pictures and audio files. Rewrite cycle: over 100,000 times
6	Expand Flash	NAND Flash Expandable to 64Mbytes NOR Flash or 48Mbytes NOR Flash+512Mbytes NAND Flash
7	Speaker	Onboard speaker. Power: 2W
8	SD interface	FAT32. Download files by SD interface can be displayed in statistics. Download rate: 4Mb/s
9	Reserved module interface	Wi-Fi module: connect to the cloud platform to update remotely USB module: download files by USB flash disk
10	PGT05 interface	When product crashes by accident, you can use PGT05 to update DGUS kernel and make the product return to normal

进文科技 技术文档 DWIN Technologies Technical Document
First Components

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	480×1920 pixels (0°/90°/180°/270°)
Color	24-bit 8R8G8B
Active Area (A.A.)	218.88mm (W) ×54.72mm (H)
View Area (V.A.)	219.7mm (W) ×55.5mm (H)
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	Support point touch and drag
Surface Hardness	6H
Light Transmittance	Over 90%
Life	Over 1,000,000 times touch

First Components Technical Document
DWIN Technologies 技术文档

2.3 Serial interface parameters

Mode	UART2: ON=TTL/CMOS; OFF=RS232 UART4: ON=TTL/CMOS; OFF=RS232（Only available after OS configuration）				
Voltage Level	Test Condition	Min	Typ	Max	Unit
	Output 1, Iout = -4mA	2.7	3.2	-	V
	Output 0, Iout = 4mA	-	0.1	0.4	V
	Input 1	2.4	3.3	5.5	V
	Input 0	0	-	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 note: If user use the optional accessory cable HDL65011 of DWIN for communication，need to exchange TX & RX pins of the cable.				

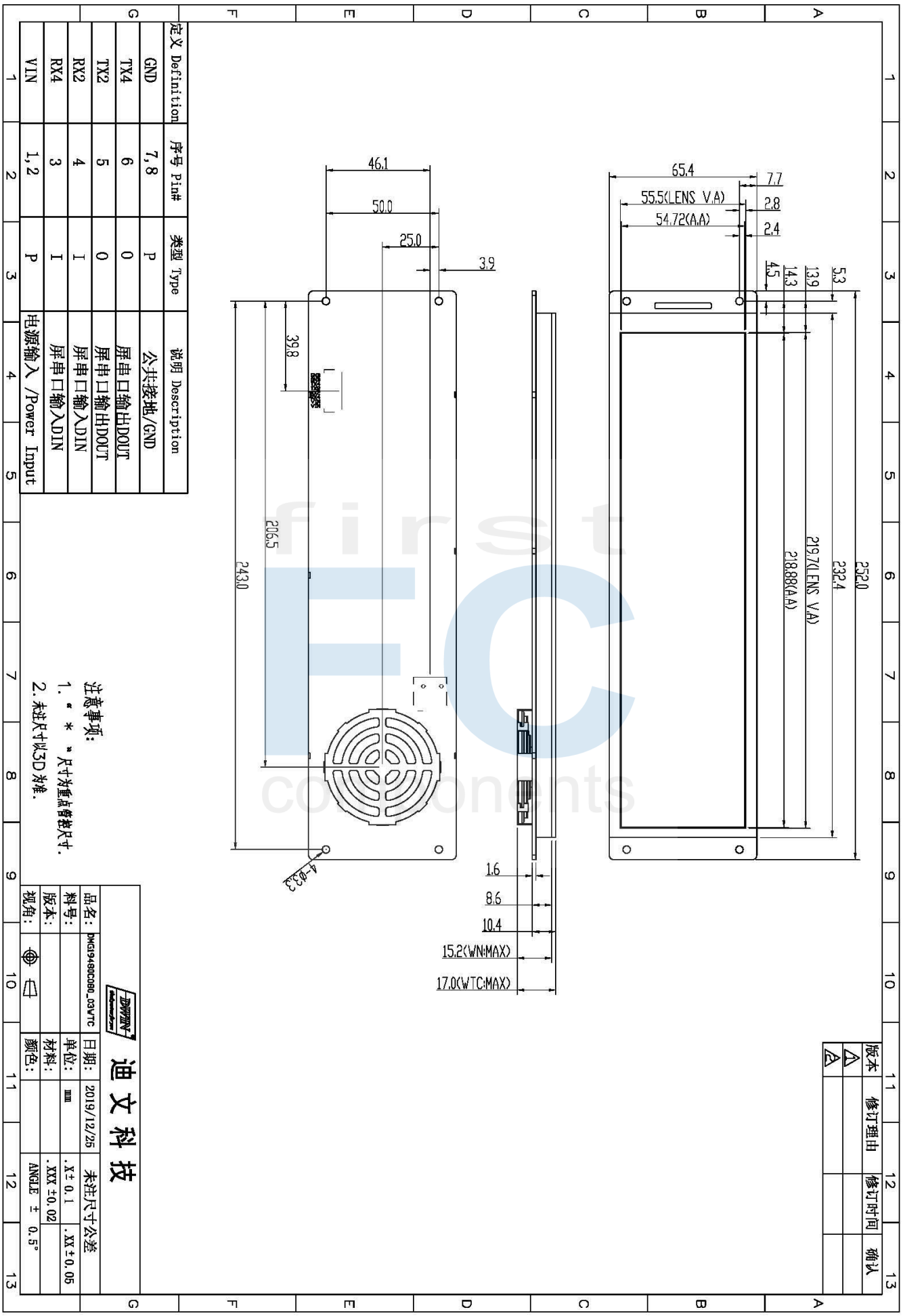
2.4 Electrical specifications

Rated Power	<5W	
Operating Voltage	6~36V, typical value of 12V	
Operating Current	280mA	VCC=12V, max backlight
	140mA	VCC=12V, backlight off
Recommended power supply: 12V 1A DC		

2.5 Operating environment

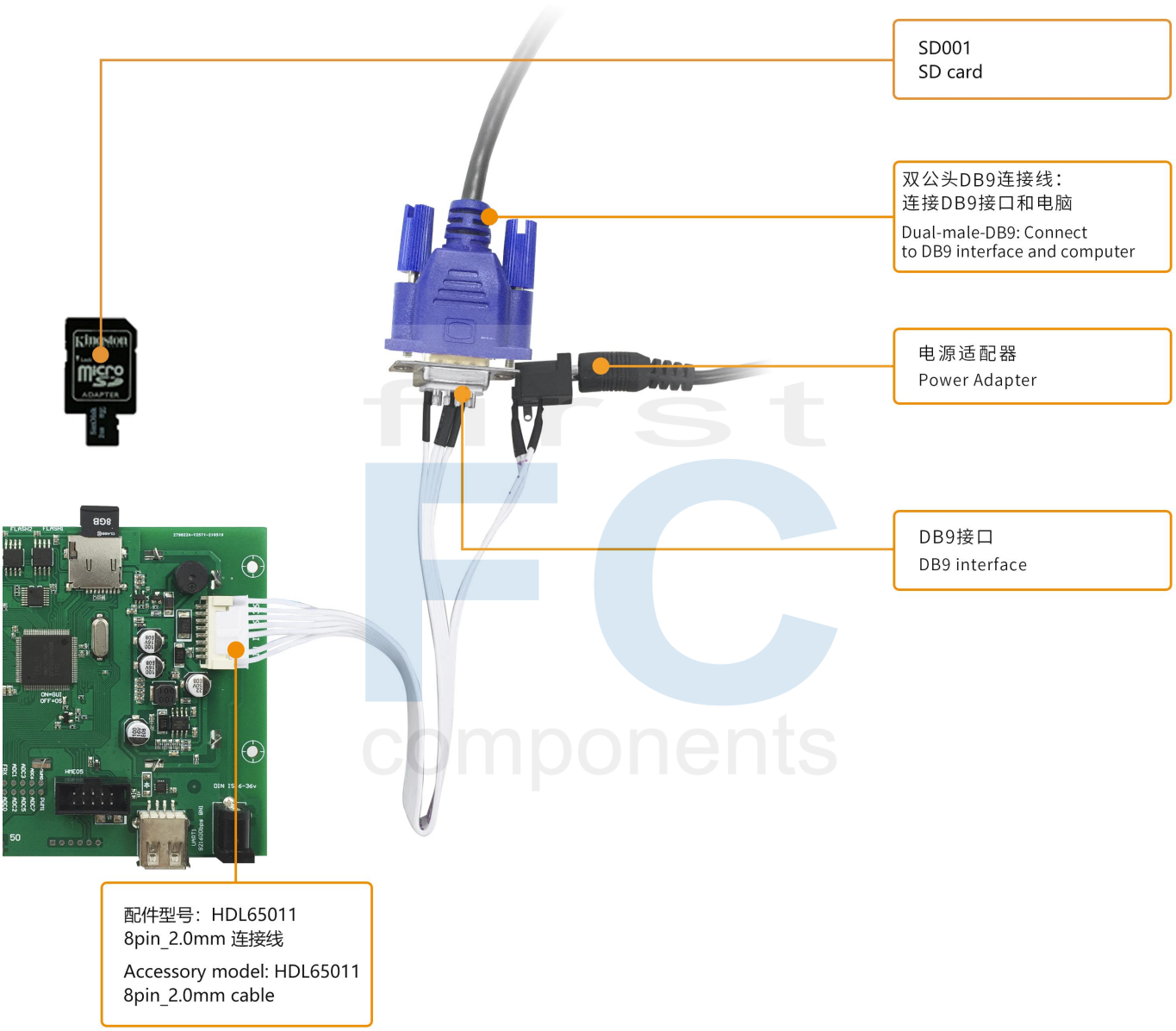
Operating Temperature	-20℃~70℃（12V @ 60% RH）
Storage Temperature	-30℃~80℃
Conformal coating	None
Operating Humidity	10%~90%RH，典型值 60%RH 10%~90%RH, typical value of 60% RH

迪文科技 DWIN Technologies Technical Document
first components


定义 Definition
序号 Pin#
类型 Type
说明 Description
GND
7,8
P
公共接地/GND
TX4
6
O
屏串口输出DOUT
TX2
5
O
屏串口输出DOUT
RX2
4
I
屏串口输入DIN
RX4
3
I
屏串口输入DIN
VIN
1,2
P
电源输入 /Power Input
注意事项:
1. " * "尺寸为重点修整尺寸.
2. 未注尺寸以3D为准.
迪文科技
品名: DMG19480C080_03WTC
料号:
版本:
视角:
日期: 2019/12/25
单位: mm
材料:
颜色:
未注尺寸公差
.X± 0.1
.XX± 0.05
.XXX± 0.02
ANGLE ± 0.5°
版本
修订理由
修订时间
确认
65.4
7.7
55.5(LENS V.A)
2.8
54.72(A.A)
2.4
4.5
14.3
13.9
5.3
219.7(LENS V.A)
218.88(A.A)
232.4
252.0
46.1
50.0
25.0
3.9
39.8
206.5
243.0
4-Φ3.3
1.6
8.6
10.4
15.2(WN:MAX)
17.0(WTC:MAX)

5 Debugging tools

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



7 Revision records

Rev	Revise Date	Content	Editor
00	2019-12-25	First Edition	ZK
01	2021-11-04	Upgrade version	广明鑫
02	2022-03-07	Change to COB structure and update the physical drawing	郑运佳
03	2022-11-14	Modify dimension description	郑运佳

Please contact us if you have any questions about the use of this document or our products, or if you would like to know the latest information about our products

迪文科技 技术文档 DWIN Technologies Technical Document
first components