

DMG48320F035_04WN

产品概述:

- 基于 T5F0 ASIC，运行 DGUS II 人机交互软件平台。
- 3.5 英寸，320*480 分辨率，IPS 液晶显示屏。
- COF 结构，智能屏的整个核心电路整合在液晶模组 FPC 上，适合结构要求轻、薄，成本要求苛刻，生产简单的应用。

Features:

- Powered by T5F0 ASIC, running DGUS II HMI platform.
- 3.5 inch, 320*480 resolution, IPS-TFT LCD.
- COF structure. The entire core circuit of the smart screen is integrated on the FPC of LCM, featured by light and thin structure, low cost and easy production.



注：本产品没有上铁框，为胶铁一体结构。

Note: This product does not have an iron frame and is a rubber iron integrated structure.

1、外部接口 External Interface



PIN 序号	Definition 定义	I/O	Functional Description 功能描述
1	+5V	P	供电输入，DC4.5-5.5V。 Power supply, DC4.5-5.5V.
2	GND	P	公共地 GND
3	TX	O	串口 2 输出 UART2 DOUT
4	RX	I	串口 2 输入 UART2 DIN

2、规格参数 Specification Parameters

2.1 产品参数 Product Parameters

主控芯片 Main Chip	T5F0
用户接口方式 User Interface	4Pin_1.0mm FPC
FLASH	8M Bytes
UI 版本 UI Version	DGUS II / TA
调试工具 Debugging Tools	HDL662SZ03: 可用于供电或连接电脑进行工程文件下载。 HDL662SZ03: Can be used for power supply or connecting to a computer for downloading engineering files. HDL662SZ04: 用于 DGUS 工程文件下载 (UI 文件、CFG 文件、内核等)。 HDL662SZ04: For DGUS project file downloads (UI, CFG files, kernel, etc.).
尺寸 Dimensions	3.5 英寸 3.5-inch
显示屏类型 LCD Type	IPS TFT 液晶屏。 IPS, TFT LCD.
分辨率 Resolution	320*480
有效显示区域 Active Area (AA)	48.96mm (W)×73.44mm (H)
视角 Viewing Angle	视角宽 (典型值是 85°/85°/85°/85°), 对比度高、色彩还原好。 Wide viewing angle (85°/85°/85°/85° typical), high contrast, and good color reproduction.
背光 Backlight	LED
背光寿命 Backlight Service Life	>10,000H
亮度 Brightness	250nit
亮度调节 Brightness Control	100 级亮度调节 (当亮度调节至最高亮度的 1%~30% 时, 可能出现闪烁现象, 不建议在此范围使用) 100-level brightness adjustment (Flickering may occur at 1%-30% of max brightness; not recommended for use in this range)
注: 长时间显示固定画面可能导致残影现象, 建议设置动态屏保进行规避。 Note: Use dynamic screen saver to prevent afterimages from prolonged fixed page display.	

2.2 串口参数 Interface Parameters

参数 Item	测试条件 Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
串口波特率 Baud rate	用户自定义（硬件配置文件设置） User Set(Configure the CFG file)	3150	115200	3225600	bps
串口输出电平 Output Voltage(TXD)	Output 1	3.0	3.3	-	V
	Output 0	-	0	0.3	V
串口输入电平 Input Voltage(RXD)	Input 1	-	-	3.3	V
	Input 0	0	-	0.5	V
串口模式 Interface	UART2: TTL				
数据格式 Data Format	UART2: N81				

2.3 电气规格 Electrical specifications

额定功率 Rated Power	<2W	
工作电压 Operating Voltage	4.5~5.5V，典型值 5V。 4.5~5.5V, typical value of 5V.	
工作电流 Operating Current	210mA	VCC=5V，背光亮度最大。 VCC=5V, max backlight.
	110mA	VCC=5V，背光关闭。 VCC=5V, backlight off.
推荐工作电源：5V 1A 的直流稳压电源。 Recommended power supply: 5V 1A DC.		

2.4 工作环境 Operating Environment

工作温度 Operating Temperature	-10℃~60℃
存储温度 Storage Temperature	-20℃~70℃
工作湿度 Operating Humidity	10%~90%RH，典型值 60%RH。 10%~90%RH, typical value of 60% RH.

3、可靠性测试 Reliability Test

3.1 静电放电测试 Electrostatic discharge test

测试环境温度：25°C，测试环境湿度：50%RH。

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

测试过程：将产品放置在测试台面的测试工装上（测试工装高度约 15cm），针对智能屏进行接触放电和空气放电测试，实验过程观察屏幕有无死机、黑屏、白屏、花屏、重启等异常现象。

Test process: Place the product on the test bench fixture (approximately 15cm in height), and perform contact and air discharge tests on the smart LCM. Observe if any freezing, black or white screen, flickering, or rebooting occurs during the test.

测试结论：产品 ESD 性能达到 GB/T 17626.2 B 级。

Test conclusion: The product's ESD performance meets GB/T 17626.2 Class B standards.

放电类型 Discharge Type	放电值 Discharge Value	结果 Result
空气放电 Air discharge	±4KV	正常工作 Normal operation

3.2 高低温储存测试 High and Low Temperature Test

试验环境温度：-20~70°C

Test temperature:-20~70°C

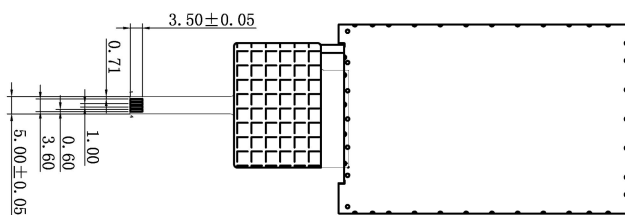
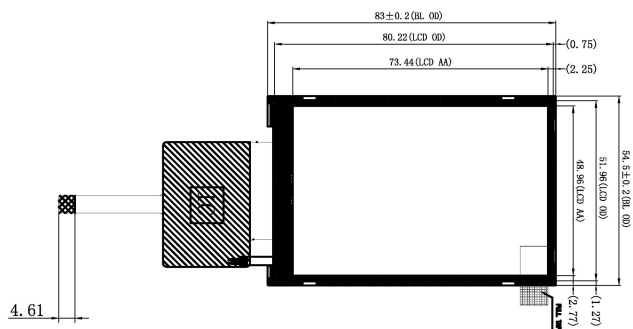
试验过程：将产品斜置放在高低温测试箱内，测试时间 12H，进行 20 次开机、关机循环，自然恢复至常温后上电检查外观及功能，电容屏无偏移、跳点、乱跳和失效等问题。

Test process: the product will be placed obliquely in the high and low temperature test chamber for 12h for 20 on and off cycles. Then it will be check at room temperature after power on for the appearance and function, CTP offset situation, jumping point, page random switching and failure.

温度 Temperature	结果 Result
高温（70°C） High temperature(70°C)	正常工作 Normal operation
低温（-20°C） Low temperature(-20°C)	正常工作 Normal operation

4、包装和物理尺寸 Packing Capacity & Dimension

尺寸 Dimension				
外形尺寸 Dimension	54.5(W) ×83.0 (H) × 1.8(T) mm			
净重量 Net Weight	20g			
包装标准 Packing Capacity				
包装箱型号 Model	包装箱尺寸 Size	层数（层） Layer	数量/层（片） Quantity/Layer	总数量（片） Quantity(Pcs)
纸箱 Carton:	415mm(L)×250mm(W)×200mm(H)	10	10	100



1	5V
2	GND
3	TX
4	RX

正视图 侧视图 背视图

迪文科技有限公司									
REVISION RECORD			VER	DATE					
1	初次发行	VIA	20241021		FILE NAME :		DWG8230P003_01.DWG		
2					CUSTOMER NAME :				
3					DESIGN :				
4					DRAWN BY :		沈成竹		
5					CHECKED BY :				
6					APPROVED BY :				
					RELEASE:				
					SCALE :		1:1		
					DIMENSIONS :		±0.1°		
					UNIT :		mm		
					DATE		20241021		
					PRO. (3X)				
					SHEET :		1/1		

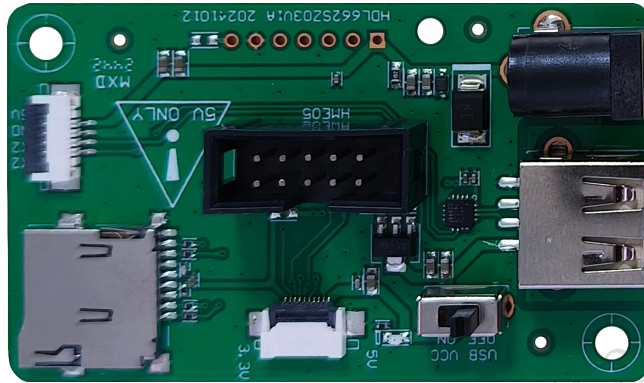
5、调试工具 Debug tools

建议首次使用迪文智能屏的用户购买标准配件。详细信息可联系客服人员。

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

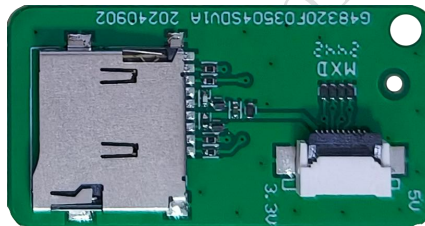
HDL662SZ03: (调试板) 支持屏幕供电及下载工程文件。

HDL662SZ03: (Debugging board) supports screen power supply and downloading engineering files.



HDL662SZ04: (SD 卡转接板) 仅支持屏幕下载工程文件，屏幕需单独供电。

HDL662SZ04: (SD card adapter board) only supports downloading project files from the screen, and the screen needs to be powered separately.



注：转接板与显示屏需要使用 10Pin_0.5mm 线束连接方可使用 SD 卡座下载工程文件。

Note: The adapter board and display screen need to be connected using a 10Pin_0.5mm wire harness before using the SD card slot to download engineering files.

6、修订记录 Revision records

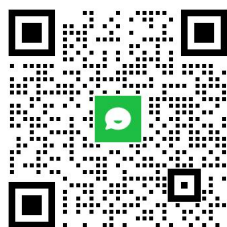
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感谢大家一直以来对迪文的支持，您的支持是我们进步的动力！

Thank you all for continuous support of DWIN, and your approval is the driving force of our progress!

重要声明

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