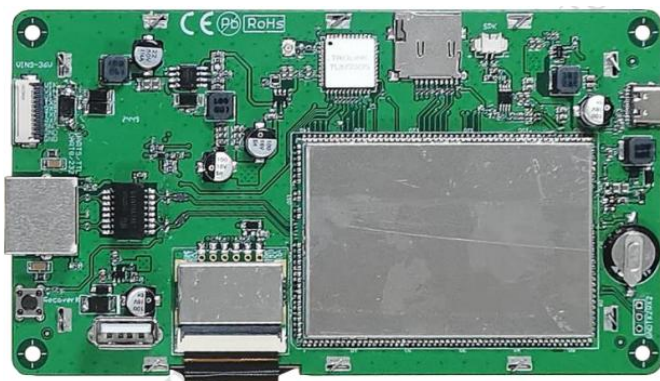
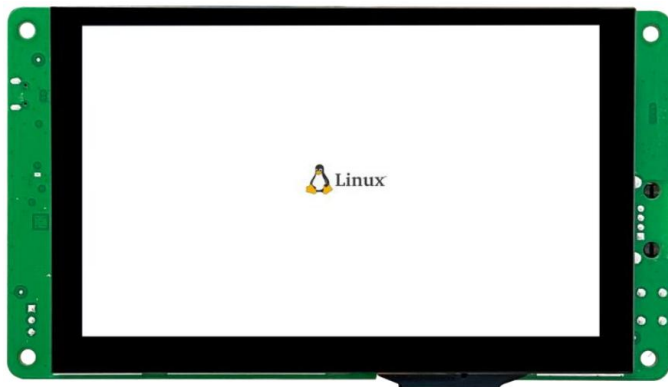


DMG80480T050_40WTC



System Hardware

Properties	Parameters
Motherboard Level	Industrial-grade
CPU	RK3566, Quad-core ARM Cortex-A55, 1.8GHz Processor
OS	Linux 4.19
Storage	8Gbytes EMMC
RAM	2Gbytes LPDDR4

Display Parameters

Properties	Parameters	Description
Size	5.0 inch	-
LCD Type	IPS, TFT LCD	-
Viewing Angle	85° /85° /85° /85°	Wide viewing angle, high contrast, and good color reproduction
Active Area (AA)	108.0mm (W)*64.8mm (H)	-
Visible Area (VA)	108.6mm (W)*65.4mm (H)	-
Resolution	800*480	Available for 0°/90°/180°/270°rotated display
Backlight Service Life	>20000 Hrs	Backlight service life refers to the period the LED backlight operates under test conditions until brightness decreases to 50% of the initial level
Brightness	250nit	100-level brightness adjustment (Flickering may occur at 1%-30% of max brightness; not recommended for use in this range)

Note: Use dynamic screen saver to prevent afterimages from prolonged fixed page display.

Touch Parameter

Properties	Parameters
Touch Type	Capacitive touch panel
Structure	G+G structure with tempered glass surface

Power Supply

Properties	Min	Typ	Max	Unit
Power Voltage	9.0	12.0	36.0	V

Recommended power supply: 12V 1A DC.

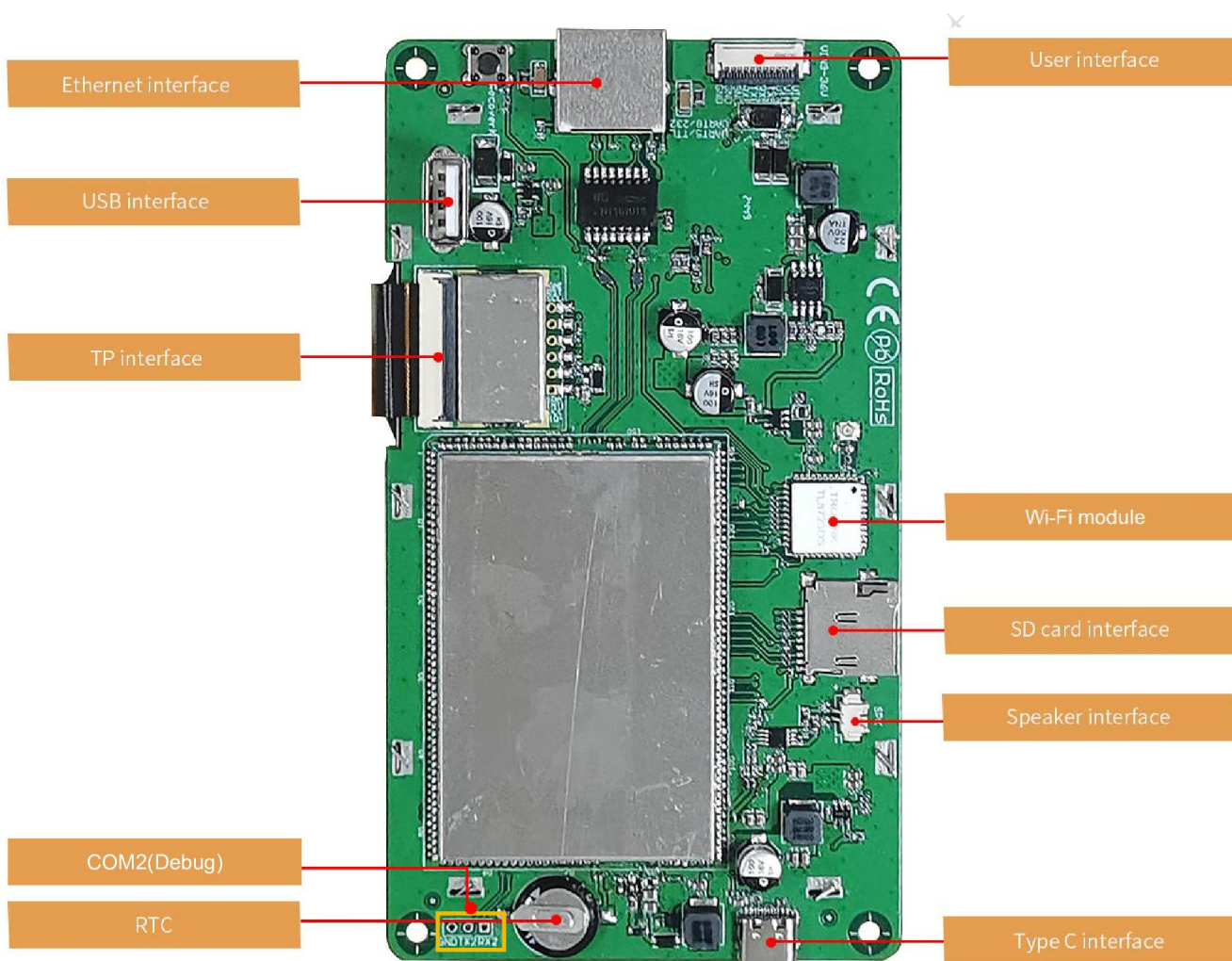
Environment & Reliability Test

Properties	Conditions	Min	Typ	Max	Unit
Working Temperature	60%RH at 12V voltage	-20	25	65	℃
Storage Temperature	-	-30	25	80	℃
Working Humidity	25℃	10%	60%	90%	RH
Conformal Coating	Y				
ESD	Air: ±8KV, Contact: ±6KV				
EFT	Group pulse interference ±2KV				

Additional cooling required for operation above 65℃.

● Peripherals and Interfaces

Properties	Description
User Interface	10Pin_1.0mm socket
COM	RS232*1(COM8), TTL*1(COM5), TTL*1(COM2, debug)
USB	USB 2.0*1 (HOST), Type C*1 (OTG)
Wi-Fi	IEEE 802.11b/g/n, 2.4GHz, Wi-Fi 4
Bluetooth Version	BT4.2
Speaker	2Pin_1.25mm interface*1
SD card	Max 64G
RTC	Accuracy: $\pm 20\text{ppm}$ @25°C



Development Platform

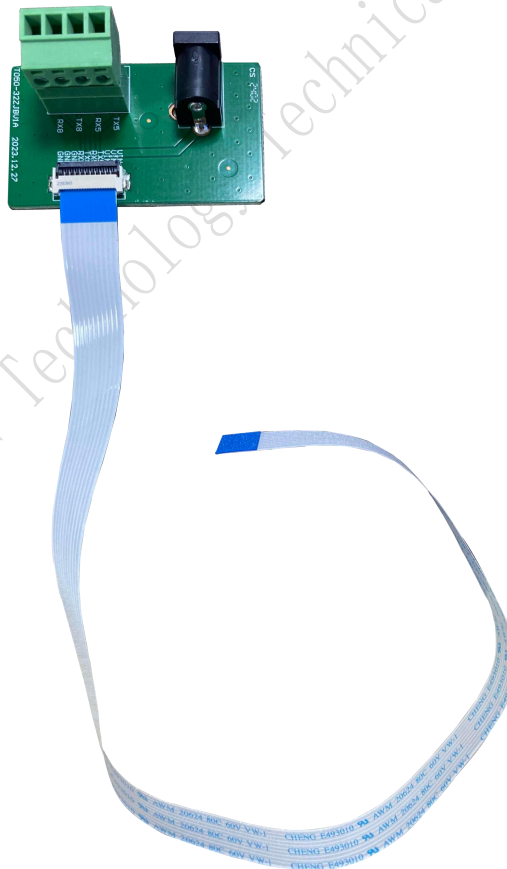
Development	
QT	QTCreator2.7.2 and above

Packing Capacity & Dimension

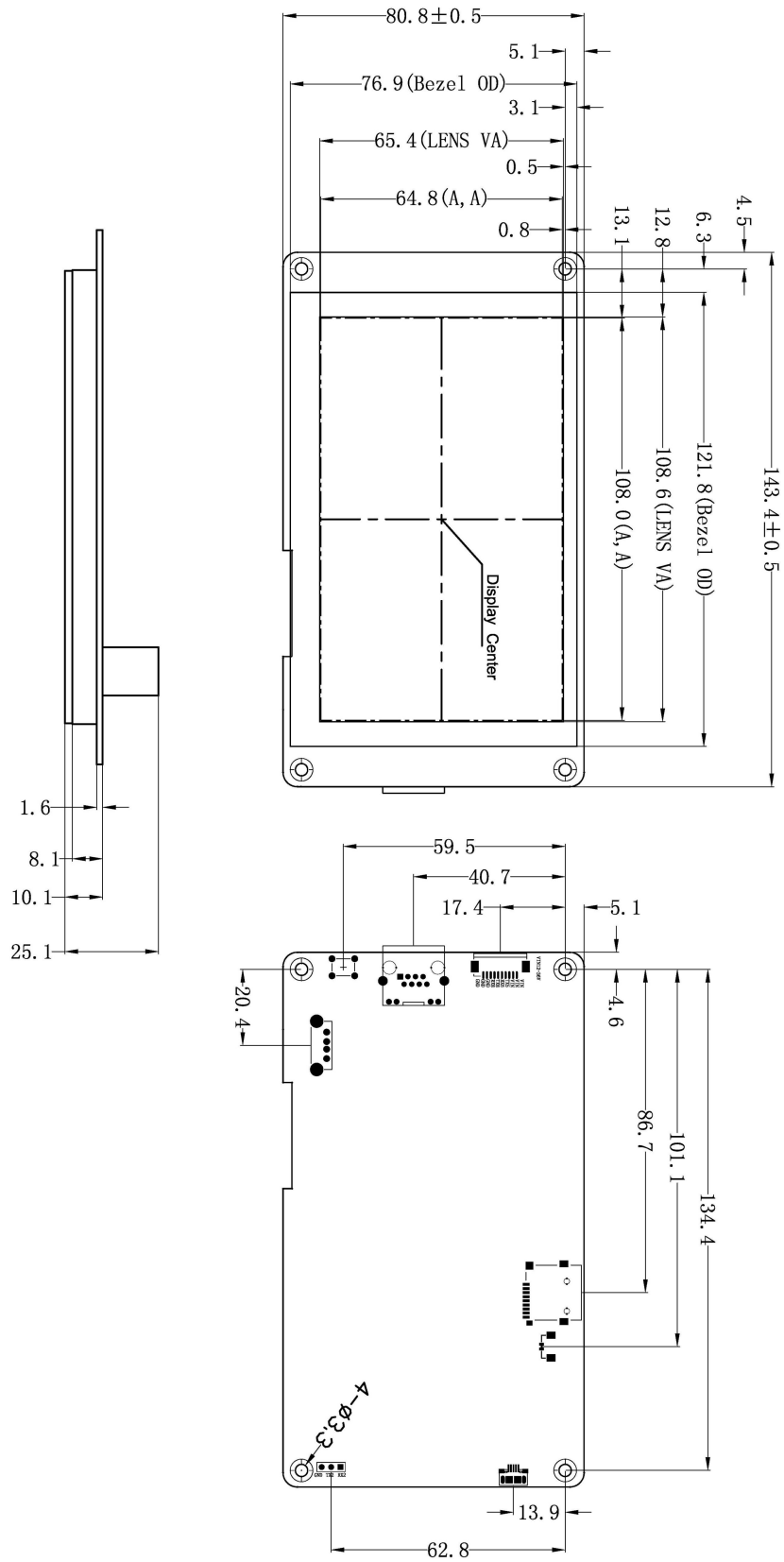
Dimension				
Dimension	143.4(W)*80.8(H)*25.1(T)mm			
Net Weight	185g			
Packing Capacity				
Model	Size	Layer	Quantity/Layer	Quantity(Pcs)
Carton1:	220mm(L)*160mm(W)*47mm (H)	1	1	1
Carton2:	250mm(L)*200mm(W)*80mm (H)	2	2	4
Carton3:	320mm(L)*270mm(W)*80mm (H)	2	3	6
Carton4:	450mm(L)*350mm(W)*300mm(H)	1	60	60
Carton5:	600mm(L)*450mm(W)*300mm(H)	2	60	120

Optional Accessories

Accessories Name	Description
T050-32ZJB	Power adapter, including adapter and cable



Power adapter diagram



Definition	Pin#	Type	Description
GND	8, 9, 10	P	GND
RX8	7	I	UART 8 Input
TX8	6	O	UART 8 Output
RX5	5	I	UART 5 Input
TX5	4	O	UART 5 Output
+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	DMG80480T050_40WTC			DWIN Technologies			
Drawing	A 4	Drawn	J. G	Date	20230516		
Scale	1:1	Review		Date			
Unit	MM	Approval		Date			

Revision Records

Rev.	Revise Date	Content	Editor
00	2023-05-22	First Edition	YML
01	2025-01-02	Modify the voltage value range, add development	Chen
02	2025-03-12	Add the description of Bluetooth	Chen
03	2025-04-07	Update the range of temperature, and add the power adapter diagram	Chen
04	2025-06-17	Update the description of Wi-Fi module	Chen

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:

Customer service Tel: +86-400-018-9008

Customer service E-mail: dwinhmi@dwin.com.cn

Website: www.dwin-global.com

DWIN Developer Forum: <https://forums.dwin-global.com/index.php/forums>

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

Important Disclaimer

DWIN reserves the right to make any changes to product designs without prior notice.

Customers should ensure strictly adhering to all the relevant standards and requirements during the product application process, including but not limited to functional safety, information security, and regulatory provisions.

DWIN shall not bear any joint and several liability for any consequences that may arise from customers' adoption of DWIN products. In particular, for risks that may lead to significant property losses, environmental hazards, personal injury, or even death, especially in high-risk application areas such as military applications, flammable and explosive places, and life-saving medical equipment, customers should independently assess the risks and take corresponding preventive and protective measures. DWIN shall not bear any relevant responsibility.

DWIN Technology Technical Document