

DMG80480T050_40WTC



Features:

- Industrial Linux intelligent display terminal based on RK3566, Linux version 4.19.
- 5.0-inch, 800*480 pixels resolution, 16.7M colors, IPS-TFT-LCD, wide viewing angle, capacitive touch.
- Adopt QT environment for secondary development.
- Available for multi-language, vector font library, picture library, video library and audio library.
- Compatible with network cable connection with PC to download update project.
- Available for TTL/CMOS and RS232 port to connect and communicate with external devices.

● Master Control Parameters

Properties	Parameters
Motherboard Level	Industrial
CPU	RK3566, Cortex-A55, quad-core
Kernel Version	4.19
OS	Linux
FLASH	8Gbytes EMMC
RAM	2Gbytes LPDDR4

● Display Parameters

Properties	Parameters	Description
Color	16.7M (16777216) colors	24 bit color 8R8G8B
Panel Type	IPS	IPS process, TFT LCM with wide viewing angle
Viewing Angle	85/85/85/85 (L/R/U/D)	Best View: symmetrical
Active Area (A.A.)	108.0mm (W)*64.8mm (H)	-
Visible Area (V.A.)	108.6mm (W)*65.4mm (H)	-
Resolution	800*480 Pixel	Available for 0°/90°/180°/270°rotated display
Backlight	LED	≥20000H(time of the brightness decaying to 50% on the condition of continuous working with the maximum brightness)
Brightness	250nit	100 levels adjustment(It's not recommend to set brightness to 1%~30% of the maximum, which may lead to LCD flicker.)

Note: You can use dynamic screen saver wallpapers to avoid afterimages caused by fixed page display for a long time.

● Voltage & Current

Properties	Conditions	Min	Typ	Max	Unit
Power Voltage	-	12.0	12.0	36.0	V
Operation Current	VCC = +12V, Backlight on	-	370	-	mA
	VCC = +12V, Backlight off	-	120	-	mA

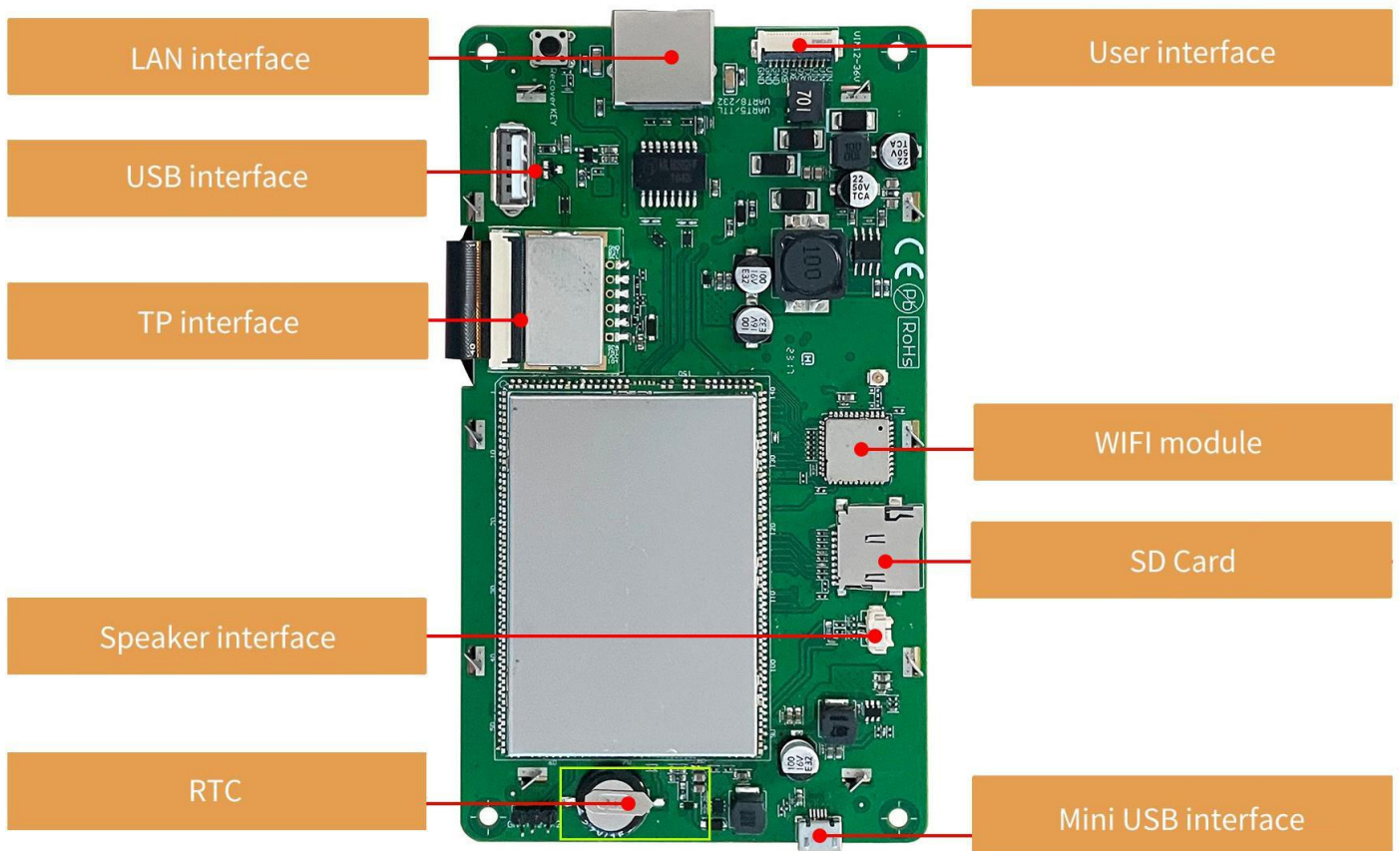
Recommended power supply: 12V 1A DC

● Reliability Test

Properties	Conditions	Min	Typ	Max	Unit
Working Temperature	60%RH at 12V voltage	-20	25	70	℃
Storage Temperature	-	-30	25	80	℃
Working Humidity	25℃	10%	60%	90%	RH
Protective Paint	Yes				
ESD	Air discharge±8KV, Contact discharge ±6KV				
EFT	Group pulse interference ±2KV				

● **Peripherals and Interfaces**

Properties	Parameters	Description
COM	1-way RS232	UART8
	1-way TTL/COMS	UART5
USB Interface	2-way	HOST*1,OTG*1
Speaker Interface	1-way	2Pin_1.25mm interface
SD card Interface	1-way	Drawer type card slot(Max 64G)
Ethernet Interface	1-way	10/100Mbps
WIFI Interface	1-way	WIFI_ITM-WIFI-SD41,Bluetooth
RTC	1-way	Super-capacitor for power. Accuracy: $\pm 20\text{ppm}$ @25°C



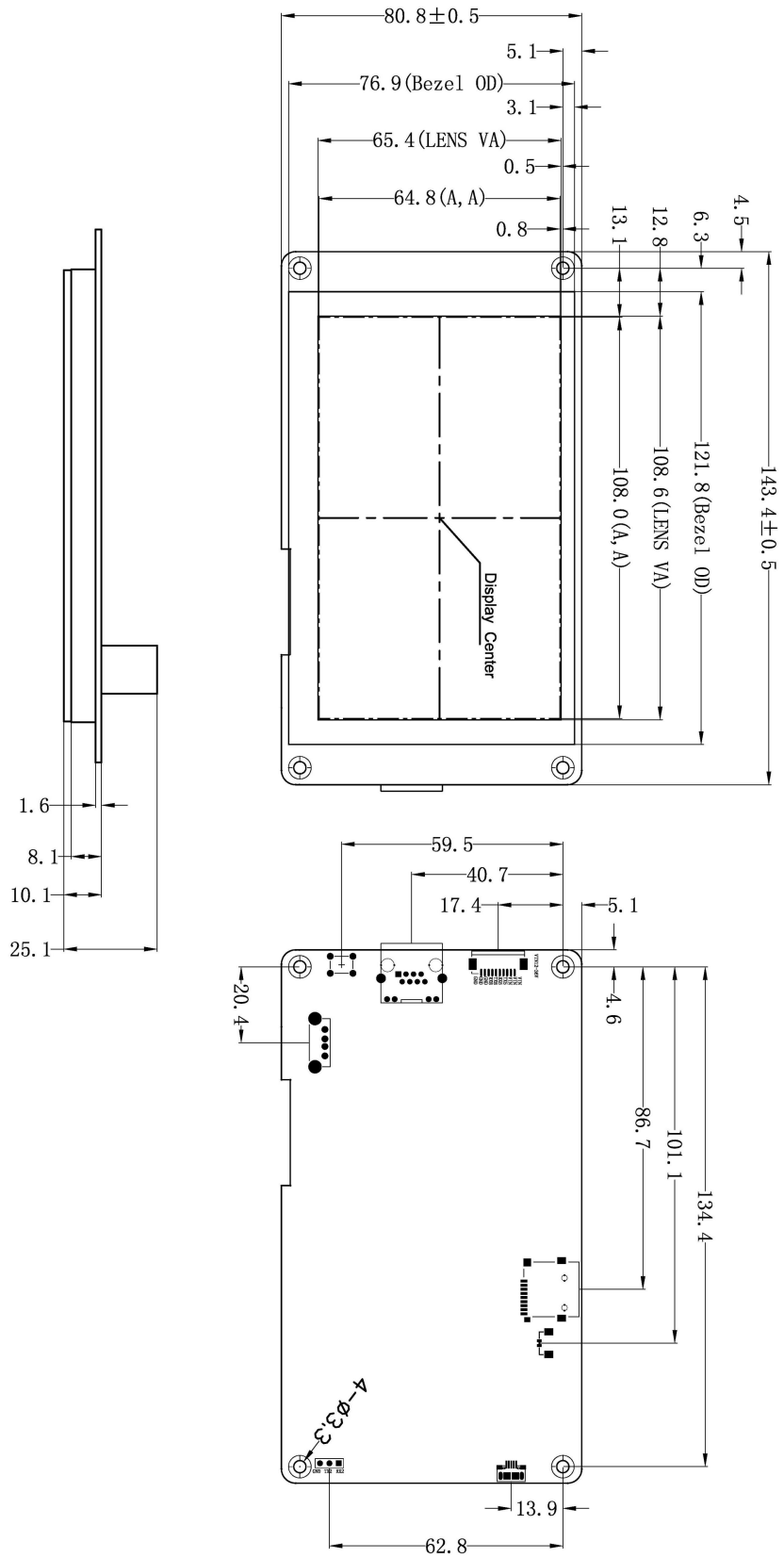
● Interface

Properties	Conditions	Min	Typ	Max	Unit
Baud Rate	User Set	2400	115200	230440	bps
Output Voltage (TXD)	Output 1	-	-5.0	-3.0	V
	Output 0	3.0	5.0	-	V
Input Voltage (RXD)	Input 1	-15.0	-5.0	-	V
	Input 0	-	5.0	15.0	V
Interface	Support TTL/COMS,RS232 level				
Socket	10Pin_1.0mm				

● 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

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



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	
Scale	1:1	Review		
Unit	MM	Approval		
		Date	20230516	
		Date		

Record of Revision

Ver	Revise Date	Content	Editor
00	2023-05-22	First Edition	YML

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!

DWIN Technology Technical Document