

# 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, RS232 and Ethernet 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	23	V
Operation Current	VCC = +12V, Backlight on	-	370	-	mA
	VCC = +12V, Backlight off	-	120	-	mA

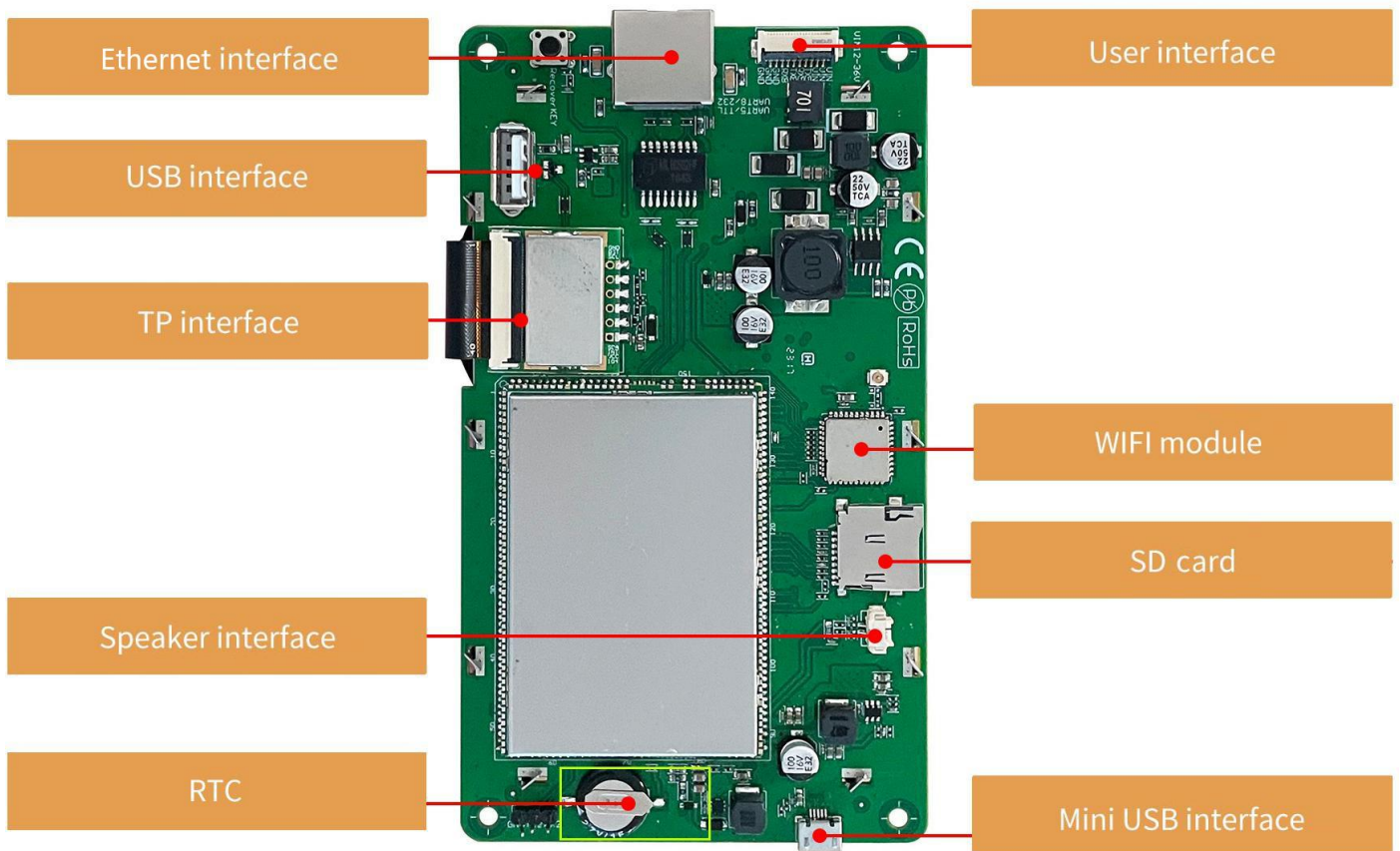
Recommended power supply: 12V 1A DC

### ● 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	IEEE 802.11Bb/g/n,2.4G,Bluetooth
RTC	1-way	Super-capacitor for power. Accuracy: $\pm 20\text{ppm @}25^{\circ}\text{C}$



**Disclaimer:**

There are multiple parallel raw materials coexisting to guarantee the stable supply.If customers have particular raw material preferences or requirements, please contact the sales personnel.

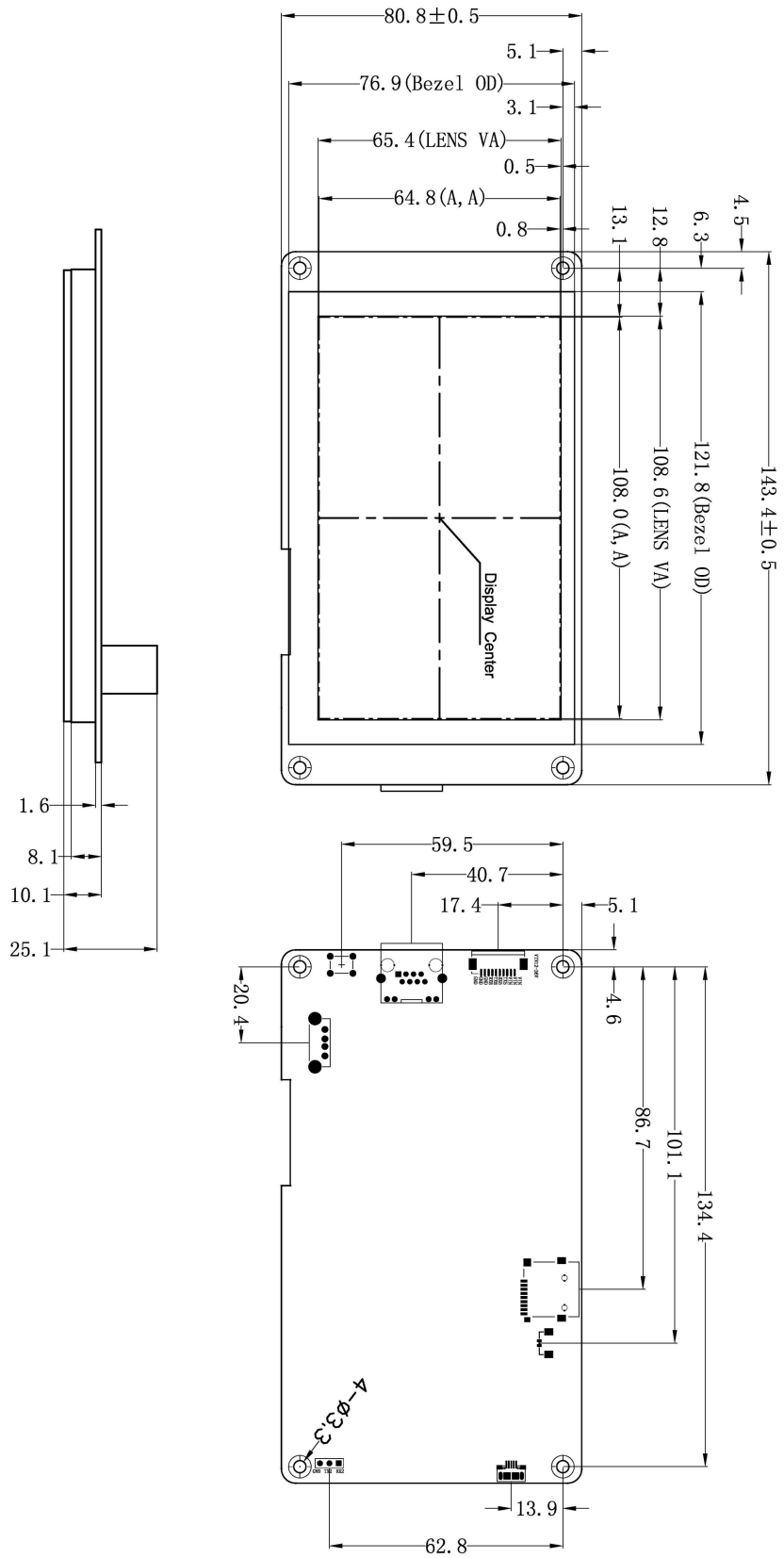
**● Interface**

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  $\pm 0.3$ mm  
 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

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

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