

# DMG10768T150\_40WTC



## Features:

- Industrial Linux intelligent display terminal based on RK3566, Linux version 4.19.
- 15.0-inch, 1024\*768 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 RS232, RS485 and Ethernet port to connect and communicate with external devices.

### ● Master Control Parameters

Properties	Parameters
Motherboard Level	Industrial
CPU	RK3566, Cortex-A55, quad-core
OS	Linux 4.19
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.)	304.13mm(W) * 228.10mm(H)	1024*768 Pixel
View Area (V.A.)	305.50mm(W) * 229.50mm(H)	1024*768 Pixel
Resolution	1024*768 Pixel	Available for 0°/90°/180°/270°rotated display
Backlight	LED	≥50000H(time of the brightness decaying to 50% on the condition of continuous working with the maximum brightness)
Brightness	300nit	100 levels adjustment(It's not recommended 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, Max Backlight	-	1150	-	mA
	VCC = +12V, Backlight off	-	350	-	mA

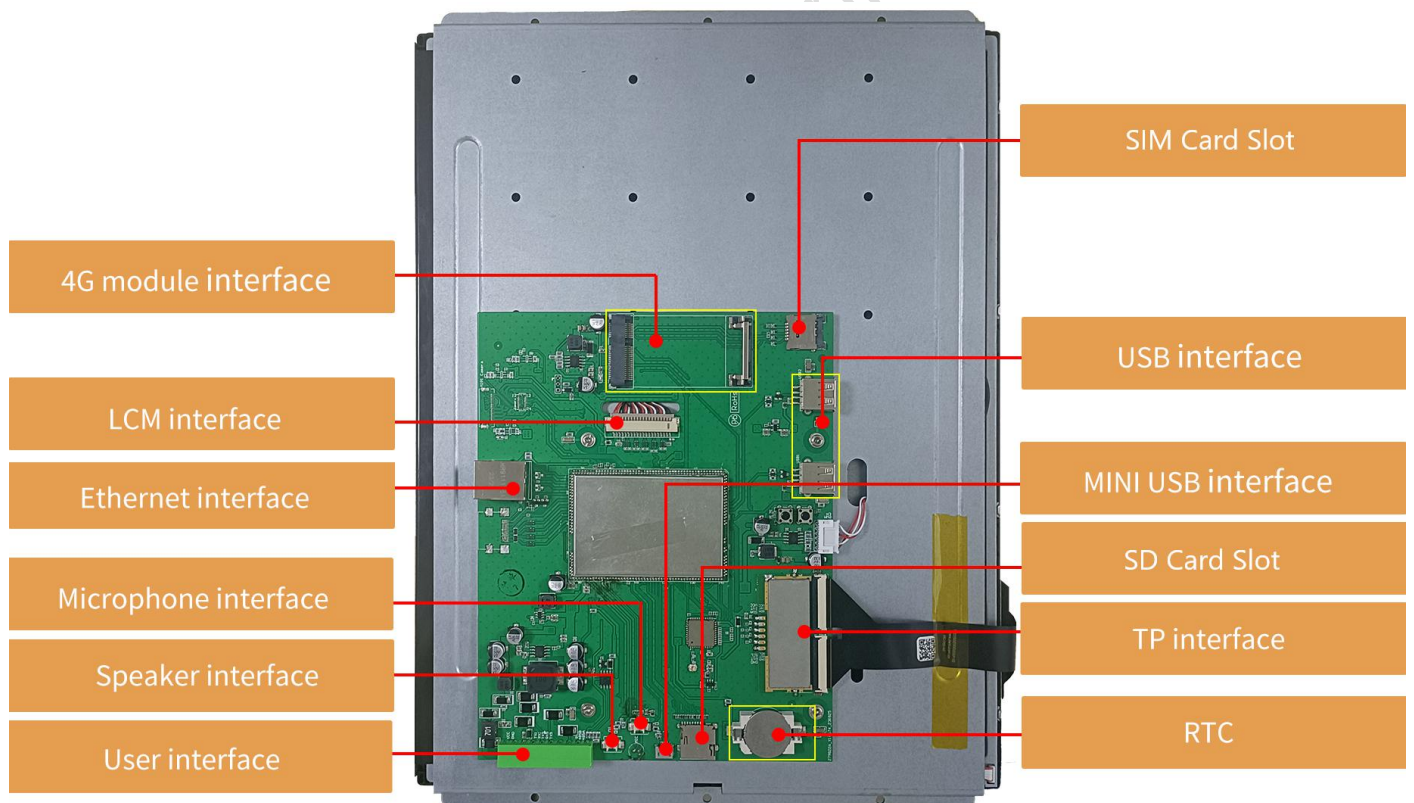
Recommended power supply: 12V 1.5A DC

### ● Reliability Test

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

## ● Peripherals and Interfaces

Properties	Parameters	Description
COM	2-way RS232	UART5 & UART9
	1-way RS485	UART8
	1-way TTL/COMS	UART0
USB Interface	3-way	Type-A*2,MICRO*1
Speaker Interface	1-way	2Pin_1.25mm interface
Microphone Interface	1-way	2Pin_1.25mm interface
Camera Interface	1-way	USB
4G Module Interface	1-way	Factory not configured, can be customized to add
SIM Card Slot	1-way	-
SD Card Slot	1-way	Drawer type card slot(Max 64G)
Ethernet Interface	1-way	10/100Mbps
WIFI Module	1-way	IEEE 802.11Bb/g/n,2.4G,Bluetooth
RTC	1-way	Button cell for power supply. Accuracy: $\pm 20\text{ppm @}25^{\circ}\text{C}$



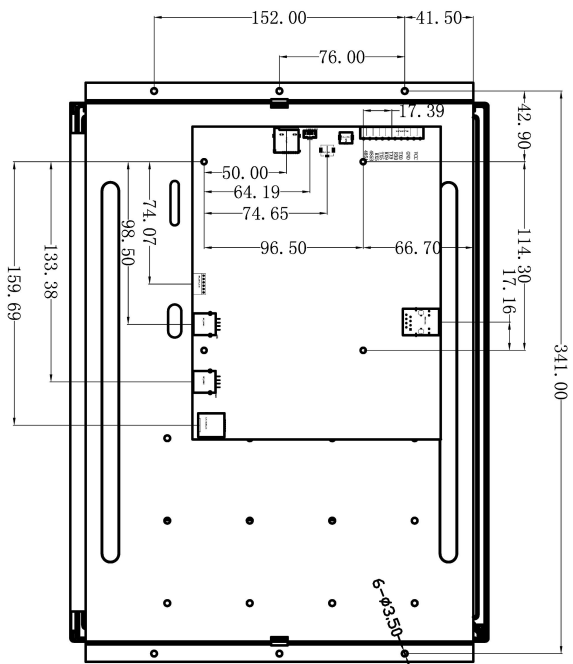
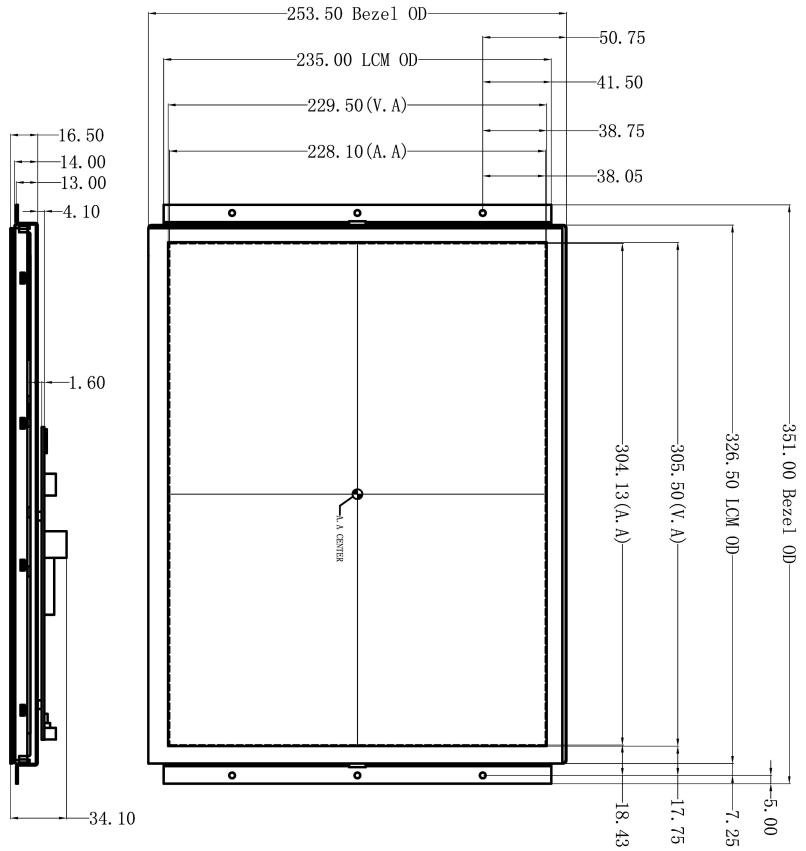
**● Interface**

Properties	Conditions	Min	Typ.	Max	Unit
Baud Rate	User Set	2400	115200	230440	bps
Output Voltage (TXD)	Output 1	-	-5.0	-	V
	Output 0	-	5.0	-	V
Input Voltage (RXD)	Input 1	-	-5.0	-	V
	Input 0	-	5.0	-	V
Baud Rate	User Set	2400	115200	921600	bps
(V_AB)	Output 1	2.5	5.0	-	V
	Output 0	-	-5.0	-2.5	V
(V_AB)	Input 1	0	2.5	-	V
	Input 0	-	-2.5	-0.2	V
Interface	Support TTL/COMS,RS232 or RS485 level				
Socket	10Pin_3.81mm Socket				

**● Packing Capacity & Dimension**

Dimension				
Dimension	351.00(W)*253.50(H)*34.10(T)mm			
Net Weight	1430g			
Packing Capacity				
Model	Size	Layer	Quantity/Layer	Quantity(Pcs)
Carton1:	525mm(L)*330mm(W)*80mm(H)	1	1	1
Carton2:	375mm(L)*340(W)mm*465mm(H)	6	1	6

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



Definition	Pin#	I/O	Description
VCC	1	P	Power Input
GND	2	P	GND
TX0	3	O	UART 0 Output
RX0	4	I	UART 0 Input
TX9	5	O	UART 9 Output
RX9	6	I	UART 9 Input
TX5	7	O	UART 5 Output
RX5	8	I	UART 5 Input
485B	9	B	RS485-
485A	10	A	RS485+

Location hole is used as position reference.

Unmarked Tolerance is +/-0.3mm

Active area is marked in Dash lines

Model	DMG10768T150_40WTC				
Drawing	A 4	Drawn	DWIN	Date	2023.10.26
Scale	1:1	Review		Date	
Unit	MM	Approval		Date	

**DWIN Technologies**

## Revision Records

Rev	Revise Date	Content	Editor
00	2023-12-19	First edition	YML

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