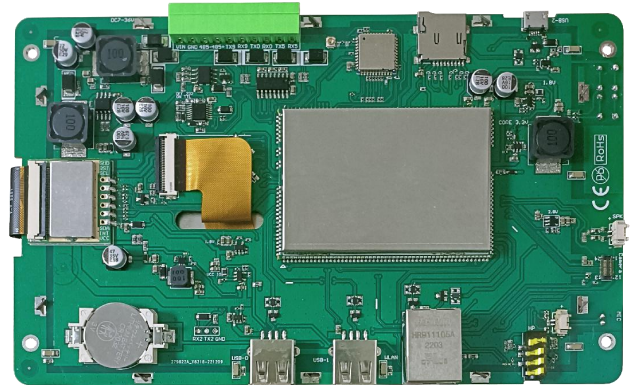


DMG12800C070_32WTCZ03



Features:

- Capable for Google Play Services
- Commercial Android intelligent display terminal based on RK3566, running Android 11 operating system.
- 7.0-inch, 800*1280 pixels resolution, 16.7M colors, IPS-TFT-LCD, wide viewing angle, capacitive touch.
- Compatible with WIFI, Bluetooth, microphone, camera and other rich peripherals.
- Available for USB and SD card updates.
- Available for downloading Android general apps to realize functions such as WiFi, wired internet, browsing, music and video playback, data copy, etc.
- Available for RS232 and RS485 port to connect and communicate with external devices.

Master Control Parameters

Properties	Parameters
Motherboard Level	Commercial
CPU	RK3566, Cortex-A55, quad-core
OS	Android 11
FLASH	8Gbytes EMMC
RAM	2Gbytes DDR4

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.)	94.20mm (W)*150.72mm (H)	800*1280 Pixel
Visible Area (V.A.)	94.60mm (W)*151.12mm (H)	800*1280 Pixel
Resolution	800*1280 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	300nit	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	-	7.0	12.0	36.0	V
Operation Current	VCC = +12V, Backlight on	-	240	-	mA
	VCC = +12V, Backlight off	-	110	-	mA

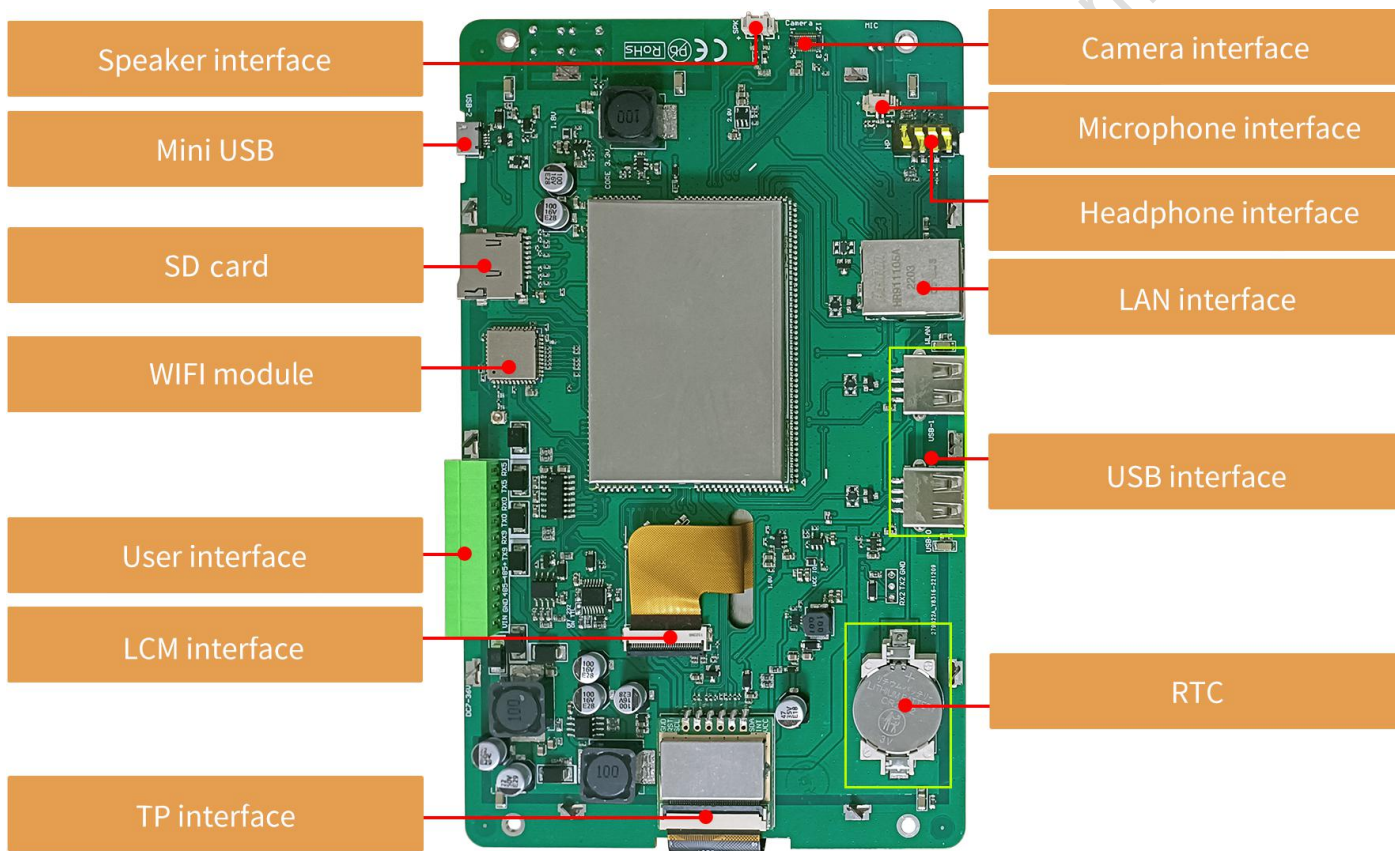
Recommended power supply: 12V 0.5A DC

Reliability Test

Properties	Conditions	Min	Typ	Max	Unit
Working Temperature	60%RH at 12V voltage	-10	25	50	℃
Storage Temperature	-	-15	25	55	℃
Working Humidity	25℃	10%	60%	90%	RH
Protective Paint	Yes				
ESD	Air discharge±4KV, Contact discharge ±4K				

● Peripherals and Interfaces

Properties	Parameters	Description
COM	2-way RS232	UART5 & UART9
	1-way RS485	UART8
	1-way TTL/COMS	UART0(Debug interface)
USB Interface	3-way	HOST*2,OTG*1
Headphone Interface	1-way	3.5mm spacing interface
Speaker Interface	1-way	2Pin_1.25mm interface
Microphone Interface	1-way	2Pin_1.25mm interface
Camera Interface	1-way	USB, Not supported by Mipi
SD Card Slot	1-way	Drawer type card slot(Max 64G)
LAN Interface	1-way	10/100Mbps
WIFI Interface	1-way	WIFI_ITM-WIFI-SD41,Bluetooth
RTC	1-way	Button cell for power supply. Accuracy: $\pm 20\text{ppm @}25^{\circ}\text{C}$



● Interface

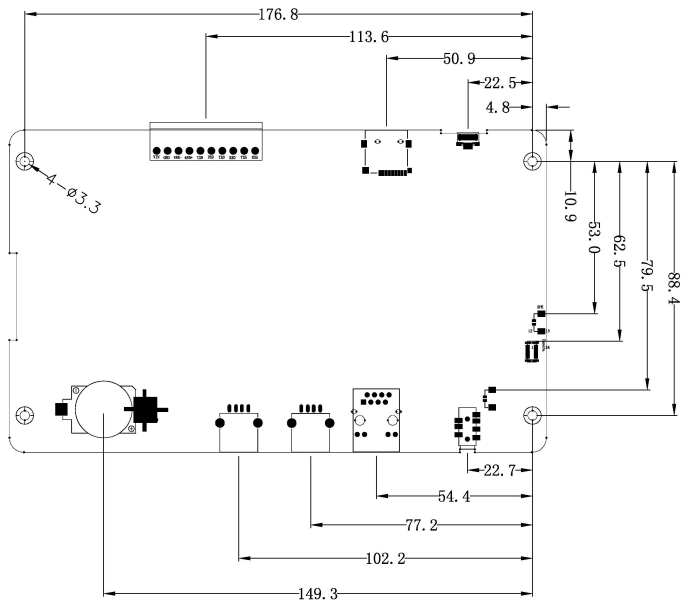
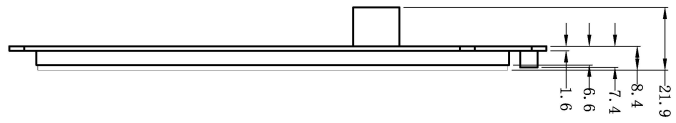
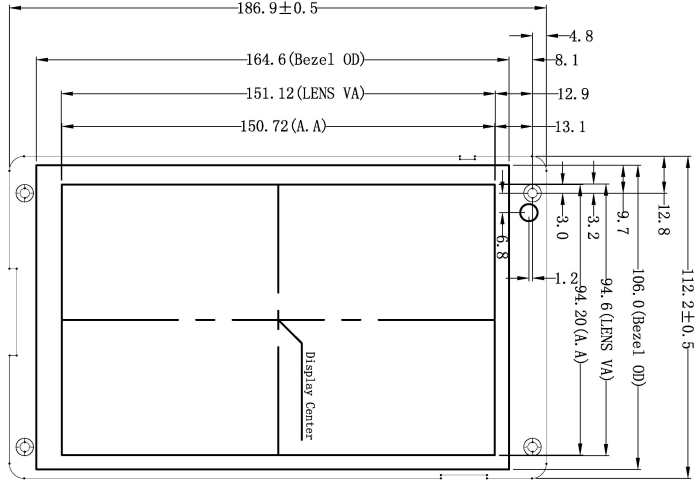
Properties	Conditions	Min	Typ	Max	Unit
Baud Rate	User Set	2400	115200	230440	bps
Output Voltage (TXD)	Output 1	-	-5.0	-	V
	Output 0	-	5.0	-	V
Input Voltage (RXD)	Input 1	-	-5.0	-	V
	Input 0	-	5.0	-	V
Baud Rate	User Set	2400	115200	921600	bps
(V_AB)	Output 1	2.5	5.0	-	V
	Output 0	-	-5.0	-2.5	V
(V_AB)	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	112.2(W)*186.9(H)*21.9(T)mm			
Net Weight	305g			
Packing Capacity				
Model	Size	Layer	Quantity/Layer	Quantity(Pcs)
Carton1:	220mm(L)*160mm(W)*47mm (H)	-	-	-
Carton2:	250mm(L)*200mm(W)*80mm (H)	2	1	2
Carton3:	320mm(L)*270mm(W)*80mm (H)	2	2	4
Carton4:	450mm(L)*350mm(W)*300mm(H)	1	20	20
Carton5:	600mm(L)*450mm(W)*300mm(H)	1	34	34

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

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



Location hole is used as position reference.

Unmarked Tolerance is +/-0.3mm

Model	DMG12800C07 32WTCZ03			DWIN Technologies				
Drawing	A 4	Drawn	DWIN				Date	
Scale	1:1	Review					Date	
Unit	MM	Approval					Date	

Record of Revision

Ver	Revise Date	Content	Editor
00	2023-01-09	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!

DWIN Technology Technical Document