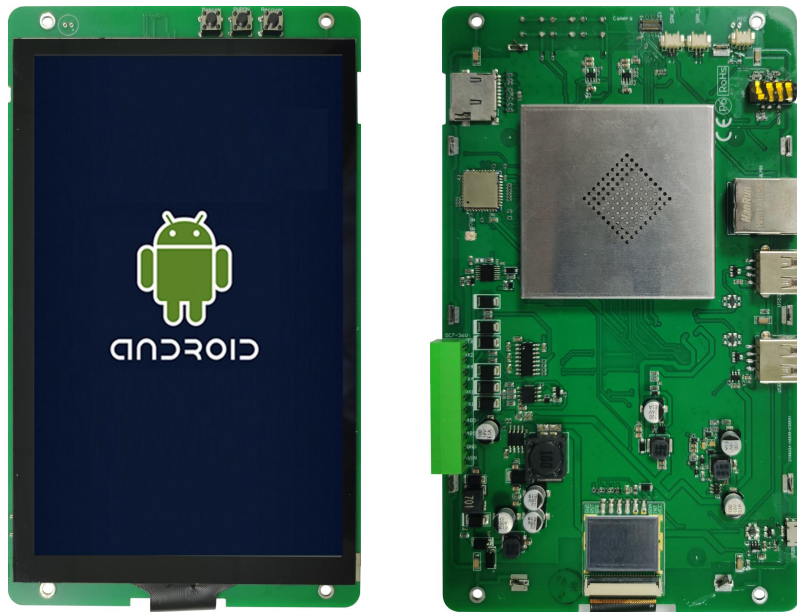


DMG12800C070_33WTC



Features:

- Commercial Android intelligent display terminal based on RK3288, running Android 8.1 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

Item	Description
Motherboard Level	Commercial
CPU	RK3288 Quad-core 1.8GHz ARM Cortex-A17
FLASH	8Gbytes EMMC5.0
RAM	2Gbytes DDR3
OS	Android 8.1
Note:Support secondary development. (According to the standard Android interface development)	

● Display Parameters

Item	Data	Description
Color	16.7M(16777216)colors	24 bit color 8R8G8B
Panel Type	IPS	IPS process TFT LCM,wide view angle
Viewing Angle	85/85/85/85 (L/R/U/D)	Best view angle: symmetrical
View Area (V.A.)	151.12 mm(W)*94.60mm (H)	800*1280 Pixel
Active Area (A.A.)	150.72mm (W)*94.20mm (H)	800*1280 Pixel
Resolution	800*1280 Pixel	Support 0°/90°/180°/270°rotated display
Backlight	LED	≥30000H(Time of the brightness decaying to 50% on the condition of continuous working with the maximum brightness)
Brightness	300nit	0~100 grade (When the brightness is adjusted to 1%~30% of the maximum brightness, flickering may occur and is not recommended to use in this range)
Note:You can use dynamic screen saver wallpapers to avoid afterimages caused by fixed page display for a long time.		

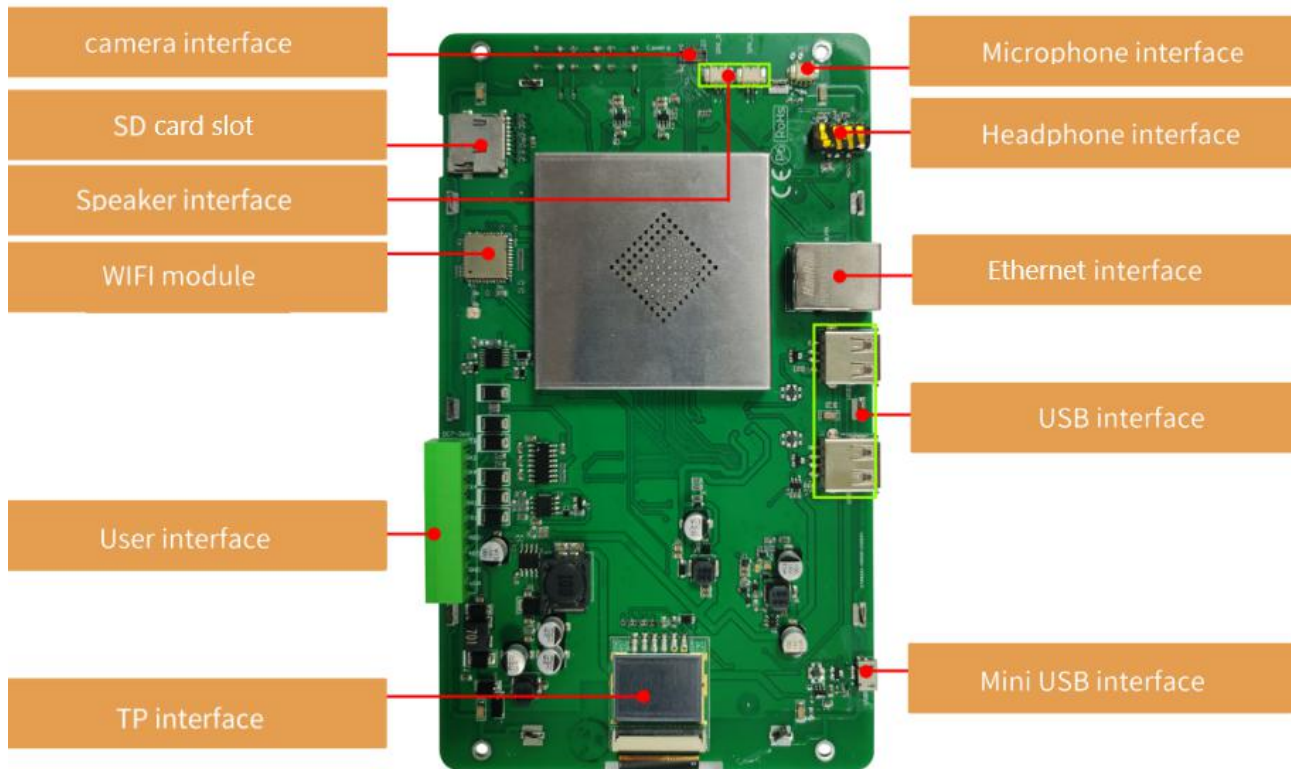
● Voltage & Current

Item	Conditions	Min	Typ.	Max	Unit
Power Voltage	-	7.0	12.0	36.0	V
Operating Current	VCC = +12V, backlight on	-	360	-	mA
	VCC = +12V, backlight off	-	120	-	mA
Recommended power supply: 12V 1A DC					

● Reliability Test

Item	Conditions	Min	Typ.	Max	Unit
Working Temperature	60%RH at 12V voltage	-10	25	50	°C
Storage Temperature	-	-20	25	60	°C
Working Humidity	25°C	10%	60%	90%	RH
Protective Paint	Yes				
ESD	Air discharge ±4KV, Contact discharge ±4K				

● Interface Description



Properties	Parameters	Description
COM	2-way RS232	UART1 & UART4
	1-way RS485	UART3
	TTL/COMS	UART2(Debug interface)
USB interface	3-way	HOST*2, OTG*1
Headphone interface	1-way	3.5mm spacing interface
Speaker interface	2-way	Left & right
Microphone interface	1-way	On board
Camera interface	1-way	Mipi&USB
SD card slot	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
Key	3-way	Masrom, Recover, PWRON

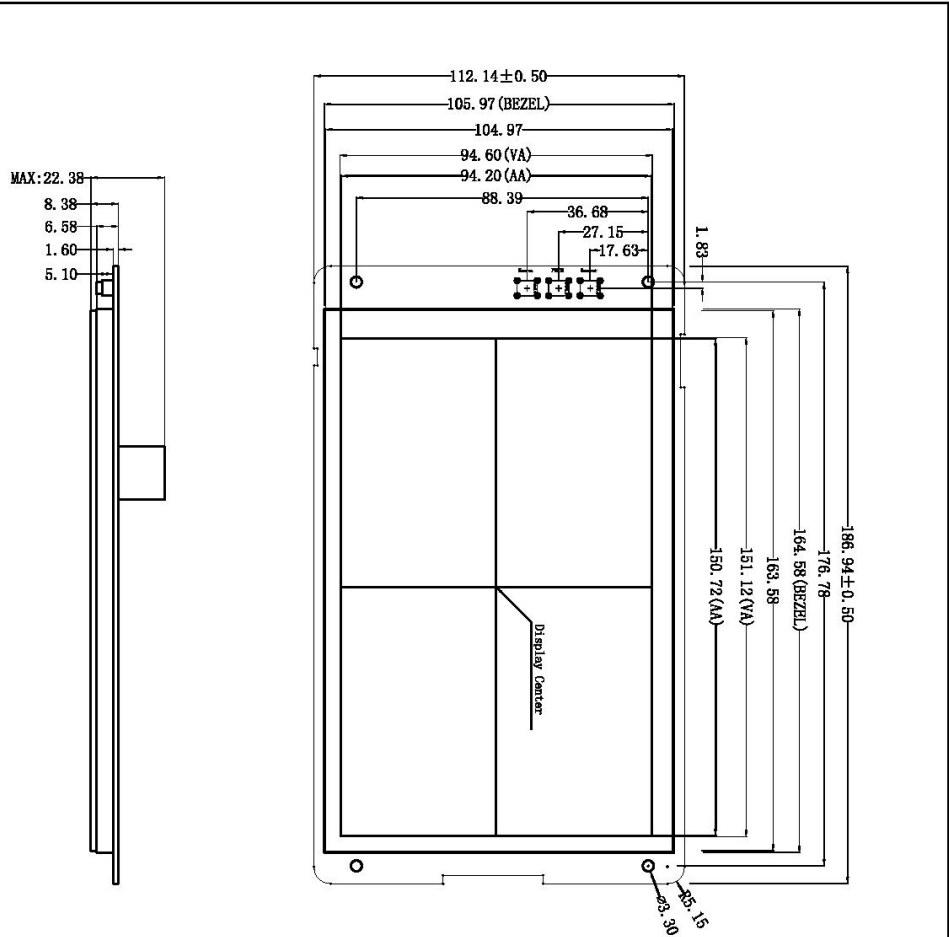
● Interface Definition

Item	Conditions	Min	Typ.	Max	Unit
UART1/4 baud rate	User Defined	2400	115200	230440	bps
UART output voltage (TXD)	Output 1	-	-5.0	-	V
	Output 0	-	5.0	-	V
UART input voltage (RXD)	Input 1	-	-5.0	-	V
	Input 0	-	5.0	-	V
UART3 baud rate	User Defined	2400	115200	921600	bps
UART output voltage level (V_AB)	Output 1	2.5	5.0	-	V
	Output 0	-	-5.0	-2.5	V
UART input voltage level (V_AB)	Input 1	0	2.5	-	V
	Input 0	-	-2.5	-0.2	V
UART mode	UART1:RS232*1 UART2:TTL*1(debugging interface, not available to user) UART3:RS485*1 UART4:RS232*1				
Socket	10Pin_3.81mm Socket				

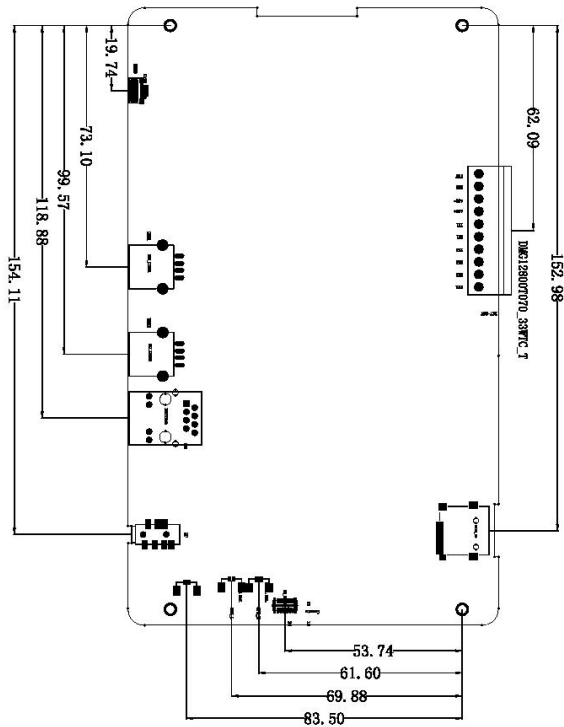
● Packing Capacity & Dimension

Dimension				
Dimension	186.94(W)*112.14(H)*22.38(T)mm			
Net Weight	310g			
Packing Capacity				
Model	Carton 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#	Type	Description
VIN	1	P	Power Input
GND	2	P	GND
485+	3	A	485+
485-	4	B	485-
TX1	5	0	UART 1 Output
RX1	6	I	UART 1 Input
TX4	7	0	UART 4 Output
RX4	8	I	UART 4 Input
RX2	9	I	UART 2 Input
TX2	10	0	UART 2 Output



Location hole is used as position reference.
 Unmarked Tolerance is $\pm 0.3\text{mm}$
 Active area is marked in Dash lines

Model	DMG12800C070_33WTC		
Drawing	A 4	Drawn	G.Y
Scale	1 : 1	Review	
Unit	MM	Approval	
		Date	2022.07.05
DWIN Technologies			

● Revision Records

Version	Revise Date	Content	Editor
00	2022-12-16	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