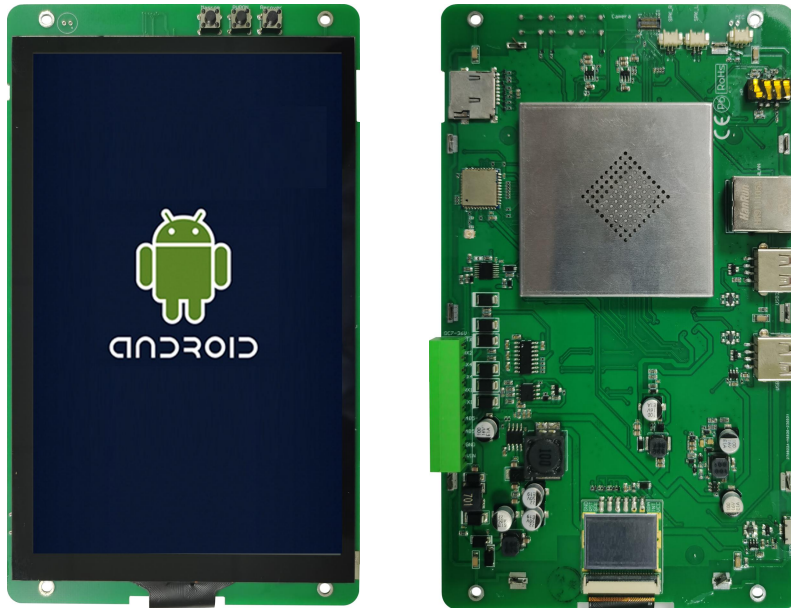


# DMG12800T070-33WTC



## Features:

- Industrial 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, CTP.
- 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.

## 1 Master control parameters

Item	Description
Motherboard level	Industrial
CPU	4 core 1.8GHz ARM Cortex-A17
FLASH	8Gbytes
RAM	2Gbytes

## 2 OS parameter

OS	Android 8.1
Note: Support secondary development. (According to the standard Android interface development)	

## 3 Display parameters

Item	Data	Description
Color	16.7M(16777216)colors	24 bit color 8R8G8B
LCD type	IPS	IPS process TFT LCM ,wide viewing angle
Viewing angle	85/85/85/85 (L/R/U/D)	Best view angle: symmetrical
Visual area (V.A.)	151.12 mm(W)×94.60mm (H)	1280×800 Pixel
Active area (A.A.)	150.72mm (W)×94.20mm (H)	1280×800 Pixel
Resolution	1280×800 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)

## 4 Voltage & current

Item	Conditions	Min	Typical	Max	Unit
Power voltage	-	7.0	12.0	36.0	V
Operating current	VCC = +12V, Backlight on	-	430	-	mA
	VCC = +12V, Backlight off	-	43	-	mA
Recommended power supply: 12V 1A DC					

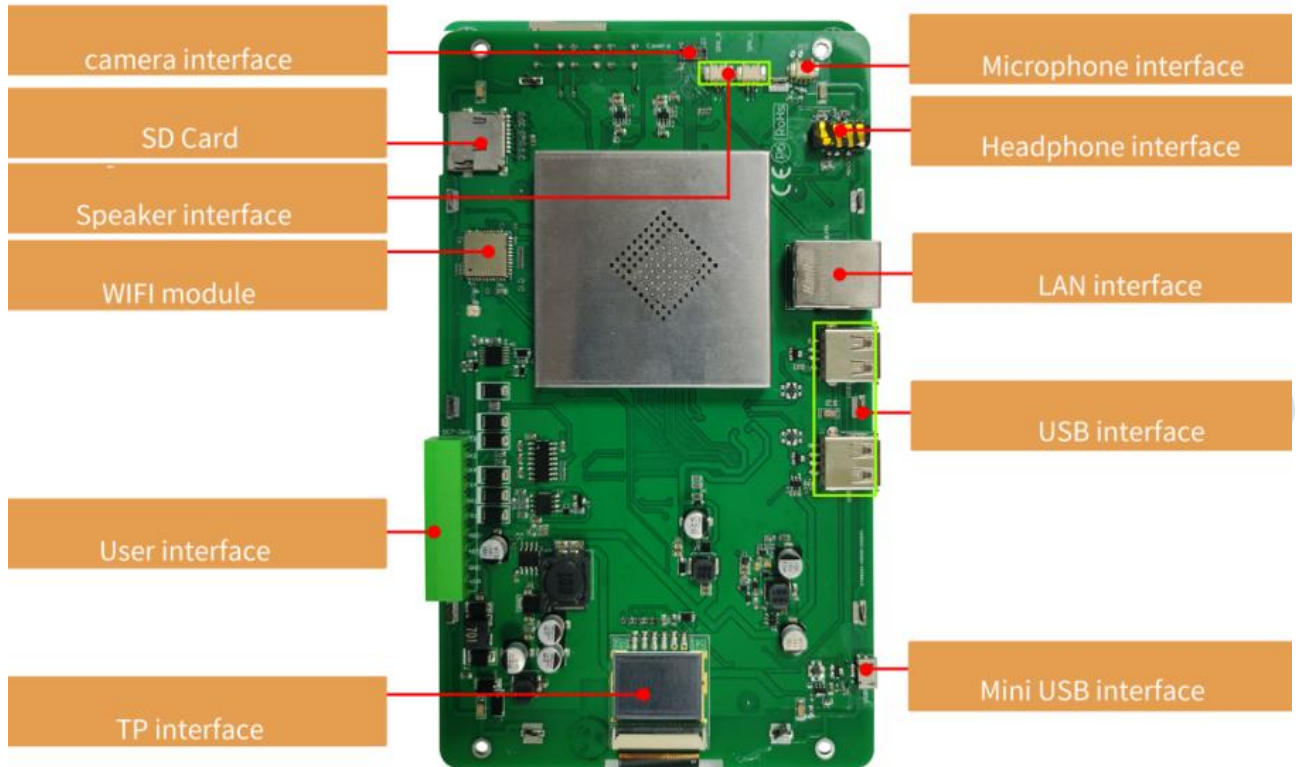
## 5 Reliability test

Item	Conditions	Min	Typical	Max	Unit
Operating temperature	60%RH at 12V voltage	-20	25	70	°C
Storage temperature	-	-30	25	80	°C
Operating humidity	25°C	10%	60%	90%	RH
Conformal coating	-	-	None	-	-

## 6 Interface definition

Item	Conditions	Min	Typical	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				
Interface cable	10Pin_3.81mm terminal block				
USB interface	YES				
SD card slot	YES (SDHC/FAT32 format)				

## 7 Interface description

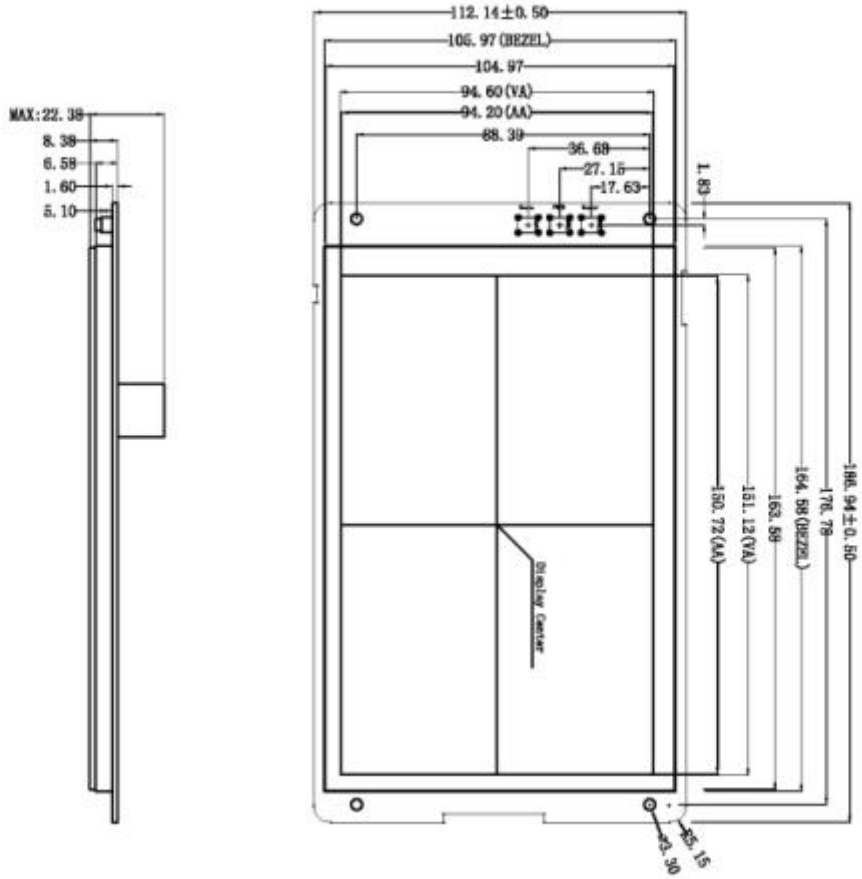


Interface properties	Parameters	Description
UART	2-way RS232	UART1 & UART4
	1-way RS485	UART3
	TTL/COMS	UART2(Debug interface)
USB	3-way	HOST*2, OTG*1
Headphone	1-way	3.5mm spacing interface
Speaker	2-way	Left & right
Microphone	1-way	On board
Camera	1-way	Mipi&USB
SD card	1-way	Drawer type card slot(Max 64G)
WLAN	1-way	10/100Mbps
WIFI	1-way	IEEE 802.11Bb/g/n,2.4G, Bluetooth
Key	3-way	Masrom, Recover, PWRON

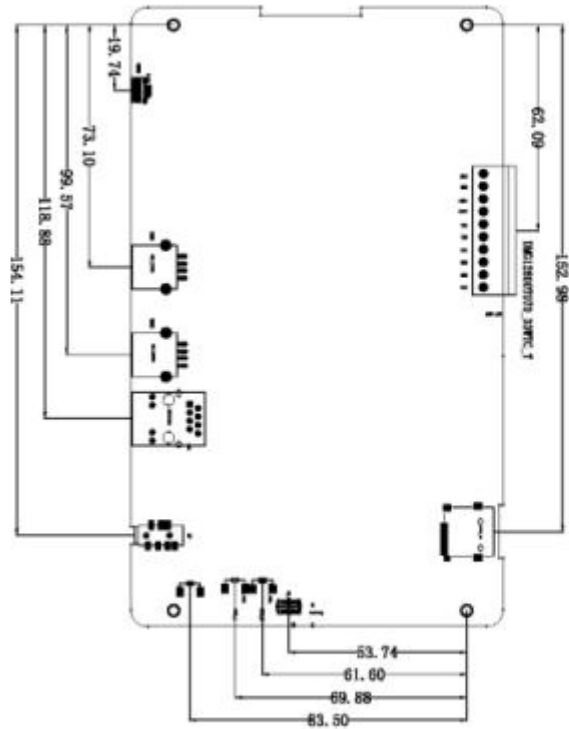
## 9 Packaging & dimensions

<b>Form factor</b>	186.94(W)×112.14(H)×22.38mm	
<b>Net weight</b>	310g	
<b>Packaging Standards</b>		
<b>Model</b>	<b>Dimensions</b>	<b>Quantity(Pcs)</b>
Carton1	250mm(L)×200mm(W)×80mm (H)	2
Carton2	320mm(L)×270mm(W)×80mm (H)	4
Carton3	450mm(L)×350mm(W)×300mm(H)	10
Carton4	450mm(L)×420mm(W)×300mm(H)	14
Carton5	600mm(L)×450mm(W)×300mm(H)	20

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



Interface name	Definition	Type	Description
VIN	1	P	Power Input
GND	2	0	GND
485+	3	A	RS-485+
485-	4	B	RS-485-
RX2	5	1	DWIN UART INPUT DIN
TX2	6	0	DWIN UART OUTPUT DOUT
RX1	7	1	DWIN UART INPUT DIN
TX1	8	0	DWIN UART OUTPUT DOUT
RX4	9	1	DWIN UART INPUT DIN
TX4	10	0	DWIN UART OUTPUT DOUT



Unmarked Tolerance is +/-0.3mm  
Active area is marked in Dash lines

Model	DMG12800T070-33WTC		
Drawing	A 4	Drawn	DWIN
Scale		Date	
Unit	MM	Date	
<b>DWIN Technology</b>			

## 10 Revision records

Version	Revise Date	Content	Editor
00	2020-09-10	First Edition	QC department
01	2021-06-30	Add Parameters	ZYJ
03	2022-07-05	Hardware optimization, update CAD, physical drawing	FKX

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.

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