DMG12800T121_32WTC

System Hardware

Properties	Parameters
Motherboard Level	Industrial-grade
CPU	RK3566, Quad-core ARM Cortex-A55, 1.8GHz Processor
OS	Android 11
Storage	8Gbytes eMMC
RAM	2Gbytes LPDDR4

Display Parameters

Properties	Parameters	Description
Size	12.1 inch	-
LCD Type	IPS, TFT LCD	-
Viewing Angle	85° /85° /85° /85°	Wide viewing angle, high contrast, and good color reproduction
Active Area (AA)	261.12mm(W)×163.20mm(H)	-
Resolution	1280×800	-
Backlight Service Life	>20000 Hrs	Backlight service life refers to the period the LED backlight operates under test conditions until brightness decreases to 50% of the initial level
Brightness	600nit	100-level brightness adjustment (Flickering may occur at 1%-30% of max brightness; not recommended for use in this range)
Note: Use dynamic screen saver to prevent afterimages from prolonged fixed page display.		

Touch Parameter

Properties	Parameters
Touch Type	Capacitive touch panel
Structure	G+G structure with tempered glass surface

Power Supply

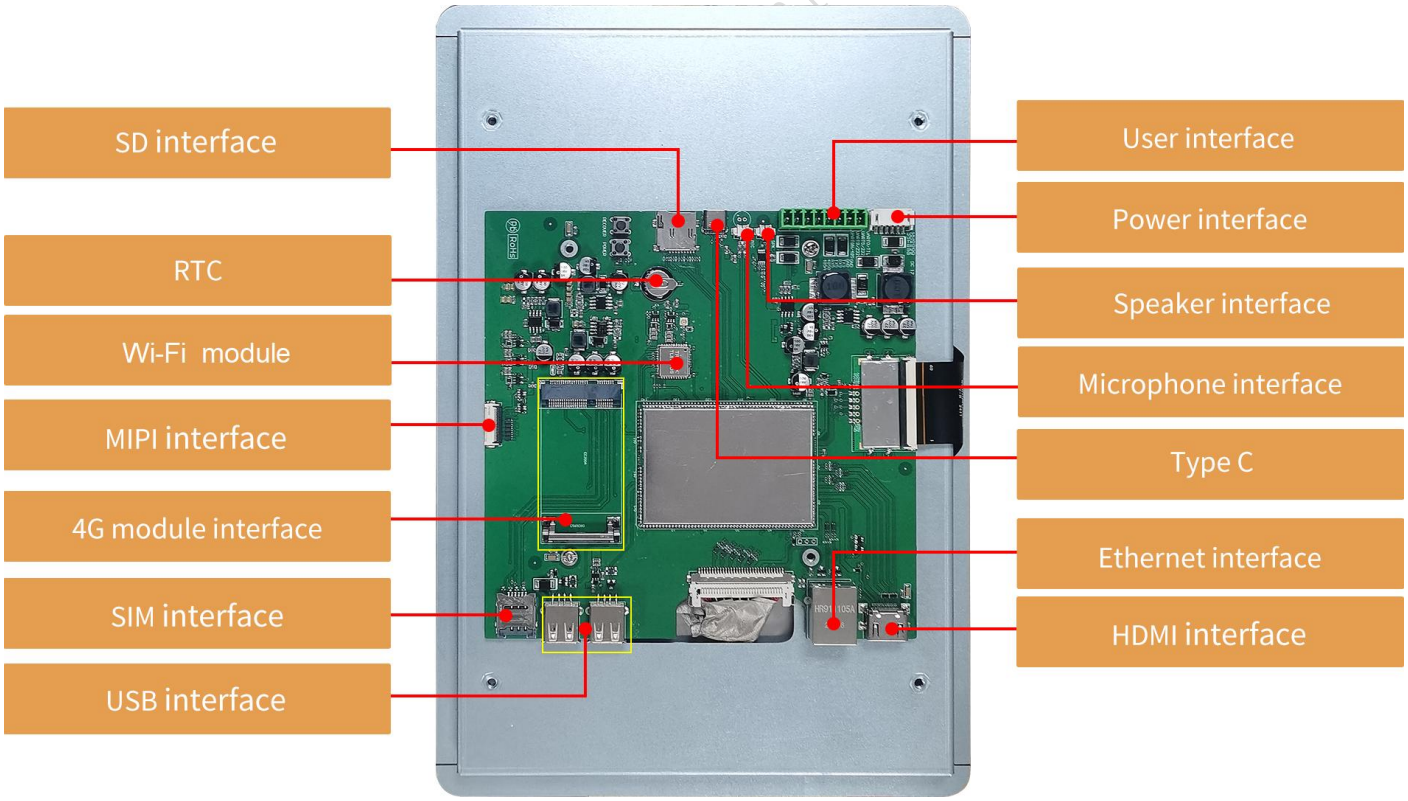
Properties	Min	Typ	Max	Unit
Power Voltage	12.0	12.0	36.0	V
Recommended power supply:12V 1A DC.				

Environment & Reliability Test

Properties	Conditions	Min	Typ	Max	Unit
Working Temperature	60%RH at 12V voltage	-20	25	65	℃
Storage Temperature	-	-30	25	80	℃
Working Humidity	25℃	10%	60%	90%	RH
Conformal Coating	Y				
ESD	Air: ±8KV; Contact: ±6KV				
EFT	Group pulse interference ±2KV				
RE	Class B				
CE Certification	Y				
Additional cooling required for operation above 65℃.					

Peripherals and Interfaces

Properties	Description
User Interface	8Pin_3.81mm vertical socket, 6Pin_2.0mm horizontal socket
COM	RS232*2(COM5 & COM9), RS485*1(COM8), TTL*1(COM0)
Wi-Fi	IEEE 802.11b/g/n, 2.4GHz, Wi-Fi 4
Bluetooth Version	BT4.2
USB	USB 2.0*2(HOST), Type C*1(OTG)
Speaker	2Pin_1.25mm interface*1
Microphone	2Pin_1.25mm interface*1
Camera Interface	MIPI*1
4G Module	Factory not configured, customizable to add
SD card	Drawer type card slot(Max 64G)
RTC	Accuracy: ±20ppm @25℃
Ethernet	10/100Mbps
HDMI	23PIN_HDMI_SH



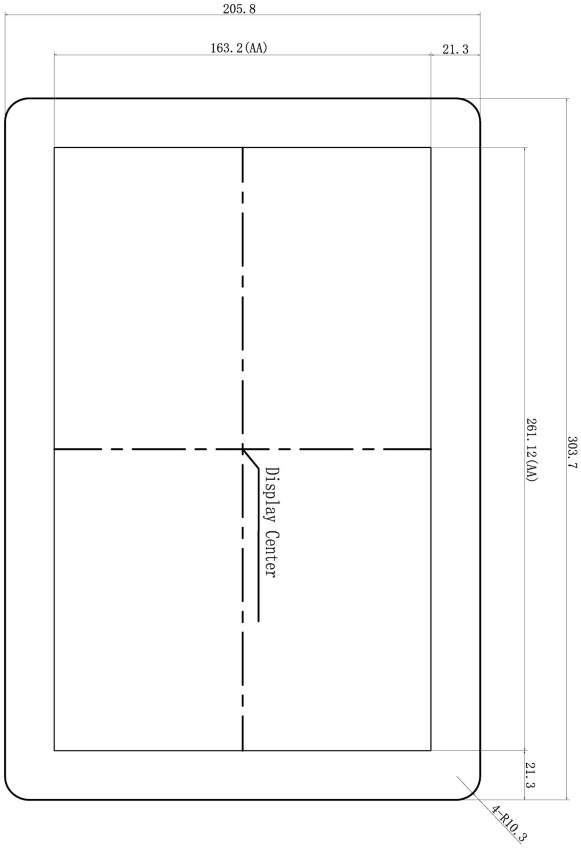
Development Platform

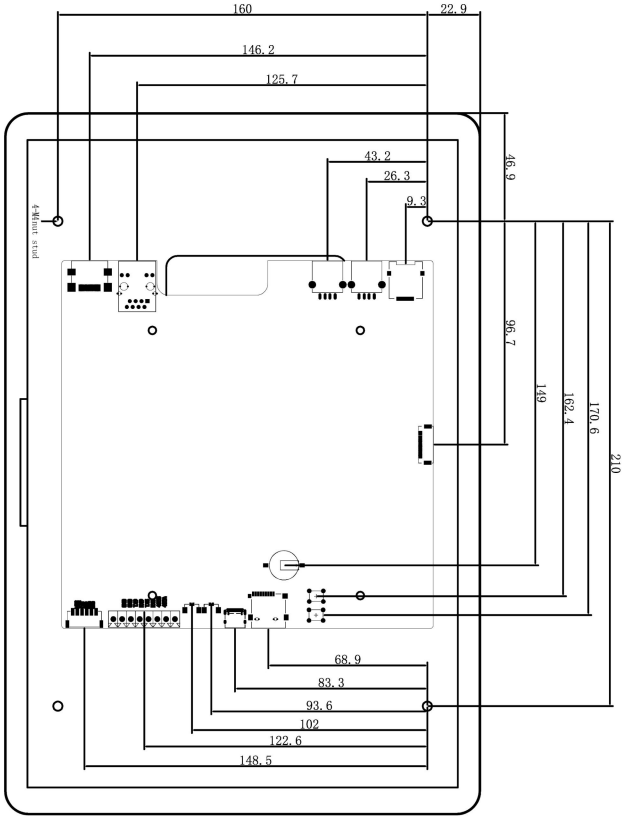
Development	
Android	Java, Kotlin, C++

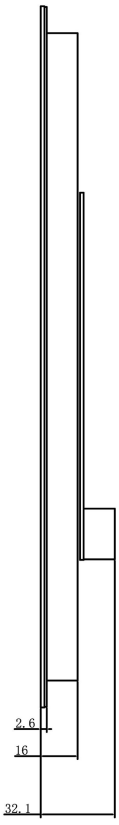
Packing Capacity & Dimension

Dimension				
Dimension	303.70(W)×205.80(H)×32.10(T)mm			
Net Weight	1300g			
Packing Capacity				
Model	**Size**	**Layer**	**Quantity/Layer**	**Quantity(Pcs)**
Carton1:	220mm(L)×160mm(W)×47mm (H)	-	-	-
Carton2:	250mm(L)×200mm(W)×80mm (H)	-	-	-
Carton3:	320mm(L)×270mm(W)×80mm (H)	2	1	2
Carton4:	450mm(L)×350mm(W)×300mm(H)	-	-	-
Carton5:	600mm(L)×450mm(W)×300mm(H)	1	10	10

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







Location hole is used as position reference.
Unmarked Tolerance is +/-0.3mm
Active area is marked in Dash lines

Model	DMG12800T121_32WTC			
Drawing	A4	Drawn	DWIN	Date
Scale		Review		Date
Unit	MM	Approval		Date

DWIN Technology

Revision Records

Rev.	Revise Date	Content	Editor
00	2025-01-08	First edition	Chen
01	2025-03-12	Add the description of Bluetooth	Chen
02	2025-06-17	Update the description of Wi-Fi module	Chen

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