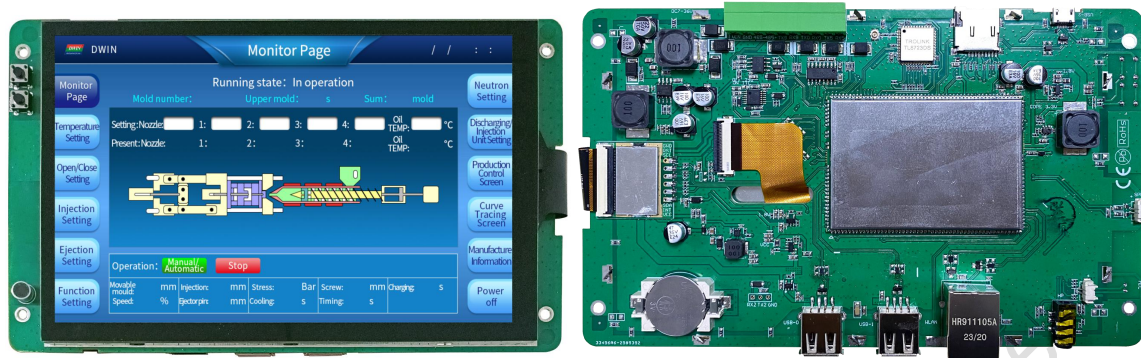Professional, Creditable, Successful

DMG12800C070_40WTC

Features:

● **Commercial Linux intelligent display terminal based on RK3566, Linux version 4.19.**

● **7.0-inch, 800*1280 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	Commercial
CPU	RK3566, Cortex-A55, quad-core
Kernel Version	4.19
OS	Linux
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.)	94.20mm (W)*150.72mm (H)	800*1280 Pixel
View 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	23	V
Operation Current	VCC = +12V, Backlight on	-	260	-	mA
	VCC = +12V, Backlight off	-	110	-	mA

Recommended power supply: 12V 1A 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±8KV, Contact discharge ±6K				
CE	Class B				

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● **Peripherals and Interfaces**

Properties	Parameters	Description
Interface	2-way RS232	UART5 & UART9
	1-way RS485	UART8
	1-way TTL/COMS	UART0
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
SD Card Interface	1-way	Drawer type card slot(Max 64G)
LAN 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: ±20ppm @25℃
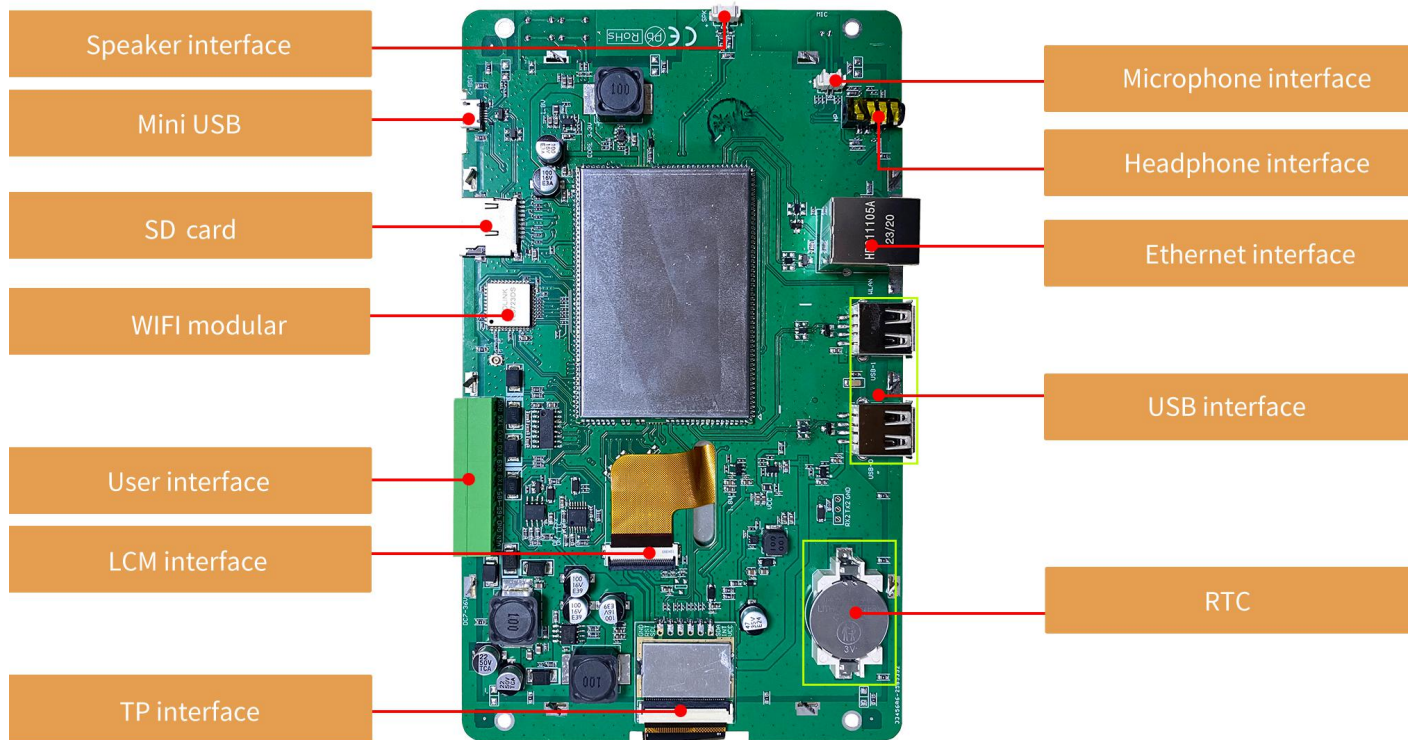
Disclaimer:

There are multiple parallel raw materials coexisting to guarantee the stable supply.If customers have particular raw material preferences or requirements, please contact the sales personnel.

- **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.

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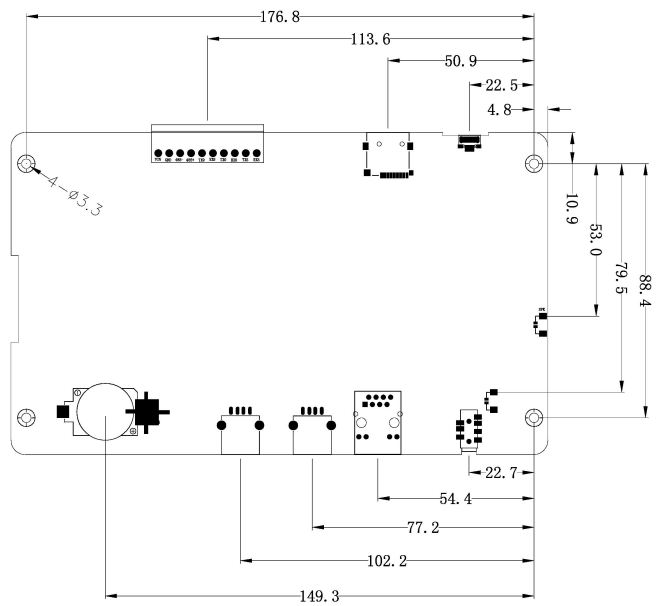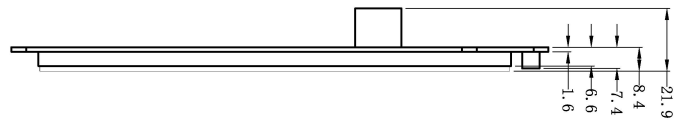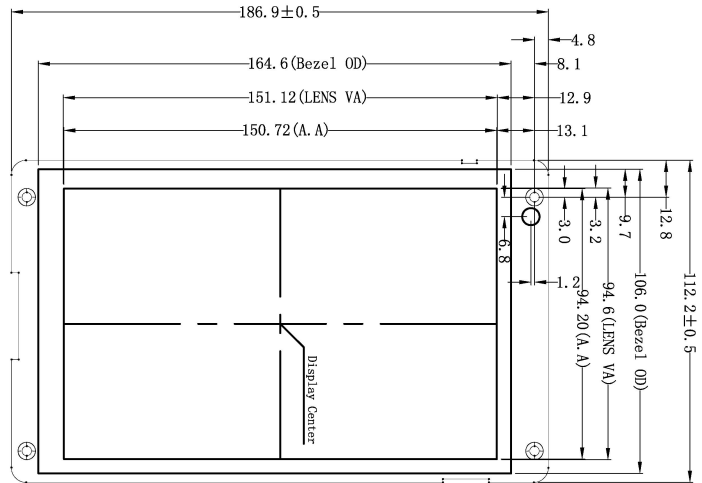
Definition	Pin#	IO	Description
VIN	1	P	Power Input
GND	2	P	GND
485-	3	B	RS485-
485+	4	A	RS485-
TX9	5	O	UART 9 Output
RX9	6	I	UART 9 Input
TX0	7	O	UART 0 Output
RX0	8	I	UART 0 Input
TX5	9	O	UART 5 Output
RX5	10	I	UART 5 Input

Location hole is used as position reference.

Unmarked Tolerance is +/-0.3mm

Model	DMG12800C070_40WTC		
Drawing	A4	Drawn	DWIN
Scale	1:1	Review	
Unit	MM	Approval	

DWIN Technologies

Record of Revision

Ver	Revise Date	Content	Editor
00	2023-02-24	First edition	YML
01	2024-01-29	Update appearance, ESD and temperature range	YML

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

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