

DMT12800T121_38WTC



Features:

- Industrial Linux intelligent display terminal based on A40i, running Linux3.10 operating system.
- 12.1-inch, 1280*800 pixels resolution, 16.7M colors, IPS-TFT-LCD, wide viewing angle, capacitive touch.
- Adopt DWIN HMI configuration software for secondary development.
- Integrated PLC communication, alarm, sampling, formula and other database management, interface customization, macro command and other functions.
- Compatible with network cable connection with PC to download update project.
- Available for RS232, RS422, CAN and Ethernet port to connect and communicate with external devices.

● Master Control Parameters

Properties	Parameters
Motherboard Level	Industrial
CPU	Allwinner A40i Quad-core ARM CortexTM-A7 Processor
OS	Linux3.10
FLASH	8Gbytes EMMC
RAM	1Gbytes DDR3

● Display Parameters

Properties	Parameters	Description
Color	16.7M(16777216)colors	24 bit color 8R8G8B
Panel Type	IPS	IPS process, TFT LCM with wide view angle
Viewing Angle	85/85/85/85 (L/R/U/D)	Best view angle: symmetrical
Active Area (A.A.)	261.12mm(W)*163.2mm(H)	1280*800
View Area (V.A.)	262.1mm(W)*164.2mm(H)	1280*800
Resolution	1280*800	Available for 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	500nit	-

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	-	12.0	15.0	36.0	V
Operation Current	VCC = +15V, backlight on	-	790	-	mA
	VCC = +15V, backlight off	-	300	-	mA

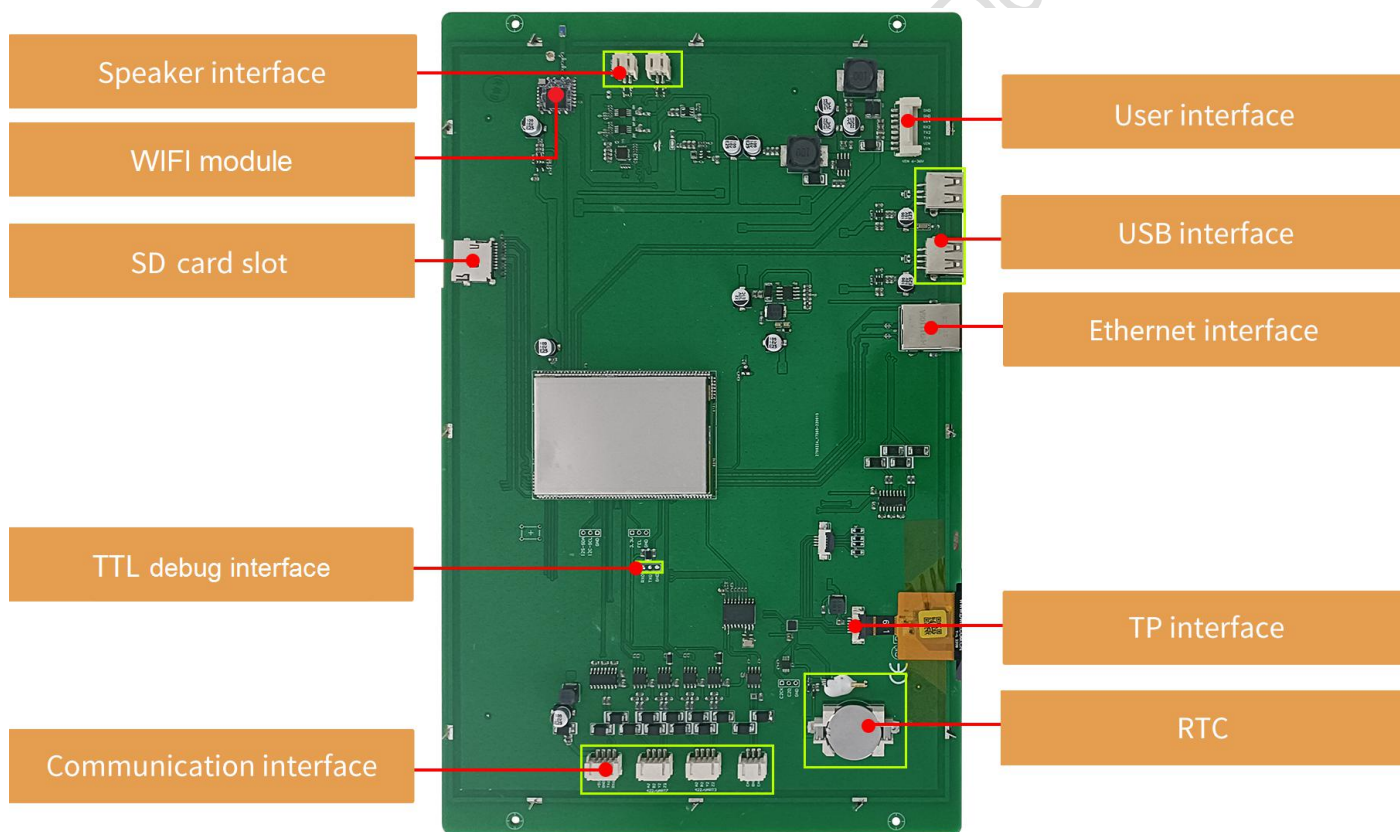
Recommended power supply: 15V 1A DC

● Reliability Test

Properties	Conditions	Min	Typ.	Max	Unit
Working Temperature	60%RH at 15V voltage	-20	25	70	°C
Storage Temperature	-	-30	25	80	°C
Working Humidity	25°C	10%	60%	90%	RH
Conformal Coating	Yes				
ESD	Air discharge ±8KV; Contact discharge ±6KV				
EFT	Group pulse interference ±2KV				

Peripheral and Interfaces

Properties	Parameters	Description
COM	2-way RS422	UART 3 & UART 7
	3-way RS232	UART 2 & UART 4 & UART 6
	1-way TTL debug serial port	UART0
CAN	1-way	CAN_L&CAN_H
USB Interface	2-way	HOST*2
SD Card Slot	1-way	Drawer type card slot(Max 64G)
Ethernet Interface	1-way	10/100Mbps
WIFI Interface	1-way	FSC-WF122, with antenna
RTC	Built-in	Button cell for power supply. Accuracy: $\pm 20\text{ppm @}25^\circ\text{C}$
Speaker	2-way	Left & right



● Interface Parameters

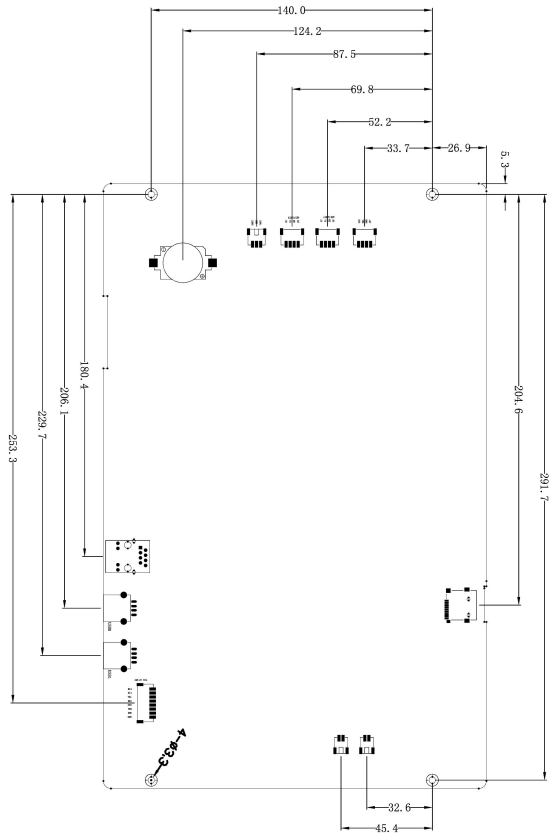
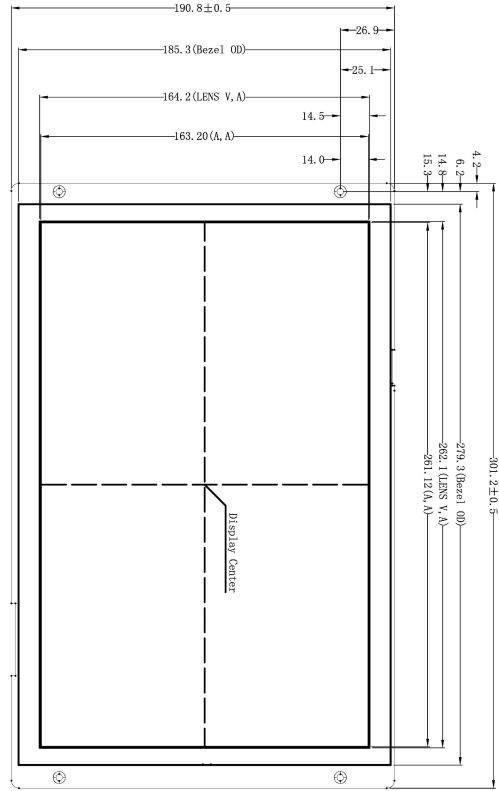
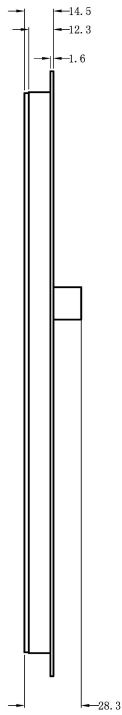
Properties	Conditions	Min	Typ	Max	Unit
Baud Rate	User-defined	3150	115200	3225600	bps
Output Voltage (TXD)	Output 1	-	-5.0	-3.0	V
	Output 0	3.0	5.0	-	V
Input Voltage (RXD)	Input 1	-15.0	-5.0	-	V
	Input 0	-	5.0	15.0	V
Interface	RS232*3; RS422*2				
Socket	8Pin_2.0mm*1; 4Pin_2.0mm*3; 3Pin_2.0mm*1				

● Packing Capacity & Dimension

Dimension				
Dimension	301.2 (W)mm*190.8(H)mm*28.3(T)mm			
Net Weight	990g			
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)	1	10	10
Carton5:	600mm(L)*450mm(W)*300mm(H)	1	16	16

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

Definition	Pin#	Type	Description
VIN	1, 2	P	Power Input
TX4	3	0	UART4 Output
TX2	4	0	UART2 Output
RX2	5	I	UART4 Input
RX4	6	I	UART2 Input
GND	7, 8	P	GND



Location hole is used as position reference.

Unmarked Tolerance is +/-0.3mm

Active area is marked in Dash lines

Model	DMT12800T121_38WTC			DWIN Technologies	
Drawing	A 4	Drawn	J.G		Date
Scale	1:1	Review			Date
Unit	MM	Approval		Date	

Revision Records

Rev	Revise Date	Content	Editor
00	2022-12-26	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