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® Datasheet

HMI CTP Display without Housing

Item No. 3207255



Instructions for download

Use the link www.conrad.com/downloads (alternatively scan the QR code) to download the complete instructions (or new/current versions if available). Follow the instructions on the web page.



Features:

- Industrial Linux intelligent display terminal based on A40i, running Linux3.10 operating system.
- 8.0-inch, 1024*768 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, RS422 and Ethernet port to connect and communicate with external devices.
- **WIFI, Bluetooth and 4G module are unavailable.**

- **Master Control Parameters**

Properties	Parameters
Motherboard Level	Industrial
CPU	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 viewing angle
Viewing Angle	85/85/85/85 (L/R/U/D)	Best view: symmetrical
Active Area (A.A.)	162.0mm(W)*121.5mm(H)	-
Resolution	1024*768	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	250nit	-

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	-	6.0	12.0	36.0	V
Operation Current	VCC = +12V, backlight on	-	340	-	mA
	VCC = +12V, backlight off	-	140	-	mA

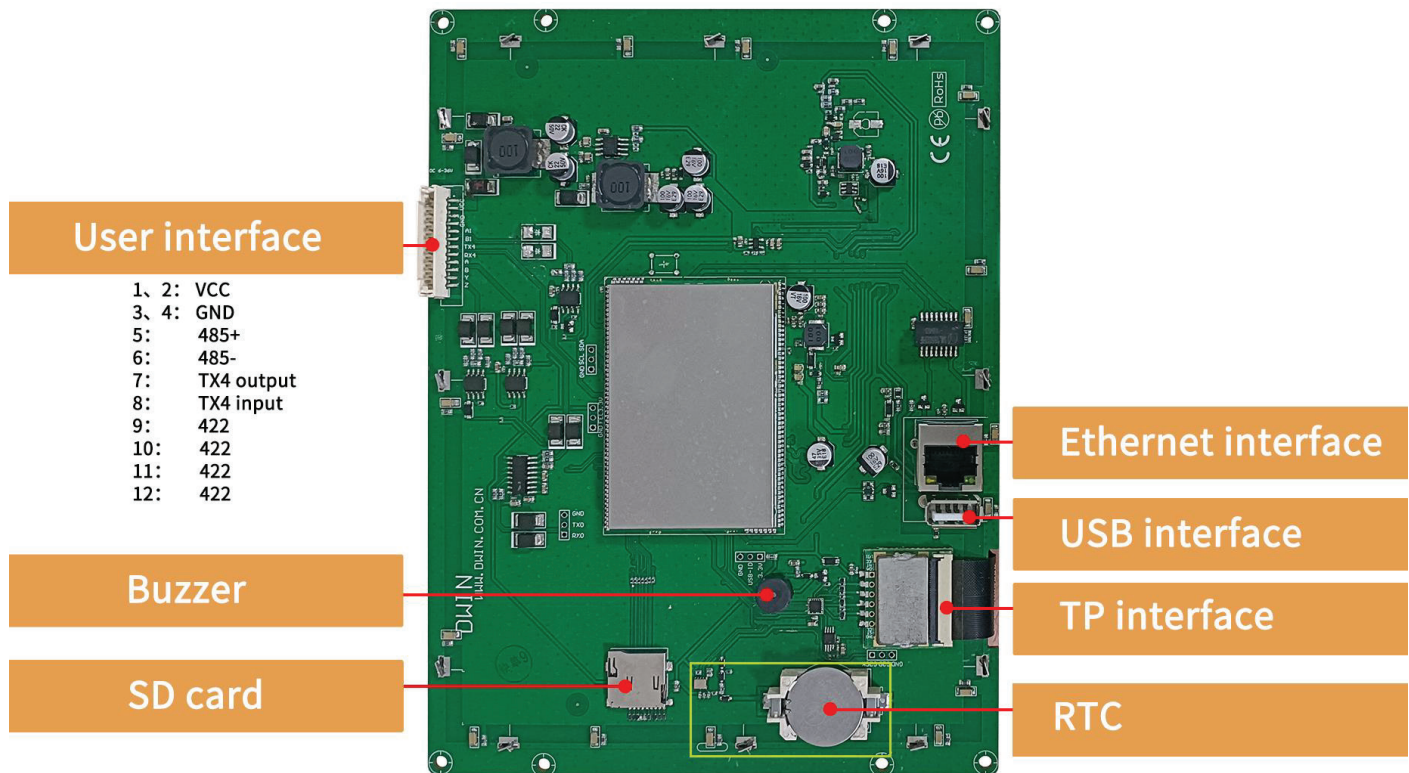
Recommended power supply: 12V 0.5A DC

- **Reliability Test**

Properties	Conditions	Min	Typ	Max	Unit
Working Temperature	60%RH at 12V voltage	-20	25	70	℃
Storage Temperature	-	-30	25	80	℃
Working Humidity	25℃	10%	60%	90%	RH
Conformal Coating	Yes				
ESD	Air discharge ±8KV; Contact discharge ±6KV				
EFT	Group pulse interference ±2KV				

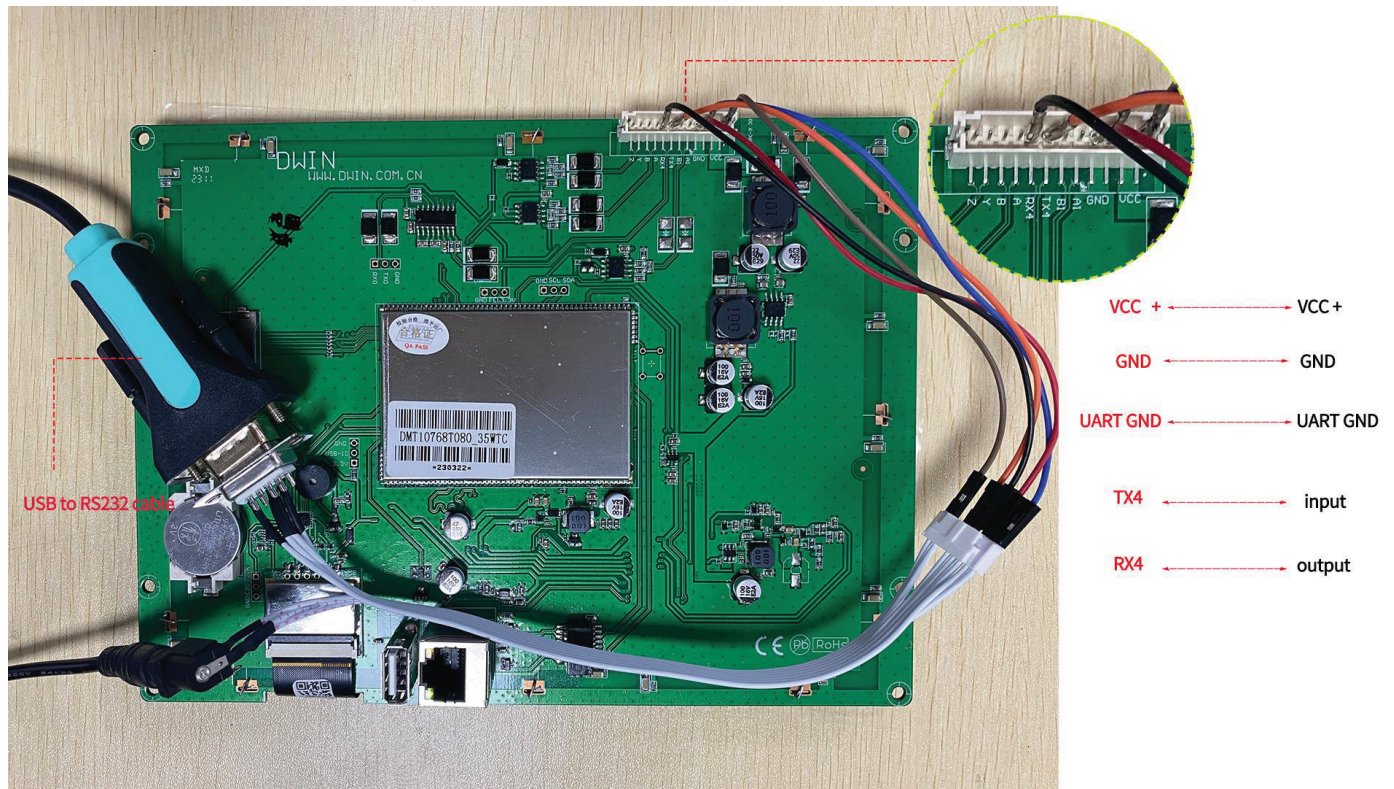
● Peripheral and Interfaces

Properties	Parameters	Description
COM	1-way RS485	UART2
	1-way RS422	UART3
	1-way RS232	UART4
USB Interface	1-way	HOST*1
SD Card Slot	1-way	Drawer type card slot(Max 64G)
Ethernet Interface	1-way	10/100Mbps
RTC	Built-in	Button cell for power supply, Accuracy: $\pm 20\text{ppm}$ @25°C
Buzzer	Built-in	3V passive buzzer



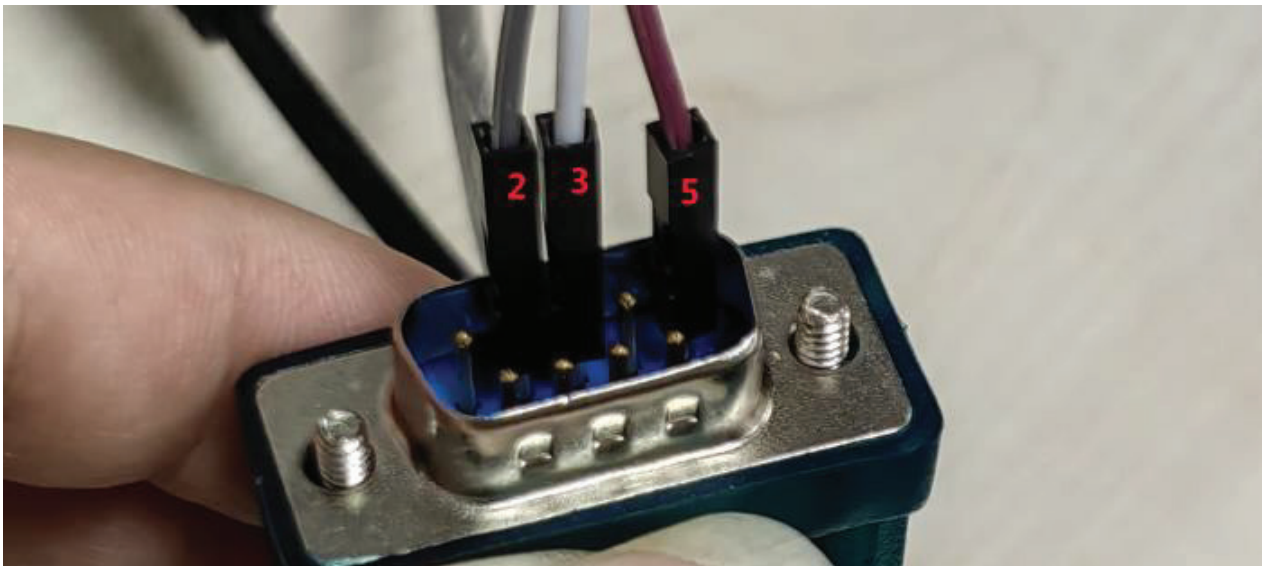
- Thermal Shock (non-operation): -30 °C~+80 °C (for 30 mins)
- Change time: 5 mins, 20 Cycles
- ESD (non-operation): C=150 pF, R=330 Ω
- 5 point/panel Air: $\pm 15\text{KV}$, 5 times; Contact: $\pm 8\text{KV}$, 5 times (Environment: 15 °C~35 °C, 30 %~60 %, 86 Kpa~106 Kpa)

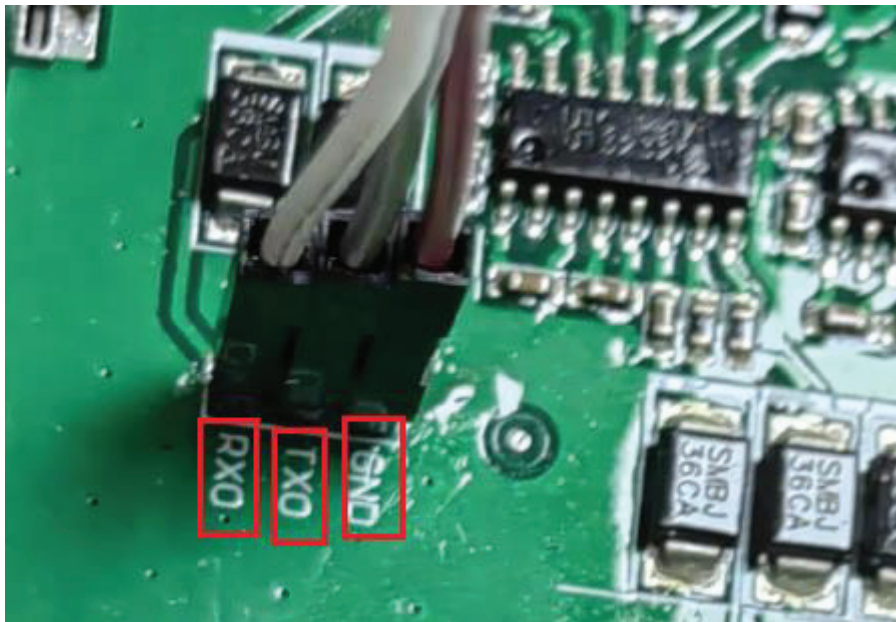
- **Example of Serial Port 4 Wiring**



- **Example of Debugging Serial Port Wiring**

(1) Connect to Serial (Serial 0), RS232 connection in this example.

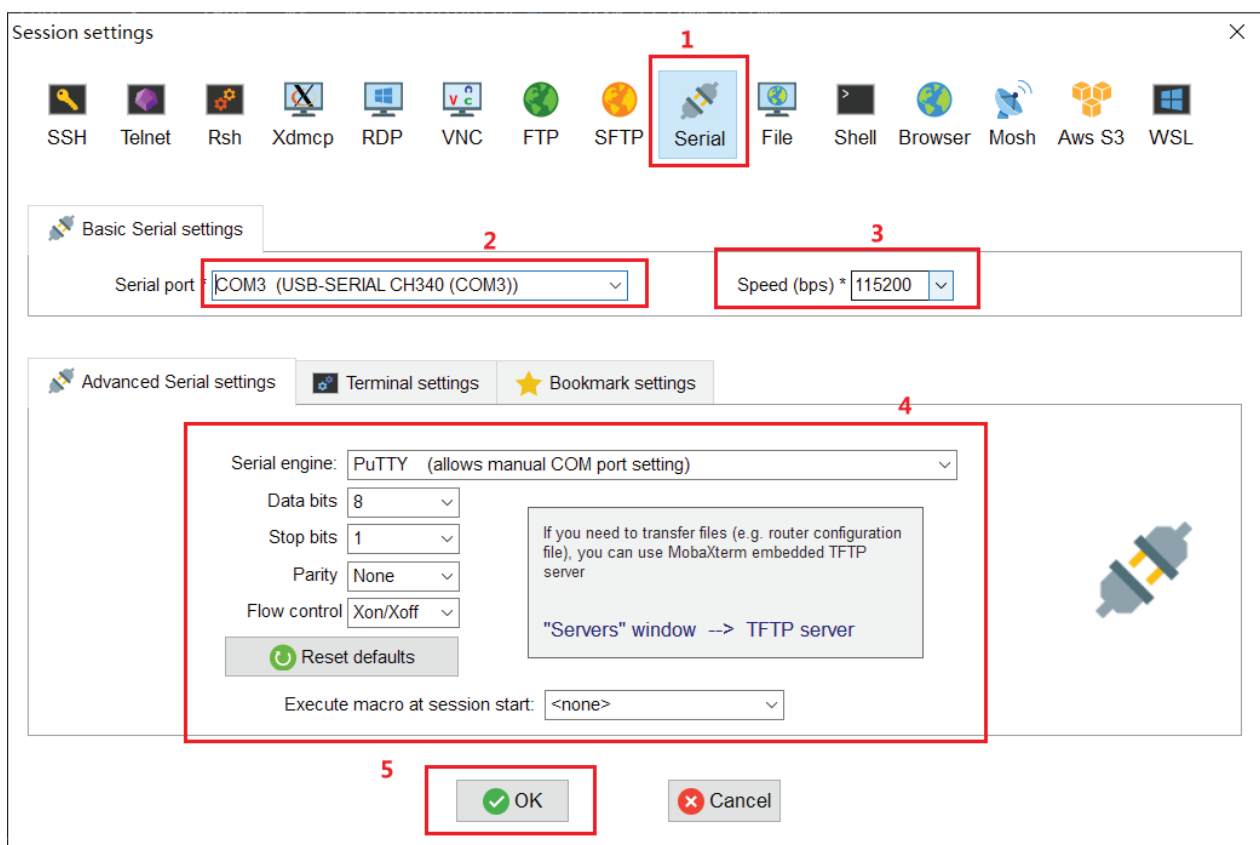




Connect 2(RX) to TX, 3(TX) to RX, and 5(GND) to GND.

Please use an RS232 or TTL interface, and refer to the datasheet for the corresponding port type (serial port 0).

(2) MobaXterm Configuration: session -> New session -> choose 'serial' -> select the serial port, set the baud rate in the third step, and cross-check the information -> click 'OK' to complete.



(3) Powering up the development board and input 'root' to begin operations. Note: if there's a delay between power-up and connection, and the screen shows no text, only a black screen, input 'root'.

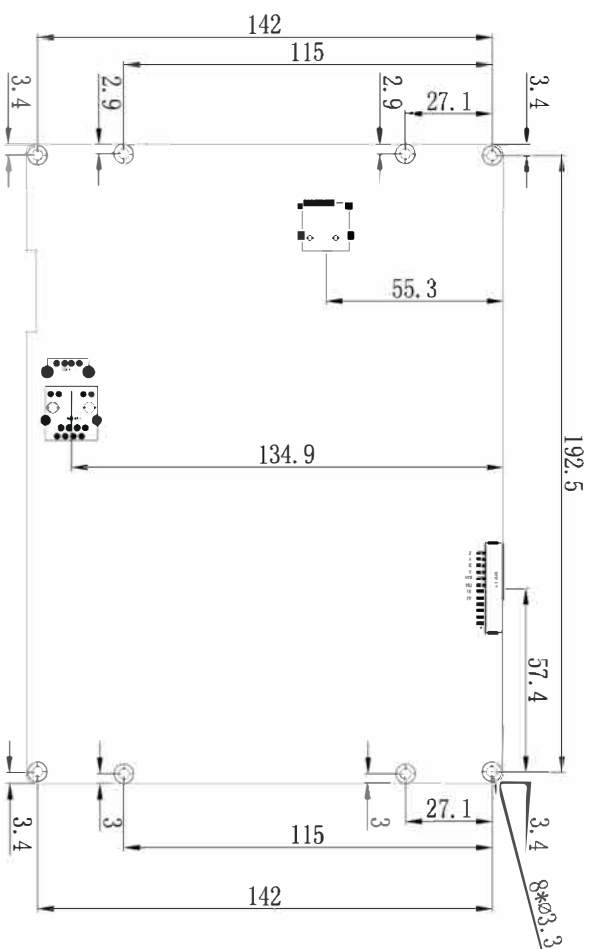
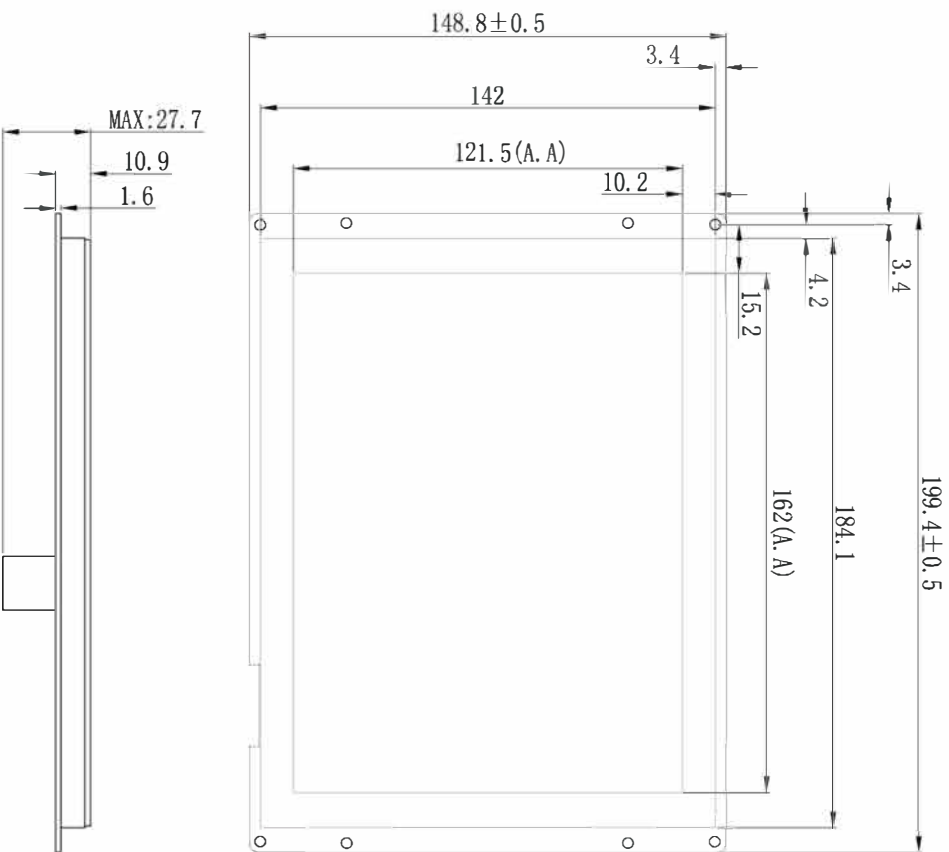
Refer to the Linux Developer Guide for more information.

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*1; RS485*1; RS422*1				
Socket	12Pin_2.0mm Socket				

● Packing Capacity & Dimension

Dimension				
Dimension	199.4 (W) *148.8(H)*27.7(T)mm			
Net Weight	440g			
Packing Capacity				
Model	Size	Layer	Quantity/Layer	Quantity(Pcs)
Carton1:	220mm(L)*160mm(W)*47mm	-	-	-
Carton2:	250mm(L)*200mm(W)*80mm	2	1	2
Carton3:	320mm(L)*270mm(W)*80mm	-	-	-
Carton4:	450mm(L)*350mm(W)*300mm(	1	16	16
Carton5:	600mm(L)*450mm(W)*300mm(	1	30	30



Location hole is used as position reference.

Unmarked Tolerance is +/-0.3mm

Active area is marked in Dash lines

Definition	Pin#	Type	Description
VCC	1, 2	P	Power Input
GND	3, 4	P	GND
A1	5	A	RS485+
B1	6	B	RS485-
TX4	7	0	UART DOUT
RX4	8	1	UART DIN
A	9	-	RS422
B	10	-	RS422
Y	11	-	RS422
Z	12	-	RS422

Model				
Drawing	A 4	Drawn	Date	
Scale	1 : 1	Review	Date	
Unit	MM	Approval	Date	

