

# DMT80480T050\_36WTR



## Features:

- Industrial Linux intelligent display terminal based on T113, running Linux5.4 operating system.
- 5.0-inch, 800\*480 pixels resolution, 16.7M colors, IPS-TFT-LCD, wide viewing angle, resistive touch, with shell.
- 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, CAN and Ethernet port to connect and communicate with external devices.
- Anti-UV and anti-glare

### ● Master Control Parameters

| Properties        | Parameters                         |
|-------------------|------------------------------------|
| Motherboard Level | Industrial                         |
| CPU               | Dual-core ARM Cortex™-A7 Processor |
| OS                | Linux 5.4                          |
| FLASH             | 8GBytes EMMC                       |
| RAM               | 128MBytes 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.) | 108.8mm(W)*65.6mm(H)    | -  |
| Resolution         | 800*480                 | 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                  | 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  | -   | 270  | -   | mA   |
|                   | VCC = +12V, Backlight off | -   | 120  | -   | mA   |

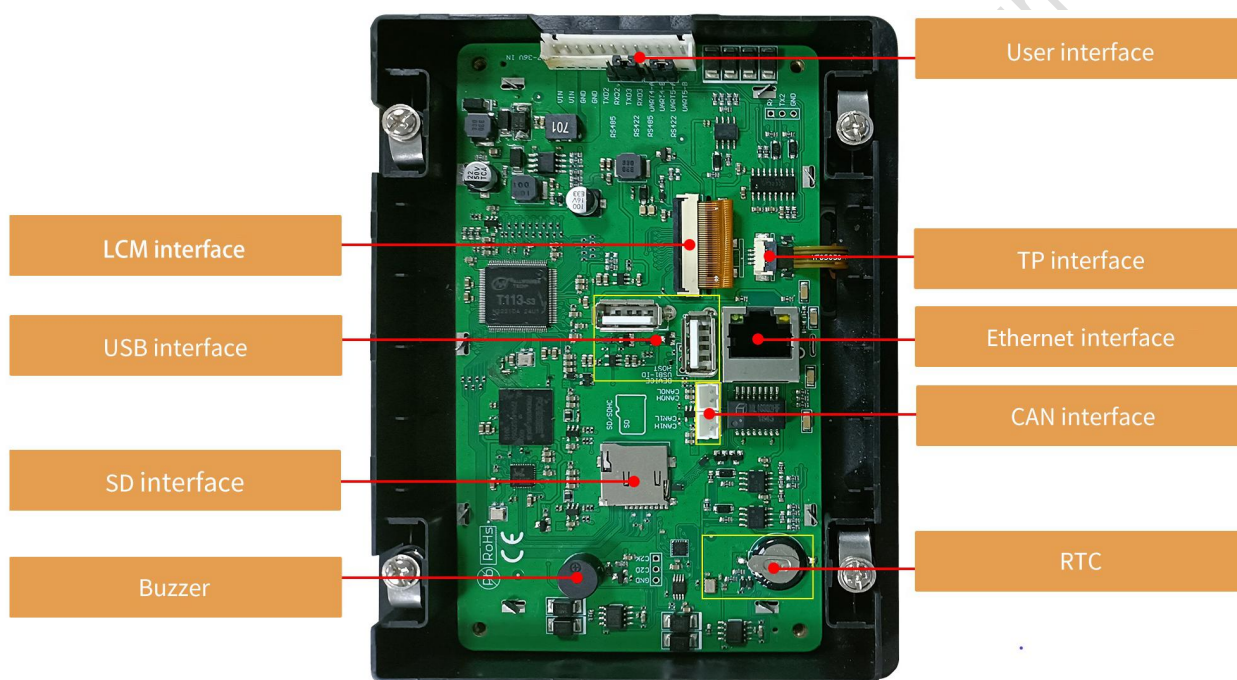
Recommended power supply: 12V 0.5A DC

### ● 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            |     |      |     |      |
| EFT                 | Group pulse interference ±2KV |     |      |     |      |
| Protective Level    | IP65 (Front)                  |     |      |     |      |

**● Peripheral and Interfaces**

| Properties         | Parameters  | Description   |
|--------------------|-------------|---|
| Interface          | 2-way RS232 | UART2 & UART3   |
|                    | 2-way RS485 | UART4 & UART5   |
| CAN Interface      | 2-way       | 2Pin_2.0mminterface (CAN0, CAN1)                                      |
| USB Interface      | 2-way       | HOST*2  |
| SD Card Interface  | 1-way       | Drawer type card slot(Max 64G)  |
| Ethernet Interface | 1-way       | 10/100Mbps  |
| RTC                | Built-in    | Super-capacitor RTC. Accuracy: $\pm 20\text{ppm @}25^{\circ}\text{C}$ |
| Buzzer             | Built-in    | 3V passive buzzer   |


**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.

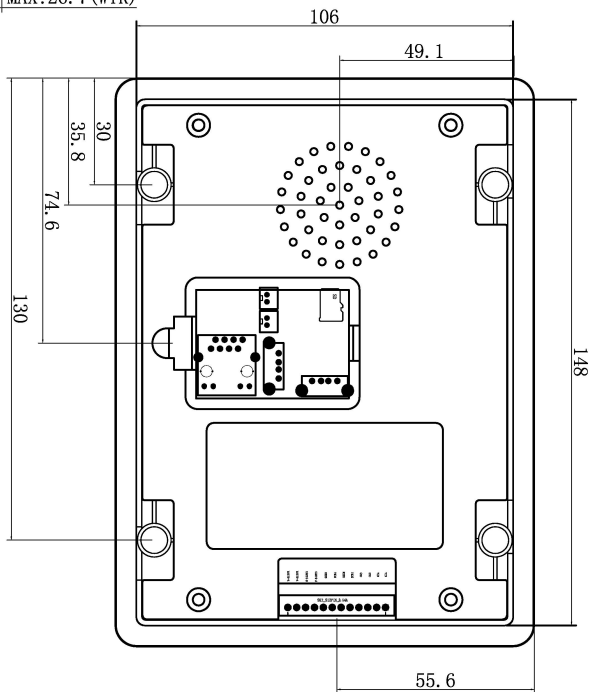
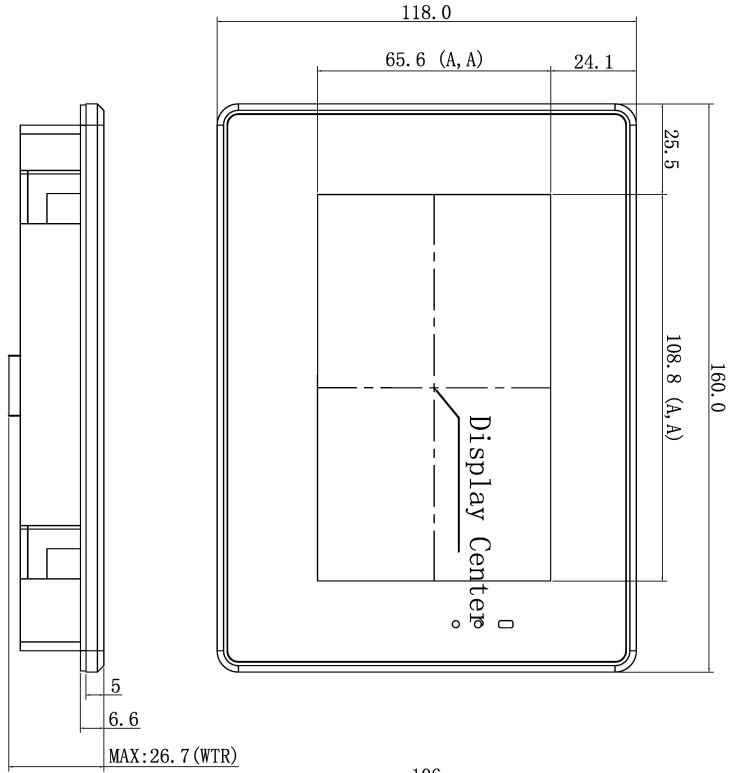
**● Interface Parameters**

| 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*2<br>RS485*2 |       |        |         |      |
| Socket               | 12Pin_2.54mm       |       |        |         |      |

**● Packing Capacity & Dimension**

| Dimension        |                               |       |                |               |
|------------------|-------------------------------|-------|----------------|---------------|
| Dimension        | 160.0 (W) *118.0(H)*26.7(T)mm |       |                |               |
| Net Weight       | 320g                          |       |                |               |
| Packing Capacity |                               |       |                |               |
| Model            | Size                          | Layer | Quantity/Layer | Quantity(Pcs) |
| Carton1:         | 220(L)*160(W)*47(H)mm         | 1     | 1              | 1             |
| Carton2:         | 250(L)*200(W)*80(H)mm         | 1     | 2              | 2             |
| Carton3:         | 320(L)*270(W)*80(H)mm         | 2     | 2              | 4             |
| Carton4:         | 450(L)*350(W)*300(H)mm        | 1     | 20             | 20            |
| Carton5:         | 600(L)*450(W)*300(H)mm        | 1     | 34             | 34            |

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



| Definition | Pin# | Type | Description |
|------------|------|------|-------------|
| VIN        | 1, 2 | P    | Power Input |
| GND        | 3, 4 | P    | GND         |
| TXD2       | 5    | 0    | UART 2 DOUT |
| RXD2       | 6    | I    | UART 2 DIN  |
| TXD3       | 7    | 0    | UART 3 DOUT |
| RXD3       | 8    | I    | UART 3 DIN  |
| UART4-A    | 9    | A    | RS485A      |
| UART4-B    | 10   | B    | RS485B      |
| UART5-A    | 11   | A    | RS485A      |
| UART5-B    | 12   | B    | RS485B      |

1. Location hole is used as position reference
2. Unmarked Tolerance is +/-0.3mm

Active area is marked in Dash lines

|         |                    |          |      |                 |  |  |      |  |
|---------|--------------------|----------|------|-----------------|--|--|------|--|
| Model   | DMT80480T050-36WTR |          |      | DWIN Technology |  |  |      |  |
| Drawing | A 4                | Drawn    | DWIN |                 |  |  | Date |  |
| Scale   |                    | Review   |      |                 |  |  | Date |  |
| Unit    | MM                 | Approval |      |                 |  |  | Date |  |

# Installation Schematic

Waterproof rubber gasket (blue part in the schematic, actually in black): located between screen and shell to prevent water ingress. Additional glass glue is available for outdoor use to strengthen the waterproof performance

**1**

The opening requirements are shown in the figure.  
Depth >21.5mm  
Device front housing thickness <3.0mm

Install the screen from the front into the housing openings.

**2**

Loosen the screw, the snap automatically follows the screw to rotate 90° clockwise.

State before rotation

Lock the 6 screws to fix the product on the housing

State after rotation

**3**

Clip the back cover of the housing

Installation completed

The final effect

**Revision records**

| <b>Rev</b> | <b>Revise Date</b> | <b>Content</b> | <b>Editor</b> |
|------------|--------------------|----------------|---------------|
| 00         | 2023-08-07         | First Edition  | YML           |

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Customer service Tel: +86-400-018-9008

Customer service E-mail: [dwinhmi@dwin.com.cn](mailto:dwinhmi@dwin.com.cn)

Website: [www.dwin-global.com](http://www.dwin-global.com)

DWIN Developer Forum: <https://forums.dwin-global.com/index.php/forums>

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