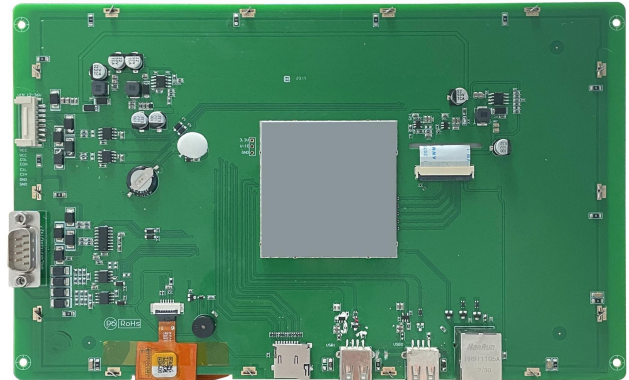
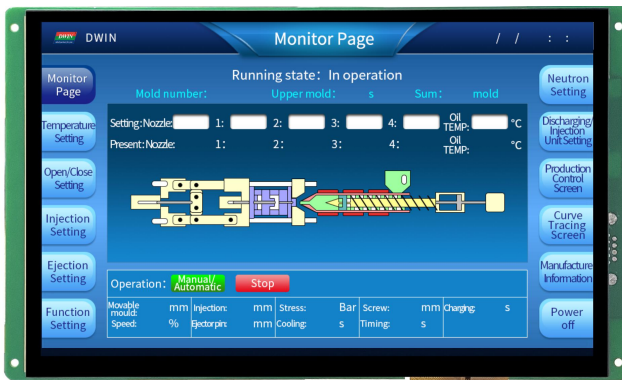


DMT12800T101_39WTC



Features:

- Industrial Linux intelligent display terminal based on T113, running Linux5.4 operating system.
- 10.1-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 | Dual-core ARM Cortex™-A7 Processor |
| OS | Linux5.4 |
| 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.) | 216.96mm(W)*135.60mm (H) | - |
| View Area (V.A.) | 217.96mm(W)*136.60mm (H) | - |
| 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 | 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 | - | 12.0 | 12.0 | 36.0 | V |
| Operation Current | VCC = +12V, Backlight on | - | 440 | - | mA |
| | VCC = +12V, Backlight off | - | 140 | - | mA |

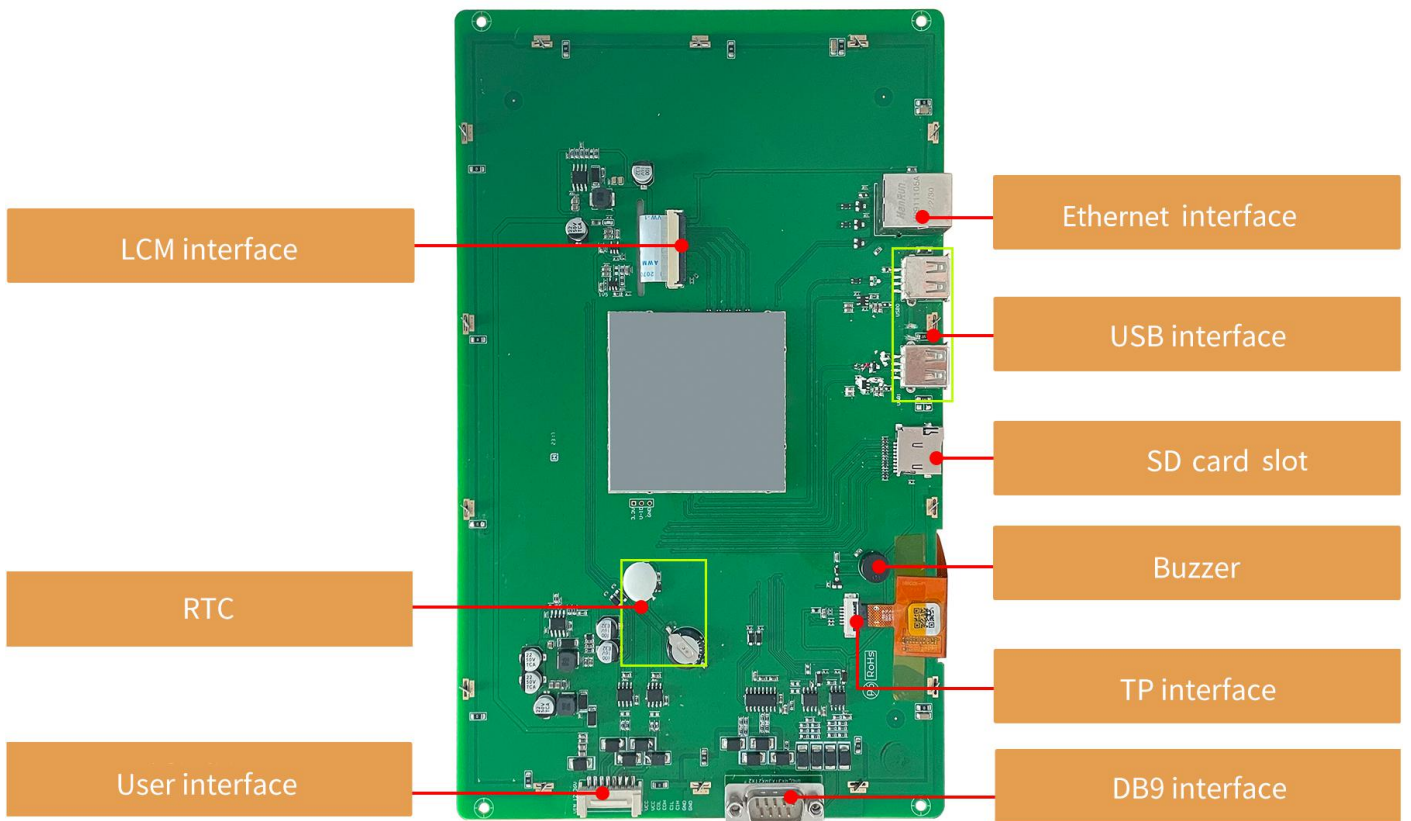
Recommended power supply: 12V 1A DC

● Reliability Test

| Properties | Conditions | Min | Typ. | Max | Unit |
|---------------------|--|-----|------|-----|------|
| Working Temperature | 60%RH at 12V 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 |
|---------------|-------------|---|
| Interface | 2-way RS232 | UART2 & UART3 |
| | 1-way RS422 | A, B,Y,Z |
| | 2-way CAN | CAN1 & CAN2 |
| USB Interface | 2-way | HOST*2 |
| SD Card Slot | 1-way | Drawer type card slot(Max 64G) |
| Ethernet | 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 |



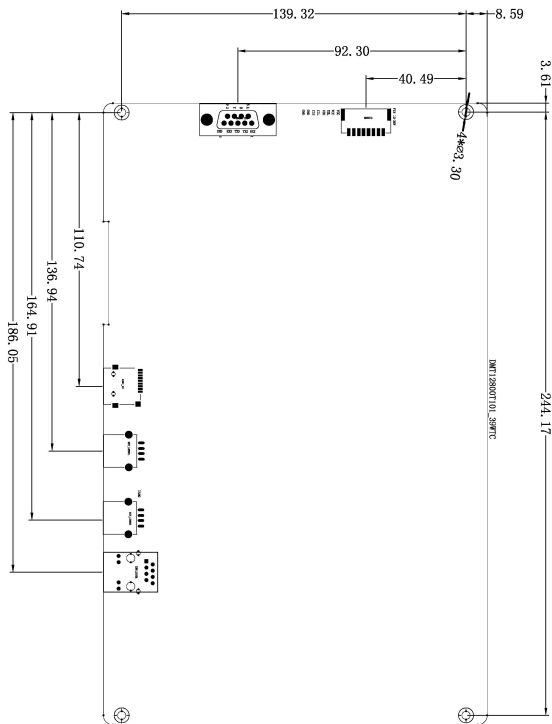
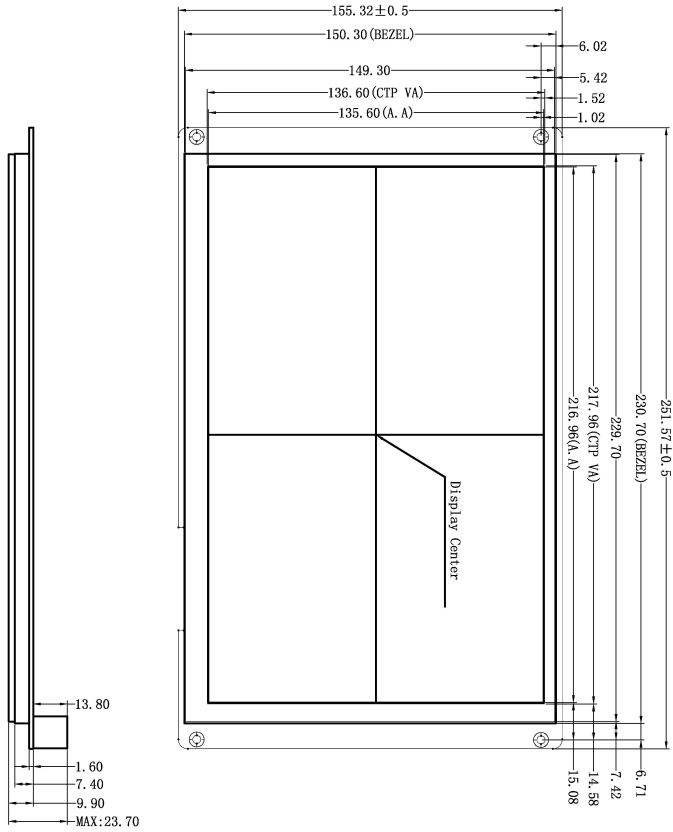
● Interface Parameters

| 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, RS422*1 | | | | |
| Socket | 8Pin_2.0mm(CAN) DB9(RS232 & RS422) | | | | |

● Packing Capacity & Dimension

| Dimension | | | | |
|------------------|---------------------------------|-------|----------------|---------------|
| Dimension | 251.57 (W) *155.32(H)*23.7(T)mm | | | |
| Net Weight | 550g | | | |
| 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) | 1 | 2 | 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# | IO | Description |
|------------|------|----|---------------|
| RX2 | 1 | I | UART 2 Input |
| TX2 | 2 | O | UART 2 Output |
| TX3 | 3 | O | UART 3 Output |
| RX3 | 4 | I | UART 3 Input |
| GND | 5 | P | GND |
| A | 6 | A | RS422 |
| B | 7 | B | RS422 |
| Y | 8 | Y | RS422 |
| Z | 9 | Z | RS422 |
| Definition | Pin# | IO | Description |
| VCC | 1,2 | P | Power Input |
| COL | 3 | - | CAN0 CAN_L |
| COH | 4 | - | CAN0 CAN_H |
| CLL | 5 | - | CAN1 CAN_L |
| CHH | 6 | - | CAN1 CAN_H |
| GND | 7,8 | P | GND |

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

| Model | DMT12800T101_39WTC | | | | |
|---------|--------------------|----------|------|------|------------|
| Drawing | A 4 | Drawn | G. Y | Date | 2023.06.29 |
| Scale | 1 : 1 | Review | | Date | |
| Unit | MM | Approval | | Date | |

DWIN Technologies

Revision Records

| Rev | Revise Date | Content | Editor |
|------------|--------------------|----------------|---------------|
| 00 | 2023-08-09 | First Edition | YML |

Please contact us if you have any questions about the use of this document or our products, or if you would like to know the latest information about our products:

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

Customer service E-mail: dwinhmi@dwin.com.cn

Website: www.dwin-global.com

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

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

DWIN Technology Technical Document