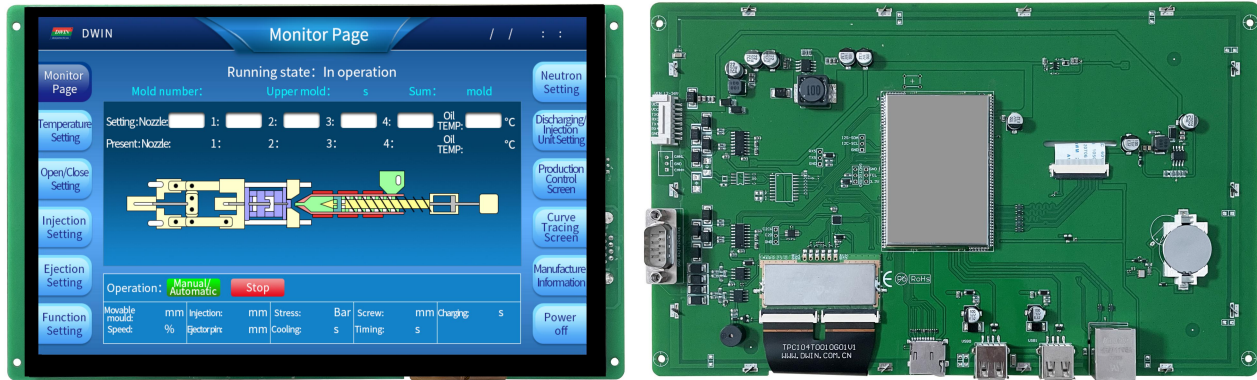


DMT12800T101_38WTC



Features:

- Industrial Linux intelligent display terminal based on A40i, running Linux3.10 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.
- Connect to a PC with a network cable to download and update projects.
- Available for RS232, RS422 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.) | 217.0mm(W)*135.6mm(H) | - |
| View Area (V.A.) | 218.0mm(W)*136.6mm(H) | - |
| Resolution | 1280*800 | Available for 0/90/180/270rotated display |
| Backlight | LED | 30000H(time of the brightness decaying to 50% on the condition of continuous working with the maximum brightness) |
| Brightness | 350nit | 100 levels adjustment(It's not recommended 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, 100% brightness | - | 510 | - | mA |
| | VCC = +12V, Backlight off | - | 150 | - | mA |

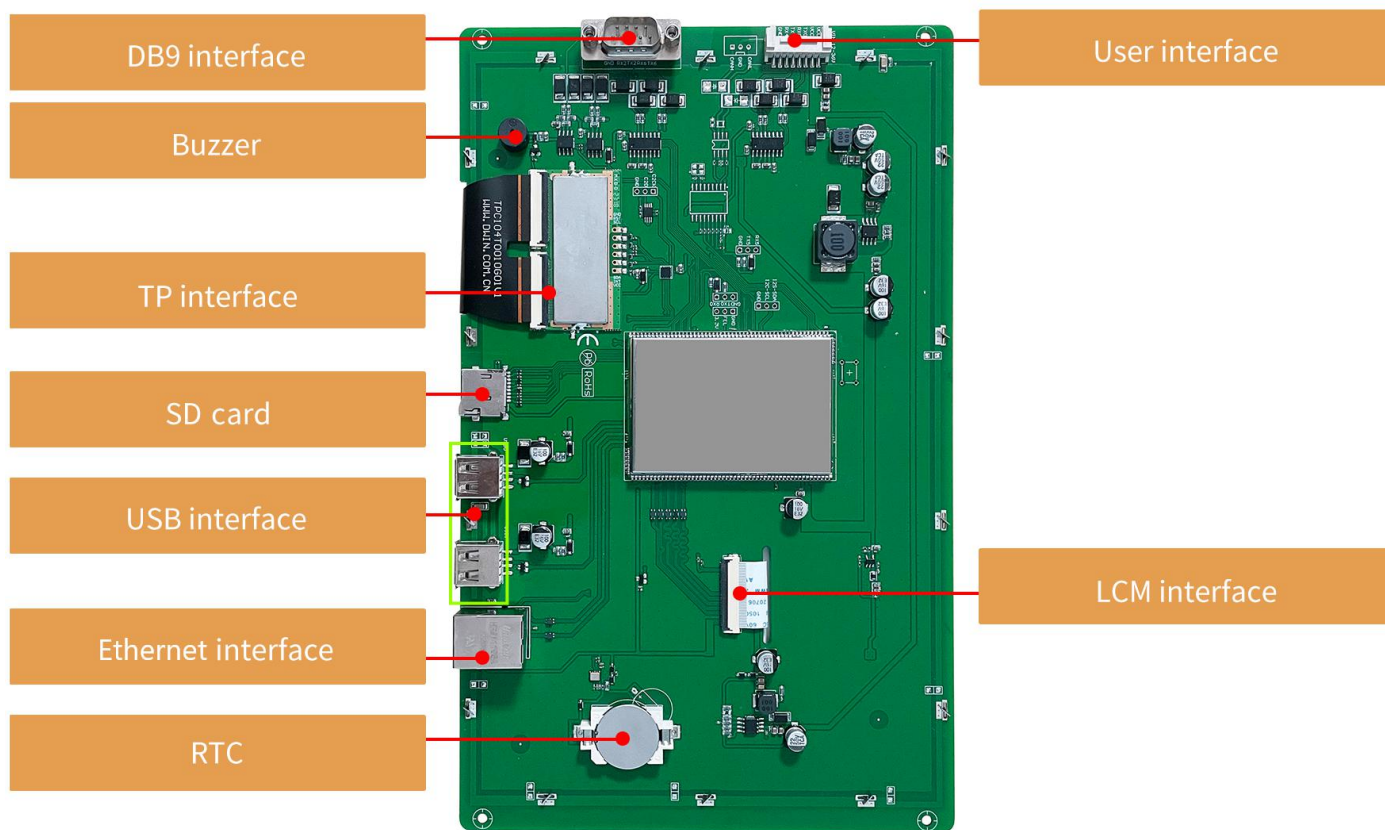
Recommended power supply: 12V 1A DC

● Reliability Test

| Properties | Conditions | Min | Typ. | Max | Unit |
|---------------------|--|-----|------|-----|------|
| Working Temperature | 60%RH at 12V voltage | -20 | 25 | 70 | |
| Storage Temperature | - | -30 | 25 | 80 | |
| 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 | 4-way RS232 | UART0& UART2 & UART4 & UART6 |
| | 1-way RS422 | UART3 |
| CAN | - | Reserved CAN interface |
| USB Interface | 2-way | HOST*2 |
| 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: 20ppm @25 |
| Buzzer | Built-in | 3V passive buzzer |



● Interface Parameters

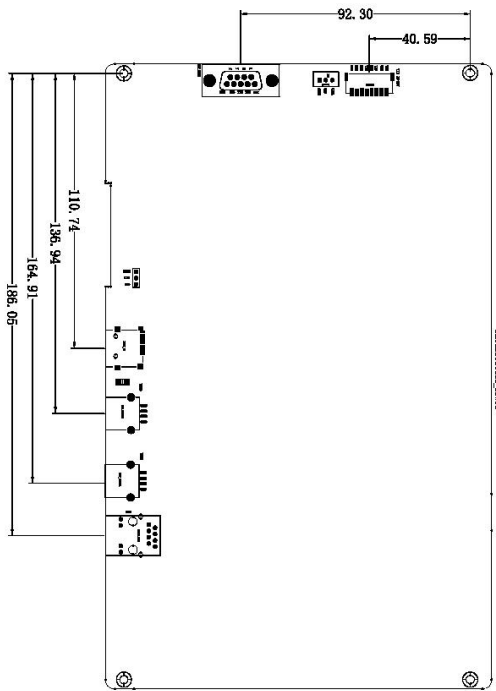
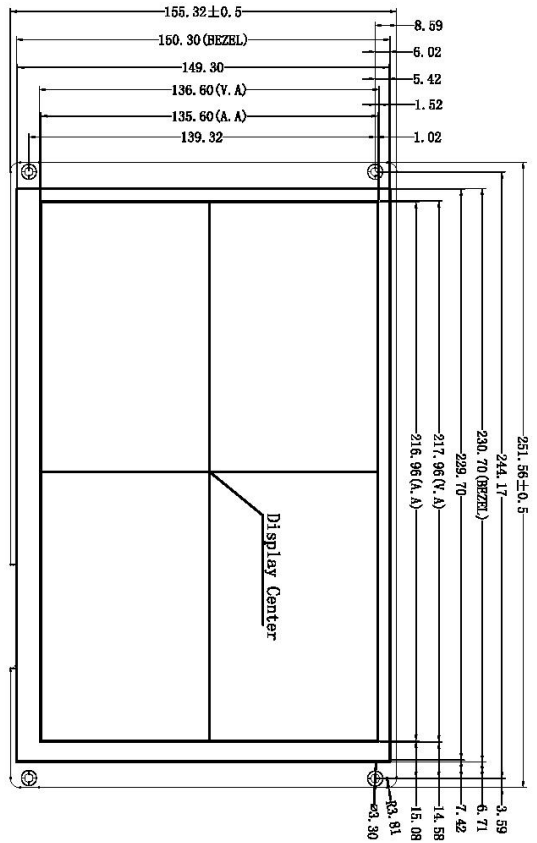
| Properties | Conditions | Min | Typ | Max | Unit |
|----------------------|-------------------------------|-------|--------|---------|------|
| Baud Rate | User-defined | 3150 | 115200 | 3225600 | bps |
| Output Voltage (TXD) | Output 1 | - | -5.0 | -3.0 | V |
| | Output 0 | 3.0 | 5.0 | - | V |
| Input Voltage (RXD) | Input 1 | -15.0 | -5.0 | - | V |
| | Input 0 | - | 5.0 | 15.0 | V |
| Interface | RS232*4 RS422*1 | | | | |
| Socket | 8Pin_2.0mm Socket, DB9 Socket | | | | |

● Packing Capacity & Dimension

| Dimension | | | | |
|------------------|-----------------------------|-------|----------------|---------------|
| Dimension | 251.6(W)*155.3(H)*23.4(T)mm | | | |
| Net Weight | 545g | | | |
| 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# | I/O | Description |
|------------|------|-------|-------------|
| CANL | 1 | CAN L | CAN VTL |
| GND | 3 | P | GND |
| CANH | 4 | CAN H | CAN VIH |
| Definition | Pin# | I/O | Description |
| VCC | 1,2 | P | Power Input |
| TX0 | 3 | 0 | UART0 Dout |
| RX0 | 4 | I | UART0 Din |
| TX4 | 5 | 0 | UART4 Dout |
| RX4 | 6 | I | UART4 Din |
| GND | 7,8 | P | GND |
| Definition | Pin# | I/O | Description |
| A | 1 | - | RS422 |
| B | 2 | - | RS422 |
| Y | 3 | - | RS422 |
| Z | 4 | - | RS422 |
| GND | 5 | P | GND |
| RX2 | 6 | I | UART2 Din |
| TX2 | 7 | 0 | UART2 Dout |
| RX6 | 8 | I | UART6 Din |
| TX6 | 9 | 0 | UART6 Dout |



1. Location hole is used as position reference.
2. Unmarked Tolerance is $\pm 0.3\text{mm}$
Active area is marked in Dash lines

| Model | DMG12800T101-38WTC | | |
|-------------------|--------------------|----------|------------|
| Drawing | A 4 | Drawn | G. Y |
| Scale | 1 : 1 | Review | |
| Unit | MM | Approval | |
| | | Date | 2022.07.08 |
| DWIN Technologies | | Date | |
| | | | |

Revision records

| Rev | Revise Date | Content | Editor |
|------------|--------------------|--|---------------|
| 00 | 2022-12-12 | Package, Interface Picture and Format Update | YML |
| 01 | 2022-12-26 | Properties Update | 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!