

## GTWX101VLB00P

## SIMPLIFIED DATASHEET

## ■ Features

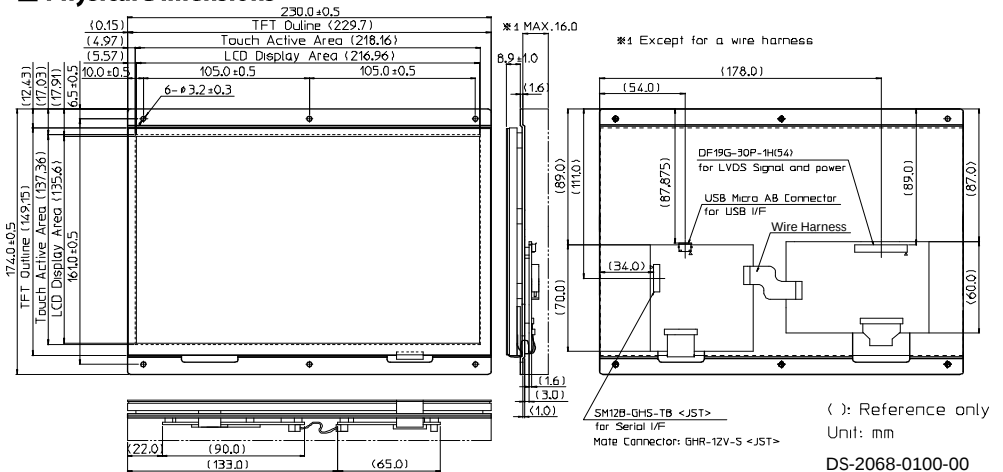
- 10.1 inch TFT-LCD
- 1280 x RGB x 800 dot
- High Brightness (850cd/m<sup>2</sup>)
- Video input is LVDS
- Touch I/F is USB (HID compliant)
- Quick Setup  
(Just connect to a PC or SBC host)
- FLETAS touch panel mounted  
[Features of FLETAS]
  - High sensitivity
  - Excellent noise resistance

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## ■ Physical Dimensions



## Specifications

## ■ Basic Specification

| Item               |                                | Content                                                                       |
|--------------------|--------------------------------|-------------------------------------------------------------------------------|
| Display            | Type                           | TFT-LCD                                                                       |
|                    | Size                           | 10.1 inches                                                                   |
|                    | Display Area                   | 216.96 x 135.6 mm (X x Y)                                                     |
|                    | Number of Pixels               | 1280 x RGB x 800                                                              |
|                    | Pixel Pitch                    | 0.1695 x 0.1695 mm (X x Y)                                                    |
|                    | Colors                         | 16.7M (24-bit color)                                                          |
|                    | Recommend Viewing Direction    | ALL                                                                           |
|                    | Gray Scale Inversion Direction | -                                                                             |
|                    | Brightness(100%)               | Typ. 850 cd/m <sup>2</sup> (nit) (*1)                                         |
| FLETAS Touch Panel | Display Signal Interface       | LVDS                                                                          |
|                    | Type                           | Metallized projective capacitive touch                                        |
|                    | Touch Active Area              | 218.16 x 137.36 mm                                                            |
|                    | Number of Touches              | Max. 10 points (multi touch possible)                                         |
| Control            | Interface                      | UART, I2C, USB2.0                                                             |
|                    | Commands                       | Backlight (display brightness) adjustment, touch sensitivity adjustment, etc. |

(\*1) Backlight brightness 100%

## ■ Electrical Ratings

| Item                   | Symbol | Min. | Typ. | Max. | Unit | Condition         |
|------------------------|--------|------|------|------|------|-------------------|
| Power Supply Voltage   | VCC1   | 3.14 | 3.3  | 3.47 | VDC  | See specification |
| Backlight Power Supply | VCC2   | 11.4 | 12.0 | 12.6 | VDC  |                   |

## ■ Electrical Characteristics

Conditions: Ambient temperature = 25°C, VCC=5.0VDC

| Parameter    | Symbol                | Min.   | Typ. | Max. | Unit | Condition               |
|--------------|-----------------------|--------|------|------|------|-------------------------|
| UART         | (*1)TXD               | VOH1   | 2.7  | -    | VDC  | IOH1 = -4.0mA           |
|              | (*1)SCL, SDA          | VOL1   | -    | 0.5  | VDC  | IOL1 = 8.0mA            |
| I2C          | (*1)IRQ               | VOH3   | 2.7  | -    | VDC  | IOH3 = -4.0mA           |
|              | (*2) SDA, SCL         | VOL3   | 0    | 0.5  | VDC  | IOL3 = 8.0mA            |
| BLEND        | (*2)                  | Rp     | -    | 220  | kΩ   | Pull-up Voltage 3.3V    |
|              | (*2)                  | Rp     | -    | 10   | kΩ   |                         |
| Power Supply | Current for LCD       | ICC1   | -    | 390  | mADC | All White, (*3) 100%    |
|              | Current for Backlight | ICC2-1 | -    | 430  | mADC | (*3) 100%               |
|              |                       | ICC2-2 | -    | 320  | mADC | (*3) 50%                |
|              |                       | ICC2-3 | -    | 5    | mADC | Backlight OFF BLEND="L" |
|              | Power Consumption     | P1     | -    | 1.3  | W    | All White, (*3) 100%    |
|              |                       | P2     | -    | 5.2  | W    | (*3) 100%               |

(\*1) Logic Output Voltage, (\*2) Internal Pull-up Resistor, (\*3) Backlight brightness

## ■ Environmental Specifications

| Parameter                 | Content                                                                                      |
|---------------------------|----------------------------------------------------------------------------------------------|
| Operating Temperature     | -20 to +60°C                                                                                 |
| Storage Temperature       | -20 to +80°C                                                                                 |
| Operating Humidity        | Temp. ≤ 60 °C, 80% RH MAX.<br>(No dew condensation)                                          |
|                           | Temp. > 60 °C, Absolute humidity shall be less than 80% RH at 60 °C<br>(No dew condensation) |
| Vibration (non-operating) | 10-55-10Hz, all amplitude 1mm, 30 minutes, X-Y-Z                                             |
| Shock (non-operating)     | 392m/s <sup>2</sup> (40G) 9ms X-Y-Z, 3 times each direction                                  |

## ■ Interface/Connectors

Pin 5~8, 13, 14, 17, 20, 23, 26, 30 = GND

| Pin   | Symbol | Content                                               | Pin | Symbol  | Content         |
|-------|--------|-------------------------------------------------------|-----|---------|-----------------|
| 1~4   | VCC2   | +12.0V Power Supply                                   | 15  | Link 0- | R0, R1, R2, R3, |
| 9     | BLEN   | Backlight ON/OFF (High:ON, Low:OFF)                   | 16  | Link 0+ | R4, R5, G0      |
|       |        |                                                       | 18  | Link 1- | G1, G2, G3,     |
| 10    | PDIM   | Backlight Dimming Control (PWM) Voltage (High active) | 19  | Link 1+ | G4, G5, B0, B1  |
|       |        |                                                       | 21  | Link 2- | B2, B3, B4,     |
|       |        |                                                       | 22  | Link 2+ | B5, DENA        |
|       |        |                                                       | 24  | CLKIN-  | Clock -         |
| 11~12 | VCC1   | +3.3V Power Supply                                    | 25  | CLKIN+  | Clock +         |
|       |        |                                                       | 27  | Link 3- | R6, R7, G6,     |
|       |        |                                                       | 28  | Link 3+ | G7, B6, B7      |
|       |        |                                                       | 29  | NC      | No Connection   |

• UART, I2C : / MCB-039 [CN1]

| Pin | Symbol | Content                               | Pin | Symbol | Content       |
|-----|--------|---------------------------------------|-----|--------|---------------|
| 1~4 | IC     | Internal Connection                   | 8   | /RESET | Reset input   |
| 5   | SDA    | I2C data                              | 9   | NC     | No Connection |
| 6   | /IRQ   | Interrupt output (I2C data available) | 10  | GND    | Ground        |
| 7   | SCL    | I2C clock                             | 11  | TXD    | UART send     |
|     |        |                                       | 12  | RXD    | UART receive  |

• USB / MCB-039 [CN3]

| Pin | Symbol | Content | Pin | Symbol | Content |
|-----|--------|---------|-----|--------|---------|
| 1   | VBUS   | VBUS    | 4   | ID     | NC      |
| 2   | D-     | Data -  | 5   | GND    | Ground  |
| 3   | D+     | Data +  |     |        |         |

\*Power supply VCC cannot be supplied from VBUS.  
Please use the power connector (MCB-040-CN1).

## ■ Functions

Single-touch mode/ multi-touch mode setting,  
Memory SW function, Brightness level setting,  
Touch sensitivity setting etc.

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