

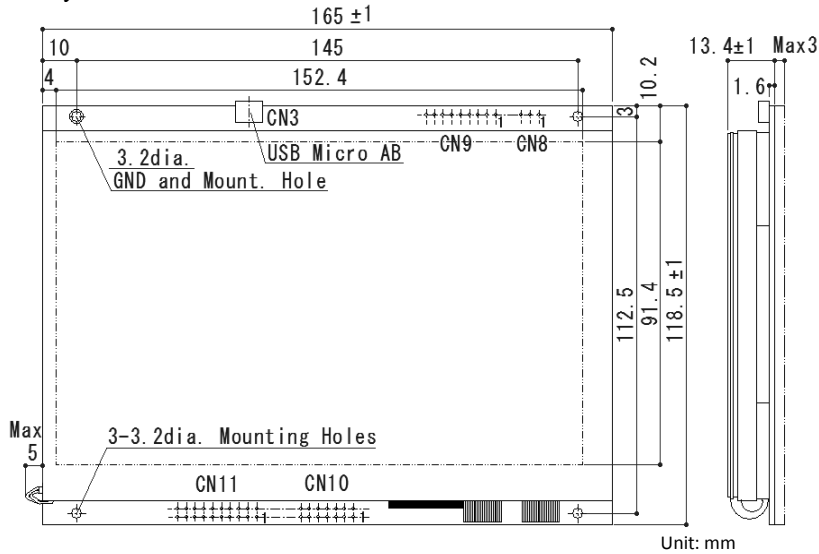
# GT800X480A-C903P

SIMPLIFIED DATASHEET

### ■ Features

A compact size  
800x480xRGB dot TFT-  
LCD with a LED back light  
and a projected  
capacitive touch panel.

### ■ Physical dimension



### Specifications

#### ■ Electrical Ratings

| Parameter            | Symbol | Min. | Typ. | Max. | Unit | Condition |
|----------------------|--------|------|------|------|------|-----------|
| Power supply voltage | VCC    | 4.75 | 5.00 | 5.25 | VDC  |           |

#### ■ Electrical Characteristics

Ambient temp. = 25deg. C, VCC = 5.0V

| Parameter                           | Symbol | Min. | Typ. | Max. | Unit | Condition                     |
|-------------------------------------|--------|------|------|------|------|-------------------------------|
| Input high voltage (UART, I2C, SPI) | VsIH   | 2.7  | -    | 3.5  | V    |                               |
| Input low voltage (UART, I2C, SPI)  | VsIL   | 0    | -    | 0.6  | V    | (UART: RL = 3K ohm)           |
| Output high voltage(UART, I2C, SPI) | VsOH   | 2.8  | -    | -    | V    |                               |
| Output low voltage(UART, I2C, SPI)  | VsOL   | 0    | -    | 0.4  | V    |                               |
| GPIO High input current             | IiIH   | -    | -    | 1.0  | uA   |                               |
| GPIO Low input current              | IiIL   | -    | -    | -200 | uA   |                               |
| GPIO High input voltage             | ViiH   | 2.4  | -    | 3.3  | V    |                               |
| GPIO Low input voltage              | ViiL   | 0    | -    | 0.8  | V    |                               |
| GPIO High output voltage            | ViOH   | 2.8  | -    | -    | V    | IOH = -200uA                  |
| GPIO Low output voltage             | ViOL   | -    | -    | 0.4  | V    | IOL = 1.6mA                   |
| GPIO High output current par port   | IiOHp  | 0    | -    | -1.5 | mA   | A port is bundle of 8 GPIO.   |
| GPIO Low output current par port    | IiOLp  | 0    | -    | 8    | mA   | A port is bundle of 8 GPIO.   |
| GPIO High output current total      | IiOht  | 0    | -    | -8   | mA   | Total of 26 GPIO pins.        |
| GPIO Low output current total       | IiOLT  | 0    | -    | 30   | mA   | Total of 26 GPIO pins.        |
| Power Supply Current 1              | ICC1   | -    | 0.7  | 0.9  | ADC  | Black screen 100%Brightness   |
| Power Supply Current 2              | ICC2   | -    | 0.3  | 0.45 | ADC  | Display Power(back light) Off |
| Power consumption                   | Pwr    | -    | 3.5  | 4.5  | Watt | Black screen 100%Brightness   |

#### ■ Optical Specifications

| Parameter  | Condition                                |
|------------|--|
| Luminance  | 400 Nit (Typical)<br>+25 degrees celcius |
| Color      | RGB 16Bit(R5-G5-B5-I1) color             |
| Back light | LED Back light                           |

#### ■ Environmental Specifications

| Parameter                 | Condition   |
|---------------------------|---|
| Operating Temperature     | -20 ~ +70 degrees celcius<br>50% brightness                 |
| Storage Temperature       | -30 ~ +80 degrees celcius                                   |
| Operating Humidity        | 20 ~ 80% R.H. (non-condensing)                              |
| 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 |

#### ■ Physical Specifications

| Parameter           | Condition                |
|---------------------|--------------------------|
| Number of Dots      | 800 x RGB x 480          |
| Display Area        | 152.4mm x 91.44mm(X x Y) |
| Pixel Pitch (X x Y) | 0.19 x 0.19mm (X x Y)    |
| Weight              | Approximately 275g       |

#### ■ Interface

UART, USB 2.0(High & Full speed), SPI, I2C

#### ■ Connectors

CN3: Micro-AB connector

CN8: Power connector through holes

| Pin No. | Signal | Pin No. | Signal              |
|---------|--------|---------|---------------------|
| 1       | Vcc    | 2       | *Test (Factory use) |
| 3       | GND    |         |                     |

CN9: Serial interface and Power through holes

| Pin No. | Signal (UART/ SPI/ I2C) | Function                  | Direction |
|---------|-------------------------|---------------------------|-----------|
| 1       | *RESET/ *RESET/ *RESET  | Reset                     | Input     |
| 2       | - /SCK/ SCL             | Serial Clock              | Input     |
| 3       | RxD/ MOSI/ SDA          | Data Receive Input/Output |           |
| 4       | DTR/ SBUSY/ SBUSY       | Display Busy              | Output    |
| 5       | DSR/ SSEL/ -            | Host Busy                 | Input     |
| 6       | TxD/ MISO/ -            | Data Transmit             | Output    |
| 7       | TRDY/ TRDY/ TRDY        | Target Ready              | Output    |
| 8       | VCC/VCC/ VCC            | Power Supply (5V)         |           |
| 9       | GND/ GND/ GND           | Ground                    |           |

CN10, CN11: General Purpose I/O

Please refer to Hardware specification for details.

#### ■ Selectable Font

| Parameter                     | *ANK(Alphabet, Numeric, Kana)  |
|-------------------------------|--|
| ANK (Alphabet, Numeric, Kana) | All (6x8, 8x16, 12x24, 16x32 dot and Outline font)                             |
| JIS Kanji                     | 16x16, 32x32 dot font, outline font  |
| Chinise character, Korean     | 16x16 dot font, outline font   |
| Character code                | ASCII, ont byte code page,<br>JIS X208, Big-5, GB2312-80, KSC5601-87,<br>UTF-8 |

#### ■ Functions

Multi-touch Touch panel sensing.  
Character Display, Graphic Display, Display Action  
User definable font, Line, Box draw  
Define user windows, Vertical and Horizontal scroll  
I/O port Control,  
Jumper and memory switch to keep customized settings  
Macro and Program Macro function.

