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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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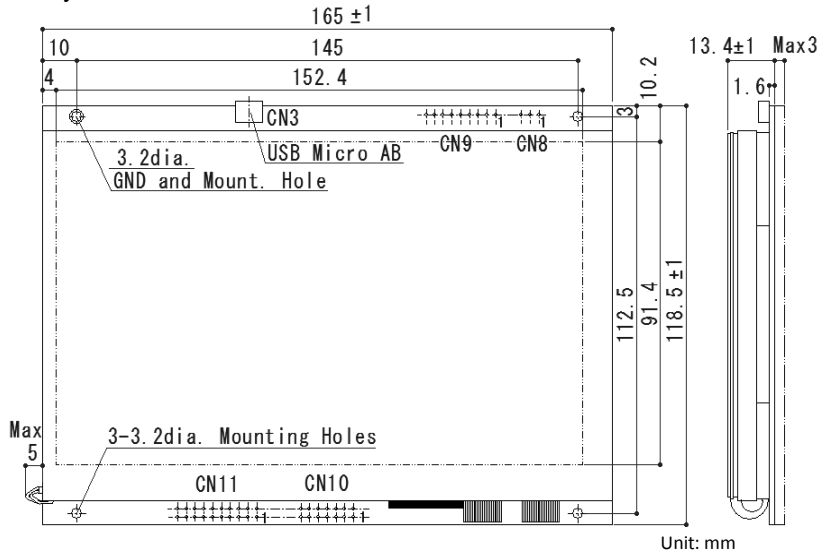
# GT800X480A-C903P

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 celsius<br>50% brightness                 |
| Storage Temperature       | -30 ~ +80 degrees celsius                                   |
| 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           | Value                    |
|---------------------|--------------------------|
| 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.

