

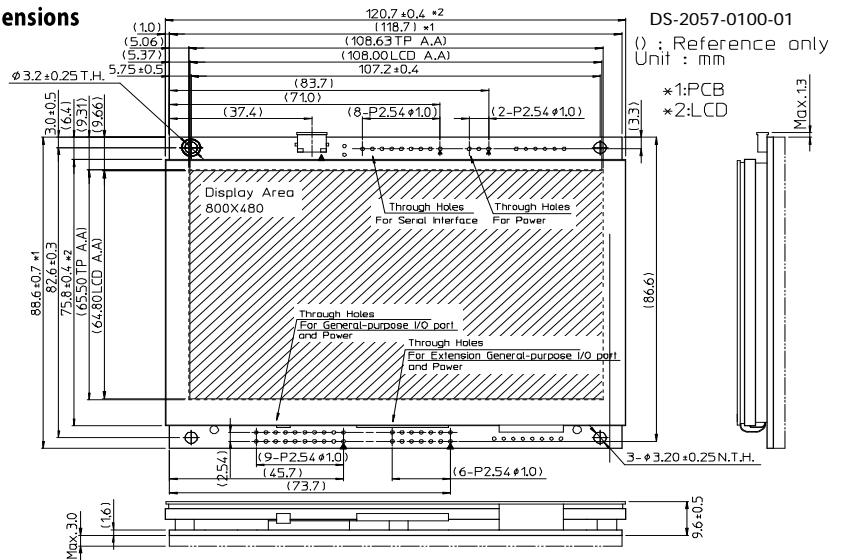
# GTWV050C3A00PA

## SIMPLIFIED DATASHEET

### ■ Features

- 5 inch TFT-LCD
- LED backlight module
- Wide-VGA: 800 x RGB x 480 pixels
- High brightness (810cd/m<sup>2</sup>)
- FLETAS capacitive touch panel [Features of FLETAS ]
  - High sensitivity
  - Excellent noise resistance

### ■ Physical Dimensions



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### Specifications

#### ■ Basic Specification

Item	Content	
Display	Display Area	108.0 x 64.8 mm (X x Y)
	Number of Pixels	800 x RGB x 480
	Pixel Pitch	0.135 x 0.135 mm (X x Y)
	Colors	6.5k colors (16-bit color (RGB 5-5-5+1bit intensity))
	Viewing Direction	12 o'clock
	Gray Scale Inversion Direction	6 o'clock
	Brightness (100%)	Min. 500 cd/m <sup>2</sup> (nit) Typ. 810 cd/m <sup>2</sup> (nit)
FLETAS Touch Panel	Type	MPCT (Metallised Projective Capacitive Touch) multi-touch support
	Interface	Serial interface (UART / I2C / SPI CMOS 3.3V)
Other	Weight	Approximately 120g

#### ■ Electrical Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Power Supply Voltage	VCC	4.75	5.00	5.25	VDC	-

#### ■ Electrical Characteristics

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition	
UART	Logic output voltage TXD,DTR	VsOH1	2.8	-	-	VDC	IOH=-1.6mA IOL=1.6mA
	Logic output voltage TRDY, SBUSY	VsOH2	2.8	-	-	VDC	
I2C I/F	Internal pull-up resistance SDA, SCL	Rp	-	10	-	kΩ	-
SPI	Logic output voltage TXD,DTR,MISO	VsOH3	2.8	-	-	VDC	IOH=-1.6mA IOL=1.6mA
	Logic input current	IiIH	-	-	1.0	μADC	
GPIO Port	Logic input voltage	ViIH	2.4	-	3.3	VDC	-
	Logic output voltage	ViOL	-	-	0.4	VDC	-
	Output permissible current	IiOHp	-	-	-5	mADC	(Single port)
Power Supply Current	Power Supply Current 1	ICC1	-	610	800	mADC	(*1) 100% Brightness
	Power Supply Current 2	ICC2	-	420	550	mADC	(*1) 50% Brightness
	Power Supply Current 3	ICC3	-	26	36	mADC	Power Saving Mode
Power Consumption			-	3.05	4.00	W	(*1) 100% Brightness
			-	2.10	2.75	W	(*1) 50% Brightness
			-	0.13	0.18	W	Power Saving Mode

(\*1) Display power ON

#### ■ Interface Details / Connectors

##### • Serial Interface (UART / I2C / SPI CMOS 3.3V) [CN9]

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

##### • USB Interface [CN3]

Pin No.	Signal
1	VBUS
2	D-
3	D+
4	ID
5	GND

##### • Power Through-holes [CN8]

NOTE: Shorting JP1 enables power supply from VBUS.

Pin No.	Signal	Function
1	VCC	Power Supply (5V)
2	NC(*TEST)	No Connection
3	GND	Ground

\*Factory test use only

##### • General Purpose I/O & Power Through-holes [CN10][CN11]

Please see the Hardware Specification for details.

#### ■ Environmental Specifications

Parameter	Contents
Operating Temperature	-20 to +70°C
Storage Temperature	-30 to +80°C
Operating Humidity	Temp. ≤60 °C, 80% RH MAX. Temp. > 60 °C, Absolute humidity shall be less than 80% RH at 60 °C
Vibration	10-55-10Hz, all amplitude 1mm, (non-operating), 30 minutes, X-Y-Z
Shock	392m/s <sup>2</sup> (40G) 9ms X-Y-Z, (non-operating), 3 times each direction

#### ■ Selectable Font

Parameter	Contents
1-byte(dot)	6x8, 8x16, 12x24, 16x32, International font
2-byte(dot)	16x16 (Japanese/Korean/SimplifiedChinese/TraditionalChinese), 32x32(Japanese)
Outline Font	Source Han Sans

#### ■ Functions

Character display, graphic display, control command, display action command, window function, touch panel input, general-purpose I/O port control, macro, program macro function, character and image download function, memory SW, data storage, etc.