

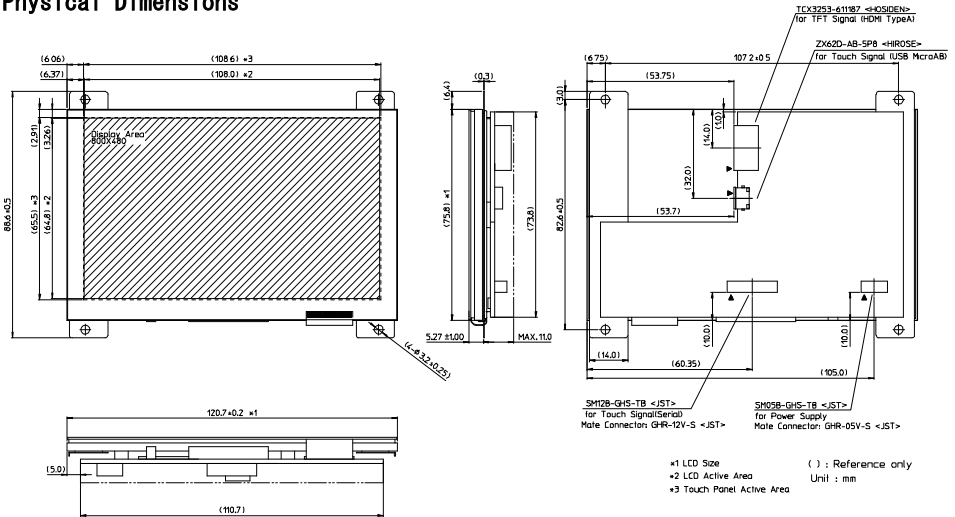
# GTWV050VH00P

## SIMPLIFIED DATASHEET

### ■ Features

- 5 inch TFT-LCD
- 800 x RGB x 400 dot
- High Brightness (810cd/m<sup>2</sup>)
- Video input is DVI (HDMI connector)
- 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
- Power saving mode

### ■ Physical Dimensions



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### Specifications

#### ■ Basic Specification

Item	Type	Content
Display	Type	TFT-LCD
	Size	5.0 inches
	Display Area	108.00 x 64.80 mm (X x Y)
	Number of Pixels	800 x RGB x 480
	Pixel Pitch	0.135 x 0.135 mm (X x Y)
	Colors	16.7M (24-bit color)
	Recommend Viewing Direction	12 o'clock
	Gray Scale Inversion Direction	6 o'clock
	Brightness (100%)	Typ. 810 cd/m <sup>2</sup> (nit)
	Display Signal Interface	DVI (HDMI connector)
FLETAS Touch Panel	Type	Metallized projective capacitive touch
	Touch Active Area	108.63 x 65.50 mm
	Number of Touches	Max. 10 points (multi touch possible)
Control	Interface	UART, I2C, USB
	Commands	Backlight (display brightness) adjustment, touch sensitivity adjustment, etc.

#### ■ Electrical Ratings

Item	Symbol	Min.	Typ.	Max.	Unit	Condition
Power Supply Voltage	VCC	4.75	5.00	5.25	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 = -2.0mA
	VOL1	-	-	0.5	VDC	IOL1 = 1.5mA
I2C (*1) SCL, SDA	VOL2	0	-	0.5	VDC	-
	VOL3	0	-	0.5	VDC	-
I2C (*1) /IRQ	Pull-up resistor SDA, SCL	Rp	10	-	kΩ	Pull-up Voltage 3.3V
	Power Supply Current 1	ICC1	530	690	mADC	(*2) Brightness 100%
Power Supply Current 2	ICC2	330	430	mADC	(*2) Brightness 50%	
Power Supply Current 3	ICC3	45	60	mADC	Display OFF	
Power Supply Current 4	ICC4	26	36	mADC	Power saving mode	
Power Consumption	-	2.65	3.45	W	(*2) Brightness 100%	
	-	1.65	2.15	W	(*2) Brightness 50%	

(\*1) Logic output voltage, (\*2) Display ON

#### ■ Environmental Specifications

Parameter	Content
Operating Temperature	-20 to +70°C
Storage Temperature	-30 to +80°C
Operating Humidity	Temp. ≤ 60 °C, 80% RH MAX. (No dew condensation) Temp. > 60 °C, Absolute humidity shall be less than 80% RH at 60 °C (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

• DVI (HDMI connector) / [CN2] Display

Pin No.	Terminal	Pin No.	Terminal	Content		
1	TMDS Data2 +	10	TMDS Clock +	-		
2	TMDS Data2 Shield	11	TMDS Clock Shield	-		
3	TMDS Data2 -	12	TMDS Clock -	-		
4	TMDS Data1 +	13	NC	Not used		
5	TMDS Data1 Shield	14	NC	Not used		
6	TMDS Data1 -	15	SCL	DDC Clock		
7	TMDS Data0 +	16	SDA	DDC Data		
8	TMDS Data0 Shield	17	DDC/CEC Ground	Ground		
9	TMDS Data0 -	18	VCC	DDC Power		
*Pin1~9 has no contacts.				19	Hot Plug Detect	-

• UART, I2C (HID compliant) / [CN4] Touch Panel

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

• USB (HID compliance, Full speed 12Mbps.) / [CN3] Touch Panel

Pin No.	Terminal	Content	Pin No.	Terminal	Content
1	VBUS	VBUS	4	ID	NC
2	D-	Data -	5	GND	Ground
3	D+	Data +			

• (Power Connector) [CN5]

Pin No.	Terminal	Content
1, 3	VCC	+5V
2, 4	GND	Ground
5	NC	No Connection

#### ■ Functions

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

