

**TFT LCD Module**  
**(with Metallized Projective Capacitive Touch Panel)**

**Specification**

Model: GT800X480A-1303P

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This specification is subject to change without prior notice.

**This product complies with RoHS Directive**  
**Please contact our sales consultant for details and to confirm the current status**

## Notice for the Cautious Handling of LCD Modules

### Handling and Usage Precautions:

Please carefully follow the appropriate product application notes and operation standards for proper usage, safe handling, and maximum performance.

#### [High Voltage]

- High voltage (several tens volts) is generated in the converter circuit inside this product. When handling / assembling, please turn off the power so as not to get an electric shock. Please leave for more than 1 minute after turning off the power. Immediately after turning off the power, there is a charge left inside and you may get a shock when you touch it. Also, please be careful as placing this product directly on conductive material will cause malfunction.

#### [Cable Connection]

- Do not connect or disconnect the power cable or signal cable while the power is on. It may cause damage to the power supply circuit and input / output circuit of this product.
- Do not input signals with the power off. It may cause failure of the input / output circuit.

#### [Electrostatic Charge]

- Since we are using semiconductor products, please pay attention to electrostatic breakdown during handling and transportation. Please use antistatic material when transporting.  
(When judging that it was bad due to electrostatic destruction at the time of returning to our company, we may ask for repair.)

#### [Structure]

- We do not polish the edge part of the glass of the touch panel (FLETAS® touch panel), so please handle carefully so that there is no injury.
- Do not deliberately destroy this product. I may injure with glass fragments.
- Since the LCD panel generates heat, please provide a clearance for heat dissipation between this product and the enclosure. Also, in the case of a device with a structure with densely assembled electronic components, please consider cooling with a fan etc.
- For safety measures, this product uses a flame-retardant substrate, but we recommend that you use flame-retardant materials as peripheral material.
- Since the touch panel (FLETAS® touch panel) is made of thin glass and it is easy to break, be sure to protect with a cover lens when commercializing it. We are not responsible for defects that occurred without protection.
- When attaching to the enclosure, if the touch panel (FLETAS® touch panel) part is pressed strongly, it may cause cracking, so be careful when handling · installation. Also, when stress is applied to this product due to warping, twisting, falling etc. of the board, it may cause damage.

#### [Power]

- Use a fully stabilized power supply for power supply. Applying a voltage less than the rated power supply voltage for a long time may cause damage to the power supply circuit.
- Inrush current flows when this product is turned on. Use a power supply that can withstand inrush current more than about twice the steady state current.
- Use a power supply with a rise time of tens of milliseconds. Using a power supply with a slow rise time may cause malfunction.
- Check that the power supply voltage is within the rating at the connector part of this product. Please use the power cable with appropriate thickness and length.
- As a safety measure, we recommend using a power supply with fuse with overcurrent protection and a fuse etc...

#### [Interface]

- Please Use the cable with the appropriate verified and length for the interface.
- This product does not undergo HDMI certification test.

#### [Display]

- When you keep fixed display, the display may show unevenness. It is recommended to avoid fixed display for a long time, to display in a fluid form, or to display all lights on a regular basis.

#### [Storage and Operating Environment]

- Please use LCD modules under the recommended specified environmental conditions. Salty, sulfuric and dusty environments may damage the LCD module even during storage.

#### [Others]

- Designed carefully for EMI and ESD, but since these characteristics will change in the state of being incorporated in the equipment, please be sure to test it in the state of finished product. Also, when using in noisy environments, please take measures against noise outside this product.
- Do not modify, disassemble, repair, replace parts, etc. It may cause malfunction or EMI failure. We can not assume the responsibility for troubles caused by processing this product.

#### Notice:

- We do not authorize the use of any patents that may be inherent in these specifications.
- Neither whole nor partial copying of these specifications is permitted without our approval. If necessary, please ask for assistance from our sales consultant.
- This product is not designed for military, aerospace, medical or other life-critical applications. If you choose to use this product for these applications, please ask us for prior consultation or we cannot accept responsibility for problems that may occur.

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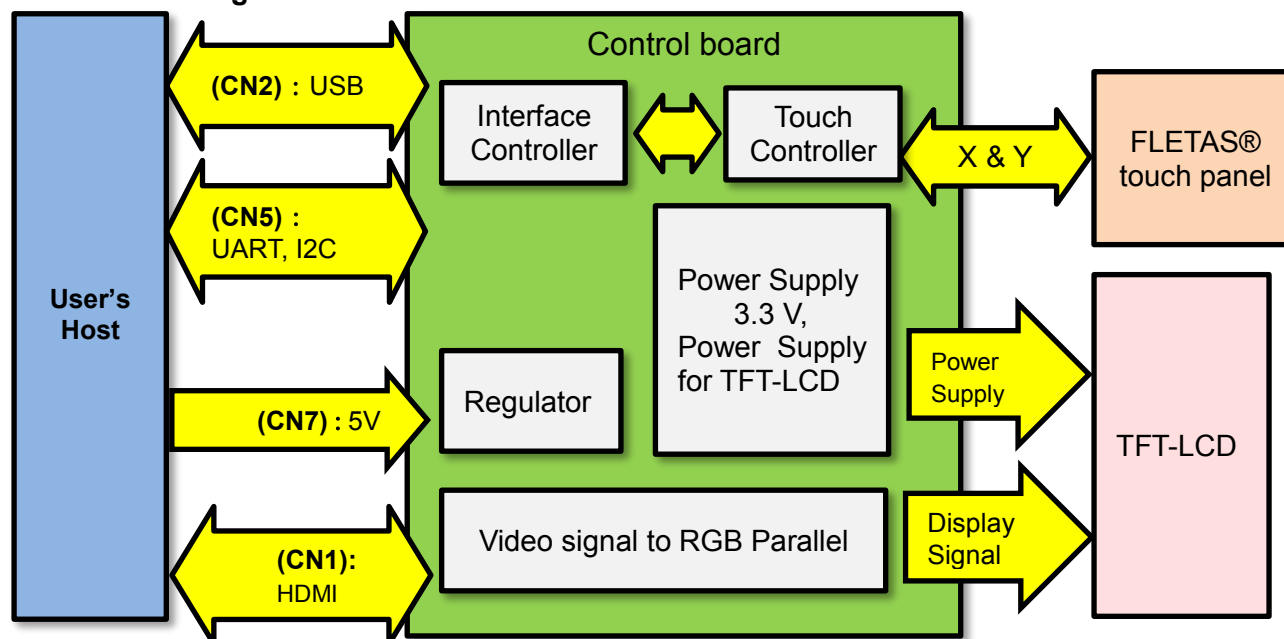
## 1 General description

This specification corresponds to the product specification of the GT800X480A-1303P TFT - LCD graphic display module.

### 1.1 Constitution

This product consists of TFT-LCD, metallized projective capacitive touch (FLETAS® touch panel), and control board (touch control, power supply, display control).

### 1.2 Block Diagram



### 1.3 Basic Specification

Item		Content
Power Supply	Voltage	VCC: 5V±5%
	Current (100% brightness)	TYP. 640mA, MAX. 830mA
LCD	Type	TFT
	Size	7.0 inch Display Area: 154.08 x 85.92 (mm)
	Number of Pixels	800 x 480
	Number of Colors	16.7M (24-bit color)
	Recommend Viewing Direction	12 o'clock
	Gray Scale Inversion Direction	6 o'clock
	Luminance	Min. 500 cd/m <sup>2</sup> (nit), Typ. 850 cd/m <sup>2</sup> (nit)
	Interface Type	HDMI (video signal only)
Touch Panel	Type	Metallized Projective Capacitive Touch (FLETAS® touch panel)
	Size	Touch Active Area: 156.64 x
	Touch Point	Multi touch (Max.10-point)
	Interface Type	UART, I2C (Fast-mode), USB (Full-speed)
	Signal voltage	ViH: 2.4 ~ 3.3 V ViL: 0 ~ 0.9 V
	Command	Sensitivity control, Backlight adjustment, etc.

## 2 Electrical Specifications

### 2.1 Absolute Maximum Rating

#### Power Supply Voltage

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power Supply Voltage	VCC	-0.3	—	+6.0	VDC

#### Logic Voltage

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
UART RXD	VIN1	-0.3	—	3.6	VDC	VCC=5V
I <sup>2</sup> C I/F SCL, SDA,	VIN2	-0.3	—	6.0	VDC	—
Common *RESET	VIN3	-0.3	—	3.6	VDC	VCC=5V

### 2.2 Electrical Ratings

#### Power Supply Voltage

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power Supply Voltage	VCC	4.75	5.0	5.25	VDC

The TFT-LCD drive voltage is generated by the on-board DC / DC converter.

### 2.3 Electrical Characteristics

#### Logic Input/ Output Condition

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note	
UART	Logic input voltage RXD	VIH1	2.7	—	3.6	VDC	—
		VIL1	0	—	0.6	VDC	—
	Logic output voltage TXD	VOH1	2.8	—	—	VDC	RL=3kΩ
		VOL1	—	—	0.4	VDC	
I <sup>2</sup> C	Logic input voltage SCL, SDA,	VIH2	2.7	—	5.8	VDC	—
		VIL2	0	—	0.6	VDC	—
	Logic output voltage *IRQ	VOH2	2.8	—	—	VDC	—
		VOL2	0	—	0.4	VDC	—
	Internal pull-up resistance SDA,SCL	Rp	—	10	—	kΩ	Pull-up Voltage 3.3V
Common	Logic input voltage *RESET	VIH3	1.5	—	3.3	VDC	—
		VIL3	0	—	0.3	VDC	—

#### Power Supply Condition

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Power Supply current	ICC-1	—	640	830	mADC	Display power ON 100% Brightness
	ICC-2	—	380	500	mADC	Display power ON 50% Brightness
	ICC-3	—	50	70	mADC	No HDMI input No Touch Connection
Power Consumption		—	3.2	4.2	W	Display power ON 100% Brightness
		—	1.9	2.5	W	Display power ON 50% Brightness

- The rise time of supply voltage should not exceed 100ms.
- Inrush current at power-on may exceed twice normal current.
-

### 3 Environmental Specifications

Parameter	Content
Operating Temperature	- 20°C to + 70°C
Storage Temperature	- 30°C to + 80°C
Operating Humidity	20 to 80 % R.H (Non-condensing) (Temp. ≤ +60 °C) 45 % R.H (Non-condensing) (Temp. > +60 °C)
Storage Humidity	20 to 80 % R.H (Non-condensing) (Temp. ≤ +60 °C) 45 % R.H (Non-condensing) (Temp. > +60 °C)
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
Brightness Derating	

### 4 Physical Specifications

Parameter	Content
Number Of Pixels	800 × RGB × 480
Display Area	154.08mm × 85.92mm (X × Y)
Pixel Pitch	0.1926mm × 0.179mm (X × Y)
Weight	Approximately 255g

### 5 Applicable Specifications

Applicable reliability specification:	TT-99-3102x
Applicable module production specification:	TT-98-3413x
Applicable touch panel production specification:	TT-17-3301x

## 6 Interfaces

Interface *2		Protocol
USB	HID *1	HID class standard (Touch screen)
	Win-USB *1	
UART		Noritake original commands *3
I2C		
HDMI		Video signal only

\*1 Both protocols are available simultaneously.

\*2 All interfaces are available simultaneously.

\*3 When multiple I/Fs are connected simultaneously and there is data to be transmitted from this product, transmit data is transmitted from the I/F that received the data. Transmit data with HID is transmitted from both USB and I2C.

### 6.1 USB interface (CN2)

#### 6.1.1 USB Interface – Summary

The USB interface is USB 2.0 Full-speed (12 Mbps) capable.

It is possible to connect with HID class driver and WinUSB driver is possible. The display module can be used as a *WinUSB* device, using the standard *WinUSB* driver. Alternatively, refer to USB Interface – Technical Details (below) if using the USB interface with a custom driver or embedded system, etc. Refer to the [USB 2.0 Specification](#) for further details.

#### 6.1.2 USB Interface – Technical Details

The device has a single configuration, with a single interface, supporting two endpoints for data transfer:

Endpoint	Type	Maximum packet size
Endpoint 0	Control	64 bytes
Endpoint 1	Bulk IN	Full speed: 64 bytes, High speed: 512 bytes
Endpoint 2	Bulk OUT	Full speed: 64 bytes, High speed: 512 bytes

Vendor ID: 0EDA (hex)

Product ID: 1200 (hex)

Device Class and Interface Class: FF (hex) (vendor-specific)

*WinUSB* compatibility:

Firmware versions F1.00 onwards support *Microsoft OS String Descriptors*, which enable automatic recognition of *WinUSB* compatibility for applicable operating systems (manual configuration, using an .inf file, is also possible). The GUID is used by applications on the host in order to access the device.

Device Interface GUID : 6120D798-D192-4463-B0DE-2B65ED2F4870

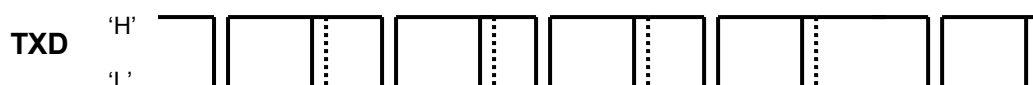
#### 6.1.3 USB Connection indicator

LED1 lights up when USB cable is inserted and power is supplied from VBUS.

## 6.2 UART (CN5)

Interface Conditions:

Baud rate	4800 to 115200bps (set by Memory SW) <b>Default setting: 38400bps</b>
Parity	None, Even, Odd (set by Memory SW) <b>Default setting: None</b>
Format	Start (1 bit) + Data (8 bit) + Parity (0 or 1 bit) + Stop (1 bit)
Communication control signal	-



## 6.3 I<sup>2</sup>C (CN5)

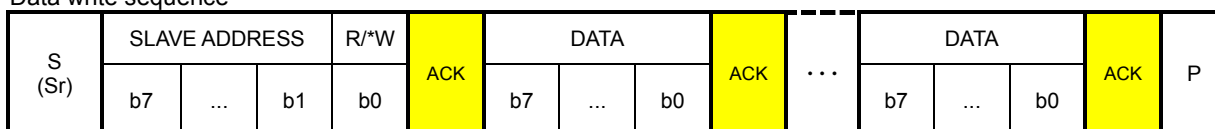
Working as an I2C slave.

Communication Parameters

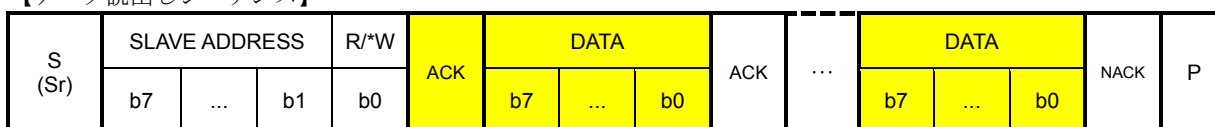
Communication Speed	Max. 400Kbps
Format	I2C
Slave Address	Set by Memory SW
Supported Function	ACK response, Clock stretch
Communication Control Signals	/IRQ

\*Note: If clock stretch is applied during processing of a command, the host (master) will not be able to send or receive any more data until command processing has finished.

Data write sequence



【データ読出しシーケンス】

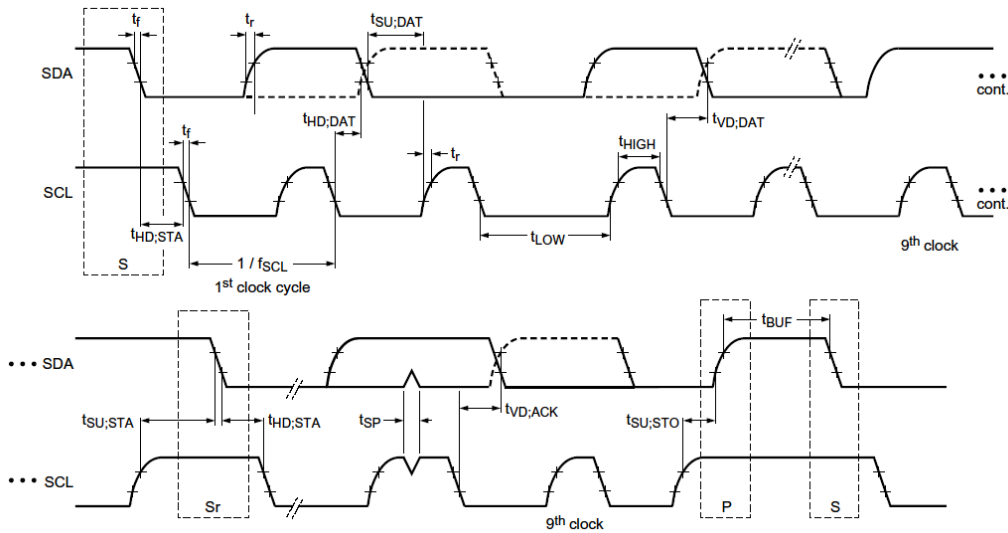


Host (master) is transmitter, display module (slave) is receiver

Host (master) is receiver, display module (slave) is transmitter

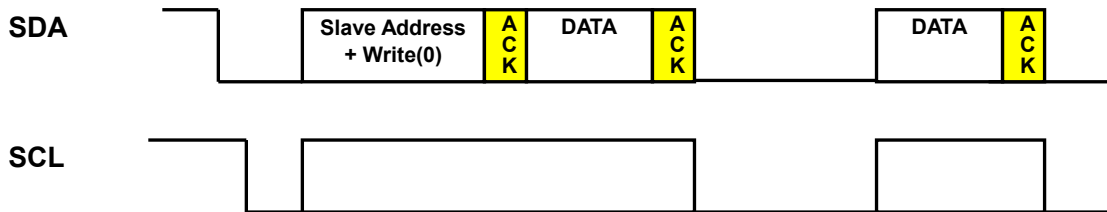


I<sup>2</sup>C Timing

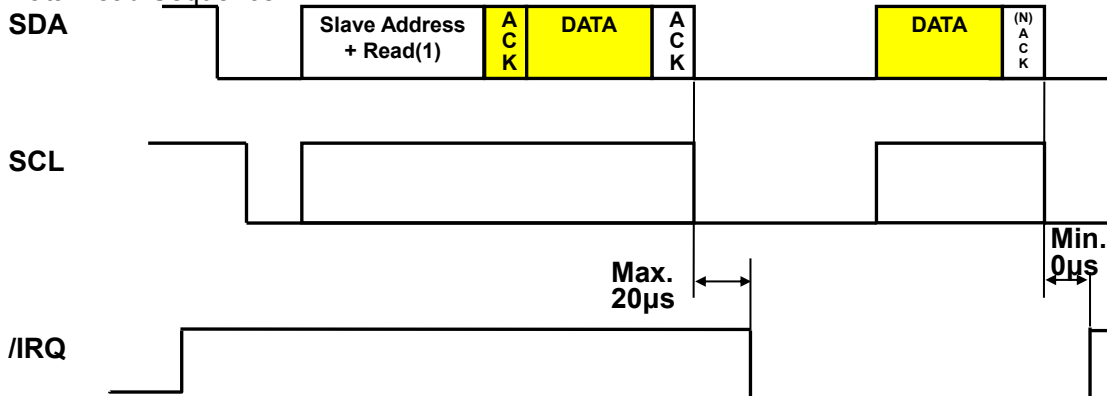


Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
SCL clock frequency	fSCL	-	0	-	400	kHz
Start condition hold time	tHD;STA	-	0.6	-	-	μs
SCL 'L' time	tLOW	-	1.3	-	-	μs
SCL 'H' time	tHIGH	-	0.6	-	-	μs
Start condition setup time	tSU;STA	-	0.6	-	-	μs
Data hold time	tHD;DAT	-	0	-	-	μs
Data setup time	tSU;DAT	-	100	-	-	ns
SCL, SDA rise time	Tr	-	20	-	300	ns
SCL, SDA fall time	Tf	-	-	-	300	ns
Stop condition setup time	tSU;STO	-	0.6	-	-	μs
Stop condition – start condition bus idle time	tBUF	-	20	-	-	μs

Data Write Sequence



Data Read Sequence



6.4 HDMI (CN1)

This I/F uses only Video signal.  
LED2 lights up when the display signal is received properly.

## 7 Touch Panel

### 7.1 Outline

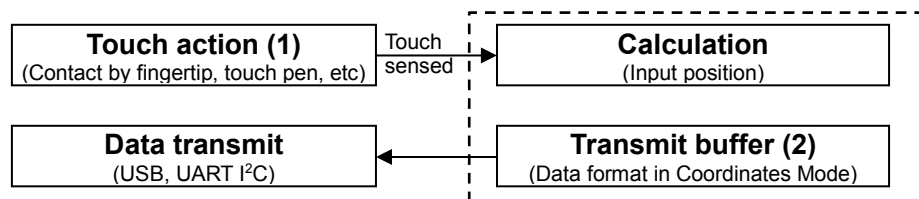
Detection method: Projected-capacitive touch (multi-touch (multiple-point input) supported)

Touch reporting methods: HID class standard (Touch screen)

Noritake original commands (Refer to 8 Commands)

### 7.2 Basic Operation

The display module features a touch panel for handling input by fingertip or touch pen, etc. The touch panel function sends data for the input position coordinates.



Notes:

(1) The number of simultaneous touches recognized depends on the Touch Mode.

(2) Touch information is queued when Touch Panel Data Transmit is ON and sufficient space is available in the transmit buffer (buffer capacity: 128 bytes). When there is insufficient space, touch actions are not queued, so the queued data should be periodically read.

### 7.3 Touch Modes

There are two Touch Modes. Single-Touch Mode (default) recognizes only one touch at a time, generating continuous touch reports while the touch continues, stopping the reports when touch is released. This mode is software-compatible with resistive touch-panel modules. Multi-Touch Mode recognizes a maximum of 1 to 10 (configurable) touches, generating touch reports only when changes (touch / release / touch position change) occur.

### 7.4 Touch Data Read Format

The touch panel is configured as a display area. The (x,y) coordinate values of the input position (in 1-pixel units) are reported.

## 8 Commands

These commands can be sent by USB (WinUSB-compatible interface), UART and I2C.

Note that the Commands (section 8) refer to operation using the optional Noritake original commands. These commands are not needed for, and have no affect on, usage of the standard HID protocol (i.e., these commands are not applicable for HID).

### 8.1 US P 01h n (Single-Touch Mode/ Multi-Touch Mode)

**Code:** 1Fh 50h 01h n

n: Select Single/ Multi Touch Mode and maximum simultaneous touch detection  
(for Multi-Touch Mode)

00h: Single-Touch Mode

01h ≤ n ≤ 0Ah: Multi-Touch Mode (n = maximum simultaneous touches)

Default = 00h

**Definable area:** 00h ≤ n ≤ 0Ah

**Function:** Selection Single/ Multi Touch Mode.

### 8.2 US P 20h m (Touch Panel Data Transmit ON/OFF)

**Code:** 1Fh 50h 20h m

m: Transmit ON/OFF

**Definable area:** m = 00h, 01h  
m = 00h: Transmit OFF  
m = 01h: Transmit ON

**Default:** m = 00h (Transmit OFF)

**Function:** Sets whether or not touch operation data is transmitted to the host.

When OFF, touch operation data is not placed in the transmit buffer.

### 8.3 US K 70h (Touch Parameter Setting)

**Code:** 1Fh 4Bh 70h a [b [c]]

a : parameter selection/ operation designation

b, c : value

**Definable area:**

- a = 00h : Threshold Setting ('c' not used)  
00h ≤ b ≤ FFh : threshold value
- a = 04h : Gain Setting ('c' not used)  
00h ≤ b ≤ 0Fh : gain value
- a = 06h : Touch Standard References Setting Procedure  
00h ≤ b ≤ FFh : Maximum allowable noise during measurement  
(Setting fails if noise on any channel exceeds this value)  
00h ≤ c ≤ FFh : Number of measurements to make
- a = 07h : Touch Standard References Usage (on/off) ('c' not used)  
00h ≤ b ≤ 01h : 00h (off), 01h (on)
- a = 08h : Touch Standard References Usage Status Read ('b', 'c' not used)

**Function:** Touch parameter setting.

Threshold and gain (a = 00h / a = 04h)

These commands are used for adjusting touch sensitivity.

Decreasing the threshold value increases sensitivity.

Increasing the threshold value reduces sensitivity.

Optimum gain value depends on the touch sensor construction. This should be left at the factory default value.

Settings take effect immediately, but they are not stored in non-volatile memory.

Touch Standard References related commands (a= 06h/ 07h/ 08h)

The Touch Standard References function is an optional function that can be used to help improve the reliability of touch detection with changing environmental conditions, such as water on the screen. In order to improve the reliability of touch detection using this function, it is necessary to execute "Touch Standard References Setting Procedure" once (see below) for each module and confirm the result is "success". To ensure that accurate reference values are measured, this command must be run in a controlled environment (for example, in the final stage of product assembly) with the product in its final form (mounting case, cover glass, etc), with no touches, moisture, or other foreign matter. If Touch Standard References have been successfully set as described above, the function can then be enabled with the "Touch Standard References Usage" command. If standard reference values are not set, or if "Touch Standard Reference Usage" has not been set to "on", this function is not used. (In this situation touch detection operates with base-level performance).

a = 06h: Touch Standard Reference Setting Procedure

In order to measure accurate reference values, this procedure must be run in a controlled environment (no touches, moisture, foreign objects, or excessive noise) with the product in its actual usage configuration (casing, cover glass, etc). When the Touch Standard References Setting Procedure command is executed, the touch panel is measured two (or more) times, and if the differences between the measurements (noise level) for all measurement points (channels) is less than b, the measurement is "successful". If exceeded for any channel, measurement is "failed". The noise level of the channel with the most noise and the x, y sensor position of that channel are provided in the response data.

If the measurement is successful, Touch Standard References Usage is set to "on". If it fails, it is set to "off".

The reference values are saved in the touch controller, but the Touch Standard Reference Usage setting is not saved, so it is necessary to issue the Touch Standard Reference Usage (on) command after a reset or restart.

## Response data (4 bytes)

00h NNh NXh NYh = Success (Noise is within the limit)

01h NNh NXh NYh = Failure (Noise limit exceed)

02h XXh XXh XXh = Failure (other problems / defects)

NNh = Noise value of noisiest channel

NXh = Noisiest channel X

NYh = Noisiest channel Y

Transmit data	Hex	Data length
Status	00h~02h	1 byte
NNh / XXh	00h~FFh	1 byte
NXh / XXh	00h~FFh	1 byte
NYh / XXh	00h~FFh	1 byte

a = 07h: Touch Standard Reference Usage (on / off) ('c' not used)

b = 00h: Off (Initial value)

b = 01h: On

Note: "On" setting has no effect if a valid reference values have not been stored in the touch controller using the above "Touch Standard References Setting Procedure" command.

a = 08h: Touch Standard Reference Usage Status Read ('b', 'c' not used)

Response data (1 byte): 00h = off 01h = on

Note: The following data will be transmitted from the interface that is currently enabled.

Transmit data	Hex	Data length
Data	00h/01h	1 byte

**8.4 US X n (Backlight Brightness Level Setting)****Code:** 1Fh 58h n

n: Brightness level setting

**Definable area:** 00h ≤ n ≤ FFh**Default:** n = FFh or Memory SW setting.**Function:** Set display brightness level.

$$\text{Brightness level} = (n / 255) \times 100 [\%]$$

**8.5 ESC @ (Initialization)****Code:** 1Bh 40h**Function:** Initialize all settings and restart with Memory SW settings.

Settings return to default values.

Contents of receive buffer remain in memory.

**8.6 US ( e 03h a b (Memory SW Setting)****Code:** 1Fh 28h 65h 03h a b

a: Memory SW Number

b: Setting data

**Definable area:****Single Memory SW setting:**

00h ≤ a ≤ 3Fh

00h ≤ b ≤ FFh

**Function:** Set Memory SW.

A single Memory switch can be set.

Single setting (a=00h–3Fh): a = Memory SW number, b = Setting value.

Memory SW details: Refer to section 11 Memory SW.

**8.7 US ( e 04h a (Memory SW Data Send)****Code:** 1Fh 28h 65h 04h a

a: Memory SW Number

**Definable area:**

Single Memory SW read:

00h ≤ a ≤ 3Fh

**Function:** Send the the contents of Memory SW data.

A single Memory switch can be read (a=00h–3Fh).

Single read (a=00h–3Fh): a = Memory SW number.

The following data is transmitted from the currently-active interface:

Transmitted data	Hex	Data length
(1) Header	28h	1 byte
(2) Identifier 1	65h	1 byte
(3) Identifier 2	04h	1 byte
(4) Data	00h–FFh	1 byte

Memory SW details: Refer to section 11 Memory SW.

## 8.8 US ( e 40h a [b c] ) (Product Status Send)

**Code:** 1Fh 28h 65h 40h a [b c]

**Definable area:** a = 01h, 02h, 10h, 11h, 20h, 30h, 40h, 41h  
 a = 01h: Boot version information (b, c not used)  
 a = 02h: Firmware version information (b, c not used)  
 a = 20h: Memory checksum information  
     00h ≤ b ≤ FFh: Start address (Effective address = b×10000h)  
     01h ≤ c ≤ FFh: Data length (Effective data length = c×10000h)  
 a = 30h: Product type information (b, c not used)  
 a = 40h: Display x pixel information (b, c not used)  
 a = 41h: Display y pixel information (b, c not used)

**Function:** Send display status information.

The following data is transmitted from the currently-active interface:

Transmitted data	Hex	Data length
(1) Header	28h	1 byte
(2) Identifier 1	65h	1 byte
(3) Identifier 2	40h	1 byte
(4) Data	00h–FFh	a = 01h: 4 bytes a = 02h: 4 bytes a = 20h: 4 bytes a = 30h: 15 bytes a = 40h: 3 bytes a = 41h: 3 bytes

## 9 Connectors

### 9.1 HDMI: CN1

Connector : TCX3253-611187(Type A) , or equivalent

Pin No.	Terminal	Content	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	CEC	Not used
5	TMDS Data1 Shield	-	14	Utility	-
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
			19	Hot Plug Detect	-

### 9.2 USB: CN2

Connector : ZX62-AB-5PA (Micro USB), or equivalent

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

### 9.3 UART, I2C: CN5

Connector : JST SM12GB-GHS-TB, or equivalent

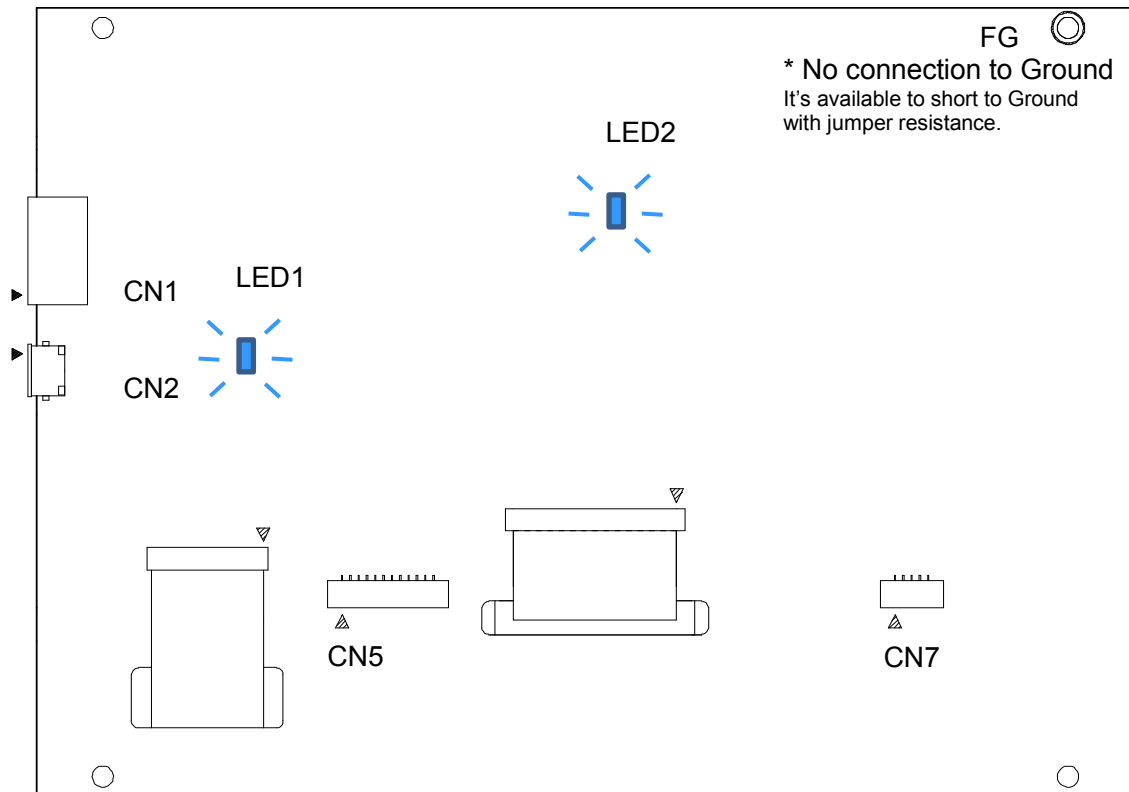
Pin No.	Terminal	Content
1	IC	Internal Connection
2	IC	Internal Connection
3	IC	Internal Connection
4	IC	Internal Connection
5	SDA	I2C clock
6	/IRQ	Interrupt output (I2C data available)
7	SCL	I2C data
8	/RESET	Reset input
9	NC	No Connection
10	GND	Ground
11	TXD	UART send
12	RXD	UART receive

### 9.4 Power connector: CN7

Connector : JST SM05B-GHS-TB, or equivalent

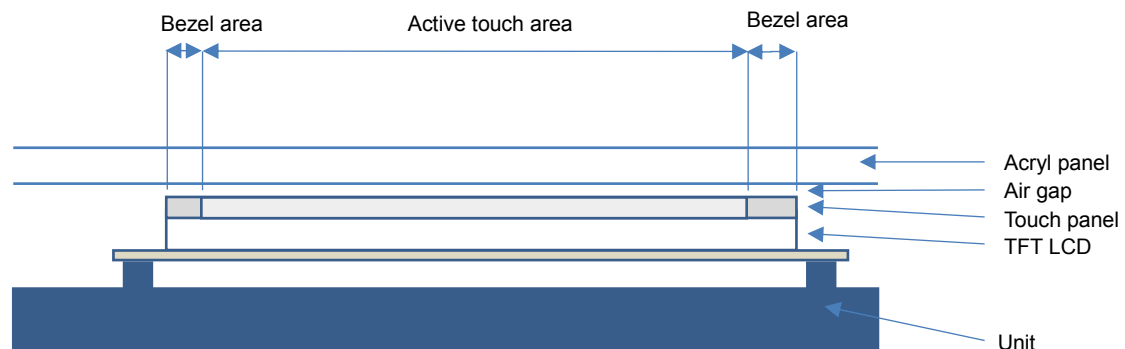
Pin No.	Terminal	Content
1	VCC	+5V
2	GND	Ground
3	VCC	+5V
4	GND	Ground
5	NC	No Connection

## 9.5 Connector and LED Position



## 10 Installation Method

Since the touch panel (FLETAS® touch panel) is made of thin glass and it is easy to break, be sure to protect with a cover lens when commercializing it. Because this touch panel is capacitive type, touch won't work if a conductive material is placed on the touch area or bezel area. Please use non-conductive material like an acrylic panel. An example is shown below.



Installation example

- Because edges and corners are sharp of the touch panel, please be careful with installation.
- If it gives a strong shock it may cause destruction.
- Do not hold the touch panel cable (FPC). Also, please do not install such as to stress the cable.



## 11 Memory SW

Switch No.	Function	Valid range	Default
0-4	Reserved	-	-
5	Brightness level setting	00h-FFh	FFh
6-45	Reserved	-	-
46	I2C slave address setting for HID (*2)	08h-77h, FFh (invalid)	51h
47	I2C slave address setting for GT-series commands	00h, 08h-77h, 88h-F7h (*1)	50h
48	UART Baud rate setting 00h: 38400bps (default) 01h: 4800bps 02h: 9600bps 03h: 19200bps 04h: 38400bps 05h: 57600bps 06h: 115200bps	00h-06h	00h
49	UART Parity 00h: None 01h: Even 02h: Odd	00h-02h	00h
50-57	Reserved	-	-
58	Touch sensitivity (signal gain) setting (*3)	00h-0Fh	06h
59	Touch sensitivity (threshold) setting	00h-FFh	50h
50-63	Reserved	-	-

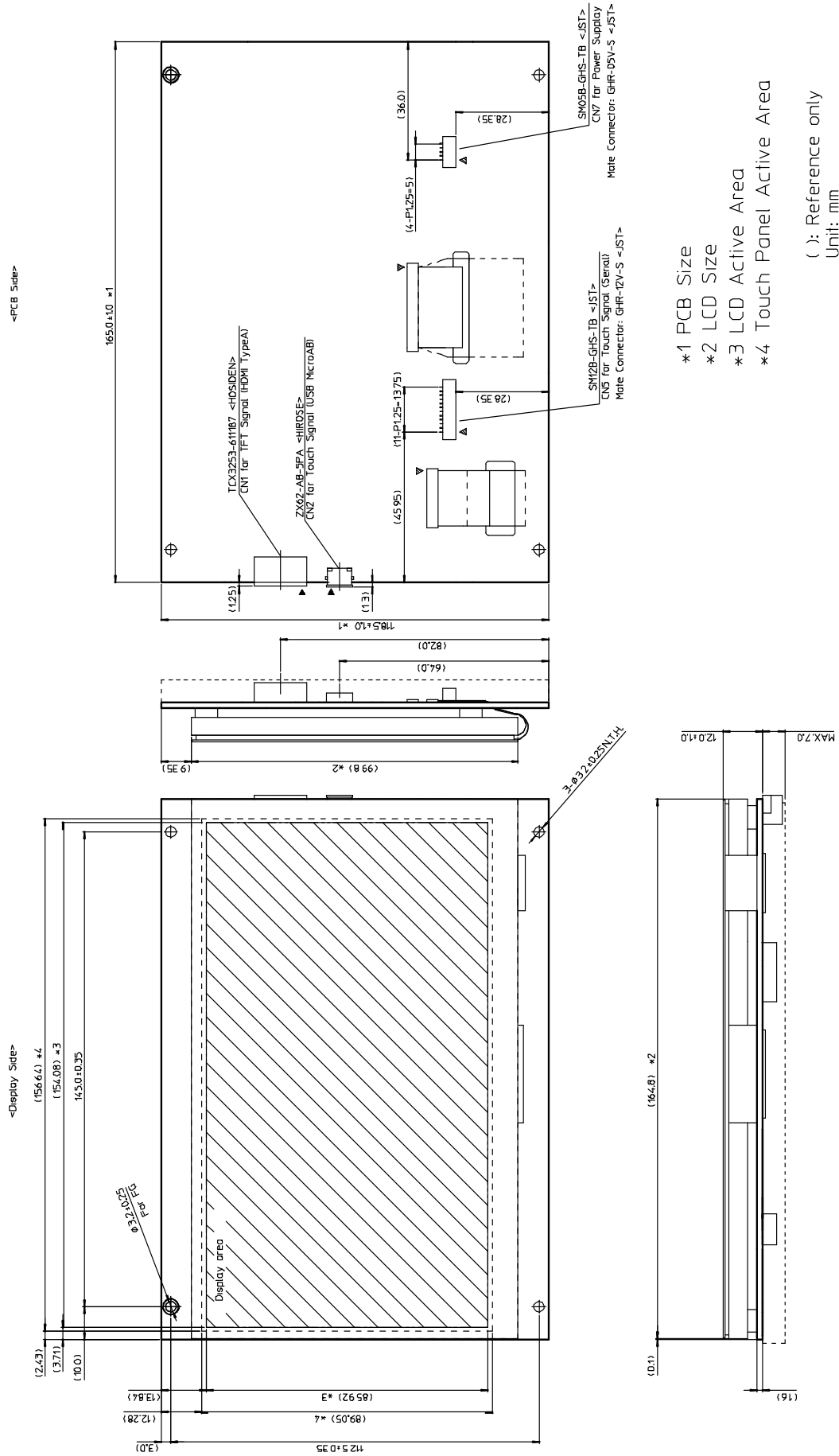
Note: Module operates with default value if Memory SW value is outside the valid range.

\*1: If bit 7 is '1', this product will also respond on the General call address (00h).

\*2: If MSW46 value is the same with MSW47 value, MSW47 becomes invalid, and MSW46 takes precedence.

\*3: In principle, MSW 58 should not be changed from default value (06h), touch sensitivity adjustment should adjust with threshold only.

12 Outline



DS-2013-0100-01

**Revision history**

Spec.No.	Date	Revision
DS-2013-0000-00	Aug. 31, 2017	Initial issue