TM104D6XUC

10.4 inch Infrared Touch Screen
With USB Interface Touch Controller

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02. 2038. 8570

Our Signature	Design	checked	Approved

For Customer Approval			

Please return one of these to us immediately with your Signature for Approval

A4 (210mm×297mm)

Important Information

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Safety precautions

The safety recommendations outlined in this section are to be read, understood and followed before operating the product.

Keep this information in a safe place for future reference.

Failure to comply with any of the following safety procedures could result in serious hazard.

- Do not operate product for any purposes other than its intended use.
- This product is intended for indoor use only.
- Do not operate product if power supply is damaged in anyway.
- Do not insert objects into openings.
- Do not immerse product in water or permit liquids to spill inside.

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Revision History

Rev	Date	Description	Remark
01	2009,2,10	Start	Ver 01

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Contents

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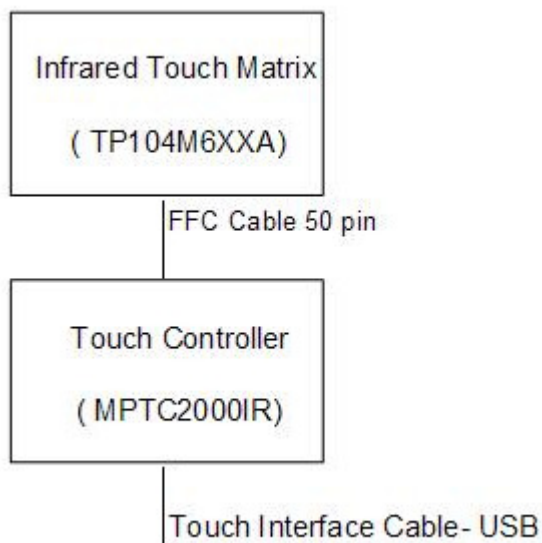
1. Generals

1.1 Overview

This manual is written to describe the model TM104D6XUC – 10.4inch Infrared touch screen.

It refers to the general specification, connector functions and dimension.

Please contact us for more information on this product.

1.2 Features

- Infrared interruption detecting system with infrared sensors
- Input Mode: Finger, gloved hand or other stylus activation
-

2. System Block Diagram
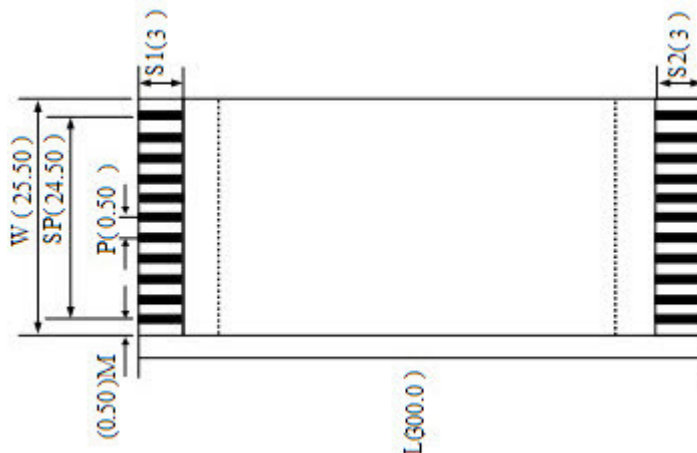
The operating signal follows the diagram below.

Infrared Touch Matrix

(TP104M6XXA)

FFC Cable 50 pin

Touch Controller

(MPTC2000IR)

Touch Interface Cable- USB

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3. Specifications

3.1 Touch Module (TP104M6XXA + Mechanic)

Item	Description
Detection	Infrared interruption detecting system with infrared sensors
Outline	258.8(H) x 206.2(V) x 10 (D) ㎜
Detection Area	209(H) x 158(V) ㎜ (Diagonal 10.4'')
An optical element Space	6.0(H) × 6.0(V) ㎜
The number of optical elements	35(H) × 26(V) pcs
Touch plate	Standard) Tempered glass (4T) Option 1) Anti Glare Acryl (4T)
Scanning Rate	Normal Mode : 20msec (Typ) Sleep Mode : 50msec (Typ)

3.2 Touch Controller Board (MPTC2000IR) – USB

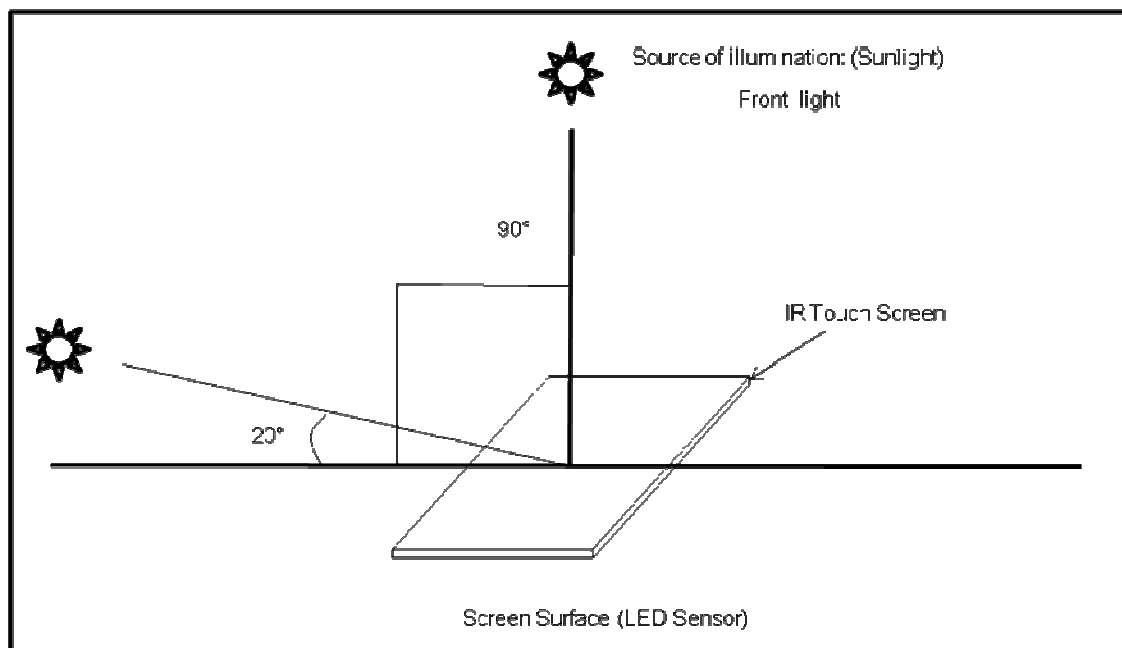| Item	Description
Interface	USB
Signal	D+ , D- , VBUS, GND
Speed	12MBps (Full Speed)
Transfer Mode	Interrupt Mode

3.3 FFC Cable (HSBH505005A-0150)

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3.4 Touch Interface Cable   (HSDI041001A-1800)

빨간색   1
2
3
4
5
6
USB_VBUS (1)   7

1		USB_VBUS (1)	7
2	흰색	USB_D-	8
3	초록	USB_D+	9
4	검정색	GND	10

Cable 길이 : 1800mm ±10mm
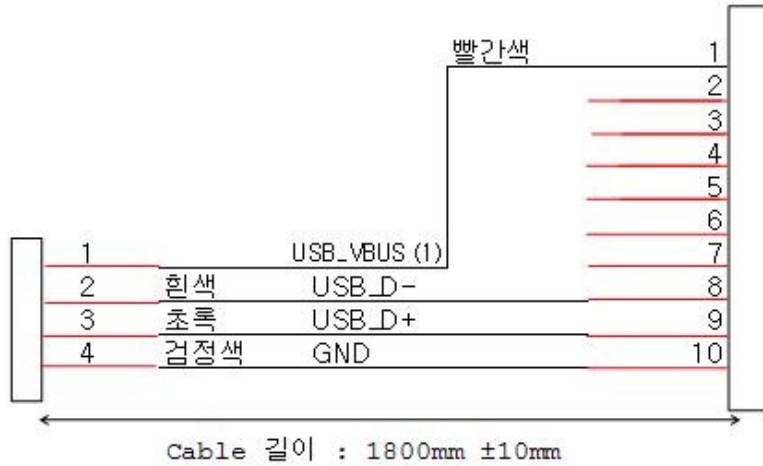
4. Electrical & Environmental

Item	Description
Supply voltage	5 Vdc ± 10%
Power consumption	2 [Watt] = Controller + Touch Modulel (Typically)
Temperature	Operation : 0 ~ 40℃ Storage : -10 ~ 50℃
Humidity	Operation : 0 ~ 90% Storage : 0 ~ 95%
Resistance of ambient light	Side light 5,000 Lx (incident angle 20°) Front light 60,000 Lx (incident angle 90°)

Source of illumnation: (Sunlight)
Front light
90°
IR Touch Screen
20°
Screen Surface (LED Sensor)

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5. Interface (Connector)

5.1 CN3 – External PWR & RS-232 & USB Type (Molex : 53261-10) - Standard
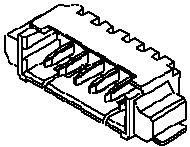
Pin No	Description	Refer
1	**Vpp (5Vdc) - Input USB_VBUS (1)**	Option 1) - RS232C Standard) - VBUS Line Available (@ USB) - (#1 : ON, #7 : OFF)
2	NC(RS-232_TxD)	Option 1) - RS232C
3	NC(RS-232_RxD)	Option 1) - RS232C
4	NC	
5	NC (GND)	Common
6	NC	
7	NC(USB_VBUS (2))	Option 2) - VBUS Line Available (@ USB) - (#1 : ON, #7 : ON) - Alternative
8	**USB_D-**	Standard) - USB
9	**USB_D+**	Standard) - USB
10	**GND**	Common

6. Dimension & View

6.1 Touch Module (TP104M6XXA + Mechanic)
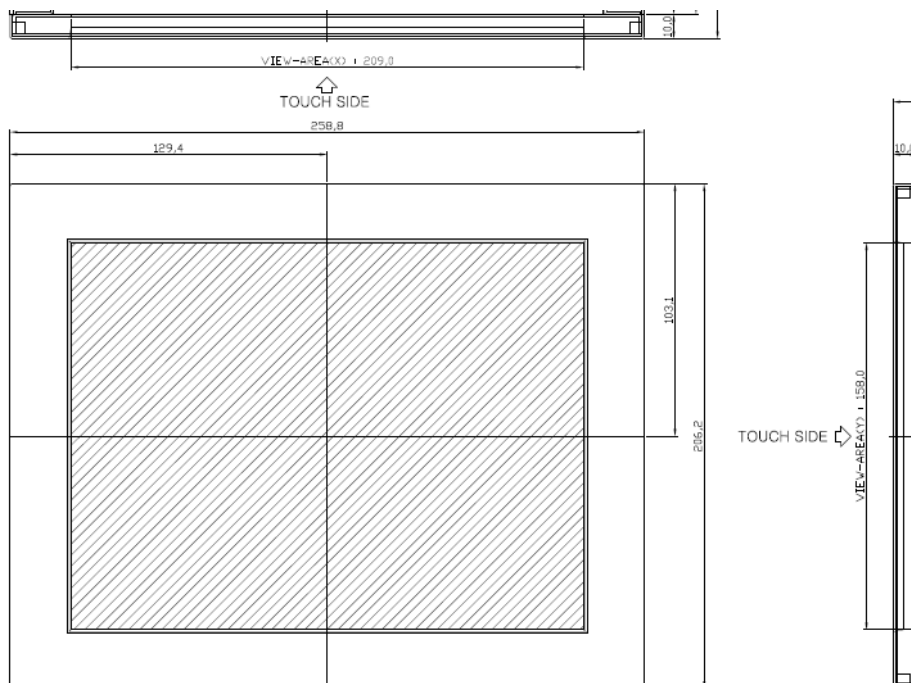
6.2 Touch Module (TP104M6XXA + Mechanic),Touch Controller (MPTC2000IR),
FFC Cable (HSBH505005A-0150) & Touch Interface Cable (HSDI041001A-1800)

7. Serial Number Identification

1) Touch Module (TP104M6XXA + Mechanic)
The serial number shall be indicated on the back of the unit.

> yymm-ppp-vv-nnnn
>
> yy : year
> mm : month
> ppp : part number (107)
> vv : version
> nnnn : number of products produced

2) Touch Controller B/D (MPTC2000IR)

> yymm-ppp-b-nnnn
> yy : year
> mm : month
> ppp : part number (107)
> b : Inner Construction Code (B)
> nnnn : number of products produced

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8. Caution

In order to maintain superior performance for the life of this product, customers are advised to maintain the following guidelines:

8.1 Storage
- Do not store the product in humidity or temperature ranges exceeding those listed above.
- Do not store products out of original packaging.
- Do not expose product to direct sunlight.

8.2 Unpacking
- Do not attempt to dismantle or repair.

8.3 Handling
- Do not use product for any purpose outside its intended use.*
- Do not operate product if power supply is damaged in anyway.
- Do not insert objects into openings.
- Do not immerse product in water or spill liquids inside.
- Turn off power when unattended or not in use.
- Do not by the sharp edge on the screen.
- Do not stock product outside of packaging.
- Clean the screen with alcohol and a soft lint-free cloth**.

    * This product is not intended for outdoor use.
    ** Do not allow alcohol to spill inside the product.

8.4 Assembling
- Avoid extreme pressure on the product.
- Avoid unnecessary strain to cables & connectors

9. Warranty

This product manufactured to this specification should be capable of meeting all characteristics for 12 Months from the delivery date of Hwayoung Systems Co., Ltd. when stored and used as specified in this document.
Use of this product outside the specified criteria herein will negate the 12 Months warranty
The damages (defaults) described below are NOT covered under the warranty.

- User fault through lack of care.
- User fault through intentional dismantle or attempted repair.
- Damage caused by natural disaster. (Fire, Flood, Earthquake, Lightening, etc.)
- Replacement of any parts.

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