NEXT VISION DISPLAY

SPECIFICATION

Next Vision Display
Brighten The Future

CUSTOMER : _____

MODULE NO.: NT104-C001VX

Version	1.0
Engineering	Kent Wu
Date	2019/03/20

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1. Application

Projected Capacitive Touch Panel can be used on electronic devices, e.g. Panel PC, Vehicle Display and Instrument, as an input device. It senses the alternation of capacitance value to measure input points, and coordinates with software to perform single or multi-touch function.

2. General Specification

No	Item	Specification	Remark
1	Touch Panel Size	10.4 inch (Diagonal)	
2	Touch Panel Type	Projected Capacitive Type	
3	Structure	Cover Glass + Sensor Glass + FPCA	
4	Sensor Active Area	213.2 (W) x 160.4 (H) mm	
5	Touch Panel Outline	241.8 (W) x 189 (H) x 2.525(D) mm	
6	Controller Type	USB interface 6Pin Rectangular connector	
7	Surface Treatment	Chemical strengthened	Note2
8	Weight	TBD	+/- 5%

Note1: Please refer to mechanical drawing.

Note2: CS(Compressive Stress)≧300mpa, Dol≧8um.

According to Orihara FSM-6000.

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3. Connection

3.1 Pin Definition

Pin No.	Symbol	Description	Remark
1	Shielding	Shielding Pin	Note2
2	NC	No Connection	
3	D+	Differential “1”	Note1
4	D-	Differential “0”	
5	VDD 5V	Power Supply 5V	
6	GND	Power Ground	

Note1: NVP104-14U06P1-A02 provides USB interface to communicate with host system.

Note2: Please connect Shielding Pin to system ground or earth ground, for better noise resistance performance.

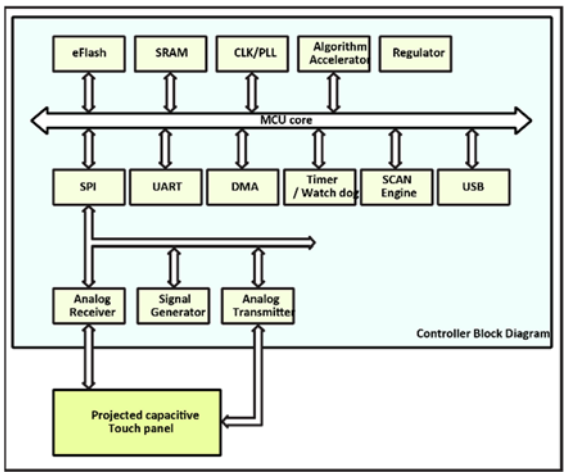
3.2 User interface

Item	Description	Remark
User Connector	Molex 537800670	6pin Male connector
Input	Finger or Stylus	Stylus ≧Ø8
OS supported	Windows 8, Windows 7 Linux, Android	HID Device

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3.3 Touch Controller

Main chip: EXC3146



Controller Block Diagram

1. General Description

1.1 Overview

The LCM is a color active matrix thin film transistor (TFT) liquid crystal display (LCD) that uses amorphous silicon TFT as a switching device. It is composed of a TFT LCD panel, a backlight system, column driver and row driver circuit. This TFT LCD has a 10.4-inch diagonally measured active display area with resolution (1024 horizontal by 768 vertical pixels array).

1.2 Feature

- 10.4” TFT LCD Panel
- LED Backlight System
- Supported 1024x768 pixels resolution
- Compatible with RoHS Standard
- Viewing Direction: 6 o’ clock (Gray Inversion)
- With LED Driving Board

1.3 General Specifications

No	Item	Specification	Unit	Remark
1	Display Size	10.4inch (Diagonal)		
2	Active area	211.2 (W) x 158.4(H)	mm	Note 1
3	Pixel Format	1024 x R.G.B x 768		
4	Pixel Pitch	0.24(H) x 0.24(V)	mm	
5	Pixel Arrangement	R.G.B Vertical Stripe		
6	Display Mode	Normal White		
7	White Luminance	1000 (Typ.)	cd/m2	
8	Contrast Ratio	900 : 1 (Typ.)		
9	Response Time	16 (Typ.)	msec	
10	Input Voltage	3.3	V	.
11	Weight	290 (Max.)		
12	Outline Dimension	236 (W) x 179.9 (H) x 5.7 (D)	mm	Note 1
13	Input Interface	LVDS		
14	Support Color	16.7M / 262K		
15	Surface Treatment	Anti-Glare		

Note1: Please refer to mechanical drawing.

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2. Pin Assignment

2.1 TFT LCD Module

Pin No	Symbol	Function	Polarity	Remark
1	VCC	Power Supply +3.3V (Typ.)		
2	VCC	Power Supply +3.3V (Typ.)		
3	VSS	GND		
4	REV	Reverse Scan Control.		Note1
5	Rin1-	LVDS Differential Data Input	Negative	
6	Rin1+	LVDS Differential Data Input	Positive	
7	VSS	Ground		
8	Rin2-	LVDS Differential Data Input	Negative	
9	Rin2+	LVDS Differential Data Input	Positive	
10	VSS	Ground		
11	Rin3-	LVDS Differential Data Input	Negative	
12	Rin3+	LVDS Differential Data Input	Positive	
13	VSS	Ground		
14	CLKLN-	LVDS Differential Data Input	Negative	
15	CLKLN+	LVDS Differential Data Input	Positive	
16	GND	Ground		
17	Rin4-	LVDS Differential Data Input		
18	Rin4+	LVDS Differential Data Input		
19	SEL68	LVDS 6/8 bit select function control. H→ 8bit Input Mode L/NC → 6bit Input Mode		
20	Bist	Internal use		

Note1: About REV Please refer ;

Note2: All input signals shall be low or Hi-resistance state when VDD is off.

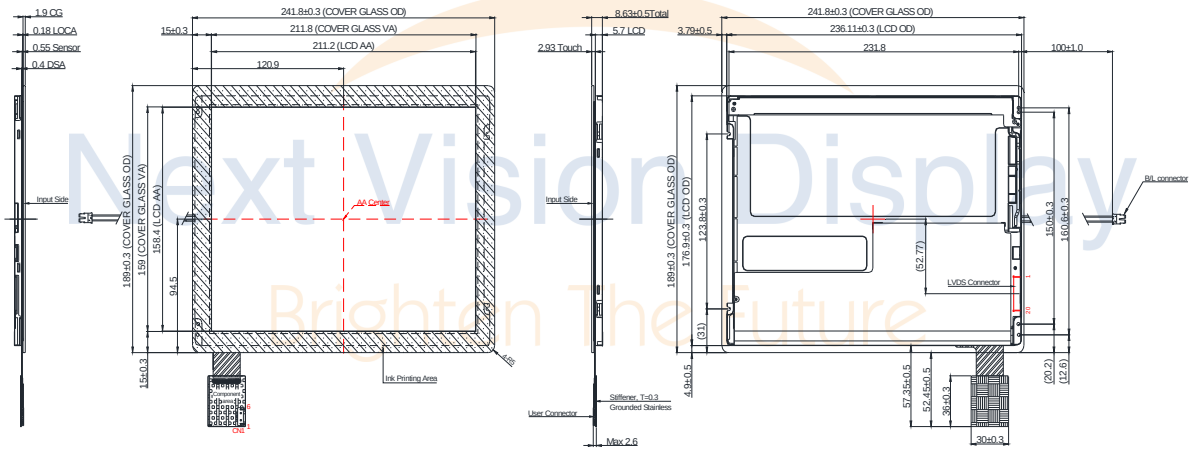
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Part C: Assembled Drawing

USB PIN DEFINE (CN1)	
PIN1	SHIELDING
PIN2	NC
PIN3	D+
PIN4	D-
PIN5	VDD
PIN6	GND

FRONT VIEW

BACK VIEW



Note:
1. Operating Temperature: -20~70
2. Storage Temperature: -30~80
3. Touch type: PCAP MultiTouch
4. Touch Surface: CS, >=7H
5. Touch Printing: Black
6. Touch Interface: USB
7. LCD Resolution: 1024x768
8. LCD Brightness: 900nits (typ., measured with Touch)
9. LCD View Angle: 75/75/75/75
10. LCD Interface: LVDS 6 / 8 bits
11. Structure: PCAP Touch + TFT LCD



LED Driver Board

LED Driving PIN DEFINE (CN2)	
PIN1	VIN
PIN2	LED_EN
PIN3	GND
PIN4	PWM

DRAWING NO.	BD-104-190328-1			VER.	DATE	OLD DESCRIPTION	NEW DESCRIPTION
PRODUCT NAME	10.4" Pcap Touch w/ TFT-LCD						
PART NO.	NT104-C001VX	SHEET	1 of 1				
DRAWN	KEITH HUNAG	SCALE	1:1				
APPROVED		VERSION	A				

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