

# NEOLEC INTERNATIONAL INC.

## 產品承認書 Product Approval Sheet

客戶/Customer: \_\_\_\_\_

產品名稱/Product name: 觸控控制板  
Touch Control Board

產品型號/Product Code: NLPCA-NEL133-5xx

### Customer

本承認書若貴公司確認無誤，懇請於下方確認欄內簽章寄回  
Please confirm your acceptance of this approval sheet by return fax.

Approval	Comment

### Neolec

Approved by	Reviewed by	Prepared by

# Reversion History

<b>Version</b>	<b>Date</b>	<b>Contents</b>
<b>00</b>	<b>2014/02/19</b>	<b>Initial Release.</b>

# Firmware Confirmation

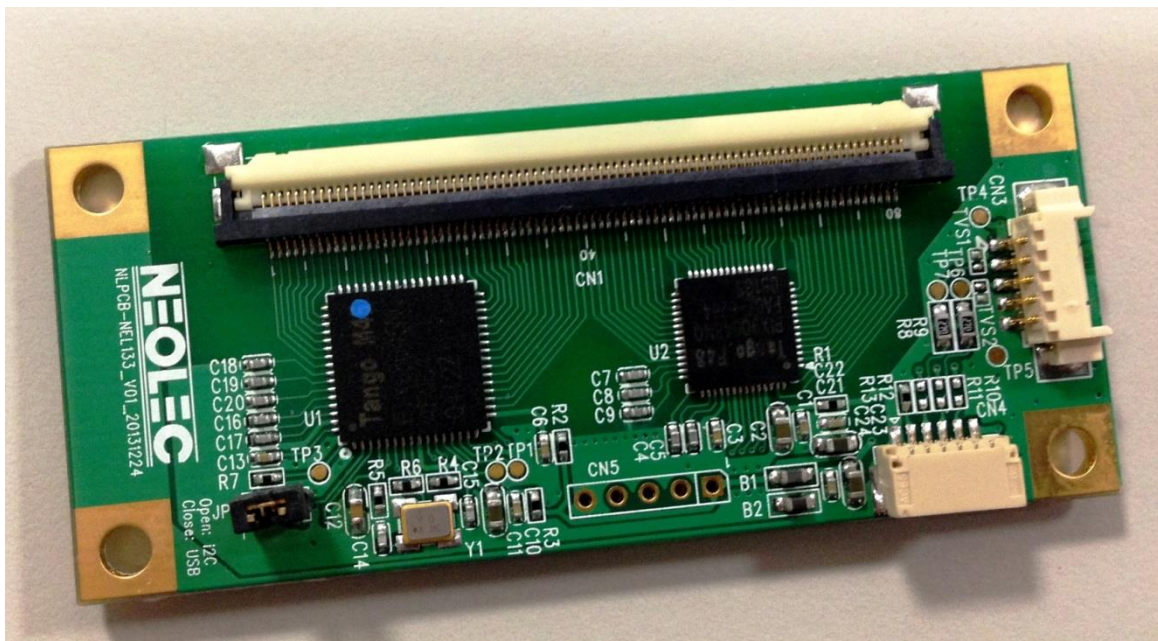
Customer Project Name:	
Touch Panel Vendor:	
Touch Panel Part Number:	
Touch Panel Structure:	
Firmware Version:	
Firmware File Name:	
Checksum:	
Programming Marking:	



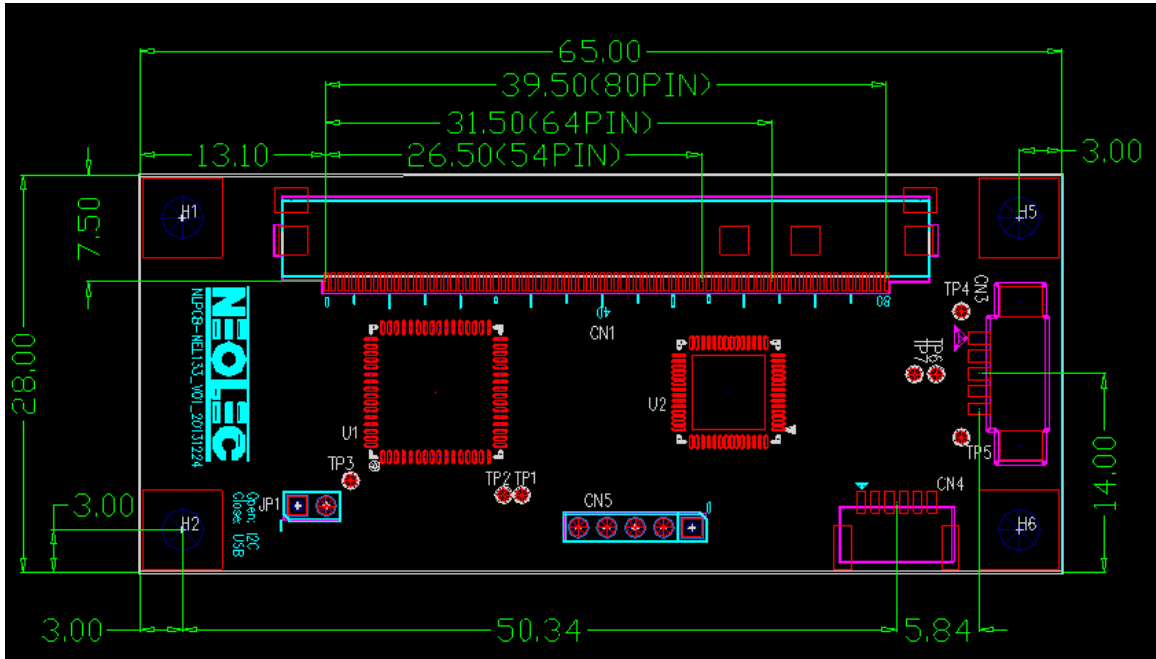
# Projected Capacitive USB / I<sup>2</sup>C Touch Panel Controller

OS	Version	Interfaces
<b>Windows</b>	Windows 7, Windows 8 Windows XP WinCE 5.0/6.0 Windows Embedded Windows XP Tablet PC edition	USB
<b>Linux</b>	up to Kernel 2.6.28 ~ 3.0.8	USB or I2C

*Controller:*



# NLPCA-NEL133-5xx



## ***Thickness:***

Total thickness: 8.7mm ± 0.2mm

- PCB: 1.6mm
- USB connector: 3.45mm
- Jumper: 5.8mm
- Soldering pin: 1.3mm

## NLPCA-NEL133-5xx

### Specifications:

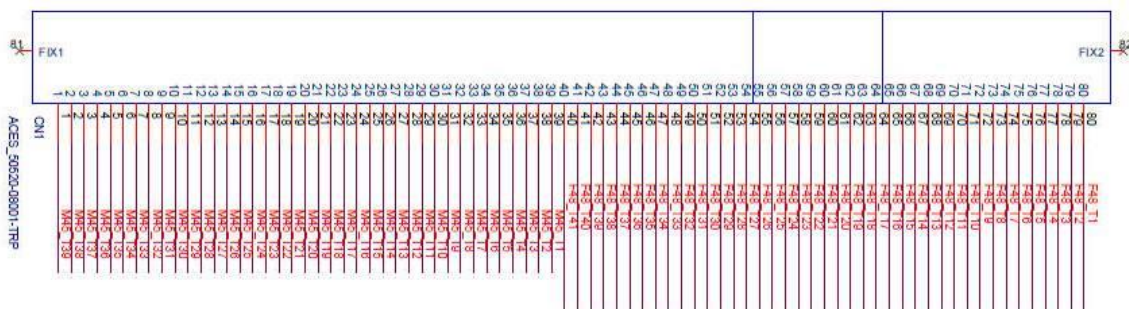
<i>USB / I2C Type Controller</i>	
Circuit Board Dimension	65mm x 28mm
Channels of Panel	Max. X + Y = 80ch. (dummy pin included)
Input Voltage	USB→5V, I2C→5V
Operating Temperature	-20 to 85 °C
Storage Temperature	-40 to 90 °C
Relative Humidity	T = 60°C, RH = 85%
Linearity(Note 1)	Line drawing accuracy: 1pt +/- 1mm Line drawing accuracy: 2pt +/- 2mm Touch (point) accuracy: 1pt +/- 2.5mm Touch (point) accuracy: 2pt +/- 5.0mm Refer to Windows 7 Logo regulation
Interface	USB( JP1 Closed ) I2C( JP1 Open, Open-Drain )
Resolution	1920x1080 resolution(Adjustable)
Power consumption(mA)	Active Mode: Typ.28mA(USB) Sleep Mode: Typ.0.058mA(USB)
Report rate(points/sec) (Note 2)	Single touch: Typ.150 Hz Dual touch : Typ.150 Hz 5 point touch: Typ.80 Hz
Response time	Max.20 ms

**Note 1: Channel pitch should be 5mm ~ 8mm**

**Note 2: Report rate depends on Sensor resistance, channel number, cover thickness and other parameters**

## NLPCA-NEL133-5xx

### *FPC Connector Pin Assignment (Adjustable)* *CN1 Connector (80 pin, Pitch 0.5mm)*



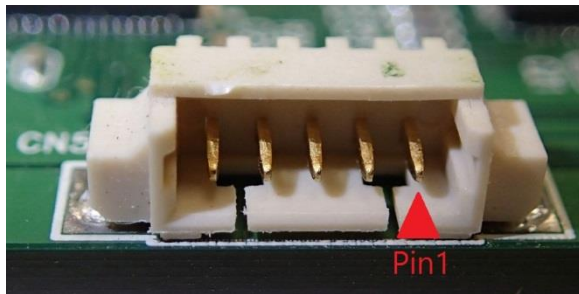
Pin No.	CN3	PIN No.	CN3	PIN No.	CN3	PIN No.	CN3
1	Trace	21	Trace	41	Trace	61	Trace
2	Trace	22	Trace	42	Trace	62	Trace
3	Trace	23	Trace	43	Trace	63	Trace
4	Trace	24	Trace	44	Trace	64	Trace
5	Trace	25	Trace	45	Trace	65	Trace
6	Trace	26	Trace	46	Trace	66	Trace
7	Trace	27	Trace	47	Trace	67	Trace
8	Trace	28	Trace	48	Trace	68	Trace
9	Trace	29	Trace	49	Trace	69	Trace
10	Trace	30	Trace	50	Trace	70	Trace
11	Trace	31	Trace	51	Trace	71	Trace
12	Trace	32	Trace	52	Trace	72	Trace
13	Trace	33	Trace	53	Trace	73	Trace
14	Trace	34	Trace	54	Trace	74	Trace
15	Trace	35	Trace	55	Trace	75	Trace
16	Trace	36	Trace	56	Trace	76	Trace
17	Trace	37	Trace	57	Trace	77	Trace
18	Trace	38	Trace	58	Trace	78	Trace
19	Trace	39	Trace	59	Trace	79	Trace
20	Trace	40	Trace	60	Trace	80	Trace

**Trace could be defined to Sensor pin or Dummy pin by F/W**  
**Max. X + Y = 80ch. (Sensor pin + Dummy pin)**

## NLPCA-NEL133-5xx

### *Wire To Board Connector Pin Assignment:*

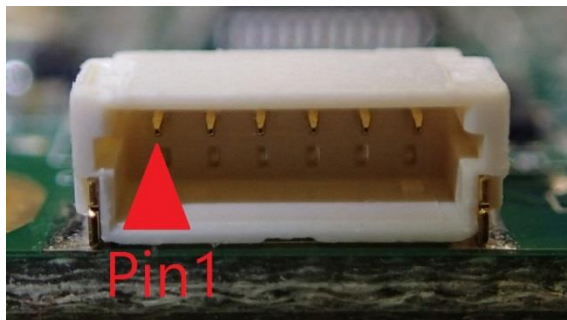
*CN3 Connector – USB interface (5 Pin, Pitch 1.25mm):*



### *USB pin define*

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5
5V	USB D-	USB D+	GND	NC

*CN4 Connector - I<sup>2</sup>C interface (6 Pin, Pitch 1.0mm, H-Type):*



### *I<sup>2</sup>C pin define*

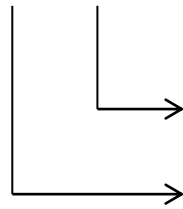
Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6
GND	RST/GPI	INT	SCL	SDA	5V



# NLPCA-NEL133-5xx

## *Ordering Information*

NLPCA-NEL133-x x x



Control Code

Interface

0 : USB

2 : I<sup>2</sup>C

5 : USB + I<sup>2</sup>C( Standard )