

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-NEL320-0xx

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

Version	Date	Contents
00	2013/10/18	Initial Release.
01	2013/12/18	Revise the range of Operating Temperature from -40 ~ 85°C to -30 ~ 85°C.

Firmware Confirmation

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



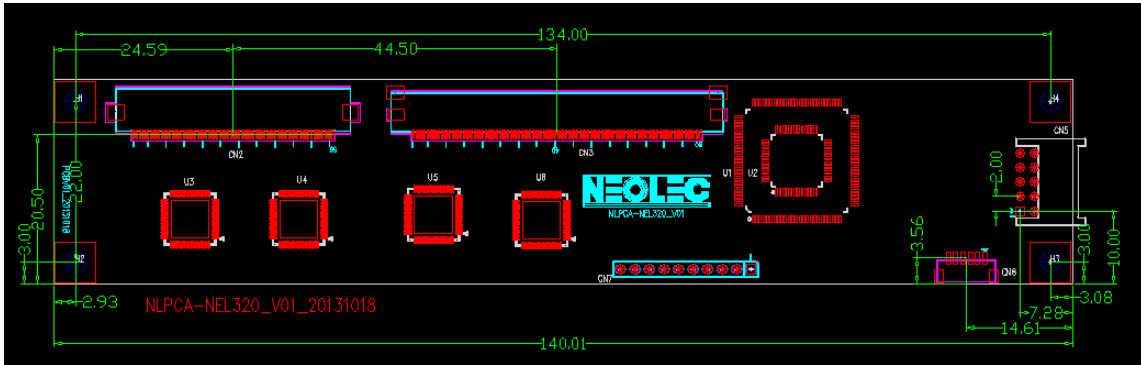
Projected Capacitive USB / RS232 / I²C Touch Panel Controller

OS	Version	Interfaces
Windows	Windows 7, Windows 8 Windows XP WinCE 5.0/6.0 Windows Embedded Windows XP Tablet PC edition	USB RS232(Option)
Linux	up to Kernel 2.6.28 ~ 3.0.8	USB RS232(Option) I2C(Option)

Controller:



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Thickness:

Total thickness: 8.0mm ± 0.2mm

- PCB: 1.6mm
- USB/RS232 connector: 5.1mm
- Soldering pin: 1.3mm

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Specifications:

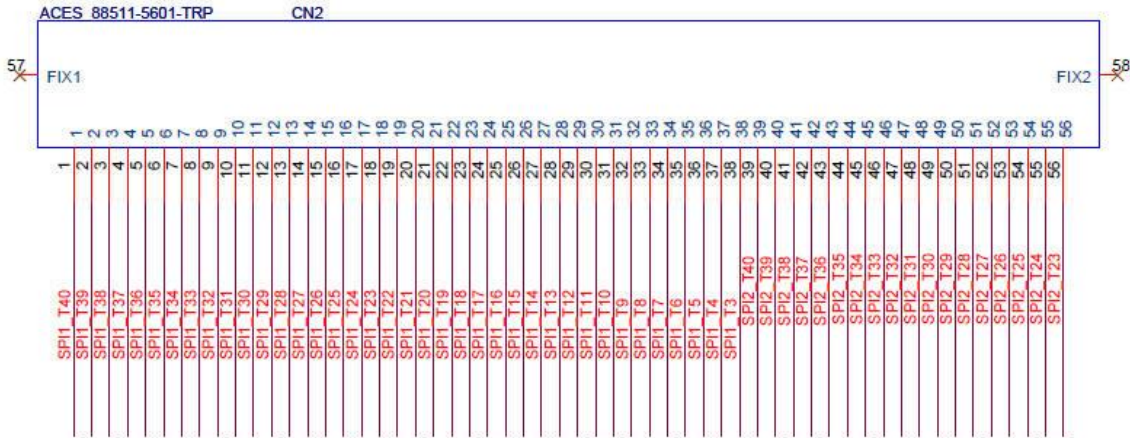
USB / RS232 / I²C Type Controller	
Circuit Board Dimension	134mm x 28mm
Channels of Panel	Max. Y=56 (dummy pin included) Max. X=80 (dummy pin included)
Input Voltage	USB→5V, I ² C→5V, RS232→5V
Operating Temperature	-30 to 85 °C
Storage Temperature	-40 to 90 °C
Relative Humidity	T = 60°C, RH = 85%
Linearity(Note 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 I ² C(Option, Open-Drain) RS232(Option)
Resolution	1920x1080 resolution(Adjustable)
Power consumption(mA)	Active Mode: Max. 44mA(USB) Sleep Mode: Max. 1.07mA(USB)
Report rate(points/sec) (Note 2)	Single touch: Typ.150Hz Dual touch : Typ.150Hz 5 point touch: Typ.100Hz
Response time	Max. 20ms

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

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

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FPC Connector Pin Assignment CN2 Connector (56 pin, Pitch 0.5mm)

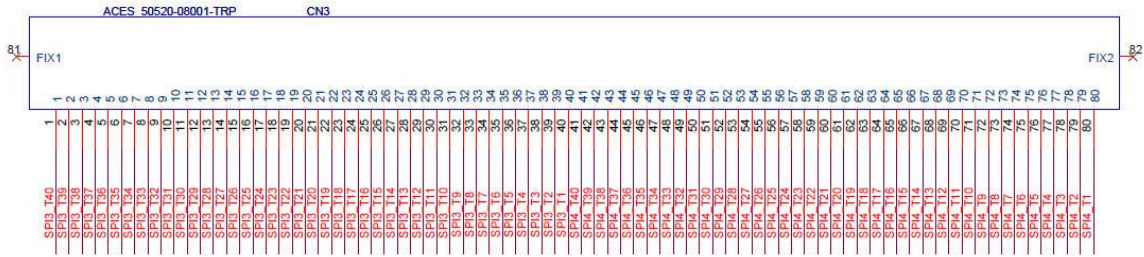


Pin No.	CN2	PIN No.	CN2	PIN No.	CN2
1	Y Trace	21	Y Trace	41	Y Trace
2	Y Trace	22	Y Trace	42	Y Trace
3	Y Trace	23	Y Trace	43	Y Trace
4	Y Trace	24	Y Trace	44	Y Trace
5	Y Trace	25	Y Trace	45	Y Trace
6	Y Trace	26	Y Trace	46	Y Trace
7	Y Trace	27	Y Trace	47	Y Trace
8	Y Trace	28	Y Trace	48	Y Trace
9	Y Trace	29	Y Trace	49	Y Trace
10	Y Trace	30	Y Trace	50	Y Trace
11	Y Trace	31	Y Trace	51	Y Trace
12	Y Trace	32	Y Trace	52	Y Trace
13	Y Trace	33	Y Trace	53	Y Trace
14	Y Trace	34	Y Trace	54	Y Trace
15	Y Trace	35	Y Trace	55	Y Trace
16	Y Trace	36	Y Trace	56	Y Trace
17	Y Trace	37	Y Trace		
18	Y Trace	38	Y Trace		
19	Y Trace	39	Y Trace		
20	Y Trace	40	Y Trace		

**Y Trace could be defined to Sensor pin or Dummy pin by F/W
Max. Y = 56ch. (Sensor pin + Dummy pin)**

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CN3 Connector (80 pin, Pitch 0.5mm)



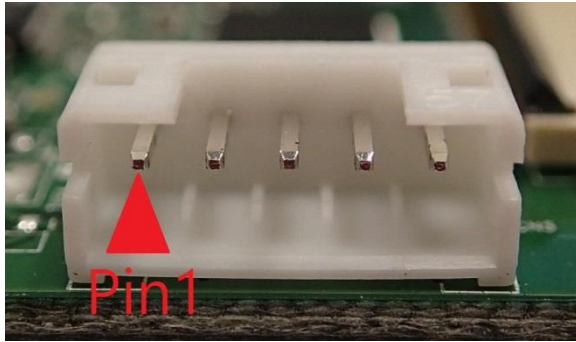
Pin No.	CN3	PIN No.	CN3	PIN No.	CN3	PIN No.	CN3
1	X Trace	21	X Trace	41	X Trace	61	X Trace
2	X Trace	22	X Trace	42	X Trace	62	X Trace
3	X Trace	23	X Trace	43	X Trace	63	X Trace
4	X Trace	24	X Trace	44	X Trace	64	X Trace
5	X Trace	25	X Trace	45	X Trace	65	X Trace
6	X Trace	26	X Trace	46	X Trace	66	X Trace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

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

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Wire To Board Connector Pin Assignment

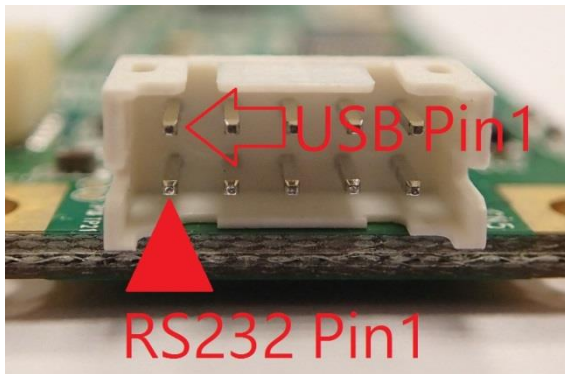
*CN5 Connector - USB interface (1*5 Pin, Pitch 2.0mm):*



USB pin define

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

*(Option) CN5 Connector - USB&RS232 interface (2*5 Pin, Pitch 2.0mm):*



USB pin define

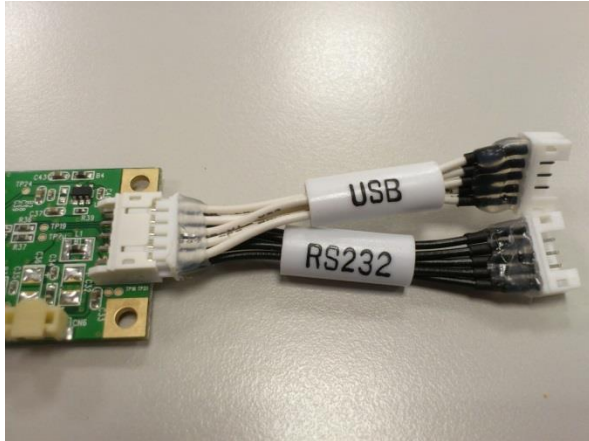
Pin 1(1)	Pin 2(3)	Pin 3(5)	Pin 4(7)	Pin 5(9)
GND	5V	GND	USB D+	USB D-

RS232 pin define

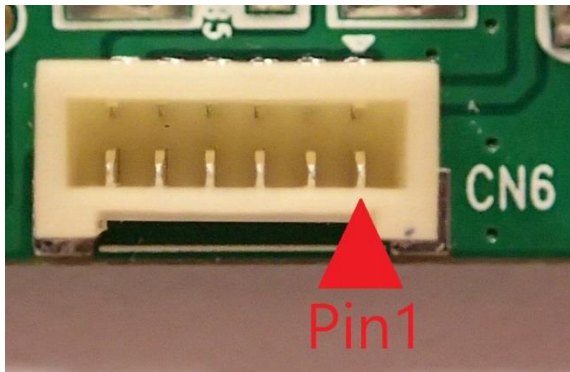
Pin 1(2)	Pin 2(4)	Pin 3(6)	Pin 4(8)	Pin 5(10)
GND	5V	GND	RS232 Tx	RS232 Rx

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(Option) USB/RS232 Combo Y Cable



(Option) CN6 Connector - I²C interface (6 Pin, Pitch 1.0mm, V-Type):



I²C pin define

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

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Ordering Information

NLPCA-NEL320-x x x

