

# Projected Capacitive Specification

RTPC R Line

External Controller Board

RTPC-CTRLS31-8056-R

Version 1.0

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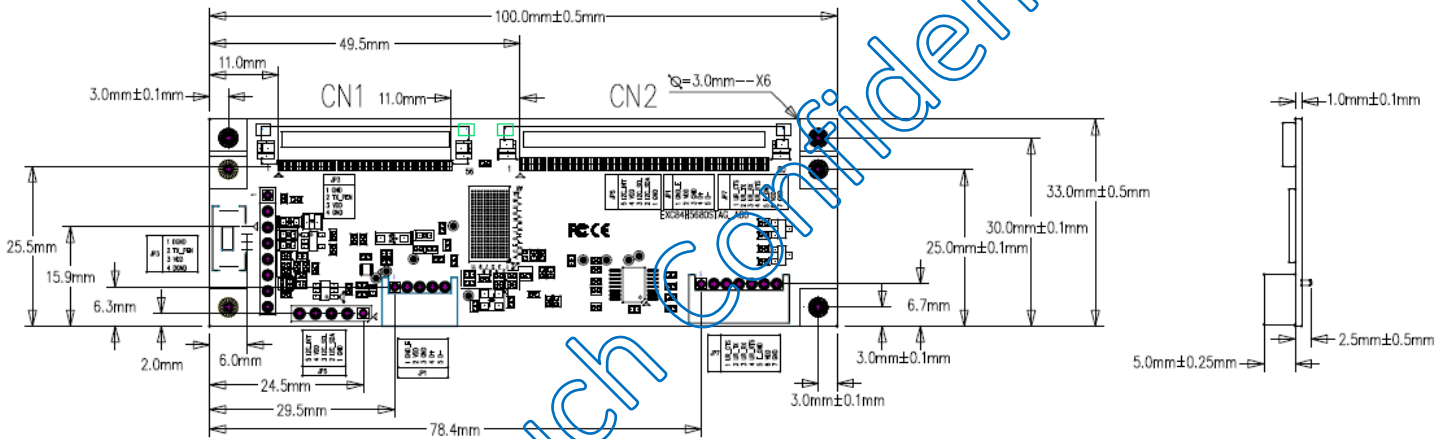
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## 1. Controller Introduction

This touch panel controller provides the optimistic performance of your projected capacitive touch panels. It communicates with PC system directly through USB/RS-232 connector. You can see how superior the design is in sensitivity, accuracy and friendly operation. The touch panel driver emulates mouse left and right button function and supports different operation systems.

## 2. Touch Screen Controller Drawing



### Thickness:

Total thickness: 7.5mm ± 0.2mm

(Including PCB: 1.0mm ± 0.1mm. USB/RS232 connector: 5.0mm. Soldering pin: 1.5 mm)

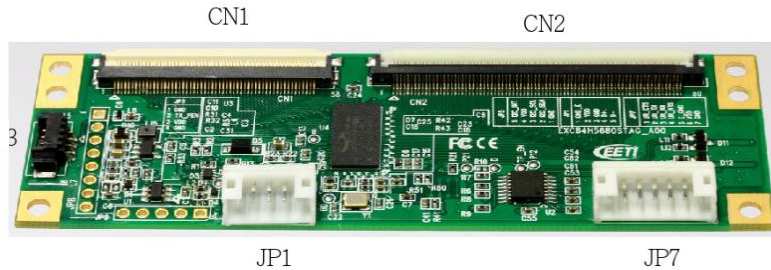
### 3. Controller Introduction

USB/RS232 Type Controller	
Circuit Board Dimension	33mm x 100mmx7.5mm
Channels of Panel	Max. Tx:48 Rx:80 channels (exclude shielding pin)
Input Voltage	3.5V~5.5V. Typical 5V.
Operating Temperature	-40 to 85 °C
Storage Temperature	-40 to 90 °C
Relative Humidity	95% at 60 °C, RH Non-condensing
Linearity ( <u>Note 1</u> )	Line drawing accuracy : 1pt +/- 1mm offset /10mm Touch (point) accuracy : 1pt +/- 1mm
Interface	USB: 2.0 Compliant Full Speed with LPM L1 supported UART: Non parity, 8 data bits, 1 stop bit, baudrate 115200 bps
Resolution	16384x16384 resolution
Power consumption(mA)	Active Mode: < 90mA Idle Mode : depends on firmware
Report rate(points/sec) ( <u>Note 2</u> )	> 100 Hz
Response time	Average < 25 ms

*Note 1: This data is the best possible but depending by Touch Screen Pattern Design, if patter design is to support thick glass the offset and accuracy will be lower*

*Note 2: Report rate will vary by channel number, cover thickness and other parameters.*

## 4. FPC Connector Pin Assignment



### FPC Pin Description

CN1					
PIN		PIN		PIN	
1	NC	21	TX34	41	TX9
2	NC	22	TX33	42	TX8
3	NC	23	TX32	43	TX7
4	NC	24	TX31	44	TX6
5	NC	25	TX30	45	TX5
6	NC	26	TX29	46	TX4
7	NC	27	TX28	47	TX3
8	NC	28	TX27	48	TX2
9	TX_S1	29	TX26	49	TX14
10	TX35	30	TX25	50	TX13
11	TX34	31	TX24	51	TX12
12	TX33	32	TX23	52	TX11
13	TX32	33	TX22	53	TX10
14	TX31	34	TX21	54	TX1
15	TX30	35	TX20	55	TX0
16	TX29	36	TX19	56	TX_S0
17	TX28	37	TX18		
18	TX27	38	TX17		
19	TX26	39	TX16		
20	TX25	40	TX15		

CN2							
PIN		PIN		PIN		PIN	
1	RX_S1	21	RX58	41	RX38	61	RX9
2	RX77	22	RX67	42	RX37	62	RX8
3	RX76	23	RX56	43	RX36	63	RX7
4	RX75	24	RX55	44	RX35	64	RX6
5	RX74	25	RX54	45	RX34	65	RX5
6	RX73	26	RX53	46	RX33	66	RX4
7	RX72	27	RX52	47	RX32	67	RX3
8	RX71	28	RX51	48	RX31	68	RX2
9	RX70	29	RX50	49	RX30	69	RX18
10	RX69	30	RX49	50	RX29	70	RX17
11	RX68	31	RX48	51	RX28	71	RX16
12	RX67	32	RX47	52	RX27	72	RX15
13	RX66	33	RX46	53	RX26	73	RX14
14	RX65	34	RX45	54	RX25	74	RX13
15	RX64	35	RX44	55	RX24	75	RX12
16	RX63	36	RX43	56	RX23	76	RX11
17	RX62	37	RX42	57	RX22	77	RX10
18	RX61	38	RX41	58	RX21	78	RX1
19	RX60	39	RX40	59	RX20	79	RX0
20	RX59	40	RX39	60	RX19	80	RX_S0

### Connector Pin Configuration

JP1	
1	GND_E
2	VDD
3	GND
4	D+
5	D-

JP7	
1	UR_CTS
2	UR_TX
3	UR_RX
4	UR_RTS
5	GND_E
6	VDD
7	GND_E

## 5. Operating System Support

OS	Version	Interfaces
<b>Windows</b>	Windows 10 IOT (#1) / Windows 10 / Windows 8 / Windows 7 Windows Vista / Windows 2000 / Windows XP (#1: Windows 10 IOT: support it with inbox driver only) (#2: I2C interface: need additional system configuration)	USB / RS232  I2C (#2)
<b>Win CE</b>	Win Embedded Compact 2013 / Win Embedded Compact 7 WinCE 6 / WinCE.Net	USB / RS232
<b>Linux</b>	CentOS, Debian, Fedora, Gentoo, Mandrake (Mandriva), Meego, Red Hat, Slackware, SuSE (OpenSuSE), Ubuntu (Xubuntu) and Yellow Dog etc. <i>Support most 32/64 bit Linux distribution versions, including Kernel 2.6.x / 3.x.x / 4.x.x</i>	USB / RS232  I2C
<b>Android</b>	Android 2.3 to latest version	USB / I2C
<b>Mac</b>	OSX 10.7.5 to 10.12	USB
<b>QNX</b>	RTOS V6.3 to V6.6	USB/ I2C

## 6. Accessories

### **A- USB Male Cable (P/N ETP-CB-SXU00)**



### **B- RS-232 Cable (P/N ETP-CB-SXR17)**

