Specification of Resistive Controller Board & User Manual

Customer：

Model：Onetouch-RC-3000

Date：

Version：

Acceptance Sheet			
Onetouch Technologies Co., Ltd. (Supplier)		(Purchaser)	
Date	Approval Signature	Date	Approval Signature

SPECIFICATION REVISION RECORD

Customer ： **Issue Date ：**
Customer NO.： **Model ：**

NO.	Version	Issue Date	Summary of Changes	Page

＜Remarks＞

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Note ! !

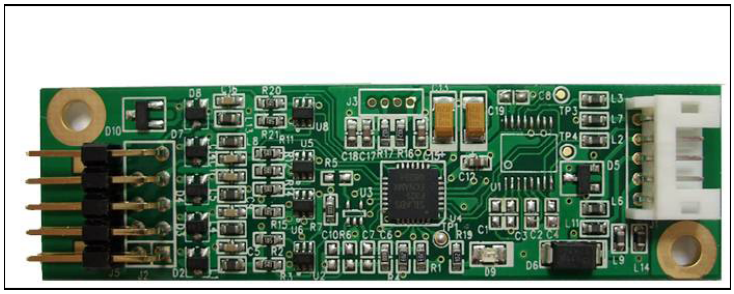
Please avoid using it on the products correlated with the human life. (For example: Medical apparatus, universe apparatus, plane, seafloor relay apparatus,etc. needs high trusting thing)

If consider applying to the control of transporting apparatus (train, automobile, boat) or as correlated security, please tell to seller in advance. The quality of this product is used in general products mainly (Computer, OA machine, FA machine, communication apparatus, measurement apparatus, AV machine,etc.)

＊ The content of this specifications might change without a previous notice.

Onetouch Resistive Controller Board

Setup and Users Manual



This Specifications of Controller is applied for 4/5 wires Resistive Touch

☐ Name

1. Onetouch-RC-3000: 4 wires +5Wires & USB interface Combo

☐ Specifications of the Onetouch Touch controller including as following:

- Electrical
- Environmental
- Physical Characteristics
- Electrical

Supply Voltage and Current

Input Voltage +5 VDC, normal (+4.75 to +5.25 VDC).

- 16 MA, typical at +5 VDC. Average power consumption (@ stand by mode) is 0.08 W, typical.
- Supply must be capable of sourcing 100 MA, minimum.
- Total noise and ripple requirement must be less than 100 mV (p-p) for frequencies below 1 MHz, and less than 50 mV (p-p) for frequencies above 1 MHz.

Interfac

- USB
  - HID 1.1 compatible full speed.
  - Support suspend and remote wakeup capability.

Operating

- Drawing mode
- Button mode

Touch Resolution

- Report 4096x4096, size independent

Conversion Time

- USB: Max. 250 Points/Sec(pps), typical 200pps

Serial Communication Protocol

- HID 1.1: Default for USB.

Reliability

- MTBF greater than 300,000 hours per MIL-HDBK-217-F2 using the parts stress calculationmethod for ground benign environment with an ambient temperature of 25°C

Environmental

Temperature

- Operating: 0°C to 70°C
- Storage: -40°C to 85°C

Humidity

- Operating: 10% to 90% RH, non-condensing
- Storage: 10% to 90% RH, non-condensing

Shock and Vibration

- Three axis sine wave, 50 Hz to 2kHz, 1 G, 2 minutes/Octave with dwell on resonance

ESD

- Per EN 6100-4-2 1995: Level 4. Contact discharge 8kV, air discharge 15kV.

Flammability

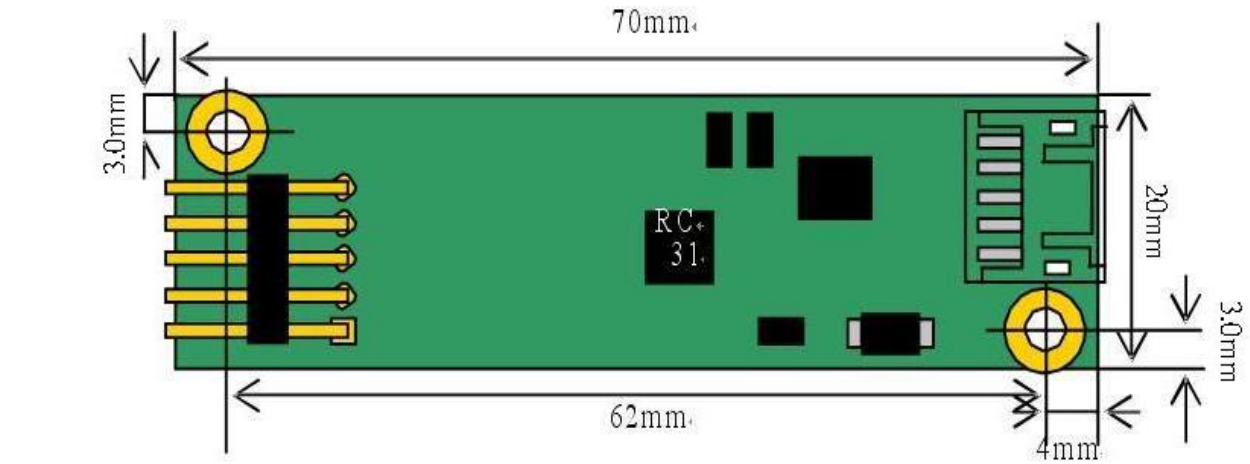
- The printed circuit board substrate is rated 94V0. All plastic components, such as headers and connectors, are also rated 94V0.

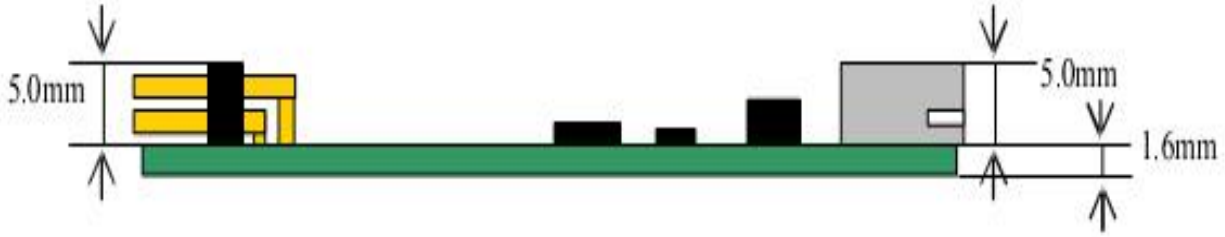
Physical Characteristics

Construction

- Two-layers surface-mount design.

Dimensions





- Total Width: 20 mm
- Total Length: 70 mm(including connector)
- Total height: 8.5mm
- All mounting holes are plated through for chassis ground connection.

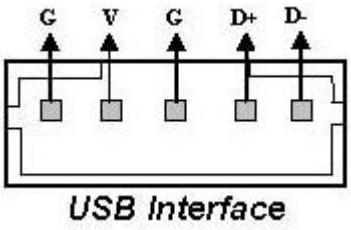
Connectors and Pin Definitions

- The connector configuration permits the controller to be placed in-line between the touch screen and serial I/O attachments.

USB connector, and signal descriptions

The serial I/O connector, J1, is a tow-rows by 10-pins header with pins spaced on 2.00mm centers. Refer to the following figure for pin number locations.

Figure 1. Pin diagram for USB connector, J1, as viewed from connector mating surfaces

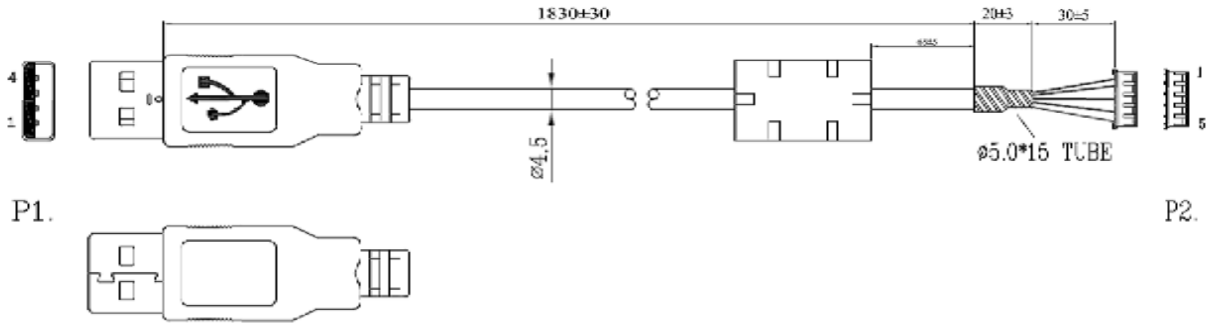


USB Interface

Signal definition for USB interface, RC-3000		
Signal Name	**J1 pin**	**SignalFunction**
D-	5(high)	USB bus signal D-
D+	4(high)	USB bus signal D+
G	3(high)	signal ground
V	2(high)	+5V power drain from host USB port
G	1(high)	signal ground

Table 1. Host Connector, J1, signal names and functions

※ USB Cable connection(for RC-3000):



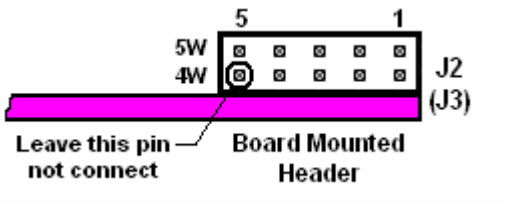
PIN ASSIGNMENT

USB AM		HOUSING
1	RED	4
2	WHITE	1
3	GREEN	2
4	BLACK	3
SHIELD		5

Touch screen connector, J2(90° dual row) and signal descriptions

The touch screen connector, J2(J3 for Onetouch-RC-3000), is a dual row by five-position header with 0.025-inch square pins spaced on 0.100 centers. 5W sensor must be connected to the upper row of the connector. 4W sensor must be connected to the low row of the connector. The pins are numbered as shown in the figure.

Figure 2. Pin diagram for touch screen connector, J2(J3 for AIM-RC-3000), as viewed from connector mating surfaces



The 5 Wire Touch screen connector, J2(J3 for Onetouch-RC-3000) upper row, and signal descriptions

※ Note : Pin 5,4,2,1 can be redefinition using ***autodetect.exe*** utility software.

Signal name	J2(J3) pin	Signal function
LR(Y-)	5	Connect to touch screen Lower Right Conner of glass layer
LL(X-)	4	Connect to touch screen Lower Left Conner of glass layer
WIPPER	3	Connect to touch screen film layer
UR(Y+)	2	Connect to touch screen Upper Right Conner of glass layer
UL(X+)	1	Connect to touch screen Upper Left Conner of glass layer

Table 2. Touch screen connector, J2(J3) upper row, pins and signal names.

The 4 Wire Touch screen connector, J2(J3) lower row, and signal descriptions

※ Note : Pin 4,3,2,1 can be redefinition using ***autodetect.exe*** utility software.

Signal name	J2(J3) pin	Signal function
None	5	Leave this pin not connect.
Y-	4	Connect to 4 Wire touch screen Y-
X-	3	Connect to 4 Wire touch screen X-
Y+	2	Connect to 4 Wire touch screen Y+
X+	1	Connect to 4 Wire touch screen X+

Table 3. Touch screen connector, J2(J3) lower row, pins and signal names