

# **ATouch Technologies Co., Ltd.**



Specification of  
5 Wire Analog Resistive  
USB Control Board  
Model No. : 5WRUSBL



## A. Application

This specification applies to the following

**USB Control Board for 5 Wire Analog Resistive Touch Panel.**

**Model No. : 5WRUSBL**

## B. Environmental Conditions

**1. Operating Temperature Range**

-10°C ~ 60°C

**2. Operating Temperature Humidity**

5% to 95% RH (no dew falls)

**3. Storage Temperature Range**

-25°C ~ 85°C

**4. Storage Temperature Humidity**

5% to 95% RH (no dew falls)

**5. Shock and Vibration**

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

**6. Flammability**

The PCB substrate and all plastic components, such as headers and connectors are rated UL 94 V0.

## C. Electrical Characteristics

**1. Power Requirement**

+5V DC ( ±10%)

**2. Power Consumption**

Operating : 80~90mA

Non-operating : 120~130 mA

Max. current : 140mA

Min. current : 80mA

**3. Expend Power**

124 mA



## 5 WIRE ANALOG RESISTIVE USB CONTROL BOARD

### 4. Interface

USB 1.1

Plug and play compatible

### 5. Electrostatic Protection

Per EN 61000-4-2, 1995 : Meets Level 4  
(15 kV air / 8 kV contact discharges).

### 6. Touch Resolution

4096x4096

### 7. Conversion Time

Approximately 10 ms per coordinate set.

## D. Mechanical Characteristics

### 1. Dimensions

PCB board outside dimension : 84 (L) x 53 (W) x 12 (H) mm.

Mounting hole located 4mm horizontally and vertically inside each corner. Refer to Appendix A

### 2. Standard Cables, Connectors and Pin Definitions

- Standard external USB cable connecting the controller with the computer USB port. Refer to Appendix B.
- USB Output Connector : JUSB  
Mini USB 4 Pin Female SMD A Type connector on board for connection with USB port.  
Refer to Appendix B.
- Touchscreen Connector : J5W  
1x5 male header with pins on 2.54mm centers for connection with the touch panel.  
Refer to Appendix C.



### E. Software Driver

Under Windows : Mouse emulation.

Support Operating System

- Microsoft Windows NT4.0/XP/2000/ME/98/95
- Linux : Red Hat 9.0, Mandrake 10.0, SuSE9.2, Fedora Core I &II & III, Yellow Dog 3. x

### F. Reliability

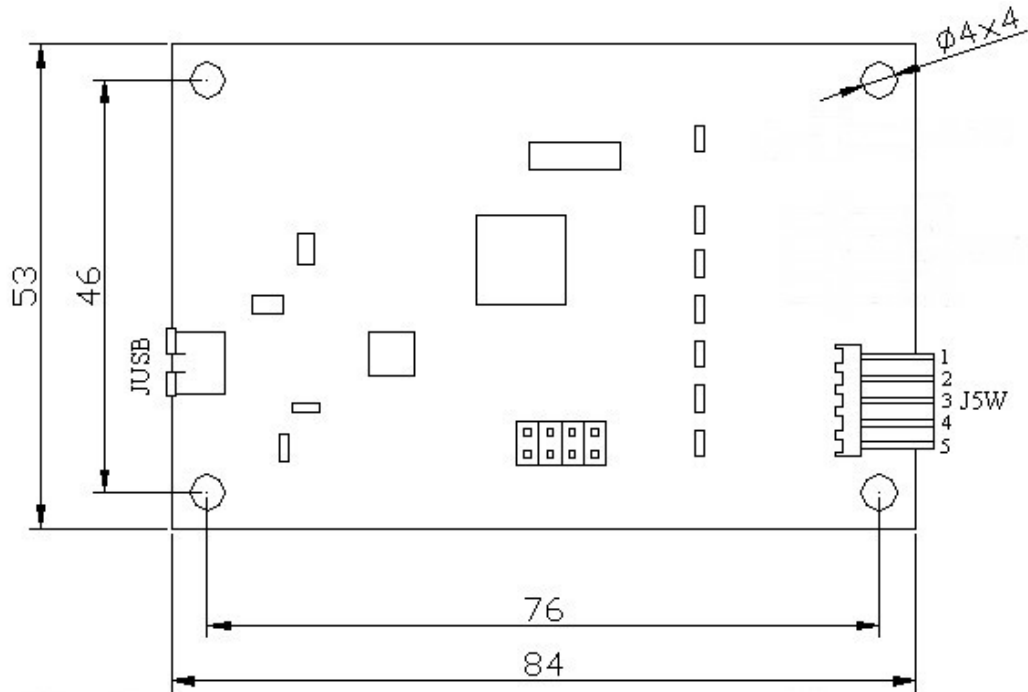
The following characteristics are generated by evaluating test samples after 2 hours leaving in the room condition when each of the reliability tests finishes.

Test Item	Result	Remark
Storage Temperature-high	85°C for 240hours	At ambient humidity
Storage Temperature-low	-25°C for 240hours	
Thermal Shock	-10°C (1 hr.)~ 60°C (1 hr.) 10cycles	
High Temp./Humidity Test	60°C/95%RH : 240hours	



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## Appendix A Dimension Drawing



Unit : mm



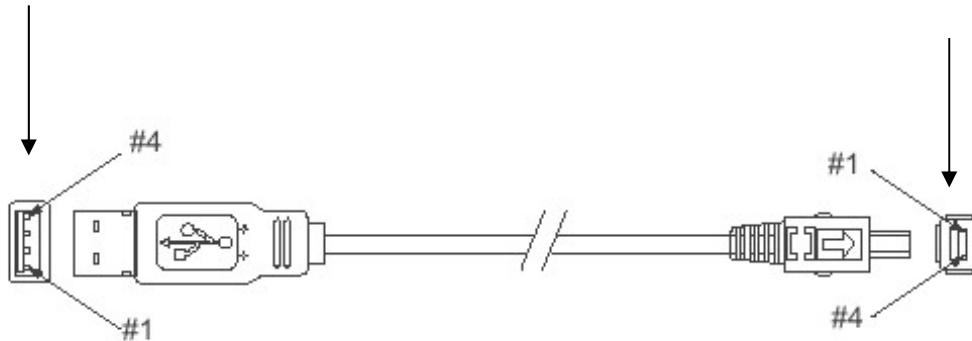
## Appendix B Standard External USB Cable

### USB Output Connector : JUSB

P2 PC USB port

P1 Mini USB 4 Pin Female SMD

A Type connector on board : JUSB



Mini USB cable with 4 position male

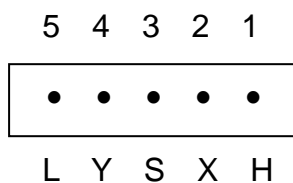
Contact Position

P2		P1
4	-----	1
3	-----	2
2	-----	3
1	-----	4

JUSB, pins and signal names

Pin	Signal Name
1	GND
2	D+
3	D-
4	Vcc

## Appendix C Touchscreen Connector : J5W



J5W Touchscreen Connector Pin Positions, End View