

ATouch Technologies Co., Ltd.



Specification of 5 Wire Analog Resistive USB Control Board



A. Application

This specification applies to the following

USB Control Board for 5 Wire Analog Resistive Touch Panel.

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 x 53 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 9.1

F. Reliability

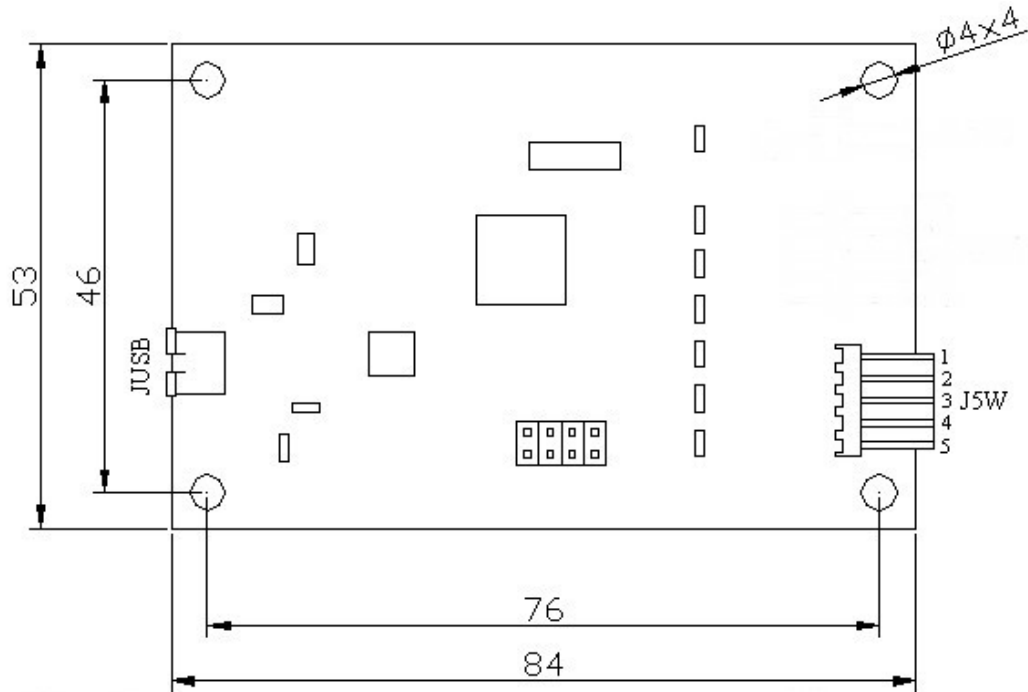
The following characteristics are generated by evaluating test samples after 2 hours leaving in the room condition when each of the reliability tests finishes.

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	



5 WIRE ANALOG RESISTIVE USB CONTROL BOARD

Appendix A Dimension Drawing





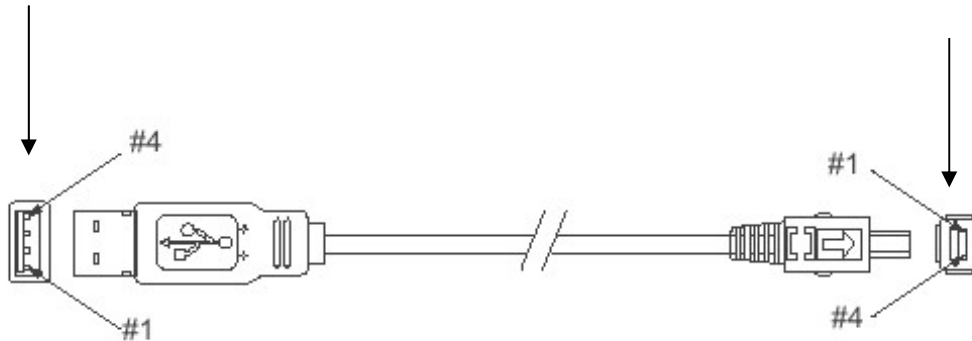
Appendix B Standard External USB Cable

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

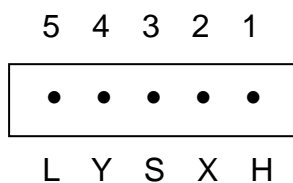
Contact Position

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