

ATouch Technologies Co., Ltd.



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



A. Application

This specification applies to the following

USB Control Board for 5 Wire Analog Resistive Touch Panel.

Model No. : 5WRUSBS

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 : 55 (L) x 22.5 (W) x 11 (H) mm.

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 : P2

2.0 pitch 4 pin connector on board for connection with USB port.

Refer to Appendix A.

- Touchscreen Connector : P3

1x5 male header with pins on 2.54mm centers for connection with the touch panel.

Refer to Appendix A.



E. LED Diagnostic Characteristics

A green LED indicates controller status as follows:

Action & Condition	LED status	Function
The control board is connected with host, not touch panel yet.	Light continuously	The control board is normal condition.
No touch	Snuff out	Untouched state
Touch	Light	Touched state

F. Software Driver

Under Windows : Mouse emulation.

Support Operating System

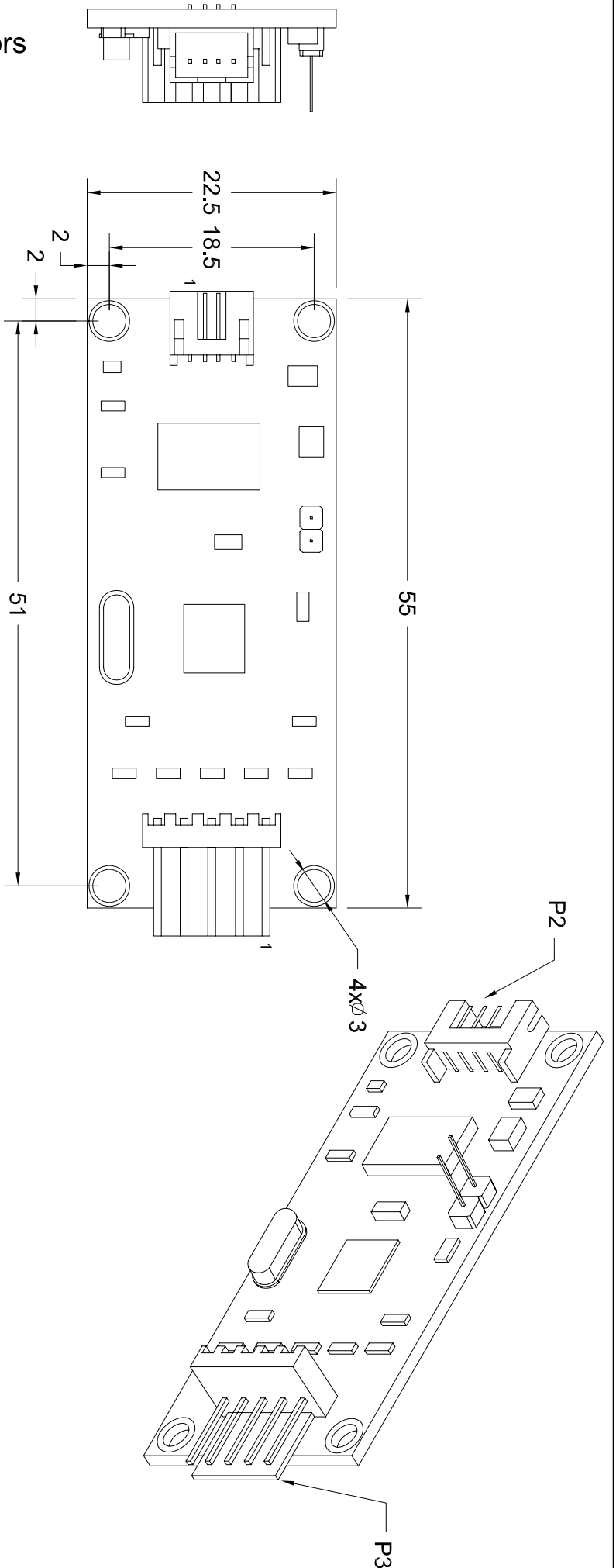
- Microsoft Windows NT4.0/XP/2000/ME/98/95
- Linux : Red Hat 9.0, Mandrake 10.0, SuSE9.2, Fedora Core I &II & III, Yellow Dog 3. x

G. 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	

Appendix A Dimension Drawing and Pin Definitions of Connectors



CONNECTOR P2

PIN #	SIGNAL NAME
1	GND
2	D+
3	D-
4	+5V

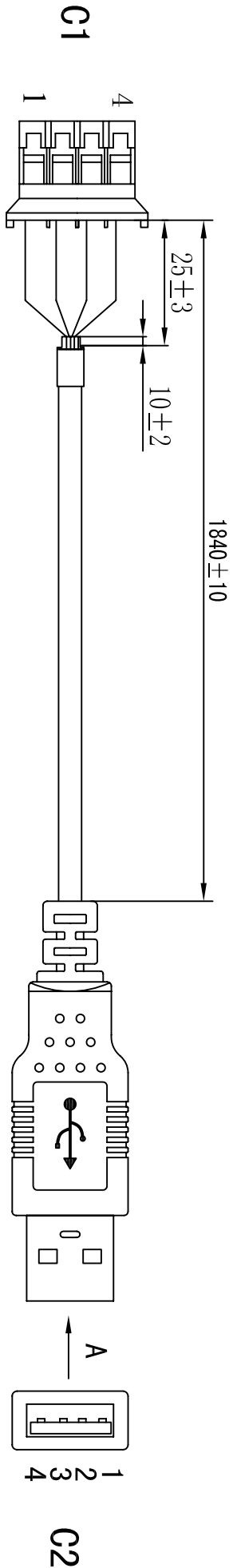
CONNECTOR P3

PIN #	SIGNAL NAME
1	H
2	X
3	S
4	Y
5	L

P/N: 5WRUSBSA5			
A Touch Technologies Co., Ltd.			
DRAWN BY HATTIE	DIMENSION UNIT mm	ISSUE DATE 08/31/05	
CHECKED BY ANSON	SCALE NOT TO SCALE	REV A	

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Appendix B Standard External USB Cable



PIN ASSEMBLY

	C1	C2	
+5V	4	1	RED
D-	3	2	WHITE
D+	2	3	GREEN
GND	1	4	BLACK

CONNECTOR:

C1:2.0 PITCH 4PIN HOUSING COLOR:BLACK.

C2:USB A MALE PVC MOLDED COLOR:BLACK.

CABLE:

UL2464 #26*4C+AE OD:5.0mm COLOR:BLACK.

CORE:

12*5.6*20mm PVC MOLDED COLOR:BLACK

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