

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



Specification of  
4 Wire Analog Resistive  
USB Control Board  
Model No.: 4WRUSBS



## A. Application

This specification applies to the following

**USB Control Board for 4 Wire Analog Resistive Touch Panel.**

**Model No. : 4WRUSBS**

## 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)

## 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
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).



## 4 WIRE ANALOG RESISTIVE USB CONTROL BOARD

### 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

1x4 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

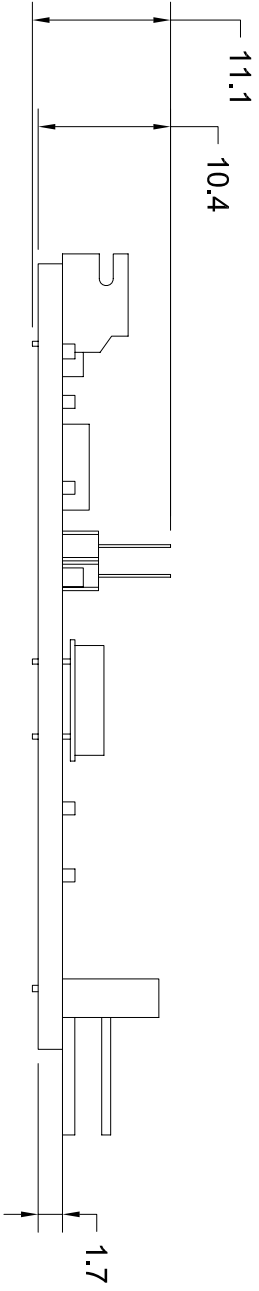
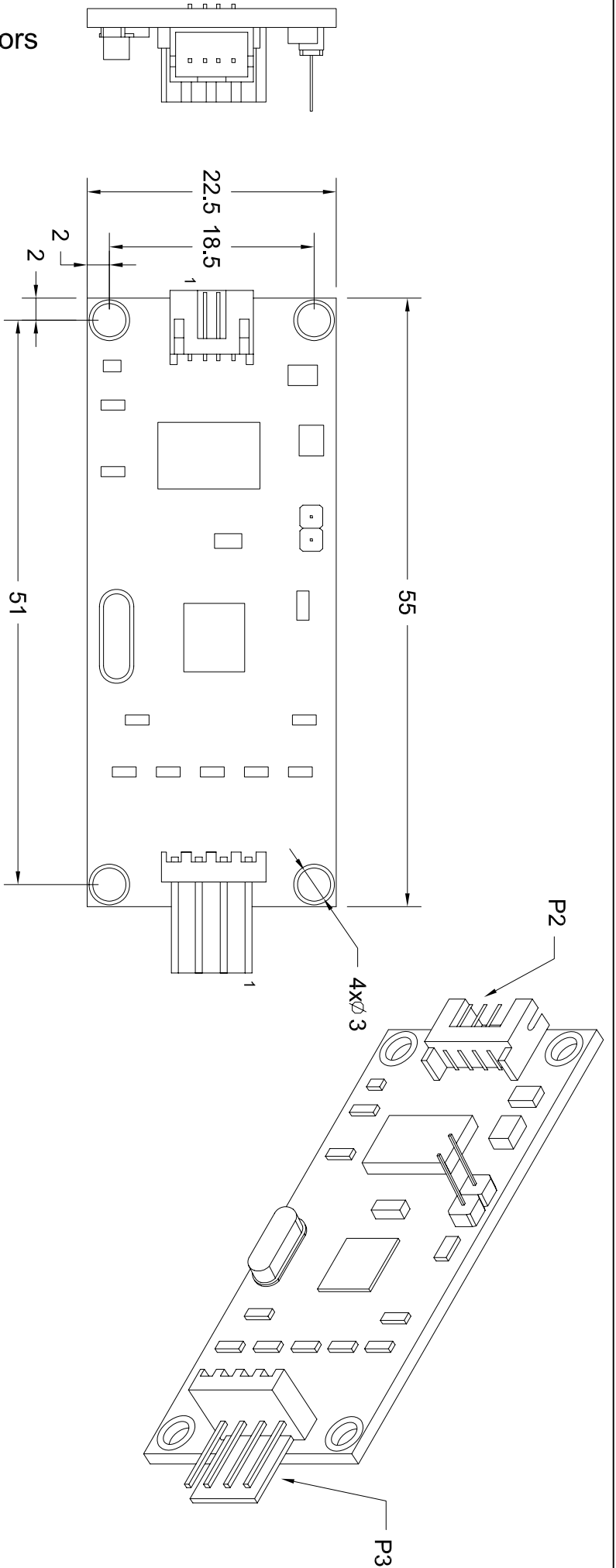
- Microsoft Windows NT4.0/XP/2000/ME/98/95
- Linux : Red Hat 9.0, Mandrake 10.0, SuSE9.2, Fedora Core I &II & III, Yellow Dog 3. x

## 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**

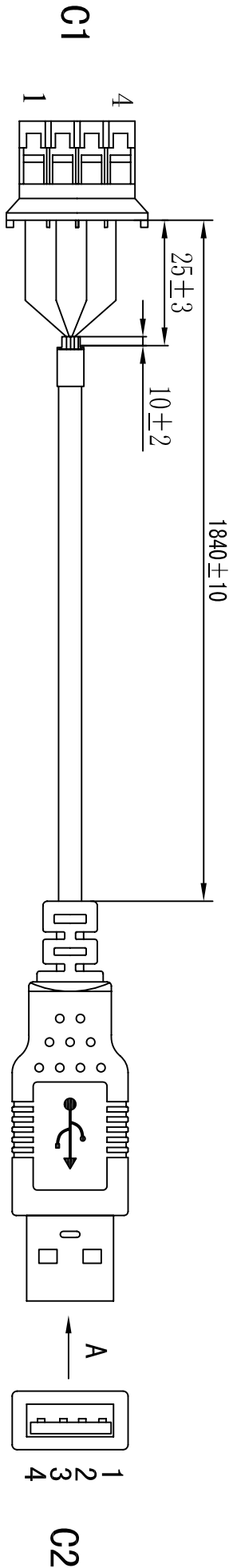
PIN #	SIGNAL NAME
1	GND
2	D+
3	D-
4	+5V

**CONNECTOR P3**

PIN #	SIGNAL NAME
1	YD
2	XL
3	XR
4	YU

P/N: 4WRUSBSA5			
ATouch Technologies Co., Ltd.			
宇鴻光電股份有限公司			
DRAWN BY	HATTIE	DIMENSION UNIT	SCALE
CHECKED BY	ANSON	NOT TO SCALE	ISSUE DATE
			08/31/05
			REV
			A

# 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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