

ATouch Technologies Co., Ltd.



Specification of
4 Wire Analog Resistive
RS-232 Control Board
Model No. : 4WR232S



4 WIRE ANALOG RESISTIVE RS-232 CONTROL BOARD

A. Application

This specification applies to the following

RS-232 Control Board for 4 Wire Analog Resistive Touch Panel.

Model No. : 4WR232S

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**
Serial RS-232
5. **Baud Rate**
9600



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6. Electrostatic Protection

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

7. Touch Resolution

4096 x 4096

8. Conversion Time

Approximately 10 ms per coordinate set.

D. Mechanical Characteristics

1. Dimensions

PCB board outside dimension : 55 (L) x 22.5 (W) x 12 (H) mm.
Refer to Appendix A.

2. Standard Cables, Connectors and Pin Definitions

- Standard external RS-232 cable connecting the controller with the computer serial port. Refer to Appendix B.
- Serial Connector : J232
Mini USB 4 Pin Female SMD A Type connector on board for connection with RS-232 port.
Refer to Appendix B.
- Touchscreen Connector : J4W
1x4 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

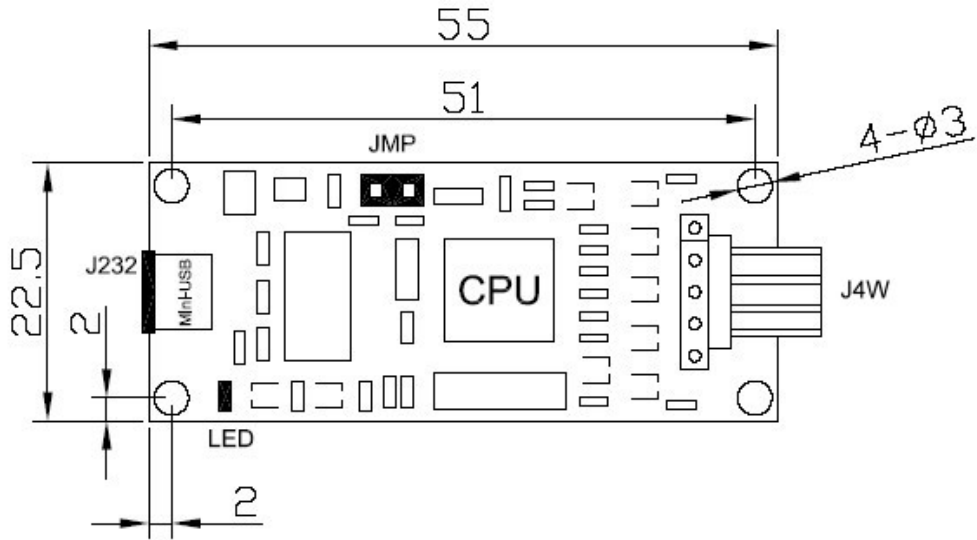
The following characteristics are generated by evaluating test samples after 2 hours leaving in the room condition when each of the reliability tests finishes.

| 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



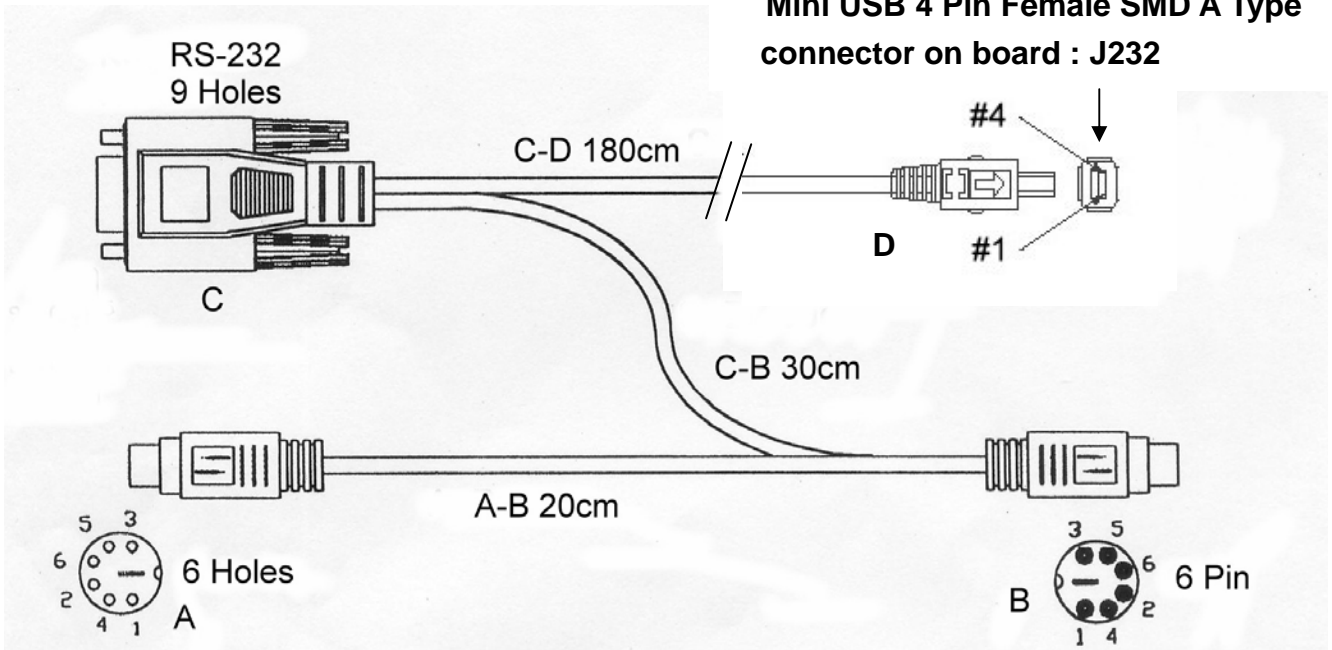
Appendix B Standard External RS-232 Cable Serial Connector : J232

J232, pins and signal names

| Pin | Signal Name |
|-----|-------------|
| 1 | TXD |
| 2 | RXD |
| 3 | GND |
| 4 | Vcc |



Mini USB 4 Pin Female SMD A Type
connector on board : J232



Connecting to PS2 keyboard
cable

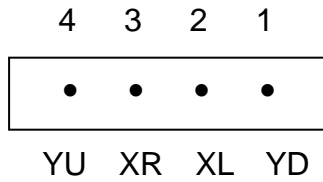
Connecting to PS2 keyboard
plug on the host

Contact Position

| A | | | B | | | C | | | D | | | |
|---|-----|--------|-----|---|-----|-----|--------|-------|-----|-------|-----|---|
| 1 | --- | Orange | --- | 1 | 2 | --- | Orange | --- | 1 | | | |
| 2 | --- | Brown | --- | 2 | 3 | --- | Brown | --- | 2 | | | |
| 3 | --- | Yellow | --- | 3 | | | | | | | | |
| 4 | --- | Black | --- | 4 | --- | GND | --- | 5 | --- | Black | --- | 3 |
| 5 | --- | Red | --- | 5 | --- | +5V | --- | 1+6+8 | --- | Red | --- | 4 |
| 6 | --- | Green | --- | 6 | | | | | | | | |
| G | --- | GND | --- | G | --- | GND | --- | G | | | | |



Appendix C Touchscreen Connector : J4W



J4W Touchscreen Connector Pin Positions, End View