Surface Acoustic Wave Touchscreen RS232 /USB Control Board

Model：KCA-UR01H-R1D

Feature

● +12V DC（+11V ～ +13V）

● 10ms conversion time

● Support size of touchscreens from 8.4″ to 24″ without jumper setting

● Touch sensitivity can be adjusted in 5 levels

● Operation temperature from 0 to 70℃

A、 Electrical Characteristic

Supply Voltage	+12V DC (+11V ～ +13V)
Supply Current	80mA (+12V DC)
	Power must supply 200mA at least.
Interface	EIA 232E (Serial RS-232) 8 Data Bits,1 Stop Bit, No Parity, Full Duplex
	USB 2.0 Low-Speed
Resolution	4096x4096, size independent
Baud Rate	9600
Electrostatic Protection	Per EN 6100-4-2 1995: Meets Level 4 (15KV air/ 8 KV contact discharges)
Conversion Time	Approximately 8.4 ms Per coordinate Set
Reliability	MTBF greater than 300,000 hours per MIL-HDBK-217-F2 using the part stress calculation method for ground benign environment with an ambient temperature of 25 ℃

B、Environmental Conditions

Operating Temperature Range	0°C ～ 65°C
Storage Temperature Range	-25°C ～ 85°C
Operating Humidity Range	10% ～ 90% (no dew falls)
Storage Humidity Range	10% ～ 90% (no dew falls)
Operating Altitude	10,000 feet (3048m)
Shock and Vibration	Three axis sine wave,50Hz to 2KHz,1G, 2 minutes/octave With dwell on resonances
Flammability	The PCB substrate and all plastic components,such as headers and connector are rate UL 94 V0.

C、Mechanical Characteristics

Construction	Four-layer surface-mount design with internal ground plane for EMI suppression
Dimensions	PCB 85mm×55mm×10mm Refer to picture
Power interface	No single power interface, PS2/Keyboard supply +5V DC
	No single power interface, USB bus supply +5V DC
To PC connector	USB SMD A Type
	DB9 female

D、Software Driver

Support Operating System：Microsoft Windows XP / 2000 / VISTA

Linux:: RedHat 9.0 , Fedaro , Ubuntu , Suse , Debian
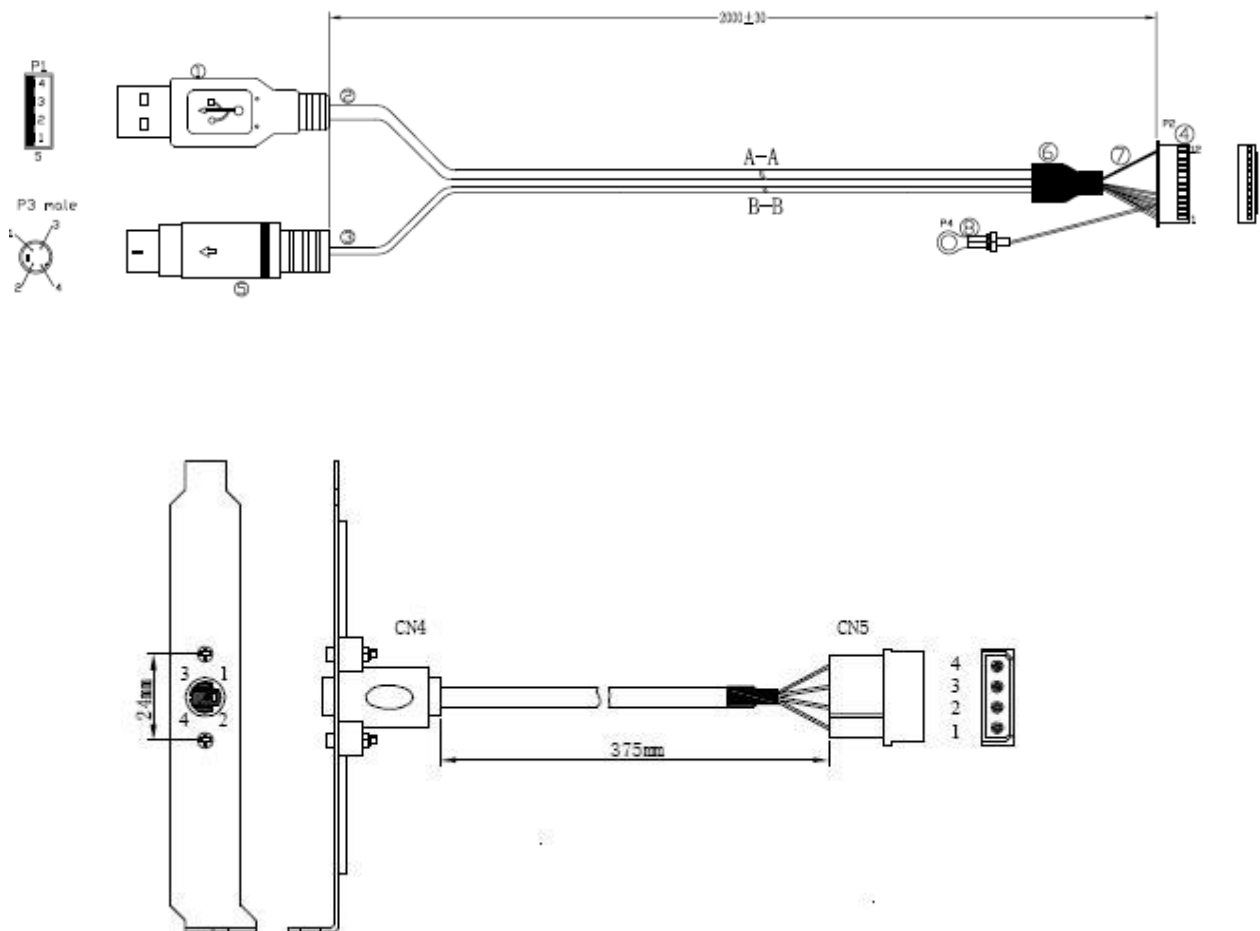
E、LED Diagnostic Characteristics

A green LED indicates controller status as follow:

LED blink frequency	Function
Once per second	Self-check on power
Once per two second	normal，no touch
Blink continuously	Touch status

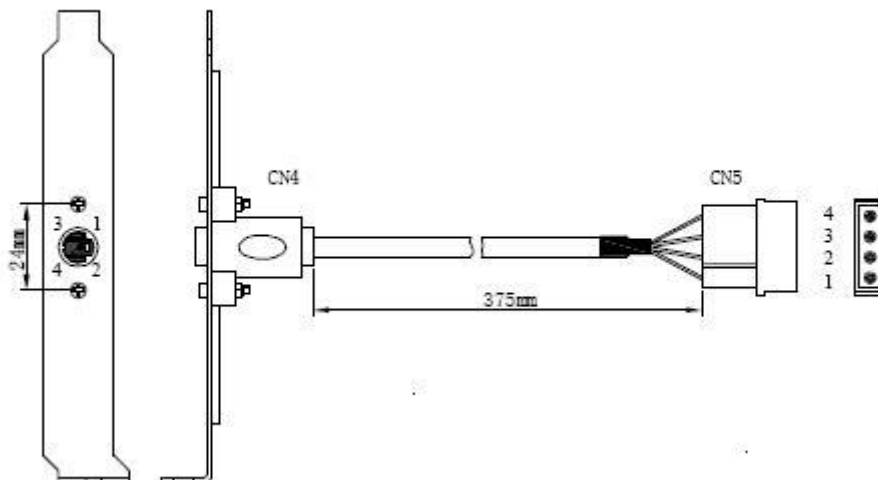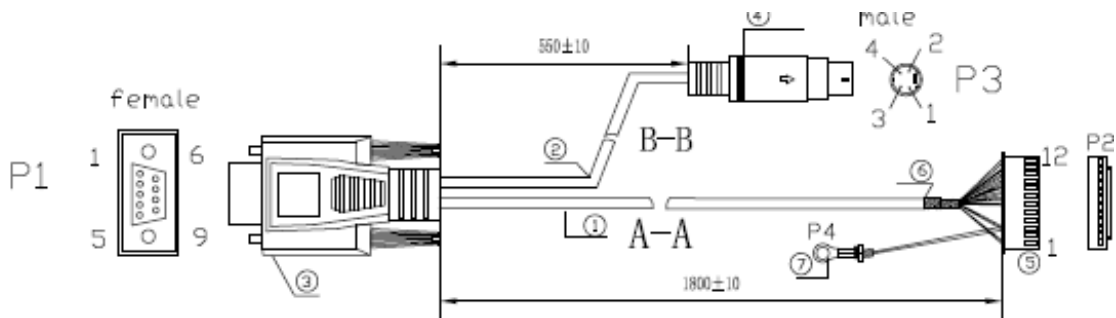### F、Definition of connector and pin

Power Communication Cable

USB Cable：

P1	P2	P3	P4	colour
1	2			+5VDC red
2	4			D- white
3	5			D+ green
	3	2	1	GND black
4&5	12			GND naked copper
	1	1		+12VBus brown
	6			
	7			
	8			
	9			
	10			
	11			

P2 connecting to J1 of the control board，P1 connecting to USB of the PC；P1 is standard USB A Type, The interval of the P2 is2.0mm
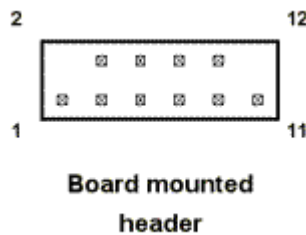
Serial Cable:

P1	P2		P3		P4
	1	red +12VDC	1	VCC—power+12vDC	
	2				
	3	green GND	2	GND—GND	1
	4				
	5				
8	6	yellow CTS			
2	7	orange RXD			
3	8	white TXD			
6	9	blue DSR			
4	10	black DTR			
7	11	brown RTS			
5	12	green GND			
1					
			3		
			4		

P2 connecting to J1 on the control board , P1 connecting to COM of the PC; P1 is standard DB9 male, a 12 header with pins on 2.0mm centers;

Touchscreen Connector(J2) and signal instructions

Touchscreen Connector J2 is a dual row by six position header with 0.635 mm square pins spaced on 2.54 centers for connection with touch panel.

Touchscreen Connector pin drawing, connecting oriention：

Board mounted header

G、Certificate

FCC CE UL RoHS CB

H、Warranty

3-year limited warranty

Ⅰ、Dimension drawing