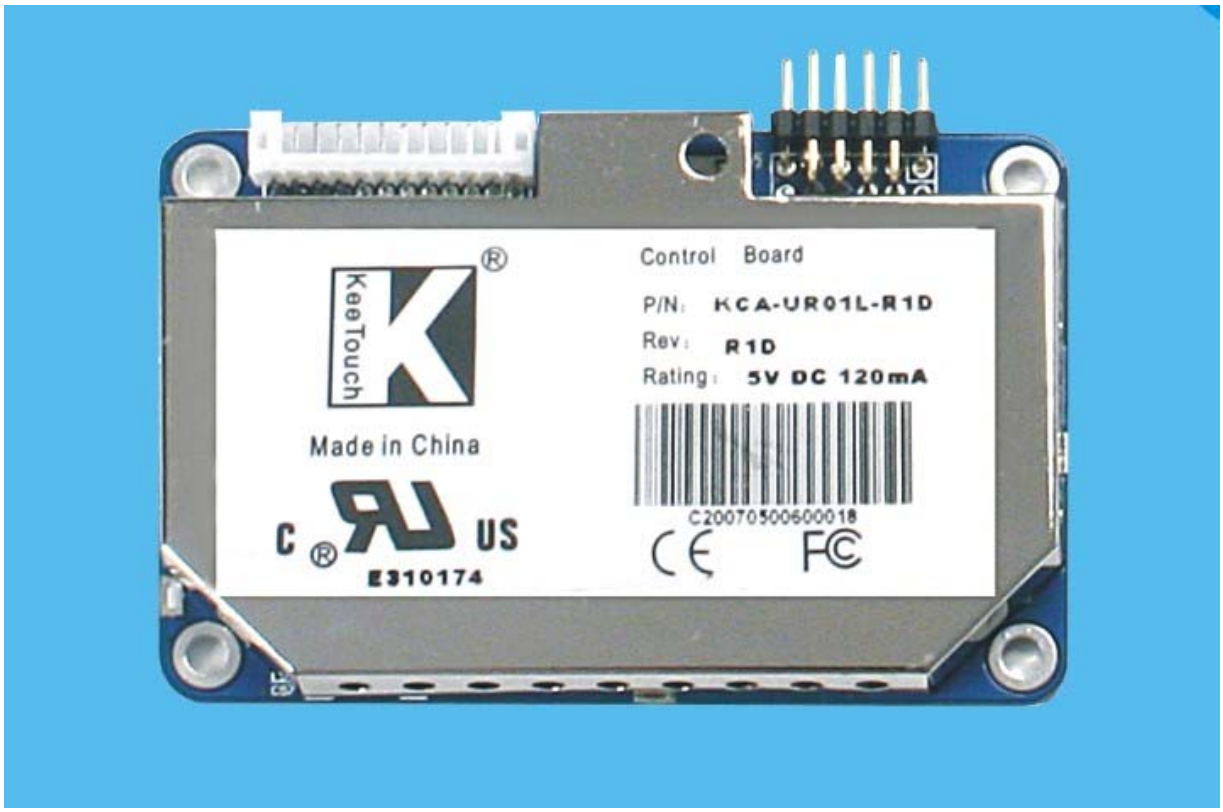
Surface Acoustic Wave Touchscreen RS232 /USB Control Board

Model：KCA-UR01L-R1D



Feature

- +5V DC（+4.75V ～ +5.25V）
- 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	+5V DC (+4.75V ～ +5.25V)
Supply Current	80mA (+5V 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

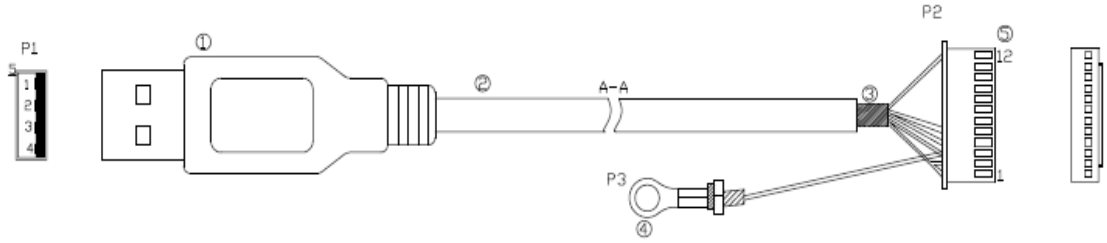
A green LED indicates controller status as follow:

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

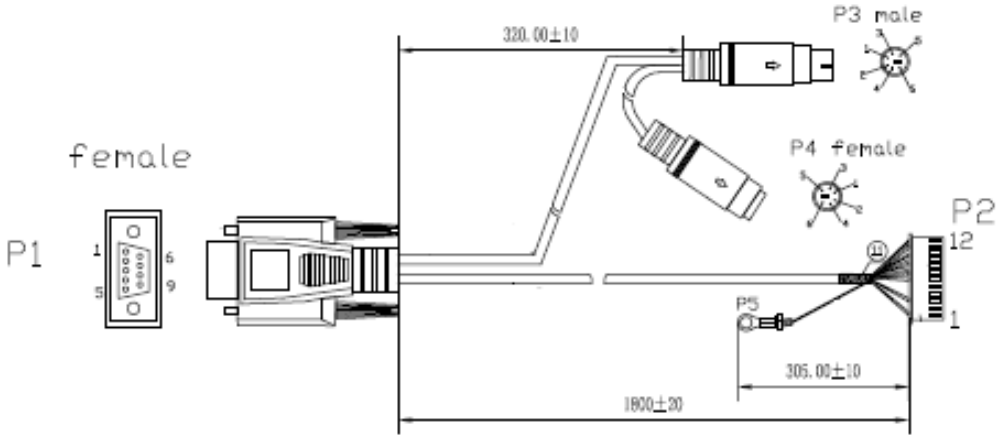
USB Cable:



P1	P2	P3	color
1	1&2		+5VDC red, orange
2	4		D- white
3	5		D+ green
4	12		GND black
5	3	1	GND
	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:



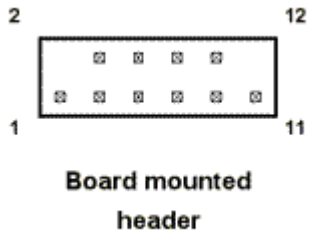
P1	P2		P3(male)/P4(female)		P5
	1	red +5VDC	4	VCC-power+5vDC	
	2				
	3	white GND	3	GND-GND	1
	4				
	5				
8	6	yellow CTS			
2	7	orange RXD			
3	8	Grey TXD			
6	9	blue DSR			
4	10	black DTR			
7	11	brown RTS			
5	12	green GND			
			5	CLK-clock	
			1	DATA-Key Data	
			6	n/c-not connected	
			2	n/c-not connected	

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; P3 (male) and P4 (female) are standard PS2/Keyboard, PS2/Keyboard supply +5VDC for control board.

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 orientation:



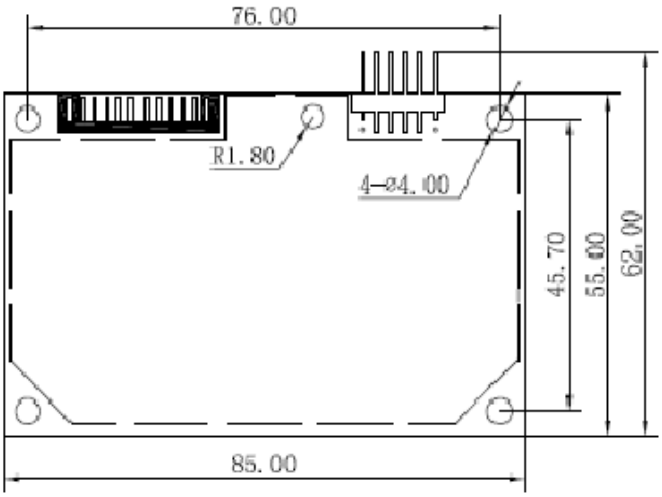
G、 Certificate

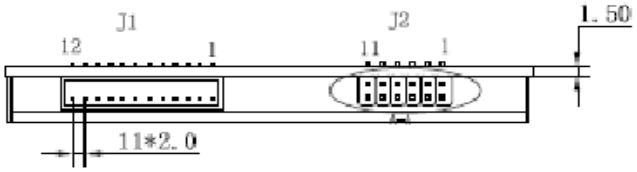
FCC CE UL RoHS CB

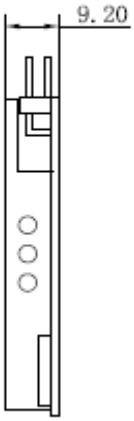
H、 Warranty

3-year limited warranty

I、Dimension drawing


76.00
R1.80
4-ø4.00
45.70
55.00
62.00
85.00


J1
J2
12
1
11
1
1.50
11*2.0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