TOUCHKIT 广州市宇联电子科技有限公司

Guangzhou Yulian Electronic Co.,Ltd

5 Wire Touch Panel
Product Specification

Customer _____

Reference No: _____

Part No. _____

Issue date 14/02/2006

Design issue _____

Design Approve _____

Q.A. Approve _____

Customer Approve

_____

	Touch Panel Specification	Issue No.	
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AMEND NO		TouchKit Electronic Co.,Ltd	APPROVAL BY	CHECK BY	PREPARE BY
AMEND DATE					
PUBLISH DATE	14/02/2006				

1. Suitability

This specification suit analog resistance touch panel.

2. Apply To Specification

2.1.Surface Hardness：3H

2.2. Optical Clarity：80 % ↑

2.3 Operating Temperature ：-10°C ~ 60°C

2.4 Endurance Test strikes ：Over 10 million

2.5 Operating Voltage： DC5V

2.6 Resistance：30Ω ~ 300Ω

2.7 Linearity< 1.5%

2.8 Faceplate Surface ：Anti-glare coating

2.9 Operation Pressure ： 15 ~ 70g

2.10 Storage Temperature：–20°C ~ 70°C

2.11 Message Noise：5 m sec ~ 15 m sec

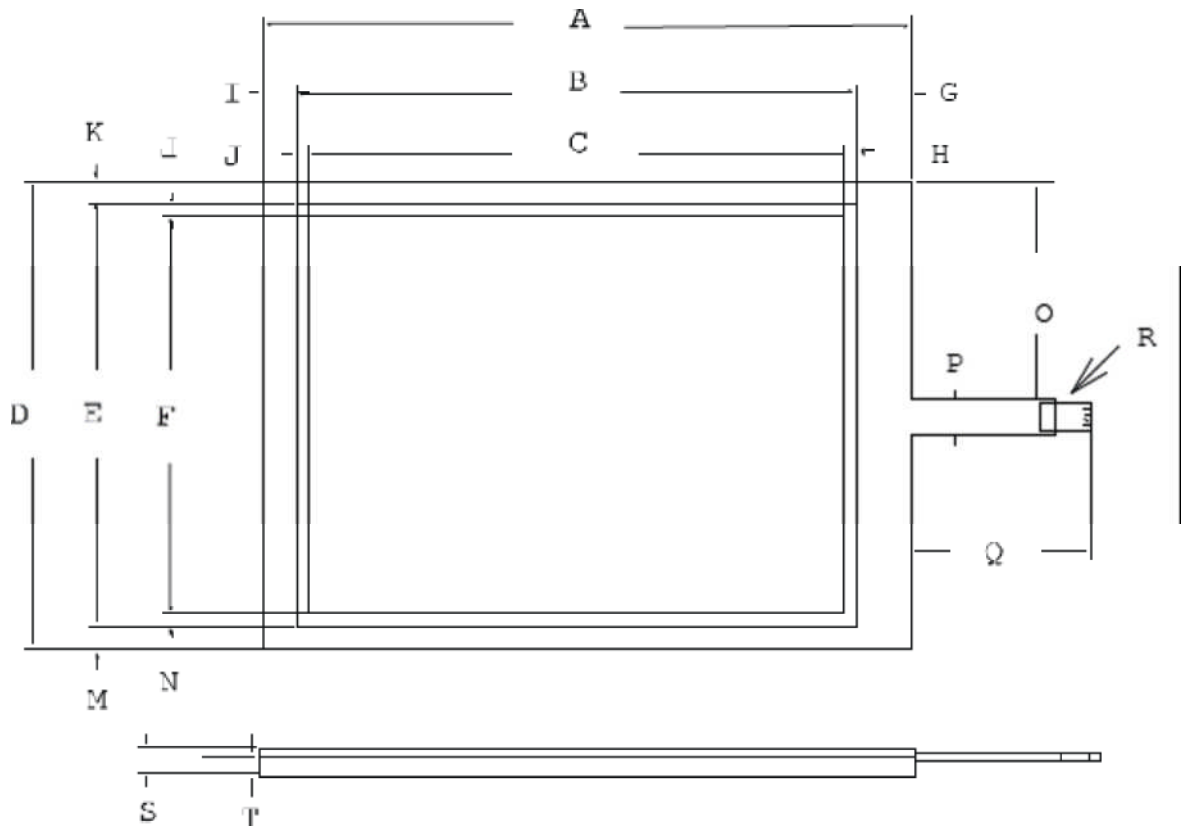
2.12 Operating Current：5mA ~ 25mA

2.13 Isolation Resistance：20MΩ ↑ @DC25V

3. Dimension Size

Refer diagram I

DWG No.



A,D	TOUCH PANEL OUTSIDE
B,E	VIEW AREA
C,F	ACTIVE AREA

Model No.				TouchKit Electronic Co.,Ltd	Unit : mm	DATA:	
						AMEND DATE	

4. Optical Performance

Light transparency should keep above 80% ↑ under the visible wave when the wave length is 550nm

5. Electrical Performance

5.1 Connector Resistance

30Ω < X Axis <300Ω

30Ω < Y Axis <300 Ω

5.2 Insulation Resistance

20MΩ ↑ @ DC 25V

5.3 Electrostatic Endurance

No abnormal appearance after 10kv, 100Ω,250PF electrostatic used.

5.4 Linearity

X Axis：1.5% ↓

Y Axis：1.5% ↓

5.5 Operating Voltage

3V ~ 12V DC

5.6 Operating Current

5mA ~ 25mA。

6. Environment Test

6.1. High Temperature Test

after putting panels at 70℃ for 240 hours, then leaving for 24 hours at room temperature.

A. Resistance between leads

30Ω < X Axis <300Ω

30Ω < Y Axis <300Ω

B. Linearity

X Axis : ±1.5% ↓

Y Axis : ±1.5% ↓

C. Insulation Resistance

20MΩ ↑ @ DC25V

6.2.Low Temperature Test

after putting panels at -20℃ for 240 hours, then leaving for 24 hours at room temperature.

A. Resistance between leads

30Ω < X Axis <300Ω

30Ω < Y Axis <300Ω

B. Linearity

X Axis : ±1.5% ↓

Y Axis : ±1.5% ↓

C. Insulation Resistance

20MΩ ↑ @ DC25V

6.3. Temperature and Humidity Test

after putting panels at 40℃,90%RH for 240 hours, then leaving for 24 hours at room temperature.

A. Resistance between leads

30Ω < X Axis <300Ω

30Ω < Y Axis <300Ω

B. Linearity

X Axis : ±1.5% ↓

Y Axis : ±1.5% ↓

C. Insulation Resistance

20MΩ ↑ @ DC25V

6.4 Repetition of High and Low Temperature and Test

after putting panels at the condition of -20℃ for 30 minutes and then 70℃ for 30 minutes and this process is repeated by 20 cycles , then leaving for 24 hours at room temperature.

A. Resistance between leads

30Ω< X Axis <300Ω

30Ω< Y Axis <300Ω

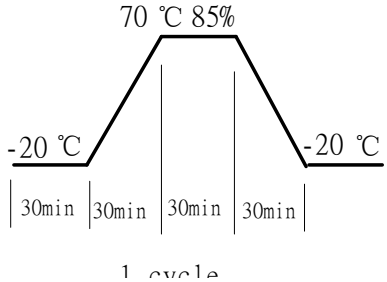
B. Linearity

X Axis : ±1.5% ↓

Y Axis : ±1.5% ↓

C. Insulation Resistance

20MΩ ↑ @ DC25V



6.5 punching life

After punching 10,000,000 times with the R8.0 silicon rubber Force：60g，Speed：5/sec

A. Resistance between leads

30Ω< X Axis <300Ω

30Ω< Y Axis <300Ω

B. Linearity

X Axis : ±1.5% ↓

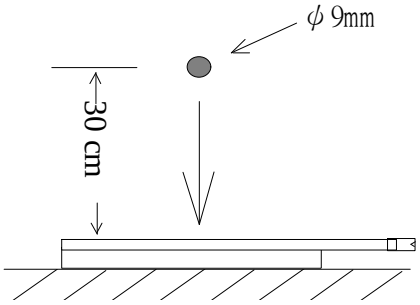
Y Axis : ±1.5% ↓

C. Insulation Resistance

20MΩ ↑ @ DC25V

6.6 Impact Resistance

No damage when ϕ9mm steel ball is dropped on the surface from 30cm height at 1 time.



7. Appearance

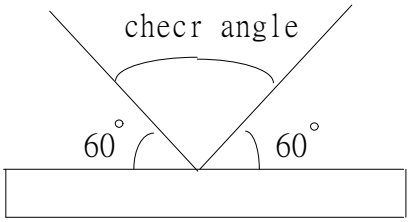
7.1 Inspection condition

(A).The lightness of place: 500 LUX

(B)The distance of eyeshot:30 CM(The panel must be checked under the light transparency condition.)

(C)The angle of eyeshot: >60°

(D)The light source of place : natural sunlight.



7.2 Inspection Standard

suitable in the visible area. Except dot space.

1. Spot, otherness	$\phi \leqq 0.5$ mm	Ignorance
	$\phi > 0.5$ mm	NG
2. Rub	$\phi \leqq 1.0$ mm	Ignorance
	1.0 mm$< \phi \leqq 1.5$ mm	2 point above & distance >50 mm
	$\phi > 1.5$ mm	NG
3. Cicatrices (Line) L ：Length W ：Width	L<10.0 mm & 0.15 mm$<$W$\leqq 0.2$ mm	1 line is allowable 2 lines are reject 2 point above & distance >50 mm
	W$\leqq 0.15$ mm	Ignorance
	W>0.20 mm	NG
4. Edge warp	Edge warp$\leqq 0.5$ mm	Ignorance
	Edge warp>0.5 mm	NG

7.3 Quality inspection standard:

Adapt to AQL MIL-STD-105D

Samples inspection QTY: according to AQL MIL-STD-105D(Charter I)

Inspection Base: according to AQL MIL-STD-105D(Charter II)

Broken seriously(otherness, scrape)0.01% --- Cr (Critical Defect)

Obvious(otherness, scrape)0.65% ---------- Ma(Major Defect)

Not obvious(otherness, scrape)2.5% ---------- Mi(Minor Defect)

8.Packing Detail

8.1 Packing:

Can't have otherness on panel. Pack with EPE material.

8.2 Delivery:

For Avoiding the badly affect to the product quality, shouldn't delivery in the situation of high humidity and unusually high or low temperature

8.Others

(1) If there is any question in specification , the decision depends on conferment between manufacturer and customer.

(2) If there is any change in specification , can't actualize without document permit.

(3) The specification content is different from the individual specification one, decision bases on the latter.