

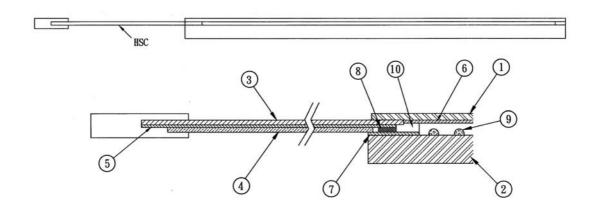
查询"1070.0426"供应 Analog 8-wire PET-On-Glass Touch Screen Specification

1. Mechanical Dimensions and Construction

- 1.1 General: Analog Resistive touch screen is laminated by ITO PET to ITO glass.
- 1.2 Construction:

Item	Description	Material	Remarks
	ITO PET	0.188mm ITO PET Film	Antiglare coating
1	(Top layer)		Surface hardness: 3H
			Resistance:300~600Ω/□
2	ITO Patterned Glass (Bottom layer)	1.8mm chemical strengthened	Resistance:300~600Ω/□
		CS ITO Glass	
3	Tail Base	PET	Separated Tail
4	Tail cover lay	PET	
5	Connector	AMP Compatible	Pitch: 2.54mm
6	Top layer circuit	Silver ink	
7	Bottom layer circuit	Silver ink	
8	Layer to layer contacted	Silver ink	
9	Dot spacer	UV Cure ink	
10	Isolation Layer	Isolation Adhesive	

Touch screen side view:



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1.3 Input Method and Activation Force

Input Method	Average Activation Force
1.6mm Ø Delrin stylus	$0.1 \sim 0.7N$
16mm Ø Silicon "finger"	$0.1 \sim 0.8 \text{ N}$

2. Typical Optical Characteristics

2.1 Visible Light Transmission: > 80%2.2 Haze: < 13%

3. Electrical Specifications

3.1 Operating Voltage:3.2 Contact current:5.5V or less20mA (maximum)

3.3 Circuit close resistance: $X:350-1000\Omega$; $Y:200-700\Omega$

3.4 Circuit open resistance: $> 10M\Omega$ at 25VDC

3.5 Contact bounce: < 10ms 3.6 Linear Test : < 1.5 %

3.7 Capacitance: 100nF(maximum)

4. Linearity

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4.1 Linear Test Specification

Direction X: <1.5 % Direction Y: <1.5 %

4.2 Line Test Circuit for Y Coordinate

Add 5V between Y1 and Y2 touch the point C0R0 to C9R9 separately, and measure the voltage from X1 as the following drawing.

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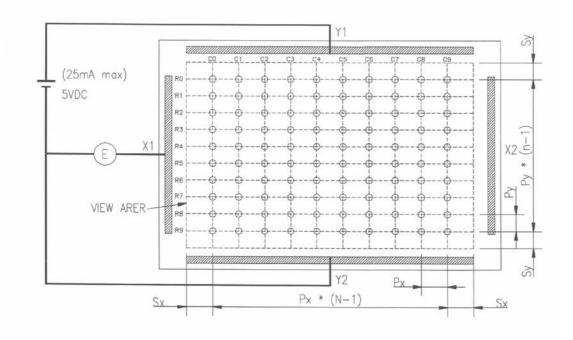
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4.3 Calculate Linearity: For the First Row0

$$R0avg = (VC0 + VC1 + VC2 + - - - - + VC9) \div 10$$

R0max = The maximum voltage in Row 0

R0min = The minimum voltage in Row 0

R0 linear1 = $| R0 \text{ max} - R0 \text{ avg.} | \div R0 \text{ avg.} * 100\%$

R0 linear2 = $\begin{vmatrix} R0 & min - R0 & avg. \end{vmatrix} \div R0 avg. * 100\%$

R0 linear = max (R0 linear1, R0 linear2)

4.4 For X Coordinate Test

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Add 5 voltage between X1 and X2 touch the point C0R0 to C9R9 separately and measure the voltage from Y1 as the above drawing

4.5 Calculate Linearity: For the First Column0

$$C0avg = (VR0 + VR1 + VR2 + - - - - + VR9) \div 10$$

C0max = The maximum voltage in Column 0

C0min = The minimum voltage in Column 0

C0 linear1 = $| C0 \text{ max} - C0 \text{ avg.} | \div C0 \text{ avg.} * 100\%$

C0 linear2 = $| C0 \min - C0 \text{ avg.} | \div C0 \text{ avg.} * 100\%$

C0 linear = max (C0 linear1, C0 linear2)

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5. Environment Specification

5.1 Operating Temperature $-10^{\circ} \text{ C} \sim +60^{\circ} \text{ C}$ Humidity less than 90% RH 5.2 Storage Temperature $-40^{\circ} \text{ C} \sim +80^{\circ} \text{ C}$ at Ambient Humidity

6. Reliability Test

6.1 Exposure to high temperature

Touch panel is put into a test machine at the condition of 80°C for 120 hours. Then it is left at the room temperature for 24 hours or more. The measurement must satisfy the following:

Circuit close resistance: as Sec. 3.3

- Circuit open resistance: as Sec. 3.4

Contact bounce: as Sec. 3.5Linearity test: as Sec. 3.6

6.2 Exposure to low temperature

Touch panel is put into a test machine at the condition of –40°C for 120 hours. Then it is left at the room temperature for 24 hours or more. The measurement must satisfy the following:

- Circuit close resistance: as Sec. 3.3

Circuit open resistance: as Sec. 3.4

- Contact bounce: as Sec. 3.5

- Linearity test: as Sec. 3.6

6.3 Exposure to constant temperature and humidity

Touch panel is put into a test machine at the condition of 60°C, 90%RH for 120 hours. Then it is left at the room temperature for 24 hours or more. The measurement must satisfy the following:

- Circuit close resistance: as Sec. 3.3

- Circuit open resistance: as Sec. 3.4

- Contact bounce: as Sec. 3.5

Linearity test: as Sec. 3.6

6.4 Thermal Shock

Touch panel is put into a test machine at the condition of –40°C for 30 minutes, and then 80°C for 30 minutes. The process is repeated by 10 cycles. Then it is left at the room temperature for 24 hours or more. The measurement must satisfy the following:

- Circuit close resistance: as Sec. 3.3

- Circuit open resistance: as Sec. 3.4

- Contact bounce: as Sec. 3.5

- Linearity test: as Sec. 3.6

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7. 查询"1070.0426"供应商

7.1 Finger touches

Touch panel is hit 10 millions times with a silicone rubber of R8 finger, hitting rate is by 250g at 2 times per second. The measurement must satisfy the following:

Circuit close resistance: as Sec. 3.3
Circuit open resistance: as Sec. 3.4
Contact bounce: as Sec. 3.5

- Linearity test: as Sec. 3.6

7.2 Stylus writing

Touch panel is drawn by R0.8 Derlin stylus pen, at 250g forces, repeat one inch by 100K times. The measurement must satisfy the following:

- Circuit close resistance: as Sec. 3.3 - Circuit open resistance: as Sec. 3.4

Contact bounce: as Sec. 3.5Linearity test: as Sec. 3.6

8. Optical Performance

- 8.1 Optical inspection method and optical defect standards refer to document. A001-2 Touch Screen Optical Quality Standard.
- 8.2 Outside to Viewing Area: any optical defected in this area need to be ignored if no effected to touch screen function.
- 8.3 Silver Bus Pattern defect: Voids in traces to be less than 50% of the trace width.
 - 8.3.1 Silver Bus Pattern gap: >0.1mm
 - 8.3.2 Silver Bus and Active area gap: No silver ink may project beyond the viewing area.
- 8.4 Glass defects such as edge chips and scratches refer to A001-2, Touch Screen Optical Quality Standard.
- 8.5 Others

Always store the touch screen in its original shipping container under normal conditions (20~25°C, 65% RH)

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