

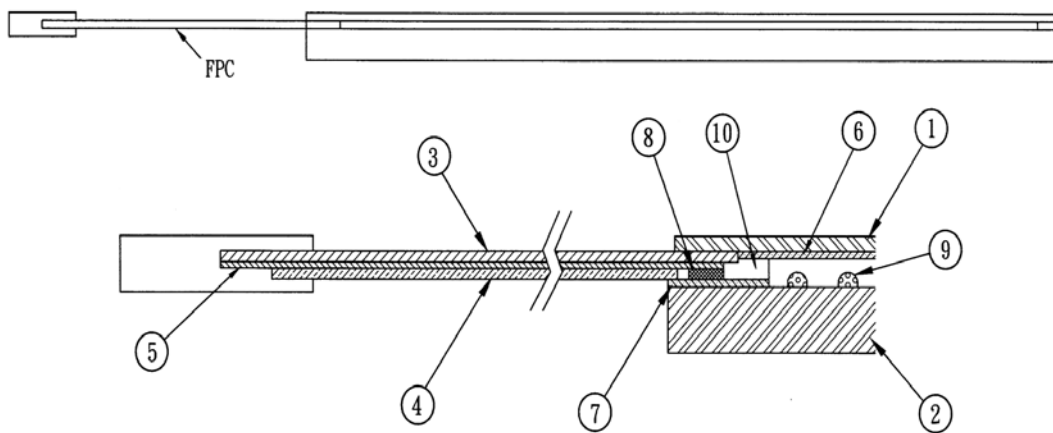
## Analog 5-wire PET-On-Glass Touch Screen Specification

### 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
1	ITO PET (Top layer)	0.188mm ITO PET Film	Antiglare coating Surface hardness: 3H Resistance:300~600Ω/□
2	ITO Patterned Glass (Bottom layer)	2.36mm ITO Glass	Resistance:300~600Ω/□
3	Tail Base	Kapton	Separated Tail
4	Tail Coverlay	Kapton	
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:



*Changes that contribute to technical improvement are subject to alternations*

				2002	Datum	Name	<b>TOUCHSCREEN</b> <b>15", 5-Wire</b>  SPECIFICATIONS OF ANALOG RESISTIVE PET-ON-GLASS TOUCH SCREEN Manufactured bei Apex Material Technology Corp.
				Bearb.	24.10.	Maurer	
				Gepr.	24.10.	Maurer	
				Vert.			
				<b>EDV-Datasheet</b>  don't change manually			
				<b>SCHURTER</b>			<b>H 1070.0442</b>
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### 1.3 Input Method and Activation Force

Input Method	Average Activation Force
1.6mm dia. Delrin stylus	10~70 grams
16mm dia. Silicon "finger"	10~ 80 grams

## 2. Typical Optical Characteristics

- 2.1 Visible Light Transmission: >80%
- 2.2 Haze: 3~7% (JIS K-7105)

## 3. Electrical Specifications

- 3.1 Operating Voltage: 5.5V or less
- 3.2 Contact current: 20mA (maximum)
- 3.3 Circuit close resistance: 30~300Ω
- 3.4 Circuit open resistance: > 10MΩ at 25VDC
- 3.5 Contact bounce: < 15ms
- 3.6 Linear Test : <1.5 %


## 4. Environment Specification

- 4.1 Operating Temperature - 10° C ~ + 60° C Humidity less than 90% RH
- 4.2 Storage Temperature - 20° C ~ + 80° C at Ambient Humidity

## 5. Reliability Test

- 5.1 Exposure to high temperature  
Touch panel is put into a test machine at the condition of 80□ 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
- 5.2 Exposure to low temperature  
Touch panel is put into a test machine at the condition of -20□ 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

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				 <b>SCHURTER</b>			
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5.3 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

5.4 Thermal Shock

Touch panel is put into a test machine at the condition of -20°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

6. Durability test:

6.1 Finger touches

Touch panel is hit 36 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

6.2 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. 3.5
- Linearity test: as Sec. 3.6

7. Optical Performance:


7.1 Optical inspection method and optical defect standards refer to document. A001-2 Touch Screen Optical Quality Standard.

7.2 Outside to Active Area : any optical defected in this area need to be ignored if no effected to touch screen function.

7.3 Glass defects such as edge chips and scratches refer to A001-2, Touch Screen Optical Quality Standard.

- 7.4 Others
- 7.4.1 Folding line should be avoided on the pressure sensitive adhesive.
  - 7.4.2 Refer to document A001-2, Touch Screen Optical Quality Standard.
  - 7.4.3 Always store the touch screen in its original shipping container under normal Conditions (20~25°C, 65% RH)

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