ATouch Technologies Co., Ltd.

Specification of
Projective Capacitive Touch Panel

01. Main Features

True Flat Projective Capacitive Touch panel

02. Systems

- Inputs : 2 inputs (Windows 7); 1 input (Windows XP, Vista)
- Input Method: Finger, thin gloves
- Resolution: 7680 x 6144 (adjustable)
- Linearization: Inherently Linear
  - Line drawing accuracy : 1pt ±1mm; 2pt ±2mm
  - Touch (point) accuracy : 1pt +/- 2.5mm; 2pt +/- 5.0mm

  Refer to Windows 7 Logo regulation
- Light Transmission: 88 ($\pm$ 5) %

03. Electronics

- Communication: USB HID Digitizer
- Controller Board Dimensions: 140mm x 28 mm x 8mm
- Operating : 52 mA (max)
- Power Connection: Self-powered 5V @ 2A max
- Input : USB/RS232/ I^2C Type
- Touch Refresh Rate: 1-point touch, Typ.150 Hz ; 2-point touch, Typ.150 Hz

04. Mechanical

- Total Thickness: 2.7 mm(1.8(Cover)+0.2(LOCA)+0.55(sensor)+0.15(FPC))
- Cover Glass: 1.8 mm (Half strengthened)
- Graphics: Black border (standard design)
- Durability: Non-active cover glass, no wear mechanism
- Cleaning: Water, alcohol, or similar non-abrasive cleaners

05. Reliability & Warranty

- Surface Obstruction: Withstands most surface contaminants
- Chemical Resistance: ASTM-D-1308 and ASTM-F-1598-95
- Operating Temperature: -40°C to +85°C
- Storage Temperature: -40°C to +90°C
- Warranty: One year

06. Appearance Inspection

Circular Criteria

Circular criteria recognize surface irregularities that are circular in nature, including dirt, hard coat flaws , particles, glass bubbles, etc.

Circular defect size will be measured across its diameter. Irregularly shaped circular defect diameters will be designated by the smallest diameter into which the defects could be completely covered, i.e. the length at the widest point of the defect.

Area	Diameter of Circular Defect	Comment	Accept or Fail
Active Area	D＞0.51 (0.02")		Fail
	0.51 (0.02")≧D≧0.38 (0.015")	No more than two defects contained within 50.8 (2") &	Accept
	The sum of the diameters of all circular defects ≦1.27 (0.05")	Within 50.8 (2") &	Accept
	Black-colored specks or dirt, D ≦0.13 (0.005")		Accept
View Area	D＞1.02 (0.04")		Fail
Outside View Area	D＞1.91 (0.075")		Fail

Unit : mm

Linear Criteria

Linear criteria recognize surface irregularities that are linear in nature. Linear defect size will be measured across the width of the defect at its widest point.
Linear defects smaller than 0.025 mm (0.001") will not be considered in the evaluation of surface quality.

Area	Width Range	Maximum Length	Minimum Separation	Comment	Accept or Fail
Active Area	W＞0.102 (0.004")				Fail
	0.076 (0.003") ~ 0.102 (0.004")	12.7 (0.500")		A single defect	Accept
	1. The combined length of multiple linear defects within a 50.8 mm (2") diameter area shall not exceed the criteria listed below. 2. The distance between two linear defects shall not be less than the separation defined below. 3. When two linear defects are in different width ranges, the largest width range shall be used to decide minimum separation.				
	0.079 (0.0031") ~ 0.102 (0.0040")	12.7 (0.500")	6.35 (0.250")	Within 50.8 (2") &	Accept
	0.053 (0.0021") ~ 0.076 (0.0030")	25.4 (1.000")	3.81 (0.150")	Within 50.8 (2") &	Accept
	0.025 (0.0010") ~ 0.051 (0.0020")	38.1 (1.500")	1.27 (0.050")	Within 50.8 (2") &	Accept
	W≦0.025 (0.0010")				Accept
Outside Active Area	W＞0.305 (0.012")				Fail

Unit : mm

07. Application Notes

- **Firmly assembly:** The touch module, controller board, as well as those connected FPC's, must be rigidly adhered or mounted on LCM or housing.
- **Electrical interference prevention:** FPC's and Control Board must be electrically isolated from power lines, metal casing, and noise generating devices, such as motor, inverter, etc. to prevent from arousing signal interference. Acetate cloth can be a good choice for the purpose of electrically insulating.
- **Device grounding:** The host device and the touch module shall be properly grounded to insure the touch performance.
- **Touch performance:** When the touch performance is not working properly or unstable, please check whether the assembly of touch module complies with the above application notes, such as "**Firmly assembly", "Electrical interference prevention" and "Device grounding".**

08. Supporting OS.

OS	Version	Interfaces
Windows	Windows 7, Windows 8 Windows XP (1 point only) Windows Embedded (1 point only) Windows XP Tablet PC edition (1 point only)	USB RS232(ComPort)
Linux	up to Kernel 2.6.x	USB I2C RS232(ComPort)