

WIN INDUSTRY CO., LTD

4 Wires Touch Panel Product Specification

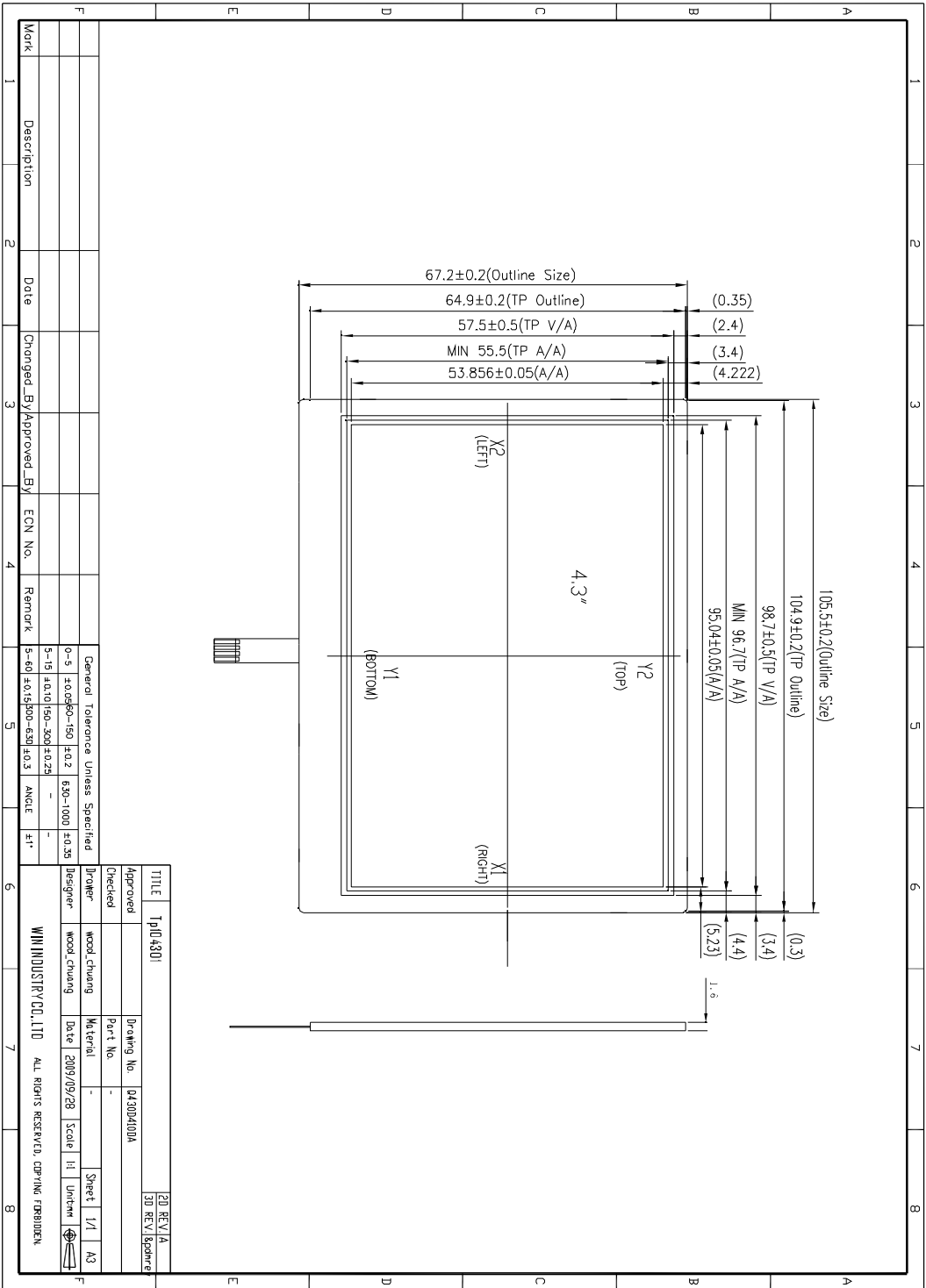
Structure : PET----- Glare hard coating
Dot Pitch-----3mmx3mm
Connector: FPC(4-Pin)

General Specifications:

Item	Specifications	Unit
Dimensional Outline	105.5± 0.2(L) × 67.2±0.2(L)	mm
Viewing Area	98.7±0.5(L)×57.5±0.5(W)	mm
Active Area	96.7(L)±0.5(l)×55.5±0.5(w)	mm

		Touch Panel Specification	Issue No.		
SET	Index		Page	1	
<p>1. Index 01</p> <p>2. Apply To Specification 02</p> <p>3. Dimension 03</p> <p>4. Optical Performance 04</p> <p>5. Electrical Performance 04</p> <p>6.TrusTest 05 06</p> <p>7. Appearance Inspection Standard 07</p> <p>8. Packing & Others 08</p>					
AMEND NO		WIN INDUSTRY CO.LTD	APPROVAL BY	CHECK BY	PREPARE BY
AMEND DATE					
PUBLISH DATE					

	Touch Panel Specification	Issue No.			
SET	Apply To Specification	Page	2		
<p>1. Suitability This specification suit analog resistance touch panel. Which used in LCD module.</p> <p>2. Apply To Specification 2.1 Surface Hardness: 3H 2.2 Optical Clarity: 80 % ↑ 2.3 Operating Temperature: -10℃ ~ 60℃ 2.4 Endurance Test strikes: Over 1 million 2.5 Operating Voltage: DC5V 2.6 Resistance: 200 Ω ~ 900Ω 2.7 Linearity : <2.5% 2.8 Faceplate Surface: Anti-glare coating 2.9 Operation Pressure: 120 ~ 150g 2.10 Storage Temperature: - 20℃ ~ 70℃ 2.11 Message Noise: 5 m sec ~ 15 m sec 2.12 Operating Current: 5mA ~ 25mA 2.13 Isolation Resistance: 20MΩ↑ @ DC 25V</p> <p>3. Dimension Size Refer diagram I</p>					
AMEND NO		WIN INDUSTRY CO.,LTD	APPROVAL BY	CHECK BY	PREPARE BY
AMEND DATE					
PUBLISH DATE					



Work	Description	Date	Changed_BY	Approved_BY	ECN No.	Remark
1						
2						
3						
4						
5						
6						
7						
8						

TITLE	T-104301		20 REV1/A
Checked	Part No.	04300/100A	30 REV1/Banner
Approved	Designer	wood chuang	
	Material	wood chuang	
	Date	2009/09/28	
	Scale	1:1	
	Sheet	1/1	A3
WINDUSTRY CO., LTD ALL RIGHTS RESERVED. COPYING FORBIDDEN.			

Touch Panel Specification		Issue No.			
SET	Optical & Electrical	Page	4		
<p>4. Optical Performance Light transparency should keep above 80% ↑ under the visible wave when the wave length is 550mm.</p> <p>5. Electrical Performance</p> <p>5.1 Connector Resistance 300Ω < X Axis < 900Ω 200Ω < Y Axis < 800Ω</p> <p>5.2 Insulation Resistance 20MΩ @ DC 25V</p> <p>5.3 Electrostatic Endurance No abnormal appearance after 10kv, 100 Ω, 250PF electrostatic used.</p> <p>5.4 Linearity X Axis : 2.5% ↓ Y Axis : 2.5% ↓</p> <p>5.5 Operating Voltage 3V~12VDC</p> <p>5.6 Operating Current 5mA ~ 25mA</p>					
AMEND NO		WIN INDUSTRY CO.,LTD	APPROVAL BY	CHECK BY	PREPARE BY
AMEND DATE					
PUBLISH DATE					

	Touch Panel Specification	Issue No.	
SET	Reliability Test	Page	5

6. Environment Test

6.1 High Temperature Test

After putting panels at 70 °C for 240 hours, then leaving for 24 hours at room temperature.

A. Resistance between leads

300Ω < X Axis < 900Ω

200Ω < Y Axis < 800Ω

B. Linearity

X Axis : ±2.5% ↓

Y Axis : ±2.5% ↓

C Insulation Resistance.

20MΩ↑ @ DC25V

6.2 Low Temperature Test

After putting panels at -20 °C for 240 hours, then leaving for 24 hours at room temperature.

A. Resistance between leads

300Ω < X Axis < 900Ω

200Ω < Y Axis < 800Ω

B Linearity.

X Axis : ±2.5% ↓

Y Axis : ±2.5% ↓

C. Insulation Resistance

20M Ω↑ @ DC25V

6.3 Temperature and Humidity Test

After putting panels at 40 °C, 90%RH for 240 hours, then leaving for 24 hours at room temperature.

A. Resistance between leads

300Ω < X Axis < 900Ω

250Ω < Y Axis < 800Ω

B. Linearity

X Axis : ±2.5% ↓

Y Axis : ±2.5% ↓

C. Insulation Resistance

20MΩ↑ @ DC25V

AMEND NO		WIN INDUSTRY CO.,LTD	APPROVAL BY	CHECK BY	PREPARE BY
AMEND DATE					
PUBLISH DATE					

	Touch Panel Specification	Issue No.	
SET	Reliability Test	Page	6

6.4 Repetition of High and Low Temperature and Test

After putting panels at the condition of -20°C for 30 minutes and then 70°C/85%RH for 30 minutes and this process is repeated by 20 cycles , then leaving for 24 hours at room temperature.

A. Resistance between leads

300 Ω < X Axis < 900Ω

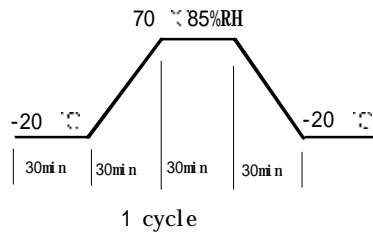
200 Ω < Y Axis < 800Ω

B. Linearity

X Axis : ±2.5% ↓ Y Axis ±2.5% ↓

C Insulation Resistance.

20MΩ↑ @ DC25V



6.5 Punching Life

After punching 1,000,000 times with the R8.0 silicon rubber Force : 60g · Speed : 5/sec

A. Resistance between leads

300 Ω < X Axis < 900Ω

200 Ω < Y Axis < 800Ω

B. Linearity

X Axis : ±2.5% ↓

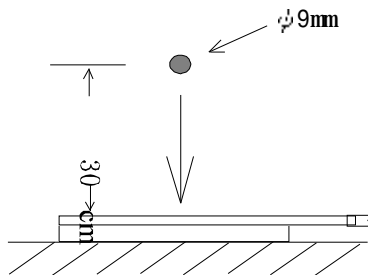
Y Axis ±2.5% ↓

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.



AMEND NO		WIN INDUSTRY CO.,LTD	APPROVAL BY	CHECK BY	PREPARE BY
AMEND DATE					
PUBLISH DATE					

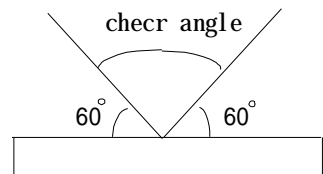
	Touch Panel Specification	Issue No.	
--	----------------------------------	------------------	--

SET	Appearance Inspection Standard	Page	7
------------	---------------------------------------	-------------	----------

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	$\phi \leq 0.15\text{mm}$	Ignorance
	$0.15\text{mm} \leq \phi \leq 0.25\text{mm}$ 2	\leq
	$\phi > 0.25\text{mm}$	NG
2. Scratch	$w \leq 0.05\text{mm}$ and $L \leq 2.0\text{mm}$	Ignorance
	$w \leq 0.05\text{mm}$ $2.0\text{mm} < L \leq 4.0\text{mm}$	2 or less & distance $> 5\text{mm}$
	$W > 0.05\text{mm}$ or $L > 4.0\text{mm}$	NG
3. Cicatrices (Line) L Length: W Width:	$W \leq 0.03\text{mm}$	Ignorance
	$L \leq 4\text{mm}$ & $0.03\text{mm} \leq W \leq 0.05\text{mm}$	≤ 2 2 line distance $\leq 10\text{mm}$
	$W > 0.05\text{mm}$	NG
4. Edge warp	Edge warp $\leq 3\text{mm}$	allowable
	Edge warp $\leq 2\text{mm}$	allowable

7.3 Quality inspection standard

Adapt to AQL MIL-STD-105D

Samples inspection QTY: according to AQL MIL-STD-105D

Inspection Base: according to AQL MIL-STD-105D

Broken seriously(others, scrape) 0.1% --- Cr (Critical Defect)

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

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

AMEND NO		WIN INDUSTRY CO.,LTD	APPROVAL BY	CHECK BY	PREPARE BY
AMEND DATE					

	Touch Panel Specification		Issue No.		
SET	Packing & Others		Page	8	
<p>8.Packing Detail</p> <p>8.1 Packing: Can't have otherness on panel. Pack with EPE material.</p> <p>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</p> <p>9.Others</p> <p>(1) If there is any question in specification , the decision depends on conferment between manufacturer and customer.</p> <p>(2) If there is any change in specification , can't actualize without document permit.</p> <p>(3) The specification content is different from the individual specification one, decision bases on the latter.</p>					
AMEND NO		WIN INDUSTRY CO.,LTD	APPROVAL BY	CHECK BY	PREPARE BY
AMEND DATE					
PUBLISH DATE					