



**WINSTAR Display Co.,Ltd.**  
**華凌光電股份有限公司**



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## SPECIFICATION

**CUSTOMER :** \_\_\_\_\_

**MODULE NO.:** **TSG320240B1241XXXX03**

**(WS)**

<b>APPROVED BY:</b>		
<b>( FOR CUSTOMER USE ONLY )</b>	<b>PCB VERSION:</b>	<b>DATA:</b>

SALES BY	APPROVED BY	CHECKED BY	PREPARED BY

VERSION	DATE	REVISED PAGE NO.	SUMMARY
A	2012/09/11		Add TS information



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RECORDS OF REVISION			DOC. FIRST ISSUE
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# Contents

- 1.General Specification
- 2.Electrical Characteristics
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- 4.Other

# 1. General Specification

ITEM	STANDARD VALUE	UNIT
Outline dimension	140.0±0.2(H) x 104.0±0.2(W) x 1.50±0.10(T)	mm
View area	122.10*93.30	mm
Active area	119.20*90.30	mm

## **2. Electrical Characteristics**

Operating Voltage: 5.5V or less

Contact current : 20mA (maximum)

Circuit close resistance: X: 350~1000Ω

Y: 200~650Ω

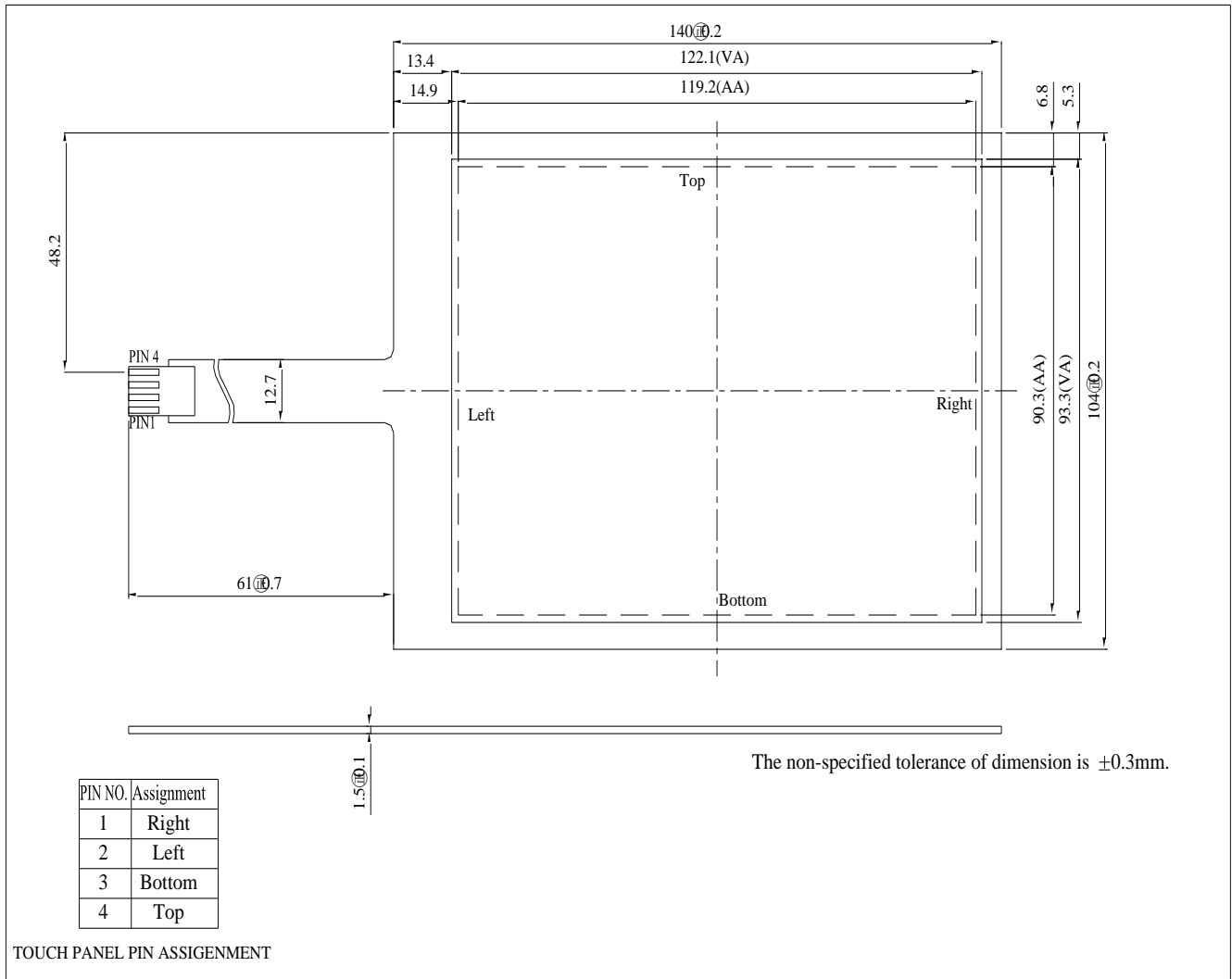
Circuit open resistance : >10MΩ at 25VDC

Contact bounce : <10ms

Linear Test : <1.5%

capacitance :100nF (maximum)

# 3. Contour Drawing



# 4. Other

## 4.1 Absolute Maximum Ratings

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Operating Temperature	T <sub>OP</sub>	-10	—	+60	°C
Storage Temperature	T <sub>ST</sub>	-40	—	+80	°C

## 4.2 Reliability

Content of Reliability Test

Environmental Test			
Test Item	Content of Test	Test Condition	Applicable Standard
High Temperature storage	Endurance test applying the high storage temperature and operating test .	80°C 120hrs	—
Low Temperature storage	Endurance test applying the high storage temperature for a long time.	-40°C 120hrs	—

## 4.3 Input Method and Activation Force

Input Method	Average Activation Force
1.6mm dia. Delrin stylus	0.10~0.70N
1.6mm dia. Silicon “finger”	0.10~0.80N

## 4.4 Typical Optical Characteristics

Visible Light Transmission : >80%

Haze : >13



## 4.5 Linearity

### 1.Linear Test Specification

Direction X :< 1.5%

Direction Y :< 1.5%

### 2.Linearity Test

Apply voltage (DC5V) to upper (or lower) electrodes, output voltage Vx or Vy on the other electrodes is measured at every regular intervals.

Linearity is the value of max. error voltage