

mass integrated

global part distribution • product lifecycle partner
excess inventory management • value-ad service provider



Data sheet provided by Mass Integrated

massintegrated.com • displayalliance.com

Please call +1.978.465.6190
Email: sales@massintegrated.com



ISO 9001: 2008

Mass Integrated complies with all DMCA takedown notices. Please send a formal DMCA Takedown Notice to Mass Integrated Systems, Inc. • 18 Henry Graf Jr. Road, Unit 1 • Newburyport, MA 01950.



Chunghwa Picture Tubes, Ltd.

Technical Specification

CPT TOUCH PANEL

CTAB070ZW02F

(I2C type)

ACCEPTED BY :

APPROVED BY	CHECKED BY	PREPARED BY
		Randy Lin

Niche Business Division

CHUNGHWA PICTURE TUBES, LTD.

1127 Hopin Rd., Padeh, Taoyuan, Taiwan 334, R.O.C.

TEL: +886-3-3675151 FAX: +886-3-377-3003

Doc. No:

CTAB070ZW02F

Issue Date:

2011/11/1

1. OVERVIEW

CTAB070ZW02F is 7" Projected Capacitive Touch Panel composed of sensor substrate, cover lens, control ICs and FPC. General specifications are summarized in the following table :

ITEM	SPECIFICATION
PANEL Outline	160.0 (H) x 99.5(V) mm
Touch Panel Active Area	154.6(H) x 92.4(V) mm
Substrate Thickness	1.6 mm
Resolution	4096 x 4096 dot
The minimum between 2 points	(17.22 mm)

2. CHARACTERISTIC of TOUCH PANEL

2.1 Basic Characteristic

ITEM	SPECIFICATION
Interface Type	Projective Capacitive Multi-Touch Panel
Activation Method	Multi-finger or finger
Surface Treatment	7H

2.2 Operation Environmental Characteristic

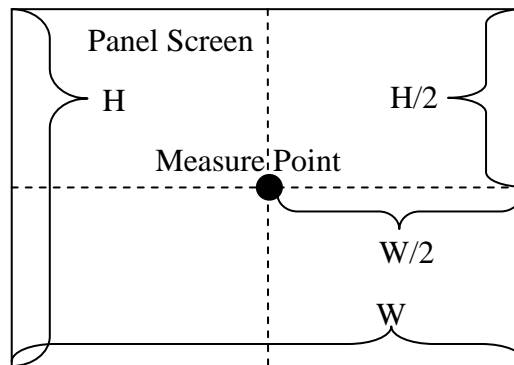
ITEM	SPECIFICATION
Operation Temperature	-10 ~ 60 °C
Storage Temperature	-20 ~ 65 °C
Operation Humidity	20% ~ 90% RH
Storage Humidity	20% ~ 90% RH

2.3 Optical Characteristic

ITEM	SPECIFICATION
Transmittance	(88%±3%)

Definition of Transmittance

- (1) Light source: C-light
- (2) Measure position: Panel screen center



- (3) Temperature/Humidity: room temperature/room humidity

- (4) Data equation:

$$\text{Transmittance} = \frac{L_{TSP}}{L_{\text{Light-source}}} * 100 \%$$

L_{TSP} : the light coming out of the panel under C light source

$L_{\text{Light-source}}$: the luminance of C light source

2.4 Electrical Characteristic

(1) Absolute Maximum Rating

ITEM	SPECIFICATION	
	Min.	Max.
Touch Panel Power Supply	-0.3 V	3.6V

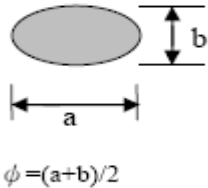
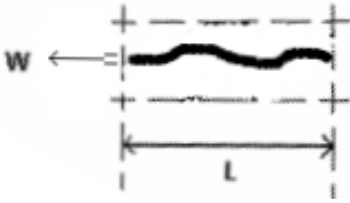

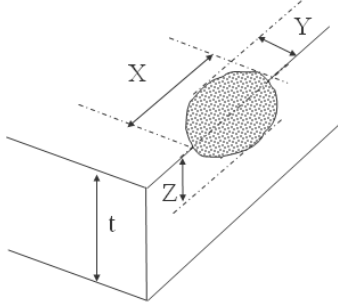
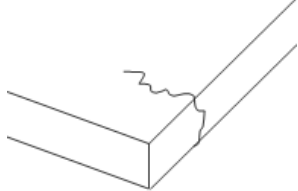
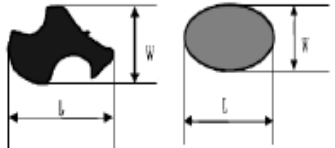
(2) Electrical Specification

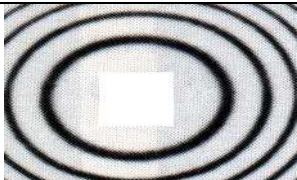
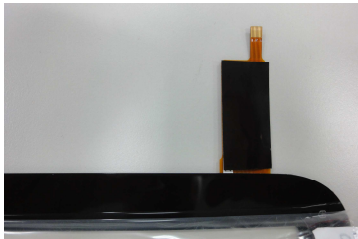
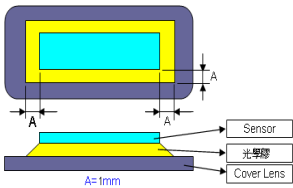
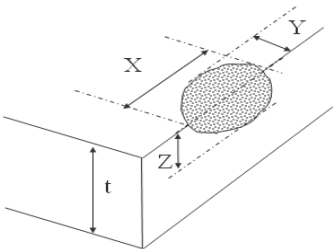
ITEM	SPECIFICATION		
	Min.	Typ	Max.
Touch Panel Power Supply	2.5 V	3.3 V	3.6V

(3) Pin Assignment

Pin No.	SYMBOL	FUNCTION
1	SDA	I ² C data signal.
2	SCL	I ² C clock signal.
3	INT	Interrupt
4	NC	No Connection
5	NC	No Connection
6	GND	Ground(Cap_TP ground)
7	VCC	Touch panel power supply
8	XRES	Reset pin

3. MECHANICAL SPECIFICATION

<p>Stain</p>	 <p>$\phi = (a+b)/2$</p>	<p>Dot shape :</p> <p>a) $\psi \leq 0.25\text{mm}$, allowed b) $0.25\text{mm} < \psi < 0.5\text{mm}$, $N \leq 4$ (Distance 10mm over) c) $0.5\text{mm} < \psi$, Not allowed</p>	
<p>Scratch</p>		<p>a) $W \leq 0.08\text{mm}$, allowed b) $0.08\text{mm} < W \leq 0.12\text{mm}$ and $L \leq 5\text{mm}$, $N \leq 3$ (Distance 10mm over) c) $0.12\text{mm} < W$ $10\text{mm} < L$ Not allowed □□□ □□</p>	<p>Active area</p>
<p>Finger Print</p>		<p>Not allowed</p>	<p>Active area</p>
<p>Sensor (edge corner crack damage)</p>		<p>$X < 2\text{mm}$ $Y < 1\text{mm}$ $Z < 0.5t$ $Z < \text{monolithic glass thickness}$, $N \leq 3$</p>	
<p>Progressive Crack Damage</p>		<p>Not allowed</p>	<p>Panel edge</p>
<p>Bubble</p>		<p>a) $\psi \leq 0.3\text{mm}$, allowed b) $0.3\text{mm} < W \leq 0.5\text{mm}$, $N \leq 2$ (Distance 10mm over) c) $0.5\text{mm} < \psi, N=0$, Not allowed</p>	

<p>Newton ring</p>		<p>2 loops $N \leq 1$ ($0.5\text{mm} < \psi$) 3 loops Not allowed</p>	
<p>FPC a).foreign body/dirty b).scratch c).wrinkles</p>		<p>a).impurities can not cross the two loop b).electrical characteristics of products can cause scratches are not allowed c).electrical characteristics of products can cause wrinkles are not allowed</p>	
<p>Resin</p>		<p>a)Sensor/cover lens range is defined as A b).$A \leq 1.2\text{mm}$; c).$A > 1.2\text{mm}$ ot allowed</p>	
<p>Cover lens (edge corner crack damage)</p>		<p>$X \leq 2.0\text{mm}$ $Y \leq 1.0\text{mm}$ $Z \leq 0.5t$ $Z < \text{monolithic glass thickness}$, $N \leq 3$</p>	

5. RELIABILITY TEST CONDITIONS

(1) Temperature and Humidity

TEST ITEMS	CONDITIONS
High Temperature Storage	65° C ; 250Hrs
High Temperature High Humidity Storage	60° C ; 90% RH ; 48 Hrs
Low Temperature Storage	-20° C ; 250 Hrs
Thermal Shock(Non-Operation)	-30° C (0.5 Hr)~65° C (0.5 Hr), Ramp<20° C , 10 CYCLES

(2) Physical Dimension and Mechanical Characteristics

TEST ITEMS	CONDITIONS
Impact	Steel Ball 50g, diameter 23mm, height 60 cm, one time impact at center area, no damage
ESD(Air mode)	150PF ; 330Ω ; ±8KV
ESD(Contact mode)	150PF ; 330Ω ; ±4KV
Hardness	7H pencil pressure

(3) Judgment standard

The judgment of the above test should be made as follow:

Pass : Normal display image with no obvious non-uniformity and no line defect.

Partial transformation of the module parts should be ignored.

Fail : No display image, obvious non-uniformity, or line defects.

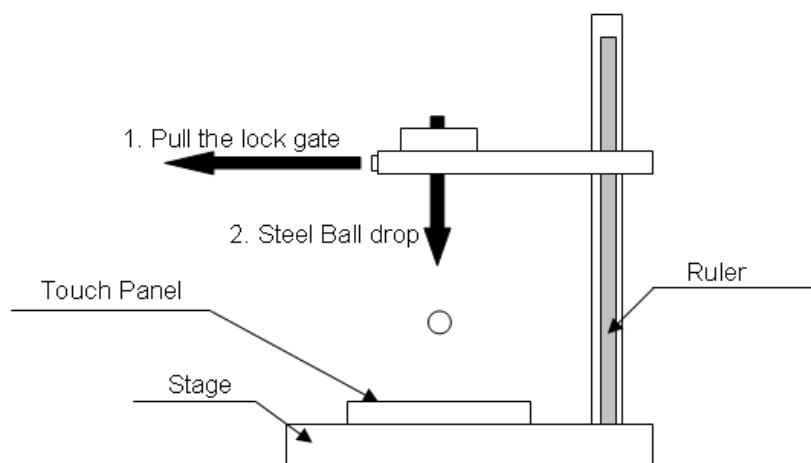
【Notes】

*1) Impact

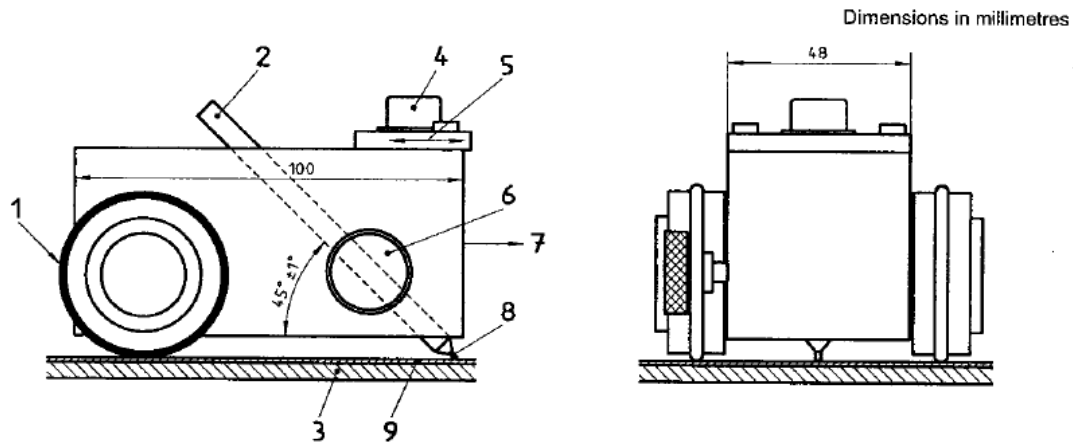
Steel ball, Diameter 23.0mm, Weight 50g,

Height 60 cm

One time Impact at center area, no damage



*2) Surface Hardness : JIS-K 5600-5-4 (750 gf/45 degree)



Key

- | | |
|-------------------------|-------------------------------------|
| 1 Rubber O-ring | 6 Clamp |
| 2 Pencil | 7 Direction of motion of instrument |
| 3 Substrate | 8 Pencil lead |
| 4 Level | 9 Paint film |
| 5 Small, movable weight | |