Chunghwa Picture Tubes, Ltd.
Inspection Specification

To :

Date : 2013/04/12

CPT TFT-LCD

Incoming Inspection Standards

Model :CLAA101WJ03 XG (MDL)

ACCEPTED BY：

APPROVED BY	CHECKED BY	PREPARED BY
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INCOMING INSPECTION STANDARDS

1.Inspection instruments:

(1)Pattern generator: CPT TFT LCD tester.

(2)Video board: CPT Video board or equivalent. (The output signal should be meet CPT specification)

(3)Luminance colorimeter: Topcon BM-5A or equivalent model.

2. Inspection conditions is as follows:

(1) Viewing distance is approximately 35 ~ 40 cm

(2) Viewing angle is normal to the LCD panel as Fig _1(10°)

(3) Ambient temperature is approximately 25 ± 5℃

(4) Ambient humidity is 60 ± 5% RH

(5) Ambient illuminance is from 300 ~ 500 Lux.

(6) Input signal timing should be typical value.

(7) When judging the defeat, take off protective film of polarizer.

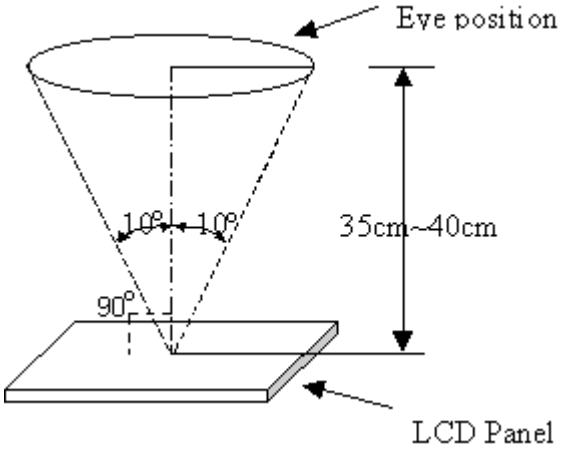


Fig _ 1

3. Special condition

(1) Viewing distance is close for inspection of adjacent dots and distance between defect dots.

(2) Viewing condition of "Shot block non-uniformity from oblique angle" is as Fig _2.

(3) Exceptional case: View angle ± 40° while inspected image-sticking.

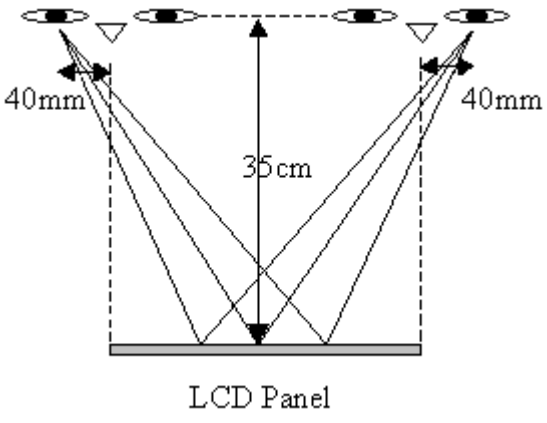


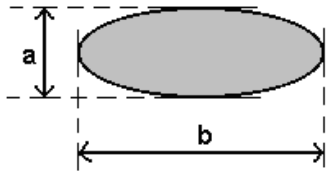
Fig _ 2

4. Inspection Criteria

a. VISUAL DEFECT

DEFECT TYPE		LIMIT		Note
ELECTRICAL DEFECT	SPOT	φ < 0.2mm	Ignore	Note1
		0.2mm≦ φ ≦0.4mm	N≦4	
		0.4mm< φ	N=0	
	BRIGHT DOT	N≦2		Note2
	DARK DOT	N≦3		
	TOTAL DOT	N≦4		
	TWO ADJACENT DOT (bright dots, dark dots, or bright, and dark dots; vertical, horizontal, and oblique)	N≦1		Note3
	THREE OR MOREADJACENT DOT	NOT ALLOWED		
	LINE DEFECT	NOT ALLOWED		--
(1) One pixel consists of 3 sub-pixels, including R, G, and B dot. (Sub-pixel = Dot) (2) Panel is acceptable if distance between 2 dot defects are greater or equal to 10mm.				

[Note1] N : Number, φ : Average Diameter

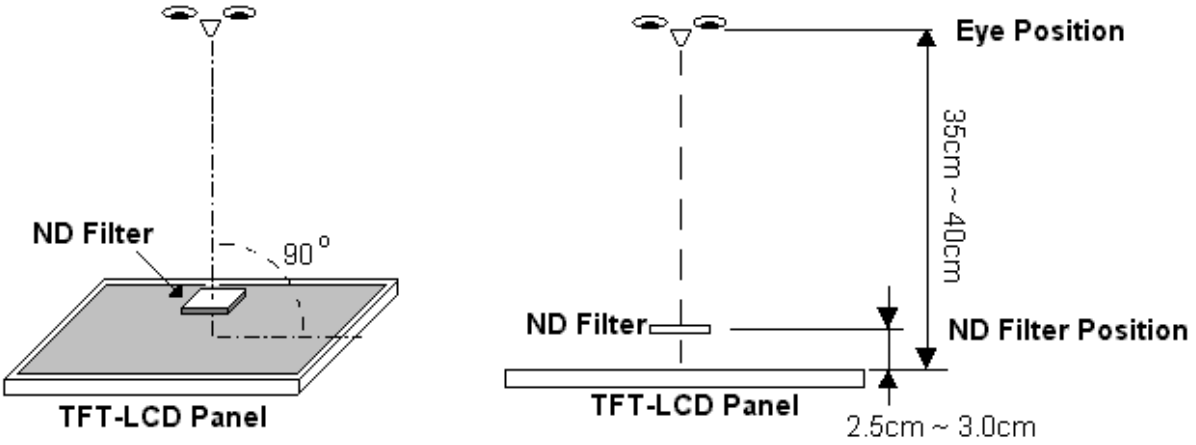


1. (White, black) Spot

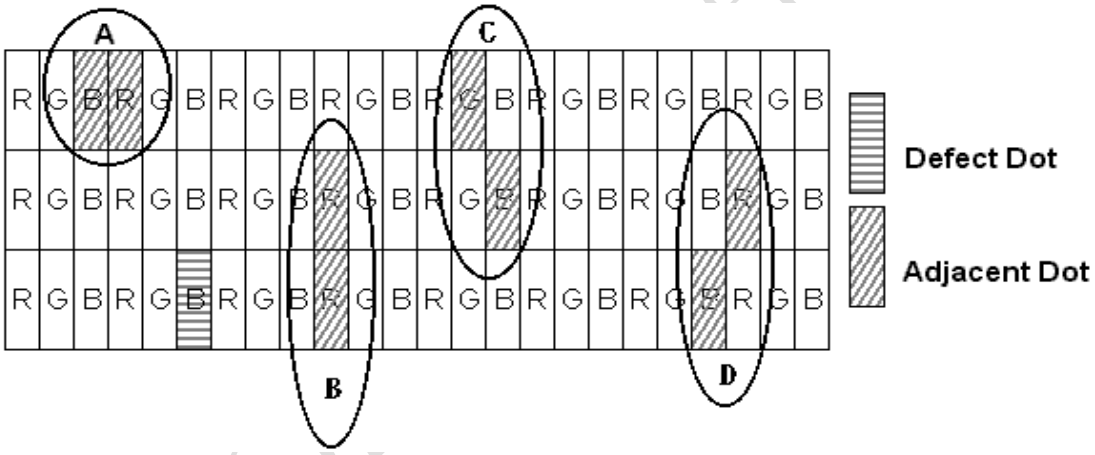
[Note2]

(1)Bright dot is defined through 5% transmission ND Filter as following; mura is defined through 5% transmission ND Filter.

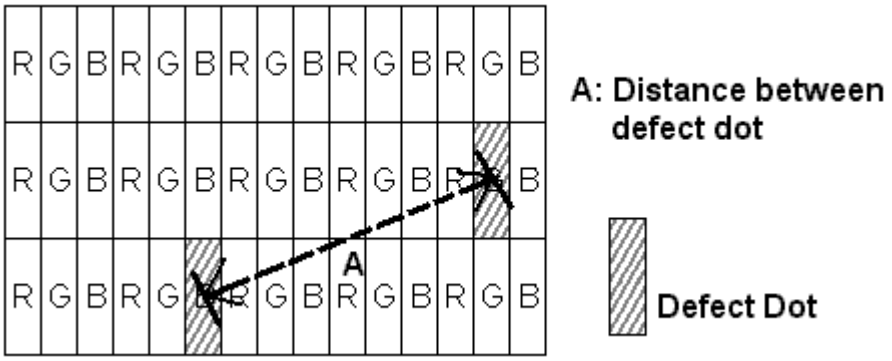
(2)Low brightness dot accept by can't through 5% transmission ND Filter in black pattern.



[Note3] Judge defect dot and adjacent dot as following. Allow below (as A, B, C and D status) adjacent defect dots, including bright and dart adjacent dot. And they will be counted 2 defect dots in total quantity.



Definition of distance between defect dot as following.



[Note5] Other condition

(1) The defects that are not defined above and considered to be problem shall be reviewed and discussed by both parties.

(2) Defects on the Black Matrix, out of Display area, are not considered as a defect or counted.

6. Handling precaution

(1) Don’t disassemble and reassemble the module by self.

(2) Acid, alkali, alcohol or touched directly by hand will damage the display.

(3) Static electricity will damage the module. Please configure grounding device.

(4) The strong vibration, shock, twist or bend will cause material damage, even module broken.

(5) It is easy to cause image sticking while displaying the same pattern for very long time.

(6) The response time, brightness and performance will vary from different temperature.