

FHD554-XZ-H-HR

cosmetic acceptance criteria

This document provides information on the FHD554-XZ-H-HR cosmetic acceptance criteria.

Affected products

The following products are affected.

- FHD554-XZ-H
- FHD554-XZ-HR

Required specifications

Learn about the required specifications for the acceptance criteria inspection.

Specification	Description
Ambient temperature	20 to 25°C (68 to 77°F)
Ambient humidity	65±5% RH
Illumination	Single 20W fluorescent lamp, non-directive (300 to 700 lux)
Viewing distance	Minimum 4 x the height of the panel
Viewing angle	Inspection conducted within normal viewing angle range

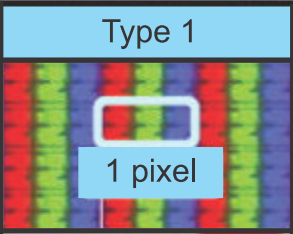
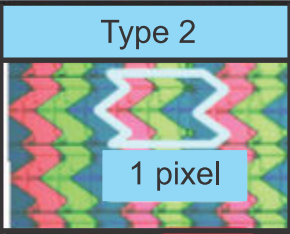
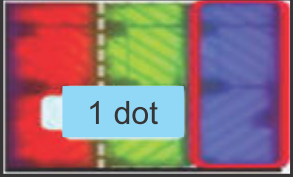

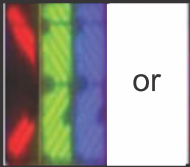



Defect categories

Defects are categorized as follows.

Defect	Description
Major	Likely results in failure or reduces the usability of the product for its intended purpose.
Minor	Has little bearing on the effective use or operation of the product.

Dot defect

The following topics provide the criteria for assessing dot defects.

	Type 1	Type 2	Mark
1 pixel			1 pixel = 3 dots
1 dot			
1 dot off	 or 	 or 	1 red dot off

Bright dot defect

A bright dot defect is a brightly visible dot compared against a dark pattern background.

Item	Criteria
R.G.B one dot	maximum 2
Adjacent two dots	0
Adjacent three dots	0
Bright dot – Bright dot	maximum 2

Partial dot defect

A partial dot defect is a dot that appears less than half the sub-pixel size among the bright dots.

Item	Criteria
Inspection pattern	64 grey
Quantity	Maximum 10

Dark dot defect

Dots (sub-pixels) appear darkly on the screen when compared against a bright pattern background.

Item	Criteria
One dot	10
Adjacent two dots	Maximum 2
Adjacent three dots	0
Minimum distance between dark dots	20 mm
Total amount of dark dots	Maximum 10 mm (.79 inches)

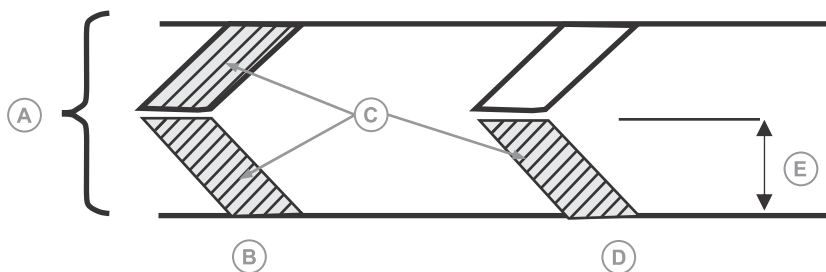
Total amount of dot defects

This summarizes the total amount of dot defects.

Item	Criteria
Quantity	12

Notes

- A dot refers to a sub-pixel (each red, green, or blue color).
- Dots smaller than a half sub-pixel are not counted as defect dots.
- Inspect for dots on either red, green, blue, white, or black test patterns.
- Defects on the black matrix (outside of the active area) are not considered defects.



- | | | | |
|---|---------------------|---|--------------------|
| A | One dot (sub-pixel) | D | Partial bright dot |
| B | Full bright dot | E | 50% less |
| C | Bright area | | |

Polarizer defect

Learn about polarizer defects.

Item	Criteria	
	Size	Quantity
Line shape scratch	$0.05 < W \leq 0.2$ $0.5 < L \leq 10.0$	$N \leq 6$
Dot shape scratch	$0.5 \leq D \leq 1.0$	$N \leq 6$

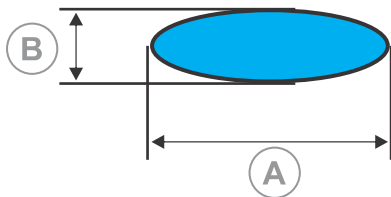
Notes

- W: Width
- L: Length
- D: Average diameter = $(a+b)/2$
- Linear: $a > b$
- Circular: $a \leq 2b$
- Extraneous substances which can be wiped out (such as fingerprints, particles, or so on) are not considered as defects.
- Defects on the black matrix (outside of the active area) are not considered defects.

Foreign matter

Visible light must not be visible around the edges of the screen. Pressure light leakage is not considered.

Item	Criteria	
	Size	Quantity
Linear	$0.05 < W \leq 0.3$ $0.5 < L \leq 3.0$	$N \leq 6$
Circular	$0.5 \leq D \leq 1.0$	$N \leq 6$



Notes

- W: Width
- L: Length

- D: Average diameter = $(a+b)/2$
- Linear: $a > b$
- Circular: $a \leq 2b$
- Extraneous substances which can be wiped out (such as fingerprints, particles, or so on) are not considered as defects.
- Defects on the black matrix (outside of the active area) are not considered defects.

Total amount of foreign material and polarizer defects

This summarizes the total amount of foreign material and polarizer defects.

Item	Criteria
Quantity	Maximum 10

Line defect

All kinds of line defects such as vertical, horizontal, or cross are not allowed.

Mura

When a mura issue happens, it is determined by 2% ND filter on a 50% grey test pattern.

Classification of defects

The following outlines the classification of defects.

Defect mode	Criterion for defect	Class	
No display	Not allowed	Major	
Line defect	No vertical, horizontal, or cross lines allowed		
Polarizer defects	In accordance with the inspection criteria:	Minor	
Extraneous substance			Dot defects
			Polarizer defects
Dot defect			Foreign matter
	Line defects		
	Mura		

Technical support

Technical support for Christie Enterprise products is available at:

- North and South America: +1-800-221-8025 or *Support.Americas@christiedigital.com*
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