PIXEL POLICY

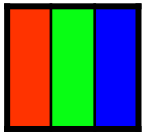
Definition

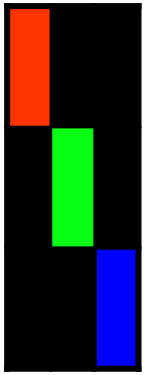
Verification of pixel faults

EIZO specification

Summary

Definition



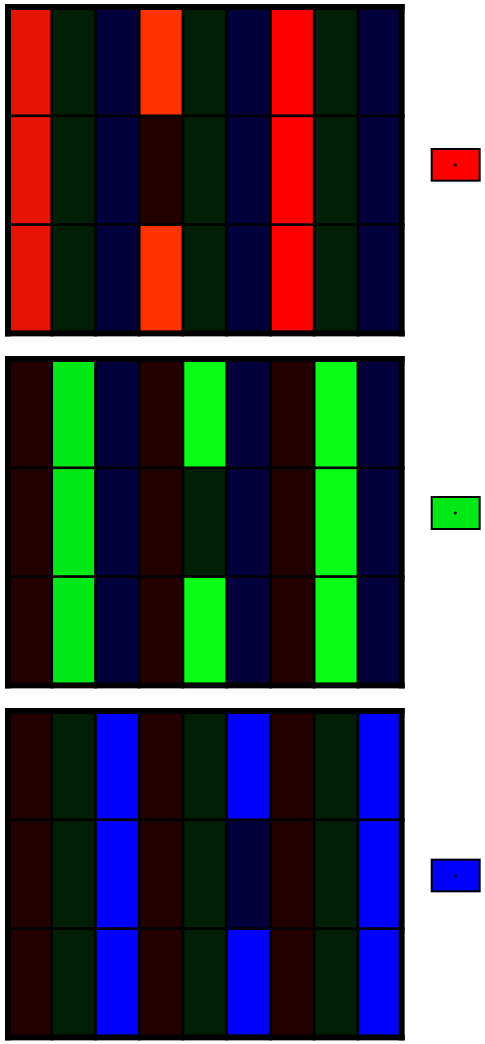


1 pixel is 1 screen dot. 1 pixel is built from 3 dots or sub-pixels next to each other;
Red + Green + Blue

The number of pixels in a LCD screen with the resolution;
1920 x 1080 = 2 073 600 pixels

1 sub-pixel is 1 red, green or blue dot.
The number of sub-pixels in a LCD screen with the resolution;
1920 x 1080 = 2 073 600 x 3 = 6 220 800 sub-pixels

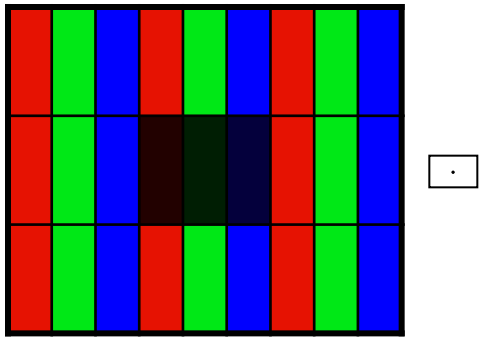
Verifications

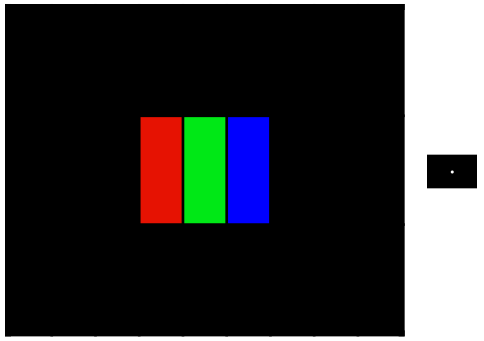


To verify if an entire pixel is faulty:
View the screen with a red, green, blue and black window.

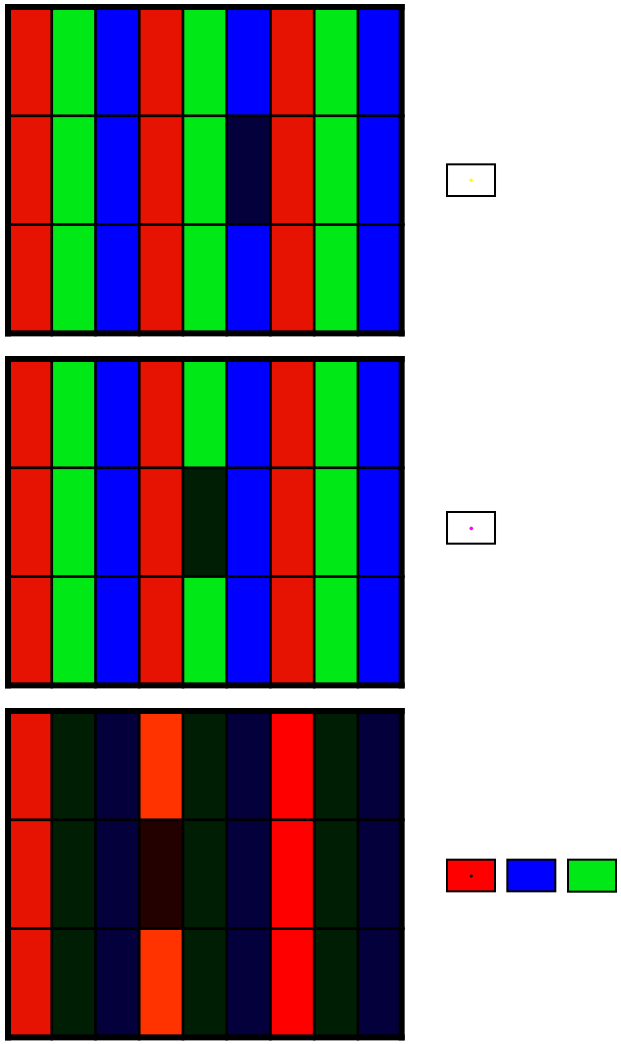
If 1 pixel is dark on a red and green and blue window the entire pixel is faulty. If no fault is visible on 1 or 2 of the colors, there are only 1 or 2 faulty sub-pixels.

If there is a white pixel on a black window the entire pixel is faulty.
If the bright point is red, green, blue, yellow, cyan or magenta it is only 1 or 2 faulty sub-pixels.





Verification of pixel faults



The blue color have the lowest bright level and green the highest.

If a blue sub-pixel is dark, the defect is barely visible on a white screen. It is only seen as a slightly yellow dot on the white screen. The lightning green and red sub-pixels next to the dark blue makes this yellow impression.

If a green sub-pixel is dark, the defect is more easy to see on a white screen. It is seen as a magenta dot on the white screen. The lightning red and blue sub-pixels next to the dark green makes this magenta impression.

On a one-colored screen a dark sub-pixel from this specific color will give an impression of a black dot. There will be 5 dark sub-pixels in one line. On a screen with an other color will this dark sub-pixel not be visible at all.

EIZO Pixel Policy

EIZO defines 3 different types if pixel faults;

Type 1: 1 pixel / 3 sub-pixels next to each other are faulty. It's seen as white bright dots on a dark screen or as black dots on a white screen.

Type 2: Single sub-pixels are bright / faulty. It's seen as bright colored dots on a dark / black screen.

Type 3: Single sub-pixels are dark / faulty. It's seen as black dots on colored (red, green or blue) screen.

New monitors with more faulty pixels / sub-pixels than defined below is considered as faulty.

	FORIS / FlexScan	FORIS FG2421
Type 1	0	0
Type 2	2	0
Type 3	5	5
Total	**5**	**5**

Pixel - Summary

EIZO accepts 0 pixel faults

EIZO accepts 2 bright sub-pixel faults (FG2421 “0” bright)

EIZO accepts totally 5 bright + dark sub-pixel faults on current FlexScan & FORIS models

The ISO standard, ISO 13406-2 most often referred to accept up to 8 pixel faults and up to 10 sub-pixel faults on a monitor with 2 million pixels / resolution 1920 x 1080