SWEDX

SWEDX Pixel Policy / Digital Signage Products

SWEDX implements the ISO 9241 standard as a pixel policy for SWEDX products
http://en.wikipedia.org/wiki/ISO_9241#ISO-9241-302.2C_303.2C_305.2C_307:2008_pixel_defects

General information

Defective pixels are pixels on a liquid crystal display (LCD) that are not performing as expected. In LCD manufacture, it is common for a display to be manufactured that has a number of sub-pixel defects (each pixel is composed of three primary-colored sub-pixels, RGB). The number of faulty pixels tolerated, before a screen is approved for rejection by SWEDX as stated below.

Defect description
Dark dot defects
A dark dot defect is usually caused by a transistor in the transparent electrode layer that is stuck "off".

Bright dot defects
A bright dot defect is a group of three sub-pixels (one pixel) all of whose transistors are stuck "on".

Dead sub-pixels
A dead sub-pixel is a pixel that is always "off".

Bright sub-pixels
A stuck sub-pixel is a pixel that is always "on".

Bright / dead dot / sub-pixels policy (visible as bright pixel on dark background or vice versa).
3 bright sub-pixels (1 dot) =   **1 is allowed**
3 dead sub-pixels (1 dot) =   **1 is allowed**
2 bright or dead sub-pixels =   **2 are allowed**
1 bright or dead sub-pixel (RGB) =   **4 are allowed**

Total allowed number of bright sub-pixels/dots = 6 are allowed

If the defective pixels exceed the permitted numbers the LCD is considered defective and shall be replaced or compensated

Information:
A Full HD LCD has a resolution of 1920x1080 pixels. A Full HD LCD contains 2.073.600 pixels and 6.220.800 sub-pixels. Most of the time if a pixel/sub-pixel is defective it barely visible special when content displayed on the LCD is not static.

Green
Sub-pixel

Red
Sub-pixel

Blue
Sub-pixel

Pixel / Dot