# NTI 4K Display Pixel Guidelines

Each pixel is made up of a red, green, and blue subpixel. When a subpixel is fixed in an unchanging state, the visible result is a tiny black, white, or colored spot that displays on the screen. There are generally two types of subpixel defects: bright and dark subpixel defects. A subpixel defect is also seen as a dot defect.


Bright pixel defect: A subpixel remains permanently lit resulting in a white, or colored dot on a black background. Bright pixels can be white, red, blue, or green and can be identified on a black background.
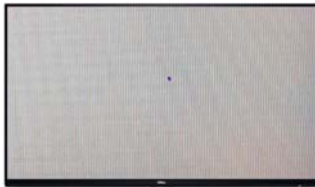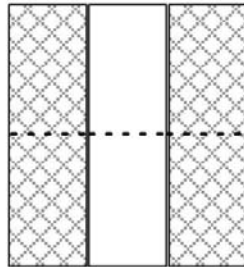

Dark or dead pixel defect: A subpixel remains permanently unlit resulting in a black dot on a white background. Dead pixels can be identified on any background color except on a black background.
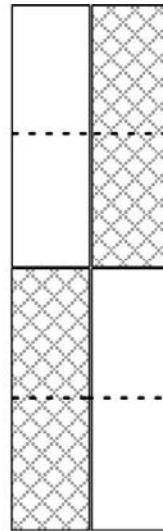
2 Dots Adjacent = 1 pair of dots = 2 dots

Examples:
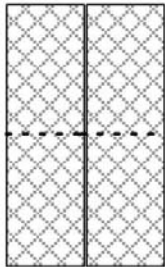
2 dots adjacent   2 dots adjacent   2 dots adjacent (vertical)   2 dots adjacent (on the slant)

Acceptable defects

Criteria	Description	Maximum number
Bright Dot	Random	2
	2 dots adjacent	1
	3 dots adjacent or more	0
Dark Dot	Random	5
	2 dots adjacent	1
	3 dots adjacent or more	0
Distance	Minimum Distance Between Bright Dots	15mm
	Minimum Distance Between Dark Dots	15mm
Total number of bright and dark dots		5
Foreign Black/White/Bright Spot		0.15<D≤0.5mm, N≤4
Display Failure (Vertical line, Horizontal line, Cross line etc.)		Not Allowable
Mura	Not visible through 6% ND filter in 50% gray pattern or judge by limited sample if necessary	