

## PIXEL DEFECT POLICY

### Dot-defects (Bright or dark spots on the panel)

Due to the effect that dot failures are part of the TFT technology such failure occurrence cannot be prevented basically. Even though dot defects usually occur during production process, new defects can appear within the lifespan of a TFT display. Neither the production at LCD-supplier nor the use of an LCD-Monitor after shipment can be influenced by Hatteland Technology. Hence Hatteland Technology cannot be made responsible for such dot failures. However Hatteland Technology understands and accepts the responsibility towards the customers for the delivery of new displays, therefore accepts a limitation on dot defects occurrence on new displays delivered to the customer.

## PRINCIPLES

- a. One pixel consists of 3 dots (Red, Green and Blue)
- b. Dot defects are differentiated between:
  - Bright dot defects: Spot on the panel appear as pixels or sub pixels that are always lit. Non-extinguishing dot.
  - Dark dot defects: Spot on the panel appear as pixels or sub pixels that are always dark (off). Non-lightening dot.
- c. Inspector observes the LCD from normal direction at a distance of 50cm above the worktable. Dark dots are counted under entire white screen. Bright dots are counted under entire black screen.
- d. Dot failures within tolerances below do not qualify for warranty claims.

## PIXEL DEFECT TOLERANCES

|   |               |
|---|---------------|
| Bright dot                                    | $\leq 4$ dots |
| Two adjacent bright dots *                    | $\leq 2$      |
| Distance between 2 dot defects *              | $\geq 15$ mm  |
| Dark dots                                     | $\leq 8$      |
| Total number of bright or dark dot defects. * | $\leq 8$      |

\* 1 or 2 adjacent dot defects considered as 1 defect.

## EXTRAORDINARY CIRCUMSTANCES

Possible cases which cannot be influenced either by customer or Hatteland Technology.

### Examples for extraordinary circumstances:

- Allocation from LCD-Supplier
- Outstanding high number of LCD-panels with bright dots but within LCD-suppliers Specification.
- Sharply increased demand by customer

**In such cases a mutual agreement is inevitable.**

### Examples:

- Acceptance of bright dots in "non-critical" display areas.
- Acceptance of bright dots with defined color.

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