

# **Application Note:**

# **Decimation**

Decimation (also known as sub-sampling) is the process of skipping neighboring pixels (with the same color) while being read out from the CCD chip.

**Note**



Decimation is available for Manta b/w and color cameras. (Firmware 1.44 or greater). Manta G-032 and Manta dual-tap cameras don't have decimation.

## Description of decimation

Decimation is used primarily for the following reason:

- A reduction in the number of pixels and thus the amount of data while retaining the original image area angle and image brightness.
- Similar to binning mode the cameras support horizontal, vertical and H+V decimation mode.

### Horizontal decimation modes

The different decimation patterns are shown below.

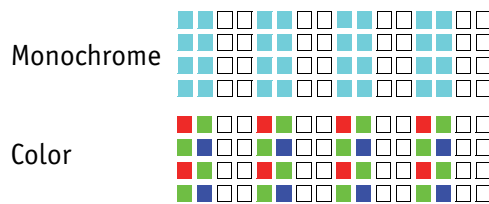


Figure 1: Horizontal decimation 2 out of 4

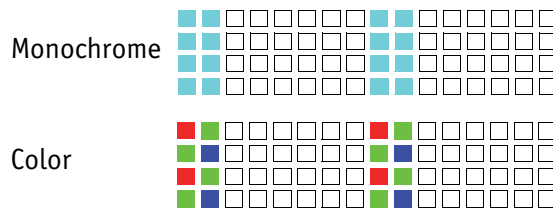


Figure 2: Horizontal decimation 2 out of 8

**Note**



The image appears horizontally compressed in this mode and no longer exhibits a true aspect ratio.

## Vertical decimation modes

The different decimation patterns are shown below.

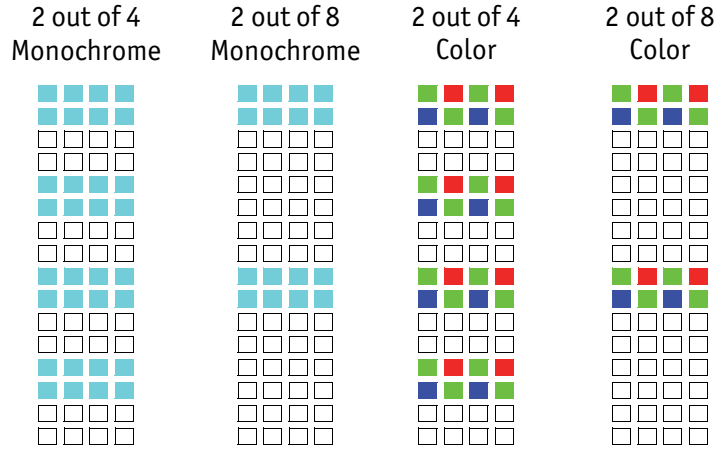


Figure 3: Vertical decimation

### Note



The image appears vertically compressed in this mode and no longer exhibits a true aspect ratio.

## H+V decimation modes

The different decimation patterns are shown below.

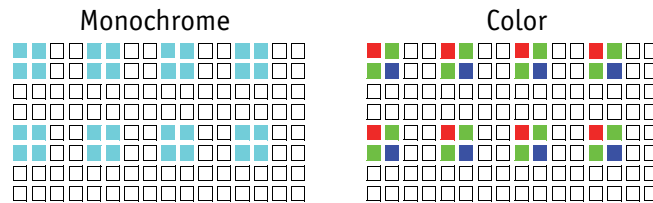


Figure 4: 2 out of 4 H+V decimation

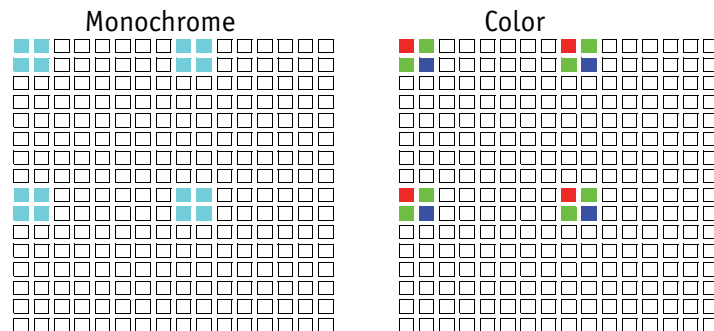


Figure 5: 2 out of 8 H+V decimation

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