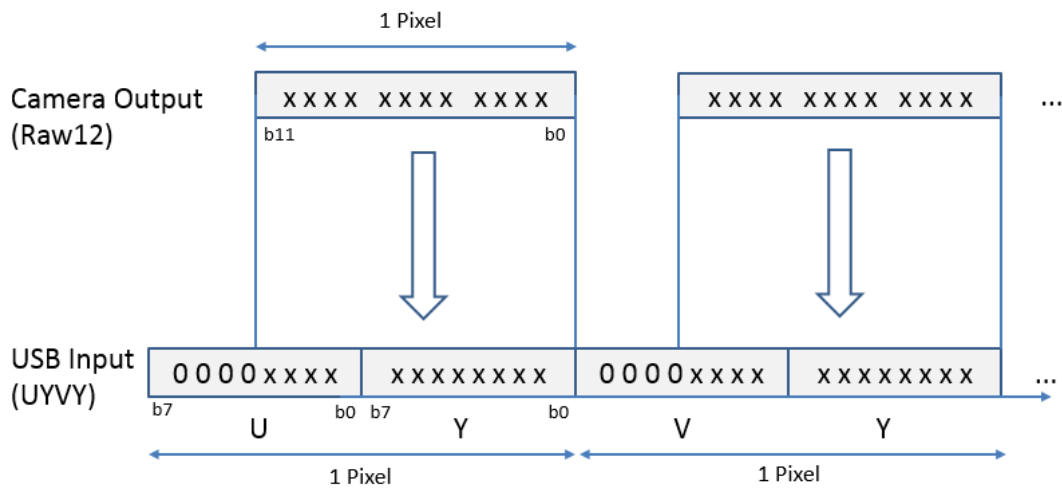# 1. Processing of Raw Input on SVM-MIPI

1.1. SVM-03U (UVC) Mode

As for Raw type input format, SVM-MIPI board supports Raw 10-bit and Raw 12-bit format. Because USB Video Class (UVC) standard does not support Raw input, in SVM-03U mode, the board outputs video considering its input to be 16-bit format like UYVY, padding upper bits with zero. So, when you want to capture Raw input please set to "UYVY" as pixel format and run Raw based image processing by host PC.

The figure below shows the case of Raw 12-bit input.

1.2. SVM-03 (HDMI) Mode

In SVM-03 mode, when Raw input is detected SVM-MIPI board outputs its input to HDMI port as monochrome video (dot-by-dot). Because the board currently supports only 8-bit color depth output, lower bits of Raw10/12 input are discarded. Demosaic processing is currently not implemented.

2. FPGA/FW Version

The information in this document is applied for board version below:

Mode	FX3 Version	FPGA Version
SVM-03U (UVC) Mode	63 or later	1.00 or later
SVM-03 (HDMI) Mode	123 or later	1.20 or later