**Padding issue in case of image reduction**

In case of image reduction, one pixel in the lower right corner of the image reduction area is displayed in the PADDING area in the specific condition.

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**Occurrence condition**

1. Other than 1x
2. When PADDING uses a register value.
3. When the final pixel of the reduction pixel is on the final horizontal line of the input pixel. (Note)

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**Note:**

When the red line and the blue line overlap.
[User's Manual Update]

Add new section “36.4.3 Setting the vertical size, start position and reduction factor” to avoid this issue.

36.4.3 Setting the vertical size, start position and reduction factor

Set the input image size, start position, and reduction ratio before calculating the reduction by Resizer (RS).

Before setting the parameters, please check and adjust the following settings for the vertical direction.

(1) List of related registers

- ISU_RPF_SRC_SIZE, S_VSIZE[11:0]
- ISU_RS_STPOS.VSTART[10:0]
- ISU_RS_POS_TUNE.VST_TUNE[11:0]
- ISU_RS_VSCALE.VMANT[3:0]
- ISU_RS_VSCALE.VFRAC[11:0]
- ISU_RS_HSCALE.HMANT[3:0]
- ISU_RS_HSCALE.HFRAC[11:0]
- ISU_RS_PADDMODE.PADDSEL

(2) Confirmation and determination of setting values

(2)-1 When PADDSEL= 0

There is no need to change those register parameters.

(2)-2 When the reduction ratio is equal (1.0x)

In other words, when HMANT=0x1, HFRAC=0x000, VMANT = 0x1 and VFRAC = 0x000

There is no need to change those register parameters.

(2)-3 When the setting value is other than the above (other than equal)

Perform the following calculations.

\[
Result = \left(\frac{S_{\text{VSIZE}} - V\text{START} - V\text{ST}\_TUNE/4096 - 1}{4096 \times \text{VMANT} + \text{VFRAC}}\right) \times 4096
\]

(2)-3-1 If the calculation result (Result) is not an integer

There is no need to change those register parameters.

(2)-3-2 If the calculation result (Result) is an integer

(2)-3-2-1 If VST\_TUNE is equal to 0xFFF

VST\_TUNE= 0xFFE

(2)-3-2-2 If VST\_TUNE is not equal to 0xFFF

VST\_TUNE=VST\_TUNE +0x001 (Add 1 to correct the start position)
Start

(2)-1
Is PADDSEL=0?

N

(2)-2
Is reduction ratio equal (1.0x)?
(HMANT=0x001,HFRAC=0x000, VMANT=0x001 and VFRAC=0x000)

Y

(2)-3

Result = \( \frac{(S_{\text{VSIZE}} - VSTART - VST\_TUNE/4096 - 1) \times 4096}{4096 \times VMANT + VFRAC} \)

N

(2)-3-1
Is Result an integer?

N

(2)-3-2
Is VST\_TUNE equal to 0xFFF?

N

(2)-3-2-1
VST\_TUNE = 0xFFF

Y

(2)-3-2-2
VST\_TUNE = VST\_TUNE + 0x001

End