# Text changes for deblocking for ALC [1] that were adopted in the JMVM (Case#1)

***Insert the yellow marked text into section***

J.8.8.2.1 Derivation process for the luma content dependent boundary filtering strength

The specifications in 8.7.2.1 apply with the following changes:

– The following paragraph is added after the paragraph starting with “Output of this process is the variable bS”:

The variable bS is derived as follows if psip\_flag is equal to 1.

– If psip\_flag is equal to 1, both of the samples p0 and q0 is in a macroblock coded using a I16x16 Mode and both of the samples p0 and q0 is in a macroblock coded using an Intra\_16x16\_DC\_PSIP\_MODE, a value of bS equal to 0 is the output:

– Otherwise, if psip\_flag is equal to 1, both of the samples p0 and q0 is in a macroblock coded as I8x8 Mode and both of the samples p0 and q0 is in a macroblock coded using an Intra\_8x8\_DC\_PSIP\_MODE, a value of bS equal to 0 is the output:

– Otherwise, if psip\_flag is equal to 1, both of the samples p0 and q0 is in a macroblock coded as I4x4 Mode and both of the samples p0 and q0 is in a macroblock coded using an Intra\_4x4\_DC\_PSIP\_MODE, a value of bS equal to 0 is the output:

– Otherwise, if psip\_flag is equal to 1, either the samples p0 or q0 is in a macroblock coded as I16x16 Mode with Intra\_16x16\_DC\_PSIP\_MODE, the following applies

– If the block edge is also a macroblock edge, a value of bS equal to 1 is the output:

– Otherwise, a value of bS equal to 0 is the output:

– Otherwise, if psip\_flag is equal to 1, either the samples p0 or q0 is in a macroblock coded as I8x8 Mode with Intra\_8x8\_DC\_PSIP\_MODE, intra prediction mode, the following applies

– If the block edge is also a macroblock edge, a value of bS equal to 1 is the output:

– Otherwise, a value of bS equal to 0 is the output:

– Otherwise, if psip\_flag is equal to 1, either the samples p0 or q0 is in a macroblock coded as I4x4 Mode with Intra\_4x4\_DC\_PSIP\_MODE intra prediction mode, the following applies

– If the block edge is also a macroblock edge, a value of bS equal to 1 is the output:

– Otherwise, a value of bS equal to 0 is the output:

The variable bS is derived as follows if disp\_flag is equal to 1. mb\_type is DISPMODE if mb\_disp\_flag is equal to 1.

– If verticalEdgeFlag is euqal to 1, both of the samples p0 and q0 is in a macroblock coded using a DISPMODE and both of the samples p0 and q0 is in a macroblock coded using an Intra\_16x16\_Horizontal intra prediction mode, a value of bS equal to 0 is the output:

– Otherwise, if verticalEdgeFlag is euqal to 0, both of the samples p0 and q0 is in a macroblock coded using a DISPMODE and both of the samples p0 and q0 is in a macroblock coded using an Intra\_16x16\_Vertical intra prediction mode, a value of bS equal to 0 is the output:

– Otherwise, if both of the samples p0 and q0 is in a macroblock coded using a DISPMODE, the following applies

– If the block edge is also a macroblock edge, a value of bS equal to 2 is the output:

– Otherwise, a value of bS equal to 0 is the output:

– Otherwise, if either the samples p0 or q0 is in a macroblock coded using a DISPMODE, the following applies

– If the block edge is also a macroblock edge, a value of bS equal to 4 is the output:

– Otherwise, a value of bS equal to 3 is the output:

The variable bS is derived as follows if alc\_sps\_enable\_flag is equal to 1 and (slice\_type % 5) is equal to 0 and bS is equal to 0 and the block edge is also a macroblock edge.

– If values of mb\_alc\_skip\_flag or mb\_alc\_flag for the luma blocks of the samples of both p0 and q0 are equal to 1 and the ALC weighting value of the luma block of the samples of p0 is different from the ALC weighting value of the luma block of the samples of q0, or value of mb\_alc\_skip\_flag or mb\_alc\_flag for the luma blocks of the samples p0 or q0 is equal to 1, the following applies:

* If the absolute difference of the ALC weighting value between the two blocks of samples of p0 and q0 is greater than or equal to 5, a value of bS equal to 3 shall be the output.
* Otherwise, a value of bS equal to 1 shall be the output.

– Otherwise, a value of bS equal to 0 shall be the output.

# Text changes for Simplified deblocking for ALC [2] (Case#2)

***Insert the yellow marked text into section***

J.8.8.2.1 Derivation process for the luma content dependent boundary filtering strength

The specifications in 8.7.2.1 apply with the following changes:

– The following paragraph is added after the paragraph starting with “Output of this process is the variable bS”:

The variable bS is derived as follows if psip\_flag is equal to 1.

– If psip\_flag is equal to 1, both of the samples p0 and q0 is in a macroblock coded using a I16x16 Mode and both of the samples p0 and q0 is in a macroblock coded using an Intra\_16x16\_DC\_PSIP\_MODE, a value of bS equal to 0 is the output:

– Otherwise, if psip\_flag is equal to 1, both of the samples p0 and q0 is in a macroblock coded as I8x8 Mode and both of the samples p0 and q0 is in a macroblock coded using an Intra\_8x8\_DC\_PSIP\_MODE, a value of bS equal to 0 is the output:

– Otherwise, if psip\_flag is equal to 1, both of the samples p0 and q0 is in a macroblock coded as I4x4 Mode and both of the samples p0 and q0 is in a macroblock coded using an Intra\_4x4\_DC\_PSIP\_MODE, a value of bS equal to 0 is the output:

– Otherwise, if psip\_flag is equal to 1, either the samples p0 or q0 is in a macroblock coded as I16x16 Mode with Intra\_16x16\_DC\_PSIP\_MODE, the following applies

– If the block edge is also a macroblock edge, a value of bS equal to 1 is the output:

– Otherwise, a value of bS equal to 0 is the output:

– Otherwise, if psip\_flag is equal to 1, either the samples p0 or q0 is in a macroblock coded as I8x8 Mode with Intra\_8x8\_DC\_PSIP\_MODE, intra prediction mode, the following applies

– If the block edge is also a macroblock edge, a value of bS equal to 1 is the output:

– Otherwise, a value of bS equal to 0 is the output:

– Otherwise, if psip\_flag is equal to 1, either the samples p0 or q0 is in a macroblock coded as I4x4 Mode with Intra\_4x4\_DC\_PSIP\_MODE intra prediction mode, the following applies

– If the block edge is also a macroblock edge, a value of bS equal to 1 is the output:

– Otherwise, a value of bS equal to 0 is the output:

The variable bS is derived as follows if disp\_flag is equal to 1. mb\_type is DISPMODE if mb\_disp\_flag is equal to 1.

– If verticalEdgeFlag is euqal to 1, both of the samples p0 and q0 is in a macroblock coded using a DISPMODE and both of the samples p0 and q0 is in a macroblock coded using an Intra\_16x16\_Horizontal intra prediction mode, a value of bS equal to 0 is the output:

– Otherwise, if verticalEdgeFlag is euqal to 0, both of the samples p0 and q0 is in a macroblock coded using a DISPMODE and both of the samples p0 and q0 is in a macroblock coded using an Intra\_16x16\_Vertical intra prediction mode, a value of bS equal to 0 is the output:

– Otherwise, if both of the samples p0 and q0 is in a macroblock coded using a DISPMODE, the following applies

– If the block edge is also a macroblock edge, a value of bS equal to 2 is the output:

– Otherwise, a value of bS equal to 0 is the output:

– Otherwise, if either the samples p0 or q0 is in a macroblock coded using a DISPMODE, the following applies

– If the block edge is also a macroblock edge, a value of bS equal to 4 is the output:

– Otherwise, a value of bS equal to 3 is the output:

The variable bS is derived as follows if alc\_sps\_enable\_flag is equal to 1 and (slice\_type % 5) is equal to 0 and bS is equal to 0 and the block edge is also a macroblock edge.

– If values of mb\_alc\_skip\_flag or mb\_alc\_flag for the luma blocks of the samples of both p0 and q0 are equal to 1 and the ALC weighting value of the luma block of the samples of p0 is different from the ALC weighting value of the luma block of the samples of q0, or value of mb\_alc\_skip\_flag or mb\_alc\_flag for the luma blocks of the samples p0 or q0 is equal to 1, a value of bS equal to 1 shall be the output.

– Otherwise, a value of bS equal to 0 shall be the output.

# Reference

[1] W. S. Shim, M. W. Park, G. H. Park, D. Y. Suh, H. S. Song, Y. H. Moon, J. B. Choi, “CE5 results- joint prop for MVC deblocking,” JVT-W024, San Jose, USA, April 2007.

[2] G.H. Park, M.W. Park, D.Y. Suh, K. Kim, “MVC deblocking for illumination compensation,” JVT-V033, Marrakech, Morocco, Jan. 2007.