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| **Joint Collaborative Team on Video Coding (JCT-VC)**  **of ITU-T SG 16 WP 3 and ISO/IEC JTC 1/SC 29/WG 11**  21st Meeting: Warsaw, PL, 19–26 June 2015 | Document: JCTVC-U1101 |

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| *Title:* | **Description of Core Experiment 1 (CE 1): Chroma deblocking filtering** | | |
| *Status:* | Output Document of JCT-VC | | |
| *Purpose:* | CE Description | | |
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| *Source:* | CE coordinators | | |

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# Abstract

This document provides the description of Core Experiment 1 (CE1) on chroma deblocking filtering

# Introduction

It was asserted that chroma deblocking may be currently problematic for chroma components. It was suggested that the problem may become more severe when enabling the intra block copy (current picture reference) method. The goal of this Core Experiment (CE) is to further investigate the need of including additional chroma deblocking filtering modes.

# Participant list

|  |  |  |
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# Software

All tests are to be built on top of SCM-5.0.

# Test condition

The common conditions for screen content coding tests from JCTVC-U1015 shall be used for these experiments.

Expert subjective analysis shall be performed for the methods

# Test methods

## Method 1: Chroma deblocking when Bs >0

* **Proponent:** Apple and Qualcomm, JCTVC-U0138
* **Crosschecker:** XXXXX
* **Description:**

In this mode, i.e. use\_alternate\_chroma\_deblocking = 1, chroma deblocking is performed for all edges that have a Bs value larger than 0. The same deblocking filter as is currently specified in the HEVC specification for edges with a Bs value equal to 2 is reused. This mode applies to all chroma formats.

## Method 2: Chroma deblocking as luma

* **Proponent:** Apple and Qualcomm, JCTVC-U0138
* **Crosschecker:** XXXXX
* **Description:**

In this mode, i.e. use\_alternate\_chroma\_deblocking = 2, chroma deblocking is performed using exactly the same process and filters as specified for the luma component. This mode only applies to 4:4:4 formats.

# Timeline

T0: Determine sequences and coding conditions to be tested (July XX).

T1 = T0 + X week: Finalization of CE description (July XX).

T2 = T1 + X weeks: Release of to-be-tested software packages and start crosschecking (August XX).

T3 = T2 + X weeks: Release of text specifications (August XX).

T4 = T3 + X weeks: Release of all simulation results and finish crosschecking (Sept. XX)

T5: Document upload deadline, XXXXX, 2015

The 22nd JCT-VC meeting will be held in XXXXX during XXXXX.

# References

1. H. Yu, R. Cohen, K. Rapaka, and J. Xu (editors), “Common Test Conditions for Screen Content Coding,” Document of Joint Collaborative Team on Video Coding, JCTVC-U1015, Jun. 2015.
2. A.M. Tourapis, Y. Su, D. Singer, W-S. Kim, W. Pu, J. Sole, and M. Karczewicz, “Chroma Deblocking for Screen Content Coding,” Document of Joint Collaborative Team on Video Coding, JCTVC-U00138, Jun. 2015