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| **Joint Collaborative Team on Video Coding (JCT-VC)**  **of ITU-T SG16 WP3 and ISO/IEC JTC1/SC29/WG11**  5th Meeting: Geneva, 16-23 March, 2011 | Document: JCTVC-E347 |

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| *Title:* | **CE3: Cross-verification of Sony’s Luma Interpolation Filter Contribution (JCTVC-E128 and case 0 of JCTVC-E129)** | | |
| *Status:* | Input Document to JCT-VC | | |
| *Purpose:* | Proposal | | |
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| *Source:* | Qualcomm Incorporated | | |

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# Abstract

This contribution reoprts our cross-verification results of Sony’s CE3 luma interpolation filter contribution (JCTVC-E128 and case 0 of JCTVC-E129). For both contribution, the coding efficiency have been comfired. Relative encoding and decoding time have some degree of deviation. Considering the difference of operating the environments, results are basically confirmed.

# Introduction

This contribution is a report of verification results of JCTVC-E128 and JCTVC-E129. The test conditions are specified in JCTVC-d603

# Experimental Results

Our encoding environment is using 64bit linux cluster and decoding was performed on a sinlge 64 bit windows PC. The RD data exactly match contribution JCTVC-E128 and case 0 of JCTVC-E129.

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| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  |  | Random access |  |  | Random access LoCo |  |
| Y BD-rate | U BD-rate | V BD-rate | Y BD-rate | U BD-rate | V BD-rate |
| Class A | 0.1 | 0.2 | 0.3 | -0.9 | -0.1 | -0.1 |
| Class B | 0.0 | 0.0 | 0.0 | -0.6 | -0.3 | -0.4 |
| Class C | -0.1 | -0.3 | -0.3 | -0.4 | -0.3 | -0.3 |
| Class D | 0.1 | -0.4 | -0.3 | -0.3 | -0.6 | -0.4 |
| Class E |  |  |  |  |  |  |
| All | 0.0 | -0.1 | -0.1 | -0.6 | -0.3 | -0.3 |
| Enc Time[%] | 95% | | | 96% | | |
| Dec Time[%] | 101% | | | 99% | | |
|  |  |  |  |  |  |  |
|  | Low delay | | | Low delay LoCo | | |
|  | Y BD-rate | U BD-rate | V BD-rate | Y BD-rate | U BD-rate | V BD-rate |
| Class A |  |  |  |  |  |  |
| Class B | 0.2 | 0.3 | 0.3 | -0.7 | 0.1 | 0.0 |
| Class C | -0.2 | 0.1 | 0.0 | -0.9 | -0.2 | 0.1 |
| Class D | 0.1 | 0.3 | 0.6 | 0.0 | 0.1 | 0.6 |
| Class E | 0.0 | -0.1 | 0.5 | -0.7 | 0.7 | 1.1 |
| All | 0.0 | 0.2 | 0.3 | -0.6 | 0.1 | 0.4 |
| Enc Time[%] | 98% | | | 93% | | |
| Dec Time[%] | 99% | | | 101% | | |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

Table Cross-check results of JCTVC-E128

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Random access |  |  | Random access LoCo |  |
| Y BD-rate | U BD-rate | V BD-rate | Y BD-rate | U BD-rate | V BD-rate |
| Class A | 0.1 | 0.1 | 0.0 | 0.1 | -0.1 | 0.0 |
| Class B | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 |
| Class C | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 |
| Class D | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 |
| Class E |  |  |  |  |  |  |
| All | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Enc Time[%] | 95% | | | 99% | | |
| Dec Time[%] | 100% | | | 98% | | |
|  |  |  |  |  |  |  |
|  | Low delay | | | Low delay LoCo | | |
|  | Y BD-rate | U BD-rate | V BD-rate | Y BD-rate | U BD-rate | V BD-rate |
| Class A |  |  |  |  |  |  |
| Class B | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.2 |
| Class C | -0.1 | 0.1 | -0.1 | -0.2 | -0.1 | -0.2 |
| Class D | -0.3 | -0.5 | -0.5 | -0.3 | 0.3 | 0.3 |
| Class E | 0.2 | 0.2 | -0.1 | 0.1 | 0.3 | 0.2 |
| All | -0.1 | -0.1 | -0.2 | -0.2 | 0.1 | 0.1 |
| Enc Time[%] | 98% | | | 97% | | |
| Dec Time[%] | 99% | | | 100% | | |
|  |  |  |  |  |  |  |

Table Cross-check results of JCTVC-E129 case 0

# Patent rights declaration(s)

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