|  |  |
| --- | --- |
| **Joint Collaborative Team on Video Coding (JCT-VC)**  **of ITU-T SG16 WP3 and ISO/IEC JTC1/SC29/WG11**  7th Meeting: Geneva, 21-30 November, 2011 | Document: JCTVC-G797 |

|  |  |  |  |
| --- | --- | --- | --- |
| *Title:* | **CE6.c: Cross-check report for JCTVC-G322 on Harmonization of HE residual coding with non-square block transforms** | | |
| *Status:* | Input Document to JCT-VC | | |
| *Purpose:* | Information | | |
| *Author(s) or Contact(s):* | Changcai Lai  Lingzhi Liu  Jianhua Zheng | Tel: Email: | +86-0755-28422002  [laichangcai@huawei.com](mailto:laichangcai@huawei.com) |
| *Source:* | HiSilicon | | |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Abstract

This contribution document reports the cross verification results of CE6.c on Harmonization of HE residual coding with non-square block transforms. The source code was implemented based on HM-4.0-SDIP released in CE6.c. We compiled, inspected, and ran the code of these cases with Intra HE configurations. The cross-check has been completed successfully and the results match those provided by proponents of JCTVC-G322.

# Test description and simulation results

One test case was crosschecked by setting the different Macros as default provided by proponents, the encoder and decoder reconstructed YUV files match. The experimental results of the rate-distortion are illustrated in Table 1. These results match the BD-rate results provided by proponents of JCTVC- G322. Note that only All Intra HE case was tested since the software was only changed in CABAC. The decoding time and encoding time change are very similar with those of proponent’s.

Table 1 Results of JCTVC-G322

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **All Intra HE** | | | **All Intra LC** | | |
|  | Y | U | V | Y | U | V |
| Class A | -0.15% | -0.3% | -0.5% | #VALUE! | #VALUE! | #VALUE! |
| Class B | -0.15% | -0.2% | -0.3% | #VALUE! | #VALUE! | #VALUE! |
| Class C | 0.01% | -0.1% | -0.1% | #VALUE! | #VALUE! | #VALUE! |
| Class D | 0.02% | 0.0% | 0.0% | #VALUE! | #VALUE! | #VALUE! |
| Class E | -0.14% | -0.5% | -0.4% | #VALUE! | #VALUE! | #VALUE! |
| **Overall** | -0.08% | -0.19% | -0.25% | #VALUE! | #VALUE! | #VALUE! |
|  | -0.08% | -0.19% | -0.25% | #VALUE! | #VALUE! | #VALUE! |
| Enc Time[%] | 102% | | | #NUM! | | |
| Dec Time[%] | 100% | | | #NUM! | | |