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| *Title:* | **CE6.b: Cross-check report for DCIM (**JCTVC-G868) | | |
| *Status:* | Input Document to JCT-VC | | |
| *Purpose:* | Information | | |
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| *Source:* | HiSilicon | | |

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# Abstract

This contribution document reports the cross verification results of CE6.b Differential Coding of Intra Mode (DCIM). The source code was implemented based on HM-4.0. We compiled, inspected, and ran the code of these cases with Intra HE and Intra LC configurations. The cross-check has been completed successfully and the results match those provided by proponents of JCTVC-G868.

# 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- G868. The decoding time and encoding time change are very similar with those of proponent’s.

Table 1 Results of DCIM

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **All Intra HE** | | | **All Intra LC** | | |
|  | Y | U | V | Y | U | V |
| Class A | 0.1% | -0.7% | -0.2% | -0.1% | 0.1% | 0.2% |
| Class B | -0.2% | -0.9% | -0.7% | -0.2% | 0.2% | 0.2% |
| Class C | -0.6% | -0.7% | -1.0% | -0.8% | 0.0% | -0.4% |
| Class D | -0.2% | -0.3% | -0.3% | -0.3% | 0.0% | 0.0% |
| Class E | -0.3% | -1.2% | -1.5% | -0.4% | -0.6% | 0.0% |
| **Overall** | -0.21% | -0.75% | -0.69% | -0.34% | -0.01% | 0.02% |
|  | -0.21% | -0.72% | -0.68% | -0.34% | 0.00% | 0.03% |
| Enc Time[%] | 116% | | | 123% | | |
| Dec Time[%] | 104% | | | 105% | | |