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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-E297 |

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| *Title:* | **Cross-verification of Nokia’s contribution Reducing size of the LCEC coefficient coding tables (JCTVC-E240)** | | |
| *Status:* | Input Document to JCT-VC | | |
| *Purpose:* | Proposal | | |
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| *Source:* | Qualcomm Incorporated | | |

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# Abstract

This contribution reports our cross-verification results of Nokia’s JCTVC-E240 contribution titled “Reducing size of the LCEC coefficient coding tables”. The coding efficiency reported in JCTVC-E240 has been reported by Qualcomm’s simulation. The encoding and decoding time has some difference from the time reported in JCTVC-E240.

# Introduction

This contribution is a report of verification results of JCTVC-E240. The test conditions are specified in JCTVC-D600.

# Experimental Results

## RD Data

Our simulation results confirm the RD results reported in JCTVC-E240.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BD-rate | **Intra LoCo** | | | **Random access LoCo** | | | **Low delay LoCo** | | |
| Y | U | V | Y | U | V | Y | U | V |
| Class A | 0.12 | 0.14 | 0.01 | 0.06 | -0.28 | -0.45 |  |  |  |
| Class B | 0.03 | 0.15 | 0.06 | 0.05 | 0.15 | -0.12 | 0.27 | 0.12 | 0.24 |
| Class C | -0.07 | 0.04 | -0.02 | -0.24 | -0.22 | -0.13 | -0.21 | -0.22 | -0.24 |
| Class D | -0.09 | -0.06 | -0.08 | -0.08 | 0.05 | 0.02 | 0.04 | 0.15 | 0.29 |
| Class E | 0.00 | 0.07 | -0.01 |  |  |  | 0.11 | 0.47 | 0.01 |
| All | 0.00 | 0.07 | -0.01 | -0.04 | -0.06 | -0.17 | 0.06 | 0.11 | 0.09 |
| Enc Time[%] | 106% | | | 108% | | | 100% | | |
| Dec Time[%] | 99% | | | 100% | | | 100% | | |

## Running Time

Our encoding environment is using 64bit Linux cluster with the same CPU type and decoding was done on single 64 bit windows PC. The encoding time and the decoding time we measured are different from JCTVC-E240.

|  |  |  |  |
| --- | --- | --- | --- |
| Encoding Time | **Intra LoCo** | **Random access LoCo** | **Low delay LoCo** |
| JCTVC-E240 | 67% | 71% | 74% |
| Cross-checker | 106% | 108% | 100% |

|  |  |  |  |
| --- | --- | --- | --- |
| Decoding Time | **Intra LoCo** | **Random access LoCo** | **Low delay LoCo** |
| JCTVC-E240 | 127% | 94% | 91% |
| Cross-checker | 99% | 100% | 100% |

# Patent rights declaration(s)

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