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| *Title:* | **3D-CE2.a related: cross-check on MediaTek & Samsung proposal JCT3V-C0134** | | |
| *Status:* | Input Document to JCT-3V | | |
| *Purpose:* | Proposal | | |
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# Abstract

This contribution reports cross-check results on MB-level depth-to-DV conversion in ATM [1]. The R-D performance almost matched with the data provided by MediaTek and Samsung. We found no problem in compiling, building, encoding and decoding. Common test conditions specified in JCT3V-B1100 [2] is used for the evaluation. In the simulation, the anchor is 3DV-ATM v6.0r1. Bit rates and PSNR results were compared: our experiment results were matched with those provided by MediaTek and Samsung.

Table 1. Simulation result

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Texture Coding | | Depth Coding | | Total (Coded PSNR) | | Total (Synthesed PSNR) | | Complexity estimate  (ratio to anchor) | | |
|  | dBR, % | dPSNR,dB | dBR, % | dPSNR,dB | dBR, % | dPSNR,dB | dBR, % | dPSNR,dB | Encoder Time, % | Decoder Time, % | Rendering Time, % |
| S01 | -0.01 | 0.00 | 0.00 | 0.00 | -0.01 | 0.00 | 0.06 | 0.00 | 93% | 101% | 100% |
| S02 | 0.04 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.03 | 0.00 | 106% | 99% | 100% |
| S03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.03 | 0.00 | 92% | 98% | 100% |
| S04 | 0.03 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.02 | 0.00 | 98% | 100% | 100% |
| S05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | -0.01 | 0.00 | 102% | 100% | 100% |
| S06 | 0.03 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.02 | 0.00 | 105% | 99% | 100% |
| S08 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 102% | 102% | 100% |
| Average | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 100% | 100% | 100% |

# References

[1] Y.-W. Chen, J.-L. Lin, Y.-W. Huang, S. Lei (MediaTek), J.Y. Lee, H.C. Wey and D.S. Park (Samsung), “3D-CE2.a related: MB-level depth-to-DV conversion in ATM”, 3rd JCT3V Meeting, JCT3V-C0134, Geneva, CH, Jan. 2013.

[3] D. Rusanovskyy, K. Müller and A. Vetro, “Common Test Conditions of 3DV Core Experiments”, 2st JCT3V Meeting, JCT3V-B1100, Shanghai, CN, Oct. 2012.