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| *Title:* | **CE1: Cross-verification of Test A2 on generalized copy-above mode** | | |
| *Status:* | Input Document to JCT-VC | | |
| *Purpose:* | Information | | |
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# Abstract

This document presents the cross-verification results of CE1 Test A2 on generalized copy-above mode. It is verified that the implementation is consistent with the algorithm described in the contribution document and all simulation results exactly match that provided by the proponent.

# Introduction

This document reports the cross-verification results of CE1 Test A2 on generalized copy-above mode (JCTVC-T0038). In JCTVC-T0038, it is proposed to extend the copy-above mode to rows beyond the immediately above row for palette coding. And, an offset is signaled to indicate the distance between the current row and the row that is copied from. Moreover, the pixels of the neighboring blocks can be used for the generalized copy-above mode, based on the similar method as proposed in CE1 Test A1 (JCTVC-T0036). Multiple methods with the difference on whether to use the pixels or the indices of the neighboring blocks, and/or the pixels that the index redundancy removal is applied, are proposed in JCTVC-T0038. In this document, the following methods as described in the contribution document have been cross-checked.

* Setting one: constrain the generalized copy above mode within CU.
* Setting two: generalized copy-above enable directly copy pixels from neighbor, and apply index redundancy removal for the pixels whose reference index are not copied from neighboring block.
* Setting three: generalized copy above enable copy index from neighbor, and apply index redundancy removal for the pixels whose reference index are not copied from neighboring block.
* Setting four: generalized copy above enable copy index from neighbor, and apply index redundancy removal for all indices. Additionally, the index redundancy removal process is moved to reconstruction process.

# Results

It is verified that the software implementation is consistent with the algorithm described in JCTVC-T0038 and all simulation results exactly match that provided by the proponent. The detailed simulation results can be found in the attached spreadsheets.

# References

1. [J. Ye](mailto:jing.ye@mediatek.com), [J. Kim](mailto:jungsun.kim@mediatek.com), [Y.-C. Sun](mailto:yc.sun@mediatek.com), [S. Liu](mailto:shan.liu@mediatek.com), Y.-W. Huang, S. Lei, [F. Zou](mailto:fzou@qti.qualcomm.com), V. Seregin, R. Joshi, M. Karczewicz, CE1: Test A2 - Generalized copy above mode, JCTVC-T0038, Feb. 2015, Geneva, Switzerland.