



JCTVC-C038

TE7: Cross-check results of
MDDT simplification
proposal from Huawei

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Background: JCTVC-B039

- Based on symmetries in prediction residuals
- Divide prediction modes into 3 classes
 - 2x2 transforms + 1x1 transform
 - Maintain 3 scan orders
- Additional transposes and/or mirror operations needed

Experimental conditions

- Following JCTVC-B300 and JCTVC-B307
 - Test intra high efficiency and random access high efficiency
- Cross-check two versions
 - Difference in initial scan order statistics

RD results – Intra

Sequences Class	Huawei's Proposal BD-Rate(%)	Huawei's Proposal v2 BD-Rate(%)
Class A	0.3	0.4
Class B	0.1	0.1
Class C	0.2	0.1
Class D	0.3	0.1
Class E	0.3	0.2
All	0.2	0.1

RD results – Random access

Sequences Class	Huawei's Proposal	Huawei's Proposal v2
	BD-Rate(%)	BD-Rate(%)
Class A	0.1	0.1
Class B	0.0	0.1
Class C	0.1	0.1
Class D	0.1	0.1
All	0.1	0.1

Complexity

- Additional transpose/mirror operations needed

Logical Modes	Transpose?	Flip?
0-11	No	No
12-17	No	Yes
18	No	No
19-27	Yes	No
28-31	Yes	Yes
32-33	No	Yes

Conclusions

- Cross-checked and verified Huawei's MDDT simplification proposal (JCTVC-B039)