

CE11: Summary report on coefficient scanning and coding (JCTVC-G041)

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Sub Experiments in CE11

- **CE.A: Context Modeling/Selection and Binarization for Transform Coefficient related syntax elements**
 - G121: "CE11: Reduction in contexts used for coefficient level" (TI)
- **CE.B: Coefficient Scanning Methods**
 - CAVLC only
 - G679: "CE11: Extending horizontal and vertical scan to big block for CAVLC" (Qualcomm)
 - G269: "CE11 Report on Prediction Unit Dependent Coefficient Scanning For Inter Frame" (Huawei)
 - CABAC only
 - G321: "CE11: Removal of the parsing dependency of residual coding on intra mode" (Qualcomm)
 - G320: "CE11: Scanning of Residual Data in HE" (Qualcomm)
 - CAVLC + CABAC
 - G703: "CE11: Adaptive Scan for Large Blocks for HEVC" (Motorola Mobility)
 - G284: "CE11: Extended Mode Dependent Coefficient Scanning" (MediaTek, PKU)

Summary of Modifications and Coding Efficiency

Doc#	Summary of Changes	HE			LC		
		AI	RA	LB	AI	RA	LB
G121	Change c1 and c2 thresholds in context selection of coeff_abs_level_greater1_flag & coeff_abs_level_greater2_flag	0.1	0.0	0.0			
G679	Use horizontal and vertical scans on intra coded 16x16 and 32x32 TU				-0.3	-0.1	-0.1
G269	Add horizontal and vertical scans to inter coded TU for NSQT					0.0	-0.1
G321	Change context selection of significant_coeff_flag to depend on scan position rather than block position Change last_significant_coeff_x and last_significant_coeff_y to always assume diagonal scan	0.2	0.1	0.1			
G320	Change ordering/grouping of significant_coeff_flag and coefficient level information Group by 16 or group by TU	0.0	0.0	0.0			
G703	Additional scans for intra coded 16x16/32x32 TU	-0.1	0.0	0.0	-0.3	-0.2	-0.1
G284	Additional scans for intra coded 16x16/32x32 TU	-0.2			-0.6		

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