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(54) Title: METHOD AND APPARATUS OF CROSS-COMPONENT LINEAR MODELING FOR INTRA PREDICTION

(57) Abstract: Apparatuses and methods for encoding and decoding are provided. The method for intra predicting a chroma sample of a block by applying cross-component linear model includes: obtaining reconstructed luma samples; determining maximum and minimum luma sample values based on the reconstructed luma samples; obtaining a difference of the maximum and minimum luma sample values. The method also includes: fetching a value out of a lookup table (LUT) by using a set of bits as an index, the set of bits following a position of the most- significant bit; obtaining linear model parameters based on the fetched value; and calculating a predicted chroma sample value by using the obtained linear model parameters. The efficiency to fetch the value out of the LUT is increased.