

**CLAIMS:**

1. A method of video decoding using Intra prediction for chroma component of video data comprising:
  - receiving a video bitstream including coded data for a current block corresponding to one chroma component of video data;
  - deriving, from the video bitstream, a block partitioning structure for partitioning the current block into one or more final sub-blocks including at least one non-square final sub-block using block partition recursively, wherein the block partition either splits each given block into intermediate sub-blocks using one or more split modes including one binary split mode or applies no splitting to each given block, the current block is treated as an initial given block, each intermediate sub-block is treated as one given block in a next recursion, and any one given block not further split becomes one final sub-block; and
  - reconstructing each non-square final sub-block using non-square Intra prediction, comprising including X additional neighboring reconstructed samples or excluding X neighboring reconstructed samples for deriving DC predictor associated with DC Intra predictor mode or deriving intra prediction parameters associated with LM Intra prediction mode, wherein X is a positive integer.
2. The method of Claim 1, wherein first length of a long side of each non-square final sub-block and second length of a short side of each non-square final sub-block are both power-of-2 integers, and X equals to the first length of the long side of each non-square final sub-block minus the second length of the short side of each non-square final sub-block.
3. The method of Claim 2, wherein the X additional neighboring reconstructed samples are from extended neighboring reconstructed samples in line with neighboring reconstructed

samples on the short side of each non-square final sub-block.

4. The method of Claim 2, wherein the X additional neighboring reconstructed samples are from a line of reconstructed samples adjacent to neighboring reconstructed samples on the short side of each non-square final sub-block.
5. The method of Claim 2, wherein the X neighboring reconstructed samples to be excluded are from X-consecutive neighboring reconstructed samples on the long side of each non-square final sub-block.
6. The method of Claim 2, wherein the X neighboring reconstructed samples to be excluded are selected in an interleaved manner from neighboring reconstructed samples on the long side of each non-square final sub-block.
7. The method of Claim 1, wherein said reconstructing each non-square final sub-block using non-square Intra prediction comprises deriving DC predictor associated with DC Intra predictor mode or deriving Intra prediction parameters associated with LM Intra prediction mode based only on neighboring reconstructed samples of a long side of each non-square final sub-block, wherein length of the long side of each non-square final sub-block is a power-of-2 integer.
8. The method of Claim 1, wherein said reconstructing each non-square final sub-block using non-square Intra prediction comprises deriving DC predictor associated with DC Intra predictor mode or deriving Intra prediction parameters associated with LM Intra prediction mode based only on neighboring reconstructed samples of a short side of each non-square final sub-block, wherein length of the short side of each non-square final sub-block is a power-of-2 integer.
9. A method of video coding using Intra prediction for chroma component of video data,

comprising:

receiving input data for a current block corresponding to one chroma component of video data;

partitioning the current block into one or more final sub-blocks including at least one non-square final sub-block using block partition recursively, wherein the block partition either splits each given block into intermediate sub-blocks using one or more split modes including one binary split mode or applies no splitting to each given block, the current block is treated as an initial given block, each intermediate sub-block is treated as one given block in a next recursion, and any one given block not further split becomes one final sub-block; and

applying non-square Intra prediction to each non-square final sub-block, comprising including X additional neighboring reconstructed samples or excluding X neighboring reconstructed samples for deriving DC predictor associated with DC Intra predictor mode or deriving Intra prediction parameters associated with LM Intra prediction mode, wherein X is a positive integer.

10. The method of Claim 9, wherein first length of a long side of each non-square final sub-block and second length of a short side of each non-square final sub-block are both power-of-2 integers, and X equals to the first length of the long side of each non-square final sub-block minus the second length of the short side of each non-square final sub-block.
11. The method of Claim 9, wherein the X additional neighboring reconstructed samples are from extended neighboring reconstructed samples in line with neighboring reconstructed samples on a short side of each non-square final sub-block.

12. The method of Claim 9, wherein the X additional neighboring reconstructed samples are from a line of reconstructed samples adjacent to neighboring reconstructed samples on a short side of each non-square final sub-block.
13. The method of Claim 9, wherein the X neighboring reconstructed samples to be excluded are from X-consecutive neighboring reconstructed samples on a long side of each non-square final sub-block.
14. The method of Claim 9, wherein the X neighboring reconstructed samples to be excluded are selected in an interleaved manner from neighboring reconstructed samples on a long side of each non-square final sub-block.
15. The method of Claim 9, wherein said applying the non-square Intra prediction to each non-square final sub-block comprises deriving DC predictor associated with DC Intra predictor mode or deriving Intra prediction parameters associated with LM Intra prediction mode based only on neighboring reconstructed samples of a long side of each non-square final sub-block, wherein length of the long side of each non-square final sub-block is a power-of-2 integer.
16. The method of Claim 9, wherein said applying the non-square Intra prediction to each non-square final sub-block comprises deriving DC predictor associated with DC Intra predictor mode or deriving Intra prediction parameters associated with LM Intra prediction mode based only on neighboring reconstructed samples of a short side of each non-square final sub-block, wherein length of the short side of each non-square final sub-block is a power-of-2 integer.
17. An apparatus for video decoding using Intra prediction for chroma component of video data, comprising one or more electronic circuitries arranged to:

receive a video bitstream including coded data for a current block corresponding to one chroma component of video data;

derive, from the video bitstream, a block partitioning structure for partitioning the current block into one or more final sub-blocks including at least one non-square final sub-block using block partition recursively, wherein the block partition either splits each given block into intermediate sub-blocks using one or more split modes including one binary split mode or applies no splitting to each given block, the current block is treated as an initial given block, each intermediate sub-block is treated as one given block in a next recursion, and any one given block not further split becomes one final sub-block; and

reconstruct each non-square final sub-block using non-square Intra prediction, comprising including X additional neighboring reconstructed samples or excluding X neighboring reconstructed samples for deriving DC predictor associated with DC Intra predictor mode or deriving Intra prediction parameters associated with LM Intra prediction mode, wherein X is a positive integer.