CLAIMS

1. A method of decoding video data, the method comprising:

determining that multiple derived modes (DMs) available for predicting a luma block of the video data are also available for predicting a chroma block of the video data that corresponds to the luma block;

obtaining, from an encoded video bitstream, a one-bit flag indicating that the chroma block is encoded using any DM included in a candidate list;

forming the candidate list of prediction modes with respect to the chroma block, the candidate list including a plurality of DMs selected from the multiple DMs that are available for predicting the chroma block, the plurality of the DMs included in the candidate list including two or more of a first prediction mode associated with a center position of the corresponding luma block, a second prediction mode associated with a top-left position of the corresponding luma block, a third prediction mode associated with a top-right position of the corresponding luma block, a fourth prediction mode associated with a below-left position of the corresponding luma block, or a fifth prediction mode associated with a below-right position of the corresponding luma block;

based on a value of the one-bit flag obtained from the encoded video bitstream, determining to reconstruct the chroma block using any DM of the plurality of the DMs included in the candidate list;

based on the determination to code the chroma block using any DM of the plurality of the DMs included in the candidate list, reconstructing an indication identifying a selected DM of the candidate list to be used for reconstructing the chroma block; and

reconstructing the chroma block according to the selected DM of the candidate list.

2. The method of claim 1, further comprising:

obtaining, from the encoded video bitstream, a one-bit flag indicating whether the chroma block is encoded using a linear model (LM) mode; and

obtaining, from the encoded video bitstream, data identifying each respective DM of the plurality of the DMs included in the candidate list.

3. The method of claim 1, further comprising:

determining that at least two DMs of the plurality of the DMs included in the candidate list are identical; and

including exactly one DM of the at least two identical DMs in the candidate list.

4. The method of claim 1, wherein the candidate list further includes one or more chroma intra prediction modes that are different from each of the plurality of the DMs included in the candidate list.

5. The method of claim 4, wherein each of the chroma intra prediction modes corresponds to a mode used to predict a neighboring chroma block of the chroma block.

6. The method of claim 4, wherein at least one respective chroma intra prediction mode of the candidate list is a chroma-specific prediction mode that is used only for predicting chrominance data.

7. A device comprising:

a memory configured to store an encoded video bitstream; and

processing circuitry in communication with the memory, the processing circuitry being configured to:

determine that multiple derived modes (DMs) available for predicting a luma block of the encoded video bitstream stored to the memory are also available for predicting a chroma block of the encoded video bitstream stored to the memory, the chroma block corresponding to the luma block;

obtain, from the encoded video bitstream stored to the memory, a one-bit flag indicating that the chroma block is encoded using any DM included in a candidate list;

form the candidate list of prediction modes with respect to the chroma block, the candidate list including a plurality of DMs selected from the multiple DMs that are available for predicting the chroma block, the plurality of the DMs included in the candidate list including two or more of a first prediction mode associated with a center position of the corresponding luma block, a second prediction mode associated with a top-left position of the corresponding luma block, a third prediction mode associated with a top-right position of the corresponding luma block, a fourth prediction mode associated

with a below-left position of the corresponding luma block, or a fifth prediction mode associated with a below-right position of the corresponding luma block;

determine, based on a value of the one-bit flag obtained from the encoded video bitstream, to reconstruct the chroma block using any DM of the plurality of the DMs included in the candidate list;

based on the determination to code the chroma block using any DM of the plurality of the DMs included in the candidate list, reconstruct, from the encoded video bitstream stored to the memory, an indication identifying a selected DM of the candidate list to be used to reconstruct the chroma block; and

reconstruct the chroma block according to the selected DM of the candidate list.

8. The device of claim 7, wherein the processing circuitry is further configured to:

obtain, from the encoded video bitstream, a one-bit flag indicating whether the chroma block is encoded using a linear model (LM) mode; and

obtain, from the encoded video bitstream, data indicating each respective DM of the plurality of the DMs included in the candidate list.

9. The device of claim 7, wherein the one or more processors are further configured to:

determine that at least two DMs of the plurality of the DMs included in the candidate list are identical; and

include exactly one DM of the at least two identical DMs in the candidate list.

10. The device of claim 7, wherein the candidate list further includes one or more chroma intra prediction modes that are different from each of the plurality of the DMs included in the candidate list.

11. The device of claim 10, wherein each of the chroma intra prediction modes is associated with coding of a respective neighboring chroma block of the chroma block.

12. The device of claim 10, wherein at least one respective chroma intra prediction mode of the candidate list is a chroma-specific prediction mode that is used only for predicting chrominance data.

13. A method of encoding video data, the method comprising:

determining that multiple derived modes (DMs) available for predicting a luma block of the video data are also available for predicting a chroma block of the video data that corresponds to the luma block;

forming a candidate list of prediction modes with respect to the chroma block, the candidate list including a plurality of DMs selected from the multiple DMs that are available for predicting the chroma block, the plurality of the DMs included in the candidate list including two or more of a first prediction mode associated with a center position of the corresponding luma block, a second prediction mode associated with a top-left position of the corresponding luma block, a third prediction mode associated with a top-right position of the corresponding luma block, a fourth prediction mode associated with a below-left position of the corresponding luma block, or a fifth prediction mode associated with a below-right position of the corresponding luma block;

determining to encode the chroma block using any DM of the plurality of the DMs included in the candidate list;

based on the determination to encode the chroma block using any DM of the plurality of the DMs included in the candidate list, coding an indication identifying a selected DM of the candidate list to be used for decoding the chroma block;

encoding the chroma block according to the selected DM of the candidate list;

signaling, in an encoded video bitstream, a one-bit flag indicating that the chroma block is encoded using any DM of the plurality of the DMs included in the candidate list, based on the determination to code the chroma block using any DM of the plurality of the DMs included in the candidate list; and

signaling, in the encoded video bitstream, an index value identifying the selected DM of the candidate list to be used for decoding the chroma block based on the determination to encode the chroma block using any DM of the plurality of the DMs included in the candidate list.

14. The method of claim 13, wherein the one-bit flag is a first one-bit flag, the method further comprising:

signaling, in the encoded video bitstream, a second one-bit flag indicating whether the chroma block is encoded using a linear model (LM) mode; and

signaling, in the encoded video bitstream, data identifying each respective DM of the plurality of the DMs included in the candidate list.