CLAIMS:

1. A method for video decoding in a decoder, comprising:

decoding a first syntax element from a coded video bitstream, the first syntax element indicating whether a chroma component is present in the coded video bitstream or a monochrome sampling is used in the coded video bitstream;

determining whether to decode a second syntax element for a cross-component adaptive loop filter (CC-ALF) in response to the first syntax element indicating that a chroma component is present in the coded video bitstream; and

decoding the second syntax element for the CC-ALF based on the first syntax element indicating that the chroma component is present in the coded video bitstream, wherein

the decoding of the second syntax element for the CC-ALF is skipped based on the first syntax element indicating that a monochrome sampling is used in the coded video bitstream.

2. The method of claim 1, wherein the first syntax element is signaled in an adaptation parameter set (APS).

3. The method of claim 1, wherein the first syntax element indicates at a sequence level whether the chroma component is coded based on another component.

4. The method of claim 1, wherein

based on the chroma component being coded based on another component, the other component is one of a second chroma component and a luma component in the coded video bitstream.

5. The method of claim 4, wherein

the coded video bitstream includes a first chroma component, a second chroma component, and a luma component that have a chroma format of 4:4:4;

the chroma component is the first chroma component;

the other component is the second chroma component or the luma component; and

the first chroma component, the second chroma component, and the luma component are coded independently from each other.

6. The method of claim 1, further comprising:

disabling the CC-ALF based on the first syntax element indicating that the chroma component is not present in the coded video bitstream.

7. The method of claim 1,

the second syntax element for the CC-ALF includes a first CC-ALF flag and a second CC-ALF flag, the first CC-ALF flag indicating whether a first CC-ALF is signaled in the coded video bitstream, the second CC-ALF flag indicating whether a second CC-ALF is signaled in the coded video bitstream;

the decoding the second syntax element further includes decoding syntax elements for the first CC-ALF based on the first CC-ALF flag indicating that the first CC-ALF is signaled, the second syntax element for the CC-ALF including the syntax elements for the first CC-ALF, the syntax elements for the first CC-ALF not being decoded based on the first CC-ALF flag indicating that the first CC-ALF is not signaled; and

the decoding the second syntax element further includes decoding syntax elements for the second CC-ALF based on the second CC-ALF flag indicating that the second CC-ALF is signaled, the second syntax element for the CC-ALF including the syntax elements for the second CC-ALF, the syntax elements for the second CC-ALF not being decoded based on the second CC-ALF flag indicating that the second CC-ALF is not signaled.

8. An apparatus for video decoding, comprising processing circuitry configured to:

decode a first syntax element from a coded video bitstream, the first syntax element indicating whether a chroma component is present in the coded video bitstream or a monochrome sampling is used in the coded video bitstream;

determine whether to decode a syntax element for a cross-component adaptive loop filter (CC-ALF) in response to the first syntax element indicating that a chroma component is present in the coded video bitstream; and

decode the second syntax element for the CC-ALF based on the first syntax element indicating that the chroma component is present in the coded video bitstream, wherein

the decoding of the second syntax elements for the CC-ALF is skipped based on the first syntax element indicating a monochrome sampling is used in the coded video bitstream.

9. The apparatus of claim 8, wherein the first syntax element is signaled in an adaptation parameter set (APS).

10. The apparatus of claim 8, wherein the first syntax element indicates at a sequence level whether the chroma component is coded based on another component.

11. The apparatus of claim 8, wherein:

based on the first syntax element indicating that the chroma component is coded based on the another component, the other component is one of a second chroma component and a luma component in the coded video bitstream.

12. The apparatus of claim 11, wherein

the coded video bitstream includes a first chroma component, a second chroma component, and a luma component that have a chroma format of 4:4:4;

the first component is the first chroma component;

the other component is the second chroma component or the luma component; and

the first chroma component, the second chroma component, and the luma component are coded independently from each other.

13. The apparatus of claim 8, wherein the processing circuitry is configured to:

disable the CC-ALF based on the first syntax element indicating that the chroma component is not coded based on the other component in the coded video bitstream.

14. The apparatus of claim 8, wherein

the second syntax element for the CC-ALF includes a first CC-ALF flag and a second CC-ALF flag, the first CC-ALF flag indicating whether a first CC-ALF is signaled in the coded video bitstream, the second CC-ALF flag indicating whether a second CC-ALF is signaled in the coded video bitstream;

the processing circuitry is further configured to decode syntax elements for the first CC-ALF based on the first CC-ALF flag indicating that the first CC-ALF is signaled, the second syntax element for the CC-ALF including the syntax elements for the first CC-ALF, the syntax elements for the first CC-ALF not being decoded based on the first CC-ALF flag indicating that the first CC-ALF is not signaled; and

the processing circuitry is further configured to decode syntax elements for the second CC-ALF based on the second CC-ALF flag indicating that the second CC-ALF is signaled, the second syntax element for the CC-ALF including the syntax elements for the second CC-ALF, the syntax elements for the second CC-ALF not being decoded based on the second CC-ALF flag indicating that the second CC-ALF is not signaled.