~~**WHAT IS CLAIMED IS:**~~

CLAIMS

1.——A method of processing high dynamic range and/or wide color gamut (HDR/WCG) video data, the method comprising:

determining a quantization parameter for quantized transform coefficients of a block of the HDR/WCG video data;

inverse quantizing the quantized transform coefficients based on the determined quantization parameter to determine dequantized transform coefficients;

based on the dequantized transform coefficients, determining a block of residual values for the block of the HDR/WCG video data;

based on the block of residual values, determining a reconstructed block for the block of the HDR/WCG video data;

determining one or more dynamic range adjustment (DRA) parameters for the block of the HDR/WCG video data~~;~~

, wherein the one or more DRA parameters for the block of the HDR/WCG video data comprise a scaling parameter for a chroma component of the block of the HDR/WCG video data and an offset parameter for the chroma component of the block of the HDR/WCG video data; adjusting the one or more DRA parameters based on the determined quantization parameter to determine one or more adjusted DRA parameters~~;~~ ~~and~~

, wherein the one or more adjusted DRA parameters for the block of the HDR/WCG video data comprise an adjusted scaling parameter for the chroma component of the block of the HDR/WCG video data and an adjusted offset parameter for the chroma component of the block of the HDR/WCG video data; and performing DRA on the reconstructed block of the HDR/WCG video data using the one or more adjusted DRA parameters.

2.——The method of claim 1, wherein the one or more DRA parameters for the block of the HDR/WCG video data further comprise a scaling parameter for a luma component of the block of the HDR/WCG video data and an offset parameter for the luma component of the block of the HDR/WCG video data, and wherein the one or more adjusted DRA parameters for the block of the HDR/WCG video data further

comprise an adjusted scaling parameter for the luma component of the block of the HDR/WCG video data and an adjusted offset parameter for the luma component of the block of the HDR/WCG video data.

~~3. The method of claim 1, wherein the one or more DRA parameters for the block of the HDR/WCG video data comprise a scaling parameter for a chroma component of the block of the HDR/WCG video data and an offset parameter for the chroma component of the block of the HDR/WCG video data, and wherein the one or more adjusted DRA parameters for the block of the HDR/WCG video data comprise an adjusted scaling parameter for the chroma component of the block of the HDR/WCG video data and an adjusted offset parameter for the chroma component of the block of the HDR/WCG video data.~~

~~4. The method of claim 1, wherein the one or more adjusted DRA parameters comprise an adjusted DRA parameter for a first chroma component of the block of the HDR/WCG video data and an adjusted DRA parameter for a second chroma component of the block of the HDR/WCG video data.~~

~~5. The method of claim 1~~3. The method of claim 2, wherein the one or more adjusted DRA parameters comprise an adjusted DRA parameter for a luma component of the block of the HDR/WCG video data, an adjusted DRA parameter for a first chroma component of the block of the HDR/WCG video data, and an adjusted DRA parameter for a second chroma component of the block of the HDR/WCG video data.

4. The method of claim 1, wherein the one or more adjusted DRA parameters comprise an adjusted DRA parameter for a first chroma component of the block of the HDR/WCG video data and an adjusted DRA parameter for a second chroma component of the block of the HDR/WCG video data.

~~6.~~ 5. The method of claim 1, wherein determining the one or more DRA parameters for the block of the HDR/WCG video data comprises receiving indications of the one or more DRA parameters as syntax elements in the HDR/WCG video data.

~~7.~~ 6. The method of claim 1, wherein the reconstructed block of the HDR/WCG video data comprises a filtered version of the reconstructed block.

~~8.~~ 7. The method of claim 1, wherein determining the one or more DRA parameters for the block of the HDR/WCG video data comprises deriving at least one of the one or more DRA parameters for the block of the HDR/WCG video data based on a dependency between a quantization parameter for a luma component of the block of the HDR/WCG video data and a quantization parameter for a chroma component of the block of the HDR/WCG video data.

~~9~~8. The method of claim ~~8~~7, wherein deriving the at least one of the one or more DRA parameters for the block of the HDR/WCG video data based on the dependency between the quantization parameter for the luma component of the block of the HDR/WCG video data and the quantization parameter for the chroma component of the block of the HDR/WCG video data comprises deriving the at least one of the one or more DRA parameters by performing QP to DRA scale conversion.

~~10~~9. The method of claim ~~8~~7, wherein deriving the at least one of the one or more DRA parameters for the block of the HDR/WCG video data based on the dependency between the quantization parameter for the luma component of the block of the HDR/WCG video data and the quantization parameter for the chroma component of the block of the HDR/WCG video data comprises deriving the at least one of the one or more DRA parameters by performing DRA scale to QP conversion.

~~11~~10. The method of claim ~~8~~7, wherein the dependency between the quantization parameter for the luma component and the quantization parameter for the chroma component is defined by a codec.

~~12.~~ 11. The method of claim ~~8~~7, the method further comprising:

receiving syntax elements in the HDR/WCG video data, wherein values for the syntax elements define the dependency between the quantization parameter for the luma component of the block of the HDR/WCG video data and the quantization parameter for the chroma component of the block of the HDR/WCG video data.

~~13.~~ 12. The method of claim ~~8~~7, wherein the method of decoding is performed as part of an encoding process.

~~14.~~ 13. A device for processing high dynamic range and/or wide color gamut (HDR/WCG) video data, the device comprising:

a memory configured to store video data; and

one or more processors coupled to the memory and configured to:

determine a quantization parameter for quantized transform coefficients of a block of the HDR/WCG video data;

inverse quantize the quantized transform coefficients based on the determined quantization parameter to determine dequantized transform coefficients;

based on the dequantized transform coefficients, determine a block of residual values for the block of the HDR/WCG video data;

based on the block of residual values, determine a reconstructed block for the block of the HDR/WCG video data;

determine one or more dynamic range adjustment (DRA) parameters for the block of the HDR/WCG video data~~;~~

, wherein the one or more DRA parameters for the block of the HDR/WCG video data comprise a scaling parameter for a chroma component of the block of the HDR/WCG video data and an offset parameter for the chroma component of the block of the HDR/WCG video data; adjust the one or more DRA parameters based on the determined quantization parameter to determine one or more adjusted DRA parameters~~; and~~

, wherein the one or more adjusted DRA parameters for the block of the HDR/WCG video data comprise an adjusted scaling parameter for the chroma component of the block of the HDR/WCG video data and an adjusted offset parameter for the chroma component of the block of the HDR/WCG video data; and perform DRA on the reconstructed block of the HDR/WCG video data using the one or more adjusted DRA parameters.

~~15.~~ 14. The device of claim ~~14~~13, wherein the one or more DRA parameters for the block of the HDR/WCG video data further comprise a scaling parameter for a luma component of the block of the HDR/WCG video data and an offset parameter for the luma component of the block of the HDR/WCG video data, and wherein the one or

more adjusted DRA parameters for the block of the HDR/WCG video data further comprise an adjusted scaling parameter for the luma component of the block of the HDR/WCG video data and an adjusted offset parameter for the luma component of the block of the HDR/WCG video data.

~~16. The device of claim 14, wherein the one or more DRA parameters for the block of the HDR/WCG video data comprise a scaling parameter for a chroma component of the block of the HDR/WCG video data and an offset parameter for the chroma component of the block of the HDR/WCG video data, and wherein the one or more adjusted DRA parameters for the block of the HDR/WCG video data comprise an adjusted scaling parameter for the chroma component of the block of the HDR/WCG video data and an adjusted offset parameter for the chroma component of the block of the HDR/WCG video data.~~

~~17. The device of claim 14, wherein the one or more adjusted DRA parameters comprise an adjusted DRA parameter for a first chroma component of the block of the HDR/WCG video data and an adjusted DRA parameter for a second chroma component of the block of the HDR/WCG video data.~~

~~18.~~ 15. The device of claim 14, wherein the one or more adjusted DRA parameters comprise an adjusted DRA parameter for a luma component of the block of the HDR/WCG video data, an adjusted DRA parameter for a first chroma component of the block of the HDR/WCG video data, and an adjusted DRA parameter for a second chroma component of the block of the HDR/WCG video data.

16. The device of claim 13, wherein the one or more adjusted DRA parameters comprise an adjusted DRA parameter for a first chroma component of the block of the HDR/WCG video data and an adjusted DRA parameter for a second chroma component of the block of the HDR/WCG video data.

~~19. The device of claim 14~~17. The device of claim 13, wherein to determine the one or more DRA parameters for the block of the HDR/WCG video data, the one or more processors are configured to receive indications of the one or more DRA parameters as syntax elements in the HDR/WCG video data.

~~20.~~ 18. The device of claim ~~14~~13, wherein the reconstructed block of the HDR/WCG video data comprises a filtered version of the reconstructed block.

~~21.~~ 19. The device of claim ~~14~~13, wherein to determine the one or more DRA parameters for the block of the HDR/WCG video data, the one or more processors are configured to derive at least one of the one or more DRA parameters for the block of the HDR/WCG video data based on a dependency between a quantization parameter for a luma component of the block of the HDR/WCG video data and a quantization parameter for a chroma component of the block of the HDR/WCG video data.

~~22.~~ 20. The device of claim ~~21~~19, wherein to derive the at least one of the one or more DRA parameters for the block of the HDR/WCG video data based on the dependency between the quantization parameter for the luma component of the block of the HDR/WCG video data and the quantization parameter for the chroma component of the block of the HDR/WCG video data, the one or more processors are configured to derive the at least one of the one or more DRA parameters by performing QP to DRA scale conversion.

~~23.~~ 21. The device of claim ~~21~~19, wherein to derive the at least one of the one or more DRA parameters for the block of the HDR/WCG video data based on the dependency between the quantization parameter for the luma component of the block of the HDR/WCG video data and the quantization parameter for the chroma component of the block of the HDR/WCG video data, the one or more processors are configured to derive the at least one of the one or more DRA parameters by performing DRA scale to QP conversion.

~~24.~~ 22. The device of claim ~~21~~19, wherein the dependency between the quantization parameter for the luma component and the quantization parameter for the chroma component is defined by a codec.

~~25.~~ 23. The device of claim ~~21~~19, wherein the one or more processors are further configured to:

receive syntax elements in the HDR/WCG video data, wherein values for the syntax elements define the dependency between the quantization parameter for the luma component of the block of the HDR/WCG video data and the quantization parameter for the chroma component of the block of the HDR/WCG video data.

~~26.~~ 24. The device of claim ~~14~~13, wherein the device comprises a wireless communication device, further comprising a receiver configured to receive encoded video data.

~~27.~~ 25. The device of claim ~~26~~24, wherein the wireless communication device comprises a telephone handset and wherein the receiver is configured to demodulate, according to a wireless communication standard, a signal comprising the encoded video data.

~~28.~~ 26. The device of claim ~~14~~13, wherein the device comprises a wireless communication device, further comprising a transmitter configured to transmit encoded video data.

~~29.~~ 27. The device of claim ~~28~~26, wherein the wireless communication device comprises a telephone handset and wherein the transmitter is configured to modulate, according to a wireless communication standard, a signal comprising the encoded video data.

~~30.~~ 28. A non-transitory computer readable storage medium storing instructions that when executed by one or more processors cause the one or more processors to:

determine a quantization parameter for quantized transform coefficients of a block of high dynamic range and/or wide color gamut (HDR/WCG) video data;

inverse quantize the quantized transform coefficients based on the determined quantization parameter to determine dequantized transform coefficients;

based on the dequantized transform coefficients, determine a block of residual values for the block of the HDR/WCG video data;

based on the block of residual values, determine a reconstructed block for the block of the HDR/WCG video data;

determine one or more dynamic range adjustment (~~DRA~~ORA) parameters for the block of the HDR/WCG video data~~;~~

, wherein the one or more ORA parameters for the block of the HDR/WCG video data comprise a scaling parameter for a chroma component of the block of the HDR/WCG video data and an offset parameter for the chroma component of the block of the HDR/WCG video data; adjust the one or more DRA parameters based on the determined quantization parameter to determine one or more adjusted DRA parameters~~; and~~

, wherein the one or more adjusted DRA parameters for the block of the HDR/WCG video data comprise an adjusted scaling parameter for the chroma component of the block of the HDR/WCG video data and an adjusted offset parameter for the chroma component of the block of the HDR/WCG video data; and perform DRA on the reconstructed block of the HDR/WCG video data using the one or more adjusted DRA parameters.

~~31.~~ 29. An apparatus for processing high dynamic range and/or wide color gamut (HDR/WCG) video data, the device comprising:

means for determining a quantization parameter for quantized transform coefficients of a block of the HDR/WCG video data;

means for inverse quantizing the quantized transform coefficients based on the determined quantization parameter to determine dequantized transform coefficients;

means for determining a block of residual values for the block of the HDR/WCG video data based on the dequantized transform coefficients;

means for determining a reconstructed block for the block of the HDR/WCG video data based on the block of residual values;

means for determining one or more dynamic range adjustment (DRA) parameters for the block of the HDR/WCG video data~~;~~

, wherein the one or more DRA parameters for the block of the HDR/WCG video data comprise a scaling parameter for a chroma component of the block of the HDR/WCG video data and an offset parameter for the chroma component of the block of the HDR/WCG video data; means for adjusting the one or more DRA parameters based on the determined quantization parameter to determine one or more adjusted DRA parameters~~; and~~

, wherein the one or more adjusted DRA parameters for the block of the HDR/WCG video data comprise an adjusted scaling parameter for the chroma component of the block of the HDR/WCG video data and an adjusted offset parameter for the chroma component of the block of the HDR/WCG video data; and means for performing DRA on the reconstructed block of the HDR/WCG video data using the one or more adjusted DRA parameters.