

WHAT IS CLAIMED IS:

1. A decoder, the decoder comprising circuitry configured to:
receive a bit stream;
5 determine, for a first frame including a first sub-frame and a second sub-frame, a
first scaling constant associated with the first sub-frame;
determine a second scaling constant associated with the second sub-frame; and
reconstruct pixel data of the first frame using the first scaling constant and the second
scaling constant, wherein the first scaling constant and the second scaling
10 constant characterize different values.
2. The decoder of claim 1, wherein the first scaling constant includes a vertical
scaling component and a horizontal scaling component.
3. The decoder of claim 1, wherein reconstructing the pixel data of the first frame
includes reconstructing pixel data of the first sub-frame and reconstructing pixel
15 data of the second frame.
4. The decoder of claim 1, wherein the first scaling constant is signaled within the bit
stream and the second scaling constant is signaled within the bit stream.
5. The decoder of claim 4, wherein the first scaling constant is signaled in the bit
stream as an index to a predetermined value.
- 20 6. The decoder of claim 5, wherein the second scaling constant is signaled in the
bit stream using at least a picture parameter.
7. The decoder of claim 4, wherein the first scaling constant is signaled in a picture
parameter set (PPS).
8. The system of claim 4, wherein the first scaling constant is signaled as a function of a
25 pps_pic_width_in_luma_samples parameter, a pps_scaling_win_right_offset parameter,
and a pps_scaling_win_left_offset parameter.
9. The system of claim 1, wherein a position of the first sub-frame within the first frame is
signaled in a PPS.
10. The decoder of claim 1 further comprising:

- an entropy decoder processor configured to receive the bit stream and decode the bit stream into quantized coefficients;
- an inverse quantization and inverse transformation processor configured to process the quantized coefficients including performing an inverse discrete cosine;
- 5 a deblocking filter;
- a frame buffer; and
- an intra prediction processor.
11. A method comprising:
- 10 receiving a bit stream;
- determining, for a first frame including a first sub-frame and a second sub-frame, a first scaling constant associated with the first sub-frame;
- determining a second scaling constant associated with the second sub-frame; and
- reconstructing pixel data of the first frame using the first scaling constant and the
- 15 second scaling constant, wherein the first scaling constant and the second scaling constant characterize different values.
12. The method of claim 11, wherein the first scaling constant includes a vertical scaling component and a horizontal scaling component.
13. The method of claim 11, wherein reconstructing the pixel data of the first frame
- 20 includes reconstructing pixel data of the first sub-frame and reconstructing pixel data of the second frame.
14. The method of claim 11, wherein the first scaling constant is signaled within the bit stream and the second scaling constant is signaled within the bit stream.
15. The method of claim 14, wherein the first scaling constant is signaled in the bit
- 25 stream as an index to a predetermined value.
16. The decoder of claim 15, wherein the second scaling constant is signaled in the bit stream using at least a picture parameter.
17. The decoder of claim 14, wherein the first scaling constant is signaled in a picture parameter set (PPS).

18. The system of claim 14, wherein the first scaling constant is signaled as a function of a pps_pic_width_in_luma_samples parameter, a pps_scaling_win_right_offset parameter, and a pps_scaling_win_left_offset parameter.
19. The system of claim 11, wherein a position of the first sub-frame within the first frame
5 is signaled in a PPS.
20. The method of claim 11, wherein at least one of the receiving, the determining, and the reconstructing is performed by a decoder, the decoder comprising:
an entropy decoder processor configured to receive the bit stream and decode the bit
stream into quantized coefficients;
10 an inverse quantization and inverse transformation processor configured to
process the quantized coefficients including performing an inverse
discrete cosine;
a deblocking filter;
a frame buffer; and
15 an intra prediction processor.