

## CLAIMS

What is claimed is:

1. A method of video decoding, executable by a processor, the method comprising:  
decoding coded syntax elements corresponding to wrap-around padding process based on shifting a reference block by a reference wrap-around padding width value that is determined based on locations of luma samples in the reference block; and  
reconstructing at least one coded current picture using the wrap-around padding process, wherein the wrap-around padding process is applied at boundaries of subpictures.
2. The method of claim 1, wherein the decoded syntax elements indicate an offset value for wrap-around processing; or left and right padding width information.
3. The method of claim 2, wherein a flag indicates whether syntax elements corresponding to the wrap-around padding process ~~is~~are present in a parameter set.
4. The method of claim 3, wherein a pixel position for a motion compensated prediction in a reference picture is determined by interpreting the syntax elements corresponding to wrap-around padding process with a clipping process.
5. The method of claim 4, wherein a fractional pixel is interpolated for the motion compensated prediction based on the determined pixel position.
6. The method of claim 5, wherein ~~the~~an overwrapped region is blended to remove a seam artifact as a post processing.
7. The method of claim 1, wherein the wrap-around padding process is applied at a tile or a tile group boundary.
8. The method of claim 1, wherein the coded current picture is ~~the~~a reference for motion compensation.
9. The method of claim 8, wherein the wrap-around padding process is applied at ~~the~~a boundary of the coded current picture.

10. The method of claim 1, wherein the wrap-around padding process is applied at a horizontal, ~~a~~a vertical boundary or at both the vertical and horizontal boundaries.

11. The method of claim 10, wherein a flag in a high level syntax structure indicates whether the wrap-around padding process is applied at ~~a~~the horizontal, ~~or~~the vertical boundary or both the vertical and horizontal boundaries.

12. A computer system for video coding, the computer system comprising:  
one or more computer-readable non-transitory storage media configured to store computer program code; and  
one or more computer processors configured to access said computer program code and operate as instructed by said computer program code, said computer program code including:

decoding code configured to cause the one or more computer processors to decode coded syntax elements corresponding to wrap-around padding process based on shifting a reference block by a reference wrap-around padding width value that is determined based on locations of luma samples in the reference block; and

reconstructing code configured to cause the one or more computer processors to reconstruct at least one coded current picture using the wrap-around padding process, wherein the wrap-around padding process is applied at boundaries of subpictures.

13. The computer system of claim 12, wherein the decoded syntax elements indicate an offset value for wrap-around processing; or left and right padding width information.

14. The computer system of claim 13, wherein a flag indicates whether syntax elements corresponding to the wrap-around padding process ~~is~~are present in parameter set.

15. The computer system of claim 14, wherein a pixel position for a motion compensated prediction in a reference picture is determined by interpreting the syntax elements corresponding to the wrap-around padding process with a clipping process.

16. The computer system of claim 15, wherein a fractional pixel is interpolated for the

motion compensated prediction based on the determined pixel position.

17. The computer system of claim 16, wherein ~~the~~an overwrapped region is blended to remove a seam artifact as a post processing.

18. The computer system of claim 12, wherein the wrap-around padding process is applied at a tile or a tile group boundary.

19. The computer system of claim 12, wherein the coded current picture is ~~the~~a reference for motion compensation.

20. A non-transitory computer readable medium having stored thereon a computer program for video coding, the computer program configured to cause one or more computer processors to ÷

~~—decode coded syntax elements corresponding to wrap-around padding process; and~~

~~—reconstruct at least one coded current picture using wrap-around padding~~

~~process~~perform the method according to any one of claims 1 to 11.