[CLAIMS]

[Claim 1]

Amethod of removing blocking artifacts, comprising:

determininga boundary strength for each 4-sample edge lying on 8x8 sample grid;

determining whether deblocking filtering is performed on the 4-sample edge or not if the boundary strength is not equal to zero;

selecting a deblockingfilter if the deblocking filtering is performed on the 4-sample edge; and

filtering the 4-sample edge using the selected filter.

[Claim 2]

The method of claim 1, wherein the boundary strength is set equal to zero if the 4-sample edge is not a transform unit edge and the 4-sample edge is not a prediction unit edge.

[Claim 3]

The method of claim 1, wherein the boundary strengthis set equal to 0, 1 or 2.

[Claim 4]

The method of claim 1, wherein vertical 4-sample edges are filtered first and then horizontal 4-sample edges are filtered.

[Claim 5]

The method of claim 4, wherein the boundary strength is set equal to 2 if a prediction unit containing the sample p_0 or a prediction unit containing the sample q_0 is intra-coded.

[Claim 6]

The method of claim 5, wherein the boundary strength is set equal to 1 or 0 if a prediction unit containing the sample p_0 and a prediction unit containing the sample q_0 are inter-coded.

CLAIMS

What is claimed is:

1. A method of removing blocking artifacts, the method comprising:

determining a boundary strength for each 4-sample edge which is an edge of a prediction unit or a transform unit and lies on 8x8 sample grid;

determining whether deblocking filtering is performed on the 4-sample edge or not if the boundary strength of the 4-sample edge is not equal to zero;

selecting a deblocking filter to be applied tothe 4-sample edge if the deblocking filtering is performed on the 4-sample edge; and

filtering the 4-sample edge using the selected filter,

wherein the boundary strength is not determined for a 4-sample edge which does not lie on the 8x8 sample grid.

2. The method of claim 1, wherein the boundary strength is set equal to zero if the 4-sample edge is not the edge of the transform unit or the prediction unit.

3. The method of claim 1, wherein the boundary strength of the 4-sample edge is set equal to 0, 1 or 2.

4. The method of claim 1, wherein vertical 4-sample edges are filtered first and then horizontal 4-sample edges are filtered.

5. The method of claim 4, wherein the boundary strength is set equal to 2 if a prediction unit containing the sample p0 or a prediction unit containing the sample q0 is intra-coded.

6. The method of claim 5, wherein the boundary strength is set equal to 1 or 0 if a prediction unit containing the sample p0 and a prediction unit containing the sample q0 are inter-coded.

7. The method of claim 1, wherein whether deblocking filtering is performed on the 4-sample edge or not is determined using a boundary quantization parameter.

8. The method of claim 7, wherein the boundary quantization parameter is set equal to an average of a quantization parameter of a block containing sample p0 and a quantization parameter of a block containing sample q0.

9. The method of claim 8, wherein the average is a value rounded off.

10. The method of claim 8, wherein the deblocking filter is selected using a boundary quantization parameter.