CLAIMS

1. A method of inversely quantizing a quantized block, the method comprising:

restoring a differential quantization parameter;

generating a quantization parameter predictor;

generating a quantization parameter using the differential quantization parameter and the quantization parameter predictor; and

inversely quantizing the quantized block using the quantization parameter and a quantization matrix,

wherein the differential quantization parameter is restored using a bin string indicating an absolute value of the differential quantization parameter and a bin indicating a sign of the differential quantization parameter,

if two or more quantization parameters are available among a left quantization parameter, an above quantization parameter and a previous quantization parameter of a current coding unit, the quantization parameter predictor is generated using two available quantization parameters determined according to a predetermined order,

the quantization parameter is restored per quantization unit, and a minimum size of the quantization unit is adjusted by a picture parameter set, and

the quantized block is generated by inversely scanning significant flags, coefficient signs and coefficient levels according to an inverse scan pattern which is selected based on an intra prediction mode and a size of a transform unit.

2. The method of claim 1, wherein if only one quantization parameter is available, the available quantization parameter is set as the quantization parameter predictor.

3. The method of claim 1, wherein the predetermined order is an order of the left quantization parameter, the above quantization parameter and the previous quantization parameter.

4. The method of claim 1, wherein the size of the quantization unit is derived using a size of a Largest Coding Unit (LCU) and a parameter specifying depth of the minimum size of the quantization unit.

5. The method of claim 1, wherein if the left and above quantization parameters are available, an average of the left and above quantization parameters is set as the quantization parameter predictor.

6. The method of claim 1, wherein if the left quantization parameter is not available, an average of the above quantization parameter and the previous quantization parameter is set as the quantization parameter predictor.

7. The method of claim 1, wherein if the size of the transform unit is equal to or larger than 8×8, the quantized block is generated using a last non-zero coefficient position and non-zero subset flags.