CLAIMS

1. A method of decoding a block of samples of a video picture, the method comprising deriving an intra-prediction mode for decoding the block of samples according to an analysis of gradients of samples located in at least one template area (T, T1, T2, T3) defined around the block of samples by:

- calculating (320, 430) one histogram of gradients, where each entry of the histogram of gradients corresponds to an angular intra-prediction mode, by filtering samples of the at least one template area, said filtering using filtering windows (W) centered at middle line sample positions of the at least one template area; wherein for deriving a Decoder-side Intra Mode Derivation (DIMD) mode for a chroma component of the video picture, the histogram of gradients for a chroma component is calculated only according to filtered chroma samples of the at least one template area, or the histogram of gradients for chroma component is calculated using not only chroma samples of the at least one template area but also luma samples along the bottom Virtual Pipeline Data Unit (VPDU) frontier of the neighboring above VPDU (VPDU1) and along the right VPDU frontier of the neighboring left VPDU (VPDU2);
- selecting (330, 440) at most two angular intra-prediction modes by comparing amplitudes of angular intra-prediction modes in the histogram of gradients;
- determining (360, 450) the intra-prediction mode from the at most two selected angular intra-prediction modes;

wherein an integer number of middle line sample positions of the at least one template area at which the filtering windows are centered, is lower than a total integer number of middle line sample positions of the at least one template area.

2. A method of encoding a block of samples of a video picture, the method comprising deriving an intra-prediction mode for decoding the block of samples according to an analysis of gradients of samples located in at least one template area (T, T1, T2, T3) defined around the block of samples by:

- calculating (320, 430) one histogram of gradients, where each entry of the histogram of gradients corresponds to an angular intra-prediction mode, by filtering samples of the at least one template area, said filtering using filtering windows (W) centered at middle line sample positions of the at least one template area; wherein for deriving a Decoder-side Intra Mode Derivation (DIMD) mode for a chroma component of the video picture, the histogram of gradients for a chroma component is calculated only according to filtered chroma samples of the at least one template area, or the histogram of gradients for chroma component is calculated using not only chroma samples of the at least one template area but also luma samples along the bottom Virtual Pipeline Data Unit (VPDU) frontier of the neighboring above VPDU (VPDU1) and along the right VPDU frontier of the neighboring left VPDU (VPDU2);
- selecting (330, 440) at most two angular intra-prediction modes by comparing amplitudes of angular intra-prediction modes in the histogram of gradients;
- determining (360, 450) the intra-prediction mode from the at most two selected angular intra-prediction modes;

wherein an integer number of middle line sample positions of the at least one template area at which the filtering windows are centered, is lower than a total integer number of middle line sample positions of the at least one template area.

3. The method of any one of claims 1 to 2, wherein the middle line sample positions of at least one of the at least one template area at which the filtering windows are centered, are determined to locate the filtering windows on 1 out of a forth number (N4) of the middle line sample positions of the template area.

4. The method of any one of claims 1 to 2, wherein the middle line sample positions of at least one of the at least one template area at which the filtering windows are centered, are determined to avoid any overlap between the filtering windows.

5. The method of any one of claims 1 to 4, wherein the filtering windows have different sizes.

6. The method of any one of claims 1 to 5, wherein the filtering windows size depends on the size of the block of samples and sample of the template area availability.

7. An apparatus comprising means for performing one of the method claimed in any one of claims 1 to 6.

8. A non-transitory storage medium carrying instructions of program code for executing a method claimed in any one of claims 1 to 6.

9. An electronic device, comprising: a processor; and a memory for storing instructions executable by the processor; wherein the processor is configured to perform the method claimed in any one of claims 1 to 6.

10. A computer program product including instructions that, when executed by one or more processors, causes the one or more processors to carry out the method claimed in any one of claims 1 to 6.