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(54) Title: IMPROVING THE ANGLE DISCRETIZATION IN DECODER SIDE INTRA MODE DERIVATION

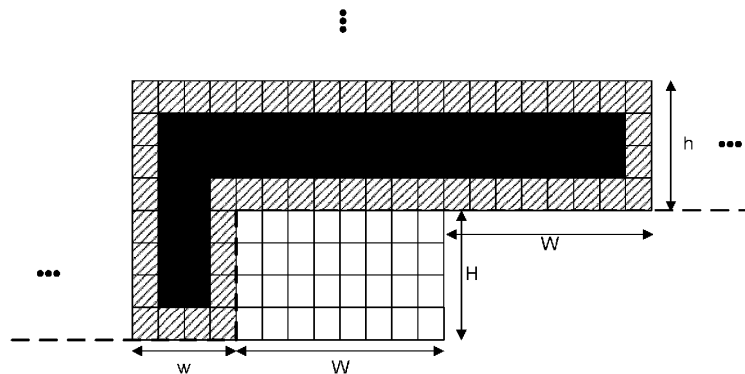


Figure 18

(57) Abstract: Decoder side intra mode derivation (DIMD) capability is enhanced by using reference pixels that extend several rows above and several columns left of a current video block, and also includes pixels above and left of the current video block, as well as columns above and right and rows below and left of the current video block. The reference pixels are formed from surrounding reconstructed/previously encoded samples surrounding the current video block. The derivation of an intra prediction mode is determined from gradients determined from each of the reference pixels in a defined surrounding area. In one embodiment, the gradients are determined using horizontal and vertical filters. In a sub-embodiment, the filters do not extend beyond the defined surrounding area. In another embodiment, reassignment of an index indicative of the target intra prediction mode is performed.

[Continued on next page]

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