6. The method of Claim 5, wherein the current block corresponds to a PU (prediction unit), and said one or more coding parameters comprise PU width represented by nPbSw, PU height represented by nPbSh, location of a top-left pixel of the PU relative to the current picture represented by (xPb, yPb), location of a top-left pixel of a current CU (coding unit) relative to the current picture represented by (xCb, yCb), size of a CTU (coding tree unit) represented by CtbSize, and wherein the PU is within the current CU.

7. The method of Claim 6, wherein said one or more conditions comprise

$$BV_x + nPbSw + xPb - xCb + (L-1)*2*(subWidthC-1) <= 0 \text{ or}$$
$$BV_y + nPbSh + yPb - yCb + (L-1)*2*(subHeightC-1) <= 0.$$

8. The method of Claim 7, wherein said one or more conditions further comprise

$$(xPb + BV_x + nPbSw - 1 + (L-1)*2*(subWidthC-1)) / CtbSize - xCb / CtbSize <= yCb/CtbSize - (yPb + BV_y + nPbSh - 1 + (L-1)*2*(subHeightC-1))/CtbSize.$$

9. The method of Claim 1, wherein the current block comprises a luma block and a chroma block for non-4:4:4 color video data, a luma block vector associated with the luma block is always at integer-pel resolution and a chroma block vector associated with the chroma block is scaled from the luma block vector, and said restricting the block vector is applied to the chroma block vector if the chroma block vector is at the fractional-pel resolution.

10. A method of video decoding using IntraBC mode (Intra-block copy mode) coding for a current picture, comprising:

receiving a video bitstream including coded data for a current block in the current picture;

parsing a current block vector from the video bitstream, wherein the current block vector points from the current block to a reference block within a reconstructed pixel area of the current picture;

if the current block vector is at a fractional-pel resolution, generating fractional-pel reference pixels for the reference block at fractional-pel locations using an interpolation filter,

wherein if any filter input data used by the interpolation filter is unavailable, unavailable filter input data is padded for interpolation by the interpolation filter; and

decoding the current block according to IntraBC mode using the reference block as a predictor.

11. The method of Claim 10, wherein the unavailable filter input data is padded by extending a rightmost available column of the reference block horizontally and extending a bottommost available row of the reference block vertically.

12. The method of Claim 10, wherein the unavailable filter input data is padded using a default or pre-set value.

13. The method of Claim 12, wherein the default or pre-set value corresponds to zero or ((1<< bit_depth) >> 1), wherein bit_depth corresponds to pixel data bit depth of the current picture.

14. The method of Claim 10, wherein the interpolation filter has 2L filter tap length using L filter input data on each side of a filtered pixel, wherein L is a positive integer.

15. A method of video encoding using IntraBC mode (Intra-block copy mode) coding for a current picture, comprising:

receiving a current block in the current picture;

deriving a current block vector pointing from the current block to a reference block within a reconstructed pixel area of the current picture;

if the current block vector is at a fractional-pel resolution, generating fractional-pel reference pixels for the reference block at fractional-pel locations using an interpolation filter, wherein if any filter input data used by the interpolation filter is unavailable, unavailable filter input data is padded for interpolation by the interpolation filter; and

encoding the current block according to IntraBC mode using the reference block as a predictor.

16. The method of Claim 15, wherein the unavailable filter input data is padded by extending a rightmost available column of the reference block horizontally and extending a bottommost available row of the reference block vertically.

17. The method of Claim 15, wherein the unavailable filter input data is padded using a default or pre-set value.

18. The method of Claim 17, wherein the default or pre-set value corresponds to zero or ((1<< bit_depth) >> 1), wherein bit_depth corresponds to pixel data bit depth of the current picture.

19. The method of Claim 15, wherein the interpolation filter has 2L filter tap length using L filter input data on each side of a filtered pixel, wherein L is a positive integer.

20. An apparatus for video decoding using IntraBC mode (Intra-block copy mode) coding in a video decoding system, comprising one or more circuitries arranged to:

receive a video bitstream including coded data for a current block in a current picture;

parse a current block vector from the video bitstream, wherein the current block vector points from the current block to a reference block within a reconstructed pixel area of the current picture;

if the current block vector is at a fractional-pel resolution, generate fractional-pel reference pixels for the reference block at fractional-pel locations using an interpolation filter, wherein if any filter input data used by the interpolation filter is unavailable, unavailable filter input data is padded for interpolation by the interpolation filter; and

decode the current block according to IntraBC mode using the reference block as a predictor.