CLAIMS

1. A video decoding method, the video decoding method comprising:

determining a transform unit from a coding unit;

obtaining, from a bitstream, a transform unit split flag indicating whether to split a transform unit of a first level into transform units of a second level by dividing a height and a width of the transform unit of a first level by 2;

obtaining, from the bitstream, coded pattern information of a chroma component indicating whether there is a non-zero coefficient of the chroma component in the transform unit of a first level; and

in response to that the transform unit split flag indicates a non-split of the transform unit of a first level and a prediction mode of the coding unit is an intra prediction mode, obtaining, from the bitstream, coded pattern information of a luma component indicating whether there is a non-zero coefficient of the luma component in the transform unit of a first level and decoding the transform unit of a first level based on the coded pattern information of a luma component and the coded pattern information of a chroma component,

wherein, the coded pattern information of a chroma component is obtained from the bitstream, regardless the transform unit split flag and the prediction mode of the coding unit, and

wherein, the coded pattern information of the luma component is not obtained from the bitstream in response to that the prediction mode of the coding unit is an intra prediction mode and the transform unit split flag indicates a split of the transform unit of a first level.

2. The video decoding method of claim 1, further comprising:

in response to that the transform unit split flag indicates the split of the transform unit of a first level, determining the transform units of a second level by dividing a height and a width of the transform unit of a first level by 2;

obtaining, from the bitstream, a second transform unit split flag indicating whether to split a transform unit of the second level, among the transform units of a second level, into transform units of a third level by dividing a height and a width of the transform unit of the second level by 2;

obtaining, from the bitstream, second coded pattern information of a chroma component indicating whether there is a non-zero coefficient of the chroma component in the transform unit of the second level; and

in response to that the transform unit split flag indicates a non-split of the transform unit of the second level and the prediction mode of the coding unit is an intra prediction mode, obtaining, from the bitstream, second coded pattern information of a luma component indicating whether there is a non-zero coefficient of the luma component in the transform unit of the second level and decoding the transform unit of the second level based on the second coded pattern information of a luma component and the second coded pattern information of a chroma component,

wherein, the second coded pattern information of a chroma component is obtained from the bitstream, regardless the second transform unit split flag and the prediction mode of the coding unit, and

wherein, the second coded pattern information of the luma component is not obtained from the bitstream in response to that the prediction mode of the coding unit is an intra prediction mode and the second transform unit split flag indicates a split of the transform unit of the second level.

3. The video decoding method of claim 2, wherein, when the transform unit of a first level is split into the transform units of a second level:

the coded pattern information of a chroma component in the transform unit of a first level and the second coded pattern information of a chroma component in the transform unit of the second level are obtained from the bitstream, and

the second coded pattern information of the luma component in the transform unit of the second level is obtained from the bitstream, without obtaining the coded pattern information of the luma component in the transform unit of a first level.