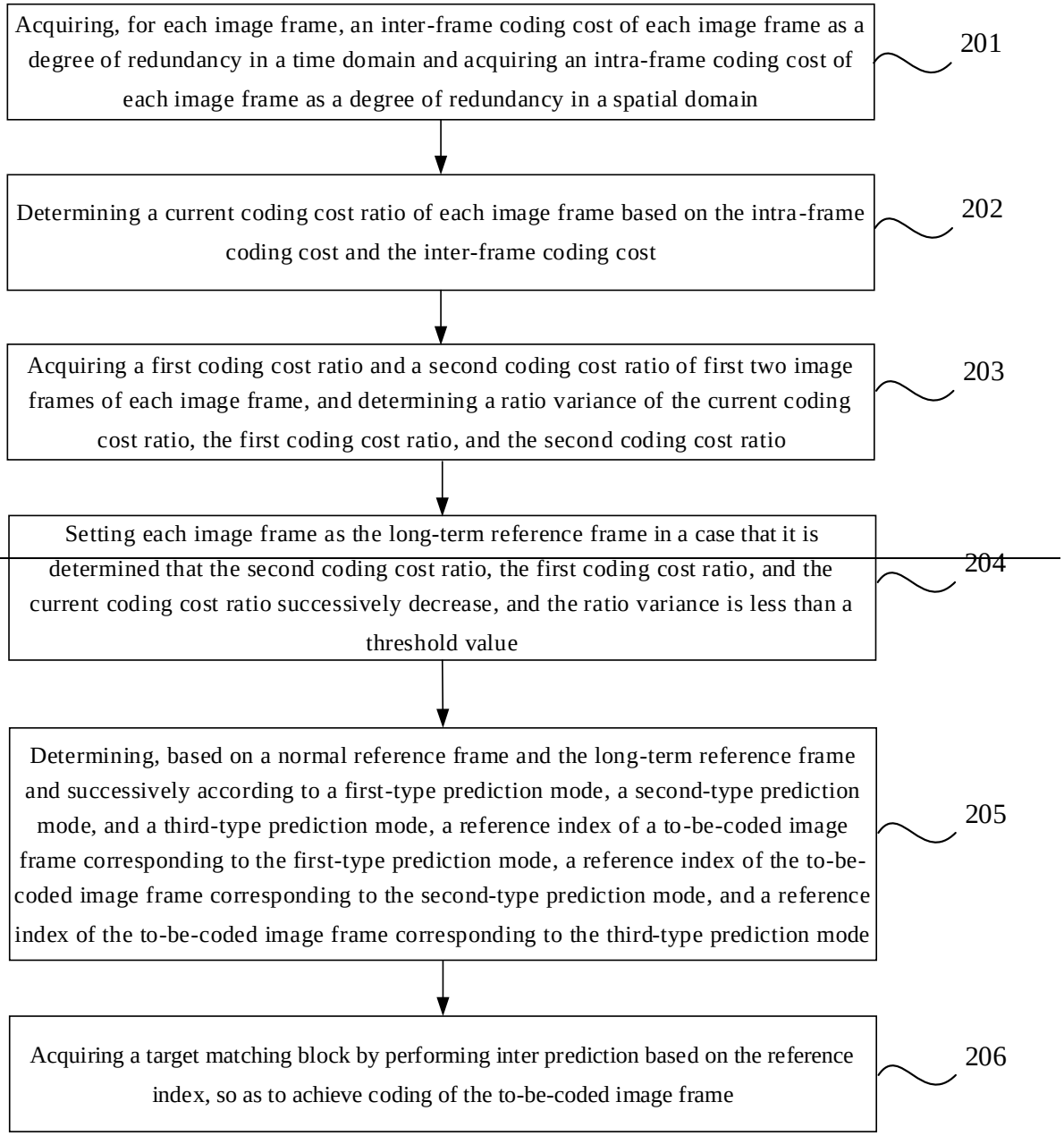

Acquiring, for each image frame, an inter-frame coding cost of each image frame as a degree of redundancy in a time domain and acquiring an intra-frame coding cost of each image frame as a degree of redundancy in a spatial domain
201
Determining a current coding cost ratio of each image frame based on the intra-frame coding cost and the inter-frame coding cost
202
Acquiring a first coding cost ratio and a second coding cost ratio of first two image frames of each image frame, and determining a ratio variance of the current coding cost ratio, the first coding cost ratio, and the second coding cost ratio
203
Setting each image frame as the long-term reference frame in a case that it is determined that the second coding cost ratio, the first coding cost ratio, and the current coding cost ratio successively decrease, and the ratio variance is less than a threshold value
204
Determining, based on a normal reference frame and the long-term reference frame and successively according to a first-type prediction mode, a second-type prediction mode, and a third-type prediction mode, a reference index of a to-be-coded image frame corresponding to the first-type prediction mode, a reference index of the to-be-coded image frame corresponding to the second-type prediction mode, and a reference index of the to-be-coded image frame corresponding to the third-type prediction mode
205
Acquiring a target matching block by performing inter prediction based on the reference index, so as to achieve coding of the to-be-coded image frame
206

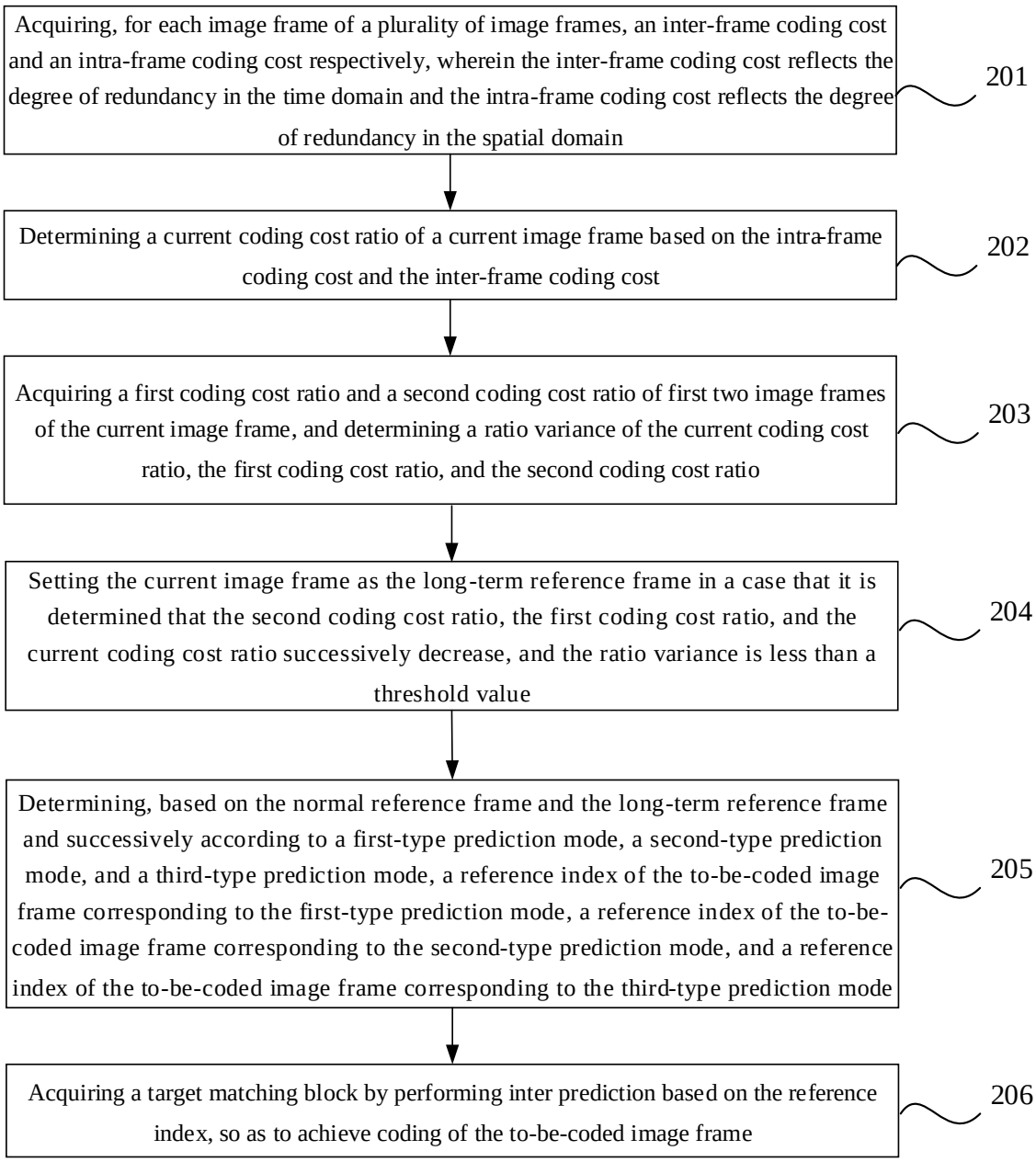
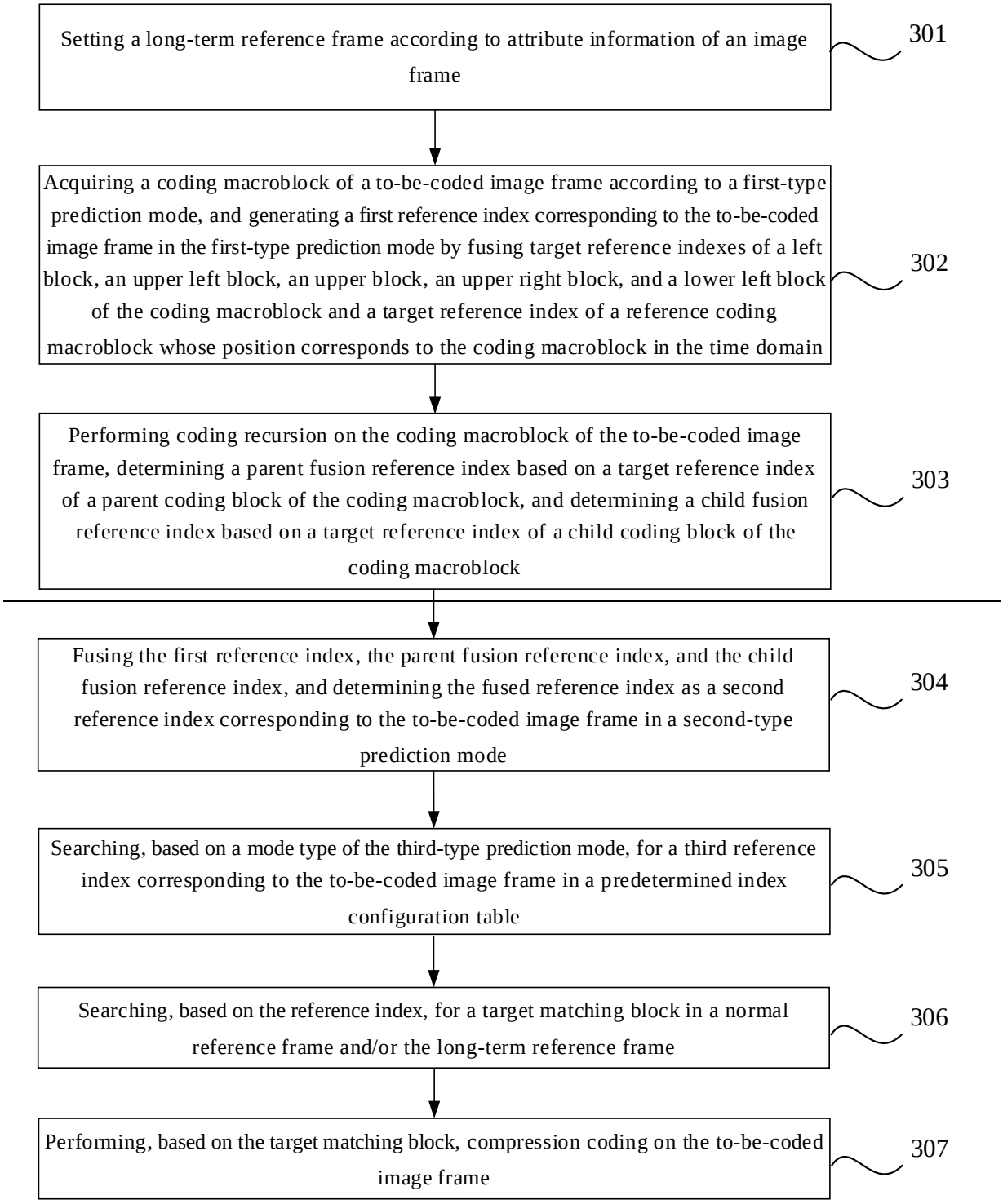

Acquiring, for each image frame of a plurality of image frames, an inter-frame coding cost and an intra-frame coding cost respectively, wherein the inter-frame coding cost reflects the degree of redundancy in the time domain and the intra-frame coding cost reflects the degree of redundancy in the spatial domain
201
Determining a current coding cost ratio of a current image frame based on the intra-frame coding cost and the inter-frame coding cost
202
Acquiring a first coding cost ratio and a second coding cost ratio of first two image frames of the current image frame, and determining a ratio variance of the current coding cost ratio, the first coding cost ratio, and the second coding cost ratio
203
Setting the current image frame as the long-term reference frame in a case that it is determined that the second coding cost ratio, the first coding cost ratio, and the current coding cost ratio successively decrease, and the ratio variance is less than a threshold value
204
Determining, based on the normal reference frame and the long-term reference frame and successively according to a first-type prediction mode, a second-type prediction mode, and a third-type prediction mode, a reference index of the to-be-coded image frame corresponding to the first-type prediction mode, a reference index of the to-be-coded image frame corresponding to the second-type prediction mode, and a reference index of the to-be-coded image frame corresponding to the third-type prediction mode
205
Acquiring a target matching block by performing inter prediction based on the reference index, so as to achieve coding of the to-be-coded image frame
206

FIG. 2


Setting a long-term reference frame according to attribute information of an image frame
301
Acquiring a coding macroblock of a to-be-coded image frame according to a first-type prediction mode, and generating a first reference index corresponding to the to-be-coded image frame in the first-type prediction mode by fusing target reference indexes of a left block, an upper left block, an upper block, an upper right block, and a lower left block of the coding macroblock and a target reference index of a reference coding macroblock whose position corresponds to the coding macroblock in the time domain
302
Performing coding recursion on the coding macroblock of the to-be-coded image frame, determining a parent fusion reference index based on a target reference index of a parent coding block of the coding macroblock, and determining a child fusion reference index based on a target reference index of a child coding block of the coding macroblock
303
Fusing the first reference index, the parent fusion reference index, and the child fusion reference index, and determining the fused reference index as a second reference index corresponding to the to-be-coded image frame in a second-type prediction mode
304
Searching, based on a mode type of the third-type prediction mode, for a third reference index corresponding to the to-be-coded image frame in a predetermined index configuration table
305
Searching, based on the reference index, for a target matching block in a normal reference frame and/or the long-term reference frame
306
Performing, based on the target matching block, compression coding on the to-be-coded image frame
307

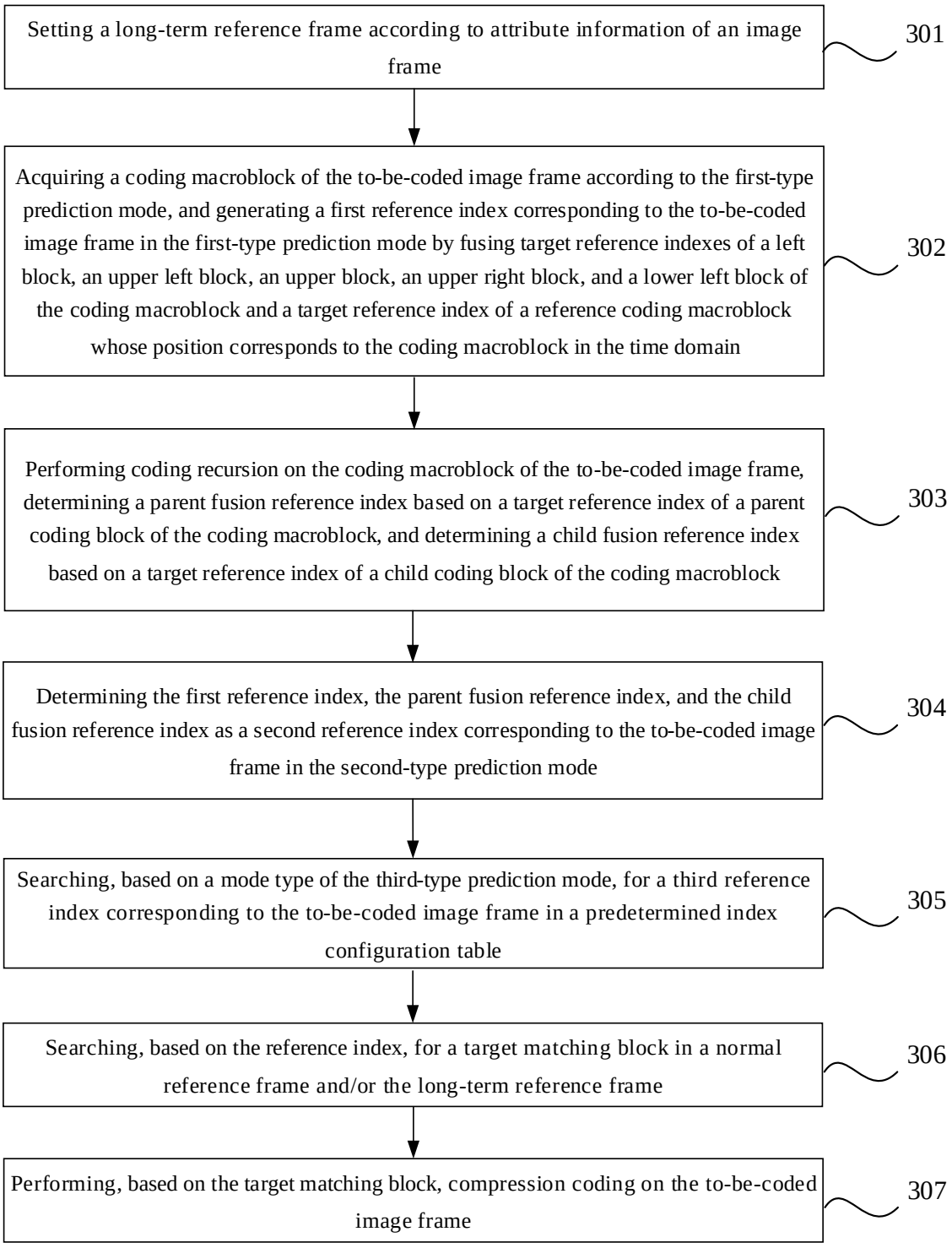

Setting a long-term reference frame according to attribute information of an image frame
301
Acquiring a coding macroblock of the to-be-coded image frame according to the first-type prediction mode, and generating a first reference index corresponding to the to-be-coded image frame in the first-type prediction mode by fusing target reference indexes of a left block, an upper left block, an upper block, an upper right block, and a lower left block of the coding macroblock and a target reference index of a reference coding macroblock whose position corresponds to the coding macroblock in the time domain
302
Performing coding recursion on the coding macroblock of the to-be-coded image frame, determining a parent fusion reference index based on a target reference index of a parent coding block of the coding macroblock, and determining a child fusion reference index based on a target reference index of a child coding block of the coding macroblock
303
Determining the first reference index, the parent fusion reference index, and the child fusion reference index as a second reference index corresponding to the to-be-coded image frame in the second-type prediction mode
304
Searching, based on a mode type of the third-type prediction mode, for a third reference index corresponding to the to-be-coded image frame in a predetermined index configuration table
305
Searching, based on the reference index, for a target matching block in a normal reference frame and/or the long-term reference frame
306
Performing, based on the target matching block, compression coding on the to-be-coded image frame
307

FIG. 3