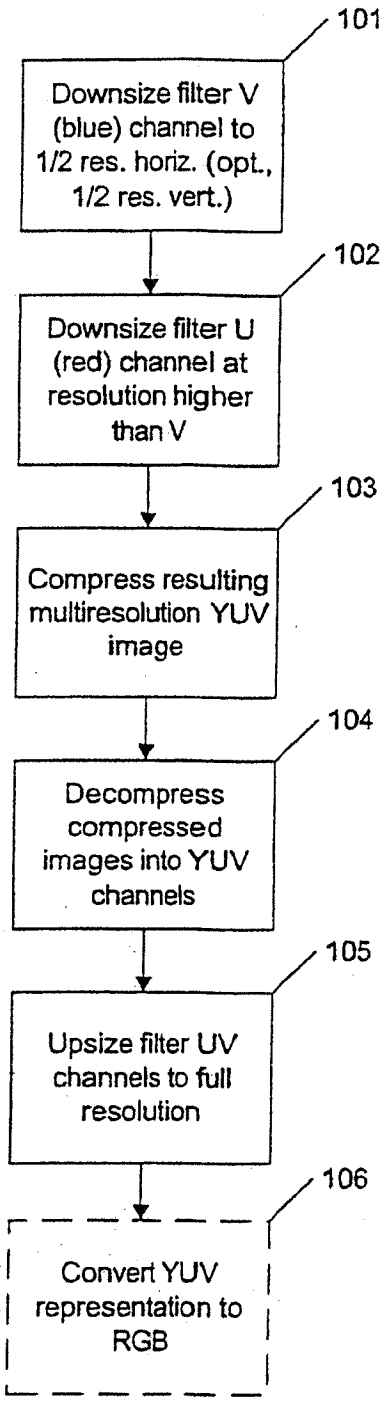
101
Downsize filter V (blue) channel to 1/2 res. horiz. (opt., 1/2 res. vert.)
102
Downsize filter U (red) channel at resolution higher than V
103
Compress resulting multiresolution YUV image
104
Decompress compressed images into YUV channels
105
Upsize filter UV channels to full resolution
106
Convert YUV representation to RGB

FIG. 1

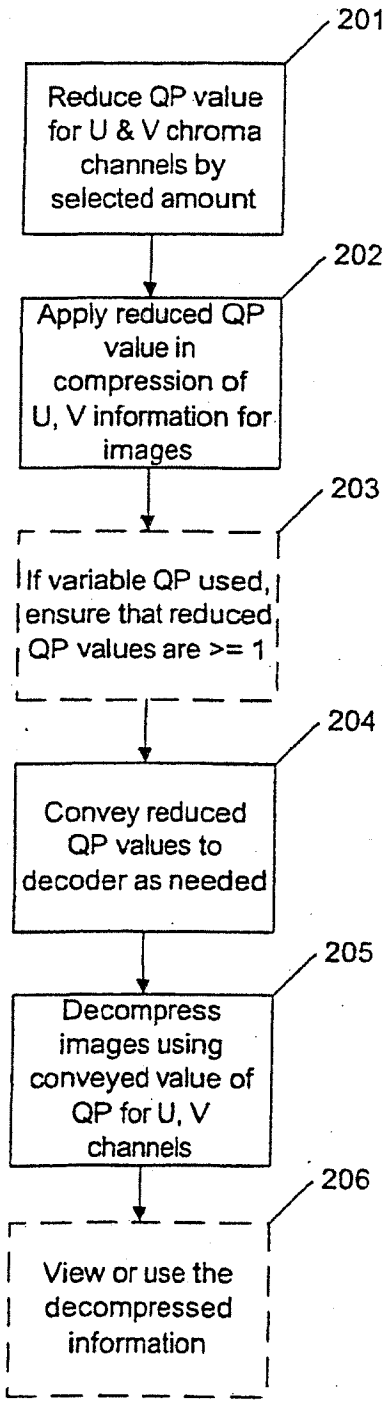
201
Reduce QP value for U & V chroma channels by selected amount
202
Apply reduced QP value in compression of U, V information for images
203
If variable QP used, ensure that reduced QP values are >= 1
204
Convey reduced QP values to decoder as needed
205
Decompress images using conveyed value of QP for U, V channels
206
View or use the decompressed information

FIG. 2

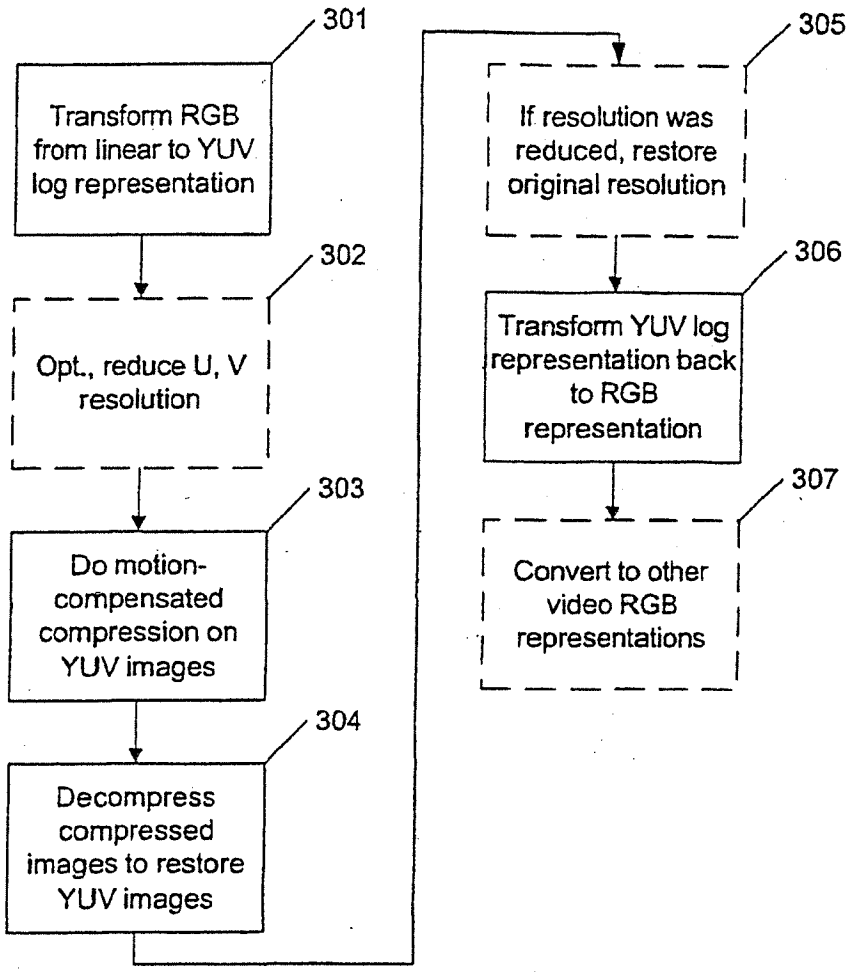
301
Transform RGB from linear to YUV log representation
302
Opt., reduce U, V resolution
303
Do motion-compensated compression on YUV images
304
Decompress compressed images to restore YUV images
305
If resolution was reduced, restore original resolution
306
Transform YUV log representation back to RGB representation
307
Convert to other video RGB representations

FIG. 3

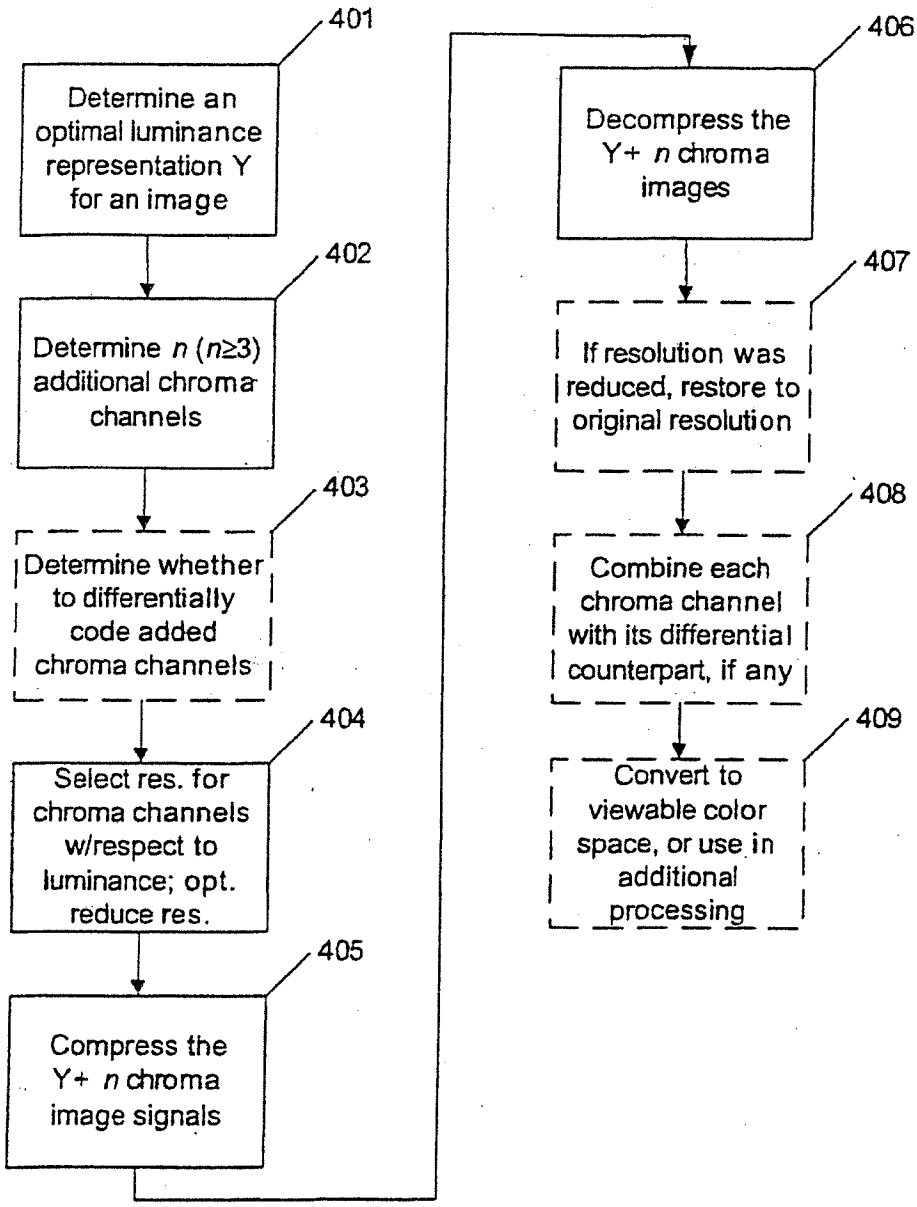
401
Determine an optimal luminance representation Y for an image
402
Determine n (n≥3) additional chroma channels
403
Determine whether to differentially code added chroma channels
404
Select res. for chroma channels w/respect to luminance; opt. reduce res.
405
Compress the Y+ n chroma image signals
406
Decompress the Y+ n chroma images
407
If resolution was reduced, restore to original resolution
408
Combine each chroma channel with its differential counterpart, if any
409
Convert to viewable color space, or use in additional processing

FIG. 4