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(54) **SELECTIVE DEBLOCK FILTERING TECHNIQUES FOR VIDEO CODING BASED ON MOTION COMPENSATION RESULTING IN A CODED BLOCK PATTERN VALUE**

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(51) **Int. Cl.**
H04N 11/02　　　　(2006.01)
(52) **U.S. Cl.**
USPC **375/240.16**
(58) **Field of Classification Search**
USPC 375/240.01–240.29
See application file for complete search history.

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(57)　　　　　　**ABSTRACT**

This disclosure describes selective deblock filtering techniques that are particularly useful with coding standards that do not specify in-loop deblock filtering for standard compliance. In accordance with this disclosure, deblock filtering may be selectively performed with respect to block boundaries of a given video block being coded, a motion compensation process can be performed using a filtered version of the prediction video frame used to code the given video block, or both. This disclosure also provides selection rules that can be applied to determine what type of deblocking techniques to apply in various scenarios. The selection rules may improve the video coding and may also ensure that mismatch between video blocks at an encoder and a decoder is not introduced by the deblock filtering.
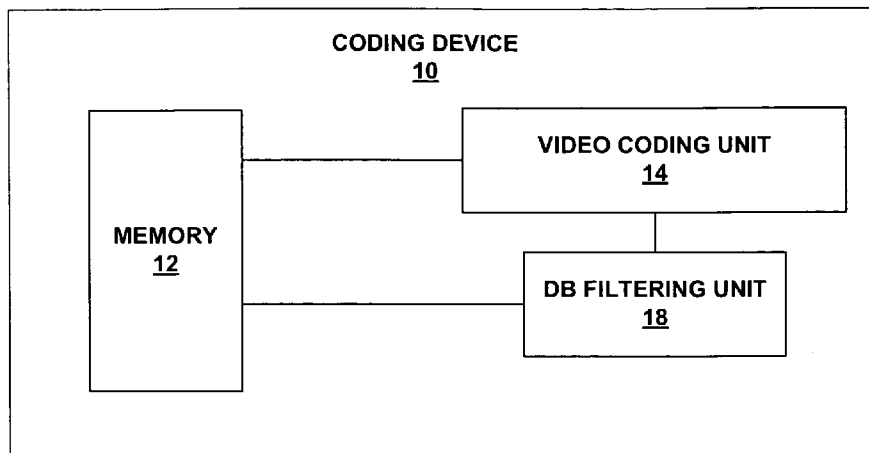
31 Claims, 5 Drawing Sheets

CODING DEVICE
10

VIDEO CODING UNIT
14

MEMORY
12

DB FILTERING UNIT
18

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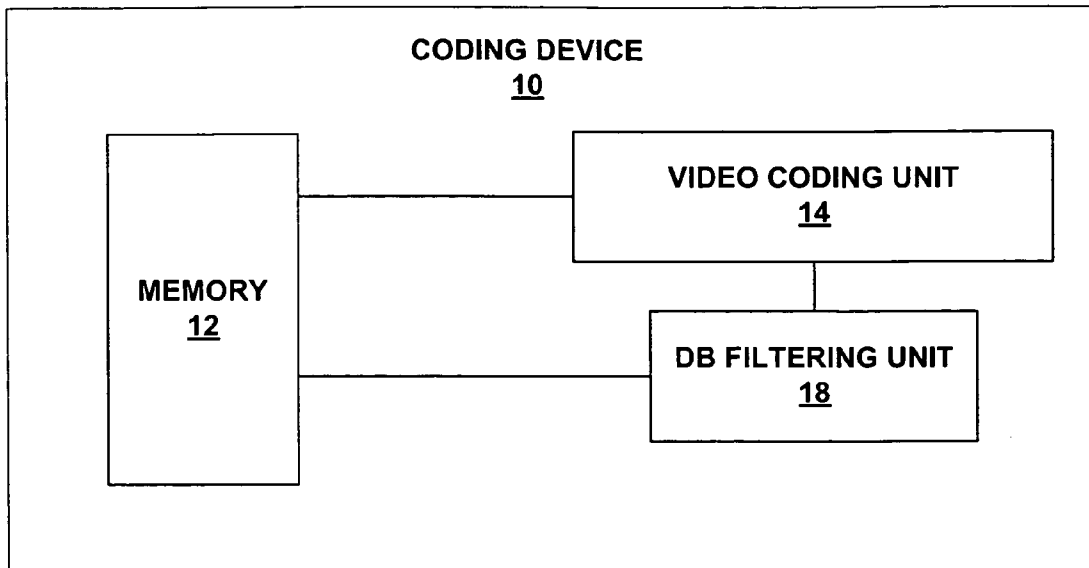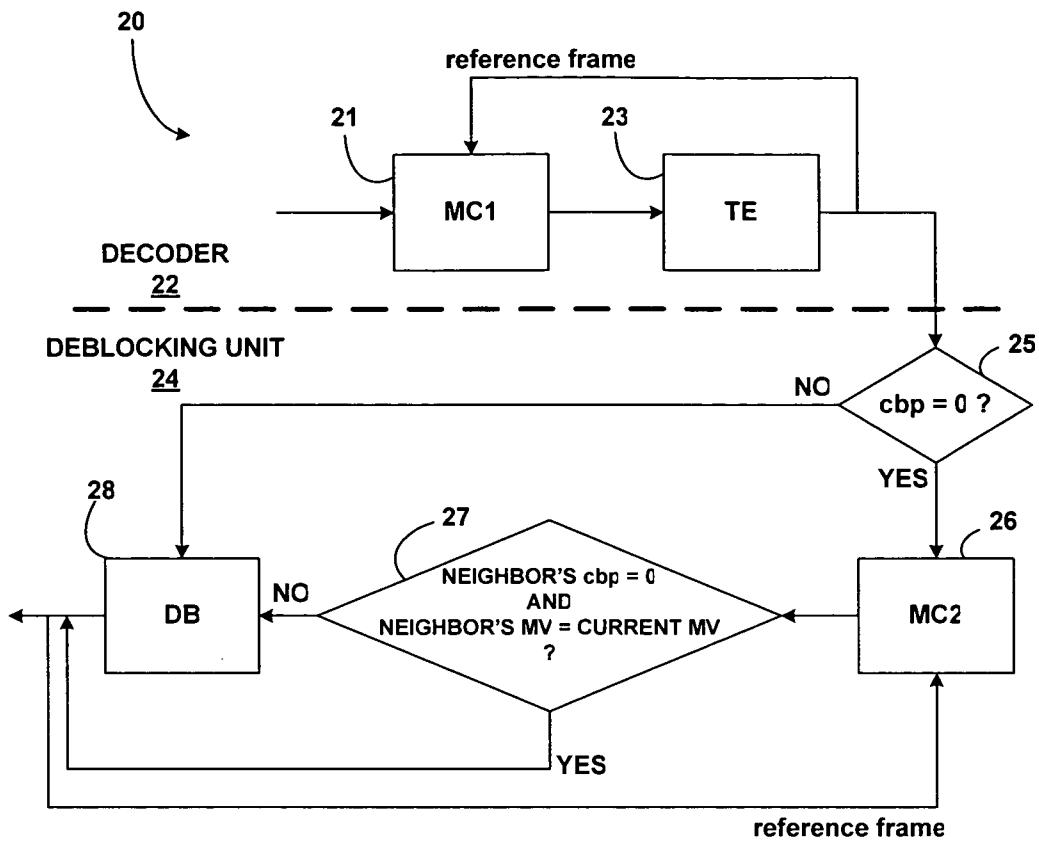
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CODING DEVICE
10

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12

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18

FIG. 1

20

reference frame

21

23

MC1   TE

DECODER
22

DEBLOCKING UNIT
24

25

NO   cbp = 0 ?

YES

28   27   26

DB   NO   NEIGHBOR'S cbp = 0
AND
NEIGHBOR'S MV = CURRENT MV
?   MC2
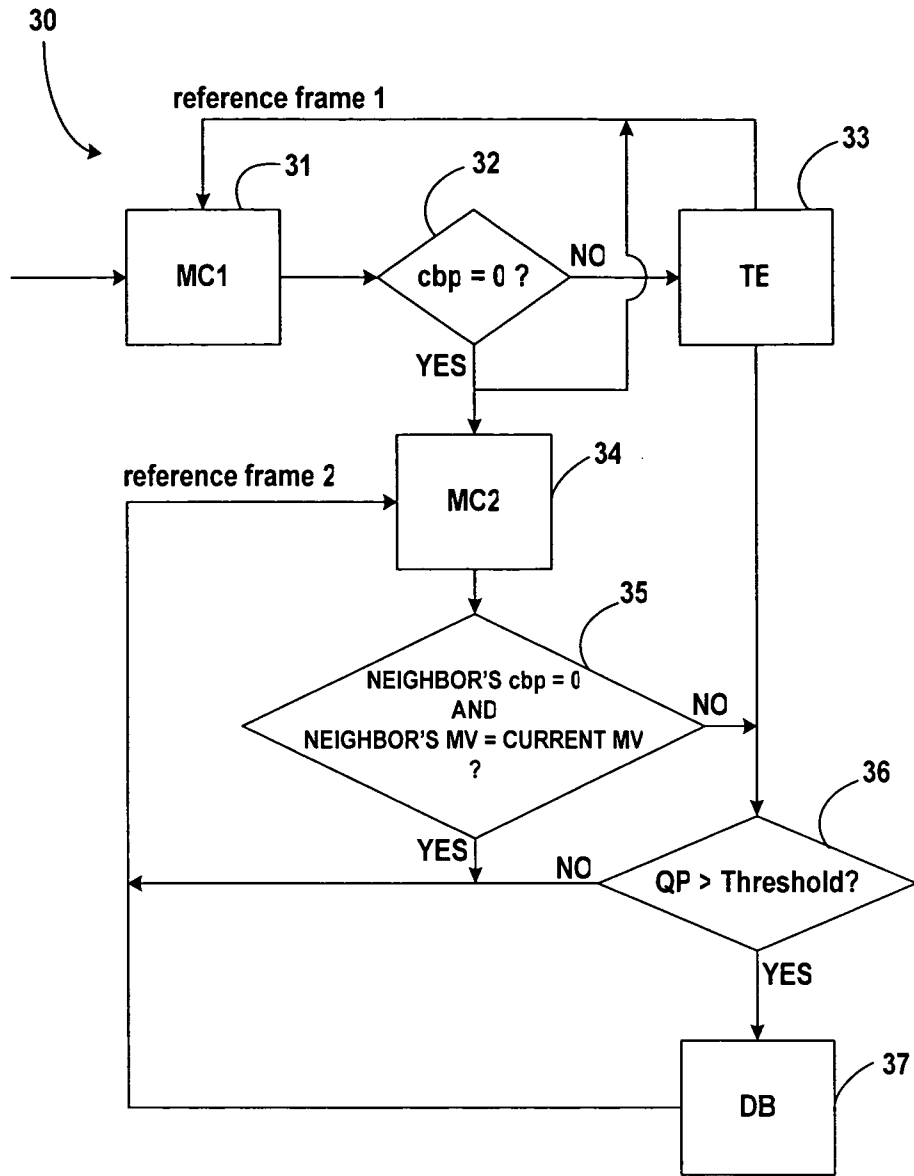
YES

reference frame

FIG. 2

FIG. 3

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