

ABSTRACT OF THE DISCLOSURE

An image motion compensation device includes: a motion vector information processing circuit, generating an image interpolation phase and a motion vector status according to motion vector information of a front image and a rear image; a cache memory circuit, allocates first and second memory spaces to respectively store first-range pixels of the front image and second-range pixels of the rear image read from an external memory circuit; a memory allocation control circuit, generating an allocation control signal according to the image interpolation phase and the motion vector status to control the cache memory circuit to dynamically allocate sizes of the first and second memory spaces; and an image motion compensation circuit, generating, based on the first-range and second-range pixels, an interpolation image corresponding to the image interpolation phase according to the motion vector information and the allocation control signal.

Fig. 2

* * * * *