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(54) **SYNTHETICALLY ENLARGED CAMERA APERTURE**

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(52) **U.S. Cl.**

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(58) **Field of Classification Search**

CPC ... H04N 5/2621; H04N 5/23287; H04N 5/238
See application file for complete search history.

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(57) **ABSTRACT**

Methods for obtaining a shallow depth of field effect (DOF) and improved signal-to-noise (SNR) in an image through synthetically increase the camera aperture of a compact camera using at least one actuator included in such a camera for other known purposes, for example for providing optical image stabilization (OIS). The synthetically enlarged camera aperture enables to take a plurality of images at different aperture positions. The plurality of images is processed into an image with shallow DOF and improved SNR.

25 Claims, 5 Drawing Sheets

