US009185291B1

(12) **United States Patent**
Shabtay et al.

(10) **Patent No.: US 9,185,291 B1**
(45) **Date of Patent: Nov. 10, 2015**

(54) **DUAL APERTURE ZOOM DIGITAL CAMERA**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/365,711**

(22) PCT Filed: **Jun. 12, 2014**

(86) PCT No.: **PCT/IB2014/062180**
§ 371 (c)(1),
(2) Date: **Jun. 16, 2014**

(87) PCT Pub. No.: **WO2014/199338**
PCT Pub. Date: **Dec. 18, 2014**

(51) **Int. Cl.**
H04N 5/232 (2006.01)
H04N 5/225 (2006.01)

(52) **U.S. Cl.**
CPC ***H04N 5/23245*** (2013.01); ***H04N 5/225*** (2013.01); ***H04N 5/2259*** (2013.01); ***H04N 5/23212*** (2013.01); ***H04N 5/23296*** (2013.01)

(58) **Field of Classification Search**
CPC H04N 5/23296
USPC 348/240.99
See application file for complete search history.

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(57) **ABSTRACT**

A dual-aperture zoom digital camera operable in both still and video modes. The camera includes Wide and Tele imaging sections with respective lens/sensor combinations and image signal processors and a camera controller operatively coupled to the Wide and Tele imaging sections. The Wide and Tele imaging sections provide respective image data. The controller is configured to combine in still mode at least some of the Wide and Tele image data to provide a fused output image from a particular point of view, and to provide without fusion continuous zoom video mode output images, each output image having a given output resolution, wherein the video mode output images are provided with a smooth transition when switching between a lower zoom factor (ZF) value and a higher ZF value or vice versa, and wherein at the lower ZF the output resolution is determined by the Wide sensor while at the higher ZF value the output resolution is determined by the Tele sensor.

22 Claims, 8 Drawing Sheets