

US010976527B2

(12) United States Patent

Shabtay et al.

(54) ZOOM DUAL-APERTURE CAMERA WITH FOLDED LENS

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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.: 16/664,841

(22) Filed: Oct. 26, 2019

(65) Prior Publication Data

US 2020/0064598 A1 Feb. 27, 2020

Related U.S. Application Data

- (63) Continuation of application No. 16/402,412, filed on May 3, 2019, now Pat. No. 10,509,209, which is a (Continued)
- (51) **Int. Cl.** *H04N 5/225 G02B 13/04*(2006.01)
 (Continued)
- (52) U.S. Cl.

(10) Patent No.: US 10,976,527 B2

(45) **Date of Patent:** Apr. 13, 2021

(58) Field of Classification Search

CPC G02B 13/0065; G02B 13/04; G02B 7/102; G02B 13/009; G02B 13/02; G02B 7/09; H04N 5/2258; H04N 5/2254; H04N 5/2257; H04N 5/2253; H04N 5/247

See application file for complete search history.

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(57) ABSTRACT

Zoom digital cameras comprising a Wide sub-camera and a folded fixed Tele sub-camera. The folded Tele sub-camera may be auto-focused by moving either its lens or a reflecting element inserted in an optical path between its lens and a respective image sensor. The folded Tele sub-camera is configured to have a low profile to enable its integration within a portable electronic device.

20 Claims, 15 Drawing Sheets

