

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
9 March 2006 (09.03.2006)

PCT

(10) International Publication Number
WO 2006/026096 A3

(51) International Patent Classification:

H04N 5/225 (2006.01) *H04N 9/74* (2006.01)
H04N 9/093 (2006.01) *G06K 9/00* (2006.01)

(21) International Application Number:

PCT/US2005/028405

(22) International Filing Date: 10 August 2005 (10.08.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

10/927,328 25 August 2004 (25.08.2004) US

(71) Applicant (for all designated States except US): **AGILENT TECHNOLOGIES, INC.** [US/US]; 395 Page Mill Road, Palo Alto, CA 94306 (US).

(72) Inventor: **GRUHLKE, Russell, W.**; 800 Cambridge Drive, Fort Collins, CO 80525 (US).

(74) Agent: **KRAUSE-POLSTORFF, Juergen**; Agilent Technologies, Inc., Intellectual Property Administration, M/S DL-429, P.O. Box 7599, Loveland, CO 80537-0599 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

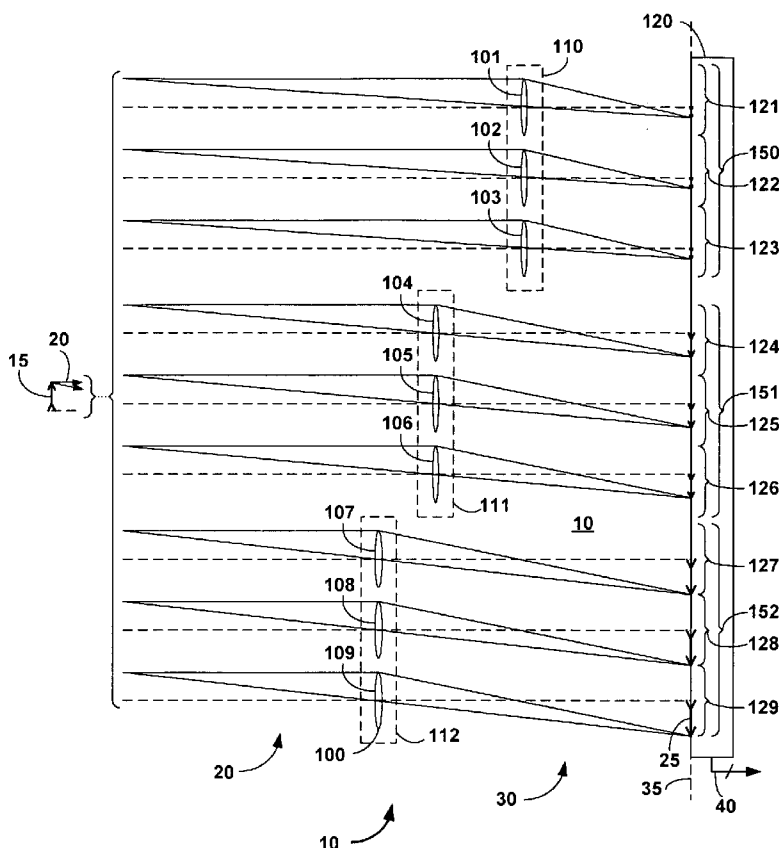
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: MULTI-MAGNIFICATION COLOR IMAGE SENSOR



(57) Abstract: A color image sensor (10) has imaging elements each structured to form, at an image plane (35), an image of a subject (25) having a respective magnification. Ones of the imaging elements (101) forming respective ones of the images with the same magnification in light of mutually different colors constitute a set (110) characterized by the magnification of the images. The sets (110) having mutually-different magnifications. The color image sensor (10) additionally has a light sensor (120) located in the image plane (35) and comprising a region (121) of sensor elements disposed opposite each of the imaging elements (101). The regions (121) of sensor elements opposite each of the sets (110) of imaging elements are operable to generate, in response to light (30) incident thereon, a respective color image signal representing the image of the respective magnification.

WO 2006/026096 A3



(88) Date of publication of the international search report:

3 August 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.