

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
13 September 2007 (13.09.2007)

PCT

(10) International Publication Number
WO 2007/103212 A1

- (51) International Patent Classification:
H04N 9/093 (2006.01) *H04N 3/15* (2006.01)
- (21) International Application Number:
PCT/US2007/005439
- (22) International Filing Date: 2 March 2007 (02.03.2007)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
11/367,580 6 March 2006 (06.03.2006) US
- (71) Applicant (for all designated States except US): **MICRON TECHNOLOGY, INC.** [US/US]; 8000 S. Federal Way, Boise, ID 83707-0006 (US).

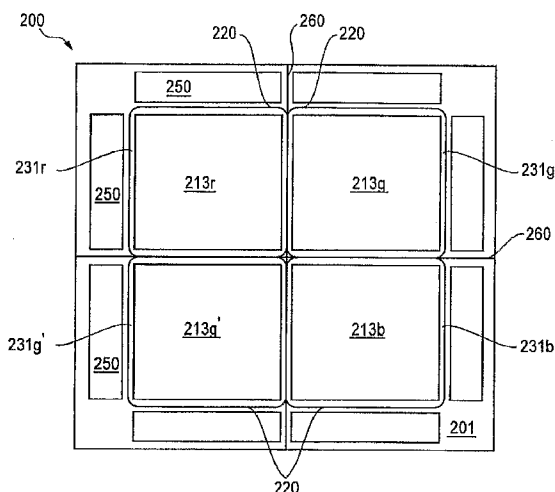
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,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

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **SMITH, Scott, T.** [US/US]; 20601 Oak Creek Ln., Saratoga, CA 95070 (US). **BAKIN, Dmitry** [US/US]; 7119 Via Romera, San Jose, CA 95139 (US).
- (74) Agent: **D'AMICO, Thomas, J.**; Dickstein Shapiro LLP, 1825 Eye Street, NW, Washington, DC 20006-5403 (US).

- Published:**
- with international search report
 - before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

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.

(54) Title: FUSED MULTI-ARRAY COLOR IMAGE SENSOR



(57) Abstract: The invention, in various exemplary embodiments, incorporates multiple image sensor arrays, with separate respective color filters, on the same imager die. One exemplary embodiment is an image sensor comprising a plurality of arrays of pixel cells at a surface of a substrate, wherein each pixel cell comprises a photo-conversion device. The arrays are configured to commonly capture an image. An image processor circuit is connected to said plurality of arrays and configured to combine the captured images, captured by the plurality of arrays, and output a color image.

WO 2007/103212 A1