

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
17 November 2005 (17.11.2005)

PCT

(10) International Publication Number  
**WO 2005/109859 A3**

(51) International Patent Classification:

H04N 5/225 (2006.01) H04N 7/18 (2006.01)  
H04N 5/235 (2006.01) H04N 9/47 (2006.01)

(21) International Application Number:

PCT/US2005/014815

(22) International Filing Date: 29 April 2005 (29.04.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/521,471 1 May 2004 (01.05.2004) US  
60/522,743 2 November 2004 (02.11.2004) US

(71) Applicants and

(72) Inventors: JACOB, Eliezer [IL/IL]; 71a Hatamar Street,  
P.O. Box 3159, 36530 Kiryat Tivon (IL). POMERANTZ,  
Itzhak [IL/IL]; 18 Golomb Street, 44357 Kefar Saba  
(IL). MILLER, Gideon [US/IL]; 2 Marcus Street, 92233  
Jerusalem (IL).

(74) Agents: KURTZ, Richard, E. et al.; Greenberg Traurig,  
LLP, 1750 Tysons Blvd., Suite 1200, McLean, VA 22102  
(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, 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.

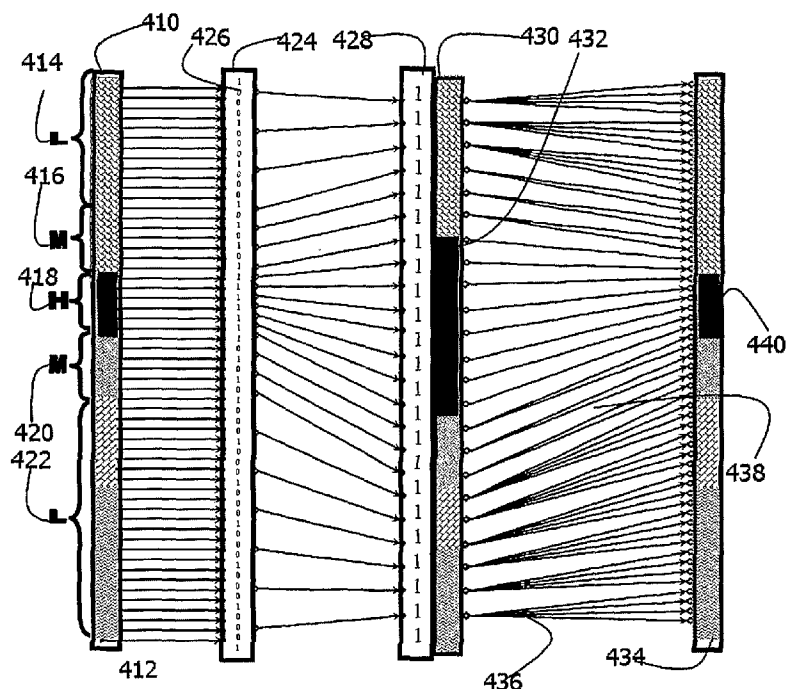
(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, 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
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

[Continued on next page]

(54) Title: DIGITAL CAMERA WITH NON-UNIFORM IMAGE RESOLUTION



(57) Abstract: The invention provides a system for isolating digital data representative of portions of a field of view. The system, which may be provided in the form of a digital camera, includes an array of sensor cells adapted to provide digital representations corresponding to at least a portion of the field of view, and a selector adapted to isolate a non-uniformly distributed subset of the digital representations provided by the array. The isolation may be performed based upon a set of values programmed in a programmable lookup table. A buffer is provided for holding the isolated digital representations.

WO 2005/109859 A3



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

8 March 2007

*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.*

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/14815

## A. CLASSIFICATION OF SUBJECT MATTER

IPC: H04N 5/225, 5/235, 7/18, 9/47

USPC: 348/218.1, 222.1, 140, 141, 142, 149

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 348/218.1, 222.1, 140, 141, 142, 149

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EAST, Google (NPL search)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002/0079425 A1 (RHOADS) 27 June 2002 (27.06.2002), see entire document	1-32
A	US 5,024,529 (SVETKOFF et al) 18 June 1991 (18.06.1991), see entire document.	1-32
A	US 5,809,161 A (AUTY et al) 15 September 1998 (15.09.1998), see entire document.	1-32
X — P	US 6,999,004 B2 (COMANICIU et al) 14 February 2006 (14.02.2006), column 2, Lines 1-45, column 4, Lines 23-40, column 6, Lines 17-30	1-32
A	US 6,430,303 B1 (NAOI et al) 06 August 2002 (06.08.2002), see entire document.	1-32
A	US 4,817,166 A (GONZALEZ et al) 28 May 1989 (28.05.1989), see entire document.	1-32

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

15 November 2006 (15.11.2006)

Date of mailing of the international search report

22 JAN 2007

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

James M. Hannett

Telephone No. 571-472-7309