(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
5 November 2009 (05.11.2009)

PCT

(10) International Publication Number
WO 2009/133403 A3

(51) International Patent Classification:
H04N 7/26 (2006.01) *G09G 3/20* (2006.01)

(21) International Application Number:
PCT/GB2009/050450

(22) International Filing Date:
30 April 2009 (30.04.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0807872.7 30 April 2008 (30.04.2008) GB

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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, 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, ME, 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, ST, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, 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 (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
7 January 2010

(54) Title: TELEVISION SYSTEM

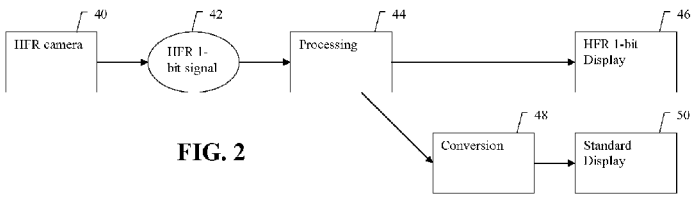

FIG. 2

(57) Abstract: Television/film capture, production and/or transmission systems are disclosed operating at a frame rate which is substantially higher than existing conventional television systems. Video processing and editing, and in particular effects processing, may be performed at the substantially higher frame rate. The video format used by the system may use a bit depth of one bit. The high frame rate video may be down-converted to standard frame rates for transmission, or may be transmitted at the high frame rate to suitably modifiedor specially designedend-user equipment. Motion information determined for a high frame-rate signal can be used to improve compression of a corresponding lower frame rate signal or to enable reproduction by a receiver of a higher framer rate signal from a lower frame rate signal.

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INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2009/050450

A. CLASSIFICATION OF SUBJECT MATTER
INV. H04N7/26 G09G3/20

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)
H04N G09G

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 practical, search terms used)
EPO-Internal, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004/062305 A1 (DAMBRACKAS WILLIAM A [US]) 1 April 2004 (2004-04-01) paragraph [0081]	1-3, 8-22, 30-33, 39,94
Y	paragraph [0042] paragraph [0013]	4,6-7, 34-38
A	US 2004/051793 A1 (TECU KIRK S [US]; HAAS WILLIAM R [US]; BOLL DAVID W [US]) 18 March 2004 (2004-03-18) paragraph [0034]	1-4, 6-22, 30-39,94

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[X] Further documents are listed in the continuation of Box C.

[X] 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

"E" earlier document but published on or after the international filing date

"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)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"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

"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

"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.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
28 August 2009	12/11/2009

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Form PCT/ISA/210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2009/050450

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 7 143 432 B1 (BROOKS ROGER K [US] ET AL) 28 November 2006 (2006-11-28) paragraph [0126] - paragraph [0127] paragraph [0083] paragraph [0087] - paragraph [0090] paragraph [0087] - paragraph [0090] paragraph [0141] paragraph [0108]	1-4, 6-22, 31-39,94
A	US 6 661 463 B1 (GESHWIND DAVID MICHAEL [US]) 9 December 2003 (2003-12-09) paragraph [0313]	1-4, 6-22, 31-39,94
Y	US 2006/233438 A1 (XU NING [US]; KIM YEONG-TAEG [US]) 19 October 2006 (2006-10-19) paragraph [0022] - paragraph [0027]	4,6-7, 34-38
A	US 5 625 412 A (ACIU ALEXANDRU V [US]; POP PETRU [RO]; CORLAN RADU [RO]) 29 April 1997 (1997-04-29) column 1, line 55 - line 65	1,3-34, 39,94
X	EP 1 223 549 A1 (HAMAMATSU PHOTONICS KK [JP]) 17 July 2002 (2002-07-17) paragraph [0135]	1,30-34, 94
A	US 2002/000994 A1 (BERGSTROM NEIL [US] ET AL) 3 January 2002 (2002-01-03) paragraph [0282] - paragraph [0287] paragraph [0288]	1-22, 31-39,94

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2009/050450

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-4, 30-38(completely); 6-22, 39, 94(partially)

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4, 30-38(completely); 6-22, 39, 94(partially)

   Providing a video signal with a colour depth of at most two bits per pixel colour component

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2. claims: 5(completely); 6-22, 39, 94(partially)

   Encoding a video signal with a frame rate selected so that perceived colour depth is increased

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3. claims: 23-29(completely); 39, 94(partially)

   Generating frames with a higher colour depth from frames of a lower colour depth by aggregating source pixels

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4. claims: 40-59

   Transmission of a high frame rate television signal

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5. claims: 60-65(completely); 93-94(partially)

   Extraction of information from a high frame rate version of a video signal, and using said information in compression/regeneration of a high frame rate

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6. claims: 66-84(completely); 93-94(partially)

   Applying synthetic camera shuttering effect

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7. claims: 85-88(completely); 93-94(partially)

   Modification of video frames based on a detection a contribution from a regularly varying light source

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8. claims: 89-92(completely); 93(partially)

   Compression of high frame rate video by division into three-dimensional blocks

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/GB2009/050450

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