

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
31 December 2008 (31.12.2008)

PCT

(10) International Publication Number
WO 2009/002092 A3

(51) International Patent Classification:
H04N 7/32 (2006.01)

(21) International Application Number:
PCT/KR2008/003645

(22) International Filing Date: 25 June 2008 (25.06.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10-2007-0062513 25 June 2007 (25.06.2007) KR
10-2008-0014999
19 February 2008 (19.02.2008) KR

(71) Applicants (for all designated States except US): **SAMSUNG ELECTRONICS CO., LTD.** [KR/KR]; 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 442-742 (KR). **UNIVERSITY INDUSTRY COOPERATION GROUP OF KYUNG HEE UNIVERSITY** [KR/KR]; Kyunghee Univ. Global Campus, 1, Seocheon-dong, Giheung-gu, Yongin-si, Gyeonggi-do 446-701 (KR).

(72) Inventors: **JOUNG, Do-Young**; #1004, Daebyeong Cyber APT., 49-8, Cheonho-dong, Gangdong-gu, Seoul 134-020 (KR). **PARK, Tae-Sung**; #303-903, Provence 2-cha, Jukjeon 1-dong, Suji-guYongin-si, Gyeonggi-do 448-161 (KR). **OH, Yun-Je**;

#107-1801, Samsung Raemian 1-cha APT., Mabuk-ri, Guseong-eup, Yongin-si, Gyeonggi-do 449-557 (KR). **SUH, Doug-Young**; #201-202, Pureun Maeul Byucksan APT., Sunae-dong, Bundang-gu, Seongnam-si, Gyeonggi-do 463-779 (KR). **LEE, Yung-Lyul**; #1-704, Kukdong APT., Garak-dong, Songpa-gu, Seoul 138-160 (KR). **PARK, Gwang-Hoon**; #B-302, Donga Villa, 45, Bundang-dong, Bundang-gu Seongnam-si, Gyeonggi-do 463-831 (KR). **KIM, Kyu-Heon**; #103-1504, Cheongdam Hyundai 3-cha APT., Cheongdam-dong, Gangnam-gu, Seoul 135-100 (KR). **PARK, Min-Woo**; 1167-26, Seryu 2-dong, Gwonseon-gu, Suwon-si, Gyeonggi-do 441-110 (KR). **LIM, Sung-Chang**; #Na-301, Daejin Villa, 635-634, Bongcheon 9-dong, Gwanak-gu, Seoul 151-828 (KR).

(74) Agent: **LEE, Keon-Joo**; Mihwa bldg. 110-2., Myongryundong 4-ga., Chongro-gu., Seoul 110-524 (KR).

(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, 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,

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR ILLUMINATION COMPENSATION IN MULTI-VIEW VIDEO CODING

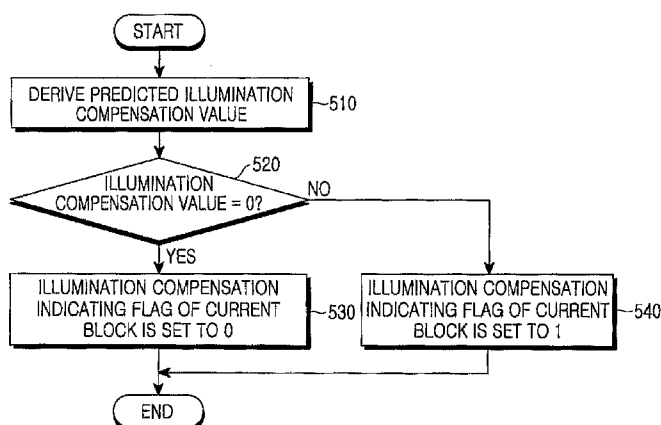


FIG.5

(57) Abstract: Disclosed is a method of determining illumination compensation in a multi view video coding. The method includes determining when a current block performing illumination compensation is in a B skip mode and deriving a predicted illumination compensation value of the current block by using information regarding neighbor blocks of the current block and when the derived predicted illumination compensation value is not determining, setting the current block not to perform the illumination compensation; and when the derived predicted illumination compensation value is determining, setting the current block to perform the illumination compensation.



WO 2009/002092 A3



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.

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).

(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, MT, NL,

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*

(88) Date of publication of the international search report:
26 February 2009

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2008/003645**A. CLASSIFICATION OF SUBJECT MATTER****H04N 7/32(2006.01)i**

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)

IPC 8 H04B, H04N

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

Korean Utility models and applications for Utility Models: IPC as above

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

eKIPASS(KIPO internal): "Multi-view, illumination, compensation"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2006/033953 A1 (YIN, PENG et al.) 30 Mar. 2006 See abstract, Figs. 1-5 and Page 3, line 13 - Page 4, line 6.	1-15
A	WO 2007/047736 A2 (YIN, PENG et al.) 26 Apr. 2007 See abstract and Fig. 1.	1-15
A	US 2006/0023787 A1 (HUA CAI et al.) 2 Feb. 2006 See abstract and Fig.1.	1-15

☐ 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

"E" earlier application or patent 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 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

30 DECEMBER 2008 (30.12.2008)

Date of mailing of the international search report

30 DECEMBER 2008 (30.12.2008)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
Government Complex-Daejeon, 139 Seonsa-ro, Seo-
gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

KIM, Young Tae

Telephone No. 82-42-481-8367



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2008/003645

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
W02006033953A1	30.03.2006	CN101023673A EP1790168A1 KR20070051334A	22.08.2007 30.05.2007 17.05.2007
W02007047736A2	26.04.2007	None	
US 2006-023787 A1	02.02.2006	EP 1622390 A2 JP 2006-042360 US 2006-0023787 A1	01.02.2006 09.02.2006 02.02.2006