

(51) International Patent Classification:
H04L 29/02 (2006.01) *H04W 4/06* (2009.01)(21) International Application Number:
PCT/KR2009/000825(22) International Filing Date:
20 February 2009 (20.02.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10-2008-0015825
21 February 2008 (21.02.2008) KR
10-2008-0023568 13 March 2008 (13.03.2008) KR
10-2008-0024086 14 March 2008 (14.03.2008) KR(71) Applicant (for all designated States except US): **SAM-SUNG ELECTRONICS CO., LTD.** [KR/KR]; 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 442-742 (KR).(72) Inventors: **KWON, Hwan-Joon**; #944-1510, Byeokjeokgol 9-danji Lotte APT., Yeongtong-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-726 (KR). **LEE, Hak-Ju**; #110-1003, Shindonga APT., Sipjeong 2-dong, Bupyeong-gu, Incheon 403-759 (KR). **LIM, Yeon-Ju**; #605, Pungjeon Officetel, 602-34, Namhyeon-dong, Gwanak-gu, Seoul 151-801 (KR). **JEONG, Hong-Sil**; #102-2003, Samhwan APT., Singil 7-dong, Yeongdeungpo-gu, Seoul 150-782 (KR). **KIM, Jae-Yoel**; #435-1601, Cheongmyeongmaeul 4-danji Samsung Raemian APT., Yeongtong 1-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-738 (KR). **YUN, Sung-Ryul**; #811-806, Byeokjeokgol 8-danji APT., Yeongtong-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-725 (KR). **MYUNG, Seho**; #201-203, Maetan Seongil APT., Maetan 4-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-717 (KR).(74) Agent: **LEE, Keon-Joo**; Mihwa Bldg., 110-2, Myongryun-dong 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, 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).

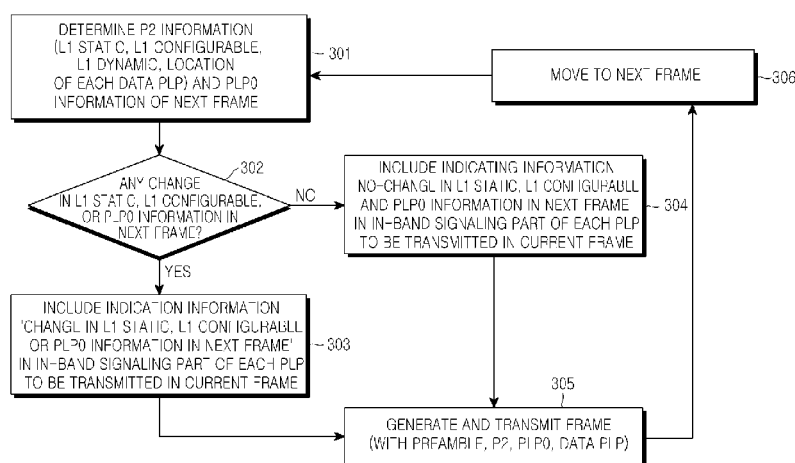
Published:

— with international search report (Art. 21(3))

[Continued on next page]

(54) Title: APPARATUS AND METHOD FOR TRANSMITTING AND RECEIVING A FRAME INCLUDING CONTROL INFORMATION IN A BROADCASTING SYSTEM

[Fig. 3]



(57) Abstract: Apparatus and method for transmitting and receiving a frame including control information in a broadcasting system. A frame for a broadcast service is generated using an in-band signaling scheme, and includes location information of control information in a next frame and indication information indicating a change/no-change in the control information in the next frame. The new frame structure minimizes power consumption of a receiver supporting the broadcast service.



— *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:
19 November 2009