

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
10 September 2020 (10.09.2020)



(10) International Publication Number
WO 2020/180216 A2

(51) International Patent Classification:
Not classified

(21) International Application Number:
PCT/RU2020/050039

(22) International Filing Date:
05 March 2020 (05.03.2020)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/814,270 05 March 2019 (05.03.2019) US
62/837,698 23 April 2019 (23.04.2019) US

(71) Applicant: **HUAWEI TECHNOLOGIES CO., LTD.**
[CN/CN]; Huawei Administration Building, Bantian, Long-
gang District, Shenzhen, Guangdong 518129 (CN).

(72) Inventor; and

(71) Applicant (for RU only): **CHERNYAK, Roman Igorevich** [RU/CN]; Huawei Administration Building, Bantian, Shenzhen, Guangdong 518129 (CN).

(72) Inventors: **SOLOVYEV, Timofey Mikhailovich**; Huawei Administration Building, Bantian, Longgang District, Shenzhen, Guangdong 518129 (CN). **ZHAO, Yin**; Huawei Administration Building, Bantian, Longgang District, Shenzhen, Guangdong 518129 (CN). **IKONIN, Sergey Yurievich**; Huawei Administration Building, Bantian, Longgang District, Shenzhen, Guangdong 518129 (CN). **CHEN, Jianle**; 2330 Central Expressway, Santa Clara, California 95050 (US).

(74) Agent: **LAW FIRM "GORODISSKY & PARTNERS" LTD.**; B. Spasskaya Str., 25, bldg.3, Moscow, 129090 (RU).

(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, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,

SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- without international search report and to be republished upon receipt of that report (Rule 48.2(g))
- in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE



WO 2020/180216 A2

(54) Title: THE METHOD AND APPARATUS FOR INTRA SUB-PARTITIONS CODING MODE

(57) Abstract: Apparatuses and methods for Intra Sub-Partitions (ISP) are provided. The method includes: obtaining information of ISP, and determining a size of a chroma transform block (TB) of the coding unit based on SubWidthC and SubHeightC when at least a first condition is fulfilled. The first condition includes the information of ISP indicates that ISP is used for splitting the luma coding block. SubWidthC and SubHeightC are variables depending on chroma format information. The chroma format information indicates a chroma format of a picture the coding unit belongs to. The method can apply to all chroma format. The chroma format includes at least one of: 4:2:0, or 4:2:2, or 4:4:4. An accurate and versatile way to determine the size of the chroma transform block for the ISP is achieved.