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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
2 August 2012 (02.08.2012)

WIPO | PCT

(10) International Publication Number
WO 2012/102867 A1

(51) International Patent Classification:
H04N 7/26 (2006.01)

(21) International Application Number:
PCT/US2012/021096

(22) International Filing Date:
12 January 2012 (12.01.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/435,750 24 January 2011 (24.01.2011) US
13/252,600 4 October 2011 (04.10.2011) US

(71) Applicant *(for all designated States except US)*: **QUALCOMM INCORPORATED** [US/US]; 5775 Morehouse Drive, ATTN: International IP Administration, San Diego, California 92121-1714 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **KARCZEWICZ, Marta** [US/US]; 5775 Morehouse Drive, San Diego, California 92121-1714 (US). **JOSHI, Rajan, L.** [US/US]; 5775 Morehouse Drive, San Diego, California 92121-1714 (US).

(74) Agent: **FITZGERALD, Kelly, Patrick**; Shumaker & Sieffert, P.A., 1625 Radio Drive, Suite 300, Woodbury, MN 55125 (US).

(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, CL, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

[Continued on next page]

(54) Title: SIGNALING QUANTIZATION PARAMETER CHANGES FOR CODED UNITS IN HIGH EFFICIENCY VIDEO CODING (HEVC)

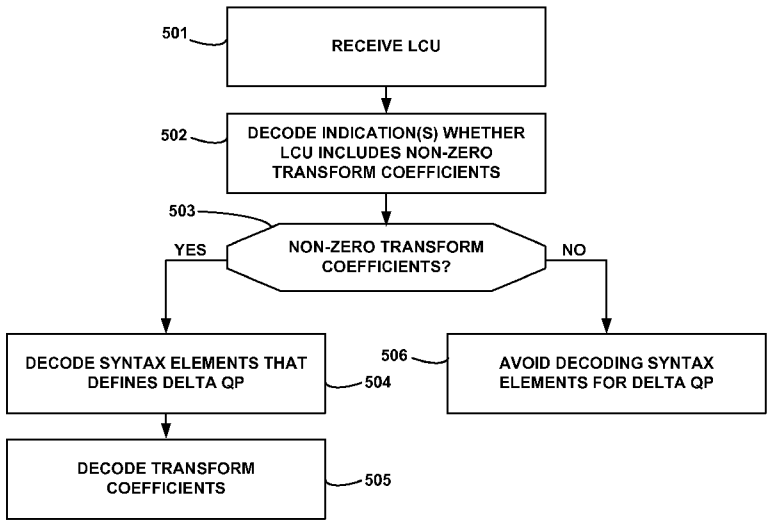


FIG. 5

(57) Abstract: In one example, this disclosure describes a method of decoding video data. The method comprises receiving a coding unit (CU) of encoded video data. The CU is partitioned into a set of block-sized coded units (CUs) according to a quadtree partitioning scheme, and decoding one or more syntax elements for the CU to indicate a change in a quantization parameter for the CU relative to a predicted quantization parameter for the CU only if the CU includes any non-zero transform coefficients. The one or more syntax elements are decoded from a position within the encoded video data after an indication that the CU will include at least some non-zero transform coefficients, and before the transform coefficients for the CU.

WO 2012/102867 A1

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

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