

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
07 May 2020 (07.05.2020)



(10) International Publication Number
WO 2020/092865 A1

(51) International Patent Classification:

H04W 24/02 (2009.01) H04W 72/04 (2009.01)
H04W 48/16 (2009.01) H04L 5/00 (2006.01)

(21) International Application Number:

PCT/US2019/059318

(22) International Filing Date:

01 November 2019 (01.11.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/754,931 02 November 2018 (02.11.2018) US
16/671,015 31 October 2019 (31.10.2019) US

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

(72) Inventors: **HOSSEINI, Seyedkianoush**; 5775 Morehouse
Drive, San Diego, California 92121-1714 (US). **JIANG,
Jing**; 5775 Morehouse Drive, San Diego, California
92121-1714 (US). **CHEN, Wanshi**; 5775 Morehouse Drive,
San Diego, California 92121-1714 (US).

(74) Agent: **DRAPKIN, Michael L.**; Holland & Hart LLP, P.O.
Box 11583, Salt Lake City, Utah 84147 (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, 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, SM, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

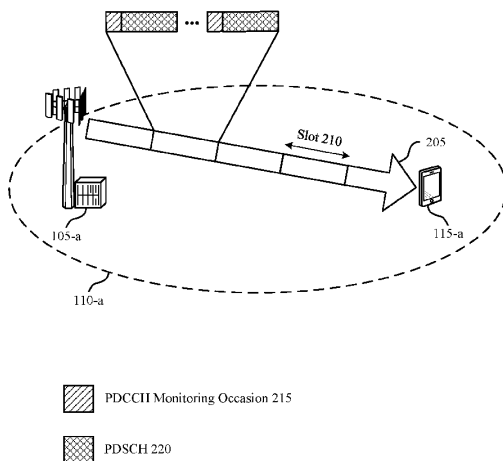
(84) Designated States (unless otherwise indicated, for every

kind of regional protection available): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, 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:

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

(54) Title: DOWNLINK CONTROL CHANNEL MONITORING CAPABILITIES



(57) Abstract: Methods, systems, and devices for wireless communications are described. A user equipment UE (115) may monitor a downlink transmission for control information during a set of physical downlink control channel PDCCH monitoring occasions (215). The UE (115) may determine a first configuration for the set of PDCCH monitoring occasions (215) during a slot of the downlink transmission and a threshold number of PDCCH candidates and/or a threshold number of non-overlapping CCEs within the slot. The UE (115) may also determine (430) a threshold number of PDCCH candidates and/or non-overlapping control channel elements (CCEs) within a single PDCCH monitoring occasion. The threshold number of PDCCH candidates and non-overlapping CCEs may be fixed, based on the number of PDCCH monitoring occasions during the slot, based on a processing capability of the UE, or a combination thereof. The UE (115) may decode control information contained in one or more of the PDCCH monitoring occasions.

FIG. 2

WO 2020/092865 A1