

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
12 July 2018 (12.07.2018)



(10) International Publication Number
WO 2018/129017 A8

(51) International Patent Classification:
H04L 1/18 (2006.01) *H04L 1/00* (2006.01)

62/542,927 09 August 2017 (09.08.2017) US

(21) International Application Number:
PCT/US2018/012154

(71) Applicant: **IDAC HOLDINGS, INC.** [US/US]; 200 Belle-
vue Parkway, Suite 300, Wilmington, DE 19809 (US).

(22) International Filing Date:
03 January 2018 (03.01.2018)

(72) Inventors: **MARINIER, Paul**; 1805 Stravinski, Brossard,
Quebec J4X 2J7 (CA). **TOOHER, J., Patrick**; 7171 Drolet,
Montreal, Quebec H2R 2C1 (CA). **ALFARHAN, Faris**;
343 Square Sir-Georges-Étienne-Cartier, Montreal, Quebec
H4C 3A3 (CA). **PELLETIER, Ghyslain**; 4650 Charle-
magne, Montreal, Quebec H1X 3P2 (CA). **EL HAMSS,**
Aata; 2525 Rue Sherbrooke Est Apt. 20, Montreal, Quebec
H2K 1G1 (CA).

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/442,093 04 January 2017 (04.01.2017) US
62/453,085 01 February 2017 (01.02.2017) US
62/500,989 03 May 2017 (03.05.2017) US
62/519,675 14 June 2017 (14.06.2017) US

(54) Title: RECEIVER FEEDBACK IN WIRELESS SYSTEMS

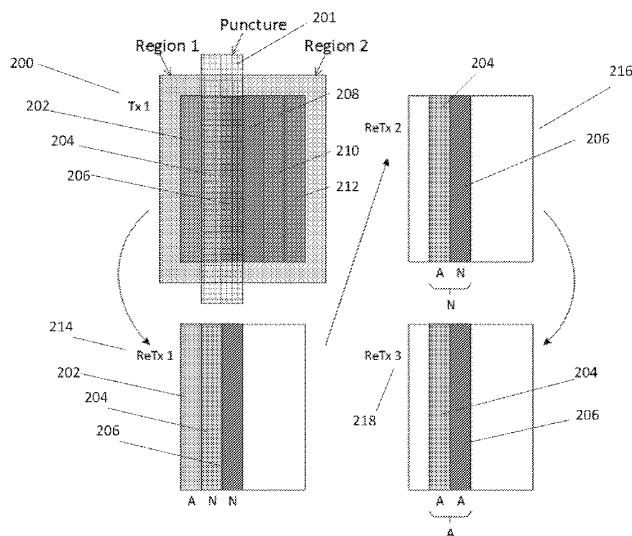


FIG. 2

(57) **Abstract:** Systems, methods, and instrumentalities are disclosed for receiver feedback in wireless systems. Receiver feedback format, content, type and/or timing may be determined as a function of, for example, at least one of a type of soft-combining processing to apply in a HARQ process, a HARQ operating point for the HARQ process, one or more reference transmissions for controlling a type of HARQ feedback for the HARQ process, and a feedback suppression parameter for one or more transmissions in a sequence associated with the HARQ process or a transport block (TB). Uniform and non-uniform CB-to-CBG mapping may be provided (e.g., by a WTRU) based on, for example, one or more parameters, interference and channel conditions and/or a probability of or actual pre-empting transmissions. A CB to CBG mapping indication may be provided, for example, in support of selecting a CB to CBG mapping from multiple CB to CBG mappings. Intra- and inter-WTRU interference/preemption indications may be provided.

[Continued on next page]

(74) **Agent: ROCCIA, Vincent, J.** et al.; Condo Roccia Koptiw LLP, 1800 JFK Blvd., Suite 1700, Philadelphia, PA 19103 (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))

(88) **Date of publication of the international search report:**
16 August 2018 (16.08.2018)

(48) **Date of publication of this corrected version:**
01 August 2019 (01.08.2019)

(15) **Information about Correction:**
see Notice of 01 August 2019 (01.08.2019)
