

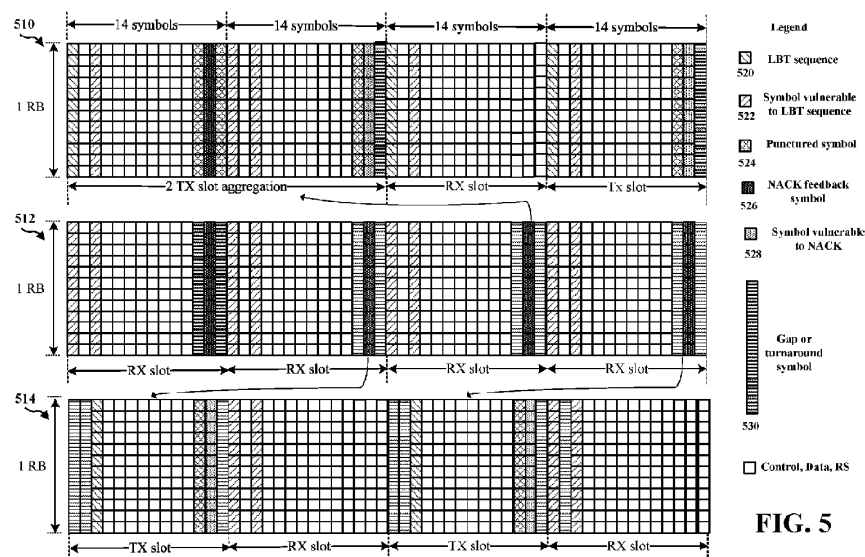
(51) International Patent Classification:
H04L 1/18 (2006.01)(21) International Application Number:
PCT/US2019/052438(22) International Filing Date:
23 September 2019 (23.09.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/738,804 28 September 2018 (28.09.2018) US
16/578,027 20 September 2019 (20.09.2019) US(71) Applicant: **QUALCOMM INCORPORATED** [US/US];
Attn: International IP Administration, 5775 Morehouse Drive,
San Diego, California 92121-1714 (US).(72) Inventors: **BHARADWAJ, Arjun**; Qualcomm Incorporated,
5775 Morehouse Drive, San Diego, California92121-1714 (US). **GULATI, Kapil**; Qualcomm Incorporated,
5775 Morehouse Drive, San Diego, California 92121-1714 (US).
BAGHEL, Sudhir Kumar; Qualcomm Incorporated, 5775 Morehouse
Drive, San Diego, California 92121-1714 (US). **PATIL, Shailesh**;
Qualcomm Incorporated, 5775 Morehouse Drive, San Diego, California
92121-1714 (US). **BHUSHAN, Naga**; Qualcomm Incorporated,
5775 Morehouse Drive, San Diego, California 92121-1714 (US).(74) Agent: **HODGES, Jonas J.** et al.; c/o Arent Fox LLP,
1717 K Street NW, Washington, District of Columbia
20006-5344 (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,

(54) Title: HARQ FEEDBACK FOR MULTICAST/UNICAST

**FIG. 5**

(57) **Abstract:** In an aspect of the disclosure, a method, a computer-readable medium, and an apparatus are provided. The apparatus may be a UE. The apparatus may receive from a second device a first data packet in one or more receiving slots of a time division duplex frame that includes a plurality of slots. The apparatus may determine whether the first data packet is received incorrectly. The apparatus may wait until the end of the one or more receiving slots and may transmit to the second device a first NACK in a NACK feedback symbol in a configured slot after the end of the one or more receiving slots in response to determining that the first data packet was not received correctly.

[Continued on next page]



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))*
- *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))*