



(51) International Patent Classification:
H04L 1/00 (2006.01) **H04L 5/00** (2006.01)

(21) International Application Number:
PCT/US2018/029599

(22) International Filing Date:
26 April 2018 (26.04.2018)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
201741015896 05 May 2017 (05.05.2017) IN
201741022578 28 June 2017 (28.06.2017) IN
15/962,682 25 April 2018 (25.04.2018) US

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

(72) Inventors: **RICO ALVARINO, Alberto**; 5775 More-
house Drive, San Diego, California 92121 (US). **BHAT-
TAD, Kapil**; 5775 Morehouse Drive, San Diego, California
92121 (US). **CHEN, Wanshi**; 5775 Morehouse Drive, San

Diego, California 92121 (US). **GAAL, Peter**; 5775 More-
house Drive, San Diego, California 92121 (US).

(74) Agent: **HARRITY, John E.** et al.; 11350 Random Hills
Road, Suite 600, Fairfax, Virginia 22030 (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,

(54) Title: TECHNIQUES AND APPARATUSES FOR CHANNEL STATE INFORMATION FEEDBACK PERFORMANCE FOR
INTRODUCTION OF 64-QAM IN MACHINE TYPE COMMUNICATION DEVICES

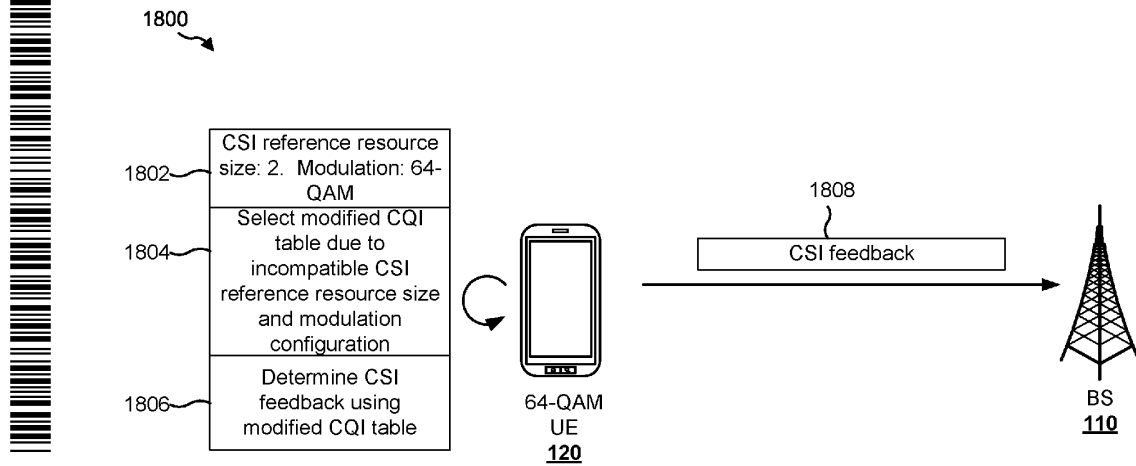


FIG. 18A

(57) Abstract: A method, an apparatus, and a computer program product for wireless communication are provided. The apparatus may determine channel state information (CSI) feedback based at least in part on a channel quality information (CQI) table and a CSI reference resource size of the apparatus, wherein at least one of the CSI feedback or the CQI table is modified based at least in part on a modulation configuration of the apparatus; and report the CSI feedback. Numerous other aspects are provided.

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))*