

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
13 February 2020 (13.02.2020)



(10) International Publication Number
WO 2020/029076 A8

(51) International Patent Classification:
H04W 72/04 (2009.01)

(21) International Application Number:
PCT/CN2018/099199

(22) International Filing Date:
07 August 2018 (07.08.2018)

(25) Filing Language: English

(26) Publication Language: English

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

(72) Inventors; and

(71) Applicants (*for US only*): **HAO, Chenxi** [CN/CN]; 5775
Morehouse Drive, San Diego, CA 92121-1714 (US). **ZHANG, Yu** [CN/CN]; 5775 Morehouse Drive, San Diego,
CA 92121-1714 (US). **WU, Liangming** [CN/CN]; 5775
Morehouse Drive, San Diego, CA 92121-1714 (US). **XU,
Hao** [US/CN]; 5775 Morehouse Drive, San Diego, CA
92121-1714 (US). **CHEN, Wanshi** [CN/US]; 5775 More-
house Drive, San Diego, CA 92121-1714 (US). **GAAL,**

Peter [US/US]; 5775 Morehouse Drive, San Diego, CA
92121-1714 (US).

(74) Agent: **NTD PATENT & TRADEMARK AGENCY
LIMITED**; 10th Floor, Tower C, Beijing Global Trade
Center, 36 North Third Ring Road East, Dongcheng Dis-
trict, Beijing 100013 (CN).

(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,

(54) Title: ADAPTIVE MODULO BASE SELECTION FOR NON-LINEAR PRECODING

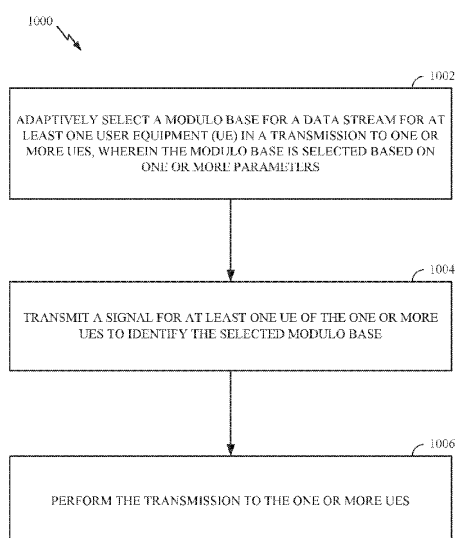


FIG. 10

(57) Abstract: Certain aspects of the present disclosure provide techniques for adaptive modulo base selection for non-linear precoding. Aspects provide a method for wireless communications that can be performed by a base station (BS). The BS adaptively selects a modulo base for a data stream for at least one user equipment (UE) in a transmission to one or more UEs. The BS selects the modulo base based on one or more parameters. The BS transmits a signal for at least one UE of the one or more UEs to identify the selected modulo base. The BS performs the transmission to the one or more UEs. The UE receives the transmission from the BS and the signal for the identification of the selected modulo base. Based on the signal, the UE determines the modulo base for at least one data stream in the transmission and decodes the data stream using the modulo base.

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).

Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

Published:

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

(48) Date of publication of this corrected version:

28 October 2021 (28.10.2021)

(15) Information about Correction:

see Notice of 28 October 2021 (28.10.2021)