

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
08 June 2023 (08.06.2023)



(10) International Publication Number
WO 2023/097572 A1

- (51) **International Patent Classification:**
H04L 27/26 (2006.01) *H04W 72/04* (2009.01)
- (21) **International Application Number:**
PCT/CN2021/134839
- (22) **International Filing Date:**
01 December 2021 (01.12.2021)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (71) **Applicant:** **HUAWEI TECHNOLOGIES CO., LTD.**
[CN/CN]; Huawei Administration Building, Bantian, Longgang District, Shenzhen, Guangdong 518129 (CN).
- (72) **Inventors:** **FERDINAND, Nuwan Suresh**; Suite 400, 303 Terry Fox Drive, Kanata, Ottawa, Ontario 231 (CA).
HUANG, Huang; Huawei Administration Building, Bantian, Longgang District, Shenzhen, Guangdong 518129 (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, IT, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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:** PULSE SHAPING-BASED REFERENCE SIGNALS

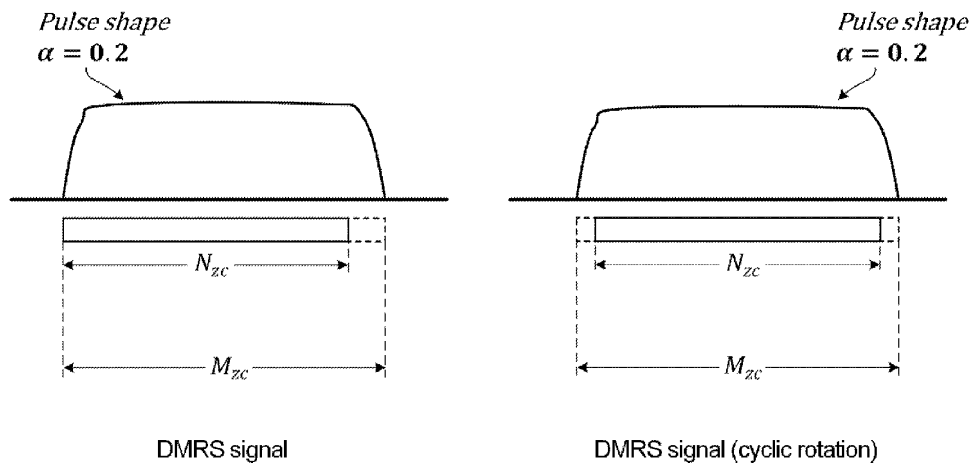


FIG. 2

(57) **Abstract:** The present disclosure relates to pulse shaping-based reference signals. Signaling indicating information that is associated with pulse shaping and information associated with a target length of a sequence for a reference signal such as a demodulation reference signal (DMRS) is communicated between a first communication device and a second communication device in a wireless communication network. The reference signal is also communicated in the wireless communication network. The reference signal comprises a sequence of the target length to which the pulse shaping has been applied. The sequence comprises a base sequence that is determined based on the pulse shaping.

[Continued on next page]

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))*