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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
14 August 2025 (14.08.2025)

WIPO | PCT

(10) International Publication Number
WO 2025/170905 A1

(51) International Patent Classification:
H04W 24/08 (2009.01) *H04W 36/30* (2009.01)
H04W 36/20 (2009.01) *H04W 40/16* (2009.01)
H04W 72/541 (2023.01)

(21) International Application Number:
PCT/US2025/014447

(22) International Filing Date:
04 February 2025 (04.02.2025)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
18/432,622 05 February 2024 (05.02.2024) US

(71) Applicant: **AVIAT U.S., INC.** [US/US]; 200 Parker Drive, Suite 100a, Austin, TX 78728 (US).

(72) Inventor: **VILHAR, Robert**; Pod Hribom 3, 1235 Radomlje (SI).

(74) Agent: **CROCKATT, Douglas, M.** et al.; Crowell & Moring LLP, 455 North Cityfront Plaza Drive - Suite 3600, Chicago, IL 60611 (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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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,

(54) **Title:** RADIO FREQUENCY INTERFERENCE REDUCTION SYSTEMS AND METHODS

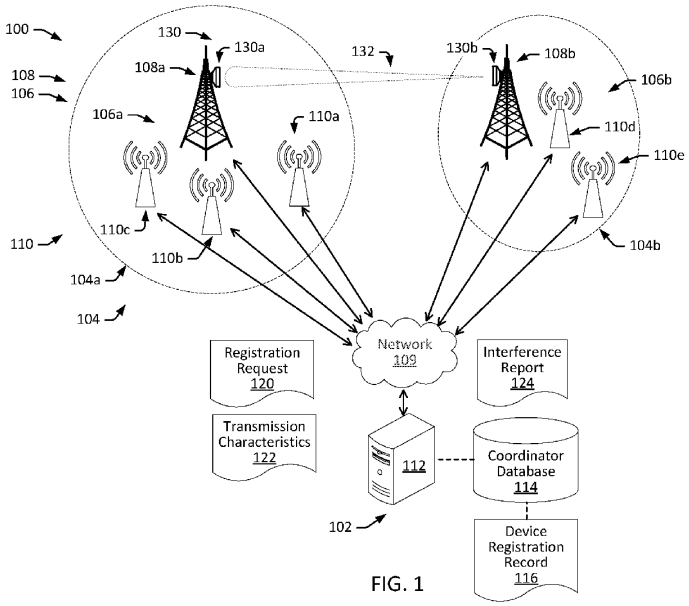

FIG. 1

(57) **Abstract:** Provided are techniques that include receiving, from a wireless device, a registration request; sending, to the device, a first set of device transmission characteristics; receiving, from a terminal system, an interference report identifying an interfering wireless device, where the terminal system includes: an antenna system including: a first and second antenna systems adapted to receive wireless signals; and a signal processing unit (SPU) adapted to: receive a first wireless signal received by the first antenna; receive a second wireless signal received by the second antenna; determine, based on the first and second wireless signals, an identity of the interfering wireless device and generate the interference report; determining that the interfering device corresponds to the wireless device; determining a second set of device transmission characteristics to reduce interference of the first wireless signal; and sending, to the wireless device, the second set of device transmission characteristics.

WO 2025/170905 A1

[Continued on next page]

TJ, TM, TN, TR, TT, TZ, UA, UG, US, UY, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) **Designated States** *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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))*