

CORRECTED VERSION

(19) World Intellectual Property Organization International Bureau



(10) International Publication Number WO 2011/140062 A8

(43) International Publication Date 10 November 2011 (10.11.2011)

- (51) International Patent Classification: H04B 7/06 (2006.01) H04L 25/03 (2006.01)
(21) International Application Number: PCT/US2011/034959
(22) International Filing Date: 3 May 2011 (03.05.2011)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data: 61/331,818 5 May 2010 (05.05.2010) US; 13/088,237 15 April 2011 (15.04.2011) US
(71) Applicant: MOTOROLA MOBILITY LLC [US/US]; 600 North US Highway 45, Libertyville, Illinois 60048 (US).
(72) Inventors; and
(75) Inventors/Applicants: SAYANA, Krishna Kamal, [IN/US]; 533 Happfield Drive, Arlington Heights, Illinois 60004 (US). ZHUANG, Xiangyang, [US/US]; 1380 Louise Court, Lake Zurich, Illinois 60047 (US).
(74) Agents: BOWLER, Roland K., et al.; 600 North U.S. Highway 45, Libertyville, Illinois 60048 (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, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, 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, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, ML, MR, NE, SN, TD, TG).

Published: with international search report (Art. 21(3))

(48) Date of publication of this corrected version: 2 April 2015

[Continued on next page]

(54) Title: METHOD AND PRECODER INFORMATION FEEDBACK IN MULTI-ANTENNA WIRELESS COMMUNICATION SYSTEMS

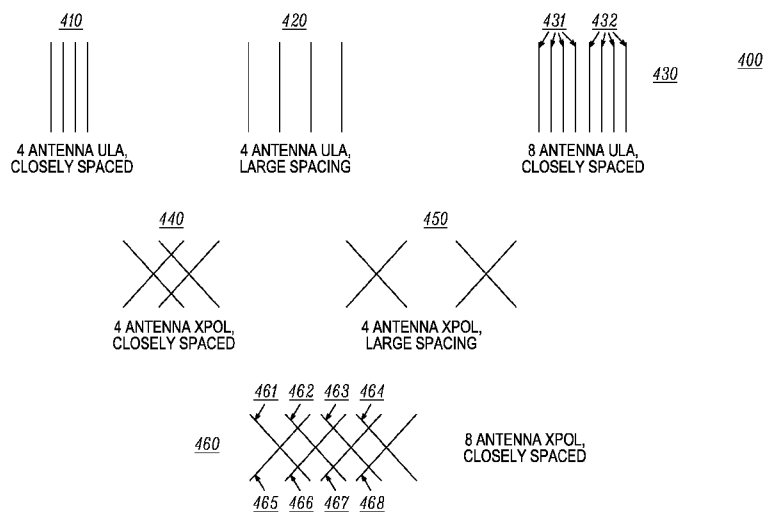


FIG. 4

(57) Abstract: A method for two component feedback in wireless communication systems is disclosed, with a wireless communication device sending a first representation of a first matrix chosen from a first codebook, wherein the first matrix has at least two columns, the wireless communication device sending a second representation of a second matrix chosen from a second codebook, and the base station obtaining a precoder from the first representation and the second representation.



WO 2011/140062 A8

(15) Information about Correction:
see Notice of 2 April 2015