

Title (en)

MICROWAVE ANTENNA ARRAY COMMUNICATION SYSTEM AND COMMUNICATION METHOD

Title (de)

KOMMUNIKATIONSSYSTEM UND KOMMUNIKATIONSVERFAHREN MIT MIKROWELLEN-GRUPPENANTENNE

Title (fr)

SYSTÈME DE COMMUNICATION À RÉSEAU D'ANTENNES À MICRO-ONDES ET PROCÉDÉ DE COMMUNICATION

Publication

EP 3553887 A4 20200729 (EN)

Application

EP 17878581 A 20171206

Priority

- CN 201611113452 A 20161206
- CN 2017114881 W 20171206

Abstract (en)

[origin: EP3553887A1] Disclosed are a microwave antenna array communication system and communication method. The method comprises: replacing a related double-sided dual-polarized antenna with a phased antenna array, directly connecting each horizontally polarized radio frequency signal transmission device in a microwave transmission device to each subarray of a corresponding horizontally polarized antenna array in the phased antenna array respectively to transmit a horizontally polarized radio frequency signal to an opposite end, connecting each vertically polarized radio frequency signal transmission device to each subarray of a corresponding vertically polarized antenna array respectively to transmit a vertically polarized radio frequency signal to the opposite end; and controlling phase shifters of each subarray of the horizontally polarized antenna array and phase shifters of each subarray of the vertically polarized antenna array directly by a controller of the phased antenna array to configure a phase relationship between the multiple radio frequency signals transmitted by the horizontally polarized antenna array and vertically polarized antenna array independently of the physical distance between the antenna arrays and the installation precision.

IPC 8 full level

H01Q 21/06 (2006.01); **H01Q 21/24** (2006.01); **H04B 7/0456** (2017.01); **H01Q 3/28** (2006.01); **H01Q 3/38** (2006.01)

CPC (source: CN EP)

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Citation (search report)

- [I] WO 2014086386 A1 20140612 - ERICSSON TELEFON AB L M [SE]
- [Y] US 2016119018 A1 20160428 - LINDGREN ROBERT [SE], et al
- [Y] WO 2014033669 A1 20140306 - MIMOTECH PTY LTD [ZA]
- [A] US 2014177466 A1 20140626 - INOUE YUKI [JP], et al
- [A] US 2010164804 A1 20100701 - XU XIAODONG [CN], et al
- [A] LI LINSHENG ET AL: "A planar active antenna array for hybrid phased array-MIMO system", 2014 IEEE INTERNATIONAL WIRELESS SYMPOSIUM (IWS 2014), IEEE, 24 March 2014 (2014-03-24), pages 1 - 4, XP032625112, DOI: 10.1109/IEEE-IWS.2014.6864239
- See references of WO 2018103677A1

Cited by

US11329399B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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