

Title (en)

Antenna system, radar device and radar method with 360 degree coverage

Title (de)

Antennensystem, Radarvorrichtung und Radarverfahren mit 360-Grad-Abdeckung

Title (fr)

Système d'antenne, dispositif radar et procédé de radar avec une couverture à 360°

Publication

**EP 2365585 A1 20110914 (EN)**

Application

**EP 10155992 A 20100309**

Priority

EP 10155992 A 20100309

Abstract (en)

An antenna system has a number of transmission antennas (10) arranged at respective positions at corners of a polygon. A plurality of groups (14a-f) of reception antennas (12) are provided, each at positions between the positions of transmission antennas at neighbouring corners of the polygon. A target reflects the signals from the transmission antennas (10). Reflections of the signals of each of the are received in the reception antennas (12). An antenna output signal is computed from a complex weighted sum of reflections corresponding to different combinations of transmission antennas and reception antennas.

IPC 8 full level

**H01Q 21/06** (2006.01); **H01Q 21/20** (2006.01)

CPC (source: EP)

**H01Q 21/061** (2013.01); **H01Q 21/20** (2013.01)

Citation (applicant)

WO 2007082335 A1 20070726 - FILTRONIC PTY LTD [AU], et al

Citation (search report)

- [XYI] WO 2009036507 A1 20090326 - TELEDYNE AUSTRALIA PTY LTD [AU], et al
- [XYI] WO 2007045026 A1 20070426 - GROUNDPROBE PTY LTD [AU], et al
- [Y] WO 9309577 A1 19930513 - CALLING COMMUNICATIONS CORP [US]
- [A] RALPH T HOCTOR ET AL: "The Unifying Role of the Coarray in Aperture Synthesis for Coherent and Incoherent Imaging", PROCEEDINGS OF THE IEEE, IEEE. NEW YORK, US LNKD- DOI:10.1109/5.54811, vol. 78, no. 4, 1 April 1990 (1990-04-01), pages 735 - 752, XP002567525, ISSN: 0018-9219

Cited by

CN106549226A; EP2840650A1; US10256552B2; TWI583145B

Designated contracting state (EPC)

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 SE SI SK SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

**EP 2365585 A1 20110914**; EP 2545613 A1 20130116; EP 2545613 B1 20180718; WO 2011112084 A1 20110915

DOCDB simple family (application)

**EP 10155992 A 20100309**; EP 11708351 A 20110309; NL 2011050163 W 20110309