

Title (en)
Directional multi-band antenna

Title (de)
Direktionale Mehrbandantenne

Title (fr)
Antenne multibande directionnelle

Publication
EP 2760082 A1 20140730 (EN)

Application
EP 13275018 A 20130128

Priority
EP 13275018 A 20130128

Abstract (en)
There is disclosed A directional multi-band antenna, the antenna comprising: -an optical unit comprising an optical sensor; -an RF unit comprising an RF sensor; -a substantially planar optical lens, the optical lens comprising surface relief elements for beam forming, the lens being arranged to focus optical signal beams, incident along a first optical axis, onto the optical sensor, the optical lens being substantially transparent to RF signals, -an RF beam forming device arranged to receive RF signals incident along the first optical axis and focus such RF signals onto the RF sensor.

IPC 8 full level
H01Q 5/00 (2006.01); **H01Q 5/22** (2015.01); **H01Q 15/08** (2006.01); **H01Q 19/06** (2006.01)

CPC (source: EP)
H01Q 5/22 (2015.01); **H01Q 15/0006** (2013.01); **H01Q 19/06** (2013.01)

Citation (applicant)
US 8094081 B1 20120110 - BRUZZI JONATHAN R [US], et al

Citation (search report)
• [XYI] US 5973649 A 19991026 - ANDRESSEN CLARENCE C [US]
• [Y] DE 3505583 A1 19851003 - UNITED TECHNOLOGIES CORP [US]
• [Y] GB 2215454 A 19890920 - RACAL GUARDALL [GB]
• [A] DONALD N BLACK ET AL: "Millimeter-Wave Characteristics of Phase-Correcting Fresnel Zone Plates", IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. MTT-35, no. 12, 1 December 1987 (1987-12-01), pages 1122 - 1129, XP001383111, ISSN: 0018-9480

Cited by
CN112243592A; CN106796100A; CN106664138A; CN115359944A; US11438062B2; WO2016030715A1

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

Designated extension state (EPC)
BA ME

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