

Title (en)

MULTIBEAM ANTENNA WITH PHOTONIC BANDGAP MATERIAL

Title (de)

MEHRFACHSTRAHLANTENNE MIT PHOTONISCHEM BANDLÜCKENMATERIAL

Title (fr)

ANTENNE A MATERIAU BIP MULTI-FAISCEAUX

Publication

**EP 1554777 A1 20050720 (FR)**

Application

**EP 03778447 A 20031023**

Priority

- FR 0303147 W 20031023
- FR 0213326 A 20021024
- FR 0309473 A 20030731

Abstract (en)

[origin: WO2004040696A1] The invention concerns a multibeam antenna comprising: a photonic bandgap material (20) having at least one band gap; at least one periodicity defect so as to produce at least one narrow bandwidth inside said at least one band gap of said photonic bandgap material, and excitation elements (50 to 43) for enabling electromagnetic waves to be received inside said at least one narrow bandwidth. The excitation elements are mutually arranged so as to generate radiating spots (46 to 49) partly overlapping on one surface of the photonic bandgap material.

IPC 1-7

**H01Q 5/00**; **H01Q 15/00**; **H01Q 19/17**; **H01Q 25/00**

IPC 8 full level

**H01Q 5/00** (2015.01); **H01Q 5/28** (2015.01); **H01Q 15/00** (2006.01); **H01Q 19/17** (2006.01); **H01Q 25/00** (2006.01)

CPC (source: EP US)

**H01Q 5/00** (2013.01 - EP US); **H01Q 5/28** (2015.01 - EP US); **H01Q 15/006** (2013.01 - EP US); **H01Q 19/17** (2013.01 - EP US); **H01Q 25/007** (2013.01 - EP US)

Citation (search report)

See references of WO 2004040696A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

**WO 2004040696 A1 20040513**; AT E325438 T1 20060615; AU 2003285446 A1 20040525; AU 2003285446 A8 20040525; DE 60305056 D1 20060608; DE 60305056 T2 20061207; EP 1554777 A1 20050720; EP 1554777 B1 20060503; ES 2264018 T3 20061216; JP 2006504375 A 20060202; JP 4181173 B2 20081112; US 2006132378 A1 20060622; US 7242368 B2 20070710

DOCDB simple family (application)

**FR 0303147 W 20031023**; AT 03778447 T 20031023; AU 2003285446 A 20031023; DE 60305056 T 20031023; EP 03778447 A 20031023; ES 03778447 T 20031023; JP 2005501825 A 20031023; US 53264105 A 20051222