

Title (en)
ANTENNA WHICH IS MADE FROM A PHOTONIC BAND-GAP (PBG) MATERIAL AND WHICH COMPRISES A LATERAL WALL SURROUNDING AN AXIS

Title (de)
AUS PHOTONISCHEM BANDABSTAND-MATERIAL (PBG) HERGESTELLTE ANTENNE MIT EINER EINE ACHSE UMGEBENDEN SEITLICHEN WAND

Title (fr)
ANTENNE A MATERIAU BIP (BANDE INTERDITE PHOTONIQUE) A PAROI LATERALE ENTOURANT UN AXE

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EP 05763685 A 20050429

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Abstract (en)
[origin: WO2005124927A1] The invention relates to an antenna which is made from a photonic band-gap (PBG) material. The inventive antenna comprises: a lateral wall (4) which is made from a PBG material and which completely surrounds a central axis (6), said wall being disposed at a distance from the central axis such as to form a central resonant cavity; and at least one radiating element (34) which is placed inside the cavity. According to the invention, each radiating element is positioned inside the cavity in order to excite an electromagnetic field parallel to the central axis and the radiating element(s) can excite the modes of the central cavity having a radial resonance more strongly than the other modes of said cavity.

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Citation (examination)
FREYTAG L ET AL: "Omnidirectional dielectric electromagnetic band gap antenna for base station of wireless network", ANTENNAS AND PROPAGATION SOCIETY SYMPOSIUM, 2004. IEEE MONTEREY, CA, USA JUNE 20-25, 2004, PISCATAWAY, NJ, USA,IEEE, vol. 1, 20 June 2004 (2004-06-20), pages 815 - 818, XP010721170, ISBN: 978-0-7803-8302-9, DOI: 10.1109/APS.2004.1329795

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