

Title (en)
Aperture antenna element

Title (de)
Antennenelement mit Apertur

Title (fr)
Elément d'antenne à ouverture

Publication
EP 1643593 B1 20110112 (EN)

Application
EP 04255959 A 20040929

Priority
EP 04255959 A 20040929

Abstract (en)
[origin: EP1643593A1] A wide-bandwidth aperture antenna is constructed of two parallel metal plates 51, 52, each having a resonant aperture 53, 54. The apertured plates are arranged parallel to one another, with the apertures aligned. A third plate 57 is arranged parallel to the apertured plates to act as a reflector. The resonant apertures are in the form of squares with rounded corners. Feed stubs 55 and 56 are arranged between the apertured plates and project into the region between the apertures to excite orthogonally polarized modes. The feed stubs are in the form of strips which are aligned in planes perpendicular to the planes of the apertured plates. An exemplary embodiment has a bandwidth of 1700MHz to 3300MHz, containing the bands used for GSM 1800, UMTS, UMTS+, Bluetooth and WLAN systems. The feed is high-impedance and the decoupling better than -11 dB over the whole bandwidth.

IPC 8 full level
H01Q 13/10 (2006.01); **H01Q 21/00** (2006.01); **H01Q 21/06** (2006.01); **H01Q 21/24** (2006.01)

CPC (source: EP)
H01Q 13/10 (2013.01); **H01Q 19/10** (2013.01)

Cited by
US10389034B2; WO2016113520A1

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 1643593 A1 20060405; **EP 1643593 B1 20110112**; DE 602004031016 D1 20110224

DOCDB simple family (application)
EP 04255959 A 20040929; DE 602004031016 T 20040929