

Title (en)  
LOW ELECTRIC OVERALL HEIGHT ANTENNA

Title (de)  
ANTENNE MIT ELEKTRISCH NIEDRIGER BAUHÖHE

Title (fr)  
ANTENNE DE FAIBLE HAUTEUR DE CONSTRUCTION ELECTRIQUE

Publication  
**EP 0761021 B1 19980722 (DE)**

Application  
**EP 96907252 A 19960319**

Priority  
• DE 9600472 W 19960319  
• DE 19510236 A 19950321

Abstract (en)  
[origin: DE19510236A1] The invention concerns an antenna with a low electric overall height, preferably for frequencies in the GHz band. The antenna consists of a first electrically conducting surface (1), which in a first frequency band is no bigger in any of its dimensions than  $3/8$  lambda, and a second electrically conducting surface (2) of at least the same size which acts as an earth screen. The second conducting surface is essentially parallel to the first and faces it at a given distance (A). A conducting bridge (4) forms a high-frequency, low-impedance connection over a width (B) between one edge (5) of the first conducting surface (1) and the second conducting surface, and the first conducting surface (1) is electrically connected, for high frequencies, at a coupling point (3) by a conductor (15) at the antenna-connection point to the inside conductor of a coaxial cable (7) whose outside conductor (8) is connected to the second conducting surface (2). The dimensions of the antenna and of the coupling point (3) are chosen such that the antenna is in resonance in the first frequency band. To produce resonance in at least one other frequency band, at least one of the two conducting surfaces and/or the conducting bridge (4) have slots (10) of a suitable width (9) and shape, and the edges of each slot are designed so that they determine the changes in current on the conducting surfaces (1, 2) and in the bridge (4) as a function of frequency in the first and in each other frequency band in such a way that the antenna both in the first and in each other frequency band almost exhibits resonance.

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IPC 8 full level  
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