

Title (en)  
DIELECTRIC ANTENNA

Title (de)  
DIELEKTRISCHE ANTENNE

Title (fr)  
ANTENNE DIÉLECTRIQUE

Publication  
**EP 2097946 A4 20091118 (EN)**

Application  
**EP 07823249 A 20071114**

Priority  
• FI 2007050613 W 20071114  
• FI 20065751 A 20061128

Abstract (en)  
[origin: WO2008065241A1] A dualband dielectric antenna suitable for small radio devices. It has a chip substrate (720) with relatively high permittivity for reducing the size of the antenna. However, only a part (712, 713) of the radiating conductor is on the surface of the chip substrate the other part (711) being located adjacent to it so that the other part is surrounded by a material, the permittivity of which is substantially lower than that of the chip substrate. The surrounding material can be substantially of the material of a dielectric plate, onto which the chip substrate is fastened, or pure air. In the former case the whole substrate of the antenna then has two parts. The efficiency of the antenna improves compared to corresponding known antennas, because part of the radiating conductor travels on a substrate with lower permittivity, compared to the chip substrate. At the same time, the lower band which is in practice relatively narrow can be widened.

IPC 8 full level  
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CPC (source: EP FI)  
**H01Q 1/243** (2013.01 - EP FI); **H01Q 1/38** (2013.01 - EP FI); **H01Q 5/10** (2015.01 - FI); **H01Q 5/357** (2015.01 - FI); **H01Q 5/371** (2015.01 - EP); **H01Q 5/40** (2015.01 - FI); **H01Q 9/42** (2013.01 - EP FI); **H01Q 13/10** (2013.01 - FI); **H01Q 21/30** (2013.01 - EP)

Citation (search report)  
• [X] EP 1505689 A1 20050209 - HITACHI METALS LTD [JP]  
• [X] US 2003001781 A1 20030102 - KONISHI TAKAYOSHI [JP]  
• [X] EP 0944128 A1 19990922 - MURATA MANUFACTURING CO [JP]  
• [X] EP 1267440 A2 20021218 - NIPPON ELECTRIC CO [JP], et al  
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• See references of WO 2008065241A1

Citation (examination)  
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DOCDB simple family (publication)  
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