

Title (en)  
ANTENNA DEVICE

Title (de)  
ANTENNENVORRICHTUNG

Title (fr)  
SYSTEME D'ANTENNE

Publication  
**EP 1576697 A1 20050921 (DE)**

Application  
**EP 04729855 A 20040428**

Priority  
• DE 10319093 A 20030428  
• EP 2004004482 W 20040428

Abstract (en)  
[origin: US2006109179A1] An antenna device includes a first radiation electrode having an open end and a short-circuited end connected to ground and being coupled to a feed line at a feeding point. Furthermore, the antenna device has a second radiation electrode having an open end and a short-circuited end connected to ground, wherein a portion of the second radiation electrode is part of an electric circuit. The first radiation electrode, the feed line and the electric circuit are arranged such that an alternating current through the feed line to the short-circuited end of the first radiation electrode, for feeding the second radiation electrode, induces an alternating current into the electric circuit via magnetic coupling.

IPC 1-7  
**H01Q 9/04**; **H01Q 9/42**; **H01Q 5/00**; **H01Q 1/38**

IPC 8 full level  
**H01Q 1/38** (2006.01); **H01Q 5/00** (2006.01); **H01Q 5/10** (2015.01); **H01Q 5/378** (2015.01); **H01Q 9/04** (2006.01); **H01Q 9/42** (2006.01); **H01Q 19/02** (2006.01); **H01Q 21/30** (2006.01)

IPC 8 main group level  
**H01Q** (2006.01)

CPC (source: EP KR US)  
**H01Q 1/38** (2013.01 - EP KR US); **H01Q 5/00** (2013.01 - KR); **H01Q 5/378** (2015.01 - EP US); **H01Q 9/04** (2013.01 - KR); **H01Q 9/42** (2013.01 - EP US); **H01Q 19/023** (2013.01 - EP US); **H01Q 21/30** (2013.01 - KR)

Citation (search report)  
See references of WO 2004097981A1

Designated contracting state (EPC)  
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**US 2006109179 A1 20060525**; **US 7218282 B2 20070515**; AT E328372 T1 20060615; AU 2004234948 A1 20041111;  
AU 2004234948 B2 20070201; CA 2523070 A1 20041111; CA 2523070 C 20091222; DE 10319093 B3 20041104;  
DE 502004000660 D1 20060706; EP 1576697 A1 20050921; EP 1576697 B1 20060531; ES 2262118 T3 20061116; HK 1080221 A1 20060421;  
HK 1080221 B 20061229; JP 2006524940 A 20061102; JP 4074881 B2 20080416; KR 100729269 B1 20070615; KR 20050103972 A 20051101;  
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