

Title (en)  
MULTI-FREQUENCY ANTENNA

Title (de)  
MEHRFREQUENZANTENNE

Title (fr)  
ANTENNE MULTIFREQUENCE

Publication  
**EP 1187253 A4 20021120 (EN)**

Application  
**EP 01906261 A 20010223**

Priority  
• JP 0101362 W 20010223  
• JP 2000076164 A 20000317

Abstract (en)  
[origin: WO0171847A1] A D net antenna is divided into two and one is provided, as a D net element (13), in an antenna element (1) while the other element is contained, as a lower element (10), in a cover section (2). An E net element (11) is connected to the upper end of the lower element (10). The E net element (11) has a rectangular radiation surface and thereby has substantial nondirectionality in the horizontal plane. The antenna element (1) is fixed removably to the cover section (2), so that the D net element (13) is connected with the lower element (10), thus providing a multi-frequency antenna operating over two wide frequency bands.

IPC 1-7  
**H01Q 1/32**; **H01Q 5/00**; **H01Q 1/24**; **H01Q 1/22**

IPC 8 full level  
**H01Q 1/22** (2006.01); **H01Q 1/32** (2006.01); **H01Q 5/00** (2006.01); **H01Q 5/01** (2006.01); **H01Q 5/10** (2015.01); **H01Q 5/321** (2015.01); **H01Q 5/357** (2015.01); **H01Q 9/04** (2006.01); **H01Q 9/32** (2006.01); **H01Q 9/40** (2006.01); **H01Q 21/30** (2006.01)

CPC (source: EP)  
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Citation (search report)  
• [A] EP 0862239 A1 19980902 - NIPPON ANTENNA KABUSHIKI KAISYA [JP]  
• [A] EP 0637093 A1 19950201 - NIPPON ANTENNA KK [JP]  
• [A] EKI KOFER V: "KOMBIANTENNE - EINE FUER ALLES. IMMER MEHR ANWENDUNGEN ERFORDERN IMMER MEHR ANTENNEN AUF DEM AUTODACH. DIE LOESUNG FUER DIESE VIELFALT SIND KOMBIANTENNEN, DENN SIE KOENNEN DIE VERSCHIEDENEN SIGNALE AUFFANGEN", FUNKSCHAU, FRANZIS-VERLAG K.G. MUNCHEN, DE, vol. 71, no. 8, 3 April 1998 (1998-04-03), pages 68 - 71, XP000779243, ISSN: 0016-2841  
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