

Title (en)
MOBILE RADIO TELEPHONE ANTENNA FOR SETTING A DIFFERENT DOWNTILT ANGLE

Title (de)
MOBILFUNKANTENNE ZUM EINSTELLEN EINES UNTERSCHIEDLICHEN ABSENKWINKELS

Title (fr)
ANTENNE DE RADIOTELEPHONIE MOBILE POUR FIXER UN ANGLE D'INCLINATION DIFFERENT

Publication
EP 1356539 B1 20060830 (DE)

Application
EP 02716706 A 20020131

Priority
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• EP 0201008 W 20020131

Abstract (en)
[origin: EP1455413A1] The device has control electronics and an electric motor (51) and is preferably activated by a device or command device. The controller with the electronics is mounted in a control housing separate from the antenna's protective cover or forms a complete unit or module. The motor is coupled to an actuation element so that the actuating elements inside the protective cover for setting the slope radiation angle can be operated. Independent claims are also included for the following: an antenna and a method of varying a slope angle.

IPC 8 full level
H01Q 1/00 (2006.01); **H01Q 3/04** (2006.01); **H01Q 1/12** (2006.01); **H01Q 1/24** (2006.01); **H01Q 1/42** (2006.01); **H01Q 3/06** (2006.01); **H01Q 3/26** (2006.01); **H01Q 3/32** (2006.01)

CPC (source: EP KR US)
H01Q 1/246 (2013.01 - EP US); **H01Q 3/06** (2013.01 - EP US); **H01Q 3/08** (2013.01 - KR); **H01Q 3/267** (2013.01 - EP US); **H01Q 3/32** (2013.01 - EP US)

Citation (examination)
PATENT ABSTRACTS OF JAPAN vol. 1998, no. 09 31 July 1998 (1998-07-31)

Cited by
DE102008059268A1; DE102008059333A1; DE202009001821U1; WO2007135204A1; DE102008053851A1; DE102014002169A1; DE102008053850A1; WO2010049094A1; US8688033B2; WO2006057613A1; US8457700B2; DE202015105535U1

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WO 02061877 A2 20020808; WO 02061877 A3 20030313; WO 02061877 A8 20031030; AT E330337 T1 20060715; AT E338353 T1 20060915; AU 2002247672 B2 20040805; BR 0203845 A 20030325; BR PI0203845 B1 20150922; CA 2434369 A1 20020808; CA 2434369 C 20080930; CN 100372175 C 20080227; CN 1541430 A 20041027; DE 10104564 C1 20020919; DE 50207225 D1 20060727; DE 50207997 D1 20061012; EP 1356539 A2 20031029; EP 1356539 B1 20060830; EP 1455413 A1 20040908; EP 1455413 B1 20060614; ES 2266959 T3 20070301; ES 2269662 T3 20070401; JP 2004518377 A 20040617; JP 3913678 B2 20070509; KR 100609205 B1 20060802; KR 20020080497 A 20021023; NZ 526457 A 20050527; US 2003109231 A1 20030612; US 2005272470 A1 20051208; US 7031751 B2 20060418; US 7366545 B2 20080429; ZA 200207136 B 20021129

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