

Title (en)

AUTOMOBILE ANTENNA

Publication

**EP 0436406 A3 19911204 (EN)**

Application

**EP 90402997 A 19901024**

Priority

- KR 900005633 U 19900430
- KR 900012158 U 19900811
- KR 890021007 U 19891230

Abstract (en)

[origin: EP0436406A2] An automobile antenna is disclosed which includes: a radio antenna rod for receiving the radio signals; a car phone antenna for transmitting and receiving the car phone signals; and an antenna storing tube for storing said radio antenna rod and said car phone antenna. The combination of the above three components forms a single antenna unit, and this antenna unit is extendable to the outside of the car body during a use, while it is hidable during a non-use. Further, there is provided a wire winding unit which is installed on the lower end portion of the antenna storing tube. Owing to this wire winding unit, the antenna unit can be extended and contracted, and the single antenna unit serves for both the car radio and the car phone. <IMAGE> <IMAGE>

IPC 1-7

**H01Q 5/02; H01Q 1/10; H01Q 1/32; H01Q 1/02**

IPC 8 full level

**H01Q 1/02** (2006.01); **H01Q 1/10** (2006.01); **H01Q 1/32** (2006.01); **H01Q 5/02** (2006.01); **H01Q 5/15** (2015.01)

CPC (source: EP)

**H01Q 1/02** (2013.01); **H01Q 1/10** (2013.01); **H01Q 1/3283** (2013.01); **H01Q 5/40** (2015.01)

Citation (search report)

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- [X] PATENT ABSTRACTS OF JAPAN vol. 13, no. 298 (E-784)(3646) July 10, 1989 & JP-A-1 77 205 (NIPPON DENSO ) March 23, 1989

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