

Title (en)

ACTIVE ANTENNA IN THE WINDSHIELD OF A VEHICLE

Publication

**EP 0155647 A3 19870204 (DE)**

Application

**EP 85102985 A 19850315**

Priority

DE 3410415 A 19840321

Abstract (en)

[origin: US4791426A] An active antenna for the reception of long-, medium-, short-and ultra-short wave broadcasts is arranged in a rear window of a motor vehicle equipped with a boundary conductor enclosing an array of heating elements. The reception of long-, medium- and short-wave signals is made by means of an elongated flat antenna element which is arranged in the window on a free area above or below the heating elements, and the reception of the ultra-short wave signals is effected by the array of heating elements. An antenna amplifier includes a linear amplifying stage connected to the flat antenna element, an amplifying branch circuit connected to the array of heating elements and a common ground terminal connected to the boundary conductor. A frequency separator has two inputs connected, respectively, to the output of the amplifying stage and of the branch circuit, and an output connected via an antenna cable to a conventional radio receiver.

IPC 1-7

**H01Q 23/00**; **H01Q 1/12**

IPC 8 full level

**H01Q 1/12** (2006.01); **H01Q 23/00** (2006.01)

CPC (source: EP US)

**H01Q 1/1278** (2013.01 - EP US); **H01Q 23/00** (2013.01 - EP US)

Citation (search report)

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- [Y] EP 0023943 A1 19810218 - BOSCH GMBH ROBERT [DE]
- [A] US 4260989 A 19810407 - ISHII KENICHI, et al
- [A] FR 2400805 A1 19790316 - BSH ELECTRONICS MANCHESTER LTD [GB]
- [A] FR 2024911 A1 19700904 - PPG INDUSTRIES INC
- [Y] PATENTS ABSTRACTS OF JAPAN, Band 7, Nr. 226 (E-202)[1371], 7. Oktober 1983; & JP-A-58 116 802 (ASAHI GLASS K.K.) 12.07.1983
- [A] RUNDFUNKTECHNISCHE MITTEILUNGEN, Band 21, Nr. 6, Dezember 1977, Seiten 253-260; H. LINDENMEIER: "Aktive Autoantennen für Standardempfänger und elektronisch abstimmbare Empfänger"
- [A] PATENTS ABSTRACTS OF JAPAN, Band 5, Nr. 74 (E-57)[746], 16. Mai 1981; & JP-A-56 24 802 (MITSUBISHI DENKI K.K.) 10.03.1981

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