

Title (en)

VEHICLE GLASS ANTENNA, VEHICLE WINDOW GLASS, AND VEHICLE GLASS ANTENNA FEEDING STRUCTURE

Title (de)

FAHRZEUGGLASANTENNE, FAHRZEUGFENSTERGLAS UND ZUFUHRSTRUKTUR FÜR DIE FAHRZEUGGLASANTENNE

Title (fr)

ANTENNE DE VERRE DE VÉHICULE, VERRE DE VITRE DE VÉHICULE ET STRUCTURE D'ALIMENTATION D'ANTENNE DE VERRE DE VÉHICULE

Publication

**EP 2421090 A4 20140521 (EN)**

Application

**EP 10764440 A 20100413**

Priority

- JP 2010056561 W 20100413
- JP 2009100213 A 20090416

Abstract (en)

[origin: EP2421090A1] In a vehicle glass antenna in which an antenna conductor, a feeding portion which is connected to the antenna conductor, a parasitic conductor and a ground portion which is connected to the parasitic conductor are provided on a window glass, when the window glass is installed in a vehicle, the feeding portion constitutes a portion where the antenna conductor is electrically connected to a signal processing circuit installed in the vehicle, and the ground portion constitutes a portion where the parasitic conductor is electrically connected to a vehicle body, the feeding portion and the ground portion are disposed so as to be aligned along a reference direction, the antenna conductor comprises: a first element which extends from the feeding portion as a starting point in a first direction which is a direction which is parallel to the reference direction and which is directed to an opposite side to the ground portion; a second element which is connected to a first terminating portion which constitutes an end of the first element which lies opposite to the feeding portion and which extends in a second direction which is at right angles to the first element and which is directed inwards of an outer circumference of the window glass; and a third element which extends from the second element as a starting point in a third direction which is a direction opposite to the first direction, and the parasitic conductor comprises a parasitic element which constitutes an element at least part of which extends from the ground portion as a starting point in the second direction.

IPC 8 full level

**H01Q 1/12** (2006.01)

CPC (source: EP)

**H01Q 1/1271** (2013.01)

Citation (search report)

- [XYI] JP 2000013120 A 20000114 - ASAHI GLASS CO LTD
- [XI] JP 2001144518 A 20010525 - ASAHI GLASS CO LTD
- [Y] US 4260989 A 19810407 - ISHII KENICHI, et al
- [Y] US 2005231432 A1 20051020 - TSURUME YOSHINOBU [JP], et al
- [A] US 5898407 A 19990427 - PAULUS PETER [DE], et al
- [A] US 2008169989 A1 20080717 - LI QIAN [US], et al
- See references of WO 2010119856A1

Cited by

EP3185350A1; US2016118708A1; US2019319334A1; US10811760B2

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