

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 B1 20170215 (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)

Cited by

US2016118708A1; EP3185350A1; US2019319334A1; US10811760B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

EP 2421090 A1 20120222; EP 2421090 A4 20140521; EP 2421090 B1 20170215; BR PI1016103 A2 20160517; CN 102396106 A 20120328; CN 102396106 B 20141231; JP 5516576 B2 20140611; JP WO2010119856 A1 20121022; WO 2010119856 A1 20101021

DOCDB simple family (application)

EP 10764440 A 20100413; BR PI1016103 A 20100413; CN 201080016848 A 20100413; JP 2010056561 W 20100413; JP 2011509292 A 20100413