

Title (en)
Glass antenna and window glass for vehicle

Title (de)
Glasantenne und Fensterglas für Fahrzeuge

Title (fr)
Antenne pour vitre et vitre de fenêtre pour véhicule

Publication
EP 2159872 A1 20100303 (EN)

Application
EP 09011095 A 20090828

Priority
• JP 2008222787 A 20080829
• JP 2008282546 A 20081031

Abstract (en)
A dual band glass antenna for a vehicle, includes: a feeding part; and an antenna conductor adapted to be disposed in or on a window glass for the vehicle, including: a loop element formed into a loop; a L-shaped element, including: a first antenna element, extending in a first direction from a first point of the loop element; and a second antenna element, extending in a second direction roughly perpendicular to the first direction from an end point of the first antenna element; and a connection element, connecting the feeding part with the second point of the loop element.

IPC 8 full level
H01Q 1/12 (2006.01); **H01Q 1/32** (2006.01); **H01Q 5/00** (2006.01); **H01Q 5/10** (2015.01); **H01Q 5/342** (2015.01); **H01Q 7/00** (2006.01); **H01Q 9/36** (2006.01); **H01Q 9/42** (2006.01)

CPC (source: EP)
H01Q 1/1271 (2013.01); **H01Q 5/364** (2015.01); **H01Q 5/40** (2015.01); **H01Q 7/00** (2013.01); **H01Q 9/42** (2013.01)

Citation (applicant)
• JP H10327009 A 19981208 - FORD MOTOR CO
• JP 2000307321 A 20001102 - FORD MOTOR CO, et al

Citation (search report)
• [Y] EP 1643587 A1 20060405 - NIPPON SHEET GLASS CO LTD [JP]
• [Y] WO 03034538 A1 20030424 - FRACTUS SA [ES], et al
• [A] US 2006132361 A1 20060622 - LEE MING-CHOU [JP]
• [Y] WO 0070708 A1 20001123 - NIPPON SHEET GLASS CO LTD [JP], et al
• [Y] EP 1763105 A1 20070314 - NIPPON SHEET GLASS CO LTD [JP], et al

Cited by
DE102010003646A1; AU2014201816B2; EP3499639A1; US9300031B2; EP3076480B1

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

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2159872 A1 20100303; **EP 2159872 B1 20120815**; JP 2010081567 A 20100408; JP 5141500 B2 20130213

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EP 09011095 A 20090828; JP 2008282546 A 20081031