

Title (en)
AUTOMOBILE WINDOW GLASS

Title (de)
AUTOFENSTERGLAS

Title (fr)
VITRE DE FENÊTRE DE VÉHICULE AUTOMOBILE

Publication
EP 3570369 A4 20200902 (EN)

Application
EP 18739175 A 20180111

Priority
• JP 2017002945 A 20170111
• JP 2018000467 W 20180111

Abstract (en)
[origin: EP3570369A1] A vehicle window glass according to the present invention includes a glass plate, a defogger formed on the glass plate and having a pair of bus bars and a plurality of horizontal heating wires that join the pair of bus bars, at least one vertical element provided in the defogger and intersecting at least one of the horizontal heating wires, and a first antenna element formed on the glass plate and capacitively coupled to the defogger, the first antenna element being configured to receive broadcast waves having a frequency range of wavelengths $\lambda_{>1}$ to $\lambda_{>2}$ that is higher than an FM frequency range, and $P_{min} < \alpha \cdot \lambda_{>1} / 2$ being satisfied, where P_{min} is a smallest distance, out of the distance between one of the bus bars and the vertical element and the distance between the vertical antennas, and α is the shortening coefficient of wavelength of the glass plate.

IPC 8 full level
H01Q 1/32 (2006.01); **H01Q 1/12** (2006.01); **H01Q 5/364** (2015.01)

CPC (source: CN EP)
H01Q 1/1278 (2013.01 - CN EP); **H01Q 1/32** (2013.01 - CN EP); **H01Q 5/364** (2015.01 - CN EP)

Citation (search report)
• [X] EP 3101733 A1 20161207 - CENTRAL GLASS CO LTD [JP]
• [X] WO 2016190064 A1 20161201 - NIPPON SHEET GLASS CO LTD [JP]
• [X] JP 2006197184 A 20060727 - ASAHI GLASS CO LTD, et al
• [X] EP 2173008 A1 20100407 - ASAHI GLASS CO LTD [JP]
• See references of WO 2018131645A1

Designated contracting state (EPC)
AL 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 RS SE SI SK SM TR

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EP 18739175 A 20180111; CN 201880006569 A 20180111; CN 202210066629 A 20180111; JP 2017002945 A 20170111; JP 2018000467 W 20180111