

Title (en)  
Spot communication equipment for vehicle

Title (de)  
Punktkommunikationseinrichtung für Fahrzeuge

Title (fr)  
Équipement de communication ponctuel pour véhicule

Publication  
**EP 2787493 A1 20141008 (EN)**

Application  
**EP 14154853 A 20140212**

Priority  
JP 2013063196 A 20130326

Abstract (en)

For example, possible shaking of a vehicle varies positional relations between an on-board communication device and a ground communication device. In such a case, a magnetic field intensity of a signal from the ground communication device received by the on-board communication device may fluctuate across a threshold beyond which the on-board communication device determines that the vehicle has entered a communication range of the ground communication device and that the vehicle has exited the communication range. When this phenomenon occurs, the on-board communication device detects one ground communication device a plurality of times, thus hindering normal vehicle control. For a threshold of the magnetic field intensity for determining detection of the ground communication device, the on-board communication device has two types of thresholds for low speed traveling, that is, a first threshold that is a ground communication device entry side threshold and a second threshold that is a ground communication device exit side threshold. The thresholds thus have a hysteresis property that resists noise, thus preventing possible misdetection of the ground communication device during low speed traveling.

IPC 8 full level

**G08G 1/01** (2006.01); **B61L 3/12** (2006.01); **G08G 1/042** (2006.01); **G08G 1/048** (2006.01); **G08G 1/133** (2006.01); **G08G 1/052** (2006.01)

CPC (source: EP)

**B61L 3/121** (2013.01); **B61L 25/021** (2013.01); **G08G 1/042** (2013.01); **G08G 1/048** (2013.01); **G08G 1/133** (2013.01); **G08G 1/052** (2013.01)

Citation (search report)

- [AD] JP 2010070021 A 20100402 - KYOSAN ELECTRIC MFG
- [A] US 3334224 A 19670801 - ALLEN ROBERT K, et al
- [A] JP 2004122911 A 20040422 - NIPPON SIGNAL CO LTD
- [A] ANDERTON W E: "Computers, communication and high speed railways", WIRELESS WORLD, 1 August 1975 (1975-08-01), pages 348 - 353, XP001390128

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

Designated extension state (EPC)

BA ME

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DOCDB simple family (application)

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