Title (en)

ANTENNA ARRANGEMENT AND RAIL VEHICLE WITH ANTENNA ARRANGEMENT, HAVING A PLURALITY OF ANTENNAS

Title (de)

ANTENNENANORDNUNG SOWIE SCHIENENFAHRZEUG MIT ANTENNENANORDNUNG, AUFWEISEND MEHRERE ANTENNEN

Title (fr)

ENSEMBLE D'ANTENNES, VÉHICULE SUR RAILS COMPRENANT UN ENSEMBLE D'ANTENNES, COMPORTANT PLUSIEURS ANTENNES

Publication

EP 3898379 A2 20211027 (DE)

Application

EP 19828988 A 20191210

Priority

- DE 102018222589 A 20181220
- EP 2019084416 W 20191210

Abstract (en)

[origin: WO2020126668A2] The invention relates to an antenna arrangement for the mobile communication of a rail vehicle (11a, 11b) (and also to a rail vehicle having an antenna arrangement of this type), the antenna arrangement having at least two transmitting antennas (S) and at least two receiving antennas (E). According to the invention, the transmitting antennas (S) are spatially grouped in a transmitting group (SG) and the receiving antennas (E) are spatially grouped in a receiving group (EG), the distances between the transmitting antennas (S) and between the receiving antennas (E) being smaller than the overall distance between the transmitting group (SG) and the receiving group (EG). It has in fact been demonstrated that the antennas can thereby be arranged in a much more space-saving fashion on the vehicles (11, 11a, 11b) because large distances (13) have to be provided only between the groups, not between the antennas in the groups. Where the space needed is low, interference-free operation of the antennas is thus advantageously possible.

IPC 8 full level

B61L 15/00 (2006.01); **B61L 27/00** (2006.01); **H01Q 1/32** (2006.01); **H01Q 1/52** (2006.01); **H01Q 21/00** (2006.01); **H04B 7/04** (2017.01)

CPC (source: EP US)

B61L 15/0027 (2013.01 - EP); **B61L 27/70** (2022.01 - EP); **H01Q 1/24** (2013.01 - EP); **H01Q 1/32** (2013.01 - EP); **H01Q 1/3275** (2013.01 - EP US); **H01Q 1/52** (2013.01 - EP); **H01Q 1/521** (2013.01 - EP); **H01Q 1/525** (2013.01 - EP US); **H01Q 21/00** (2013.01 - EP); **H01Q 21/28** (2013.01 - EP US); **H04B 7/04** (2013.01 - EP); B61L 2027/202 (2022.01 - EP); B61L 2205/02 (2013.01 - EP)

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

DOCDB simple family (publication)

WO 2020126668 A2 20200625; **WO 2020126668 A3 20200820**; AU 2019407255 A1 20210624; AU 2019407255 B2 20220825; DE 102018222589 A1 20200625; EP 3898379 A2 20211027; US 12046825 B2 20240723; US 2022077601 A1 20220310

DOCDB simple family (application)

EP 2019084416 W 20191210; AU 2019407255 A 20191210; DE 102018222589 A 20181220; EP 19828988 A 20191210; US 201917416617 A 20191210