

Title (en)

Antenna module, in particular as a central transmission and/or receiver module for a vehicle, with several antennas and several transmission and receiver devices

Title (de)

Antennenmodul, insbesondere als zentrales Sende- und/oder Empfangsmodul für ein Fahrzeug, mit mehreren Antennen und mehreren Sende- und/oder Empfangseinrichtungen

Title (fr)

Module d'antennes, en particulier en tant que module d'émission et/ou réception central pour un véhicule, doté de plusieurs antennes et de plusieurs dispositifs d'émission et/ou de réception

Publication

EP 1903632 A1 20080326 (DE)

Application

EP 07010729 A 20070530

Priority

DE 102006025176 A 20060530

Abstract (en)

The module has transmission and/or receiver devices partially integrated in a form of a central transceiver box in the module. The transceiver box is designed modular and has a standardized slot for receiving different transceiver components. A bus connection (7) is provided over which larger part of communication with a terminal takes places in a motor vehicle. The module centrally covers radio services such as digital audio broadcasting, wireless local area network, satellite digital audio radio service and global positioning system.

Abstract (de)

Die Erfindung betrifft ein Antennenmodul, insbesondere als zentrales Sende- und/oder Empfangsmodul für ein Fahrzeug, mit mehreren Antennen (13, 19) und mehreren Sende- und/oder Empfangseinrichtungen (23), welche wenigstens teilweise in Form einer zentralen Transceiverbox (21) in das Antennenmodul integriert sind.

IPC 8 full level

H01Q 1/08 (2006.01); **H01Q 1/12** (2006.01); **H01Q 1/32** (2006.01); **H01Q 1/42** (2006.01); **H01Q 21/28** (2006.01); **H01Q 23/00** (2006.01)

CPC (source: EP US)

H01Q 1/088 (2013.01 - EP US); **H01Q 1/1214** (2013.01 - EP US); **H01Q 1/3208** (2013.01 - US); **H01Q 1/3275** (2013.01 - EP US); **H01Q 1/3291** (2013.01 - US); **H01Q 1/42** (2013.01 - EP US); **H01Q 21/28** (2013.01 - EP US); **H01Q 23/00** (2013.01 - EP US)

Citation (applicant)

- DE 10025931 A1 20010830 - FUBA AUTOMOTIVE GMBH [DE]
- WO 9966595 A1 19991223 - HARADA IND EUROP LIMITED [GB], et al
- EP 1087464 A2 20010328 - VOLVO PERSONVAGNAR AB [SE]
- DE 29500961 U1 19950614 - HIRSCHMANN RICHARD GMBH CO [DE]

Citation (search report)

- [XY] DE 10025931 A1 20010830 - FUBA AUTOMOTIVE GMBH [DE]
- [XY] WO 9966595 A1 19991223 - HARADA IND EUROP LIMITED [GB], et al
- [XY] EP 1087464 A2 20010328 - VOLVO PERSONVAGNAR AB [SE]
- [XY] DE 10034387 A1 20020131 - AUDI AG [DE]
- [X] DE 10133295 A1 20030123 - FUBA AUTOMOTIVE GMBH [DE]
- [Y] DE 29500961 U1 19950614 - HIRSCHMANN RICHARD GMBH CO [DE]
- [A] GB 2298998 A 19960918 - ROVER GROUP [GB]
- [A] DE 19923661 A1 20001123 - NOKIA MOBILE PHONES LTD [FI]

Cited by

DE102013224514A1; DE102011016294A1; DE102012208303A1; DE102014207148A1; DE102015016334A1; CN106099322A; DE102011016294B4; DE102012208303B4; CN109273867A; US10693220B2; DE102015016334B4; WO2015136178A1; US10741903B1; WO2012136306A1; US9270018B2; WO2015078848A1; US10044418B2; WO2013171240A1; US9966659B2; WO2017174080A1; WO2019049739A1; WO2017102787A1; US10186762B2

Designated contracting state (EPC)

DE FR GB

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

EP 1863119 A1 20071205; **EP 1863119 B1 20110126**; DE 102006025176 A1 20071206; DE 102006025176 B4 20160525; DE 102006025176 C5 20230223; DE 502007006348 D1 20110310; DE 502007006354 D1 20110310; EP 1903632 A1 20080326; EP 1903632 B1 20110126; FR 2901920 A1 20071207; FR 2901920 B1 20100924; US 2007279304 A1 20071206; US 2013076577 A1 20130328; US 8319693 B2 20121127; US 8614645 B2 20131224

DOCDB simple family (application)

EP 07010730 A 20070530; DE 102006025176 A 20060530; DE 502007006348 T 20070530; DE 502007006354 T 20070530; EP 07010729 A 20070530; FR 0703827 A 20070530; US 201213683358 A 20121121; US 75405507 A 20070525