



Power feeding for electric loads in vehicle tires

Solution and its benefits

Invention relates to a power feeding arrangement for electric loads positioned in tires of vehicles. According to the invention the arrangement comprises at least one feed coil arranged in the vehicle at least one receiver coil arranged in the tire and at least one load electrically coupled to the receiver coil.

Competitive advantage

Ensures continuous supply of suitable power to an electronic device mounted in tire of vehicle. Provides simple and inexpensive power feeding system which can be used with any kinds of electrical loads. Allows a continuous powering up to 0.3 W and communication in the license-free bands of 6.8, 13.56 or 27 MHz

Technical description

The power feeding arrangement includes the receiver coils (L1-L4) arranged in a tire. Each receiver coil is tuned with a capacitor (C1-C4) and connected to a voltage rectifier such that the receiver coil allows the flow of the DC output currents of the voltage rectifier to at least one electric load.

Intellectual property

Jaakkola k; Varpula t: coil system and voltage rectifiers for communication and inductive powering of devices inside rotating tyre of a vehicle

- Priority date: 20031219
- WO 2005058618 A1, US 20070119636 A1
- IPC RECLASSIF.: B60C0023-02 [I,C]; B60C0023-04 [I,A]; H02J0005-00 [I,A]; H02J0005-00 [I,C]



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Additional information

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