

Title (en)
ANTENNA FOR AN RFID READING DEVICE FOR INDUCTIVE DATA COMMUNICATION

Title (de)
ANTENNE EINES RFID-LESEGERÄTS FÜR INDUKTIVE DATENKOMMUNIKATION

Title (fr)
ANTENNE D'UN LECTEUR RFID POUR LA COMMUNICATION DE DONNÉES INDUCTIVE

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Application
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Abstract (en)
[origin: WO2008061485A1] The invention relates to an antenna (reading coil) for an RFID reading device for inductive data communication, in particular for identification of a vehicle key. The antenna for an RFID reading device is arranged on a metallic mounting plate and has an electromagnetic coil. In order to prevent electromagnetic interference fields due to the eddy currents in the metallic mounting plate, and thereby to ensure the maximum possible data communication range, a second coil is arranged on the side of the metallic surface of the mounting plate that is opposite that of the first coil, wherein the second coil is supplied with the opposite current from that of the first coil. Additionally, both coils are dimensioned, arranged on the two sides of the mounting plate, and supplied with current in such a way that the electromagnetic fields of both coils in the metallic surface of the mounting plate cancel each other out. This chiefly prevents the eddy currents from forming in the metallic surface of the mounting plate, which eddy currents in turn induce electromagnetic interference fields that weaken the actual field of the first coil. The claimed antennae for an RFID reading device can be used in a vehicle as part of the ignition lock or the key switch. Furthermore, they can also be used in other areas where inductive data communication is to be carried out using RFID systems and where the coil is arranged on a metallic mounting plate or on a mounting plate with metallic components.

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