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ROAD/VEHICLE COMMUNICATION METHOD AND DEVICE

ABSTRACT

A road/vehicle communication method for communication between a plurality of road devices, which are provided with a plurality of road antenna devices at respective gates, and a vehicle communication device, which is mounted to a vehicle and transmits and receives information to and from the plurality of road devices by radio waves, includes the steps of: when the vehicle passes through a first gate, the vehicle communication device receiving gate information which relates to the first gate and which is transmitted from a road antenna device of the first gate, and the vehicle communication device transmitting the received gate information at a second gate; the second gate receiving gate information from a plurality of vehicle communication devices, and computing a communication probability for each antenna device of the first gate when a number of received gate information corresponding to the first gate has reached a predetermined number; and comparing, for each road antenna device, the communication probability with a predetermined reference value, and detecting, as a malfunctioning road antenna device, a road antenna device for which a difference between the communication probability and the predetermined reference value exceeds a predetermined value. Accordingly, at the second gate, a malfunctioning road antenna device can be detected among the road antenna devices of the first

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gate, and measures can be taken with respect to the malfunctioning road antenna device.

FIGURE 1

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