



## Abstract

### Method for Determining the Distance of a Vehicle from a Radio Beacon and Radio

#### 5 Beacon for This Purpose

The invention relates to a method for determining the distance of a vehicle passing a radio beacon of a road toll system from this radio beacon, wherein the vehicle is equipped with an onboard unit, which emits a signal with a known curve of its

10 frequency over time, characterised by the steps:

receiving the signal in the radio beacon during passage of the vehicle and recording the curve of its frequency over time in relation to the known frequency curve;

detecting a change in the recorded frequency curve exceeding a predetermined threshold value;

15 looking for two far regions in the frequency curve lying before and after the detected change in time and which show a frequency change below a threshold value;

scaling the recorded frequency curve in such a manner that the far regions assume predetermined values; and

determining the said distance from the gradient of the scaled frequency curve in  
20 an inflection point thereof.

The invention additionally relates to a radio beacon for implementing the method.

(Figure 1)

