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**Spiegel**

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(54) **DEVICE AND METHOD FOR GENERATING AND EVALUATING ULTRASOUND SIGNALS, PARTICULARLY FOR DETERMINING THE DISTANCE OF A VEHICLE FROM AN OBSTACLE**

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See application file for complete search history.

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(57) **ABSTRACT**

In the device and method for generating and evaluating ultrasound signals, particularly for determining the distance of a vehicle from an obstacle, an ultrasound received signal is received by at least one ultrasound receiver subscriber of a data bus, after a burst transmission signal comprising a plurality of ultrasound pulses and having a burst length has been transmitted by at least one ultrasound transmitter subscriber of the data bus. The ultrasound received signal is subdivided into time sections which are substantially equal to half the burst length. The peak value for each time section of the ultrasound received signal is transmitted via the data bus to a central control and evaluation unit. On the basis of the peak values of the received signal for each time section, taking into account threshold value tracking, it is determined in the control and evaluation unit whether the ultrasound received signal has time sections in which the ultrasound received signal is greater than the tracked threshold value or equal to the tracked threshold value.

**12 Claims, No Drawings**