

Title (en)

RADAR SYSTEM, ANTENNA ARRAY FOR A RADAR SYSTEM, VEHICLE HAVING AT LEAST ONE RADAR SYSTEM, AND METHOD FOR OPERATING AT LEAST ONE RADAR SYSTEM

Title (de)

RADARSYSTEM, ANTENNENARRAY FÜR EIN RADARSYSTEM, FAHRZEUG MIT WENIGSTENS EINEM RADARSYSTEM UND VERFAHREN ZUM BETREIBEN WENIGSTENS EINES RADARSYSTEMS

Title (fr)

SYSTÈME RADAR, RÉSEAU D'ANTENNES POUR UN SYSTÈME RADAR, VÉHICULE MUNI D'AU MOINS UN SYSTÈME RADAR ET PROCÉDÉ POUR FAIRE FONCTIONNER AU MOINS UN SYSTÈME RADAR

Publication

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Application

**EP 21749603 A 20210727**

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Abstract (en)

[origin: WO2022023297A2] The invention relates to a radar system for monitoring at least one monitored region for objects (18), an antenna array (22), a vehicle, and a method for operating a radar system (12). The radar system comprises a plurality of transmitting antennas (26), which can be controlled by means of respective transmission signals and by means of which corresponding radar signals can be transmitted into at least one monitored region. Furthermore, the radar system comprises a plurality of receiving antennas (28), by means of which echos of transmitted radar signal can be received and converted into corresponding reception signals. The radar system additionally comprises at least one control and evaluation device (24), which is connected to the transmitting antennas (26) and to the receiving antennas (28) and by means of which transmission signals for the control of the transmitting antennas can be generated and by means of which object information ( $r$ ,  $\varphi$ ,  $\Theta$ ) of objects (18) detected by means of the radar signals (30) can be determined from reception signals. The respective phase centers (32) of at least four receiving antennas (28) are arranged on an imaginary receiver longitudinal axis (46). The respective phase centers (32) of at least two adjacent receiving antennas (28) are arranged at a base distance (40) from each other. The respective phase centers (32) of at least two adjacent receiving antennas (28) are arranged at a respective receiver longitudinal distance (48a, 48b, 48c) from each other, each receiver longitudinal distance being greater than the base distance (40).

IPC 8 full level

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