

Title (en)
RADAR SYSTEM FOR DETECTING SURROUNDINGS, COMPRISING A WAVEGUIDE ANTENNA FORMED FROM A PRINTED CIRCUIT BOARD AND A MOULDED PART

Title (de)
RADARSYSTEM ZUR UMGEBUNGSERFASSUNG MIT EINER WELLENLEITERANTENNE GEBILDET AUS EINER PLATINE UND EINEM FORMTEIL

Title (fr)
SYSTÈME RADAR POUR DÉTECTION D'UN ENVIRONNEMENT, AVEC ANTENNE À GUIDE D'ONDES FORMÉE D'UNE CARTE DE CIRCUIT IMPRIMÉ ET D'UNE PIÈCE MOULÉE

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Abstract (en)
[origin: WO2023020668A1] The invention relates to a radar system for detecting surroundings, comprising - a printed circuit board, which carries at least one high-frequency component, with high-frequency signals being guided from the component to the printed circuit board via electrical connections, and - a moulded part, which on its upper side has one or more individual antennas for transmitting and/or receiving radar signals, - the electrical connection between the printed circuit board and the at least one individual antenna on the upper side of the moulded part being realised at least in part by an inner waveguide, characterised in that - the moulded part is arranged on the same side of the printed circuit board as the at least one high-frequency component and is at least partially and conductively connected to the latter, in particular by soldering and/or conductive adhesive bonding, - at least one hollow waveguide is formed by a recess on the side of the moulded part facing the printed circuit board and by a metallised surface of the printed circuit board, - this at least one waveguide is electrically fed by the printed circuit board, and - by way of this structure, the moulded part can consist or does consist of a single-layer, at least partially metallised plastics part or a single-layer metal part, which is preferably produced by die casting, deep drawing or bending technology.

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