

Title (en)  
ANTENNA MODULE WITH TRANSMITTING AND RECEIVING ANTENNA ELEMENT

Title (de)  
ANTENNENMODUL MIT SENDE- UND EMPFANGSANTENNENELEMENT

Title (fr)  
MODULE D'ANTENNE AVEC ÉLÉMENT ANTENNAIRE DE RÉCEPTION ET DE TRANSMISSION

Publication  
**EP 2850691 A1 20150325 (DE)**

Application  
**EP 13722459 A 20130515**

Priority  
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Abstract (en)  
[origin: WO2013171240A1] The invention relates to an antenna module (1, 2), which is a one-piece antenna module and has at least one outside receiving and/or transmitting antenna element (4, 5, 6, 7) under an outer cover (3). Furthermore, the one-piece antenna module has an antenna box (8), which has no or few inside internal antennas and which surrounds the electronic circuits that interact with the antenna elements (4 to 7). The outer cover (3) is detachably fastened to the antenna box (8). The outer cover (3) can be attached so as to protrude from a vehicle roof (10) through an opening (9) in the vehicle roof (10). The antenna box (8) is closed on all sides and can be attached below the vehicle roof (10) by means of a metal top side (11). The metal closed top side (11) of the antenna box (8) has feed-throughs (12 to 15) for the outside antenna elements (4 to 7). The outside antenna elements (4 to 7) in the outer cover (3) are electrically coupled to the circuits inside the antenna box (8) closed on all sides by means of the feed-throughs (12 to 15). Thus, a compact installation part is obtained, which provides complete shielding between an antenna part and a transceiver part.

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Citation (search report)  
See references of WO 2013171240A1

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