

Title (en)  
ANTENNA COUPLER

Title (de)  
ANTENNENKOPPLER

Title (fr)  
COUPLEUR D'ANTENNE

Publication  
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Abstract (en)  
[origin: WO2011044965A1] The invention relates an antenna coupler (1) for connecting a high-frequency antenna to a device to which a high voltage can be applied galvanically during operation, wherein a multi-layer circuit board (2) that has conductor planes that are electrically insulated from each other in the depth direction (z) of the multi-layer circuit board (2) is provided. A first high-frequency line (3a, 3b) coupled or to be coupled with the high-frequency antenna is arranged in a first conductor plane, while a second high-frequency line (4a, 4b) coupled or to be coupled on the device side is arranged in a second conductor plane of the multi-layer circuit board (2). The multi-layer circuit board (2) has an electrically insulating circuit board core layer (6), wherein the first and second conductor planes extend on the same of the two faces of the circuit board core layer (6), and wherein the second high-frequency line (4a, 4b) coupled or to be coupled on the device side is arranged at a larger distance from the circuit board core layer (6) than the first high-frequency line (3a, 3b), and furthermore the second high-frequency line (4a, 4b) is arranged on an outer surface of the multi-layer circuit board (2). The antenna coupler (1) comprises an electrically conductive shielding structure (5), which extends partially on the opposite other of the two faces of the circuit board core layer (6) and is designed to shield the first high-frequency line (3a, 3b) and metal parts on the device side that are not part of the antenna coupler (1) from an interaction while high-frequency signals are conducted.

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