

Title (en)  
RADIO FREQUENCY DEVICE

Title (de)  
FUNKFREQUENZVORRICHTUNG

Title (fr)  
DISPOSITIF DE FRÉQUENCE RADIO

Publication  
**EP 3703182 B1 20231011 (EN)**

Application  
**EP 19159637 A 20190227**

Priority  
EP 19159637 A 20190227

Abstract (en)  
[origin: EP3703182A1] A radio frequency device (4) comprises a first substrate layer (2) and a second substrate layer (3) arranged at a distance towards each other, whereby the first and second substrate layer (2, 3) comprise electrically conductive transmission line elements (10, 11, 10', 11') on a first surface (6) of the first substrate layer (2) and on a second surface (8) of the second substrate layer (3) that allow for transmission of a radio frequency signal along a transmission direction. The radio frequency device (4) also comprises more than one electrically conductive crossover (1) between the first surface (6) of the first substrate layer (2) and the second surface (8) of the second substrate layer (3) that provides for an electrically conductive connection of the respective electrically conductive transmission line elements (10, 11) on the first and second substrate layer (2, 3). At least one phase shifting region (12) of the radio frequency device (4) comprises corresponding regions of the respective first and second substrate layers (2, 3) that are used for forming at least one radio frequency phase shifting element arranged on the first and second substrate layer (2, 3). All electrically conductive crossovers (1) are arranged outside of the at least one phase shifting region (12) of the radio frequency device (4), whereby each electrically conductive crossover (1) is electrically connected to a respective phase shifting element.

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