

Title (en)
WAVEGUIDE SWITCH

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Application
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Abstract (en)
[origin: WO8704864A1] A waveguide switch with four outputs or inputs (A, B, C, D) normally has one rotor (2) with three passages (3, 4, 5) with which, as appropriate, two waveguide connections can be effected in specific rotor positions. In two switching positions only the central waveguide passage (3) conducts HF signals, whereas in the two other switching positions both curved passages (4, 5) simultaneously conduct HF signals. Whereas the transmission losses in the central passage are low, a very high reflection level has hitherto been obtained in the two curved passages because of the points of inflexion. In order to improve the transmission characteristics, it is proposed to design the curved passages with an elliptical shape. For this, the longitudinal passage (3) is narrowed toward the central point of the rotor, so that sufficient space is provided for the curved portion of the lateral passages. The circular shape of the curved passages (4, 5) can also be approximated by a facet-like shaping of the side-walls. The points of inflexion (8 or 9) thus created result in only insignificant changes in the transmission characteristics.

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