

Title (en)

Flange-type connection for rectangular wave guides.

Title (de)

Flanschverbindung für rechteckige Hohlleiterrohre.

Title (fr)

Joint pour guides d'ondes rectangulaires.

Publication

EP 0074478 A1 19830323 (DE)

Application

EP 82106558 A 19820721

Priority

DE 3133362 A 19810822

Abstract (en)

1. Flange-type connection for rectangular waveguide, one flange-piece being provided with $\lambda/4$ -conductors, which are formed as slots which are on both sides of the waveguides broadsides imbeded in the front of the flange piece and running parallel to the waveguides broadsides, whose slot depth which reaches in axial direction is $\lambda/4$, and the other $\lambda/4$ -conductors are being formed by slits between the fronts of the flange pieces, which develop respectively within the total range between the slot edge closest to the waveguide and the wide waveguide running edge, that reaches across the width of the flange, if the flange pieces are in the right position, thereby characterized that the planes (9) of the fronts of the flange piece (3) within the range of the slits (8) and the waveguide junction (T) enclose an acute angle in such a way, that the cross sectional dimension of the flange piece (3) increases constantly in direction of the waveguide narrow side with growing distance of the cross sectional planes from the waveguide junction (T) on both sides of the waveguide axis (A), so that a counter flange piece (4) formed correspondingly mirror symmetrical is provided and that the flanges (3, 4) don't touch when in operating position, but that there remains a slit of defined width (d) between the inner front piece arranged parallel to the waveguide junction (T) of both flange pieces (3, 4) and between the outer slot edges (11) and the counter flange (4).

Abstract (de)

Flanschverbindung für rechteckige Hohlleiterrohre (1,2), bei dem die zur Übertragung notwendigen $\lambda/4$ -Leitungen durch axiale Nuten (5) in einem Flansch (3) und durch schräg stehende Spalte (8) zwischen den Flanschstirnseiten (9, 10) gebildet werden.

IPC 1-7

H01P 1/04

IPC 8 full level

H01P 1/04 (2006.01)

CPC (source: EP)

H01P 1/042 (2013.01)

Citation (search report)

- GB 844856 A 19600817 - ICI LTD
- DE 1203842 B 19651028 - DECCA LTD
- DE 2262928 B2 19780817
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- FR 964175 A 19500808

Cited by

EP3596783A4; WO2018175392A1; US10985448B2

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