

Title (en)

Device for receiving dual polarized microwave signals.

Title (de)

Vorrichtung zum Empfang von dual polarisierten Mikrowellensignalen.

Title (fr)

Dispositif de réception de signaux hyperfréquences à double polarisation.

Publication

EP 0174250 A1 19860312 (FR)

Application

EP 85401680 A 19850823

Priority

FR 8413509 A 19840831

Abstract (en)

[origin: US4695844A] A device for receiving dual polarized microwave signals, including a first waveguide connected to a receiving antenna and to a first substrate bearing a first sensor perpendicular to the longitudinal axis of the first waveguide, a second waveguide having the same longitudinal axis and the same dimensions as the first waveguide, and which is connected to a second substrate having a second sensor perpendicular to the longitudinal axis of the second waveguide. Surrounding the second waveguide is a tube having tongues at opposed ends which cooperate with slots formed in the first and second substrates. The opposed tongues of the tube are staggered by 90 DEG so that upon insertion of the opposed tongues of the tube within the slots of the first and second substrates, sensors formed on these substrates are arranged orthogonally with respect to one another. The tongues and cooperating slots assure mechanical integrity. A metallic blade is mounted in axially extending diametrically opposed slots formed in the second waveguide in the tube to maximize decoupling between the dual polarized signals being received.

Abstract (fr)

Il comporte un premier guide d'ondes (4) destiné à être relié à une antenne de réception et à un substrat (SM 5) portant une première sonde (51) perpendiculairement à l'axe longitudinal du guide (4). Un second guide d'ondes (6) est placé dans le prolongement du premier, et est relié à un second substrat (SM 8) portant une seconde sonde (81) perpendiculairement à l'axe longitudinal de ce guide. Des moyens constitués, dans un mode de réalisation préféré, de fentes (F52, F53, F54; F82, F83, F84) et de languettes (L52, L53, L54; L82, L83, L84) coopérant entre elles, sont prévus pour que les sondes soient placées orthogonalement entre elles et pour assurer une rigidité suffisante dès le montage de l'ensemble, et d'autres moyens (61, 9) sont prévus pour assurer le découplage et l'adaptation des sondes sans réglages ultérieurs.

IPC 1-7

H01P 1/161; **H01Q 25/00**

IPC 8 full level

H01P 1/161 (2006.01); **H01Q 13/02** (2006.01); **H01Q 25/00** (2006.01)

CPC (source: EP US)

H01P 1/161 (2013.01 - EP US); **H01Q 13/0258** (2013.01 - EP US); **H01Q 25/001** (2013.01 - EP US)

Citation (search report)

- [X] EP 0073511 A2 19830309 - NEC CORP [JP]
- [X] EP 0089084 B1 19880302
- [A] EP 0108463 A1 19840516 - ELECTRONIQUE & PHYSIQUE [FR], et al
- [A] US 2682610 A 19540629 - KING ARCHIE P
- [A] IRE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, vol. MTT-4, no. 3, juillet 1956, pages 181-183, New York, US; R.D. TOMPKINS: "A broad-band dual-mode circular waveguide transducer"

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Designated contracting state (EPC)

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EP 0174250 A1 19860312; **EP 0174250 B1 19901219**; AT E59248 T1 19910115; DE 3580956 D1 19910131; FR 2569907 A1 19860307; FR 2569907 B1 19871009; US 4695844 A 19870922

DOCDB simple family (application)

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