

Title (en)

Broad-band, high-power non-reciprocal microwave device, and application thereof.

Title (de)

Breitbandiges nichtreziprokes Mikrowellengerät hoher Leistung und dessen Benutzung.

Title (fr)

Dispositif hyperfréquence non réciproque à large bande de fréquence et à haut niveau de puissance, et utilisation d'un tel dispositif.

Publication

EP 0082752 A1 19830629 (FR)

Application

EP 82402239 A 19821207

Priority

FR 8123736 A 19811218

Abstract (en)

1. Non-reciprocal, wide frequency band, high power level microwave device comprising at least one member of ferrimagnetic material and means for applying a magnetic polarization field whereby the material is saturated, characterized in that the material is a monocrystal and in that the monocrystal is oriented along a crystallographic axis determined in such a manner that the variation of the anisotropy field as a function of the temperature compensates for the variations of the saturation magnetization and of the applied magnetic field as a function of the temperature, thus permitting to maintain stable as a function of the temperature the resonance line width of the monocrystal and the minimum frequency of said band.

Abstract (fr)

Ce dispositif comporte au moins un ferrite monocristallin orienté suivant un axe cristallographique déterminé de telle sorte que la variation du champ d'anisotropie en fonction de la température compense les variations de l'aimantation à saturation et du champ magnétique appliqué au ferrite en fonction de la température. Application aux circulateurs de puissance à jonction Y du type triplaque.

IPC 1-7

H01P 1/387

IPC 8 full level

H01P 1/387 (2006.01)

CPC (source: EP)

H01P 1/387 (2013.01)

Citation (search report)

- [AD] FR 2344141 A2 19771007 - THOMSON CSF [FR]
- [Y] 1976 IEEE MTT-S INTERNATIONAL MICROWAVE SYMPOSIUM, 14-16 juin 1976, pages 260-262, New York (USA);
- [Y] SOVIET PHYSICS JOURNAL, février 1971, pages 273-275, New York (USA);
- [A] L.THOUREL: "Dispositifs à ferrites pour micro-ondes", 1969, Masson et Cie, Editeurs, Paris (FR);

Designated contracting state (EPC)

DE GB IT NL

DOCDB simple family (publication)

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