

Title (en)

Travelling-wave tube provided with a bimetallic helix delay line structure.

Title (de)

Wanderfeldröhre mit einer Verzögerungsleitung, die eine bimetallische Spirale enthält.

Title (fr)

Tube à ondes progressives muni d'une ligne à retard en hélice bimétallique.

Publication

**EP 0394095 A1 19901024 (FR)**

Application

**EP 90400973 A 19900410**

Priority

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Abstract (en)

The invention relates to a travelling-wave tube with helix (30). The helix is held by clamping in a sleeve (31) and is centred by at least three dielectric bars (32). It has parts (35) of its outer surface in contact with the bars (32). Instead of being produced from a thin strip of a metal which is a good conductor of heat and electricity, the helix (30) is produced from a thin strip consisting of a layer (34) of a first elastic metal covered, at least in the region of all the parts (35) of the helix (30) in contact with the bars (32), with a layer (33) of a second metal which is a good conductor of heat and electricity. The interface resistance between the helix (30) and the bars (32) is then reduced. The invention applies to travelling-wave tubes operating in a wide band and at high average and/or high peak powers. <IMAGE>

IPC 1-7

**H01J 23/26**

IPC 8 full level

**H01J 23/26** (2006.01)

CPC (source: EP)

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Citation (search report)

- [Y] US 4564788 A 19860114 - WIEHLER WOLF [DE]
- [Y] EP 0129314 A2 19841227 - STANDARD TELEPHONES CABLES LTD [GB]
- [A] US 3895326 A 19750715 - HINCKELDEY ARNO, et al
- [Y] PATENT ABSTRACTS OF JAPAN vol. 5, no. 192 (E-85)(864) 8 décembre 1981, & JP-A-56 116250 (NIPPON DENKI K.K.) 11 septembre 1981,

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