

Title (en)
SLOW-WAVE STRUCTURE WITH VARYING PITCH FOR A TRAVELLING-WAVE TUBE, AND TRAVELLING-WAVE TUBE USING SUCH A SLOW-WAVE STRUCTURE

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EP 0022016 B1 19831228 (FR)

Application
EP 80400940 A 19800624

Priority
FR 7917201 A 19790703

Abstract (en)
[origin: US4371852A] A variable pitch delay line for a travelling wave tube, is constituted by cells constructed in waveguide sections in which takes place the propagation of the electromagnetic waves which are used in the operation of the tube. All the cells are constituted by the same components, namely tops or covers, a ring, supporting rods for the ring and a short-circuit. The variable pitch is obtained by expansion or contraction of the dimensions within the guide cross-section. A significant improvement of the tube efficiency is obtained by the use of lines formed from three sections with different pitches, which succeed one another along the path of the beam, whereof the second section has a smaller pitch and the third section a larger pitch than the first section.

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CPC (source: EP US)
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Citation (examination)
• FR 969886 A 19501227 - CSF
• US 3548246 A 19701215 - THAL HERBERT L JR, et al
• Annales de Radioélectricité, no. 9 (1954) p. 311-328, A. Leblond et al. "Etude des lignes à barreaux à structure périodique, deuxième partie"

Cited by
FR2528626A2; EP0125218A3; FR2547455A1; FR2520552A2; EP0048648A1

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