

Title (en)

LOW SPURIOUS RADIATION MICROWAVE TUBE

Title (de)

MIKROWELLENRÖHRE MIT GERINGER STÖRSTRAHLUNG

Title (fr)

TUBE HYPERFREQUENCE A FAIBLE RAYONNEMENT PARASITE

Publication

**EP 1680799 A2 20060719 (FR)**

Application

**EP 04741472 A 20040416**

Priority

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- FR 0305509 A 20030506

Abstract (en)

[origin: WO2004100204A2] The invention concerns a microwave tube comprising an electron gun (12) generating an electronic beam (20) in a cylindrical microwave structure (14, 50) of the tube. The microwave structure provides at an output a hyperfrequency wave. A collector (16, 58, 82, 96) of the beam electrons comprising at least one electrode is mechanically connected to the microwave structure through a dielectric (62, 94), the mechanical connection forming a radial guide for propagating the spurious microwave radiation (Pr) of the tube. In order to attenuate the spurious radiation of the tube, the radial guide (Gd) comprises at least one quarter wave microwave having, at least at the tube operating frequency F, an open circuit for the hyperfrequency wave propagated in said radial guide for propagation of spurious radiation. The invention is applicable to microwave tubes, in particular klystrons, travelling-wave tubes and the like.

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