

Title (en)

MULTIBAND TRAVELLING WAVE TUBE OF REDUCED LENGTH CAPABLE OF HIGH POWER FUNCTIONING

Title (de)

HOCHLEISTUNGSFÄHIGES MEHRBAND-WANDELFELDROHR MIT REDUZIERTER LÄNGE

Title (fr)

TUBE A ONDES PROGRESSIVES MULTIBANDE DE LONGUEUR REDUITE CAPABLE DE FONCTIONNER A PUISSANCE ELEVEE

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Application

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Abstract (en)

[origin: FR2787918A1] The invention concerns a travelling wave tube designed to operate as amplifier in several frequency bands (B1, Bi, Bn), comprising a microwave frequency line (8) carrying electrons and wherein a signal is amplified. The microwave frequency line successively comprises an input section (h) separated by a series of disjointed output sections (h1, hi, hn), each output section operating in one of the tube operating frequency bands. The input section (h), connected at one end (ee) to input means (E) for the signal to be amplified, operates in a frequency band (B) including the tube operating frequency bands (B1, Bi, Bn) and is designed to preamplify the signal to be amplified. The series of output sections (h1, hi, hn) receives the preamplified signal. Each of the output sections is designed to amplify it if the signal is at a frequency included in its operating frequency band, and to allow it to pass almost without intervening, if it is at a frequency outside its operating frequency band. Each of the output sections (h1, hi, hn) is connected at one output end (es) to output means (h1, hi, hn) for the preamplified signal which it has amplified. The invention is applicable to travelling wave tubes with reduced length capable high power functioning.

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