Abstracts

Millimeter-Wave Oscillators Using Image-Line or Microstrip Waveguides (Short Papers)

R.E. Horn, H. Jacobs and E. Freibergs. "Millimeter-Wave Oscillators Using Image-Line or Microstrip Waveguides (Short Papers)." 1986 Transactions on Microwave Theory and Techniques 34.2 (Feb. 1986 [T-MTT]): 285-288.

A low-cost Gunn oscillator using a coaxial cavity coupled into either dielectric image guide or microstrip line has been developed. A unique feature is the broad frequency range off mechanical tunability of 10 to 11 GHz centered around 56 GHz. This range of tunability is beyond the range of standard metal waveguide cavities. Power levels up to 43 mW have been observed in image-line structures and 20 mW for microstrip lines. The construction allows an easy and quick replacement of diodes, when necessary hence, the structure is easily modified to operate in different ranges.

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