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Accession number:13046678

Title:Possibility of high order harmonic oscillators based on active transmission lines loaded with resonant tunneling diode pairs

Authors: Jie Pan (1); Hayano, K. (1); Mori, M. (1); Maezawa, K. (1)

Author affiliation:(1) Grad. Sch. of Sci.; Eng., Univ. of Toyama, Toyama, Japan

Source title:IEICE Transactions on Electronics

Abbreviated source title: IEICE Trans. Electron. (Japan)

Volume:E95-C

Issue:8

Publication date:Aug. 2012

Pages:1385-8

Language:English

ISSN:0916-8524

CODEN:IELEEJ

Document type:Journal article (JA)

Publisher:IEICE

Country of publication:Japan

Material Identity Number:FF49-2012-008

Abstract: The oscillators based on an active transmission line periodically loaded with RTD pairs are studied using circuit simulation with special attention to the behavior of harmonics. Generation of strong high order harmonic (9th) was observed. This is caused by the frequency locking in the high frequency passband. The harmonic oscillators based on this phenomenon are promising for high performance THz sources.

Number of references:13

Inspec controlled terms:circuit simulation - harmonic oscillators (circuits) - resonant tunnelling diodes - transmission lines

Uncontrolled terms:high order harmonic oscillators - active transmission lines - resonant tunneling diode pairs - RTD pairs - circuit simulation - frequency locking - high frequency passband - high performance THz sources

Inspec classification codes:B1230B Oscillators - B2560H Junction and barrier diodes

Treatment:Practical (PRA)

Discipline:Electrical/Electronic engineering (B)

DOI:10.1587/transele.E95.C.1385

Database:Inspec

IPC Code:H01L29/00; H03BCopyright 2012, The Institution of Engineering and Technology