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标题: Gain Measurement of Embedded On-Chip Antennas in mmW/THz Range
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来源出版物: IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION 卷: 60 期: 5 页: 2544-2549 DOI: 10.1109/TAP.2012.2189772 出版年: MAY 2012
在 Web of Science 中的被引频次: 0
被引频次合计: 0
引用的参考文献数: 22
摘要: A method for gain measurement of embedded on-chip antennas in mmW/THz range is presented. In this method, the radiation pattern is first measured in a quasi-optical configuration using a power detector. Subsequently, the radiated power is estimated from the integration over the radiation pattern. Finally, the antenna gain is obtained from measurement of a two-antenna system. The experimental results of applying this method on an on-chip planar dipole with substrate lens are demonstrated, and verified against simulation. A radiated power of around 40 mu W and measured gain of 17 dB are reported at 180 GHz for this antenna structure.
入藏号: WOS:000303995900047
语种: English
文献类型: Article
作者关键词: Gain; millimeter-wave; on-chip antenna; SiGe technology
KeyWords Plus: PHASED-ARRAY TRANSCEIVER; GHZ; TECHNOLOGY; TRANSMISSION; RECEIVER; SILICON; SI
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出版商: IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC
出版商地址: 445 HOES LANE, PISCATAWAY, NJ 08855-4141 USA
Web of Science 分类: Engineering, Electrical & Electronic; Telecommunications
学科类别: Engineering; Telecommunications
IDS 号: 941VV
ISSN: 0018-926X
29 字符的来源出版物名称缩写: IEEE T ANTENN PROPAG
ISO 来源出版物缩写: IEEE Trans. Antennas Propag.
来源出版物页码计数: 6