

608.

标题: Photonic generation of high quality frequency-tunable millimeter wave and terahertz wave
作者: Ji, Y (Ji, Yu); Li, Y (Li, Yan); Zhang, FZ (Zhang, Fangzheng); Wu, J (Wu, Jian); Hong, XB (Hong, Xiaobing); Xu, K (Xu, Kun); Li, W (Li, Wei); Lin, JT (Lin, Jintong)

来源出版物: CHINESE OPTICS LETTERS 卷: 10 期: 4 文献号: 042501 DOI: 10.3788/COL201210.042501 出版年: APR 10 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: 20

摘要: A scheme for the photonic generation of frequency-tunable millimeter wave and terahertz wave signals based on a highly flat optical frequency comb is proposed and demonstrated experimentally. The frequency comb is generated using two cascaded phase modulators (PMs) and an electro-absorption modulator (EAM). The frequency comb covers a 440-GHz frequency range, with 40-GHz comb spacing and less than 2-dB amplitude variation. By filtering out two of the comb lines with 50 dB out of the band suppression ratio, high frequency-purity and low phase noise millimeter wave or terahertz wave signals are successfully generated, with frequencies ranging from 40 to 440 GHz.

入藏号: WOS:000302920800018

语种: English

文献类型: Article

KeyWords Plus: OPTICAL COMB; CARRIER PHOTODIODE; CASCADED INTENSITY; PHASE MODULATION; LASERS; SIGNAL; FIBER; WIRELESS

地址: [Ji, Yu; Li, Yan; Zhang, Fangzheng; Wu, Jian; Hong, Xiaobing; Xu, Kun; Li, Wei; Lin, Jintong] Beijing Univ Posts & Telecommun, State Key Lab Informat Photon & Opt Commun, Beijing 100876, Peoples R China

通讯作者地址: Ji, Y (通讯作者), Beijing Univ Posts & Telecommun, State Key Lab Informat Photon & Opt Commun, Beijing 100876, Peoples R China

电子邮件地址: jiyucandy@gmail.com

出版商: CHINESE LASER PRESS

出版商地址: PO BOX 800-211, SHANGHAI, 201800, PEOPLES R CHINA

Web of Science 分类: Optics

学科类别: Optics

IDS 号: 927PQ

ISSN: 1671-7694

29 字符的来源出版物名称缩写: CHIN OPT LETT

ISO 来源出版物缩写: Chin. Opt. Lett.

来源出版物页码计数: 4