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Accession number:20113514290445
Title:Wireless communication demonstration at 4.1THz using quantum cascade laser and quantum well photodetector
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Source title:Electronics Letters
Abbreviated source title:Electron. Lett.
Volume:47
Issue:17
Issue date:August 18, 2011
Publication year:2011
Pages:1002-1004
Language:English
ISSN:00135194
CODEN:ELLEAK
Document type:Journal article (JA)
Publisher:Institution of Engineering and Technology, Six Hills Way, Stevenage, SG1 2AY, United Kingdom
Abstract:A wireless terahertz (THz) analogue communication link using a quantum cascade laser (QCL) as the source and a quantum well photodetector as the receiver is demonstrated. The QCL operates in continuous-wave mode. By directly modulating the QCL emitting at 4.1THz, analogue signals are transmitted over a distance of 2m. The circuit-limited modulation bandwidth is about 580kHz. © 2011 The Institution of Engineering and Technology.