312
Accession number:20125115816227
Title:Gigabit wi-fi [microwave surfing]
Authors:Bansal, Rajeev (1)
Author affiliation:(1) University of Connecticut, Unit 4157, 371 Fairfield Way, Storrs, CT 06269-4157, United States
Corresponding author:Bansal, R.(Rajeev@engr.uconn.edu)
Source title:IEEE Microwave Magazine
Abbreviated source title:IEEE Microwave Mag.
Volume:13
Issue:7
Issue date:2012
Publication year:2012
Pages:22+26
Article number:6355778
Language:English
ISSN:15273342
CODEN:IEMMFF
Document type:Journal article (JA)
Publisher:Institute of Electrical and Electronics Engineers Inc., 445 Hoes Lane / P.O. Box 1331, Piscataway, NJ 08855-1331, United States
Abstract:The year 2012 marks the 100th volume of Proceedings of the IEEE, as well as the second year for IEEE Transactions on Terahertz Science and Technology. THz signals required cumbersome, expensive, and power-hungry devices for generation and detection, they suffered significant attenuation as they traveled through air, and there was no compelling need for the huge bandwidth offered by the band. It is predicted that the traffic from wireless devices may exceed that from wired devices by 2015. In order for THz-based devices to capture that market, one would need transmitter and receiver components that are small, power efficient, and, last but not least, relatively inexpensive. Researchers from the Tokyo Institute of Technology demonstrated a 3 Gb/s data transfer rate over a 542 GHz wireless connection, thereby doubling the previous record of 1.5 Gb/s reported by chipmaker Rohm in November 2011.
Abstract type:(Edited Abstract)
Number of references:4
Main heading:Data transfer rates
Controlled terms:Microwave integrated circuits - Radiation
Uncontrolled terms:Microwave surfing - Power efficient - Science and Technology - Tera Hertz - THz signal - Tokyo Institute of Technology - Transmitter and receiver - Wireless connection - Wireless devices
Classification code:711 Electromagnetic Waves - 714.2 Semiconductor Devices and Integrated Circuits - 716 Telecommunication; Radar, Radio and Television - 717 Optical Communication - 718 Telephone Systems and Related Technologies; Line Communications
DOI:10.1109/MMM.2012.2216113
Database:Compendex