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Title:Micromachined switchable metamaterial with dual resonance
Authors:Zhang, W. (1); Liu, A.Q. (1); Zhu, W.M. (1); Li, E.P. (2); Tanoto, H. (3); Wu, Q.Y. (3); Teng, J.H. (3); Zhang, X.H. (3); Tsai, M.L.J. (4); Lo, G.Q. (4); Kwong, D.L. (4)
Author affiliation:(1) School of Electrical and Electronic Engineering, Nanyang Technological University, 50, Nanyang Avenue, 639798 Singapore, Singapore; (2) Institute of High Performance Computing, 1 Fusionopolis Way, 138632 Singapore, Singapore; (3) Institute of Materials Research and Engineering, 3 Research Link, Singapore 117602, Singapore; (4) Institute of Microelectronics, 11 Science Park Road, Singapore 117685, Singapore
Corresponding author:Liu, A.Q.(eaqliu@ntu.edu.sg)
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Abstract:We experimentally demonstrate a micromachined switchable metamaterial with dual mode resonance which is induced at THz regime under oblique incidence. Here, we explore, both theoretically and experimentally, the dynamic dual mode switching by reshaping metamaterial elements using micromachined actuators. The mode switching allows robust control over the transmission and the reflection of the metamaterial at 0.76 THz and 1.16 THz. Such switchable dual mode metamaterial promises wide applications in optical switches, tunable filters, and THz detectors. © 2012 American Institute of Physics.
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