Abstracts

Batch transfer integration of RF microrelays

V. Milanovic, M. Maharbiz and K.S.J. Pister. "Batch transfer integration of RF microrelays." 2000 Microwave and Guided Wave Letters 10.8 (Aug. 2000 [MGWL]): 313-315.

This letter presents the first implementation of batch-transferred microrelays for a broad range of RF applications and substrates. The transferred relays include two types of electrostatic pull-down structures for series and shunt switching of a CPW. The batch-transfer methodology allows integration of optimized microelectromechanical systems (MEMS) in RF systems on substrates such as sapphire, GaAs, and even CMOS. Gold-to-gold contact series microrelays with insertion loss of <0.3 dB, and isolation better than 15 dB at frequencies from 100 MHz to 50 GHz are demonstrated, as well as shunt switches with >45 dB of isolation and <0.3 dB insertion loss in that frequency range.

❑ Return to main document.