# Abstracts

## Millimeter-wave micromachined tunable filters

*Hong-Teuk Kim, Jae-Hyoung Park, Yong-Kweon Kim and Youngwoo Kwon. "Millimeter-wave micromachined tunable filters." 1999 MTT-S International Microwave Symposium Digest 99.3 (1999 Vol. III [MWSYM]): 1235-1238 vol.3.*

Novel types of MM-wave tunable filters using micromachined variable capacitors are presented. In order to demonstrate this concept, two bandpass filters, one with 2-pole lumped elements and the other with 2-pole resonators are designed at Ka-band and fabricated using MEMS technology. With applied bias, the center frequency shifts as much as 1.1 GHz (4.2%) at 26.6 GHz, and 0.8 GHz (2.5%) at 32 GHz, was measured for lumped elements and resonators filter, respectively. These results show the potentials of micromachined tunable filters for low cost, highly integrated transmitter and receiver for MM-wave multi-band communication systems.

❑ Return to main document.