Abstracts

High-temperature superconductor-shielded high power dielectric dual-mode filter for applications in satellite communications

S. Schornstein, I.S. Ghosh and N. Klein. "High-temperature superconductor-shielded high power dielectric dual-mode filter for applications in satellite communications." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1319-1322.

We introduce a novel high-temperature superconductor (HTS)-shielded dual-mode resonator based on the degenerated fundamental mode of a dielectric hemisphere. By employing coupling with electric probes and dual-mode splitting with dielectric rods, we have built an HTS-shielded dual-mode two-pole filter at a center frequency of 6.4 GHz with a bandwidth of 0.4% and an insertion loss of 0.02 dB.

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