Abstracts

Low-profile multilayer YBCO/MgO filter module

R.S. Kwok, S.J. Fiedziuszko, T. Schnabel, F.A. Miranda, N.C. Varaljay and C. Mueller. "Low-profile multilayer YBCO/MgO filter module." 1999 MTT-S International Microwave Symposium Digest 99.3 (1999 Vol. III [MWSYM]): 1377-1380 vol.3.

Multilayer dual mode HTS filter is the smallest known high-performance filter structure, occupying less than 1% in volume as compared to the state-of-the-art dielectric resonator counterpart. It can also be manufactured in form of a flat-pack surface mounted flip-chip module suitable for integration with other components in a cryogenic payload. In this presentation, we report recent advances made in the areas of design and packaging of this vertically stacked multilayer filter. A C-band 4-pole quasi-elliptical bandpass filter in its smallest configuration, implemented using either gold (Au) or YBa/sub 2/Cu/sub 3/O/sub 7-/spl delta// (YBCO) thin film dual mode patch resonators on magnesium oxide (MgO) substrates, is presented.

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