

Miniature Quasi-elliptic Function Superconducting Filter for Wireless Communications

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We presented a lumped element type of high temperature superconducting (HTS) filter, specially considered for the compact size. The HTS filter was designed a quasi-elliptical function structure using spiral-meander resonator, gives flexible adjustment of the skirt properties and the transmission zero. The miniature HTS filter for IMT2000 was obtained an excellent selectivity and sensitivity combined with a cryo-cooled low noise amplifier. They significantly reduce the effective noise factor of a cellular base station receiver.

keywords : HTS rf filter, filter sub-system