Abstracts

Development of CAD tool for a design of microwave planar HTS filters

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Accurate design of microwave planar high-temperature superconducting (HTS) filters is obtained using a computer-aided design tool, which provides simulation of characteristics of the multicoupled transmission-line structures. The quasi-static spectral-domain method is applied. In order to achieve a good correspondence between measured and simulated filter performance, correct models of the microwave propagation characteristics of HTS planar transmission lines have to be used in the simulation procedure. The goal of this paper is to demonstrate that it is possible to design the planar HTS filters that do not need additional trimming after manufacturing. The trimmingless filters can be used in mass production for the next generation of mobile communication systems.

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