

Miniature Microwave Filters for Communication Systems

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This paper will present new developments in miniature integrated microwave filters suitable for application in mobile communication handsets, wireless LAN's and microwave fixed links. Recent measured results for active microwave filters will be presented with emphasis on their nonlinear behavior. The use of high permittivity ceramic substrates in parallel plate TEM mode stripline filters is described and recent measured results will be presented for a prototype 2-GHz filter occupying a volume of 0.5-cubic centimeters. E-Plane filters for millimeter wave applications will be discussed and measured results will be presented for a novel E-Plane filter with asymmetric frequency response which was realized in a planar structure. Finally, a new type of ceramic loaded E-Plane filter will be proposed.

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