Abstracts

Analysis and application of coupled microstrips on periodically patterned ground plane

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Coupled microstrips on periodically patterned ground plane have been analyzed using the FDTD method to compute the effect of strip width and gap spacing on the characteristic impedance and effective dielectric constant of even and odd modes. Results have been employed to design a bandpass filter with a spurious-free response as well as good passband performance. Design criteria have been successfully established for filter applications and they are also valuable for implementing other components such as phase shifters and couplers.

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