Abstracts

A novel 1-D periodic defected ground structure for planar circuits

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A new one-dimensional (1-D) defected ground unit lattice is proposed in order to improve the effective inductance. Increasing the effective inductance makes it easy to control the cutoff frequency characteristics. The proposed periodic defected ground structure (DGS) provides the excellent cutoff and stopband characteristics. In order to show the improved the effective inductance, three DGS circuits were fabricated with identical periodic and different dimensions. Measurements on the fabricated DGS circuits show that the cutoff and stopband center frequency characteristics depend on the physical dimension of the proposed DGS unit lattice,.

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