Novel Characteristics for Reducing Crosstalk in Corrugated Metal Strip Lines with Subwavelength Periodic Hairpin Slits

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Abstract

A new kind of microstrip line on which the spoof surface plasmon polaritons (SPPs) can propagate in the microwave regime is developed. The microstrip line structure is designed by introducing periodical subwavelength hairpin structure on the edge of conventional microstrip lines. Such periodically structured microstrip lines supporting spoof SPPs in the frequency range has been experimentally verified between 200MHz and 8GHz.

Keyword：Spoof surface plasmon polaritons, crosstalk, subwavelength