Abstracts

Close coupled resonant aperture inserts for waveguide filtering applications

R.D. Seager and J.C. Vardaxoglou. "Close coupled resonant aperture inserts for waveguide filtering applications." 2001 Microwave and Wireless Components Letters 11.3 (Mar. 2001 [MWCL]): 112-114.

A two-layer frequency selective surface (FSS) is used as a very compact and lightweight transverse waveguide filter element. A narrow-hand transmission response is produced from two layers, which, otherwise, in isolation would exhibit a broadband response. Measured results are compared with theoretical data obtained from a Transmission Line Matrix (TLM) based modeling method. Reduction in the passband bandwidth of a factor of four has been achieved using the proposed structure.

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