Abstracts

A novel CPW structure for high-speed interconnects

S.-J. Yoon, S.-H. Jeong, J.-G. Yook, Y.-J. Kim, S.-G. Lee, O.-K. Seo, K.-S. Lim and D.-S. Kim. "A novel CPW structure for high-speed interconnects." 2001 MTT-S International Microwave Symposium Digest 01.2 (2001 Vol. II [MWSYM]): 771-774 vol.2.

For high-speed digital circuits a novel elevated-CPW (ECPW) structure with low loss and low dispersion is proposed and the performances are compared with the theoretical prediction. The ECPW is designed with the aid of time domain fullwave FDTD technique and is fabricated using conventional thick-film MEMS processing. The proposed structure reveals at least 10 dB lower insertion loss compared to conventional CPW geometries and effective permittivity is 4 to 6 times smaller than that of conventional CPW. Characteristic impedances and effective permittivities are given for various geometrical parameters.

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