# Abstracts

## A New, Small-Sized Transmission Line Impedance Transformer, with Applications in High-Speed Optoelectronics

*M.C.R. Carvalho, W. Margulis and J.R. Souza. "A New, Small-Sized Transmission Line Impedance Transformer, with Applications in High-Speed Optoelectronics." 1992 Microwave and Guided Wave Letters 2.11 (Nov. 1992 [MGWL]): 428-430.*

A new, small-sized transmission line transformer (TLT) is described, which matches 50-Omega circuits to low input resistance components, as semiconductor lasers and PIN photodiodes. This TLT is formed by different coplanar waveguide configurations, and printed on a very high-dielectric constant substrate (epsilon/sub r/ = 80). This TLT considerably improves the temporal response of high-speed photodiodes as compared with the conventional coupling scheme.

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