Abstracts

On-chip interconnect lines with patterned ground shields

R. Lowther and San-Gug Lee. "On-chip interconnect lines with patterned ground shields." 2000 Microwave and Guided Wave Letters 10.2 (Feb. 2000 [MGWL]): 49-51.

Measurements of on-chip interconnect lines with a patterned ground shield (PGS) are analyzed and compared to lines with no ground shield (NGS). At frequencies at and below 7 GHz, the PGS lines have about one fifth the dissipative loss of that of the NGS lines. By using a doped layer in the silicon for the shield, as opposed to other metal layers which are closer to the line, a reasonably high characteristic impedance is maintained. The transmission line characteristics are also analyzed.

❑ Return to main document.

Click on title for a complete paper.