Abstracts

Asymmetric, Multi-Conductor Low-Coupling Structures for High-Speed, High-Density Digital Interconnects (1991 Vol. II [MWSYM])

J.P.K. Gilb and C.A. Balanis. "Asymmetric, Multi-Conductor Low-Coupling Structures for High-Speed, High-Density Digital Interconnects (1991 Vol. II [MWSYM])." 1991 MTT-S International Microwave Symposium Digest 91.2 (1991 Vol. II [MWSYM]): 663-666.

Small inter-line spacings and ultra-fast switching speeds emphasize the problems of crosstalk and coupling distortion in high-speed, high-density digital interconnects. However, the use of substrate compensation allows the design of structures where crosstalk and coupling can be essentially eliminated, even for inter-line spacings of less than one center conductor width. Some of the characteristics of this novel method are presented for asymmetric multi-conductor transmission lines. The study shows that it is possible to choose a substrate combination which significantly reduces coupling and crosstalk for wide range of conductor configurations.

❑ Return to main document.