DESCRIPTION


In the recent past, knowledge of transmission line behavior was not essential to understanding digital logic design. Slow signals, relatively short wires, logic probes and the treatment of wave forms as sequences of ones and zeros made it possible to design logic without a solid understanding of fields. That has changed dramatically. Today, with edge rates and gate delays moving into the picosecond realm, innovative product designers must be able to understand and model the essential distributed element nature of electrical circuits. Those who don't will lag far behind the competition. Keeping pace with these developments, IEEE Press is pleased to bring back into print this definitive reference on high-speed transmission line behavior. First written in 1969, this book provides a level of detail on high-speed signaling problems that remains unmatched to this day. Engineers who want to move beyond the introductory level of field theory will find the practical applications they need for solving difficult real-world problems. In this Book You Will Find Thorough Coverage of:

* The realistic behavior of wiring, including skin effects
* Series and parallel losses
* Complex issues such as phase and group velocity, and the resulting pulse and edge spreading
* Cross coupling of signals from physically adjacent transmission lines
* Superconducting transmission lines

ABOUT THE AUTHOR


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