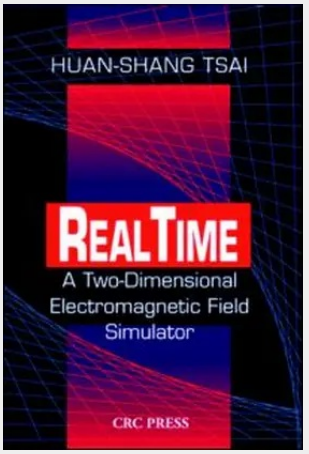
Tsai

Real Time

Most texts, classes, and commercially available software packages approach the study of electromagnetic (EM) wave propagation from frequency-based techniques. Analytical solutions-even for simple structures-involve heavy mathematical operations. This does little to provide insight into how EM waves propagate, encourage interest, and promote an intuitive grasp of the subject.Real Time does all of these things. It's a user-friendly, full-wave, two-dimensional electromagnetic simulator that allows users to see waves propagate and scattered by objects in the real-time domain-far more interesting than any frequency-domain numerical techniques. Based on the Finite-Difference Time-domain (FDTD) technique, this software illustrates the properties of EM waves, such as reflection and diffraction by objects and includes routines for both TE and TM waves.An easy to use, graphical user interface (GUI) allows you to set up simulations with the click of a mouse. You can draw, resize, and assign electrical properties to each object. You can place multiple EM sources-both sinusoidal and Gaussian-inside the same domain and independently assign the amplitude and phase of each source. Real Time also has ten probes available to record the field, in time, anywhere in the domain. Press the Start button and Real Time displays the field propagation, including its interaction with objects.Whenever it is possible to simplify a practical structure into a two-dimensional problem, such as for optical waveguides, Real Time can be used to analyze the signal propagation and frequency response. Far more than an educational tool, it offers researchers an efficient means to simulate field distributions-in real time.



136,50 €
114,71 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9780849323652
Medium: Sonstiges
ISBN: 978-0-8493-2365-2
Verlag: CRC Press
Erscheinungstermin: 04.11.1999
Sprache(n): Englisch
Auflage: 1. Auflage 1999
Produktform: CD-ROM
Gewicht: 113 g
Seiten: 15
Format (B x H): 130 x 196 mm