Siwave Applications in Optical Modules



Overview

Model, simulate and evaluate high-speed channels and full power delivery systems found in modern high-performance devices with Ansys SIwave.

Frequently Asked Questions

Full-wave SI/PI Extraction

SIwave supports a variety of extraction types. Including, signal and power RLCG IBIS for IC packaging, touch panel RLCG unit cells, bus bar RLCG,...

Impedance/Crosstalk/EMI Scanning

Automatic and configuarbale EMI deisgn rule checks are readily provided by an EMI Scanner and EMI Xplorer. Crucially, this ensures swift detection...

Virtual Compliance

Ansys SIwave offers a DDR virtual compliance package that, when used in conjunction with the DDR Wizard, delivers end-to-end virtual compliance fo...

Electrothermal and Mechanical Analysis

Using DC power loss from Ansys SIwave as a heat source, this multiphysics approach provides realistic thermal modeling of IC packages and PCBs. Re...

IBIS and IBIS-AMI SerDes Analysis

Strong demand from chip customers to provide AMI models for SerDes IP – Considered part of doing SerDes IP business today – Systems customers of...

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Article Content

Ansys SIwave | Electronic Validation & PCB Signal

Model, simulate and evaluate high-speed channels and full power delivery systems found in modern high-performance devices with Ansys SIwave. In tandem with

Introduction to Ansys SIwave

This training course walks new Ansys SIwave users through simulation steps to run various types of SI/PI analyses using real high-speed boards as examples. These steps include the use of AEDT

Getting Started with SIwave: A PCB Model

This Getting Started Guide is intended to quickly familiarize you with the capabilities of SIwave. This guide leads you step-by-step through importing a PCB design, setting up and performing three

EMC Troubleshooting at PCB Level Using Ansys SIwave

State-of-the-art simulation software like Ansys SIwave even contain visualization tools for the voltage and current distributions of resonances. Since being simple to use,

BROCHURE Ans

SIwave – DC: Engineers from Sarcina Technology LLC used Ansys SIwave to extract DDR3 electrical models for both a PCB and its daughter card to analyze the performance of application-specific ICs

Optical module design resources | TI

Overview Description Related applications Integrated circuits and reference designs help you create a smaller and faster optical module design used in high-bandwidth data communication applications.

ANSYS CPS SOLUTION FOR SIGNAL AND POWER INTEGRIT

In order to account for all of the effects of physical layout and geometry complexities, a field solver such as Siwave or HFSS must be used. In any of the methods shown, loop inductance plays a vital role in

SIwave Training

SIwave adaptively chooses the frequency points at which it computes the field solution. After a new frequency point is solved, a new interpolating fit is generated.

High-Speed PCB Design with SIwave | PDF | Printed Circuit Board ...

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The document also details PCB design considerations, including power distribution networks, stack-up layers, and operational steps for using SIwave effectively.

Ansys SIwave | Signal Integrity Analysis for PCB Design

Ansys SIwave is a specialized design platform for power integrity, signal integrity and EMI analysis of electronic packages and PCBs.

HFSS Regions in SIwave — Best of Both Worlds

HFSS Regions in SIwave is a hybrid solution technique where HFSS'' 3D electromagnetic (EM) field solver can be readily applied as part of the simulation process in tandem with the 2.5D solver in

Low insertion loss non-blocking optical switch

BACKGROUND 1. Field of Invention The present invention relates to free-space optical switches, and particularly to a scalable, non-blocking, low insertion loss, re-configurable optical switches. 2.

A Review of System-in-Package Technologies: Application and ...

The system-in-package (SiP) has gained much interest in the current rapid development of integrated circuits (ICs) due to its advantages of integration, shrinking, and high density. This

Silicon Photonics in Pluggable Optics White Paper

Silicon photonics technology has long been of interest in the optical networking industry and in recent years has gained a major foothold in the data center network. This technology is increasingly used

Introduction to Common 100G Optical Module Types, Advantages,

Introduction to Common 100G Optical Module Types, Advantages, and Application Scenarios Abstract:In the realm of modern networking, the demand for high-speed data transmission has

Integrated Acousto-Optic Device Modules and Applications

Consequently, such integrated AO device modules should find novel applications in wide band multichannel integrated- and fiber-optic communication, signal processing, and computing systems.

Integrated Acousto-Optic Device Modules and Applications

This article is devoted to integrated acousto-optic devices and applications with emphasis on the basic planar guided-wave acousto-optic (AO) Bragg diffraction geometry, Bragg cell

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High-Speed PCB Design with SIwave

SIwave is a hybrid 2.5D full wave electromagnetic field solver designed for analyzing signal integrity, power integrity, and EMI in high-speed electronic systems. It allows for modeling and simulating

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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EU project coordination: Parque das Nações, Lisbon, Portugal

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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