

1. Record Nr.	UNINA9910872987903321
Titolo	2001 IEEE Electrical Performance of Electronic Packaging
Pubbl/distr/stampa	[Place of publication not identified], : I E E E, 2001
Descrizione fisica	1 online resource (xi, 344 pages) : illustrations
Disciplina	621.381/046
Soggetti	Electronic packaging
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	<p>MONDAY, OCTOBER 29, 2001 -- SESSION I - KEYNOTE -- A Future View of Server Systems (Keynote) 3 (4) -- SESSION II - LOW POWER -- Architectural Approaches to Reducing Power Rtem Costs (Invited Paper) 7 (2) -- ``Watts" the Matter: Power Reduction Issues (Invited Paper) 9 (2) -- Digital Signal Processors (DSPs) for Low Power Consumption Wireless Applications (Invited Paper) 11 (6) -- SESSION III - RF/MICROWAVE -- Characterization of the Novel Anisotropic Uniplanar Compact Photonic Band-Gap Ground Plane (UC- PBG-GP) 17 (4) -- Measuring Radiation of Small Electronic Equipment in Three-Dimensional TEM Cells 21 (4) -- Effects of Decreasing Extent of Electromagnetic Field at LSI Mounting Area on Radiated Emission from PCB 25 (4) -- Millimeter Wave Package Design: A Comparison of Simulation and Measurement Results 29 (6) -- SESSION IV - TRANSMISSION LINE MODELING -- Recovering Lossy Multiconductor Transmission Line Parameters From Impedance or Scattering Representations 35 (4) -- The Effects of Via Transitions on Differential Signals 39 (4) -- Analysis of Transmission Line Circuits Using Multi-Dimensional Model Reduction Techniques (Student Paper) 43 (4) -- Prime: Passive Realization of Interconnect Models from Measured Data 47 (4) -- Time-Domain Scattering Method Using Triangle Impulse Responses for Modeling Electronic Packaging Components 51 (4) -- Analysis of Transmission Line Structures Using a Dynamic Analysis through WIPL-D 55 (6) -- SESSION V - OPEN FORUM (POSTERS) AND RECEPTION -- Power Distribution -- Reducing Power Bus Impedance at Resonance with</p>

Lossy Components (Student Paper) 61	(4) -- Characterization of
Via-Induced Parallel-Plate Resonances in a Printed Circuit Board 65	(4)
-- Modelling of Multi-Layered Power Supply Planes with Vias 69	(4)
-- Characterization of On-Chip Capacitance Effects for I/O Circuits and	
Core Circuits 73	(4) -- Analysis of Power/Ground Planes by PCB
Simulator with Model Order Reduction Technique 77	(4) --
Signal Integrity	-- The Use of Loop Inductances in Signal
Integrity Modeling 81	(4) -- Design and Verification of Differential
Transmission Lines 85	(4) -- Composite Effects of Reflections and
Ground Bounce for Signal Line through a Split Power Plane 89	(4)
-- Microwave	-- Integrated RF Function Architectures in Fully-Organic
SOP Technology 93	(4) -- Development of RF/Microwave On-chip
Inductors Using an Organic Micromachining Process 97	(4) --
Development of Planar Antennas in Multi-layer Packages for RF-	
System-on-a-Package Applications 101	(4) -- CPW High Q
Inductors on Organic Substrates (Student Paper) 105	(4) --
Microwave Frequency Crosstalk Model of Redistribution Line Patterns of	
Wafer Level Package 109	(4) -- Measurements
-- Robust	
Extraction of the Frequency-Dependent Characteristic Impedance of	
Transmission Lines using One-port TDR Measurements - (Student	
Paper) 113	(4) -- Picosecond-pulse Propagation Measurement on
Microstrip Meander Lines Using a Novel Optical Near-Field Mapping	
Probe (Student Paper) 117	(4) -- Measurement of RF Properties of
Glob Top and Under-Encapsulant Materials 121	(4) -- A Broad
Band Through-Line-Line De-Embedding Technique for BGA Package	
Measurements 125	(4) -- A De-embedding Technique for
Interconnects 129	(4) -- Characterization of Thin Film Organic
Materials at High Frequency 133	(4) -- Complex Dielectric
Constant Measurement Techniques for High-Speed Signaling 137	(4)
-- Modeling Techniques	-- Model Extraction and Waveform
Correlation via a Generalized Frequency-and Time-Domain Optimizer	
141	(4) -- Equivalent Circuit Representation and Dimension
Reduction Technique for Efficient FDTD Modeling of Power/Ground	
Plane (Student Paper) 145	(4) -- Modelling Complex Via Hole
Structures 149	(4) -- Comparison Between Chebyshev and Power Series
Expansion Functions for Interpolating Data 153	(4) -- Field
Analysis in Inhomogeneously-Filled Stripline Circuits 157	(4) --
Modeling of Multi-vias Coupling for High Speed Interconnects 161	(4)
-- Fast Capacitance Extraction of Conductors Embedded in a Layered	
Medium (Student Paper) 165	(4) -- Modeling of Interconnects and
Electromagnetic Field Distributions Using FDTD Method 169	(4)
-- Reduced-Order Models based on Measured S-Parameters for Time-	
Frequency Analysis of Microwave Circuits using Genetic Algorithms 173	
(4) -- An Iteration-Free Fast Multilevel Solver for Dense Method	
of Moment Systems 177	(4) -- Fast Electromagnetic Modeling for
Electronic Packaging in Layered Media 181	(4) -- An Alternating
Implicit Block Overlapped FDTD (AIBO-FDTD) Method and Its Estimation	
with Parallel Computation 185	(4) -- Crosstalk for Curvilinear
Conductors by Utilising a Nonuniform Transmission Line Approach 189	
(4) -- Unit Cell Modeling of Meander Delay Line based on	
Finite-Difference Time-Domain Method and Floquet's Theorem	
(Student Paper) 193	(6) -- TUESDAY, OCTOBER 30, 2001
VI - POWER DISTRIBUTION	-- SESSION
Dependencies of Delta-I Noise 199	(4) -- Simultaneous Switching
Noise Analysis on Bus Lines Using Coupled Circuit and Electromagnetic	
Simulation 203	(4) -- Analysis of Multi-Layered Irregular Power
Distribution Planes with Vias Using Transmission Matrix Method	
(Student Paper) 207	(4) -- An Approach to Measuring Power Supply

Impedance of Microprocessors 211	(4) -- Powering Intel® Pentium® 4
Generation Processors 215	(6) -- SESSION VII - EM MODELING
Flat Package Inductance Extraction with Ground Plane Current	
Precalculation (Student Paper) 221	(4) -- Generalized PEEC Models
for Three-Dimensional Interconnect Structures and Integrated Passives	
of Arbitrary Shapes 225	(4) -- Efficient Construction of Two-Port
Passive Macromodels for Resonant Network (Student Paper) 229	(4)
-- Coupled Electromagnetic-Circuit Simulation of Arbitrarily-Shaped	
Conducting Structures 233	(4) -- New Efficient Method of Modeling
Electronics Packages with Power and Ground Planes 237	(6) --
SESSION VIII - MODEL ORDER REDUCTION	-- Recent Advances in
Reduced-Order Modeling of Complex Interconnects 243	(4) --
Physically Consistent Transmission Line Models For High-Speed	
Interconnects in Lossy Dielectrics 247	(4) -- Triangle Impulse
Response (TIR) Calculation for Lossy Transmission Line Simulation	
(Student Paper) 251	(4) -- A Comparative Study of Two Transient
Analysis Algorithms for Lossy Transmission Lines with Frequency-	
Dependent Data 255	(4) -- Global Multi-Level Reduction Technique
for Nonlinear Simulation of High-Speed Interconnect Circuits (Student	
Paper) 259	(6) -- SESSION IX - POWER DECOUPLING
-- Modeling Shared-Via Decoupling in a Multi-Layered Structure using the	
CEMPIE Approach 265	(4) -- ARIES: Using Annual-Ring Embedded
Resistors to Set Capacitor ESR in Power Distribution Networks 269	(4)
-- Design Oriented Analysis of Package Power Distribution System	
Considering Target Impedance for High Performance Microprocessors	
273	(4) -- Effective Decoupling Radius of Decoupling Capacitor 277
(6) -- WEDNESDAY, OCTOBER 31, 2001	-- SESSION X -
SYSTEM DESIGN	-- Modeling and Measurement of the Alpha
21364 Package 283	(4) -- SI and Design Considerations for Gbps
PCBs In Communication Systems 287	(4) -- Design and Performance
Evaluation of Pentium® III Microprocessor Packaging 291	(4) --
Design Optimization Methodology for Simultaneous Bidirectional	
Interface 295	(4) -- High Bandwidth Low Latency Chip To Chip
Interconnects Using High Performance MLC Glass Ceramic Power4R	
MCM 299	(4) -- A Novel Efficient Approach of Including
Frequency-Dependent Power Delivery Effects in Bus Signal Integrity	
Simulation 303	(6) -- SESSION XI - MEASUREMENT
-- Package	
Model Extraction from Multi-port S-parameters 309	(4) --
Understanding Modeling and Measurements of Differential	
Transmission Lines 313	(4) -- Experimental Study of the Ground
Plane in Asymmetric Coupled Silicon Lines 317	(4) -- High
Sensitivity Magnetic Near Field Probe Based on Ferromagnetic Thin-Film	
Technology 321	(6) -- SESSION XII - MODELING
-- Solution	
Space Analysis of	
Interconnects for Low Voltage Differential Signaling (LVDS) Applications	
327	(4) -- Behavioral Modeling of Digital IC Input and Output Ports
331	(4) -- Accurate Closed-Form Expressions for the Frequency-
Dependent Line Parameters of Coupled On-Chip Interconnects on	
Silicon Substrate 335	(4) -- RF Modeling of Vertical Interconnection
Between Power-Ground Plane Combined with 2D TLM 339	(4) --
Author Index 343.	