1. Record Nr. UNINA9910820450103321 Autore Morrison Ralph Titolo Grounding and shielding: circuits and interference // Ralph Morrison Pubbl/distr/stampa Hoboken, New Jersey:,: Wiley,, [2016] [Piscatagay, New Jersey]:,: IEEE Xplore,, [2016] ©2016 **ISBN** 1-5231-2356-7 1-119-18375-8 1-119-18373-1 Edizione [Sixth edition.] Descrizione fisica 1 online resource (224 p.) Disciplina 621.3815/4 Soggetti Electric currents - Grounding Shielding (Electricity) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali "Published simultaneously in Canada"--Title page verso. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Voltage and capacitors -- Magnetics -- Digital electronics -- Analog circuits -- Utility power and facility grounding -- Radiation --Shielding from radiation. Applies basic field behavior in circuit design and demonstrates how it Sommario/riassunto relates to grounding and shielding requirements and techniques in circuit design This book connects the fundamentals of electromagnetic theory to the problems of interference in all types of electronic design. The text covers power distribution in facilities, mixing of analog and digital circuitry, circuit board layout at high clock rates, and meeting radiation and susceptibility standards. The author examines the grounding and shielding requirements and techniques in circuit design and applies basic physics to circuit behavior. The sixth edition of this book has been updated with new material added throughout the chapters where appropriate. The presentation of the book has also been rearranged in order to reflect the current trends in the field. Grounding and Shielding: Circuits and Interference, Sixth Edition: . Includes new material on vias and field control, capacitors as

transmission lines, first energy sources, and high speed designs using

boards with only two layers. Demonstrates how circuit geometry

controls performance from dc to gigahertz. Examines the use of multishielded transformers in clean-power installations. Provides effective techniques for handling noise problems in analog and digital circuits. Discusses how to use conductor geometry to improve performance, limit radiation, and reduce susceptibility to all types of hardware and systems Grounding and Shielding: Circuits and Interference, Sixth Edition is an updated guide for circuit design engineers and technicians. It will also serve as a reference for engineers in the semiconductor device industry.