1. Record Nr. UNINA9910139881103321 Autore Mardiguian Michel Titolo Electrostatic discharge: understand, simulate and fix ESD problems // Michel Mardiguian Pubbl/distr/stampa Piscataway, New Jersey:,: IEEE Press,, 2009 [Piscatagay, New Jersey]:,: IEEE Xplore,, [2009] **ISBN** 1-118-21107-3 1-282-30641-3 9786612306419 0-470-49507-3 0-470-49506-5 Edizione [3rd ed.] Descrizione fisica 1 online resource (315 p.) Disciplina 621.317 621.3815 Soggetti Electronic apparatus and appliances - Protection Electric discharges **Electrostatics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Preface to the First Edition -- Preface to the Third Edition --Acknowledgements -- 1. The Electrostatic Discharge Phenomenon --1.1. Physics Involved -- 1.2. Influencing Parameters -- 1.3. Various Types of Electrostatic Charging with Humans and Objects -- 1.4. Statistics of Voltages and Currents Reached During ESD -- 1.5. Waveforms of Electrostatic Discharges -- References -- 2. Effects of ESD on Electronics -- 2.1. Direct Discharge to an Electronic Component -- 2.2. Direct Discharge to Electronic Equipment Enclosure -- 2.3. Indirect Discharge -- 2.4. Coupling Mechanisms of ESD Pulse into the Victim's Circuitry -- 2.5. Response of Victim Circuits and Type of Errors -- 2.6. Prediction of Actual ESD-Induced Error, Fast Approximation Method -- 2.7. Remarks on the Actual Current Paths and Associated

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Sommario/riassunto

A thorough and concise treatment of ESD Recognizing its methodic, step-by-step attack of the electrostatic discharge (ESD) problem, the initial release of this book was quoted by specialists as ""the most thorough and concise treatment of the broad ESD continuum that is available."" Now in its Third Edition, this book delivers the same trusted coverage of the topic while also incorporating recent technological advances that have taken place in the engineering community. The book begins with the basics of ESD for humans and objects, and goes on to cover: Effects of ESD