Record Nr. UNINA9910953325703321 Autore Moreira Jose <1975-> Titolo An engineer's guide to automated testing of high-speed interfaces / / Jose Moreira, Hubert Werkmann Boston,: Artech House, c2010 Pubbl/distr/stampa **ISBN** 9781607839842 1607839849 Edizione [1st ed.] Descrizione fisica 1 online resource (590 p.) Collana Artech House microwave library Altri autori (Persone) WerkmannHubert Disciplina 621.381548 Very high speed integrated circuits Soggetti Automatic test equipment Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto An Engineer's Guide to Automated Testing of High-Speed Interfaces; Contents; Preface; Acknowledgments; 1 Introduction; 2 High-Speed Digital BasicsThis: 3 High-Speed Interface Standards: 4 ATE Instrumentation for DigitalApplications; 5 Tests and Measurements; 6 Production Testing: 7 Support Instrumentation: 8 Test Fixture Design: 9 Advanced ATE Topics: A Introduction to the Gaussian Distribution and Analytical Computation of the BER; B The Dual Dirac Model and RJ/DJ Separation; C Pseudo-Random Bit Sequences and Other Data Patterns; D Coding, Scrambling, Disparity and CRC E Time Domain Reflectometry and Time Domain Transmission (TDR/TDT) F S-Parameters; G Engineering CAD Tools; H Test Fixture Evaluation and Characterization; I Jitter Injection Calibration; About the Authors; Index Sommario/riassunto Providing a complete introduction to the state-of-the-art in highspeed digital testing with automated test equipment (ATE), this practical resource is the first book to focus exclusively on this increasingly important topic. Featuring clear examples, this one-stop reference covers all critical aspects of the subject, from high-speed digital basics, ATE instrumentation for digital applications, and test and

measurements, to production testing, support instrumentation and text fixture design. This in-depth volume also discusses advanced ATE

topics, such as multiplexing of ATE pin channels and testing of highspeed bi-directional interfaces with fly-by approaches.