1. Record Nr. UNINA9910809724203321

Autore	Moreira Jose <1975->
Titolo	An engineer's guide to automated testing of high-speed interfaces / / Jose Moreira, Hubert Werkmann
Pubbl/distr/stampa	Norwood, Massachusetts : , : Artech House, , [2016] ©2016
ISBN	9781608079865 1-5231-4621-4 1-60807-986-4
Edizione	[Second edition.]
Descrizione fisica	1 online resource (709 pages) : illustrations
Collana	Artech House microwave library
Disciplina	621.3815
Soggetti	Equip de test automàtic Circuits integrats - Proves Circuits integrats d'alta velocitat - Proves Integrated circuits - Testing Automatic test equipment Very high speed integrated circuits
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Preface to the Second Edition; Preface to the First Edition; 1 Introduction; 1.1 Characterization and Design Verification; 1.2 Production Testing; 1.3 Accuracy and Correlation; 1.4 The ATE Test Fixture; 1.5 The Future; 2 High-Speed Digital Basics; 2.1 High-Speed Digital Signaling; 2.2 Time and Frequency-Domains; 2.3 Bit Error Rate; 2.4 Jitter; 2.5 Classification of High-Speed I/O Interfaces; 2.6 Hardware Building Blocks and Concepts; 2.7 Multilevel Signaling; 3 High-Speed Interface Standards; 3.1 PCI Express; 3.2 XDR DRAM; 3.3 GDDR SDRAM; 3.4 MIPI Standards. 3.5 Other High-Speed Digital Interface Standards4 ATE Instrumentation for DigitalApplications; 4.1 ATE Timing Architectures; 4.2 Digital Pin Electronics ATE Card; 4.3 Sampler/Digitizer ATE Card; 4.4 Parametric Measurements with Sampled Data; 4.5 Power Supplies; 5 Tests and Measurements; 5.1 Bit and Pattern Alignment; 5.2 Functional Test; 5.

Sommario/riassunto

This second edition of An Engineer#x92;s Guide to Automated Testing of High-Speed Interfaces provides updates to reflect current state-of-the-art high-speed digital testing with automated test equipment technology (ATE). Featuring clear examples, this one-stop reference covers all critical aspects of automated testing, including an introduction to high-speed digital basics, a discussion of industry standards, ATE and bench instrumentation for digital applications, and test and measurement techniques for characterization and production environment. Engineers learn how to apply automated test equipment for testing high-speed digital I/O interfaces and gain a better understanding of PCI-Express 4, 100Gb Ethernet, and MIPI while exploring the correlation between phase noise and jitter. This updated resource provides expanded material on 28/32 Gbps NRZ testing and wireless testing that are becoming increasingly more pertinent for future applications. This book explores the current trend of merging high-speed digital testing within the fields of photonic and wireless testing.