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Nota di contenuto	1. Conventional Test Methods. – 2. Testability Design -- 3. Other Techniques Based on the Contacting Probe -- 4. Contactless Testing -- 5. Electron-Beam and Photoemission Probing -- 6. Electro Optic Sampling and Charge Density Probe -- 7. Electric Force Microscope, Capacitive Coupling and Scanning Magneto-Resistive Probe -- 8. Probing Techniques Based on Light Emission from Chip -- 9. All Silicon Optical Technology for Contactless Testing of Integrated Circuits -- 10. Comparison of Contactless Testing Methodologies.
Sommario/riassunto	This book provides readers with a comprehensive overview of the state-of-the-art in optical contactless probing approaches, in order to fill a gap in the literature on VLSI Testing. The author highlights the inherent difficulties encountered with the mechanical probe and testability design approaches for functional and internal fault testing and shows how contactless testing might resolve many of the challenges associated with conventional mechanical wafer testing. The techniques described in this book address the increasing demands for

internal access of the logic state of a node within a chip under test: Provides a single-source reference on contactless probing approaches for VLSI testing and diagnostic measurement Introduces readers to various optical contactless testing techniques, such as Electro-Optic Probing, Charge Density Probe, and Photo-emissive Probe Discusses the applicability and adaptability of each technique, based on multilayer metallization, wafer level techniques, and invasiveness Provides a comparison among various contactless testing techniques Describes a variety of industrial applications of contactless VLSI testing.