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Titolo	Accelerated quality and reliability solutions [e-book] / Lev M. Klyatis and Eugene L. Klyatis
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Soggetti	Accelerated life testing Electronic books.
Lingua di pubblicazione	Inglese
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Nota di contenuto	ACCURATE PHYSICAL SIMULATION OF FIELD INPUT INFLUENCES ON THE ACTUAL PRODUCT; USEFUL ACCELERATED RELIABILITY TESTING (UART) PERFORMANCE; ACCURATE PREDICTION OF RELIABILITY, DURABILITY, AND MAINTAINABILITY ON THE BASIS OF UART RESULTS; PRACTICAL ACCELERATED QUALITY DEVELOPMENT AND IMPROVEMENT IN DESIGN AND MANUFACTURING; BASIC CONCEPTS OF SAFETY RISK ASSESSMENT
Sommario/riassunto	Drawing of real-world issues and with supporting data from industry, this book overviews the technique and equipment available to engineers and scientists to identify the solutions of the physical essence of engineering problems in simulation, accelerated testing, prediction, quality improvement, and risk during the design, manufacturing, and maintenance stages. For this goal the book integrates Quality Improvement and Accelerated Reliability/ Durability/ Maintainability/Test Engineering concepts. The book includes new and unpublished aspects in quality: - complex analysis of factors that influence product quality, and other quality development and improvement problems during design and manufacturing ; in simulation: - the strategy for development of accurate physical simulation of field input influences on the actual product a system of control for physical simulation of the random input influences a methodology for selecting a representative input region for accurate simulation of the field conditions; in testing: - useful accelerated

reliability testing (UART) accelerated multiple environmental testing technology trends in development of UART technology; in studying climate and reliability; in prediction: - accurate prediction (AP) of reliability, durability, and maintainability - criteria of AP - development of techniques, etc.. The book includes new and effective aspects integration of quality, reliability, and maintainability. Other key features 1.Includes aspects of quality integrated with reliability which can help to solve earlier inaccessible problems during design, manufacturing, and usage. 2.Develops a new approach to improving the engineering culture for solving quality and reliability problems. 3.Enables the accurate prediction of quality, reliability, durability, and maintainability. 4.Proposes strategies for accelerated quality, reliability, durability, and maintainability improvement and development. 5.Combines new techniques with equipment for accurate physical simulation of field situation (mechanical, electrical, multi-environmental, and other influences, as well as human and other factors) for development accelerated testing (including reliability testing) and research. 6. Overviews the latest techniques in physical simulation; accelerated testing; prediction of reliability, durability, and maintainability; quality development and improvement; safety aspects of risk assessment, especially for transportation. 7.Supported by real life examples and industry data. Deals with the latest techniques in physical simulation, accelerated testing, prediction of reliability, durability, maintainability, quality development and safety aspects of risk assessment Provides step-by-step guidance on the accurate prediction of quality factors, the physical simulation of field situations and of accelerated reliability testing Dramatically reduces recalls by solving product improvement problems through the integration of quality development with reliability