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Autore	Lau John H
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Nota di contenuto	Solder Joints in Printed Circuit Board Assembly -- Solder Joints in Advanced Packaging -- Prevailing Lead-Free Materials -- Soldering Processes -- Advanced Specialty Flux Design -- Solder Joint Characterization -- Reliability Tests and Data Analyses of Solder Joints -- Design for Reliability and Failure Analysis of Solder Joints.
Sommario/riassunto	This book focuses on the assembly and reliability of lead-free solder joints. Both the principles and engineering practice are addressed, with more weight placed on the latter. This is achieved by providing in-depth studies on a number of major topics such as solder joints in conventional and advanced packaging components, commonly used lead-free materials, soldering processes, advanced specialty flux designs, characterization of lead-free solder joints, reliability testing and data analyses, design for reliability, and failure analyses for lead-free solder joints. Uniquely, the content not only addresses electronic manufacturing services (EMS) on the second-level interconnects, but also packaging assembly on the first-level interconnects and the semiconductor back-end on the 3D IC integration interconnects. Thus, the book offers an indispensable resource for the complete food chain of electronics products.