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Sommario/riassunto

This book presents a state-of-art and in-depth overview in analog and power WLCSP design, material characterization, reliability, and modeling. Recent advances in analog and power electronic WLCSP packaging are presented based on the development of analog technology and power device integration. The book covers in detail how advances in semiconductor content, analog and power advanced WLCSP design, assembly, materials, and reliability have co-enabled significant advances in fan-in and fan-out with redistributed layer (RDL) of analog and power device capability during recent years. Along with new analog and power WLCSP development, the role of modeling is a key to assure successful package design. An overview of the analog and power WLCSP modeling and typical thermal, electrical, and stress modeling methodologies is also provided. This book also: · Covers the development of wafer-level power discrete packaging with regular wafer-level design concepts and directly bumping technology · Introduces the development of the analog and power SIP/3D/TSV/stack die packaging technology · Presents the wafer-level analog IC packaging design through fan-in and fan-out with RDLs.