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Altri autori (Persone)	MahmoudiReza RoermundArthur H. M. van
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Basic Concepts -- Single and multipath receiver: a system approach -- Two-step beam-forming: multiplexing architecture -- Multiplexing architecture, ideal behavior -- Multiplexing architecture, non-ideal behavior -- Designs for the 30GHz components -- System integration and verification -- Conclusion.
Sommario/riassunto	This book describes a unique approach to smart receiver system design. It starts with the analysis of a very basic, single-path receiver structure, then using similar methods, extends the analysis to a more complicated multi-path receiver. Within the multi-path structure, two different types of phased –array architectures are discussed: Analog beam-forming, and digital beam-forming. The pros and cons are studied, and the gaps are identified. Whereas previous books in this area focus mainly on phased-array circuit implementations, this book fills a gap by providing a system-level approach and introduces new methods for developing smart systems. Enables readers to design a smart phased-array receiver system, using spatial to frequency mapping techniques; Provides a generalized phased-array receiver

simulation that enables analog and digital co-design; Discusses a flexible phased-array structure with both analog and digital beam-forming properties; Describes a real, low-cost integrated solution of the 30GHz phased-array front-end system and verifies its performance.