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X. Steve Yao -- Photonic link techniques for microwave frequency conversion / Stephen A. Pappert, Roger Helkey, and Ronald T. Logan Jr.
-- Antenna-coupled millimeter-wave electro-optical modulators / William B. Bridges -- System design and performance of wideband photonic phased array antennas / Gregory L. Tangonan [and others].

Sommario/riassunto

In many applications, radio frequency (RF) signals need to be transmitted and processed without being digitalized. Optical fiber provides a transmission medium in which RF modulated optical carriers can be transmitted and distributed with very low loss, making it more efficient and less costly than conventional electronic systems. This volume presents a review of RF photonic components, transmission systems, and signal processing examples in optical fibers from leading academic, government, and industry scientists working in this field. It also introduces the reader to various related technologies such as direct modulation of laser sources, external modulation techniques, and detectors. The text is aimed at engineers and scientists engaged in the research and development of optical fibers and analog RF applications. With an emphasis on design, performance and practical application, this book will be of particular interest to those developing systems based on this technology.
