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Collana	Wiley series in microwave and optical engineering Optical filter design and analysis
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Nota di contenuto	Introduction -- Fundamentals of electromagnetic waves and waveguides -- Digital filter concepts for optical filters -- Multi-stage MA architectures -- Multi-stage AR architectures -- Multi-stage ARMA filters -- Optical measurements and filter analysis -- Future directions.
Sommario/riassunto	A Unique, Cutting-Edge Approach to Optical Filter Design With more and more information being transmitted over fiber-optic lines, optical filtering has become crucial to the advanced functionality of today's communications networks. Helping researchers and engineers keep pace with this rapidly evolving technology, this book presents digital processing techniques for optical filter design. This higher-level

approach focuses on filter characteristics and enables readers to quickly calculate the filter response as well as tackle larger and more complex filters. The authors incorporate numerous theoretical and experimental results from the literature and discuss applications to a variety of systems-including the new wavelength division multiplexing (WDM) technology, which is fast becoming the preferred method for system upgrade and expansion. Special features of this book include: The theory underlying various architectures that can approximate any filter function Filter design techniques applicable to a broad range of materials systems-from silica to fiber to microelectromechanical (MEM) systems Design examples relevant to filters for WDM systems and planar waveguide devices 250 figures as well as problem sets for use in graduate-level studies