1.	Record Nr.	UNINA9910830390403321
	Autore	Agrawal G. P (Govind P.), <1951->
	Titolo	Lightwave technology [[electronic resource]] : telecommunication systems / / Govind P. Agrawal
	Pubbl/distr/stampa	Hoboken, N.J., : Wiley-Interscience, c2005
	ISBN	1-280-27740-8
		9786610277407
		0-470-30597-5
		0-471-74140-X
		0-471-74139-6
	Descrizione fisica	1 online resource (479 p.)
	Disciplina	621.382/7
		621.3827
	Soggetti	Optical communications
		Electrooptics
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	LIGHTWAVE TECHNOLOGY; Contents; Preface; 1 Introduction; 1.1 Evolution of Lightwave Systems; 1.2 Components of a Lightwave System; 1.2.1 Optical Transmitters; 1.2.2 Communication Channel; 1.2.3 Optical Receivers; 1.3 Electrical Signals; 1.3.1 Analog and Digital Signals; 1.3.2 Advantages of Digital Format; 1.3.3 Analog to Digital Conversion; 1.4 Channel Multiplexing; 1.4.1 Time-Division Multiplexing; 1.4.2 Frequency-Division Multiplexing; 1.4.3 Code-Division Multiplexing; Problems; References; 2 Optical Signal Generation; 2.1 Modulation Formats; 2.1.1 ASK Format; 2.1.2 PSK Format
		2.1.3 FSK Format2.2 Digital Data Formats; 2.2.1 Nonreturn-to-Zero Format; 2.2.2 Return-to-Zero Format; 2.2.3 Power Spectral Density; 2.3 Bit-Stream Generation; 2.3.1 NRZ Transmitters; 2.3.2 RZ Transmitters; 2.3.3 Modified RZ Transmitters; 2.3.4 DPSK Transmitters and Receivers; 2.4 Transmitter Design; 2.4.1 Coupling Losses and Output Stability; 2.4.2 Wavelength Stability and Tunability; 2.4.3 Monolithic Integation; 2.4.4 Reliability and Packaging; Problems; References; 3 Signal

Sommario/riassunto	The state of the art of modern lightwave system designRecent advances in lightwave technology have led to an explosion of high-speed global information systems throughout the world. Responding to the growth of this exciting new technology, Lightwave Technology provides a comprehensive and up-to-date account of the underlying theory, development, operation, and management of these systems from the perspective of both physics and engineering.The first independent volume of this two-volume set, Components and Devices, deals with the multitude of silica- and semiconductor-based opt