

Optical Code Division Multiple Access: A Practical Perspective. Cambridge University Press, 2014. 9781139867641. Ken-ichi Kitayama. 2014

Code-division multiple access (CDMA) technology has been widely adopted in cell phones. Its astonishing success has led many to evaluate the promise of this technology for optical networks. The book opens with a historical perspective, demonstrating the growth and development of the technologies that would eventually evolve into today's optical networks. Building on this background, the discussion moves to coherent and incoherent optical CDMA coding techniques and performance analysis of these codes in fiber optic transmission systems. Nowadays, many all-optical devices are practical for use in systems applications, and in some are even commercial products. As device technology has matured, so has the field of optical CDMA. 2. INTRODUCTION CDMA: Code Division Multiple Access All users share the same radio frequency at the same time. This approach obviously means that all users interfere with each other Optical fibers : Circular dielectric waveguides that can transport optical energy and information. They have a central core surrounded by a concentric cladding with slightly lower refractive index , transmitter the data by light use LED and Laser diode. A Practical Perspective. Get access. Buy the print book. Check if you have access via personal or institutional login. Log in Register. 'This book delivers more than its title seems to promise. Rather than simply presenting the key principles of Optical Code Division Multiple Access (OCDMA), it also provides a very useful introduction to optical fiber transmission systems.' K. Alan Shore Source: Optics and Photonics. Aa. Code-division multiple access (CDMA) technology has been widely adopted in cell phones. Its astonishing success has led many to evaluate the promise of this technology for optical networks. This field has come to be known as Optical CDMA (OCDMA). The book opens with a historical perspective, demonstrating the growth and development of the technologies that would eventually evolve into today's optical networks. Building on this background, the discussion moves to coherent and incoherent optical CDMA coding techniques and performance analysis of these codes in fiber optic transmission systems.