Record Nr. UNINA9910784711103321 Autore Aviv David G. **Titolo** Laser space communications / / David G. Aviv Pubbl/distr/stampa Boston:,: Artech House,, ©2006 [Piscatagay, New Jersey]:,: IEEE Xplore,, [2006] **ISBN** 1-59693-029-2 Descrizione fisica 1 online resource (212 p.) Artech House space technology and applications series Collana Disciplina 621.382/7 Soggetti Laser communication systems Astronautics - Optical communication systems Artificial satellites in telecommunication 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. Laser Space Communications; Contents vii; Preface xv; 1 Introduction 1; Nota di contenuto 2 The Signal Power Budget for Intersatellite Links and Potential Marsto-Earth Links 15: 3 Acquisition Tracking and Pointing 45: 4 Satellite Downlink Through the Atmosphere 73; 5 Uplink Laser Communication Through the Atmosphere 87: 6 Terrestrial Laser Communication Links and Weather Issues 103; 7 The Fifth-Generation Internet System 123; 8 Passive Reflector Configurations 141; 9 Unique Applications of Laser Communications 165; About the Author 189; Index 191. Laser space communications is a hot topic among electrical engineers Sommario/riassunto working for the government and in the defense industry, and this groundbreaking resource is the first to offer professionals a thorough, practical treatment of the subject. The book focuses on the feasibility of laser space communications between satellites, satellites and airborne platforms, and satellites and ground based stations to achieve worldwide connectivity. It covers all the critical topics that engineers working in the field need to understand such as weather avoidance, 5th

Generation Internet (5-GENIN), and noise.