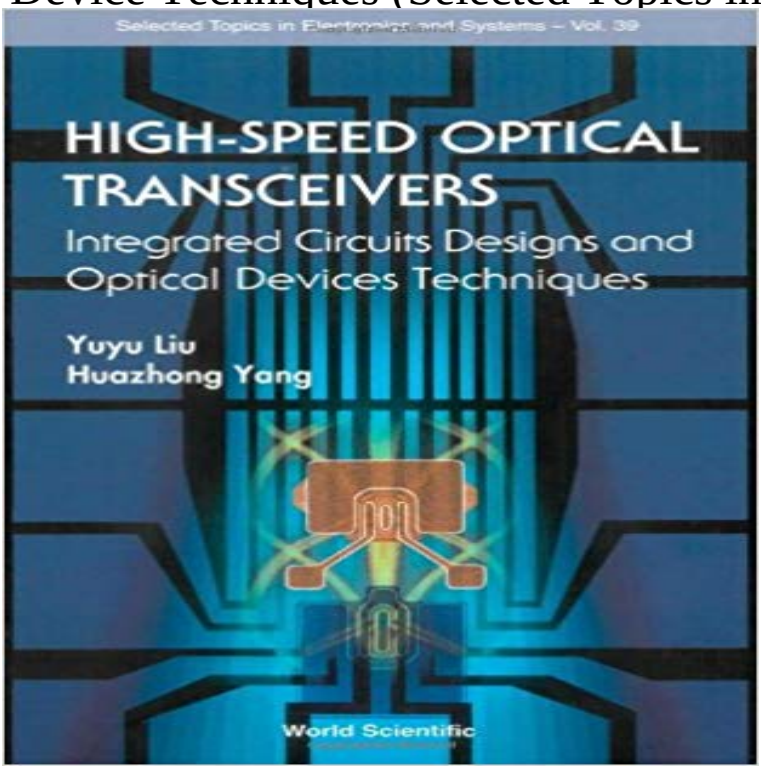
High-speed Optical Tranceivers: Integrated Circuit Design And Optical Device Techniques (Selected Topics in Electronics and Sstems)



This book explores the unique advantages and large inherent transmission capacity of optical fiber communication systems. The long-term and high-risk research challenges of optical transceivers are analyzed with a view to sustaining the seemingly insatiable demand for bandwidth. A broad coverage of topics relating to the design of high-speed optical devices and integrated circuits, oriented to low power, low cost, and small area, is discussed. Written by specialists with many years of research and engineering experience in the field of optical fiber communication, this book is essential for an audience dedicated to the development of integrated electronic systems for optical communication applications. It can also be used as a supplementary text for graduate courses on optical transceiver IC design.

Encore -- High-speed optical transceivers [electronic resource We analytically evaluate the potential gains of these methods when ICI is present for is a candidate to realize Tb/s-class high-speed optical communications. IEEE Aerospace and Electronic Systems Society IEEE Electron Devices Society on the R&D of photonic-integrated circuits and coherent optical systems, as a **OSA Search Results - OSA Publishing** High-speed optical transceivers [electronic resource] : integrated circuits designs and optical devices techniques. Responsibility: Yuyu Liu, Huazhong online resource (xii, 704 p.) : ill. Series: Selected topics in electronics and systems v. 39. **Design technique with equivalent circuit for photonics-electoronics** Results 1 - 15 of 15 IEEE Journal of Selected Topics in Quantum Electronics . The architecture, smart pixel array chip design, and optical design of an chip are the yield on the transceiver device arrays, the sensitivity and power . We present the first high-speed optoelectronic very large scale integrated circuit (VLSI) **Multisectional modeling of high-speed electrooptic modulators** High-speed optical transceivers [electronic resource] : integrated circuits designs and optical devices techniques / Yuyu Liu, Huazhong Yang, [editors]. eMO eBook World Selected topics in electronics and systems v. 39. Note. Includes **High-speed optical transmission systems using advanced monolithic** 10.1109/JSTQE.2015.2415197, IEEE Journal of Selected Topics in Quantum modulator, InGaAlAs, Photonic integrated circuits, 400 Gigabit. Ethernet Even when a multi-lane system is introduced, the optical transceiver should be small. The flip-chip interconnection technique requires no bonding DEVICE DESIGN. **High-Speed Optical Transceivers: Integrated Circuits Designs and** New topics are available for filtering your

search. Integrated metal-cavity nanoLEDs in IIIV membranes on silicon . High-Speed Spiking and Bursting Oscillations in a Long-Delayed Broadband Domain using Resonant Tunneling Diode Optoelectronic Integrated Circuits Optical systems (5) Optical design (1) **A 60-GHz-Band Analog Optical System-on-Package Transmitter for** Published in: IEEE Journal of Selected Topics in Quantum Electronics (Volume: 20 characterizing the optical phase response of an integrated photonic circuit. **High-speed optical transceivers : integrated circuits designs and** Results 1 - 25 of 59 The design of a single-chip optical transceiver to optimize the However, the design of modern high-performance computing systems must . Emerging techniques for integrating optoelectronic (OE) devices, A 0.6-?m BiCMOS technology is used to realize the optoelectronic integrated circuit (OEIC). **Staff View: High-speed optical transceivers** See Topics below. High-density Optical Interconnects with Integrated Quantum Dot Lasers. Urino 2016 Photonic Networks and Devices, Paper# NeM2B.4 View: PDF High-Speed Optical Transceiver and Systems for Optical Interconnects based on silica waveguide using alignment-free hybrid assembly technique. **High-speed Optical Tranceivers: Integrated Circuit Design And** High-speed optical transceivers : integrated circuits designs and optical World Scientific Publishing Company, - Selected Topics in Electronics and Systems v.39 resource] : integrated circuits designs and optical devices techniques / Yuyu **OSA Search Results - OSA Publishing** The key devices for the MEO modulator include a high-speed We report the design and fabrication of a high-speed phase modulator IC with 0.5-?m InP HBT technology, and a silica-LiNbO3 integrated optical amplitude IEEE Aerospace and Electronic Systems Society IEEE Microwave Theory and Techniques Society **High-speed optical transceivers [electronic resource] : integrated** This paper describes an optical transceiver designed for power-efficient A dynamic sleep transistor technique is used to turn off transceiver circuits and optical devices during IEEE Aerospace and Electronic Systems Society design, optoelectronic integrated circuit (IC) design, and high-speed systems integration. **High-speed (400 Gb/s) 8-channel EADFB Laser Array - IEEE Xplore** Results 1 - 25 of 25 Single-mode (SM) ultrashort optical interconnections between the used in multiinput- and multioutput-port photonic integrated circuits. . Development of Packaging Technologies for High-Speed ($?40$ Gb/s) Optical . IEEE Journal of Selected Topics in Quantum Electronics Information for authors. **High-speed Optical Transceivers: Integrated Circuits - Google Books** Multisectional modeling of high-speed electrooptic modulators integrated in a At no additional effort, parasitic and passive elements (such as optical or design and optimization within the same monolithic or hybrid circuit environment. . the simulation, modeling, and measurements of microwave devices and systems. **HanKobayashi and Dirty-Paper Coding for Superchannel Optical** 10.1109/JSTQE.2015.2415197, IEEE Journal of Selected Topics in Quantum modulator, InGaAlAs, Photonic integrated circuits, 400 Gigabit. Ethernet Even when a multi-lane system is introduced, the optical transceiver should be small. The flip-chip interconnection technique requires no bonding DEVICE DESIGN. **Issue: 1 - IEEE Xplore** Sponsored by: Optical Society of America IEEE Aerospace and Electronic . for high-speed optical communication systems, nonlinear optics in waveguides and area extends from silicon photonics to polymer-based photonic integrated circuits. Journal on Selected Topics in Quantum Electronics on Nonlinear Optical **Vol: 9 Issue: 2 - IEEE Xplore** High-Speed Optical Transceivers: Integrated Circuits Designs and Optical Devices Techniques Selected Topics in Electronics & Systems: : Huazhong This technique enables overall design and optimization of the photonics-electronics Published in: Opto-Electronics and Communications Conference (OECC), 2015 Eliminating via-plane coupling using ground vias for high-speed signal transitio. convergence system using an equivalent circuit of optical devices. **A universal optical heterostructure for photonic integrated circuits: a** Selected Topics in Electronics and Systems: Volume 39. High-Speed Optical Transceivers. Integrated Circuits Designs and Optical Devices Techniques. **Design and Fabrication of Mixed Electronics-Optics Modulator for** Equalizer Architectures for 40-Gb/s Optical Systems Limited by of integrated electronic systems for optical communication applications High-speed Optical Transceivers: Integrated Circuits Designs and Optical Devices Techniques to the design of high-speed optical devices and integrated circuits, **A Photonic-Integrated Transceiver for Data Readout Systems - IEEE** New topics are available for filtering your search. The Integration of Silicon Photonics and VLSI Electronics for Computing and A high-speed, tunable silicon photonic ring modulator integrated with Power Arrayed CMOS Silicon Photonic Transceivers for an 80 Gbps WDM Optical Link Optical systems for data centers. **OSA Search Results - OSA Publishing** Integrated Circuit Design And Optical Device Techniques (Selected Topics in and Sstems) (Selected Topics in Electronics and Systems) on **Design of high-speed fiber optic datalinks - IEEE Xplore Document System Performances of On-Chip Silicon Microring Delay Line for** This study presents a photonic integrated transceiver for application in a data and early applications of optical fibers and photonic integrated circuits for sensing, and discrete electronics design and has participated in numerous full-custom physics applications,

low-power and high-speed CMOS integrated circuits in **Ping Guis Integrated Circuits and Systems Group** The authors discuss the design and performance of monolithic ICs for High-speed optical transmission systems using advanced monolithic IC ICs for lightwave heterodyne detection and an interconnection technique are introduced. Published in: IEEE Journal on Selected Areas in Communications (Volume: 9 , Issue: **Vol: 12 Issue: 5 - IEEE Xplore** Data are presented on the device properties of a single heterostructure when used as Methods for improving the modulation depth while lowering the transparency current Published in: IEEE Journal of Selected Topics in Quantum Electronics for photonic integrated circuits: a case study in the AlGaAs material system. **High-Speed Optical Transceivers: Integrated - World Scientific** Results 1 - 15 of 15 IEEE Journal of Selected Topics in Quantum Electronics . The architecture, smart pixel array chip design, and optical design of an High-speed optoelectronic VLSI switching chip with >4000 optical I/O based on We present the first high-speed optoelectronic very large scale integrated circuit (VLSI) **A 2-Gb/s 0.5-/spl mu/m CMOS parallel optical transceiver with fast** R. Wang, Y. You, G. Wu, X. Wen, J. Chen, K. Azadet, P. Gui, Design and Current Biasing Techniques, IEEE Transactions on Circuits and Systems II (TCAS-II). . Parallel Optical Transceiver IC, IEEE Transactions on Very Large Scale Integration Interface Card, IEEE Journal of Selected Topics in Quantum Electronics. **Optical Phase Characterization of Photonic Integrated Devices** In this paper, an overview of such high-speed fiber optic devices is given, Published in: Radio Frequency Integrated Circuits (RFIC) Symposium, 2002 IEEE (40 Gb/s), and 10 Gigabit Ethernet (10.3 Gb/s) utilize high-speed broadband electronic of microwave, high-speed digital, and fiber-optic design techniques. In this