1. Record Nr. UNINA9910878991203321 Autore D'heer Carl **Titolo** THz and Sub-THz CMOS Electronics for High-Speed Telecommunication : Architectures and Circuits for Future 6G Transceivers / / by Carl D' heer, Patrick Reynaert Cham:,: Springer Nature Switzerland:,: Imprint: Springer., 2024 Pubbl/distr/stampa **ISBN** 3-031-64439-5 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (417 pages) Collana Analog Circuits and Signal Processing, , 2197-1854 Disciplina 621.3815 Soggetti **Telecommunication** Electronic circuit design Wireless communication systems Mobile communication systems Microwaves, RF Engineering and Optical Communications Electronics Design and Verification Wireless and Mobile Communication Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter 1. Introduction -- Chapter 2. Fundamentals of Telecommunication -- Chapter 3. Basic Electronics and Components --Chapter 4. High-Frequency Circuit Design -- Chapter 5. System-Level Considerations -- Chapter 6. A High-Speed 390GHz BPOOK Transmitter -- Chapter 7. A 135GHz Direct-Digital 16-QAM Wireless and DWG Link -- Chapter 8. Conclusion. This book provides a complete overview of high-speed circuit design Sommario/riassunto for high-speed telecommunication above 100GHz. Covering everything from telecom and electronics fundamentals to system-level modeling, detailed circuit design, and in-depth performance analysis, this book lends itself as the perfect design guide and reference work for beginner and experienced telecommunication circuit designers alike. Provides extensive coverage of the basics of telecommunication & fundamentals of electronic circuit design; Describes practical methodology and design guidelines for broadband CMOS circuits above 100GHz; Uses

insightful system-level modeling with a link to practical system and