1. Record Nr. UNINA9910373905503321 Autore Abbas Karim Titolo Handbook of Digital CMOS Technology, Circuits, and Systems / / by Karim Abbas Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2020 **ISBN** 3-030-37195-6 Edizione [1st ed. 2020.] 1 online resource (XXVIII, 635 p. 813 illus., 369 illus. in color.) Descrizione fisica 621.395 Disciplina 621.3815 Electronic circuits Soggetti **Electronics** Microelectronics Microprocessors Circuits and Systems Electronics and Microelectronics, Instrumentation **Processor Architectures** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Introduction -- Devices -- Ratioed logic -- CMOS -- Logical effort --Dynamic logic -- Pipelines -- CMOS Process -- Design Flow -- HDL --Scaling -- Arithmetic -- Memories -- Wires & Clocks -- Testing --Glossary. Sommario/riassunto This book provides a comprehensive reference for everything that has to do with digital circuits. The author focuses equally on all levels of abstraction. He tells a bottom-up story from the physics level to the finished product level. The aim is to provide a full account of the experience of designing, fabricating, understanding, and testing a microchip. The content is structured to be very accessible and self-

contained, allowing readers with diverse backgrounds to read as much

mathematics and physics, the book makes no assumptions about prior knowledge. This allows someone new to the field to read the book from

or as little of the book as needed. Beyond a basic foundation of

the beginning. It also means that someone using the book as a

reference will be able to answer their questions without referring to any external sources.