

NM6003 System-on-Chip Solutions & Architecture

Basics of CMOS integrated circuits from a system's perspective. From MOSFET transistor to realization of combinational / sequential logic. Finite state machines (FSM), SRAM, DRAM, FLASH, FPGA, CPU core building blocks. Packaging and i/o technology. IC design methodologies. Standard cell, custom, platform SoC, System modeling. Projection of IC technology scaling and implementation alternatives. Integrated system solutions in internetworking and communications. SONET/SDH transport framers and digital cross connects. Ethernet LAN/ATM SAN switches. Control point processors and communication controllers. Network processors.