



AK Tech Training and Placements

Transform Dreams into Reality

45nm CMOS 4-Bit Flash Analog to Digital Converter

In this project, a 4-bit flash ADC is designed using CMOS 45nm technology. Signal processing and communication systems are widely dependent on the Analog to Digital Converters (ADC). Operational amplifier design, which remains as the integral part of ADC is also discussed. To enable an improved performance of the ADC, the operational amplifier is designed with a frequency range 5MHz along with an operating voltage of 2.5 which produces a thermometer code. Finally the thermometer encoder circuit is used to convert the thermometer code to binary output. All the designs are implemented using 45nm technology in Cadence Virtuoso

Domain: Back End Domains / Cadence EDA

Technology: VLSI