Abstract

This paper concerns the design of Flash type of Analog to Digital Converter (ADC) which is more likely to be used for high quality audio and video signals. It uses resistor ladder logic, comparator and encoder to convert the continuous input signal into binary form. Comparator, encoder circuits are designed using CMOS technology and its output response is obtained to meet the requirements. Comparators form the main element to design Flash ADC. Different
architectures of comparators are designed to build 4 bit Flash ADC. Dynamic characteristics of the converter are analyzed and its performance is compared with different comparator architecture. Design of these circuit use gpdk 180nm technology in cadence tool and simulated using SPECTRE.

References

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Performance Analysis of 4-bit Flash ADC with Different Comparators Designed in 0.18um Technology

Index Terms
Computer Science
Network Application

Keywords
Flash ADC  CMOS Comparator  Open Loop Comparator  Latched Comparator