DESIGN CONSTRUCTION AND TESTING OF A FLASH ANALOG TO DIGITAL CONVERTER

Project report submitted by
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ABSTRACT

TITLE : FLASH CONVERTER
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The purpose of this project is to design, construct and test a flash type A/D (analog to digital) converter.

This project also explains the principle of operation of digital to analog conversion , introduces some digital to analog converters as well some other analog to digital converters.

Based on the block diagram of the flash converter and its principle of operation the appropriate circuit was designed , constructed and tested according to some conditions which must be fulfilled.

These conditions are as follows:

1.THE PURPOSE OF THE PROJECT IS TO DEMONSTRATE THE PRINCIPLE OF OPERATION (GOOD ACCURACY IS NOT NEEDED)

2.THE CONVERTER WILL USE AT LEAST 10 COMPARATORS

3.AN EPROM WILL BE USED TO CONVERT THE OUTPUTS OF THE COMPARATORS INT BCD NUMBERS

4.THE CONVERTER WILL UTILIZE 7-SEGMENT DISPLAY

The circuit was designed by examining each block separately according to its operation and requirements, and can perform an A/D conversion from 0 - 9 volts.

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