

Experiment 8

OpAmp Analog to Digital & Digital to Analog converters

1. 2 Bit Flash Type Analog to Digital Converter

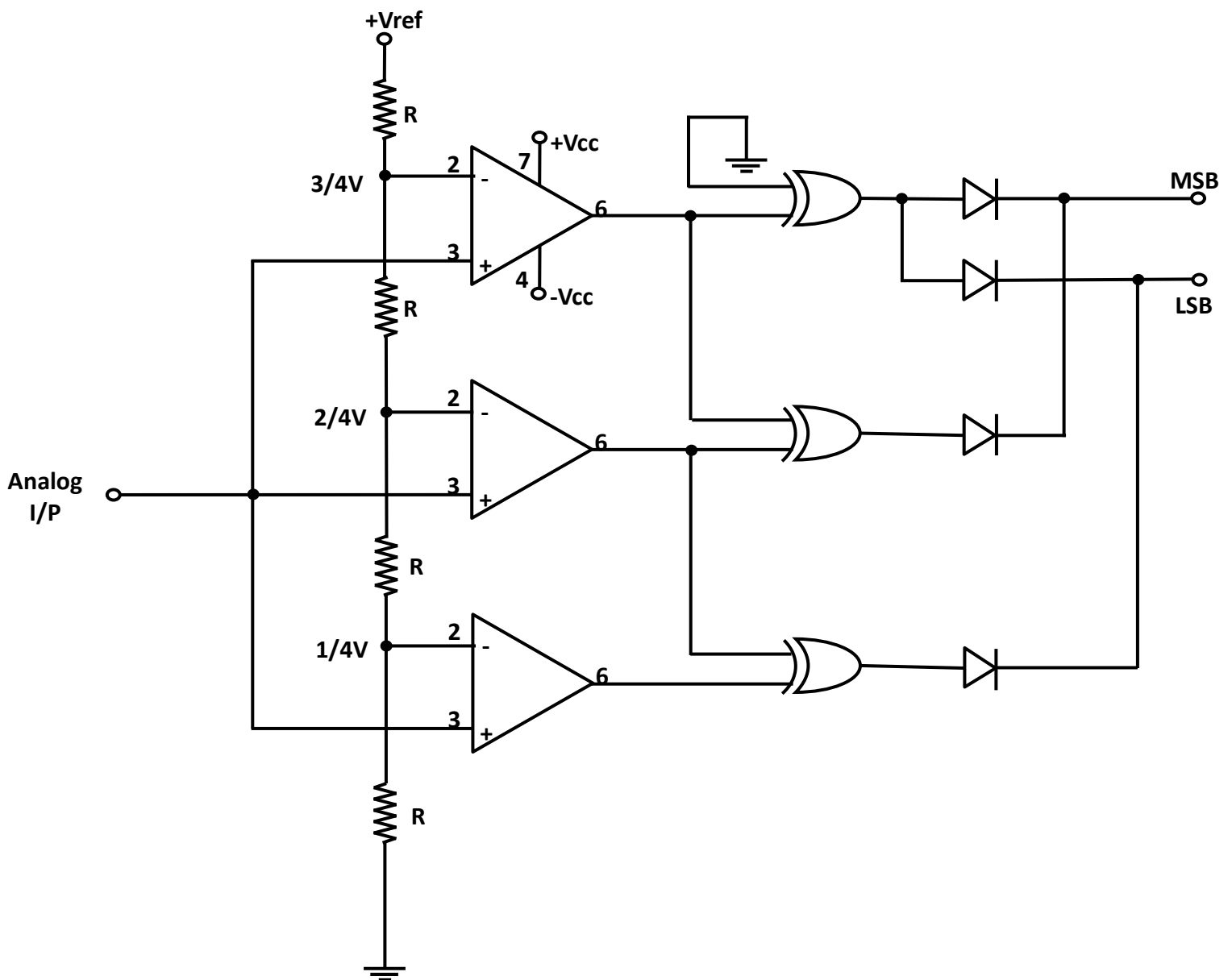


Fig 8.1: 2 Bit Flash Type Analog to Digital Converter Circuit

2. R – 2R Ladder 3 Bit Digital to Analog Converter

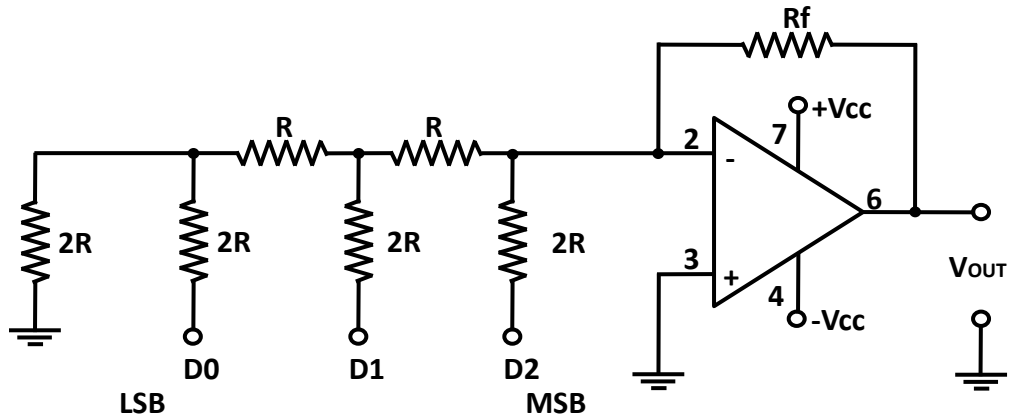


Fig 8.3: R – 2R Ladder 3 Bit Digital to Analog Converter Circuit.

Digital to Analog Output Voltage Equation

$$= -\frac{R_f}{R} \left[\frac{1}{2} D_2 + \frac{1}{4} D_1 + \frac{1}{8} D_0 \right]$$

Sl No	D2	D1	D0	V Th	V Pr
1	0	0	0		
2	0	0	1		
3	0	1	0		
4	0	1	1		
5	1	0	0		
6	1	0	1		
7	1	1	0		
8	1	1	1		

Fig 8.2: Table of Analog to Digital Converter.