170050068 170050074 170050083 170050093 170050102

The Designers

Assignment 2 Report

COMPONENTS:

16 bit comparator, 16 bit even parity, (6 by 3) multiplexer, 1 bit full adder, 8 bit priority encoder

DESCRIPTION:

INPUT : (x) := 38 bit bus and (Sel) := 3 bit bus
OUTPUT : (O2) := 4 bit bus and (O1) := 1 bit binary.

16 bit Even Parity : 15 XOR gates and 1 NOT gate.
1 bit Full adder : 2 XOR gates, 2 AND gates and 1 OR gate
8 bit Priority Encoder : 11 OR gates, 4 AND gates and 4 NOT gates
16 bit comparator : 287 AND gates, 46 OR gates and 64 NOT gates
6 by 3 multiplexer : 15 AND gates, 5 OR gates and 3 NOT gates