



Circuit Simulation Project

https://esim.fossee.in/circuit-simulation-project

Name of the participant: Ashutosh Gupta

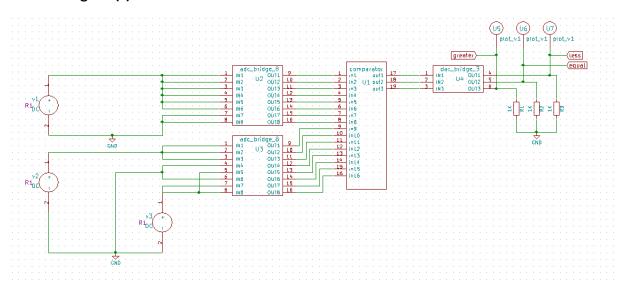
Title of the circuit: 8 bit comparator

Theory/Description:

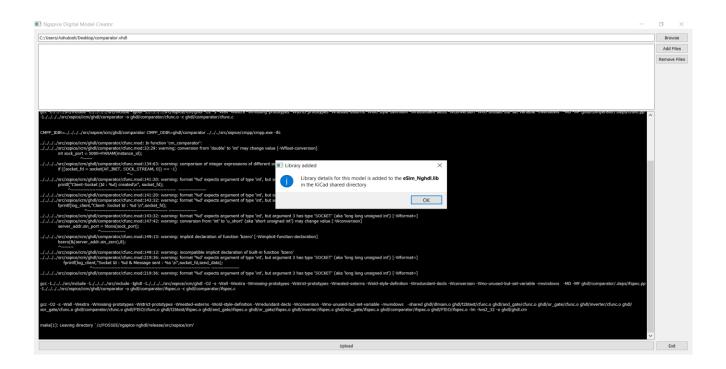
A digital comparator or magnitude comparator is a hardware electronic device that takes two numbers as input in binary form and determines whether one number is greater than, less than or equal to the other number. Comparators are used in central processing unit (CPUs) and microcontrollers (MCUs).

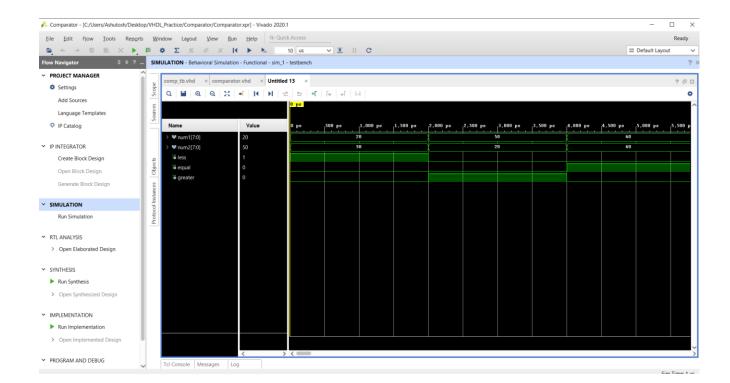
| Inputs | Less | Greater | Equal |
|-------------|------|---------|-------|
| Num1 < Num2 | 1 | 0 | 0 |
| Num1 > Num2 | 0 | 1 | 0 |
| Num1 = Num2 | 0 | 0 | 1 |

Circuit Diagram(s):



Results (Input, Output waveforms and/or Multimeter readings):





Source/Reference(s):

https://en.wikipedia.org/wiki/Digital comparator

https://www.electrical4u.com/digital-comparator/