2024 Digital IC Design Homework 1

|  |  |  |  |
| --- | --- | --- | --- |
| NAME |  | | |
| Student ID |  | | |
| **Functional Simulation Result** | | | |
| **Stage 1 Pass** | | **Stage 2 Pass** | **Stage 3 Pass** |
| **Stage 1** | | | |
|  | | | |
| **Stage 2** | | | |
|  | | | |
| **Stage 3** | | | |
|  | | | |
| **Description of your design** | | | |
| **設計圖如上**  **分成ALU.v、Q comparator.v、MAS\_2input.v:**  **ALU.v:**  **IO:**    Sel == 2'b00, Tmp = Din1 + Din2;  Sel == 2'b11, Tmp = Din1 - Din2;  Sel == others, Tmp = Din1;  **Q comparator.v:**  **IO:**    assign Tmp[0] = (Din >= 0); assign Tmp[1] = (Din >= Q);  **MAS\_2input:**  根據圖接線，w1為 TDout、Q Comparator的 Din; w2為 ALU 的 SEL; w3 是ALU Output，最後discard w3 的 MSB並輸出。 | | | |