|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test** | **ALUControl[1:0]** | **A** | **B** | **Y** | **ALUFlags** |
| ADD 0+0 | 0 | 00000000 | 00000000 | 00000000 | 4 |
| ADD 0+(-1) | 0 | 00000000 | FFFFFFFF | FFFFFFFF | 8 |
| ADD 1+(-1) | 0 | 00000001 | FFFFFFFF | 00000000 | 6 |
| ADD FF+1 | 0 | 000000FF | 00000001 | 000000100 | 0 |
| SUB 0-0 | 1 | 00000000 | 00000000 | 00000000 | 6 |
| SUB 0-(-1) | 1 | 00000000 | FFFFFFFF | 00000001 | 0 |
| SUB 1-1 | 1 | 00000001 | 00000001 | 00000000 | 6 |
| SUB 100-1 | 1 | 00000100 | 00000001 | 000000FF | 2 |
| AND FFFFFFFF, FFFFFFFF | 2’b10 | FFFFFFFF | FFFFFFFF | FFFFFFFF | 8 |
| AND FFFFFFFF, 12345678 | 2’b10 | FFFFFFFF | 12345678 | 12345678 | 0 |
| AND 12345678, 87654321 | 2’b10 | 12345678 | 87654321 | 02244220 | 0 |
| AND 00000000, FFFFFFFF | 2’b10 | 00000000 | FFFFFFFF | 00000000 | 4 |
| OR FFFFFFFF, FFFFFFFF | 2’b11 | FFFFFFFF | FFFFFFFF | FFFFFFFF | 8 |
| OR 12345678, 87654321 | 2’b11 | 12345678 | 87654321 | 97755779 | 8 |
| OR 00000000, FFFFFFFF | 2’b11 | 00000000 | FFFFFFFF | FFFFFFFF | 8 |
| OR 00000000, 00000000 | 2’b11 | 00000000 | 00000000 | 00000000 | 4 |