|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Cases | B | S1 | S0 | Y |
| A | 0/1 | 0 | 0 | 0/0 |
| B | 0/1 | 0 | 1 | 0/1 |
| C | 0/1 | 1 | 0 | 1/0 |
| D | 0/1 | 1 | 1 | 1/1 |

The single bit B logic uses the inputs S1 and S0 to determine if the output is 0, B, the 1’s complement of B or 1. This is used to make the 32 bit B Logic which follows the same logic.