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Minilab 2 Report

In the testbench for minilab two, the method utilized is somewhat trivial.

At the start, the bench tests that the active low reset functions properly. Since there is no accounting for overflow in the operation of Ain and Bin, the test bench first tests that the tpumac module properly sums up the value $Ain * Bin + Cout$ when the WrEn is not asserted and when en is also asserted. This bench also tests that when WrEn is asserted the value is Cin is passed onto Cout and that the module holds the same value when the en is low.

The last thing that the bench tests is that the module can perform passing the value of Cin to Cout and the operation $Ain * Bin + Cout$ when all the bits being used, as well as the signed operations.