

DUT specification

General test specification:

- completely test MULT functionality
- execute all lines of MULT code.

Detailed test specification:

A. Operations and sequences:

1. Check the result when data and parity values are valid for both inputs.
2. Check the result when input parity value is valid for A input and invalid for B input.
3. Check the result when input parity value is valid for B input and invalid for A input.
4. Check the result when input parity is invalid for both inputs.
5. Check if result_ready is set when MULT data is returned.
6. Check if MULT data is ready for one clock cycle.

B. Specific data corners:

1. Simulate all zeros on an input.
2. Simulate value -1 on an input.
3. Simulate value 1 on an input.
4. Simulate max value on an input.
5. Simulate min value on an input.