

# tb\_axis.v

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## AUTHORS

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## DATES

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2024/12/11

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## INFORMATION

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### Brief

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Test bench for axis\_moving\_average using axis stim and clock stim.

### License MIT

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## tb\_axis

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```
module tb_axis
```

Test bench for axis\_moving\_average. This will run a file through the system and write its output. These can then be compared to check for errors. If the files are identical, no errors. A FST file will be written.

## INSTANTIATED MODULES

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### clk\_stim

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```

clk_stimulus #(
    CLOCKS(1),
    CLOCK_BASE(1000000),
    CLOCK_INC(1000),
    RESETS(1),
    RESET_BASE(2000),
    RESET_INC(100)
) clk_stim ( .clkv(tb_stim_clk), .rstnv(tb_stim_rstn), .rstv() )

```

Generate a 50/50 duty cycle set of clocks and reset.

## slave\_axis\_stim

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```

slave_axis_stimulus #(
    BUS_WIDTH(BUS_WIDTH),
    USER_WIDTH(USER_WIDTH),
    DEST_WIDTH(DEST_WIDTH),
    FILE("random.bin")
) slave_axis_stim ( .m_axis_aclk(tb_stim_clk), .m_axis_arstn(tb_stim_rstn),

```

Device under test SLAVE stimulus module.

## dut

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```

axis_moving_average #(
    BUS_WIDTH(BUS_WIDTH),
    WEIGHT(8)
) dut ( .aclk(tb_stim_clk), .arstn(tb_stim_rstn), .m_axis_tdata(tb_dut_data)

```

Device under test, axis\_moving\_average

## slave\_axis\_stim

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Device under test SLAVE stimulus module.