tb_axis.v

AUTHORS

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DATES

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INFORMATION

Brief

Test bench for axis_moving_average using axis stim and clock stim.

License MIT

tb_axis

```
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

clk_stim

```
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

```
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

```
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

Device under test SLAVE stimulus module.