

tb_cocotb.v

AUTHORS

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DATES

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INFORMATION

Brief

Test bench wrapper for cocotb

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tb_cocotb

```
module tb_cocotb #(
  parameter
    FIFO_DEPTH
    =
    4,
  parameter
    BUS_WIDTH
    =
    8
) ( input aclk, input arstn, output [(BUS_WIDTH*8)-1:0] m_axis_tdata, output
```

Test bench for axis_tiny_fifo. 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.

Parameters

FIFO_DEPTH <small>parameter</small>	Number of transactions to buffer.
BUS_WIDTH <small>parameter</small>	Number of bytes for tdata width.

Ports

aclk	Clock for AXIS
arstn	Negative reset for AXIS
m_axis_tdata	Output data
m_axis_tvalid	When active high the output data is valid
m_axis_tlast	Indicates last word in stream.
m_axis_tready	When set active high the output device is ready for data.
s_axis_tdata	Input data
s_axis_tvalid	When set active high the input data is valid
s_axis_tlast	Is this the last word in the stream (active high).
s_axis_tready	When active high the device is ready for input data.

INSTANTIATED MODULES

dut

```
axis_tiny_fifo #(
    FIFO_DEPTH(FIFO_DEPTH),
    BUS_WIDTH(BUS_WIDTH)
) dut ( .aclk(aclk), .arstn(arstn), .s_axis_tvalid(s_axis_tvalid), .s_axis_tlast(s_axis_tlast), .m_axis_tdata(m_axis_tdata), .m_axis_tvalid(m_axis_tvalid), .m_axis_tlast(m_axis_tlast), .m_axis_tready(m_axis_tready), .s_axis_tdata(s_axis_tdata), .s_axis_tvalid(s_axis_tvalid), .s_axis_tlast(s_axis_tlast), .s_axis_tready(s_axis_tready) );
```

Device under test, axis_tiny_fifo