

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
  DELIMITER
  =
  " , "
  parameter
  TERMINATION
  =
  "\n"
  parameter
  STRING_LEN
  =
  4,
  parameter
```

```

    MBUS_WIDTH
    =
    1,
    parameter
    USER_WIDTH
    =
    4,
    parameter
    DEST_WIDTH
    =
    4,
    parameter
    PREFIX_LEN
    =
    1,
    parameter
    DATA_PREFIX
    =
    "#",
    parameter
    DEST_PREFIX
    =
    "&",
    parameter
    USER_PREFIX
    =
    "+",
    parameter
    KEYWORD_LEN
    =
    3,
    parameter
    SET_KEYWORD
    =
    "set",
    parameter
    CLR_KEYWORD
    =
    "clr"
) ( input aclk, input arstn, output [(MBUS_WIDTH*8)-1:0] m_axis_tdata, output

```

Test bench for string to data converter. 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

DELIMITER parameter	break value between multiple strings
TERMINATION parameter	termination value of full string from serial port, byte only. (\n = 0A \r = 0D).
STRING_LEN parameter	max lenth of string including delimiter
MBUS_WIDTH parameter	bus width of master (data) output
USER_WIDTH parameter	user width of master bus, only in 4 bit nibbles, and at least 4 bits.
DEST_WIDTH parameter	dest width of master bus, only in 4 bit nibbles, and at least 4 bits.
PREFIX_LEN parameter	length of following prefix strings in bytes.
DATA_PREFIX parameter	prefix for data hex strings

parameterparameterparameterparameterparameter

Ports

arctn

III_axis_data

m_axis_tuser

m. ovic. treedys_axis_tdata

s_axis_tready

INSTANTIATED MODULES

dut

```
axis_string_to_axis_data #(
    DELIMITER(DELIMITER),
    TERMINATION(TERMINATION),
    STRING_LEN(STRING_LEN),
    MBUS_WIDTH(MBUS_WIDTH),
    USER_WIDTH(USER_WIDTH),
    DEST_WIDTH(DEST_WIDTH),
    PREFIX_LEN(PREFIX_LEN),
    DATA_PREFIX(DATA_PREFIX),
    DEST_PREFIX(DEST_PREFIX),
    USER_PREFIX(USER_PREFIX),
    KEYWORD_LEN(KEYWORD_LEN),
    SET_KEYWORD(SET_KEYWORD),
    CLR_KEYWORD(CLR_KEYWORD)
) dut ( .aclk(aclk), .arstn(arstn), .m_axis_tdata(m_axis_tdata), .m_axis_tvd
```

Device under test, axis_string_to_axis_data