

axis_string_to_axis_data.v

AUTHORS

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DATES

2022/09/19

INFORMATION

Brief

Take input string data and process it into tuser/tdata output.

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axis_string_to_axis_data

```
module axis_string_to_axis_data #(
  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

```

Parse raw binary data into ASCII string output.

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	length of following prefix strings in bytes.

parameter

DATA_PREFIX prefix for data hex strings

parameter

DEST_PREFIX prefix for destination hex strings

parameter

USER_PREFIX prefix for user hex strings

parameter

KEYWORD_LEN length of the following keywords

parameter

SET_KEYWORD keyword to output data over tdata,tuser,tdest on master interface.

parameter

CLR_KEYWORD keyword to clear output data and buffers of master interface.

parameter

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_tuser Output user data

m_axis_tdest Output destination data

m_axis_tready When set active high the output device is ready for data.

s_axis_tdata Input string data

s_axis_tvalid When set active high the input data is valid

s_axis_tready When active high the device is ready for input data.