

axis_string_to_axis_data.v

AUTHORS

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DATES

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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

```

Convert string data to raw binary data for axis bus.

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 length 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
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.