axis uart rx.v

AUTHORS

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DATES

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INFORMATION

Brief

UART RX to AXIS bus.

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axis_uart_rx

```
module axis_uart_rx #(
parameter
PARITY_ENA
=
0,
parameter
PARITY_TYPE
=
0,
parameter
STOP_BITS
=
1,
parameter
```

```
DATA_BITS

=
8,
parameter
DELAY

=
0
) ( input aclk, input arstn, output parity_err, output frame_err, output [DATA_BITS]
```

AXIS UART, simple UART with AXI Streaming interface.

Parameters

PARITY_ENA Enable Parity for the data in and out.

parameter

PARITY_TYPE Set the parity type, 0 = even, 1 = odd, 2 = mark, 3 = space.

parameter

STOP_BITS Number of stop bits, 0 to crazy non-standard amounts.

parameter

DATA_BITS Number of data bits, 1 to crazy non-standard amounts.

parameter

DELAY Delay in rx data input.

parameter

Ports

aclk Clock for AXIS

arstn Negative reset for AXIS

parity_err Indicates error with parity check (active high)
frame_err Indicates error with frame (active high)

m_axis_tdata Output data from UART RX

m_axis_tvalid When active high the output data is valid

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

uart_clk Clock used for BAUD rate generation

uart_rstn Negative reset for UART, for anything clocked on uart_clk

uart_ena Enable UART data processing from RX.

uart_hold Output to hold back clock in reset state till uart is in receive state.

rxd receive for UART (input from TX)