

dc_block_ram.v

AUTHORS

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DATES

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INFORMATION

Brief

Generic Dual Port RAM

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dc_block_ram

```
module dc_block_ram #(
  parameter
  RAM_DEPTH
  =
  1,
  parameter
  BYTE_WIDTH
  =
  1,
  parameter
  ADDR_WIDTH
  =
  1,
  parameter
```

```

    HEX_FILE
    =
    ""
    parameter
    RAM_TYPE
    =
    "block"
) ( input rd_clk, input rd_rstn, input rd_en, output [(BYTE_WIDTH*8)-1:0]

```

Generic Dual Port RAM

Parameters

RAM_DEPTH <i>parameter</i>	Number of words using the size of BYTE_WIDTH.
BYTE_WIDTH <i>parameter</i>	Width of the data bus in bytes.
ADDR_WIDTH <i>parameter</i>	Width of the address bus in bits.
HEX_FILE <i>parameter</i>	Read a hex value text file as the initial state of the RAM.
RAM_TYPE <i>parameter</i>	Used to set the ram_style attribute.

Ports

rd_clk	Read clock positive edge
rd_rstn	Read reset active low
rd_en	Read enable active high
rd_data	Read data output
rd_addr	Read data address select
wr_clk	Write clock positive edge
wr_rstn	Write reset active low
wr_en	Write enable active high
wr_ben	Write byte enable, each bit represents one byte of write data.
wr_data	Write data input
wr_addr	Write data address select