

GN4124 core DMA Controller

Wishbone Bus

wb_clk_i
wb_rst_i
wb_adr_o()
wb_dat_i(31:0)
wb_dat_o(31:0)
wb_cyc_o
wb_sel_o(3:0)
wb_stb_o
wb_we_o
wb_ack_i

Wishbone Slave (Wbgen2)

REGISTERS

DMACTRLR

DMASTATR

DMACSTARTR

DMAHSTARTLR

DMAHSTARTHR

DMALENR

DMANEXTLR

DMANEXTHR

DMAATTRIBR

from P2L DMA Master (PDM)

next_item_carrier_addr_i
next_item_host_addr_l_i
next_item_host_addr_h_i
next_item_len_i
next_item_next_l_i
next_item_next_h_i
next_item_attri_i
next_item_valid_i

to DMA masters

dma_ctrl_carrier_addr_o
dma_ctrl_host_addr_l_o
dma_ctrl_host_addr_h_o
dma_ctrl_len_o
dma_ctrl_byte_swap_o

dma_ctrl_start_l2p_o
dma_ctrl_start_p2l_o
dma_ctrl_start_next_o
dma_ctrl_abort_o
dma_ctrl_done_i
dma_ctrl_error_i

Sequencer (state machine)

DMA_IRQ_o

sys_clk_i

sys_rst_i