fp_wrapper

fpnew_top

fpnew_top

fpnew_opgroup_block

fpunew_opgroup_fmt_slice_block

Inputs:
- clk_i
- rst_ni
- opreands_i
- is_boxed_i
- rnd_mode_i
- op_i
- op_mod_i
- op_mod_i
- vectorial_op_i
- vectorial_op_i
- tag_i
- simd_mask_i
- in_valid_i
- flush_i
- out_ready_i
- reg_ena_i

Outputs:
- in_ready_o
- result_o
- status_o
- extension_bit_o
- tag_o
- out_valid_o
- busy_o

fpnew_opgroup_multifmt_slide_block

Inputs:
- is_boxed_i
- opreands_i
- rst_ni
- op_mod_i
- src_fmt_i
- dst_fmt_i
- int_fmt_i
- vectorial_op_i
- tag_i
- simd_mask_i
- in_valid_i
- flush_i
- out_ready_i
- reg_ena_i
- rnd_mode_i
- clk_i
- op_i

Outputs:
- in_ready_o
- result_o
- status_o
- extension_bit_o
- tag_o
- out_valid_o
- busy_o

rr_arb_tree_block

Inputs:
- clk_i
- rr_i
- req_i
- data_i
- gnt_i
- rst_ni
- flush_i

Outputs:
- req_o
- gnt_o
- data_o
- idx_o

Top-level (fpnew_opgroup_block)

Inputs:
- clk_i
- rst_ni
- operands_i
- is_boxed_i
- rnd_mode_i
- op_i
- op_mod_i
- src_fmt_i
- dst_fmt_i
- int_fmt_i
- vectorial_op_i
- tag_i
- simd_mask_i
- in_valid_i
- out_ready_i

Outputs:
- in_ready_o
- result_o
- status_o
- tag_o
- out_valid_o

fpunew_opgroup_fmt_slice_block

Inputs (left side)
- clk_i
- rst_ni
- opreands_i
- is_boxed_i
- rnd_mode_i
- op_i
- op_mod_i
- op_mod_i
- vectorial_op_i
- vectorial_op_i
- tag_i
- simd_mask_i
- in_valid_i
- flush_i
- out_ready_i
- reg_ena_i

fpnew_fma_block

Inputs
- out_ready_i
- reg_ena_i
- clk_i
- rst_ni
- opreands_i
- is_boxed_i
- rnd_mode_i
- op_i
- op_mod_i
- tag_i
- mask_i
- aux_i
- in_valid_i
- flush_i

Outputs
- in_ready_o
- result_o
- extension_bit_o
- tag_o
- mask_o
- aux_o
- out_valid_o
- busy_o

fpunew_noncomp_block

Inputs
- reg_ena_i
- out_ready_i
- in_valid_i
- flash_i
- aux_i
- clk_i
- rst_ni
- opreands_i
- is_boxed_i
- rnd_mode_i
- op_i
- op_mod_i
- tag_i
- mask_i

Outputs
- in_ready_o
- result_O
- extension_bit_o
- class_mask_o
- is_class_o
- is_class_o
- tag_o
- mask_o
- aux_o
- out_valid_o
- busy_o

Outputs (right side)
- in_ready_o
- result_o
- status_o
- extension_bit_o
- tag_o
- out_valid_o
- busy_o

fpnew_fma_block

Inputs (left side):
- out_ready_i
- reg_ena_i
- clk_i
- rst_ni
- opreands_i
- is_boxed_i
- rnd_mode_i
- op_i
- op_mod_i
- tag_i
- mask_i
- aux_i
- in_valid_i
- flush_i

Outputs (right side):
- in_ready_o
- resut_o
- extension_bit_o
- tag_o
- mask_o
- aux_o
- out_valid_o
- busy_o

lzc
- int_i
- cnt_o
- empty_o

fpnew_classifier
- opreands_i
- is_boxed_i
- info_o

fpnew_rounding
- abs_value_i
- sign_i
- round_sticky_bit_i
- effective_sibtraction_i
- rnd_mode_i
- abs_rounded_o
- sign_o
- exact_zero_o

fpunew_noncomp_block

Inputs (left side):
- reg_ena_i
- out_ready_i
- in_valid_i
- flash_i
- aux_i
- clk_i
- rst_ni
- opreands_i
- is_boxed_i
- rnd_mode_i
- op_i
- op_mod_i
- tag_i
- mask_i

Outputs (right side):
- result_O
- extension_bit_o
- class_mask_o
- is_class_o
- is_class_o
- tag_o
- mask_o
- aux_o
- out_valid_o
- busy_o

Internal block: fpnew_classifier
- opreands_i
- is_boxed_i
- info_o

fpnew_opgroup_multifmt_slide_block

Left-side inputs (block)

- clk_i
- opreands_i
- op_i
- rst_ni
- op_mod_i
- src_fmt_i
- dst_fmt_i
- int_fmt_i
- vectorial_op_i
- tag_i
- simd_mask_i
- in_valid_i
- flush_i
- out_ready_i
- reg_ena_i
- is_boxed_i
- rnd_mode_i

fpnew_fma_multi

Inputs:
- clk_i
- rst_ni
- out_ready_i
- reg_ena_i
- dst_fmt_i
- opreands_i
- is_boxed_i
- rnd_mode_i
- op_i
- op_mod_i
- tag_i
- mask_i
- aux_i
- in_valid_i
- flush_i
- src_fmt_i
- src2_fmt_i

Outputs:
- in_ready_o
- result_o
- extension_bit_o
- tag_o
- mask_o
- aux_o
- out_valid_o
- busy_o
- status_o

fpnew_cast_multi

Inputs:
- clk_i
- rst_ni
- out_ready_i
- reg_ena_i
- dst_fmt_i
- opreands_i
- is_boxed_i
- rnd_mode_i
- op_i
- op_mod_i
- tag_i
- mask_i
- aux_i
- in_valid_i
- flush_i
- src_fmt_i
- int_fmt_i

Outputs:
- in_ready_o
- result_o
- extension_bit_o
- tag_o
- mask_o
- aux_o
- out_valid_o
- busy_o
- status_o

Right-side outputs (block)

- in_ready_o
- result_o
- status_o
- extension_bit_o
- tag_o
- out_valid_o
- busy_o

fpnew_fma_multi

Inputs (left side, top to bottom):
- clk_i
- rst_ni
- out_ready_i
- reg_ena_i
- dst_fmt_i
- opreands_i
- is_boxed_i
- rnd_mode_i
- op_i
- op_mod_i
- tag_i
- mask_i
- aux_i
- in_valid_i
- flush_i
- src_fmt_i
- src2_fmt_i

Outputs (right side, top to bottom):
- in_ready_o
- result_o
- extension_bit_o
- tag_o
- mask_o
- aux_o
- out_valid_o
- busy_o
- status_o

Internal block **lzc**:
- Inputs: int_i
- Outputs: cnt_o, empty_o

Internal block **fpnew_classifier**:
- Inputs: opreands_i, is_boxed_i
- Outputs: info_o

Internal block **fpnew_rounding**:
- Inputs: abs_value_i, sign_i, round_sticky_bit_i, effective_sibtraction_i, rnd_mode_i
- Outputs: abs_rounded_o, sign_o, exact_zero_o

fpnew_cast_multi

Inputs (left side):
- clk_i
- rst_ni
- out_ready_i
- reg_ena_i
- dst_fmt_i
- opreands_i
- is_boxed_i
- rnd_mode_i
- op_i
- op_mod_i
- tag_i
- mask_i
- aux_i
- in_valid_i
- flush_i
- src_fmt_i
- int_fmt_i

Outputs (right side):
- in_ready_o
- result_o
- extension_bit_o
- tag_o
- mask_o
- aux_o
- out_valid_o
- busy_o
- status_o

lzc
- int_i → cnt_o, empty_o

fpnew_classifier
- opreands_i, is_boxed_i → info_o

fpnew_rounding
- abs_value_i, sign_i, round_sticky_bit_i, effective_sibtraction_i, rnd_mode_i → abs_rounded_o, sign_o, exact_zero_o