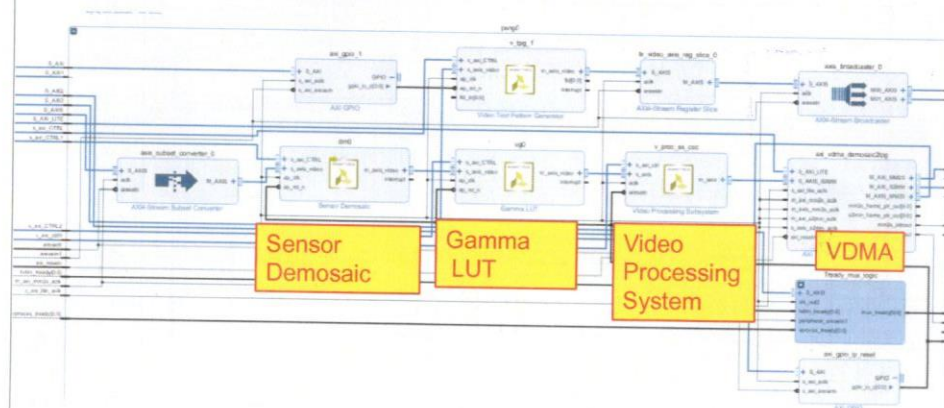


Video Processing System

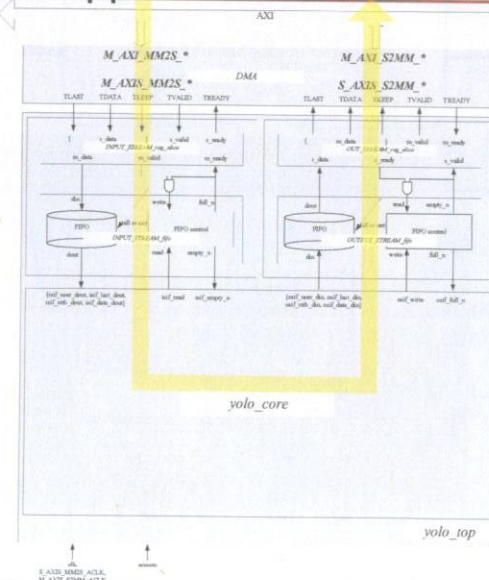
NARLabs



94

yolo_top Block Diagram (AXI DMA wrapper with FIFO Interface)

NARLabs



95

yolo_core interface definition (INPUT STREAM side)

NARLabs

Signal	Direction	#bits	Description
isif_empty_n	✓ in	1	1: indicating that input stream FIFO not empty
isif_read	✓ out	1	1: pull out from input stream FIFO Assert this when isif_empty_n is 1 AND when yolo_core is able to process the data
isif_user_dout	✗ in	1	Not used in our case
isif_last_dout	✓ in	1	1: indicating this is the last data
isif_strb_dout	✗ in	8	1: Indicating validity of each byte of isif_data_out. (all valid in our case)
isif_data_out	✓ in	64	Data from input stream FIFO

96

yolo_core interface definition (OUTPUT STREAM side)

NARLabs

Signal	Direction	#bits	Description
osif_full_n	✓ in	1	1: indicating that output stream FIFO not full
osif_write	✓ out	1	1: push data to output stream FIFO Assert this when osif_full_n is 1 AND when yolo_core has data to write
osif_user_din	✗ out	1	Not used in our case
osif_last_din	✓ out	1	1: indicating this is the last data
osif_strb_din	✗ out	8	1: Indicating validity of each byte of osif_data_din. (all valid in our case)
osif_data_din	✓ out	64	Data output to stream FIFO

97