

## Gate

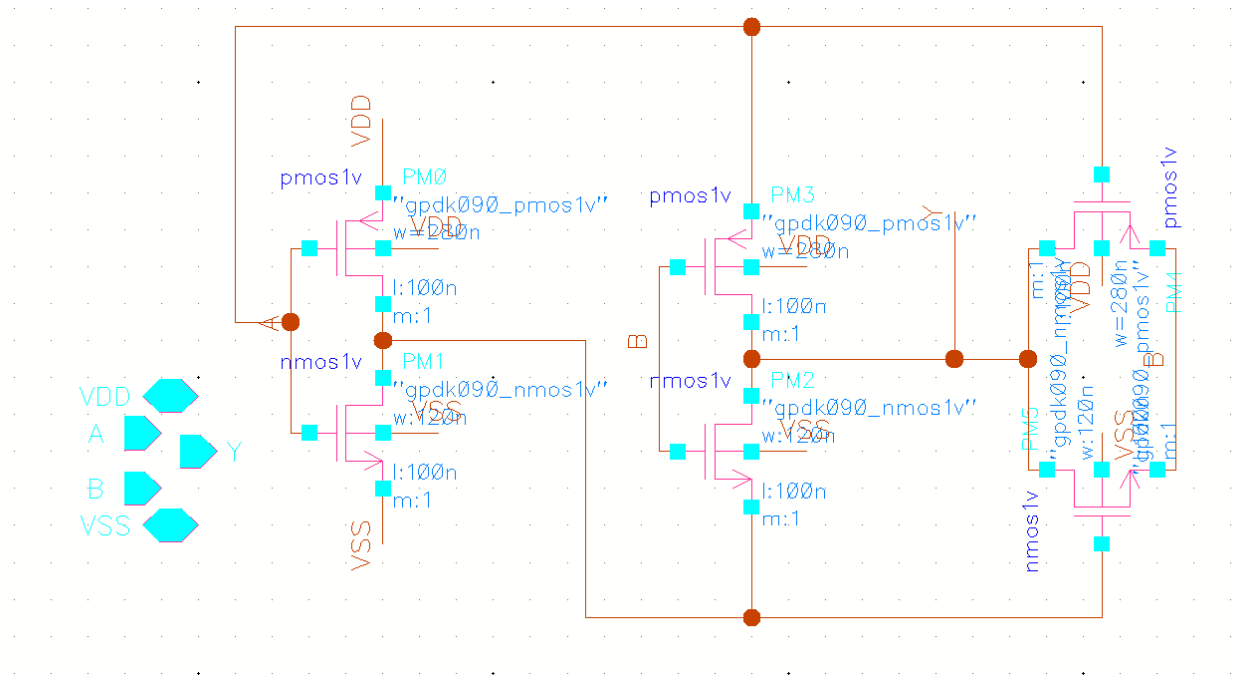


Fig. XOR schematic

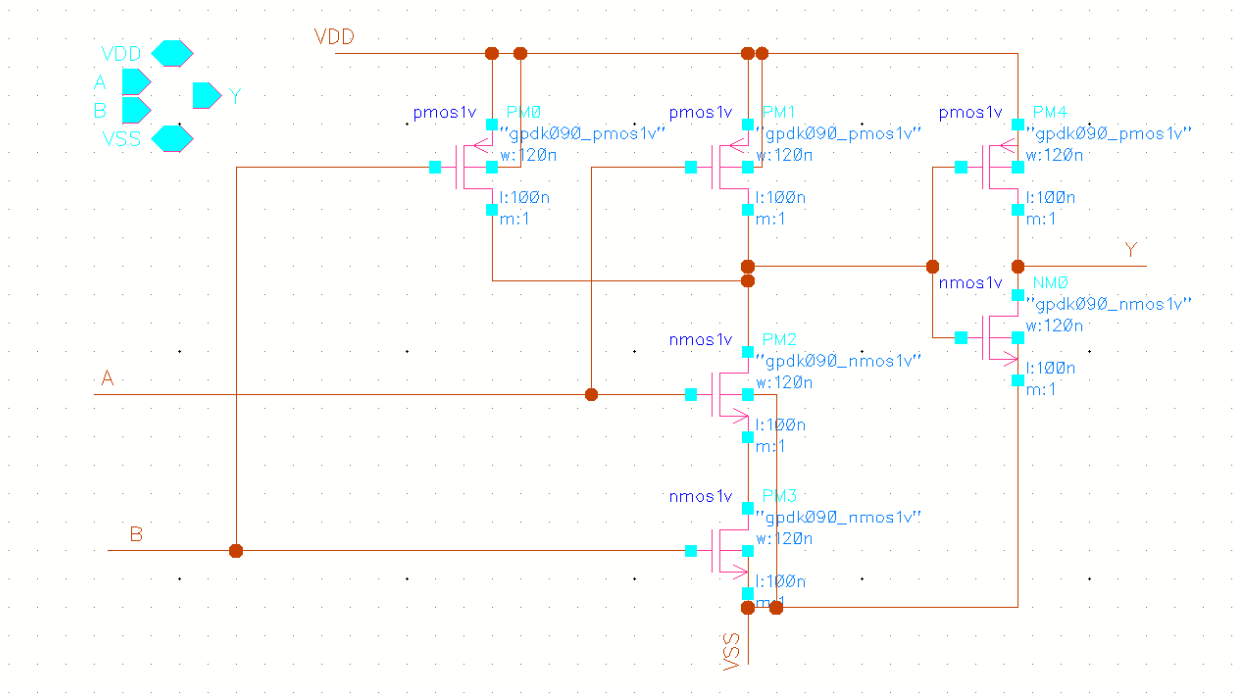


Fig. AND schematic

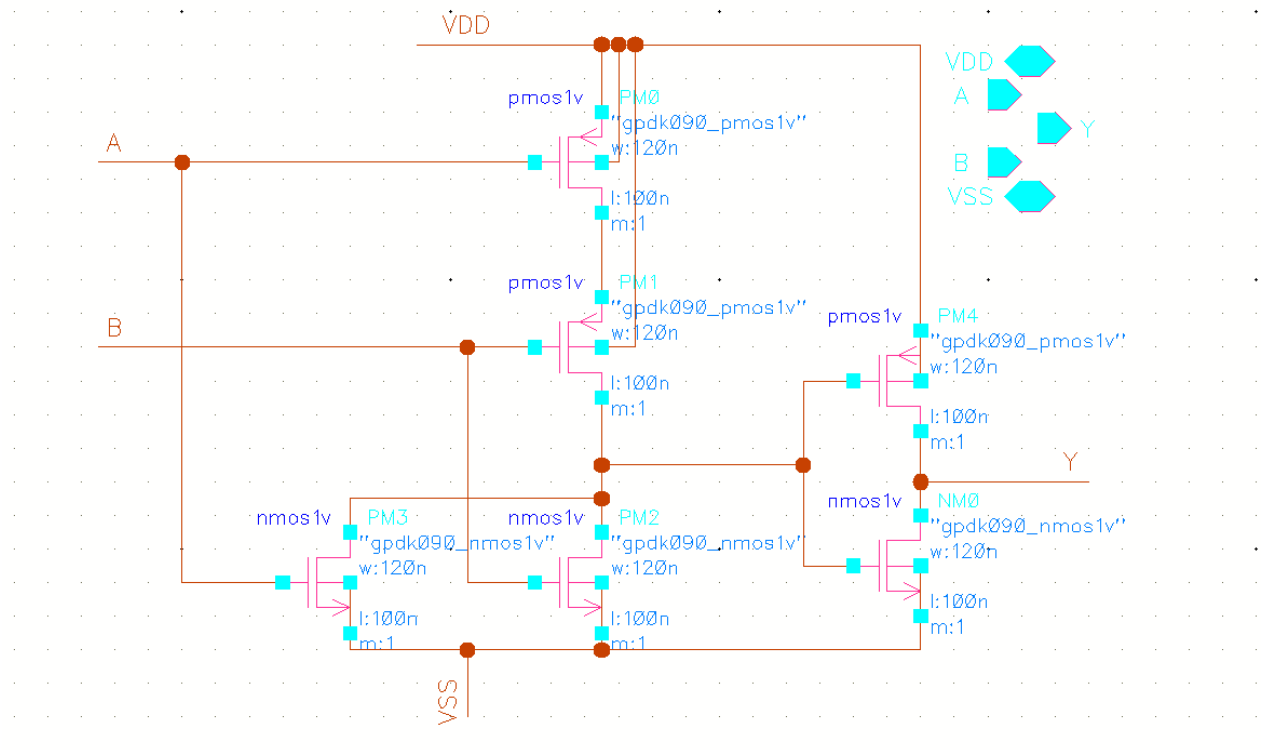


Fig. OR schematic

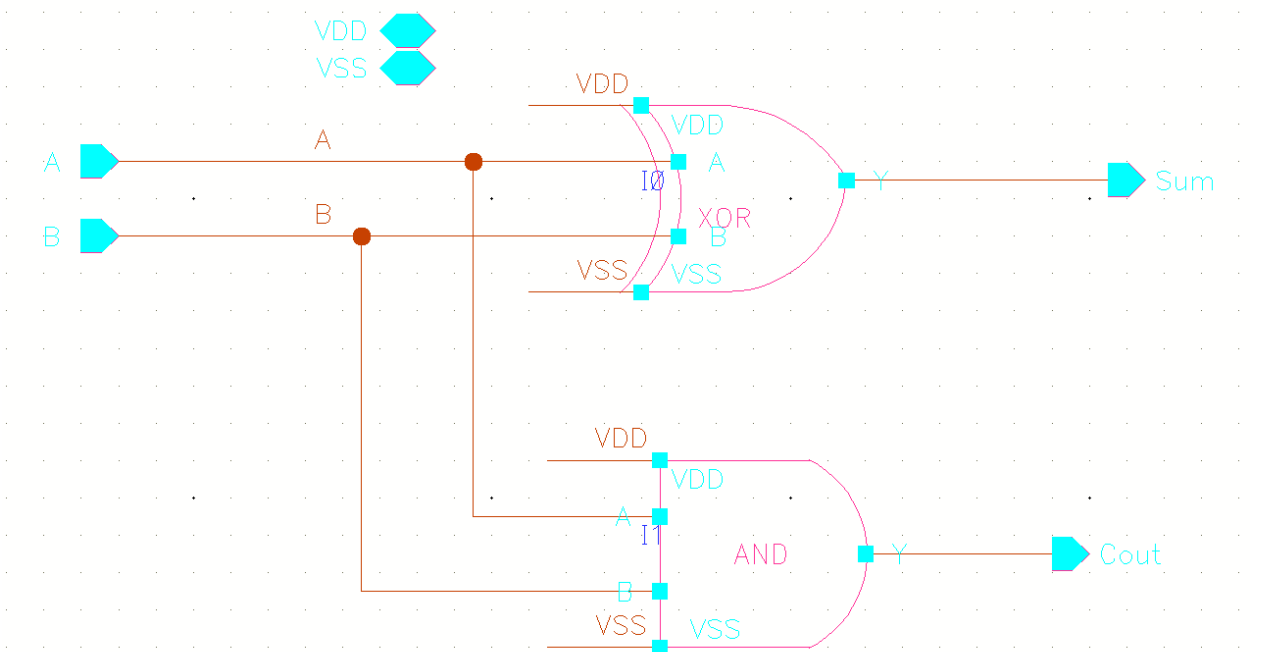


Fig. Half Adder

## Approximate Adders

### Ripple Carry Adder

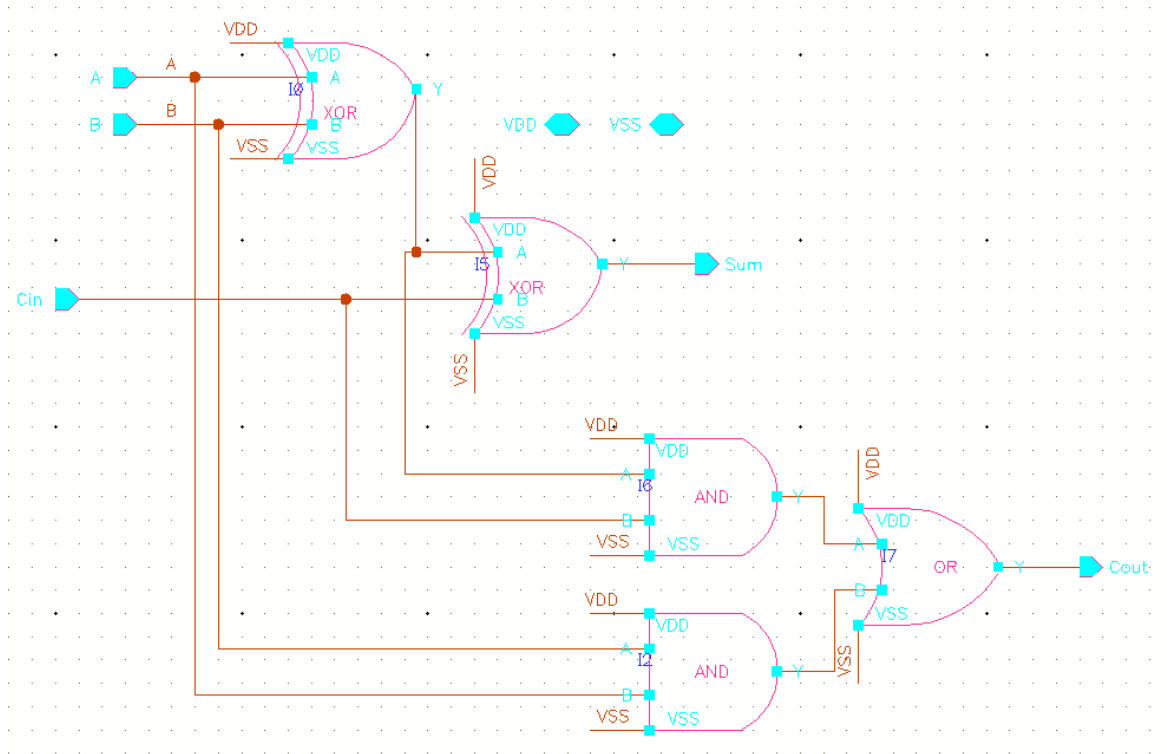


Fig. Schematic of 1-bit Full adder

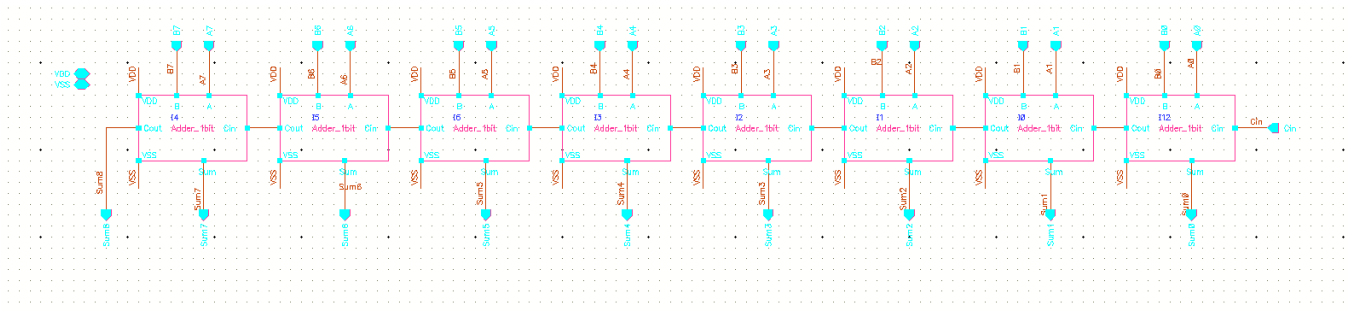


Fig. Schematic of 8-bit Full adder (RCA)

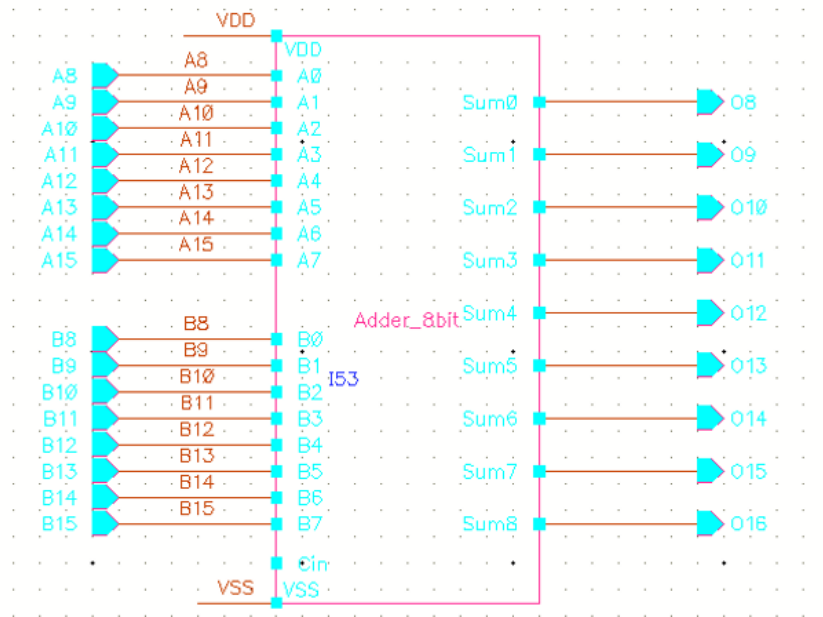


Fig. Schematic of 8-bit Precise part (upper bit) of RCA

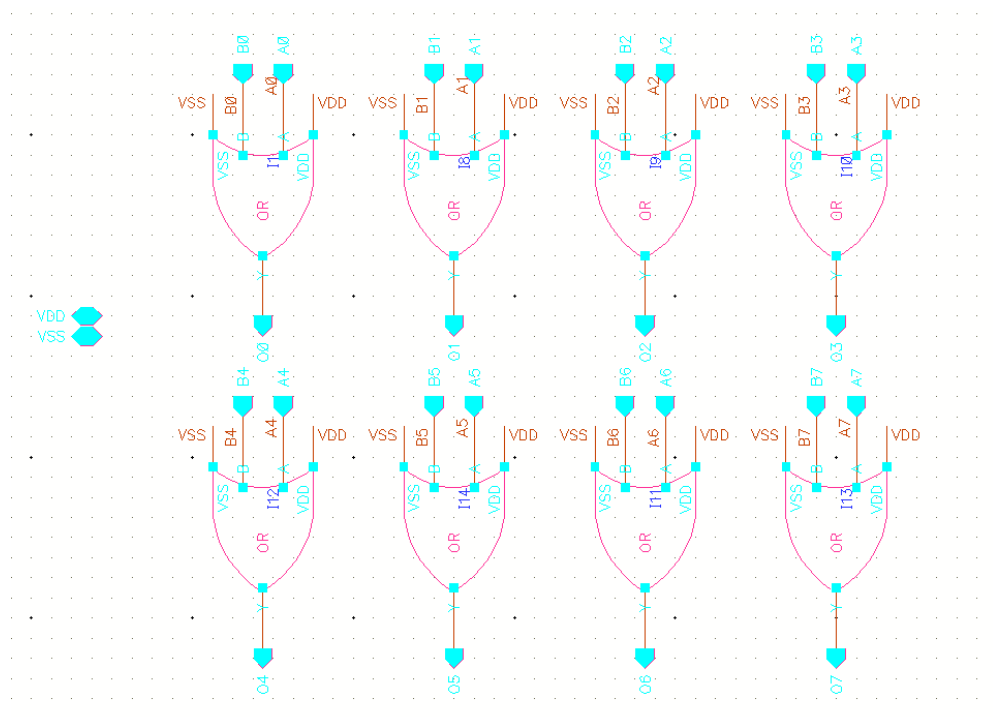


Fig. Schematic of 8-bit OR gate

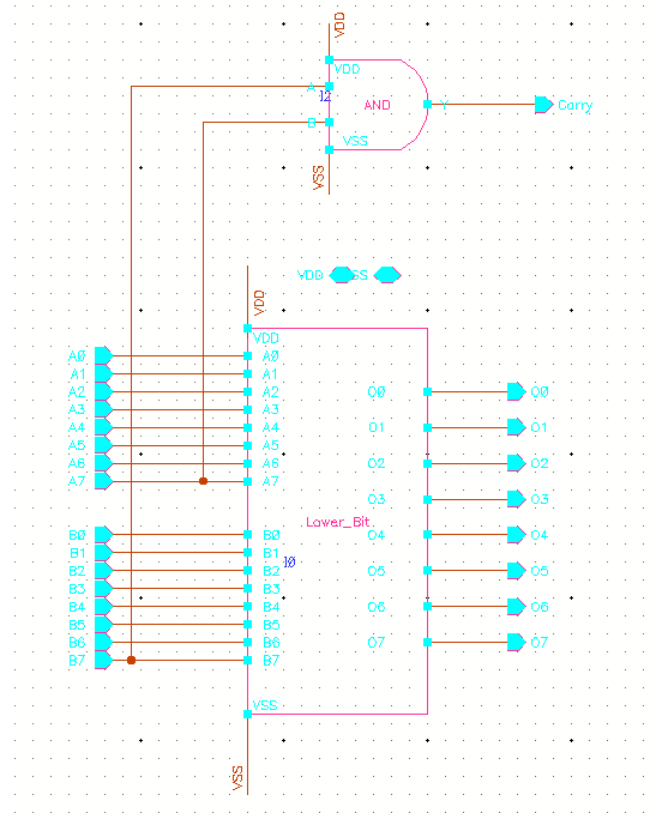


Fig. Schematic of Approximate Part (lower bit)

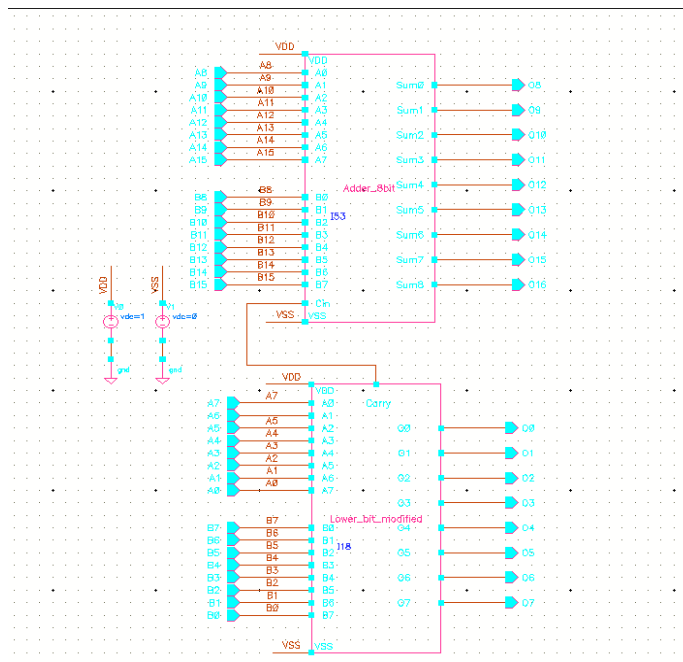


Fig. Schematic of Approximate Ripple Carry Adder

## Carry Look Ahead

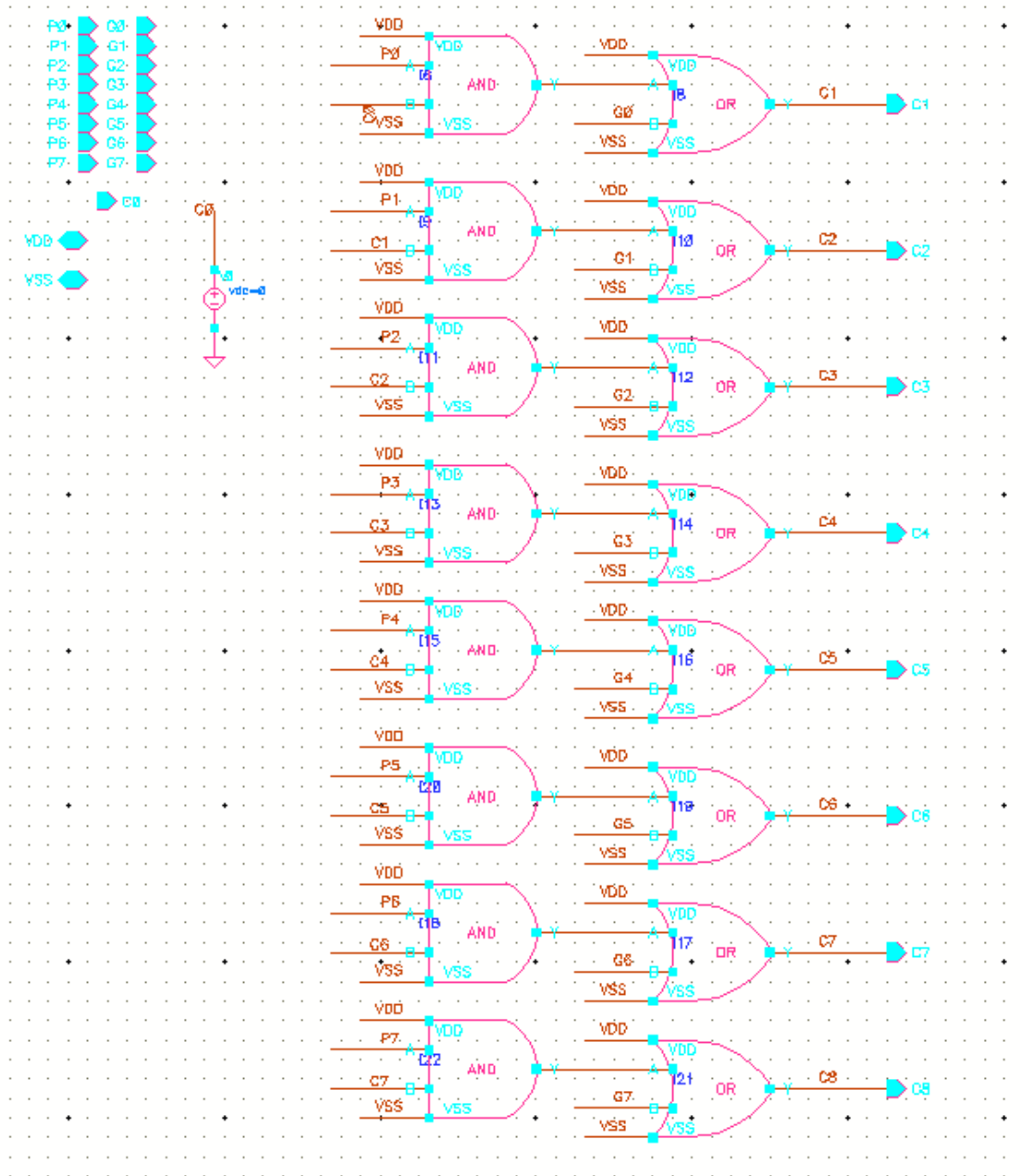


Fig. Schematic of Carry Lookahead Adder logic

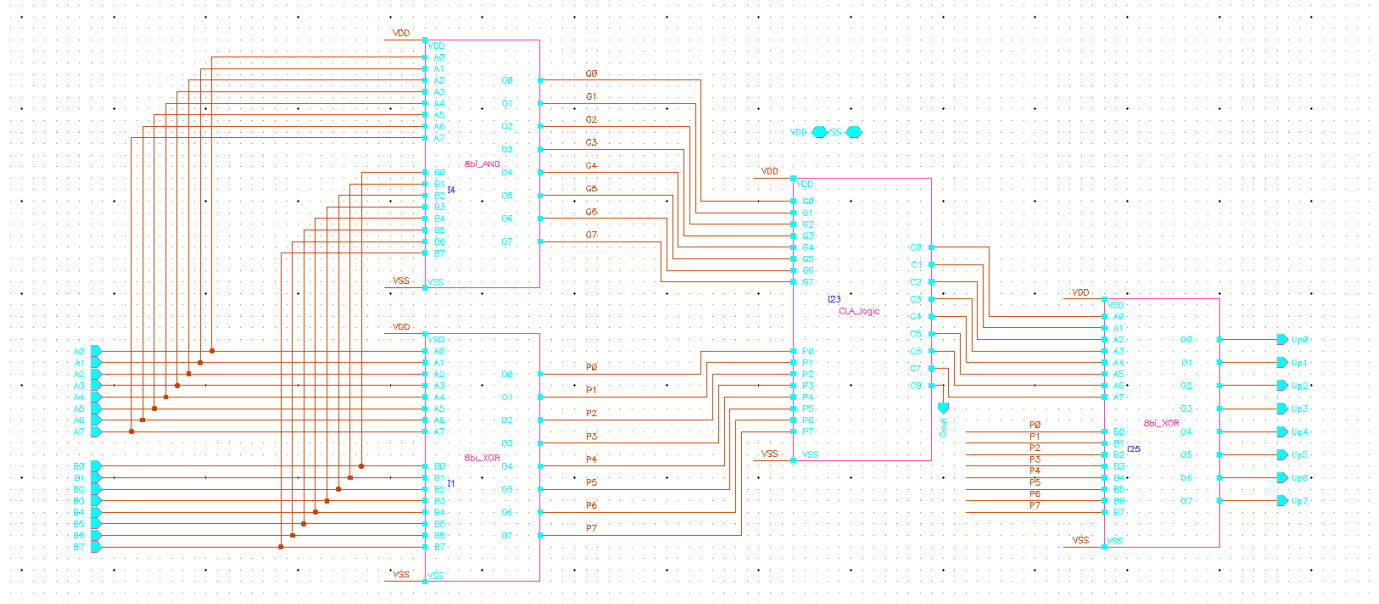


Fig. Schematic of Accuracy part

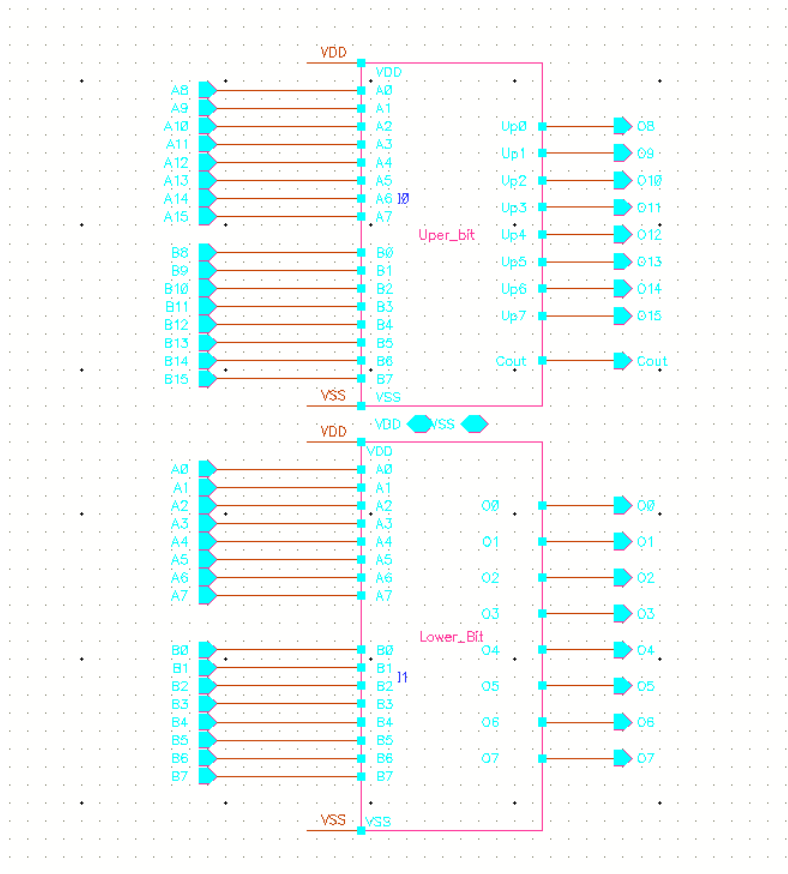


Fig. Schematic of Approximate Adder (CLA)

## Approximate Multiplier

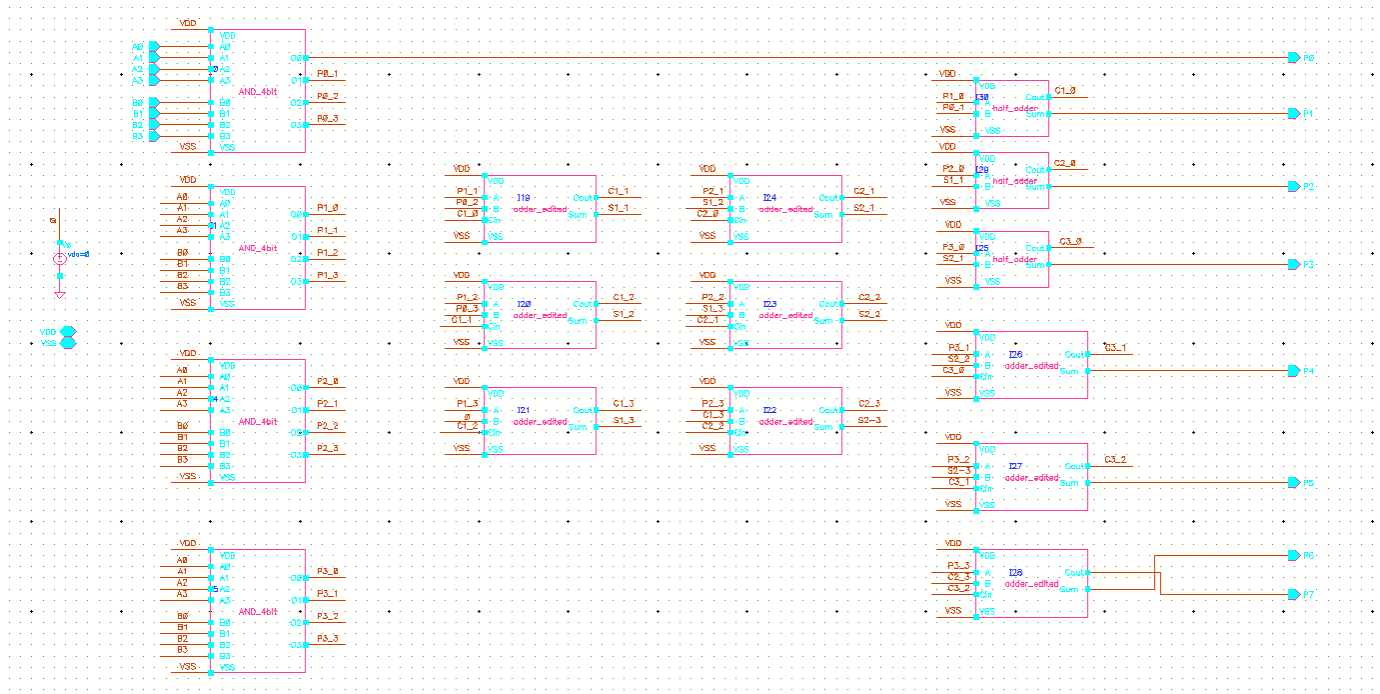


Fig. Schematic of 4x4 Wallace tree multiplier

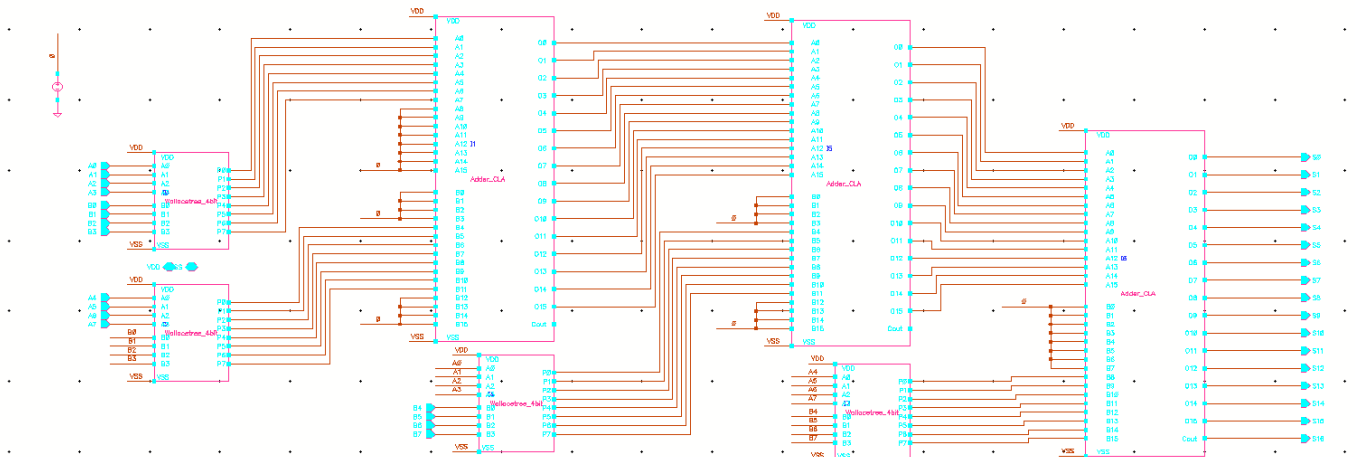


Fig. Schematic of Approximate Wallace tree multiplier 8x8 (CLA)

Replace the Adder part by RCA, then you will have a Approximate Wallace tree multiplier 8x8 (RCA).