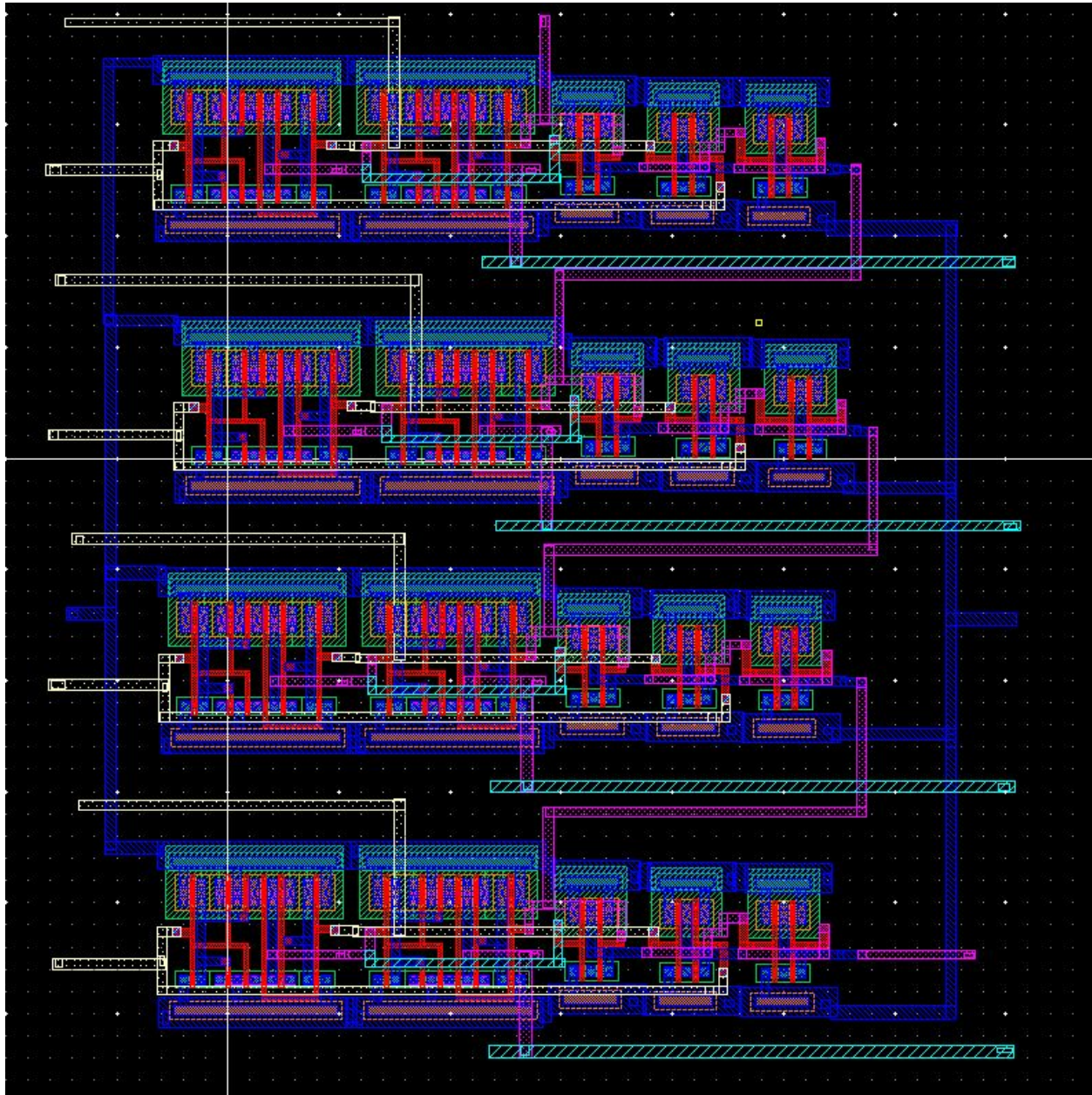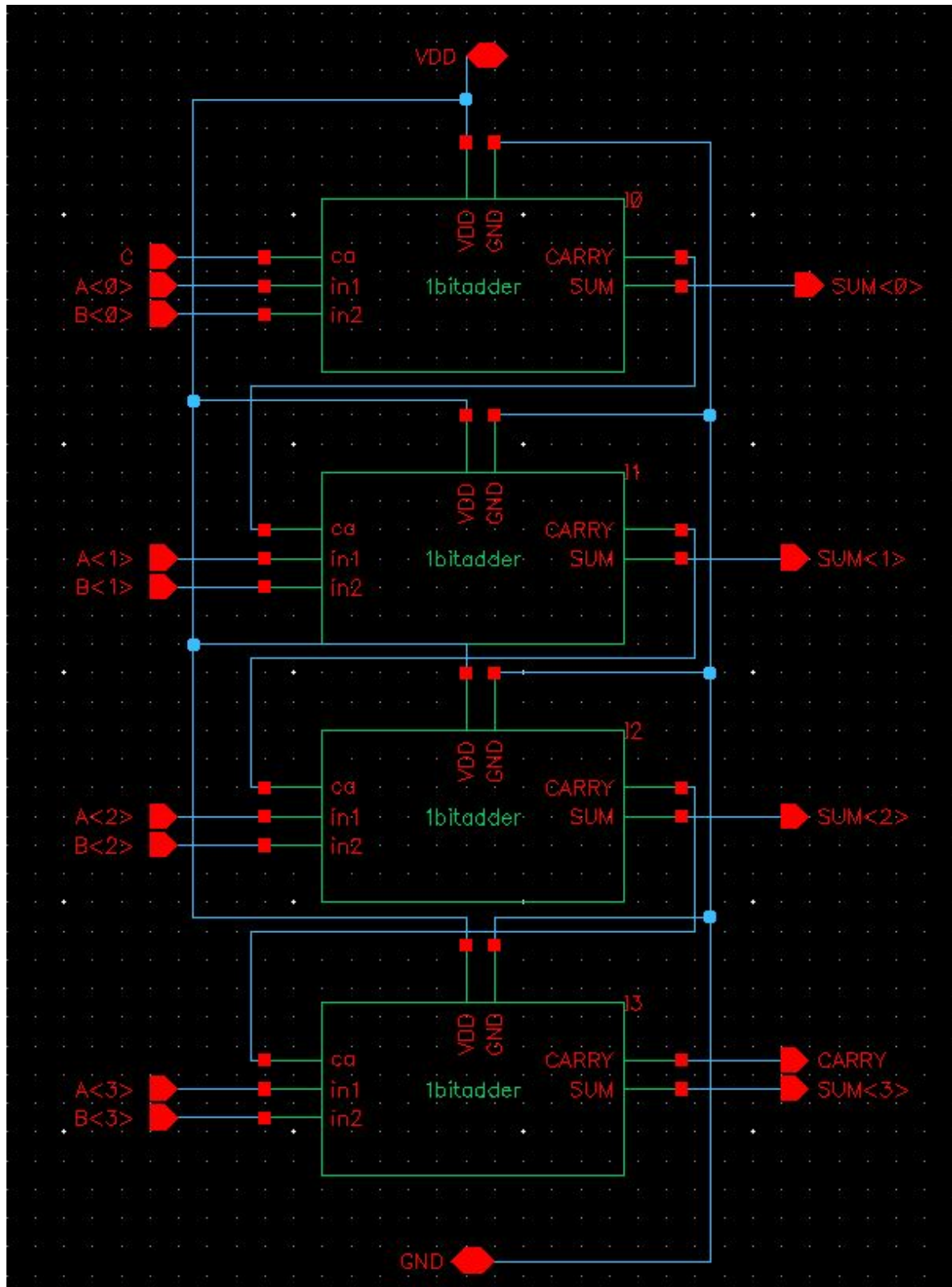4-bit adder layout

4-bit adder schematic

LVS

```
Net-list summary for /home/ugrads/k/khoadiep/cadence/LVS/schematic/netlist
    count
     91              nets
     16              terminals
     72              pmos
     72              nmos
```

```
Terminal correspondence points
N83        N11        A<0>
N80        N7         A<1>
N77        N1         A<2>
N75        N8         A<3>
N90        N2         B<0>
N87        N16        B<1>
N86        N6         B<2>
N85        N5         B<3>
N81        N9         C
N89        N18        CARRY
N78        N4         GND
N84        N13        SUM<0>
N82        N10        SUM<1>
N79        N3         SUM<2>
N76        N12        SUM<3>
N88        N14        VDD
```

```
Devices in the netlist but not in the rules:
       pcapacitor
Devices in the rules but not in the netlist:
       cap nfet pfet nmos4 pmos4

The net-lists match.
```

	layout instances	schematic
un-matched	0	0
rewired	0	0
size errors	0	0
pruned	0	0
active	144	144
total	144	144

	nets	
un-matched	0	0
merged	0	0
pruned	0	0
active	91	91
total	91	91

Rising Delays:

Input	Sum0	Sum1	Sum2	Sum3	Carry
0000/1111/1	0.4199	0.6159	0.8212	1.02248	0.9074
1010/0101/0	0.4237	0.6547	0.6691	0.6642	0.3603
1010/0101/1	0.4467	0.6595	0.6243	0.7511	0.3154
1100/1000/0	0.4709	0.6615	0.5942	0.8456	0.3604

Falling Delays:

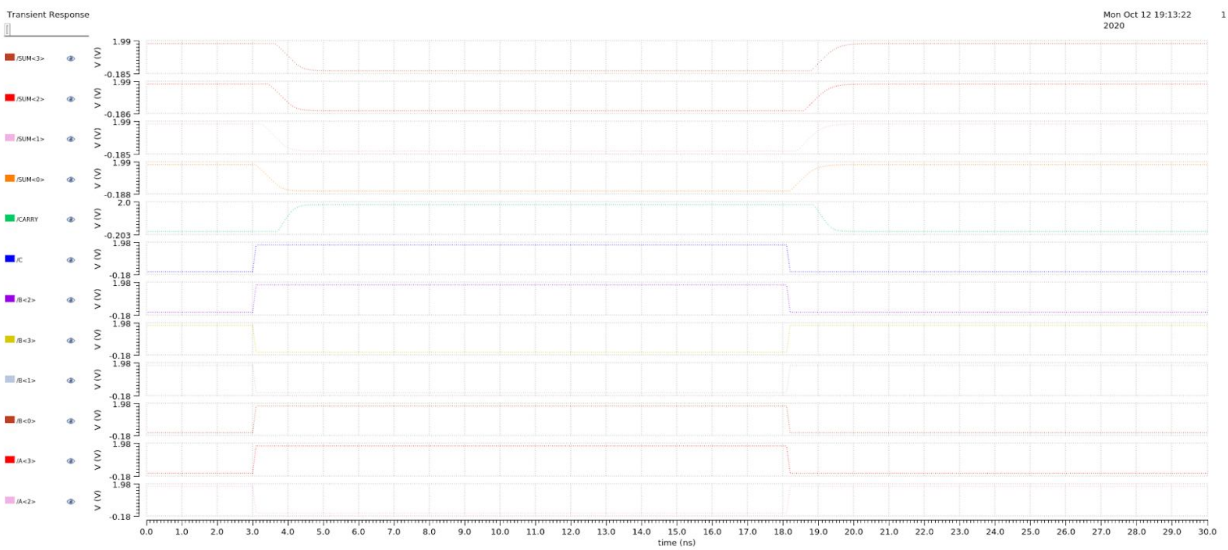| Input	Sum0	Sum1	Sum2	Sum3	Carry
0000/1111/1	0.4316	0.6162	0.7994	0.9864	0.9739
1010/0101/0	0.4384	0.6663	0.6334	0.6359	0.3324
1010/0101/1	0.4542	0.6424	0.6304	0.7246	0.3843
1100/1000/0	0.4718	0.6346	0.6260	0.8425	0.3342

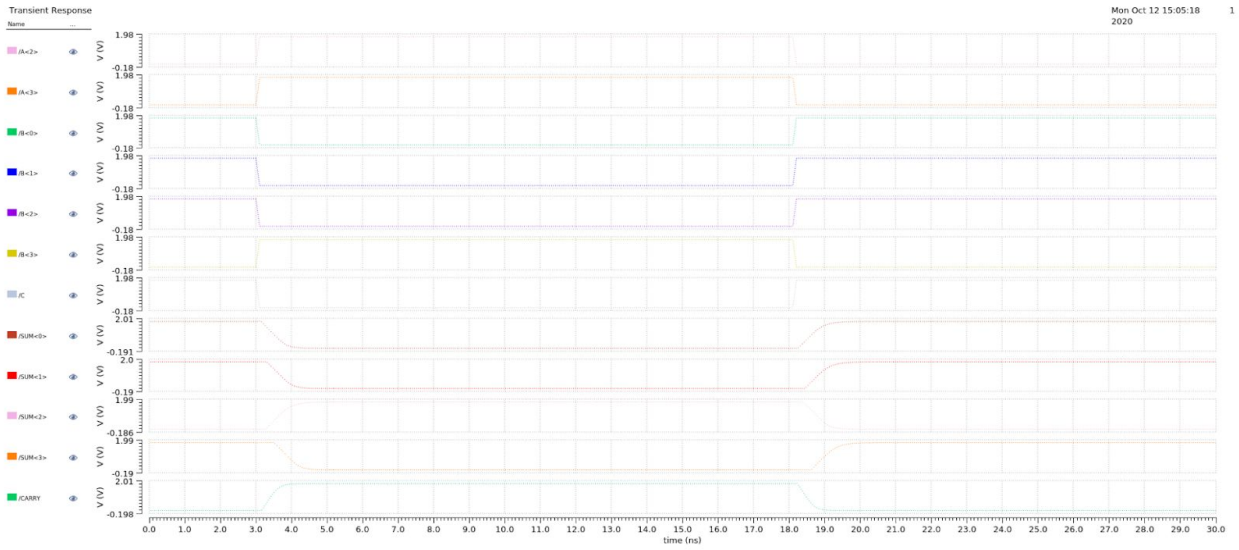A = 0000, B = 1111, Carry In = 1
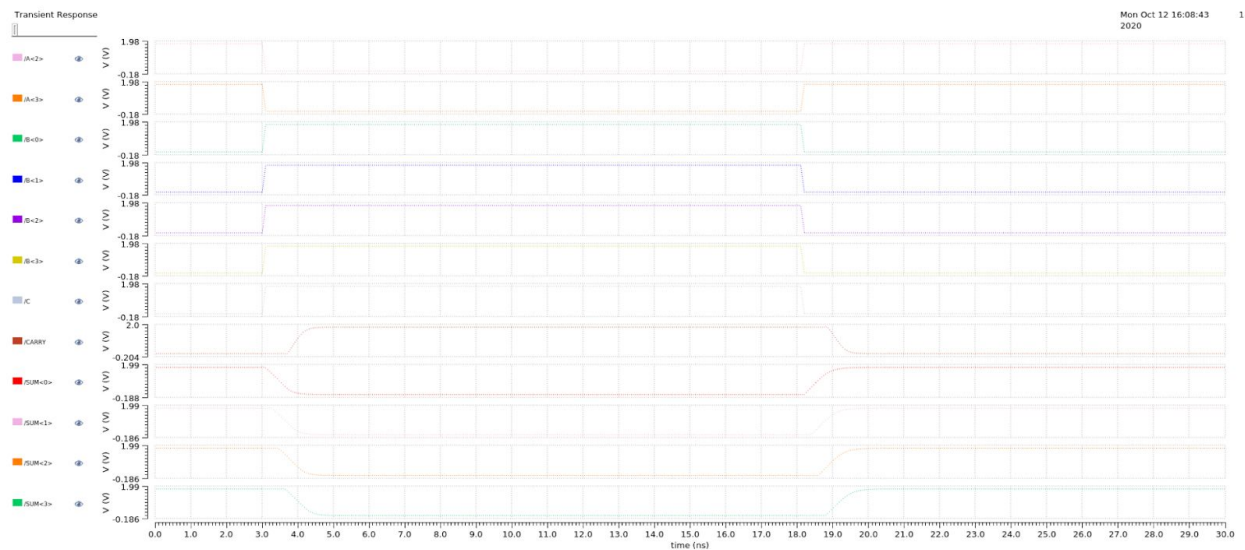
A = 1010, B = 0101, Carry In = 0
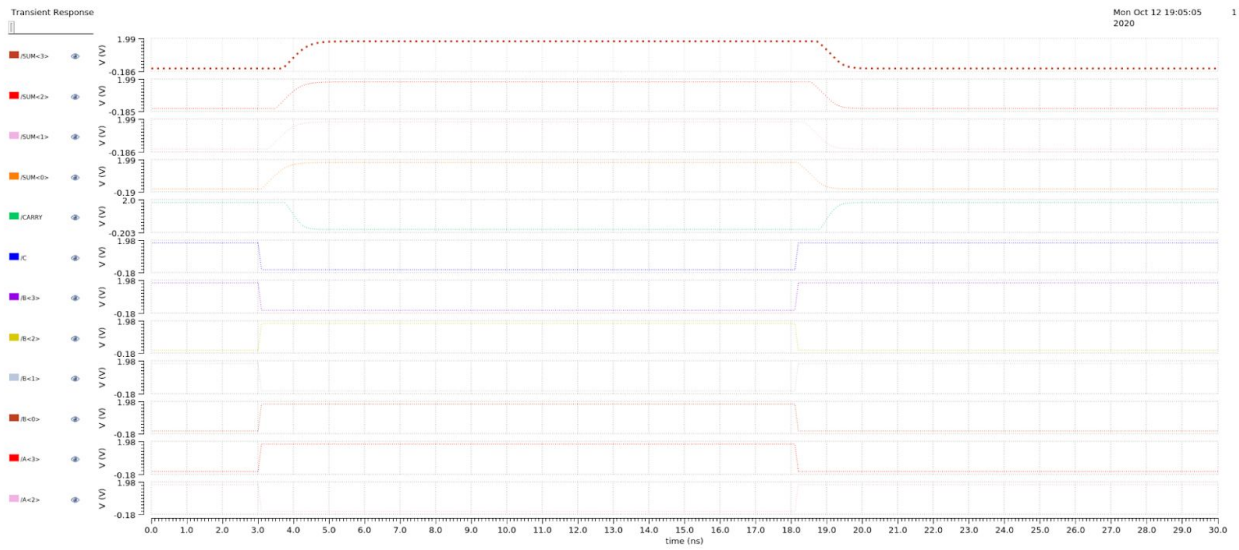
A = 1010, B = 0101, Carry In = 1

A = 1100, B = 1000, Carry In = 0

Power Dissipations

A	B	Carry In	Voltage Source	Value
0000	1111	1	VDD	-55.99E-6
1010	0101	0	VDD	-56.91E-6
1010	0101	1	VDD	-55.99E-6
1100	1000	0	VDD	-57.09E-6