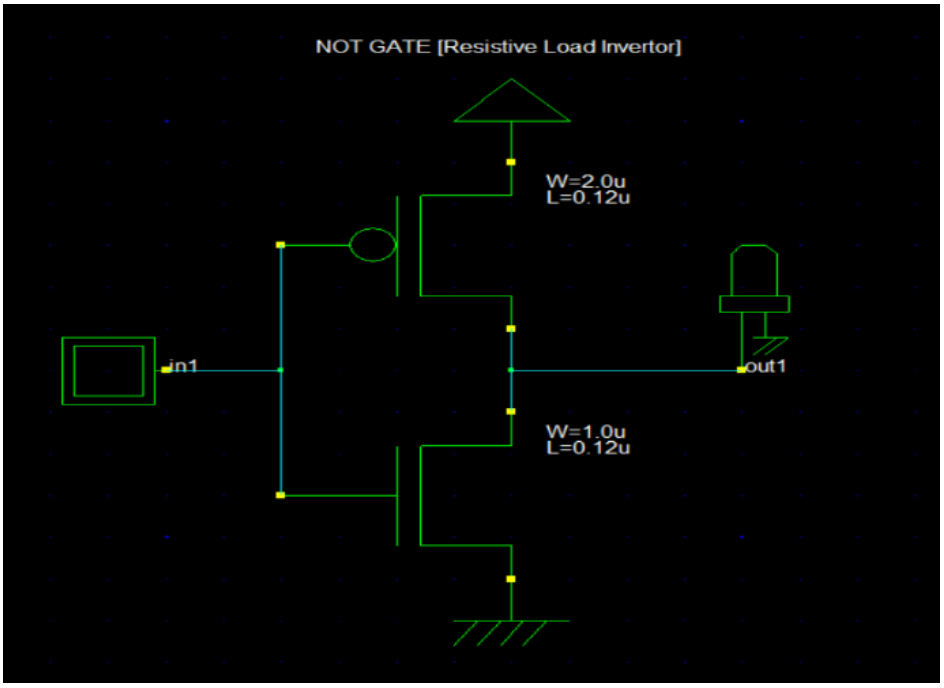
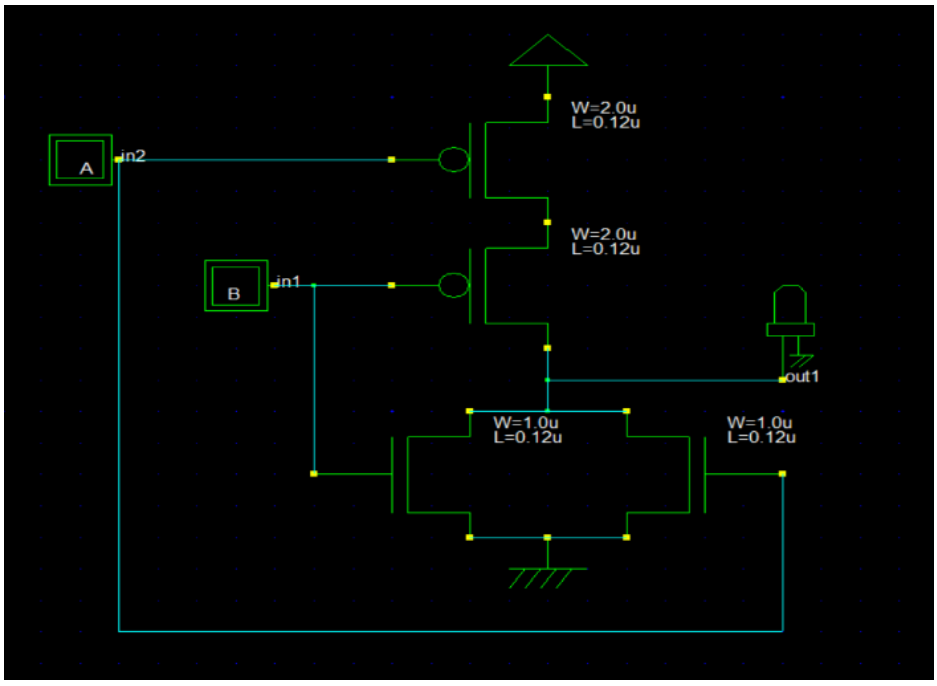
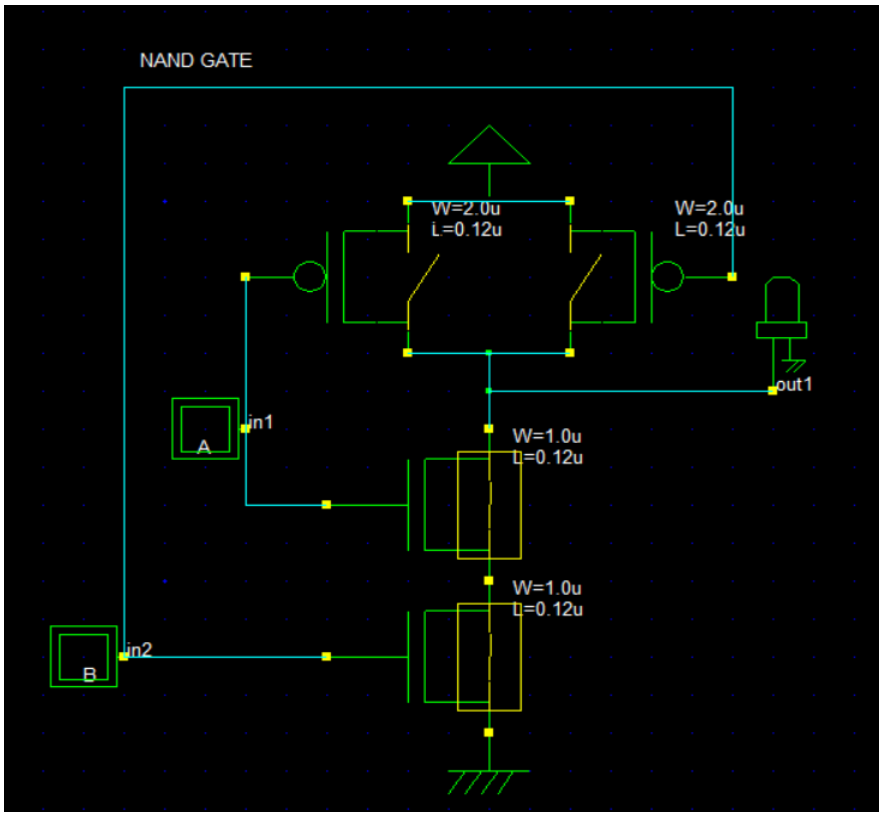
NOT GATE



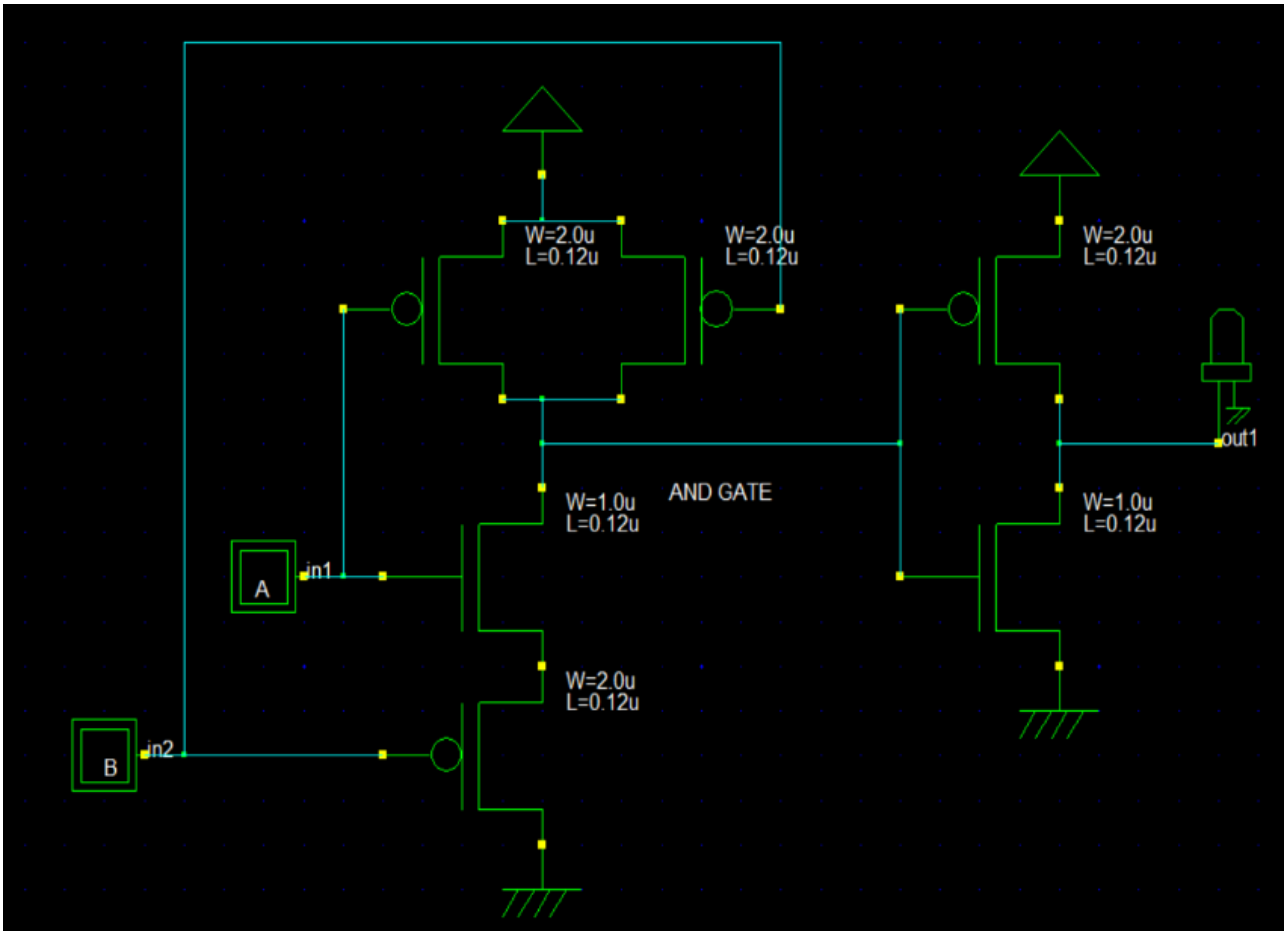
NOR GATE



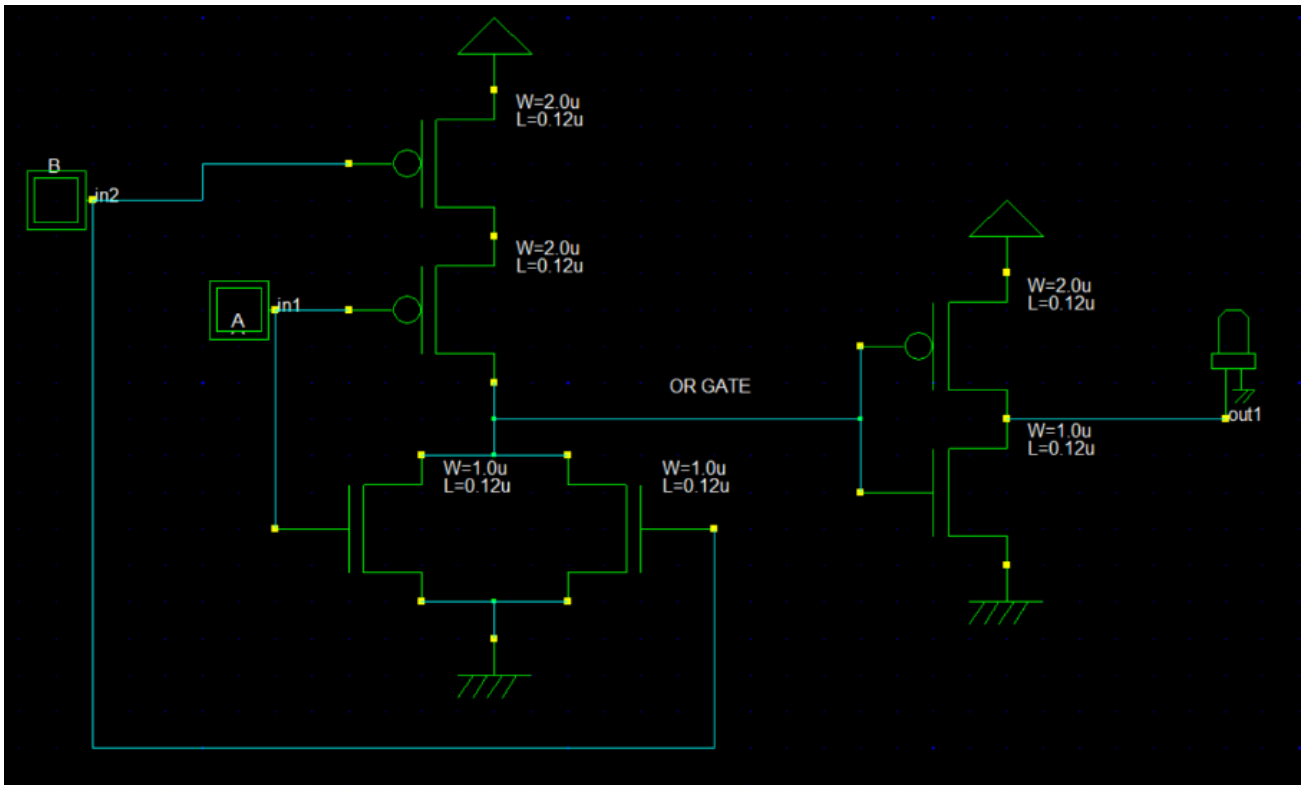
NAND GATE

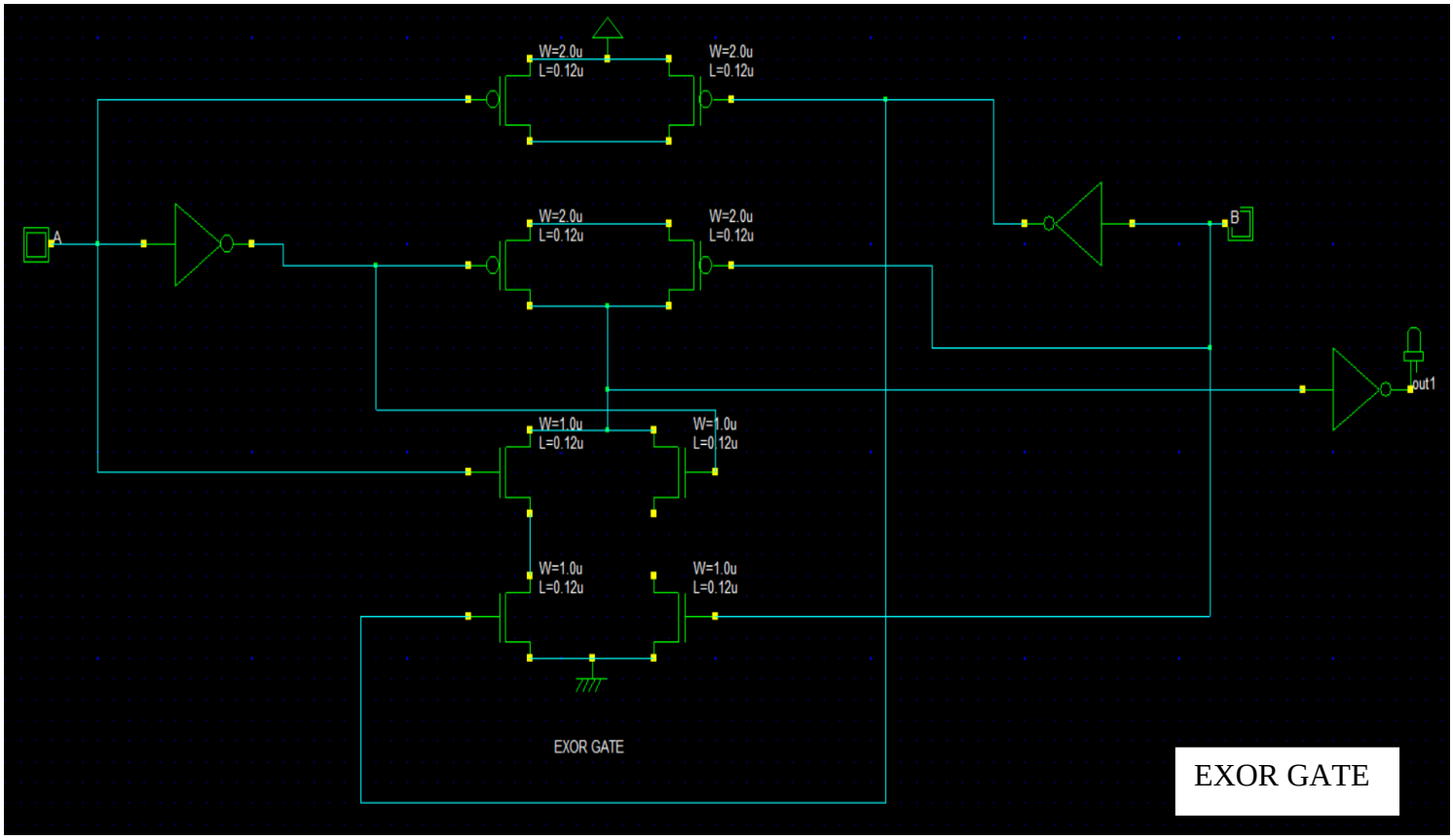


AND GATE

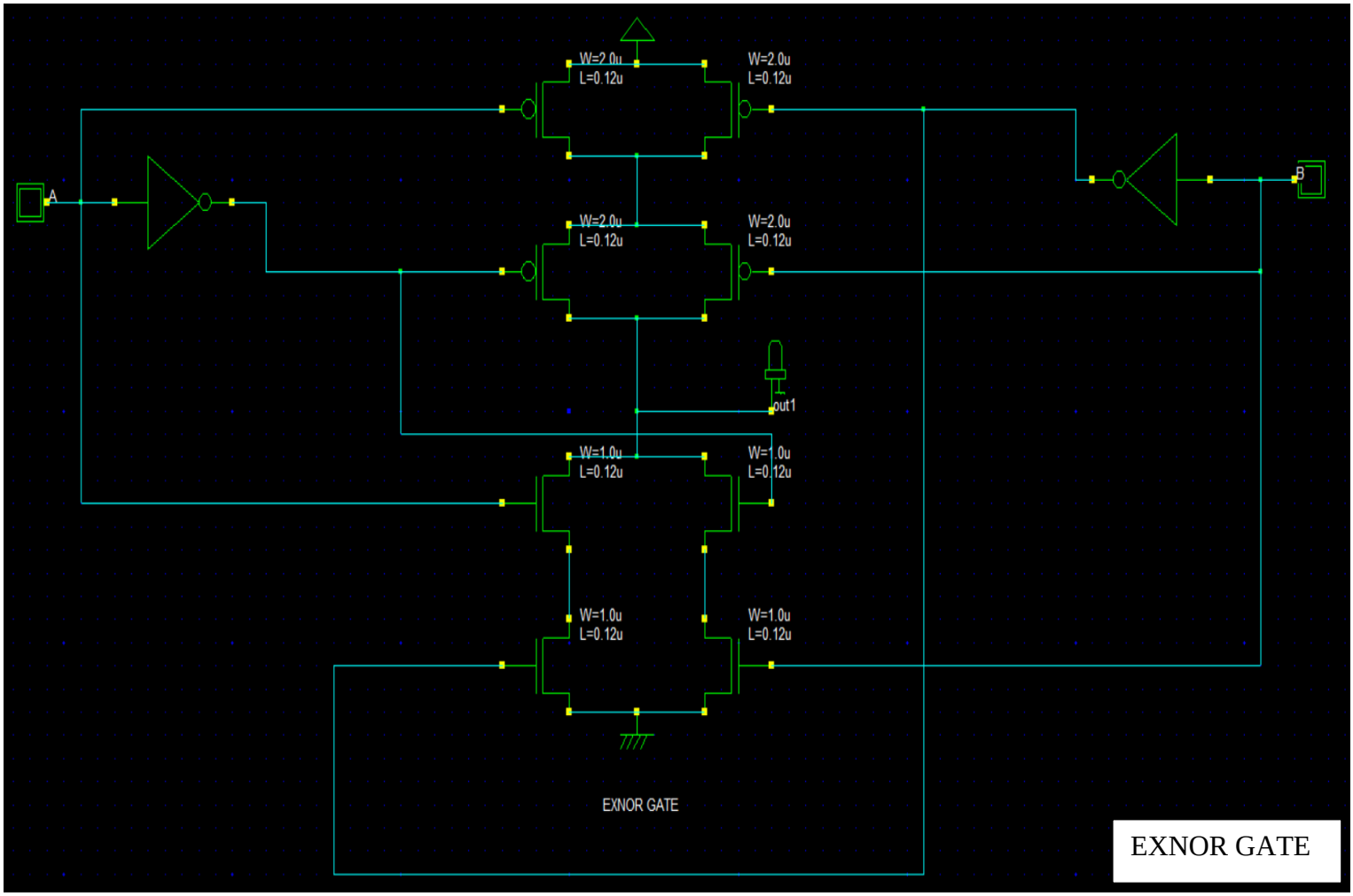


OR GATE

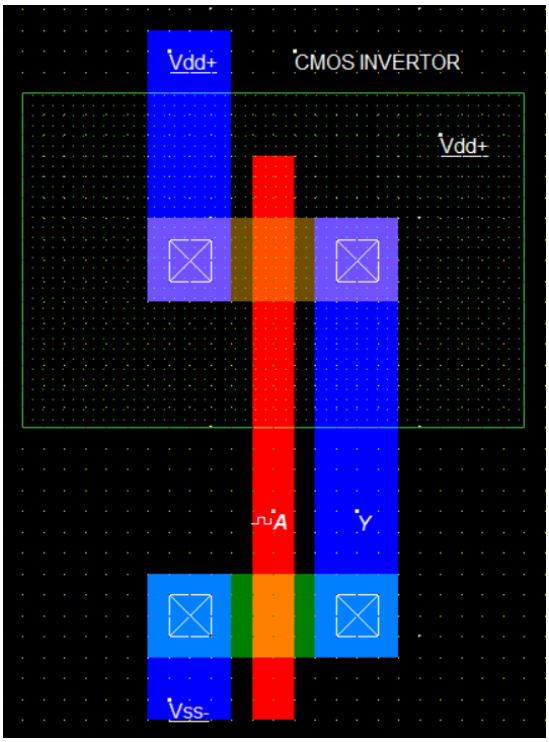


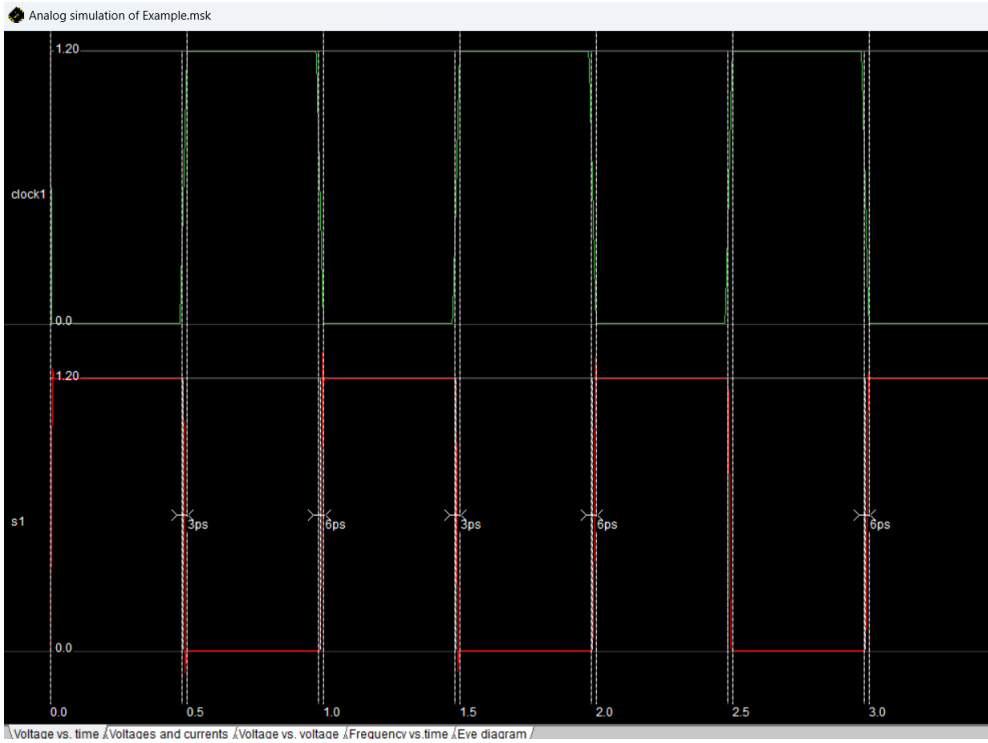


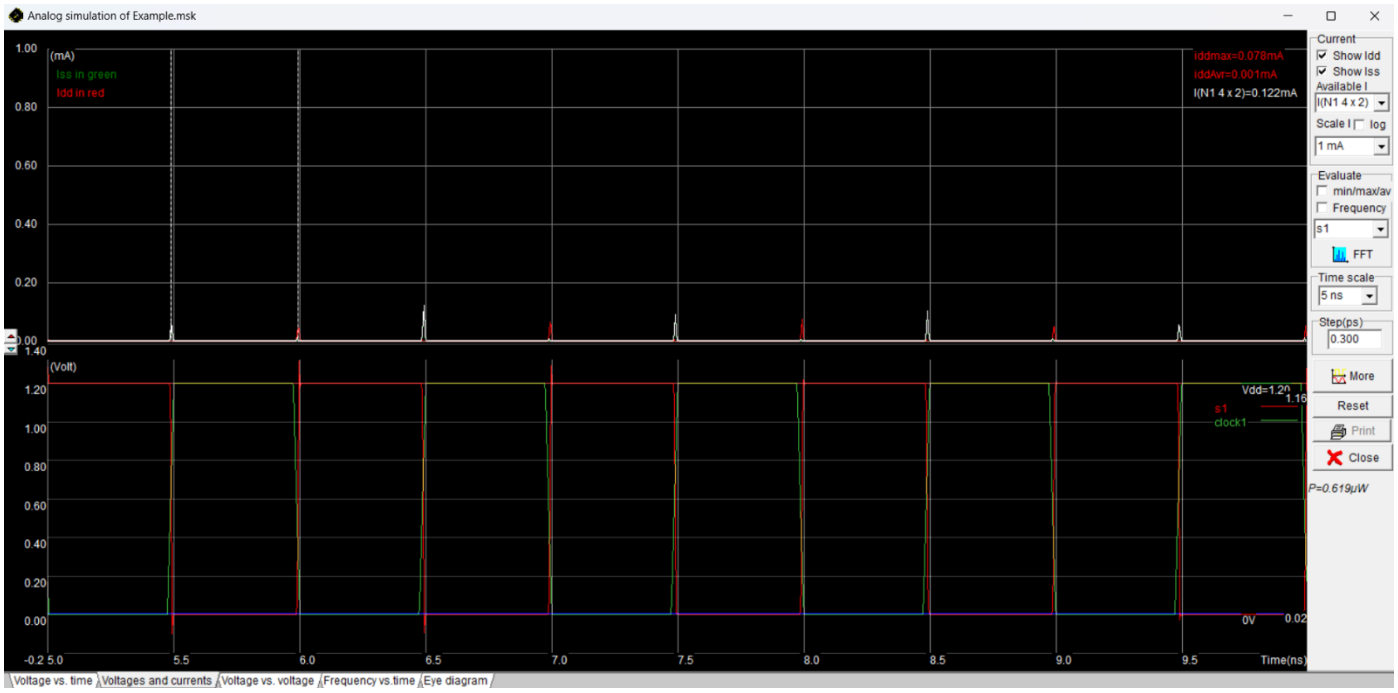
EXOR GATE

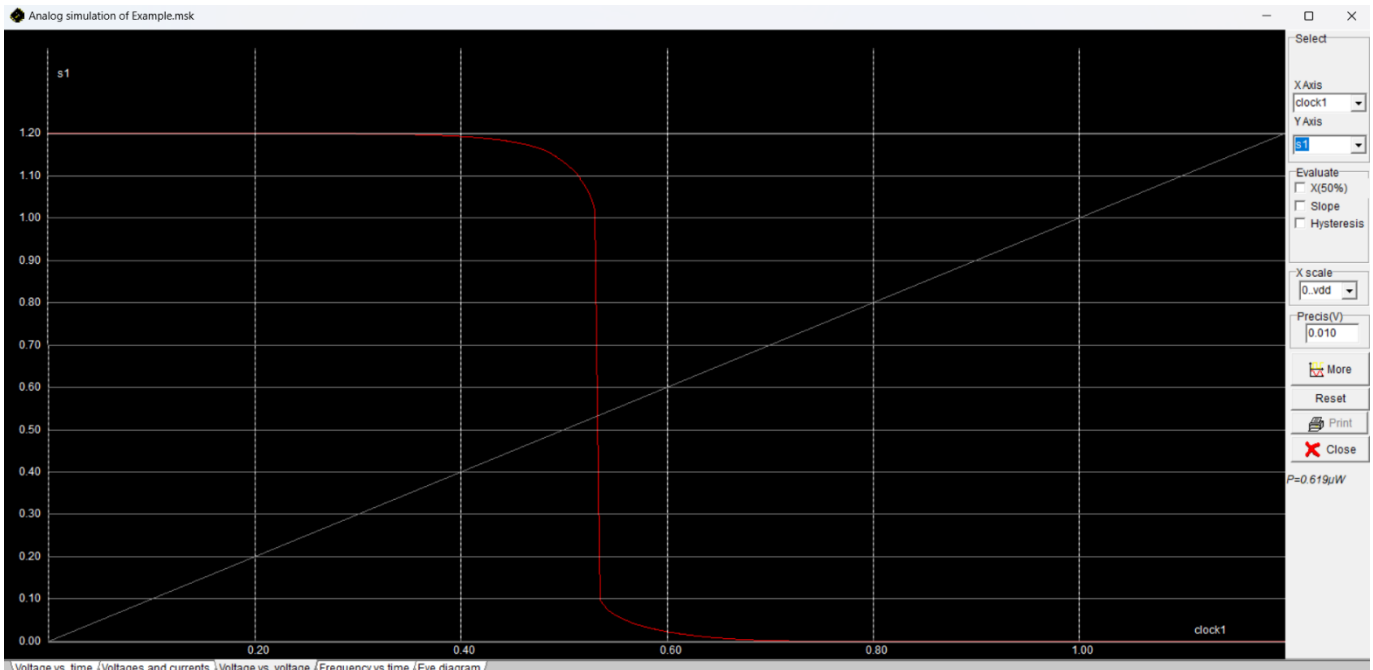


EXNOR GATE

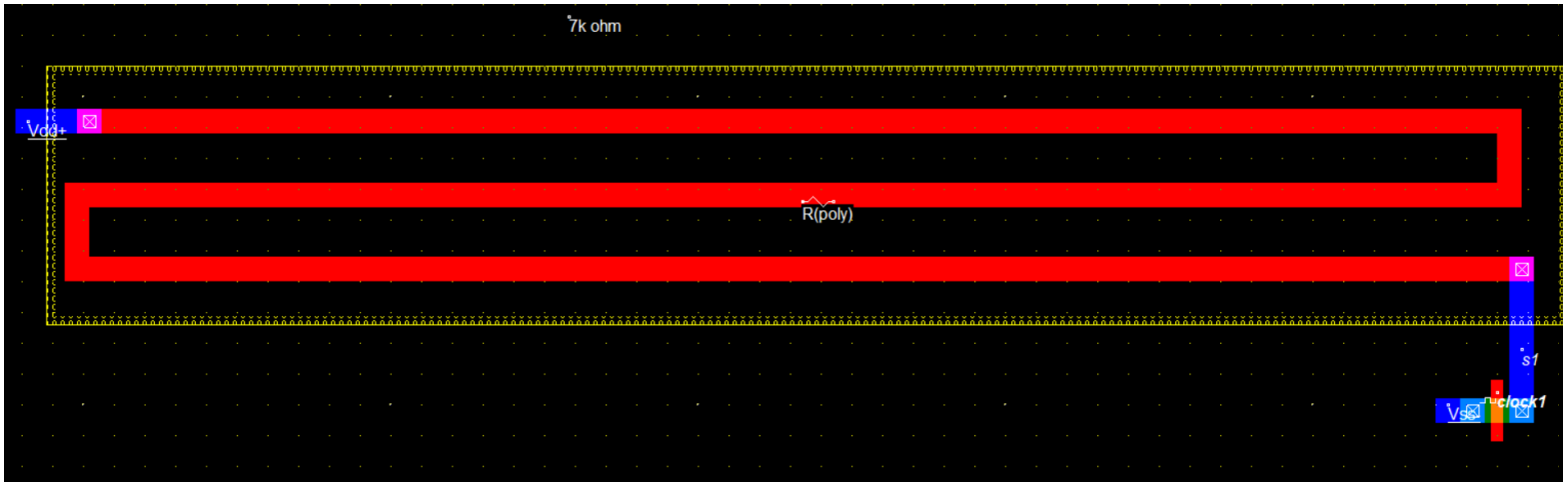

Vdd+
CMOS INVERTOR
Vdd+
A
Y
Vss-

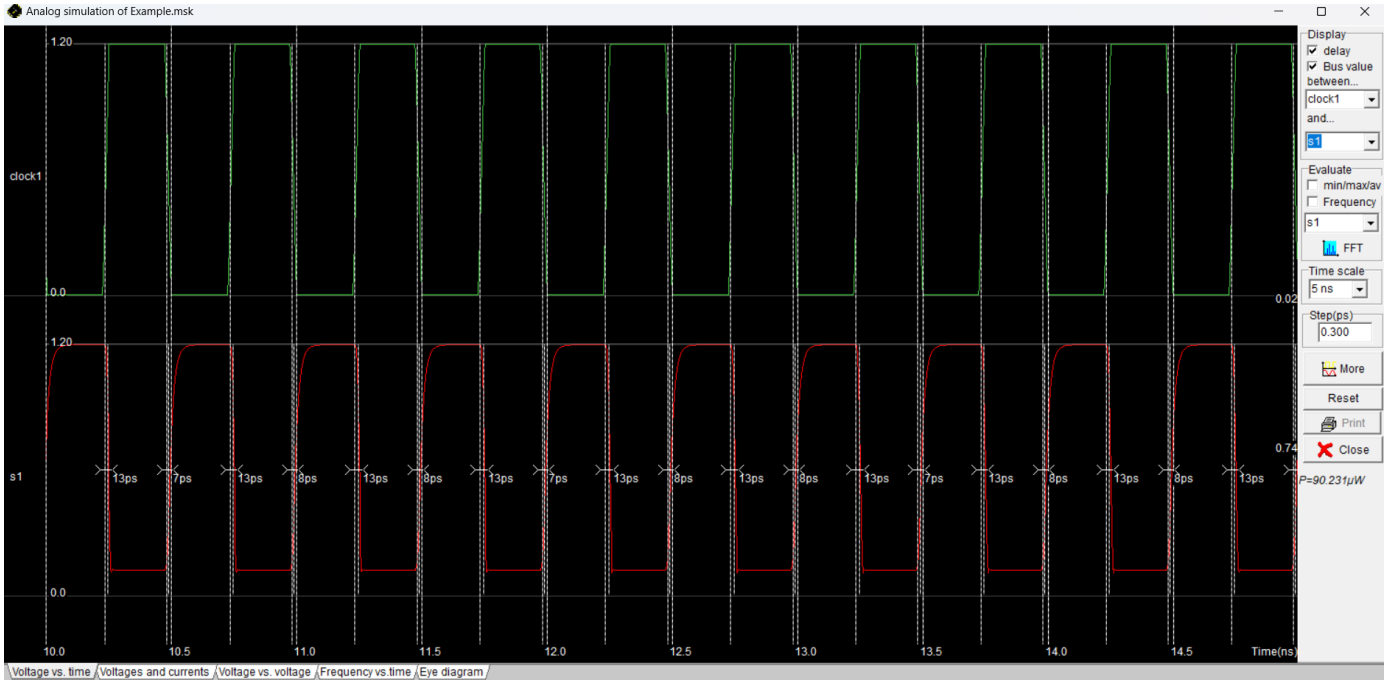

Analog simulation of Example.msk
1.20
clock1
0.0
1.20
s1
3ps
6ps
3ps
6ps
6ps
0.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Voltage vs. time
Voltages and currents
Voltage vs. voltage
Frequency vs.time
Eye diagram

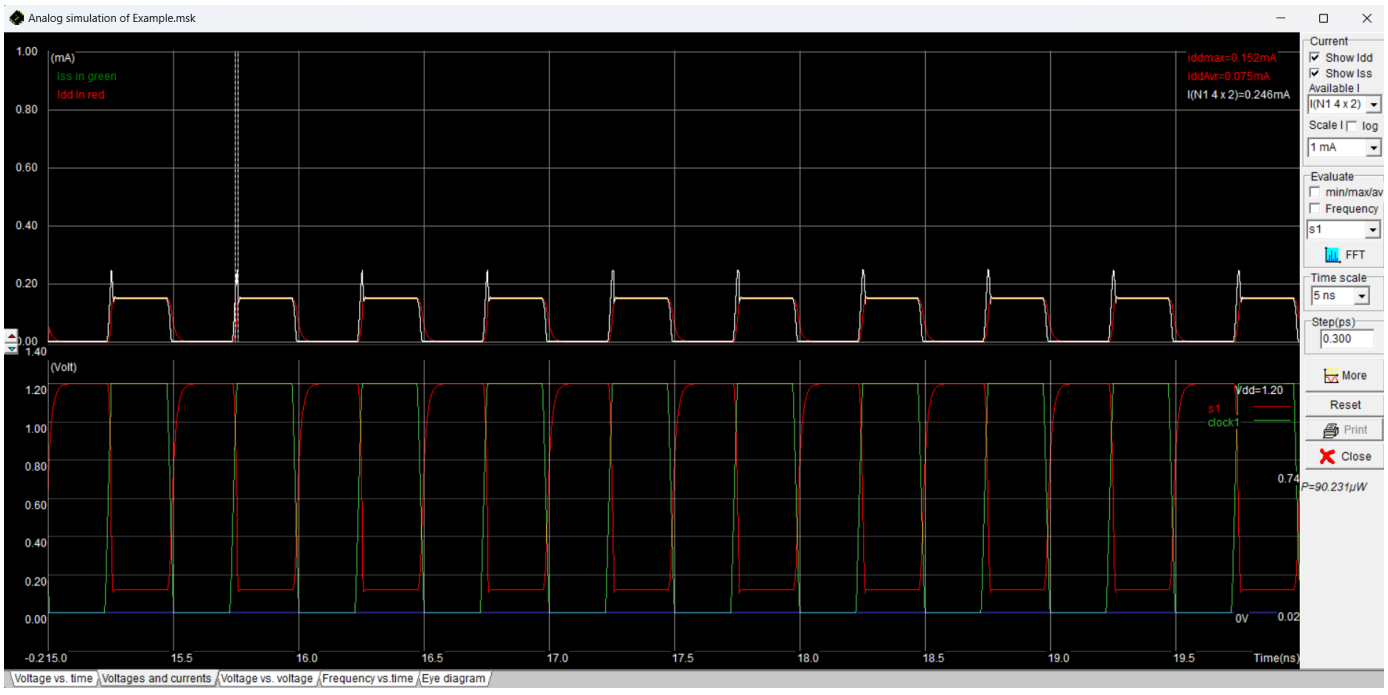

Analog simulation of Example.msk
1.00
(mA)
Iss in green
Idd in red
iddmax=0.078mA
iddAvr=0.001mA
I(N1 4 x 2)=0.122mA
0.80
0.60
0.40
0.20
0.00
1.40
(Volt)
1.20
1.00
0.80
0.60
0.40
0.20
0.00
-0.2
Vdd=1.20
1.16
s1
clock1
0V
0.02
5.0
5.5
6.0
6.5
7.0
7.5
8.0
8.5
9.0
9.5
Time(ns)
Current
Show Idd
Show Iss
Available I
I(N1 4 x 2)
Scale I
log
1 mA
Evaluate
min/max/av
Frequency
s1
FFT
Time scale
5 ns
Step(ps)
0.300
More
Reset
Print
Close
P=0.619µW
Voltage vs. time
Voltages and currents
Voltage vs. voltage
Frequency vs.time
Eye diagram

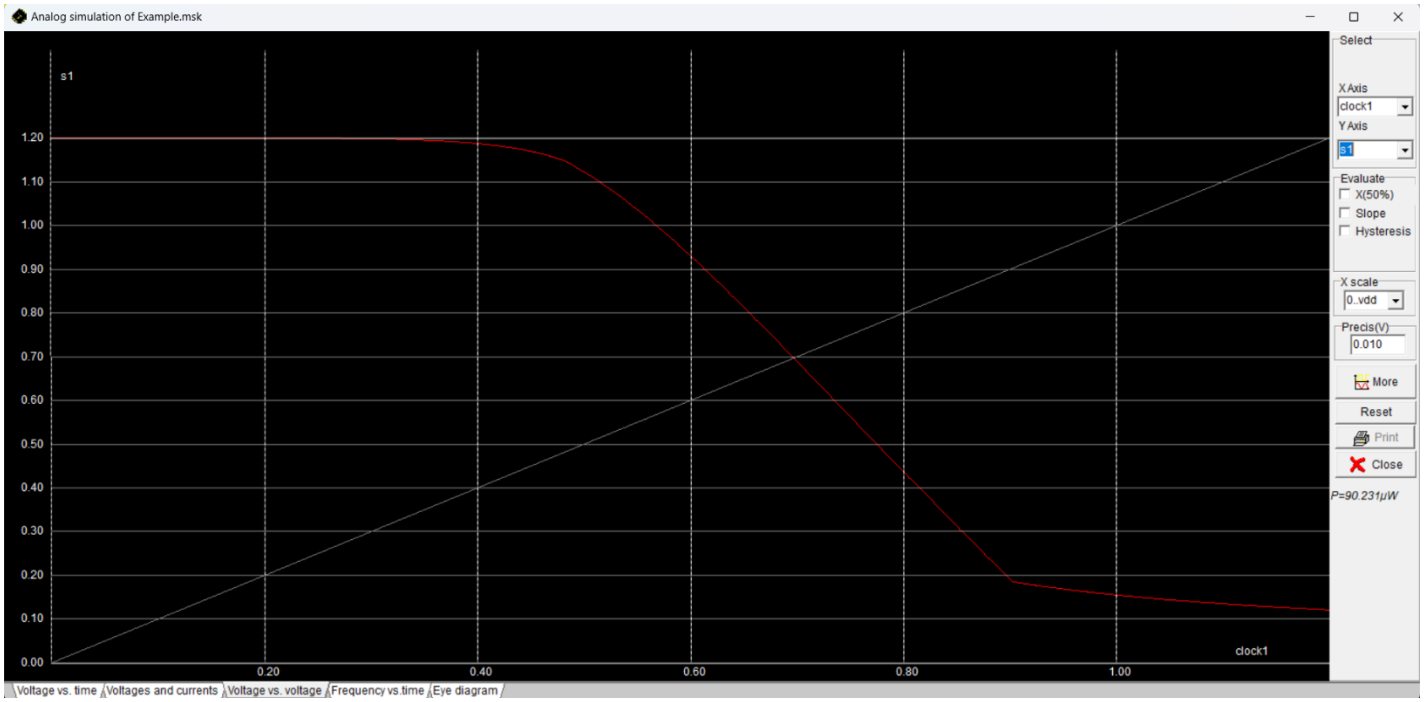

Analog simulation of Example.msk
s1
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.20
0.40
0.60
0.80
1.00
clock1
Select
X Axis
clock1
Y Axis
s1
Evaluate
X(50%)
Slope
Hysteresis
X scale
0..vdd
Precis(V)
0.010
More
Reset
Print
Close
P=0.619µW
Voltage vs. time
Voltages and currents
Voltage vs. voltage
Frequency vs.time
Eye diagram

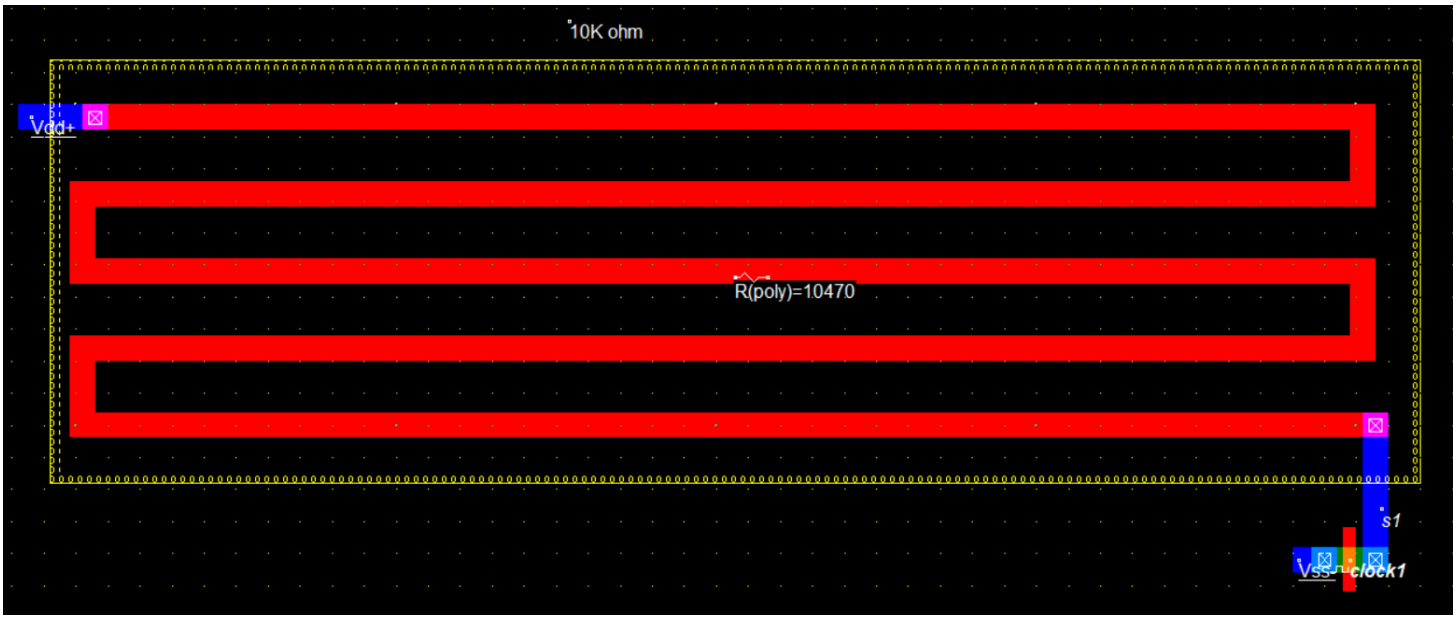
1) 7K OHM


7k ohm
Vdd+
R(poly)
s1
clock1
Vss

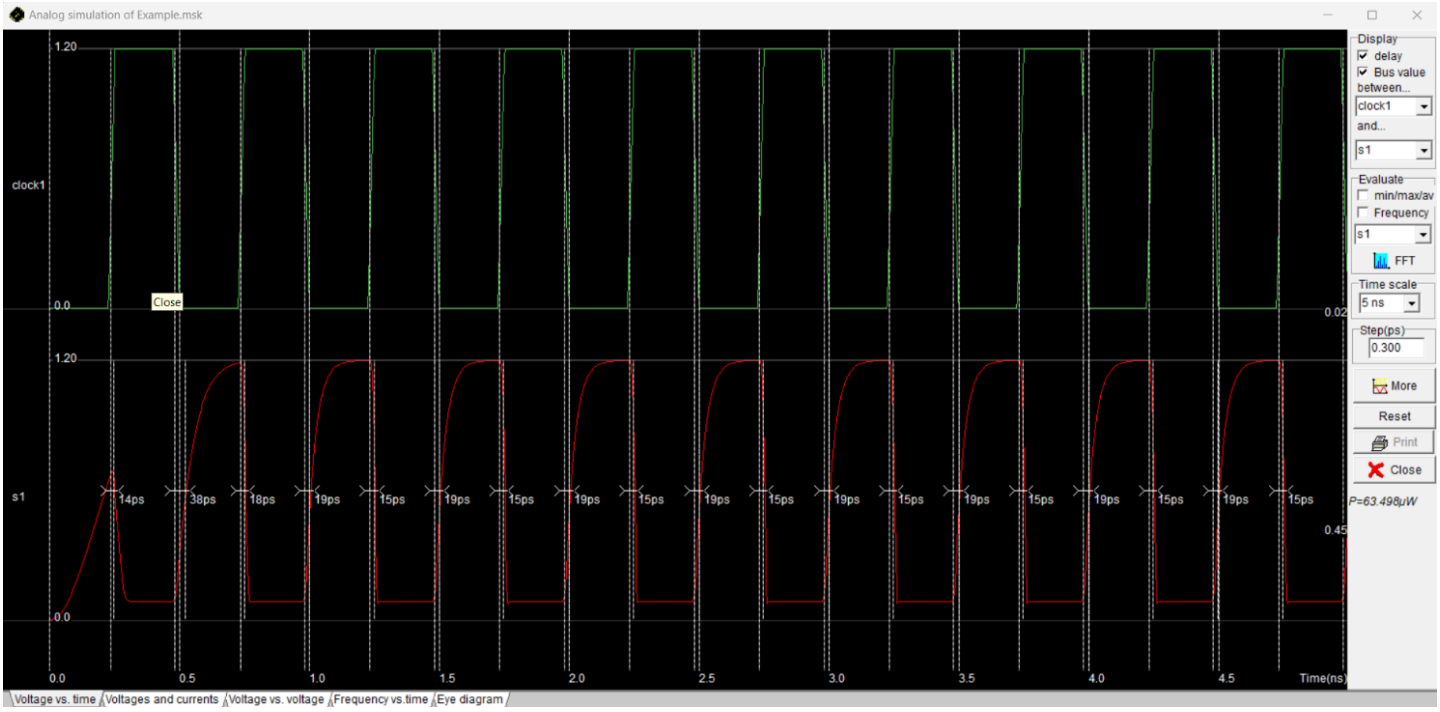

Analog simulation of Example.msk
clock1
s1
13ps
7ps
8ps
Time(ns)
Voltage vs. time
Voltages and currents
Voltage vs. voltage
Frequency vs.time
Eye diagram
Display
delay
Bus value between...
clock1
and...
s1
Evaluate
min/max/av
Frequency
FFT
Time scale
5 ns
Step(ps)
0.300
More
Reset
Print
Close
P=90.231µW

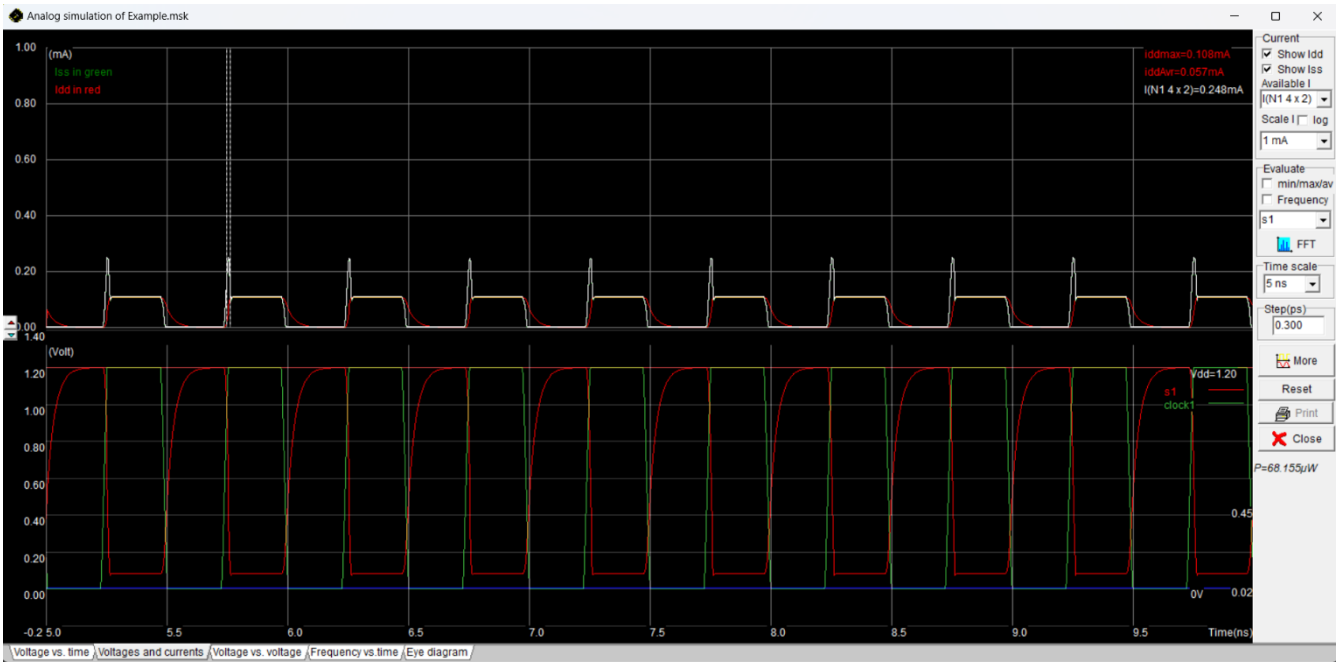

Analog simulation of Example.msk
(mA)
Iss in green
Idd in red
iddmax=0.152mA
iddAvr=0.075mA
I(N1 4 x 2)=0.246mA
(Volt)
Vdd=1.20
s1
clock1
Time(ns)
Voltage vs. time
Voltages and currents
Voltage vs. voltage
Frequency vs.time
Eye diagram
Current
Show Idd
Show Iss
Available I
I(N1 4 x 2)
Scale I
log
1 mA
Evaluate
min/max/av
Frequency
s1
FFT
Time scale
5 ns
Step(ps)
0.300
More
Reset
Print
Close
P=90.231µW

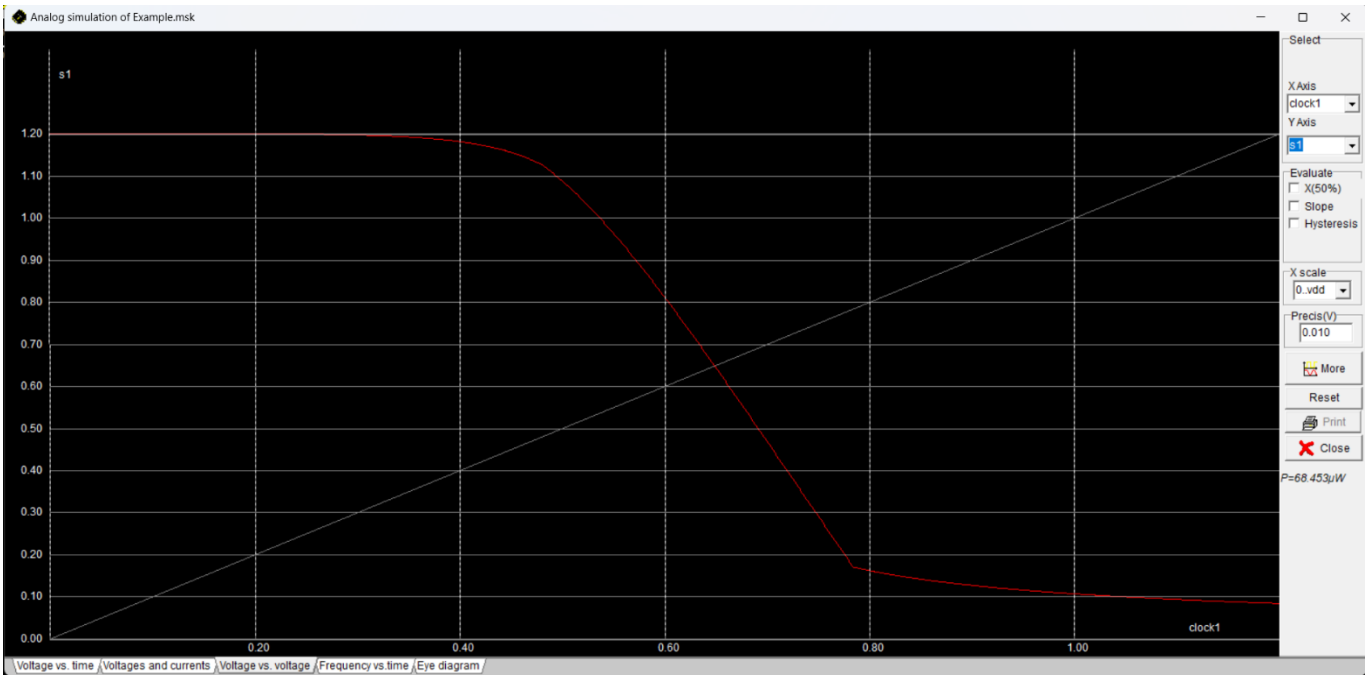

Analog simulation of Example.msk
s1
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.20
0.40
0.60
0.80
1.00
clock1
Select
X Axis
clock1
Y Axis
s1
Evaluate
X(50%)
Slope
Hysteresis
X scale
0..vdd
Precis(V)
0.010
More
Reset
Print
Close
P=90.231µW
Voltage vs. time
Voltages and currents
Voltage vs. voltage
Frequency vs.time
Eye diagram


10K ohm
Vdd+
R(poly)=10470
s1
Vss
clock1

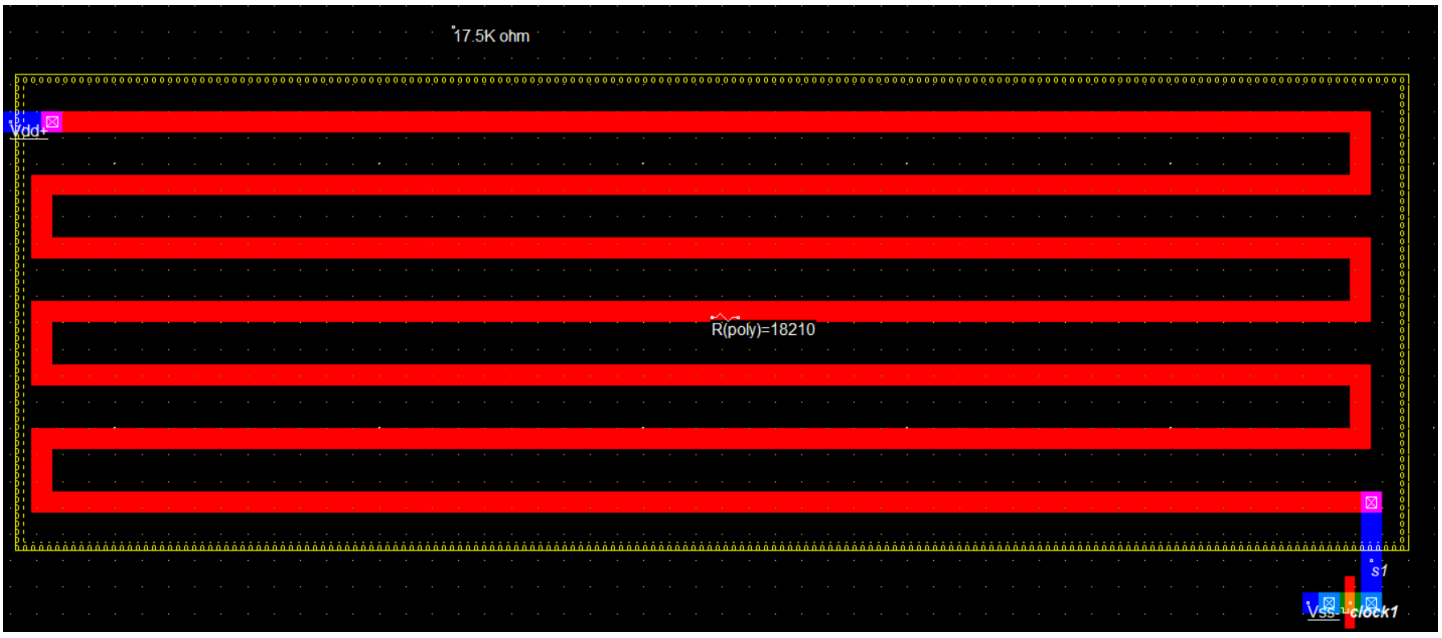
2) 10K OHM

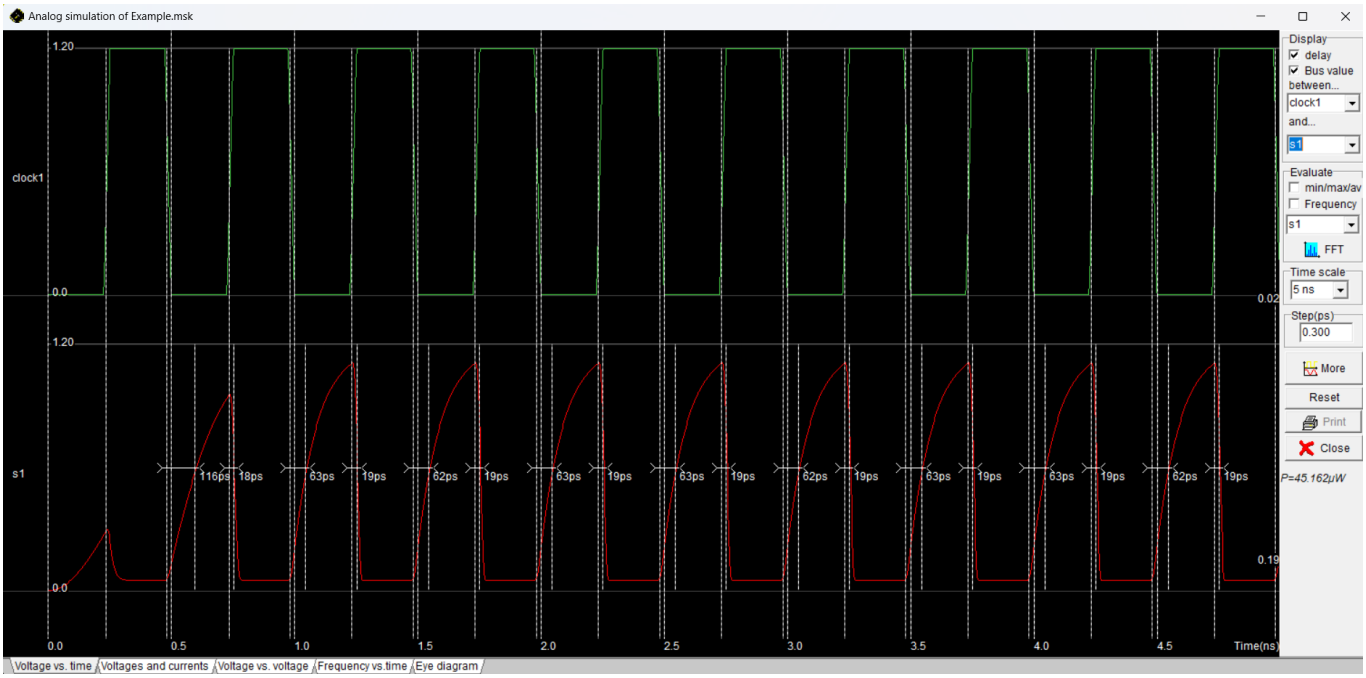

Analog simulation of Example.msk
1.20
clock1
0.0
Close
1.20
s1
0.0
14ps
38ps
18ps
19ps
15ps
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
Time(ns)
Display
delay
Bus value
between...
clock1
and...
s1
Evaluate
min/max/av
Frequency
s1
FFT
Time scale
5 ns
Step(ps)
0.300
More
Reset
Print
Close
P=63.498µW
Voltage vs. time
Voltages and currents
Voltage vs. voltage
Frequency vs.time
Eye diagram

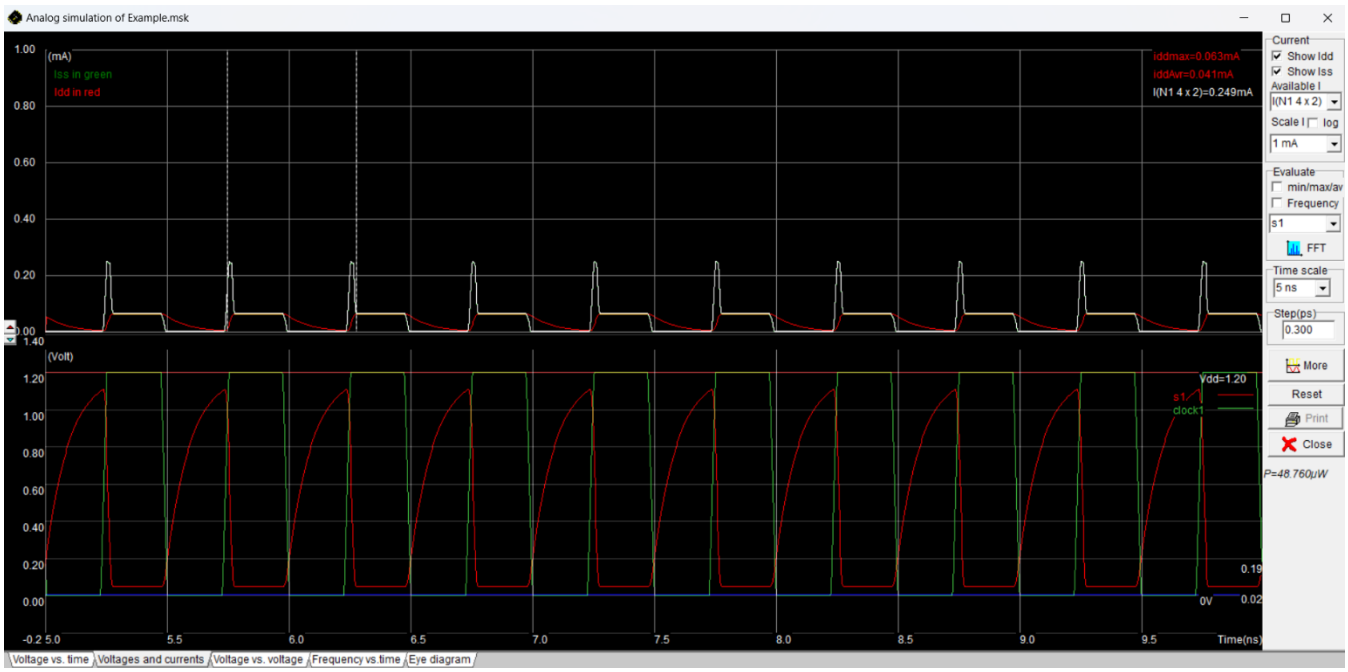

Analog simulation of Example.msk
(mA)
Iss in green
Idd in red
iddmax=0.108mA
iddAv=0.057mA
I(N1 4 x 2)=0.248mA
Current
Show Idd
Show Iss
Available I
I(N1 4 x 2)
Scale I log
1 mA
Evaluate
min/max/av
Frequency
s1
FFT
Time scale
5 ns
Step(ps)
0.300
More
Reset
Print
Close
P=68.155µW
(Volt)
Vdd=1.20
s1
clock1
0V
Time(ns)
Voltage vs. time
Voltages and currents
Voltage vs. voltage
Frequency vs.time
Eye diagram

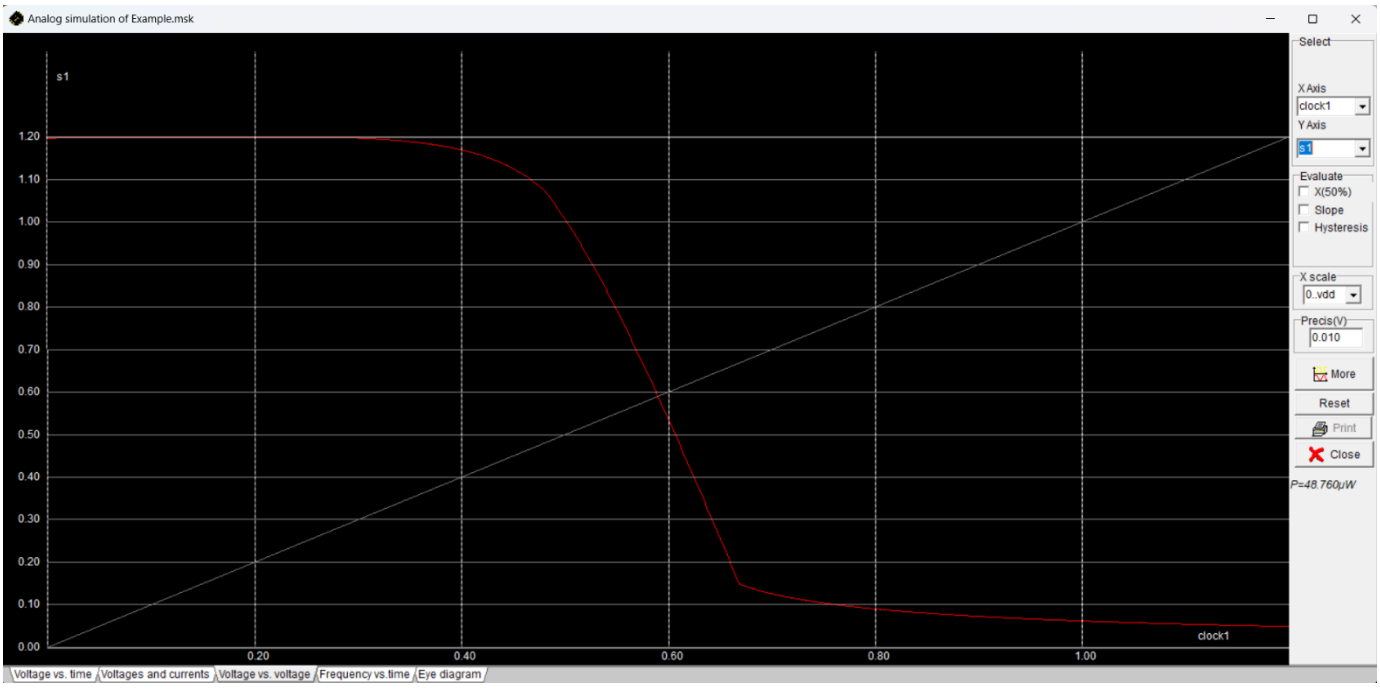

Analog simulation of Example.msk
s1
Select
X Axis
clock1
Y Axis
s1
Evaluate
X(50%)
Slope
Hysteresis
X scale
0..vdd
Precis(V)
0.010
More
Reset
Print
Close
P=68.453µW
clock1
Voltage vs. time
Voltages and currents
Voltage vs. voltage
Frequency vs.time
Eye diagram

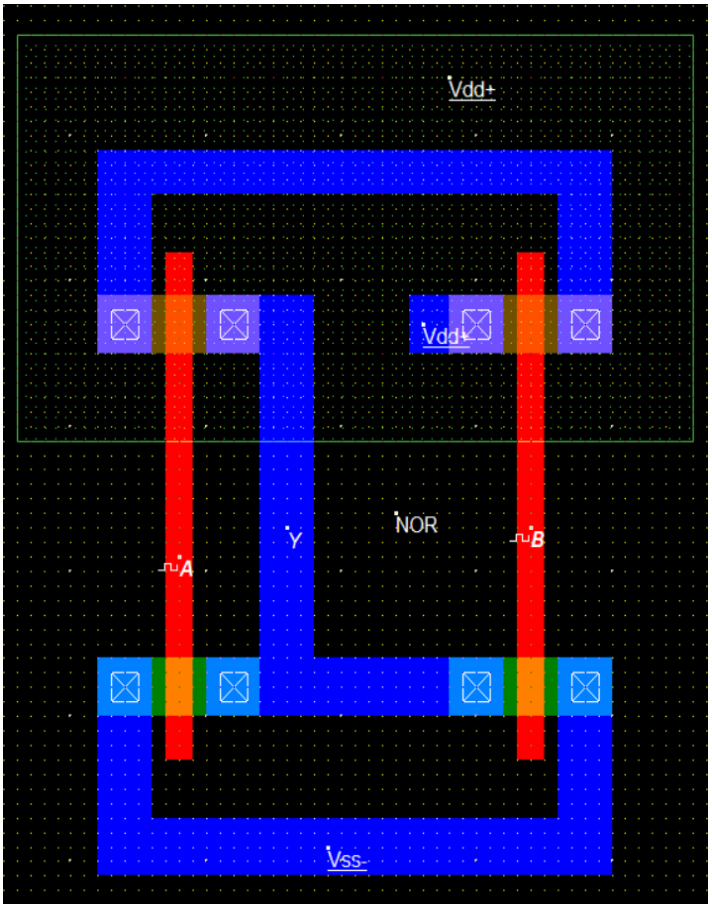
3)17.5K OHM


17.5K ohm
Vdd
R(poly)=18210
s1
Vss
clock1

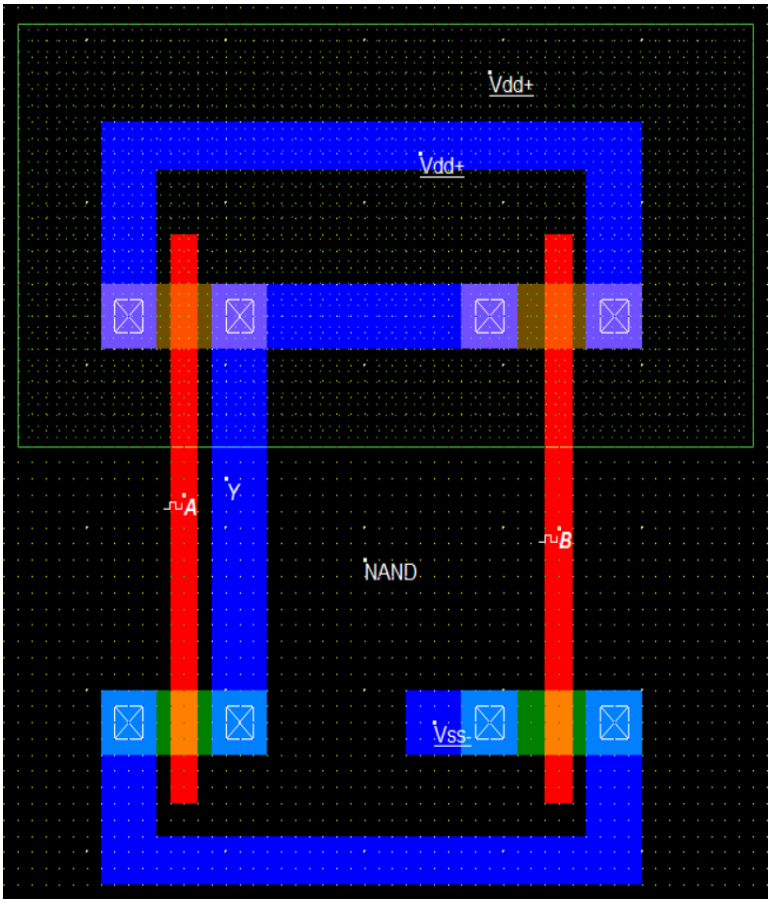

Analog simulation of Example.msk
clock1
s1
116ps
18ps
83ps
19ps
82ps
Time(ns)
Voltage vs. time
Voltages and currents
Voltage vs. voltage
Frequency vs.time
Eye diagram
Display
delay
Bus value between...
clock1
and...
s1
Evaluate
min/max/av
Frequency
FFT
Time scale
5 ns
Step(ps)
0.300
More
Reset
Print
Close
P=45.162µW


Analog simulation of Example.msk
(mA)
Iss in green
Idd in red
iddmax=0.063mA
iddAvr=0.041mA
I(N1 4 x 2)=0.249mA
(Volt)
Vdd=1.20
s1
clock1
Time(ns)
Voltage vs. time
Voltages and currents
Voltage vs. voltage
Frequency vs.time
Eye diagram
Current
Show Idd
Show Iss
Available I
I(N1 4 x 2)
Scale I
log
1 mA
Evaluate
min/max/av
Frequency
s1
FFT
Time scale
5 ns
Step(ps)
0.300
More
Reset
Print
Close
P=48.760µW

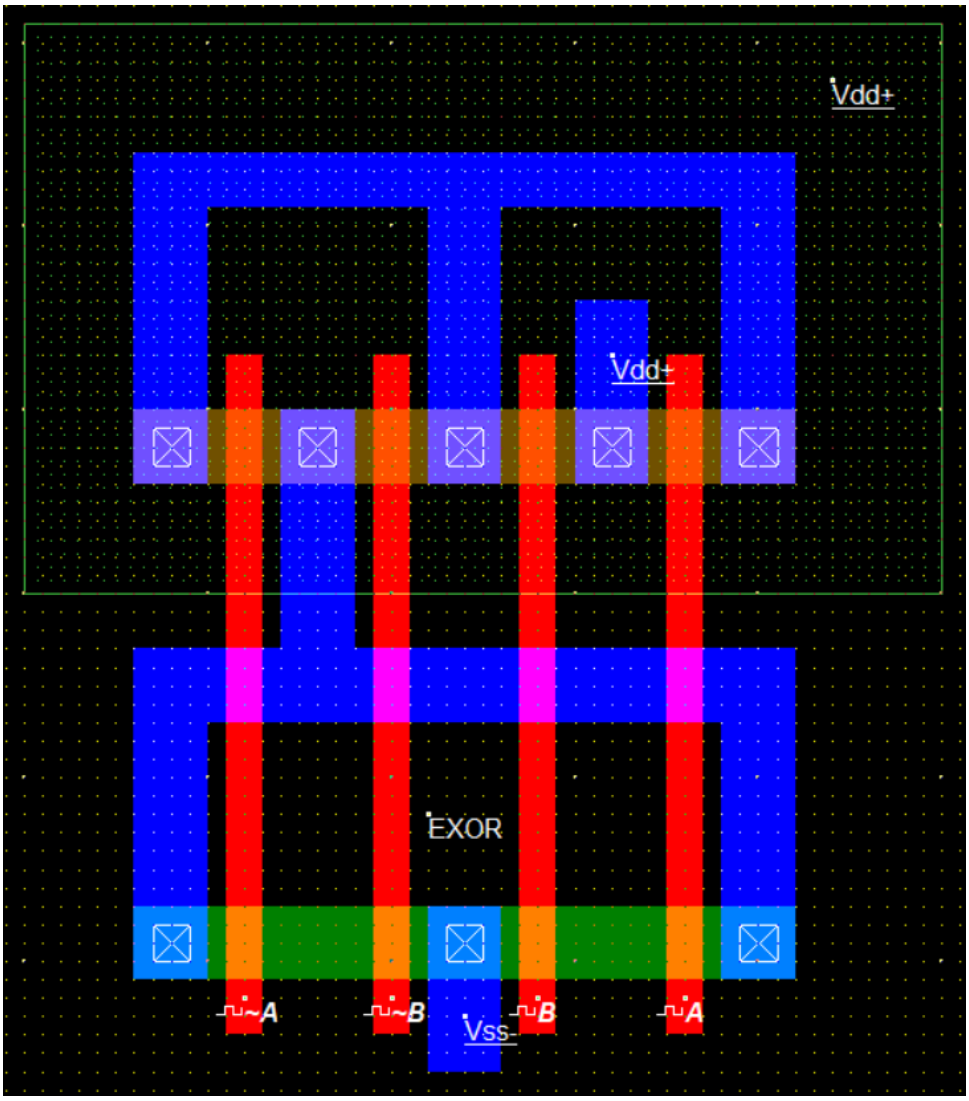

Analog simulation of Example.msk
s1
clock1
Voltage vs. time
Voltages and currents
Voltage vs. voltage
Frequency vs.time
Eye diagram
Select
X Axis
clock1
Y Axis
s1
Evaluate
X(50%)
Slope
Hysteresis
X scale
0..vdd
Precis(V)
0.010
More
Reset
Print
Close
P=48.760µW



NOR GATE



NAND GATE



EXOR GATE