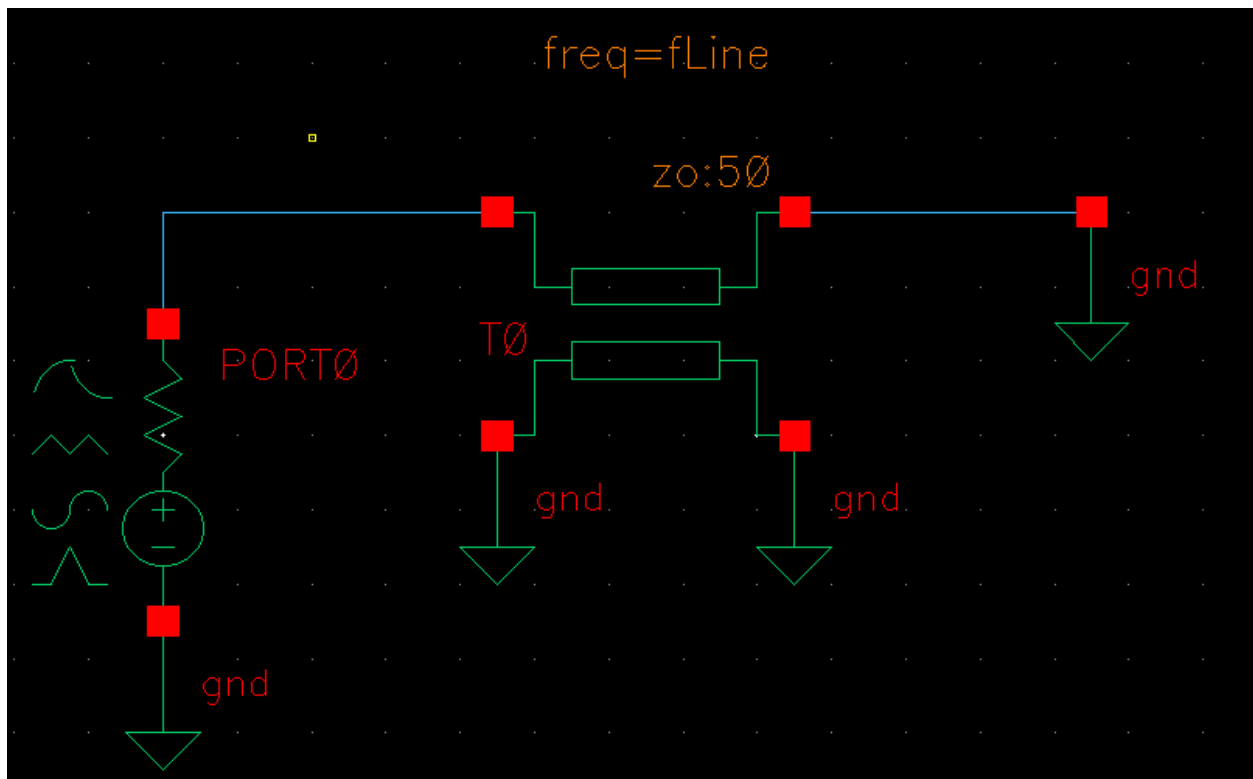


- Short circuit case

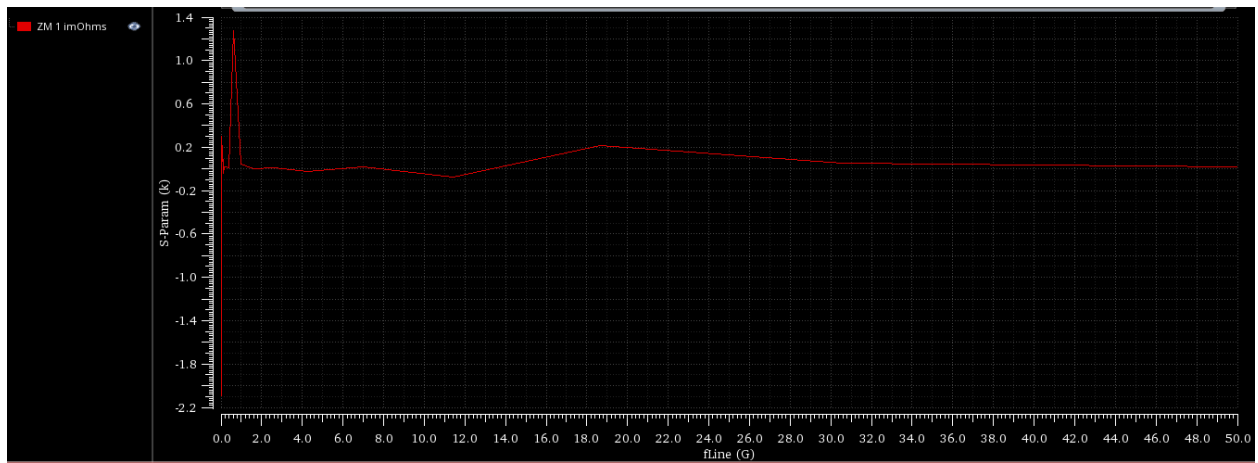


Netlist

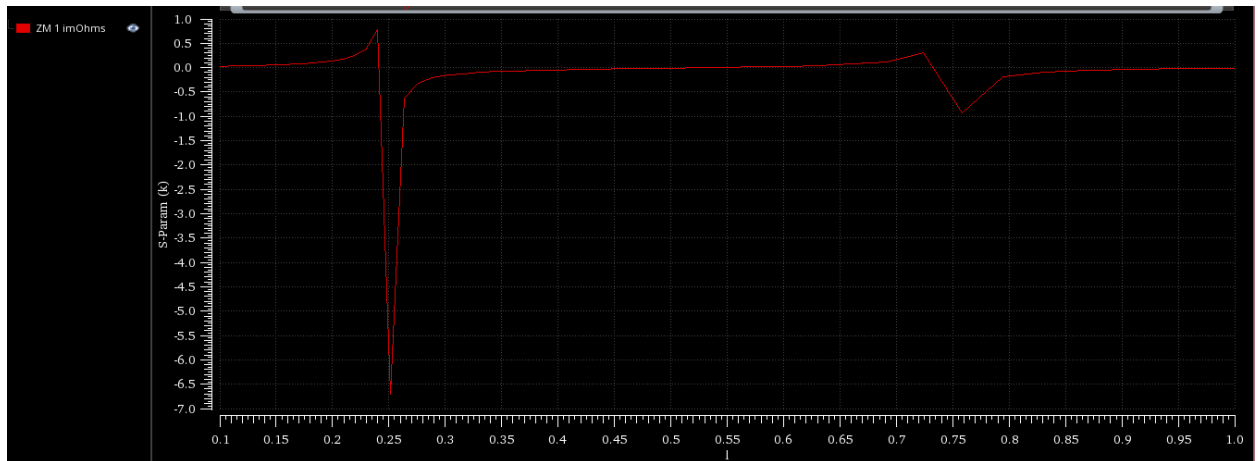
$T0$ (0 0 0 net1) tline $z_0=50$ $f=f_{\text{Line}}$ $nl=l$

PORT0 (net1 0) port $r=50$ num=1 type=sine

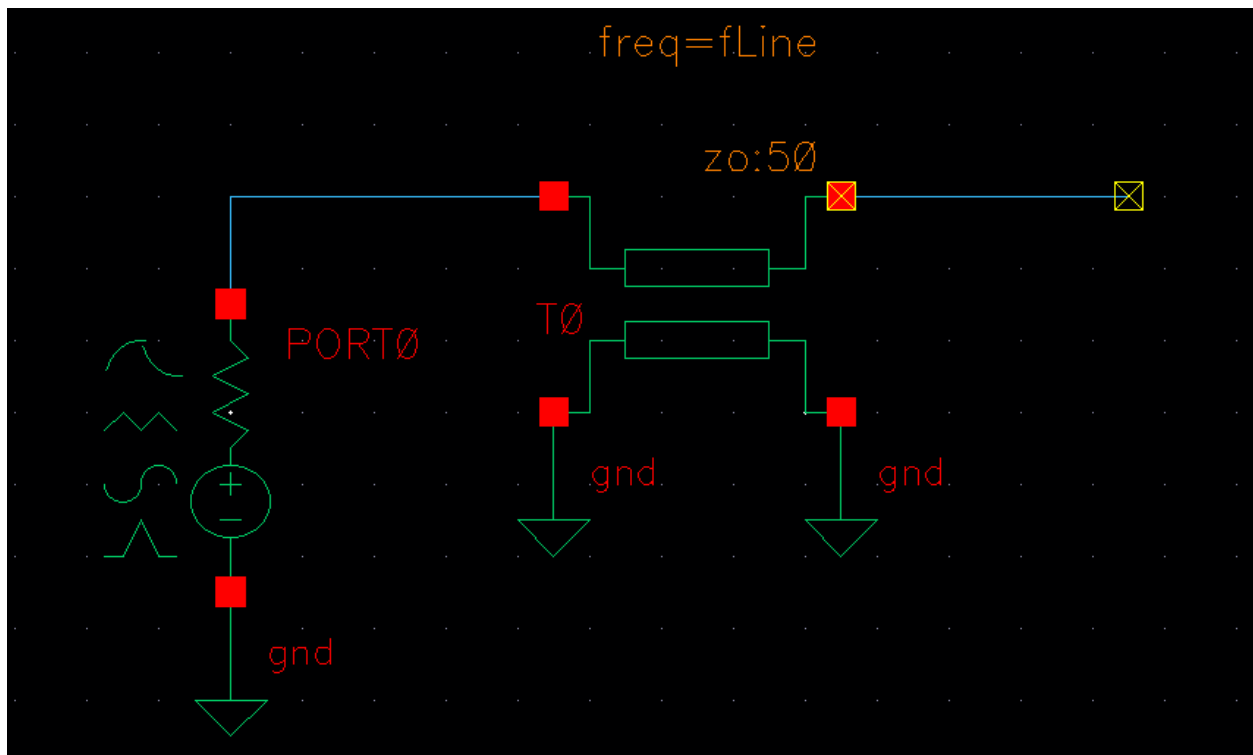
Swept frequency taking normalized length=0.1



Swept length taking frequency= 40 GHz



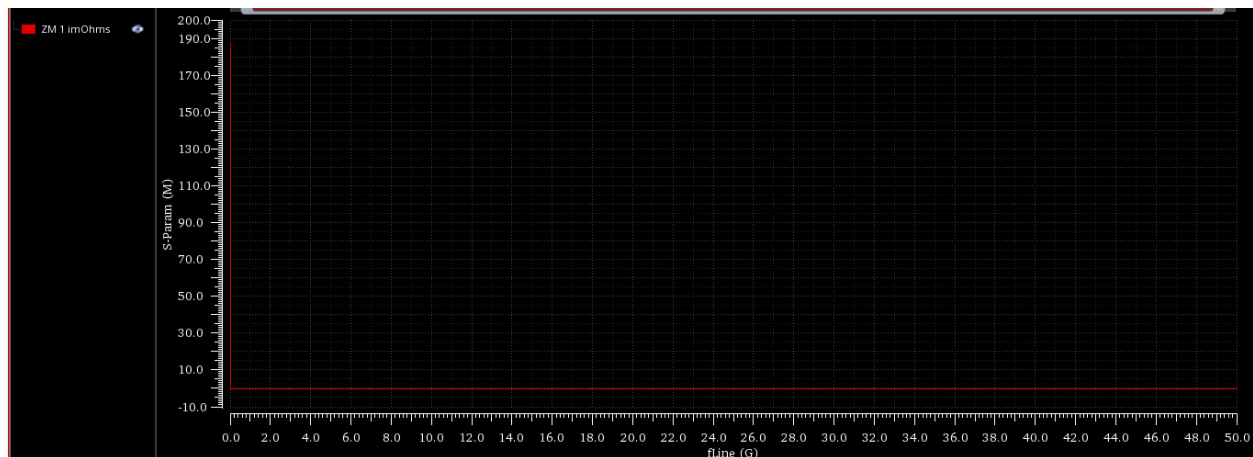
- Open circuit case



Netlist

```
T0 (0 net02 0 net1) tline z0=50 f=fLine nl=1
PORT0 (net1 0) port r=50 num=1 type=sine
```

Swept frequency taking normalized length=0.1



Swept length taking frequency= 40 GHz

