

## NGSPICE

```
.temp 27
.control
option sparse
save all
op
write ota-improved_tb-ac.raw
set appendwrite

ac dec 101 1k 1G
write ota-improved_tb-ac.raw
plot 20*log10(v_out)

meas ac dcgain MAX vmag(v_out) FROM=10 TO=10k
let f3db = dcgain/sqrt(2)
meas ac fbw WHEN vmag(v_out)=f3db FALL=1
let gainerror=(dcgain-1)/1
print dcgain
print fbw
print gainerror

noise v(v_out) Vin dec 101 1k 100MEG 1000
print onoise_total

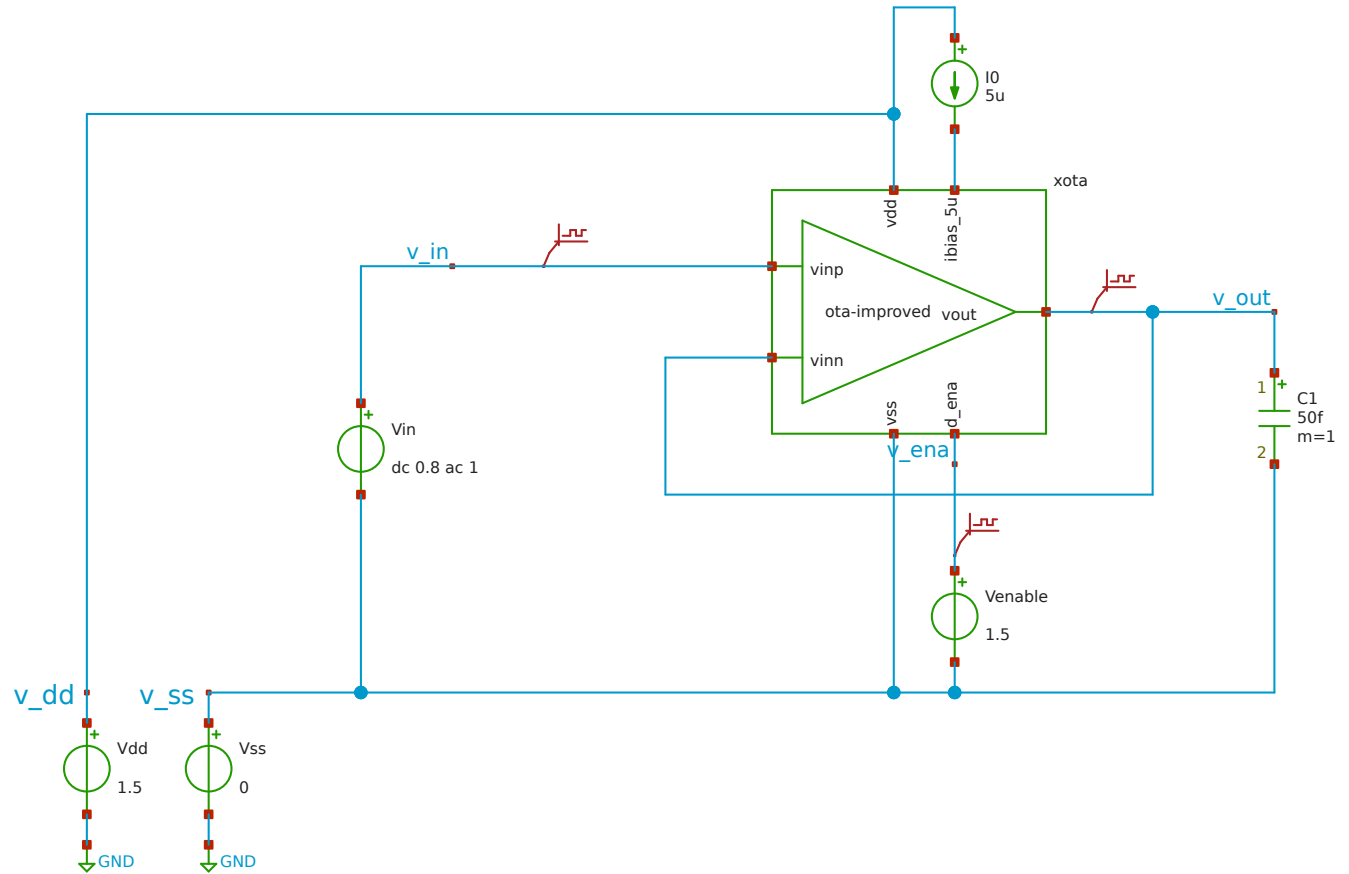
.endc
```

## SAVE

```
.include [file rootname [xschem get schname]].save
```

## MODEL

```
.lib cornerMOSlv.lib mos_tt
.lib cornerRES.lib res_typ
```



➡ simulate

➡ annotate OP