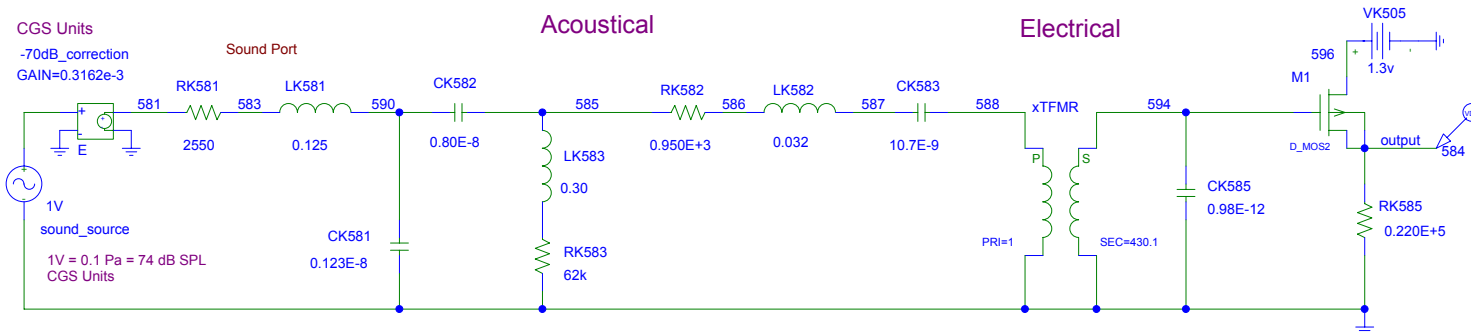




Knowles EM Analog Undamped Response

Last Revised: 10/00



SOUND PORT PARAMETERS

	RK581	LK581	
EM-3346	2.55K	0.125	Undamped, Small Tube
EM-3368	4200	0.125	Damped, Small Tube
EM-4346	1350	0.110	Undamped, Large Tube
EM-4368	4200	0.110	Damped, Large Tube

*MOSFET MODEL

```
.MODEL DNCH_2 NMOS
+ GAMMA=0.5 KP=61.85u L=3.6u
+ LEVEL=1 VTO=-0.5 W=100u
+ RD=2.75k RS=2.75k RSH=30
+ NLEV=2 AF=0.85 KF=1E-25
* Last updated 5/00
*$
```

*IDEAL TRANSFORMER (TFMR)

*PRI is the number of primary turns (nodes 1,2)
*SEC is the number of secondary turns (nodes 3,4)

```
.SUBCKT TFMR-X 1 2 3 4 PARAMS:PRI=1
SEC=1
R1 1 2 9E+12
R3 3 4 9E+12
V1 1 5
G1 4 3 VALUE = {(V1)*PRI/SEC}
E1 5 2 VALUE = {V(3,4)*PRI/SEC}
.ENDS
*$
```