

```

:SQUARES
V3 Vein 0 PULSE([-Ag] (Ag) (delaytime) 1n 1n (ton) (tperiod) (cycles))
param prb 0
tran 0 (simtime) 0 (stepsizes)
param freq 20k
param cycles=9
param delaycycles=0.5
param simtime=(delaycycles+cycles)/freq
param delaytime=delaycycles/freq
param stepsize=simtime/10000
param tperiod=1/freq
param ton=tperiod/2

```

U1 THD meter
Analyzer_In [Out]
Analyzer_Controls.tb to adjust
settings & instructions
".inc Analyzer_Controls.tb" &
".tran 0 (AnalTime) (SettleTime) (MaxStep)"
into main schematic

```

: param Ag 1.7
: param RL 8
: step param Ag LIST 0.1 0.3 1 1.82
: step param RL LIST 4 3 2.5 2
: options plotwsize=0

```

```

:THD
: param Ag 1.6
: param RL 8
: param prb 0
: inc Analyzer_Controls.tb
: tran 0 (AnalTime) (SettleTime) (MaxStep/4)

```

```

CE50d.asc 11mar17rl
17.87% 24.9dB
750 2x57.3mA 0R47 xover
check load stab. O/L.

.lib .\vicardo.tb
.lib .\Cordell-Models.tb
.lib 2sc5171_2sa1830.lib
.lib 2sc5200_2sa1943.lib
.lib mylibs.tb

: param prb 0
: V3 Vein 0 0
: .op

: param Ag 1.6
: param RL 2
: param prb 0
: tran 0 0.1m 0 0.1u
: V3 Vein 0 AC 1
: .ac dec 10 10k 100Meg
: V3 Vein 0 AC 0

```

```

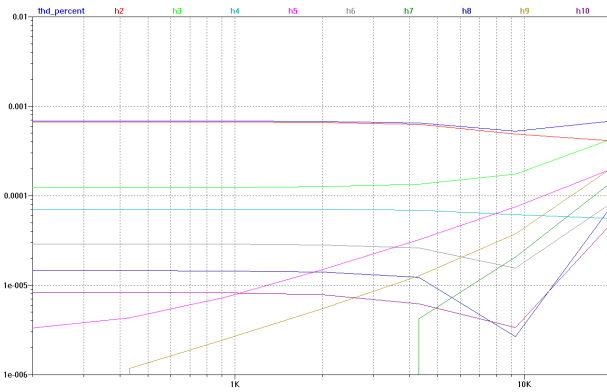
:LOOP GAIN
: param RL 8
: step param prb list -1 1
: .ac dec 30 10k 100Meg
: V3 Vein 0 AC 0

```

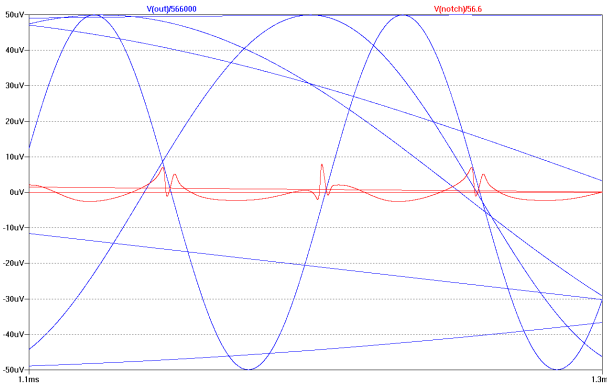
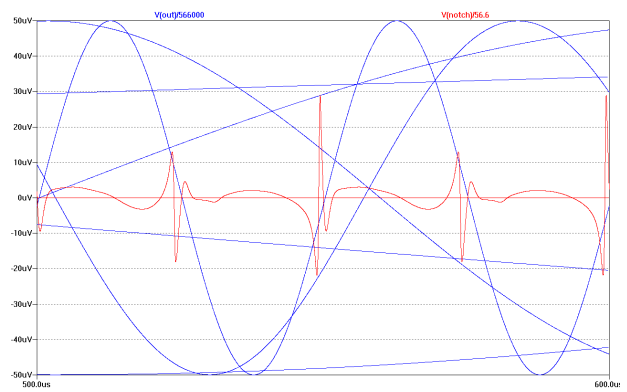
```

:CLOSED LOOP
: param RL 8
: param prb 0
: V3 Vein 0 AC 1
: .ac oct 24 10k 100e6

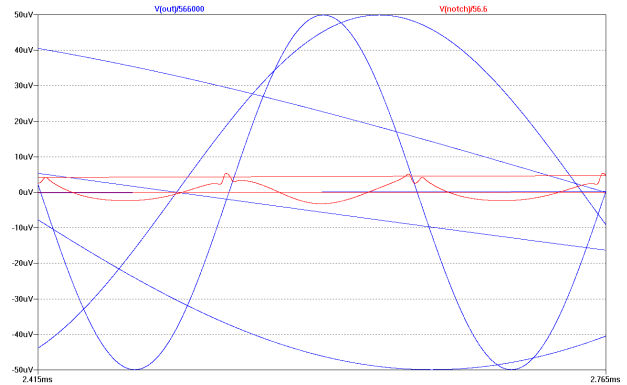
```



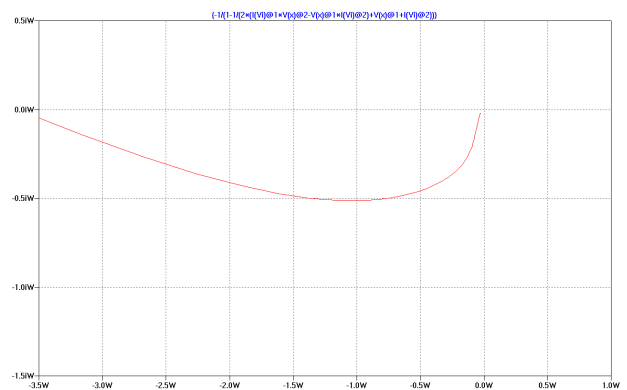
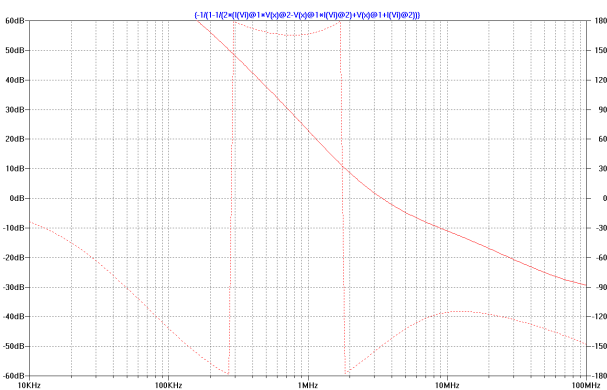
20kHz 50W 8R

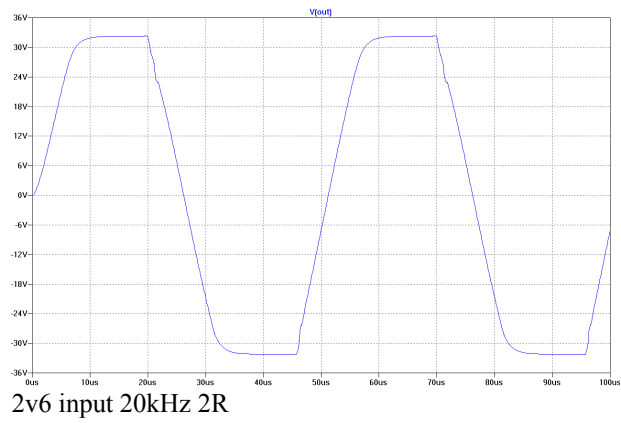


9.3kHz



4.4kHz





Difficult not avoid saturation in outputs so some blocking inevitable.