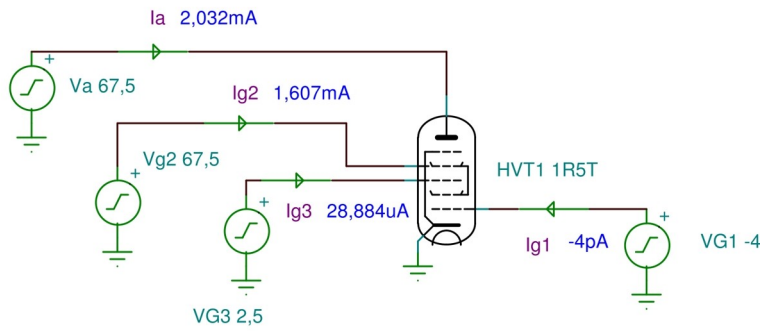
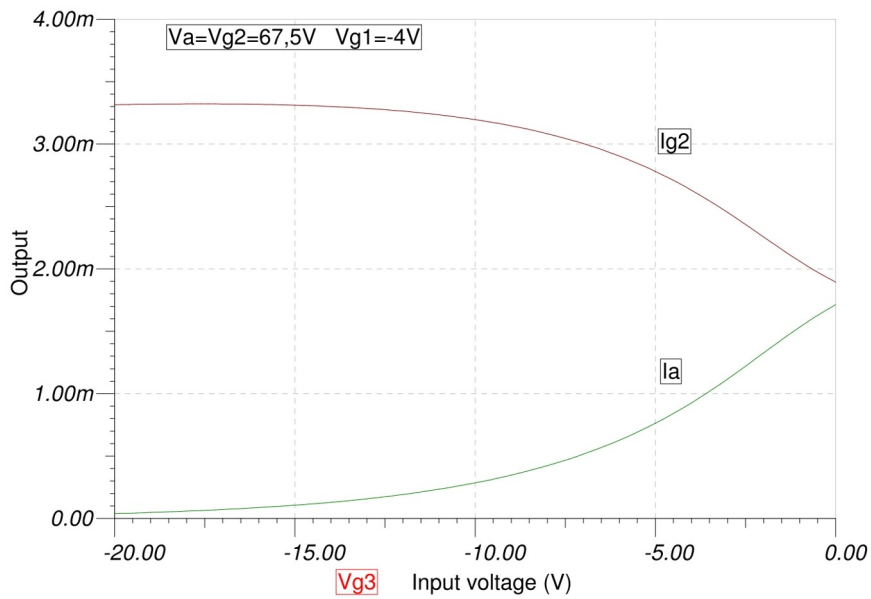
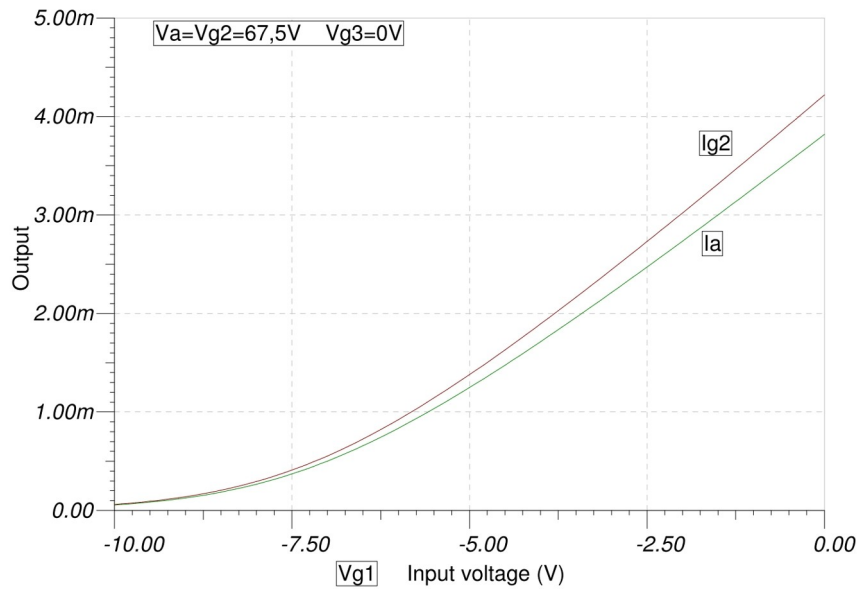


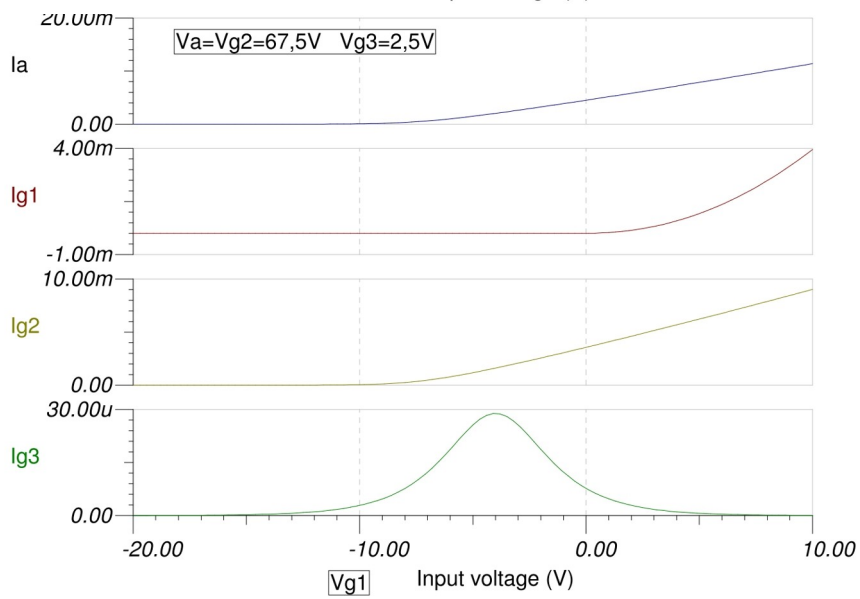
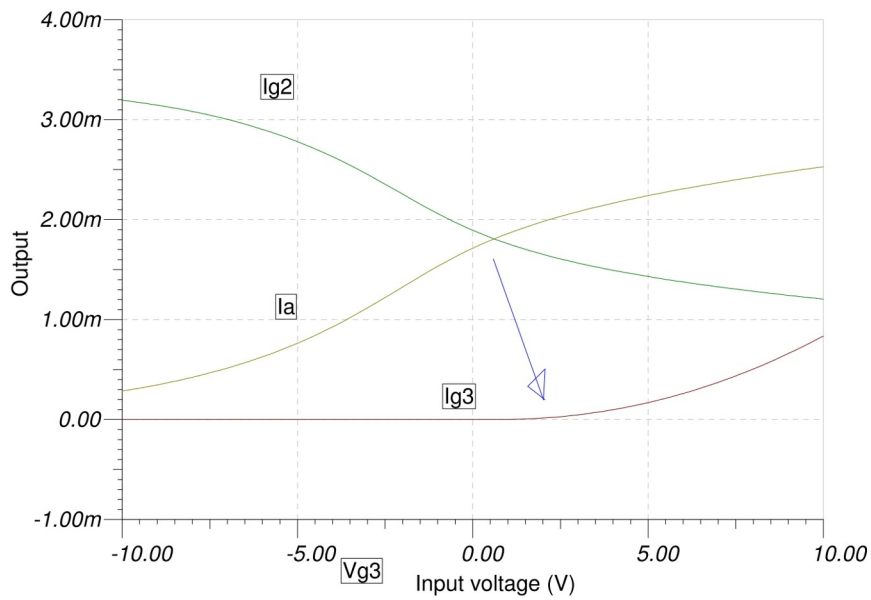
# 1R5T /Tungram, Hungary/ Heptode Macro Model

## DC Characteristics

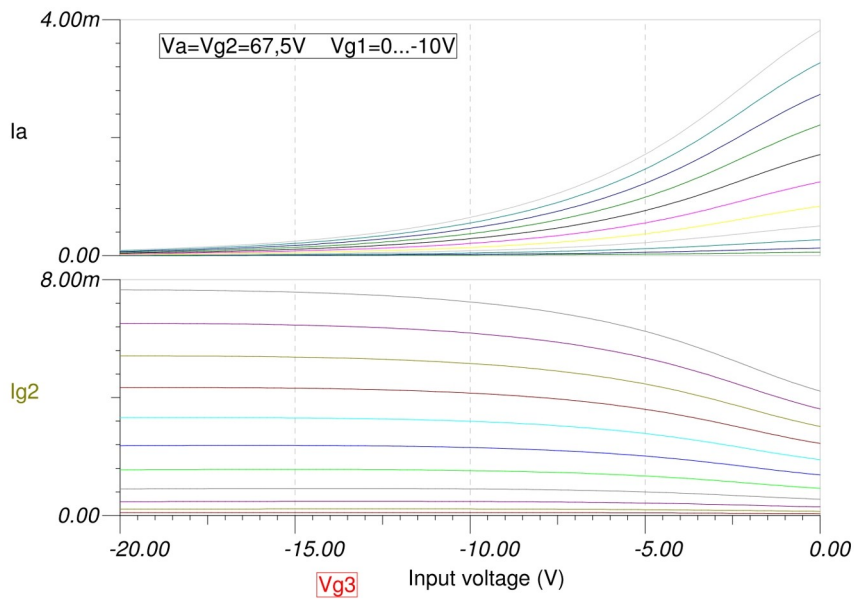


## Mutual Characteristics

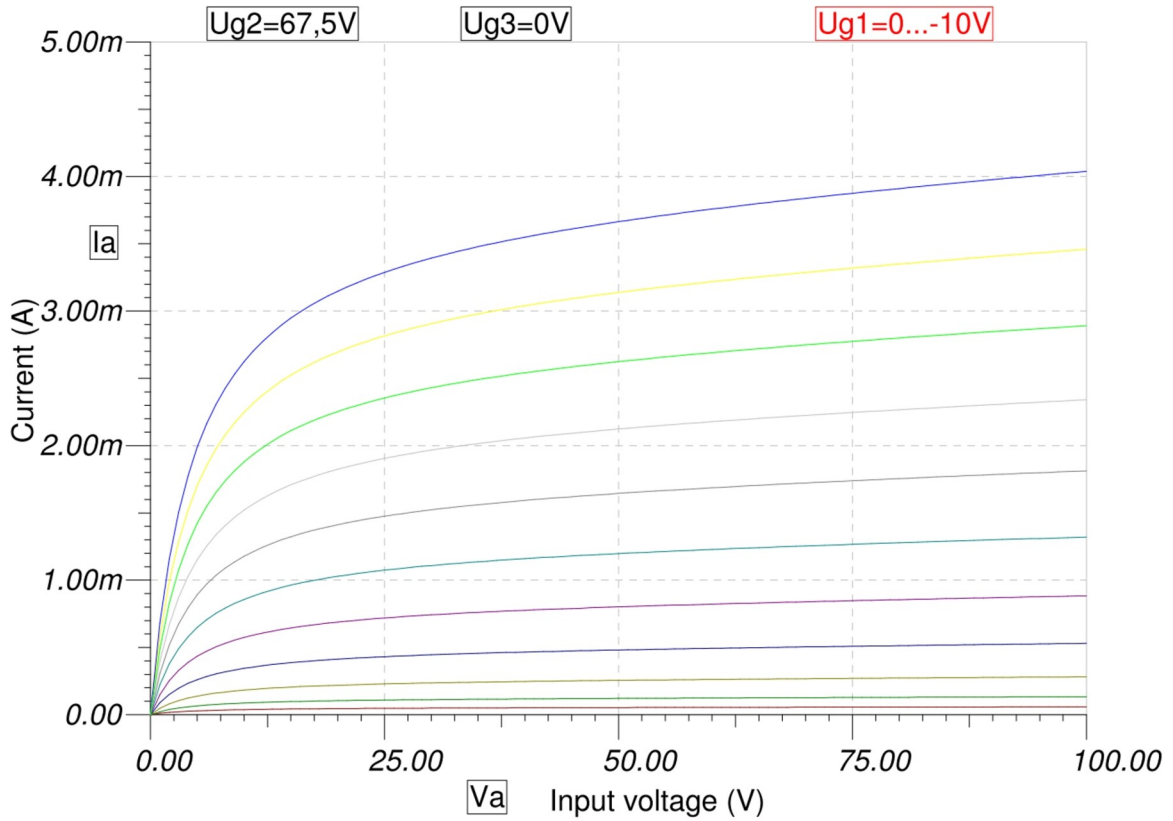




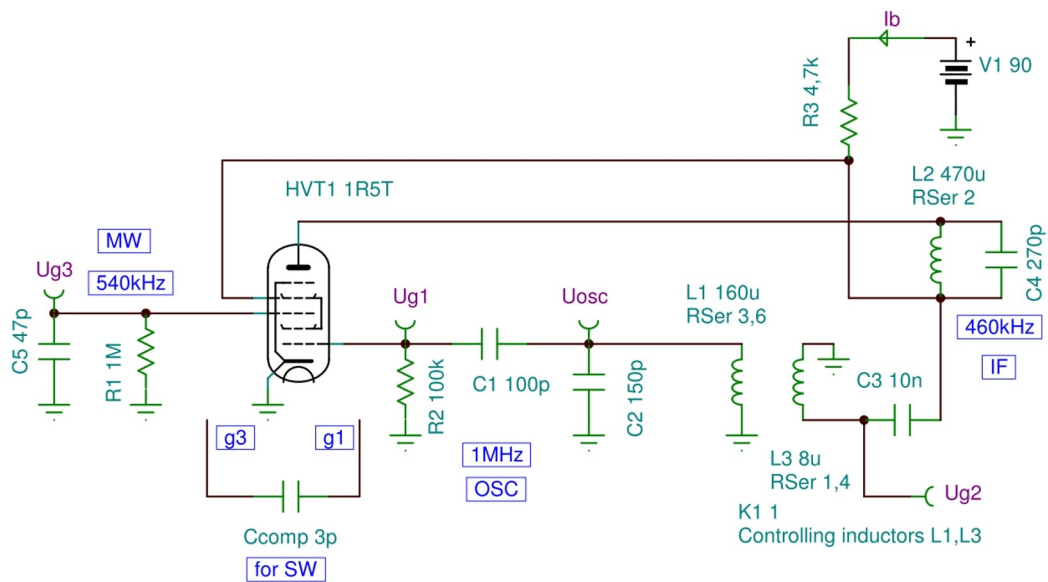
### Output Characteristics



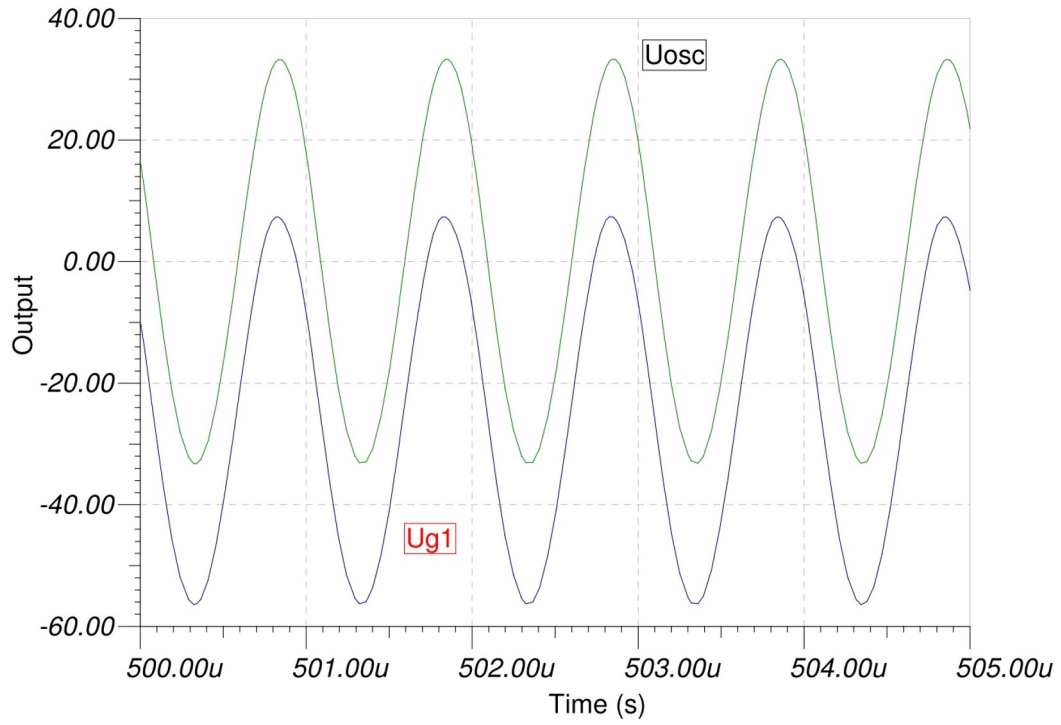
## Anode Characteristic Curves



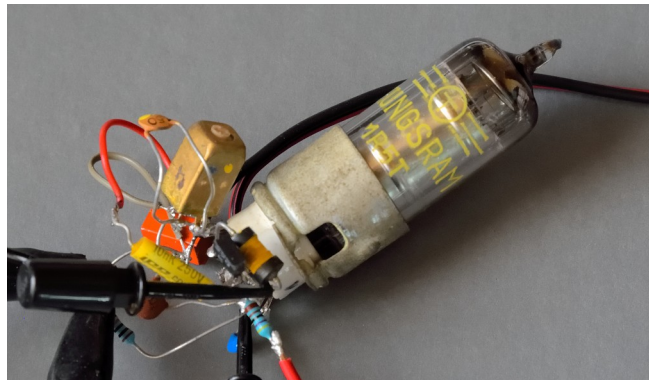
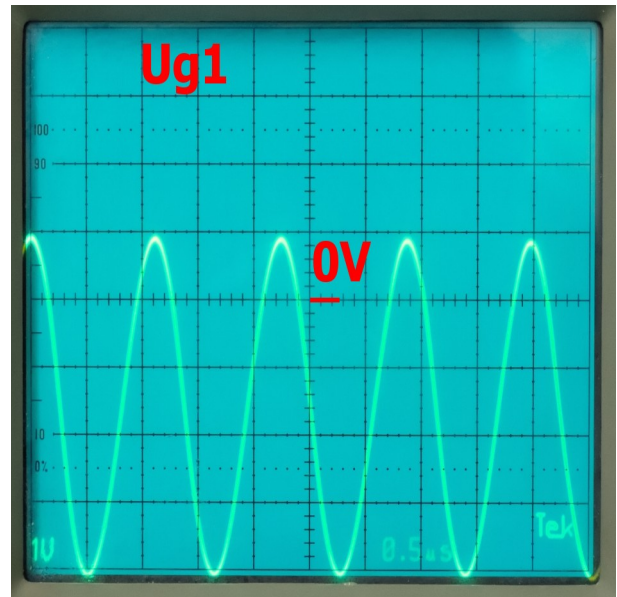
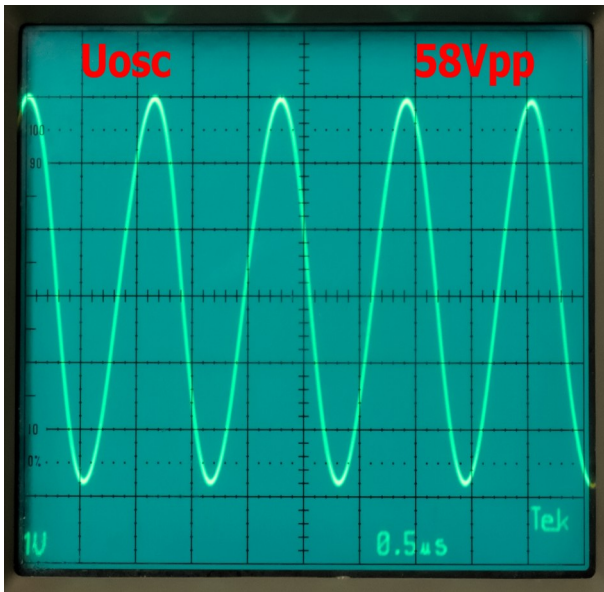
## MW heptode-based self-oscillating pentagrid converter



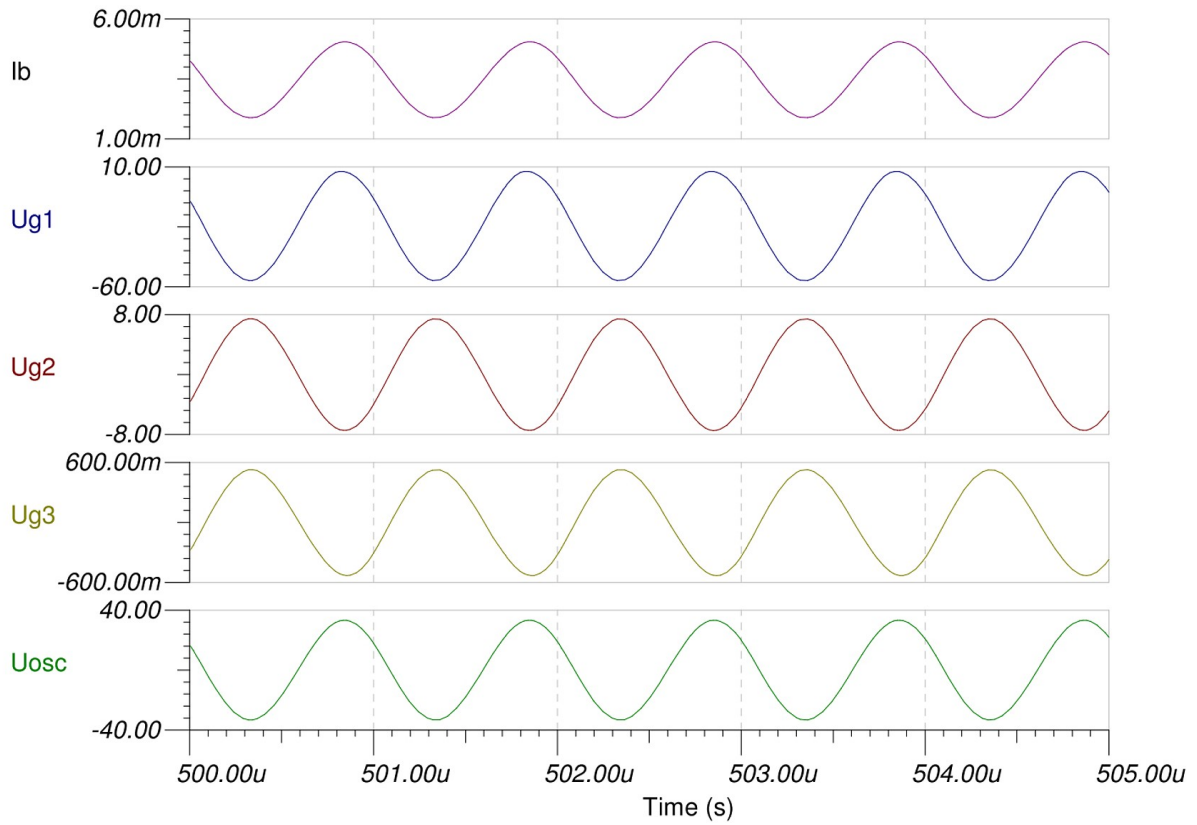
### Model



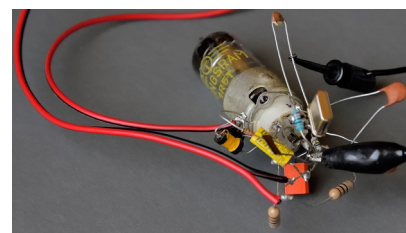
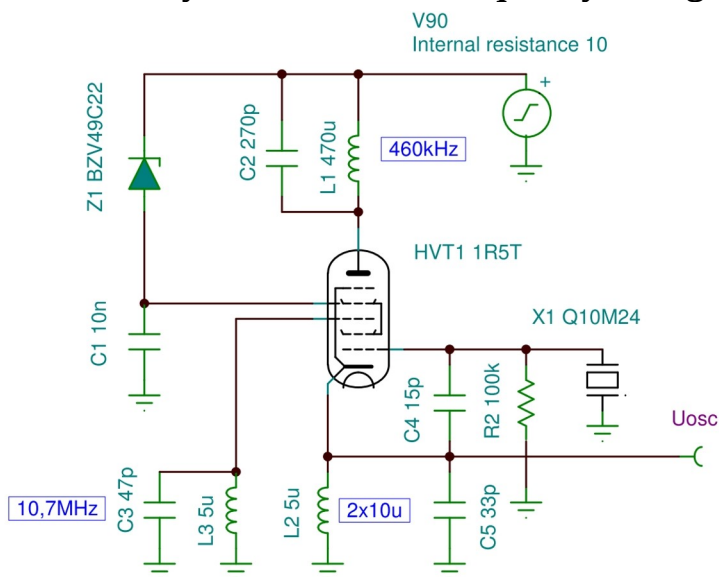
### Real Tube



## AC Characteristics

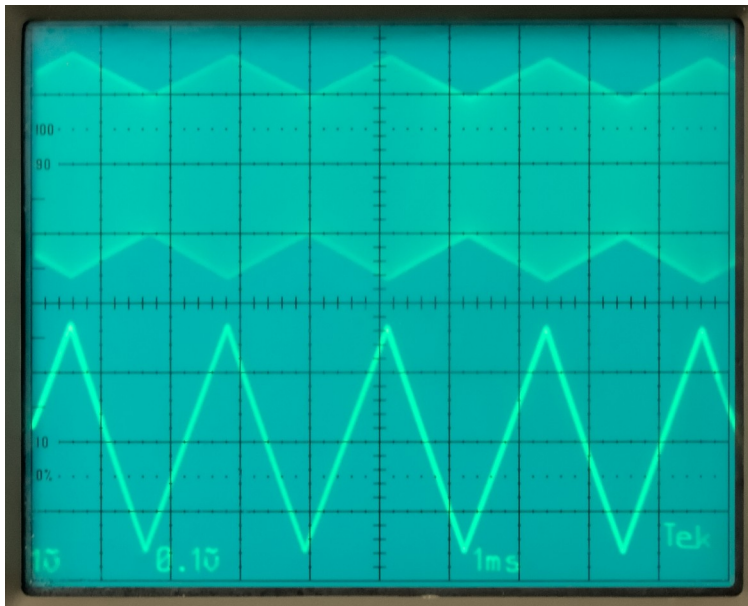
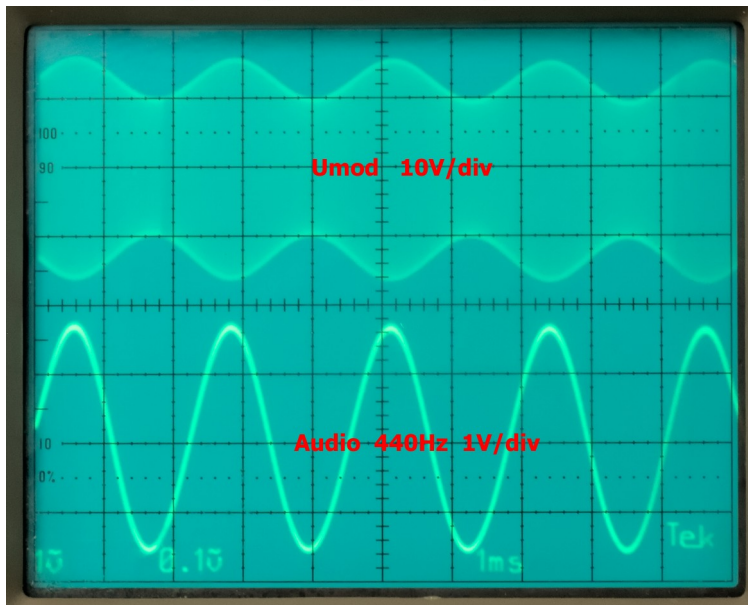
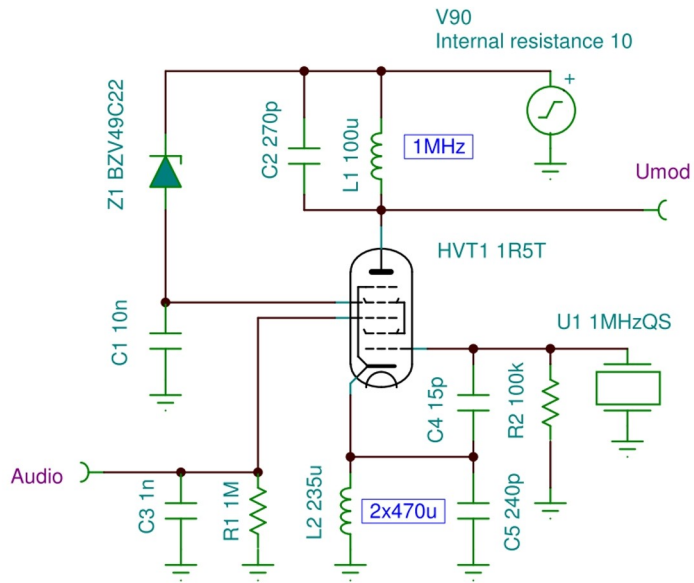


## 10.24MHz crystal oscillator / frequency changer circuit

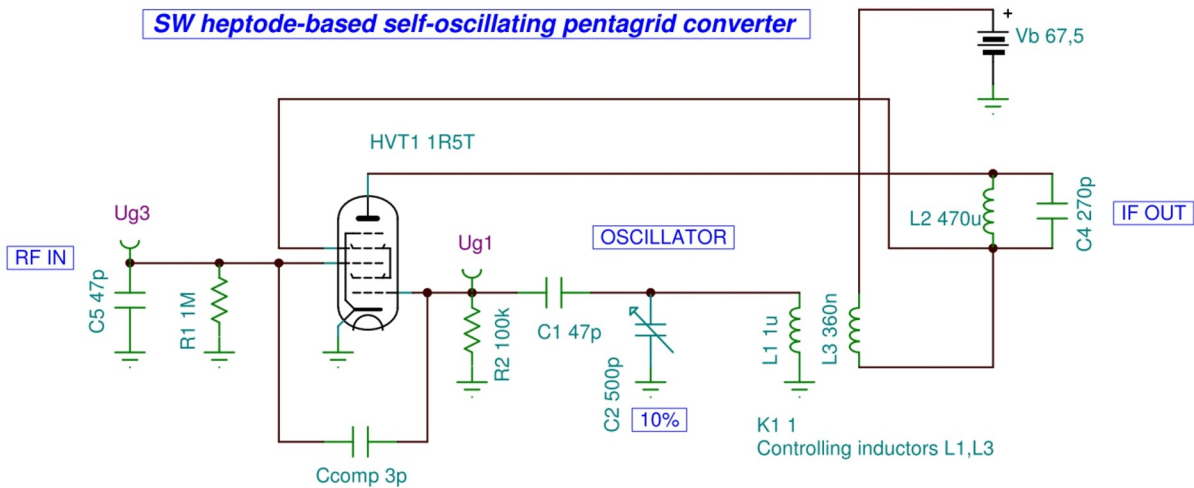




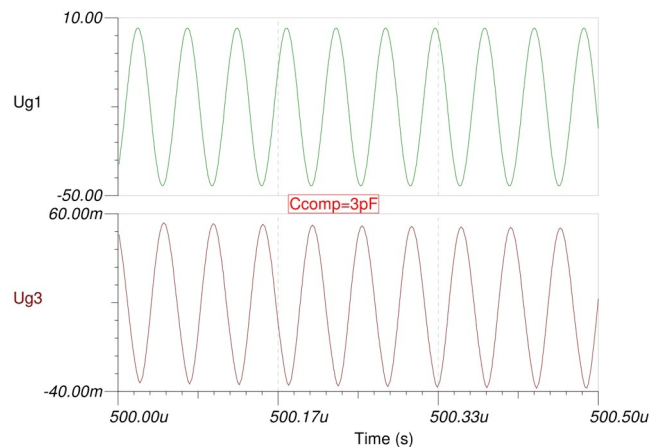
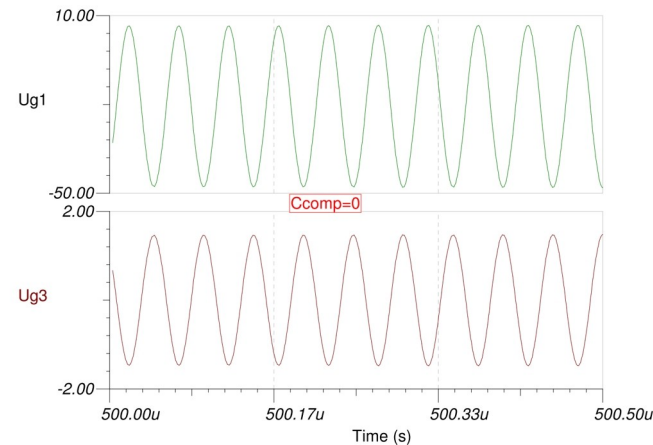
# 1MHz crystal oscillator / AM modulator circuit



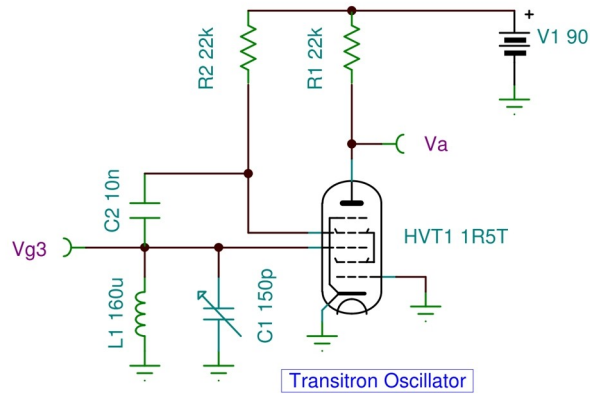
## SW heptode-based self-oscillating pentagrid converter



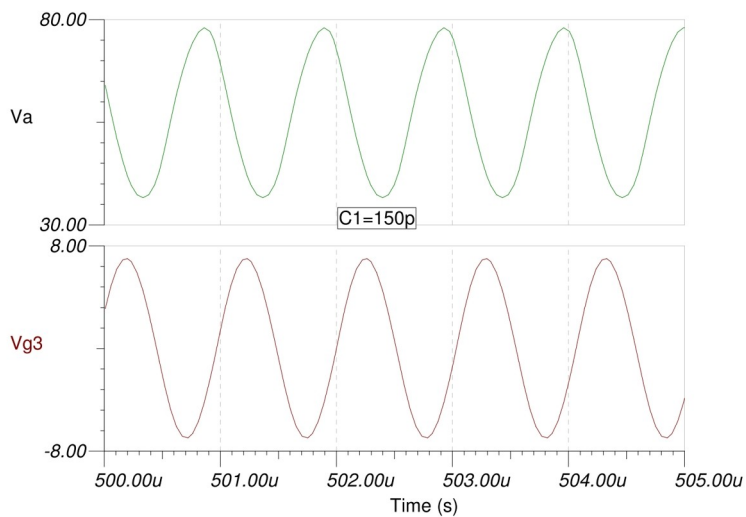
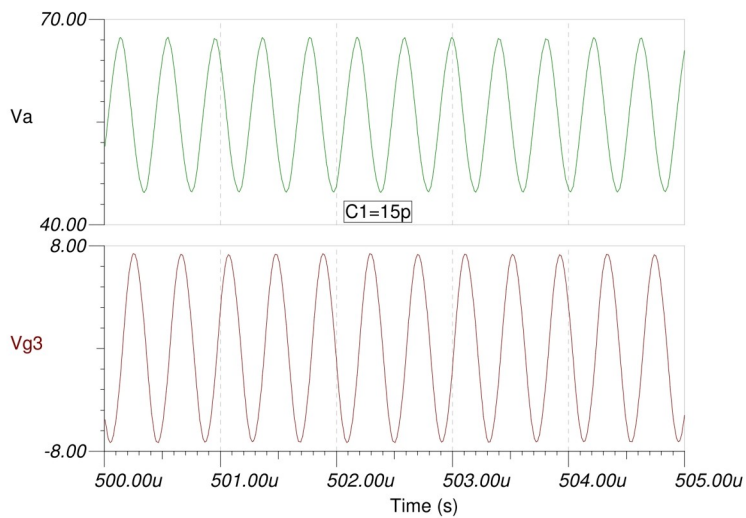
To obtain good results in the short-wave band, a compensating capacitor  $C_{comp}$  must be connected between  $g_1$  and input ( $g_3$ ).  $C_{comp}$  has the effect of reducing the inducted voltage on  $g_3$  ( $C_{g_2g_3}$  inter-electrode capacitance) and therefore also the adverse effects of this voltage. This compensating capacitance can be obtained simply by twisting two, approximately one inch long, thin insulated wires. The receiver is tuned to the high frequency end of the band and  $C_{comp}$  is trimmed for optimum sensitivity.



## Transitron Oscillator



The screen grid (g2) has negative differential resistance with respect to the cathode and can be used to create oscillations.



This model is valid for the following tubes (within max. ratings):  
DK91, 1R5