



**AUREXX CRYSTAL 1 (2011)**  
 mod-0: no NFB;  $A_o=667$ ;  $Z_{out}=45 \text{ Ohm}$ ; 42Hz-35kHz (-3dB). With NFB: at edge of instability (13-4)  
 mod-1:  $R1, 2, 9, 10=1M-1/2W$ ;  $R11, 12=150E-1W$  (14-4)  
 mod-2: Separate chassis = mains from audio ground add  $R17=27E/1W$  and  $C8=100nF/630V$  (15-4)  
 mod-3: add  $R18, 19=1M-1/2W$ ; no NFB.  $Z_{out}=3 \text{ Ohm}$ ;  $A_o=24$ ; 10Hz-37kHz (-3dB);  $P_{max}=2.9W$  (28-4)  
 mod-4: with FB+ $C9, 10=180pF$ -Styro..  $Z_{out}=1.2 \text{ Ohm}$   $A_o=8$ ; 4Hz-60kHz (-3dB);  $P_{max}=3.4W$  (11-5)  
 mod-5:  $C3, 4=22uF/63V$  for first order behavior (18-5)  
 mod-6: remove  $R18, 19$ ; remove  $C3, 4$ ;  $R11, 12=10E$  create neg Bias for EL84 (Leon B. 10-6)  
 mod-7: LED cathode belasting EL84 (Huib)  
 mod-8: voedings stabilisatie (Arjen)  
 mod-9: Leon Bemmelmans: I-bron voor ECC83 (25-10)  
 mod-10: Menno: MEC's + I-bron + EL84 FB + ECC83 op 1,2 mA, anode op 150V, geen NFB (17-12)