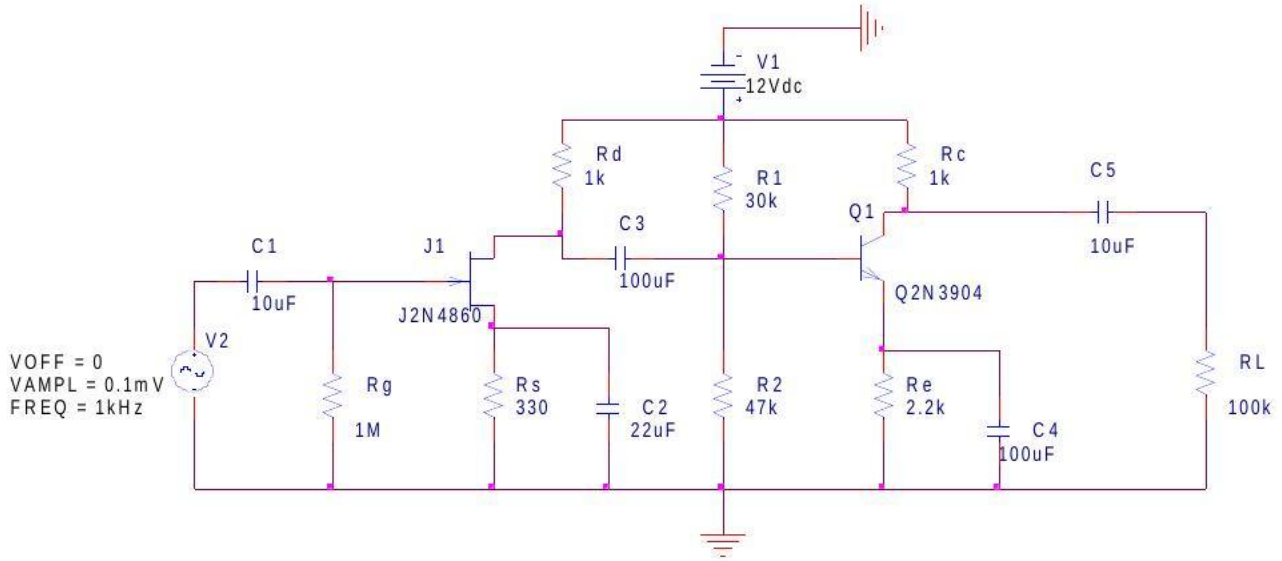


3)

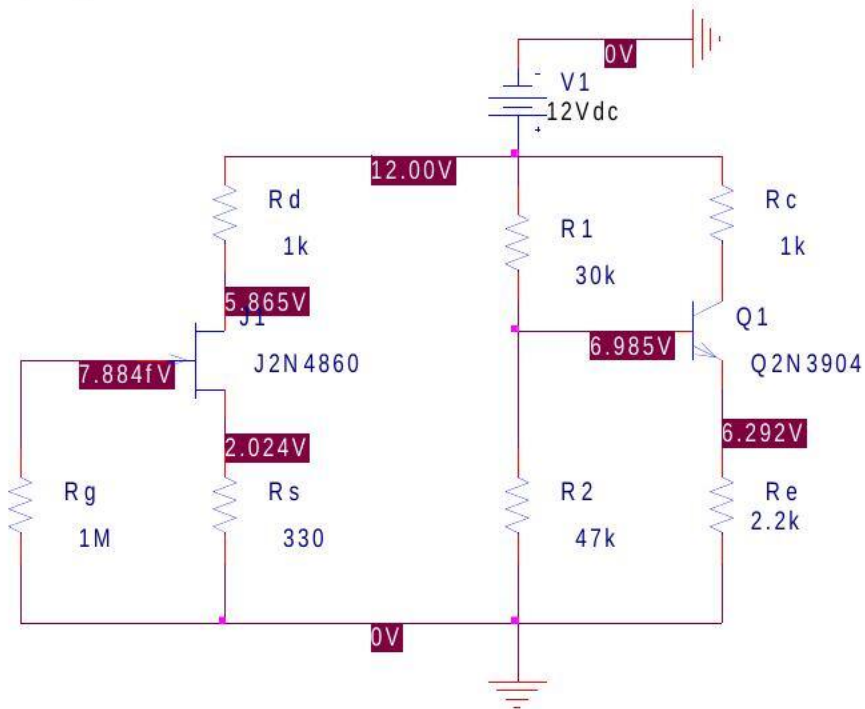
a)



Föydeki bilgilere göre 2 tane C_2 değeri olduğundan dolayı burada C_2 ve C_3 kapasitörlerinin değerleri yukarıdaki gibi alınmıştır.

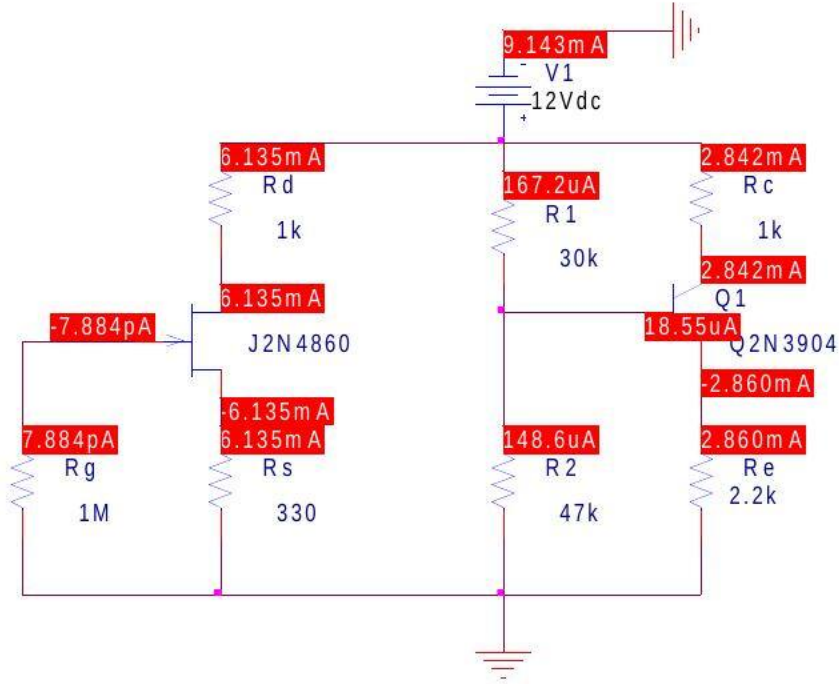
b) Bias Simulation

Voltaj Değerleri



$V_D = 5.865 \text{ V}$
 $V_G = 7.884 \text{ fV}$
 $V_S = 2.024 \text{ V}$
 $V_B = 6.985 \text{ V}$
 $V_C = 9.158 \text{ V}$
 $V_E = 6.292 \text{ V}$

Akım Değerleri



$$I_D = 6.135 \text{ mA}$$

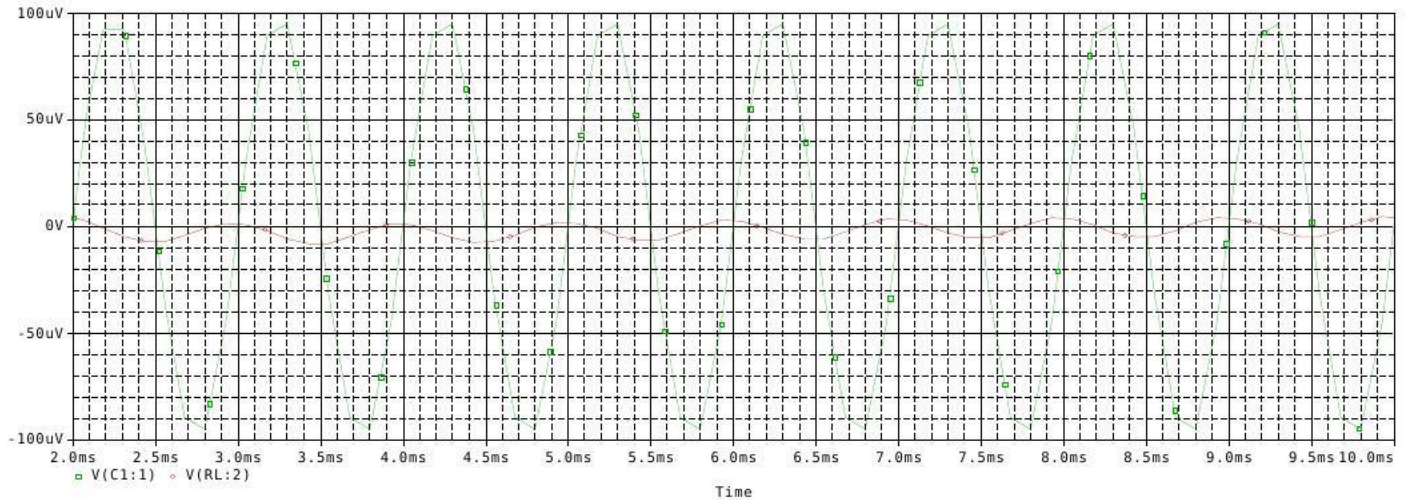
$$I_C = 2.842 \text{ mA}$$

$$I_E = 2.860 \text{ mA}$$

$$I_B = 18.55 \text{ uA}$$

c) Transient Simulation

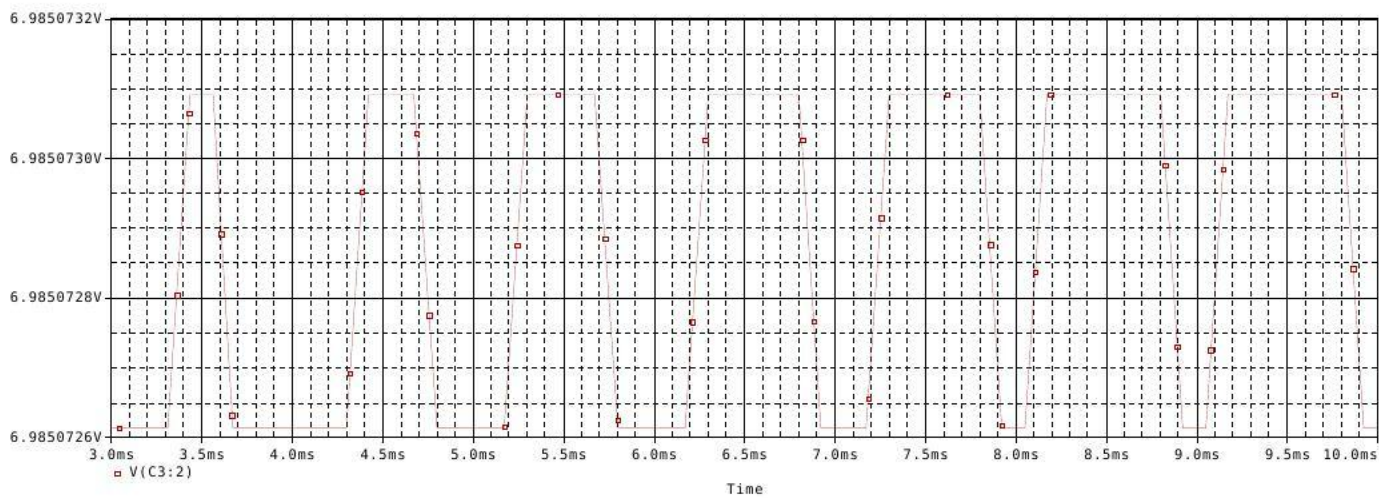
Input Voltage – Output Voltage



$$V_{in} (p-p) = 100 \text{ uV}$$

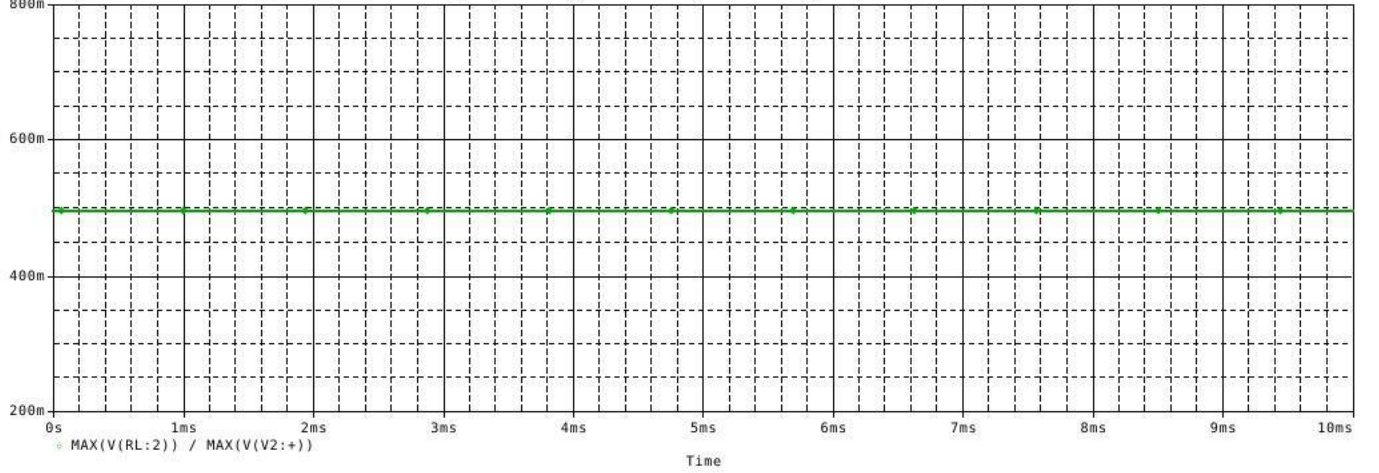
$$V_{out} (p-p) = 963.747 \text{ nV}$$

V_b geriliminin grafiği

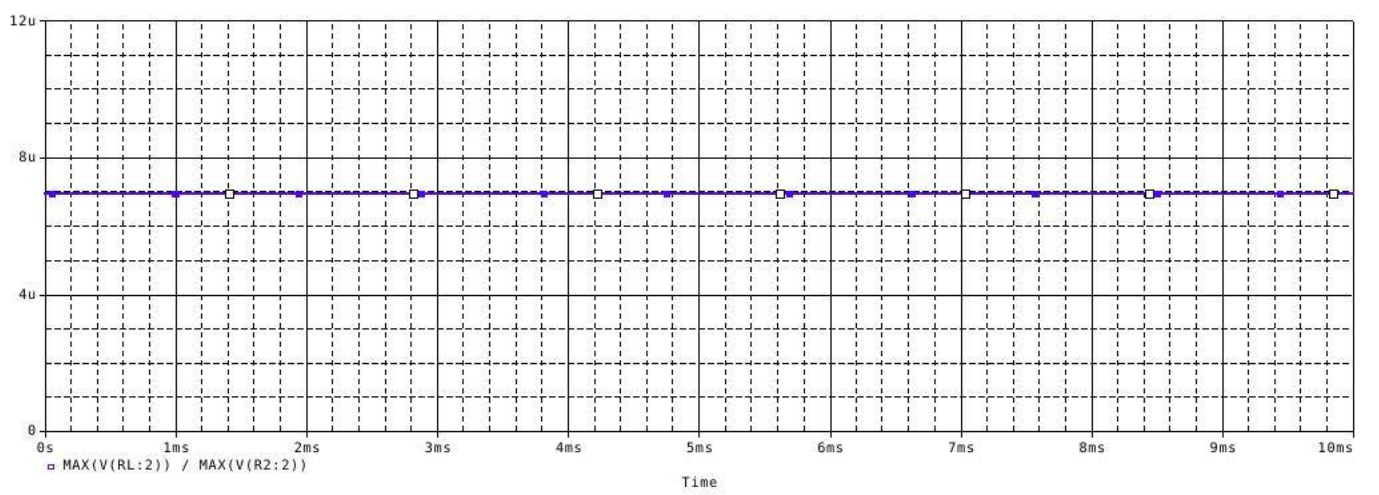


V_b (p-p) = 6.9851 V

Overall Voltage Gain $\text{MAX}(V(\text{RL}:2)) / \text{MAX}(V(\text{V2}:+)) = 496.462 \text{ m}$



Second Stage Voltage Gain $(\text{MAX}(V(\text{RL}:2)) / \text{MAX}(V(\text{R2}:2))) = 6.9362 \text{ u}$



First Stage Voltage Gain $(\text{MAX}(V(C2:2)) / - \text{MAX}(V(V2:+))) = 20.744k$

