Laboratory Notes

09.25

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Station 7

M1.

a,

Ue: 619mV

Ub: 1263mV

Uc: 7.42V

base-emitter collector emitter szamolni!!

b,

208mv is the saturation value

c,

| f[Hz] | 50 | 100 | 200 | 500 | 1000 | 2000 | 5000 | 10000 | 20000 | 50000 | 100000 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Uin[mV] | 120 | 118 | 112 | 112 | 110 | 110 | 112 | 112 | 110 | 110 | 112 |
| Uout[mv] | 4800 | 6400 | 7200 | 7400 | 7400 | 7400 | 7400 | 7400 | 7200 | 6200 | 4800 |
| A |  |  |  |  |  |  |  |  |  |  |  |
| a[dB] |  |  |  |  |  |  |  |  |  |  |  |
| phase | 108 | 134 | 147 | 160 | 164 | 166 | 170 | 178 | 187 | 208 | 225 |

d,

based on extrapolated data from the previous exercise we expect around 76,88[Hz] for the lower and 82718.94[Hz] and at 5200mV

actual value lower: 57 Hz

actual value higher: 82.3 KHz

e,

modified high cut off freq: 12 KHz

f,

modified high cut off freq with cascade circuit: 271 KHz

2.

a,b

| f | 100 Hz | 1kHz | 10 kHz | 100 kHz | 1 MHz |
| --- | --- | --- | --- | --- | --- |
| Uin | 1050 | 1010 | 1010 | 1010 | 1000 |
| Uout | 960 | 920 | 920 | 928 | 928 |
| a |  |  |  |  |  |
| phase | 0 | 0.2 | 0 | 0 | 7.2 |

c,

R = 37 kOhm

d,

Inital amplification:

Uin = 1100 mV

Uout = 970mV

Rin = 151 KOhm

Additional information:

D panel:

-T1 = 182 B

-T2 = 182 B

E panel:

-T1 = BC182A

3 Coaxials: RG58

1 T-piece