Results for some problems in Gonzalez's book

2.11 $L = 18.9\ nH$, $C = 2.27\ pF$

2.12 series-C , shunt-L

$C = 2.04\ pF$, $L = 15.3\ nH$

2.22 a) $\ell_1 = 0.136\,\lambda$, $\ell_2 = 0.209\,\lambda$

b) $z_{o1} = 64.5\ \Omega$, $z_{o2} = 62.5\ \Omega$

c) for balanced stubs (0-c)

for part a) $\Rightarrow$ ℓ_1 (balanced) $= 0.083\lambda$

part b) $\Rightarrow$ z_{o2} (bal) $= 125\ \Omega$

3.3. $G_T = 8.575$ (9.33 dB) , $G_p = 9.487$ (9.77 dB)

$G_A = 8.745$ (9.42 dB)

$P_{AVS} = 0.25\ W$, $P_{IN} = 0.226\ W$,

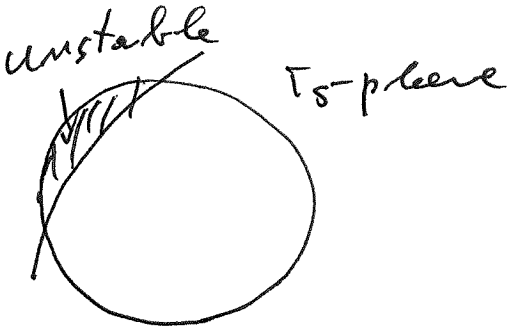
$P_L = 2.144\ W$, $P_{AVN} = 2.186\ W$

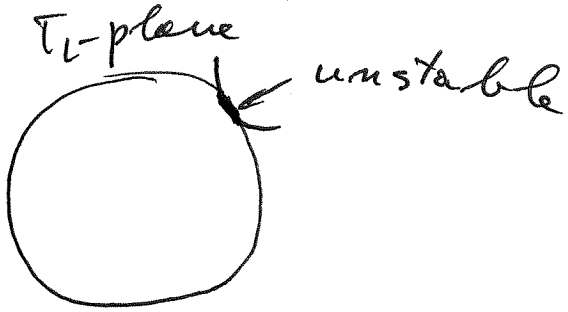
3.4 $G_T = 11.294$ (10.53 dB), $G_p = 22.145$ (13.45 dB)

$G_A = 21.33$ (13.29 dB)

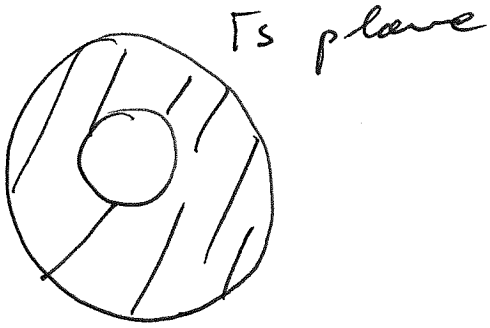
3.7 a) $K = 1.284$, $\Delta = 0.386 \angle 134$ ⇒ unconditionally stable

b) $K = 0.909$, $\Delta = 0.402 \angle -65$ ⇒ potentially unst.





c) potentially unstable



3.14 a) 12.5 Ω in series on input

b) 50 Ω in shunt on input

c) 50 Ω in series on output

d) 417 Ω in shunt on output

3.16.