

# EE142 Problem Set 6

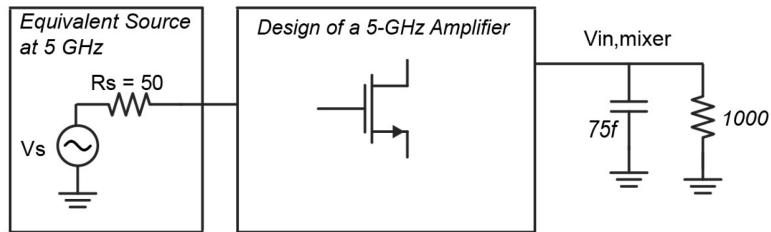
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## 1 Design of a 5-GHz Linear Microwave Amplifier

Use the 32nm PTM HP NMOS model with:

$V_D$	0.9 V
$V_G$	0.6 V
$L$	32 nm
$W_{tot}$	20 $\mu\text{m}$
$N_{fingers}$	5



### 1.1 Mixer Input Impedance

The mixer input is not  $50\Omega$ . What will be the problem if this mixer is used as a connector module like the ones sold by MiniCircuits?