

JFET Common Source Amplifier

Lab Work

This lab is related to setting up and testing the circuit given in the simulation lab before (Lab4).

- a) Set up the circuit using the resistor values you found in the preliminary work of Lab4.
- b) Find the voltage gain of the circuit and the unclipped output voltage swing. Optimize your circuit to get maximum output swing and maximum gain.
- c) Use the FFT utility of your oscilloscope to find the max input ac peak level for which the highest harmonic has less than 1% amplitude compared to the fundamental. Use 1 KHz sine wave input.
- d) Also find the harmonic level for 2 and 5 times the input you found above.

In writing your report to explain what you have done (circuits, parameters, procedures, etc.), what you have obtained (values, graphs, tables, screenshots, pictures, etc.), and include your comments. You are expected to upload your report to Moodle. Do not forget to show your results and set-up to your assistant and get his/her check so that you are allowed to upload to Moodle.