

Iqra National University, Peshawar
Department of Computer Science

Modern Telecommunication Systems – Spring 2020

Assignment #1

Instructions:

- Submission deadline is 8th June 2020. Late submission is not permitted and assignments handed in after the date will be returned unmarked and a mark of ZERO awarded.
- The assignment is an individual assignment and individual submissions are required.
- Assignment must be submitted on A4 paper either written by hand or with the help of a computer. No folders, binding, plastic sleeves, etc.
- ***Students are respectfully reminded of the University and Department's policy on Plagiarism. Any submission that is either not original or bears an unacceptable similarity to a 3rd party document or submission will be awarded ZERO for the entire assignment.***

Q.1: Why is the bandwidth important for communication systems? Explain the concept with the help of a figure.

Q.2: Why do we need to deploy Satellites for mobile communication systems as we already have terrestrial communication systems? How to make your argument strong by analyzing this perspective? Explain with the help of diagrams?

Q.3: Explain the figures below in detail along with its real time applications.

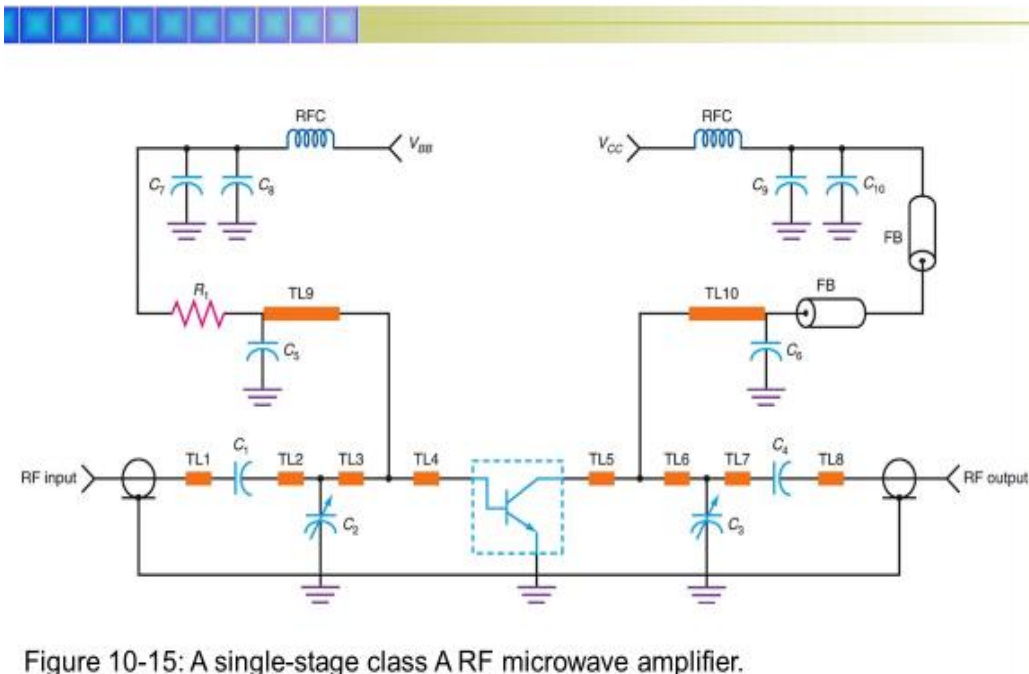
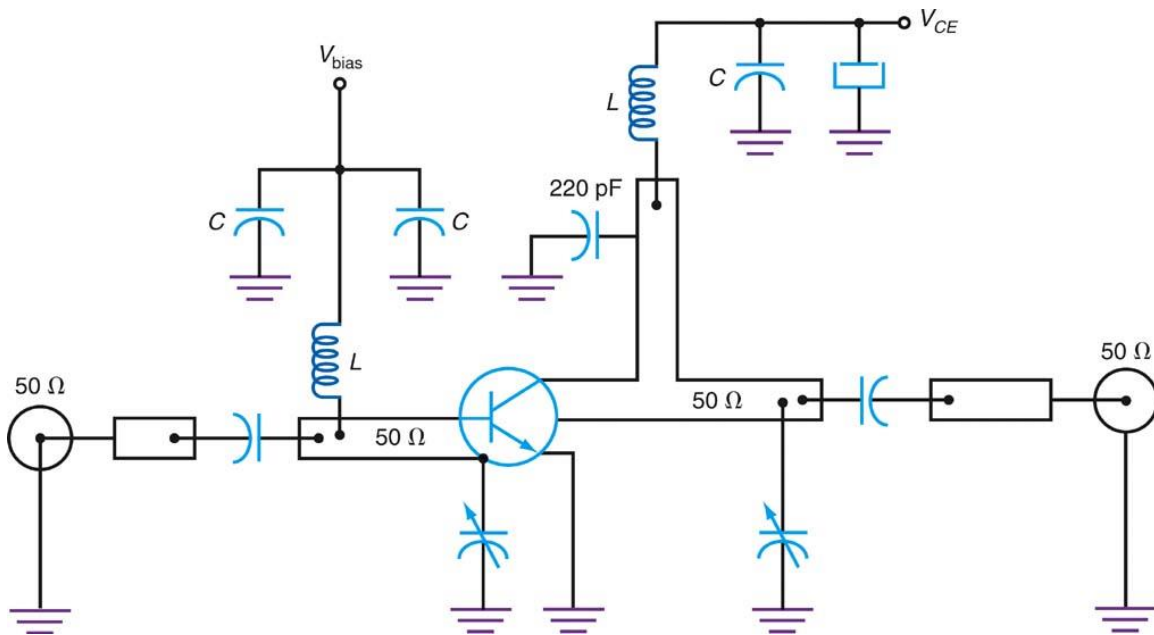
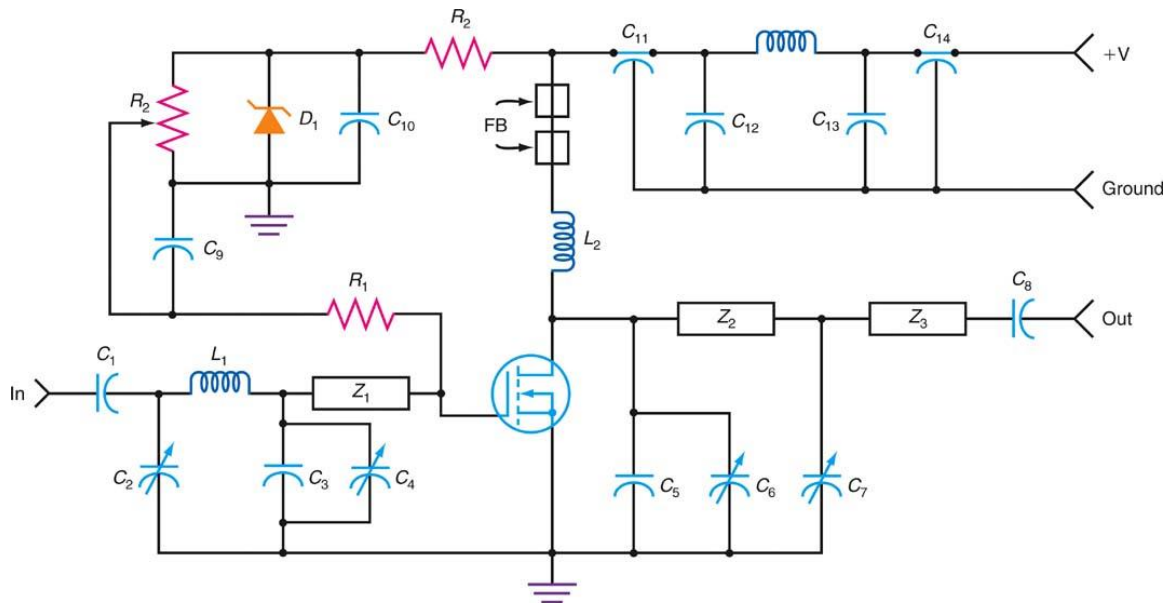


Figure 10-15: A single-stage class A RF microwave amplifier.



A class-A microwave power amplifier



An FET power amplifier.