

Special Problem II.B-11

A radio engineer is designing a receiver for an RF band from 500 MHz to 600 MHz.

This engineer is considering three designs, each using **low-side** tuning:

Design A uses an IF of 470 MHz.

Design B uses an IF of 275 MHz.

Design C uses an IF of 200 MHz.

a) Determine the frequency range of the local oscillator required for each design.

b) Consider now these three designs. Two of them have serious flaws. Identify these two, and state what their problem is.