

Special Problem 4.D-3

In the microwave circuit below, a **fixed attenuator** with 6 dB of attenuation is followed by an **RF amplifier**, a **mixer**, and an **IF amplifier**.

The mixer manufacturer has stated that its **1 dB compression point** is 4.0 dBm.

The amplifier manufacturer has stated that each amplifier has a **1 dB compression point** of 20.0 dBm.

Determine the **largest possible** value of P_{in} such that **none** of the components are in compression (i.e., saturation).

