

Chapter-3

(Modulator & Demodulator)

Presented By

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Introduction:

- A modulator is a device or circuit that performs modulation.
- A demodulator (sometimes detector) is a circuit that performs demodulation, the inverse of modulation. A modem (from modulator–demodulator), used in bidirectional communication, can perform both operations.

Collector Modulator:

- Modern high-power AM transmitters tend to use transistors at the lower power levels, so that transistor RF and AF exciters are common. The output stages, and generally the drivers, of such transmitters use tubes. All-transistor transmitters are used for lower-power applications with a few kilowatts output obtainable if transistors in parallel are employed. As a result, modulated transistor amplifiers almost all have a push-pull final amplifier for maximum power output.
- The modulation methods for transistor amplifiers are counterparts of those used with tubes. Collector and base modulation of class C transistor amplifiers are both popular, having the same properties and advantages as the corresponding tube circuits. The result is that once again collector modulation is generally preferred.

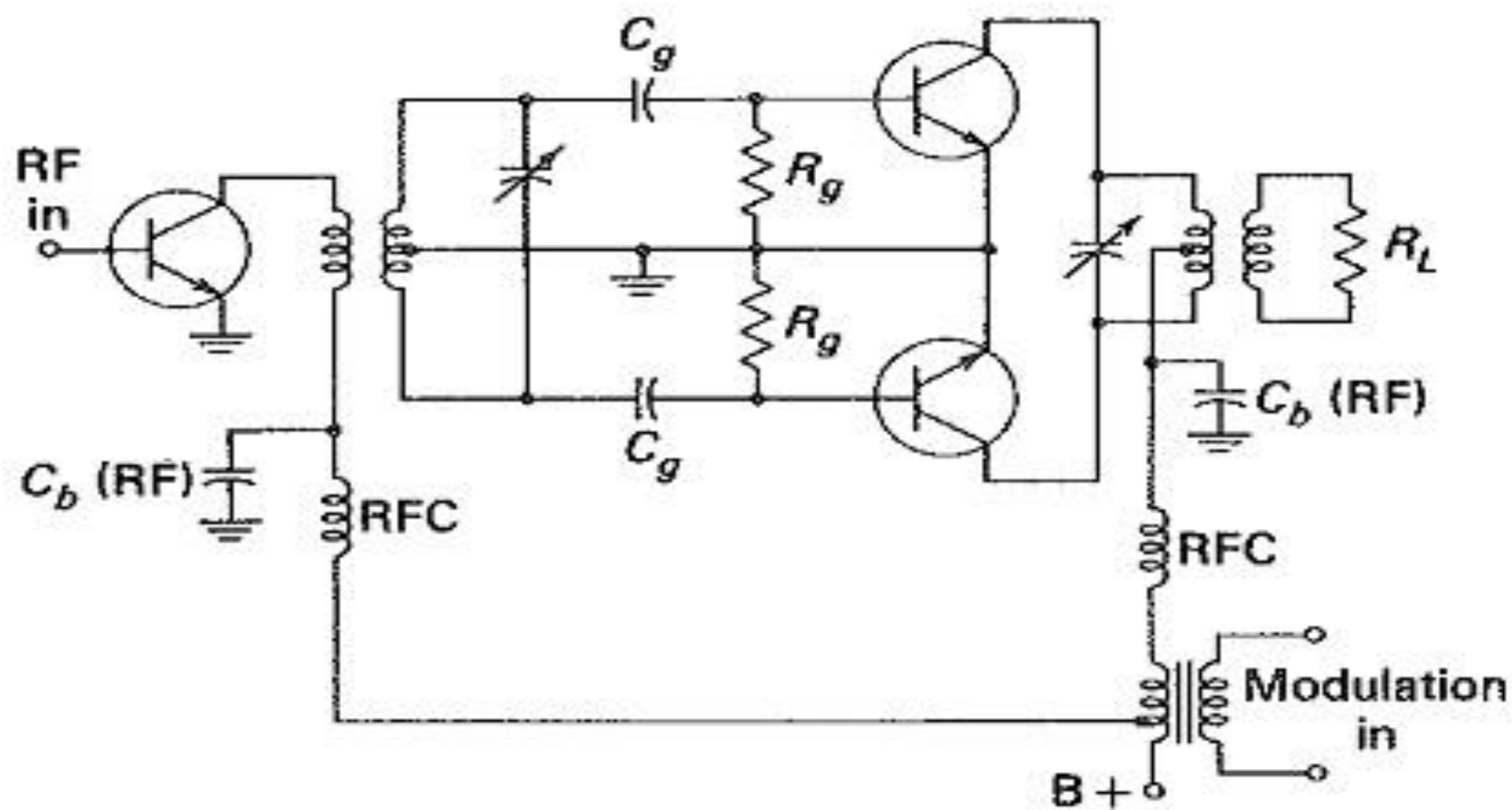


FIGURE 3-13 Collector modulation.