

Chapter 3-2 - Answers

Q1 What is a receiver?

A radio receiver is an electronic device that receives radio waves through an antenna and converts the information to a usable form.

Q2 What is demodulation?

The desired information is extracted from the carrier wave by demodulation.

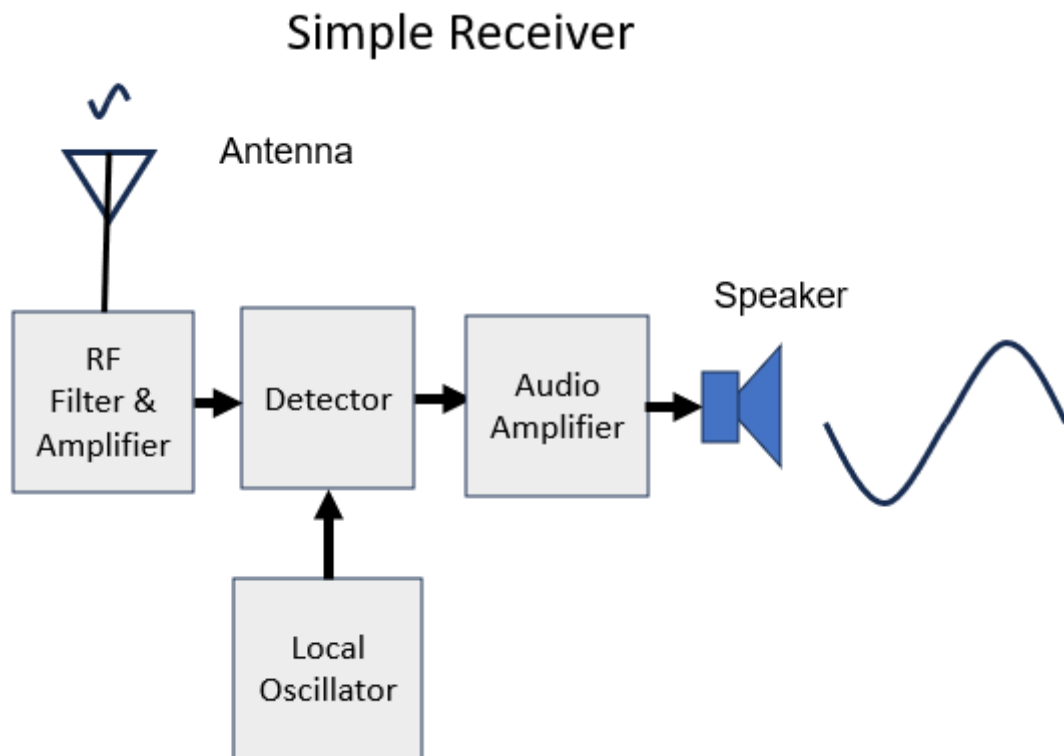
Q3 What is a detector used for?

A detector is used to extract information from an AM signal.

Q4 What is a discriminator?

A discriminator is used to extract information from a FM signal.

Q4 Name all the parts of a simple receiver.



Q5 There are three criteria for a receiver, name and explain each of these three.

Receivers are rated on three criteria (the three Ss), their sensitivity, selectivity and stability,

Sensitivity

Receiver sensitivity indicates how faint an input signal can be to be successfully received by the receiver. Sensitivity is defined as the receiver's ability to detect a signal at the input and give a signal-plus-noise ratio 10dB above the noise output of the receiver.

Selectivity

Selectivity is an important parameter in any radio receiver. Selectivity is necessary for the receiver to be able to select the wanted signal from the unwanted adjacent signal.

Stability

Frequency stability means the receiver must stay "tuned" to the incoming radio signal and must not "drift" with time or temperature.

The overall receiver gain must be carefully controlled so that spurious emissions are not produced within the receiver.

Q6 What is meant by the term mode of operation in relation to a receiver?

The *mode of operation* for a receiver defines the type of signals the receiver processes: e.g. AM, FM, SSB or CW (Morse code).