Station equipment

In the early days of radio, amateur radio operators used separate receivers and transmitter units. Nowadays, however, most use radios called transceivers. A transceiver is a unit combining the functions of a transmitter and a receiver. (T7A02)

There are many different types of transceivers. A multi-mode VHF transceiver is the type of device that is most useful for VHF weak-signal communication. (T7A09) Instead of purchasing a multi-mode VHF transceiver, many amateurs use a transverter to convert the signals from their HF transceiver to the VHF, UHF, and even microwave bands. For example, a device that would take the output of a low-powered 28 MHz SSB exciter and produces a 222 MHz output signal is a transverter. (T7A06)

Many, if not most, new amateurs buy a hand-held transceiver, usually called an "HT," as their first transceiver. One disadvantage of using a hand-held transceiver is that the maximum output power is generally only 5 W, and because of this, they have limited range. To increase the low-power output of a handheld transceiver, and therefore its, range, you can use an RF power amplifier. (T7A10)

When talking about a transceiver's specifications, we still refer to its receiver and transmitter. The two most important specifications for a receiver are sensitivity and selectivity. Sensitivity is the term that describes the ability of a receiver to detect the presence of a signal. (T7A01) The term that describes the ability of a receiver to discriminate between multiple signals is selectivity. (T7A04)

To improve the sensitivity of a receiver, you can use an RF preamplifier. An RF preamplifier is installed between the antenna and receiver. (T7A11) Most HF transceivers have some version of a superheterodyne receiver. In a superheterodyne receiver, we first convert an incoming radio signal from its frequency to an intermediate frequency, or IF. The circuit that does this is the mixer. A mixer is used to convert a radio signal from one frequency to another. (T7A03)

When transmitting, we want to generate an RF signal with a specific frequency. To do that, we use an oscillator. Oscillator is the name of a circuit that generates a signal of a desired frequency. (T7A05)

To transmit a voice or data signal, we have to combine an audio frequency signal from the microphone with the RF carrier signal generated by the transmitter. Modulation is the term that describes combining speech with an RF carrier signal. (T7A08) Modulators use a type of mixer circuit to accomplish this process.

QUESTION POOL: (10)

T7A02	T7A09	T7A06	T7A10	T7A01
T7A04	T7A11	T7A03	T7A05	T7A08