The WS880 wireless microphone system consists of a receiver (WS880 or WS840) and one or more transmitters (WS80T or WS80P or WS80H or WS80B). The WS80T is a “beltpack” transmitter that is designed to be worn by the user. The WS80P is a “podium” transmitter that is designed to be used with a gooseneck microphone. The WS80B is a tabletop boundary microphone transmitter that is designed to be place on a conference room table. The WS80H is a handheld microphone transmitter that is designed to be held by a performer. The WS80T and WS80P do not contain a built-in microphone, but instead have connectors designed to accept various lavalier and gooseneck microphones. The WS80B has a microphone capsule built-in. The WS80H has a threaded removable mic element. These 4 transmitters have identical RF circuits.

The transmitters contain a microcontroller that drives the OLED display and handles the user interface functions, and an FPGA that handles the modulation and formatting of the digital audio data from the A/D converter. The data is sent using AES 256 bit encryption.

The transmitters use pi/4 DQPSK modulation to encode the audio onto the carrier. The modulation bandwidth is 192kHz. The RF power level is user selectable between 1mW, 10mW, 25mW, or 50mW. The DS80H and DS80P use internal helical antennas. The DS80B uses an internal monopole antenna. The DS80T uses an external monopole antenna.

The transmitters transmit on any one of 32 preset channels, selected by the user. These are 812.5kHz apart and cover several frequency ranges.

The transmitters are powered by 2 NiMH AA batteries and have a typical run time of approximately 8 hours on a full charge.