Circuit Description for Sabine SW65-T and SW60 transmitters

The Sabine SWM6000 wireless microphone system consists of a receiver (SW62) and a transmitter (either SW65-T or SW60). The SW65-T is a “beltpack” transmitter that is designed to be worn by the user. The SW65-T does not contain a built-in microphone, but instead has a connector designed to accept various lavalier microphone or instrument inputs. The SW60 is a handheld transmitter that has a microphone capsule built-in. These 2 transmitters have identical RF circuits.

The transmitters use FM modulation to encode the audio onto the 902-928 MHz carrier. The peak modulation level is 120 kHz. The RF power level is <25mW. The transmitted audio bandwidth is 20 Hz to 20 kHz, and pre-emphasis and compression are used in the transmitter to increase the dynamic range and to decrease the noise floor. The transmitters both use built-in helical antennas designed for the 902-928 MHz band.

The transmitters transmit on any one of 34 preset channels, selected by the user. These are 600 kHz apart and cover the range from 902.2 MHz to 927.6 MHz.

The transmitters are powered by 2 AA batteries and have a typical run time of approximately 15 hours on a full charge.