

Operational description of the Remington Eyeball R1

The Remington Eyeball contains batteries, power supply circuitry, motors for rotating the eyeball, a panel of infrared LEDs for viewfield illumination in low-light conditions, a command receiver, a video camera, a microphone and an radio transmitter for the audio-video signal.

The audio and video signals are fed to a modulator that creates a composite video signal and uses that composite video signal to generate an FM-modulated RF signal. The audio is frequency modulated on a subcarrier and is combined with the video to create a composite signal that modulates the carrier frequency.

That modulator can be directed to use one of four RF carrier frequencies inside the 2.4 GHz ISM band (2414, 2432, 2450, and 2468 MHz).

The FM-modulated signal of approximately 6 MHz bandwidth generated by the modulator is fed to an antenna that is embedded within the Eyeball. There is no external antenna or antenna connector. The modulator has a nominal power output of 27 dBm.