

IR100A Working Principals

IR; infrared ray; remote controller is spread used at family house, unfortunately IR natural is working under line of sight, So IR remote controller is no way to work properly room by room due to space shielding by wall.

Including carrier and coding, IR remote control signal detected by IR sensor, then the sensor transfers current to voltage and amplified by the following booster circuit.

The colpitts LC oscillator resonate at 418MHz; trigger to oscillate is controlled by boosted IR signal. In other words, via the ASK; Amplitude Shift Keying; modulation, IR signal was carried on the 418MHz radio.

Using the basic regenerative receiver to recover the modulated IR signal, which drives IR-LED to duplicate IR remote control signal.