

Synopsis

Project Synopsis: Cell Phone Detector

The Cell Phone Detector project aims to create a sophisticated system using the RF spectrum approach for identifying active cell phones within a specified range. Employing a combination of a voltage-controlled oscillator, frequency down-converter, and a band-pass filter, the system triggers alarms through LED indicators, beeping, or a ringtone upon detection. Successful testing has confirmed the system's effectiveness in real-world scenarios. Key components include an oscilloscope, function generator, LED, IC CA3130, capacitors, resistors, alarm buzzer, BC548 transistor, and connecting wires. Future enhancements may involve exploring Digital Signal Processing (DSP), addressing component availability challenges, and considering machine learning for improved accuracy.