



Mobile Jammer for the Conferences Handling

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ABSTRACT

Mobile jammer is used to prevent mobile phones from receiving or transmitting signals with the base stations. Mobile jammers effectively disable mobile phones within the defined regulated zones without causing any interference to other communication means. Mobile jammers can be used in practically any location, but are used in places where a phone call would be particularly disruptive like Temples, Libraries, Hospitals, Cinema halls, schools & colleges etc.

I. INTRODUCTION

As with other radio jamming, mobile jammers block mobile phone use by sending out radio waves along the same frequencies that mobile phones use. This causes enough interference with the communication between mobile phones and communicating towers to render the phones unusable. Upon activating mobile jammers, all mobile phones will indicate "NO NETWORK". Incoming calls are blocked as if the mobile phone were off. When the mobile jammers are turned off, all mobile phones will automatically re-establish communications and provide full service. The activation and deactivation time schedules can be programmed with microcontroller. Real time clock chip DS1307 is used to set the schedule. In this we have also interfaced a Bluetooth module to operate the jammer when ever required. So by using this application one can switch on/off the jammer manually aside from RTC.

The Bluetooth module is used here. Bluetooth is wireless technology standard for exchanging data over short distances (using short-wavelength radiowaves in the ISM band from 2.4 to 2.485 GHz) from fixed and

mobile devices, building personal area networks (PANs)

II. TECHNOLOGIES

The telecom radio signals under below network technologies will be blocked in this project.

GSM – Global System for Mobile Communication is used as a media which is used to control and monitor the transformer load from anywhere by sending a message. is a digital mobile telephony system widely used in Europe and other parts of the world. GSM uses a variation of time division multiple access (TDMA) and is the most widely used of the three digital wireless telephony technologies. GSM digitizes and compresses data, then sends it down a channel with two other streams of user data, each in its own time slot. It operates at either the 900 MHz or 1800 MHz frequency band.

3G Technology:

International Mobile Telecommunications-2000 (IMT — 2000), better known as 3G or 3rd Generation, is a generation of standards for mobile phones and mobile telecommunications services fulfilling specifications by the International Telecommunication Union. In 2008, India entered the 3G arena with the launch of 3G enabled Mobile and Data services by Government owned Bharat Sanchar Nigam Ltd. (BSNL). 3G networks offer greater security than their 2G predecessors. By allowing the UE (User Equipment) to authenticate the network it is attaching to, the user can be sure the network is the intended one and not an impersonator.

CDMA: Code division multiple access (CDMA) is a channel access method used by various radio

communication technologies. CDMA employs spread-spectrum technology and a special coding scheme (where each transmitter is assigned a code) to allow multiple users to be multiplexed over the same physical channel. CDMA is a form of spread-spectrum signaling, since the modulated coded signal has a much higher data bandwidth than the data being communicated.

The digital modulation method is analogous to those used in simple radio transceivers. In the analog case, a low frequency data signal is time multiplied with a high frequency pure sine wave carrier, and transmitted. This is effectively a frequency convolution (Weiner-Kinchin Theorem) of the two signals, resulting in a carrier with narrow sidebands. In the digital case, the sinusoidal carrier is replaced by Walsh functions. These are binary square waves that form a complete orthonormal set. The data signal is also binary and the time multiplication is achieved with a simple XOR function. This is usually a Gilbert cell mixer in the circuitry.

III. Modules used

The **LPC2148** are based on a 16/32 bit ARM7TDMI-S™ CPU with real-time emulation and embedded trace support, together with 128/512 kilobytes of embedded high speed flash memory. A 128-bit wide memory interface and unique accelerator architecture enable 32-bit code execution at maximum clock rate. For critical code size applications, the alternative 16-bit Thumb Mode reduces code by more than 30% with minimal performance penalty. With their compact 64 pin package, low power consumption, various 32-bit timers, 4- channel 10-bit ADC, USB PORT, PWM channels and 46 GPIO lines with up to 9 external interrupt pins these microcontrollers are particularly suitable for industrial control, medical systems, access control and point-of-sale. With a wide range of serial communications interfaces, they are also very well suited for communication gateways, protocol converters and embedded soft modems as well as many other general-purpose applications.



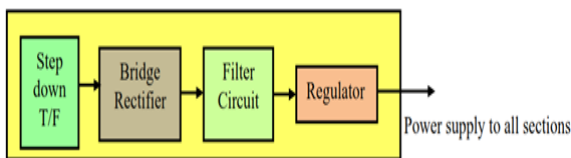
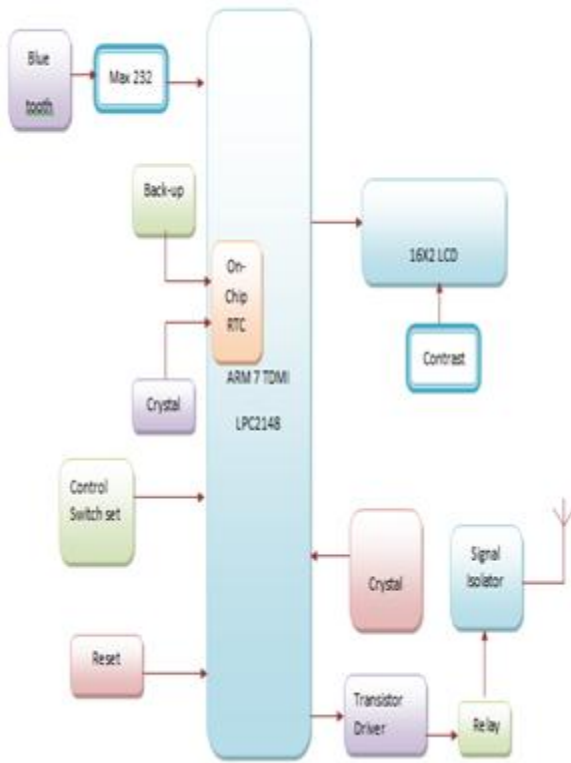
This project uses regulated 3.3V, 500mA power supply. Unregulated 12V DC is used for relay. 7805 three terminal voltage regulator is used for voltage regulation. Bridge type full wave rectifier is used to rectify the ac out put of secondary of 230/12V step down transformer.

Bluetooth

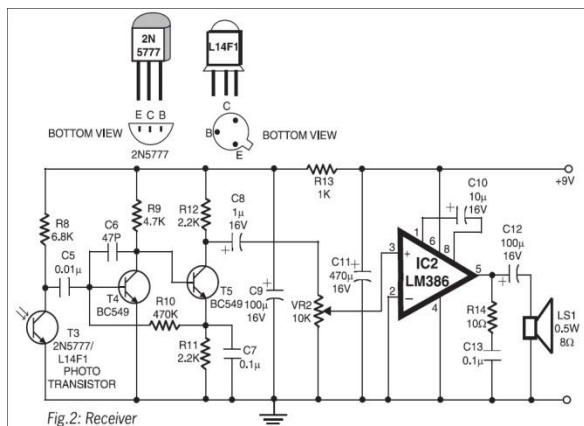
Bluetooth is a wireless technology standard for exchanging data over short distances (using short-wavelength UHF radio waves in the ISM band from 2.4 to 2.485 GHz) from fixed and mobile devices, and building personal area networks (PANs). Due to the advancement of wireless technology, there are several different of connections are introduced such as GSM, WIFI, ZIGBEE, and Bluetooth. Each of the connection has their own unique specifications and applications. Among the four popular wireless connections that often implemented in HAS project, Bluetooth is being chosen with its suitable capability. Bluetooth with globally available frequencies of 2400Hz is able to provide connectivity up to 100 meters at speed of up to 3Mbps depending on the Bluetooth device class. This is controlled by Bluetooth control application in android mobile.



BLOCK DIAGRAM:



Internal structure



A **mobile phone jammer** is an instrument used to prevent cellular phones from receiving signals from or transmitting signals to base stations.

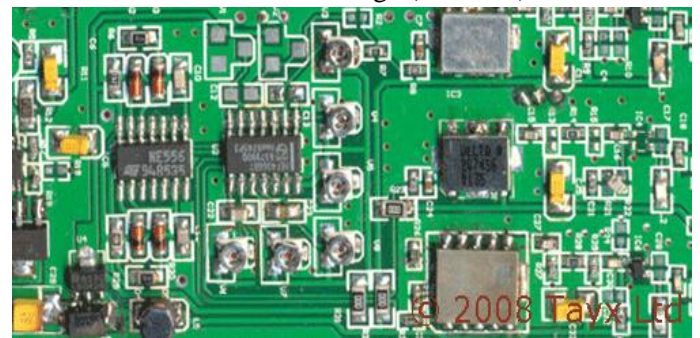
Communication jamming devices were first developed and used by military. Where tactical commanders use RF communications to exercise control of their forces, an enemy has interest in those communications.



As with other radio jamming, cell phone jammers block cell phone use by sending out radio waves along the same frequencies that cellular phones use.



Jammers can work by either disrupting phone to tower frequencies or tower to phone frequencies. Smaller handheld models block all bands from 800MHz to 1900MHz within a 30-foot range (9 meters).



IV. SOFTWARE DETAILS

A. Keil compiler

Keil compiler is a software used where the machine language code is written and compiled. After compilation, the machine source code is converted into hex code which is to be dumped into the microcontroller for further processing. Keil compiler also supports C language code.

B. Proload

Proload is a software which accepts only hex files. Once the machine code is converted into hex code, that hex code has to be dumped into the microcontroller placed in the programmer kit and this is done by the Proload. Programmer kit contains a microcontroller on it other than the one which is to be programmed. This microcontroller has a program in it written in such a way that it accepts the hex file from the keil compiler and dumps this hex file into the microcontroller which is to be programmed.

V. ADVANTAGES

- ⊙ Jammers can be used practically anywhere
- ⊙ Jammers are used primarily where silence is necessary or data transfer might be destructive
- ⊙ Jammers are simple to build and use

VI. CONCLUSION

This project presents a LPC2148 Based Mobile Signal jammer is used to block the signal in all the network i.e., 3G,CDMA,GSM networks.The Monitoring controller based on the closed loop algorithm is designed and implemented with ARM7 TDMI processor based LPC2148 controller in embedded system domain. By implementing this project we can block the signals simultaneously in all the networks.

VII. REFERENCES

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