

Study of Mobile Phone Jammer Technique

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Abstract— the following research paper presents an overview of mobile phone jammer technique. It focuses on study of mobile jammer, its components, architecture and different types of jammers. With the increased use of mobile phone it has been observed that and different studies proved that mobile phone caused many accidents. Unnecessary use of mobile phone is creating disturbance in public places. Mobile phones are being used for many unethical purposes. The solution to this problem is the use of mobile jammer. This paper gives clear idea about the use of jammers and how mobile jammer works.

Keywords— Jammers, Mobile, Mobile Jammer, Jammer Devices

I. INTRODUCTION

A mobile phone jammer or trammel is a tool which purposely blocks transmitting or receiving signal from device to base station. Jammer prevent device from receiving incoming signal. Jammers first used by military to jam signal from transmitter to receiver. At the time war this technology helped in blocking enemies' transmission. Jammer can be used anywhere but it is used in such places where blocking of mobile phone becomes essential. Like in many organizations e.g. court, hospital, schools where ringing of mobile phone will create unnecessary disturbance.

The innovation behind cell phone jamming is extremely basic. The jammer communicates an RF (Radio Frequency Signal) in the recurrence go held for mobile phones that meddle with the cell phone flag, which brings about a "no system accessible" message on the cell phone screen. All telephones inside the viable range of the jammer are hushed.

Cell phone jammer is the device that tries to the block transmission between mobile base station and mobile phone. "Mobile Jammers have become essential for manage a more enlightened society because there is a growing demand for managing the use of cellular phones in public location such as open places, auditorium, libraries, and others".^[1]

II. STORY OF MOBILE JAMMER

After the first cell phones appeared, mobile phone checkers began to be growing very rapidly. Even the majority people who follow the originality of electronics do not always know about all the possibilities of these devices. Modern mobile devices are used not only in everyday life, but also not

for pleasant purposes. Factory espionage, exaction - not all criminal activities, it is just a small elements of the activity in which cellular phones are involved. In the 21st century humanity was faced with the issue of unrestricted "flooding" of mobile devices. Conference halls, theatres, etc. are forced to use the phone jammers in those locations where it is required to attain complete silence.



Fig. 3G, 4G Cell Phone Signal Blocker

It will be explanatory to know some data about the fact of story of mobile jammer. An interesting belief exists, that the decision of king of Jordan remarkably influence on the creation of mobile blockers. He became one of the first people who obvious to ask the major creators to try to invent a mobile signal breaker. The thing is that the king Hussein was regularly blocked by annoying mobile calls and long talks of his wards, which were heard even during the prayers in the castle. As a result, he ordered a major US concern to develop a blocker for cell phones that could block the signal. An obligatory condition was that the radius of the device should cover the full area of the mansion.

The next one was the Buckingham Palace, which obtain telephone call blocker devices for the calmness of the queen and to block undesirable calls. After all, all the courtiers were on-going people and used the cell phone every day to solve a huge quantity of work issues and personal issue. By the way in the United Kingdom, following to a public poll, more than 60% of citizens agreed that the usage of mobile jammers is a forced measure that will promote for relaxed rest in public, cultural and enjoyment location.

Unlike the United Kingdom, boarder of the USA and Western Europe use much more mobile phones. According to the EU data, in France, Italy and Germany, a cell phone is used by four people out of five. Children masterly handle with mobile phones as well. basically conducted observe among the French showed that more than 80% of citizens fully carry the usage of the telephone call blocker devices in most general location where silence is involved. Many of them even admit that they cannot separately limit the number of personal calls, so global evaluate will help them in this. Mobile phone jammers can block the demandable models of phone signals.

Thus, the cordless phone jammers were invented for good purpose especially for security. Such devices are important in protecting the data of particular organizations, especially those whose new activity directly depends on intellectual land. The mobile phone jammer is an appliance used to block mobile phones utilization and to block unwanted calls. High power, large and short range cell phone jammers are the different devices with different characteristics. When used, the blocker efficient disables cellular phones. These devices are found on such places where peace is expected and phone call disturbs the location.

III. HOW MOBILE PHONE JAMMER WORKS

The GSM mobile jammer also known as cellular jammers or mobile phone jammer is a tool which transmits the signals to the same amount to prevent cellular communication in designated areas. The cellular jammer emits RF jamming signal which stops mobile phones from receiving signal. The jamming portion is victorious when the zone of the mobile phone signal is damage if the jammer is on. The first jamming device was developed and used by the military for transmission purpose.

The military officials used jammers to jam enemy transmission. As the mobile devices are increasing in number blocking devices are becoming the need of the time.

We all know that, what an incredible tool for everyday life a cellular phone is. Having them everywhere for so long it is unbelievable how hard life would be without them. But despite all the benefits that they bring, they can also be a frightful burden, and not only that they can also be the reason for our safety and isolation.

How irritating is it when you are in a restaurant, cinema, or shop to be near by a host of people all talking, much too loudly, into their phones. Sitting in a cinema or theatre when

the person next to you, or in front of you disburse the whole presentation texting – why is it that our eyes seem to be glued to their partition trying to read what they are texting!

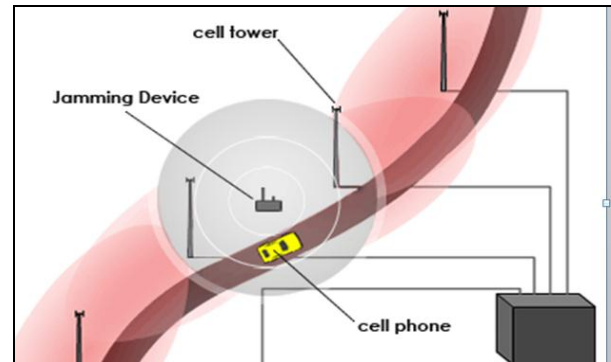


Fig: Mobile Jamming

High quality shops would love to stop customers from using their phones inside. They disrupt other customers and yes! There is nothing more annoying than just being on the border of tying up a sale when the customers phone rings and they just pop out to take the call, and that is the last you see of them.^[2]

Nevertheless all of this, cellular jammers are unforgiving criminals for sale or use within South Africa. Why? Because the public favour are worried that they may interrupt radio transport for the Police, Fire Brigade and Ambulance services. Most hand held cellular jammers are pretty low capacity and would not cause an issue but the high capacity jammers surely could do.

Cellular jammers certainly have a location in the preservation of Government Ministers and senior Military personnel. Cellular phones have been used on many times in the past to initiate roadside bombs used in terrorist attacks. This is why whenever you see a Governmental company one vehicle usually has an array of antennae which is post out an Omni-directional field of signals produce a vacuum around the vehicle which no signal can perforate to detonate a bomb.

Ground soldiers dispute in war zones, such as Afghanistan, where they are exposed to extemporize inflammable devices also have jamming apparatus to keep them guarded. Without this type of cellular jammer dying and wound could be significantly higher.

There can be small doubt that cellular jamming apparatus has its location in the world. Certainly, in governmental and military circles it is necessary. There is still a question as to whether SAIDSA and the government have been too diligent in their application of regulations. Perhaps a middle course could be found that would satisfy domestic, corporate and governmental essential. It remains to be seen.

IV. TYPES OF JAMMER DEVICES

There are many types of cell phone jammer device which is used in our daily life. As we take an example of college

class room, where we do not want to use cell phone, there we can install cell phone jammer device. By this we can fabricate the interface between the cell phone base station and cell phone. It disconnects the cell from base station and we cannot receive the any calls from base station. For this there are many types of cell phone jammer devices which are given as below:

- Remote Control Mobile Jammer
- Adjustable Mobile Jammer
- College, Hospital & Prison Mobile Jammer
- Explosion – Proof Mobile Jammer

V. TECHNIQUES OF MOBILE PHONE JAMMER

- Type “A” Device: Jammer

In this device we suppress cell phone's signal with a powerful signal, This type of device comes provision with several independent oscillators transmitting 'jamming signals' capable of blocking frequencies used by summon devices as well as those used by cellular/PCS systems' control sound for call institution. When active in a delegate area, such devices will (by means of RF interference) prevent all pagers and mobile phones detect in that area from receiving and transmitting calls. This type of device passing only a jamming signal and has very needful frequency acuteness, which leads to interference with a longer amount of transmission spectrum than it was initially intended to target.^[4]

- Type “B” Device: Intelligent Cellular Disablers

Unlike jammers, Type “B” devices do not transmit interfering signal. The device works as detector when it is in quite area. It has a unique recognition number for transmitting with the cellular base station.^[4]

- Type “C” Device: Intelligent Beacon Disablers

Unlike jammers, Type “C” devices do not carry an interfering signal on the reduction channels. The device ,when located in a nominate ‘quite’ area ,functions as a ‘Beacon’ and any well-match terminal is instructed to disable its ringer or disable its working, while within the reportage area of beacon.

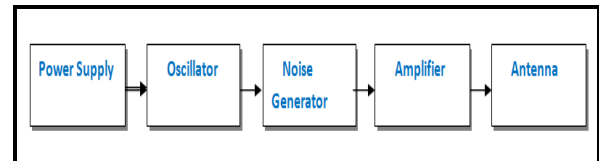
- Type “D” Device: Direct Receive & Transmit Jammers

This jammer is a small transportable base station, which can straight interact intelligently or unintelligently with the working of the mobile phone. The jammer is mostly in receiving mode and will intelligently select to interact and block the cell phone straight if it is within close closeness of the jammer.^{[3][4]}

- Type “E” Device: EMI Shield – Passive Jamming

This technique uses EMI suppression capability to make a space into what is called Faraday cage. This technique blocks or creates attenuation for all electromagnetic signals from entering or leaving cage. This EMI shield can be used in any building to jam signals. This will help in creating quite room.^[2]

VI. BLOCK DIAGRAM OF MOBILE JAMMER



- Antenna:

Every jamming tool has an antenna to pass the signal .Antennas are outside to provide extensive Range and may be tuned for separate frequencies.

- Circuitry:

Tuning Circuit – power the frequency at which the jammer transmits its signal by sending a particular voltage to the generator. Noise generator build random electronic output in a identify frequency span to jam the signal.

RF amplification (gain stage) – Boosts the capacity of the radio frequency o/p to towering enough levels to jam to signal.

- Electricity Supply :

Little jamming devices are battery utilize. These jammer devices look like mobile phones and use mobile batteries. Powerful devices can be plugged into quality outlet wired into a motor electrical system.

VII. CONCLUSION

In this paper we have discussed need of mobile jammer, its components, architecture and different types of jammers. We have discussed increased use of mobile phone and its consequences. Study proved that unnecessary use of mobile phone is creating disturbance in public places. The study states the requirement of mobile jammer and ways to implement it with various types of mobile jammer devices.

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