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作品名稱

Mobile Phone Detector

得獎獎項

Engineering Second Award

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Mobile Phone Detector

Abstract

1. Purpose of the research

Mobile phone is widely use and provided many convenient to our daily life. But in many public areas such as examination center, cinema, theater...Did not allow to use the mobile telephone, however some people they don't care the guideline and continue to use the mobile phone thus affect the normal processing of the operation. If we can detect the use of mobile phone effectively and give an appropriate advice against. I believe that it can help a lot to stop the use of mobile phone during the event.

Furthermore; If it can detect the peep use wireless pin hole camera; it is quite helpful for the privacy protection and the security.

2. Procedures

1. Study and understand the basic operation theory and status of the mobile phone; under what circumstance that the mobile phone will transmit and receive. Base on this, we design a RF detector circuit to detect the RF signal.
2. Circuit design
3. PCB layout
4. Looking for the IC and passive components from the supplier and prepare the PCB for sample making.
5. PCB assemble and debugging.

3. Data

Capable to detect the operation of the mobile phone in approximately 5 meters in radius during dialing, telephone conversation, send SMS, Power ON, Power OFF and initiate the location area update.

4. Conclusions

The Mobile phone detector failed to detect the mobile phone under standby mode, it greatly reduced the product usability greatly.

評語

行動電話偵測器是一不錯之想法，亦有諸多應用。實體展示亦已展現實績。
惟其靈敏度與可靠度宜進一步加強。