waves. Mobile phone uses high frequency RF wave in the micro wave region carrying huge amount of electromagnetic energy. The strongest radiation from the mobile phone is about 2 watts which can make connection with a base station located 2 to 3 km away.

5. **How the sniffer detect Mobile radiation**

The circuit is designed as a sensitive RF detector using signal diode IN 34, capacitor C1 and resistor R1.Since the signal variation is too low, a signal amplifier using the transistor BFR 96 is used to amplify the signal variation. BFR96 is the microwave amplifying transistor. The preamplified signals are coupled to a high gain inverting amplifier using the JFET input Op Amp TL0 71. This amplifier further amplifies the signals to give to the power amplifier made up of IC LA4440.

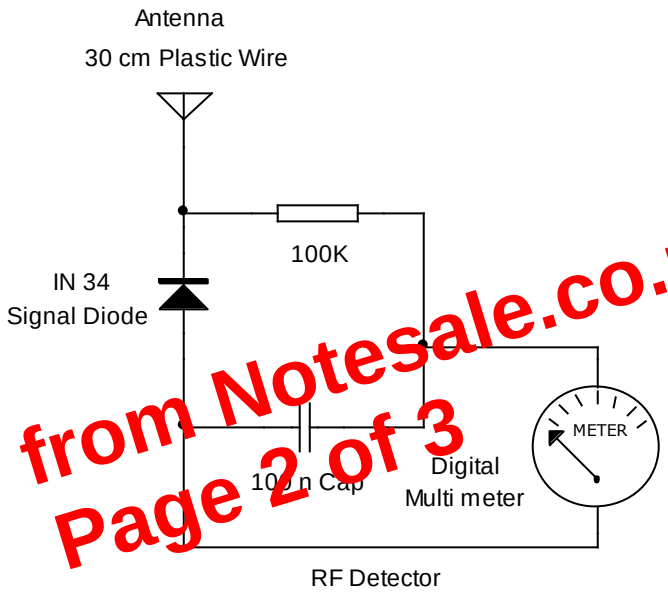

Diagram showing RF detection in Digital Multimeter

6. **How it works**

Normally, the RF sensor picks up the RF radiation available in the room which passes though the two amplifier stages and appears as a hissing noise in the speaker. When the Mobile phone is on use, the high energy RF in the form of pulses will disturb the RF in the room which generates a Motor boating noise through the speaker.