TO STUDY THE EFFECT OF THE ANTENNA LENGTH BESIDES THE POWER SUPPLY IN A SIMPLE MULTI BAND RECEIVER

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ABSTRACT

Simple multiband circuit was made from TDA 7000 integrated circuit. TDA 7000 integrated circuit is a monolithic integrated circuit for mono FM portable radios, where a minimum on peripheral components is important .In order to study the effect of the antenna length to the voltage gain besides the power supply, two examples length of antenna L=20cm and 40cm have been analyzed by connect the copper wire to the circuit, then observed on the oscilloscope by referred the shape of the sinusoidal graph. The power supply 2V to 10V was set up to measured the voltage gain and the output voltage produced by oscilloscope. The output voltage produced lower than input voltage where the input voltages are constant when frequency increased. The voltage gain measured by a ratio between output voltages over the input voltage in its unit in decibels (dB).When increased the power supply from 2V to 10V the voltage gain will increase. Such behaviors of electronics properties of this simple multiband circuit are suggested to be due to the decrease in length of antenna and increased the power supply.

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