VOICE ACTIVATED DIMMER LED BULB

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Abstract

This paper presents the design of a Voice activated dimmer LED bulb that will serve well in different phono-controlled applications, providing inexpensive key and at the same time flee from false triggering. This involves the design of various sages consisting of the pickup transducer, low frequency, audio low power and low noise amplifier, timer, bistable and switches. It also consists of special network components to prevent false triggering and ensure desired performance objectives. A decade counter IC serves the bistable function instead of flip-flop, special transistor and edge triggering network for low audio frequency. The primary purpose of switch is to provide means for connecting two or more terminals in order to permit the flow of current across them, so as to allow for interaction between electrical components, and to easily isolate circuits so as to terminate this communication flow when need be. The motivating force behind this design is based on the desire to alleviate the problem faced by the aged and physically challenged persons in trying to control some household appliances. It also takes into considerations the illiterates that may have problems operating some "complex" hand-held Remote Control Units (RCUs) Therefore this paper provides an introductory study on the basic principles involved in utilizing acoustic energy to control switching process. This is achieved by converting the energy generated by the "handclap" into electrical pulse, which is in turn used to drive an electronic circuitry that includes a relay, which in turn switches ON/OFF any appliance connected through it to the main. The device is activated by clapping twice within a set time period that is determined by a time constant (RC) component value in the circuit.