Smart Filter Receiver Operational Description

The Smart Filter Receiver is a low powered, receive data signal from hand held unit for remote controlling the LCD display feature. See the function description in attached. The receiver is powered by a 3-volt battery. It is designed to operate on a single fixed frequency at 433.92MHz. See the attached block diagram and schematic.

This receiver decode circuit is using RF IC (U5) and integrated circuit which received the digital control signals and will modulate the carrier signal (ASK). After decoding, data will be transferred for function display (U5). The carrier signal is generated by a LC (L1, C1) circuit comprised of a 433.92 MHz. The modulated input of the RF stage is coupled to external antenna. The external antenna is attached on PCB around 160 mm.

The receiver will check if any data come in every 3 seconds, if receive the data, will receive the complete data code for 6 seconds by U5 for function display.

All tuning and verification are performed by the manufacture and there are no adjustments can be made by user.