8.0 Operational Description

The hand-held transmitter consists of the housing, 3-volt battery, and a PCB assembly which has three control buttons, a crystal oscillator, and an IC.

The IC consists of a microcontroller and PLL. The microcontroller uses the 24MHz crystal oscillator to make the PLL resonate at 433MHz. The modulation format used is FSK with Rolling Manchester Code data format. The control code determines which function is performed. When a button is pressed, a low signal is applied to the microcontroller which activates the PLL. The signal and data are then sent to the receiver module where the module will perform certain functions correspondingly.