



ALPS AUTOMOTIVE, INC.

Circuit Description

TRANSMITTER

The hand-held RF transmitter consists of the housing (with integrated key), three control buttons, micro-controller and resonator (clock source), PLL and crystal (reference frequency). LED and a 3 volt battery. The micro-controller uses an external resonator running at 4.19 MHz, and the RF oscillator uses a PLL and a crystal to resonate at 433.92 MHz. The modulation format used will be FSK, with a Rolling/Manchester code data format. Once the user presses a button, power is applied to the micro-controller—which turns the RF oscillator on and off at the rate of the Rolling/Manchester code data being sent. The signal is then sent to the receiver module via RF data transmission. The module will then act upon the RF data received and will perform certain functions in correspondence to which transmitter button is pressed.