



Shoreline Electronics, Inc.

Operational Description of 390 MHz Transmitter

390 MHz Transmitter:

The *SE-G5J10* is a 390 MHz, single frequency, on-off keyed (OOK) type transmitter. Its architecture and design are based on a negative feedback colpitts type oscillator which is frequency stabilized by a surface acoustic wave (SAW) resonator. The unit is powered by one 1.5 volt battery and consumes close to 5 mA of current. The system modulation is accomplished by the turning on and off of the transmitter with a microprocessor running at 4 MHz. The data rate of the modulation is ca. 4800 BPS. There is one pushbutton on the transmitter which when depressed activates a microchip keeloq HCS201 encryption algorithm. The transmitter is on only when a button is depressed and immediately ceases transmitting on the release of the same button. Each push button causes one of several relays to be activated in one of its associated receivers. The antenna type employed is a helical loop which is permanently mounted to the transmitter's PCB. The unit will also turn itself off within 30 seconds if the pushbutton becomes accidentally depressed.