

**Applicant: Sumec Machinery and Electric Manufacturing Co., Ltd.**

**FCC ID: RH7-FP16**

## Operational Description

### 1) Description

The RX390-01 is a low-power hand held remote control device operating at a frequency of 390MHz. The signal output is a binary-coded,32-bit hopping code generated by non-linear encryption algorithm, with a 28-bit serial number and six status bits .It utilizes hopping code which for high security and keyless entry(RKE) systems from Microchip Technology Inc.

Actuating push buttons illuminates a light-emitting diode(LED) and activates the transmitter. Releasing the push-button immediately terminates transmission. Transmission time is limited to 3 seconds if button is held on.

### 2) Functional Description

The push-button switches,s1-3,applies power to the unit and activates L.E.D (D1) Digital encoding combines a 32-bit hopping code generated by a non-linear encryption algorithm, with a 28-bit serial number and six status bits to create a 66-bit transmission stream. The length of the transmission eliminates the threat of code scanning and the code hopping mechanism makes each transmission unique, thus rendering code capture and resend(code grabbing ) schemes useless.

The RF oscillator functions as a high-frequency circuit which composed by T1,C4,C5, L1,L2 and the frequency of circuit is 390MHz, the signal is emitted by annular antenna L2. The frequency of oscillation is controlled by SAW resonator. T1is the RF output amplifier. Base bias capacitor C4&C5 regulates the power output of the oscillator.