

**Ranger 3 Fm**  
**FCC ID#: IFHR3F75B**

### **Operational Description**

The Ranger 3 FM is a low power, non-voice, transmitter intended for remote control of model vehicles in the 75MHz band. The unit is held with two hands in front of the body.

The equipment employs a vertical polarized antenna, directly mounted on the unit and meets Paragraphs 95.645, 95.647, 95.649, and the technical requirements established in the Report & Order in PR Docket 90-222.

### **Circuits and Devices to Stabilize Frequency**

Transmitter output frequency is determined and stabilized by crystal-controlled oscillator.

### **Circuits to suppress Spurious Radiation**

Final RF amplifier spurious emissions are attenuated by a "PI" matching network consisting of C43, L2, C28, C32, C29, L3, T4, and T5.

### **Functions of Active Semiconductors**

| Reference | Type      | Function                 |
|-----------|-----------|--------------------------|
| Q1        | C1623     | Buffer/SW                |
| Q3        | C1623     | Modulator                |
| Q4        | C2223     | Driver/ X-Tal Oscillator |
| Q5        | C2223     | Driver                   |
| Q6        | C4735     | Final amplifier          |
| IC2       | KS86P4004 | Encoder                  |