CIRCUIT DESCRIPTION

1. TRANSMITTER

When power supplied, Oscillator (IC102) generates the required oscillating frequency and Modulator (Q101) modulates the frequency into 1kHz and 4kHz signal. Then the signal passes through K Band Oscillator where produces a Radio Frequency signal and the signal is transmitted through the Horn Reflector Antenna. These circuits are drove by DC 5 volts regulated by DC Regulator (IC101).

2. RECEIVER

A radio Frequency signal, received by the Horn Reflector Antenna, is detected through K Band Detector Module. The signal is amplified by Low Frequency Pre-amplifier (Q2), Low Frequency Amplifier (IC1-A) and Frequency Selector Amplifier (IC1-D, IC1-C), and then passed to Detector (D1, D2). The required signal is detected through the Detector and passed to Alarm Output Circuit. When the amplitude of the signal is below the required level, the signal is fed to Automatic Gain Controller (Q3, Q4) and further amplified through the Low Frequency Amplifier and the Frequency Selector Amplifier. The Alarm Output Circuit (IC3-A, IC3-B, IC3-C, IC3-D, IC4-A, IC4-B, IC4-C, IC4-D) activates Alarm Relay (RY1) when the signal is not passed from the Detector. These circuits are drove by DC 5 volts regulated by two DC Regulators.