

**Description of the Electrical Circuitry
Hand Held Transceiver N99J447R**

A) When one or more of the buttons of the Transceiver is pressed:

- 1) When one or more of I, II, III or IV buttons is/are pressed, the button instruction is transferred to U2 (CPU).
- 2) U2 (CPU) transfers the ID code and button instruction to Q7.
- 3) Q7 generates the radio frequency carrier of 447.7 MHz that was modulated by the data from U2.
- 4) The signal from Q7 is amplified by the Transistor Q5, Q6, then sent to Antenna T1.

B) When a signal enters from the antenna:

- 1) U2 (CPU) monitors the 447.7 MHz through Antenna T1.
- 2) When U2 receives 447.7 MHz signal, the signal is amplified by Transistor Q1, Q2, then sent to the Mixer Transistor Q3.
- 3) Q8 sends self-generated frequency 455 MHz to Mixer Transistor Q3.
- 4) Transistor Q3 heterodynes the signals from Q1,2 to generate 21.4Mhz that is sent to Intermediate Frequency IC, U1.
- 5) Intermediate Frequency IC demodulate the signal to digital code and then send it to U2 (CPU).
- 6) The CPU recognizes the ID and instruction, then activates the Beeper Buz1 and indicates the information on the LCD1.