

## **1. Description (HT-R200: Receiver)**

- 1) Micro Controller: U1 is 8 bit micro controller. It receives user's key input. It shows current setting mode through LED. When alarming, it activates buzzer or vibrating motor. It receives radio data from the transmitter (tag).
- 2) High frequency receiving part: Q6 emits C44, C22, antenna and resonating frequency, and it is a single oscillation ASK receiving circuit that receives radio frequency. A faint signal received at Q6 goes to U9, U9 is OP Amplifier that amplifies the faint signal to 60dB. The amplified signal transfers to U8 and U8 translates the signal into something that micom can recognize. U7, D9, D10, and C36 transfer the received signal's electric strength into the size of DC voltage before it transfers to micom. Micom reads the size of DC voltage with AD converter and determines the received electric strength.
- 3) Power Circuit: The unit operates after boosting the voltage of 1.5V into 5V as it rectifies the signal transmitted from the circuit made of U2, D1, and L3, and changes into 5V.