Circuit description of the SAINT remote unit

When the button (SW1, SW2, SW3, SW4) is pressed, the base of the PNP transistor (Q1) is biased through resistor (any of R6, R7, R8, R9 is grounded). Then the emitter to collector of the PNP transistor (Q1) is turn ON, and the battery voltage is applied to the Encoder IC (U1) and the alternated Colpitz type oscillator circuit with the SAW Resonator which is consist of the Q2, Y1, C2, C3, PWB loop Antenna.

When the button (SW1, SW2, SW3, SW4) is depressed, the base of the PNP transistor (Q1) is no biased and the emitter to collector of the PNP transistor (Q1) is turn OFF, then the battery voltage is not applied to the Encoder IC and SAW resonated oscillator stage and stopped the operation .

When the button is pressed, the security code and data according to the key switch input is generated by the Encoder IC (U1), the code and data is feed to the base of the transistor (Q2). The code data is high, the transistor (Q2) is oscillated the frequency of 433MHz band which is stabilized by the SAW resonator (Y1). And the code data is low, the base of the transistor (Q2) is no biased and stopped to oscillation. It will perform to ASK (amplitude shift key) modulated operation. The integral type PWB loop is consisting of the half-wavelength type antenna.