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TECHNICAL DESCRIPTION

MODEL SDK433 KEYPAD TRANSMITTER

DESCRIPTION

The transmitter is a low-power communication device operating at frequency 433.5MHz by adjusting the trimmer (VC3). The signal is a digital coding modulated transmission, which transmitted data to a receiver. This digital coding provides different patterns by proprietary integrated circuit (U4).

FUNCTION

The keypad provides password input and latch output function. A short beep tone will be generated during key closure. When enter a correct password, the proprietary IC (U4) will send encoded digital data. The capacitor (C9 and C10) and ceramic resonator (Y1) established the clock rate of 4MHz. DIP switch (SW2) provides the code setting to match with the receiver.

The LEDs (D1-4) act as backlight and the unit can be operated even in dim environment.

The output data from the proprietary integrated circuit (U4) drives a tuned Colpitts power oscillator. The oscillator is a LC oscillator formed by transistor Q1 and associated components (C15, C26, C17, C19). The trimmer (VC3) controls the frequency of oscillation. The inductive loop is installed on the PCB as the principle radiating element which similar to an elementary dipole. Resistor (R33) in conjunction with the base bias circuit (R32) regulates the power output of the transmitter.

The unit operates from Lithium battery of 6V.

Warning: Changes or modifications to this unit not expressly approved by the party responsible of compliance could void the user's authority to operate the equipment.