

VA5JA900R-1A433 Circuit Descriptions.

Block1 : The Resonator.

It is used to keep track of time, to provide a stable clock signal for digital integrated circuits, and to stabilize frequencies for LF transmitter.

Block2 : The micro-controller.

It generate LF clock and signal, and transmit that to trigger and flip-flop respectively.

Block3 : That part of the circuit modulates LF clock and signal.

Block4 : These chip amplify clock and data signal, and transmit that to LC resonant circuit.

Block5 : LF antenna transmitting LF signal.

It consist of Ferrite core which is operated as Inductor and Mylar condenser which is operated as capacitor. Both resonate at 20kHz, and transmit LF signal by making magnetic field.

Block6 : RF pattern antenna receiving RF signal.

This antenna is made of pattern on PCB and receive RF signal, and transmit that to Super-regeneration circuit to demodulate.

Block7 : Super-regeneration circuit.

It amplifies the received signal after demodulating.

Block8 : Phase-Compensator.

The op-amp is used for comparison both input signal, and operate when both input signals are same to stabilize signal. The output signal flow into MCU.