

Operation Description for Mini XPV (27MHz / 49MHz)

The transmitter of the Mini XPV (27MHz / 49MHz) is powered by six 1.5V AA size batteries. The radio frequency channel is 27.145MHz / 49.860MHz. There are two control sticks and one push button on the transmitter. When the push button is pushed to “ON” and the control sticks are pressed, it will transmit different radio control signals. When the push button is pushed to “CH” and the external line is connected to receiver, the rechargeable battery inside the receiver will be charged up.

The receiver of the Mini XPV (27MHz / 49MHz) is powered by a 3.7V rechargeable battery. The radio frequency channel is 27.145MHz / 49.860MHz. There are two motors on the receiver. When it receives the radio controls, it will fly to the corresponding direction.

Referring to the transmitter circuit design, the circuit description is listed below:

- U1 and associated circuit act as an encoder.
- X1, Q6 and associated circuit act as an oscillator.
- Q7 and associated circuit act as a RF amplifier.
- Q5 and associated circuit act as a voltage regulator.
- Q4 and associated circuit act as a reference circuit.
- Q1 and associated circuit act as an indicator circuit.
- Q2, Q3 and associated circuit act as a current protect circuit.

Referring to the receiver circuit design, the circuit description is listed below:

- Q1 and associated circuit act as a RF amplifier.
- U1 and associated circuit act as a decoder.
- Q2, Q3 and associated circuit act as a voltage regulator.
- Q4, Q5 and associated circuit act as a motor driver for M1.
- Q6, Q7 and associated circuit act as a motor driver for M2.
- U2, U3, Q10 and associated circuit act as a charge protect circuit.