

Operational Description

The circuit is made up of receiver and transmitter. The EUT is transmitter (remote control). First of all, the system power on, then press button of controller. The EUT will transmit RF signals to achieve control function.

The 2.4 G MOD is a module that can encode the data from the Wireless Firepad sensor and sends these data via RF at 2.4GHz band. The 2.4 G MOD is equipped with a complete set of GFSK modulator that also provides 3 RF channels solution. This will reduce the extra external component for RF interface.

The encoder generates a digital code serially transmit (typical designation) when press any button into the MCU (modulator or called as mixer) stage in circuit.

MCU then will read the status, control the RF chip by through the SPI Bus, and the Modulation type of RF chip is GFSK, the frequency of Modulation is 150 KHZ.

The serially digital signal mixed with the carrier at modulator (mixer) stage by way of GFSK mode and is also sent to the 2.4G chip to be processed then to the transmitter antenna. At the same time the MCU will trigger the 16M crystal oscillator to generate a carrier frequency when receive the signal.

The transmitter of the EUT is supplied by 3*AAA batteries. The antenna is PCB antenna without connector.

There is no external ground connection. The ground is only that of the printed circuit board.