

OPERATIONAL DESCRIPTION

1. DESCRIPTION:

The Philips remote control model RC1984755/01BR consists of 47 keys and 4 modes. It can transmit in Infra-Red(IR) or Radio Frequency(RF) by sequence of button setup. There is a RF module interface with the main circuit. It is a FSK modulation type and the oscillation frequency is 433.92MHz.

This remote control is a portable device designed to work with the Set-top box mainly for US markets. It is a universal remote control that can program other devices like TV or DVD and can be stored in 3 modes provided.

Two AA Zinc Carbon batteries can last for minimum 1 year for normal usage.

There is a Low Voltage Detection in place, whenever the battery voltage drops to 2.5V, the green indicator LED will blink additional 5 times to indicate to the user that the battery level is low.

2. FUNCTION:

Pressing any button on the remote activates the Philips remote control RC1984755/01BR. The code will be transmitted within a second after key pressed. And so long as the key is remained depressed, the code is keep sending out until it reaches time duration of 30 seconds. Transmission ceases immediately after key released.

When there isn't any key pressed, the microprocessor goes into sleep and wakes up upon key pressed. It transmits either IR or RF depends on the setting. It will not transmit IR and RF together.

In RF mode, basically, the main microprocessor sends an enable signal to enable the RF module and follow by data signal in envelope form. The RF module will then modulate the input signal at 433.92MHz and transmits the modulated signal via the antenna.

3. SPECIFICATION

For IR mode, the carrier is 38KHz for the set-top box.

For RF mode, the oscillation frequency is 433.92 MHz \pm 14KHz.

Frequency Modulation Deviation: 50KHz

Operating Voltage is 2.4V to 3.3V.

Visual Indicator: Green LED.

Low Voltage Detection: 2.5V \pm 150mV.

Modulation Type: FSK