

Circuit Description

Our V-610 is a tool for PPT Presentation, and it includes the following functions: Page up, Page and laser pointer.

The features of 2.453 GHz RF technology are strong interference capability, high sensitivity, long distance, and no directional requirement.

- (1) Keyboard circuit consists of k1-K3. They are all pushing switch, used as a simple on-off switch by connecting to the MCU in the circuit.
- (2) MCU is EM78P153SN, it is an 8-bit micro controller and processor with low-power and high-speed CMOS technology, with a 1024*13-bits OTP-ROM within it. The work voltage in the circuit is 3V. And the available temperature is 0 degrees Centigrade to +70 degrees Centigrade.
- (3) 2.453GHz RF transmitter is consist of U4(CC2500) , etc, Antenna
While Key is pressed, the status of MCU PIN is changed, MCU wake up from sleep. It commands U4 send 2.453 GHz RF signal. The CC2500 is a low cost true single chip 2.453 GHz transceiver designed for very low power wireless applications. The circuit is intended for the ISM (Industrial, Scientific and Medical) and SRD (Short Range Device) frequency band at 2400-2483.5 MHz.
- (4) Antenna is consisting of L2, L3, C17, etc.
- (5) Laser pointer is consist of D1、Q1、Q2、Q3、R6, R10, R12, R14 , etc.
D1 is a 650nm red laser diode. The operating voltage of D2 in the circuit is 3V.
Q1、Q2、Q3 are NPN surface mounted transistor. They are response for current control and amplify.
While K2 is pressed, MCU command the D1 send 650 nm laser.