Circuit 's operation Description for DS-2101 TX

DS-2101 TX is a wireless mouse project ware, major from step-up chip U1, tiny processor and radio wave produce ware U2, optical chip U3 forms.

Battery BAT passes through the built-in electronic switch of L, D1 and the 27 feet of U2, is step-up to make steady 3 V and by C12 strain wave, the 4 feet that enter U2 make U2 work. 3 feet and the 1 of U2 are outside to receive crystal X2 , produce the clock signal of 76.8 KHZ for system. 5, 6, 7 feet difference receive left in 3 right buttons, press the voltage of 3 V enter U2 inside can know the button of which one have been pressed. 16 and 17 feet have received encoder, when encoder turns , make 16 or 17 feet get the voltage of 3 V to enter inside in turn know encoder turn information. 22 feet have set ID switch, press 22 feet get the voltage foot ammunition U2 inside of 3 V project ID signal. 10 and 11 feet produce the vibration of 27.042 MHZ mainly with X2, the signal process owned of U2 that taken over passes through C5 after coding by 12 feet to carry out frequency modulation, produce central frequency 27.045 MHZ, is undertaking frequency the modulation signal of 3 KHZ, in this 9 signal input feet, department carries out radio frequency to enlarge , exports through 8 feet, by C11, L3, C13 and C16, after C17 etc. match , add to PCB antenna to project to space. Battery voltage from R5, R4 divides to press, enter 25 foot detection battery voltages, when voltage passes to low, 20 foot export signals make D5 twinkle. R3 and R2 divide for the voltage of 3 V to press, enter 26 feet to carry out the detection of stabilized voltage.

Battery BAT passes through L2, D2 the step-up voltage that 4 V controls from C7 strain wave, the 13 feet that enter U3 make it work , the 7 foot built-in voltage regulators of 3.3 V of U3, C14, C12 carry out voltage strain wave, 9 and 11 feet are outside to receive crystal X4 , produce internal clock, 6 feet is drive give out light the foot of diode D4, the sampling resistance that 14 feet receives can decide the biggest current of D4. When the light of D4 reflects when shooting to top of a table, enters U3, built-in optical induction partially automatic detection and calculation mouse move speed and direction, and pass through this data 1, 16 foot biographies give chip U2, U2 at the same time projects this data modulation by antenna to go out.

C +, C - is besides receive the port that charges , D3 is used to prevent reverse current.