

## **Operational description of KM1003**

This Unit is a wireless optical mouse. the frequency is 27.045MHz.

Operating process:

1. Insert 2AA batteries in compartment on the bottom of the mouse.
2. Insert USB plug on receiving device into USB port on computer.
3. Press button on receiver and red light will blink on and off for a few seconds. Immediately turn mouse over, hold near receiver, press connect button on the bottom of the mouse and release it while light is blinking on receiver. Devices will search for and find one another.
4. Let the mouse work continually.

### **Power Requirement:**

This unit input is 2 AA batteries. Operated is DC3.3V.

### **Operating principle**

The wireless mouse reflects using the light to the work floor illumination to IC PAN3101 in carries on the transformation, Responds the mouse under active status X direction and the Y direction path. IC PAN3101 unceasingly will change the light signal will transform the electrical signal, IC outward outputs SCLK (clock signal) and SDIO (X direction and Y direction synthesis serial data signal) in the time base vibration foundation the signal. Two groups signals parallel deliver to the pulse control, launch IC MA6221\_S7K. This IC by exterior time base vibrates (76.8KHz), RF vibrates (27.042MHz), the pressed key signal input, the hoop type coded signal input, the supply voltage examination and the low voltage demonstrated the pulse signal output and internal power source operate the oscillating circuit, the synchronized code electric circuit (to code signal), pulse electric circuits and so on processing electric circuit, signal modulation compose. When mouse works, after the arteries control the electric circuit the SKIO signal or the pressed key, the coded signal and the synchronization coded signal and the SCLK signal carry on serial processing. Carries on FSK in the tone circuit (frequency-shift keying modulation) modulate the center frequency is 27.045MHz RF signal from the antenna radiation to space.

The receiver is composed by one kind of frequency-modulation reception electric circuit and the pulse control circuit and E<sup>2</sup>PROM. The external signal carries on the enlargement after the antenna receive, Delivers the frequency modulation to demodulate electric circuit MC3361 16<sup>th</sup> foot RF input end, Carries on the mixing enlargement in the electric circuit, Outputs 455KHz from 3<sup>th</sup> foot the intermediate frequency, the 455KHz intermediate frequency carries on the supersonic amplification after 5<sup>th</sup> foot inputs in the electric circuit, Places after the intermediate frequency signal to output the demodulation signal after warning frequency electric circuit processing by 9<sup>th</sup> feet, Q1 will demodulate the signal further to place inputs to the IC static dry electric circuit, The signal will enlarge which with the aid of the static dry electric circuit will carry on the reshaping to complete the entire signal the demodulation duty. Demodulates the signal is a comprehensive serial pulse signal, Embody SCLK signal, SKIO signal and synchronization coded signal.

Delivers this to the pulse control circuit, The control circuit enters these signals separation processing; If the synchronization coded signal may lock the transmitter which transmits, And stores up this signal in E<sup>2</sup>PROM.