Wireless Mouse

Operation Principle

1. Mouse Side Radio

The Mouse side radio system is mainly composed of two parts: radio modem and baseband microprocessor. The microcontroller scans keystrokes, wheel and sensor , then packs the data by adding preambles, frame information, and error checking bytes.The radio system uses one of 16 channels (the frequency range is 2.404-2.477GHz) to send signal in random, when the data validation error change frequency .

The Mouse side radio system is powered by double 1.5V AAA batteries and regulated to 1.8V. The power consumption of RF module is about 2.7mA, the total power consumption about 9.5mA in normal working mode. It will enter sleep mode if no key be pressed or no motion after 30 second, in this mode the total power consumption only about 100-200uA.

The Mouse side radio system will send sync packets after being powered on, and then search Dongle's responses. This is search mode. If any responses-packets be received, the Mouse side radio system will enter normal working mode. Then , if Mouse side radio system loses synchronization, it will enter sleep mode.

2. Dongle Side Radio

Dongle side radio will always receives RF signal and checksum data at intervals , if data is OK send data by USB to computer, then send ACK data to Mouse Side Radio.

Dongle side radio system is powered by USB(5V).