2116-A TX Operation Description

Operation Frequency: 2402-2478MHz
Modulation Type: FSK

The wireless mouse 2116-A is a senior and multi-function mouse. It uses optical sensor IC of Agilent. Its RF frequency is 2400 MHz and transmission distance is more than 10 meters.

The 2116-A TX mainly consists of optical sensor (U4 A5030), MCU (U3 MA2628), RF module URFM and EEPROM U1 (93C46B).

U2 and BATT provide the circuit with a stable DC 3 V. U3 is the MCU which also processes signals from keys of SWR, SWL and SWM. When the mouse is moving on the desktop, optical sensor IC-U4 collects optical signals reflected by the desktop. The signals are input to U3 to be processed and then sent to RF module.

RF module URFM (RFM5010) consists of U1 RFM8903. X1 and its around circuit provide 26 MHz time oscillating. U1 modulates and amplifies signals and transmits out by antenna.

There are 48 channels but no frequency hopping is used. The mouse checks with dongle by SWID which channels are being used. The mouse will not use the channels but one other channel which is not used. The channel will not be changed during use until RESET.

The modulation type is FSK and data rate used for communication is 256kbps.