Operation Description of 27MHZ wireless optical Mouse

Applicant:Atake Digital Technology ShenZhen Co.,Ltd
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Volatge :DC3V supply by battery
Power: 0.075W
Modulation:FSK
Fundamental frequency:27.045MHZ

(with reference schematic diagram and Block diagram)

The circuit of module TX is basically divided in four parts

1 Oszillator (27.042MHZ)

2 Modulation of signal

3 RF amplifier

4 Output circuit with the antenna

The Oscillator unit produces an frequency of 27,042 MHz by using a quartz crystal. Then produces an carrier frequency of 27.045MHZ through mixing circuit. which is coupled via a capacitance. The modulation is gained by an IC, being operated by the user trough the switches. Carrier and modulated signal are superposed at the base of a transistor, which amplifies the modulated carrier. The output circuit, being realised by capacitors and inductances matches the RF amplifier to the antenna providing RF-power being transfered to the antenna.