# Wireless LightGun

## Theory of Operation

### 1. Station Side Radio

Receive to mainly have three constitute partially: the wireless MODEM, the frequency synthesizes the machine and MCU. Receive from one 9pin PORT and USB port and connect of PS2.PS2 9pin port each 16.666mS to receive to send out the instruction(NTSC system, each 20mS) to read data, The USB port takes data every 8mS to receive machine .Receive to always be placed in to receive the data appearance, solve to wrap to check the data to be provided for PS2 to read more. The wireless MODEM with eachse second 250,000 FSK    MODEM, it avoids the frequency drift through a decoding of GFSK. The frequency is synthesized the machine control by the frequency, It corrects the electric voltage control OSC to obtain the accurate frequency. Receive to have 2 frequencies 2.47150 GHz & 2.46770 GHz can in exchange for choice. Receiving the machine can receive only, providing the power supply from the host. Receive and average power of machine is a 25 mA, 3.3 Vs.

### 2. Joypad Side Radio

Transmitter to have 2 frequencies in the 2.48220GHz & 2.47840GHz can in exchange for choice. The MCU scans the key and processing LIGTH signals to pack the data to pass the wireless MODEM transmit. transmitter from 2    section AA    battery power supplies, the    voltage satisfy lowest is a 3.0 V. The total and average power is a 90mA, 3.3V