

## **Circuit Principle description:**

This 2.4G Keyboard wireless controller used for PS3 console. The controller communicates with PS3 console by main chip MTF0300RX1 and 2 of the Dongle and MTF0300TX1 and 2 for the controller, MTF0300RX communicate with PS3 console by USB port of PS3 console. The communication between the Dongle and the Controller use a true single chip 2.4 GHz RF transceiver module in each other.

The 2.4GHz RF transceiver module Frequency range is 2402MHZ to 2480MHZ, They are working in Frequency-Hopping Spread Spectrum mode. Modulation type for MSK. The max power out at 1dbm for game data communication from Controller to Dongle, For the module, The system clock is 26MHZ, Use a PCB antenna, impedance matching at 2.4GHZ band, Wireless communications distance up to 15 meters.

For the dongle, The main chip MTF0300RX1 and MTF0300RX2 receives all game control and keyboard data by 2.4GHZ module and communicate with PS3 console by USB of PS3 .The system clock is 12 MHZ, a 5V power supply and data communications by USB of PS3 console, A LDO output DC3.0V used for the main system.