

## **PRINCIPLE ILLUSTRATION OF RF WIRELESS PAD FOR X-BOX**

### **TRANSMITTER**

1. Turn on the transmitter power (the power switch at "ON" position) and "MCU FT24102" starts working. MCU FT24102 will make self-detection and self-initialization, matching its i/o port and reading out the channel selection port. And it will allocate RF FM004101's frequency, speed, power, etc.
2. MCU FT24102 scans the key data and sends them to key buffering area. It will read the Channel selection port and update the transmission frequency for RF FM004101 according to Channel status.
3. Set RF FM004101 to receiving status.
4. RF FM004101 receives the data sent by the receiver. When receiving the effective data, it will decode them and send the requesting signal of reading the data to MCU FT24102.
5. MCU FT24102 responds to such request, reads the data and sends them to the motor's driver, driving the motor to vibrate.
6. Set RF FM004101 to transmission status. MCU FT24102 sends the data from key buffering area to RF FM004101's transmission buffering area.
7. RF FM004101 codes the data and sends the data via the allocated speed.
8. Back to Step#2.

### **RECEIVER**

1. Turn on the X-Box console power.
2. Choose the channel switch on wireless receiver and plug the receiver to the console port. MCU1 FR24102A and MCU2 FR24102B start working. And they will make self-detection and self-initiation, matching its i/o port. MCU1 FR24102A reads out the channel selection port and gets the Channel allocated data. According to the data, it will allocate RF FM004101's frequency, speed, power, etc.
3. MCU2 FR24102B communicates with X-Box console, reads the motor's driving data and sends them to MCU1 FR24102A's buffering area.
4. MCU1 FR24102A sets the RF FM004101 to transmission status. Send the data from MCU1 FR24102A buffering area to RF FM004101's transmission buffering area.
5. RF FM004101 codes the data from transmission buffering area and sends the data via the allocated speed.
6. MCU1 FR24102A sets the RF FM004101 to the receiving status.
7. RF FM004101 receives the data sent from the transmitter, decodes the data after receiving the valid data, gets the effective key data from the transmitter and sends the requesting signal of data-reading to MCU1 FR 24102A.
8. MCU1 FR24102A responds to the request, reads the effective key data and sends then to MCU1 FR24102A buffering area.
9. MCU1 FR24102A sends the effective key data to MCU2 FR24102B.
10. MCU2 FR24102B communicates with X-Box console, sends the effective data back to X-Box console.
11. Back to Step#3.