

## **KB1.0 Operational description**

12/08/204

### **1. General**

KB1.0 Wireless keyboard and mouse system consists of three devices, Keyboard, Mouse and Transceiver. Keyboard and Mouse are powered by battery and voltage range is 2.0 to 3.2V. Transceiver is powered through PC interface and voltage is 5.0V.

KB1.0 Wireless keyboard and mouse system can operate on one of the following frequencies. The frequency to be used is determined by software. (Some models have only limited channels as specified).

- 26.995 MHz
- 27.020 MHz
- 27.045 MHz
- 27.070 MHz
- 27.095 MHz
- 27.120 MHz
- 27.145 MHz
- 27.170 MHz
- 27.195 MHz
- 27.225 MHz
- 27.255 MHz

### **2. Keyboard operation**

Keyboard Controller (JA3202) has CPU, ROM, RAM, key detector, synthesizer, modulator, transmit power amplifier (TXPA) and receiver. The Controller detects key press and release, generates transmit signal, transmits to Transceiver and receives acknowledgement from Transceiver.

Once key is detected CPU generates digital signal containing key information. Digital signal modulates carrier signal from synthesizer to generate transmit signal. Transmit signal is amplified by TXPA and coupled to wire antenna.

After key information is sent to Transceiver, Keyboard Controller waits for acknowledgement from Transceiver. If acknowledgement is not received, Keyboard Controller will send transmit signal again.

### **3. Mouse operation**

Mouse Controller (JA3203) has CPU, ROM, RAM, optical sensor controller, synthesizer, modulator, transmit power amplifier (TXPA) and receiver. The Controller detects mouse motion through optical sensor and button press or release, generates transmit signal, transmits to Transceiver.

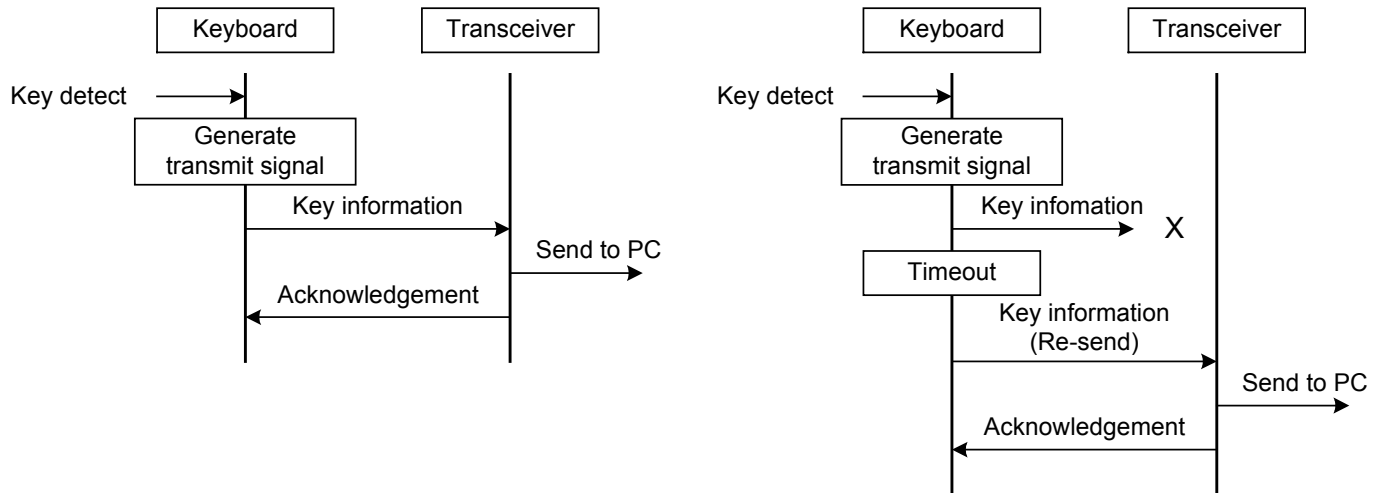
Once motion and/or button are detected, CPU generates digital signal containing mouse motion information and/or button information. Digital signal modulates carrier signal from synthesizer to generate transmit signal. Transmit signal is amplified by TXPA and coupled to wire antenna.

### **4. Transceiver operation**

Transceiver (JA3205) has CPU, ROM, RAM, PC interface (USB), synthesizer, modulator, transmit power amplifier (TXPA) and receiver. The transceiver receives signal from devices (Keyboard and Mouse), sends information from devices to PC through USB and sends acknowledgement to Keyboard.

## 5. Communication flow

### 5.1 Keyboard and Transceiver



### 5.2 Mouse and Transceiver

