# JM-R851K Theory of Operation

**receiver chart**

```
                        ┌──────────────────────────┐
                        │   26.590MHZ frequency     │
                        └──────────────────────────┘
                                    │
                                    ▼
┌──────────┐        ┌──────────────────────┐        ┌──────────────────────┐        ┌──────────────────────┐
│   ANT    │ ────▶  │    high frequency     │ ────▶  │ Main control processor│ ────▶  │    USB interface      │
│          │        │                        │        │                        │        │                        │
│          │        │    signal processor    │        │                        │        │                        │
└──────────┘        └──────────────────────┘        └──────────────────────┘        └──────────────────────┘
```

**singal sending chart:**

```
┌──────────────────────────────┐        ┌──────────────────────┐        ┌──────────────────────┐
│ optical chipset signal processor│ ──▶  │    MCU processor      │ ──▶   │        ANT            │
└──────────────────────────────┘        └──────────────────────┘        └──────────────────────┘
                                                    ▲
                                                    │
                                         ┌──────────────────────┐
                                         │   27MHZ frequency     │
                                         └──────────────────────┘
```
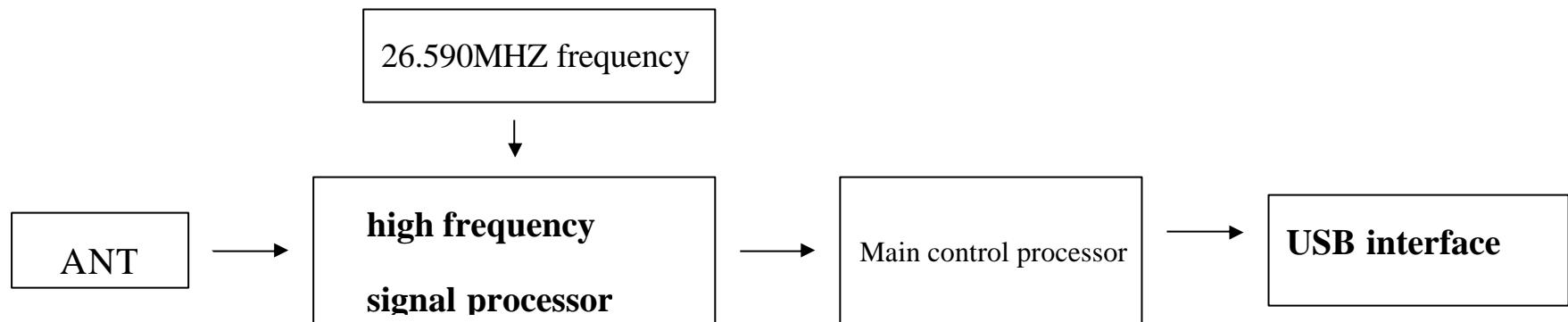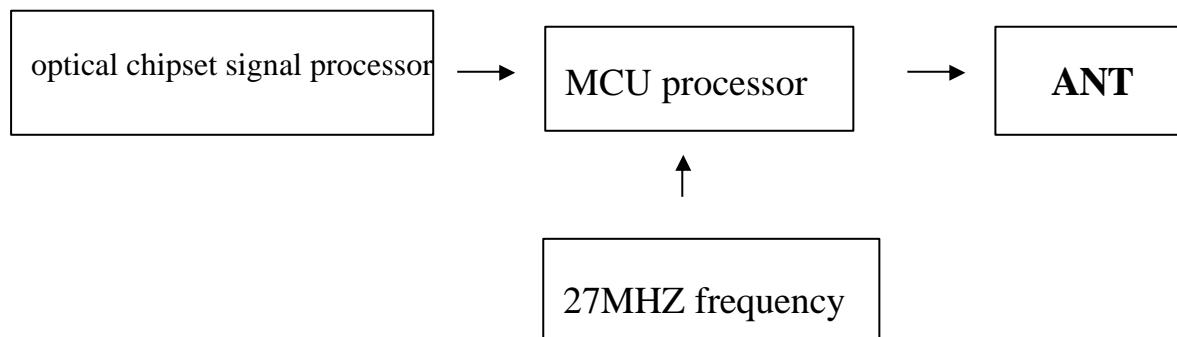
**Description of receiving signal:**

**1/**Antenna receive the high frequency signal and forward it to the next step.**2/**High frequency signal processor analyze and translate the high frequency signal received by the Antenna,the signal is tranlated into data signal and be forwarded to next step.  **3/**Main control processor furtherly works on the data signal,and then send the processed signal to the USB interface.

**Description of sending signal:**

**1/**optical chipset singal processor output a data signal operating with the same step as the mouse,and send it to the next step.**2/**MCU processor furtherly work on the data signal from prior step,and then send to the next one.**3/**ANT process the data signal received from prior step and send it out.