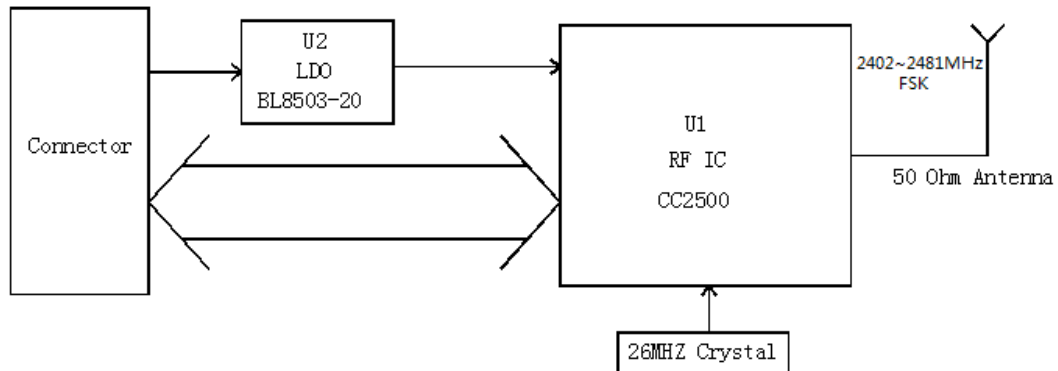


## Description:

- 1) Battery: provides a 3V power to the circuit.
- 2) U9 KA2100A36: boosts the battery voltage to 3.6V for offering voltage to the RF module.
- 3) U6 ME6206A33: regulates the 3.6V voltage to 3.3V for supplying power to U1, U2, U3, U5.
- 4) U5 Sensor SMB380: is an acceleration sensor which will send out the X, Y, Z axis acceleration value to U3. The communication way between U3 and U5 is I2C.
- 5) U3 EM78P156: is a convertor. The data from the sensor U5 will be converted by the U3 and then sent to MCU-U2 for further processing. The communication way between U3 and U2 is UART.
- 6) X1 4MHZ Crystal: provides a 4MHz working frequency for U3.
- 7) BUTTON & LED SWITCH & AXIS: BUTTON, SWITCH & AXIS are the input buttons which will send their own key values to the MCU-U2 when pressed. LED are the player indicators.
- 8) X2 12MHZ Crystal: provide a 12MHz working frequency for MCU-U2.
- 9) U1 FT24C02: stores the random code. When the guitar connects with the receiver, the receiver will send a random code to guitar which will be stored in this EEPROM U1.
- 10) U2 5201M091AA-D: is the main MCU which will process all data from periphery circuit or RF module.
- 11) RF Module: will send the data of MCU-U2 out and receive the signal from receiver to MCU. The communication way between MCU and RF module is SPI.
- 12) 26MHZ Crystal: provides a 26MHz frequency for RF module's main IC.



## Description:

- 1 Connector: The communicating circuit between the RF IC and MCU which transfers the data between the two ICs and also provides a 3.6V voltage to the RF module.
- 2 U2 LDO BL8503: converts 3.6V to 2V for the RF IC's power supply.
- 3 U1 RF IC CC2500: modulates the data from MCU and send the signal out by the 50ohm matched antenna. The modulation is FSK. It uses 80 channels for communication and the frequency is 2402~2481MHz with 1MHz interval for each channel. Antenna type: PCB.
- 4 26MHZ Crystal: provides a 26MHz working frequency for the RF IC.