Circuit Principle Description

CSR1010 is a SOC component that contains the bluetooth module. At power part, we use XC9236 to reduce battery input voltage to 2.8 V as the power input for CSR1010, MMA8653. The power of the EEPROM (FM24C256A) is controlled by CSR1010 itself, it is used to store the software algorithm and computes data routinely. And BQ24040 is used to charging the battery, 5 v input voltage from the Micro USB and the charging current can be set up between 54 to 270 MA by resistance change. The charging status indicator and CSR1010 GPIO are linked together, the MCU can effectively identify the battery in charging status.

MMA8653 is an acceleration sensor, it can detect the human body movement information, at the same time an interrupt to CSR1010. Through the I2C bus communication between CSR1010 and MMA8653, CSR1010 progresses the activity data sent from MMA8653, using specially designed algorithm, and transmits them to the mobile phone by the Bluetooth communication. The five White LEDS is controlled by five GPIO.