working priciple description
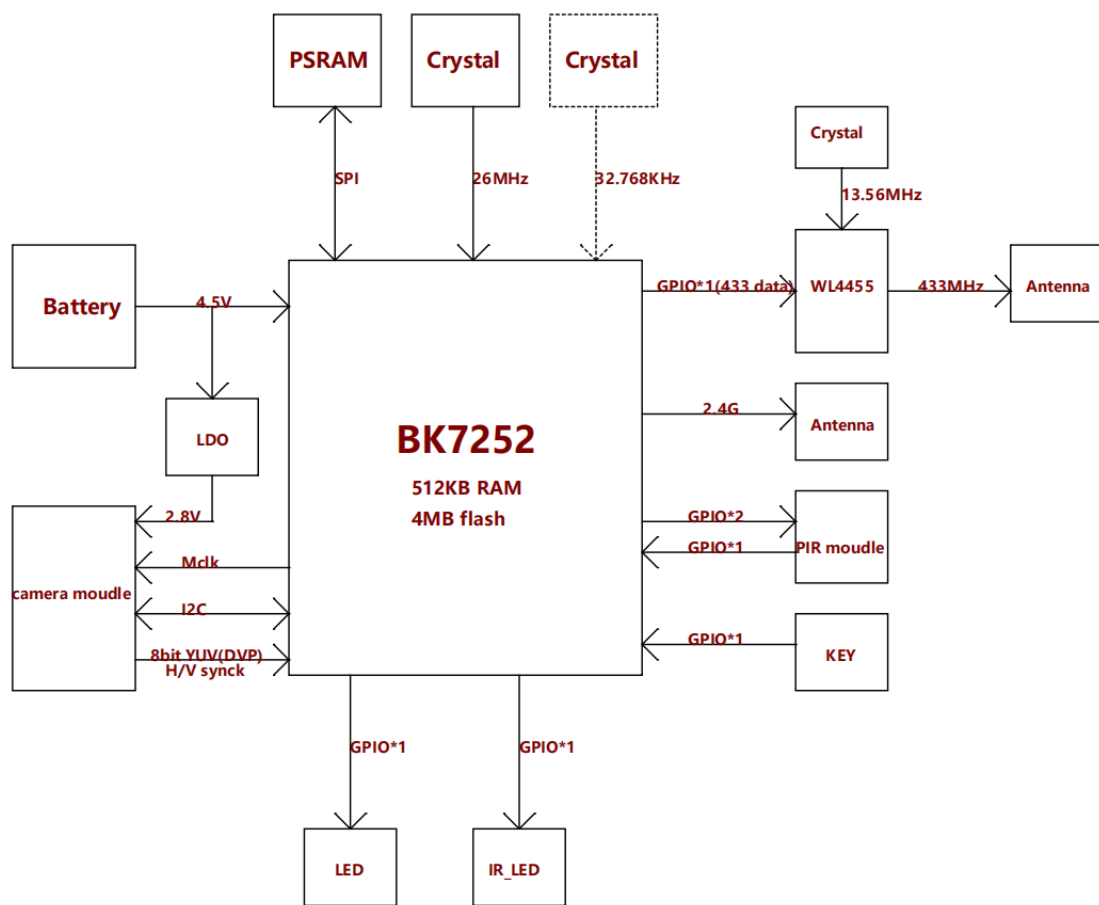

1、Power tree

　Three batteries are connected in series to provide 4.5V voltage，through LDO U1/2.8V to supply power to CMOS image sensor module.Meanwhile through the chip internal power management unit,can output 3.0V 2.7V 1.2V power rail suplly power to different modules.

2、MCU

U2 BK7252 is an WIFI Audio/Video SOC chip，The high speed 32-bit MCU up to 180MHz and large embedded RAM make it able to support multiple cloud links and also suitable for audio and image application.

3、VIDEO

Through 8-bit DVP interface, one 30w cmos sensor module named GC0328 output YUV fomat data to the SOC, then coding compression and output to the network part.

4、 PIR

BS612 is an PIR sensor,This device can sense the approach of human body and output signal to SOC.

working priciple description

4、 IR

2PCS 850nm IR LED light can make infrared better.

5、 WIFI: 11b: DSSS (CCK, QPSK, BPSK),11/5.5/2/1 Mbps (Dynamic),
11g: OFDM (64QAM, 16QAM, QPSK, BPSK) 54/48/36/24/18/12/9/6 Mbps (Dynamic), 11n(HT20):
OFDM (64QAM, 16QAM, QPSK, BPSK): 65, 58.5, 52, 39, 26, 19.5, 13, 6.5Mbps (Dynamic)
11n(HT40): OFDM (64QAM, 16QAM, QPSK, BPSK): 135, 121.5, 108, 81, 54, 40.5, 27,
13.5Mbps (Dynamic).
Door camera with motion detection function, when there is no motion detection or
touching button on camera, WiFI would be in sleep status. When there is motion
detection or touching button for camera, WiFi will be reactivated and function
normally.

6、BLE: This DUT integrated Bluetooth Low Energy 4.2(GFSK) controller with an UART
interface. User can add IOT Devices via Bluetooth.

The integrated WiFi and Bluetooth low energy shares the single antenna, the gain
of this Plug-in antenna is 3dBi

7、433.92MHz
The command to control the doorbell is encode in 1527 format by MCU,
then through the WL4455 ASK modulate and transmite the signal at 433
.92MHz。

The gain of this 433 Spring antenna is -10.36dBi