

Circuit Description

Wand is operating in the 2.4G range, exactly between the 2.402GHz and the 2.480GHz. frequency-hopping mode. The RF module BCM2042 IC used the battery DC 2~3.3V voltage regulator circuit gives the peripheral electric circuit to provide the power source, which made 2.4 G wireless module of the whole circuit is the core, it integrated the RF circuit, the base-band control circuit, with peripheral controls in the I/O, BCM2042 module to provide the clock signal by a 24MHZ oscillator to BCM2042. In the module BCM2042, The sound module use ZPD20A4 and ZPD20B4 is the core makes the digital sound switching circuit, uses oscillator 8MHz frequency to provide the time clock signal, Voltage regulation A is exterior voltage-stabilizer circuit, is the battery voltage which inputs stabilizes in the 3.3V manostat, then supply sound module, Wii expansion port use G sensor uses IC SMB380 to produce the dynamic signal CMOS sensor uses 50 million pixels CMOS holding the CMOS sensors to process the infrared signal for the core uses Atmel MCU meag88 IC to process the power key function. Presses down in the pressed key array the random key, or the power key may awaken the 2.4G RF module, by now 2.4G RF module to enter the channel pursue mode. After the 2.4G RF module awakens, 2.4G RF module examines the battery voltage, then controls LED1-4 through I/O to demonstrate the battery capacity. After the channel found, in 2.4G RF module's BCM2042 controls I/O LED to demonstrate the current connection the handle number, the 2.4G RF module first opens voltage regulation A and B through I2C and the SPI data bus, then carries on the data communication with CMOS sensor, G-sensor, Sound module. G-sensor through the SPI data bus passes the dynamic induction data and the temperature data to in the 2.4G RF module BCM2042, after BCM2042 processing the data, transmits separately data through the SPI data bus to the station amplifier part and Mega88, then the station amplifier part transmits the data to the antenna .then will transmit the data through the antenna.