CIRCUIT DESCRIPTION

MODEL NAME : IR1000 / IR2000

1. **Power circuit.**
   The IC 34063 is DC to DC converter and the out put voltage is 5V, and supplied to Wi-Fi module and LCD module. This IC converts voltage from 12V to 5V. The IC AZ1117 is 3.3V regulator and used for Reciva module. The 7808 is used for the audio processor IC and the 7805 is used for the headset amplifier IC.

2. **Reciva module.**
   This module has a CPU, FLASH and SRAM. It controls the LCD, keys, DAC, audio processor and power circuit. It receives the data from the Wi-Fi module and transfers the audio data to DAC(WM8761).

3. **Audio part.**
   The audio signal from DAC goes to the PT2314. The PT2314 have the amplification and equalization functions. The RT9131 is used for headset. The audio from the RT9131 is amplified at the TEA2025.

4. **Front panel.**
   This board composed of buttons, shaft encoders, LCD module and remocon sensor for remote control.

5. Power Support

- The Supply voltage for baseband IC (RT2571W) and Peripheral circuit is +3.3V and is determined by “U40”(XC9226A33CMR-3.3V), L46 and etc’.
- The Supply voltage for transmitter IC(RT2528L) and Peripheral circuit is + 3.3V and +1.8V . The +1.8V is determined by LDO“U29” (AME8800MEE T-1.8V)

6. EEPROM (ATMEL AT93C66A-10TU-2.7)

- The EEPROM ‘U30’ stores parameters, Registration information and etc.
- The EEPROM communicate with the Transmitter IC ‘U31’ through IIC Bus.

7. Baseband IC(RT2571W)

The RT2571W is a highly integrated MAC/baseband processor to support IEE E 802.11a/b/g USB wireless LAN Standards. The
processor is part of Ralink chip set RT2501USB for the baseband part, it sup ports the Direct Sequence Spread Spectrum (DSSS) for 2.4GHz band and Ort hogonal Frequency Division Multiplexing (OFDM) for 2.4GHz and 5GHz bands. Using advanced digital signal processing technologies, the optimal reception performance under severe multi-path environments is achieved.

8. Transmitter IC (RT2528L)

RT2528 is a monolithic SiGe half-duplex direct-conversion radio transceiver de signed for IEEE802.11 b/g WLAN systems or other wireless system applicatio ns operating in and 2.4-2.48 GHz (low-band) bands.

9. RF interface

- The RF interface is composed of “U53”(SST12LP14A)and etc’.
- The interface to RF module serves the transmitter output signal, receive data and RSSI input signals.