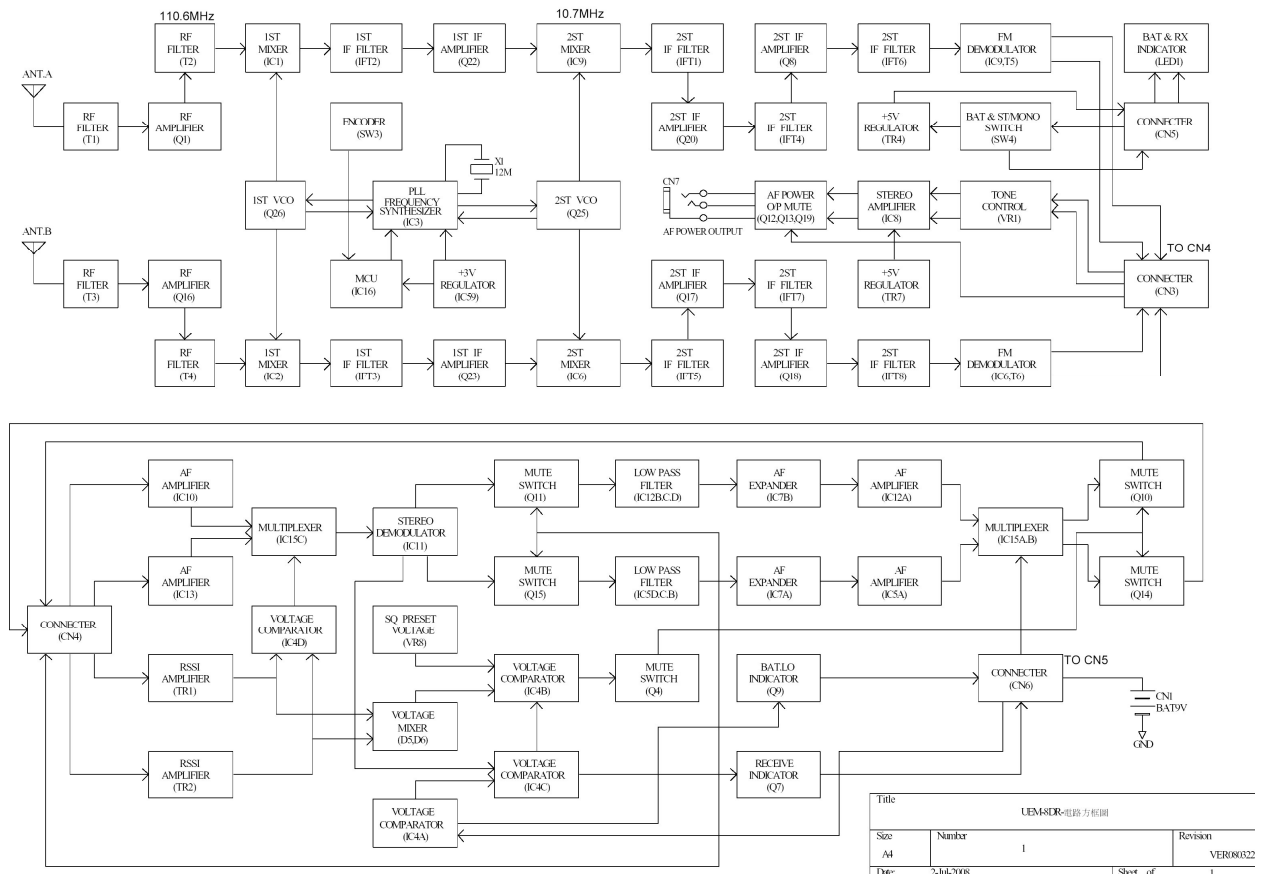


Circuit Explanation:

How each operations of each section based on the block diagram.



1. ANT A and ANT B.

ANT A and ANT B receive the RF signal then send to RF filter to filter the selected frequency.

2. RF Filter

RF Filter on channel A and B consists of T1 and T3 units, which separately select the RF signals that ANT A and ANT B received.

3. RF Amplifier

Q1 and Q16 make up RF Amplifier circuit to amplify RF signals. The outputs are filtered the selected frequency through T2 and T4 then to the 1ST MIXER.

4. 1ST MIXER

IC1 and IC2 separately mix the channel A and channel B for the first time. The first middle frequency is 110.6MHz.

5. 1ST VCO and PLL FREQUENCY SYNTHESIZER

1ST VCO circuit is made up of Q26, which mixes the RF signals from channel A and B. After that, the outputs send to IFT2 and IFT3 filters.

PLL FREQUENCY SYNTHESIZER circuit is made up of IC3,X1(12MHz) and peripheral circuit and in charge of controlling the frequency stability of 1ST VCO and 2STVCO.

6. 1ST IF AMPLIFIER

After receiving the 1ST mixed RF signals, Q22 and Q23 will amplify the RF signals.

7. 2ST VCO and 2ST MIXER

2ST VCO circuit is made up of Q25, which is mixing the 1ST middle frequency RF signals on channel A and B.

2ST MIXER circuit is made up of IC9 and IC6, mixing with the 1ST middle frequency RF signals on channel A and B to generate the 2ST middle frequency 10.7MHz RF signals on channel A and B, then output to IFT1 and IFT5 filters.

8. 2ST IF AMPLIFIER

After receiving the 2ST mixed RF signals, Q20,IFT4,Q8,IFT6,Q17,IFT7,Q18 and IFT8 will amplify and filter the RF signals.

9. FM DEMODULATOR

IC6, T6, IC9, T5 and peripheral circuit consist of FM demodulator and output to AF signal amplifier (IC10, IC13),using IC15C to mix then output to stereo demodulator.

10. STEREO DEMODULATOR.

STEREO DEMODULATOR is made up of IC11 and peripheral components, which demodulates AF signals.

11. AF AMPLIFIER

The demodulated stereo signals through Q11,IC12B.C.D, IC7B, IC12A Q15,IC5D.C.B,IC7A,IC5A,IC15A.B.Q10 and Q14 units to finish the low pass filter, expander, amplify send to Tone control (VR1). After that, the output signals will do stereo amplifier (IC8) and power amplifier (Q12, Q13, Q19) once again to have enough power to drive earphone.

12. Battery power switch and Supply power circuit

SW4 is used to setting up the Battery power switch to ON or OFF. The whole unit power supply is using TR4, Q7, Q9, Q4, IC4B, IC4C, IC4A, IC4D, D5 and D6 to control and supplied +5V to the whole unit.