

1. **Turn On the radio:** Turn it on by VR1
2. **AM mode:** When switch the SW1 to AM, AM signal comes through AM ANT and pass through IC1 YD1619 for magnifying IF and detection, and then to amplifier and finally go through the speaker (frequency range: 510KHz---1650 KHz)
3. **FM mode:** When switch the SW1 to FM, AM signal comes through FM ANT and pass through IC1 YD1619 for magnifying IF and detection, and then to amplifier and finally go through the speaker (frequency range: 87MHz---109 MHz)
4. **WX BAND mode:** When switch the SW1 to WX, WX signal comes through FM ANT and pass through Q17 for amplifying R. And then it will pass though Q15and mix with signal from Q16. Then it generate 10.7MHz IF. The IF signal passes IC3 YD3361for 2<sup>nd</sup> time conversion and magnification. Finally it will be detected out and pass through IC1 YD1619 for amplifying and then goes to speaker (SW6and CR2 18.9718MHz circuitry is for receiving 162.400MHz, 162.425MHz, 162.450MHz, 162.475MHz, 162.500MHz, 162.525MHz, 162.550MHz,)
5. **WX ALERT:** When switch SW1 to WX BAND, at the same time, SW5 was switch to ALERT, if WX BAND receives 1050Hz signal, it will pass IC3 YD336 and be detect out and go to IC7 ICNJM567 for analysis.Pin8 will become low, IC6 CD4060 will start to reset within 6 seconds, after this, pin14 becomes high and activate IC5 CD4013.If CD4013 is activated, its pin 2 becomes low and let the Q22 activate and then IC4 CD4069, CD4069 is powered and generate warning signal. The signal will pass though IC1 YD1619 for amplifying and then goes though the speaker.
6. **USB for mobile charging:** When switch to SW4, 3.6V (BATTERY) will supply energy to IC U4 for voltage stepping up. The voltage is around 6V and it is for mobile charging through the USB slot.