

## **Operation Description**

### **Jwin\_i707**

**Operation Frequency: 88.1M-107.9MHz**

**Modulation Type: FM**

1. The unit is supplied by external power 12V. The power goes through a fuse 250V/2A and polarity protection IC (HD06), further filtered and converted to a stable 5V by IC (LM2575). The 5V is input to pin 8 of the male 30PIN of iPod. The unit is in standby mode.
2. When iPod is inserted, it is charged by 5V and is switched on electronically. 5V is converted to 3.3V by IC to supply the unit. At the same time, the background light is on and to be dark off after 5 seconds.
3. MCU (EM78153) recalls memory 24C02 and sends frequency data of last use to HT1621. HT1621 drives LCD to display the frequency. At the same time, MCU switches on RF circuit and send frequency data to FM RF IC (AS6001) for transmission.
4. R&L of audio signal is filtered by low-pass filter. The signal is modulated and amplified to match network. It is transmitted by antenna. When no audio input, audio detecting circuit outputs a signal of level 1 to MCU. MCU counts time and will shut down the unit and LCD does not display after 60 seconds. The unit enters to standby mode. When audio input, audio detecting circuit outputs a pulse voltage to MCU, MCU will switch on and LCD displays the frequency of last transmission.
5. S1 and S3 are frequency + and – buttons. S2 and S4 are M1 and M2 memory buttons. Every button is pressed, MCU will control RF IC and HT1621 to display the same frequency of transmission.
6. When the external power is disconnected, the ipod is not charged and the background light is shut off. But the transmission frequency and the LCD display frequency will not be changed as the ipod supplies the unit.