

# THE WORK FLOW OF Smartcharge FM

The Smartcharge FM PORTABLE FM STEREO TRANSMITTER is mainly connect of four parts:

- 1:CPU control part
- 2: Programmable Flash Memory
- 3: stereo modulator circuit.
- 4:the frequency modulator part.
- 5:the power supply circuit.

## Part1:

**CES1415** is programmable IC,It control the transmission frequency、LCD display、volume adjustment.It output DA、CK、CE date signal control frequency.

## Part2:

**AT24C02** is Programmable Flash Memory IC, The AT24C02A provides 2048bits of serial electrically erasable and programmable read only memory (EEPROM) organized as 256words of 8 bits each.It connect CES1418.

## Part3:

**MW1418** is stereo modulator,It consists of audio signal amplifier and a stereo modulator for generating stereo composite signals. The stereo modulator generates a composite signal which consists of the MAIN, SUB, and pilot signal from a 38kHz oscillator.It output a main signal of 19KHZ oscillator and a composite signal of 38KHZ oscillator to RF modulator.

## Part4:

**MW2822** is PLL phase detector, DA、CK、CE date signal of CES1415 output control a modulator voltage of MW2822 output. modulator voltage of MW2822 output 、 a main signal of 19KHZ oscillator and a composite signal of 38KHZ oscillator add to RF modulator.

RF modulator export the modulated stereo radio signal, then this signal be amplified.

## Part5:

The power supply circuit is mainly consist of DC/DC converter TA7805,12V DC voltage from car cigarette lighter can be convert to 5V by the TA7805.this part can supply 5V voltage to all other IC and circuit to work and IPOD charge.