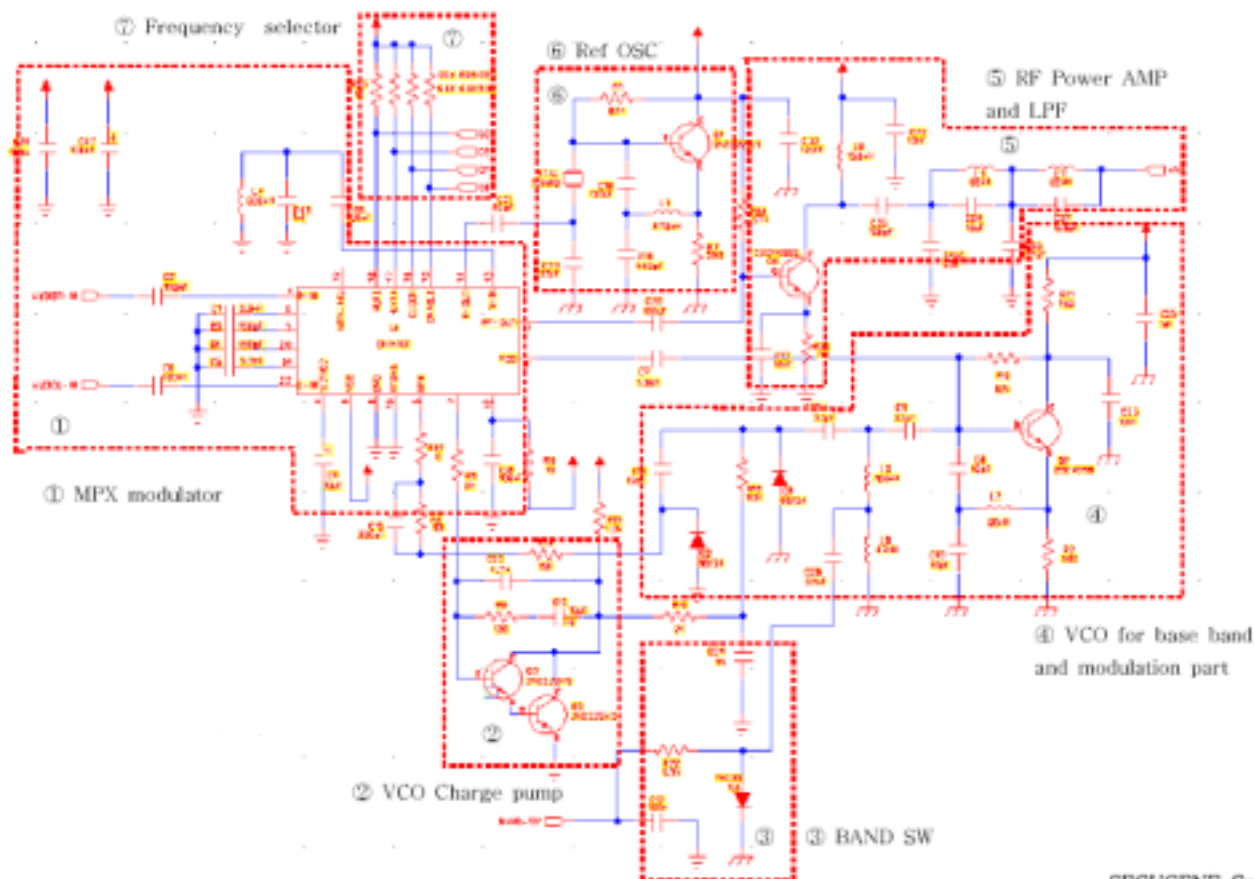


Appendix 9. Operational Description



1. FM STEREO TRANSMITTER CONCEPTION & Functions

1-1 SUMMARY

This USB HOST MP3 player are stereo transmits (MP3, WMA file, etc) to FM radio
Transmission Frequency are selectable 12CH(in 88.1~107.9MHz)

1-2 Main Functions of FM Transmitter

When the power is ON then it's transmits to setted CH frequency.

2. Type of radio station

This weak power radio station is available for Car Audio, Home Audio, FM Radio in order that may accomplish education, entertainment purpose .

3. Specification of FM Transmitting Block

3-1 General specifications

- 1) Current Dissipation : 35mA Max
- 2) Supply Voltage : DC5V
- 3) Dimension : (H)4mm X (W)30mm X (D)30mm
- 4) Environment
 - Storage Temperature : -30 +80
 - Operating Temperature : -10 +60
- 5) Antenna
 - Gain : -3dBi
 - Length : 50Cm Helical
 - Output Impedance : 50Ω

3-2 Electrical Specification(Transmitter)

- 1) Type of emission :FM(F3E)
- 2) Duplex :Only transmit
- 3) RF output level :under 250uV/m at 3m
- 4) Frequency range : 88.1MHz 88.3MHz 88.5MHz 88.7MHz 88.9MHz 106.7MHz 106.9MHz
107.1MHz 107.3MHz 107.5MHz 107.9MHz
- 5) Frequency stability : ± 5 PPM
- 6) Number of Channel :12channel
- 7) Channel space :200kHz
- 8) frequency deviation : ± 75 kHz
- 9) Oscillation type :PLL VCO
- 10) frequency drift [after 30min : ± 100 Hz
- 11) Audio input frequency range :6dB/OCT 20Hz 15kHz
- 12) General Audio Input : 1kHz, 13mV
- 13) pre-emphasis :75 μ s
- 14) Spurious :- 65dBc under
- 15) Total Harmonic Distortion :0.1% typical
- 16) RF out matching impedance :50 Ω
- 17) Function :RF oscillator & audio frequency