

DESCRIPTION FOR THE MODEL TFY-3998

1. RX UNIT AND CHARGER BASE:

- RF Match & RF-Amp. are achieved by using the matching capacitor of C18 and C24, which are used to match the front end to antenna for better reception. Q12 and Q1 perform the RF-AMP for amplifying the weak signal.
- OSC, Phase Lock Loop & Local Oscillator circuit are provided by the parts of X1, U3 and Q8 to generate the local oscillator frequency for Mixing purpose. The output of the oscillator signal is used and injected into the Mixer circuit for creating IF signal. The Phase Lock Loop is controlled by the CPU (U1) control signal.
- IF Circuit is constructed by a combination of parts, like Q4, Q5, U6, FL1 and VC1 in order to provide the IF demodulated signal to two paths, the audio path includes RC filter circuit (R45, C93), audio amplifier (U4), mute control (Q18, Q11) and LED Indication control circuit (U2 and LED1-5). The other path uses to provide the coded signal for CPU detection (U4). The Code Amp & Detector circuit includes U4 & U5.
- Low-Batt Detector uses CPU U1 to detect the VCC voltage for low battery indication.
- CPU (U1) provides a system control on several parts, like detecting the RSSI signal, low battery voltage, sensing the channel A & B selector setting, providing the PLL (Phase Lock Loop) control, providing the volume level control, System check indication, Out of range sound and Low Batt indication etc.
- Regulator (U5) and Batt. are used to provide a constant supply voltage for the circuit.
- Power supply ON/OFF is controlled by CPU (U1) and Q2.
- Charging includes D1 that connecting to the DC jack of adaptor.