

### **Operational Description of Speaker AW880RX**

It is a wireless speaker operated at 912-914Mhz to receive the audio signal from the associated transmitter. The EUT is powered by AC/DC adaptor, it has volume, auto tune and on/ off switch at the rear panel.

Circuit theory:

The EUT is a superheterodyne receiver. The received audio signal passes via 912MHz filter and is amplified by Q2, then it is mixed with the 1<sup>st</sup> LO frequency 839.9MHz at Q3 in order to produce the middle frequency of 72.5MHz, 73.1MHz and 73.7MHz. These output frequencies will then be sent to second mixer and mixed with the 2<sup>nd</sup> LO frequency 84MHz. The output frequency of 10.7MHz from mixer will further be decoded at FM Discriminator so as to generate the stereo audio signal. Finally the stereo audio signal is amplified by IC: TDA2003 to Left and Right speaker.