

**Applicant: Norcon Communications Inc.**

**FCC ID: X7STTU7W**

## **Operation Description**

The heart of the unit is U10, SOC RF transceiver, which acts as audio encoder/decoder. The main clock of the system is 26MHz which is produced by the external crystal (26MHz) and internal oscillation circuit in U10.

Analog audio is converted to digital audio by U6, TLV320AIC26. The digital audio data is then fed to U10 for voice compression. The compressed voice is transmitted to the other wireless unit by means of RF media. At the other end, the received data is decoded to digital audio data and fed to U6. Analog audio is then reproduced in the output of the U6. U7 is audio PA for further power amplification up to 2W. In the application program, the system control the talk side (mic input) and listen side (speaker output) according to different operation mode. The state of operation mode is determinate by the output of VOX detector (U5). Assurance the system can start-up safe, Reset IC (U13) is used. It guarantees all IC will be reset only if the operation voltage from LDO U3 reach 2.7V. The LDO U1 is used for analog voltage and LDO U2 is used for U6. U4 controls the charging current and voltage of the system operation battery. D12 (SS14) is used for reversed voltage protection. Two buttons are used for power and volume control.

The antenna used with Reverse Polarity SMA connector. Common grounding on PCB is not connected to real external ground. Power supply is DC 4.8V by NIMH battery pack.