

Attn: Kathy Lay . From: STD .

## General Description

### 1.1 Product Description

The Equipment Under Test (EUT) is a superheterodyne receiver portion of a wireless speaker system operating at 913.5MHz – 914.5MHz. The EUT is powered by four "C" size batteries or 6V DC adaptor. Once it is switched on, it receives RF signal that is transmitted by a transmitter portion of the wireless speaker system. There are two knobs on the EUT that are used to tune the operating frequency and volume.

### 1.2 Related Submittal Grants

This is an application for certification of a receiver. The FCC ID for the transmitter associated with this receiver is KYIJW-250R and has been filed at the same time as this application.

ETL SEMKO	
Incident No:	4110
By	Kathy

**FCC ID: KYIJW-250R**

## Technical Description

### 1. Initial conditions

- 1.1 Install the recommended batteries to the speaker set and turn the volume control at minimum level. Turn on the transmitter with Green LED lighting on.
- 1.2 Turn on the speaker set and adjust the tuning control to obtain a desire receiving frequency based on the transmission channel (A/B) for audio listening from the transmitter signal source. The stereo indicator is lighting on when the unit is operated in stereo mode. Adjust the volume control to a desire listening level.

### 2. Operation

- 2.1 Using the corresponding mono pole type of Antenna to catch the transmitted frequency at the antenna port.
- 2.2 The receiving frequency will be magnified in the first stage RF AMP by the MAX2685. Then first inter media frequency is detected out from the mixer which integrate in MAX2685 with the local oscillator Q3 by dielectric resonator (1.2GHz).
- 2.3 The 1<sup>st</sup> IF via the band-pass filter to Pin 18 of FM receiver CXA1538. 2<sup>nd</sup> IF is detected out from the mixer with 2<sup>nd</sup> local oscillator. 2<sup>nd</sup> IF via the 10.7MHz filter to Pin13 to implement the demodulation and de-multiplexing processes.
- 2.4 The de-multiplexing signal via de-emphasis network to present an audio output. Put it into the power amplifier TDA7266 for amplification and drive the loudspeaker to present an audible level. Adjust the volume control VR3 for a desire listening level.

**FCC ID: KYIJW-250R**



## 1. Product Description

This document lists the major features and specifications of the target product, of the RF wireless speaker model No. JW250. The product has a transmitter and two receiver speakers operating in the 900 MHz frequency range. The transmitter can be connected to any audio source like from stereo music system, TV or any such system with stereo/ mono audio output available. Speakers operate with four C cells and can be placed anywhere within the radius of 150 feet from the transmitter. There is no need to use any wire and hence user can place the speakers anywhere without any restrictions imposed by the wires.

Transmitter can be operated at two frequencies 913.5 MHz and 914.5 MHz selectable by a two position switch on the transmitter. A continuous manual tuning on the speaker is used to tune to the selected channel.

## 2. Product Feature

- i) Operating Range 150 ft.
- ii) Input Audio level Control, Over modulation Indicator
- iii) Speaker operation with 4 C cells, 2.5Watts output with 6Volt
- iv) Two frequency ( 913.5 and 914.5 MHz) operation ( channel switch at the transmitter)
- v) 3 " full range speaker ( 3 Ohms)
- vi) Individual Fine Frequency Tuning ( Back Face )
- vii) Integrated Individual Power ON-OFF/ Volume Control ( Front Face)

## 3. Software - NOT REQUIRED FOR THIS PRODUCT



## 4. Functional Description

i) **Transmitter** : The transmitter needs a AC/DC power adaptor of 12 V, 150 mA for its operation. Input stereo audio level can be controlled to get the right level of audio

output. The transmission frequency can be selected using the switch to Channel A at 913.5 and Channel B at 914.5 MHz. Frequency modulation is used for transmission.

## 5. Packaging

5.1 **Accessories** : 3.5/6mm Stereo Jack

Y Cable, AC/DC Power Adaptors, 3 Nos.  
Two for Receiver and one for Transmitter

### 5.2 Packing information

Each pack contains one Transmitter and two Receiver units

## 6. Electronic Specification

i) **Transmitter** :



- a) Operating Frequencies : 913.5 MHz and 914.5 MHz
- b) Power Requirement : 12 Volts DC, approx.55 mA.
- c) Operating Range : 150 ft
- d) Maximum Audio Input Level : 0.8 V rms
- e) Output Power : -10dBm (max) ?

## 7. Mechanical Specification

- a) Product Dimensions and weight
  - i) TRANSMITTER : Approx. 112 mm (L) x 100 mm (W)  
x 29.5 mm (H)
  - ii) RECEIVER : Approx. 109.3 mm(W) x 123.8 mm ( L)  
x 203.2 mm (H)

**WEIGHT - To be determined.**

## 8. Environmental Specification

### 8.1 Temperature

Operating temperature

- From 5 to 40 degree Celsius.



#### Storage temperature

- From -20 to 65 degree Celsius

#### 8.2 Relative Humidity

- From 20% to 85%.

## 9. Target Reliability Specification

### 9.1 Electronics -TBD

### 9.2 Mechanical - TBD

## 10. Approval Requirement

Transmitter - FCC Certification Part 15 Class B

Receiver - FCC Certification or FCC DOC

## 11. Appendix

- a) Product Drawing/Mechanical Outline drawing for Transmitter.