

# Technical Description

The Equipment Under Test (EUT) is a Unicorn Speaker. The EUT operates at frequency range of 2402MHz to 2480MHz. There are total 79 channels with 1MHz channel spacing. The EUT can play wireless audio signal when paired with a Bluetooth device. The audio signal is then amplified and driving internal loudspeaker. The EUT is powered by a 3.7V internal rechargeable battery which can be charged via USB port. The applicant declared that Bluetooth 4.0 BLE is not used in the product. The USB port is for charging only.

**2.4GHz Bluetooth Module:**

**Modulation Type: GFSK**

**Antenna Type: Integral, Internal (PCB Trace)**

**Frequency Range: 2402MHz - 2480MHz, 1MHz channel spacing, 79 channels**

**EIRP range is -8dBm to 2dBm**

**Antenna gain is 1dBi**

**The main components are described below:**

1. U4 AC6908C is the 2.4GHz Bluetooth RF radio core
2. X1 24MHz crystal is master clock for U4
3. U2 MIX2052 is audio amplifier
4. U3 4054 is battery charger