

# Technical Description

The Equipment Under Test (EUT) is the Narwhal Shower Speaker which is the audio speaker for audio playing. The EUT is a "Bluetooth 5" device which operates at frequency range between 2402MHz and 2480MHz. The EUT is powered by an internal 3.7V rechargeable battery. The USB port is for charging internal battery purpose only that does not have data transfer. This "Bluetooth 5" device that without support data rate of 2Mbps.

## **2.4GHz Bluetooth portion:**

**Modulation Type: GFSK**

**Antenna Type: Integral, Internal**

**Antenna gain: -0.58dBi**

**Peak EIRP range: 91.2 to 97.2 dBμV/m@3m**

**Frequency Range: 2402MHz - 2480MHz**

## **The main components are described as below:**

1. AC6928 is 2.4GHz Bluetooth RF core with microcontroller
2. 24MHz crystal is master clock for AC6928
3. MIX2052 is audio amplifier for internal speaker
4. 4504 is battery charging IC