

Analysis Report

FCC ID: ZY9-BTS200M

The Equipment-Under-Test (EUT) 4000764 is a Auvio Mono Bluetooth Speaker with AUX in. The EUT contains a Bluetooth 2.1 radio. The EUT can accept both analog audio signal (AUX-in) and wireless audio signal via Bluetooth devices. The EUT has internal power amplifier and loudspeaker. It is powered by USB port (5VDC) which is for charging the internal 3.7V rechargeable battery.

Antenna Type: Internal, Integral
Antenna Gain: 0dBi

Operating mode	Nominal Radiated Field Strength	Production Tolerance	Modulation Type
Bluetooth	91.8 dB μ V/m at 3m	+/- 3dB	GFSK

According to the KDB 447498:

For Bluetooth:

Based on the Maximum allowed field strength of production tolerance was 94.8dB μ V/m at 3m in frequency 2.480GHz, thus;

$$\text{The EIRP} = [(\text{FS} \cdot \text{D})^2 \cdot 1000 / 30] = 0.906\text{mW}$$

Conducted power = Radiated Power (EIRP) – Antenna Gain
So;
Conducted Power = 0.906mW.

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.480) mW
= 9.53 mW

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.