

Analysis Report

FCC ID: 2AIGJ1201778

The Equipment-Under-Test (EUT) 1201778 is a Bluetooth Cassette Adaptor. The EUT contains a Bluetooth 2.1 radio which can accept wireless audio signal via Bluetooth devices. The analog audio signal is then played back by an built-in magnetic tape head so that the audio signal can be coupled to traditional tape player. It is powered by internal 3.7V rechargeable batteries. The batteries can be charged by USB port (5VDC).

Antenna Type: Internal, Integral

Antenna Gain: 0dBi

Operating mode	Nominal Radiated Field Strength	Production Tolerance	Modulation Type
Bluetooth	96.8 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 99.8dB μ V/m at 3m in frequency 2.480GHz, thus;

$$\text{The EIRP} = [(FS^*D)^2 * 1000 / 30] = 2.865\text{mW}$$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

$$\text{Conducted Power} = 2.865\text{mW}.$$

The SAR Exclusion Threshold Level:

$$= 3.0 * (\text{min. test separation distance, mm}) / \text{sqrt(freq. in GHz)}$$

$$= 3.0 * 5 / \text{sqrt}(2.480) \text{ mW}$$

$$= 9.53 \text{ mW}$$

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.