

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Auvio Mono Plus Bluetooth Speaker with Bluetooth function. The EUT was powered by the fully-charged DC 3.7V, 500mAh new rechargeable battery which was charged by USB port (DC 5V). For more detail information pls. refer to the user manual.

Modulation Type: GFSK for BT 4.0 BLE mode and GFSK, $\pi/4$ DQPSK, 8DPSK for BT 4.2, 3.0, 2.1+EDR.

Bluetooth Version: 4.2 and 3.0, 2.1 with EDR and 4.0 BLE

Antenna Type: Integral antenna.

Antenna Gain: 2dBi.

The nominal conducted output power specified: 4.5dBm +/-3dB.

The nominal radiated output power (e.i.r.p) specified: 6.5dBm (+/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 104.5dB μ V/m at 3m in the frequency 2480MHz of BT 4.2, 3.0, 2.1+EDR

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 9.27dBm

which is within the production variation.

The minimum peak radiated emission for the EUT is 101.8dB μ V/m at 3m in the frequency 2480MHz of BT 4.0 BLE mode

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 6.57dBm

which is within the production variation.

The maximum conducted output power specified is 7.5dBm = 5.6mW

The source- based time-averaging conducted output power

= 5.6 * Duty Cycle mW (where Duty Cycle \leq 100%)

\leq 5.6 mW

The SAR Exclusion Threshold Level:

= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)

= 3.0 * 5 / sqrt (2.480) mW

= 9.5 mW

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.