

INTERTEK TESTING SERVICES

Radiofrequency radiation exposure evaluation

The equipment under test (EUT) is True Wireless Earbuds, operating frequency(2402-2480MHz), which is powered by lithium battery, Charge the device through the accompanying charging case. Bluetooth receiver, in accordance with bluetooth 6.0. This product is capable of providing Bluetooth music reception functionality, Support mobile phone call function. The device can be controlled by touching the buttons and indicated by LED lights. The audio output from the Bluetooth chip is connected to a speaker. crystal:24MHz. This product is equipped with a 2.4GHz ceramic antenna. There is no external ground connection. The ground is only that of the printed circuit board.

Bluetooth Version: 6.0 EDR (Single Mode)

Antenna Type: Integral antenna

Modulation Type: GFSK, $\pi/4$ -DQPSK and 8-DPSK

Antenna Gain: 1.8dBi Max

The nominal radiated output power (e.i.r.p) specified: -20dBm (tolerance: ± 6 dB)

The nominal conducted output power specified: -21.8dBm (tolerance: ± 6 dB).

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 79.9 dB μ V/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -15.33dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 69.7 dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -25.53dBm
which is within the production variation.

The maximum conducted output power specified is -15.8dBm= 0.026mW

The source- based time-averaging conducted output power
=0.026mW

The SAR Exclusion Threshold Level:

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

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

= 9.53 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.