

# INTERTEK TESTING SERVICES

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## RF Exposure

The equipment under test (EUT) is a onn. WIRELESS ON-EAR HEADPHONES with Bluetooth 5.3 (Single Mode EDR) function operating in 2402-2480MHz. The EUT is powered by DC 5V from adaptor or DC 3.7V from battery. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna  
Modulation Type: GFSK, p/4-DQPSK and 8-DPSK  
Antenna Gain: 0 dBi Max  
Bluetooth Version: 5.3 (Single Mode EDR)

The nominal conducted output power specified: -10.0 dBm ( $\pm 3$ dB)  
The nominal radiated output power (e.i.r.p) specified: -10.0 dBm ( $\pm 3$ dB)

According to the KDB 447498 V07:

The Maximum peak radiated emission for the EUT is 85.3 dB $\mu$ V/m at 3m in the frequency 2402MHz  
The EIRP = [(FS\*D) ^2 / 30] mW = -9.93dBm  
which is within the production variation.

The Minimum peak radiated emission for the EUT is 82.9 dB $\mu$ V/m at 3m in the frequency 2480MHz  
The EIRP = [(FS\*D) ^2 / 30] mW = -12.33dBm  
which is within the production variation.

The maximum conducted output power specified is -7dBm= 0.200mW  
The maximum EIRP specified is: -7 dBm = 0.200mW

The SAR Exclusion Threshold Level:

$$P_{th}(mW) = ERP_{20cm} * (d/20cm)^x \quad (X = -\log_{10} \left( \frac{60}{ERP_{20cm} \sqrt{f}} \right) )$$
$$= 3060 * (0.5/20)^{1.9} mW$$
$$= 2.72 mW$$

Since max. conducted output power and effective radiated power (ERP) is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.

Note: EIRP is higher than ERP, thus EIRP is compared with the Exclusion Threshold.