

# INTERTEK TESTING SERVICES

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## RF Exposure

The equipment under test (EUT) is a Wireless Receiver with 2.4GHz wireless transmitter function operating in 2402-2480MHz. The EUT is powered by DC 5V. For more detail information pls. refer to the user manual.

### **2.4GHz wireless transmitter function:**

Antenna Type: Integral antenna

Modulation Type: GFSK

Antenna Gain: 0dBi Max

The nominal conducted output power specified: -8dBm (+/-3dB)

The nominal radiated output power (e.i.r.p) specified: -8dBm (+/-3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 88.7dB $\mu$ V/m at 3m in the frequency 2402MHz

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = -6.53dBm  
which is within the production variation.

The minimum peak radiated emission for the EUT is 84.9B $\mu$ V/m at 3m in the frequency 2480MHz

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = -10.33dBm  
which is within the production variation.

The maximum conducted output power specified is -5dBm = 0.316 mW

The source- based time-averaging conducted output power  
= 0.316 \* Duty factor mW (where Duty Factor  $\leq$  1)  
= 0.316 mW

The SAR Exclusion Threshold Level:

= 3.0 \* (min. test separation distance, mm) / sqrt(freq. in GHz)  
= 3.0 \* 5 / sqrt (2.480) mW  
= 9.53 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.