

# INTERTEK TESTING SERVICES

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## Analysis Report

The equipment under test (EUT) is a controller with 2.4GHz wireless control function operating in 2402-2478MHz. The EUT is powered by rechargeable battery (DC 3.7V, 300mAh) which can be charged by USB port (DC 5V). The EUT can't transmit when it is charging. For more detail information pls. refer to the user manual.

Modulation Type: GFSK

Antenna Type: Integral antenna (Gain: 0 dBi)

The nominal radiated output power (e.i.r.p) specified: 4dBm (Tolerance: +/-5dB)

The nominal conducted output power specified: 4dBm (Tolerance: +/-5dB)

According to the KDB 447498:

The maximum radiated emission for the EUT is 103.3 dB $\mu$ V/m at 3m in the frequency 2.440GHz =  $[(FS \cdot D)^2 / 30]$  mW  
= 8.1 dBm which is within the production variation

The minimum radiated emission for the EUT is 98.3 dB $\mu$ V/m for at 3m in the frequency 2.402GHz =  $[(FS \cdot D)^2 / 30]$  mW  
= 3.1 dBm which is within the production variation

The maximum conducted output power specified is 9dBm = 7.9mW

The source-based time-averaging conducted output power  
= 7.9 \* Duty cycle mW  $\leq$  7.9 mW (Duty Cycle  $\leq$  100%)

The SAR Exclusion Threshold Level:

= 3.0 \* (min. test separation distance, mm) / sqrt(freq. in GHz)  
= 3.0 \* 5 / sqrt (2.478) 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.