

INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is wireless adaptor with 2.4G wireless function operating in 2403.35-2479.35MHz. The EUT is powered by DC5.0V via USB host unit. For more detail information pls. refer to the user manual.

Modulation Type: $\pi/4$ DQPSK

Antenna Type: Integral antenna (Gain: 2 dBi)

The nominal conducted output power specified: -6dBm (Tolerance: +/- 3dB)

The nominal radiated output power (e.i.r.p) specified: -4dBm (Tolerance: +/- 3dB)

According to the KDB 447498:

The maximum radiated emission for the EUT is 90.4 dB μ V/m at 3m in the frequency 2.44135GHz

$$= [(FS \cdot D)^2 / 30] \text{ mW}$$

= -4.8 dBm which is within the production variation.

The minimum radiated emission for the EUT is 88.8dB μ V/m at 3m in the frequency 2.40335GHz

$$= [(FS \cdot D)^2 / 30] \text{ mW}$$

= -6.4dBm which is within the production variation.

The maximum conducted output power specified is -3.0 dBm = 0.50mW

The source- based time-averaging conducted output power

$$= 0.50 \cdot \text{Duty cycle mW} = 0.50 \text{ mW (Duty Cycle} \leq 100\%)$$

The SAR Exclusion Threshold Level:

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

$$= 3.0 \cdot 5 / \text{sqrt}(2.47935) \text{ mW}$$

$$= 9.5 \text{ mW}$$

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.