RF Exposure

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

Antenna Type: Integral antenna
Modulation Type: GFSK
Antenna Gain: 3.36 dBi
The nominal conducted output power specified: -11.36 dBm (±5dB)
The nominal radiated output power (e.i.r.p) specified: -8 dBm (±5dB)

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 90.4 dBμV/m at 3m in the frequency 2480MHz
The EIRP = [(FS*D) ^2 / 30] mW =-4.83dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 83.0 dBμV/m at 3m in the frequency 2440MHz
The EIRP = [(FS*D) ^2 / 30] mW = -12.23dBm
which is within the production variation.

The maximum conducted output power specified is -6.36dBm= 0.231mW

The SAR Exclusion Threshold Level:

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

= 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.