

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Bluetooth Dongle with Bluetooth 5.4 EDR function operating in 2402-2480MHz. The EUT is powered by DC 5.0V From Type-C Port. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Modulation Type: GFSK, $\pi/4$ -DQPSK and 8-DPSK

Antenna Gain: 2.58dBi Max

Bluetooth Version: 5.4(EDR single model)

The normal peak radiated output power (e.i.r.p) is: -11.0dBm (tolerance: +/- 3dB).

The normal peak conducted output power is: -13.58dBm (tolerance: +/- 3dB).

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 84.8dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -10.43dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 82.2dB μ V/m at 3m in the frequency 2441MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -13.03dBm
which is within the production variation.

The maximum conducted output power specified is -10.58dBm= 0.087mW
The source- based time-averaging conducted output power
=0.087mW

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \text{sqrt}(2.480)$ 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.