

Analysis Report

The Equipment Under Test (EUT), is a 2.4GHz and Bluetooth 5.3 Transceiver for a dongle. For the Bluetooth 5.3 mode, the sample supplied operated on 79 channels, normally at 2402 - 2480MHz. The channels are separated with 1MHz spacing. For the 2.4GHz mode, the sample supplied operated on 40 channels, normally at 2402 - 2480MHz. The channels are separated with 2MHz spacing. The EUT is powered by USB port (5VDC).

Antenna Gain: 4 dBi

2.4GHz Portion

Frequency Range: 2402MHz to 2480MHz, 2MHz channel spacing, 40 channels

Conducted Peak Power Range:

2402MHz: -10dBm to 1dBm

2440MHz: -10dBm to 0.7dBm

2480MHz: -10dBm to 0.7dBm

Bluetooth 5.3 Portion

Frequency Range: 2402MHz to 2480MHz, 1MHz channel spacing, 79 channels

Conducted Peak Power Range (2402MHz – 2480MHz): -10dBm to 0.7dBm

According to the KDB447498 D01 v06:

Conducted Power (maximum)
= 1 dBm (1.26 mW)

The SAR Exclusion Threshold Level:
= $3.0 * (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$
= $3.0 * 5 / \sqrt{2.480}$ mW
= 9.53 mW

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.