

## Analysis Report

**The Equipment Under Test (EUT), is a portable 2.4GHz BLE (both 1Mbps and 2Mbps) Transceiver for a Home Diffuser. The sample supplied operated on 40 channels, normally at 2402 - 2480MHz. The channels are separated with 2MHz spacing.**

**The EUT is powered by 120VAC. After switching on the EUT, it can be paired up with a smartphone and perform different functions and change different settings through a mobile app..**

Antenna Type: Internal, Integral antenna

Antenna Gain: -0.39dBi

For BLE 1Mbps:

Nominal rated field strength is 92.1dB $\mu$ V/m at 3m (Peak), 75.9dB $\mu$ V/m at 3m (Average)

For BLE 2Mbps:

Nominal rated field strength is 90.5dB $\mu$ V/m at 3m (Peak), 68.9dB $\mu$ V/m at 3m (Average)

RF Conducted Power Range: -10dBm to 4dBm

According to the KDB 447498:

Maximum Conducted Output Power = 4dBm (2.5mW)

The worst case of SAR Exclusion Threshold Level:

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

$$= 3.0 * 5 / \text{sqrt}(2.483.5) \text{ mW}$$

$$= 9.52 \text{ mW}$$

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.