

Analysis Report

The Equipment Under Test (EUT), is a 2.4GHz BLE Transceiver for a BLE Smartwatch. The sample supplied operated on 40 channels, normally at 2402 - 2480MHz. The channels are separated with 2MHz spacing.

The EUT is powered by 1 x 3.7V Lithium-ion battery. After switching on EUT, it can be paired up with a smartphone and will be used to perform different functions and change different settings through the mobile app.

Antenna Gain: 0 dBi

Bluetooth BLE Portion

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

Conducted Power Range: -10dBm to 7.5dBm

According to the KDB447498 D01 v06:

Conducted Power (maximum)
= 7.5 dBm (5.62 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.