

Analysis Report

The Equipment Under Test (Model: DK7050) is a BLE 4.2 Module which is operating at frequency range of 2402MHz to 2480MHz with 40 channels (2MHz channel spacing). It is intended to be used as short range radio communication for embedded application inside a host. The EUT is powered by the host (3.3VDC).

Antenna Type: Internal, Integral

Antenna Gain: 2.1 dBi

Operating mode	Range of Peak Conducted Power	Modulation Type
Bluetooth 4.0 BLE	-2dBm to 2dBm	GFSK

According to the KDB 447498:

Max Conducted Power = 2dBm = 1.58mW.

The SAR Exclusion Threshold Level:

$$\begin{aligned} &= 3.0 * (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}} \\ &= 3.0 * 5 / \sqrt{2.480} \text{ mW} \\ &= 9.53 \text{ mW} \end{aligned}$$

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.