

RF Exposure

Applicable Standard

According to §1.1307(b)(5), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline. This modular can be used in a Portable device.

KDB616217 was used as the guidance.

According to §1.1310 and §2.1093 RF exposure is calculated.

Measurement Result

This is a Zigbee Module and the conducted output power is 4.27dBm (2.673mW).

For EUT with Inverted F PCB Antenna:

so the EIRP is $2.673 \times 1.288 = 3.443\text{mW}$ which is lower than low threshold $60/\text{fGHz mW}$ ($60/2.480\text{GHz} = 24.19\text{mW}$), and the antenna is 1.1dBi which is less than 6dBi.

For EUT with Dipole Antenna:

so the EIRP is $2.673 \times 1.641 = 4.386\text{mW}$ which is lower than low threshold $60/\text{fGHz mW}$ ($60/2.480\text{GHz} = 24.19\text{mW}$), and the antenna is 2.15dBi which is less than 6dBi.

The SAR measurement is not necessary.