

Maximum Permissible Exposure (MPE)

Standard Applicable

According to §1.1307(b)(1), 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.

FCC SAR test exclusion:

The Max Peak output power of BT(BLE) is **-1.89 dBm (0.000657 W)**,

According to FCC SAR test exclusion and IC Exemption from Routine Evaluation Limits,
The SAR measurement is not necessary.

According to KDB 447498 D01 V5, Appendix A: SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and \leq 50 mm, the thresholds power level is 10mW (10dBm) at 5 mm.

The 1-g and 10-g SAR test exclusion thresholds for 100MHz to 6GHz at test separation distance \leq 50mm are determined by

$$\frac{\text{max. power of channel [mW]}}{\text{min. test separation distance [mm]}} \cdot \sqrt{f[\text{GHz}]} \leq \begin{cases} 3.0 & 1g \text{ SAR} \\ 7.5 & 10g \text{ SAR} \end{cases}$$

- f [GHz] is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

IC Exemption from Routine Evaluation Limits – SAR Evaluation: RSS 102 Issue 4

SAR evaluation is required if the separation distance between the user and the radiating element of the device is less than or equal to 20 cm, except when the device operates as follows:

above 2.2 GHz and up to 3 GHz inclusively, and with output power (i.e. the higher of the conducted or radiated (e.i.r.p.) source-based, time-averaged output power) that is less than or equal to 20 mW for general public use and 100 mW for controlled use;

The device is in compliance with Specific Absorption Rate (SAR) for general population /uncontrolled exposure limits (1.6 W/kg) specified in FCC 47 CFR part 2 (2.1093), RSS-102 Issue4:2010 and ANSI/IEEE C95.1-1999, and had been tested in accordance with the measurement methods and procedures specified in IEEE1528: 2013 and FCC OET Bulletin 65 Supplement C (Edition 01-01).