

RF Exposure Compliance Requirement

The product belongs to standalone portable device base the FCC rule part 2.1091&2.1093. The transmission frequencies of the device are between 100 MHz and 6 GHz.

In KDB 447498 D01 v06: 4.3.1 Standalone SAR test exclusion considerations:

The SAR Test Exclusion Threshold is calculated from:

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot \sqrt{f(\text{GHz})} \leq 3.0 \text{ for 1-g SAR}$$

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation 17
- The result is rounded to one decimal place for comparison
- The worst case test separation distance is 5mm.

The Max Conducted Output Power and SAR Test Exclusion Threshold (mW) are listed below

Manufacturing Tolerance:

Bluetooth LE:

Mode	Antenna	Frequency [MHz]	Target (dBm)	Tolerance ±(dB)
Bluetooth LE 1M (Peak)	Ant1	2402	1.0	1
		2440	1.5	1
		2480	1.5	1
Bluetooth LE 2M (Peak)	Ant1	2404	1.0	1
		2440	1.5	1
		2478	1.5	1

Estimation Result:

Worse case is as below: [2480 MHz, 2.5 dBm, (1.78 mW) output power]

$$(1.78/5) \cdot \sqrt{2.402(\text{GHz})} = 0.551 < 3.0 \text{ for 1-g SAR}$$

According to SAR Exclusion Threshold in KDB 447498 (D01) General RF Exposure Guidance v06, the SAR report is not required.