

12. Radio Frequency Exposure

12.1 Applicable Standards

The measurements shown in this test report were made in accordance with the procedures given in

FCC Part 2 (Section 2.1093)

<u>LIMIT</u>

KDB 447498 D01 § 4.3(a)

For 100 MHz to 6 GHz and test separation distances \leq 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] $\cdot [\sqrt{f(GHz)}] \le 3.0$ for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR, where

*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

*The values 3.0 and 7.5 are referred to as numeric thresholds in step b) below

The test exclusions are applicable only when the minimum test separation distance is \leq 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion

12.2 EUT Specification

Frequency band	🛛 2.4G: 2412MHz ~ 2462MHz			
(Operating)	BLE: 2402MHz ~ 2480MHz			
Device category	Portable (<20cm separation)			
	Mobile (>20cm separation)			
Exposure	Occupational/Controlled exposure			
classification	General Population/Uncontrolled exposure			
Antenna diversity	Single antenna			
	Multiple antennas			
	Tx diversity			
	Rx diversity			
	Tx/Rx diversity			
Evaluation applied	MPE Evaluation*			
	SAR Evaluation			
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Remark:

- The maximum output power is <u>0.89 dBm (1.227mW)</u> at <u>2402MHz</u> (with <u>2.41 dBi</u> antenna gain.)
- DTS device is not subject to routine RF evaluation; MPE estimate is used to justify the compliance.
- 3. For mobile or fixed location transmitters, no SAR consideration applied.





TEST RESULTS

According to the KDB447498:

The SAR test exclusion thresholds Level:

[(max. power of channel, including tune-up tolerance, mW) /(min. test separation distance,

mm)] * sqrt (freq. in GHz) < 3

Calculation

Channel Frequency (MHz)	Max. Conducted output power (dBm)	Max. Tune up power (dBm)	Max. Tune up power (mW)	Distance (mm)	SAR test exclusion thresholds (mW)
2402-2480	0.89	2.89	1.95	5	10.00

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing

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