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)

KDB 447498

IEEE C95.1

LIMIT

KDB 447498 D01 § 4.3(a)
For 100 MHz to 6 GHz and test separation distances ≤ 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)] · [√f(GHz)] ≤ 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 ≤ 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 (Operating)	☒ SRD: 2400MHz ~ 2483.5MHz ☐ Bluetooth: 2402MHz ~ 2480MHz
Device category	☒ Portable (<20cm separation) ☐ Mobile (>20cm separation)
Exposure classification	☐ Occupational/Controlled exposure ☒ General Population/Uncontrolled exposure
Antenna diversity	☒ Single antenna ☐ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☐ Tx/Rx diversity
Evaluation applied	☐ MPE Evaluation* ☒ SAR Evaluation ☐ N/A
Remark: *1. The maximum conducted output power is 5.45dBm (3.508mW) at 2437MHz (with 4.08dBi antenna gain.)* *2. 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.*	

12.3 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

Modulation Mode	Frequency band (MHz)	Max. Conducted output power (dBm)	Max. Conducted output power(mW)	Distance (mm)	SAR test exclusion thresholds (mW)
π/4-DQPSK	2403.35-2477.35	5.45	3.508	50	96.0000

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