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)

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 < 50 mm, a distance of 50 mm according to 4.1 f) is applied to determine SAR test exclusion

12.2 EUT Specification

Frequency band (Operating)	☒ 2.4G: 2404MHz ~ 2476MHz ☐ 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 5.1dBm (3.236 mW) at 2404MHz (with 2.96dBi antenna gain.)-ANT A* 2. *The maximum conducted output power is 5.02dBm (3.177 mW) at 2404MHz (with 2.39dBi antenna gain.)-ANT B* 3. *DTS device is not subject to routine RF evaluation; MPE estimate is used to justify the compliance.* 4. *For mobile or fixed location transmitters, no SAR consideration applied. The maximum power density is 1.0 mW/cm^2 even if the calculation indicates that the power density would be larger.*	

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

ANT A

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)
2404-2476	5.10	5.60	3.63	50	96.00

ANT B

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)
2404-2476	5.02	5.52	3.56	50	96.00

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

----------THE END OF REPORT----------