



## 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:

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

|                                   |  |
|-----------------------------------|--|
| <b>Frequency band (Operating)</b> | <input type="checkbox"/> WLAN: 2412MHz ~ 2462MHz<br><input checked="" type="checkbox"/> Bluetooth: 2402MHz ~ 2480MHz   |
| <b>Device category</b>            | <input checked="" type="checkbox"/> Portable (<20cm separation)<br><input type="checkbox"/> Mobile (>20cm separation)  |
| <b>Exposure classification</b>    | <input type="checkbox"/> Occupational/Controlled exposure<br><input checked="" type="checkbox"/> General Population/Uncontrolled exposure  |
| <b>Antenna diversity</b>          | <input checked="" type="checkbox"/> Single antenna<br><input type="checkbox"/> Multiple antennas<br><input type="checkbox"/> Tx diversity<br><input type="checkbox"/> Rx diversity<br><input type="checkbox"/> Tx/Rx diversity |
| <b>Evaluation applied</b>         | <input type="checkbox"/> MPE Evaluation*<br><input checked="" type="checkbox"/> SAR Evaluation<br><input type="checkbox"/> N/A   |

**Remark:**

1. The maximum output power is -0.95 dBm (0.804mW) at 2402MHz (with 3.73 dBi 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.

\*Note: Simultaneous transmission is not applicable for this EUT.



**TEST RESULTS**

According to the KDB447498:

The SAR test exclusion thresholds Level:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * \text{sqrt}(\text{freq. in GHz}) < 3$$

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               | -0.95                             | 1.05                     | 1.27                    | 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