# SAR EVALUATION REPORT

**FCC 47 CFR § 2.1093**
**IEEE Std. 1528-2013**

*For*

**Headset**

**MODEL NUMBER: UCSC0001**

**REPORT NUMBER: 4791833426.1-SAR-1**

**ISSUE DATE: June 6, 2025**

**FCC ID: Q95ER36**

*Prepared for*

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Revision History

| Rev. | Issue Date | Revisions | Revised By |
|---|---|---|---|
| V0 | June 6, 2025 | Initial Issue | \ |

Note:

1) This test report is only published to and used by the applicant, and it is not for evidence purpose in China.
2) The measurement result for the sample received is <Pass> according to < IEEE Std. 1528>when <Simple Acceptance> decision rule is applied.

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# 1. Attestation of Test Results

| | | |
|---|---|---|
| Applicant Name | Cardo Systems, LTD | |
| Address | 101E. Park Blvd., Suite 600 Plano, TX 75074, Plano, Texas United States 75074 | |
| Manufacturer | Cardo Systems, LTD | |
| Address | 101E. Park Blvd., Suite 600 Plano, TX 75074, Plano, Texas United States 75074 | |
| EUT Name | Headset | |
| Brand | / | |
| Model | UCSC0001 | |
| Sample Received Date | May 28, 2025 | |
| Sample Status | Normal | |
| Sample ID | / | |
| Date of Tested | May 29, 2025 | |
| Applicable Standards | FCC 47 CFR § 2.1093<br>IEEE Std. 1528-2013<br>KDB publication | |
| **SAR Limits (W/Kg)** | | |
| Exposure Category | Peak spatial-average<br>(1g of tissue) | Extremities (hands, wrists, ankles, etc.)<br>(10g of tissue) |
| General population / Uncontrolled exposure | 1.6 | 4 |
| Occupational / Controlled exposure | 8 | 20 |
| **The Highest Reported SAR (W/kg)** | | |
| **RF Exposure Conditions** | **Equipment Class** | |
| | **SRD** | **DSS** |
| Head 1-g (0 mm) | 0.225 | 0.302 |
| Simultaneous Transmission (1-g) | 0.514 | |
| Test Results | Pass | |
| Prepared By:<br>Burt Hu<br>Burt Hu<br>Laboratory Engineer | Reviewed By:<br>Kebo Zhang<br>Senior Project Engineer | Approved By:<br>Stephen Guo<br>Laboratory Manager |

# 2. Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with IEEE Std.1528-2013 and the following FCC Published RF exposure KDB procedures:

- 447498 D01 General RF Exposure Guidance v06
- 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
- 865664 D02 RF Exposure Reporting v01r02

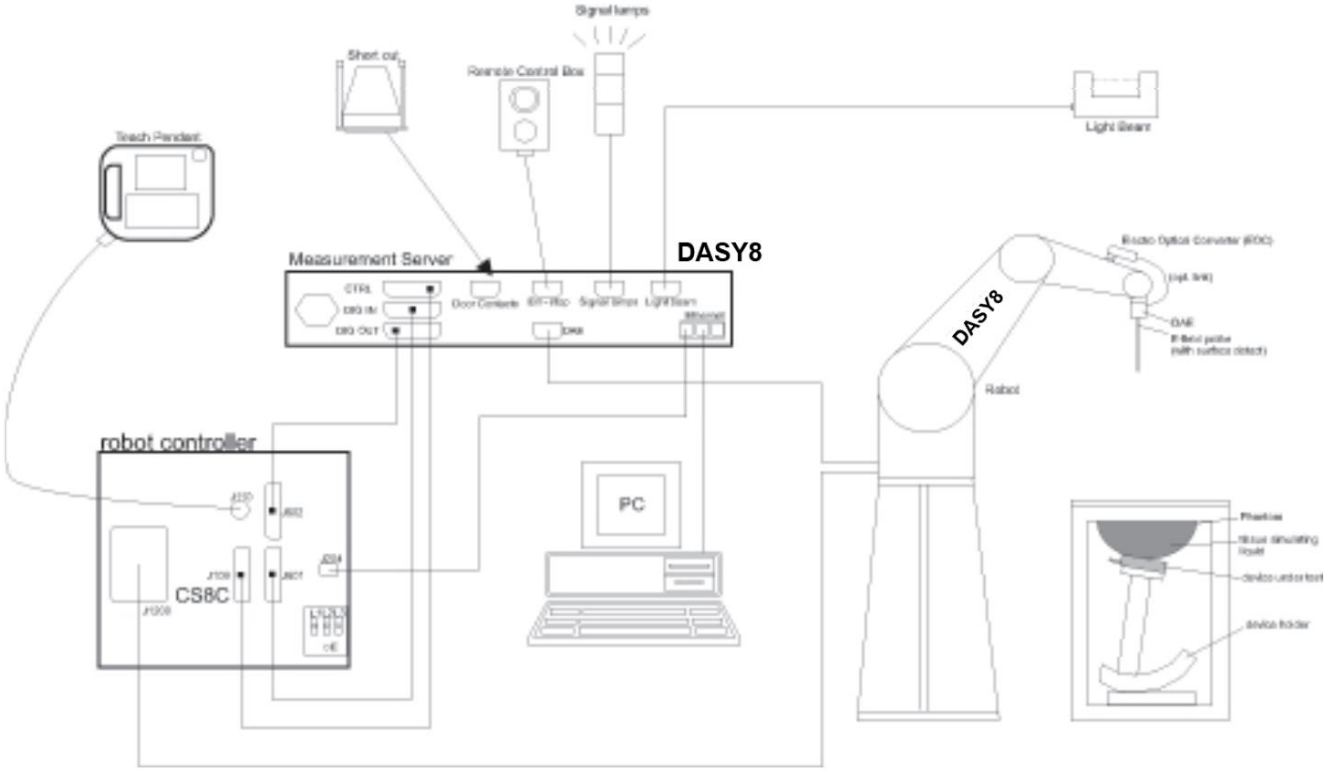
# 3. Facilities and Accreditation

| | |
|---|---|
| Test Location | UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. |
| Address | Room 101, Building 2, No.4, Information Road, Songshan Lake, Dongguan, Guangdong, China |
| Accreditation Certificate | **A2LA (Certificate No.: 4102.01)**<br>UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.<br><br>**FCC (FCC Designation No.: CN1187)**<br>UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules.<br><br>**ISED (Company No.: 21320)**<br>UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED.<br>The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046. |
| Description | All measurement facilities use to collect the measurement data are located at Room 101, Building 2, No.4, Information Road, Songshan Lake, Dongguan, Guangdong, China |

# 4. SAR Measurement System & Test Equipment

## 4.1. SAR Measurement System

**The DASY8 system used for performing compliance tests consists of the following items:**




- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win 10 and the DASY8 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

## 4.2. SAR Scan Procedures

**Step 1: Power Reference Measurement**

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. The minimum distance of probe sensors to surface is 2.1 mm. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

**Step 2: Area Scan**

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in Db) is specified in the standards for compliance testing. For example, a 2 Db range is required in IEEE Standard 1528 and IEC 62209 standards, whereby 3 Db is a requirement when compliance is assessed in accordance with the ARIB standard (Japan). If only one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly.

Area Scan Parameters extracted from KDB 865664 D01 v01r04 SAR Measurement 100 MHz to 6 GHz

| | ≤ 3 GHz | > 3 GHz |
|---|---|---|
| Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface | 5 mm ± 1 mm | ½·δ·ln(2) mm ± 0.5 mm |
| Maximum probe angle from probe axis to phantom surface normal at the measurement location | 30° ± 1° | 20° ± 1° |
| Maximum area scan spatial resolution: $\Delta x_{Area}$, $\Delta y_{Area}$ | ≤ 2 GHz: ≤ 15 mm<br>2 – 3 GHz: ≤ 12 mm | 3 – 4 GHz: ≤ 12 mm<br>4 – 6 GHz: ≤ 10 mm |
| | When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device. | |
| Maximum zoom scan spatial resolution: $\Delta x_{Zoom}$, $\Delta y_{Zoom}$ | ≤ 2 GHz: ≤ 8 mm<br>2 – 3 GHz: ≤ 5 mm* | 3 – 4 GHz: ≤ 5 mm*<br>4 – 6 GHz: ≤ 4 mm* |

**Step 3: Zoom Scan**

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The Zoom Scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the Zoom Scan evaluates the averaged SAR for 1 g and 10 g and displays these values next to the job's label.

Zoom Scan Parameters extracted from KDB 865664 D01 v01r04 SAR Measurement 100 MHz to 6 GHz

| | | | ≤ 3 GHz | > 3 GHz |
|---|---|---|---|---|
| Maximum zoom scan spatial resolution: $\Delta x_{Zoom}$, $\Delta y_{Zoom}$ | | | ≤ 2 GHz: ≤ 8 mm<br>2 – 3 GHz: ≤ 5 mm* | 3 – 4 GHz: ≤ 5 mm*<br>4 – 6 GHz: ≤ 4 mm* |
| Maximum zoom scan spatial resolution, normal to phantom surface | uniform grid: $\Delta z_{Zoom}(n)$ | | ≤ 5 mm | 3 – 4 GHz: ≤ 4 mm<br>4 – 5 GHz: ≤ 3 mm<br>5 – 6 GHz: ≤ 2 mm |
| | graded grid | $\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface | ≤ 4 mm | 3 – 4 GHz: ≤ 3 mm<br>4 – 5 GHz: ≤ 2.5 mm<br>5 – 6 GHz: ≤ 2 mm |
| | | $\Delta z_{Zoom}(n>1)$: between subsequent points | ≤ 1.5·$\Delta z_{Zoom}(n-1)$ mm | |
| Minimum zoom scan volume | x, y, z | | ≥ 30 mm | 3 – 4 GHz: ≥ 28 mm<br>4 – 5 GHz: ≥ 25 mm<br>5 – 6 GHz: ≥ 22 mm |

Note: $\delta$ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std 1528-2013 for details.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB Publication 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

**Step 4: Power drift measurement**

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in Db from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

**Step 5: Z-Scan (FCC only)**

The Z Scan measures points along a vertical straight line. The line runs along the Z-axis of a one-dimensional grid. In order to get a reasonable extrapolation the extrapolated distance should not be greater than the step size in Z-direction.

## 4.3. Test Equipment

The measuring equipment used to perform the tests documented in this report has been calibrated in accordance with the manufacturers' recommendations and is traceable to recognized national standards.

| Name of equipment | Manufacturer | Type/Model | Serial No. | Cal. Due Date |
|---|---|---|---|---|
| ENA Network Analyzer | Keysight | E5080A | MY55100583 | 2025.09.27 |
| Dielectric Probe kit | SPEAG | SM DAK 040 SA | 1155 | 2028.02.26 |
| DC power supply | Keysight | E36103A | MY55350020 | 2025.09.27 |
| Signal Generator | Rohde & Schwarz | SME06 | 837633\001 | 2025.08.05 |
| BI-Directional Coupler | KRYTAR | 1850 | 54733 | 2025.09.27 |
| Peak and Average Power Sensor | Keysight | E9325A | MY62220002 | 2025.09.27 |
| Peak and Average Power Sensor | Keysight | E9325A | MY62220003 | 2025.09.27 |
| Dual Channel PK Power Meter | Keysight | N1912A | MY55416024 | 2025.09.27 |
| Amplifier | CORAD TECHNOLOGY LTD | AMF-4D-00400600-50-30P | 1983561 | NCR |
| Dosimetric E-Field Probe | SPEAG | EX3DV4 | 7383 | 2026.03.13 |
| Data Acquisition Electronic | SPEAG | DAE4 | 1318 | 2025.10.08 |
| Dipole Kit 2450 MHz | SPEAG | D2450V2 | 977 | 2027.12.25 |
| Software | SPEAG | DASY8 | N/A | NCR |
| Phantom | SPEAG | SAM V8.0 | 2100 | NCR |
| Thermometer | / | GX-138 | 150709653 | 2025.10.7 |
| Thermometer | VICTOR | ITHX-SD-5 | 18470005 | 2025.10.7 |

**Note:**

1) Per KDB865664D01 v01r04 requirements for dipole calibration, the test laboratory has adopted three-year extended calibration interval. Each measured dipole is expected to evaluate with the following criteria at least on annual interval in Appendix C.

a) There is no physical damage on the dipole;

b) System check with specific dipole is within 10% of calibrated value;

c) The most recent return-loss result, measured at least annually, deviates by no more than 20% from the previous measurement.

d) The most recent measurement of the real or imaginary parts of the impedance, measured at least annually is within 5Ω from the previous measurement.

2) Network analyzer probe calibration against air, distilled water and a shorting block performed before measuring liquid parameters.

# 5. Measurement Uncertainty

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be ≤ 30%, for a confidence interval of k =2. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std. 1528-2013 is not required in SAR reports submitted for equipment approval.
Therefore, the measurement uncertainty is not required.

# 6. Device Under Test (DUT) Information

## 6.1. DUT Description

| | |
|---|---|
| DUT is a wireless headset with SRD/BT wireless capabilities. | |
| DUT Dimension | Overall (Length x Width x Height): 80 mm x 40 mm x 20 mm |

## 6.2. Wireless Technology

| Wireless technology | Frequency band |
|---|---|
| BT | 2.4 GHz |
| SRD | 2.4 GHz |

# 7. Conducted Output Power Measurement and tune-up tolerance

## 7.1.1 Test Results of SRD

| Mode | Frequency (MHz) | AV Power (dBm) | Tune-up Limit (dBm) |
|---|---|---|---|
| DH5 | 2402 | 10.33 | 12.0 |
| | 2441 | 10.72 | |
| | 2480 | 11.79 | |
| 2DH5 | 2402 | 10.35 | 12.0 |
| | 2441 | 10.75 | |
| | 2480 | 11.81 | |

Note:
1) The output power of the device was set to transmit at maximum power for all tests.
2) As per KDB 447498 D01 sec.4.1.d) at the maximum rated output power and within the tune-up tolerance range specified for the product, but not more than 2 dB lower than the maximum tune-up tolerance limit.

## 7.1.2 Test Results of BT

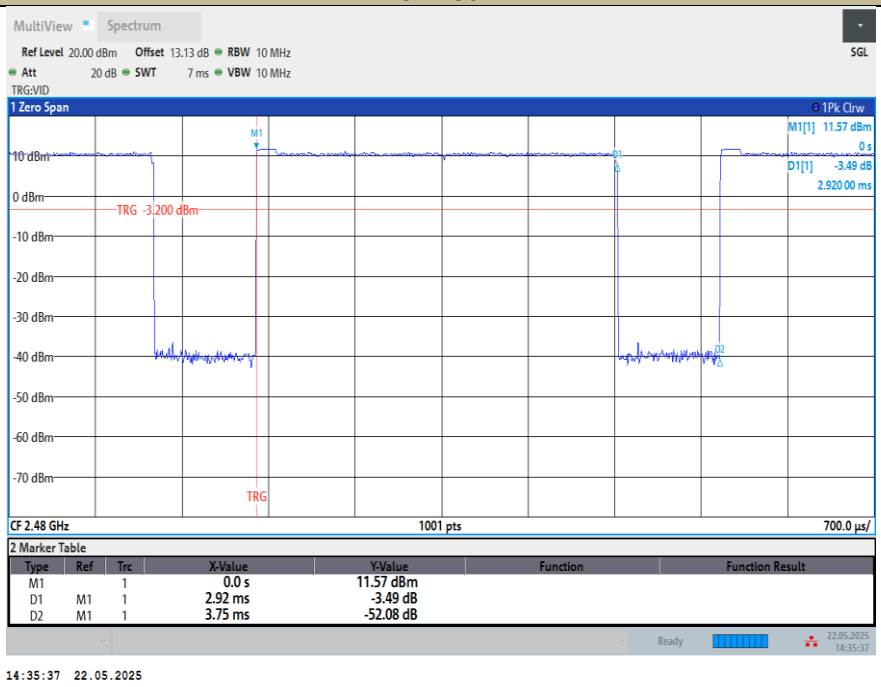
| Mode | Frequency (MHz) | AV Power (dBm) | Tune-up Limit (dBm) |
|---|---|---|---|
| DH5 | 2402 | 11.68 | 12.5 |
| | 2441 | 11.33 | |
| | 2480 | 10.74 | |
| 2DH5 | 2402 | 12.83 | 13.5 |
| | 2441 | 12.50 | |
| | 2480 | 12.22 | |
| 3DH5 | 2402 | 12.83 | 13.5 |
| | 2441 | 12.47 | |
| | 2480 | 12.18 | |
| BLE_1M | 2402 | 8.48 | 9.0 |
| | 2440 | 8.58 | |
| | 2480 | 7.66 | |
| BLE_2M | 2402 | 8.51 | 9.0 |
| | 2440 | 8.58 | |
| | 2480 | 7.67 | |

Note:
1) The output power of the device was set to transmit at maximum power for all tests.
2) As per KDB 447498 D01 sec.4.1.d) at the maximum rated output power and within the tune-up tolerance range specified for the product, but not more than 2 dB lower than the maximum tune-up tolerance limit.
3) The maximum output power mode 2DH5 was selected as the primary mode to test SAR for Bluetooth mode. SAR measurement is not required for the other modes, when the secondary mode is ≤0.25 dB higher than the primary mode.

## 7.2. Duty Cycle

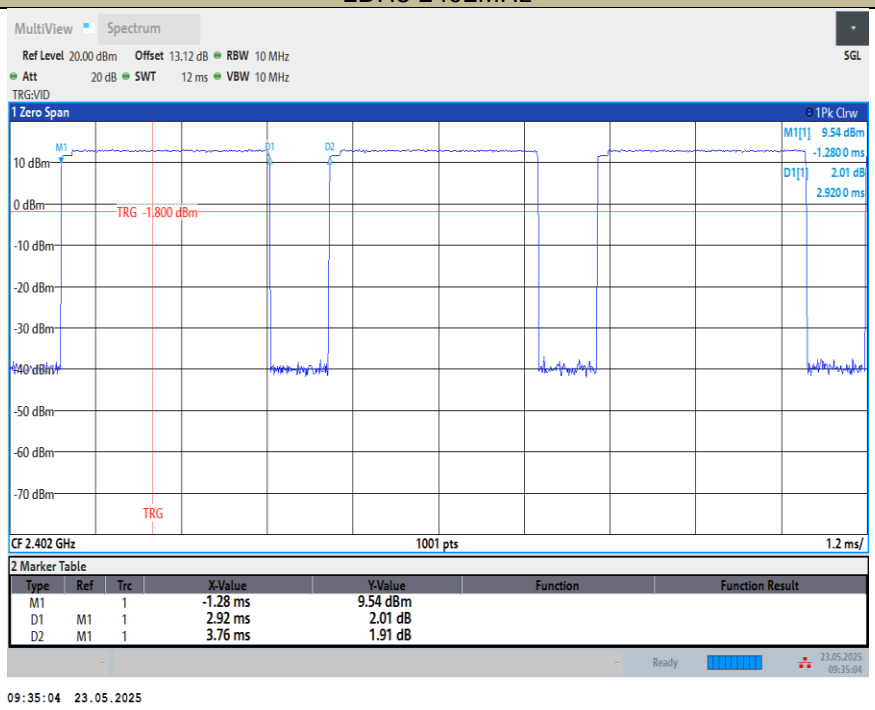
| SRD | | | | |
|---|---|---|---|---|
| Test Mode | On Time (msec) | Period (msec) | Duty Cycle x (Linear) | Duty Cycle (%) |
| 2DH5 | 2.92 | 3.75 | 0.7787 | 77.87 |

2DH5 2480MHz



| BT | | | | |
|---|---|---|---|---|
| Test Mode | On Time (msec) | Period (msec) | Duty Cycle x (Linear) | Duty Cycle (%) |
| 2DH5 | 2.92 | 3.76 | 0.7766 | 77.66 |

2DH5 2402MHz



# 8. Test Configuration

## 8.1.2.4GHz SRD SAR Test Requirements

2.4GHz SRD operating modes are tested independently according to the service requirements in each frequency band for each antenna. DH5/2DH5 SISO modes are tested on the maximum average output power mode.

## 8.2.2.4GHz BT SAR Test Requirements

2.4GHz BT operating modes are tested independently according to the service requirements in each frequency band for each antenna. DH5/2DH5/3DH5/1M/2M SISO modes are tested on the maximum average output power mode.

## 8.3.Repeated measurements

Repeated measurements are required only when the measured SAR is ≥ 0.80 W/kg.18 If the measured SAR value of the initial repeated measurement is < 1.45 W/kg with ≤ 20% variation, only one repeated measurement is required to reaffirm that the results are not expected to have substantial variations, which may introduce significant compliance concerns. A second repeated measurement is required only if the measured result for the initial repeated measurement is within 10% of the SAR limit and vary by more than 20%, which are often related to device and measurement setup difficulties. The following procedures are applied to determine if repeated measurements are required. The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.19 The repeated measurement results must be clearly identified in the SAR report. All measured SAR, including the repeated results, must be considered to determine compliance and for reporting according to KDB Publication 690783.

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

# 9. Antenna location diagram

Referred to 4791833426.1-SAR-1_App A Photo.

# 10.RF Exposure Conditions

| Wireless technologies | RF Exposure Conditions | DUT-to-User Separation |
|---|---|---|
| SRD/BT | Head | 0 mm |

# 11.Dielectric Property Measurements & System Check

## 11.1.Dielectric Property Measurements

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within ± 2°C of the temperature when the tissue parameters are characterized.
The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.
Tissue dielectric parameters were measured at the low, middle and high frequency of each operating frequency range of the test device.

### Tissue Dielectric Parameters

FCC KDB 865664 D01 v01r04 SAR Measurement 100 MHz to 6 GHz

| Target Frequency (MHz) | Head | | Body | |
|---|---|---|---|---|
| | $\varepsilon_r$ | σ (S/m) | $\varepsilon_r$ | σ (S/m) |
| 150 | 52.3 | 0.76 | 61.9 | 0.80 |
| 300 | 45.3 | 0.87 | 58.2 | 0.92 |
| 450 | 43.5 | 0.87 | 56.7 | 0.94 |
| 835 | 41.5 | 0.90 | 55.2 | 0.97 |
| 900 | 41.5 | 0.97 | 55.0 | 1.05 |
| 915 | 41.5 | 0.98 | 55.0 | 1.06 |
| 1450 | 40.5 | 1.20 | 54.0 | 1.30 |
| 1610 | 40.3 | 1.29 | 53.8 | 1.40 |
| 1800 – 2000 | 40.0 | 1.40 | 53.3 | 1.52 |
| 2450 | 39.2 | 1.80 | 52.7 | 1.95 |
| 3000 | 38.5 | 2.40 | 52.0 | 2.73 |
| 5000 | 36.2 | 4.45 | 49.3 | 5.07 |
| 5100 | 36.1 | 4.55 | 49.1 | 5.18 |
| 5200 | 36.0 | 4.66 | 49.0 | 5.30 |
| 5300 | 35.9 | 4.76 | 48.9 | 5.42 |
| 5400 | 35.8 | 4.86 | 48.7 | 5.53 |
| 5500 | 35.6 | 4.96 | 48.6 | 5.65 |
| 5600 | 35.5 | 5.07 | 48.5 | 5.77 |
| 5700 | 35.4 | 5.17 | 48.3 | 5.88 |
| 5800 | 35.3 | 5.27 | 48.2 | 6.00 |

**IEEE Std 1528-2013**
**Refer to Table 3 within the IEEE Std 1528-2013 Dielectric Property Measurements Results:**

| Liquid | Freq.(MHz) | Liquid Parameters | | | | Deviation(%) | | Limit (%) | Temp. (℃) | Test Date |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Measured | | Target | | | | | | |
| | | $\varepsilon_r$ | σ | $\varepsilon_r$ | σ | $\varepsilon_r$ | σ | | | |
| Head 2450 | 2400 | 40.300 | 1.790 | 39.29 | 1.76 | 2.57 | 1.70 | ±5 | 21.3 | May 29, 2025 |
| | 2450 | 40.200 | 1.830 | 39.20 | 1.80 | 2.55 | 1.67 | | | |
| | 2500 | 40.100 | 1.870 | 39.13 | 1.85 | 2.48 | 1.08 | | | |

## 11.2.System Check

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device. The same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every three to four days when the liquid parameters are re-measured or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

**System Performance Check Measurement Conditions:**

- The measurements were performed in the flat section of the TWIN SAM or ELI phantom, shell thickness: 2.0 ±0.2 mm (bottom plate) filled with Body or Head simulating liquid of the following parameters.
- The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm for SAR measurements ≤ 3 GHz and ≥ 10.0 cm for measurements > 3 GHz.
- The DASY system with an E-Field Probe was used for the measurements.
- The dipole was mounted on the small tripod so that the dipole feed point was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 10 mm (above 1GHZ) and 15 mm (below 1GHz) from dipole center to the simulating liquid surface.
- For area scan, standard grid spacing for head measurements is 15 mm in x- and y- dimension (≤2GHz), 12 mm in x- and y-dimension (2-4 GHz) and 10 mm in x- and y- dimension (4-6GHz).
- For zoom scan, $\Delta x_{zoom}$, $\Delta y_{zoom}$ ≤ 2 GHz - ≤ 8 mm, 2-4 GHz - ≤ 5 mm and 4-6 GHz-≤ 4 mm; $\Delta z_{zoom}$ ≤ 3 GHz - ≤ 5 mm, 3-4 GHz- ≤ 4 mm and 4-6 GHz-≤ 2 mm.
- Distance between probe sensors and phantom surface was set to 3 mm except for 5 GHz band. For 5 GHz band, Distance between probe sensors and phantom surface was set to 2.5 mm
- The dipole input power (forward power) was set to 100 mW or 250 mW depend on the certificate of the dipoles.
- The results are normalized to 1 W input power.

**System Check Results**

The 1-g and 10-g SAR measured with a reference dipole, using the required tissue-equivalent medium at the test frequency, must be within 10% of the manufacturer calibrated dipole SAR target.

| T.S. Liquid | | Measured Results | | Target (Ref. value) | Delta (%) | Limit (%) | Temp. (℃) | Test Date |
|---|---|---|---|---|---|---|---|---|
| | | Zoom Scan (W/Kg) | Normalize to 1W (W/Kg) | | | | | |
| Head 2450 | 1-g | 4.930 | 49.30 | 52.80 | -6.63 | ±10 | 21.3 | May 29, 2025 |
| | 10-g | 2.290 | 22.90 | 24.40 | -6.15 | | | |

# 12.Measured and Reported (Scaled) SAR Results

• Reported SAR(W/kg) = Measured SAR * Tune-up scaling factor * Duty Cycle scaling factor

**SAR Test Reduction criteria are as follows:**

**KDB 447498 D01 General RF Exposure Guidance:**
A）Per KDB447498 D01, all SAR measurement results are scaled to the maximum tune-up tolerance limit to demonstrate SAR compliance.
B）Testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

- ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz.
- ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
- ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz.

**Per KDB865664 D01 v01r04:**
For each frequency band, repeated SAR measurement is required only when the measured SAR is ≥0.8W/Kg; if the deviation among the repeated measurement is ≤ 20%, and the measured SAR <1.45W/Kg, only one repeated measurement is required.

## 12.1.SAR Test Results

| Test Position (Head 0mm) | Test Mode | Channel/ Frequency | Power (dBm) | | Measured SAR Value | Power Drift | Duty Cycle (%) | Scaled (W/Kg) |
|---|---|---|---|---|---|---|---|---|
| | | | Tune-up | Meas. | 1-g (W/Kg) | | | |
| **SRD** | | | | | | | | |
| Front side | 2DH5 | 78/2480 | 12.0 | 11.81 | 0.023 | 0.03 | 77.87 | 0.031 |
| Back side | 2DH5 | 78/2480 | 12.0 | 11.81 | 0.158 | -0.02 | 77.87 | 0.212 |
| Left side | 2DH5 | 78/2480 | 12.0 | 11.81 | 0.006 | 0.04 | 77.87 | 0.008 |
| Right side | 2DH5 | 78/2480 | 12.0 | 11.81 | 0.003 | 0.01 | 77.87 | 0.004 |
| Top Side | 2DH5 | 78/2480 | 12.0 | 11.81 | 0.168 | 0.02 | 77.87 | 0.225 |
| Bottom Side | 2DH5 | 78/2480 | 12.0 | 11.81 | 0.005 | -0.01 | 77.87 | 0.007 |
| Top Side | 2DH5 | 0/2402 | 12.0 | 10.35 | 0.118 | 0.05 | 77.93 | 0.221 |
| Top Side | 2DH5 | 39/2441 | 12.0 | 10.75 | 0.128 | -0.03 | 77.87 | 0.219 |
| **BT** | | | | | | | | |
| Front side | BT 2DH5 | 0/2402 | 13.5 | 12.83 | 0.144 | -0.02 | 77.66 | 0.216 |
| Back side | BT 2DH5 | 0/2402 | 13.5 | 12.83 | 0.201 | -0.05 | 77.66 | 0.302 |
| Left side | BT 2DH5 | 0/2402 | 13.5 | 12.83 | 0.099 | 0.06 | 77.66 | 0.149 |
| Right side | BT 2DH5 | 0/2402 | 13.5 | 12.83 | 0.001 | 0.03 | 77.66 | 0.002 |
| Top Side | BT 2DH5 | 0/2402 | 13.5 | 12.83 | 0.088 | 0.08 | 77.66 | 0.132 |
| Bottom Side | BT 2DH5 | 0/2402 | 13.5 | 12.83 | 0.098 | 0.04 | 77.66 | 0.147 |
| Back side | BT 2DH5 | 39/2441 | 13.5 | 12.50 | 0.183 | -0.03 | 77.87 | 0.296 |
| Back side | BT 2DH5 | 78/2480 | 13.5 | 12.22 | 0.170 | 0.05 | 77.66 | 0.294 |

Note:
1) The SAR testing was set to transmit at maximum power for all tests.

## 13.Simultaneous Transmission SAR Analysis

When the EUT is in actual use, it may be both antennas to work simultaneously, so synchronous transmission needs to be considered.

| Simultaneous Transmission Combination | | | | |
|---|---|---|---|---|
| Test Position | SRD | BT | ∑SAR 1-g (W/kg) | Limit (W/kg) |
| Front Side | 0.031 | 0.216 | 0.247 | 1.6 |
| Back Side | 0.212 | 0.302 | 0.514 | |
| Left Side | 0.008 | 0.149 | 0.157 | |
| Right Side | 0.004 | 0.002 | 0.006 | |
| Top Side | 0.225 | 0.132 | 0.357 | |
| Bottom Side | 0.007 | 0.147 | 0.154 | |

# Appendixes

**Refer to separated files for the following appendixes.**

**4791833426.1-SAR-1_App A Photo**

**4791833426.1-SAR-1_App B System Check Plots**

**4791833426.1-SAR-1_App C Highest Test Plots**

**4791833426.1-SAR-1_App D Cal. Certificates**

---------End of Report---------