

TEST REPORT

FCC SAR Test for ELT-E2100
Certification

APPLICANT
ELENTEC Co., Ltd.

REPORT NO.
HCT-SR-2511-FC006-R2

DATE OF ISSUE
December 30, 2025

Tested by
Dong Seon Kim



Technical Manager
Yun Jeang Heo



HCT CO., LTD.
BongJai Huh
BongJai Huh / CEO



HCT CO.,LTD.

2-6, 73, 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea
Tel. +82 31 645 6300 Fax. +82 31 645 6401

TEST REPORT

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FCC ID

UF8-ELT-E2100

Applicant

ELENTEC Co., Ltd.

64-3, Dongtangiheung-ro, Hwaseong-si, Gyeonggi-do, Republic of Korea,

Product Name

LTE Mobile Router

Model Name

ELT-E2100

Date of Test

Oct. 23, 2025 ~ Dec. 24, 2025

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing Lab

(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)

FCC Rule Part(s)

CFR § 2.1093

Test Results

PASS (SAR Limit : 1.6 W/kg)

Refer to the clause 3.2 Attestation of test result

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	November 28, 2025	Initial Issue
1	December 29, 2025	Added testing of mobile phone usage conditions, Removed LTE Band 31
2	December 30, 2025	Revised Sec.1,4

Notice

Content

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

The laboratory is not accredited for the test results marked *.

Information provided by the applicant is marked **.

Test results provided by external providers are marked ***.

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

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1. Test Regulations

The tests documented in this report were performed in accordance with FCC CFR § 2.1093, IEEE 1528-2013, ANSI C63.26-2015 the following FCC Published RF exposure KDB procedures:

- IEEE 1528-2013
- FCC KDB Publication 941225 D07 UMPC Mini Tablet v01r02
- FCC KDB Publication 941225 D06 Hotspot Mode v02r01
- FCC KDB Publication 447498 D01 General SAR Guidance v06
- FCC KDB Publication 648474 D04 Handset SAR v01r03
- FCC KDB Publication 941225 D05 SAR for LTE Devices v02r05
- FCC KDB Publication 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB Publication 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
- FCC KDB Publication 865664 D02 SAR Reporting v01r02

In Addition to the above, the following information was used.

- April 2015 TCB Workshop Notes (Simultaneous transmission summation clarified)
- April 2023 TCB Workshop Notes (regarding Universal Sleeves Interim Guidance)

2. Test Location

2.1 Test Laboratory

Company Name	HCT Co., Ltd.
Address	74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea
Telephone	031-645-6300
Fax.	031-645-6401

2.2 Test Facilities

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

Korea	National Radio Research Agency (Designation No. KR0032)
	KOLAS (Testing No. KT197)

3. Information of the EUT

3.1 General Information of the EUT

Model Name	ELT-E2100
Equipment Type	LTE Mobile Router
FCC ID	UF8-ELT-E2100
Application Type	Certification
Applicant	ELENTEC Co., Ltd.

3.2 Attestation of test result of device under test

The Highest Reported SAR			
Band	Tx. Frequency	Equipment Class	Reported SAR (W/kg)
			1g Body
LoRa (125 kHz)	902 MHz ~ 928 MHz	DSS	0.31
LTE FDD Band 26 (Cell)	814 MHz ~ 849 MHz	TNB	0.74
2.4 GHz WLAN	2 400 MHz ~ 2 500 MHz	DTS	<0.10
Simultaneous SAR per KDB 690783 D01v01r03			0.77
Date(s) of Tests:	Oct. 23, 2025 ~ Dec. 24, 2025		

4. Device Under Test Description

4.1 DUT specification

Device Wireless specification overview		
Band & Mode	Operating Mode	Tx Frequency
LoRa (125 kHz)	Data	902 MHz ~ 928 MHz
LTE Band 26	Data	814 MHz ~ 849 MHz
2.4 GHz WLAN	Data	2 400 MHz ~ 2 500 MHz
Device Description		
Device Serial Numbers	Mode	Serial Number
	LTE Band 26, LoRa, 2.4GHz WLAN	34AC83, 34AC81, 34AC87
	The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics are within operational tolerances expected for production units.	
Host Device Description	Model name: SM-S936B/DS FCC ID: A3LSMS936B Serial Number: R3CX80SFBFM	

4.3.1 Nominal and Maximum Output Power Specifications

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB publication 447498 D01v06.

4.2.1 Maximum Power

Mode / Band		Modulated Average (dBm)
LoRa (125 kHz)	Maximum	19.0
	Nominal	17.0

(Tolerance -2dBm ~ +2dBm)

Mode / Band		Modulated Average (dBm)
LTE Band 26	Maximum	25.0
	Nominal	23.0

(Tolerance -2dBm ~ +2dBm)

Mode / Band		Modulated Average (dBm)
WLAN 2.4 GHz	Maximum	10.0
	Nominal	8.0

(Tolerance -2dBm ~ +2dBm)

4.4 LTE Information

	Item.	Description
Frequency Range	LTE FDD Band 26	814 MHz ~ 849 MHz
Channel Bandwidths	LTE FDD Band 26	5 MHz, 10 MHz, 15 MHz

Ch. No.& Freq. (MHz)		Low / Low-Mid	Mid	Mid-High / High
LTE FDD Band 26	5 MHz	816.5 (26715)	831.5 (26865)	846.5 (27015)
	10 MHz	819.0 (26740)	831.5 (26865)	844.0 (26990)
	15 MHz		831.5 (26865)	

4.6 DUT Antenna Locations

This device is also operating at hand-held use near body. So, FCC KDB Publication 941225 D07 is apply to this condition. 1g SAR test is evaluated to some position (distance from to the edge/side is within 2.5 cm) at 0 mm. So 10g SAR is not required.

Mode/Band	Rear	Front	Left	Right	Top	Bottom
LoRa	Yes	Yes	Yes	Yes	No	Yes
LTE Band 26	Yes	Yes	Yes	Yes	No	Yes
2.4 GHz WLAN	Yes	Yes	Yes	Yes	No	Yes

Particular EUT edges were not required to be evaluated for Wireless router SAR or phablet SAR if the edges were greater than 2.5 cm from the transmitting antenna according to FCC KDB 941225 D07 and October 2016 TCBC Workshop Note.

The distance between the transmit antennas and the edges of the device are included in the filing.

- Note: All test configurations are based on front view position.

4.8 SAR Summation Scenario

According to FCC KDB 447498 D01v06, transmitters are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds. Possible transmission paths for the EUT are shown below paths and are mode in same rectangle to indicate communication modes which share the same path. Modes which share the same transmission path cannot transmit simultaneously with one another.

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB 447498 D01v06.

Scenario
LTE + 2.4 GHz Wi-Fi
LoRa + 2.4 GHz Wi-Fi

5. Introduction

The FCC has adopted the guidelines for evaluating the environmental effects of radio frequency radiation in ET Docket 93-62 on Aug. 6, 1996 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices.

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York 10017. The measurement procedure described in IEEE/ANSI C95.3-1992 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave is used for guidance in measuring SAR due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in Biological Effects and Exposure Criteria for Radio Frequency Electromagnetic Fields,” NCRP Report No. 86 NCRP, 1986, Bethesda, MD 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative of the incremental electromagnetic energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body.

$$SAR = \frac{d}{dt} \left(\frac{dW}{dm} \right)$$

Figure 1. SAR Mathematical Equation

SAR is expressed in units of Watts per Kilogram (W/kg)

Where:

- = conductivity of the tissue-simulant material (S/m)
- = mass density of the tissue-simulant material (kg/m^3)
- = Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relations to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.

6. Description of test equipment

6.1 SAR MEASUREMENT SETUP

These measurements are performed using the DASY5,6,8 automated dosimetric assessment system. It is made by Schmid & Partner Engineering AG (SPEAG) in Zurich, Switzerland. It consists of high precision robotics system (Staubli), robot controller, Pentium III computer, near-field probe, probe alignment sensor, and the generic twin phantom containing the brain equivalent material. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF) (see Figure.2).

A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The PC with Windows XP or Windows 7 or Windows 10 or Windows 11 is working with SAR Measurement system DASY5 & DASY6 & DASY8 A/D interface card, monitor, mouse, and keyboard. The Staubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC plug-in card.

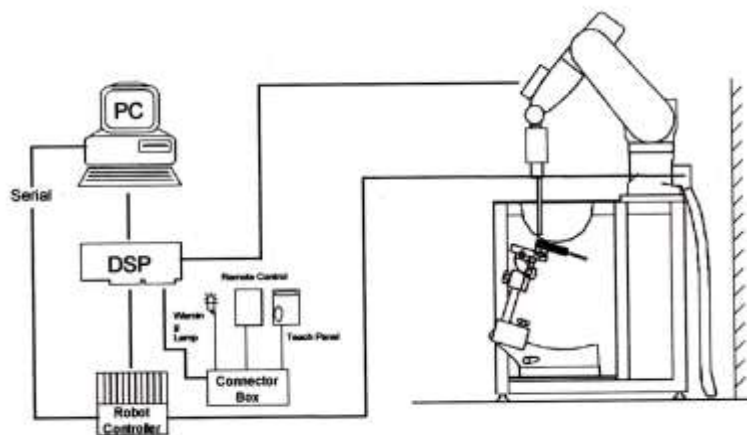


Figure 2. HCT SAR Lab. Test Measurement Set-up

The DAE consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer. The system is described in detail in.

7. SAR Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013.

1. The SAR distribution at the exposed side of the head or body was measured at a distance no more than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the DUT's head and body area and the horizontal grid resolution was depending on the FCC KDB 865664 D01v01r04 table 4-1 & IEEE 1528-2013.
2. Based on step, the area of the maximum absorption was determined by sophisticated interpolations routines implemented in DASY software. When an Area Scan has measured all reachable point. DASY system computes the field maximal found in the scanned are, within a range of the maximum. SAR at this fixed point was measured and used as a reference value.
3. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB 865664 D01v01r04 table 4-1 and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (reference from the DASY manual.)
 - a. The data at the surface were extrapolated, since the center of the dipoles is no more than 2.7 mm away from the tip of the probe (it is different from the probe type) and the distance between the surface and the lowest measuring point is 1.2 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.
 - b. The maximum interpolated value was searched with a straight-forward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed using the 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y, and z directions. The volume was integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.
 - c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan. If the value changed by more than 5 %, the SAR evaluation and drift measurements were repeated.

Area scan and zoom scan resolution setting follow KDB 865664 D01v01r04 quoted below.

			$\leq 3 \text{ GHz}$	$> 3 \text{ GHz}$
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			$5 \pm 1 \text{ mm}$	$\cdot \delta \cdot \ln(2) \pm 0.5 \text{ mm}$
Maximum probe angle from probe axis to phantom surface normal at the measurement location			$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan Spatial resolution: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$			$\leq 2 \text{ GHz: } \leq 15 \text{ mm}$ $2\text{-}3 \text{ GHz: } \leq 12 \text{ mm}$	$3\text{-}4 \text{ GHz: } \leq 12 \text{ mm}$ $4\text{-}6 \text{ GHz: } \leq 10 \text{ mm}$
			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 $\leq$ 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: $\Delta x_{\text{zoom}}, \Delta y_{\text{zoom}}$			$\leq 2 \text{ GHz: } \leq 8 \text{ mm}$ $2\text{-}3 \text{ GHz: } \leq 5 \text{ mm}^*$	$3\text{-}4 \text{ GHz: } \leq 5 \text{ mm}^*$ $4\text{-}6 \text{ GHz: } \leq 4 \text{ mm}^*$
Maximum zoom scan Spatial resolution normal to phantom surface	uniform grid: $\Delta z_{\text{zoom}}(n)$		$\leq 5 \text{ mm}$	$3\text{-}4 \text{ GHz: } \leq 4 \text{ mm}$ $4\text{-}5 \text{ GHz: } \leq 3 \text{ mm}$ $5\text{-}6 \text{ GHz: } \leq 2 \text{ mm}$
	graded grid	$\Delta z_{\text{zoom}}(1)$: between 1 st two Points closest to phantom surface	$\leq 4 \text{ mm}$	$3\text{-}4 \text{ GHz: } \leq 3 \text{ mm}$ $4\text{-}5 \text{ GHz: } \leq 2.5 \text{ mm}$ $5\text{-}6 \text{ GHz: } \leq 2 \text{ mm}$
		$\Delta z_{\text{zoom}}(n>1)$: between subsequent Points	$\leq 1.5 \cdot \Delta z_{\text{zoom}}(n-1)$	
Minimum zoom scan volume	x, y, z		$\geq 30 \text{ mm}$	$3\text{-}4 \text{ GHz: } \geq 28 \text{ mm}$ $4\text{-}5 \text{ GHz: } \geq 25 \text{ mm}$ $5\text{-}6 \text{ GHz: } \geq 22 \text{ mm}$
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. * When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB447498 is $\leq 1.4 \text{ W/kg}$, $\leq 8 \text{ mm}$, $\leq 7 \text{ mm}$ and $\leq 5 \text{ mm}$ zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

8. Description of Test Position

8.1 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameters: relative permittivity ϵ and loss tangent $\delta=0.02$.

8.2 Positioning for Testing

The SAR test separation distance for hotspot mode is determined according to device form factor. When the overall length and width of a device is $> 9 \text{ cm} \times 5 \text{ cm}$ ($\sim 3.5'' \times 2''$), a test separation distance of 10 mm is required for hotspot mode SAR measurements. A test separation distance of 5 mm or less is required for smaller devices. The smaller test distance is established by the operating configurations and exposure conditions of a device in next to body use configurations. The combination of test distance and 1-g SAR measurements required for near-body exposure also supports hand-held exposure; therefore, separate 10-g extremity SAR evaluation is not necessary.

9. RF Exposure Limits

HUMAN EXPOSURE	UNCONTROLLED ENVIRONMENT General Population (W/kg)	CONTROLLED ENVIRONMENT Occupational (W/kg)
SPATIAL PEAK SAR * (Partial Body)	1.6	8.0
SPATIAL AVERAGE SAR ** (Whole Body)	0.08	0.4
SPATIAL PEAK SAR *** (Hands / Feet / Ankle / Wrist)	4.0	20.0

NOTES:

* The Spatial Peak value of the SAR averaged over any 1 g of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

** The Spatial Average value of the SAR averaged over the whole-body.

*** The Spatial Peak value of the SAR averaged over any 10 g of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

10. FCC SAR General Measurement Procedures

Power Measurements for licensed transmitters are performed using a base simulator under digital average power.

10.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D01v06, when SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as Reported SAR. The highest reported SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

10.2 SAR Measurement Conditions for LTE

LTE modes are tested according to FCC KDB 941225 D05v02r05 publication. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluation SAR [4]. The R&S CMW500 or Anritsu MT8820C simulators are used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

10.2.1 Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

10.2.2 MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

10.2.3 A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

10.2.4 Required RB Size and RB offsets for SAR testing

According to FCC KDB 941225 D05v02r05

- a. Per sec 4.2.1, SAR is required for QPSK 1 RB Allocation for the largest bandwidth
 - i. The required channel and offset combination with the highest maximum output power is required for SAR.
 - ii. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.
 - iii. When the reported SAR for a required test channel is > 1.45 W/kg, SAR is required for all RB offset configurations for that channel.

- b. Per Sec 4.2.2, SAR is required for 50% RB allocation using the largest bandwidth following the same procedures outlined in Sec 4.2.1.
- c. Per Sec. 4.2.3, QPSK SAR is not required for the 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1 RB and 50% RB allocations and the reported SAR for the 1 RB and 50% RB allocations is $< 0.8 \text{ W/kg}$.
- d. Per Sec. 4.2.4 and 4.3, SAR test for higher order modulations and lower bandwidths configurations are not required when the conducted power of the required test configurations determined by Sec. 4.2.1 through 4.2.3 is less than or equal to 1/2 dB higher than the equivalent configuration using QPSK modulation and when the QPSK SAR for those configurations is $< 1.45 \text{ W/kg}$.

10.3 SAR Testing with 802.11 Transmitters

The normal network operating configurations of 802.11 transmitters are not suitable for SAR measurements. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable. See KDB Publication 248227 D01v02r02 for more details.

10.3.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters.

A periodic duty factor is required for current generation SAR system to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92-96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

10.3.2 2.4 GHz SAR test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

- 1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is $\leq 0.8 \text{ W/kg}$, no further SAR testing is required for 802.11b DSSS in that exposure configuration.
- 2) When the reported SAR is $> 0.8 \text{ W/kg}$, SAR is required for that position using the next highest measured output power channel. When any reported SAR is $> 1.2 \text{ W/kg}$, SAR is required for the third channel; i.e., all channels require testing.

2.4 GHz 802.11 g/n OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is $> 1.2 \text{ W/kg}$. When SAR is required for OFDM modes in 2.4 GHz band, the Initial Test Configuration Procedures should be followed.

10.3.3 Initial Test Position Procedure

For exposure conditions with multiple test positions, such as handset operating next to the ear, devices

with hotspot mode or UMPC mini-tablet, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all positions in an exposure condition. The test position with the highest extrapolated (peak) SAR is used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g SAR and ≤ 1.0 W/kg for 10g SAR, no additional testing for the remaining test position is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg for 1g SAR and ≤ 2.0 W/kg for 10g SAR or all test positions are measured.

11. Output Power Specifications

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB publication 447498 D01v06.

Licensed Bands

Test Description	Test Procedure Used
Conducted Output Power	- KDB 971168 D01 v03r01 – Section 5.2.4 - ANSI C63.26-2015 – Section 5.2.1 & 5.2.4.2

Test Overview

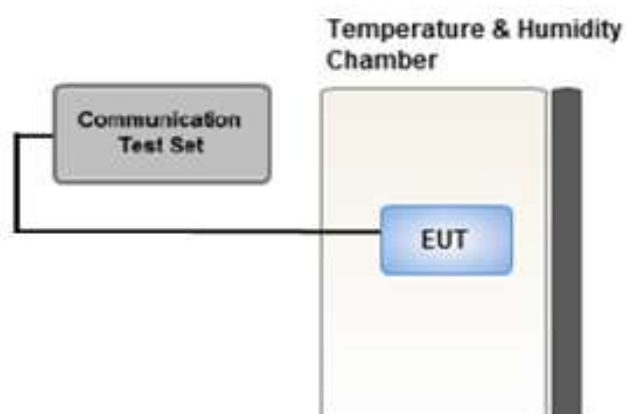
According to ANSI C63.26-2015 Section 5.2.1 when measuring the maximum RF output power from such devices, control over the EUT must be provided either through special test software (provided by manufacturer specifically for compliance testing, but not accessible by an end user) or through use of a base station emulator, communications test set, call box, or similar instrumentation that is capable of establishing a communications link with the EUT to enable control over variable parameters (e.g., output power, OBW, etc.).

In some cases, these instruments also include basic digital spectrum analyzer and/or power meter capabilities that can be utilized to measure the RF output power if the specified detectors and requirements can be realized and the measurement functions have been calibrated.

Test Procedure

1. The RF port of the EUT was connected to the Communication Tester via an RF cable.
2. Conducted average power was measured using a calibrated Radio Communication Tester.

Test setup



11.1 LoRa Maximum Conducted Output Power

LoRa 125 kHz US					
channel	Frequency (MHz)	Output Power(SF7)		Output Power(SF10)	
		(dBm)	(mW)	(dBm)	(mW)
Low	902.3	17.76	59.70	17.80	60.26
Mid	908.5	17.66	58.34	17.68	58.61
High	914.9	17.45	55.59	17.47	55.85

LoRa 125 kHz AU					
channel	Frequency (MHz)	Output Power(SF7)		Output Power(SF10)	
		(dBm)	(mW)	(dBm)	(mW)
Low	915.2	17.43	55.34	17.45	55.59
Mid	921.4	17.17	52.12	17.20	52.48
High	927.8	16.85	48.42	16.87	48.64

11.2 LTE Maximum Conducted Output Power

LTE B26 at Max Bandwidth does not support three non-overlapping channels. Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel Bandwidth configuration, the mid channel of the group of overlapping channels should be selected for testing.

[LTE Band 26 Conducted Power]

LTE Band 26 _ 5 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26715 Ch. 816.5 MHz	26865 Ch. 831.5MHz	27015 Ch. 846.5 MHz		
5 MHz	QPSK	1	0	22.95	22.88	22.64	0	0
		1	12	23.25	22.85	22.95	0	0
		1	24	23.80	23.15	23.01	0	0
		12	0	22.39	21.92	21.85	0-1	1
		12	6	22.65	22.14	22.16	0-1	1
		12	11	22.84	22.26	22.19	0-1	1
		25	0	22.76	22.38	22.26	0-1	1
	16QAM	1	0	22.34	22.19	21.94	0-1	1
		1	12	22.57	22.08	22.21	0-1	1
		1	24	22.98	22.43	22.23	0-1	1
		12	0	21.35	20.83	20.84	0-2	2
		12	6	21.76	21.05	21.17	0-2	2
		12	11	21.81	21.29	21.17	0-2	2
		25	0	21.88	21.31	21.28	0-2	2

LTE Band 26 _ 10 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26740 Ch. 819 MHz	26865 Ch. 831.5 MHz	26990 Ch. 844 MHz		
10 MHz	QPSK	1	0	23.06	22.53	22.18	0	0
		1	24	23.55	22.70	22.38	0	0
		1	49	22.63	22.73	22.70	0	0
		25	0	22.66	21.90	21.65	0-1	1
		25	12	22.67	21.99	21.64	0-1	1
		25	24	22.55	22.04	22.06	0-1	1
		50	0	22.63	22.09	21.80	0-1	1
	16QAM	1	0	22.33	21.96	21.37	0-1	1
		1	24	22.94	22.04	21.53	0-1	1
		1	49	21.98	22.04	22.01	0-1	1
		25	0	21.73	20.96	20.53	0-2	2
		25	12	21.75	21.03	20.51	0-2	2
		25	24	21.60	21.03	20.95	0-2	2
		50	0	21.70	21.14	20.67	0-2	2

LTE Band 26 _ 15 MHz Bandwidth

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR Allowed Per 3GPP [dB]	MPR [dB]
				26865 Ch. 831.5 MHz		
15 MHz	QPSK	1	0	23.30	0	0
		1	36	23.12	0	0
		1	74	23.13	0	0
		36	0	22.45	0-1	1
		36	18	22.27	0-1	1
		36	39	22.02	0-1	1
	16QAM	75	0	21.94	0-1	1
		1	0	21.83	0-1	1
		1	36	22.46	0-1	1
		1	74	21.37	0-1	1
		36	0	20.87	0-2	2
		36	18	21.26	0-2	2
		36	39	20.96	0-2	2
		75	0	21.05	0-2	2

11.3 WIFI Conducted Power Measurement Method

Mode	Frequency [MHz]	Channel	IEEE 802.11 (2.4 GHz) Average Conducted Output Power [dBm]
802.11b	2 412	1	7.22
	2 437	6	8.45
	2 462	11	7.02
	2 467	12	6.94
	2 472	13	6.85
802.11g	2 412	1	7.21
	2 437	6	8.30
	2 462	11	6.92
	2 467	12	6.80
	2 472	13	4.77
802.11n (HT20)	2 412	1	7.62
	2 437	6	7.80
	2 462	11	7.34
	2 467	12	7.00
	2 472	13	2.94
802.11n (HT40)	2 422	3	7.92
	2 437	6	8.09
	2 452	9	7.64
	2 457	10	7.42
	2 462	11	7.20

12. System Verification

12.1 Tissue Verification

The head simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity.

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (MHz)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ϵ	Target Conductivity σ (S/m)	Target Dielectric Constant, ϵ	% dev σ	% dev ϵ
10/23/2025	21.6	835H	831.5	0.932	42.500	0.900	41.518	+ 3.56	+ 2.37
			835	0.936	42.600	0.900	41.500	+ 4.00	+ 2.65
12/24/2025	20.2	835H	831.5	0.936	42.500	0.900	41.518	+ 4.00	+ 2.37
			835	0.937	42.600	0.900	41.500	+ 4.11	+ 2.65
11/06/2025	20.3	900H	900	0.961	41.400	0.970	41.500	- 0.93	- 0.24
			902.3	0.962	41.300	0.972	41.500	- 1.03	- 0.48
			915.2	0.971	41.200	0.980	41.500	- 0.92	- 0.72
12/24/2025	20.2	900H	900	0.964	42.100	0.970	41.500	- 0.62	+ 1.45
			902.3	0.962	41.300	0.972	41.500	- 1.03	- 0.48
11/07/2025	20.2	2450H	2 437	1.800	39.400	1.789	39.223	+ 0.61	+ 0.45
			2 450	1.810	39.500	1.800	39.200	+ 0.56	+ 0.77
12/24/2025	20.2	2450H	2 437	1.800	39.400	1.789	39.223	+ 0.61	+ 0.45
			2 450	1.840	39.200	1.800	39.200	+ 2.22	+ 0.00

12.2 System Verification

Input Power: 50 mW

Freq. [MHz]	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp. [°C]	Liquid Temp. [°C]	1 W Target SAR _{1g} (Speag) [W/kg]	50 mW Measured SAR _{1g} [W/kg]	1 W Normalized SAR _{1g} [W/kg]	Dev. [%]	Limit [%]
835	10/23/2025	7732	4d165	Head	21.7	21.6	9.32	0.440	8.80	- 5.58	± 10
835	12/24/2025	3076	4d165	Head	20.2	20.2	9.32	0.496	9.92	+ 6.44	± 10
900	11/06/2025	3076	121	Head	20.4	20.3	10.70	0.535	10.70	+ 0.00	± 10
900	12/24/2025	3076	121	Head	20.2	20.2	10.70	0.518	10.36	- 3.18	± 10
2 450	11/07/2025	3076	1049	Head	20.3	20.2	52.60	2.810	56.20	+ 6.84	± 10
2 450	12/24/2025	3076	1049	Head	20.2	20.2	52.60	2.460	49.20	- 6.46	± 10

12.3 SAR Test System Verification Procedure

SAR measurement was prior to assessment; the system is verified to the $\pm 10\%$ of the specifications at each frequency Band by using the system verification kit. (Graphic Plots Attached)

- Cabling the system, using the verification kit equipment.
- Dipole antenna was placed below the flat phantom.
- The measured one-gram SAR at the surface of the phantom above the dipole feed-point should be within 10 % of the target reference value.

Note;

SAR Verification was performed according to the FCC KDB 865664 D01v01r04.

13. SAR Test Data Summary

13.1 SAR Measurement Results

LoRa Body SAR (125 kHz US)														
Freq. (MHz)	Ch.	Mode	Bandwidth (kHz)	Tune- Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	SF	Test Position	Duty Cycle	Distance (mm)	Meas. 1g SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
902.3	0	LoRa	125	19.0	17.80	-0.18	SF10	Rear	1:1	0	0.215	1.318	0.283	-
902.3	0	LoRa	125	19.0	17.80	0.12	SF10	Front	1:1	0	0.100	1.318	0.132	-
902.3	0	LoRa	125	19.0	17.80	0.10	SF10	Left	1:1	0	0.155	1.318	0.204	-
902.3	0	LoRa	125	19.0	17.80	0.00	SF10	Right	1:1	0	0.096	1.318	0.127	-
902.3	0	LoRa	125	19.0	17.80	0.03	SF10	Bottom	1:1	0	0.015	1.318	0.020	-
902.3	0	LoRa	125	19.0	17.80	-0.18	SF10	Rear	1:1	0	0.238	1.318	0.314	#A1
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram							

Additional test attached to the mobile phone.

LoRa Body SAR (125 kHz AU)														
Freq. (MHz)	Ch.	Mode	Bandwidth (kHz)	Tune- Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	SF	Test Position	Duty Cycle	Distance (mm)	Meas. 1g SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
915.2	0	LoRa	125	19.0	17.45	-0.12	SF10	Rear	1:1	0	0.195	1.429	0.279	A2
915.2	0	LoRa	125	19.0	17.45	-0.02	SF10	Front	1:1	0	0.027	1.429	0.039	-
915.2	0	LoRa	125	19.0	17.45	-0.04	SF10	Left	1:1	0	0.114	1.429	0.163	-
915.2	0	LoRa	125	19.0	17.45	-0.05	SF10	Right	1:1	0	0.061	1.429	0.087	-
915.2	0	LoRa	125	19.0	17.45	-0.10	SF10	Bottom	1:1	0	0.027	1.429	0.039	-
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram							

LTE FDD Band 26 Hotspot SAR																
Frequency (MHz)	Ch.	Mode	Band Width (MHz)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	MPR (dB)	RB Size	RB offset	Duty Cycle	Distance	Meas. 1g SAR (W/kg)	Scaling Factor	Reported SAR (W/kg)	Plot No.
831.5	26865	QPSK	15	25.0	23.30	0.02	Rear	0	1	0	1:1	10	0.445	1.479	0.658	-
831.5	26865	QPSK	15	24.0	22.45	0.02	Rear	1	36	0	1:1	10	0.518	1.429	0.740	A3
831.5	26865	QPSK	15	25.0	23.30	-0.03	Front	0	1	0	1:1	10	0.075	1.479	0.111	-
831.5	26865	QPSK	15	24.0	22.45	0.03	Front	1	36	0	1:1	10	0.088	1.429	0.126	-
831.5	26865	QPSK	15	25.0	23.30	0.03	Left	0	1	0	1:1	10	0.068	1.479	0.101	-
831.5	26865	QPSK	15	24.0	22.45	0.00	Left	1	36	0	1:1	10	0.077	1.429	0.110	-
831.5	26865	QPSK	15	25.0	23.30	-0.04	Right	0	1	0	1:1	10	0.015	1.479	0.022	-
831.5	26865	QPSK	15	24.0	22.45	-0.11	Right	1	36	0	1:1	10	0.019	1.429	0.027	-
831.5	26865	QPSK	15	25.0	23.30	-0.04	Bottom	0	1	0	1:1	10	0.103	1.479	0.152	-
831.5	26865	QPSK	15	24.0	22.45	-0.03	Bottom	1	36	0	1:1	10	0.106	1.429	0.151	-
831.5	26865	QPSK	15	24.0	22.45	-0.06	Rear	1	36	0	1:1	10	0.508	1.429	0.726	#
ANSI/ IEEE C95.1 - 2005- Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram									

#Additional test attached to the mobile phone.

DTS Hotspot SAR															
Frequency (MHz)	Ch.	Mode	Band Width (MHz)	Data Rate (Mbps)	Tune- Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance	Meas. 1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
2 437	6	802.11b	20	1	10.0	9.50	0.12	Rear	98.7	10	0.022	1.429	1.013	0.032	
2 437	6	802.11b	20	1	10.0	9.50	0.13	Front	98.7	10	0.002	1.429	1.013	0.003	-
2 437	6	802.11b	20	1	10.0	9.50	0.11	Left	98.7	10	0.048	1.429	1.013	0.069	A4
2 437	6	802.11b	20	1	10.0	9.50	0.06	Right	98.7	10	0.002	1.429	1.013	0.003	-
2 437	6	802.11b	20	1	10.0	9.50	0.02	Bottom	98.7	10	0.000	1.429	1.013	0.000	
2 437	6	802.11b	20	1	10.0	9.50	-0.07	Left	98.7	10	0.029	1.429	1.013	0.042	#
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram							

#Additional test attached to the mobile phone.

13.1 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, FCC KDB Procedure.
2. Batteries are fully charged at the beginning of the SAR measurements. A standard battery was used for all SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB 447498 D01v06.
6. Per FCC KDB 865664 D01v01r04, variability SAR measurement were performed when the measured SAR results for a frequency band were greater than or equal to 0.8 W/kg for 1g SAR and >2 for 10g SAR Please see Section 15 for variability analysis.

LTE Notes:

1. LTE Considerations: LTE test configurations are determined according to SAR Evaluation Consideration for LTE Devices in FCC KDB 941225 D05v02r05.
2. According to FCC KDB 941225 D05v02r05:
When the reported SAR is 0.8 W/kg, testing of the 100% RB allocation and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the 1RB, 50%RB and 100%RB allocation with highest output power for that channel. Only one channel, and as reported SAR values for 1RB allocation and 50%RB allocation were less than 1.45W/kg only the highest power RB offset for each allocation was required.
3. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to target MPR is indicated alongside the SAR results.
4. When Power reduction is applied, MPR is 0 for some modes.
5. A-MPR was disabled for all SAR tests by setting NS=01 on the base station simulator.

WLAN Notes:

1. For hotspot operations, the initial test position procedures were applied. For initial test position, the highest extrapolated peak SAR will be used. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g SAR and ≤ 1.0 W/kg for 10g SAR, no additional testing for the remaining test positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR results is ≤ 0.8 W/kg for 1g SAR and ≤ 2.0 W/kg for 10g SAR or all test position are measured.
2. Per KDB 2482227 D01v02r02 justification for test configurations of 2.4 GHz WiFi Single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11 g/n) was not required due to the maximum allowed powers and the highest reported DSSS SAR
3. When the maximum reported 1g averaged SAR is ≤ 0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg or all test channels were measured.

14. Simultaneous SAR Analysis

Band	Configuration	Main	2.4 GHz SISO Ant.1	Σ
		(W/kg)	(W/kg)	(W/kg)
		1	2	1+2
LTE Band 26	Rear	0.740	0.032	0.772
	Front	0.126	0.003	0.129
	Left	0.110	0.069	0.179
	Right	0.027	0.003	0.030
	Top			
	Bottom	0.152	0.000	0.152
LoRA (125 kHz US)	Rear	0.314	0.032	0.346
	Front	0.132	0.003	0.135
	Left	0.204	0.069	0.273
	Right	0.127	0.003	0.130
	Top			
	Bottom	0.020	0.000	0.020
LoRA (125 kHz AU)	Rear	0.279	0.032	0.311
	Front	0.039	0.003	0.042
	Left	0.163	0.069	0.232
	Right	0.087	0.003	0.090
	Top			
	Bottom	0.039	0.000	0.039

15. SAR Measurement Variability and Uncertainty

In accordance with KDB procedure 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz, SAR additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency Band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement variability was assessed using the following procedures for each frequency Band:

- 1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg for 1g SAR or < 2.0 W/kg for 10g SAR; steps 2) through 4) do not apply.
- 2) When the original highest measured 1g SAR is ≥ 0.80 W/kg or 10g SAR ≥ 2.0 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 for 1g SAR or ≥ 3.625 W/kg for 10g SAR (~ 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 for 1g SAR or ≥ 3.75 W/kg for 10g SAR and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

16. Measurement Uncertainty

The measured SAR was < 1.5 W/Kg for 1g SAR and < 3.75 W/Kg, for 10g SAR for all frequency Bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE1528-2013 was not required.

17. SAR Test Equipment List

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	SAM Phantom	-	N/A	N/A	N/A
SPEAG	cDASY6 5G Module Phantom	-	N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli 5	CS8Cspeag-TX90	F17/59RAA1/C/01	N/A	N/A	N/A
Staubli 7	CS8Cspeag-TX90	F08/5AJ0A1/C/01	N/A	N/A	N/A
Staubli 5	TX90 XLspeag	F17/59RAA1/A/01	N/A	N/A	N/A
Staubli 7	TX90 XLspeag	F08/5AJ0A1/A/01	N/A	N/A	N/A
Staubli 5	Teach Pendant (Joystick)	011578	N/A	N/A	N/A
Staubli 7	Teach Pendant (Joystick)	S-0008	N/A	N/A	N/A
TESTO 5	175-H1/Thermometer	40331922309	12/26/2024	Annual	12/26/2025
TESTO 7	175-H1/Thermometer	40331949309	12/26/2024	Annual	12/26/2025
SPEAG	DAE4	1720	04/23/2025	Annual	04/23/2026
SPEAG	DAE4	868	09/16/2025	Annual	09/16/2026
SPEAG	DAE4	446	03/11/2025	Annual	03/11/2026
SPEAG	E-Field Probe EX3DV4	7732	06/25/2025	Annual	06/26/2026
SPEAG	E-Field Probe ES3DV3	3076	07/22/2025	Annual	07/22/2026
SPEAG	Dipole D835V2	4d165	04/14/2025	Annual	04/14/2026
SPEAG	Dipole D900V2	121	01/17/2025	Annual	01/17/2026
SPEAG	Dipole D2450V2	1049	03/13/2025	Annual	03/13/2026
Agilent	Power Meter E4419B	MY41291386	09/13/2025	Annual	09/13/2026
Agilent	Power Meter N1911A	MY45101406	05/19/2025	Annual	05/19/2026
Agilent	Power Sensor 8481A	SG1091286	09/09/2025	Annual	09/09/2026
H.P	Power Sensor 8481A	MY41090873	01/13/2025	Annual	01/13/2026
Agilent	Wideband Power Sensor N1921A	MY55220026	08/07/2025	Annual	08/07/2026
Agilent	11636B/Power Divider	58698	01/13/2025	Annual	01/13/2026
SPEAG	DAKS 3.5	1038	01/20/2025	Annual	01/20/2026
KEYSIGHT	MXA Signal Analyzer	MY49100108	01/07/2025	Annual	01/07/2026
H.P	Network Analyzer /8753E	JP38451384	08/19/2025	Annual	08/19/2026
Protek	NETWORK ANALYZER	X11-15305	02/10/2025	Annual	02/10/2026
R&S	Wireless Communication Test Set CMW500	115733	03/20/2025	Annual	03/20/2026
R&S	Wireless Communication Test Set CMW500	139333	12/09/2024	Annual	12/09/2025
Agilent	SIGNAL GENERATOR N5182A	MY47070230	03/18/2025	Annual	03/18/2026
EMPOWER	RF Power Amplifier	1084	05/20/2025	Annual	05/20/2026
EMPOWER	RF Power Amplifier	1041D/C0508	05/20/2025	Annual	05/20/2026
EMPOWER	RF Power Amplifier	1011	09/15/2025	Annual	09/15/2026
MICRO LAB	LP Filter /LA-15N	10453	09/15/2025	Annual	09/15/2026
MICRO LAB	LP Filter /LA-30N	-	09/15/2025	Annual	09/15/2026
MICRO LAB	LP Filter /LA-60N	32011	09/15/2025	Annual	09/15/2026
Agilent	Attenuator (3dB) 8693B	MY39260298	08/18/2025	Annual	08/18/2026
HP	Attenuator (20dB) 8493C	09271	08/18/2025	Annual	08/18/2026
RF KOREA	Attenuator (30dB)	A-0830	06/24/2025	Annual	06/24/2026
Agilent	Directional Bridge 86205A	3140A04581	04/18/2025	Annual	04/18/2026
HP	Dual Directional Coupler	16072	09/15/2025	Annual	09/15/2026
Anritsu	Radio Communication Tester MT8821C	6201502997	05/21/2025	Annual	05/21/2026

Note: All measurements were performed within the valid calibration period of the specific equipment.

* The E-field probe was calibrated by SPEAG, by the waveguide technique procedure. Dipole Verification measurement is performed by HCT Lab. before each test. The brain/body simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity (dielectric constant) of the brain/body-equivalent material.

18. Conclusion

The SAR measurement indicates that the EUT complies with the RF exposure limits of the ANSI/ IEEE C95.1 - 2005.

These measurements were taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

19. References

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Appendix A. DUT Ant. Information & SETUP PHOTO

Please refer to test DUT Ant. Information & setup photo file no. as follows:

Report No.
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