



FCC SAR Test Report

FCC ID: RWO-RC810448

Project No. : 2603C310A
Equipment : Head Cushion Speaker
Brand Name : 
Model Name : RAZER,
Date of Receipt : RC81-0448, RC81-0448XXXX-XXXX(X can be 0-9 or A-Z)
Date of Test : May 12, 2026
Issued Date : May 12, 2026 ~ Jun. 05, 2026
Test Sample : Aug. 25, 2026
Standard(s) : Sample No.: DG920260512144
Applicant : Please refer to page 2.
Address : Razer Inc.
Manufacturer : 9 Pasteur, Irvine, CA 92618, USA.
Address : RAZER (ASIA-PACIFIC) PTE. LTD.
Factory : Razer SEA HQ, 1 One-north Crescent, #02-01, Singapore 138538
Address : RAZER TECHNOLOGY AND DEVELOPMENT (SHENZHEN) CO., LTD
Address : East Wing, 3rd Floor, Block 2, Phase 1 of Vision Shenzhen Business Park
 Keji South Road, Hi-Tech Industrial Park, Shenzhen 518057, China

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc. (Dongguan).

Prepared by : 
 Justin Huang

Approved by : 
 Herbert Liu

No.3, Jinshagang 1st Road, Dalang, Dongguan, Guangdong People's Republic of China.
 Tel: +86-769-8318-3000 Web: www.newbtl.com Service mail: btl_qa@newbtl.com

Standard(s) : **IEEE Std C95.1:2019** IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 kHz to 300 GHz

IEEE Std 1528™-2013 IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques

KDB865664 D01: SAR measurement 100 MHz to 6 GHz v01r04

Test Method(s) : **KDB447498 D04:** Interim General RF Exposure Guidance v01
KDB865664 D02: SAR Reporting v01r02

Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacturer's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** assumes no responsibility for the data provided by the customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by **BTL**. The report must not be used by the client to claim product certification, approval, or endorsement by A2LA or any agency of the U.S. Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

BTL's laboratory quality assurance procedures are in compliance with the ISO/IEC 17025: 2017 requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

Table of Contents	Page
REVISION HISTORY	6
1 . GENERAL INFORMATION	7
1.1 STATEMENT OF COMPLIANCE	7
1.2 LABORATORY ENVIRONMENT	7
1.3 GENERAL DESCRIPTION OF EUT	7
1.4 MAIN TEST INSTRUMENTS	8
2 . RF EMISSIONS MEASUREMENT	9
2.1 TEST FACILITY	9
2.2 MEASUREMENT UNCERTAINTY	9
3 . SAR MEASUREMENTS SYSTEM CONFIGURATION	10
3.1 SAR MEASUREMENT SET-UP	10
3.1.1 TEST SETUP LAYOUT	10
3.2 DASY E-FIELD PROBE SYSTEM	11
3.2.1 PROBE SPECIFICATION	11
3.2.2 E-FIELD PROBE CALIBRATION	12
3.2.3 OTHER TEST EQUIPMENT	13
3.2.4 SCANNING PROCEDURE	14
4 . SYSTEM VERIFICATION PROCEDURE	16
4.1 TISSUE VERIFICATION	16
4.2 SYSTEM CHECK	17
4.3 SYSTEM CHECK PROCEDURE	17
5 . OPERATIONAL CONDITIONS DURING TEST	18
5.1 TEST POSITION	18
5.2 TEST CONFIGURATION	18
6 . TEST RESULT	19
6.1 CONDUCTED POWER RESULTS	19
6.1.1 CONDUCTED POWER MEASUREMENTS OF 2.4G SRD	19
6.2 SAR TEST RESULTS	20
6.2.1 SAR MEASUREMENT RESULT	20
7 MULTIPLE TRANSMITTER EVALUATION	21
APPENDIX	22
1. TEST LAYOUT	22
Appendix A. SAR Plots of System Verification	
Appendix B. SAR Plots of SAR Measurement	



Table of Contents

Page

Appendix C. Calibration Certificate

Appendix D. Photographs of the Test Set-Up

REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCC SAR-1-2603C310A	R00	Original Report.	Jun. 10, 2026	Invalid
BTL-FCC SAR-1-2603C310A	R01	It is a revision of the report BTL-FCC SAR-1-2603C310A R00, with the following revisions: a. Updated the power of frequency 2478 in chapter 6.1.1. b. Updated the test No.W08 conducted power and reported 1g SAR in chapter 6.2.1. This is a newly released report, replacing the BTL-FCC SAR-1-2603C310A R00 report.	Aug. 25, 2026	Valid

1. GENERAL INFORMATION

1.1 STATEMENT OF COMPLIANCE

Mode	Highest Reported Head SAR-1g (W/kg)
2.4G SRD	0.07

Note: The device is in compliance with Specific Absorption Rate (SAR) for general population uncontrolled exposure limits according to the FCC rule §2.1093, the ANSI/IEEE C95.1, the NCRP Report Number 86 for uncontrolled environment, and had been tested in accordance with the measurement methods and procedures specified in IEEE Std 1528™.

1.2 LABORATORY ENVIRONMENT

Temperature	Min. = 18°C, Max. = 25°C
Relative humidity	Min. = 30%, Max. = 70%
Ground system resistance	< 0.5Ω
Ambient noise is checked and found very low and in compliance with requirement of standards.	
Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

1.3 GENERAL DESCRIPTION OF EUT

Equipment	Head Cushion Speaker			
Brand Name	 RAZER,			
Test Model	RC81-0448			
Model Name	RC81-0448, RC81-0448XXXX-XXXX(X can be 0-9 or A-Z)			
Model Difference(s)	Only differ in the model name.			
Hardware Version	VerB			
Software Version	V1.0.0.0			
Modulation	GFSK			
Operation Frequency Range(s)	Band	TX (MHz)		
	2.4G SRD	2400~2483.5		
Test Frequency (low-mid-high) (MHz)	2402-2440-2478 (2.4G SRD 2M)			
Antenna Information	Brand	Model Name	Antenna type	Gain (dBi)
	N/A	N/A	FPC	2.34

Note:

- 1) The antenna gain is provided by the manufacturer.
- 2) The system's model name is RC81-0448XXXX-XXXX (X: Can be 0-9, A-Z), and the system contains a Headrest Cushion Speaker (Model name:RC81-0448) and USB Dongle (Model name: RC30-0542).

1.4 MAIN TEST INSTRUMENTS

Item	Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. Interval
1	DASY5 System	Speag	DASY 5	N/A	N/A	N/A
2	Data Acquisition Electronics	Speag	DAE4	1390	Nov. 19, 2025	1 Year
3	E-field Probe	Speag	EX3DV4	3809	Feb. 09, 2026	1 Year
4	System Validation Dipole	Speag	D2450V2	919	Apr. 22, 2024	3 Years
5	ELI Phantom	Speag	ELI Phantom V5.0	1222	N/A	N/A
6	Power Amplifier	Mini-Circuits	ZHL-42W+	QA1333003	Apr. 26, 2026	1 Year
7	DC Source metter	Iteck	IT6154	0061041267682 01001	Apr. 26, 2026	1 Year
8	Vector Network Analyzer	Agilent	E5071C	MY46102965	Dec. 20, 2025	1 Year
9	Signal Generator	Agilent	N5172B	MY53050758	Dec. 20, 2025	1 Year
10	Smart Power Sensor	R&S	NRP-Z21	102209	Dec. 20, 2025	1 Year
11	3.5mm Economy Calibration Kit	Agilent	85052D	MY43252246	Nov. 20, 2025	1 Year
12	Dielectric Assessment Kit	Speag	DAK-3.5	1226	Feb. 19, 2026	1 Year
13	Coupler	Woken	ATD10-400M-6G-A2	2021008	Apr. 26, 2026	1 Year
14	Liquid Thermometer	Nscing Es	YZ6021S	/	Nov. 13, 2025	1 Year

Note: "N/A" denotes no model name, serial No. or calibration specified.

2. RF EMISSIONS MEASUREMENT

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is SAR room at the location of No.3, Jinshagang 1st Road, Dalang, Dongguan, Guangdong People's Republic of China.

BTL's Registration Number for FCC: 747969

BTL's Designation Number for FCC: CN1377

2.2 MEASUREMENT UNCERTAINTY

Uncertainty Budget for Frequency range of 300 MHz to 3 GHz

Symbol	Input quantity X_i (source of uncertainty)	Unc. Value	Prob. Dist.	Div.	ci (1g)	ci (10g)	Std.Unc. (1g) (±%)	Std.Unc. (10g) (±%)
Measurement system errors								
CF	Probe calibration(±%)	13.0	N	2	1	1	6.5	6.5
CF_{drift}	Probe calibration drift(±%)	1.7	R	$\sqrt{3}$	1	1	1.0	1.0
LIN	Probe linearity and detection limit(±%)	4.7	R	$\sqrt{3}$	1	1	2.7	2.7
BBS	Broadband signal(±%)	3.0	R	$\sqrt{3}$	1	1	1.7	1.7
ISO	Probe isotropy(±%)	7.6	R	$\sqrt{3}$	1	1	4.4	4.4
DAE	Other probe and data acquisition errors(±%)	0.7	N	1	1	1	0.7	0.7
AMB	RF ambient and noise(±%)	1.8	N	1	1	1	1.8	1.8
Δ_{xyz}	Probe positioning errors(±mm)	0.006	N	1	0.14	0.14	0.08	0.08
DAT	Data processing errors(±%)	1.2	N	1	1	1	1.2	1.2
Phantom and device (DUT or validation antenna) errors								
LIQ(σ)	Conductivity (meas.)(±%)	2.7	N	1	0.78	0.71	2.1	1.9
LIQ(T_c)	Conductivity (temp.)(±%)	4.16	R	$\sqrt{3}$	0.78	0.71	1.9	1.7
EPS	Phantom Permittivity(±%)	14	R	$\sqrt{3}$	0	0	0.0	0.0
DIS	Distance DUT - TSL(±%)	2	N	1	2	2	4.0	4.0
D_{xyz}	Device Positioning(±%)	1.1	N	1	1	1	1.1	1.1
H	Device Holder(±%)	2.4	N	1	1	1	2.4	2.4
MOD	DUT Modulationm(±%)	2.4	R	$\sqrt{3}$	1	1	1.4	1.4
TAS	Time-average SAR(±%)	1.7	R	$\sqrt{3}$	1	1	1.0	1.0
RF_{drift}	DUT drift(±%)	1.7	N	1	1	1	1.7	1.7
VAL	Val Antenna Unc.(±%)	0	N	1	1	1	0.0	0.0
P_{in}	Unc. Input Power(±%)	0	N	1	1	1	0.0	0.0
Corrections to the SAR result								
$C(\varepsilon', \sigma)$	Deviation to Target(±%)	1.9	N	1	1	0.84	1.9	1.6
$C(R)$	SAR scaling(±%)	0	R	$\sqrt{3}$	1	1	0.0	0.0
$u(\Delta SAR)$	Combined uncertainty						10.9	10.8
	Coverage Factor for 95%						k=2	k=2
U	Expanded uncertainty					U =	21.8	21.5
a Other probability distributions and divisors may be used if they better represent available knowledge of the quantities concerned.								

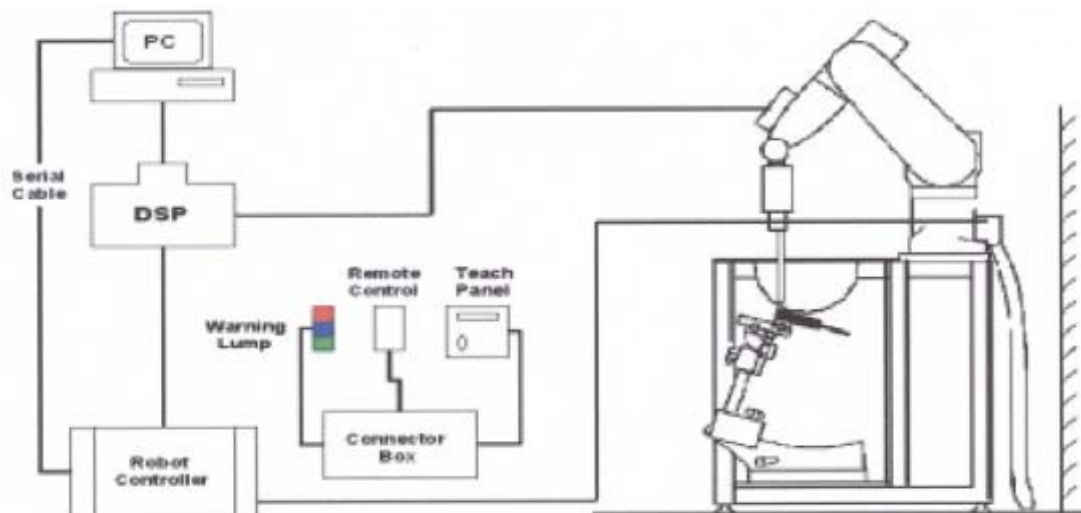
3. SAR MEASUREMENTS SYSTEM CONFIGURATION

3.1 SAR MEASUREMENT SET-UP

The DASY system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
3. A data acquisition electronic (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.
4. A unit to operate the optical surface detector which is connected to the EOC.
5. The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY measurement server.
6. The DASY measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation. A computer operating Windows.
7. DASY software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.

3.1.1 TEST SETUP LAYOUT



3.2 DASY E-FIELD PROBE SYSTEM

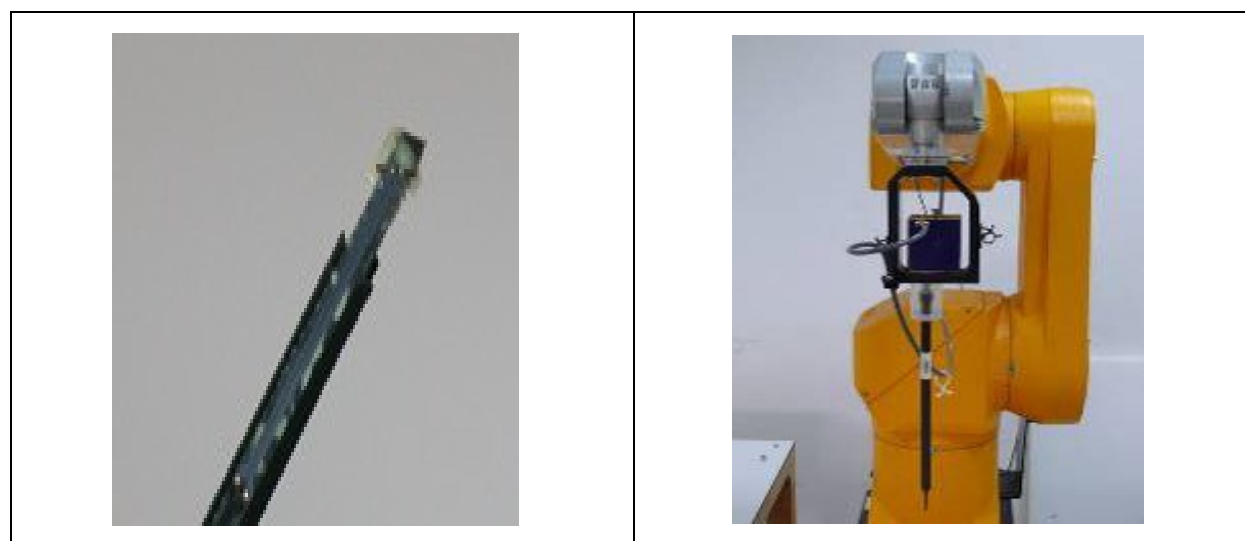
The SAR measurements were conducted with the dosimetric probe EX3DV4 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

3.2.1 PROBE SPECIFICATION

EX3DV4

Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available
Frequency	4 MHz to 10 GHz Linearity: ± 0.2 dB (30 MHz to 10 GHz)
Directivity	± 0.1 dB in TSL (rotation around probe axis) ± 0.3 dB in TSL (rotation normal to probe axis)
Dynamic Range	10 μ W/g to > 100 mW/g Linearity: ± 0.2 dB(noise: typically <1 μ W/g)
Dimensions	Overall length: 337 mm (Tip: 9 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1.0 mm

Note: This size is only the standard information for the E-Field Probe device. For the exact dimensions, please refer to the calibration report in the appendix.



E-field Probe

3.2.2 E-FIELD PROBE CALIBRATION

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than $\pm 10\%$. The spherical isotropy was evaluated and found to be better than $\pm 0.25\text{dB}$. The sensitivity parameters (NormX, NormY, NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies below 1 GHz, and in a wave guide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$\text{SAR} = C \frac{\Delta T}{\Delta t}$$

Where: Δt =Exposure time (30 seconds),

C =Heat capacity of tissue (brain or muscle),

ΔT =Temperature increase due to RF exposure.

Or
$$\text{SAR} = \frac{|E|^2 \sigma}{\rho}$$

Where: σ =Simulated tissue conductivity,

ρ =Tissue density (kg/m³).

3.2.3 OTHER TEST EQUIPMENT

3.2.3.1. Device Holder for Transmitters

Construction: Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices (e.g., laptops, cameras, etc.) It is lightweight and fits easily on the upper part of the Mounting Device in place of the phone positioner. The extension is fully compatible with the Twin SAM, ELI Phantoms.

Material: POM, Acrylic glass, Foam

3.2.3.2 Phantom

Model	Twin SAM	
Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEC/IEEE 62209-1528. It enables the dosimetric evaluation of left—and right-hand phone usage as well as body-mounted usage at the flat phantom region. A cover prevents the liquid from evaporating. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.	
Shell Thickness	2 ± 0.2 mm	
Filling Volume	Approx. 25 liters	
Dimensions	Length:1000mm; Width: 500mm Height: adjustable feet	
Available	Special	

3.2.4 SCANNING PROCEDURE

The DASY system installation includes predefined files with recommended procedures for measurements and validation. They are read-only document files and destined as fully defined but unmeasured masks. All test positions (head or body-worn) are tested with the same configuration of test steps differing only in the grid definition for the different test positions.

The “reference” and “drift” measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the DUT’s output power and should vary max. $\pm 5\%$.

Both area scanning and zoom scanning comply with the IEC/IEEE 62209-1528 standard.

- Area Scan

Table 3 – Area scan parameters

Parameter	DUT transmit frequency being tested	
	$f \leq 3 \text{ GHz}$	$3 \text{ GHz} < f \leq 10 \text{ GHz}$
Maximum distance between the measured points (geometric centre of the sensors) and the inner phantom surface (z_{M1} in Figure 20 in mm)	5 ± 1	$\delta \ln(2)/2 \pm 0,5^a$
Maximum spacing between adjacent measured points in mm (see O.8.3.1) ^b	20, or half of the corresponding zoom scan length, whichever is smaller	$60/f$, or half of the corresponding zoom scan length, whichever is smaller
Maximum angle between the probe axis and the phantom surface normal (α in Figure 20) ^c	5° (flat phantom only) 30° (other phantoms)	5° (flat phantom only) 20° (other phantoms)
Tolerance in the probe angle	1°	1°
^a δ is the penetration depth for a plane-wave incident normally on a planar half-space. ^b See Clause O.8 on how Δx and Δy may be selected for individual area scan requirements. ^c The probe angle relative to the phantom surface normal is restricted due to the degradation in the measurement accuracy in fields with steep spatial gradients. The measurement accuracy decreases with increasing probe angle and increasing frequency. This is the reason for the tighter probe angle restriction at frequencies above 3 GHz.		

- Zoom Scan

Table 4 – Zoom scan parameters

Parameter	DUT transmit frequency being tested	
	$f \leq 3 \text{ GHz}$	$3 \text{ GHz} < f \leq 10 \text{ GHz}$
Maximum distance between the closest measured points and the phantom surface (z_{M1} in Figure 20 and Table 3, in mm)	5	$\delta \ln(2)/2^a$
Maximum angle between the probe axis and the phantom surface normal (α in Figure 20)	5° (flat phantom only) 30° (other phantoms)	5° (flat phantom only) 20° (other phantoms)
Maximum spacing between measured points in the x - and y -directions (Δx and Δy , in mm)	8	$24/f^b$
For uniform grids: Maximum spacing between measured points in the direction normal to the phantom shell (Δz_1 in Figure 20, in mm)	5	$10/(f - 1)$
For graded grids: Maximum spacing between the two closest measured points in the direction normal to the phantom shell (Δz_1 in Figure 20, in mm)	4	$12/f$
For graded grids: Maximum incremental increase in the spacing between measured points in the direction normal to the phantom shell ($R_z = \Delta z_2/\Delta z_1$ in Figure 20)	1,5	1,5
Minimum edge length of the zoom scan volume in the x - and y -directions (L_z in O.8.3.2, in mm)	30	22
Minimum edge length of the zoom scan volume in the direction normal to the phantom shell (L_h in O.8.3.2 in mm)	30	22
Tolerance in the probe angle	1°	1°
^a δ is the penetration depth for a plane-wave incident normally on a planar half-space.		
^b This is the maximum spacing allowed, which might not work for all circumstances.		

4. SYSTEM VERIFICATION PROCEDURE

4.1 TISSUE VERIFICATION

The simulating liquids should be checked at the beginning of a series of SAR measurements to determine if the dielectric parameters are within the tolerances of the specified target values. The measured conductivity and relative permittivity should be within $\pm 5\%$ of the target values.

The following materials are used for producing the tissue-equivalent materials.

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
Head 2450	-	45.0	-	0.1	-	-	54.9	-

Tissue Verification									
Tissue Type	Frequency (MHz)	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Targeted Conductivity (σ)	Targeted Permittivity (ϵ_r)	Deviation Conductivity (σ) (%)	Deviation Permittivity (ϵ_r) (%)	Date
Head	2450	22.2	1.796	40.498	1.80	39.2	-0.22	3.31	Jun. 05, 2026

Note:

- 1)The dielectric parameters of the tissue-equivalent liquid should be measured under similar ambient conditions and within 2 °C of the conditions expected during the SAR evaluation to satisfy protocol requirements.
- 2)The above measured tissue parameters were used in the DASY software to perform interpolation via the DASY software to determine actual dielectric parameters at the test frequencies. The SAR test plots may slightly differ from the table above since the DASY rounds to three significant digits.

4.2 SYSTEM CHECK

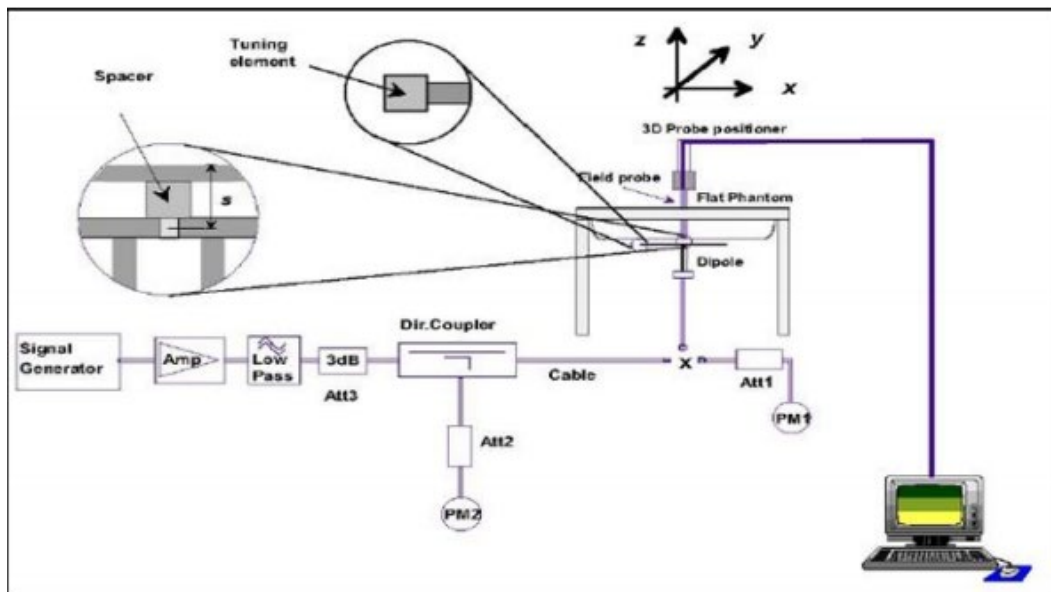
The system check is performed for verifying the accuracy of the complete measurement system and performance of the software. The system check is performed with tissue equivalent material according to IEC/IEEE 62209-1528 (described above). The following table shows system check results for all frequency bands and tissue liquids used during the tests.

System Check	Date	Frequency (MHz)	Targeted SAR-1g (W/kg)	Measured SAR-1g (W/kg)	normalized SAR-1g (W/kg)	Deviation (%)	Dipole S/N
Head	Jun. 05, 2026	2450	53.10	5.44	54.40	2.45	919

4.3 SYSTEM CHECK PROCEDURE

The system check is performed by using a system check dipole which is positioned parallel to the planar part of the phantom at the reference point. The distance of the dipole to the SAM phantom is determined by a plexiglass spacer. The dipole is connected to the signal source consisting of signal generator and amplifier via a directional coupler, N-connector cable and adaption to SMA. The forward power supplied to the system check antenna shall produce a psSAR of at least 0,4 W/kg. The 1 g or 10 g psSAR range is 0,4 W/kg to 10 W/kg.

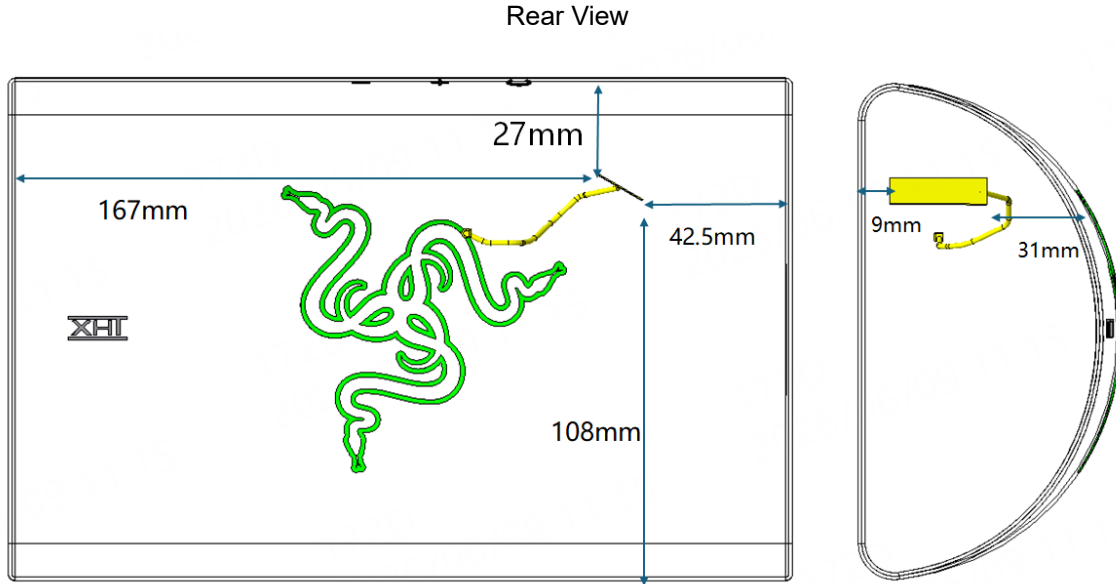
The power sensor is connected to the cable before the system check to measure the power at this point and do adjustments at the signal generator. At the outputs of the directional coupler both return loss as well as forward power are controlled during the system check to make sure that emitted power at the dipole is kept constant. This can also be checked by the power drift measurement after the test. System check results have to be equal or near the values determined during dipole calibration (target SAR in table above) with the relevant liquids and test system ($\pm 10\%$).



5. OPERATIONAL CONDITIONS DURING TEST

5.1 TEST POSITION

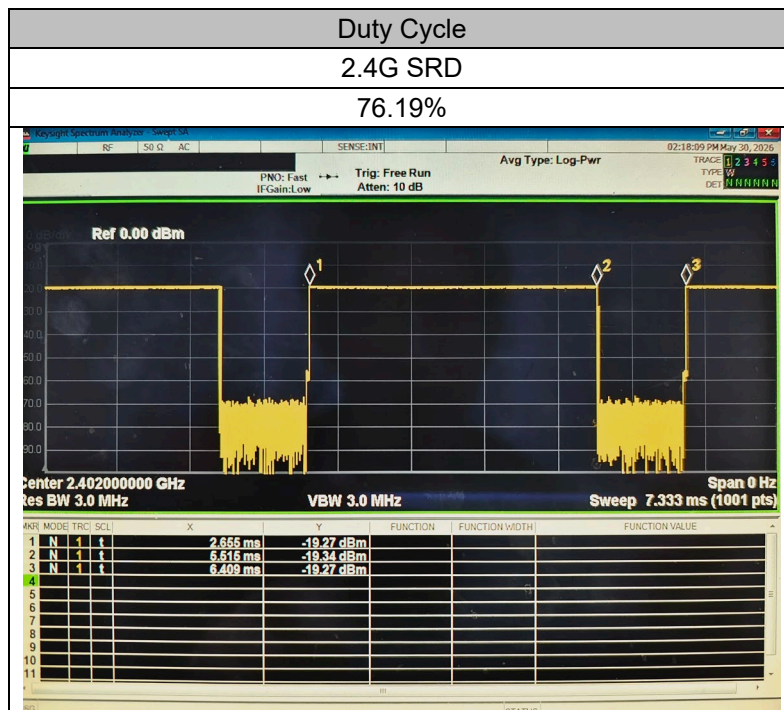
The location of the antenna inside EUT is as below:



There are tests on six sides at 0mm.

5.2 TEST CONFIGURATION

For 2.4G SRD SAR testing, 2.4G SRD engineering testing software installed on the DUT can provide continuous transmitting RF signal.



6. TEST RESULT

6.1 CONDUCTED POWER RESULTS

6.1.1 CONDUCTED POWER MEASUREMENTS OF 2.4G SRD

Mode	Average Conducted Power(dBm)		
	Frequency (MHz)	Max. Tune up	Conducted Power
SRD(2M)	2402	12.00	11.28
	2440	12.00	10.45
	2478	12.00	10.23

Note:

- 1) The Average conducted power of 2.4G SRD is measured with RMS detector.
- 2) The tested channel results are marks in bold.

6.2 SAR TEST RESULTS

General Notes:

- 1) Per KDB447498 D01, all measurement SAR results are scaled to the maximum tune-up tolerance limit to demonstrate compliant.
- 2) Per KDB447498 D01, 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. When the maximum output power variation across the required test channels is $> \frac{1}{2}$ dB, instead of the middle channel, the highest output power channel must be used.
- 3) Per KDB941225 D06, the DUT Dimension is bigger than 9 cm x 5 cm, so 10mm is chosen as the test separation distance for Hotspot mode. When the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.

WLAN Notes:

1. For exposure conditions with multiple test positions, such as handset operating next to the ear, devices with hotspot mode, 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 the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other (remaining) test positions. Otherwise, SAR is evaluated at the subsequent highest peak SAR position until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured.
2. Justification for test configurations for WLAN per KDB Publication 248227 for 2.4GHz WIFI single transmission chain operations, the highest measured maximum output power Channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4GHz 802.11g/n) was not required due to the maximum allowed powers and the highest reported DSSS SAR. See Section 7.1.4 for more information.

6.2.1 SAR MEASUREMENT RESULT

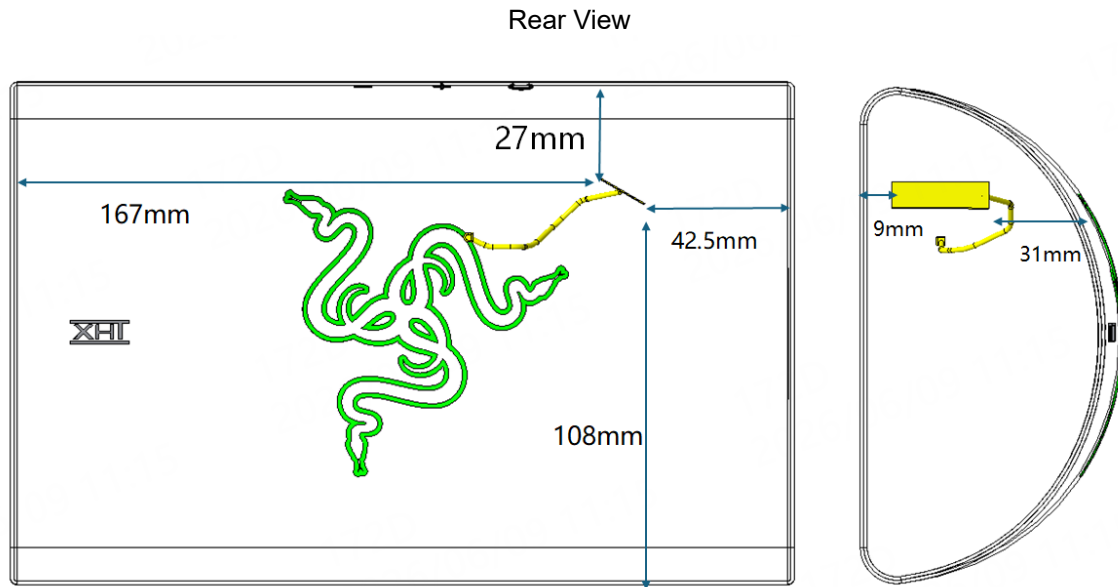
Test No.	Band	Mode	Frequency	Test Position	Separation Distance (mm)	Data Rate	Duty Cycle (%)	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
W01	2.4G	SRD_2M	2402MHz	Front Side	0	2M	76.19	12.00	11.28	-0.01	0.006	0.003	0.009
W02	2.4G	SRD_2M	2402MHz	Back Side	0	2M	76.19	12.00	11.28	0.01	0.020	0.011	0.030
W03	2.4G	SRD_2M	2402MHz	Left Side	0	2M	76.19	12.00	11.28	-0.04	0.007	0.004	0.010
W04	2.4G	SRD_2M	2402MHz	Right Side	0	2M	76.19	12.00	11.28	0	0.021	0.012	0.033
W05	2.4G	SRD_2M	2402MHz	Top Side	0	2M	76.19	12.00	11.28	0.08	0.042	0.024	0.066
W06	2.4G	SRD_2M	2402MHz	Bottom Side	0	2M	76.19	12.00	11.28	0.08	0.005	0.004	0.008
W07	2.4G	SRD_2M	2440MHz	Top Side	0	2M	76.19	12.00	10.45	-0.09	0.034	0.025	0.063
W08	2.4G	SRD_2M	2480MHz	Top Side	0	2M	76.19	12.00	10.23	0.07	0.029	0.018	0.058

Note: The value with boldface is the maximum SAR Value of each test band.

7 MULTIPLE TRANSMITTER EVALUATION

The following tables list information which is relevant for the decision if a simultaneous transmit evaluation is necessary according to FCC KDB447498 D04 Interim General RF Exposure Guidance v01.

The location of the antenna inside the EUT is shown as below:



Note: The EUT only has one antenna and does not have synchronous transmission function.

APPENDIX

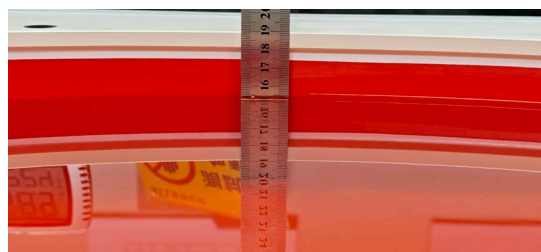
1. TEST LAYOUT

Specific Absorption Rate Test Layout



Liquid depth in the flat Phantom ($\geq 15\text{cm}$ depth)

Body_2300MHz-2700MHz_15.4cm



Appendix A. SAR Plots of System Verification

(Pls See BTL-FCC SAR-1-2603C310A_Appendix A.)

Appendix B. SAR Plots of SAR Measurement

(Pls See BTL-FCC SAR-1-2603C310A_Appendix B.)

Appendix C. Calibration Certificate

(Pls See BTL-FCC SAR-1-2603C310A_Appendix C.)

Appendix D. Photographs of the Test Set-Up

(Pls See BTL-FCC SAR-1-2603C310A_Appendix D.)

End of Test Report