



SAR TEST REPORT

Report No.: STS2211311H01

Issued for

RTX HONG KONG LTD

8/F Corporation Square 8 Lam Lok Street, Kowloon Bay,
Kowloon, Hong Kong

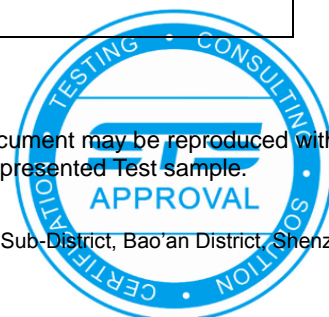
Product Name:	Wireless Mono Headset Wireless Stereo Headset Wireless Stereo ANC Headset
Brand Name:	RTX
Model Name:	RTX7254
Series Model:	RTX7251 RTX7252
FCC ID:	T7HHT7254
Test Standard:	ANSI/IEEE Std. C95.1
	FCC 47 CFR Part 2 (2.1093)
	IEEE 1528: 2013
Max. Report SAR (1g):	Head: 0.026 W/kg

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ShenZhen STS Test Services Co.,Ltd.

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Test Report Certification

Applicant's name : RTX HONG KONG LTD
 Address..... : 8/F Corporation Square 8 Lam Lok Street, Kowloon Bay, Kowloon, Hong Kong
Manufacture's Name : RTX HONG KONG LTD
 Address..... : 8/F Corporation Square 8 Lam Lok Street, Kowloon Bay, Kowloon, Hong Kong

Product description

Product name..... : Wireless Mono Headset
 Wireless Stereo Headset
 Wireless Stereo ANC Headset
 Brand name : RTX
 Model name : RTX7254
 Series Model..... : RTX7251
 RTX7252
Standards : ANSI/IEEE Std. C95.1-1992
 FCC 47 CFR Part 2 (2.1093)
 IEEE 1528: 2013

The device was tested by Shenzhen STS Test Services Co., Ltd. in accordance with the measurement methods and procedures specified in KDB 865664 The test results in this report apply only to the tested sample of the stated device/equipment. Other similar device/equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Date of Test

Date (s) of performance of tests..... : 13 Feb. 2023
 Date of Issue : 13 Feb. 2023
 Test Result..... : **Pass**

Testing Engineer : Shi fan-long
 (Shifan. Long)

Technical Manager : Sean She
 (Sean she)

Authorized Signatory : Bovey Yang
 (Bovey Yang)





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**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	13 Feb. 2023	STS2211311H01	ALL	Initial Issue





1. General Information

Environmental evaluation measurements of specific absorption rate (SAR) distributions in emulated human head and body tissues exposed to radio frequency (RF) radiation from wireless portable devices for compliance with the rules and regulations of the U.S. Federal Communications Commission (FCC).

1.1 EUT Description

Product Name	Wireless Mono Headset Wireless Stereo Headset Wireless Stereo ANC Headset		
Brand Name	RTX		
Model Name	RTX7254		
Series Model	RTX7251, RTX7252		
Model Difference	RTX 7251 is mono headset, RTX7252 is stereo headset, RTX7254 is stereo headset with ANC function. They share the same main PCB layout.		
Battery	Capacity: 600mAh		
Device Category	Portable		
Product stage	Production unit		
RF Exposure Environment	General Population / Uncontrolled		
Hardware Version	V8		
Software Version	V0099B0008		
Frequency Range	1921.536 MHz ~ 1928.448 MHz Bluetooth: 2402 MHz ~ 2480 MHz		
Max. Reported SAR(1g): (Limit:1.6W/kg)	Mode	Ant.	Head (W/kg)
	DECT-PP	1	0.019
		2	0.026
	Bluetooth	/	0.367
1-g Sum SAR			0.395
Operating Mode	DECT: GFSK Bluetooth: V4.2 + EDR (GFSK, $\pi/4$ DQPSK, 8DPSK) BLE: GFSK		
Antenna Specification	DECT: Ant.1: PCB Antenna, Ant.2: PCB Antenna BT: PCB Antenna		
Battery	Model: BP1729/A Brand: Tianmao DC 3.8V 600mAh 2.28Wh		
Hotspot Mode	Not Support		
DTM Mode	Not Support		
Note:	1. Bluetooth SAR was estimated 2. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power		



1.2 Test Environment

Ambient conditions in the SAR laboratory:

Items	Required
Temperature (°C)	18-25
Humidity (%RH)	30-70

1.3 Test Factory

ShenZhen STS Test Services Co.,Ltd.

A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration No.: 625569

IC Registration No.: 12108A

A2LA Certificate No.: 4338.01





2. Test Standards and Limits

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D04 v01	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting

(A). Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

(B). Limits for General Population/Uncontrolled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

NOTE: Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1 gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

Population/Uncontrolled Environments:

Are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

Occupational/Controlled Environments:

Are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure, (i.e. as a result of employment or occupation).

<p>NOTE</p> <p>GENERAL POPULATION/UNCONTROLLED EXPOSURE</p> <p>PARTIAL BODY LIMIT</p> <p>1.6 W/kg</p>

3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

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

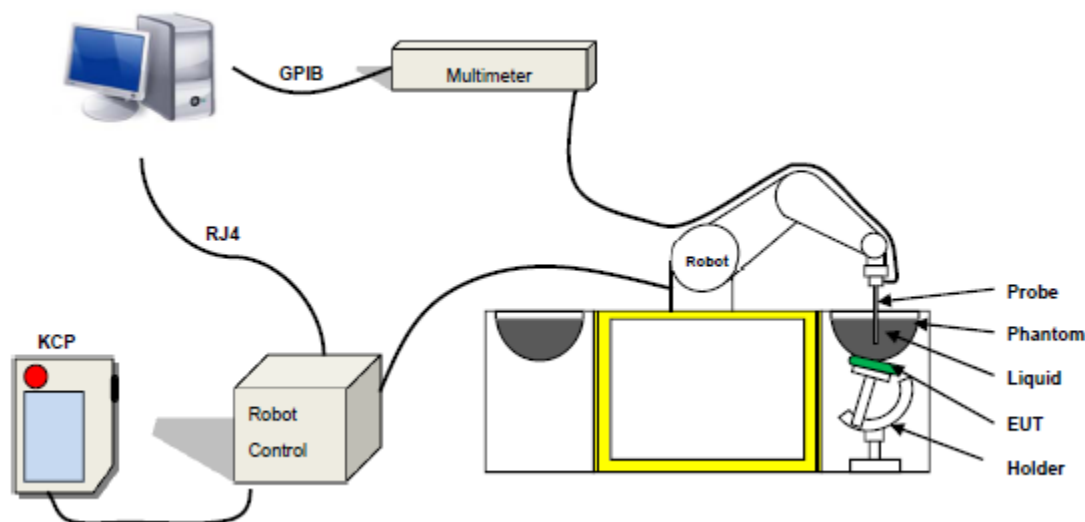
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

Where: σ is the conductivity of the tissue,
ρ is the mass density of the tissue and E is the RMS electrical field strength.

3.2 SAR System

MVG SAR System Diagram:



COMOSAR is a system that is able to determine the SAR distribution inside a phantom of human being according to different standards. The COMOSAR system consists of the following items:

- Main computer to control all the system
- 6 axis robot
- Data acquisition system
- Miniature E-field probe
- Phone holder
- Head simulating tissue

The following figure shows the system.



The EUT under test operating at the maximum power level is placed in the phone holder, under the phantom, which is filled with head simulating liquid. The E-Field probe measures the electric field inside the phantom. The Open SAR software computes the results to give a SAR value in a 1g or 10g mass.

3.2.1 Probe

For the measurements the Specific Dosimetric E-Field Probe SN 07/21 EPGO352 with following specifications is used

- Probe Length: 330 mm
- Length of Individual Dipoles: 2 mm
- Maximum external diameter: 8 mm
- Probe Tip External Diameter: 2.5 mm
- Distance between dipole/probe extremity: 1 mm
- Dynamic range: 0.01-100 W/kg
- Probe linearity: 3%
- Axial Isotropy: < 0.10 dB
- Spherical Isotropy: < 0.10 dB
- Calibration range: 150 MHz to 6 GHz for head & body simulating liquid.
- Angle between probe axis (evaluation axis) and surface normal line: less than 30°



Figure 1-MVG COMOSAR Dosimetric E field Dipole

3.2.2 Phantom

For the measurements the Specific Anthropomorphic Mannequin (SAM) defined by the IEEE SCC-34/SC2 group is used. The phantom is a polyurethane shell integrated in a wooden table. The thickness of the phantom amounts to 2mm +/- 0.2mm. It enables the dosimetric evaluation of left and right phone usage and includes an additional flat phantom part for the simplified performance check. The phantom set-up includes a cover, which prevents the evaporation of the liquid.

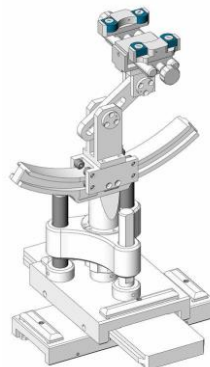


Figure-SN 32/14 SAM115



Figure-SN 21/21 ELLI48

3.2.3 Device Holder



The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5 mm distance, a positioning uncertainty of ± 0.5 mm would produce a SAR uncertainty of ± 20 %. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.



4. Tissue Simulating Liquids

4.1 Simulating Liquids Parameter Check

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in P1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in P1528.

Head Tissue

Frequency (MHz)	cellulose	DGBE	HEC	NaCl	Preventol	Sugar	X100	Water	Conductivity	Permittivity
	%	%	%	%	%	%	%	%	σ	ϵ_r
750	0.2	/	/	1.4	0.2	57.0	/	41.1	0.89	41.9
835	0.2	/	/	1.4	0.2	57.9	/	40.3	0.90	41.5
900	0.2	/	/	1.4	0.2	57.9	/	40.3	0.97	41.5
1800	/	44.5	/	0.3	/	/	30.45	55.2	1.4	40.0
1900	/	44.5	/	0.3	/	/	30.45	55.2	1.4	40.0
2000	/	44.5	/	0.3	/	/	/	55.2	1.4	40.0
2450	/	44.9	/	0.1	/	/	/	55.0	1.80	39.2
2600	/	45.0	/	0.1	/	/	/	54.9	1.96	39.0

Body Tissue

Frequency (MHz)	cellulose	DGBE	HEC	NaCl	Preventol	Sugar	X100	Water	Conductivity	Permittivity
	%	%	%	%	%	%	%	%	σ	ϵ_r
750	0.2	/	/	0.9	0.1	47.2	/	51.7	0.96	55.5
835	0.2	/	/	0.9	0.1	48.2	/	50.8	0.97	55.2
900	0.2	/	/	0.9	0.1	48.2	/	50.8	1.05	55.0
1800	/	29.4	/	0.4	/	/	30.45	70.2	1.52	53.3
1900	/	29.4	/	0.4	/	/	30.45	70.2	1.52	53.3
2000	/	29.4	/	0.4	/	/	/	70.2	1.52	53.3
2450	/	31.3	/	0.1	/	/	/	68.6	1.95	52.7
2600	/	31.7	/	0.1	/	/	/	68.2	2.16	52.3

Tissue dielectric parameters for head and body phantoms				
Frequency	ϵ_r		σ	
	S/m		S/m	
	Head	Body	Head	Body
300	45.3	58.2	0.87	0.92
450	43.5	56.7	0.87	0.94
900	41.5	55.0	0.97	1.05
1450	40.5	54.0	1.20	1.30
1800	40.0	53.3	1.40	1.52
2450	39.2	52.7	1.80	1.95
3000	38.5	52.0	2.40	2.73
5800	35.3	48.2	5.27	6.00

**LIQUID MEASUREMENT RESULTS**

Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency (MHz)	Temp. [°C]					
2023-02-13	22.0	46	1900	21.7	Permittivity	40.00	40.58	1.45	±5
					Conductivity	1.40	1.38	-1.43	±5
2023-02-13	22.1	46	1921.536	21.8	Permittivity	40.00	39.96	-0.10	±5
					Conductivity	1.40	1.45	3.57	±5
2023-02-13	22.2	46	1924.992	21.8	Permittivity	40.00	40.63	1.58	±5
					Conductivity	1.40	1.44	2.86	±5
2023-02-13	22.3	46	1928.448	22.0	Permittivity	40.00	40.90	2.25	±5
					Conductivity	1.40	1.42	1.43	±5

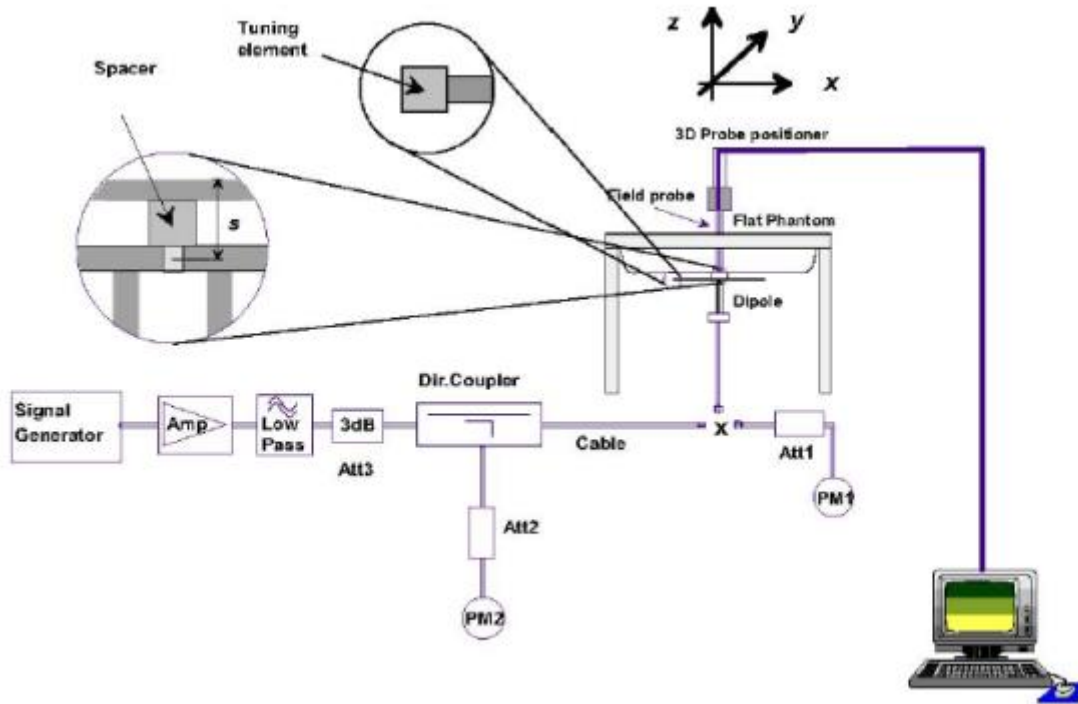


5. SAR System Validation

5.1 Validation System

Each MVG system is equipped with one or more system validation kits. These units, together with the predefined measurement procedures within the MVG software, enable the user to conduct the system performance check and system validation. System kit includes a dipole, and dipole device holder.

The system check verifies that the system operates within its specifications. It's performed daily or before every SAR measurement. The system check uses normal SAR measurement in the flat section of the phantom with a matched dipole at a specified distance. The system validation setup is shown as below.



5.2 Validation Result

Comparing to the original SAR value provided by MVG, the validation data should be within its specification of 10 %.

Date	Freq.	Power	Tested Value	Normalized SAR	Target SAR	Tolerance	Limit
	(MHz)	(mW)	(W/Kg)	(W/kg)	1g(W/kg)	(%)	(%)
2023-02-13	1900	100	4.019	40.19	39.84	0.88	10

Note:

1. The tolerance limit of System validation $\pm 10\%$.
2. The dipole input power (forward power) was 100 mW.
3. The results are normalized to 1 W input power.



6. SAR Evaluation Procedures

The procedure for assessing the average SAR value consists of the following steps:

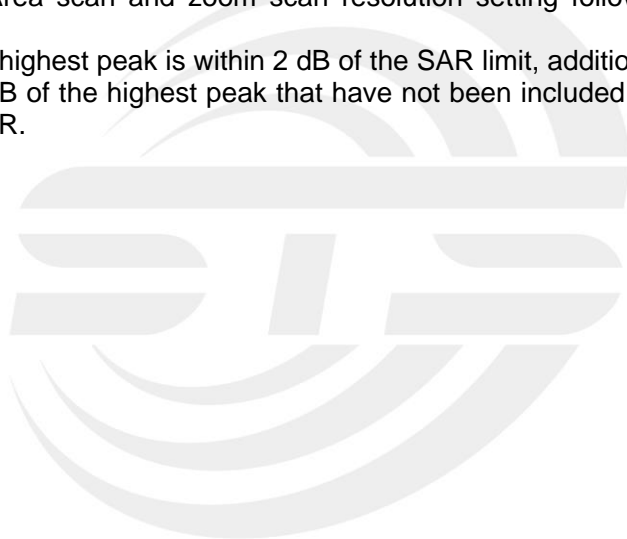
The following steps are used for each test position

- Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface
- Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
- Measurement of the SAR distribution with a grid of 8 to 16mm * 8 to 16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.
- Around this point, a cube of 30 * 30 * 30 mm or 32 * 32 * 32 mm is assessed by measuring 5 or 8 * 5 or 8*4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

Area Scan& Zoom Scan:

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR -distribution over 10 g. Area scan and zoom scan resolution setting follows KDB 865664 D01v01r01 quoted below.

When the 1-g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

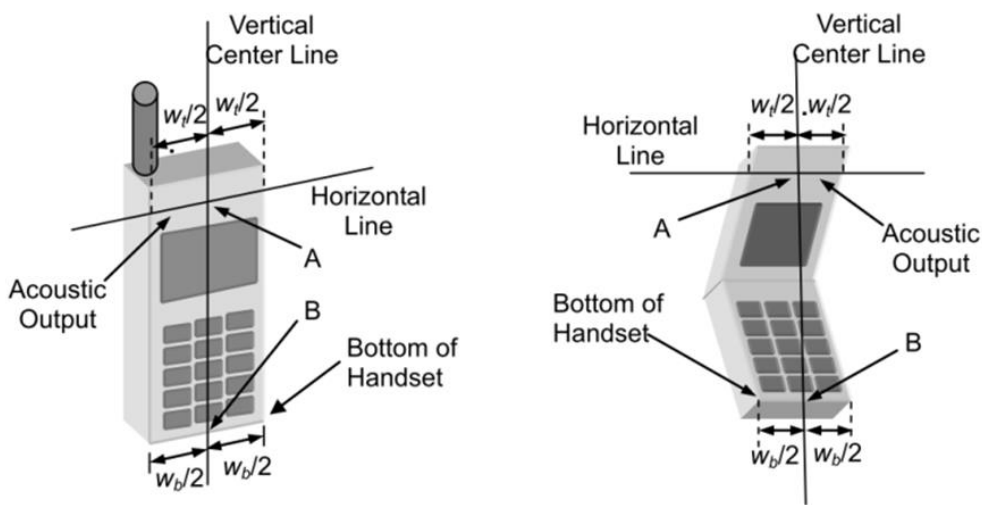


7. EUT Test Position

This EUT was tested in Right Cheek, Right Titled, Left Cheek, Left Titled, Front Face and Rear Face.

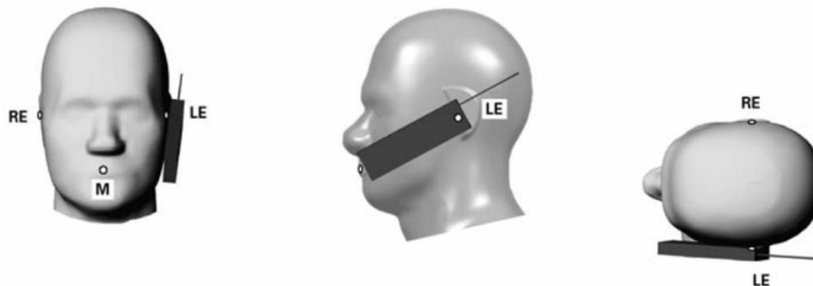
7.1 Define Two Imaginary Lines On The Handset

- (1) The vertical centerline passes through two points on the front side of the handset the midpoint of the width w_t of the handset at the level of the acoustic output, and the midpoint of the width w_b of the handset.
- (2) The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.
- (3) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.



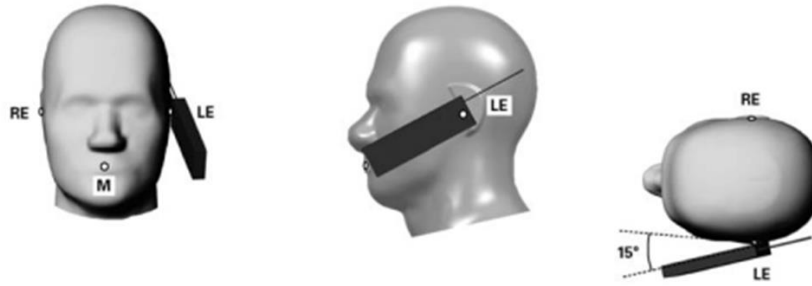
Cheek Position

- 1) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.
- 2) To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost



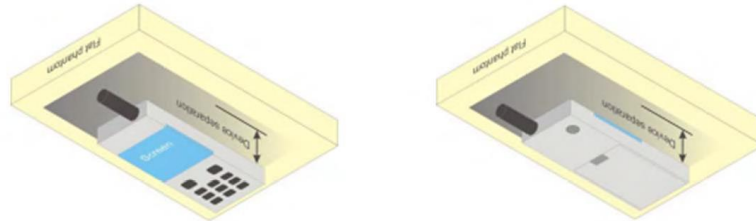
Title Position

- (1) To position the device in the “cheek” position described above.
- (2) While maintaining the device in the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until with the ear is lost.



Body-worn Position Conditions:

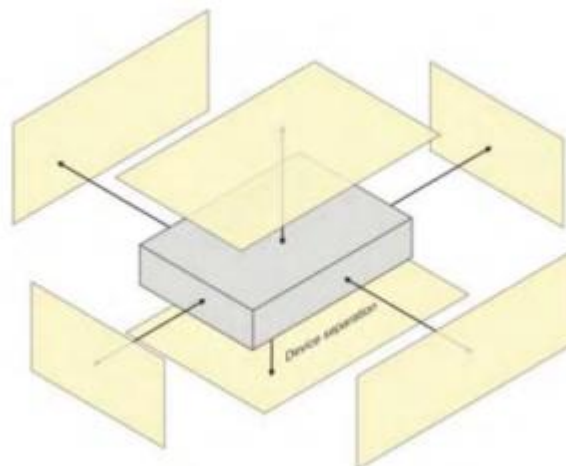
Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB Publication 447498 D01 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. When the same wireless transmission configuration is used for testing body-worn accessory and hotspot mode SAR, respectively, in voice and data mode, SAR results for the most conservative *test separation distance* configuration may be used to support both SAR conditions. When the *reported SAR* for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest *reported SAR* configuration for that wireless mode and frequency band should be repeated for the body-worn accessory with a headset attached to the handset.



7.2 Hotspot mode exposure position condition

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing function, the relevant hand and body exposure condition are tested according to the hotspot SAR procedures in KDB 941225. A test separation distance of 10 mm is required between the phantom and all surface and edges with a transmitting antenna located within 25 mm from that surface or edge.

When form factor of a handset is smaller than 9cm x 5cm, a test separation distance of 5mm (instead of 10mm) is required for testing hotspot mode. When the separate distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, in the same wireless mode and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration(surface).





8. Uncertainty

8.1 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in IEEE 1528: 2013. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Uncertainty Component	Tol (+-%)	Prob. Dist.	Div.	Ci (1g)	Ci (10g)	1g Ui (+-%)	10g Ui (+-%)	vi
Measurement System								
Probe calibration	5.72	N	1	1	1	5.72	5.72	∞
Axial Isotropy	0.18	R	$\sqrt{3}$	$\sqrt{0.5}$	$\sqrt{0.5}$	0.07	0.07	∞
Hemispherical Isotropy	1.04	R	$\sqrt{3}$	$\sqrt{0.5}$	$\sqrt{0.5}$	0.42	0.42	∞
Boundary effect	0.8	R	$\sqrt{3}$	1	1	0.46	0.46	∞
Linearity	1.25	R	$\sqrt{3}$	1	1	0.72	0.72	∞
System detection limits	1.20	R	$\sqrt{3}$	1	1	0.69	0.69	∞
Modulation response	3.42	R	$\sqrt{3}$	1	1	3.42	3.42	∞
Readout Electronics	0.26	N	1	1	1	0.26	0.26	∞
Response Time	0.17	R	$\sqrt{3}$	1	1	0.10	0.10	∞
Integration Time	1.43	R	$\sqrt{3}$	1	1	0.83	0.83	∞
RF ambient conditions-Noise	3.51	R	$\sqrt{3}$	1	1	2.03	2.03	∞
RF ambient conditions-reflections	3.15	R	$\sqrt{3}$	1	1	1.82	1.82	∞
Probe positioner mechanical tolerance	1.2	R	$\sqrt{3}$	1	1	0.69	0.69	∞
Probe positioning with respect to phantom shell	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
Post-processing	2.1	R	$\sqrt{3}$	1	1	1.21	1.21	∞
Test sample Related								
Test sample positioning	3.1	N	1	1	1	3.10	3.10	∞
Device holder uncertainty	3.8	N	1	1	1	3.80	3.80	∞
SAR drift measurement	4.5	R	$\sqrt{3}$	1	1	2.60	2.60	∞
SAR scaling	1.8	R	$\sqrt{3}$	1	1	1.04	1.04	∞
Phantom and tissue parameters								
Phantom uncertainty (shape and thickness uncertainty)	3.7	R	$\sqrt{3}$	1	1	2.14	2.14	∞
Uncertainty in SAR correction for deviations in permittivity and conductivity	2.1	N	1	1	0.84	2.10	1.76	∞
Liquid conductivity (temperature uncertainty)	2.4	R	$\sqrt{3}$	0.78	0.71	1.87	1.70	∞
Liquid conductivity (measured)	4.1	N	1	0.78	0.71	0.94	1.07	M
Liquid permittivity (temperature uncertainty)	2.7	R	$\sqrt{3}$	0.23	0.26	2.11	1.92	∞
Liquid permittivity (measured)	4.8	N	1	0.23	0.26	1.10	1.25	M
Combined Standard Uncertainty		RSS				10.37	10.27	
Expanded Uncertainty (95% Confidence interval)		K=2				20.74	20.53	



9. Conducted Power Measurement

9.1 Test Result

ANT 1:

Mode	Carrier Channel	Frequency (MHz)	Measured Peak Output Power (dBm)
PP32Z	4	1921.536	18.74
	2	1924.992	18.58
	0	1928.448	18.45
PP64Z	4	1921.536	18.52
	2	1924.992	18.36
	0	1928.448	18.20

ANT2:

Mode	Carrier Channel	Frequency (MHz)	Measured Peak Output Power (dBm)
PP32Z	4	1921.536	19.09
	2	1924.992	18.97
	0	1928.448	18.88
PP64Z	4	1921.536	18.91
	2	1924.992	18.82
	0	1928.448	18.68

Bluetooth

Mode	Channel Number	Frequency (MHz)	Average Power (dBm)
GFSK(1Mbps)	0	2402	-8.72
	39	2441	-3.83
	78	2480	-4.56
$\pi/4$ -DQPSK(2Mbps)	0	2402	-14.09
	39	2441	-8.98
	78	2480	-9.77
8DPSK(3Mbps)	0	2402	-15.83
	39	2441	-10.59
	78	2480	-11.28

**BLE**

Mode	Channel Number	Frequency (MHz)	Average Power (dBm)
GFSK(1Mbps)	0	2402	-10.99
	19	2440	-10.78
	39	2480	-10.64





9.2 SAR Test Exclusions Applied

Standalone SAR test exclusion applies 447498 D04 Interim General Radio Frequency Exposure Guidelines v01. The available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

d = the separation distance (cm);

Function	Fre. (GHz)	Separation distance (cm)	Max Turn up power (dBm)	Max Turn up power (mW)	Pth (mW)
BT	2.441	0.5	-1	0.63	2.75

Note: The Maximum power is less than the Pth, complies with the exemption requirements.

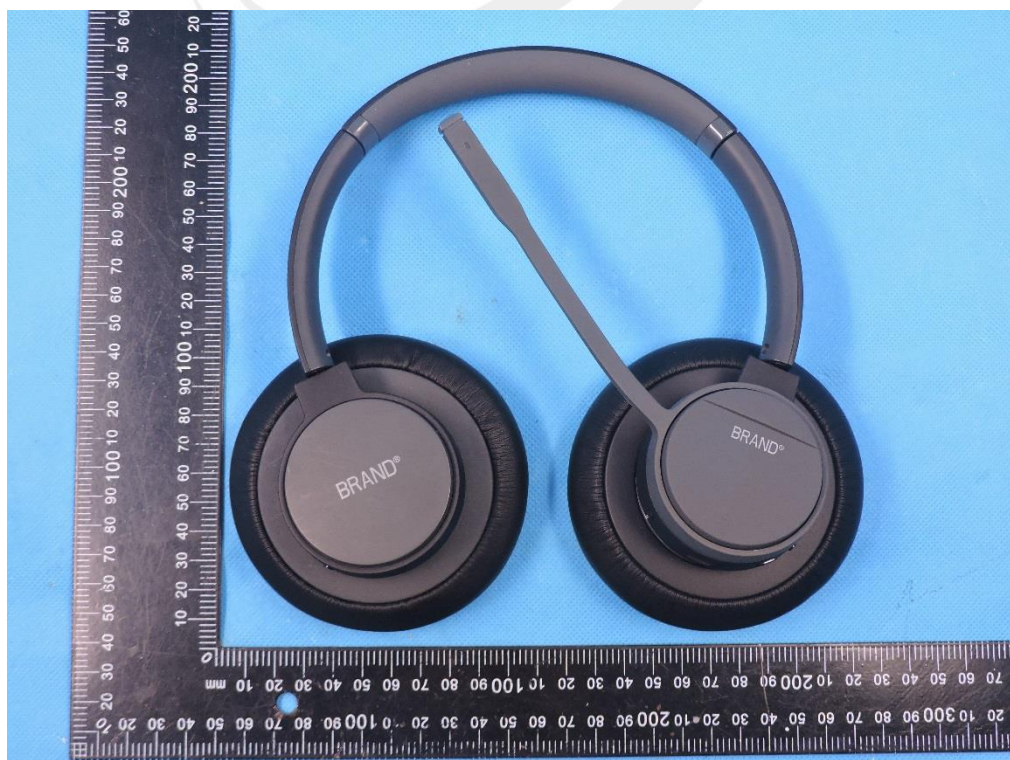
10. EUT And Test Setup Photo

10.1 EUT Photo

Front side



Back side



Top side



Bottom side



Left side

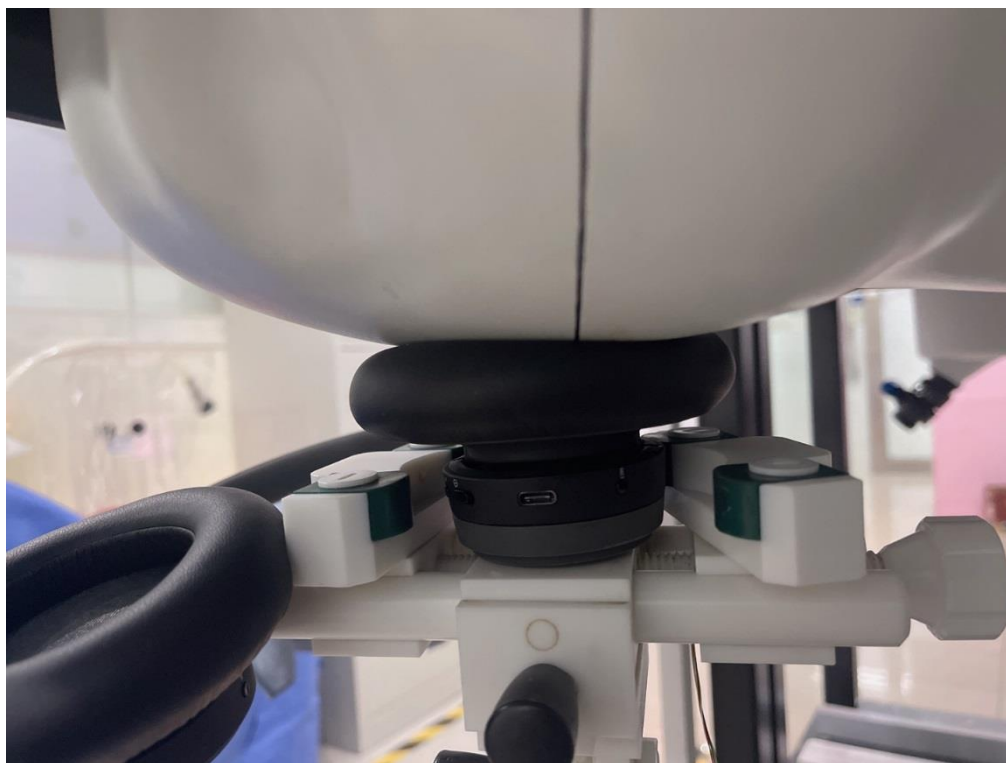


Right side

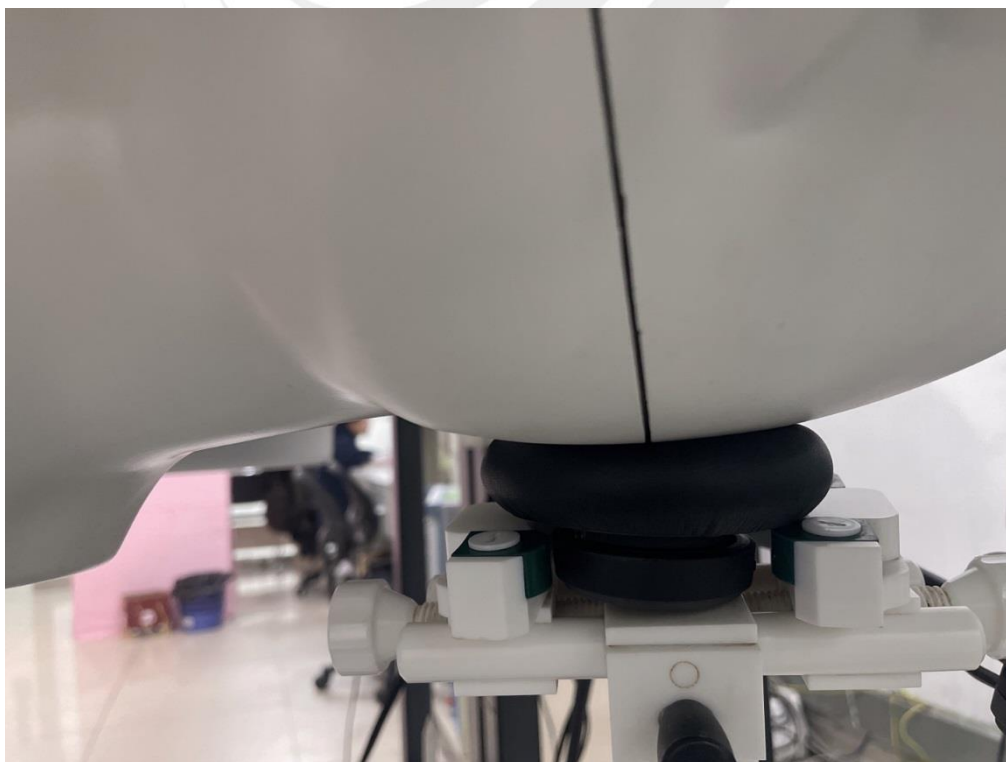


10.2 Setup Photo

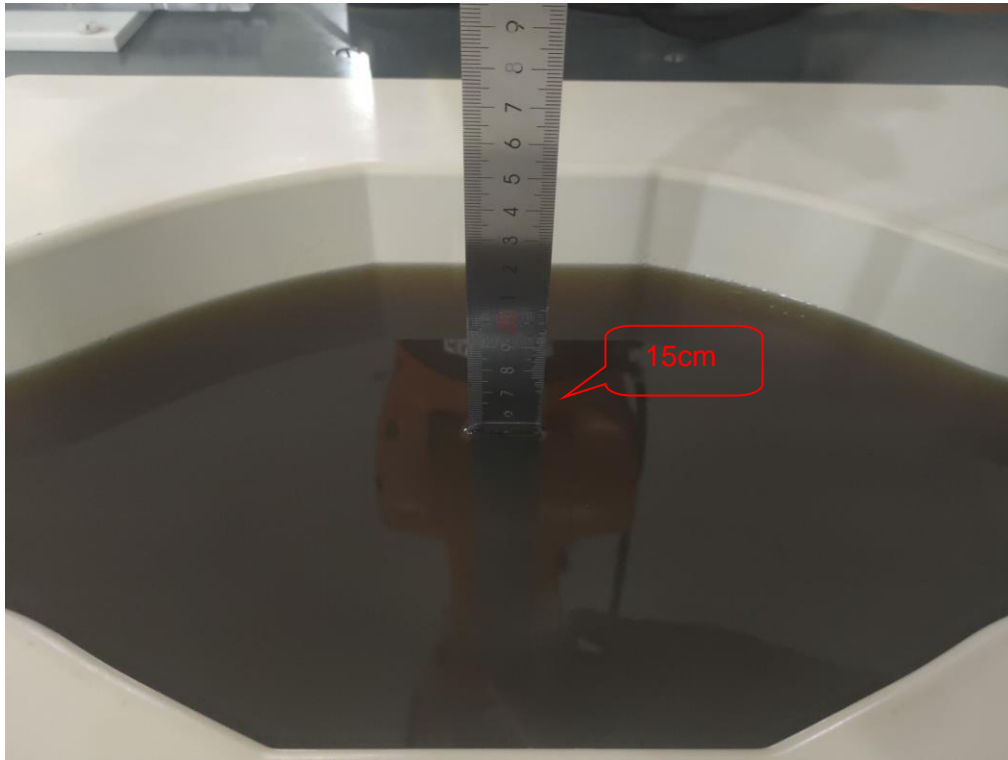
Right Touch



Left Touch



Liquid depth (15 cm)





11. SAR Result Summary

11.1 Head SAR

ANT 1

Band	Mode	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
DECT-PP	PP32Z	Right Cheek	1921.536	0.002	3.23	19	18.74	0.002	-
		Left Cheek	1921.536	0.018	1.80	19	18.74	0.019	1

ANT 2

Band	Mode	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
DECT-PP	PP32Z	Right Cheek	1921.536	0.002	0.46	20	19.09	0.002	-
		Left Cheek	1921.536	0.021	3.89	20	19.09	0.026	2
		Left Cheek	1924.992	0.018	1.00	20	18.97	0.023	/
		Left Cheek	1928.448	0.017	3.42	20	18.88	0.022	/

Note:

1. The test separation of all above table is 10mm.
2. Per KDB 447498 D04, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For WWAN: Scaled SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor

**Simultaneous Multi-band Transmission Evaluation:**

Application Simultaneous Transmission information:

Position	Simultaneous State
Head	1. DECT-PP + Bluetooth

NOTE:

1. For simultaneous transmission at head exposure position, 2 transmitters simultaneous transmission was the worst state.
2. If the test separation distance is <5mm, 5mm is used for excluded SAR calculation.
3. KDB 447498 Appendix E, when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

$$SAR_{est} = 1.6 \cdot P_{ant} / P_{th} \text{ [W/kg]}$$

P_{ant} is maximum time-averaged power or effective radiated power (ERP), whichever is greater, and P_{th} is defined in Formula KDB 447498 (B.2).

Estimated SAR		Antenna to user(cm)	P_{ant}	P_{th}	Stand Alone SAR(1g) [W/kg]
Bluetooth	Head	≤0.5	1.68	2.75	0.367

Simultaneous Mode	Position	Mode	Max. 1-g SAR	1-g Sum SAR
			(W/kg)	(W/kg)
GSM + Bluetooth	Body	DECT	0.028	0.395
		Bluetooth	0.367	

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna.

When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR-1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR-1g 1.6 W/kg), SAR test exclusion is determined by the SPLSR.



12. Equipment List

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
1900MHz Dipole	MVG	SID1900	SN 30/14 DIP1G900-333	2020.07.14	2023.07.13
E-Field Probe	MVG	SSE2	SN 07/21 EPMO352	2022.02.28	2023.02.27
Dielectric Probe Kit	MVG	SCLMP	SN 32/14 OCPG67	2022.11.15	2023.11.14
Antenna	MVG	ANTA3	SN 07/13 ZNTA52	N/A	N/A
Phantom1	MVG	SAM	SN 32/14 SAM115	N/A	N/A
Phantom3	MVG	SAM	SN 21/21 ELLI48	N/A	N/A
Phone holder	MVG	N/A	SN 32/14 MSH97	N/A	N/A
Laptop holder	MVG	N/A	SN 32/14 LSH29	N/A	N/A
Attenuator	Agilent	99899	DC-18GHz	N/A	N/A
Directional coupler	Narda	4226-20	3305	N/A	N/A
Network Analyzer	Agilent	8753ES	US38432810	2022.09.28	2023.09.27
Multi Meter	Keithley	Multi Meter 2000	4050073	2022.09.29	2023.09.28
Signal Generator	Agilent	N5182A	MY50140530	2022.09.28	2023.09.27
Wireless Communication Test Set	Agilent	8960-E5515C	MY48360751	2022.09.28	2023.09.27
Wireless Communication Test Set	R&S	CMW500	156324	2022.09.29	2023.09.28
Power Amplifier	DESAY	ZHL-42W	9638	2022.10.08	2023.10.07
Power Meter	R&S	NRP	100510	2022.09.28	2023.09.27
Power Sensor	R&S	NRP-Z11	101919	2022.09.28	2023.09.27
Power Sensor	Keysight	U2021XA	MY56280002	2022.09.29	2023.09.28
Temperature hygrometer	SuWei	SW-108	N/A	2022.09.30	2023.09.29
Thermograph	Elitech	RC-4	S/N EF7176501537	2022.09.30	2023.09.29
Network Analyzer	Agilent	8753ES	US38432810	2022.09.28	2023.09.27



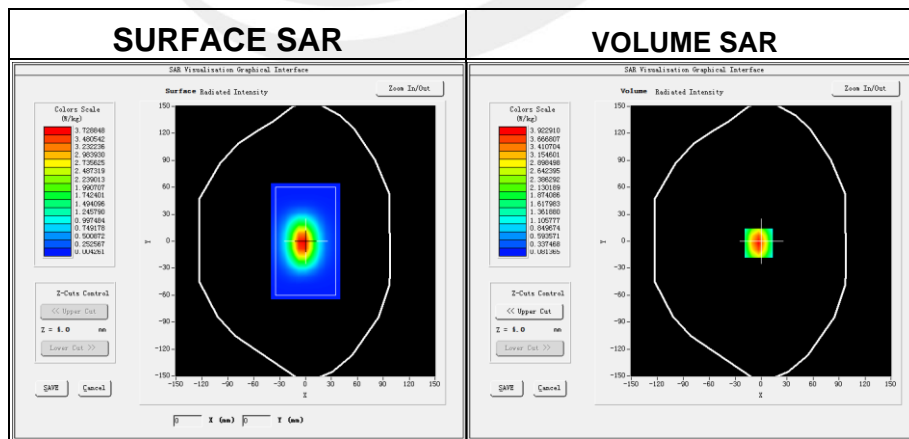
Appendix A. System Validation Plots

System Performance Check Data (1900MHz Head)

Type: Phone measurement (Complete)
 Area scan resolution: dx=8mm, dy=8mm
 Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm
 Date of measurement: 2023-02-13

Experimental conditions.

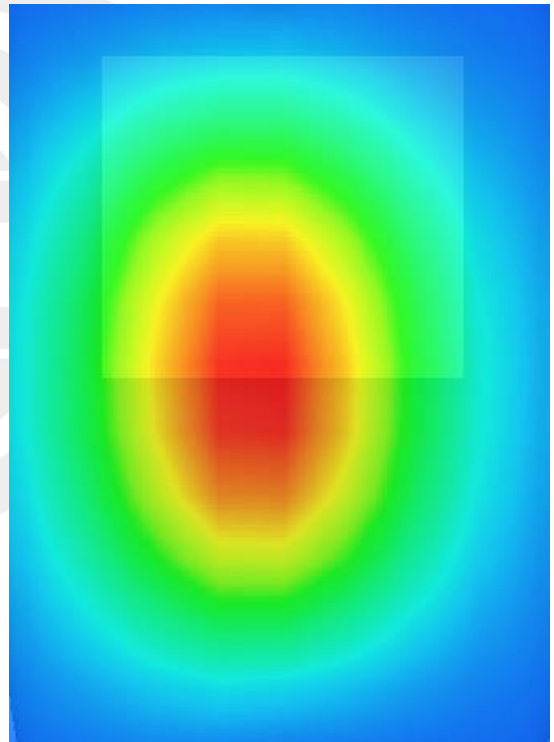
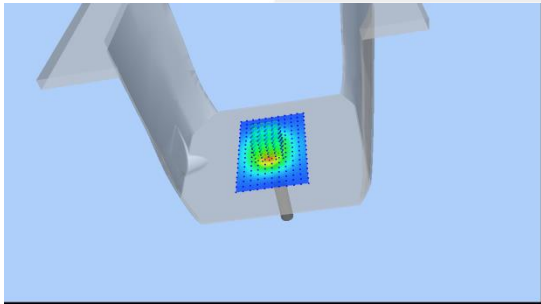
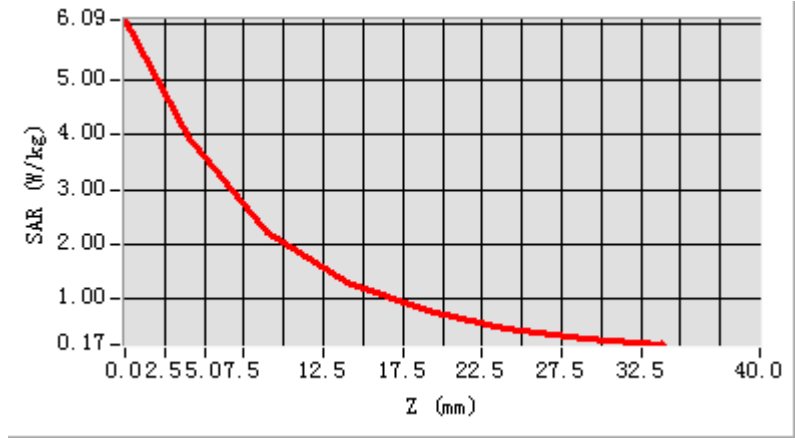
Phantom	Validation plane
Device Position	-
Band	1900MHz
Channels	-
Signal	CW
Frequency (MHz)	1900MHz
Relative permittivity	40.58
Conductivity (S/m)	1.38
Power drift (%)	0.88
Probe	SN 07/21 EPGO352
ConvF:	1.78
Crest factor:	1:1



Maximum location: X=-3.00, Y=-2.00

SAR 10g (W/Kg)	2.031099
SAR 1g (W/Kg)	4.019276

Z Axis Scan



Appendix B. SAR Test Plots

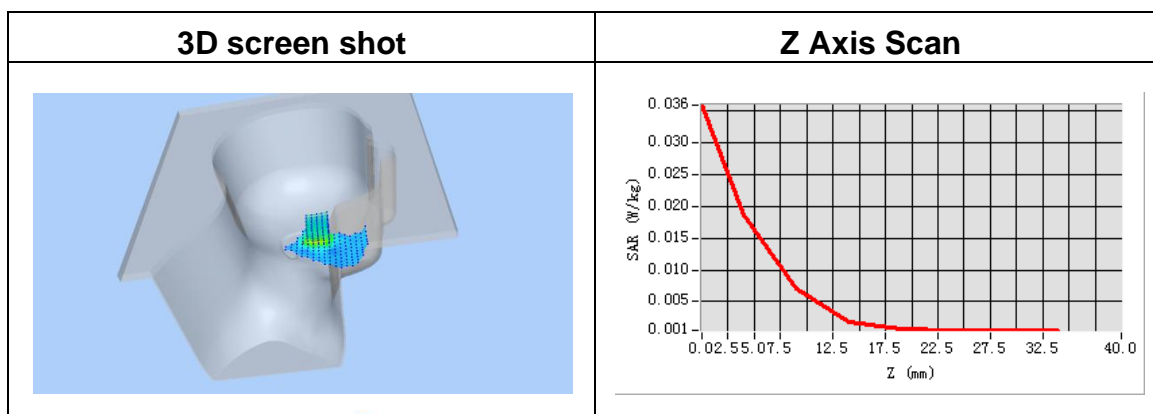
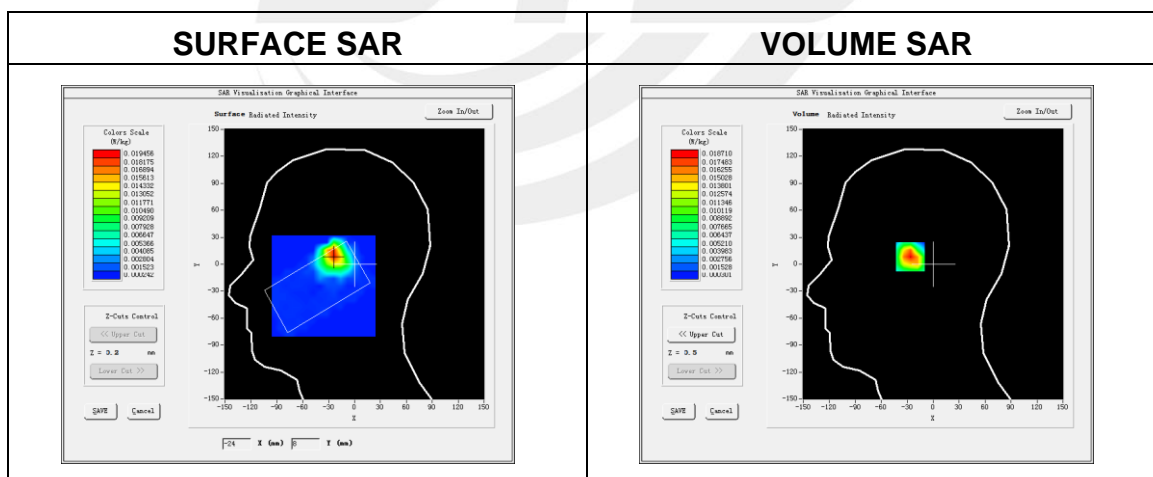
Plot 1: DUT: Wireless Stereo ANC Headset; EUT Model: RTX7254

Test Date	2023-02-13
Probe	SN 07/21 EPGO352
ConvF	1.78
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Left Cheek
Device Position	Cheek
Channels	4
Antenna	1
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1921.536
Relative permittivity (real part)	39.96
Conductivity (S/m)	1.45

Maximum location: X=-24.00, Y=10.00

SAR Peak: 0.04 W/kg

SAR 10g (W/Kg)	0.007500
SAR 1g (W/Kg)	0.018208



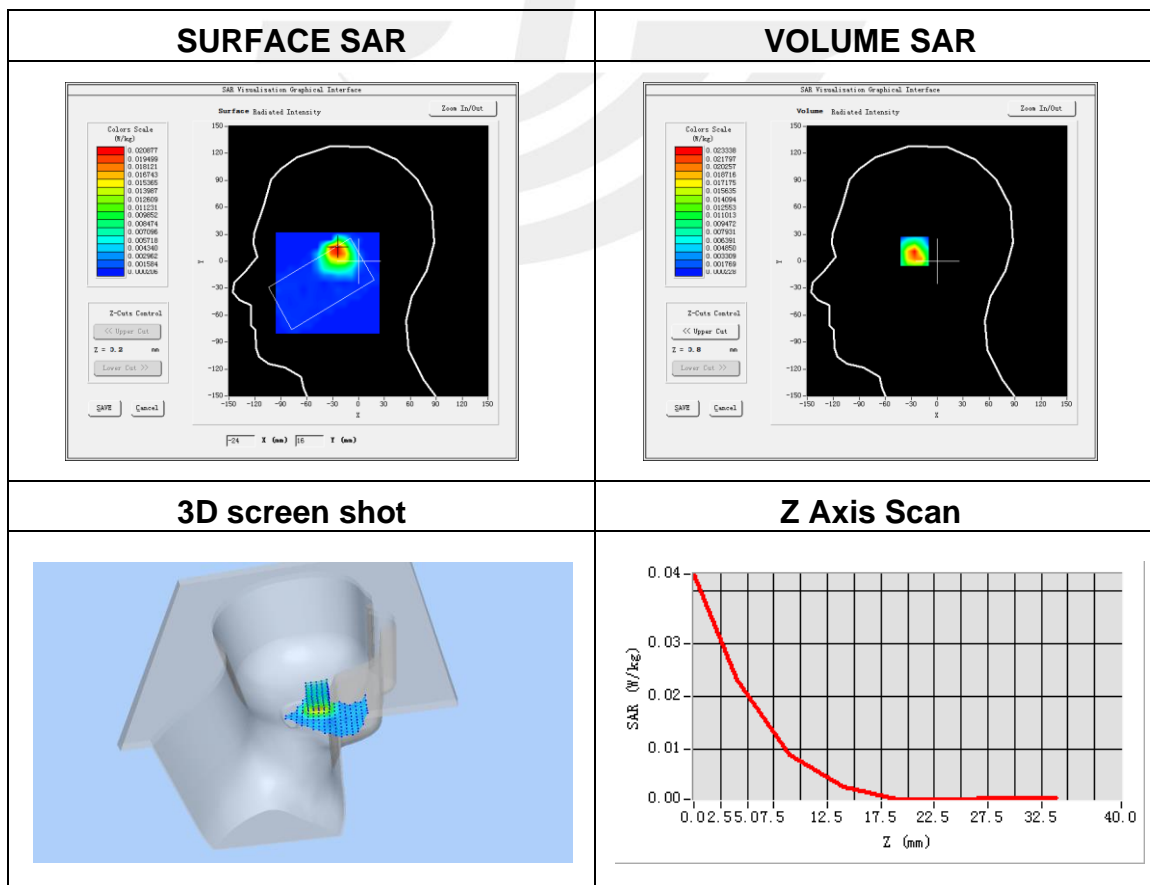
Plot 2: DUT: Wireless Stereo ANC Headset; EUT Model: RTX7254

Test Date	2023-02-13
Probe	SN 07/21 EPGO352
ConvF	1.78
Area Scan	dx=8mm, dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mm, dy=8mm, dz=5mm, Complete/ndx=8mm, dy=8mm, h= 5.00 mm
Phantom	Left Cheek
Device Position	Cheek
Channels	4
Antenna	2
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1921.536
Relative permittivity (real part)	39.96
Conductivity (S/m)	1.45

Maximum location: X=-25.00, Y=14.00

SAR Peak: 0.04 W/kg

SAR 10g (W/Kg)	0.007524
SAR 1g (W/Kg)	0.021025





Appendix C. Probe Calibration And Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※END OF THE REPORT※※※※

