No.: GJWSZ2023-0297

TEST REPORT

NAME OF SAMPLE	:	Holding a walkie-talkie
CLIENT	:	Xiaowei Communication Technology (Shenzhen) Co., Ltd.
CLASSIFICATION OF TEST	:	SAR
FCC ID	:	2BAS7-G1PRO
Max. SAR (10g):	:	Face up:0.597W/kg
		Body tuoch:1.366W/kg

CVC Testing Technology (Shenzhen) Co., Ltd.

Applicant	**Name :** Xiaowei Communication Technology (Shenzhen) Co., Ltd. **Address :** Room 1312, Building 1, Wanjunhui Business Apartment, Xixiang, Baoan, Shenzhen
Manufacturer	**Name :** Xiaowei Communication Technology (Shenzhen) Co., Ltd. **Address :** Room 1312, Building 1, Wanjunhui Business Apartment, Xixiang, Baoan, Shenzhen
Equipment Under Test	**Name :** Holding a walkie-talkie **Model/Type:** G1PRO **Trade mark :** GOWEI **SerialNO.:** G2PRO **Sampe NO.:** N/A

Date of Receipt.	2023.10.16	Date of Testing	2023.10.23

Test Specification	**Test Result**
ANSI/IEEE Std. C95.1; FCC 47 CFR Part 2 (2.1093); IEEE 1528: 2013	Pass

Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied. **Seal of CVC** **Issue Date: 2023.10.30**

Tested by:	Tested by:	Approved by:
Liang Jiatong	Huang Meng	Dong Sanbi
Name Signature	Name Signature	Name Signature

Other Aspects: NONE.

Abbreviations: Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
GJWSZ2023-0297	Original release	2023.10.30

1 GENERAL INFORMATION

1.1 GENERAL PRODUCT INFORMATION

PRODUCT	Holding a walkie-talkie			
BRAND	GOWEI			
MODEL	G1PRO			
ADDITIONAL MODEL	G2PRO			
MODULATION MODE	FM			
OPERATING FREQUENCY	462.5625-462.7125MHz 467.5625-467.7125MHz 462.5500-462.7250MHz			
Battery	Rated Voltage: 3.7V			
ANTENNA TYPE (Remark 4)	Spring Antenna			
Max. Reported SAR(1g): (Limit:1.6W/kg)	Equipment Class	Frequency Band	Face Up (With 25mm separation) (W/ kg)	Back Touch (W/ kg)
	FRF	462.5625-462.7125MHz	0.597	1.366
	FRF	467.5625-467.7125MHz	0.475	1.023
	FRF	462.5500-462.7250MHz	0.585	1.232
FCC Equipment Class	Part 95 Family Radio Face Held Transmitter (FRF)			

Remark:

1. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, CVC is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
3. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power
4. This is provided by the manufacturer. The laboratory is not responsible for technical data provided by the customer

1.2 TEST Environment

Ambient conditions in the SAR laboratory:

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

1.3 TEST Location

The tests and measurements refer to this report were performed by EMC testing Lab. of CVC Testing Technology (Shenzhen) Co., Ltd.

Address: No. No. 1301, Guanguang Road, Xinlan Community, Guanlan Street, Longhua District,Shenzhen City, Guangdong Province, People's Republic of China
Post Code：518110 Tel：0755-23763060-8805
FAX：0755-23763060 E-mail：sz-kf@cvc.org.cn

1.4 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 D01 v06	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 643646 D01 v01r033	SAR Test Reduction Considerations for Occupational PTT Radios

(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).

NOTE

GENERAL POPULATION/UNCONTROLLED EXPOSURE

PARTIAL BODY LIMIT

1.6 W/kg

2 SAR Measurement System

2.1 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:

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

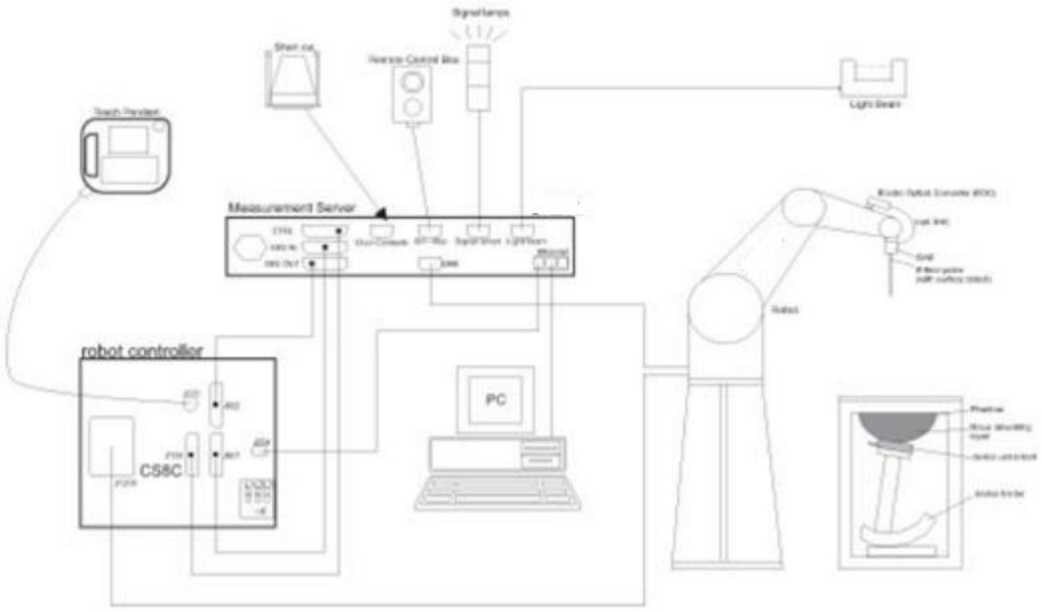
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

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

2.2 SAR System

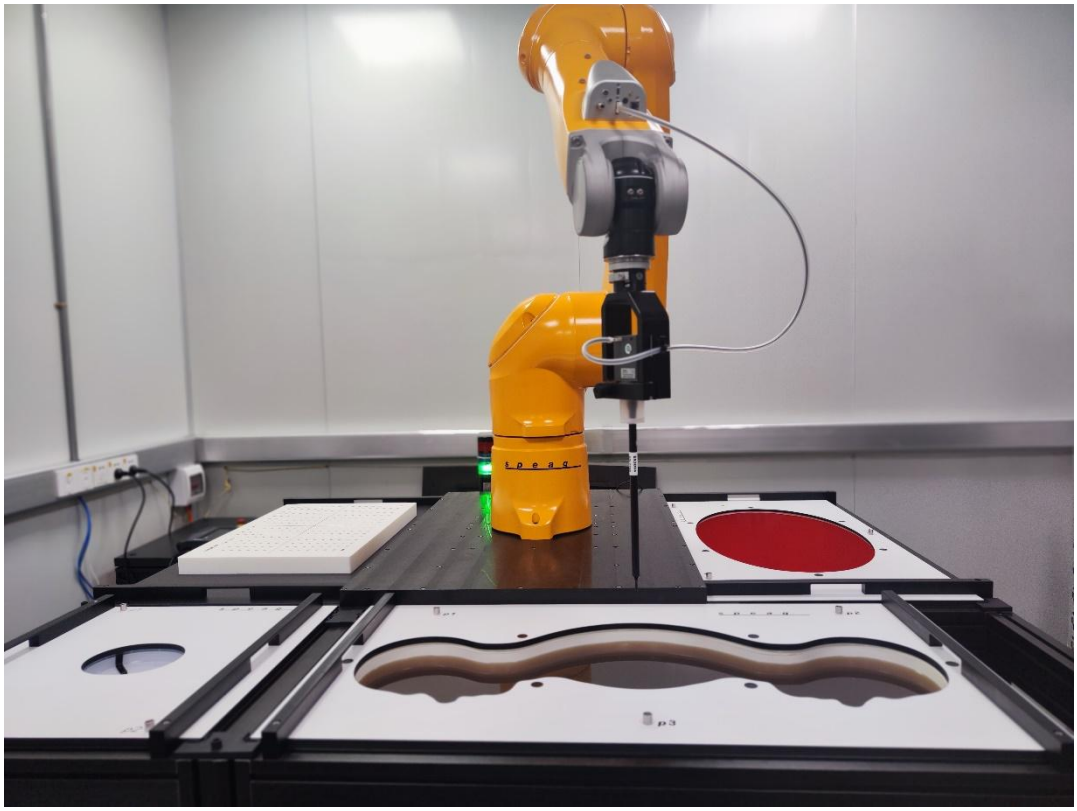
DASY System Diagram:



DASY is a system that is able to determine the SAR distribution inside a phantom of human being according to different standards. The DASY system consists of the following items:
- Main computer to control all the system

- 6 axis robot
- Data acquisition Electronics
- 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.

2.2.1 Probe

For the measurements the Specific Dosimetric E-Field Probe SN 7388 EX3DV4 with following specifications is used

- Frequency range: 4 MHz – 10 GHz
-Dynamic range: 0.01 W/kg – >100 W/kg
-Tip diameter: 2.5 mm
-Scanning distance: ≥1.4 mm

Figure 1-Speag COMOSAR Dosimetric E field Dipole

2.2.2 Phantom

For the measurements the Specific Anthropomorphic Mannequin (SAM) defined by the IEEE 62209-1528 is used. The phantom is a Vinyl ester, fiberglass reinforced 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

2.2.3 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.

3 Tissue Simulating Liquids

3.1 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)	Conductivity	Permittivity
	σ	εr
450	0.87	43.5
750	0.89	41.9
835	0.90	41.5
900	0.97	41.5
1800	1.4	40.0
1900	1.4	40.0
2000	1.4	40.0
2450	1.80	39.2
2600	1.96	39.0

LIQUID MEASUREMENT RESULTS

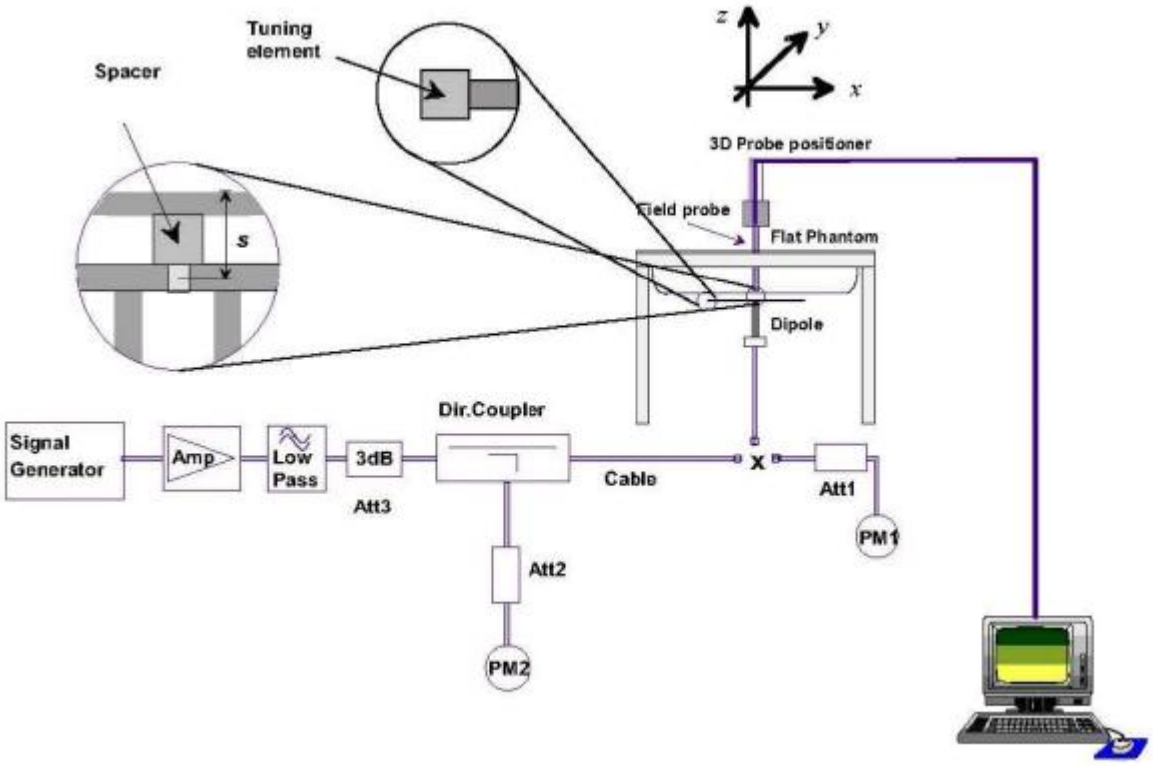
Date	Ambient		Simulating Liquid		Parameters	Target	Measured	Deviation %	Limited %
	Temp. [°C]	Humidity %	Frequency	Temp. [°C]					
2023-10-23	22.7	52	450 MHz	22.4	Permittivity	43.50	44.40	2.07	±5
					Conductivity	0.87	0.87	0.00	±5
2023-10-23	22.6	54	462 MHz	22.3	Permittivity	43.44	44.30	1.98	±5
					Conductivity	0.87	0.87	0.00	±5
2023-10-23	22.7	53	467 MHz	22.3	Permittivity	43.44	44.30	1.98	±5
					Conductivity	0.87	0.87	0.00	±5

4 SAR System Validation

4.1 Validation System

Each DASY system is equipped with one or more system validation kits. These units, together with the predefined measurement procedures within the DASY 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.



4.2 Validation Result

Comparing to the original SAR value provided by =Speag, 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)	(%)	(%)
2023-10-23	450	100	0.44	4.44	4.53	-1.99	10

Note:

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

5 SAR Evaluation Procedures

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

-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 to16 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 D01 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.

6 EUT Antenna Location Sketch

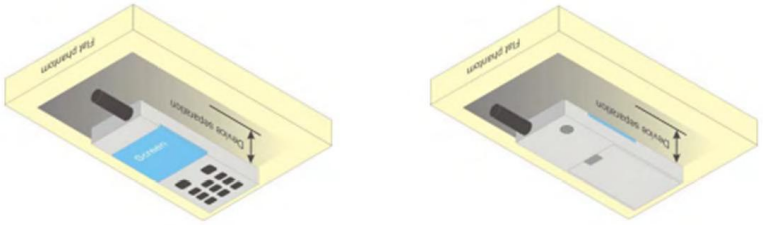
Bottom side
(Front view)

7 EUT Test Position

This EUT was tested in Front Face and Rear Face.

7.1 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.



8 Measurement Uncertainty

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									
1	**Probe Calibration**	5.8	N	1	1	1	5.8	5.8	∞
2	**Axial isotropy**	3.5	R	$\sqrt{3}$	0.7	0.7	1.41	1.41	∞
3	**Hemispherical Isotropy**	5.9	R	$\sqrt{3}$	0.7	0.7	2.38	2.38	∞
4	**Boundary Effect**	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
5	**Probe Linearity**	4.7	R	$\sqrt{3}$	1	1	2.71	2.71	∞
6	**System Detection Limits**	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
7	**Modulation response**	0.0	R	1	1	1	0.00	0.00	
8	**Readout Electronics**	0.5	N	1	1	1	0.50	0.50	∞
9	**Response Time**	0.0	R	$\sqrt{3}$	1	1	0.00	0.00	∞
10	**Integration Time**	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
11	**RF ambient Conditions - Noise**	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
12	**RF ambient Conditions - Reflections**	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
13	**Probe Position Mechanical tolerance**	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
14	**Probe Position with respect to Phantom Shell**	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
15	**Extrapolation, Interpolation and Integration Algorithms for Max. SAR evaluation**	2.3	R	$\sqrt{3}$	1	1	1.33	1.33	∞

	Dipole								
16	**Deviation of experimental dipole**	4	N	1	1	1	4.00	4.00	N-1
17	**Dipole axis to liquid distance**	2.0	R	$\sqrt{3}$	1	1	1.15	1.15	∞
18	**Input Power and SAR drit measurement**	5.0	R	$\sqrt{3}$	1	1	2.89	2.89	∞
Phantom and Tissue Parameters									
20	**Phantom Uncertainty (Shape and thickness tolerances)**	4.0	R	$\sqrt{3}$	1	1	2.31	2.31	∞
21	**SAR correction for deviation(in permittivity and conductivity)**	2.0	N	1	1	0.84	2.00	1.68	∞
22	**Liquid conductivity (temperature uncertainty)**	2.5	R	1	0.78	0.71	1.95	1.78	∞
23	**Liquid conductivity - measurement uncertainty**	4.0	N	1	0.23	0.26	0.92	1.04	M
24	**Liquid permittivity (temperature uncertainty)**	2.5	R	1	0.78	0.71	1.95	1.78	∞
25	**Liquid permittivity - measurement uncertainty**	5.0	N	1	0.23	0.26	1.15	1.30	M
Combined Standard Uncertainty		-	RSS	-			10.20	10.11	-
Expanded uncertainty (Confidence interval of 95 %)		-	K=2	-			20.40	20.22	-

9 Conducted Power Measurement

9.1 Test Result

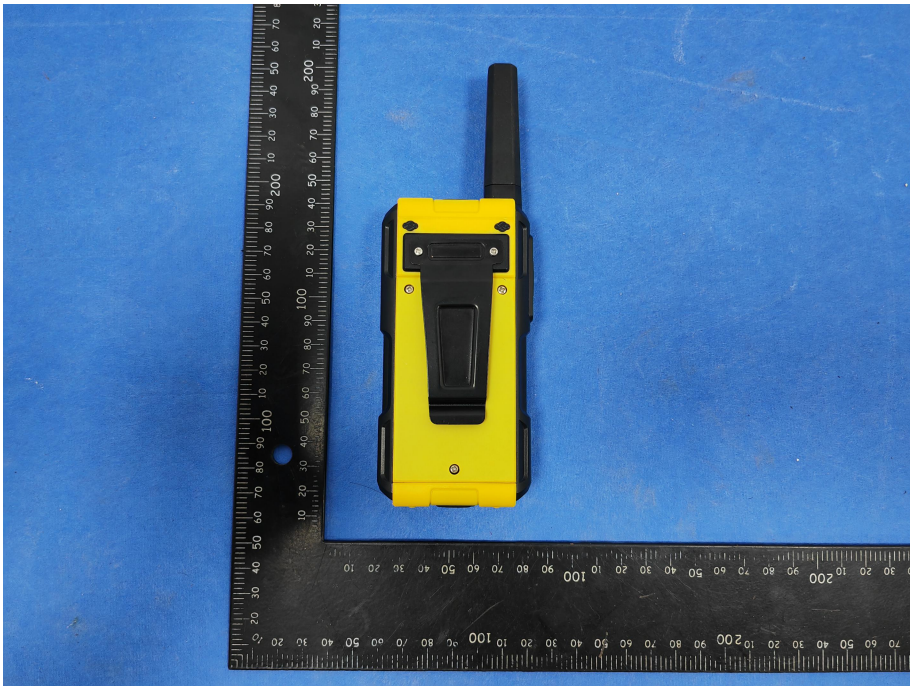
Channel	Frequency（MHz)	ERP (dBm)	ERP (W)
462.5625-462.7125MHz			
1	462.5625	32.21	1.66
4	462.6375	32.45	1.76
7	462.7125	32.27	1.69
467.5625-467.7125MHz			
8	467.5625	26.13	0.41
11	467.6375	26.40	0.44
14	467.7125	26.00	0.40
462.5500-462.7250MHz			
15	462.55	32.26	1.68
19	462.65	32.35	1.72
22	462.725	32.22	1.67

10 Test Photos and Results

10.1 EUT Photo

Front side

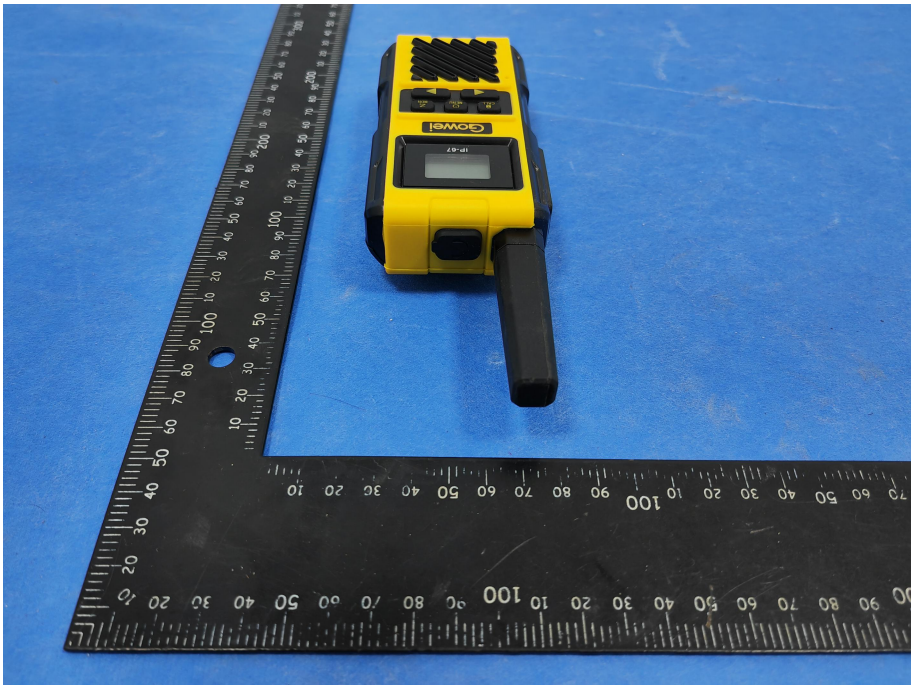
Back side



Left Edge

Right Edge

Top Edge



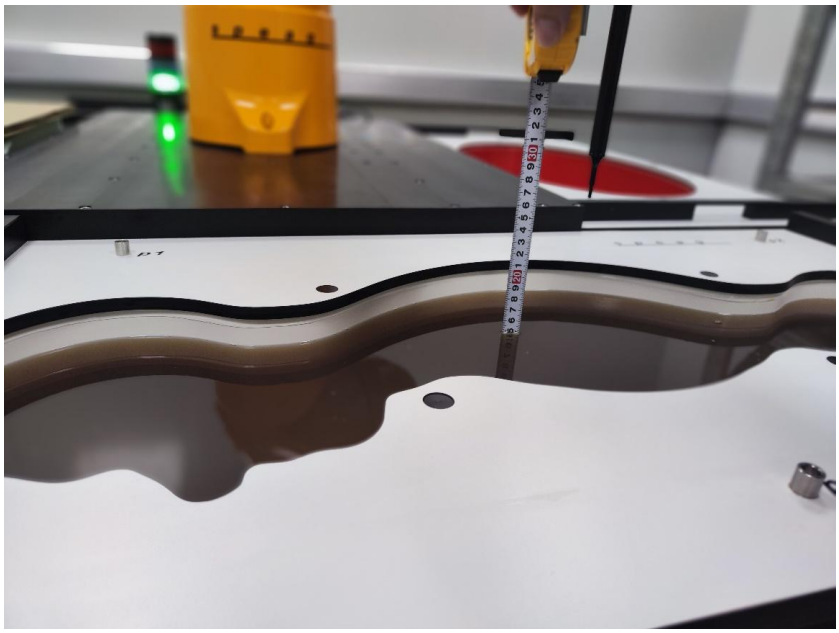
Bottom Edge

10.2 Setup Photo

Face up(separation distance is 25mm)

Body Back Touch with all accessories (separation distance is 0mm)

Liquid depth (15 cm)



11 SAR Result Summary

11.1 SAR measurement

Band	Test Position	Freq.	SAR with 100% Duty cyle(1g) (W/kg)	SAR with 100% Duty cyle(1g) (W/kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas.No.
462.5625-462.7125 MHz	Face Up	462.6375	1.180	0.590	-0.04	32.50	32.45	**0.597**	**1**
	Back Touch+Belt Clip+Headset	462.5625	2.29	1.145	0.13	32.50	32.21	1.224	/
	Back Touch+Belt Clip+Headset	462.6375	2.70	1.350	-0.00	32.50	32.45	**1.366**	**2**
	Back Touch+Belt Clip+Headset	462.7125	2.42	1.210	-0.59	32.50	32.27	1.276	/
467.5625-467.7125 MHz	Face Up	467.6375	0.927	0.464	-0.01	26.50	26.40	**0.475**	**3**
	Back Touch+Belt Clip+Headset	467.5625	1.837	0.919	0.37	26.50	26.13	1.001	/
	Back Touch+Belt Clip+Headset	467.6375	2.00	1.000	-0.03	26.50	26.40	**1.023**	**4**
	Back Touch+Belt Clip+Headset	467.7125	1.764	0.882	0.95	26.50	26.00	0.990	/
462.5500-462.7250 MHz	Face Up	462.6500	1.13	0.565	-0.14	32.50	32.35	**0.585**	**5**
	Back Touch+Belt Clip+Headset	462.5500	1.987	0.994	0.27	32.50	32.26	1.050	/
	Back Touch+Belt Clip+Headset	462.6500	2.38	1.190	-1.64	32.50	32.35	**1.232**	**6**
	Back Touch+Belt Clip+Headset	462.7250	1.906	0.953	0.19	32.50	32.22	1.016	/

Note:

1. During the test, EUT with 100% duty cycle.
2. Per KDB 447498 D01, 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

Repeated SAR

Band	Test Position	Freq.	SAR with 100% Duty cyle(1g) (W/kg)	SAR with 100% Duty cyle(1g) (W/kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas.No.
462.5625-462.7125 MHz	Back Touch+Belt Clip+Headset	462.5625	2.04	1.020	0.87	32.50	32.21	1.090	/
	Back Touch+Belt Clip+Headset	462.6375	2.67	1.335	-0.76	32.50	32.45	1.350	/
	Back Touch+Belt Clip+Headset	462.6375	2.59	1.295	0.47	32.50	32.45	1.310	/
	Back Touch+Belt Clip+Headset	462.7125	2.38	1.190	0.92	32.50	32.27	1.255	/
467.5625-467.7125 MHz	Back Touch+Belt Clip+Headset	467.5625	1.827	0.914	-0.79	26.50	26.13	0.995	/
	Back Touch+Belt Clip+Headset	467.6375	1.943	0.972	0.96	26.50	26.40	0.995	/
	Back Touch+Belt Clip+Headset	467.7125	1.754	0.877	-0.08	26.50	26.00	0.984	/
462.5500-462.7250 MHz	Back Touch+Belt Clip+Headset	462.5500	1.938	0.969	0.16	32.50	32.26	1.024	/
	Back Touch+Belt Clip+Headset	462.6500	2.19	1.095	0.81	32.50	32.35	1.133	/
	Back Touch+Belt Clip+Headset	462.7250	1.852	0.926	0.82	32.50	32.22	0.988	/

11.2 Repeated SAR measurement

Band	Test Position	Freq.	Original Measured SAR 1g(W/kg)	1 st Repeated SAR 1g	Ratio	Original Measured SAR 1g(W/kg)	2nd Repeated SAR 1g	Ratio
462.5625-462.7125 MHz	Back Touch+Belt Clip+Headset	462.5625	2.29	2.04	1.123	-	-	-
	Back Touch+Belt Clip+Headset	462.6375	2.70	2.67	1.011	2.67	2.59	1.031
	Back Touch+Belt Clip+Headset	462.7125	2.42	2.38	1.017	-	-	-
467.5625-467.7125 MHz	Back Touch+Belt Clip+Headset	467.5625	1.837	1.827	1.005	-	-	-
	Back Touch+Belt Clip+Headset	467.6375	2.00	1.943	1.029	-	-	-
	Back Touch+Belt Clip+Headset	467.7125	1.764	1.754	1.006	-	-	-
462.5500-462.7250 MHz	Back Touch+Belt Clip+Headset	462.5500	1.987	1.938	1.025	-	-	-
	Back Touch+Belt Clip+Headset	462.6500	2.38	2.19	1.087	-	-	-
	Back Touch+Belt Clip+Headset	462.7250	1.906	1.852	1.029	-	-	-

Note:

1. Per KDB 865664 D01,for each frequency band ,repeated SAR measurement is required only when the measured SAR is≥0.8W/Kg.
2. Per KDB 865664 D01,if the ratio of largest to smallest SAR for the original and first repeated measurement is≤1.2 and the measured SAR＜1.45W/Kg, only one repeated measurement is required.
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 ≥ 1.45W/Kg
4. The ratio is the difference in percentage between original and repeated measured SAR.

12 Equipment List

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Cal. interval
System Validation Dipole	SPEAG	D450V3	1118	May. 27, 2022	3 years
Dosimetric E-Field Probe	SPEAG	EX3DV4	7506	Jun. 29, 2023	1 year
Data Acquisition Electronics	SPEAG	DAE4	1157	Jul. 06, 2023	1 year
Wideband Radio Communication Tester	R&S	CMW500	168558	May. 26, 2023	1 year
Signal Analyzer	R&S	FSV	104408	May. 22, 2023	1 year
Vector Network Analyzer	R&S	ZNB 40	101544	May. 26, 2023	1 year
Dielectric assessment Kit	SPEAG	DAK-3.5	1327	Oct. 22, 2023	1 year
Signal Generator	R&S	SMB 100B	101843	Sep. 21, 2023	1 year
EPM Series Power Meter	R&S	N1914A	MY58240005	Nov. 21, 2022	2 years
Power Sensor	R&S	NRP18S-10	101843	Sep. 25, 2023	1 year
Power Sensor	R&S	NRP18S-10	101845	Sep. 25, 2023	1 year
DC Power Supply	Topward	3303D	810984	Sep. 24, 2023	1 year
Cavity Coupler	/	/	LS0300103	Jan. 17, 2023	1 year
Directional Couper	/	SHX-DC04/12-20N	2206171042	Jan. 17, 2023	1 year
Coaxial attenuator	R&S	8491A	1424.6721k02-101845-HX	Sep. 25, 2023	1 year
Coaxial attenuator	R&S	8491A	1424.6721K02-101843-aM	Sep. 25, 2023	1 year
Digital Thermometer	LKM	DTM3000	3946	Jan. 15, 2023	1 year
Power Amplifier Mini circuit	mini-circuits	ZVA-183W-S+	726202215	Jan. 17, 2023	1 year
PHANTOM	SPEAG	ELI V8.0	2171	N/A	N/A
PHANTOM	SPEAG	SAM-Twin V8.0	2097	N/A	N/A

Appendix A. System Validation Plots

System Performance Check Data (450MHz)

System Performance Check Report

Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]	Dev. 1g [%]	Dev. 10g [%]	Dev. Peak [%]	Iso. Error [%]
D450V3 - SN1118	450.0	HSL	24.0	-2.3	-3.1	9.5	3.7

Exposure Conditions

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HBBL 5-10000MHz	15		, 0--	450.0, 0	11.25	0.871	44.4

Hardware Setup

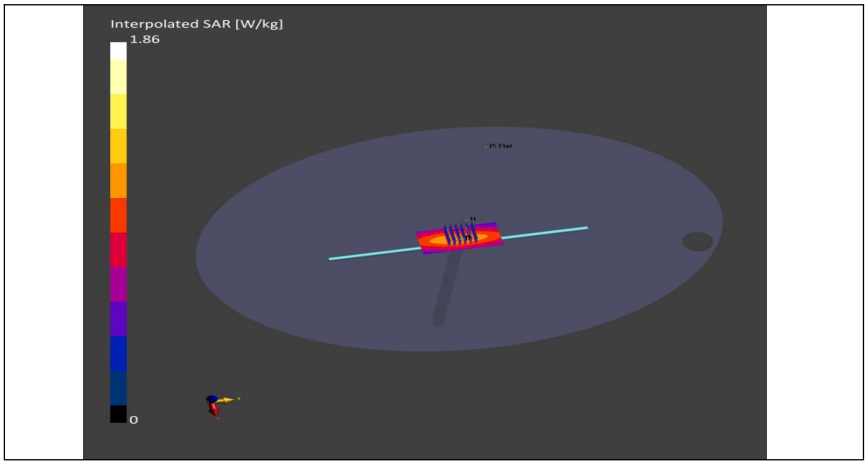
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2171	HBBL 5-10000MHz , 2023-Oct-23	EX3DV4 - SN7506, 2023-06-29	DAE4 Sn1557, 2023-07-06

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-23	2023-10-23
psSAR1g [W/Kg]	1.11	1.11
psSAR10g [W/Kg]	0.775	0.740
Power Drift [dB]	0.01	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction



Maximum location: X=2.00, Y=1.00

SAR 10g (W/Kg)	0.740
SAR 1g (W/Kg)	1.11

Appendix B. SAR Test Plots

Plot 1: DUT: Holding a walkie-talkie; EUT Model: G1PRO

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	180.0 x 60.0 x 30.0		Holding a walkie-talkie

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HBBL 5-10000MHz	FRONT, 25.00	D450	CW, 0--	462.6375, 62	11.25	0.871	44.3

Hardware Setup

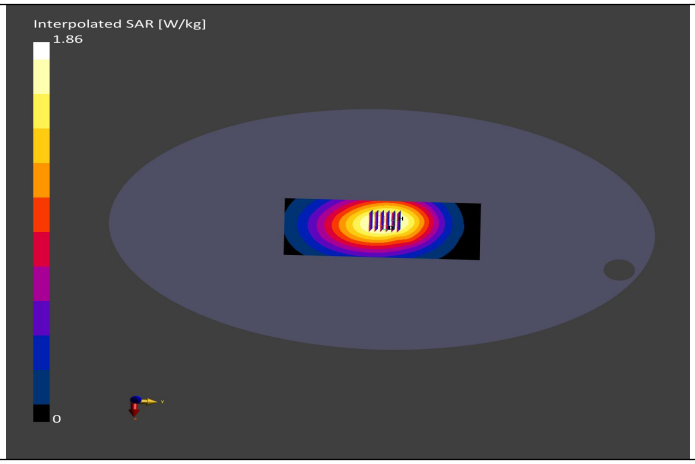
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2171	HBBL 5-10000MHz , 2023-Oct-23	EX3DV4 - SN7506, 2023-06-29	DAE4 Sn1557, 2023-07-06

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-23	2023-10-23
psSAR1g [W/kg]	1.22	1.18
psSAR10g [W/kg]	0.884	0.870
Power Drift [dB]	-0.19	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		85.2
Dist 3dB Peak [mm]		> 15.0



SAR 10g (W/Kg)	0.870
SAR 1g (W/Kg)	1.180

Plot 2: DUT: Holding a walkie-talkie; EUT Model: G1PRO

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	180.0 x 60.0 x 30.0		Holding a walkie-talkie

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HBBL 5-10000MHz	BACK, 0	D450	CW, 0--	462.6375, 62	11.25	0.871	44.3

Hardware Setup

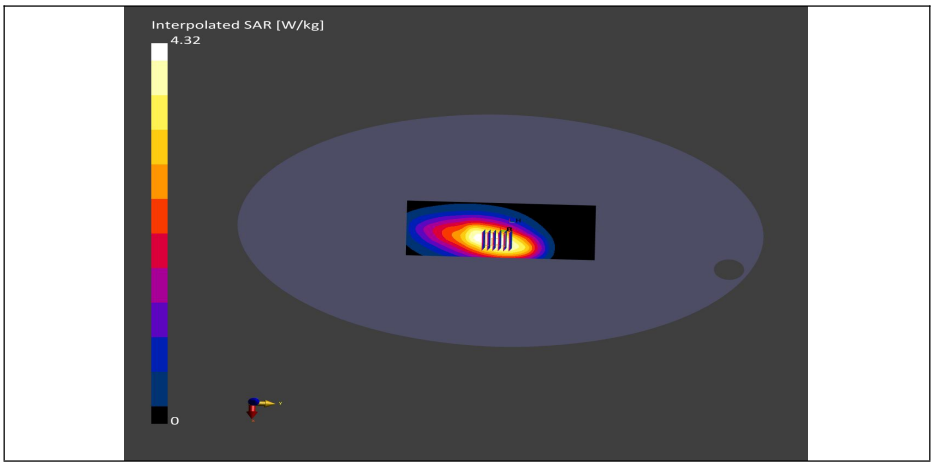
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2171	HBBL 5-10000MHz , 2023-Oct-23	EX3DV4 - SN7506, 2023-06-29	DAE4 Sn1557, 2023-07-06

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-23	2023-10-23
psSAR1g [W/kg]	2.86	2.70
psSAR10g [W/kg]	2.05	1.88
Power Drift [dB]	-0.03	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		83.8
Dist 3dB Peak [mm]		> 15.0



SAR 10g (W/Kg)	1.88
SAR 1g (W/Kg)	2.70

Plot 3: DUT: Holding a walkie-talkie; EUT Model: G1PRO

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	180.0 x 60.0 x 30.0		Holding a walkie-talkie

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HBBL 5-10000MHz	FRONT, 25.00	D450	CW, 0--	467.6375, 67	11.25	0.871	44.3

Hardware Setup

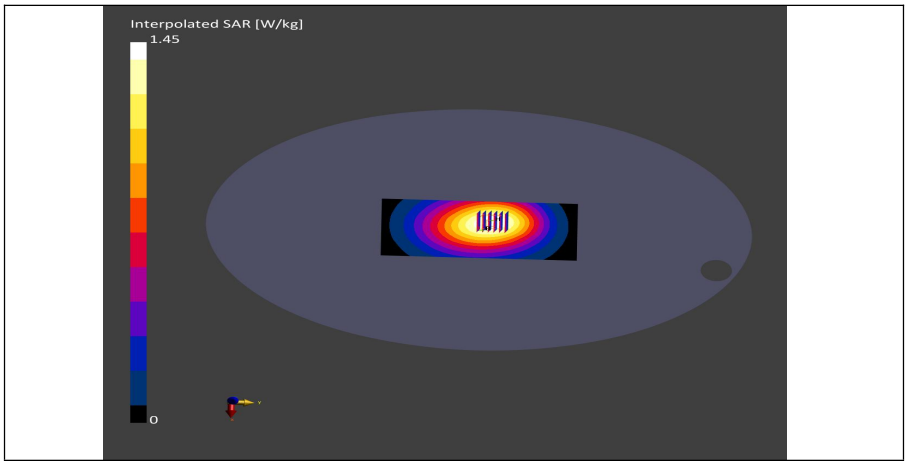
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2171	HBBL 5-10000MHz , 2023-Oct-23	EX3DV4 - SN7506, 2023-06-29	DAE4 Sn1557, 2023-07-06

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-23	2023-10-23
psSAR1g [W/kg]	0.958	0.927
psSAR10g [W/kg]	0.695	0.676
Power Drift [dB]	-0.12	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		84.0
Dist 3dB Peak [mm]		> 15.0



SAR 10g (W/Kg)	0.676
SAR 1g (W/Kg)	0.927

Plot 4: DUT: Holding a walkie-talkie; EUT Model: G1PRO

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	180.0 x 60.0 x 30.0		Holding a walkie-talkie

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HBBL 5-10000MHz	BACK, 0	D450	CW, 0--	467.5625, 67	11.25	0.871	44.3

Hardware Setup

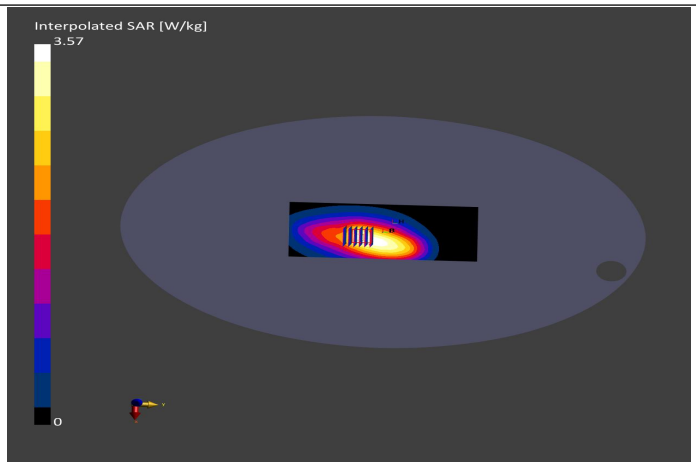
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2171	HBBL 5-10000MHz , 2023-Oct-23	EX3DV4 - SN7506, 2023-06-29	DAE4 Sn1557, 2023-07-06

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-23	2023-10-23
psSAR1g [W/kg]	2.07	2.00
psSAR10g [W/kg]	1.47	1.37
Power Drift [dB]	-0.02	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		78.6
Dist 3dB Peak [mm]		17.0



SAR 10g (W/Kg)	1.37
SAR 1g (W/Kg)	2.00

Plot 5: DUT: Holding a walkie-talkie; EUT Model: G1PRO

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	180.0 x 60.0 x 30.0		Holding a walkie-talkie

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HBBL 5-10000MHz	FRONT, 25.00	D450	CW, 0--	462.65, 62	11.25	0.871	44.3

Hardware Setup

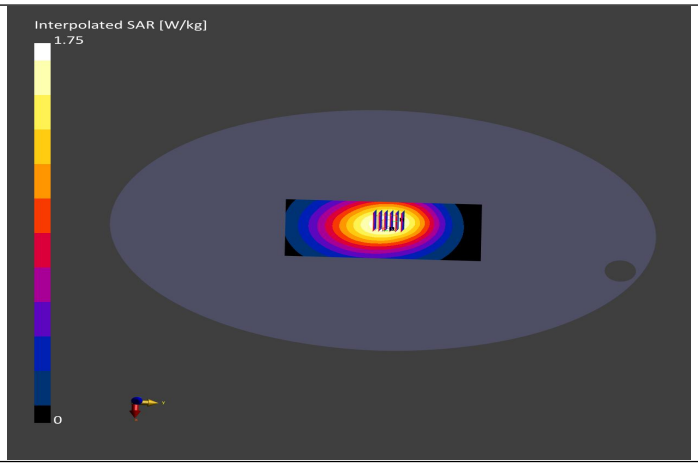
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2171	HBBL 5-10000MHz , 2023-Oct-23	EX3DV4 - SN7506, 2023-06-29	DAE4 Sn1557, 2023-07-06

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-23	2023-10-23
psSAR1g [W/kg]	1.14	1.13
psSAR10g [W/kg]	0.828	0.828
Power Drift [dB]	-0.08	-0.14
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		84.4
Dist 3dB Peak [mm]		> 15.0



SAR 10g (W/Kg)	0.828
SAR 1g (W/Kg)	1.13

Plot 6: DUT: Holding a walkie-talkie; EUT Model: G1PRO

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	180.0 x 60.0 x 30.0		Holding a walkie-talkie

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HBBL 5-10000MHz	BACK, 0	D450	CW, 0--	462.55, 62	11.25	0.871	44.3

Hardware Setup

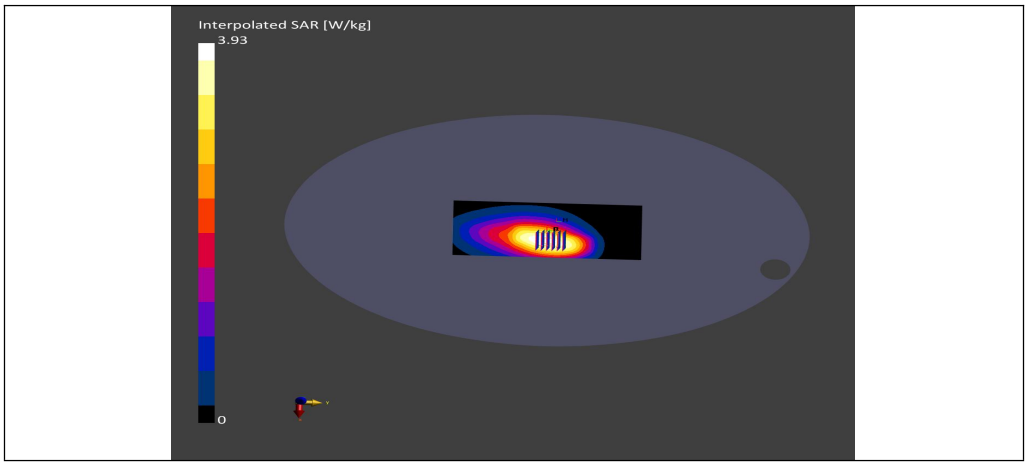
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2171	HBBL 5-10000MHz , 2023-Oct-23	EX3DV4 - SN7506, 2023-06-29	DAE4 Sn1557, 2023-07-06

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-10-23	2023-10-23
psSAR1g [W/kg]	2.41	2.38
psSAR10g [W/kg]	1.72	1.64
Power Drift [dB]	-0.07	-0.13
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		82.5
Dist 3dB Peak [mm]		> 15.0



SAR 10g (W/Kg)	1.64
SAR 1g (W/Kg)	2.38

Appendix C. Probe Calibration and Dipole Calibration Report

Refer the appendix Calibration Report.

Important

(1) The test report is valid without the official stamp of CVC;

(2) Any part photocopies of the test report are forbidden without the written permission from CVC;

(3) The test report is invalid without the signatures of Approval and Reviewer;

(4) The test report is invalid if altered;

(5) Objections to the test report must be submitted to CVC within 15 days.

(6) Generally, commission test is responsible for the tested samples only.

(7) As for the test result “-” or “N” means “not applicable”, “/” means “not test”, “P” means “pass” and “F” means “fail”

The test data and test results given in this test report should only be used for purposes of scientific research, teaching and internal quality control when the CMA symbol is not presented.

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