

TEST REPORT

Applicant: vivo Mobile Communication Co., Ltd.
Address: No.1, vivo Road, Chang'an, Dongguan, Guangdong, China
Equipment Type: Mobile Phone
Model Name: V2332
Brand Name: vivo
FCC ID: 2AUCY-V2332
Test Standard: FCC 47 CFR Part 2.1093
(refer section 3.1)
Maximum SAR: Head (1 g@0mm): 0.96 W/kg
Body-worn (1 g@15mm): 0.81 W/kg
Hotspot (1 g@10mm): 0.74 W/kg
Specific (10 g@10mm): 2.39 W/kg
Sample Arrival Date: Jan. 29, 2024
Test Date: Feb. 08, 2024 - Feb. 20, 2024
Date of Issue: Mar. 07, 2024

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Xu Ru**Checked by:** Zong Liyao**Approved by:** Tolan Tu

(Testing Director)

Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Mar. 07, 2024</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Mar. 07, 2024</u>	<u>1.Remove test photos.</u> <u>2.Updated WIFI 5.8G power in section 8.4.6 and section 8.4.7, 8.4.8 and updated WIFI 5.8G body-worn and hotspot SAR test results in section 10.13 and updated section 12.2.2 and 12.2.3.</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☒ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.

1.3 Test Environment Condition

Ambient Temperature	18°C to 25°C
Ambient Relative Humidity	30% to 70%

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	vivo Mobile Communication Co., Ltd.
Address	No.1, vivo Road, Chang'an, Dongguan, Guangdong, China

2.2 Manufacturer Information

Manufacturer	vivo Mobile Communication Co., Ltd.
Address	No.1, vivo Road, Chang'an, Dongguan, Guangdong, China

2.3 General Description for Equipment under Test (EUT)

EUT Name	Mobile Phone
Model Name Under Test	V2332
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	MP_0.1
Software Version	PD2327CF_EX_A_14.0.3.6.W30
Dimensions (Approx.)	163.63*75.58*8.39 mm
Weight (Approx.)	185g
EUT ID	S01, S10, S11
IMEI Number	S01: IMEI1:863978072015244, IMEI2:863978072015251
	S10: IMEI1:863978072009841, IMEI2:863978072009858
	S11: IMEI1:863978072014346, IMEI2:863978072014353

2.4 Ancillary Equipment

Ancillary Equipment 1	Battery 1	
	Brand Name	N/A
	Model No.	BA33
	Serial No.	N/A
	Capacity	Rated: 4880mAh /19.09 Wh Typical: 5000 mAh /19.55 Wh
	Rated Voltage	3.91 V
	Limit Charge Voltage	4.48 V
	Manufacturer	Dongguang NVT Technology Co., LTD.
Ancillary Equipment 2	Battery 2	
	Brand Name	N/A
	Model No.	BA33
	Serial No.	N/A
	Capacity	Rated: 4880mAh /19.09 Wh Typical: 5000 mAh /19.55 Wh
	Rated Voltage	3.91 V
	Limit Charge Voltage	4.48 V
	Manufacturer	Shenzhen Sunwoda Intelligence Technology Co., Ltd.
Ancillary Equipment 3	Battery 3	
	Brand Name	N/A
	Model No.	BA33
	Serial No.	N/A
	Capacity	Rated: 4910mAh /19.20 Wh Typical: 5000 mAh /19.55 Wh
	Rated Voltage	3.91 V
	Limit Charge Voltage	4.50 V
	Manufacturer	Chongqing CosMX Battery Co., Ltd.
Note1: EUT ID is used to identify the test sample in the lab internally. Note2: It is performed to test SAR with the EUT S10, S11 and conducted power with the EUT S01. Note3: The EUT has three Batterys, they are same with electrical parameters, but only differ in Manufacturer and battery cell. By comparing the test data of three Batteries, battery 1 can produce a more conservative SAR values. The battery of the Manufacturer is Dongguang NVT Technology Co., LTD. as the main for test in this report.		

2.5 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network LTE FDD Band 2/4/5/7/13/18/19/26/66 LTE TDD Band 38/41 Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20/40) and VHT20/40 5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac (VHT20/40/80) U-NII-1/2A/2C/3, Galileo, BDS, GLONASS, GPS, SBAS, FM Receiver
Note: The EUT is a mobile phone, which supports dual SIM card under the same transceiver. Each SIM supports GSM, WCDMA and LTE, and both SIM share the same transmitting electro circuit, NV parameters, so only SIM1 was tested in this report.	

The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	GSM, WCDMA, LTE, 2.4G WLAN, 5G WLAN, Bluetooth		
Frequency Range	GSM 850	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	GSM 1900	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	WCDMA Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	LTE Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 7	TX: 2500 ~ 2570 MHz	RX: 2620 ~ 2690 MHz
	LTE Band 13	TX: 777 ~ 787 MHz	RX: 746 ~ 756 MHz
	LTE Band 18	TX: 815 ~ 824 MHz	RX: 860 ~ 869 MHz
		TX: 824 ~ 830 MHz	RX: 869 ~ 875 MHz
	LTE Band 19	TX: 830 ~ 845 MHz	RX: 875 ~ 890 MHz
	LTE Band 26	TX: 814 ~ 824 MHz	RX: 859 ~ 869 MHz
		TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2535 ~ 2655 MHz	RX: 2535 ~ 2655 MHz
	802.11b/g /n(HT20/HT40)/ VHT20/40	2412 ~ 2462 MHz	
	802.11a/ /n(HT20/HT40) /ac(VHT20/VHT40 /VHT80)	5150 ~ 5250 MHz	
		5250 ~ 5350 MHz	
		5470 ~ 5725 MHz	
		5725 ~ 5850 MHz	
	Bluetooth	2402 ~ 2480 MHz	

Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna	
DTM	N/A	
Hotspot Function	Support	
Power Reduction	Support	
Exposure Category	General Population/Uncontrolled exposure	
Product Type	Portable Device	
EUT Type	☒ Production unit	☐ Identical prototype
Note: 1. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4G transmitter for held-to-ear exposure conditions. 2. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4G transmitter for near to body exposure conditions. 3. The reduction power details please refer section 8.6.		

3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2.1093	Radiofrequency radiation exposure evaluation: portable devices
2	ANSI 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	IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate(SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01
5	KDB 941225 D01 v03r01	3G SAR MEAUREMENT PROCEDURES
6	KDB 941225 D05 v02r05	SAR Evaluation Considerations for LTE Devices
7	KDB 941225 D06 v02r01	SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES
8	KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
9	KDB 865664 D02 v01r02	RF Exposure Reporting
10	KDB 648474 D04 v01r03	SAR EVALUATION CONSIDERATIONS FOR WIRELESS HANDSETS
11	KDB 248227 D01 v02r02	SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS

3.2 Device Category and SAR Limit

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user.

Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

Table of Exposure Limits:

Body Position	SAR Value (W/Kg)	
	General Population/ Uncontrolled Exposure	Occupational/ Controlled Exposure
Whole-Body SAR (averaged over the entire body)	0.08	0.4
Partial-Body SAR (averaged over any 1 gram of tissue)	1.60	8.0
SAR for hands, wrists, feet and ankles (averaged over any 10 grams of tissue)	4.0	20.0

NOTE:

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

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

3.3 Test Result Summary

3.3.1 Highest SAR Values

Equipment Class	Band	Maximum Scaled SAR (W/kg)				Maximum Report SAR (W/kg)							
		Head (0mm)	Body-worn (15mm)	Hotspot (10mm)	Specific (0mm)	Head (0mm)	Body-worn (15mm)	Hotspot (10mm)	Specific (0mm)				
		1g SAR			10g SAR	1g SAR			10g SAR				
PCE	GSM 850	0.58	0.32	0.33	/	0.96	0.81	0.74	2.39				
	GSM 1900	0.96	0.32	0.47	/								
	WCDMA Band 2	0.88	0.42	0.57	2.39								
	WCDMA Band 4	0.77	0.28	0.47	/								
	WCDMA Band 5	0.71	0.32	0.51	/								
	LTE Band 2	0.95	0.26	0.57	2.28								
	LTE Band 7	0.83	0.34	0.70	2.11								
	LTE Band 13	0.52	0.27	0.32	/								
	LTE Band 26	0.63	0.26	0.48	/								
	LTE Band 66	0.88	0.17	0.43	/								
	LTE Band 41	0.70	0.42	0.53	1.32								
DTS	2.4G WLAN	0.83	0.16	0.30	/								
NII	5.2G WLAN	/	/	0.69	/								
	5.3G WLAN	0.93	0.50	/	0.94								
	5.6G WLAN	0.79	0.81	/	1.36								
	5.8G WLAN	0.79	0.70	0.74	/								
DSS	Bluetooth	0.11	0.03	0.05	/								
Limit (W/kg)		1.6			4.0					1.6			4.0
Verdict		PASS											

Note:

This device supports LTE B4 / B5&B18&B19 /B38 and B66 / B26/B41. Since the supported frequency span for LTE B4 / B5&B18&B19 /B38 falls completely within the supports frequency span for LTE B66 / B26/B41, these LTE bands have the same target power, and share the same transmission path; therefore, SAR was only assessed for LTE B66 / B26/ B41.

3.3.2 Highest Simultaneous Transmission SAR Values

Equipment Class	Maximum Scaled SAR (W/kg)			
	Head 1g (0mm)	Body-worn 1g (15mm)	Hotspot 1g (10mm)	Specific 10g (0mm)
PCE	1.23	1.26	1.37	3.64
DTS	1.23	0.58	0.97	/
NII	1.14	1.26	1.37	3.64
DSS	1.14	1.26	1.37	/
Limit (W/Kg)	1.60	1.60	1.60	4.00
Verdict	Pass			
Note: The highest simultaneous SAR please refer section 12.2				

3.4 Test Uncertainty

According to KDB 865664 D01, When the highest measured 1 g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis is not required in SAR reports submitted for equipment approval.

The maximum 1 g SAR for the EUT in this report is 0.96 W/kg, which is lower than 1.5 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.

The maximum 10 g SAR for the EUT in this report is 2.39 W/kg, which is lower than 3.75 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.

4 MEASUREMENT SYSTEM

4.1 Specific Absorption Rate (SAR) Definition

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:

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

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

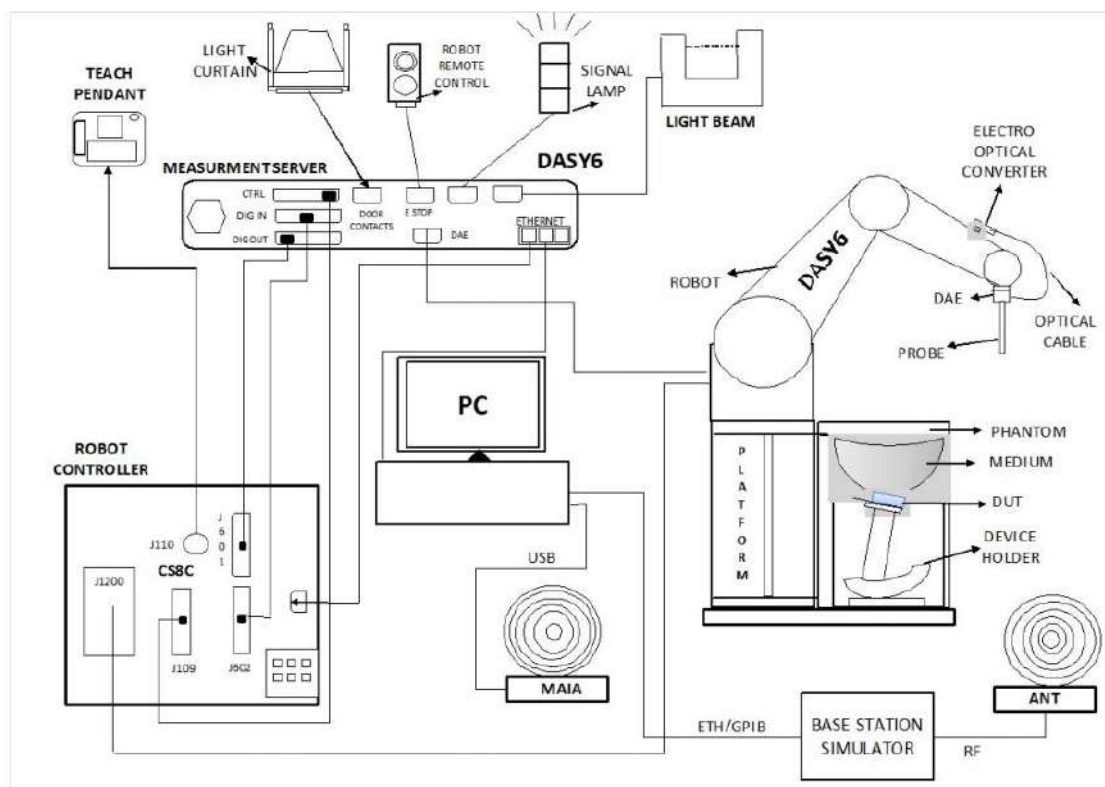
$$\text{SAR} = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue,

ρ is the mass density of the tissue and E is the RMS electrical field strength.

4.2 DASY SAR System

4.2.1 DASY SAR System Diagram



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 DASY5 measurement server.
6. The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.
7. DASY5 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.

4.2.2 Robot

The Dasy SAR system uses the high precision robots. Symmetrical design with triangular core Built-in optical fiber for surface detection system For the 6-axis controller system, Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents). The robot series have many features that are important for our application:



- High precision
(repeatability ± 0.02 mm)
- High reliability
(industrial design)
- Low maintenance costs
(virtually maintenance free due to direct drive gears; no belt drives)
- Jerk-free straight movements
(brush less synchron motors; no stepper motors)
- Low ELF interference
(motor control _elds shielded via the closed metallic construction shields)

4.2.3 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4-SN:7607 with following specifications is used.

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	4 MHz to 10 GHz; Linearity: ± 0.2 dB
Directivity	± 0.2 dB in HSL (rotation around probe axis) ; ± 0.4 dB in HSL (rotation normal to probe axis)
Dynamic range	5 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB
Dimensions	Overall length: 337 mm (Tip: 9 mm) Tip diameter: 2.5 mm (Body: 10 mm) Distance from probe tip to dipole centers: 1.0 mm
Application	General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms (EX3DV4)



E-Field Probe Calibration Process

Probe calibration is realized, in compliance with IEC/IEEE 62209-1528 and IEEE 1528 std, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the IEC/IEEE 62209-1528 annexe technique using reference guide at the five frequencies.

4.2.4 Data Acquisition Electronics

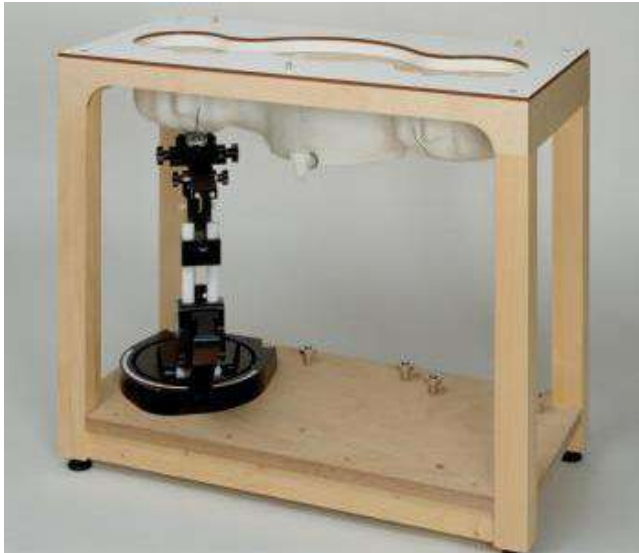
The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.



- Input Impedance: 200M Ω m
- The Inputs: Symmetrical and Floating
- Common Mode Rejection: Above 80dB

4.2.5 Phantoms

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.



- Left head
- Right head
- Flat phantom

Photo of Phantom SN1859



Serial Number	Material	Length	Height
SN 1859 SAM	Vinylester, glass fiber reinforced	1000	500

4.2.6 Device Holder

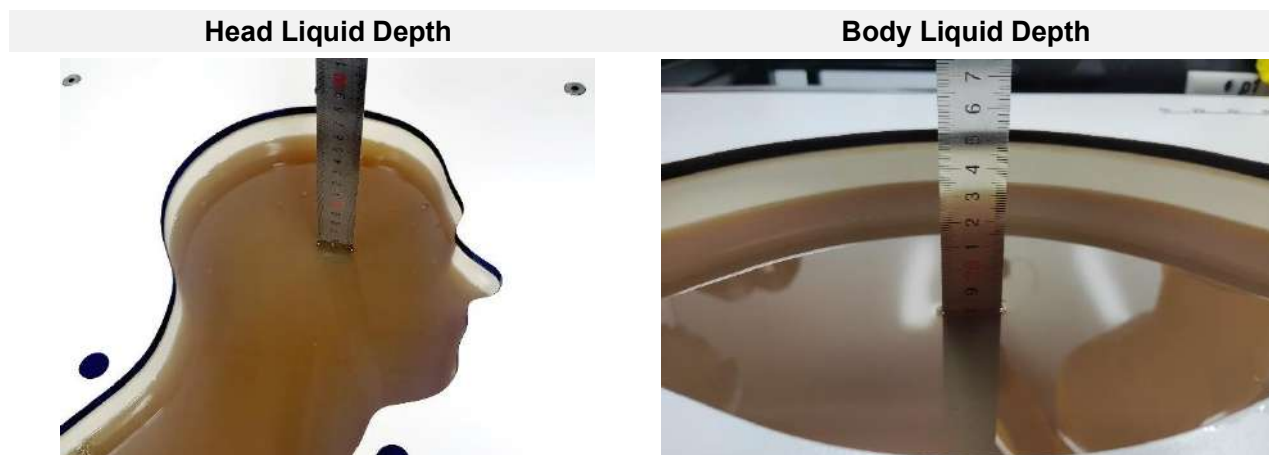
The DASY device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65° . The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. This device holder is used for standard mobile phones or PDA"s only. If necessary an additional support of polystyrene material is used. Larger DUT"s (e.g. notebooks) cannot be tested using this device holder. Instead a support of bigger polystyrene cubes and thin polystyrene plates is used to position the DUT in all relevant positions to find and measure spots with maximum SAR values. Therefore those devices are normally only tested at the flat part of the SAM.



The positioning system allows obtaining cheek and tilting position with a very good accuracy. Incompliance with CENELEC, the tilt angle uncertainty is lower than 1° .

4.2.7 Simulating Liquid

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5%.



The following table gives the recipes for tissue simulating liquid.

TSL	Manufacturer / Model	Freq Range (MHz)	Main Ingredients
Head WideBand	SPEAG HBBL600-10000V6	600-10000	Ethanediol, Sodium petroleum sulfonate, Hexylene Glycol / 2-Methyl-pentane-2.4-diol, Alkoxylated alcohol

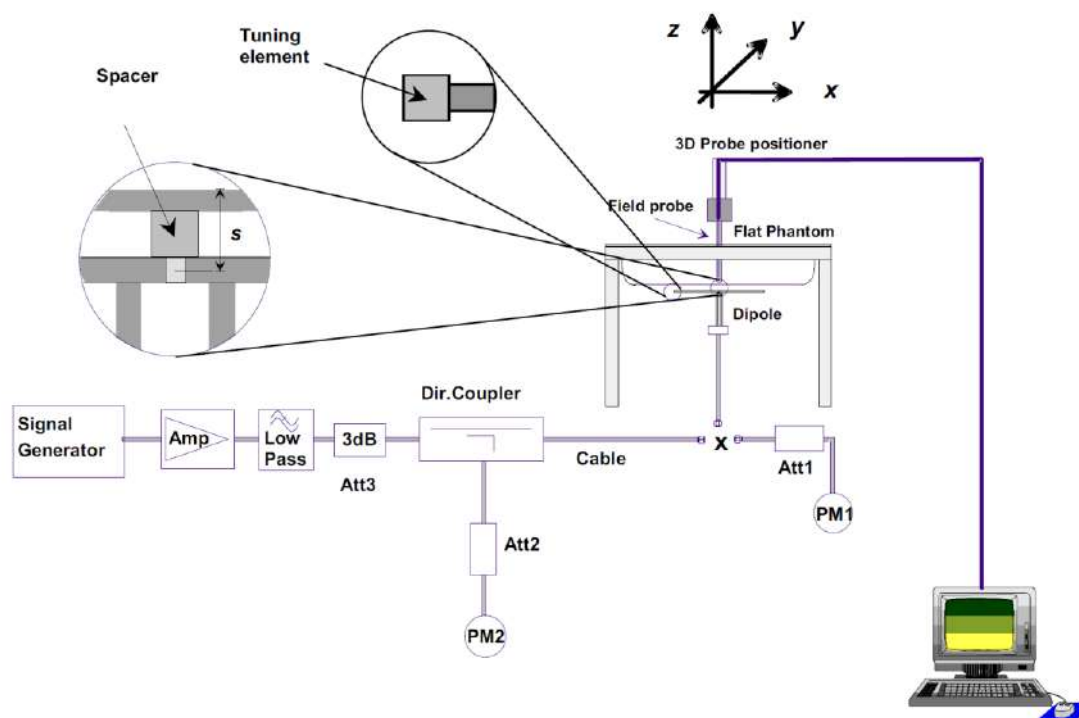
5 SYSTEM VERIFICATION

5.1 Purpose of System Check

The system performance check verifies that the system operates within its specifications. System and operator errors can be detected and corrected. It is recommended that the system performance check be performed prior to any usage of the system in order to guarantee reproducible results. The system performance check uses normal SAR measurements in a simplified setup with a well characterized source. This setup was selected to give a high sensitivity to all parameters that might fail or vary over time. The system check does not intend to replace the calibration of the components, but indicates situations where the system uncertainty is exceeded due to drift or failure.

5.2 System Check Setup

In the simplified setup for system evaluation, the EUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



6 TEST POSITION CONFIGURATIONS

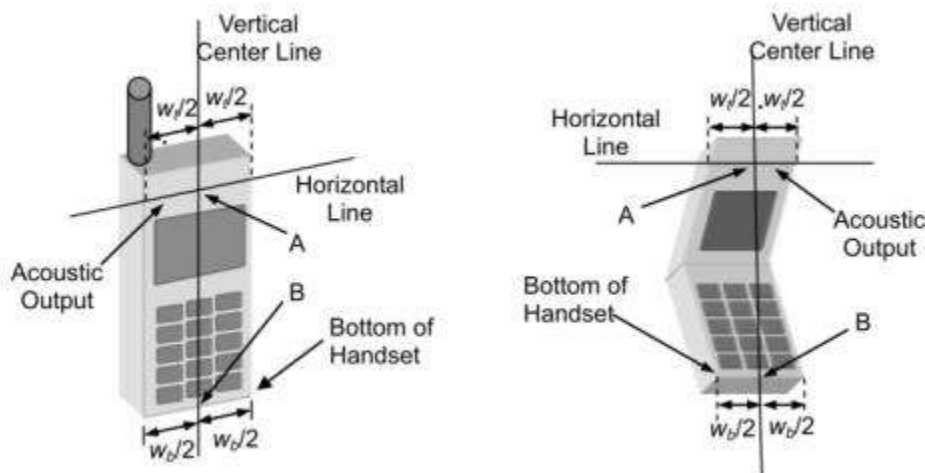
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

6.1 Head Exposure Conditions

Head exposure is limited to next to the ear voice mode operations. Head SAR compliance is tested according to the test positions defined in IEEE Std 1528-2013 using the SAM phantom illustrated as below.

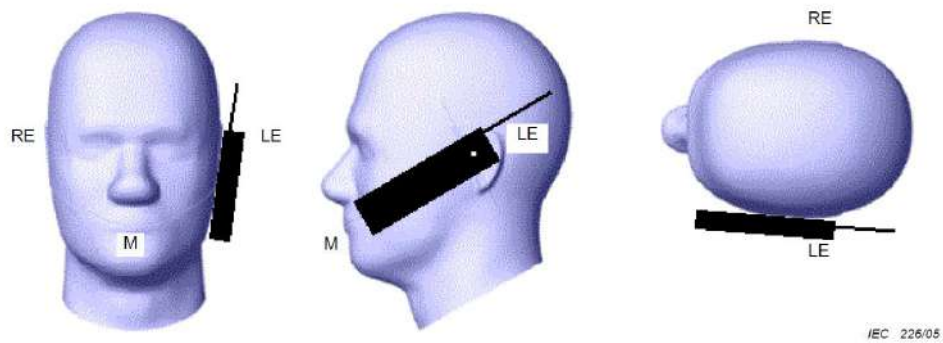
6.1.1 Two Imaginary Lines on the Handset

- The vertical center line 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 bottom of the handset.
- 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.
- 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 center line is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.



6.1.2 Cheek Position

- 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 three 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.
- 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 the 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.



6.1.3 Tilted Position

- (a) To position the device in the “cheek” position described above.
- (b) While maintaining the device 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 contact with the ear is lost.

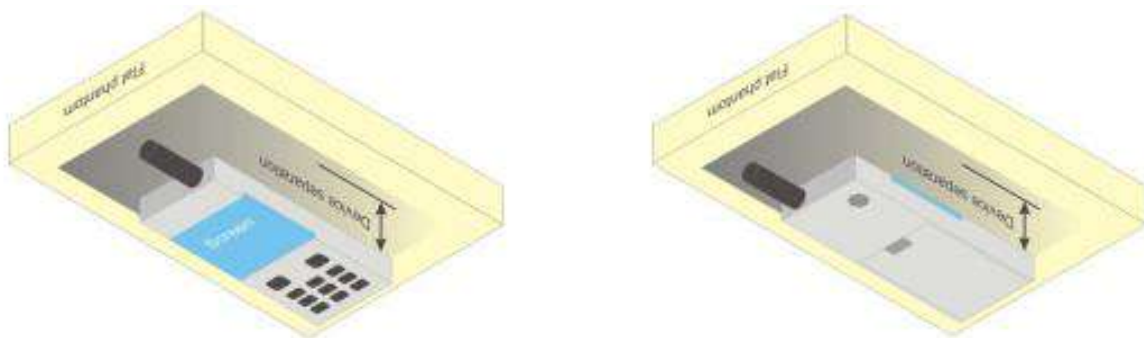


6.2 Body-worn Position Conditions

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 447498 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory.

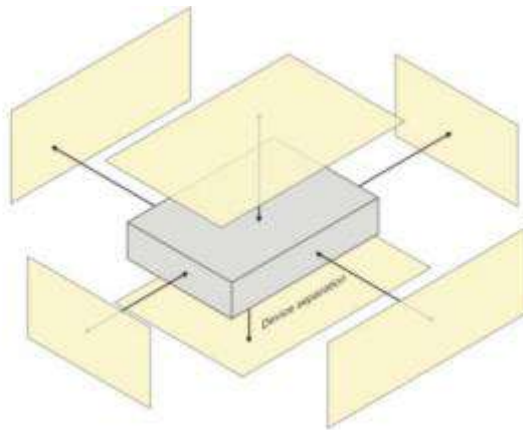
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics. All body-worn accessories containing metallic components are tested in conjunction with the host device.

Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice only operations in its normal and expected use conditions, testing of data mode for body-worn compliance is not required. A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by users of consumer handsets is used to test for body-worn accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, will be tested using a conservative minimum test separation distance ≤ 5 mm to support compliance.



6.3 Hotspot Mode Exposure Position Conditions

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing functions, the relevant hand and body exposure conditions 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 surfaces and edges with a transmitting antenna located within 25 mm from that surface or edge. When the form factor of a handset is smaller than 9 cm x 5 cm, a test separation distance of 5 mm (instead of 10 mm) is required for testing hotspot mode. When the separation 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).



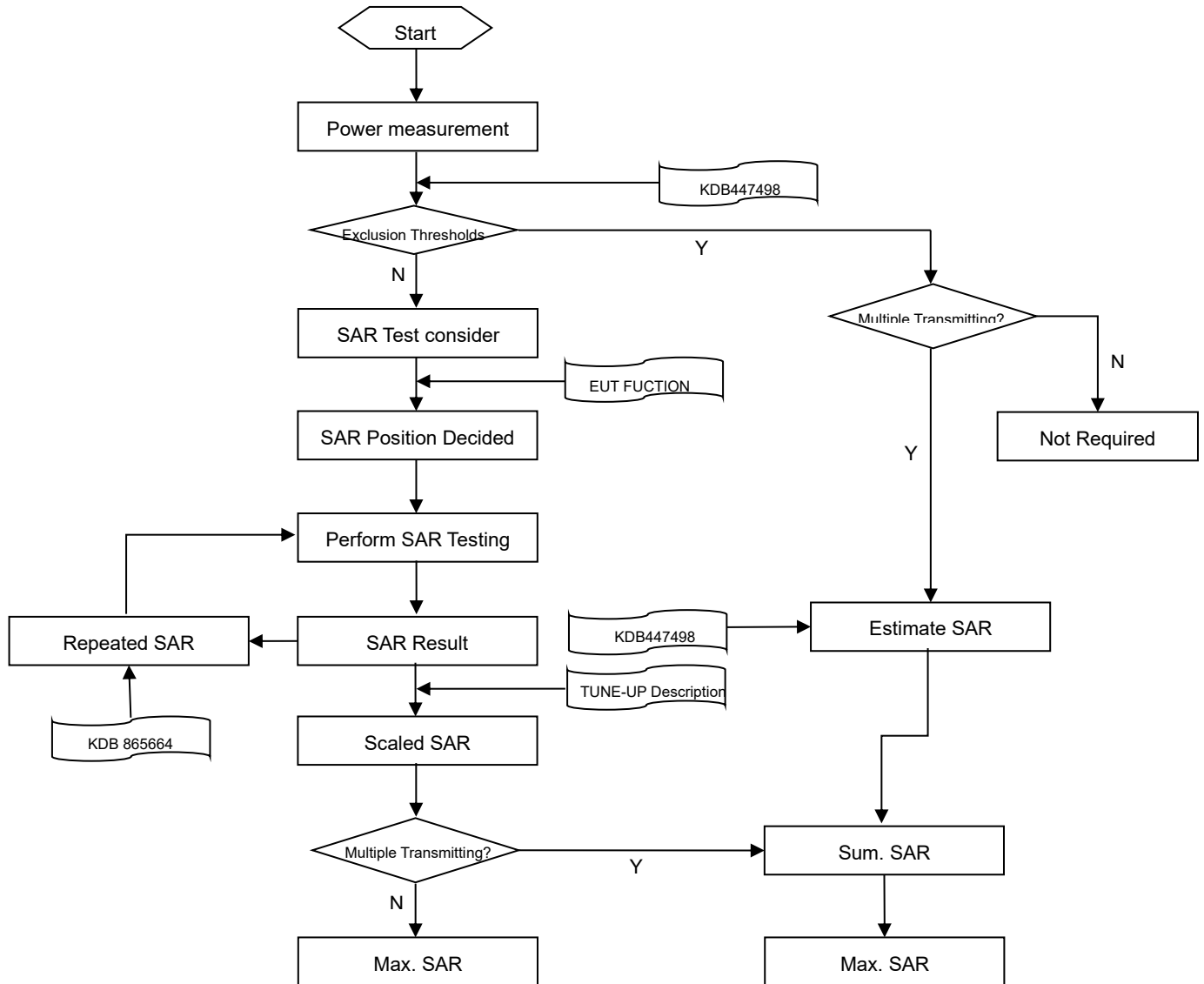
6.4 Product Specific 10g Exposure Consideration

According with FCC KDB 648474 D04, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, unless it is confirmed otherwise through KDB inquiries, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance;

The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

7 MEASUREMENT PROCEDURE

7.1 Measurement Process Diagram



7.2 SAR Scan General Requirement

Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1 g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2013.

			≤3GHz	>3GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5±1 mm	½·δ·ln(2)±0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30°±1°	20°±1°
Maximum area scan spatial resolution: Δx Area , Δy Area			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3–4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx Zoom , Δy Zoom			≤ 2 GHz: ≤ 8 mm 2 –3 GHz: ≤ 5 mm*	3–4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: Δz Zoom (n)		≤ 5 mm	3–4 GHz: ≤ 4 mm
				4–5 GHz: ≤ 3 mm
				5–6 GHz: ≤ 2 mm
	graded grid	Δz Zoom (1): between 1st two points closest to phantom surface	≤ 4 mm	3–4 GHz: ≤ 3 mm
				4–5 GHz: ≤ 2.5 mm
		Δz Zoom (n>1): between subsequent points	≤ 1.5·Δz Zoom (n-1)	
Minimum zoom scan volume	x, y, z		≥30 mm	3–4 GHz: ≥ 28 mm
				4–5 GHz: ≥ 25 mm
				5–6 GHz: ≥ 22 mm

Note:

1. δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.
2. * When zoom scan is required and the reported SAR from the area scan based 1 g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

7.3 Measurement Procedure

The following steps are used for each test position

- a. 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
- b. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
- c. 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.
- d. 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.

7.4 Area & Zoom Scan Procedure

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 D01v01r04 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.

8 CONDUCTED RF OUPUT POWER

8.1 GSM

Please refer the document “BL-SZ2411244-AP Power List.pdf”.

8.2 WCDMA

Please refer the document “BL-SZ2411244-AP Power List.pdf”.

8.3 LTE

Please refer the document “BL-SZ2411244-AP Power List.pdf”.

8.4 WIFI

8.4.1 8.6.12.4G WLAN-Full power

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	19.15	20.00	No
		6	2437	19.25	20.00	No
		11	2462	19.33	20.00	No
	802.11g	1	2412	16.48	18.00	No
		6	2437	16.23	18.00	No
		10	2457	16.54	18.00	No
		11	2462	16.13	17.50	No
	802.11n(HT20)	1	2412	15.48	17.00	No
		6	2437	15.21	17.00	No
		11	2462	15.43	17.00	No
	802.11n(HT40)	3	2422	12.05	14.00	No
		4	2427	13.55	15.50	No
		5	2432	15.17	17.00	No
		6	2437	15.35	17.00	No
		7	2442	15.11	16.50	No
		8	2447	14.27	15.50	No
		9	2452	13.58	15.00	No
	VHT20	1	2412	12.95	14.50	No
		2	2417	15.22	17.00	No
		6	2437	15.26	17.00	No
		10	2457	15.43	17.00	No
		11	2462	13.11	14.50	No
	VHT40	3	2422	10.54	12.50	No
		4	2427	13.57	15.50	No
		5	2432	15.17	17.00	No
		6	2437	14.56	16.00	No
		7	2442	14.59	16.00	No
		8	2447	13.99	15.00	No
		9	2452	11.14	12.50	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

2) When multiple transmission modes (802.11b/g/n/VHT) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.

3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

8.4.2 8.6.12.4G WLAN-Level1

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	19.15	20.00	Yes
		6	2437	19.25	20.00	Yes
		11	2462	19.33	20.00	Yes
	802.11g	1	2412	16.48	18.00	No
		6	2437	16.23	18.00	No
		10	2457	16.54	18.00	No
		11	2462	16.13	17.50	No
	802.11n(HT20)	1	2412	15.48	17.00	No
		6	2437	15.21	17.00	No
		11	2462	15.43	17.00	No
	802.11n(HT40)	3	2422	12.05	14.00	No
		4	2427	13.55	15.50	No
		5	2432	15.17	17.00	No
		6	2437	15.35	17.00	No
		7	2442	15.11	16.50	No
		8	2447	14.27	15.50	No
		9	2452	13.58	15.00	No
	VHT20	1	2412	12.95	14.50	No
		2	2417	15.22	17.00	No
		6	2437	15.26	17.00	No
		10	2457	15.43	17.00	No
		11	2462	13.11	14.50	No
	VHT40	3	2422	10.54	12.50	No
		4	2427	13.57	15.50	No
		5	2432	15.17	17.00	No
		6	2437	14.56	16.00	No
		7	2442	14.59	16.00	No
		8	2447	13.99	15.00	No
		9	2452	11.14	12.50	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

2) When multiple transmission modes (802.11b/g/n/VHT) have the same maximum tune-up output power, largest channel

bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.

3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = $0.160 * (63.10\text{mW}/100.00\text{mW}) = 0.101$ W/Kg, so 2.4G OFDM SAR test is not required.

8.4.3 8.6.12.4G WLAN-Level2

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	19.15	20.00	Yes
		6	2437	19.25	20.00	Yes
		11	2462	19.33	20.00	Yes
	802.11g	1	2412	16.48	18.00	No
		6	2437	16.23	18.00	No
		10	2457	16.54	18.00	No
		11	2462	16.13	17.50	No
	802.11n(HT20)	1	2412	15.48	17.00	No
		6	2437	15.21	17.00	No
		11	2462	15.43	17.00	No
	802.11n(HT40)	3	2422	12.05	14.00	No
		4	2427	13.55	15.50	No
		5	2432	15.17	17.00	No
		6	2437	15.35	17.00	No
		7	2442	15.11	16.50	No
		8	2447	14.27	15.50	No
		9	2452	13.58	15.00	No
	VHT20	1	2412	12.95	14.50	No
		2	2417	15.22	17.00	No
		6	2437	15.26	17.00	No
		10	2457	15.43	17.00	No
		11	2462	13.11	14.50	No
	VHT40	3	2422	10.54	12.50	No
		4	2427	13.57	15.50	No
		5	2432	15.17	17.00	No
		6	2437	14.56	16.00	No
		7	2442	14.59	16.00	No
		8	2447	13.99	15.00	No
		9	2452	11.14	12.50	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

2) When multiple transmission modes (802.11b/g/n/VHT) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.

3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified

maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = $0.300 * (63.10\text{mW}/100.00\text{mW}) = 0.189$ W/Kg, so 2.4G OFDM SAR test is not required.

8.4.4 8.6.12.4G WLAN-Level3

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	19.15	20.00	Yes
		6	2437	19.25	20.00	Yes
		11	2462	19.33	20.00	Yes
	802.11g	1	2412	16.48	18.00	No
		6	2437	16.23	18.00	No
		10	2457	16.54	18.00	No
		11	2462	16.13	17.50	No
	802.11n(HT20)	1	2412	15.48	17.00	No
		6	2437	15.21	17.00	No
		11	2462	15.43	17.00	No
	802.11n(HT40)	3	2422	12.05	14.00	No
		4	2427	13.55	15.50	No
		5	2432	15.17	17.00	No
		6	2437	15.35	17.00	No
		7	2442	15.11	16.50	No
		8	2447	14.27	15.50	No
		9	2452	13.58	15.00	No
	VHT20	1	2412	12.95	14.50	No
		2	2417	15.22	17.00	No
		6	2437	15.26	17.00	No
		10	2457	15.43	17.00	No
		11	2462	13.11	14.50	No
	VHT40	3	2422	10.54	12.50	No
		4	2427	13.57	15.50	No
		5	2432	15.17	17.00	No
		6	2437	14.56	16.00	No
		7	2442	14.59	16.00	No
		8	2447	13.99	15.00	No
		9	2452	11.14	12.50	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

2) When multiple transmission modes (802.11b/g/n/VHT) have the same maximum tune-up output power, largest channel

bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.

3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.

Adjusted SAR = $0.829 * (63.10\text{mW}/100.00\text{mW}) = 0.523$ W/Kg, so 2.4G OFDM SAR test is not required.

8.4.5 8.6.12.4G WLAN-Level4

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	19.15	20.00	Yes
		6	2437	19.25	20.00	Yes
		11	2462	19.33	20.00	Yes
	802.11g	1	2412	16.48	18.00	No
		6	2437	16.23	18.00	No
		10	2457	16.54	18.00	No
		11	2462	16.13	17.50	No
	802.11n(HT20)	1	2412	15.48	17.00	No
		6	2437	15.21	17.00	No
		11	2462	15.43	17.00	No
	802.11n(HT40)	3	2422	12.05	14.00	No
		4	2427	13.55	15.50	No
		5	2432	15.17	17.00	No
		6	2437	15.35	17.00	No
		7	2442	15.11	16.50	No
		8	2447	14.27	15.50	No
		9	2452	13.58	15.00	No
	VHT20	1	2412	12.95	14.50	No
		2	2417	15.22	17.00	No
		6	2437	15.26	17.00	No
		10	2457	15.43	17.00	No
		11	2462	13.11	14.50	No
	VHT40	3	2422	10.54	12.50	No
		4	2427	13.57	15.50	No
		5	2432	15.17	17.00	No
		6	2437	14.56	16.00	No
		7	2442	14.59	16.00	No
		8	2447	13.99	15.00	No
		9	2452	11.14	12.50	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

- 1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.
- 2) When multiple transmission modes (802.11b/g/n/VHT) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.
- 3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.
Adjusted SAR = $0.829 * (63.10\text{mW}/100.00\text{mW}) = 0.523$ W/Kg, so 2.4G OFDM SAR test is not required.

8.4.6 5G WIFI-Full Power

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	16.86	17.50	No
		44	5220	19.19	20.00	No
		48	5240	19.13	20.00	No
	802.11n(HT20)	36	5180	16.76	17.50	No
		44	5220	18.14	19.00	No
		48	5240	18.07	19.00	No
	802.11n(HT40)	38	5190	15.17	16.00	No
		46	5230	17.05	18.00	No
	802.11ac(VHT20)	36	5180	17.57	18.50	No
		44	5220	17.64	18.50	No
		48	5240	17.74	18.50	No
	802.11ac(VHT40)	38	5190	15.42	16.50	No
		46	5230	16.13	17.00	No
	802.11ac(VHT80)	42	5210	14.45	15.50	No
5.3 (5.25~5.35)	802.11a	52	5260	19.19	20.00	No
		60	5300	19.43	20.00	No
		64	5320	19.18	19.50	No
	802.11n(HT20)	52	5260	17.63	19.00	No
		60	5300	17.81	19.00	No
		64	5320	17.82	19.00	No
	802.11n(HT40)	54	5270	17.14	18.00	No
		62	5310	15.74	17.00	No
	802.11ac(VHT20)	52	5260	17.35	18.50	No
		60	5300	17.46	18.50	No
		64	5320	17.48	18.50	No
	802.11ac(VHT40)	54	5270	15.75	17.00	No
		62	5310	15.72	17.00	No
	802.11ac(VHT80)	58	5290	14.54	16.00	No
5.6 (5.47~5.725)	802.11a	100	5500	16.01	17.00	No
		116	5580	18.15	19.00	No
		140	5700	14.15	15.00	No
	802.11n(HT20)	100	5500	15.48	16.50	No
		116	5580	17.89	19.00	No
		140	5700	12.89	14.00	No
	802.11n(HT40)	102	5510	13.41	14.50	No
		118	5590	16.93	18.00	No

	802.11ac(VHT20)	134	5670	15.95	17.00	No
		100	5500	15.93	17.00	No
		116	5580	17.54	18.50	No
		140	5700	15.24	16.00	No
	802.11ac(VHT40)	102	5510	14.86	16.00	No
		118	5590	15.92	17.00	No
		134	5670	15.92	17.00	No
	802.11ac(VHT80)	106	5530	13.62	15.00	No
		122	5610	14.73	16.00	No
		138	5690	14.68	16.00	No
5.8 (5.725~5.850)	802.11a	149	5745	17.41	18.00	No
		157	5785	17.43	18.00	No
		165	5825	17.45	18.00	No
	802.11n(HT20)	149	5745	16.76	18.00	No
		157	5785	16.73	18.00	No
		165	5825	16.82	18.00	No
	802.11n(HT40)	151	5755	17.41	18.00	No
		159	5795	17.58	18.00	No
	802.11ac(VHT20)	149	5745	17.29	18.00	No
		157	5785	17.19	18.00	No
		165	5825	17.17	18.00	No
	802.11ac(VHT40)	151	5755	16.05	17.00	No
		159	5795	16.09	17.00	No
	802.11ac(VHT80)	155	5775	14.68	16.00	No

Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

8.4.7 5G WIFI-Level1

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	16.86	17.50	No
		44	5220	19.19	20.00	No
		48	5240	19.13	20.00	No
	802.11n(HT20)	36	5180	16.76	17.50	No
		44	5220	18.14	19.00	No
		48	5240	18.07	19.00	No
	802.11n(HT40)	38	5190	15.17	16.00	No
		46	5230	17.05	18.00	No
	802.11ac(VHT20)	36	5180	17.57	18.50	No
		44	5220	17.64	18.50	No
		48	5240	17.74	18.50	No
	802.11ac(VHT40)	38	5190	15.42	16.50	No
		46	5230	16.13	17.00	No
	802.11ac(VHT80)	42	5210	14.45	15.50	No
5.3 (5.25~5.35)	802.11a	52	5260	19.19	20.00	Yes
		60	5300	19.43	20.00	Yes
		64	5320	19.18	19.50	Yes
	802.11n(HT20)	52	5260	17.63	19.00	No
		60	5300	17.81	19.00	No
		64	5320	17.82	19.00	No
	802.11n(HT40)	54	5270	17.14	18.00	No
		62	5310	15.74	17.00	No
	802.11ac(VHT20)	52	5260	17.35	18.50	No
		60	5300	17.46	18.50	No
		64	5320	17.48	18.50	No
	802.11ac(VHT40)	54	5270	15.75	17.00	No
		62	5310	15.72	17.00	No
	802.11ac(VHT80)	58	5290	14.54	16.00	No
5.6 (5.47~5.725)	802.11a	100	5500	16.01	17.00	Yes
		116	5580	18.15	19.00	Yes
		140	5700	14.15	15.00	Yes
	802.11n(HT20)	100	5500	15.48	16.50	No
		116	5580	17.89	19.00	No
		140	5700	12.89	14.00	No
	802.11n(HT40)	102	5510	13.41	14.50	No
		118	5590	16.93	18.00	No

	802.11ac(VHT20)	134	5670	15.95	17.00	No
		100	5500	15.93	17.00	No
		116	5580	17.54	18.50	No
		140	5700	15.24	16.00	No
	802.11ac(VHT40)	102	5510	14.86	16.00	No
		118	5590	15.92	17.00	No
		134	5670	15.92	17.00	No
	802.11ac(VHT80)	106	5530	13.62	15.00	No
		122	5610	14.73	16.00	No
		138	5690	14.68	16.00	No
5.8 (5.725~5.850)	802.11a	149	5745	17.41	18.00	No
		157	5785	17.43	18.00	No
		165	5825	17.45	18.00	No
	802.11n(HT20)	149	5745	16.76	18.00	No
		157	5785	16.73	18.00	No
		165	5825	16.82	18.00	No
	802.11n(HT40)	151	5755	17.41	18.00	Yes
		159	5795	17.58	18.00	Yes
	802.11ac(VHT20)	149	5745	17.29	18.00	No
		157	5785	17.19	18.00	No
		165	5825	17.17	18.00	No
	802.11ac(VHT40)	151	5755	16.05	17.00	No
		159	5795	16.09	17.00	No
	802.11ac(VHT80)	155	5775	14.68	16.00	No

Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

8.4.8 5G WIFI-Level2

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	16.86	17.50	Yes
		44	5220	18.44	19.00	Yes
		48	5240	18.42	19.00	Yes
	802.11n(HT20)	36	5180	16.76	17.50	No
		44	5220	18.14	19.00	No
		48	5240	18.07	19.00	No
	802.11n(HT40)	38	5190	15.17	16.00	No
		46	5230	17.05	18.00	No
	802.11ac(VHT20)	36	5180	17.57	18.50	No
		44	5220	17.64	18.50	No
		48	5240	17.74	18.50	No
	802.11ac(VHT40)	38	5190	15.42	16.50	No
		46	5230	16.13	17.00	No
	802.11ac(VHT80)	42	5210	14.45	15.50	No
5.3 (5.25~5.35)	802.11a	52	5260	18.33	19.00	Yes
		60	5300	18.42	19.00	Yes
		64	5320	18.45	19.00	Yes
	802.11n(HT20)	52	5260	17.63	19.00	No
		60	5300	17.81	19.00	No
		64	5320	17.82	19.00	No
	802.11n(HT40)	54	5270	17.14	18.00	No
		62	5310	15.74	17.00	No
	802.11ac(VHT20)	52	5260	17.35	18.50	No
		60	5300	17.46	18.50	No
		64	5320	17.48	18.50	No
	802.11ac(VHT40)	54	5270	15.75	17.00	No
		62	5310	15.72	17.00	No
	802.11ac(VHT80)	58	5290	14.54	16.00	No
5.6 (5.47~5.725)	802.11a	100	5500	16.01	17.00	No
		116	5580	17.22	18.00	No
		140	5700	14.15	15.00	No
	802.11n(HT20)	100	5500	15.48	16.50	No
		116	5580	17.43	18.00	No
		140	5700	12.89	14.00	No
	802.11n(HT40)	102	5510	13.41	14.50	Yes
		118	5590	16.93	18.00	Yes

	802.11ac(VHT20)	134	5670	15.95	17.00	Yes
		100	5500	15.93	17.00	No
		116	5580	17.33	18.00	No
	802.11ac(VHT40)	140	5700	15.24	16.00	No
		102	5510	14.86	16.00	No
		118	5590	15.92	17.00	No
	802.11ac(VHT80)	134	5670	15.92	17.00	No
		106	5530	13.62	15.00	No
		122	5610	14.73	16.00	No
		138	5690	14.68	16.00	No
5.8 (5.725~5.850)	802.11a	149	5745	16.33	17.00	No
		157	5785	16.38	17.00	No
		165	5825	16.35	17.00	No
	802.11n(HT20)	149	5745	16.11	17.00	No
		157	5785	16.23	17.00	No
		165	5825	16.15	17.00	No
	802.11n(HT40)	151	5755	16.61	17.00	Yes
		159	5795	16.77	17.00	Yes
	802.11ac(VHT20)	149	5745	16.25	17.00	No
		157	5785	16.28	17.00	No
		165	5825	16.32	17.00	No
	802.11ac(VHT40)	151	5755	16.05	17.00	No
		159	5795	16.09	17.00	No
	802.11ac(VHT80)	155	5775	14.68	16.00	No

Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

8.4.9 5G WIFI-Level3

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	16.86	17.50	No
		44	5220	17.35	18.00	No
		48	5240	17.32	18.00	No
	802.11n(HT20)	36	5180	16.76	17.50	No
		44	5220	17.33	18.00	No
		48	5240	17.39	18.00	No
	802.11n(HT40)	38	5190	15.17	16.00	No
		46	5230	17.05	18.00	No
	802.11ac(VHT20)	36	5180	17.41	18.00	No
		44	5220	17.44	18.00	No
		48	5240	17.40	18.00	No
	802.11ac(VHT40)	38	5190	15.42	16.50	No
		46	5230	16.13	17.00	No
	802.11ac(VHT80)	42	5210	14.45	15.50	No
5.3 (5.25~5.35)	802.11a	52	5260	17.12	18.00	No
		60	5300	17.11	18.00	No
		64	5320	17.05	18.00	No
	802.11n(HT20)	52	5260	17.09	18.00	No
		60	5300	17.04	18.00	No
		64	5320	17.09	18.00	No
	802.11n(HT40)	54	5270	17.14	18.00	Yes
		62	5310	15.74	17.00	Yes
	802.11ac(VHT20)	52	5260	17.11	18.00	No
		60	5300	17.13	18.00	No
		64	5320	17.12	18.00	No
	802.11ac(VHT40)	54	5270	15.75	17.00	No
		62	5310	15.72	17.00	No
	802.11ac(VHT80)	58	5290	14.54	16.00	No
5.6 (5.47~5.725)	802.11a	100	5500	12.95	14.00	No
		116	5580	12.94	14.00	No
		140	5700	12.94	14.00	No
	802.11n(HT20)	100	5500	12.88	14.00	No
		116	5580	12.96	14.00	No
		140	5700	12.89	14.00	No
	802.11n(HT40)	102	5510	12.98	14.00	No
		118	5590	12.86	14.00	No

	802.11ac(VHT20)	134	5670	13.02	14.00	No
		100	5500	13.05	14.00	No
		116	5580	13.01	14.00	No
		140	5700	12.98	14.00	No
	802.11ac(VHT40)	102	5510	12.96	14.00	No
		118	5590	12.97	14.00	No
		134	5670	12.96	14.00	No
	802.11ac(VHT80)	106	5530	12.89	14.00	Yes
		122	5610	13.05	14.00	Yes
		138	5690	12.98	14.00	Yes
5.8 (5.725~5.850)	802.11a	149	5745	13.14	14.00	No
		157	5785	13.18	14.00	No
		165	5825	13.14	14.00	No
	802.11n(HT20)	149	5745	13.18	14.00	No
		157	5785	13.18	14.00	No
		165	5825	13.22	14.00	No
	802.11n(HT40)	151	5755	13.21	14.00	No
		159	5795	13.18	14.00	No
	802.11ac(VHT20)	149	5745	13.20	14.00	No
		157	5785	13.22	14.00	No
		165	5825	13.26	14.00	No
	802.11ac(VHT40)	151	5755	13.25	14.00	No
		159	5795	13.24	14.00	No
	802.11ac(VHT80)	155	5775	13.26	14.00	Yes

Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

8.4.10 5G WIFI-Level4

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	16.32	17.00	No
		44	5220	16.38	17.00	No
		48	5240	16.33	17.00	No
	802.11n(HT20)	36	5180	16.42	17.00	No
		44	5220	16.47	17.00	No
		48	5240	16.38	17.00	No
	802.11n(HT40)	38	5190	15.17	16.00	No
		46	5230	16.34	17.00	No
	802.11ac(VHT20)	36	5180	16.44	17.00	No
		44	5220	16.41	17.00	No
		48	5240	16.48	17.00	No
	802.11ac(VHT40)	38	5190	15.42	16.50	No
		46	5230	16.13	17.00	No
	802.11ac(VHT80)	42	5210	14.45	15.50	No
5.3 (5.25~5.35)	802.11a	52	5260	15.62	17.00	No
		60	5300	15.66	17.00	No
		64	5320	15.63	17.00	No
	802.11n(HT20)	52	5260	15.47	17.00	No
		60	5300	15.68	17.00	No
		64	5320	15.88	17.00	No
	802.11n(HT40)	54	5270	16.18	17.00	Yes
		62	5310	15.74	17.00	Yes
	802.11ac(VHT20)	52	5260	15.75	17.00	No
		60	5300	15.74	17.00	No
		64	5320	15.68	17.00	No
	802.11ac(VHT40)	54	5270	15.75	17.00	No
		62	5310	15.72	17.00	No
	802.11ac(VHT80)	58	5290	14.54	16.00	No
5.6 (5.47~5.725)	802.11a	100	5500	11.94	13.00	No
		116	5580	11.94	13.00	No
		140	5700	11.94	13.00	No
	802.11n(HT20)	100	5500	11.94	13.00	No
		116	5580	11.94	13.00	No
		140	5700	11.70	13.00	No
	802.11n(HT40)	102	5510	11.74	13.00	No
		118	5590	11.76	13.00	No

	802.11ac(VHT20)	134	5670	11.95	13.00	No
		100	5500	11.98	13.00	No
		116	5580	11.83	13.00	No
		140	5700	11.87	13.00	No
	802.11ac(VHT40)	102	5510	11.81	13.00	No
		118	5590	11.69	13.00	No
		134	5670	11.93	13.00	No
	802.11ac(VHT80)	106	5530	12.02	13.00	Yes
		122	5610	12.09	13.00	Yes
		138	5690	12.02	13.00	Yes
5.8 (5.725~5.850)	802.11a	149	5745	11.94	13.00	No
		157	5785	11.94	13.00	No
		165	5825	12.09	13.00	No
	802.11n(HT20)	149	5745	11.82	13.00	No
		157	5785	11.92	13.00	No
		165	5825	11.86	13.00	No
	802.11n(HT40)	151	5755	11.93	13.00	No
		159	5795	12.07	13.00	No
	802.11ac(VHT20)	149	5745	11.75	13.00	No
		157	5785	12.10	13.00	No
		165	5825	11.90	13.00	No
	802.11ac(VHT40)	151	5755	12.02	13.00	No
		159	5795	12.01	13.00	No
	802.11ac(VHT80)	155	5775	12.00	13.00	Yes

Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

8.5 Bluetooth

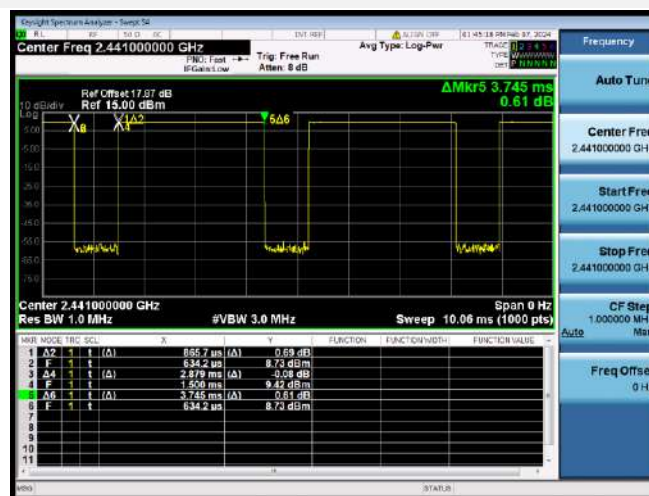
Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Conducted Power (dBm)	9.97	9.21	10.04	6.63	6.15	6.48
Tune-Up Limit (dBm)	11.00	11.00	11.00	8.00	8.00	8.00
SAR Test Require	YES	YES	YES	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Conducted Power (dBm)	6.61	6.13	6.62	/	/	/
Tune-Up Limit (dBm)	8.00	8.00	8.00	/	/	/
SAR Test Require	NO	NO	NO	/	/	/
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	0	19	39
Frequency (MHz)	2402	2440	2480	2402	2440	2480
Conducted Power (dBm)	5.18	5.92	4.88	5.39	6.01	5.02
Tune-Up Limit (dBm)	9.00	6.50	6.50	6.50	6.50	6.50
SAR Test Require	NO	NO	NO	NO	NO	NO

Note 1: Since bluetooth BR mode is the maximum output power mode, SAR measurements were performed with test software using DH5 modulation, and SAR measurement is not required for the EDR and LE. When the secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode.

Note: The Bluetooth duty cycle is 76.88 % as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation.

Duty Cycle

GFSK



8.6 Power Reduction List

1. This mobile phone device supports the receiver detection mechanism .This device uses the receiver to indicate whether the user is making a call in head.
2. When device is making call in head, and the receiver will work, the power reduction will applied for SAR compliance.
3. When there is a voice call (including VOIP), the audio is actively routed through the headset or speaker, and the receiver will not work, which indicating the body exposure conditions will trigger the body/Limbs exposure reduced the power.
4. When this device used data mode only, and the receiver will not work too, the reduced the power are same as body exposure.

WWAN Reduced power level table

Reduced State	Receiver state	Transmitting conditions
DSI5	On (Head scenario)	WWAN Only
DSI7	On (Head scenario)	WWAN+WLAN 2.4G WWAN+WLAN 5G WWAN+WLAN 5G+BT WWAN+BT
DSI6	Off (Body scenario)	WWAN Only
DSI8	Off (Body scenario)	WWAN+WLAN 2.4G WWAN+WLAN 5G WWAN+WLAN 5G+BT WWAN+BT

Mode	Antenna	WWAN Antenna 13				
		Full Power	Head		Body-worn/ Specific	Body-worn/ Hotspot/ Specific
			Receiver on		Receiver off	
			DSI5	DSI7	DSI6	DSI8
GSM 850	ANT13	33.50	29.50	27.50	33.50	31.50
GPRS850 1 Tx Slot	ANT13	33.50	29.50	27.50	33.50	31.50
GPRS850 2 Tx Slots	ANT13	31.50	27.50	25.50	31.50	29.50
GPRS850 3 Tx Slots	ANT13	29.50	25.50	23.50	29.50	27.50
GPRS850 4 Tx Slots	ANT13	28.50	24.50	22.50	28.50	26.50
EGPRS850 1 Tx Slot	ANT13	28.00	28.00	27.50	28.00	28.00
EGPRS850 2 Tx Slots	ANT13	26.00	26.00	25.50	26.00	26.00
EGPRS850 3 Tx Slots	ANT13	24.00	24.00	23.50	24.00	24.00
EGPRS850 4 Tx Slots	ANT13	22.50	22.50	22.00	22.50	22.50
GSM 1900	ANT13	30.50	26.50	24.50	29.50	27.50
GPRS1900 1 Tx Slot	ANT13	30.50	26.50	24.50	29.50	27.50

GPRS1900 2 Tx Slots	ANT13	28.50	24.50	22.50	27.50	25.50
GPRS1900 3 Tx Slots	ANT13	26.50	22.50	20.50	25.50	23.50
GPRS1900 4 Tx Slots	ANT13	25.50	21.50	19.50	24.50	22.50
EGPRS1900 1 Tx Slot	ANT13	27.00	26.50	24.50	27.00	27.00
EGPRS1900 2 Tx Slots	ANT13	25.00	24.50	22.50	25.00	25.00
EGPRS1900 3 Tx Slots	ANT13	23.00	22.50	20.50	23.00	23.00
EGPRS1900 4 Tx Slots	ANT13	21.50	21.00	19.00	21.50	21.50
WCDMA Band2 RMC	ANT13	24.50	17.50	15.50	21.50	19.50
AMR	ANT13	24.50	17.50	15.50	21.50	19.50
HSDPA Subtest-1	ANT13	23.50	16.50	14.50	20.50	18.50
HSDPA Subtest-2	ANT13	23.50	16.50	14.50	20.50	18.50
HSDPA Subtest-3	ANT13	23.00	16.00	14.00	20.00	18.00
HSDPA Subtest-4	ANT13	23.00	16.00	14.00	20.00	18.00
DC-HSDPA Subtest-1	ANT13	23.50	16.50	14.50	20.50	18.50
DC-HSDPA Subtest-2	ANT13	23.50	16.50	14.50	20.50	18.50
DC-HSDPA Subtest-3	ANT13	23.00	16.00	14.00	20.00	18.00
DC-HSDPA Subtest-4	ANT13	23.00	16.00	14.00	20.00	18.00
HSUPA Subtest-1	ANT13	22.50	15.50	13.50	19.50	17.50
HSUPA Subtest-2	ANT13	22.50	15.50	13.50	19.50	17.50
HSUPA Subtest-3	ANT13	23.50	16.50	14.50	20.50	18.50
HSUPA Subtest-4	ANT13	22.00	15.00	13.00	19.00	17.00
HSUPA Subtest-5	ANT13	23.50	16.50	14.50	20.50	18.50
HSPA+	ANT13	22.50	15.50	13.50	19.50	17.50
WCDMA Band4 RMC	ANT13	24.50	17.50	15.50	22.00	20.00
AMR	ANT13	24.50	17.50	15.50	22.00	20.00
HSDPA Subtest-1	ANT13	23.50	16.50	14.50	21.00	19.00
HSDPA Subtest-2	ANT13	23.50	16.50	14.50	21.00	19.00
HSDPA Subtest-3	ANT13	23.00	16.00	14.00	20.50	18.50
HSDPA Subtest-4	ANT13	23.00	16.00	14.00	20.50	18.50
DC-HSDPA Subtest-1	ANT13	23.50	16.50	14.50	21.00	19.00
DC-HSDPA Subtest-2	ANT13	23.50	16.50	14.50	21.00	19.00
DC-HSDPA Subtest-3	ANT13	23.00	16.00	14.00	20.50	18.50
DC-HSDPA Subtest-4	ANT13	23.00	16.00	14.00	20.50	18.50
HSUPA Subtest-1	ANT13	22.50	15.50	13.50	20.00	18.00
HSUPA Subtest-2	ANT13	22.50	15.50	13.50	20.00	18.00
HSUPA Subtest-3	ANT13	23.50	16.50	14.50	21.00	19.00
HSUPA Subtest-4	ANT13	22.00	15.00	13.00	19.50	17.50
HSUPA Subtest-5	ANT13	23.50	16.50	14.50	21.00	19.00
HSPA+	ANT13	22.50	15.50	13.50	20.00	18.00
WCDMA Band5 RMC	ANT13	25.00	21.00	19.00	25.00	24.00
AMR	ANT13	25.00	21.00	19.00	25.00	24.00
HSDPA Subtest-1	ANT13	24.00	20.00	18.00	24.00	23.00
HSDPA Subtest-2	ANT13	24.00	20.00	18.00	24.00	23.00

HSDPA Subtest-3	ANT13	23.50	19.50	17.50	23.50	22.50
HSDPA Subtest-4	ANT13	23.50	19.50	17.50	23.50	22.50
DC-HSDPA Subtest-1	ANT13	24.00	20.00	18.00	24.00	23.00
DC-HSDPA Subtest-2	ANT13	24.00	20.00	18.00	24.00	23.00
DC-HSDPA Subtest-3	ANT13	23.50	19.50	17.50	23.50	22.50
DC-HSDPA Subtest-4	ANT13	23.50	19.50	17.50	23.50	22.50
HSUPA Subtest-1	ANT13	23.00	19.00	17.00	23.00	22.00
HSUPA Subtest-2	ANT13	23.00	19.00	17.00	23.00	22.00
HSUPA Subtest-3	ANT13	24.00	20.00	18.00	24.00	23.00
HSUPA Subtest-4	ANT13	22.50	18.50	16.50	22.50	21.50
HSUPA Subtest-5	ANT13	24.00	20.00	18.00	24.00	23.00
HSPA+	ANT13	23.00	19.00	17.00	23.00	22.00
LTE Band2	ANT13	24.50	17.50	15.50	21.50	19.50
LTE Band4	ANT13	24.50	17.50	15.50	22.00	20.00
LTE Band5	ANT13	25.00	21.00	19.00	25.00	24.00
LTE Band7	ANT13	24.50	16.50	14.50	20.00	18.00
LTE Band13	ANT13	25.00	22.50	20.50	25.00	24.00
LTE Band18	ANT13	25.00	21.00	19.00	25.00	24.00
LTE Band19	ANT13	25.00	21.00	19.00	25.00	24.00
LTE Band26	ANT13	25.00	21.00	19.00	25.00	24.00
LTE Band66	ANT13	24.50	17.50	15.50	22.00	20.00
LTE Band38	ANT13	24.50	17.00	15.00	20.00	18.00
LTE Band41	ANT13	24.50	17.00	15.00	20.00	18.00

Mode	Antenna	WWAN Antenna 31				
		Full Power	Head		Body-worn/ Specific	Body-worn/ Hotspot/ Specific
			Receiver on		Receiver off	
			DSI5	DSI7	DSI6	DSI8
GSM 850	ANT31	33.50	33.50	33.50	33.50	33.50
GPRS850 1 Tx Slot	ANT31	33.50	33.50	33.50	33.50	33.50
GPRS850 2 Tx Slots	ANT31	31.50	31.50	31.50	31.50	31.50
GPRS850 3 Tx Slots	ANT31	29.50	29.50	29.50	29.50	29.50
GPRS850 4 Tx Slots	ANT31	28.50	28.50	28.50	28.50	28.50
EGPRS850 1 Tx Slot	ANT31	28.00	28.00	28.00	28.00	28.00
EGPRS850 2 Tx Slots	ANT31	26.00	26.00	26.00	26.00	26.00
EGPRS850 3 Tx Slots	ANT31	24.00	24.00	24.00	24.00	24.00
EGPRS850 4 Tx Slots	ANT31	22.50	22.50	22.50	22.50	22.50
GSM 1900	ANT31	30.50	30.50	30.50	30.50	28.50
GPRS1900 1 Tx Slot	ANT31	30.50	30.50	30.50	30.50	28.50
GPRS1900 2 Tx Slots	ANT31	28.50	28.50	28.50	28.50	26.50
GPRS1900 3 Tx Slots	ANT31	26.50	26.50	26.50	26.50	24.50
GPRS1900 4 Tx Slots	ANT31	25.50	25.50	25.50	25.50	23.50

EGPRS1900 1 Tx Slot	ANT31	27.00	27.00	27.00	27.00	27.00
EGPRS1900 2 Tx Slots	ANT31	25.00	25.00	25.00	25.00	25.00
EGPRS1900 3 Tx Slots	ANT31	23.00	23.00	23.00	23.00	23.00
EGPRS1900 4 Tx Slots	ANT31	21.50	21.50	21.50	21.50	21.50
WCDMA Band2 RMC	ANT31	24.50	24.50	24.50	22.50	20.50
AMR	ANT31	24.50	24.50	24.50	22.50	20.50
HSDPA Subtest-1	ANT31	23.50	23.50	23.50	21.50	19.50
HSDPA Subtest-2	ANT31	23.50	23.50	23.50	21.50	19.50
HSDPA Subtest-3	ANT31	23.00	23.00	23.00	21.00	19.00
HSDPA Subtest-4	ANT31	23.00	23.00	23.00	21.00	19.00
DC-HSDPA Subtest-1	ANT31	23.50	23.50	23.50	21.50	19.50
DC-HSDPA Subtest-2	ANT31	23.50	23.50	23.50	21.50	19.50
DC-HSDPA Subtest-3	ANT31	23.00	23.00	23.00	21.00	19.00
DC-HSDPA Subtest-4	ANT31	23.00	23.00	23.00	21.00	19.00
HSUPA Subtest-1	ANT31	22.50	22.50	22.50	20.50	18.50
HSUPA Subtest-2	ANT31	22.50	22.50	22.50	20.50	18.50
HSUPA Subtest-3	ANT31	23.50	23.50	23.50	21.50	19.50
HSUPA Subtest-4	ANT31	22.00	22.00	22.00	20.00	18.00
HSUPA Subtest-5	ANT31	23.50	23.50	23.50	21.50	19.50
HSPA+	ANT31	22.50	22.50	22.50	20.50	18.50
WCDMA Band4 RMC	ANT31	24.50	24.50	24.50	23.00	21.00
AMR	ANT31	24.50	24.50	24.50	23.00	21.00
HSDPA Subtest-1	ANT31	23.50	23.50	23.50	22.00	20.00
HSDPA Subtest-2	ANT31	23.50	23.50	23.50	22.00	20.00
HSDPA Subtest-3	ANT31	23.00	23.00	23.00	21.50	19.50
HSDPA Subtest-4	ANT31	23.00	23.00	23.00	21.50	19.50
DC-HSDPA Subtest-1	ANT31	23.50	23.50	23.50	22.00	20.00
DC-HSDPA Subtest-2	ANT31	23.50	23.50	23.50	22.00	20.00
DC-HSDPA Subtest-3	ANT31	23.00	23.00	23.00	21.50	19.50
DC-HSDPA Subtest-4	ANT31	23.00	23.00	23.00	21.50	19.50
HSUPA Subtest-1	ANT31	22.50	22.50	22.50	21.00	19.00
HSUPA Subtest-2	ANT31	22.50	22.50	22.50	21.00	19.00
HSUPA Subtest-3	ANT31	23.50	23.50	23.50	22.00	20.00
HSUPA Subtest-4	ANT31	22.00	22.00	22.00	20.50	18.50
HSUPA Subtest-5	ANT31	23.50	23.50	23.50	22.00	20.00
HSPA+	ANT31	22.50	22.50	22.50	21.00	19.00
WCDMA Band5 RMC	ANT31	25.00	25.00	25.00	25.00	24.00
AMR	ANT31	25.00	25.00	25.00	25.00	24.00
HSDPA Subtest-1	ANT31	24.00	24.00	24.00	24.00	23.00
HSDPA Subtest-2	ANT31	24.00	24.00	24.00	24.00	23.00
HSDPA Subtest-3	ANT31	23.50	23.50	23.50	23.50	22.50
HSDPA Subtest-4	ANT31	23.50	23.50	23.50	23.50	22.50
DC-HSDPA Subtest-1	ANT31	24.00	24.00	24.00	24.00	23.00

DC-HSDPA Subtest-2	ANT31	24.00	24.00	24.00	24.00	23.00
DC-HSDPA Subtest-3	ANT31	23.50	23.50	23.50	23.50	22.50
DC-HSDPA Subtest-4	ANT31	23.50	23.50	23.50	23.50	22.50
HSUPA Subtest-1	ANT31	23.00	23.00	23.00	23.00	22.00
HSUPA Subtest-2	ANT31	23.00	23.00	23.00	23.00	22.00
HSUPA Subtest-3	ANT31	24.00	24.00	24.00	24.00	23.00
HSUPA Subtest-4	ANT31	22.50	22.50	22.50	22.50	21.50
HSUPA Subtest-5	ANT31	24.00	24.00	24.00	24.00	23.00
HSPA+	ANT31	23.00	23.00	23.00	23.00	22.00
LTE Band2	ANT31	24.50	24.50	24.50	22.50	20.50
LTE Band4	ANT31	24.50	24.50	24.50	23.00	21.00
LTE Band5	ANT31	25.00	25.00	25.00	25.00	24.00
LTE Band7	ANT31	24.50	24.50	24.50	24.50	23.50
LTE Band13	ANT31	25.00	25.00	25.00	25.00	24.00
LTE Band18	ANT31	25.00	25.00	25.00	25.00	24.00
LTE Band19	ANT31	25.00	25.00	25.00	25.00	24.00
LTE Band26	ANT31	25.00	25.00	25.00	25.00	24.00
LTE Band66	ANT31	24.50	24.50	24.50	23.00	21.00
LTE Band38	ANT31	24.50	24.50	24.50	24.50	23.50
LTE Band41	ANT31	24.50	24.50	24.50	24.50	23.50

WLAN&BT Reduced power level table

Reduced State	Receiver state	Transmitting conditions
Level3	On (Head scenario)	WLAN 2.4G Only WLAN 5G Only BT Only
Level4	On (Head scenario)	WWAN+ WLAN 2.4G; WWAN + WLAN 5G + BT; WWAN+WLAN 5G; WWAN+BT; WLAN 5G +BT
Level1	Off (Body scenario)	WLAN 2.4G Only WLAN 5G Only BT Only
Level2	Off (Body scenario)	WWAN+ WLAN 2.4G; WWAN + WLAN 5G + BT; WWAN+WLAN 5G; WWAN+BT; WLAN 5G +BT

Mode	Antenna	WLAN Antenna Chain0				
		Full Power	Head		Body-worn/ Specific	Body-worn/ Hotspot/ Specific
			Receiver on		Receiver off	
			Level3	Level4	Level1	Level2
2.4G WLAN 802.11b	ANT22	20.00	20.00	20.00	20.00	20.00
2.4G WLAN 802.11g	ANT22	18.00	18.00	18.00	18.00	18.00
2.4G WLAN 802.11n20	ANT22	17.00	17.00	17.00	17.00	17.00
2.4G WLAN 802.11n40	ANT22	17.00	17.00	17.00	17.00	17.00
2.4G WLAN 802.11ac20	ANT22	17.00	17.00	17.00	17.00	17.00
2.4G WLAN 802.11ac40	ANT22	17.00	17.00	17.00	17.00	17.00
5.2G WLAN 802.11a	ANT22	20.00	20.00	19.00	18.00	17.00
5.2G WLAN 802.11n20	ANT22	19.00	19.00	19.00	18.00	17.00
5.2G WLAN 802.11n40	ANT22	18.00	18.00	18.00	18.00	17.00
5.2G WLAN 802.11ac20	ANT22	18.50	18.50	18.50	18.00	17.00
5.2G WLAN 802.11ac40	ANT22	17.00	17.00	17.00	17.00	17.00
5.2G WLAN 802.11ac80	ANT22	15.50	15.50	15.50	15.50	15.50
5.3G WLAN 802.11a	ANT22	20.00	20.00	19.00	18.00	17.00
5.3G WLAN 802.11n20	ANT22	19.00	19.00	19.00	18.00	17.00
5.3G WLAN 802.11n40	ANT22	18.00	18.00	18.00	18.00	17.00
5.3G WLAN 802.11ac20	ANT22	18.50	18.50	18.50	18.00	17.00
5.3G WLAN 802.11ac40	ANT22	17.00	17.00	17.00	17.00	17.00
5.3G WLAN 802.11ac80	ANT22	16.00	16.00	16.00	16.00	16.00

5.6G WLAN 802.11a	ANT22	19.00	19.00	18.00	14.00	13.00
5.6G WLAN 802.11n20	ANT22	19.00	19.00	18.00	14.00	13.00
5.6G WLAN 802.11n40	ANT22	18.00	18.00	18.00	14.00	13.00
5.6G WLAN 802.11ac20	ANT22	18.50	18.50	18.00	14.00	13.00
5.6G WLAN 802.11ac40	ANT22	17.00	17.00	17.00	14.00	13.00
5.6G WLAN 802.11ac80	ANT22	16.00	16.00	16.00	14.00	13.00
5.8G WLAN 802.11a	ANT22	18.00	18.00	17.00	14.00	13.00
5.8G WLAN 802.11n20	ANT22	18.00	18.00	17.00	14.00	13.00
5.8G WLAN 802.11n40	ANT22	18.00	18.00	17.00	14.00	13.00
5.8G WLAN 802.11ac20	ANT22	18.00	18.00	17.00	14.00	13.00
5.8G WLAN 802.11ac40	ANT22	17.00	17.00	17.00	14.00	13.00
5.8G WLAN 802.11ac80	ANT22	16.00	16.00	16.00	14.00	13.00
Bluetooth	ANT22	11.00	11.00	11.00	11.00	11.00

9 TEST EXCLUSION CONSIDERATION

Please refer the document “BL-SZ2411244-AI EUT internal photo.pdf” for the detail of the antenna location.

Antenna	Support Bands
Ant 13	GSM: 850/1900 WCDMA: Bands 2/4/5 FDD-LTE: Bands 2/4/5/7/13/18/19/26/66 TD-LTE: Bands 38/41 (2535-2655MHz)
Ant 31	GSM: 850/1900 WCDMA: Bands 2/4/5 FDD-LTE: Bands 2/4/5/7/13/18/19/26/66 TD-LTE: Bands 38/41 (2535-2655MHz)
Ant 22	WIFI 2.4G/5.0G/BT

Antenna	Front Side(mm)	Back Side(mm)	Left Edge(mm)	Right Edge(mm)	Top Edge(mm)	Bottom Edge(mm)
Ant.13	<25	<25	>25	<25	<25	>25
Ant.31	<25	<25	<25	<25	>25	<25
Ant.22	<25	<25	<25	>25	<25	>25

Note: 1.Per KDB 941225 DO6,When the overall length and width of a device is > 9 cm *5 cm, a test separation distance of 10 mm is required for hotspot mode SAR measurements and hotspot mode SAR is measured for all edges and surfaces of the device with a transmitting antenna located within 25 mm from that surface or edge.

10 TEST RESULT

10.1 GSM 850

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head													
Ant.13	DSI5	2Slots	Left Cheek	0	251	848.8	-0.19	0.342	26.33	27.50	1.309	0.448	/
	DSI5		Left Tilt	0	251	848.8	-0.09	0.310	26.33	27.50	1.309	0.406	/
	DSI5		Right Cheek	0	251	848.8	-0.01	0.439	26.33	27.50	1.309	0.575	1#
	DSI5		Right Tilt	0	251	848.8	0.17	0.329	26.33	27.50	1.309	0.431	/
Ant.13	DSI7	2Slots	Left Cheek	0	251	848.8	-0.16	0.307	24.34	25.50	1.306	0.401	/
	DSI7		Left Tilt	0	251	848.8	0.03	0.274	24.34	25.50	1.306	0.358	/
	DSI7		Right Cheek	0	251	848.8	-0.01	0.387	24.34	25.50	1.306	0.505	/
	DSI7		Right Tilt	0	251	848.8	0.04	0.286	24.34	25.50	1.306	0.374	/
Ant.31	DSI5&7	2Slots	Left Cheek	0	190	836.6	0.19	0.104	30.87	31.50	1.156	0.120	/
	DSI5&7		Left Tilt	0	190	836.6	0.11	0.054	30.87	31.50	1.156	0.062	/
	DSI5&7		Right Cheek	0	190	836.6	0.18	0.101	30.87	31.50	1.156	0.117	/
	DSI5&7		Right Tilt	0	190	836.6	-0.02	0.052	30.87	31.50	1.156	0.060	/
Body-worn													
Ant.13	DSI6	2Slots	Front Side	15	190	836.6	0.08	0.152	30.70	31.50	1.202	0.183	/
	DSI6		Back Side	15	190	836.6	0.00	0.262	30.70	31.50	1.202	0.315	2#
Ant.31	DSI6	2Slots	Front Side	15	190	836.6	0.04	0.085	30.87	31.50	1.156	0.098	/
	DSI6		Back Side	15	190	836.6	0.17	0.117	30.87	31.50	1.156	0.135	/
Hotspot													
Ant.13	DSI8	2Slots	Front Side	10	190	836.6	-0.13	0.166	28.35	29.50	1.303	0.216	/
	DSI8		Back Side	10	190	836.6	0.00	0.250	28.35	29.50	1.303	0.326	3#
	DSI8		Right Edge	10	190	836.6	0.12	0.060	28.35	29.50	1.303	0.078	/
	DSI8		Top Edge	10	190	836.6	-0.01	0.249	28.35	29.50	1.303	0.324	/
Ant.31	DSI8	2Slots	Front Side	10	190	836.6	0.02	0.116	30.87	31.50	1.156	0.134	/
	DSI8		Back Side	10	190	836.6	-0.07	0.215	30.87	31.50	1.156	0.249	/
	DSI8		Left Edge	10	190	836.6	0.14	0.056	30.87	31.50	1.156	0.065	/
	DSI8		Right Edge	10	190	836.6	0.10	0.094	30.87	31.50	1.156	0.109	/
	DSI8		Bottom Edge	10	190	836.6	0.19	0.113	30.87	31.50	1.156	0.131	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

10.2GSM 1900

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head													
Ant.13	DSI5	2Slots	Left Cheek	0	661	1880	0.03	0.293	23.76	24.50	1.186	0.347	/
	DSI5		Left Tilt	0	661	1880	-0.07	0.378	23.76	24.50	1.186	0.448	/
	DSI5		Right Cheek	0	661	1880	0.16	0.482	23.76	24.50	1.186	0.572	/
	DSI5		Right Tilt	0	661	1880	0.19	0.645	23.76	24.50	1.186	0.765	/
	DSI5		Right Tilt	0	512	1850.2	0.00	0.776	23.57	24.50	1.239	0.961	4#
	DSI5		Right Tilt	0	810	1909.8	0.07	0.593	23.60	24.50	1.230	0.729	/
Ant.13	DSI7	2Slots	Left Cheek	0	661	1880	-0.02	0.188	21.81	22.50	1.172	0.220	/
	DSI7		Left Tilt	0	661	1880	-0.16	0.245	21.81	22.50	1.172	0.287	/
	DSI7		Right Cheek	0	661	1880	-0.05	0.311	21.81	22.50	1.172	0.364	/
	DSI7		Right Tilt	0	661	1880	-0.15	0.442	21.81	22.50	1.172	0.518	/
Ant.31	DSI5&7	2Slots	Left Cheek	0	661	1880	-0.19	0.097	27.93	28.50	1.140	0.111	/
	DSI5&7		Left Tilt	0	661	1880	0.18	0.075	27.93	28.50	1.140	0.086	/
	DSI5&7		Right Cheek	0	661	1880	0.04	0.082	27.93	28.50	1.140	0.093	/
	DSI5&7		Right Tilt	0	661	1880	-0.06	0.065	27.93	28.50	1.140	0.074	/
Body-worn													
Ant.13	DSI6	2Slots	Front Side	15	661	1880	0.19	0.102	26.67	27.50	1.211	0.124	/
	DSI6		Back Side	15	661	1880	0.03	0.129	26.67	27.50	1.211	0.156	/
Ant.31	DSI6	2Slots	Front Side	15	661	1880	0.01	0.151	27.93	28.50	1.140	0.172	/
	DSI6		Back Side	15	661	1880	0.02	0.279	27.93	28.50	1.140	0.318	5#
Hotspot													
Ant.13	DSI8	2Slots	Front Side	10	661	1880	-0.01	0.123	24.72	25.50	1.197	0.147	/
	DSI8		Back Side	10	661	1880	0.12	0.161	24.72	25.50	1.197	0.193	/
	DSI8		Right Edge	10	661	1880	0.15	0.030	24.72	25.50	1.197	0.036	/
	DSI8		Top Edge	10	661	1880	0.10	0.287	24.72	25.50	1.197	0.344	/
Ant.31	DSI8	2Slots	Front Side	10	661	1880	0.06	0.171	25.51	26.50	1.256	0.215	/
	DSI8		Back Side	10	661	1880	-0.15	0.352	25.51	26.50	1.256	0.442	/
	DSI8		Left Edge	10	661	1880	-0.06	0.090	25.51	26.50	1.256	0.113	/
	DSI8		Right Edge	10	661	1880	-0.01	0.054	25.51	26.50	1.256	0.068	/
	DSI8		Bottom Edge	10	661	1880	-0.03	0.372	25.51	26.50	1.256	0.467	6#
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

10.3WCDMA Band 2

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head													
Ant.13	DSI5	RMC	Left Cheek	0	9400	1880	-0.18	0.295	16.29	17.50	1.321	0.390	/
	DSI5		Left Tilt	0	9400	1880	0.18	0.377	16.29	17.50	1.321	0.498	/
	DSI5		Right Cheek	0	9400	1880	-0.05	0.495	16.29	17.50	1.321	0.654	/
	DSI5		Right Tilt	0	9400	1880	0.01	0.666	16.29	17.50	1.321	0.880	7#
	DSI5		Right Tilt	0	9262	1852.4	0.03	0.605	16.19	17.50	1.352	0.818	/
	DSI5		Right Tilt	0	9538	1907.6	0.04	0.571	16.15	17.50	1.365	0.779	/
Ant.13	DSI7	RMC	Left Cheek	0	9400	1880	-0.09	0.186	14.25	15.50	1.334	0.248	/
	DSI7		Left Tilt	0	9400	1880	0.04	0.238	14.25	15.50	1.334	0.317	/
	DSI7		Right Cheek	0	9400	1880	-0.05	0.312	14.25	15.50	1.334	0.416	/
	DSI7		Right Tilt	0	9400	1880	0.16	0.386	14.25	15.50	1.334	0.515	/
Ant.31	DSI5&7	RMC	Left Cheek	0	9400	1880	-0.08	0.147	23.31	24.50	1.315	0.193	/
	DSI5&7		Left Tilt	0	9400	1880	0.12	0.061	23.31	24.50	1.315	0.080	/
	DSI5&7		Right Cheek	0	9400	1880	-0.03	0.120	23.31	24.50	1.315	0.158	/
	DSI5&7		Right Tilt	0	9400	1880	0.12	0.081	23.31	24.50	1.315	0.107	/
Body-worn													
Ant.13	DSI6	RMC	Front Side	15	9400	1880	-0.19	0.131	20.31	21.50	1.315	0.172	/
	DSI6		Back Side	15	9400	1880	-0.11	0.157	20.31	21.50	1.315	0.206	/
Ant.31	DSI6	RMC	Front Side	15	9400	1880	0.18	0.156	21.34	22.50	1.306	0.204	/
	DSI6		Back Side	15	9400	1880	0.00	0.322	21.34	22.50	1.306	0.421	8#
Hotspot													
Ant.13	DSI8	RMC	Front Side	10	9400	1880	-0.07	0.168	18.34	19.50	1.306	0.219	/
	DSI8		Back Side	10	9400	1880	-0.06	0.219	18.34	19.50	1.306	0.286	/
	DSI8		Right Edge	10	9400	1880	0.00	0.038	18.34	19.50	1.306	0.050	/
	DSI8		Top Edge	10	9400	1880	-0.15	0.357	18.34	19.50	1.306	0.466	/
Ant.31	DSI8	RMC	Front Side	10	9400	1880	0.12	0.163	19.30	20.50	1.318	0.215	/
	DSI8		Back Side	10	9400	1880	-0.17	0.362	19.30	20.50	1.318	0.477	/
	DSI8		Left Edge	10	9400	1880	0.00	0.083	19.30	20.50	1.318	0.109	/
	DSI8		Right Edge	10	9400	1880	0.07	0.042	19.30	20.50	1.318	0.055	/
	DSI8		Bottom Edge	10	9400	1880	0.00	0.431	19.30	20.50	1.318	0.568	9#
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Specific													
Ant.13	DSI6	RMC	Top Edge	0	9400	1880	0.02	1.820	20.31	21.50	1.315	2.393	10#
	DSI6		Top Edge	0	9262	1852.4	0.17	1.680	20.24	21.50	1.337	2.246	/
	DSI6		Top Edge	0	9538	1907.6	-0.13	1.710	20.21	21.50	1.346	2.302	/
Ant.31	DSI6	RMC	Bottom Edge	0	9400	1880	-0.04	1.350	21.34	22.50	1.306	1.763	/
	DSI6		Bottom Edge	0	9262	1852.4	-0.14	1.310	19.22	20.50	1.343	1.759	/
	DSI6		Bottom Edge	0	9538	1907.6	-0.18	1.280	19.18	20.50	1.355	1.734	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

10.4WCDMA Band 4

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head													
Ant.13	DSI5	RMC	Left Cheek	0	1412	1732.4	0.17	0.253	16.37	17.50	1.297	0.328	/
	DSI5		Left Tilt	0	1412	1732.4	0.17	0.305	16.37	17.50	1.297	0.396	/
	DSI5		Right Cheek	0	1412	1732.4	-0.10	0.413	16.37	17.50	1.297	0.536	/
	DSI5		Right Tilt	0	1412	1732.4	-0.15	0.507	16.37	17.50	1.297	0.658	/
	DSI5		Right Tilt	0	1312	1712.4	0.16	0.551	16.35	17.50	1.303	0.718	/
	DSI5		Right Tilt	0	1513	1752.6	0.01	0.587	16.33	17.50	1.309	0.768	11#
Ant.13	DSI7	RMC	Left Cheek	0	1412	1732.4	-0.02	0.160	14.35	15.50	1.303	0.208	/
	DSI7		Left Tilt	0	1412	1732.4	0.10	0.192	14.35	15.50	1.303	0.250	/
	DSI7		Right Cheek	0	1412	1732.4	-0.19	0.261	14.35	15.50	1.303	0.340	/
	DSI7		Right Tilt	0	1412	1732.4	-0.06	0.320	14.35	15.50	1.303	0.417	/
Ant.31	DSI5&7	RMC	Left Cheek	0	1312	1712.4	-0.01	0.048	23.23	24.50	1.340	0.064	/
	DSI5&7		Left Tilt	0	1312	1712.4	-0.15	0.045	23.23	24.50	1.340	0.060	/
	DSI5&7		Right Cheek	0	1312	1712.4	0.18	0.053	23.23	24.50	1.340	0.071	/
	DSI5&7		Right Tilt	0	1312	1712.4	0.09	0.050	23.23	24.50	1.340	0.067	/
Body-worn													
Ant.13	DSI6	RMC	Front Side	15	1312	1712.4	-0.12	0.103	20.91	22.00	1.285	0.132	/
	DSI6		Back Side	15	1312	1712.4	-0.15	0.085	20.91	22.00	1.285	0.109	/
Ant.31	DSI6	RMC	Front Side	15	1312	1712.4	0.16	0.103	21.77	23.00	1.327	0.137	/
	DSI6		Back Side	15	1312	1712.4	-0.02	0.211	21.77	23.00	1.327	0.280	12#
Hotspot													
Ant.13	DSI8	RMC	Front Side	10	1412	1732.4	0.04	0.144	18.91	20.00	1.285	0.185	/
	DSI8		Back Side	10	1412	1732.4	0.06	0.123	18.91	20.00	1.285	0.158	/
	DSI8		Right Edge	10	1412	1732.4	-0.07	0.023	18.91	20.00	1.285	0.030	/
	DSI8		Top Edge	10	1412	1732.4	0.14	0.255	18.91	20.00	1.285	0.328	/
Ant.31	DSI8	RMC	Front Side	10	1312	1712.4	0.03	0.152	19.74	21.00	1.337	0.203	/
	DSI8		Back Side	10	1312	1712.4	-0.08	0.348	19.74	21.00	1.337	0.465	/
	DSI8		Left Edge	10	1312	1712.4	0.01	0.050	19.74	21.00	1.337	0.067	/
	DSI8		Right Edge	10	1312	1712.4	0.05	0.036	19.74	21.00	1.337	0.048	/
	DSI8		Bottom Edge	10	1312	1712.4	0.01	0.354	19.74	21.00	1.337	0.473	13#
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

10.5WCDMA Band 5

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head													
Ant.13	DSI5	RMC	Left Cheek	0	4182	836.4	-0.04	0.430	19.78	21.00	1.324	0.569	/
	DSI5		Left Tilt	0	4182	836.4	-0.04	0.393	19.78	21.00	1.324	0.520	/
	DSI5		Right Cheek	0	4182	836.4	0.17	0.509	19.78	21.00	1.324	0.674	/
	DSI5		Right Tilt	0	4182	836.4	-0.09	0.502	19.78	21.00	1.324	0.665	/
	DSI5		Right Cheek	0	4132	826.4	0.08	0.511	19.71	21.00	1.346	0.688	/
	DSI5		Right Cheek	0	4233	846.6	-0.01	0.526	19.71	21.00	1.346	0.708	14#
Ant.13	DSI7	RMC	Left Cheek	0	4132	826.4	-0.11	0.271	17.73	19.00	1.340	0.363	/
	DSI7		Left Tilt	0	4132	826.4	-0.04	0.248	17.73	19.00	1.340	0.332	/
	DSI7		Right Cheek	0	4132	826.4	0.17	0.319	17.73	19.00	1.340	0.427	/
	DSI7		Right Tilt	0	4132	826.4	0.07	0.317	17.73	19.00	1.340	0.425	/
Ant.31	DSI5&7	RMC	Left Cheek	0	4132	826.4	0.02	0.111	23.66	25.00	1.361	0.151	/
	DSI5&7		Left Tilt	0	4132	826.4	0.05	0.063	23.66	25.00	1.361	0.086	/
	DSI5&7		Right Cheek	0	4132	826.4	0.05	0.100	23.66	25.00	1.361	0.136	/
	DSI5&7		Right Tilt	0	4132	826.4	-0.18	0.049	23.66	25.00	1.361	0.067	/
Body-worn													
Ant.13	DSI6	RMC	Front Side	15	4182	836.4	0.11	0.124	23.76	25.00	1.330	0.165	/
	DSI6		Back Side	15	4182	836.4	0.03	0.243	23.76	25.00	1.330	0.323	15#
Ant.31	DSI6	RMC	Front Side	15	4132	826.4	-0.07	0.092	23.66	25.00	1.361	0.125	/
	DSI6		Back Side	15	4132	826.4	0.11	0.118	23.66	25.00	1.361	0.161	/
Hotspot													
Ant.31	DSI8	RMC	Front Side	10	4182	836.4	-0.15	0.182	22.78	24.00	1.324	0.241	/
	DSI8		Back Side	10	4182	836.4	-0.01	0.387	22.78	24.00	1.324	0.512	16#
	DSI8		Right Edge	10	4182	836.4	0.19	0.070	22.78	24.00	1.324	0.093	/
	DSI8		Top Edge	10	4182	836.4	-0.01	0.257	22.78	24.00	1.324	0.340	/
Ant.13	DSI8	RMC	Front Side	10	4132	826.4	0.11	0.079	22.61	24.00	1.377	0.109	/
	DSI8		Back Side	10	4132	826.4	0.10	0.141	22.61	24.00	1.377	0.194	/
	DSI8		Left Edge	10	4132	826.4	0.02	0.052	22.61	24.00	1.377	0.072	/
	DSI8		Right Edge	10	4132	826.4	0.02	0.074	22.61	24.00	1.377	0.102	/
	DSI8		Bottom Edge	10	4132	826.4	0.15	0.085	22.61	24.00	1.377	0.117	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

10.6LTE Band 2 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.13	DSI5	QPSK	Left Cheek	0	19100	1900	1	MID	0.01	0.383	16.52	17.50	1.253	0.480	/
	DSI5		Left Tilt	0	19100	1900	1	MID	0.14	0.526	16.52	17.50	1.253	0.659	/
	DSI5		Right Cheek	0	19100	1900	1	MID	-0.19	0.663	16.52	17.50	1.253	0.831	/
	DSI5		Right Tilt	0	19100	1900	1	MID	0.02	0.701	16.52	17.50	1.253	0.878	/
	DSI5		Left Cheek	0	19100	1900	50	MID	-0.08	0.375	16.39	17.50	1.291	0.484	/
	DSI5		Left Tilt	0	19100	1900	50	MID	0.11	0.515	16.39	17.50	1.291	0.665	/
	DSI5		Right Cheek	0	19100	1900	50	MID	-0.13	0.663	16.39	17.50	1.291	0.856	/
	DSI5		Right Tilt	0	19100	1900	50	MID	0.07	0.702	16.39	17.50	1.291	0.906	/
	DSI5		Right Tilt	0	18700	1860	1	MID	-0.02	0.754	16.48	17.50	1.265	0.954	17#
	DSI5		Right Tilt	0	18900	1880	1	MID	-0.07	0.732	16.45	17.50	1.274	0.933	/
	DSI5		Right Tilt	0	18700	1860	50	MID	0.09	0.704	16.37	17.50	1.297	0.913	/
	DSI5		Right Tilt	0	18900	1880	50	MID	-0.01	0.711	16.36	17.50	1.300	0.924	/
	DSI5		Right Tilt	0	18900	1880	100	LOW	0.07	0.715	16.35	17.50	1.303	0.932	/
	Ant.13		DSI5	QPSK	Left Cheek	0	18700	1860	1	MID	0.07	0.248	14.55	15.50	1.245
DSI5		Left Tilt	0		18700	1860	1	MID	-0.18	0.338	14.55	15.50	1.245	0.421	/
DSI5		Right Cheek	0		18700	1860	1	MID	-0.07	0.412	14.55	15.50	1.245	0.513	/
DSI5		Right Tilt	0		18700	1860	1	MID	-0.03	0.448	14.55	15.50	1.245	0.558	/
DSI5		Left Cheek	0		18700	1860	50	MID	-0.05	0.235	14.39	15.50	1.291	0.303	/
DSI5		Left Tilt	0		18700	1860	50	MID	0.19	0.315	14.39	15.50	1.291	0.407	/
DSI5		Right Cheek	0		18700	1860	50	MID	-0.07	0.402	14.39	15.50	1.291	0.519	/
DSI5		Right Tilt	0		18700	1860	50	MID	0.03	0.442	14.39	15.50	1.291	0.571	/
Ant.31	DSI5&7	QPSK	Left Cheek	0	19100	1900	1	MID	-0.05	0.166	23.51	24.50	1.256	0.208	/
	DSI5&7		Left Tilt	0	19100	1900	1	MID	-0.03	0.065	23.51	24.50	1.256	0.082	/
	DSI5&7		Right Cheek	0	19100	1900	1	MID	-0.08	0.119	23.51	24.50	1.256	0.149	/
	DSI5&7		Right Tilt	0	19100	1900	1	MID	0.12	0.083	23.51	24.50	1.256	0.104	/
	DSI5&7		Left Cheek	0	18700	1860	50	MID	0.04	0.133	22.36	23.50	1.300	0.173	/
	DSI5&7		Left Tilt	0	18700	1860	50	MID	-0.05	0.051	22.36	23.50	1.300	0.066	/
	DSI5&7		Right Cheek	0	18700	1860	50	MID	0.01	0.095	22.36	23.50	1.300	0.124	/
	DSI5&7		Right Tilt	0	18700	1860	50	MID	-0.14	0.071	22.36	23.50	1.300	0.092	/
Body-worn															
Ant.13	DSI6	QPSK	Front Side	15	18900	1880	1	MID	-0.09	0.113	20.57	21.50	1.239	0.140	/
	DSI6		Back Side	15	18900	1880	1	MID	0.07	0.152	20.57	21.50	1.239	0.188	/
	DSI6		Front Side	15	18700	1860	50	MID	0.00	0.102	20.44	21.50	1.276	0.130	/
	DSI6		Back Side	15	18700	1860	50	MID	0.09	0.145	20.44	21.50	1.276	0.185	/
Ant.31	DSI6	QPSK	Front Side	15	18700	1860	1	MID	0.00	0.160	21.55	22.50	1.245	0.199	/

	DSI6		Back Side	15	18700	1860	1	MID	-0.02	0.212	21.55	22.50	1.245	0.264	18#
	DSI6		Front Side	15	18700	1860	50	HIGH	0.16	0.158	21.42	22.50	1.282	0.203	/
	DSI6		Back Side	15	18700	1860	50	HIGH	-0.10	0.202	21.42	22.50	1.282	0.259	/
Hotspot															
Ant.13	DSI8	QPSK	Front Side	10	18700	1860	1	MID	0.18	0.150	18.54	19.50	1.247	0.187	/
	DSI8		Back Side	10	18700	1860	1	MID	0.10	0.203	18.54	19.50	1.247	0.253	/
	DSI8		Right Edge	10	18700	1860	1	MID	-0.15	0.032	18.54	19.50	1.247	0.040	/
	DSI8		Top Edge	10	18700	1860	1	MID	-0.11	0.329	18.54	19.50	1.247	0.410	/
	DSI8		Front Side	10	18700	1860	50	MID	0.14	0.142	18.42	19.50	1.282	0.182	/
	DSI8		Back Side	10	18700	1860	50	MID	0.09	0.198	18.42	19.50	1.282	0.254	/
	DSI8		Right Edge	10	18700	1860	50	MID	0.09	0.029	18.42	19.50	1.282	0.037	/
	DSI8		Top Edge	10	18700	1860	50	MID	-0.05	0.327	18.42	19.50	1.282	0.419	/
Ant.31	DSI8	QPSK	Front Side	10	19100	1900	1	MID	-0.08	0.156	19.53	20.50	1.250	0.195	/
	DSI8		Back Side	10	19100	1900	1	MID	-0.06	0.374	19.53	20.50	1.250	0.468	/
	DSI8		Left Edge	10	19100	1900	1	MID	0.11	0.049	19.53	20.50	1.250	0.061	/
	DSI8		Right Edge	10	19100	1900	1	MID	0.04	0.091	19.53	20.50	1.250	0.114	/
	DSI8		Bottom Edge	10	19100	1900	1	MID	0.03	0.455	19.53	20.50	1.250	0.569	19#
	DSI8		Front Side	10	18700	1860	50	MID	0.07	0.160	19.39	20.50	1.291	0.207	/
	DSI8		Back Side	10	18700	1860	50	MID	0.11	0.386	19.39	20.50	1.291	0.498	/
	DSI8		Left Edge	10	18700	1860	50	MID	-0.05	0.050	19.39	20.50	1.291	0.065	/
	DSI8		Right Edge	10	18700	1860	50	MID	-0.10	0.093	19.39	20.50	1.291	0.120	/
	DSI8		Bottom Edge	10	18700	1860	50	MID	-0.17	0.411	19.39	20.50	1.291	0.531	/
	Note: Refer to ANNEX C for the detailed test data for each test configuration.														

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	10 g Scaled SAR (W/kg)	Meas. No.
Specific															
Ant.13	DSI6	QPSK	Top Edge	0	18900	1880	1	MID	-0.05	1.750	20.57	21.50	1.239	2.168	/
	DSI6		Top Edge	0	18700	1860	50	MID	-0.19	1.710	20.44	21.50	1.276	2.182	/
	DSI6		Top Edge	0	18700	1860	1	MID	0.01	1.820	20.53	21.50	1.250	2.275	20#
	DSI6		Top Edge	0	19100	1900	1	MID	0.03	1.740	20.49	21.50	1.262	2.196	/
	DSI6		Top Edge	0	18900	1880	50	MID	-0.02	1.720	20.43	21.50	1.279	2.200	/
	DSI6		Top Edge	0	19100	1900	50	MID	0.06	1.750	20.37	21.50	1.297	2.270	/
	DSI6		Top Edge	0	18700	1860	100	LOW	0.03	1.710	20.42	21.50	1.282	2.192	/
Ant.31	DSI6	QPSK	Bottom Edge	0	18700	1860	1	MID	0.05	1.350	21.55	22.50	1.245	1.681	/
	DSI6		Bottom Edge	0	18700	1860	50	HIGH	-0.06	1.310	21.42	22.50	1.282	1.679	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.7LTE Band 7 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.13	DSI5	QPSK	Left Cheek	0	20850	2510	1	MID	0.04	0.257	15.50	16.50	1.259	0.324	/
	DSI5		Left Tilt	0	20850	2510	1	MID	0.06	0.347	15.50	16.50	1.259	0.437	/
	DSI5		Right Cheek	0	20850	2510	1	MID	0.02	0.537	15.50	16.50	1.259	0.676	/
	DSI5		Right Tilt	0	20850	2510	1	MID	0.04	0.525	15.50	16.50	1.259	0.661	/
	DSI5		Left Cheek	0	20850	2510	50	MID	-0.04	0.253	15.33	16.50	1.309	0.331	/
	DSI5		Left Tilt	0	20850	2510	50	MID	-0.09	0.325	15.33	16.50	1.309	0.425	/
	DSI5		Right Cheek	0	20850	2510	50	MID	0.04	0.523	15.33	16.50	1.309	0.685	/
	DSI5		Right Tilt	0	20850	2510	50	MID	0.07	0.511	15.33	16.50	1.309	0.669	/
	DSI5		Right Cheek	0	21100	2535	1	MID	0.03	0.464	15.44	16.50	1.276	0.592	/
	DSI5		Right Cheek	0	21350	2560	1	MID	-0.01	0.618	15.24	16.50	1.337	0.826	21#
	DSI5		Right Cheek	0	21100	2535	50	MID	0.15	0.582	15.28	16.50	1.324	0.771	/
	DSI5		Right Cheek	0	21350	2560	50	LOW	-0.12	0.612	15.28	16.50	1.324	0.810	/
Ant.13	DSI7	QPSK	Left Cheek	0	20850	2510	1	MID	0.19	0.165	13.51	14.50	1.256	0.207	/
	DSI7		Left Tilt	0	20850	2510	1	MID	-0.03	0.223	13.51	14.50	1.256	0.280	/
	DSI7		Right Cheek	0	20850	2510	1	MID	-0.04	0.345	13.51	14.50	1.256	0.433	/
	DSI7		Right Tilt	0	20850	2510	1	MID	0.14	0.347	13.51	14.50	1.256	0.436	/
	DSI7		Left Cheek	0	20850	2510	50	MID	0.17	0.155	13.32	14.50	1.312	0.203	/
	DSI7		Left Tilt	0	20850	2510	50	MID	-0.01	0.215	13.32	14.50	1.312	0.282	/
	DSI7		Right Cheek	0	20850	2510	50	MID	-0.03	0.335	13.32	14.50	1.312	0.440	/
	DSI7		Right Tilt	0	20850	2510	50	MID	0.18	0.328	13.32	14.50	1.312	0.430	/
Ant.31	DSI5&7	QPSK	Left Cheek	0	20850	2510	1	MID	-0.05	0.126	23.45	24.50	1.274	0.161	/
	DSI5&7		Left Tilt	0	20850	2510	1	MID	-0.06	0.103	23.45	24.50	1.274	0.131	/
	DSI5&7		Right Cheek	0	20850	2510	1	MID	0.06	0.147	23.45	24.50	1.274	0.187	/
	DSI5&7		Right Tilt	0	20850	2510	1	MID	-0.06	0.148	23.45	24.50	1.274	0.189	/
	DSI5&7		Left Cheek	0	20850	2510	50	MID	0.09	0.100	22.47	23.50	1.268	0.127	/
	DSI5&7		Left Tilt	0	20850	2510	50	MID	-0.05	0.081	22.47	23.50	1.268	0.103	/
	DSI5&7		Right Cheek	0	20850	2510	50	MID	0.02	0.128	22.47	23.50	1.268	0.162	/
	DSI5&7		Right Tilt	0	20850	2510	50	MID	0.15	0.115	22.47	23.50	1.268	0.146	/
Body-worn															
Ant.13	DSI6	QPSK	Front Side	15	21100	2535	1	MID	-0.04	0.106	19.09	20.00	1.233	0.131	/
	DSI6		Back Side	15	21100	2535	1	MID	0.01	0.277	19.09	20.00	1.233	0.342	22#
	DSI6		Front Side	15	20850	2510	50	MID	-0.07	0.113	18.91	20.00	1.285	0.145	/
	DSI6		Back Side	15	20850	2510	50	MID	-0.10	0.244	18.91	20.00	1.285	0.314	/
Ant.31	DSI6	QPSK	Front Side	15	20850	2510	1	MID	-0.10	0.100	23.45	24.50	1.274	0.127	/
	DSI6		Back Side	15	20850	2510	1	MID	0.18	0.137	23.45	24.50	1.274	0.175	/

	DSI6		Front Side	15	20850	2510	50	MID	0.11	0.085	22.47	23.50	1.268	0.108	/
	DSI6		Back Side	15	20850	2510	50	MID	-0.12	0.118	22.47	23.50	1.268	0.150	/
Hotspot															
Ant.13	DSI8	QPSK	Front Side	10	21100	2535	1	MID	0.12	0.137	17.00	18.00	1.259	0.172	/
	DSI8		Back Side	10	21100	2535	1	MID	0.14	0.349	17.00	18.00	1.259	0.439	/
	DSI8		Right Edge	10	21100	2535	1	MID	0.07	0.055	17.00	18.00	1.259	0.069	/
	DSI8		Top Edge	10	21100	2535	1	MID	-0.10	0.430	17.00	18.00	1.259	0.541	/
	DSI8		Front Side	10	21100	2535	50	MID	0.19	0.142	16.81	18.00	1.315	0.187	/
	DSI8		Back Side	10	21100	2535	50	MID	0.17	0.364	16.81	18.00	1.315	0.479	/
	DSI8		Right Edge	10	21100	2535	50	MID	0.13	0.057	16.81	18.00	1.315	0.075	/
	DSI8		Top Edge	10	21100	2535	50	MID	-0.05	0.445	16.81	18.00	1.315	0.585	/
	DSI8		Top Edge	10	20850	2510	1	MID	0.11	0.363	16.96	18.00	1.271	0.461	/
	DSI8		Top Edge	10	21350	2560	1	LOW	-0.05	0.574	17.12	18.00	1.225	0.703	23#
	DSI8		Top Edge	10	20850	2510	50	MID	-0.15	0.420	16.81	18.00	1.315	0.552	/
	DSI8		Top Edge	10	21350	2560	50	MID	0.19	0.459	16.75	18.00	1.334	0.612	/
	DSI8		Top Edge	10	20850	2510	100	LOW	0.16	0.467	16.80	18.00	1.318	0.616	/
	DSI8		Top Edge	10	20850	2510	100	LOW	0.16	0.467	16.80	18.00	1.318	0.616	/
Ant.31	DSI8	QPSK	Front Side	10	20850	2510	1	MID	0.14	0.141	22.55	23.50	1.245	0.176	/
	DSI8		Back Side	10	20850	2510	1	MID	0.06	0.222	22.55	23.50	1.245	0.276	/
	DSI8		Left Edge	10	20850	2510	1	MID	-0.14	0.096	22.55	23.50	1.245	0.120	/
	DSI8		Right Edge	10	20850	2510	1	MID	0.07	0.065	22.55	23.50	1.245	0.081	/
	DSI8		Bottom Edge	10	20850	2510	1	MID	0.13	0.091	22.55	23.50	1.245	0.113	/
	DSI8		Front Side	10	21350	2560	50	LOW	0.17	0.150	22.36	23.50	1.300	0.195	/
	DSI8		Back Side	10	21350	2560	50	LOW	0.10	0.241	22.36	23.50	1.300	0.313	/
	DSI8		Left Edge	10	21350	2560	50	LOW	-0.15	0.107	22.36	23.50	1.300	0.139	/
	DSI8		Right Edge	10	21350	2560	50	LOW	-0.01	0.067	22.36	23.50	1.300	0.087	/
	DSI8		Bottom Edge	10	21350	2560	50	LOW	0.12	0.095	22.36	23.50	1.300	0.124	/
	DSI8		Bottom Edge	10	21350	2560	50	LOW	0.12	0.095	22.36	23.50	1.300	0.124	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	10 g Scaled SAR (W/kg)	Meas. No.
Specific															
Ant.13	DSI6	QPSK	Back Side	0	21100	2535	1	MID	0.16	0.855	19.09	20.00	1.233	1.054	/
	DSI6		Top Edge	0	21100	2535	1	MID	-0.18	1.580	19.09	20.00	1.233	1.948	/
	DSI6		Back Side	0	20850	2510	50	MID	0.16	0.845	18.91	20.00	1.285	1.086	/
	DSI6		Top Edge	0	20850	2510	50	MID	0.18	1.550	18.91	20.00	1.285	1.992	/
	DSI6		Top Edge	0	20850	2510	1	MID	-0.03	1.710	19.08	20.00	1.236	2.114	24#
	DSI6		Top Edge	0	21350	2560	1	MID	-0.02	1.480	18.81	20.00	1.315	1.946	/
	DSI6		Top Edge	0	21100	2535	50	MID	-0.02	1.440	18.82	20.00	1.312	1.889	/
	DSI6		Top Edge	0	21350	2560	50	LOW	-0.01	1.580	18.84	20.00	1.306	2.063	/
	DSI6		Top Edge	0	20850	2510	100	LOW	0.08	1.530	18.83	20.00	1.309	2.003	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.8LTE Band 13 (10MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.13	DSI5	QPSK	Left Cheek	0	23230	782	1	MID	0.03	0.332	21.19	22.50	1.352	0.449	/
	DSI5		Left Tilt	0	23230	782	1	MID	0.05	0.339	21.19	22.50	1.352	0.458	/
	DSI5		Right Cheek	0	23230	782	1	MID	-0.02	0.382	21.19	22.50	1.352	0.516	25#
	DSI5		Right Tilt	0	23230	782	1	MID	0.05	0.356	21.19	22.50	1.352	0.481	/
	DSI5		Left Cheek	0	23230	782	25	MID	-0.04	0.323	21.12	22.50	1.374	0.444	/
	DSI5		Left Tilt	0	23230	782	25	MID	-0.07	0.325	21.12	22.50	1.374	0.447	/
	DSI5		Right Cheek	0	23230	782	25	MID	0.16	0.371	21.12	22.50	1.374	0.510	/
	DSI5		Right Tilt	0	23230	782	25	MID	0.05	0.353	21.12	22.50	1.374	0.485	/
Ant.13	DSI7	QPSK	Left Cheek	0	23230	782	1	MID	-0.07	0.202	19.25	20.50	1.334	0.269	/
	DSI7		Left Tilt	0	23230	782	1	MID	0.19	0.213	19.25	20.50	1.334	0.284	/
	DSI7		Right Cheek	0	23230	782	1	MID	-0.03	0.305	19.25	20.50	1.334	0.407	/
	DSI7		Right Tilt	0	23230	782	1	MID	0.00	0.264	19.25	20.50	1.334	0.352	/
	DSI7		Left Cheek	0	23230	782	25	MID	-0.14	0.201	19.23	20.50	1.340	0.269	/
	DSI7		Left Tilt	0	23230	782	25	MID	-0.07	0.208	19.23	20.50	1.340	0.279	/
	DSI7		Right Cheek	0	23230	782	25	MID	0.19	0.303	19.23	20.50	1.340	0.406	/
	DSI7		Right Tilt	0	23230	782	25	MID	0.01	0.252	19.23	20.50	1.340	0.338	/
Ant.31	DSI5&7	QPSK	Left Cheek	0	23230	782	1	MID	-0.19	0.121	23.68	25.00	1.355	0.164	/
	DSI5&7		Left Tilt	0	23230	782	1	MID	-0.06	0.078	23.68	25.00	1.355	0.106	/
	DSI5&7		Right Cheek	0	23230	782	1	MID	-0.17	0.100	23.68	25.00	1.355	0.136	/
	DSI5&7		Right Tilt	0	23230	782	1	MID	-0.17	0.052	23.68	25.00	1.355	0.070	/
	DSI5&7		Left Cheek	0	23230	782	25	MID	-0.05	0.097	22.49	24.00	1.416	0.137	/
	DSI5&7		Left Tilt	0	23230	782	25	MID	0.09	0.061	22.49	24.00	1.416	0.086	/
	DSI5&7		Right Cheek	0	23230	782	25	MID	0.01	0.075	22.49	24.00	1.416	0.106	/
	DSI5&7		Right Tilt	0	23230	782	25	MID	0.14	0.045	22.49	24.00	1.416	0.064	/
Body-worn															
Ant.13	DSI6	QPSK	Front Side	15	23230	782	1	MID	0.18	0.130	23.62	25.00	1.374	0.179	/
	DSI6		Back Side	15	23230	782	1	MID	-0.02	0.193	23.62	25.00	1.374	0.265	26#
	DSI6		Front Side	15	23230	782	25	MID	0.07	0.105	22.50	24.00	1.413	0.148	/
	DSI6		Back Side	15	23230	782	25	MID	-0.19	0.166	22.50	24.00	1.413	0.235	/
Ant.31	DSI6	QPSK	Front Side	15	23230	782	1	MID	-0.06	0.125	22.49	24.00	1.416	0.177	/
	DSI6		Back Side	15	23230	782	1	MID	0.04	0.154	22.49	24.00	1.416	0.218	/
	DSI6		Front Side	15	23230	782	25	MID	-0.19	0.101	22.49	24.00	1.416	0.143	/
	DSI6		Back Side	15	23230	782	25	MID	-0.18	0.123	22.49	24.00	1.416	0.174	/
Hotspot															
Ant.13	DSI8	QPSK	Front Side	10	23230	782	1	MID	0.08	0.107	22.69	24.00	1.352	0.145	/
	DSI8		Back Side	10	23230	782	1	MID	-0.02	0.239	22.69	24.00	1.352	0.323	27#

	DSI8		Right Edge	10	23230	782	1	HIGH	-0.02	0.116	22.69	24.00	1.352	0.157	/
	DSI8		Top Edge	10	23230	782	1	MID	0.08	0.149	22.69	24.00	1.352	0.201	/
	DSI8		Front Side	10	23230	782	25	MID	0.03	0.105	22.59	24.00	1.384	0.145	/
	DSI8		Back Side	10	23230	782	25	MID	0.11	0.221	22.59	24.00	1.384	0.306	/
	DSI8		Right Edge	10	23230	782	25	MID	-0.05	0.112	22.59	24.00	1.384	0.155	/
	DSI8		Top Edge	10	23230	782	25	MID	-0.09	0.145	22.59	24.00	1.384	0.201	/
Ant.31	DSI8	QPSK	Front Side	10	23095	707.5	1	MID	0.13	0.086	22.57	24.00	1.390	0.120	/
	DSI8		Back Side	10	23095	707.5	1	MID	-0.04	0.122	22.57	24.00	1.390	0.170	/
	DSI8		Left Edge	10	23095	707.5	1	MID	0.14	0.081	22.57	24.00	1.390	0.113	/
	DSI8		Right Edge	10	23095	707.5	1	MID	0.15	0.146	22.57	24.00	1.390	0.203	/
	DSI8		Bottom Edge	10	23095	707.5	1	MID	0.16	0.099	22.57	24.00	1.390	0.138	/
	DSI8		Front Side	10	23095	707.5	25	MID	-0.15	0.085	22.49	24.00	1.416	0.120	/
	DSI8		Back Side	10	23095	707.5	25	MID	0.00	0.115	22.49	24.00	1.416	0.163	/
	DSI8		Left Edge	10	23095	707.5	25	MID	0.06	0.084	22.49	24.00	1.416	0.119	/
	DSI8		Right Edge	10	23095	707.5	25	MID	0.11	0.137	22.49	24.00	1.416	0.194	/
	DSI8		Bottom Edge	10	23095	707.5	25	MID	0.01	0.098	22.49	24.00	1.416	0.139	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

10.9LTE Band 26 (15MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.13	DSI5	QPSK	Left Cheek	0	26765	821.5	1	MID	-0.13	0.373	19.60	21.00	1.380	0.515	/
	DSI5		Left Tilt	0	26765	821.5	1	MID	-0.12	0.375	19.60	21.00	1.380	0.518	/
	DSI5		Right Cheek	0	26765	821.5	1	MID	-0.01	0.456	19.60	21.00	1.380	0.629	28#
	DSI5		Right Tilt	0	26765	821.5	1	MID	-0.05	0.434	19.60	21.00	1.380	0.599	/
	DSI5		Left Cheek	0	26865	831.5	36	MID	-0.14	0.364	19.66	21.00	1.361	0.495	/
	DSI5		Left Tilt	0	26865	831.5	36	MID	0.01	0.377	19.66	21.00	1.361	0.513	/
	DSI5		Right Cheek	0	26865	831.5	36	MID	0.16	0.453	19.66	21.00	1.361	0.617	/
	DSI5		Right Tilt	0	26865	831.5	36	MID	-0.05	0.425	19.66	21.00	1.361	0.578	/
Ant.13	DSI7	QPSK	Left Cheek	0	26865	831.5	1	MID	-0.05	0.241	17.69	19.00	1.352	0.326	/
	DSI7		Left Tilt	0	26865	831.5	1	MID	-0.18	0.238	17.69	19.00	1.352	0.322	/
	DSI7		Right Cheek	0	26865	831.5	1	MID	-0.17	0.332	17.69	19.00	1.352	0.449	/
	DSI7		Right Tilt	0	26865	831.5	1	MID	-0.13	0.285	17.69	19.00	1.352	0.385	/
	DSI7		Left Cheek	0	26865	831.5	36	MID	0.03	0.235	17.75	19.00	1.334	0.313	/
	DSI7		Left Tilt	0	26865	831.5	36	MID	-0.09	0.225	17.75	19.00	1.334	0.300	/
	DSI7		Right Cheek	0	26865	831.5	36	MID	-0.05	0.318	17.75	19.00	1.334	0.424	/
	DSI7		Right Tilt	0	26865	831.5	36	MID	0.02	0.277	17.75	19.00	1.334	0.370	/
Ant.31	DSI5&7	QPSK	Left Cheek	0	26765	821.5	1	MID	-0.13	0.099	23.53	25.00	1.403	0.139	/
	DSI5&7		Left Tilt	0	26765	821.5	1	MID	0.03	0.056	23.53	25.00	1.403	0.079	/
	DSI5&7		Right Cheek	0	26765	821.5	1	MID	-0.04	0.088	23.53	25.00	1.403	0.123	/
	DSI5&7		Right Tilt	0	26765	821.5	1	MID	0.04	0.046	23.53	25.00	1.403	0.065	/
	DSI5&7		Left Cheek	0	26865	831.5	36	MID	0.15	0.079	22.59	24.00	1.384	0.109	/
	DSI5&7		Left Tilt	0	26865	831.5	36	MID	0.14	0.046	22.59	24.00	1.384	0.064	/
	DSI5&7		Right Cheek	0	26865	831.5	36	MID	0.01	0.072	22.59	24.00	1.384	0.100	/
	DSI5&7		Right Tilt	0	26865	831.5	36	MID	0.11	0.030	22.59	24.00	1.384	0.042	/
Body-worn															
Ant.13	DSI6	QPSK	Front Side	15	26765	821.5	1	MID	0.00	0.126	23.68	25.00	1.355	0.171	/
	DSI6		Back Side	15	26765	821.5	1	MID	0.00	0.194	23.68	25.00	1.355	0.263	29#
	DSI6		Front Side	15	26865	831.5	36	MID	-0.19	0.107	22.75	24.00	1.334	0.143	/
	DSI6		Back Side	15	26865	831.5	36	MID	0.03	0.156	22.75	24.00	1.334	0.208	/
Ant.31	DSI6	QPSK	Front Side	15	26865	831.5	1	MID	-0.16	0.073	23.53	25.00	1.403	0.102	/
	DSI6		Back Side	15	26865	831.5	1	MID	-0.12	0.097	23.53	25.00	1.403	0.136	/
	DSI6		Front Side	15	26865	831.5	36	MID	0.19	0.064	22.59	24.00	1.384	0.089	/
	DSI6		Back Side	15	26865	831.5	36	MID	-0.04	0.084	22.59	24.00	1.384	0.116	/
Hotspot															
Ant.13	DSI8	QPSK	Front Side	10	26865	831.5	1	MID	-0.19	0.176	22.60	24.00	1.380	0.243	/
	DSI8		Back Side	10	26865	831.5	1	MID	-0.02	0.349	22.60	24.00	1.380	0.482	30#

	DSI8		Right Edge	10	26865	831.5	1	HIGH	-0.14	0.078	22.60	24.00	1.380	0.108	/
	DSI8		Top Edge	10	26865	831.5	1	MID	-0.08	0.238	22.60	24.00	1.380	0.328	/
	DSI8		Front Side	10	26865	831.5	36	MID	-0.11	0.167	22.70	24.00	1.349	0.225	/
	DSI8		Back Side	10	26865	831.5	36	MID	-0.11	0.343	22.70	24.00	1.349	0.463	/
	DSI8		Right Edge	10	26865	831.5	36	MID	0.07	0.074	22.70	24.00	1.349	0.100	/
	DSI8		Top Edge	10	26865	831.5	36	MID	-0.08	0.225	22.70	24.00	1.349	0.304	/
Ant.31	DSI8	QPSK	Front Side	10	26865	831.5	1	MID	0.12	0.060	22.51	24.00	1.409	0.085	/
	DSI8		Back Side	10	26865	831.5	1	MID	0.04	0.106	22.51	24.00	1.409	0.149	/
	DSI8		Left Edge	10	26865	831.5	1	MID	0.10	0.045	22.51	24.00	1.409	0.063	/
	DSI8		Right Edge	10	26865	831.5	1	MID	0.13	0.057	22.51	24.00	1.409	0.080	/
	DSI8		Bottom Edge	10	26865	831.5	1	MID	0.12	0.074	22.51	24.00	1.409	0.104	/
	DSI8		Front Side	10	26865	831.5	36	MID	-0.02	0.058	22.60	24.00	1.380	0.080	/
	DSI8		Back Side	10	26865	831.5	36	MID	0.00	0.103	22.60	24.00	1.380	0.142	/
	DSI8		Left Edge	10	26865	831.5	36	MID	-0.07	0.044	22.60	24.00	1.380	0.061	/
	DSI8		Right Edge	10	26865	831.5	36	MID	0.17	0.052	22.60	24.00	1.380	0.072	/
	DSI8		Bottom Edge	10	26865	831.5	36	MID	-0.12	0.071	22.60	24.00	1.380	0.098	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

10.10 LTE Band 66 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.13	DSI5	QPSK	Left Cheek	0	132322	1745	1	MID	-0.07	0.355	16.55	17.50	1.245	0.442	/
	DSI5		Left Tilt	0	132322	1745	1	MID	-0.04	0.484	16.55	17.50	1.245	0.603	/
	DSI5		Right Cheek	0	132322	1745	1	MID	0.11	0.588	16.55	17.50	1.245	0.732	/
	DSI5		Right Tilt	0	132322	1745	1	MID	0.15	0.668	16.55	17.50	1.245	0.832	/
	DSI5		Left Cheek	0	132572	1770	50	LOW	0.13	0.345	16.50	17.50	1.259	0.434	/
	DSI5		Left Tilt	0	132572	1770	50	LOW	0.06	0.471	16.50	17.50	1.259	0.593	/
	DSI5		Right Cheek	0	132572	1770	50	LOW	0.11	0.568	16.50	17.50	1.259	0.715	/
	DSI5		Right Tilt	0	132572	1770	50	LOW	-0.05	0.645	16.50	17.50	1.259	0.812	/
	DSI5		Right Tilt	0	132072	1720	1	MID	-0.17	0.623	16.54	17.50	1.247	0.777	/
	DSI5		Right Tilt	0	132572	1770	1	MID	0.01	0.697	16.50	17.50	1.259	0.878	31#
	DSI5		Right Tilt	0	132072	1720	50	MID	0.05	0.613	16.38	17.50	1.294	0.793	/
	DSI5		Right Tilt	0	132322	1745	50	MID	-0.19	0.653	16.42	17.50	1.282	0.837	/
	DSI5		Right Tilt	0	132572	1770	100	LOW	-0.01	0.653	16.45	17.50	1.274	0.832	/
Ant.13	DSI7	QPSK	Left Cheek	0	132322	1745	1	MID	-0.06	0.232	14.64	15.50	1.219	0.283	/
	DSI7		Left Tilt	0	132322	1745	1	MID	0.14	0.313	14.64	15.50	1.219	0.382	/
	DSI7		Right Cheek	0	132322	1745	1	MID	-0.14	0.385	14.64	15.50	1.219	0.469	/
	DSI7		Right Tilt	0	132322	1745	1	MID	0.14	0.435	14.64	15.50	1.219	0.530	/
	DSI7		Left Cheek	0	132572	1770	50	MID	0.19	0.217	14.48	15.50	1.265	0.275	/
	DSI7		Left Tilt	0	132572	1770	50	MID	0.11	0.312	14.48	15.50	1.265	0.395	/
	DSI7		Right Cheek	0	132572	1770	50	MID	0.07	0.382	14.48	15.50	1.265	0.483	/
	DSI7		Right Tilt	0	132572	1770	50	MID	-0.07	0.424	14.48	15.50	1.265	0.536	/
Ant.31	DSI5&7	QPSK	Left Cheek	0	132322	1745	1	MID	0.17	0.065	23.43	24.50	1.279	0.083	/
	DSI5&7		Left Tilt	0	132322	1745	1	MID	0.17	0.049	23.43	24.50	1.279	0.063	/
	DSI5&7		Right Cheek	0	132322	1745	1	MID	-0.15	0.050	23.43	24.50	1.279	0.064	/
	DSI5&7		Right Tilt	0	132322	1745	1	MID	-0.11	0.052	23.43	24.50	1.279	0.067	/
	DSI5&7		Left Cheek	0	132572	1770	50	LOW	0.02	0.052	22.29	23.50	1.321	0.069	/
	DSI5&7		Left Tilt	0	132572	1770	50	LOW	0.16	0.041	22.29	23.50	1.321	0.054	/
	DSI5&7		Right Cheek	0	132572	1770	50	LOW	-0.17	0.043	22.29	23.50	1.321	0.057	/
	DSI5&7		Right Tilt	0	132572	1770	50	LOW	-0.17	0.044	22.29	23.50	1.321	0.058	/
Body-worn															
Ant.13	DSI6	QPSK	Front Side	15	132322	1745	1	MID	-0.19	0.112	21.10	22.00	1.230	0.138	/
	DSI6		Back Side	15	132322	1745	1	MID	-0.08	0.103	21.10	22.00	1.230	0.127	/
	DSI6		Front Side	15	132572	1770	50	LOW	-0.14	0.105	21.02	22.00	1.253	0.132	/
	DSI6		Back Side	15	132572	1770	50	LOW	0.09	0.100	21.02	22.00	1.253	0.125	/
Ant.31	DSI6	QPSK	Front Side	15	132322	1745	1	MID	-0.13	0.084	21.88	23.00	1.294	0.109	/
	DSI6		Back Side	15	132322	1745	1	MID	-0.01	0.132	21.88	23.00	1.294	0.171	32#

	DSI6		Front Side	15	132572	1770	50	LOW	-0.03	0.081	21.83	23.00	1.309	0.106	/
	DSI6		Back Side	15	132572	1770	50	LOW	0.09	0.128	21.83	23.00	1.309	0.168	/
Hotspot															
Ant.13	DSI8	QPSK	Front Side	10	132322	1745	1	MID	0.13	0.147	19.09	20.00	1.233	0.181	/
	DSI8		Back Side	10	132322	1745	1	MID	-0.11	0.152	19.09	20.00	1.233	0.187	/
	DSI8		Right Edge	10	132322	1745	1	MID	0.00	0.032	19.09	20.00	1.233	0.039	/
	DSI8		Top Edge	10	132322	1745	1	MID	-0.17	0.307	19.09	20.00	1.233	0.379	/
	DSI8		Front Side	10	132572	1770	50	LOW	0.18	0.145	19.01	20.00	1.256	0.182	/
	DSI8		Back Side	10	132572	1770	50	LOW	0.05	0.150	19.01	20.00	1.256	0.188	/
	DSI8		Right Edge	10	132572	1770	50	LOW	-0.09	0.030	19.01	20.00	1.256	0.038	/
	DSI8		Top Edge	10	132572	1770	50	LOW	0.12	0.302	19.01	20.00	1.256	0.379	/
Ant.31	DSI8	QPSK	Front Side	10	132572	1770	1	MID	0.01	0.093	19.92	21.00	1.282	0.119	/
	DSI8		Back Side	10	132572	1770	1	MID	0.15	0.250	19.92	21.00	1.282	0.321	/
	DSI8		Left Edge	10	132572	1770	1	MID	0.01	0.024	19.92	21.00	1.282	0.031	/
	DSI8		Right Edge	10	132572	1770	1	MID	-0.04	0.036	19.92	21.00	1.282	0.046	/
	DSI8		Bottom Edge	10	132572	1770	1	MID	0.02	0.333	19.92	21.00	1.282	0.427	33#
	DSI8		Front Side	10	132572	1770	50	LOW	0.01	0.090	19.88	21.00	1.294	0.116	/
	DSI8		Back Side	10	132572	1770	50	LOW	0.08	0.248	19.88	21.00	1.294	0.321	/
	DSI8		Left Edge	10	132572	1770	50	LOW	0.00	0.019	19.88	21.00	1.294	0.025	/
	DSI8		Right Edge	10	132572	1770	50	LOW	0.13	0.036	19.88	21.00	1.294	0.047	/
	DSI8		Bottom Edge	10	132572	1770	50	LOW	0.17	0.325	19.88	21.00	1.294	0.421	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.11 LTE Band 41 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.13	DSI5	QPSK	Left Cheek	0	40640	2595	1	MID	-0.12	0.240	15.95	17.00	1.274	0.306	/
	DSI5		Left Tilt	0	40640	2595	1	MID	0.04	0.288	15.95	17.00	1.274	0.367	/
	DSI5		Right Cheek	0	40640	2595	1	MID	-0.01	0.547	15.95	17.00	1.274	0.697	34#
	DSI5		Right Tilt	0	40640	2595	1	MID	-0.12	0.544	15.95	17.00	1.274	0.693	/
	DSI5		Left Cheek	0	40640	2595	50	MID	-0.13	0.237	15.67	17.00	1.358	0.322	/
	DSI5		Left Tilt	0	40640	2595	50	MID	0.17	0.282	15.67	17.00	1.358	0.383	/
	DSI5		Right Cheek	0	40640	2595	50	MID	-0.15	0.454	15.67	17.00	1.358	0.617	/
	DSI5		Right Tilt	0	40640	2595	50	MID	0.09	0.511	15.67	17.00	1.358	0.694	/
Ant.13	DSI7	QPSK	Left Cheek	0	40140	2545	1	MID	-0.17	0.158	13.95	15.00	1.274	0.201	/
	DSI7		Left Tilt	0	40140	2545	1	MID	-0.14	0.188	13.95	15.00	1.274	0.240	/
	DSI7		Right Cheek	0	40140	2545	1	MID	-0.17	0.366	13.95	15.00	1.274	0.466	/
	DSI7		Right Tilt	0	40140	2545	1	MID	0.01	0.353	13.95	15.00	1.274	0.450	/
	DSI7		Left Cheek	0	40140	2545	50	HIGH	0.17	0.151	13.68	15.00	1.355	0.205	/
	DSI7		Left Tilt	0	40140	2545	50	HIGH	0.16	0.185	13.68	15.00	1.355	0.251	/
	DSI7		Right Cheek	0	40140	2545	50	HIGH	-0.14	0.348	13.68	15.00	1.355	0.472	/
	DSI7		Right Tilt	0	40140	2545	50	HIGH	0.10	0.347	13.68	15.00	1.355	0.470	/
Ant.31	DSI5&7	QPSK	Left Cheek	0	40140	2545	1	MID	0.04	0.069	23.61	24.50	1.227	0.085	/
	DSI5&7		Left Tilt	0	40140	2545	1	MID	0.14	0.051	23.61	24.50	1.227	0.063	/
	DSI5&7		Right Cheek	0	40140	2545	1	MID	-0.05	0.122	23.61	24.50	1.227	0.150	/
	DSI5&7		Right Tilt	0	40140	2545	1	MID	-0.04	0.075	23.61	24.50	1.227	0.092	/
	DSI5&7		Left Cheek	0	40640	2595	50	LOW	0.00	0.054	22.34	23.50	1.306	0.071	/
	DSI5&7		Left Tilt	0	40640	2595	50	LOW	0.14	0.042	22.34	23.50	1.306	0.055	/
	DSI5&7		Right Cheek	0	40640	2595	50	LOW	-0.02	0.118	22.34	23.50	1.306	0.154	/
	DSI5&7		Right Tilt	0	40640	2595	50	LOW	0.07	0.054	22.34	23.50	1.306	0.071	/
Body-worn															
Ant.13	DSI6	QPSK	Front Side	15	40640	2595	1	MID	0.07	0.111	19.08	20.00	1.236	0.137	/
	DSI6		Back Side	15	40640	2595	1	MID	-0.02	0.339	19.08	20.00	1.236	0.419	35#
	DSI6		Front Side	15	40140	2545	50	HIGH	0.18	0.114	18.77	20.00	1.327	0.151	/
	DSI6		Back Side	15	40140	2545	50	HIGH	-0.13	0.311	18.77	20.00	1.327	0.413	/
Ant.31	DSI6	QPSK	Front Side	15	40140	2545	1	MID	-0.11	0.089	23.61	24.50	1.227	0.109	/
	DSI6		Back Side	15	40140	2545	1	MID	0.15	0.138	23.61	24.50	1.227	0.169	/
	DSI6		Front Side	15	40640	2595	50	LOW	-0.16	0.068	22.34	23.50	1.306	0.089	/
	DSI6		Back Side	15	40640	2595	50	LOW	0.07	0.108	22.34	23.50	1.306	0.141	/
Hotspot															
Ant.13	DSI8	QPSK	Front Side	10	40640	2595	1	MID	-0.01	0.150	16.98	18.00	1.265	0.190	/
	DSI8		Back Side	10	40640	2595	1	MID	0.17	0.372	16.98	18.00	1.265	0.471	/

	DSI8		Right Edge	10	40640	2595	1	MID	-0.06	0.063	16.98	18.00	1.265	0.080	/
	DSI8		Top Edge	10	40640	2595	1	MID	0.00	0.417	16.98	18.00	1.265	0.528	36#
	DSI8		Front Side	10	40140	2545	50	HIGH	0.01	0.145	16.62	18.00	1.374	0.199	/
	DSI8		Back Side	10	40140	2545	50	HIGH	-0.06	0.369	16.62	18.00	1.374	0.507	/
	DSI8		Right Edge	10	40140	2545	50	HIGH	-0.17	0.059	16.62	18.00	1.374	0.081	/
	DSI8		Top Edge	10	40140	2545	50	HIGH	0.07	0.378	16.62	18.00	1.374	0.519	/
Ant.31	DSI8	QPSK	Front Side	10	40640	2595	1	MID	-0.07	0.124	22.61	23.50	1.227	0.152	/
	DSI8		Back Side	10	40640	2595	1	MID	0.12	0.223	22.61	23.50	1.227	0.274	/
	DSI8		Left Edge	10	40640	2595	1	MID	-0.18	0.083	22.61	23.50	1.227	0.102	/
	DSI8		Right Edge	10	40640	2595	1	MID	-0.17	0.035	22.61	23.50	1.227	0.043	/
	DSI8		Bottom Edge	10	40640	2595	1	MID	0.12	0.081	22.61	23.50	1.227	0.099	/
	DSI8		Front Side	10	40640	2595	50	LOW	-0.02	0.115	22.31	23.50	1.315	0.151	/
	DSI8		Back Side	10	40640	2595	50	LOW	0.09	0.217	22.31	23.50	1.315	0.285	/
	DSI8		Left Edge	10	40640	2595	50	LOW	-0.01	0.081	22.31	23.50	1.315	0.107	/
	DSI8		Right Edge	10	40640	2595	50	LOW	-0.08	0.032	22.31	23.50	1.315	0.042	/
	DSI8		Bottom Edge	10	40640	2595	50	LOW	-0.13	0.075	22.31	23.50	1.315	0.099	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	10 g Scaled SAR (W/kg)	Meas. No.
Specific															
Ant.13	DSI6	QPSK	Back Side	0	40640	2595	1	MID	-0.01	0.525	19.08	20.00	1.236	0.649	/
	DSI6		Top Edge	0	40640	2595	1	MID	-0.06	0.962	19.08	20.00	1.236	1.189	/
	DSI6		Back Side	0	40140	2545	50	HIGH	0.05	0.512	18.77	20.00	1.327	0.679	/
	DSI6		Top Edge	0	40140	2545	50	HIGH	-0.12	0.973	18.77	20.00	1.327	1.291	/
	DSI6		Top Edge	0	40140	2545	1	MID	0.02	1.060	19.05	20.00	1.245	1.320	37#
	DSI6		Top Edge	0	41140	2645	1	MID	0.03	0.956	18.71	20.00	1.346	1.287	/
	DSI6		Top Edge	0	40640	2595	50	LOW	-0.04	0.884	18.66	20.00	1.361	1.203	/
	DSI6		Top Edge	0	41140	2645	50	LOW	-0.02	0.853	18.33	20.00	1.469	1.253	/
	DSI6		Top Edge	0	40140	2545	100	LOW	0.02	0.914	18.75	20.00	1.334	1.219	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

10.12 WIFI 2.4GHZ

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	Duty Cycle (%)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.22	Level3&4	802.11 b	Left Cheek	0	11	2462	0.00	0.707	19.33	20.00	1.167	99.46	1.005	0.829	38#
	Level3&4		Left Tilt	0	11	2462	0.08	0.423	19.33	20.00	1.167	99.46	1.005	0.496	/
	Level3&4		Right Cheek	0	11	2462	-0.05	0.388	19.33	20.00	1.167	99.46	1.005	0.455	/
	Level3&4		Right Tilt	0	11	2462	0.18	0.368	19.33	20.00	1.167	99.46	1.005	0.432	/
	Level3&4		Left Cheek	0	1	2412	0.01	0.569	19.33	20.00	1.167	99.46	1.005	0.667	/
	Level3&4		Left Cheek	0	6	2437	-0.17	0.623	19.33	20.00	1.167	99.46	1.005	0.731	/
Body-worn															
Ant.22	Leve1&2	802.11	Front Side	15	11	2462	0.10	0.091	19.33	20.00	1.167	99.46	1.005	0.107	/
	Leve1&2	b	Back Side	15	11	2462	0.02	0.136	19.33	20.00	1.167	99.46	1.005	0.160	39#
Hotspot															
Ant.22	Leve2	802.11 b	Front Side	10	11	2462	0.09	0.163	19.33	20.00	1.167	99.46	1.005	0.191	/
	Leve2		Back Side	10	11	2462	-0.01	0.256	19.33	20.00	1.167	99.46	1.005	0.300	40#
	Leve2		Left Edge	10	11	2462	0.00	0.191	19.33	20.00	1.167	99.46	1.005	0.224	/
	Leve2		Top Edge	10	11	2462	-0.16	0.229	19.33	20.00	1.167	99.46	1.005	0.269	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.13 WIFI 5GHz

Antenna	Band	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune- power (dBm)	Scaling Factor	Duty Cycle (%)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head																
Ant.22	5.3G	Leve3	802.11n(HT40)	Left Cheek	0	54	5270	-0.09	0.713	17.14	18.00	1.219	93.50	1.070	0.930	41#
		Leve3		Left Tilt	0	54	5270	0.13	0.526	17.14	18.00	1.219	93.50	1.070	0.686	/
		Leve3		Right Cheek	0	54	5270	-0.15	0.271	17.14	18.00	1.219	93.50	1.070	0.353	/
		Leve3		Right Tilt	0	54	5270	0.06	0.335	17.14	18.00	1.219	93.50	1.070	0.437	/
		Leve3		Left Cheek	0	62	5310	-0.17	0.581	15.74	17.00	1.337	93.50	1.070	0.831	/
		Leve4	802.11n(HT40)	Left Cheek	0	54	5270	-0.09	0.484	16.18	17.00	1.208	93.50	1.070	0.626	/
		Leve4		Left Tilt	0	54	5270	-0.13	0.381	16.18	17.00	1.208	93.50	1.070	0.492	/
		Leve4		Right Cheek	0	54	5270	-0.08	0.225	16.18	17.00	1.208	93.50	1.070	0.291	/
		Leve4		Right Tilt	0	54	5270	0.09	0.295	16.18	17.00	1.208	93.50	1.070	0.381	/
		Leve4														
Ant.22	5.6G	Level3	802.11ac(VHT80)	Left Cheek	0	122	5610	-0.14	0.556	13.05	14.00	1.245	87.89	1.138	0.788	/
		Level3		Left Tilt	0	122	5610	-0.05	0.560	13.05	14.00	1.245	87.89	1.138	0.793	42#
		Level3		Right Cheek	0	122	5610	0.06	0.315	13.05	14.00	1.245	87.89	1.138	0.446	/
		Level3		Right Tilt	0	122	5610	0.15	0.389	13.05	14.00	1.245	87.89	1.138	0.551	/
		Leve4		802.11ac(VHT80)	Left Cheek	0	122	5610	-0.06	0.442	12.09	13.00	1.233	87.89	1.138	0.620
		Leve4	Left Tilt		0	122	5610	0.15	0.451	12.09	13.00	1.233	87.89	1.138	0.633	/
		Leve4	Right Cheek		0	122	5610	-0.15	0.262	12.09	13.00	1.233	87.89	1.138	0.368	/
		Leve4	Right Tilt		0	122	5610	-0.11	0.312	12.09	13.00	1.233	87.89	1.138	0.438	/
		Leve4														
		Ant.22	5.8G	Level3	802.11ac(VHT80)	Left Cheek	0	155	5775	0.02	0.582	13.26	14.00	1.186	87.89	1.138
Level3	Left Tilt			0		155	5775	0.19	0.430	13.26	14.00	1.186	87.89	1.138	0.580	/
Level3	Right Cheek			0		155	5775	-0.04	0.184	13.26	14.00	1.186	87.89	1.138	0.248	/
Level3	Right Tilt			0		155	5775	0.19	0.238	13.26	14.00	1.186	87.89	1.138	0.321	/
Level4	802.11ac(VHT80)			Left Cheek		0	155	5775	-0.17	0.365	12.00	13.00	1.259	87.89	1.138	0.523
Level4				Left Tilt	0	155	5775	-0.12	0.338	12.00	13.00	1.259	87.89	1.138	0.484	/
Level4				Right Cheek	0	155	5775	-0.04	0.149	12.00	13.00	1.259	87.89	1.138	0.213	/
Level4				Right Tilt	0	155	5775	-0.12	0.205	12.00	13.00	1.259	87.89	1.138	0.294	/
Level4																
Body-worn																
Ant.22	5.3G	Leve1	802.11a	Front Side	15	60	5300	0.07	0.172	19.43	20.00	1.140	96.80	1.033	0.203	/
		Leve1		Back Side	15	60	5300	0.04	0.428	19.43	20.00	1.140	96.80	1.033	0.504	44#
Ant.22	5.6G	Leve1	802.11a	Front Side	15	116	5580	-0.18	0.187	18.15	19.00	1.216	96.80	1.033	0.235	/
		Leve1		Back Side	15	116	5580	0.04	0.645	18.15	19.00	1.216	96.80	1.033	0.810	45#
		Leve1		Back Side	15	100	5500	-0.14	0.415	16.01	17.00	1.256	96.80	1.033	0.538	/
		Leve1		Back Side	15	140	5700	0.08	0.284	14.15	15.00	1.216	96.80	1.033	0.357	/
Ant.22	5.8G	Leve1	802.11n(HT40)	Front Side	15	159	5795	-0.13	0.302	17.58	18.00	1.102	93.50	1.070	0.356	/
		Leve1		Back Side	15	159	5795	0.01	0.594	17.58	18.00	1.102	93.50	1.070	0.700	46#
Hotspot																
Ant.22	5.2G	Leve2	802.11a	Front Side	10	44	5220	0.16	0.226	18.44	19.00	1.138	96.80	1.033	0.266	/

		Leve2		Back Side	10	44	5220	0.00	0.585	18.44	19.00	1.138	96.80	1.033	0.688	47#
		Leve2		Left Edge	10	44	5220	0.14	0.432	18.44	19.00	1.138	96.80	1.033	0.508	/
		Leve2		Top Edge	10	44	5220	-0.10	0.535	18.44	19.00	1.138	96.80	1.033	0.629	/
Ant.22	5.8G	Leve2	802.11n(HT40)	Front Side	10	159	5795	-0.01	0.418	16.77	17.00	1.054	93.50	1.070	0.471	/
		Leve2		Back Side	10	159	5795	0.03	0.657	16.77	17.00	1.054	93.50	1.070	0.741	48#
		Leve2		Left Edge	10	159	5795	-0.10	0.332	16.77	17.00	1.054	93.50	1.070	0.374	/
		Leve2		Top Edge	10	159	5795	-0.01	0.504	16.77	17.00	1.054	93.50	1.070	0.568	/
		Leve2		Back Side	10	151	5755	-0.01	0.624	16.61	17.00	1.094	93.50	1.070	0.730	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

Antenna	Band	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune -power (dBm)	Scaling Factor	Duty Cycle (%)	Scaling Factor	10 g Scaled SAR (W/kg)	Meas. No.
Specify																
Ant.22	5.3G	Leve1	802.11a	Front Side	0	60	5300	-0.10	0.559	19.43	20.00	1.140	96.80	1.033	0.658	/
		Leve1		Back Side	0	60	5300	0.07	0.716	19.43	20.00	1.140	96.80	1.033	0.843	/
		Leve1		Left Edge	0	60	5300	-0.06	0.794	19.43	20.00	1.140	96.80	1.033	0.935	49#
		Leve1		Top Edge	0	60	5300	-0.14	0.754	19.43	20.00	1.140	96.80	1.033	0.888	/
Ant.22	5.6G	Leve1	802.11a	Front Side	0	116	5580	-0.17	0.684	18.15	19.00	1.216	96.80	1.033	0.859	/
		Leve1		Back Side	0	116	5580	0.04	0.822	18.15	19.00	1.216	96.80	1.033	1.033	/
		Leve1		Left Edge	0	116	5580	0.06	1.080	18.15	19.00	1.216	96.80	1.033	1.357	50#
		Leve1		Top Edge	0	116	5580	0.02	0.994	18.15	19.00	1.216	96.80	1.033	1.249	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

10.14 Bluetooth

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune- power (dBm)	Scaling Factor	Duty Cycle (%)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.22	DH5	Left Cheek	0	78	2480	-0.05	0.067	10.04	11.00	1.247	76.88	1.301	0.109	51#
		Left Tilt	0	78	2480	0.05	0.049	10.04	11.00	1.247	76.88	1.301	0.079	/
		Right Cheek	0	78	2480	-0.12	0.048	10.04	11.00	1.247	76.88	1.301	0.078	/
		Right Tilt	0	78	2480	0.09	0.047	10.04	11.00	1.247	76.88	1.301	0.076	/
Body-worn														
Ant.22	DH5	Front Side	15	78	2480	-0.05	0.008	10.04	11.00	1.247	76.88	1.301	0.013	/
		Back Side	15	78	2480	-0.09	0.017	10.04	11.00	1.247	76.88	1.301	0.028	52#
Hotspot														
Ant.22	DH5	Front Side	10	78	2480	0.14	0.015	10.04	11.00	1.247	76.88	1.301	0.024	/
		Back Side	10	78	2480	-0.03	0.031	10.04	11.00	1.247	76.88	1.301	0.050	53#
		Left Edge	10	78	2480	0.08	0.022	10.04	11.00	1.247	76.88	1.301	0.036	/
		Top Edge	10	78	2480	-0.16	0.026	10.04	11.00	1.247	76.88	1.301	0.042	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

11 SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are ≤ 1.45 W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is ≤ 1.10 , the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR repeated measurement procedure:

1. When the highest measured SAR is < 0.80 W/kg, repeated measurement is not required.
2. When the highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3. If the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 , or when the original or repeated measurement is ≥ 1.45 W/kg, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 , and the original, first or second repeated measurement is ≥ 1.5 W/kg, perform a third repeated measurement.

Note: For 1g SAR, the highest measured 1g SAR is $0.776 < 0.80$ W/kg, repeated measurement is not required.

12 SIMULTANEOUS TRANSMISSION

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 SAR to Peak Location Ratio (SPLSR).

12.1 Simultaneous Transmission Mode Consider

No.	Simultaneous Tx Combination	Head	Body-Worm	Hotspot	Specific
1	WWAN + WLAN 2.4GHz	Yes	Yes	Yes	Yes
2	WWAN + WLAN 5GHz+BT	Yes	Yes	Yes	Yes

Note:

1. WWAN antennas can switch automatically, the standards supported by WWAN are (GSM/GPRS/EDGE/WCDMA/LTE).
2. The maximum SAR summation is calculated based on the same configuration and test position.
3. The simultaneous transmission combinations of multiple antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations is shown in this report.

12.2 Sum SAR of Simultaneous Transmission

12.2.1 Head Simultaneous Transmission SAR Evaluation for WWAN Mode and 2.4G WLAN or 5G WLAN and BT

Band	Antenna	Position	Stand alone SAR				SUM SAR	
			1	2	3	4	1+2	1+3+4
			WWAN	2.4G WIFI	5G WIFI Max	Bluetooth	WWAN+2.4G WIFI	WWAN+5G WIFI+Bluetooth
GSM850	Ant.13	Left Cheek	0.401	0.829	0.626	0.109	1.230	1.136
GSM850	Ant.13	Left Tilt	0.358	0.496	0.633	0.079	0.854	1.070
GSM850	Ant.13	Right Cheek	0.505	0.455	0.368	0.078	0.960	0.951
GSM850	Ant.13	Right Tilt	0.374	0.432	0.438	0.076	0.806	0.888
GSM850	Ant.31	Left Cheek	0.120	0.829	0.626	0.109	0.949	0.855
GSM850	Ant.31	Left Tilt	0.062	0.496	0.633	0.079	0.558	0.774
GSM850	Ant.31	Right Cheek	0.117	0.455	0.368	0.078	0.572	0.563
GSM850	Ant.31	Right Tilt	0.060	0.432	0.438	0.076	0.492	0.574
GSM 1900	Ant.13	Left Cheek	0.220	0.829	0.626	0.109	1.049	0.955
GSM 1900	Ant.13	Left Tilt	0.287	0.496	0.633	0.079	0.783	0.999
GSM 1900	Ant.13	Right Cheek	0.364	0.455	0.368	0.078	0.819	0.810
GSM 1900	Ant.13	Right Tilt	0.518	0.432	0.438	0.076	0.950	1.032
GSM 1900	Ant.31	Left Cheek	0.111	0.829	0.626	0.109	0.940	0.846
GSM 1900	Ant.31	Left Tilt	0.086	0.496	0.633	0.079	0.582	0.798
GSM 1900	Ant.31	Right Cheek	0.093	0.455	0.368	0.078	0.548	0.539
GSM 1900	Ant.31	Right Tilt	0.074	0.432	0.438	0.076	0.506	0.588
WCDMA B2	Ant.13	Left Cheek	0.248	0.829	0.626	0.109	1.077	0.983
WCDMA B2	Ant.13	Left Tilt	0.317	0.496	0.633	0.079	0.813	1.029
WCDMA B2	Ant.13	Right Cheek	0.416	0.455	0.368	0.078	0.871	0.862
WCDMA B2	Ant.13	Right Tilt	0.515	0.432	0.438	0.076	0.947	1.029
WCDMA B2	Ant.31	Left Cheek	0.193	0.829	0.626	0.109	1.022	0.928
WCDMA B2	Ant.31	Left Tilt	0.080	0.496	0.633	0.079	0.576	0.792
WCDMA B2	Ant.31	Right Cheek	0.158	0.455	0.368	0.078	0.613	0.604
WCDMA B2	Ant.31	Right Tilt	0.107	0.432	0.438	0.076	0.539	0.621
WCDMA B4	Ant.13	Left Cheek	0.208	0.829	0.626	0.109	1.037	0.943
WCDMA B4	Ant.13	Left Tilt	0.250	0.496	0.633	0.079	0.746	0.962
WCDMA B4	Ant.13	Right Cheek	0.340	0.455	0.368	0.078	0.795	0.786
WCDMA B4	Ant.13	Right Tilt	0.417	0.432	0.438	0.076	0.849	0.931
WCDMA B4	Ant.31	Left Cheek	0.064	0.829	0.626	0.109	0.893	0.799
WCDMA B4	Ant.31	Left Tilt	0.060	0.496	0.633	0.079	0.556	0.772
WCDMA B4	Ant.31	Right Cheek	0.071	0.455	0.368	0.078	0.526	0.517
WCDMA B4	Ant.31	Right Tilt	0.067	0.432	0.438	0.076	0.499	0.581
WCDMA B5	Ant.13	Left Cheek	0.363	0.829	0.626	0.109	1.192	1.098
WCDMA B5	Ant.13	Left Tilt	0.332	0.496	0.633	0.079	0.828	1.044
WCDMA B5	Ant.13	Right Cheek	0.427	0.455	0.368	0.078	0.882	0.873

WCDMA B5	Ant.13	Right Tilt	0.425	0.432	0.438	0.076	0.857	0.939
WCDMA B5	Ant.31	Left Cheek	0.151	0.829	0.626	0.109	0.980	0.886
WCDMA B5	Ant.31	Left Tilt	0.086	0.496	0.633	0.079	0.582	0.798
WCDMA B5	Ant.31	Right Cheek	0.136	0.455	0.368	0.078	0.591	0.582
WCDMA B5	Ant.31	Right Tilt	0.067	0.432	0.438	0.076	0.499	0.581
LTE B2	Ant.13	Left Cheek	0.309	0.829	0.626	0.109	1.138	1.044
LTE B2	Ant.13	Left Tilt	0.421	0.496	0.633	0.079	0.917	1.133
LTE B2	Ant.13	Right Cheek	0.519	0.455	0.368	0.078	0.974	0.965
LTE B2	Ant.13	Right Tilt	0.558	0.432	0.438	0.076	0.990	1.072
LTE B2	Ant.31	Left Cheek	0.208	0.829	0.626	0.109	1.037	0.943
LTE B2	Ant.31	Left Tilt	0.082	0.496	0.633	0.079	0.578	0.794
LTE B2	Ant.31	Right Cheek	0.149	0.455	0.368	0.078	0.604	0.595
LTE B2	Ant.31	Right Tilt	0.104	0.432	0.438	0.076	0.536	0.618
LTE B7	Ant.13	Left Cheek	0.207	0.829	0.626	0.109	1.036	0.942
LTE B7	Ant.13	Left Tilt	0.282	0.496	0.633	0.079	0.778	0.994
LTE B7	Ant.13	Right Cheek	0.440	0.455	0.368	0.078	0.895	0.886
LTE B7	Ant.13	Right Tilt	0.436	0.432	0.438	0.076	0.868	0.950
LTE B7	Ant.31	Left Cheek	0.161	0.829	0.626	0.109	0.990	0.896
LTE B7	Ant.31	Left Tilt	0.131	0.496	0.633	0.079	0.627	0.843
LTE B7	Ant.31	Right Cheek	0.187	0.455	0.368	0.078	0.642	0.633
LTE B7	Ant.31	Right Tilt	0.189	0.432	0.438	0.076	0.621	0.703
LTE B13	Ant.13	Left Cheek	0.269	0.829	0.626	0.109	1.098	1.004
LTE B13	Ant.13	Left Tilt	0.284	0.496	0.633	0.079	0.780	0.996
LTE B13	Ant.13	Right Cheek	0.407	0.455	0.368	0.078	0.862	0.853
LTE B13	Ant.13	Right Tilt	0.352	0.432	0.438	0.076	0.784	0.866
LTE B13	Ant.31	Left Cheek	0.164	0.829	0.626	0.109	0.993	0.899
LTE B13	Ant.31	Left Tilt	0.106	0.496	0.633	0.079	0.602	0.818
LTE B13	Ant.31	Right Cheek	0.136	0.455	0.368	0.078	0.591	0.582
LTE B13	Ant.31	Right Tilt	0.070	0.432	0.438	0.076	0.502	0.584
LTE B26	Ant.13	Left Cheek	0.326	0.829	0.626	0.109	1.155	1.061
LTE B26	Ant.13	Left Tilt	0.322	0.496	0.633	0.079	0.818	1.034
LTE B26	Ant.13	Right Cheek	0.449	0.455	0.368	0.078	0.904	0.895
LTE B26	Ant.13	Right Tilt	0.385	0.432	0.438	0.076	0.817	0.899
LTE B26	Ant.31	Left Cheek	0.139	0.829	0.626	0.109	0.968	0.874
LTE B26	Ant.31	Left Tilt	0.079	0.496	0.633	0.079	0.575	0.791
LTE B26	Ant.31	Right Cheek	0.123	0.455	0.368	0.078	0.578	0.569
LTE B26	Ant.31	Right Tilt	0.065	0.432	0.438	0.076	0.497	0.579
LTE B66	Ant.13	Left Cheek	0.283	0.829	0.626	0.109	1.112	1.018
LTE B66	Ant.13	Left Tilt	0.395	0.496	0.633	0.079	0.891	1.107
LTE B66	Ant.13	Right Cheek	0.483	0.455	0.368	0.078	0.938	0.929
LTE B66	Ant.13	Right Tilt	0.536	0.432	0.438	0.076	0.968	1.050
LTE B66	Ant.31	Left Cheek	0.083	0.829	0.626	0.109	0.912	0.818
LTE B66	Ant.31	Left Tilt	0.063	0.496	0.633	0.079	0.559	0.775

LTE B66	Ant.31	Right Cheek	0.064	0.455	0.368	0.078	0.519	0.510
LTE B66	Ant.31	Right Tilt	0.067	0.432	0.438	0.076	0.499	0.581
LTE B41	Ant.13	Left Cheek	0.201	0.829	0.626	0.109	1.030	0.936
LTE B41	Ant.13	Left Tilt	0.251	0.496	0.633	0.079	0.747	0.963
LTE B41	Ant.13	Right Cheek	0.472	0.455	0.368	0.078	0.927	0.918
LTE B41	Ant.13	Right Tilt	0.470	0.432	0.438	0.076	0.902	0.984
LTE B41	Ant.31	Left Cheek	0.085	0.829	0.626	0.109	0.914	0.820
LTE B41	Ant.31	Left Tilt	0.063	0.496	0.633	0.079	0.559	0.775
LTE B41	Ant.31	Right Cheek	0.150	0.455	0.368	0.078	0.605	0.596
LTE B41	Ant.31	Right Tilt	0.092	0.432	0.438	0.076	0.524	0.606

Note:

- 1: The simultaneous transmission combinations of the three antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.
- 2: The highest Summed 1g SAR is 1.23 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

12.2.2 Body-worn Simultaneous Transmission SAR Evaluation for WWAN Mode and 2.4G WLAN or 5G WLAN and BT

Band	Antenna	Position	Stand alone SAR				SUM SAR	
			1	2	3	4	1+2	1+3+4
			WWAN	2.4G WIFI	5G WIFI Max	Bluetooth	WWAN+2.4G WIFI	WWAN+5G WIFI+Bluetooth
GSM850	Ant.13	Front Side15mm	0.183	0.107	0.356	0.013	0.290	0.552
GSM850	Ant.13	Back Side15mm	0.315	0.160	0.810	0.028	0.475	1.153
GSM850	Ant.31	Front Side15mm	0.098	0.107	0.356	0.013	0.205	0.467
GSM850	Ant.31	Back Side15mm	0.135	0.160	0.810	0.028	0.295	0.973
GSM 1900	Ant.13	Front Side15mm	0.124	0.107	0.356	0.013	0.231	0.493
GSM 1900	Ant.13	Back Side15mm	0.156	0.160	0.810	0.028	0.316	0.994
GSM 1900	Ant.31	Front Side15mm	0.172	0.107	0.356	0.013	0.279	0.541
GSM 1900	Ant.31	Back Side15mm	0.318	0.160	0.810	0.028	0.478	1.156
WCDMA B2	Ant.13	Front Side15mm	0.172	0.107	0.356	0.013	0.279	0.541
WCDMA B2	Ant.13	Back Side15mm	0.206	0.160	0.810	0.028	0.366	1.044
WCDMA B2	Ant.31	Front Side15mm	0.204	0.107	0.356	0.013	0.311	0.573
WCDMA B2	Ant.31	Back Side15mm	0.421	0.160	0.810	0.028	0.581	1.259
WCDMA B4	Ant.13	Front Side15mm	0.132	0.107	0.356	0.013	0.239	0.501
WCDMA B4	Ant.13	Back Side15mm	0.109	0.160	0.810	0.028	0.269	0.947
WCDMA B4	Ant.31	Front Side15mm	0.137	0.107	0.356	0.013	0.244	0.506
WCDMA B4	Ant.31	Back Side15mm	0.280	0.160	0.810	0.028	0.440	1.118
WCDMA B5	Ant.13	Front Side15mm	0.165	0.107	0.356	0.013	0.272	0.534
WCDMA B5	Ant.13	Back Side15mm	0.323	0.160	0.810	0.028	0.483	1.161
WCDMA B5	Ant.31	Front Side15mm	0.125	0.107	0.356	0.013	0.232	0.494
WCDMA B5	Ant.31	Back Side15mm	0.161	0.160	0.810	0.028	0.321	0.999
LTE B2	Ant.13	Front Side15mm	0.140	0.107	0.356	0.013	0.247	0.509
LTE B2	Ant.13	Back Side15mm	0.188	0.160	0.810	0.028	0.348	1.026
LTE B2	Ant.31	Front Side15mm	0.199	0.107	0.356	0.013	0.306	0.568
LTE B2	Ant.31	Back Side15mm	0.264	0.160	0.810	0.028	0.424	1.102
LTE B7	Ant.13	Front Side15mm	0.145	0.107	0.356	0.013	0.252	0.514
LTE B7	Ant.13	Back Side15mm	0.342	0.160	0.810	0.028	0.502	1.180
LTE B7	Ant.31	Front Side15mm	0.127	0.107	0.356	0.013	0.234	0.496
LTE B7	Ant.31	Back Side15mm	0.175	0.160	0.810	0.028	0.335	1.013
LTE B13	Ant.13	Front Side15mm	0.179	0.107	0.356	0.013	0.286	0.548
LTE B13	Ant.13	Back Side15mm	0.265	0.160	0.810	0.028	0.425	1.103
LTE B13	Ant.31	Front Side15mm	0.177	0.107	0.356	0.013	0.284	0.546
LTE B13	Ant.31	Back Side15mm	0.218	0.160	0.810	0.028	0.378	1.056
LTE B26	Ant.13	Front Side15mm	0.171	0.107	0.356	0.013	0.278	0.540
LTE B26	Ant.13	Back Side15mm	0.263	0.160	0.810	0.028	0.423	1.101
LTE B26	Ant.31	Front Side15mm	0.102	0.107	0.356	0.013	0.209	0.471
LTE B26	Ant.31	Back Side15mm	0.136	0.160	0.810	0.028	0.296	0.974

LTE B66	Ant.13	Front Side15mm	0.138	0.107	0.356	0.013	0.245	0.507
LTE B66	Ant.13	Back Side15mm	0.127	0.160	0.810	0.028	0.287	0.965
LTE B66	Ant.31	Front Side15mm	0.109	0.107	0.356	0.013	0.216	0.478
LTE B66	Ant.31	Back Side15mm	0.171	0.160	0.810	0.028	0.331	1.009
LTE B41	Ant.13	Front Side15mm	0.137	0.107	0.356	0.013	0.244	0.506
LTE B41	Ant.13	Back Side15mm	0.419	0.160	0.810	0.028	0.579	1.257
LTE B41	Ant.31	Front Side15mm	0.109	0.107	0.356	0.013	0.216	0.478
LTE B41	Ant.31	Back Side15mm	0.169	0.160	0.810	0.028	0.329	1.007

Note:

1: The simultaneous transmission combinations of the three antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest Summed 1g SAR is 1.259 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

12.2.3 Hotspot Simultaneous Transmission SAR Evaluation for WWAN Mode and 2.4G WLAN or 5G WLAN and BT

Band	Antenna	Position	Stand alone SAR				SUM SAR	
			1	2	3	4	1+2	1+3+4
			WWAN	2.4G WIFI	5G WIFI Max	Bluetooth	WWAN+2.4G WIFI	WWAN+5G WIFI+Bluetooth
GSM850	Ant.13	Front Side 10mm	0.216	0.191	0.471	0.024	0.407	0.711
GSM850	Ant.13	Back Side 10mm	0.326	0.300	0.741	0.050	0.626	1.117
GSM850	Ant.13	Right Edge 10mm	0.078	0.000	0.000	0.000	0.078	0.078
GSM850	Ant.13	Top Edge 10mm	0.324	0.269	0.629	0.042	0.593	0.995
GSM850	Ant.31	Front Side 10mm	0.134	0.191	0.471	0.024	0.325	0.629
GSM850	Ant.31	Back Side 10mm	0.249	0.300	0.741	0.050	0.549	1.040
GSM850	Ant.31	Left Edge 10mm	0.065	0.224	0.508	0.036	0.289	0.609
GSM850	Ant.31	Right Edge 10mm	0.109	0.000	0.000	0.000	0.109	0.109
GSM850	Ant.31	Bottom Edge 10mm	0.131	0.000	0.000	0.000	0.131	0.131
GSM 1900	Ant.13	Front Side 10mm	0.147	0.191	0.471	0.024	0.338	0.642
GSM 1900	Ant.13	Back Side 10mm	0.193	0.300	0.741	0.050	0.493	0.984
GSM 1900	Ant.13	Right Edge 10mm	0.036	0.000	0.000	0.000	0.036	0.036
GSM 1900	Ant.13	Top Edge 10mm	0.344	0.269	0.629	0.042	0.613	1.015
GSM 1900	Ant.31	Front Side 10mm	0.215	0.191	0.471	0.024	0.406	0.710
GSM 1900	Ant.31	Back Side 10mm	0.442	0.300	0.741	0.050	0.742	1.233
GSM 1900	Ant.31	Left Edge 10mm	0.113	0.224	0.508	0.036	0.337	0.657
GSM 1900	Ant.31	Right Edge 10mm	0.068	0.000	0.000	0.000	0.068	0.068
GSM 1900	Ant.31	Bottom Edge 10mm	0.467	0.000	0.000	0.000	0.467	0.467
WCDMA B2	Ant.13	Front Side 10mm	0.219	0.191	0.471	0.024	0.410	0.714
WCDMA B2	Ant.13	Back Side 10mm	0.286	0.300	0.741	0.050	0.586	1.077
WCDMA B2	Ant.13	Right Edge 10mm	0.050	0.000	0.000	0.000	0.050	0.050
WCDMA B2	Ant.13	Top Edge 10mm	0.466	0.269	0.629	0.042	0.735	1.137
WCDMA B2	Ant.31	Front Side 10mm	0.215	0.191	0.471	0.024	0.406	0.710
WCDMA B2	Ant.31	Back Side 10mm	0.477	0.300	0.741	0.050	0.777	1.268
WCDMA B2	Ant.31	Left Edge 10mm	0.109	0.224	0.508	0.036	0.333	0.653
WCDMA B2	Ant.31	Right Edge 10mm	0.055	0.000	0.000	0.000	0.055	0.055
WCDMA B2	Ant.31	Bottom Edge 10mm	0.568	0.000	0.000	0.000	0.568	0.568
WCDMA B4	Ant.13	Front Side 10mm	0.185	0.191	0.471	0.024	0.376	0.680
WCDMA B4	Ant.13	Back Side 10mm	0.158	0.300	0.741	0.050	0.458	0.949
WCDMA B4	Ant.13	Right Edge 10mm	0.030	0.000	0.000	0.000	0.030	0.030
WCDMA B4	Ant.13	Top Edge 10mm	0.328	0.269	0.629	0.042	0.597	0.999
WCDMA B4	Ant.31	Front Side 10mm	0.203	0.191	0.471	0.024	0.394	0.698
WCDMA B4	Ant.31	Back Side 10mm	0.465	0.300	0.741	0.050	0.765	1.256
WCDMA B4	Ant.31	Left Edge 10mm	0.067	0.224	0.508	0.036	0.291	0.611
WCDMA B4	Ant.31	Right Edge 10mm	0.048	0.000	0.000	0.000	0.048	0.048
WCDMA B4	Ant.31	Bottom Edge 10mm	0.473	0.000	0.000	0.000	0.473	0.473

WCDMA B5	Ant.13	Front Side 10mm	0.241	0.191	0.471	0.024	0.432	0.736
WCDMA B5	Ant.13	Back Side 10mm	0.512	0.300	0.741	0.050	0.812	1.303
WCDMA B5	Ant.13	Right Edge 10mm	0.093	0.000	0.000	0.000	0.093	0.093
WCDMA B5	Ant.13	Top Edge 10mm	0.340	0.269	0.629	0.042	0.609	1.011
WCDMA B5	Ant.31	Front Side 10mm	0.109	0.191	0.471	0.024	0.300	0.604
WCDMA B5	Ant.31	Back Side 10mm	0.194	0.300	0.741	0.050	0.494	0.985
WCDMA B5	Ant.31	Left Edge 10mm	0.072	0.224	0.508	0.036	0.296	0.616
WCDMA B5	Ant.31	Right Edge 10mm	0.102	0.000	0.000	0.000	0.102	0.102
WCDMA B5	Ant.31	Bottom Edge 10mm	0.117	0.000	0.000	0.000	0.117	0.117
LTE B2	Ant.13	Front Side 10mm	0.187	0.191	0.471	0.024	0.378	0.682
LTE B2	Ant.13	Back Side 10mm	0.254	0.300	0.741	0.050	0.554	1.045
LTE B2	Ant.13	Right Edge 10mm	0.040	0.000	0.000	0.000	0.040	0.040
LTE B2	Ant.13	Top Edge 10mm	0.419	0.269	0.629	0.042	0.688	1.090
LTE B2	Ant.31	Front Side 10mm	0.207	0.191	0.471	0.024	0.398	0.702
LTE B2	Ant.31	Back Side 10mm	0.498	0.300	0.741	0.050	0.798	1.289
LTE B2	Ant.31	Left Edge 10mm	0.065	0.224	0.508	0.036	0.289	0.609
LTE B2	Ant.31	Right Edge 10mm	0.120	0.000	0.000	0.000	0.120	0.120
LTE B2	Ant.31	Bottom Edge 10mm	0.569	0.000	0.000	0.000	0.569	0.569
LTE B7	Ant.13	Front Side 10mm	0.187	0.191	0.471	0.024	0.378	0.682
LTE B7	Ant.13	Back Side 10mm	0.479	0.300	0.741	0.050	0.779	1.270
LTE B7	Ant.13	Right Edge 10mm	0.075	0.000	0.000	0.000	0.075	0.075
LTE B7	Ant.13	Top Edge 10mm	0.703	0.269	0.629	0.042	0.972	1.374
LTE B7	Ant.31	Front Side 10mm	0.195	0.191	0.471	0.024	0.386	0.690
LTE B7	Ant.31	Back Side 10mm	0.313	0.300	0.741	0.050	0.613	1.104
LTE B7	Ant.31	Left Edge 10mm	0.139	0.224	0.508	0.036	0.363	0.683
LTE B7	Ant.31	Right Edge 10mm	0.087	0.000	0.000	0.000	0.087	0.087
LTE B7	Ant.31	Bottom Edge 10mm	0.124	0.000	0.000	0.000	0.124	0.124
LTE B13	Ant.13	Front Side 10mm	0.145	0.191	0.471	0.024	0.336	0.640
LTE B13	Ant.13	Back Side 10mm	0.323	0.300	0.741	0.050	0.623	1.114
LTE B13	Ant.13	Right Edge 10mm	0.157	0.000	0.000	0.000	0.157	0.157
LTE B13	Ant.13	Top Edge 10mm	0.201	0.269	0.629	0.042	0.470	0.872
LTE B13	Ant.31	Front Side 10mm	0.120	0.191	0.471	0.024	0.311	0.615
LTE B13	Ant.31	Back Side 10mm	0.170	0.300	0.741	0.050	0.470	0.961
LTE B13	Ant.31	Left Edge 10mm	0.119	0.224	0.508	0.036	0.343	0.663
LTE B13	Ant.31	Right Edge 10mm	0.203	0.000	0.000	0.000	0.203	0.203
LTE B13	Ant.31	Bottom Edge 10mm	0.139	0.000	0.000	0.000	0.139	0.139
LTE B26	Ant.13	Front Side 10mm	0.243	0.191	0.471	0.024	0.434	0.738
LTE B26	Ant.13	Back Side 10mm	0.482	0.300	0.741	0.050	0.782	1.273
LTE B26	Ant.13	Right Edge 10mm	0.108	0.000	0.000	0.000	0.108	0.108
LTE B26	Ant.13	Top Edge 10mm	0.328	0.269	0.629	0.042	0.597	0.999
LTE B26	Ant.31	Front Side 10mm	0.085	0.191	0.471	0.024	0.276	0.580
LTE B26	Ant.31	Back Side 10mm	0.149	0.300	0.741	0.050	0.449	0.940
LTE B26	Ant.31	Left Edge 10mm	0.063	0.224	0.508	0.036	0.287	0.607

LTE B26	Ant.31	Right Edge 10mm	0.080	0.000	0.000	0.000	0.080	0.080
LTE B26	Ant.31	Bottom Edge 10mm	0.104	0.000	0.000	0.000	0.104	0.104
LTE B66	Ant.13	Front Side 10mm	0.182	0.191	0.471	0.024	0.373	0.677
LTE B66	Ant.13	Back Side 10mm	0.188	0.300	0.741	0.050	0.488	0.979
LTE B66	Ant.13	Right Edge 10mm	0.039	0.000	0.000	0.000	0.039	0.039
LTE B66	Ant.13	Top Edge 10mm	0.379	0.269	0.629	0.042	0.648	1.050
LTE B66	Ant.31	Front Side 10mm	0.119	0.191	0.471	0.024	0.310	0.614
LTE B66	Ant.31	Back Side 10mm	0.321	0.300	0.741	0.050	0.621	1.112
LTE B66	Ant.31	Left Edge 10mm	0.031	0.224	0.508	0.036	0.255	0.575
LTE B66	Ant.31	Right Edge 10mm	0.047	0.000	0.000	0.000	0.047	0.047
LTE B66	Ant.31	Bottom Edge 10mm	0.427	0.000	0.000	0.000	0.427	0.427
LTE B41	Ant.13	Front Side 10mm	0.199	0.191	0.471	0.024	0.390	0.694
LTE B41	Ant.13	Back Side 10mm	0.507	0.300	0.741	0.050	0.807	1.298
LTE B41	Ant.13	Right Edge 10mm	0.081	0.000	0.000	0.000	0.081	0.081
LTE B41	Ant.13	Top Edge 10mm	0.528	0.269	0.629	0.042	0.797	1.199
LTE B41	Ant.31	Front Side 10mm	0.152	0.191	0.471	0.024	0.343	0.647
LTE B41	Ant.31	Back Side 10mm	0.285	0.300	0.741	0.050	0.585	1.076
LTE B41	Ant.31	Left Edge 10mm	0.107	0.224	0.508	0.036	0.331	0.651
LTE B41	Ant.31	Right Edge 10mm	0.043	0.000	0.000	0.000	0.043	0.043
LTE B41	Ant.31	Bottom Edge 10mm	0.099	0.000	0.000	0.000	0.099	0.099

Note:

1: The simultaneous transmission combinations of the three antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest Summed 1g SAR is 1.374 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

12.2.4 Limb Simultaneous Transmission SAR Evaluation for WWAN Mode and 2.4G WLAN or 5G WLAN and BT

Band	Antenna	Position	Stand alone SAR		SUM SAR
			1	2	1+2
			WWAN	5G WIFI Max	WWAN+5G WIFI
WCDMA B2	Ant.13	Top Edge 0mm	2.393	1.249	3.642
LTE B2	Ant.13	Top Edge 0mm	2.275	1.249	3.524
LTE B7	Ant.13	Back Side 0mm	1.054	1.033	2.087
LTE B7	Ant.13	Top Edge 0mm	2.114	1.249	3.363
LTE B41	Ant.13	Back Side 0mm	0.649	1.033	1.682
LTE B41	Ant.13	Top Edge 0mm	1.320	1.249	2.569

Note:

1: The simultaneous transmission combinations of the three antennas contain combinations of two antennas, so only the worst simultaneous transmission combinations was shown in this table.

2: The highest Summed 10g SAR is 3.642 W/Kg < 4.0 W/kg, so Simultaneous Transmission SAR test is not required.

13 TEST EQUIPMENTS LIST

Description	Manufacturer	Model	Serial No./Version	Cal. Date	Cal. Due
PC	Dell	N/A	N/A	N/A	N/A
Test Software	Speag	DASY6	16.0.0.116	N/A	N/A
750MHz Validation Dipole	Speag	D750V3	SN: 1208	2021/07/05	2024/07/05
835MHz Validation Dipole	Speag	D835V2	SN: 4d187	2021/05/17	2024/05/16
1750MHz Validation Dipole	Speag	D1750V2	SN: 1130	2021/05/17	2024/05/16
1900MHz Validation Dipole	Speag	D1900V2	SN: 5d193	2021/05/20	2024/05/19
2450MHz Validation Dipole	Speag	D2450V2	SN: 952	2021/05/19	2024/05/18
2600MHz Validation Dipole	Speag	D2600V2	SN: 1095	2021/05/19	2024/05/18
5GHz Validation Dipole	Speag	D5GHzV2	SN: 1200	2021/05/18	2024/05/17
E-Field Probe	Speag	EX3DV4	SN: 7607	2023/07/04	2024/07/03
Data Acquisition Electronicsr	Speag	DAE4	SN: 878	2023/03/23	2024/03/22
Signal Generator	R&S	SMB100A	177746	2023/05/10	2024/05/09
Power Meter	R&S	NRVD-B2	835843/014	2023/09/05	2024/09/04
Power Sensor	R&S	NRV-Z4	100381	2023/09/05	2024/09/04
Power Sensor	R&S	NRV-Z2	100211	2023/09/05	2024/09/04
Wireless Communication Test Set	Anritsu	MT8820C	6201144551	2023/06/29	2024/06/29
Network Analyzer	Agilent	E5071C	MY46103472	2023/11/14	2024/11/14
Thermometer	Elitech	RC-4HC	EF5238001628	2023/10/09	2024/10/09
Thermometer	Elitech	RC-4HC	EF7239002652	2023/11/17	2024/11/17
Power Amplifier	SATIMO	6552B	22374	N/A	N/A
Dielectric Probe Kit	Speag	DAK3.5	SN: 1312	N/A	N/A
Phantom	Speag	SAM	SN: 1859	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

Note: For dipole antennas, BALUN has adopted 3 years as calibration intervals, and on annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:

1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss in within 20% of calibrated measurement.
4. Impedance (real or imaginary parts) in within 5 Ohms of calibrated measurement.

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

The dielectric parameters of the liquids were verified prior to the SAR evaluation using a DAK3.5 Dielectric Probe Kit.

Head Liquid

Date	Liquid Type	Fre. (MHz)	Temp. (°C)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ϵ)	Target Conductivity (σ) (S/m)	Target Permittivity (ϵ)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2024.02.08	Head	835	21.5	0.90	41.92	0.90	41.50	0.00	1.01
2024.02.09	Head	1900	21.4	1.40	39.92	1.40	40.00	0.00	-0.20
2024.02.10	Head	1750	21.3	1.38	40.09	1.37	40.08	0.73	0.03
2024.02.11	Head	1900	21.5	1.39	39.86	1.40	40.00	-0.71	-0.35
2024.02.12	Head	2600	21.6	1.97	38.49	1.96	39.01	0.51	-1.33
2024.02.13	Head	750	21.4	0.90	41.84	0.89	41.94	1.12	-0.24
2024.02.14	Head	835	21.9	0.90	41.91	0.90	41.50	0.00	0.99
2024.02.15	Head	1750	21.6	1.38	39.98	1.37	40.08	0.73	-0.25
2024.02.16	Head	2600	21.6	1.97	38.58	1.96	39.01	0.51	-1.10
2024.02.17	Head	2450	21.6	1.80	39.56	1.80	39.20	0.00	0.92
2024.02.18	Head	5250	21.5	4.70	35.81	4.71	35.93	-0.21	-0.33
2024.02.19	Head	5600	21.5	5.05	35.16	5.07	35.53	-0.39	-1.04
2024.02.20	Head	5750	21.4	5.18	35.42	5.22	35.36	-0.77	0.17
Note: The tolerance limit of Conductivity and Permittivity is $\pm 5\%$.									

ANNEX B SYSTEM CHECK RESULT

Comparing to the original SAR value provided by SPEAG, the validation data should be within its specification of 10 % (for 1 g).

Head liquid 1g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2024.02.08	Head	835	100	0.97	9.68	9.76	-0.82
2024.02.09	Head	1900	100	4.18	41.80	40.30	3.72
2024.02.10	Head	1750	100	3.63	36.30	36.70	-1.09
2024.02.11	Head	1900	100	4.21	42.10	40.30	4.47
2024.02.12	Head	2600	100	5.82	58.20	56.80	2.46
2024.02.13	Head	750	100	0.83	8.34	8.51	-2.00
2024.02.14	Head	835	100	1.00	9.96	9.76	0.02
2024.02.15	Head	1750	100	3.86	38.60	36.70	0.05
2024.02.16	Head	2600	100	5.84	58.40	56.80	0.03
2024.02.17	Head	2450	100	5.43	54.30	53.00	0.02
2024.02.18	Head	5250	100	7.82	78.20	77.80	0.01
2024.02.19	Head	5600	100	8.33	83.30	81.20	0.03
2024.02.20	Head	5750	100	7.76	77.60	77.20	0.01

Note: The tolerance limit of System validation $\pm 10\%$.

Head liquid 10g

Date	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2024.02.09	1900	100	2.15	21.50	20.30	5.91
2024.02.11	1900	100	2.16	21.60	20.30	6.40
2024.02.12	2600	100	2.60	26.00	24.80	4.84
2024.02.16	2600	100	2.61	26.10	24.80	0.05
2024.02.18	5250	100	2.23	22.30	22.10	0.01
2024.02.19	5600	100	2.36	23.60	23.10	0.02
Note: The tolerance limit of System validation $\pm 10\%$.						

System Performance Check Data (750MHz Head)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D750V3, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position,	Band	Group,	Frequency	Conversion	TSL	TSL	Ambient	Liquid
Section,	Test		UID	[MHz],	Factor	Conductivity	Permittivity	Temperature	Temperature
TSL	Distance			Channel		[S/m]		[°C]	[°C]
	[mm]			Number					
Flat,		CD700	CW,	750.0,	10.31	0.901	41.8	22.6	21.4
HSL			0--	100					

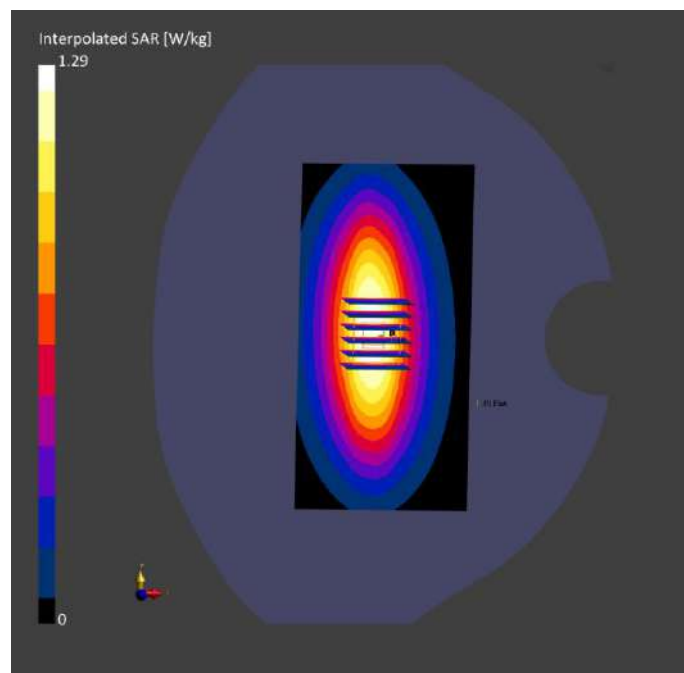
Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-13	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

Measurement Results

	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents	80.0 x 160.0	30.0 x 30.0 x 30.0	Date	2024-02-13	2024-02-13
[mm]			psSAR1g	0.840	0.834
Grid Steps [mm]	10.0 x 10.0	6.0 x 6.0 x 1.5	[W/kg]		
Sensor Surface	3.0	1.4	psSAR10g	0.562	0.549
[mm]			[W/kg]		
Graded Grid	Yes	Yes	Power Drift [dB]	-0.06	-0.01
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	N/A	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		86.0
			Dist 3dB Peak		20.4
			[mm]		



System Performance Check Data (835MHz Head)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
CD835V2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position,	Band	Group,	Frequency	Conversion	TSL	TSL	Ambient	Liquid
Section,	Test		UID	[MHz],	Factor	Conductivity	Permittivity	Temperature	Temperature
TSL	Distance			Channel		[S/m]		[°C]	[°C]
	[mm]			Number					
Flat,		CD835	CW,	835.0,	9.96	0.9	41.9	22.8	21.5
HSL			0--	50					

Hardware Setup

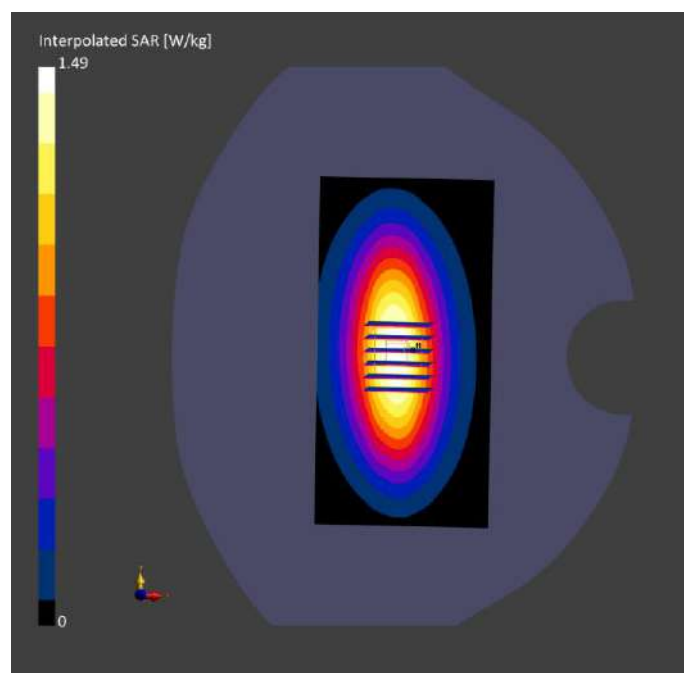
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-08	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents	80.0 x 160.0	30.0 x 30.0 x 30.0
[mm]		
Grid Steps [mm]	10.0 x 10.0	6.0 x 6.0 x 1.5
Sensor Surface	3.0	1.4
[mm]		
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-08	2024-02-08
psSAR1g	0.982	0.968
[W/kg]		
psSAR10g	0.625	0.595
[W/kg]		
Power Drift [dB]	-0.01	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		85.9
Dist 3dB Peak		13.2
[mm]		



System Performance Check Data (835MHz Head)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
CD835V2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		CD835	CW, 0--	835.0, 50	9.96	0.898	41.9	22.8	21.9

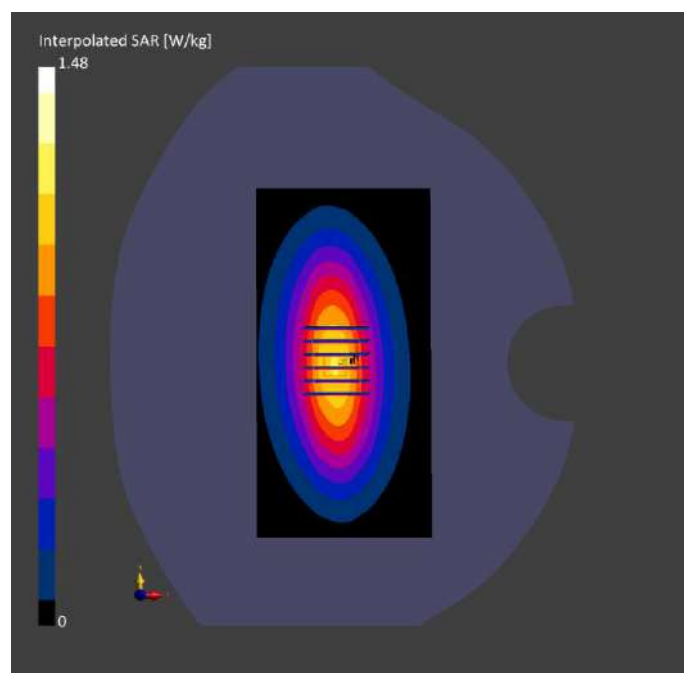
Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2023-02-14	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

Measurement Results

	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 160.0	30.0 x 30.0 x 30.0	Date	2023-02-14	2023-02-14
Grid Steps [mm]	10.0 x 10.0	6.0 x 6.0 x 1.5	psSAR1g [W/kg]	1.01	0.996
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.645	0.612
Graded Grid	Yes	Yes	Power Drift [dB]	-0.02	0.01
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	N/A	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		85.2
			Dist 3dB Peak [mm]		13.0



System Performance Check Data (1750MHz Head)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D1750V2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D1750	CW, 0--	1750.0, 50	8.52	1.38	40.1	22.4	21.3

Hardware Setup

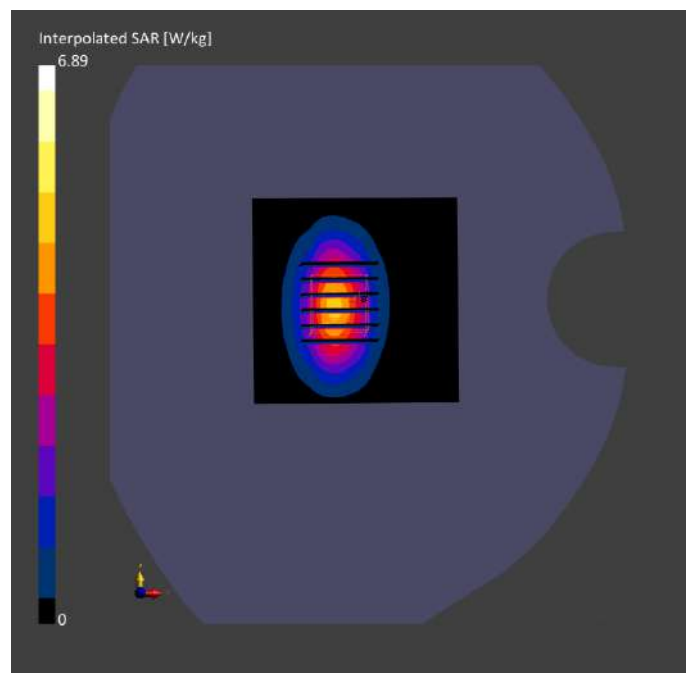
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-10	EX3DV4 - SN7607,	2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	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 Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-10	2024-02-10
psSAR1g [W/kg]	3.94	3.63
psSAR10g [W/kg]	2.13	1.92
Power Drift [dB]	-0.08	-0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		81.9
Dist 3dB Peak [mm]		10.3



System Performance Check Data (1750MHz Head)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D1750V2, SPEAG	10.0 x 10.0 x 3.0	Dipole

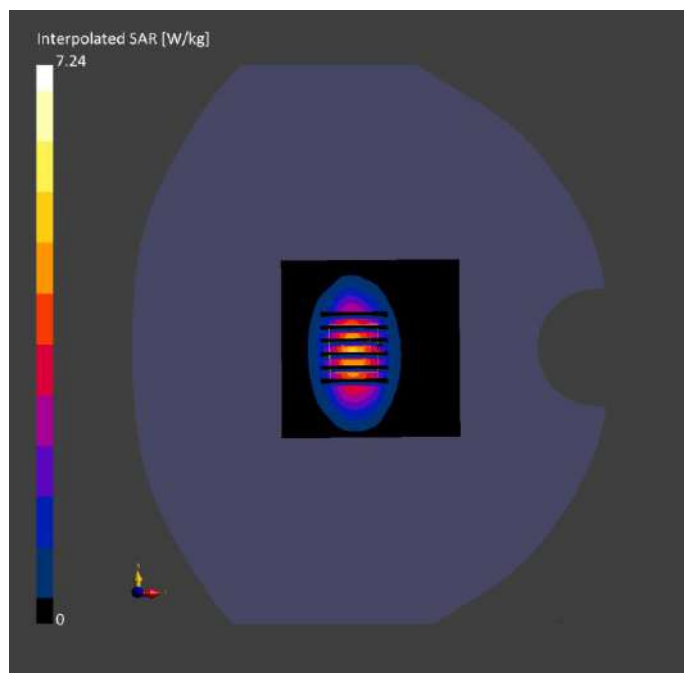
Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL		D1750	CW, 0--	1750.0, 50	8.52	1.38	40.0	22.4	21.6

Hardware Setup

Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-15	EX3DV4 - SN7607,	2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	30.0 x 30.0 x 30.0	Date	2024-02-15	2024-02-15
Grid Steps [mm]	10.0 x 10.0	6.0 x 6.0 x 1.5	psSAR1g [W/kg]	3.93	3.86
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	1.98	2.05
Graded Grid	Yes	Yes	Power Drift [dB]	0.01	-0.04
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA Surface	N/A	N/A	Scaling Factor [dB]		
Detection	VMS + 6p	VMS + 6p	TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		81.7
			Dist 3dB Peak [mm]		10.2



System Performance Check Data (1900MHz Head)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D1900V2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL		D1900	CW, 0--	1900.0, 50	7.98	1.40	39.9	22.6	21.4

Hardware Setup

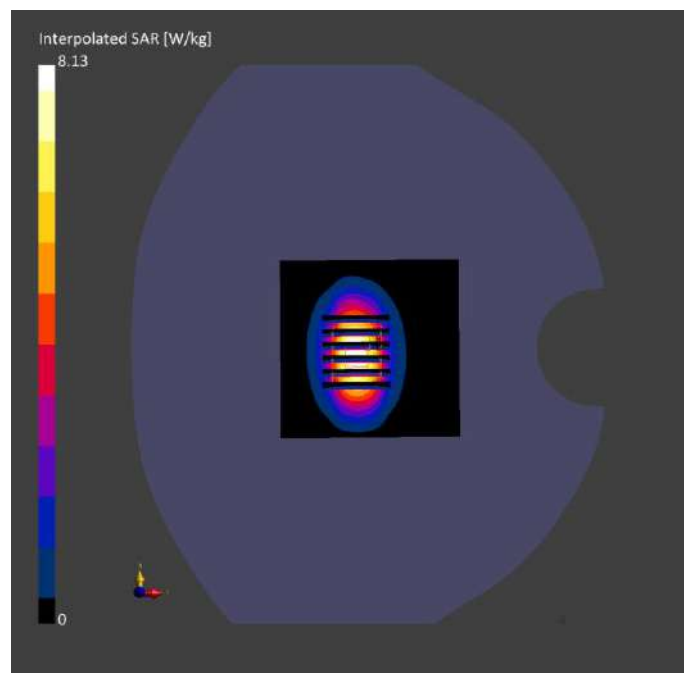
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-09	EX3DV4 - SN7607,	2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	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 Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-09	2024-02-09
psSAR1g [W/kg]	4.21	4.18
psSAR10g [W/kg]	2.24	2.15
Power Drift [dB]	-0.16	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		81.6
Dist 3dB Peak [mm]		9.6



System Performance Check Data (1900MHz Head)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D1900V2, SPEAG	10.0 x 10.0 x 3.0	Dipole

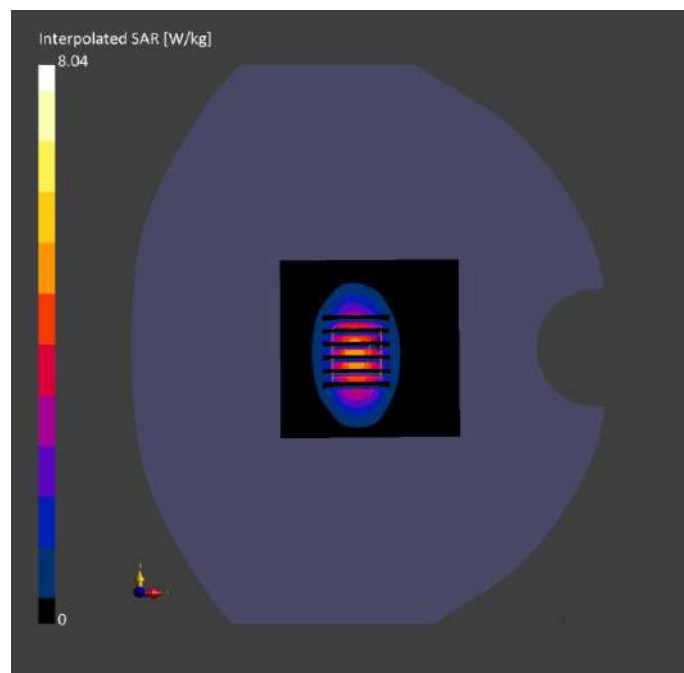
Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL		D1900	CW, 0--	1900.0, 50	7.98	1.39	39.9	22.5	21.5

Hardware Setup

Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-11	EX3DV4 - SN7607,	2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	30.0 x 30.0 x 30.0	Date	2024-02-11	2024-02-11
Grid Steps [mm]	10.0 x 10.0	6.0 x 6.0 x 1.5	psSAR1g [W/kg]	4.24	4.21
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	2.23	2.16
Graded Grid	Yes	Yes	Power Drift [dB]	-0.11	-0.01
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA Surface	N/A	N/A	Scaling Factor [dB]		
Detection	VMS + 6p	VMS + 6p	TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		81.2
			Dist 3dB Peak [mm]		9.3



System Performance Check Data (2450MHz Head)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
CD2450V2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D2450	CW, 0--	2450.0, 50	7.47	1.80	39.6	22.8	21.6

Hardware Setup

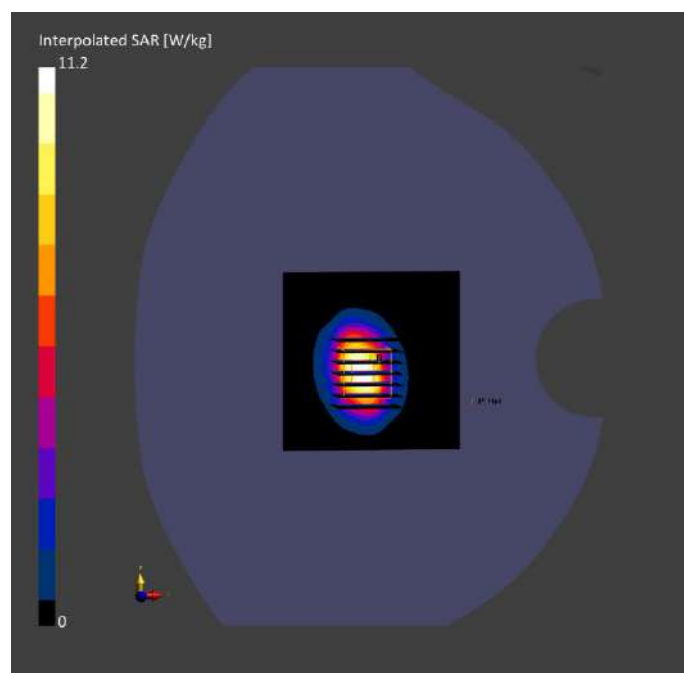
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-17	EX3DV4 - SN7607,	2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-17	2024-02-17
psSAR1g [W/kg]	5.36	5.43
psSAR10g [W/kg]	2.58	2.53
Power Drift [dB]	-0.02	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		80.4
Dist 3dB Peak [mm]		8.9



System Performance Check Data (2600MHz Head)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
CD2600V2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		CD2600V3	CW, 0--	2600.0, 50	7.41	1.97	38.5	22.7	21.6

Hardware Setup

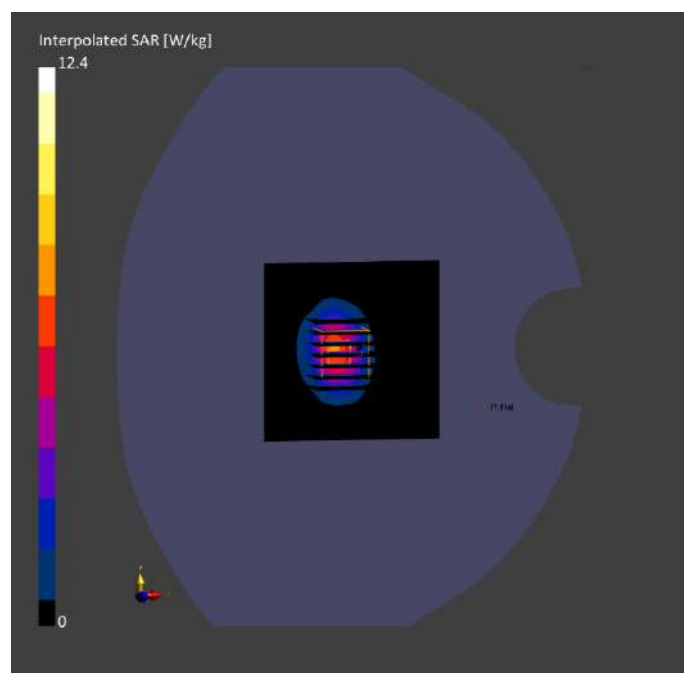
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-12	EX3DV4 - SN7607,	2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-12	2024-02-12
psSAR1g [W/kg]	5.81	5.82
psSAR10g [W/kg]	2.65	2.60
Power Drift [dB]	0.01	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		79.6
Dist 3dB Peak [mm]		9.0



System Performance Check Data (2600MHz Head)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
CD2600V2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		CD2600V3	CW, 0--	2600.0, 50	7.41	1.97	38.6	22.7	21.6

Hardware Setup

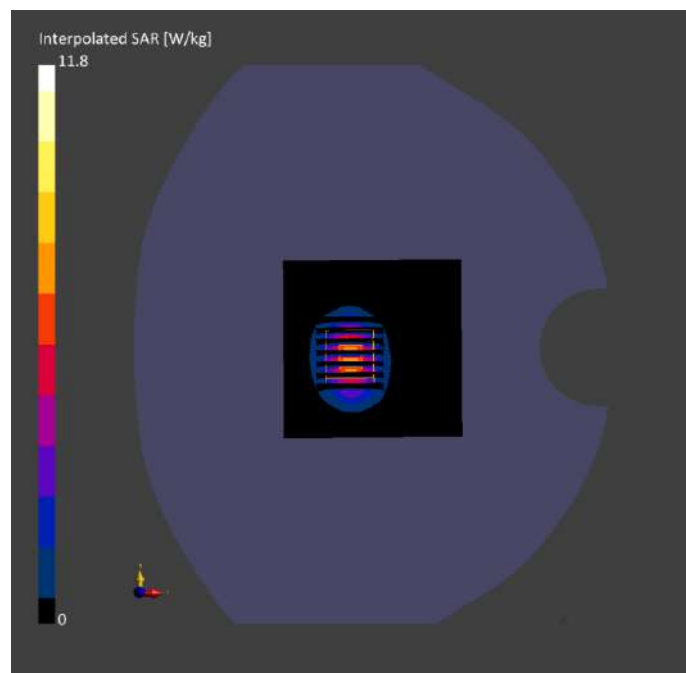
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-16	EX3DV4 - SN7607,	2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-16	2024-02-16
psSAR1g [W/kg]	5.71	5.84
psSAR10g [W/kg]	2.56	2.61
Power Drift [dB]	0.04	0.09
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		80.4
Dist 3dB Peak [mm]		9.3



System Performance Check Data (5250MHz Head)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D5GHZV2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D5GHZ	CW, 0--	5250.0, 25	5.41	4.70	35.8	22.7	21.5

Hardware Setup

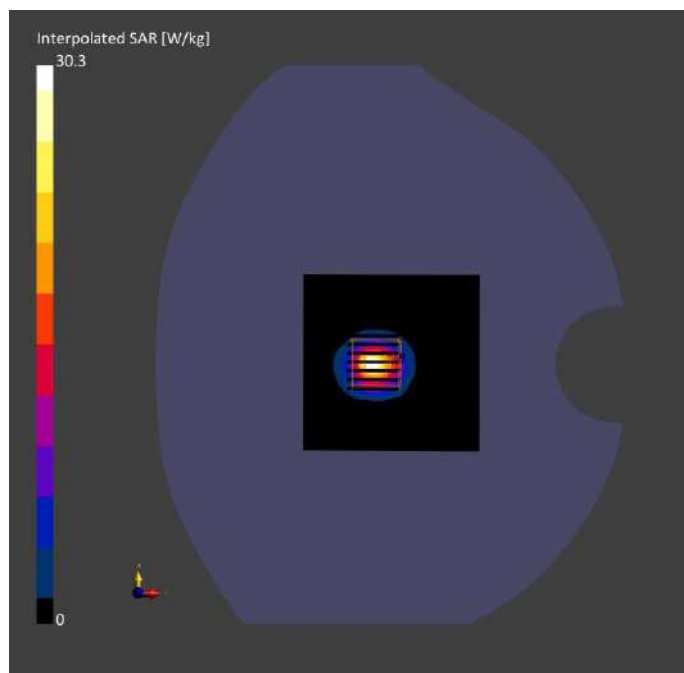
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-18	EX3DV4 - SN7607,	2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-18	2024-02-18
psSAR1g [W/kg]	7.42	7.82
psSAR10g [W/kg]	2.21	2.23
Power Drift [dB]	0.00	-0.12
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		66.5
Dist 3dB Peak [mm]		6.9



System Performance Check Data (5600MHz Head)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D5GHZV2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D5GHZ	CW, 0--	5600.0, 60	4.58	5.05	35.2	22.4	21.5

Hardware Setup

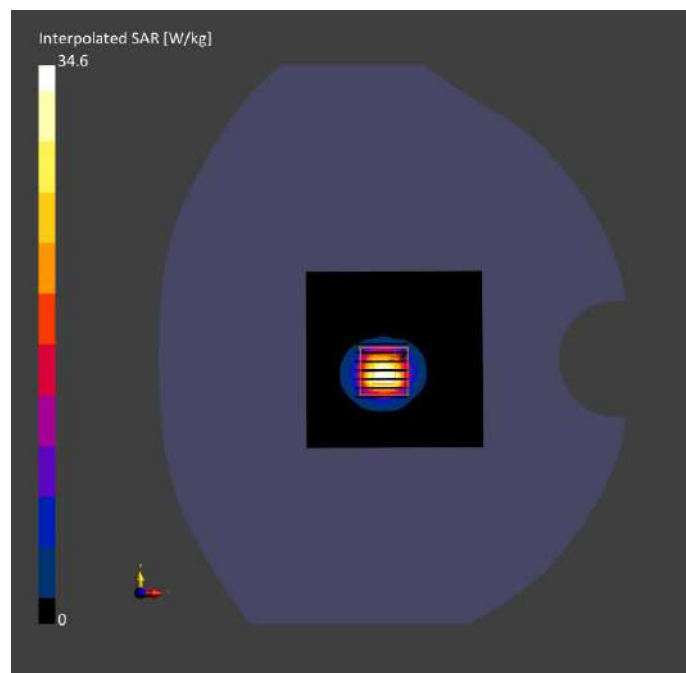
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-19	EX3DV4 - SN7607,	2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-19	2024-02-19
psSAR1g [W/kg]	7.06	8.33
psSAR10g [W/kg]	2.26	2.36
Power Drift [dB]	-0.00	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		62.1
Dist 3dB Peak [mm]		7.2



System Performance Check Data (5750MHz Head)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D5GHZV2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D5GHZ	CW, 0--	5750.0, 75	4.78	5.18	35.4	22.6	21.4

Hardware Setup

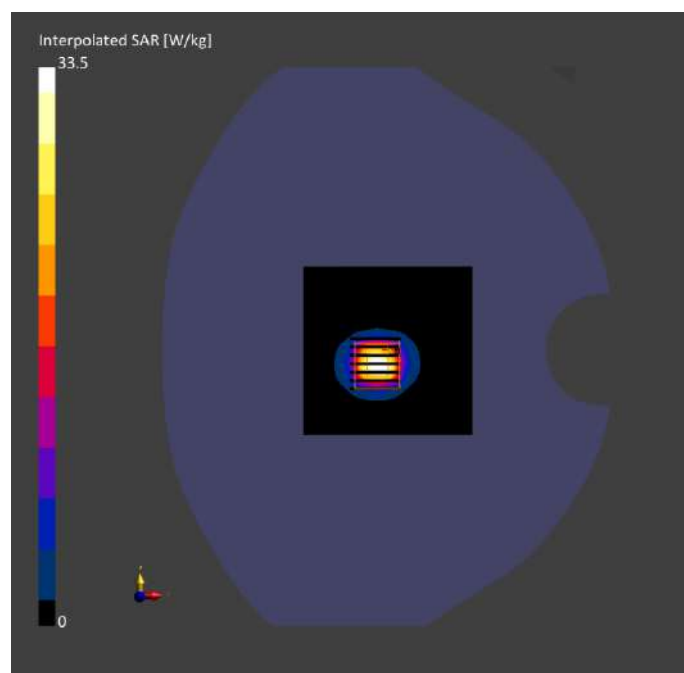
Phantom	TSL, Measured Date		Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-20	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-20	2024-02-20
psSAR1g [W/kg]	6.53	7.76
psSAR10g [W/kg]	2.09	2.20
Power Drift [dB]	0.01	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.1
Dist 3dB Peak [mm]		7.4



ANNEX C TEST DATA

Meas.1 Right Head with Cheek on High Channel in GSM850 2slots mode with Antenna 13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

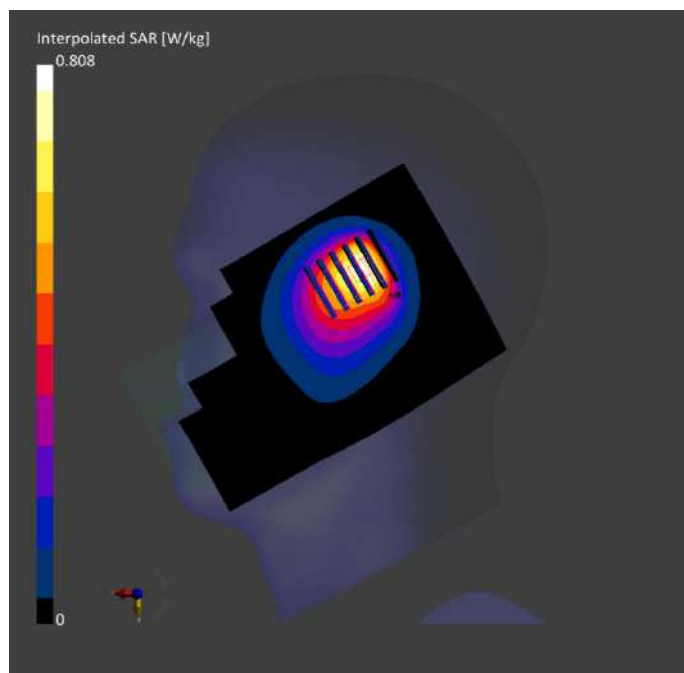
Exposure Conditions

Phantom	Position	Ban	Group	Frequenc	Conversio	TSL	TSL	Ambient	Liquid
Section,	, Test	d	,	y [MHz],	n Factor	Conductivit	Permittivit	Temperatur	Temperatur
TSL	Distanc		UID	Channel		y [S/m]	y	e	e
	e [mm]			Number				[°C]	[°C]
RightHead	CHEEK,	GSM	GSM,	848.8,	9.96	0.914	41.5	22.8	21.5
,	0.00	850	10028-	251					
HSL			DAC						

Hardware Setup

Phantom	TSL, Measured Date			Probe, Calibration Date		DAE, Calibration Date
Twin-SAM	V5.0	(30deg	HBBL-600-10000	2024-02-08	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23
probe tilt) - 1859						

Scan Setup				Measurement Results		
		Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid	Extents	120.0 x 210.0	32.0 x 32.0 x 30.0	Date	2024-02-08	2024-02-08
	[mm]			psSAR1g	0.469	0.439
Grid Steps	[mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	[W/kg]		
Sensor	Surface	3.0	1.4	psSAR10g	0.299	0.281
	[mm]			[W/kg]		
Graded Grid	Yes		Yes	Power Drift [dB]	0.02	-0.01
Grading Ratio	1.5		1.5	Power Scaling	Disabled	Disabled
MAIA	N/A		N/A	Scaling Factor		
Surface	VMS + 6p		VMS + 6p	[dB]		
Detection				TSL Correction	No correction	No correction
Scan Method	Measured		Measured	M2/M1 [%]		44.5
				Dist 3dB Peak		8.0
				[mm]		



Meas.2 Body Plan with Back Side 15mm on Middle Channel in GSM850 2slot mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	GSM 850	GSM, 10028-DAC	836.6, 190	9.96	0.902	41.9	22.8	21.5

Hardware Setup

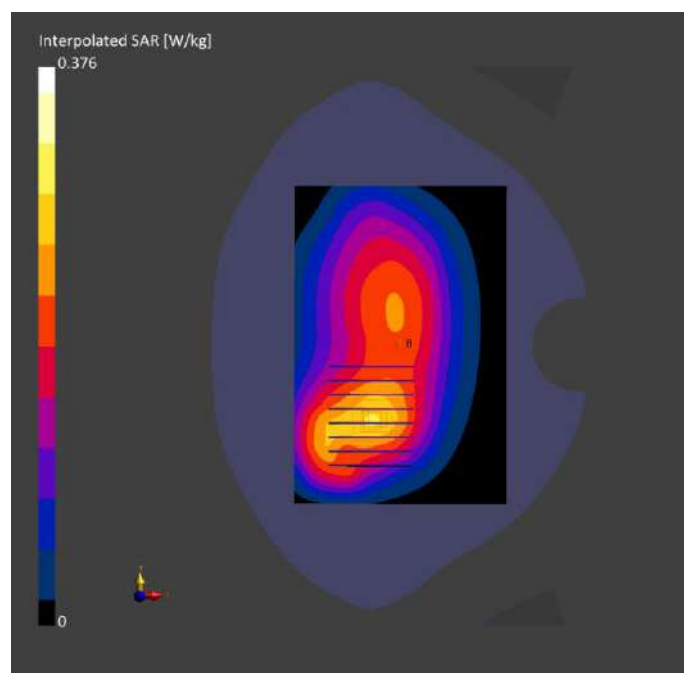
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-08	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-08	2024-02-08
psSAR1g [W/kg]	0.250	0.262
psSAR10g [W/kg]	0.171	0.185
Power Drift [dB]	0.00	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		67.4
Dist 3dB Peak [mm]		26.8



Meas.3 Body Plan with Back Side 10mm on Middle Channel in GSM850 2slot mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 10.00	GSM 850	GSM, 10028-DAC	836.6, 190	9.96	0.902	41.9	22.8	21.5

Hardware Setup

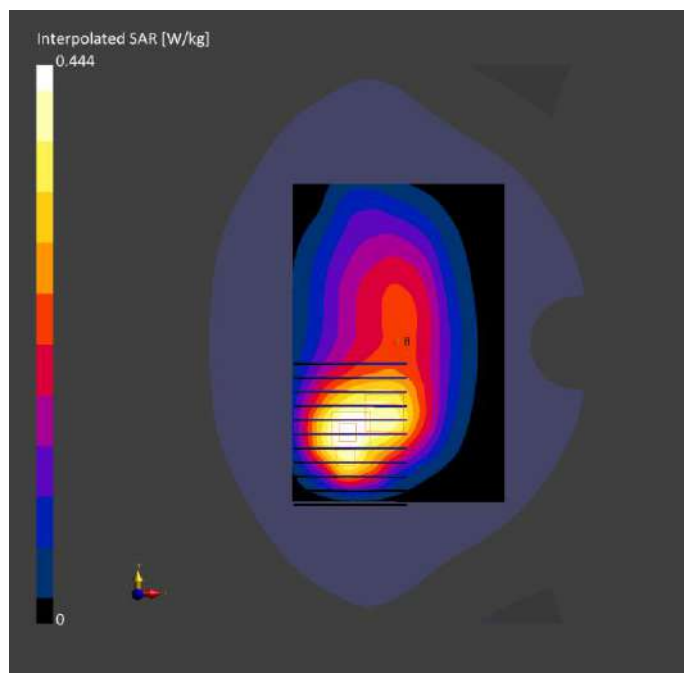
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-08	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-08	2024-02-08
psSAR1g [W/kg]	0.250	0.250
psSAR10g [W/kg]	0.171	0.167
Power Drift [dB]	-0.01	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		54.0
Dist 3dB Peak [mm]		11.6



Meas.4 Right Head with Tilt on Low Channel in GSM1900 2slots mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom Section, TSL	Position , Test Distanc e [mm]	Ban d	Group , UID	Frequenc y [MHz], Channel Number	Conversio n Factor	TSL Conductivit y [S/m]	TSL Permittivit y	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead , HSL	TILT, 0.00	PCS 1900	GSM, 10028- DAC	1850.2, 512	7.98	1.37	40.6	22.6	21.4

Hardware Setup

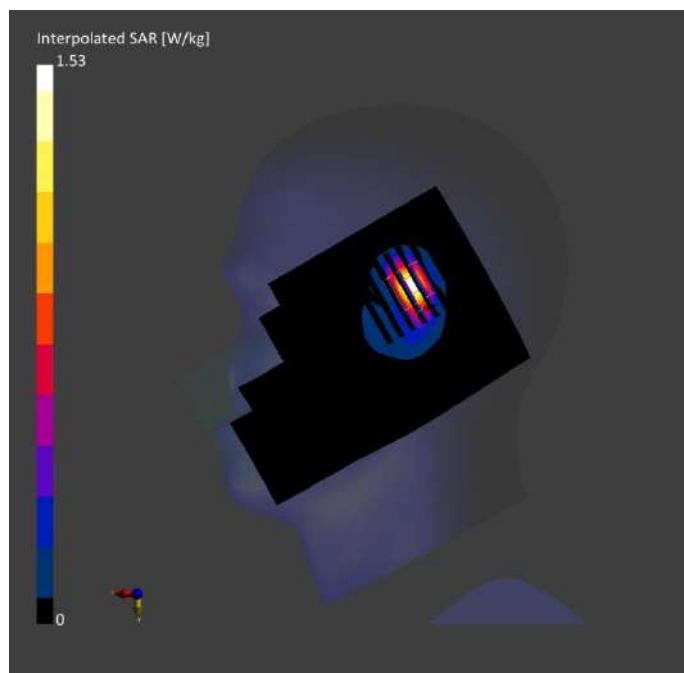
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-09	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-09	2024-02-09
psSAR1g [W/kg]	0.718	0.776
psSAR10g [W/kg]	0.336	0.343
Power Drift [dB]	-0.08	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		48.5
Dist 3dB Peak [mm]		6.4



Meas.5 Body Plan with Back Side 15mm on Middle Channel in GSM1900 2slot mode with Antenna31

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	PCS 1900	GSM, 10028-DAC	1880.0, 661	7.98	1.39	40.2	22.6	21.4

Hardware Setup

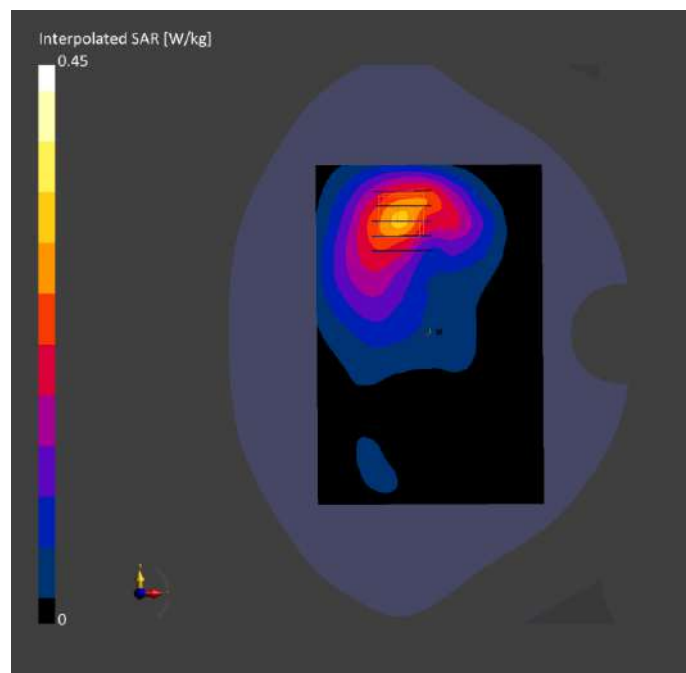
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-09	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-09	2024-02-09
psSAR1g [W/kg]	0.257	0.279
psSAR10g [W/kg]	0.152	0.170
Power Drift [dB]	0.01	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.2
Dist 3dB Peak [mm]		16.0



Meas.6 Body Plan with Bottom Edge 10mm on Middle Channel in GSM1900 2slot mode with Antenna31

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

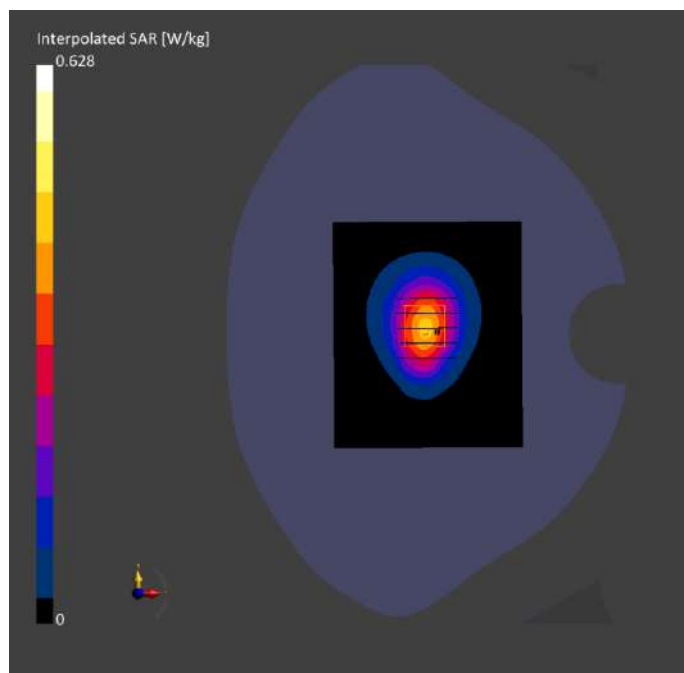
Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE BOTTOM , 10.00	PCS 1900	GSM, 10028- DAC	1880.0, 661	7.98	1.39	40.2	22.6	21.4

Hardware Setup

Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-09	EX3DV4 - SN7607,	2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 120.0	32.0 x 32.0 x 30.0	Date	2024-02-09	2024-02-09
Grid Steps [mm]	10.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.362	0.372
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.205	0.214
Graded Grid	Yes	Yes	Power Drift [dB]	0.01	-0.03
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	N/A	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		58.6
			Dist 3dB Peak [mm]		14.3



Meas.7 Right Head with Tilt on Middle Channel in WCDMA Band 2 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom Section, TSL	Position , Test Distanc e [mm]	Ban d	Group, UID	Frequenc y [MHz], Channel Number	Conversio n Factor	TSL Conductivit y [S/m]	TSL Permittivit y	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead , HSL	TILT, 0.00	Band 2	WCDMA , 10011- CAC	1880.0, 9400	7.98	1.39	40.2	22.6	21.4

Hardware Setup

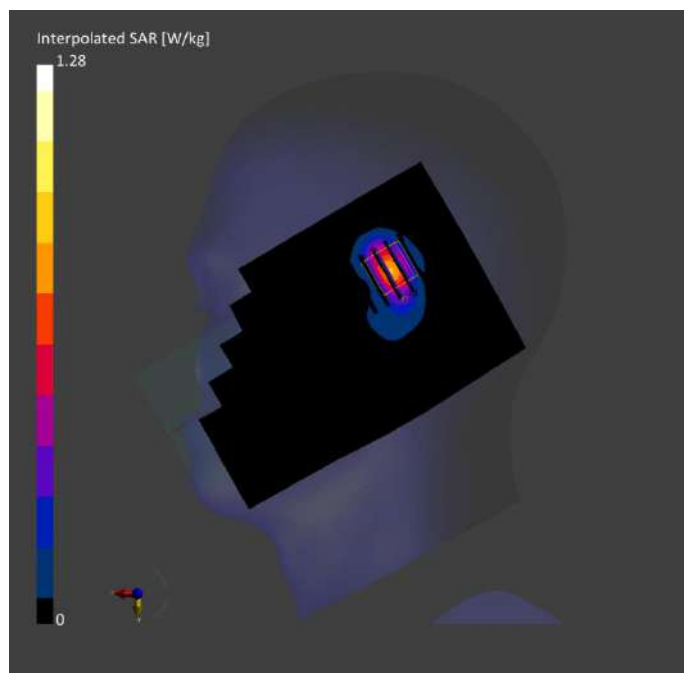
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-09	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-09	2024-02-09
psSAR1g [W/kg]	0.653	0.666
psSAR10g [W/kg]	0.305	0.301
Power Drift [dB]	0.01	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.1
Dist 3dB Peak [mm]		6.4



Meas.8 Body Plan with Back Side 15mm on Middle Channel in WCDMA Band 2 mode with Antenna31
Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	Band 2	WCDMA, 10011-CAC	1880.0, 9400	7.98	1.39	40.2	22.6	21.4

Hardware Setup

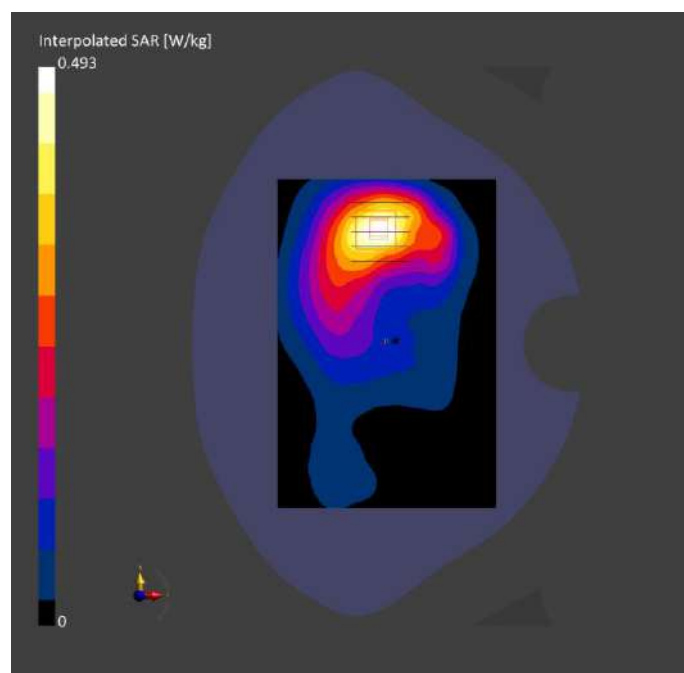
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-09	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-09	2024-02-09
psSAR1g [W/kg]	0.308	0.322
psSAR10g [W/kg]	0.182	0.195
Power Drift [dB]	-0.00	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		64.5
Dist 3dB Peak [mm]		16.5



Meas.9 Body Plan with Bottom Edge 10mm on Middle Channel in WCDMA Band 2 mode with Antenna31

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE BOTTOM 10.00	Band 2	WCDMA , 10011- CAC	1880.0, 9400	7.98	1.39	40.2	22.6	21.4

Hardware Setup

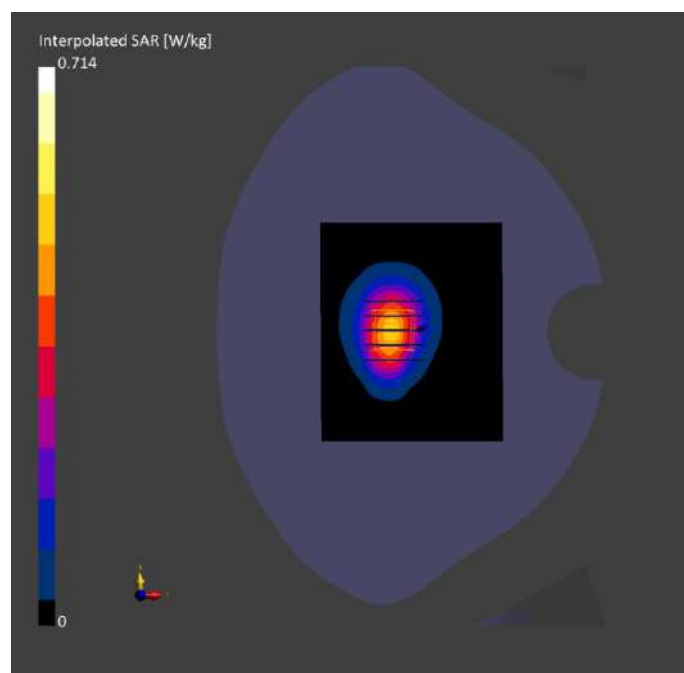
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-09	EX3DV4 - SN7607,	2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 120.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-09	2024-02-09
psSAR1g [W/kg]	0.426	0.431
psSAR10g [W/kg]	0.236	0.245
Power Drift [dB]	-0.01	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		59.6
Dist 3dB Peak [mm]		13.2



Meas.10 Body Plan with Top Edge 0mm on Middle Channel in WCDMA Band 2 mode with Antenna13
Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE TOP, 0.00	Band 2	WCDMA, 10011-CAC	1880.0, 9400	7.98	1.39	40.2	22.6	21.4

Hardware Setup

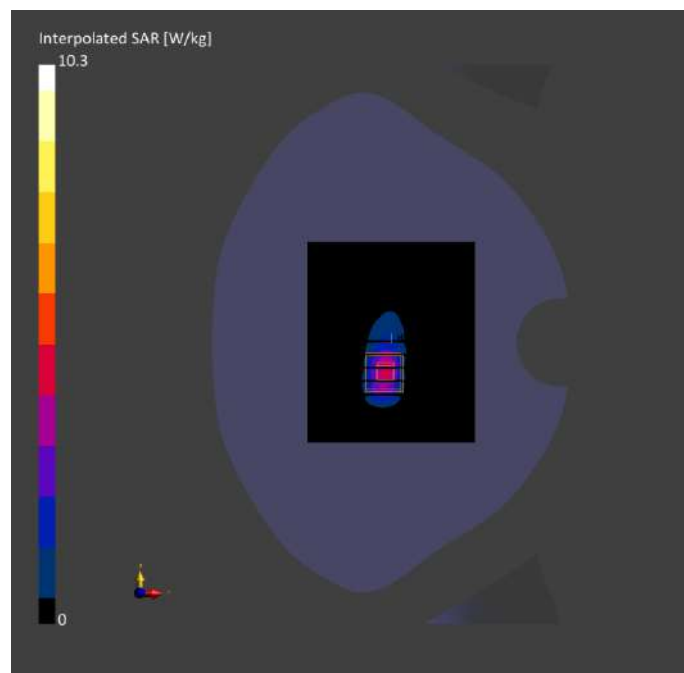
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-09	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 120.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-09	2024-02-09
psSAR1g [W/kg]	3.61	4.58
psSAR10g [W/kg]	1.72	1.82
Power Drift [dB]	0.01	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		39.8
Dist 3dB Peak [mm]		4.8



Meas.11 Right Head with Tilt on High Channel in WCDMA Band 4 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

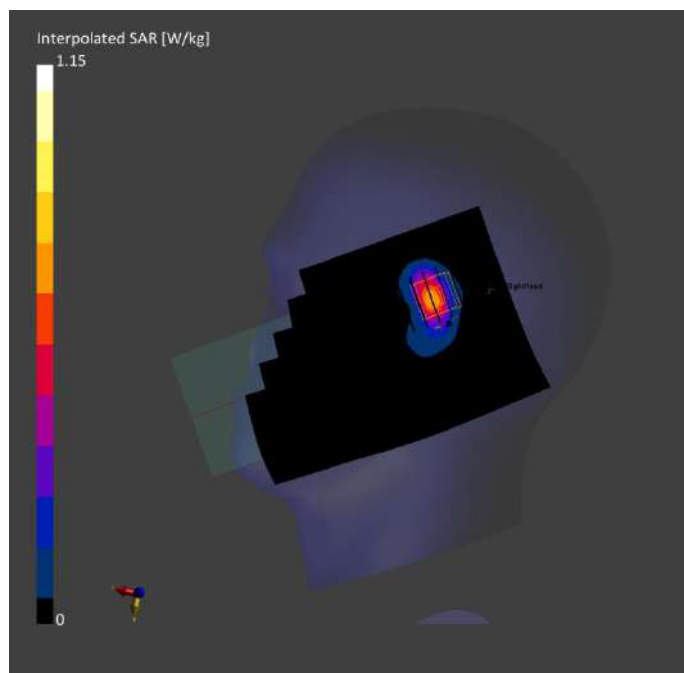
Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	TILT, 0.00	Band 4	WCDMA, 10011-CAC	1752.6, 1513	8.52	1.39	40.0	22.4	21.3

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-10	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup				Measurement Results			
		Area Scan	Zoom Scan			Area Scan	Zoom Scan
Grid	Extents	120.0 x 210.0	32.0 x 32.0 x 30.0	Date		2024-02-10	2024-02-10
	[mm]			psSAR1g		0.584	0.587
Grid Steps	[mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	[W/kg]			
Sensor	Surface	3.0	1.4	psSAR10g		0.274	0.263
	[mm]			[W/kg]			
Graded Grid		Yes	Yes	Power	Drift	0.02	0.01
Grading Ratio		1.5	1.5	[dB]			
MAIA		N/A	N/A	Power Scaling		Disabled	Disabled
Surface		VMS + 6p	VMS + 6p	Scaling	Factor		
Detection				[dB]			
Scan Method		Measured	Measured	TSL		No correction	No correction
				Correction			
				M2/M1 [%]			48.4
				Dist 3dB Peak			6.4
				[mm]			



Meas.12 Body Plan with Back Side 15mm on Low Channel in WCDMA Band 4 mode with Antenna31
Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	Band 4	WCDMA, 10011-CAC	1712.4, 1312	8.52	1.35	40.6	22.4	21.3

Hardware Setup

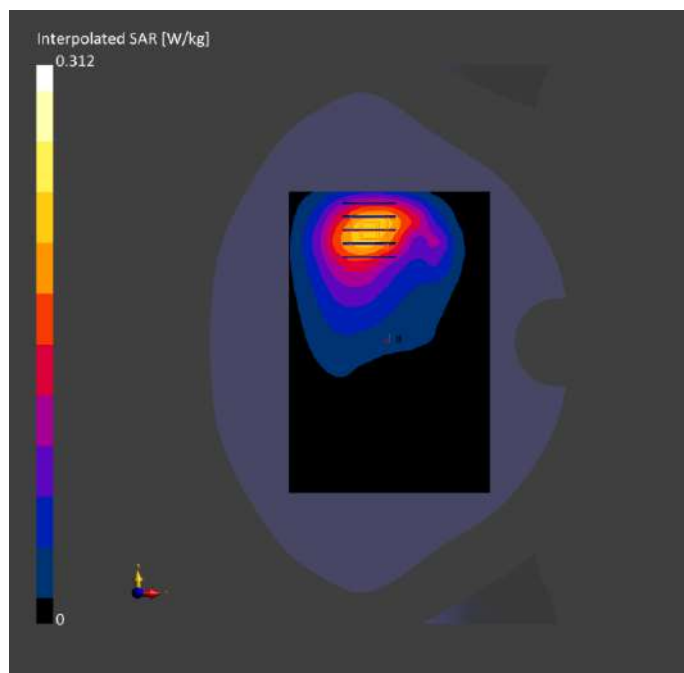
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-10	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-10	2024-02-10
psSAR1g [W/kg]	0.197	0.211
psSAR10g [W/kg]	0.122	0.134
Power Drift [dB]	-0.00	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		67.3
Dist 3dB Peak [mm]		17.9



Meas.13 Body Plan with Bottom Edge 10mm on Low Channel in WCDMA Band 4 mode with Antenna31
Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE BOTTOM 10.00	Band 4	WCDMA , 10011- CAC	1712.4, 1312	8.52	1.35	40.6	22.4	21.3

Hardware Setup

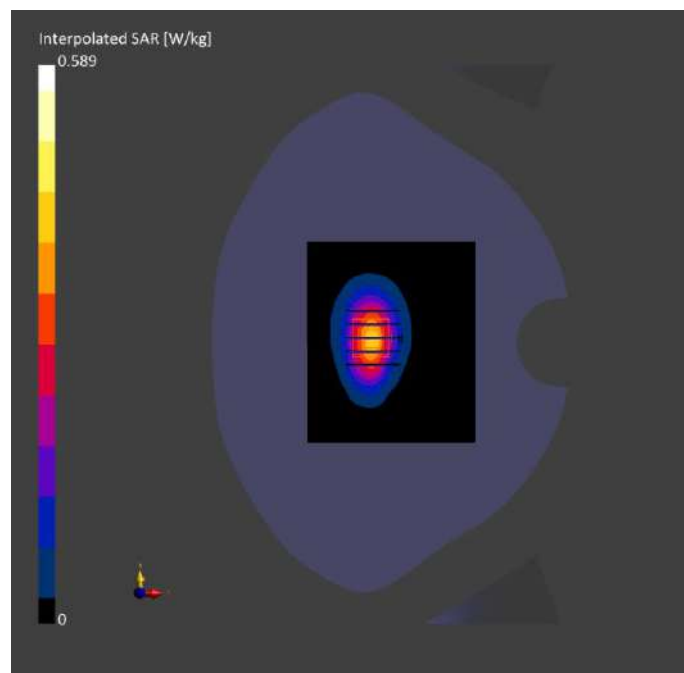
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-10	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 120.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-10	2024-02-10
psSAR1g [W/kg]	0.348	0.354
psSAR10g [W/kg]	0.190	0.199
Power Drift [dB]	0.00	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		59.3
Dist 3dB Peak [mm]		11.2



Meas.14 Right Head with Cheek on High Channel in WCDMA Band 5 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom Section, TSL	Position , Test Distanc e [mm]	Ban d	Group, UID	Frequenc y [MHz], Channel Number	Conversio n Factor	TSL Conductivit y [S/m]	TSL Permittivit y	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead , HSL	CHEEK, 0.00	Band 5	WCDMA , 10011- CAC	846.6, 4233	9.96	0.911	41.6	22.8	21.5

Hardware Setup

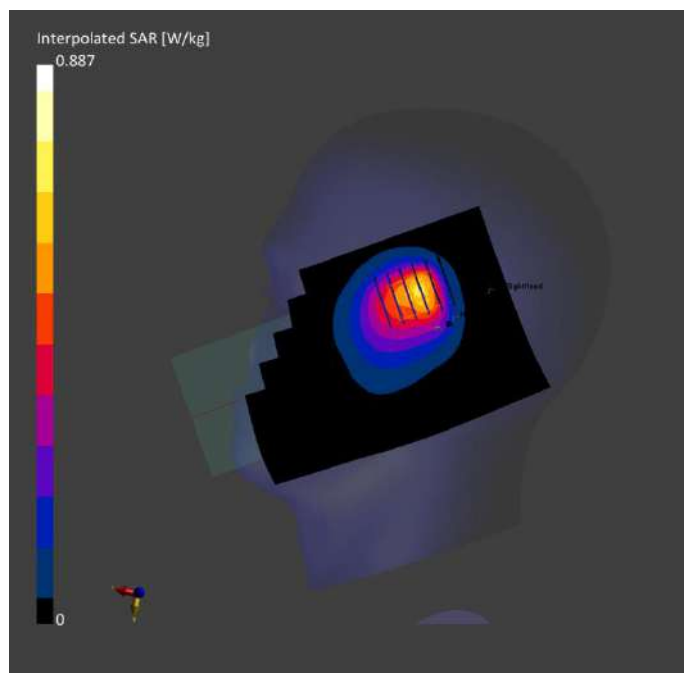
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-08	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
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	2024-02-08	2024-02-08
psSAR1g [W/kg]	0.544	0.526
psSAR10g [W/kg]	0.363	0.338
Power Drift [dB]	-0.01	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		47.1
Dist 3dB Peak [mm]		9.6



Meas.15 Body Plan with Back Side 15mm on Middle Channel in WCDMA Band 5 mode with Antenna13
Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 15.00	Band 5	WCDMA, 10011-CAC	836.4, 4182	9.96	0.902	41.9	22.8	21.5

Hardware Setup

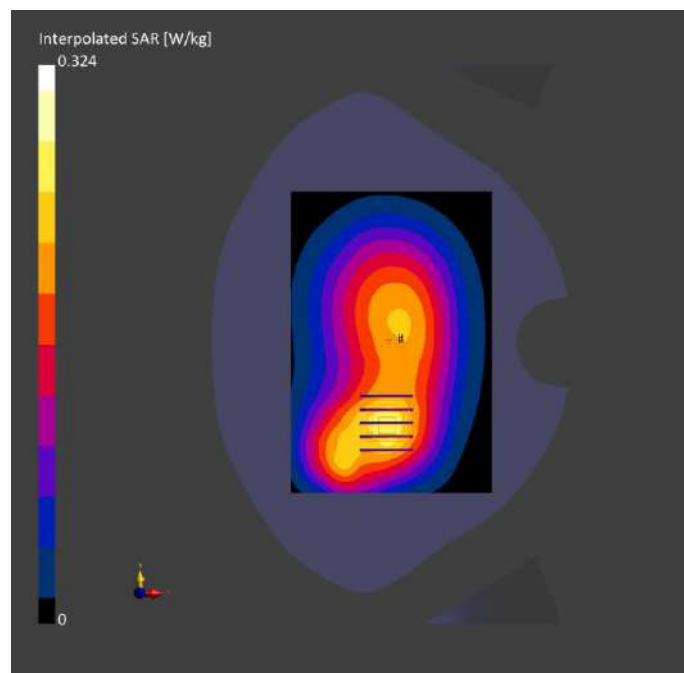
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-08	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-08	2024-02-08
psSAR1g [W/kg]	0.232	0.243
psSAR10g [W/kg]	0.160	0.175
Power Drift [dB]	0.01	0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		75.9
Dist 3dB Peak [mm]		> 16.0



Meas.16 Body Plan with Back Side 10mm on Middle Channel in WCDMA Band 5 mode with Antenna13
Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 10.00	Band 5	WCDMA, 10011-CAC	836.4, 4182	9.96	0.902	41.9	22.8	21.5

Hardware Setup

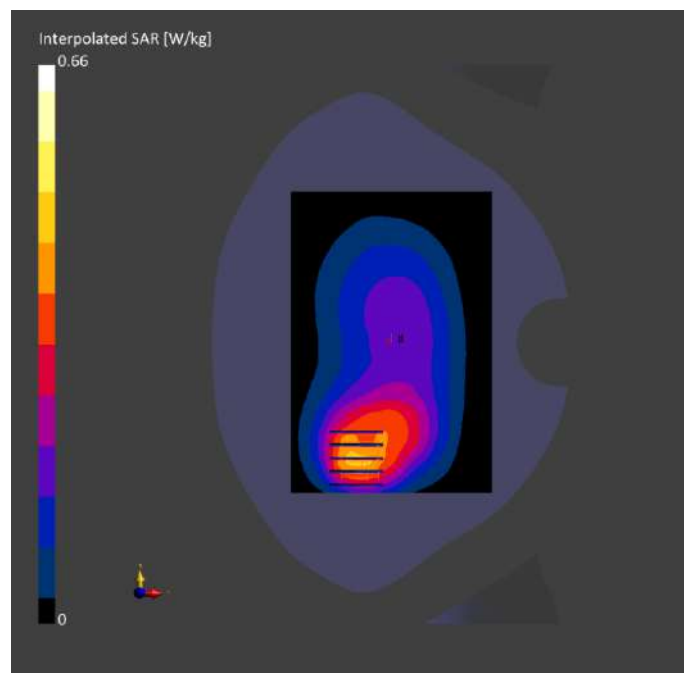
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-08	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-08	2024-02-08
psSAR1g [W/kg]	0.398	0.387
psSAR10g [W/kg]	0.267	0.237
Power Drift [dB]	-0.02	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		57.8
Dist 3dB Peak [mm]		10.7



Meas.17 Right Head with Tilt on Low Channel in LTE Band 2 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	TILT, 0.00	Band 2	LTE-FDD, 10169-CAF	1860.0, 18700	7.98	1.37	40.3	22.5	21.5

Hardware Setup

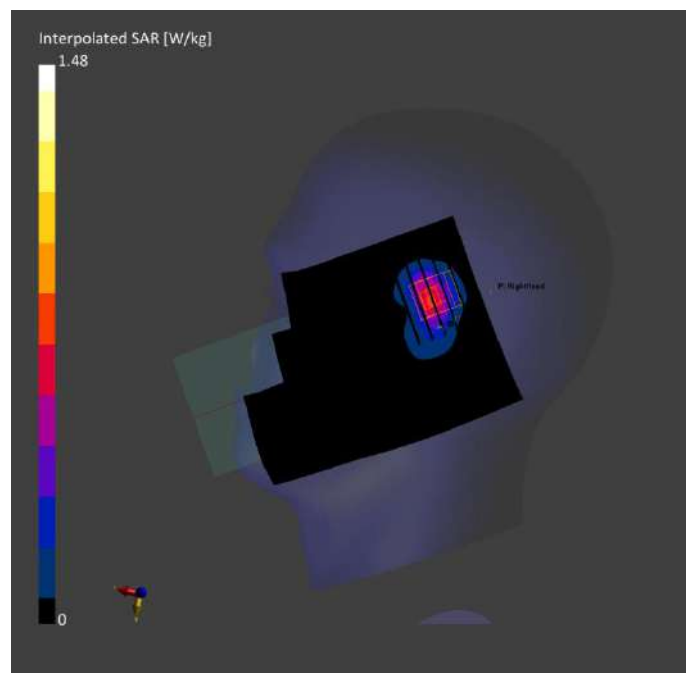
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-11	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-11	2024-02-11
psSAR1g [W/kg]	0.608	0.754
psSAR10g [W/kg]	0.307	0.339
Power Drift [dB]	-0.01	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.4
Dist 3dB Peak [mm]		6.4



Meas.18 Body Plan with Back Side 15mm on Low Channel in LTE Band 2 mode with Antenna31

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	Band 2	LTE-FDD, 10169-CAF	1860.0, 18700	7.98	1.37	40.3	22.5	21.5

Hardware Setup

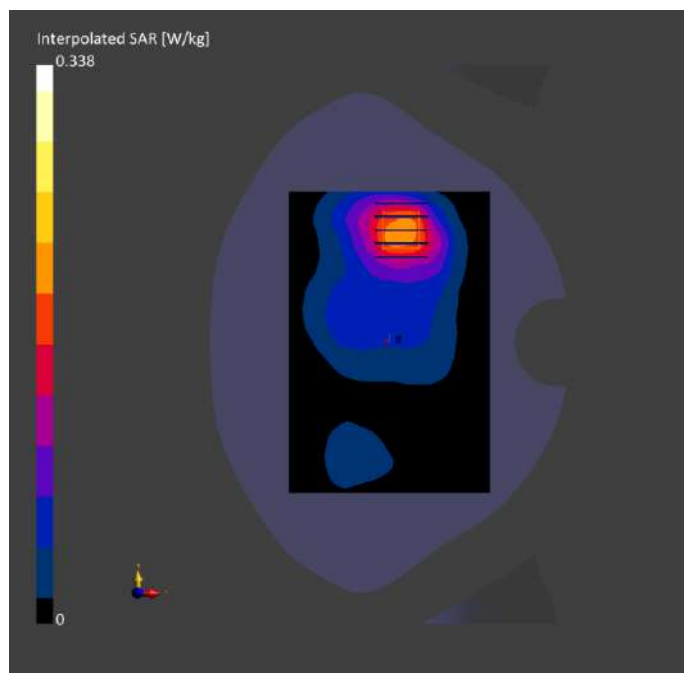
Phantom	TSL, Measured Date		Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-11	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Y	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-11	2024-02-11
psSAR1g [W/kg]	0.186	0.212
psSAR10g [W/kg]	0.111	0.123
Power Drift [dB]	0.01	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		62.9
Dist 3dB Peak [mm]		15.8



Meas.19 Body Plan with Bottom Edge 10mm on Low Channel in LTE Band 2 mode with Antenna31

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

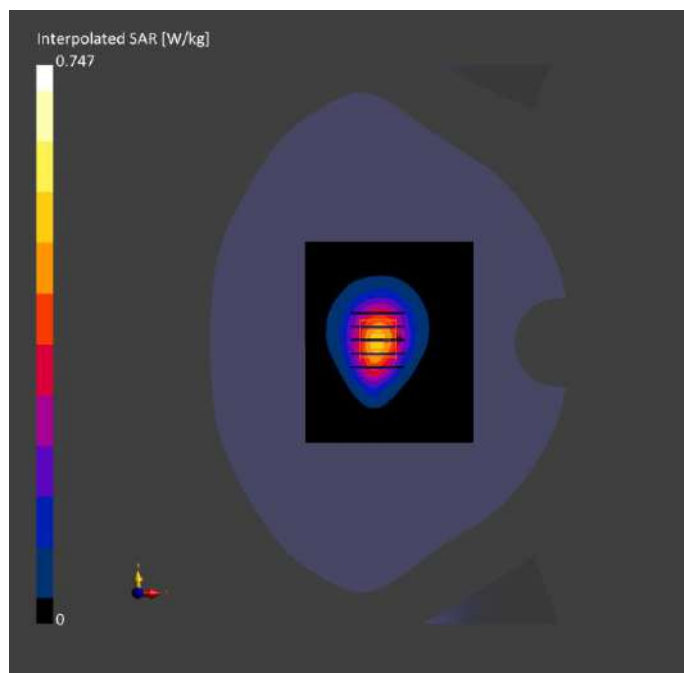
Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE BOTTOM , 10.00	Band 2	LTE-FDD, 10169-CAF	1860.0, 18700	7.98	1.37	40.3	22.5	21.5

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-11	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 120.0	32.0 x 32.0 x 30.0	Date	2024-02-11	2024-02-11
Grid Steps [mm]	10.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.438	0.455
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.248	0.262
Graded Grid	Yes	Yes	Power Drift [dB]	0.00	0.03
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	N/A	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		60.1
			Dist 3dB Peak [mm]		14.3



Meas.20 Body Plan with Top Edge 0mm on Low Channel in LTE Band 2 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	EDGE TOP, 0.00	Band 2	LTE-FDD, 10169-CAF	1860.0, 18700	7.98	1.37	40.3	22.5	21.5

Hardware Setup

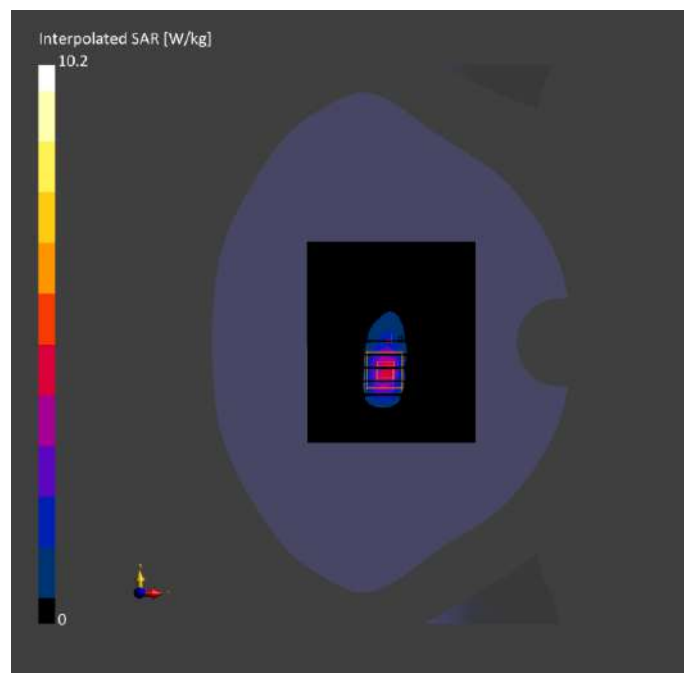
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-11	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 120.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-11	2024-02-11
psSAR1g [W/kg]	3.65	4.54
psSAR10g [W/kg]	1.73	1.82
Power Drift [dB]	-0.00	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		40.7
Dist 3dB Peak [mm]		4.8



Meas.21 Right Head with Cheek on High Channel in LTE Band 7 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom Section, TSL	Position , Test Distanc e [mm]	Ban d	Group , UID	Frequenc y [MHz], Channel Number	Conversio n Factor	TSL Conductivit y [S/m]	TSL Permittivit y	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead , HSL	CHEEK, 0.00	Band 7	LTE- FDD, 10169- CAF	2560.0, 21350	7.41	1.93	38.8	22.7	21.6

Hardware Setup

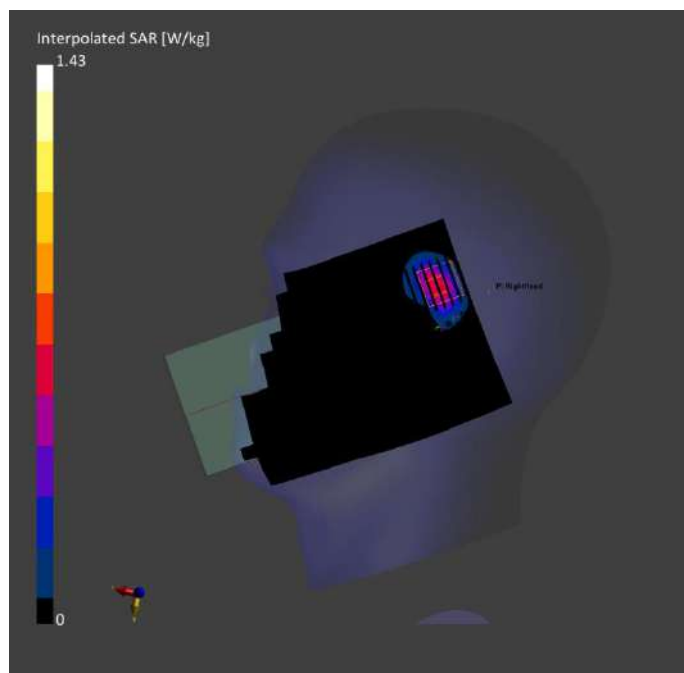
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-12	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 200.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-12	2024-02-12
psSAR1g [W/kg]	0.548	0.618
psSAR10g [W/kg]	0.250	0.249
Power Drift [dB]	0.01	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		41.5
Dist 3dB Peak [mm]		6.1



Meas.22 Body Plan with Back Side 15mm on Middle Channel in LTE Band 7 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	Band 7	LTE-FDD, 10169-CAF	2535.0, 21100	7.41	1.90	39.0	22.7	21.6

Hardware Setup

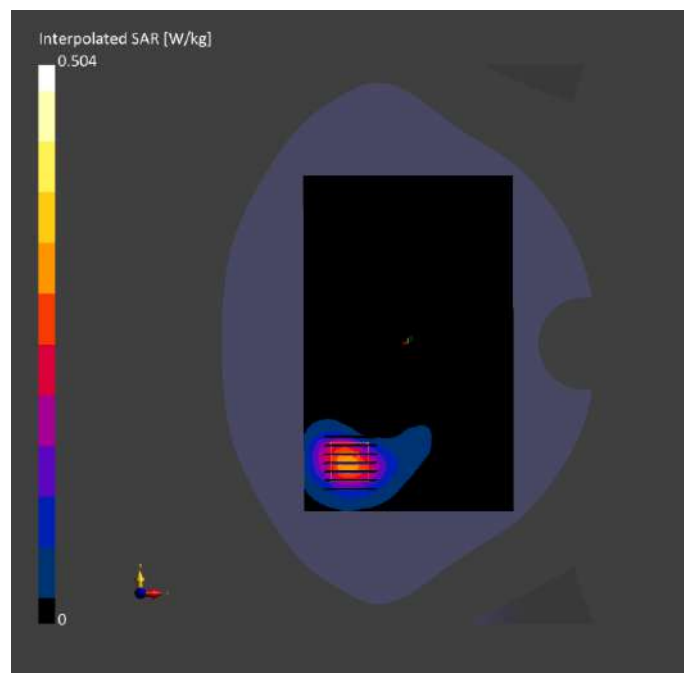
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-12	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 192.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
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	2024-02-12	2024-02-12
psSAR1g [W/kg]	0.265	0.277
psSAR10g [W/kg]	0.131	0.138
Power Drift [dB]	-0.03	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		54.7
Dist 3dB Peak [mm]		10.3



Meas.23 Body Plan with Top Edge 10mm on High Channel in LTE Band 7 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Section, TSL	Band, Distance [mm]	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	EDGE TOP, 10.00	Band 7	LTE-FDD, 10169-CAF	2560.0, 21350	7.41	1.93	38.8	22.7	21.6

Hardware Setup

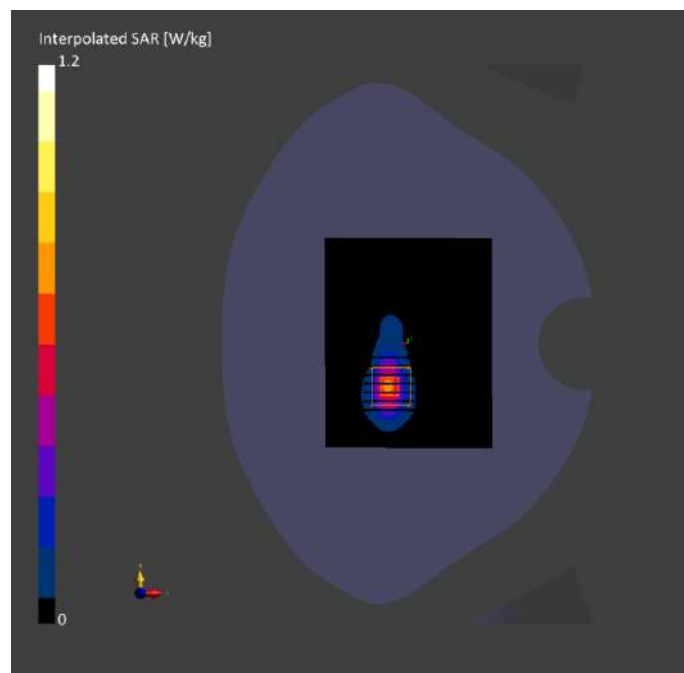
Phantom	TSL, Measured Date		Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-12	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-12	2024-02-12
psSAR1g [W/kg]	0.545	0.574
psSAR10g [W/kg]	0.221	0.238
Power Drift [dB]	1.06	-0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.4
Dist 3dB Peak [mm]		7.6



Meas.24 Body Plan with Top Edge 0mm on Low Channel in LTE Band 7 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

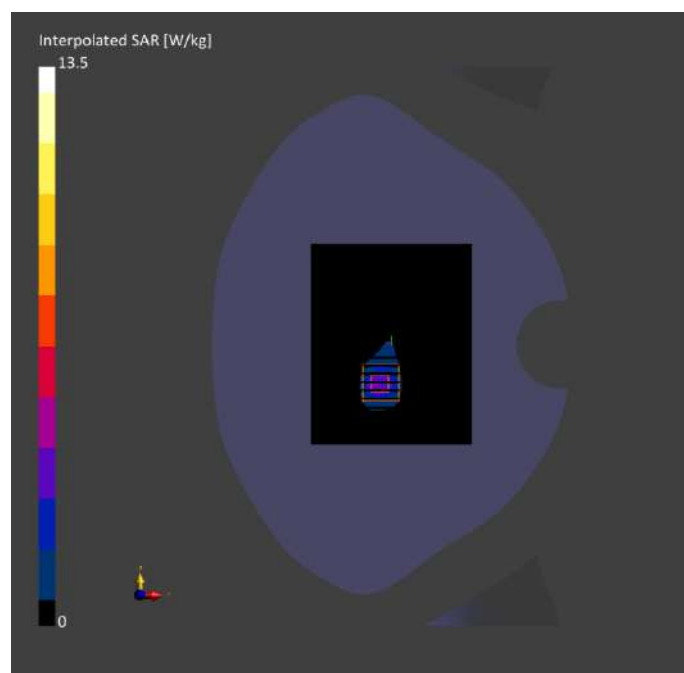
Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	EDGE TOP, 0.00	Band 7	LTE-FDD, 10169-CAF	2510.0, 20850	7.41	1.87	39.2	22.6	21.7

Hardware Setup

Phantom	TSL, Measured Date		Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-12	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 30.0	Date	2024-02-12	2024-02-12
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0	psSAR1g [W/kg]	3.56	5.09
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	1.50	1.71
Graded Grid	Yes	Yes	Power Drift [dB]	0.02	-0.03
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	N/A	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		37.1
			Dist 3dB Peak [mm]		5.0



Meas.25 Right Head with Cheek on Middle Channel in LTE Band 13 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom Section, TSL	Position , Test Distanc e [mm]	Ban d	Group , UID	Frequenc y [MHz], Channel Number	Conversio n Factor	TSL Conductivit y [S/m]	TSL Permittivit y	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead , HSL	CHEEK, 0.00	Band 13	LTE- FDD, 10175- CAH	782.0, 23230	10.31	0.906	41.7	22.6	21.4

Hardware Setup

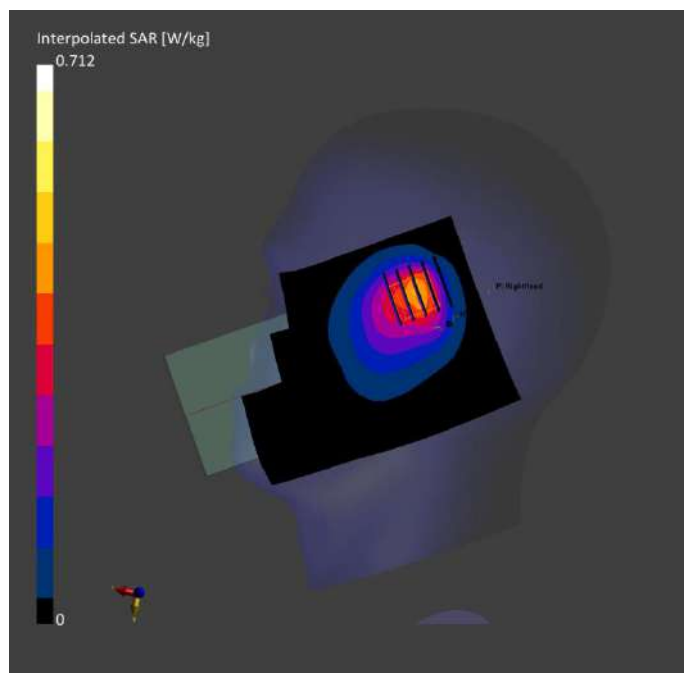
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-13	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
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	2024-02-13	2024-02-13
psSAR1g [W/kg]	0.401	0.382
psSAR10g [W/kg]	0.257	0.240
Power Drift [dB]	-0.03	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.6
Dist 3dB Peak [mm]		9.6



Meas.26 Body Plan with Back Side 15mm on Middle Channel in LTE Band 13 mode with Antenna13
Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	Band 13	LTE-FDD, 10175-CAH	782.0, 23230	10.31	0.906	41.7	22.6	21.4

Hardware Setup

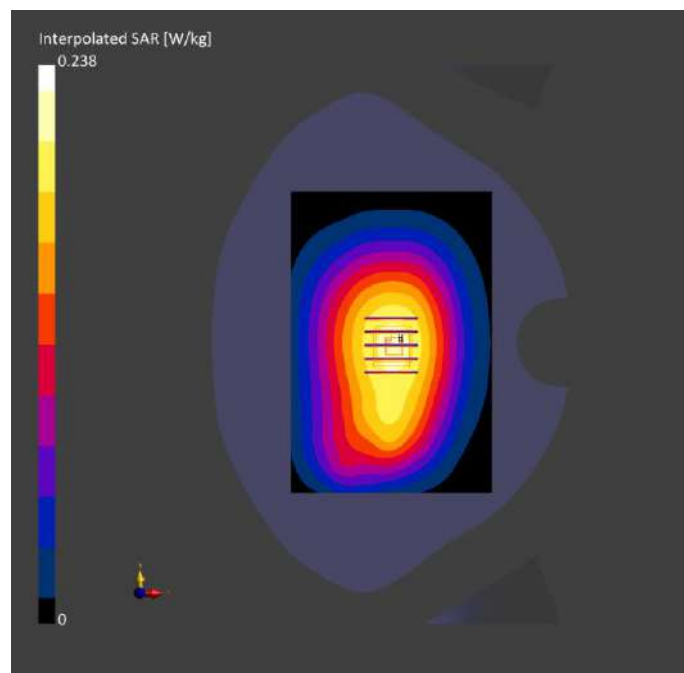
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-13	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-13	2024-02-13
psSAR1g [W/kg]	0.183	0.193
psSAR10g [W/kg]	0.130	0.149
Power Drift [dB]	-0.00	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		80.4
Dist 3dB Peak [mm]		> 16.0



Meas.27 Body Plan with Back Side 10mm on Middle Channel in LTE Band 13 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 10.00	Band 13	LTE-FDD, 10175-CAH	782.0, 23230	10.31	0.906	41.7	22.6	21.4

Hardware Setup

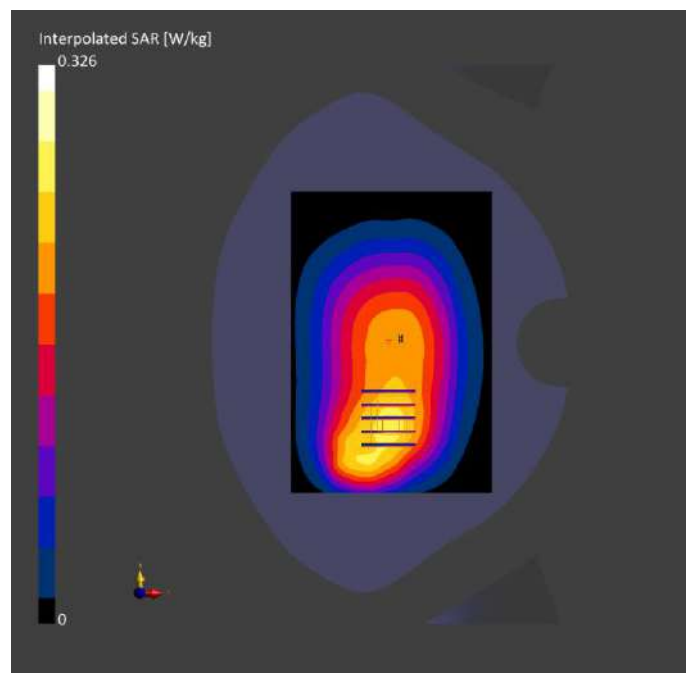
Phantom	TSL, Measured Date		Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-13	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-13	2024-02-13
psSAR1g [W/kg]	0.228	0.239
psSAR10g [W/kg]	0.159	0.175
Power Drift [dB]	-0.05	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		72.8
Dist 3dB Peak [mm]		> 16.0



Meas.28 Right Head with Cheek on Low Channel in LTE Band 26 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom Section, TSL	Position , Test Distanc e [mm]	Band	Group , UID	Frequenc y [MHz], Channel Number	Conversio n Factor	TSL Conductivit y [S/m]	TSL Permittivit y	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead , HSL	CHEEK, 0.00	Band 26	LTE- FDD, 10181- CAF	821.5, 26765	9.96	0.888	42.2	22.8	21.9

Hardware Setup

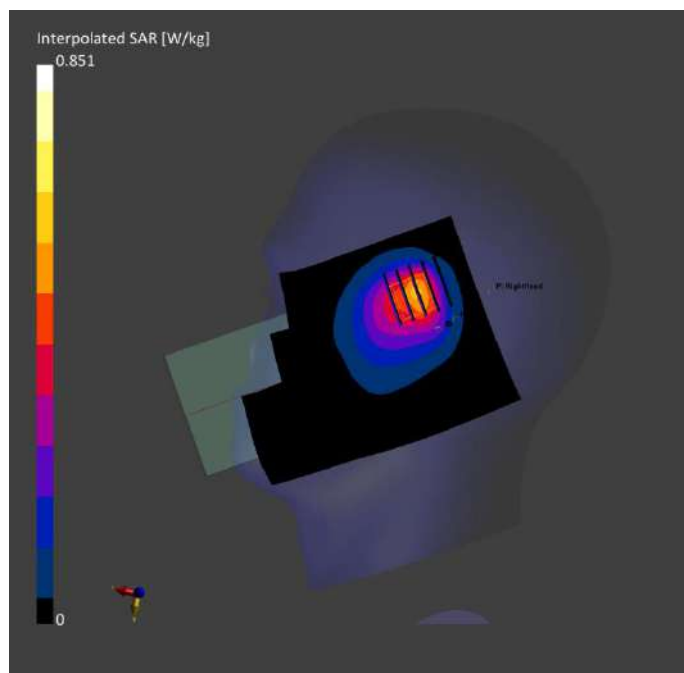
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2023-02-14	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-02-14	2023-02-14
psSAR1g [W/kg]	0.489	0.456
psSAR10g [W/kg]	0.310	0.288
Power Drift [dB]	0.01	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		48.7
Dist 3dB Peak [mm]		9.3



Meas.29 Body Plan with Back Side 15mm on Low Channel in LTE Band 26 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	Band 26	LTE-FDD, 10181-CAF	821.5, 26765	9.96	0.888	42.2	22.8	21.9

Hardware Setup

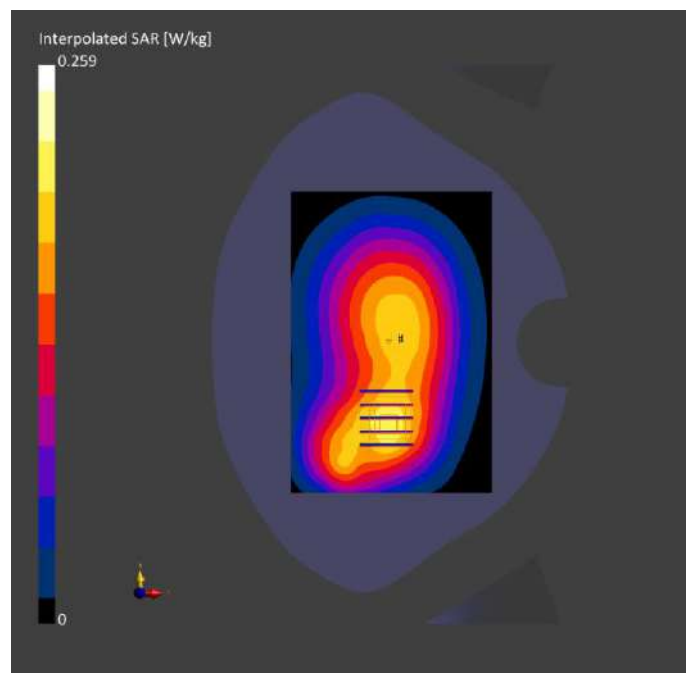
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2023-02-14	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-02-14	2023-02-14
psSAR1g [W/kg]	0.186	0.194
psSAR10g [W/kg]	0.128	0.141
Power Drift [dB]	-0.01	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		74.7
Dist 3dB Peak [mm]		> 16.0



Meas.30 Body Plan with Back Side 10mm on Middle Channel in LTE Band 26 mode with Antenna13
Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 10.00	Band 26	LTE-FDD, 10181-CAF	831.5, 26865	9.96	0.896	42.0	22.8	21.9

Hardware Setup

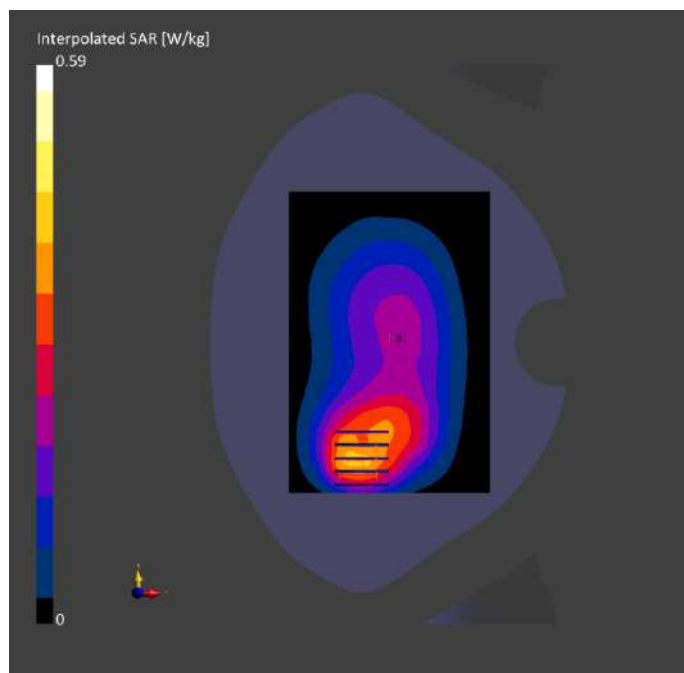
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2023-02-14	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-02-14	2023-02-14
psSAR1g [W/kg]	0.357	0.349
psSAR10g [W/kg]	0.241	0.215
Power Drift [dB]	-0.01	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.2
Dist 3dB Peak [mm]		10.1



Meas.31 Right Head with Tilt on High Channel in LTE Band 66 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	TILT, 0.00	Band 66	LTE-FDD, 10169-CAF	1770.0, 132572	8.52	1.40	39.7	22.4	21.6

Hardware Setup

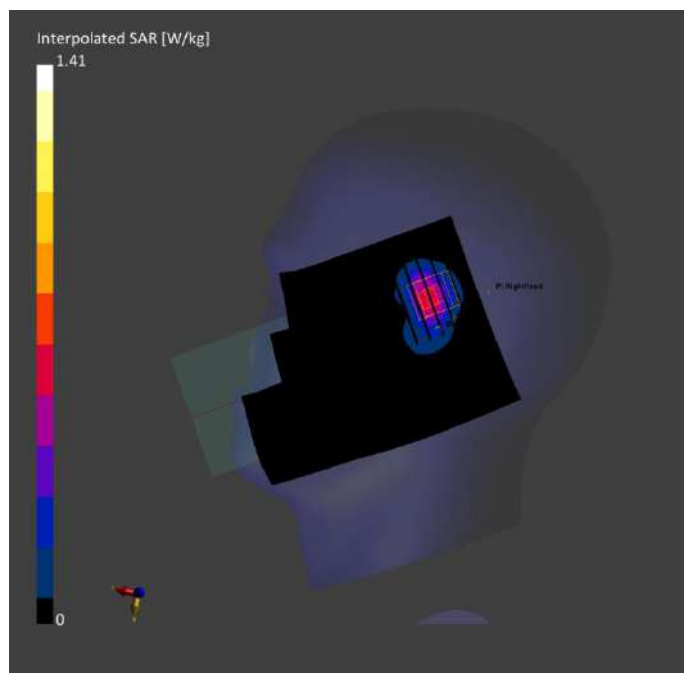
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-15	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-15	2024-02-15
psSAR1g [W/kg]	0.553	0.697
psSAR10g [W/kg]	0.280	0.310
Power Drift [dB]	0.02	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		47.7
Dist 3dB Peak [mm]		6.4



Meas.32 Body Plan with Back Side 15mm on Middle Channel in LTE Band 66 mode with Antenna31

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

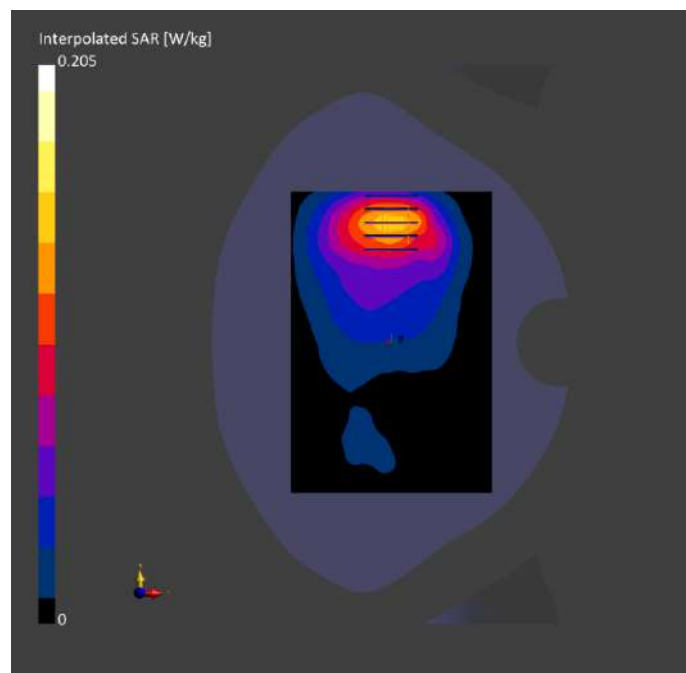
Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	Band 66	LTE-FDD, 10169-CAF	1745.0, 132322	8.52	1.37	40.1	22.4	21.6

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-15	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	32.0 x 32.0 x 30.0	Date	2024-02-15	2024-02-15
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.124	0.132
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.075	0.081
Graded Grid	Yes	Yes	Power Drift [dB]	0.01	-0.01
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	Y	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		63.9
			Dist 3dB Peak [mm]		14.3



Meas.33 Body Plan with Bottom Edge 10mm on High Channel in LTE Band 66 mode with Antenna31
Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	EDGE TOP, 10.00	Band 66	LTE-FDD, 10169-CAF	1770.0, 132572	8.52	1.40	39.7	22.4	21.6

Hardware Setup

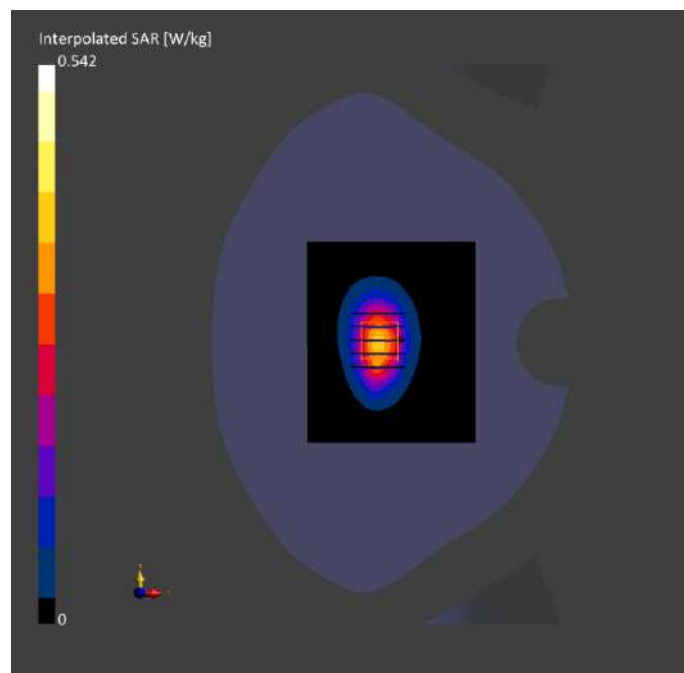
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-15	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 120.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-15	2024-02-15
psSAR1g [W/kg]	0.318	0.333
psSAR10g [W/kg]	0.178	0.189
Power Drift [dB]	-0.00	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		61.6
Dist 3dB Peak [mm]		12.8



Meas.34 Right Head with Cheek on Middle Channel in LTE Band 41 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom Section, TSL	Position , Test Distanc e [mm]	Ban d	Group , UID	Frequenc y [MHz], Channel Number	Conversio n Factor	TSL Conductivit y [S/m]	TSL Permittivit y	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead , HSL	CHEEK, 0.00	Band 41	LTE- TDD, 10172- CAH	2595.0, 40640	7.41	1.96	38.6	22.7	21.6

Hardware Setup

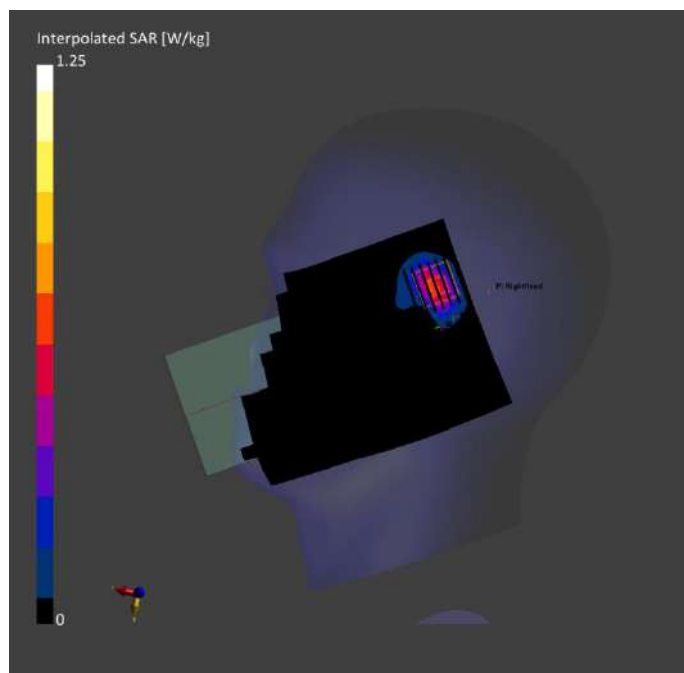
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-16	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 200.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 5.0
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	2024-02-16	2024-02-16
psSAR1g [W/kg]	0.511	0.547
psSAR10g [W/kg]	0.226	0.225
Power Drift [dB]	0.02	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		41.9
Dist 3dB Peak [mm]		6.7



Meas.35 Body Plan with Back Side 15mm on Middle Channel in LTE Band 41 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	Band 41	LTE-TDD, 10172-CAH	2595.0, 40640	7.41	1.96	38.6	22.7	21.6

Hardware Setup

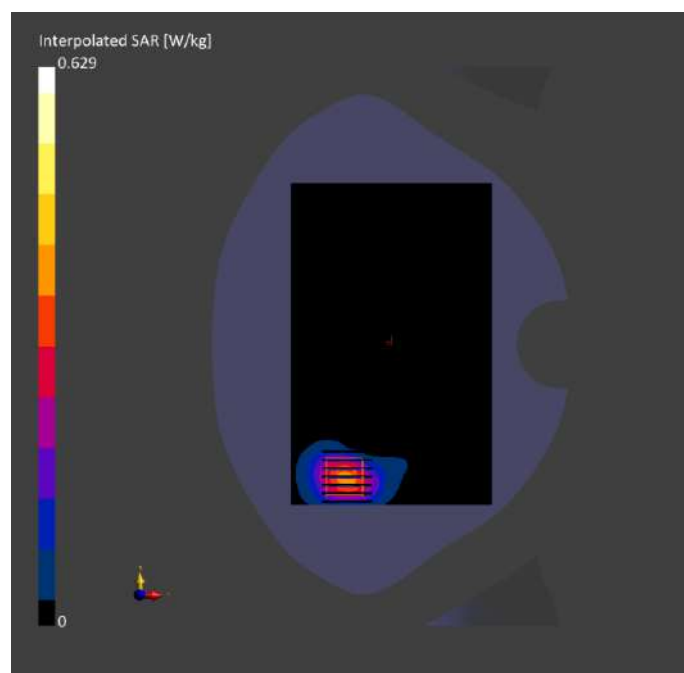
Phantom	TSL, Measured Date		Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2024-02-16	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 192.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-16	2024-02-16
psSAR1g [W/kg]	0.316	0.339
psSAR10g [W/kg]	0.158	0.164
Power Drift [dB]	0.00	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		53.5
Dist 3dB Peak [mm]		10.3



Meas.36 Body Plan with Top Edge 10mm on Middle Channel in LTE Band 41 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE TOP, 10.00	Band 41	LTE-TDD, 10172-CAH	2595.0, 40640	7.41	1.96	38.6	22.7	21.6

Hardware Setup

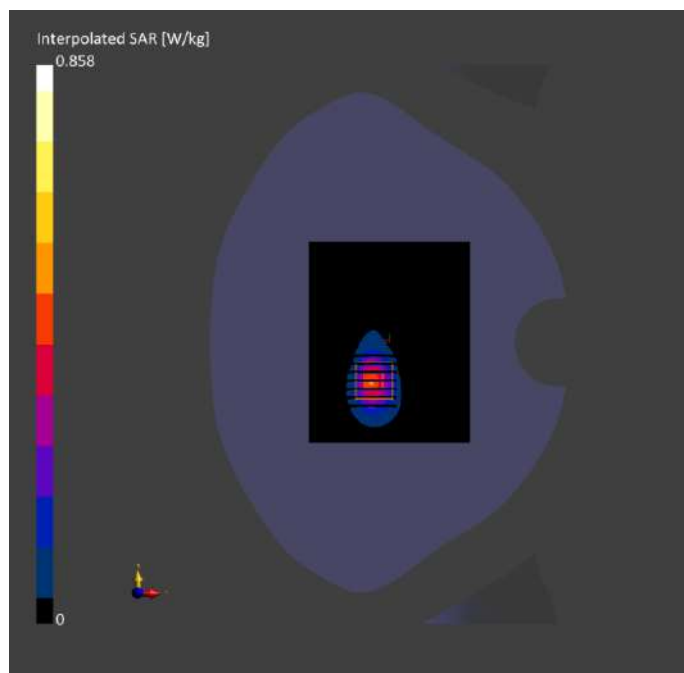
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-16	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-16	2024-02-16
psSAR1g [W/kg]	0.382	0.417
psSAR10g [W/kg]	0.168	0.179
Power Drift [dB]	0.02	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		51.1
Dist 3dB Peak [mm]		7.0



Meas.37 Body Plan with Top Edge 0mm on Low Channel in LTE Band 41 mode with Antenna13

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	EDGE TOP, 0.00	Band 41	LTE-TDD, 10172-CAH	2545.0, 40140	7.41	1.91	39.0	22.7	21.6

Hardware Setup

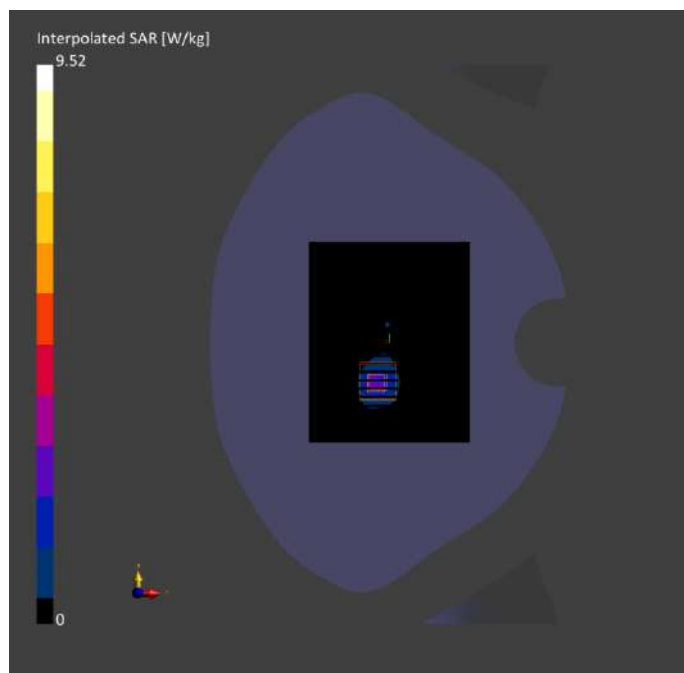
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-16	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-16	2024-02-16
psSAR1g [W/kg]	2.21	3.31
psSAR10g [W/kg]	0.914	1.06
Power Drift [dB]	0.02	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		33.0
Dist 3dB Peak [mm]		4.0



Meas.38 Left Head with Cheek on High Channel in 802.11b mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

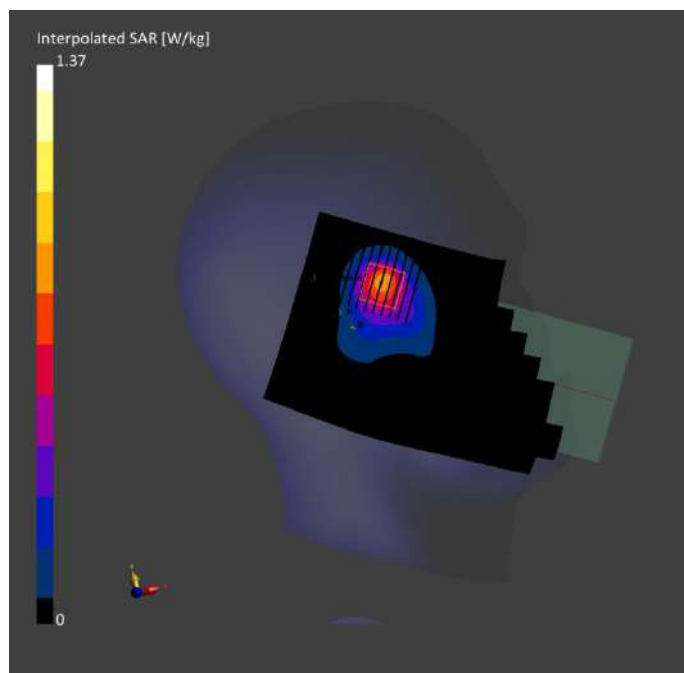
Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
LeftHead, HSL	CHEEK, 0.00	WLAN 2.4GHz	WLAN 10315-AAB	2462.0, 11	7.47	1.81	39.5	22.8	21.6

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-17	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 192.0	30.0 x 30.0 x 30.0	Date	2024-02-17	2024-02-17
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0	psSAR1g [W/kg]	0.677	0.707
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.343	0.351
Graded Grid	Yes	Yes	Power Drift [dB]	-0.01	0.00
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	N/A	N/A	Scaling Factor [dB]		
Surface Detection	VMS + 6p	VMS + 6p	TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		51.7
			Dist 3dB Peak [mm]		10.3



Meas.39 Body Plan with Back Side 15mm on High Channel in 802.11b mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 15.00	WLAN 2.4GHz	WLAN, 10315-AAB	2462.0, 11	7.47	1.81	39.5	22.8	21.6

Hardware Setup

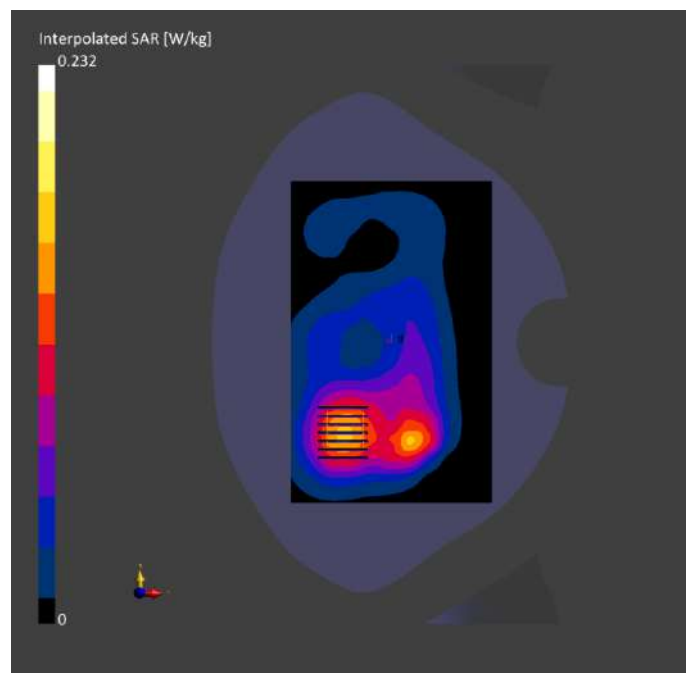
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-17	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 192.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Y	Y
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-17	2024-02-17
psSAR1g [W/kg]	0.132	0.136
psSAR10g [W/kg]	0.075	0.079
Power Drift [dB]	-0.04	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		55.9
Dist 3dB Peak [mm]		21.9



Meas.40 Body Plan with Back Side 10mm on High Channel in 802.11b mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

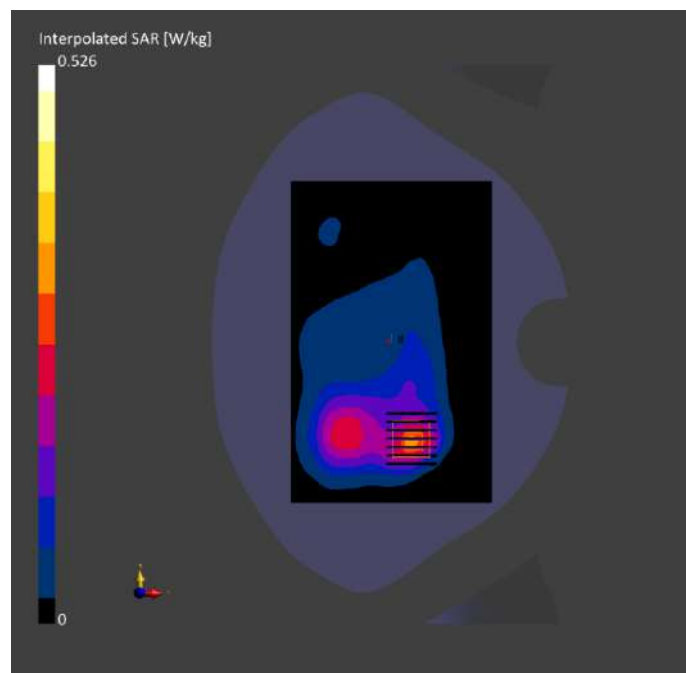
Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 10.00	WLAN 2.4GHz	WLAN, 10315-AAB	2462.0, 11	7.47	1.81	39.5	22.8	21.6

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-17	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 192.0	30.0 x 30.0 x 30.0	Date	2024-02-17	2024-02-17
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0	psSAR1g [W/kg]	0.253	0.256
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.127	0.126
Graded Grid	Yes	Yes	Power Drift [dB]	-0.01	-0.01
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	N/A	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		46.2
			Dist 3dB Peak [mm]		11.2



Meas.41 Left Head with Cheek on 54 Channel in 802.11n40 mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

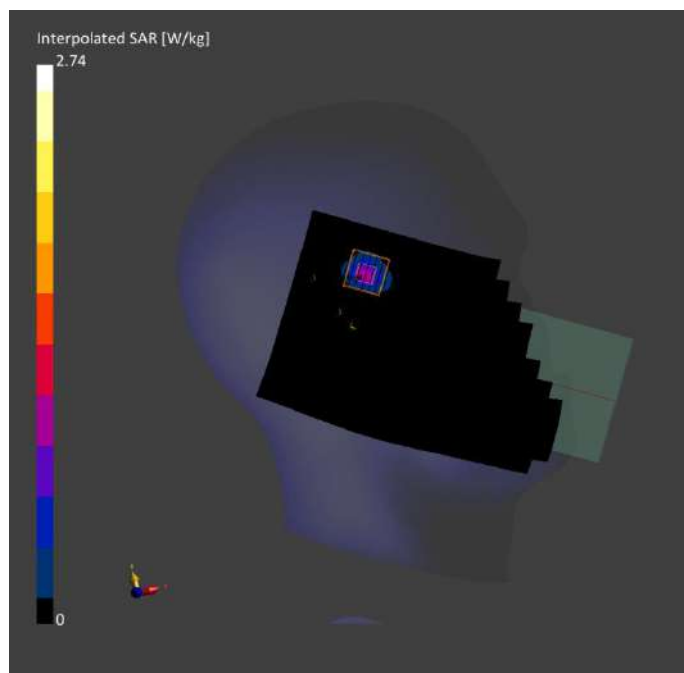
Exposure Conditions

Phantom	Position, Test Section, Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
LeftHead, HSL	CHEEK, 0.00	WLAN, N	54	5270.0, 10599-54	5.41	4.74	35.5	22.7	21.5
		5GHz	AAD						

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-18	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 200.0	24.0 x 24.0 x 22.0	Date	2024-02-18	2024-02-18
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	0.658	0.713
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.195	0.203
Graded Grid	Yes	Yes	Power Drift [dB]	0.01	-0.09
Grading Ratio	1.5	1.4	Power Scaling	Disabled	Disabled
MAIA	Y	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		54.1
			Dist 3dB Peak [mm]		6.3



Meas.42 Left Head with Tilt on 122 Channel in 802.11ac80 mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

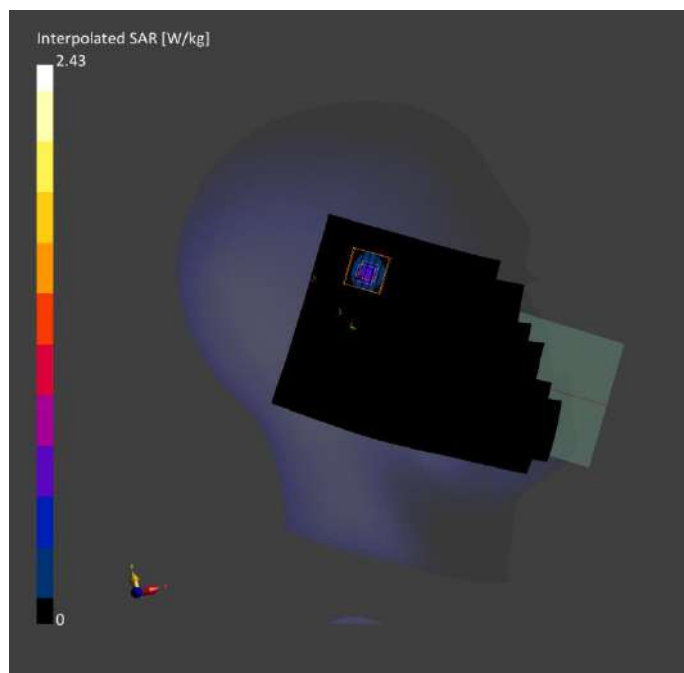
Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
LeftHead, HSL	TILT, 0.00	WLAN, N	5610.0, 10544-5GHz	4.58	5.07	35.0	22.4	21.5	

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-19	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	24.0 x 24.0 x 22.0	Date	2024-02-19	2024-02-19
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	0.441	0.560
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.122	0.137
Graded Grid	Yes	Yes	Power Drift [dB]	0.14	-0.05
Grading Ratio	1.5	1.4	Power Scaling	Disabled	Disabled
MAIA	Y	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		49.2
			Dist 3dB Peak [mm]		4.7



Meas.43 Left Head with Cheek on 155 Channel in 802.11ac80 mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Section, Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
LeftHead, HSL	CHEEK, 0.00	WLAN, N 5GHz	WLAN, 10544-AAD	5775.0, 155	4.78	5.23	35.1	22.6	21.4

Hardware Setup

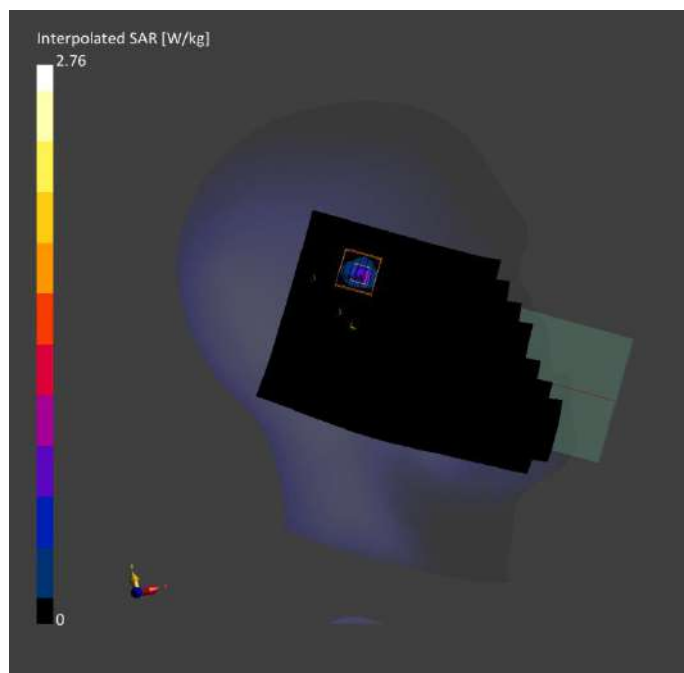
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-20	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 200.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-20	2024-02-20
psSAR1g [W/kg]	0.509	0.582
psSAR10g [W/kg]	0.131	0.139
Power Drift [dB]	-0.04	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		50.6
Dist 3dB Peak [mm]		5.6



Meas.44 Body Plan with Back Side 15mm on 60 Channel in 802.11a mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

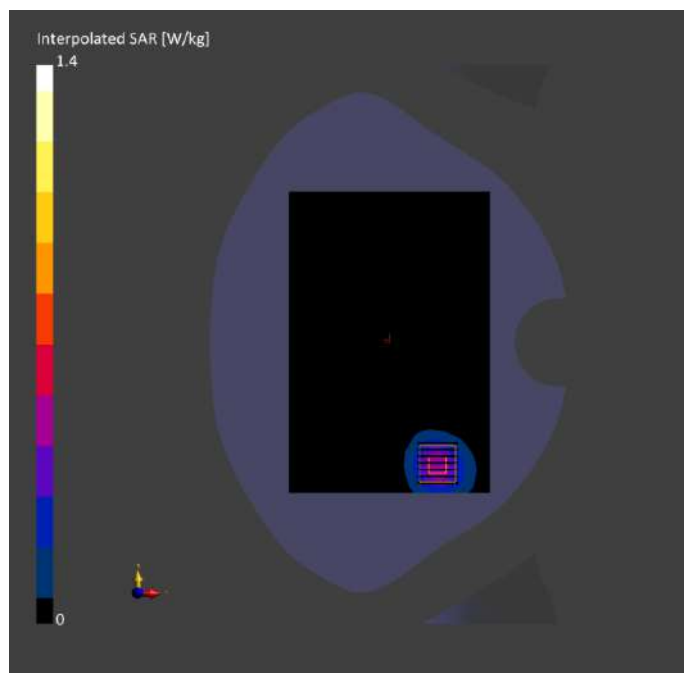
Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	WLAN, N	WLAN, 10062-CAD	5300.0, 60	5.41	4.81	35.1	22.7	21.5

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-18	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	24.0 x 24.0 x 22.0	Date	2024-02-18	2024-02-18
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	0.429	0.428
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.168	0.165
Graded Grid	Yes	Yes	Power Drift [dB]	-0.13	0.04
Grading Ratio	1.5	1.4	Power Scaling	Disabled	Disabled
MAIA	Y	Y	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		55.0
			Dist 3dB Peak [mm]		11.9



Meas.45 Body Plan with Back Side 15mm on 116 Channel in 802.11a mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

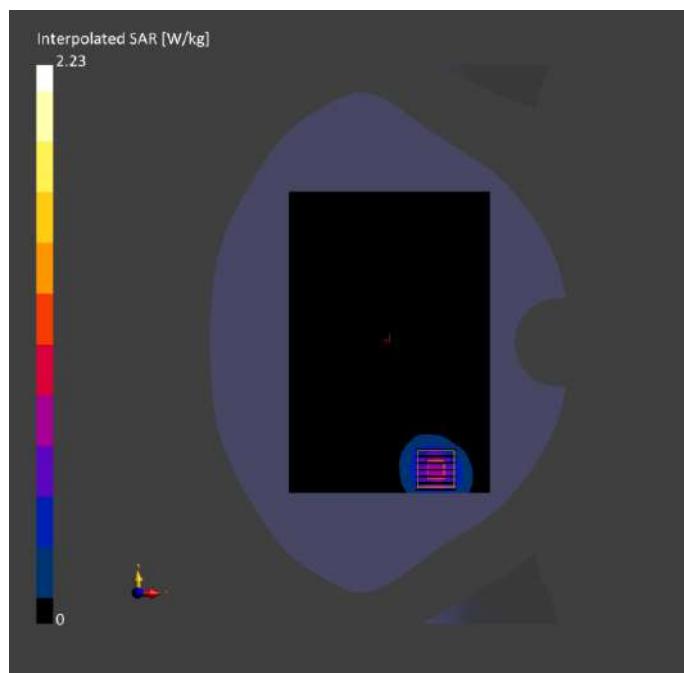
Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	WLAN, N	WLAN, 10062-CAD	5580.0, 116	4.58	5.07	35.0	22.4	21.5

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-19	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	24.0 x 24.0 x 22.0	Date	2024-02-19	2024-02-19
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	0.648	0.645
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.255	0.248
Graded Grid	Yes	Yes	Power Drift [dB]	0.03	0.04
Grading Ratio	1.5	1.4	Power Scaling	Disabled	Disabled
MAIA	Y	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		52.5
			Dist 3dB Peak [mm]		12.4



Meas.46 Body Plan with Back Side 15mm on 159 Channel in 802.11n40 mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Section, Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	WLAN, N	WLAN, 10115-CAD	5795.0, 159	4.78	5.26	34.9	22.6	21.4

Hardware Setup

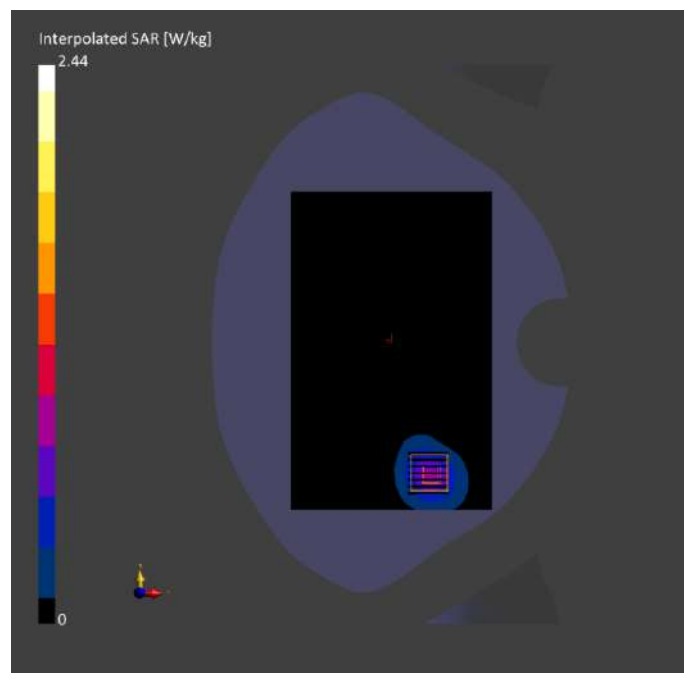
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-20	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-20	2024-02-20
psSAR1g [W/kg]	0.597	0.594
psSAR10g [W/kg]	0.228	0.229
Power Drift [dB]	0.03	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		50.7
Dist 3dB Peak [mm]		12.6



Meas.47 Body Plan with Back Side 10mm on 44 Channel in 802.11a mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

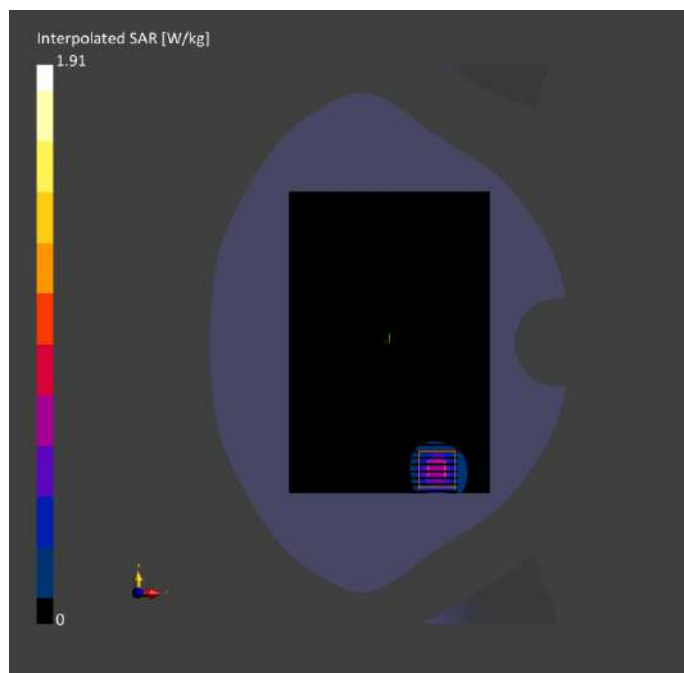
Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 10.00	WLAN, N	5GHz	5220.0, 44	5.41	4.64	36.2	22.7	21.5

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-18	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	24.0 x 24.0 x 22.0	Date	2024-02-18	2024-02-18
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	0.550	0.585
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.199	0.202
Graded Grid	Yes	Yes	Power Drift [dB]	0.00	-0.00
Grading Ratio	1.5	1.4	Power Scaling	Disabled	Disabled
MAIA	Y	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		56.4
			Dist 3dB Peak [mm]		8.8



Meas.48 Body Plan with Back Side 10mm on 44 Channel in 802.11a mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

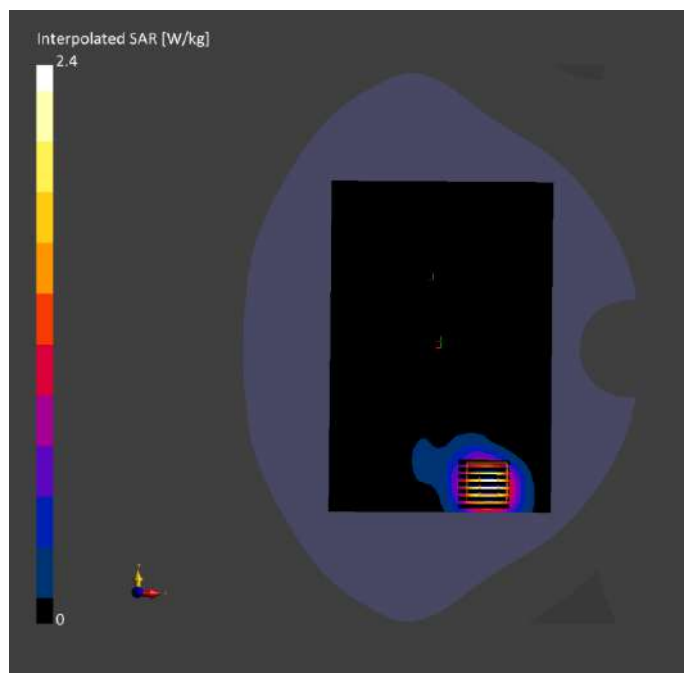
Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 10.00	WLAN, N	5795.0, 10114-5GHz	4.78	5.26	34.9	22.6	21.4	

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-20	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	24.0 x 24.0 x 22.0	Date	2024-02-20	2024-02-20
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	0.652	0.657
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.246	0.235
Graded Grid	Yes	Yes	Power Drift [dB]	-0.10	0.03
Grading Ratio	1.5	1.4	Power Scaling	Disabled	Disabled
MAIA	Y	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		51.5
			Dist 3dB Peak [mm]		10.7



Meas.49 Body Plan with Left Side 0mm on 60 Channel in 802.11a mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

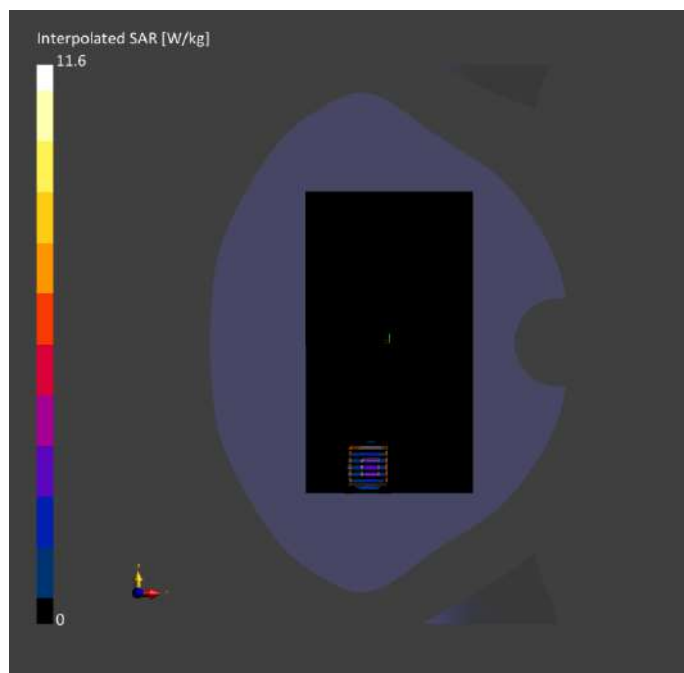
Exposure Conditions

Phantom	Position, Test Section, Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	EDGE LEFT, 0.00	WLAN, N 5GHz	WLAN, 10062-CAE	5300.0, 60	5.41	4.81	35.1	22.7	21.5

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-18	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	100.0 x 180.0	24.0 x 24.0 x 22.0	Date	2024-02-18	2024-02-18
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	2.40	2.79
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.760	0.794
Graded Grid	Yes	Yes	Power Drift [dB]	-0.03	-0.06
Grading Ratio	1.5	1.4	Power Scaling	Disabled	Disabled
MAIA	N/A	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		50.3
			Dist 3dB Peak [mm]		6.1



Meas.50 Body Plan with Left Side 0mm on 116 Channel in 802.11a mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

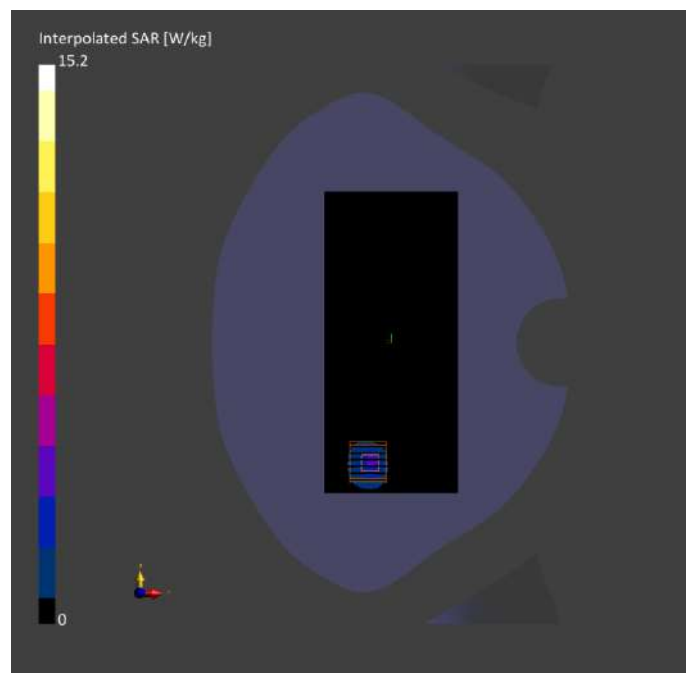
Exposure Conditions

Phantom	Position, Test Section, Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	EDGE LEFT, 0.00	WLAN, N 5GHz	WLAN, 10599-AAC	5580.0, 116	4.58	5.02	35.4	22.4	21.5

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-19	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 180.0	24.0 x 24.0 x 22.0	Date	2024-02-19	2024-02-19
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	2.94	3.64
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.965	1.08
Graded Grid	Yes	Yes	Power Drift [dB]	0.02	0.00
Grading Ratio	1.5	1.4	Power Scaling	Disabled	Disabled
MAIA	N/A	N/A	Scaling Factor		
Surface	VMS + 6p	VMS + 6p	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		51.6
			Dist 3dB Peak [mm]		6.1



Meas.51 Left Head with Cheek on High Channel in Bluetooth mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
LeftHead, HSL	CHEEK, 0.00	ISM 2.4 GHz Band	Bluetooth, 10035-CAA	2480.0, 78	7.47	1.83	39.4	22.8	21.6

Hardware Setup

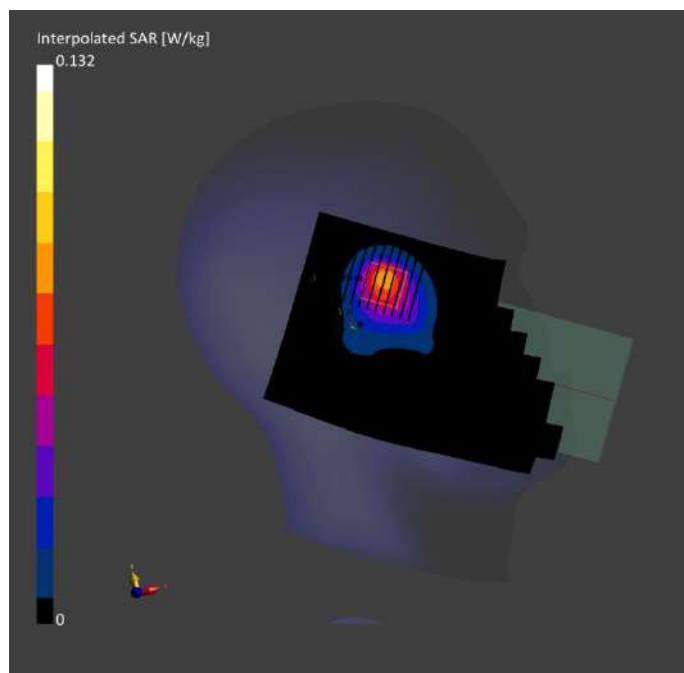
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-17	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 192.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Y	Y
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-17	2024-02-17
psSAR1g [W/kg]	0.067	0.067
psSAR10g [W/kg]	0.034	0.033
Power Drift [dB]	0.04	-0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.9
Dist 3dB Peak [mm]		9.8



Meas.52 Body Plan with Back Side 15mm on High Channel in 802.11a mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 15.00	ISM 2.4 GHz Band	Bluetooth, 10035-CAA	2480.0, 78	7.47	1.83	39.4	22.8	21.6

Hardware Setup

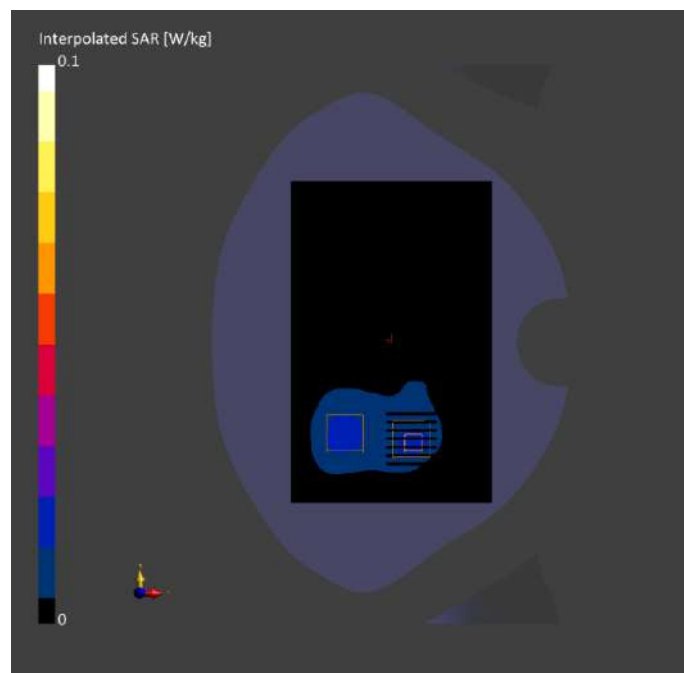
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-17	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 192.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Y	Y
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-17	2024-02-17
psSAR1g [W/kg]	0.018	0.017
psSAR10g [W/kg]	0.009	0.008
Power Drift [dB]	-0.10	-0.09
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		45.0
Dist 3dB Peak [mm]		> 15.0



Meas.53 Body Plan with Back Side 10mm on High Channel in 802.11a mode with Antenna22

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	165.0 x 75.0 x 10.0	Phone

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 10.00	ISM 2.4 GHz Band	Bluetooth, 10035-CAA	2480.0, 78	7.47	1.83	39.4	22.8	21.6

Hardware Setup

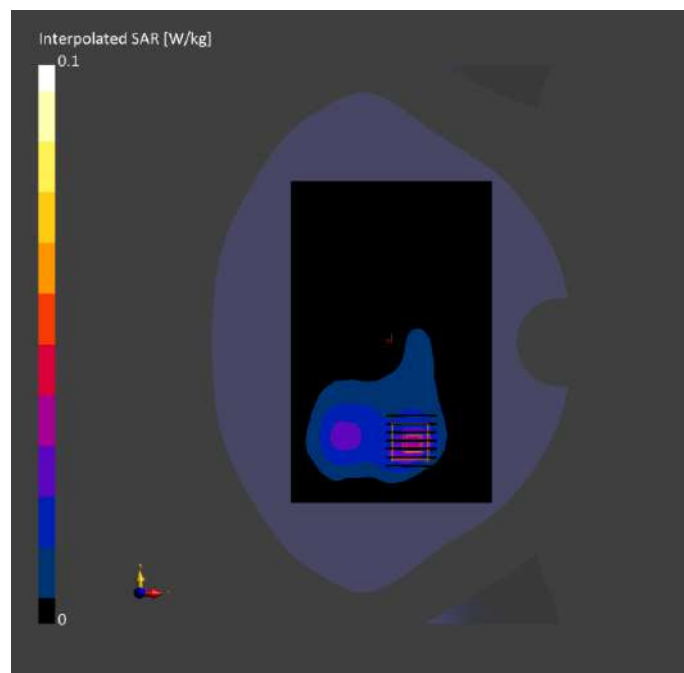
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-02-17	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 192.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Y	Y
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-02-17	2024-02-17
psSAR1g [W/kg]	0.031	0.031
psSAR10g [W/kg]	0.015	0.015
Power Drift [dB]	-0.03	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		45.7
Dist 3dB Peak [mm]		> 15.0



ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2411244-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SZ2411244-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SZ2411244-AC.pdf”.

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--END OF REPORT--