



TEST REPORT

Applicant: Mudita Sp. z o.o.
Address: Jana Czeczota 6, 02-607 Warszawa, Poland
Equipment Type: GSM/WCDMA/LTE Mobile Phone
Model Name: Kompakt-NAM
Brand Name: Mudita
FCC ID: 2BCWI-KOMPAKT-NAM
Test Standard: ANSI C95.1-1992
(refer to section 3.1)
Maximum SAR: Head (1 g@0mm): 1.06 W/kg
Body-worn (1 g@10mm): 1.17 W/kg
Hotspot (1 g@10mm): 1.27 W/kg
Extremity (10 g@0mm): 2.08 W/kg
Sample Arrival Date: Dec. 15, 2024
Test Date: Dec. 15, 2024 - Dec. 27, 2024
Date of Issue: Mar. 05, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Xu Rui**Checked by:** Zong Liyao**Approved by:** Tolan Tu
(Testing Director)

Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Mar. 05, 2025</u>	<u>Initial Issue</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	Mudita Sp. z o.o.
Address	Jana Czeczota 6, 02-607 Warszawa, Poland

2.2 Manufacturer Information

Manufacturer	Mudita Sp. z o.o.
Address	Jana Czeczota 6, 02-607 Warszawa, Poland

2.3 General Description for Equipment under Test (EUT)

EUT Name	GSM/WCDMA/LTE Mobile Phone
Model Name Under Test	Kompakt-NAM
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	V0.3
Software Version	LS601B_EINK_US_2SIM_V1.0_20241213
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	Mudita
	Model No.	LS061A
	Serial No.	N/A
	Capacity	3300 mAh
	Rated Voltage	3.87 V
	Limit Charge Voltage	4.45 V
	Manufacturer	Shenzhen Aerospace Electronic Co., Ltd.

2.5 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS 850/1900 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network FDD LTE Band 2/4/5/7/12/13/17/18/19/25/26/66/71 TDD LTE Band 38/41 Bluetooth (BR+EDR+BLE) WIFI 802.11a, 802.11b, 802.11g, 802.11n(HT20/40) and 802.11ac(VHT20/40/80) GNSS, FM Receiver, NFC, WPT(RX Only)
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 WIFI, 5G WIFI, 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 12	TX: 699 ~ 716 MHz	RX: 729 ~ 746 MHz
	LTE Band 13	TX: 777 ~ 787 MHz	RX: 746 ~ 756 MHz
	LTE Band 17	TX: 704 ~ 716 MHz	RX: 734 ~ 746 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 25	TX: 1850 ~ 1915 MHz	RX: 1930 ~ 1995 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 71	TX: 663 ~ 698 MHz	RX: 617 ~ 652 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)	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 WIFI: 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/ ControlledExposure
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 (10mm)	Hotspot (10mm)	Extremity (0mm)	Head (0mm)	Body-worn (10mm)	Hotspot (10mm)	Extremity (0mm)
		1g SAR			10g SAR	1g SAR			10g SAR
PCE	GSM 850	1.01	1.17	1.17	/	1.06	1.17	1.27	2.08
	GSM 1900	0.67	0.90	0.90	/				
	WCDMA Band 2	0.78	0.95	0.95	/				
	WCDMA Band 4	0.83	0.82	0.82	/				
	WCDMA Band 5	0.44	0.65	0.65	/				
	LTE Band 7	0.97	0.51	0.85	/				
	LTE Band12 (LTE Band17)	0.38	0.54	0.54	/				
	LTE Band 13	0.40	0.59	0.59	/				
	LTE Band25 (LTE Band2)	0.69	0.91	0.91	/				
	LTE Band26 (LTE Band5/18/19)	0.50	0.63	0.63	/				
	LTE Band66 (LTE Band4)	0.87	0.60	0.60	/				
	LTE Band 71	0.30	0.41	0.41	/				
	LTE Band 38	0.93	0.53	1.11	/				
	LTE Band 41	1.06	0.48	1.27	2.08				
DTS	2.4G WIFI	0.47	0.10	0.10	/				
NII	5G WIFI	0.57	0.22	0.30	0.69				
DSS	Bluetooth	0.16	0.04	0.04	/				
Limit (W/kg)		1.6			4.0	1.6			4.0
Verdict		PASS							

Note: This device supports LTE B2/B4/B5&B18&B19/B17 and LTE B25/B66/B26/B12. Since the supported frequency span for LTE B2/B4/B5&B18&B19/B17 falls completely within the supports frequency span for LTE B25/B66/B26/B12, these LTE bands share the same transmission path, and LTE B2/B4/B5&B18&B19/B17 have lower or the same target power as LTE B25/B66/B26/B12; Therefore, SAR was only assessed for LTE B25/B66/B26/B12.

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 1.27 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 2.08 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

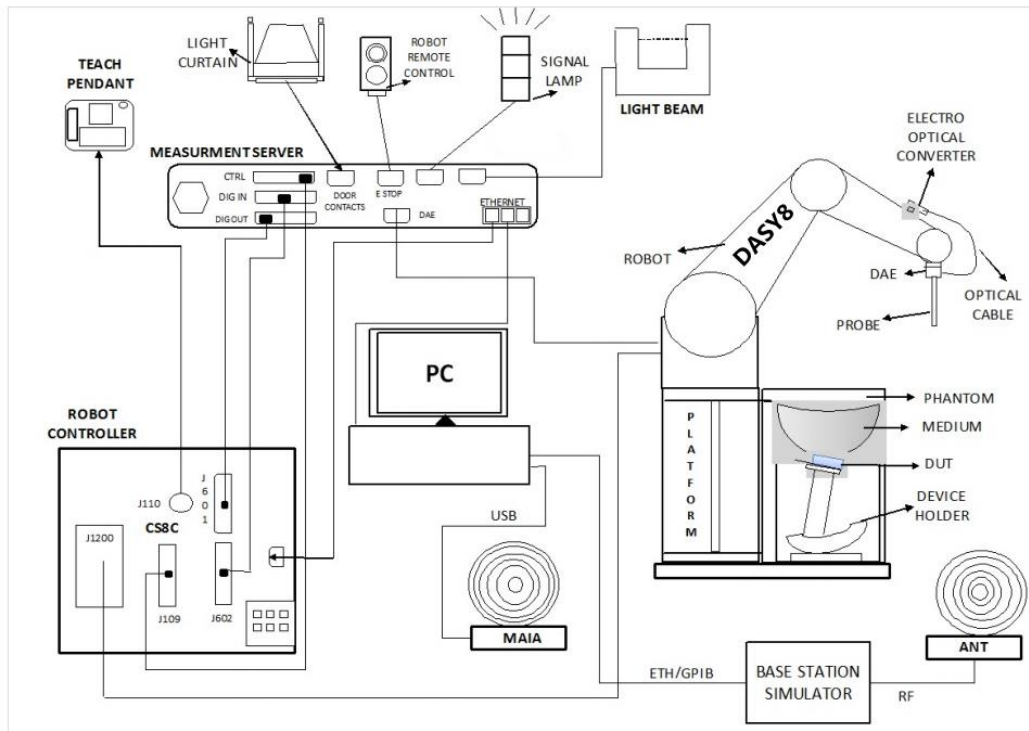
$$\text{SAR} = \frac{\sigma E^2}{\rho}$$

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 DASY 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 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
- 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

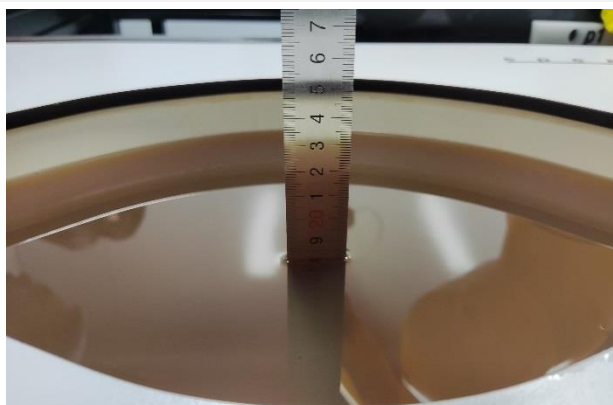
The DASY device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65° . The bottom plate contains three pair of bolts for 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%.

Head Liquid Depth**Body Liquid Depth**

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

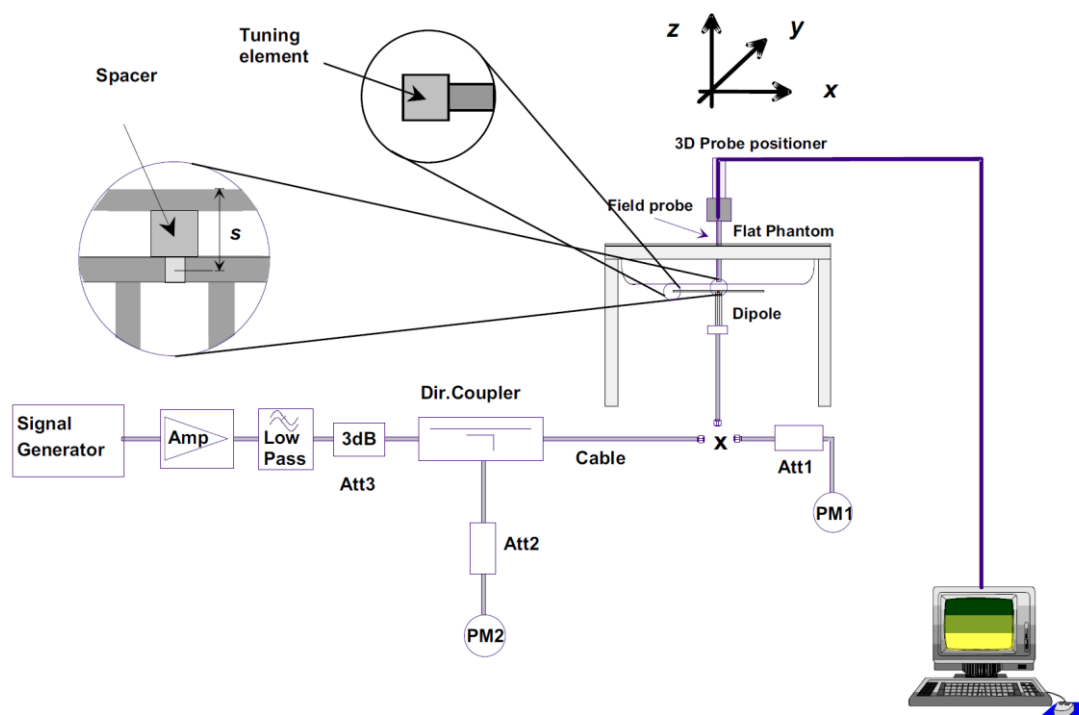
5 SYSTEM VERIFICATION

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

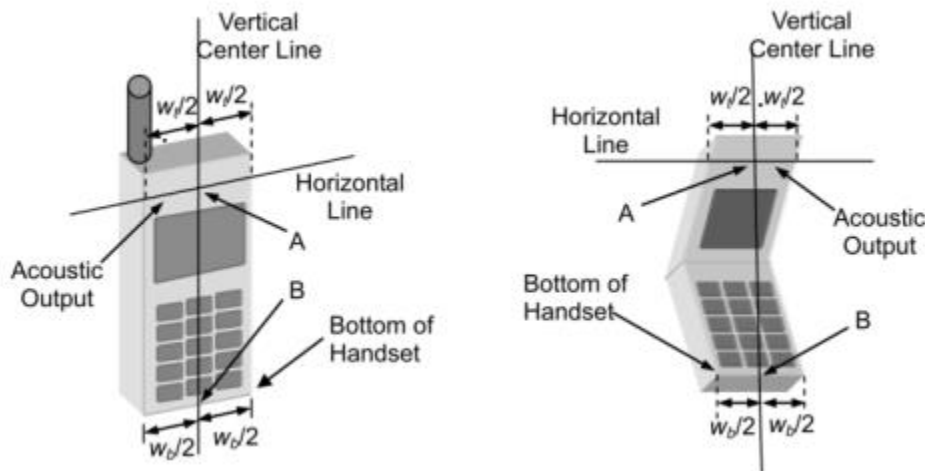
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

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.

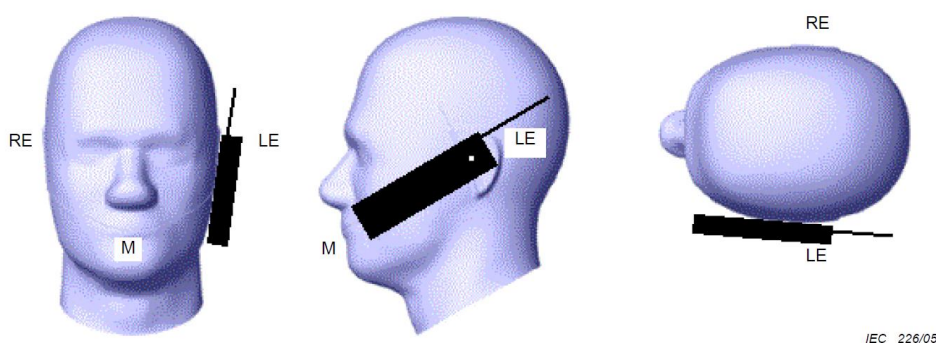
6.1.1 Two Imaginary Lines on the Handset

- 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

- (a) 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.
- (b) 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.

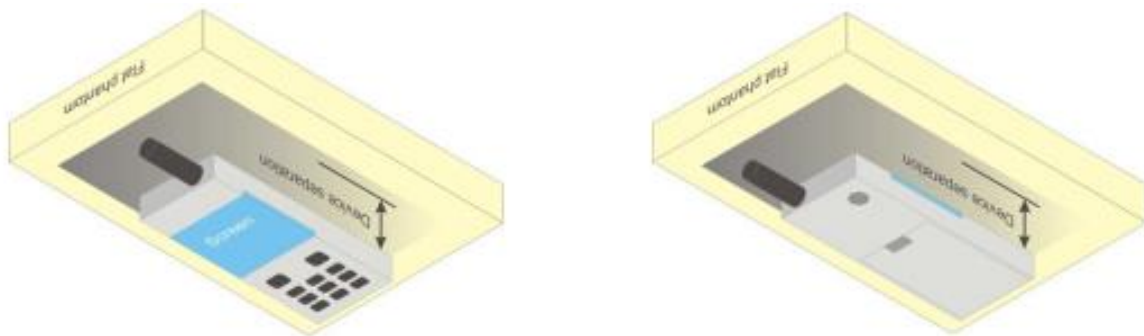


6.2 Body-worn Position Conditions

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.

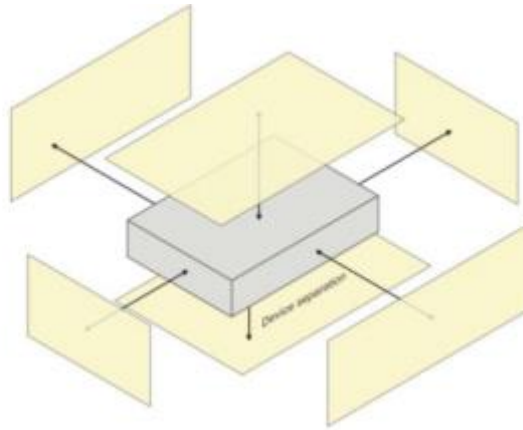
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics.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



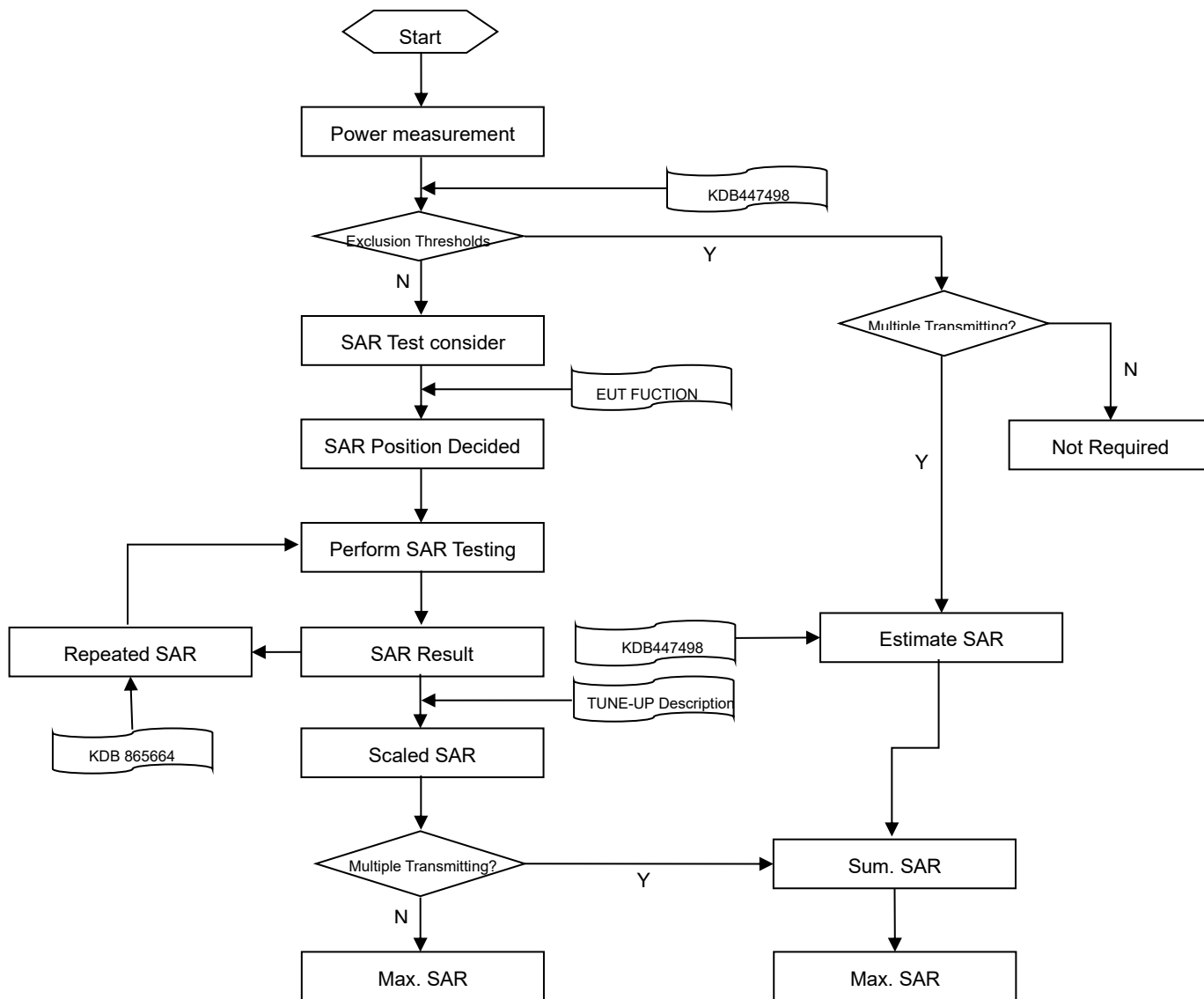
6.4 Product Specific 10g Exposure Consideration

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	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ 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.

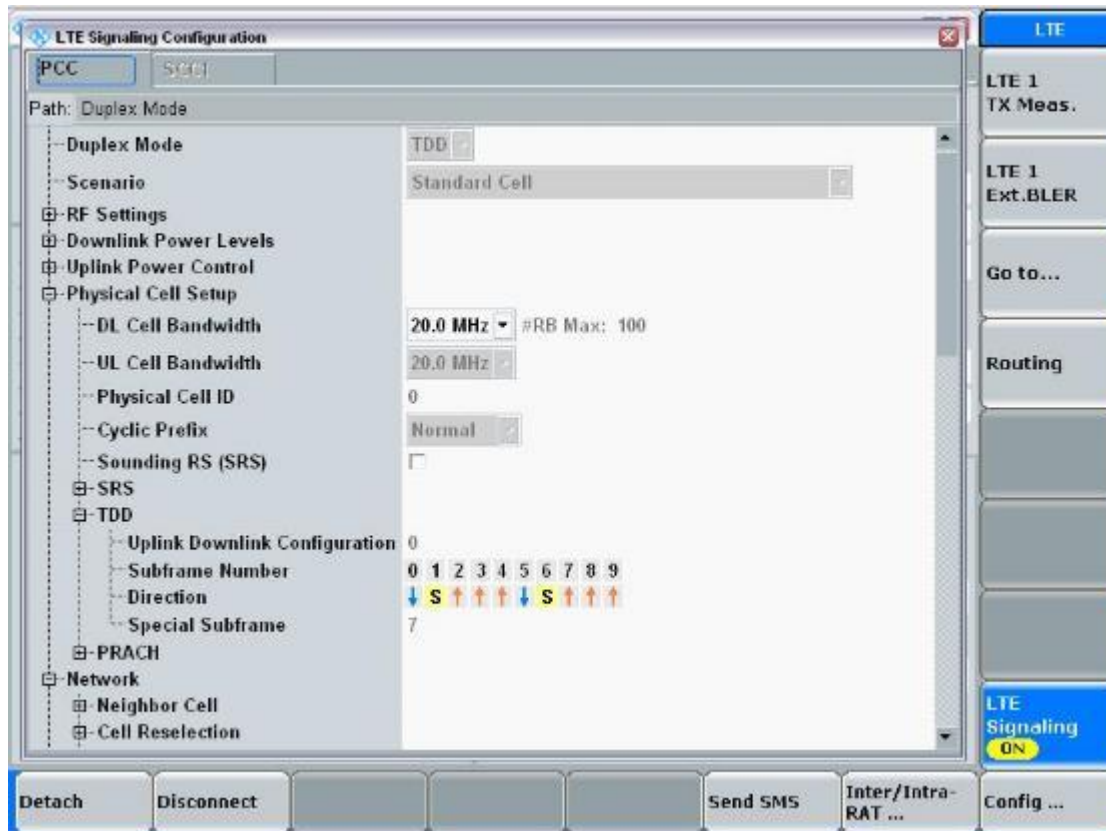
7.4 Area & Zoom Scan Procedure

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.

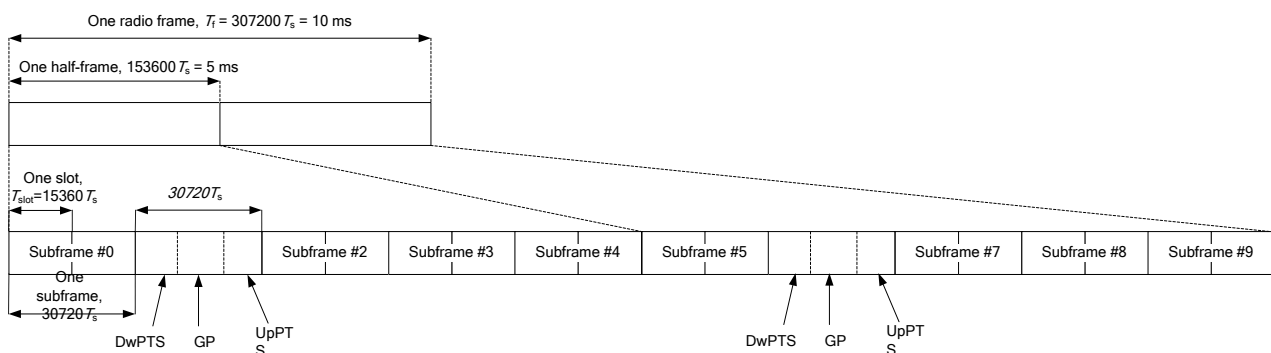
When the 1 g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

7.5 LTE (TDD) Considerations

During TDD-LTE SAR testing, the EUT was commanded to transmit on maximum output power and maximum transmitting bandwidth. The uplink and downlink slot configuration as below in one radio frame.



According to 3GPP Per 3GPP TS 36.211. Each radio frame of length ($T_f = 307200 \cdot T_s = 10\text{ms}$) of two half-frames of length ($153600 \cdot T_s = 5\text{ms}$). Each half-frame consists of five sub-frames of length ($30720 \cdot T_s = 1\text{ms}$)



And the special sub-frame with the three fields DwPTS, GP and UpPTS.

The length of DwPTS and UpPTS is given by below table subject to the total length of DwPTS, GP and UpPTS being equal to $30720 \cdot T_s = 1\text{ms}$.

Configuration of special sub-frame (lengths of DwPTS/GP/UpPTS)

Special sub-frame configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21592 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$7680 \cdot T_s$	$2560 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21592 \cdot T_s$			$12800 \cdot T_s$	-	-
8	$24144 \cdot T_s$			-		
9	$13168 \cdot T_s$			-	-	-

For special sub-frame uplink time we used the largest cyclic prefix for duty cycle calculate;

Maximum uplink time of one special sub-frame=(largest cyclic prefix)/(one sub-frame of length)* time of one sub-frame= $5120 \cdot T_s / 30720 \cdot T_s \cdot 1\text{ms} = 0.167\text{ms}$

One radio frame with 6 uplink sub-frames and two special sub-frame,

there for the maximum Uplink time in one radio frame is: **$6 \cdot 1\text{ ms} + 2 \cdot 0.167\text{ ms} = 6.334\text{ms}$**

So, the duty cycle for TDD-LTE is: **$6.334\text{ms} / 10\text{ms} = 1: 1.58$**

8 CONDUCTED RF OUPUT POWER

8.1 GSM

Please refer the document “BL-SZ24C0923-AP Power List.pdf”.

8.2 WCDMA

Please refer the document “BL-SZ24C0923-AP Power List.pdf”.

8.3 LTE

Please refer the document “BL-SZ24C0923-AP Power List.pdf”.

8.4 WIFI

8.4.1 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	AV Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	12.23	13.00	Yes
		6	2437	12.25	13.00	Yes
		11	2462	12.29	13.00	Yes
	802.11g	1	2412	10.49	11.00	No
		6	2437	10.68	11.00	No
		11	2462	10.56	11.00	No
	802.11n(HT20)	1	2412	9.44	10.00	No
		6	2437	9.36	10.00	No
		11	2462	9.25	10.00	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.s
- 2) When multiple transmission modes (802.11b/g/n) 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 = $0.245 * (12.59\text{mW}/19.95\text{mW}) = 0.155$ W/Kg, so 2.4G OFDM SAR test is not required.

8.4.2 5G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	AV Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2	802.11a	36	5180	10.67	11.00	Yes
		44	5220	10.47	11.00	Yes
		48	5240	10.70	11.00	Yes
	802.11n(HT20)	36	5180	9.97	10.50	No
		44	5220	9.96	10.50	No
		48	5240	10.07	10.50	No
	802.11n(HT40)	38	5190	9.28	10.00	No
		46	5230	9.32	10.00	No
	802.11ac(VHT20)	36	5180	8.45	9.00	No
		44	5220	8.27	9.00	No
		48	5240	8.32	9.00	No
	802.11ac(VHT40)	38	5190	8.23	9.00	No
		46	5230	8.22	9.00	No
	802.11ac(VHT80)	42	5210	8.49	9.00	No
5.3	802.11a	52	5260	11.53	12.00	Yes
		60	5300	11.68	12.00	Yes
		64	5320	11.66	12.00	Yes
	802.11n(HT20)	52	5260	10.28	11.00	No
		60	5300	10.49	11.00	No
		64	5320	10.53	11.00	No
	802.11n(HT40)	54	5270	10.48	11.00	No
		62	5310	10.38	11.00	No
	802.11ac(VHT20)	52	5260	9.73	10.00	No
		60	5300	9.60	10.00	No
		64	5320	9.43	10.00	No
	802.11ac(VHT40)	54	5270	9.59	10.00	No
		62	5310	9.51	10.00	No
	802.11ac(VHT80)	58	5290	9.77	10.00	No
5.6	802.11a	100	5500	12.21	13.00	Yes
		116	5580	12.22	13.00	Yes
		140	5700	12.16	13.00	Yes
	802.11n(HT20)	100	5500	11.54	12.00	No
		116	5580	11.73	12.00	No
		140	5700	11.67	12.00	No
	802.11n(HT40)	102	5510	11.18	12.00	No
		118	5590	11.41	12.00	No

	802.11ac(VHT20)	134	5670	11.64	12.00	No
		100	5500	9.34	10.00	No
		116	5580	9.73	10.00	No
		140	5700	9.73	10.00	No
	802.11ac(VHT40)	102	5510	10.76	11.00	No
		118	5590	10.45	11.00	No
		134	5670	10.72	11.00	No
	802.11ac(VHT80)	106	5530	10.73	11.00	No
		122	5690	10.52	11.00	No
	5.8	802.11a	149	5745	12.24	Yes
			157	5785	12.46	Yes
			165	5825	12.53	Yes
		802.11n(HT20)	149	5745	10.76	No
			157	5785	10.89	No
			165	5825	10.98	No
		802.11n(HT40)	151	5755	10.51	No
			159	5795	10.48	No
		802.11ac(VHT20)	149	5745	9.85	No
			157	5785	9.70	No
			165	5825	9.60	No
		802.11ac(VHT40)	151	5755	9.67	No
			159	5795	9.62	No
		802.11ac(VHT80)	155	5775	9.61	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.

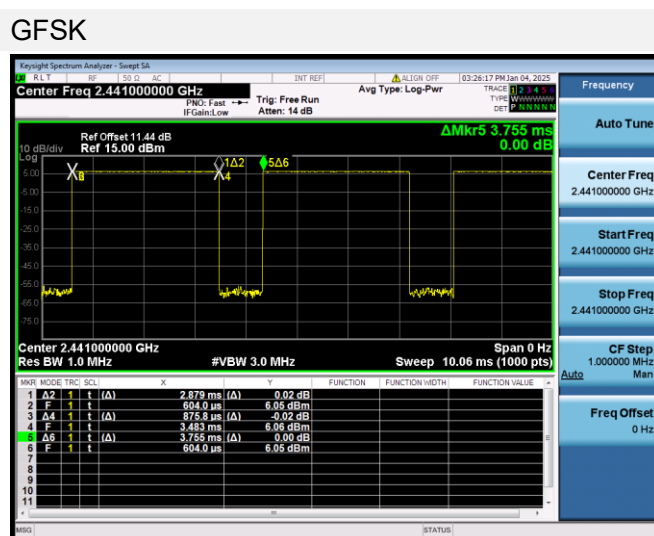
8.5 Bluetooth

Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
AV Power (dBm)	5.24	6.23	5.81	1.90	2.67	3.77
Tune-Up Limit (dBm)	6.00	7.00	7.00	3.00	3.5	5.00
SAR Test Require	YES	YES	YES	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
AV Power (dBm)	1.73	2.55	3.65	/	/	/
Tune-Up Limit (dBm)	2.50	3.50	4.50	/	/	/
SAR Test Require	NO	NO	NO	/	/	/
Mode	BLE-1Mbps			/		
Channel	0	19	39	/	/	/
Frequency (MHz)	2402	2440	2480	/	/	/
AV Power (dBm)	-8.04	-6.25	-7.09	/	/	/
Tune-Up Limit (dBm)	-7.00	-5.00	-6.00	/	/	/
SAR Test Require	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 76.68 % 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



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, the power reduction will applied for SAR compliance.
- 3.When there is a voice call (including VOIP), and the audio is actively routed through the headset or speaker, which indicating the body exposure conditions will trigger the body 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.

Mode	WWAN Antenna						
	Full Power	Receiver on			Receiver off		
		Head			Body		
		Standalone	Simultaneous transmission		Standalone	Simultaneous transmission	
			+2.4G/5GWLAN	+BT		+2.4G/5GWLAN	+BT
	Off	State 1	State 1	State 1	State 2	State 2	State 2
GSM 850	34.50	34.50	34.50	34.50	34.50	34.50	34.50
GPRS850 1 Tx Slot	34.50	34.50	34.50	34.50	34.50	34.50	34.50
GPRS850 2 Tx Slots	33.50	33.50	33.50	33.50	33.50	33.50	33.50
GPRS850 3 Tx Slots	31.50	31.50	31.50	31.50	31.50	31.50	31.50
GPRS850 4 Tx Slots	30.50	30.50	30.50	30.50	30.50	30.50	30.50
GSM 1900	31.00	28.50	28.50	28.50	31.00	31.00	31.00
GPRS1900 1 Tx Slot	31.00	28.50	28.50	28.50	31.00	31.00	31.00
GPRS1900 2 Tx Slots	30.00	27.50	27.50	27.50	30.00	30.00	30.00
GPRS1900 3 Tx Slots	28.00	25.50	25.50	25.50	28.00	28.00	28.00
GPRS1900 4 Tx Slots	27.00	24.50	24.50	24.50	27.00	27.00	27.00
WCDMA Band2 RMC	24.00	22.00	22.00	22.00	24.00	24.00	24.00
HSDPA Subtest-1	23.00	21.00	21.00	21.00	23.00	23.00	23.00
HSDPA Subtest-2	23.00	21.00	21.00	21.00	23.00	23.00	23.00
HSDPA Subtest-3	22.50	20.50	20.50	20.50	22.50	22.50	22.50
HSDPA Subtest-4	22.50	20.50	20.50	20.50	22.50	22.50	22.50
HSUPA Subtest-1	23.00	21.00	21.00	21.00	23.00	23.00	23.00
HSUPA Subtest-2	21.00	19.00	19.00	19.00	21.00	21.00	21.00
HSUPA Subtest-3	22.00	20.00	20.00	20.00	22.00	22.00	22.00
HSUPA Subtest-4	21.00	19.00	19.00	19.00	21.00	21.00	21.00
HSUPA Subtest-5	23.00	21.00	21.00	21.00	23.00	23.00	23.00
WCDMA Band4 RMC	24.00	24.00	24.00	24.00	24.00	24.00	24.00
HSDPA Subtest-1	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSDPA Subtest-2	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSDPA Subtest-3	22.50	22.50	22.50	22.50	22.50	22.50	22.50
HSDPA Subtest-4	22.50	22.50	22.50	22.50	22.50	22.50	22.50
HSUPA Subtest-1	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSUPA Subtest-2	21.00	21.00	21.00	21.00	21.00	21.00	21.00

HSUPA Subtest-3	22.00	22.00	22.00	22.00	22.00	22.00	22.00
HSUPA Subtest-4	21.00	21.00	21.00	21.00	21.00	21.00	21.00
HSUPA Subtest-5	23.00	23.00	23.00	23.00	23.00	23.00	23.00
WCDMA Band5 RMC	24.00	24.00	24.00	24.00	24.00	24.00	24.00
HSDPA Subtest-1	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSDPA Subtest-2	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSDPA Subtest-3	22.50	22.50	22.50	22.50	22.50	22.50	22.50
HSDPA Subtest-4	22.50	22.50	22.50	22.50	22.50	22.50	22.50
HSUPA Subtest-1	23.00	23.00	23.00	23.00	23.00	23.00	23.00
HSUPA Subtest-2	21.00	21.00	21.00	21.00	21.00	21.00	21.00
HSUPA Subtest-3	22.00	22.00	22.00	22.00	22.00	22.00	22.00
HSUPA Subtest-4	21.00	21.00	21.00	21.00	21.00	21.00	21.00
HSUPA Subtest-5	23.00	23.00	23.00	23.00	23.00	23.00	23.00
LTE Band2	23.50	22.00	22.00	22.00	23.50	23.50	23.50
LTE Band4	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band5	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band7	24.00	16.50	16.50	16.50	22.00	22.00	22.00
LTE Band12	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band13	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band17	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band18	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band19	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band25	24.00	22.50	22.50	22.50	24.00	24.00	24.00
LTE Band26	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band66	24.00	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band71	23.50	23.50	23.50	23.50	23.50	23.50	23.50
LTE Band38	23.50	18.50	18.50	18.50	23.50	23.50	23.50
LTE Band41	23.00	18.50	18.50	18.50	23.00	23.00	23.00

9 TEST EXCLUSION CONSIDERATION

For antenna location and support bands please refer the document “BL-SZ24C0923-AI EUT internal photo.pdf”.

Antenna	Support Bands
Main	GSM 850/1900 WCDMA Band 2/4/5 LTE Band 2/4/5/12/13/17/18/19/25/26/66/71
DIV	LTE Band 7/38/41
WLAN/BT	2.4G/5G WLAN Bluetooth

Antenna	Front Side(mm)	Back Side(mm)	Left Edge(mm)	Right Edge(mm)	Top Edge(mm)	Bottom Edge(mm)
Main	<25	<25	<25	<25	>25	<25
DIV	<25	<25	<25	>25	<25	>25
WLAN/BT	<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	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq.(MHz)	Power Drift(dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head													
	Left cheek	0mm	GPRS 2TX	State 1	190	836.6	-0.14	0.764	32.60	33.50	1.230	0.940	/
				State 1	128	824.2	0.17	0.753	32.57	33.50	1.239	0.933	/
				State 1	251	848.8	0.07	0.640	32.54	33.50	1.247	0.798	/
	Left tilt			State 1	190	836.6	0.05	0.645	32.60	33.50	1.230	0.794	/
	Right cheek			State 1	190	836.6	-0.01	0.821	32.60	33.50	1.230	1.010	1
				State 1	190	836.6	-0.17	0.802	32.60	33.50	1.230	0.987	repeat
				State 1	128	824.2	0.05	0.798	32.57	33.50	1.239	0.989	/
				State 1	251	848.8	0.11	0.724	32.54	33.50	1.247	0.903	/
				Right tilt	State 1	190	836.6	-0.11	0.652	32.60	33.50	1.230	0.802
Body-worn& Hotspot													
	Front side	10mm	GPRS 2TX	State2	190	836.6	-0.08	0.877	32.60	33.50	1.230	1.079	/
				State2	190	836.6	-0.06	0.838	32.60	33.50	1.230	1.031	repeat
				State2	128	836.6	0.16	0.838	32.60	33.50	1.230	1.031	/
				State2	251	836.6	0.11	0.794	32.60	33.50	1.230	0.977	/
	Back side			State2	190	836.6	0.01	0.951	32.60	33.50	1.230	1.170	2
				State2	190	836.6	-0.09	0.947	32.60	33.50	1.230	1.165	repeat
				State2	128	824.2	-0.15	0.829	32.57	33.50	1.239	1.027	/
				State2	251	848.8	0.02	0.904	32.54	33.50	1.247	1.128	/
	Left side			State2	190	836.6	0.14	0.878	32.60	33.50	1.230	1.080	/
				State2	190	836.6	0.06	0.856	32.60	33.50	1.230	1.053	repeat
				State2	128	824.2	0.11	0.818	32.57	33.50	1.239	1.013	/
				State2	251	848.8	0.06	0.802	32.54	33.50	1.247	1.000	/
	Right side			State2	190	836.6	0.10	0.737	32.60	33.50	1.230	0.907	/
				State2	128	824.2	-0.05	0.706	32.57	33.50	1.239	0.875	/
				State2	251	848.8	0.18	0.678	32.54	33.50	1.247	0.846	/
	Bottom side			State2	190	836.6	-0.15	0.054	32.60	33.50	1.230	0.066	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

10.1GSM 1900

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq.(MHz)	Power Drift(dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head													
	Left cheek	0mm	GPRS 2TX	State 1	661	1880	0.15	0.459	26.60	27.50	1.230	0.565	/
	Left tilt			State 1	661	1880	0.06	0.154	26.60	27.50	1.230	0.189	/
	Right cheek			State 1	661	1880	-0.17	0.173	26.60	27.50	1.230	0.213	/
	Right tilt			State 1	661	1880	0.18	0.153	26.60	27.50	1.230	0.188	/
	Left cheek			State 1	512	1850.2	0.13	0.386	26.49	27.50	1.262	0.487	/
	Left cheek			State 1	810	1909.8	0.03	0.528	26.46	27.50	1.271	0.671	3
Body-worn& Hotspot													
	Front side	10mm	GPRS 2TX	State2	661	1880	0.17	0.693	29.10	30.00	1.230	0.853	/
	Back side			State2	661	1880	0.08	0.700	29.10	30.00	1.230	0.861	/
	Left side			State2	661	1880	-0.11	0.198	29.10	30.00	1.230	0.244	/
	Right side			State2	661	1880	-0.07	0.107	29.10	30.00	1.230	0.132	/
	Bottom side			State2	661	1880	0.15	0.080	29.10	30.00	1.230	0.098	/
	Back side			State2	512	1850.2	0.16	0.651	29.00	30.00	1.259	0.820	/
	Back side			State2	810	1909.8	0.08	0.723	29.04	30.00	1.247	0.902	4
	Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.2WCDMA Band 2

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq.(MHz)	Power Drift(dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head													
	Left cheek	0mm	RMC	State 1	9400	1880	0.17	0.500	20.81	22.00	1.315	0.658	/
	Left tilt			State 1	9400	1880	0.18	0.208	20.81	22.00	1.315	0.274	/
	Right cheek			State 1	9400	1880	0.11	0.176	20.81	22.00	1.315	0.231	/
	Right tilt			State 1	9400	1880	0.06	0.206	20.81	22.00	1.315	0.271	/
	Left cheek			State 1	9262	1852.4	0.19	0.444	20.74	22.00	1.337	0.593	/
	Left cheek			State 1	9538	1907.6	0.03	0.577	20.67	22.00	1.358	0.784	5
Body-worn& Hotspot													
	Front side	10mm	RMC	State 2	9400	1880	-0.08	0.678	22.89	24.00	1.291	0.875	/
				State 2	9262	1852.4	-0.19	0.690	22.87	24.00	1.259	0.869	/
				State 2	9538	1907.6	-0.05	0.701	22.70	24.00	1.259	0.883	/
	Back side			State 2	9400	1880	0.01	0.702	22.89	24.00	1.291	0.906	/
				State 2	9262	1852.4	0.10	0.681	22.87	24.00	1.297	0.883	/
				State 2	9538	1907.6	-0.14	0.707	22.70	24.00	1.349	0.954	6
	Left side			State 2	9400	1880	0.18	0.664	22.89	24.00	1.291	0.857	/
				State 2	9262	1852.4	0.05	0.645	22.87	24.00	1.297	0.837	/
				State 2	9538	1907.6	0.03	0.667	22.70	24.00	1.349	0.900	/
	Right side			State 2	9400	1880	-0.12	0.126	22.89	24.00	1.291	0.163	/
	Bottom side			State 2	9400	1880	0.18	0.309	22.89	24.00	1.291	0.399	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

10.3WCDMA Band 4

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq.(MHz)	Power Drift(dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune- up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head													
	Left cheek	0mm	RMC	State 1	1412	1732.4	-0.06	0.583	22.89	24.00	1.291	0.753	/
	Left tilt			State 1	1412	1732.4	0.02	0.195	22.89	24.00	1.291	0.252	/
	Right cheek			State 1	1412	1732.4	-0.11	0.251	22.89	24.00	1.291	0.324	/
	Right tilt			State 1	1412	1732.4	0.06	0.192	22.89	24.00	1.291	0.248	/
	Left cheek			State 1	1312	1712.4	0.13	0.639	22.86	24.00	1.300	0.831	7
	Left cheek			State 1	1513	1752.6	-0.06	0.620	22.80	24.00	1.318	0.817	/
Body-worn& Hotspot													
	Front side	10mm	RMC	State 2	1412	1732.4	0.03	0.502	22.89	24.00	1.291	0.648	/
	Back side			State 2	1412	1732.4	-0.05	0.545	22.89	24.00	1.291	0.704	/
	Left side			State 2	1412	1732.4	0.08	0.540	22.89	24.00	1.291	0.697	/
	Right side			State 2	1412	1732.4	0.15	0.049	22.89	24.00	1.291	0.063	/
	Bottom side			State 2	1412	1732.4	0.19	0.384	22.89	24.00	1.291	0.496	/
	Back side			State 2	1312	1712.4	-0.05	0.560	22.86	24.50	1.459	0.817	8
	Back side			State 2	1513	1752.6	-0.16	0.548	22.80	24.50	1.479	0.811	/
	Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.4WCDMA Band 5

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq.(MHz)	Power Drift(dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune- up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head													
	Left cheek	0mm	RMC	State 1	4183	836.6	0.03	0.352	23.08	24.00	1.236	0.435	9
	Left tilt			State 1	4183	836.6	-0.16	0.267	23.08	24.00	1.236	0.330	/
	Right cheek			State 1	4183	836.6	0.09	0.318	23.08	24.00	1.236	0.393	/
	Right tilt			State 1	4183	836.6	0.10	0.258	23.08	24.00	1.236	0.319	/
	Left cheek			State 1	4132	826.4	0.15	0.340	22.98	24.00	1.265	0.430	/
	Left cheek			State 1	4233	846.6	-0.11	0.334	23.01	24.00	1.256	0.420	/
Body-worn& Hotspot													
	Front side	10mm	RMC	State 2	4183	836.6	-0.16	0.453	23.08	24.00	1.236	0.560	/
	Back side			State 2	4183	836.6	-0.01	0.513	23.08	24.00	1.236	0.634	/
	Left side			State 2	4183	836.6	0.16	0.450	23.08	24.00	1.236	0.556	/
	Right side			State 2	4183	836.6	0.13	0.414	23.08	24.00	1.236	0.512	/
	Bottom side			State 2	4183	836.6	0.02	0.060	23.08	24.00	1.236	0.074	/
	Back side			State 2	4132	826.4	-0.01	0.514	22.98	24.00	1.265	0.650	10
	Back side			State 2	4233	846.6	0.10	0.506	23.01	24.00	1.256	0.636	/
	Note: Refer to ANNEX C for the detailed test data for each test configuration.												

10.5LTE Band 7 (20MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
	Left cheek	0mm	QPSK	State 1	21100	2535	1	0	-0.01	0.259	15.43	16.50	1.279	0.331	/
	Left tilt			State 1	21100	2535	1	0	-0.09	0.234	15.43	16.50	1.279	0.299	/
	Right cheek			State 1	21100	2535	1	0	0.19	0.542	15.43	16.50	1.279	0.693	/
	Right tilt			State 1	21100	2535	1	0	0.15	0.469	15.43	16.50	1.279	0.600	/
	Right cheek			State 1	20850	2510	1	0	0.16	0.533	15.18	16.50	1.355	0.722	/
	Right cheek			State 1	21350	2560	1	0	-0.14	0.718	15.21	16.50	1.346	0.966	11
	Left cheek			State 1	21100	2535	50	0	0.11	0.222	14.29	15.50	1.321	0.293	/
	Left tilt			State 1	21100	2535	50	0	0.04	0.200	14.29	15.50	1.321	0.264	/
	Right cheek			State 1	21100	2535	50	0	0.06	0.423	14.29	15.50	1.321	0.559	/
	Right tilt			State 1	21100	2535	50	0	0.19	0.369	14.29	15.50	1.321	0.488	/
	Right cheek			State 1	20850	2510	50	0	0.01	0.426	14.17	15.50	1.358	0.579	/
	Right cheek			State 1	21350	2560	50	0	-0.02	0.476	14.20	15.50	1.349	0.642	/
	Right cheek			State 1	21100	2535	100	0	0.15	0.448	14.19	15.50	1.352	0.606	/
	Body-worn& Hotspot														
	Front side	10mm	QPSK	State 2	21100	2535	1	0	0.12	0.395	20.90	22.00	1.288	0.508	/
	Back side			State 2	21100	2535	1	0	0.16	0.378	20.90	22.00	1.288	0.487	/
	Left side			State 2	21100	2535	1	0	-0.10	0.283	20.90	22.00	1.288	0.364	/
	Top side			State 2	21100	2535	1	0	0.02	0.637	20.90	22.00	1.288	0.821	/
	Top side			State 2	21100	2535	1	0	-0.17	0.631	20.90	22.00	1.288	0.813	repeat
	Top side			State 2	20850	2510	1	0	0.05	0.520	20.71	22.00	1.346	0.700	/
	Top side			State 2	21350	2560	1	0	0.01	0.645	20.78	22.00	1.324	0.854	12
	Front side			State 2	21100	2535	50	0	0.17	0.288	19.80	21.00	1.318	0.380	/
	Back side			State 2	21100	2535	50	0	-0.04	0.287	19.80	21.00	1.318	0.378	/
	Left side			State 2	21100	2535	50	0	-0.12	0.216	19.80	21.00	1.318	0.285	/
	Top side			State 2	21100	2535	50	0	-0.18	0.538	19.80	21.00	1.318	0.709	/
	Top side			State 2	20850	2510	50	0	-0.18	0.416	19.69	21.00	1.352	0.562	/
	Top side			State 2	21350	2560	50	0	0.12	0.548	19.60	21.00	1.380	0.756	/
	Top side			State 2	21100	2535	100	0	0.17	0.524	19.86	21.00	1.300	0.681	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.6LTE Band 12 (10MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
	Left cheek	0mm	QPSK	State 1	23095	707.5	1	0	0.05	0.228	22.86	24.00	1.300	0.296	/
	Left tilt			State 1	23095	707.5	1	0	0.11	0.170	22.86	24.00	1.300	0.221	/
	Right cheek			State 1	23095	707.5	1	0	0.09	0.235	22.86	24.00	1.300	0.306	/
	Right tilt			State 1	23095	707.5	1	0	-0.08	0.170	22.86	24.00	1.300	0.221	/
	Right cheek			State 1	23060	704	1	0	-0.05	0.249	22.63	24.00	1.371	0.341	/
	Right cheek			State 1	23130	711	1	0	-0.20	0.287	22.74	24.00	1.337	0.384	13
	Left cheek			State 1	23095	707.5	25	0	0.05	0.208	21.78	23.00	1.324	0.275	/
	Left tilt			State 1	23095	707.5	25	0	-0.14	0.132	21.78	23.00	1.324	0.175	/
	Right cheek			State 1	23095	707.5	25	0	0.01	0.186	21.78	23.00	1.324	0.246	/
	Right tilt			State 1	23095	707.5	25	0	-0.08	0.137	21.78	23.00	1.324	0.181	/
	Left cheek			State 1	23060	704	25	0	-0.11	0.208	21.62	23.00	1.374	0.286	/
	Left cheek			State 1	23130	711	25	0	0.11	0.211	21.69	23.00	1.352	0.285	/
	Body-worn& Hotspot														
	Front side	10mm	QPSK	State 2	23095	707.5	1	0	0.08	0.354	22.86	24.00	1.300	0.460	/
	Back side			State 2	23095	707.5	1	0	-0.07	0.396	22.86	24.00	1.300	0.515	/
	Left side			State 2	23095	707.5	1	0	-0.16	0.320	22.86	24.00	1.300	0.416	/
	Right side			State 2	23095	707.5	1	0	0.05	0.301	22.86	24.00	1.300	0.391	/
	Bottom side			State 2	23095	707.5	1	0	-0.17	0.048	22.86	24.00	1.300	0.062	/
	Back side			State 2	23060	704	1	0	-0.13	0.390	22.63	24.00	1.371	0.535	/
	Back side			State 2	23130	711	1	0	-0.02	0.401	22.74	24.00	1.337	0.536	14
	Front side			State 2	23095	707.5	25	0	-0.14	0.286	21.78	23.00	1.324	0.379	/
	Back side			State 2	23095	707.5	25	0	0.18	0.344	21.78	23.00	1.324	0.456	/
	Left side			State 2	23095	707.5	25	0	-0.15	0.260	21.78	23.00	1.324	0.344	/
	Right side			State 2	23095	707.5	25	0	-0.20	0.225	21.78	23.00	1.324	0.298	/
	Bottom side			State 2	23095	707.5	25	0	0.01	0.039	21.78	23.00	1.324	0.052	/
	Back side			State 2	23060	704	25	0	-0.19	0.347	21.62	23.00	1.374	0.477	/
	Back side			State 2	23130	711	25	0	0.12	0.345	21.69	23.00	1.352	0.466	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.7LTE Band 13 (10MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
	Left cheek	0mm	QPSK	State 1	23230	782	1	0	-0.11	0.315	22.95	24.00	1.274	0.401	15
	Left tilt			State 1	23230	782	1	0	-0.13	0.259	22.95	24.00	1.274	0.330	/
	Right cheek			State 1	23230	782	1	0	-0.13	0.299	22.95	24.00	1.274	0.381	/
	Right tilt			State 1	23230	782	1	0	0.13	0.261	22.95	24.00	1.274	0.332	/
	Left cheek			State 1	23230	782	25	0	-0.11	0.249	21.81	23.00	1.315	0.327	/
	Left tilt			State 1	23230	782	25	0	-0.15	0.204	21.81	23.00	1.315	0.268	/
	Right cheek			State 1	23230	782	25	0	-0.11	0.240	21.81	23.00	1.315	0.316	/
	Right tilt			State 1	23230	782	25	0	-0.10	0.212	21.81	23.00	1.315	0.279	/
Body-worn& Hotspot															
	Front side	10mm	QPSK	State 2	23230	782	1	0	-0.17	0.372	22.95	24.00	1.274	0.474	/
	Back side			State 2	23230	782	1	0	-0.02	0.461	22.95	24.00	1.274	0.587	16
	Left side			State 2	23230	782	1	0	0.12	0.376	22.95	24.00	1.274	0.479	/
	Right side			State 2	23230	782	1	0	0.06	0.337	22.95	24.00	1.274	0.429	/
	Bottom side			State 2	23230	782	1	0	-0.10	0.054	22.95	24.00	1.274	0.069	/
	Front side			State 2	23230	782	25	0	-0.11	0.302	21.81	23.00	1.315	0.397	/
	Back side			State 2	23230	782	25	0	0.18	0.353	21.81	23.00	1.315	0.464	/
	Left side			State 2	23230	782	25	0	0.14	0.300	21.81	23.00	1.315	0.395	/
	Right side			State 2	23230	782	25	0	-0.17	0.265	21.81	23.00	1.315	0.349	/
	Bottom side			State 2	23230	782	25	0	0.19	0.045	21.81	23.00	1.315	0.059	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.8LTE Band 25 (20MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
	Left cheek	0mm	QPSK	State 1	26365	1882.5	1	0	0.08	0.428	21.58	22.50	1.236	0.529	/
	Left tilt			State 1	26365	1882.5	1	0	-0.02	0.186	21.58	22.50	1.236	0.230	/
	Right cheek			State 1	26365	1882.5	1	0	0.04	0.168	21.58	22.50	1.236	0.208	/
	Right tilt			State 1	26365	1882.5	1	0	0.19	0.192	21.58	22.50	1.236	0.237	/
	Left cheek			State 1	26140	1860	1	0	0.12	0.431	21.34	22.50	1.306	0.563	/
	Left cheek			State 1	26590	1905	1	0	-0.01	0.532	21.39	22.50	1.291	0.687	17
	Left cheek			State 1	26365	1882.5	50	0	-0.05	0.422	20.43	21.50	1.279	0.540	/
	Left tilt			State 1	26365	1882.5	50	0	0.14	0.177	20.43	21.50	1.279	0.226	/
	Right cheek			State 1	26365	1882.5	50	0	-0.06	0.140	20.43	21.50	1.279	0.179	/
	Right tilt			State 1	26365	1882.5	50	0	-0.14	0.167	20.43	21.50	1.279	0.214	/
	Left cheek			State 1	26140	1860	50	0	0.05	0.359	20.19	21.50	1.352	0.485	/
	Left cheek			State 1	26590	1905	50	0	-0.20	0.436	20.23	21.50	1.340	0.584	/
Body-worn& Hotspot															
	Front side	10mm	QPSK	State 2	26365	1882.5	1	0	-0.09	0.713	23.02	24.00	1.253	0.893	/
				State 2	26140	1860	1	0	0.18	0.702	22.87	24.00	1.297	0.911	/
				State 2	26590	1905	1	0	0.07	0.694	22.82	24.00	1.312	0.911	/
	Back side			State 2	26365	1882.5	1	0	0.12	0.729	23.02	24.00	1.253	0.914	18
				State 2	26140	1860	1	0	0.01	0.639	22.87	24.00	1.297	0.829	/
				State 2	26590	1905	1	0	0.03	0.669	22.82	24.00	1.312	0.878	/
	Left side			State 2	26365	1882.5	1	0	0.17	0.679	23.02	24.00	1.253	0.851	/
				State 2	26140	1860	1	0	0.16	0.655	22.87	24.00	1.297	0.850	/
				State 2	26590	1905	1	0	-0.11	0.638	22.82	24.00	1.312	0.837	/
	Right side			State 2	26365	1882.5	1	0	0.02	0.131	23.02	24.00	1.253	0.164	/
	Bottom side			State 2	26365	1882.5	1	0	0.12	0.325	23.02	24.00	1.253	0.407	/
	Front side			State 2	26365	1882.5	50	0	0.15	0.551	21.89	23.00	1.291	0.711	/
	Back side			State 2	26365	1882.5	50	0	-0.01	0.565	21.89	23.00	1.291	0.730	/
	Left side			State 2	26365	1882.5	50	0	-0.02	0.546	21.89	23.00	1.291	0.705	/
	Right side			State 2	26365	1882.5	50	0	0.16	0.098	21.89	23.00	1.291	0.127	/
	Bottom side			State 2	26365	1882.5	50	0	0.12	0.264	21.89	23.00	1.291	0.341	/
	Back side			State 2	26140	1860	50	0	-0.12	0.553	21.63	23.00	1.371	0.758	/
	Back side			State 2	26590	1905	50	0	-0.02	0.600	21.65	23.00	1.365	0.819	/
	Back side			State 2	26365	1882.5	100	0	-0.17	0.581	21.85	23.00	1.303	0.757	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.9LTE Band 26 (15MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
	Left cheek	0mm	QPSK	State 1	26865	831.5	1	0	0.14	0.346	22.87	24.00	1.297	0.449	/
	Left tilt			State 1	26865	831.5	1	0	0.10	0.284	22.87	24.00	1.297	0.368	/
	Right cheek			State 1	26865	831.5	1	0	0.02	0.330	22.87	24.00	1.297	0.428	/
	Right tilt			State 1	26865	831.5	1	0	0.07	0.276	22.87	24.00	1.297	0.358	/
	Left cheek			State 1	26765	821.5	1	0	0.02	0.353	22.65	24.00	1.365	0.482	/
	Left cheek			State 1	26965	841.5	1	0	-0.11	0.365	22.62	24.00	1.374	0.502	19
	Left cheek			State 1	26865	831.5	36	0	0.17	0.335	21.85	23.00	1.303	0.437	/
	Left tilt			State 1	26865	831.5	36	0	-0.12	0.250	21.85	23.00	1.303	0.326	/
	Right cheek			State 1	26865	831.5	36	0	0.10	0.301	21.85	23.00	1.303	0.392	/
	Right tilt			State 1	26865	831.5	36	0	0.02	0.239	21.85	23.00	1.303	0.311	/
	Left cheek			State 1	26765	821.5	36	0	0.03	0.319	21.63	23.00	1.371	0.437	/
	Left cheek			State 1	26965	841.5	36	0	0.07	0.336	21.57	23.00	1.390	0.467	/
Body-worn& Hotspot															
	Front side	10mm	QPSK	State 2	26865	831.5	1	0	0.06	0.429	22.87	24.00	1.297	0.556	/
	Back side			State 2	26865	831.5	1	0	0.01	0.485	22.87	24.00	1.297	0.629	20
	Left side			State 2	26865	831.5	1	0	-0.12	0.442	22.87	24.00	1.297	0.573	/
	Right side			State 2	26865	831.5	1	0	0.15	0.409	22.87	24.00	1.297	0.531	/
	Bottom side			State 2	26865	831.5	1	0	0.04	0.057	22.87	24.00	1.297	0.074	/
	Back side			State 2	26765	821.5	1	0	0.19	0.444	22.65	24.00	1.365	0.606	/
	Back side			State 2	26965	841.5	1	0	-0.02	0.456	22.62	24.00	1.374	0.627	/
	Front side			State 2	26865	831.5	36	0	-0.03	0.355	21.85	23.00	1.303	0.463	/
	Back side			State 2	26865	831.5	36	0	-0.10	0.406	21.85	23.00	1.303	0.529	/
	Left side			State 2	26865	831.5	36	0	-0.07	0.363	21.85	23.00	1.303	0.473	/
	Right side			State 2	26865	831.5	36	0	0.08	0.338	21.85	23.00	1.303	0.440	/
	Bottom side			State 2	26865	831.5	36	0	0.19	0.046	21.85	23.00	1.303	0.060	/
	Back side			State 2	26765	821.5	36	0	-0.06	0.413	21.63	23.00	1.371	0.566	/
	Back side			State 2	26965	841.5	36	0	0.13	0.412	21.57	23.00	1.390	0.573	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.10 LTE Band 66 (20MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
	Left cheek	0mm	QPSK	State 1	132322	1745	1	0	0.15	0.587	22.87	24.00	1.297	0.761	/
	Left tilt			State 1	132322	1745	1	0	-0.01	0.193	22.87	24.00	1.297	0.250	/
	Right cheek			State 1	132322	1745	1	0	0.09	0.250	22.87	24.00	1.297	0.324	/
	Right tilt			State 1	132322	1745	1	0	-0.07	0.196	22.87	24.00	1.297	0.254	/
	Left cheek			State 1	132072	1720	1	0	0.02	0.639	22.67	24.00	1.358	0.868	21
	Left cheek			State 1	132572	1770	1	0	-0.06	0.583	22.68	24.00	1.355	0.790	/
	Left cheek			State 1	132322	1745	50	0	0.08	0.457	21.85	23.00	1.303	0.596	/
	Left tilt			State 1	132322	1745	50	0	0.01	0.154	21.85	23.00	1.303	0.201	/
	Right cheek			State 1	132322	1745	50	0	0.07	0.189	21.85	23.00	1.303	0.246	/
	Right tilt			State 1	132322	1745	50	0	0.03	0.154	21.85	23.00	1.303	0.201	/
	Left cheek			State 1	132072	1720	50	0	0.06	0.510	21.61	23.00	1.377	0.702	/
	Left cheek			State 1	132572	1770	50	0	-0.16	0.489	21.63	23.00	1.371	0.670	/
	Left cheek			State 1	132322	1745	100	0	-0.11	0.437	21.77	23.00	1.327	0.580	/
Body-worn& Hotspot															
	Front side	10mm	QPSK	State 2	132322	1745	1	0	-0.09	0.415	22.87	24.00	1.297	0.538	/
	Back side			State 2	132322	1745	1	0	0.15	0.432	22.87	24.00	1.297	0.560	/
	Left side			State 2	132322	1745	1	0	0.07	0.441	22.87	24.00	1.297	0.572	/
	Right side			State 2	132322	1745	1	0	-0.12	0.078	22.87	24.00	1.297	0.101	/
	Bottom side			State 2	132322	1745	1	0	0.03	0.308	22.87	24.00	1.297	0.400	/
	Left side			State 2	132072	1720	1	0	-0.03	0.442	22.67	24.00	1.358	0.600	22
	Left side			State 2	132572	1770	1	0	0.10	0.437	22.68	24.00	1.355	0.592	/
	Front side			State 2	132322	1745	50	0	0.06	0.329	21.85	23.00	1.303	0.429	/
	Back side			State 2	132322	1745	50	0	0.10	0.334	21.85	23.00	1.303	0.435	/
	Left side			State 2	132322	1745	50	0	-0.11	0.357	21.85	23.00	1.303	0.465	/
	Right side			State 2	132322	1745	50	0	0.19	0.056	21.85	23.00	1.303	0.073	/
	Bottom side			State 2	132322	1745	50	0	0.13	0.243	21.85	23.00	1.303	0.317	/
	Left side			State 2	132072	1720	50	0	0.09	0.359	21.61	23.00	1.377	0.494	/
	Left side			State 2	132572	1770	50	0	-0.11	0.352	21.63	23.00	1.371	0.483	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.11 LTE Band 71 (20MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
	Left cheek	0mm	QPSK	State 1	133322	683	1	0	0.16	0.168	22.54	23.50	1.247	0.210	/
	Left tilt			State 1	133322	683	1	0	-0.08	0.112	22.54	23.50	1.247	0.140	/
	Right cheek			State 1	133322	683	1	0	0.08	0.188	22.54	23.50	1.247	0.235	/
	Right tilt			State 1	133322	683	1	0	-0.07	0.108	22.54	23.50	1.247	0.135	/
	Right cheek			State 1	133222	673	1	0	-0.09	0.183	22.29	23.50	1.321	0.242	/
	Right cheek			State 1	133372	688	1	0	-0.01	0.226	22.29	23.50	1.321	0.299	23
	Left cheek			State 1	133322	683	50	0	-0.09	0.153	21.49	22.50	1.262	0.193	/
	Left tilt			State 1	133322	683	50	0	-0.07	0.092	21.49	22.50	1.262	0.116	/
	Right cheek			State 1	133322	683	50	0	0.10	0.136	21.49	22.50	1.262	0.172	/
	Right tilt			State 1	133322	683	50	0	0.16	0.087	21.49	22.50	1.262	0.110	/
	Left cheek			State 1	133222	673	50	0	0.15	0.155	21.25	22.50	1.334	0.207	/
	Left cheek			State 1	133372	688	50	0	-0.14	0.154	21.27	22.50	1.327	0.204	/
Body-worn& Hotspot															
	Front side	10mm	QPSK	State 2	133322	683	1	0	0.15	0.263	22.54	23.50	1.247	0.328	/
	Back side			State 2	133322	683	1	0	0.12	0.313	22.54	23.50	1.247	0.390	/
	Left side			State 2	133322	683	1	0	-0.12	0.217	22.54	23.50	1.247	0.271	/
	Right side			State 2	133322	683	1	0	-0.18	0.198	22.54	23.50	1.247	0.247	/
	Bottom side			State 2	133322	683	1	0	0.07	0.043	22.54	23.50	1.247	0.054	/
	Back side			State 2	133222	673	1	0	-0.01	0.307	22.29	23.50	1.321	0.406	/
	Back side			State 2	133372	688	1	0	-0.01	0.314	22.29	23.50	1.321	0.415	24
	Front side			State 2	133322	683	50	0	0.15	0.205	21.49	22.50	1.262	0.259	/
	Back side			State 2	133322	683	50	0	-0.08	0.249	21.49	22.50	1.262	0.314	/
	Left side			State 2	133322	683	50	0	-0.06	0.181	21.49	22.50	1.262	0.228	/
	Right side			State 2	133322	683	50	0	0.12	0.159	21.49	22.50	1.262	0.201	/
	Bottom side			State 2	133322	683	50	0	-0.19	0.000	21.49	22.50	1.262	0.000	/
	Back side			State 2	133222	673	50	0	-0.04	0.259	21.25	22.50	1.334	0.345	/
	Back side			State 2	133372	688	50	0	-0.19	0.241	21.27	22.50	1.327	0.320	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.12 LTE Band 38 (20MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
	Left cheek	0mm	QPSK	State 1	38000	2595	1	0	-0.11	0.034	17.87	18.50	1.156	0.039	/
	Left tilt			State 1	38000	2595	1	0	-0.12	0.338	17.87	18.50	1.156	0.391	/
	Right cheek			State 1	38000	2595	1	0	0.16	0.745	17.87	18.50	1.156	0.861	/
	Right tilt			State 1	38000	2595	1	0	0.15	0.681	17.87	18.50	1.156	0.787	/
	Right cheek			State 1	37850	2580	1	0	0.07	0.738	17.57	18.50	1.239	0.914	/
	Right cheek			State 1	38150	2610	1	0	-0.18	0.755	17.59	18.50	1.233	0.931	25
	Left cheek			State 1	38000	2595	50	0	-0.16	0.209	16.66	17.50	1.213	0.254	/
	Left tilt			State 1	38000	2595	50	0	-0.16	0.201	16.66	17.50	1.213	0.244	/
	Right cheek			State 1	38000	2595	50	0	-0.14	0.432	16.66	17.50	1.213	0.524	/
	Right tilt			State 1	38000	2595	50	0	-0.01	0.411	16.66	17.50	1.213	0.499	/
	Right cheek			State 1	37850	2580	50	0	0.18	0.422	16.42	17.50	1.282	0.541	/
	Right cheek			State 1	38150	2610	50	0	-0.03	0.443	16.56	17.50	1.242	0.550	/
	Right cheek			State 1	38000	2595	100	0	-0.05	0.421	16.71	17.50	1.199	0.505	/
	Body-worn& Hotspot														
	Front side	10mm	QPSK	State 2	38000	2595	1	0	-0.01	0.460	22.89	23.50	1.151	0.529	/
	Back side			State 2	38000	2595	1	0	0.16	0.438	22.89	23.50	1.151	0.504	/
	Left side			State 2	38000	2595	1	0	0.05	0.324	22.89	23.50	1.151	0.373	/
	Top side			State 2	38000	2595	1	0	0.06	0.934	22.89	23.50	1.151	1.075	/
	Top side			State 2	38000	2595	1	0	0.05	0.904	22.89	23.50	1.151	1.040	repeat
	Top side			State 2	37850	2580	1	0	-0.07	0.773	22.72	23.50	1.197	0.925	/
	Top side			State 2	38150	2610	1	0	-0.07	0.901	22.61	23.50	1.227	1.106	26
	Front side			State 2	38000	2595	50	0	0.17	0.373	21.80	22.50	1.175	0.438	/
	Back side			State 2	38000	2595	50	0	-0.06	0.340	21.80	22.50	1.175	0.399	/
	Left side			State 2	38000	2595	50	0	-0.05	0.259	21.80	22.50	1.175	0.304	/
	Top side			State 2	38000	2595	50	0	-0.01	0.727	21.80	22.50	1.175	0.854	/
	Top side			State 2	38000	2595	50	0	-0.03	0.721	21.80	22.50	1.175	0.847	repeat
	Top side			State 2	37850	2580	50	0	0.10	0.637	21.52	22.50	1.253	0.798	/
	Top side			State 2	38150	2610	50	0	0.06	0.800	21.62	22.50	1.225	0.980	/
	Top side			State 2	38000	2595	100	0	-0.11	0.824	21.82	22.50	1.169	0.964	/
	Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.13 LTE Band 41 (20MHz Bandwidth)

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
	Left cheek	0mm	QPSK	State 1	40640	2595	1	0	-0.17	0.361	18.20	18.50	1.072	0.387	/
	Left tilt			State 1	40640	2595	1	0	0.06	0.352	18.20	18.50	1.072	0.377	/
	Right cheek			State 1	40640	2595	1	0	-0.07	0.741	18.20	18.50	1.072	0.794	/
	Right tilt			State 1	40640	2595	1	0	0.14	0.681	18.20	18.50	1.072	0.730	/
	Right cheek			State 1	40140	2545	1	0	-0.02	0.684	18.01	18.50	1.119	0.766	/
	Right cheek			State 1	41140	2645	1	0	0.15	0.951	18.02	18.50	1.117	1.062	27
	Right cheek			State 1	41140	2645	1	0	0.15	0.928	18.02	18.50	1.117	1.036	repeat
	Left cheek			State 1	40640	2595	50	0	-0.15	0.316	17.11	17.50	1.094	0.346	/
	Left tilt			State 1	40640	2595	50	0	0.06	0.303	17.11	17.50	1.094	0.331	/
	Right cheek			State 1	40640	2595	50	0	-0.14	0.624	17.11	17.50	1.094	0.683	/
	Right tilt			State 1	40640	2595	50	0	0.16	0.564	17.11	17.50	1.094	0.617	/
	Right cheek			State 1	40140	2545	50	0	0.14	0.585	16.76	17.50	1.186	0.694	/
	Right cheek			State 1	41140	2645	50	0	0.02	0.752	16.95	17.50	1.135	0.854	/
	Body-worn& Hotspot														
		10mm	QPSK												
	Front side			State 2	40640	2595	1	0	0.15	0.447	22.71	23.00	1.069	0.478	/
	Back side			State 2	40640	2595	1	0	0.02	0.428	22.71	23.00	1.069	0.458	/
	Left side			State 2	40640	2595	1	0	-0.08	0.309	22.71	23.00	1.069	0.330	/
	Top side			State 2	40640	2595	1	0	-0.05	0.803	22.71	23.00	1.069	0.858	/
	Top side			State 2	40140	2545	1	0	0.12	0.647	22.54	23.00	1.112	0.719	/
	Top side			State 2	41140	2645	1	0	-0.02	1.140	22.52	23.00	1.117	1.273	28
	Top side			State 2	41140	2645	1	0	-0.18	1.120	22.52	23.00	1.117	1.251	repeat
	Front side			State 2	40640	2595	50	0	0.04	0.368	21.67	22.00	1.079	0.397	/
	Back side			State 2	40640	2595	50	0	0.02	0.338	21.67	22.00	1.079	0.365	/
	Left side			State 2	40640	2595	50	0	0.08	0.262	21.67	22.00	1.079	0.283	/
	Top side			State 2	40640	2595	50	0	-0.02	0.726	21.67	22.00	1.079	0.783	/
	Top side			State 2	40140	2545	50	0	-0.03	0.549	21.37	22.00	1.156	0.635	/
	Top side			State 2	41140	2645	50	0	0.04	0.998	21.44	22.00	1.138	1.135	/
Top side	State 2	41140	2645	50	0	0.04	0.960	21.44	22.00	1.138	1.092	repeat			
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

Antenna	Test Position	Dist.	Test Mode	Power Reduction	Test Channel	Test Freq. (MHz)	RB num.	RB Start	Power Drift (dB)	10g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
Extremity															
	Top side	0mm	QPSK	State 2	40640	2595	1	0	-0.12	1.771	22.71	23.00	1.069	1.893	
	Top side			State 2	40140	2545	1	0	0.05	1.694	22.54	23.00	1.112	1.883	
	Top side			State 2	41140	2645	1	0	0.03	1.860	22.52	23.00	1.117	2.077	29
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

10.14 WIFI 2.4GHz

Antenna	Test Position	Dist.	Test Mode	Test Channel	Test Freq.(MHz)	Power Drift (dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
	Left cheek	0mm	802.11b	6	2437	0.08	0.308	12.25	13.00	1.189	99.46	1.005	0.368	/
	Left tilt			6	2437	0.01	0.186	12.25	13.00	1.189	99.46	1.005	0.222	/
	Right cheek			6	2437	0.06	0.193	12.25	13.00	1.189	99.46	1.005	0.231	/
	Right tilt			6	2437	-0.08	0.131	12.25	13.00	1.189	99.46	1.005	0.157	/
	Left cheek			1	2412	0.09	0.388	12.23	13.00	1.194	99.46	1.005	0.466	29
	Left cheek			11	2462	0.12	0.324	12.29	13.00	1.178	99.46	1.005	0.384	/
Body-worn& Hotspot														
	Front side	10mm	802.11b	6	2437	0.08	0.079	12.25	13.00	1.189	99.46	1.005	0.094	/
	Back side			6	2437	-0.02	0.080	12.25	13.00	1.189	99.46	1.005	0.096	/
	Right side			6	2437	0.05	0.065	12.25	13.00	1.189	99.46	1.005	0.078	
	Top side			6	2437	-0.19	0.057	12.25	13.00	1.189	99.46	1.005	0.068	/
	Back side			1	2412	-0.07	0.087	12.23	13.00	1.194	99.46	1.005	0.104	30
	Back side			11	2462	-0.03	0.078	12.29	13.00	1.178	99.46	1.005	0.092	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

10.15 WIFI 5GHz

Antenna	Band	Test Position	Dist.	Test Mode	Test Channel	Test Freq.(MHz)	Power Drift (dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Head															
	5.3G	Left cheek	0mm	802.11a	60	5300	0.11	0.496	11.68	12.00	1.076	96.87	1.032	0.551	31
		Left tilt			60	5300	-0.15	0.223	11.68	12.00	1.076	96.87	1.032	0.248	/
		Right cheek			60	5300	-0.01	0.226	11.68	12.00	1.076	96.87	1.032	0.251	/
		Right tilt			60	5300	0.01	0.176	11.68	12.00	1.076	96.87	1.032	0.196	/
		Left cheek			52	5260	-0.04	0.340	11.53	12.00	1.114	96.87	1.032	0.391	/
		Left cheek			64	5320	0.03	0.421	11.66	12.00	1.081	96.87	1.032	0.470	/
	5.6G	Left cheek	0mm	802.11a	116	5580	-0.02	0.348	12.22	13.00	1.197	96.87	1.032	0.430	/
		Left tilt			116	5580	0.14	0.320	12.22	13.00	1.197	96.87	1.032	0.395	/
		Right cheek			116	5580	0.09	0.233	12.22	13.00	1.197	96.87	1.032	0.288	/
		Right tilt			116	5580	0.04	0.231	12.22	13.00	1.197	96.87	1.032	0.285	/
		Left cheek			100	5500	0.19	0.351	12.21	13.00	1.199	96.87	1.032	0.435	/
		Left cheek			140	5700	0.05	0.397	12.16	13.00	1.213	96.87	1.032	0.497	32
	5.8G	Left cheek	0mm	802.11a	157	5785	-0.20	0.485	12.46	13.00	1.132	96.87	1.032	0.567	33
		Left tilt			157	5785	-0.16	0.338	12.46	13.00	1.132	96.87	1.032	0.395	/
		Right cheek			157	5785	-0.04	0.263	12.46	13.00	1.132	96.87	1.032	0.307	/
		Right tilt			157	5785	0.11	0.272	12.46	13.00	1.132	96.87	1.032	0.318	/
		Left cheek			149	5745	-0.07	0.346	12.24	13.00	1.191	96.87	1.032	0.425	/
		Left cheek			165	5825	-0.18	0.317	12.53	13.00	1.114	96.87	1.032	0.365	/
Body-wron															
	5.3G	Front side	10mm	802.11a	60	5300	-0.01	0.125	11.68	12.00	1.076	96.87	1.032	0.139	/
		Back side			60	5300	0.20	0.161	11.68	12.00	1.076	96.87	1.032	0.179	34
		Back side			52	5260	-0.07	0.137	11.53	12.00	1.114	96.87	1.032	0.158	/
		Back side			64	5320	-0.18	0.158	11.66	12.00	1.081	96.87	1.032	0.176	/
	5.6G	Front side	10mm	802.11a	116	5580	0.05	0.110	12.22	13.00	1.197	96.87	1.032	0.136	/
		Back side			116	5580	-0.15	0.171	12.22	13.00	1.197	96.87	1.032	0.211	/
		Back side			100	5500	-0.10	0.174	12.21	13.00	1.199	96.87	1.032	0.215	/
		Back side			140	5700	0.13	0.179	12.16	13.00	1.213	96.87	1.032	0.224	35
Hotspot															
	5.2G	Front side	10mm	802.11a	40	5200	0.01	0.134	10.47	11.00	1.130	96.87	1.032	0.156	/
		Back side			40	5200	0.09	0.182	10.47	11.00	1.130	96.87	1.032	0.212	/
		Right side			40	5200	-0.05	0.258	10.47	11.00	1.130	96.87	1.032	0.301	36
		Top side			40	5200	0.18	0.216	10.47	11.00	1.130	96.87	1.032	0.252	/
		Right side			36	5180	-0.07	0.242	10.67	11.00	1.079	96.87	1.032	0.270	/
		Right side			48	5240	0.16	0.244	10.70	11.00	1.072	96.87	1.032	0.270	/
	5.8G	Front side	10mm	802.11a	157	5785	-0.18	0.108	12.46	13.00	1.132	96.87	1.032	0.126	/

		Back side			157	5785	0.15	0.207	12.46	13.00	1.132	96.87	1.032	0.242	37
		Right side			157	5785	-0.13	0.132	12.46	13.00	1.132	96.87	1.032	0.154	/
		Top side			157	5785	0.13	0.138	12.46	13.00	1.132	96.87	1.032	0.161	/
		Back side			149	5745	-0.16	0.196	12.24	13.00	1.191	96.87	1.032	0.241	/
		Back side			165	5825	-0.08	0.201	12.53	13.00	1.114	96.87	1.032	0.231	/

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

Antenna	Band	Test Position	Dist.	Test Mode	Test Channel	Test Freq.(MHz)	Power Drift (dB)	10g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	10g Scaled SAR (W/kg)	Meas. No.
Extremity															
	5.3G	Front side	0mm	802.11a	60	5300	-0.14	0.216	11.68	12.00	1.076	96.87	1.032	0.240	/
		Back side			60	5300	-0.09	0.406	11.68	12.00	1.076	96.87	1.032	0.451	/
		Right side			60	5300	0.04	0.411	11.68	12.00	1.076	96.87	1.032	0.457	/
		Top side			60	5300	-0.10	0.321	11.68	12.00	1.076	96.87	1.032	0.357	/
		Right side			52	5260	0.18	0.391	11.53	12.00	1.114	96.87	1.032	0.450	/
		Right side			64	5320	0.03	0.422	11.53	12.00	1.114	96.87	1.032	0.485	38
	5.6G	Front side	0mm	802.11a	116	5580	-0.09	0.207	12.22	13.00	1.197	96.87	1.032	0.256	/
		Back side			116	5580	-0.08	0.560	12.22	13.00	1.197	96.87	1.032	0.692	39
		Right side			116	5580	0.05	0.296	12.22	13.00	1.197	96.87	1.032	0.366	/
		Top side			116	5580	0.19	0.224	12.22	13.00	1.197	96.87	1.032	0.277	/
		Back side			100	5500	0.03	0.558	12.21	13.00	1.199	96.87	1.032	0.691	/
		Back side			140	5700	0.17	0.499	12.16	13.00	1.213	96.87	1.032	0.625	/

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

10.16 Bluetooth

Antenna	Test Position	Dist.	Test Mode	Test Channel	Test Freq.(MHz)	Power Drift (dB)	1g Meas. SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
	Left cheek	0mm	DH5	39	2441	0.10	0.126	6.23	7.00	1.195	76.00	1.316	0.198	40
	Left tilt			39	2441	0.02	0.064	6.23	7.00	1.195	76.00	1.316	0.101	/
	Right cheek			39	2441	-0.03	0.065	6.23	7.00	1.195	76.00	1.316	0.102	/
	Right tilt			39	2441	-0.16	0.040	6.23	7.00	1.195	76.00	1.316	0.063	/
	Left cheek			0	2402	0.15	0.074	5.24	6.00	1.192	76.00	1.316	0.116	/
	Left cheek			78	2480	-0.15	0.065	5.81	7.00	1.314	76.00	1.316	0.112	/
Body-worn& Hotspot														
	Front side	10mm	DH5	39	2441	-0.16	0.029	6.23	7.00	1.195	76.00	1.316	0.046	41
	Back side			39	2441	0.18	0.015	6.23	7.00	1.195	76.00	1.316	0.024	/
	Right side			39	2441	0.01	0.014	6.23	7.00	1.195	76.00	1.316	0.022	/
	Top side			39	2441	-0.14	0.010	6.23	7.00	1.195	76.00	1.316	0.016	/
	Front side			0	2402	0.10	0.017	5.24	6.00	1.192	76.00	1.316	0.027	/
	Front side			78	2480	-0.17	0.020	5.81	7.00	1.314	76.00	1.316	0.035	/
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.

Frequency Band (MHz)	Wireless Band	RF Exposure Conditions	Test Position	Highest Measured SAR (W/kg)	Repeated SAR (Yes/No)	Repeated ^{1st} Measured SAR (W/kg)	Largest to Smallest SAR Radio
836.6	GSM850	Head	Right Cheek	0.821	Yes	0.802	1.02
836.6	GSM850	Body	Front side	0.877	Yes	0.838	1.05
836.6	GSM850	Body	Back side	0.951	Yes	0.947	1.00
836.6	GSM850	Body	Left side	0.878	Yes	0.856	1.03
2595	LTE Band38	Body	Top side	0.934	Yes	0.904	1.03
2645	LTE Band41	Head	Right Cheek	0.951	Yes	0.928	1.02
2645	LTE Band41	Body	Top side	1.140	Yes	1.120	1.02
2645	LTE Band41	Body	Top side	0.998	Yes	0.960	1.04
Note: The ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , the second 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-worn	Hotspot	Extremity
1	WWAN+2.4G WIFI	Yes	Yes	Yes	Yes
2	WWAN+5G WIFI	Yes	Yes	Yes	Yes
3	WWAN+BT	Yes	Yes	Yes	Yes
4	BT+5G WIFI	Yes	Yes	Yes	Yes

Note:

1. WiFi 2.4G and Bluetooth share the same antenna, and can't transmit simultaneously.
2. When stand-alone SAR is not required for a side of antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.
3. The maximum SAR summation is calculated based on the same configuration and test position.

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	Position	Stand alone SAR				SUM SAR			
		1	2	3	4				
		WWAN	2.4G WIFI	5G WIFI Max .	Bluetooth	1+2	1+3	1+4	3+4
GSM850	Left cheek	0.940	0.466	0.567	0.157	1.406	1.507	1.097	0.724
	Left Tilt	0.794	0.222	0.395	0.080	1.016	1.189	0.873	0.475
	Right Cheek	1.010	0.231	0.307	0.081	1.241	1.317	1.091	0.389
	Right Tilt	0.802	0.157	0.318	0.050	0.959	1.120	0.852	0.368
GSM1900	Left Cheek	0.671	0.466	0.567	0.157	1.137	1.238	0.828	0.724
	Left Tilt	0.189	0.222	0.395	0.080	0.412	0.585	0.269	0.475
	Right Cheek	0.213	0.231	0.307	0.081	0.443	0.520	0.294	0.389
	Right Tilt	0.188	0.157	0.318	0.050	0.345	0.506	0.238	0.368
WCDMA B2	Left Cheek	0.784	0.466	0.567	0.157	1.250	1.351	0.941	0.724
	Left Tilt	0.274	0.222	0.395	0.080	0.496	0.669	0.353	0.475
	Right Cheek	0.231	0.231	0.307	0.081	0.462	0.539	0.313	0.389
	Right Tilt	0.271	0.157	0.318	0.050	0.427	0.589	0.321	0.368
WCDMA B4	Left Cheek	0.831	0.466	0.567	0.157	1.297	1.398	0.988	0.724
	Left Tilt	0.252	0.222	0.395	0.080	0.474	0.647	0.332	0.475
	Right Cheek	0.324	0.231	0.307	0.081	0.555	0.632	0.405	0.389
	Right Tilt	0.248	0.157	0.318	0.050	0.404	0.566	0.298	0.368
WCDMA B5	Left Cheek	0.435	0.466	0.567	0.157	0.901	1.002	0.592	0.724
	Left Tilt	0.330	0.222	0.395	0.080	0.552	0.725	0.410	0.475
	Right Cheek	0.393	0.231	0.307	0.081	0.624	0.700	0.474	0.389
	Right Tilt	0.319	0.157	0.318	0.050	0.475	0.637	0.369	0.368
LTE B7	Left Cheek	0.331	0.466	0.567	0.157	0.797	0.898	0.489	0.724
	Left Tilt	0.299	0.222	0.395	0.080	0.522	0.695	0.379	0.475
	Right Cheek	0.966	0.231	0.307	0.081	1.197	1.274	1.047	0.389
	Right Tilt	0.600	0.157	0.318	0.050	0.757	0.918	0.650	0.368
LTE B12	Left Cheek	0.296	0.466	0.567	0.157	0.762	0.863	0.454	0.724
	Left Tilt	0.221	0.222	0.395	0.080	0.443	0.616	0.301	0.475
	Right Cheek	0.384	0.231	0.307	0.081	0.614	0.691	0.465	0.389
	Right Tilt	0.221	0.157	0.318	0.050	0.378	0.539	0.271	0.368
LTE B13	Left Cheek	0.401	0.466	0.567	0.157	0.867	0.968	0.558	0.724
	Left Tilt	0.330	0.222	0.395	0.080	0.552	0.725	0.410	0.475
	Right Cheek	0.381	0.231	0.307	0.081	0.611	0.688	0.462	0.389
	Right Tilt	0.332	0.157	0.318	0.050	0.489	0.650	0.382	0.368
LTE B25	Left Cheek	0.687	0.466	0.567	0.157	1.153	1.254	0.844	0.724
	Left Tilt	0.230	0.222	0.395	0.080	0.452	0.625	0.310	0.475
	Right Cheek	0.208	0.231	0.307	0.081	0.438	0.515	0.289	0.389

	Right Tilt	0.237	0.157	0.318	0.050	0.394	0.555	0.287	0.368
LTE B26	Left Cheek	0.502	0.466	0.567	0.157	0.967	1.068	0.659	0.724
	Left Tilt	0.368	0.222	0.395	0.080	0.591	0.764	0.448	0.475
	Right Cheek	0.428	0.231	0.307	0.081	0.659	0.736	0.509	0.389
	Right Tilt	0.358	0.157	0.318	0.050	0.515	0.676	0.408	0.368
LTE B66	Left Cheek	0.868	0.466	0.567	0.157	1.334	1.435	1.025	0.724
	Left Tilt	0.250	0.222	0.395	0.080	0.473	0.646	0.330	0.475
	Right Cheek	0.324	0.231	0.307	0.081	0.555	0.632	0.405	0.389
	Right Tilt	0.254	0.157	0.318	0.050	0.411	0.572	0.304	0.368
LTE 71	Left Cheek	0.210	0.466	0.567	0.157	0.675	0.777	0.367	0.724
	Left Tilt	0.140	0.222	0.395	0.080	0.362	0.535	0.220	0.475
	Right Cheek	0.299	0.231	0.307	0.081	0.529	0.606	0.380	0.389
	Right Tilt	0.135	0.157	0.318	0.050	0.291	0.453	0.185	0.368
LTE B38	Left Cheek	0.254	0.466	0.567	0.157	0.720	0.821	0.412	0.724
	Left Tilt	0.391	0.222	0.395	0.080	0.614	0.787	0.471	0.475
	Right Cheek	0.963	0.231	0.307	0.081	1.193	1.270	1.044	0.389
	Right Tilt	0.788	0.157	0.318	0.050	0.944	1.106	0.838	0.368
LTE 41	Left Cheek	0.388	0.466	0.567	0.157	0.854	0.955	0.545	0.724
	Left Tilt	0.378	0.222	0.395	0.080	0.600	0.773	0.458	0.475
	Right Cheek	0.995	0.231	0.307	0.081	1.226	1.303	1.076	0.389
	Right Tilt	0.730	0.157	0.318	0.050	0.887	1.048	0.780	0.368

Note: The highest Summed 1g SAR is 1.507 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	Position	Stand alone SAR				SUM SAR			
		1	2	3	4				
		WWAN	2.4G WIFI	5G WIFI Max	Bluetooth	1+2	1+3	1+4	3+4
GSM850	Front Side	1.079	0.094	0.169	0.036	1.173	1.248	1.115	0.205
	Back Side	1.170	0.112	0.242	0.019	1.282	1.412	1.189	0.261
GSM1900	Front Side	0.853	0.094	0.169	0.036	0.947	1.021	0.889	0.205
	Back Side	0.902	0.112	0.242	0.019	1.014	1.144	0.921	0.261
WCDMA B2	Front Side	0.875	0.094	0.169	0.036	0.970	1.044	0.912	0.205
	Back Side	0.906	0.112	0.242	0.019	1.018	1.148	0.925	0.261
WCDMA B4	Front Side	0.648	0.094	0.169	0.036	0.743	0.817	0.684	0.205
	Back Side	0.704	0.112	0.242	0.019	0.815	0.946	0.722	0.261
WCDMA B5	Front Side	0.560	0.094	0.169	0.036	0.654	0.729	0.596	0.205
	Back Side	0.634	0.112	0.242	0.019	0.746	0.876	0.653	0.261
LTE B7	Front Side	0.902	0.094	0.169	0.036	0.997	1.071	0.939	0.205
	Back Side	0.823	0.112	0.242	0.019	0.935	1.065	0.842	0.261
LTE B12	Front Side	0.460	0.094	0.169	0.036	0.555	0.629	0.496	0.205
	Back Side	0.536	0.112	0.242	0.019	0.648	0.778	0.555	0.261
LTE B13	Front Side	0.474	0.094	0.169	0.036	0.568	0.643	0.510	0.205
	Back Side	0.587	0.112	0.242	0.019	0.699	0.829	0.606	0.261
LTE B25	Front Side	0.893	0.094	0.169	0.036	0.988	1.062	0.930	0.205
	Back Side	0.914	0.112	0.242	0.019	1.025	1.156	0.932	0.261
LTE B26	Front Side	0.556	0.094	0.169	0.036	0.651	0.725	0.593	0.205
	Back Side	0.629	0.112	0.242	0.019	0.741	0.871	0.648	0.261
LTE B66	Front Side	0.538	0.094	0.169	0.036	0.633	0.707	0.575	0.205
	Back Side	0.560	0.112	0.242	0.019	0.672	0.802	0.579	0.261
LTE B71	Front Side	0.328	0.094	0.169	0.036	0.422	0.497	0.364	0.205
	Back Side	0.415	0.112	0.242	0.019	0.527	0.657	0.434	0.261
LTE B38	Front Side	0.529	0.094	0.169	0.036	0.624	0.698	0.566	0.205
	Back Side	0.504	0.112	0.242	0.019	0.616	0.746	0.523	0.261
LTE B41	Front Side	0.502	0.094	0.169	0.036	0.597	0.671	0.539	0.205
	Back Side	0.482	0.112	0.242	0.019	0.594	0.724	0.501	0.261

Note: The highest Summed 1g SAR is 1.412 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	Position	Stand alone SAR				SUM SAR			
		1	2	3	4				
		WWAN	2.4G WIFI	5G WIFI Max	Bluetooth	1+2	1+3	1+4	3+4
GSM850	Front Side	1.079	0.094	0.169	0.036	1.173	1.248	1.115	0.205
	Back Side	1.170	0.112	0.242	0.019	1.282	1.412	1.189	0.261
	Left Side	1.080	0.000	0.000	0.000	1.080	1.080	1.080	0.000
	Right Side	0.907	0.078	0.301	0.017	0.984	1.208	0.924	0.318
	Top Side	0.000	0.068	0.272	0.012	0.068	0.272	0.012	0.285
	Bottom Side	0.066	0.000	0.000	0.000	0.066	0.066	0.066	0.000
GSM1900	Front Side	0.853	0.094	0.169	0.036	0.947	1.021	0.889	0.205
	Back Side	0.902	0.112	0.242	0.019	1.014	1.144	0.921	0.261
	Left Side	0.244	0.000	0.000	0.000	0.244	0.244	0.244	0.000
	Right Side	0.132	0.078	0.301	0.017	0.209	0.433	0.149	0.318
	Top Side	0.000	0.068	0.272	0.012	0.068	0.272	0.012	0.285
	Bottom Side	0.098	0.000	0.000	0.000	0.098	0.098	0.098	0.000
WCDMA B2	Front Side	0.875	0.094	0.169	0.036	0.970	1.044	0.912	0.205
	Back Side	0.906	0.112	0.242	0.019	1.018	1.148	0.925	0.261
	Left Side	0.857	0.000	0.000	0.000	0.857	0.857	0.857	0.000
	Right Side	0.163	0.078	0.301	0.017	0.240	0.464	0.180	0.318
	Top Side	0.000	0.068	0.272	0.012	0.068	0.272	0.012	0.285
	Bottom Side	0.399	0.000	0.000	0.000	0.399	0.399	0.399	0.000
WCDMA B4	Front Side	0.648	0.094	0.169	0.036	0.743	0.817	0.684	0.205
	Back Side	0.704	0.112	0.242	0.019	0.815	0.946	0.722	0.261
	Left Side	0.697	0.000	0.000	0.000	0.697	0.697	0.697	0.000
	Right Side	0.063	0.078	0.301	0.017	0.141	0.364	0.081	0.318
	Top Side	0.000	0.068	0.272	0.012	0.068	0.272	0.012	0.285
	Bottom Side	0.496	0.000	0.000	0.000	0.496	0.496	0.496	0.000
WCDMA B5	Front Side	0.560	0.094	0.169	0.036	0.654	0.729	0.596	0.205
	Back Side	0.634	0.112	0.242	0.019	0.746	0.876	0.653	0.261
	Left Side	0.556	0.000	0.000	0.000	0.556	0.556	0.556	0.000
	Right Side	0.512	0.078	0.301	0.017	0.589	0.813	0.529	0.318
	Top Side	0.000	0.068	0.272	0.012	0.068	0.272	0.012	0.285
	Bottom Side	0.074	0.000	0.000	0.000	0.074	0.074	0.074	0.000
LTE B7	Front Side	0.508	0.094	0.169	0.036	0.603	0.677	0.545	0.205
	Back Side	0.487	0.112	0.242	0.019	0.599	0.729	0.506	0.261
	Left Side	0.364	0.000	0.000	0.000	0.364	0.364	0.364	0.000
	Right Side	0.000	0.078	0.301	0.017	0.078	0.301	0.017	0.318
	Top Side	0.854	0.068	0.272	0.012	0.922	1.126	0.867	0.285
	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

LTE B12	Front Side	0.460	0.094	0.169	0.036	0.555	0.629	0.496	0.205
	Back Side	0.536	0.112	0.242	0.019	0.648	0.778	0.555	0.261
	Left Side	0.416	0.000	0.000	0.000	0.416	0.416	0.416	0.000
	Right Side	0.391	0.078	0.301	0.017	0.469	0.692	0.409	0.318
	Top Side	0.000	0.068	0.272	0.012	0.068	0.272	0.012	0.285
	Bottom Side	0.062	0.000	0.000	0.000	0.062	0.062	0.062	0.000
LTE B13	Front Side	0.474	0.094	0.169	0.036	0.568	0.643	0.510	0.205
	Back Side	0.587	0.112	0.242	0.019	0.699	0.829	0.606	0.261
	Left Side	0.479	0.000	0.000	0.000	0.479	0.479	0.479	0.000
	Right Side	0.429	0.078	0.301	0.017	0.507	0.730	0.447	0.318
	Top Side	0.000	0.068	0.272	0.012	0.068	0.272	0.012	0.285
	Bottom Side	0.069	0.000	0.000	0.000	0.069	0.069	0.069	0.000
LTE B25	Front Side	0.893	0.094	0.169	0.036	0.988	1.062	0.930	0.205
	Back Side	0.914	0.112	0.242	0.019	1.025	1.156	0.932	0.261
	Left Side	0.851	0.000	0.000	0.000	0.851	0.851	0.851	0.000
	Right Side	0.164	0.078	0.301	0.017	0.242	0.465	0.182	0.318
	Top Side	0.000	0.068	0.272	0.012	0.068	0.272	0.012	0.285
	Bottom Side	0.407	0.000	0.000	0.000	0.407	0.407	0.407	0.000
LTE B26	Front Side	0.556	0.094	0.169	0.036	0.651	0.725	0.593	0.205
	Back Side	0.629	0.112	0.242	0.019	0.741	0.871	0.648	0.261
	Left Side	0.573	0.000	0.000	0.000	0.573	0.573	0.573	0.000
	Right Side	0.531	0.078	0.301	0.017	0.608	0.831	0.548	0.318
	Top Side	0.000	0.068	0.272	0.012	0.068	0.272	0.012	0.285
	Bottom Side	0.074	0.000	0.000	0.000	0.074	0.074	0.074	0.000
LTE B66	Front Side	0.538	0.094	0.169	0.036	0.633	0.707	0.575	0.205
	Back Side	0.560	0.112	0.242	0.019	0.672	0.802	0.579	0.261
	Left Side	0.600	0.000	0.000	0.000	0.600	0.600	0.600	0.000
	Right Side	0.101	0.078	0.301	0.017	0.179	0.402	0.119	0.318
	Top Side	0.000	0.068	0.272	0.012	0.068	0.272	0.012	0.285
	Bottom Side	0.400	0.000	0.000	0.000	0.400	0.400	0.400	0.000
LTE B71	Front Side	0.328	0.094	0.169	0.036	0.422	0.497	0.364	0.205
	Back Side	0.415	0.112	0.242	0.019	0.527	0.657	0.434	0.261
	Left Side	0.271	0.000	0.000	0.000	0.271	0.271	0.271	0.000
	Right Side	0.247	0.078	0.301	0.017	0.325	0.548	0.264	0.318
	Top Side	0.000	0.068	0.272	0.012	0.068	0.272	0.012	0.285
	Bottom Side	0.054	0.000	0.000	0.000	0.054	0.054	0.054	0.000
LTE B38	Front Side	0.529	0.094	0.169	0.036	0.624	0.698	0.566	0.205
	Back Side	0.504	0.112	0.242	0.019	0.616	0.746	0.523	0.261
	Left Side	0.373	0.000	0.000	0.000	0.373	0.373	0.373	0.000
	Right Side	0.000	0.078	0.301	0.017	0.078	0.301	0.017	0.318
	Top Side	1.106	0.068	0.272	0.012	1.174	1.378	1.118	0.285
	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B41	Front Side	0.478	0.094	0.169	0.036	0.572	0.647	0.514	0.205

	Back Side	0.458	0.112	0.242	0.019	0.569	0.700	0.476	0.261
	Left Side	0.330	0.000	0.000	0.000	0.330	0.330	0.330	0.000
	Right Side	0.000	0.078	0.301	0.017	0.078	0.301	0.017	0.318
	Top Side	1.273	0.068	0.272	0.012	1.341	1.545	1.286	0.285
	Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: The highest Summed 1g SAR is 1.545 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

12.2.4 Extremity Simultaneous Transmission SAR Evaluation for WWAN Mode and 5G WLAN

Band	Position	Stand alone SAR		SUM SAR
		1	2	
		WWAN	5G WIFI Max	1+2
LTE B41	Top Side	2.077	0.357	2.434

Note: The highest Summed 1g SAR is 2.434 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	DASY8	16.2.2.1588	N/A	N/A
750MHz Validation Dipole	Speag	D750V3	SN: 1208	2024/08/19	2027/08/18
835MHz Validation Dipole	Speag	D835V2	SN: 4d187	2024/05/08	2027/05/07
1750MHz Validation Dipole	Speag	D1750V2	SN: 1130	2024/05/08	2027/05/07
1950MHz Validation Dipole	Speag	D1950V3	SN: 1240	2024/08/22	2027/08/21
2450MHz Validation Dipole	Speag	D2450V2	SN: 952	2024/05/07	2027/05/06
2600MHz Validation Dipole	Speag	D2600V2	SN: 1095	2024/05/08	2027/05/07
5GHz Validation Dipole	Speag	D5GHZV2	SN: 1200	2024/05/09	2027/05/08
Data Acquisition Electronicsr	Speag	DAE4	SN: 540	2024/02/22	2025/02/21
E-Field Probe	Speag	EX3DV4	SN: 7510	2024/06/25	2025/06/24
Signal Generator	R&S	SMB100A	177746	2024/04/24	2025/04/23
Power Meter	R&S	NRVD-B2	835843/014	2024/08/08	2025/08/07
Power Sensor	R&S	NRV-Z4	100381	2024/08/08	2025/08/07
Power Sensor	R&S	NRV-Z2	100211	2024/08/08	2025/08/07
Wireless Communication Test Set	Anritsu	MT8820C	6201144551	2024/05/14	2025/05/13
Network Analyzer	Agilent	E5071C	MY46103472	2024/09/11	2025/09/10
Thermometer	Elitech	RC-4HC	EF7216002985	2024/10/31	2025/10/30
Thermometer	Elitech	RC-4HC	EF720B004811	2024/10/31	2025/10/30
Power Amplifier	Mini-Circuits	ZVA-183W-S+	932502132	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 DAK 3.5 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 (%)
2024.12.17	Head	750	21.4	0.92	43.92	0.89	41.94	3.37	4.72
2024.12.18	Head	750	20.8	0.90	43.47	0.89	41.94	1.12	3.65
2024.12.19	Head	835	21.3	0.87	43.02	0.90	41.50	-3.33	3.66
2024.12.20	Head	1750	21.4	1.36	41.42	1.37	40.08	-0.73	3.34
2024.12.21	Head	1950	20.9	1.45	39.12	1.40	40.00	3.57	-2.20
2024.12.22	Head	2450	21.2	1.83	38.66	1.80	39.20	1.67	-1.38
2024.12.26	Head	2600	21.0	2.00	38.47	1.96	39.01	2.04	-1.38
2024.12.27	Head	2600	20.7	1.98	38.29	1.96	39.01	1.02	-1.85
2024.12.23	Head	5250	21.0	4.59	35.18	4.71	35.93	-2.55	-2.09
2024.12.24	Head	5600	21.1	4.96	34.48	5.07	35.53	-2.17	-2.96
2024.12.25	Head	5750	20.6	5.11	34.18	5.22	35.36	-2.11	-3.34
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 (%)
2024.12.17	Head	750	100	0.80	7.99	8.46	-5.56
2024.12.18	Head	750	100	0.82	8.19	8.46	-3.19
2024.12.19	Head	835	100	0.98	9.83	9.74	0.92
2024.12.20	Head	1750	100	3.73	37.30	37.00	0.81
2024.12.21	Head	1950	100	4.18	41.80	41.70	0.24
2024.12.22	Head	2450	100	5.34	53.40	52.60	1.52
2024.12.26	Head	2600	100	5.87	58.70	55.90	5.01
2024.12.27	Head	2600	100	5.71	57.10	55.90	2.15
2024.12.23	Head	5250	100	7.82	78.20	77.70	0.64
2024.12.24	Head	5600	100	8.33	83.30	81.30	2.46
2024.12.25	Head	5750	100	7.96	79.60	77.60	2.58

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

Head liquid 10g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2024.12.27	Head	2600	100	2.56	25.60	25.40	0.79
2024.12.23	Head	5250	100	2.230	22.3	22.00	1.36
2024.12.24	Head	5600	100	2.36	23.60	23.10	2.16
Note: The tolerance limit of System validation $\pm 10\%$.							

System Performance Check Data (750MHz)

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 [°C]
Flat, HSL		CD700	CW, 0--	750.0, 100	10.29	0.915	43.9	22.6	21.4

Hardware Setup

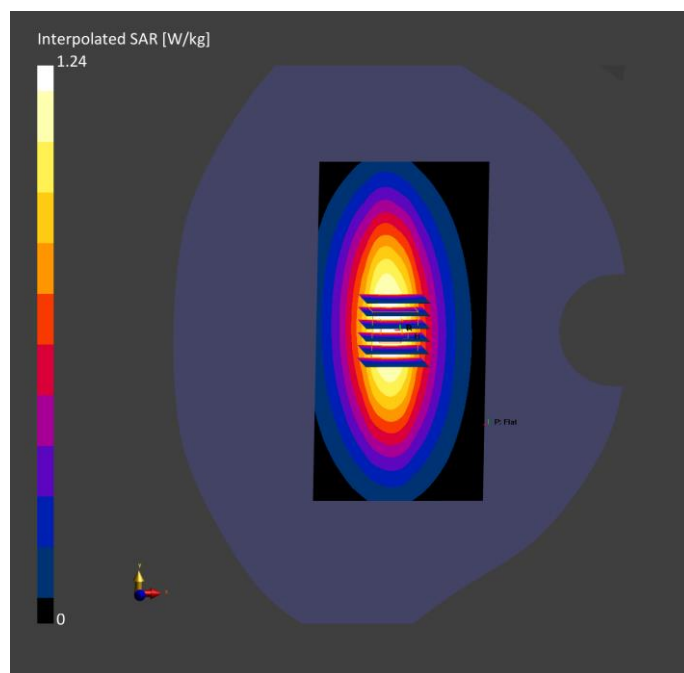
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-17	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 160.0	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	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-17	2024-12-17
psSAR1g [W/kg]	0.803	0.799
psSAR10g [W/kg]	0.537	0.526
Power Drift [dB]	-0.16	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		87.3
Dist 3dB Peak [mm]		20.4



System Performance Check Data (750MHz)

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		CD700	CW, 0--	750.0, 100	10.29	0.902	43.5	22.3	20.8

Hardware Setup

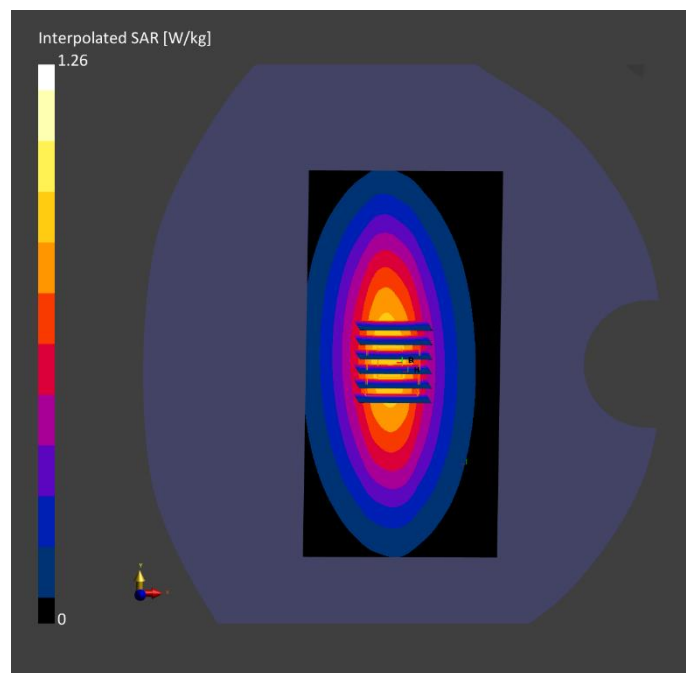
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-18	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 160.0	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	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-18	2024-12-18
psSAR1g [W/kg]	0.824	0.819
psSAR10g [W/kg]	0.551	0.539
Power Drift [dB]	-0.05	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		87.3
Dist 3dB Peak [mm]		20.4



System Performance Check Data (835MHz)

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		CD835	CW, 0--	835.0, 50	9.99	0.87	43.0	22.7	21.3

Hardware Setup

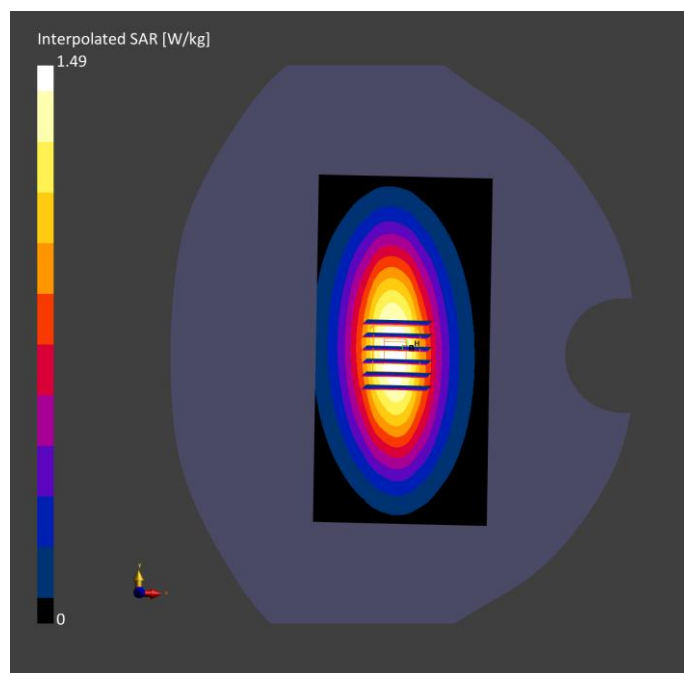
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-19	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 160.0	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	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-19	2024-12-19
psSAR1g [W/kg]	0.992	0.983
psSAR10g [W/kg]	0.631	0.603
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 [mm]		13.2



System Performance Check Data (1750MHz)

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		D1750	CW, 0--	1750.0, 50	8.67	1.36	41.4	22.9	21.4

Hardware Setup

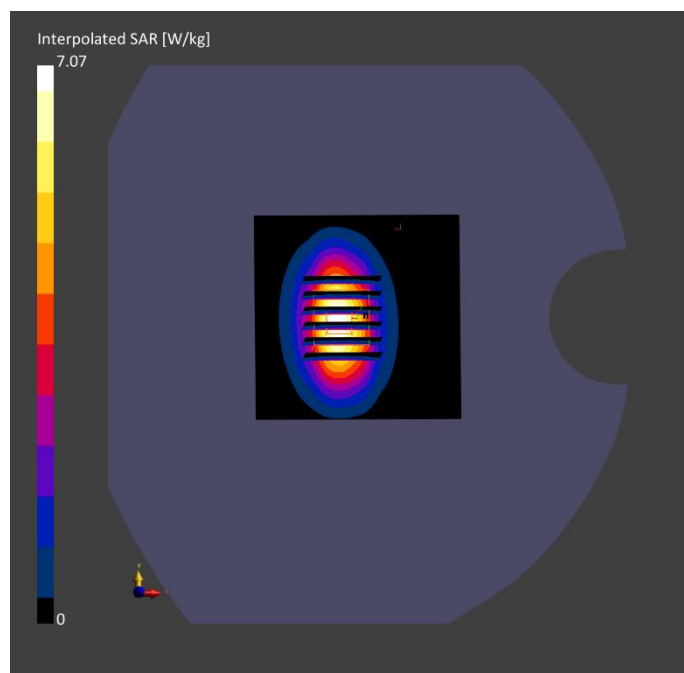
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024- 12-20	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-20	2024-12-20
psSAR1g [W/kg]	3.77	3.73
psSAR10g [W/kg]	2.05	1.99
Power Drift [dB]	-0.06	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		81.9
Dist 3dB Peak [mm]		10.7



System Performance Check Data (1950MHz)

Exposure Conditions

Phantom	Position	Band	Group	Frequency [MHz],	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature	Liquid Temperature
Section,	Distance [mm]		UID	Channel Number				[°C]	[°C]
Flat, HSL	FRONT, 5.00	D1950	CW, 0--	1950.0, 50	8.33	1.45	39.1	22.5	20.9

Hardware Setup

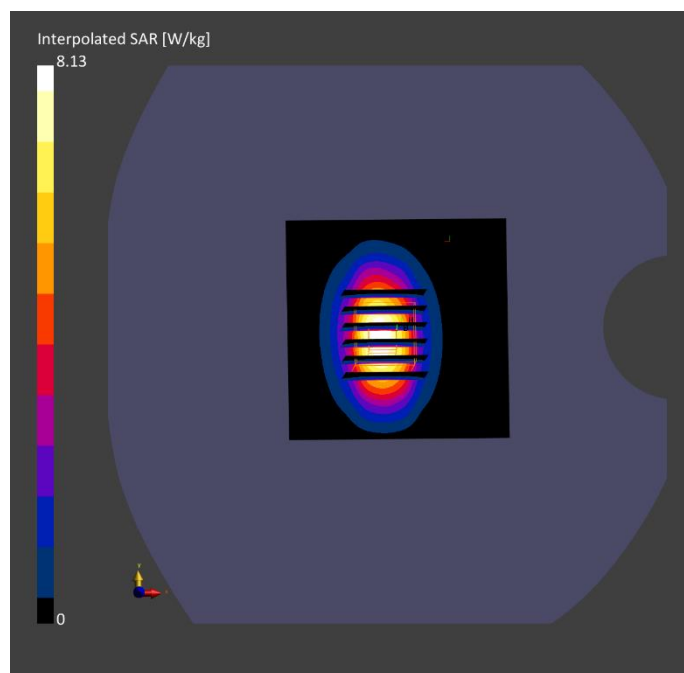
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-21	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-21	2024-12-21
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 (2450MHz)

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		D2450	CW, 0--	2450.0, 50	7.75	1.83	38.4	22.8	21.2

Hardware Setup

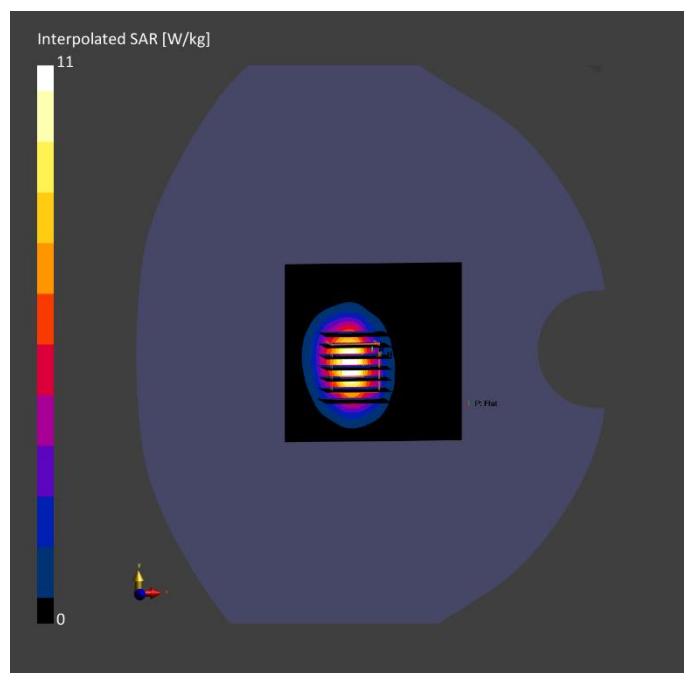
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-22	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-22	2024-12-22
psSAR1g [W/kg]	5.33	5.34
psSAR10g [W/kg]	2.49	2.49
Power Drift [dB]	-0.02	0.03
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		80.8
Dist 3dB Peak [mm]		8.9



System Performance Check Data (2600MHz)

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		CD2600V 3	CW, 0--	2600.0, 50	7.59	2.00	38.5	22.6	21.0

Hardware Setup

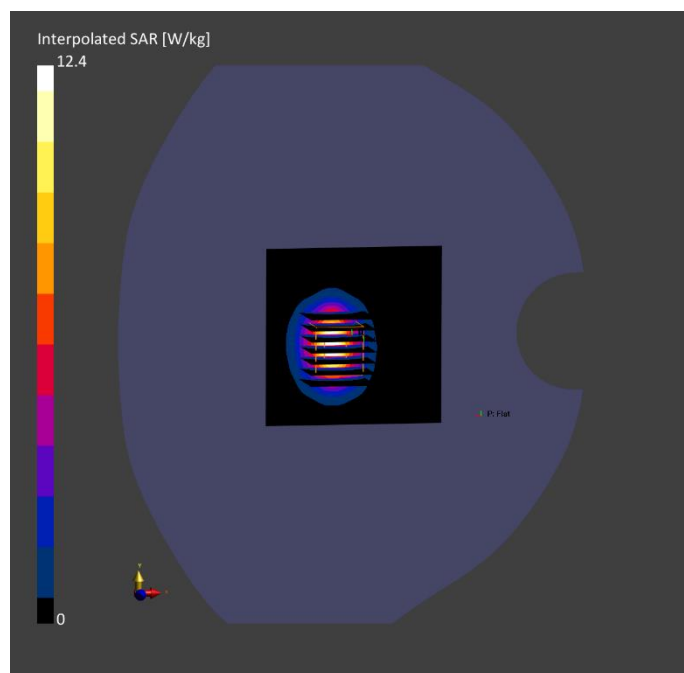
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-26	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-26	2024-12-26
psSAR1g [W/kg]	5.86	5.87
psSAR10g [W/kg]	2.63	2.63
Power Drift [dB]	0.00	0.01
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)

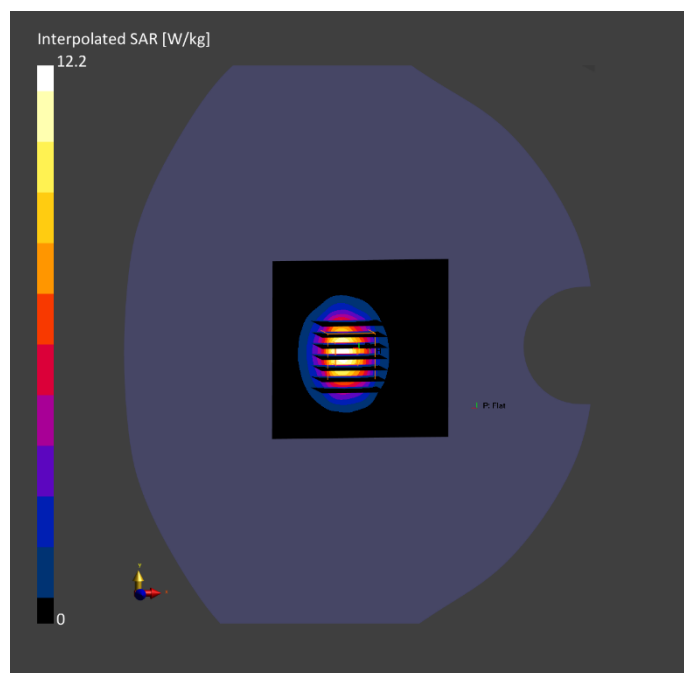
Exposure Conditions

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		CD2600V 3	CW, 0--	2600.0, 50	7.59	1.98	38.3	22.0	20.7

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12- 27	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-27	2024-12-27
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5	psSAR1g [W/kg]	5.71	5.71
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	2.60	2.56
Graded Grid	Yes	Yes	Power Drift [dB]	0.00	-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 [%]		79.6
			Dist 3dB Peak [mm]		9.0



System Performance Check Data (5250MHz)

Exposure Conditions

Phantom	Position	Band	Group	Frequency [MHz],	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Section, TSL	Distance [mm]		UID	Channel Number					
Flat, HSL		D5GHZ	CW, 0--	5250.0, 25	5.74	4.59	35.2	22.3	21.0

Hardware Setup

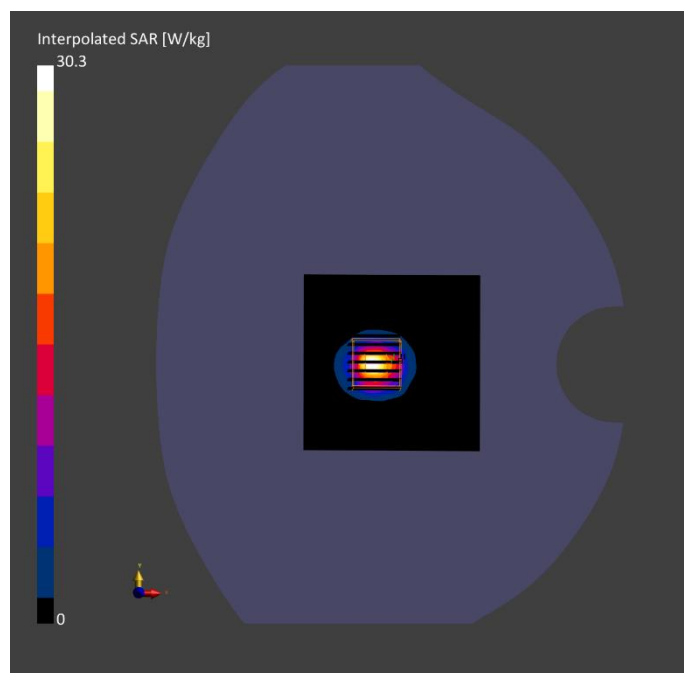
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-23	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-23	2024-12-23
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)

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	5.0	4.96	34.5	22.5	21.1

Hardware Setup

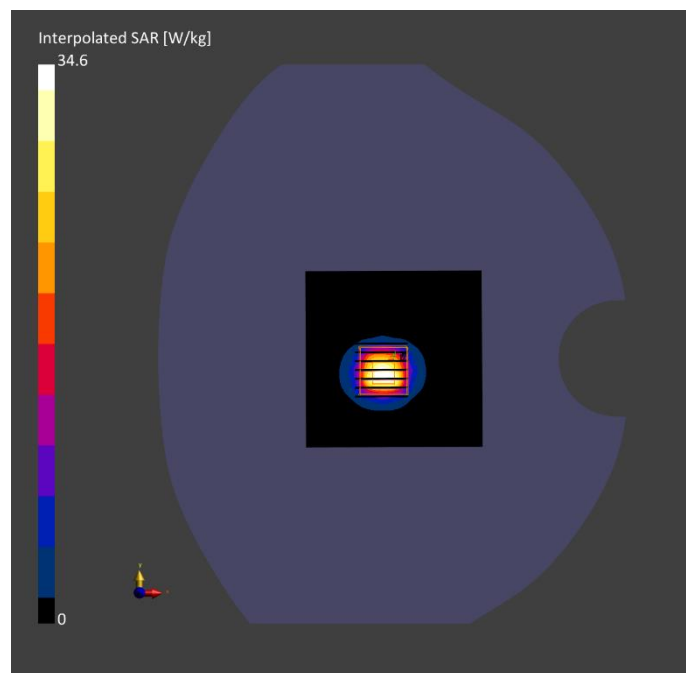
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-24	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-24	2024-12-24
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 [%]		62.3
Dist 3dB Peak [mm]		7.2



System Performance Check Data (5750MHz)

Exposure Conditions

Phantom	Position	Band	Group	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Section, TSL	Test Distance [mm]		UID	Channel Number					
Flat, HSL	FRONT, 5.00	D5GH z	CW, 0--	5750.0, 75	5.04	5.11	34.2	22.1	20.6

Hardware Setup

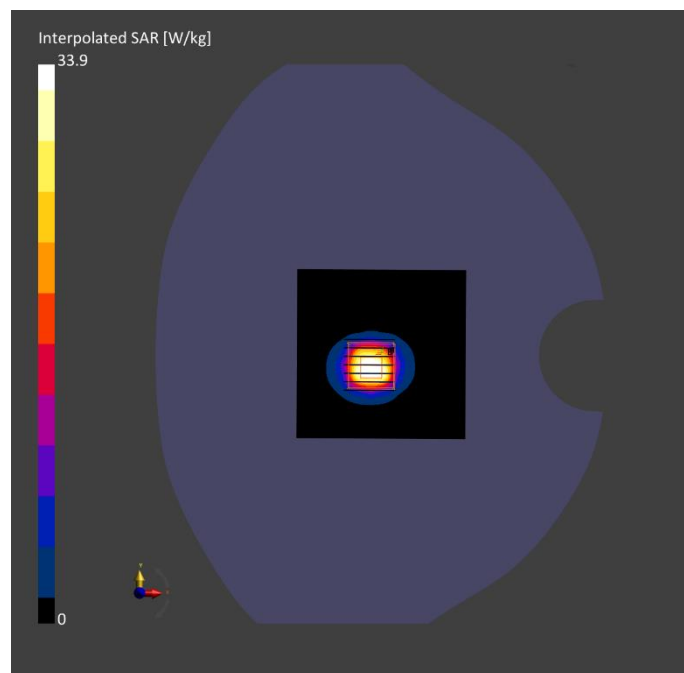
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-25	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-25	2024-12-25
psSAR1g [W/kg]	6.68	7.96
psSAR10g [W/kg]	2.14	2.25
Power Drift [dB]	-0.00	-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

Meas1.Head Right cheek GSM 850 Ch190

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	GSM 850	GSM, 10021- DAC	836.6, 190	9.99	0.874	43.0	22.7	21.3

Hardware Setup

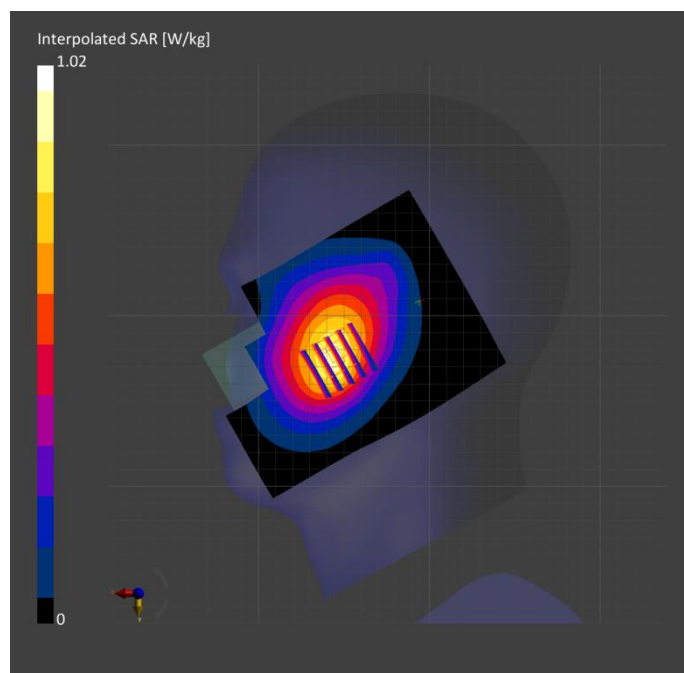
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024- 12-19	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-19	2024-12-19
psSAR1g [W/kg]	0.774	0.821
psSAR10g [W/kg]	0.526	0.618
Power Drift [dB]	-0.01	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		79.4
Dist 3dB Peak [mm]		21.1



Meas2.Hotspot Back Side 10mm GSM 850 Ch190

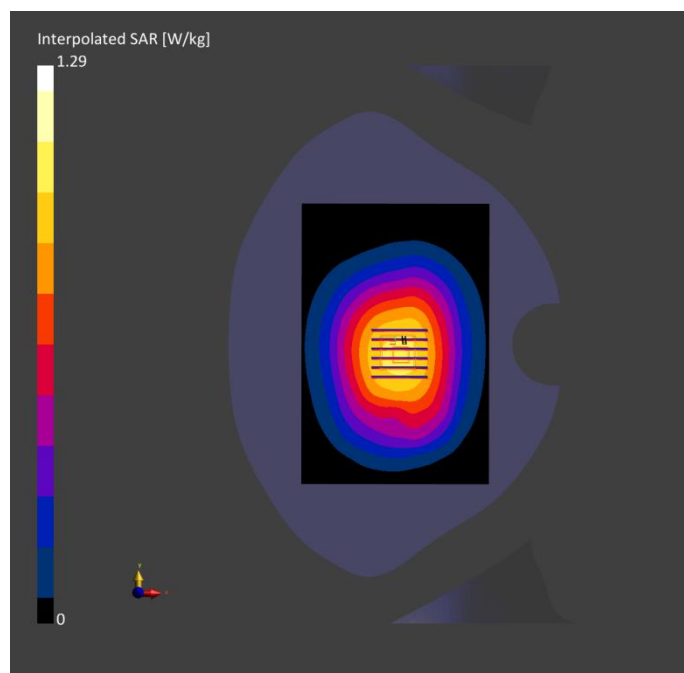
Exposure Conditions

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 [°C]
Flat, HSL	BACK, 10.00	GSM 850	GSM, 10021-DAC	836.6, 190	9.99	0.874	43.0	22.7	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 Charge:2024-12-19	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-19	2024-12-19
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.899	0.951
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.636	0.721
Graded Grid	Yes	Yes	Power Drift [dB]	-0.12	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 [%]		89.8
			Dist 3dB Peak [mm]		> 15.0



Meas3.Head Left cheek GSM 1900 Ch810

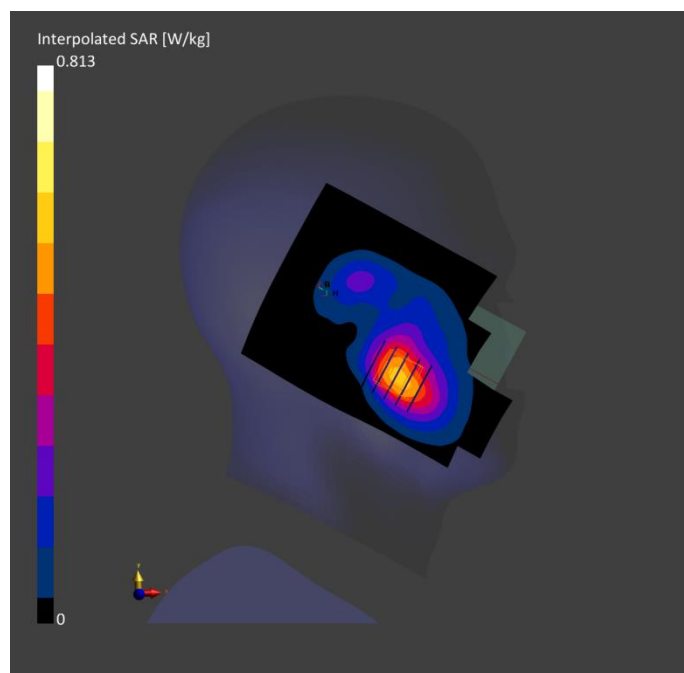
Exposure Conditions

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
LeftHead, HSL	CHEEK, 0.00	PCS 1900	GSM, 10021-DAC	1909.8, 810	8.33	1.45	39.1	22.5	20.9

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-21	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-21	2024-12-21
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.474	0.528
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.275	0.324
Graded Grid	Yes	Yes	Power Drift [dB]	0.11	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 [%]		65.1
			Dist 3dB Peak [mm]		12.9



Meas4.Hotspot Back Side 10mm GSM 1900 Ch810

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 [°C]
Flat, HSL	BACK, 10.00	PCS 1900	GSM, 10021-DAC	1909.8, 810	8.33	1.45	39.1	22.5	20.9

Hardware Setup

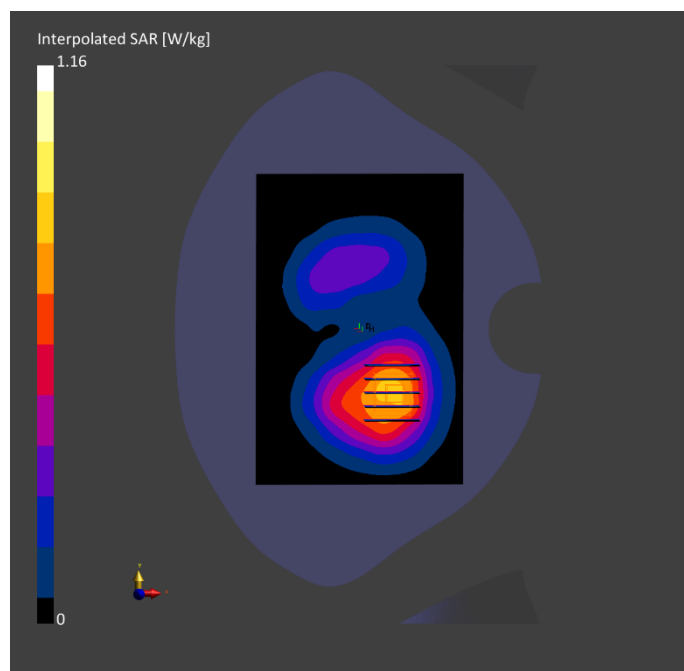
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-21	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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 Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-21	2024-12-21
psSAR1g [W/kg]	0.690	0.723
psSAR10g [W/kg]	0.426	0.442
Power Drift [dB]	0.03	0.08
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		62.3
Dist 3dB Peak [mm]		> 16.0



Meas5.Head Left cheek WCDMA B2 Ch9538

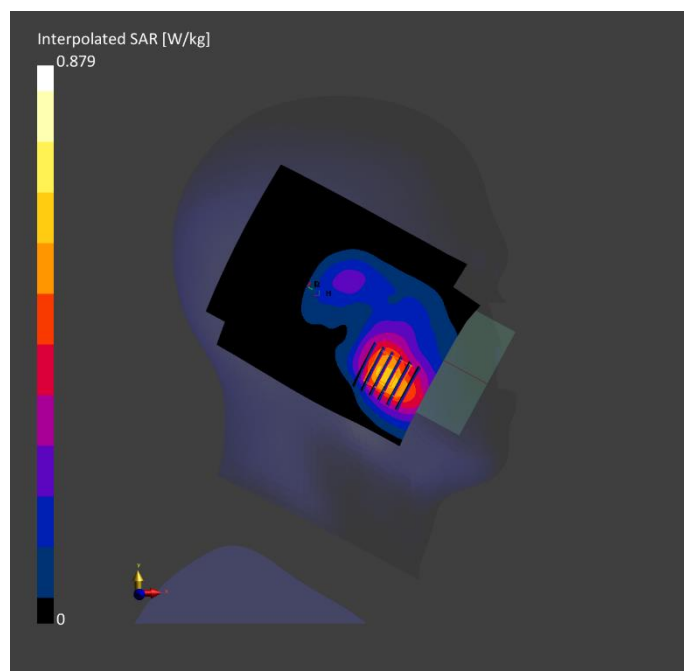
Exposure Conditions

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	CHEEK, 0.00	Band 2, UTRA/FDD	WCDMA, 10457-AAA	1907.6, 9538	8.33	1.45	39.1	22.5	20.9

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-21	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 150.0	32.0 x 32.0 x 30.0	Date	2024-12-21	2024-12-21
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.527	0.577
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.304	0.357
Graded Grid	Yes	Yes	Power Drift [dB]	0.06	0.03
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 [%]		86.7
			Dist 3dB Peak [mm]		12.1



Meas6.Hotspot Back Side 10mm WCDMA B2 Ch9538

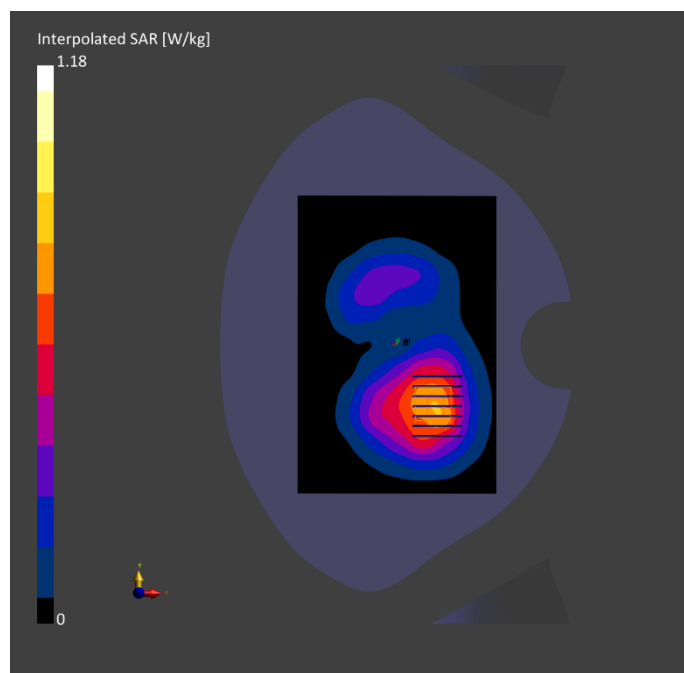
Exposure Conditions

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 2, UTRA/FDD	WCDMA, 10457-AAA	1907.6, 9538	8.33	1.45	39.1	22.5	20.9

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-21	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-21	2024-12-21
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.669	0.707
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.409	0.429
Graded Grid	Yes	Yes	Power Drift [dB]	0.06	-0.14
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 [%]		85.1
			Dist 3dB Peak [mm]		17.3



Meas7.Head Left cheek WCDMA B4 Ch1312

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	CHEEK, 0.00	Band 4, UTRA/FDD	WCDMA, 10274-CAB	1712.4, 1312	8.67	1.35	41.6	22.9	21.4

Hardware Setup

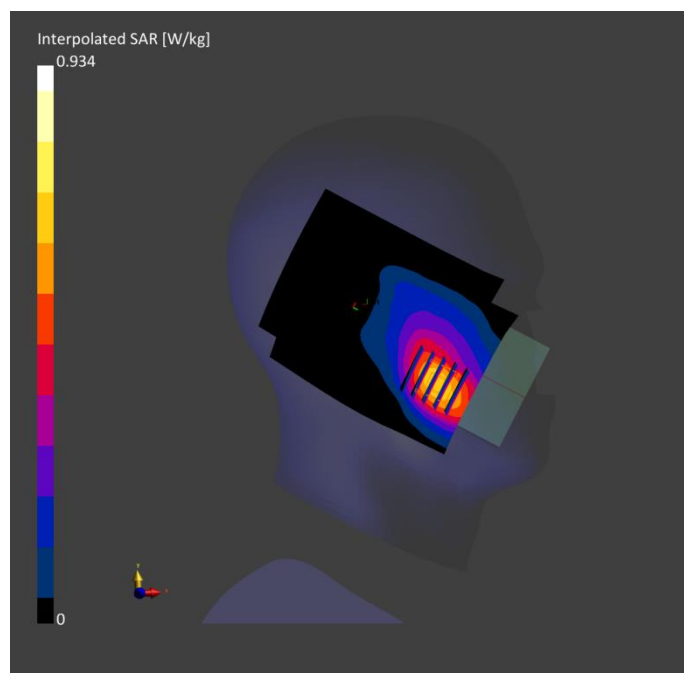
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-20	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 150.0	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 Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-20	2024-12-20
psSAR1g [W/kg]	0.582	0.639
psSAR10g [W/kg]	0.355	0.410
Power Drift [dB]	0.03	0.13
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		68.1
Dist 3dB Peak [mm]		14.7



Meas8.Hotspot Back Side 10mm WCDMA B4 Ch1312

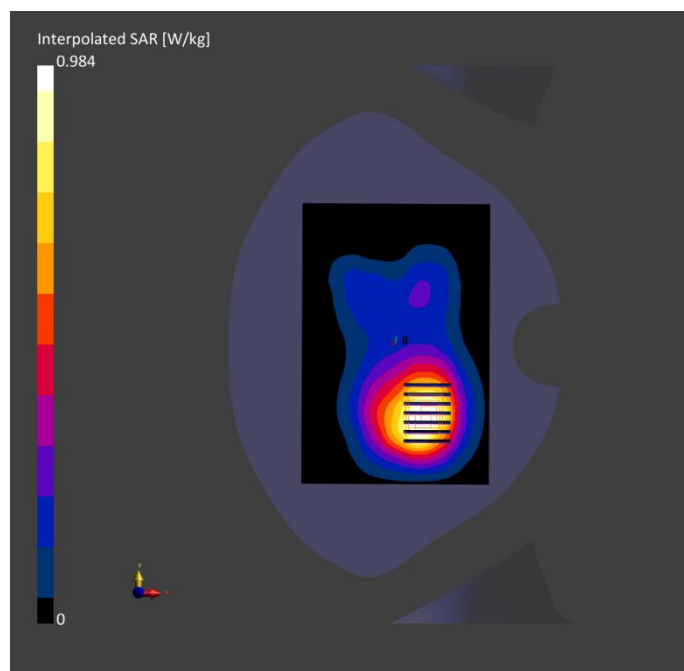
Exposure Conditions

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 4, UTRA/FDD	WCDMA, 10457-AAA	1712.4, 1312	8.67	1.35	41.6	22.9	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 Charge:2024-12-20	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-20	2024-12-20
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.546	0.560
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.340	0.340
Graded Grid	Yes	Yes	Power Drift [dB]	0.05	-0.05
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 [%]		82.2
			Dist 3dB Peak [mm]		17.3



Meas9.Head Left cheek WCDMA B5 Ch4183

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	CHEEK, 0.00	Band 5, UTRA/FDD	WCDMA, 10274-CAB	836.6, 4183	9.99	0.874	43.0	22.7	21.3

Hardware Setup

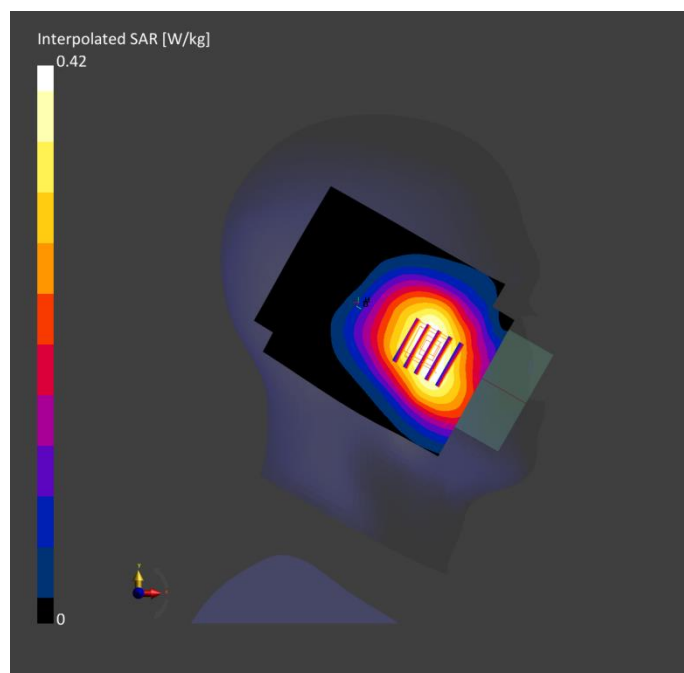
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-19	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 150.0	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 Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-19	2024-12-19
psSAR1g [W/kg]	0.318	0.352
psSAR10g [W/kg]	0.222	0.279
Power Drift [dB]	-0.02	0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		84.6
Dist 3dB Peak [mm]		> 16.0



Meas10.Hotspot Back Side 10mm WCDMA B5 Ch4183

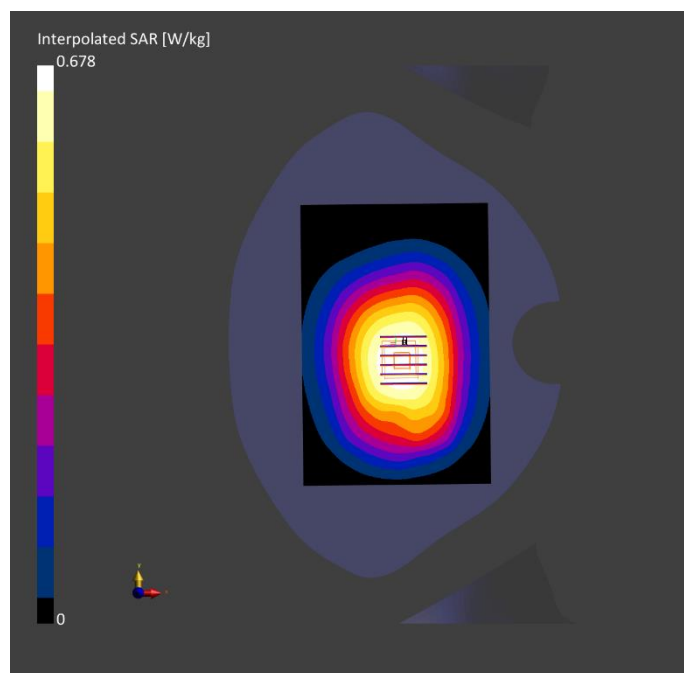
Exposure Conditions

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 5, UTRA/FDD	WCDMA, 10457-AAA	826.4, 4132	9.99	0.865	43.0	22.7	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 Charge:2024-12-19	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-19	2024-12-19
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.484	0.514
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.343	0.394
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 [%]		90.5
			Dist 3dB Peak [mm]		> 15.0



Meas11.Head Right cheek LTE B7 Ch21350

Exposure Conditions

Phantom Section, TSL	Positio n, 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]
RightHea d, HSL	CHEEK, 0.00	Band 7, E- UTRA/FD D	LTE- FDD, 10169 -CAE	2560.0, 21350	7.59	1.99	38.6	22.6	21.0

Hardware Setup

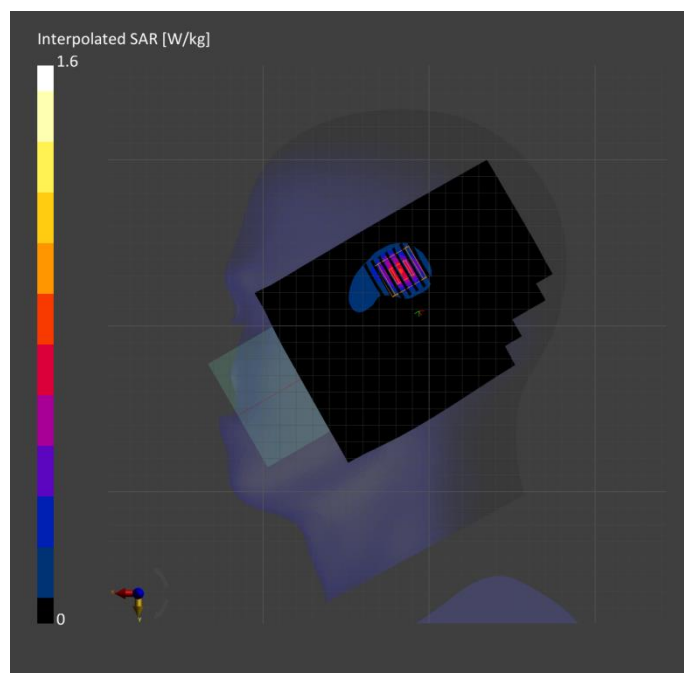
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024- 12-26	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 168.0	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	2024-12-26	2024-12-26
psSAR1g [W/kg]	0.603	0.718
psSAR10g [W/kg]	0.268	0.274
Power Drift [dB]	0.10	-0.14
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		43.2
Dist 3dB Peak [mm]		7.1



Meas12.Hotspot Top Side 10mm LTE B7 Ch21350

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 7, E-UTRA/FDD	LTE-FDD, 10169-CAE	2560.0, 21350	7.59	1.99	38.6	22.6	21.0

Hardware Setup

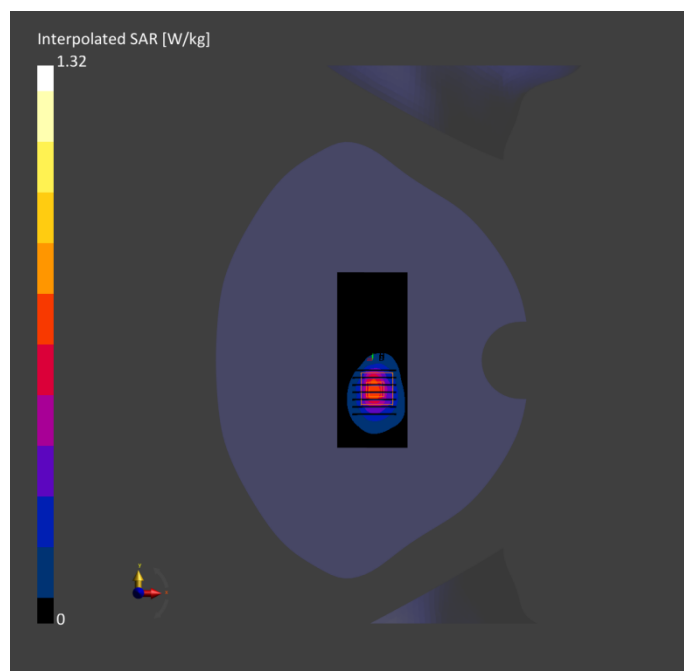
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-26	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	48.0 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	2024-12-26	2024-12-26
psSAR1g [W/kg]	0.584	0.645
psSAR10g [W/kg]	0.263	0.281
Power Drift [dB]	0.10	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.9
Dist 3dB Peak [mm]		8.9



Meas13.Head Right cheek LTE B12 Ch23130

Exposure Conditions

Phantom Section, TSL	Positio n, 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]
RightHea d, HSL	CHEEK, 0.00	Band 12, E- UTRA/FD D	LTE- FDD, 10175 -CAG	711.0, 23130	10.29	0.907	43.9	22.6	21.4

Hardware Setup

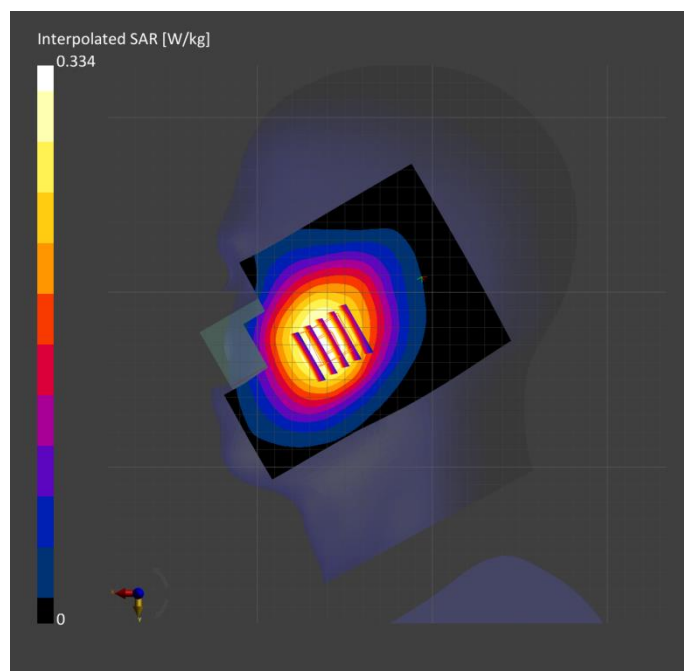
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024- 12-17	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-17	2024-12-17
psSAR1g [W/kg]	0.269	0.287
psSAR10g [W/kg]	0.189	0.230
Power Drift [dB]	-0.15	-0.20
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		86.1
Dist 3dB Peak [mm]		> 16.0



Meas14.Hotspot Back Side 15mm LTE B12 Ch23130

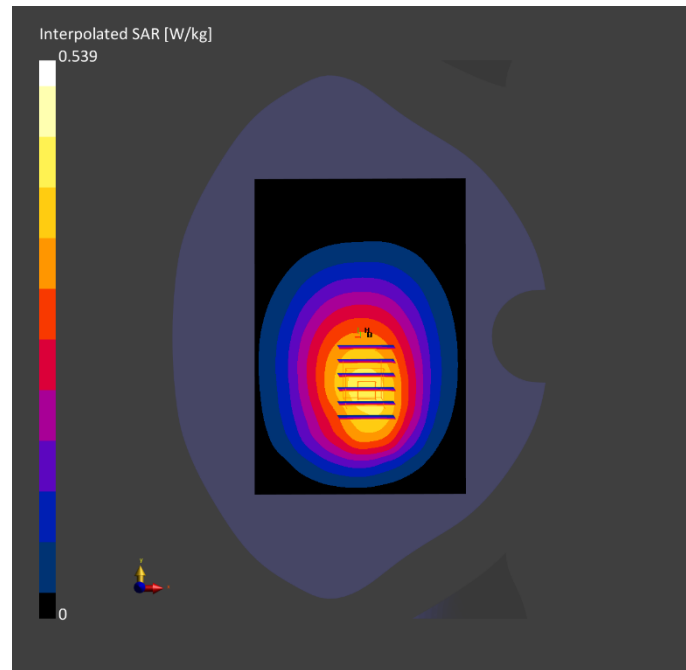
Exposure Conditions

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	Band 12, E-UTRA/FDD	LTE-FDD, 10175-CAG	711.0, 23130	10.29	0.907	43.9	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 Charge:2024-12-17	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-17	2024-12-17
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.381	0.401
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.270	0.299
Graded Grid	Yes	Yes	Power Drift [dB]	0.01	-0.02
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 [%]		73.1
			Dist 3dB Peak [mm]		> 16.0



Meas15.Head Left cheek LTE B13 Ch23230

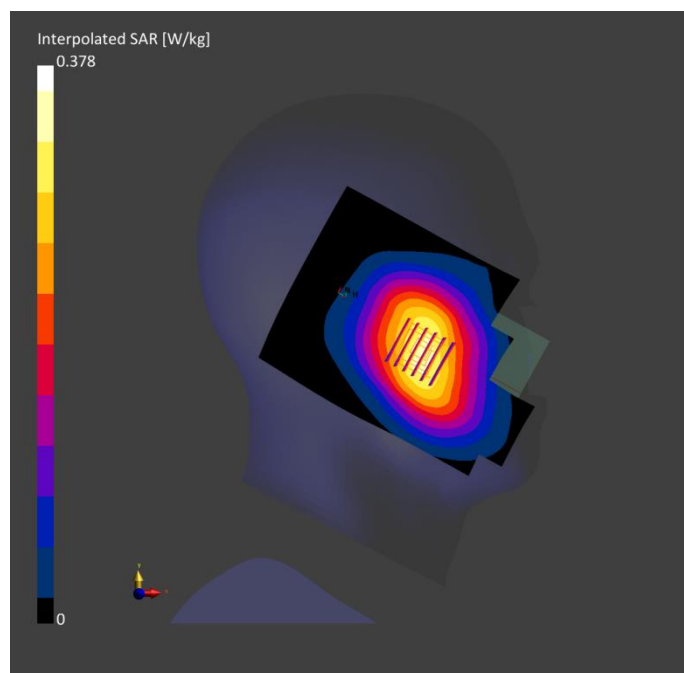
Exposure Conditions

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	CHEEK, 0.00	Band 13, E-UTRA/FDD	LTE-FDD, 10175-CAG	782.0, 23230	10.29	0.911	43.3	22.3	20.8

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-18	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	30.0 x 30.0 x 30.0	Date	2024-12-18	2024-12-18
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5	psSAR1g [W/kg]	0.293	0.315
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.202	0.251
Graded Grid	Yes	Yes	Power Drift [dB]	-0.18	-0.11
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 [%]		94.7
			Dist 3dB Peak [mm]		> 15.0



Meas16.Hotspot Back Side 10mm LTE B13 Ch23230

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, E-UTRA/FDD	LTE-FDD, 10175-CAG	782.0, 23230	10.29	0.911	43.3	22.3	20.8

Hardware Setup

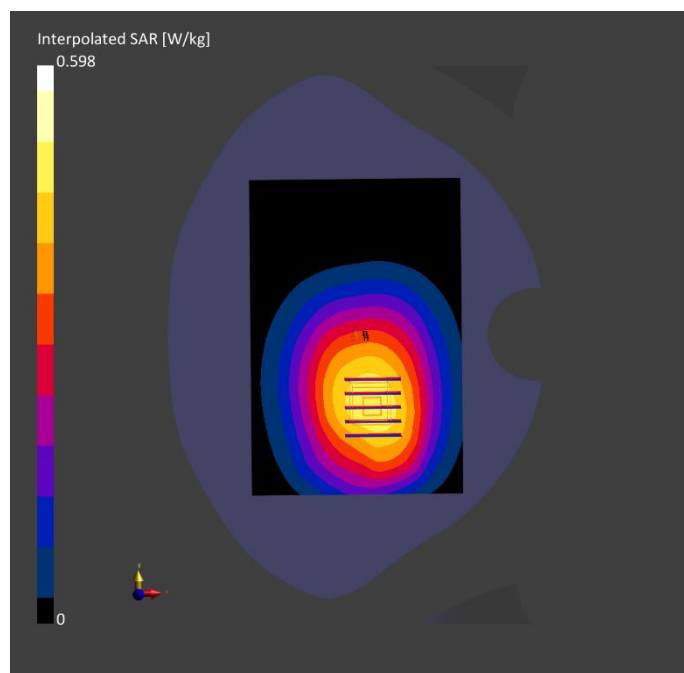
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-18	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-18	2024-12-18
psSAR1g [W/kg]	0.436	0.461
psSAR10g [W/kg]	0.308	0.349
Power Drift [dB]	0.01	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		75.9
Dist 3dB Peak [mm]		> 16.0



Meas17.Head Left cheek LTE B25 Ch26590

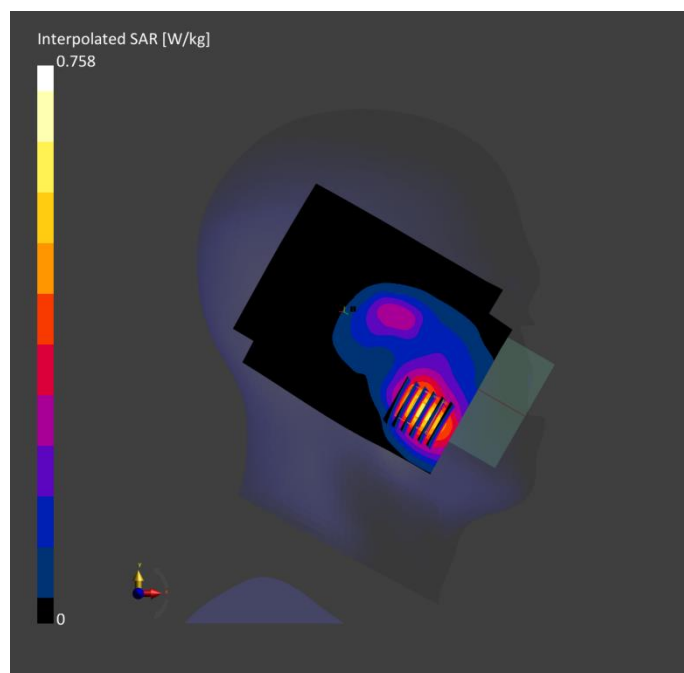
Exposure Conditions

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	CHEEK, 0.00	Band 25, E-UTRA/FDD	LTE-FDD, 10169-CAE	1905.0, 26590	8.33	1.45	39.2	22.5	20.9

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-21	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 150.0	30.0 x 30.0 x 30.0	Date	2024-12-21	2024-12-21
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5	psSAR1g [W/kg]	0.495	0.532
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.283	0.334
Graded Grid	Yes	Yes	Power Drift [dB]	-0.05	-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 [%]		92.6
			Dist 3dB Peak [mm]		13.3



Meas18.Hotspot Back Side 10mm LTE B25 Ch26590

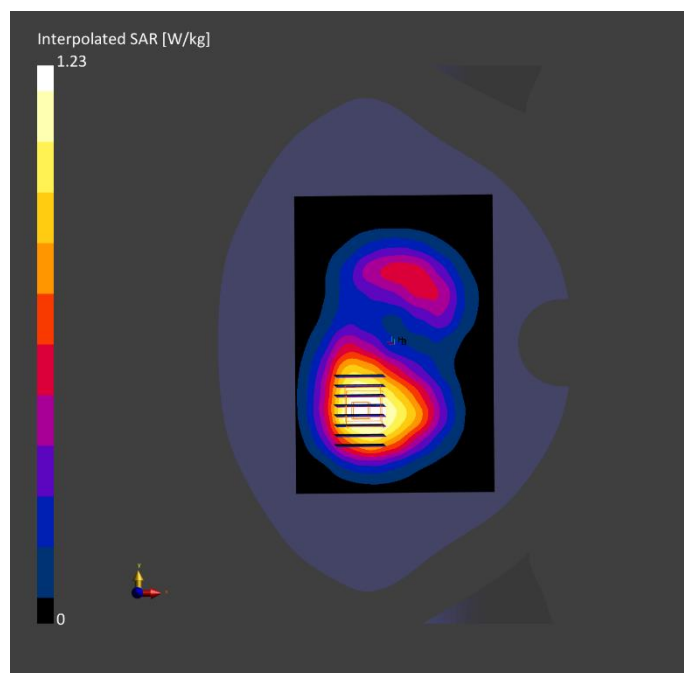
Exposure Conditions

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	FRONT, 10.00	Band 25, E-UTRA/FDD	LTE-FDD, 10169-CAE	1882.5, 26365	8.33	1.45	39.2	22.5	20.9

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-21	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-21	2024-12-21
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.699	0.729
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.435	0.457
Graded Grid	Yes	Yes	Power Drift [dB]	0.05	-0.09
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 [%]		82.9
			Dist 3dB Peak [mm]		19.5



Meas19.Head Left cheek LTE B26 Ch26965

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]
LeftHead, HSL	CHEEK, 0.00	Band 26 E-UTRA/FDD	LTE-FDD, 10181-CAE	841.5, 26965	9.99	0.883	43.0	22.7	21.3

Hardware Setup

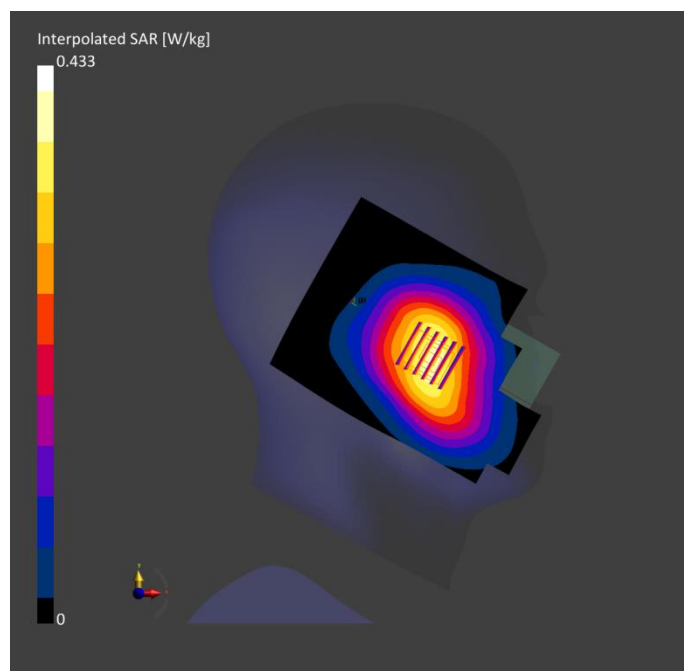
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-19	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-19	2024-12-19
psSAR1g [W/kg]	0.335	0.365
psSAR10g [W/kg]	0.231	0.292
Power Drift [dB]	-0.07	-0.11
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		95.4
Dist 3dB Peak [mm]		> 15.0



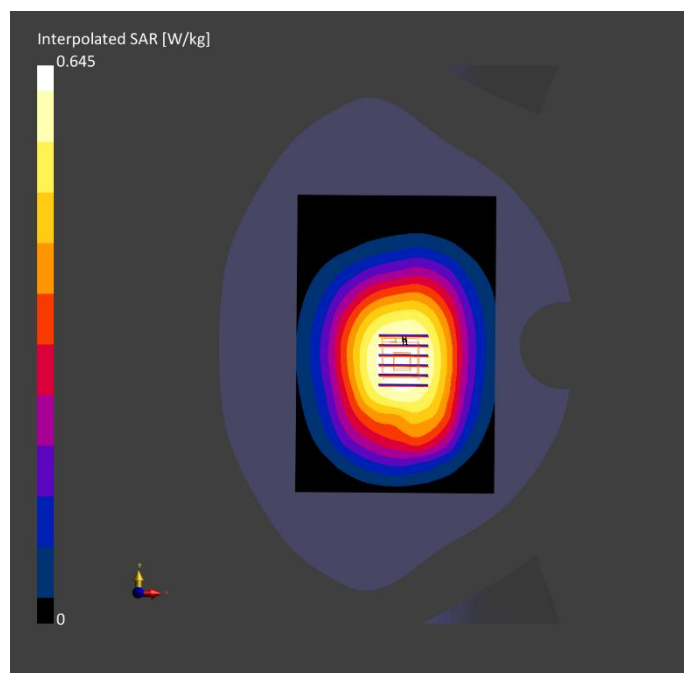
Exposure Conditions

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 [°C]
Flat, HSL	BACK, 10.00	Band 26 E-UTRA/FDD	LTE-FDD, 10181-CAE	831.5, 26865	9.99	0.868	43.0	22.7	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	Charge:2024-12-19	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-19	2024-12-19
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.457	0.485
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.323	0.372
Graded Grid	Yes	Yes	Power Drift [dB]	0.03	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 [%]		90.3
			Dist 3dB Peak [mm]		> 15.0



Meas21.Head Left cheek LTE B66 Ch132072

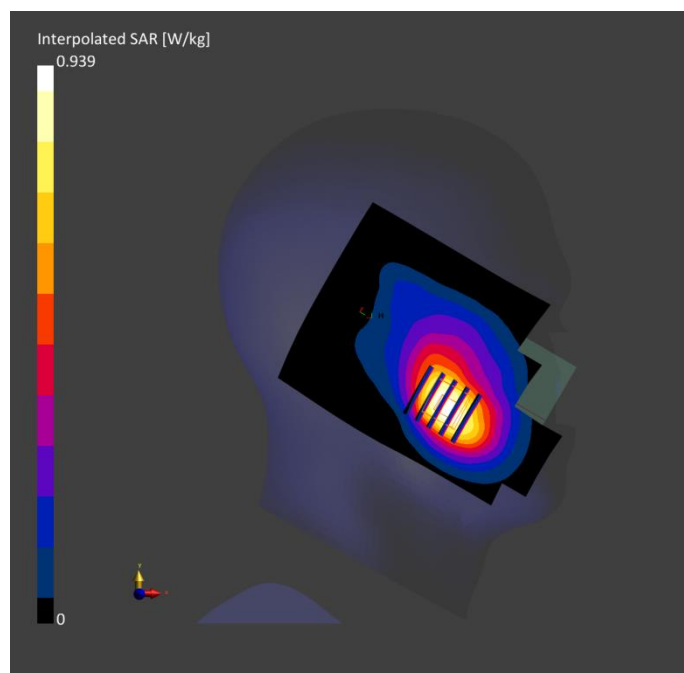
Exposure Conditions

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	CHEEK, 0.00	Band 66, E-UTRA/FDD	LTE-FDD, 10169-CAE	1720.0, 132072	8.67	1.35	41.5	22.9	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 Charge:2024-12-20	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-20	2024-12-20
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.581	0.639
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.354	0.408
Graded Grid	Yes	Yes	Power Drift [dB]	-0.19	0.02
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 [%]		67.9
			Dist 3dB Peak [mm]		15.1



Meas22.Hotspot Left Side 10mm LTE B66 Ch132072

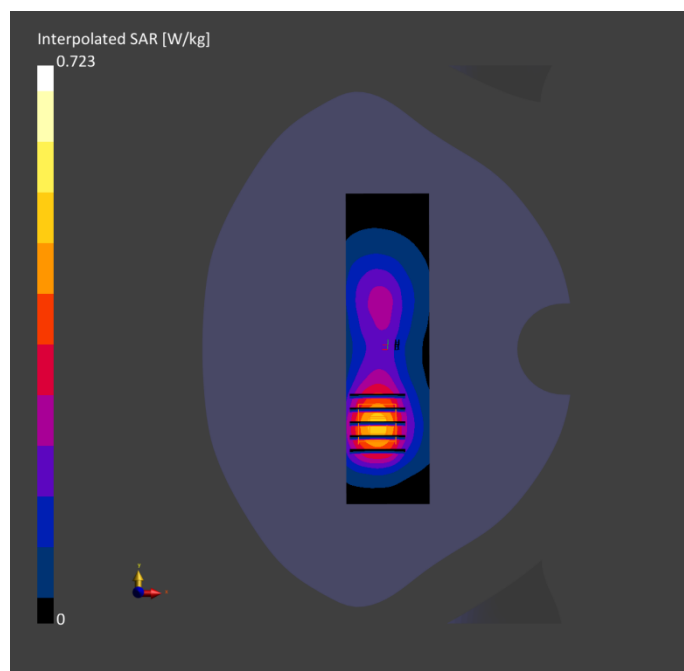
Exposure Conditions

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 LEFT, 10.00	Band 66, E-UTRA/FDD	LTE-FDD, 10169-CAE	1720.0, 132072	8.67	1.35	41.5	22.9	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 Charge:2024-12-20	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	48.0 x 180.0	32.0 x 32.0 x 30.0	Date	2024-12-20	2024-12-20
Grid Steps [mm]	12.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.432	0.442
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.257	0.260
Graded Grid	Yes	Yes	Power Drift [dB]	-0.03	-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 [%]		60.8
			Dist 3dB Peak [mm]		16.0



Meas23.Head Right cheek LTE B71 Ch133372

Exposure Conditions

Phantom Section, TSL	Positio n, 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]
RightHea d, HSL	CHEEK, 0.00	Band 71, E- UTRA/FD D	LTE- FDD, 10169 -CAE	688.0, 133372	10.29	0.88	43.9	22.6	21.4

Hardware Setup

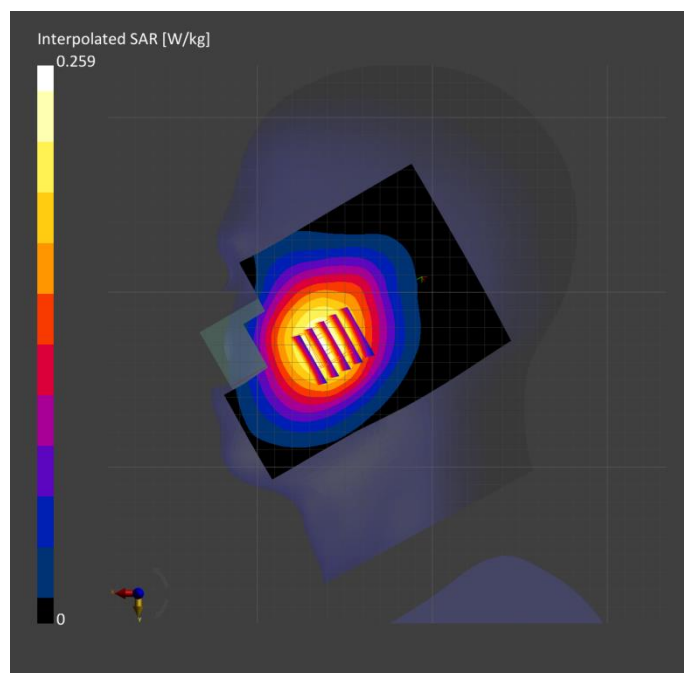
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024- 12-17	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2024-12-17	2024-12-17
psSAR1g [W/kg]	0.212	0.226
psSAR10g [W/kg]	0.150	0.182
Power Drift [dB]	-0.10	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		88.4
Dist 3dB Peak [mm]		> 16.0



Meas24.Hotspot Back Side 10mm LTE B71 Ch133372

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 71, E-UTRA/FDD	LTE-FDD, 10169-CAE	688.0, 133372	10.29	0.88	43.9	22.6	21.4

Hardware Setup

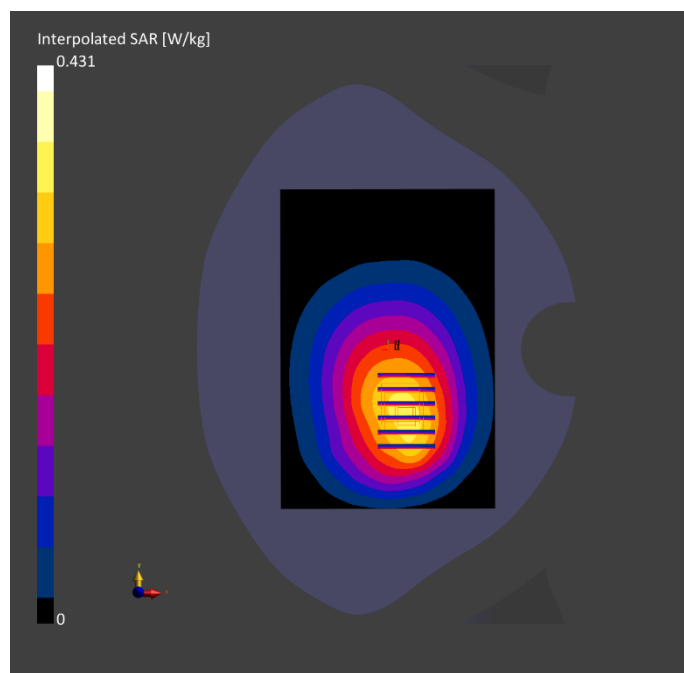
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-17	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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 Surface	N/A	N/A
Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2024-12-17	2024-12-17
psSAR1g [W/kg]	0.303	0.314
psSAR10g [W/kg]	0.214	0.232
Power Drift [dB]	-0.01	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		72.6
Dist 3dB Peak [mm]		> 16.0



Meas25.Head Right cheek LTE B38 Ch38150

Exposure Conditions

Phantom Section, TSL	Positio n, 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]
RightHea d, HSL	CHEEK, 0.00	Band 38, E- UTRA/TD D	LTE- TDD, 10435 -AAF	2610.0, 38150	7.59	2.01	38.3	22.6	21.0

Hardware Setup

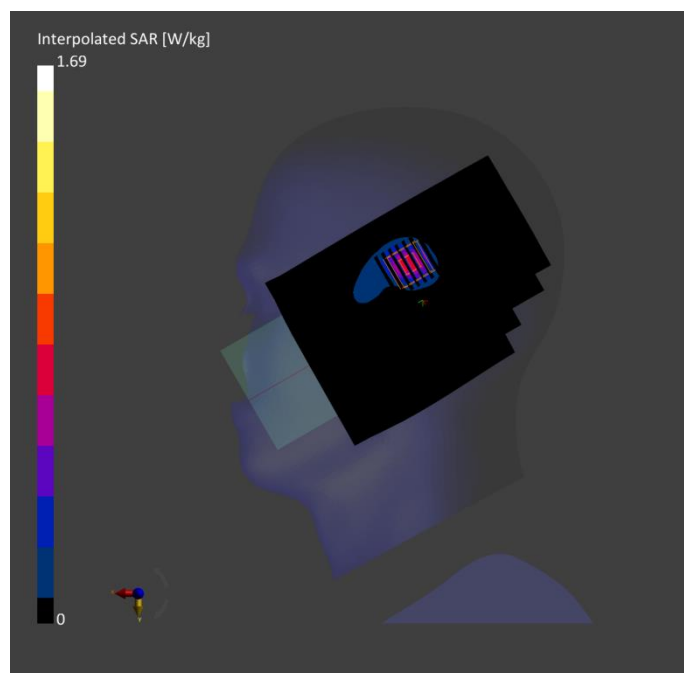
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024- 12-26	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 168.0	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	2024-12-26	2024-12-26
psSAR1g [W/kg]	0.609	0.755
psSAR10g [W/kg]	0.273	0.287
Power Drift [dB]	-0.13	-0.18
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		44.6
Dist 3dB Peak [mm]		6.7



Meas26.Hotspot Top Side 10mm LTE B38 Ch38150

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 38, E-UTRA/TDD	LTE-TDD, 10435-AAF	2610.0, 38150	7.59	2.01	38.3	22.6	21.0

Hardware Setup

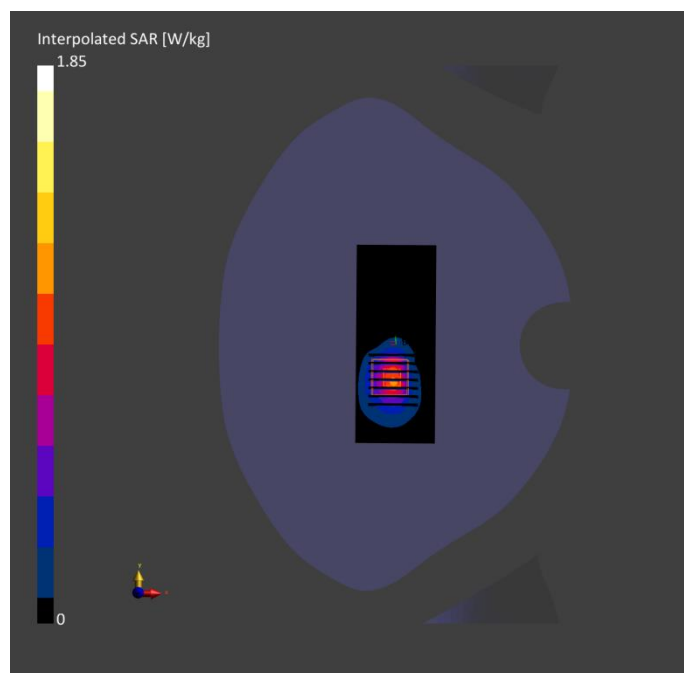
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-26	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	48.0 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	2024-12-26	2024-12-26
psSAR1g [W/kg]	0.854	0.901
psSAR10g [W/kg]	0.383	0.394
Power Drift [dB]	0.03	-0.07
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		48.8
Dist 3dB Peak [mm]		8.9



Meas27.Head Right cheek LTE B41 Ch41140

Exposure Conditions

Phantom Section, TSL	Positio n, 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]
RightHea d, HSL	CHEEK, 0.00	Band 41, E- UTRA/TD D	LTE- TDD, 10435 -AAF	2645.0, 41140	7.59	2.02	38.2	22.0	20.7

Hardware Setup

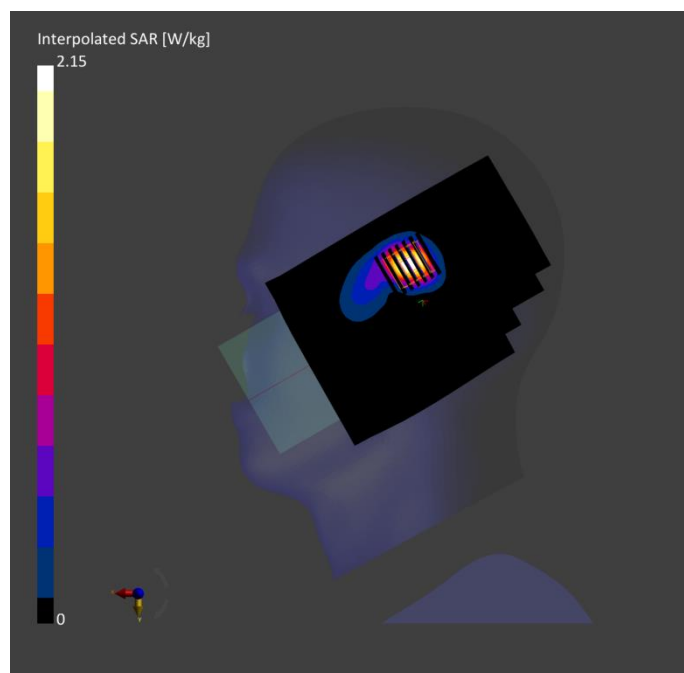
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024- 12-27	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 168.0	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	2024-12-27	2024-12-27
psSAR1g [W/kg]	0.749	0.951
psSAR10g [W/kg]	0.336	0.361
Power Drift [dB]	-0.02	0.15
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		44.0
Dist 3dB Peak [mm]		6.3



Meas28.Hotspot Top Side 10mm LTE B41 Ch41140

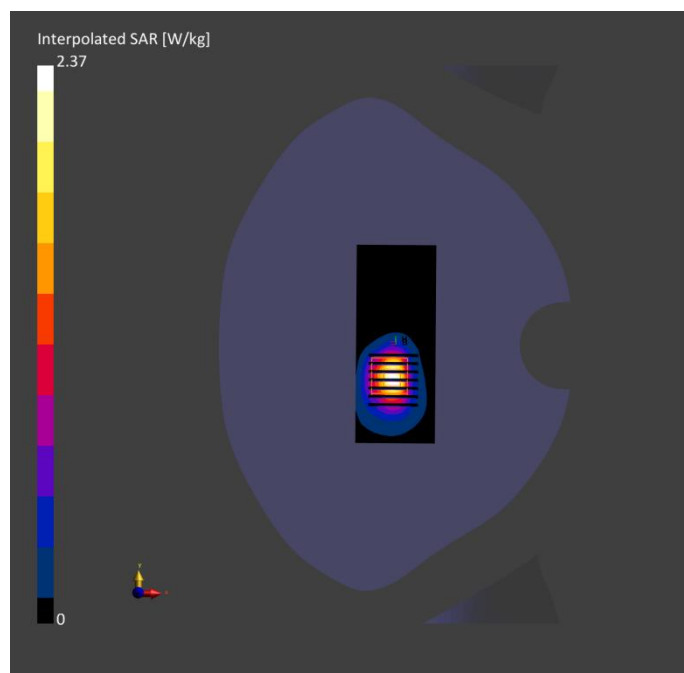
Exposure Conditions

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, E-UTRA/TDD	LTE-TDD, 10435-AAF	2645.0, 41140	7.59	2.02	38.2	22.0	20.7

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-27	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	48.0 x 120.0	30.0 x 30.0 x 30.0	Date	2024-12-27	2024-12-27
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0	psSAR1g [W/kg]	1.08	1.14
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.481	0.494
Graded Grid	Yes	Yes	Power Drift [dB]	0.08	-0.02
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 [%]		48.5
			Dist 3dB Peak [mm]		8.5



Meas29.Head Left cheek WLAN 2.4G Ch1

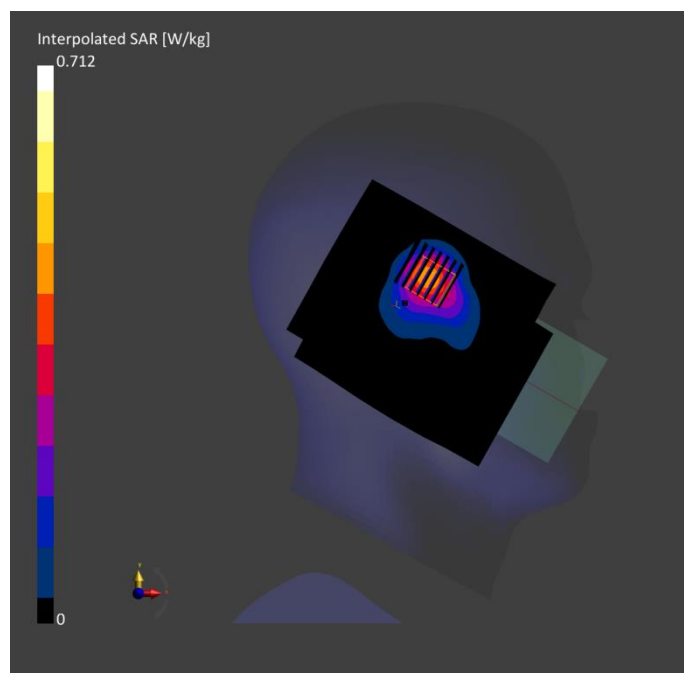
Exposure Conditions

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	CHEEK, 0.00	WLAN 2.4GHz	WLAN 10315-AAB	2412.0, 1	7.75	1.81	38.7	22.8	21.2

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-22	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 144.0	30.0 x 30.0 x 30.0	Date	2024-12-22	2024-12-22
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0	psSAR1g [W/kg]	0.375	0.388
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.193	0.204
Graded Grid	Yes	Yes	Power Drift [dB]	0.03	0.09
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 [%]		81.8
			Dist 3dB Peak [mm]		11.9



Meas30.Hotspot Back Side 10mm WLAN 2.4G Ch1

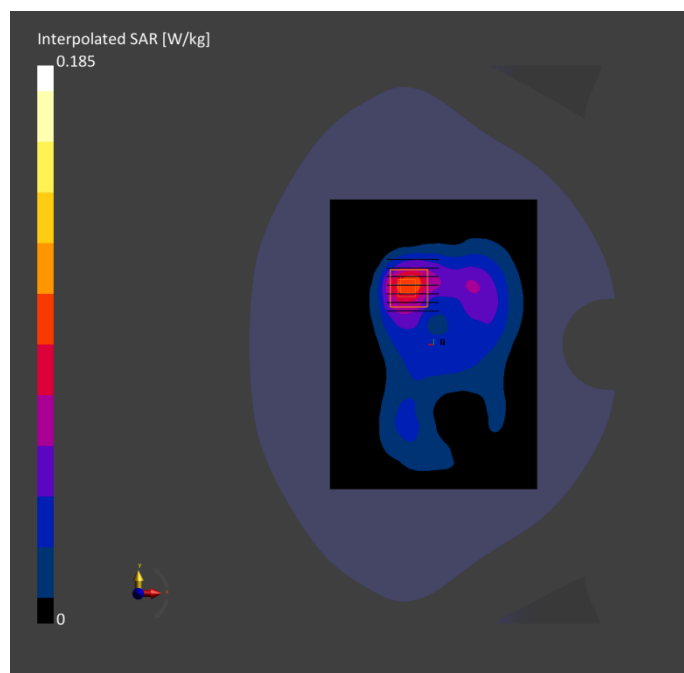
Exposure Conditions

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	2412.0, 1	7.75	1.81	38.7	22.8	21.2

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-22	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 168.0	30.0 x 30.0 x 30.0	Date	2024-12-22	2024-12-22
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0	psSAR1g [W/kg]	0.085	0.087
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.043	0.042
Graded Grid	Yes	Yes	Power Drift [dB]	-0.06	-0.07
Grading Ratio	1.5	1.5	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 [%]		45.4
			Dist 3dB Peak [mm]		11.7



Meas31.Head Left cheek WLAN 5.3G Ch60

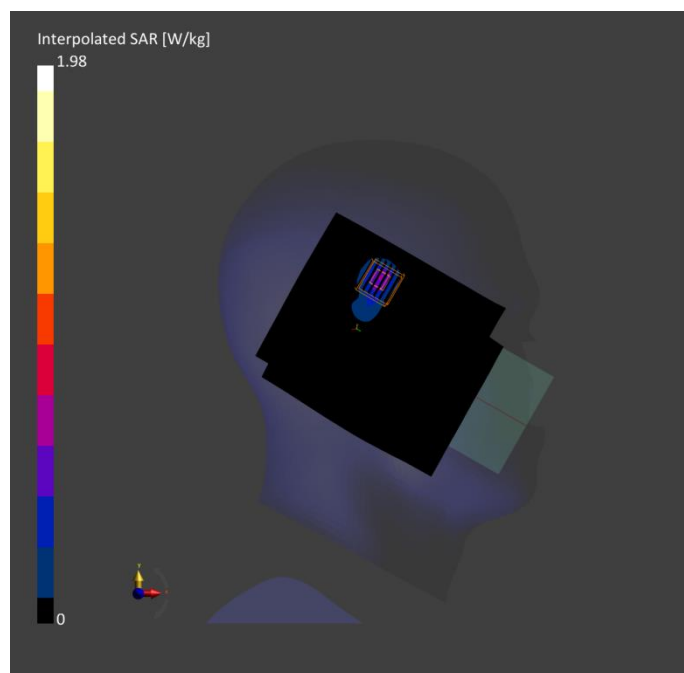
Exposure Conditions

Phantom	Position, Test	Band	Group	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
LeftHead, HSL	CHEEK, 0.00	WLAN, N 5GHz	WLAN, 10317-AAD	5300.0, 60	5.5	4.65	35.1	22.3	21.0

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-23	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 140.0	24.0 x 24.0 x 22.0	Date	2024-12-23	2024-12-23
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	0.455	0.496
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.156	0.136
Graded Grid	Yes	Yes	Power Drift [dB]	0.10	0.11
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 [%]		53.6
			Dist 3dB Peak [mm]		6.4



Meas32.Head Left cheek WLAN 5.6G Ch140

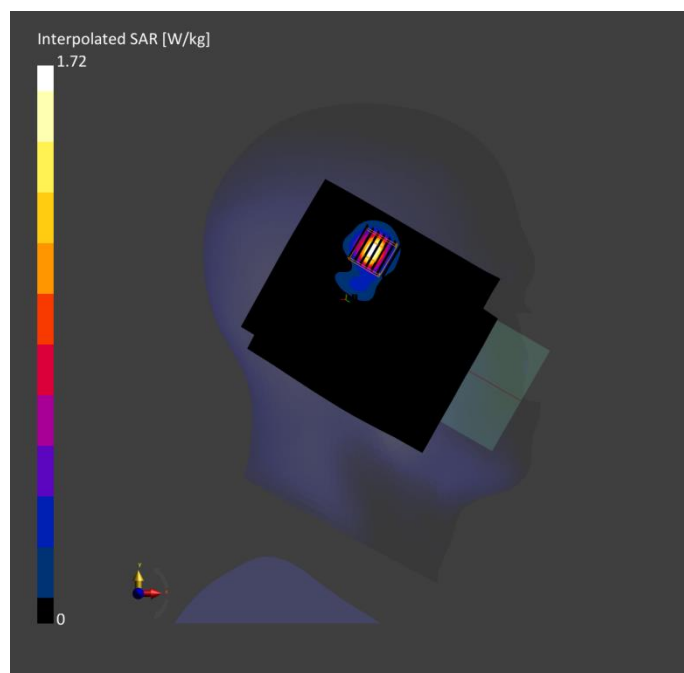
Exposure Conditions

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	CHEEK, 0.00	U-NII-2C Standalone	WLAN, 10317-AAD	5700.0, 140	5.0	5.07	34.3	22.5	21.1

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-24	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 140.0	24.0 x 24.0 x 22.0	Date	2024-12-24	2024-12-24
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	0.338	0.397
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.101	0.099
Graded Grid	Yes	Yes	Power Drift [dB]	0.14	0.05
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 [%]		60.4
			Dist 3dB Peak [mm]		6.4



Meas33.Head Left cheek WLAN 5.8G Ch157

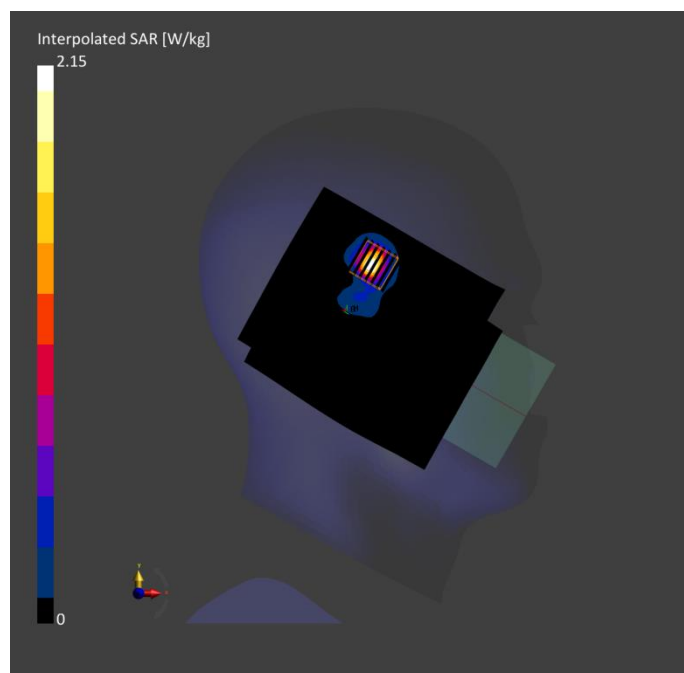
Exposure Conditions

Phantom	Position, Test	Band	Group	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
LeftHead, HSL	CHEEK, 0.00	WLAN, N	WLAN, 10317-AAD	5785.0, 157	5.04	5.14	34.1	22.1	20.6

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-25	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 140.0	24.0 x 24.0 x 22.0	Date	2024-12-25	2024-12-25
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	0.425	0.485
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.118	0.118
Graded Grid	Yes	Yes	Power Drift [dB]	-0.12	-0.20
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 [%]		60.5
			Dist 3dB Peak [mm]		6.0



Meas34.Hotspot Back Side 10mm WLAN 5.3G Ch60

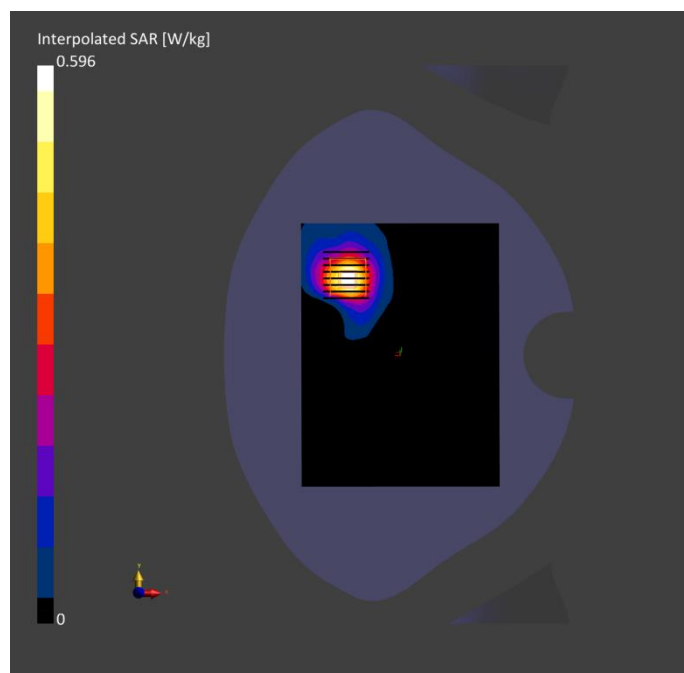
Exposure Conditions

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	WLAN, 10317-AAD	5300.0, 60	5.5	4.65	35.1	22.3	21.0

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-23	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 160.0	24.0 x 24.0 x 22.0	Date	2024-12-23	2024-12-23
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	0.171	0.161
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.065	0.057
Graded Grid	Yes	Yes	Power Drift [dB]	0.16	0.20
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 [%]		53.5
			Dist 3dB Peak [mm]		10.1



Meas35.Hotspot Back Side 10mm WLAN 5.6G Ch140

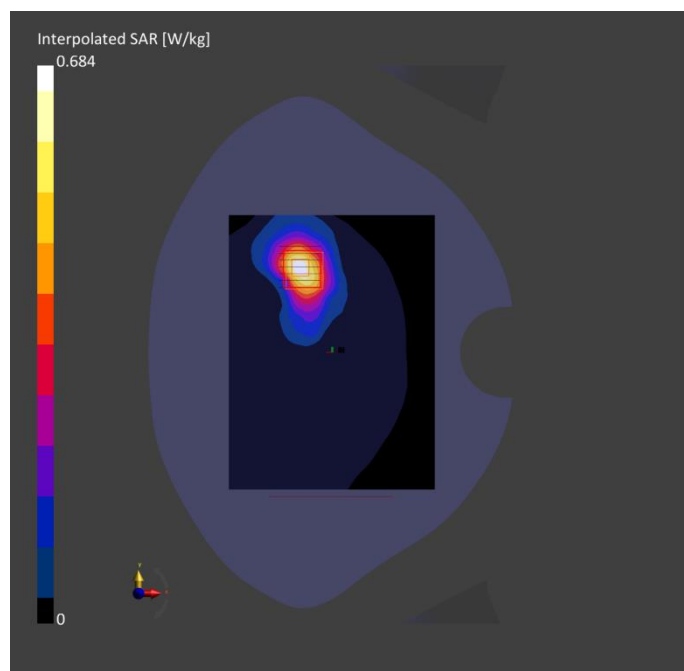
Exposure Conditions

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	WLAN, 10317-AAD	5700.0, 140	5.0	5.07	34.3	22.5	21.1

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-24	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 160.0	24.0 x 24.0 x 22.0	Date	2024-12-24	2024-12-24
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	0.168	0.179
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.064	0.064
Graded Grid	Yes	Yes	Power Drift [dB]	0.01	0.13
Grading Ratio	1.5	1.4	Power Scaling	Disabled	Disabled
MAIA	Y	Y	Scaling Factor [dB]		
Surface Detection	All points	All points	TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		48.1
			Dist 3dB Peak [mm]		10.2



Meas36.Hotspot Right Side 10mm WLAN 5.2G Ch40

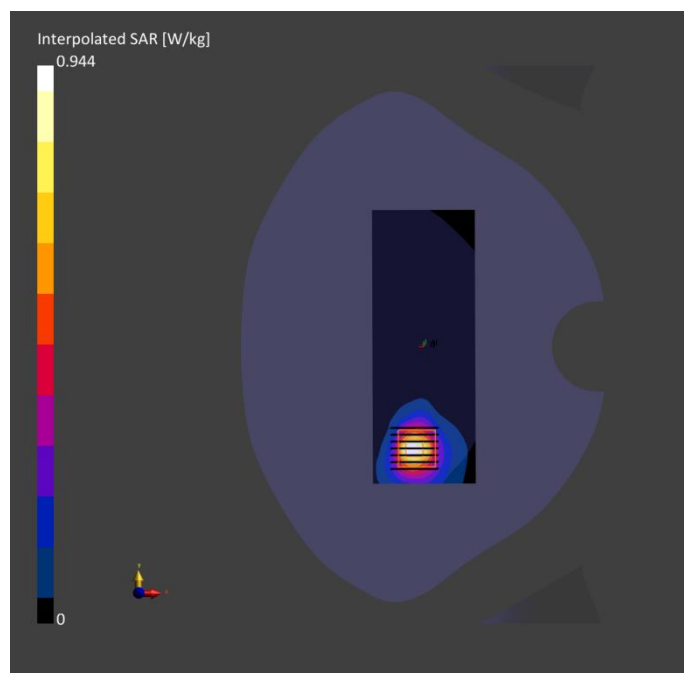
Exposure Conditions

Phantom	Position, Test	Band	Group	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Section, TSL	Distance [mm]		UID						
Flat, HSL	EDGE RIGHT, 10.00	WLAN N 5GHz	WLAN, 10317-AAD	5200.0, 40	5.74	4.55	35.1	22.3	21.0

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-23	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 160.0	24.0 x 24.0 x 22.0	Date	2024-12-23	2024-12-23
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	0.234	0.258
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.084	0.086
Graded Grid	Yes	Yes	Power Drift [dB]	0.14	-0.05
Grading Ratio	1.5	1.4	Power Scaling	Disabled	Disabled
MAIA	Y	Y	Scaling Factor		
Surface	All points	All points	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		53.2
			Dist 3dB Peak [mm]		8.0



Meas37.Hotspot Back Side 10mm WLAN 5.8G Ch157

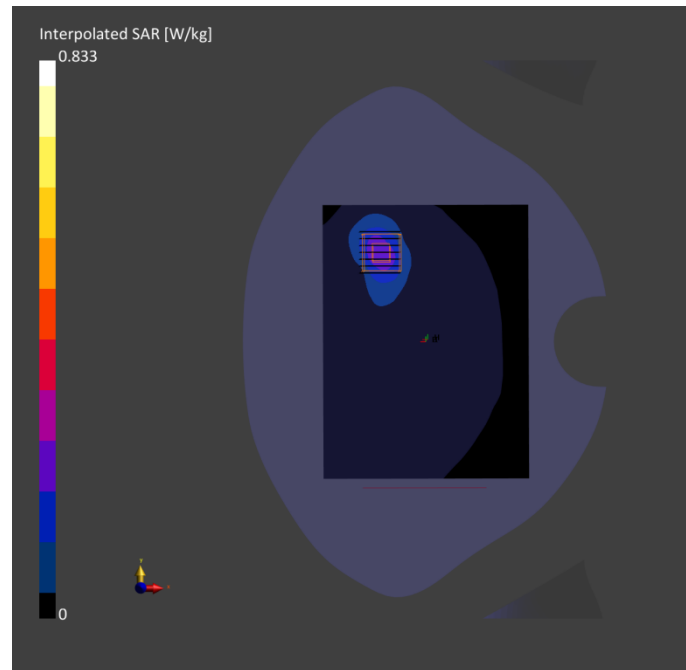
Exposure Conditions

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	WLAN, 10317-AAD	5785.0, 157	5.04	5.14	34.1	22.1	20.6

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-25	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 160.0	24.0 x 24.0 x 22.0	Date	2024-12-25	2024-12-25
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	0.207	0.207
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.079	0.075
Graded Grid	Yes	Yes	Power Drift [dB]	0.11	0.15
Grading Ratio	1.5	1.4	Power Scaling	Disabled	Disabled
MAIA	Y	Y	Scaling Factor		
Surface	All points	All points	[dB]		
Detection			TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		46.9
			Dist 3dB Peak [mm]		9.8



Meas38.Specific Right Side 0mm WLAN 5.3G Ch64

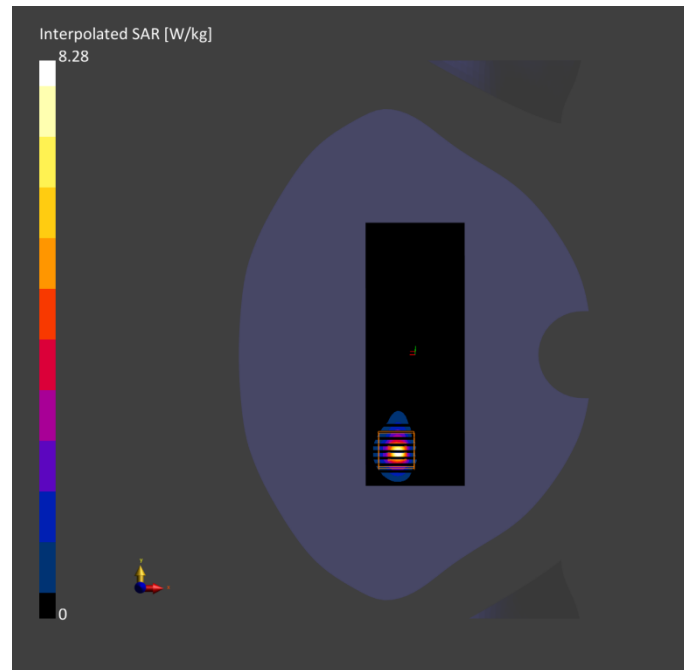
Exposure Conditions

Phantom	Position, Test	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE RIGHT, 0.00	WLAN	WLAN, 10317-AAD	5320.0, 64	5.5	4.65	35.1	22.3	21.0

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-23	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 160.0	24.0 x 24.0 x 22.0	Date	2024-12-23	2024-12-23
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	1.67	1.76
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.426	0.422
Graded Grid	Yes	Yes	Power Drift [dB]	0.16	0.03
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 [%]		48.3
			Dist 3dB Peak [mm]		4.9



Meas39.Specific Back Side 0mm WLAN 5.6G Ch116

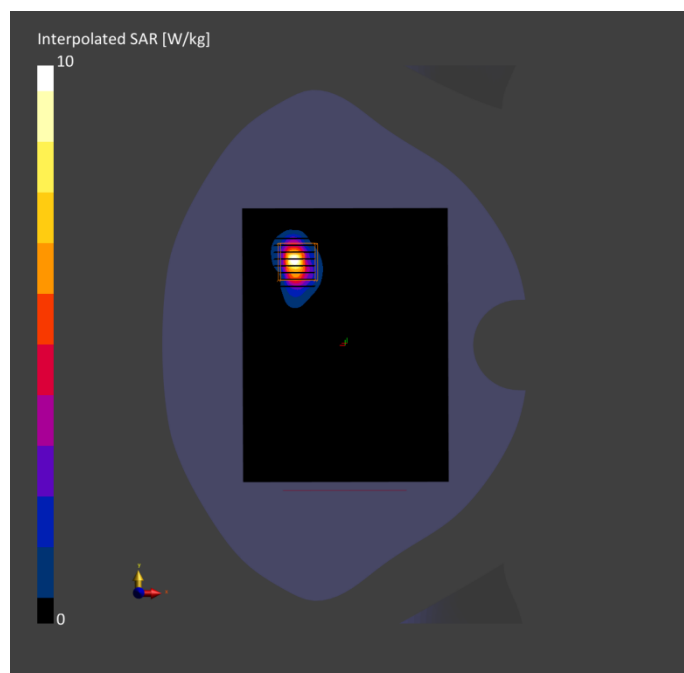
Exposure Conditions

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, 0.00	WLAN 5GHz	WLAN, 10317-AAD	5580.0, 116	5.0	4.94	34.5	22.5	21.1

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-25	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 160.0	24.0 x 24.0 x 22.0	Date	2024-12-25	2024-12-25
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0	psSAR1g [W/kg]	2.01	2.02
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.566	0.560
Graded Grid	Yes	Yes	Power Drift [dB]	0.17	-0.08
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 [%]		41.7
			Dist 3dB Peak [mm]		4.0



Meas40.Head Left cheek BT DH5 Ch39

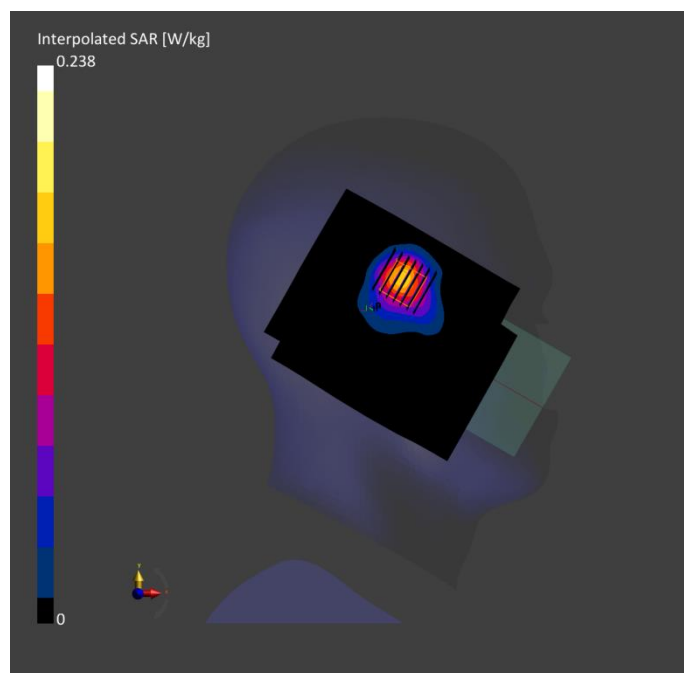
Exposure Conditions

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	CHEEK, 0.00	ISM 2.4 GHz Band	Bluetooth, 10670-AAA	2441.0, 39	7.75	1.83	38.7	22.8	21.2

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-22	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 144.0	30.0 x 30.0 x 30.0	Date	2024-12-22	2024-12-22
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0	psSAR1g [W/kg]	0.137	0.126
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.069	0.063
Graded Grid	Yes	Yes	Power Drift [dB]	-0.14	0.10
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA Surface	Y	Y	Scaling Factor [dB]		
Detection	VMS + 6p	VMS + 6p	TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		51.8
			Dist 3dB Peak [mm]		10.2



Meas41.Hotspot Front Side 10mm BT DH5 Ch39

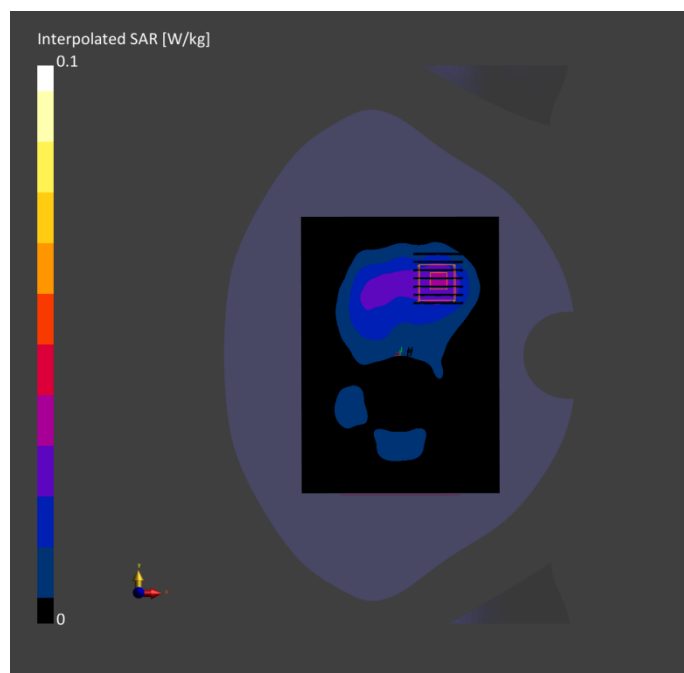
Exposure Conditions

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	FRONT, 10.00	ISM 2.4 GHz Band	Bluetooth , 10670-AAA	2441.0, 39	7.75	1.83	38.7	22.8	21.2

Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 Charge:2024-12-22	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 168.0	30.0 x 30.0 x 30.0	Date	2024-12-22	2024-12-22
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0	psSAR1g [W/kg]	0.029	0.029
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.016	0.015
Graded Grid	Yes	Yes	Power Drift [dB]	0.04	-0.16
Grading Ratio	1.5	1.5	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 [%]		52.2
			Dist 3dB Peak [mm]		> 15.0



ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ24C0923-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SZ24C0923-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SZ24C0923-AC.pdf”.

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