

# TEST REPORT

**Applicant:** INFINIX MOBILITY LIMITED  
**Address:** FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG  
**Equipment Type:** Mobile phone  
**Model Name:** X6880  
**Brand Name:** Infinix  
**FCC ID:** 2AIZN-X6880  
**Test Standard:** FCC 47 CFR Part 2.1093 (refer to section 3.1)  
**Maximum SAR:** Head (1 g@0mm): 0.71 W/kg  
Body-worn (1 g@10mm): 0.83 W/kg  
Hotspot (1 g@10mm): 0.83W/kg  
Specific (10 g@0mm): 1.49 W/kg  
**Sample Arrival Date:** Jun. 27, 2024  
**Test Date:** Jul. 14, 2024 - Aug. 02, 2024  
**Date of Issue:** Aug. 13, 2024

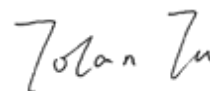
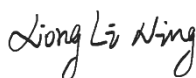
**ISSUED BY:**

Shenzhen BALUN Technology Co., Ltd.

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(Testing Director)



<b>Revision History</b>		
Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Aug. 13, 2024</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	<input type="checkbox"/> Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	<input checked="" type="checkbox"/> 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	INFINIX MOBILITY LIMITED
Address	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

### 2.2 Manufacturer Information

Manufacturer	INFINIX MOBILITY LIMITED
Address	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

### 2.3 General Description for Equipment under Test (EUT)

EUT Name	Mobile phone
Model Name Under Test	X6880
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

### 2.4 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	N/A
	Model No.	BL-49UX
	Serial No.	N/A
	Capacity	Rated: 4900mAh/19.16Wh Typical: 5000mAh/19.55Wh
	Rated Voltage	3.91 V
	Limit Charge Voltage	4.50 V
Ancillary Equipment 2	Headset	
	Length (Approx.)	1.2m

## 2.5 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network LTE FDD Band 2/4/5/7 LTE TDD Band 38/41 LTE CA Uplink (UL): CA_2C, CA_5B, CA_7C, CA_38C, CA_41C Bluetooth (BR+EDR+BLE) WIFI 802.11a, 802.11b, 802.11g, 802.11n(HT20/40) and 802.11ac(VHT20/40/80) GPS, GLONASS, BDS, Galileo, FM Receiver, NFC
<b>Note:</b> 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 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		
NFC	13.56 MHz		
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna NFC: Coil Antenna		
DTM	N/A		
Hotspot Function	Support		
Power Reduction	Support		
Exposure Category	General Population/Uncontrolled exposure		

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Product Type	Portable Device	
EUT Type	<input checked="" type="checkbox"/> Production unit	<input type="checkbox"/> Identical prototype



### 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 D05A v01r02	REL. 10 LTE SAR TEST GUIDANCE AND KDB INQUIRIES
8	KDB 941225 D06 v02r01	SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES
9	KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
10	KDB 865664 D02 v01r02	RF Exposure Reporting
11	KDB 648474 D04 v01r03	SAR EVALUATION CONSIDERATIONS FOR WIRELESS HANDSETS
12	KDB 248227 D01 v02r02	SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS

### 3.2 Device Category and SAR Limit

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

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

Table of Exposure Limits:

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

**NOTE:**

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

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

### 3.3 Test Result Summary

#### 3.3.1 Highest SAR Values

Equipment Class	Band	Maximum Scaled SAR (W/kg)				Maximum Report SAR (W/kg)			
		Head (0mm)	Body-worn (10mm)	Hotspot (10mm)	Specific (0mm)	Head (0mm)	Body-worn (10mm)	Hotspot (10mm)	Specific (0mm)
		1g SAR			10g SAR	1g SAR			10g SAR
PCE	GSM 850	0.44	0.53	0.66	/	0.71	0.83	0.83	1.49
	GSM 1900	0.05	0.39	0.76	/				
	WCDMA Band 2	0.40	0.28	0.51	/				
	WCDMA Band 4	0.07	0.41	0.59	/				
	WCDMA Band 5	0.49	0.54	0.54	/				
	LTE Band 2	0.64	0.22	0.22	/				
	LTE Band 4	0.10	0.49	0.83	/				
	LTE Band 5	0.39	0.83	0.83	/				
	LTE Band 7	0.40	0.13	0.14	/				
	LTE Band 38	0.49	0.20	0.23	/				
	LTE Band 41	0.48	0.30	0.30	/				
DTS	2.4G WIFI	0.60	0.29	0.35	/				
NII	5.2G WLAN	/	/	0.32	/				
	5.3G WLAN	0.71	0.41	/	0.79				
	5.6G WLAN	0.43	0.46	/	1.49				
	5.8G WLAN	0.70	0.46	0.46	/				
DSS	Bluetooth	0.38	0.14	0.14	/				
Limit (W/kg)		1.6			4.0	1.6			4.0
Verdict		PASS							

## 3.3.2 Highest Simultaneous Transmission SAR Values

Equipment Class	Maximum Scaled SAR (W/kg)		
	Head 1g (0mm)	Body-worn 1g (10mm)	Hotspot 1g (10mm)
PCE	<b>1.46</b>	<b>1.28</b>	<b>1.28</b>
DTS	0.99	1.11	1.11
NII	<b>1.46</b>	<b>1.28</b>	<b>1.28</b>
DSS	<b>1.46</b>	<b>1.28</b>	<b>1.28</b>
Limit (W/Kg)	1.60		
Verdict	Pass		
Note: The highest simultaneous SAR please refer section 12.2			

### 3.4 Test Uncertainty

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

The maximum 1 g SAR for the EUT in this report is 0.83 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 1.49 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 ( $\rho$ ). The equation description is as below:

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

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

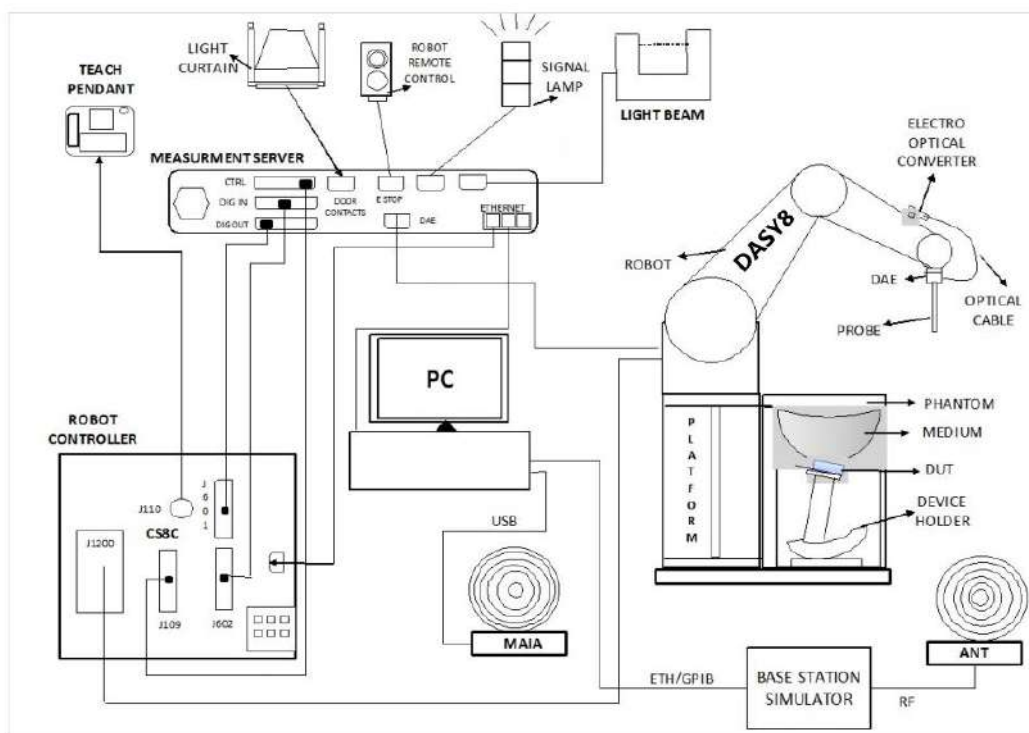
$$SAR = \frac{\sigma E^2}{\rho}$$

Where:  $\sigma$  is the conductivity of the tissue,

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



### 4.2.3 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4-SN: 7510 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: $\pm 0.2$ dB
Directivity	$\pm 0.2$ dB in HSL (rotation around probe axis) ; $\pm 0.4$ dB in HSL (rotation normal to probe axis)
Dynamic range	5 $\mu$ W/g to > 100 mW/g; Linearity: $\pm 0.2$ 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

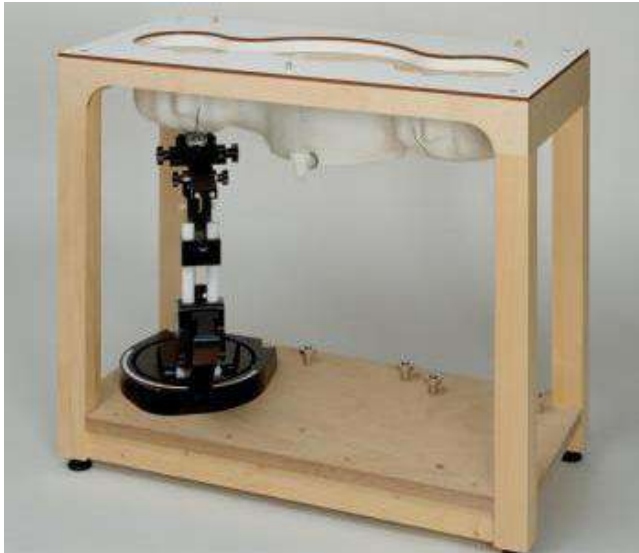
The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converte and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an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



- Input Impedance: 200M $\Omega$ m
- The Inputs: Symmetrical and Floating
- Commom 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  $65^\circ$ . 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  $1^\circ$ .

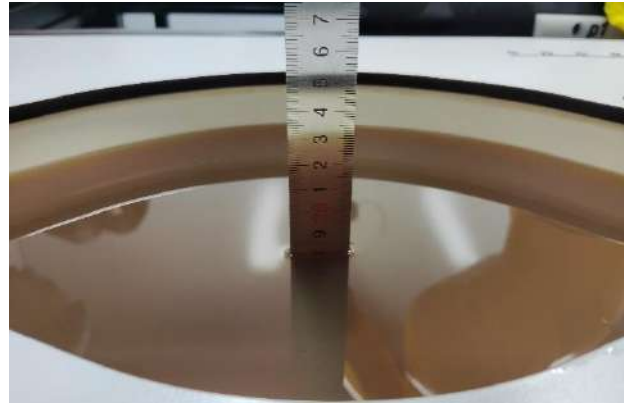
#### 4.2.7 Simulating Liquid

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	Ethenediol, Sodium petroleum sulfonate, Hexylene Glycol / 2-Methyl-pentane-2.4-diol, Alkoxylated alcohol

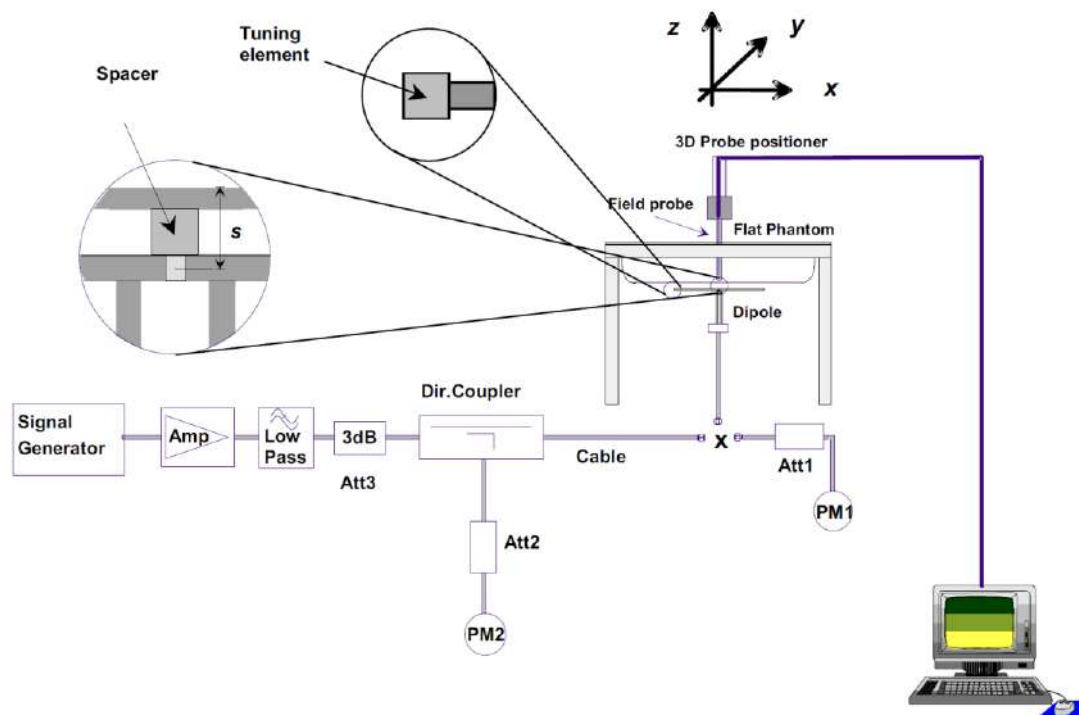
## 5 SYSTEM VERIFICATION

### 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

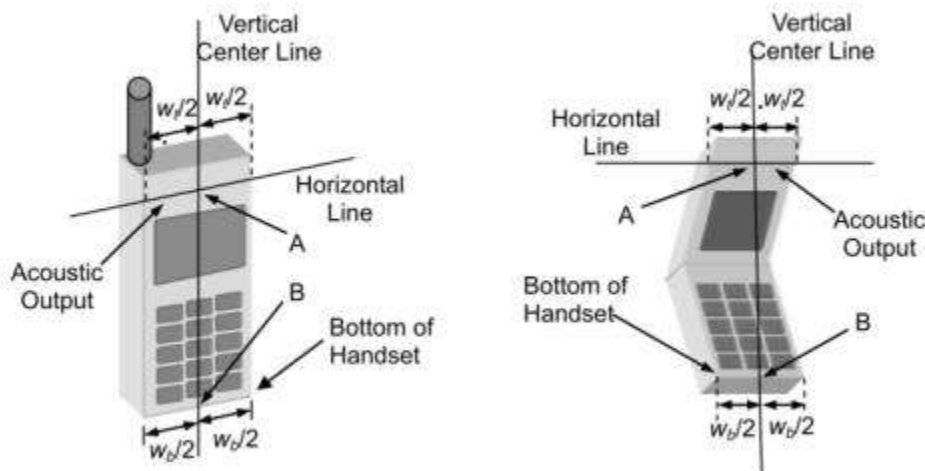
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

### 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.

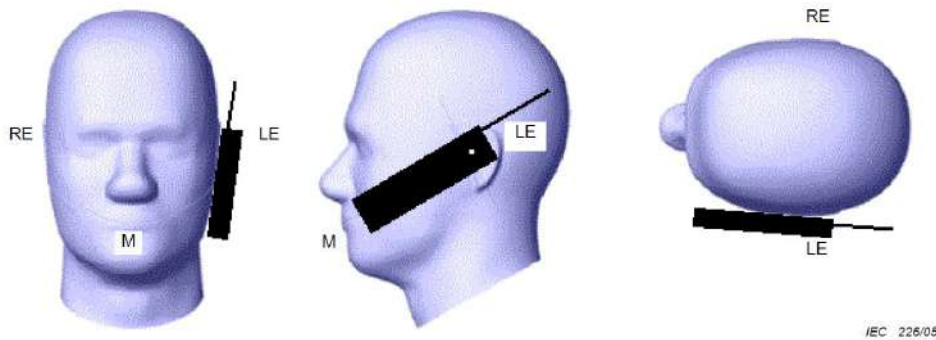
#### 6.1.1 Two Imaginary Lines on the Handset

- 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.



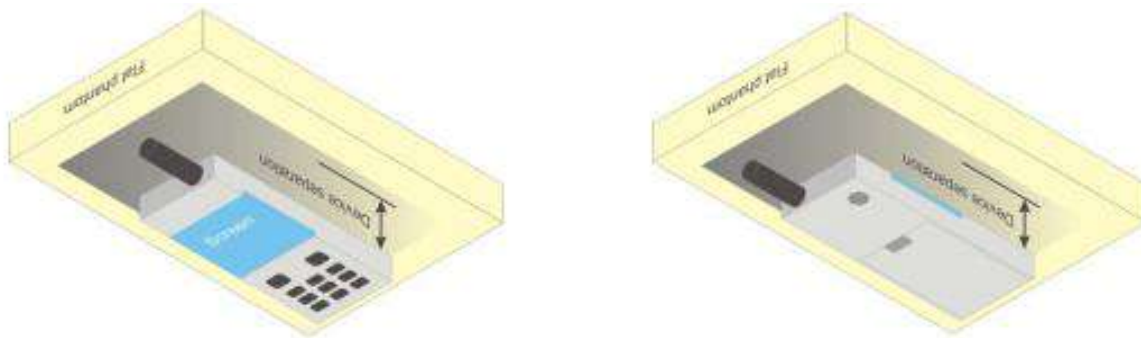


## 6.2 Body-worn Position Conditions

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.

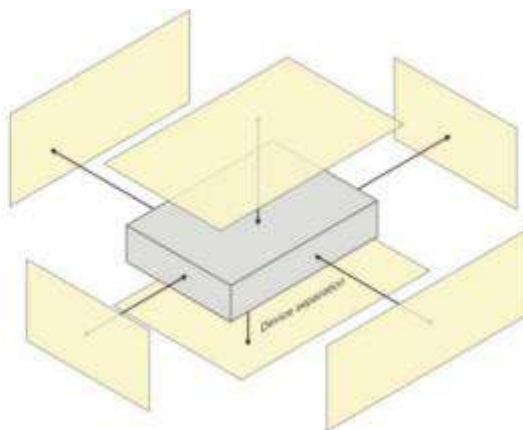
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics. 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  $\leq 5$  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).



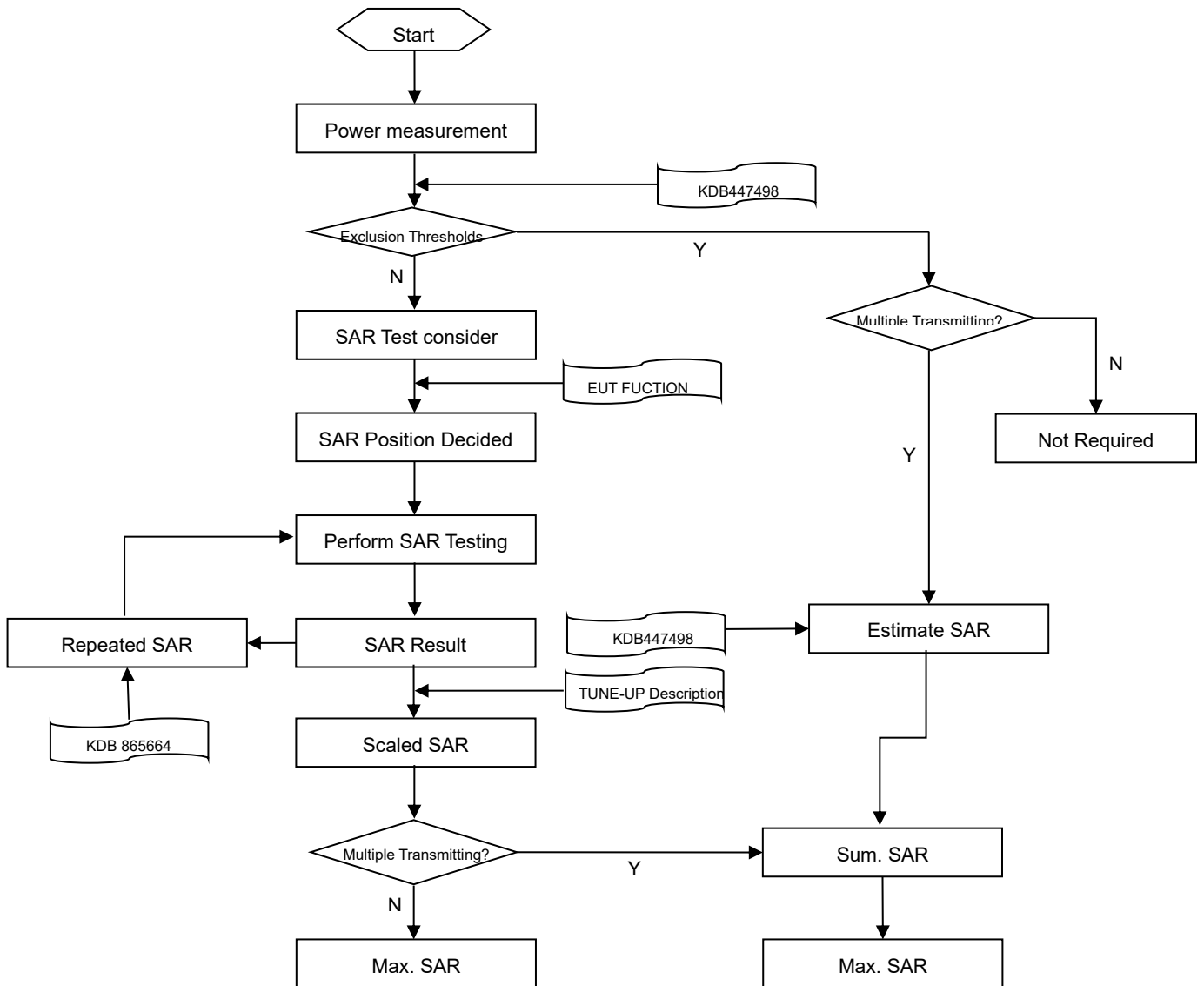
### 6.4 Product Specific 10g Exposure Consideration

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  $\leq 25$  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: $\Delta x$ Area , $\Delta y$ 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: $\Delta x$ Zoom , $\Delta y$ 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: $\Delta z$ Zoom (n)	≤ 5 mm	3–4 GHz: ≤ 4 mm
			4–5 GHz: ≤ 3 mm
			5–6 GHz: ≤ 2 mm
	graded grid	$\Delta z$ Zoom (1): between 1st two points closest to phantom surface	≤ 4 mm
4–5 GHz: ≤ 2.5 mm			
	$\Delta z$ Zoom (n>1): between subsequent points	≤ 1.5· $\Delta z$ 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.  $\delta$  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.

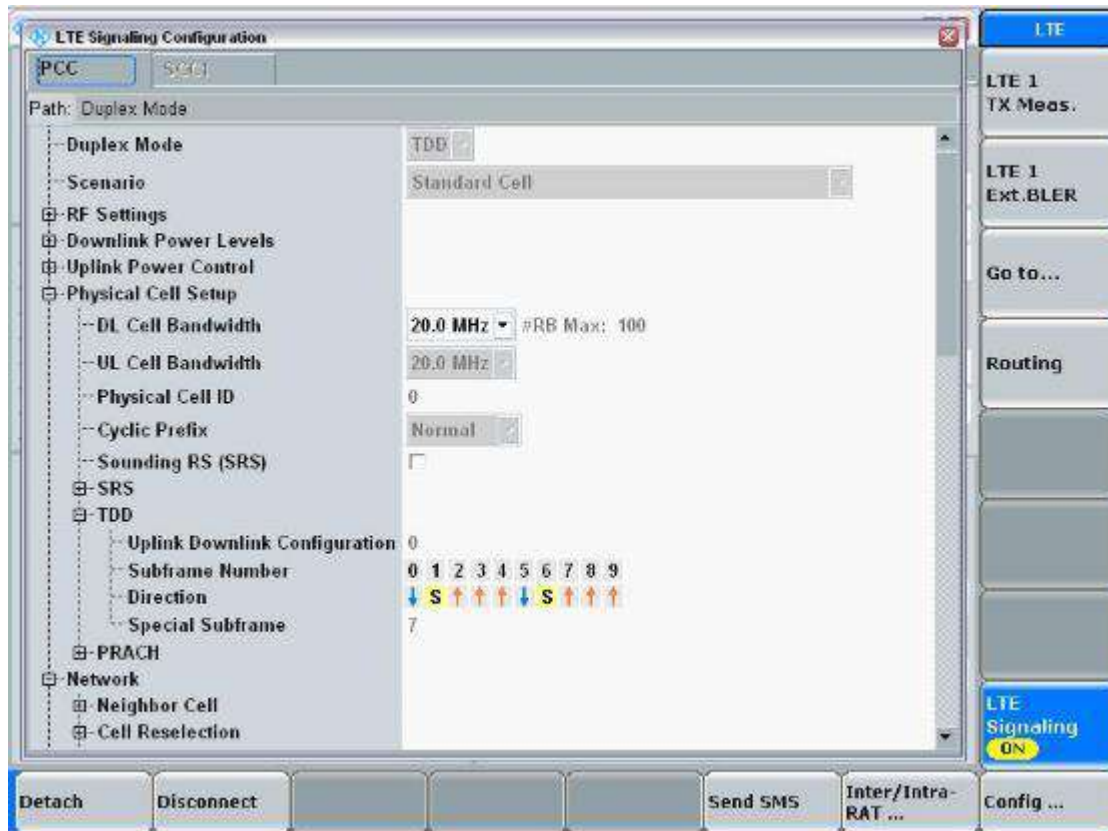
### 7.4 Area & Zoom Scan Procedure

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.

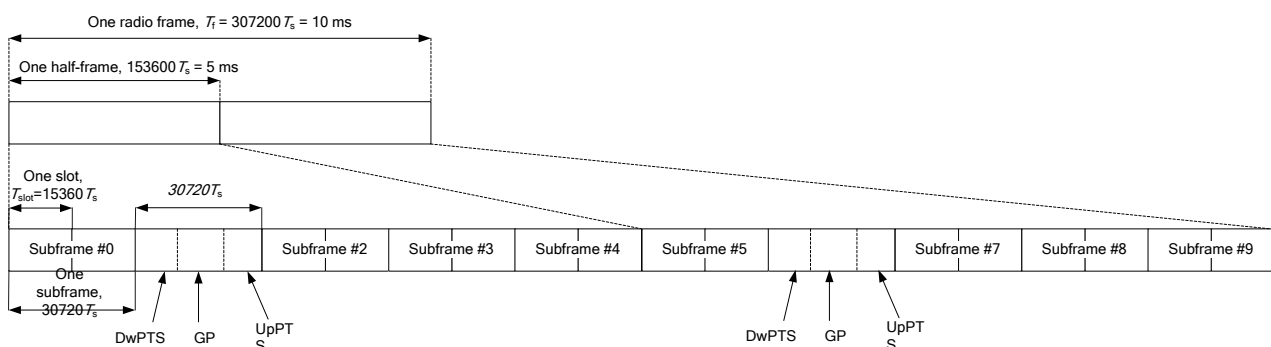
When the 1 g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

## 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	$26336 \cdot T_s$			$7680 \cdot T_s$		
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$	$2560 \cdot T_s$	$5120 \cdot T_s$
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-SZ2461151-AP Power List.pdf”.

### 8.2 WCDMA

Please refer the document “BL-SZ2461151-AP Power List.pdf”.

### 8.3 LTE

Please refer the document “BL-SZ2461151-AP Power List.pdf”.

### 8.4 Intra-Band Uplink CA Normal Power

Note:

1. This devices supports intra-band uplink CA of 2C/5B/7C/38C/41C.
2. For intra-band uplink carrier aggregation power verification and measurement is selected highest PCC and SCC bandwidth combination to do and was according to 3GPP 36.52101 sectino6.2.2A.1 and section 6.2.2A.2 test procedure.
3. For intra-band uplink CA output power was measured high / middle / low channel combination, and for SAR verification is selected highest output power combination with each exposure condition in each frequency band using the highest SAR configuration test in standalone LTE mode.

Please refer the document “BL-SZ2461151-AP Power List.pdf”.



## 8.5 WIFI

### 8.5.1 2.4G WIFI ANT13

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	16.45	17.00	No
		6	2437	<b>16.74</b>	17.00	Yes
		11	2462	16.42	17.00	No
	802.11g	1	2412	16.60	17.00	No
		6	2437	16.31	17.00	No
		11	2462	15.04	17.00	No
	802.11n(HT20)	1	2412	16.28	17.00	No
		6	2437	16.23	17.00	No
		11	2462	13.99	17.00	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.
- 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  $\leq 1.2$  W/kg, OFDM SAR test is not required.

Adjusted SAR =  $0.603 * (50.12\text{mW}/50.12\text{mW}) = 0.603$  W/Kg, so 2.4G OFDM SAR test is not required.

## 8.5.2 2.4G WIFI ANT14

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	16.01	17.00	No
		6	2437	<b>16.47</b>	17.00	Yes
		11	2462	15.98	17.00	No
	802.11g	1	2412	15.73	16.00	No
		6	2437	15.64	16.00	No
		11	2462	15.12	16.00	No
	802.11n(HT20)	1	2412	11.06	13.00	No
		6	2437	16.98	17.00	No
		11	2462	14.05	16.00	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.

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  $\leq 1.2$  W/kg, OFDM SAR test is not required.

Adjusted SAR =  $0.581 * (50.12\text{mW}/50.12\text{mW}) = 0.581\text{W/Kg}$ , so 2.4G OFDM SAR test is not required.

## 8.5.3 5G WIFI ANT13

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	16.49	17.50	No
		44	5220	16.13	17.50	No
		48	5240	16.24	17.50	No
	802.11n(HT20)	36	5180	17.68	18.50	No
		44	5220	17.56	18.50	No
		48	5240	17.61	18.50	No
	802.11n(HT40)	38	5190	<b>17.43</b>	18.50	Yes
		46	5230	17.27	18.50	No
	802.11ac(VHT20)	36	5180	17.78	18.00	No
		44	5220	17.50	18.00	No
		48	5240	17.19	18.00	No
	802.11ac(VHT40)	38	5190	13.14	15.00	No
		46	5230	16.63	17.00	No
	802.11ac(VHT80)	42	5210	14.92	15.00	No
	5.3 (5.25~5.35)	802.11a	52	5260	15.72	17.50
60			5300	15.81	17.50	No
64			5320	15.86	17.50	No
802.11n(HT20)		52	5260	17.07	18.50	No
		60	5300	17.11	18.50	No
		64	5320	17.23	18.50	No
802.11n(HT40)		54	5270	16.75	18.50	No
		62	5310	<b>16.86</b>	18.50	Yes
802.11ac(VHT20)		52	5260	16.97	18.00	No
		60	5300	17.07	18.00	No
		64	5320	17.16	18.00	No
802.11ac(VHT40)		54	5270	16.22	18.00	No
		62	5310	15.70	16.00	No
802.11ac(VHT80)		58	5290	14.05	16.00	No
5.6 (5.47~5.725)		802.11a	100	5500	15.45	16.00
	116		5580	15.53	17.50	No
	140		5700	15.73	17.50	No
	802.11n(HT20)	100	5500	16.82	18.50	No
		116	5580	17.11	18.50	No
		140	5700	17.05	18.50	No
	802.11n(HT40)	102	5510	16.45	18.00	No
		118	5590	16.51	18.50	No

		134	5670	<b>16.83</b>	18.50	Yes
	802.11ac(VHT20)	100	5500	16.72	18.00	No
		116	5580	16.74	18.00	No
		140	5700	16.34	18.00	No
	802.11ac(VHT40)	102	5510	14.40	15.00	No
		118	5590	16.10	18.00	No
		134	5670	16.45	18.00	No
	802.11ac(VHT80)	106	5530	13.58	15.00	No
		122	5690	15.97	16.00	No
	5.8 (5.725~5.850)	802.11a	149	5745	15.53	17.50
157			5785	16.08	17.50	No
165			5825	16.34	17.50	No
802.11n(HT20)		149	5745	17.13	18.50	No
		157	5785	17.52	18.50	No
		165	5825	17.03	18.50	No
802.11n(HT40)		151	5755	16.95	18.50	No
		159	5795	<b>17.29</b>	18.50	Yes
802.11ac(VHT20)		149	5745	17.14	18.00	No
		157	5785	17.53	18.00	No
		165	5825	17.56	18.00	No
802.11ac(VHT40)		151	5755	16.52	18.00	No
		159	5795	16.86	18.00	No
802.11ac(VHT80)		155	5775	16.34	18.00	No

Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is  $\leq 1.2$  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.

## 8.5.4 5G WIFI ANT14

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	11.70	12.00	No
		44	5220	11.33	12.00	No
		48	5240	11.19	12.00	No
	802.11n(HT20)	36	5180	11.71	12.00	No
		44	5220	11.31	12.00	No
		48	5240	11.11	12.00	No
	802.11n(HT40)	38	5190	11.55	12.00	No
		46	5230	11.13	12.00	No
	802.11ac(VHT20)	36	5180	11.69	12.00	No
		44	5220	11.78	12.00	No
		48	5240	11.50	12.00	No
	802.11ac(VHT40)	38	5190	11.61	12.00	No
46		5230	11.19	12.00	No	
802.11ac(VHT80)	42	5210	<b>11.28</b>	12.00	Yes	
5.3 (5.25~5.35)	802.11a	52	5260	11.17	12.00	No
		60	5300	11.36	12.00	No
		64	5320	11.86	12.00	No
	802.11n(HT20)	52	5260	11.40	12.00	No
		60	5300	11.22	12.00	No
		64	5320	11.14	12.00	No
	802.11n(HT40)	54	5270	11.29	12.00	No
		62	5310	11.16	12.00	No
	802.11ac(VHT20)	52	5260	11.39	12.00	No
		60	5300	11.23	12.00	No
		64	5320	11.15	12.00	No
	802.11ac(VHT40)	54	5270	11.75	12.00	No
		62	5310	10.96	12.00	No
	802.11ac(VHT80)	58	5290	<b>10.70</b>	12.00	Yes
	5.6 (5.47~5.725)	802.11a	100	5500	11.48	12.00
116			5580	11.72	12.00	No
140			5700	11.60	12.00	No
802.11n(HT20)		100	5500	11.35	12.00	No
		116	5580	11.63	12.00	No
		140	5700	11.45	12.00	No
802.11n(HT40)		102	5510	11.33	12.00	No
		118	5590	11.64	12.00	No

		134	5670	11.50	12.00	No
	802.11ac(VHT20)	100	5500	11.34	12.00	No
		116	5580	11.55	12.00	No
		140	5700	11.44	12.00	No
	802.11ac(VHT40)	102	5510	11.02	12.00	No
		118	5590	11.48	12.00	No
		134	5670	11.62	12.00	No
	802.11ac(VHT80)	106	5530	9.87	11.00	No
		122	5690	<b>11.64</b>	12.00	Yes
	5.8 (5.725~5.850)	802.11a	149	5745	11.79	12.00
157			5785	11.93	12.00	No
165			5825	11.87	12.00	No
802.11n(HT20)		149	5745	11.63	12.00	No
		157	5785	11.81	12.00	No
		165	5825	11.66	12.00	No
802.11n(HT40)		151	5755	11.77	12.00	No
		159	5795	11.75	12.00	No
802.11ac(VHT20)		149	5745	11.67	12.00	No
		157	5785	11.84	12.00	No
		165	5825	11.71	12.00	No
802.11ac(VHT40)		151	5755	11.71	12.00	No
		159	5795	11.73	12.00	No
802.11ac(VHT80)		155	5775	<b>11.41</b>	12.00	Yes
<p>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 <math>\leq 1.2</math> 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.</p>						

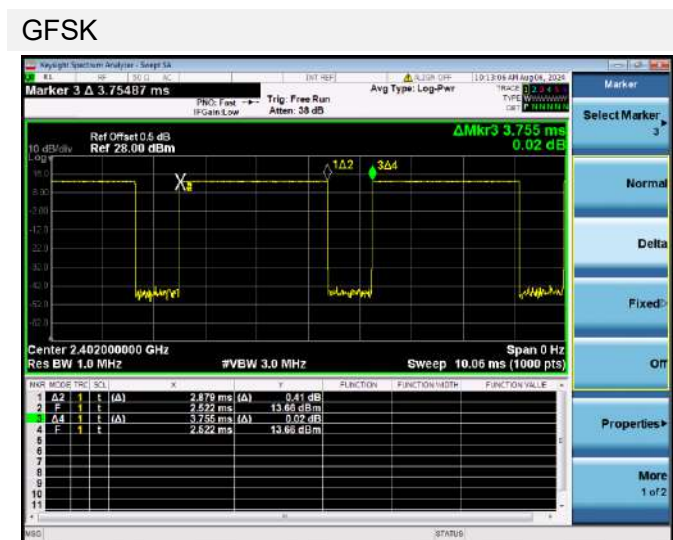
### 8.6 Bluetooth-ANT13

Mode	GFSK			π/4-DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Average Power (dBm)	11.27	<b>17.55</b>	17.05	10.39	14.04	17.05
Tune-Up Limit (dBm)	12.00	18.00	18.00	12.00	15.00	18.00
SAR Test Require	NO	YES	NO	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Average Power (dBm)	10.27	17.52	17.04	/	/	/
Tune-Up Limit (dBm)	12.00	18.00	18.00	/	/	/
SAR Test Require	NO	NO	NO	/	/	/
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	1	19	38
Frequency (MHz)	2402	2440	2480	2404	2440	2478
Average Power (dBm)	-3.68	-2.76	-3.56	-3.68	-2.76	-3.56
Tune-Up Limit (dBm)	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00
SAR Test Require	NO	NO	NO	NO	NO	NO

Note 1: Since bluetooth BR mode is the maximum output power mode, SAR measurements were performed with test software using DH5 modulation, and SAR measurement is not required for the EDR and LE. When the secondary mode is ≤ ¼ dB higher than the primary mode.

The Bluetooth BT DH5 duty cycle is 76.67% 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



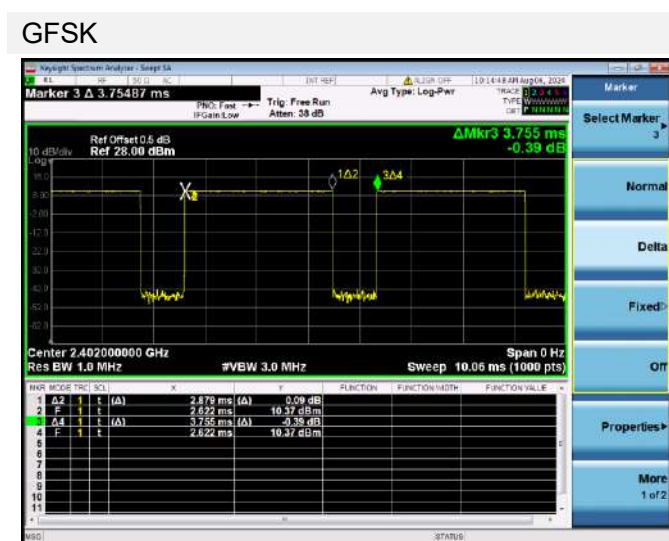
### 8.7 Bluetooth-ANT14

Mode	GFSK			π/4-DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Average Power (dBm)	11.64	<b>16.11</b>	15.23	10.45	13.73	14.79
Tune-Up Limit (dBm)	12.00	17.00	16.00	12.00	14.00	16.00
SAR Test Require	NO	YES	NO	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Average Power (dBm)	10.34	13.61	15.19	/	/	/
Tune-Up Limit (dBm)	12.00	14.00	16.00	/	/	/
SAR Test Require	NO	NO	NO	/	/	/
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	1	19	38
Frequency (MHz)	2402	2440	2480	2404	2440	2478
Average Power (dBm)	-2.23	-1.21	-1.99	-2.23	-1.21	-1.99
Tune-Up Limit (dBm)	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
SAR Test Require	NO	NO	NO	NO	NO	NO

Note 1: Since bluetooth BR mode is the maximum output power mode, SAR measurements were performed with test software using DH5 modulation, and SAR measurement is not required for the EDR and LE. When the secondary mode is ≤ ¼ dB higher than the primary mode.

The Bluetooth BT DH5 duty cycle is 76.67 % 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





## 9 TEST EXCLUSION CONSIDERATION

For antenna location and support bands please refer the document "BL-SZ2461151-AI EUT internal photo.pdf".

Antenna	Front Side(mm)	Back Side(mm)	Left Edge(mm)	Right Edge(mm)	Top Edge(mm)	Bottom Edge(mm)
Ant.0	<25	<25	<25	<25	>25	<25
Ant.1	<25	<25	>25	<25	<25	>25
Ant.2	<25	<25	>25	<25	<25	>25
Ant.13	<25	<25	<25	>25	<25	>25
Ant.14	<25	<25	<25	>25	<25	>25

Note: 1. Per KDB 941225 D06, 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	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>												
Ant.1	DATA 2slots	Left Cheek	0	190	836.6	0.11	0.342	28.61	29.00	1.094	0.374	/
		Left Tilt	0	190	836.6	0.01	0.071	28.61	29.00	1.094	0.078	/
		Right Cheek	0	190	836.6	0.00	0.402	28.61	29.00	1.094	<b>0.440</b>	<b>1#</b>
		Right Tilt	0	190	836.6	-0.08	0.114	28.61	29.00	1.094	0.125	/
Ant.0	DATA 2slots	Left Cheek	0	128	824.2	0.02	0.064	27.19	28.00	1.205	0.077	/
		Left Tilt	0	128	824.2	0.01	0.021	27.19	28.00	1.205	0.025	/
		Right Cheek	0	128	824.2	-0.04	0.063	27.19	28.00	1.205	0.076	/
		Right Tilt	0	128	824.2	-0.14	0.026	27.19	28.00	1.205	0.031	/
<b>Body-worn&amp;Hotspot</b>												
Ant.1	DATA 2slots	Front Side	10	190	836.6	-0.14	0.264	28.61	29.00	1.094	0.289	/
		Back Side	10	190	836.6	-0.05	0.482	28.61	29.00	1.094	0.527	/
		Right Edge	10	190	836.6	-0.06	0.601	28.61	29.00	1.094	<b>0.657</b>	<b>2#</b>
		Top Edge	10	190	836.6	-0.10	0.016	28.61	29.00	1.094	0.018	/
Ant.0	DATA 2slots	Front Side	10	128	824.2	0.07	0.068	27.19	28.00	1.205	0.082	/
		Back Side	10	128	824.2	-0.07	0.106	27.19	28.00	1.205	0.128	/
		Left Edge	10	128	824.2	0.02	0.054	27.19	28.00	1.205	0.065	/
		Right Edge	10	128	824.2	0.08	0.012	27.19	28.00	1.205	0.014	/
		Bottom Edge	10	128	824.2	-0.03	0.088	27.19	28.00	1.205	0.106	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

### 10.2 GSM 1900

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>												
Ant.2	DATA 2slots	Left Cheek	0	810	1909.8	0.06	0.024	26.76	28.00	1.330	0.032	/
		Left Tilt	0	810	1909.8	-0.02	0.012	26.76	28.00	1.330	0.016	/
		Right Cheek	0	810	1909.8	-0.08	0.038	26.76	28.00	1.330	<b>0.051</b>	<b>3#</b>
		Right Tilt	0	810	1909.8	0.04	0.023	26.76	28.00	1.330	0.031	/
Ant.0	DATA 2slots	Left Cheek	0	512	1850.2	-0.08	0.026	25.83	27.00	1.309	0.034	/
		Left Tilt	0	512	1850.2	-0.02	0.008	25.83	27.00	1.309	0.010	/
		Right Cheek	0	512	1850.2	0.07	0.031	25.83	27.00	1.309	0.041	/
		Right Tilt	0	512	1850.2	-0.07	0.011	25.83	27.00	1.309	0.014	/
<b>Body-worn&amp;Hotspot</b>												
Ant.2	DATA 2slots	Front Side	10	810	1909.8	0.14	0.021	26.76	28.00	1.330	0.028	/
		Back Side	10	810	1909.8	-0.05	0.027	26.76	28.00	1.330	0.036	/
		Right Edge	10	810	1909.8	0.14	0.031	26.76	28.00	1.330	0.041	/
		Top Edge	10	810	1909.8	-0.03	0.010	26.76	28.00	1.330	0.013	/
Ant.0	DATA 2slots	Front Side	10	512	1850.2	-0.11	0.194	25.83	27.00	1.309	0.254	/
		Back Side	10	512	1850.2	-0.02	0.298	25.83	27.00	1.309	0.390	/
		Left Edge	10	512	1850.2	0.05	0.052	25.83	27.00	1.309	0.068	/
		Right Edge	10	512	1850.2	-0.06	0.034	25.83	27.00	1.309	0.045	/
		Bottom Edge	10	512	1850.2	0.01	0.584	25.83	27.00	1.309	<b>0.764</b>	<b>4#</b>
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

## 10.3WCDMA Band 2

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune- power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>												
Ant.2	RMC	Left Cheek	0	9400	1880	0.09	0.141	18.65	19.50	1.216	0.171	/
		Left Tilt	0	9400	1880	0.17	0.086	18.65	19.50	1.216	0.105	/
		Right Cheek	0	9400	1880	0.00	0.330	18.65	19.50	1.216	<b>0.401</b>	5#
		Right Tilt	0	9400	1880	0.10	0.176	18.65	19.50	1.216	0.214	/
Ant.0	RMC	Left Cheek	0	9400	1880	0.12	0.016	17.14	18.00	1.219	0.020	/
		Left Tilt	0	9400	1880	-0.18	0.010	17.14	18.00	1.219	0.012	/
		Right Cheek	0	9400	1880	-0.17	0.023	17.14	18.00	1.219	0.028	/
		Right Tilt	0	9400	1880	0.17	0.012	17.14	18.00	1.219	0.015	/
<b>Body-worn&amp;Hotspot</b>												
Ant.2	RMC	Front Side	10	9400	1880	-0.08	0.080	18.65	19.50	1.216	0.097	/
		Back Side	10	9400	1880	0.19	0.137	18.65	19.50	1.216	0.167	/
		Right Edge	10	9400	1880	-0.09	0.106	18.65	19.50	1.216	0.129	/
		Top Edge	10	9400	1880	-0.03	0.056	18.65	19.50	1.216	0.068	/
Ant.0	RMC	Front Side	10	9400	1880	-0.19	0.154	17.14	18.00	1.219	0.188	/
		Back Side	10	9400	1880	0.17	0.228	17.14	18.00	1.219	0.278	/
		Left Edge	10	9400	1880	0.17	0.026	17.14	18.00	1.219	0.032	/
		Right Edge	10	9400	1880	-0.14	0.021	17.14	18.00	1.219	0.026	/
		Bottom Edge	10	9400	1880	-0.02	0.421	17.14	18.00	1.219	<b>0.513</b>	6#
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

### 10.4WCDMA Band 4

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>												
Ant.2	RMC	Left Cheek	0	1312	1712.4	0.02	0.026	20.98	22.00	1.265	0.033	/
		Left Tilt	0	1312	1712.4	-0.10	0.018	20.98	22.00	1.265	0.023	/
		Right Cheek	0	1312	1712.4	-0.10	0.055	20.98	22.00	1.265	<b>0.070</b>	<b>7#</b>
		Right Tilt	0	1312	1712.4	-0.01	0.029	20.98	22.00	1.265	0.037	/
Ant.0	RMC	Left Cheek	0	1312	1712.4	-0.18	0.025	19.42	20.00	1.143	0.029	/
		Left Tilt	0	1312	1712.4	-0.12	0.013	19.42	20.00	1.143	0.015	/
		Right Cheek	0	1312	1712.4	0.06	0.028	19.42	20.00	1.143	0.032	/
		Right Tilt	0	1312	1712.4	0.02	0.022	19.42	20.00	1.143	0.025	/
<b>Body-worn&amp;Hotspot</b>												
Ant.2	RMC	Front Side	10	1312	1712.4	-0.10	0.008	20.98	22.00	1.265	0.010	/
		Back Side	10	1312	1712.4	-0.04	0.023	20.98	22.00	1.265	0.029	/
		Right Edge	10	1312	1712.4	-0.07	0.023	20.98	22.00	1.265	0.029	/
		Top Edge	10	1312	1712.4	0.03	0.004	20.98	22.00	1.265	0.005	/
Ant.0	RMC	Front Side	10	1312	1712.4	0.14	0.264	19.42	20.00	1.143	0.302	/
		Back Side	10	1312	1712.4	0.02	0.362	19.42	20.00	1.143	0.414	/
		Left Edge	10	1312	1712.4	0.13	0.030	19.42	20.00	1.143	0.034	/
		Right Edge	10	1312	1712.4	-0.10	0.021	19.42	20.00	1.143	0.024	/
		Bottom Edge	10	1312	1712.4	-0.08	0.519	19.42	20.00	1.143	<b>0.593</b>	<b>8#</b>
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

### 10.5WCDMA Band 5

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>												
Ant.1	RMC	Left Cheek	0	4182	836.4	-0.14	0.261	20.51	22.00	1.409	0.368	/
		Left Tilt	0	4182	836.4	-0.18	0.068	20.51	22.00	1.409	0.096	/
		Right Cheek	0	4182	836.4	0.01	0.346	20.51	22.00	1.409	<b>0.488</b>	9#
		Right Tilt	0	4182	836.4	0.12	0.082	20.51	22.00	1.409	0.116	/
Ant.0	RMC	Left Cheek	0	4182	836.4	-0.15	0.038	19.25	21.00	1.496	0.057	/
		Left Tilt	0	4182	836.4	0.17	0.027	19.25	21.00	1.496	0.040	/
		Right Cheek	0	4182	836.4	0.14	0.045	19.25	21.00	1.496	0.067	/
		Right Tilt	0	4182	836.4	0.15	0.035	19.25	21.00	1.496	0.052	/
<b>Body-worn&amp;Hotspot</b>												
Ant.1	RMC	Front Side	10	4182	836.4	0.08	0.190	20.51	22.00	1.409	0.268	/
		Back Side	10	4182	836.4	-0.07	0.382	20.51	22.00	1.409	<b>0.538</b>	10#
		Right Edge	10	4182	836.4	-0.05	0.365	20.51	22.00	1.409	0.514	/
		Top Edge	10	4182	836.4	-0.08	0.011	20.51	22.00	1.409	0.015	/
Ant.0	RMC	Front Side	10	4182	836.4	0.17	0.057	19.25	21.00	1.496	0.085	/
		Back Side	10	4182	836.4	0.00	0.087	19.25	21.00	1.496	0.130	/
		Left Edge	10	4182	836.4	-0.07	0.057	19.25	21.00	1.496	0.085	/
		Right Edge	10	4182	836.4	0.10	0.022	19.25	21.00	1.496	0.033	/
		Bottom Edge	10	4182	836.4	0.11	0.072	19.25	21.00	1.496	0.108	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.												

### 10.6LTE Band 2 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>														
Ant.2	QPSK	Left Cheek	0	18900	1880	1	MID	-0.17	0.255	20.15	21.00	1.216	0.310	/
		Left Tilt	0	18900	1880	1	MID	0.02	0.147	20.15	21.00	1.216	0.179	/
		Right Cheek	0	18900	1880	1	MID	-0.01	0.530	20.15	21.00	1.216	<b>0.644</b>	11#
		Right Tilt	0	18900	1880	1	MID	-0.18	0.328	20.15	21.00	1.216	0.399	/
		Left Cheek	0	18900	1880	50	MID	0.05	0.199	19.12	20.00	1.225	0.244	/
		Left Tilt	0	18900	1880	50	MID	0.05	0.112	19.12	20.00	1.225	0.137	/
		Right Cheek	0	18900	1880	50	MID	-0.10	0.412	19.12	20.00	1.225	0.505	/
		Right Tilt	0	18900	1880	50	MID	-0.07	0.260	19.12	20.00	1.225	0.319	/
Ant.0	QPSK	Left Cheek	0	18900	1880	1	MID	0.00	0.024	18.73	20.00	1.340	0.032	/
		Left Tilt	0	18900	1880	1	MID	0.12	0.006	18.73	20.00	1.340	0.008	/
		Right Cheek	0	18900	1880	1	MID	-0.06	0.027	18.73	20.00	1.340	0.036	/
		Right Tilt	0	18900	1880	1	MID	-0.10	0.012	18.73	20.00	1.340	0.016	/
		Left Cheek	0	18900	1880	50	MID	-0.08	0.022	17.74	19.00	1.337	0.029	/
		Left Tilt	0	18900	1880	50	MID	0.08	0.006	17.74	19.00	1.337	0.008	/
		Right Cheek	0	18900	1880	50	MID	0.10	0.029	17.74	19.00	1.337	0.039	/
		Right Tilt	0	18900	1880	50	MID	0.09	0.015	17.74	19.00	1.337	0.020	/
<b>Body-worn&amp;Hotspot</b>														
Ant.2	QPSK	Front Side	10	18900	1880	1	MID	0.11	0.127	20.15	21.00	1.216	0.154	/
		Back Side	10	18900	1880	1	MID	-0.11	0.178	20.15	21.00	1.216	<b>0.216</b>	12#
		Right Edge	10	18900	1880	1	MID	0.16	0.165	20.15	21.00	1.216	0.201	/
		Top Edge	10	18900	1880	1	MID	0.17	0.079	20.15	21.00	1.216	0.096	/
		Front Side	10	18900	1880	50	MID	0.17	0.104	19.12	20.00	1.225	0.127	/
		Back Side	10	18900	1880	50	MID	-0.06	0.171	19.12	20.00	1.225	0.209	/
		Right Edge	10	18900	1880	50	MID	0.00	0.152	19.12	20.00	1.225	0.186	/
		Top Edge	10	18900	1880	50	MID	0.05	0.071	19.12	20.00	1.225	0.087	/
Ant.0	QPSK	Front Side	10	18900	1880	1	MID	-0.16	0.042	18.73	20.00	1.340	0.056	/
		Back Side	10	18900	1880	1	MID	0.03	0.060	18.73	20.00	1.340	0.080	/
		Left Edge	10	18900	1880	1	MID	0.01	0.007	18.73	20.00	1.340	0.009	/
		Right Edge	10	18900	1880	1	MID	0.08	0.005	18.73	20.00	1.340	0.007	/
		Bottom Edge	10	18900	1880	1	MID	0.12	0.091	18.73	20.00	1.340	0.122	/
		Front Side	10	18900	1880	50	MID	-0.15	0.036	17.74	19.00	1.337	0.048	/
		Back Side	10	18900	1880	50	MID	-0.09	0.052	17.74	19.00	1.337	0.070	/
		Left Edge	10	18900	1880	50	MID	0.19	0.006	17.74	19.00	1.337	0.008	/
		Right Edge	10	18900	1880	50	MID	-0.17	0.005	17.74	19.00	1.337	0.007	/
		Bottom Edge	10	18900	1880	50	MID	0.11	0.073	17.74	19.00	1.337	0.098	/

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

## 10.7LTE Band 2 Worse case for CA Test

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune- power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head-CA</b>														
Ant.2	QPSK	Right Cheek	0	18900+ 19098	1880+ 1979.8	1+1	High +Low	0.02	0.516	20.12	21.00	1.225	<b>0.632</b>	/
<b>Body-worn&amp;Hotspot-CA</b>														
Ant.2	QPSK	Back Side	10	18900+ 19098	1880+ 1979.8	1+1	High +Low	0.06	0.163	20.12	21.00	1.225	<b>0.200</b>	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														



### 10.8LTE Band 4 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.		
<b>Head</b>																
Ant.2	QPSK	Left Cheek	0	20175	1732.5	1	MID	0.17	0.034	21.90	23.00	1.288	0.044	/		
		Left Tilt	0	20175	1732.5	1	MID	0.00	0.022	21.90	23.00	1.288	0.028	/		
		Right Cheek	0	20175	1732.5	1	MID	-0.09	0.079	21.90	23.00	1.288	<b>0.102</b>	13#		
		Right Tilt	0	20175	1732.5	1	MID	0.01	0.044	21.90	23.00	1.288	0.057	/		
		Left Cheek	0	20175	1732.5	50	MID	-0.14	0.026	20.96	22.00	1.271	0.033	/		
		Left Tilt	0	20175	1732.5	50	MID	0.04	0.016	20.96	22.00	1.271	0.020	/		
		Right Cheek	0	20175	1732.5	50	MID	-0.09	0.061	20.96	22.00	1.271	0.078	/		
Ant.0	QPSK	Right Tilt	0	20175	1732.5	50	MID	-0.12	0.035	20.96	22.00	1.271	0.044	/		
		Left Cheek	0	20175	1732.5	1	MID	0.07	0.024	20.62	22.00	1.374	0.033	/		
		Left Tilt	0	20175	1732.5	1	MID	0.04	0.014	20.62	22.00	1.374	0.019	/		
		Right Cheek	0	20175	1732.5	1	MID	0.03	0.029	20.62	22.00	1.374	0.040	/		
		Right Tilt	0	20175	1732.5	1	MID	0.11	0.024	20.62	22.00	1.374	0.033	/		
		Left Cheek	0	20175	1732.5	50	MID	-0.05	0.023	19.63	21.00	1.371	0.032	/		
		Left Tilt	0	20175	1732.5	50	MID	0.12	0.012	19.63	21.00	1.371	0.016	/		
Ant.0	QPSK	Right Cheek	0	20175	1732.5	50	MID	-0.12	0.030	19.63	21.00	1.371	0.041	/		
		Right Tilt	0	20175	1732.5	50	MID	0.02	0.026	19.63	21.00	1.371	0.036	/		
		<b>Body-worn&amp;Hotspot</b>														
		Ant.2	QPSK	Front Side	10	20175	1732.5	1	MID	-0.02	0.018	21.90	23.00	1.288	0.023	/
				Back Side	10	20175	1732.5	1	MID	-0.15	0.031	21.90	23.00	1.288	0.040	/
				Right Edge	10	20175	1732.5	1	MID	-0.01	0.034	21.90	23.00	1.288	0.044	/
				Top Edge	10	20175	1732.5	1	MID	0.00	0.018	21.90	23.00	1.288	0.023	/
Front Side	10			20175	1732.5	50	MID	-0.04	0.012	20.96	22.00	1.271	0.015	/		
Back Side	10			20175	1732.5	50	MID	-0.17	0.028	20.96	22.00	1.271	0.036	/		
Right Edge	10			20175	1732.5	50	MID	-0.12	0.030	20.96	22.00	1.271	0.038	/		
Ant.0	QPSK	Top Edge	10	20175	1732.5	50	MID	0.14	0.010	20.96	22.00	1.271	0.013	/		
		Front Side	10	20175	1732.5	1	MID	0.04	0.259	20.62	22.00	1.374	0.356	/		
		Back Side	10	20175	1732.5	1	MID	0.03	0.353	20.62	22.00	1.374	0.485	/		
		Left Edge	10	20175	1732.5	1	MID	-0.02	0.026	20.62	22.00	1.374	0.036	/		
		Right Edge	10	20175	1732.5	1	MID	-0.02	0.027	20.62	22.00	1.374	0.037	/		
		Bottom Edge	10	20175	1732.5	1	MID	0.05	0.601	20.62	22.00	1.374	<b>0.826</b>	14#		
		Front Side	10	20175	1732.5	50	MID	0.04	0.215	19.63	21.00	1.371	0.295	/		
		Back Side	10	20175	1732.5	50	MID	-0.03	0.283	19.63	21.00	1.371	0.388	/		
		Left Edge	10	20175	1732.5	50	MID	0.14	0.022	19.63	21.00	1.371	0.030	/		
		Right Edge	10	20175	1732.5	50	MID	0.12	0.021	19.63	21.00	1.371	0.029	/		
		Bottom Edge	10	20175	1732.5	50	MID	0.15	0.462	19.63	21.00	1.371	0.633	/		
Bottom Edge	10	20050	1720	1	MID	-0.18	0.562	20.42	22.00	1.439	0.809	/				

	Bottom Edge	10	20300	1745	1	MID	0.02	0.553	20.60	22.00	1.380	0.763	/
	Bottom Edge	10	20050	1720	50	HIGH	0.19	0.483	19.46	21.00	1.426	0.689	/
	Bottom Edge	10	20300	1745	50	MID	0.05	0.470	19.53	21.00	1.403	0.659	/
	Bottom Edge	10	20300	1732.5	100	LOW	-0.14	0.482	19.61	21.00	1.377	0.664	/

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

### 10.9LTE Band 5 (10MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>														
Ant.1	QPSK	Left Cheek	0	20450	829	1	MID	0.15	0.259	20.65	22.00	1.365	0.354	/
		Left Tilt	0	20450	829	1	MID	0.10	0.052	20.65	22.00	1.365	0.071	/
		Right Cheek	0	20450	829	1	MID	-0.01	0.284	20.65	22.00	1.365	<b>0.388</b>	15#
		Right Tilt	0	20450	829	1	MID	0.15	0.062	20.65	22.00	1.365	0.085	/
		Left Cheek	0	20450	829	25	MID	0.16	0.202	19.63	21.00	1.371	0.277	/
		Left Tilt	0	20450	829	25	MID	0.06	0.041	19.63	21.00	1.371	0.056	/
		Right Cheek	0	20450	829	25	MID	0.00	0.208	19.63	21.00	1.371	0.285	/
		Right Tilt	0	20450	829	25	MID	0.07	0.049	19.63	21.00	1.371	0.067	/
Ant.0	QPSK	Left Cheek	0	20450	829	1	MID	0.19	0.029	19.39	21.00	1.449	0.042	/
		Left Tilt	0	20450	829	1	MID	0.02	0.017	19.39	21.00	1.449	0.025	/
		Right Cheek	0	20450	829	1	MID	0.17	0.038	19.39	21.00	1.449	0.055	/
		Right Tilt	0	20450	829	1	MID	0.10	0.025	19.39	21.00	1.449	0.036	/
		Left Cheek	0	20450	829	25	MID	0.11	0.029	18.35	20.00	1.462	0.042	/
		Left Tilt	0	20450	829	25	MID	-0.02	0.017	18.35	20.00	1.462	0.025	/
		Right Cheek	0	20450	829	25	MID	0.18	0.038	18.35	20.00	1.462	0.056	/
		Right Tilt	0	20450	829	25	MID	0.15	0.025	18.35	20.00	1.462	0.037	/
<b>Body-worn&amp;Hotspot</b>														
Ant.1	QPSK	Front Side	10	20450	829	1	MID	-0.01	0.158	20.65	22.00	1.365	0.216	/
		Back Side	10	20450	829	1	MID	0.00	0.605	20.65	22.00	1.365	<b>0.826</b>	16#
		Right Edge	10	20450	829	1	MID	-0.06	0.345	20.65	22.00	1.365	0.471	/
		Top Edge	10	20450	829	1	MID	0.01	0.095	20.65	22.00	1.365	0.130	/
		Front Side	10	20450	829	25	MID	0.04	0.130	19.63	21.00	1.371	0.178	/
		Back Side	10	20450	829	25	MID	0.03	0.245	19.63	21.00	1.371	0.336	/
		Right Edge	10	20450	829	25	MID	-0.03	0.293	19.63	21.00	1.371	0.402	/
		Top Edge	10	20450	829	25	MID	-0.07	0.076	19.63	21.00	1.371	0.104	/
Ant.0	QPSK	Front Side	10	20450	829	1	MID	0.07	0.046	19.39	21.00	1.449	0.067	/
		Back Side	10	20450	829	1	MID	-0.08	0.066	19.39	21.00	1.449	0.096	/
		Left Edge	10	20450	829	1	MID	-0.04	0.048	19.39	21.00	1.449	0.070	/
		Right Edge	10	20450	829	1	MID	0.18	0.022	19.39	21.00	1.449	0.032	/
		Bottom Edge	10	20450	829	1	MID	-0.04	0.060	19.39	21.00	1.449	0.087	/
		Front Side	10	20450	829	25	MID	-0.12	0.038	18.35	20.00	1.462	0.056	/
		Back Side	10	20450	829	25	MID	-0.17	0.063	18.35	20.00	1.462	0.092	/
		Left Edge	10	20450	829	25	MID	-0.04	0.040	18.35	20.00	1.462	0.058	/
		Right Edge	10	20450	829	25	MID	0.00	0.016	18.35	20.00	1.462	0.023	/
		Bottom Edge	10	20450	829	25	MID	-0.12	0.055	18.35	20.00	1.462	0.080	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

## 10.10 LTE Band 5 Worse case for CA Test

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune- power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head-CA</b>														
Ant.1	QPSK	Left Cheek	0	20476 +20575	831.6 +841.5	1+1	High +Low	0.06	0.277	20.61	22.00	1.377	<b>0.381</b>	/
<b>Body-worn&amp;Hotspot-CA</b>														
Ant.1	QPSK	Right Edge	10	20476 +20575	831.6 +841.5	1+1	High +Low	0.09	0.336	20.61	22.00	1.377	<b>0.463</b>	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

### 10.11 LTE Band 7 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>														
Ant.2	QPSK	Left Cheek	0	21350	2560	1	LOW	0.15	0.249	19.59	21.00	1.384	0.345	/
		Left Tilt	0	21350	2560	1	LOW	0.04	0.051	19.59	21.00	1.384	0.071	/
		Right Cheek	0	21350	2560	1	LOW	0.03	0.286	19.59	21.00	1.384	<b>0.396</b>	17#
		Right Tilt	0	21350	2560	1	LOW	0.15	0.152	19.59	21.00	1.384	0.210	/
		Left Cheek	0	21350	2560	50	MID	-0.08	0.188	18.56	20.00	1.393	0.262	/
		Left Tilt	0	21350	2560	50	MID	0.17	0.038	18.56	20.00	1.393	0.053	/
		Right Cheek	0	21350	2560	50	MID	-0.15	0.210	18.56	20.00	1.393	0.293	/
		Right Tilt	0	21350	2560	50	MID	0.09	0.115	18.56	20.00	1.393	0.160	/
Ant.0	QPSK	Left Cheek	0	21350	2560	1	MID	-0.01	0.022	18.11	19.00	1.227	0.027	/
		Left Tilt	0	21350	2560	1	MID	-0.18	0.015	18.11	19.00	1.227	0.018	/
		Right Cheek	0	21350	2560	1	MID	0.14	0.025	18.11	19.00	1.227	0.031	/
		Right Tilt	0	21350	2560	1	MID	0.14	0.021	18.11	19.00	1.227	0.026	/
		Left Cheek	0	21350	2560	50	MID	0.08	0.020	17.14	18.00	1.219	0.024	/
		Left Tilt	0	21350	2560	50	MID	-0.07	0.013	17.14	18.00	1.219	0.016	/
		Right Cheek	0	21350	2560	50	MID	0.08	0.025	17.14	18.00	1.219	0.030	/
		Right Tilt	0	21350	2560	50	MID	-0.07	0.019	17.14	18.00	1.219	0.023	/
<b>Body-worn&amp;Hotspot</b>														
Ant.2	QPSK	Front Side	10	20850	2510	1	LOW	-0.09	0.058	19.59	21.00	1.384	0.080	/
		Back Side	10	20850	2510	1	LOW	0.07	0.092	19.59	21.00	1.384	0.127	/
		Right Edge	10	20850	2510	1	LOW	0.09	0.099	19.59	21.00	1.384	<b>0.137</b>	18#
		Top Edge	10	20850	2510	1	LOW	0.03	0.030	19.59	21.00	1.384	0.042	/
		Front Side	10	20850	2510	50	MID	-0.06	0.043	18.56	20.00	1.393	0.060	/
		Back Side	10	20850	2510	50	MID	-0.16	0.084	18.56	20.00	1.393	0.117	/
		Right Edge	10	20850	2510	50	MID	0.00	0.087	18.56	20.00	1.393	0.121	/
		Top Edge	10	20850	2510	50	MID	-0.06	0.022	18.56	20.00	1.393	0.031	/
Ant.0	QPSK	Front Side	10	21100	2535	1	MID	-0.13	0.060	18.11	19.00	1.227	0.074	/
		Back Side	10	21100	2535	1	MID	-0.11	0.075	18.11	19.00	1.227	0.092	/
		Left Edge	10	21100	2535	1	MID	0.13	0.029	18.11	19.00	1.227	0.036	/
		Right Edge	10	21100	2535	1	MID	0.19	0.021	18.11	19.00	1.227	0.026	/
		Bottom Edge	10	21100	2535	1	MID	-0.03	0.095	18.11	19.00	1.227	0.117	/
		Front Side	10	21100	2535	50	MID	-0.06	0.050	17.14	18.00	1.219	0.061	/
		Back Side	10	21100	2535	50	MID	-0.05	0.063	17.14	18.00	1.219	0.077	/
		Left Edge	10	21100	2535	50	MID	0.14	0.018	17.14	18.00	1.219	0.022	/
		Right Edge	10	21100	2535	50	MID	-0.10	0.018	17.14	18.00	1.219	0.022	/
		Bottom Edge	10	21100	2535	50	MID	0.12	0.090	17.14	18.00	1.219	0.110	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

## 10.12 LTE Band 7 Worse case for CA Test

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune- power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head-CA</b>														
Ant.2	QPSK	Right Cheek	0	21350+21152	2560+2540	1+1	High +Low	-0.12	0.279	19.56	21.00	1.393	<b>0.389</b>	/
<b>Body-worn&amp;Hotspot-CA</b>														
Ant.2	QPSK	Right Edge	10	21350+21152	2560+2540	1+1	High +Low	-0.15	0.093	19.56	21.00	1.393	<b>0.130</b>	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

### 10.13 LTE Band 38 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>														
Ant.2	QPSK	Left Cheek	0	38150	2610	1	MID	-0.01	0.122	22.15	23.00	1.216	0.148	/
		Left Tilt	0	38150	2610	1	MID	0.11	0.104	22.15	23.00	1.216	0.126	/
		Right Cheek	0	38150	2610	1	MID	0.02	0.400	22.15	23.00	1.216	<b>0.486</b>	19#
		Right Tilt	0	38150	2610	1	MID	0.14	0.248	22.15	23.00	1.216	0.302	/
		Left Cheek	0	38150	2610	50	MID	0.01	0.095	21.12	22.00	1.225	0.116	/
		Left Tilt	0	38150	2610	50	MID	-0.13	0.081	21.12	22.00	1.225	0.099	/
		Right Cheek	0	38150	2610	50	MID	0.17	0.304	21.12	22.00	1.225	0.372	/
		Right Tilt	0	38150	2610	50	MID	0.15	0.193	21.12	22.00	1.225	0.236	/
Ant.0	QPSK	Left Cheek	0	38150	2610	1	MID	0.16	0.038	20.78	22.00	1.324	0.050	/
		Left Tilt	0	38150	2610	1	MID	0.05	0.026	20.78	22.00	1.324	0.034	/
		Right Cheek	0	38150	2610	1	MID	-0.02	0.042	20.78	22.00	1.324	0.056	/
		Right Tilt	0	38150	2610	1	MID	-0.06	0.035	20.78	22.00	1.324	0.046	/
		Left Cheek	0	38150	2610	50	HIGH	0.07	0.029	19.78	21.00	1.324	0.038	/
		Left Tilt	0	38150	2610	50	HIGH	0.17	0.020	19.78	21.00	1.324	0.026	/
		Right Cheek	0	38150	2610	50	HIGH	-0.10	0.032	19.78	21.00	1.324	0.042	/
		Right Tilt	0	38150	2610	50	HIGH	0.07	0.026	19.78	21.00	1.324	0.034	/
<b>Body-worn&amp;Hotspot</b>														
Ant.2	QPSK	Front Side	10	38150	2610	1	MID	-0.06	0.076	22.15	23.00	1.216	0.092	/
		Back Side	10	38150	2610	1	MID	-0.18	0.161	22.15	23.00	1.216	0.196	/
		Right Edge	10	38150	2610	1	MID	0.01	0.186	22.15	23.00	1.216	<b>0.226</b>	20#
		Top Edge	10	38150	2610	1	MID	-0.01	0.052	22.15	23.00	1.216	0.063	/
		Front Side	10	38150	2610	50	MID	0.00	0.061	21.12	22.00	1.225	0.075	/
		Back Side	10	38150	2610	50	MID	0.10	0.131	21.12	22.00	1.225	0.160	/
		Right Edge	10	38150	2610	50	MID	0.02	0.117	21.12	22.00	1.225	0.143	/
		Top Edge	10	38150	2610	50	MID	0.17	0.035	21.12	22.00	1.225	0.043	/
Ant.0	QPSK	Front Side	10	38150	2610	1	MID	-0.01	0.110	20.78	22.00	1.324	0.146	/
		Back Side	10	38150	2610	1	MID	0.16	0.125	20.78	22.00	1.324	0.166	/
		Left Edge	10	38150	2610	1	MID	-0.02	0.037	20.78	22.00	1.324	0.049	/
		Right Edge	10	38150	2610	1	MID	0.05	0.037	20.78	22.00	1.324	0.049	/
		Bottom Edge	10	38150	2610	1	MID	0.06	0.163	20.78	22.00	1.324	0.216	/
		Front Side	10	38150	2610	50	HIGH	-0.08	0.088	19.78	21.00	1.324	0.117	/
		Back Side	10	38150	2610	50	HIGH	0.13	0.108	19.78	21.00	1.324	0.143	/
		Left Edge	10	38150	2610	50	HIGH	-0.14	0.032	19.78	21.00	1.324	0.042	/
		Right Edge	10	38150	2610	50	HIGH	0.12	0.031	19.78	21.00	1.324	0.041	/
		Bottom Edge	10	38150	2610	50	HIGH	-0.18	0.128	19.78	21.00	1.324	0.169	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

## 10.14 LTE Band 38 Worse case for CA Test

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune- power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head-CA</b>														
Ant.2	QPSK	Right Cheek	0	38150+37952	2610+2590.6	1+1	Low+High	0.06	0.386	22.03	23.00	1.250	<b>0.483</b>	/
<b>Body-worn&amp;Hotspot-CA</b>														
Ant.2	QPSK	Right Edge	10	38150+37952	2610+2590.6	1+1	Low+High	-0.05	0.177	22.03	23.00	1.250	<b>0.221</b>	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														



### 10.15 LTE Band 41 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>														
Ant.2	QPSK	Left Cheek	0	41140	2645	1	MID	-0.11	0.115	22.18	23.00	1.208	0.139	/
		Left Tilt	0	41140	2645	1	MID	0.19	0.100	22.18	23.00	1.208	0.121	/
		Right Cheek	0	41140	2645	1	MID	0.00	0.398	22.18	23.00	1.208	<b>0.481</b>	21#
		Right Tilt	0	41140	2645	1	MID	-0.16	0.236	22.18	23.00	1.208	0.285	/
		Left Cheek	0	41140	2645	50	MID	0.14	0.091	21.19	22.00	1.205	0.110	/
		Left Tilt	0	41140	2645	50	MID	0.12	0.079	21.19	22.00	1.205	0.095	/
		Right Cheek	0	41140	2645	50	MID	-0.01	0.294	21.19	22.00	1.205	0.354	/
		Right Tilt	0	41140	2645	50	MID	-0.16	0.186	21.19	22.00	1.205	0.224	/
Ant.0	QPSK	Left Cheek	0	41140	2645	1	MID	0.06	0.038	20.84	22.00	1.306	0.050	/
		Left Tilt	0	41140	2645	1	MID	-0.05	0.025	20.84	22.00	1.306	0.033	/
		Right Cheek	0	41140	2645	1	MID	0.11	0.041	20.84	22.00	1.306	0.054	/
		Right Tilt	0	41140	2645	1	MID	-0.13	0.036	20.84	22.00	1.306	0.047	/
		Left Cheek	0	41140	2645	50	MID	-0.11	0.030	19.85	21.00	1.303	0.039	/
		Left Tilt	0	41140	2645	50	MID	-0.09	0.020	19.85	21.00	1.303	0.026	/
		Right Cheek	0	41140	2645	50	MID	-0.15	0.032	19.85	21.00	1.303	0.042	/
		Right Tilt	0	41140	2645	50	MID	-0.04	0.028	19.85	21.00	1.303	0.036	/
<b>Body-worn&amp;Hotspot</b>														
Ant.2	QPSK	Front Side	10	41140	2645	1	MID	0.07	0.113	22.18	23.00	1.208	0.137	/
		Back Side	10	41140	2645	1	MID	-0.10	0.247	22.18	23.00	1.208	<b>0.298</b>	22#
		Right Edge	10	41140	2645	1	MID	0.15	0.220	22.18	23.00	1.208	0.266	/
		Top Edge	10	41140	2645	1	MID	-0.11	0.067	22.18	23.00	1.208	0.081	/
		Front Side	10	41140	2645	50	MID	-0.06	0.093	21.19	22.00	1.205	0.112	/
		Back Side	10	41140	2645	50	MID	0.19	0.203	21.19	22.00	1.205	0.245	/
		Right Edge	10	41140	2645	50	MID	0.01	0.172	21.19	22.00	1.205	0.207	/
		Top Edge	10	41140	2645	50	MID	-0.03	0.067	21.19	22.00	1.205	0.081	/
Ant.0	QPSK	Front Side	10	41140	2645	1	MID	0.17	0.154	20.84	22.00	1.306	0.201	/
		Back Side	10	41140	2645	1	MID	0.01	0.184	20.84	22.00	1.306	0.240	/
		Left Edge	10	41140	2645	1	MID	0.03	0.053	20.84	22.00	1.306	0.069	/
		Right Edge	10	41140	2645	1	MID	0.10	0.055	20.84	22.00	1.306	0.072	/
		Bottom Edge	10	41140	2645	1	MID	0.11	0.210	20.84	22.00	1.306	0.274	/
		Front Side	10	41140	2645	50	MID	-0.14	0.136	19.85	21.00	1.303	0.177	/
		Back Side	10	41140	2645	50	MID	0.10	0.154	19.85	21.00	1.303	0.201	/
		Left Edge	10	41140	2645	50	MID	0.00	0.049	19.85	21.00	1.303	0.064	/
		Right Edge	10	41140	2645	50	MID	-0.17	0.046	19.85	21.00	1.303	0.060	/
		Bottom Edge	10	41140	2645	50	MID	-0.12	0.204	19.85	21.00	1.303	0.266	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

## 10.16 LTE Band 41 Worse case for CA Test

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune- power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head-CA</b>														
Ant.2	QPSK	Left Cheek	0	41140+40942	2645+262502	1+1	High +Low	0.02	0.373	21.91	23.00	1.285	<b>0.479</b>	/
<b>Body-worn&amp;Hotspot-CA</b>														
Ant.2	QPSK	Front Side	10	41140+40942	2645+262502	1+1	High +Low	-0.16	0.212	21.91	23.00	1.285	<b>0.272</b>	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

### 10.17 WIFI 2.4GHZ

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	Duty Cycle (%)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>														
Ant.13	802.11 b	Left Cheek	0	6	2437	0.01	0.565	16.74	17.00	1.062	99.50	1.005	<b>0.603</b>	23#
	802.11 b	Left Tilt	0	6	2437	-0.08	0.190	16.74	17.00	1.062	99.50	1.005	0.203	/
	802.11 b	Right Cheek	0	6	2437	-0.17	0.143	16.74	17.00	1.062	99.50	1.005	0.153	/
	802.11 b	Right Tilt	0	6	2437	0.11	0.059	16.74	17.00	1.062	99.50	1.005	0.063	/
Ant.14	802.11 b	Left Cheek	0	6	2437	0.16	0.512	16.47	17.00	1.130	99.50	1.005	0.581	/
	802.11 b	Left Tilt	0	6	2437	-0.05	0.510	16.47	17.00	1.130	99.50	1.005	0.579	/
	802.11 b	Right Cheek	0	6	2437	-0.04	0.305	16.47	17.00	1.130	99.50	1.005	0.346	/
	802.11 b	Right Tilt	0	6	2437	-0.18	0.324	16.47	17.00	1.130	99.50	1.005	0.368	/
<b>Body-worn&amp;Hotspot</b>														
Ant.13	802.11 b	Front Side	10	6	2412	-0.08	0.148	16.74	17.00	1.062	99.50	1.005	0.158	/
	802.11 b	Back Side	10	6	2412	0.14	0.270	16.74	17.00	1.062	99.50	1.005	0.288	/
	802.11 b	Left Edge	10	6	2412	-0.02	0.327	16.74	17.00	1.062	99.50	1.005	<b>0.349</b>	24#
	802.11 b	Top Edge	10	6	2412	-0.08	0.055	16.74	17.00	1.062	99.50	1.005	0.059	/
Ant.14	802.11 b	Front Side	10	6	2437	0.19	0.124	16.47	17.00	1.130	99.50	1.005	0.141	/
	802.11 b	Back Side	10	6	2437	0.15	0.219	16.47	17.00	1.130	99.50	1.005	0.249	/
	802.11 b	Left Edge	10	6	2437	0.04	0.016	16.47	17.00	1.130	99.50	1.005	0.018	/
	802.11 b	Top Edge	10	6	2437	-0.05	0.187	16.47	17.00	1.130	99.50	1.005	0.212	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

### 10.18 WIFI 5GHz

Antenna	Band	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	Duty Cycle (%)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>															
Ant.13	5.3G	802.11n(HT40)	Left Cheek	0	62	5310	0.06	0.248	16.86	18.50	1.459	93.60	1.068	0.386	/
	5.3G	802.11n(HT40)	Left Tilt	0	62	5310	0.00	0.170	16.86	18.50	1.459	93.60	1.068	0.265	/
	5.3G	802.11n(HT40)	Right Cheek	0	62	5310	0.09	0.144	16.86	18.50	1.459	93.60	1.068	0.224	/
	5.3G	802.11n(HT40)	Right Tilt	0	62	5310	0.16	0.140	16.86	18.50	1.459	93.60	1.068	0.218	/
Ant.14	5.3G	802.11 ac80	Left Cheek	0	58	5290	-0.09	0.485	10.70	12.00	1.349	95.50	1.047	0.685	/
	5.3G	802.11 ac80	Left Tilt	0	58	5290	-0.08	0.504	10.70	12.00	1.349	95.50	1.047	<b>0.712</b>	25#
	5.3G	802.11 ac80	Right Cheek	0	58	5290	-0.13	0.322	10.70	12.00	1.349	95.50	1.047	0.455	/
	5.3G	802.11 ac80	Right Tilt	0	58	5290	0.06	0.324	10.70	12.00	1.349	95.50	1.047	0.458	/
Ant.13	5.6G	802.11n(HT40)	Left Cheek	0	134	5670	0.04	0.241	16.45	18.00	1.429	93.60	1.068	0.368	/
	5.6G	802.11n(HT40)	Left Tilt	0	134	5670	-0.10	0.220	16.45	18.00	1.429	93.60	1.068	0.336	/
	5.6G	802.11n(HT40)	Right Cheek	0	134	5670	-0.06	0.130	16.45	18.00	1.429	93.60	1.068	0.198	/
	5.6G	802.11n(HT40)	Right Tilt	0	134	5670	-0.01	0.144	16.45	18.00	1.429	93.60	1.068	0.220	/
Ant.14	5.6G	802.11 ac80	Left Cheek	0	122	5610	-0.11	0.342	11.64	12.00	1.086	95.50	1.047	0.389	/
	5.6G	802.11 ac80	Left Tilt	0	122	5610	-0.09	0.381	11.64	12.00	1.086	95.50	1.047	<b>0.433</b>	26#
	5.6G	802.11 ac80	Right Cheek	0	122	5610	0.08	0.321	11.64	12.00	1.086	95.50	1.047	0.365	/
	5.6G	802.11 ac80	Right Tilt	0	122	5610	0.05	0.335	11.64	12.00	1.086	95.50	1.047	0.381	/
Ant.13	5.8G	802.11n(HT40)	Left Cheek	0	159	5795	-0.13	0.505	16.86	18.00	1.300	93.60	1.068	<b>0.701</b>	27#
	5.8G	802.11n(HT40)	Left Tilt	0	159	5795	0.04	0.482	16.86	18.00	1.300	93.60	1.068	0.669	/
	5.8G	802.11n(HT40)	Right Cheek	0	159	5795	0.11	0.438	16.86	18.00	1.300	93.60	1.068	0.608	/
	5.8G	802.11n(HT40)	Right Tilt	0	159	5795	0.18	0.411	16.86	18.00	1.300	93.60	1.068	0.571	/
Ant.14	5.8G	802.11 ac80	Left Cheek	0	155	5775	-0.17	0.286	11.41	12.00	1.146	95.50	1.047	0.343	/
	5.8G	802.11 ac80	Left Tilt	0	155	5775	-0.02	0.231	11.41	12.00	1.146	95.50	1.047	0.277	/
	5.8G	802.11 ac80	Right Cheek	0	155	5775	0.19	0.258	11.41	12.00	1.146	95.50	1.047	0.310	/
	5.8G	802.11 ac80	Right Tilt	0	155	5775	-0.02	0.207	11.41	12.00	1.146	95.50	1.047	0.248	/
<b>Body-worn</b>															
Ant.13	5.3G	802.11n(HT40)	Front Side	10	62	5310	-0.07	0.075	16.86	18.50	1.459	93.60	1.068	0.117	/
	5.3G	802.11n(HT40)	Back Side	10	62	5310	-0.01	0.264	16.86	18.50	1.459	93.60	1.068	<b>0.411</b>	28#
Ant.14	5.3G	802.11 ac80	Front Side	10	58	5290	0.18	0.115	10.70	12.00	1.349	95.50	1.047	0.162	/
	5.3G	802.11 ac80	Back Side	10	58	5290	0.12	0.185	10.70	12.00	1.349	95.50	1.047	0.261	/
Ant.13	5.6G	802.11n(HT40)	Front Side	10	134	5670	0.02	0.074	16.45	18.00	1.429	93.60	1.068	0.113	/
	5.6G	802.11n(HT40)	Back Side	10	134	5670	0.13	0.302	16.45	18.00	1.429	93.60	1.068	<b>0.461</b>	29#
Ant.14	5.6G	802.11 ac80	Front Side	10	122	5610	0.06	0.088	11.64	12.00	1.086	95.50	1.047	0.100	/
	5.6G	802.11 ac80	Back Side	10	122	5610	0.19	0.161	11.64	12.00	1.086	95.50	1.047	0.183	/
Ant.13	5.8G	802.11n(HT40)	Front Side	10	159	5795	0.09	0.077	16.86	18.00	1.300	93.60	1.068	0.107	/
	5.8G	802.11n(HT40)	Back Side	10	159	5795	-0.10	0.334	16.86	18.00	1.300	93.60	1.068	<b>0.464</b>	30#
Ant.14	5.8G	802.11 ac80	Front Side	10	155	5775	0.07	0.051	11.41	12.00	1.146	95.50	1.047	0.061	/

	5.8G	802.11 ac80	Back Side	10	155	5775	0.03	0.138	11.41	12.00	1.146	95.50	1.047	0.166	/	
<b>Hotspot</b>																
Ant.13	5.2G	802.11n(HT40)	Front Side	10	38	5190	0.17	0.087	17.43	18.50	1.279	93.60	1.068	0.119	/	
	5.2G	802.11n(HT40)	Back Side	10	38	5190	0.05	0.226	17.43	18.50	1.279	93.60	1.068	0.309	/	
	5.2G	802.11n(HT40)	Left Edge	10	38	5190	0.00	0.202	17.43	18.50	1.279	93.60	1.068	0.276	/	
	5.2G	802.11n(HT40)	Top Edge	10	38	5190	-0.09	0.067	17.43	18.50	1.279	93.60	1.068	0.092	/	
Ant.14	5.2G	802.11 ac80	Front Side	10	42	5210	-0.05	0.120	11.28	12.00	1.180	95.50	1.047	0.148	/	
	5.2G	802.11 ac80	Back Side	10	42	5210	0.08	0.188	11.28	12.00	1.180	95.50	1.047	0.232	/	
	5.2G	802.11 ac80	Left Edge	10	42	5210	0.19	0.025	11.28	12.00	1.180	95.50	1.047	0.031	/	
	5.2G	802.11 ac80	Top Edge	10	42	5210	-0.05	0.256	11.28	12.00	1.180	95.50	1.047	<b>0.316</b>	31#	
Ant.13	5.8G	802.11n(HT40)	Front Side	10	159	5795	0.09	0.077	16.86	18.00	1.300	93.60	1.068	0.107	/	
	5.8G	802.11n(HT40)	Back Side	10	159	5795	-0.10	0.334	16.86	18.00	1.300	93.60	1.068	<b>0.464</b>	30#	
	5.8G	802.11n(HT40)	Left Edge	10	159	5795	-0.11	0.297	16.86	18.00	1.300	93.60	1.068	0.412	/	
	5.8G	802.11n(HT40)	Top Edge	10	159	5795	-0.18	0.148	16.86	18.00	1.300	93.60	1.068	0.205	/	
Ant.14	5.8G	802.11 ac80	Front Side	10	155	5775	0.07	0.051	11.41	12.00	1.146	95.50	1.047	0.061	/	
	5.8G	802.11 ac80	Back Side	10	155	5775	0.03	0.138	11.41	12.00	1.146	95.50	1.047	0.166	/	
	5.8G	802.11 ac80	Left Edge	10	155	5775	-0.10	0.041	11.41	12.00	1.146	95.50	1.047	0.049	/	
	5.8G	802.11 ac80	Top Edge	10	155	5775	-0.16	0.162	11.41	12.00	1.146	95.50	1.047	0.194	/	
Note: Refer to ANNEX C for the detailed test data for each test configuration.																

Antenna	Band	Mode	Position	Dist.(mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-powe r(dBm)	Scaling Factor	Duty Cycle (%)	Scaling Factor	10 g Scaled SAR (W/kg)	Meas.No.
<b>Specific</b>															
Ant.13	5.3G	802.11n(HT40)	Front Side	0	62	5310	0.01	0.204	16.86	18.50	1.459	93.60	1.068	0.318	/
	5.3G	802.11n(HT40)	Back Side	0	62	5310	0.18	0.276	16.86	18.50	1.459	93.60	1.068	0.430	/
	5.3G	802.11n(HT40)	Left Edge	0	62	5310	0.02	0.501	16.86	18.50	1.459	93.60	1.068	0.781	/
	5.3G	802.11n(HT40)	Top Edge	0	62	5310	-0.17	0.133	16.86	18.50	1.459	93.60	1.068	0.207	/
Ant.14	5.3G	802.11 ac80	Front Side	0	58	5290	-0.11	0.435	10.70	12.00	1.349	95.50	1.047	0.614	/
	5.3G	802.11 ac80	Back Side	0	58	5290	0.14	0.249	10.70	12.00	1.349	95.50	1.047	0.352	/
	5.3G	802.11 ac80	Left Edge	0	58	5290	-0.12	0.035	10.70	12.00	1.349	95.50	1.047	0.049	/
	5.3G	802.11 ac80	Right Edge	0	58	5290	0.12	0.125	10.70	12.00	1.349	95.50	1.047	0.177	/
	5.3G	802.11 ac80	Top Edge	0	58	5290	-0.07	0.559	10.70	12.00	1.349	95.50	1.047	<b>0.790</b>	32#
Ant.13	5.6G	802.11n(HT40)	Front Side	0	134	5670	-0.10	0.204	16.45	18.00	1.429	93.60	1.068	0.311	/
	5.6G	802.11n(HT40)	Back Side	0	134	5670	0.18	0.271	16.45	18.00	1.429	93.60	1.068	0.414	/
	5.6G	802.11n(HT40)	Left Edge	0	134	5670	0.09	0.975	16.45	18.00	1.429	93.60	1.068	<b>1.488</b>	33#
	5.6G	802.11n(HT40)	Top Edge	0	134	5670	-0.18	0.262	16.45	18.00	1.429	93.60	1.068	0.400	/
Ant.14	5.6G	802.11 ac80	Front Side	0	122	5610	0.07	0.299	11.64	12.00	1.086	95.50	1.047	0.340	/
	5.6G	802.11 ac80	Back Side	0	122	5610	0.10	0.223	11.64	12.00	1.086	95.50	1.047	0.254	/
	5.6G	802.11 ac80	Left Edge	0	122	5610	0.05	0.036	11.64	12.00	1.086	95.50	1.047	0.041	/
	5.6G	802.11 ac80	Right Edge	0	122	5610	-0.18	0.135	11.64	12.00	1.086	95.50	1.047	0.154	/
	5.6G	802.11 ac80	Top Edge	0	122	5610	0.10	0.467	11.64	12.00	1.086	95.50	1.047	0.531	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

### 10.19 Bluetooth

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	Duty Cycle (%)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
<b>Head</b>														
Ant. 13	DH5	Left Cheek	0	39	2441	0.03	0.265	17.55	18.00	1.109	76.67	1.304	<b>0.383</b>	34#
Ant. 13	DH5	Left Tilt	0	39	2441	0.07	0.081	17.55	18.00	1.109	76.67	1.304	0.117	/
Ant. 13	DH5	Right Cheek	0	39	2441	-0.05	0.063	17.55	18.00	1.109	76.67	1.304	0.091	/
Ant. 13	DH5	Right Tilt	0	39	2441	-0.10	0.030	17.55	18.00	1.109	76.67	1.304	0.043	/
Ant. 14	DH5	Left Cheek	0	39	2441	0.04	0.217	16.11	17.00	1.227	76.67	1.304	0.347	/
Ant. 14	DH5	Left Tilt	0	39	2441	-0.13	0.218	16.11	17.00	1.227	76.67	1.304	0.349	/
Ant. 14	DH5	Right Cheek	0	39	2441	-0.03	0.127	16.11	17.00	1.227	76.67	1.304	0.203	/
Ant. 14	DH5	Right Tilt	0	39	2441	-0.15	0.123	16.11	17.00	1.227	76.67	1.304	0.197	/
<b>Body-worn&amp;Hotspot</b>														
Ant. 13	DH5	Front Side	10	39	2441	-0.16	0.043	17.55	18.00	1.109	76.67	1.304	0.062	/
Ant. 13	DH5	Back Side	10	39	2441	0.00	0.095	17.55	18.00	1.109	76.67	1.304	0.137	/
Ant. 13	DH5	Left Edge	10	39	2441	0.02	0.099	17.55	18.00	1.109	76.67	1.304	<b>0.143</b>	35#
Ant. 13	DH5	Top Edge	10	39	2441	0.16	0.015	17.55	18.00	1.109	76.67	1.304	0.022	/
Ant. 14	DH5	Front Side	10	39	2441	0.00	0.041	16.11	17.00	1.227	76.67	1.304	0.066	/
Ant. 14	DH5	Back Side	10	39	2441	-0.01	0.080	16.11	17.00	1.227	76.67	1.304	0.128	/
Ant. 14	DH5	Left Edge	10	39	2441	0.11	0.013	16.11	17.00	1.227	76.67	1.304	0.021	/
Ant. 14	DH5	Top Edge	10	39	2441	0.01	0.066	16.11	17.00	1.227	76.67	1.304	0.106	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

### 10.20 NFC SAR

1. According to the 2022.04 TCBC Workshop meeting, the power threshold is  $\leq 100\text{MHz}$ , refer to P6s.

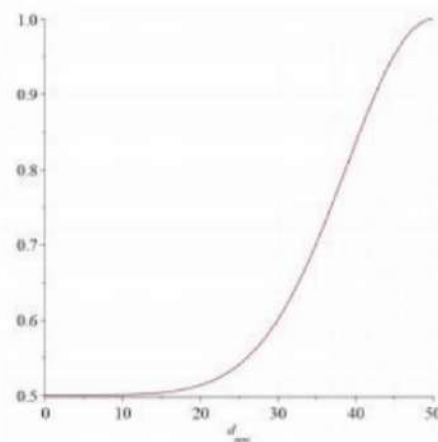
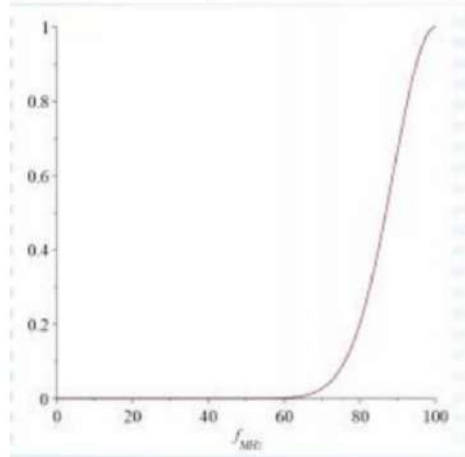
$$P_{7X}(d_{mm}, f_{MHz}) := \begin{cases} P_{6S}(d_{mm}, f_{MHz}) & f_{MHz} \leq 100 \\ P_{6to7}(d_{mm}, f_{MHz}) & 100 < f_{MHz} \leq 300 \\ P_7(d_{mm}, f_{MHz}) & 300 < f_{MHz} \end{cases}$$

2. For portable products, when using a distance of  $\leq 50\text{mm}$ , such as mobile phone NFC, P6s is calculated with the following formula calculate.

$$S_f(f_{MHz}) \cdot P_{431a}(d_{mm}, f_{MHz}) + (1 - S_f(f_{MHz})) \cdot S_d(d_{mm}) P_{431b1}(50., 100.) \cdot \left( 1. + \log_{10} \left( \frac{100.}{f_{MHz}} \right) \right) \quad d_{mm} \leq 50 \text{ and } f_{MHz} \leq 100$$

3. The smoothing functions Sf and Sd in P6s calculate the limits based on KDB 447498 V06 and are calculated as follows.

$$S_f(f_{MHz}) := \exp \left( -10 \frac{(f_{MHz} - f_{max})^2}{\Delta f^2} \right) \quad S_d(d_{mm}) := 0.5 + 0.5 \cdot \exp \left( -10 \frac{(d_{mm} - d_{max})^2}{\Delta d^2} \right)$$



d≤50mm			
f Max(MHz)	100	d Max(mm)	50
f MHz	13.56	d(mm)	5
Δf(MHz)	100	Δd	50
S <sub>f</sub> (f <sub>MHz</sub> )	0.000568861	S <sub>d</sub> (d <sub>mm</sub> )	0.50015177
P6s(mW)	443.1257378		
Note: SAR testing is required when the distance is 5mm and the power is greater than 443.13mW.			

4. According to the ANSI C63.10 clause 11.12.2.2:



The value of maximum peak output power is according to the method described in ANSI C63.10 clause 11.12.2.2 General procedure for conducted measurements in restricted bands:

- a) Measure the conducted output power (in dBm) using the detector specified (see guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
- b) Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the ERP level (see guidance on determining the applicable antenna gain)
- c) Add the appropriate maximum ground reflection factor to the ERP level (6 dB for frequencies  $\leq 30$  MHz, 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive and 0 dB for frequencies  $> 1000$  MHz).
- d) For devices with multiple antenna-ports, measure the power of each individual chain and sum the ERP of all chains in linear terms (e.g., Watts, mW).
- e) Convert the resultant ERP level to an equivalent electric field strength using the following relationship:  $E = ERP - 20\log D + 104.8$

where:

E = electric field strength in dB $\mu$ V/m,

ERP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

Mode	f (MHz)	Max. E-Field strength (dB $\mu$ V/m)	D (m)	Ground reflection factor (dB)	ERP (dBm)
NFC (13.56MHz)	13.56	41.42	10	6	-37.38
Note:					
1. Add the appropriate maximum ground reflection factor to the ERP level (6 dB for frequencies $\leq 30$ MHz).					
2.ERP= 41.42+20*Log(10) - 104.8 + 6 =-37.38 (dBm)					

According to the FCC KDB 447498 D04

Estimated SAR: SAR test =1.6 · Pant / Pth [W/kg]

Estimated SAR	1.6 · Pant / Pth [W/kg]		
Pmeas.(dBm)	-37.38	Pmeas.(mW)	0.00018
Pth.(mW)	443.13		
NFC Estimated 1g SAR [W/kg]	<0.001		

### 10.20.1 Highest Total Exposure Ratio of Simultaneous Transmission

NFC multi-transmit requires the use of the TER formula:

$$TER = \sum_{k=1}^{N_s} \left( \frac{SAR_k}{SAR_{lim}} \right) + \sum_{k=1}^{N_f} \left( \frac{MPE_{field, k}}{MPE_{field, lim}} \right)^2 + \sum_{k=1}^{N_{PD}} \left( \frac{MPE_{PD, k}}{MPE_{PD, lim}} \right) \quad \text{The}$$

maximum SAR value for Simultaneous Transmission is 1.458 [W/kg], SAR test exemption may be considered by applying a factor of 2.5 to the SAR-based exemption thresholds. Therefore, the worst TER  $= (1.458 + 0.001) / 1.6 = 0.912 < 1$ , the NFC SAR transmit simultaneously Pass.

## 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  $\leq 1.45$  W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is  $\leq 1.10$ , 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:

When the highest measured SAR is  $< 0.80$  W/kg, repeated measurement is not required.

When the highest measured SAR is  $\geq 0.80$  W/kg, repeat that measurement once.

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  $\geq 1.45$  W/kg, perform a second repeated measurement.

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  $\geq 1.5$  W/kg, perform a third repeated measurement.

Note: For product specific 10g SAR, the highest measured 10g SAR is  $0.975 < 2.0$  W/kg, repeated measurement is not required.

## 12 SIMULTANEOUS TRANSMISSION

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR 1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR 1g 1.6 W/kg), SAR test exclusion is determined by the SAR to Peak Location Ratio (SPLSR).

### 12.1 Simultaneous Transmission Mode Consider

No.	Simultaneous Tx Combination	Head	Body-Worn	Hotspot	Specific
1	WWAN + WLAN 2.4GHz(Ant.13)	Yes	Yes	Yes	Yes
2	WWAN + WLAN 2.4GHz(Ant.14)	Yes	Yes	Yes	Yes
3	WWAN + BT(Ant.13)	Yes	Yes	Yes	Yes
4	WWAN + BT(Ant.14)	Yes	Yes	Yes	Yes
5	WWAN + WLAN 5GHz(Ant.13)	Yes	Yes	Yes	Yes
6	WWAN + WLAN 5GHz(Ant.14)	Yes	Yes	Yes	Yes
7	WLAN 5GHz(Ant.13) + BT(Ant.13)	Yes	Yes	Yes	Yes
8	WLAN 5GHz(Ant.14) + BT(Ant.14)	Yes	Yes	Yes	Yes
9	WWAN + WLAN 5GHz(Ant.13) + BT(Ant.13)	Yes	Yes	Yes	Yes
10	WWAN + WLAN 5GHz(Ant.14) + BT(Ant.14)	Yes	Yes	Yes	Yes

**Note:**

1. WWAN antennas can switch automatically, the standards supported by WWAN are(GSM Voice/GPRS/EDGE/WCDMA/LTE).
2. The maximum SAR summation is calculated based on the same configuration and test position.
3. WLAN 2.4GHz and Bluetooth will not be transmitting at same time, WLAN 2.4GHz and WLAN 5GHz will not be transmitting at same time.
4. The Bluetooth support dual antennas, and can't transmit simultaneously, the WLAN 2.4G support dual antennas, but does not support MIMO.

## 12.2 Sum SAR of Simultaneous Transmission

### 12.2.1 Head Simultaneous Transmission SAR Evaluation for WWAN and WLAN and BT

Band	Antenna	Position	Stand alone SAR							SUM SAR			
			1	2	3	4	5	6	7	1+2	1+3	1+4+6	1+5+7
			WWAN	2.4GWIFI Ant.13	2.4GWIFI Ant.14	5GWIFI Ant.13	5GWIFI Ant.14	Bluetooth Ant.13	Bluetooth Ant.14				
GSM850	Ant.1	Left Cheek	0.374	0.603	0.581	0.701	0.685	0.383	0.347	0.977	0.955	<b>1.458</b>	1.406
		Left Tilt	0.078	0.203	0.579	0.669	0.712	0.117	0.349	0.281	0.657	0.864	1.139
		Right Cheek	0.440	0.153	0.346	0.608	0.455	0.091	0.203	0.593	0.786	1.139	1.098
		Right Tilt	0.125	0.063	0.368	0.571	0.458	0.043	0.197	0.188	0.493	0.739	0.780
GSM850	Ant.0	Left Cheek	0.077	0.603	0.581	0.701	0.685	0.383	0.347	0.680	0.658	1.161	1.109
		Left Tilt	0.025	0.203	0.579	0.669	0.712	0.117	0.349	0.228	0.604	0.811	1.086
		Right Cheek	0.076	0.153	0.346	0.608	0.455	0.091	0.203	0.229	0.422	0.775	0.734
		Right Tilt	0.031	0.063	0.368	0.571	0.458	0.043	0.197	0.094	0.399	0.645	0.686
GSM1900	Ant.2	Left Cheek	0.032	0.603	0.581	0.701	0.685	0.383	0.347	0.635	0.613	1.116	1.064
		Left Tilt	0.016	0.203	0.579	0.669	0.712	0.117	0.349	0.219	0.595	0.802	1.077
		Right Cheek	0.051	0.153	0.346	0.608	0.455	0.091	0.203	0.204	0.397	0.750	0.709
		Right Tilt	0.031	0.063	0.368	0.571	0.458	0.043	0.197	0.094	0.399	0.645	0.686
GSM1900	Ant.0	Left Cheek	0.034	0.603	0.581	0.701	0.685	0.383	0.347	0.637	0.615	1.118	1.066
		Left Tilt	0.010	0.203	0.579	0.669	0.712	0.117	0.349	0.213	0.589	0.796	1.071
		Right Cheek	0.041	0.153	0.346	0.608	0.455	0.091	0.203	0.194	0.387	0.740	0.699
		Right Tilt	0.014	0.063	0.368	0.571	0.458	0.043	0.197	0.077	0.382	0.628	0.669
WCDMA B2	Ant.2	Left Cheek	0.171	0.603	0.581	0.701	0.685	0.383	0.347	0.774	0.752	1.255	1.203
		Left Tilt	0.105	0.203	0.579	0.669	0.712	0.117	0.349	0.308	0.684	0.891	1.166
		Right Cheek	0.401	0.153	0.346	0.608	0.455	0.091	0.203	0.554	0.747	1.100	1.059
		Right Tilt	0.214	0.063	0.368	0.571	0.458	0.043	0.197	0.277	0.582	0.828	0.869
WCDMA B2	Ant.0	Left Cheek	0.020	0.603	0.581	0.701	0.685	0.383	0.347	0.623	0.601	1.104	1.052
		Left Tilt	0.012	0.203	0.579	0.669	0.712	0.117	0.349	0.215	0.591	0.798	1.073
		Right Cheek	0.028	0.153	0.346	0.608	0.455	0.091	0.203	0.181	0.374	0.727	0.686
		Right Tilt	0.015	0.063	0.368	0.571	0.458	0.043	0.197	0.078	0.383	0.629	0.670
WCDMA B4	Ant.2	Left Cheek	0.033	0.603	0.581	0.701	0.685	0.383	0.347	0.636	0.614	1.117	1.065
		Left Tilt	0.023	0.203	0.579	0.669	0.712	0.117	0.349	0.226	0.602	0.809	1.084
		Right Cheek	0.070	0.153	0.346	0.608	0.455	0.091	0.203	0.223	0.416	0.769	0.728
		Right Tilt	0.037	0.063	0.368	0.571	0.458	0.043	0.197	0.100	0.405	0.651	0.692
WCDMA B4	Ant.0	Left Cheek	0.029	0.603	0.581	0.701	0.685	0.383	0.347	0.632	0.610	1.113	1.061
		Left Tilt	0.015	0.203	0.579	0.669	0.712	0.117	0.349	0.218	0.594	0.801	1.076
		Right Cheek	0.032	0.153	0.346	0.608	0.455	0.091	0.203	0.185	0.378	0.731	0.690
		Right Tilt	0.025	0.063	0.368	0.571	0.458	0.043	0.197	0.088	0.393	0.639	0.680
WCDMA B5	Ant.1	Left Cheek	0.368	0.603	0.581	0.701	0.685	0.383	0.347	0.971	0.949	1.452	1.400
		Left Tilt	0.096	0.203	0.579	0.669	0.712	0.117	0.349	0.299	0.675	0.882	1.157
		Right Cheek	0.488	0.153	0.346	0.608	0.455	0.091	0.203	0.641	0.834	1.187	1.146
		Right Tilt	0.116	0.063	0.368	0.571	0.458	0.043	0.197	0.179	0.484	0.730	0.771

WCDMA B5	Ant.0	Left Cheek	0.057	0.603	0.581	0.701	0.685	0.383	0.347	0.660	0.638	1.141	1.089
		Left Tilt	0.040	0.203	0.579	0.669	0.712	0.117	0.349	0.243	0.619	0.826	1.101
		Right Cheek	0.067	0.153	0.346	0.608	0.455	0.091	0.203	0.220	0.413	0.766	0.725
		Right Tilt	0.052	0.063	0.368	0.571	0.458	0.043	0.197	0.115	0.420	0.666	0.707
LTE B2	Ant.2	Left Cheek	0.310	0.603	0.581	0.701	0.685	0.383	0.347	0.913	0.891	1.394	1.342
		Left Tilt	0.179	0.203	0.579	0.669	0.712	0.117	0.349	0.382	0.758	0.965	1.240
		Right Cheek	0.644	0.153	0.346	0.608	0.455	0.091	0.203	0.797	0.990	1.343	1.302
		Right Tilt	0.399	0.063	0.368	0.571	0.458	0.043	0.197	0.462	0.767	1.013	1.054
LTE B2	Ant.0	Left Cheek	0.032	0.603	0.581	0.701	0.685	0.383	0.347	0.635	0.613	1.116	1.064
		Left Tilt	0.008	0.203	0.579	0.669	0.712	0.117	0.349	0.211	0.587	0.794	1.069
		Right Cheek	0.036	0.153	0.346	0.608	0.455	0.091	0.203	0.189	0.382	0.735	0.694
		Right Tilt	0.016	0.063	0.368	0.571	0.458	0.043	0.197	0.079	0.384	0.630	0.671
LTE B4	Ant.2	Left Cheek	0.044	0.603	0.581	0.701	0.685	0.383	0.347	0.647	0.625	1.128	1.076
		Left Tilt	0.028	0.203	0.579	0.669	0.712	0.117	0.349	0.231	0.607	0.814	1.089
		Right Cheek	0.102	0.153	0.346	0.608	0.455	0.091	0.203	0.255	0.448	0.801	0.760
		Right Tilt	0.057	0.063	0.368	0.571	0.458	0.043	0.197	0.120	0.425	0.671	0.712
LTE B4	Ant.0	Left Cheek	0.033	0.603	0.581	0.701	0.685	0.383	0.347	0.636	0.614	1.117	1.065
		Left Tilt	0.019	0.203	0.579	0.669	0.712	0.117	0.349	0.222	0.598	0.805	1.080
		Right Cheek	0.040	0.153	0.346	0.608	0.455	0.091	0.203	0.193	0.386	0.739	0.698
		Right Tilt	0.033	0.063	0.368	0.571	0.458	0.043	0.197	0.096	0.401	0.647	0.688
LTE B5	Ant.1	Left Cheek	0.354	0.603	0.581	0.701	0.685	0.383	0.347	0.957	0.935	1.438	1.386
		Left Tilt	0.071	0.203	0.579	0.669	0.712	0.117	0.349	0.274	0.650	0.857	1.132
		Right Cheek	0.388	0.153	0.346	0.608	0.455	0.091	0.203	0.541	0.734	1.087	1.046
		Right Tilt	0.085	0.063	0.368	0.571	0.458	0.043	0.197	0.148	0.453	0.699	0.740
LTE B5	Ant.0	Left Cheek	0.042	0.603	0.581	0.701	0.685	0.383	0.347	0.645	0.623	1.126	1.074
		Left Tilt	0.025	0.203	0.579	0.669	0.712	0.117	0.349	0.228	0.604	0.811	1.086
		Right Cheek	0.055	0.153	0.346	0.608	0.455	0.091	0.203	0.208	0.401	0.754	0.713
		Right Tilt	0.036	0.063	0.368	0.571	0.458	0.043	0.197	0.099	0.404	0.650	0.691
LTE B7	Ant.2	Left Cheek	0.345	0.603	0.581	0.701	0.685	0.383	0.347	0.948	0.926	1.429	1.377
		Left Tilt	0.071	0.203	0.579	0.669	0.712	0.117	0.349	0.274	0.650	0.857	1.132
		Right Cheek	0.396	0.153	0.346	0.608	0.455	0.091	0.203	0.549	0.742	1.095	1.054
		Right Tilt	0.210	0.063	0.368	0.571	0.458	0.043	0.197	0.273	0.578	0.824	0.865
LTE B7	Ant.0	Left Cheek	0.027	0.603	0.581	0.701	0.685	0.383	0.347	0.630	0.608	1.111	1.059
		Left Tilt	0.018	0.203	0.579	0.669	0.712	0.117	0.349	0.221	0.597	0.804	1.079
		Right Cheek	0.031	0.153	0.346	0.608	0.455	0.091	0.203	0.184	0.377	0.730	0.689
		Right Tilt	0.026	0.063	0.368	0.571	0.458	0.043	0.197	0.089	0.394	0.640	0.681
LTE B38	Ant.2	Left Cheek	0.148	0.603	0.581	0.701	0.685	0.383	0.347	0.751	0.729	1.232	1.180
		Left Tilt	0.126	0.203	0.579	0.669	0.712	0.117	0.349	0.329	0.705	0.912	1.187
		Right Cheek	0.486	0.153	0.346	0.608	0.455	0.091	0.203	0.639	0.832	1.185	1.144
		Right Tilt	0.302	0.063	0.368	0.571	0.458	0.043	0.197	0.365	0.670	0.916	0.957
LTE B38	Ant.0	Left Cheek	0.050	0.603	0.581	0.701	0.685	0.383	0.347	0.653	0.631	1.134	1.082
		Left Tilt	0.034	0.203	0.579	0.669	0.712	0.117	0.349	0.237	0.613	0.820	1.095
		Right Cheek	0.056	0.153	0.346	0.608	0.455	0.091	0.203	0.209	0.402	0.755	0.714

		Right Tilt	0.046	0.063	0.368	0.571	0.458	0.043	0.197	0.109	0.414	0.660	0.701
LTE B41	Ant.2	Left Cheek	0.139	0.603	0.581	0.701	0.685	0.383	0.347	0.742	0.720	1.223	1.171
		Left Tilt	0.121	0.203	0.579	0.669	0.712	0.117	0.349	0.324	0.700	0.907	1.182
		Right Cheek	0.481	0.153	0.346	0.608	0.455	0.091	0.203	0.634	0.827	1.180	1.139
		Right Tilt	0.285	0.063	0.368	0.571	0.458	0.043	0.197	0.348	0.653	0.899	0.940
LTE B41	Ant.0	Left Cheek	0.050	0.603	0.581	0.701	0.685	0.383	0.347	0.653	0.631	1.134	1.082
		Left Tilt	0.033	0.203	0.579	0.669	0.712	0.117	0.349	0.236	0.612	0.819	1.094
		Right Cheek	0.054	0.153	0.346	0.608	0.455	0.091	0.203	0.207	0.400	0.753	0.712
		Right Tilt	0.047	0.063	0.368	0.571	0.458	0.043	0.197	0.110	0.415	0.661	0.702

## Note:

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

2: The highest Summed 1g SAR is  $1.458 \text{ W/Kg} < 1.6 \text{ W/kg}$ , so Simultaneous Transmission SAR test is not required.

### 12.2.2 Body-worn&Hotspot Simultaneous Transmission SAR Evaluation for WWAN and WLAN and BT

Band	Antenna	Position	Stand alone SAR							SUM SAR			
			1	2	3	4	5	6	7	1+2	1+3	1+4+6	1+5+7
			WWAN	2.4GWIFI Ant.13	2.4GWIFI Ant.14	5GWIFI Ant.13	5GWIFI Ant.14	Bluetooth Ant.13	Bluetooth Ant.14				
GSM850	Ant.1	Front Side 10mm	0.289	0.158	0.141	0.119	0.162	0.062	0.066	0.447	0.430	0.470	0.517
		Back Side 10mm	0.527	0.288	0.249	0.461	0.261	0.137	0.128	0.815	0.776	1.125	0.916
		Left Edge 10mm	0.000	0.349	0.018	0.412	0.049	0.143	0.021	0.349	0.018	0.555	0.070
		Right Edge 10mm	0.657	0.000	0.000	0.000	0.000	0.000	0.000	0.657	0.657	0.657	0.657
		Top Edge 10mm	0.018	0.059	0.212	0.205	0.316	0.022	0.106	0.077	0.230	0.245	0.440
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GSM850	Ant.0	Front Side 10mm	0.082	0.158	0.141	0.119	0.162	0.062	0.066	0.240	0.223	0.263	0.310
		Back Side 10mm	0.128	0.288	0.249	0.461	0.261	0.137	0.128	0.416	0.377	0.726	0.517
		Left Edge 10mm	0.065	0.349	0.018	0.412	0.049	0.143	0.021	0.414	0.083	0.620	0.135
		Right Edge 10mm	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.014	0.014	0.014
		Top Edge 10mm	0.000	0.059	0.212	0.205	0.316	0.022	0.106	0.059	0.212	0.227	0.422
		Bottom Edge 10mm	0.106	0.000	0.000	0.000	0.000	0.000	0.000	0.106	0.106	0.106	0.106
GSM1900	Ant.2	Front Side 10mm	0.028	0.158	0.141	0.119	0.162	0.062	0.066	0.186	0.169	0.209	0.256
		Back Side 10mm	0.036	0.288	0.249	0.461	0.261	0.137	0.128	0.324	0.285	0.634	0.425
		Left Edge 10mm	0.000	0.349	0.018	0.412	0.049	0.143	0.021	0.349	0.018	0.555	0.070
		Right Edge 10mm	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.041	0.041	0.041	0.041
		Top Edge 10mm	0.013	0.059	0.212	0.205	0.316	0.022	0.106	0.072	0.225	0.240	0.435
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GSM1900	Ant.0	Front Side 10mm	0.254	0.158	0.141	0.119	0.162	0.062	0.066	0.412	0.395	0.435	0.482
		Back Side 10mm	0.390	0.288	0.249	0.461	0.261	0.137	0.128	0.678	0.639	0.988	0.779
		Left Edge 10mm	0.068	0.349	0.018	0.412	0.049	0.143	0.021	0.417	0.086	0.623	0.138
		Right Edge 10mm	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.045	0.045	0.045	0.045
		Top Edge 10mm	0.000	0.059	0.212	0.205	0.316	0.022	0.106	0.059	0.212	0.227	0.422
		Bottom Edge 10mm	0.764	0.000	0.000	0.000	0.000	0.000	0.000	0.764	0.764	0.764	0.764
WCDMA B2	Ant.2	Front Side 10mm	0.097	0.158	0.141	0.119	0.162	0.062	0.066	0.255	0.238	0.278	0.325
		Back Side 10mm	0.167	0.288	0.249	0.461	0.261	0.137	0.128	0.455	0.416	0.765	0.556
		Left Edge 10mm	0.000	0.349	0.018	0.412	0.049	0.143	0.021	0.349	0.018	0.555	0.070
		Right Edge 10mm	0.129	0.000	0.000	0.000	0.000	0.000	0.000	0.129	0.129	0.129	0.129
		Top Edge 10mm	0.068	0.059	0.212	0.205	0.316	0.022	0.106	0.127	0.280	0.295	0.490
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B2	Ant.0	Front Side 10mm	0.188	0.158	0.141	0.119	0.162	0.062	0.066	0.346	0.329	0.369	0.416
		Back Side 10mm	0.278	0.288	0.249	0.461	0.261	0.137	0.128	0.566	0.527	0.876	0.667
		Left Edge 10mm	0.032	0.349	0.018	0.412	0.049	0.143	0.021	0.381	0.050	0.587	0.102
		Right Edge 10mm	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.026	0.026	0.026
		Top Edge 10mm	0.000	0.059	0.212	0.205	0.316	0.022	0.106	0.059	0.212	0.227	0.422



		Bottom Edge 10mm	0.513	0.000	0.000	0.000	0.000	0.000	0.000	0.513	0.513	0.513	0.513
WCDMA B4	Ant.2	Front Side 10mm	0.010	0.158	0.141	0.119	0.162	0.062	0.066	0.168	0.151	0.191	0.238
		Back Side 10mm	0.029	0.288	0.249	0.461	0.261	0.137	0.128	0.317	0.278	0.627	0.418
		Left Edge 10mm	0.000	0.349	0.018	0.412	0.049	0.143	0.021	0.349	0.018	0.555	0.070
		Right Edge 10mm	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.029	0.029	0.029
		Top Edge 10mm	0.005	0.059	0.212	0.205	0.316	0.022	0.106	0.064	0.217	0.232	0.427
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B4	Ant.0	Front Side 10mm	0.302	0.158	0.141	0.119	0.162	0.062	0.066	0.460	0.443	0.483	0.530
		Back Side 10mm	0.414	0.288	0.249	0.461	0.261	0.137	0.128	0.702	0.663	1.012	0.803
		Left Edge 10mm	0.034	0.349	0.018	0.412	0.049	0.143	0.021	0.383	0.052	0.589	0.104
		Right Edge 10mm	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.024	0.024	0.024	0.024
		Top Edge 10mm	0.000	0.059	0.212	0.205	0.316	0.022	0.106	0.059	0.212	0.227	0.422
		Bottom Edge 10mm	0.593	0.000	0.000	0.000	0.000	0.000	0.000	0.593	0.593	0.593	0.593
WCDMA B5	Ant.1	Front Side 10mm	0.268	0.158	0.141	0.119	0.162	0.062	0.066	0.426	0.409	0.449	0.496
		Back Side 10mm	0.538	0.288	0.249	0.461	0.261	0.137	0.128	0.826	0.787	1.136	0.927
		Left Edge 10mm	0.000	0.349	0.018	0.412	0.049	0.143	0.021	0.349	0.018	0.555	0.070
		Right Edge 10mm	0.514	0.000	0.000	0.000	0.000	0.000	0.000	0.514	0.514	0.514	0.514
		Top Edge 10mm	0.015	0.059	0.212	0.205	0.316	0.022	0.106	0.074	0.227	0.242	0.437
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B5	Ant.0	Front Side 10mm	0.085	0.158	0.141	0.119	0.162	0.062	0.066	0.243	0.226	0.266	0.313
		Back Side 10mm	0.130	0.288	0.249	0.461	0.261	0.137	0.128	0.418	0.379	0.728	0.519
		Left Edge 10mm	0.085	0.349	0.018	0.412	0.049	0.143	0.021	0.434	0.103	0.640	0.155
		Right Edge 10mm	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.033	0.033	0.033	0.033
		Top Edge 10mm	0.000	0.059	0.212	0.205	0.316	0.022	0.106	0.059	0.212	0.227	0.422
		Bottom Edge 10mm	0.108	0.000	0.000	0.000	0.000	0.000	0.000	0.108	0.108	0.108	0.108
LTE B2	Ant.2	Front Side 10mm	0.154	0.158	0.141	0.152	0.216	0.069	0.059	0.312	0.295	0.375	0.429
		Back Side 10mm	0.216	0.288	0.249	0.285	0.340	0.152	0.116	0.504	0.465	0.653	0.672
		Left Edge 10mm	0.000	0.349	0.018	0.273	0.083	0.159	0.019	0.349	0.018	0.432	0.102
		Right Edge 10mm	0.201	0.000	0.000	0.000	0.000	0.000	0.022	0.201	0.201	0.201	0.223
		Top Edge 10mm	0.096	0.059	0.212	0.129	0.392	0.024	0.096	0.155	0.308	0.249	0.584
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B2	Ant.0	Front Side 10mm	0.056	0.158	0.141	0.152	0.216	0.069	0.059	0.214	0.197	0.277	0.331
		Back Side 10mm	0.080	0.288	0.249	0.285	0.340	0.152	0.116	0.368	0.329	0.517	0.536
		Left Edge 10mm	0.009	0.349	0.018	0.273	0.083	0.159	0.019	0.358	0.027	0.441	0.111
		Right Edge 10mm	0.007	0.000	0.000	0.000	0.000	0.000	0.022	0.007	0.007	0.007	0.029
		Top Edge 10mm	0.000	0.059	0.212	0.129	0.392	0.024	0.096	0.059	0.212	0.153	0.488
		Bottom Edge 10mm	0.122	0.000	0.000	0.000	0.000	0.000	0.000	0.122	0.122	0.122	0.122
LTE B4	Ant.2	Front Side 10mm	0.023	0.158	0.141	0.152	0.216	0.069	0.059	0.181	0.164	0.244	0.298
		Back Side 10mm	0.040	0.288	0.249	0.285	0.340	0.152	0.116	0.328	0.289	0.477	0.496
		Left Edge 10mm	0.000	0.349	0.018	0.273	0.083	0.159	0.019	0.349	0.018	0.432	0.102
		Right Edge 10mm	0.044	0.000	0.000	0.000	0.000	0.000	0.022	0.044	0.044	0.044	0.066
		Top Edge 10mm	0.023	0.059	0.212	0.129	0.392	0.024	0.096	0.082	0.235	0.176	0.511
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

LTE B4	Ant.0	Front Side 10mm	0.356	0.158	0.141	0.152	0.216	0.069	0.059	0.514	0.497	0.577	0.631
		Back Side 10mm	0.485	0.288	0.249	0.285	0.340	0.152	0.116	0.773	0.734	0.922	0.941
		Left Edge 10mm	0.036	0.349	0.018	0.273	0.083	0.159	0.019	0.385	0.054	0.468	0.138
		Right Edge 10mm	0.037	0.000	0.000	0.000	0.000	0.000	0.022	0.037	0.037	0.037	0.059
		Top Edge 10mm	0.000	0.059	0.212	0.129	0.392	0.024	0.096	0.059	0.212	0.153	0.488
		Bottom Edge 10mm	0.826	0.000	0.000	0.000	0.000	0.000	0.000	0.826	0.826	0.826	0.826
LTE B5	Ant.1	Front Side 10mm	0.216	0.158	0.141	0.152	0.216	0.069	0.059	0.374	0.357	0.437	0.491
		Back Side 10mm	0.826	0.288	0.249	0.285	0.340	0.152	0.116	1.114	1.075	1.263	<b>1.282</b>
		Left Edge 10mm	0.000	0.349	0.018	0.273	0.083	0.159	0.019	0.349	0.018	0.432	0.102
		Right Edge 10mm	0.471	0.000	0.000	0.000	0.000	0.000	0.022	0.471	0.471	0.471	0.493
		Top Edge 10mm	0.130	0.059	0.212	0.129	0.392	0.024	0.096	0.189	0.342	0.283	0.618
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B5	Ant.0	Front Side 10mm	0.067	0.158	0.141	0.152	0.216	0.069	0.059	0.225	0.208	0.288	0.342
		Back Side 10mm	0.096	0.288	0.249	0.285	0.340	0.152	0.116	0.384	0.345	0.533	0.552
		Left Edge 10mm	0.070	0.349	0.018	0.273	0.083	0.159	0.019	0.419	0.088	0.502	0.172
		Right Edge 10mm	0.032	0.000	0.000	0.000	0.000	0.000	0.022	0.032	0.032	0.032	0.054
		Top Edge 10mm	0.000	0.059	0.212	0.129	0.392	0.024	0.096	0.059	0.212	0.153	0.488
		Bottom Edge 10mm	0.087	0.000	0.000	0.000	0.000	0.000	0.000	0.087	0.087	0.087	0.087
LTE B7	Ant.2	Front Side 10mm	0.080	0.158	0.141	0.152	0.216	0.069	0.059	0.238	0.221	0.301	0.355
		Back Side 10mm	0.127	0.288	0.249	0.285	0.340	0.152	0.116	0.415	0.376	0.564	0.583
		Left Edge 10mm	0.000	0.349	0.018	0.273	0.083	0.159	0.019	0.349	0.018	0.432	0.102
		Right Edge 10mm	0.137	0.000	0.000	0.000	0.000	0.000	0.022	0.137	0.137	0.137	0.159
		Top Edge 10mm	0.042	0.059	0.212	0.129	0.392	0.024	0.096	0.101	0.254	0.195	0.530
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B7	Ant.0	Front Side 10mm	0.074	0.158	0.141	0.152	0.216	0.069	0.059	0.232	0.215	0.295	0.349
		Back Side 10mm	0.092	0.288	0.249	0.285	0.340	0.152	0.116	0.380	0.341	0.529	0.548
		Left Edge 10mm	0.036	0.349	0.018	0.273	0.083	0.159	0.019	0.385	0.054	0.468	0.138
		Right Edge 10mm	0.026	0.000	0.000	0.000	0.000	0.000	0.022	0.026	0.026	0.026	0.048
		Top Edge 10mm	0.000	0.059	0.212	0.129	0.392	0.024	0.096	0.059	0.212	0.153	0.488
		Bottom Edge 10mm	0.117	0.000	0.000	0.000	0.000	0.000	0.000	0.117	0.117	0.117	0.117
LTE B38	Ant.2	Front Side 10mm	0.092	0.158	0.141	0.152	0.216	0.069	0.059	0.250	0.233	0.313	0.367
		Back Side 10mm	0.196	0.288	0.249	0.285	0.340	0.152	0.116	0.484	0.445	0.633	0.652
		Left Edge 10mm	0.000	0.349	0.018	0.273	0.083	0.159	0.019	0.349	0.018	0.432	0.102
		Right Edge 10mm	0.226	0.000	0.000	0.000	0.000	0.000	0.022	0.226	0.226	0.226	0.248
		Top Edge 10mm	0.063	0.059	0.212	0.129	0.392	0.024	0.096	0.122	0.275	0.216	0.551
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B38	Ant.0	Front Side 10mm	0.146	0.158	0.141	0.152	0.216	0.069	0.059	0.304	0.287	0.367	0.421
		Back Side 10mm	0.166	0.288	0.249	0.285	0.340	0.152	0.116	0.454	0.415	0.603	0.622
		Left Edge 10mm	0.049	0.349	0.018	0.273	0.083	0.159	0.019	0.398	0.067	0.481	0.151
		Right Edge 10mm	0.049	0.000	0.000	0.000	0.000	0.000	0.022	0.049	0.049	0.049	0.071
		Top Edge 10mm	0.000	0.059	0.212	0.129	0.392	0.024	0.096	0.059	0.212	0.153	0.488
		Bottom Edge 10mm	0.216	0.000	0.000	0.000	0.000	0.000	0.000	0.216	0.216	0.216	0.216
LTE B41	Ant.2	Front Side 10mm	0.137	0.158	0.141	0.152	0.216	0.069	0.059	0.295	0.278	0.358	0.412

		Back Side 10mm	0.298	0.288	0.249	0.285	0.340	0.152	0.116	0.586	0.547	0.735	0.754
		Left Edge 10mm	0.000	0.349	0.018	0.273	0.083	0.159	0.019	0.349	0.018	0.432	0.102
		Right Edge 10mm	0.266	0.000	0.000	0.000	0.000	0.000	0.022	0.266	0.266	0.266	0.288
		Top Edge 10mm	0.081	0.059	0.212	0.129	0.392	0.024	0.096	0.140	0.293	0.234	0.569
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B41	Ant.0	Front Side 10mm	0.201	0.158	0.141	0.152	0.216	0.069	0.059	0.359	0.342	0.422	0.476
		Back Side 10mm	0.240	0.288	0.249	0.285	0.340	0.152	0.116	0.528	0.489	0.677	0.696
		Left Edge 10mm	0.069	0.349	0.018	0.273	0.083	0.159	0.019	0.418	0.087	0.501	0.171
		Right Edge 10mm	0.072	0.000	0.000	0.000	0.000	0.000	0.022	0.072	0.072	0.072	0.094
		Top Edge 10mm	0.000	0.059	0.212	0.129	0.392	0.024	0.096	0.059	0.212	0.153	0.488
		Bottom Edge 10mm	0.274	0.000	0.000	0.000	0.000	0.000	0.000	0.274	0.274	0.274	0.274

Note:

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

2: The highest Summed 1g SAR is 1.282 W/Kg < 1.6 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
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	2021/09/13	2024/09/12
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: 1711	2024/03/18	2025/03/17
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	2023/09/05	2024/09/04
Power Sensor	R&S	NRV-Z4	100381	2023/09/05	2024/09/04
Power Sensor	R&S	NRV-Z2	100211	2023/09/05	2024/09/04
Wireless Communication Test Set	Anritsu	MT8820C	6201502991	2023/11/14	2024/11/13
Network Analyzer	Agilent	E5071C	MY46103472	2023/11/14	2024/11/14
Thermometer	Elitech	RC-4	EF5238001628	2023/10/09	2024/10/08
Thermometer	Elitech	RC-4HC	EF7239002652	2023/11/17	2024/11/16
Power Amplifier	SATIMO	6552B	22374	N/A	N/A
Dielectric Probe Kit	Speag	DAK3.5	SN: 1312	N/A	N/A
Phantom	Speag	SAM	SN: 1859	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

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

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

## ANNEX A SIMULATING LIQUID VERIFICATION RESULT

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

Head Liquid

Date	Liquid Type	Fre. (MHz)	Temp. (°C)	Meas. Conductivity ( $\sigma$ ) (S/m)	Meas. Permittivity ( $\epsilon$ )	Target Conductivity ( $\sigma$ ) (S/m)	Target Permittivity ( $\epsilon$ )	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2024.07.14	Head	835	21.3	0.90	41.77	0.90	41.50	0.00	0.65
2024.07.22	Head	1750	21.4	1.33	38.71	1.37	40.08	-2.92	-3.42
2024.07.15	Head	1950	21.4	1.40	40.00	1.40	40.00	0.00	0.00
2024.07.30	Head	2450	21.4	1.77	38.28	1.80	39.20	-1.67	-2.35
2024.07.24	Head	2600	21.9	2.02	38.81	1.96	39.01	3.06	-0.51
2024.07.30	Head	2600	21.4	1.95	39.64	1.96	39.01	-0.51	1.62
2024.07.31	Head	5250	21.2	4.57	35.12	4.71	35.93	-2.97	-2.25
2024.08.01	Head	5600	21.3	5.03	34.86	5.07	35.53	-0.79	-1.89
2024.08.02	Head	5750	21.0	5.12	36.42	5.22	35.36	-1.92	3.00
2024.08.02	Head	2450	21.0	1.83	38.35	1.80	39.20	1.67	-2.17

Note: The tolerance limit of Conductivity and Permittivity is  $\pm 5\%$ .

## ANNEX B SYSTEM CHECK RESULT

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

Head liquid 1g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2024.07.14	Head	835	100	0.97	9.68	9.74	-0.62
2024.07.22	Head	1750	100	3.59	35.90	37.00	-2.97
2024.07.15	Head	1950	100	4.21	42.10	41.40	1.69
2024.07.30	Head	2450	100	5.42	54.20	52.60	3.04
2024.07.24	Head	2600	100	5.58	55.80	55.90	-0.18
2024.07.30	Head	2600	100	5.64	56.40	55.90	0.89
2024.07.31	Head	5250	100	7.98	79.80	77.70	2.70
2024.08.01	Head	5600	100	8.37	83.70	81.30	2.95
2024.08.02	Head	5750	100	7.68	76.80	77.60	-1.03
2024.08.02	Head	2450	100	5.340	53.40	52.60	1.52

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 (%)
2024.07.31	Head	5250	100	2.25	22.50	22.00	2.27
2024.08.01	Head	5600	100	2.38	23.80	23.10	3.03

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

# System Performance Check Data (835MHz)

## Device under Test Properties

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

## Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		CD835	CW, 0--	835.0, 50	9.99	0.904	41.8	22.4	21.3

## Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-14	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

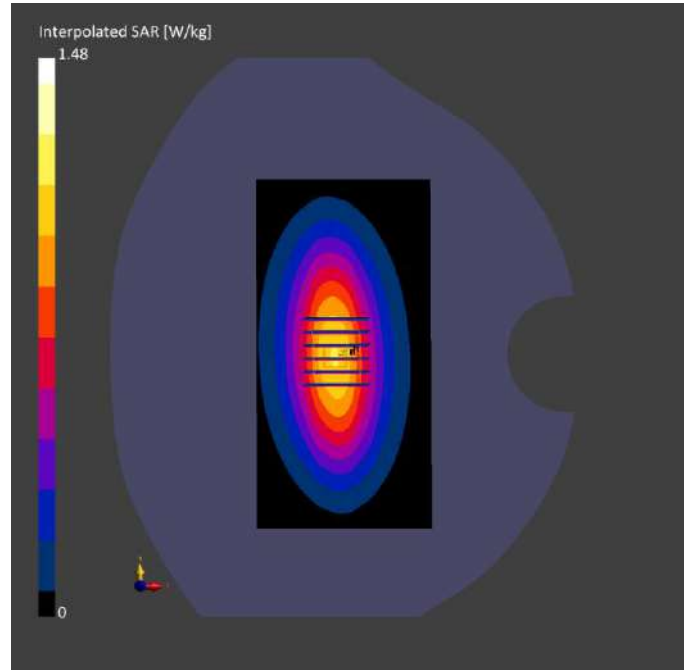
## Scan Setup

	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	2024-07-14	2024-07-14
psSAR1g [W/kg]	0.954	0.968
psSAR10g [W/kg]	0.616	0.626
Power Drift [dB]	-0.04	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		85.2
Dist 3dB Peak [mm]		13.0





# System Performance Check Data (1750MHz)

## Device under Test Properties

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

## Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D1750	CW, 0--	1750.0, 50	8.67	1.33	38.7	22.6	21.4

## Hardware Setup

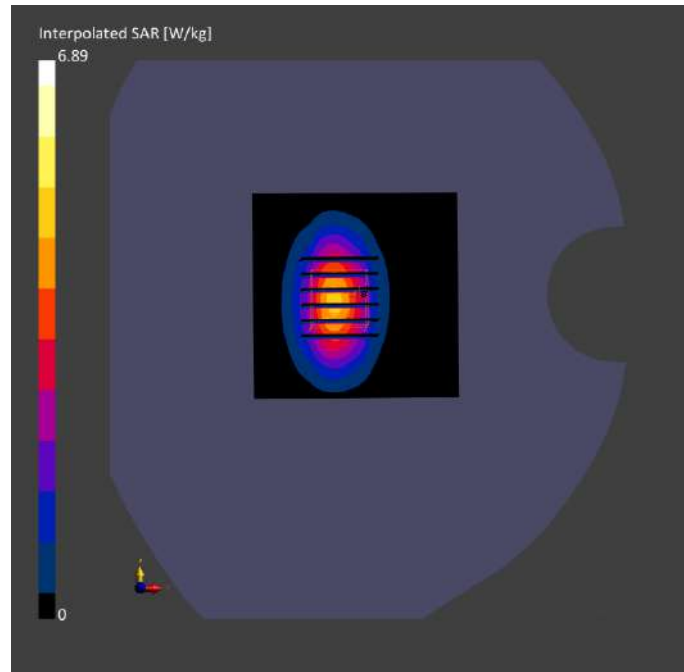
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-22	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

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

## Measurement Results

	Area Scan	Zoom Scan
Date	2024-07-22	2024-07-22
psSAR1g [W/kg]	3.47	3.59
psSAR10g [W/kg]	1.88	1.92
Power Drift [dB]	0.03	0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		81.9
Dist 3dB Peak [mm]		10.3



# System Performance Check Data (1950MHz)

## Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D1950V3, SPEAG	10.0 x 10.0 x 3.0	Dipole

## Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D1950	CW, 0--	1950.0, 50	8.33	1.40	40.0	22.3	21.4

## Hardware Setup

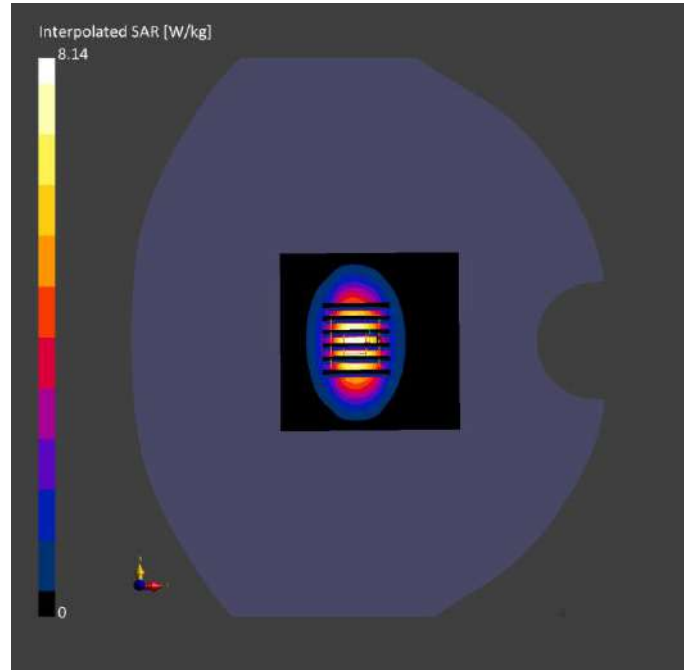
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-15	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

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

## Measurement Results

	Area Scan	Zoom Scan
Date	2024-07-15	2024-07-15
psSAR1g [W/kg]	3.96	4.21
psSAR10g [W/kg]	1.99	2.19
Power Drift [dB]	-0.04	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		81.1
Dist 3dB Peak [mm]		9.6



# System Performance Check Data (2450MHz)

## Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D2450V2, SPEAG	40.0 x 8.0 x 8.0	Dipole

## Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D2450	CW, 0--	2450.0, 50	7.75	1.77	38.3	22.7	21.4

## Hardware Setup

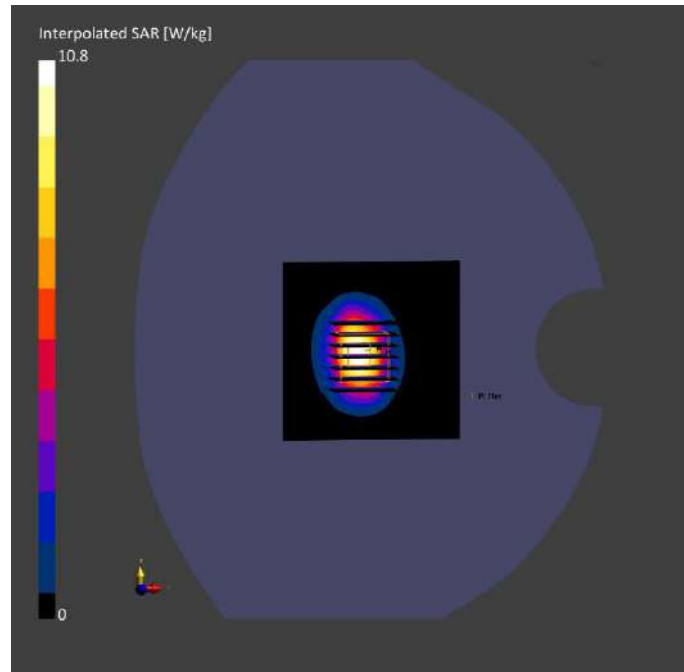
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-30	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

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

## Measurement Results

	Area Scan	Zoom Scan
Date	2024-07-30	2024-07-30
psSAR1g [W/kg]	5.26	5.42
psSAR10g [W/kg]	2.24	2.54
Power Drift [dB]	-0.02	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		80.5
Dist 3dB Peak [mm]		9.0



# System Performance Check Data (2450MHz)

## Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D2450V2, SPEAG	40.0 x 8.0 x 8.0	Dipole

## Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D2450	CW, 0--	2450.0, 50	7.75	1.83	38.3	22.1	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 2024-08-02	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

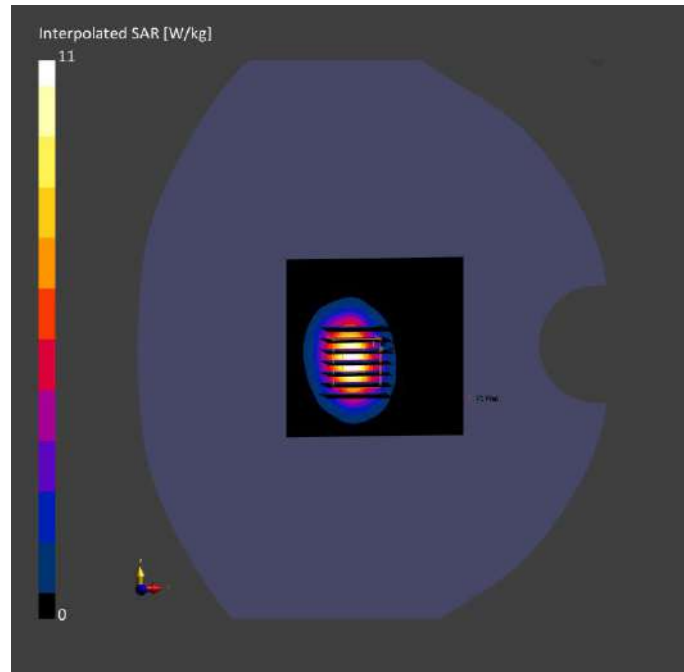
## Scan Setup

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

## Measurement Results

	Area Scan	Zoom Scan
Date	2024-08-02	2024-08-02
psSAR1g [W/kg]	5.33	5.34
psSAR10g [W/kg]	2.49	2.49
Power Drift [dB]	-0.02	0.00
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)

## Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
CD2600V3, SPEAG	10.0 x 10.0 x 3.0	Dipole

## Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		CD2600 V3	CW, 0--	2600.0, 50	7.59	2.02	38.8	22.1	21.9

## Hardware Setup

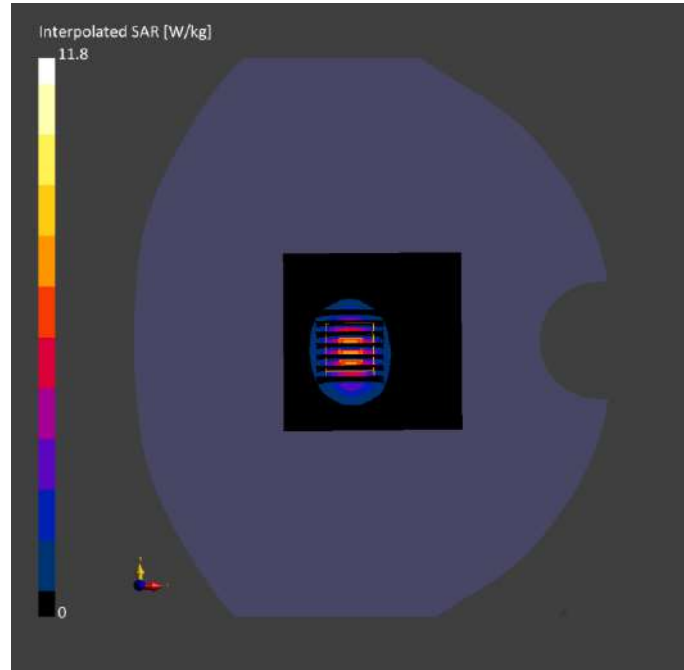
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-24	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

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

## Measurement Results

	Area Scan	Zoom Scan
Date	2024-07-24	2024-07-24
psSAR1g [W/kg]	5.55	5.58
psSAR10g [W/kg]	2.42	2.45
Power Drift [dB]	0.09	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		80.4
Dist 3dB Peak [mm]		9.3



# System Performance Check Data (2600MHz)

## Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
CD2600V3, SPEAG	10.0 x 10.0 x 3.0	Dipole

## Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		CD2600 V3	CW, 0--	2600.0, 50	7.59	1.95	39.6	22.7	21.4

## Hardware Setup

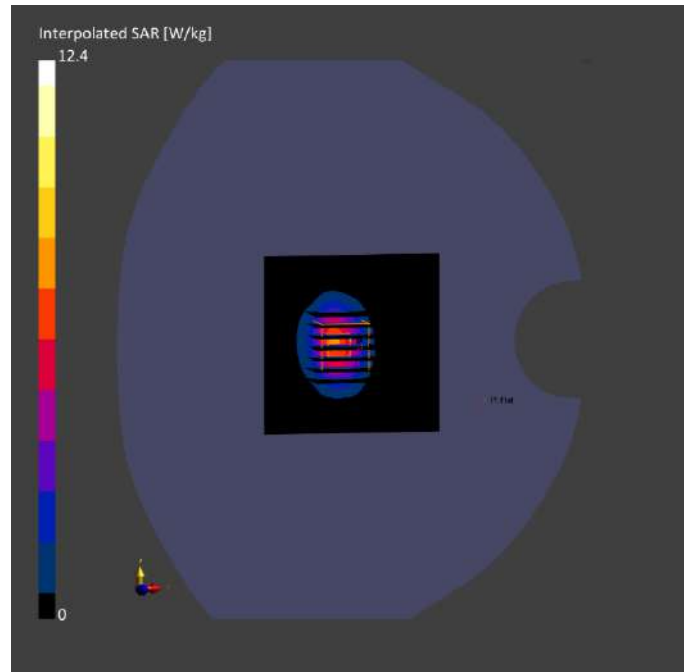
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-30	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

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

## Measurement Results

	Area Scan	Zoom Scan
Date	2024-07-30	2024-07-30
psSAR1g [W/kg]	5.51	5.64
psSAR10g [W/kg]	2.43	2.53
Power Drift [dB]	0.04	-0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		79.6
Dist 3dB Peak [mm]		9.0



# System Performance Check Data (5250MHz)

## Device under Test Properties

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

## Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D5GHz	CW, 0--	5250.0, 30	5.50	4.57	35.1	22.3	21.2

## Hardware Setup

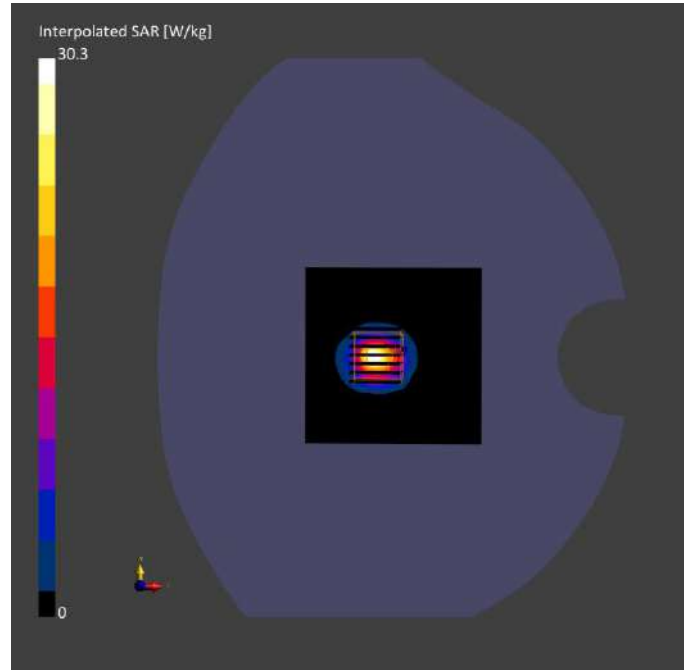
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-31	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

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

## Measurement Results

	Area Scan	Zoom Scan
Date	2024-07-31	2024-07-31
psSAR1g [W/kg]	7.62	7.98
psSAR10g [W/kg]	2.26	2.25
Power Drift [dB]	-0.04	0.02
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)

## Device under Test Properties

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

## Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D5GHz	CW, 0--	5600.0, 60	5.00	5.03	34.9	22.1	21.3

## Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-08-01	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

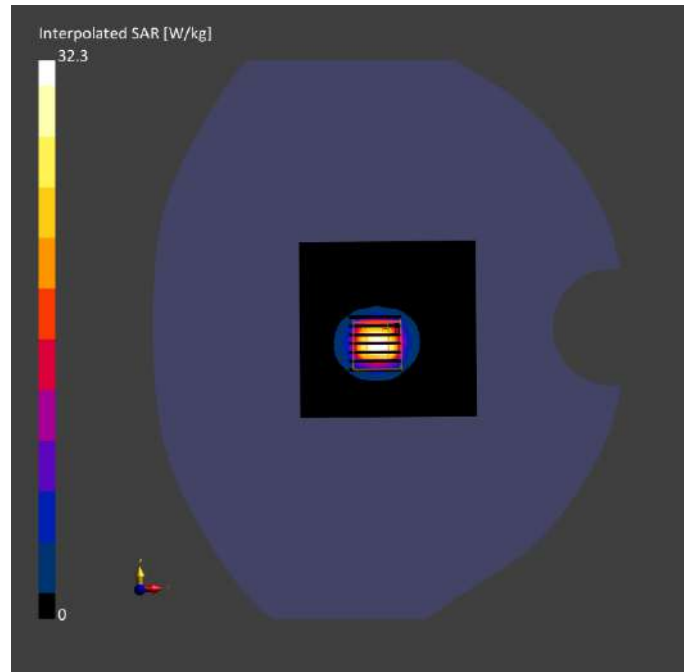
## Scan Setup

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

## Measurement Results

	Area Scan	Zoom Scan
Date	2024-08-01	2024-08-01
psSAR1g [W/kg]	7.62	8.37
psSAR10g [W/kg]	2.25	2.38
Power Drift [dB]	0.01	0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		64.2
Dist 3dB Peak [mm]		7.4





# System Performance Check Data (5750MHz)

## Device under Test Properties

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

## Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D5GHz	CW, 0--	5750.0, 80	5.04	5.12	36.4	22.1	21.0

## Hardware Setup

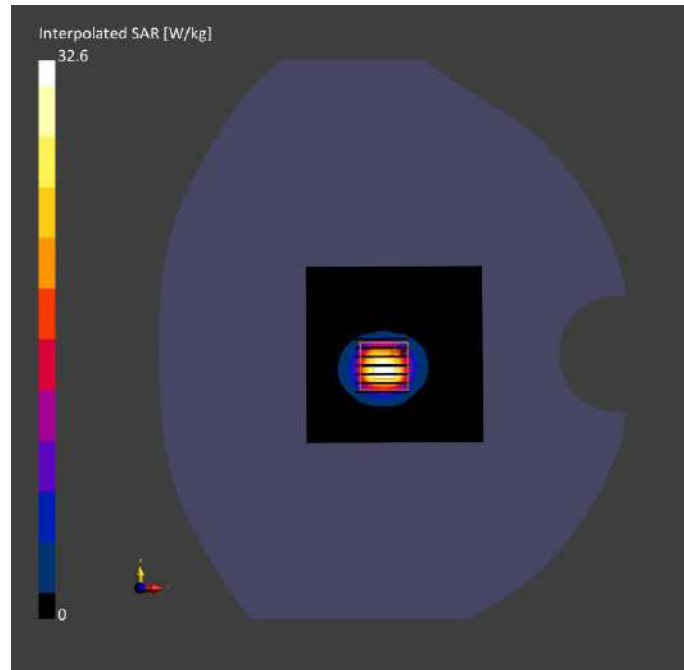
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-08-02	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

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

## Measurement Results

	Area Scan	Zoom Scan
Date	2024-08-02	2024-08-02
psSAR1g [W/kg]	7.88	7.68
psSAR10g [W/kg]	2.14	2.16
Power Drift [dB]	-0.05	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		61.4
Dist 3dB Peak [mm]		7.4



## ANNEX C TEST DATA

### Meas.1 Right Head with Cheek on Middle Channel in GPRS850 2Slots mode with Antenna 1

#### Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

#### Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	CHEEK, 0.00	GSM 850	GSM, 10024-DAC	836.6, 190	9.99	0.904	41.767	22.4	21.3

#### Hardware Setup

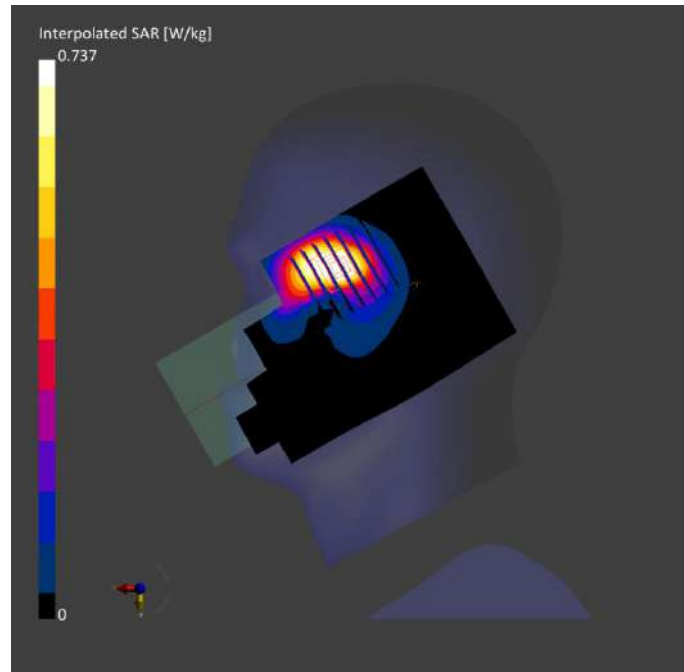
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-14	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

#### 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	2024-07-14	2024-07-14
psSAR1g [W/kg]	0.407	0.402
psSAR10g [W/kg]	0.248	0.224
Power Drift [dB]	0.00	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		53.7
Dist 3dB Peak [mm]		9.4



**Meas.2 Body Plane with Right Edge 10mm on Middle Channel in GPRS850 2Slots mode with Antenna 1 Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE, RIGHT, 10.00	GSM, 850	GSM, 10024-DAC	836.6, 190	9.99	0.904	41.767	22.4	21.3

**Hardware Setup**

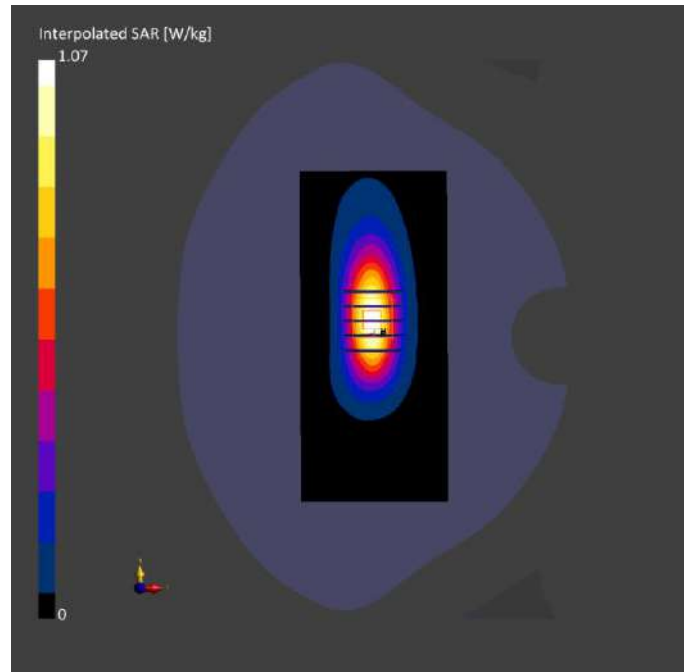
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-14	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 180.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	8.0 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	2024-07-14	2024-07-14
psSAR1g [W/kg]	0.592	0.601
psSAR10g [W/kg]	0.356	0.342
Power Drift [dB]	0.00	-0.06
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		54.6
Dist 3dB Peak [mm]		10.7



**Meas.3 Right Head with Cheek on High Channel in GPRS1900 2Slots mode with Antenna 2**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	CHEEK, 0.00	PCS	GSM, 10024-DAC	1909.8, 810	8.33	1.39	40.1	22.3	21.4

**Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-15	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

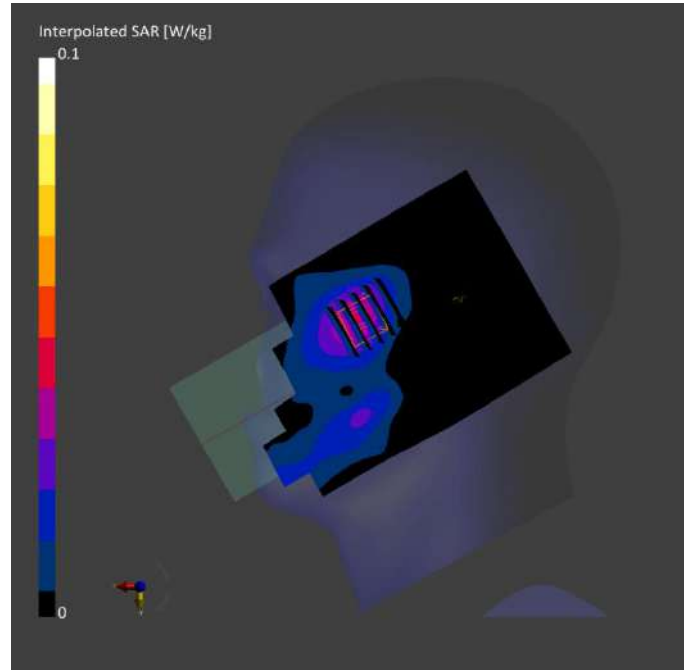
**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-15	2024-07-15
psSAR1g [W/kg]	0.035	0.038
psSAR10g [W/kg]	0.021	0.024
Power Drift [dB]	-0.05	-0.08
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		70.0
Dist 3dB Peak [mm]		> 16.0





**Meas.4 Body Plane with Bottom Edge 10mm on Low Channel in GPRS1900 2Slots mode with Antenna 0**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE, BOTTOM, 10.00	PCS, 1900	GSM, 10024-DAC	1850.2, 512	8.33	1.39	40.4	22.3	21.4

**Hardware Setup**

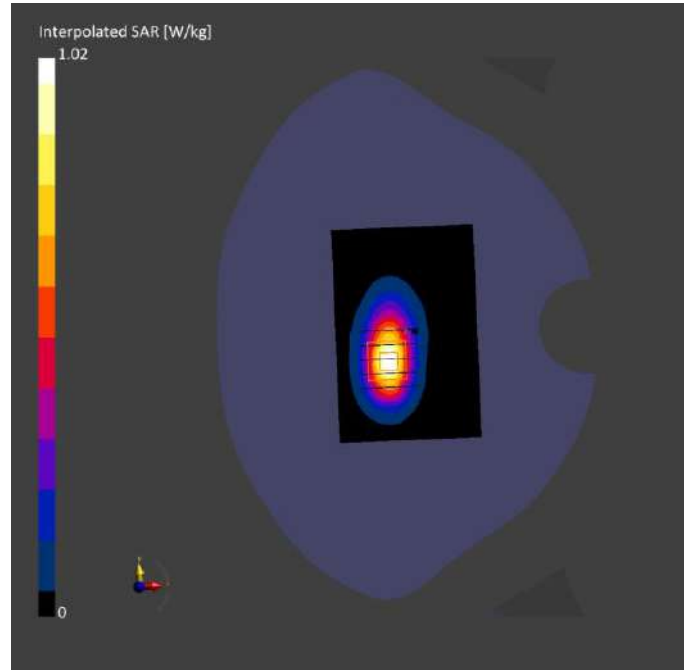
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-15	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 120.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	8.0 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	2024-07-15	2024-07-15
psSAR1g [W/kg]	0.579	0.584
psSAR10g [W/kg]	0.297	0.310
Power Drift [dB]	0.02	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		57.5
Dist 3dB Peak [mm]		10.7



**Meas.5 Right Head with Cheek on Middle Channel in WCDMA Band2 mode with Antenna 2**  
**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	CHEEK, 0.00	Band 2	WCDMA, 10011-CAC	1880.0, 9400	8.33	1.39	40.2	22.3	21.4

**Hardware Setup**

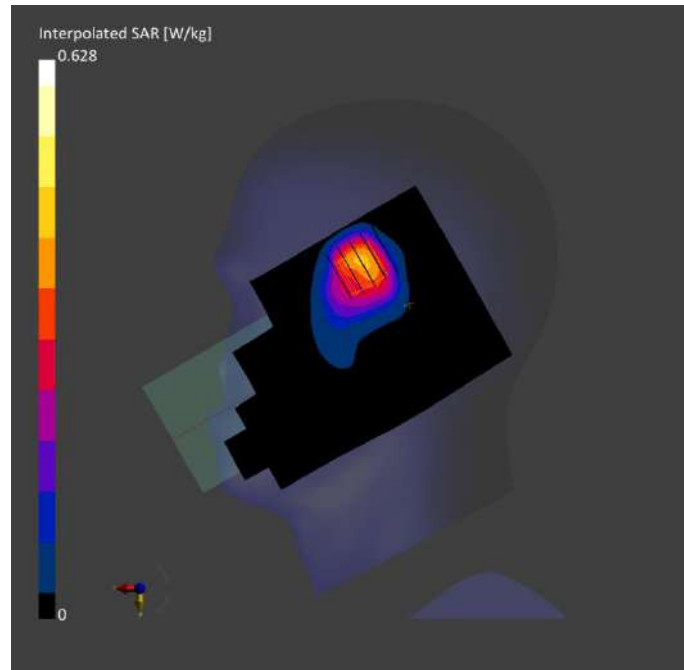
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-15	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**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	2024-07-15	2024-07-15
psSAR1g [W/kg]	0.354	0.330
psSAR10g [W/kg]	0.205	0.190
Power Drift [dB]	-0.00	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		44.7
Dist 3dB Peak [mm]		8.0



**Meas.6 Body Plane with Bottom Edge 10mm on Middle Channel in WCDMA Band2 mode with Antenna 0**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE, BOTTOM, 10.00	Band 2	WCDMA, 10011-CAC	1880.0, 9400	8.33	1.39	40.2	22.3	21.4

**Hardware Setup**

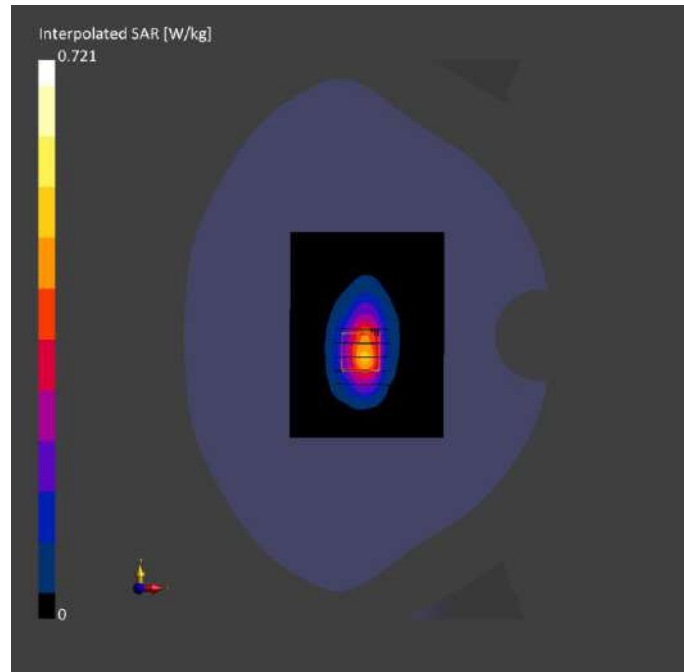
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 22024-07-15	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 120.0	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	2024-07-15	2024-07-15
psSAR1g [W/kg]	0.401	0.421
psSAR10g [W/kg]	0.208	0.224
Power Drift [dB]	-0.07	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		57.3
Dist 3dB Peak [mm]		9.6



**Meas.7 Right Head with Cheek on Low Channel in WCDMA Band4 mode with Antenna 2**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	CHEEK, 0.00	Band 4	WCDMA, 10011-CAC	1712.4, 1312	8.67	1.30	39.3	22.6	21.4

**Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-22	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

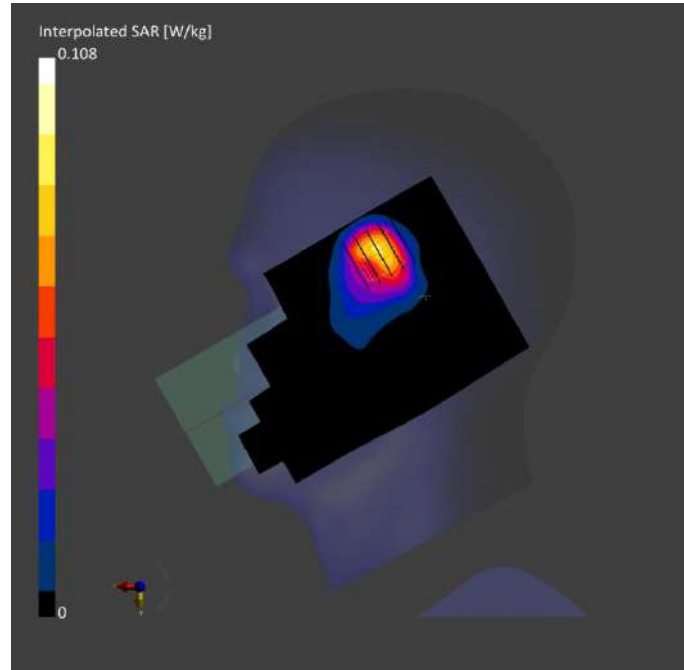
**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-22	2024-07-22
psSAR1g [W/kg]	0.062	0.055
psSAR10g [W/kg]	0.035	0.031
Power Drift [dB]	-0.03	-0.10
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		54.8
Dist 3dB Peak [mm]		> 16.0





**Meas.8 Body Plane with Bottom Edge 10mm on Low Channel in WCDMA Band4 mode with Antenna 0  
Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE, BOTTOM, 10.00	Band 4	WCDMA, 10011-CAC	1712.4, 1312	8.67	1.30	39.3	22.6	21.4

**Hardware Setup**

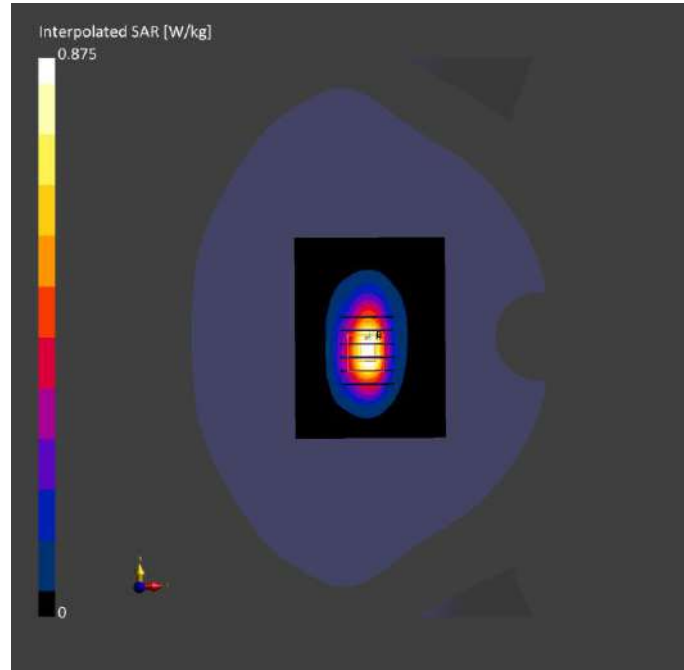
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-22	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 120.0	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	2024-07-22	2024-07-22
psSAR1g [W/kg]	0.478	0.519
psSAR10g [W/kg]	0.257	0.281
Power Drift [dB]	0.00	-0.08
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		58.9
Dist 3dB Peak [mm]		9.6



**Meas.9 Right Head with Cheek on Middle Channel in WCDMA Band5 mode with Antenna 1**  
**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	CHEEK, 0.00	Band 5	WCDMA, 10011-CAC	836.4, 4182	9.99	0.882	42.2	22.4	21.3

**Hardware Setup**

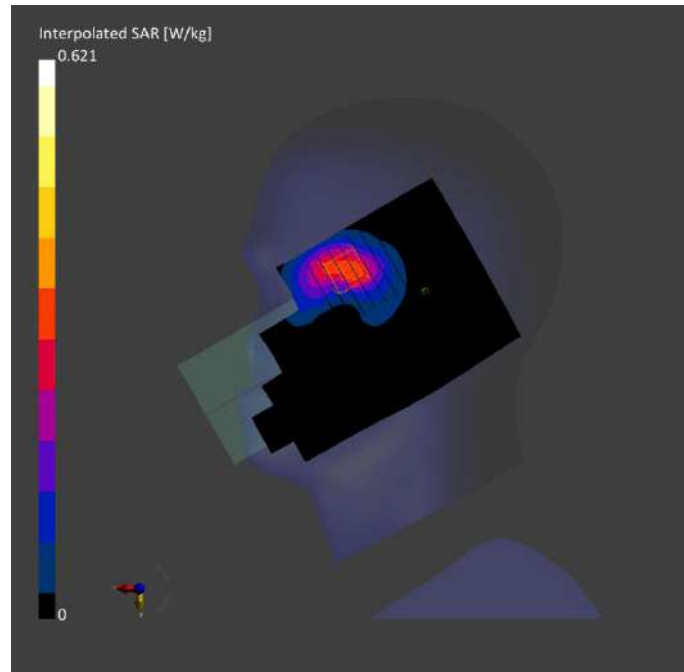
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-14	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**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	2024-07-14	2024-07-14
psSAR1g [W/kg]	0.298	0.346
psSAR10g [W/kg]	0.188	0.196
Power Drift [dB]	-0.02	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		51.1
Dist 3dB Peak [mm]		8.0



**Meas.10 Body Plane with Back Side 10mm on Middle Channel in WCDMA Band5 mode with Antenna 1  
Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 10.00	Band 5	WCDMA, 10011-CAC	836.4, 4182	9.99	0.882	42.2	22.4	21.3

**Hardware Setup**

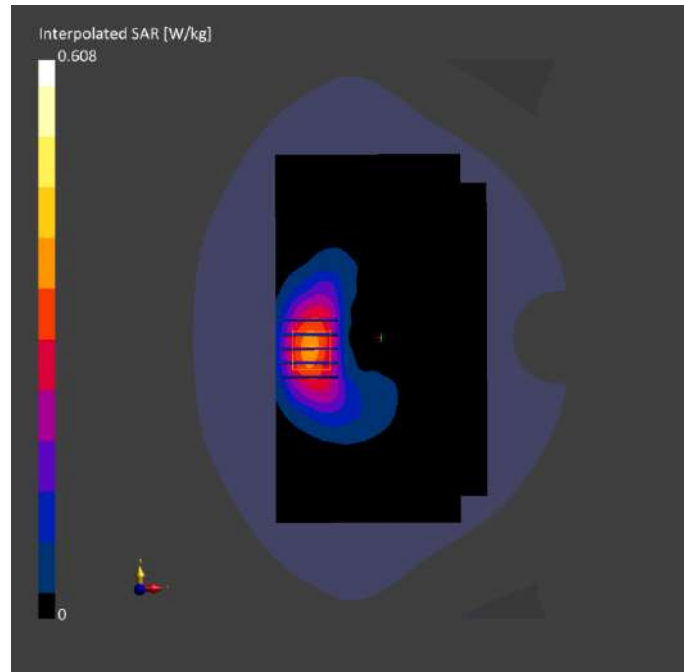
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-14	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-14	2024-07-14
psSAR1g [W/kg]	0.332	0.382
psSAR10g [W/kg]	0.216	0.228
Power Drift [dB]	0.00	-0.07
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		63.6
Dist 3dB Peak [mm]		11.2



**Meas.11 Right Head with Cheek on Middle Channel in LTE Band2 mode with Antenna 2**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2A1ZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	CHEEK, 0.00	Band 2	LTE-FDD, 10169-CAF	1880.0, 18900	8.33	1.37	39.8	22.3	21.4

**Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-15	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

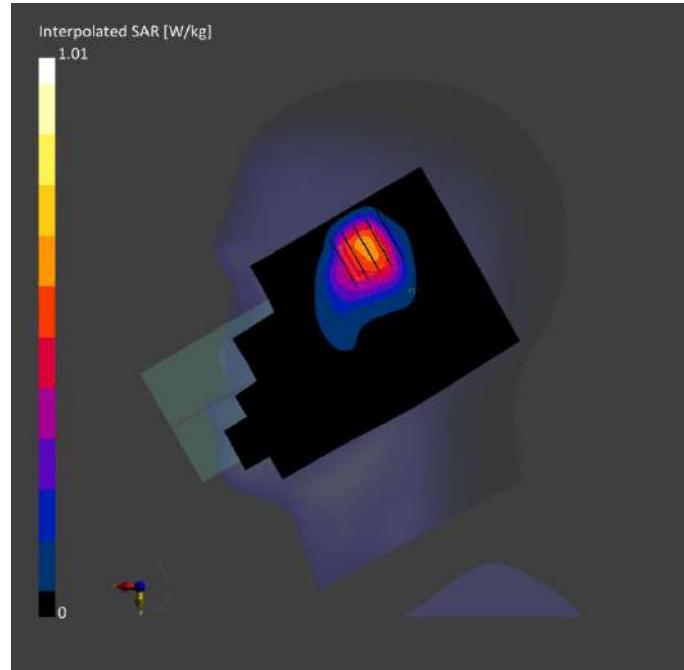
**Scan Setup**

	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	2024-07-15	2024-07-15
psSAR1g [W/kg]	0.528	0.530
psSAR10g [W/kg]	0.308	0.300
Power Drift [dB]	-0.03	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		43.6
Dist 3dB Peak [mm]		8.0





**Meas.12 Body Plane with Back Side 10mm on Middle Channel in LTE Band2 mode with Antenna 2**  
**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 10.00	Band 2	LTE-FDD, 10169-CAF	1880.0, 18900	8.33	1.37	39.8	22.3	21.4

**Hardware Setup**

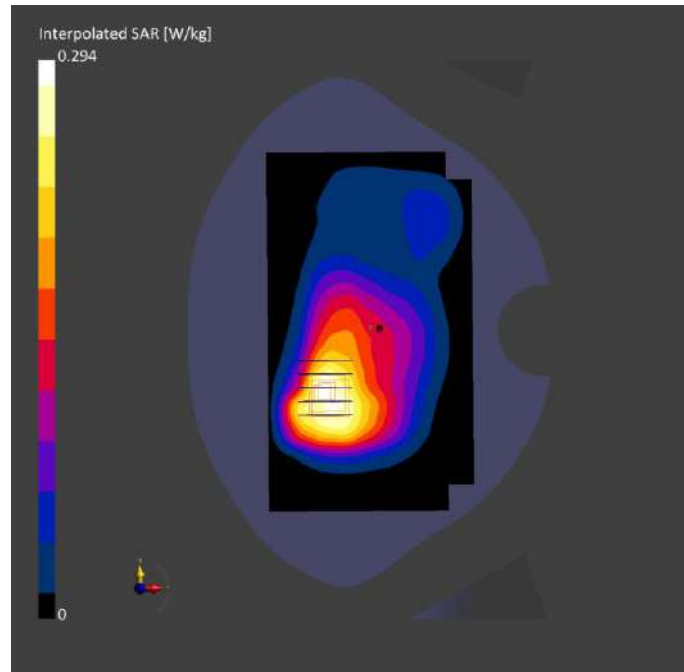
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-15	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-15	2024-07-15
psSAR1g [W/kg]	0.165	0.178
psSAR10g [W/kg]	0.102	0.110
Power Drift [dB]	0.00	-0.11
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.1
Dist 3dB Peak [mm]		11.5



**Meas.13 Right Head with Cheek on Middle Channel in LTE Band4 mode with Antenna 2**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	CHEEK, 0.00	Band 4	LTE-FDD, 10169-CAF	1732.5, 20175	8.67	1.32	39.0	22.6	21.4

**Hardware Setup**

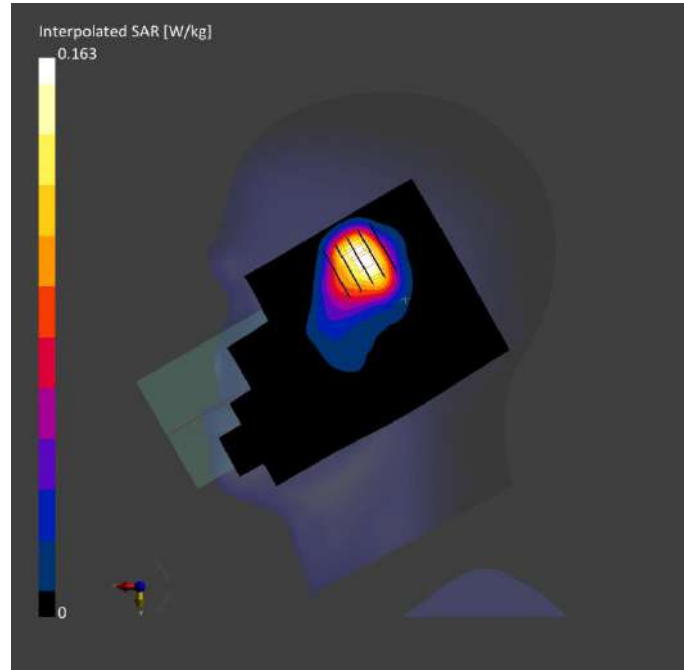
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-22	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-22	2024-07-22
psSAR1g [W/kg]	0.083	0.079
psSAR10g [W/kg]	0.049	0.046
Power Drift [dB]	-0.07	-0.09
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		43.6
Dist 3dB Peak [mm]		8.6



**Meas.14 Body Plane with Bottom Edge 10mm on Middle Channel in LTE Band4 mode with Antenna 0**  
**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE, BOTTOM, 10.00	Band 4	LTE-FDD, 10169-CAF	1732.5, 20175	8.67	1.32	39.0	22.6	21.4

**Hardware Setup**

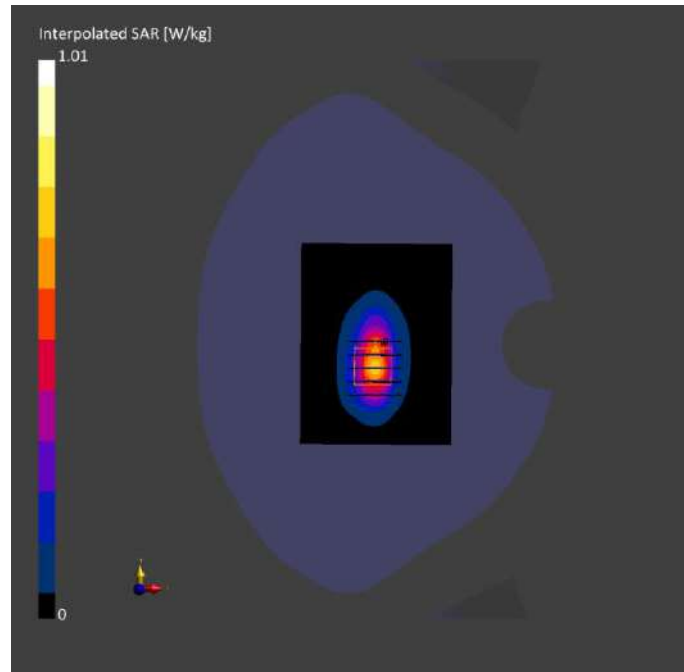
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-22	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 120.0	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	2024-07-22	2024-07-22
psSAR1g [W/kg]	0.569	0.601
psSAR10g [W/kg]	0.297	0.326
Power Drift [dB]	0.08	0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		59.8
Dist 3dB Peak [mm]		9.6



**Meas.15 Right Head with Cheek on Low Channel in LTE Band5 mode with Antenna 1**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	CHEEK, 0.00	Band 5	LTE-FDD, 10175-CAH	829.0, 20450	9.99	0.891	41.8	22.4	21.3

**Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-14	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

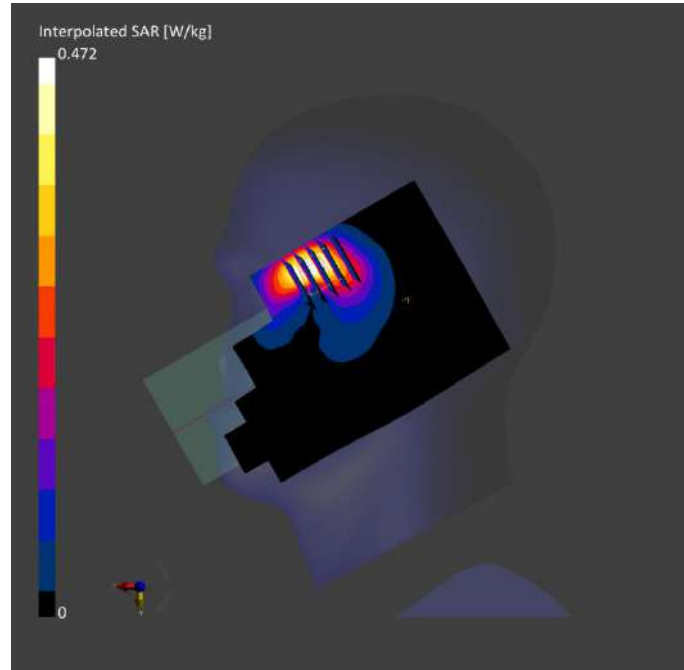
**Scan Setup**

	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	2024-07-14	2024-07-14
psSAR1g [W/kg]	0.284	0.284
psSAR10g [W/kg]	0.173	0.164
Power Drift [dB]	-0.03	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.8
Dist 3dB Peak [mm]		10.3





**Meas.16 Body Plane with Right Edge 10mm on Low Channel in LTE Band5 mode with Antenna 1**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 10.00	Band 5	LTE-FDD, 10175-CAH	829.0, 20450	9.99	0.891	41.8	22.4	21.3

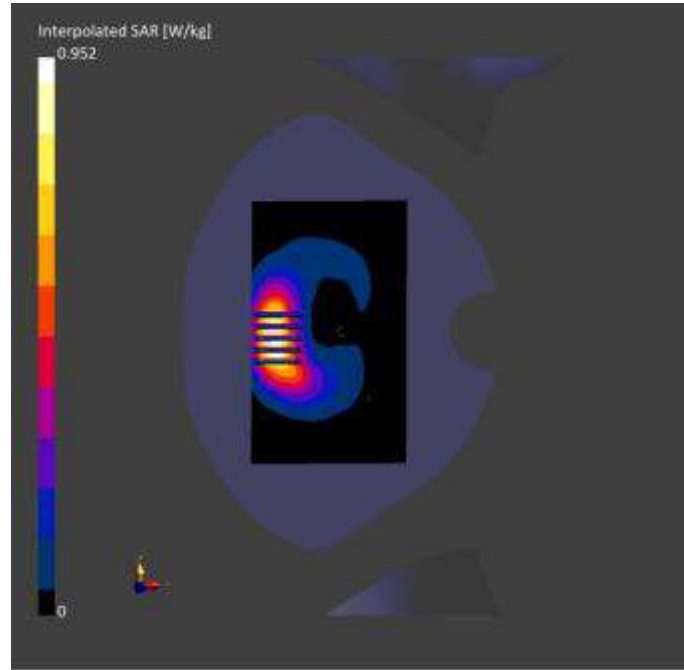
**Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-14	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn1711, 2024-03-18

**Scan Setup**

**Measurement Results**

	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 180.0	32.0 x 32.0 x 30.0	Date	2024-07-14	2024-07-14
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0	psSAR1g [W/kg]	0.580	0.605
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.361	0.359
Graded Grid	Yes	Yes	Power Drift [dB]	-0.01	-0.00
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	N/A	N/A	Scaling Factor [dB]		
Surface Detection	VMS + 6p	VMS + 6p	TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		64.1
			Dist 3dB Peak [mm]		11.2



**Meas.17 Right Head with Cheek on High Channel in LTE Band7 mode with Antenna 2**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	CHEEK, 0.00	Band 7	LTE-FDD, 10169-CAF	2560.0, 21350	7.59	1.97	39.1	22.1	21.9

**Hardware Setup**

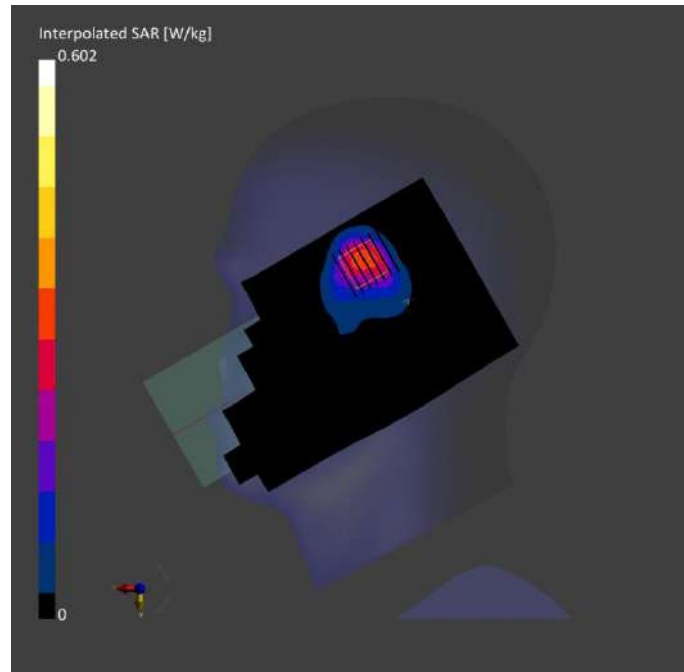
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-24	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-24	2024-07-24
psSAR1g [W/kg]	0.271	0.286
psSAR10g [W/kg]	0.139	0.138
Power Drift [dB]	-0.12	0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		46.5
Dist 3dB Peak [mm]		8.1



**Meas.18 Body Plane with Right Edge 10mm on Low Channel in LTE Band7 mode with Antenna 2**  
**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE, RIGHT, 10.00	Band 7	LTE-FDD, 10169-CAF	2510.0, 20850	7.75	1.90	39.4	22.1	21.9

**Hardware Setup**

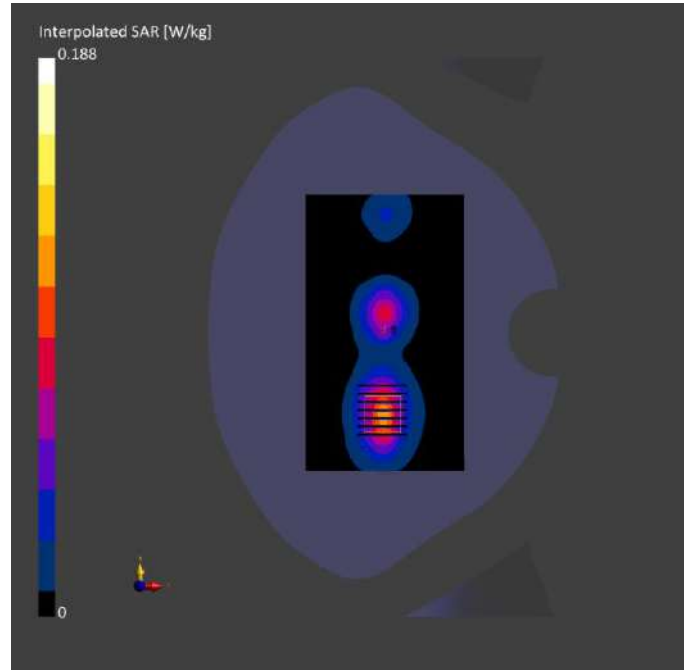
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-24	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 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	Y	Y
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-24	2024-07-24
psSAR1g [W/kg]	0.093	0.099
psSAR10g [W/kg]	0.046	0.049
Power Drift [dB]	-0.18	0.09
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		52.7
Dist 3dB Peak [mm]		10.2



**Meas.19 Right Head with Cheek on High Channel in LTE Band38 mode with Antenna 2**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	CHEEK, 0.00	Band 38	LTE-TDD, 10172-CAH	2610.0, 38150	7.59	2.03	38.6	22.1	21.9

**Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-24	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

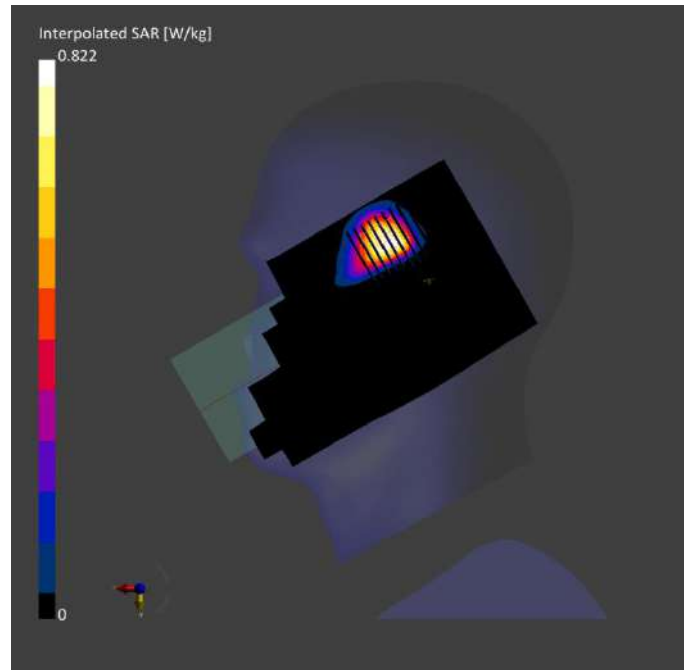
**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-24	2024-07-24
psSAR1g [W/kg]	0.383	0.400
psSAR10g [W/kg]	0.195	0.194
Power Drift [dB]	-0.01	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		48.3
Dist 3dB Peak [mm]		8.1





**Meas.20 Body Plane with Right Edge 10mm on High Channel in LTE Band38 mode with Antenna 2  
Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE, RIGHT, 10.00	Band 38	LTE-TDD, 10172-CAH	2610.0, 38150	7.59	2.03	38.6	22.1	21.9

**Hardware Setup**

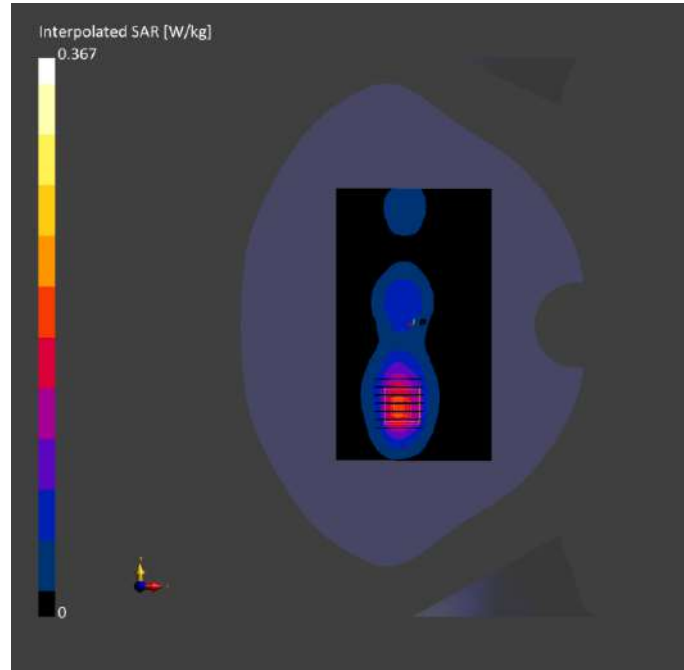
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-24	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	96.0 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	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-24	2024-07-24
psSAR1g [W/kg]	0.158	0.186
psSAR10g [W/kg]	0.081	0.090
Power Drift [dB]	-0.07	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.3
Dist 3dB Peak [mm]		9.0



**Meas.21 Right Head with Cheek on High Channel in LTE Band41 mode with Antenna 2**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
RightHead, HSL	CHEEK, 0.00	Band 41	LTE-TDD, 10172-CAH	2645.0, 41140	7.59	2.00	39.4	22.7	21.4

**Hardware Setup**

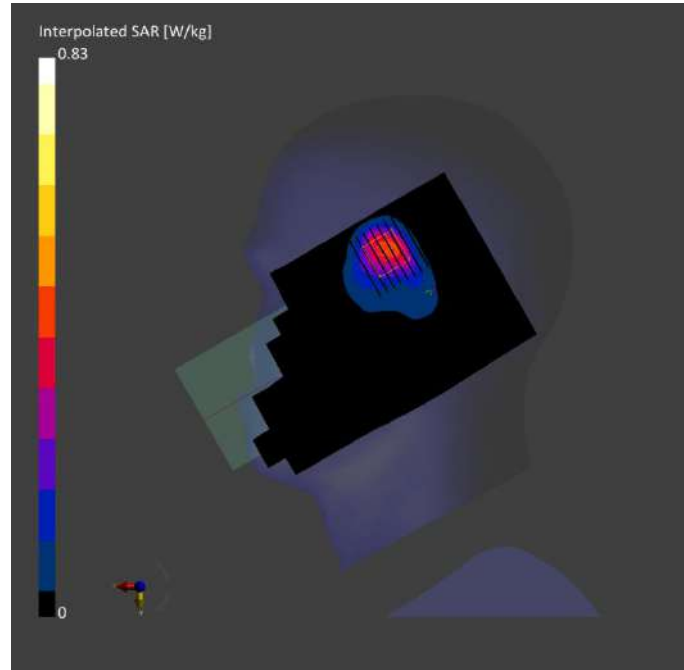
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-30	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-30	2024-07-30
psSAR1g [W/kg]	0.358	0.398
psSAR10g [W/kg]	0.184	0.191
Power Drift [dB]	0.09	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		44.1
Dist 3dB Peak [mm]		7.1



**Meas.22 Body Plane with Back Side 10mm on High Channel in LTE Band41 mode with Antenna 2**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 10.00	Band 41	LTE-TDD, 10172-CAH	2645.0, 41140	7.59	2.00	39.4	22.7	21.4

**Hardware Setup**

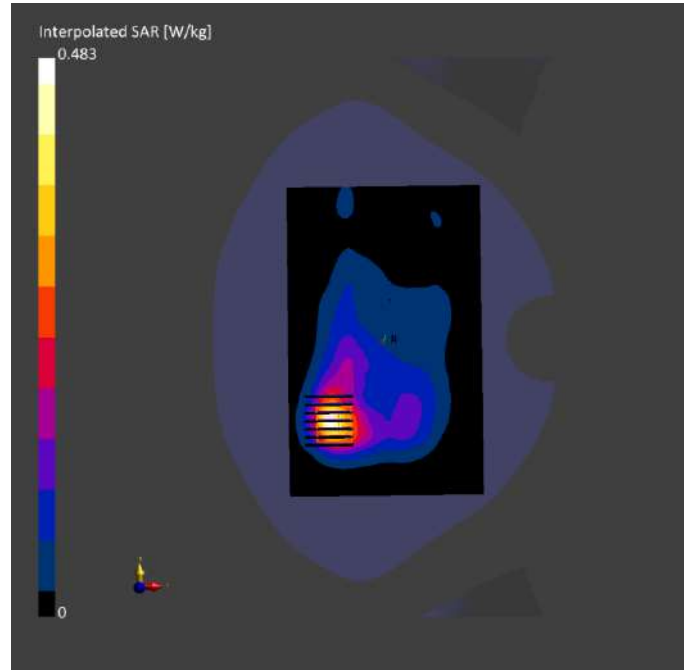
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-30	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-30	2024-07-30
psSAR1g [W/kg]	0.230	0.247
psSAR10g [W/kg]	0.110	0.118
Power Drift [dB]	-0.02	-0.10
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.7
Dist 3dB Peak [mm]		10.4



**Meas.23 Left Head with Cheek on 6 Channel in IEEE802.11 b mode with Antenna 13**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
LeftHead, HSL	CHEEK, 0.00	WLAN, 2.4GHz	WLAN, 10012-CAB	2437.0, 6	7.75	1.79	38.3	22.7	21.4

**Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-30	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

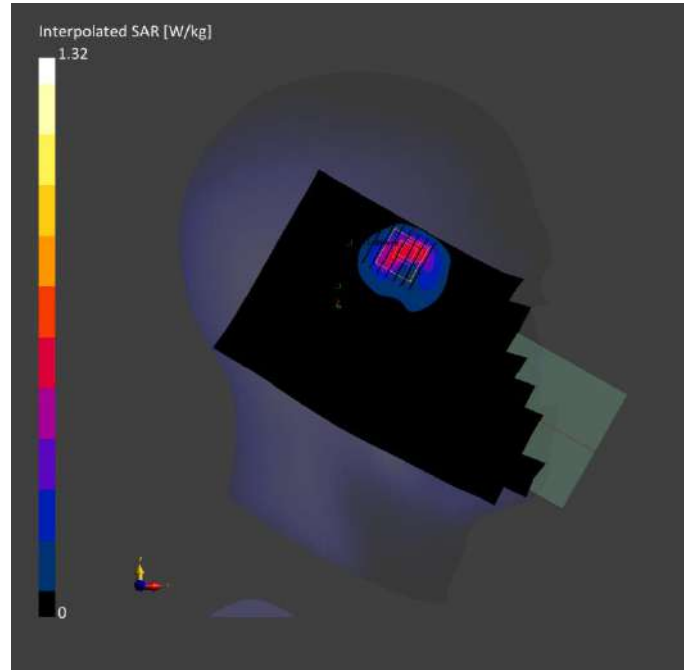
**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-30	2024-07-30
psSAR1g [W/kg]	0.474	0.565
psSAR10g [W/kg]	0.230	0.240
Power Drift [dB]	0.00	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		39.4
Dist 3dB Peak [mm]		5.9





**Meas.24 Body Plane with Left Edge 10mm on 6 Channel in IEEE802.11b mode with Antenna 13**  
**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE LEFT, 10.00	WLAN 2.4GHz	WLAN, 10012-CAB	2437.0, 6	7.75	1.79	38.3	22.7	21.4

**Hardware Setup**

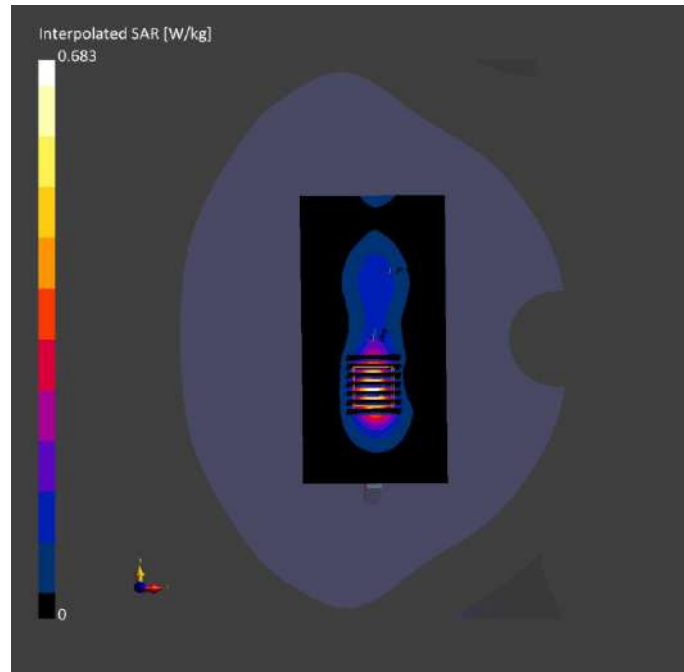
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-30	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**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]	8.0 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 Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-30	2024-07-30
psSAR1g [W/kg]	0.313	0.327
psSAR10g [W/kg]	0.138	0.144
Power Drift [dB]	0.00	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		81.4
Dist 3dB Peak [mm]		7.1



**Meas.25 Left Head with Tilt on 58 Channel in IEEE802.11ac80 mode with Antenna 14**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
LeftHead, HSL	TILT, 0.00	WLAN, 5GHz	WLAN, 10544-AAC	5290.0, 58	5.5	4.63	35.0	22.3	21.2

**Hardware Setup**

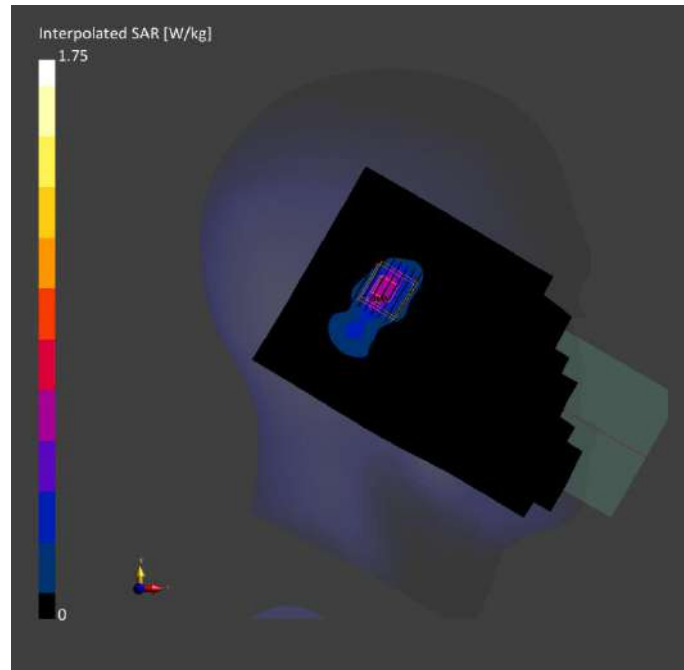
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-31	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-31	2024-07-31
psSAR1g [W/kg]	0.495	0.504
psSAR10g [W/kg]	0.173	0.178
Power Drift [dB]	-0.02	-0.08
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		55.4
Dist 3dB Peak [mm]		5.7



**Meas.26 Left Head with Tilt on 122 Channel in IEEE802.11ac80 mode with Antenna 14**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
LeftHead, HSL	TILT, 0.00	WLAN, 5GHz	WLAN, 10544-AAC	5610.0, 122	5.0	5.04	34.7	22.1	21.3

**Hardware Setup**

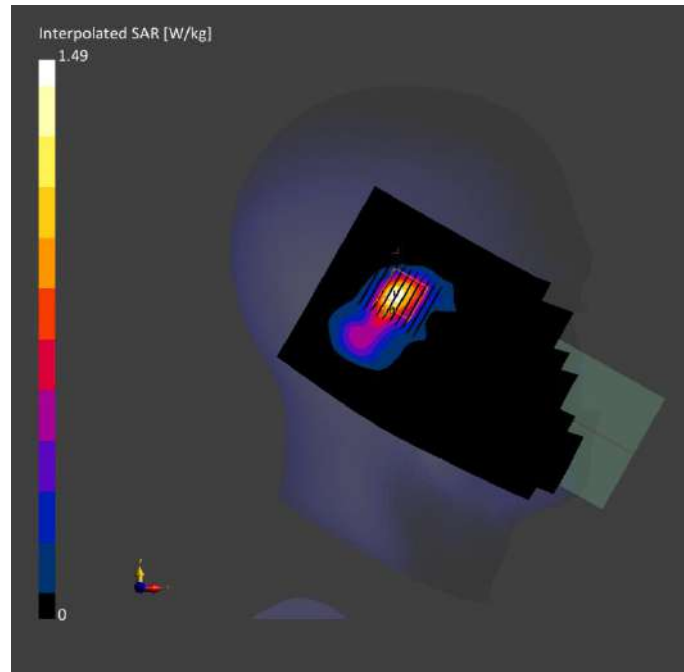
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-08-01	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-08-01	2024-08-01
psSAR1g [W/kg]	0.383	0.381
psSAR10g [W/kg]	0.133	0.128
Power Drift [dB]	-0.06	-0.09
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		50.0
Dist 3dB Peak [mm]		6.8



**Meas.27 Left Head with Cheek on 159 Channel in IEEE802.11 n40 mode with Antenna 13**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
LeftHead, HSL	CHEEK, 0.00	WLAN, 5GHz	WLAN, 10114-CAD	5795.0, 159	5.04	5.17	36.3	22.1	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 2024-08-02	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

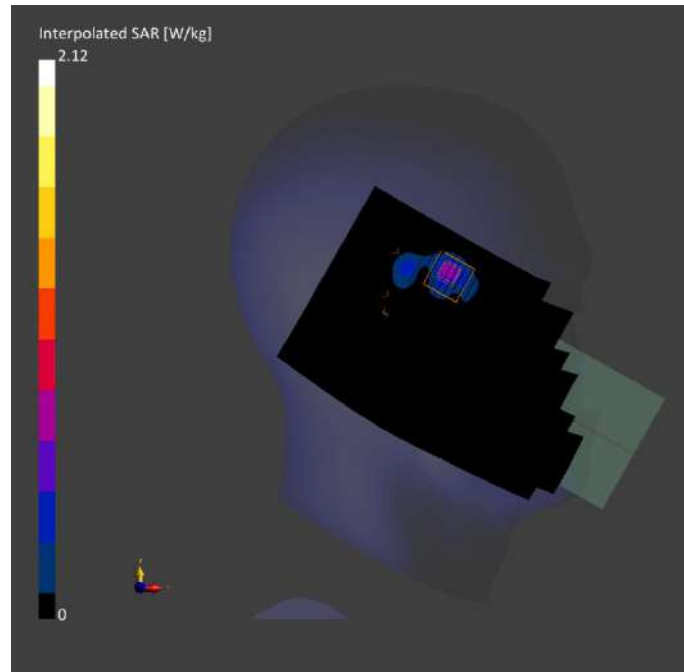
**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-08-02	2024-08-02
psSAR1g [W/kg]	0.492	0.505
psSAR10g [W/kg]	0.147	0.139
Power Drift [dB]	-0.05	-0.13
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		52.1
Dist 3dB Peak [mm]		5.8





**Meas.28 Body Plane with Back Side 10mm on 62 Channel in IEEE802.11n40 mode with Antenna 13**  
**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 10.00	WLAN, 5GHz	WLAN, 10114-CAD	5310.0, 62	5.5	4.64	35.0	22.3	21.2

**Hardware Setup**

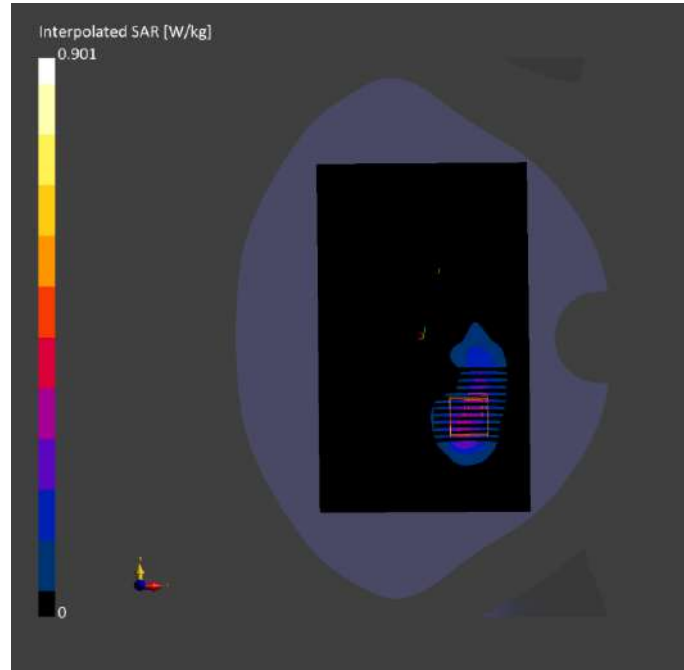
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-31	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-31	2024-07-31
psSAR1g [W/kg]	0.252	0.264
psSAR10g [W/kg]	0.106	0.109
Power Drift [dB]	-0.05	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		55.8
Dist 3dB Peak [mm]		8.5



**Meas.29 Body Plane with Back Side 10mm on 134 Channel in IEEE802.11n40 mode with Antenna 13**  
**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 10.00	WLAN, 5GHz	WLAN, 10114-CAD	5670.0, 134	5.0	5.13	34.5	22.1	21.3

**Hardware Setup**

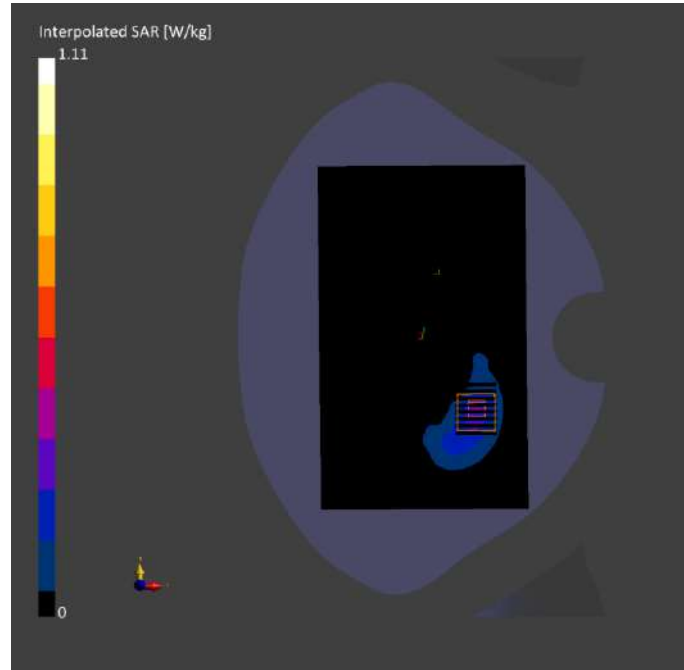
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-08-01	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-08-01	2024-08-01
psSAR1g [W/kg]	0.282	0.302
psSAR10g [W/kg]	0.101	0.103
Power Drift [dB]	-0.15	0.13
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		53.3
Dist 3dB Peak [mm]		8.9



**Meas.30 Body Plane with Back Side 10mm on 159 Channel in IEEE802.11n40 mode with Antenna 13**  
**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 10.00	WLAN, 5GHz	WLAN, 10599-AAC	5795.0, 159	5.04	5.17	36.3	22.1	21.0

**Hardware Setup**

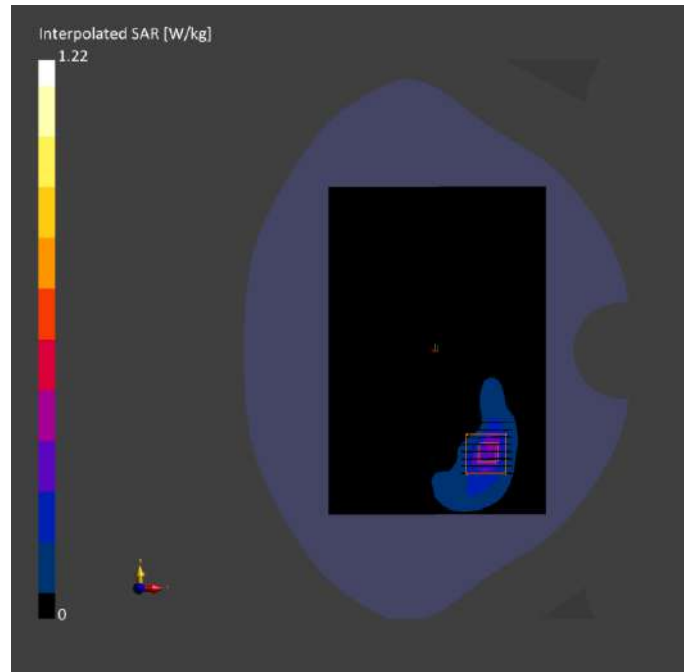
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-08-02	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-08-02	2024-08-02
psSAR1g [W/kg]	0.309	0.334
psSAR10g [W/kg]	0.115	0.119
Power Drift [dB]	0.08	-0.10
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		52.1
Dist 3dB Peak [mm]		8.5



**Meas.31 Body Plane with Top Edge 10mm on 42 Channel in IEEE802.11ac80 mode with Antenna 14**  
**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE TOP, 10.00	WLAN, 5GHz	WLAN, 10402-AAE	5210.0, 42	5.74	4.51	35.3	22.3	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 2024-07-31	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

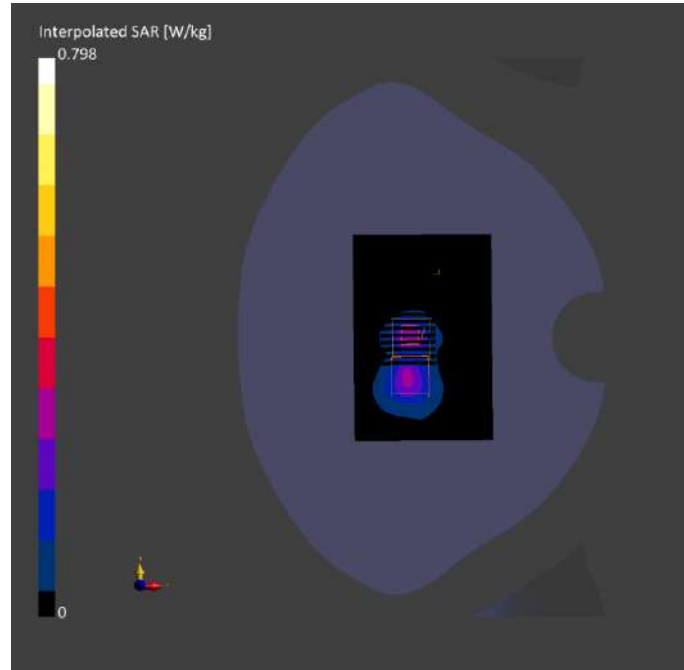
**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	Y
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-31	2024-07-31
psSAR1g [W/kg]	0.226	0.256
psSAR10g [W/kg]	0.081	0.088
Power Drift [dB]	0.05	-0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		56.5
Dist 3dB Peak [mm]		8.6





**Meas.32 Body Plane with Top Side 0mm on 58 Channel in IEEE802.11ac80 mode with Antenna 14**  
**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE TOP, 0.00	WLAN, 5GHz	WLAN, 10402-AAE	5290.0, 58	5.74	4.63	35.0	22.3	21.2

**Hardware Setup**

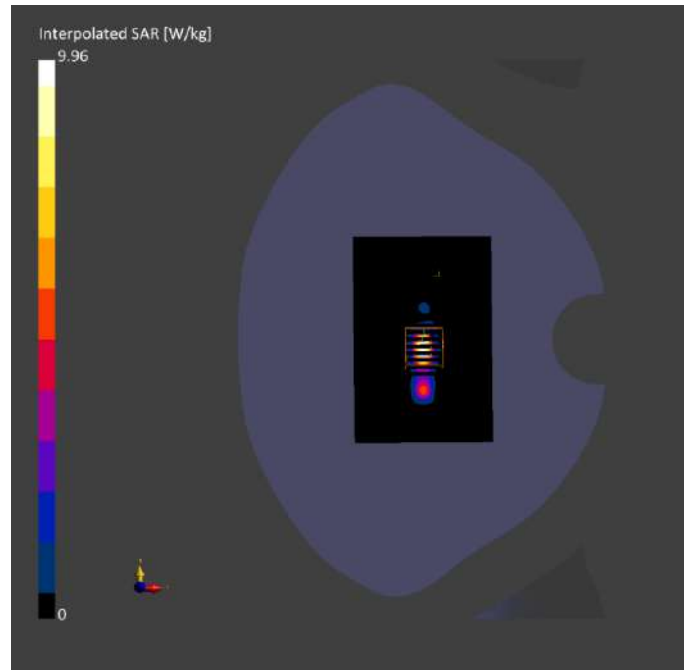
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-07-31	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-07-31	2024-07-31
psSAR1g [W/kg]	2.54	2.16
psSAR10g [W/kg]	0.623	0.559
Power Drift [dB]	-0.00	-0.07
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		48.1
Dist 3dB Peak [mm]		4.0



**Meas.33 Body Plane with Left Edge 0mm on 134 Channel in IEEE802.11n40 mode with Antenna 13**  
**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE, LEFT, 0.00	WLAN, 5GHz	WLAN, 10114-CAD	5670.0, 134	5.0	5.13	34.2	22.1	21.3

**Hardware Setup**

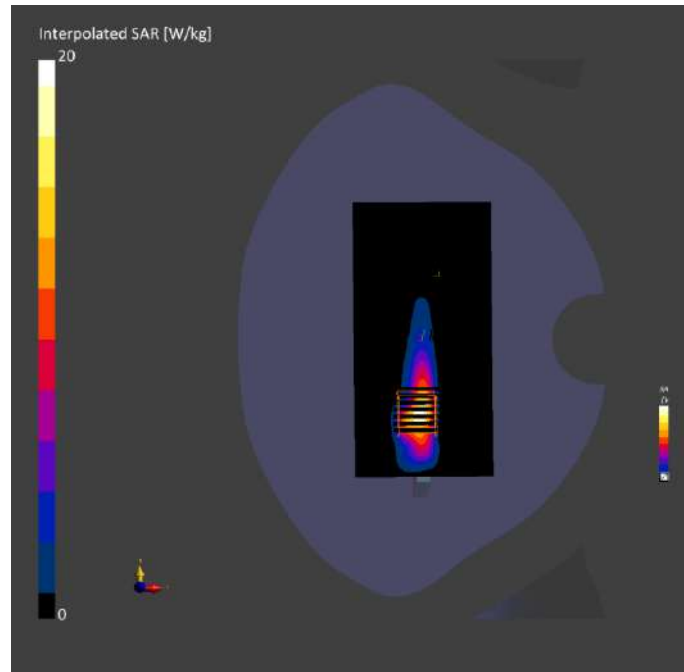
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2024-08-01	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 160.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-08-01	2024-08-01
psSAR1g [W/kg]	2.63	4.15
psSAR10g [W/kg]	0.865	0.975
Power Drift [dB]	-0.06	0.09
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		52.6
Dist 3dB Peak [mm]		4.3



**Meas.34 Left Head with Cheek on 39 Channel in Bluetooth mode with Antenna 13**

**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
LeftHead, HSL	CHEEK, 0.00	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2441.0, 39	7.75	1.76	38.4	22.1	21.0

**Hardware Setup**

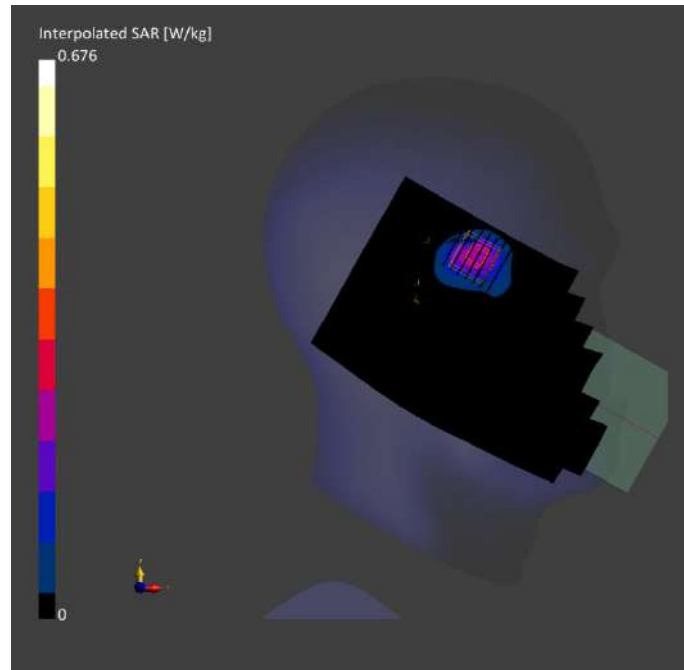
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2090	HBBL-600-10000 2024-08-02	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

**Scan Setup**

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

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-08-02	2024-08-02
psSAR1g [W/kg]	0.214	0.265
psSAR10g [W/kg]	0.105	0.107
Power Drift [dB]	-0.03	0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		37.7
Dist 3dB Peak [mm]		5.0



**Meas.35 Body Plane with Left Edge 10mm on 39 Channel in Bluetooth mode with Antenna 13**  
**Device under Test Properties**

Model, Manufacturer	Dimensions [mm]	DUT Type
2AIZN-X6880	162.0 x 73.0 x 8.0	Phone

**Exposure Conditions**

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	EDGE, LEFT, 10.00	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2441.0, 39	7.75	1.76	38.4	22.1	21.0

**Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2090	HBBL-600-10000 2024-08-02	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn1711, 2024-03-18

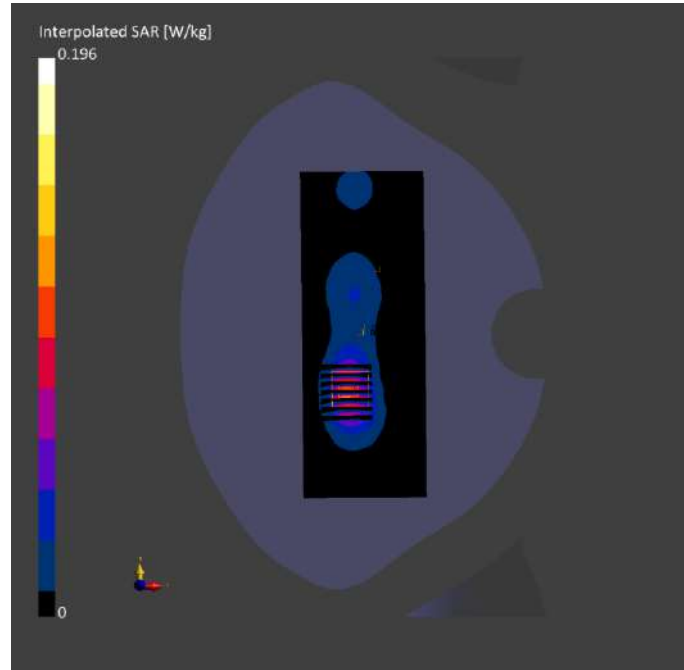
**Scan Setup**

	Area Scan	Zoom Scan
Grid Extents [mm]	72.0 x 192.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Y	Y
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

**Measurement Results**

	Area Scan	Zoom Scan
Date	2024-08-02	2024-08-02
psSAR1g [W/kg]	0.091	0.099
psSAR10g [W/kg]	0.043	0.045
Power Drift [dB]	-0.05	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		52.1
Dist 3dB Peak [mm]		8.2





## **ANNEX D EUT EXTERNAL PHOTOS**

Please refer the document "BL-SZ2461151-AW.pdf".

## **ANNEX E SAR TEST SETUP PHOTOS**

Please refer the document "BL-SZ2461151-AS.pdf".

## **ANNEX F CALIBRATION REPORT**

Please refer the document "BL-SZ2461151-AC.pdf".

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