

TEST REPORT

Applicant: vivo Mobile Communication Co., Ltd.
Address: No.1, vivo Road, Chang'an, Dongguan, Guangdong, China
Equipment Type: Mobile Phone
Model Name: V2441
Brand Name: vivo
FCC ID: 2AUCY-V2441
Test Standard: FCC 47 CFR Part 2.1093
(refer section 3.1)
Maximum SAR: Head (1 g@0mm): 0.76 W/kg
Body-worn (1 g@15mm): 0.33 W/kg
Hotspot (1 g@10mm): 0.66 W/kg
Specific (10 g@0mm): 1.75 W/kg
Sample Arrival Date: Jan. 08, 2025
Test Date: Jan. 25, 2025 - Feb. 06, 2025
Date of Issue: Feb. 11, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Xiong Lining**Checked by:** Xu Rui**Approved by:** Tolan Tu
(Testing Director)

Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Feb. 11, 2025</u>	<u>Initial Issue</u>

TABLE OF CONTENTS

1 GENERAL INFORMATION..... 5

1.1 Test Laboratory 5

1.2 Test Location 5

1.3 Test Environment Condition..... 5

2 PRODUCT INFORMATION 6

2.1 Applicant Information 6

2.2 Manufacturer Information..... 6

2.3 General Description for Equipment under Test (EUT)..... 6

2.4 Ancillary Equipment..... 7

2.5 Technical Information 8

3 SUMMARY OF TEST RESULT 10

3.1 Test Standards 10

3.2 Device Category and SAR Limit 11

3.3 Test Result Summary 12

3.4 Test Uncertainty 14

4 MEASUREMENT SYSTEM 15

4.1 Specific Absorption Rate (SAR) Definition 15

4.2 DASY SAR System 16

5 SYSTEM VERIFICATION 24

5.1 Purpose of System Check 24

5.2 System Check Setup 24

6 TEST POSITION CONFIGURATIONS 25

6.1 Head Exposure Conditions 25

6.2 Body-worn Position Conditions 27

6.3	Hotspot Mode Exposure Position Conditions	28
6.4	Product Specific 10g Exposure Consideration	28
7	MEASUREMENT PROCEDURE	29
7.1	Measurement Process Diagram	29
7.2	SAR Scan General Requirement	30
7.3	Measurement Procedure	31
7.4	Area & Zoom Scan Procedure	31
7.5	LTE (TDD) Considerations.....	32
8	CONDUCTED RF OUPUT POWER	34
8.1	GSM	34
8.2	WCDMA	34
8.3	LTE.....	34
8.4	WIFI.....	35
8.5	Bluetooth	50
8.6	Power Reduction List.....	51
9	PROXIMITY SENSOR TRIGGERING TEST.....	62
9.1	Procedures for determining proximity sensor distance.....	62
9.2	EUT tilt angle influences to proximity sensor triggering.....	64
10	TEST EXCLUSION CONSIDERATION	65
11	TEST RESULT	67
11.1	GSM 850	67
11.2	GSM 1900	68
11.3	WCDMA Band 2	70
11.4	WCDMA Band 4	72
11.5	WCDMA Band 5	74
11.6	LTE Band 2 (20MHz Bandwidth)	75
11.7	LTE Band 4 (20MHz Bandwidth)	77
11.8	LTE Band 5 (10MHz Bandwidth)	79
11.9	LTE Band 7 (20MHz Bandwidth)	81
11.10	LTE Band 13 (10MHz Bandwidth).....	83

11.11	LTE Band 18 (15MHz Bandwidth).....	85
11.12	LTE Band 19 (15MHz Bandwidth).....	87
11.13	LTE Band 26 (15MHz Bandwidth).....	89
11.14	LTE Band 66 (20MHz Bandwidth).....	91
11.15	LTE Band 38 (20MHz Bandwidth).....	93
11.16	LTE Band 41 (20MHz Bandwidth).....	95
11.17	WIFI 2.4GHz.....	97
11.18	WIFI 5GHz.....	98
11.19	Bluetooth	100
11.20	NFC SAR.....	101
12	SAR Measurement Variability	103
13	SIMULTANEOUS TRANSMISSION.....	104
13.1	Simultaneous Transmission Mode Consider	104
13.2	Sum SAR of Simultaneous Transmission	105
14	TEST EQUIPMENTS LIST	122
ANNEX A	SIMULATING LIQUID VERIFICATION RESULT	123
ANNEX B	SYSTEM CHECK RESULT	125
ANNEX C	TEST DATA.....	160
ANNEX D	EUT EXTERNAL PHOTOS.....	234
ANNEX E	SAR TEST SETUP PHOTOS	234
ANNEX F	CALIBRATION REPORT	234

1 GENERAL INFORMATION

1.1 Test Laboratory

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

1.2 Test Location

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

1.3 Test Environment Condition

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

2 PRODUCT INFORMATION

2.1 Applicant Information

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

2.2 Manufacturer Information

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

2.3 General Description for Equipment under Test (EUT)

EUT Name	Mobile Phone
Model Name Under Test	V2441
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	MP_0.1
Software Version	PD2448GF_EX_A_15.0.4.12.W30
Dimensions (Approx.)	163.96*75.3*8.495mm
Weight (Approx.)	193g
EUT ID	S10, S11, S12, S13, S14
IMEI Number	S10: IMEI: 86101607999979
	S11: IMEI: 86101607999573
	S12: IMEI: 86101607999490
	S13: IMEI: 86101607999276
	S14: IMEI: 86101607999235
Note1: EUT ID is used to identify the test sample in the lab internally.	
Note2: It is performed to test SAR with the EUT S10, S11, S12 and conducted power with the EUT S13 & S14.	

2.4 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	vivo
	Model No.	BA93
	Serial No.	N/A
	Capacity	Rated capacity: 6380mAh Typical capacity: 6500mAh
	Rated Voltage	3.91V
	Limit Charge Voltage	4.10V
	Manufacture	Dongguan NVT Technology CO.,LTD.

2.5 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 3G Network WCDMA/HSDPA/HSUPA/DC-HSDPA/HSPA+ Band 2/4/5 4G Network FDD LTE Band 2/4/5/7/13/18/19/26/66 TDD LTE Band 38/41 Bluetooth (BR+EDR+BLE) WIFI 802.11b, 802.11g, WIFI 802.11a, 802.11n(HT20/40) and 802.11ac(VHT20/40/80) GPS, GLONASS, BDS, Galileo, QZSS, SBAS, NFC
Note: The EUT is a mobile phone, which supports dual SIM card under the same transceiver. Each SIM supports GSM, WCDMA and LTE, and both SIM share the same transmitting electronic 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 13	TX: 777 ~ 787 MHz	RX: 746 ~ 756 MHz
	LTE Band 18	TX: 815 ~ 824 MHz	RX: 860 ~ 869 MHz
		TX: 824 ~ 830 MHz	RX: 869 ~ 875 MHz
	LTE Band 19	TX: 830 ~ 845 MHz	RX: 875 ~ 890 MHz
	LTE Band 26	TX: 814 ~ 824 MHz	RX: 859 ~ 869 MHz
		TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 MHz
	802.11b/g /n(HT20/HT40)	2412 ~ 2462 MHz	
	VHT20/40	2412 ~ 2462 MHz	
	802.11a/ /n(HT20/HT40) /ac(VHT20/VHT40/ VHT80)	5150 ~ 5250 MHz	
		5250 ~ 5350 MHz	
		5470 ~ 5725 MHz	
		5725 ~ 5850 MHz	
	Bluetooth	2402 ~ 2480 MHz	
	NFC	13.56 MHz	
Antenna Type	WWAN: PIFA Antenna		

	WIFI: PIFA Antenna Bluetooth: PIFA Antenna NFC: Loop Antenna	
DTM	N/A	
Hotspot Function	Support	
Power Reduction	Support	
Exposure Category	General Population/Uncontrolled exposure	
Product Type	Portable Device	
EUT Type	☒ Production unit	☐ Identical prototype
Note: 1. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4G transmitter for held-to-ear exposure conditions. 2. The device utilizes independent power reduction mechanisms for SAR compliance for the 2/3/4G transmitter for near to body exposure conditions. 3. The reduction power details please refer section 8.8.		

3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2.1093	Radiofrequency radiation exposure evaluation: portable devices
2	ANSI C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2013	IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate(SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01
5	KDB 941225 D01 v03r01	3G SAR MEAUREMENT PROCEDURES
6	KDB 941225 D05 v02r05	SAR Evaluation Considerations for LTE Devices
7	KDB 941225 D06 v02r01	SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES
8	KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
9	KDB 865664 D02 v01r02	RF Exposure Reporting
10	KDB 648474 D04 v01r03	SAR EVALUATION CONSIDERATIONS FOR WIRELESS HANDSETS
11	KDB 248227 D01 v02r02	SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS

3.2 Device Category and SAR Limit

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

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

Table of Exposure Limits:

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

NOTE:

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

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

3.3 Test Result Summary

3.3.1 Highest SAR Values

Equipment Class	Band	Maximum Scaled SAR (W/kg)				Maximum Report SAR (W/kg)			
		Head (0mm)	Body-worn (15mm)	Hotspot (10mm)	Specific (0mm)	Head (0mm)	Body-worn (15mm)	Hotspot (10mm)	Specific (0mm)
		1g SAR			10g SAR	1g SAR			10g SAR
PCE	GSM 850	0.75	0.21	0.35	/	0.76	0.33	0.66	1.75
	GSM 1900	0.64	0.27	0.48	/				
	WCDMA Band 2	0.20	0.19	0.52	1.74				
	WCDMA Band 4	0.10	0.16	0.39	/				
	WCDMA Band 5	0.63	0.18	0.32	/				
	LTE Band 2	0.16	0.23	0.66	1.67				
	LTE Band 4	0.10	0.15	0.37	/				
	LTE Band 5	0.57	0.23	0.37	/				
	LTE Band 7	0.34	0.25	0.49	1.58				
	LTE Band 13	0.52	0.19	0.21	/				
	LTE Band 18	0.64	0.17	0.21	/				
	LTE Band 19	0.75	0.22	0.35	/				
	LTE Band 26	0.58	0.20	0.24	/				
	LTE Band 66	0.12	0.21	0.41	1.75				
	LTE Band 38	0.33	0.30	0.48	1.30				
	LTE Band 41	0.29	0.33	0.61	1.44				
DTS	2.4G WIFI	0.76	0.25	0.33	/				
NII	5.2G WIFI	0.14	/	0.64	/				
	5.3G WIFI	/	0.23	/	1.14				
	5.6G WIFI	0.19	0.18	/	0.79				
	5.8G WIFI	0.16	0.22	0.43	/				
DSS	Bluetooth	0.20	0.05	0.07	/				
DXX	NFC	0.01	0.01	0.01	0.01				
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 (15mm)	Hotspot 1g (10mm)	Specific 10g (0mm)
PCE	1.13	0.48	1.04	1.74
DTS	1.13	0.48	0.94	/
NII	0.82	0.40	1.04	1.74
DSS	0.80	0.31	0.66	/
Limit (W/Kg)	1.6	1.6	1.6	4
Verdict	Pass			
Note: The highest simultaneous SAR please refer section 13.2				

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 0.76 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 1.75 W/kg, which is lower than 3.75 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.

4 MEASUREMENT SYSTEM

4.1 Specific Absorption Rate (SAR) Definition

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

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

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

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

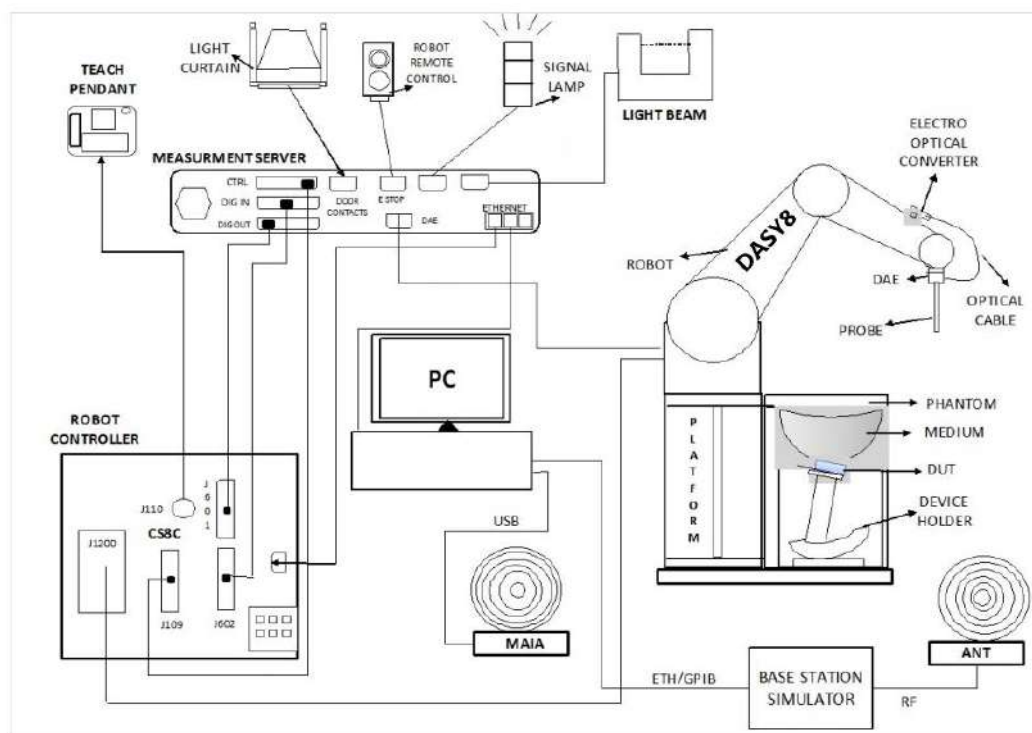
$$SAR = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue,

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

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 DASY 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. DASY software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.

4.2.2 Robot

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



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

4.2.3 E-Field Probe

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

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



E-Field Probe Calibration Process

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

4.2.4 Data Acquisition Electronics

The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-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 Ω 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



Photo of Phantom SN2090



Serial Number	Material	Length	Height
SN 1859 SAM1	Vinylester, glass fiber reinforced	1000	500

SN 2090 SAM2	Vynylester, glass fiber reinforced	1000	500
--------------	------------------------------------	------	-----

4.2.6 Device Holder

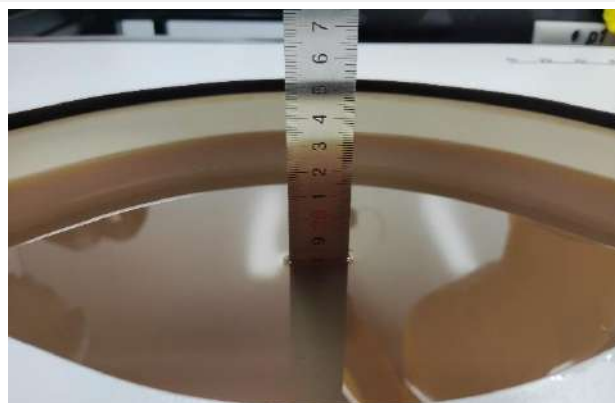
The DASY device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65° . The bottom plate contains three pair of bolts for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



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

4.2.7 Simulating Liquid

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

Head Liquid Depth**Body Liquid Depth**

The following table gives the recipes for tissue simulating liquid.

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

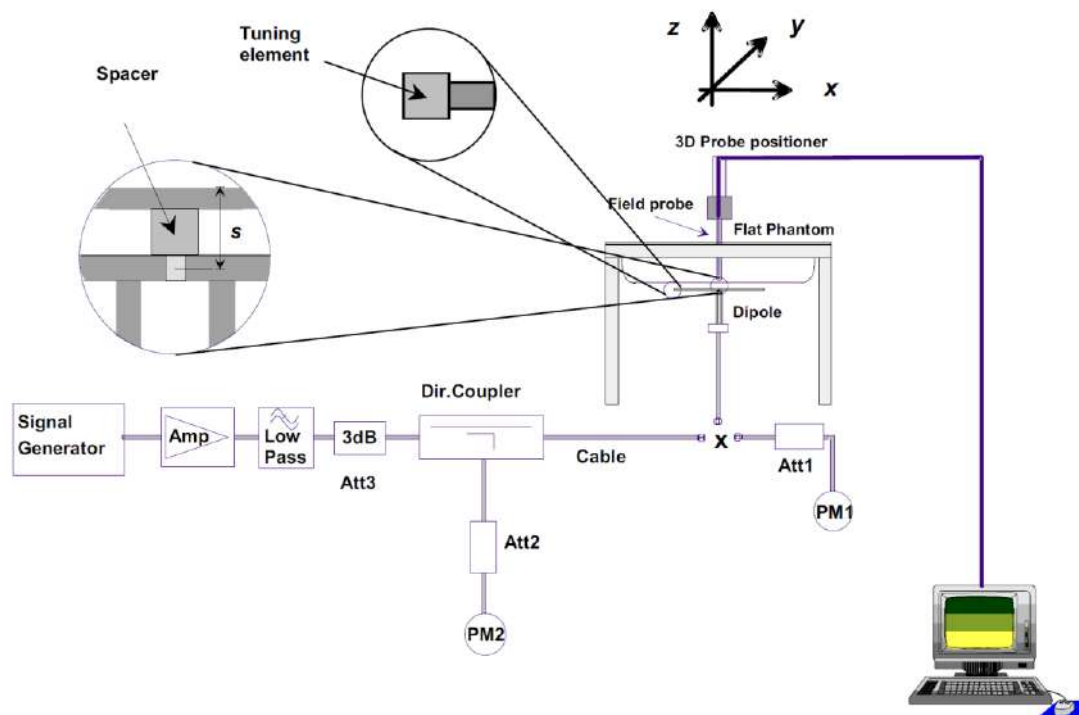
5 SYSTEM VERIFICATION

5.1 Purpose of System Check

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

5.2 System Check Setup

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



6 TEST POSITION CONFIGURATIONS

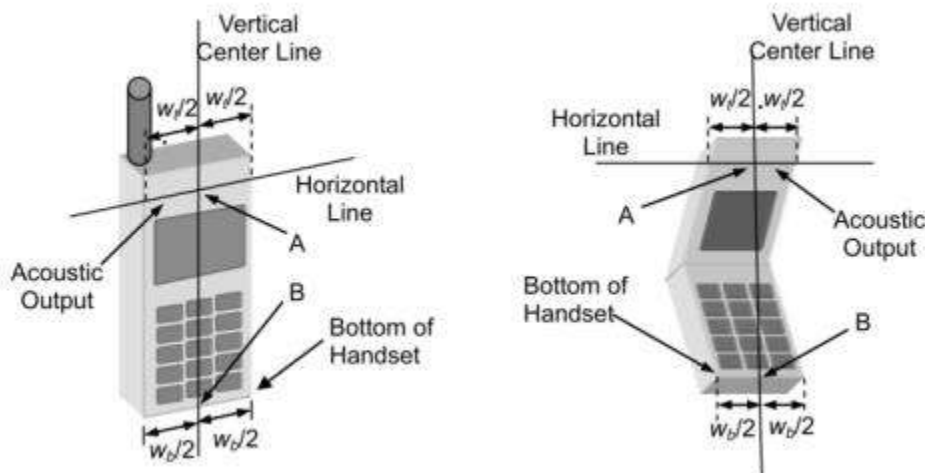
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

6.1 Head Exposure Conditions

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

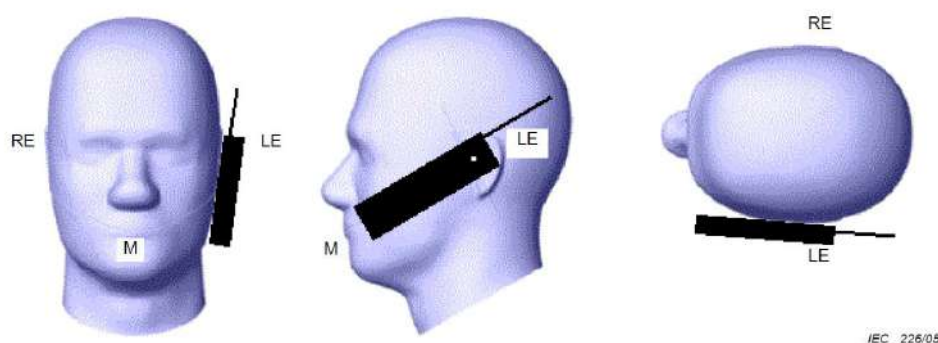
6.1.1 Two Imaginary Lines on the Handset

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



6.1.2 Cheek Position

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



6.1.3 Tilted Position

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

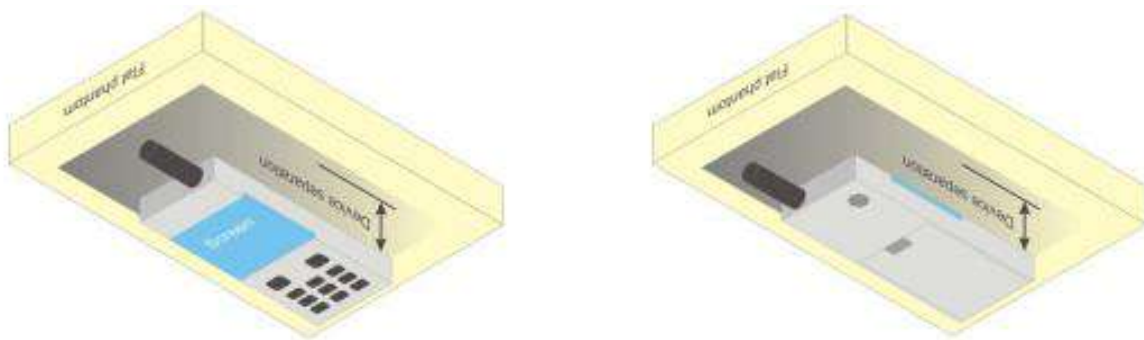


6.2 Body-worn Position Conditions

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB 447498 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory.

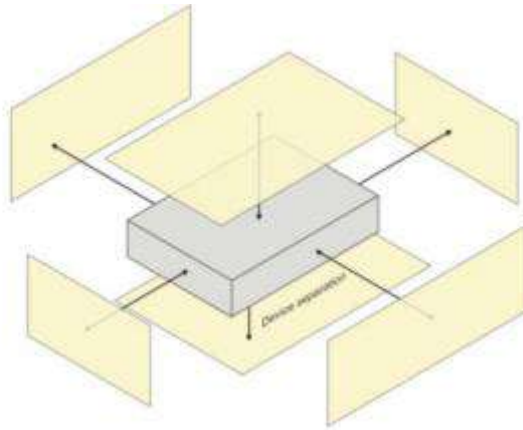
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics.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

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



6.3 Hotspot Mode Exposure Position Conditions

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing functions, the relevant hand and body exposure conditions are tested according to the hotspot SAR procedures in KDB 941225. A test separation distance of 10 mm is required between the phantom and all surfaces and edges with a transmitting antenna located within 25 mm from that surface or edge. When the form factor of a handset is smaller than 9 cm x 5 cm, a test separation distance of 5 mm (instead of 10 mm) is required for testing hotspot mode. When the separation distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, in the same wireless mode and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface).



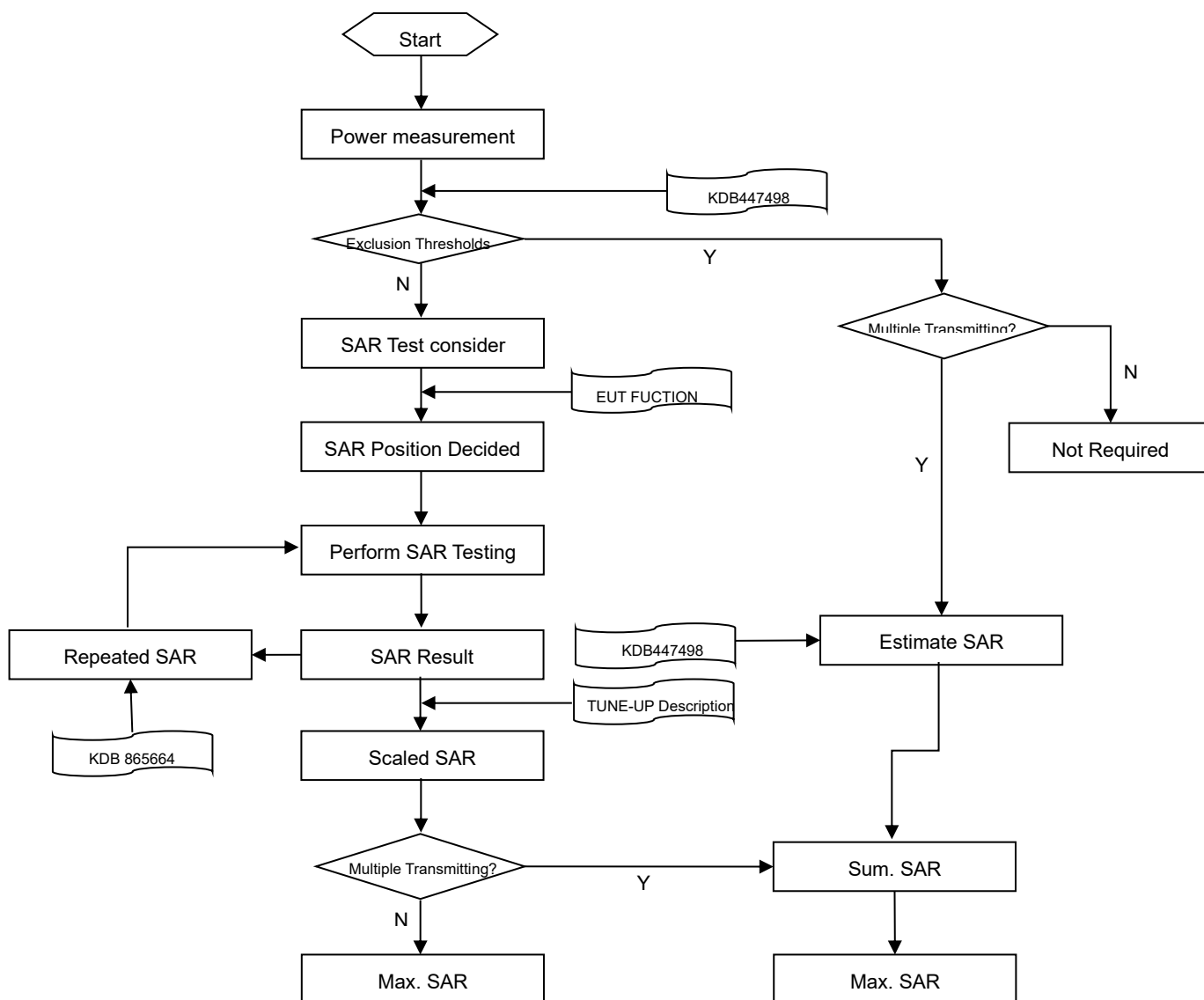
6.4 Product Specific 10g Exposure Consideration

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

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

7 MEASUREMENT PROCEDURE

7.1 Measurement Process Diagram



7.2 SAR Scan General Requirement

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

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

Note:

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

7.3 Measurement Procedure

The following steps are used for each test position

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

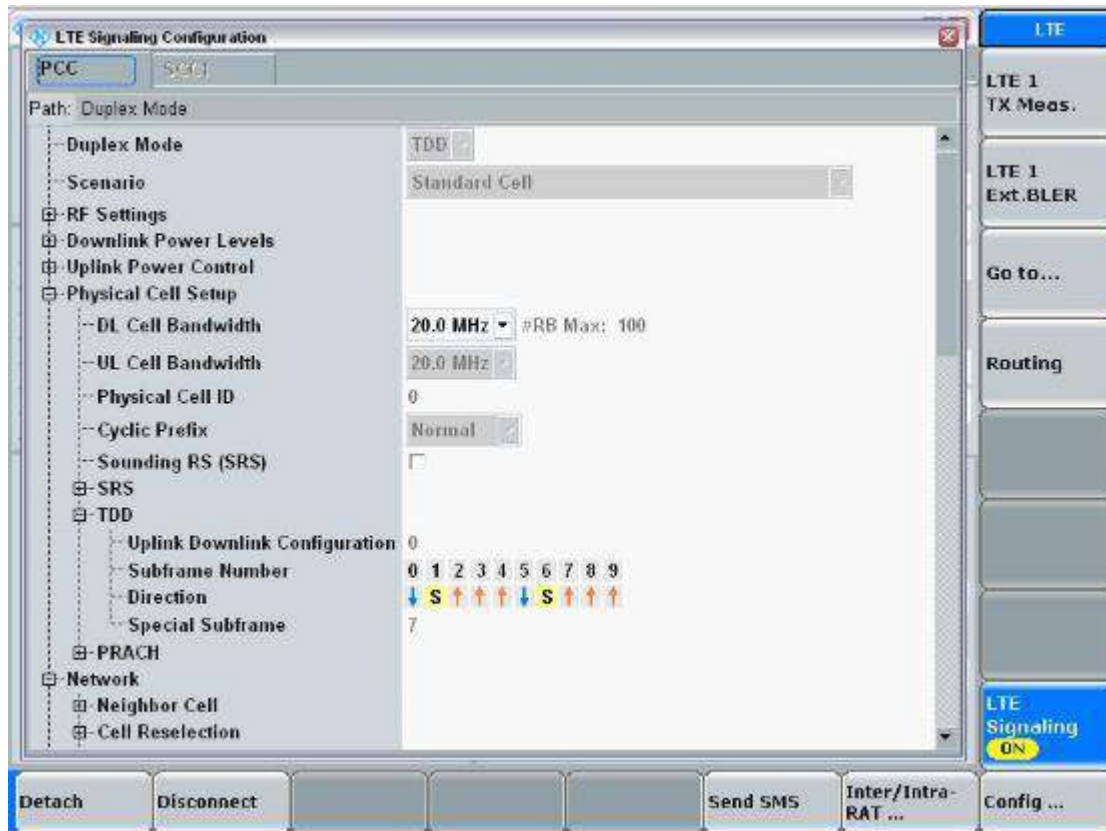
7.4 Area & Zoom Scan Procedure

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. Area scan and zoom scan resolution setting follows KDB 865664 D01v01r04 quoted below.

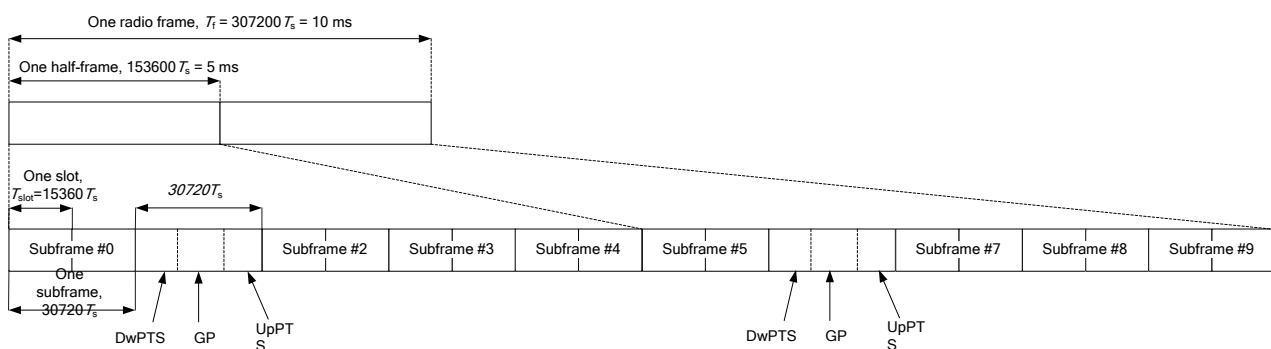
When the 1 g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

7.5 LTE (TDD) Considerations

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



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



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 $30720 T_s = 1\text{ms}$.

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

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

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

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

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

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

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

8 CONDUCTED RF OUPUT POWER

8.1 GSM

Please refer the document “BL-SZ2510222-AP Power List.pdf”.

8.2 WCDMA

Please refer the document “BL-SZ2510222-AP Power List.pdf”.

8.3 LTE

Please refer the document “BL-SZ2510222-AP Power List.pdf”.

8.4 WIFI

8.4.1 2.4G WIFI-Full power

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4	802.11b	1	2412	18.74	20.00	No
		6	2437	19.36	20.00	No
		11	2462	18.87	20.00	No
	802.11g	1	2412	15.99	17.50	No
		6	2437	18.12	19.00	No
		11	2462	17.57	18.50	No
	802.11n(HT20)	1	2412	16.29	17.00	No
		6	2437	17.24	18.00	No
		11	2462	16.95	18.00	No
	802.11n(HT40)	3	2422	13.35	12.50	No
		6	2437	17.43	18.00	No
		9	2452	13.85	15.00	No
	VHT20	1	2412	15.92	17.00	No
		6	2437	17.30	18.00	No
		11	2462	17.01	18.00	No
	VHT40	3	2422	12.25	13.50	No
		6	2437	17.21	18.00	No
		9	2452	14.24	15.50	No

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

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

8.4.2 2.4G WIFI-Level1

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4	802.11b	1	2412	17.33	18.50	No
		6	2437	17.37	18.50	Yes
		11	2462	17.26	18.50	No
	802.11g	1	2412	15.99	17.50	No
		6	2437	17.23	18.50	No
		11	2462	17.57	18.50	No
	802.11n(HT20)	1	2412	16.29	17.00	No
		6	2437	17.24	18.00	No
		11	2462	16.95	18.00	No
	802.11n(HT40)	3	2422	13.35	12.50	No
		6	2437	17.43	18.00	No
		9	2452	13.85	15.00	No
	VHT20	1	2412	15.92	17.00	No
		6	2437	17.30	18.00	No
		11	2462	17.01	18.00	No
	VHT40	3	2422	12.25	13.50	No
		6	2437	17.21	18.00	No
		9	2452	14.24	15.50	No

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

- 1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.
- 2) When multiple transmission modes (802.11b/g/n/VHT) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.
- 3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.
Adjusted SAR = $0.762 * (70.79\text{mW}/70.79\text{mW}) = 0.762$ W/Kg, so 2.4G OFDM SAR test is not required.

8.4.3 2.4G WIFI-Level2

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4	802.11b	1	2412	16.72	18.00	No
		6	2437	16.84	18.00	Yes
		11	2462	16.66	18.00	No
	802.11g	1	2412	15.99	17.50	No
		6	2437	16.89	18.00	No
		11	2462	16.97	18.00	No
	802.11n(HT20)	1	2412	16.29	17.00	No
		6	2437	17.24	18.00	No
		11	2462	16.95	18.00	No
	802.11n(HT40)	3	2422	13.35	12.50	No
		6	2437	17.43	18.00	No
		9	2452	13.85	15.00	No
	VHT20	1	2412	15.92	17.00	No
		6	2437	17.30	18.00	No
		11	2462	17.01	18.00	No
	VHT40	3	2422	12.25	13.50	No
		6	2437	17.21	18.00	No
		9	2452	14.24	15.50	No

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

- 1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.
- 2) When multiple transmission modes (802.11b/g/n/VHT) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.
- 3) According KDB 247228, when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR test is not required.
Adjusted SAR = $0.671 * (63.10\text{mW}/63.10\text{mW}) = 0.671$ W/Kg, so 2.4G OFDM SAR test is not required.

8.4.4 2.4G WIFI-Level3

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4	802.11b	1	2412	18.74	20.00	No
		6	2437	19.36	20.00	Yes
		11	2462	18.87	20.00	No
	802.11g	1	2412	15.99	17.50	No
		6	2437	18.12	19.00	No
		11	2462	17.57	18.50	No
	802.11n(HT20)	1	2412	16.29	17.00	No
		6	2437	17.24	18.00	No
		11	2462	16.95	18.00	No
	802.11n(HT40)	3	2422	13.35	12.50	No
		6	2437	17.43	18.00	No
		9	2452	13.85	15.00	No
	VHT20	1	2412	15.92	17.00	No
		6	2437	17.30	18.00	No
		11	2462	17.01	18.00	No
	VHT40	3	2422	12.25	13.50	No
		6	2437	17.21	18.00	No
		9	2452	14.24	15.50	No

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

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

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

Adjusted SAR = $0.249 * (100.00\text{mW}/100.00\text{mW}) = 0.249$ W/Kg, so 2.4G OFDM SAR test is not required.

8.4.5 2.4G WIFI-Level4

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4	802.11b	1	2412	18.21	19.50	No
		6	2437	18.75	19.50	Yes
		11	2462	18.28	19.50	No
	802.11g	1	2412	15.99	17.50	No
		6	2437	18.12	19.00	No
		11	2462	17.57	18.50	No
	802.11n(HT20)	1	2412	16.29	17.00	No
		6	2437	17.24	18.00	No
		11	2462	16.95	18.00	No
	802.11n(HT40)	3	2422	13.35	12.50	No
		6	2437	17.43	18.00	No
		9	2452	13.85	15.00	No
	VHT20	1	2412	15.92	17.00	No
		6	2437	17.30	18.00	No
		11	2462	17.01	18.00	No
	VHT40	3	2422	12.25	13.50	No
		6	2437	17.21	18.00	No
		9	2452	14.24	15.50	No

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

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

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

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

Adjusted SAR = $0.322 * (100.00\text{mW}/100.00\text{mW}) = 0.322$ W/Kg, so 2.4G OFDM SAR test is not required.

8.4.6 5G WIFI-Full power

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2	802.11a	36	5180	16.33	17.00	No
		44	5220	19.29	20.00	No
		48	5240	19.15	20.00	No
	802.11n(HT20)	36	5180	18.77	19.50	No
		44	5220	18.73	19.50	No
		48	5240	18.69	19.50	No
	802.11n(HT40)	38	5190	12.36	13.00	No
		46	5230	18.54	19.50	No
	802.11ac(VHT20)	36	5180	18.39	19.00	No
		44	5220	18.29	19.00	No
		48	5240	18.23	19.00	No
	802.11ac(VHT40)	38	5190	12.88	13.50	No
		46	5230	18.07	19.00	No
	802.11ac(VHT80)	42	5210	11.88	12.50	No
5.3	802.11a	52	5260	18.50	19.00	No
		60	5300	19.58	20.00	No
		64	5320	19.51	20.00	No
	802.11n(HT20)	52	5260	18.80	19.50	No
		60	5300	18.76	19.50	No
		64	5320	15.84	16.50	No
	802.11n(HT40)	54	5270	18.56	19.50	No
		62	5310	10.95	12.00	No
	802.11ac(VHT20)	52	5260	18.35	19.00	No
		60	5300	18.39	19.00	No
		64	5320	18.39	19.00	No
	802.11ac(VHT40)	54	5270	12.92	13.50	No
		62	5310	18.20	19.00	No
	802.11ac(VHT80)	58	5290	12.13	12.50	No
5.6	802.11a	100	5500	17.61	18.00	No
		116	5580	19.36	20.00	No
		140	5700	17.86	18.00	No
		144	5720	18.72	20.00	No
	802.11n(HT20)	100	5500	16.99	17.50	No
		116	5580	19.21	19.50	No
		140	5700	13.97	15.00	No
		144	5720	18.03	19.50	No

	802.11n(HT40)	102	5510	12.86	13.50	No
		118	5590	18.86	19.50	No
		134	5670	18.81	19.50	No
		142	5710	18.45	19.50	No
	802.11ac(VHT20)	100	5500	17.49	18.00	No
		116	5580	18.80	19.00	No
		140	5700	14.55	15.00	No
		144	5720	17.61	18.00	No
	802.11ac(VHT40)	102	5510	12.93	13.50	No
		118	5590	18.63	19.00	No
		134	5670	18.57	19.00	No
		142	5710	18.05	19.00	No
	802.11ac(VHT80)	106	5530	10.48	11.50	No
		122	5610	17.79	18.50	No
		138	5690	17.61	18.50	No
5.8	802.11a	149	5745	19.63	20.00	No
		157	5785	19.56	20.00	No
		165	5825	19.29	20.00	No
	802.11n(HT20)	149	5745	19.06	19.50	No
		157	5785	19.01	19.50	No
		165	5825	18.80	19.50	No
	802.11n(HT40)	151	5755	18.66	19.50	No
		159	5795	18.62	19.50	No
	802.11ac(VHT20)	149	5745	18.65	19.00	No
		157	5785	18.64	19.00	No
		165	5825	18.51	19.00	No
	802.11ac(VHT40)	151	5755	18.36	19.00	No
		159	5795	18.31	19.00	No
	802.11ac(VHT80)	155	5775	17.63	18.50	No
Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.						

8.4.7 5G WIFI-Level1

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2	802.11a	36	5180	14.49	15.00	No
		44	5220	14.31	15.00	No
		48	5240	14.17	15.00	No
	802.11n(HT20)	36	5180	14.28	15.00	No
		44	5220	14.24	15.00	No
		48	5240	14.23	15.00	No
	802.11n(HT40)	38	5190	12.36	13.00	No
		46	5230	14.06	15.00	Yes
	802.11ac(VHT20)	36	5180	14.44	15.00	No
		44	5220	14.32	15.00	No
		48	5240	14.24	15.00	No
	802.11ac(VHT40)	38	5190	12.89	13.50	No
		46	5230	14.08	15.00	No
	802.11ac(VHT80)	42	5210	11.89	12.50	No
5.3	802.11a	52	5260	13.51	14.00	No
		60	5300	13.59	14.00	No
		64	5320	13.53	14.00	No
	802.11n(HT20)	52	5260	13.31	14.00	No
		60	5300	13.27	14.00	No
		64	5320	13.27	14.00	No
	802.11n(HT40)	54	5270	13.07	14.00	No
		62	5310	10.95	12.00	No
	802.11ac(VHT20)	52	5260	13.36	14.00	No
		60	5300	13.43	14.00	No
		64	5320	13.41	14.00	No
	802.11ac(VHT40)	54	5270	12.93	13.50	No
		62	5310	13.21	14.00	No
	802.11ac(VHT80)	58	5290	12.14	12.50	No
5.6	802.11a	100	5500	14.03	15.00	No
		116	5580	14.50	15.00	No
		140	5700	14.09	15.00	No
		144	5720	13.96	15.00	No
	802.11n(HT20)	100	5500	14.13	15.00	No
		116	5580	14.41	15.00	No
		140	5700	13.97	15.00	No
		144	5720	14.23	15.00	No

	802.11n(HT40)	102	5510	13.01	13.50	No
		118	5590	14.67	15.00	No
		134	5670	14.52	15.00	No
		142	5710	14.47	15.00	No
	802.11ac(VHT20)	100	5500	14.12	15.00	No
		116	5580	14.67	15.00	No
		140	5700	14.55	15.00	No
		144	5720	14.56	15.00	No
	802.11ac(VHT40)	102	5510	12.76	13.50	No
		118	5590	14.72	15.00	No
		134	5670	14.63	15.00	No
		142	5710	13.95	15.00	No
	802.11ac(VHT80)	106	5530	10.51	11.50	No
		122	5610	14.32	15.00	Yes
		138	5690	14.12	15.00	No
5.8	802.11a	149	5745	12.58	13.50	No
		157	5785	12.82	13.50	No
		165	5825	13.01	13.50	No
	802.11n(HT20)	149	5745	13.24	13.50	No
		157	5785	12.82	13.50	No
		165	5825	12.73	13.50	No
	802.11n(HT40)	151	5755	12.87	13.50	No
		159	5795	13.10	13.50	No
	802.11ac(VHT20)	149	5745	12.98	13.50	No
		157	5785	13.11	13.50	No
		165	5825	13.13	13.50	No
	802.11ac(VHT40)	151	5755	12.46	13.50	No
		159	5795	12.73	13.50	No
	802.11ac(VHT80)	155	5775	12.64	13.50	Yes
Note: When the different maximum output power is specified for both bands, begin SAR measurement in maximum output power band by applying the OFDM SAR requirements. when the highest reported SAR for high output power band is adjusted by the ratio of low output power band to high output power band specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, low output power band SAR test is not required. Adjusted SAR = $0.136 * (25.12\text{mW}/31.62\text{mW}) = 0.108$ W/Kg, so U-NII-2A band SAR test is not required.						

8.4.8 5G WIFI-Level2

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2	802.11a	36	5180	13.87	14.50	No
		44	5220	14.19	14.50	No
		48	5240	13.94	14.50	No
	802.11n(HT20)	36	5180	13.68	14.50	No
		44	5220	13.90	14.50	No
		48	5240	14.01	14.50	No
	802.11n(HT40)	38	5190	12.36	13.00	No
		46	5230	13.57	14.50	Yes
	802.11ac(VHT20)	36	5180	14.15	14.50	No
		44	5220	14.25	14.50	No
		48	5240	14.16	14.50	No
	802.11ac(VHT40)	38	5190	12.97	13.50	No
		46	5230	13.89	14.50	No
	802.11ac(VHT80)	42	5210	11.68	12.50	No
5.3	802.11a	52	5260	13.00	13.50	No
		60	5300	13.16	13.50	No
		64	5320	13.11	13.50	No
	802.11n(HT20)	52	5260	12.68	13.50	No
		60	5300	13.06	13.50	No
		64	5320	12.84	13.50	No
	802.11n(HT40)	54	5270	12.59	13.50	No
		62	5310	10.95	12.00	No
	802.11ac(VHT20)	52	5260	13.12	13.50	No
		60	5300	12.77	13.50	No
		64	5320	12.89	13.50	No
	802.11ac(VHT40)	54	5270	12.88	13.50	No
		62	5310	12.67	13.50	No
	802.11ac(VHT80)	58	5290	11.85	12.50	No
5.6	802.11a	100	5500	13.59	14.50	No
		116	5580	13.89	14.50	No
		140	5700	13.92	14.50	No
		144	5720	14.18	14.50	No
	802.11n(HT20)	100	5500	13.64	14.50	No
		116	5580	14.03	14.50	No
		140	5700	13.75	14.50	No
		144	5720	14.24	14.50	No

	802.11n(HT40)	102	5510	12.61	13.50	No
		118	5590	14.13	14.50	No
		134	5670	14.25	14.50	No
		142	5710	13.58	14.50	No
	802.11ac(VHT20)	100	5500	13.90	14.50	No
		116	5580	14.10	14.50	No
		140	5700	13.84	14.50	No
		144	5720	13.84	14.50	No
	802.11ac(VHT40)	102	5510	12.88	13.50	No
		118	5590	13.71	14.50	No
		134	5670	14.15	14.50	No
		142	5710	14.17	14.50	No
	802.11ac(VHT80)	106	5530	10.99	11.50	No
		122	5610	13.87	14.50	Yes
		138	5690	13.65	14.50	No
5.8	802.11a	149	5745	12.58	13.50	No
		157	5785	12.82	13.50	No
		165	5825	13.01	13.50	No
	802.11n(HT20)	149	5745	13.24	13.50	No
		157	5785	12.82	13.50	No
		165	5825	12.73	13.50	No
	802.11n(HT40)	151	5755	12.87	13.50	No
		159	5795	13.10	13.50	No
	802.11ac(VHT20)	149	5745	12.98	13.50	No
		157	5785	13.11	13.50	No
		165	5825	13.13	13.50	No
	802.11ac(VHT40)	151	5755	12.46	13.50	No
		159	5795	12.73	13.50	No
	802.11ac(VHT80)	155	5775	12.64	13.50	Yes
Note: When the different maximum output power is specified for both bands, begin SAR measurement in maximum output power band by applying the OFDM SAR requirements. when the highest reported SAR for high output power band is adjusted by the ratio of low output power band to high output power band specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, low output power band SAR test is not required. Adjusted SAR = $0.117 * (22.39\text{mW}/28.18\text{mW}) = 0.093$ W/Kg, so U-NII-2A band SAR test is not required.						

8.4.9 5G WIFI-Level3

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2	802.11a	36	5180	16.33	17.00	No
		44	5220	18.62	19.00	No
		48	5240	18.59	19.00	No
	802.11n(HT20)	36	5180	18.77	19.00	No
		44	5220	18.73	19.00	No
		48	5240	18.69	19.00	No
	802.11n(HT40)	38	5190	12.36	13.00	No
		46	5230	18.54	19.00	No
	802.11ac(VHT20)	36	5180	18.39	19.00	No
		44	5220	18.29	19.00	No
		48	5240	18.23	19.00	No
	802.11ac(VHT40)	38	5190	12.88	13.50	No
		46	5230	18.07	19.00	No
	802.11ac(VHT80)	42	5210	11.88	12.50	No
5.3	802.11a	52	5260	18.50	19.00	No
		60	5300	18.63	19.00	No
		64	5320	18.55	19.00	No
	802.11n(HT20)	52	5260	18.80	19.00	No
		60	5300	18.76	19.00	No
		64	5320	15.84	16.50	No
	802.11n(HT40)	54	5270	18.56	19.00	Yes
		62	5310	10.95	12.00	No
	802.11ac(VHT20)	52	5260	18.35	19.00	No
		60	5300	18.39	19.00	No
		64	5320	18.39	19.00	No
	802.11ac(VHT40)	54	5270	12.92	13.50	No
		62	5310	18.20	19.00	No
	802.11ac(VHT80)	58	5290	12.13	12.50	No
5.6	802.11a	100	5500	17.61	18.00	No
		116	5580	17.82	18.00	No
		140	5700	17.86	18.00	No
		144	5720	17.72	18.00	No
	802.11n(HT20)	100	5500	16.99	17.50	No
		116	5580	17.68	18.00	No
		140	5700	13.97	15.00	No
		144	5720	17.03	18.00	No

	802.11n(HT40)	102	5510	12.86	13.50	No
		118	5590	17.86	18.00	No
		134	5670	17.81	18.00	No
		142	5710	17.45	18.00	No
	802.11ac(VHT20)	100	5500	17.49	18.00	No
		116	5580	17.80	18.00	No
		140	5700	14.55	15.00	No
		144	5720	17.61	18.00	No
	802.11ac(VHT40)	102	5510	12.93	13.50	No
		118	5590	17.63	18.00	No
		134	5670	17.57	18.00	No
		142	5710	17.61	18.00	No
	802.11ac(VHT80)	106	5530	10.48	11.50	No
		122	5610	17.79	18.00	Yes
		138	5690	17.61	18.00	No
5.8	802.11a	149	5745	16.73	17.50	No
		157	5785	16.58	17.50	No
		165	5825	16.86	17.50	No
	802.11n(HT20)	149	5745	16.72	17.50	No
		157	5785	17.25	17.50	No
		165	5825	16.84	17.50	No
	802.11n(HT40)	151	5755	16.58	17.50	No
		159	5795	17.05	17.50	No
	802.11ac(VHT20)	149	5745	17.12	17.50	No
		157	5785	16.83	17.50	No
		165	5825	17.00	17.50	No
	802.11ac(VHT40)	151	5755	17.12	17.50	No
		159	5795	16.86	17.50	No
	802.11ac(VHT80)	155	5775	17.18	17.50	Yes
Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.						

8.4.10 5G WIFI-Level4

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2	802.11a	36	5180	16.33	17.00	No
		44	5220	16.80	17.50	No
		48	5240	16.59	17.50	No
	802.11n(HT20)	36	5180	17.19	17.50	No
		44	5220	17.05	17.50	No
		48	5240	17.12	17.50	No
	802.11n(HT40)	38	5190	12.36	13.00	No
		46	5230	16.93	17.50	Yes
	802.11ac(VHT20)	36	5180	16.74	17.50	No
		44	5220	16.64	17.50	No
		48	5240	17.14	17.50	No
	802.11ac(VHT40)	38	5190	12.60	13.50	No
		46	5230	16.60	17.50	No
	802.11ac(VHT80)	42	5210	11.88	12.50	No
5.3	802.11a	52	5260	16.55	17.00	No
		60	5300	16.70	17.00	No
		64	5320	16.18	17.00	No
	802.11n(HT20)	52	5260	16.35	17.00	No
		60	5300	16.74	17.00	No
		64	5320	15.84	16.50	No
	802.11n(HT40)	54	5270	16.16	17.00	Yes
		62	5310	10.95	12.00	No
	802.11ac(VHT20)	52	5260	16.55	17.00	No
		60	5300	16.45	17.00	No
		64	5320	16.08	17.00	No
	802.11ac(VHT40)	54	5270	12.92	13.50	No
		62	5310	16.53	17.00	No
	802.11ac(VHT80)	58	5290	12.13	12.50	No
5.6	802.11a	100	5500	15.59	16.00	No
		116	5580	15.73	16.00	No
		140	5700	15.39	16.00	No
		144	5720	15.72	16.00	No
	802.11n(HT20)	100	5500	15.52	16.00	No
		116	5580	15.41	16.00	No
		140	5700	13.97	15.00	No
		144	5720	15.24	16.00	No

	802.11n(HT40)	102	5510	12.86	13.50	No
		118	5590	15.32	16.00	No
		134	5670	15.28	16.00	No
		142	5710	15.11	16.00	No
	802.11ac(VHT20)	100	5500	15.33	16.00	No
		116	5580	15.15	16.00	No
		140	5700	14.55	15.00	No
		144	5720	15.53	16.00	No
	802.11ac(VHT40)	102	5510	12.93	13.50	No
		118	5590	15.08	16.00	No
		134	5670	15.13	16.00	No
		142	5710	15.17	16.00	No
	802.11ac(VHT80)	106	5530	10.48	11.50	No
		122	5610	15.11	16.00	Yes
		138	5690	15.02	16.00	No
5.8	802.11a	149	5745	14.71	15.50	No
		157	5785	15.00	15.50	No
		165	5825	14.65	15.50	No
	802.11n(HT20)	149	5745	14.70	15.50	No
		157	5785	14.55	15.50	No
		165	5825	15.06	15.50	No
	802.11n(HT40)	151	5755	14.65	15.50	No
		159	5795	14.62	15.50	No
	802.11ac(VHT20)	149	5745	14.84	15.50	No
		157	5785	14.58	15.50	No
		165	5825	14.88	15.50	No
	802.11ac(VHT40)	151	5755	14.65	15.50	No
		159	5795	14.94	15.50	No
	802.11ac(VHT80)	155	5775	15.05	15.50	Yes
Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.						

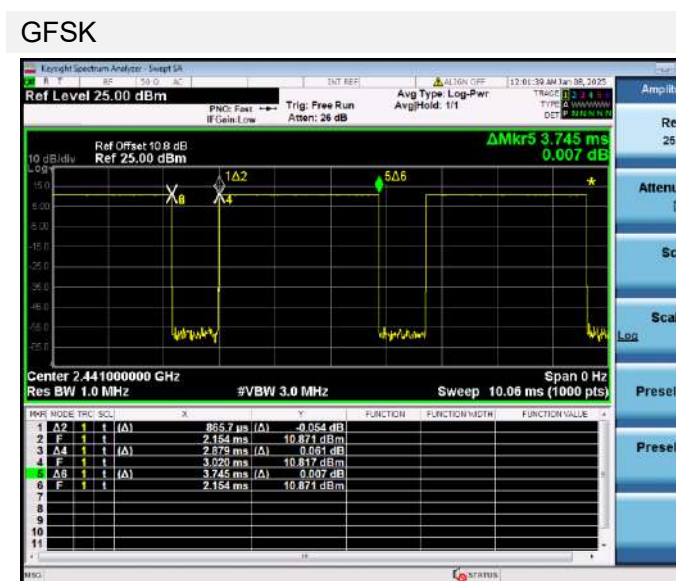
8.5 Bluetooth

Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Conducted Power (dBm)	10.23	11.65	10.52	6.87	7.41	7.54
Tune-Up Limit (dBm)	11.50	12.00	11.50	8.50	9.00	9.50
SAR Test Require	No	Yes	No	No	No	No
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Conducted Power (dBm)	6.85	7.38	7.58	/	/	/
Tune-Up Limit (dBm)	8.50	9.00	9.50	/	/	/
SAR Test Require	No	No	No	/	/	/
Mode	BLE-1Mbps			/		
Channel	0	19	39	/	/	/
Frequency (MHz)	2402	2440	2480	/	/	/
Conducted Power (dBm)	5.61	6.26	6.62	/	/	/
Tune-Up Limit (dBm)	6.50	7.00	7.50	/	/	/
SAR Test Require	No	No	No	/	/	/

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

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

Duty Cycle



8.6 Power Reduction List

- 1.This mobile phone device supports the receiver detection mechanism. This device uses the receiver to indicate whether the user is making a call in head.
- 2.When device is making call in head, the power reduction will applied for SAR compliance.
- 3.When there is a voice call (including VOIP), and the audio is actively routed through the headset or speaker, which indicating the body exposure conditions will trigger the body exposure reduced the power.
- 4.When this device used data mode only, and the receiver will not work too, the reduced the power are same as body exposure.
- 5.The device employs proximity sensors that detect the presence of the user's body and Product Specific of the device. When these conditions are detected, Body and Limb reduced power will be active.
- 6.When the proximity sensor invalid, the power is reduced to the corresponding Minimum power scenario.

WWAN Reduced power level table

Reduced level	Sensor state	Receiver state	Transmitting	Antenna	Position
			conditions		
DSI2	/	On (head scenario)	Receiver on	Ant.13	Head
				Ant.31	
DSI3	/	On (head scenario)	Receiver on+WLAN	Ant.13	Head
				Ant.31	
DSI4	Sensor on	Off (Body/Limbs scenario)	Receiver off Sensor on	Ant.13	Front Side;Back Side;Top Edge
DSI5	Sensor on	Off (Body/Limbs scenario)	Receiver off Sensor on+WLAN	Ant.13	Front Side;Back Side;Top Edge
DSI6	Sensor off	Off (Body/Limbs scenario)	Receiver off Sensor off+WLAN	Ant.13	Left Edge;Right Edge;Bottom Edge
	Sensor off	Off (Body/Limbs scenario)	Receiver off Sensor off+WLAN	Ant.31	All Position
	/	Off (Hotspot scenario)	Hotspot	Ant.13	All Position
				Ant.31	All Position

DSI7	Sensor off	Off (Body/Limbs scenario)	Receiver off Sensor off	Ant.13	Front Side;Back Side;Top Edge (Sensor trigger distance - 1mm)
	Sensor off	Off (Body/Limbs scenario)	Receiver off Sensor off	Ant.13	Left Edge;Right Edge;Bottom Edge
	Sensor off	Off (Body/Limbs scenario)	Receiver off Sensor off	Ant.31	All Position

Note: When the receiver working of the handset, WCDMA band2/4 and LTE band2/4/7/38/41/66 can only be transmitted in 31# antenna, 13# antenna transmission function will be disabled.

Mode	Antenna	WWAN Antenna13							
		Full Power	Receiver on		Receiver off				
			Head		Sensor on		Sensor off		Hotspot
					Body/Limbs		Body/Limbs		
			WWAN Use Only	WWAN + WLAN	WWAN Use Only	WWAN + WLAN	WWAN Use Only	WWAN + WLAN	
		Off	DSI2	DSI3	DSI4	DSI5	DSI7	DSI6	DSI6
GSM 850	Ant.13	33.70	31.20	30.70	33.70	33.70	33.70	33.70	33.70
GPRS850 1 Tx Slot	Ant.13	33.70	31.20	30.70	33.70	33.70	33.70	33.70	33.70
GPRS850 2 Tx Slot	Ant.13	31.50	28.50	28.00	31.50	31.50	31.50	31.50	31.50
GPRS850 3 Tx Slot	Ant.13	29.50	26.50	26.00	29.50	29.50	29.50	29.50	29.50
GPRS850 4 Tx Slot	Ant.13	28.00	25.50	25.00	28.00	28.00	28.00	28.00	28.00
EGPRS850 1 Tx Slot	Ant.13	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00

EGPRS850 2 Tx Slot	Ant.13	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
EGPRS850 3 Tx Slot	Ant.13	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
EGPRS850 4 Tx Slot	Ant.13	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50
GSM1900	Ant.13	30.70	27.70	27.20	29.70	27.70	29.70	27.70	27.70
GPRS1900 1 Tx Slot	Ant.13	30.70	27.70	27.20	29.70	27.70	29.70	27.70	27.70
GPRS1900 2 Tx Slot	Ant.13	28.50	25.50	25.00	27.00	25.00	27.00	25.00	25.00
GPRS1900 3 Tx Slot	Ant.13	26.50	23.50	23.00	25.50	24.00	25.50	24.00	24.00
GPRS1900 4 Tx Slot	Ant.13	25.00	22.00	21.50	24.00	22.50	24.00	22.50	22.50
EGPRS1900 1 Tx Slot	Ant.13	27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.00
EGPRS1900 2 Tx Slot	Ant.13	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
EGPRS1900 3 Tx Slot	Ant.13	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
EGPRS1900 4 Tx Slot	Ant.13	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50
WCDMA Band2 RMC	Ant.13	24.70	/	/	21.20	19.70	21.20	19.70	19.70
WCDMA Band2 AMR	Ant.13	24.70	/	/	21.20	19.70	21.20	19.70	19.70
HSDPA Subtest-1	Ant.13	23.70	/	/	20.20	18.70	20.20	18.70	18.70
HSDPA Subtest-2	Ant.13	23.20	/	/	19.70	18.20	19.70	18.20	18.20
HSDPA Subtest-3	Ant.13	23.20	/	/	19.70	18.20	19.70	18.20	18.20
HSDPA Subtest-4	Ant.13	23.20	/	/	19.70	18.20	19.70	18.20	18.20
DC-HSDPA Subtest-1	Ant.13	23.70	/	/	20.20	18.70	20.20	18.70	18.70
DC-HSDPA Subtest-2	Ant.13	23.20	/	/	19.70	18.20	19.70	18.20	18.20
DC-HSDPA Subtest-3	Ant.13	23.20	/	/	19.70	18.20	19.70	18.20	18.20
DC-HSDPA Subtest-4	Ant.13	23.20	/	/	19.70	18.20	19.70	18.20	18.20

HSUPA Subtest-1	Ant.13	23.70	/	/	20.20	18.70	20.20	18.70	18.70
HSUPA Subtest-2	Ant.13	21.70	/	/	18.20	16.70	18.20	16.70	16.70
HSUPA Subtest-3	Ant.13	22.70	/	/	19.20	17.70	19.20	17.70	17.70
HSUPA Subtest-4	Ant.13	21.70	/	/	18.20	16.70	18.20	16.70	16.70
HSUPA Subtest-5	Ant.13	23.70	/	/	20.20	18.70	20.20	18.70	18.70
HSPA+(16QAM)	Ant.13	21.70	/	/	18.20	16.70	18.20	16.70	16.70
WCDMA Band4 RMC	Ant.13	24.70	/	/	21.70	20.20	21.70	20.20	20.20
WCDMA Band4 AMR	Ant.13	24.70	/	/	21.70	20.20	21.70	20.20	20.20
HSDPA Subtest-1	Ant.13	23.70	/	/	20.70	19.20	20.70	19.20	19.20
HSDPA Subtest-2	Ant.13	23.20	/	/	20.20	18.70	20.20	18.70	18.70
HSDPA Subtest-3	Ant.13	23.20	/	/	20.20	18.70	20.20	18.70	18.70
HSDPA Subtest-4	Ant.13	23.20	/	/	20.20	18.70	20.20	18.70	18.70
DC-HSDPA Subtest-1	Ant.13	23.70	/	/	20.70	19.20	20.70	19.20	19.20
DC-HSDPA Subtest-2	Ant.13	23.20	/	/	20.20	18.70	20.20	18.70	18.70
DC-HSDPA Subtest-3	Ant.13	23.20	/	/	20.20	18.70	20.20	18.70	18.70
DC-HSDPA Subtest-4	Ant.13	23.20	/	/	20.20	18.70	20.20	18.70	18.70
HSUPA Subtest-1	Ant.13	23.70	/	/	20.70	19.20	20.70	19.20	19.20
HSUPA Subtest-2	Ant.13	21.70	/	/	18.70	17.20	18.70	17.20	17.20
HSUPA Subtest-3	Ant.13	22.70	/	/	19.70	18.20	19.70	18.20	18.20
HSUPA Subtest-4	Ant.13	21.70	/	/	18.70	17.20	18.70	17.20	17.20
HSUPA Subtest-5	Ant.13	23.70	/	/	20.70	19.20	20.70	19.20	19.20
HSPA+(16QAM)	Ant.13	21.70	/	/	18.70	17.20	18.70	17.20	17.20

WCDMA Band5 RMC	Ant.13	25.00	22.50	22.00	25.00	25.00	25.00	25.00	25.00
WCDMA Band5 AMR	Ant.13	25.00	22.50	22.00	25.00	25.00	25.00	25.00	25.00
HSDPA Subtest- 1	Ant.13	24.00	21.50	21.00	24.00	24.00	24.00	24.00	24.00
HSDPA Subtest- 2	Ant.13	23.50	21.00	20.50	23.50	23.50	23.50	23.50	23.50
HSDPA Subtest- 3	Ant.13	23.50	21.00	20.50	23.50	23.50	23.50	23.50	23.50
HSDPA Subtest- 4	Ant.13	23.50	21.00	20.50	23.50	23.50	23.50	23.50	23.50
DC-HSDPA Subtest-1	Ant.13	24.00	21.50	21.00	24.00	24.00	24.00	24.00	24.00
DC-HSDPA Subtest-2	Ant.13	23.50	21.00	20.50	23.50	23.50	23.50	23.50	23.50
DC-HSDPA Subtest-3	Ant.13	23.50	21.00	20.50	23.50	23.50	23.50	23.50	23.50
DC-HSDPA Subtest-4	Ant.13	23.50	21.00	20.50	23.50	23.50	23.50	23.50	23.50
HSUPA Subtest- 1	Ant.13	24.00	21.50	21.00	24.00	24.00	24.00	24.00	24.00
HSUPA Subtest- 2	Ant.13	22.00	19.50	19.00	22.00	22.00	22.00	22.00	22.00
HSUPA Subtest- 3	Ant.13	23.00	20.50	20.00	23.00	23.00	23.00	23.00	23.00
HSUPA Subtest- 4	Ant.13	22.00	19.50	19.00	22.00	22.00	22.00	22.00	22.00
HSUPA Subtest- 5	Ant.13	24.00	21.50	21.00	24.00	24.00	24.00	24.00	24.00
HSPA+(16QAM)	Ant.13	22.00	19.50	19.00	22.00	22.00	22.00	22.00	22.00
LTE Band2	Ant.13	24.50	/	/	21.50	20.00	24.50	20.00	20.00
LTE Band4	Ant.13	24.80	/	/	21.80	20.30	24.80	20.30	20.30
LTE Band5	Ant.13	24.80	22.80	22.30	24.80	24.80	24.80	24.80	24.80
LTE Band7	Ant.13	24.50	/	/	18.00	16.50	23.50	16.50	16.50
LTE Band13	Ant.13	24.90	24.90	24.90	24.90	24.90	24.90	24.90	24.90
LTE Band18	Ant.13	24.80	24.30	23.80	24.80	24.80	24.80	24.80	24.80
LTE Band19	Ant.13	24.80	22.80	22.30	24.80	24.80	24.80	24.80	24.80
LTE Band26	Ant.13	24.80	22.80	22.30	24.80	24.80	24.80	24.80	24.80
LTE Band66	Ant.13	24.80	/	/	21.80	19.30	24.80	19.30	19.30

LTE Band38	Ant.13	24.80	/	/	19.80	18.30	24.80	18.30	18.30
LTE Band41	Ant.13	24.80	/	/	20.30	18.80	24.80	18.80	18.80

Mode	Antenna	WWAN Antenna31					
		Full Power	Receiver on		Receiver off		
			Head		Body/Limbs		Hotspot
			WWAN Use Only	WWAN + WLAN	WWAN Use Only	WWAN + WLAN	
		Off	DSI2	DSI3	DSI7	DSI6	DSI6
GSM 850	Ant.31	33.70	33.70	33.70	33.70	33.70	33.70
GPRS850 1 Tx Slot	Ant.31	33.70	33.70	33.70	33.70	33.70	33.70
GPRS850 2 Tx Slot	Ant.31	31.50	31.50	31.50	31.50	31.50	31.50
GPRS850 3 Tx Slot	Ant.31	29.50	29.50	29.50	29.50	29.50	29.50
GPRS850 4 Tx Slot	Ant.31	28.00	28.00	28.00	28.00	28.00	28.00
EGPRS850 1 Tx Slot	Ant.31	28.00	28.00	28.00	28.00	28.00	28.00
EGPRS850 2 Tx Slot	Ant.31	26.00	26.00	26.00	26.00	26.00	26.00
EGPRS850 3 Tx Slot	Ant.31	24.00	24.00	24.00	24.00	24.00	24.00
EGPRS850 4 Tx Slot	Ant.31	22.50	22.50	22.50	22.50	22.50	22.50
GSM1900	Ant.31	30.70	30.70	30.70	30.70	29.70	29.70
GPRS1900 1 Tx Slot	Ant.31	30.70	30.70	30.70	30.70	29.70	29.70
GPRS1900 2 Tx Slot	Ant.31	28.50	28.50	28.50	28.50	27.00	27.00
GPRS1900 3 Tx Slot	Ant.31	26.50	26.50	26.50	26.50	25.00	25.00
GPRS1900 4 Tx Slot	Ant.31	25.00	25.00	25.00	25.00	23.50	23.50
EGPRS1900 1 Tx Slot	Ant.31	27.00	27.00	27.00	27.00	25.50	25.50
EGPRS1900 2 Tx Slot	Ant.31	25.00	25.00	25.00	25.00	23.50	23.50

EGPRS1900 3 Tx Slot	Ant.31	23.00	23.00	23.00	23.00	21.50	21.50
EGPRS1900 4 Tx Slot	Ant.31	21.50	21.50	21.50	21.50	20.00	20.00
WCDMA Band2 RMC	Ant.31	24.70	24.70	24.70	21.20	20.70	20.70
WCDMA Band2 AMR	Ant.31	24.70	24.70	24.70	21.20	20.70	20.70
HSDPA Subtest-1	Ant.31	23.70	23.70	23.70	20.20	19.70	19.70
HSDPA Subtest-2	Ant.31	23.20	23.20	23.20	19.70	19.20	19.20
HSDPA Subtest-3	Ant.31	23.20	23.20	23.20	19.70	19.20	19.20
HSDPA Subtest-4	Ant.31	23.20	23.20	23.20	19.70	19.20	19.20
DC-HSDPA Subtest-1	Ant.31	23.70	23.70	23.70	20.20	19.70	19.70
DC-HSDPA Subtest-2	Ant.31	23.20	23.20	23.20	19.70	19.20	19.20
DC-HSDPA Subtest-3	Ant.31	23.20	23.20	23.20	19.70	19.20	19.20
DC-HSDPA Subtest-4	Ant.31	23.20	23.20	23.20	19.70	19.20	19.20
HSUPA Subtest-1	Ant.31	23.70	23.70	23.70	20.20	19.70	19.70
HSUPA Subtest-2	Ant.31	21.70	21.70	21.70	18.20	17.70	17.70
HSUPA Subtest-3	Ant.31	22.70	22.70	22.70	19.20	18.70	18.70
HSUPA Subtest-4	Ant.31	21.70	21.70	21.70	18.20	17.70	17.70
HSUPA Subtest-5	Ant.31	23.70	23.70	23.70	20.20	19.70	19.70
HSPA+(16QAM)	Ant.31	21.70	21.70	21.70	18.20	17.70	17.70
WCDMA Band4 RMC	Ant.31	24.70	24.70	24.70	21.70	20.20	20.20
WCDMA Band4 AMR	Ant.31	24.70	24.70	24.70	21.70	20.20	20.20
HSDPA Subtest-1	Ant.31	23.70	23.70	23.70	20.70	19.20	19.20
HSDPA Subtest-2	Ant.31	23.20	23.20	23.20	20.20	18.70	18.70
HSDPA Subtest-3	Ant.31	23.20	23.20	23.20	20.20	18.70	18.70
HSDPA Subtest-4	Ant.31	23.20	23.20	23.20	20.20	18.70	18.70
DC-HSDPA Subtest-1	Ant.31	23.70	23.70	23.70	20.70	19.20	19.20
DC-HSDPA Subtest-2	Ant.31	23.20	23.20	23.20	20.20	18.70	18.70

DC-HSDPA Subtest-3	Ant.31	23.20	23.20	23.20	20.20	18.70	18.70
DC-HSDPA Subtest-4	Ant.31	23.20	23.20	23.20	20.20	18.70	18.70
HSUPA Subtest-1	Ant.31	23.70	23.70	23.70	20.70	19.20	19.20
HSUPA Subtest-2	Ant.31	21.70	21.70	21.70	18.70	17.20	17.20
HSUPA Subtest-3	Ant.31	22.70	22.70	22.70	19.70	18.20	18.20
HSUPA Subtest-4	Ant.31	21.70	21.70	21.70	18.70	17.20	17.20
HSUPA Subtest-5	Ant.31	23.70	23.70	23.70	20.70	19.20	19.20
HSPA+(16QAM)	Ant.31	21.70	21.70	21.70	18.70	17.20	17.20
WCDMA Band5 RMC	Ant.31	25.00	25.00	25.00	25.00	24.00	24.00
WCDMA Band5 AMR	Ant.31	25.00	25.00	25.00	25.00	24.00	24.00
HSDPA Subtest-1	Ant.31	24.00	24.00	24.00	24.00	23.00	23.00
HSDPA Subtest-2	Ant.31	23.50	23.50	23.50	23.50	22.50	22.50
HSDPA Subtest-3	Ant.31	23.50	23.50	23.50	23.50	22.50	22.50
HSDPA Subtest-4	Ant.31	23.50	23.50	23.50	23.50	22.50	22.50
DC-HSDPA Subtest-1	Ant.31	24.00	24.00	24.00	24.00	23.00	23.00
DC-HSDPA Subtest-2	Ant.31	23.50	23.50	23.50	23.50	22.50	22.50
DC-HSDPA Subtest-3	Ant.31	23.50	23.50	23.50	23.50	22.50	22.50
DC-HSDPA Subtest-4	Ant.31	23.50	23.50	23.50	23.50	22.50	22.50
HSUPA Subtest-1	Ant.31	24.00	24.00	24.00	24.00	23.00	23.00
HSUPA Subtest-2	Ant.31	22.00	22.00	22.00	22.00	21.00	21.00
HSUPA Subtest-3	Ant.31	23.00	23.00	23.00	23.00	22.00	22.00
HSUPA Subtest-4	Ant.31	22.00	22.00	22.00	22.00	21.00	21.00
HSUPA Subtest-5	Ant.31	24.00	24.00	24.00	24.00	23.00	23.00
HSPA+(16QAM)	Ant.31	22.00	22.00	22.00	22.00	21.00	21.00
LTE Band2	Ant.31	24.50	24.50	24.50	21.50	21.00	21.00
LTE Band4	Ant.31	24.80	24.80	24.80	21.80	20.30	20.30
LTE Band5	Ant.31	24.80	24.80	24.80	24.80	24.80	24.80
LTE Band7	Ant.31	24.50	24.50	24.50	22.00	20.50	20.50
LTE Band13	Ant.31	24.90	24.90	24.90	24.90	24.90	24.90

LTE Band18	Ant.31	24.80	24.80	24.80	24.80	24.80	24.80
LTE Band19	Ant.31	24.80	24.80	24.80	24.80	24.80	24.80
LTE Band26	Ant.31	24.80	24.80	24.80	24.80	24.80	24.80
LTE Band66	Ant.31	24.80	24.80	24.80	21.30	20.30	20.30
LTE Band38	Ant.31	24.80	24.80	24.80	24.80	23.30	23.30
LTE Band41	Ant.31	24.80	24.80	24.80	24.80	23.30	23.30

WLAN Reduced power level table

Reduced level	Receiver state	Transmitting	Antenna	Position
		conditions		
Level 1	On (head scenario)	Only 2.4G/5G WIFI	Ant.22	Head
Level 2	On (head scenario)	2.4G/5G WIFI+WWAN	Ant.22	Head
Level 3	Off (Body scenario)	Only 2.4G/5G WIFI	Ant.22	All Position
Level 4	Off (Body scenario)	2.4G/5G WIFI+WWAN	Ant.22	All Position

Mode	WLAN Antenna22				
	Full Power	Receiver on		Receiver off	
		Head		Body&Limbs&Hotspot	
		Standalone	Simultaneous transmission	Standalone	Simultaneous transmission
			2.4G/5G WIFI+WWAN		2.4G/5G WIFI+WWAN
	Off	Level1	Level2	Level3	Level4
2.4G WLAN 802.11b	20.00	18.50	18.00	20.00	19.50
2.4G WLAN 802.11g	19.00	18.50	18.00	19.00	19.00
2.4G WLAN 802.11n20	18.00	18.00	18.00	18.00	18.00
2.4G WLAN 802.11n40	18.00	18.00	18.00	18.00	18.00
2.4G WLAN 802.11ac20	18.00	18.00	18.00	18.00	18.00
2.4G WLAN 802.11ac40	18.00	18.00	18.00	18.00	18.00
5.2G WLAN 802.11a	20.00	15.00	14.50	19.00	17.50
5.2G WLAN 802.11n20	19.50	15.00	14.50	19.00	17.50
5.2G WLAN 802.11n40	19.50	15.00	14.50	19.00	17.50

5.2G WLAN 802.11ac20	19.00	15.00	14.50	19.00	17.50
5.2G WLAN 802.11ac40	19.00	15.00	14.50	19.00	17.50
5.2G WLAN 802.11ac80	12.50	12.50	12.50	12.50	12.50
5.3G WLAN 802.11a	20.00	14.00	13.50	19.00	17.00
5.3G WLAN 802.11n20	19.50	14.00	13.50	19.00	17.00
5.3G WLAN 802.11n40	19.50	14.00	13.50	19.00	17.00
5.3G WLAN 802.11ac20	19.00	14.00	13.50	19.00	17.00
5.3G WLAN 802.11ac40	19.00	14.00	13.50	19.00	17.00
5.3G WLAN 802.11ac80	12.50	12.50	12.50	12.50	12.50
5.6G WLAN 802.11a	20.00	15.00	14.50	18.00	16.00
5.6G WLAN 802.11n20	19.50	15.00	14.50	18.00	16.00
5.6G WLAN 802.11n40	19.50	15.00	14.50	18.00	16.00
5.6G WLAN 802.11ac20	19.00	15.00	14.50	18.00	16.00
5.6G WLAN 802.11ac40	19.00	15.00	14.50	18.00	16.00
5.6G WLAN 802.11ac80	18.50	15.00	14.50	18.00	16.00
5.8G WLAN 802.11a	20.00	13.50	13.50	17.50	15.50
5.8G WLAN 802.11n20	19.50	13.50	13.50	17.50	15.50
5.8G WLAN 802.11n40	19.50	13.50	13.50	17.50	15.50
5.8G WLAN 802.11ac20	19.00	13.50	13.50	17.50	15.50
5.8G WLAN 802.11ac40	19.00	13.50	13.50	17.50	15.50
5.8G WLAN 802.11ac80	18.50	13.50	13.50	17.50	15.50
Bluetooth	12.00	/	/	/	/

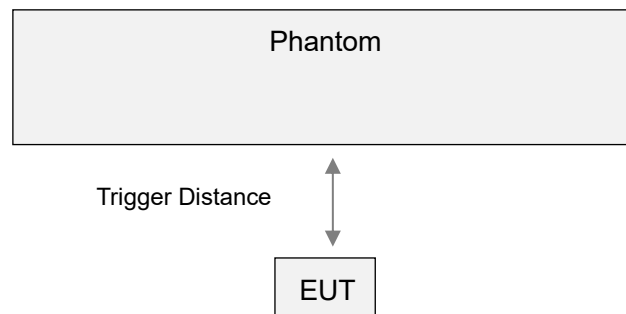
9 PROXIMITY SENSOR TRIGGERING TEST

9.1 Procedures for determining proximity sensor distance

The device uses one proximity sensors to reduce the maximum output power in selected wireless mode and operating configurations to ensure SAR compliance. The sensor implementation can identify and facilitate triggering different max power levels for different scenarios including the device held by hand(Extremity) and different exposure test positions test positions when the device is closed to a user's body.

Proximity sensor triggering distance testing was performed, EUT moving further away from the phantom and EUT moving toward the phantom were both assessed, and the shortest triggering distances were reported and used for SAR assessment. Note that while sensor is failed and it sets the output power to the lowest one in the sensor trigger state, to make sure the SAR requirements can still be satisfied.

proximity sensor



EUT moving toward Phantom

Distance in mm	1~5	6	7	8	9	10	11	12	13	14	15~25
Front Side	On	On	On	On	Off	Off	Off	Off	Off	Off	Off
Back Side	On	On	On	On	On	On	On	On	Off	Off	Off
Top Edge	On	On	On	On	On	On	On	On	On	On	Off

Note: Power reduction is only applicable for ANT13.

To ensure all production units are compliant, it is generally necessary to reduce the triggering distance determined from the triggering tests by 1 mm, or more if it is necessary, and use the smallest distance for EUT moving toward the phantom, minus 1 mm, as the sensor triggering distance for determining the SAR measurement distance.

ANT13 of proximity sensor

EUT Sides	Additional SAR test Distance in mm
Front Side	7
Back Side	11
Top Edge	13

9.2 EUT tilt angle influences to proximity sensor triggering

The influence of EUT tilt angles to proximity sensor triggering was determined by positioning each EUT edge that contains a transmitting antenna 13, perpendicular to the flat phantom, at 14 mm separation for the top edge.

Rotating the EUT around the edge next to the phantom in $\leq 10^\circ$ increments until the EUT is $\pm 45^\circ$ from the vertical position at 0° , and the maximum output power remains in the reduced mode.

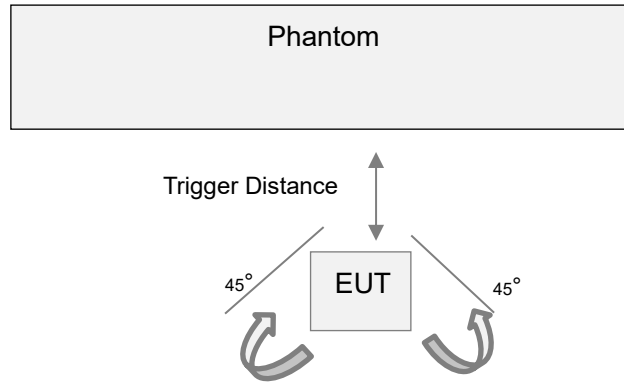
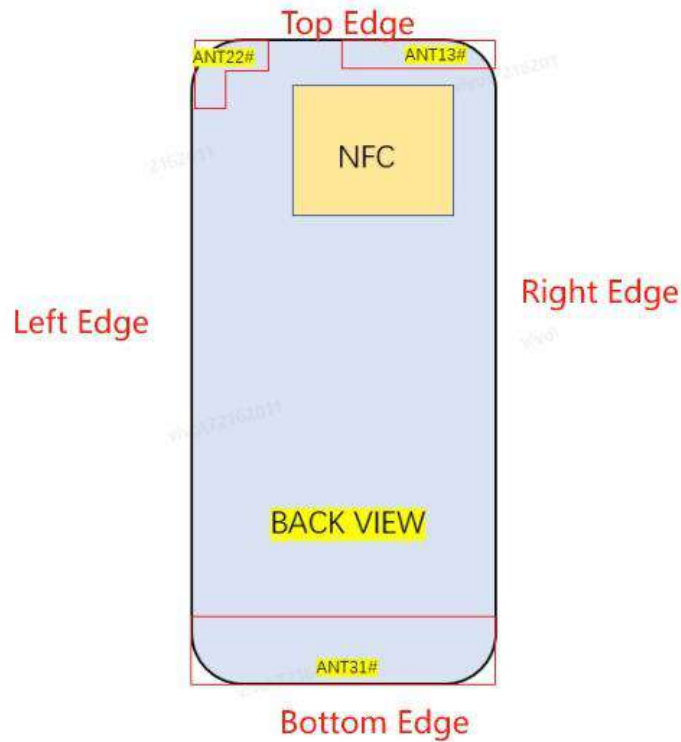


Table: Summary of Phone Tilt Angle Influence to Proximity Sensor Triggering(Top Edge)

Antenna	Posltion	Minimum trigger distance at which power reduction was maintained over $\pm 45^\circ$	Power Reduction Status										
			-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
ANT13	Top Edge	14mm	on	on	on	on	on	on	on	on	on	on	on

10 TEST EXCLUSION CONSIDERATION



Antenna	Description	Support Bands
Antenna 13	2/3/4G TX Antenna	GSM 850/1900 WCDMA Band 2/4/5 LTE Band 2/4/5/7/13/18/19/26/66/38/41
Antenna 31	2/3/4G TX Antenna	GSM 850/1900 WCDMA Band 2/4/5 LTE Band 2/4/5/7/13/18/19/26/66/38/41
Antenna 22	WLAN 2.4G TX Antenna WLAN 5G TX Antenna Bluetooth TX Antenna	2.4G WLAN 5G WLAN Bluetooth

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

Note: 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.

11 TEST RESULT

11.1 GSM 850

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head													
Ant.13#	DSI2	2Slots	Left Cheek	0	190	836.6	-0.17	0.428	27.63	28.50	1.222	0.523	/
	DSI2		Left Tilt	0	190	836.6	0.09	0.378	27.63	28.50	1.222	0.462	/
	DSI2		Right Cheek	0	190	836.6	-0.16	0.598	27.63	28.50	1.222	0.731	/
	DSI2		Right Tilt	0	190	836.6	0.00	0.611	27.63	28.50	1.222	0.747	1#
Ant.13#	DSI3	2Slots	Left Cheek	0	190	836.6	0.18	0.374	27.07	28.00	1.239	0.463	/
	DSI3		Left Tilt	0	190	836.6	0.14	0.326	27.07	28.00	1.239	0.404	/
	DSI3		Right Cheek	0	190	836.6	-0.03	0.523	27.07	28.00	1.239	0.648	/
	DSI3		Right Tilt	0	190	836.6	0.00	0.537	27.07	28.00	1.239	0.665	/
Ant.31#	DSI2&3	2Slots	Left Cheek	0	190	836.6	-0.04	0.136	30.96	31.50	1.132	0.154	/
	DSI2&3		Left Tilt	0	190	836.6	-0.13	0.071	30.96	31.50	1.132	0.080	/
	DSI2&3		Right Cheek	0	190	836.6	-0.17	0.122	30.96	31.50	1.132	0.138	/
	DSI2&3		Right Tilt	0	190	836.6	-0.11	0.060	30.96	31.50	1.132	0.068	/
Body-worn													
Ant.13#	DSI4&5	DATA	Front Side	15	190	836.6	-0.15	0.136	30.49	31.50	1.262	0.172	/
	DSI4&5	2slots	Back Side	15	190	836.6	-0.03	0.167	30.49	31.50	1.262	0.211	2#
Ant.31#	DSI6&7	DATA	Front Side	15	190	836.6	0.08	0.093	30.96	31.50	1.132	0.105	/
	DSI6&7	2slots	Back Side	15	190	836.6	0.15	0.100	30.96	31.50	1.132	0.113	/
Hotspot													
Ant.13#	DSI6	DATA 2slots	Front Side	10	190	836.6	0.00	0.221	30.49	31.50	1.262	0.279	/
	DSI6		Back Side	10	190	836.6	-0.19	0.263	30.49	31.50	1.262	0.332	/
	DSI6		Left Edge	10	190	836.6	0.05	0.013	30.49	31.50	1.262	0.016	/
	DSI6		Right Edge	10	190	836.6	-0.13	0.048	30.49	31.50	1.262	0.061	/
	DSI6		Top Edge	10	190	836.6	-0.03	0.279	30.49	31.50	1.262	0.352	3#
Ant.31#	DSI6	DATA 2slots	Front Side	10	190	836.6	0.12	0.118	30.96	31.50	1.132	0.134	/
	DSI6		Back Side	10	190	836.6	-0.18	0.173	30.96	31.50	1.132	0.196	/
	DSI6		Left Edge	10	190	836.6	-0.12	0.060	30.96	31.50	1.132	0.068	/
	DSI6		Right Edge	10	190	836.6	-0.06	0.088	30.96	31.50	1.132	0.100	/
	DSI6		Bottom Edge	10	190	836.6	-0.11	0.136	30.96	31.50	1.132	0.154	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.2 GSM 1900

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head													
Ant.13#	DSI2	2Slots	Left Cheek	0	661	1880	0.10	0.222	24.03	25.50	1.403	0.311	/
	DSI2		Left Tilt	0	661	1880	0.09	0.305	24.03	25.50	1.403	0.428	/
	DSI2		Right Cheek	0	661	1880	-0.10	0.367	24.03	25.50	1.403	0.515	/
	DSI2		Right Tilt	0	661	1880	0.01	0.459	24.03	25.50	1.403	0.644	4#
Ant.13#	DSI3	2Slots	Left Cheek	0	661	1880	-0.15	0.186	23.58	25.00	1.387	0.258	/
	DSI3		Left Tilt	0	661	1880	0.11	0.267	23.58	25.00	1.387	0.370	/
	DSI3		Right Cheek	0	661	1880	-0.17	0.316	23.58	25.00	1.387	0.438	/
	DSI3		Right Tilt	0	661	1880	-0.10	0.401	23.58	25.00	1.387	0.556	/
Ant.31#	DSI2&3	2Slots	Left Cheek	0	661	1880	0.02	0.078	27.72	28.50	1.197	0.093	/
	DSI2&3		Left Tilt	0	661	1880	-0.04	0.051	27.72	28.50	1.197	0.061	/
	DSI2&3		Right Cheek	0	661	1880	0.14	0.058	27.72	28.50	1.197	0.069	/
	DSI2&3		Right Tilt	0	661	1880	0.02	0.049	27.72	28.50	1.197	0.059	/
Body-worn													
Ant.13#	DSI4	DATA	Front Side	15	661	1880	-0.04	0.113	24.42	25.50	1.282	0.145	/
	DSI4	3Slots	Back Side	15	661	1880	0.14	0.160	24.42	25.50	1.282	0.205	/
Ant.13#	DSI5	DATA	Front Side	15	661	1880	0.09	0.113	22.99	24.00	1.262	0.143	/
	DSI5	3Slots	Back Side	15	661	1880	0.19	0.160	22.99	24.00	1.262	0.202	/
Ant.31#	DSI7	DATA	Front Side	15	661	1880	0.13	0.135	27.35	28.00	1.161	0.157	/
	DSI7	2Slots	Back Side	15	661	1880	0.02	0.230	27.35	28.00	1.161	0.267	5#
Ant.31#	DSI6	DATA	Front Side	15	661	1880	0.12	0.135	26.17	27.00	1.211	0.163	/
	DSI6	2Slots	Back Side	15	661	1880	-0.06	0.215	26.17	27.00	1.211	0.260	/
Hotspot													
Ant.13#	DSI6	DATA 3Slots	Front Side	10	661	1880	-0.07	0.148	22.99	24.00	1.262	0.187	/
	DSI6		Back Side	10	661	1880	0.09	0.216	22.99	24.00	1.262	0.273	/
	DSI6		Left Edge	10	661	1880	0.05	0.013	22.99	24.00	1.262	0.016	/
	DSI6		Right Edge	10	661	1880	-0.06	0.045	22.99	24.00	1.262	0.057	/
	DSI6		Top Edge	10	661	1880	0.00	0.338	22.99	24.00	1.262	0.427	/
Ant.31#	DSI6	DATA 2Slots	Front Side	10	661	1880	0.02	0.172	26.17	27.00	1.211	0.208	/
	DSI6		Back Side	10	661	1880	0.12	0.268	26.17	27.00	1.211	0.325	/
	DSI6		Left Edge	10	661	1880	0.02	0.082	26.17	27.00	1.211	0.099	/
	DSI6		Right Edge	10	661	1880	-0.04	0.038	26.17	27.00	1.211	0.046	/
	DSI6		Bottom Edge	10	661	1880	-0.04	0.394	26.17	27.00	1.211	0.477	6#
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
Senor(N-1)													
Ant.13#	DSI7	DATA 3Slots	Front Side	7	661	1880	0.05	0.197	24.42	25.50	1.262	0.249	/
	DSI7		Back Side	11	661	1880	0.11	0.193	24.42	25.50	1.262	0.244	/
	DSI7		Top Edge	13	661	1880	-0.05	0.181	24.42	25.50	1.262	0.228	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.3WCDMA Band 2

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head													
Ant.31#	DSI2&3	RMC	Left Cheek	0	9400	1880	-0.01	0.165	23.96	24.70	1.186	0.196	7#
	DSI2&3		Left Tilt	0	9400	1880	0.06	0.104	23.96	24.70	1.186	0.123	/
	DSI2&3		Right Cheek	0	9400	1880	0.01	0.112	23.96	24.70	1.186	0.133	/
	DSI2&3		Right Tilt	0	9400	1880	0.03	0.103	23.96	24.70	1.186	0.122	/
Body-worn													
Ant.13#	DSI4	RMC	Front Side	15	9400	1880	0.13	0.112	20.82	21.20	1.091	0.122	/
	DSI4		Back Side	15	9400	1880	-0.02	0.172	20.82	21.20	1.091	0.188	8#
Ant.13#	DSI5	RMC	Front Side	15	9400	1880	0.08	0.080	19.35	19.70	1.084	0.087	/
	DSI5		Back Side	15	9400	1880	0.08	0.122	19.35	19.70	1.084	0.132	/
Ant.31#	DSI7	RMC	Front Side	15	9400	1880	0.17	0.101	20.81	21.20	1.094	0.110	/
	DSI7		Back Side	15	9400	1880	-0.12	0.168	20.81	21.20	1.094	0.184	/
Ant.31#	DSI6	RMC	Front Side	15	9400	1880	-0.17	0.090	20.32	20.70	1.091	0.098	/
	DSI6		Back Side	15	9400	1880	0.14	0.151	20.32	20.70	1.091	0.165	/
Hotspot													
Ant.13#	DSI6	RMC	Front Side	10	9400	1880	-0.16	0.158	19.35	19.70	1.084	0.171	/
	DSI6		Back Side	10	9400	1880	-0.03	0.184	19.35	19.70	1.084	0.199	/
	DSI6		Left Edge	10	9400	1880	0.06	0.014	19.35	19.70	1.084	0.015	
	DSI6		Right Edge	10	9400	1880	-0.12	0.051	19.35	19.70	1.084	0.055	/
	DSI6		Top Edge	10	9400	1880	-0.07	0.442	19.35	19.70	1.084	0.479	/
Ant.31#	DSI6	RMC	Front Side	10	9400	1880	0.11	0.021	20.32	20.70	1.091	0.023	/
	DSI6		Back Side	10	9400	1880	0.17	0.319	20.32	20.70	1.091	0.348	/
	DSI6		Left Edge	10	9400	1880	0.17	0.088	20.32	20.70	1.091	0.096	/
	DSI6		Right Edge	10	9400	1880	0.18	0.049	20.32	20.70	1.091	0.053	/
	DSI6		Bottom Edge	10	9400	1880	-0.03	0.479	20.32	20.70	1.091	0.523	9#
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
Specific													
Ant.13#	DSI4	RMC	Top Edge	0	9400	1880	-0.09	1.590	20.82	21.20	1.091	1.735	10#
	DSI5		Top Edge	0	9400	1880	0.02	1.040	19.35	19.70	1.084	1.127	/
Ant.31#	DSI7	RMC	Bottom Edge	0	9400	1880	0.03	1.100	20.81	21.20	1.094	1.203	/
	DSI6		Bottom Edge	0	9400	1880	0.11	0.973	20.32	20.70	1.091	1.062	/
Senor(N-1)													
Ant.13#	DSI7	RMC	Front Side	7	9400	1880	0.14	0.486	23.96	24.70	1.186	0.576	/
	DSI7		Back Side	11	9400	1880	-0.15	0.357	23.96	24.70	1.186	0.423	/
	DSI7		Top Edge	13	9400	1880	-0.02	0.437	23.96	24.70	1.186	0.518	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.4WCDMA Band 4

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head													
Ant.31#	DSI2&3	RMC	Left Cheek	0	1312	1712.4	-0.01	0.079	23.69	24.70	1.262	0.100	11#
	DSI2&3		Left Tilt	0	1312	1712.4	-0.06	0.044	23.69	24.70	1.262	0.056	/
	DSI2&3		Right Cheek	0	1312	1712.4	-0.03	0.060	23.69	24.70	1.262	0.076	/
	DSI2&3		Right Tilt	0	1312	1712.4	0.08	0.049	23.69	24.70	1.262	0.062	/
Body-worn													
Ant.13#	DSI4	RMC	Front Side	15	1412	1732.4	0.02	0.106	21.19	21.70	1.125	0.119	/
	DSI4		Back Side	15	1412	1732.4	0.16	0.114	21.19	21.70	1.125	0.128	/
Ant.31#	DSI5	RMC	Front Side	15	1513	1752.6	0.18	0.075	19.66	20.20	1.132	0.085	/
	DSI5		Back Side	15	1513	1752.6	0.16	0.081	19.66	20.20	1.132	0.092	/
Ant.31#	DSI7	RMC	Front Side	15	1312	1712.4	-0.12	0.097	21.34	21.70	1.086	0.105	/
	DSI7		Back Side	15	1312	1712.4	0.03	0.150	21.34	21.70	1.086	0.163	12#
Ant.31#	DSI6	RMC	Front Side	15	1412	1712.4	-0.14	0.069	19.68	20.20	1.127	0.078	/
	DSI6		Back Side	15	1412	1712.4	0.02	0.106	19.68	20.20	1.127	0.119	/
Hotspot													
Ant.13#	DSI6	RMC	Front Side	10	1513	1712.4	0.16	0.134	19.66	20.20	1.132	0.152	/
	DSI6		Back Side	10	1513	1712.4	0.10	0.144	19.66	20.20	1.132	0.163	/
	DSI6		Left Edge	10	1513	1712.4	0.05	0.011	19.66	20.20	1.132	0.012	/
	DSI6		Right Edge	10	1513	1712.4	-0.02	0.030	19.66	20.20	1.132	0.034	/
	DSI6		Top Edge	10	1513	1712.4	0.18	0.020	19.66	20.20	1.132	0.023	/
Ant.31#	DSI6	RMC	Front Side	10	1412	1712.4	0.08	0.105	19.68	20.20	1.127	0.118	/
	DSI6		Back Side	10	1412	1712.4	0.05	0.175	19.68	20.20	1.127	0.197	/
	DSI6		Left Edge	10	1412	1712.4	-0.01	0.040	19.68	20.20	1.127	0.045	/
	DSI6		Right Edge	10	1412	1712.4	0.11	0.020	19.68	20.20	1.127	0.023	/
	DSI6		Bottom Edge	10	1412	1712.4	-0.03	0.349	19.68	20.20	1.127	0.393	13#
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
Senor(N-1)													
Ant.13#	DSI7	RMC	Front Side	7	1312	1712.4	-0.19	0.371	23.69	24.70	1.262	0.468	/
	DSI7		Back Side	11	1312	1712.4	0.14	0.278	23.69	24.70	1.262	0.351	/
	DSI7		Top Edge	13	1312	1712.4	0.04	0.342	23.69	24.70	1.262	0.432	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.5WCDMA Band 5

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head													
Ant.13#	DSI2	RMC	Left Cheek	0	4182	836.4	0.05	0.386	21.67	22.50	1.211	0.467	/
	DSI2		Left Tilt	0	4182	836.4	0.17	0.366	21.67	22.50	1.211	0.443	/
	DSI2		Right Cheek	0	4182	836.4	-0.14	0.509	21.67	22.50	1.211	0.616	/
	DSI2		Right Tilt	0	4182	836.4	-0.06	0.519	21.67	22.50	1.211	0.629	14#
Ant.13#	DSI3	RMC	Left Cheek	0	4182	836.4	0.13	0.327	21.08	22.00	1.236	0.404	/
	DSI3		Left Tilt	0	4182	836.4	-0.07	0.315	21.08	22.00	1.236	0.389	/
	DSI3		Right Cheek	0	4182	836.4	0.00	0.447	21.08	22.00	1.236	0.552	/
	DSI3		Right Tilt	0	4182	836.4	-0.03	0.453	21.08	22.00	1.236	0.560	/
Ant.31#	DSI2&3	RMC	Left Cheek	0	4182	836.4	-0.02	0.111	24.04	25.00	1.247	0.138	/
	DSI2&3		Left Tilt	0	4182	836.4	0.11	0.059	24.04	25.00	1.247	0.074	/
	DSI2&3		Right Cheek	0	4182	836.4	-0.11	0.093	24.04	25.00	1.247	0.116	/
	DSI2&3		Right Tilt	0	4182	836.4	-0.01	0.045	24.04	25.00	1.247	0.056	/
Body-worn													
Ant.13#	DSI4&5	RMC	Front Side	15	4182	836.4	0.18	0.121	24.27	25.00	1.183	0.143	/
	DSI4&5		Back Side	15	4182	836.4	0.08	0.154	24.27	25.00	1.183	0.182	15#
Ant.31#	DSI7	RMC	Front Side	15	4182	836.4	0.13	0.088	24.19	25.00	1.205	0.106	/
	DSI7		Back Side	15	4182	836.4	-0.10	0.101	24.19	25.00	1.205	0.122	/
Ant.31#	DSI6	RMC	Front Side	15	4182	836.4	-0.07	0.076	23.35	24.00	1.161	0.088	/
	DSI6		Back Side	15	4182	836.4	-0.12	0.081	23.35	24.00	1.161	0.094	/
Hotspot													
Ant.13#	DSI6	RMC	Front Side	10	4182	836.4	0.19	0.194	24.27	25.00	1.183	0.230	/
	DSI6		Back Side	10	4182	836.4	0.01	0.268	24.27	25.00	1.183	0.317	16#
	DSI6		Left Edge	10	4182	836.4	0.06	0.012	24.27	25.00	1.183	0.014	/
	DSI6		Right Edge	10	4182	836.4	-0.04	0.077	24.27	25.00	1.183	0.091	/
	DSI6		Top Edge	10	4182	836.4	0.07	0.262	24.27	25.00	1.183	0.310	/
Ant.31#	DSI6	RMC	Front Side	10	4182	836.4	-0.05	0.087	23.35	24.00	1.161	0.101	/
	DSI6		Back Side	10	4182	836.4	-0.01	0.136	23.35	24.00	1.161	0.158	/
	DSI6		Left Edge	10	4182	836.4	-0.10	0.034	23.35	24.00	1.161	0.039	/
	DSI6		Right Edge	10	4182	836.4	0.16	0.070	23.35	24.00	1.161	0.081	/
	DSI6		Bottom Edge	10	4182	836.4	-0.17	0.107	23.35	24.00	1.161	0.124	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.													

11.6LTE Band 2 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.31#	DSI2&3	QPSK	Left Cheek	0	19100	1900	1	Mid	0.02	0.151	24.18	24.50	1.076	0.162	17#
	DSI2&3		Left Tilt	0	19100	1900	1	Mid	0.06	0.090	24.18	24.50	1.076	0.097	/
	DSI2&3		Right Cheek	0	19100	1900	1	Mid	-0.06	0.117	24.18	24.50	1.076	0.126	/
	DSI2&3		Right Tilt	0	19100	1900	1	Mid	-0.11	0.100	24.18	24.50	1.076	0.108	/
	DSI2&3		Left Cheek	0	19100	1900	50	Low	0.02	0.119	22.91	23.50	1.146	0.136	/
	DSI2&3		Left Tilt	0	19100	1900	50	Low	0.04	0.067	22.91	23.50	1.146	0.077	/
	DSI2&3		Right Cheek	0	19100	1900	50	Low	-0.02	0.091	22.91	23.50	1.146	0.104	/
	DSI2&3		Right Tilt	0	19100	1900	50	Low	-0.11	0.078	22.91	23.50	1.146	0.089	/
Body-worn															
Ant.13#	DSI4	QPSK	Front Side	15	19100	1900	1	Mid	-0.16	0.151	21.19	21.50	1.074	0.162	/
	DSI4		Back Side	15	19100	1900	1	Mid	-0.09	0.217	21.19	21.50	1.074	0.233	18#
	DSI4		Front Side	15	19100	1900	50	High	-0.04	0.116	20.99	21.50	1.125	0.131	/
	DSI4		Back Side	15	19100	1900	50	High	0.02	0.174	20.99	21.50	1.125	0.196	/
Ant.13#	DSI5	QPSK	Front Side	15	19100	1900	1	Mid	-0.01	0.107	19.71	20.00	1.069	0.114	/
	DSI5		Back Side	15	19100	1900	1	Mid	-0.07	0.154	19.71	20.00	1.069	0.165	/
	DSI5		Front Side	15	19100	1900	50	High	0.14	0.082	19.52	20.00	1.117	0.092	/
	DSI5		Back Side	15	19100	1900	50	High	0.01	0.124	19.52	20.00	1.117	0.139	/
Ant.31#	DSI7	QPSK	Front Side	15	18900	1880	1	Mid	0.06	0.122	21.15	21.50	1.084	0.132	/
	DSI7		Back Side	15	18900	1880	1	Mid	0.01	0.208	21.15	21.50	1.084	0.225	/
	DSI7		Front Side	15	18900	1880	50	Mid	0.05	0.102	20.97	21.50	1.130	0.115	/
	DSI7		Back Side	15	18900	1880	50	Mid	-0.06	0.164	20.97	21.50	1.130	0.185	/
Ant.31#	DSI6	QPSK	Front Side	15	18900	1880	1	Mid	-0.13	0.108	20.73	21.00	1.064	0.115	/
	DSI6		Back Side	15	18900	1880	1	Mid	0.08	0.191	20.73	21.00	1.064	0.203	/
	DSI6		Front Side	15	18900	1880	50	Low	-0.03	0.091	20.60	21.00	1.096	0.100	/
	DSI6		Back Side	15	18900	1880	50	Low	-0.13	0.146	20.60	21.00	1.096	0.160	/
Hotspot															
Ant.13#	DSI6	QPSK	Front Side	10	19100	1900	1	Mid	-0.13	0.218	19.71	20.00	1.069	0.233	/
	DSI6		Back Side	10	19100	1900	1	Mid	0.01	0.340	19.71	20.00	1.069	0.363	/
	DSI6		Left Edge	10	19100	1900	1	Mid	0.00	0.003	19.71	20.00	1.069	0.003	/
	DSI6		Right Edge	10	19100	1900	1	Mid	0.18	0.070	19.71	20.00	1.069	0.075	/
	DSI6		Top Edge	10	19100	1900	1	Mid	-0.09	0.450	19.71	20.00	1.069	0.481	/
	DSI6		Front Side	10	19100	1900	50	High	-0.15	0.170	19.52	20.00	1.117	0.190	/
	DSI6		Back Side	10	19100	1900	50	High	-0.01	0.270	19.52	20.00	1.117	0.302	/
	DSI6		Left Edge	10	19100	1900	50	High	-0.12	0.008	19.52	20.00	1.117	0.009	/
	DSI6		Right Edge	10	19100	1900	50	High	0.15	0.057	19.52	20.00	1.117	0.064	/
	DSI6		Top Edge	10	19100	1900	50	High	-0.16	0.353	19.52	20.00	1.117	0.394	/

Ant.31#	DSI6	QPSK	Front Side	10	18900	1880	1	Mid	0.14	0.232	20.73	21.00	1.064	0.247	/
	DSI6		Back Side	10	18900	1880	1	Mid	-0.04	0.418	20.73	21.00	1.064	0.445	/
	DSI6		Left Edge	10	18900	1880	1	Mid	0.07	0.058	20.73	21.00	1.064	0.062	/
	DSI6		Right Edge	10	18900	1880	1	Mid	-0.11	0.098	20.73	21.00	1.064	0.104	/
	DSI6		Bottom Edge	10	18900	1880	1	Mid	0.15	0.622	20.73	21.00	1.064	0.662	19#
	DSI6		Front Side	10	18900	1880	50	Mid	-0.18	0.197	20.60	21.00	1.096	0.216	/
	DSI6		Back Side	10	18900	1880	50	Mid	-0.05	0.325	20.60	21.00	1.096	0.356	/
	DSI6		Left Edge	10	18900	1880	50	Mid	-0.09	0.080	20.60	21.00	1.096	0.088	/
	DSI6		Right Edge	10	18900	1880	50	Mid	-0.17	0.045	20.60	21.00	1.096	0.049	/
	DSI6		Bottom Edge	10	18900	1880	50	Mid	-0.19	0.447	20.60	21.00	1.096	0.490	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
Specific															
Ant.13#	DSI4	QPSK	Top Edge	0	19100	1900	1	Mid	-0.16	1.550	21.19	21.50	1.074	1.665	20#
	DSI4	QPSK	Top Edge	0	19100	1900	50	Mid	-0.10	1.450	20.99	21.50	1.125	1.631	/
	DSI5	QPSK	Top Edge	0	19100	1900	1	Mid	0.05	1.040	19.71	20.00	1.069	1.112	/
	DSI5	QPSK	Top Edge	0	19100	1900	50	Mid	-0.12	1.010	19.52	20.00	1.117	1.128	/
Ant.31#	DSI7	QPSK	Bottom Edge	0	18900	1880	1	Mid	-0.08	1.210	21.15	21.50	1.084	1.312	/
	DSI7	QPSK	Bottom Edge	0	18900	1880	50	Mid	0.02	1.130	20.97	21.50	1.130	1.277	/
	DSI6	QPSK	Bottom Edge	0	18900	1880	1	Mid	0.06	1.050	20.73	21.00	1.064	1.117	/
	DSI6	QPSK	Bottom Edge	0	18900	1880	50	Mid	-0.03	1.020	20.60	21.00	1.096	1.118	/
Senor(N-1)															
Ant.13#	DSI7	QPSK	Front Side	7	19100	1900	1	Mid	-0.01	0.404	24.16	24.50	1.081	0.437	/
	DSI7	QPSK	Back Side	11	19100	1900	1	Mid	-0.17	0.441	24.16	24.50	1.081	0.477	/
	DSI7	QPSK	Top Edge	13	19100	1900	1	Mid	-0.15	0.421	24.16	24.50	1.081	0.455	/
	DSI7	QPSK	Front Side	7	19100	1900	50	Mid	0.05	0.319	22.79	23.50	1.178	0.376	/
	DSI7	QPSK	Back Side	11	19100	1900	50	Mid	-0.14	0.265	22.79	23.50	1.178	0.312	/
	DSI7	QPSK	Top Edge	13	19100	1900	50	Mid	0.10	0.320	22.79	23.50	1.178	0.377	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.7LTE Band 4 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.31#	DSI2&3	QPSK	Left Cheek	0	20175	1732.5	1	Mid	-0.03	0.092	24.45	24.80	1.084	0.100	21#
	DSI2&3		Left Tilt	0	20175	1732.5	1	Mid	0.14	0.047	24.45	24.80	1.084	0.051	/
	DSI2&3		Right Cheek	0	20175	1732.5	1	Mid	0.01	0.078	24.45	24.80	1.084	0.085	/
	DSI2&3		Right Tilt	0	20175	1732.5	1	Mid	0.06	0.052	24.45	24.80	1.084	0.056	/
	DSI2&3		Left Cheek	0	20175	1732.5	50	Mid	-0.01	0.073	23.10	23.80	1.175	0.086	/
	DSI2&3		Left Tilt	0	20175	1732.5	50	Mid	-0.18	0.041	23.10	23.80	1.175	0.048	/
	DSI2&3		Right Cheek	0	20175	1732.5	50	Mid	0.17	0.063	23.10	23.80	1.175	0.074	/
	DSI2&3		Right Tilt	0	20175	1732.5	50	Mid	0.05	0.042	23.10	23.80	1.175	0.049	/
Body-worn															
Ant.13#	DSI4	QPSK	Front Side	15	20175	1732.5	1	High	-0.09	0.129	21.55	21.80	1.059	0.137	/
	DSI4		Back Side	15	20175	1732.5	1	High	0.09	0.142	21.55	21.80	1.059	0.150	22#
	DSI4		Front Side	15	20175	1732.5	50	Low	-0.02	0.098	21.15	21.80	1.161	0.114	/
	DSI4		Back Side	15	20175	1732.5	50	Low	0.10	0.113	21.15	21.80	1.161	0.131	/
Ant.13#	DSI5	QPSK	Front Side	15	20300	1745	1	High	-0.15	0.091	19.88	20.30	1.102	0.100	/
	DSI5		Back Side	15	20300	1745	1	High	0.08	0.101	19.88	20.30	1.102	0.111	/
	DSI5		Front Side	15	20175	1732.5	50	High	-0.16	0.069	19.76	20.30	1.132	0.078	/
	DSI5		Back Side	15	20175	1732.5	50	High	0.19	0.080	19.76	20.30	1.132	0.091	/
Ant.31#	DSI7	QPSK	Front Side	15	20175	1732.5	1	Mid	-0.19	0.059	21.45	21.80	1.084	0.064	/
	DSI7		Back Side	15	20175	1732.5	1	Mid	-0.04	0.085	21.45	21.80	1.084	0.092	/
	DSI7		Front Side	15	20175	1732.5	50	Mid	0.09	0.046	21.24	21.80	1.138	0.052	/
	DSI7		Back Side	15	20175	1732.5	50	Mid	0.13	0.068	21.24	21.80	1.138	0.077	/
Ant.31#	DSI6	QPSK	Front Side	15	20175	1732.5	1	Mid	0.11	0.042	19.86	20.30	1.107	0.046	/
	DSI6		Back Side	15	20175	1732.5	1	Mid	0.02	0.060	19.86	20.30	1.107	0.066	/
	DSI6		Front Side	15	20175	1732.5	50	Mid	-0.09	0.037	19.79	20.30	1.125	0.042	/
	DSI6		Back Side	15	20175	1732.5	50	Mid	0.05	0.055	19.79	20.30	1.125	0.062	/
Hotspot															
Ant.13#	DSI6	QPSK	Front Side	10	20300	1745	1	High	0.03	0.172	19.88	20.30	1.102	0.190	/
	DSI6		Back Side	10	20300	1745	1	High	-0.07	0.193	19.88	20.30	1.102	0.213	/
	DSI6		Left Edge	10	20300	1745	1	High	0.08	0.012	19.88	20.30	1.102	0.013	/
	DSI6		Right Edge	10	20300	1745	1	High	0.17	0.046	19.88	20.30	1.102	0.051	/
	DSI6		Top Edge	10	20300	1745	1	High	0.16	0.293	19.88	20.30	1.102	0.323	/
	DSI6		Front Side	10	20175	1732.5	50	High	-0.01	0.122	19.76	20.30	1.132	0.138	/
	DSI6		Back Side	10	20175	1732.5	50	High	-0.11	0.141	19.76	20.30	1.132	0.160	/
	DSI6		Left Edge	10	20175	1732.5	50	High	-0.03	0.008	19.76	20.30	1.132	0.009	/
	DSI6		Right Edge	10	20175	1732.5	50	High	-0.06	0.038	19.76	20.30	1.132	0.043	/
	DSI6		Top Edge	10	20175	1732.5	50	High	-0.05	0.229	19.76	20.30	1.132	0.259	/

Ant.31#	DSI6	QPSK	Front Side	10	20175	1732.5	1	Mid	-0.10	0.136	19.86	20.30	1.107	0.151	/
	DSI6		Back Side	10	20175	1732.5	1	Mid	0.01	0.228	19.86	20.30	1.107	0.252	/
	DSI6		Left Edge	10	20175	1732.5	1	Mid	0.19	0.035	19.86	20.30	1.107	0.039	/
	DSI6		Right Edge	10	20175	1732.5	1	Mid	-0.18	0.027	19.86	20.30	1.107	0.030	/
	DSI6		Bottom Edge	10	20175	1732.5	1	Mid	-0.03	0.336	19.86	20.30	1.107	0.372	23#
	DSI6		Front Side	10	20175	1732.5	50	Mid	-0.01	0.121	19.79	20.30	1.125	0.136	/
	DSI6		Back Side	10	20175	1732.5	50	Mid	-0.15	0.186	19.79	20.30	1.125	0.209	/
	DSI6		Left Edge	10	20175	1732.5	50	Mid	-0.15	0.024	19.79	20.30	1.125	0.027	/
	DSI6		Right Edge	10	20175	1732.5	50	Mid	-0.07	0.020	19.79	20.30	1.125	0.023	/
	DSI6		Bottom Edge	10	20175	1732.5	50	Mid	0.05	0.296	19.79	20.30	1.125	0.333	/

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

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
Senor(N-1)															
Ant.13#	DSI7	QPSK	Front Side	7	20175	1732.5	1	Low	-0.15	0.344	24.22	24.80	1.143	0.393	/
	DSI7	QPSK	Back Side	11	20175	1732.5	1	Low	0.12	0.284	24.22	24.80	1.143	0.325	/
	DSI7	QPSK	Top Edge	13	20175	1732.5	1	Low	0.02	0.287	24.22	24.80	1.143	0.328	/
	DSI7	QPSK	Front Side	7	20175	1732.5	50	Mid	0.17	0.266	22.84	23.80	1.247	0.332	/
	DSI7	QPSK	Back Side	11	20175	1732.5	50	Mid	-0.02	0.218	22.84	23.80	1.247	0.272	/
	DSI7	QPSK	Top Edge	13	20175	1732.5	50	Mid	0.00	0.220	22.84	23.80	1.247	0.274	/

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

11.8LTE Band 5 (10MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.13#	DSI2	QPSK	Left Cheek	0	20525	836.5	1	Mid	-0.17	0.285	21.41	22.80	1.377	0.392	/
	DSI2		Left Tilt	0	20525	836.5	1	Mid	0.04	0.285	21.41	22.80	1.377	0.392	/
	DSI2		Right Cheek	0	20525	836.5	1	Mid	0.01	0.378	21.41	22.80	1.377	0.521	/
	DSI2		Right Tilt	0	20525	836.5	1	Mid	-0.07	0.410	21.41	22.80	1.377	0.565	24#
	DSI2		Left Cheek	0	20525	836.5	25	Mid	-0.16	0.256	21.16	22.80	1.459	0.374	/
	DSI2		Left Tilt	0	20525	836.5	25	Mid	0.12	0.239	21.16	22.80	1.459	0.349	/
	DSI2		Right Cheek	0	20525	836.5	25	Mid	0.07	0.312	21.16	22.80	1.459	0.455	/
	DSI2		Right Tilt	0	20525	836.5	25	Mid	-0.04	0.341	21.16	22.80	1.459	0.498	/
Ant.13#	DSI3	QPSK	Left Cheek	0	20525	836.5	1	Mid	0.02	0.246	21.53	22.30	1.194	0.294	/
	DSI3		Left Tilt	0	20525	836.5	1	Mid	-0.07	0.235	21.53	22.30	1.194	0.281	/
	DSI3		Right Cheek	0	20525	836.5	1	Mid	-0.04	0.326	21.53	22.30	1.194	0.389	/
	DSI3		Right Tilt	0	20525	836.5	1	Mid	0.17	0.354	21.53	22.30	1.194	0.423	/
	DSI3		Left Cheek	0	20525	836.5	25	Mid	-0.02	0.217	21.09	22.30	1.321	0.287	/
	DSI3		Left Tilt	0	20525	836.5	25	Mid	-0.02	0.204	21.09	22.30	1.321	0.269	/
	DSI3		Right Cheek	0	20525	836.5	25	Mid	0.16	0.262	21.09	22.30	1.321	0.346	/
	DSI3		Right Tilt	0	20525	836.5	25	Mid	-0.09	0.297	21.09	22.30	1.321	0.392	/
Ant.31#	DSI2&3	QPSK	Left Cheek	0	20525	836.5	1	Mid	-0.16	0.107	24.04	24.80	1.191	0.127	/
	DSI2&3		Left Tilt	0	20525	836.5	1	Mid	-0.02	0.063	24.04	24.80	1.191	0.075	/
	DSI2&3		Right Cheek	0	20525	836.5	1	Mid	0.12	0.091	24.04	24.80	1.191	0.108	/
	DSI2&3		Right Tilt	0	20525	836.5	1	Mid	0.09	0.050	24.04	24.80	1.191	0.060	/
	DSI2&3		Left Cheek	0	20525	836.5	25	Mid	0.09	0.090	22.59	23.80	1.321	0.119	/
	DSI2&3		Left Tilt	0	20525	836.5	25	Mid	-0.03	0.048	22.59	23.80	1.321	0.063	/
	DSI2&3		Right Cheek	0	20525	836.5	25	Mid	0.02	0.078	22.59	23.80	1.321	0.103	/
	DSI2&3		Right Tilt	0	20525	836.5	25	Mid	0.10	0.049	22.59	23.80	1.321	0.065	/
Body-worn															
Ant.13#	DSI4&5	QPSK	Front Side	15	20525	836.5	1	Mid	-0.16	0.111	23.55	24.80	1.334	0.148	/
	DSI4&5		Back Side	15	20525	836.5	1	Mid	0.04	0.171	23.55	24.80	1.334	0.228	25#
	DSI4&5		Front Side	15	20525	836.5	25	Mid	0.13	0.098	22.61	23.80	1.315	0.129	/
	DSI4&5		Back Side	15	20525	836.5	25	Mid	0.14	0.137	22.61	23.80	1.315	0.180	/
Ant.31#	DSI7&6	QPSK	Front Side	15	20525	836.5	1	Mid	0.14	0.111	24.04	24.80	1.191	0.132	/
	DSI7&6		Back Side	15	20525	836.5	1	Mid	-0.08	0.131	24.04	24.80	1.191	0.156	/
	DSI7&6		Front Side	15	20525	836.5	25	Mid	0.17	0.088	22.59	23.80	1.321	0.116	/
	DSI7&6		Back Side	15	20525	836.5	25	Mid	0.05	0.105	22.59	23.80	1.321	0.139	/
Hotspot															
Ant.13#	DSI6	QPSK	Front Side	10	20525	836.5	1	Mid	0.14	0.198	23.55	24.80	1.334	0.264	/
	DSI6		Back Side	10	20525	836.5	1	Mid	-0.03	0.274	23.55	24.80	1.334	0.366	26#

	DSI6		Left Edge	10	20525	836.5	1	Mid	-0.15	0.018	23.55	24.80	1.334	0.024	/
	DSI6		Right Edge	10	20525	836.5	1	Mid	0.15	0.095	23.55	24.80	1.334	0.127	/
	DSI6		Top Edge	10	20525	836.5	1	Mid	0.04	0.269	23.55	24.80	1.334	0.359	/
	DSI6		Front Side	10	20525	836.5	25	Mid	-0.16	0.154	22.61	23.80	1.315	0.203	/
	DSI6		Back Side	10	20525	836.5	25	Mid	-0.09	0.216	22.61	23.80	1.315	0.284	/
	DSI6		Left Edge	10	20525	836.5	25	Mid	-0.12	0.011	22.61	23.80	1.315	0.014	/
	DSI6		Right Edge	10	20525	836.5	25	Mid	-0.04	0.078	22.61	23.80	1.315	0.103	/
	DSI6		Top Edge	10	20525	836.5	25	Mid	-0.18	0.210	22.61	23.80	1.315	0.276	/
Ant.31#	DSI6	QPSK	Front Side	10	20525	836.5	1	Mid	0.01	0.105	24.04	24.80	1.191	0.125	/
	DSI6		Back Side	10	20525	836.5	1	Mid	0.12	0.164	24.04	24.80	1.191	0.195	/
	DSI6		Left Edge	10	20525	836.5	1	Mid	-0.17	0.072	24.04	24.80	1.191	0.086	/
	DSI6		Right Edge	10	20525	836.5	1	Mid	0.01	0.115	24.04	24.80	1.191	0.137	/
	DSI6		Bottom Edge	10	20525	836.5	1	Mid	-0.15	0.154	24.04	24.80	1.191	0.183	/
	DSI6		Front Side	10	20525	836.5	25	Mid	-0.14	0.082	22.59	23.80	1.321	0.108	/
	DSI6		Back Side	10	20525	836.5	25	Mid	0.19	0.133	22.59	23.80	1.321	0.176	/
	DSI6		Left Edge	10	20525	836.5	25	Mid	-0.13	0.085	22.59	23.80	1.321	0.112	/
	DSI6		Right Edge	10	20525	836.5	25	Mid	0.19	0.090	22.59	23.80	1.321	0.119	/
	DSI6		Bottom Edge	10	20525	836.5	25	Mid	-0.02	0.118	22.59	23.80	1.321	0.156	/

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

11.9LTE Band 7 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.31#	DSI2&3	QPSK	Left Cheek	0	21100	2535	1	Mid	0.13	0.168	24.10	24.50	1.096	0.184	/
	DSI2&3		Left Tilt	0	21100	2535	1	Mid	0.05	0.150	24.10	24.50	1.096	0.164	/
	DSI2&3		Right Cheek	0	21100	2535	1	Mid	-0.06	0.314	24.10	24.50	1.096	0.344	27#
	DSI2&3		Right Tilt	0	21100	2535	1	Mid	-0.06	0.135	24.10	24.50	1.096	0.148	/
	DSI2&3		Left Cheek	0	21100	2535	50	Mid	-0.10	0.143	23.26	23.50	1.057	0.151	/
	DSI2&3		Left Tilt	0	21100	2535	50	Mid	0.08	0.133	23.26	23.50	1.057	0.141	/
	DSI2&3		Right Cheek	0	21100	2535	50	Mid	-0.11	0.274	23.26	23.50	1.057	0.290	/
	DSI2&3		Right Tilt	0	21100	2535	50	Mid	0.01	0.122	23.26	23.50	1.057	0.129	/
Body-worn															
Ant.13#	DSI4	QPSK	Front Side	15	21100	2535	1	Mid	-0.02	0.080	17.94	18.00	1.014	0.081	/
	DSI4		Back Side	15	21100	2535	1	Mid	-0.09	0.249	17.94	18.00	1.014	0.252	28#
	DSI4		Front Side	15	21100	2535	50	Mid	0.04	0.061	17.85	18.00	1.035	0.063	/
	DSI4		Back Side	15	21100	2535	50	Mid	0.12	0.197	17.85	18.00	1.035	0.204	/
Ant.13#	DSI5	QPSK	Front Side	15	21100	2535	1	Mid	0.19	0.056	16.35	16.50	1.035	0.058	/
	DSI5		Back Side	15	21100	2535	1	Mid	-0.10	0.176	16.35	16.50	1.035	0.182	/
	DSI5		Front Side	15	21100	2535	50	High	-0.13	0.044	16.36	16.50	1.033	0.045	/
	DSI5		Back Side	15	21100	2535	50	High	-0.08	0.140	16.36	16.50	1.033	0.145	/
Ant.31#	DSI7	QPSK	Front Side	15	21100	2535	1	High	0.05	0.089	21.96	22.00	1.009	0.090	/
	DSI7		Back Side	15	21100	2535	1	High	-0.12	0.130	21.96	22.00	1.009	0.131	/
	DSI7		Front Side	15	21100	2535	50	High	-0.19	0.070	21.89	22.00	1.026	0.072	/
	DSI7		Back Side	15	21100	2535	50	High	0.11	0.102	21.89	22.00	1.026	0.105	/
Ant.31#	DSI6	QPSK	Front Side	15	21100	2535	1	Mid	-0.09	0.063	20.34	20.50	1.038	0.065	/
	DSI6		Back Side	15	21100	2535	1	Mid	-0.07	0.092	20.34	20.50	1.038	0.095	/
	DSI6		Front Side	15	21100	2535	50	Low	0.15	0.050	20.46	20.50	1.009	0.050	/
	DSI6		Back Side	15	21100	2535	50	Low	0.13	0.072	20.46	20.50	1.009	0.073	/
Hotspot															
Ant.13#	DSI6	QPSK	Front Side	10	21100	2535	1	Mid	0.10	0.100	16.35	16.50	1.035	0.104	/
	DSI6		Back Side	10	21100	2535	1	Mid	0.01	0.336	16.35	16.50	1.035	0.348	/
	DSI6		Left Edge	10	21100	2535	1	Mid	0.01	0.014	16.35	16.50	1.035	0.014	/
	DSI6		Right Edge	10	21100	2535	1	Mid	0.12	0.051	16.35	16.50	1.035	0.053	/
	DSI6		Top Edge	10	21100	2535	1	Mid	-0.05	0.475	16.35	16.50	1.035	0.492	29#
	DSI6		Front Side	10	21100	2535	50	Mid	-0.06	0.066	16.36	16.50	1.033	0.068	/
	DSI6		Back Side	10	21100	2535	50	Mid	0.00	0.245	16.36	16.50	1.033	0.253	/
	DSI6		Left Edge	10	21100	2535	50	Mid	-0.19	0.006	16.36	16.50	1.033	0.006	/
	DSI6		Right Edge	10	21100	2535	50	Mid	-0.13	0.037	16.36	16.50	1.033	0.038	/
	DSI6		Top Edge	10	21100	2535	50	Mid	0.13	0.338	16.36	16.50	1.033	0.349	/

Ant.31#	DSI6	QPSK	Front Side	10	21100	2535	1	Mid	0.05	0.145	20.34	20.50	1.038	0.151	/
	DSI6		Back Side	10	21100	2535	1	Mid	0.05	0.211	20.34	20.50	1.038	0.219	/
	DSI6		Left Edge	10	21100	2535	1	Mid	-0.06	0.089	20.34	20.50	1.038	0.092	/
	DSI6		Right Edge	10	21100	2535	1	Mid	-0.10	0.091	20.34	20.50	1.038	0.094	/
	DSI6		Bottom Edge	10	21100	2535	1	Mid	0.04	0.312	20.34	20.50	1.038	0.324	/
	DSI6		Front Side	10	21100	2535	50	Low	-0.12	0.129	20.46	20.50	1.009	0.130	/
	DSI6		Back Side	10	21100	2535	50	Low	-0.18	0.179	20.46	20.50	1.009	0.181	/
	DSI6		Left Edge	10	21100	2535	50	Low	-0.02	0.096	20.46	20.50	1.009	0.097	/
	DSI6		Right Edge	10	21100	2535	50	Low	0.07	0.069	20.46	20.50	1.009	0.070	/
	DSI6		Bottom Edge	10	21100	2535	50	Low	0.18	0.247	20.46	20.50	1.009	0.249	/

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max . tune- power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
Specific															
Ant.13#	DSI4	QPSK	Back Side	0	21100	2535	1	Mid	0.06	0.648	17.94	18.00	1.014	0.657	/
	DSI4		Back Side	0	21100	2535	50	Mid	0.12	0.650	17.85	18.00	1.035	0.673	/
	DSI4		Top Edge	0	21100	2535	1	Mid	-0.08	1.560	17.94	18.00	1.014	1.582	30#
	DSI4		Top Edge	0	21100	2535	50	Mid	-0.15	1.410	17.85	18.00	1.035	1.459	/
	DSI5		Back Side	0	21100	2535	1	Mid	-0.05	0.453	16.35	16.50	1.035	0.469	/
	DSI5		Back Side	0	21100	2535	50	Mid	0.07	0.467	16.36	16.50	1.033	0.482	/
	DSI5		Top Edge	0	21100	2535	1	Mid	0.09	1.140	16.35	16.50	1.035	1.180	/
	DSI5		Top Edge	0	21100	2535	50	Mid	-0.16	1.070	16.36	16.50	1.033	1.105	/
Senor(N-1)															
Ant.13#	DSI7	QPSK	Front Side	7	21100	2535	1	HIGH	0.17	0.452	23.45	23.50	1.012	0.457	/
	DSI7	QPSK	Back Side	11	21100	2535	1	HIGH	0.14	0.721	23.45	23.50	1.012	0.730	/
	DSI7	QPSK	Top Edge	13	21100	2535	1	HIGH	-0.11	0.777	23.45	23.50	1.012	0.786	/
	DSI7	QPSK	Front Side	7	20850	2510	50	Low	-0.10	0.423	23.00	23.50	1.122	0.475	/
	DSI7	QPSK	Back Side	11	20850	2510	50	Low	0.17	0.704	23.00	23.50	1.122	0.790	/
	DSI7	QPSK	Top Edge	13	20850	2510	50	Low	-0.04	0.716	23.00	23.50	1.122	0.803	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.10 LTE Band 13 (10MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.13#	DSI2&3	QPSK	Left Cheek	0	23230	782	1	Mid	0.08	0.275	24.17	24.90	1.183	0.325	/
	DSI2&3		Left Tilt	0	23230	782	1	Mid	-0.01	0.262	24.17	24.90	1.183	0.310	/
	DSI2&3		Right Cheek	0	23230	782	1	Mid	0.15	0.439	24.17	24.90	1.183	0.519	31#
	DSI2&3		Right Tilt	0	23230	782	1	Mid	-0.16	0.412	24.17	24.90	1.183	0.487	/
	DSI2&3		Left Cheek	0	23230	782	25	High	-0.11	0.229	22.88	23.90	1.265	0.290	/
	DSI2&3		Left Tilt	0	23230	782	25	High	0.02	0.219	22.88	23.90	1.265	0.277	/
	DSI2&3		Right Cheek	0	23230	782	25	High	-0.01	0.336	22.88	23.90	1.265	0.425	/
	DSI2&3		Right Tilt	0	23230	782	25	High	0.05	0.322	22.88	23.90	1.265	0.407	/
	DSI2&3		Left Cheek	0	23230	782	1	Mid	0.10	0.091	23.93	24.90	1.250	0.114	/
Ant.31#	DSI2&3	QPSK	Left Tilt	0	23230	782	1	Mid	0.05	0.056	23.93	24.90	1.250	0.070	/
	DSI2&3		Right Cheek	0	23230	782	1	Mid	-0.15	0.067	23.93	24.90	1.250	0.084	/
	DSI2&3		Right Tilt	0	23230	782	1	Mid	-0.01	0.042	23.93	24.90	1.250	0.053	/
	DSI2&3		Left Cheek	0	23230	782	25	High	0.06	0.075	22.96	23.90	1.242	0.093	/
	DSI2&3		Left Tilt	0	23230	782	25	High	0.09	0.048	22.96	23.90	1.242	0.060	/
	DSI2&3		Right Cheek	0	23230	782	25	High	-0.08	0.051	22.96	23.90	1.242	0.063	/
	DSI2&3		Right Tilt	0	23230	782	25	High	-0.06	0.033	22.96	23.90	1.242	0.041	/
	DSI2&3		Left Cheek	0	23230	782	1	Mid	0.08	0.275	24.17	24.90	1.183	0.325	/
Body-worn															
Ant.13#	DSI4&5	QPSK	Front Side	15	23230	782	1	Mid	0.12	0.109	24.17	24.90	1.183	0.129	/
	DSI4&5		Back Side	15	23230	782	1	Mid	0.16	0.145	24.17	24.90	1.183	0.172	/
	DSI4&5		Front Side	15	23230	782	25	High	0.16	0.090	22.88	23.90	1.265	0.114	/
	DSI4&5		Back Side	15	23230	782	25	High	-0.15	0.120	22.88	23.90	1.265	0.152	/
Ant.31#	DSI7&6	QPSK	Front Side	15	23230	782	1	Mid	0.06	0.134	23.93	24.90	1.250	0.168	/
	DSI7&6		Back Side	15	23230	782	1	Mid	-0.01	0.152	23.93	24.90	1.250	0.190	32#
	DSI7&6		Front Side	15	23230	782	25	High	0.08	0.103	22.96	23.90	1.242	0.128	/
	DSI7&6		Back Side	15	23230	782	25	High	-0.15	0.118	22.96	23.90	1.242	0.147	/
Hotspot															
Ant.13#	DSI6	QPSK	Front Side	10	23230	782	1	Mid	-0.15	0.095	24.17	24.90	1.183	0.112	/
	DSI6		Back Side	10	23230	782	1	Mid	-0.02	0.144	24.17	24.90	1.183	0.170	/
	DSI6		Left Edge	10	23230	782	1	Mid	-0.07	0.023	24.17	24.90	1.183	0.027	/
	DSI6		Right Edge	10	23230	782	1	Mid	-0.14	0.111	24.17	24.90	1.183	0.131	/
	DSI6		Top Edge	10	23230	782	1	Mid	0.17	0.127	24.17	24.90	1.183	0.150	/
	DSI6		Front Side	10	23230	782	25	High	0.02	0.075	22.88	23.90	1.265	0.095	/
	DSI6		Back Side	10	23230	782	25	High	0.11	0.112	22.88	23.90	1.265	0.142	/
	DSI6		Right Edge	10	23230	782	25	High	0.07	0.093	22.88	23.90	1.265	0.118	/
	DSI6		Top Edge	10	23230	782	25	High	0.02	0.100	22.88	23.90	1.265	0.127	/

	DSI6		Front Side	10	23230	782	1	Mid	-0.12	0.094	23.93	24.90	1.250	0.118	/
Ant.31#	DSI6	QPSK	Back Side	10	23230	782	1	Mid	-0.08	0.121	23.93	24.90	1.250	0.151	/
	DSI6		Left Edge	10	23230	782	1	Mid	0.14	0.051	23.93	24.90	1.250	0.064	/
	DSI6		Right Edge	10	23230	782	1	Mid	-0.14	0.164	23.93	24.90	1.250	0.205	33#
	DSI6		Bottom Edge	10	23230	782	1	Mid	-0.12	0.140	23.93	24.90	1.250	0.175	/
	DSI6		Front Side	10	23230	782	25	High	-0.10	0.073	22.96	23.90	1.242	0.091	/
	DSI6		Back Side	10	23230	782	25	High	-0.13	0.096	22.96	23.90	1.242	0.119	/
	DSI6		Left Edge	10	23230	782	25	High	0.02	0.045	22.96	23.90	1.242	0.056	/
	DSI6		Right Edge	10	23230	782	25	High	-0.13	0.132	22.96	23.90	1.242	0.164	/
	DSI6		Bottom Edge	10	23230	782	25	High	0.16	0.112	22.96	23.90	1.242	0.139	/
	DSI6		Front Side	10	23230	782	1	Mid	-0.15	0.095	24.17	24.90	1.183	0.112	/
	Note: Refer to ANNEX C for the detailed test data for each test configuration.														

11.11 LTE Band 18 (15MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune -power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.13#	DSI2	QPSK	Left Cheek	0	23925	822.5	1	Low	0.08	0.334	22.81	24.30	1.409	0.471	/
	DSI2		Left Tilt	0	23925	822.5	1	Low	-0.01	0.318	22.81	24.30	1.409	0.448	/
	DSI2		Right Cheek	0	23925	822.5	1	Low	-0.16	0.425	22.81	24.30	1.409	0.599	/
	DSI2		Right Tilt	0	23925	822.5	1	Low	0.10	0.457	22.81	24.30	1.409	0.644	34#
	DSI2		Left Cheek	0	23925	822.5	36	Mid	-0.02	0.294	21.98	23.30	1.355	0.398	/
	DSI2		Left Tilt	0	23925	822.5	36	Mid	0.05	0.274	21.98	23.30	1.355	0.371	/
	DSI2		Right Cheek	0	23925	822.5	36	Mid	0.03	0.370	21.98	23.30	1.355	0.501	/
	DSI2		Right Tilt	0	23925	822.5	36	Mid	-0.01	0.389	21.98	23.30	1.355	0.527	/
Ant.13#	DSI3	QPSK	Left Cheek	0	23925	822.5	1	Mid	0.09	0.292	22.57	23.80	1.327	0.387	/
	DSI3		Left Tilt	0	23925	822.5	1	Mid	-0.08	0.281	22.57	23.80	1.327	0.373	/
	DSI3		Right Cheek	0	23925	822.5	1	Mid	-0.02	0.375	22.57	23.80	1.327	0.498	/
	DSI3		Right Tilt	0	23925	822.5	1	Mid	0.05	0.401	22.57	23.80	1.327	0.532	/
	DSI3		Left Cheek	0	23925	822.5	36	High	0.13	0.265	22.44	23.80	1.368	0.363	/
	DSI3		Left Tilt	0	23925	822.5	36	High	-0.11	0.247	22.44	23.80	1.368	0.338	/
	DSI3		Right Cheek	0	23925	822.5	36	High	-0.06	0.334	22.44	23.80	1.368	0.457	/
	DSI3		Right Tilt	0	23925	822.5	36	High	-0.17	0.352	22.44	23.80	1.368	0.482	/
Ant.31#	DSI2&3	QPSK	Left Cheek	0	23925	822.5	1	Mid	-0.03	0.076	23.76	24.80	1.271	0.097	/
	DSI2&3		Left Tilt	0	23925	822.5	1	Mid	0.05	0.041	23.76	24.80	1.271	0.052	/
	DSI2&3		Right Cheek	0	23925	822.5	1	Mid	-0.12	0.065	23.76	24.80	1.271	0.083	/
	DSI2&3		Right Tilt	0	23925	822.5	1	Mid	-0.15	0.002	23.76	24.80	1.271	0.003	/
	DSI2&3		Left Cheek	0	23925	822.5	36	Mid	-0.11	0.066	22.59	23.80	1.321	0.087	/
	DSI2&3		Left Tilt	0	23925	822.5	36	Mid	0.09	0.003	22.59	23.80	1.321	0.004	/
	DSI2&3		Right Cheek	0	23925	822.5	36	Mid	-0.09	0.057	22.59	23.80	1.321	0.075	/
	DSI2&3		Right Tilt	0	23925	822.5	36	Mid	-0.17	0.001	22.59	23.80	1.321	0.001	/
Body-worn															
Ant.13#	DSI4&5	QPSK	Front Side	15	23925	822.5	1	Mid	-0.15	0.093	23.69	24.80	1.291	0.120	/
	DSI4&5		Back Side	15	23925	822.5	1	Mid	-0.07	0.128	23.69	24.80	1.291	0.165	35#
	DSI4&5		Front Side	15	23925	822.5	36	High	0.07	0.083	22.66	23.80	1.300	0.108	/
	DSI4&5		Back Side	15	23925	822.5	36	High	-0.14	0.117	22.66	23.80	1.300	0.152	/
Ant.31#	DSI7&6	QPSK	Front Side	15	23925	822.5	1	Mid	0.04	0.079	23.76	24.80	1.271	0.100	/
	DSI7&6		Back Side	15	23925	822.5	1	Mid	-0.12	0.097	23.76	24.80	1.271	0.123	/
	DSI7&6		Front Side	15	23925	822.5	36	Mid	0.08	0.073	22.59	23.80	1.321	0.096	/
	DSI7&6		Back Side	15	23925	822.5	36	Mid	0.03	0.085	22.59	23.80	1.321	0.112	/
Hotspot															
Ant.13#	DSI6	QPSK	Front Side	10	23925	822.5	1	Mid	0.14	0.085	23.69	24.80	1.291	0.110	/
	DSI6		Back Side	10	23925	822.5	1	Mid	0.16	0.120	23.69	24.80	1.291	0.155	/

	DSI6		Left Edge	10	23925	822.5	1	Mid	-0.12	0.011	23.69	24.80	1.291	0.014	
	DSI6		Right Edge	10	23925	822.5	1	Mid	-0.14	0.040	23.69	24.80	1.291	0.052	/
	DSI6		Top Edge	10	23925	822.5	1	Mid	-0.15	0.164	23.69	24.80	1.291	0.212	36#
	DSI6		Front Side	10	23925	822.5	36	High	-0.03	0.076	22.66	23.80	1.300	0.099	/
	DSI6		Back Side	10	23925	822.5	36	High	-0.07	0.108	22.66	23.80	1.300	0.140	/
	DSI6		Left Edge	10	23925	822.5	36	High	0.06	0.008	22.66	23.80	1.300	0.010	
	DSI6		Right Edge	10	23925	822.5	36	High	-0.14	0.036	22.66	23.80	1.300	0.047	/
	DSI6		Top Edge	10	23925	822.5	36	High	-0.13	0.140	22.66	23.80	1.300	0.182	/
Ant.31#	DSI6	QPSK	Front Side	10	23925	822.5	1	Mid	-0.03	0.044	23.76	24.80	1.271	0.056	/
	DSI6		Back Side	10	23925	822.5	1	Mid	-0.02	0.078	23.76	24.80	1.271	0.099	/
	DSI6		Left Edge	10	23925	822.5	1	Mid	-0.02	0.063	23.76	24.80	1.271	0.080	/
	DSI6		Right Edge	10	23925	822.5	1	Mid	0.07	0.050	23.76	24.80	1.271	0.064	/
	DSI6		Bottom Edge	10	23925	822.5	1	Mid	0.16	0.063	23.76	24.80	1.271	0.080	/
	DSI6		Front Side	10	23925	822.5	36	Mid	0.14	0.041	22.59	23.80	1.321	0.054	/
	DSI6		Back Side	10	23925	822.5	36	Mid	0.13	0.069	22.59	23.80	1.321	0.091	/
	DSI6		Left Edge	10	23925	822.5	36	Mid	-0.12	0.056	22.59	23.80	1.321	0.074	/
	DSI6		Right Edge	10	23925	822.5	36	Mid	0.01	0.045	22.59	23.80	1.321	0.059	/
	DSI6		Bottom Edge	10	23925	822.5	36	Mid	-0.13	0.050	22.59	23.80	1.321	0.066	/

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

11.12 LTE Band 19 (15MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune -power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.13#	DSI2	QPSK	Left Cheek	0	24075	837.5	1	Low	0.12	0.350	21.37	22.80	1.390	0.487	/
	DSI2		Left Tilt	0	24075	837.5	1	Low	-0.03	0.328	21.37	22.80	1.390	0.456	/
	DSI2		Right Cheek	0	24075	837.5	1	Low	0.10	0.542	21.37	22.80	1.390	0.753	37#
	DSI2		Right Tilt	0	24075	837.5	1	Low	0.11	0.470	21.37	22.80	1.390	0.653	/
	DSI2		Left Cheek	0	24075	837.5	36	Low	0.08	0.304	21.23	22.80	1.435	0.436	/
	DSI2		Left Tilt	0	24075	837.5	36	Low	-0.07	0.286	21.23	22.80	1.435	0.410	/
	DSI2		Right Cheek	0	24075	837.5	36	Low	-0.06	0.465	21.23	22.80	1.435	0.667	/
	DSI2		Right Tilt	0	24075	837.5	36	Low	0.16	0.407	21.23	22.80	1.435	0.584	/
Ant.13#	DSI3	QPSK	Left Cheek	0	24075	837.5	1	High	-0.15	0.301	21.20	22.30	1.288	0.388	/
	DSI3		Left Tilt	0	24075	837.5	1	High	-0.08	0.285	21.20	22.30	1.288	0.367	/
	DSI3		Right Cheek	0	24075	837.5	1	High	0.00	0.477	21.20	22.30	1.288	0.614	/
	DSI3		Right Tilt	0	24075	837.5	1	High	0.11	0.406	21.20	22.30	1.288	0.523	/
	DSI3		Left Cheek	0	24075	837.5	36	High	-0.01	0.278	21.24	22.30	1.276	0.355	/
	DSI3		Left Tilt	0	24075	837.5	36	High	-0.03	0.262	21.24	22.30	1.276	0.334	/
	DSI3		Right Cheek	0	24075	837.5	36	High	0.05	0.405	21.24	22.30	1.276	0.517	/
	DSI3		Right Tilt	0	24075	837.5	36	High	-0.13	0.372	21.24	22.30	1.276	0.475	/
Ant.31#	DSI2&3	QPSK	Left Cheek	0	24075	837.5	1	Low	0.03	0.096	23.80	24.80	1.259	0.121	/
	DSI2&3		Left Tilt	0	24075	837.5	1	Low	-0.17	0.055	23.80	24.80	1.259	0.069	/
	DSI2&3		Right Cheek	0	24075	837.5	1	Low	0.19	0.086	23.80	24.80	1.259	0.108	/
	DSI2&3		Right Tilt	0	24075	837.5	1	Low	0.15	0.045	23.80	24.80	1.259	0.057	/
	DSI2&3		Left Cheek	0	24075	837.5	36	High	-0.16	0.090	22.68	23.80	1.294	0.116	/
	DSI2&3		Left Tilt	0	24075	837.5	36	High	0.03	0.050	22.68	23.80	1.294	0.065	/
	DSI2&3		Right Cheek	0	24075	837.5	36	High	0.10	0.079	22.68	23.80	1.294	0.102	/
	DSI2&3		Right Tilt	0	24075	837.5	36	High	0.19	0.040	22.68	23.80	1.294	0.052	/
Body-worn															
Ant.13#	DSI4&5	QPSK	Front Side	15	24075	837.5	1	Low	-0.09	0.118	23.58	24.80	1.324	0.156	/
	DSI4&5		Back Side	15	24075	837.5	1	Low	-0.02	0.166	23.58	24.80	1.324	0.220	38#
	DSI4&5		Front Side	15	24075	837.5	36	High	-0.12	0.103	22.70	23.80	1.288	0.133	/
	DSI4&5		Back Side	15	24075	837.5	36	High	0.12	0.142	22.70	23.80	1.288	0.183	/
Ant.31#	DSI7&6	QPSK	Front Side	15	24075	837.5	1	Low	0.12	0.102	23.80	24.80	1.259	0.128	/
	DSI7&6		Back Side	15	24075	837.5	1	Low	0.04	0.119	23.80	24.80	1.259	0.150	/
	DSI7&6		Front Side	15	24075	837.5	36	High	0.00	0.086	22.68	23.80	1.294	0.111	/
	DSI7&6		Back Side	15	24075	837.5	36	High	0.06	0.105	22.68	23.80	1.294	0.136	/
Hotspot															
Ant.13#	DSI6	QPSK	Front Side	10	24075	837.5	1	Low	-0.10	0.202	23.58	24.80	1.324	0.267	/
	DSI6		Back Side	10	24075	837.5	1	Low	-0.11	0.261	23.58	24.80	1.324	0.346	39#

	DSI6		Left Edge	10	24075	837.5	1	Low	-0.03	0.038	23.58	24.80	1.324	0.050	/
	DSI6		Right Edge	10	24075	837.5	1	Low	-0.08	0.103	23.58	24.80	1.324	0.136	/
	DSI6		Top Edge	10	24075	837.5	1	Low	-0.16	0.241	23.58	24.80	1.324	0.319	/
	DSI6		Front Side	10	24075	837.5	36	High	0.03	0.169	22.70	23.80	1.288	0.218	/
	DSI6		Back Side	10	24075	837.5	36	High	-0.05	0.222	22.70	23.80	1.288	0.286	/
	DSI6		Left Edge	10	24075	837.5	36	High	0.07	0.011	22.70	23.80	1.288	0.014	/
	DSI6		Right Edge	10	24075	837.5	36	High	-0.11	0.092	22.70	23.80	1.288	0.118	/
	DSI6		Top Edge	10	24075	837.5	36	High	-0.08	0.250	22.70	23.80	1.288	0.322	/
Ant.31#	DSI6	QPSK	Front Side	10	24075	837.5	1	Low	0.14	0.104	23.80	24.80	1.259	0.131	/
	DSI6		Back Side	10	24075	837.5	1	Low	-0.16	0.174	23.80	24.80	1.259	0.219	/
	DSI6		Left Edge	10	24075	837.5	1	Low	0.15	0.061	23.80	24.80	1.259	0.077	/
	DSI6		Right Edge	10	24075	837.5	1	Low	0.12	0.112	23.80	24.80	1.259	0.141	/
	DSI6		Bottom Edge	10	24075	837.5	1	Low	-0.05	0.162	23.80	24.80	1.259	0.204	/
	DSI6		Front Side	10	24075	837.5	36	High	0.07	0.092	22.68	23.80	1.294	0.119	/
	DSI6		Back Side	10	24075	837.5	36	High	-0.12	0.148	22.68	23.80	1.294	0.192	/
	DSI6		Left Edge	10	24075	837.5	36	High	0.12	0.094	22.68	23.80	1.294	0.122	/
	DSI6		Right Edge	10	24075	837.5	36	High	-0.04	0.095	22.68	23.80	1.294	0.123	/
	DSI6		Bottom Edge	10	24075	837.5	36	High	0.15	0.141	22.68	23.80	1.294	0.182	/

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

11.13 LTE Band 26 (15MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.13#	DSI2	QPSK	Left Cheek	0	26865	831.5	1	Mid	0.03	0.290	21.19	22.80	1.449	0.420	/
	DSI2		Left Tilt	0	26865	831.5	1	Mid	0.00	0.272	21.19	22.80	1.449	0.394	/
	DSI2		Right Cheek	0	26865	831.5	1	Mid	0.18	0.389	21.19	22.80	1.449	0.564	/
	DSI2		Right Tilt	0	26865	831.5	1	Mid	-0.02	0.400	21.19	22.80	1.449	0.580	40#
	DSI2		Left Cheek	0	26865	831.5	36	Mid	-0.03	0.250	21.29	22.80	1.416	0.354	/
	DSI2		Left Tilt	0	26865	831.5	36	Mid	-0.12	0.232	21.29	22.80	1.416	0.329	/
	DSI2		Right Cheek	0	26865	831.5	36	Mid	0.15	0.334	21.29	22.80	1.416	0.473	/
	DSI2		Right Tilt	0	26865	831.5	36	Mid	0.01	0.336	21.29	22.80	1.416	0.476	/
Ant.13#	DSI3	QPSK	Left Cheek	0	26865	831.5	1	Mid	-0.11	0.251	21.11	22.30	1.315	0.330	/
	DSI3		Left Tilt	0	26865	831.5	1	Mid	-0.14	0.237	21.11	22.30	1.315	0.312	/
	DSI3		Right Cheek	0	26865	831.5	1	Mid	-0.09	0.343	21.11	22.30	1.315	0.451	/
	DSI3		Right Tilt	0	26865	831.5	1	Mid	-0.02	0.346	21.11	22.30	1.315	0.455	/
	DSI3		Left Cheek	0	26865	831.5	36	Mid	0.01	0.215	21.25	22.30	1.274	0.274	/
	DSI3		Left Tilt	0	26865	831.5	36	Mid	0.18	0.193	21.25	22.30	1.274	0.246	/
	DSI3		Right Cheek	0	26865	831.5	36	Mid	-0.11	0.286	21.25	22.30	1.274	0.364	/
	DSI3		Right Tilt	0	26865	831.5	36	Mid	-0.19	0.297	21.25	22.30	1.274	0.378	/
Ant.31#	DSI2&3	QPSK	Left Cheek	0	26865	831.5	1	Mid	0.04	0.095	23.71	24.80	1.285	0.122	/
	DSI2&3		Left Tilt	0	26865	831.5	1	Mid	-0.14	0.054	23.71	24.80	1.285	0.069	/
	DSI2&3		Right Cheek	0	26865	831.5	1	Mid	-0.02	0.086	23.71	24.80	1.285	0.111	/
	DSI2&3		Right Tilt	0	26865	831.5	1	Mid	-0.11	0.041	23.71	24.80	1.285	0.053	/
	DSI2&3		Left Cheek	0	26865	831.5	36	Mid	-0.10	0.081	22.68	23.80	1.294	0.105	/
	DSI2&3		Left Tilt	0	26865	831.5	36	Mid	-0.08	0.045	22.68	23.80	1.294	0.058	/
	DSI2&3		Right Cheek	0	26865	831.5	36	Mid	-0.02	0.073	22.68	23.80	1.294	0.094	/
	DSI2&3		Right Tilt	0	26865	831.5	36	Mid	-0.16	0.038	22.68	23.80	1.294	0.049	/
Body-worn															
Ant.13#	DSI4&5	QPSK	Front Side	15	26865	831.5	1	Mid	-0.04	0.112	23.77	24.80	1.268	0.142	/
	DSI4&5		Back Side	15	26865	831.5	1	Mid	-0.05	0.158	23.77	24.80	1.268	0.200	41#
	DSI4&5		Front Side	15	26865	831.5	36	Mid	-0.19	0.103	22.69	23.80	1.291	0.133	/
	DSI4&5		Back Side	15	26865	831.5	36	Mid	-0.16	0.144	22.69	23.80	1.291	0.186	/
Ant.31#	DSI7&6	QPSK	Front Side	15	26865	831.5	1	Mid	-0.08	0.101	23.71	24.80	1.285	0.130	/
	DSI7&6		Back Side	15	26865	831.5	1	Mid	0.19	0.116	23.71	24.80	1.285	0.149	/
	DSI7&6		Front Side	15	26865	831.5	36	Mid	-0.06	0.088	22.68	23.80	1.294	0.114	/
	DSI7&6		Back Side	15	26865	831.5	36	Mid	-0.12	0.103	22.68	23.80	1.294	0.133	/
Hotspot															
Ant.13#	DSI6	QPSK	Front Side	10	26865	831.5	1	Mid	0.19	0.122	23.77	24.80	1.268	0.155	/
	DSI6		Back Side	10	26865	831.5	1	Mid	0.07	0.169	23.77	24.80	1.268	0.214	/

	DSI6		Left Edge	10	26865	831.5	1	Mid	-0.15	0.014	23.77	24.80	1.268	0.018	/
	DSI6		Right Edge	10	26865	831.5	1	Mid	-0.19	0.053	23.77	24.80	1.268	0.067	/
	DSI6		Top Edge	10	26865	831.5	1	Mid	0.07	0.188	23.77	24.80	1.268	0.238	42#
	DSI6		Front Side	10	26865	831.5	36	Mid	-0.09	0.104	22.69	23.80	1.291	0.134	/
	DSI6		Back Side	10	26865	831.5	36	Mid	0.18	0.137	22.69	23.80	1.291	0.177	/
	DSI6		Left Edge	10	26865	831.5	36	Mid	0.11	0.010	22.69	23.80	1.291	0.013	/
	DSI6		Right Edge	10	26865	831.5	36	Mid	0.02	0.049	22.69	23.80	1.291	0.063	/
	DSI6		Top Edge	10	26865	831.5	36	Mid	-0.08	0.155	22.69	23.80	1.291	0.200	/
Ant.31#	DSI6	QPSK	Front Side	10	26865	831.5	1	Mid	-0.18	0.066	23.71	24.80	1.285	0.085	/
	DSI6		Back Side	10	26865	831.5	1	Mid	0.09	0.101	23.71	24.80	1.285	0.130	/
	DSI6		Left Edge	10	26865	831.5	1	Mid	0.05	0.052	23.71	24.80	1.285	0.067	/
	DSI6		Right Edge	10	26865	831.5	1	Mid	0.13	0.070	23.71	24.80	1.285	0.090	/
	DSI6		Bottom Edge	10	26865	831.5	1	Mid	0.13	0.082	23.71	24.80	1.285	0.105	/
	DSI6		Front Side	10	26865	831.5	36	Mid	-0.05	0.056	22.68	23.80	1.294	0.072	/
	DSI6		Back Side	10	26865	831.5	36	Mid	-0.07	0.091	22.68	23.80	1.294	0.118	/
	DSI6		Left Edge	10	26865	831.5	36	Mid	-0.04	0.064	22.68	23.80	1.294	0.083	/
	DSI6		Right Edge	10	26865	831.5	36	Mid	0.07	0.061	22.68	23.80	1.294	0.079	/
	DSI6		Bottom Edge	10	26865	831.5	36	Mid	-0.17	0.069	22.68	23.80	1.294	0.089	/

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

11.14 LTE Band 66 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.31#	DSI2&3	QPSK	Left Cheek	0	132322	1745	1	Mid	0.09	0.112	24.46	24.80	1.081	0.121	43#
	DSI2&3		Left Tilt	0	132322	1745	1	Mid	0.19	0.074	24.46	24.80	1.081	0.080	/
	DSI2&3		Right Cheek	0	132322	1745	1	Mid	-0.06	0.106	24.46	24.80	1.081	0.115	/
	DSI2&3		Right Tilt	0	132322	1745	1	Mid	0.17	0.076	24.46	24.80	1.081	0.082	/
	DSI2&3		Left Cheek	0	132322	1745	50	Low	0.01	0.096	23.13	23.80	1.167	0.112	/
	DSI2&3		Left Tilt	0	132322	1745	50	Low	-0.11	0.060	23.13	23.80	1.167	0.070	/
	DSI2&3		Right Cheek	0	132322	1745	50	Low	0.18	0.085	23.13	23.80	1.167	0.099	/
	DSI2&3		Right Tilt	0	132322	1745	50	Low	-0.03	0.064	23.13	23.80	1.167	0.075	/
Body-worn															
Ant.13#	DSI4	QPSK	Front Side	15	132322	1745	1	Mid	-0.09	0.143	21.41	21.80	1.094	0.156	/
	DSI4		Back Side	15	132322	1745	1	Mid	-0.07	0.155	21.41	21.80	1.094	0.170	/
	DSI4		Front Side	15	132322	1745	50	Low	-0.14	0.108	21.28	21.80	1.127	0.122	/
	DSI4		Back Side	15	132322	1745	50	Low	-0.18	0.123	21.28	21.80	1.127	0.139	/
Ant.13#	DSI5	QPSK	Front Side	15	132322	1745	1	Mid	-0.05	0.081	18.98	19.30	1.076	0.087	/
	DSI5		Back Side	15	132322	1745	1	Mid	-0.07	0.087	18.98	19.30	1.076	0.094	/
	DSI5		Front Side	15	132322	1745	50	High	-0.15	0.061	18.76	19.30	1.132	0.069	/
	DSI5		Back Side	15	132322	1745	50	High	0.05	0.069	18.76	19.30	1.132	0.078	/
Ant.31#	DSI7	QPSK	Front Side	15	132322	1745	1	Mid	0.13	0.122	20.89	21.30	1.099	0.134	/
	DSI7		Back Side	15	132322	1745	1	Mid	-0.03	0.195	20.89	21.30	1.099	0.214	44#
	DSI7		Front Side	15	132322	1745	50	Low	-0.06	0.099	20.84	21.30	1.112	0.110	/
	DSI7		Back Side	15	132322	1745	50	Low	-0.15	0.161	20.84	21.30	1.112	0.179	/
Ant.31#	DSI6	QPSK	Front Side	15	132322	1745	1	Mid	-0.04	0.097	19.97	20.30	1.079	0.105	/
	DSI6		Back Side	15	132322	1745	1	Mid	-0.13	0.155	19.97	20.30	1.079	0.167	/
	DSI6		Front Side	15	132322	1745	50	Mid	0.08	0.078	19.77	20.30	1.130	0.088	/
	DSI6		Back Side	15	132322	1745	50	Mid	-0.05	0.129	19.77	20.30	1.130	0.146	/
Hotspot															
Ant.13#	DSI6	QPSK	Front Side	10	132322	1745	1	Mid	-0.15	0.128	18.98	19.30	1.076	0.138	/
	DSI6		Back Side	10	132322	1745	1	Mid	-0.11	0.149	18.98	19.30	1.076	0.160	/
	DSI6		Left Edge	10	132322	1745	1	Mid	-0.01	0.011	18.98	19.30	1.076	0.012	/
	DSI6		Right Edge	10	132322	1745	1	Mid	0.06	0.035	18.98	19.30	1.076	0.038	/
	DSI6		Top Edge	10	132322	1745	1	Mid	0.00	0.235	18.98	19.30	1.076	0.253	/
	DSI6		Front Side	10	132322	1745	50	High	-0.07	0.096	18.76	19.30	1.132	0.109	/
	DSI6		Back Side	10	132322	1745	50	High	-0.02	0.118	18.76	19.30	1.132	0.134	/
	DSI6		Left Edge	10	132322	1745	50	High	-0.05	0.006	18.76	19.30	1.132	0.007	/
	DSI6		Right Edge	10	132322	1745	50	High	-0.19	0.027	18.76	19.30	1.132	0.031	/
	DSI6		Top Edge	10	132322	1745	50	High	0.12	0.180	18.76	19.30	1.132	0.204	/
	DSI6														

Ant.31#	DSI6	QPSK	Front Side	10	132322	1745	1	Mid	0.02	0.146	19.97	20.30	1.079	0.158	/
	DSI6		Back Side	10	132322	1745	1	Mid	0.14	0.245	19.97	20.30	1.079	0.264	/
	DSI6		Left Edge	10	132322	1745	1	Mid	-0.18	0.050	19.97	20.30	1.079	0.054	/
	DSI6		Right Edge	10	132322	1745	1	Mid	-0.09	0.026	19.97	20.30	1.079	0.028	/
	DSI6		Bottom Edge	10	132322	1745	1	Mid	-0.01	0.377	19.97	20.30	1.079	0.407	45#
	DSI6		Front Side	10	132322	1745	50	Mid	-0.03	0.120	19.77	20.30	1.130	0.136	/
	DSI6		Back Side	10	132322	1745	50	Mid	-0.03	0.193	19.77	20.30	1.130	0.218	/
	DSI6		Left Edge	10	132322	1745	50	Mid	0.07	0.034	19.77	20.30	1.130	0.038	/
	DSI6		Right Edge	10	132322	1745	50	Mid	-0.15	0.024	19.77	20.30	1.130	0.027	/
	DSI6		Bottom Edge	10	132322	1745	50	Mid	-0.02	0.303	19.77	20.30	1.130	0.342	/

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

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
Specific															
Ant.31#	DSI7	QPSK	Bottom Edge	0	132322	1745	1	Mid	-0.11	1.590	20.89	21.30	1.099	1.747	46#
	DSI7		Bottom Edge	0	132322	1745	50	Mid	0.12	1.470	20.84	21.30	1.112	1.635	/
	DSI6		Bottom Edge	0	132322	1745	1	Mid	0.03	1.150	19.97	20.30	1.079	1.241	/
	DSI6		Bottom Edge	0	132322	1745	50	Mid	-0.07	1.060	19.77	20.30	1.130	1.198	/
Senor(N-1)															
Ant.13#	DSI7	QPSK	Front Side	7	132322	1745	1	Mid	0.07	0.350	24.32	24.80	1.117	0.391	/
	DSI7	QPSK	Back Side	11	132322	1745	1	Mid	-0.07	0.296	24.32	24.80	1.117	0.331	/
	DSI7	QPSK	Top Edge	13	132322	1745	1	Mid	0.09	0.272	24.32	24.80	1.117	0.304	/
	DSI7	QPSK	Front Side	7	132322	1745	50	Mid	-0.18	0.276	22.94	23.80	1.219	0.336	/
	DSI7	QPSK	Back Side	11	132322	1745	50	Mid	-0.01	0.242	22.94	23.80	1.219	0.295	/
	DSI7	QPSK	Top Edge	13	132322	1745	50	Mid	-0.02	0.215	22.94	23.80	1.219	0.262	/

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

11.15 LTE Band 38 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune -power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.31#	DSI2&3	QPSK	Left Cheek	0	38000	2595	1	Mid	-0.03	0.161	24.72	24.80	1.019	0.164	/
	DSI2&3		Left Tilt	0	38000	2595	1	Mid	-0.08	0.173	24.72	24.80	1.019	0.176	/
	DSI2&3		Right Cheek	0	38000	2595	1	Mid	0.01	0.327	24.72	24.80	1.019	0.333	47#
	DSI2&3		Right Tilt	0	38000	2595	1	Mid	-0.12	0.129	24.72	24.80	1.019	0.131	/
	DSI2&3		Left Cheek	0	38000	2595	50	Low	-0.09	0.133	23.36	23.80	1.107	0.147	/
	DSI2&3		Left Tilt	0	38000	2595	50	Low	0.01	0.134	23.36	23.80	1.107	0.148	/
	DSI2&3		Right Cheek	0	38000	2595	50	Low	-0.06	0.265	23.36	23.80	1.107	0.293	/
	DSI2&3		Right Tilt	0	38000	2595	50	Low	0.03	0.099	23.36	23.80	1.107	0.110	/
Body-worn															
Ant.13#	DSI4	QPSK	Front Side	15	38000	2595	1	Mid	0.08	0.083	19.70	19.80	1.023	0.085	/
	DSI4		Back Side	15	38000	2595	1	Mid	-0.07	0.289	19.70	19.80	1.023	0.296	48#
	DSI4		Front Side	15	38000	2595	50	Mid	0.01	0.080	19.67	19.80	1.030	0.082	/
	DSI4		Back Side	15	38000	2595	50	Mid	0.03	0.273	19.67	19.80	1.030	0.281	/
Ant.13#	DSI5	QPSK	Front Side	15	38150	2610	1	Mid	-0.01	0.055	18.28	18.30	1.005	0.055	/
	DSI5		Back Side	15	38150	2610	1	Mid	0.01	0.201	18.28	18.30	1.005	0.202	/
	DSI5		Front Side	15	38150	2610	50	Mid	-0.15	0.043	18.15	18.30	1.035	0.045	/
	DSI5		Back Side	15	38150	2610	50	Mid	0.11	0.150	18.15	18.30	1.035	0.155	/
Ant.31#	DSI7	QPSK	Front Side	15	38000	2595	1	Mid	-0.15	0.183	24.72	24.80	1.019	0.186	/
	DSI7		Back Side	15	38000	2595	1	Mid	-0.19	0.193	24.72	24.80	1.019	0.197	/
	DSI7		Front Side	15	38000	2595	50	Low	-0.13	0.142	23.36	23.80	1.107	0.157	/
	DSI7		Back Side	15	38000	2595	50	Low	-0.18	0.152	23.36	23.80	1.107	0.168	/
Ant.31#	DSI6	QPSK	Front Side	15	38000	2595	1	Low	0.03	0.133	23.02	23.30	1.067	0.142	/
	DSI6		Back Side	15	38000	2595	1	Low	0.18	0.139	23.02	23.30	1.067	0.148	/
	DSI6		Front Side	15	38000	2595	50	Low	0.14	0.106	22.96	23.30	1.081	0.115	/
	DSI6		Back Side	15	38000	2595	50	Low	-0.04	0.109	22.96	23.30	1.081	0.118	/
Hotspot															
Ant.13#	DSI6	QPSK	Front Side	10	38150	2610	1	Mid	-0.15	0.095	18.28	18.30	1.005	0.095	/
	DSI6		Back Side	10	38150	2610	1	Mid	-0.05	0.382	18.28	18.30	1.005	0.384	/
	DSI6		Left Edge	10	38150	2610	1	Mid	-0.15	0.016	18.28	18.30	1.005	0.016	/
	DSI6		Right Edge	10	38150	2610	1	Mid	0.10	0.060	18.28	18.30	1.005	0.060	/
	DSI6		Top Edge	10	38150	2610	1	Mid	0.00	0.477	18.28	18.30	1.005	0.479	49#
	DSI6		Front Side	10	38150	2610	50	Mid	-0.19	0.079	18.15	18.30	1.035	0.082	/
	DSI6		Back Side	10	38150	2610	50	Mid	0.06	0.326	18.15	18.30	1.035	0.337	/
	DSI6		Left Edge	10	38150	2610	50	Mid	-0.05	0.011	18.15	18.30	1.035	0.011	/
	DSI6		Right Edge	10	38150	2610	50	Mid	0.19	0.048	18.15	18.30	1.035	0.050	/
	DSI6		Top Edge	10	38150	2610	50	Mid	-0.08	0.402	18.15	18.30	1.035	0.416	/

Ant.31#	DSI6	QPSK	Front Side	10	38000	2595	1	Low	0.03	0.240	23.02	23.30	1.067	0.256	/
	DSI6		Back Side	10	38000	2595	1	Low	-0.19	0.276	23.02	23.30	1.067	0.294	/
	DSI6		Left Edge	10	38000	2595	1	Low	-0.12	0.134	23.02	23.30	1.067	0.143	/
	DSI6		Right Edge	10	38000	2595	1	Low	-0.02	0.052	23.02	23.30	1.067	0.055	/
	DSI6		Bottom Edge	10	38000	2595	1	Low	0.13	0.214	23.02	23.30	1.067	0.228	/
	DSI6		Front Side	10	38000	2595	50	Low	0.00	0.184	22.96	23.30	1.081	0.199	/
	DSI6		Back Side	10	38000	2595	50	Low	0.07	0.210	22.96	23.30	1.081	0.227	/
	DSI6		Left Edge	10	38000	2595	50	Low	0.07	0.119	22.96	23.30	1.081	0.129	/
	DSI6		Right Edge	10	38000	2595	50	Low	0.03	0.039	22.96	23.30	1.081	0.042	/
	DSI6		Bottom Edge	10	38000	2595	50	Low	-0.17	0.162	22.96	23.30	1.081	0.175	/

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
Specific															
Ant.13#	DSI4	QPSK	Back Side	0	38000	2595	1	Mid	-0.09	0.678	19.70	19.80	1.023	0.694	/
	DSI4		Back Side	0	38000	2595	50	Mid	-0.05	0.674	19.67	19.80	1.030	0.694	/
	DSI4		Top Edge	0	38000	2595	1	Mid	-0.12	1.270	19.70	19.80	1.023	1.299	50#
	DSI4		Top Edge	0	38000	2595	50	Mid	0.02	1.220	19.67	19.80	1.030	1.257	/
Ant.13#	DSI5	QPSK	Back Side	0	38000	2595	1	Mid	0.03	0.475	18.28	18.30	1.005	0.477	/
	DSI5		Back Side	0	38000	2595	50	Mid	-0.05	0.466	18.15	18.30	1.035	0.482	/
	DSI5		Top Edge	0	38000	2595	1	Mid	0.18	0.923	18.28	18.30	1.005	0.928	/
	DSI5		Top Edge	0	38000	2595	50	Mid	0.07	0.892	18.15	18.30	1.035	0.923	/
Senor(N-1)															
Ant.13#	DSI7	QPSK	Front Side	7	38000	2595	1	LOW	0.02	0.392	24.51	24.80	1.069	0.419	/
	DSI7	QPSK	Back Side	11	38000	2595	1	LOW	0.03	0.738	24.51	24.80	1.069	0.789	/
	DSI7	QPSK	Top Edge	13	38000	2595	1	LOW	0.040	0.757	24.51	24.80	1.069	0.809	/
	DSI7	QPSK	Front Side	7	38000	2595	50	Mid	-0.140	0.294	23.49	23.80	1.074	0.316	/
	DSI7	QPSK	Back Side	11	38000	2595	50	Mid	0.17	0.612	23.49	23.80	1.074	0.657	/
	DSI7	QPSK	Top Edge	13	38000	2595	50	Mid	-0.17	0.622	23.49	23.80	1.074	0.668	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.16 LTE Band 41 (20MHz Bandwidth)

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.31#	DSI2&3	QPSK	Left Cheek	0	40640	2595	1	Mid	0.10	0.133	24.45	24.80	1.084	0.144	/
	DSI2&3		Left Tilt	0	40640	2595	1	Mid	-0.15	0.138	24.45	24.80	1.084	0.150	/
	DSI2&3		Right Cheek	0	40640	2595	1	Mid	-0.05	0.271	24.45	24.80	1.084	0.294	51#
	DSI2&3		Right Tilt	0	40640	2595	1	Mid	0.07	0.098	24.45	24.80	1.084	0.106	/
	DSI2&3		Left Cheek	0	40640	2595	50	Mid	-0.12	0.105	23.55	23.80	1.059	0.111	/
	DSI2&3		Left Tilt	0	40640	2595	50	Mid	0.06	0.109	23.55	23.80	1.059	0.115	/
	DSI2&3		Right Cheek	0	40640	2595	50	Mid	0.02	0.231	23.55	23.80	1.059	0.245	/
	DSI2&3		Right Tilt	0	40640	2595	50	Mid	0.05	0.077	23.55	23.80	1.059	0.082	/
Body-worn															
Ant.13#	DSI4	QPSK	Front Side	15	40640	2595	1	Mid	0.01	0.095	20.13	20.30	1.040	0.099	/
	DSI4		Back Side	15	40640	2595	1	Mid	-0.06	0.314	20.13	20.30	1.040	0.327	52#
	DSI4		Front Side	15	40640	2595	50	Mid	0.02	0.076	20.08	20.30	1.052	0.080	/
	DSI4		Back Side	15	40640	2595	50	Mid	0.11	0.221	20.08	20.30	1.052	0.232	/
Ant.13#	DSI5	QPSK	Front Side	15	40640	2595	1	Mid	0.11	0.063	18.28	18.80	1.127	0.071	/
	DSI5		Back Side	15	40640	2595	1	Mid	0.16	0.205	18.28	18.80	1.127	0.231	/
	DSI5		Front Side	15	40640	2595	50	Mid	-0.14	0.052	18.24	18.80	1.138	0.059	/
	DSI5		Back Side	15	40640	2595	50	Mid	0.16	0.163	18.24	18.80	1.138	0.185	/
Ant.31#	DSI7	QPSK	Front Side	15	40640	2595	1	Mid	-0.03	0.188	24.45	24.80	1.084	0.204	/
	DSI7		Back Side	15	40640	2595	1	Mid	-0.08	0.205	24.45	24.80	1.084	0.222	/
	DSI7		Front Side	15	40640	2595	50	Mid	0.16	0.149	23.55	23.80	1.059	0.158	/
	DSI7		Back Side	15	40640	2595	50	Mid	0.06	0.154	23.55	23.80	1.059	0.163	/
Ant.31#	DSI6	QPSK	Front Side	15	40640	2595	1	Low	0.11	0.127	23.17	23.30	1.030	0.131	/
	DSI6		Back Side	15	40640	2595	1	Low	-0.05	0.141	23.17	23.30	1.030	0.145	/
	DSI6		Front Side	15	40640	2595	50	Low	0.11	0.102	23.15	23.30	1.035	0.106	/
	DSI6		Back Side	15	40640	2595	50	Low	0.12	0.106	23.15	23.30	1.035	0.110	/
Hotspot															
Ant.13#	DSI6	QPSK	Front Side	10	40640	2595	1	Mid	0.13	0.112	18.28	18.80	1.127	0.126	/
	DSI6		Back Side	10	40640	2595	1	Mid	-0.01	0.442	18.28	18.80	1.127	0.498	/
	DSI6		Left Edge	10	40640	2595	1	Mid	0.02	0.011	18.28	18.80	1.127	0.012	/
	DSI6		Right Edge	10	40640	2595	1	Mid	0.08	0.074	18.28	18.80	1.127	0.083	/
	DSI6		Top Edge	10	40640	2595	1	Mid	-0.03	0.540	18.28	18.80	1.127	0.609	53#
	DSI6		Front Side	10	40640	2595	50	Mid	0.15	0.092	18.24	18.80	1.138	0.105	/
	DSI6		Back Side	10	40640	2595	50	Mid	-0.03	0.362	18.24	18.80	1.138	0.412	/
	DSI6		Left Edge	10	40640	2595	50	Mid	-0.06	0.008	18.24	18.80	1.138	0.009	/
	DSI6		Right Edge	10	40640	2595	50	Mid	-0.11	0.056	18.24	18.80	1.138	0.064	/
	DSI6		Top Edge	10	40640	2595	50	Mid	0.07	0.440	18.24	18.80	1.138	0.501	/

Ant.31#	DSI6	QPSK	Front Side	10	40640	2595	1	Low	-0.02	0.285	23.17	23.30	1.030	0.294	/
	DSI6		Back Side	10	40640	2595	1	Low	-0.15	0.333	23.17	23.30	1.030	0.343	/
	DSI6		Left Edge	10	40640	2595	1	Low	-0.03	0.162	23.17	23.30	1.030	0.167	/
	DSI6		Right Edge	10	40640	2595	1	Low	-0.11	0.062	23.17	23.30	1.030	0.064	/
	DSI6		Bottom Edge	10	40640	2595	1	Low	0.18	0.240	23.17	23.30	1.030	0.247	/
	DSI6		Front Side	10	40640	2595	50	Low	0.18	0.236	23.15	23.30	1.035	0.244	/
	DSI6		Back Side	10	40640	2595	50	Low	0.12	0.248	23.15	23.30	1.035	0.257	/
	DSI6		Left Edge	10	40640	2595	50	Low	-0.16	0.132	23.15	23.30	1.035	0.137	/
	DSI6		Right Edge	10	40640	2595	50	Low	-0.04	0.044	23.15	23.30	1.035	0.046	/
	DSI6		Bottom Edge	10	40640	2595	50	Low	0.06	0.185	23.15	23.30	1.035	0.191	/

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

Antenna	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	10g Meas SA R(W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	10g Scaled SAR (W/kg)	Meas. No.
Specific															
Ant.13#	DSI4	QPSK	Back Side	0	40640	2595	1	Mid	0.09	0.723	20.13	20.30	1.040	0.752	/
	DSI4		Back Side	0	40640	2595	50	Mid	-0.16	0.735	20.08	20.30	1.052	0.773	/
	DSI4		Top Edge	0	40640	2595	1	Mid	-0.03	1.380	20.13	20.30	1.040	1.435	54#
	DSI4		Top Edge	0	40640	2595	50	Mid	0.02	1.290	20.08	20.30	1.052	1.357	/
	DSI5		Back Side	0	40640	2595	1	Mid	0.07	0.465	18.28	18.80	1.127	0.524	/
	DSI5		Back Side	0	40640	2595	50	Mid	-0.08	0.474	18.24	18.80	1.138	0.539	/
	DSI5		Top Edge	0	40640	2595	1	Mid	0.16	0.906	18.28	18.80	1.127	1.021	/
	DSI5		Top Edge	0	40640	2595	50	Mid	0.02	0.872	18.24	18.80	1.138	0.992	/
Senor(N-1)															
Ant.13#	DSI7	QPSK	Front Side	7	40640	2595	1	Mid	0.12	0.411	24.68	24.80	1.028	0.423	/
	DSI7	QPSK	Back Side	11	40640	2595	1	Mid	0.13	0.754	24.68	24.80	1.028	0.775	/
	DSI7	QPSK	Top Edge	13	40640	2595	1	Mid	0.02	0.723	24.68	24.80	1.028	0.743	/
	DSI7	QPSK	Front Side	7	40640	2595	50	HIGH	-0.12	0.294	23.07	23.80	1.183	0.348	/
	DSI7	QPSK	Back Side	11	40640	2595	50	HIGH	0.00	0.600	23.07	23.80	1.183	0.710	/
	DSI7	QPSK	Top Edge	13	40640	2595	50	HIGH	-0.16	0.580	23.07	23.80	1.183	0.686	/

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

11.17 WIFI 2.4GHz

Antenna	Power Reducti on	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune- power (dBm)	Scaling Factor	Duty Cycle (%)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head															
Ant.22#	Level1	802.11 b	Left Cheek	0	6	2437	-0.03	0.573	17.37	18.50	1.297	97.56	1.025	0.762	55#
	Level1	802.11 b	Left Tilt	0	6	2437	0.08	0.431	17.37	18.50	1.297	97.56	1.025	0.573	/
	Level1	802.11 b	Right Cheek	0	6	2437	-0.13	0.356	17.37	18.50	1.297	97.56	1.025	0.473	/
	Level1	802.11 b	Right Tilt	0	6	2437	-0.12	0.378	17.37	18.50	1.297	97.56	1.025	0.503	/
Ant.22#	Level2	802.11 b	Left Cheek	0	6	2437	-0.13	0.501	16.84	18.00	1.306	97.56	1.025	0.671	/
	Level2	802.11 b	Left Tilt	0	6	2437	-0.12	0.375	16.84	18.00	1.306	97.56	1.025	0.502	/
	Level2	802.11 b	Right Cheek	0	6	2437	0.12	0.312	16.84	18.00	1.306	97.56	1.025	0.418	/
	Level2	802.11 b	Right Tilt	0	6	2437	-0.11	0.326	16.84	18.00	1.306	97.56	1.025	0.436	/
Body-Worn															
Ant.22#	Level3	802.11 b	Front Side	15	6	2437	-0.16	0.082	19.36	20.00	1.159	97.56	1.025	0.097	/
	Level3	802.11 b	Back Side	15	6	2437	-0.08	0.210	19.36	20.00	1.159	97.56	1.025	0.249	56#
Ant.22#	Level4	802.11 b	Front Side	15	6	2437	0.15	0.067	18.75	19.50	1.189	97.56	1.025	0.082	/
	Level4	802.11 b	Back Side	15	6	2437	0.17	0.182	18.75	19.50	1.189	97.56	1.025	0.222	/
Hotspot															
Ant.22#	Level4	802.11 b	Front Side	10	6	2437	0.05	0.137	18.75	19.50	1.189	97.56	1.025	0.167	/
	Level4	802.11 b	Back Side	10	6	2437	-0.06	0.262	18.75	19.50	1.189	97.56	1.025	0.319	/
	Level4	802.11 b	Left Edge	10	6	2437	0.12	0.173	18.75	19.50	1.189	97.56	1.025	0.211	/
	Level4	802.11 b	Top Edge	10	6	2437	-0.04	0.271	18.75	19.50	1.189	97.56	1.025	0.330	57#
Note: Refer to ANNEX C for the detailed test data for each test configuration.															

11.18 WIFI 5GHz

Antenna	Band	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune- power (dBm)	Scaling Factor	Duty Cycle (%)	Scaling Factor	1 g Scaled SAR (W/kg)	Meas. No.
Head																
Ant.22#	5.2G	Level 1	802.11n40	Left Cheek	0	46	5230	0.17	0.062	14.06	15.00	1.242	98.30	1.017	0.078	/
		Level 1	802.11n40	Left Tilt	0	46	5230	-0.05	0.105	14.06	15.00	1.242	98.30	1.017	0.133	/
		Level 1	802.11n40	Right Cheek	0	46	5230	-0.05	0.075	14.06	15.00	1.242	98.30	1.017	0.095	/
		Level 1	802.11n40	Right Tilt	0	46	5230	0.05	0.108	14.06	15.00	1.242	98.30	1.017	0.136	58#
Ant.22#	5.2G	Level 2	802.11n40	Left Cheek	0	46	5230	-0.01	0.049	13.57	14.50	1.239	98.30	1.017	0.062	/
		Level 2	802.11n40	Left Tilt	0	46	5230	0.04	0.093	13.57	14.50	1.239	98.30	1.017	0.117	/
		Level 2	802.11n40	Right Cheek	0	46	5230	-0.06	0.065	13.57	14.50	1.239	98.30	1.017	0.082	/
		Level 2	802.11n40	Right Tilt	0	46	5230	-0.09	0.092	13.57	14.50	1.239	98.30	1.017	0.116	/
Ant.22#	5.6G	Level 1	802.11ac(VHT80)	Left Cheek	0	122	5610	-0.05	0.124	14.32	15.00	1.169	96.44	1.037	0.150	/
		Level 1	802.11 ac(VHT80)	Left Tilt	0	122	5610	-0.17	0.147	14.32	15.00	1.169	96.44	1.037	0.178	/
		Level 1	802.11 ac(VHT80)	Right Cheek	0	122	5610	-0.19	0.132	14.32	15.00	1.169	96.44	1.037	0.160	/
		Level 1	802.11 ac(VHT80)	Right Tilt	0	122	5610	-0.11	0.153	14.32	15.00	1.169	96.44	1.037	0.185	59#
Ant.22#	5.6G	Level 2	802.11ac(VHT80)	Left Cheek	0	122	5610	0.18	0.105	13.87	14.50	1.156	96.44	1.037	0.126	/
		Level 2	802.11 ac(VHT80)	Left Tilt	0	122	5610	-0.07	0.126	13.87	14.50	1.156	96.44	1.037	0.151	/
		Level 2	802.11 ac(VHT80)	Right Cheek	0	122	5610	0.11	0.115	13.87	14.50	1.156	96.44	1.037	0.138	/
		Level 2	802.11 ac(VHT80)	Right Tilt	0	122	5610	-0.07	0.131	13.87	14.50	1.156	96.44	1.037	0.157	/
Ant.22#	5.8G	Level 1&2	802.11ac(VHT80)	Left Cheek	0	155	5775	0.15	0.098	12.64	13.50	1.219	96.44	1.037	0.124	/
		Level 1&2	802.11 ac(VHT80)	Left Tilt	0	155	5775	-0.04	0.116	12.64	13.50	1.219	96.44	1.037	0.147	/
		Level 1&2	802.11 ac(VHT80)	Right Cheek	0	155	5775	0.11	0.102	12.64	13.50	1.219	96.44	1.037	0.129	/
		Level 1&2	802.11 ac(VHT80)	Right Tilt	0	155	5775	-0.04	0.123	12.64	13.50	1.219	96.44	1.037	0.155	60#
Body-worn																
Ant.22#	5.3G	Level 3	802.11 n(HT40)	Front Side	15	54	5270	-0.04	0.133	18.56	19.00	1.107	98.30	1.017	0.150	/
	5.3G	Level 3	802.11 n(HT40)	Back Side	15	54	5270	-0.12	0.206	18.56	19.00	1.107	98.30	1.017	0.232	61#
Ant.22#	5.3G	Level 4	802.11 n(HT40)	Front Side	15	54	5270	0.16	0.075	16.16	17.00	1.213	98.30	1.017	0.093	/
	5.3G	Level 4	802.11 n(HT40)	Back Side	15	54	5270	0.01	0.115	16.16	17.00	1.213	98.30	1.017	0.142	/
Ant.22#	5.6G	Level 3	802.11ac(VHT80)	Front Side	15	122	5610	-0.05	0.101	17.79	18.00	1.050	96.44	1.037	0.110	/
	5.6G	Level 3	802.11 ac(VHT80)	Back Side	15	122	5610	0.01	0.165	17.79	18.00	1.050	96.44	1.037	0.180	62#
Ant.22#	5.6G	Level 4	802.11ac(VHT80)	Front Side	15	122	5610	-0.19	0.051	15.11	16.00	1.227	96.44	1.037	0.065	/
	5.6G	Level 4	802.11 ac(VHT80)	Back Side	15	122	5610	0.06	0.085	15.11	16.00	1.227	96.44	1.037	0.108	/
Ant.22#	5.8G	Level 3	802.11ac(VHT80)	Front Side	15	155	5775	-0.06	0.091	17.18	17.50	1.076	96.44	1.037	0.102	/
	5.8G	Level 3	802.11ac(VHT80)	Back Side	15	155	5775	0.06	0.199	17.18	17.50	1.076	96.44	1.037	0.222	63#
Ant.22#	5.8G	Level 4	802.11ac(VHT80)	Front Side	15	155	5775	0.16	0.054	15.05	15.50	1.109	96.44	1.037	0.062	/
	5.8G	Level 4	802.11 ac(VHT80)	Back Side	15	155	5775	-0.19	0.116	15.05	15.50	1.109	96.44	1.037	0.133	/
Hotspot																
Ant.22#	5.2G	Level 4	802.11 n(HT40)	Front Side	10	46	5230	-0.13	0.293	16.93	17.50	1.140	98.30	1.017	0.340	/
	5.2G	Level 4	802.11 n(HT40)	Back Side	10	46	5230	0.17	0.375	16.93	17.50	1.140	98.30	1.017	0.435	/

	5.2G	Level 4	802.11 n(HT40)	Left Edge	10	46	5230	-0.04	0.548	16.93	17.50	1.140	98.30	1.017	0.635	64#
	5.2G	Level 4	802.11 n(HT40)	Top Edge	10	46	5230	0.05	0.426	16.93	17.50	1.140	98.30	1.017	0.494	/
Ant.22#	5.8G	Level 4	802.11ac(VHT80)	Front Side	10	155	5775	0.01	0.163	15.05	15.50	1.109	96.44	1.037	0.187	/
	5.8G	Level 4	802.11ac(VHT80)	Back Side	10	155	5775	-0.08	0.287	15.05	15.50	1.109	96.44	1.037	0.330	/
	5.8G	Level 4	802.11ac(VHT80)	Left Edge	10	155	5775	-0.14	0.294	15.05	15.50	1.109	96.44	1.037	0.338	/
	5.8G	Level 4	802.11ac(VHT80)	Top Edge	10	155	5775	-0.04	0.374	15.05	15.50	1.109	96.44	1.037	0.430	65#
Note: Refer to ANNEX C for the detailed test data for each test configuration.																

Antenna	Band	Power Reduction	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10 g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-power (dBm)	Scaling Factor	Duty Cycle (%)	Scaling Factor	10 g Scaled SAR (W/kg)	Meas. No.
Specific																
Ant.22#	5.3G	Level 3	802.11 n(HT40)	Front Side	0	54	5270	0.03	0.783	18.56	19.00	1.107	98.30	1.017	0.882	/
	5.3G	Level 3	802.11 n(HT40)	Back Side	0	54	5270	-0.03	0.372	18.56	19.00	1.107	98.30	1.017	0.419	/
	5.3G	Level 3	802.11 n(HT40)	Left Edge	0	54	5270	-0.10	1.010	18.56	19.00	1.107	98.30	1.017	1.137	66#
	5.3G	Level 3	802.11 n(HT40)	Top Edge	0	54	5270	-0.03	0.811	18.56	19.00	1.107	98.30	1.017	0.913	/
Ant.22#	5.3G	Level 4	802.11 n(HT40)	Front Side	0	54	5270	0.18	0.433	16.16	17.00	1.213	98.30	1.017	0.534	/
	5.3G	Level 4	802.11 n(HT40)	Back Side	0	54	5270	-0.08	0.204	16.16	17.00	1.213	98.30	1.017	0.252	/
	5.3G	Level 4	802.11 n(HT40)	Left Edge	0	54	5270	-0.06	0.562	16.16	17.00	1.213	98.30	1.017	0.693	/
	5.3G	Level 4	802.11 n(HT40)	Top Edge	0	54	5270	0.17	0.453	16.16	17.00	1.213	98.30	1.017	0.559	/
Ant.22#	5.6G	Level 3	802.11ac(VHT80)	Front Side	0	122	5610	0.15	0.414	17.79	18.00	1.050	96.44	1.037	0.451	/
	5.6G	Level 3	802.11 ac(VHT80)	Back Side	0	122	5610	-0.04	0.215	17.79	18.00	1.050	96.44	1.037	0.234	/
	5.6G	Level 3	802.11 ac(VHT80)	Left Edge	0	122	5610	0.02	0.319	17.79	18.00	1.050	96.44	1.037	0.347	/
	5.6G	Level 3	802.11 ac(VHT80)	Top Edge	0	122	5610	-0.12	0.721	17.79	18.00	1.050	96.44	1.037	0.785	67#
Ant.22#	5.6G	Level 4	802.11ac(VHT80)	Front Side	0	122	5610	-0.15	0.215	15.11	16.00	1.227	96.44	1.037	0.274	/
	5.6G	Level 4	802.11 ac(VHT80)	Back Side	0	122	5610	-0.06	0.103	15.11	16.00	1.227	96.44	1.037	0.131	/
	5.6G	Level 4	802.11 ac(VHT80)	Left Edge	0	122	5610	-0.16	0.181	15.11	16.00	1.227	96.44	1.037	0.230	/
	5.6G	Level 4	802.11 ac(VHT80)	Top Edge	0	122	5610	0.06	0.384	15.11	16.00	1.227	96.44	1.037	0.489	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																

11.19 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.
Head														
Ant.22#	DH5	Left Cheek	0	39	2441	-0.02	0.143	11.65	12.00	1.084	76.88	1.301	0.202	68#
	DH5	Left Tilt	0	39	2441	0.04	0.113	11.65	12.00	1.084	76.88	1.301	0.159	/
	DH5	Right Cheek	0	39	2441	-0.02	0.089	11.65	12.00	1.084	76.88	1.301	0.126	/
	DH5	Right Tilt	0	39	2441	0.10	0.097	11.65	12.00	1.084	76.88	1.301	0.137	/
Body-worn														
Ant.22#	DH5	Front Side	15	39	2441	0.09	0.013	11.65	12.00	1.084	76.88	1.301	0.018	/
	DH5	Back Side	15	39	2441	-0.12	0.036	11.65	12.00	1.084	76.88	1.301	0.051	69#
Hotspot														
Ant.22#	DH5	Front Side	10	39	2441	0.19	0.019	11.65	12.00	1.084	76.88	1.301	0.027	/
	DH5	Back Side	10	39	2441	-0.07	0.046	11.65	12.00	1.084	76.88	1.301	0.065	70#
	DH5	Left Edge	10	39	2441	0.07	0.011	11.65	12.00	1.084	76.88	1.301	0.016	/
	DH5	Top Edge	10	39	2441	0.05	0.034	11.65	12.00	1.084	76.88	1.301	0.048	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.														

11.20 NFC SAR

1. 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 EIRP level (see guidance on determining the applicable antenna gain)
- c) Add the appropriate maximum ground reflection factor to the EIRP 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 EIRP of all chains in linear terms (e.g., Watts, mW).
- e) Convert the resultant EIRP level to an equivalent electric field strength using the following relationship: $E = \text{EIRP} - 20\log D + 104.8$

where:

E = electric field strength in dB μ V/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

Mode	f (MHz)	Max. E-Field strength (dB μ V/m)	D (m)	Ground reflection factor (dB)	ERP (dBm)
NFC (13.56MHz)	13.56	55.25	3	6	-34.01
Note: 1. Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies $\leq$ 30 MHz). 2.ERP= 55.25+20*Log(3) - 104.8 + 6 =-34.01 (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)	-34.01	Pmeas.(mW)	0.000397
Pth.(mW)	443.13		
NFC Estimated 1g SAR [W/kg]	<0.001		

11.20.1 Highest Total Exposure Ratio of Simultaneous Transmission

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

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

The maximum SAR value for Simultaneous Transmission is 1.134 [W/kg]. Therefore, the worst TER = (1.134+0.001)/1.6 = 0.709 < 1, the NFC SAR transmit simultaneously Pass.

12 SAR Measurement Variability

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

SAR repeated measurement procedure:

1. When the highest measured SAR is < 0.80 W/kg, repeated measurement is not required.
2. When the highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3. If the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 , or when the original or repeated measurement is ≥ 1.45 W/kg, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 , and the original, first or second repeated measurement is ≥ 1.5 W/kg, perform a third repeated measurement.
5. The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.

13 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).

13.1 Simultaneous Transmission Mode Consider

No.	Simultaneous Tx Combination	Head	Body-worn	Hotspot	Specific
1	WWAN+WIFI 2.4GHz	Yes	Yes	Yes	Yes
2	WWAN+WIFI 5GHz	Yes	Yes	Yes	Yes
3	WWAN+BT	Yes	Yes	Yes	Yes
Note: 1. Two WWAN antennas can switch automatically, but two WWAN antenna can't transmit simultaneously. 2. WiFi 2.4/5G and Bluetooth share the same antenna, and can't transmit simultaneously. 3. When stand-alone SAR is not required for a side of antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance. 4. The maximum SAR summation is calculated based on the same configuration and test position.					

13.2 Sum SAR of Simultaneous Transmission

13.2.1 Head Simultaneous Transmission SAR Evaluation for WWAN and WLAN and BT

Band	Antenna	Position	Standalone SAR				SUM SAR		
			1	2	3	4			
			WWAN	2.4GWIFI	5GWIFI Max.	Bluetooth	1+2	1+3	1+4
GSM850	Ant.13	Left Cheek	0.463	0.671	0.126	0.202	1.134	0.589	0.665
		Left Tilt	0.404	0.502	0.151	0.159	0.906	0.555	0.563
		Right Cheek	0.648	0.418	0.138	0.126	1.066	0.786	0.774
		Right Tilt	0.665	0.436	0.157	0.137	1.101	0.822	0.802
GSM850	Ant.31	Left Cheek	0.154	0.671	0.126	0.202	0.825	0.280	0.356
		Left Tilt	0.080	0.502	0.151	0.159	0.582	0.231	0.239
		Right Cheek	0.138	0.418	0.138	0.126	0.556	0.276	0.264
		Right Tilt	0.068	0.436	0.157	0.137	0.504	0.225	0.205
GSM1900	Ant.13	Left Cheek	0.258	0.671	0.126	0.202	0.929	0.384	0.460
		Left Tilt	0.370	0.502	0.151	0.159	0.872	0.521	0.529
		Right Cheek	0.438	0.418	0.138	0.126	0.856	0.576	0.564
		Right Tilt	0.556	0.436	0.157	0.137	0.992	0.713	0.693
GSM1900	Ant.31	Left Cheek	0.093	0.671	0.126	0.202	0.764	0.219	0.295
		Left Tilt	0.061	0.502	0.151	0.159	0.563	0.212	0.220
		Right Cheek	0.069	0.418	0.138	0.126	0.487	0.207	0.195
		Right Tilt	0.059	0.436	0.157	0.137	0.495	0.216	0.196
WCDMA B2	Ant.31	Left Cheek	0.196	0.671	0.126	0.202	0.867	0.322	0.398
		Left Tilt	0.123	0.502	0.151	0.159	0.625	0.274	0.282
		Right Cheek	0.133	0.418	0.138	0.126	0.551	0.271	0.259
		Right Tilt	0.122	0.436	0.157	0.137	0.558	0.279	0.259
WCDMA B4	Ant.31	Left Cheek	0.100	0.671	0.126	0.202	0.771	0.226	0.302
		Left Tilt	0.056	0.502	0.151	0.159	0.558	0.207	0.215
		Right Cheek	0.076	0.418	0.138	0.126	0.494	0.214	0.202
		Right Tilt	0.062	0.436	0.157	0.137	0.498	0.219	0.199
WCDMA B5	Ant.13	Left Cheek	0.404	0.671	0.126	0.202	1.075	0.530	0.606
		Left Tilt	0.389	0.502	0.151	0.159	0.891	0.540	0.548
		Right Cheek	0.552	0.418	0.138	0.126	0.970	0.690	0.678
		Right Tilt	0.560	0.436	0.157	0.137	0.996	0.717	0.697
WCDMA B5	Ant.31	Left Cheek	0.138	0.671	0.126	0.202	0.809	0.264	0.340
		Left Tilt	0.074	0.502	0.151	0.159	0.576	0.225	0.233
		Right Cheek	0.116	0.418	0.138	0.126	0.534	0.254	0.242
		Right Tilt	0.056	0.436	0.157	0.137	0.492	0.213	0.193
LTE B2	Ant.31	Left Cheek	0.162	0.671	0.126	0.202	0.833	0.288	0.364
		Left Tilt	0.097	0.502	0.151	0.159	0.599	0.248	0.256
		Right Cheek	0.126	0.418	0.138	0.126	0.544	0.264	0.252
		Right Tilt	0.108	0.436	0.157	0.137	0.544	0.265	0.245

LTE B4	Ant.31	Left Cheek	0.100	0.671	0.126	0.202	0.771	0.226	0.302
		Left Tilt	0.051	0.502	0.151	0.159	0.553	0.202	0.210
		Right Cheek	0.085	0.418	0.138	0.126	0.503	0.223	0.211
		Right Tilt	0.056	0.436	0.157	0.137	0.492	0.213	0.193
LTE B5	Ant.13	Left Cheek	0.294	0.671	0.126	0.202	0.965	0.420	0.496
		Left Tilt	0.281	0.502	0.151	0.159	0.783	0.432	0.440
		Right Cheek	0.389	0.418	0.138	0.126	0.807	0.527	0.515
		Right Tilt	0.423	0.436	0.157	0.137	0.859	0.580	0.560
LTE B5	Ant.31	Left Cheek	0.127	0.671	0.126	0.202	0.798	0.253	0.329
		Left Tilt	0.075	0.502	0.151	0.159	0.577	0.226	0.234
		Right Cheek	0.108	0.418	0.138	0.126	0.526	0.246	0.234
		Right Tilt	0.060	0.436	0.157	0.137	0.496	0.217	0.197
LTE B7	Ant.31	Left Cheek	0.184	0.671	0.126	0.202	0.855	0.310	0.386
		Left Tilt	0.164	0.502	0.151	0.159	0.666	0.315	0.323
		Right Cheek	0.344	0.418	0.138	0.126	0.762	0.482	0.470
		Right Tilt	0.148	0.436	0.157	0.137	0.584	0.305	0.285
LTE B13	Ant.13	Left Cheek	0.325	0.671	0.126	0.202	0.996	0.451	0.527
		Left Tilt	0.310	0.502	0.151	0.159	0.812	0.461	0.469
		Right Cheek	0.519	0.418	0.138	0.126	0.937	0.657	0.645
		Right Tilt	0.487	0.436	0.157	0.137	0.923	0.644	0.624
LTE B13	Ant.31	Left Cheek	0.114	0.671	0.126	0.202	0.785	0.240	0.316
		Left Tilt	0.070	0.502	0.151	0.159	0.572	0.221	0.229
		Right Cheek	0.084	0.418	0.138	0.126	0.502	0.222	0.210
		Right Tilt	0.053	0.436	0.157	0.137	0.489	0.210	0.190
LTE B18	Ant.13	Left Cheek	0.387	0.671	0.126	0.202	1.058	0.513	0.589
		Left Tilt	0.373	0.502	0.151	0.159	0.875	0.524	0.532
		Right Cheek	0.498	0.418	0.138	0.126	0.916	0.636	0.624
		Right Tilt	0.532	0.436	0.157	0.137	0.968	0.689	0.669
LTE B18	Ant.31	Left Cheek	0.097	0.671	0.126	0.202	0.768	0.223	0.299
		Left Tilt	0.052	0.502	0.151	0.159	0.554	0.203	0.211
		Right Cheek	0.083	0.418	0.138	0.126	0.501	0.221	0.209
		Right Tilt	0.003	0.436	0.157	0.137	0.439	0.160	0.140
LTE B19	Ant.13	Left Cheek	0.388	0.671	0.126	0.202	1.059	0.514	0.590
		Left Tilt	0.367	0.502	0.151	0.159	0.869	0.518	0.526
		Right Cheek	0.614	0.418	0.138	0.126	1.032	0.752	0.740
		Right Tilt	0.523	0.436	0.157	0.137	0.959	0.680	0.660
LTE B19	Ant.31	Left Cheek	0.121	0.671	0.126	0.202	0.792	0.247	0.323
		Left Tilt	0.069	0.502	0.151	0.159	0.571	0.220	0.228
		Right Cheek	0.108	0.418	0.138	0.126	0.526	0.246	0.234
		Right Tilt	0.057	0.436	0.157	0.137	0.493	0.214	0.194
LTE B26	Ant.13	Left Cheek	0.330	0.671	0.126	0.202	1.001	0.456	0.532
		Left Tilt	0.312	0.502	0.151	0.159	0.814	0.463	0.471
		Right Cheek	0.451	0.418	0.138	0.126	0.869	0.589	0.577

		Right Tilt	0.455	0.436	0.157	0.137	0.891	0.612	0.592
LTE B26	Ant.31	Left Cheek	0.122	0.671	0.126	0.202	0.793	0.248	0.324
		Left Tilt	0.069	0.502	0.151	0.159	0.571	0.220	0.228
		Right Cheek	0.111	0.418	0.138	0.126	0.529	0.249	0.237
		Right Tilt	0.053	0.436	0.157	0.137	0.489	0.210	0.190
LTE 66	Ant.31	Left Cheek	0.121	0.671	0.126	0.202	0.792	0.247	0.323
		Left Tilt	0.080	0.502	0.151	0.159	0.582	0.231	0.239
		Right Cheek	0.115	0.418	0.138	0.126	0.533	0.253	0.241
		Right Tilt	0.082	0.436	0.157	0.137	0.518	0.239	0.219
LTE B38	Ant.31	Left Cheek	0.164	0.671	0.126	0.202	0.835	0.290	0.366
		Left Tilt	0.176	0.502	0.151	0.159	0.678	0.327	0.335
		Right Cheek	0.333	0.418	0.138	0.126	0.751	0.471	0.459
		Right Tilt	0.131	0.436	0.157	0.137	0.567	0.288	0.268
LTE B41	Ant.31	Left Cheek	0.144	0.671	0.126	0.202	0.815	0.270	0.346
		Left Tilt	0.150	0.502	0.151	0.159	0.652	0.301	0.309
		Right Cheek	0.294	0.418	0.138	0.126	0.712	0.432	0.420
		Right Tilt	0.106	0.436	0.157	0.137	0.542	0.263	0.243
Note: The highest Summed 1g SAR is 1.134 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.									

13.2.2 Body-Worn Simultaneous Transmission SAR Evaluation for WWAN and WLAN and BT

Band	Antenna	Position	Standalone SAR				SUM SAR		
			1	2	3	4			
			WWAN	2.4GWIFI	5GWIFI Max.	Bluetooth	1+2	1+3	1+4
GSM850	Ant.13	Front Side 15mm	0.172	0.082	0.093	0.018	0.254	0.265	0.190
		Back Side 15mm	0.211	0.222	0.142	0.051	0.433	0.353	0.262
GSM850	Ant.31	Front Side 15mm	0.105	0.082	0.093	0.018	0.187	0.198	0.123
		Back Side 15mm	0.113	0.222	0.142	0.051	0.335	0.255	0.164
GSM1900	Ant.13	Front Side 15mm	0.143	0.082	0.093	0.018	0.225	0.236	0.161
		Back Side 15mm	0.202	0.222	0.142	0.051	0.424	0.344	0.253
GSM1900	Ant.31	Front Side 15mm	0.163	0.082	0.093	0.018	0.245	0.256	0.181
		Back Side 15mm	0.260	0.222	0.142	0.051	0.482	0.402	0.311
WCDMA B2	Ant.13	Front Side 15mm	0.087	0.082	0.093	0.018	0.169	0.180	0.105
		Back Side 15mm	0.132	0.222	0.142	0.051	0.354	0.274	0.183
WCDMA B2	Ant.31	Front Side 15mm	0.098	0.082	0.093	0.018	0.180	0.191	0.116
		Back Side 15mm	0.165	0.222	0.142	0.051	0.387	0.307	0.216
WCDMA B4	Ant.13	Front Side 15mm	0.085	0.082	0.093	0.018	0.167	0.178	0.103
		Back Side 15mm	0.092	0.222	0.142	0.051	0.314	0.234	0.143
WCDMA B4	Ant.31	Front Side 15mm	0.078	0.082	0.093	0.018	0.160	0.171	0.096
		Back Side 15mm	0.119	0.222	0.142	0.051	0.341	0.261	0.170
WCDMA B5	Ant.13	Front Side 15mm	0.143	0.082	0.093	0.018	0.225	0.236	0.161
		Back Side 15mm	0.182	0.222	0.142	0.051	0.404	0.324	0.233

WCDMA B5	Ant.31	Front Side 15mm	0.088	0.082	0.093	0.018	0.170	0.181	0.106
		Back Side 15mm	0.094	0.222	0.142	0.051	0.316	0.236	0.145
LTE B2	Ant.13	Front Side 15mm	0.114	0.082	0.093	0.018	0.196	0.207	0.132
		Back Side 15mm	0.165	0.222	0.142	0.051	0.387	0.307	0.216
LTE B2	Ant.31	Front Side 15mm	0.115	0.082	0.093	0.018	0.197	0.208	0.133
		Back Side 15mm	0.203	0.222	0.142	0.051	0.425	0.345	0.254
LTE B4	Ant.13	Front Side 15mm	0.100	0.082	0.093	0.018	0.182	0.193	0.118
		Back Side 15mm	0.111	0.222	0.142	0.051	0.333	0.253	0.162
LTE B4	Ant.31	Front Side 15mm	0.046	0.082	0.093	0.018	0.128	0.139	0.064
		Back Side 15mm	0.066	0.222	0.142	0.051	0.288	0.208	0.117
LTE B5	Ant.13	Front Side 15mm	0.148	0.082	0.093	0.018	0.230	0.241	0.166
		Back Side 15mm	0.228	0.222	0.142	0.051	0.450	0.370	0.279
LTE B5	Ant.31	Front Side 15mm	0.132	0.082	0.093	0.018	0.214	0.225	0.150
		Back Side 15mm	0.156	0.222	0.142	0.051	0.378	0.298	0.207
LTE B7	Ant.13	Front Side 15mm	0.058	0.082	0.093	0.018	0.140	0.151	0.076
		Back Side 15mm	0.182	0.222	0.142	0.051	0.404	0.324	0.233
LTE B7	Ant.31	Front Side 15mm	0.065	0.082	0.093	0.018	0.147	0.158	0.083
		Back Side 15mm	0.095	0.222	0.142	0.051	0.317	0.237	0.146
LTE B13	Ant.13	Front Side 15mm	0.129	0.082	0.093	0.018	0.211	0.222	0.147
		Back Side 15mm	0.172	0.222	0.142	0.051	0.394	0.314	0.223
LTE B13	Ant.31	Front Side 15mm	0.168	0.082	0.093	0.018	0.250	0.261	0.186
		Back Side 15mm	0.190	0.222	0.142	0.051	0.412	0.332	0.241

LTE B18	Ant.13	Front Side 15mm	0.120	0.082	0.093	0.018	0.202	0.213	0.138
		Back Side 15mm	0.165	0.222	0.142	0.051	0.387	0.307	0.216
LTE B18	Ant.31	Front Side 15mm	0.100	0.082	0.093	0.018	0.182	0.193	0.118
		Back Side 15mm	0.123	0.222	0.142	0.051	0.345	0.265	0.174
LTE B19	Ant.13	Front Side 15mm	0.156	0.082	0.093	0.018	0.238	0.249	0.174
		Back Side 15mm	0.220	0.222	0.142	0.051	0.442	0.362	0.271
LTE B19	Ant.31	Front Side 15mm	0.128	0.082	0.093	0.018	0.210	0.221	0.146
		Back Side 15mm	0.150	0.222	0.142	0.051	0.372	0.292	0.201
LTE B26	Ant.13	Front Side 15mm	0.142	0.082	0.093	0.018	0.224	0.235	0.160
		Back Side 15mm	0.200	0.222	0.142	0.051	0.422	0.342	0.251
LTE B26	Ant.31	Front Side 15mm	0.130	0.082	0.093	0.018	0.212	0.223	0.148
		Back Side 15mm	0.149	0.222	0.142	0.051	0.371	0.291	0.200
LTE B66	Ant.13	Front Side 15mm	0.087	0.082	0.093	0.018	0.169	0.180	0.105
		Back Side 15mm	0.094	0.222	0.142	0.051	0.316	0.236	0.145
LTE B66	Ant.31	Front Side 15mm	0.105	0.082	0.093	0.018	0.187	0.198	0.123
		Back Side 15mm	0.167	0.222	0.142	0.051	0.389	0.309	0.218
LTE B38	Ant.13	Front Side 15mm	0.055	0.082	0.093	0.018	0.137	0.148	0.073
		Back Side 15mm	0.202	0.222	0.142	0.051	0.424	0.344	0.253
LTE B38	Ant.31	Front Side 15mm	0.142	0.082	0.093	0.018	0.224	0.235	0.160
		Back Side 15mm	0.148	0.222	0.142	0.051	0.370	0.290	0.199
LTE B41	Ant.13	Front Side 15mm	0.071	0.082	0.093	0.018	0.153	0.164	0.089
		Back Side 15mm	0.231	0.222	0.142	0.051	0.453	0.373	0.282

LTE B41	Ant.31	Front Side 15mm	0.131	0.082	0.093	0.018	0.213	0.224	0.149
		Back Side 15mm	0.145	0.222	0.142	0.051	0.367	0.287	0.196

Note: The highest Summed 1g SAR is 0.482 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.

13.2.3 Hotspot Simultaneous Transmission SAR Evaluation for WWAN and WLAN and BT

Band	Antenna	Position	Standalone SAR				SUM SAR		
			1	2	3	4			
			WWAN	2.4GWIFI	5GWIFI Max.	Bluetooth	1+2	1+3	1+4
GSM850	Ant.13	Front Side 10mm	0.279	0.167	0.340	0.027	0.446	0.619	0.306
		Back Side 10mm	0.332	0.319	0.435	0.065	0.651	0.767	0.397
		Left Edge 10mm	0.016	0.211	0.635	0.016	0.227	0.651	0.032
		Right Edge 10mm	0.061	0.000	0.000	0.000	0.061	0.061	0.061
		Top Edge 10mm	0.352	0.330	0.430	0.048	0.682	0.782	0.400
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GSM850	Ant.31	Front Side 10mm	0.134	0.167	0.340	0.027	0.301	0.474	0.161
		Back Side 10mm	0.196	0.319	0.435	0.065	0.515	0.631	0.261
		Left Edge 10mm	0.068	0.211	0.635	0.016	0.279	0.703	0.084
		Right Edge 10mm	0.100	0.000	0.000	0.000	0.100	0.100	0.100
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.154	0.000	0.000	0.000	0.154	0.154	0.154
GSM1900	Ant.13	Front Side 10mm	0.187	0.167	0.340	0.027	0.354	0.527	0.214
		Back Side 10mm	0.273	0.319	0.435	0.065	0.592	0.708	0.338
		Left Edge 10mm	0.016	0.211	0.635	0.016	0.227	0.651	0.032
		Right Edge 10mm	0.057	0.000	0.000	0.000	0.057	0.057	0.057
		Top Edge 10mm	0.427	0.330	0.430	0.048	0.757	0.857	0.475
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GSM1900	Ant.31	Front Side 10mm	0.208	0.167	0.340	0.027	0.375	0.548	0.235

		Back Side 10mm	0.325	0.319	0.435	0.065	0.644	0.760	0.390
		Left Edge 10mm	0.099	0.211	0.635	0.016	0.310	0.734	0.115
		Right Edge 10mm	0.046	0.000	0.000	0.000	0.046	0.046	0.046
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.477	0.000	0.000	0.000	0.477	0.477	0.477
WCDMA B2	Ant.13	Front Side 10mm	0.171	0.167	0.340	0.027	0.338	0.511	0.198
		Back Side 10mm	0.199	0.319	0.435	0.065	0.518	0.634	0.264
		Left Edge 10mm	0.015	0.211	0.635	0.016	0.226	0.650	0.031
		Right Edge 10mm	0.055	0.000	0.000	0.000	0.055	0.055	0.055
		Top Edge 10mm	0.479	0.330	0.430	0.048	0.809	0.909	0.527
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B2	Ant.31	Front Side 10mm	0.023	0.167	0.340	0.027	0.190	0.363	0.050
		Back Side 10mm	0.348	0.319	0.435	0.065	0.667	0.783	0.413
		Left Edge 10mm	0.096	0.211	0.635	0.016	0.307	0.731	0.112
		Right Edge 10mm	0.053	0.000	0.000	0.000	0.053	0.053	0.053
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.523	0.000	0.000	0.000	0.523	0.523	0.523
WCDMA B4	Ant.13	Front Side 10mm	0.152	0.167	0.340	0.027	0.319	0.492	0.179
		Back Side 10mm	0.163	0.319	0.435	0.065	0.482	0.598	0.228
		Left Edge 10mm	0.012	0.211	0.635	0.016	0.223	0.647	0.028
		Right Edge 10mm	0.034	0.000	0.000	0.000	0.034	0.034	0.034
		Top Edge 10mm	0.023	0.330	0.430	0.048	0.353	0.453	0.071

		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B4	Ant.31	Front Side 10mm	0.118	0.167	0.340	0.027	0.285	0.458	0.145
		Back Side 10mm	0.197	0.319	0.435	0.065	0.516	0.632	0.262
		Left Edge 10mm	0.045	0.211	0.635	0.016	0.256	0.680	0.061
		Right Edge 10mm	0.023	0.000	0.000	0.000	0.023	0.023	0.023
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.393	0.000	0.000	0.000	0.393	0.393	0.393
WCDMA B5	Ant.13	Front Side 10mm	0.230	0.167	0.340	0.027	0.397	0.570	0.257
		Back Side 10mm	0.317	0.319	0.435	0.065	0.636	0.752	0.382
		Left Edge 10mm	0.014	0.211	0.635	0.016	0.225	0.649	0.030
		Right Edge 10mm	0.091	0.000	0.000	0.000	0.091	0.091	0.091
		Top Edge 10mm	0.310	0.330	0.430	0.048	0.640	0.740	0.358
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B5	Ant.31	Front Side 10mm	0.101	0.167	0.340	0.027	0.268	0.441	0.128
		Back Side 10mm	0.158	0.319	0.435	0.065	0.477	0.593	0.223
		Left Edge 10mm	0.039	0.211	0.635	0.016	0.250	0.674	0.055
		Right Edge 10mm	0.081	0.000	0.000	0.000	0.081	0.081	0.081
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.124	0.000	0.000	0.000	0.124	0.124	0.124
LTE B2	Ant.13	Front Side 10mm	0.233	0.167	0.340	0.027	0.400	0.573	0.260
		Back Side 10mm	0.363	0.319	0.435	0.065	0.682	0.798	0.428
		Left Edge 10mm	0.003	0.211	0.635	0.016	0.214	0.638	0.019

		Right Edge 10mm	0.075	0.000	0.000	0.000	0.075	0.075	0.075
		Top Edge 10mm	0.481	0.330	0.430	0.048	0.811	0.911	0.529
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B2	Ant.31	Front Side 10mm	0.247	0.167	0.340	0.027	0.414	0.587	0.274
		Back Side 10mm	0.445	0.319	0.435	0.065	0.764	0.880	0.510
		Left Edge 10mm	0.062	0.211	0.635	0.016	0.273	0.697	0.078
		Right Edge 10mm	0.104	0.000	0.000	0.000	0.104	0.104	0.104
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.662	0.000	0.000	0.000	0.662	0.662	0.662
LTE B4	Ant.13	Front Side 10mm	0.190	0.167	0.340	0.027	0.357	0.530	0.217
		Back Side 10mm	0.213	0.319	0.435	0.065	0.532	0.648	0.278
		Left Edge 10mm	0.013	0.211	0.635	0.016	0.224	0.648	0.029
		Right Edge 10mm	0.051	0.000	0.000	0.000	0.051	0.051	0.051
		Top Edge 10mm	0.323	0.330	0.430	0.048	0.653	0.753	0.371
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B4	Ant.31	Front Side 10mm	0.151	0.167	0.340	0.027	0.318	0.491	0.178
		Back Side 10mm	0.252	0.319	0.435	0.065	0.571	0.687	0.317
		Left Edge 10mm	0.039	0.211	0.635	0.016	0.250	0.674	0.055
		Right Edge 10mm	0.030	0.000	0.000	0.000	0.030	0.030	0.030
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.372	0.000	0.000	0.000	0.372	0.372	0.372
LTE B5	Ant.13	Front Side 10mm	0.264	0.167	0.340	0.027	0.431	0.604	0.291

		Back Side 10mm	0.366	0.319	0.435	0.065	0.685	0.801	0.431
		Left Edge 10mm	0.024	0.211	0.635	0.016	0.235	0.659	0.040
		Right Edge 10mm	0.127	0.000	0.000	0.000	0.127	0.127	0.127
		Top Edge 10mm	0.359	0.330	0.430	0.048	0.689	0.789	0.407
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B5	Ant.31	Front Side 10mm	0.125	0.167	0.340	0.027	0.292	0.465	0.152
		Back Side 10mm	0.195	0.319	0.435	0.065	0.514	0.630	0.260
		Left Edge 10mm	0.086	0.211	0.635	0.016	0.297	0.721	0.102
		Right Edge 10mm	0.137	0.000	0.000	0.000	0.137	0.137	0.137
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.183	0.000	0.000	0.000	0.183	0.183	0.183
LTE B7	Ant.13	Front Side 10mm	0.104	0.167	0.340	0.027	0.271	0.444	0.131
		Back Side 10mm	0.348	0.319	0.435	0.065	0.667	0.783	0.413
		Left Edge 10mm	0.014	0.211	0.635	0.016	0.225	0.649	0.030
		Right Edge 10mm	0.053	0.000	0.000	0.000	0.053	0.053	0.053
		Top Edge 10mm	0.492	0.330	0.430	0.048	0.822	0.922	0.540
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B7	Ant.31	Front Side 10mm	0.151	0.167	0.340	0.027	0.318	0.491	0.178
		Back Side 10mm	0.219	0.319	0.435	0.065	0.538	0.654	0.284
		Left Edge 10mm	0.092	0.211	0.635	0.016	0.303	0.727	0.108
		Right Edge 10mm	0.094	0.000	0.000	0.000	0.094	0.094	0.094
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048

		Bottom Edge 10mm	0.324	0.000	0.000	0.000	0.324	0.324	0.324
LTE B13	Ant.13	Front Side 10mm	0.112	0.167	0.340	0.027	0.279	0.452	0.139
		Back Side 10mm	0.170	0.319	0.435	0.065	0.489	0.605	0.235
		Left Edge 10mm	0.027	0.211	0.635	0.016	0.238	0.662	0.043
		Right Edge 10mm	0.131	0.000	0.000	0.000	0.131	0.131	0.131
		Top Edge 10mm	0.150	0.330	0.430	0.048	0.480	0.580	0.198
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B13	Ant.31	Front Side 10mm	0.118	0.167	0.340	0.027	0.285	0.458	0.145
		Back Side 10mm	0.151	0.319	0.435	0.065	0.470	0.586	0.216
		Left Edge 10mm	0.064	0.211	0.635	0.016	0.275	0.699	0.080
		Right Edge 10mm	0.205	0.000	0.000	0.000	0.205	0.205	0.205
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.175	0.000	0.000	0.000	0.175	0.175	0.175
LTE B18	Ant.13	Front Side 10mm	0.110	0.167	0.340	0.027	0.277	0.450	0.137
		Back Side 10mm	0.155	0.319	0.435	0.065	0.474	0.590	0.220
		Left Edge 10mm	0.014	0.211	0.635	0.016	0.225	0.649	0.030
		Right Edge 10mm	0.052	0.000	0.000	0.000	0.052	0.052	0.052
		Top Edge 10mm	0.212	0.330	0.430	0.048	0.542	0.642	0.260
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B18	Ant.31	Front Side 10mm	0.056	0.167	0.340	0.027	0.223	0.396	0.083
		Back Side 10mm	0.099	0.319	0.435	0.065	0.418	0.534	0.164
		Left Edge 10mm	0.080	0.211	0.635	0.016	0.291	0.715	0.096

		Right Edge 10mm	0.064	0.000	0.000	0.000	0.064	0.064	0.064
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.080	0.000	0.000	0.000	0.080	0.080	0.080
LTE B19	Ant.13	Front Side 10mm	0.267	0.167	0.340	0.027	0.434	0.607	0.294
		Back Side 10mm	0.346	0.319	0.435	0.065	0.665	0.781	0.411
		Left Edge 10mm	0.050	0.211	0.635	0.016	0.261	0.685	0.066
		Right Edge 10mm	0.136	0.000	0.000	0.000	0.136	0.136	0.136
		Top Edge 10mm	0.319	0.330	0.430	0.048	0.649	0.749	0.367
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B19	Ant.31	Front Side 10mm	0.131	0.167	0.340	0.027	0.298	0.471	0.158
		Back Side 10mm	0.219	0.319	0.435	0.065	0.538	0.654	0.284
		Left Edge 10mm	0.077	0.211	0.635	0.016	0.288	0.712	0.093
		Right Edge 10mm	0.141	0.000	0.000	0.000	0.141	0.141	0.141
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.204	0.000	0.000	0.000	0.204	0.204	0.204
LTE B26	Ant.13	Front Side 10mm	0.155	0.167	0.340	0.027	0.322	0.495	0.182
		Back Side 10mm	0.214	0.319	0.435	0.065	0.533	0.649	0.279
		Left Edge 10mm	0.018	0.211	0.635	0.016	0.229	0.653	0.034
		Right Edge 10mm	0.067	0.000	0.000	0.000	0.067	0.067	0.067
		Top Edge 10mm	0.238	0.330	0.430	0.048	0.568	0.668	0.286
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B26	Ant.31	Front Side 10mm	0.085	0.167	0.340	0.027	0.252	0.425	0.112

		Back Side 10mm	0.130	0.319	0.435	0.065	0.449	0.565	0.195
		Left Edge 10mm	0.067	0.211	0.635	0.016	0.278	0.702	0.083
		Right Edge 10mm	0.090	0.000	0.000	0.000	0.090	0.090	0.090
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.105	0.000	0.000	0.000	0.105	0.105	0.105
LTE 66	Ant.13	Front Side 10mm	0.138	0.167	0.340	0.027	0.305	0.478	0.165
		Back Side 10mm	0.160	0.319	0.435	0.065	0.479	0.595	0.225
		Left Edge 10mm	0.012	0.211	0.635	0.016	0.223	0.647	0.028
		Right Edge 10mm	0.038	0.000	0.000	0.000	0.038	0.038	0.038
		Top Edge 10mm	0.253	0.330	0.430	0.048	0.583	0.683	0.301
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE 66	Ant.31	Front Side 10mm	0.158	0.167	0.340	0.027	0.325	0.498	0.185
		Back Side 10mm	0.264	0.319	0.435	0.065	0.583	0.699	0.329
		Left Edge 10mm	0.054	0.211	0.635	0.016	0.265	0.689	0.070
		Right Edge 10mm	0.028	0.000	0.000	0.000	0.028	0.028	0.028
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.407	0.000	0.000	0.000	0.407	0.407	0.407
LTE B38	Ant.13	Front Side 10mm	0.095	0.167	0.340	0.027	0.262	0.435	0.122
		Back Side 10mm	0.384	0.319	0.435	0.065	0.703	0.819	0.449
		Left Edge 10mm	0.016	0.211	0.635	0.016	0.227	0.651	0.032
		Right Edge 10mm	0.060	0.000	0.000	0.000	0.060	0.060	0.060
		Top Edge 10mm	0.479	0.330	0.430	0.048	0.809	0.909	0.527

		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B38	Ant.31	Front Side 10mm	0.256	0.167	0.340	0.027	0.423	0.596	0.283
		Back Side 10mm	0.294	0.319	0.435	0.065	0.613	0.729	0.359
		Left Edge 10mm	0.143	0.211	0.635	0.016	0.354	0.778	0.159
		Right Edge 10mm	0.055	0.000	0.000	0.000	0.055	0.055	0.055
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.228	0.000	0.000	0.000	0.228	0.228	0.228
LTE B41	Ant.13	Front Side 10mm	0.126	0.167	0.340	0.027	0.293	0.466	0.153
		Back Side 10mm	0.498	0.319	0.435	0.065	0.817	0.933	0.563
		Left Edge 10mm	0.012	0.211	0.635	0.016	0.223	0.647	0.028
		Right Edge 10mm	0.083	0.000	0.000	0.000	0.083	0.083	0.083
		Top Edge 10mm	0.609	0.330	0.430	0.048	0.939	1.039	0.657
		Bottom Edge 10mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B41	Ant.31	Front Side 10mm	0.294	0.167	0.340	0.027	0.461	0.634	0.321
		Back Side 10mm	0.343	0.319	0.435	0.065	0.662	0.778	0.408
		Left Edge 10mm	0.167	0.211	0.635	0.016	0.378	0.802	0.183
		Right Edge 10mm	0.064	0.000	0.000	0.000	0.064	0.064	0.064
		Top Edge 10mm	0.000	0.330	0.430	0.048	0.330	0.430	0.048
		Bottom Edge 10mm	0.247	0.000	0.000	0.000	0.247	0.247	0.247
Note:The highest Summed 1g SAR is 1.039 W/Kg < 1.6 W/kg, so Simultaneous Transmission SAR test is not required.									

13.2.4 Specific Simultaneous Transmission SAR Evaluation for WWAN and WLAN and BT

Band	Antenna	Position	Stand alone SAR		SUM SAR
			1	2	
			WWAN	5GWIFI Max.	
WCDMA B2	Ant.13	Top Edge 0mm	1.127	0.559	1.686
WCDMA B2	Ant.31	Bottom Edge 0mm	1.062	0.000	1.062
LTE B2	Ant.13	Top Edge 0mm	1.128	0.559	1.687
LTE B2	Ant.31	Bottom Edge 0mm	1.118	0.000	1.118
LTE B7	Ant.13	Back Side 0mm	0.482	0.252	0.734
		Top Edge 0mm	1.180	0.559	1.739
LTE 66	Ant.31	Bottom Edge 0mm	1.241	0.000	1.241
LTE B38	Ant.13	Back Side 0mm	0.482	0.252	0.734
		Top Edge 0mm	0.928	0.559	1.487
LTE B41	Ant.13	Back Side 0mm	0.539	0.252	0.791
		Top Edge 0mm	1.021	0.559	1.580

Note: The highest Summed 10g SAR is 1.739 W/Kg < 4.0 W/kg, so Simultaneous Transmission SAR test is not required.

14 TEST EQUIPMENTS LIST

Description	Manufacturer	Model	Serial No./Version	Cal. Date	Cal. Due
PC(1#)	Dell	N/A	N/A	N/A	N/A
PC(2#)	Dell	N/A	N/A	N/A	N/A
Test Software(1#)	Speag	DASY8	16.2.2.1588	N/A	N/A
Test Software(2#)	Speag	DASY8	16.2.2.1588	N/A	N/A
750MHz Validation Dipole	Speag	D750V3	SN: 1208	2024/08/19	2027/08/18
835MHz Validation Dipole	Speag	D835V2	SN: 4d187	2024/05/08	2027/05/07
1750MHz Validation Dipole	Speag	D1750V2	SN: 1130	2024/05/08	2027/05/07
1950MHz Validation Dipole	Speag	D1950V3	SN: 1240	2024/08/22	2027/08/21
2450MHz Validation Dipole	Speag	D2450V2	SN: 952	2024/05/07	2027/05/06
2600MHz Validation Dipole	Speag	D2600V2	SN: 1095	2024/05/08	2027/05/07
5GHz Validation Dipole	Speag	D5GHZV2	SN: 1200	2024/05/09	2027/05/08
Data Acquisition Electronics(1#)	Speag	DAE4	SN: 1711	2024/03/18	2025/03/17
Data Acquisition Electronics(2#)	Speag	DAE4	SN: 540	2024/02/22	2025/02/21
E-Field Probe1	Speag	EX3DV4	SN: 7510	2024/06/25	2025/06/24
E-Field Probe2	Speag	EX3DV4	SN: 7893	2024/09/05	2025/09/04
Signal Generator	R&S	SMB100A	177746	2024/04/24	2025/04/23
Power Meter	R&S	NRVD-B2	835843/014	2024/08/08	2025/08/07
Power Sensor	R&S	NRV-Z4	100381	2024/08/08	2025/08/07
Power Sensor	R&S	NRV-Z2	100211	2024/08/08	2025/08/07
Wireless Communication Test Set(1#)	Anritsu	MT8820C	6201144551	2024/05/14	2025/05/13
Wireless Communication Test Set(2#)	Anritsu	MT8820C	6201502974	2024/08/01	2025/07/31
Network Analyzer	Agilent	E5071C	MY46103472	2024/09/11	2025/09/10
Thermometer	Elitech	RC-4HC	EF7216002985	2024/10/31	2025/10/30
Thermometer	Elitech	RC-4HC	EF720B004811	2024/10/31	2025/10/30
Thermometer	Elitech	RC-4HC	EF7239002655	2024/10/31	2025/10/30
Thermometer	Elitech	RC-4HC	EF7216002974	2024/10/31	2025/10/30
Power Amplifier	Mini-Circuits	ZVA-183W-S+	932502132	N/A	N/A
Dielectric Probe Kit	Speag	DAK3.5	SN: 1312	N/A	N/A
Phantom	Speag	SAM	SN: 2090	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 -DASY8(1#)

Date	Liquid Type	Fre. (MHz)	Temp. (°C)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ϵ)	Target Conductivity (σ) (S/m)	Target Permittivity (ϵ)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2025.01.25	Head	750	21.3	0.89	41.10	0.89	41.94	0.00	-2.00
2025.01.26	Head	835	21.6	0.89	40.80	0.90	41.50	-1.11	-1.69
2025.01.27	Head	835	21.0	0.89	42.85	0.90	41.50	-1.11	3.25
2025.01.28	Head	835	21.4	0.90	42.80	0.90	41.50	0.00	3.13
2025.01.29	Head	1750	21.6	1.35	41.26	1.37	40.08	-1.46	2.94
2025.01.30	Head	1750	21.5	1.37	38.90	1.37	40.08	0.00	-2.94
2025.01.31	Head	1750	21.8	1.33	39.25	1.37	40.08	-2.92	-2.07
2025.02.01	Head	1950	21.5	1.43	40.54	1.40	40.00	2.14	1.35
2025.02.02	Head	1950	21.4	1.40	39.33	1.40	40.00	0.00	-1.68
2025.02.03	Head	2450	21.3	1.76	39.31	1.80	39.20	-2.22	0.28
2025.02.04	Head	2600	21.9	2.00	38.70	1.96	39.01	2.04	-0.79
2025.02.05	Head	2600	21.1	1.94	38.84	1.96	39.01	-1.02	-0.44
2025.02.06	Head	2600	21.3	1.96	39.95	1.96	39.01	0.00	2.41

Note:

1. The tolerance limit of Conductivity and Permittivity is $\pm 5\%$.
2. The system check frequency of 2025.01.17 was 1750MHz on the same day of the two DASY5 systems.

Head Liquid -DASY8(2#)

Date	Liquid Type	Fre. (MHz)	Temp. (°C)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ϵ)	Target Conductivity (σ) (S/m)	Target Permittivity (ϵ)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2025.01.25	Head	5250	21.9	4.67	35.00	4.71	35.93	-0.85	-2.59
2025.01.26	Head	5600	21.7	4.96	35.98	5.07	35.53	-2.17	1.27
2025.01.27	Head	5750	21.7	5.18	34.72	5.22	35.36	-0.77	-1.81
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-DASY8(1#)

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.01.25	Head	750	100	0.851	8.51	8.46	0.59
2025.01.26	Head	835	100	0.976	9.76	9.74	0.21
2025.01.27	Head	835	100	0.956	9.56	9.74	-1.85
2025.01.28	Head	835	100	0.970	9.70	9.74	-0.41
2025.01.29	Head	1750	100	3.650	36.50	37.00	-1.35
2025.01.30	Head	1750	100	3.720	37.20	37.00	0.54
2025.01.31	Head	1750	100	3.650	36.50	37.00	-1.35
2025.02.01	Head	1950	100	4.110	41.10	41.70	-1.44
2025.02.02	Head	1950	100	4.180	41.80	41.70	0.24
2025.02.03	Head	2450	100	5.330	53.30	52.60	1.33
2025.02.04	Head	2600	100	5.660	56.60	55.90	1.25
2025.02.05	Head	2600	100	5.710	57.10	55.90	2.15
2025.02.06	Head	2600	100	5.450	54.50	55.90	-2.50

Note:

1. The tolerance limit of System validation $\pm 10\%$.
2. The system check frequency of 2025.01.17 was 1750MHz on the same day of the two DASY5 systems.

Head liquid 1g-DASY8(2#)

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.01.25	Head	5250	100	7.810	78.10	77.70	0.51
2025.01.26	Head	5600	100	8.190	81.90	81.30	0.74
2025.01.27	Head	5750	100	7.780	77.80	77.60	0.26
Note: The tolerance limit of System validation $\pm 10\%$.							

Head liquid 10g-DASY8(1#)

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.01.31	Head	1750	100	1.890	18.90	19.70	-4.06
2025.02.01	Head	1950	100	2.160	21.60	21.70	-0.46
2025.02.02	Head	1950	100	2.070	20.70	21.70	-4.61
2025.02.04	Head	2600	100	2.450	24.50	25.40	-3.54
2025.02.05	Head	2600	100	2.520	25.20	25.40	-0.79
2025.02.06	Head	2600	100	2.430	24.30	25.40	-4.33

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

Head liquid 10g-DASY8(2#)

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.01.25	Head	5250	100	2.260	22.60	22.00	2.73
2025.01.26	Head	5600	100	2.360	23.60	23.10	2.16

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

System Performance Check Data (750MHz)

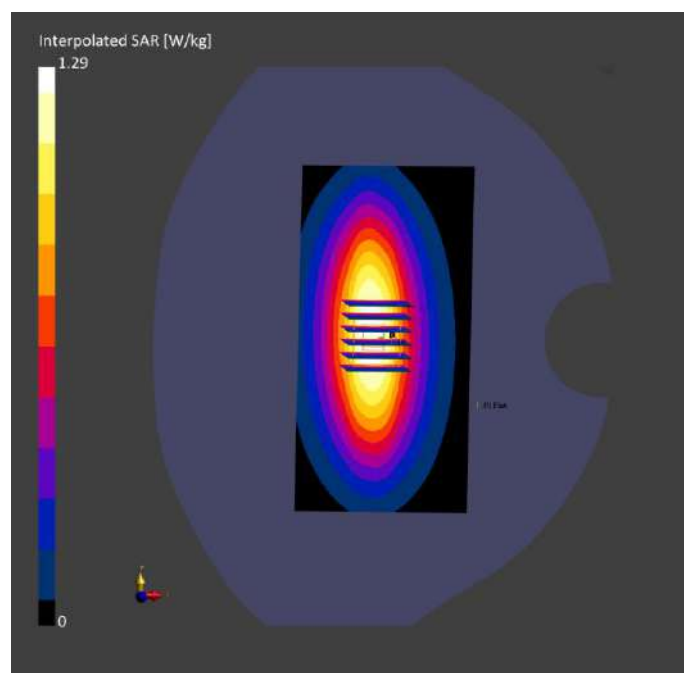
Exposure Conditions

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		CD700	CW, 0--	750.0, 100	8.92	0.893	41.1	22.2	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	2025-01-25	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

Scan Setup			Measurement Results		
	Area Scan	Zoom Scan		Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 160.0	30.0 x 30.0 x 30.0	Date	2025-01-25	2025-01-25
Grid Steps [mm]	10.0 x 10.0	6.0 x 6.0 x 1.5	psSAR1g [W/kg]	0.845	0.851
Sensor Surface [mm]	3.0	1.4	psSAR10g [W/kg]	0.556	0.556
Graded Grid	Yes	Yes	Power Drift [dB]	-0.01	-0.03
Grading Ratio	1.5	1.5	Power Scaling	Disabled	Disabled
MAIA	N/A	N/A	Scaling Factor [dB]		
Surface Detection	VMS + 6p	VMS + 6p	TSL Correction	No correction	No correction
Scan Method	Measured	Measured	M2/M1 [%]		85.3
			Dist 3dB Peak [mm]		20.2



System Performance Check Data (835MHz)

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	8.85	0.886	40.8	22.5	21.6

Hardware Setup

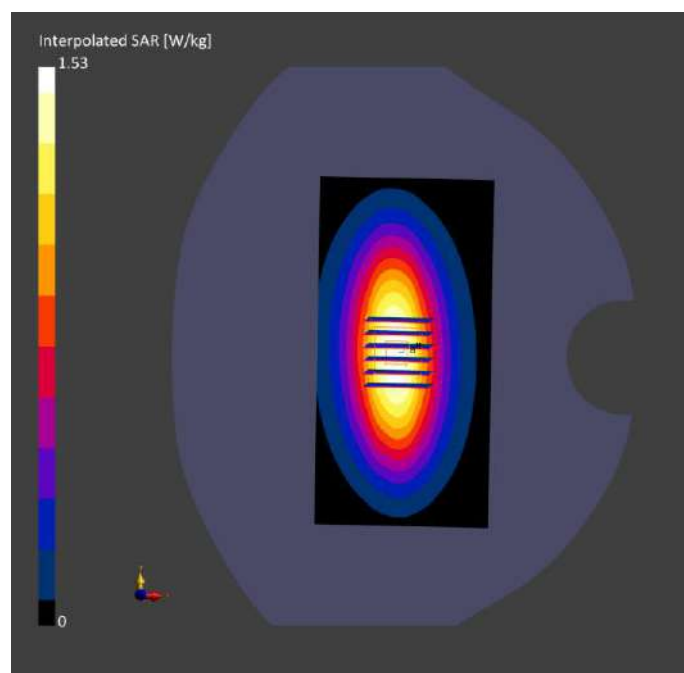
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date	
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-26	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711,	2024-03-18

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	2025-01-26	2025-01-26
psSAR1g [W/kg]	0.944	0.976
psSAR10g [W/kg]	0.613	0.635
Power Drift [dB]	0.02	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		81.7
Dist 3dB Peak [mm]		12.1



System Performance Check Data (835MHz)

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	8.85	0.894	42.8	22.1	21.0

Hardware Setup

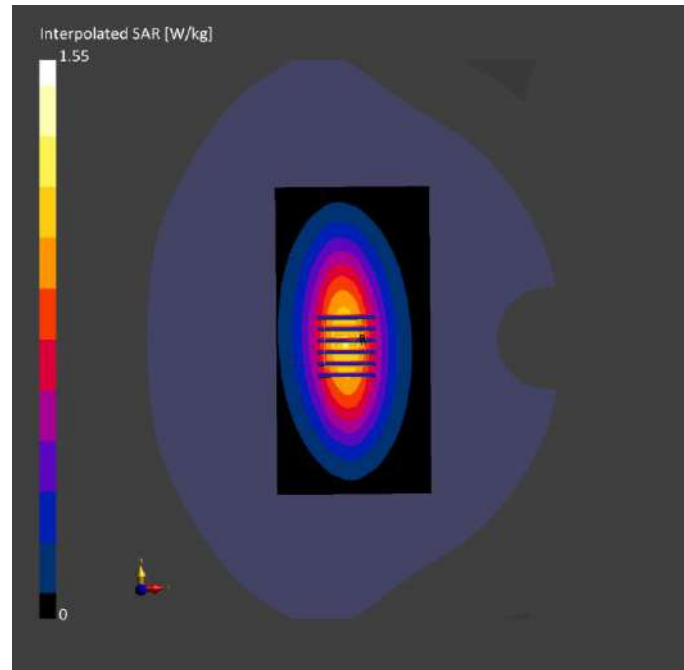
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date	
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-27	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711,	2024-03-18

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	2025-01-27	2025-01-27
psSAR1g [W/kg]	0.945	0.956
psSAR10g [W/kg]	0.618	0.629
Power Drift [dB]	0.06	0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		81.8
Dist 3dB Peak [mm]		12.1



System Performance Check Data (835MHz)

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	8.85	0.901	42.8	22.6	21.4

Hardware Setup

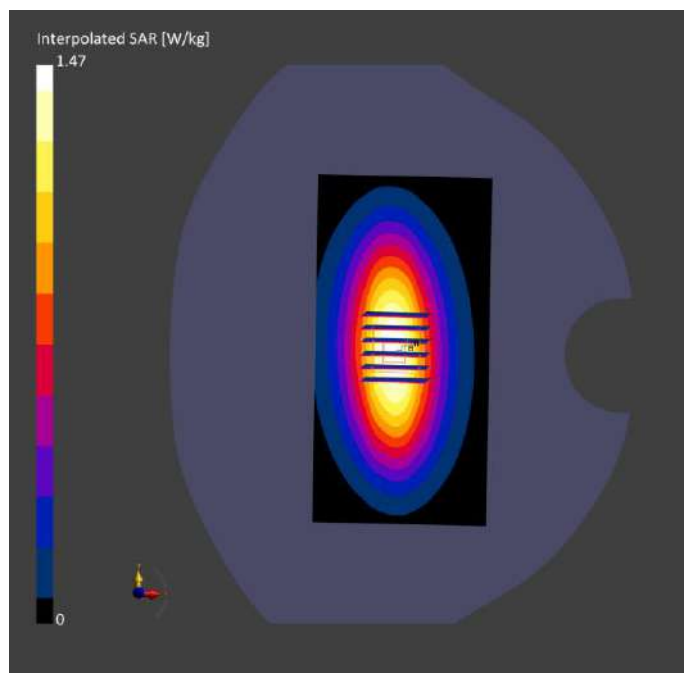
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date	
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-28	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711,	2024-03-18

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	2025-01-28	2025-01-28
psSAR1g [W/kg]	0.951	0.970
psSAR10g [W/kg]	0.618	0.635
Power Drift [dB]	-0.02	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		84.6
Dist 3dB Peak [mm]		13.1



System Performance Check Data (1750MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D1750	CW, 0--	1750.0, 50	7.57	1.35	41.3	22.7	21.6

Hardware Setup

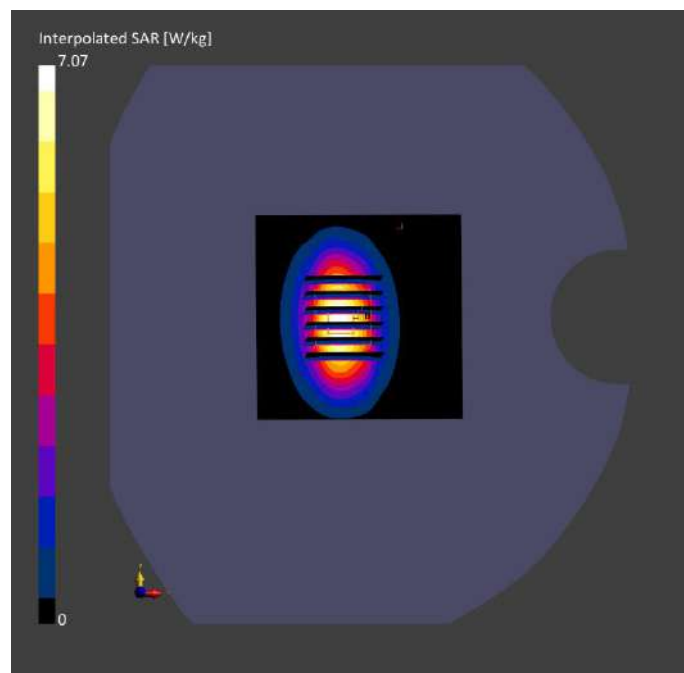
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-29	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-29	2025-01-29
psSAR1g [W/kg]	3.24	3.65
psSAR10g [W/kg]	1.82	1.93
Power Drift [dB]	0.02	0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		82.2
Dist 3dB Peak [mm]		9.4



System Performance Check Data (1750MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D1750	CW, 0--	1750.0, 50	7.57	1.37	38.9	22.1	21.5

Hardware Setup

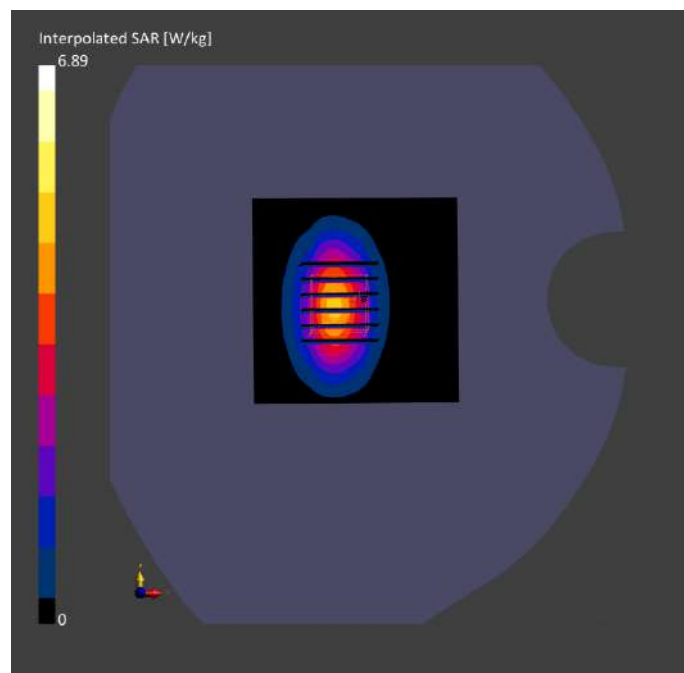
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date	
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-30	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711,	2024-03-18

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	2025-01-30	2025-01-30
psSAR1g [W/kg]	3.23	3.72
psSAR10g [W/kg]	1.81	1.99
Power Drift [dB]	0.01	0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		81.9
Dist 3dB Peak [mm]		10.3



System Performance Check Data (1750MHz)

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	7.57	1.33	39.3	22.2	21.8

Hardware Setup

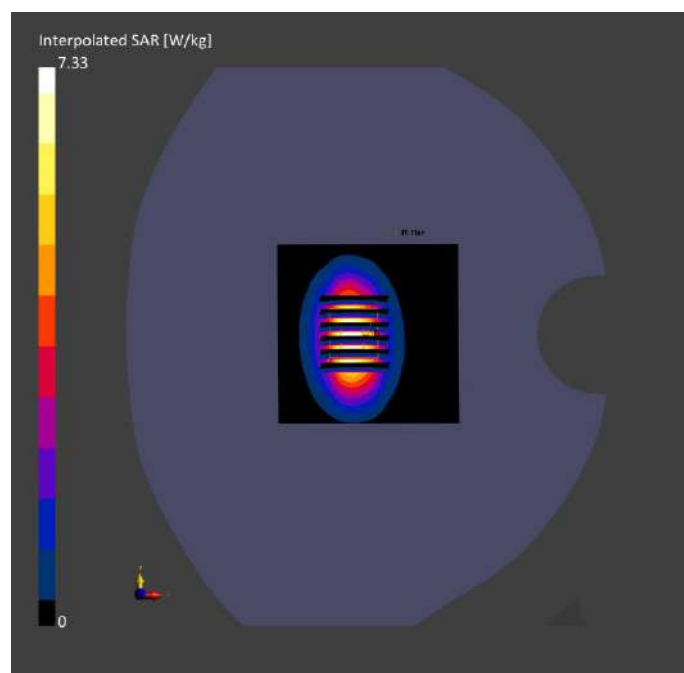
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-31	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-31	2025-01-31
psSAR1g [W/kg]	3.31	3.65
psSAR10g [W/kg]	1.85	1.89
Power Drift [dB]	0.02	0.08
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		82.3
Dist 3dB Peak [mm]		9.9



System Performance Check Data (1950MHz)

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	7.37	1.43	40.5	22.0	21.5

Hardware Setup

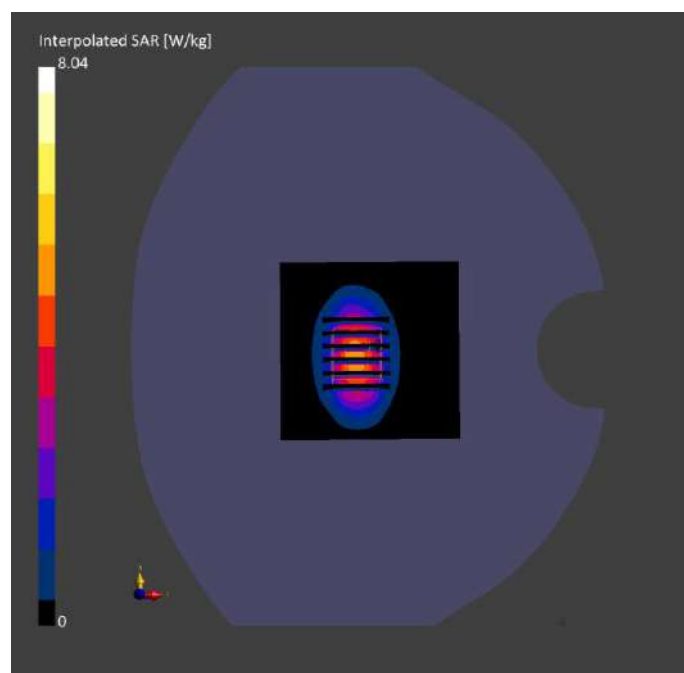
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date	
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-01	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711,	2024-03-18

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	2025-02-01	2025-02-01
psSAR1g [W/kg]	3.93	4.11
psSAR10g [W/kg]	1.93	2.16
Power Drift [dB]	0.01	0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		81.3
Dist 3dB Peak [mm]		9.1



System Performance Check Data (1950MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL		D1950	CW, 0--	1950.0, 50	7.37	1.40	39.3	22.4	21.4

Hardware Setup

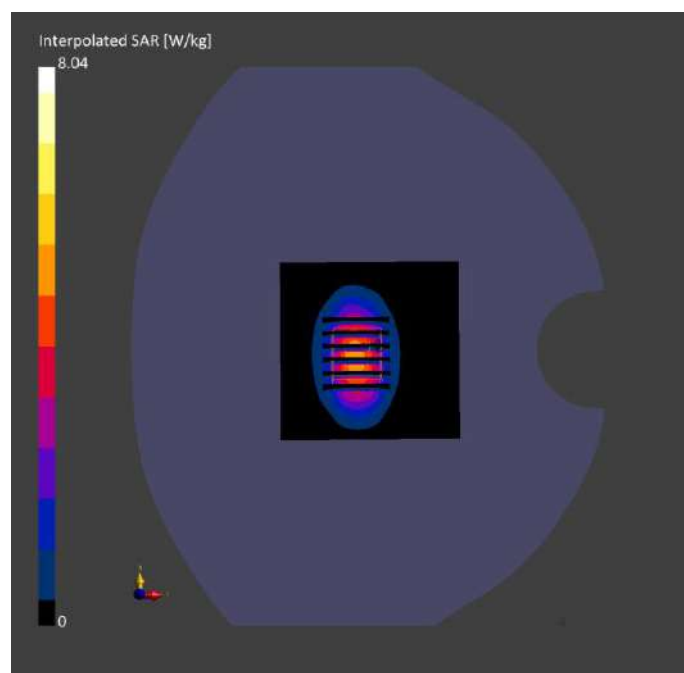
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date	
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-02	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711,	2024-03-18

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	2025-02-02	2025-02-02
psSAR1g [W/kg]	3.91	4.18
psSAR10g [W/kg]	1.93	2.07
Power Drift [dB]	0.01	0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		81.4
Dist 3dB Peak [mm]		9.1



System Performance Check Data (2450MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL		D2450	CW, 0--	2450.0, 50	6.98	1.76	39.3	22.5	21.3

Hardware Setup

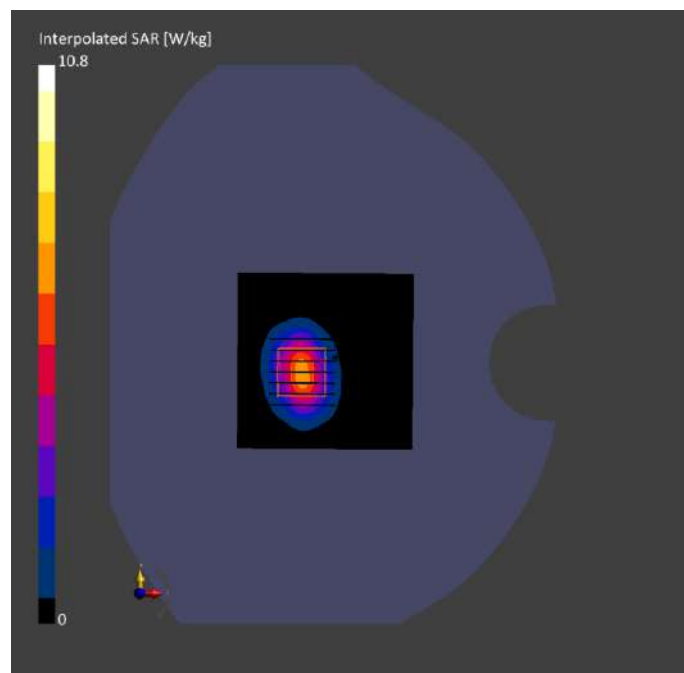
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-03	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-02-03	2025-02-03
psSAR1g [W/kg]	5.12	5.33
psSAR10g [W/kg]	2.23	2.41
Power Drift [dB]	0.03	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		81.4
Dist 3dB Peak [mm]		9.4



System Performance Check Data (2600MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		CD2600 V3	CW, 0--	2600.0, 50	7.06	2.00	38.7	22.8	21.9

Hardware Setup

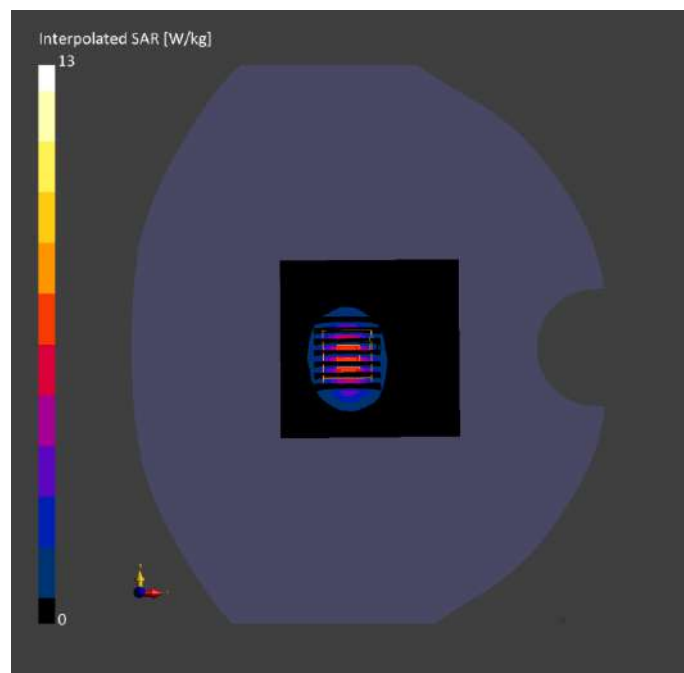
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date	
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-04	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711,	2024-03-18

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	2025-02-04	2025-02-04
psSAR1g [W/kg]	5.39	5.66
psSAR10g [W/kg]	2.41	2.45
Power Drift [dB]	0.04	0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		79.3
Dist 3dB Peak [mm]		8.6



System Performance Check Data (2600MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL		CD2600 V3	CW, 0--	2600.0, 50	7.06	1.94	38.8	22.9	21.1

Hardware Setup

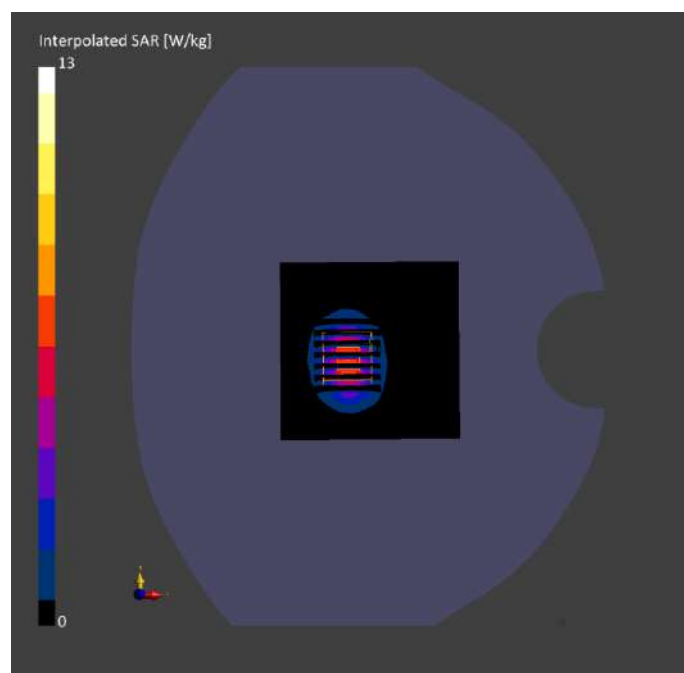
Phantom	TSL, Measured Date		Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-05	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-02-05	2025-02-05
psSAR1g [W/kg]	5.37	5.71
psSAR10g [W/kg]	2.42	2.52
Power Drift [dB]	0.05	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		79.5
Dist 3dB Peak [mm]		8.4



System Performance Check Data (2600MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL		CD2600 V3	CW, 0--	2600.0, 50	7.06	1.96	40.4	22.5	21.3

Hardware Setup

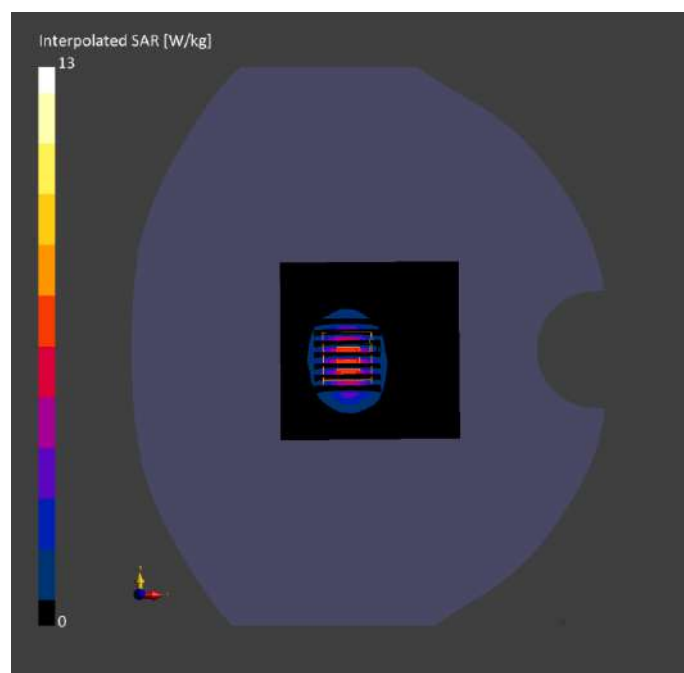
Phantom	TSL, Measured Date		Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-06	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-02-06	2025-02-06
psSAR1g [W/kg]	5.39	5.45
psSAR10g [W/kg]	2.44	2.43
Power Drift [dB]	0.04	0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		79.4
Dist 3dB Peak [mm]		8.8



System Performance Check Data (5250MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL		D5GHz	CW, 0--	5250.0, 30	5.74	4.67	35.0	22.4	21.9

Hardware Setup

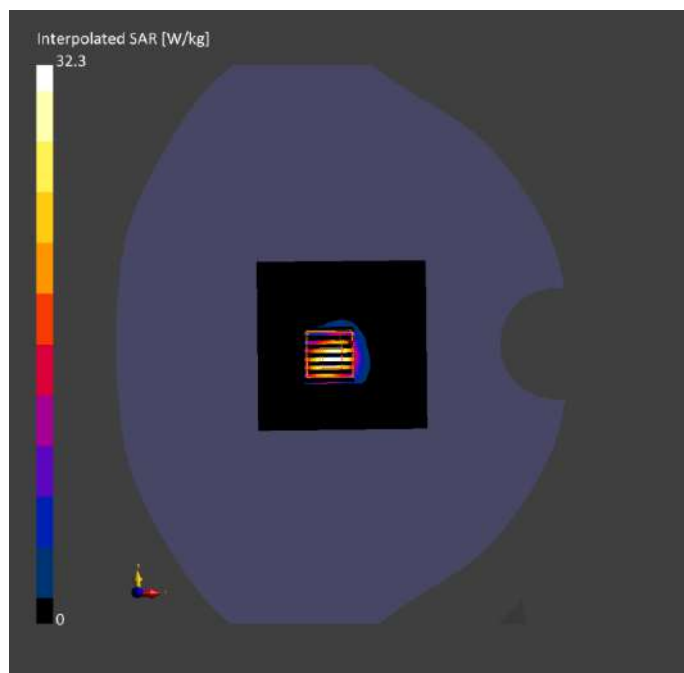
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 2090	HBBL-600-10000	2025-01-25	EX3DV4 - SN7510,	2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-25	2025-01-25
psSAR1g [W/kg]	7.52	7.81
psSAR10g [W/kg]	2.08	2.26
Power Drift [dB]	-0.04	-0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		69.1
Dist 3dB Peak [mm]		7.8



System Performance Check Data (5600MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL		D5GHz	CW, 0--	5600.0, 60	5.00	4.96	36.0	22.6	21.7

Hardware Setup

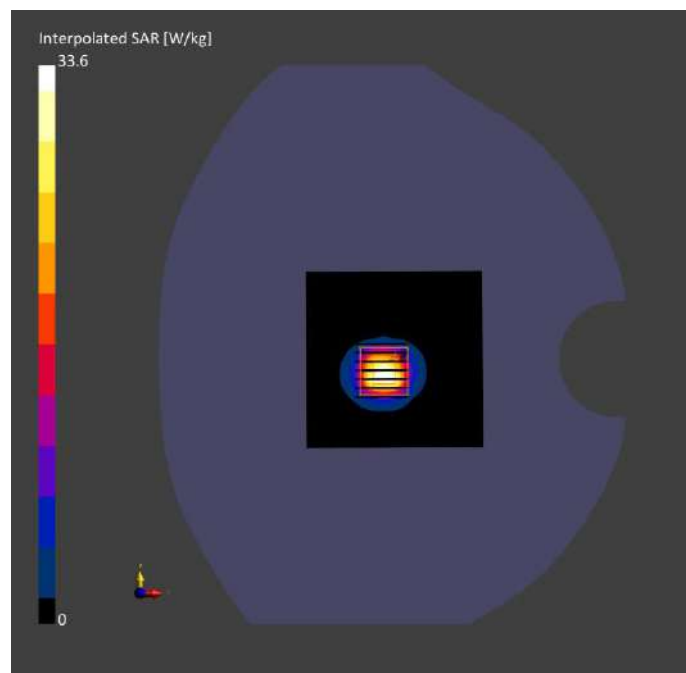
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 2090	HBBL-600-10000	2025-01-26	EX3DV4 - SN7510,	2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	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	2025-01-26	2025-01-26
psSAR1g [W/kg]	7.75	8.19
psSAR10g [W/kg]	2.24	2.36
Power Drift [dB]	0.01	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		64.1
Dist 3dB Peak [mm]		7.6



System Performance Check Data (5750MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL		D5GHz	CW, 0--	5750.0, 80	5.04	5.18	34.7	22.6	21.7

Hardware Setup

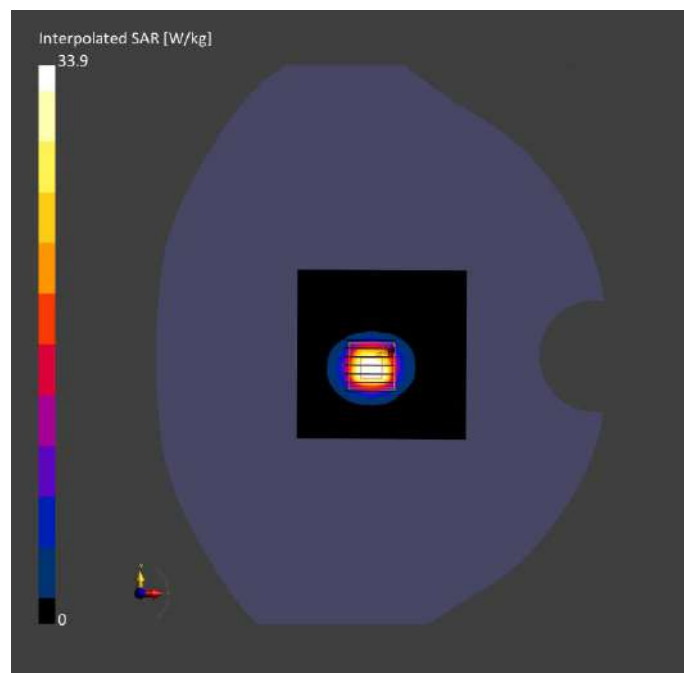
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 2090	HBBL-600-10000	2025-01-27	EX3DV4 - SN7510,	2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-27	2025-01-27
psSAR1g [W/kg]	7.79	7.78
psSAR10g [W/kg]	2.15	2.15
Power Drift [dB]	-0.04	-0.06
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		61.2
Dist 3dB Peak [mm]		7.7



ANNEX C TEST DATA

Meas.1 Right Head with Tilt on Middle Channel in GPRS850 2slots mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	TILT, 0.00	GSM 850	GSM, 10024-DAC	836.6, 190	8.85	0.892	40.5	22.5	21.6

Hardware Setup

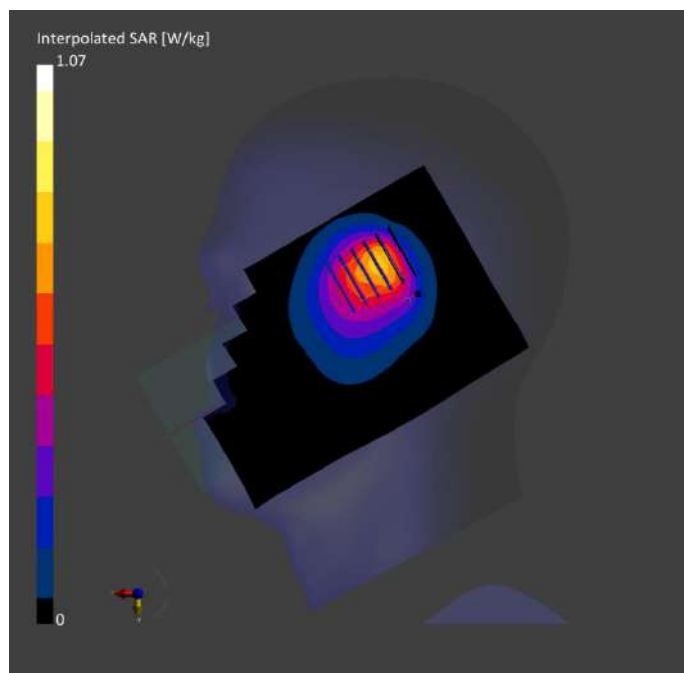
Phantom	TSL, Measured Date		Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-26	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-26	2025-01-26
psSAR1g [W/kg]	0.601	0.611
psSAR10g [W/kg]	0.402	0.408
Power Drift [dB]	-0.07	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		48.2
Dist 3dB Peak [mm]		8.6



Meas.2 Body Plane with Back Side 15mm on Middle Channel in GPRS850 4Slots mode with Antenna
13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	GSM 850	GSM, 10028-DAC	836.6, 190	8.85	0.892	40.5	22.5	21.6

Hardware Setup

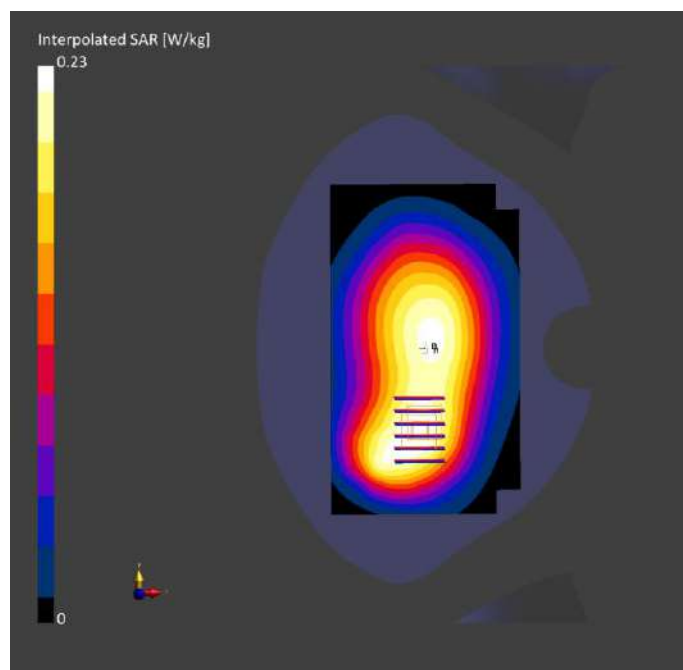
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-26	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-26	2025-01-26
psSAR1g [W/kg]	0.157	0.167
psSAR10g [W/kg]	0.110	0.124
Power Drift [dB]	-0.03	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		72.0
Dist 3dB Peak [mm]		> 16.0



Meas.3 Body Plane with Top Edge 10mm on Middle Channel in GPRS850 4Slots mode with Antenna 13
Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE TOP, 10.00	GSM 850	GSM, 10028-DAC	836.6, 190	8.85	0.892	40.5	22.5	21.6

Hardware Setup

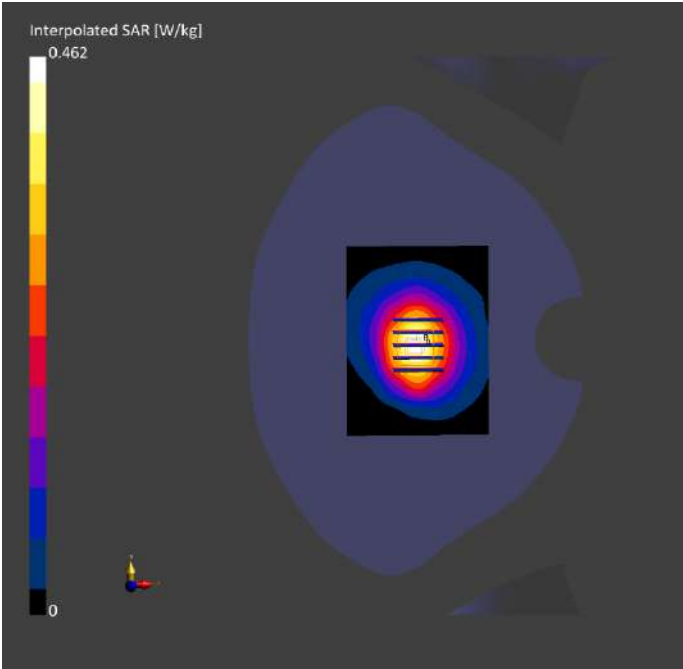
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-26	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-26	2025-01-26
psSAR1g [W/kg]	0.268	0.279
psSAR10g [W/kg]	0.175	0.178
Power Drift [dB]	-0.11	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.6
Dist 3dB Peak [mm]		18.1



Meas.4 Right Head with Tilt on Middle Channel in GPRS1900 2slots mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	TILT, 0.00	PCS 1900	GSM, 10024-DAC	1880.0, 661	7.34	1.42	41.0	22.0	21.5

Hardware Setup

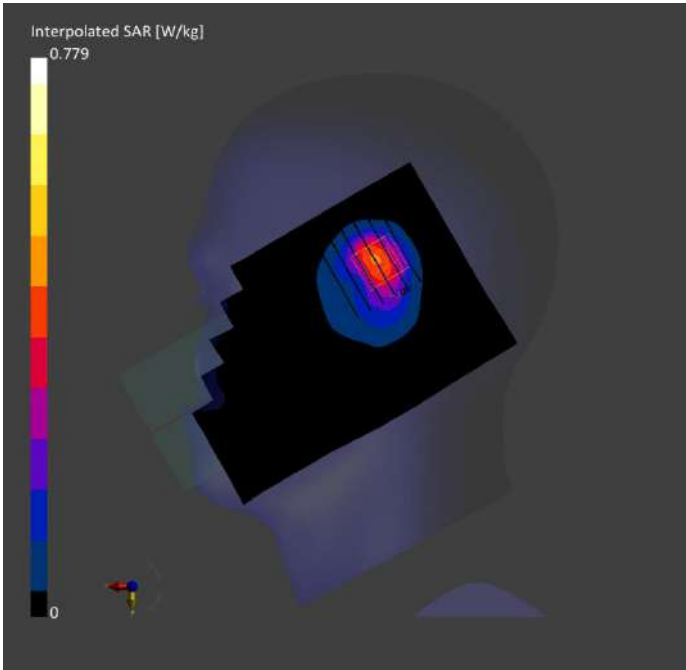
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-01	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-01	2025-02-01
psSAR1g [W/kg]	0.375	0.459
psSAR10g [W/kg]	0.204	0.237
Power Drift [dB]	-0.13	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		55.0
Dist 3dB Peak [mm]		8.6



Meas.5 Body Plane with Back Side 15mm on Middle Channel in GPRS1900 4Slots mode with Antenna 31

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, 15.00	PCS 1900	GSM, 10028-DAC	1880.0, 661	7.34	1.42	41..0	22.0	21.5

Hardware Setup

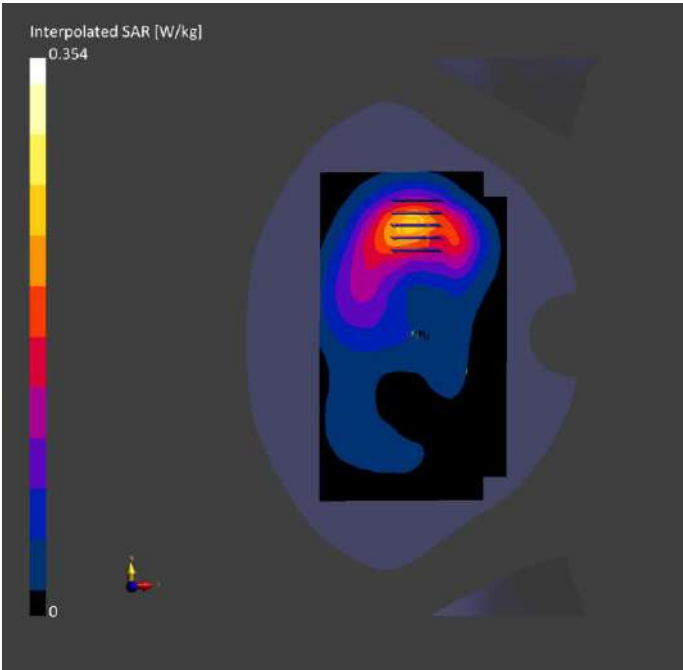
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-02-01	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-01	2025-02-01
psSAR1g [W/kg]	0.216	0.230
psSAR10g [W/kg]	0.128	0.145
Power Drift [dB]	0.06	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		64.0
Dist 3dB Peak [mm]		17.6



Meas.6 Body Plane with Bottom Edge 10mm on Low Channel in GPRS1900 4Slots mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE BOTTOM, 10.00	PCS 1900	GSM, 10028-DAC	1850.2, 512	7.34	1.41	41.3	22.0	21.5

Hardware Setup

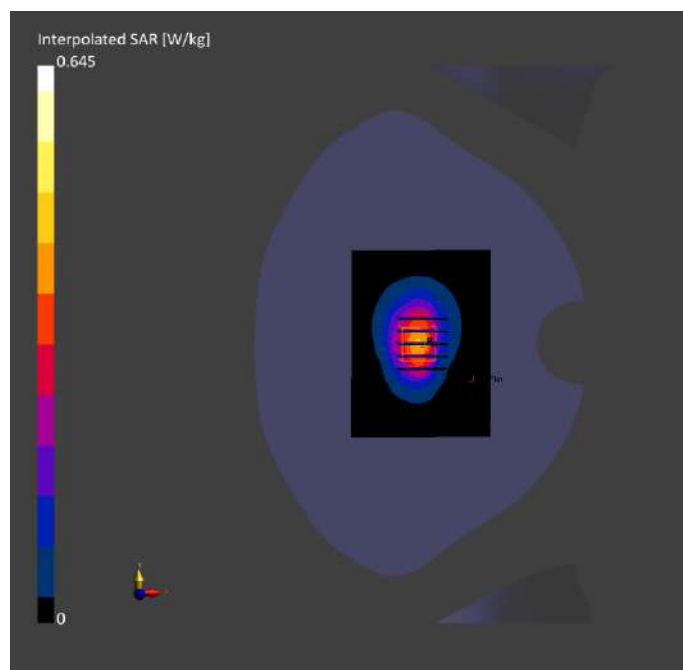
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-01	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-02-01	2025-02-01
psSAR1g [W/kg]	0.358	0.394
psSAR10g [W/kg]	0.200	0.228
Power Drift [dB]	-0.00	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.5
Dist 3dB Peak [mm]		12.2



Meas.7 Left Head with Cheek on Middle Channel in WCDMA Band2 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
LeftHead, HSL	CHEEK, 0.00	Band 2	WCDMA, 10457-AAB	1880.0, 9400	7.34	1.42	41.0	22.0	21.5

Hardware Setup

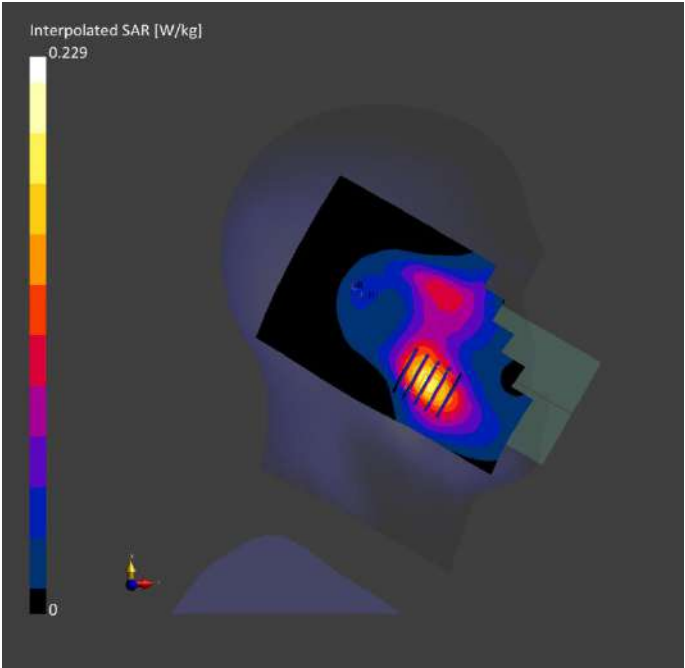
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-01	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-01	2025-02-01
psSAR1g [W/kg]	0.154	0.165
psSAR10g [W/kg]	0.087	0.107
Power Drift [dB]	-0.03	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		74.1
Dist 3dB Peak [mm]		12.6



Meas.8 Body Plane with Back Side 15mm on Middle Channel in WCDMA Band2 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 2	WCDMA, 10457-AAB	1880.0, 9400	7.34	1.42	41.0	22.0	21.5

Hardware Setup

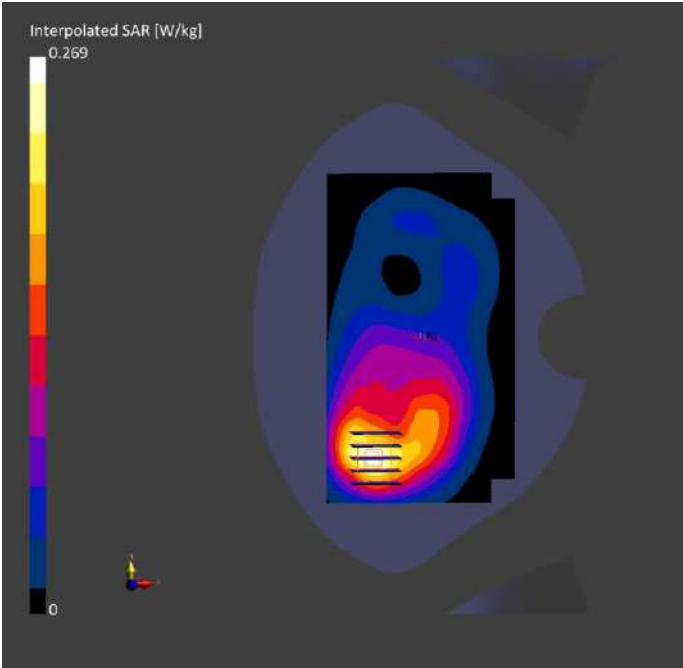
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-02-01	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-01	2025-02-01
psSAR1g [W/kg]	0.161	0.172
psSAR10g [W/kg]	0.095	0.105
Power Drift [dB]	0.00	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		62.4
Dist 3dB Peak [mm]		15.8



Meas.9 Body Plane with Bottom Edge 10mm on Low Channel in WCDMA Band2 mode with Antenna 31

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	1852.4, 9262	7.34	1.42	41.2	22.0	21.5

Hardware Setup

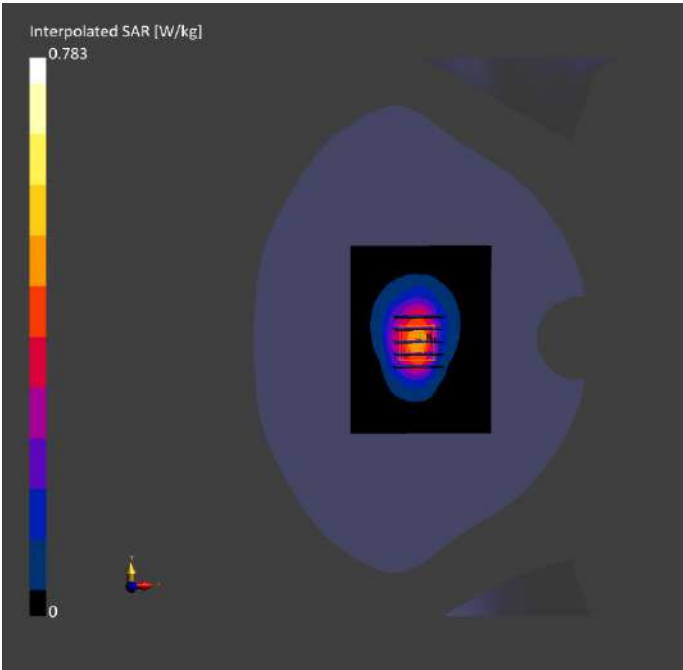
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-01	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-02-01	2025-02-01
psSAR1g [W/kg]	0.433	0.479
psSAR10g [W/kg]	0.243	0.277
Power Drift [dB]	-0.02	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.5
Dist 3dB Peak [mm]		12.2



.Meas.10 Body Plane with Top Edge 0mm on Middle Channel in WCDMA Band2 mode with Antenna 13

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	Band 2	WCDMA, 10011-CAC	1880.0, 9400	7.34	1.42	41.0	22.0	21.5

Hardware Setup

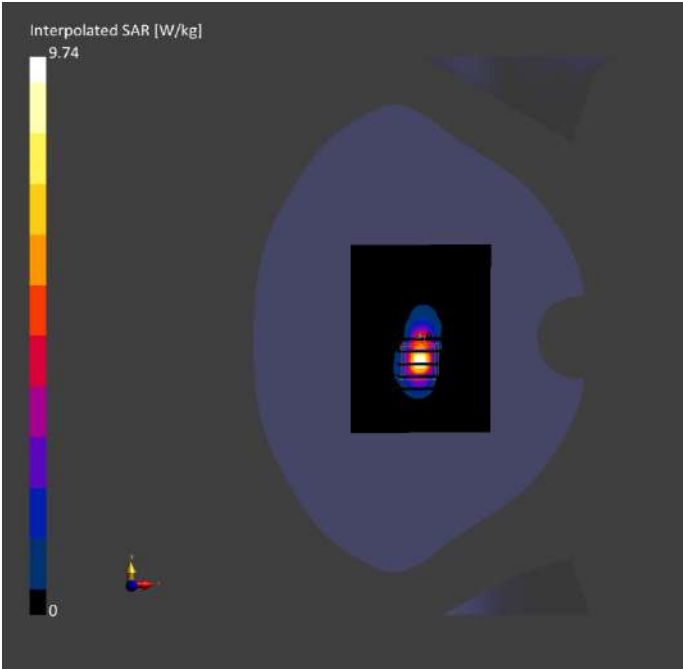
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-02-01	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-02-01	2025-02-01
psSAR1g [W/kg]	3.86	3.91
psSAR10g [W/kg]	1.49	1.59
Power Drift [dB]	0.03	-0.09
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		35.8
Dist 3dB Peak [mm]		6.4



Meas.11 Left Head with Cheek on Middle Channel in WCDMA Band4 mode with Antenna 31

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	Band 4	WCDMA, 10457-AAB	1712.4, 1312	7.57	1.32	41.4	22.7	21.6

Hardware Setup

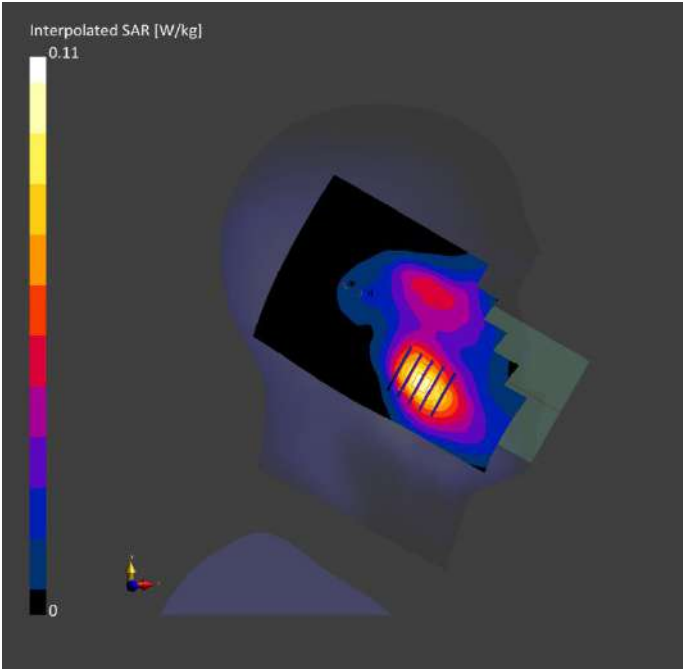
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-29	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-29	2025-01-29
psSAR1g [W/kg]	0.074	0.079
psSAR10g [W/kg]	0.043	0.053
Power Drift [dB]	0.05	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		73.3
Dist 3dB Peak [mm]		> 16.0



Meas.12 Body Plane with Back Side 15mm on Middle Channel in WCDMA Band4 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 4	WCDMA, 10457-AAB	1712.4, 1312	7.57	1.32	41.4	22.7	21.6

Hardware Setup

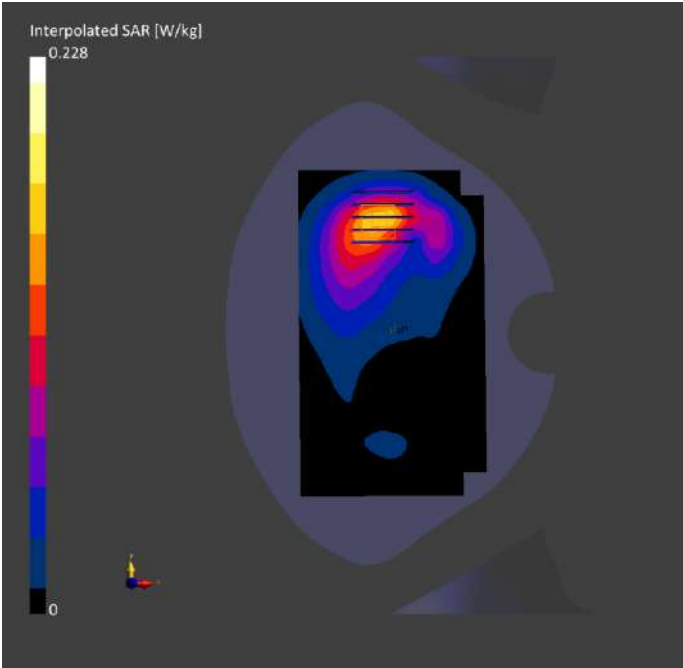
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-29	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-29	2025-01-29
psSAR1g [W/kg]	0.142	0.150
psSAR10g [W/kg]	0.086	0.095
Power Drift [dB]	0.04	0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		64.5
Dist 3dB Peak [mm]		14.8



Meas.13 Body Plane with Bottom Edge 10mm on High Channel in WCDMA Band4 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE BOTTOM, 10.00	Band 4	WCDMA, 10011-CAC	1752.6, 1513	7.57	1.35	41.0	22.7	21.6

Hardware Setup

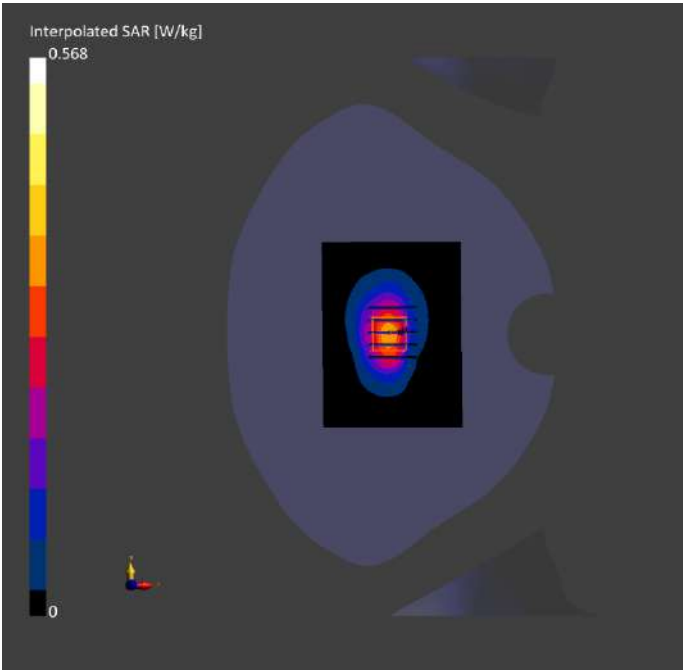
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-29	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-29	2025-01-29
psSAR1g [W/kg]	0.310	0.349
psSAR10g [W/kg]	0.174	0.201
Power Drift [dB]	0.02	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.8
Dist 3dB Peak [mm]		11.2



Meas.14 Right Head with Tilt on Middle Channel in WCDMA Band5 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	TILT, 0.00	Band 5	WCDMA, 10011-CAC	836.4, 4182	8.85	0.889	40.6	22.5	21.6

Hardware Setup

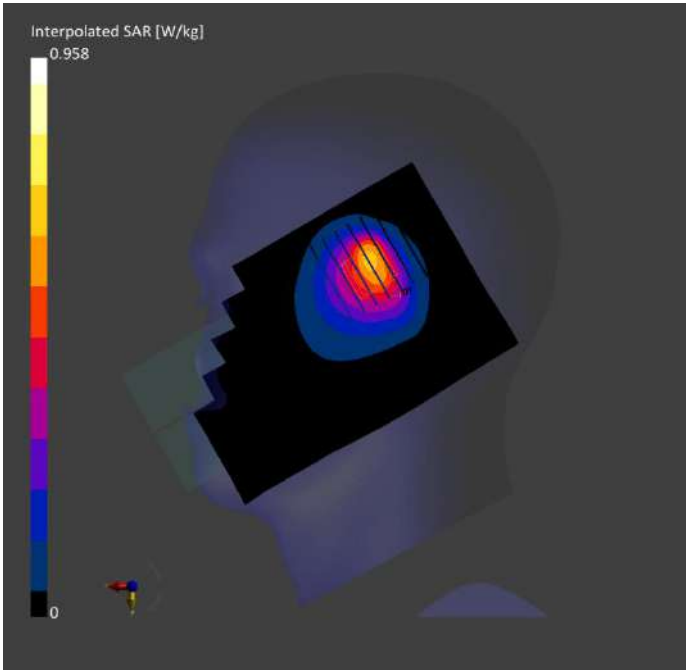
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-26	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-26	2025-01-26
psSAR1g [W/kg]	0.567	0.519
psSAR10g [W/kg]	0.357	0.316
Power Drift [dB]	-0.12	-0.06
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		57.6
Dist 3dB Peak [mm]		9.3



Meas.15 Body Plane with Back Side 15mm on Middle Channel in WCDMA Band5 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 5	WCDMA, 10457-AAB	836.4, 4182	8.85	0.889	40.6	22.5	21.6

Hardware Setup

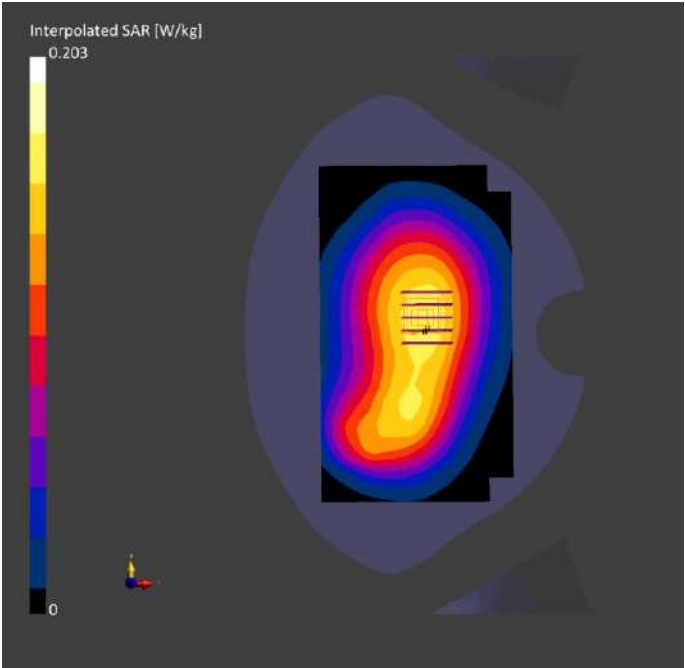
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-26	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-26	2025-01-26
psSAR1g [W/kg]	0.147	0.154
psSAR10g [W/kg]	0.104	0.120
Power Drift [dB]	-0.01	0.08
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		75.8
Dist 3dB Peak [mm]		> 16.0



Meas.16 Body Plane with Back Side 10mm on Middle Channel in WCDMA Band5 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 10.00	Band 5	WCDMA, 10457-AAB	836.4, 4182	8.85	0.889	40.6	22.5	21.6

Hardware Setup

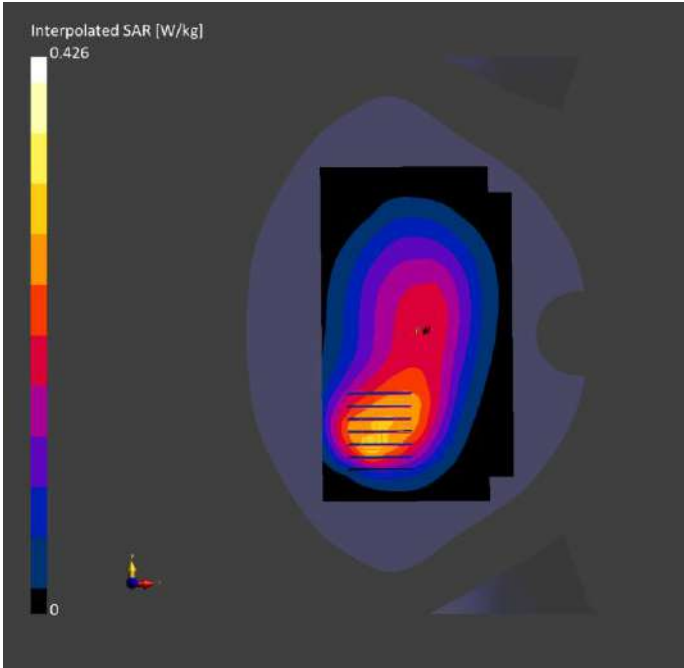
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-26	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-26	2025-01-26
psSAR1g [W/kg]	0.266	0.268
psSAR10g [W/kg]	0.183	0.191
Power Drift [dB]	-0.01	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		59.8
Dist 3dB Peak [mm]		12.9



Meas.17 Left Head with Cheek on Middle Channel in LTE Band2 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
LeftHead, HSL	CHEEK, 0.00	Band 2	LTE-FDD, 10169-CAF	1900.0, 19100	7.34	1.40	39.4	22.4	21.4

Hardware Setup

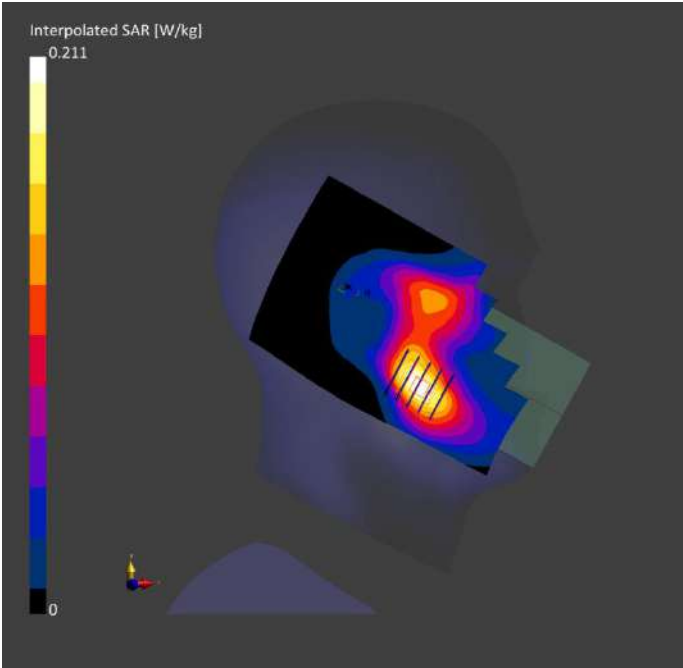
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-02	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-02	2025-02-02
psSAR1g [W/kg]	0.145	0.151
psSAR10g [W/kg]	0.082	0.098
Power Drift [dB]	0.00	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		72.6
Dist 3dB Peak [mm]		13.4



Meas.18 Body Plane with Back Side 15mm on High Channel in LTE Band2 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 2	LTE-FDD, 10169-CAF	1900.0, 19100	7.34	1.40	39.4	22.4	21.4

Hardware Setup

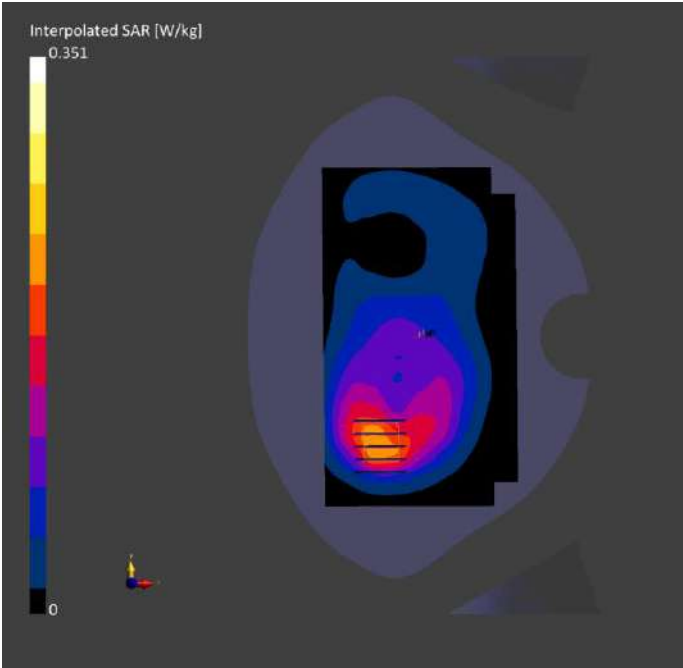
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-02	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-02-02	2025-02-02
psSAR1g [W/kg]	0.197	0.217
psSAR10g [W/kg]	0.117	0.131
Power Drift [dB]	-0.01	-0.09
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.9
Dist 3dB Peak [mm]		14.8



Meas.19 Body Plane with Bottom Edge 10mm on Middle Channel in LTE Band2 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE BOTTOM, 10.00	Band 2	LTE-FDD, 10169-CAF	1880.0, 18900	7.34	1.40	39.6	22.4	21.4

Hardware Setup

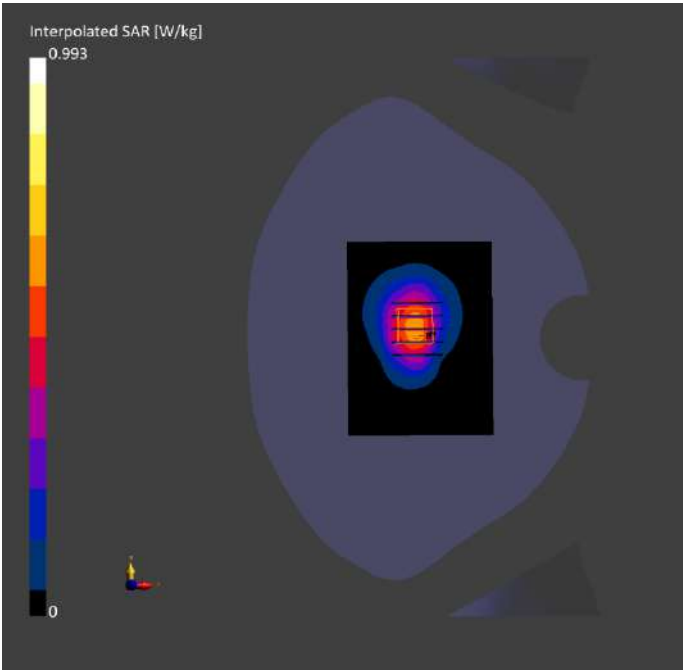
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-02-02	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-02-02	2025-02-02
psSAR1g [W/kg]	0.539	0.622
psSAR10g [W/kg]	0.309	0.369
Power Drift [dB]	0.02	0.15
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		62.2
Dist 3dB Peak [mm]		13.2



Meas.20 Body Plane with Top Edge 0mm on Middle Channel in LTE Band2 mode with Antenna 13

Exposure Conditions

Phantom	Position	Band	Group	Frequency [MHz],	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature	Liquid Temperature
Section, TSL	Distance [mm]		UID	Channel Number				[°C]	[°C]
Flat, HSL	EDGE TOP, 0.00	Band 2	LTE-FDD, 10169-CAF	1900.0, 19100	7.34	1.40	39.4	22.4	21.4

Hardware Setup

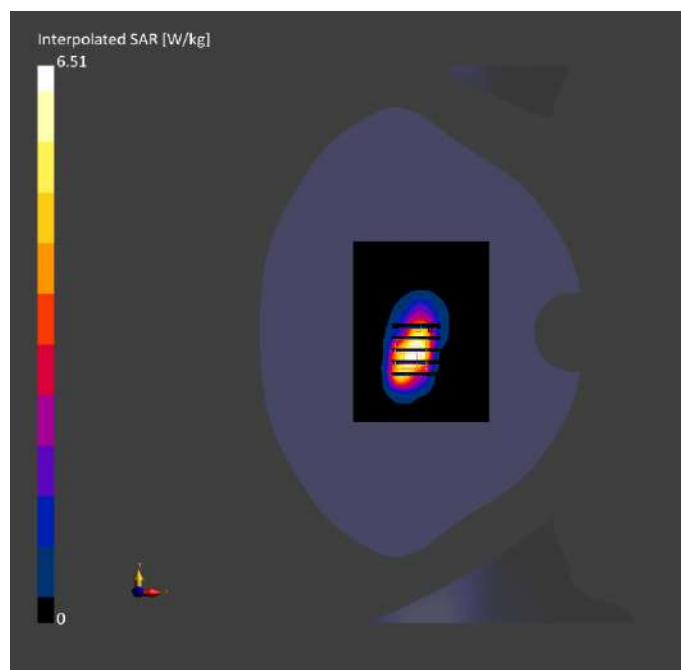
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date	
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-02	EX3DV4 - SN7893, 2024-09-05		DAE4 Sn1711, 2024-03-18	

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-02	2025-02-02
psSAR1g [W/kg]	2.03	3.50
psSAR10g [W/kg]	1.08	1.55
Power Drift [dB]	-0.03	-0.16
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		52.7
Dist 3dB Peak [mm]		6.4



Meas.21 Left Head with Cheek on Middle Channel in LTE Band4 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
LeftHead, HSL	CHEEK, 0.00	Band 4	LTE-FDD, 10169-CAF	1732.5, 20175	7.57	1.36	39.2	22.1	21.5

Hardware Setup

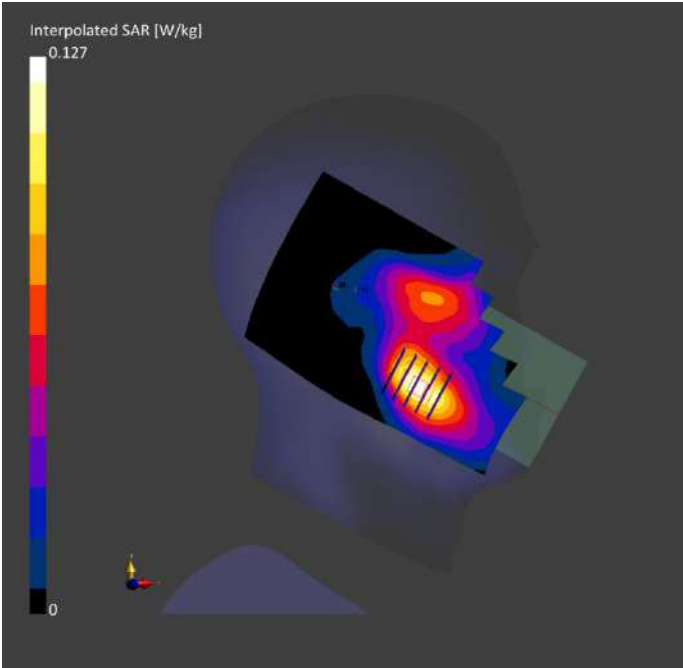
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-30	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-30	2025-01-30
psSAR1g [W/kg]	0.085	0.092
psSAR10g [W/kg]	0.050	0.062
Power Drift [dB]	0.14	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		73.2
Dist 3dB Peak [mm]		14.5



Meas.22 Body Plane with Back Side 15mm on Middle Channel in LTE Band4 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 4	LTE-FDD, 10169-CAF	1732.5, 20175	7.57	1.36	39.2	22.1	21.5

Hardware Setup

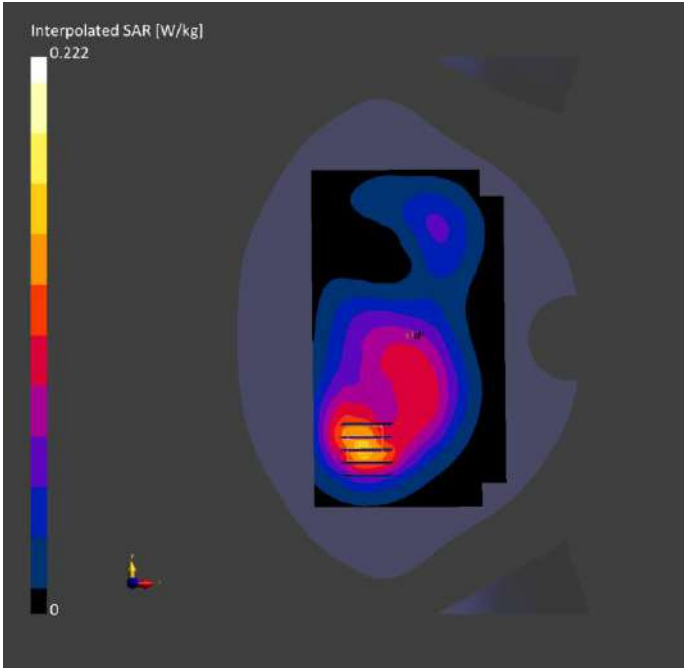
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-30	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-30	2025-01-30
psSAR1g [W/kg]	0.132	0.142
psSAR10g [W/kg]	0.080	0.088
Power Drift [dB]	-0.10	0.09
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		63.5
Dist 3dB Peak [mm]		15.8



Meas.23 Body Plane with Bottom Edge 10mm on Middle Channel in LTE Band4 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE BOTTOM, 10.00	Band 4	LTE-FDD, 10169-CAF	1732.5, 20175	7.57	1.36	39.2	22.1	21.5

Hardware Setup

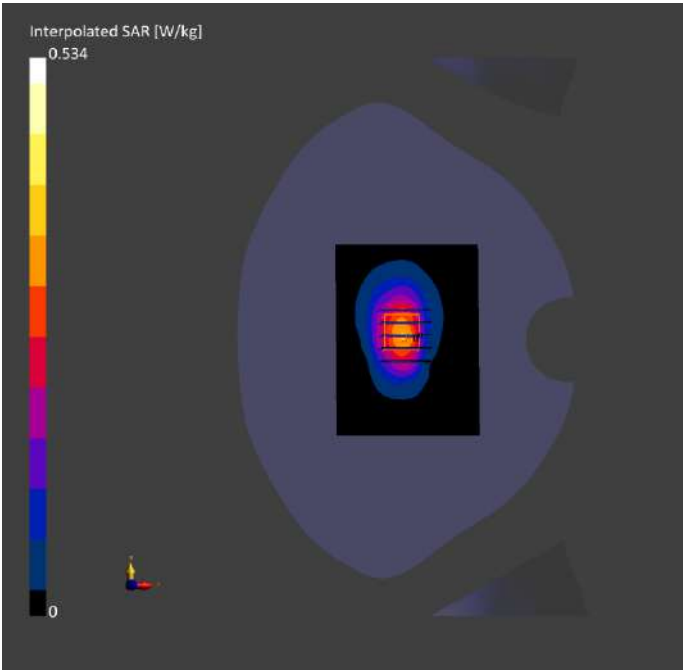
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-30	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-30	2025-01-30
psSAR1g [W/kg]	0.300	0.336
psSAR10g [W/kg]	0.172	0.197
Power Drift [dB]	-0.03	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		62.9
Dist 3dB Peak [mm]		11.2



Meas.24 Right Head with Tilt on Middle Channel in LTE Band5 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	TILT, 0.00	Band 5	LTE-FDD, 10175-CAH	836.5, 20525	8.85	0.898	42.7	22.1	21.0

Hardware Setup

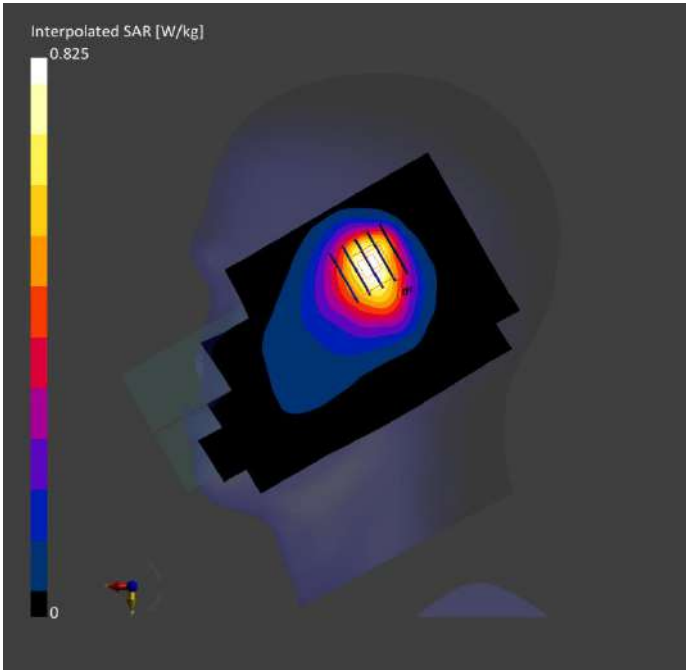
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-27	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-27	2025-01-27
psSAR1g [W/kg]	0.399	0.410
psSAR10g [W/kg]	0.258	0.240
Power Drift [dB]	-0.03	-0.07
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		44.5
Dist 3dB Peak [mm]		8.6



Meas.25 Body Plane with Back Side 15mm on Middle Channel in LTE Band5 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 5	LTE-FDD, 10175-CAH	836.5, 20525	8.85	0.898	42.7	22.1	21.0

Hardware Setup

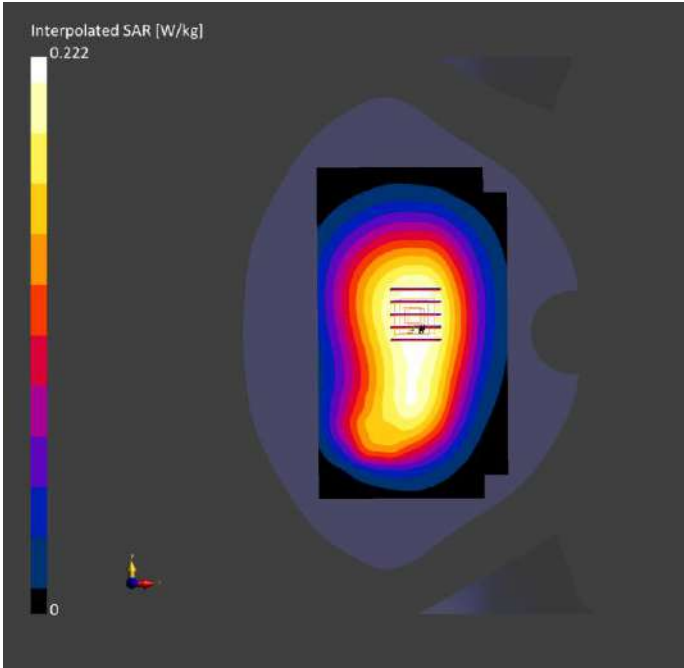
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-27	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-27	2025-01-27
psSAR1g [W/kg]	0.163	0.171
psSAR10g [W/kg]	0.115	0.133
Power Drift [dB]	0.15	0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		76.7
Dist 3dB Peak [mm]		> 16.0



Meas.26 Body Plane with Back Side 10mm on Middle Channel in LTE Band5 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 10.00	Band 5	LTE-FDD, 10175-CAH	836.5, 20525	8.85	0.898	42.7	22.1	21.0

Hardware Setup

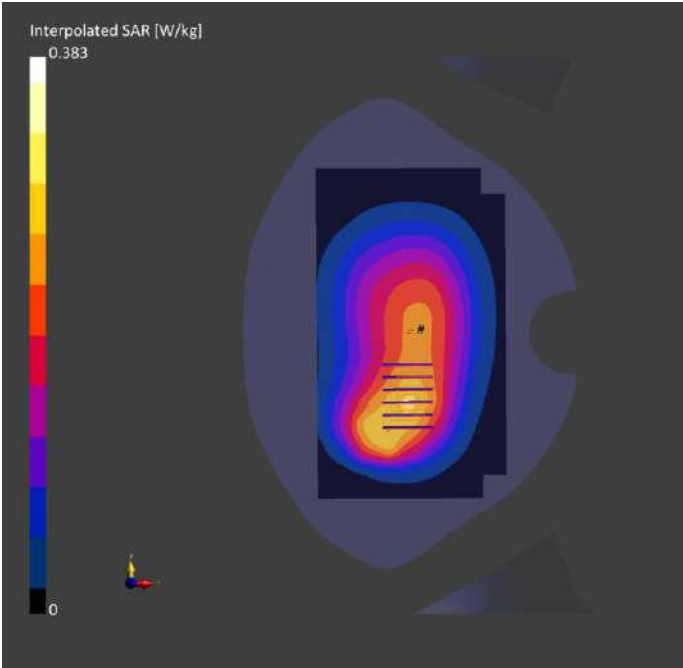
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-27	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-27	2025-01-27
psSAR1g [W/kg]	0.257	0.274
psSAR10g [W/kg]	0.177	0.201
Power Drift [dB]	0.21	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		71.5
Dist 3dB Peak [mm]		> 16.0



Meas.27 Right Head with Cheek on Middle Channel in LTE Band7 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	CHEEK, 0.00	Band 7	LTE-FDD, 10169-CAF	2535.0, 21100	7.06	1.92	39.1	22.8	21.9

Hardware Setup

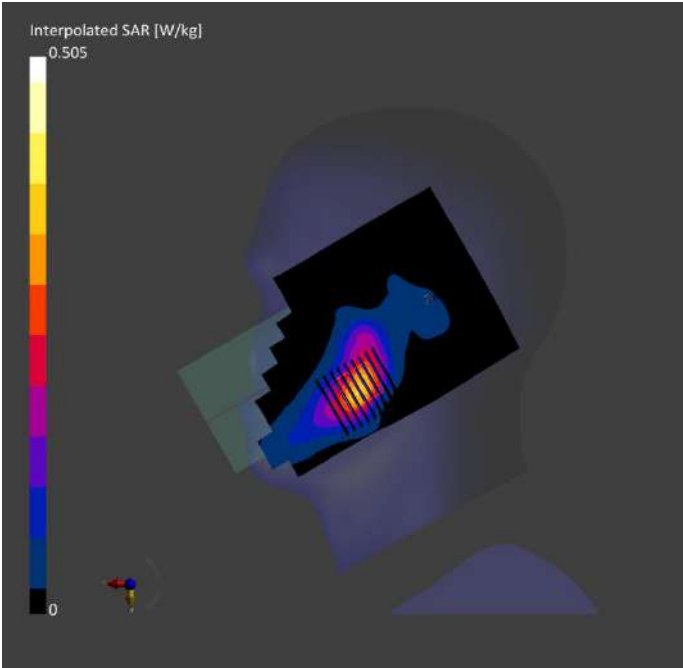
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-04	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-04	2025-02-04
psSAR1g [W/kg]	0.297	0.314
psSAR10g [W/kg]	0.155	0.177
Power Drift [dB]	0.07	-0.06
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		63.0
Dist 3dB Peak [mm]		10.4



Meas.28 Body Plane with Back Side 15mm on Middle Channel in LTE Band7 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 7	LTE-FDD, 10169-CAF	2535.0, 21100	7.06	1.92	39.1	22.8	21.9

Hardware Setup

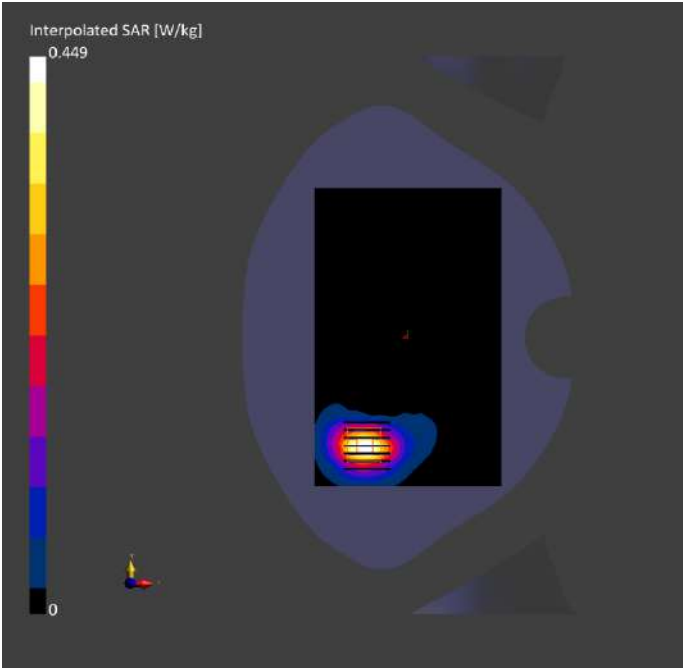
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-04	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-02-04	2025-02-04
psSAR1g [W/kg]	0.237	0.249
psSAR10g [W/kg]	0.116	0.126
Power Drift [dB]	0.11	-0.09
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		55.2
Dist 3dB Peak [mm]		10.8



Meas.29 Body Plane with Top Edge 10mm on Middle Channel in LTE Band7 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE TOP, 10.00	Band 7	LTE-FDD, 10169-CAF	2535.0, 21100	7.06	1.92	39.1	22.8	21.9

Hardware Setup

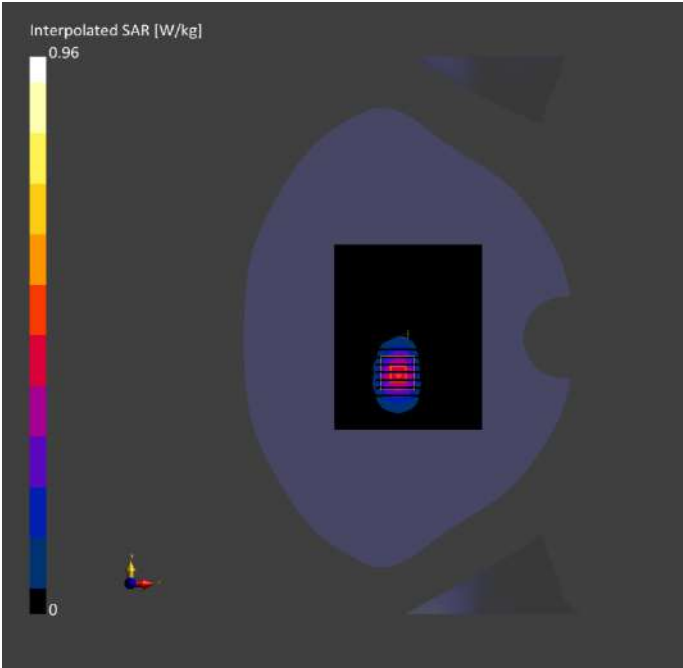
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-04	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-04	2025-02-04
psSAR1g [W/kg]	0.396	0.475
psSAR10g [W/kg]	0.184	0.208
Power Drift [dB]	-0.05	-0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		50.5
Dist 3dB Peak [mm]		8.0



Meas.30 Body Plane with Top Edge 0mm on Middle Channel in LTE Band7 mode with Antenna 13

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	Band 7	LTE-FDD, 10169-CAF	2535.0, 21100	7.06	1.92	39.1	22.8	21.9

Hardware Setup

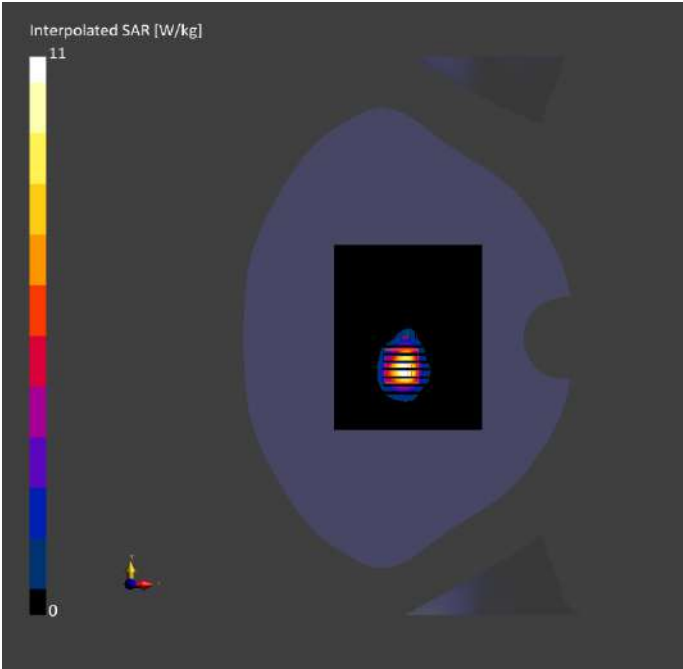
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-02-04	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-04	2025-02-04
psSAR1g [W/kg]	3.12	4.38
psSAR10g [W/kg]	1.32	1.56
Power Drift [dB]	0.10	-0.08
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		40.9
Dist 3dB Peak [mm]		6.0



Meas.31 Right Head with Cheek on Middle Channel in LTE Band13 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	CHEEK, 0.00	Band 13	LTE-FDD, 10175-CAH	782.0, 23230	8.92	0.896	40.9	22.2	21.3

Hardware Setup

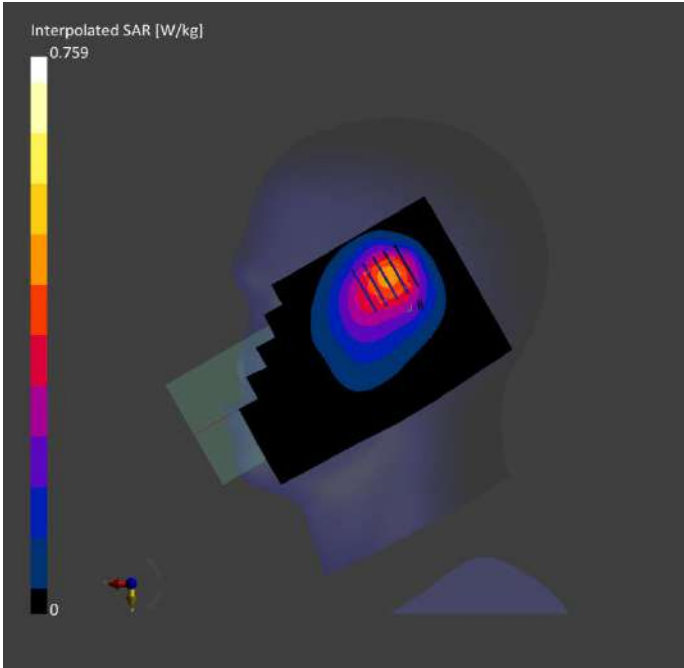
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-25	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-25	2025-01-25
psSAR1g [W/kg]	0.416	0.439
psSAR10g [W/kg]	0.273	0.275
Power Drift [dB]	0.06	0.15
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		56.0
Dist 3dB Peak [mm]		13.7



Meas.32 Body Plane with Back Side 15mm on Middle Channel in LTE Band13 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 13	LTE-FDD, 10175-CAH	782.0, 23230	8.92	0.896	40.9	22.2	21.3

Hardware Setup

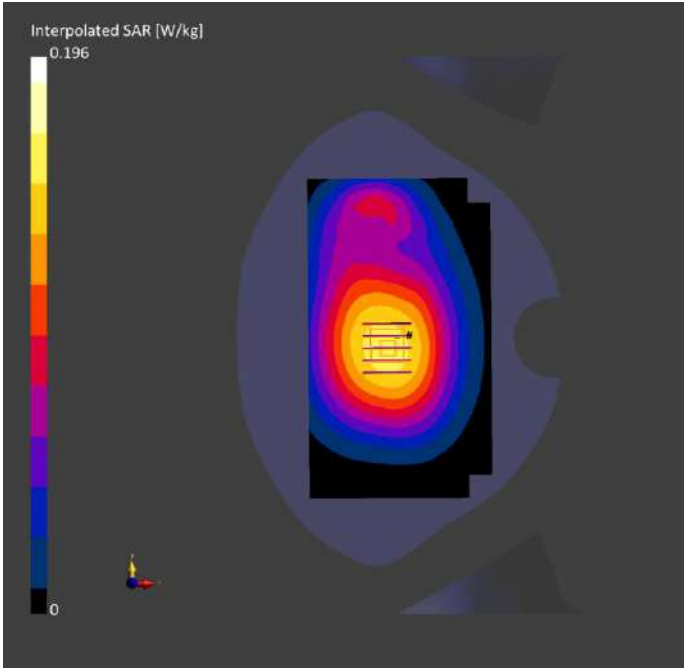
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-25	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-25	2025-01-25
psSAR1g [W/kg]	0.140	0.152
psSAR10g [W/kg]	0.10	0.119
Power Drift [dB]	-0.15	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		77.3
Dist 3dB Peak [mm]		> 16.0



Meas.33 Body Plane with Right Edge 10mm on Middle Channel in LTE Band13 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE RIGHT, 10.00	Band 13	LTE-FDD, 10175-CAH	782.0, 23230	8.92	0.896	40.9	22.2	21.3

Hardware Setup

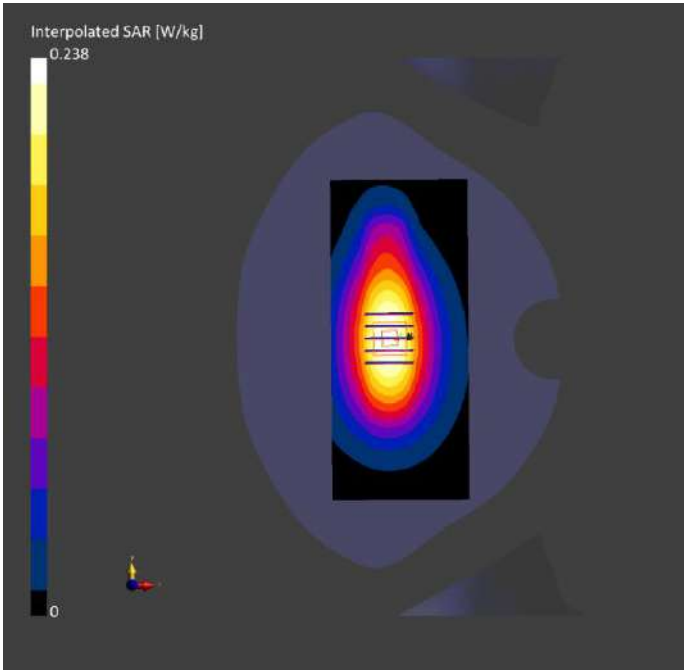
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-25	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 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	2025-01-25	2025-01-25
psSAR1g [W/kg]	0.156	0.164
psSAR10g [W/kg]	0.108	0.115
Power Drift [dB]	0.06	-0.14
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		67.5
Dist 3dB Peak [mm]		> 16.0



Meas.34 Right Head with Tilt on Middle Channel in LTE Band18 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	TILT, 0.00	Band 18	LTE-FDD, 10181-CAF	822.5, 23925	8.85	0.891	42.9	22.1	21.0

Hardware Setup

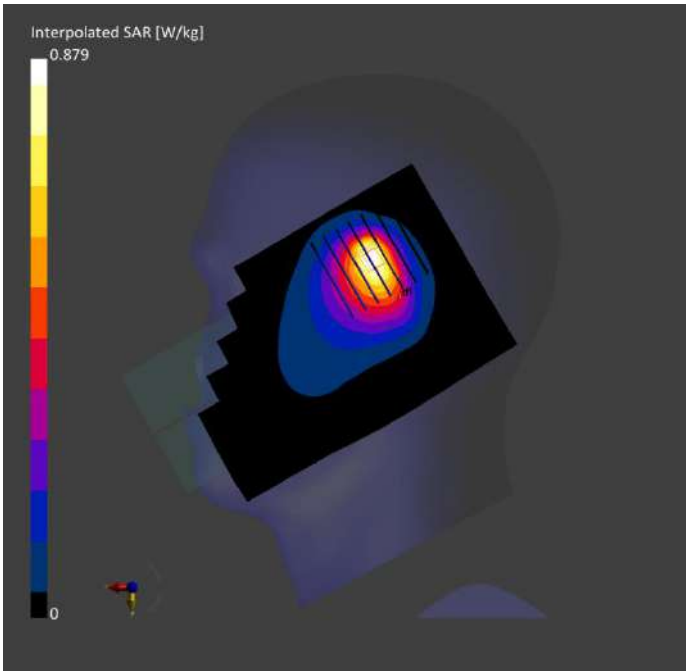
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-27	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-27	2025-01-27
psSAR1g [W/kg]	0.493	0.457
psSAR10g [W/kg]	0.302	0.267
Power Drift [dB]	-0.05	0.10
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		44.9
Dist 3dB Peak [mm]		6.6



Meas.35 Body Plane with Back Side 15mm on Middle Channel in LTE Band18 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 18	LTE-FDD, 10181-CAF	822.5, 23925	8.85	0.891	42.9	22.1	21.0

Hardware Setup

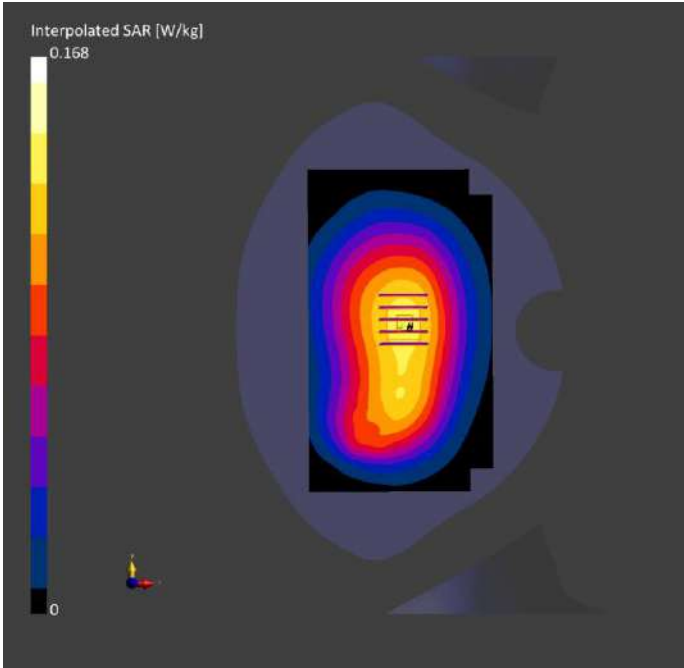
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-27	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-27	2025-01-27
psSAR1g [W/kg]	0.117	0.128
psSAR10g [W/kg]	0.083	0.099
Power Drift [dB]	-0.02	-0.07
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		76.2
Dist 3dB Peak [mm]		> 16.0



Meas.36 Body Plane with Top Edge 10mm on Middle Channel in LTE Band18 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE TOP, 10.00	Band 18	LTE-FDD, 10181-CAF	822.5, 23925	8.85	0.891	42.9	22.1	21.0

Hardware Setup

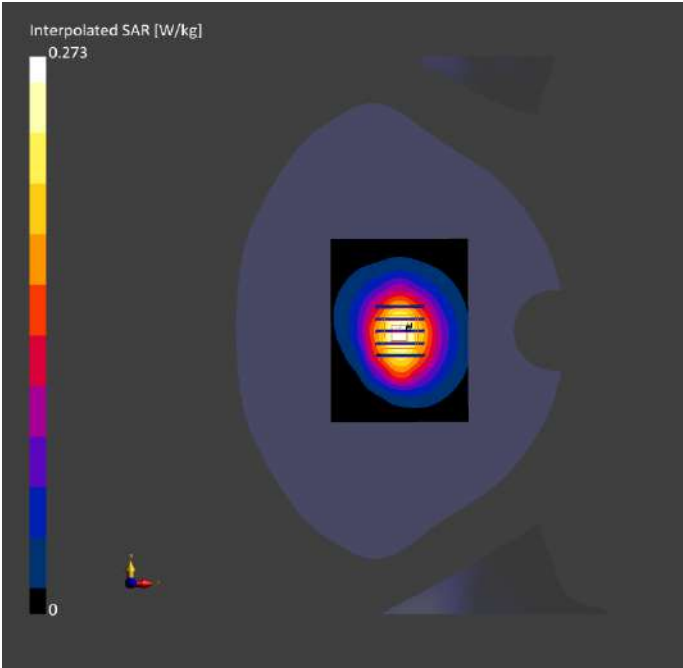
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-27	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-27	2025-01-27
psSAR1g [W/kg]	0.159	0.164
psSAR10g [W/kg]	0.104	0.104
Power Drift [dB]	0.04	-0.15
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		59.1
Dist 3dB Peak [mm]		17.9



Meas.37 Right Head with Cheek on Middle Channel in LTE Band19 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	CHEEK, 0.00	Band 19	LTE-FDD, 10181-CAF	837.5, 24075	8.85	0.906	42.6	22.6	21.4

Hardware Setup

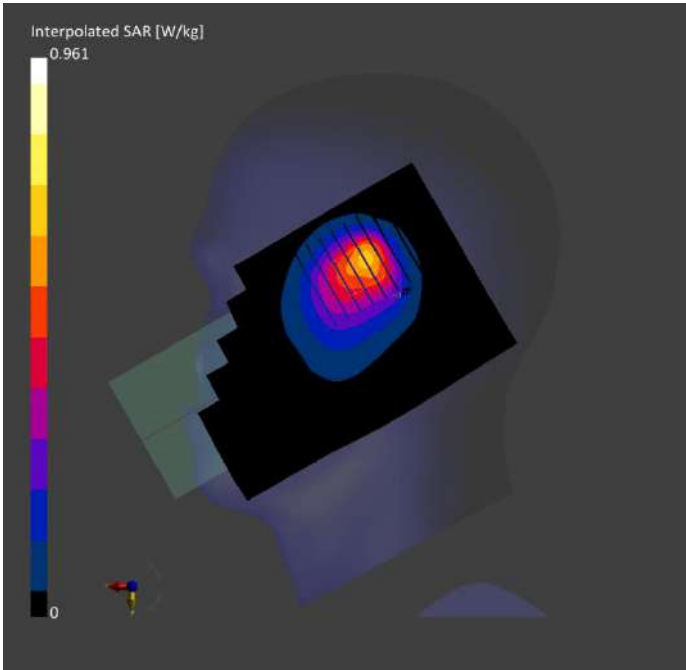
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-28	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-28	2025-01-28
psSAR1g [W/kg]	0.571	0.542
psSAR10g [W/kg]	0.364	0.356
Power Drift [dB]	0.02	0.10
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		50.2
Dist 3dB Peak [mm]		8.2



Meas.38 Body Plane with Back Side 15mm on Middle Channel in LTE Band19 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 19	LTE-FDD, 10181-CAF	837.5, 24075	8.85	0.906	42.6	22.6	21.4

Hardware Setup

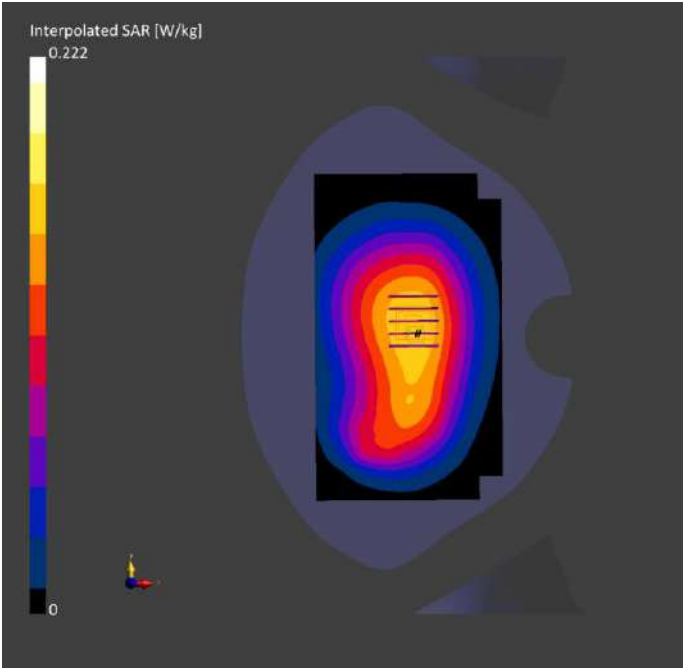
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-28	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-28	2025-01-28
psSAR1g [W/kg]	0.146	0.166
psSAR10g [W/kg]	0.103	0.126
Power Drift [dB]	0.02	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		75.8
Dist 3dB Peak [mm]		> 16.0



Meas.39 Body Plane with Back Side 10mm on Middle Channel in LTE Band19 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 10.00	Band 19	LTE-FDD, 10181-CAF	837.5, 24075	8.85	0.906	42.6	22.6	21.4

Hardware Setup

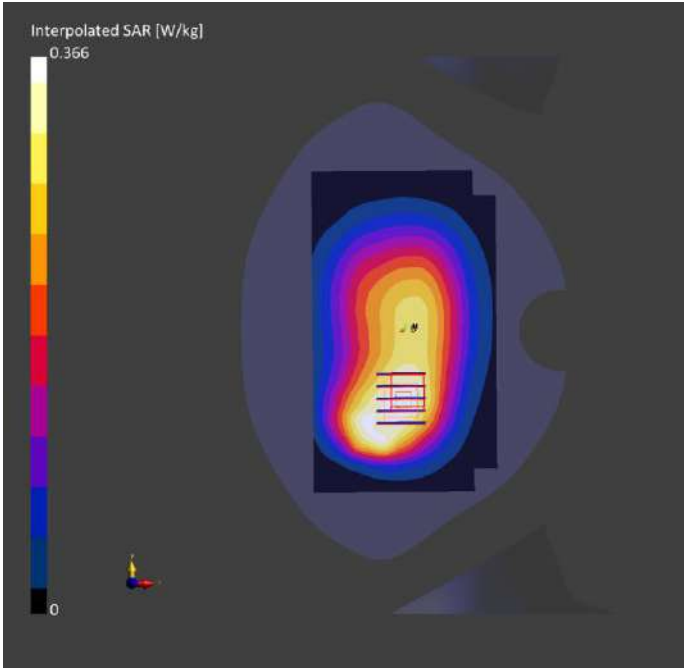
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-28	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-28	2025-01-28
psSAR1g [W/kg]	0.234	0.261
psSAR10g [W/kg]	0.162	0.191
Power Drift [dB]	-0.14	-0.11
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		71.4
Dist 3dB Peak [mm]		> 16.0



Meas.40 Right Head with Tilt on Middle Channel in LTE Band26 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	TILT, 0.00	Band 26	LTE-FDD, 10181-CAF	831.5, 26865	8.85	0.899	42.9	22.6	21.4

Hardware Setup

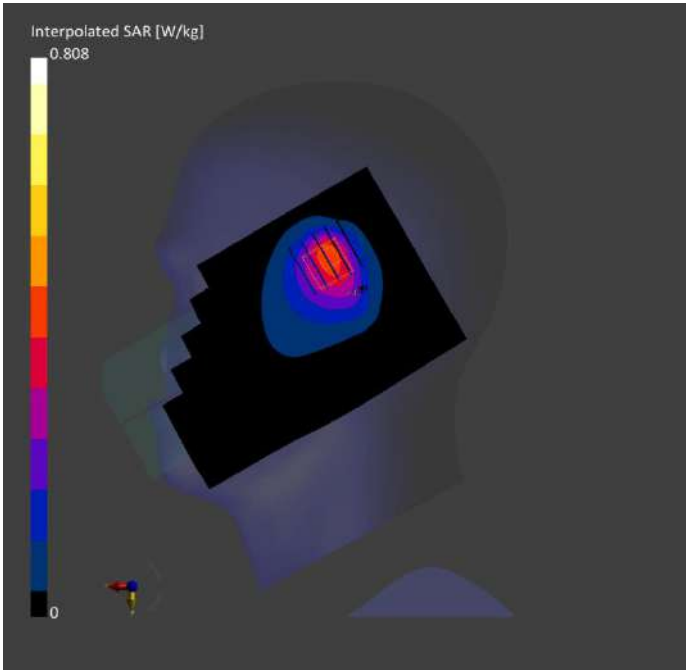
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-28	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-28	2025-01-28
psSAR1g [W/kg]	0.391	0.400
psSAR10g [W/kg]	0.244	0.232
Power Drift [dB]	0.02	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		44.6
Dist 3dB Peak [mm]		8.2



Meas.41 Body Plane with Back Side 15mm on Middle Channel in LTE Band26 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 26	LTE-FDD, 10181-CAF	831.5, 26865	8.85	0.899	42.9	22.6	21.4

Hardware Setup

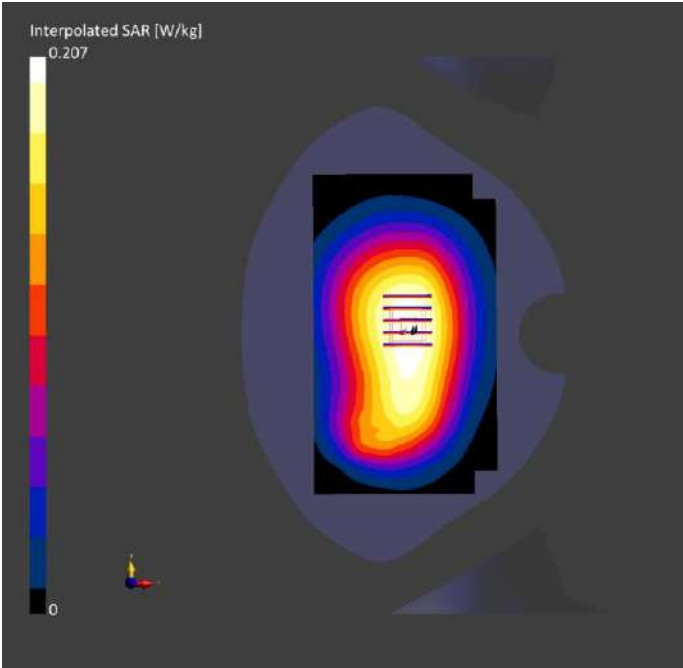
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-28	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-28	2025-01-28
psSAR1g [W/kg]	0.146	0.158
psSAR10g [W/kg]	0.103	0.122
Power Drift [dB]	-0.06	-0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		76.0
Dist 3dB Peak [mm]		> 16.0



Meas.42 Body Plane with Top Edge 10mm on Middle Channel in LTE Band26 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE TOP, 10.00	Band 26	LTE-FDD, 10181-CAF	831.5, 26865	8.85	0.899	42.9	22.6	21.4

Hardware Setup

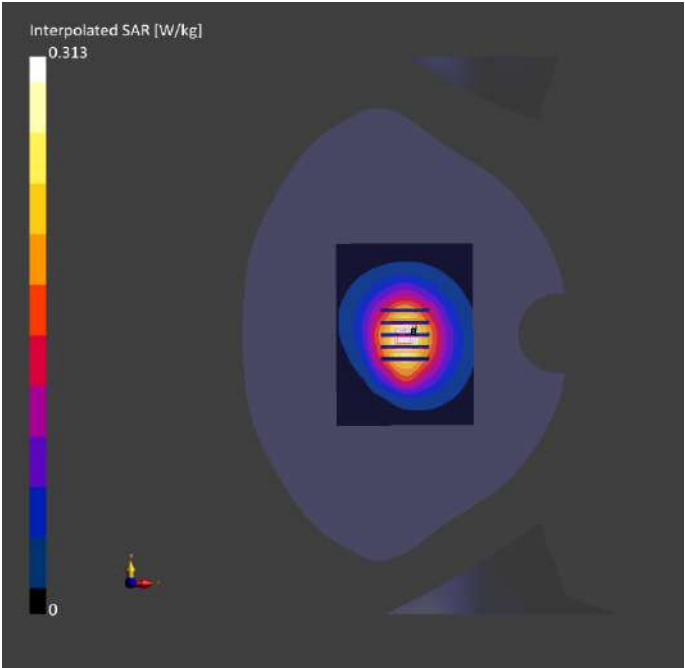
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-28	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-28	2025-01-28
psSAR1g [W/kg]	0.177	0.188
psSAR10g [W/kg]	0.115	0.120
Power Drift [dB]	-0.05	0.07
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		59.0
Dist 3dB Peak [mm]		18.7



Meas.43 Left Head with Cheek on Middle Channel in LTE Band66 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
LeftHead, HSL	CHEEK, 0.00	Band 66	LTE-FDD, 10169-CAF	1745.0, 132322	7.57	1.33	39.5	22.2	21.8

Hardware Setup

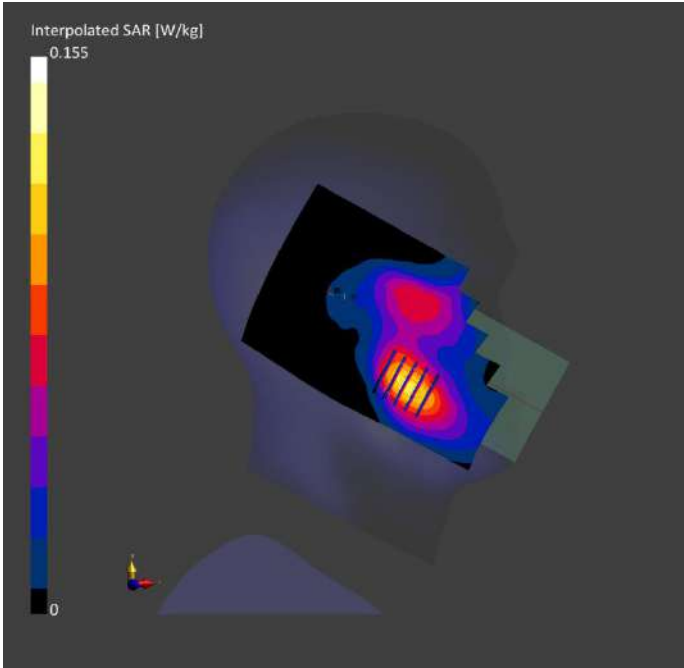
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-01-31	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-31	2025-01-31
psSAR1g [W/kg]	0.104	0.112
psSAR10g [W/kg]	0.060	0.075
Power Drift [dB]	0.01	0.09
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		72.5
Dist 3dB Peak [mm]		13.4



Meas.44 Body Plane with Back Side 15mm on Middle Channel in LTE Band66 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 66	LTE-FDD, 10169-CAF	1745.0, 132322	7.57	1.33	39.5	22.2	21.8

Hardware Setup

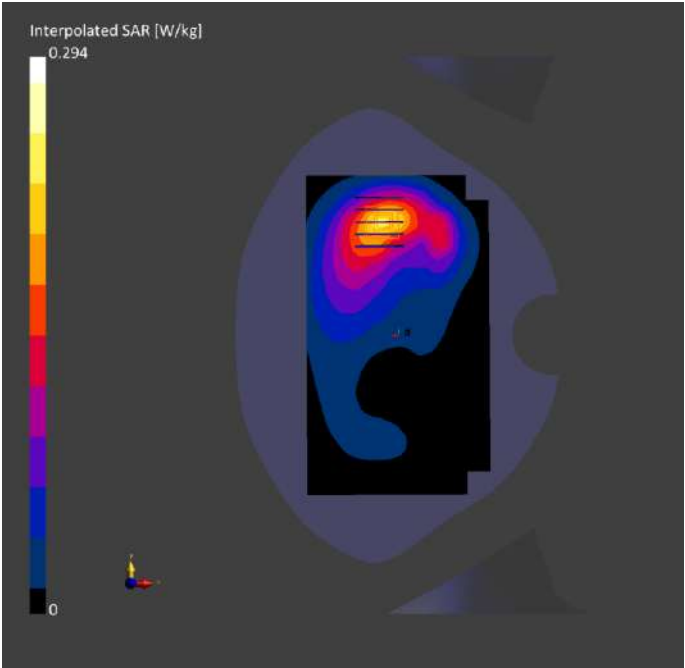
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-31	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-31	2025-01-31
psSAR1g [W/kg]	0.191	0.195
psSAR10g [W/kg]	0.114	0.124
Power Drift [dB]	0.02	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		66.7
Dist 3dB Peak [mm]		16.5



Meas.45 Body Plane with Bottom Edge 10mm on Middle Channel in LTE Band66 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE BOTTOM, 10.00	Band 66	LTE-FDD, 10169-CAF	1745.0, 132322	7.57	1.33	39.5	22.2	21.8

Hardware Setup

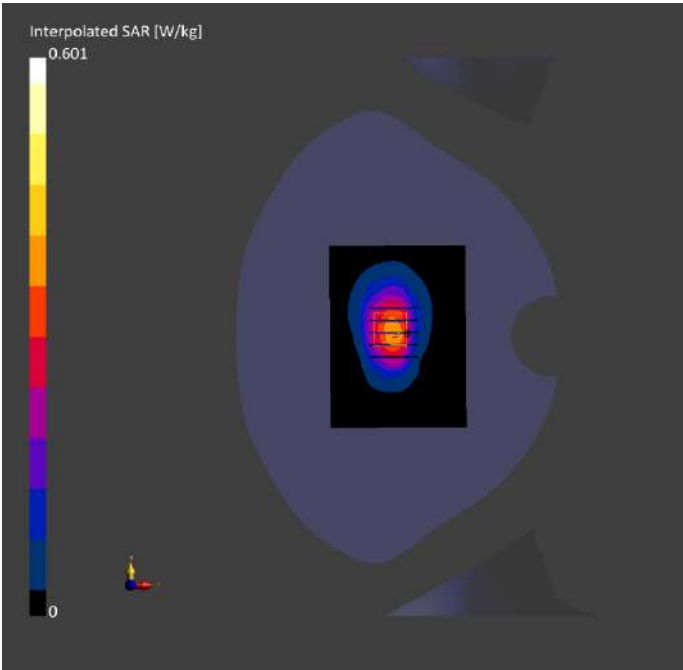
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-31	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-31	2025-01-31
psSAR1g [W/kg]	0.333	0.377
psSAR10g [W/kg]	0.191	0.220
Power Drift [dB]	-0.11	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		62.8
Dist 3dB Peak [mm]		11.3



Meas.46 Body Plane with Bottom Edge 0mm on Middle Channel in LTE Band66 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE BOTTOM, 0.00	Band 66	LTE-FDD, 10169-CAF	1745.0, 132322	7.57	1.33	39.5	22.2	21.8

Hardware Setup

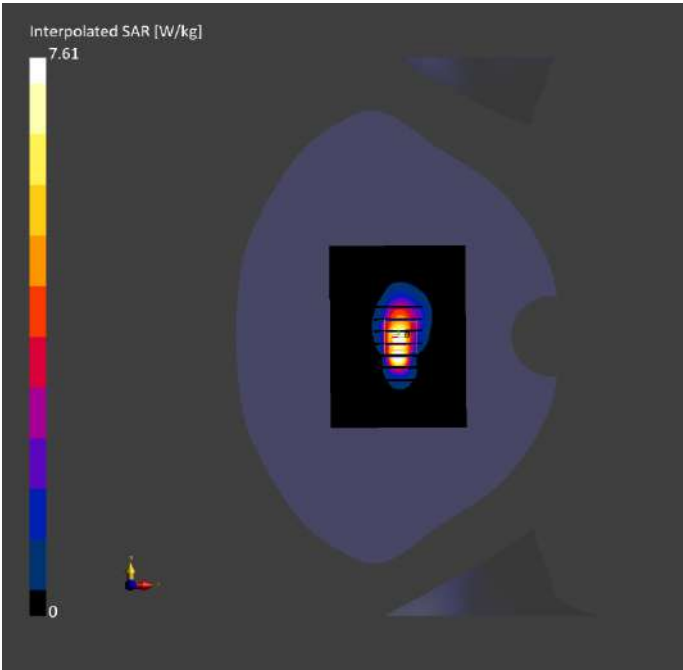
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-01-31	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-01-31	2025-01-31
psSAR1g [W/kg]	3.32	3.38
psSAR10g [W/kg]	1.62	1.59
Power Drift [dB]	0.00	-0.11
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		41.3
Dist 3dB Peak [mm]		4.8



Meas.47 Right Head with Cheek on Middle Channel in LTE Band38 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	CHEEK, 0.00	Band 38	LTE-TDD, 10172-CAH	2595.0, 38000	7.06	1.93	38.9	22.9	21.1

Hardware Setup

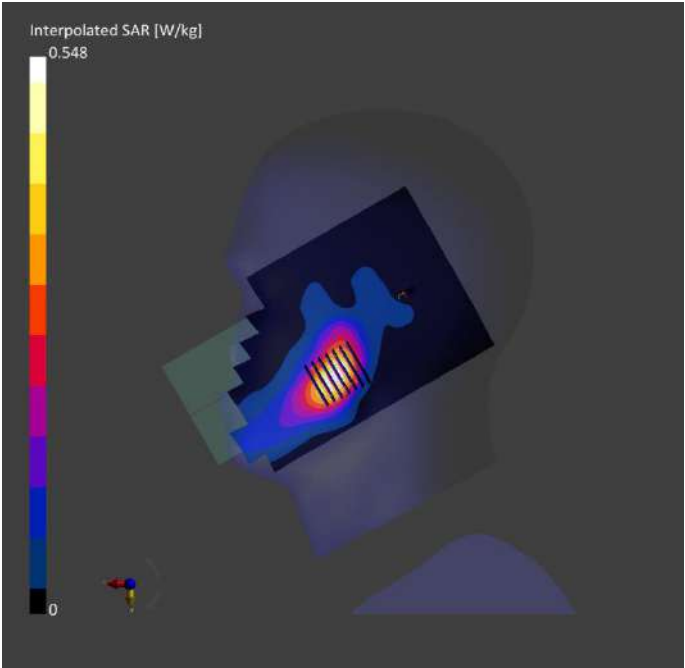
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-05	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-05	2025-02-05
psSAR1g [W/kg]	0.307	0.327
psSAR10g [W/kg]	0.158	0.179
Power Drift [dB]	0.03	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		58.0
Dist 3dB Peak [mm]		10.1



Meas.48 Body Plane with Back Side 15mm on Middle Channel in LTE Band38 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 38	LTE-TDD, 10172-CAH	2610.0, 38150	7.06	1.95	38.7	22.9	21.1

Hardware Setup

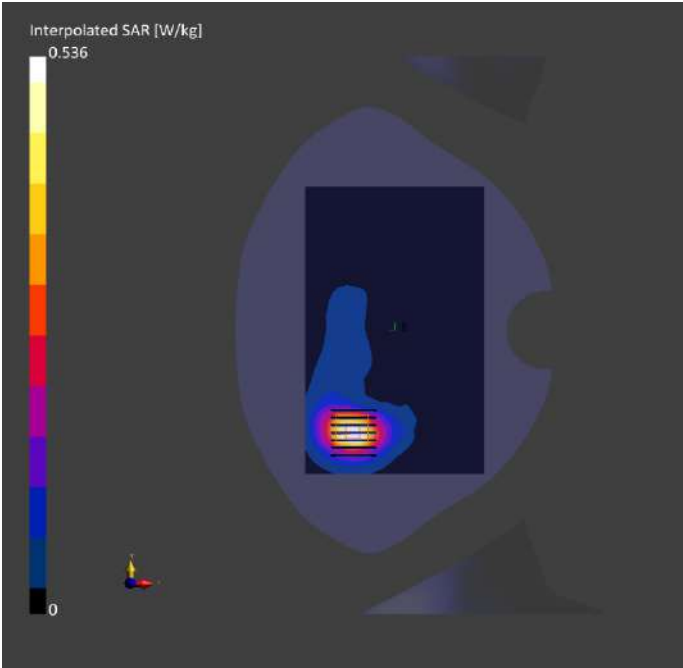
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-02-05	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-05	2025-02-05
psSAR1g [W/kg]	0.252	0.289
psSAR10g [W/kg]	0.126	0.144
Power Drift [dB]	0.13	-0.07
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		54.1
Dist 3dB Peak [mm]		10.8



Meas.49 Body Plane with Top Edge 10mm on High Channel in LTE Band38 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE TOP, 10.00	Band 38	LTE-TDD, 10172-CAH	2610.0, 38150	7.06	1.95	38.7	22.9	21.1

Hardware Setup

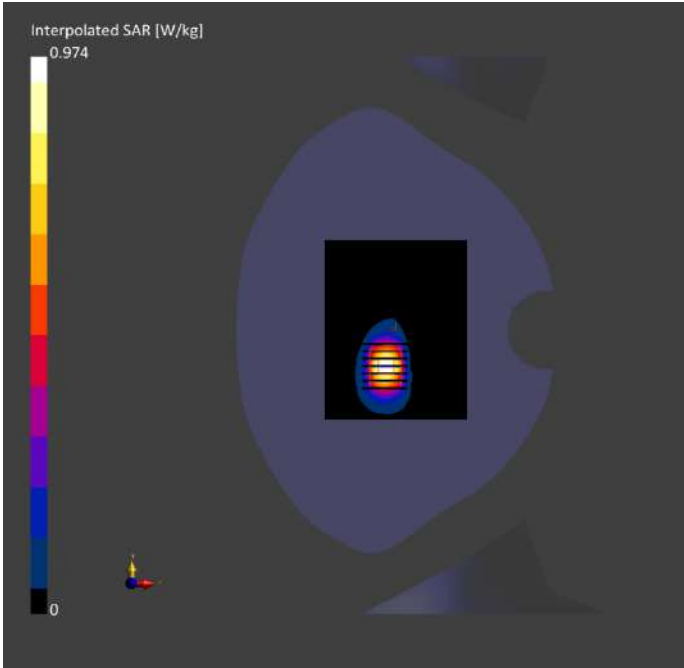
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-05	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-05	2025-02-05
psSAR1g [W/kg]	0.396	0.477
psSAR10g [W/kg]	0.183	0.202
Power Drift [dB]	-0.02	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.9
Dist 3dB Peak [mm]		7.2



Meas.50 Body Plane with Top Edge 0mm on Middle Channel in LTE Band38 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE TOP, 0.00	Band 38	LTE-TDD, 10172-CAH	2595.0, 38000	7.06	1.93	38.9	22.9	21.1

Hardware Setup

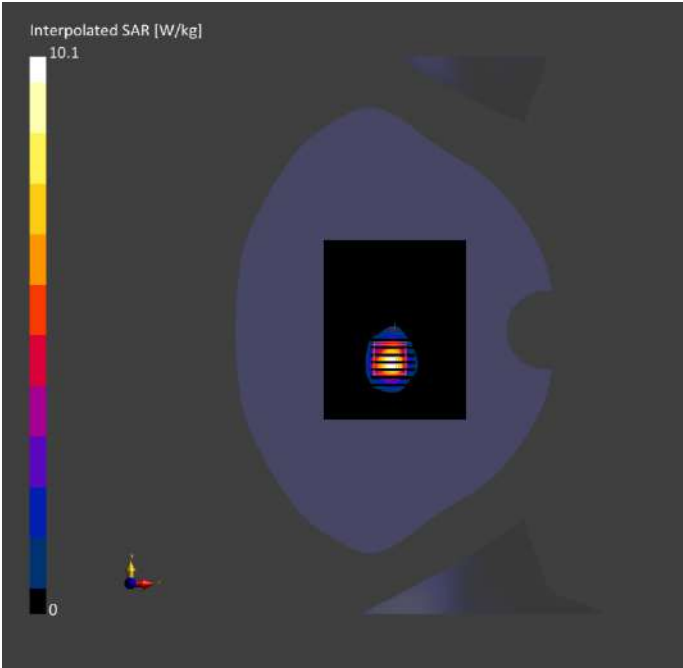
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-05	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-05	2025-02-05
psSAR1g [W/kg]	2.55	3.73
psSAR10g [W/kg]	1.07	1.27
Power Drift [dB]	0.03	-0.12
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		36.7
Dist 3dB Peak [mm]		5.0



Meas.51 Right Head with Cheek on Middle Channel in LTE Band41 mode with Antenna 31

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	CHEEK, 0.00	Band 41	LTE-TDD, 10172-CAH	2595.0, 40640	7.06	1.95	40.0	22.5	21.3

Hardware Setup

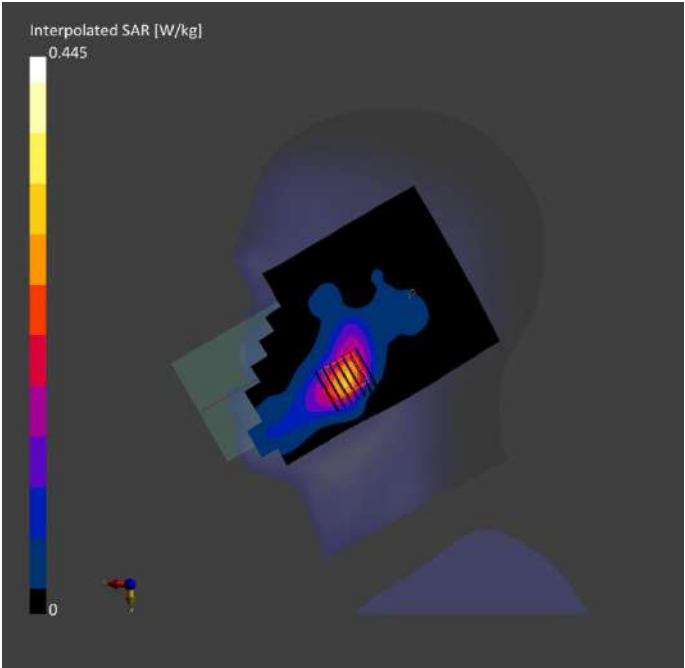
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-06	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	Y
Surface Detection	VMS + 6p	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-06	2025-02-06
psSAR1g [W/kg]	0.247	0.271
psSAR10g [W/kg]	0.127	0.149
Power Drift [dB]	0.10	-0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		61.7
Dist 3dB Peak [mm]		10.3



Meas.52 Body Plane with Back Side 15mm on Middle Channel in LTE Band41 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	Band 41	LTE-TDD, 10172-CAH	2595.0, 40640	7.06	1.95	40.0	22.5	21.3

Hardware Setup

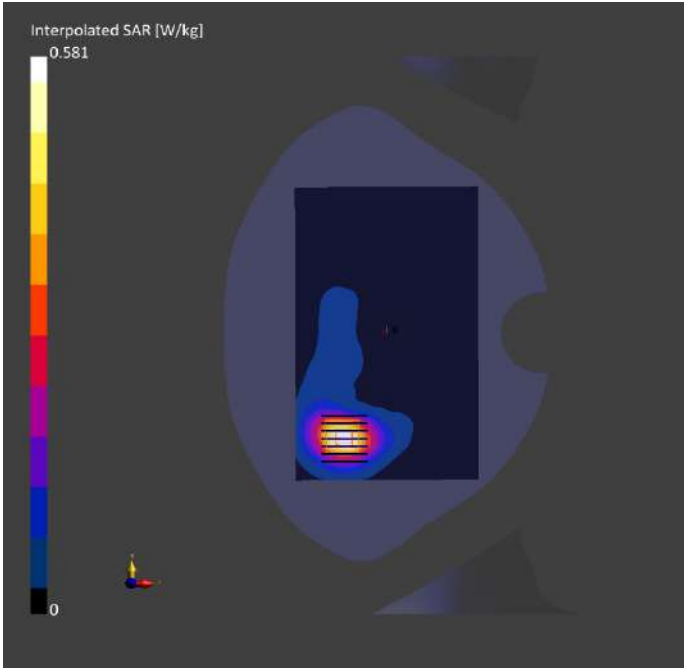
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-06	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-06	2025-02-06
psSAR1g [W/kg]	0.290	0.314
psSAR10g [W/kg]	0.145	0.156
Power Drift [dB]	0.02	-0.06
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		54.3
Dist 3dB Peak [mm]		10.4



Meas.53 Body Plane with Top Edge 10mm on Middle Channel in LTE Band41 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE TOP, 10.00	Band 41	LTE-TDD, 10172-CAH	2595.0, 40640	7.06	1.95	40.0	22.5	21.3

Hardware Setup

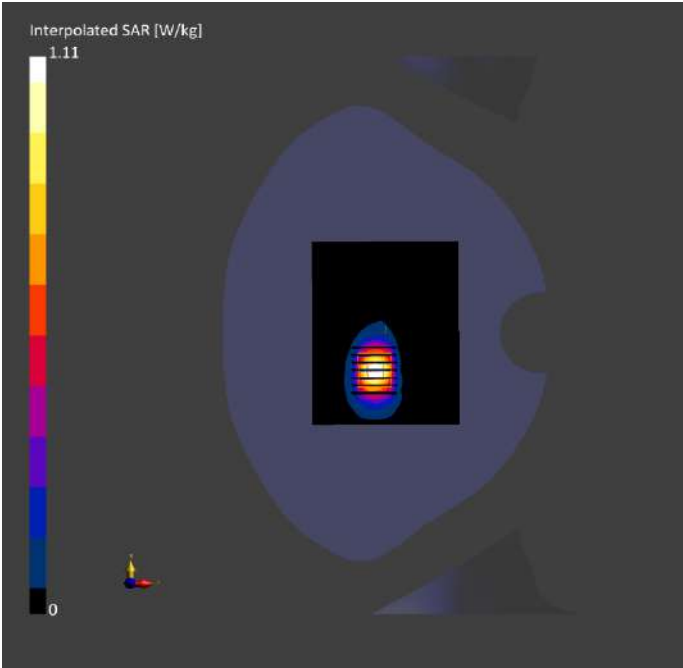
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-02-06	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-06	2025-02-06
psSAR1g [W/kg]	0.450	0.540
psSAR10g [W/kg]	0.208	0.233
Power Drift [dB]	0.01	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.9
Dist 3dB Peak [mm]		8.0



Meas.54 Body Plane with Top Edge 0mm on Middle Channel in LTE Band41 mode with Antenna 13

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE TOP, 0.00	Band 41	LTE-TDD, 10172-CAH	2595.0, 40640	7.06	1.95	40.0	22.5	21.3

Hardware Setup

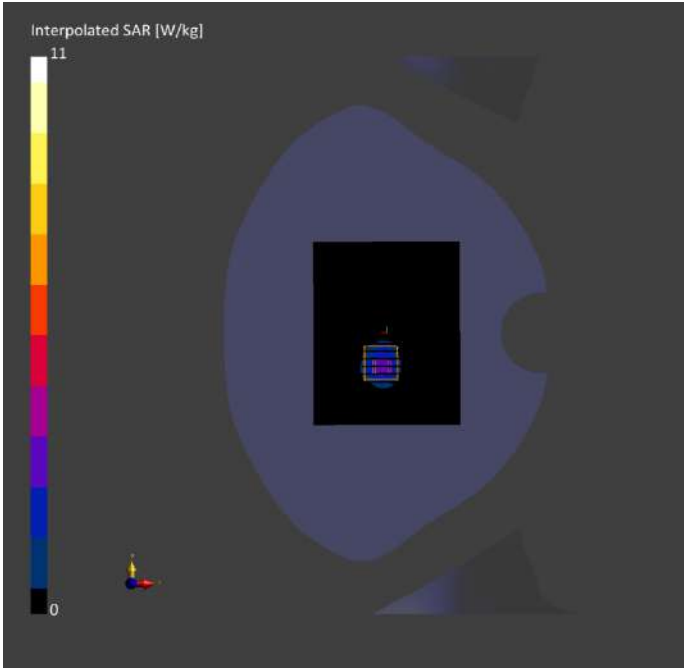
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-02-06	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-06	2025-02-06
psSAR1g [W/kg]	2.77	4.05
psSAR10g [W/kg]	1.16	1.38
Power Drift [dB]	0.10	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		36.6
Dist 3dB Peak [mm]		5.0



Meas.55 Left Head with Cheek on 6 Channel in IEEE802.11b mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
LeftHead, HSL	CHEEK, 0.00	WLAN 2.4GHz	WLAN, 10012-CAB	2437.0, 6	6.98	1.74	39.5	22.5	21.3

Hardware Setup

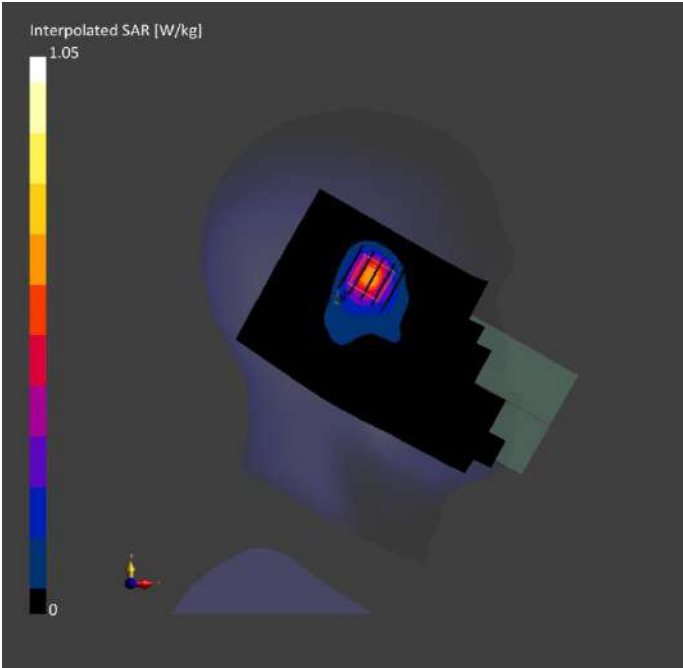
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-03	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 192.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	12.0 x 12.0	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	2025-02-03	2025-02-03
psSAR1g [W/kg]	0.535	0.573
psSAR10g [W/kg]	0.259	0.276
Power Drift [dB]	-0.03	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		59.7
Dist 3dB Peak [mm]		9.5



Meas.56 Body Plane with Back Side 15mm on 6 Channel in IEEE802.11b mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	WLAN 2.4GHz	WLAN, 10012-CAB	2437.0, 6	6.98	1.74	39.5	22.5	21.3

Hardware Setup

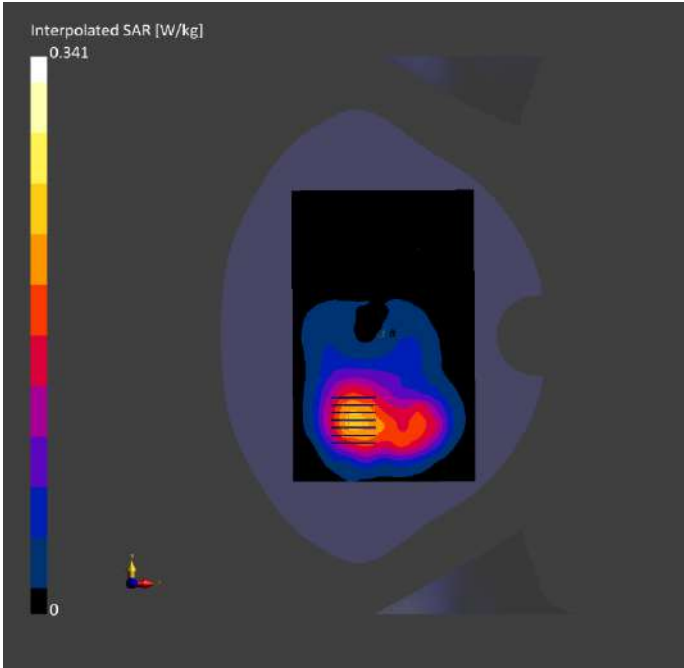
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-03	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

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	2025-02-03	2025-02-03
psSAR1g [W/kg]	0.197	0.210
psSAR10g [W/kg]	0.113	0.129
Power Drift [dB]	-0.11	-0.08
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.1
Dist 3dB Peak [mm]		20.6



Meas.57 Body Plane with Top Edge 10mm on 6 Channel in IEEE802.11b mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE TOP, 10.00	WLAN 2.4GHz	WLAN, 10012-CAB	2437.0, 6	6.98	1.74	39.5	22.5	21.3

Hardware Setup

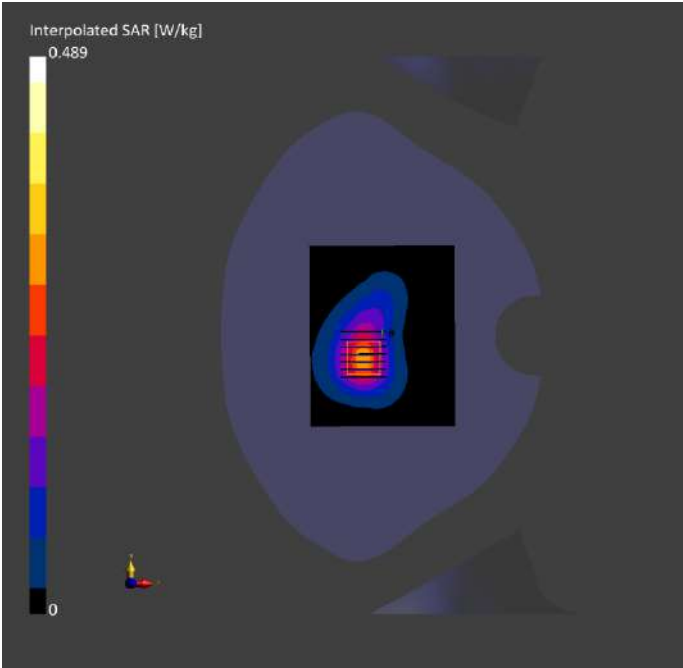
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000	2025-02-03	EX3DV4 - SN7893,	2024-09-05	DAE4 Sn1711, 2024-03-18

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-03	2025-02-03
psSAR1g [W/kg]	0.254	0.271
psSAR10g [W/kg]	0.132	0.147
Power Drift [dB]	0.02	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		53.3
Dist 3dB Peak [mm]		14.0



Meas.58 Right Head with Tilt on 46 Channel in IEEE802.11n40 mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	TILT, 0.00	WLAN 5GHz	WLAN, 10599-AAD	5190.0, 38	5.74	4.61	35.2	22.4	21.9

Hardware Setup

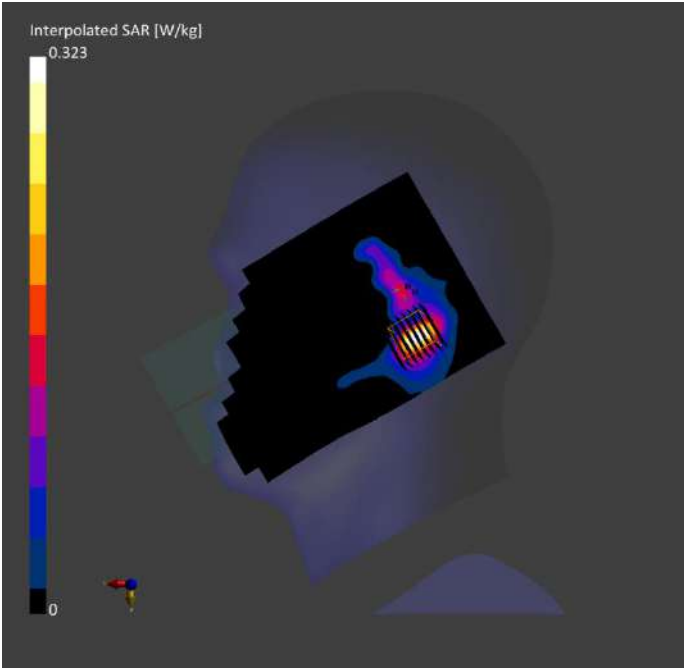
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 2090	HBBL-600-10000	2025-01-25	EX3DV4 - SN7510,	2024-06-25	DAE4 Sn540, 2024-02-22

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	2025-01-25	2025-01-25
psSAR1g [W/kg]	0.106	0.108
psSAR10g [W/kg]	0.042	0.040
Power Drift [dB]	0.51	0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		54.8
Dist 3dB Peak [mm]		7.8



Meas.59 Right Head with Tilt on 122 Channel in IEEE802.11ac80 mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	TILT, 0.00	WLAN 5GHz	WLAN, 10544-AAD	5610.0, 122	5.00	4.98	35.8	22.6	21.7

Hardware Setup

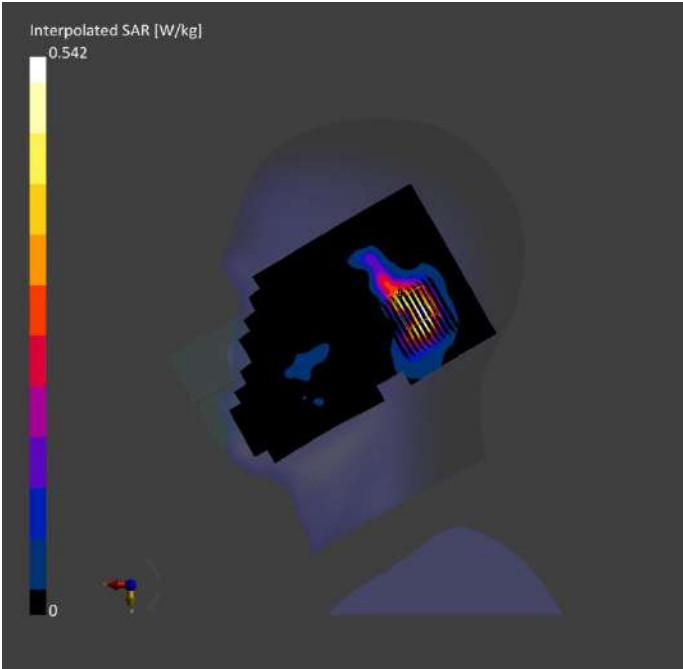
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 2090	HBBL-600-10000 2025-01-26	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2025-01-26	2025-01-26
psSAR1g [W/kg]	0.153	0.153
psSAR10g [W/kg]	0.059	0.054
Power Drift [dB]	-0.13	-0.11
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		56.2
Dist 3dB Peak [mm]		6.7



Meas.60 Right Head with Tilt on 155 Channel in IEEE802.11ac80 mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
RightHead, HSL	TILT, 0.00	WLAN 5GHz	WLAN, 10544-AAD	5775.0, 155	5.04	5.21	34.5	22.6	21.7

Hardware Setup

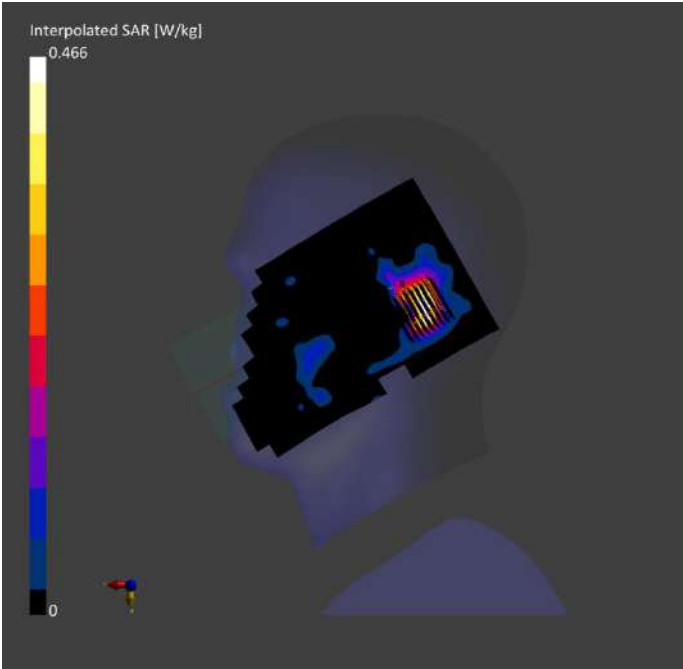
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 2090	HBBL-600-10000 2025-01-27	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2025-01-27	2025-01-27
psSAR1g [W/kg]	0.115	0.123
psSAR10g [W/kg]	0.043	0.042
Power Drift [dB]	-0.07	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		52.1
Dist 3dB Peak [mm]		6.6



Meas.61 Body Plane with Back Side 15mm on 54 Channel in IEEE802.11n40 mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	WLAN 5GHz	WLAN, 10599-AAD	5270.0, 54	5.50	4.70	34.7	22.4	21.9

Hardware Setup

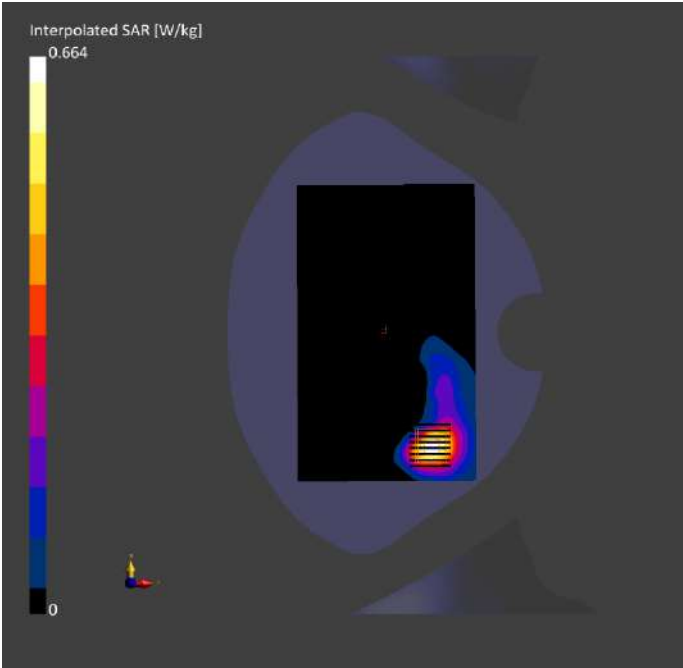
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 2090	HBBL-600-10000	2025-01-25	EX3DV4 - SN7510,	2024-06-25	DAE4 Sn540, 2024-02-22

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	2025-01-25	2025-01-25
psSAR1g [W/kg]	0.181	0.206
psSAR10g [W/kg]	0.071	0.080
Power Drift [dB]	0.02	-0.12
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		55.6
Dist 3dB Peak [mm]		11.1



Meas.62 Body Plane with Back Side 15mm on 122 Channel in IEEE802.11ac80 mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	WLAN 5GHz	WLAN, 10544-AAD	5610.0, 122	5.00	4.98	35.8	22.6	21.7

Hardware Setup

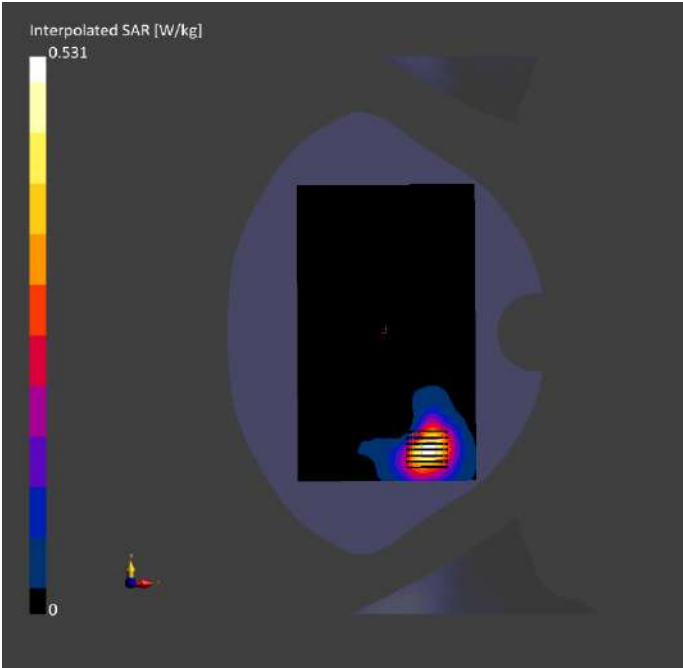
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 2090	HBBL-600-10000	2025-01-26	EX3DV4 - SN7510,	2024-06-25	DAE4 Sn540, 2024-02-22

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	2025-01-26	2025-01-26
psSAR1g [W/kg]	0.166	0.165
psSAR10g [W/kg]	0.064	0.063
Power Drift [dB]	0.11	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		55.5
Dist 3dB Peak [mm]		9.8



Meas.63 Body Plane with Back Side 15mm on 155 Channel in IEEE802.11ac80 mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	WLAN 5GHz	WLAN, 10544-AAD	5775.0, 155	5.04	5.21	34.5	22.6	21.7

Hardware Setup

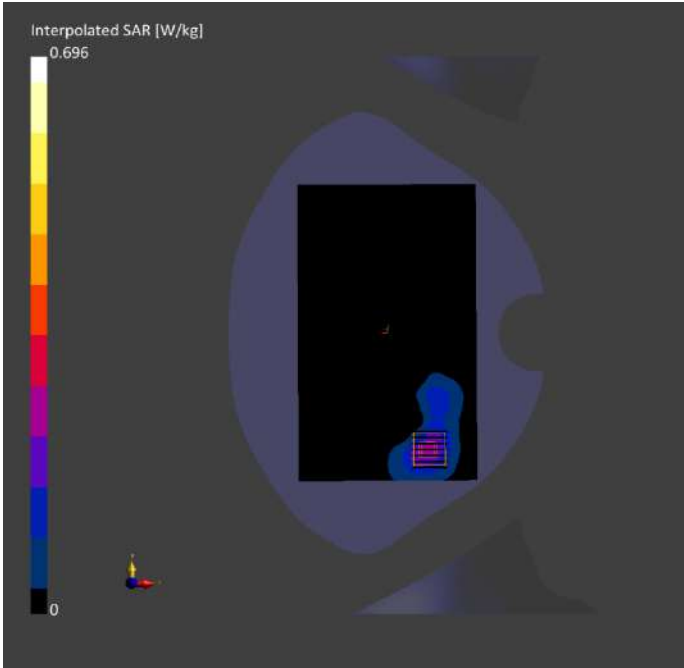
Phantom	TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 2090	HBBL-600-10000	2025-01-27	EX3DV4 - SN7510,	2024-06-25	DAE4 Sn540, 2024-02-22

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	2025-01-27	2025-01-27
psSAR1g [W/kg]	0.198	0.199
psSAR10g [W/kg]	0.076	0.079
Power Drift [dB]	0.11	0.06
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		52.0
Dist 3dB Peak [mm]		9.6



Meas.64 Body Plane with Left Edge 10mm on 46 Channel in IEEE802.11n40 mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE LEFT, 10.00	WLAN 5GHz	WLAN, 10599-AAD	5230.0, 46	5.74	4.61	35.2	22.4	21.9

Hardware Setup

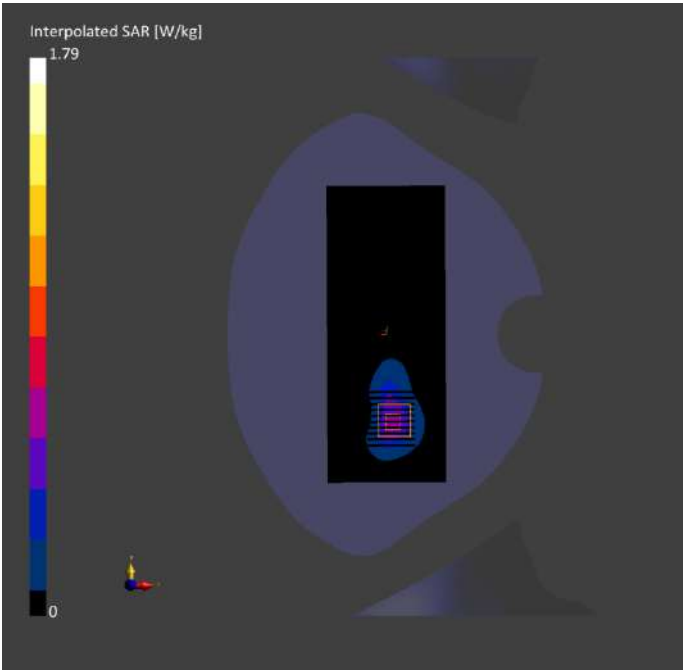
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 2090	HBBL-600-10000 2025-01-25	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 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	2025-01-25	2025-01-25
psSAR1g [W/kg]	0.504	0.548
psSAR10g [W/kg]	0.197	0.208
Power Drift [dB]	-0.04	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		55.4
Dist 3dB Peak [mm]		8.6



Meas.65 Body Plane with Top Edge 10mm on 155 Channel in IEEE802.11ac80 mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE TOP, 10.00	WLAN 5GHz	WLAN, 10544-AAD	5775.0, 155	5.04	5.21	34.5	22.6	21.7

Hardware Setup

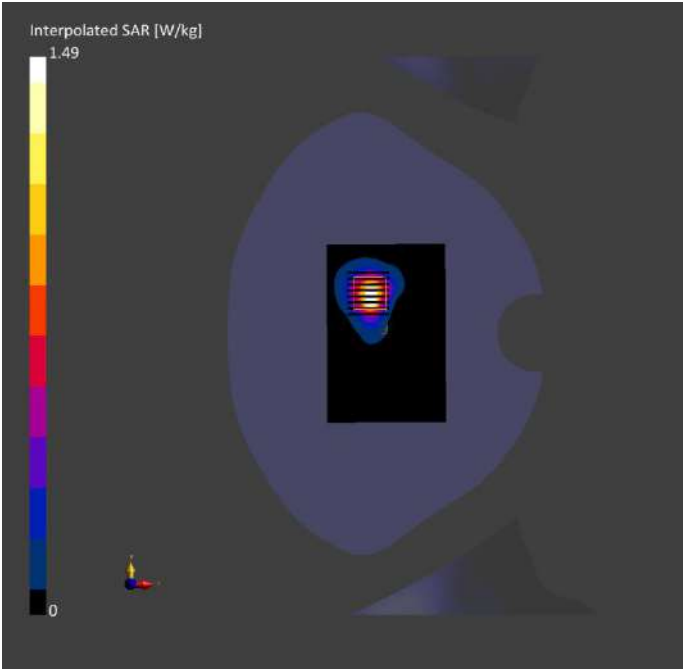
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 2090	HBBL-600-10000 2025-01-27	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2025-01-27	2025-01-27
psSAR1g [W/kg]	0.332	0.374
psSAR10g [W/kg]	0.110	0.120
Power Drift [dB]	0.07	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.5
Dist 3dB Peak [mm]		7.9



Meas.66 Body Plane with Left Edge 0mm on 54 Channel in IEEE802.11n40 mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE LEFT, 0.00	WLAN 5GHz	WLAN, 10599-AAD	5270.0, 54	5.50	4.70	34.7	22.4	21.9

Hardware Setup

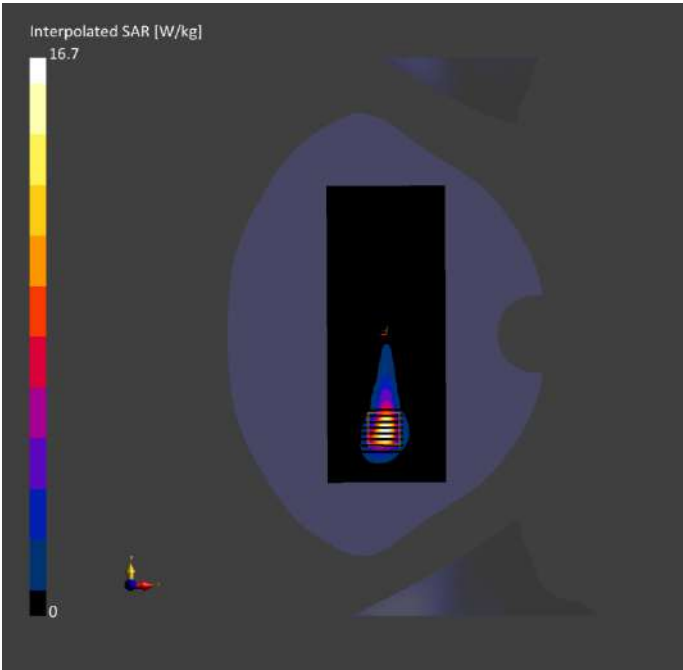
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 2090	HBBL-600-10000 2025-01-25	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

Scan Setup

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-01-25	2025-01-25
psSAR1g [W/kg]	2.92	3.81
psSAR10g [W/kg]	0.895	1.01
Power Drift [dB]	-0.02	-0.10
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		50.9
Dist 3dB Peak [mm]		4.0



Meas.67 Body Plane with Top Edge 0mm on 122 Channel in IEEE802.11ac80 mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	EDGE TOP, 0.00	WLAN 5GHz	WLAN, 10544-AAD	5610.0, 122	5.00	4.98	35.8	22.6	21.7

Hardware Setup

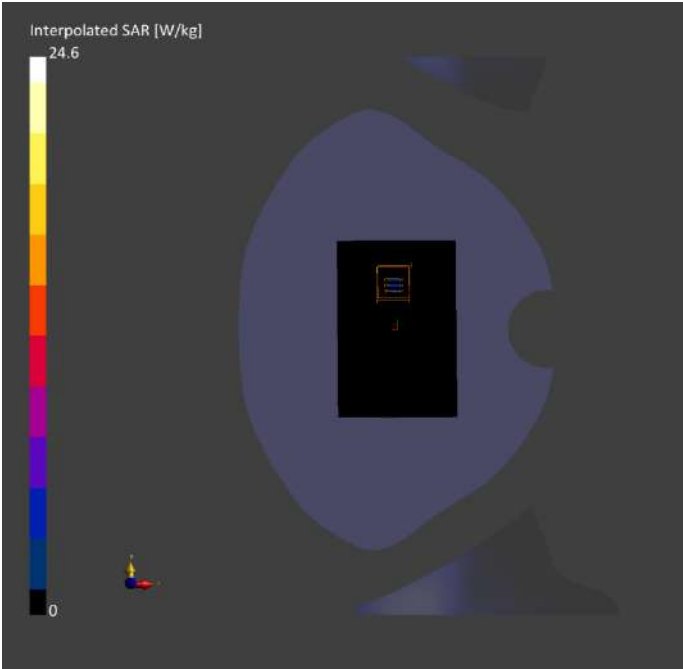
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 2090	HBBL-600-10000 2025-01-27	EX3DV4 - SN7510, 2024-06-25	DAE4 Sn540, 2024-02-22

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	2025-01-27	2025-01-27
psSAR1g [W/kg]	2.51	4.16
psSAR10g [W/kg]	0.520	0.721
Power Drift [dB]	-0.12	-0.12
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		47.3
Dist 3dB Peak [mm]		2.9



Meas.68 Left Head with Cheek on 39 Channel in Bluetooth mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
LeftHead, HSL	CHEEK, 0.00	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2441.0, 39	6.98	1.75	39.4	22.5	21.3

Hardware Setup

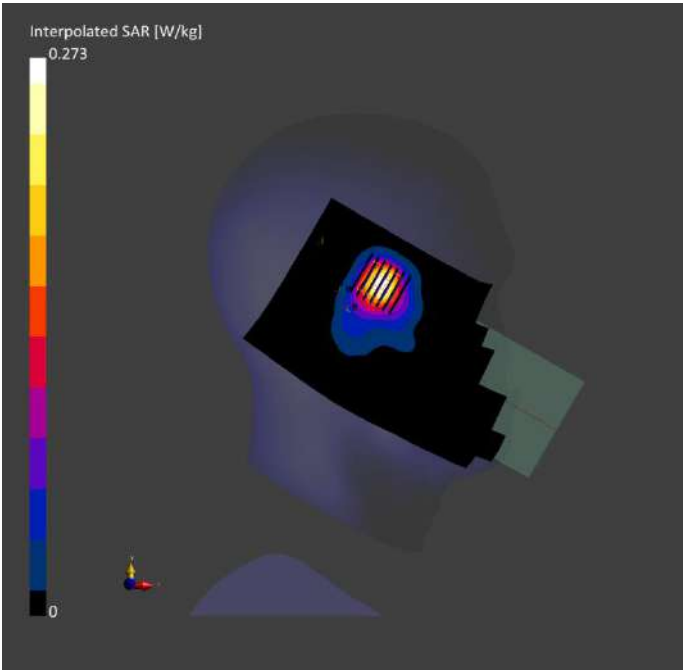
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-02-03	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-03	2025-02-03
psSAR1g [W/kg]	0.129	0.143
psSAR10g [W/kg]	0.063	0.067
Power Drift [dB]	0.04	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		50.2
Dist 3dB Peak [mm]		9.8



Meas.69 Body Plane with Back Side 15mm on 39 Channel in Bluetooth mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 15.00	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2441.0, 39	6.98	1.75	39.4	22.5	21.3

Hardware Setup

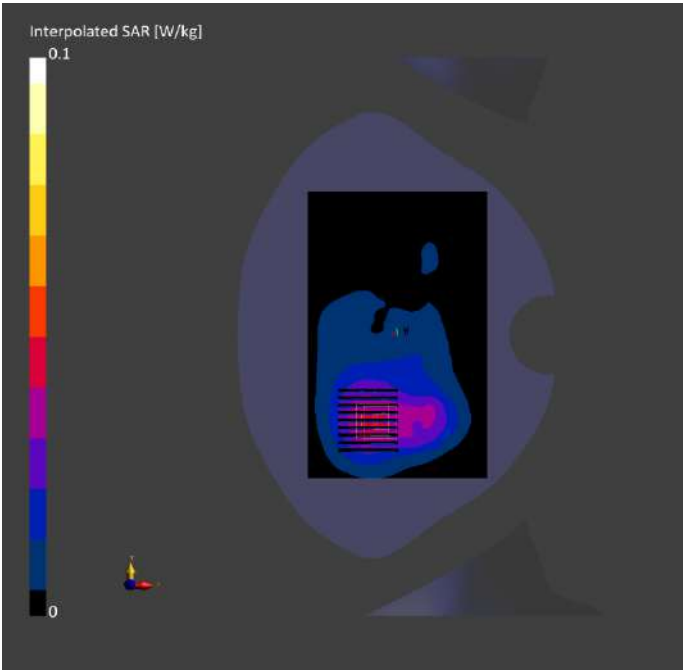
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-02-03	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-03	2025-02-03
psSAR1g [W/kg]	0.036	0.036
psSAR10g [W/kg]	0.021	0.021
Power Drift [dB]	-0.03	-0.12
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.5
Dist 3dB Peak [mm]		> 15.0



Meas.70 Body Plane with Back Side 10mm on 39 Channel in Bluetooth mode with Antenna 22

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivit y [S/m]	TSL Permittivity	Ambient Temperatur e [°C]	Liquid Temperatur e [°C]
Flat, HSL	BACK, 10.00	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2441.0, 39	6.98	1.75	39.4	22.5	21.3

Hardware Setup

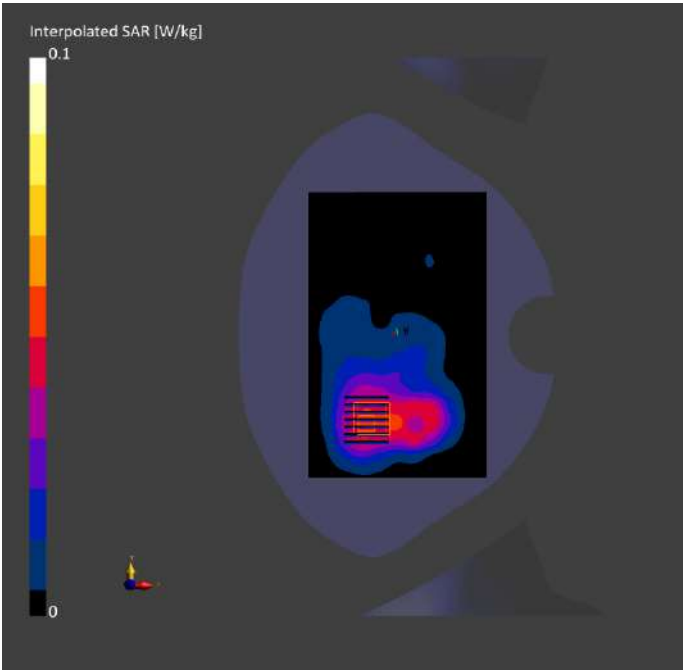
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V5.0 (30deg probe tilt) - 1859	HBBL-600-10000 2025-02-03	EX3DV4 - SN7893, 2024-09-05	DAE4 Sn1711, 2024-03-18

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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-03	2025-02-03
psSAR1g [W/kg]	0.044	0.046
psSAR10g [W/kg]	0.026	0.028
Power Drift [dB]	0.07	-0.07
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.7
Dist 3dB Peak [mm]		> 15.0



ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2510222-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SZ2510222-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SZ2510222-AC.pdf”.

Statement

1. The laboratory guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
2. The report without China inspection body and laboratory Mandatory Approval (CMA) mark has no effect of proving to the society.
3. For the report with CNAS mark or A2LA mark, the items marked with "☆" are not within the accredited scope.
4. This report is invalid if it is altered, without the signature of the testing and approval personnel, or without the "inspection and testing dedicated stamp" or test report stamp.
5. The test data and results are only valid for the tested samples provided by the customer.
6. This report shall not be partially reproduced without the written permission of the laboratory.
7. Any objection shall be raised to the laboratory within 30 days after receiving the report.

--END OF REPORT--