FCC SAR
Measurement and Test Report

For

Shenzhen Inrico Electronics Co.,Ltd

4/F, Building NO.108, High Tech Industrial Park, Guowei Road 72, Luohu District, Shenzhen, China

FCC ID: 2AIV6-T320

Test Standards:	FCC Part 2.1093 ANSI / IEEE C95.1 :2005+A1:2010 ANSI / IEEE C95.3 : 2002(R2008) IEEE 1528 :2013
Product Description:	Intelligent Two Way Radio
Tested Model:	T320
Report No.:	STR18018288H
Sample Received Date:	2018-02-01
Tested Date:	2018-02-01 to 2018-03-23
Issued Date:	2018-03-23
Tested By:	Lucy Wei / Engineer
Reviewed By:	Silin Chen / EMC Manager
Approved & Authorized By:	Jandy So / PSQ Manager
Prepared By:	

Shenzhen SEM Test Technology Co., Ltd.
1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road,
Bao'an District, Shenzhen, P.R.C.（518101）
Tel.: +86-755-33663308 Fax.: +86-755-33663309 Website: www.semtest.com.cn

TABLE OF CONTENTS

1. General Information

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	Shenzhen Inrico Electronics Co.,Ltd
Address of applicant:	4/F, Building NO.108, High Tech Industrial Park, Guowei Road 72, Luohu District, Shenzhen, China
Manufacturer:	Shenzhen Inrico Electronics Co.,Ltd
Address of manufacturer:	4/F, Building NO.108, High Tech Industrial Park, Guowei Road 72, Luohu District, Shenzhen, China

General Description of EUT:	
Product Name:	Intelligent Two Way Radio
Brand Name:	Inrico
Model No.:	T320
Adding Model(s):	/
Rated Voltage:	DC 3.8V by battery
Battery Capacity:	3500mAh
Device Category:	Portable Device
The EUT Main board support GSM850/ PCS1900, WCDMA Band 2/5, LTE Band 2/4/5/12/13/17 function. It is intended for speech, Multimedia Message Service (MMS) transmission. It is equipped with GPRS/EDGE class 12 for GSM850/900/DCS1800/PCS1900, GPS, Bluetooth, and Wi-Fi functions. For more information see the following datasheet	
Note: The test data is gathered from a production sample provided by the manufacturer.	

Technical Characteristics of EUT:	
2G	
Support Networks:	GSM, GPRS, EDGE
Support Band:	GSM850/PCS1900
Uplink Frequency:	GSM/GPRS/EDGE 850: 824~849MHz GSM/GPRS/EDGE 1900: 1850~1910MHz
Downlink Frequency:	GSM/GPRS/EDGE 850: 869~894MHz GSM/GPRS/EDGE 1900: 1930~1990MHz
RF Output Power:	GSM850: 33.03dBm, GSM1900: 29.57dBm EDGE850: 26.69dBm, EDGE1900: 25.54dBm
Type of Modulation:	GMSK, 8PSK
Type of Antenna:	SMA-reverse Antenna
Antenna Gain:	GSM850: 0.4dBi; GSM1900: 1.5dBi
GPRS/EDGE Class:	Class 12
3G	
Support Networks:	WCDMA, HSDPA, HSUPA
Support Band:	WCDMA Band 2, WCDMA Band 5
Uplink Frequency:	WCDMA Band 2: 1850~1910MHz WCDMA Band 5: 824~849MHz
Downlink Frequency:	WCDMA Band 2: 1930~1990MHz WCDMA Band 5: 869~894MHz
RF Output Power:	WCDMA Band 2: 22.88dBm, WCDMA Band 5: 23.14dBm
Type of Modulation:	BPSK
Antenna Type:	SMA-reverse Antenna
Antenna Gain:	WCDMA Band 2: 1.5dBi, WCDMA Band 5: 0.4dBi
4G	
Support Networks:	FDD-LTE
Support Band:	FDD-LTE Band 2, 4, 5,12,13,17
Uplink Frequency:	FDD-LTE Band 2: Tx: 1850-1910MHz, FDD-LTE Band 4: Tx: 1710-1755MHz, FDD-LTE Band 5: Tx: 824-849MHz, FDD-LTE Band 12: Tx: 699-716MHz, FDD-LTE Band 13: Tx: 777-787MHz, FDD-LTE Band 17: Tx: 704-716MHz,
Downlink Frequency:	FDD-LTE Band 2: Rx: 1930-1990MHz, FDD-LTE Band 4: Rx: 2110-2155MHz, FDD-LTE Band 5: Rx: 869-894MHz, FDD-LTE Band 12: Tx:729-746MHz, FDD-LTE Band 13: Tx:746-756MHz, FDD-LTE Band 17: Tx: 734-746MHz,
RF Output Power:	FDD-LTE Band 2: 23.67dBm, FDD-LTE Band 4: 24.51dBm,

	FDD-LTE Band 5: 23.30dBm, FDD-LTE Band 12: 24.26dBm, FDD-LTE Band 13: 23.69dBm, FDD-LTE Band 17: 25.07dBm
Type of Modulation:	QPSK, 16QAM
Antenna Type:	SMA-reverse Antenna
Antenna Gain:	FDD-LTE Band 2: 1.5dBi, FDD-LTE Band 4: 0.9dBi, FDD-LTE Band 5: 0.4dBi,FDD-LTE Band 12: 0dBi, FDD-LTE Band 13: 0dBi,FDD-LTE Band 17: 0dBi
WIFI	
Support Standards:	802.11b, 802.11g, 802.11n
Frequency Range:	2412-2462MHz for 11b/g/n(HT20) 2422-2452MHz for 11n(HT40)
RF Output Power:	13.08dBm (Conducted)
Type of Modulation:	CCK, OFDM, QPSK, BPSK, 16QAM, 64QAM
Data Rate:	1-11Mbps, 6-54Mbps, up to 150Mbps
Quantity of Channels:	11 for 802.11b/g/n(HT20) 7 for 802.11n(HT40)
Channel Separation:	5MHz
Antenna Type:	Integral Antenna
Antenna Gain:	1.1dBi
Bluetooth	
Bluetooth Version:	V4.0
Frequency Range:	2402-2480MHz
RF Output Power:	3.241dBm (Conducted)
Data Rate:	1Mbps, 2Mbps, 3Mbps
Modulation:	GFSK, Pi/4 QDPSK, 8DPSK
Quantity of Channels:	79/40
Channel Separation:	1MHz/2MHz
Antenna Type:	Integral Antenna
Antenna Gain:	1.1dBi

1.2 Test Standards

The following report is prepared on behalf of the Shenzhen Inrico Electronics Co.,Ltd in accordance with FCC 47 CFR Part 2.1093, ANSI/IEEE C95.1-2005, ANSI / IEEE C95.3 :2002, IEEE 1528-2013, KDB 447498 D01 v06, KDB 648474 D04 v01r03, KDB 248227 D01 v02r02, KDB 941225 D01 v03r01, KDB 941225 D05 v02r05 ,KDB 941225 D06 v02r01, and KDB 865664 D01 v01r04 and KDB 865664 D02 v01r02.

The objective is to determine compliance with FCC Part 2.1093 of the Federal Communication Commissions rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with KDB 865664 D01 v01r04 and KDB 865664 D02 v01r02. The public notice KDB 447498 D01 v06 for Mobile and Portable Devices RF Exposure Procedure also.

1.4 Test Facility

FCC – Registration No.: 125990

Shenzhen SEM Test Technology Co., Ltd. Laboratory has been recognized to perform compliance testing on equipment subject to the Commissions Declaration Of Conformity (DOC). The Designation Number is CN5010, and Test Firm Registration Number is 125990.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

2. Summary of Test Results

The maximum results of Specific Absorption Rate (SAR) have found during testing are as follows:

Frequency Band	Head SAR	Body-worn (10mm Gap)	Hotspot (10mm Gap)	SAR_{1g} Limit (W/kg)
	Maximum SAR_{1g} (W/kg)	Maximum SAR_{1g} (W/kg)	Maximum SAR_{1g} (W/kg)	
GSM850	0.995	**1.007**	**1.098**	1.6
GSM1900	**1.196**	0.335	0.459	1.6
WCDMA Band 2	0.978	0.433	0.433	1.6
WCDMA Band 5	1.054	0.666	0.666	1.6
FDD-LTE 2	0.721	0.555	0.555	1.6
FDD-LTE 4	0.644	0.373	0.373	1.6
FDD-LTE 5	0.731	0.499	0.499	1.6
FDD-LTE 12	1.030	0.792	0.792	1.6
FDD-LTE 13	1.156	0.921	0.921	1.6
FDD-LTE 17	0.753	0.794	0.794	1.6
WLAN 2.4G	0.210	0.116	0.116	1.6
Simultaneous Transmission	**1.341**	1.058	1.149	1.6

Front-of the face SAR (25mm Gap)

Frequency Band	Maximum SAR_{1g} (W/kg)	SAR_{1g} Limit (W/kg)
GSM850	**0.470**	1.6
GSM1900	0.156	1.6

Remark:

The highest reported SAR values for head, body-worn accessory, wireless router(hotspot), front-of the face, and simultaneous transmission conditions are ***1.196W/kg, 1.007W/kg , 1.098W/kg, 0.470W/kg and 1.341W/kg*** *respectively.*

The device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg) specified in FCC 47 CFR Part 2.1093 and ANSI/IEEE C95.1-2005, and had been tested in accordance with the measurement methods and procedure specified in IEEE 1528-2013 and KDB 865664 D01 v01r04 and KDB 865664 D02 v01r02

3. Specific Absorption Rate (SAR)

3.1 Introduction

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 techiques 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.

3.2 SAR Definition

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

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

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

$$\mathbf{SAR} = \mathbf{C}\left(\frac{\boldsymbol{\delta}\mathbf{T}}{\boldsymbol{\delta}\mathbf{t}}\right)$$

Where: C is the specific heat capacity, δ T is the temperature rise and δ t is the exposure duration, or related to the
electrical field in the tissue by

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

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

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

4. SAR Measurement System

4.1 The Measurement System

Comosar is a system that is able to determine the SAR distribution inside a phantom of human being according to different standards. The Comosar system consists of the following items:
- Main computer to control all the system
- 6 axis robot
- Data acquisition system
- Miniature E-field probe
- Phone holder
- Head simulating tissue

The following figure shows the system.

The EUT under test operating at the maximum power level is placed in the phone holder, under the phantom, which is filled with head simulating liquid. The E-Field probe measures the electric field inside the phantom. The OpenSAR software computes the results to give a SAR value in a 1g or 10g mass.

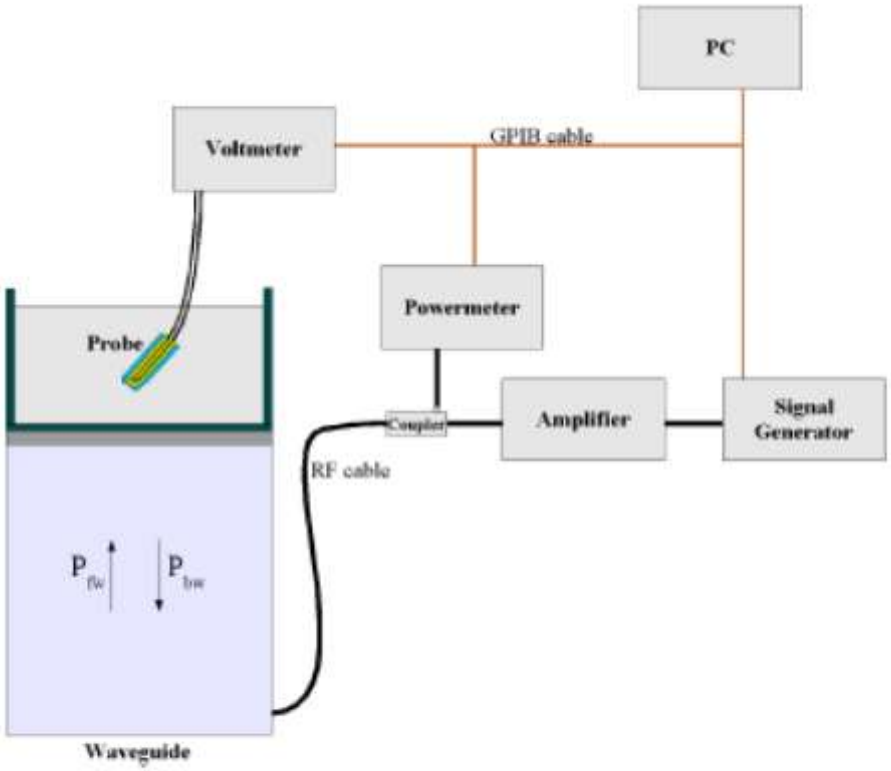
4.2 Probe

For the measurements the Specific Dosimetric E-Field Probe SSE5 SN 09/13 EP168 with following specifications is used
- Dynamic range: 0.01-100 W/kg
- Probe Length: 330 mm
- Length of Individual Dipoles: 4.5 mm
- Maximum external diameter: 8 mm
- Probe Tip External Diameter : 5 mm
- Distance between dipoles / probe extremity: 2.7mm

- Probe linearity: ＜0.25 dB
- Axial Isotropy: ＜0.25 dB
- Spherical Isotropy: ＜0.50 dB
- Calibration range: 700 to 3000MHz for head & body simulating liquid.

Angle between probe axis (evaluation axis) and suface normal line:1ess than 30°

Probe calibration is realized, in compliance with EN 62209-1 and IEEE 1528 STD, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the EN 62209-1 annexe technique using reference guide at the five frequencies.



$$SAR = \frac{4\left(P_{fw} - P_{bw}\right)}{ab\delta} \cos^2\left(\pi \frac{y}{a}\right) e^{-(2z/\delta)}$$

Where :

Pfw = Forward Power

Pbw = Backward Power

a and b =Waveguide dimensions

I = Skin depth

Keithley configuration:

Rate = Medium; Filter = ON; RDGS = 10; Filter type = Moving Average; Range auto after each calibration, a SAR measurement is performed on a validation dipole and compared with a NPL calibrated probe, to verify it.

The calibration factors, CF(N), for the 3 sensors corresponding to dipole 1, dipole 2 and dipole 3 are:

$$CF(N)=SAR(N)/Vlin(N) \quad (N=1,2,3)$$

The linearised output voltage Vlin(N) is obtained from the displayed output voltage V(N) using

$$Vlin(N)=V(N)*(1+V(N)/DCP(N)) \quad (N=1,2,3)$$

where DCP is the diode compression point in mV.

4.3 Probe Calibration Process

Dosimetric Assessment Procedure

Each E-Probe/Probe Amplifier combination has unique calibration parameters. SATIMO Probe calibration procedure is conducted to determine the proper amplifier settings to enter in the probe parameters. The amplifier settings are determined for a given frequency by subjecting the probe to a known E-field density (1 mW/cm2) using an with CALISAR, Antenna proprietary calibration system.

Free Space Assessment Procedure

The free space E-field from amplified probe outputs is determined in a test chamber. This calibration can be performed in a TEM cell if the frequency is below 1 GHz and in a waveguide or other methodologies above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is rotated 360 degrees until the three channels show the maximum reading. The power density readings equates to 1mW/cm2.

Temperature Assessment Procedure

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated head tissue. The E-field in the medium correlates with the temperature rise in the dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$SAR = C\frac{\Delta T}{\Delta t}$$

Where:

Δt = exposure time (30 seconds),

C = heat capacity of tissue (brain or muscle),

ΔT = temperature increase due to RF exposure.

SAR is proportional to $\Delta T/\Delta t$, the initial rate of tissue heating, before thermal diffusion takes place. The electric field in the simulated tissue can be used to estimate SAR by equating the thermally derived SAR to that with the E- field component.

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

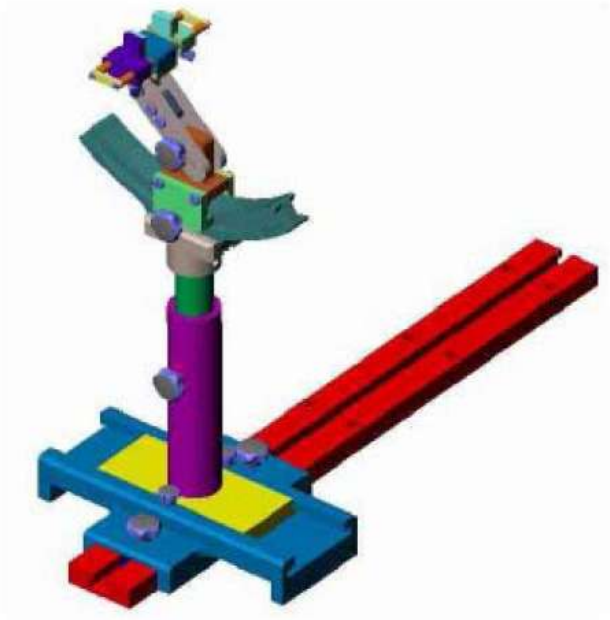
Where:
σ = simulated tissue conductivity,
ρ = Tissue density (1.25 g/cm3 for brain tissue)

4.4 Phantom

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.

4.5 Device Holder

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



System Material	Permittivity	Loss Tangent
Delrin	3.7	0.005

4.6 Test Equipment List

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
E-Field Probe	MVG	SSE5	SN 09/13 EP168	2017-06-01	2018-05-31
750MHz Dipole	MVG	SID750	SN 47/12 DIP 0G750-203	2017-03-16	2018-03-15
835MHz Dipole	MVG	SID835	SN 47/12 DIP 0G835-204	2017-03-16	2018-03-15
1800MHz Dipole	MVG	SID1800	SN 47/12 DIP 1G800-206	2017-03-16	2018-03-15
1900MHz Dipole	MVG	SID1900	SN 47/12 DIP 1G900-207	2017-03-16	2018-03-15
2450MHz Dipole	MVG	SID2450	SN 13/15 DIP 2G450-364	2017-03-16	2018-03-15
Dielectric Probe Kit	MVG	SCLMP	SN 47/12 OCPG49	2017-03-16	2018-03-15
SAM Phantom	MVG	SAM	SN/ 47/12 SAM95	N/A	N/A
MULTIMETER	KEITHLEY	Keithley 2000	4006367	2017-06-12	2018-06-11
Signal Generator	Rohde & Schwarz	SMR20	100047	2017-06-12	2018-06-11
Universal Tester	Rohde & Schwarz	CMU200	112012	2017-06-12	2018-06-11
Communications Tester	Rohde & Schwarz	CMW500	148650	2017-06-12	2018-06-11
Network Analyzer	HP	8753C	2901A00831	2017-06-12	2018-06-11
Directional Couplers	Agilent	778D	20160	2017-06-12	2018-06-11

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
750MHz Dipole	MVG	SID750	SN 47/12 DIP 0G750-203	2018-03-20	2019-03-19
835MHz Dipole	MVG	SID835	SN 47/12 DIP 0G835-204	2018-03-20	2019-03-19
1800MHz Dipole	MVG	SID1800	SN 47/12 DIP 1G800-206	2018-03-20	2019-03-19
1900MHz Dipole	MVG	SID1900	SN 47/12 DIP 1G900-207	2018-03-20	2019-03-19
2450MHz Dipole	MVG	SID2450	SN 13/15 DIP 2G450-364	2018-03-20	2019-03-19

5. Tissue Simulating Liquids

5.1 Composition of Tissue Simulating Liquid

For the measurement of the field distribution inside the SAM phantom with SMTIMO, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. 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. Please see the following photos for the liquid height.

Liquid Height for Head SAR

Liquid Height for Body SAR

The Composition of Tissue Simulating Liquid

Frequency (MHz)	Water (%)	Salt (%)	Sugar (%)	HEC (%)	Preventol (%)	DGBE (%)
Head						
750	41.1	1.4	57.0	0.2	0.3	0
835	40.3	1.4	57.9	0.2	0.2	0
1700-1900	55.2	0.3	0	0	0	44.5
2450	55.0	0.1	0	0	0	44.9
Body						
750	50.0	0.8	48.8	0.2	0.2	0
835	50.8	0.9	48.1	0.1	0.1	0
1700-1900	70.2	0.4	0	0	0	29.4
2450	68.6	0.1	0	0	0	31.3

5.2 Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in P1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in P1528.

Target Frequency (MHz)	Head		Body	
	Conductivity (σ)	Permittivity (ε_r)	Conductivity (σ)	Permittivity (ε_r)
150	0.76	52.3	0.80	61.9
300	0.87	45.3	0.92	58.2
450	0.87	43.5	0.94	56.7
750	**0.89**	**41.9**	**0.96**	**55.5**
835	**0.90**	**41.5**	**0.97**	**55.2**
900	0.97	41.5	1.05	55.0
915	0.98	41.5	1.06	55.0
1450	1.20	40.5	1.30	54.0
1610	1.29	40.3	1.40	53.8
1750	**1.37**	**40.1**	**1.49**	**53.4**
1800-2000	**1.40**	**40.0**	**1.52**	**53.3**
2450	**1.80**	**39.2**	**1.95**	**52.7**
3000	2.40	38.5	2.73	52.0
5800	5.27	35.3	6.00	48.2

5.3 Tissue Calibration Result

The dielectric parameters of the liquids were verified prior to the SAR evaluation using COMOSAR Dielectric Probe Kit and an Agilent Network Analyzer.

Calibration Result for Dielectric Parameters of Tissue Simulating Liquid

Head Tissue Simulating Liquid									
Freq. MHz.	Temp. (℃)	Conductivity			Permittivity			Limit (%)	Date
		Reading (σ)	Target (σ)	Delta (%)	Reading (ε r)	Target (ε r)	Delta (%)		
750	21.2	0.86	0.89	-3.37	41.32	41.90	-1.38	±5	2018-02-01
835	21.2	0.87	0.90	-3.33	41.11	41.50	-0.94	±5	2018-02-01
1750	21.3	1.37	1.37	0.00	39.02	40.1	-2.69	±5	2018-02-02
1800	21.3	1.37	1.40	-2.14	39.02	40.0	-2.45	±5	2018-02-02
1900	21.3	1.38	1.40	-1.43	38.56	40.00	-3.60	±5	2018-02-02
2450	21.3	1.74	1.80	-3.33	38.15	39.20	-2.68	±5	2018-02-05

Body Tissue Simulating Liquid									
Freq. MHz.	Temp. (℃)	Conductivity			Permittivity			Limit (%)	Date
		Reading (σ)	Target (σ)	Delta (%)	Reading (ε r)	Target (ε r)	Delta (%)		
750	21.2	0.93	0.96	-3.12	54.96	55.50	-0.97	±5	2018-02-01
835	21.2	0.95	0.97	-2.06	54.85	55.20	-0.63	±5	2018-02-01
1750	21.3	1.46	1.49	-2.01	51.22	53.40	-4.08	±5	2018-02-02
1800	21.3	1.46	1.52	-3.95	51.22	53.30	-3.90	±5	2018-02-02
1900	21.3	1.50	1.52	-1.32	52.42	53.30	-1.65	±5	2018-02-02
2450	21.3	1.91	1.95	-2.05	52.01	52.70	-1.31	±5	2018-02-05

Body Tissue Simulating Liquid									
Freq. MHz.	Temp. (℃)	Conductivity			Permittivity			Limit (%)	Date
		Reading (σ)	Target (σ)	Delta (%)	Reading (ε r)	Target (ε r)	Delta (%)		
750	21.2	0.94	0.96	-2.08	54.98	55.50	-0.94	±5	2018-03-23
835	21.2	0.94	0.97	-3.09	54.81	55.20	-0.71	±5	2018-03-23
1750	21.3	1.48	1.49	-0.67	51.32	53.40	-3.90	±5	2018-03-23
1800	21.3	1.48	1.52	-2.63	51.32	53.30	-3.71	±5	2018-03-23
1900	21.3	1.46	1.52	-3.95	52.24	53.30	-1.99	±5	2018-03-23
2450	21.3	1.87	1.95	-4.10	52.21	52.70	-0.93	±5	2018-03-23

Head Tissue Simulating Liquid									
Freq. MHz.	Temp. (℃)	Conductivity			Permittivity			Limit (%)	Date
		Reading (σ)	Target (σ)	Delta (%)	Reading (ε r)	Target (ε r)	Delta (%)		
750	21.2	0.85	0.89	-4.49	41.54	41.90	-0.86	±5	2018-03-23
835	21.2	0.88	0.90	-2.22	41.32	41.50	-0.43	±5	2018-03-23

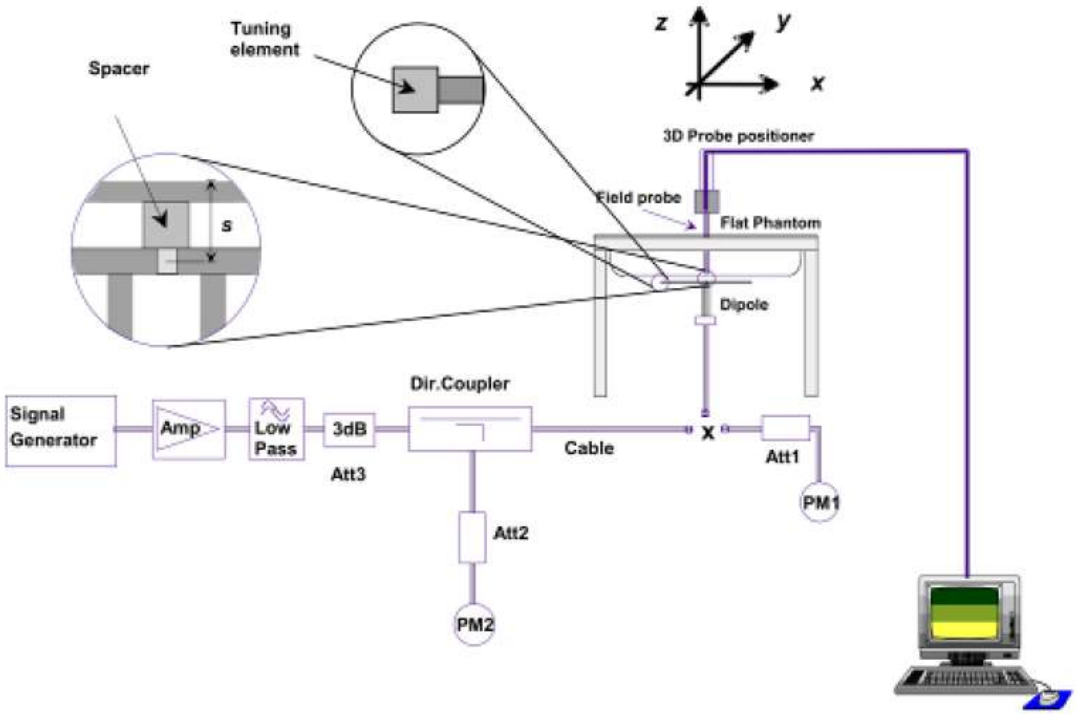
6. SAR Measurement Evaluation

6.1 Purpose of System Performance 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.

6.2 System 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 which comes from a signal generator at frequency 835 MHz and 1900 MHz. 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.



System Verification Setup Block Diagram

Setup Photo of Dipole Antenna

The output power on dipole port must be calibrated to 24 dBm(250 mW) before dipole is connected.

6.3 Validation Results

Comparing to the original SAR value provided by SATIMO, the validation data should be within its specification of 10 %. Table 6.1 shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion.

Frequency	Targeted SAR_{1g}	Measured SAR_{1g}	Normalized SAR_{1g}	Tolerance	Date
MHz	(W/kg)	(W/kg)	(W/kg)	(%)	
Head					
750	8.40	2.16	8.64	2.86	2018-02-01
835	9.65	2.41	9.64	-0.10	2018-02-01
1800	38.49	9.61	38.44	-0.13	2018-02-02
1900	39.59	9.91	39.64	0.13	2018-02-02
2450	53.76	13.45	53.8	0.07	2018-02-05
Body					
750	8.40	2.12	8.48	0.95	2018-02-01
835	9.36	2.35	9.4	0.43	2018-02-01
1800	38.29	9.58	38.32	0.08	2018-02-02
1900	39.01	9.78	39.12	0.28	2018-02-02
2450	50.33	12.59	50.36	0.06	2018-02-05

Frequency	Targeted SAR_{1g}	Measured SAR_{1g}	Normalized SAR_{1g}	Tolerance	Date
MHz	(W/kg)	(W/kg)	(W/kg)	(%)	

Body					
750	8.40	2.15	8.6	2.38	2018-03-23
835	9.38	2.33	9.32	-0.64	2018-03-23
1800	38.31	9.58	38.32	0.03	2018-03-23
1900	39.10	9.84	39.36	0.66	2018-03-23
2450	50.41	12.76	51.04	1.25	2018-03-23

Frequency	**Targeted SAR_{1g}**	**Measured SAR_{1g}**	**Normalized SAR_{1g}**	**Tolerance**	**Date**
MHz	**(W/kg)**	**(W/kg)**	**(W/kg)**	**(%)**	
Head					
750	8.40	2.16	8.64	2.86	2018-03-23
835	9.67	2.42	9.68	0.10	2018-03-23

Remark: Referring to IEEE 1528-2013, Section 8.2, The system check shall be performed at a test frequency that is within ±10% or ±100 MHz of the compliance test mid-band frequency, so the 1750 MHz system verification is made of 1800MHz Dipole.

Targeted and Measurement SAR

Please refer to Annex A for the plots of system performance check.

7. EUT Testing Position

7.1 Define Two Imaginary Lines on The Handset

(a) The vertical centerline 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.

(b) 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.

(c) 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 centerline is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.

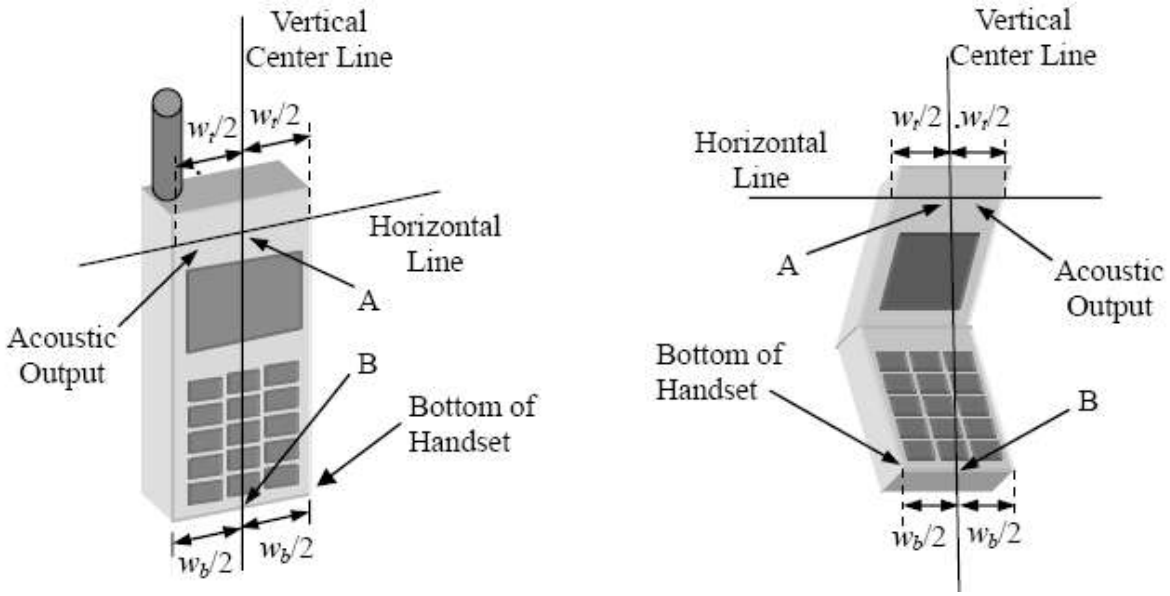


Illustration for Handset Vertical and Horizontal Reference Lines

7.2 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 (see Fig. 7.2).

Illustration for Cheek Position

7.3 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 (see Fig. 7.3).

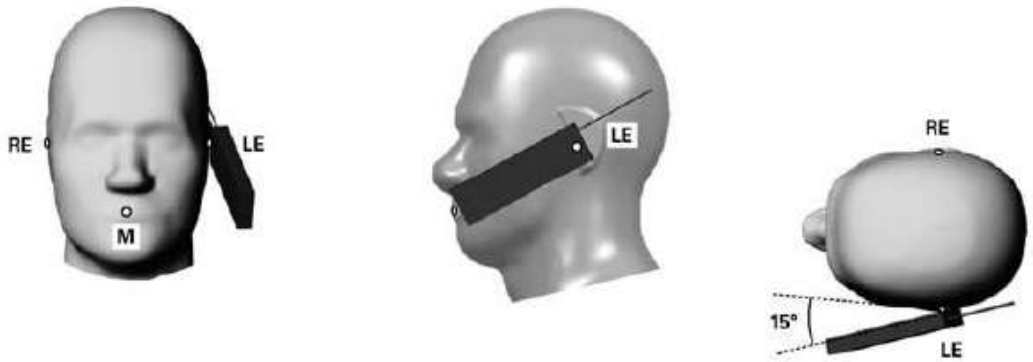


Illustration for Tilted Position

7.4 Body Worn Position

(a) To position the device parallel to the phantom surface with either keypad up or down.
(b) To adjust the device parallel to the flat phantom.
(c) To adjust the distance between the device surface and the flat phantom to 10mm.

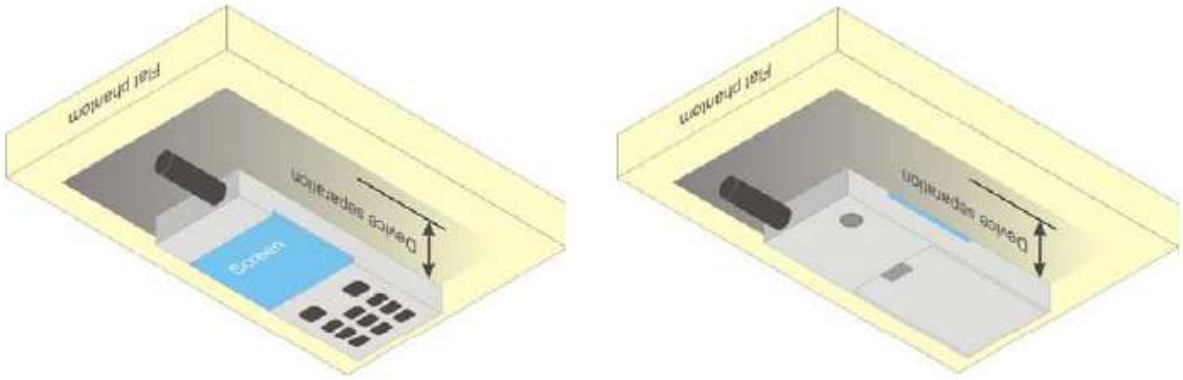
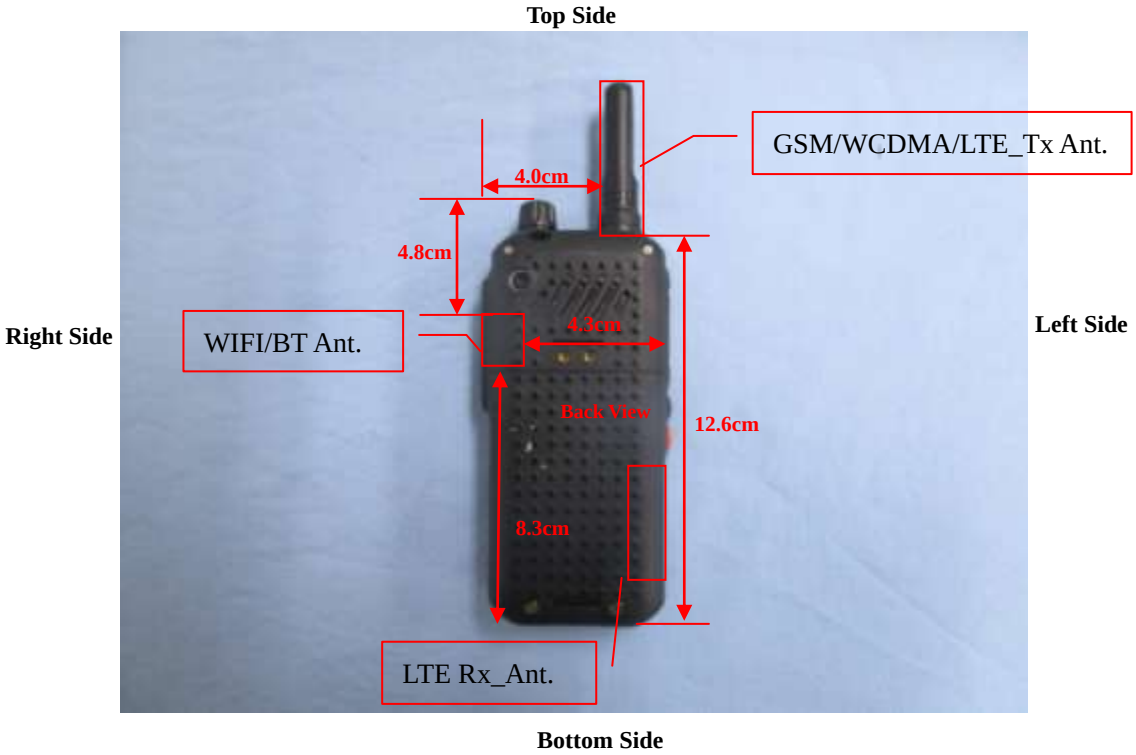


Illustration for Body Worn Position

7.5 EUT Antenna Position



Block Diagram for EUT Antenna Position

7.6 EUT Testing Position

Head/Body-worn/Hotspot mode SAR assessments are required for this device. This EUT was tested in different positions for different SAR test modes, more information as below:

Head SAR tests				
Antennas	**Right Cheek**	**Left Cheek**	**Right Tilted**	**Left Tilted**
WWAN	Yes	Yes	Yes	Yes
WLAN	Yes	Yes	Yes	Yes

Hotspot SAR tests, Test distance: 10mm						
Antennas	**Front**	**Back**	**Right Side**	**Left Side**	**Top Side**	**Bottom Side**
WWAN	Yes	Yes	No	Yes	Yes	No
WLAN	Yes	Yes	Yes	No	No	No

Body-worn SAR tests		
Antennas	**Front**	**Back**
WWAN	Yes	Yes
WLAN	Yes	Yes

Front-of the face SAR tests	
Antennas	**Front**
WWAN	Yes

Remark:

1. Referring to KDB 941225 D06, when the overall device length and width are >= 9cm*5cm, the test separation distances is 10 mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge.

2. Referring to KDB 447498 D01 v06, PTT two-way radios that support held-to-ear operating mode must also be tested according to the exposure configurations required for handsets in KDB Publication 648474 D04. This generally does not apply to cellphones with PTT options that have already been tested in more conservative configurations in applicable wireless modes for SAR compliance at 100% duty factor. This generally does not apply to cellphones with PTT options that have already been tested in more conservative configurations in applicable wireless modes for SAR compliance at 100% duty factor.

3. The EUT supports PTT function only through GPRS/EDGE network function. With PTT mode, a test separation distance of 25 mm is used for in-front-of the face SAR.

Please refer to Annex D for the EUT test setup photos.

8. SAR Measurement Procedures

8.1 Measurement Procedures

The measurement procedures are as follows:
(a) Use base station simulator (if applicable) or engineering software to transmit RF power continuously (continuous Tx) in the highest power channel.
(b) Keep EUT to radiate maximum output power or 100% factor (if applicable)
(c) Measure output power through RF cable and power meter.
(d) Place the EUT in the positions as Annex D demonstrates.
(e) Set scan area, grid size and other setting on the SATIMO software.
(f) Measure SAR results for the highest power channel on each testing position.
(g) Find out the largest SAR result on these testing positions of each band
(h) Measure SAR results for other channels in worst SAR testing position if the SAR of highest power channel is larger than 0.8 W/kg

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:
(a) Power reference measurement
(b) Area scan
(c) Zoom scan
(d) Power drift measurement

8.2 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The SATIMO software includes all numerical procedures necessary to evaluate the spatial peak SAR value.
The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.
The entire evaluation of the spatial peak values is performed within the post-processing engine. The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:
(a) Extraction of the measured data (grid and values) from the Zoom Scan
(b) Calculation of the SAR value at every measurement point based on all stored data
(c) Generation of a high-resolution mesh within the measured volume
(d) Interpolation of all measured values form the measurement grid to the high-resolution grid
(e) Extrapolation of the entire 3D field distribution to the phantom surface over the distance from sensor to surface
(f) Calculation of the averaged SAR within masses of 1g and 10g

8.3 Area & Zoom Scan Procedures

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 measures 5x5x7 points with step size 8, 8 and 5 mm for 300 MHz to 3 GHz, and 8x8x8 points with step size 4, 4 and 2.5 mm for 3 GHz to 6 GHz. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g.

8.4 Volume Scan Procedures

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing (step-size is 4, 4 and 2.5 mm). When all volume scan were completed, the software can combine and subsequently superpose these measurement data to calculating the multiband SAR.

8.5 SAR Averaged Methods

The local SAR inside the phantom is measured using small dipole sensing elements inside a probe body. The probe tip must not be in contact with the phantom surface in order to minimize measurements errors, but the highest local SAR will occur at the surface of the phantom.

An extrapolation is using to determinate this highest local SAR values. The extrapolation is based on a fourth-order least-square polynomial fit of measured data. The local SAR value is then extrapolated from the liquid surface with a 1mm step.

The measurements have to be performed over a limited time (due to the duration of the battery) so the step of measurement is high. It could vary between 5 and 8 mm. To obtain an accurate assessment of the maximum SAR averaged over 10g and 1 g requires a very fine resolution in the three dimensional scanned data array.

8.6 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In SATIMO measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drift more than 5%, the SAR will be retested.

9. SAR Test Result

9.1 Conducted RF Output Power

GSM - Burst Average Power (dBm)								
Band	**GSM850**			**Tune-up power (dBm)**	**PCS1900**			**Tune-up power (dBm)**
Channel	**128**	**190**	**251**		**512**	**661**	**810**	
Frequency (MHz)	**824.2**	**836.6**	**848.8**		**1850.2**	**1880**	**1909.8**	
GSM	33.03	32.99	32.96	33.5	29.55	28.81	28.23	30.0
GPRS (1 slot)	32.99	33.00	32.95	33.5	29.57	28.75	28.21	30.0
GPRS (2 slots)	32.18	32.08	32.02	32.5	28.75	28.15	27.64	29.0
GPRS (3 slots)	30.04	29.88	29.72	30.5	26.89	26.54	26.11	27.0
GPRS (4 slots)	28.88	28.70	28.48	29.0	25.81	25.46	25.06	26.0
EDGE (1 slot)	26.69	26.63	26.46	27.0	25.14	25.54	24.96	26.0
EDGE (2 slots)	25.72	25.69	25.53	26.0	24.27	24.39	24.22	24.5
EDGE (3 slots)	23.87	23.78	23.65	24.0	22.59	22.83	22.62	23.0
EDGE (4 slots)	22.99	22.89	22.65	23.5	21.42	21.65	21.5	22.0

GSM - Source-Based Time-Average Power (dBm)								
Band	**GSM850**			**Tune-up power (dBm)**	**PCS1900**			**Tune-up power (dBm)**
Channel	**128**	**190**	**251**		**512**	**661**	**810**	
Frequency (MHz)	**824.2**	**836.6**	**848.8**		**1850.2**	**1880**	**1909.8**	
GSM	24.03	23.99	23.96	24.5	20.55	19.81	19.23	21.0
GPRS (1 slot)	23.99	24.00	23.95	24.5	20.57	19.75	19.21	21.0
GPRS (2 slots)	26.18	26.08	26.02	26.5	22.75	22.15	21.64	23.0
GPRS (3 slots)	25.79	25.63	25.47	26.0	22.64	22.29	21.86	23.0
GPRS (4 slots)	25.88	25.70	25.48	26.0	22.81	22.46	22.06	23.0
EDGE (1 slot)	17.69	17.63	17.46	18.0	16.14	16.54	15.96	17.0
EDGE (2 slots)	19.72	19.69	19.53	20.0	18.27	18.39	18.22	18.5
EDGE (3 slots)	19.62	19.53	19.40	20.0	18.34	18.58	18.37	19.0
EDGE (4 slots)	19.99	19.89	19.65	20.5	18.42	18.65	18.50	19.0
Note: The source-based time-averaged power is linearly scaled the maximum burst averaged power based on time slots. The calculated method are shown as below: Source based time-average power = Burst averaged power - Duty cycle factor in dB Duty cycle factor = 9 dB for 1 Tx slot, 6 dB for 2 Tx slots, 4.25 dB for 3 Tx slots, 3 dB for 4 Tx slots								

Remark:

1. For Head SAR testing, GSM GPRS (2TX slots) and GPRS (4TX slots) should be evaluated, therefore the EUT was set in GSM and GPRS (2TX slots) for GSM850 and GPRS (4TX slots) for GSM1900 due to its highest source-based time-average power.
2. For Body SAR testing, GPRS should be evaluated, therefore the EUT was set in GPRS (2TX slots) for GSM850 and

GPRS (4TX slots) for GSM1900 due to its highest source-based time-average power.

3. Per KDB 447498 D01 v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.

4. The DUT do not support DTM function.

5. This device supports VOIP capability through 3rd party apps software.

WCDMA - Average Power (dBm)								
Band	**WCDMA Band II**				**WCDMA Band V**			
Channel	**9262**	**9400**	**9538**	**Tune-up power (dBm)**	**4132**	**4182**	**4233**	**Tune-up power (dBm)**
Frequency (MHz)	**1852.4**	**1880.0**	**1907.6**		**826.4**	**836.6**	**846.6**	
RMC 12.2k	22.88	22.09	22.31	23.0	23.14	22.92	23.06	23.5
HSDPA Subtest-1	21.99	21.19	21.48	22.5	22.27	21.87	22.17	22.5
HSDPA Subtest-2	21.82	21.05	21.36	22.5	22.11	21.75	21.99	22.5
HSDPA Subtest-3	21.83	21.08	21.38	22.5	22.14	21.73	22.06	22.5
HSDPA Subtest-4	21.88	21.00	21.33	22.5	22.16	21.66	22.07	22.5
HSUPA Subtest-1	22.02	21.20	21.52	22.5	22.30	22.01	22.25	22.5
HSUPA Subtest-2	21.89	21.10	21.32	22.5	22.16	21.84	22.03	22.5
HSUPA Subtest-3	21.82	20.99	21.31	22.5	22.09	21.86	22.03	22.5
HSUPA Subtest-4	21.86	21.02	21.31	22.5	22.12	21.86	22.07	22.5
HSUPA Subtest-5	21.86	21.09	21.39	22.5	22.16	21.80	22.13	22.5

Remark:

1. For Head SAR, per KDB 941225 D01 v03, RMC 12.2kbps setting is used to evaluate SAR. If AMR 12.2kbps power is < 1/4 dB higher than RMC, SAR tests with AMR 12.2kbps can be excluded.

2. For Body SAR, per KDB 941225 D01 v03, RMC 12.2kbps setting is used to evaluate SAR. If HSDPA subset-1 output power is < 1/4 dB higher than RMC, and SAR with RMC 12.2kbps setting is ≦1.2W/kg, HSDPA SAR evaluation can be excluded

FDD-LTE Band 2:

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	23.10	0
		1	3	23.11	0
		1	5	23.08	0
		3	0	22.44	0
		3	2	22.35	0
		3	3	22.23	0
		6	0	21.23	1
	MCH	1	0	23.27	0
		1	3	23.21	0
		1	5	23.26	0
		3	0	22.42	0
		3	2	22.31	0
		3	3	22.63	0
		6	0	22.80	1
	HCH	1	0	23.48	0
		1	3	23.19	0
		1	5	23.14	0
		3	0	22.13	0
		3	2	22.17	0
		3	3	22.20	0
		6	0	22.07	1
16QAM	LCH	1	0	22.14	1
		1	3	22.25	1
		1	5	22.12	1
		3	0	22.07	1
		3	2	22.03	1
		3	3	22.02	1
		6	0	21.06	2
	MCH	1	0	22.43	1
		1	3	22.42	1
		1	5	22.39	1
		3	0	22.08	1
		3	2	22.06	1
		3	3	22.04	1
		6	0	21.17	2
	HCH	1	0	22.64	1
		1	3	22.69	1

		1	5	22.62	1
		3	0	22.70	1
		3	2	22.54	1
		3	3	22.51	1
		6	0	21.11	2

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	22.90	0
		1	7	22.47	0
		1	14	22.08	0
		8	0	21.93	1
		8	4	21.62	1
		8	7	21.35	1
		15	0	21.65	1
	MCH	1	0	22.74	0
		1	7	22.73	0
		1	14	22.03	0
		8	0	22.11	1
		8	4	22.10	1
		8	7	21.88	1
		15	0	22.03	1
	HCH	1	0	22.90	0
		1	7	22.47	0
		1	14	22.08	0
		8	0	21.93	1
		8	4	21.62	1
		8	7	21.35	1
		15	0	21.65	1
16QAM	LCH	1	0	22.17	1
		1	7	22.16	1
		1	14	22.12	1
		8	0	21.10	2
		8	4	21.12	2
		8	7	21.07	2
		15	0	21.00	2
	MCH	1	0	22.31	1
		1	7	22.35	1
		1	14	22.31	1
		8	0	21.28	2
		8	4	21.30	2
		8	7	21.28	2

		15	0	21.17	2
	HCH	1	0	22.46	1
		1	7	22.77	1
		1	14	22.42	1
		8	0	21.40	2
		8	4	21.88	2
		8	7	21.88	2
		15	0	21.80	2

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	23.20	0
		1	12	23.03	0
		1	24	23.09	0
		12	0	22.17	1
		12	6	22.14	1
		12	13	22.12	1
		25	0	22.09	1
	MCH	1	0	23.36	0
		1	12	23.07	0
		1	24	23.38	0
		12	0	22.33	1
		12	6	22.33	1
		12	13	22.36	1
		25	0	22.27	1
	HCH	1	0	23.67	0
		1	12	23.08	0
		1	24	22.74	0
		12	0	22.70	1
		12	6	22.48	1
		12	13	22.27	1
		25	0	22.53	1
16QAM	LCH	1	0	22.32	1
		1	12	22.27	1
		1	24	22.26	1
		12	0	21.18	2
		12	6	21.15	2
		12	13	21.17	2
		25	0	21.03	2
	MCH	1	0	22.50	1
		1	12	22.48	1
		1	24	22.48	1

		12	0	21.35	2
		12	6	21.34	2
		12	13	21.34	2
		25	0	21.22	2
	HCH	1	0	22.72	1
		1	12	22.22	1
		1	24	21.93	1
		12	0	21.81	2
		12	6	21.69	2
		12	13	21.54	2
		25	0	21.69	2

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	22.87	0
		1	24	22.75	0
		1	49	22.32	0
		25	0	22.10	1
		25	12	22.06	1
		25	25	21.98	1
		50	0	22.07	1
	MCH	1	0	22.96	0
		1	24	22.87	0
		1	49	22.54	0
		25	0	22.26	1
		25	12	22.29	1
		25	25	22.32	1
		50	0	22.27	1
	HCH	1	0	22.21	0
		1	24	22.92	0
		1	49	22.11	0
		25	0	21.96	1
		25	12	22.29	1
		25	25	22.28	1
		50	0	22.19	1
16QAM	LCH	1	0	22.27	1
		1	24	22.17	1
		1	49	21.75	1
		25	0	21.06	2
		25	12	21.00	2
		25	25	21.02	2
		50	0	21.04	2

	MCH	1	0	22.37	1
		1	24	22.31	1
		1	49	22.02	1
		25	0	21.20	2
		25	12	21.22	2
		25	25	21.22	2
		50	0	21.22	2
	HCH	1	0	21.72	1
		1	24	22.40	1
		1	49	21.68	1
		25	0	21.07	2
		25	12	21.40	2
		25	25	21.44	2
		50	0	21.35	2

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	22.90	0
		1	37	22.47	0
		1	74	22.20	0
		37	0	22.09	1
		37	18	21.86	1
		37	38	21.63	1
		75	0	21.86	1
	MCH	1	0	22.86	0
		1	37	22.68	0
		1	74	22.22	0
		37	0	22.25	1
		37	18	22.22	1
		37	38	22.07	1
		75	0	22.17	1
	HCH	1	0	22.11	0
		1	37	22.44	0
		1	74	22.21	0
		37	0	21.46	1
		37	18	21.73	1
		37	38	22.08	1
		75	0	21.80	1
16QAM	LCH	1	0	22.33	1
		1	37	21.87	1
		1	74	21.63	1
		37	0	21.19	2

		37	18	20.99	2
		37	38	20.77	2
		75	0	21.00	2
	MCH	1	0	22.25	1
		1	37	22.11	1
		1	74	21.73	1
		37	0	21.32	2
		37	18	21.35	2
		37	38	21.26	2
		75	0	21.30	2
	HCH	1	0	21.54	1
		1	37	21.88	1
		1	74	21.69	1
		37	0	20.67	2
		37	18	20.93	2
		37	38	21.25	2
		75	0	20.97	2

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	23.67	0
		1	49	23.25	0
		1	99	22.86	0
		50	0	22.94	1
		50	25	22.17	1
		50	50	22.18	1
		100	0	22.35	1
	MCH	1	0	23.04	0
		1	49	23.04	0
		1	99	23.01	0
		50	0	22.15	1
		50	25	22.16	1
		50	50	22.14	1
		100	0	22.11	1
	HCH	1	0	23.21	0
		1	49	23.24	0
		1	99	23.25	0
		50	0	22.33	0.5
		50	25	22.33	0.5
		50	50	22.36	0.5
		100	0	22.27	0.5
16QAM	LCH	1	0	22.28	1

		1	49	21.76	1
		1	99	21.37	1
		50	0	21.05	2
		50	25	20.74	2
		50	50	20.49	2
		100	0	20.77	2
	MCH	1	0	22.02	1
		1	49	22.07	1
		1	99	21.40	1
		50	0	21.18	2
		50	25	21.23	2
		50	50	21.06	2
		100	0	21.17	2
	HCH	1	0	21.71	1
		1	49	21.64	1
		1	99	21.69	1
		50	0	20.57	2
		50	25	20.64	2
		50	50	20.97	2
		100	0	20.71	2

FDD-LTE Band 4:

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	24.11	0
		1	3	24.09	0
		1	5	24.27	0
		3	0	23.81	0
		3	2	23.92	0
		3	3	23.98	0
		6	0	23.07	1
	MCH	1	0	23.88	0
		1	3	23.83	0
		1	5	23.96	0
		3	0	23.88	0
		3	2	23.85	0
		3	3	23.90	0
		6	0	22.15	1
	HCH	1	0	24.18	0
		1	3	24.06	0

		1	5	24.22	0
		3	0	23.19	0
		3	2	23.43	0
		3	3	23.42	0
		6	0	22.71	1
16QAM	LCH	1	0	22.21	1
		1	3	22.33	1
		1	5	22.49	1
		3	0	22.02	1
		3	2	22.08	1
		3	3	22.19	1
		6	0	21.11	2
	MCH	1	0	22.36	1
		1	3	22.36	1
		1	5	22.44	1
		3	0	22.19	1
		3	2	22.02	1
		3	3	22.05	1
		6	0	21.29	2
	HCH	1	0	22.84	1
		1	3	22.77	1
		1	5	22.81	1
		3	0	22.66	1
		3	2	22.61	1
		3	3	22.63	1
		6	0	21.97	2

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	23.75	0
		1	7	24.04	0
		1	14	23.42	0
		8	0	22.07	1
		8	4	22.27	1
		8	7	22.47	1
		15	0	22.30	1
	MCH	1	0	23.10	0
		1	7	23.17	0
		1	14	23.30	0
		8	0	22.49	1
		8	4	22.55	1
		8	7	22.61	1

		15	0	22.60	1
	HCH	1	0	24.21	0
		1	7	24.24	0
		1	14	24.37	0
		8	0	23.16	1
		8	4	23.14	1
		8	7	23.28	1
		15	0	22.86	1
16QAM	LCH	1	0	22.13	1
		1	7	22.42	1
		1	14	22.80	1
		8	0	21.22	2
		8	4	21.46	2
		8	7	21.61	2
		15	0	21.37	2
	MCH	1	0	22.55	1
		1	7	22.60	1
		1	14	22.76	1
		8	0	21.70	2
		8	4	21.77	2
		8	7	21.81	2
		15	0	21.70	2
	HCH	1	0	23.25	1
		1	7	23.00	1
		1	14	22.85	1
		8	0	22.04	2
		8	4	21.94	2
		8	7	21.90	2
		15	0	21.89	2

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	23.85	0
		1	12	23.08	0
		1	24	23.84	0
		12	0	22.94	1
		12	6	22.17	1
		12	13	22.65	1
		25	0	22.29	1
	MCH	1	0	23.11	0
		1	12	23.12	0
		1	24	23.39	0

		12	0	22.24	1
		12	6	22.21	1
		12	13	22.41	1
		25	0	22.31	1
	HCH	1	0	24.09	0
		1	12	23.45	0
		1	24	23.39	0
		12	0	23.26	1
		12	6	23.16	1
		12	13	23.17	1
		25	0	22.26	1
16QAM	LCH	1	0	22.31	1
		1	12	22.50	1
		1	24	22.10	1
		12	0	21.16	2
		12	6	21.40	2
		12	13	21.87	2
		25	0	21.41	2
	MCH	1	0	22.62	1
		1	12	22.42	1
		1	24	22.94	1
		12	0	21.50	2
		12	6	21.50	2
		12	13	21.68	2
		25	0	21.43	2
	HCH	1	0	23.27	1
		1	12	22.53	1
		1	24	22.48	1
		12	0	22.24	2
		12	6	22.26	2
		12	13	22.28	2
		25	0	22.24	2

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	23.29	0
		1	24	23.25	0
		1	49	23.14	0
		25	0	22.14	1
		25	12	22.52	1
		25	25	22.64	1
		50	0	22.50	1
	MCH	1	0	23.58	0
		1	24	23.54	0
		1	49	23.42	0
		25	0	22.94	1
		25	12	22.90	1
		25	25	22.87	1
		50	0	22.94	1
	HCH	1	0	24.03	0
		1	24	24.10	0
		1	49	24.11	0
		25	0	23.36	1
		25	12	23.03	1
		25	25	23.08	1
		50	0	22.97	1
16QAM	LCH	1	0	22.65	1
		1	24	22.66	1
		1	49	22.56	1
		25	0	21.20	2
		25	12	21.49	2
		25	25	21.60	2
		50	0	21.53	2
	MCH	1	0	22.02	1
		1	24	22.98	1
		1	49	22.87	1
		25	0	21.10	2
		25	12	21.06	2
		25	25	21.03	2
		50	0	21.09	2
	HCH	1	0	22.55	1
		1	24	22.27	1
		1	49	22.92	1
		25	0	22.38	2

		25	12	22.12	2
		25	25	22.22	2
		50	0	22.11	2

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	23.56	0
		1	37	23.38	0
		1	74	23.78	0
		37	0	22.41	1
		37	18	22.68	1
		37	38	22.60	1
		75	0	22.56	1
	MCH	1	0	23.89	0
		1	37	23.53	0
		1	74	23.76	0
		37	0	23.03	1
		37	18	22.87	1
		37	38	22.88	1
		75	0	22.94	1
	HCH	1	0	23.30	0
		1	37	24.45	0
		1	74	24.47	0
		37	0	23.02	1
		37	18	23.58	1
		37	38	23.33	1
		75	0	22.55	1
16QAM	LCH	1	0	22.92	1
		1	37	22.77	1
		1	74	22.24	1
		37	0	21.51	2
		37	18	21.66	2
		37	38	21.82	2
		75	0	21.71	2
	MCH	1	0	22.32	1
		1	37	22.25	1
		1	74	22.22	1
		37	0	21.17	2
		37	18	21.02	2
		37	38	21.03	2
		75	0	21.10	2
	HCH	1	0	22.75	1

		1	37	22.85	1
		1	74	22.97	1
		37	0	22.22	2
		37	18	22.77	2
		37	38	22.11	2
		75	0	22.69	2

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	23.75	0
		1	49	23.41	0
		1	99	24.47	0
		50	0	22.59	1
		50	25	22.66	1
		50	50	22.27	1
		100	0	22.47	1
	MCH	1	0	23.23	0
		1	49	23.64	0
		1	99	24.12	0
		50	0	22.14	1
		50	25	22.89	1
		50	50	22.95	1
		100	0	22.03	1
	HCH	1	0	23.82	0
		1	49	23.99	0
		1	99	24.51	0
		50	0	22.43	1
		50	25	23.13	1
		50	50	23.70	1
		100	0	23.12	1
16QAM	LCH	1	0	22.02	1
		1	49	22.75	1
		1	99	22.80	1
		50	0	21.55	2
		50	25	21.62	2
		50	50	21.45	2
		100	0	21.58	2
	MCH	1	0	22.57	1
		1	49	22.95	1
		1	99	22.43	1
		50	0	21.26	2
		50	25	21.02	2

		50	50	21.07	2
		100	0	21.19	2
	HCH	1	0	22.27	1
		1	49	22.41	1
		1	99	22.95	1
		50	0	21.63	2
		50	25	22.31	2
		50	50	22.39	2
		100	0	22.26	2

FDD-LTE Band 5:

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	22.83	0
		1	3	22.89	0
		1	5	22.83	0
		3	0	21.87	0
		3	2	21.84	0
		3	3	21.87	0
		6	0	21.87	1
	MCH	1	0	22.75	0
		1	3	22.82	0
		1	5	22.74	0
		3	0	21.77	0
		3	2	21.71	0
		3	3	21.76	0
		6	0	21.72	1
	HCH	1	0	22.12	0
		1	3	22.04	0
		1	5	22.25	0
		3	0	21.88	0
		3	2	21.96	0
		3	3	22.02	0
		6	0	21.09	1
16QAM	LCH	1	0	22.06	1
		1	3	22.18	1
		1	5	22.08	1
		3	0	21.98	1
		3	2	21.92	1
		3	3	21.94	1
		6	0	20.84	2
	MCH	1	0	22.14	1
		1	3	22.27	1
		1	5	22.13	1
		3	0	21.76	1
		3	2	21.74	1
		3	3	21.76	1
		6	0	20.70	2
	HCH	1	0	21.47	1
		1	3	21.51	1
		1	5	21.66	1

		3	0	21.24	1
		3	2	21.29	1
		3	3	21.36	1
		6	0	20.54	2

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	22.79	0
		1	7	22.85	0
		1	14	22.79	0
		8	0	21.83	1
		8	4	21.84	1
		8	7	21.86	1
		15	0	21.80	1
	MCH	1	0	22.70	0
		1	7	22.73	0
		1	14	22.63	0
		8	0	21.73	1
		8	4	21.71	1
		8	7	21.69	1
		15	0	21.69	1
	HCH	1	0	22.31	0
		1	7	21.92	0
		1	14	22.14	0
		8	0	21.18	1
		8	4	21.05	1
		8	7	21.06	1
		15	0	21.10	1
16QAM	LCH	1	0	22.05	1
		1	7	22.10	1
		1	14	22.05	1
		8	0	20.87	2
		8	4	20.89	2
		8	7	20.88	2
		15	0	20.75	2
	MCH	1	0	22.01	1
		1	7	22.02	1
		1	14	21.94	1
		8	0	20.83	2
		8	4	20.80	2
		8	7	20.77	2
		15	0	20.70	2

	HCH	1	0	21.74	1
		1	7	21.37	1
		1	14	21.56	1
		8	0	20.40	2
		8	4	20.60	2
		8	7	20.58	2
		15	0	20.66	2

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	22.90	0
		1	12	22.89	0
		1	24	22.52	0
		12	0	21.91	1
		12	6	21.89	1
		12	13	21.81	1
		25	0	21.84	1
	MCH	1	0	22.51	0
		1	12	22.64	0
		1	24	22.69	0
		12	0	21.45	1
		12	6	21.77	1
		12	13	21.76	1
		25	0	21.75	1
	HCH	1	0	22.62	0
		1	12	21.76	0
		1	24	22.02	0
		12	0	21.21	1
		12	6	20.84	1
		12	13	20.70	1
		25	0	20.91	1
16QAM	LCH	1	0	22.28	1
		1	12	22.25	1
		1	24	22.11	1
		12	0	21.02	2
		12	6	20.99	2
		12	13	21.03	2
		25	0	20.86	2
	MCH	1	0	22.02	1
		1	12	22.13	1
		1	24	22.09	1
		12	0	20.94	2

		12	6	20.95	2
		12	13	20.92	2
		25	0	20.78	2
	HCH	1	0	22.06	1
		1	12	21.33	1
		1	24	21.54	1
		12	0	20.54	2
		12	6	20.59	2
		12	13	20.44	2
		25	0	20.65	2

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	23.30	0
		1	24	22.28	0
		1	49	21.64	0
		25	0	22.37	1
		25	12	21.43	1
		25	25	20.86	1
		50	0	22.15	1
	MCH	1	0	22.15	0
		1	24	22.62	0
		1	49	22.67	0
		25	0	21.29	1
		25	12	21.76	1
		25	25	21.73	1
		50	0	21.77	1
	HCH	1	0	22.75	0
		1	24	22.63	0
		1	49	21.69	0
		25	0	21.70	1
		25	12	21.65	1
		25	25	21.00	1
		50	0	21.75	1
16QAM	LCH	1	0	22.18	1
		1	24	21.83	1
		1	49	21.12	1
		25	0	20.87	2
		25	12	20.73	2
		25	25	20.65	2
		50	0	20.84	2
	MCH	1	0	21.60	1

		1	24	22.11	1
		1	49	21.97	1
		25	0	20.61	2
		25	12	20.80	2
		25	25	20.74	2
		50	0	20.78	2
	HCH	1	0	22.06	1
		1	24	21.94	1
		1	49	21.15	1
		25	0	20.74	2
		25	12	20.72	2
		25	25	20.51	2
		50	0	20.76	2

FDD-LTE Band 12:

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	24.23	0
		1	3	24.18	0
		1	5	24.16	0
		3	0	23.23	0
		3	2	23.17	0
		3	3	23.16	0
		6	0	23.11	1
	MCH	1	0	23.85	0
		1	3	23.84	0
		1	5	23.85	0
		3	0	23.16	0
		3	2	23.27	0
		3	3	23.11	0
		6	0	22.84	1
	HCH	1	0	23.03	0
		1	3	23.06	0
		1	5	23.45	0
		3	0	22.96	0
		3	2	23.06	0
		3	3	23.19	0
		6	0	22.13	1
16QAM	LCH	1	0	23.28	1
		1	3	23.19	1
		1	5	23.00	1
		3	0	23.17	1
		3	2	23.27	1
		3	3	23.26	1
		6	0	22.24	2
	MCH	1	0	23.23	1
		1	3	23.24	1
		1	5	23.19	1
		3	0	22.84	1
		3	2	22.80	1
		3	3	22.83	1
		6	0	21.81	2
	HCH	1	0	22.38	1
		1	3	22.51	1
		1	5	22.73	1

		3	0	22.17	1
		3	2	22.22	1
		3	3	22.36	1
		6	0	21.47	2

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	24.14	0
		1	7	24.12	0
		1	14	24.00	0
		8	0	23.24	1
		8	4	23.19	1
		8	7	23.17	1
		15	0	23.07	1
	MCH	1	0	23.83	0
		1	7	23.87	0
		1	14	23.80	0
		8	0	22.87	1
		8	4	22.88	1
		8	7	22.89	1
		15	0	22.85	1
	HCH	1	0	23.39	0
		1	7	22.53	0
		1	14	23.14	0
		8	0	22.09	1
		8	4	21.73	1
		8	7	21.80	1
		15	0	21.85	1
16QAM	LCH	1	0	23.23	1
		1	7	23.11	1
		1	14	23.27	1
		8	0	22.28	2
		8	4	22.25	2
		8	7	22.20	2
		15	0	22.15	2
	MCH	1	0	23.13	1
		1	7	23.16	1
		1	14	23.07	1
		8	0	21.92	2
		8	4	21.94	2
		8	7	21.92	2
		15	0	21.84	2

	HCH	1	0	22.90	1
		1	7	22.10	1
		1	14	22.65	1
		8	0	21.26	2
		8	4	20.97	2
		8	7	21.05	2
		15	0	21.11	2

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	24.13	0
		1	12	24.12	0
		1	24	23.95	0
		12	0	23.23	1
		12	6	23.16	1
		12	13	23.10	1
		25	0	23.02	1
	MCH	1	0	23.93	0
		1	12	23.90	0
		1	24	23.88	0
		12	0	22.94	1
		12	6	22.93	1
		12	13	22.94	1
		25	0	22.88	1
	HCH	1	0	23.98	0
		1	12	23.36	0
		1	24	23.70	0
		12	0	22.71	1
		12	6	21.72	1
		12	13	21.78	1
		25	0	22.11	1
16QAM	LCH	1	0	23.34	1
		1	12	23.16	1
		1	24	23.34	1
		12	0	22.35	2
		12	6	22.27	2
		12	13	22.21	2
		25	0	22.15	2
	MCH	1	0	23.33	1
		1	12	23.31	1
		1	24	23.21	1
		12	0	22.08	2

		12	6	22.07	2
		12	13	22.09	2
		25	0	21.90	2
	HCH	1	0	22.88	1
		1	12	21.69	1
		1	24	21.90	1
		12	0	21.84	2
		12	6	20.99	2
		12	13	20.84	2
		25	0	21.32	2

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	24.26	0
		1	24	23.92	0
		1	49	23.90	0
		25	0	23.39	1
		25	12	22.97	1
		25	25	22.92	1
		50	0	23.04	1
	MCH	1	0	24.07	0
		1	24	23.87	0
		1	49	23.42	0
		25	0	22.90	1
		25	12	22.92	1
		25	25	22.91	1
		50	0	22.90	1
	HCH	1	0	23.90	0
		1	24	24.03	0
		1	49	22.09	0
		25	0	22.91	1
		25	12	22.87	1
		25	25	21.90	1
		50	0	22.83	1
16QAM	LCH	1	0	23.27	1
		1	24	23.20	1
		1	49	23.18	1
		25	0	22.12	2
		25	12	22.01	2
		25	25	21.94	2
		50	0	22.02	2
	MCH	1	0	23.26	1

		1	24	23.19	1
		1	49	22.92	1
		25	0	21.94	2
		25	12	21.90	2
		25	25	21.87	2
		50	0	21.89	2
	HCH	1	0	23.35	1
		1	24	23.19	1
		1	49	21.66	1
		25	0	21.91	2
		25	12	21.85	2
		25	25	21.19	2
		50	0	21.86	2

FDD-LTE Band 13:

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	23.61	0
		1	12	22.59	0
		1	24	23.55	0
		12	0	21.89	1
		12	6	21.56	1
		12	13	21.77	1
		25	0	21.81	1
	MCH	1	0	22.83	0
		1	12	23.45	0
		1	24	23.68	0
		12	0	21.83	1
		12	6	22.46	1
		12	13	22.70	1
		25	0	22.60	1
	HCH	1	0	23.68	0
		1	12	23.32	0
		1	24	22.75	0
		12	0	22.69	1
		12	6	22.64	1
		12	13	22.46	1
		25	0	22.61	1
16QAM	LCH	1	0	22.34	1
		1	12	22.01	1
		1	24	22.26	1
		12	0	21.16	2
		12	6	20.95	2
		12	13	21.15	2
		25	0	21.07	2
	MCH	1	0	22.37	1
		1	12	22.62	1
		1	24	22.35	1
		12	0	21.19	2
		12	6	21.80	2
		12	13	21.79	2
		25	0	21.63	2
	HCH	1	0	22.71	1
		1	12	22.65	1
		1	24	21.94	1

		12	0	21.67	2
		12	6	21.61	2
		12	13	21.62	2
		25	0	21.58	2

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
	MCH	1	0	23.69	0
		1	24	23.36	0
		1	49	22.52	0
		25	0	21.97	1
		25	12	22.53	1
		25	25	22.81	1
		50	0	22.59	1
	HCH	/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
16QAM	LCH	/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
	MCH	1	0	22.81	1
		1	24	22.76	1
		1	49	21.99	1
		25	0	21.21	2
		25	12	21.61	2
		25	25	21.58	2
		50	0	21.60	2

	HCH	/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/
		/	/	/	/

FDD-LTE Band 17:

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	24.98	0
		1	12	25.02	0
		1	24	24.89	0
		12	0	24.05	1
		12	6	23.96	1
		12	13	23.89	1
		25	0	23.91	1
	MCH	1	0	24.82	0
		1	12	24.92	0
		1	24	24.97	0
		12	0	23.85	1
		12	6	23.84	1
		12	13	23.84	1
		25	0	23.80	1
	HCH	1	0	24.81	0
		1	12	24.67	0
		1	24	24.03	0
		12	0	23.84	1
		12	6	23.81	1
		12	13	23.21	1
		25	0	23.70	1
16QAM	LCH	1	0	24.13	1
		1	12	24.03	1
		1	24	24.26	1
		12	0	23.17	2
		12	6	23.09	2
		12	13	23.04	2
		25	0	22.95	2
	MCH	1	0	23.93	1
		1	12	23.94	1
		1	24	23.84	1
		12	0	22.85	2
		12	6	22.82	2
		12	13	22.81	2
		25	0	22.77	2
	HCH	1	0	23.88	1
		1	12	23.89	1
		1	24	23.38	1

		12	0	22.83	2
		12	6	22.80	2
		12	13	22.38	2
		25	0	22.78	2

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	MPR (dB)
		Size	Offset		
QPSK	LCH	1	0	25.07	0
		1	24	24.81	0
		1	49	24.28	0
		25	0	24.35	1
		25	12	23.81	1
		25	25	23.76	1
		50	0	24.13	1
	MCH	1	0	24.93	0
		1	24	24.78	0
		1	49	23.53	0
		25	0	23.83	1
		25	12	23.80	1
		25	25	23.74	1
		50	0	23.79	1
	HCH	1	0	24.84	0
		1	24	24.79	0
		1	49	23.18	0
		25	0	23.80	1
		25	12	23.77	1
		25	25	23.57	1
		50	0	23.73	1
16QAM	LCH	1	0	24.25	1
		1	24	24.08	1
		1	49	23.72	1
		25	0	22.88	2
		25	12	22.77	2
		25	25	22.75	2
		50	0	22.83	2
	MCH	1	0	24.25	1
		1	24	24.03	1
		1	49	22.95	1
		25	0	22.81	2
		25	12	22.74	2
		25	25	22.74	2
		50	0	22.76	2

	HCH	1	0	24.27	1
		1	24	24.10	1
		1	49	22.75	1
		25	0	22.78	2
		25	12	22.72	2
		25	25	22.74	2
		50	0	22.75	2

Remark:

1. Per KDB941225 D05 v02r05, Start with the largest channel bandwidth then measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle, and lower edge of each required test channel. When the reported SAR is≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. 6 When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.
2. Per KDB941225 D05 v02r05, The procedures required for 1 RB allocation in 5.2.1 are applied to measure the SAR for QPSK with 50% RB allocation.
3. Per KDB941225 D05 v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations, and the highest reported SAR for 1 RB and 50% RB allocation in 5.2.1 and 5.2.2 are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB941225 D05 v02r05, For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in 5.2.1, 5.2.2, and 5.2.3 to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is > ½ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

WLAN - Maximum Average Power					
Test Mode	**Data Rate**	**Channel**	**Frequency (MHz)**	**Average Power (dBm)**	**Tune-up power (dBm)**
802.11b	1Mbps	CH 01	2412	12.91	13.5
		CH 06	2437	12.77	13.5
		CH 11	2462	13.08	13.5
802.11g	54Mbps	CH 01	2412	10.77	11.0
		CH 06	2437	10.88	11.0
		CH 11	2462	10.57	11.0
802.11n (20MHz)	MCS7	CH 01	2412	10.30	11.5
		CH 06	2437	10.90	11.5
		CH 11	2462	10.71	11.5
802.11n (40MHz)	MCS7	CH 03	2422	10.00	10.5
		CH 06	2437	9.18	10.5
		CH 09	2452	9.83	10.5

Remark:

1. Per KDB 248227 D01 v02r02, For 802.11b DSSS SAR measurements, DSSS SAR procedure applies to fixed exposure test position and initial test position procedure applies to multiple exposure test positions.

2. Per KDB 248227 D01 v02r02, For 802.11b DSSS SAR measurements ,when the reported SAR of the highest measured maximum output power channel (see 3.1) for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration. When the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

3 .For OFDM modes (802.11g/n), SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is <= 1.2W/kg.

Bluetooth - Maximum Average Power			
Test Mode	**Data Rate**	**Average Power(dBm)**	**Tune-up power (dBm)**
GFSK	1Mbps	3.093	3.5
Pi/4 QDPSK	2Mbps	2.327	3.5
8DPSK	3Mbps	2.464	3.5

Bluetooth - Maximum Average Power					
Test Mode	**Data Rate**	**Channel**	**Frequency (MHz)**	**Average Power (dBm)**	**Tune-up power (dBm)**
BLE	1Mbps	CH 00	2402	2.806	3.5
		CH 19	2440	2.458	3.5
		CH 39	2480	3.241	3.5

Remark:

Bluetooth maximum output power is 3.241dBm, and Maximum Tune-Up output power is 3.5dBm. Per KDB 447498 D01 V06, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, 4.87mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,16 where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation17
- The result is rounded to one decimal place for comparison

Bluetooth:

Tune-Up Power (dBm)	Max. Power (mW)	Distance (mm)	Frequency (GHz)	Result	Limit
3.5	2.24	5	2.480	0.71	3

The exclusion thresholds is 0.71< 3, therefore, the RF exposure evaluation is not required.

9.2 Test Results for Standalone SAR Test

Head SAR

GSM850 – Head SAR Test									
Plot No.	Mode	Test Position Head	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
1.	GSM	Right Cheek	128	824.2	33.03	33.5	1.114	0.820	0.914
2.	GSM	Right Cheek	190	836.6	32.99	33.5	1.125	0.737	0.829
3.	GSM	Right Cheek	251	848.8	32.96	33.5	1.132	0.725	0.821
4.	GSM	Right Tilted	128	824.2	33.03	33.5	1.114	0.339	0.378
5.	GSM	Left Cheek	128	824.2	33.03	33.5	1.114	0.679	0.757
6.	GSM	Left Tilted	128	824.2	33.03	33.5	1.114	0.242	0.270

GSM1900 – Head SAR Test									
Plot No.	Mode	Test Position Head	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	M Hz					
7.	GSM	Right Cheek	512	1850.2	29.55	30.0	1.109	0.487	0.540
8.	GSM	Right Tilted	512	1850.2	29.55	30.0	1.109	0.232	0.257
9.	GSM	Left Cheek	512	1850.2	29.55	30.0	1.109	0.36	0.399
10.	GSM	Left Tilted	512	1850.2	29.55	30.0	1.109	0.122	0.135

GPRS850 – Head SAR Test									
Plot No.	Mode	Test Position Head	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
11.	GPRS_2TX	Right Cheek	128	824.2	32.18	32.5	1.076	0.924	0.995
12.	GPRS_2TX	Right Cheek	190	836.6	32.08	32.5	1.102	0.829	0.913
13.	GPRS_2TX	Right Cheek	251	848.8	32.02	32.5	1.117	0.654	0.730
14.	GPRS_2TX	Right Tilted	128	824.2	32.18	32.5	1.076	0.476	0.512
15.	GPRS_2TX	Left Cheek	128	824.2	32.18	32.5	1.076	0.635	0.684
16.	GPRS_2TX	Left Tilted	128	824.2	32.18	32.5	1.076	0.384	0.413

GPRS1900 – Head SAR Test									
Plot No.	Mode	Test Position Head	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	M Hz					
17.	GPRS_4TX	Right Cheek	512	1850.2	25.81	26.0	1.045	0.948	0.990
18.	GPRS_4TX	Right Cheek	661	1880.0	25.46	26.0	1.132	0.928	1.051
19.	GPRS_4TX	Right Cheek	810	1909.8	25.06	26.0	1.242	0.963	1.196
20.	GPRS_4TX	Right Tilted	512	1850.2	25.81	26.0	1.045	0.365	0.381
21.	GPRS_4TX	Left Cheek	512	1850.2	25.81	26.0	1.045	0.700	0.731
22.	GPRS_4TX	Left Tilted	512	1850.2	25.81	26.0	1.045	0.234	0.244

WCDMA Band 2 – Head SAR Test									
Plot No.	Mode	Test Position Head	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
23.	RMC	Right Cheek	9262	1852.4	22.88	23.0	1.028	0.852	0.876
24.	RMC	Right Cheek	9400	1880.0	22.09	23.0	1.233	0.731	0.901
25.	RMC	Right Cheek	9538	1907.6	22.31	23.0	1.172	0.834	0.978
26.	RMC	Right Tilted	9262	1852.4	22.88	23.0	1.028	0.334	0.343
27.	RMC	Left Cheek	9262	1852.4	22.88	23.0	1.028	0.665	0.684
28.	RMC	Left Tilted	9262	1852.4	22.88	23.0	1.028	0.231	0.237

WCDMA Band 5 – Head SAR Test									
Plot No.	Mode	Test Position Head	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
29.	RMC	Right Cheek	4132	826.4	23.14	23.5	1.086	0.862	0.936
30.	RMC	Right Cheek	4182	836.6	22.92	23.5	1.143	0.82	0.937
31.	RMC	Right Cheek	4233	846.6	23.06	23.5	1.107	0.952	1.054
32.	RMC	Right Tilted	4132	826.4	23.14	23.5	1.086	0.348	0.378
33.	RMC	Left Cheek	4132	826.4	23.14	23.5	1.086	0.886	0.963
34.	RMC	Left Cheek	4182	836.6	22.92	23.5	1.143	0.876	1.001
35.	RMC	Left Cheek	4233	846.6	23.06	23.5	1.107	0.875	0.968
36.	RMC	Left Tilted	4132	826.4	23.14	23.5	1.086	0.228	0.248

LTE Band 2– Head SAR Test								
Plot No.	Mode	Test Position Head	Frequency MHz	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB							
37.	RMC QPSK 20MHz 1RB	Right Cheek	1860.0	23.67	24.0	1.079	0.668	0.721
38.	RMC QPSK 20MHz 1RB	Right Tilted	1860.0	23.67	24.0	1.079	0.325	0.351
39.	RMC QPSK 20MHz 1RB	Left Cheek	1860.0	23.67	24.0	1.079	0.559	0.603
40.	RMC QPSK 20MHz 1RB	Left Tilted	1860.0	23.67	24.0	1.079	0.278	0.300
41.	RMC QPSK 20MHz 50%RB	Right Cheek	1860.0	22.94	23.0	1.014	0.565	0.573
42.	RMC QPSK 20MHz 50%RB	Right Tilted	1860.0	22.94	23.0	1.014	0.221	0.224
43.	RMC QPSK 20MHz 50%RB	Left Cheek	1860.0	22.94	23.0	1.014	0.469	0.476
44.	RMC QPSK 20MHz 50%RB	Left Tilted	1860.0	22.94	23.0	1.014	0.158	0.160

LTE Band 4– Head SAR Test								
Plot No.	Mode	Test Position Head	Frequency MHz	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB							
45.	RMC QPSK 20MHz 1RB	Right Cheek	1745.0	24.51	25.0	1.119	0.575	0.644
46.	RMC QPSK 20MHz 1RB	Right Tilted	1745.0	24.51	25.0	1.119	0.367	0.411
47.	RMC QPSK 20MHz 1RB	Left Cheek	1745.0	24.51	25.0	1.119	0.559	0.626
48.	RMC QPSK 20MHz 1RB	Left Tilted	1745.0	24.51	25.0	1.119	0.252	0.282
49.	RMC QPSK 20MHz 50%RB	Right Cheek	1745.0	23.70	24.0	1.072	0.494	0.529
50.	RMC QPSK 20MHz 50%RB	Right Tilted	1745.0	23.70	24.0	1.072	0.264	0.283
51.	RMC QPSK 20MHz 50%RB	Left Cheek	1745.0	23.70	24.0	1.072	0.482	0.516
52.	RMC QPSK 20MHz 50%RB	Left Tilted	1745.0	23.70	24.0	1.072	0.257	0.275

LTE Band 5– Head SAR Test								
Plot No.	Mode	Test Position Head	Frequency MHz	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth							
53.	RMC QPSK 10MHz 1RB	Right Cheek	829.0	23.30	23.5	1.047	0.682	0.714
54.	RMC QPSK 10MHz 1RB	Right Tilted	829.0	23.30	23.5	1.047	0.261	0.273
55.	RMC QPSK 10MHz 1RB	Left Cheek	829.0	23.30	23.5	1.047	0.698	0.731
56.	RMC QPSK 10MHz 1RB	Left Tilted	829.0	23.30	23.5	1.047	0.352	0.369
57.	RMC QPSK 10MHz 50%RB	Right Cheek	829.0	22.37	22.5	1.030	0.582	0.600
58.	RMC QPSK 10MHz 50%RB	Right Tilted	829.0	22.37	22.5	1.030	0.211	0.217
59.	RMC QPSK 10MHz 50%RB	Left Cheek	829.0	22.37	22.5	1.030	0.591	0.609
60.	RMC QPSK 10MHz 50%RB	Left Tilted	829.0	22.37	22.5	1.030	0.272	0.280

LTE Band 12– Head SAR Test								
Plot No.	Mode	Test Position Head	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth		MHz					
61.	RMC QPSK 10MHz 1RB	Right Cheek	704.0	24.26	24.5	1.057	0.947	1.001
62.	RMC QPSK 10MHz 1RB	Right Cheek	707.5	24.07	24.5	1.104	0.899	0.993
63.	RMC QPSK 10MHz 1RB	Right Cheek	711.0	24.03	24.5	1.114	0.924	1.030
64.	RMC QPSK 10MHz 1RB	Right Tilted	704.0	24.26	24.5	1.057	0.461	0.487
65.	RMC QPSK 10MHz 1RB	Left Cheek	704.0	24.26	24.5	1.057	0.721	0.762
66.	RMC QPSK 10MHz 1RB	Left Tilted	704.0	24.26	24.5	1.057	0.352	0.372
67.	RMC QPSK 10MHz 50%RB	Right Cheek	704.0	23.39	23.5	1.026	0.742	0.761
68.	RMC QPSK 10MHz 50%RB	Right Tilted	704.0	23.39	23.5	1.026	0.211	0.216
69.	RMC QPSK 10MHz 50%RB	Left Cheek	704.0	23.39	23.5	1.026	0.591	0.606
70.	RMC QPSK 10MHz 50%RB	Left Tilted	704.0	23.39	23.5	1.026	0.272	0.279
71.	RMC QPSK 10MHz 100%RB	Right Cheek	704.0	23.04	23.5	1.112	0.721	0.802

LTE Band 13– Head SAR Test								
Plot No.	Mode	Test Position Head	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth		MHz					
72.	RMC QPSK 10MHz 1RB	Right Cheek	782.0	23.69	24.0	1.074	0.724	0.778
73.	RMC QPSK 10MHz 1RB	Right Tilted	782.0	23.69	24.0	1.074	0.312	0.335
74.	RMC QPSK 10MHz 1RB	Left Cheek	782.0	23.69	24.0	1.074	1.076	1.156
75.	RMC QPSK 10MHz 1RB	Left Tilted	782.0	23.69	24.0	1.074	0.432	0.464
76.	RMC QPSK 10MHz 50%RB	Right Cheek	782.0	22.81	23.0	1.045	0.512	0.535
77.	RMC QPSK 10MHz 50%RB	Right Tilted	782.0	22.81	23.0	1.045	0.228	0.238
78.	RMC QPSK 10MHz 50%RB	Left Cheek	782.0	22.81	23.0	1.045	0.711	0.743
79.	RMC QPSK 10MHz 50%RB	Left Tilted	782.0	22.81	23.0	1.045	0.329	0.344
80.	RMC QPSK 10MHz 100%RB	Left Cheek	782.0	22.59	23.0	1.099	0.701	0.770

LTE Band 17– Head SAR Test								
Plot No.	Mode	Test Position Head	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth		MHz					
81.	RMC QPSK 10MHz 1RB	Right Cheek	709.0	25.07	25.5	1.104	0.682	0.753
82.	RMC QPSK 10MHz 1RB	Right Tilted	709.0	25.07	25.5	1.104	0.278	0.307
83.	RMC QPSK 10MHz 1RB	Left Cheek	709.0	25.07	25.5	1.104	0.541	0.597
84.	RMC QPSK 10MHz 1RB	Left Tilted	709.0	25.07	25.5	1.104	0.141	0.156
85.	RMC QPSK 10MHz 50%RB	Right Cheek	709.0	24.35	24.5	1.035	0.507	0.525
86.	RMC QPSK 10MHz 50%RB	Right Tilted	709.0	24.35	24.5	1.035	0.246	0.255

87.	RMC QPSK 10MHz 50%RB	Left Cheek	709.0	24.35	24.5	1.035	0.418	0.433
88.	RMC QPSK 10MHz 50%RB	Left Tilted	709.0	24.35	24.5	1.035	0.137	0.142

WLAN 2.4GHz – Head SAR Test									
Plot No.	**Mode**	**Test Position Head**	**Frequency**		**Output Power (dBm)**	**Rated Limit (dBm)**	**Scaling Factor**	**SAR1g (W/kg)**	**Scaled SAR1g (W/kg)**
			CH.	**MHz**					
89.	802.11b	Right Cheek	11	2462	13.08	13.5	1.102	0.132	0.145
90.	802.11b	Right Tilted	11	2462	13.08	13.5	1.102	0.021	0.023
91.	802.11b	Left Cheek	11	2462	13.08	13.5	1.102	0.191	0.210
92.	802.11b	Left Tilted	11	2462	13.08	13.5	1.102	0.037	0.041

Remark: Per KDB 447498 D01 v06, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.

Body-worn SAR

GSM850 – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
93.	GSM	Back	128	824.2	33.03	33.5	1.114	0.513	0.572
94.	GSM	Front	128	824.2	33.03	33.5	1.114	0.881	0.982
95.	GSM	Front	190	836.6	32.99	33.5	1.125	0.895	1.007
96.	GSM	Front	251	848.8	32.96	33.5	1.132	0.86	0.974

GSM1900 – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
97.	GSM	Back	512	1850.2	29.55	30.0	1.109	0.162	0.180
98.	GSM	Front	512	1850.2	29.55	30.0	1.109	0.302	0.335

WCDMA Band 2 – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
109	RMC 12.2k	Back Side	9262	1852.4	22.88	23.0	1.028	0.236	0.243
110	RMC 12.2k	Front Side	9262	1852.4	22.88	23.0	1.028	0.421	0.433

WCDMA Band 5 – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
113	RMC 12.2k	Back Side	4132	826.4	23.14	23.5	1.086	0.373	0.405
114	RMC 12.2k	Front Side	4132	826.4	23.14	23.5	1.086	0.613	0.666

LTE Band 2–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
117	RMC QPSK 20MHz 1RB	Back Side	1860.0	23.67	24.0	1.079	0.305	0.329
118	RMC QPSK 20MHz 1RB	Front Side	1860.0	23.67	24.0	1.079	0.514	0.555
121	RMC QPSK 20MHz 50%RB	Back Side	1860.0	22.94	23.0	1.014	0.261	0.265
122	RMC QPSK 20MHz 50%RB	Front Side	1860.0	22.94	23.0	1.014	0.474	0.481

LTE Band 4–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power	Rated Limit	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB	Body	MHz	(dBm)	(dBm)			
125	RMC QPSK 20MHz 1RB	Back Side	1745.0	24.51	25.0	1.119	0.162	0.181
126	RMC QPSK 20MHz 1RB	Front Side	1745.0	24.51	25.0	1.119	0.333	0.373
129	RMC QPSK 20MHz 50%RB	Back Side	1745.0	23.70	24.0	1.072	0.102	0.109
130	RMC QPSK 20MHz 50%RB	Front Side	1745.0	23.70	24.0	1.072	0.271	0.290

LTE Band 5–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power	Rated Limit	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB	Body	MHz	(dBm)	(dBm)			
133	RMC QPSK 10MHz 1RB	Back Side	829.0	23.30	23.5	1.047	0.263	0.275
134	RMC QPSK 10MHz 1RB	Front Side	829.0	23.30	23.5	1.047	0.477	0.499
137	RMC QPSK 10MHz 50%RB	Back Side	829.0	22.37	22.5	1.030	0.236	0.243
138	RMC QPSK 10MHz 50%RB	Front Side	829.0	22.37	22.5	1.030	0.447	0.461

LTE Band 12–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power	Rated Limit	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB	Body	MHz	(dBm)	(dBm)			
141	RMC QPSK 10MHz 1RB	Back Side	704.0	24.26	24.5	1.057	0.688	0.727
142	RMC QPSK 10MHz 1RB	Front Side	704.0	24.26	24.5	1.057	0.749	0.792
145	RMC QPSK 10MHz 50%RB	Back Side	704.0	23.39	23.5	1.026	0.502	0.515
146	RMC QPSK 10MHz 50%RB	Front Side	704.0	23.39	23.5	1.026	0.625	0.641

LTE Band 13–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position	Frequency	Output Power	Rated Limit	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB	Body	MHz	(dBm)	(dBm)			
149	RMC QPSK 10MHz 1RB	Back Side	782.0	23.69	24.0	1.074	0.48	0.516
150	RMC QPSK 10MHz 1RB	Front Side	782.0	23.69	24.0	1.074	0.858	0.921
153	RMC QPSK 10MHz 50%RB	Back Side	782.0	22.81	23.0	1.045	0.351	0.367
154	RMC QPSK 10MHz 50%RB	Front Side	782.0	22.81	23.0	1.045	0.668	0.698
157	RMC QPSK 10MHz 100%RB	Front Side	782.0	22.59	23.0	1.099	0.680	0.747

LTE Band 17–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
158	RMC QPSK 10MHz 1RB	Back Side	709.0	25.07	25.5	1.104	0.537	0.593
159	RMC QPSK 10MHz 1RB	Front Side	709.0	25.07	25.5	1.104	0.719	0.794
162	RMC QPSK 10MHz 50%RB	Back Side	709.0	24.35	24.5	1.035	0.414	0.429
163	RMC QPSK 10MHz 50%RB	Front Side	709.0	24.35	24.5	1.035	0.629	0.651

WLAN 2.4GHz –Body SAR Test									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
166	802.11b	Back Side	11	2462	13.08	13.5	1.102	0.105	0.116
167	802.11b	Front Side	11	2462	13.08	13.5	1.102	0.046	0.051

Remark: Per KDB 447498 D01 v06, if the highest output channel SAR for each exposure position ≤ 0.8 W/kg other channels SAR tests are not necessary.

Hotspot SAR

GSM850 – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
99.	GPRS_2TX	Back Side	128	824.2	32.18	32.5	1.076	0.738	0.794
100.	GPRS_2TX	Front Side	128	824.2	32.18	32.5	1.076	1.020	1.098
101.	GPRS_2TX	Front Side	190	836.6	32.08	32.5	1.102	0.995	1.096
102.	GPRS_2TX	Front Side	251	848.8	32.02	32.5	1.117	0.81	0.905
103.	GPRS_2TX	Top side	128	824.2	32.18	32.5	1.076	0.105	0.113
104.	GPRS_2TX	Left side	128	824.2	32.18	32.5	1.076	0.221	0.238

GSM1900 – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
105.	GPRS_4TX	Back Side	512	1850.2	25.81	26.0	1.045	0.259	0.271
106.	GPRS_4TX	Front Side	512	1850.2	25.81	26.0	1.045	0.439	0.459
107.	GPRS_4TX	Top side	512	1850.2	25.81	26.0	1.045	0.021	0.022
108.	GPRS_4TX	Left side	512	1850.2	25.81	26.0	1.045	0.011	0.011

WCDMA Band 2 – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
109.	RMC 12.2k	Back Side	9262	1852.4	22.88	23.0	1.028	0.236	0.243
110.	RMC 12.2k	Front Side	9262	1852.4	22.88	23.0	1.028	0.421	0.433
111.	RMC 12.2k	Top side	9262	1852.4	22.88	23.0	1.028	0.018	0.019
112.	RMC 12.2k	Left side	9262	1852.4	22.88	23.0	1.028	0.01	0.010

WCDMA Band 5 – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
113.	RMC 12.2k	Back Side	4132	826.4	23.14	23.5	1.086	0.373	0.405
114.	RMC 12.2k	Front Side	4132	826.4	23.14	23.5	1.086	0.613	0.666
115.	RMC 12.2k	Top side	4132	826.4	23.14	23.5	1.086	0.021	0.023
116.	RMC 12.2k	Left side	4132	826.4	23.14	23.5	1.086	0.02	0.022

LTE Band 2–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
117.	RMC QPSK 20MHz 1RB	Back Side	1860.0	23.67	24.0	1.079	0.305	0.329
118.	RMC QPSK 20MHz 1RB	Front Side	1860.0	23.67	24.0	1.079	0.514	0.555
119.	RMC QPSK 20MHz 1RB	Top side	1860.0	23.67	24.0	1.079	0.022	0.024
120.	RMC QPSK 20MHz 1RB	Left side	1860.0	23.67	24.0	1.079	0.014	0.015
121.	RMC QPSK 20MHz 50%RB	Back Side	1860.0	22.94	23.0	1.014	0.261	0.265
122.	RMC QPSK 20MHz 50%RB	Front Side	1860.0	22.94	23.0	1.014	0.474	0.481
123.	RMC QPSK 20MHz 50%RB	Top side	1860.0	22.94	23.0	1.014	0.012	0.012
124.	RMC QPSK 20MHz 50%RB	Left side	1860.0	22.94	23.0	1.014	0.011	0.011

LTE Band 4–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
125.	RMC QPSK 20MHz 1RB	Back Side	1745.0	24.51	25.0	1.119	0.162	0.181
126.	RMC QPSK 20MHz 1RB	Front Side	1745.0	24.51	25.0	1.119	0.333	0.373
127.	RMC QPSK 20MHz 1RB	Top side	1745.0	24.51	25.0	1.119	0.019	0.021
128.	RMC QPSK 20MHz 1RB	Left side	1745.0	24.51	25.0	1.119	0.01	0.011
129.	RMC QPSK 20MHz 50%RB	Back Side	1745.0	23.70	24.0	1.072	0.102	0.109
130.	RMC QPSK 20MHz 50%RB	Front Side	1745.0	23.70	24.0	1.072	0.271	0.290
131.	RMC QPSK 20MHz 50%RB	Top side	1745.0	23.70	24.0	1.072	0.011	0.012
132.	RMC QPSK 20MHz 50%RB	Left side	1745.0	23.70	24.0	1.072	0.007	0.008

LTE Band 5–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
133.	RMC QPSK 10MHz 1RB	Back Side	829.0	23.30	23.5	1.047	0.263	0.275
134.	RMC QPSK 10MHz 1RB	Front Side	829.0	23.30	23.5	1.047	0.477	0.499
135.	RMC QPSK 10MHz 1RB	Top side	829.0	23.30	23.5	1.047	0.013	0.014
136.	RMC QPSK 10MHz 1RB	Left side	829.0	23.30	23.5	1.047	0.011	0.012
137.	RMC QPSK 10MHz 50%RB	Back Side	829.0	22.37	22.5	1.030	0.236	0.243
138.	RMC QPSK 10MHz 50%RB	Front Side	829.0	22.37	22.5	1.030	0.447	0.461
139.	RMC QPSK 10MHz 50%RB	Top side	829.0	22.37	22.5	1.030	0.011	0.011
140.	RMC QPSK 10MHz 50%RB	Left side	829.0	22.37	22.5	1.030	0.01	0.010

LTE Band 12–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
141.	RMC QPSK 10MHz 1RB	Back Side	704.0	24.26	24.5	1.057	0.688	0.727
142.	RMC QPSK 10MHz 1RB	Front Side	704.0	24.26	24.5	1.057	0.749	0.792
143.	RMC QPSK 10MHz 1RB	Top side	704.0	24.26	24.5	1.057	0.018	0.019
144.	RMC QPSK 10MHz 1RB	Left side	704.0	24.26	24.5	1.057	0.015	0.016
145.	RMC QPSK 10MHz 50%RB	Back Side	704.0	23.39	23.5	1.026	0.502	0.515
146.	RMC QPSK 10MHz 50%RB	Front Side	704.0	23.39	23.5	1.026	0.625	0.641
147.	RMC QPSK 10MHz 50%RB	Top side	704.0	23.39	23.5	1.026	0.039	0.040
148.	RMC QPSK 10MHz 50%RB	Left side	704.0	23.39	23.5	1.026	0.043	0.044

LTE Band 13–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
149.	RMC QPSK 10MHz 1RB	Back Side	782.0	23.69	24.0	1.074	0.48	0.516
150.	RMC QPSK 10MHz 1RB	Front Side	782.0	23.69	24.0	1.074	0.858	0.921
151.	RMC QPSK 10MHz 1RB	Top side	782.0	23.69	24.0	1.074	0.02	0.021
152.	RMC QPSK 10MHz 1RB	Left side	782.0	23.69	24.0	1.074	0.018	0.019
153.	RMC QPSK 10MHz 50%RB	Back Side	782.0	22.81	23.0	1.045	0.351	0.367
154.	RMC QPSK 10MHz 50%RB	Front Side	782.0	22.81	23.0	1.045	0.668	0.698
155.	RMC QPSK 10MHz 50%RB	Top side	782.0	22.81	23.0	1.045	0.012	0.013
156.	RMC QPSK 10MHz 50%RB	Left side	782.0	22.81	23.0	1.045	0.011	0.011
157.	RMC QPSK 10MHz 100%RB	Front Side	782.0	22.59	23.0	1.099	0.680	0.747

LTE Band 17–Body SAR Test (Gap: 10mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
158.	RMC QPSK 10MHz 1RB	Back Side	709.0	25.07	25.5	1.104	0.537	0.593
159.	RMC QPSK 10MHz 1RB	Front Side	709.0	25.07	25.5	1.104	0.719	0.794
160.	RMC QPSK 10MHz 1RB	Top side	709.0	25.07	25.5	1.104	0.022	0.024
161.	RMC QPSK 10MHz 1RB	Left side	709.0	25.07	25.5	1.104	0.017	0.019
162.	RMC QPSK 10MHz 50%RB	Back Side	709.0	24.35	24.5	1.035	0.414	0.429
163.	RMC QPSK 10MHz 50%RB	Front Side	709.0	24.35	24.5	1.035	0.629	0.651
164.	RMC QPSK 10MHz 50%RB	Top side	709.0	24.35	24.5	1.035	0.017	0.018
165.	RMC QPSK 10MHz 50%RB	Left side	709.0	24.35	24.5	1.035	0.018	0.019

WLAN 2.4GHz –Body SAR Test									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
166.	802.11b	Back Side	11	2462	13.08	13.5	1.102	0.105	0.116
167.	802.11b	Front Side	11	2462	13.08	13.5	1.102	0.046	0.051
168.	802.11b	Right side	11	2462	13.08	13.5	1.102	0.043	0.047

Front-of the face SAR

GSM850 – Head SAR Test (Gap: 25mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
169.	GPRS_2TX	Front	128	824.2	32.18	32.5	1.076	0.437	0.470

GSM1900 –Head SAR Test (Gap: 25mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
170.	GPRS_4TX	Front	512	1850.2	25.81	26.0	1.045	0.149	0.156

Body-worn SAR (with belt-clip)

GSM850 – Body SAR Test (Gap: 0mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
171.	GSM	Back	128	824.2	33.03	33.5	1.114	0.358	0.399

GSM1900 – Body SAR Test (Gap: 0mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
172.	GSM	Back	512	1850.2	29.55	30.0	1.109	0.068	0.075

WCDMA Band 2 – Body SAR Test (Gap: 0mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
173.	RMC 12.2k	Back Side	9262	1852.4	22.88	23.0	1.028	0.123	0.126

WCDMA Band 5 – Body SAR Test (Gap: 0mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
174.	RMC 12.2k	Back Side	4132	826.4	23.14	23.5	1.086	0.331	0.360

LTE Band 2–Body SAR Test (Gap: 0mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
175.	RMC QPSK 20MHz 1RB	Back Side	1860.0	23.67	24.0	1.079	0.111	0.120
176.	RMC QPSK 20MHz 50%RB	Back Side	1860.0	22.94	23.0	1.014	0.062	0.063

LTE Band 4–Body SAR Test (Gap: 0mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
177.	RMC QPSK 20MHz 1RB	Back Side	1745.0	24.51	25.0	1.119	0.045	0.050
178.	RMC QPSK 20MHz 50%RB	Back Side	1745.0	23.70	24.0	1.072	0.021	0.023

LTE Band 5–Body SAR Test (Gap: 0mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
179.	RMC QPSK 10MHz 1RB	Back Side	829.0	23.30	23.5	1.047	0.208	0.218
180.	RMC QPSK 10MHz 50%RB	Back Side	829.0	22.37	22.5	1.030	0.176	0.181

LTE Band 12–Body SAR Test (Gap: 0mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
181.	RMC QPSK 10MHz 1RB	Back Side	704.0	24.26	24.5	1.057	0.453	0.479
182.	RMC QPSK 10MHz 50%RB	Back Side	704.0	23.39	23.5	1.026	0.321	0.329

LTE Band 13–Body SAR Test (Gap: 0mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
183.	RMC QPSK 10MHz 1RB	Back Side	782.0	23.69	24.0	1.074	0.291	0.313
184.	RMC QPSK 10MHz 50%RB	Back Side	782.0	22.81	23.0	1.045	0.186	0.194

LTE Band 17–Body SAR Test (Gap: 0mm)								
Plot No.	Mode	Test Position Body	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth, RB		MHz					
185.	RMC QPSK 10MHz 1RB	Back Side	709.0	25.07	25.5	1.104	0.481	0.531
186.	RMC QPSK 10MHz 50%RB	Back Side	709.0	24.35	24.5	1.035	0.386	0.400

WLAN 2.4GHz –Body SAR Test									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
187.	802.11b	Back Side	11	2462	13.08	13.5	1.102	0.061	0.067

Hotspot SAR(with belt-clip)

GSM850 – Body SAR Test (Gap: 10mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
188.	GPRS_2TX	Front Side	128	824.2	32.18	32.5	1.076	0.993	1.069
189.	GPRS_2TX	Front Side	190	836.6	32.08	32.5	1.102	0.921	1.015
190.	GPRS_2TX	Front Side	251	848.8	32.02	32.5	1.117	0.801	0.895

Head SAR(with belt-clip)

LTE Band 13– Head SAR Test								
Plot No.	Mode	Test Position Head	Frequency	Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
	Modulation, Bandwidth		MHz					
191.	RMC QPSK 10MHz 1RB	Left Cheek	782.0	23.69	24.0	1.074	1.048	1.126
192.	RMC QPSK 10MHz 100%RB	Left Cheek	782.0	22.59	23.0	1.099	0.658	0.723

Front-of the face SAR(with belt-clip)

GSM850 – Head SAR Test (Gap: 25mm)									
Plot No.	Mode	Test Position Body	Frequency		Output Power (dBm)	Rated Limit (dBm)	Scaling Factor	SAR1g (W/kg)	Scaled SAR1g (W/kg)
			CH.	MHz					
193.	GPRS_2TX	Front	128	824.2	32.18	32.5	1.076	0.315	0.339

9.3 Simultaneous Multi-band Transmission SAR Analysis

List of Mode for Simultaneous Multi-band Transmission

No.	Configurations	Head SAR	Body-worn SAR	Hotspot SAR
1	GSM(Voice) + WLAN(Data)	Yes	Yes	-
2	GPRS/ EDGE(Data) + WLAN(Data)	Yes	-	Yes
3	WCDMA (Voice)+ WLAN(Data)	Yes	Yes	-
4	HSDPA(Data) + WLAN(Data)	-	-	Yes
5	HSUPA(Data) + WLAN(Data)	-	-	Yes
6	LTE(Data) + WLAN(Data)	-	-	Yes
7	GSM(Voice) + Bluetooth(Data)	Yes	Yes	-
8	GPRS/ EDGE(Data) + Bluetooth(Data)	Yes	-	Yes
9	WCDMA(Voice) + Bluetooth(Data)	Yes	Yes	-
10	HSDPA(Data)+ Bluetooth(Data)	-	-	Yes
11	HSUPA(Data) + Bluetooth(Data)	-	-	Yes
12	LTE(Data) + Bluetooth(Data)	-	-	Yes

Remark:

1. GSM ,WCDMA and LTE share the same antenna, and cannot transmit simultaneously.

2. WLAN and Bluetooth share the same antenna, and cannot transmit simultaneously.

3. According to the KDB 447498 D01 v06, when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[√f(GHz)/x] W/kg for test separation distances ≤ 50 mm;

where x = 7.5 for 1-g SAR, and x = 18.75 for 10-g SAR.

For simultaneous transmission analysis, Bluetooth SAR is estimated per KDB 447498 D01 v06 as below:

Bluetooth:

Tune-Up Power (dBm)	Max. Power (mW)	Distance (mm)	Frequency (GHz)	X	SAR(1g) 5mm	SAR(1g) 10mm
3.5	2.24	5/10	2.480	7.5	0.094	0.047

4. The maximum SAR summation is calculated based on the same configuration and test position.

Head SAR

WWAN and WLAN

	WWAN		WLAN	Summed SAR (W/kg)
Position	**Band**	**Scaled SAR (W/kg)**	**Scaled SAR (W/kg)**	
Right Cheek	GSM850	0.914	0.145	1.059
Right Tilted	GSM850	0.378	0.023	0.401
Left Cheek	GSM850	0.757	0.210	0.967
Left Tilted	GSM850	0.270	0.041	0.311
Right Cheek	GSM1900	0.540	0.145	0.685
Right Tilted	GSM1900	0.257	0.023	0.28
Left Cheek	GSM1900	0.399	0.210	0.609
Left Tilted	GSM1900	0.135	0.041	0.176
Right Cheek	GPRS850	0.995	0.145	1.14
Right Tilted	GPRS850	0.512	0.023	0.535
Left Cheek	GPRS850	0.684	0.210	0.894
Left Tilted	GPRS850	0.413	0.041	0.454
Right Cheek	GPRS1900	1.196	0.145	**1.341**
Right Tilted	GPRS1900	0.381	0.023	0.404
Left Cheek	GPRS1900	0.731	0.210	0.941
Left Tilted	GPRS1900	0.244	0.041	0.285
Right Cheek	WCDMA Band 2	0.978	0.145	1.123
Right Tilted	WCDMA Band 2	0.343	0.023	0.366
Left Cheek	WCDMA Band 2	0.684	0.210	0.894
Left Tilted	WCDMA Band 2	0.237	0.041	0.278
Right Cheek	WCDMA Band 5	1.054	0.145	1.199
Right Tilted	WCDMA Band 5	0.378	0.023	0.401
Left Cheek	WCDMA Band 5	1.001	0.210	1.211
Left Tilted	WCDMA Band 5	0.248	0.041	0.289
Right Cheek	LTE Band 2	0.721	0.145	0.866
Right Tilted	LTE Band 2	0.351	0.023	0.374
Left Cheek	LTE Band 2	0.603	0.210	0.813
Left Tilted	LTE Band 2	0.300	0.041	0.341
Right Cheek	LTE Band 4	0.644	0.145	0.789
Right Tilted	LTE Band 4	0.411	0.023	0.434
Left Cheek	LTE Band 4	0.626	0.210	0.836
Left Tilted	LTE Band 4	0.282	0.041	0.323
Right Cheek	LTE Band 5	0.714	0.145	0.859
Right Tilted	LTE Band 5	0.273	0.023	0.296
Left Cheek	LTE Band 5	0.731	0.210	0.941
Left Tilted	LTE Band 5	0.369	0.041	0.41
Right Cheek	LTE Band 12	1.030	0.145	1.175

Right Tilted	LTE Band 12	0.487	0.023	0.51
Left Cheek	LTE Band 12	0.762	0.210	0.972
Left Tilted	LTE Band 12	0.372	0.041	0.413
Right Cheek	LTE Band 13	1.156	0.145	1.301
Right Tilted	LTE Band 13	0.464	0.023	0.487
Left Cheek	LTE Band 13	0.535	0.210	0.745
Left Tilted	LTE Band 13	0.238	0.041	0.279
Right Cheek	LTE Band 17	0.753	0.145	0.898
Right Tilted	LTE Band 17	0.307	0.023	0.33
Left Cheek	LTE Band 17	0.597	0.210	0.807
Left Tilted	LTE Band 17	0.156	0.041	0.197

WWAN and Bluetooth

	WWAN		Bluetooth	Summed SAR (W/kg)
Position	**Band**	**Scaled SAR (W/kg)**	**Scaled SAR (W/kg)**	
Right Cheek	GSM850	0.914	0.094	1.008
Right Tilted	GSM850	0.378	0.094	0.472
Left Cheek	GSM850	0.757	0.094	0.851
Left Tilted	GSM850	0.270	0.094	0.364
Right Cheek	GSM1900	0.540	0.094	0.634
Right Tilted	GSM1900	0.257	0.094	0.351
Left Cheek	GSM1900	0.399	0.094	0.493
Left Tilted	GSM1900	0.135	0.094	0.229
Right Cheek	GPRS850	0.995	0.094	1.089
Right Tilted	GPRS850	0.512	0.094	0.606
Left Cheek	GPRS850	0.684	0.094	0.778
Left Tilted	GPRS850	0.413	0.094	0.507
Right Cheek	GPRS1900	1.196	0.094	**1.290**
Right Tilted	GPRS1900	0.381	0.094	0.475
Left Cheek	GPRS1900	0.731	0.094	0.825
Left Tilted	GPRS1900	0.244	0.094	0.338
Right Cheek	WCDMA Band 2	0.978	0.094	1.072
Right Tilted	WCDMA Band 2	0.343	0.094	0.437
Left Cheek	WCDMA Band 2	0.684	0.094	0.778
Left Tilted	WCDMA Band 2	0.237	0.094	0.331
Right Cheek	WCDMA Band 5	1.054	0.094	1.148
Right Tilted	WCDMA Band 5	0.378	0.094	0.472
Left Cheek	WCDMA Band 5	1.001	0.094	1.095
Left Tilted	WCDMA Band 5	0.248	0.094	0.342
Right Cheek	LTE Band 2	0.721	0.094	0.815
Right Tilted	LTE Band 2	0.351	0.094	0.445
Left Cheek	LTE Band 2	0.603	0.094	0.697
Left Tilted	LTE Band 2	0.300	0.094	0.394
Right Cheek	LTE Band 4	0.644	0.094	0.738
Right Tilted	LTE Band 4	0.411	0.094	0.505
Left Cheek	LTE Band 4	0.626	0.094	0.72
Left Tilted	LTE Band 4	0.282	0.094	0.376
Right Cheek	LTE Band 5	0.714	0.094	0.808
Right Tilted	LTE Band 5	0.273	0.094	0.367
Left Cheek	LTE Band 5	0.731	0.094	0.825
Left Tilted	LTE Band 5	0.369	0.094	0.463
Right Cheek	LTE Band 12	1.030	0.094	1.124
Right Tilted	LTE Band 12	0.487	0.094	0.581

Left Cheek	LTE Band 12	0.762	0.094	0.856
Left Tilted	LTE Band 12	0.372	0.094	0.466
Right Cheek	LTE Band 13	1.156	0.094	1.25
Right Tilted	LTE Band 13	0.464	0.094	0.558
Left Cheek	LTE Band 13	0.535	0.094	0.629
Left Tilted	LTE Band 13	0.238	0.094	0.332
Right Cheek	LTE Band 17	0.753	0.094	0.847
Right Tilted	LTE Band 17	0.307	0.094	0.401
Left Cheek	LTE Band 17	0.597	0.094	0.691
Left Tilted	LTE Band 17	0.156	0.094	0.25

Body-worn SAR

WWAN and WLAN

	WWAN		WLAN	Summed SAR (W/kg)
Position	**Band**	**Scaled SAR (W/kg)**	**Scaled SAR (W/kg)**	
Back	GSM850	0.572	0.116	0.688
Front	GSM850	1.007	0.051	**1.058**
Back	GSM1900	0.180	0.116	0.296
Front	GSM1900	0.335	0.051	0.386
Back	WCDMA Band 2	0.243	0.116	0.359
Front	WCDMA Band 2	0.433	0.051	0.484
Back	WCDMA Band 5	0.405	0.116	0.521
Front	WCDMA Band 5	0.666	0.051	0.717
Back	LTE Band 2	0.329	0.116	0.445
Front	LTE Band 2	0.555	0.051	0.606
Back	LTE Band 4	0.181	0.116	0.297
Front	LTE Band 4	0.373	0.051	0.424
Back	LTE Band 5	0.275	0.116	0.391
Front	LTE Band 5	0.499	0.051	0.55
Back	LTE Band 12	0.727	0.116	0.843
Front	LTE Band 12	0.792	0.051	0.843
Back	LTE Band 13	0.516	0.116	0.632
Front	LTE Band 13	0.921	0.051	0.972
Back	LTE Band 17	0.593	0.116	0.709
Front	LTE Band 17	0.794	0.051	0.845

WWAN and Bluetooth

	WWAN		Bluetooth	Summed SAR (W/kg)
Position	**Band**	**Scaled SAR (W/kg)**	**Scaled SAR (W/kg)**	
Back	GSM850	0.572	0.047	0.619
Front	GSM850	1.007	0.047	**1.054**
Back	GSM1900	0.180	0.047	0.227
Front	GSM1900	0.335	0.047	0.382
Back	WCDMA Band 2	0.243	0.047	0.29
Front	WCDMA Band 2	0.433	0.047	0.48
Back	WCDMA Band 5	0.405	0.047	0.452
Front	WCDMA Band 5	0.666	0.047	0.713
Back	LTE Band 2	0.329	0.047	0.376
Front	LTE Band 2	0.555	0.047	0.602
Back	LTE Band 4	0.181	0.047	0.228
Front	LTE Band 4	0.373	0.047	0.42

Back	LTE Band 5	0.275	0.047	0.322
Front	LTE Band 5	0.499	0.047	0.546
Back	LTE Band 12	0.727	0.047	0.774
Front	LTE Band 12	0.792	0.047	0.839
Back	LTE Band 13	0.516	0.047	0.563
Front	LTE Band 13	0.921	0.047	0.968
Back	LTE Band 17	0.593	0.047	0.64
Front	LTE Band 17	0.794	0.047	0.841

Hotspot SAR

WWAN and WLAN

	WWAN		WLAN	Summed SAR (W/kg)
Position	**Band**	**Scaled SAR (W/kg)**	**Scaled SAR (W/kg)**	
Back	GSM850	0.794	0.116	0.91
Front	GSM850	1.098	0.051	**1.149**
Top side	GSM850	0.113	--	0.113
Bottom side	GSM850	--	--	--
Right side	GSM850	--	0.047	0.047
Left side	GSM850	0.238	--	0.238
Back	GSM1900	0.271	0.116	0.387
Front	GSM1900	0.459	0.051	0.51
Top side	GSM1900	0.022	--	0.022
Bottom side	GSM1900	--	--	--
Right side	GSM1900	--	0.047	0.047
Left side	GSM1900	0.011	--	0.011
Back	WCDMA Band 2	0.243	0.116	0.359
Front	WCDMA Band 2	0.433	0.051	0.484
Top side	WCDMA Band 2	0.019	--	0.019
Bottom side	WCDMA Band 2	--	--	--
Right side	WCDMA Band 2	--	0.047	0.047
Left side	WCDMA Band 2	0.010	--	0.010
Back	WCDMA Band 5	0.405	0.116	0.521
Front	WCDMA Band 5	0.666	0.051	0.717
Top side	WCDMA Band 5	0.023	--	0.023
Bottom side	WCDMA Band 5	--	--	--
Right side	WCDMA Band 5	--	0.047	0.047
Left side	WCDMA Band 5	0.022	--	0.022
Back	LTE Band 2	0.329	0.116	0.445
Front	LTE Band 2	0.555	0.051	0.606
Top side	LTE Band 2	0.024	--	0.024
Bottom side	LTE Band 2	--	--	--
Right side	LTE Band 2	--	0.047	0.047
Left side	LTE Band 2	0.015	--	0.015
Back	LTE Band 4	0.181	0.116	0.297
Front	LTE Band 4	0.373	0.051	0.424
Top side	LTE Band 4	0.021	--	0.021
Bottom side	LTE Band 4	--	--	--
Right side	LTE Band 4	--	0.047	0.047
Left side	LTE Band 4	0.109	--	0.109
Back	LTE Band 5	0.275	0.116	0.391

Front	LTE Band 5	0.499	0.051	0.55
Top side	LTE Band 5	0.014	--	0.014
Bottom side	LTE Band 5	--	--	--
Right side	LTE Band 5	--	0.047	0.047
Left side	LTE Band 5	0.012	--	0.012
Back	LTE Band 12	0.727	0.116	0.843
Front	LTE Band 12	0.792	0.051	0.843
Top side	LTE Band 12	0.019	--	0.019
Bottom side	LTE Band 12	--	--	--
Right side	LTE Band 12	--	0.047	0.047
Left side	LTE Band 12	0.016	--	0.016
Back	LTE Band 13	0.516	0.116	0.632
Front	LTE Band 13	0.921	0.051	0.972
Top side	LTE Band 13	0.021	--	0.021
Bottom side	LTE Band 13	--	--	--
Right side	LTE Band 13	--	0.047	0.047
Left side	LTE Band 13	0.019	--	0.019
Back	LTE Band 17	0.593	0.116	0.709
Front	LTE Band 17	0.794	0.051	0.845
Top side	LTE Band 17	0.024	--	0.024
Bottom side	LTE Band 17	--	--	--
Right side	LTE Band 17	--	0.047	0.047
Left side	LTE Band 17	0.019	--	0.019

WWAN and Bluetooth

	WWAN		**Bluetooth**	**Summed SAR (W/kg)**
Position	**Band**	**Scaled SAR (W/kg)**	**Scaled SAR (W/kg)**	
Back	GSM850	0.794	0.047	0.841
Front	GSM850	1.098	0.047	**1.145**
Top side	GSM850	0.113	--	0.113
Bottom side	GSM850	--	--	--
Right side	GSM850	--	0.047	0.047
Left side	GSM850	0.238	--	0.238
Back	GSM1900	0.271	0.047	0.318
Front	GSM1900	0.459	0.047	0.506
Top side	GSM1900	0.022	--	0.022
Bottom side	GSM1900	--	--	--
Right side	GSM1900	--	0.047	0.047
Left side	GSM1900	0.011	--	0.011
Back	WCDMA Band 2	0.243	0.047	0.29
Front	WCDMA Band 2	0.433	0.047	0.48

Top side	WCDMA Band 2	0.019	--	0.019
Bottom side	WCDMA Band 2	--	--	--
Right side	WCDMA Band 2	--	0.047	0.047
Left side	WCDMA Band 2	0.010	--	0.010
Back	WCDMA Band 5	0.405	0.047	0.452
Front	WCDMA Band 5	0.666	0.047	0.713
Top side	WCDMA Band 5	0.023	--	0.023
Bottom side	WCDMA Band 5	--	--	--
Right side	WCDMA Band 5	--	0.047	0.047
Left side	WCDMA Band 5	0.022	--	0.022
Back	LTE Band 2	0.329	0.047	0.376
Front	LTE Band 2	0.555	0.047	0.602
Top side	LTE Band 2	0.024	--	0.024
Bottom side	LTE Band 2	--	--	--
Right side	LTE Band 2	--	0.047	0.047
Left side	LTE Band 2	0.015	--	0.015
Back	LTE Band 4	0.181	0.047	0.228
Front	LTE Band 4	0.373	0.047	0.42
Top side	LTE Band 4	0.021	--	0.021
Bottom side	LTE Band 4	--	--	--
Right side	LTE Band 4	--	0.047	0.047
Left side	LTE Band 4	0.109	--	0.109
Back	LTE Band 5	0.275	0.047	0.322
Front	LTE Band 5	0.499	0.047	0.546
Top side	LTE Band 5	0.014	--	0.014
Bottom side	LTE Band 5	--	--	--
Right side	LTE Band 5	--	0.047	0.047
Left side	LTE Band 5	0.012	--	0.012
Back	LTE Band 12	0.727	0.047	0.774
Front	LTE Band 12	0.792	0.047	0.839
Top side	LTE Band 12	0.019	--	0.019
Bottom side	LTE Band 12	--	--	--
Right side	LTE Band 12	--	0.047	0.047
Left side	LTE Band 12	0.016	--	0.016
Back	LTE Band 13	0.516	0.047	0.563
Front	LTE Band 13	0.921	0.047	0.968
Top side	LTE Band 13	0.021	--	0.021
Bottom side	LTE Band 13	--	--	--
Right side	LTE Band 13	--	0.047	0.047
Left side	LTE Band 13	0.019	--	0.019
Back	LTE Band 17	0.593	0.047	0.64
Front	LTE Band 17	0.794	0.047	0.841
Top side	LTE Band 17	0.024	--	0.024

Bottom side	LTE Band 17	--	--	--
Right side	LTE Band 17	--	0.047	0.047
Left side	LTE Band 17	0.019	--	0.019

10. Measurement Uncertainty

10.1 Uncertainty for EUT SAR Test

a	b	c	d	e= f(d,k)	f	g	h= c*f/e	i= c*g/e	k
Uncertainty Component	**Sec.**	**Tol (+- %)**	**Prob. Dist.**	**Div.**	**Ci (1g)**	**Ci (10g)**	**1g Ui (+-%)**	**10g Ui (+-%)**	**Vi**
Measurement System									
Probe calibration	E.2.1	7.0	N	1	1	1	7.00	7.00	∝
Axial Isotropy	E.2.2	2.5	R	√3	(1_Cp)^1/2	(1_Cp)^1/2	1.02	1.02	∝
Hemispherical Isotropy	E.2.2	4.0	R	√3	(Cp)^1/2	(Cp)^1/2	1.63	1.63	∝
Boundary effect	E.2.3	1.0	R	√3	1	1	0.58	0.58	∝
Linearity	E.2.4	5.0	R	√3	1	1	2.89	2.89	∝
System detection limits	E.2.5	1.0	R	√3	1	1	0.58	0.58	∝
Readout Electronics	E.2.6	0.02	N	1	1	1	0.02	0.02	∝
Reponse Time	E.2.7	3.0	R	√3	1	1	1.73	1.73	∝
Integration Time	E.2.8	2.0	R	√3	1	1	1.15	1.15	∝
RF ambient Conditions – Noise	E.6.1	3.0	R	√3	1	1	1.73	1.73	∝
RF ambient Conditions - Reflections	E.6.1	3.0	R	√3	1	1	1.73	1.73	∝
Probe positioner Mechanical Tolerance	E.6.2	2.0	R	√3	1	1	1.15	1.15	∝
Probe positioning with respect to Phantom Shell	E.6.3	0.05	R	√3	1	1	0.03	0.03	∝
Extrapolation, interpolation and integration Algoritms for Max. SAR Evaluation	E.5	5.0	R	√3	1	1	2.89	2.89	∝
Test Sample Related									
Test sample positioning	E.4.2	0.03	N	1	1	1	0.03	0.03	N–1
Device Holder Uncertainty	E.4.1	5.00	N	1	1	1	5.00	5.00	
Output power Variation - SAR drift measurement	E.2.9	12.02	R	√3	1	1	6.94	6.94	∝
SAR scaling	E6.5	0.0	R	√3	1	1	0.0	0.0	∝
Phantom and Tissue Parameters									
Phantom Uncertainty (Shape and thickness tolerances)	E.3.1	0.05	R	√3	1	1	0.03	0.03	∝
Uncertainty in SAR correction for deviations in permittivity and conductivity	E3.2	1.9	R	√3	1	0.84	1.10	0.90	∝
Liquid conductivity - deviation	E.3.2	5.00	R	√3	0.64	0.43	1.85	1.24	∝

from target value									
Liquid conductivity - measurement uncertainty	E.3.3	5.00	N	1	0.64	0.43	3.20	2.15	∝
Liquid permittivity - deviation from target value	E.3.2	0.37	R	√3	0.6	0.49	0.13	0.10	∝
Liquid permittivity - measurement uncertainty	E.3.3	10.00	N	1	0.6	0.49	6.00	4.90	∝
Combined Standard Uncertainty			RSS				12.98	12.53	
Expanded Uncertainty (95% Confidence interval)			K=2				25.32	24.43	

10.2 Uncertainty for System Performance Check

a	b	c	d	e= f(d,k)	f	g	h= c*f/e	i= c*g/e	k
Uncertainty Component	**Sec.**	**Tol (+- %)**	**Prob. Dist.**	**Div.**	**Ci (1g)**	**Ci (10g)**	**1g Ui (+-%)**	**10g Ui (+-%)**	**Vi**
Measurement System									
Probe calibration	E.2.1	7.0	N	1	1	1	7.00	7.00	∝
Axial Isotropy	E.2.2	2.5	R	√3	(1_Cp)^1/2	(1_Cp)^1/2	1.02	1.02	∝
Hemispherical Isotropy	E.2.2	4.0	R	√3	(Cp)^1/2	(Cp)^1/2	1.63	1.63	∝
Boundary effect	E.2.3	1.0	R	√3	1	1	0.58	0.58	∝
Linearity	E.2.4	5.0	R	√3	1	1	2.89	2.89	∝
System detection limits	E.2.5	1.0	R	√3	1	1	0.58	0.58	∝
Modulation response	E.2.5	0	R	√3	0	0	0.0	0.0	∝
Readout Electronics	E.2.6	0.02	N	1	1	1	0.02	0.02	∝
Reponse Time	E.2.7	3.0	R	√3	1	1	1.73	1.73	∝
Integration Time	E.2.8	2.0	R	√3	1	1	1.15	1.15	∝
RF ambient Conditions – Noise	E.6.1	3.0	R	√3	1	1	1.73	1.73	∝
RF ambient Conditions - Reflections	E.6.1	3.0	R	√3	1	1	1.73	1.73	∝
Probe positioner Mechanical Tolerance	E.6.2	2.0	R	√3	1	1	1.15	1.15	∝
Probe positioning with respect to Phantom Shell	E.6.3	0.05	R	√3	1	1	0.03	0.03	∝
Extrapolation, interpolation and integration Algoritms for Max.	E.5.2	5.0	R	√3	1	1	2.89	2.89	∝

SAR Evaluation									
Dipole									
Dipole axis to liquid Distance	8,E.4.2	1.00	N	√3	1	1	0.58	0.58	N–1
Input power and SAR drift measurement	8,6.6.2	12.02	R	√3	1	1	6.94	6.94	∝
Deviation of experimental dipole from numerical dipole	E.6.4	5.5	R	√3	1	1	3.20	3.20	∝
Phantom and Tissue Parameters									
Phantom Uncertainty (Shape and thickness tolerances)	E.3.1	0.05	R	√3	1	1	0.03	0.03	∝
Uncertainty in SAR correction for deviations in permittivity and conductivity	E3.2	2.0	R	√3	1	0.84	1.10	1.10	∝
Liquid conductivity - deviation from target value	E.3.2	5.00	R	√3	0.64	0.43	1.85	1.24	
Liquid conductivity - measurement uncertainty	E.3.3	5.00	N	1	0.64	0.43	3.20	2.15	
Liquid permittivity - deviation from target value	E.3.2	0.37	R	√3	0.6	0.49	0.13	0.10	
Liquid permittivity - measurement uncertainty	E.3.3	10.00	N	1	0.6	0.49	6.00	4.90	M
Combined Standard Uncertainty			RSS				12.00	11.50	
Expanded Uncertainty (95% Confidence interval)			K=2				23.39	22.43	

Annex A. Plots of System Performance Check

MEASUREMENT 1

For Head Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 02/01/2018

Measurement duration: 7 minutes 21 seconds

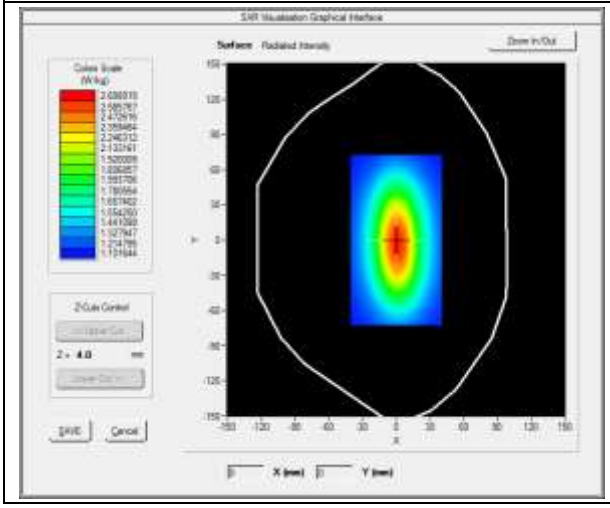
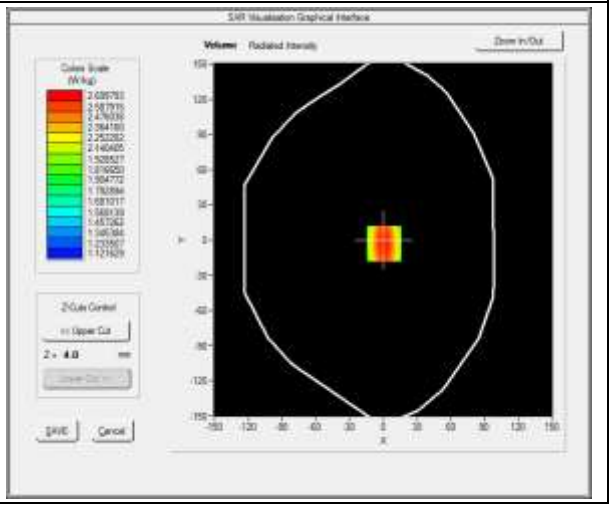
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.99; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW750
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	750.000000
Relative Permittivity (real part)	41.320574
Conductivity (S/m)	0.862373
Power Variation (%)	0.038363
Ambient Temperature	21.1
Liquid Temperature	21.3

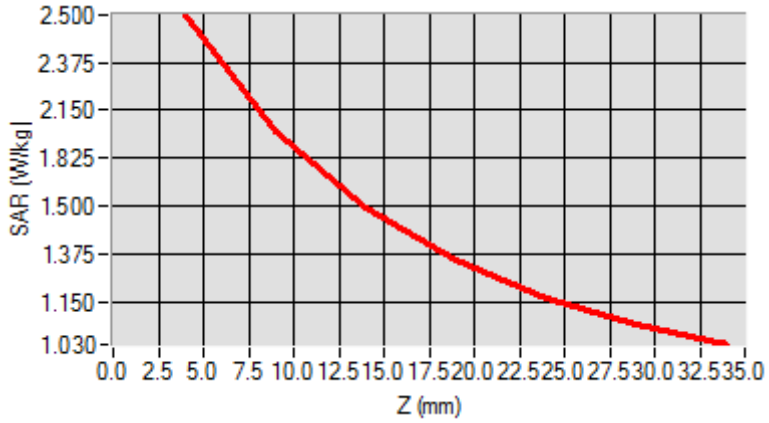
SURFACE SAR	VOLUME SAR
	

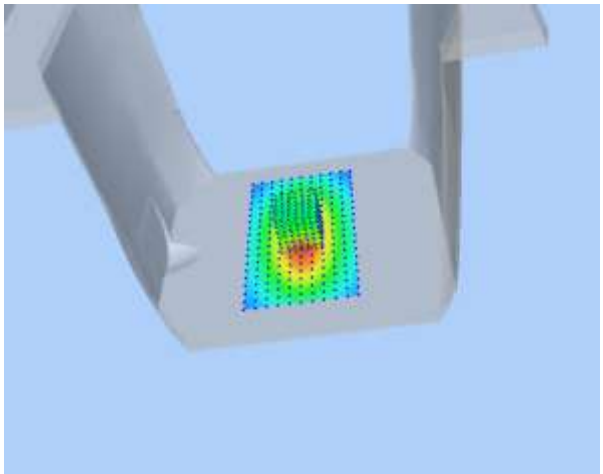
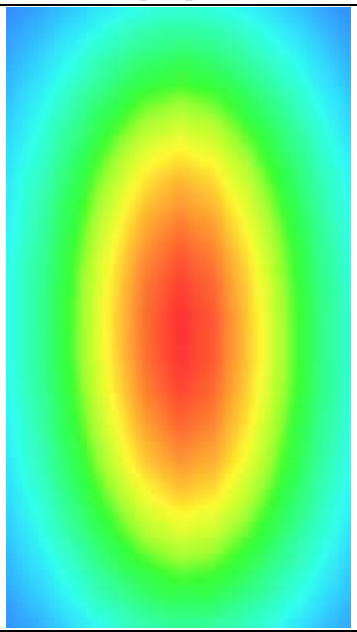
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	**1.042744**
SAR 1g (W/Kg)	**2.164534**

Z Axis Scan

Z (mm)	**0.00**	**4.00**	**9.00**	**14.00**	**19.00**	**24.00**	**29.00**
SAR (W/Kg)	**0.0000**	**2.3634**	**1.8023**	**1.4523**	**1.2514**	**1.1005**	**1.0245**



3D screen shot	**Hot spot position**
	

MEASUREMENT 2

For Head Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 02/01/2018

Measurement duration: 7 minutes 21 seconds

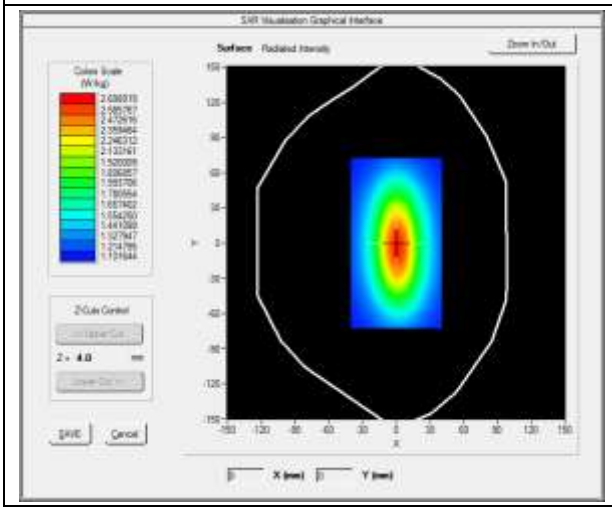
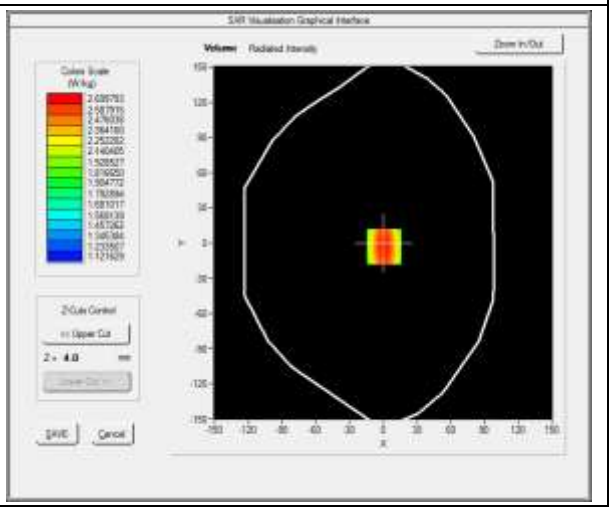
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.93; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	835.000000
Relative Permittivity (real part)	41.110245
Conductivity (S/m)	0.871245
Power Variation (%)	0.038437
Ambient Temperature	21.1
Liquid Temperature	21.3

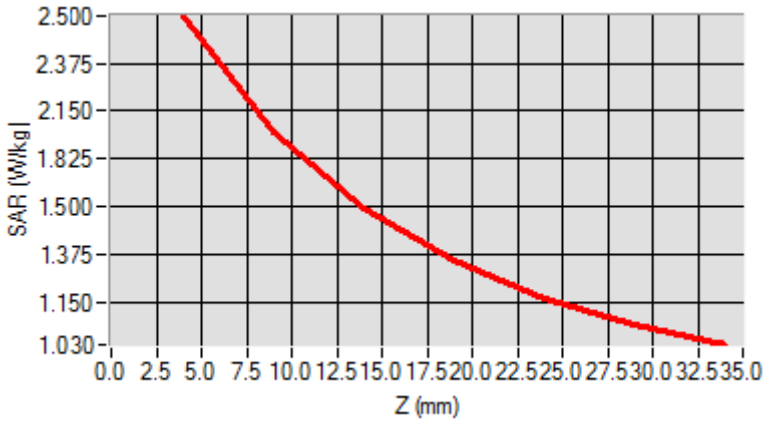
SURFACE SAR	VOLUME SAR
	

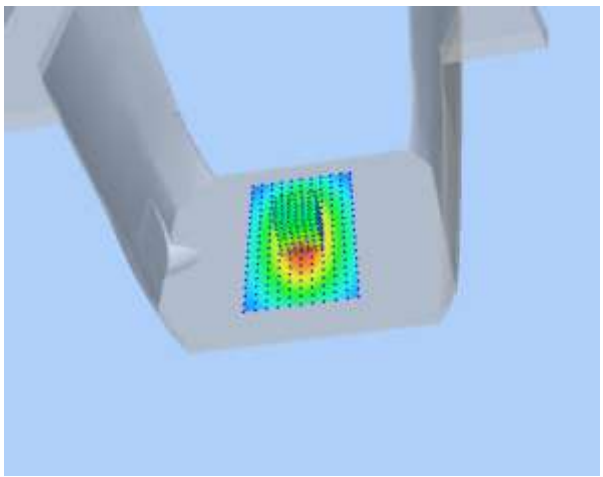
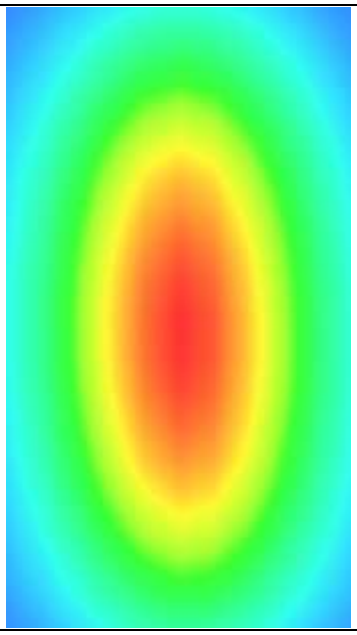
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	1.519489
SAR 1g (W/Kg)	2.411253

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.4900	1.8942	1.4811	1.3541	1.1123	1.0539



3D screen shot	Hot spot position
	

MEASUREMENT 3

For Head Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 02/02/2018

Measurement duration: 12 minutes 21 seconds

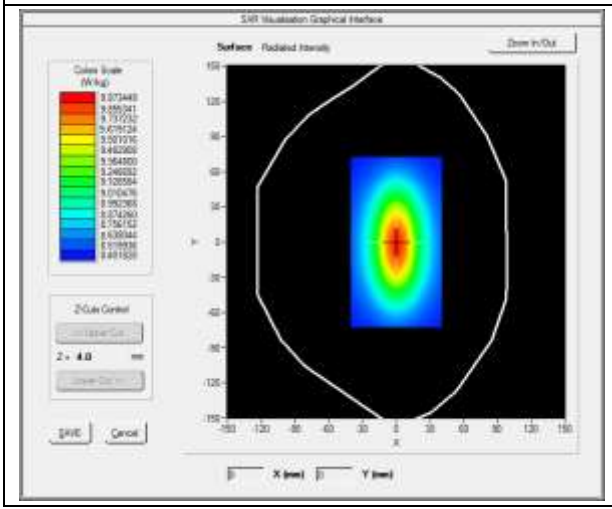
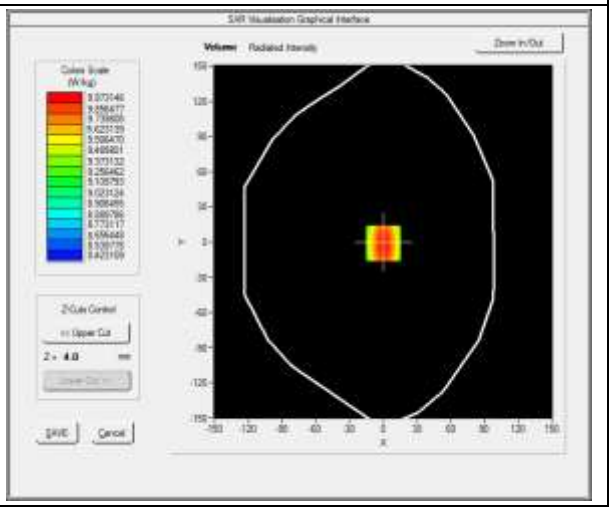
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 5.84; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

Frequency (MHz)	1800.000000
Relative Permittivity (real part)	39.024890
Conductivity (S/m)	1.371250
Power Variation (%)	1.401232
Ambient Temperature	21.1
Liquid Temperature	21.2

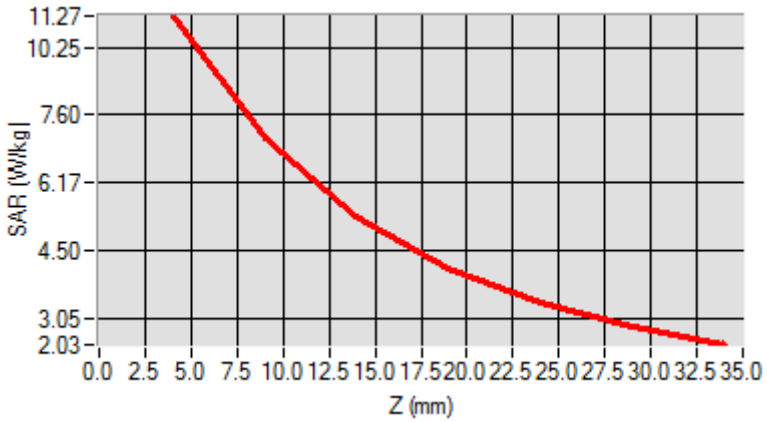
SURFACE SAR	VOLUME SAR
	

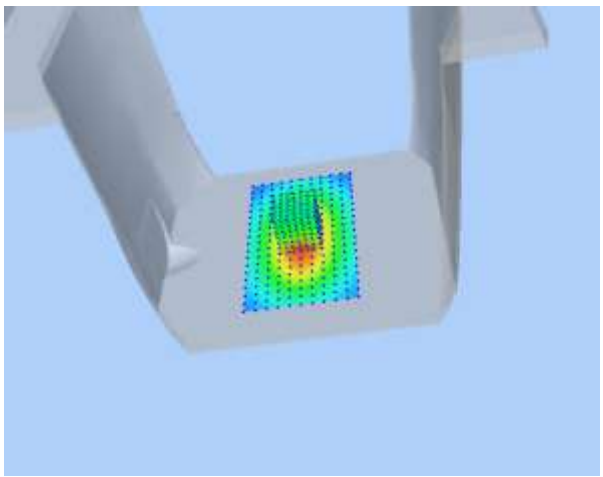
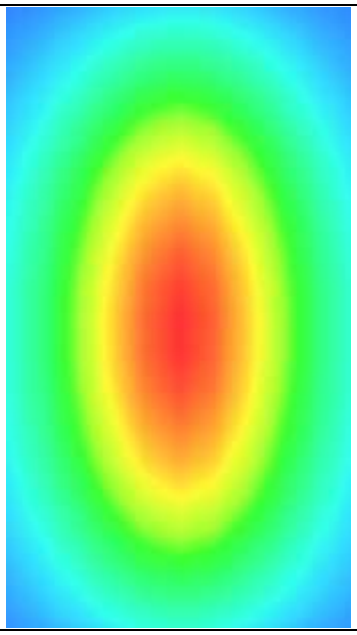
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	5.171252
SAR 1g (W/Kg)	9.611250

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	10.3455	7.1125	5.1026	3.425	3.0242	2.1125



3D screen shot	Hot spot position
	

MEASUREMENT 4

For Head Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 02/02/2018

Measurement duration: 12 minutes 21 seconds

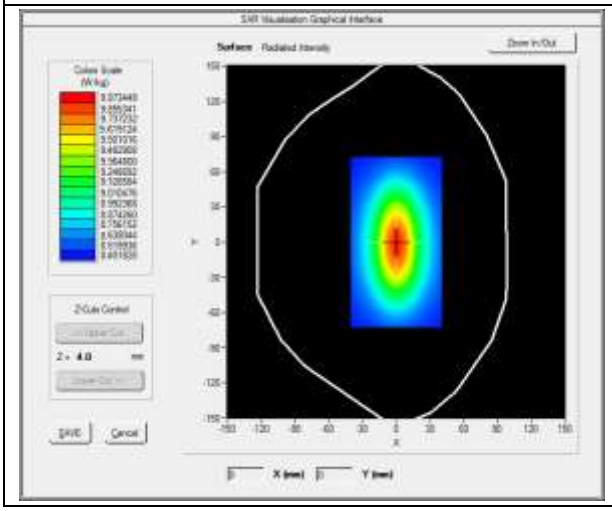
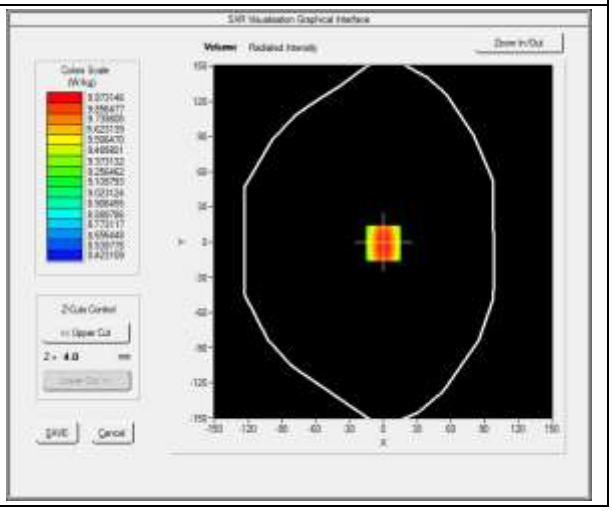
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.35; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	1900.000000
Relative Permittivity (real part)	38.560124
Conductivity (S/m)	1.380369
Power Variation (%)	1.022540
Ambient Temperature	21.1
Liquid Temperature	21.3

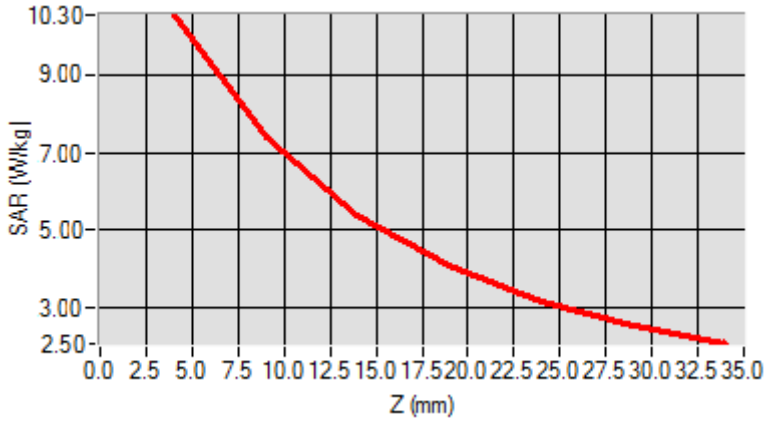
SURFACE SAR	VOLUME SAR
	

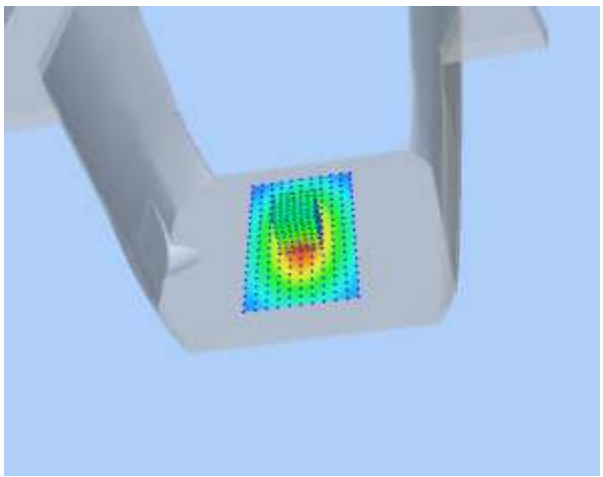
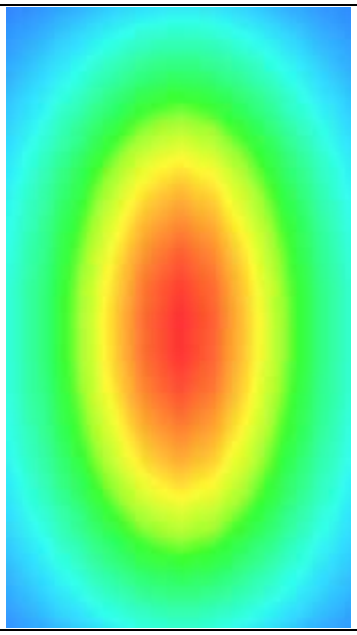
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	5.174526
SAR 1g (W/Kg)	9.913214

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	10.2354	6.8400	5.0121	4.1189	3.0522	2.8424



3D screen shot	Hot spot position
	

MEASUREMENT 5

For Head Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 02/05/2018

Measurement duration: 12 minutes 21 seconds

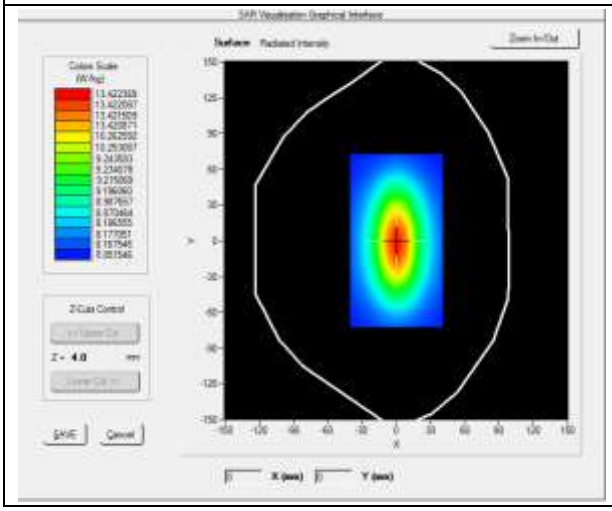
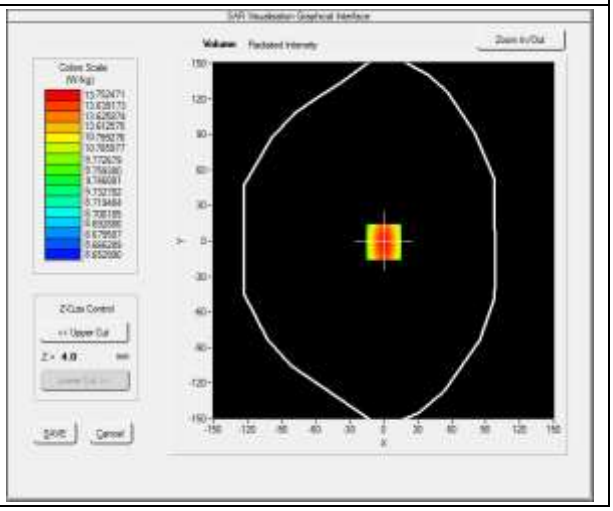
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 5.64; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	2450.000000
Relative Permittivity (real part)	38.153660
Conductivity (S/m)	1.740236
Power Variation (%)	1.141452
Ambient Temperature	21.1
Liquid Temperature	21.2

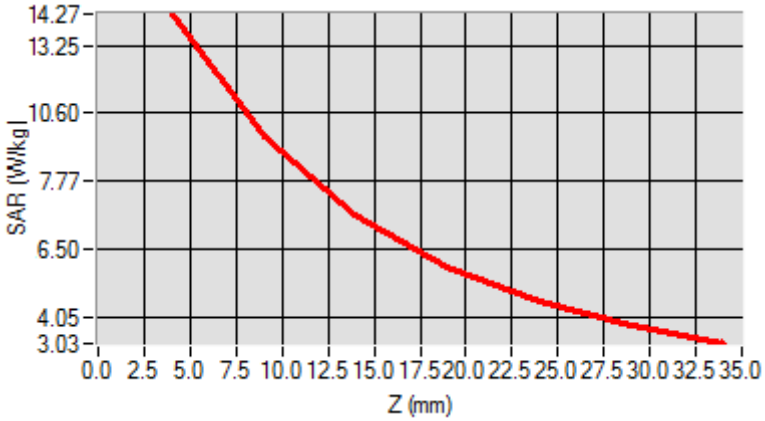
SURFACE SAR	VOLUME SAR
	

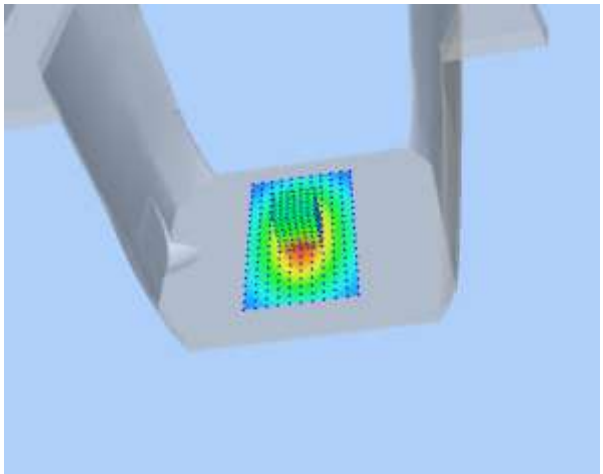
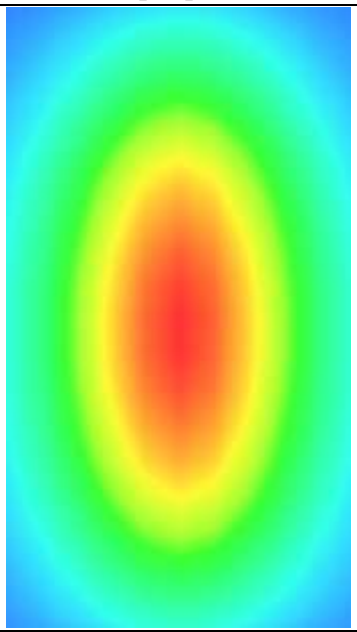
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	8.020427
SAR 1g (W/Kg)	13.452457

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	14.1034	12.0012	10.2624	7.4715	5.9022	4.5114



3D screen shot	Hot spot position
	

MEASUREMENT 6

For Body Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 02/01/2018

Measurement duration: 12 minutes 21 seconds

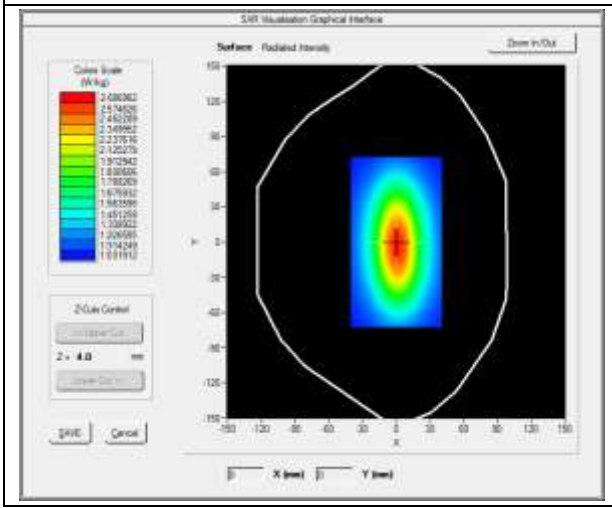
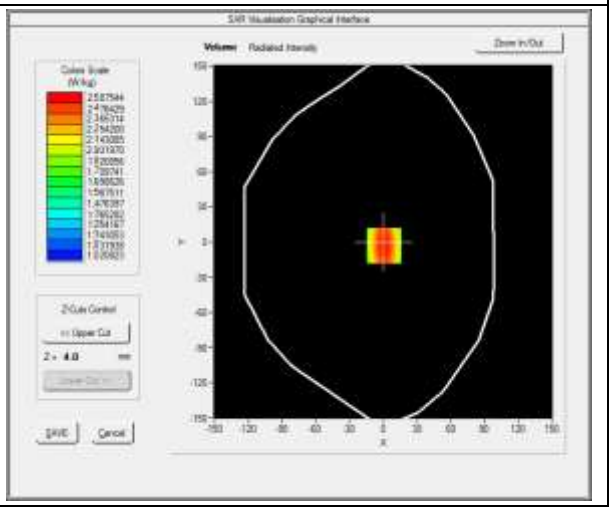
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.28; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW750
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	750.000000
Relative Permittivity (real part)	54.964739
Conductivity (S/m)	0.931048
Power Variation (%)	0.034745
Ambient Temperature	21.1
Liquid Temperature	21.3

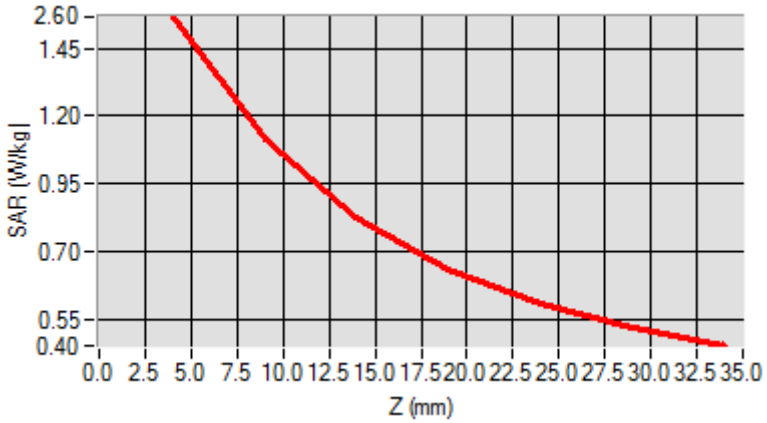
SURFACE SAR	VOLUME SAR
	

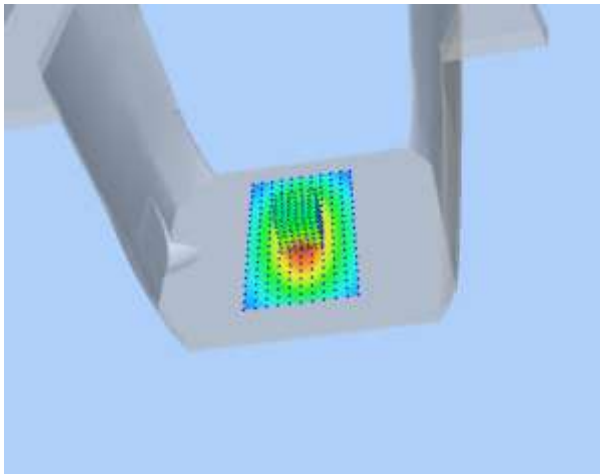
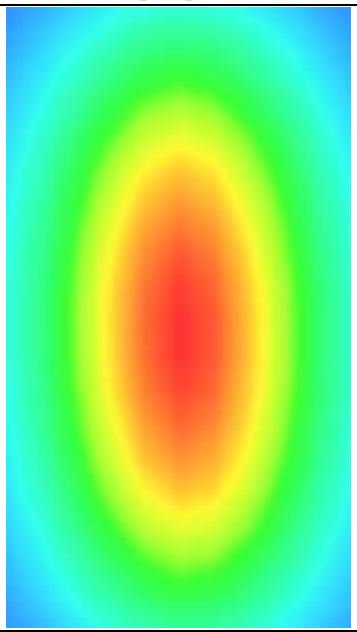
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	1.000865
SAR 1g (W/Kg)	2.124211

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.5132	1.1087	0.8214	0.5160	0.4875	0.4864



3D screen shot	Hot spot position
	

MEASUREMENT 7

For Body Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 02/01/2018

Measurement duration: 12 minutes 21 seconds

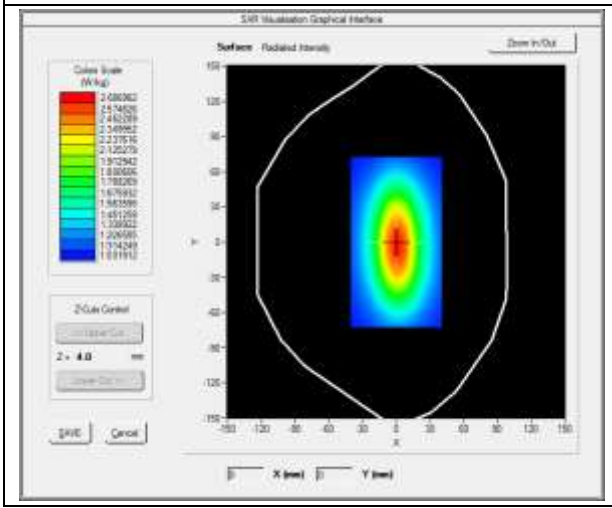
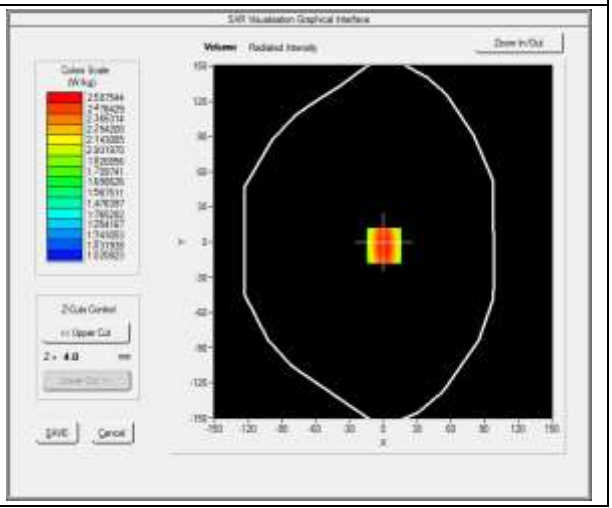
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.13; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	835.000000
Relative Permittivity (real part)	54.851214
Conductivity (S/m)	0.951454
Power Variation (%)	0.901472
Ambient Temperature	21.1
Liquid Temperature	21.3

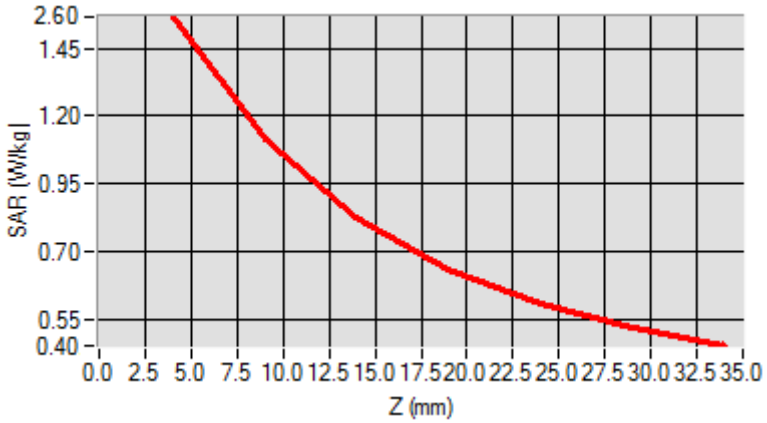
SURFACE SAR	VOLUME SAR
	

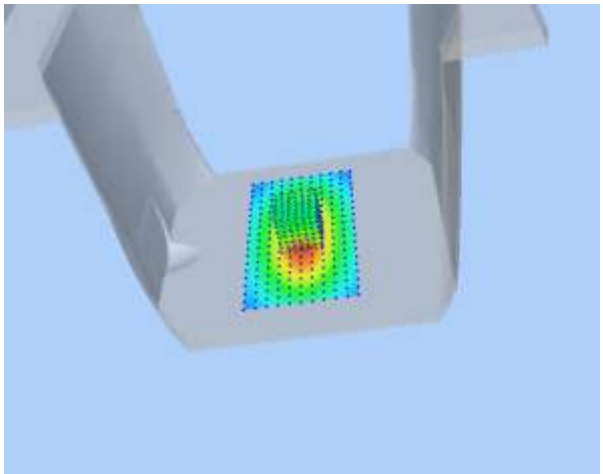
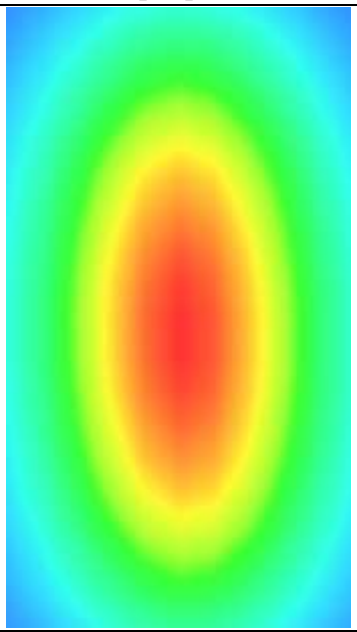
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	1.028956
SAR 1g (W/Kg)	2.354211

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.5789	1.1300	0.8795	0.5940	0.5011	0.5100



3D screen shot	Hot spot position
	

MEASUREMENT 8

For Body Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 02/02/2018

Measurement duration: 12 minutes 21 seconds

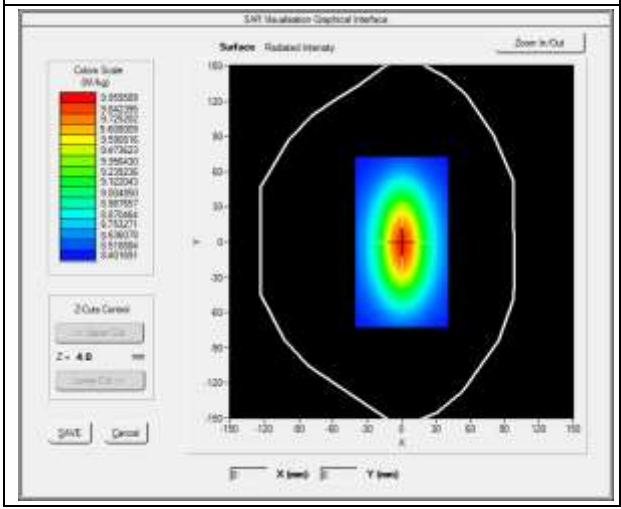
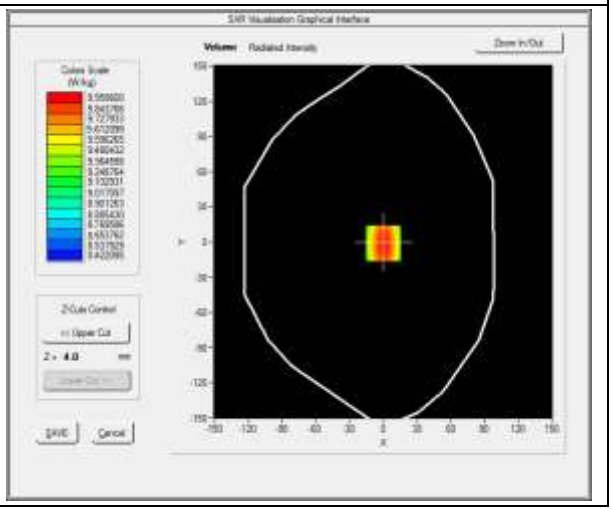
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.06; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

Frequency (MHz)	1800.000000
Relative Permittivity (real part)	51.224510
Conductivity (S/m)	1.461261
Power Variation (%)	0.845690
Ambient Temperature	21.1
Liquid Temperature	21.2

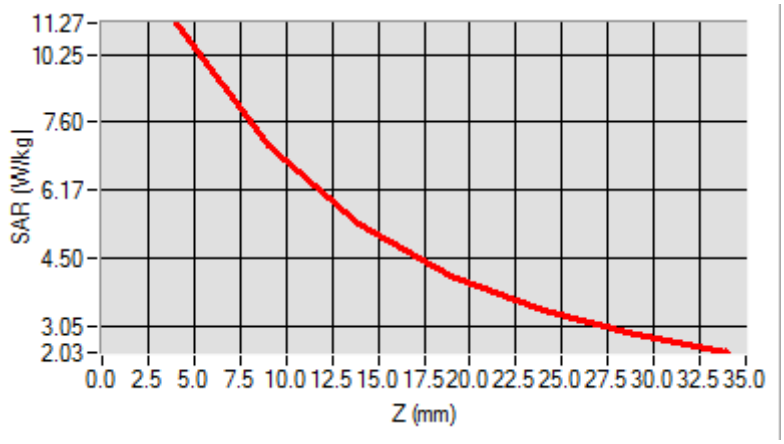
SURFACE SAR	VOLUME SAR
	

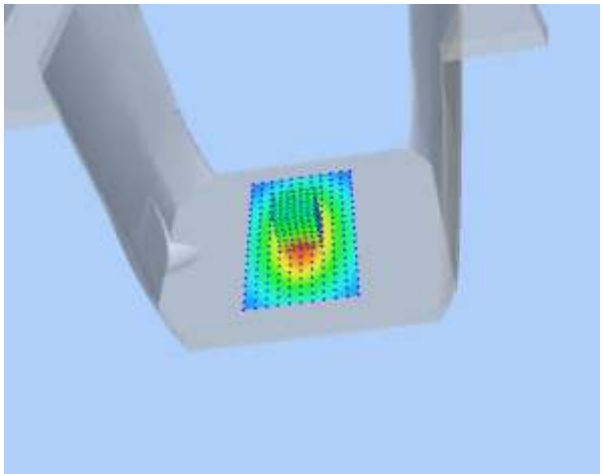
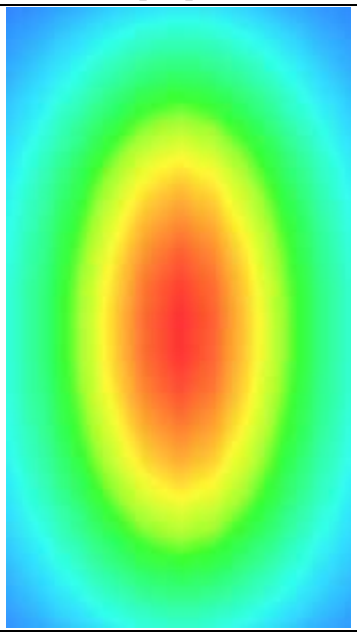
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	5.221202
SAR 1g (W/Kg)	9.582560

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	11.2425	9.4123	8.0345	6.9125	6.3092	3.9460



3D screen shot	Hot spot position
	

MEASUREMENT 9

For Body Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 02/02/2018

Measurement duration: 12 minutes 21 seconds

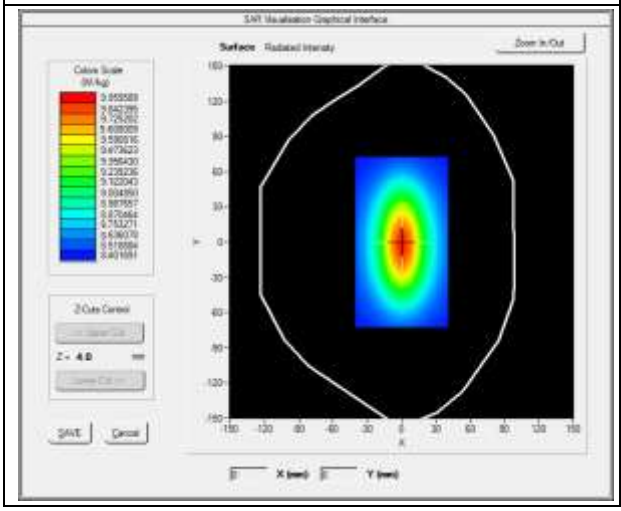
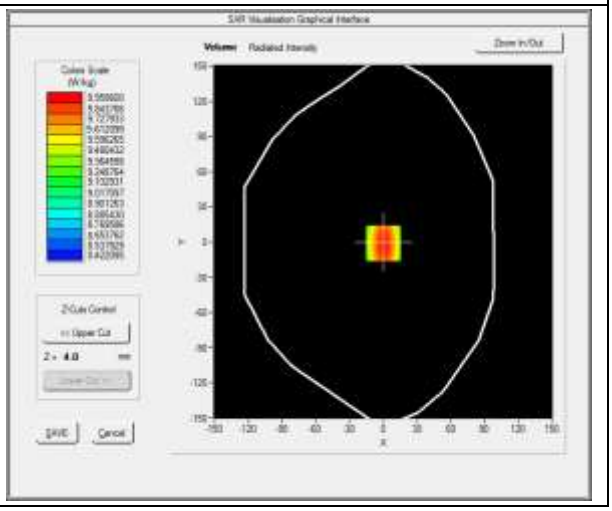
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.55; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	1900.000000
Relative Permittivity (real part)	52.420415
Conductivity (S/m)	1.501966
Power Variation (%)	0.541872
Ambient Temperature	21.1
Liquid Temperature	21.3

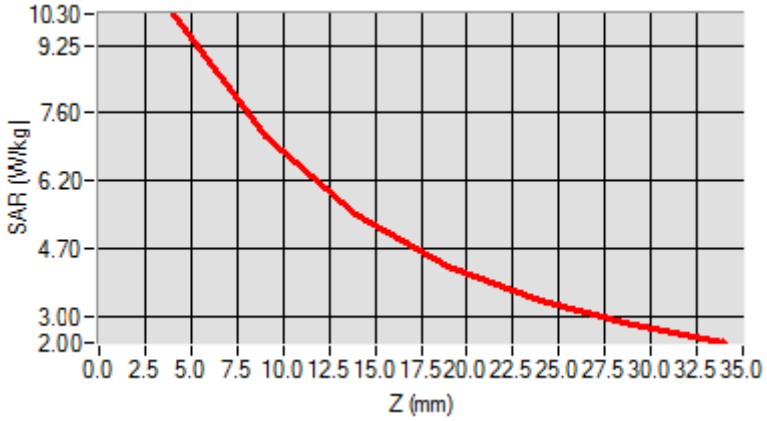
SURFACE SAR	VOLUME SAR
	

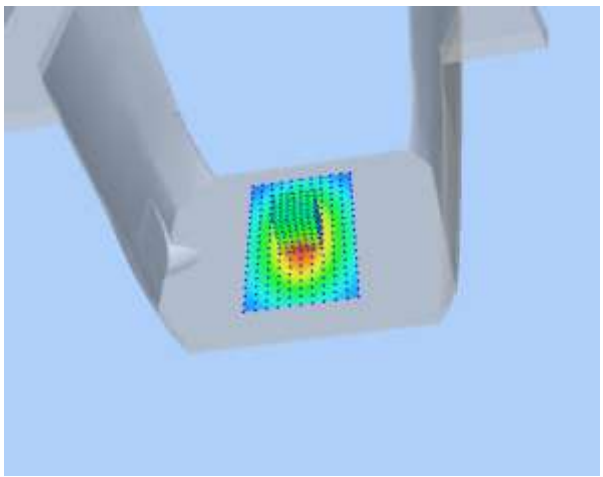
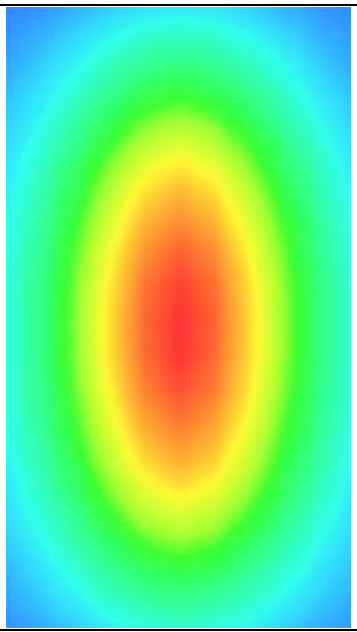
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	5.134651
SAR 1g (W/Kg)	9.781550

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	10.2031	6.43001	4.9011	4.5325	3.1201	2.5024



3D screen shot	Hot spot position
	

MEASUREMENT 10

For Body Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 02/05/2018

Measurement duration: 12 minutes 21 seconds

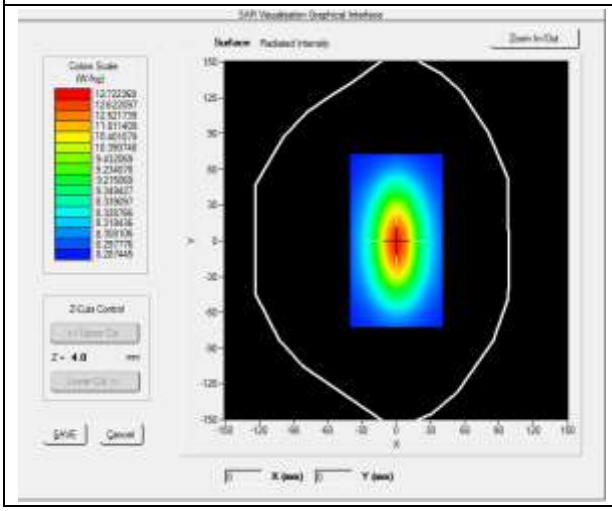
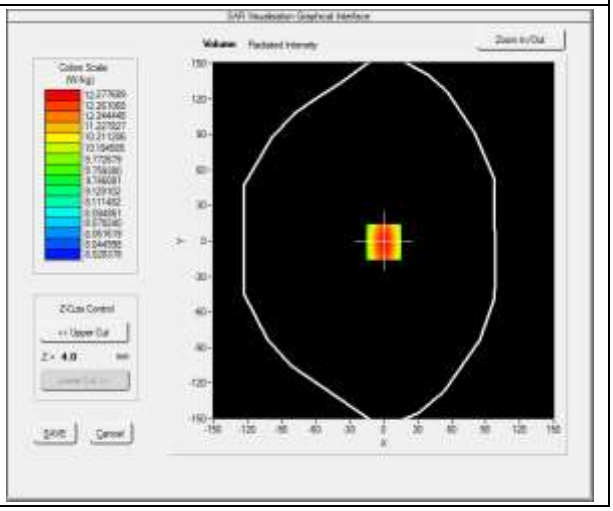
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 5.80; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	2450.000000
Relative Permittivity (real part)	52.010212
Conductivity (S/m)	1.910255
Power Variation (%)	1.369745
Ambient Temperature	21.1
Liquid Temperature	21.2

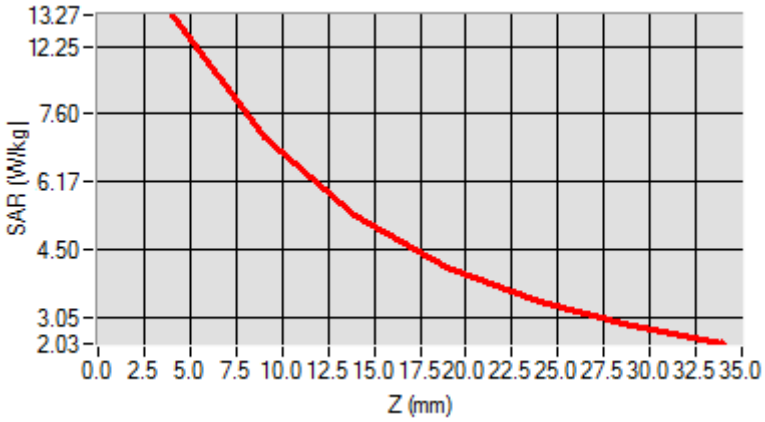
SURFACE SAR	VOLUME SAR
	

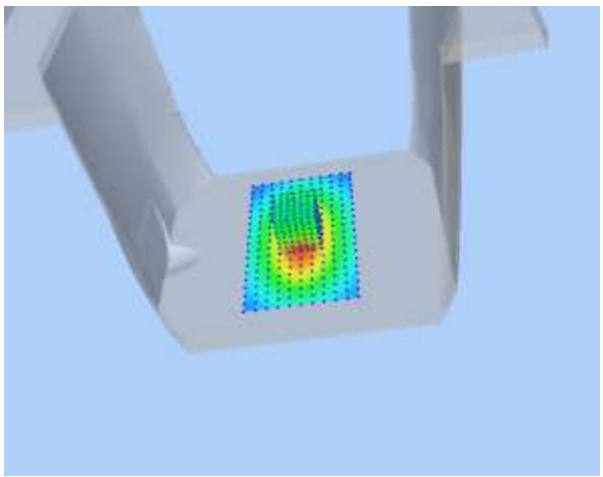
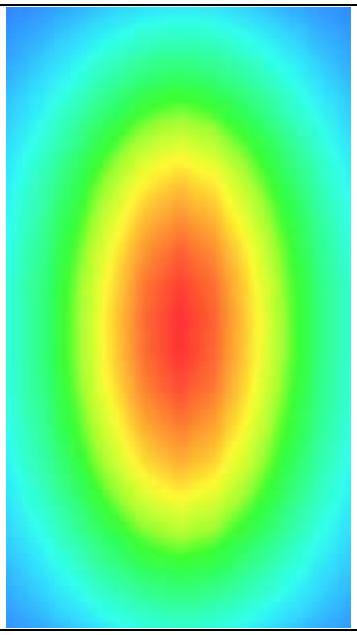
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	7.119522
SAR 1g (W/Kg)	12.592360

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	13.1911	11.7951	9.2945	8.5400	6.3712	4.6225



3D screen shot	Hot spot position
	

MEASUREMENT 11

For Body Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 03/23/2018

Measurement duration: 12 minutes 21 seconds

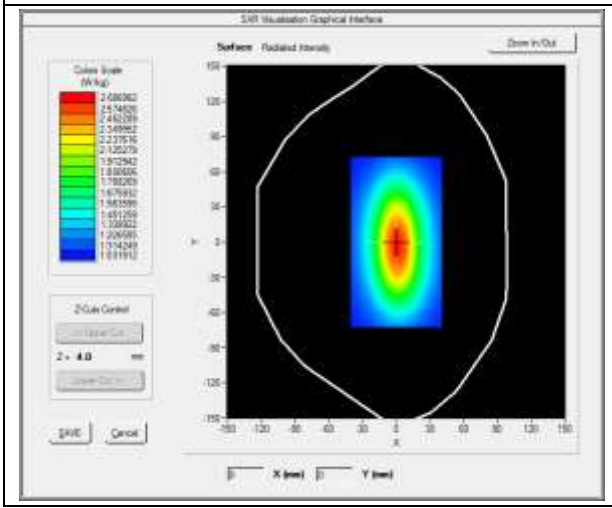
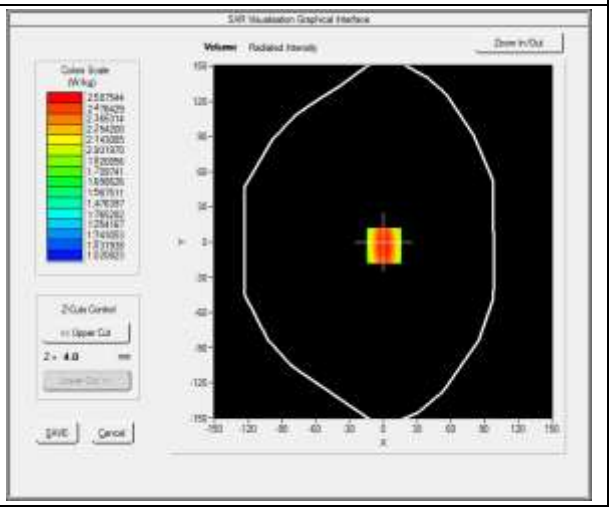
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.28; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW750
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	750.000000
Relative Permittivity (real part)	54.983247
Conductivity (S/m)	0.940134
Power Variation (%)	0.108393
Ambient Temperature	21.1
Liquid Temperature	21.3

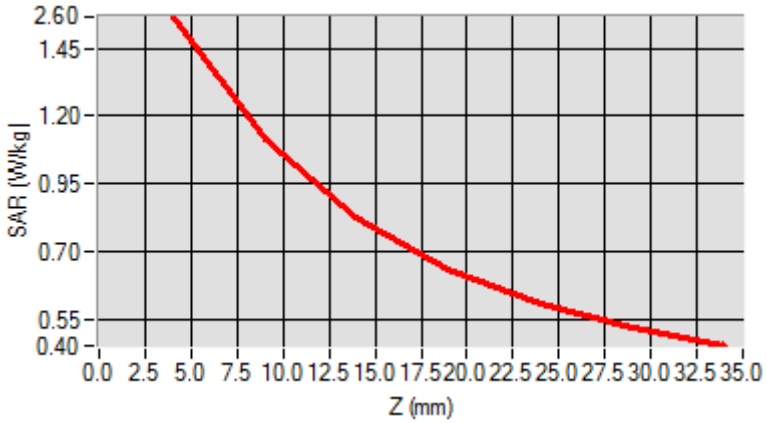
SURFACE SAR	VOLUME SAR
	

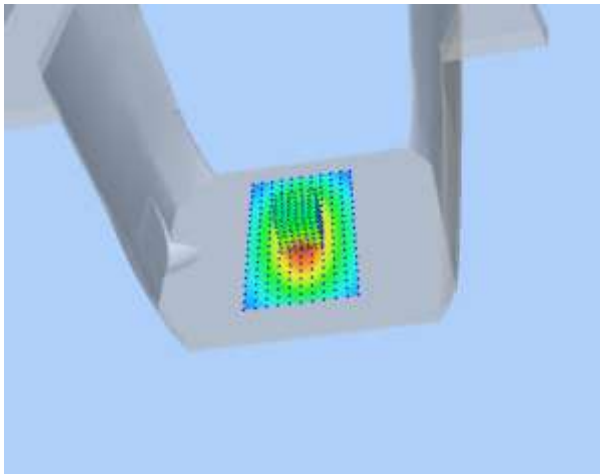
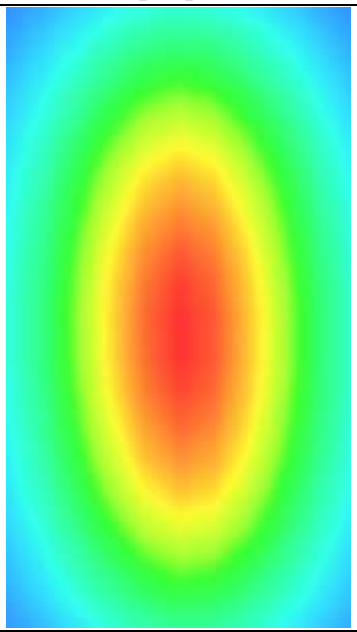
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	1.001948
SAR 1g (W/Kg)	2.153723

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.5012	1.0972	0.8132	0.5176	0.4887	0.4843



3D screen shot	Hot spot position
	

MEASUREMENT 12

For Body Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 03/23/2018

Measurement duration: 12 minutes 21 seconds

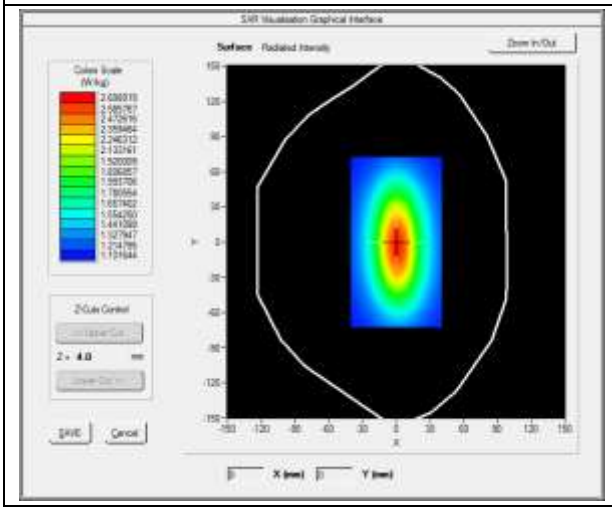
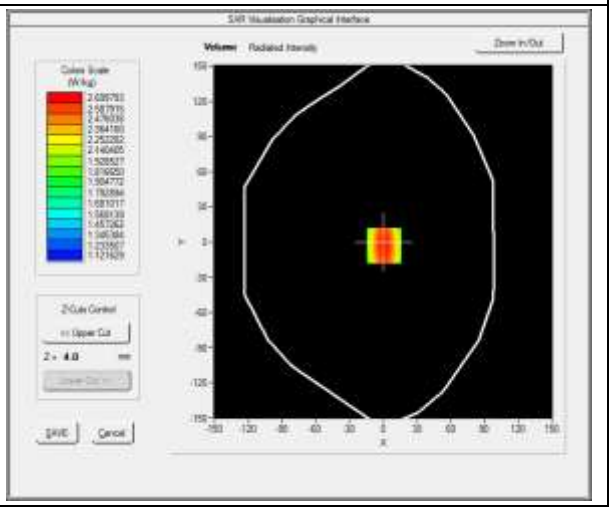
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.13; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	835.000000
Relative Permittivity (real part)	54.810765
Conductivity (S/m)	0.940651
Power Variation (%)	0.984783
Ambient Temperature	21.1
Liquid Temperature	21.3

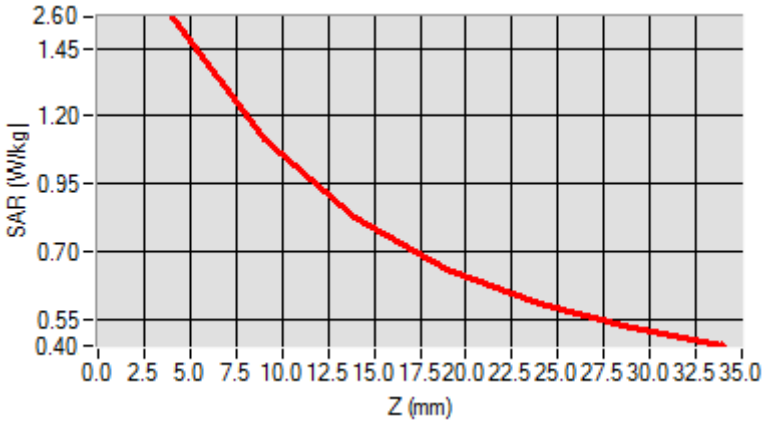
SURFACE SAR	VOLUME SAR
	

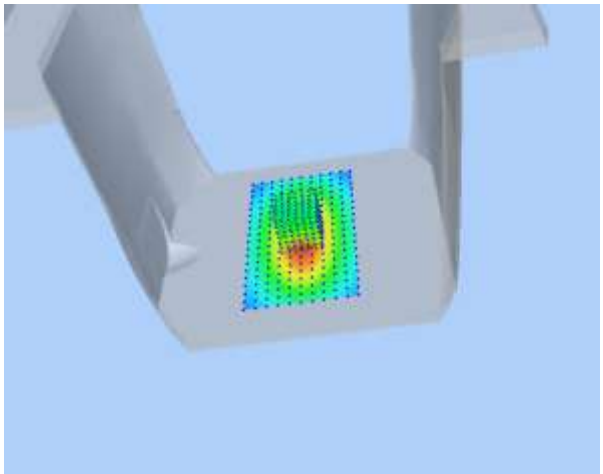
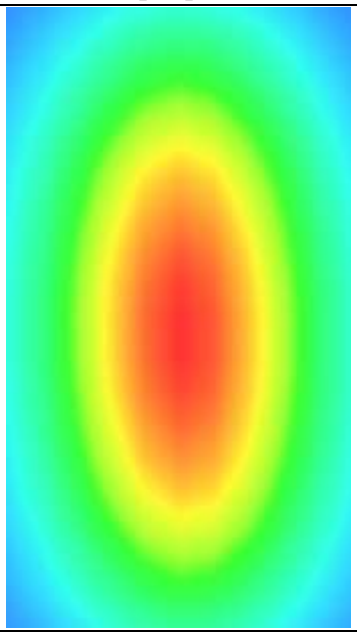
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	1.010391
SAR 1g (W/Kg)	2.330483

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.5672	1.1200	0.8683	0.5839	0.5210	0.5082



3D screen shot	Hot spot position
	

MEASUREMENT 13

For Body Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 03/23/2018

Measurement duration: 12 minutes 21 seconds

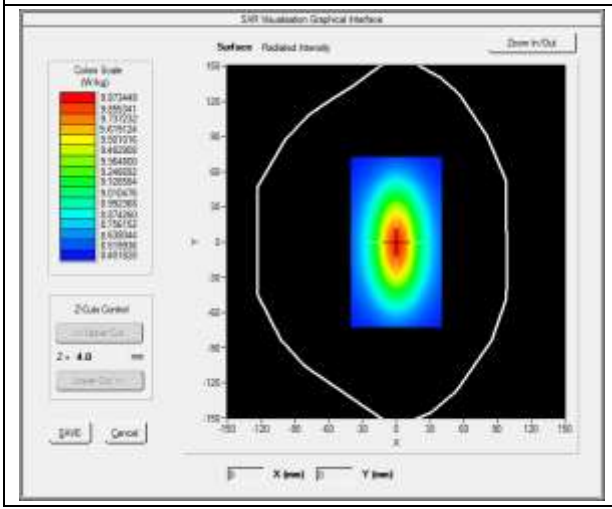
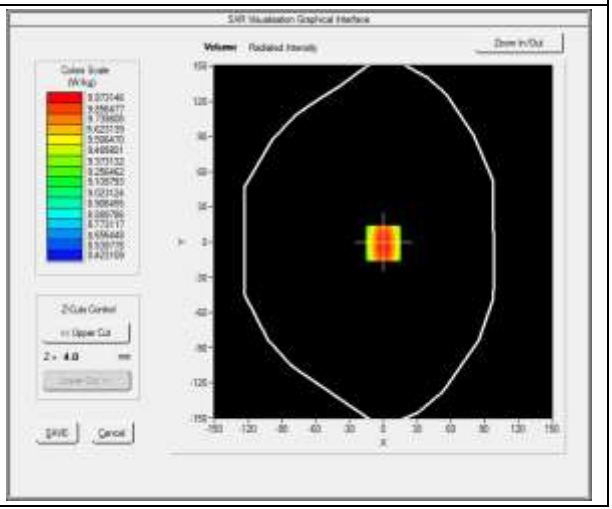
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.06; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Signal	CW (Crest factor: 1.0)

B. SAR Measurement Results

Frequency (MHz)	1800.000000
Relative Permittivity (real part)	51.320431
Conductivity (S/m)	1.485442
Power Variation (%)	0.926718
Ambient Temperature	21.1
Liquid Temperature	21.2

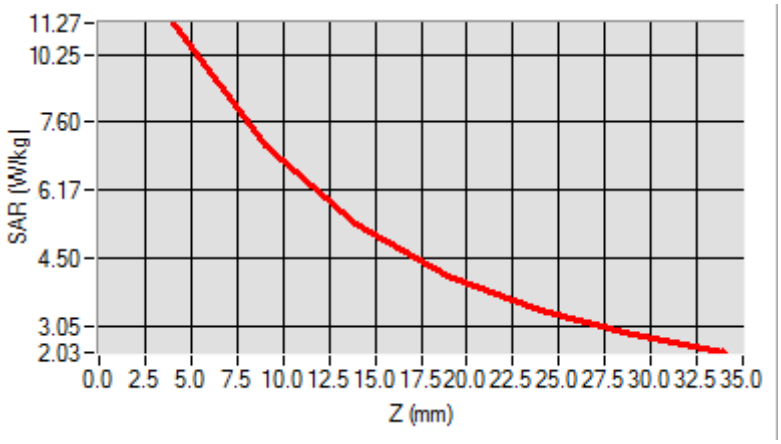
SURFACE SAR	VOLUME SAR
	

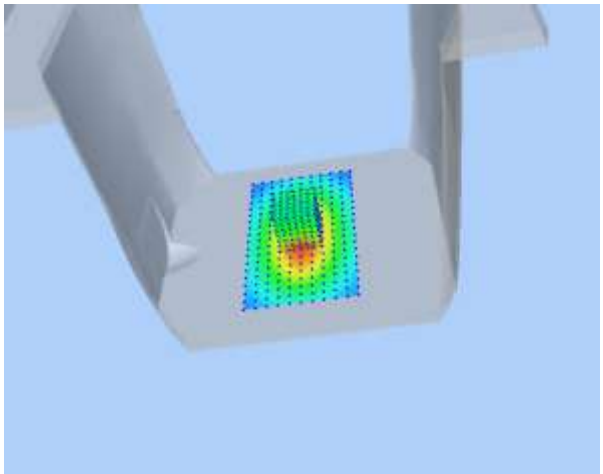
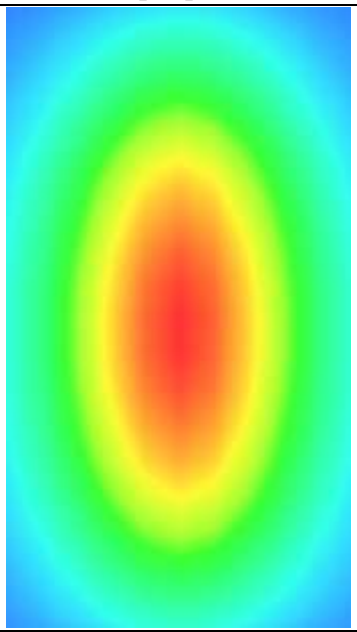
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	5.221202
SAR 1g (W/Kg)	9.580191

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	11.2255	9.4043	8.0211	6.9121	6.3078	3.9456



3D screen shot	Hot spot position
	

MEASUREMENT 14

For Body Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 03/23/2018

Measurement duration: 12 minutes 21 seconds

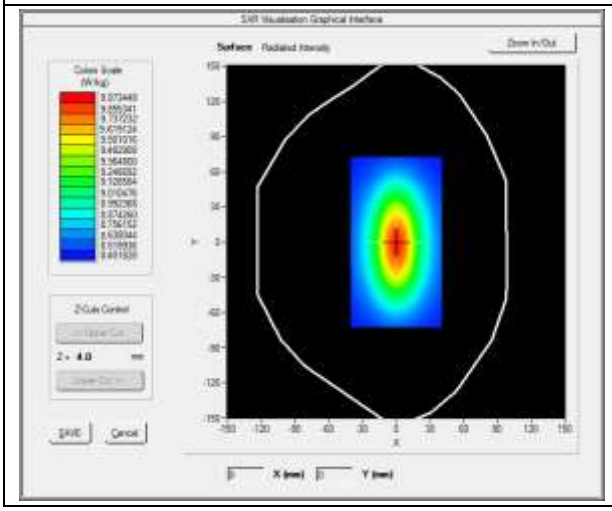
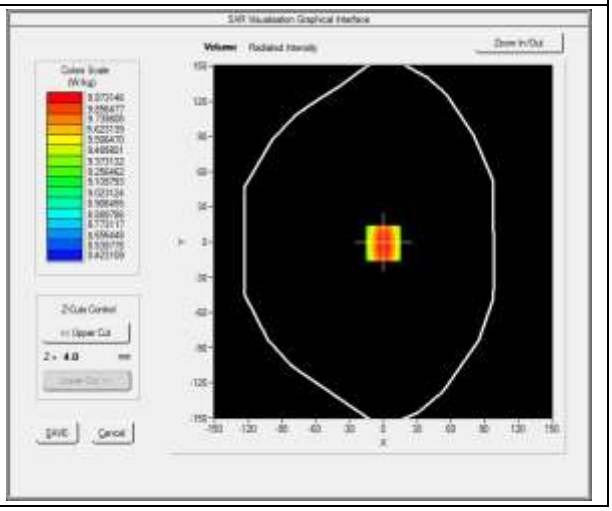
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.55; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	1900.000000
Relative Permittivity (real part)	52.240433
Conductivity (S/m)	1.463255
Power Variation (%)	0.596513
Ambient Temperature	21.1
Liquid Temperature	21.3

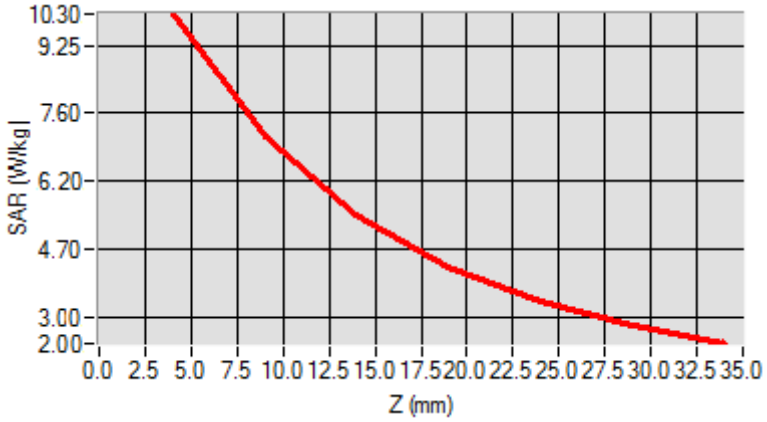
SURFACE SAR	VOLUME SAR
	

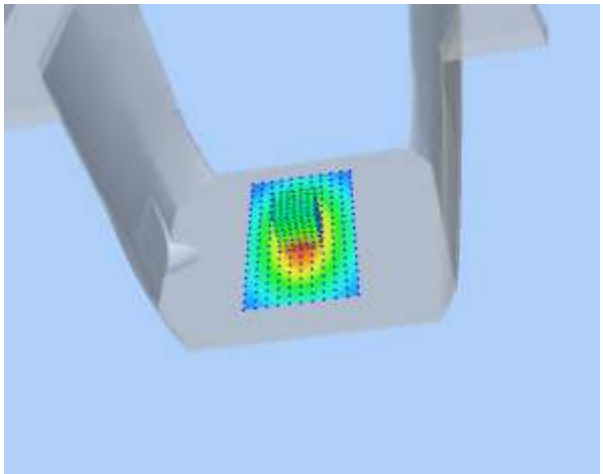
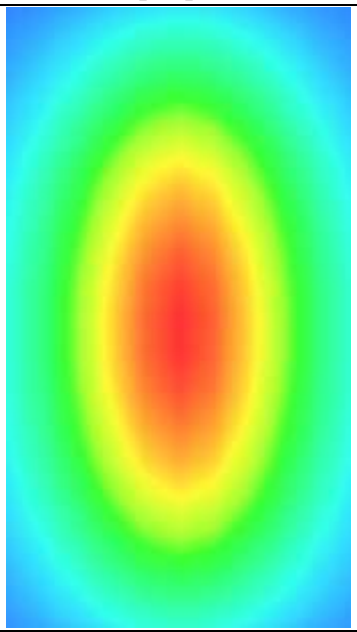
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	5.148742
SAR 1g (W/Kg)	9.840292

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	10.2030	6.4312	4.9109	4.5376	3.1221	2.5012



3D screen shot	Hot spot position
	

MEASUREMENT 15

For Body Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 03/23/2018

Measurement duration: 12 minutes 21 seconds

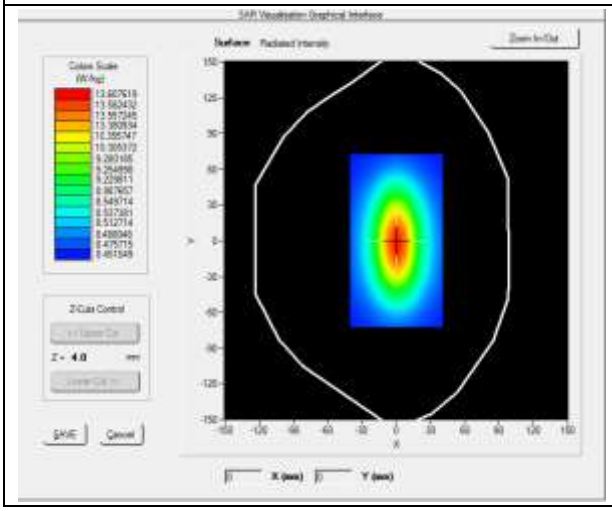
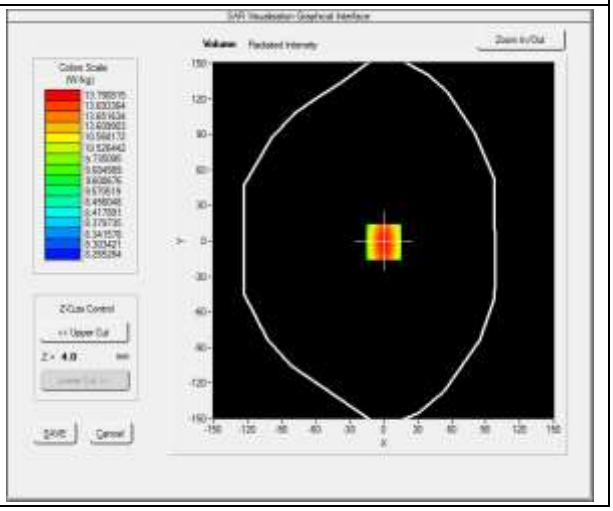
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 5.80; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	2450.000000
Relative Permittivity (real part)	52.210655
Conductivity (S/m)	1.872542
Power Variation (%)	1.301457
Ambient Temperature	21.1
Liquid Temperature	21.2

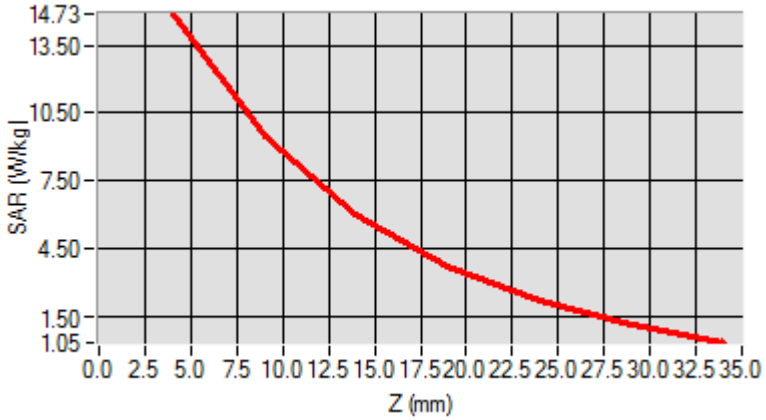
SURFACE SAR	VOLUME SAR
	

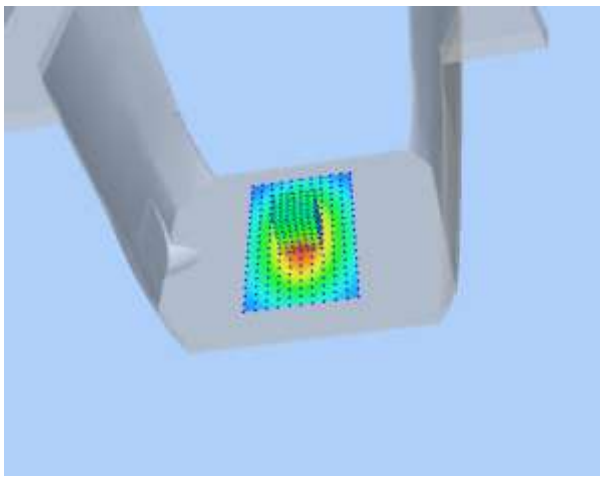
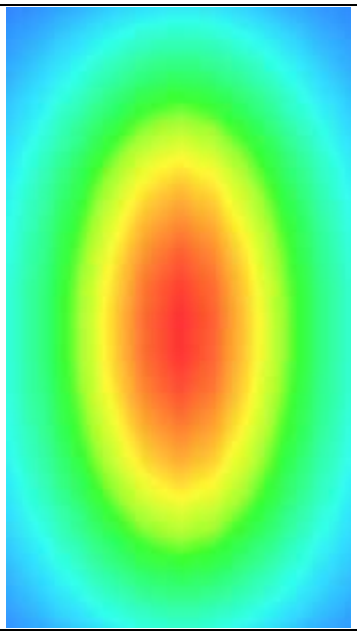
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	7.139280
SAR 1g (W/Kg)	12.755381

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	13.5473	11.8441	9.3627	8.5782	6.4357	4.6342



3D screen shot	Hot spot position
	

MEASUREMENT 16

For Head Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 03/23/2018

Measurement duration: 7 minutes 21 seconds

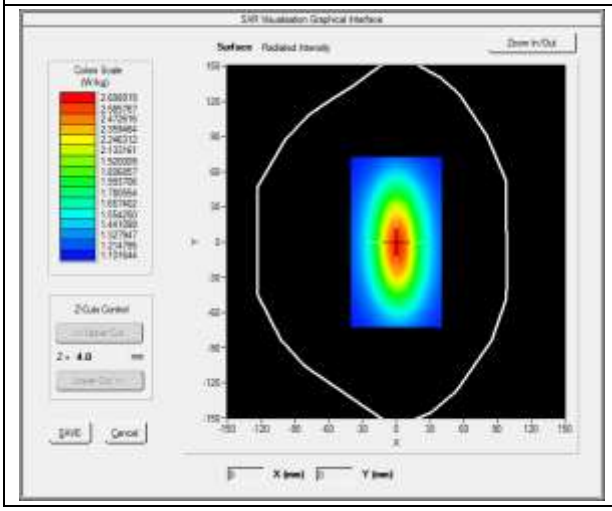
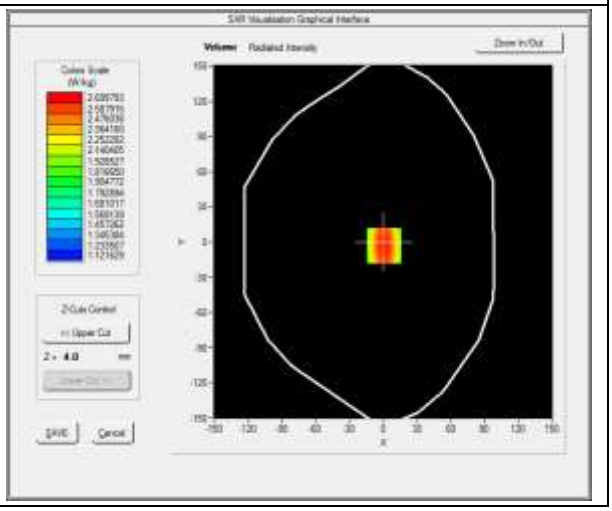
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.99; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW750
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	750.000000
Relative Permittivity (real part)	41.540791
Conductivity (S/m)	0.850214
Power Variation (%)	0.103829
Ambient Temperature	21.1
Liquid Temperature	21.3

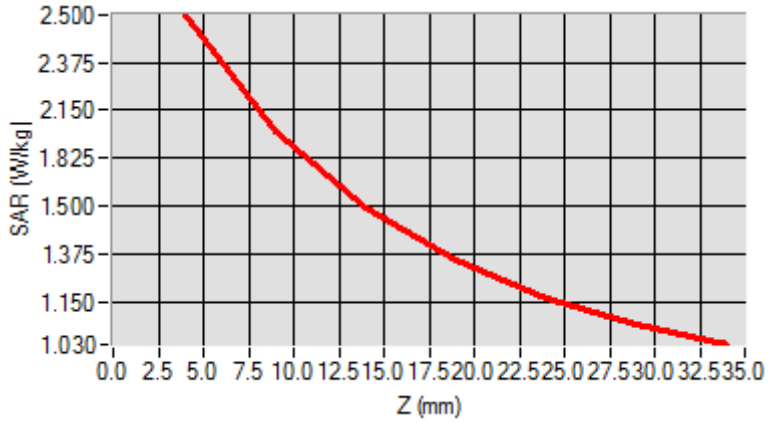
SURFACE SAR	VOLUME SAR
	

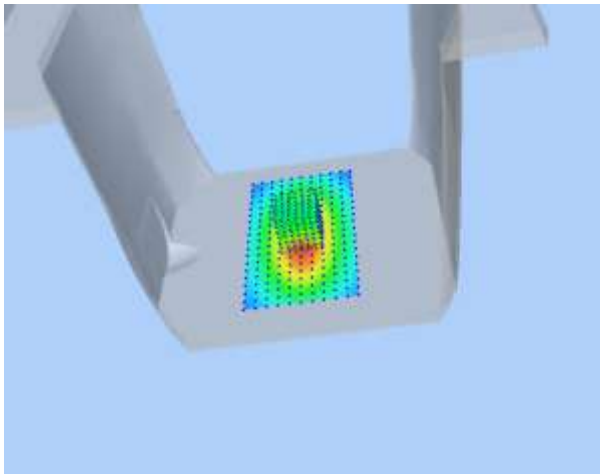
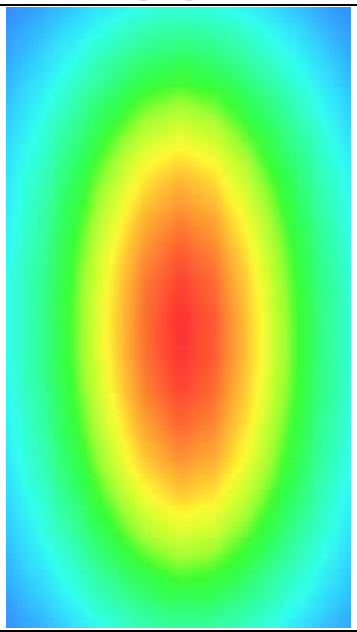
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	1.043921
SAR 1g (W/Kg)	2.162622

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.3354	1.8054	1.4576	1.2532	1.1008	1.0248



3D screen shot	Hot spot position
	

MEASUREMENT 17

For Head Liquid

Type: Validation measurement (Fast, 75.00 %)

Date of measurement: 03/23/2018

Measurement duration: 7 minutes 21 seconds

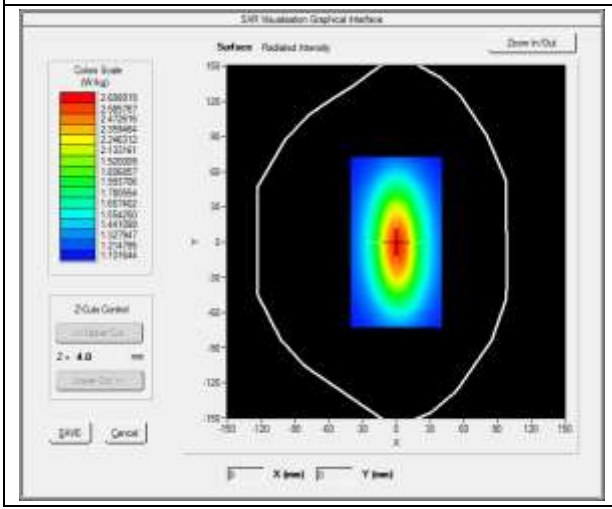
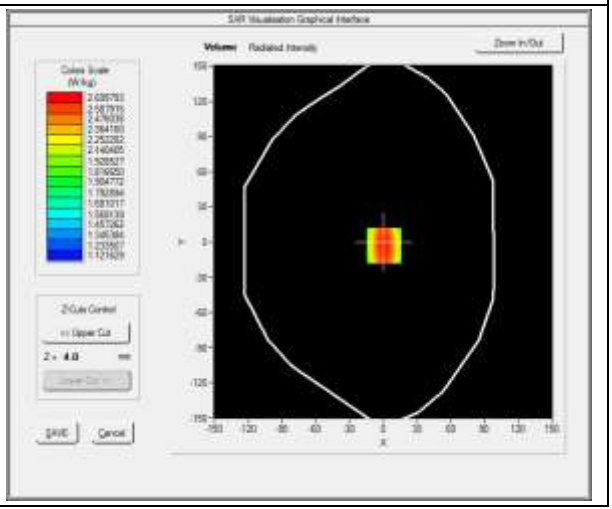
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.93; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	835.000000
Relative Permittivity (real part)	41.320191
Conductivity (S/m)	0.880182
Power Variation (%)	0.217298
Ambient Temperature	21.1
Liquid Temperature	21.3

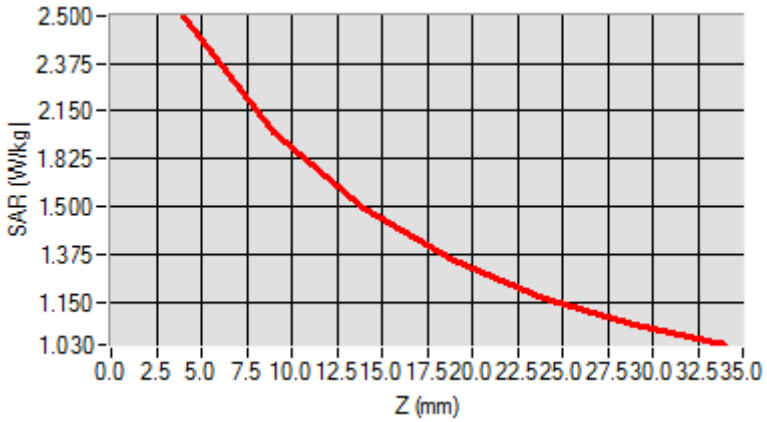
SURFACE SAR	VOLUME SAR
	

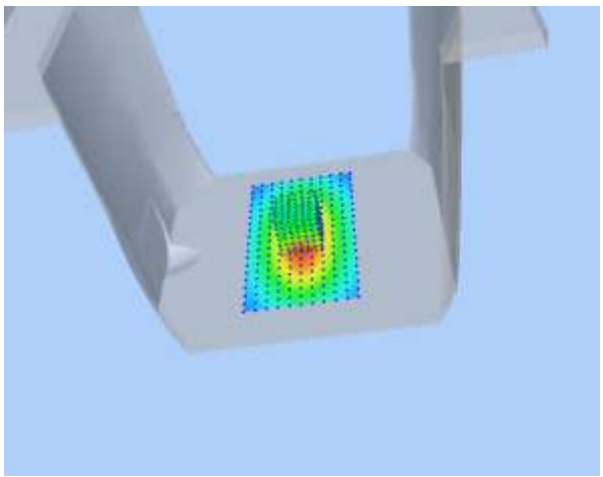
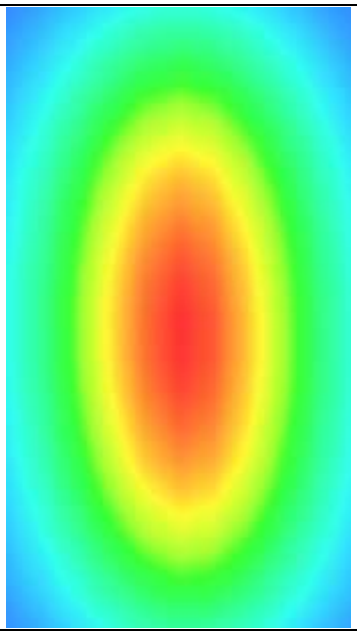
Maximum location: X=0.00, Y=0.00

SAR 10g (W/Kg)	1.521922
SAR 1g (W/Kg)	2.420191

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.4903	1.8956	1.4824	1.3546	1.1124	1.0541



3D screen shot	Hot spot position
	

Annex B. Plots of SAR Measurement

TYPE	BAND	PARAMETERS
Phone	**GSM850**	Measurement 1: Right Head with Cheek device position on Low Channel in GSM mode
Phone	**GSM1900**	Measurement 7: Right Head with Cheek device position on Low Channel in GSM mode
Phone	**GPRS850_2TX**	Measurement 11: Right Head with Cheek device position on Low Channel in GPRS mode
Phone	**GPRS1900_4TX**	Measurement 19: Right Head with Cheek device position on High Channel in GPRS mode
Phone	**WCDMA1900_RMC**	Measurement 23: Right Head with Cheek device position on Low Channel in WCDMA mode
Phone	**WCDMA850_RMC**	Measurement 31:Right Head with Cheek device position on High Channel in WCDMA mode
Phone	**LTE Band 2_RMC**	Measurement 37: Right Head with Cheek device position on Low Channel in LTE mode
Phone	**LTE Band 4_RMC**	Measurement 45: Right Head with Cheek device position on High Channel in LTE mode
Phone	**LTE Band 5_RMC**	Measurement 55: Left Head with Cheek device position on Low Channel in LTE mode
Phone	**LTE Band 12_RMC**	Measurement 61: Right Head with Cheek device position on Low Channel in LTE mode
Phone	**LTE Band 13_RMC**	Measurement 74: Left Head with Cheek device position on Middle Channel in LTE mode
Phone	**LTE Band 17_RMC**	Measurement 81: Right Head with Cheek device position on Low Channel in LTE mode
Phone	**WiFi_802.11b**	Measurement 91: Left Head with Cheek device position on High Channel in 802.11b mode
Phone	**GSM850**	Measurement 95: Flat Plane with Front(Body-worn) device position on Middle Channel in GSM mode
Phone	**GSM1900**	Measurement 98: Flat Plane with Front(Body-worn) device position on Low Channel in GSM mode
Phone	**GPRS850_2TX**	Measurement 100: Flat Plane with Front device position on Low Channel in GPRS mode
Phone	**GPRS1900_4TX**	Measurement 106: Flat Plane with Front device position on Low Channel in GPRS mode
Phone	**WCDMA1900_RMC**	Measurement 110: Flat Plane with Front side device position on Low Channel in WCDMA mode
Phone	**WCDMA850_RMC**	Measurement 114: Flat Plane with Front side device position on Low Channel in WCDMA mode

Phone	**LTE Band 2_RMC**	Measurement 118: Flat Plane with Front device position on Low Channel in LTE mode
Phone	**LTE Band 4_RMC**	Measurement 126: Flat Plane with Front device position on High Channel in LTE mode
Phone	**LTE Band 5_RMC**	Measurement 134: Flat Plane with Front device position on Low Channel in LTE mode
Phone	**LTE Band 12_RMC**	Measurement 142: Flat Plane with Front device position on Low Channel in LTE mode
Phone	**LTE Band 13_RMC**	Measurement 150: Flat Plane with Front device position on Middle Channel in LTE mode
Phone	**LTE Band 17_RMC**	Measurement 159: Flat Plane with Front device position on Low Channel in LTE mode
Phone	**WiFi_802.11b**	Measurement 166: Flat Plane with Back side device position on High Channel in 802.11b mode
Remark: SAR plot is showed the highest measured SAR in each exposure configuration, wireless mode and frequency band combination.		

TYPE	**BAND**	**PARAMETERS**
Phone	**GPRS850_2TX**	Measurement 169: Flat Plane with Front device position on Low Channel in PTT mode
Phone	**GPRS1900_4TX**	Measurement 170: Flat Plane with Front device position on Low Channel in PTT mode

SAR test with belt-clip

Phone	**GSM850**	Measurement 171: Flat Plane with Back(Body-worn) device position on Low Channel in GSM mode
Phone	**GSM1900**	Measurement 172: Flat Plane with Back(Body-worn) device position on Low Channel in GSM mode
Phone	**WCDMA1900_RMC**	Measurement 173: Flat Plane with Back side device position on Low Channel in WCDMA mode
Phone	**WCDMA850_RMC**	Measurement 174: Flat Plane with Back side device position on Low Channel in WCDMA mode
Phone	**LTE Band 2_RMC**	Measurement 175: Flat Plane with Back device position on Low Channel in LTE mode
Phone	**LTE Band 4_RMC**	Measurement 177: Flat Plane with Back device position on High Channel in LTE mode
Phone	**LTE Band 5_RMC**	Measurement 179: Flat Plane with Back device position on Low Channel in LTE mode
Phone	**LTE Band 12_RMC**	Measurement 181: Flat Plane with Back device position on Low Channel in LTE mode

Phone	**LTE Band 13_RMC**	Measurement 183: Flat Plane with Back device position on Middle Channel in LTE mode
Phone	**LTE Band 17_RMC**	Measurement 185: Flat Plane with Back device position on Low Channel in LTE mode
Phone	**WiFi_802.11b**	Measurement 187: Flat Plane with Back side device position on High Channel in 802.11b mode

Phone	**GPRS850_2TX**	Measurement 188: Flat Plane with Front device position on Low Channel in GPRS mode

Phone	**LTE Band 13_RMC**	Measurement 191: Left Head with Cheek device position on Middle Channel in LTE mode

Phone	**GPRS850_2TX**	Measurement 193: Flat Plane with Front device position on Low Channel in PTT mode

MEASUREMENT 1

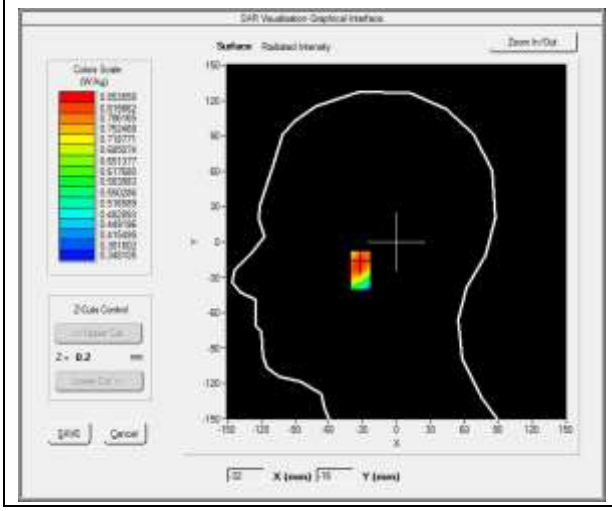
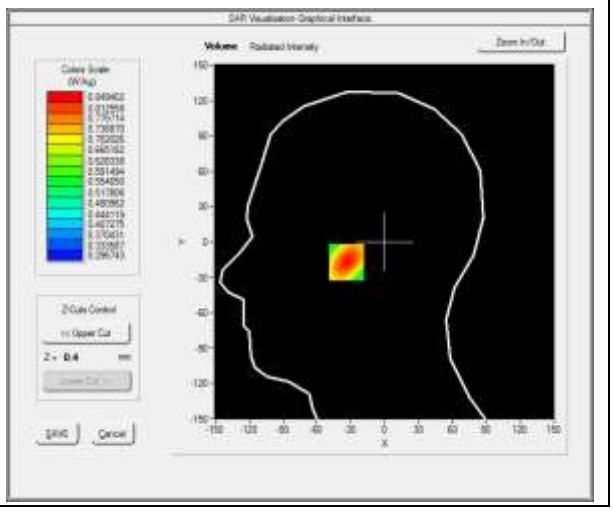
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 11 minutes 48 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.93; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	GSM850
Channels	Low
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

Frequency (MHz)	824.200000
Relative Permittivity (real part)	41.110245
Conductivity (S/m)	0.871245
Power Variation (%)	1.144536
Ambient Temperature	21.1
Liquid Temperature	21.3

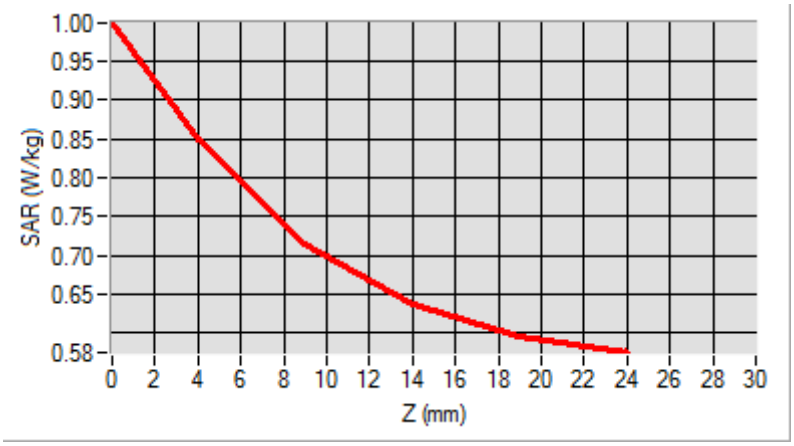
SURFACE SAR	VOLUME SAR
	

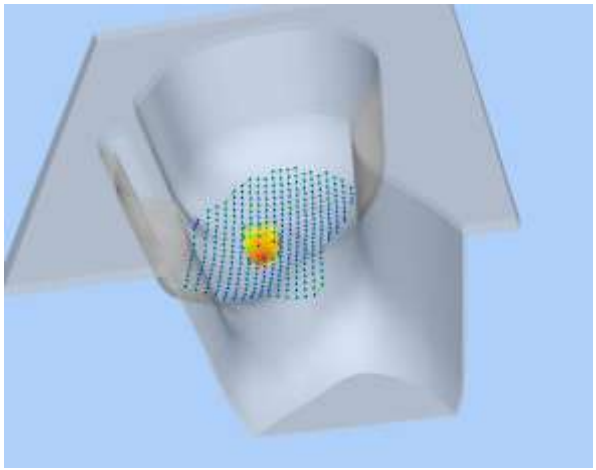
Maximum location: X=-32.00, Y=-17.00

SAR Peak: 1.01 W/kg

SAR 10g (W/Kg)	0.666699
SAR 1g (W/Kg)	0.820144

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.9992	0.8494	0.7161	0.6364	0.5965



3D screen shot	Hot spot position
	

MEASUREMENT 7

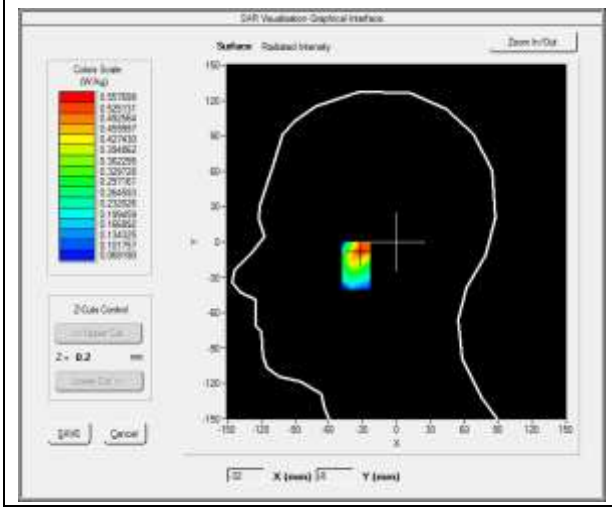
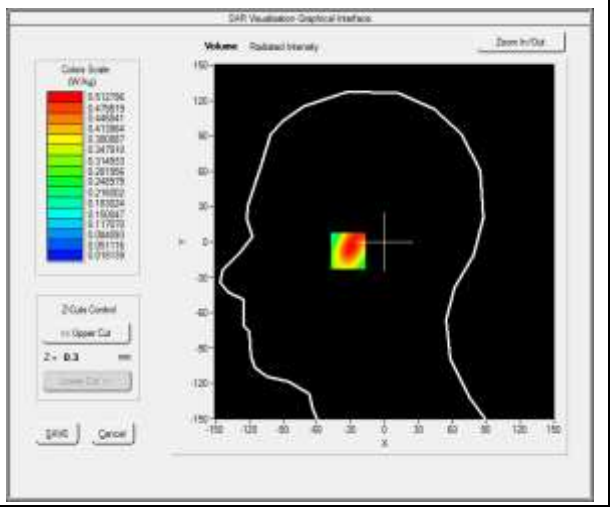
Type: Phone measurement (Complete)
Date of measurement: 02/02/2018
Measurement duration: 11 minutes 48 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.35; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	Low
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

Frequency (MHz)	1850.200000
Relative Permittivity (real part)	38.560124
Conductivity (S/m)	1.380369
Power Variation (%)	1.442440
Ambient Temperature	21.1
Liquid Temperature	21.3

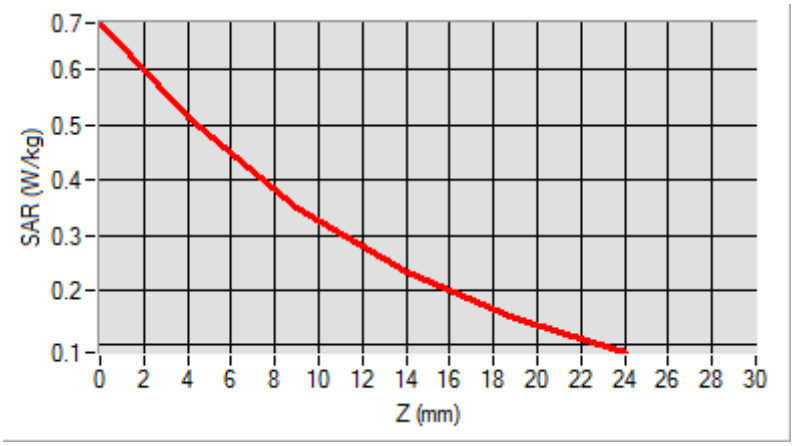
SURFACE SAR	VOLUME SAR
	

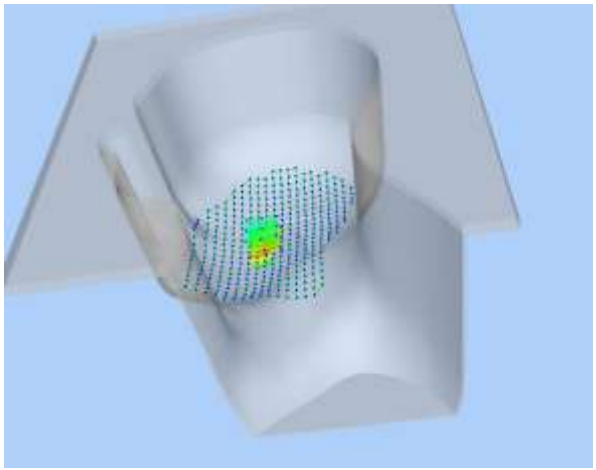
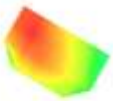
Maximum location: X=-31.00, Y=-7.00

SAR Peak: 0.74 W/kg

SAR 10g (W/Kg)	0.300665
SAR 1g (W/Kg)	0.486802

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.6851	0.5128	0.3491	0.2313	0.1478



3D screen shot	Hot spot position
	

MEASUREMENT 11

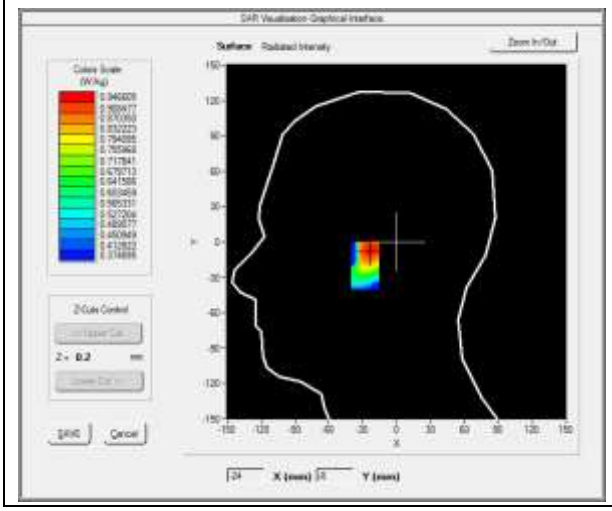
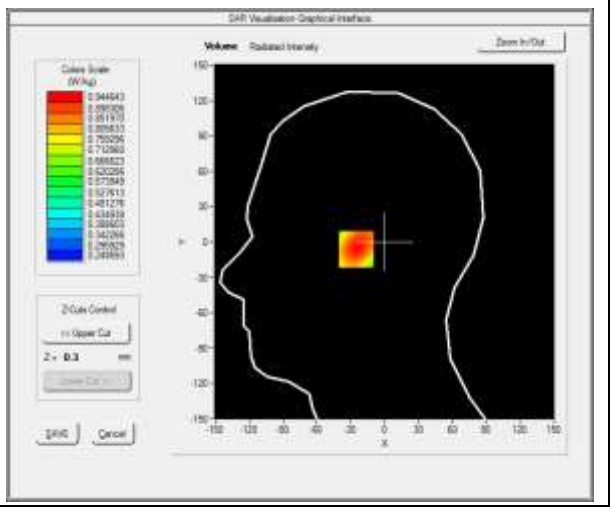
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.93; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	GPRS850_2TX
Channels	Low
Signal	Duty Cycle: 1:4

B. SAR Measurement Results

Frequency (MHz)	824.200000
Relative Permittivity (real part)	41.110245
Conductivity (S/m)	0.871245
Power Variation (%)	1.536272
Ambient Temperature	21.1
Liquid Temperature	21.3

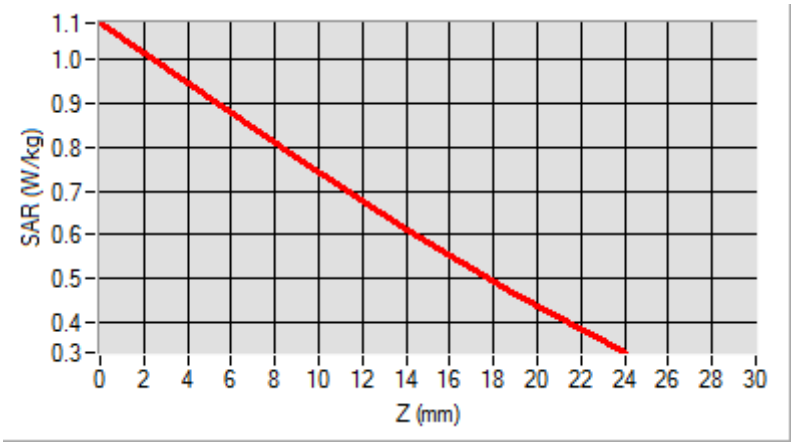
SURFACE SAR	VOLUME SAR
	

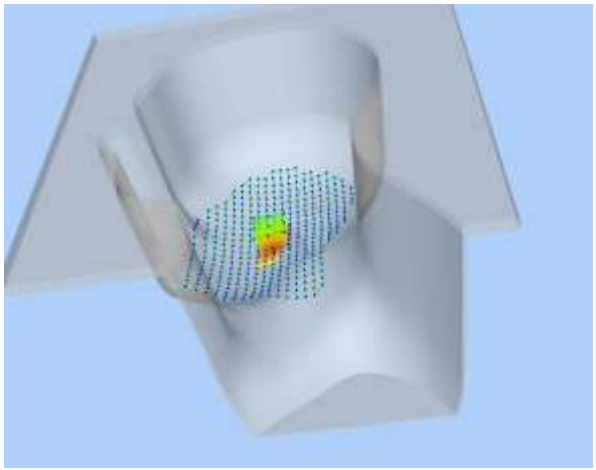
Maximum location: X=-23.00, Y=-6.00

SAR Peak: 1.09 W/kg

SAR 10g (W/Kg)	0.696385
SAR 1g (W/Kg)	0.924408

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.0837	0.9446	0.7751	0.6131	0.4634



3D screen shot	Hot spot position
	

MEASUREMENT 19

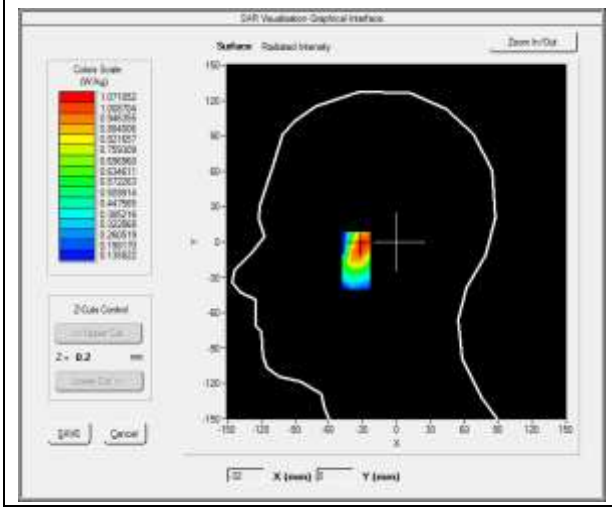
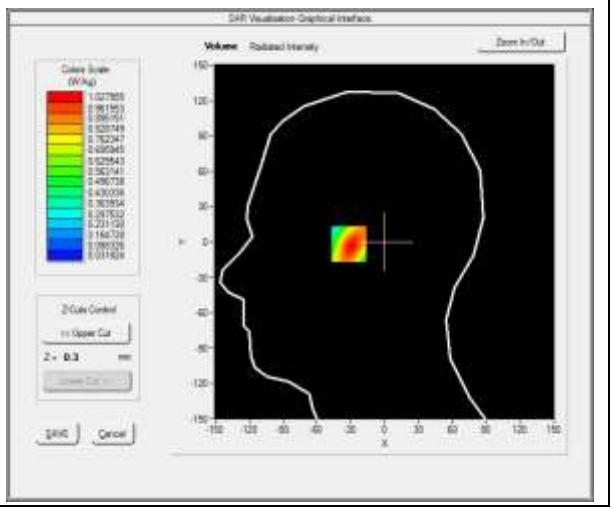
Type: Phone measurement (Complete)
Date of measurement: 02/02/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.35; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	GPRS1900_4TX
Channels	High
Signal	Duty Cycle: 1:2

B. SAR Measurement Results

Frequency (MHz)	1909.800000
Relative Permittivity (real part)	38.560124
Conductivity (S/m)	1.380369
Power Variation (%)	1.536272
Ambient Temperature	21.1
Liquid Temperature	21.3

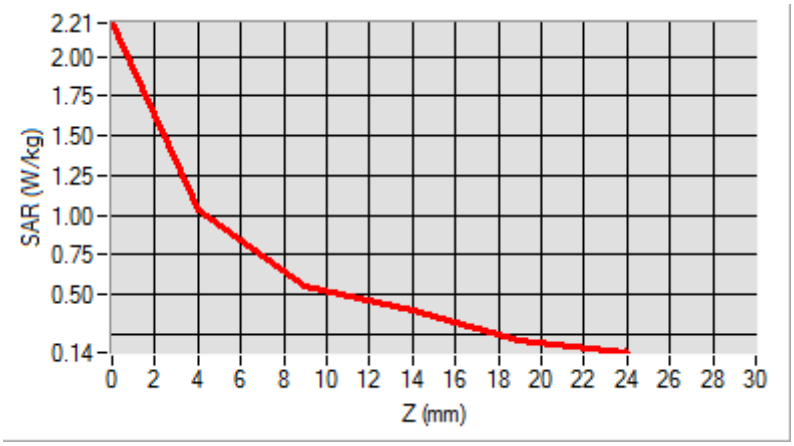
SURFACE SAR	VOLUME SAR
	

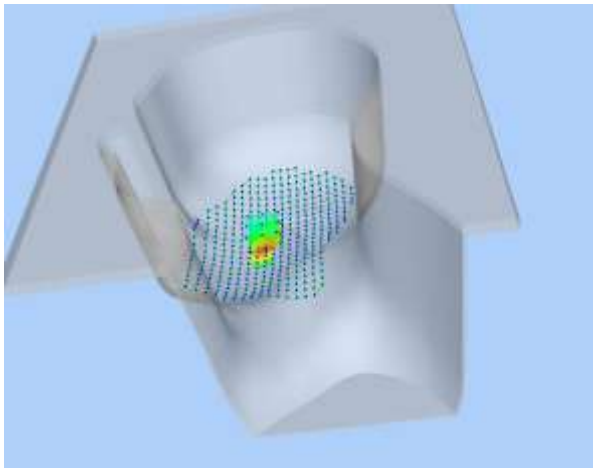
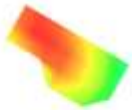
Maximum location: X=-31.00, Y=-1.00

SAR Peak: 1.48 W/kg

SAR 10g (W/Kg)	0.573568
SAR 1g (W/Kg)	0.962646

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	2.2099	1.0280	0.5544	0.4000	0.2066



3D screen shot	Hot spot position
	

MEASUREMENT 23

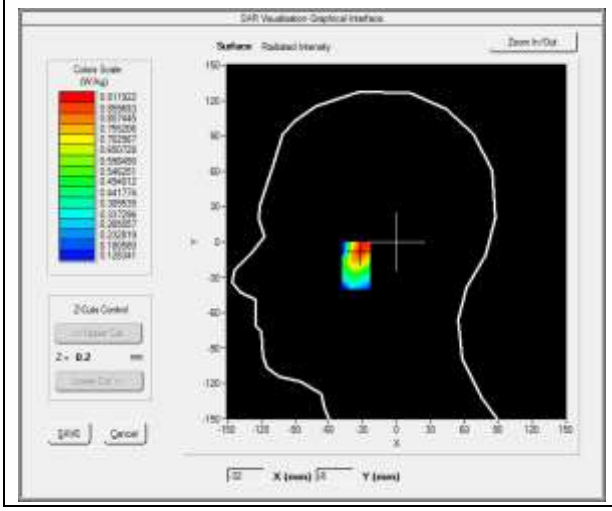
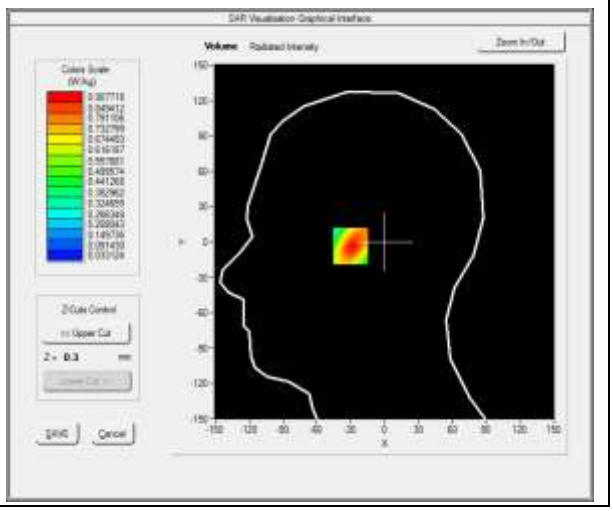
Type: Phone measurement (Complete)
Date of measurement: 02/02/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.35; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	WCDMA1900_RMC
Channels	Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	1852.400000
Relative Permittivity (real part)	38.560124
Conductivity (S/m)	1.380369
Power Variation (%)	1.524540
Ambient Temperature	21.1
Liquid Temperature	21.3

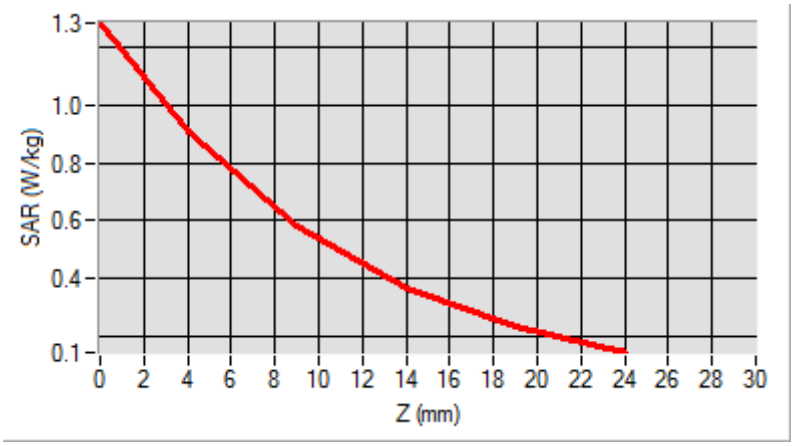
SURFACE SAR	VOLUME SAR
	

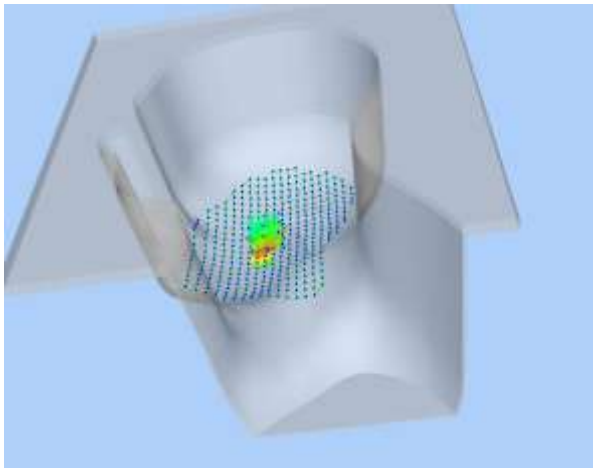
Maximum location: X=-29.00, Y=-3.00

SAR Peak: 1.29 W/kg

SAR 10g (W/Kg)	0.512242
SAR 1g (W/Kg)	0.851600

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.2827	0.9077	0.5803	0.3696	0.2362



3D screen shot	Hot spot position
	

MEASUREMENT 31

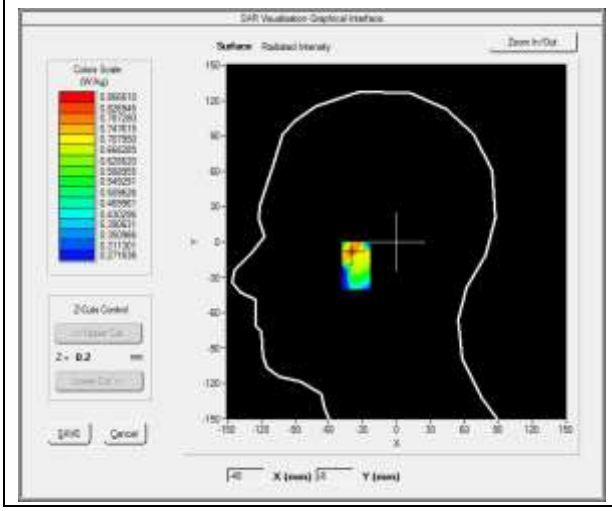
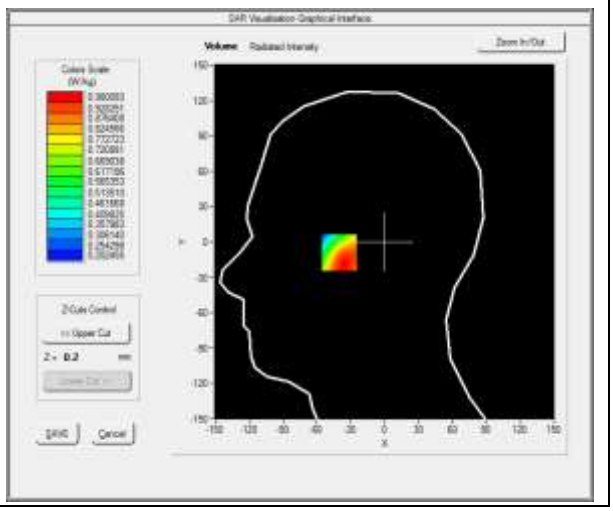
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.93; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	WCDMA850_RMC
Channels	High
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	846.600000
Relative Permittivity (real part)	41.110245
Conductivity (S/m)	0.871245
Power Variation (%)	1.342427
Ambient Temperature	21.1
Liquid Temperature	21.3

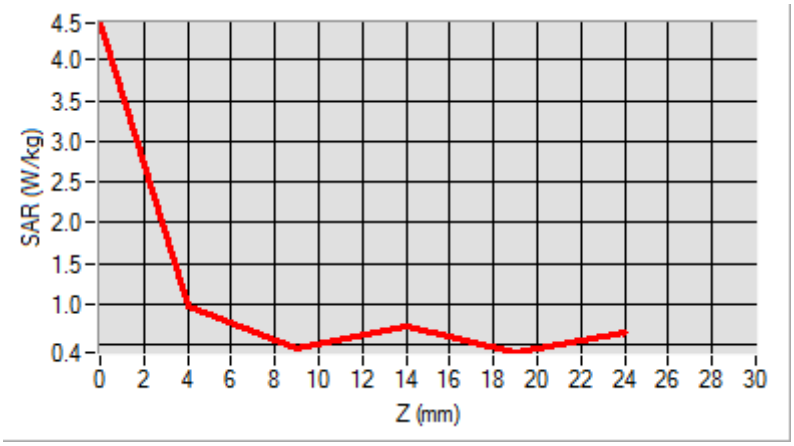
SURFACE SAR	VOLUME SAR
	

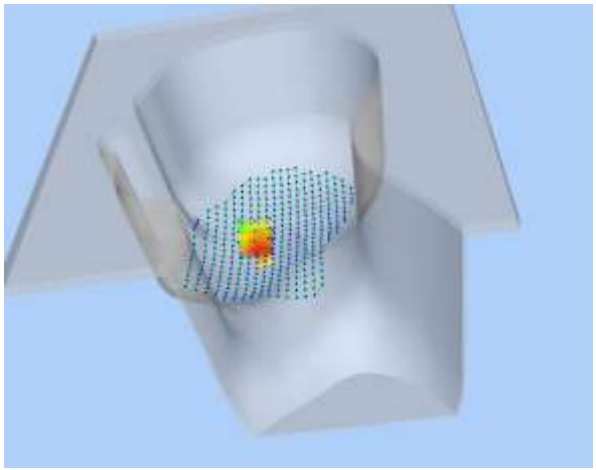
Maximum location: X=-40.00, Y=-8.00

SAR Peak: 1.17 W/kg

SAR 10g (W/Kg)	0.752980
SAR 1g (W/Kg)	0.952435

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	4.4515	0.9801	0.4655	0.7251	0.4057



3D screen shot	Hot spot position
	

MEASUREMENT 37

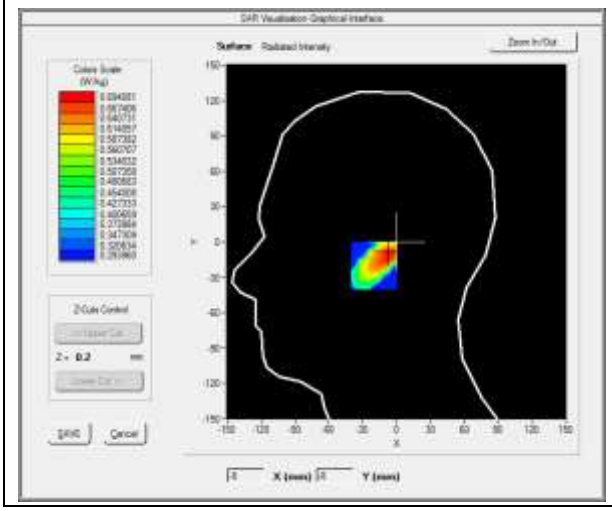
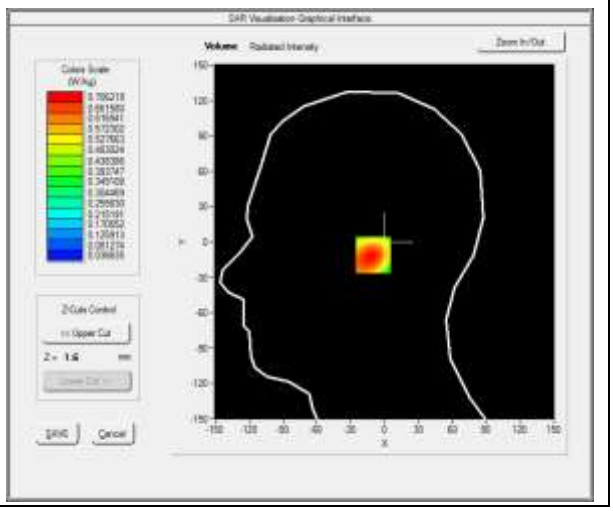
Type: Phone measurement (Complete)
Date of measurement: 02/02/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.35; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	LTE Band 2_RMC
Channels	QPSK, 20MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	1860.000000
Relative Permittivity (real part)	38.560124
Conductivity (S/m)	1.380369
Power Variation (%)	1.743564
Ambient Temperature	21.1
Liquid Temperature	21.3

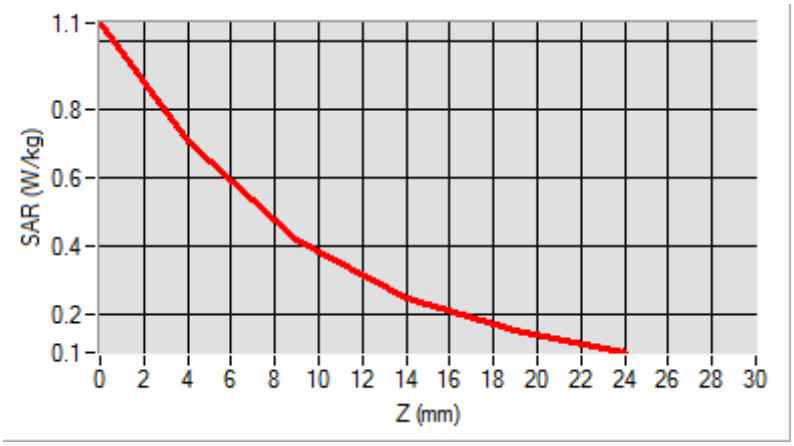
SURFACE SAR	VOLUME SAR
	

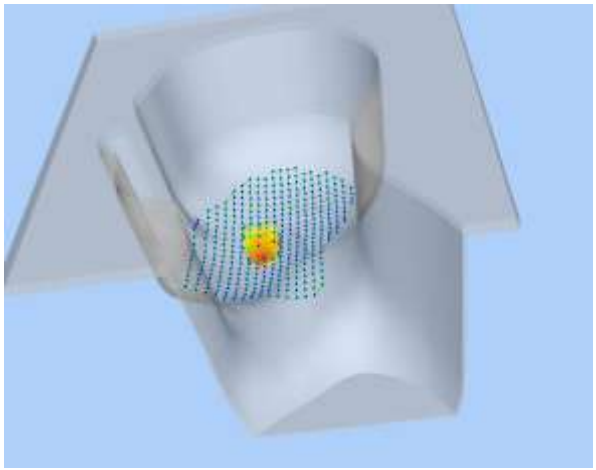
Maximum location: X=-7.00, Y=-11.00

SAR Peak: 1.06 W/kg

SAR 10g (W/Kg)	0.402196
SAR 1g (W/Kg)	0.667585

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.0554	0.7062	0.4191	0.2491	0.1515



3D screen shot	Hot spot position
	

MEASUREMENT 45

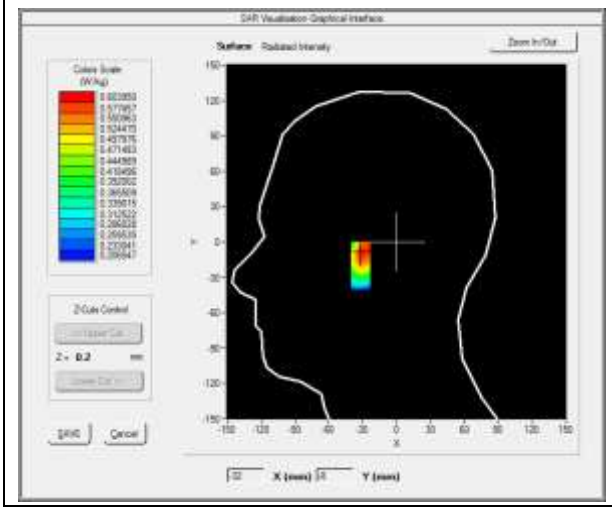
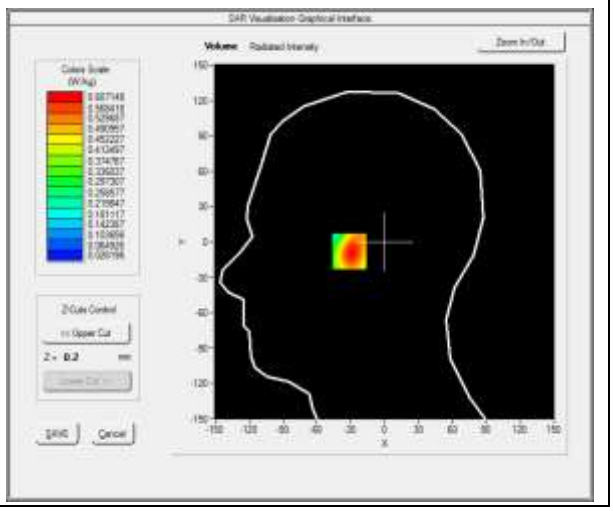
Type: Phone measurement (Complete)
Date of measurement: 02/02/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 5.84; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	LTE Band 4_RMC
Channels	QPSK, 20MHz, 1RB,High
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	1745.000000
Relative Permittivity (real part)	39.024890
Conductivity (S/m)	1.371250
Power Variation (%)	1.374628
Ambient Temperature	21.1
Liquid Temperature	21.2

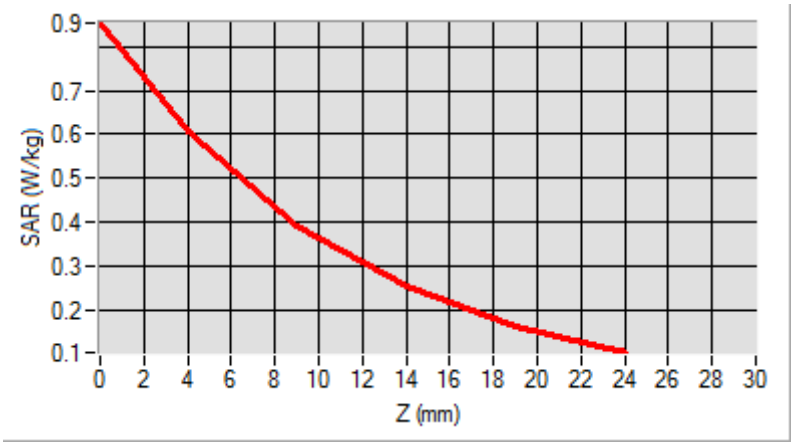
SURFACE SAR	VOLUME SAR
	

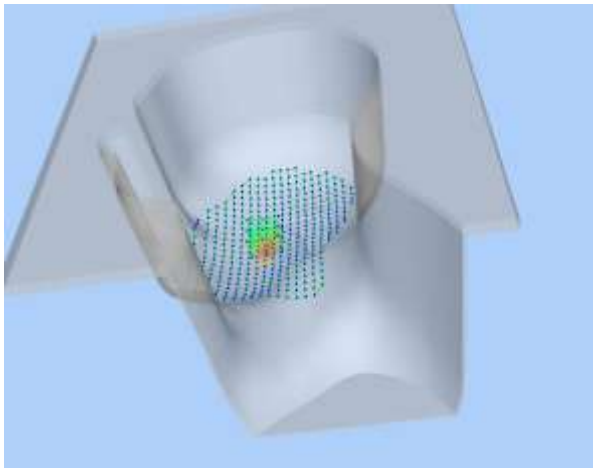
Maximum location: X=-30.00, Y=-8.00

SAR Peak: 0.86 W/kg

SAR 10g (W/Kg)	0.349412
SAR 1g (W/Kg)	0.574890

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.8542	0.6071	0.3910	0.2515	0.1629



3D screen shot	Hot spot position
	

MEASUREMENT 55

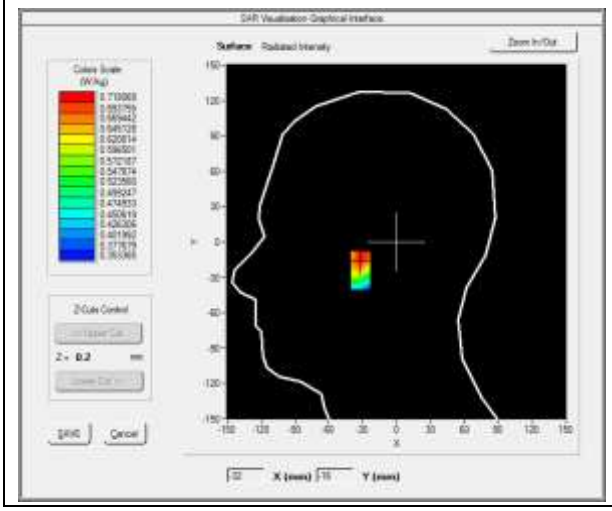
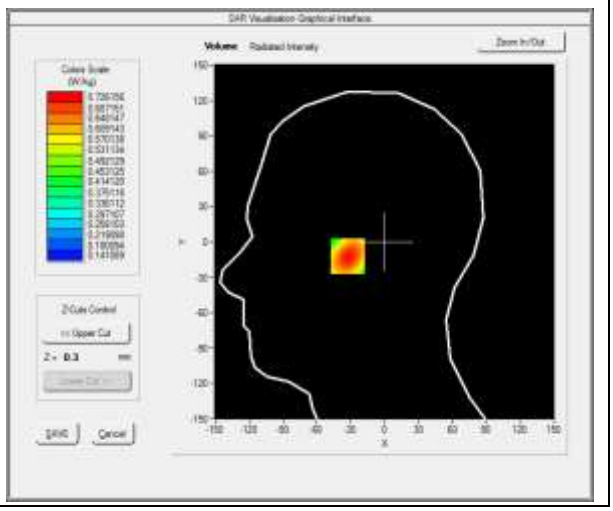
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.93; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	LTE Band 5_RMC
Channels	QPSK, 10MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	829.000000
Relative Permittivity (real part)	41.110245
Conductivity (S/m)	0.871245
Power Variation (%)	0.924535
Ambient Temperature	21.1
Liquid Temperature	21.2

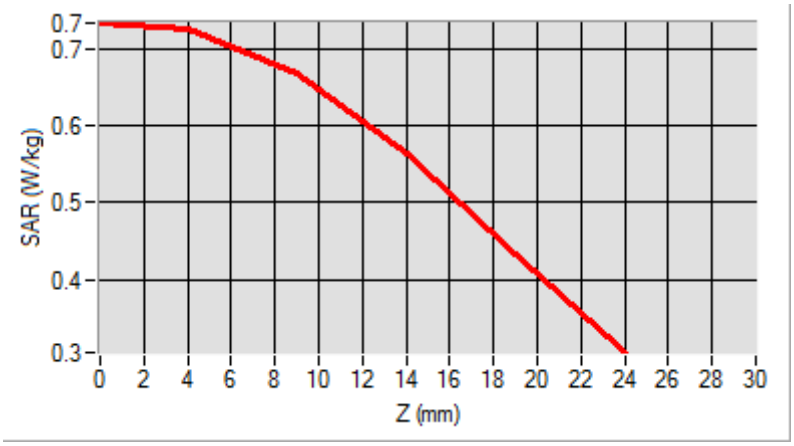
SURFACE SAR	VOLUME SAR
	

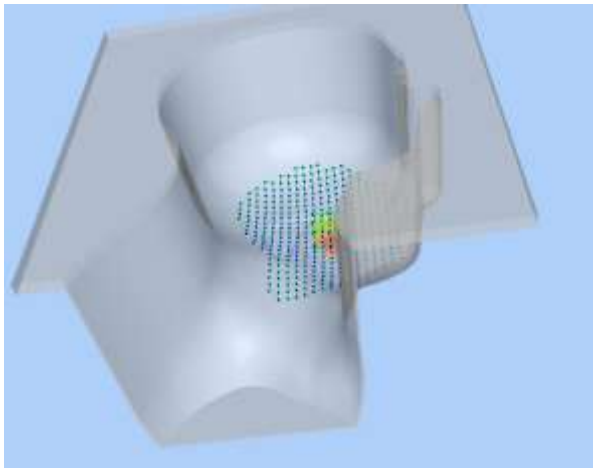
Maximum location: X=-31.00, Y=-12.00

SAR Peak: 0.74 W/kg

SAR 10g (W/Kg)	0.560361
SAR 1g (W/Kg)	0.698382

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.7345	0.7262	0.6682	0.5645	0.4334



3D screen shot	Hot spot position
	

MEASUREMENT 61

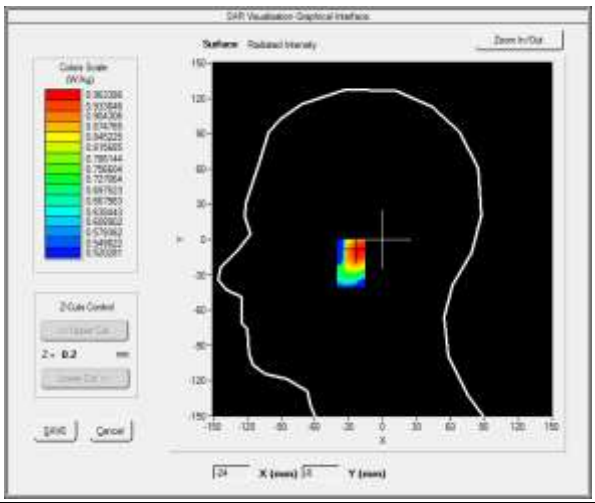
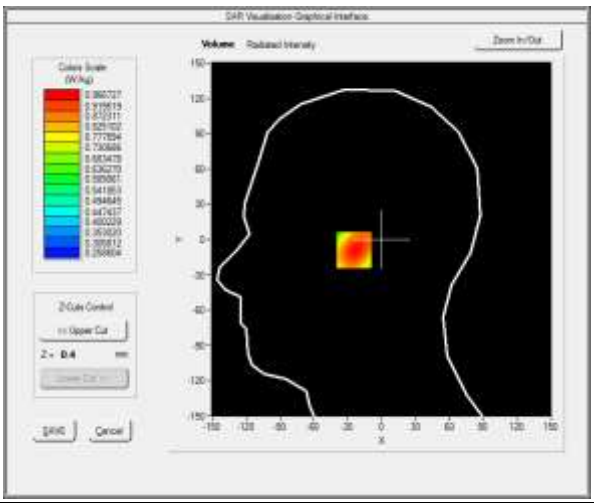
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.99; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	LTE Band 12_RMC
Channels	QPSK, 10MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	704.000000
Relative Permittivity (real part)	41.320574
Conductivity (S/m)	0.862373
Power Variation (%)	0.924535
Ambient Temperature	21.1
Liquid Temperature	21.2

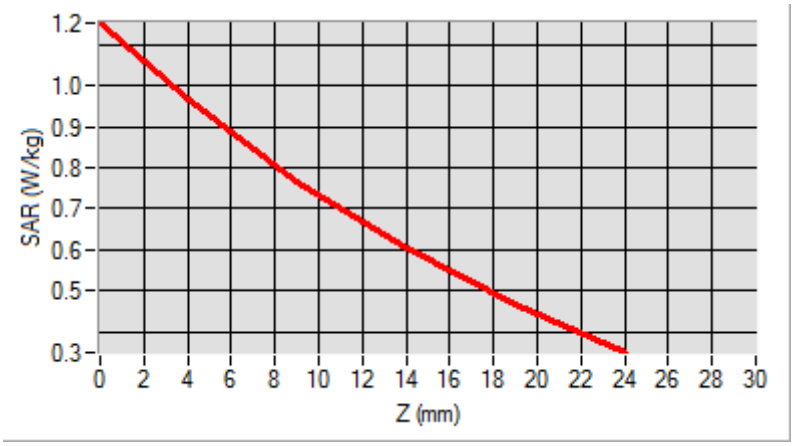
SURFACE SAR	VOLUME SAR
	

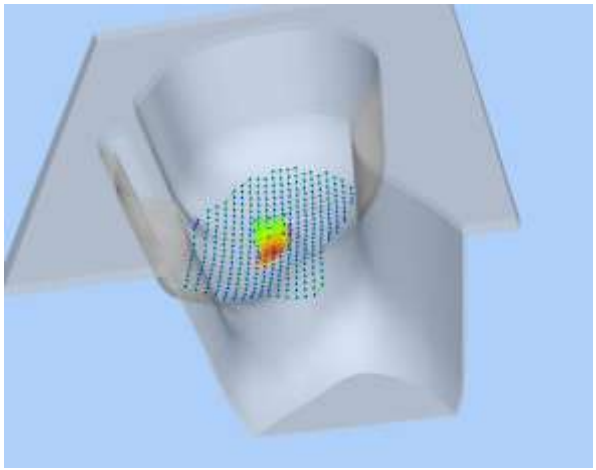
Maximum location: X=-22.00, Y=-9.00

SAR Peak: 1.16 W/kg

SAR 10g (W/Kg)	0.705950
SAR 1g (W/Kg)	0.946842

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.1534	0.9667	0.7675	0.6020	0.4648



3D screen shot	Hot spot position
	

MEASUREMENT 74

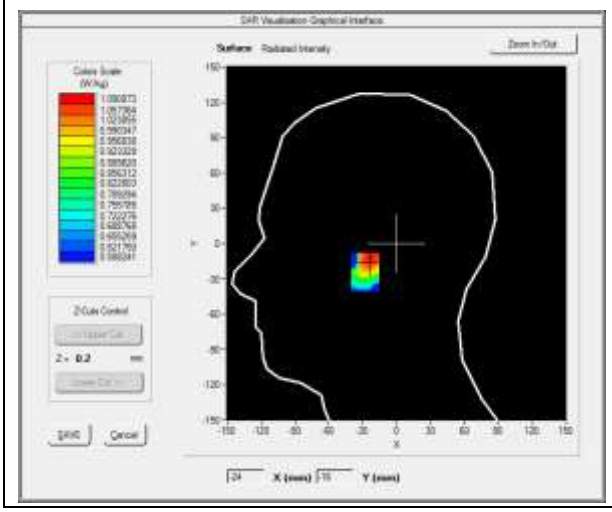
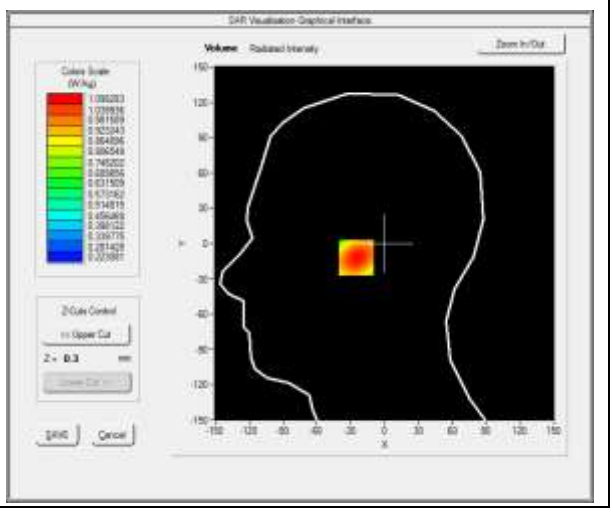
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.99; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	LTE Band 13_RMC
Channels	QPSK, 10MHz, 1RB, Middle
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	782.000000
Relative Permittivity (real part)	41.320574
Conductivity (S/m)	0.862373
Power Variation (%)	0.924535
Ambient Temperature	21.1
Liquid Temperature	21.2

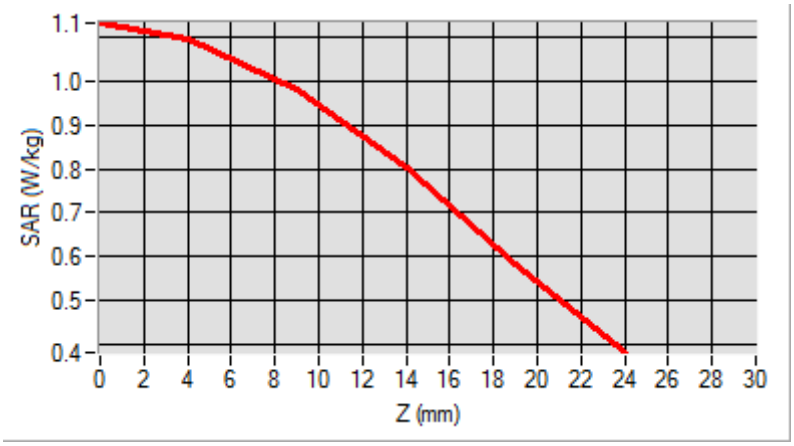
SURFACE SAR	VOLUME SAR
	

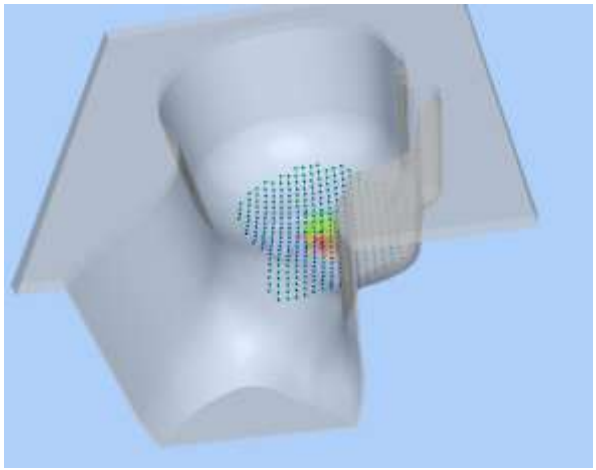
Maximum location: X=-23.00, Y=-12.00

SAR Peak: 1.13 W/kg

SAR 10g (W/Kg)	0.840234
SAR 1g (W/Kg)	1.076303

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.1327	1.0983	0.9823	0.8007	0.5848



3D screen shot	Hot spot position
	

MEASUREMENT 81

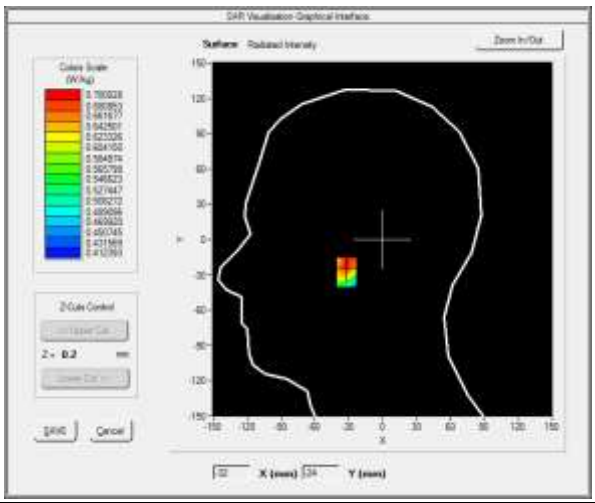
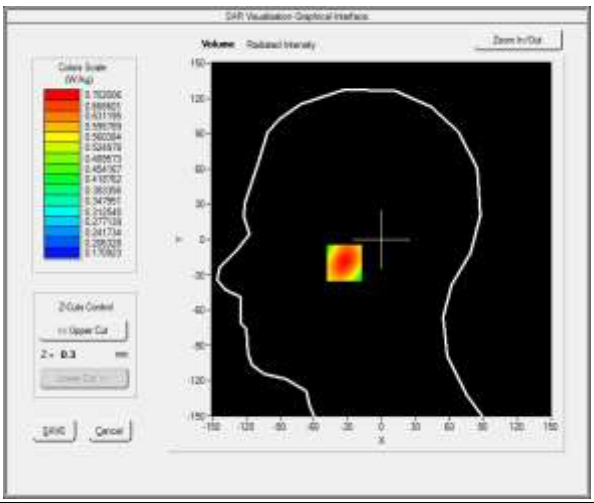
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.99; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Right head
Device Position	Cheek
Band	LTE Band 17_RMC
Channels	QPSK, 10MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	709.000000
Relative Permittivity (real part)	41.320574
Conductivity (S/m)	0.862373
Power Variation (%)	0.924535
Ambient Temperature	21.1
Liquid Temperature	21.2

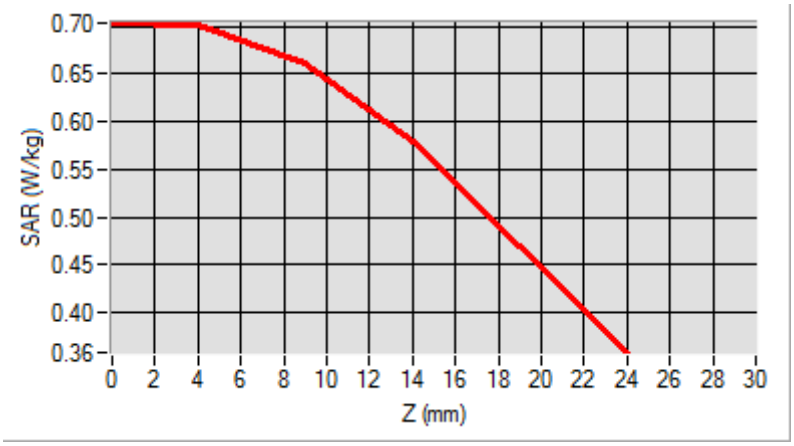
SURFACE SAR	VOLUME SAR
	

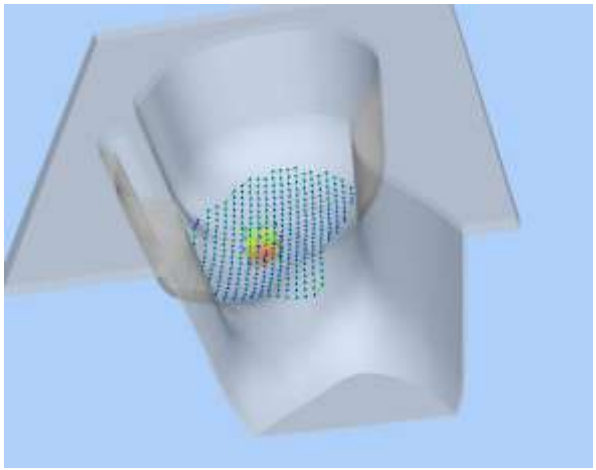
Maximum location: X=-31.00, Y=-20.00

SAR Peak: 0.72 W/kg

SAR 10g (W/Kg)	0.563834
SAR 1g (W/Kg)	0.681953

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.7033	0.7020	0.6607	0.5787	0.4698



3D screen shot	Hot spot position
	

MEASUREMENT 91

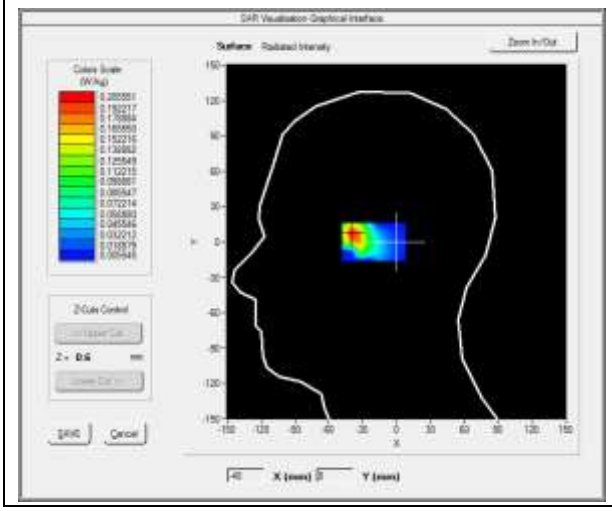
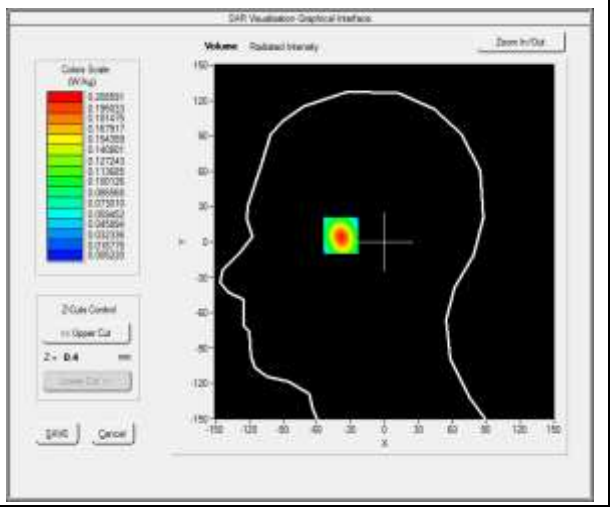
Type: Phone measurement (Complete)
Date of measurement: 02/05/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 5.64; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	WiFi_802.11b
Channels	High
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	2462.000000
Relative Permittivity (real part)	38.153660
Conductivity (S/m)	1.740236
Power Variation (%)	3.234772
Ambient Temperature	21.1
Liquid Temperature	21.2

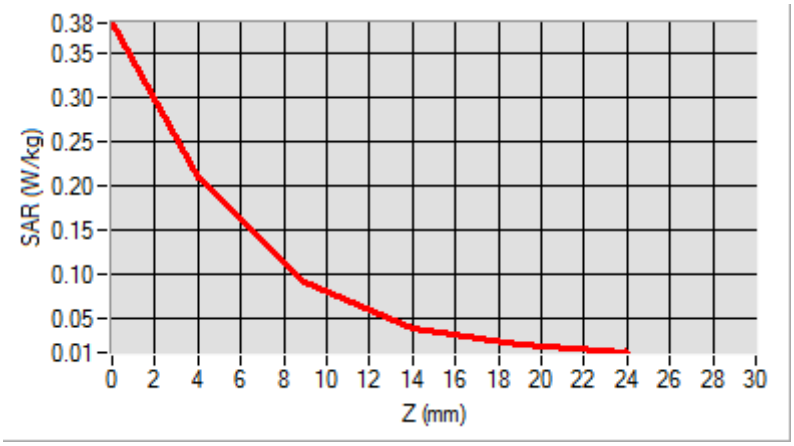
SURFACE SAR	VOLUME SAR
	

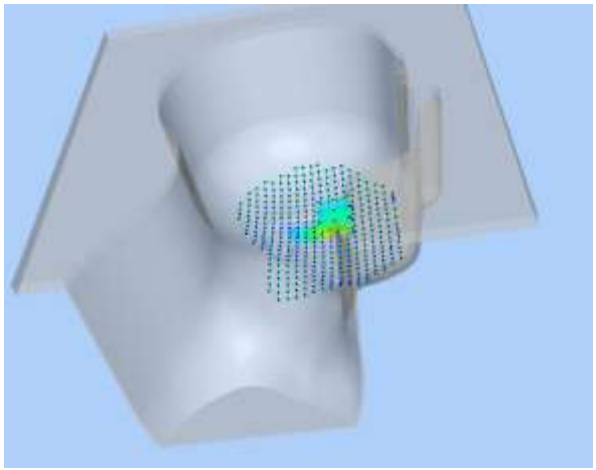
Maximum location: X=-39.00, Y=7.00

SAR Peak: 0.38 W/kg

SAR 10g (W/Kg)	0.088356
SAR 1g (W/Kg)	0.190792

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.3832	0.2086	0.0904	0.0389	0.0192



3D screen shot	Hot spot position
	

MEASUREMENT 95

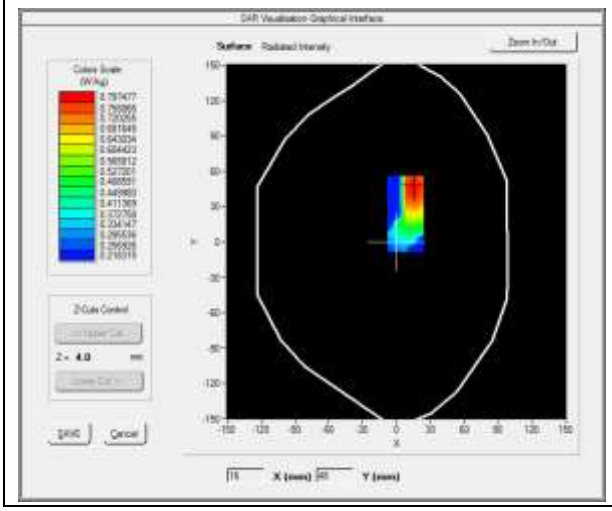
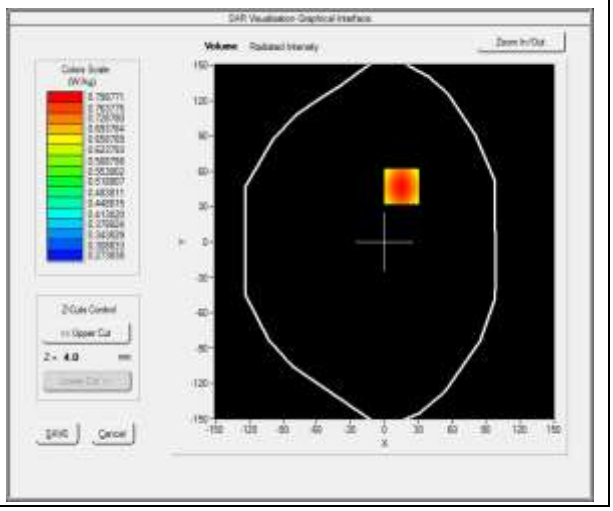
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.13; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Front(Body-worn)
Band	GSM850
Channels	Middle
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

Frequency (MHz)	836.600000
Relative Permittivity (real part)	54.851214
Conductivity (S/m)	0.951454
Power Variation (%)	0.901472
Ambient Temperature	21.1
Liquid Temperature	21.3

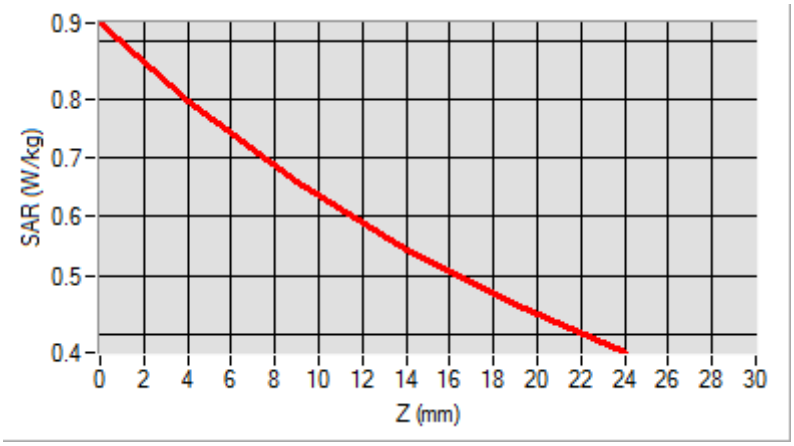
SURFACE SAR	VOLUME SAR
	

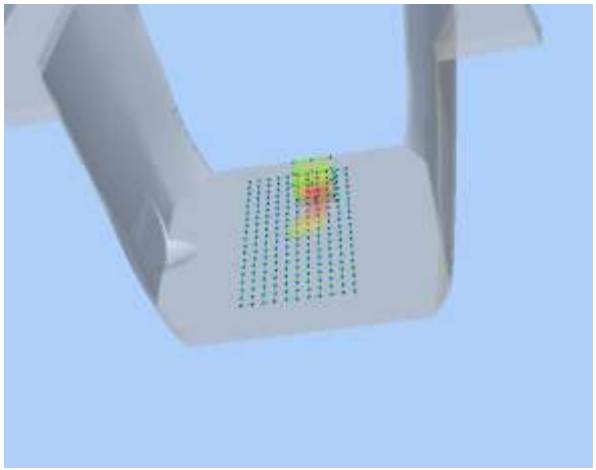
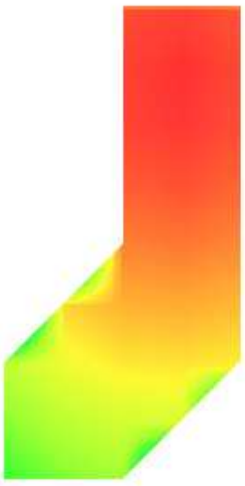
Maximum location: X=15.00, Y=47.00

SAR Peak: 0.93 W/kg

SAR 10g (W/Kg)	0.635102
SAR 1g (W/Kg)	0.894646

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.9309	0.7988	0.6590	0.5442	0.4496



3D screen shot	Hot spot position
	

MEASUREMENT 98

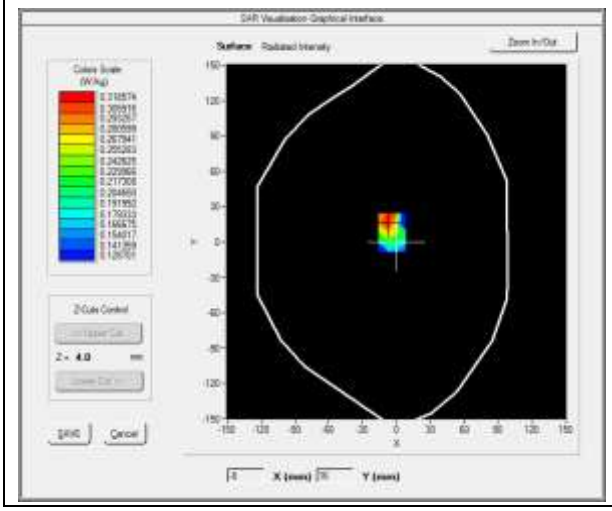
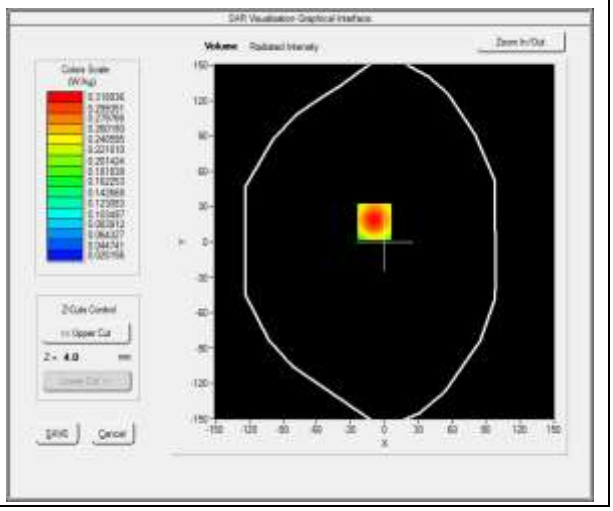
Type: Phone measurement (Complete)
Date of measurement: 02/02/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.55; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Front(Body-worn)
Band	GSM1900
Channels	Low
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

Frequency (MHz)	1850.200000
Relative Permittivity (real part)	52.420415
Conductivity (S/m)	1.501966
Power Variation (%)	1.474622
Ambient Temperature	21.1
Liquid Temperature	21.3

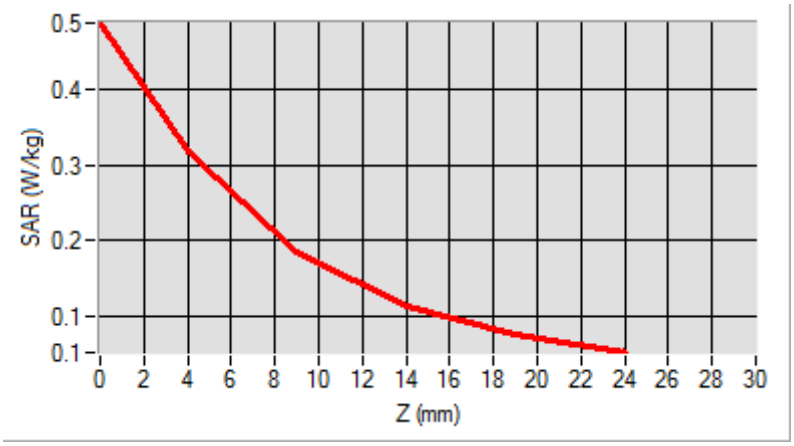
SURFACE SAR	VOLUME SAR
	

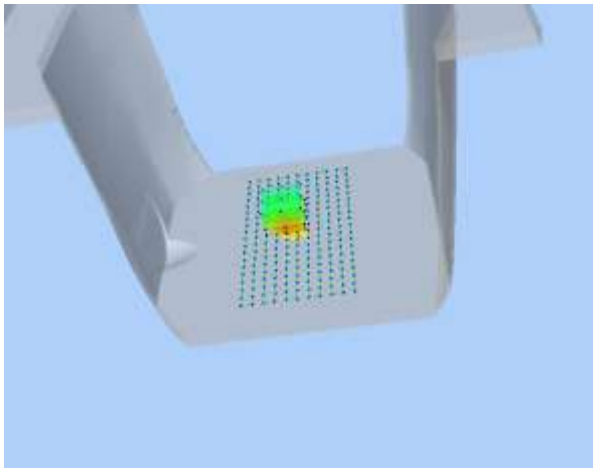
Maximum location: X=-9.00, Y=17.00

SAR Peak: 0.49 W/kg

SAR 10g (W/Kg)	0.180598
SAR 1g (W/Kg)	0.301627

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.4894	0.3189	0.1854	0.1122	0.0743



3D screen shot	Hot spot position
	

MEASUREMENT 100

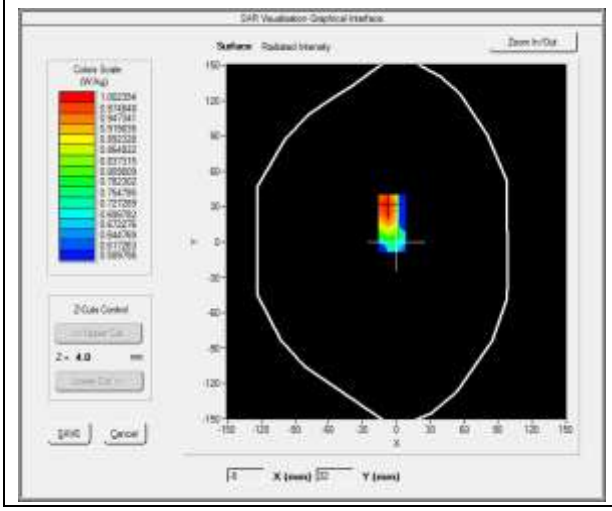
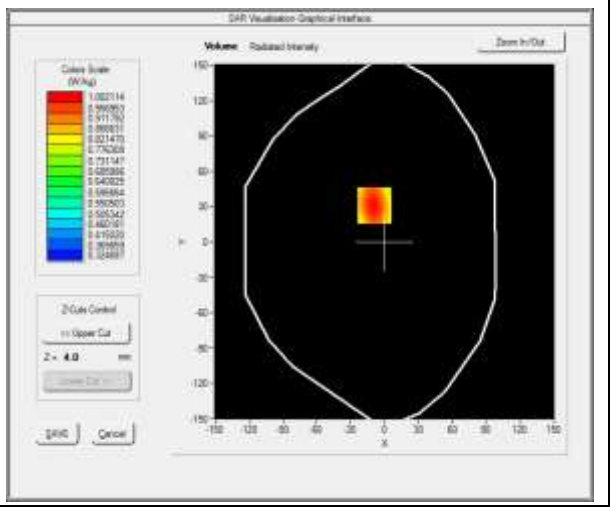
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.13; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat plane
Device Position	Front
Band	GPRS850_2TX
Channels	Low
Signal	Duty Cycle: 1:4

B. SAR Measurement Results

Frequency (MHz)	824.200000
Relative Permittivity (real part)	54.851214
Conductivity (S/m)	0.951454
Power Variation (%)	0.901472
Ambient Temperature	21.1
Liquid Temperature	21.3

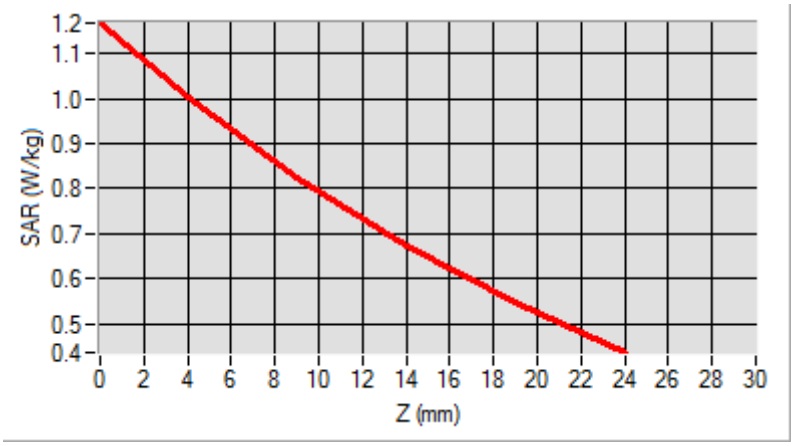
SURFACE SAR	VOLUME SAR
	

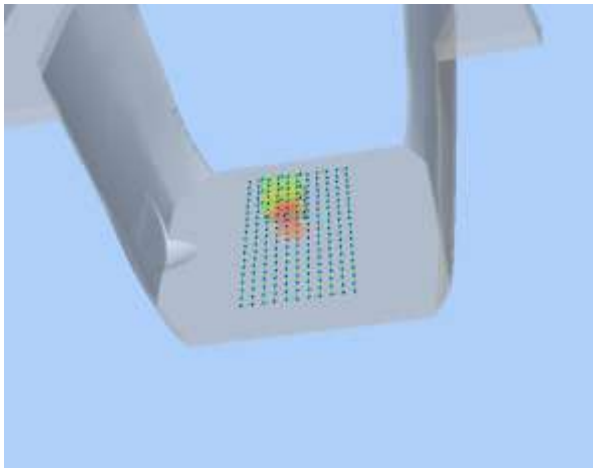
Maximum location: X=-9.00, Y=31.00

SAR Peak: 1.17 W/kg

SAR 10g (W/Kg)	0.787083
SAR 1g (W/Kg)	1.019736

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.1674	1.0021	0.8236	0.6733	0.5464



3D screen shot	Hot spot position
	

MEASUREMENT 106

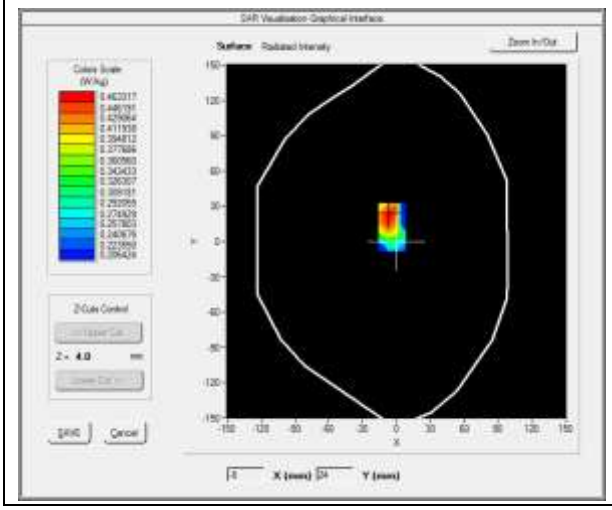
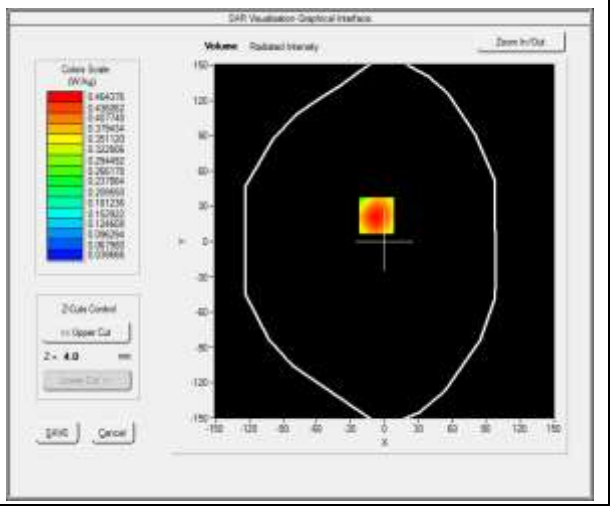
Type: Phone measurement (Complete)
Date of measurement: 02/02/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.55; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat plane
Device Position	Front
Band	GPRS1900_4TX
Channels	Low
Signal	Duty Cycle: 1:2

B. SAR Measurement Results

Frequency (MHz)	1850.200000
Relative Permittivity (real part)	52.420415
Conductivity (S/m)	1.501966
Power Variation (%)	2.483762
Ambient Temperature	21.1
Liquid Temperature	21.3

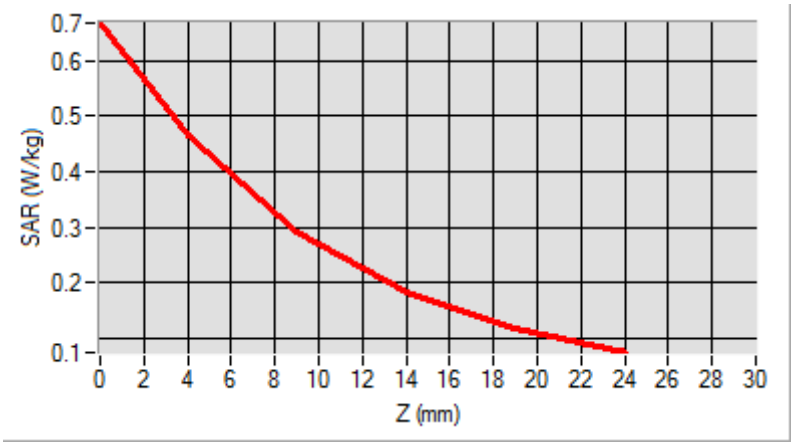
SURFACE SAR	VOLUME SAR
	

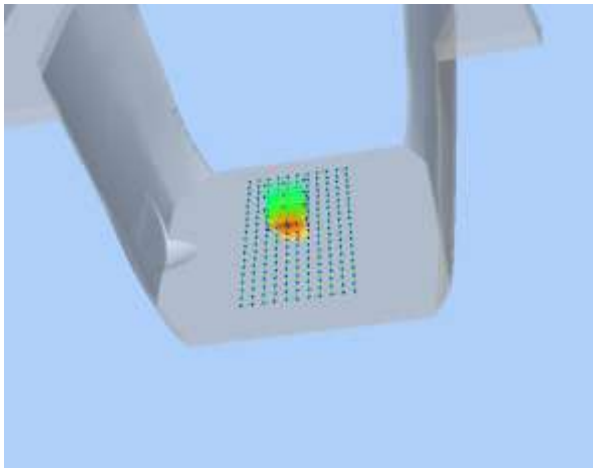
Maximum location: X=-7.00, Y=22.00

SAR Peak: 0.67 W/kg

SAR 10g (W/Kg)	**0.270136**
SAR 1g (W/Kg)	**0.439234**

Z (mm)	**0.00**	**4.00**	**9.00**	**14.00**	**19.00**
SAR (W/Kg)	**0.6685**	**0.4644**	**0.2907**	**0.1829**	**0.1174**



3D screen shot	**Hot spot position**
	

MEASUREMENT 110

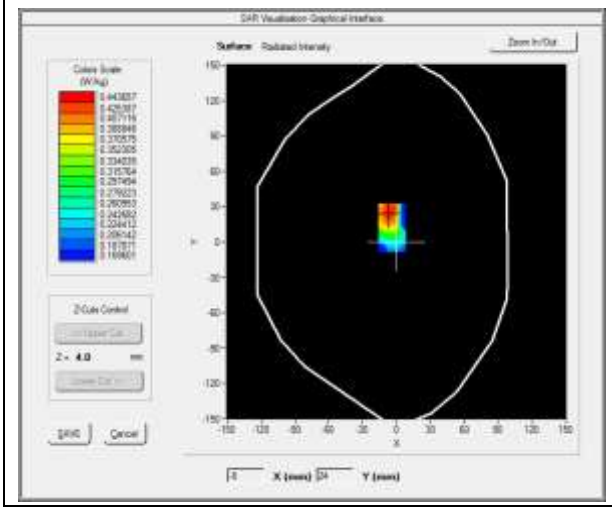
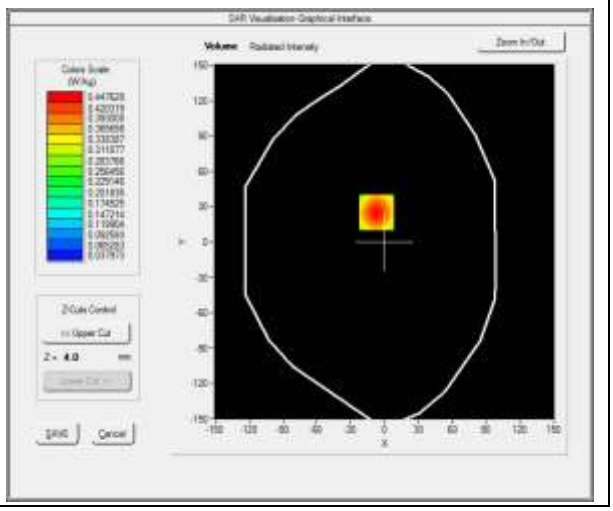
Type: Phone measurement (Complete)
Date of measurement: 02/02/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.55; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Front
Band	WCDMA1900_RMC
Channels	Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	1852.400000
Relative Permittivity (real part)	52.420415
Conductivity (S/m)	1.501966
Power Variation (%)	1.163283
Ambient Temperature	21.1
Liquid Temperature	21.3

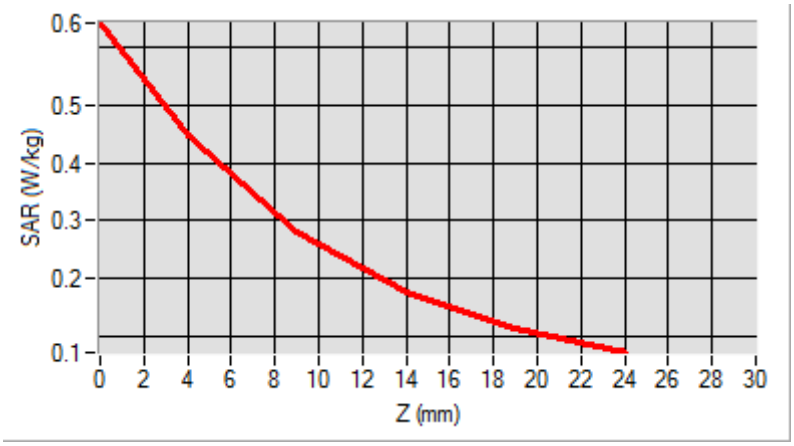
SURFACE SAR	VOLUME SAR
	

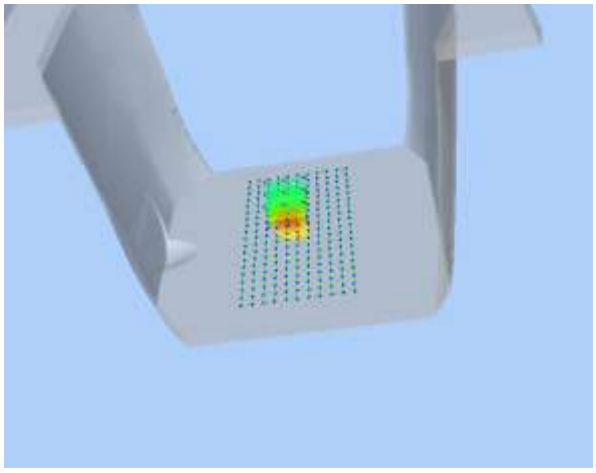
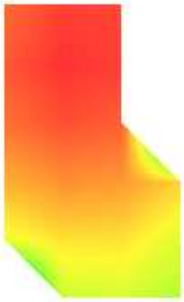
Maximum location: X=-7.00, Y=25.00

SAR Peak: 0.64 W/kg

SAR 10g (W/Kg)	0.257924
SAR 1g (W/Kg)	0.421250

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.6434	0.4476	0.2806	0.1766	0.1131



3D screen shot	Hot spot position
	

MEASUREMENT 114

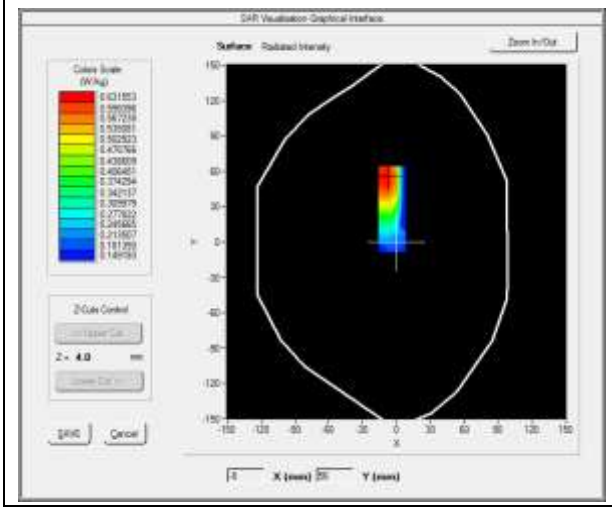
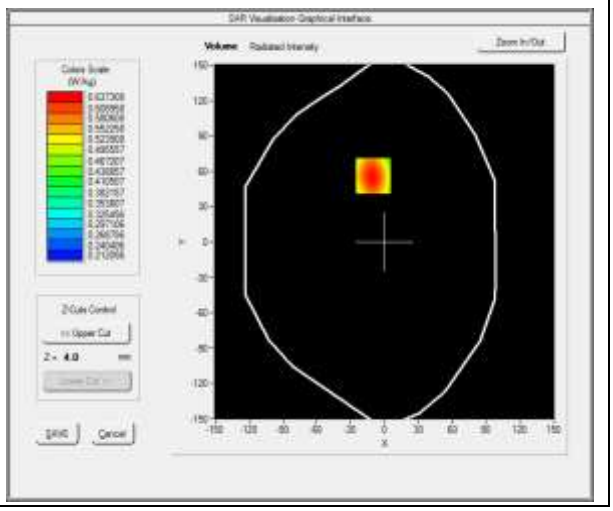
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.13; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Front
Band	WCDMA850_RMC
Channels	Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	826.400000
Relative Permittivity (real part)	54.851214
Conductivity (S/m)	0.951454
Power Variation (%)	2.341234
Ambient Temperature	21.1
Liquid Temperature	21.3

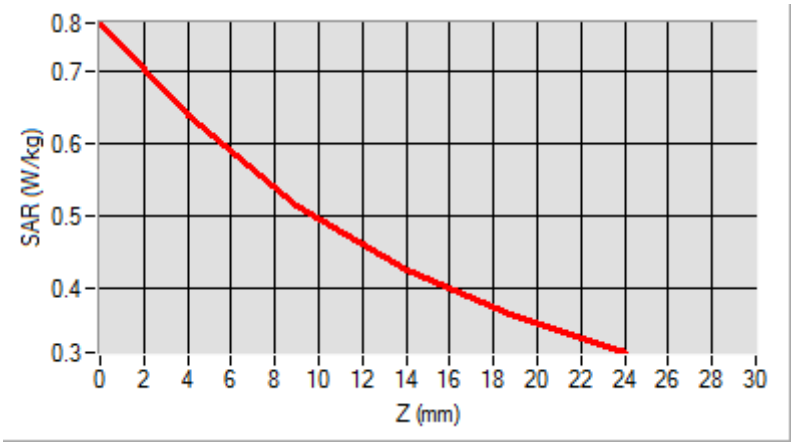
SURFACE SAR	VOLUME SAR
	

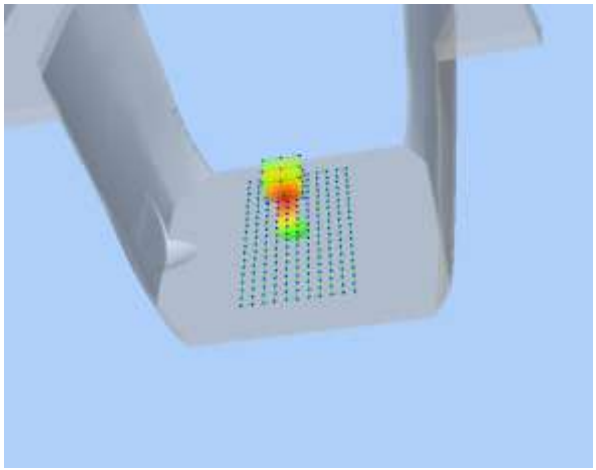
Maximum location: X=-10.00, Y=56.00

SAR Peak: 0.77 W/kg

SAR 10g (W/Kg)	0.475149
SAR 1g (W/Kg)	0.613178

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.7670	0.6373	0.5126	0.4233	0.3598



3D screen shot	Hot spot position
	

MEASUREMENT 118

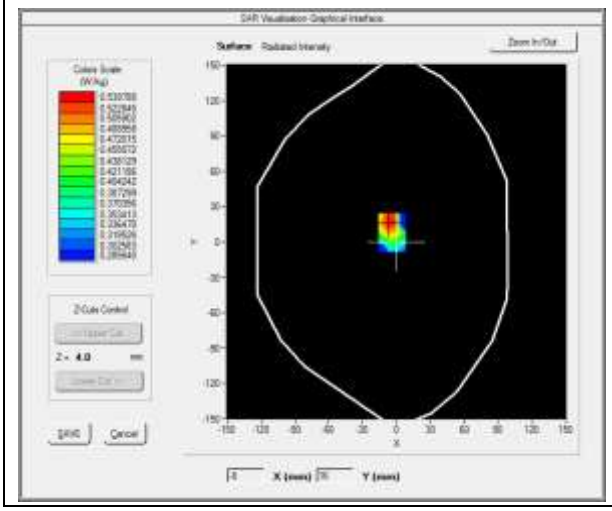
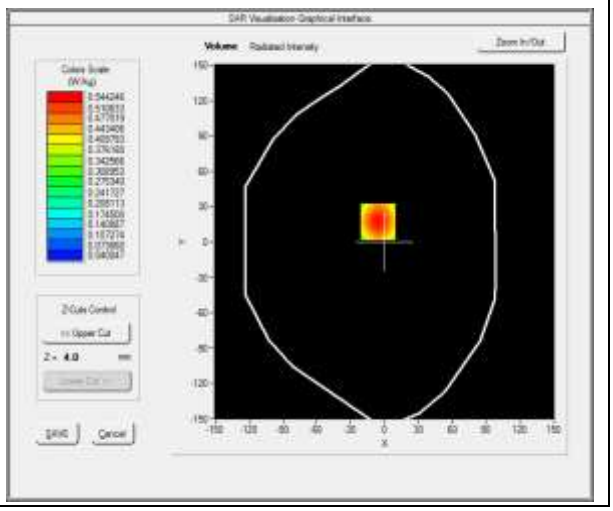
Type: Phone measurement (Complete)
Date of measurement: 02/02/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.55; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Front
Band	LTE Band 2_RMC
Channels	QPSK, 20MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	1860.000000
Relative Permittivity (real part)	52.420415
Conductivity (S/m)	1.501966
Power Variation (%)	1.327810
Ambient Temperature	21.1
Liquid Temperature	21.3

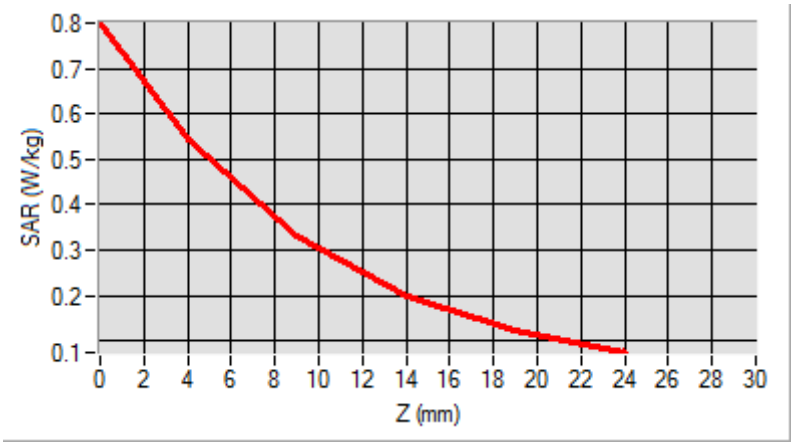
SURFACE SAR	VOLUME SAR
	

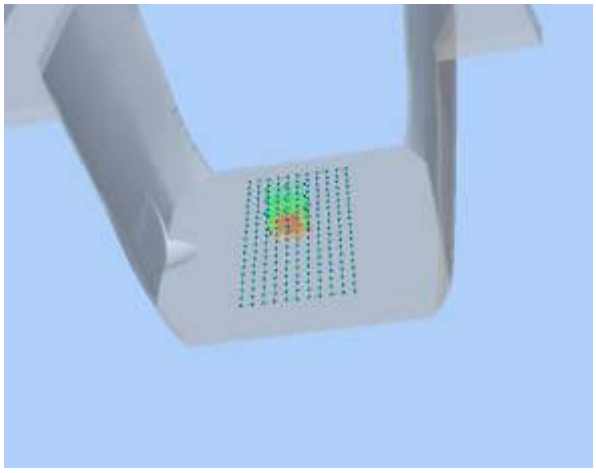
Maximum location: X=-6.00, Y=17.00

SAR Peak: 0.80 W/kg

SAR 10g (W/Kg)	0.309088
SAR 1g (W/Kg)	0.513641

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.8013	0.5442	0.3297	0.2000	0.1237



3D screen shot	Hot spot position
	

MEASUREMENT 126

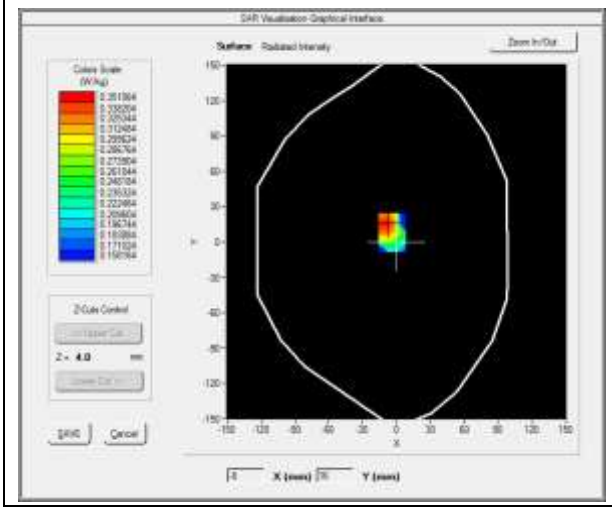
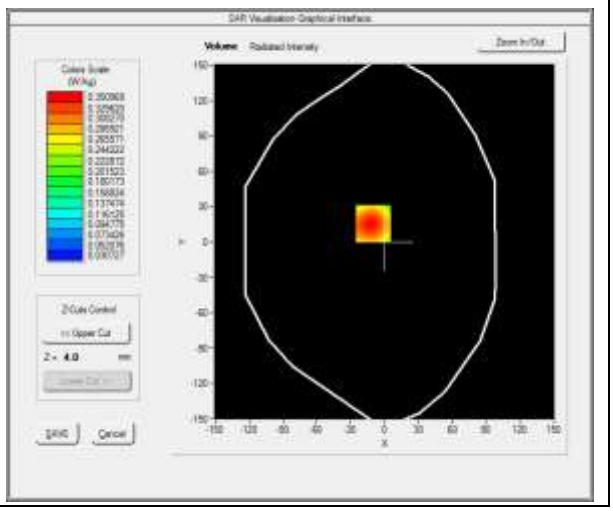
Type: Phone measurement (Complete)
Date of measurement: 02/02/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.06; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Front
Band	LTE Band 4_RMC
Channels	QPSK, 20MHz, 1RB, High
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	1745.000000
Relative Permittivity (real part)	51.224510
Conductivity (S/m)	1.461261
Power Variation (%)	0.858383
Ambient Temperature	21.1
Liquid Temperature	21.2

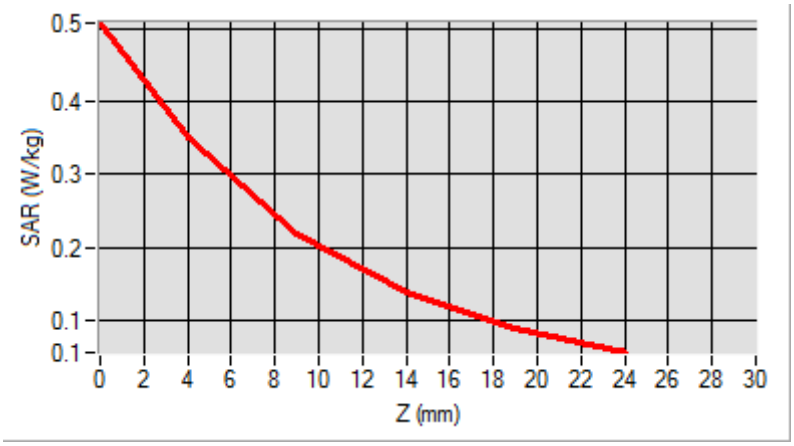
SURFACE SAR	VOLUME SAR
	

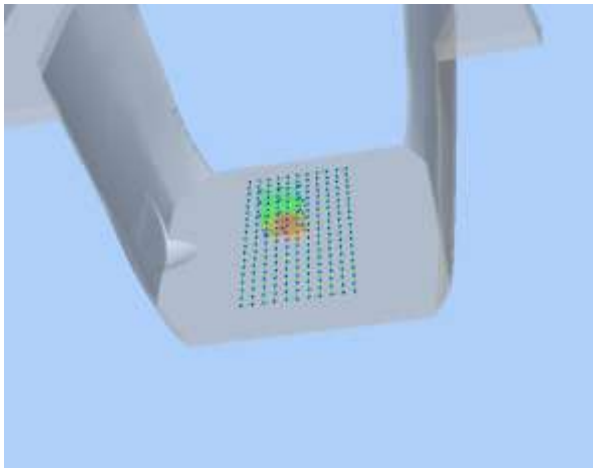
Maximum location: X=-10.00, Y=16.00

SAR Peak: 0.51 W/kg

SAR 10g (W/Kg)	0.205555
SAR 1g (W/Kg)	0.333286

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.5077	0.3510	0.2185	0.1370	0.0879



3D screen shot	Hot spot position
	

MEASUREMENT 134

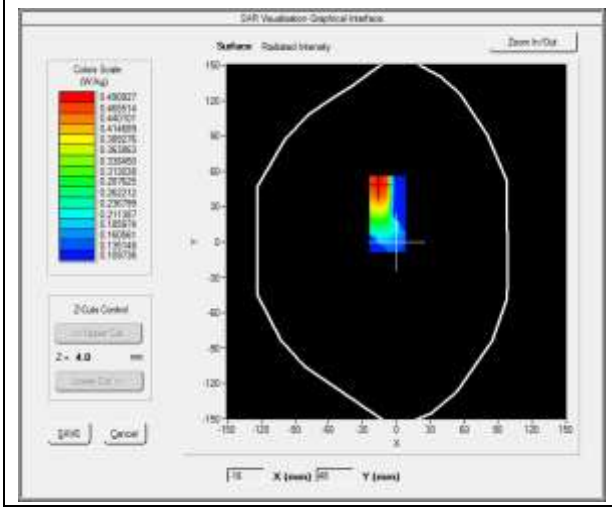
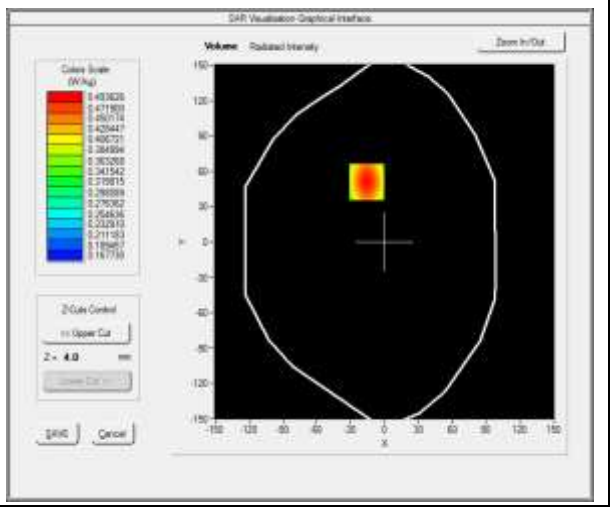
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.13; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Front
Band	LTE Band 5_RMC
Channels	QPSK, 10MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	829.000000
Relative Permittivity (real part)	54.851214
Conductivity (S/m)	0.951454
Power Variation (%)	1.037332
Ambient Temperature	21.1
Liquid Temperature	21.2

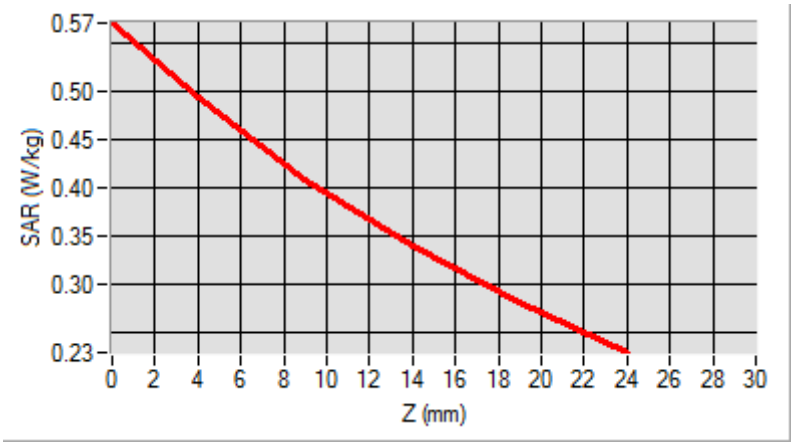
SURFACE SAR	VOLUME SAR
	

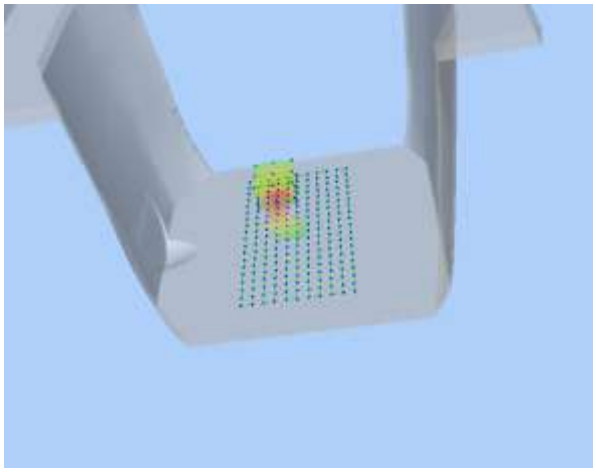
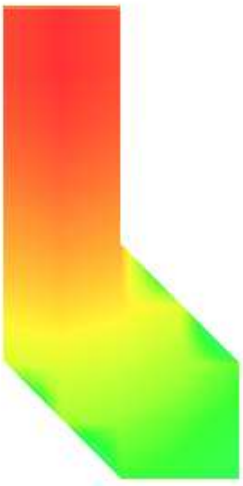
Maximum location: X=-16.00, Y=51.00

SAR Peak: 0.57 W/kg

SAR 10g (W/Kg)	0.372184
SAR 1g (W/Kg)	0.476847

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.5718	0.4936	0.4097	0.3396	0.2808



3D screen shot	Hot spot position
	

MEASUREMENT 142

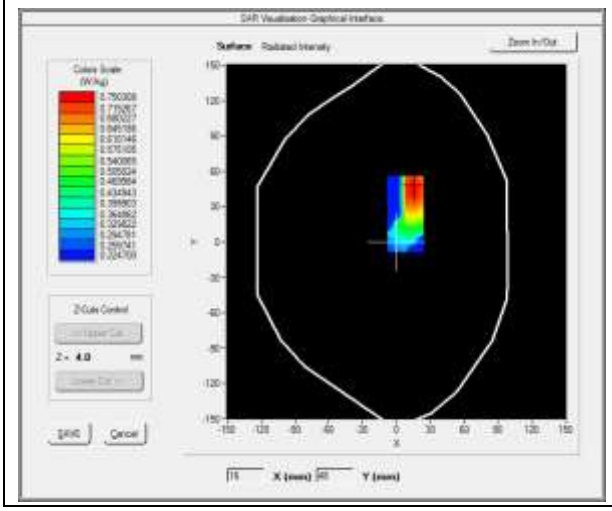
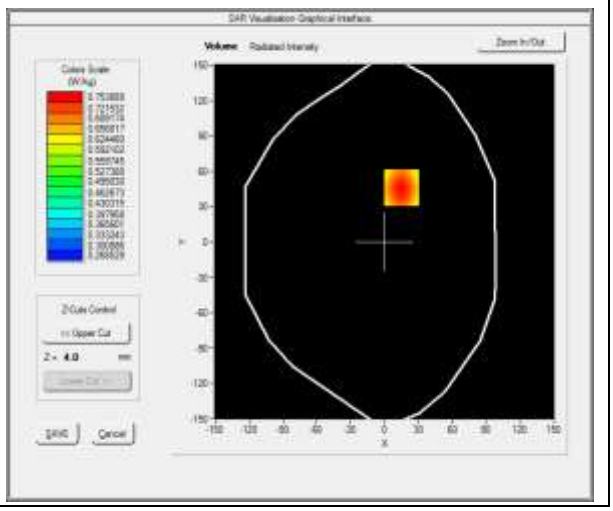
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.28; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Front
Band	LTE Band 12_RMC
Channels	QPSK, 10MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	704.000000
Relative Permittivity (real part)	54.964739
Conductivity (S/m)	0.931048
Power Variation (%)	3.672346
Ambient Temperature	21.1
Liquid Temperature	21.2

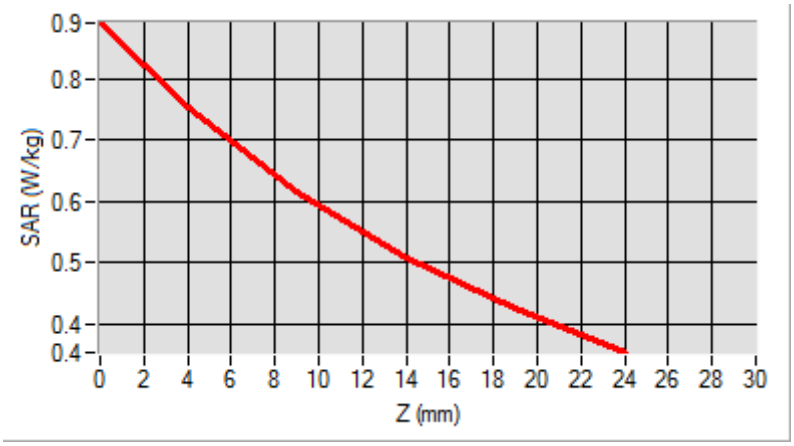
SURFACE SAR	VOLUME SAR
	

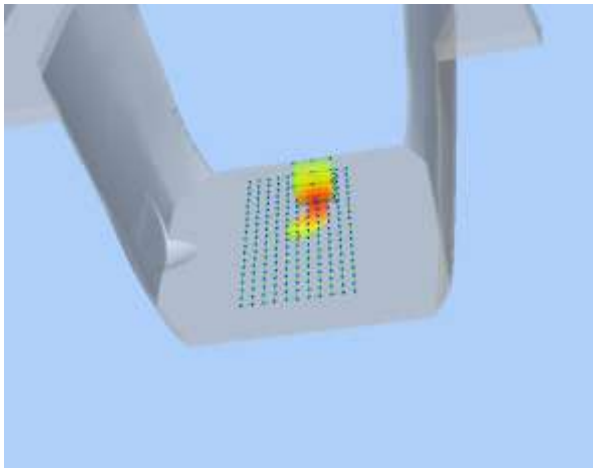
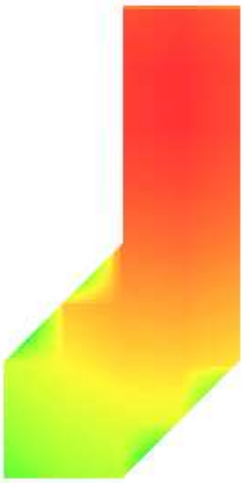
Maximum location: X=15.00, Y=46.00

SAR Peak: 0.89 W/kg

SAR 10g (W/Kg)	0.597735
SAR 1g (W/Kg)	0.749033

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.8900	0.7539	0.6156	0.5081	0.4240



3D screen shot	Hot spot position
	

MEASUREMENT 150

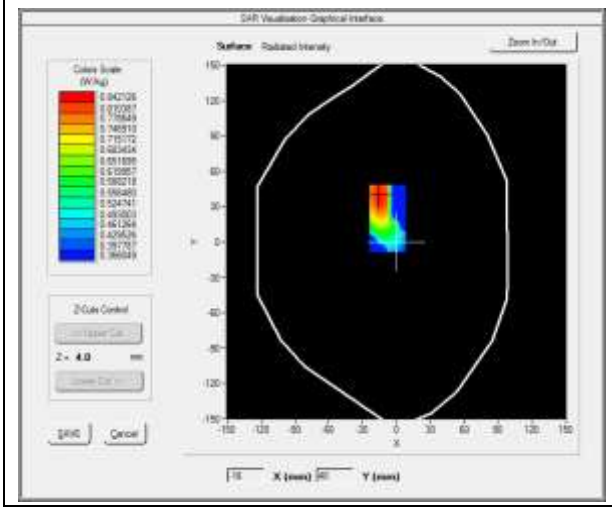
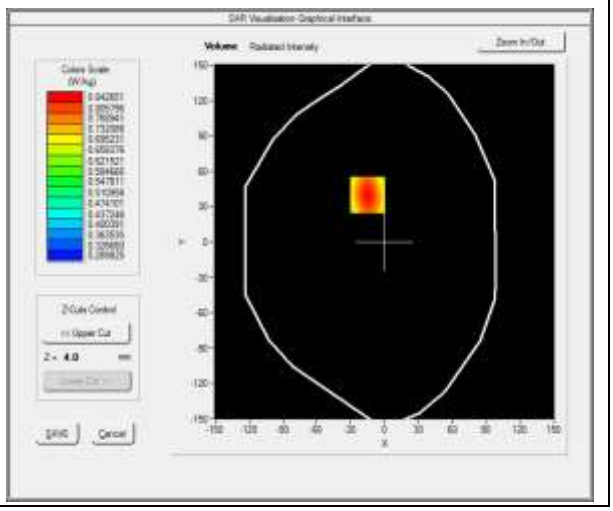
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.28; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Front
Band	LTE Band 13_RMC
Channels	QPSK, 10MHz, 1RB, Middle
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	782.000000
Relative Permittivity (real part)	54.964739
Conductivity (S/m)	0.931048
Power Variation (%)	3.017812
Ambient Temperature	21.1
Liquid Temperature	21.2

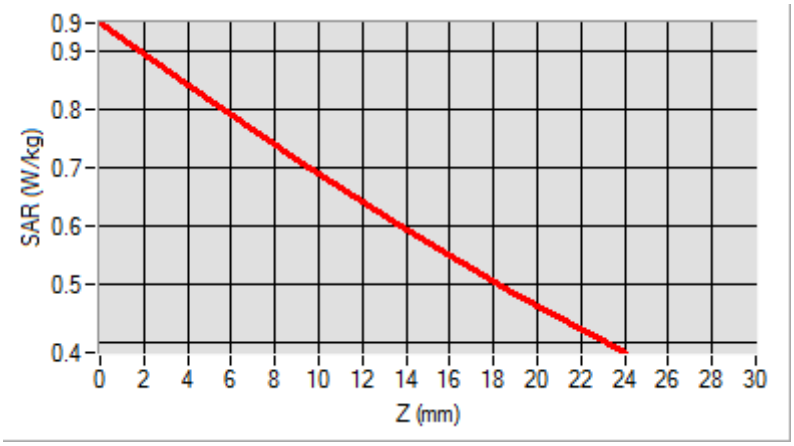
SURFACE SAR	VOLUME SAR
	

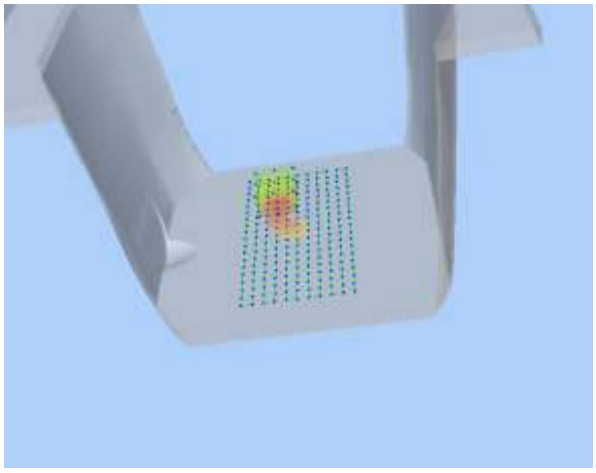
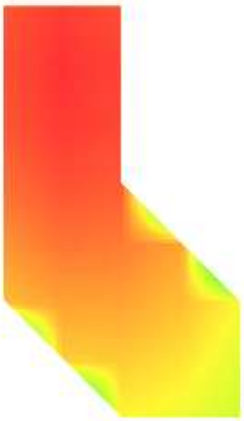
Maximum location: X=-15.00, Y=40.00

SAR Peak: 0.95 W/kg

SAR 10g (W/Kg)	0.673085
SAR 1g (W/Kg)	0.858495

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.9498	0.8427	0.7147	0.5941	0.4823



3D screen shot	Hot spot position
	

MEASUREMENT 159

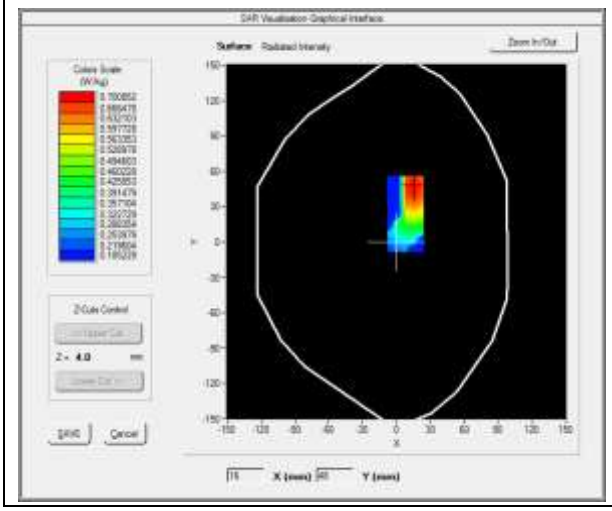
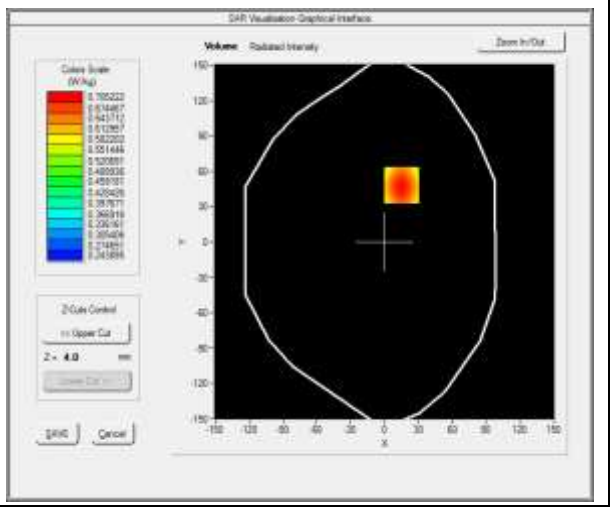
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.28; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Front
Band	LTE Band 17_RMC
Channels	QPSK, 10MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	709.000000
Relative Permittivity (real part)	54.964739
Conductivity (S/m)	0.931048
Power Variation (%)	3.108329
Ambient Temperature	21.1
Liquid Temperature	21.2

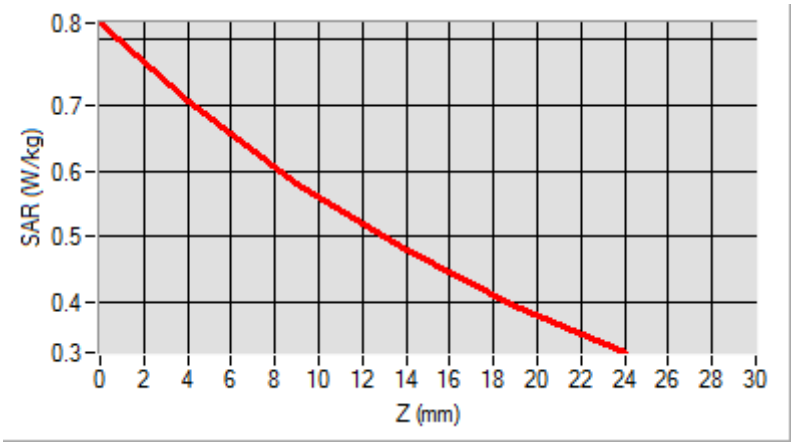
SURFACE SAR	VOLUME SAR
	

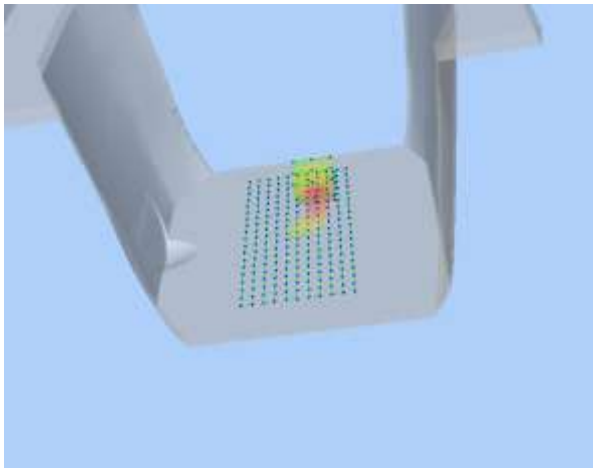
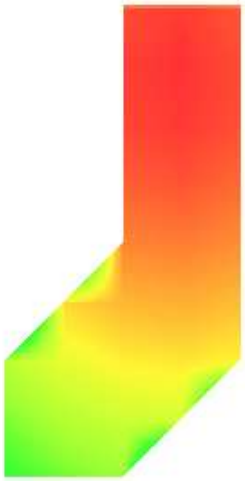
Maximum location: X=15.00, Y=48.00

SAR Peak: 0.82 W/kg

SAR 10g (W/Kg)	0.560015
SAR 1g (W/Kg)	0.719034

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.8234	0.7052	0.5808	0.4795	0.3964



3D screen shot	Hot spot position
	

MEASUREMENT 166

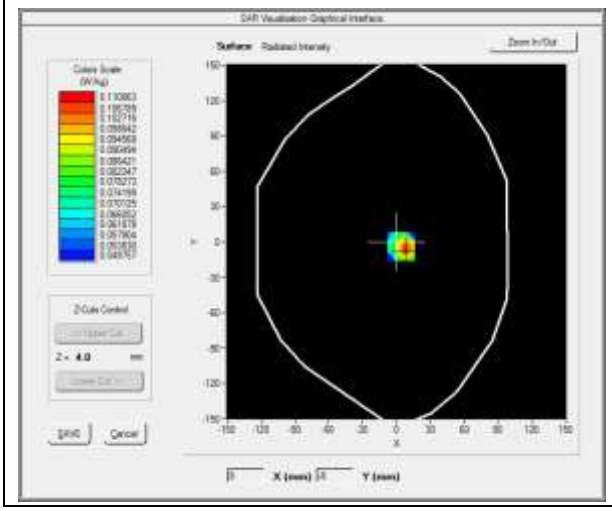
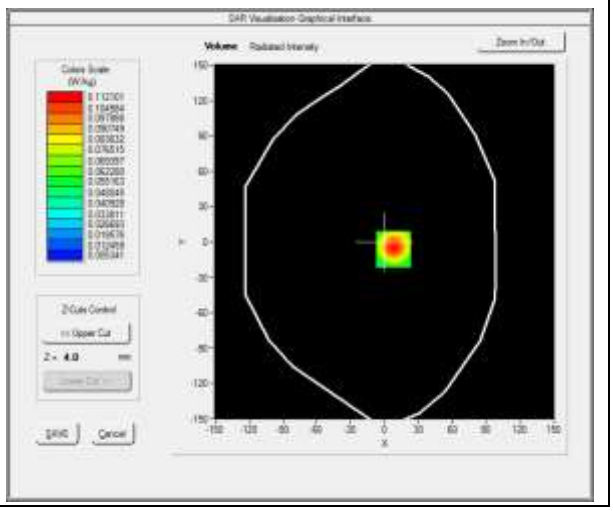
Type: Phone measurement (Complete)
Date of measurement: 02/05/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 5.80; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Back
Band	WiFi_802.11b
Channels	High
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	2462.000000
Relative Permittivity (real part)	52.010212
Conductivity (S/m)	1.910255
Power Variation (%)	2.492743
Ambient Temperature	21.1
Liquid Temperature	21.2

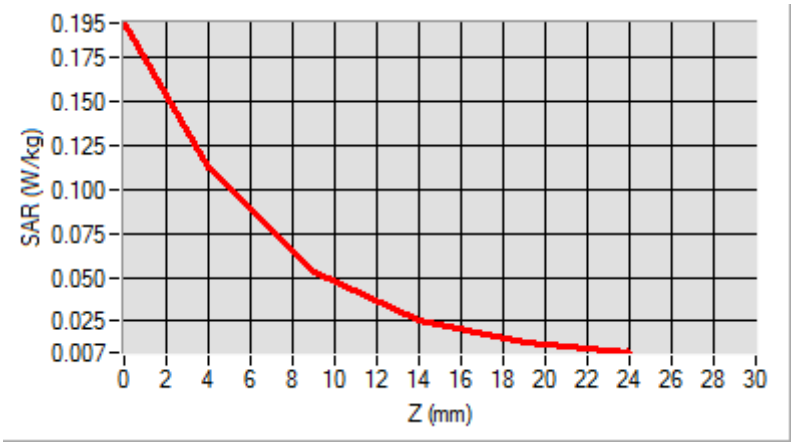
SURFACE SAR	VOLUME SAR
	

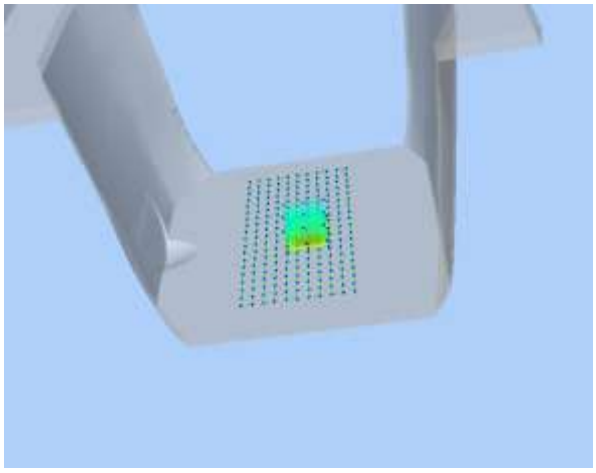
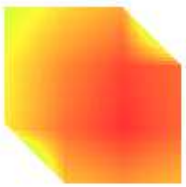
Maximum location: X=8.00, Y=-6.00

SAR Peak: 0.20 W/kg

SAR 10g (W/Kg)	0.052731
SAR 1g (W/Kg)	0.104501

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1948	0.1121	0.0533	0.0253	0.0132



3D screen shot	Hot spot position
	

MEASUREMENT 169

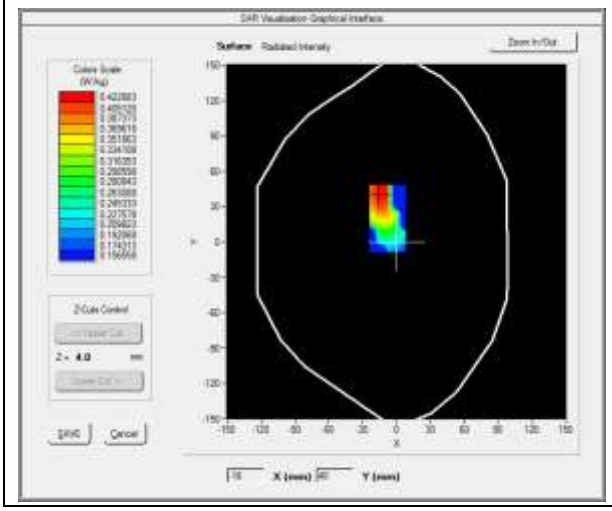
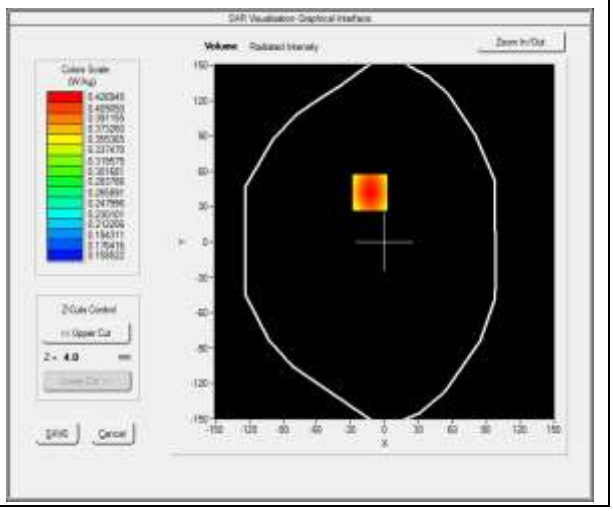
Type: Phone measurement (Complete)
Date of measurement: 02/01/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.93; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Front
Band	GPRS850_2TX
Channels	Low
Signal	Duty Cycle: 1:4

B. SAR Measurement Results

Frequency (MHz)	824.200000
Relative Permittivity (real part)	41.110245
Conductivity (S/m)	0.871245
Power Variation (%)	1.502922
Ambient Temperature	21.1
Liquid Temperature	21.3

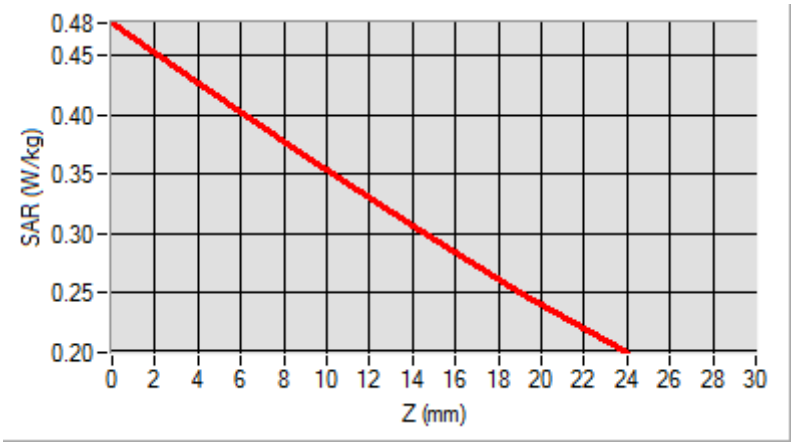
SURFACE SAR	VOLUME SAR
	

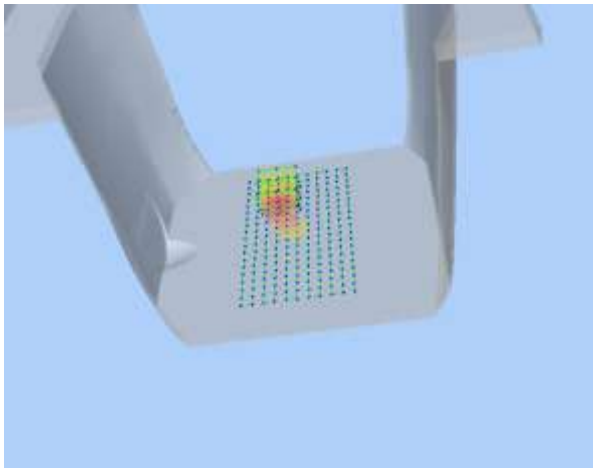
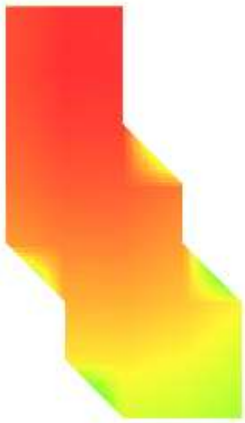
Maximum location: X=-13.00, Y=42.00

SAR Peak: 0.48 W/kg

SAR 10g (W/Kg)	0.347801
SAR 1g (W/Kg)	0.436887

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.4780	0.4269	0.3651	0.3058	0.2500



3D screen shot	Hot spot position
	

MEASUREMENT 170

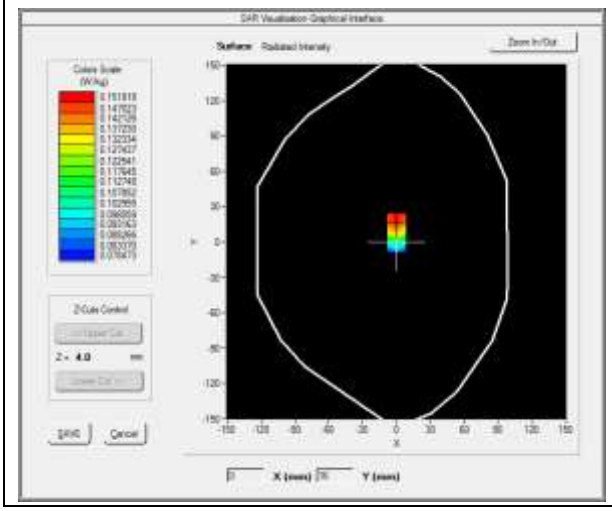
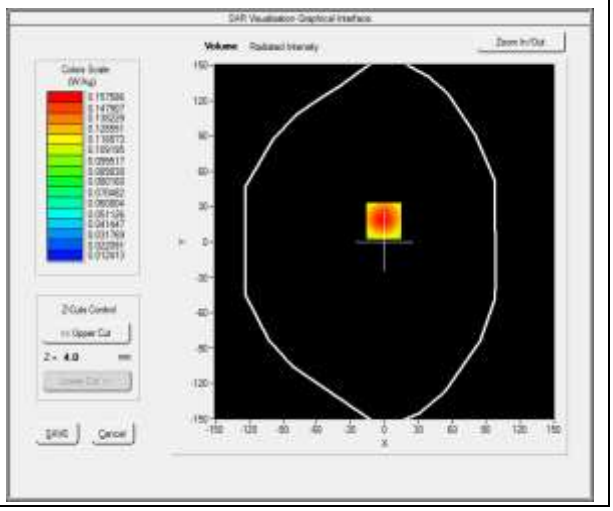
Type: Phone measurement (Complete)
Date of measurement: 02/02/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.35; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Front
Band	GPRS1900_4TX
Channels	Low
Signal	Duty Cycle: 1:2

B. SAR Measurement Results

Frequency (MHz)	1850.200000
Relative Permittivity (real part)	38.560124
Conductivity (S/m)	1.380369
Power Variation (%)	1.503921
Ambient Temperature	21.1
Liquid Temperature	21.3

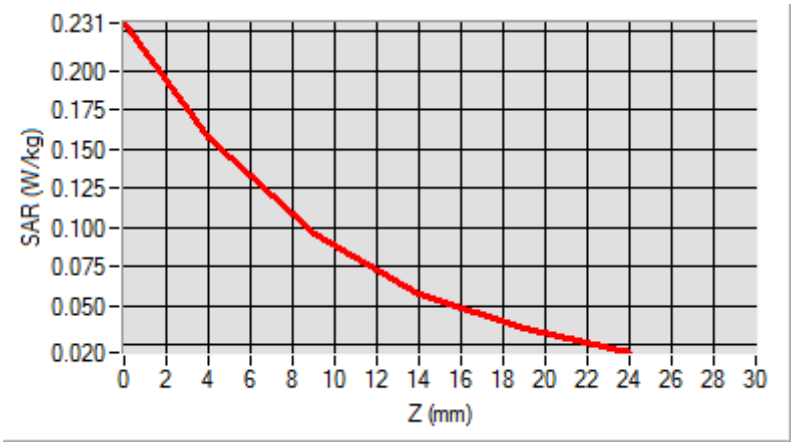
SURFACE SAR	VOLUME SAR
	

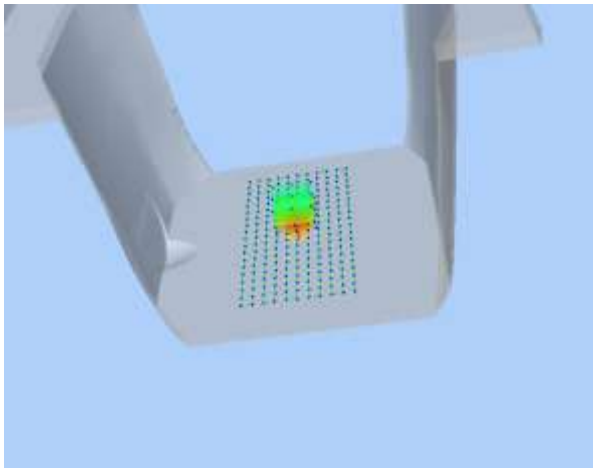
Maximum location: X=-1.00, Y=18.00

SAR Peak: 0.23 W/kg

SAR 10g (W/Kg)	0.089667
SAR 1g (W/Kg)	0.148770

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.2307	0.1576	0.0958	0.0579	0.0351



3D screen shot	Hot spot position
	

MEASUREMENT 171

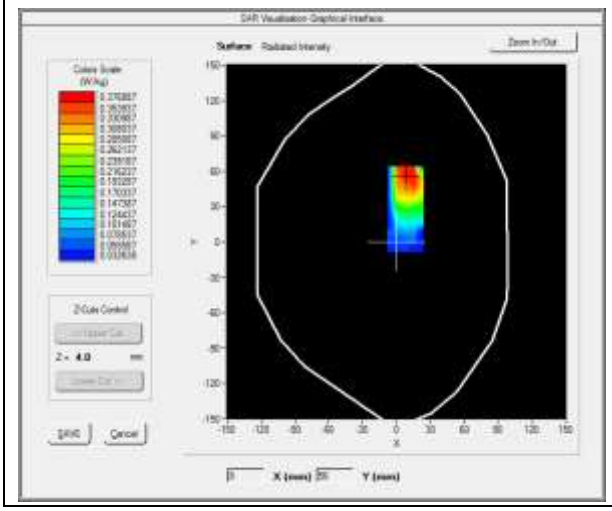
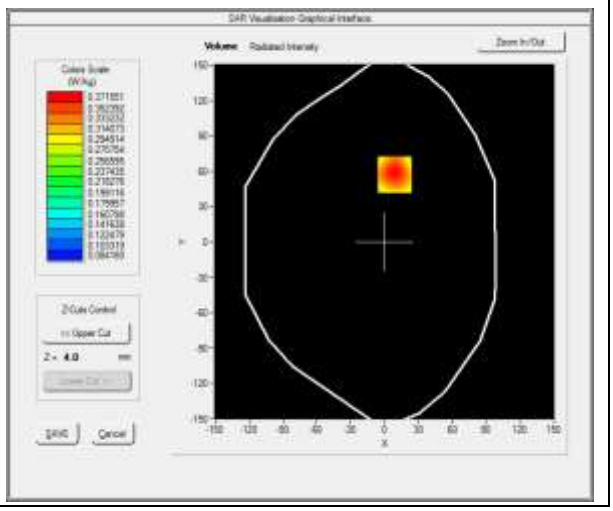
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.13; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Back(Body-worn)
Band	GSM850
Channels	Low
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

Frequency (MHz)	824.200000
Relative Permittivity (real part)	54.851214
Conductivity (S/m)	0.951454
Power Variation (%)	0.901472
Ambient Temperature	21.1
Liquid Temperature	21.3

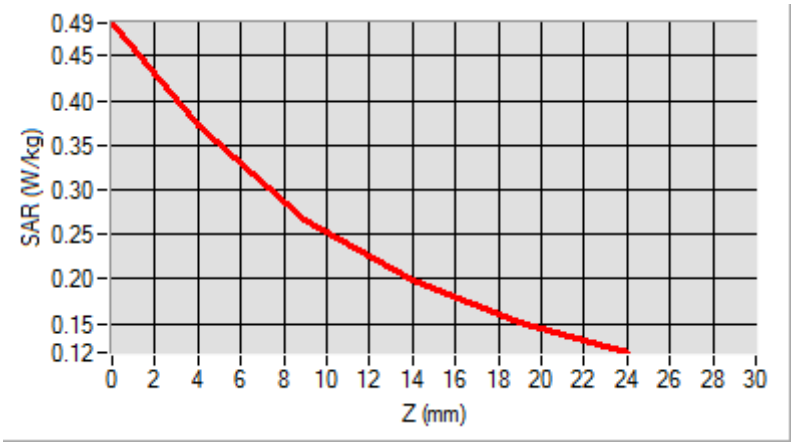
SURFACE SAR	VOLUME SAR
	

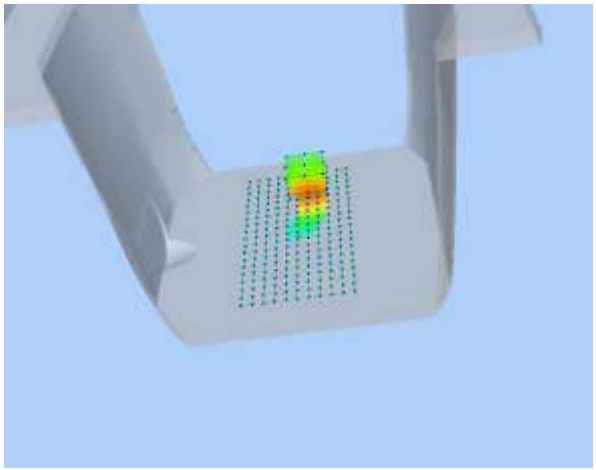
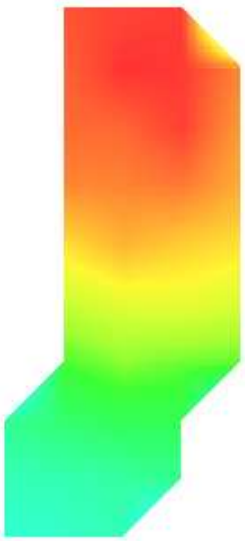
Maximum location: X=9.00, Y=57.00

SAR Peak: 0.49 W/kg

SAR 10g (W/Kg)	0.252383
SAR 1g (W/Kg)	0.357853

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.4869	0.3716	0.2673	0.1976	0.1517



3D screen shot	Hot spot position
	

MEASUREMENT 172

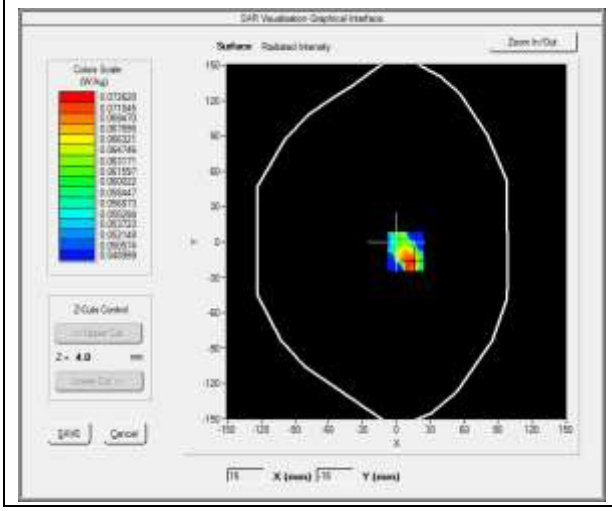
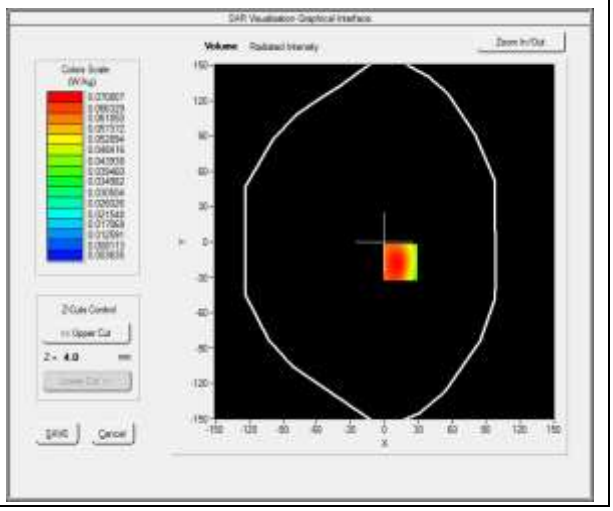
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.55; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Back(Body-worn)
Band	GSM1900
Channels	Low
Signal	TDMA (Crest factor: 8.0)

B. SAR Measurement Results

Frequency (MHz)	1850.200000
Relative Permittivity (real part)	52.420415
Conductivity (S/m)	1.501966
Power Variation (%)	1.474622
Ambient Temperature	21.1
Liquid Temperature	21.3

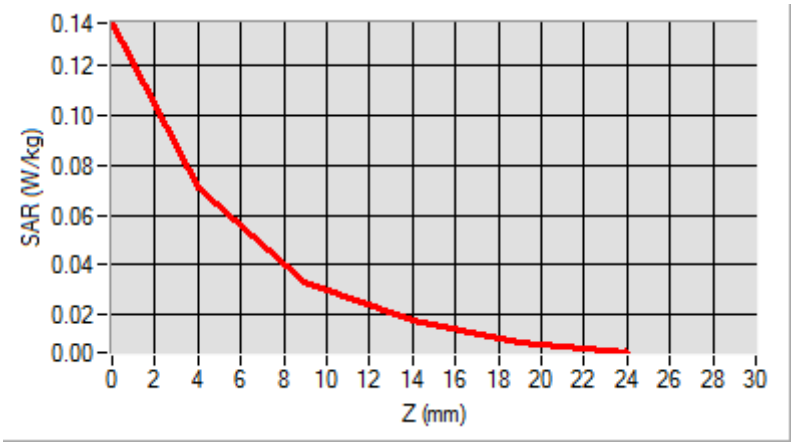
SURFACE SAR	VOLUME SAR
	

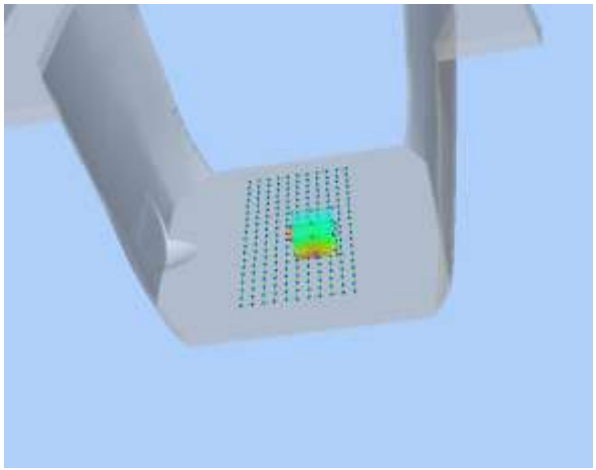
Maximum location: X=14.00, Y=-17.00

SAR Peak: 0.12 W/kg

SAR 10g (W/Kg)	0.037353
SAR 1g (W/Kg)	0.068275

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1373	0.0708	0.0326	0.0173	0.0088



3D screen shot	Hot spot position
	

MEASUREMENT 173

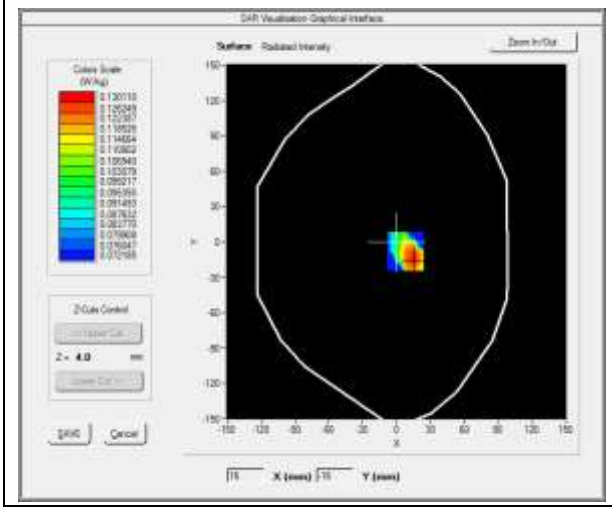
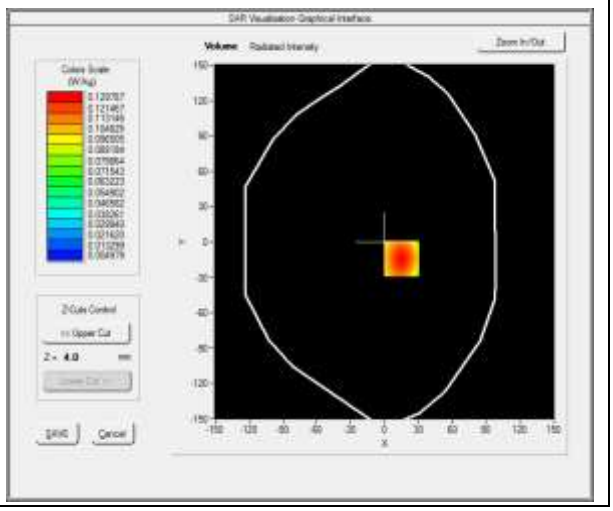
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.55; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Back
Band	WCDMA1900_RMC
Channels	Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	1852.400000
Relative Permittivity (real part)	52.420415
Conductivity (S/m)	1.501966
Power Variation (%)	1.163283
Ambient Temperature	21.1
Liquid Temperature	21.3

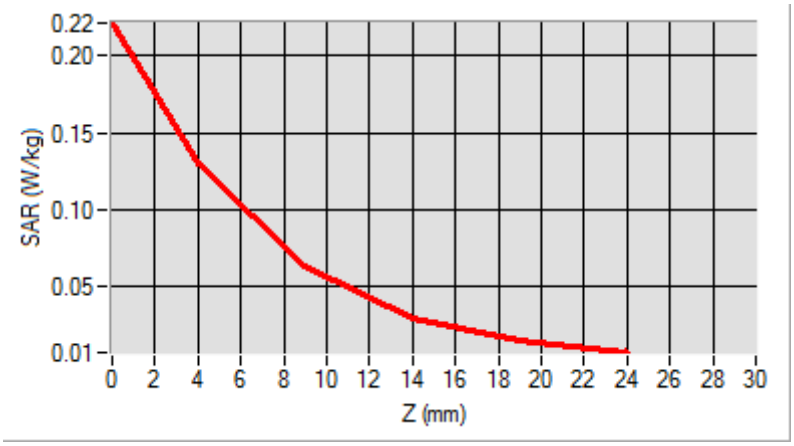
SURFACE SAR	VOLUME SAR
	

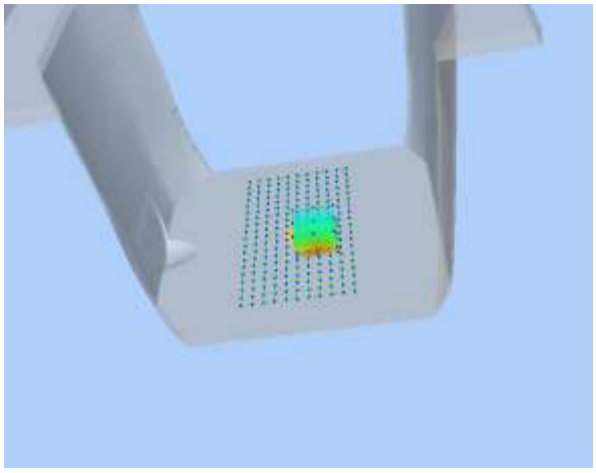
Maximum location: X=15.00, Y=-14.00

SAR Peak: 0.22 W/kg

SAR 10g (W/Kg)	0.066477
SAR 1g (W/Kg)	0.123031

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.2214	0.1298	0.0630	0.0300	0.0150



3D screen shot	Hot spot position
	

MEASUREMENT 174

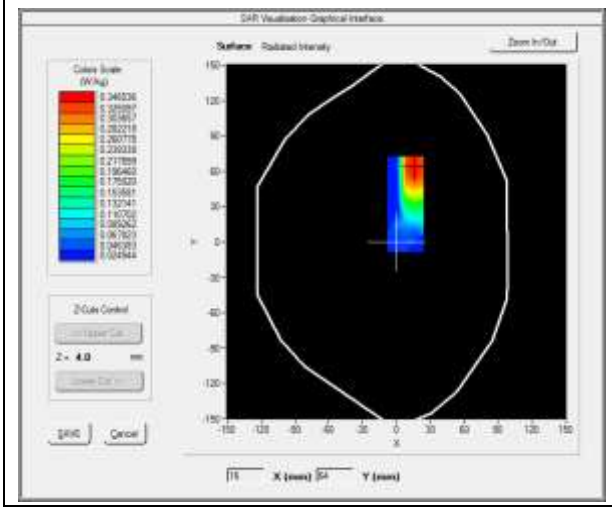
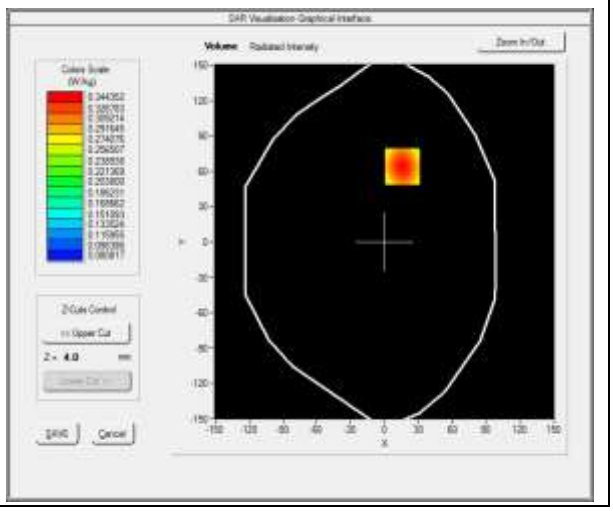
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.13; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Back
Band	WCDMA850_RMC
Channels	Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	826.400000
Relative Permittivity (real part)	54.851214
Conductivity (S/m)	0.951454
Power Variation (%)	2.341234
Ambient Temperature	21.1
Liquid Temperature	21.3

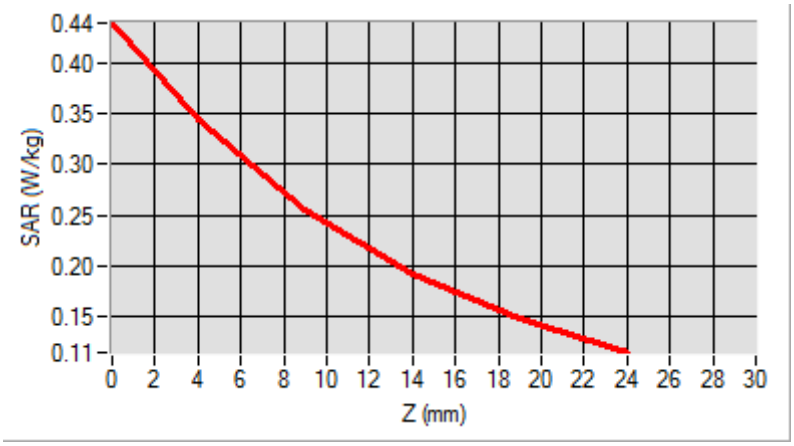
SURFACE SAR	VOLUME SAR
	

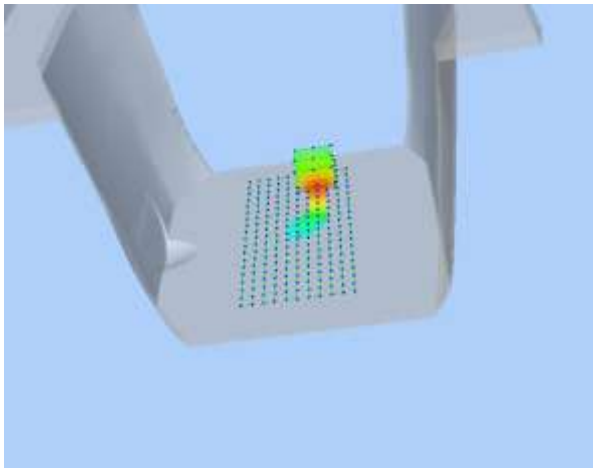
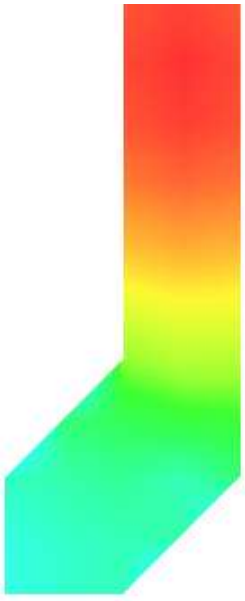
Maximum location: X=16.00, Y=64.00

SAR Peak: 0.44 W/kg

SAR 10g (W/Kg)	0.236466
SAR 1g (W/Kg)	0.330813

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.4395	0.3444	0.2551	0.1923	0.1483



3D screen shot	Hot spot position
	

MEASUREMENT 175

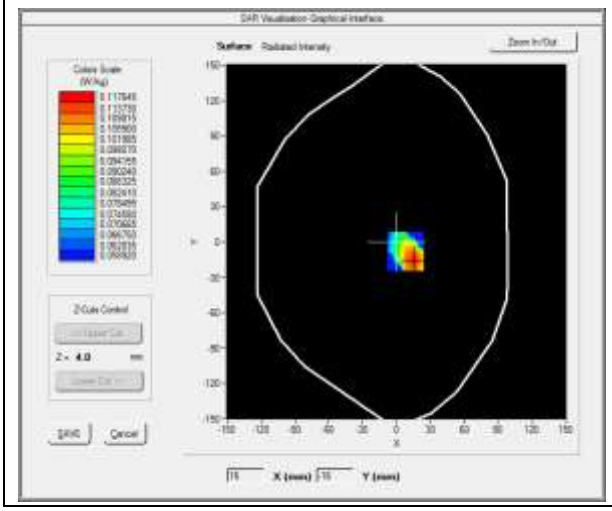
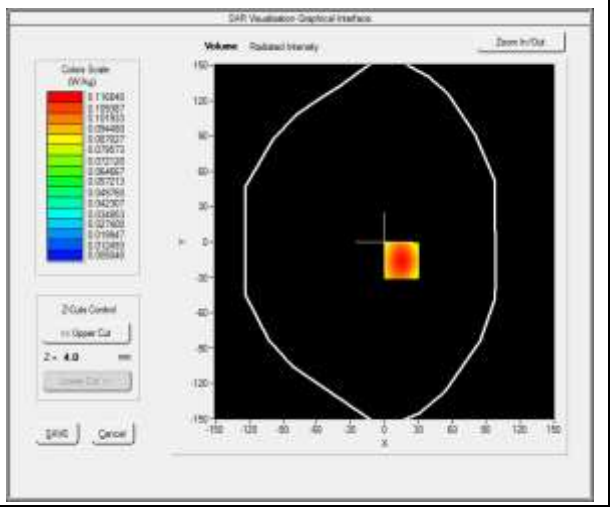
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.55; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Back
Band	LTE Band 2_RMC
Channels	QPSK, 20MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	1860.000000
Relative Permittivity (real part)	52.420415
Conductivity (S/m)	1.501966
Power Variation (%)	1.327810
Ambient Temperature	21.1
Liquid Temperature	21.3

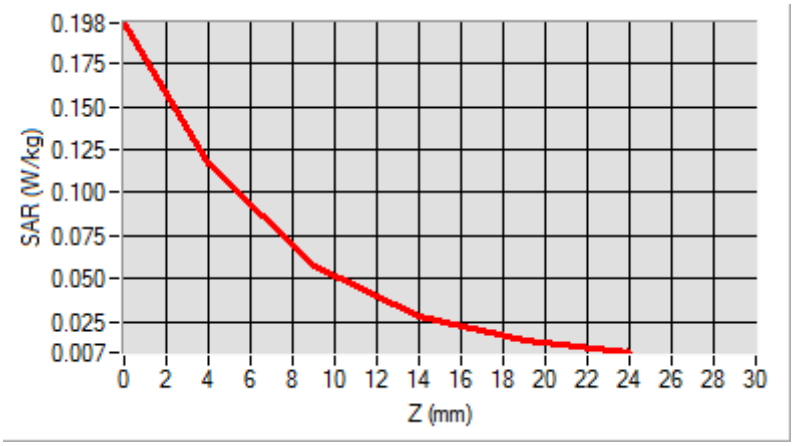
SURFACE SAR	VOLUME SAR
	

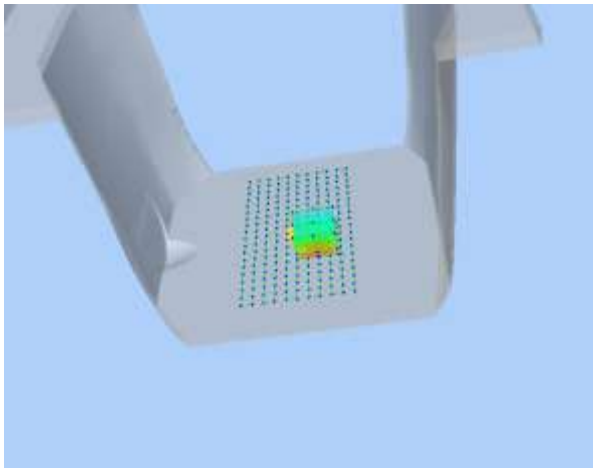
Maximum location: X=15.00, Y=-16.00

SAR Peak: 0.20 W/kg

SAR 10g (W/Kg)	0.060269
SAR 1g (W/Kg)	0.110860

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1985	0.1168	0.0572	0.0276	0.0140



3D screen shot	Hot spot position
	

MEASUREMENT 177

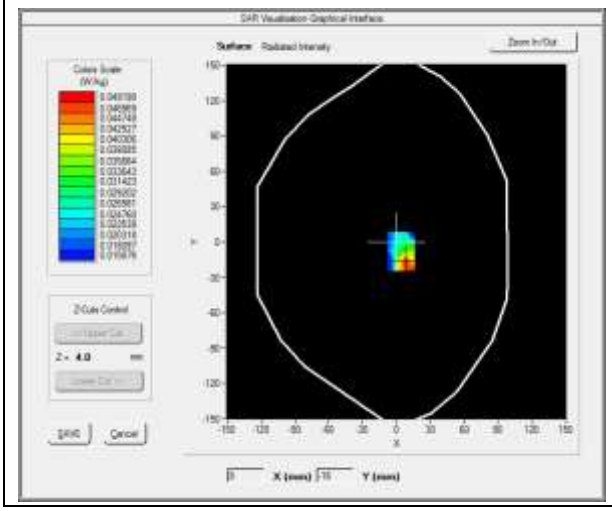
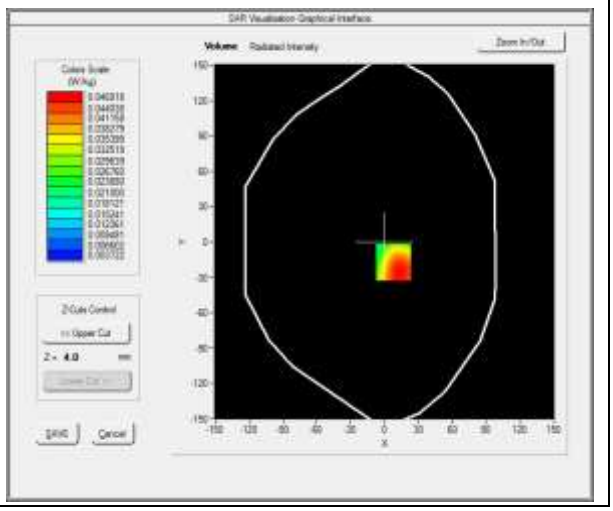
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.06; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Back
Band	LTE Band 4_RMC
Channels	QPSK, 20MHz, 1RB, High
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	1745.000000
Relative Permittivity (real part)	51.224510
Conductivity (S/m)	1.461261
Power Variation (%)	0.858383
Ambient Temperature	21.1
Liquid Temperature	21.2

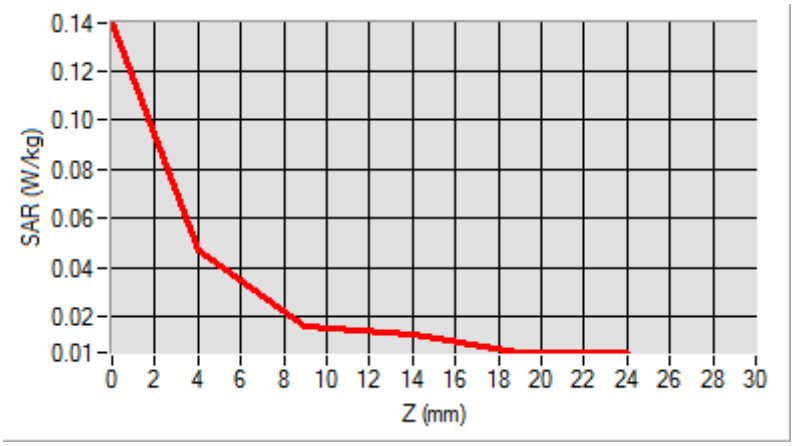
SURFACE SAR	VOLUME SAR
	

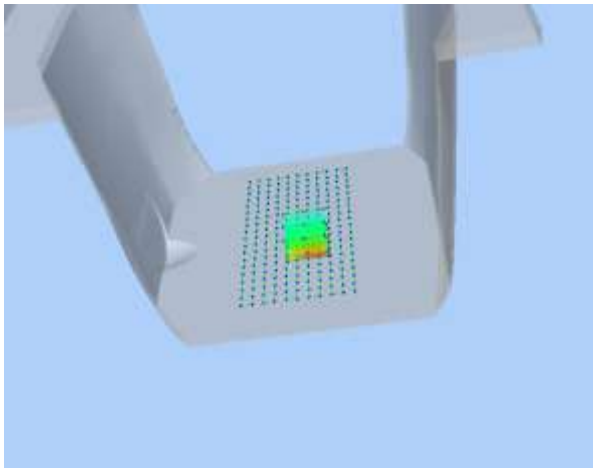
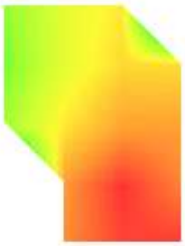
Maximum location: X=8.00, Y=-17.00

SAR Peak: 0.08 W/kg

SAR 10g (W/Kg)	0.025191
SAR 1g (W/Kg)	0.045070

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1393	0.0469	0.0158	0.0125	0.0058



3D screen shot	Hot spot position
	

MEASUREMENT 179

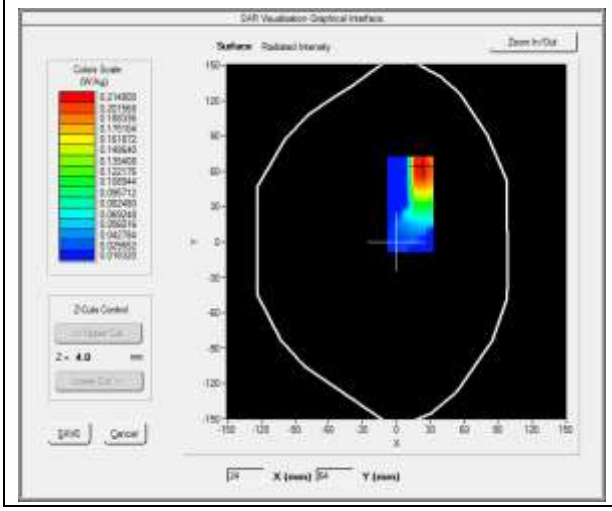
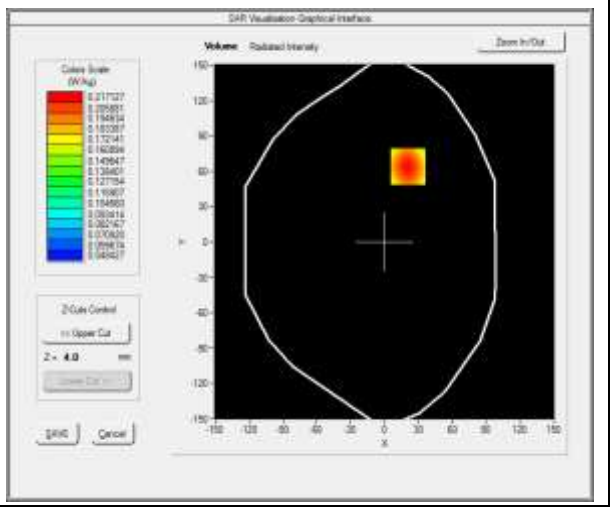
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.13; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Back
Band	LTE Band 5_RMC
Channels	QPSK, 10MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	829.000000
Relative Permittivity (real part)	54.851214
Conductivity (S/m)	0.951454
Power Variation (%)	1.037332
Ambient Temperature	21.1
Liquid Temperature	21.2

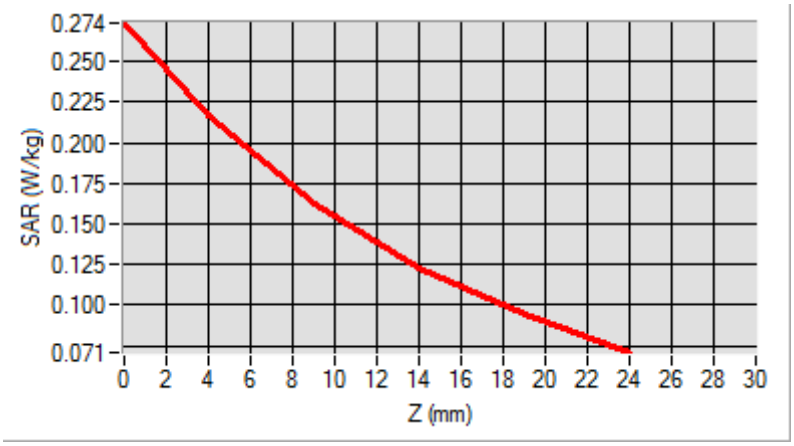
SURFACE SAR	VOLUME SAR
	

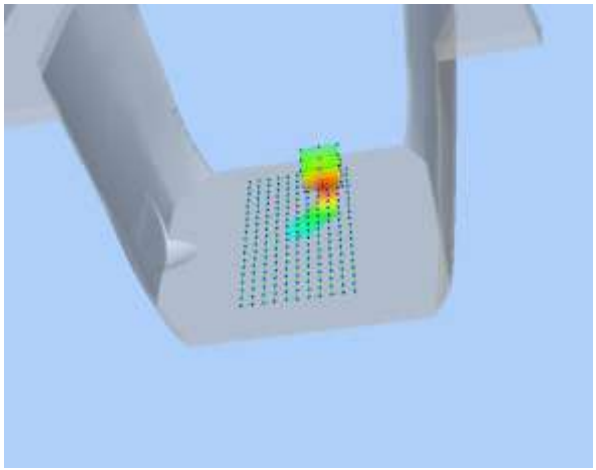
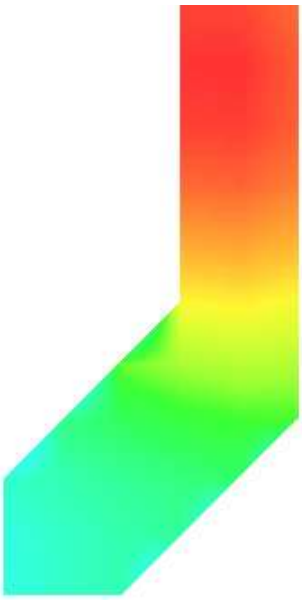
Maximum location: X=21.00, Y=64.00

SAR Peak: 0.27 W/kg

SAR 10g (W/Kg)	0.149315
SAR 1g (W/Kg)	0.208074

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.2736	0.2171	0.1627	0.1229	0.0938



3D screen shot	Hot spot position
	

MEASUREMENT 181

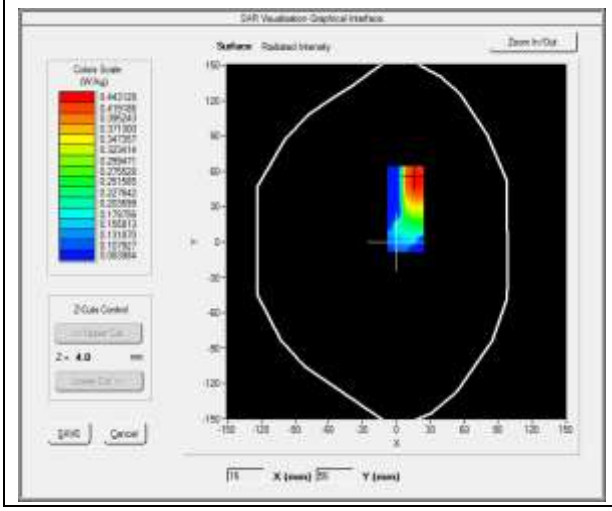
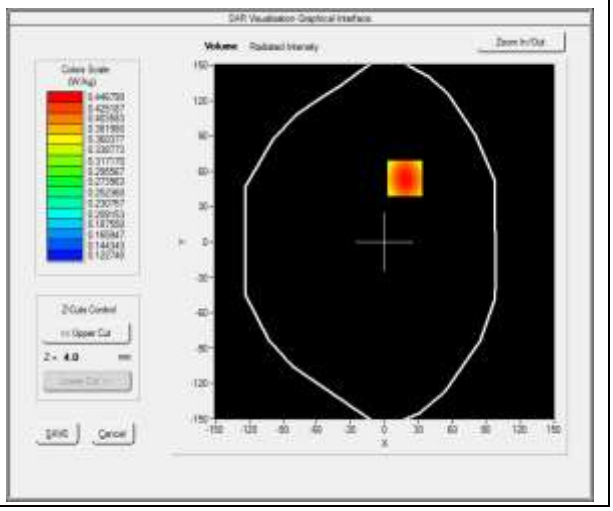
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.28; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Back
Band	LTE Band 12_RMC
Channels	QPSK, 10MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	704.000000
Relative Permittivity (real part)	54.964739
Conductivity (S/m)	0.931048
Power Variation (%)	3.672346
Ambient Temperature	21.1
Liquid Temperature	21.2

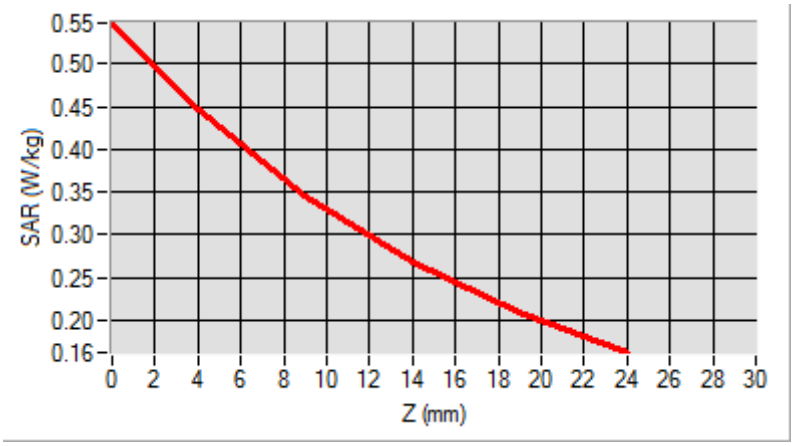
SURFACE SAR	VOLUME SAR
	

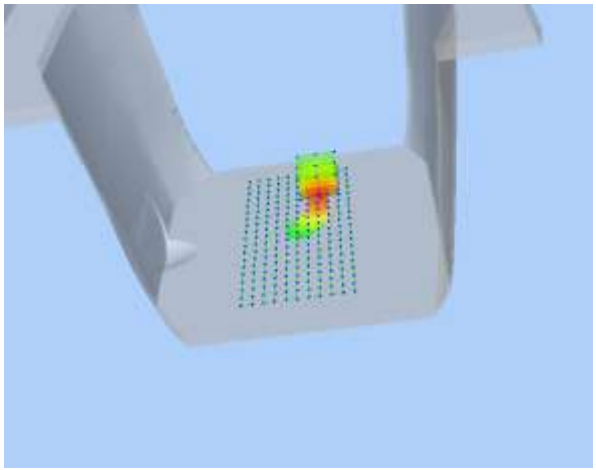
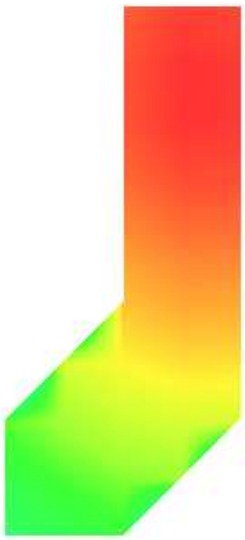
Maximum location: X=18.00, Y=54.00

SAR Peak: 0.55 W/kg

SAR 10g (W/Kg)	0.333255
SAR 1g (W/Kg)	0.453456

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.5482	0.4468	0.3458	0.2688	0.2099



3D screen shot	Hot spot position
	

MEASUREMENT 183

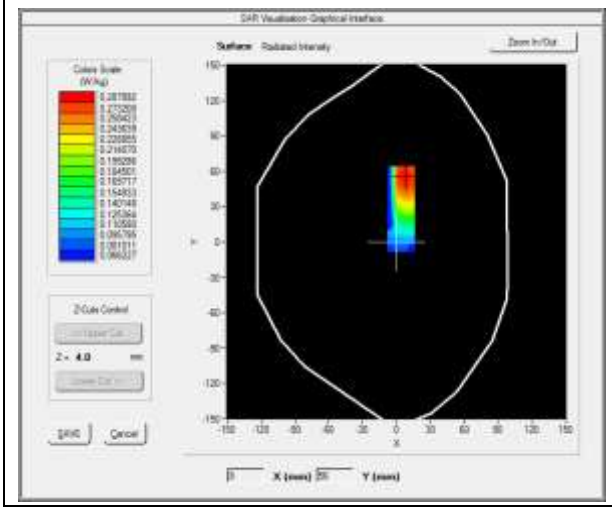
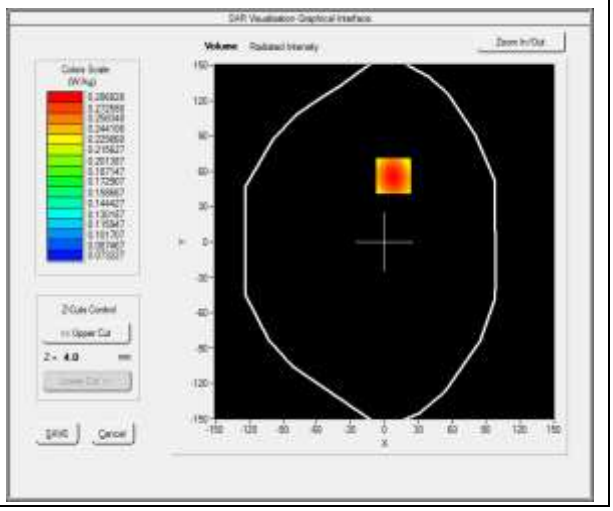
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.28; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Back
Band	LTE Band 13_RMC
Channels	QPSK, 10MHz, 1RB, Middle
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	782.000000
Relative Permittivity (real part)	54.964739
Conductivity (S/m)	0.931048
Power Variation (%)	3.017812
Ambient Temperature	21.1
Liquid Temperature	21.2

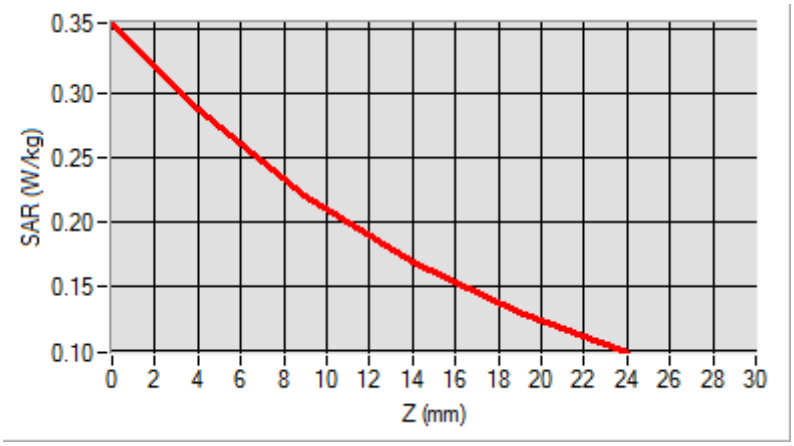
SURFACE SAR	VOLUME SAR
	

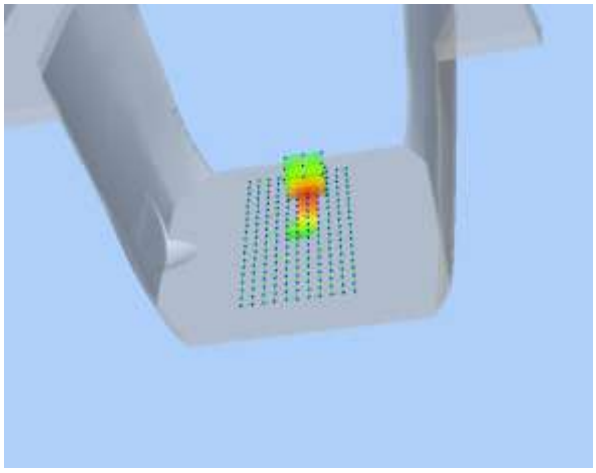
Maximum location: X=8.00, Y=56.00

SAR Peak: 0.35 W/kg

SAR 10g (W/Kg)	0.210902
SAR 1g (W/Kg)	0.290514

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.3541	0.2868	0.2198	0.1686	0.1295



3D screen shot	Hot spot position
	

MEASUREMENT 185

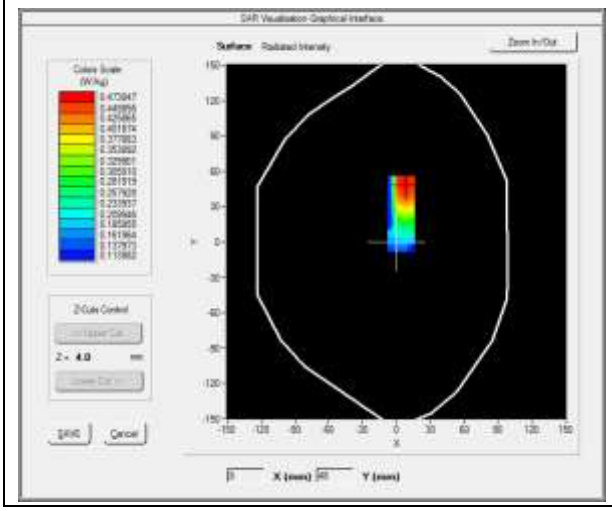
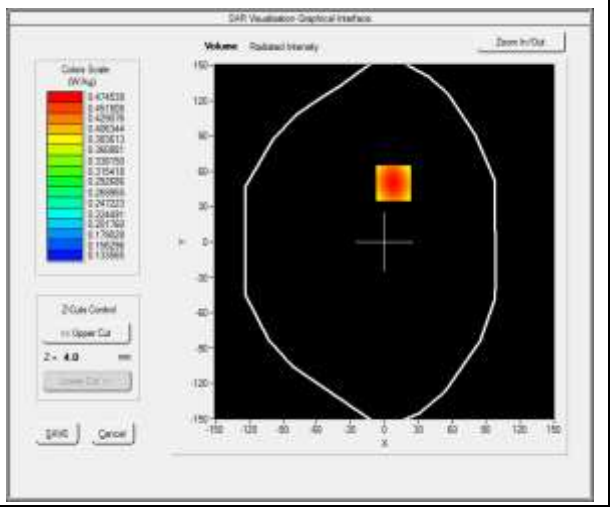
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.28; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Back
Band	LTE Band 17_RMC
Channels	QPSK, 10MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	709.000000
Relative Permittivity (real part)	54.964739
Conductivity (S/m)	0.931048
Power Variation (%)	3.108329
Ambient Temperature	21.1
Liquid Temperature	21.2

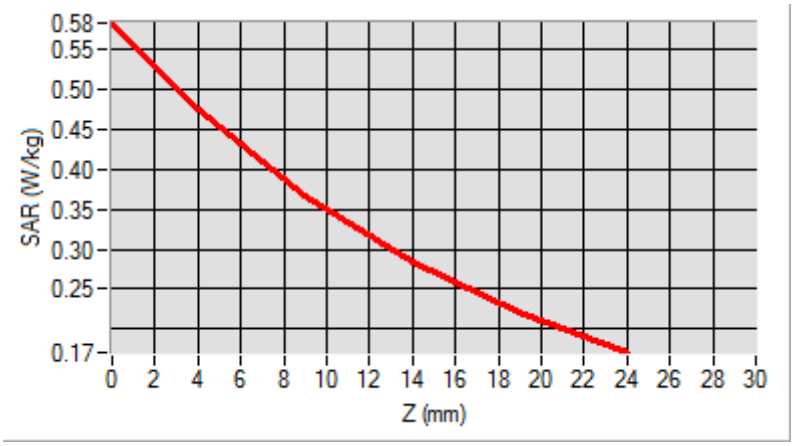
SURFACE SAR	VOLUME SAR
	

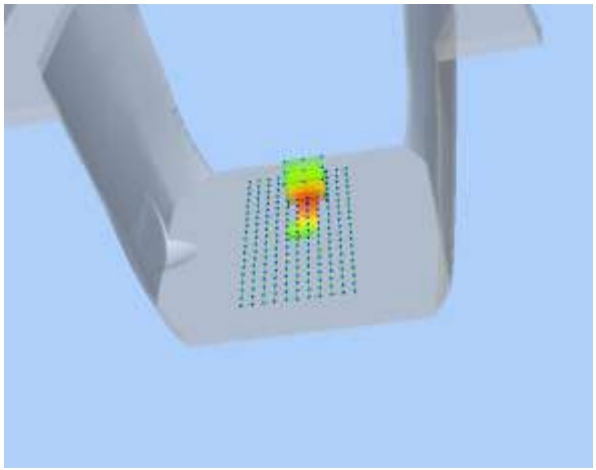
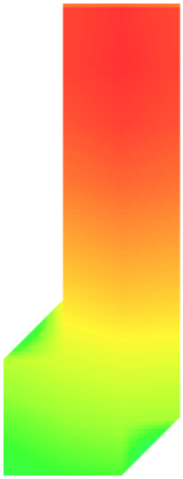
Maximum location: X=8.00, Y=50.00

SAR Peak: 0.58 W/kg

SAR 10g (W/Kg)	0.353086
SAR 1g (W/Kg)	0.481430

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.5840	0.4745	0.3659	0.2836	0.2209



3D screen shot	Hot spot position
	

MEASUREMENT 187

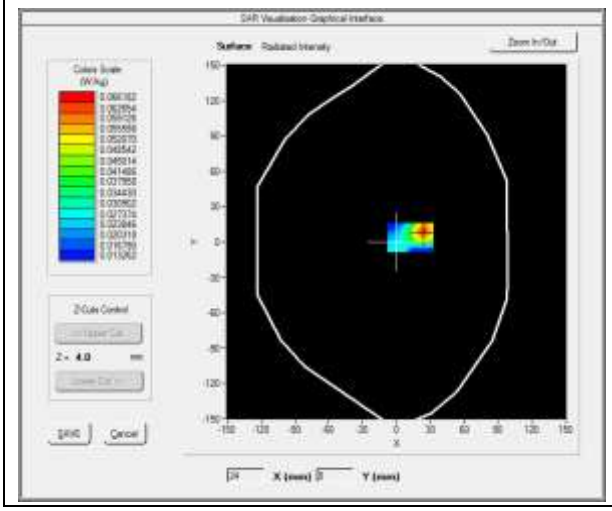
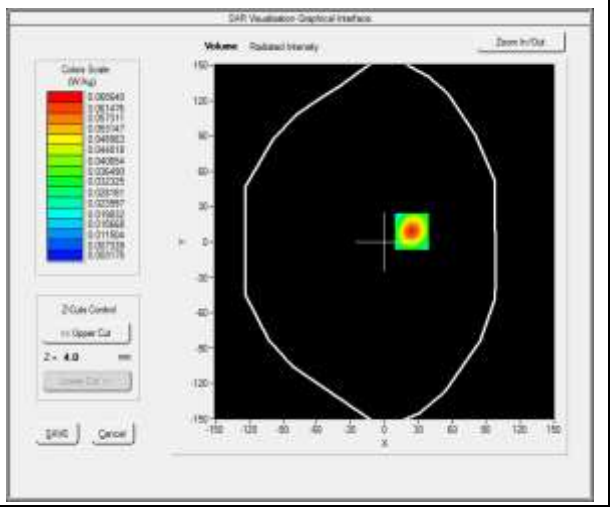
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 5.80; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Back
Band	WiFi_802.11b
Channels	High
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	2462.000000
Relative Permittivity (real part)	52.010212
Conductivity (S/m)	1.910255
Power Variation (%)	2.492743
Ambient Temperature	21.1
Liquid Temperature	21.2

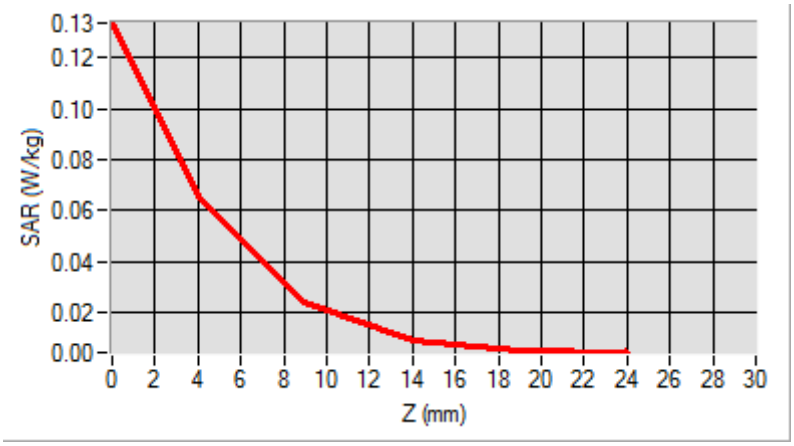
SURFACE SAR	VOLUME SAR
	

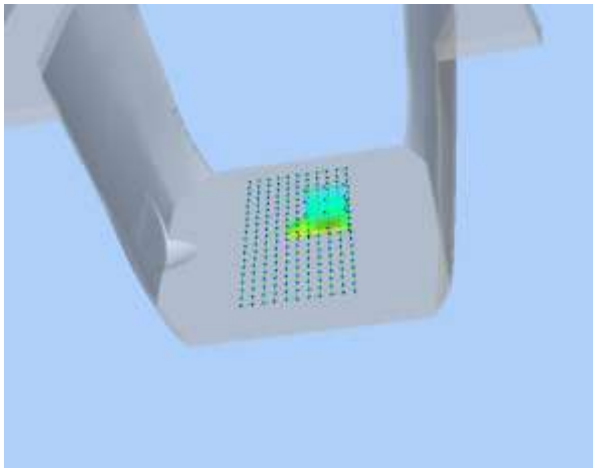
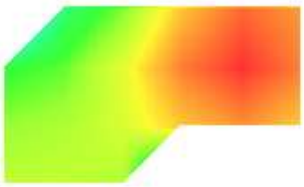
Maximum location: X=24.00, Y=9.00

SAR Peak: 0.13 W/kg

SAR 10g (W/Kg)	0.028008
SAR 1g (W/Kg)	0.061405

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1337	0.0656	0.0241	0.0092	0.0052



3D screen shot	Hot spot position
	

MEASUREMENT 188

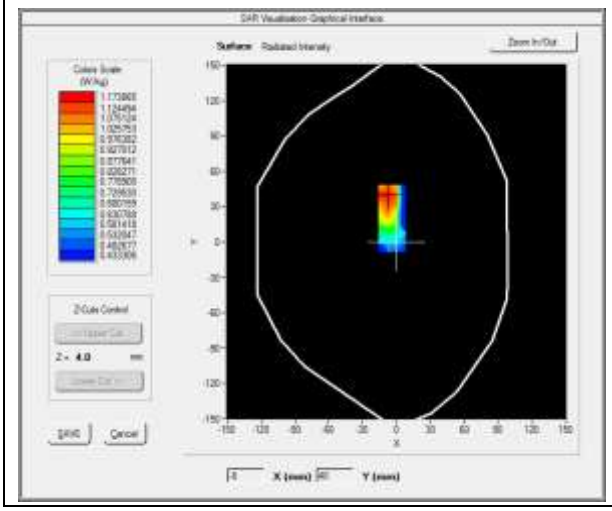
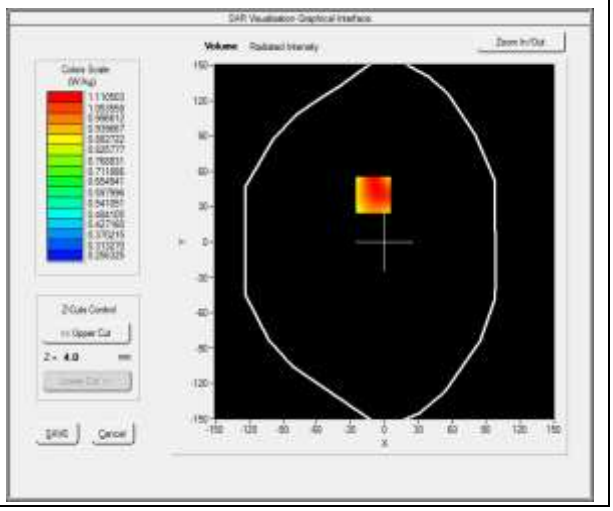
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 7.13; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat plane
Device Position	Front
Band	GPRS850_2TX
Channels	Low
Signal	Duty Cycle: 1:4

B. SAR Measurement Results

Frequency (MHz)	824.200000
Relative Permittivity (real part)	54.851214
Conductivity (S/m)	0.951454
Power Variation (%)	0.901472
Ambient Temperature	21.1
Liquid Temperature	21.3

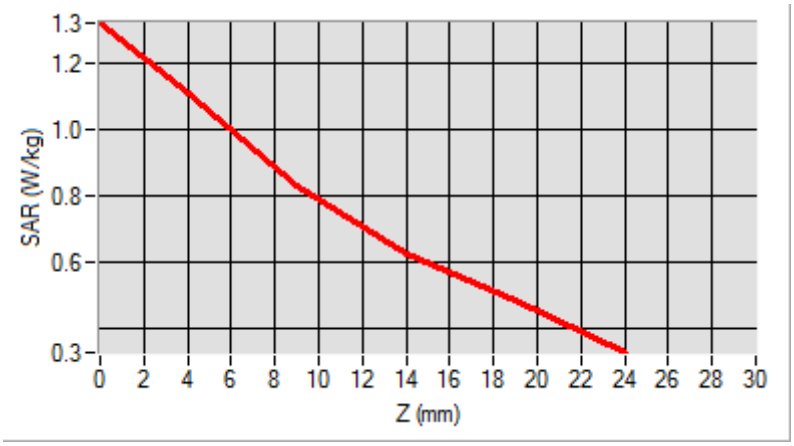
SURFACE SAR	VOLUME SAR
	

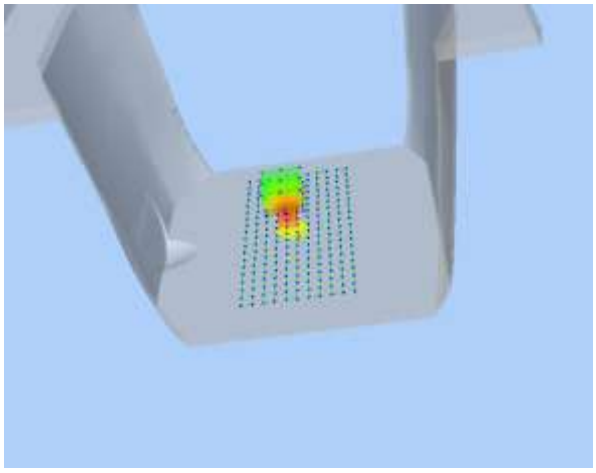
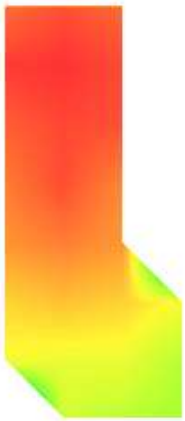
Maximum location: X=-10.00, Y=40.00

SAR Peak: 1.46 W/kg

SAR 10g (W/Kg)	0.792748
SAR 1g (W/Kg)	0.993251

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.3215	1.1105	0.8311	0.6222	0.4855



3D screen shot	Hot spot position
	

MEASUREMENT 191

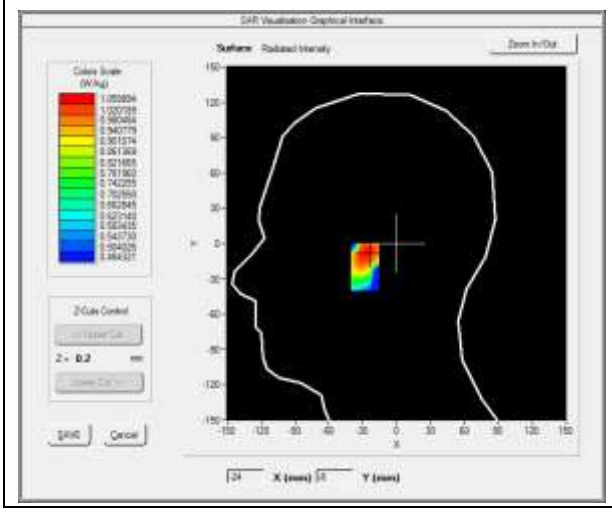
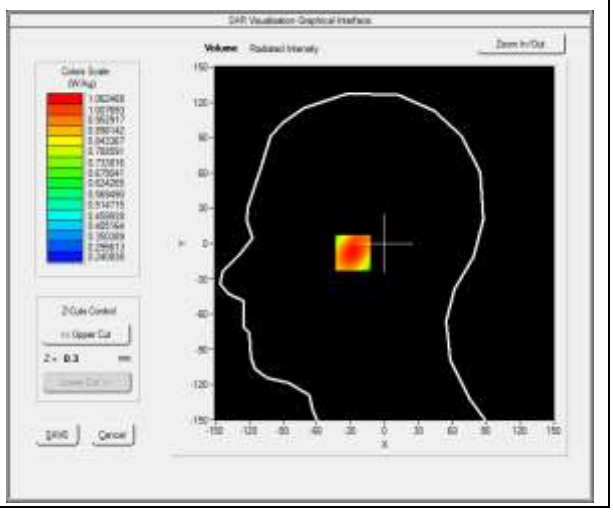
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.99; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	LTE Band 13_RMC
Channels	QPSK, 10MHz, 1RB, Middle
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	782.000000
Relative Permittivity (real part)	41.540791
Conductivity (S/m)	0.850214
Power Variation (%)	0.978483
Ambient Temperature	21.1
Liquid Temperature	21.2

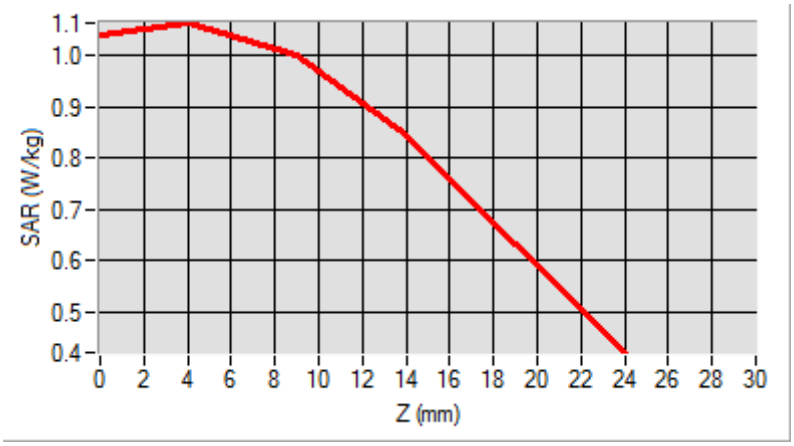
SURFACE SAR	VOLUME SAR
	

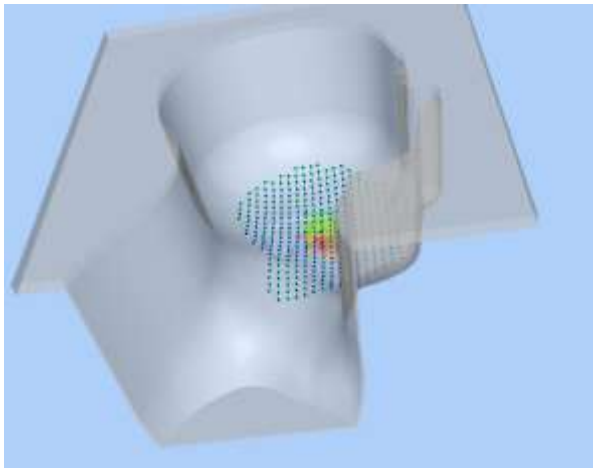
Maximum location: X=-26.00, Y=-8.00

SAR Peak: 1.04 W/kg

SAR 10g (W/Kg)	0.850302
SAR 1g (W/Kg)	1.047763

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.0388	1.0625	0.9984	0.8426	0.6305



3D screen shot	Hot spot position
	

MEASUREMENT 193

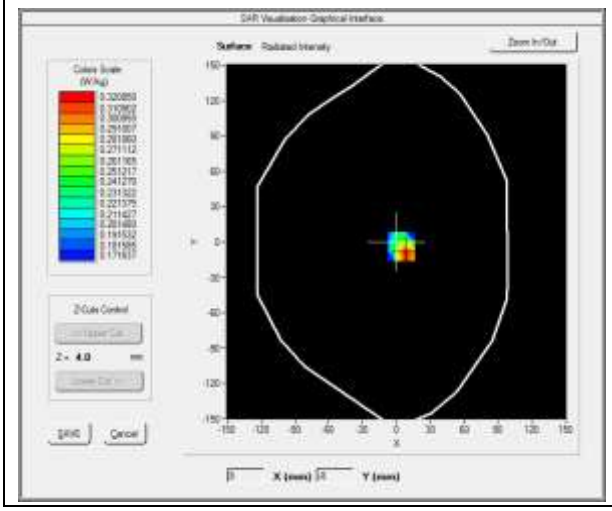
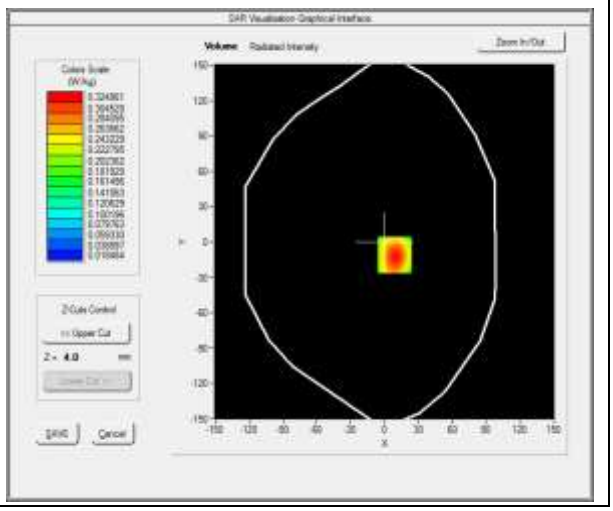
Type: Phone measurement (Complete)
Date of measurement: 03/23/2018
Measurement duration: 12 minutes 3 seconds
E-field Probe: SSE5 - SN 09/13 EP168; ConvF: 6.93; Calibrated: 06/01/2017

A. Experimental conditions

Area Scan	sam_direct_droit2_surf8mm.txt
Phantom	Flat Plane
Device Position	Front
Band	GPRS850_2TX
Channels	Low
Signal	Duty Cycle: 1:4

B. SAR Measurement Results

Frequency (MHz)	824.200000
Relative Permittivity (real part)	41.320191
Conductivity (S/m)	0.880182
Power Variation (%)	1.483989
Ambient Temperature	21.1
Liquid Temperature	21.3

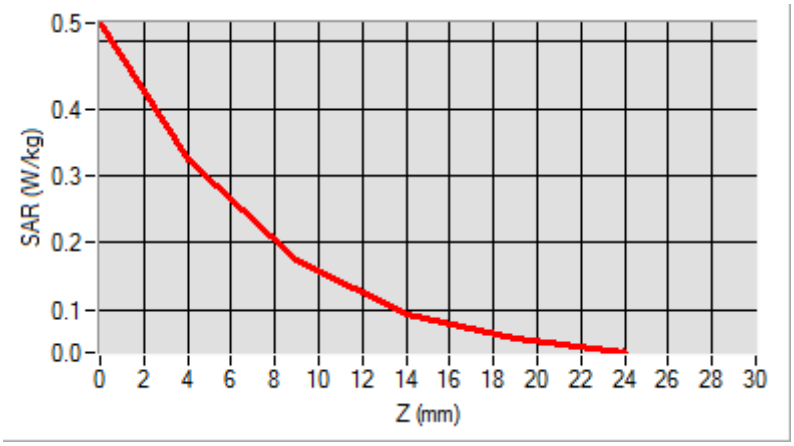
SURFACE SAR	VOLUME SAR
	

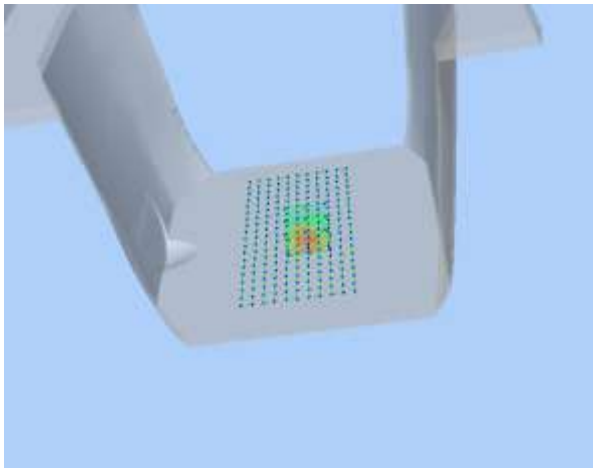
Maximum location: X=9.00, Y=-11.00

SAR Peak: 0.53 W/kg

SAR 10g (W/Kg)	0.170965
SAR 1g (W/Kg)	0.315174

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.5272	0.3250	0.1733	0.0953	0.0579



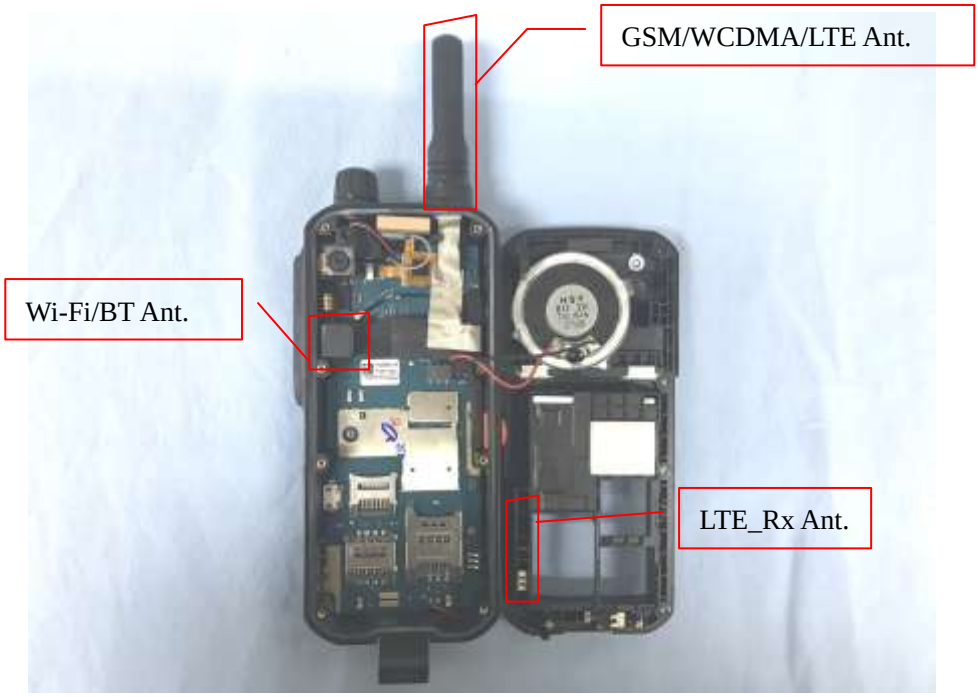
3D screen shot	Hot spot position
	

Annex C. EUT Photos

EUT View Front

EUT View Back

Antenna View



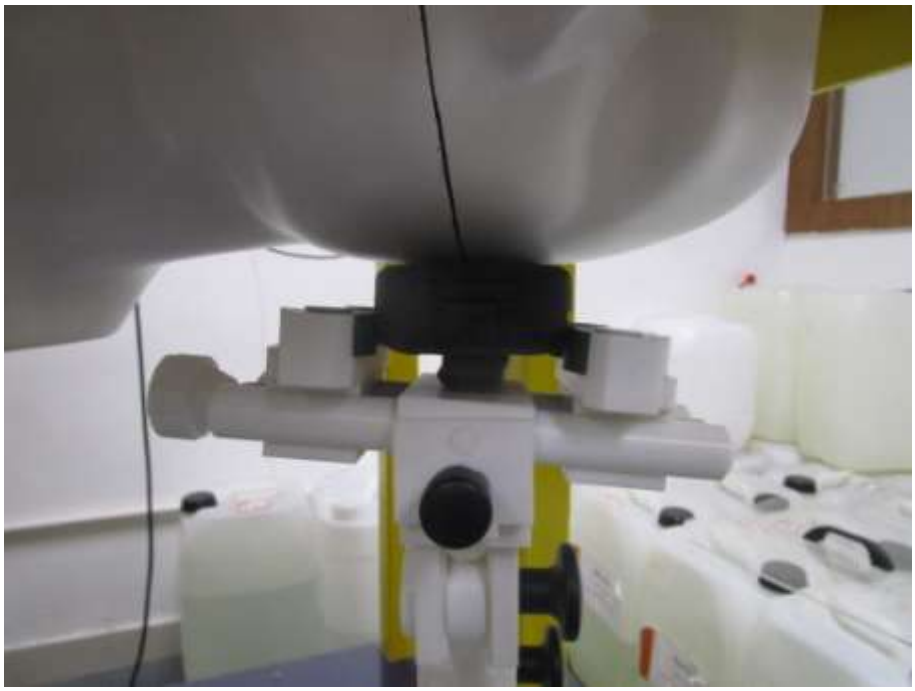
Annex D. Test Setup Photos

Head Exposure Conditions

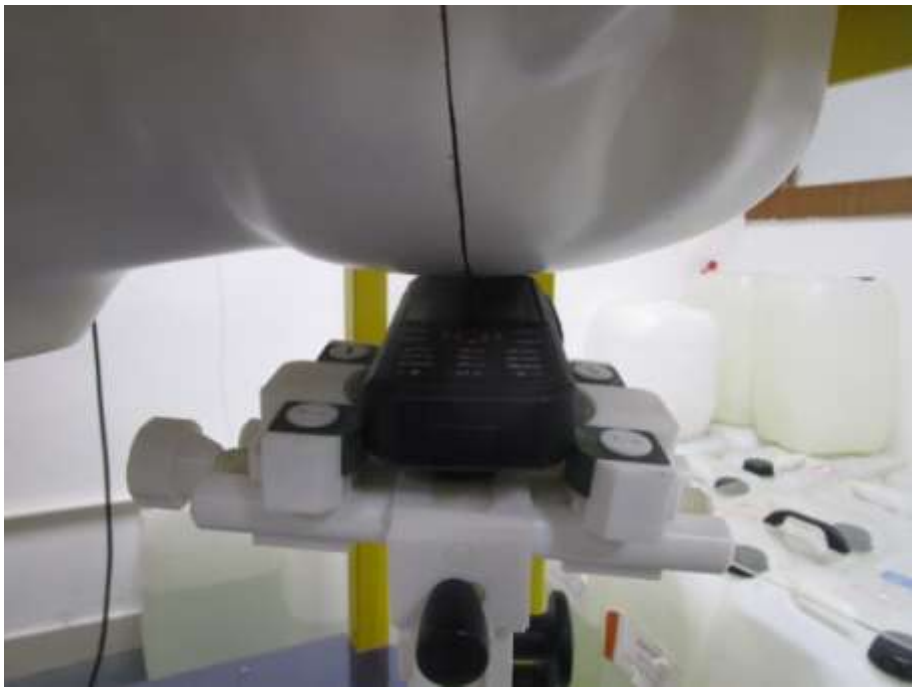
Cheek

Tilt

Cheek



Tilt



Body-worn mode Exposure Conditions (with belt-clip)

Body Back

Hotspot mode Exposure Conditions

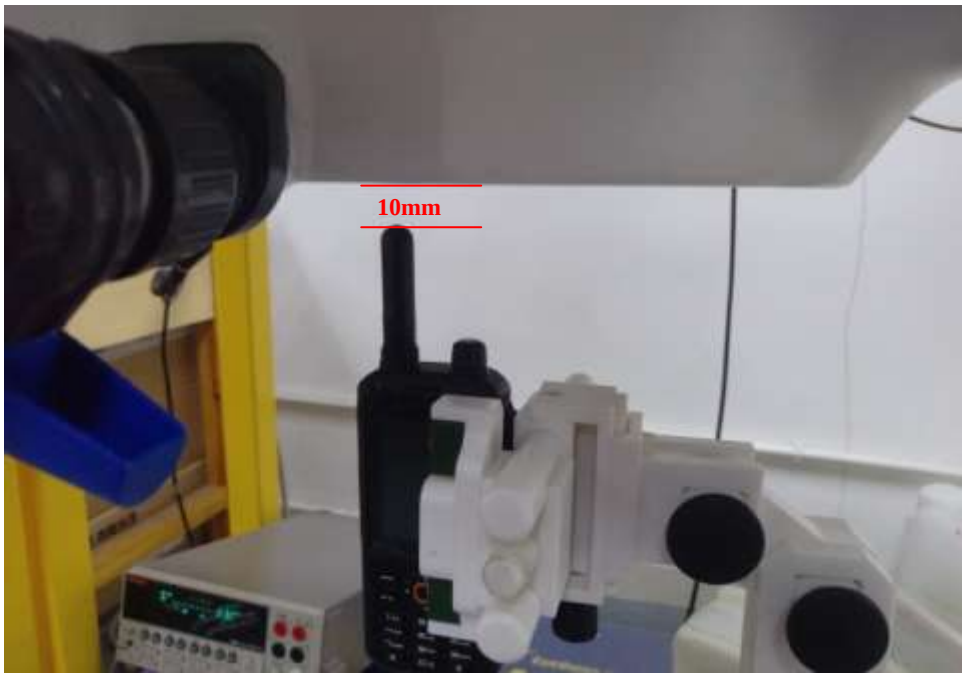
Body Front

Body Back

Body Left

Body Right

Body Top



Front-of the face mode Exposure Conditions

Front

Annex E. Calibration Certificate

Please refer to the exhibit for the calibration certificate

******* END OF REPORT *******