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FCC SAR TEST REPORT

Report No: STS1506077F1

Issued for

KENXINDA TECHNOLOGY CO., LIMITED
UNIT B 13/F PRAT COMMERCIAL BUILDING 17-19 PRAT AVENUE
TSIMSHATSUI KL HONGKONG

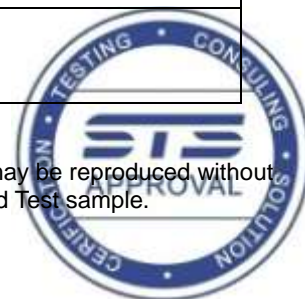
Product Name:	3G Mobile phone
Brand Name:	KENXINDA
Model No.:	K6 Zense
Series Model:	N/A
FCC ID:	2AE56K6ZENSE
Test Standard:	ANSI/IEEE Std. C95.1
	FCC 47 CFR Part 2 (2.1093)
	IEEE 1528: 2003
Max. SAR (1g):	Head:0.884W/kg
	Body:1.048 W/kg

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Test Report Certification

Applicant's name : KENXINDA TECHNOLOGY CO., LIMITED
Address : UNIT B 13/F PRAT COMMERCIAL BUILDING 17-19 PRAT AVENUE
TSIMSHATSUI KL HONGKONG
Manufacture's Name : SHENZHEN KENXINDA TECHNOLOGY CO., LTD. (BAO'AN
BRANCH)
Address : 1-6 Floor, No.105 Work Shop & 1-5 Floor, No.104 Work Shop,
Xinweihuaning Road, Dalang Community, Dalang Street, Bao'an
District, Shenzhen, P.R.C


Product description

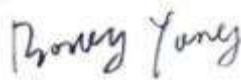
Product name : 3G Mobile phone
Trademark : KENXINDA
Model and/or type reference : K6 Zense
IMEI 1: 864116020220678
IMEI 2: 864116020221171
Standards : ANSI/IEEE Std. C95.1-1992
FCC 47 CFR Part 2 (2.1093)
IEEE 1528: 2003

The device was tested by Shenzhen STS Test Services Co., Ltd. in accordance with the measurement methods and procedures specified in KDB 865664 The test results in this report apply only to the tested sample of the stated device/equipment. Other similar device/equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Date of Test :
Date (s) of performance of tests : June 30,2015 to July 2,2015
Date of Issue : July 08,2015
Test Result : **Pass**

Testing Engineer : 
(Allen Chen)

Technical Manager : 
(John Zou)

Authorized Signatory : 
(Bovey Yang)



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1. General Information

1.1 EUT Description

Equipment	3G Mobile phone		
Brand Name	KENXINDA		
Model No.	K6 Zense		
Serial Model	N/A		
Adapter	Input: AC100-240V, 0.15A, 50/60 Hz Output: DC 5V, 1000mA		
Battery	Rated Voltage: 3.7V Charge Limit: 4.2V Capacity: 1600mAh		
Hardware Version	W881_MB_V3.1		
Software Version	kk.mt6572.phone.name.model.180_4_5.p1		
Frequency Range	GSM 850: 824 ~ 849 MHz PCS1900: 1850 ~ 1910 MHz WCDMA II: 1850~1910MHz WCDMA V: 824~849 MHz WLAN 802.11 b/g/n(HT20):2412-2462 MHz WLAN 802.11 n(HT40):2422-2452 MHz Bluetooth : 2402~2480MHz		
Transmit Power(MAX):	SIM 1 Card GSM 850: 32.44dBm GSM 1900: 28.92dBm WCDMA II: 22.77dBm WCDMA V: 22.74dBm	SIM 2 Card GSM 850: 32.33dBm GSM 1900: 28.59dBm	802.11b: 11.89dBm 802.11g: 10.61dBm 802.11 n(HT20/HT40): 10.33dBm/4.81dBm Bluetooth: 8.43dBm
Max. Reported SAR(1g):	Head: GSM 850: 0.343 W/kg GSM 1900: 0.537 W/kg WCDMA II: 0.884W/kg WCDMA V: 0.369 W/kg 802.11b: 0.166 W/kg	Body: GSM 850: 0.620W/kg GSM 1900: 0.649 W/kg WCDMA II: 1.048 W/kg WCDMA V: 0.719 W/kg 802.11b: 0.242 W/kg	Simultaneous Transmission : GSM 850: 0.862W/kg GSM 1900: 0.891 W/kg WCDMA II: 1.290 W/kg WCDMA V: 0.961 W/kg
Operating Mode:	GSM: GSM Voice/GPRS Class 12; WCDMA: RMC/HSDPA/HSUPA Release 6; WLAN: 802.11 b/g/n; Bluetooth: V4.0 +EDR(GFSK+ π /4DQPSK+8DPSK)		
Antenna Specification:	GSM/WCDMA: PIFA Antenna BT/WIFI: PIFA Antenna		
SIM Card	Support dual-SIM, dual standby, the multiple SIM card with two lines cannot transmitting at the same time		
Hotspot Mode:	Support		
DTM Mode:	Not Support		

Product	Type
	<input checked="" type="checkbox"/> Production unit <input type="checkbox"/> Identical Prototype



1.2 Test Environment

Ambient conditions in the SAR laboratory:

Items	Required	Actual
Temperature (°C)	18-25	22~23
Humidity (%RH)	30-70	55~65

1.3 Test Facility

Shenzhen STS Test Services Co., Ltd.

Add. : 1/F, Building 2, Zhuoke Science Park, Chongqing Road, Fuyong,
Baoan District, Shenzhen, China

FCC Registration No.: 842334; IC Registration No.: 12108A-1





2. Test Standards And Limits

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2003	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D01 v05r02	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 865664 D01 v01r03	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 941225 D06 v02	SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities
7	FCC KDB 941225 D01 v03	SAR Measurement Procedures for 3G Devices
8	FCC KDB 248227 D01 v02r01	SAR Measurement Procedures for 802.11 a/b/g Transmitters
9	FCC KDB 648474 D04 v01r02	Handset SAR



SAR assessments have been made in line with the requirements of IEEE-1528, FCC Supplement C, and comply with ANSI/IEEE C95.1-1992 "Uncontrolled Environments" limits. These limits apply to a location which is deemed as "Uncontrolled Environment" which can be described as a situation where the general public may be exposed to an RF source with no prior knowledge or control over their exposure.

(A). Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body Partial-Body Hands, Wrists, Feet and Ankles

0.4 8.0 20.0

(B). Limits for General Population/Uncontrolled Exposure (W/kg)

Whole-Body Partial-Body Hands, Wrists, Feet and Ankles

0.08 1.6 4.0

NOTE: Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 10 gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 1 grams of tissue defined as a tissue volume in the shape of a cube.

Population/Uncontrolled Environments:

are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

Occupational/Controlled Environments:

are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure, (i.e. as a result of employment or occupation).

NOTE

GENERAL POPULATION/UNCONTROLLED EXPOSURE

PARTIAL BODY LIMIT

1.6 W/kg

3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

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

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

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

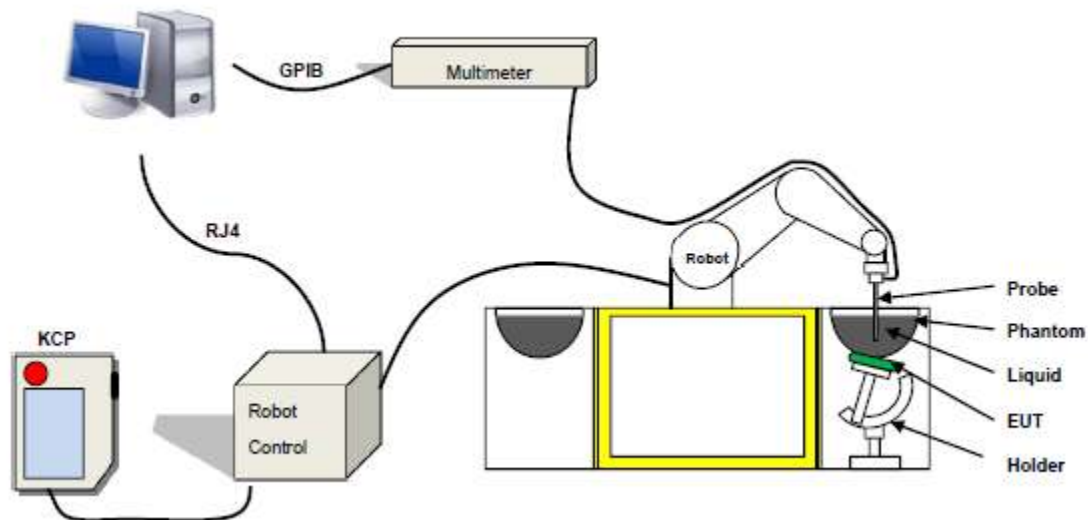
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

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

3.2 SAR System

SATIMO SAR System Diagram:



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.

3.2.1 Probe

For the measurements the Specific Dosimetric E-Field Probe SN 17/14 EP221 with following specifications is used

- Dynamic range: 0.01-100 W/kg
- Tip Diameter :5 mm
- Distance between probe tip and sensor center: 2.7mm
- Distance between sensor center and the inner phantom surface: 4 mm (repeatability better than +/- 1mm)
- Probe linearity: <0.25 dB
- Axial Isotropy: <0.25 dB
- Spherical Isotropy: <0.25 dB
- Calibration range: 450MHz to 2600MHz for head & body simulating liquid.

Angle between probe axis (evaluation axis) and surface normal line:less than 30°



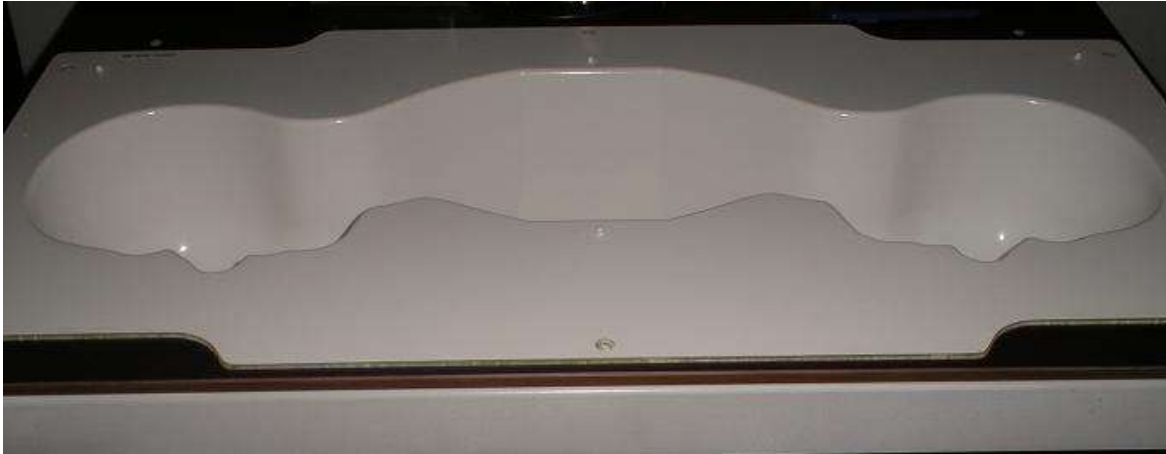
Figure 1 – Satimo COMOSAR Dosimetric E field Dipole

3.2.2 Phantom

For the measurements the SAM twin phantom 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.

The SAM twin phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5 mm distance, a positioning uncertainty of ± 0.5 mm would produce a SAR uncertainty of ± 20 %. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.

SN 32/14 SAM115

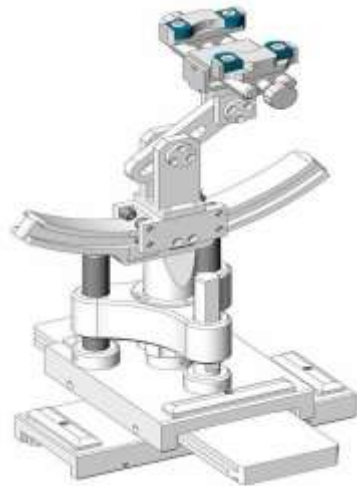


3.2.3 Device Holder

The COMOSAR device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (EPR).

Thus the device needs no repositioning when changing the angles.

The COMOSAR device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity $\epsilon_r = 3$ and loss tangent $\delta = 0.02$. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.





4. Tissue Simulating Liquids

4.1 Simulating Liquids Parameter Check

The head tissue dielectric parameters recommended by the IEEE 1528-2003 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 IEEE 1528-2003 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 IEEE 1528-2003.

Frequency (MHz)	Water %	Suger %	Cellulose %	Salt %	Preventol %	Dgbe %	Conductivity σ	Permittivity: ϵ
Head								
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
1900	54.9	0	0	0.18	0	44.92	1.4	40.0
2450	46.7	0	0	0	0	53.3	1.80	0
Body								
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
1900	40.5	58.0	0	0.5	0.5	0	1.52	53.3
2450	73.2	0	0	0.04	0	26.7	1.95	52.7

LIQUID MEASUREMENT RESULTS

Date: July 01, 2015 **Ambient condition:** Temperature 22.0°C **Relative humidity:** 56.9%

Head Simulating Liquid		Parameters	Target	Measured	Deviation[%]	Limited[%]
Frequency	Temp. [°C]					
824.2 MHz	21.7	Permittivity:	41.5	42.41	2.193	± 5
		Conductivity:	0.90	0.87	-3.333	± 5
826.4 MHz	21.7	Permittivity:	41.5	42.04	1.301	± 5
		Conductivity:	0.90	0.88	-2.222	± 5
835 MHz	21.7	Permittivity:	41.5	41.57	0.169	± 5
		Conductivity:	0.90	0.91	1.111	± 5
836.6 MHz	21.7	Permittivity:	41.5	41.09	-0.988	± 5
		Conductivity:	0.90	0.92	2.222	± 5
846.6 MHz	21.7	Permittivity:	41.5	40.90	-1.446	± 5
		Conductivity:	0.90	0.92	2.222	± 5
848.8MHz	21.7	Permittivity:	41.5	40.71	-1.904	± 5
		Conductivity:	0.90	0.93	3.333	± 5



Body Simulating Liquid		Parameters	Target	Measured	Deviation[%]	Limited[%]
Frequency	Temp. [°C]					
824.2 MHz	22.0	Permittivity:	55.20	56.75	2.808	± 5
		Conductivity:	0.97	0.94	-3.093	± 5
826.4 MHz	22.0	Permittivity:	55.20	56.24	1.884	± 5
		Conductivity:	0.97	0.94	-3.093	± 5
835 MHz	22.0	Permittivity:	55.20	56.03	1.504	± 5
		Conductivity:	0.97	0.96	-1.031	± 5
836.6 MHz	22.0	Permittivity:	55.20	55.54	0.616	± 5
		Conductivity:	0.97	0.95	-2.062	± 5
846.6 MHz	22.0	Permittivity:	55.20	55.16	-0.072	± 5
		Conductivity:	0.97	0.97	0.000	± 5
848.8MHz	22.0	Permittivity:	55.20	54.77	-0.779	± 5
		Conductivity:	0.97	0.98	1.031	± 5





Date: July 2,2015 **Ambient condition:** Temperature 21.5°C **Relative humidity:** 55.1%

Head Simulating Liquid		Parameters	Target	Measured	Deviation[%]	Limited[%]
Frequency	Temp. [°C]					
1850.2 MHz	21.6	Permittivity:	40.00	41.20	3.000	± 5
		Conductivity:	1.40	1.35	-3.571	± 5
1852.4 MHz	21.6	Permittivity:	40.00	41.06	2.650	± 5
		Conductivity:	1.40	1.36	-2.857	± 5
1880 MHz	21.6	Permittivity:	40.00	40.59	1.475	± 5
		Conductivity:	1.40	1.40	0	± 5
1900 MHz	21.6	Permittivity:	40.00	39.99	-0.025	± 5
		Conductivity:	1.40	1.42	1.429	± 5
1907.6 MHz	21.6	Permittivity:	40.00	39.71	-0.725	± 5
		Conductivity:	1.40	1.43	2.143	± 5
1909.8 MHz	21.6	Permittivity:	40.00	39.62	-0.950	± 5
		Conductivity:	1.40	1.45	3.571	± 5

Body Simulating Liquid		Parameters	Target	Measured	Deviation[%]	Limited[%]
Frequency	Temp. [°C]					
1850.2 MHz	21.2	Permittivity:	53.30	53.80	0.938	± 5
		Conductivity:	1.52	1.46	-3.947	± 5
1852.4 MHz	21.2	Permittivity:	53.30	53.42	0.225	± 5
		Conductivity:	1.52	1.49	-1.974	± 5
1880 MHz	21.2	Permittivity:	53.30	52.91	-0.732	± 5
		Conductivity:	1.52	1.50	-1.316	± 5
1900 MHz	21.2	Permittivity:	53.30	52.37	-1.745	± 5
		Conductivity:	1.52	1.52	0.000	± 5
1907.6 MHz	21.2	Permittivity:	53.30	52.06	-2.326	± 5
		Conductivity:	1.52	1.53	0.658	± 5
1909.8 MHz	21.2	Permittivity:	53.30	51.83	-2.758	± 5
		Conductivity:	1.52	1.55	1.974	± 5



Date: June 30,2015 **Ambient condition: Temperature** 21.7°C **Relative humidity:** 50.9%

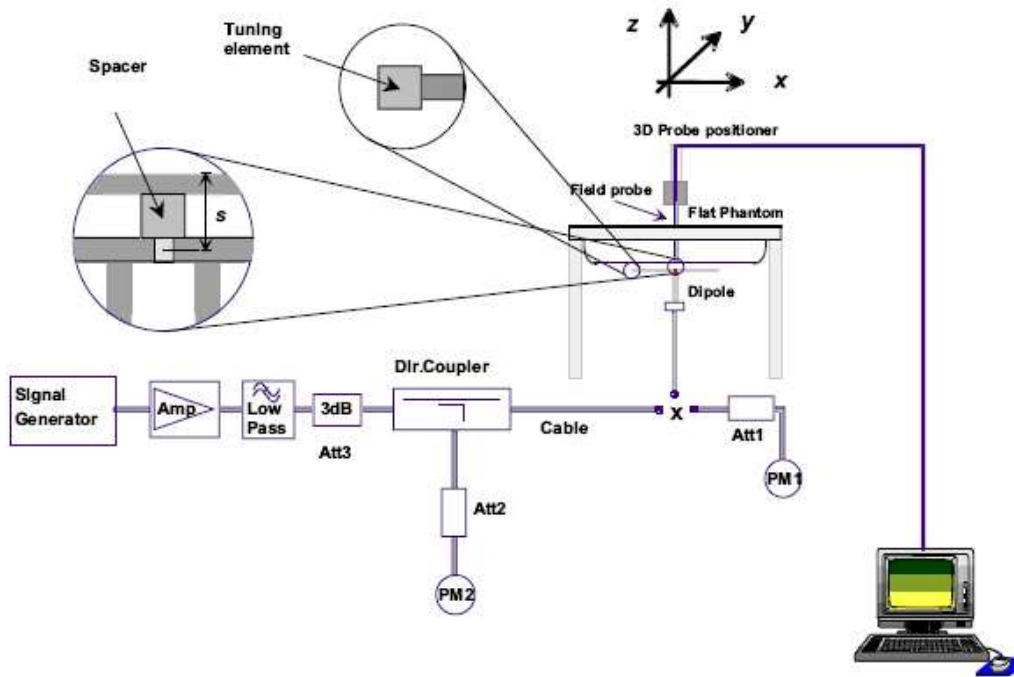
Head Simulating Liquid		Parameters	Target	Measured	Deviation[%]	Limited[%]
Frequency	Temp. [°C]					
2412 MHz	21.4	Permittivity:	39.2	40.28	2.755	± 5
		Conductivity:	1.80	1.75	-2.778	± 5
2437 MHz	21.4	Permittivity:	39.2	40.00	2.041	± 5
		Conductivity:	1.80	1.77	-1.667	± 5
2450 MHz	21.4	Permittivity:	39.2	39.67	1.199	± 5
		Conductivity:	1.80	1.78	-1.111	± 5
2462 MHz	21.4	Permittivity:	39.2	39.23	0.077	± 5
		Conductivity:	1.80	1.81	0.556	± 5

Body Simulating Liquid		Parameters	Target	Measured	Deviation[%]	Limited[%]
Frequency	Temp. [°C]					
2412 MHz	21.7	Permittivity:	52.7	52.89	0.361	± 5
		Conductivity:	1.95	1.88	-3.590	± 5
2437 MHz	21.7	Permittivity:	52.7	52.61	-0.171	± 5
		Conductivity:	1.95	1.90	-2.564	± 5
2450 MHz	21.7	Permittivity:	52.7	52.11	-1.120	± 5
		Conductivity:	1.95	1.94	-0.513	± 5
2462 MHz	21.7	Permittivity:	52.7	51.78	-1.746	± 5
		Conductivity:	1.95	1.96	0.513	± 5

5. SAR System Check

5.1 SAR System Check Procedures

Each SATIMO system is equipped with one or more system check kits. These units, together with the predefined measurement procedures within the SATIMO software, enable the user to conduct the system performance check and system check. System kit includes a dipole, and dipole device holder. The system check verifies that the system operates within its specifications. It's performed daily or before every SAR measurement. The system check uses normal SAR measurement in the flat section of the phantom with a matched dipole at a specified distance. The system check setup is shown as below.





5.2 System Check Result

Comparing to the original SAR value provided by SATIMO, the system check data should be within its specification of 10 %.

Ambient condition: Temperature 22.0°C Relative humidity: 56.9%

Freq.(MHz)	Power(mW)	Tested Value (W/Kg)	Normalized SAR (W/kg)	Target (W/Kg)	Limited[%]	Date
835 Head	63.1	0.590	9.440	9.63	8.667-10.593	July 01 2015
835 Body	63.1	0.599	9.584	9.93	8.937-10.923	July 01 2015

Ambient condition: Temperature 21.5°C Relative humidity: 55.1%

Freq.(MHz)	Power (mW)	Tested Value (W/Kg)	Normalized SAR (W/kg)	Target (W/Kg)	Limited[%]	Date
1900 Head	63.1	2.390	38.240	39.84	35.856-43.824	July 02 2015
1900 Body	63.1	2.517	40.272	43.33	38.997-47.663	July 02 2015

Ambient condition: Temperature 21.7°C Relative humidity: 50.9%

Freq.(MHz)	Power (mW)	Tested Value (W/Kg)	Normalized SAR (W/kg)	Target (W/Kg)	Limited[%]	Date
2450 Head	63.1	3.310	52.960	54.70	49.230-60.170	June 30,2015
2450 Body	63.1	3.248	51.968	55.65	50.085-61.215	June 30,2015

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



6. SAR Evaluation Procedures

The EUT is set to transmit at the required power in line with product specification, at each frequency relating to the LOW, MID, and HIGH channel settings.

Pre-scans are made on the device to establish the location for the transmitting antenna, using a large area scan in either air or tissue simulation fluid.

The EUT is placed against the SAM twin phantom where the maximum area scan dimensions are larger than the physical size of the resonating antenna. When the scan size is not large enough to cover the peak SAR distribution, it is modified by either extending the area scan size in both the X and Y directions, or the device is shifted within the predefined area.

The area scan is then run to establish the peak SAR location (interpolated resolution set at 1mm^2) which is then used to orient the center of the zoom scan. The zoom scan is then executed and the 1g and 10g averages are derived from the zoom scan volume (interpolated resolution set at 1mm^3).

When multiple peak SAR location were found during the same configuration or test mode, Zoom scan shall performed on each peak SAR location, only the peak point with maximum SAR value will be reported for the configuration or test mode.

Area Scan& Zoom Scan

Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for FCC applications utilize a 10mm^2 step integral, with 1mm interpolation used to locate the peak SAR area used for zoom scan assessments. In this report, Area Scan: $dx=8\text{mm}$ $dy=8\text{mm}$

When an Area Scan has measured all reachable points, it computes the field maxima found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE 1528-2003 and relevant KDB files, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan).

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. A density of 1000 kg/m^3 is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1 g cube is 10mm, with the side length of the 10 g cube 21,5mm.

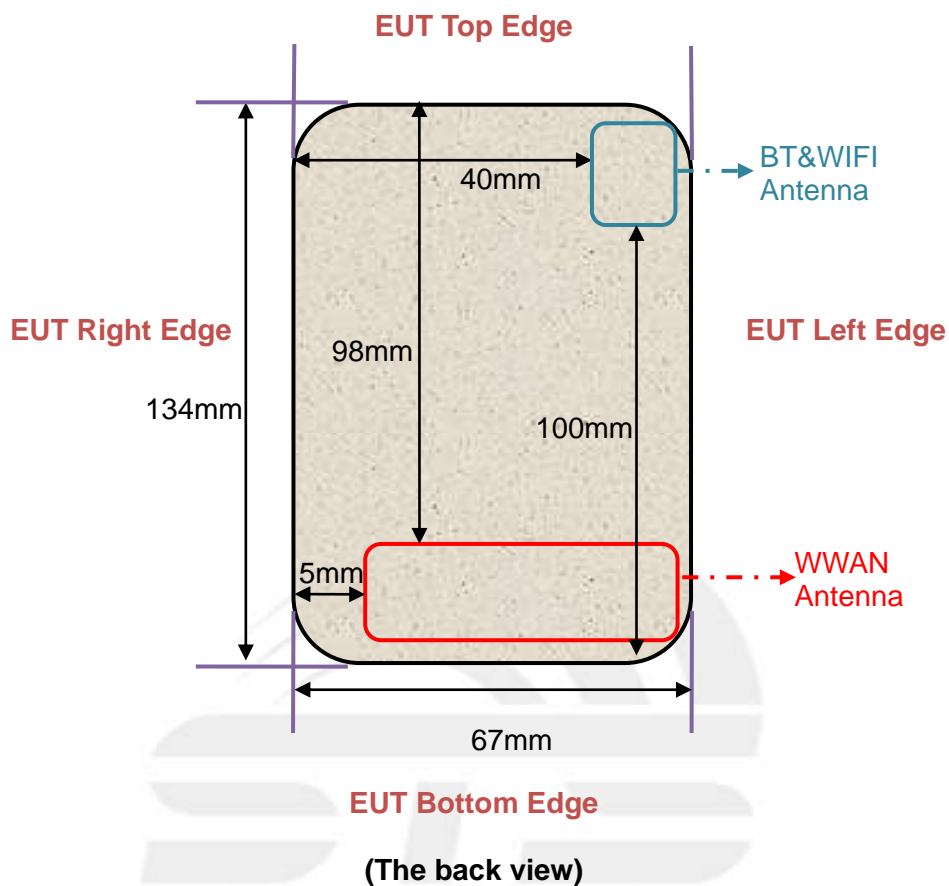
The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications utilize a physical step of $8\text{mm} \times 8\text{mm} \times 5\text{mm}$ providing a volume of 30mm in the X & Y axis, and 30mm in the Z axis.



			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			$30^{\circ} \pm 1^{\circ}$	$20^{\circ} \pm 1^{\circ}$
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be \leq the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx_{Zoom} , Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.				
* When zoom scan is required and the <u>reported</u> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

7. EUT Antenna Location Sketch

It is a 3G Mobile phone, support GSM mode and WCDMA mode.





7.1 SAR TEST EXCLUSION CONSIDER TABLE

For WWAN mode:

Test Configurations	Antenna to edges/surface	SAR required
Back	<25mm	Yes
Front	<25mm	Yes
Edge 1 (Top)	98	No
Edge 2 (Right)	5	Yes
Edge 3 (Bottom)	1	Yes
Edge 4 (Left)	1	Yes

For WLAN mode:

Test Configurations	Antenna to edges/surface	SAR required
Back	<25mm	Yes
Front	<25mm	Yes
Edge 1 (Top)	1	Yes
Edge 2 (Right)	40	No
Edge 3 (Bottom)	100	No
Edge 4 (Left)	1	Yes

Note: SAR is not required for the distance between the antenna and the edge is <25mm as per KDB 941225D06 Hotspot SAR

8. EUT Test Position

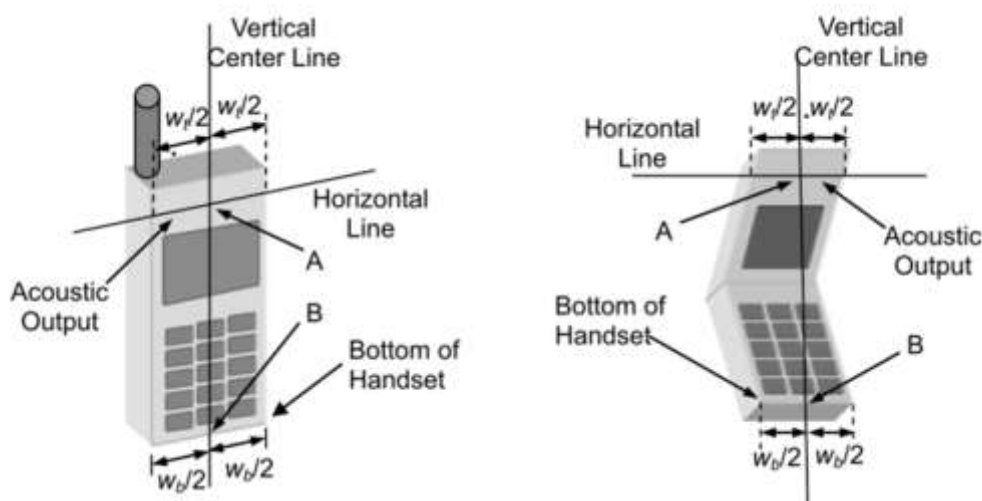
This EUT was tested in Right Cheek, Right Titled, Left Cheek, Left Titled, Body back, Body front and 4 edges.

8.1 Define Two Imaginary Lines On The Handset

(1) 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 handset.

(2) 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.

(3) 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 to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.



Cheek Position

1) 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 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.

2) To move the device towards the phantom with the ear piece aligned with the the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with 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



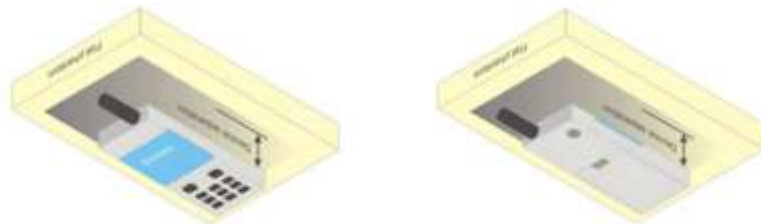
Title Position

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



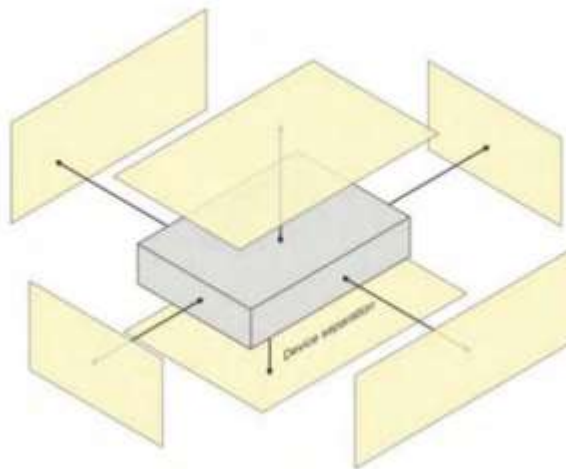
Body-worn Position Conditions

- (1) To position the EUT parallel to the phantom surface.
- (2) To adjust the EUT parallel to the flat phantom.
- (3) To adjust the distance between the EUT surface and the flat phantom to 10mm.



8.2 Hotspot mode exposure position condition

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





9. Uncertainty

9.1 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in IEEE 1528: 2003. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

NO	Source	Tol(%)	Prob. Dist.	Div. k	ci (1g)	ci (10g)	1gUi	10gUi	Veff
Reliability									
1	Probe calibration	5.8	N	1	1	1	5.8	5.8	∞
2	Axial isotropy	3.5	R	$\sqrt{3}$	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.43	1.43	∞
3	Hemispherical isotropy	5.9	R	$\sqrt{3}$	$\sqrt{C_p}$	$\sqrt{C_p}$	2.41	2.41	∞
4	Boundary effect	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
5	Linearity	4.7	R	$\sqrt{3}$	1	1	2.71	2.71	∞
6	System Detection limits	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
7	Readout electronics	0.5	N	1	1	1	0.50	0.50	∞
8	Response time	0	R	$\sqrt{3}$	1	1	0	0	∞
9	Integration time	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
10	Ambient noise	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
11	Ambient reflections	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
12	Probe positioner mech. restrictions	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
13	Probe positioning with respect to phantom shell	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
14	Max.SAR evaluation	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Test sample related									



15	Device positioning	2.6	N	1	1	1	2.6	2.6	11
16	Device holder	3	N	1	1	1	3.0	3.0	7
17	Drift of output power	5.0	R	√3	1	1	2.89	2.89	∞
Phantom and set-up									
18	Phantom uncertainty	4.0	R	√3	1	1	2.31	2.31	∞
19	Liquid conductivity (target)	2.5	N	1	0.78	0.71	1.95	1.78	5
20	Liquid conductivity (meas)	4	N	1	0.23	0.26	0.92	1.04	5
21	Liquid Permittivity (target)	2.5	N	1	0.78	0.71	1.95	1.78	∞
22	Liquid Permittivity (meas)	5.0	N	1	0.23	0.26	1.15	1.30	∞
Combined standard			RSS	$U_c = \sqrt{\sum_{i=1}^n C_i^2 U_i^2}$			10.63%	10.54%	
Expanded uncertainty (P=95%)		$U = k U_c, k=2$					21.26%	21.08%	



9.2 System cheek Uncertainty

NO	Source	Tol(%)	Prob. Dist.	Div. k	ci (1g)	ci (10g)	1gUi	10gUi	Veff
ReadStar									
1	Probe calibration	5.8	N	1	1	1	5.8	5.8	∞
2	Axial isotropy	3.5	R	$\sqrt{3}$	$(1-c_p)^{1/2}$	$(1-c_p)^{1/2}$	1.43	1.43	∞
3	Hemispherical isotropy	5.9	R	$\sqrt{3}$	$\sqrt{C_p}$	$\sqrt{C_p}$	2.41	2.41	∞
4	Boundary effect	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
5	Linearity	4.7	R	$\sqrt{3}$	1	1	2.71	2.71	∞
6	System Detection limits	1.0	R	$\sqrt{3}$	1	1	0.58	0.58	∞
7	Modulation response	0	N	1	1	1	0	0	∞
8	Readout electronics	0.5	N	1	1	1	0.50	0.50	∞
9	Response time	0	R	$\sqrt{3}$	1	1	0	0	∞
10	Integration time	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
11	Ambient noise	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
12	Ambient reflections	3.0	R	$\sqrt{3}$	1	1	1.73	1.73	∞
13	Probe positioner mech. restrictions	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
14	Probe positioning with respect to phantom shell	1.4	R	$\sqrt{3}$	1	1	0.81	0.81	∞
15	Max.SAR evaluation	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Dipole									



16	Deviation of experimental source from numerical source	4	N	1	1	1	4.00	4.00	∞
17	Input power and SAR drit measurement	5	R	√3	1	1	2.89	2.89	∞
18	Dipole Axis to liquid Distance	2	R	√3	1	1			∞
Phantom and set-up									
19	Phantom uncertainty	4.0	R	√3	1	1	2.31	2.31	∞
20	Uncertainty in SAR correction for deviation(in permittivity and conductivity)	2.0	N	1	1	0.84	2	1.68	∞
21	Liquid conductivity (target)	2	N	1	1	0.84	2.00	1.68	∞
22	Liquid conductivity (temperature uncertainty)	2.5	N	1	0.78	0.71	1.95	1.78	5
23	Liquid conductivity (meas)	4	N	1	0.23	0.26	0.92	1.04	5
24	Liquid Permittivity (target)	2.5	N	1	0.78	0.71	1.95	1.78	∞
25	Liquid Permittivity (temperature uncertainty)	2.5	N	1	0.78	0.71	1.95	1.78	5
26	Liquid Permittivity (meas)	5.0	N	1	0.23	0.26	1.15	1.30	∞
Combined standard			RSS	$U_c = \sqrt{\sum_{i=1}^n C_i^2 U_i^2}$			10.15%	10.05%	
Expanded uncertainty (P=95%)		$U = k \ U_c ,k=2$					21.29%	21.10%	



10. Conducted Power Measurement

Test Result:

SIM 1 Card

Mode	Frequency (MHz)	Peak Power(dBm)	AVG Power(dBm)	Duty cycle Factor	Frame Power(dBm)
GSM850	836.6	32.44	31.82	-9	22.82
	836.6	32.37	31.75	-9	22.75
	848.8	32.32	31.72	-9	22.72
GPRS850 (1 Slot)	836.6	31.79	31.41	-9	22.41
	836.6	31.76	31.36	-9	22.36
	848.8	31.72	31.32	-9	22.32
GPRS850 (2 Slot)	836.6	30.63	30.15	-6	24.15
	836.6	30.61	30.12	-6	24.12
	848.8	30.58	30.11	-6	24.11
GPRS850 (3 Slot)	836.6	28.64	28.36	-4.26	24.1
	836.6	28.61	28.29	-4.26	24.03
	848.8	28.56	28.25	-4.26	23.99
GPRS850 (4 Slot)	836.6	27.74	27.24	-3	24.24
	836.6	27.71	27.21	-3	24.21
	848.8	27.62	27.18	-3	24.18
GSM1900	1850.2	28.92	28.46	-9	19.46
	1880	28.88	28.42	-9	19.42
	1909.8	28.85	28.39	-9	19.39
GPRS1900 (1 Slot)	1850.2	28.69	28.21	-9	19.21
	1880	28.65	28.18	-9	19.18
	1909.8	28.62	28.16	-9	19.16
GPRS1900 (2 Slot)	1850.2	27.89	27.35	-6	21.35
	1880	27.87	27.31	-6	21.31
	1909.8	27.83	27.26	-6	21.26
GPRS1900 (3 Slot)	1850.2	25.76	25.36	-4.26	21.1
	1880	25.74	25.32	-4.26	21.06
	1909.8	25.71	25.27	-4.26	21.01
GPRS1900 (4 Slot)	1850.2	24.82	24.43	-3	21.43
	1880	24.78	24.37	-3	21.37
	1909.8	24.75	24.34	-3	21.34



SIM 2 Card

Mode	Frequency (MHz)	Peak Power(dBm)	AVG Power(dBm)	Duty cycle Factor	Frame Power(dBm)
GSM850	836.6	32.33	31.68	-9	22.68
	836.6	32.28	31.64	-9	22.64
	848.8	32.26	31.59	-9	22.59
GPRS850 (1 Slot)	836.6	31.54	31.15	-9	22.15
	836.6	31.51	31.13	-9	22.13
	848.8	31.48	31.09	-9	22.09
GPRS850 (2 Slot)	836.6	30.61	30.16	-6	24.16
	836.6	30.59	30.12	-6	24.12
	848.8	30.54	30.11	-6	24.11
GPRS850 (3 Slot)	836.6	28.86	28.37	-4.26	24.11
	836.6	28.83	28.35	-4.26	24.09
	848.8	28.79	28.32	-4.26	24.06
GPRS850 (4 Slot)	836.6	27.78	27.34	-3	24.34
	836.6	27.74	27.29	-3	24.29
	848.8	27.71	27.24	-3	24.24
GSM1900	1850.2	28.59	28.15	-9	19.15
	1880	28.56	28.12	-9	19.12
	1909.8	28.48	28.08	-9	19.08
GPRS1900 (1 Slot)	1850.2	28.39	27.83	-9	18.83
	1880	28.35	27.79	-9	18.79
	1909.8	28.32	27.72	-9	18.72
GPRS1900 (2 Slot)	1850.2	27.69	27.23	-6	21.23
	1880	27.64	27.19	-6	21.19
	1909.8	27.58	27.16	-6	21.16
GPRS1900 (3 Slot)	1850.2	25.68	25.24	-4.26	20.98
	1880	25.66	25.18	-4.26	20.92
	1909.8	25.63	25.14	-4.26	20.88
GPRS1900 (4 Slot)	1850.2	24.87	24.33	-3	21.33
	1880	24.83	24.29	-3	21.29
	1909.8	24.79	24.24	-3	21.24

Note 1:

The Frame Power (Source-based time-averaged Power) is scaled the maximum burst average power based on time slots. The calculated methods are show as following:

Frame Power = Max burst power (1 Up Slot) – 9 dB

Frame Power = Max burst power (2 Up Slot) – 6 dB

Frame Power = Max burst power (3 Up Slot) – 4.26 dB

Frame Power = Max burst power (4 Up Slot) – 3 dB

**UMTS BAND****HSDPA Setup Configuration:**

- The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- The RF path losses were compensated into the measurements.
- A call was established between EUT and Based Station with following setting:
 - (1) Set Gain Factors(β_c and β_d) parameters set according to each
 - (2) Set RMC 12.2Kbps+HSDPA mode.
 - (3) Set Cell Power=-86dBm
 - (4) Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
 - (5) Select HSDPA Uplink Parameters
 - (6) Set Delta ACK, Delta NACK and Delta CQI=8
 - (7) Set Ack - Nack Repetition Factor to 3
 - (8) Set CQI Feedback Cycle (k) to 4ms
 - (9) Set CQI Repetition Factor to 2
 - (10) Power Ctrl Mode=All Up bits
- The transmitted maximum output power was recorded.

Table C.10.2.4: β values for transmitter characteristics tests with HS-DPCCH

Sub-test	β_c (Note5)	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15(Note 4)	15/15(Note 4)	64	12/15(Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: ΔACK , $\Delta NACK$ and $\Delta CQI = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$.

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, ΔACK and $\Delta NACK = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$, and $\Delta CQI = 24/15$ with $\beta_{hs} = 24/15 * \beta_c$.

Note 3: CM = 1 for $\beta_c/\beta_d = 12/15$, $hs/c = 24/15$. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the c/d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $c = 11/15$ and $d = 15/15$.



HSUPA Setup Configuration:

- The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- The RF path losses were compensated into the measurements.
- A call was established between EUT and Base Station with following setting * :
 - (1) Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
 - (2) Set the Gain Factors (β_c and β_d) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.3, quoted from the TS 34.121
 - (3) Set Cell Power = -86 dBm
 - (4) Set Channel Type = 12.2k + HSPA
 - (5) Set UE Target Power
 - (6) Power Ctrl Mode= Alternating bits
 - (7) Set and observe the E-TFCI
 - (8) Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
- The transmitted maximum output power was recorded.

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note 1)	β_{ec}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TF CI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/225	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1} : 47/15 β_{ed2} : 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4, ΔACK , $\Delta NACK$ and $\Delta CQI = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$. For sub-test 5, ΔACK , $\Delta NACK$ and $\Delta CQI = 5/15$ with $\beta_{hs} = 5/15 * \beta_c$.

Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $hs/c = 24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the c/d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $c = 10/15$ and $d = 15/15$.

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5: β_{ed} cannot be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.



UMTS BAND II

Mode	Frequency(MHz)	Peak Power(dBm)	AVG Power(dBm)
WCDMA 19 00 RMC	1852.4	22.77	22.18
	1880	22.72	22.16
	1907.6	22.68	22.13
WCDMA 1900 AMR	1852.4	22.33	22.13
	1880	22.25	22.09
	1907.6	22.13	22.01
HSDPA Subtest 1	1852.4	22.51	22.09
	1880	22.49	22.05
	1907.6	22.46	22.03
HSDPA Subtest 2	1852.4	21.28	20.86
	1880	21.24	20.74
	1907.6	21.21	20.72
HSDPA Subtest 3	1852.4	20.84	20.41
	1880	20.75	20.36
	1907.6	20.72	20.32
HSDPA Subtest 4	1852.4	20.49	20.18
	1880	20.46	20.16
	1907.6	20.41	20.12
HSUPA Subtest 1	1852.4	22.48	22.15
	1880	22.46	22.13
	1907.6	22.42	22.08
HSUPA Subtest 2	1852.4	21.47	21.16
	1880	21.43	21.14
	1907.6	21.41	21.12
HSUPA Subtest 3	1852.4	20.72	20.41
	1880	20.67	20.38
	1907.6	20.65	20.32
HSUPA Subtest 4	1852.4	20.39	19.86
	1880	20.34	19.82
	1907.6	20.31	19.77
HSUPA Subtest 5	1852.4	19.69	19.36
	1880	19.64	19.27
	1907.6	19.61	19.12



UMTS BAND V

Mode	Frequency(MHz)	Peak Power(dBm)	AVG Power (dBm)
WCDMA 850 RMC	826.4	22.74	22.31
	836.6	22.68	22.27
	846.6	22.64	22.24
WCDMA 850 AMR	826.4	22.26	22.17
	836.6	22.22	22.08
	846.6	22.15	22.05
HSDPA Subtest 1	826.4	22.42	21.83
	836.6	22.38	21.78
	846.6	22.36	21.74
HSDPA Subtest 2	826.4	21.67	21.23
	836.6	21.63	21.21
	846.6	21.61	21.14
HSDPA Subtest 3	826.4	20.71	20.26
	836.6	20.68	20.24
	846.6	20.63	20.19
HSDPA Subtest 4	826.4	20.49	19.83
	836.6	20.45	19.82
	846.6	20.42	19.78
HSUPA Subtest 1	826.4	22.43	22.08
	836.6	22.35	22.06
	846.6	22.33	22.02
HSUPA Subtest 2	826.4	21.54	21.16
	836.6	21.48	21.14
	846.6	21.44	21.09
HSUPA Subtest 3	826.4	20.89	20.48
	836.6	20.86	20.45
	846.6	20.83	20.42
HSUPA Subtest 4	826.4	20.56	19.95
	836.6	20.54	19.91
	846.6	20.51	19.86
HSUPA Subtest 5	826.4	19.87	19.26
	836.6	19.83	19.22
	846.6	19.78	19.17



According to 3GPP 25.101 sub-clause 6.2.2, the maximum output power is allowed to be reduced by following the table.

Table 6.1aA: UE maximum output power with HS-DPCCH and E-DCH

UE Transmit Channel Configuration	CM(db)	MPR(db)
For all combinations of ,DPDCH,DPCCH HS-DPDCH,E-DPDCH and E-DPCCH	$0 \leq CM \leq 3.5$	$MAX(CM-1,0)$

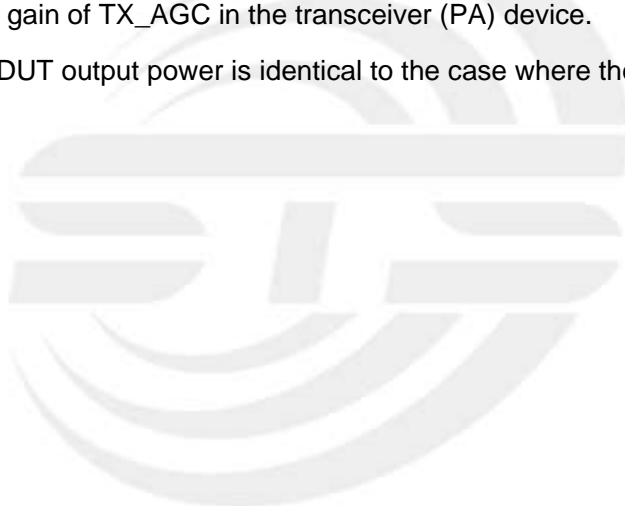
Note: CM=1 for $\beta_o/\beta_d=12/15$, $\beta_{hs}/\beta_c=24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

The device supports MPR to solve linearity issues (ACLR or SEM) due to the higher peak-to average ratios (PAR) of the HSUPA signal. This prevents saturating the full range of the TX DAC inside of device and provides a reduced power output to the RF transceiver chip according to the Cubic Metric (a function of the combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH).

When E-DPDCH channels are present the beta gains on those channels are reduced firsts to try to get the power under the allowed limit. If the beta gains are lowered as far as possible, then a hard limiting is applied at the maximum allowed level.

The SW currently recalculates the cubic metric every time the beta gains on the E-DPDCH are reduced. The cubic metric will likely get lower each time this is done. However, there is no reported reduction of maximum output power in the HSUPA mode since the device also provides a compensation for the power back-off by increasing the gain of TX_AGC in the transceiver (PA) device.

The end effect is that the DUT output power is identical to the case where there is no MPR in the device.





WIFI

Mode	Channel Number	Frequency (MHz)	Peak Power(dBm)
802.11b	1	2412	11.89
	6	2437	11.67
	11	2462	11.59
802.11g	1	2412	10.61
	6	2437	10.56
	11	2462	10.48
802.11n(HT-20)	1	2412	10.33
	6	2437	10.29
	11	2462	10.25
802.11n(HT-40)	3	2422	8.43
	6	2437	8.35
	9	2452	8.32

Bluetooth 3.0

Mode	Channel Number	Frequency (MHz)	Peak Power(dBm)
GFSK(1M)	0	2402	4.11
	39	2441	4.40
	78	2480	4.24
$\pi/4$ -DQPSK(2Mbps)	0	2402	3.63
	39	2441	3.92
	78	2480	3.81
8-DPSK(3Mbps)	0	2402	3.57
	39	2441	3.95
	78	2480	3.83

Bluetooth 4.0

Mode	Channel Number	Frequency (MHz)	Peak Power(dBm)
GFSK	1	2402	-3.52
	20	2441	-3.33
	40	2480	-3.52

11. EUT And Test Setup Photo

11.1 EUT Photo



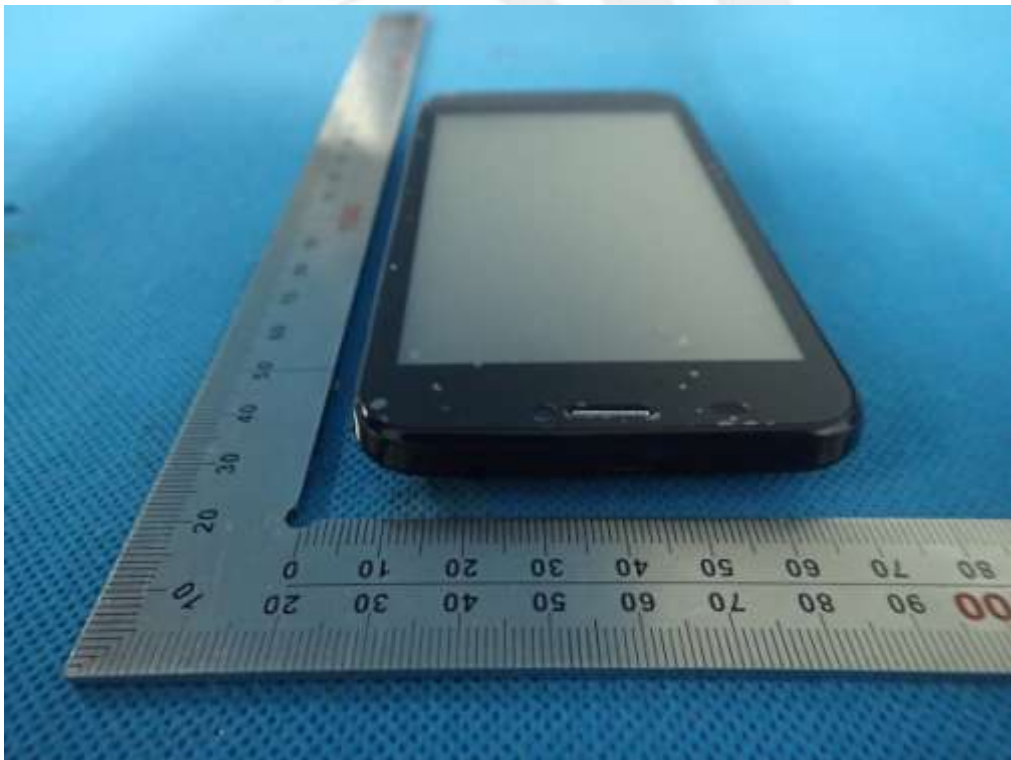
All view of EUT



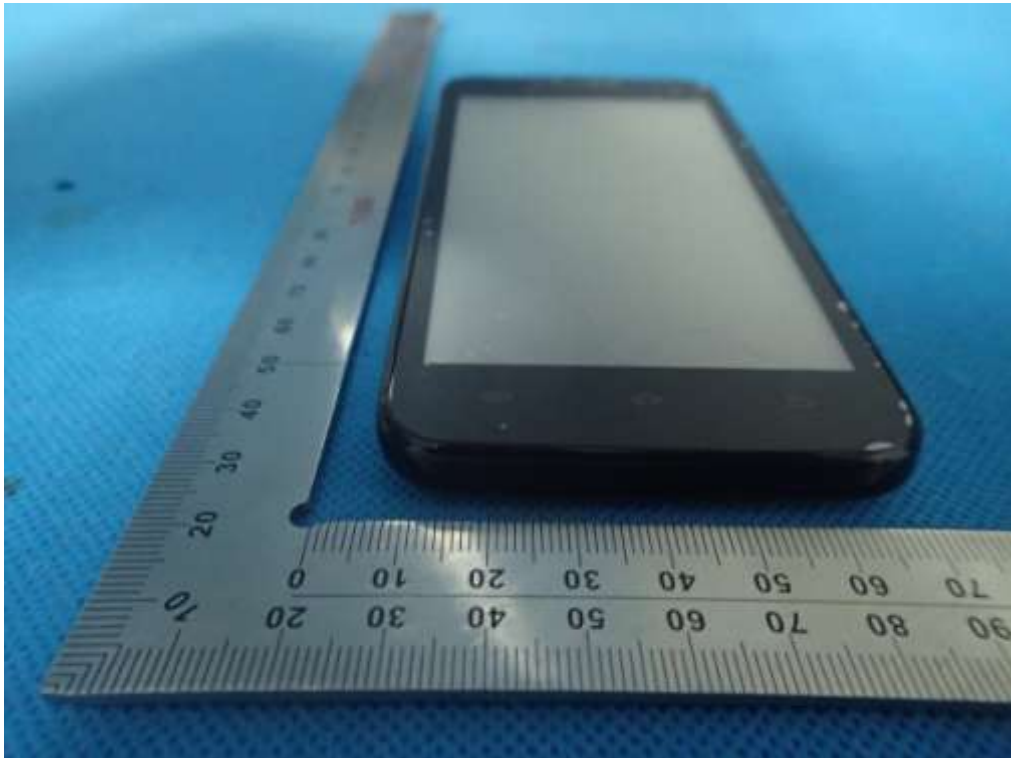
Front side



Back side



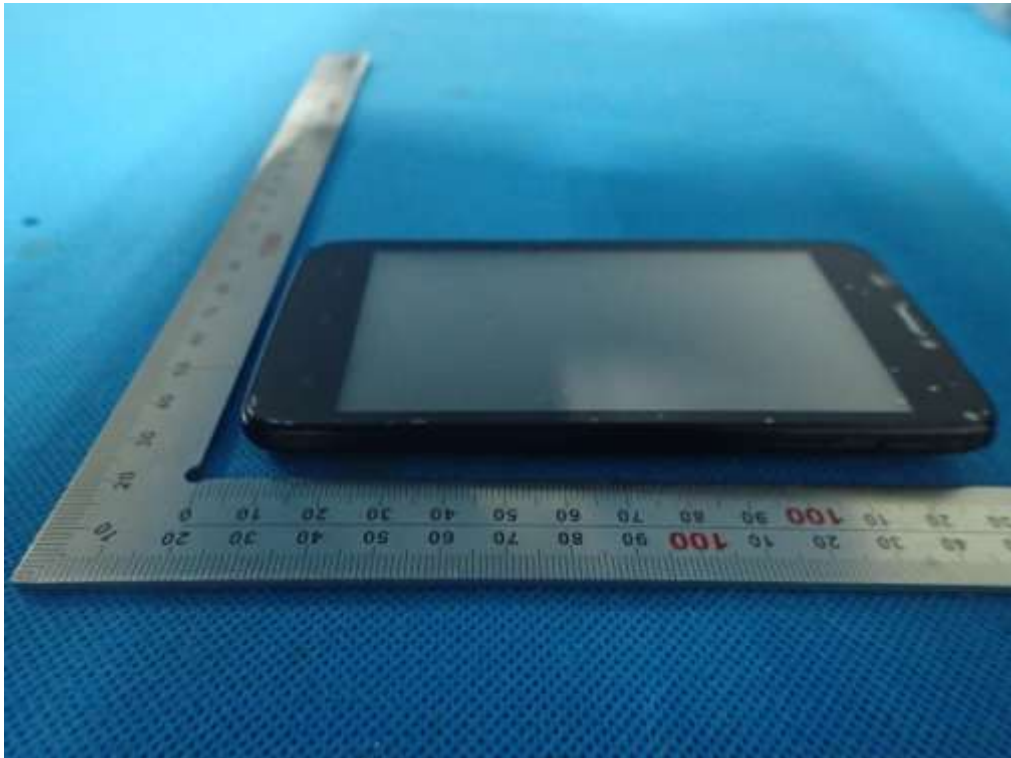
Top side



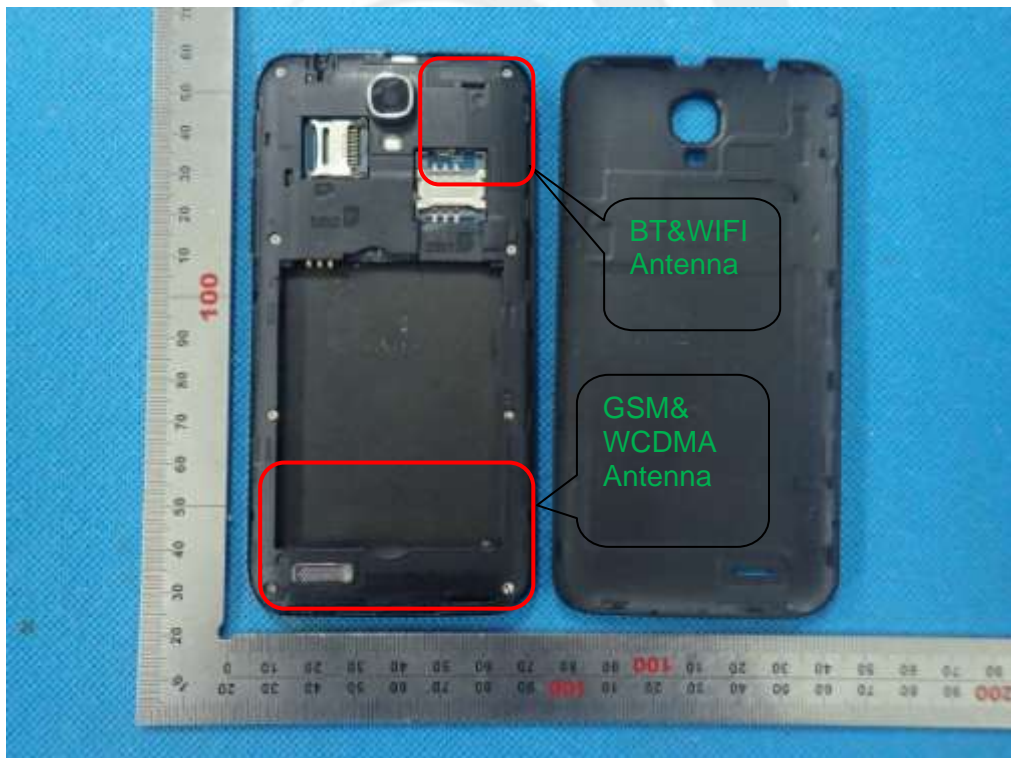
Bottom side



Left side



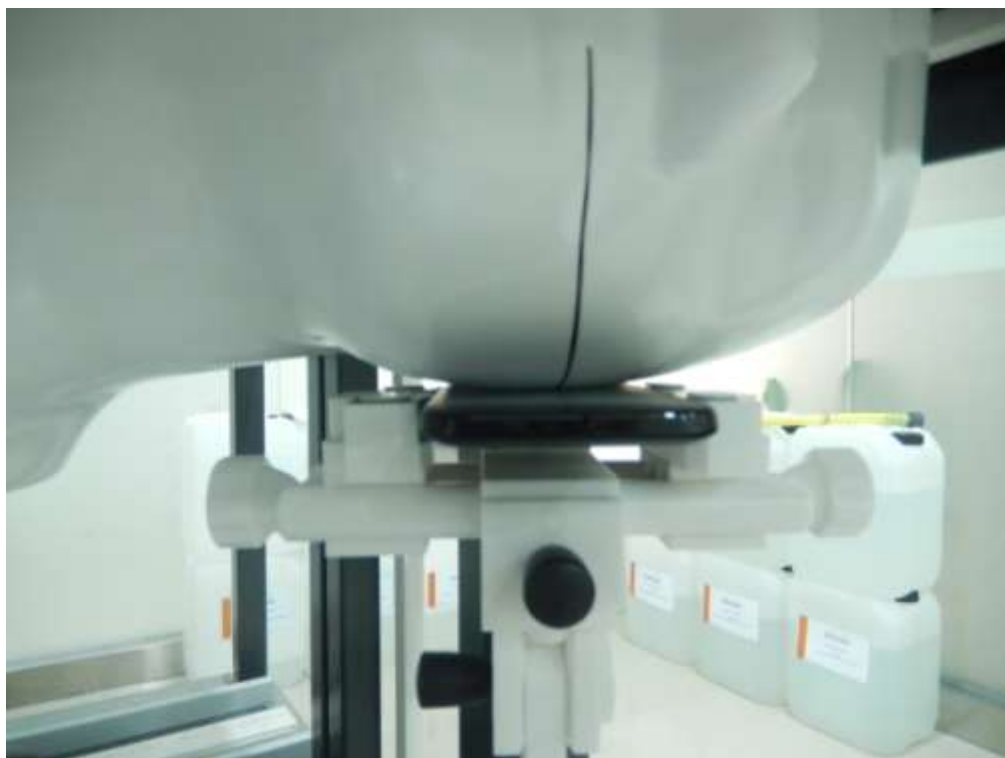
Right side



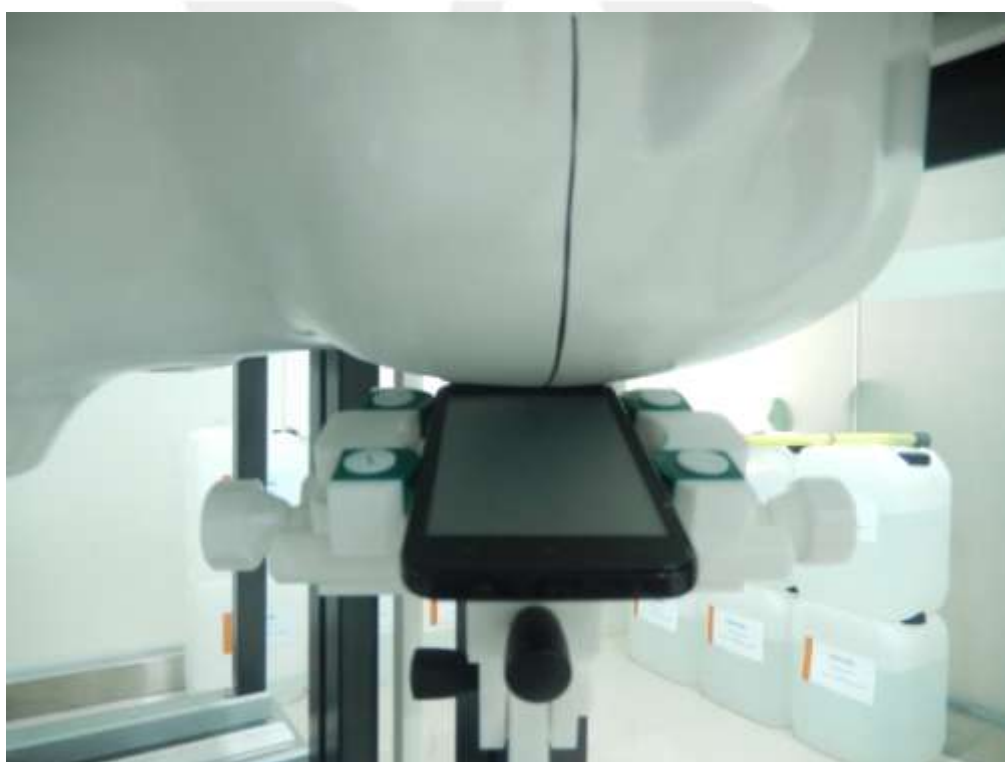
OPEN VIEW OF EUT-1



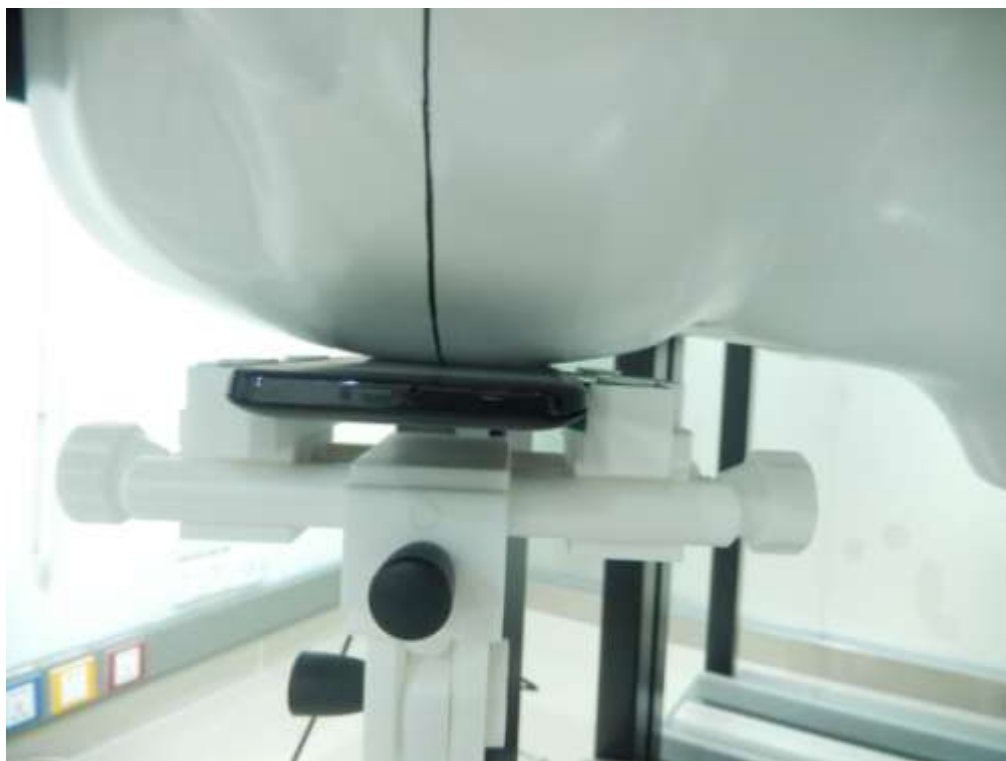
11.2 Setup Photo



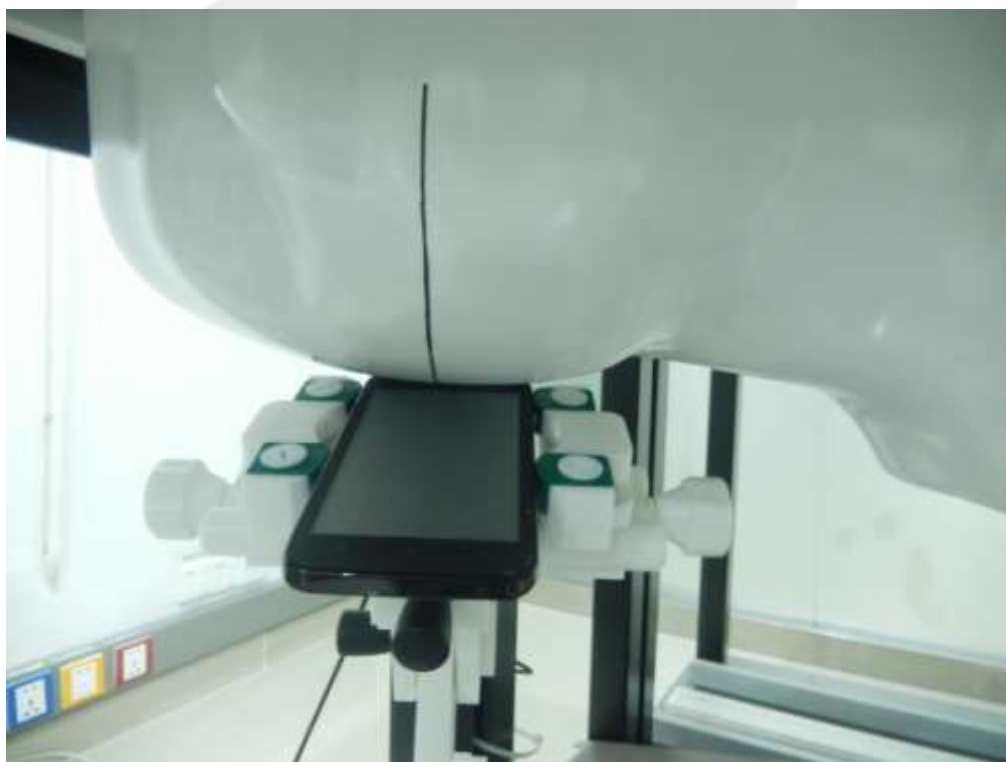
Left Touch



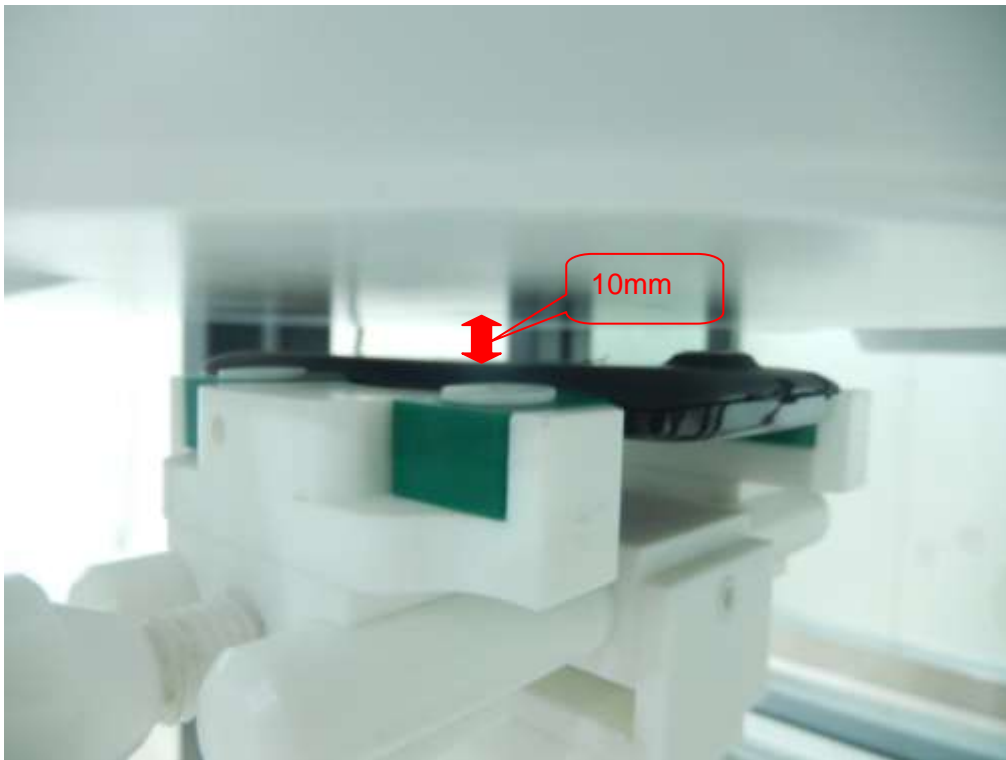
Left Tilt



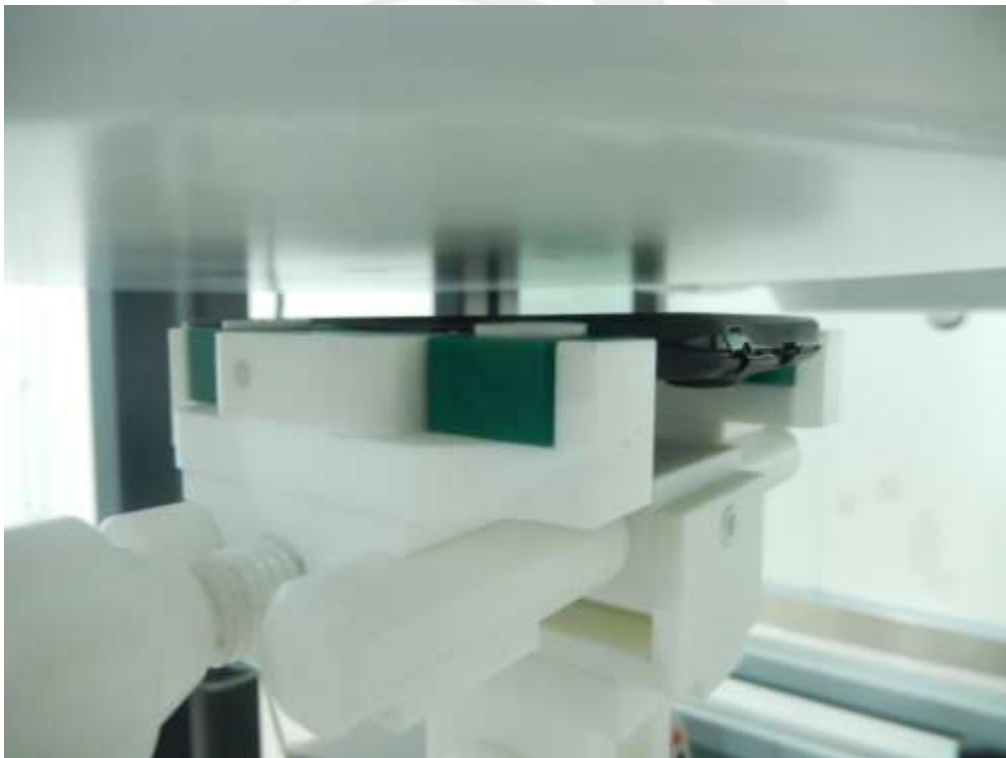
Right Touch



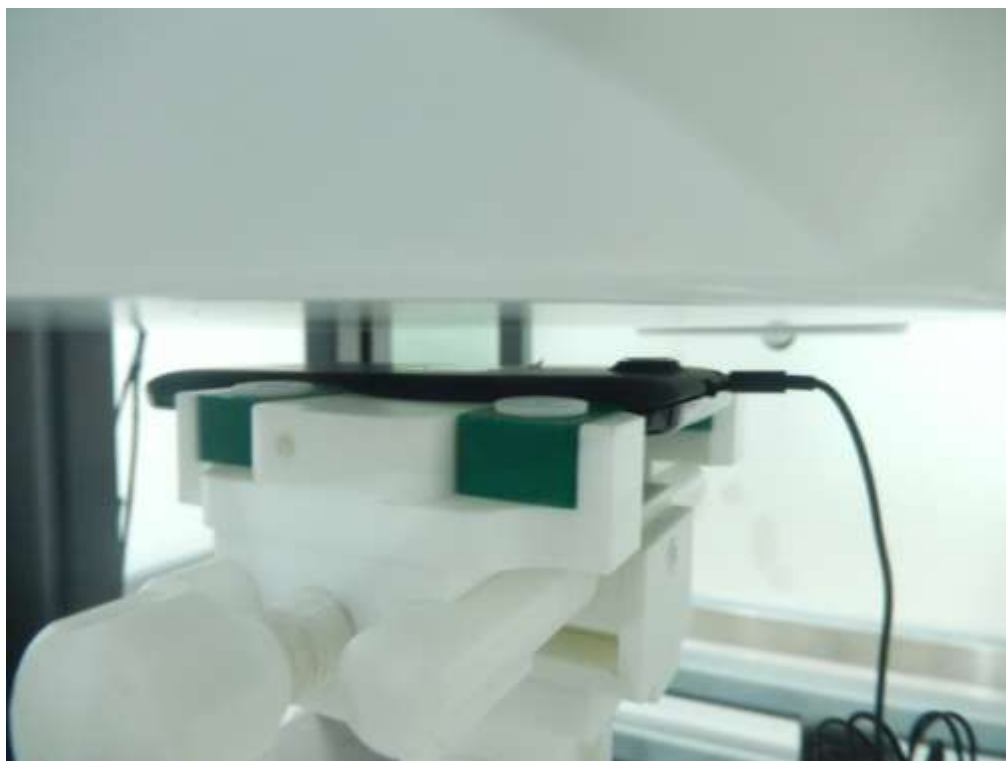
Right Tilt



Body Back side



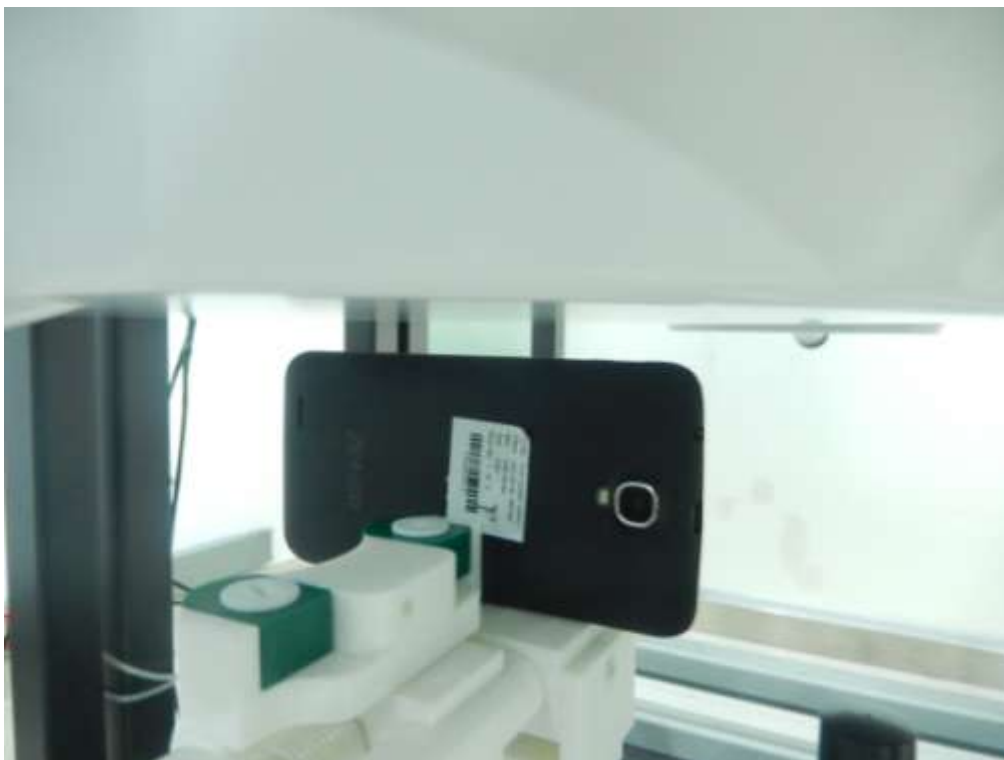
Body Front side



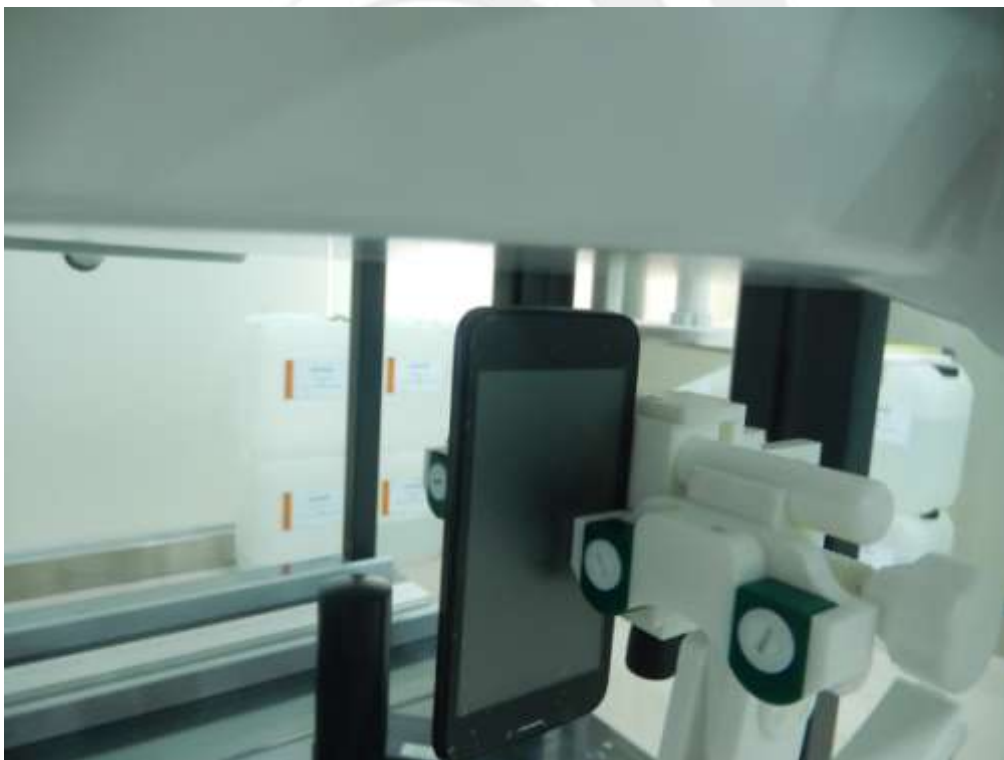
Body back with Headset



Body top side



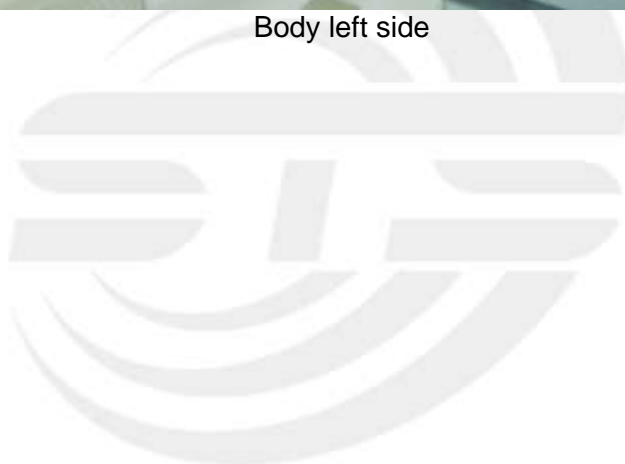
Body right side



Body Bottom side



Body left side





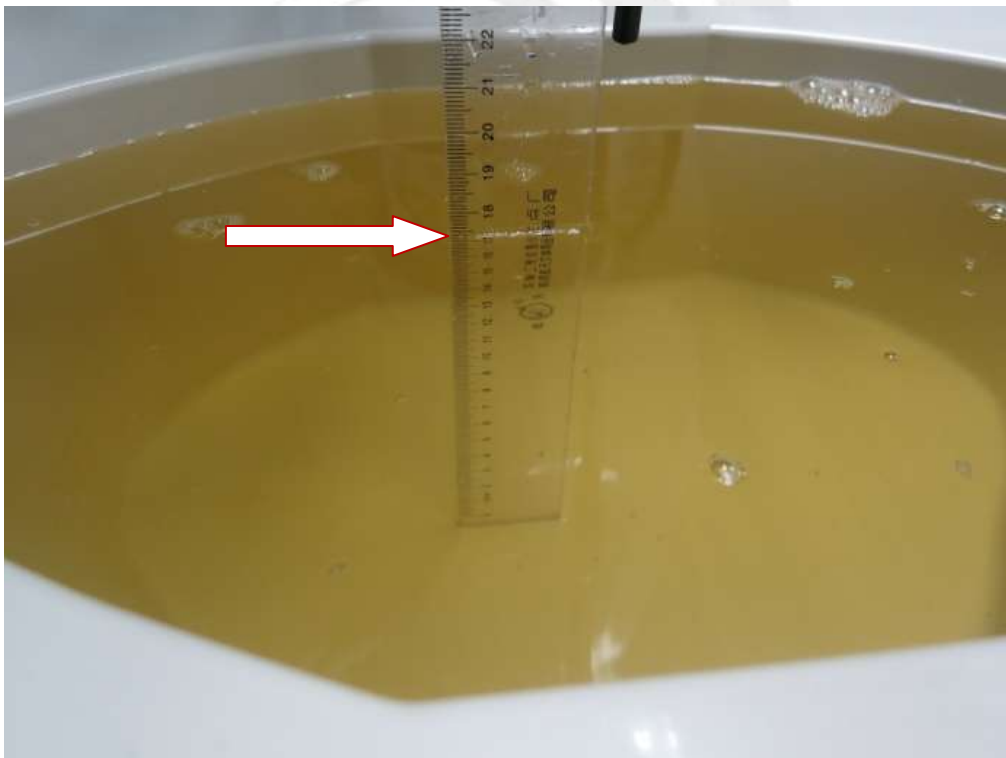
Head Liquid depth at 850 MHz (15.0cm)



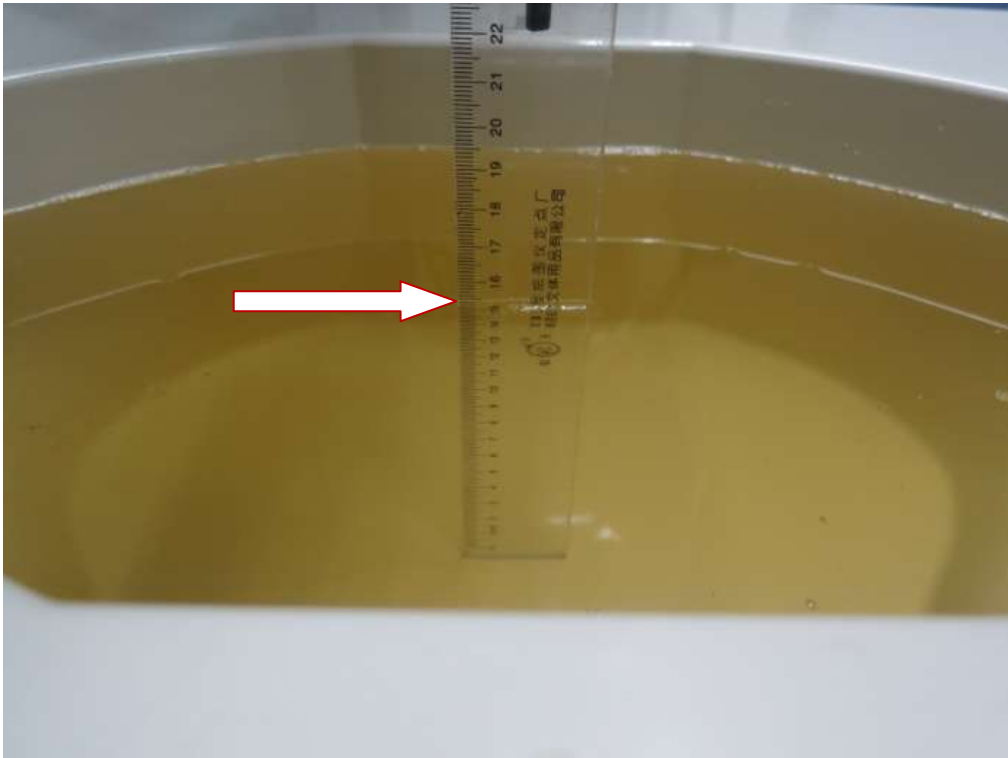
Head Liquid depth at 1900 MHz (15.0cm)



Head Liquid depth at 2450 MHz (15.0cm)



Body Liquid depth at 850 MHz (15.0 cm)



Body Liquid depth at 1900 MHz (15.0 cm)



Body Liquid depth at 2450MHz (15.0 cm)



12. SAR Result Summary

12.1 Head SAR

Band	Mode	Test Position	Channel	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
GSM 850	Voice	Left Cheek	CH 190	0.324	-0.11	32.00	31.75	0.343	1
		Left Tilt	CH 190	0.234	1.02	32.00	31.75	0.248	2
		Right Cheek	CH 190	0.261	0.15	32.00	31.75	0.276	3
		Right Tilt	CH 190	0.203	-0.26	32.00	31.75	0.215	4
	GPRS Data-4 Slot	Left Cheek	CH 190	0.149	0.17	28.00	27.21	0.179	5
		Left Tilt	CH 190	0.118	1.63	28.00	27.21	0.142	6
		Right Cheek	CH 190	0.142	-0.12	28.00	27.21	0.170	7
		Right Tilt	CH 190	0.118	-0.58	28.00	27.21	0.142	8
PCS1900	Voice	Left Cheek	CH 661	0.249	-0.34	29.00	28.42	0.285	9
		Left Tilt	CH 661	0.098	-0.12	29.00	28.42	0.112	10
		Right Cheek	CH 661	0.470	0.46	29.00	28.42	0.537	11
		Right Tilt	CH 661	0.119	0.85	29.00	28.42	0.136	12
	GPRS Data-4 Slot	Left Cheek	CH 661	0.126	0.95	25.00	24.37	0.146	13
		Left Tilt	CH 661	0.052	-0.45	25.00	24.37	0.060	14
		Right Cheek	CH 661	0.244	1.20	25.00	24.37	0.282	15
		Right Tilt	CH 661	0.062	-0.27	25.00	24.37	0.072	16
WCDMA II	RMC	Left Cheek	CH9400	0.400	-1.64	22.50	22.16	0.433	17
		Left Tilt	CH9400	0.156	0.15	22.50	22.16	0.169	18
		Right Cheek	CH9262	0.750	0.23	22.50	22.18	0.807	19
		Right Cheek	CH9400	0.813	-0.75	22.50	22.16	0.879	20
		Right Cheek	CH9538	0.812	-0.32	22.50	22.13	0.884	21
		Right Tilt	CH9400	0.247	0.41	22.50	22.16	0.267	22
WCDMA V	RMC	Left Cheek	CH4183	0.308	0.11	22.50	22.27	0.325	23
		Left Tilt	CH4183	0.229	-0.54	22.50	22.27	0.241	24
		Right Cheek	CH4183	0.350	-0.38	22.50	22.27	0.369	25
		Right Tilt	CH4183	0.223	0.47	22.50	22.27	0.235	26



12.2 Body SAR And Hotspot

Band	Mode	Test Position	Channel	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
GSM 850	Voice (body-worn)	Back side	CH 190	0.585	-0.51	32.00	31.75	0.620	27
		Front side	CH 190	0.312	0.23	32.00	31.75	0.330	28
	GPRS Data-4 Slot	Back side	CH 190	0.273	0.62	28.00	27.21	0.327	29
		Front side	CH 190	0.176	-0.45	28.00	27.21	0.211	30
		Top side	CH 190	0.010	0.74	28.00	27.21	0.012	31
		Right side	CH 190	0.200	-0.18	28.00	27.21	0.240	32
		Bottom side	CH 190	0.060	-0.29	28.00	27.21	0.072	33
PCS1900	Voice (body-worn)	Back side	CH 661	0.568	-0.45	29.00	28.42	0.649	35
		Front side	CH 661	0.238	0.22	29.00	28.42	0.272	36
	GPRS Data-4 Slot	Back side	CH 661	0.275	-0.31	25.00	24.37	0.318	37
		Front side	CH 661	0.141	0.54	25.00	24.37	0.163	38
		Top side	CH 661	0.028	-0.16	25.00	24.37	0.032	39
		Right side	CH 661	0.094	0.88	25.00	24.37	0.109	40
		Bottom side	CH 661	0.130	-0.26	25.00	24.37	0.150	41
		Left side	CH 661	0.181	0.47	25.00	24.37	0.209	42



Continue

Band	Mode	Test Position	Channel	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
WCDMA II	RMC (body-worn and hotspot)	Back side	CH9262	0.766	-0.52	22.50	22.18	0.825	43
		Back side	CH9400	0.969	-0.96	22.50	22.16	1.048	44
		Back side	CH9538	0.633	0.47	22.50	22.13	0.689	45
		Front side	CH9400	0.473	-1.42	22.50	22.16	0.512	46
		Top side	CH9400	0.116	0.31	22.50	22.16	0.125	47
		Right side	CH9400	0.459	0.94	22.50	22.16	0.496	48
		Bottom side	CH9400	0.572	-1.54	22.50	22.16	0.619	49
		Left side	CH9262	0.637	-0.12	22.50	22.18	0.686	50
		Left side	CH9400	0.833	0.63	22.50	22.16	0.901	51
		Left side	CH9538	0.787	0.25	22.50	22.13	0.857	52
WCDMA V	RMC (body-worn and hotspot)	Back side	CH4183	0.682	0.11	22.50	22.27	0.719	53
		Front side	CH4183	0.357	0.63	22.50	22.27	0.376	54
		Top side	CH4183	0.013	0.32	22.50	22.27	0.014	55
		Right side	CH4183	0.430	0.47	22.50	22.27	0.453	56
		Bottom side	CH4183	0.069	-0.99	22.50	22.27	0.073	57
		Left side	CH4183	0.237	0.21	22.50	22.27	0.250	58



Summary of Measurement Results (SIM 2 Card)

Band	Mode	Test Position	Channel	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
GSM 850	Voice	Left Cheek	CH 190	0.149	-0.42	32.00	31.64	0.162	59
GSM1900	Voice	Right Cheek	CH 661	0.415	-1.59	29.00	28.12	0.508	60
GSM 850	Voice (body-worn)	Back side	CH 190	0.561	0.31	32.00	31.64	0.609	61
GSM1900	Voice (body-worn)	Back side	CH 661	0.530	0.32	29.00	28.12	0.649	62

Summary of Measurement Results (Repeated SAR)

Band	Mode	Test Position	Channel	Once SAR (1g) (W/kg)	Twice SAR (1g) (W/kg)	Third SAR (1g) (W/kg)	Limit W/kg	Meas. No.
WCDMA II	RMC	Right Cheek	CH9538	0.751	-	-	1.6	63
WCDMA II	RMC (body-worn and hotspot)	Back side	CH9400	0.765	-	-	1.6	64

WIFI SAR

Band	Mode	Test Position	Channel	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
802.11b	DTS	Left Cheek	CH 6	0.091	-0.15	12.00	11.67	0.098	65
		Left Tilt	CH 6	0.083	0.23	12.00	11.67	0.090	66
		Right Cheek	CH 6	0.154	-0.62	12.00	11.67	0.166	67
		Right Tilt	CH 6	0.131	-0.41	12.00	11.67	0.141	68
		Back side	CH 6	0.224	0.26	12.00	11.67	0.242	69
		Front side	CH 6	0.062	0.31	12.00	11.67	0.067	70
		Top side	CH 6	0.072	0.54	12.00	11.67	0.078	71
		Right side	CH 6	0.008	-0.31	12.00	11.67	0.009	72
		Bottom side	CH 6	0.005	1.22	12.00	11.67	0.005	73
		Left side	CH 6	0.196	-0.64	12.00	11.67	0.211	74



Simultaneous Multi-band Transmission Evaluation: Application Simultaneous Transmission information:

NO	Simultaneous state	Portable Handset		
		Head	Body-worn	Hotspot
1	GSM(voice)+WLAN 2.4GHz (data)	Yes	Yes	-
2	WCDMA(voice)+WLAN 2.4GHz (data)	Yes	Yes	-
3	GSM(voice)+Bluetooth(data)	-	Yes	-
4	WCDMA(voice)+Bluetooth(data)	-	Yes	-
5	GSM (Data) + Bluetooth(data)	-	Yes	
6	GSM (Data) + WLAN 2.4GHz (data)	Yes	Yes	Yes
7	WCDMA (Data) + Bluetooth(data)	--	Yes	
8	WCDMA (Data) + WLAN 2.4GHz (data)	Yes	Yes	Yes

NOTE:

1. WLAN and BT share the same antenna, and cannot transmit simultaneously.
2. Simultaneous with every transmitter must be the same test position.
3. KDB 447498 D01, BT SAR is excluded as below table.
4. KDB 447498 D01, for handsets the test separation distance is determined by the smallest distance between the outer surface of the device and the user; which is 0mm for head SAR and 10mm for body-worn SAR.
5. If the test separation distance is <5mm, 5mm is used for excluded SAR calculation.
6. According to KDB447497 D01 4.3.2, simultaneous transmission SAR test exclusion is as follow:
 - (1) Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna.
 - (2) Any transmitters and antennas should be considered when calculating simultaneous mode.
 - (3) For mobile phone and PC, it's the sum of all transmitters and antennas at the same mode with same position in each applicable exposure condition
 - (4) When the standalone SAR test exclusion of section 4.3.1 is applied to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to the following to determine simultaneous transmission SAR test exclusion:

$$(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm}) \cdot [\sqrt{f(\text{GHz})/x}] \text{ W/kg for test separation distances } \leq 50 \text{ mm};$$
 where $x = 7.5$ for 1-g SAR, and $x = 18.75$ for 10-g SAR.
7. When the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR to peak location separation ratio. The simultaneous transmitting antennas in each operating mode and exposure condition combination must be considered one pair at a time to determine the SAR to peak location separation ratio to qualify for test exclusion. The ratio is determined by $(\text{SAR1} + \text{SAR2})^{1.5}/R_i$, rounded to two decimal digits, and must be ≤ 0.04 for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion.



Estimated SAR		Maximum peak Power		Antenna to user(mm)	Frequency(GHz)	Stand alone SAR(1g) [W/kg]
		dBm	mW			
BT	Head	5	3.162	5	2.441	0.132
	Body			10	2.441	0.066

Maximum test results (WWAN) with BT SAR:**BT:** Head (0 cm gap): 0.132 W/kg and Body (1.0cm gap): 0.066W/kg

Sum of the SAR for GSM 850 & Wi-Fi & BT:

RF Exposure Conditions	Test Position	Simultaneous Transmission Scenario			Σ 1-g SAR (W/Kg)
		GSM 850 Band	Wi-Fi DTS Band	Bluetooth	
Head (voice)	Left Touch	0.343	0.098		0.441
	Left Tilt	0.248	0.090		0.338
	Right Touch	0.276	0.166		0.442
	Right Tilt	0.215	0.141		0.356
Body-worn	Rear	0.620	0.242		0.862
		0.330		0.066	0.396
	Front	0.620	0.067		0.687
		0.330		0.066	0.396
Head (VoIP)	Left Touch	0.179	0.098		0.277
	Left Tilt	0.142	0.090		0.232
	Right Touch	0.170	0.166		0.336
	Right Tilt	0.142	0.141		0.283
Hotspot	Rear	0.327	0.242		0.569
	Front	0.211	0.067		0.278
	Top side	0.012	0.078		0.09
	Right side	0.240	0.009		0.249
	Bottom side	0.072	0.005		0.077
	Left side	0.157	0.211		0.368
	Rear	0.327		0.066	0.393
	Front	0.211		0.066	0.277
	Top side	0.012		0.066	0.078
	Right side	0.240		0.066	0.306
	Bottom side	0.072		0.066	0.138
	Left side	0.157		0.066	0.223



Sum of the SAR for PCS 1900 & Wi-Fi & BT:

RF Exposure Conditions	Test Position	Simultaneous Transmission Scenario			Σ 1-g SAR (W/Kg)
		PCS 1900 Band	Wi-Fi DTS Band	Bluetooth	
Head (voice)	Left Touch	0.285	0.098		0.383
	Left Tilt	0.112	0.090		0.202
	Right Touch	0.537	0.166		0.703
	Right Tilt	0.136	0.141		0.277
Body-worn	Rear	0.649	0.242		0.891
		0.272		0.066	0.338
	Front	0.649	0.067		0.716
		0.272		0.066	0.338
Head (VoIP)	Left Touch	0.146	0.098		0.244
	Left Tilt	0.060	0.090		0.150
	Right Touch	0.282	0.166		0.448
	Right Tilt	0.072	0.141		0.213
Hotspot	Rear	0.318	0.242		0.560
	Front	0.163	0.067		0.230
	Top side	0.032	0.078		0.110
	Right side	0.109	0.009		0.118
	Bottom side	0.150	0.005		0.155
	Left side	0.209	0.211		0.420
	Rear	0.318		0.066	0.384
	Front	0.163		0.066	0.229
	Top side	0.032		0.066	0.098
	Right side	0.109		0.066	0.175
	Bottom side	0.150		0.066	0.216
	Left side	0.209		0.066	0.275



Sum of the SAR for WCDMA Band II & Wi-Fi & BT:

RF Exposure Conditions	Test Position	Simultaneous Transmission Scenario			Σ 1-g SAR (W/Kg)
		WCDMA Band II	Wi-Fi DTS Band	Bluetooth	
Head	Left Cheek	0.433	0.098		0.531
	Left Tilt	0.169	0.090		0.259
	Right Cheek	0.884	0.166		1.050
	Right Tilt	0.267	0.141		0.408
Body-worn and Hotspot	Rear	1.048	0.242		1.290
	Front	0.512	0.067		0.579
	Top side	0.125	0.078		0.203
	Right side	0.496	0.009		0.505
	Bottom side	0.619	0.005		0.624
	Left side	0.901	0.211		1.112
	Rear	1.048		0.066	1.114
	Front	0.512		0.066	0.578
	Top side	0.125		0.066	0.191
	Right side	0.496		0.066	0.562
	Bottom side	0.619		0.066	0.685
	Left side	0.901		0.066	0.967

Sum of the SAR for WCDMA Band V & Wi-Fi & BT:

RF Exposure Conditions	Test Position	Simultaneous Transmission Scenario			Σ 1-g SAR (W/Kg)
		WCDMA Band V	Wi-Fi DTS Band	Bluetooth	
Head	Left Cheek	0.325	0.098		0.423
	Left Tilt	0.241	0.090		0.331
	Right Cheek	0.369	0.166		0.535
	Right Tilt	0.235	0.141		0.376
Body-worn and Hotspot	Rear	0.719	0.242		0.961
	Front	0.376	0.067		0.443
	Top side	0.014	0.078		0.092
	Right side	0.453	0.009		0.462
	Bottom side	0.073	0.005		0.078
	Left side	0.250	0.211		0.461
	Rear	0.719		0.066	0.785
	Front	0.376		0.066	0.442
	Top side	0.014		0.066	0.08
	Right side	0.453		0.066	0.519
	Bottom side	0.073		0.066	0.139
	Left side	0.250		0.066	0.316

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna.

When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR-1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR-1g 1.6 W/kg), SAR test exclusion is determined by the SPLSR.



13. Equipment List

NO.	Instrument	Manufacturer	Model	S/N	Cal. Date	Cal. Due Date
1	835MHz Dipole	SATIMO	SID835	SN 30/14 DIP0G835-332	2014.09.01	2015.08.31
2	1900MHz Dipole	SATIMO	SID1900	SN 30/14 DIP1G900-333	2014.09.01	2015.08.31
3	2450MHz Dipole	SATIMO	SID2450	SN 30/14 DIP2G450-335	2014.09.01	2015.08.31
4	E-Field Probe	SATIMO	SSE5	SN 17/14 EP221	2014.09.01	2015.08.31
5	Antenna	SATIMO	ANTA3	SN 07/13 ZNTA52	2014.09.01	2015.08.31
6	Waveguide	SATIMO	SWG5500	SN 13/14 WGA32	2014.09.01	2015.08.31
7	Phantom	SATIMO	SAM	SN_4511_SAM9 0	2014.09.01	2015.08.31
8	SAR TEST BENCH	SATIMO	Tablet POSITIONNI NG SYSTEM	SN 32/14 MSH97	2014.09.01	--
9	SAR TEST BENCH	SATIMO	LAPTOP POSITIONNI NG SYSTEM	SN 32/14 LSH29	2014.09.01	2015.08.31
10	Dielectric Probe Kit	SATIMO	SCLMP	SN 32/14 OCPG52	2014.09.01	2015.08.31
11	Multi Meter	Keithley	Multi Meter 2000	4050073	2014.11.20	2015.11.19
12	Signal Generator	R&S	SMF100A	104260	2014.10.27	2015.10.26
13	Power Meter	R&S	NRP	100510	2014.10.25	2015.10.24
14	Power Sensor	R&S	NRP-Z11	101919	2014.10.25	2015.10.24
15	Network Analyzer	R&S	5071C	EMY46103472	2014.12.12	2015.12.11
16	Power Amplifier	SATIMO	ZHL-42W	9638	2014.11.20	2015.11.19
17	Power Meter	R&S	NRP-Z23	US38261498	2014.10.25	2015.10.24
18	Power Sensor	R&S	NRP-Z21	1137.6000.02	2014.10.22	2015.10.21
19	Directional Couple	Werlatone	C5571-10	N/A	2014.10.25	2015.10.24
20	Directional Couple	Werlatone	C6026-10	N/A	2014.10.25	2015.10.24

Appendix A. System Check Plots

System Performance Check Data (835MHz Head)

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

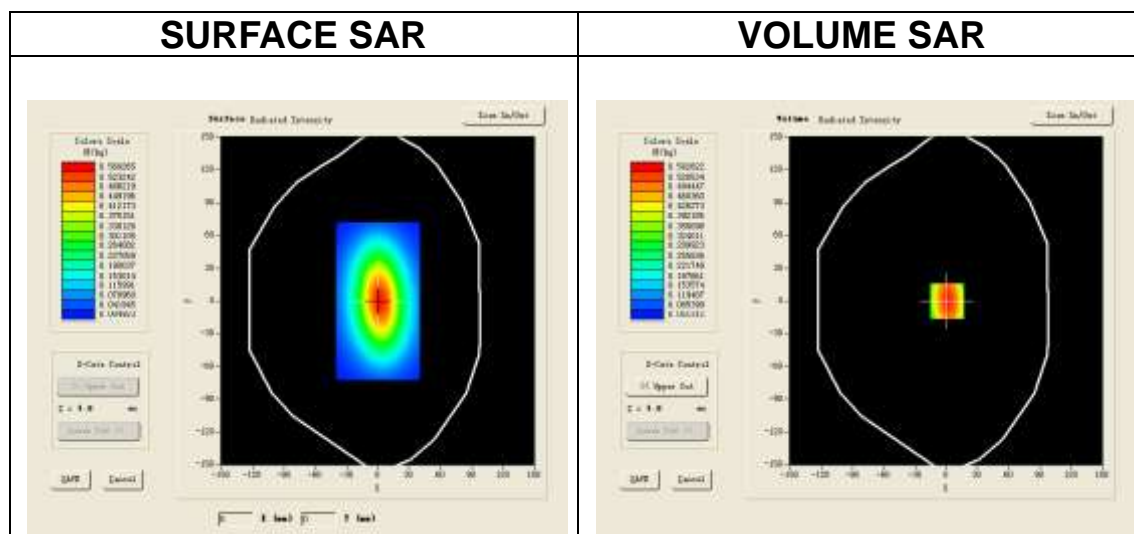
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: July 01, 2015

Measurement duration: 13 minutes 22 seconds

Experimental conditions

Phantom	Validation plane
Device Position	-
Band	835MHz
Channels	-
Signal	CW
Frequency (MHz)	835MHz
Relative permittivity (real part)	41.57
Relative permittivity	18.72
Conductivity (S/m)	0.91
Power drift (%)	0.45
Ambient Temperature:	22.0°C
Liquid Temperature:	21.7°C
ConvF:	4.83
Crest factor:	1:1

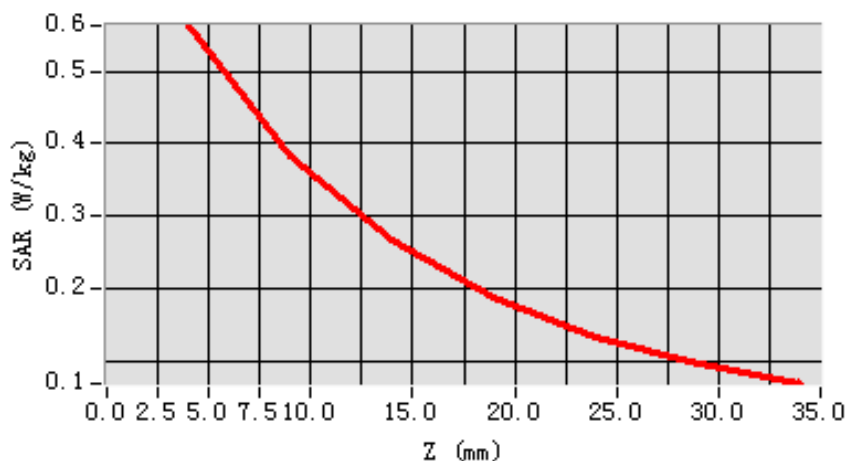


Maximum location: X=1.00, Y=0.00

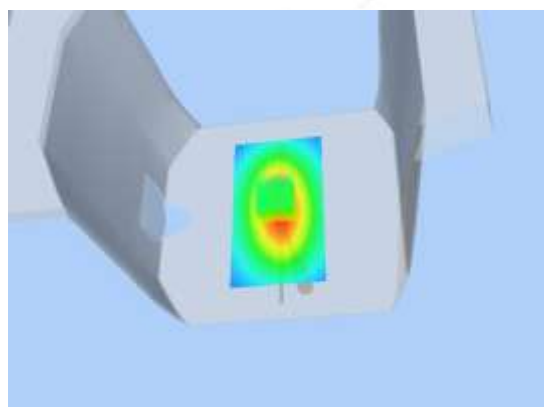
SAR 10g (W/Kg)	0.388532
SAR 1g (W/Kg)	0.590114

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.5637	0.3831	0.2689	0.1883	0.1349	0.0967

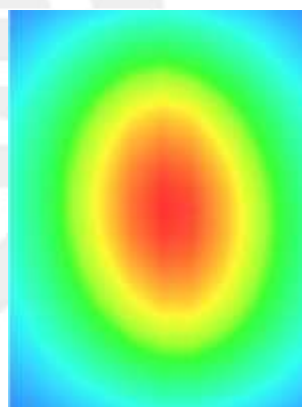
SAR, Z Axis Scan (X = 1, Y = 0)



3D screen shot



Hot spot position





System Performance Check Data (835MHz Body)

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

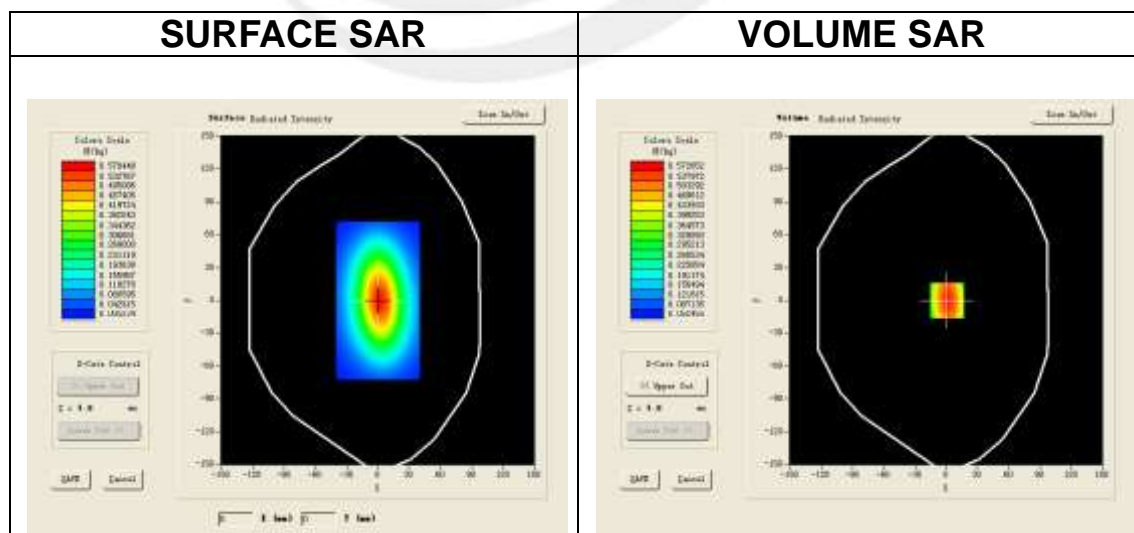
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: July 01, 2015

Measurement duration: 14 minutes 16 seconds

Experimental conditions.

Probe	
Phantom	Validation plane
Device Position	-
Band	835MHz
Channels	-
Signal	CW
Frequency (MHz)	835MHz
Relative permittivity (real part)	56.03
Relative permittivity	21.408187
Conductivity (S/m)	0.96
Power drift (%)	0.090000
Ambient Temperature:	22.0°C
Liquid Temperature:	22.°C
ConvF:	5.02
Crest factor:	1:1

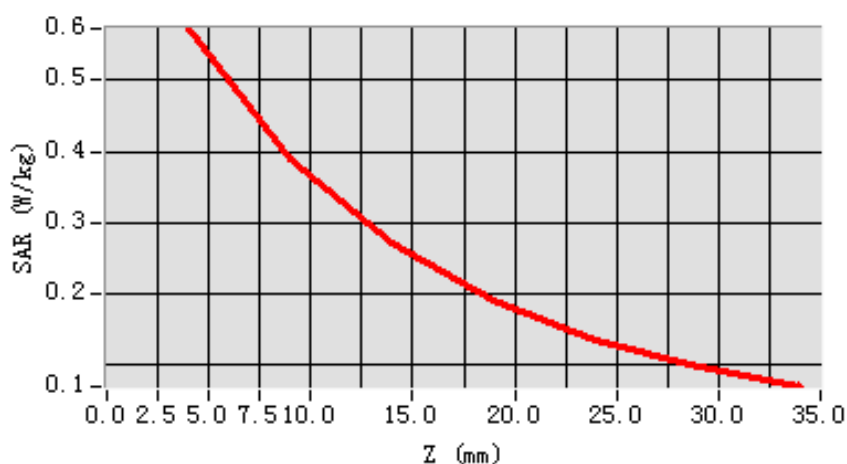


Maximum location: X=1.00, Y=0.00

SAR 10g (W/Kg)	0.392181
SAR 1g (W/Kg)	0.599305

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.5743	0.3910	0.2734	0.1915	0.1366	0.0978

SAR, Z Axis Scan (X = 1, Y = 0)



3D screen shot	Hot spot position
	

System Performance Check Data (1900MHz Head)

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

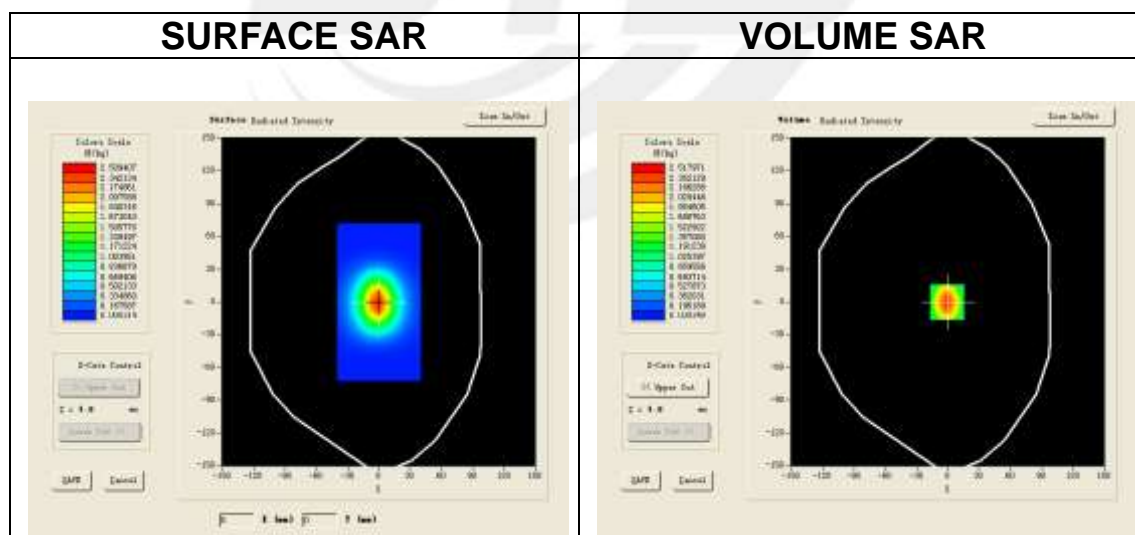
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: July 2,2015

Measurement duration: 14 minutes 10 seconds

Experimental conditions.

Phantom	Validation plane
Device Position	-
Band	1900MHz
Channels	-
Signal	CW
Frequency (MHz)	1900MHz
Relative permittivity (real part)	39.99
Relative permittivity	13.26
Conductivity (S/m)	1.42
Power drift (%)	0.47
Ambient Temperature:	21.5°C
Liquid Temperature:	21.6°C
Probe	SN 17/14 EP221
ConvF:	4.71
Crest factor:	1:1

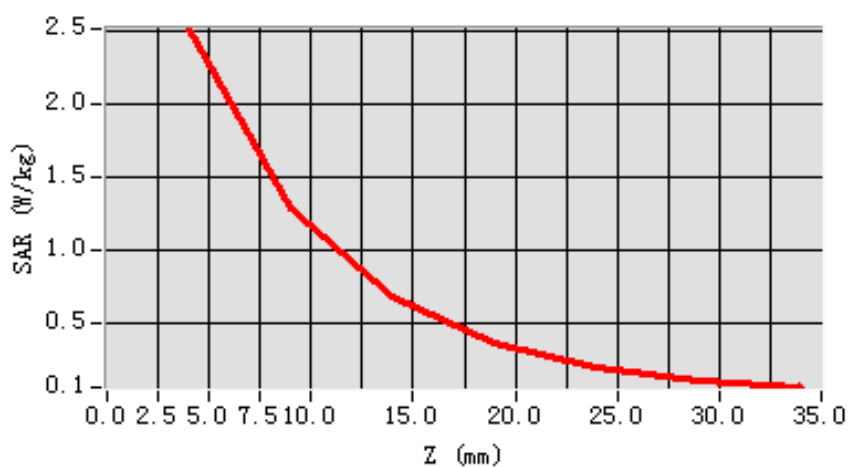


Maximum location: X=-1.00, Y=0.00

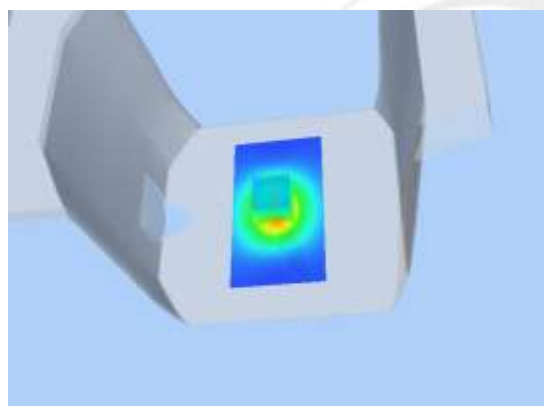
SAR 10g (W/Kg)	1.218104
SAR 1g (W/Kg)	2.390031

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.5187	1.2823	0.6762	0.3619	0.1951	0.1062

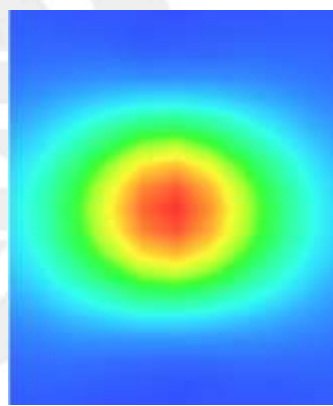
SAR, Z Axis Scan (X = -1, Y = 0)



3D screen shot



Hot spot position



**System Performance Check Data (1900MHz Body)**

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

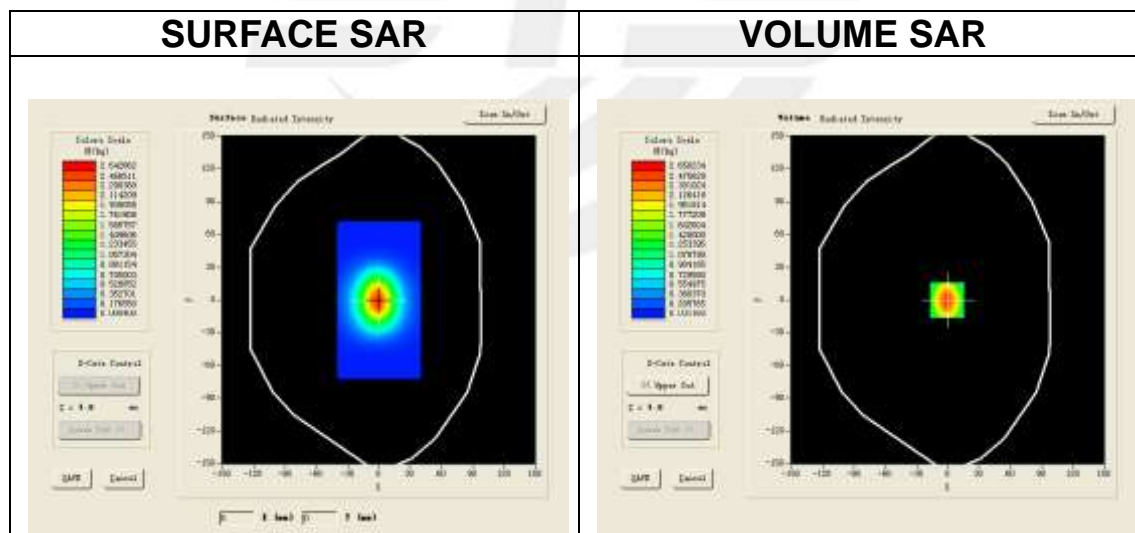
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: July 2,2015

Measurement duration: 14 minutes 46 seconds

Experimental conditions.

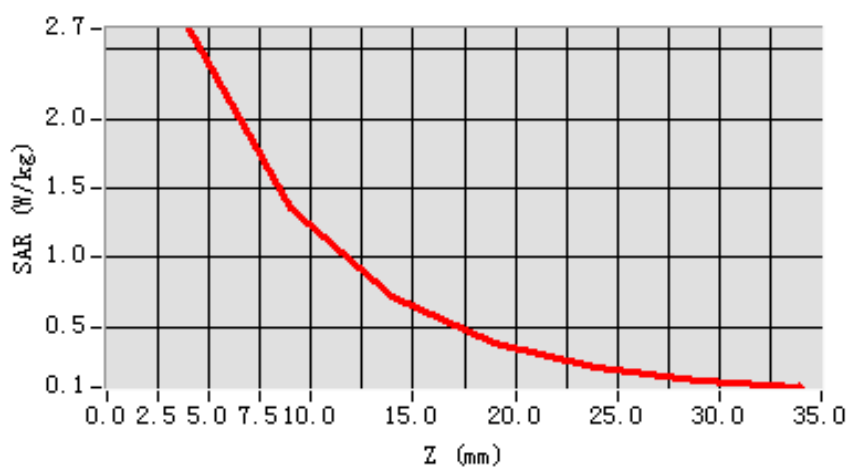
Device Position	-
Band	1900MHz
Channels	-
Signal	CW
Frequency (MHz)	1900
Relative permittivity (real part)	52.37
Relative permittivity	12.87531
Conductivity (S/m)	1.52
Power drift (%)	0.37
Ambient Temperature:	21.5°C
Liquid Temperature:	21.2°C
Probe	SN 17/14 EP221
ConvF:	4.85
Crest factor:	1:1

**Maximum location: X=-1.00, Y=0.00**

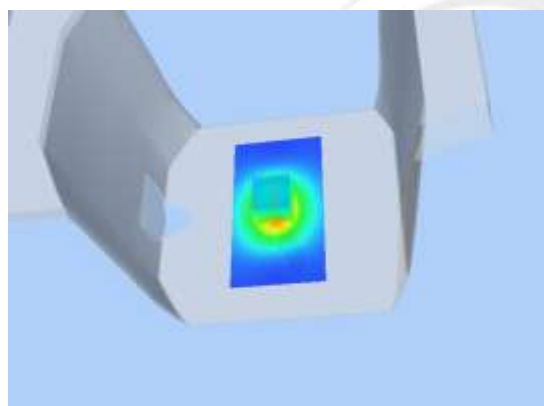
SAR 10g (W/Kg)	1.283114
SAR 1g (W/Kg)	2.517069

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.6510	1.3535	0.7143	0.3812	0.2058	0.1124

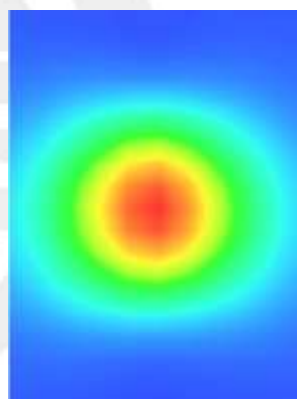
SAR, Z Axis Scan (X = -1, Y = 0)



3D screen shot



Hot spot position



System Performance Check Data (2450MHz Head)

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

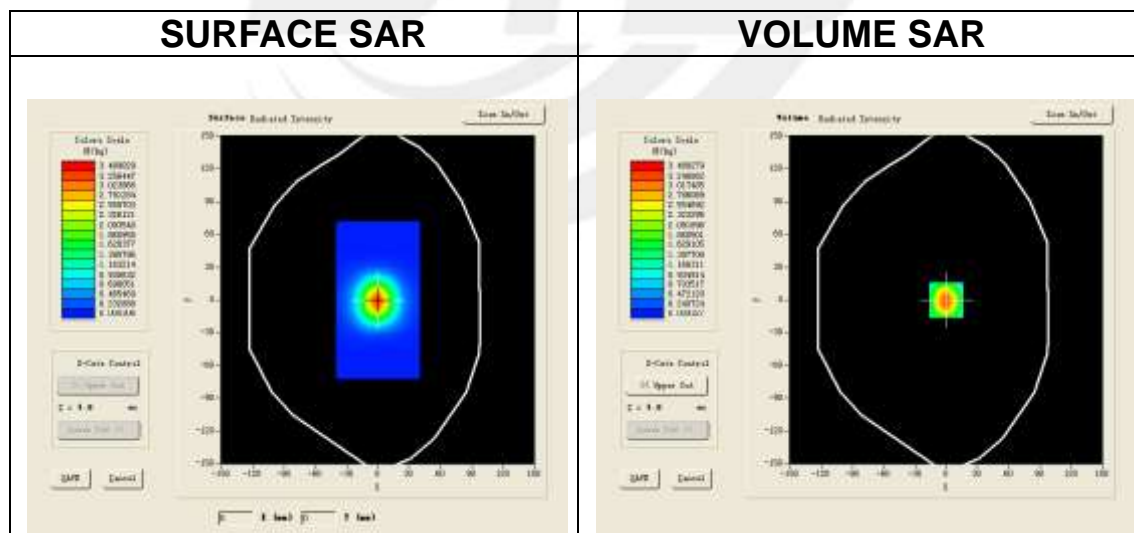
Zoom scan resolution: dx=5mm, dy=5mm, dz=5mm

Date of measurement: June 30,2015

Measurement duration: 17 minutes 42 seconds

Experimental conditions.

Device Position	-
Band	2450MHz
Channels	-
Signal	CW
Frequency (MHz)	2450
Relative permittivity (real part)	39.67
Relative permittivity	14.59
Conductivity (S/m)	1.78
Power drift (%)	0.31
Ambient Temperature:	21.7
Liquid Temperature:	21.4
Probe	SN 17/14 EP221
ConvF:	4.11
Crest factor:	1:1

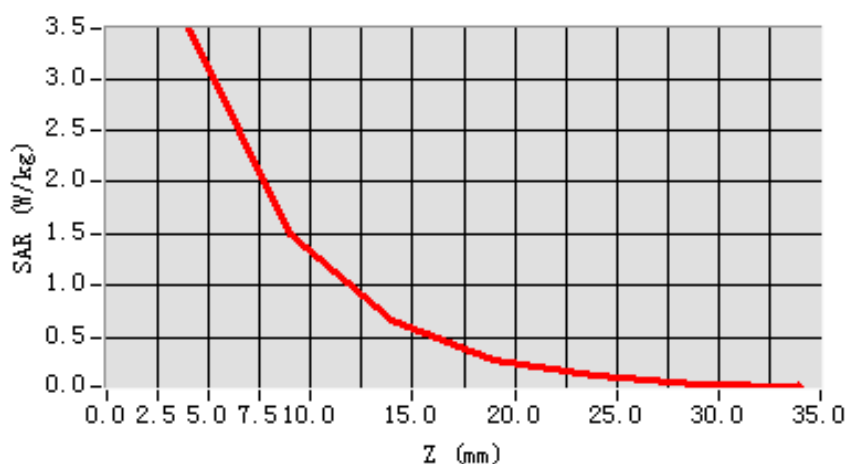


Maximum location: X=0.00, Y=0.00

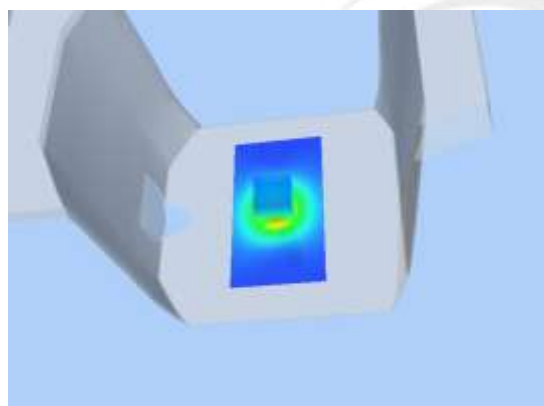
SAR 10g (W/Kg)	1.475346
SAR 1g (W/Kg)	3.309780

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	3.4793	1.4916	0.6570	0.2894	0.1300	0.0560

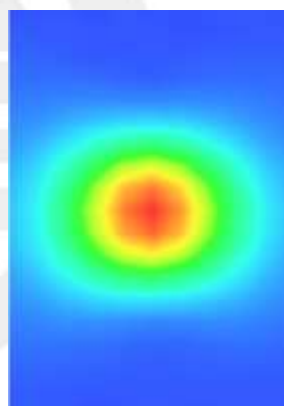
SAR, Z Axis Scan (X = 0, Y = 0)



3D screen shot



Hot spot position



**System Performance Check Data (2450MHz Body)**

Type: Phone measurement (Complete)

Area scan resolution: dx=8mm,dy=8mm

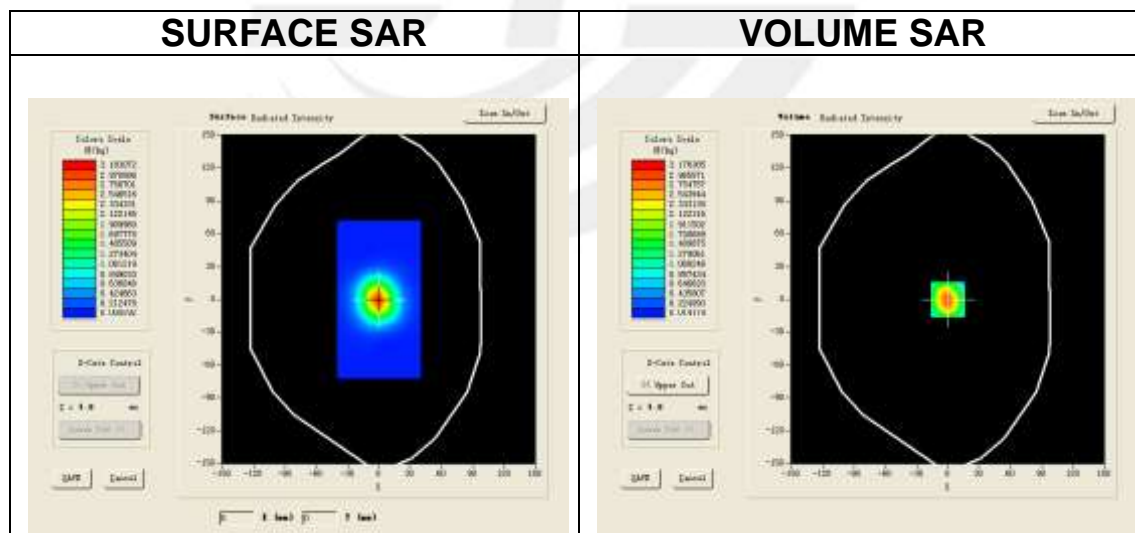
Zoom scan resolution: dx=5mm, dy=5mm, dz=5mm

Date of measurement: June 30,2015

Measurement duration: 17 minutes 36 seconds

Experimental conditions.

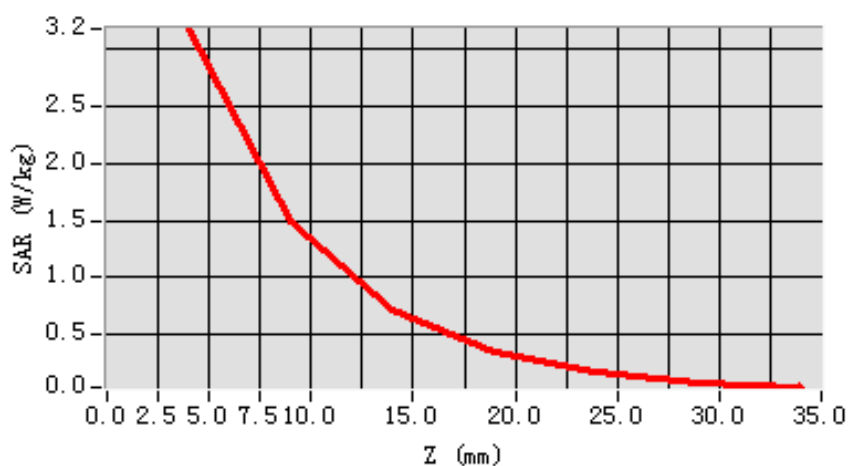
Device Position	-
Band	2450MHz
Channels	-
Signal	CW
Frequency (MHz)	2450
Relative permittivity (real part)	52.11
Relative permittivity	14.58
Conductivity (S/m)	1.94
Power drift (%)	0.37
Ambient Temperature:	21.7
Liquid Temperature:	21.7
Probe	SN 17/14 EP221
ConvF:	4.25
Crest factor:	1:1

**Maximum location: X=0.00, Y=0.00**

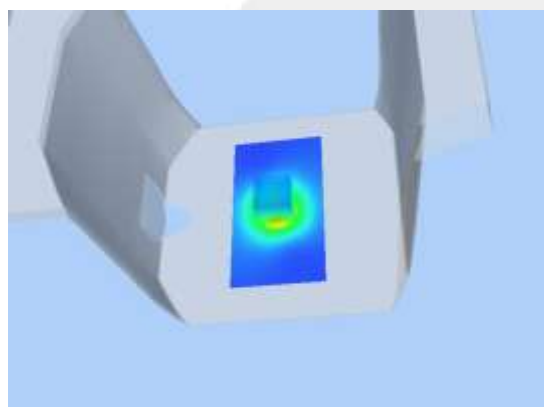
SAR 10g (W/Kg)	1.491037
SAR 1g (W/Kg)	3.247542

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	3.1753	1.4920	0.7181	0.3459	0.1671	0.0820

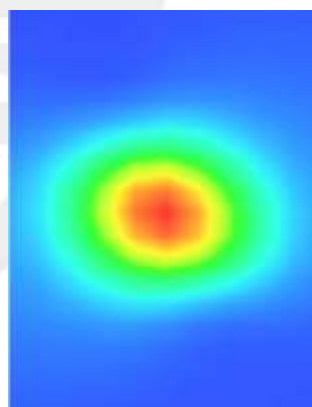
SAR, Z Axis Scan (X = 0, Y = 0)



3D screen shot



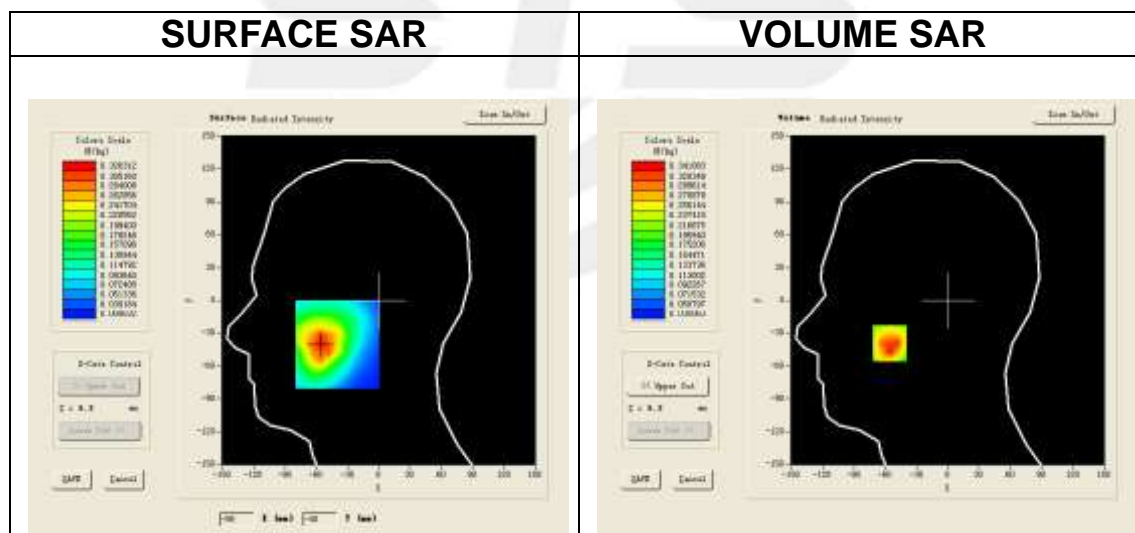
Hot spot position



Appendix B. SAR Test Plots

Plot 1: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 01, 2015
Ambient Temperature(°C)	22.0° C
Liquid Temperature(°C)	21.7° C
Probe	SN 17/14 EP221
ConvF	4.83
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Left head
Device Position	Cheek
Band	GSM850
Channels	Mid
Signal	TDMA (Crest factor: 8.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	41.09
Conductivity (S/m)	0.92
Variation (%)	-0.11

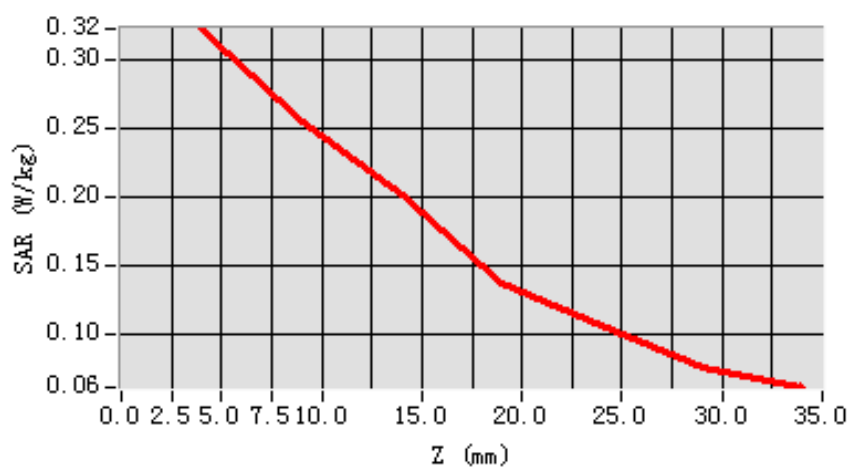


Maximum location: X=-56.00, Y=-39.00

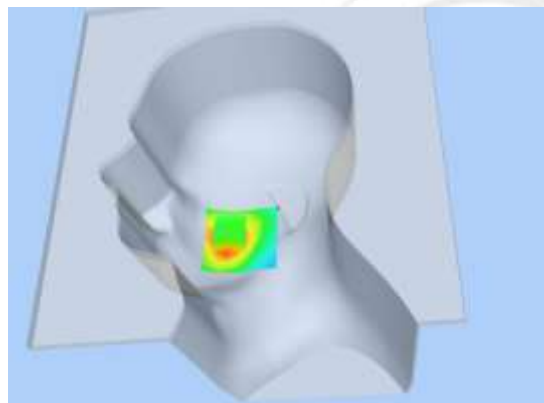
SAR 10g (W/Kg)	0.218805
SAR 1g (W/Kg)	0.324213

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.3227	0.2542	0.2016	0.1373	0.1063	0.0761

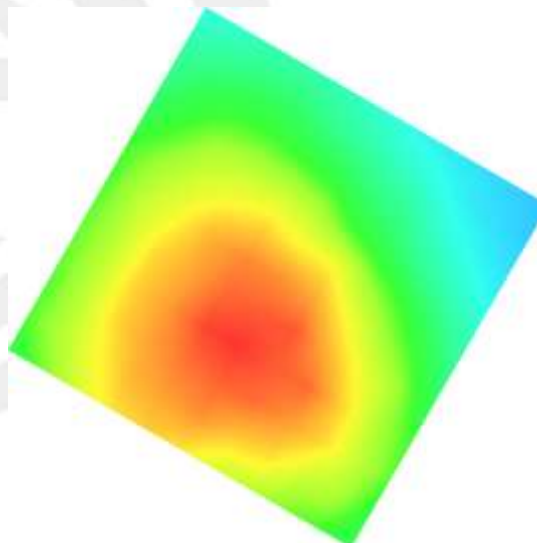
SAR, Z Axis Scan (X = -56, Y = -39)



3D screen shot

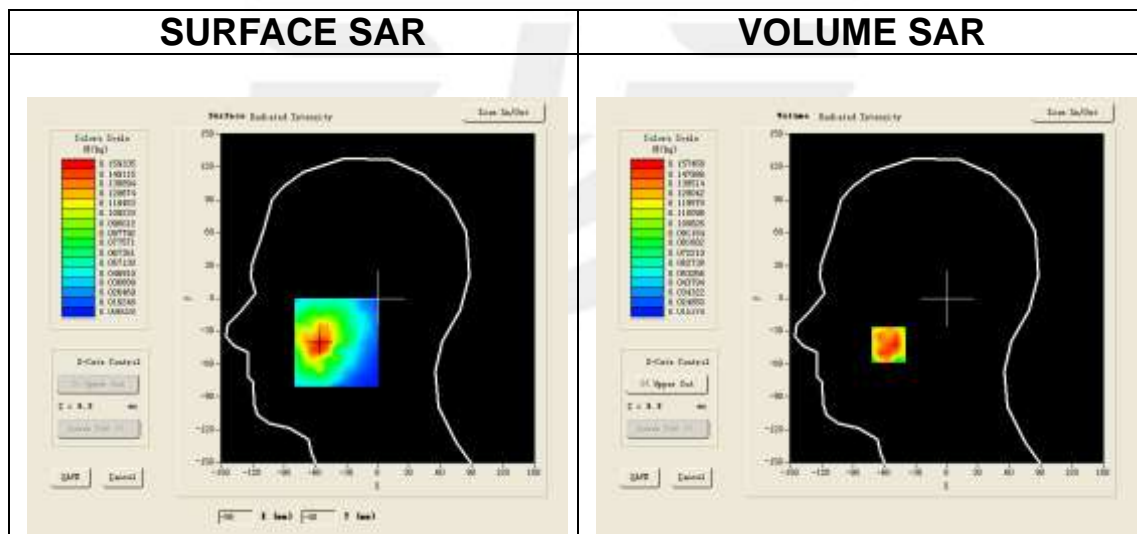


Hot spot position



Plot 5: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 01, 2015
Ambient Temperature(°C)	22.0° C
Liquid Temperature(°C)	21.7° C
Probe	SN 17/14 EP221
ConvF	4.83
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Left head
Device Position	Cheek
Band	GPRS 850
Channels	Mid
Signal	TDMA (Crest factor: 2.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	41.09
Conductivity (S/m)	0.92
Variation (%)	0.17

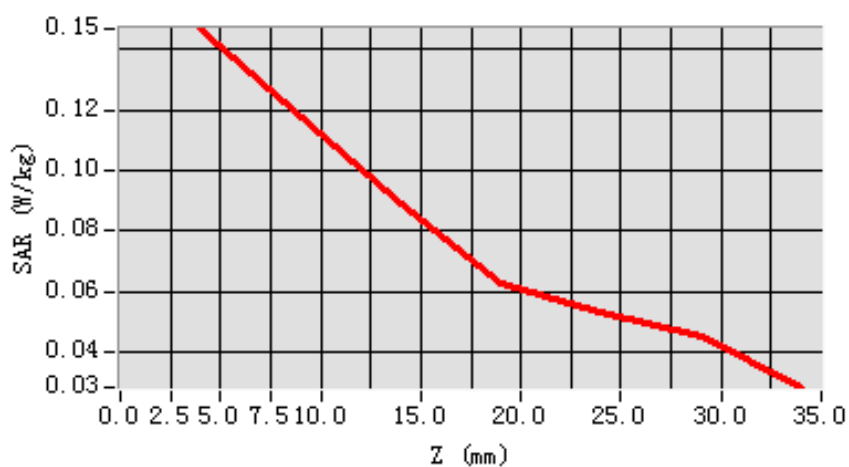


Maximum location: X=-56.00, Y=-42.00

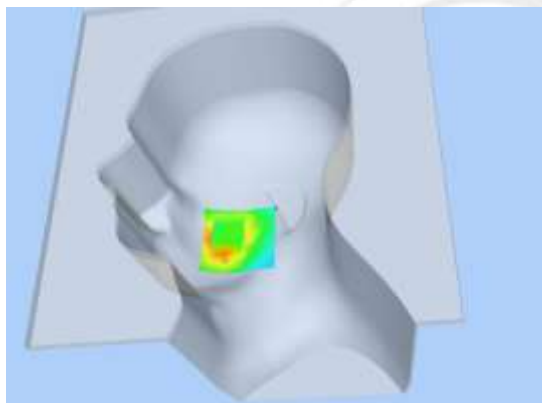
SAR 10g (W/Kg)	0.100864
SAR 1g (W/Kg)	0.149228

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1469	0.1179	0.0889	0.0631	0.0531	0.0456

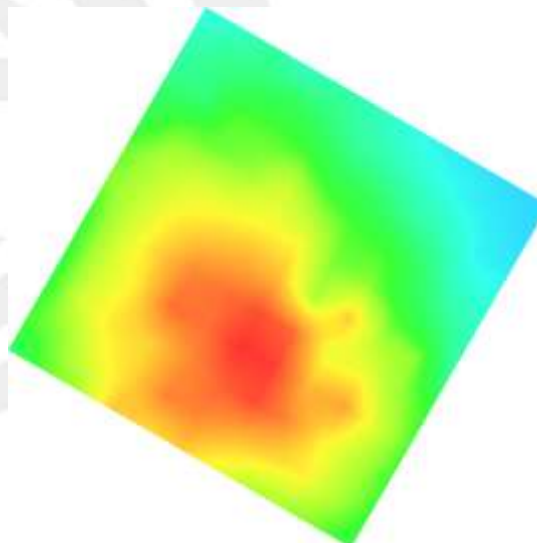
SAR, Z Axis Scan (X = -56, Y = -42)



3D screen shot

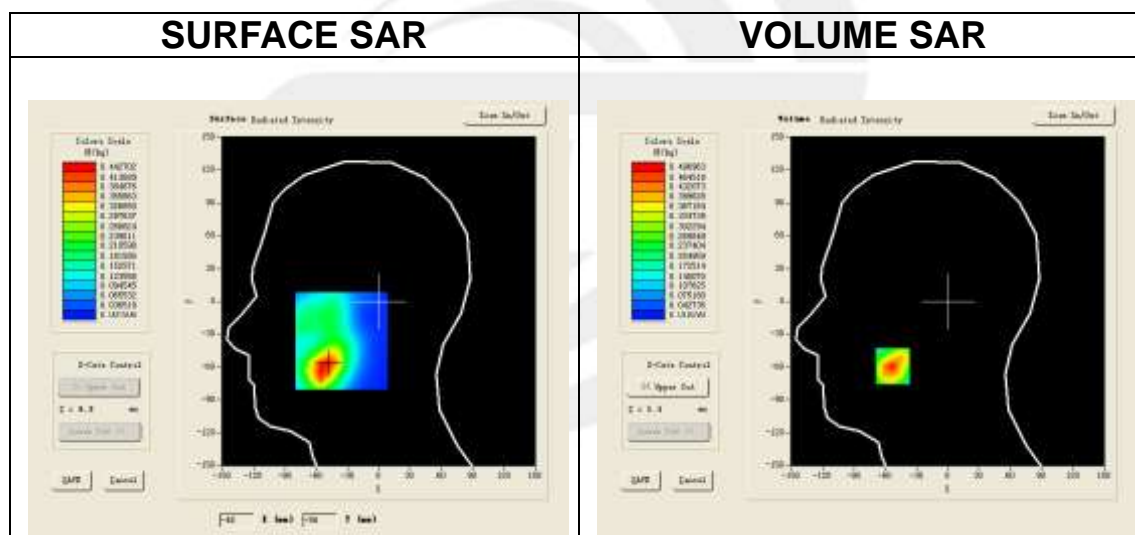


Hot spot position



Plot 11: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 2,2015
Ambient Temperature(°C)	21.5° C
Liquid Temperature(°C)	21.6° C
Probe	SN 17/14 EP221
ConvF	4.71
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	40.59
Conductivity (S/m)	1.40
Variation (%)	0.46

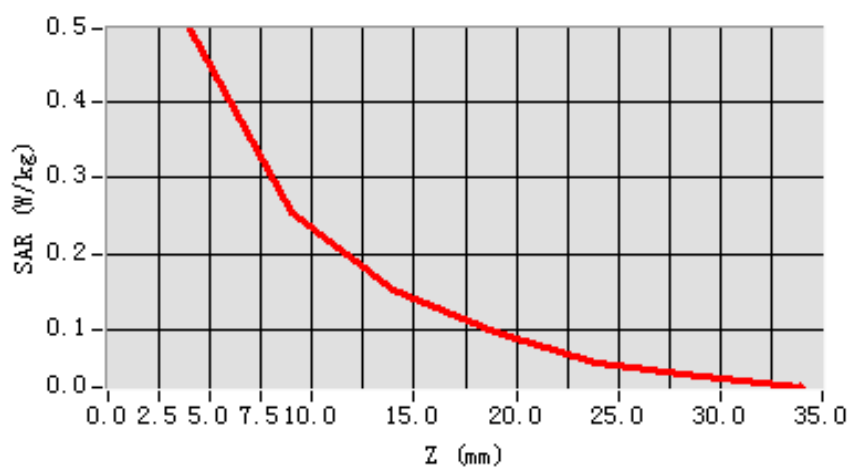


Maximum location: X=-53.00, Y=-59.00

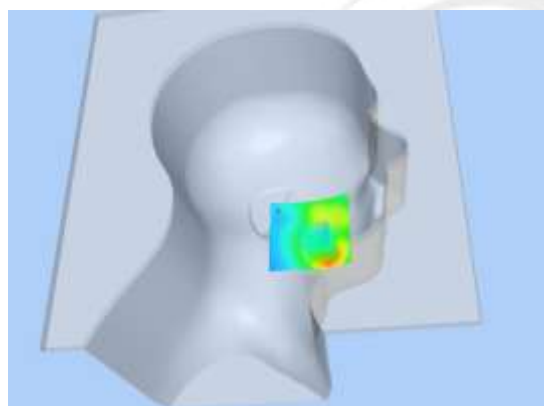
SAR 10g (W/Kg)	0.247526
SAR 1g (W/Kg)	0.470306

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.4970	0.2539	0.1508	0.0964	0.0568	0.0366

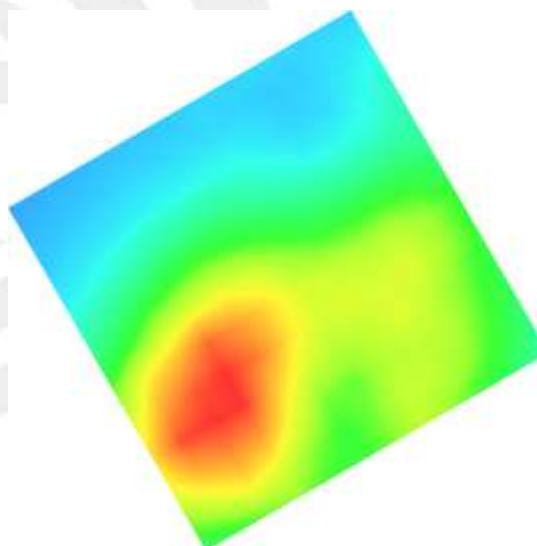
SAR, Z Axis Scan (X = -53, Y = -59)



3D screen shot

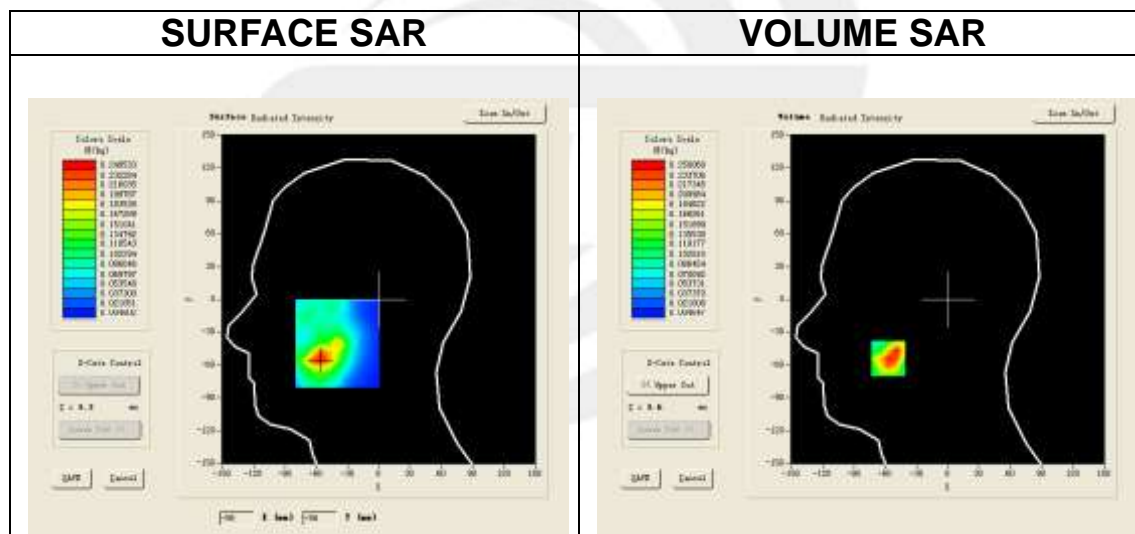


Hot spot position



Plot 15: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 2,2015
Ambient Temperature(°C)	21.5° C
Liquid Temperature(°C)	21.6° C
Probe	SN 17/14 EP221
ConvF	4.71
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Right head
Device Position	Cheek
Band	GPRS 1900
Channels	Middle
Signal	TDMA (Crest factor: 2.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	40.59
Conductivity (S/m)	1.40
Variation (%)	1.20

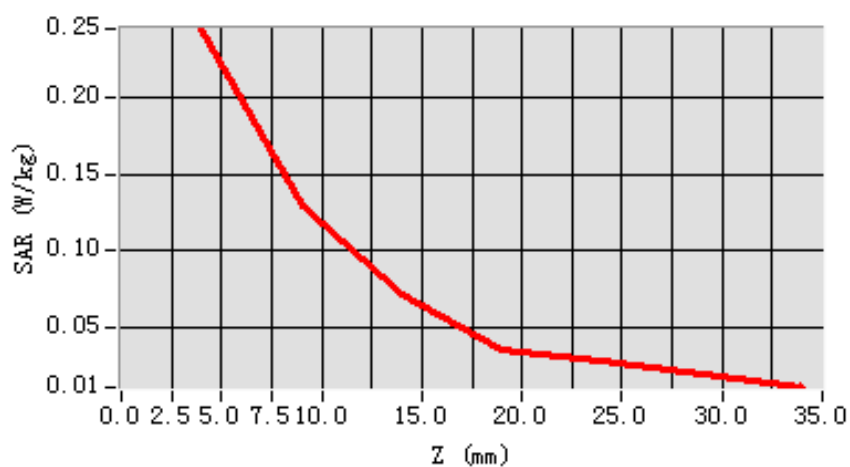


Maximum location: X=-57.00, Y=-54.00

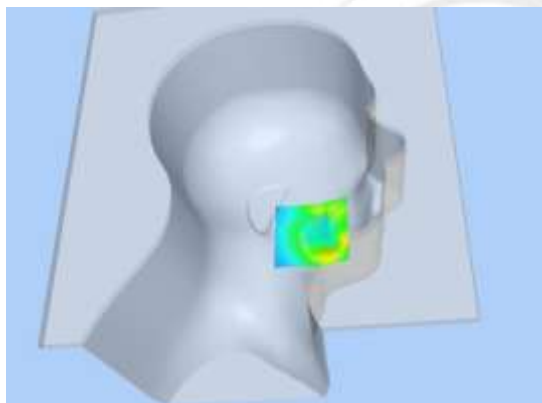
SAR 10g (W/Kg)	0.122909
SAR 1g (W/Kg)	0.243603

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.2453	0.1296	0.0721	0.0346	0.0282	0.0190

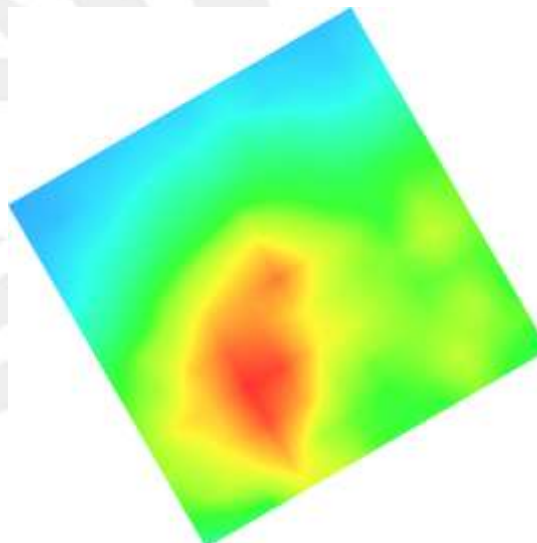
SAR, Z Axis Scan (X = -57, Y = -54)



3D screen shot

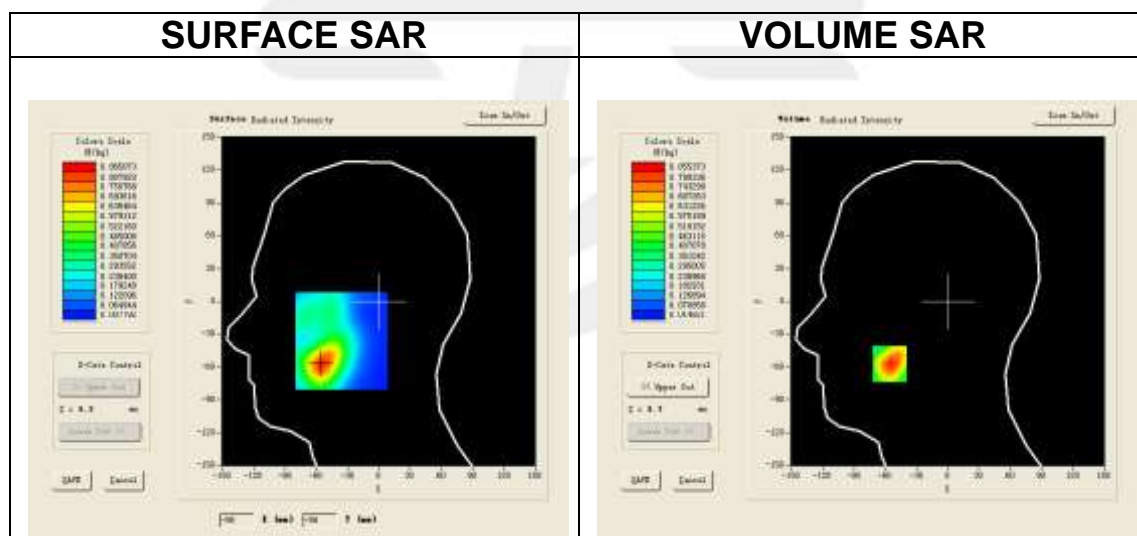


Hot spot position



Plot 21: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 2,2015
Ambient Temperature(°C)	21.5° C
Liquid Temperature(°C)	21.6° C
Probe	SN 17/14 EP221
ConvF	4.71
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Right head
Device Position	Cheek
Band	WCDMA II
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1907.6
Relative permittivity (real part)	39.71
Conductivity (S/m)	1.43
Variation (%)	-0.32

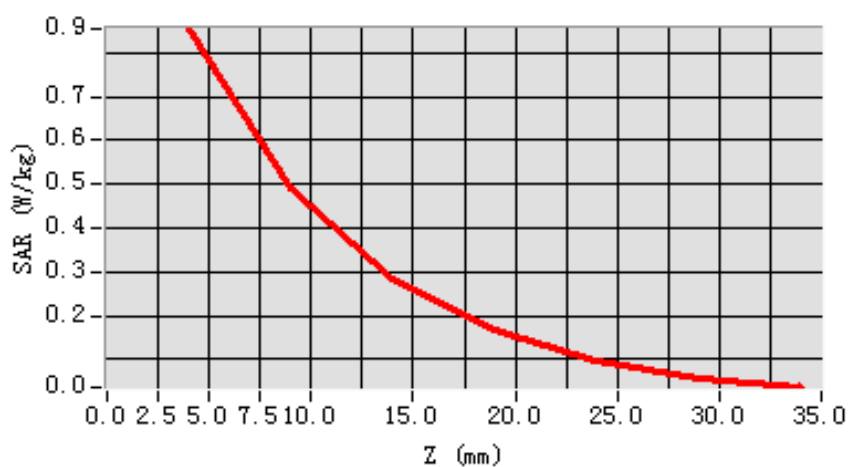


Maximum location: X=-56.00, Y=-57.00

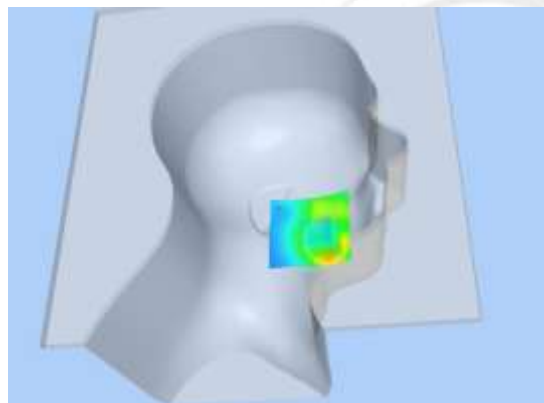
SAR 10g (W/Kg)	0.450858
SAR 1g (W/Kg)	0.812252

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.8554	0.4888	0.2844	0.1651	0.0984	0.0579

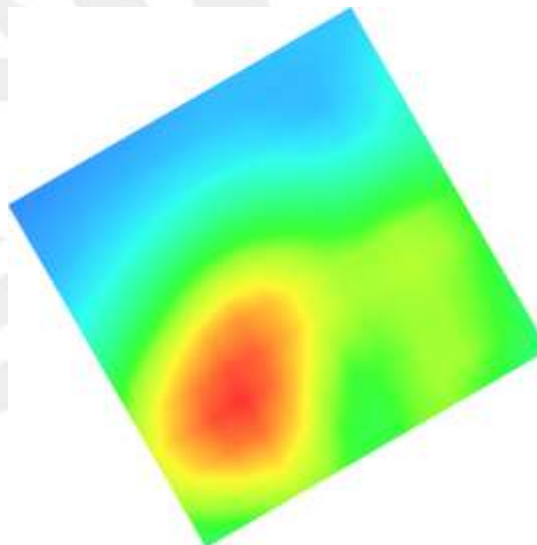
SAR, Z Axis Scan (X = -56, Y = -57)



3D screen shot



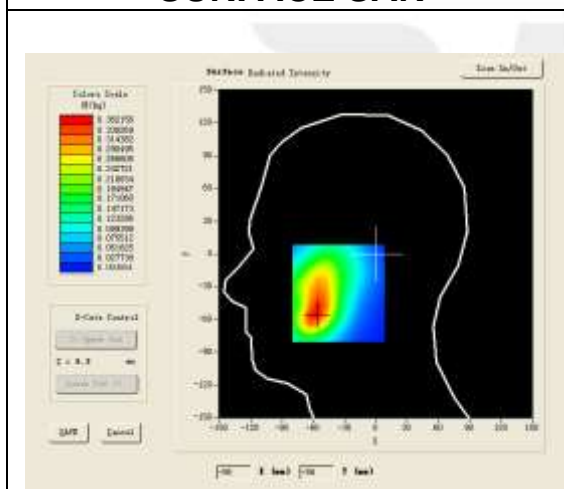
Hot spot position



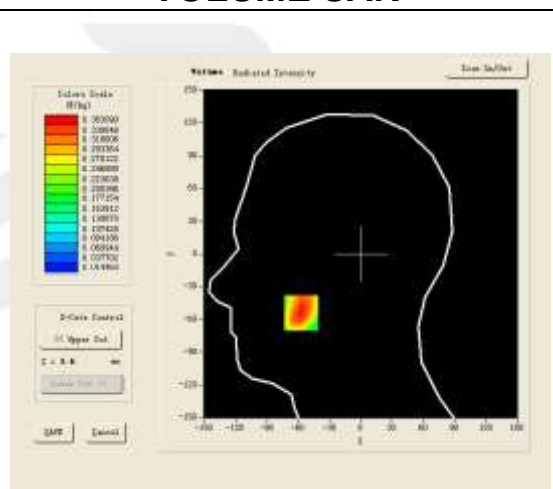
Plot 25: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 01, 2015
Ambient Temperature(°C)	22.0° C
Liquid Temperature(°C)	21.7° C
Probe	SN 17/14 EP221
ConvF	4.83
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Right head
Device Position	Cheek
Band	WCDMA V
Channels	Mid
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	41.09
Conductivity (S/m)	0.92
Variation (%)	-0.38

SURFACE SAR



VOLUME SAR

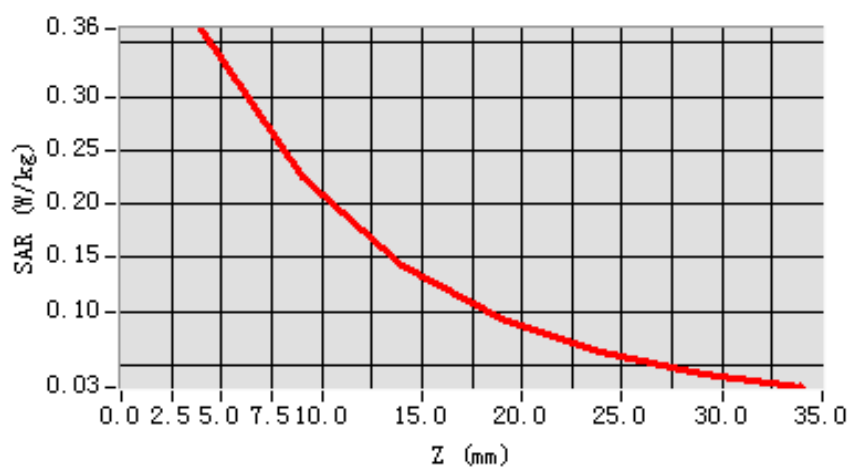


Maximum location: X=-57.00, Y=-54.00

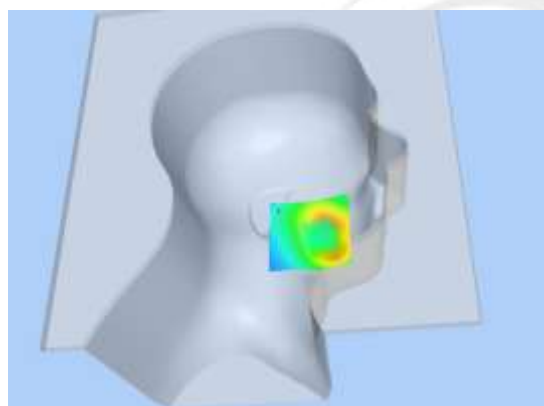
SAR 10g (W/Kg)	0.213608
SAR 1g (W/Kg)	0.349574

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.3631	0.2241	0.1423	0.0920	0.0611	0.0413

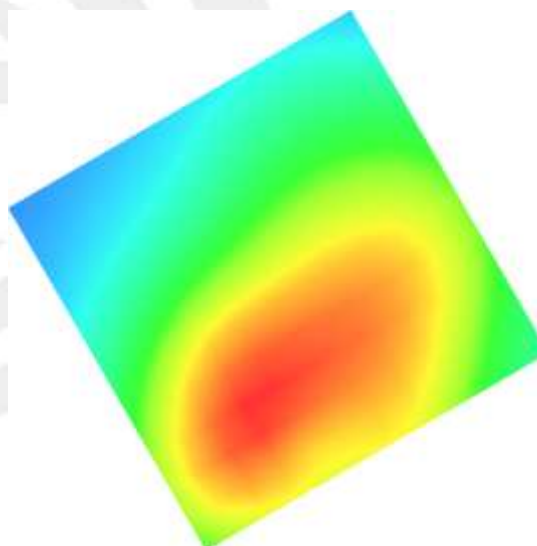
SAR, Z Axis Scan (X = -57, Y = -54)



3D screen shot

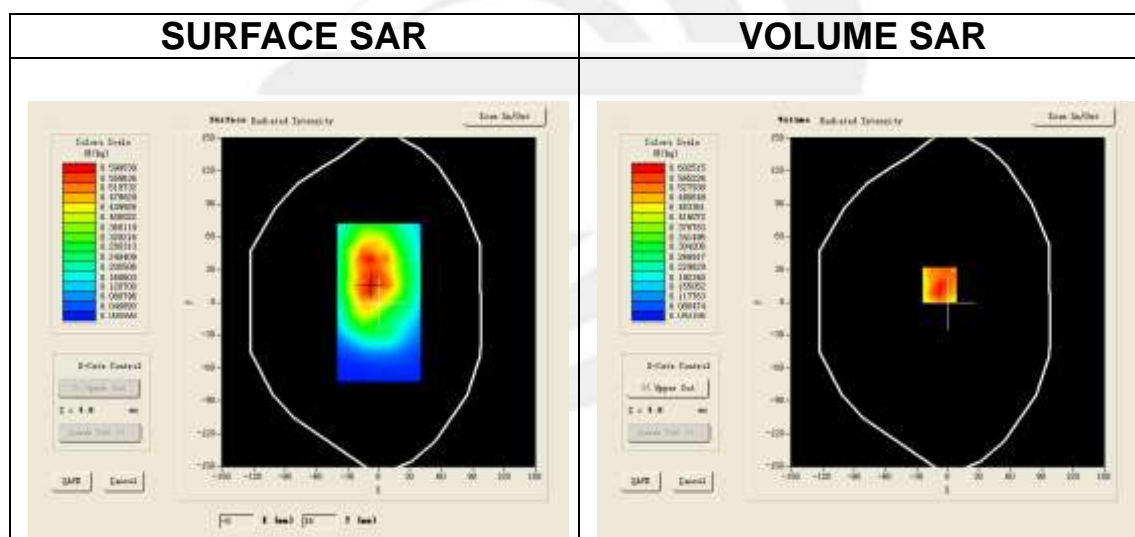


Hot spot position



Plot 27: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 01, 2015
Ambient Temperature(°C)	22.0° C
Liquid Temperature(°C)	22.0° C
Probe	SN 17/14 EP221
ConvF	5.02
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body Back
Band	GSM850
Channels	Mid
Signal	TDMA (Crest factor: 8.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	55.54
Conductivity (S/m)	0.95
Variation (%)	-0.51

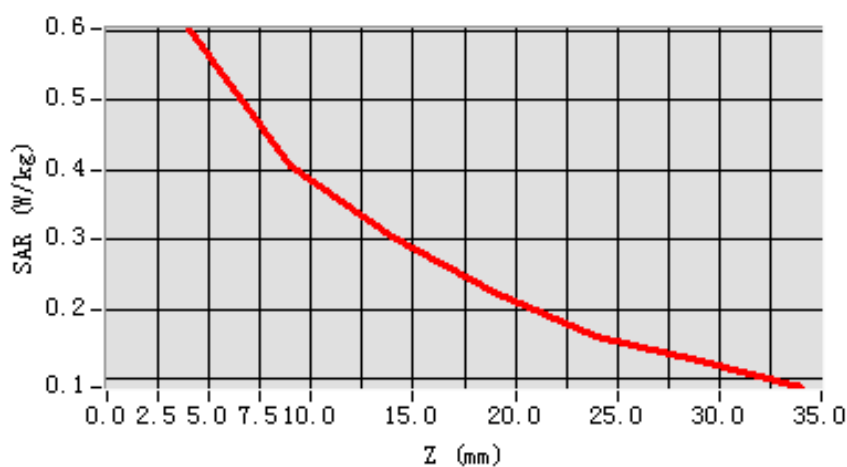


Maximum location: X=-8.00, Y=16.00

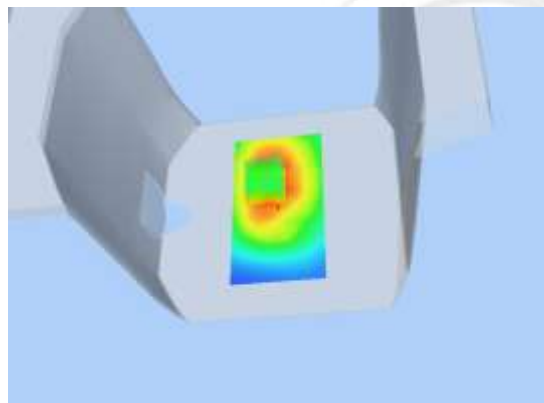
SAR 10g (W/Kg)	0.397123
SAR 1g (W/Kg)	0.584589

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.6025	0.4072	0.3057	0.2258	0.1622	0.1276

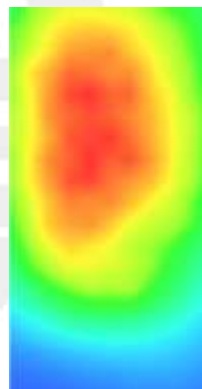
SAR, Z Axis Scan (X = -8, Y = 16)



3D screen shot

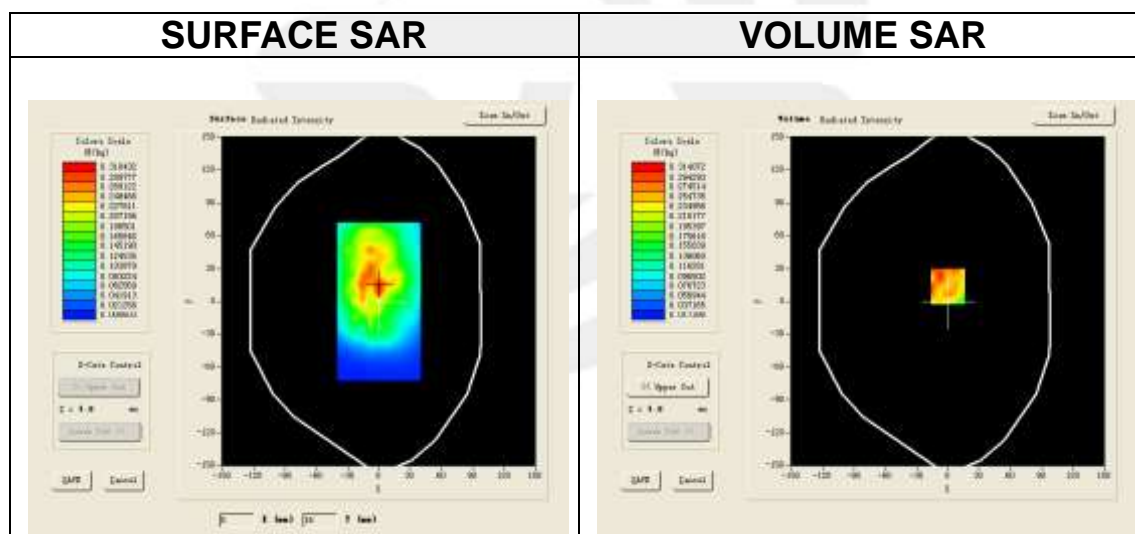


Hot spot position



Plot 29: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 01, 2015
Ambient Temperature(°C)	22.0° C
Liquid Temperature(°C)	22.0° C
Probe	SN 17/14 EP221
ConvF	5.02
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body Back
Band	GPRS 850
Channels	Mid
Signal	TDMA (Crest factor: 2.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	55.54
Conductivity (S/m)	0.95
Variation (%)	0.62

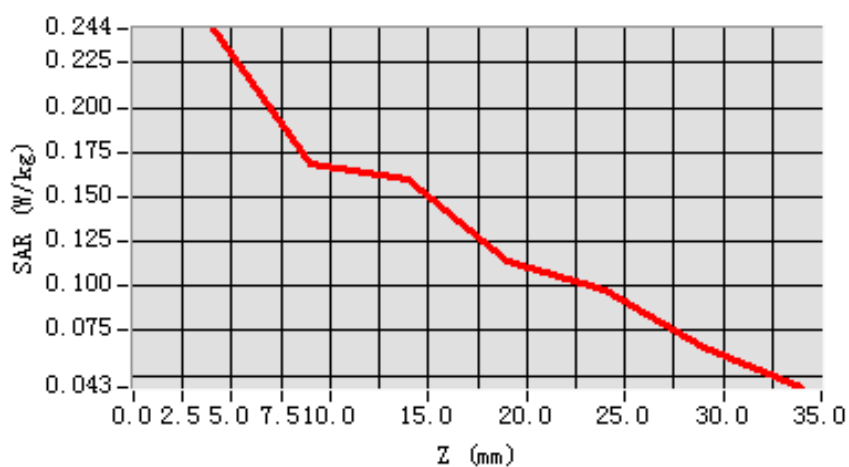


Maximum location: X=0.00, Y=14.00

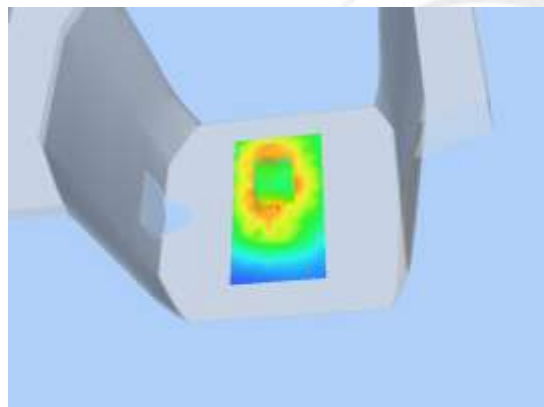
SAR 10g (W/Kg)	0.201812
SAR 1g (W/Kg)	0.273031

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.2441	0.1689	0.1596	0.1142	0.0979	0.0653

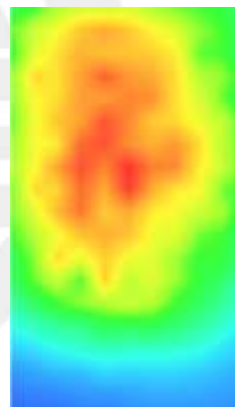
SAR, Z Axis Scan (X = 0, Y = 14)



3D screen shot

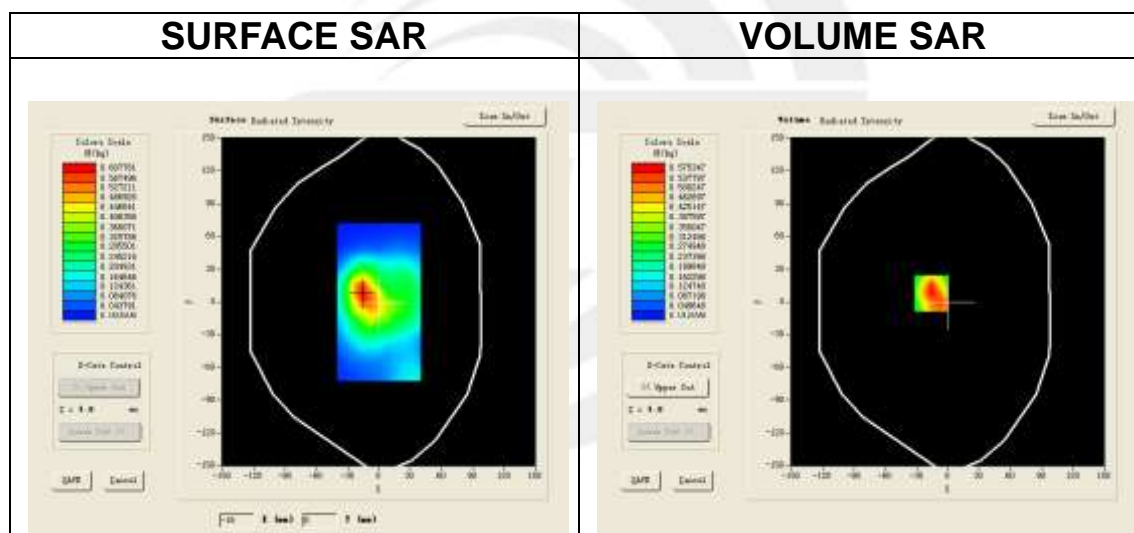


Hot spot position



Plot 35: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 2,2015
Ambient Temperature(°C)	21.5° C
Liquid Temperature(°C)	21.2° C
Probe	SN 17/14 EP221
ConvF	4.85
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body Back
Band	GSM 1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	52.91
Conductivity (S/m)	1.50
Variation (%)	-0.45



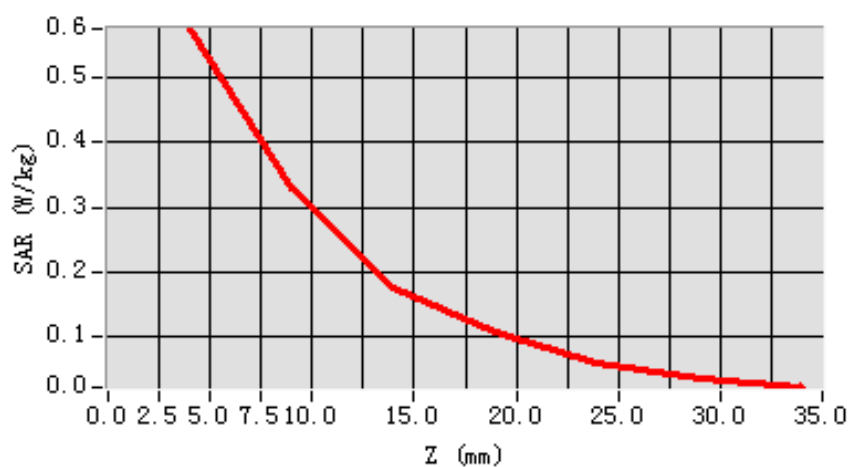
Maximum location: X=-16.00, Y=8.00

SAR 10g (W/Kg)	0.312793
SAR 1g (W/Kg)	0.567584

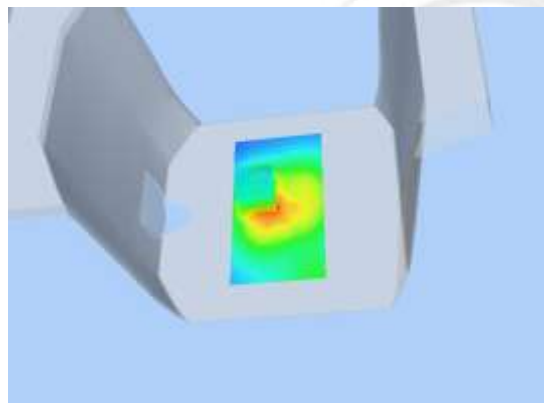


Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.5753	0.3290	0.1751	0.1079	0.0615	0.0373

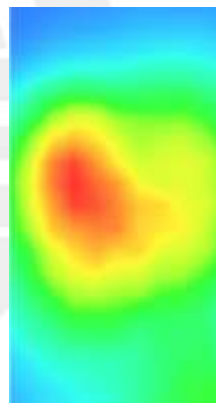
SAR, Z Axis Scan (X = -16, Y = 8)



3D screen shot

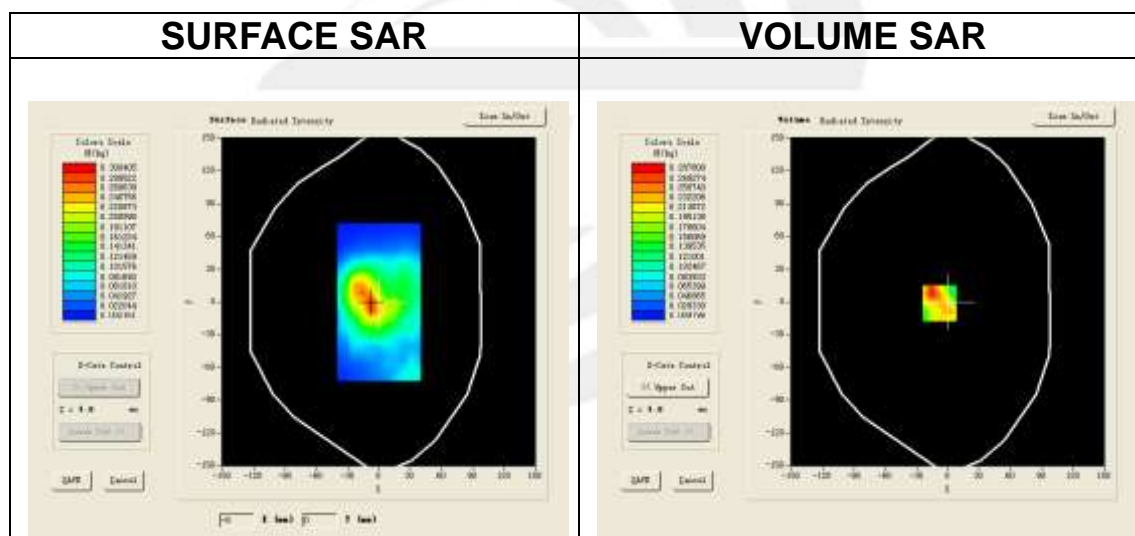


Hot spot position



Plot 37: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 2,2015
Ambient Temperature(°C)	21.5° C
Liquid Temperature(°C)	21.2° C
Probe	SN 17/14 EP221
ConvF	4.85
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body Back
Band	GPRS 1900
Channels	Middle
Signal	TDMA (Crest factor: 2.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	52.91
Conductivity (S/m)	1.50
Variation (%)	-0.31

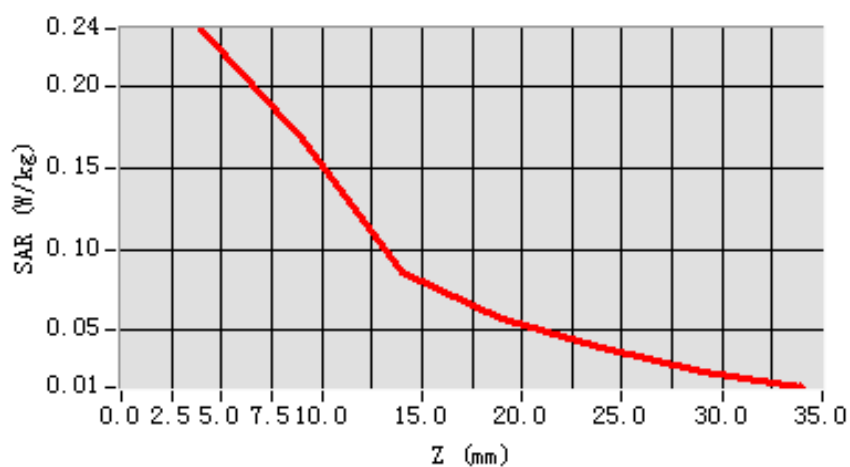

Maximum location: X=-8.00, Y=-1.00

SAR 10g (W/Kg)	0.152454
SAR 1g (W/Kg)	0.275265

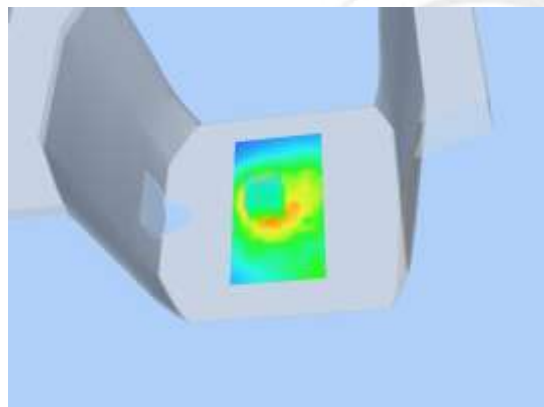


Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.2362	0.1675	0.0853	0.0572	0.0386	0.0246

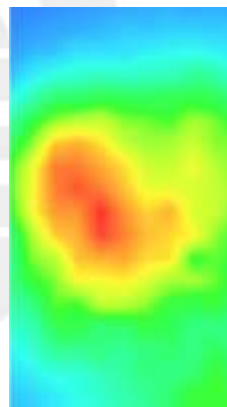
SAR, Z Axis Scan (X = -8, Y = -1)



3D screen shot

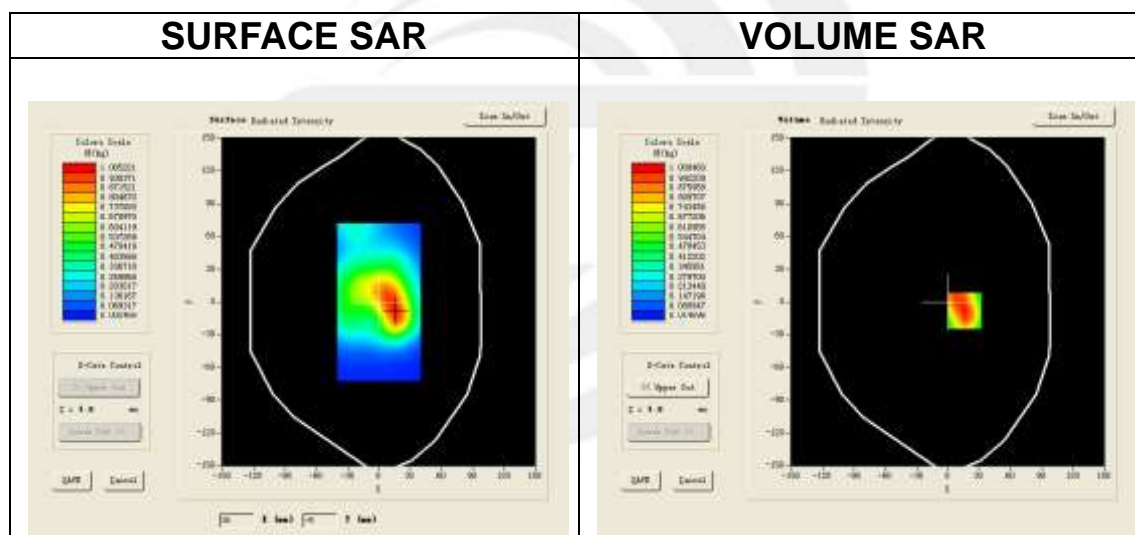


Hot spot position



Plot 44: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 2,2015
Ambient Temperature(°C)	21.5° C
Liquid Temperature(°C)	21.2° C
Probe	SN 17/14 EP221
ConvF	4.85
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back side
Band	WCDMA II
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880
Relative permittivity (real part)	52.91
Conductivity (S/m)	1.50
Variation (%)	-0.96

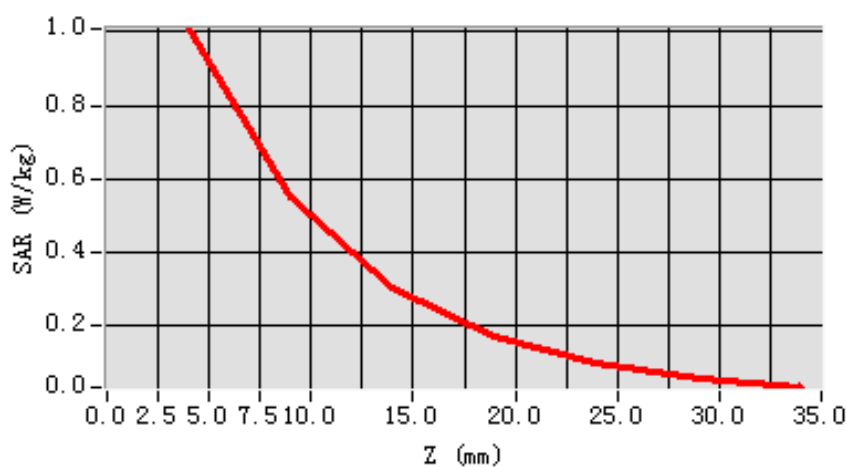


Maximum location: X=16.00, Y=-8.00

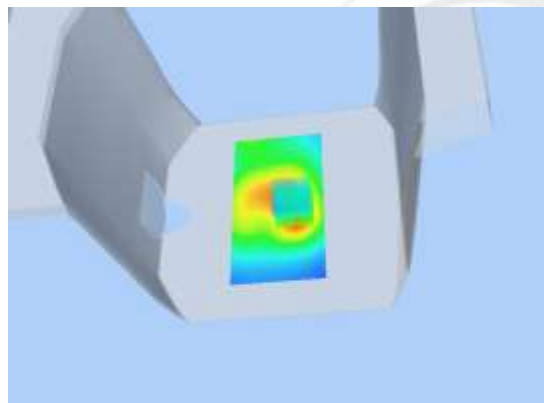
SAR 10g (W/Kg)	0.540801
SAR 1g (W/Kg)	0.969395

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	1.0085	0.5481	0.3051	0.1718	0.0983	0.0566

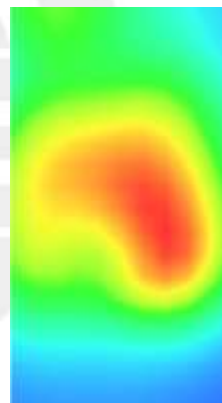
SAR, Z Axis Scan (X = 16, Y = -8)



3D screen shot

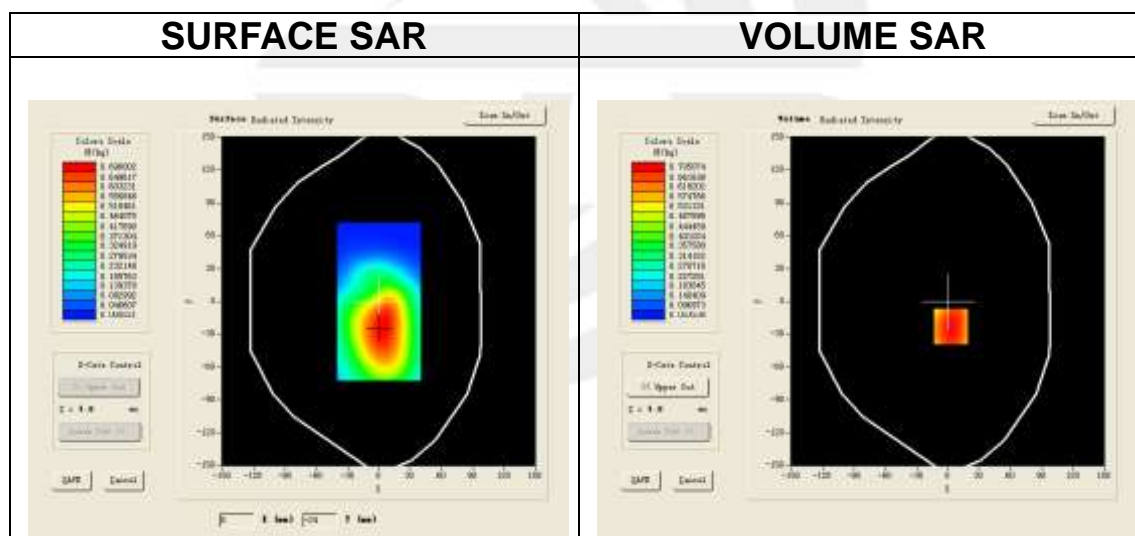


Hot spot position



Plot 53: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 01, 2015
Ambient Temperature(°C)	22.0° C
Liquid Temperature(°C)	22.0° C
Probe	SN 17/14 EP221
ConvF	5.02
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back
Band	WCDMA V
Channels	Mid
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	55.54
Conductivity (S/m)	0.95
Variation (%)	0.11

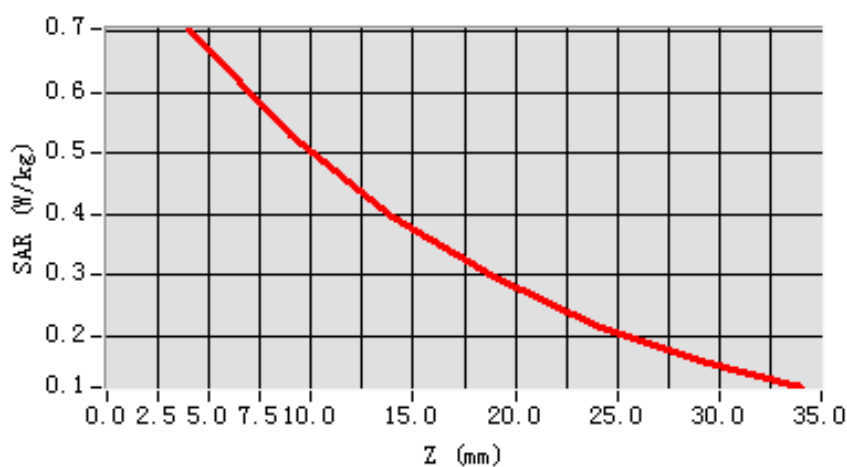


Maximum location: X=3.00, Y=-23.00

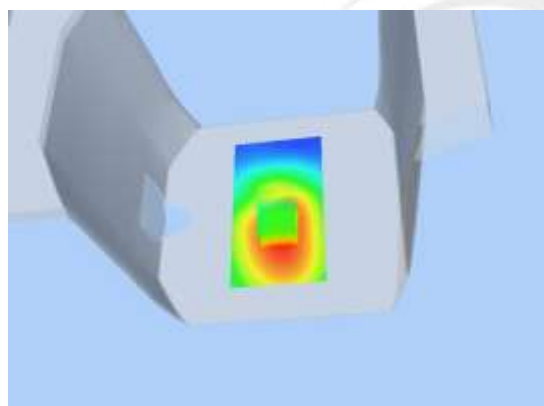
SAR 10g (W/Kg)	0.492947
SAR 1g (W/Kg)	0.681629

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.7051	0.5306	0.3965	0.2959	0.2164	0.1582

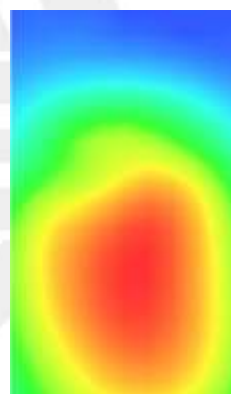
SAR, Z Axis Scan (X = 3, Y = -23)



3D screen shot

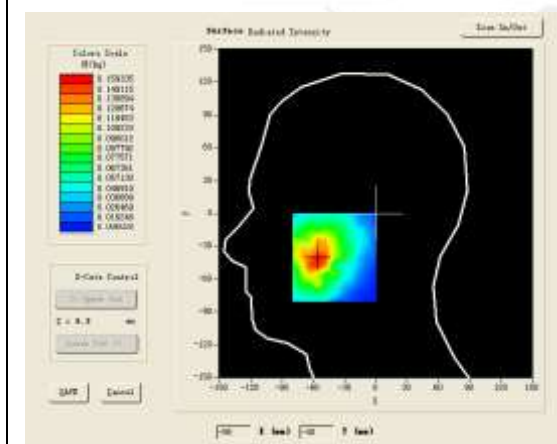
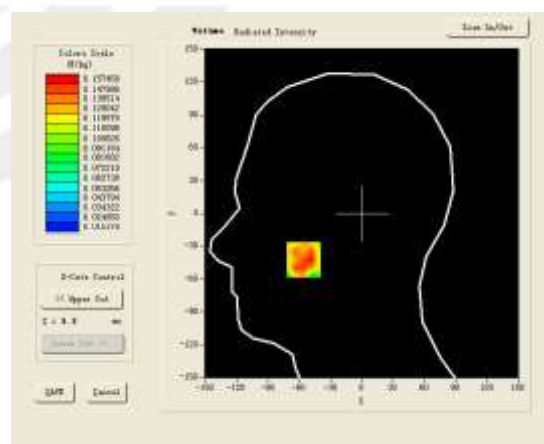


Hot spot position



Plot 59: DUT: 3G Mobile phone; EUT Model: K6 Zense

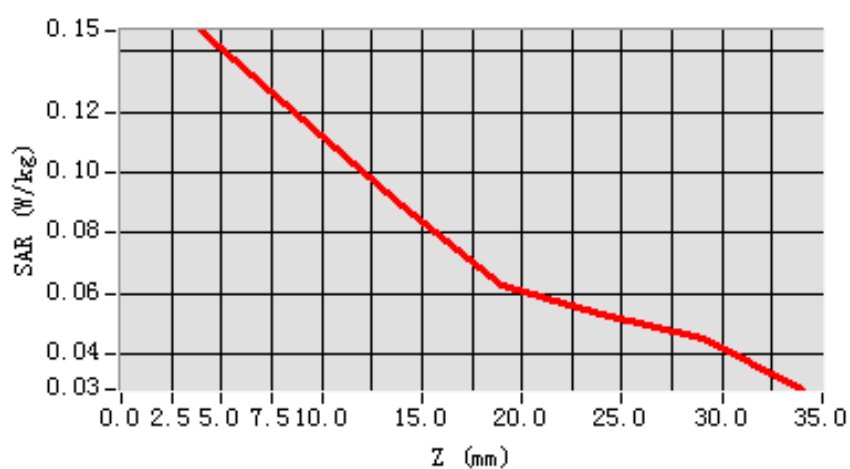
Test Date	July 01, 2015
Ambient Temperature(°C)	22.0° C
Liquid Temperature(°C)	21.7° C
Probe	SN 17/14 EP221
ConvF	4.83
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Left head
Device Position	Cheek
Band	GSM850
Channels	Mid
Signal	TDMA (Crest factor: 8.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	41.09
Conductivity (S/m)	0.92
Variation (%)	-0.42

SURFACE SAR

VOLUME SAR

Maximum location: X=-56.00, Y=-42.00

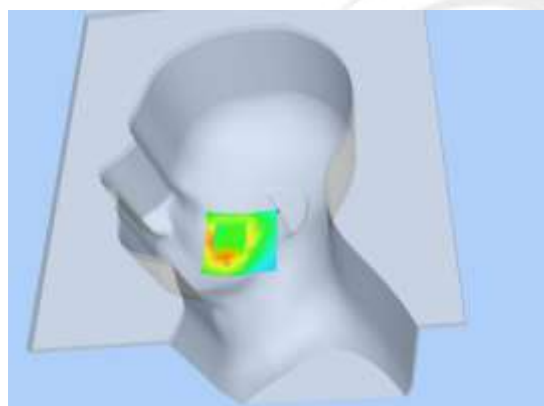
SAR 10g (W/Kg)	0.100571
SAR 1g (W/Kg)	0.148511

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1460	0.1168	0.0875	0.0628	0.0527	0.0447

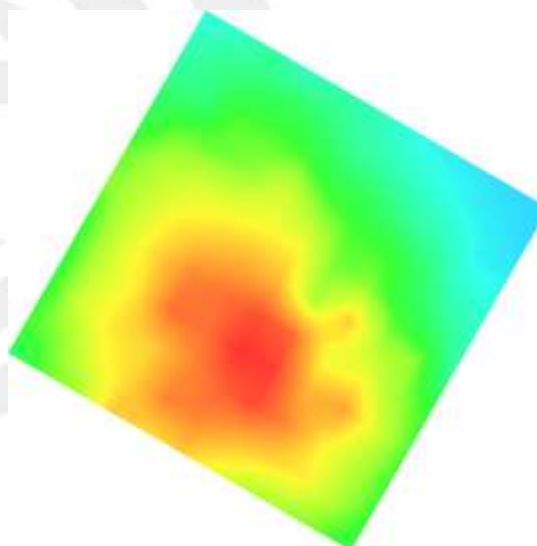
SAR, Z Axis Scan (X = -56, Y = -42)



3D screen shot

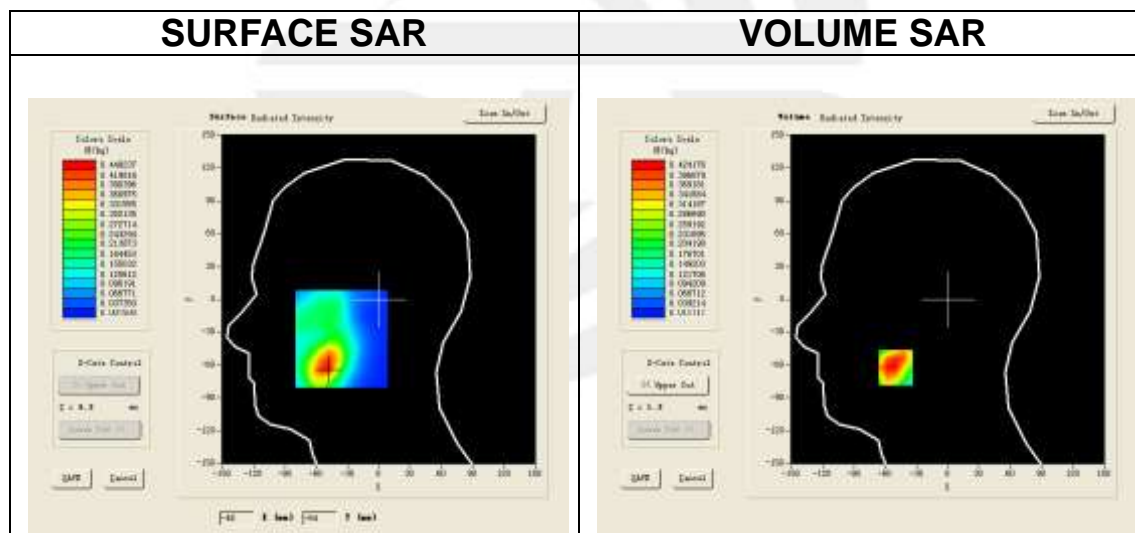


Hot spot position



Plot 60: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 2,2015
Ambient Temperature(°C)	21.5° C
Liquid Temperature(°C)	21.6° C
Probe	SN 17/14 EP221
ConvF	4.71
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	40.59
Conductivity (S/m)	1.40
Variation (%)	-1.59

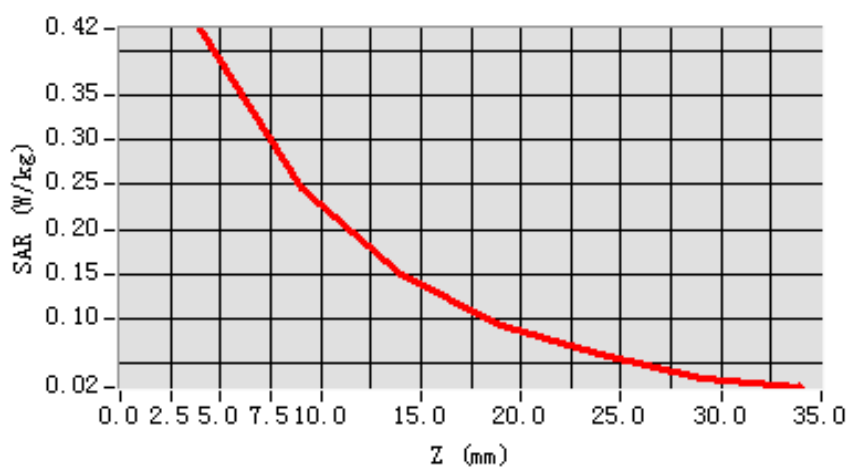


Maximum location: X=-50.00, Y=-62.00

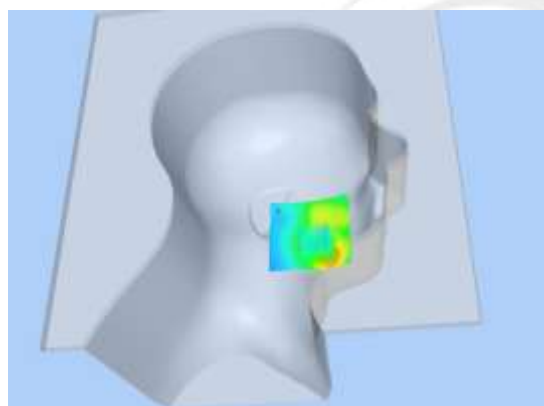
SAR 10g (W/Kg)	0.231609
SAR 1g (W/Kg)	0.415111

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.4242	0.2452	0.1507	0.0919	0.0596	0.0341

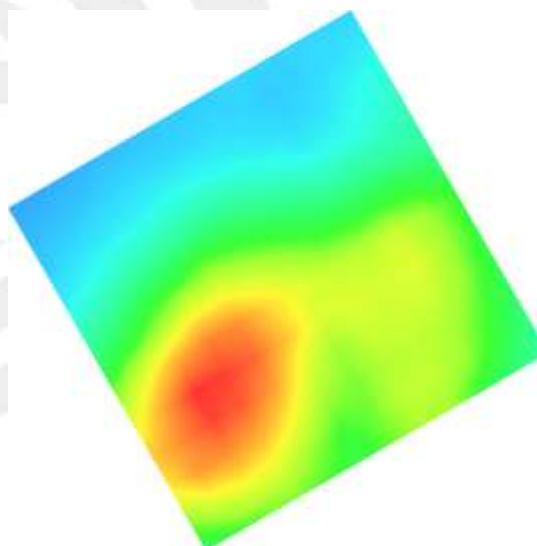
SAR, Z Axis Scan (X = -50, Y = -62)



3D screen shot

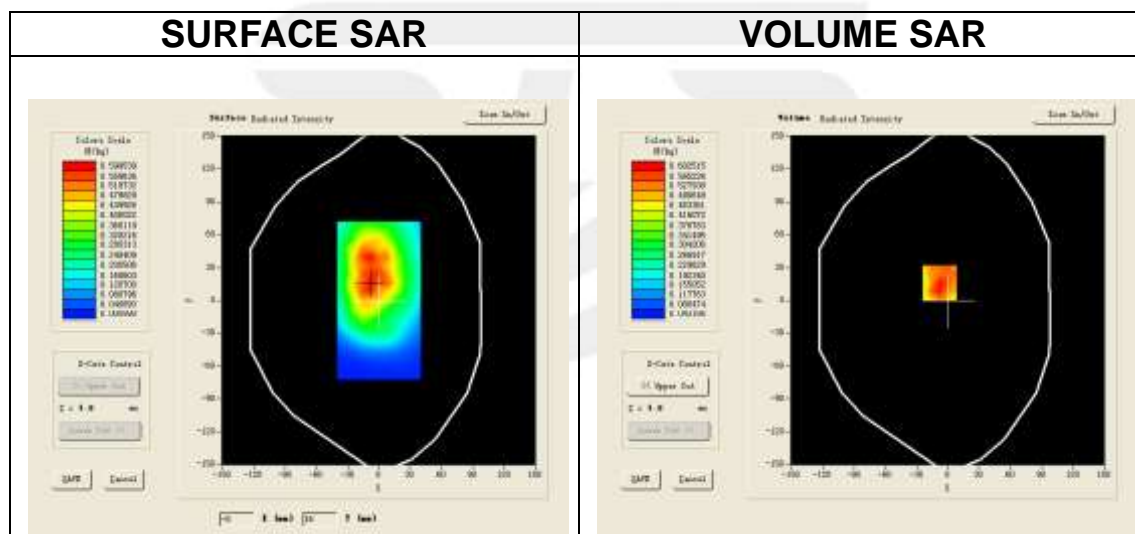


Hot spot position



Plot 61: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 01, 2015
Ambient Temperature(°C)	22.0° C
Liquid Temperature(°C)	22.0° C
Probe	SN 17/14 EP221
ConvF	5.02
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body Back
Band	GSM850
Channels	Mid
Signal	TDMA (Crest factor: 8.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	55.54
Conductivity (S/m)	0.95
Variation (%)	0.31



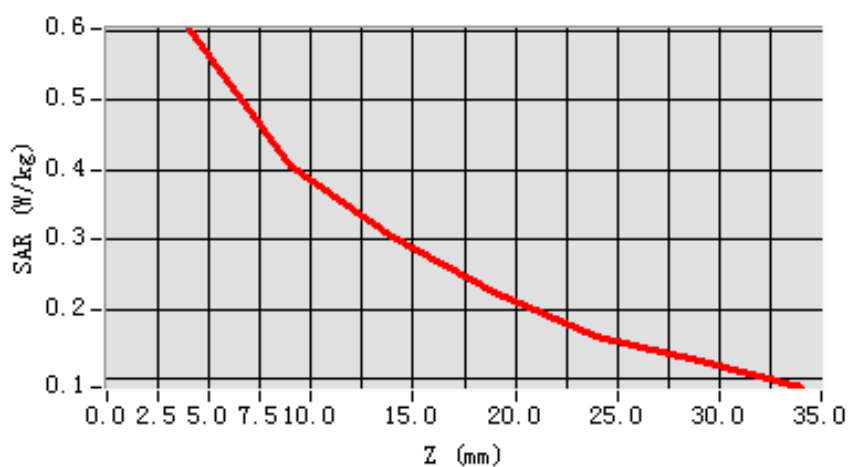
Maximum location: X=-8.00, Y=16.00

SAR 10g (W/Kg)	0.393357
SAR 1g (W/Kg)	0.561459

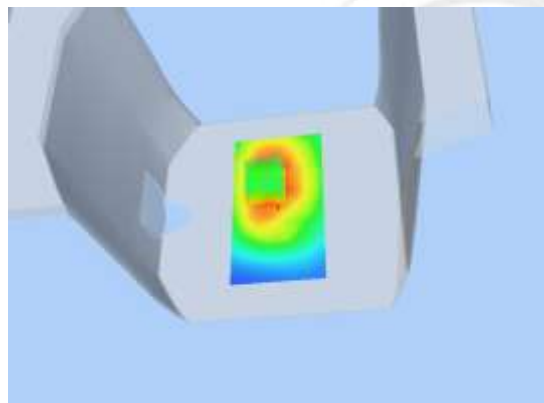


Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.6002	0.4047	0.3028	0.2235	0.1599	0.1231

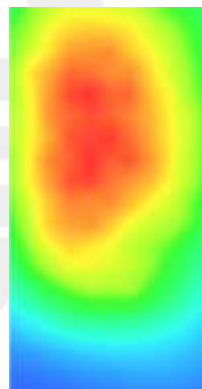
SAR, Z Axis Scan (X = -8, Y = 16)



3D screen shot

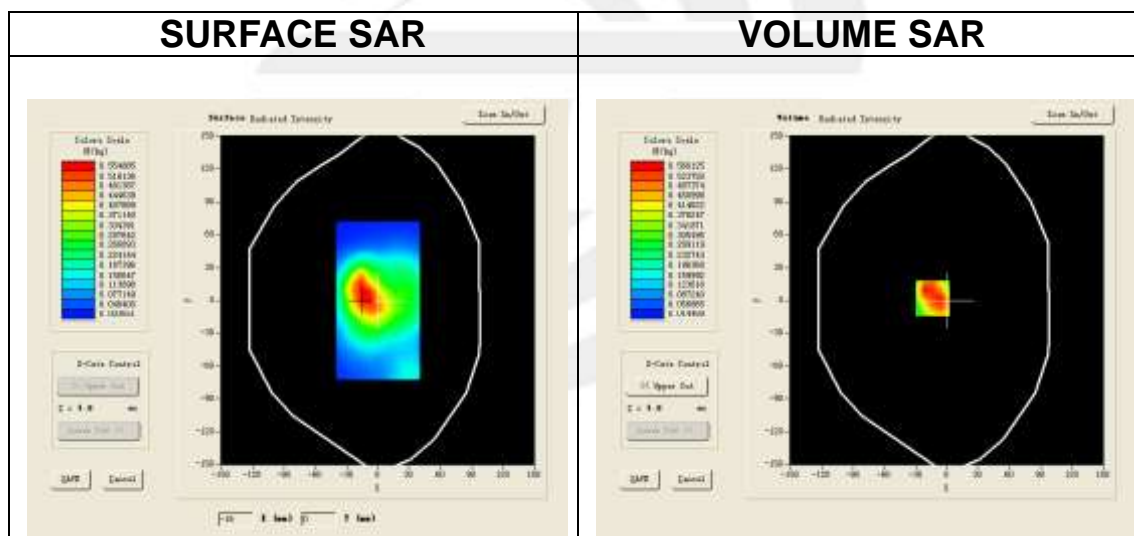


Hot spot position



Plot 62: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 2,2015
Ambient Temperature(°C)	21.5° C
Liquid Temperature(°C)	21.2° C
Probe	SN 17/14 EP221
ConvF	4.85
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body Back
Band	GSM 1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	52.91
Conductivity (S/m)	1.50
Variation (%)	0.32

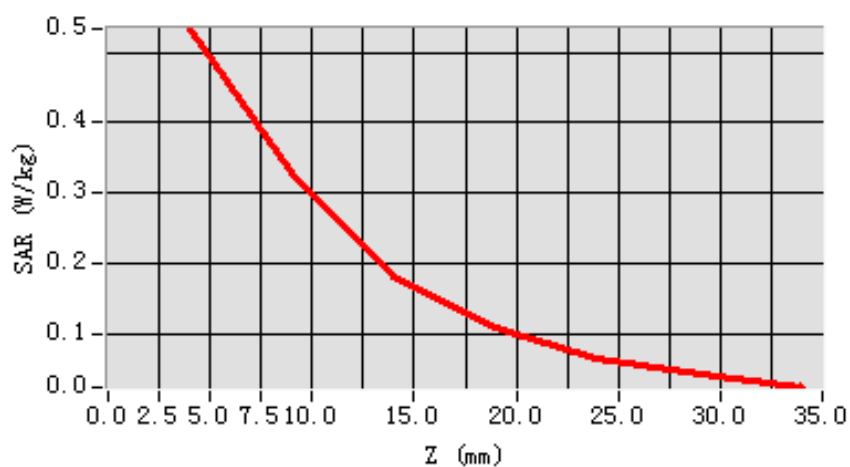


Maximum location: X=-14.00, Y=2.00

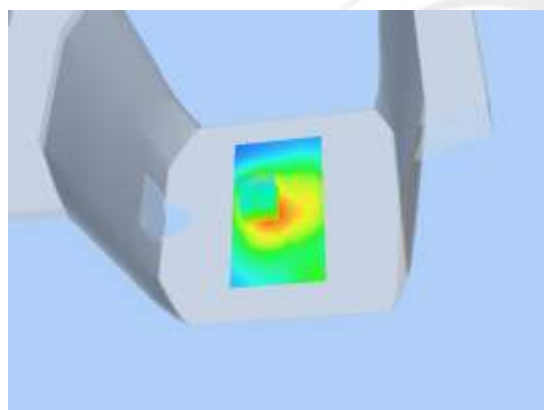
SAR 10g (W/Kg)	0.304737
SAR 1g (W/Kg)	0.530488

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.5316	0.3272	0.1792	0.1088	0.0631	0.0409

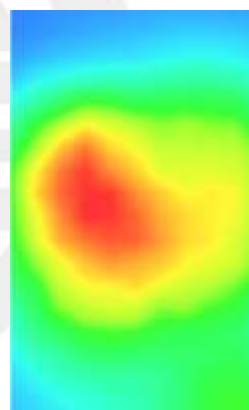
SAR, Z Axis Scan (X = -14, Y = 2)



3D screen shot

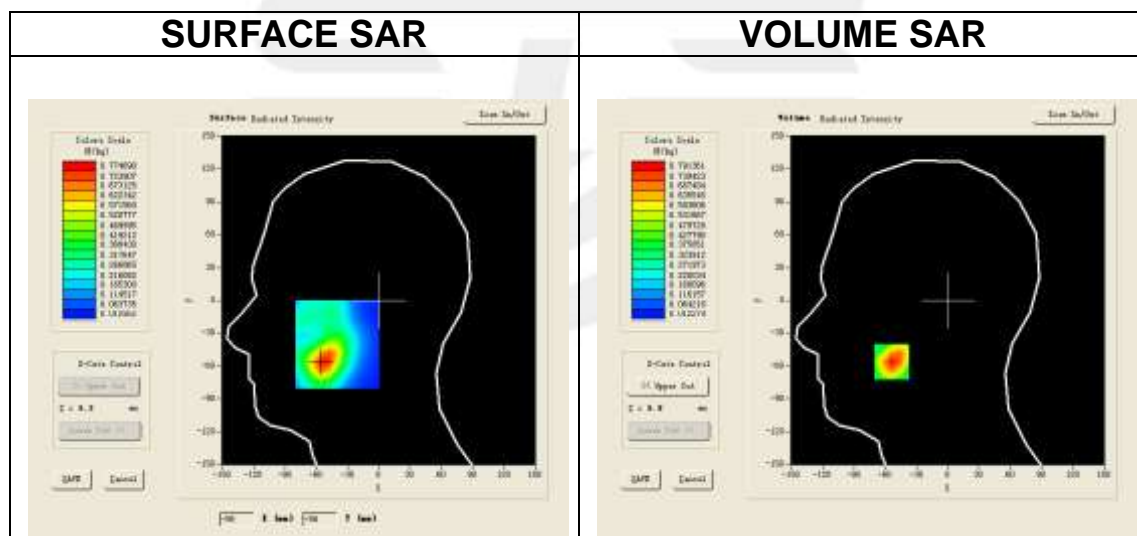


Hot spot position



Plot 63: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 2,2015
Ambient Temperature(°C)	21.5C
Liquid Temperature(°C)	21.6C
Probe	SN 17/14 EP221
ConvF	4.71
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Right head
Device Position	Cheek
Band	WCDMA II
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1907.6
Relative permittivity (real part)	39.71
Conductivity (S/m)	1.43
Variation (%)	-0.79

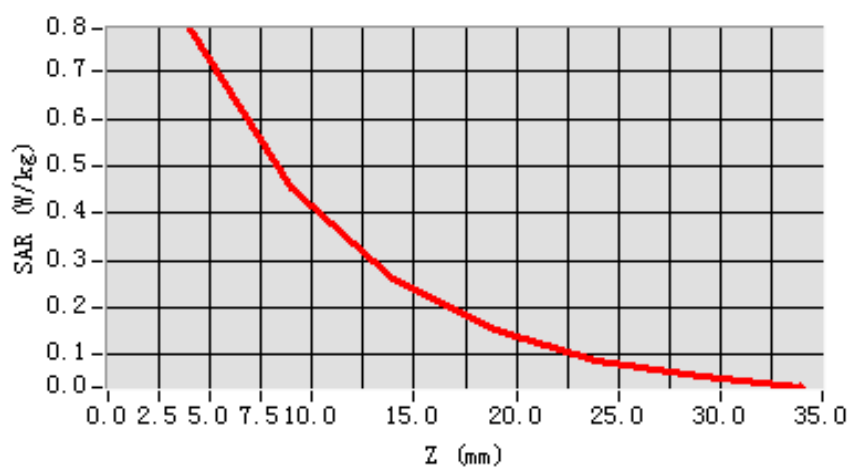


Maximum location: X=-54.00, Y=-56.00

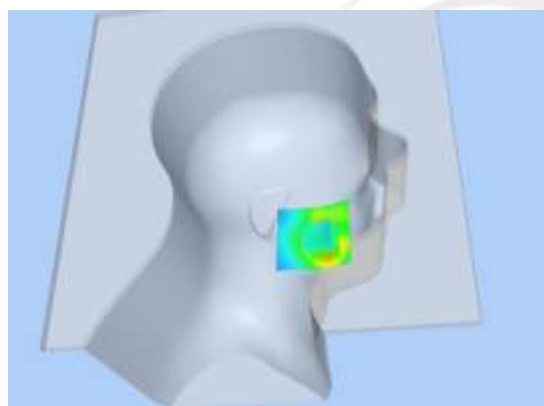
SAR 10g (W/Kg)	0.411893
SAR 1g (W/Kg)	0.751279

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.7916	0.4520	0.2621	0.1535	0.0901	0.0543

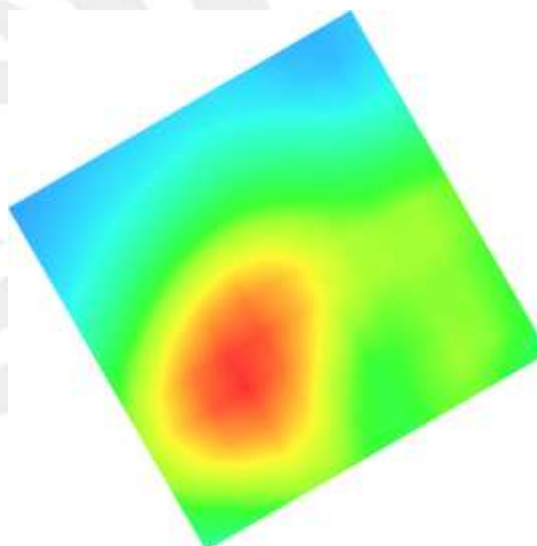
SAR, Z Axis Scan (X = -54, Y = -56)



3D screen shot

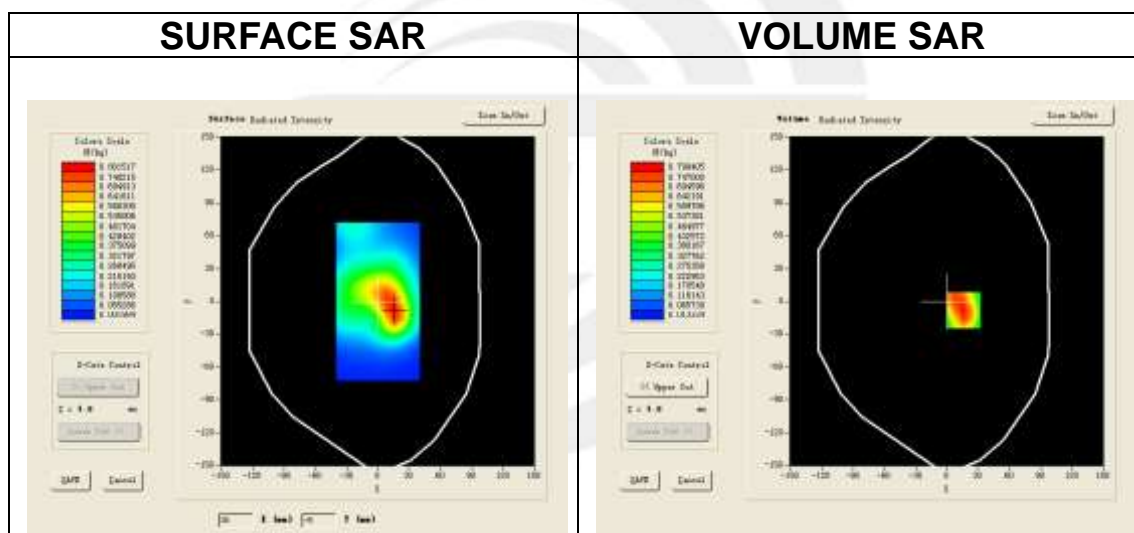


Hot spot position



Plot 64: DUT: 3G Mobile phone; EUT Model: K6 Zense

Test Date	July 2,2015
Ambient Temperature(°C)	21.5° C
Liquid Temperature(°C)	21.2° C
Probe	SN 17/14 EP221
ConvF	4.85
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back side
Band	WCDMA II
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880
Relative permittivity (real part)	52.91
Conductivity (S/m)	1.50
Variation (%)	0.12

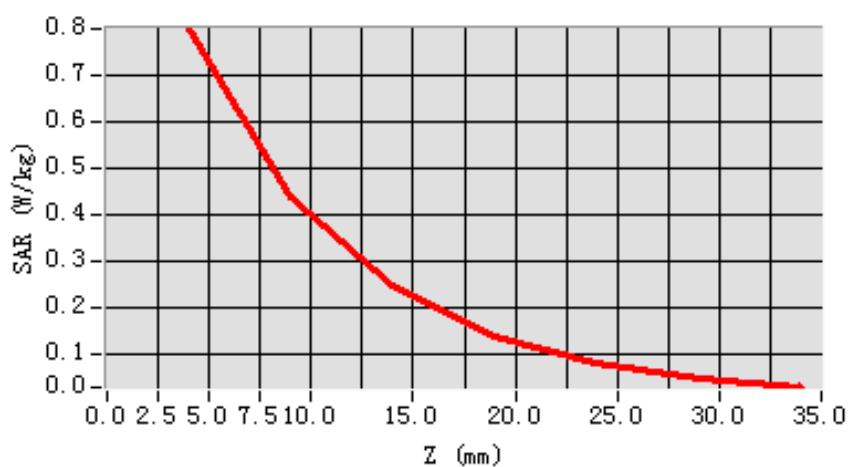


Maximum location: X=16.00, Y=-8.00

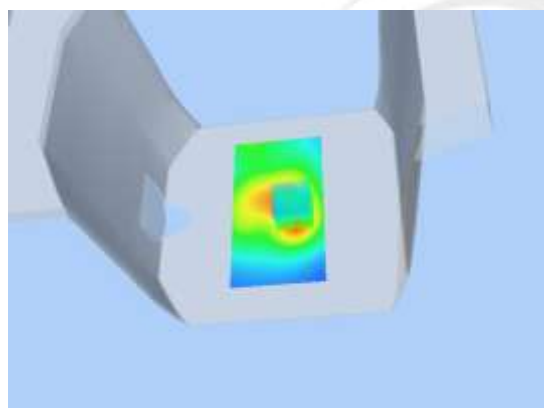
SAR 10g (W/Kg)	0.429120
SAR 1g (W/Kg)	0.765214

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.7996	0.4383	0.2457	0.1393	0.0812	0.0472

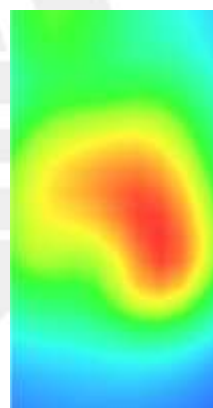
SAR, Z Axis Scan (X = 16, Y = -8)



3D screen shot

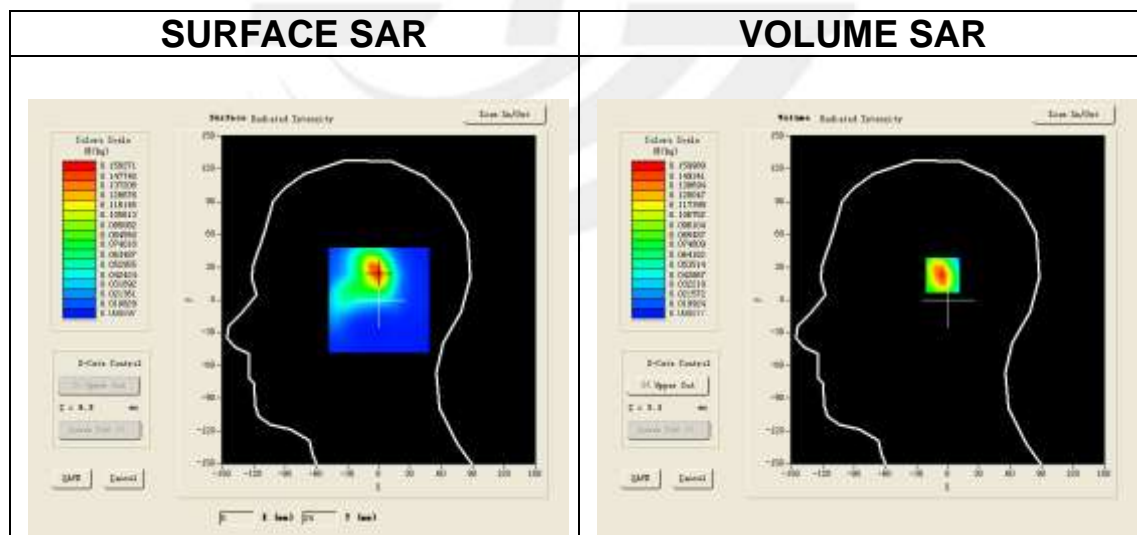


Hot spot position



Plot 67: DUT: Revel Pro; EUT Model: EROS 4.0

Test Date	June 30,2015
Ambient Temperature(°C)	21.7
Liquid Temperature(°C)	21.4
Probe	SN 17/14 EP221
ConvF	4.11
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm, Complete/ndx=5mm dy=5mm, h= 5.00 mm
Phantom	Right head
Device Position	Cheek
Band	2450MHz
Channels	Middle
Signal	Crest factor: 1.0
Frequency (MHz)	2437
Relative permittivity (real part)	40.00
Conductivity (S/m)	1.77
Variation (%)	-0.62

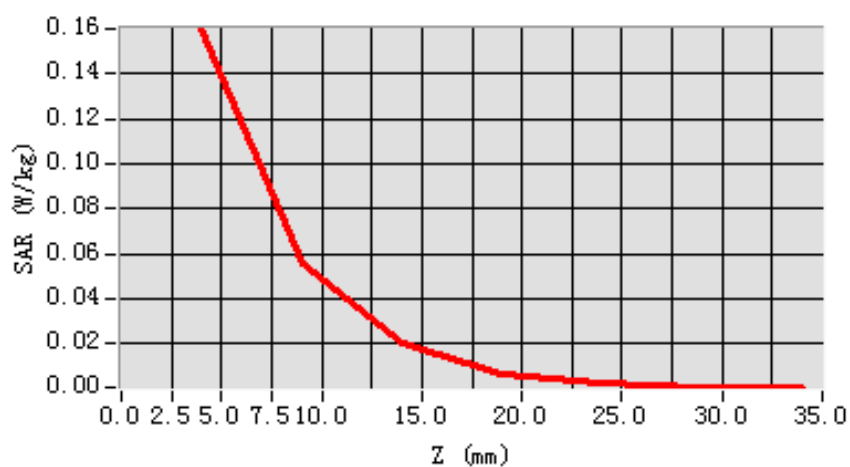


Maximum location: X=-1.00, Y=25.00

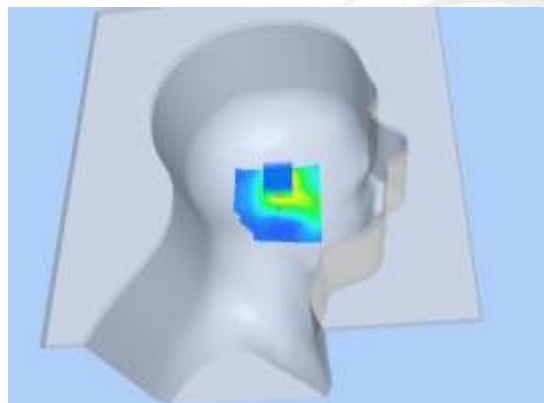
SAR 10g (W/Kg)	0.064444
SAR 1g (W/Kg)	0.154399

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1600	0.0560	0.0200	0.0070	0.0023	0.0008

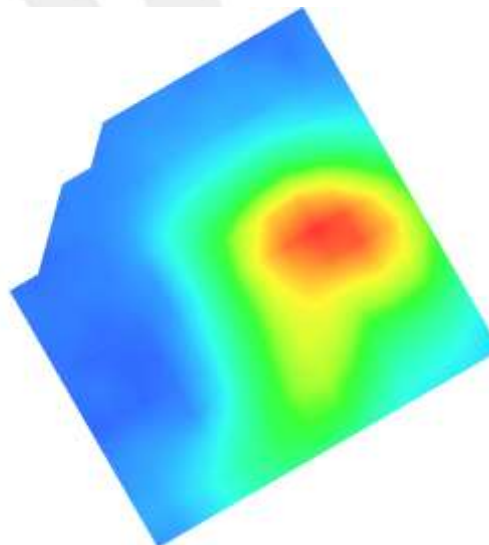
SAR, Z Axis Scan (X = -1, Y = 25)



3D screen shot

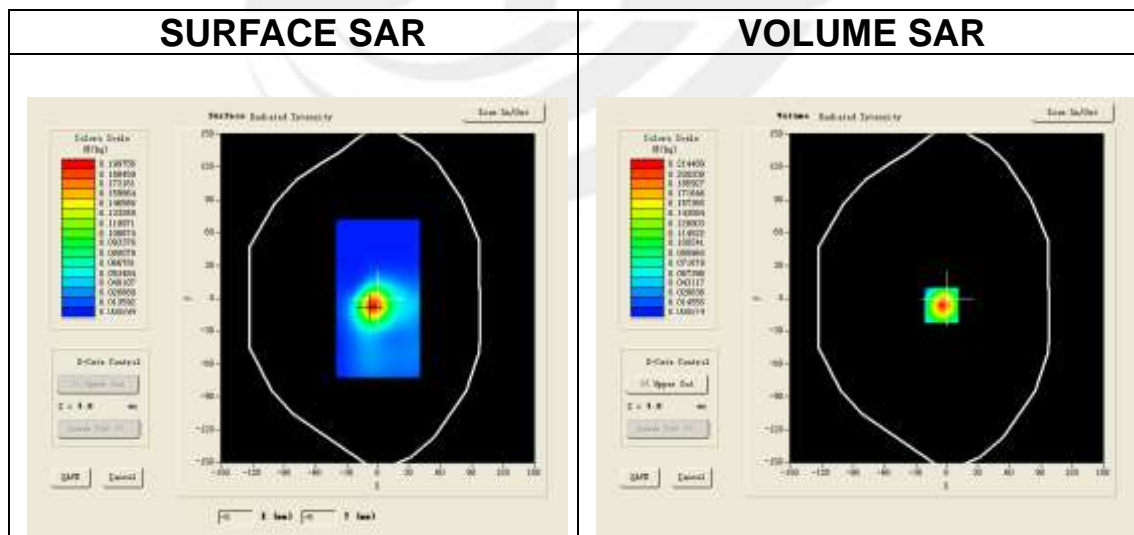


Hot spot position



Plot 69: DUT: Mobile phone; EUT Model: EROS 4.0

Test Date	June 30,2015
Ambient Temperature(°C)	21.7
Liquid Temperature(°C)	21.7
Probe	SN 17/14 EP221
ConvF	4.25
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomScan	7x7x7,dx=5mm dy=5mm dz=5mm, Complete/ndx=5mm dy=5mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back
Band	2450MHz
Channels	Middle
Signal	Crest factor: 1.0
Frequency (MHz)	2437
Relative permittivity (real part)	52.61
Conductivity (S/m)	1.90
Variation (%)	0.26

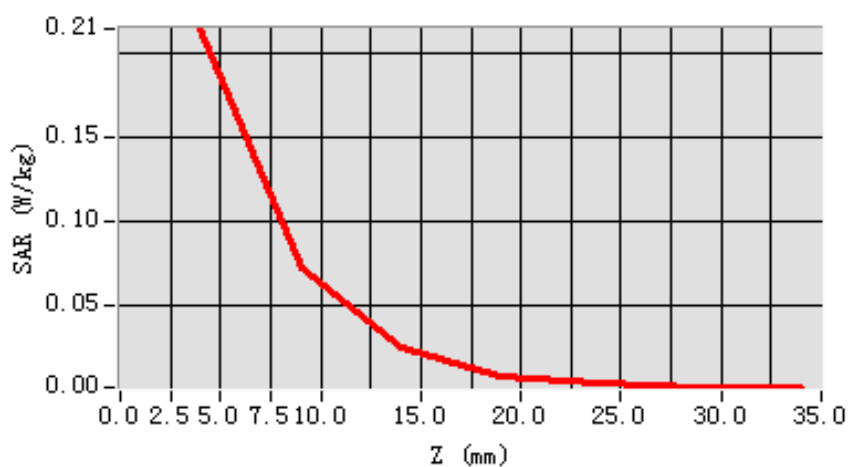


Maximum location: X=-5.00, Y=-6.00

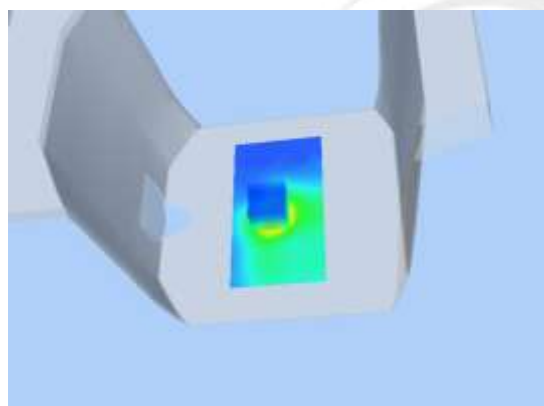
SAR 10g (W/Kg)	0.088686
SAR 1g (W/Kg)	0.223618

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.2145	0.0716	0.0236	0.0072	0.0025	0.0005

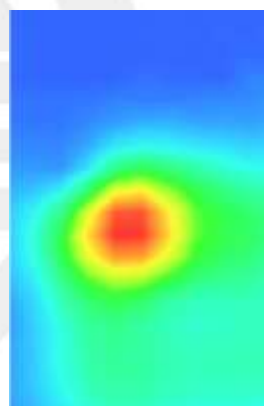
SAR, Z Axis Scan (X = -5, Y = -6)



3D screen shot



Hot spot position





Appendix C. Probe Calibration and Dipole Calibration Report

Refer the appendix Calibration Report.

