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FCC SAR TEST REPORT

Report No: STS1511104H01

Issued for

CRBT

4300 Windsor Centre Trail Suite 100

Product Name:	4G smart phone
Brand Name:	Siam Smartphone
Model No.:	7x
Series Model:	Siam 7x , LTE8S5283
FCC ID:	2AGMGSIAM7X
Test Standard:	ANSI/IEEE Std. C95.1
	FCC 47 CFR Part 2 (2.1093)
	IEEE 1528: 2013
Max. SAR (1g):	Head:0.581 W/kg
	Body:1.308 W/kg

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Test Report Certification

Applicant's name : CRBT

Address : 4300 Windsor Centre Trail Suite 100

Manufacture's Name..... : Shenzhen Hexiang Electronics Co.,Ltd

Address : Room:3-006AB, 3F., Tianxia IC Industrial Park, No. 133, Yiyuan Road, Nanshan District, Shenzhen, 518052 China

Product description

Product name : 4G smart phone

Trademark : Siam Smartphone

Model and/or type reference : 7x

Serial Model : Siam 7x, LTE8S5283

Standards : ANSI/IEEE Std. C95.1-1992
FCC 47 CFR Part 2 (2.1093)
IEEE 1528: 2013

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 : 05 Dec. 2015

Date of Issue..... : 07 Dec. 2015

Test Result..... : **Pass**

Testing Engineer :

Allen Chen

(Allen Chen)

Technical Manager :

John Zou

(John Zou)

Authorized Signatory :

Bovey Yang

(Bovey Yang)





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1. General Information

1.1 EUT Description

Equipment	4G smart phone	
Brand Name	Siam Smartphone	
Model No.	7x	
Serial Model	Siam 7x , LTE8S5283	
FCC ID	2AGMGSIAM7X	
Model Difference	Only different in model name	
Adapter	Input: AC100-240V,250m A, 50/60 Hz Output: DC 5V, 1000mA	
Battery	Rated Voltage: 3.8V Charge Limit: 4.35V Capacity: 2100mAh	
Hardware Version	I5288-mb-v2.1	
Software Version	N/A	
Frequency Range	GSM 850: 824.2~848.8MHz PCS1900: 1850.2~1909.8MHz WCDMA Band II:1852.4~1907.6MHz WCDMA Band V:826.4~846.6MHz LTE Band 2:1850.7~1909.3MHz LTE Band 4:1710.7~1754.3MHz	LTE Band 7:2502.5~2567.5MHz LTE Band 17:706.5~713.5MHz WLAN 802.11b/g/n(HT20):2412~2462MHz WLAN 802.11n(HT40):2422~2452MHz Bluetooth : 2402~ 2480MHz
Transmit Power(MAX):	GSM 850: 32.04 dBm GSM 1900: 28.21 dBm WCDMA Band II: 21.40 dBm WCDMA Band V: 21.77 dBm LTE Band 2: 24.35 dBm LTE Band 4: 24.55 dBm	LTE Band 7: 23.23 dBm LTE Band 17: 24.06 dBm 802.11b: 17.01 dBm 802.11g: 13.25 dBm 802.11n(HT20): 12.89 dBm 802.11n(HT40): 10.97 dBm Bluetooth: 5.157 dBm
Max. Reported SAR(1g):	Head: GSM 850: 0.064 W/kg GSM 1900: 0.297 W/kg WCDMA Band II: 0.504 W/kg WCDMA Band V: 0.283 W/kg LTE Band 2: 0.531 W/kg LTE Band 4: 0.581 W/kg LTE Band 7: 0.337 W/kg LTE Band 17: 0.157 W/kg WIFI: 0.461 W/kg	Body: GSM 850: 0.479 W/kg GSM 1900: 1.118 W/kg WCDMA Band II: 0.817 W/kg WCDMA Band V: 0.330 W/kg LTE Band 2: 1.308 W/kg LTE Band 4: 0.801 W/kg LTE Band 7: 0.742 W/kg LTE Band 17: 0.345 W/kg WIFI: 0.240 W/kg
Operating Mode:	GSM: GSM Voice; GPRS; EGPRS Class 12; WCDMA:RMC,HSDPA,HSUPA Release 6; LTE:QPSK,16QAM; WLAN: 802.11 b/g/n(HT20) /n(HT40); Bluetooth: V4.0 + EDR (GFSK + π /4DQPSK+8DPSK) ;	
Antenna Specification:	GSM,WCDMA,LTE: 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	



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 B, Zhuoke Science Park, No.190, Chongqing Road, Fuyong,
Baoan District, Shenzhen, Guangdong, China

CNAS Registration No.: L7649;

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. 1528-2013	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 v06	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
7	FCC KDB 941225 D01 v03r01	SAR Measurement Procedures for 3G Devices
8	FCC KDB 941225 D05 v02r04	SAR for LTE Devices
9	FCC KDB 941225 D06 v02r01	Hotspot Mode SAR
10	FCC KDB 248227 D01 v02r02	SAR Considerations for 802.11 Devices
11	FCC KDB 648474 D04 v01r03	SAR evaluation consideration for wireless handsets

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user. According to EN 50360 and 1999/519/EC the limit for General Population/Uncontrolled exposure should be applied for this device, it is 2.0 W/kg as averaged over any 10 gram of tissue.

(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 10 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:

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

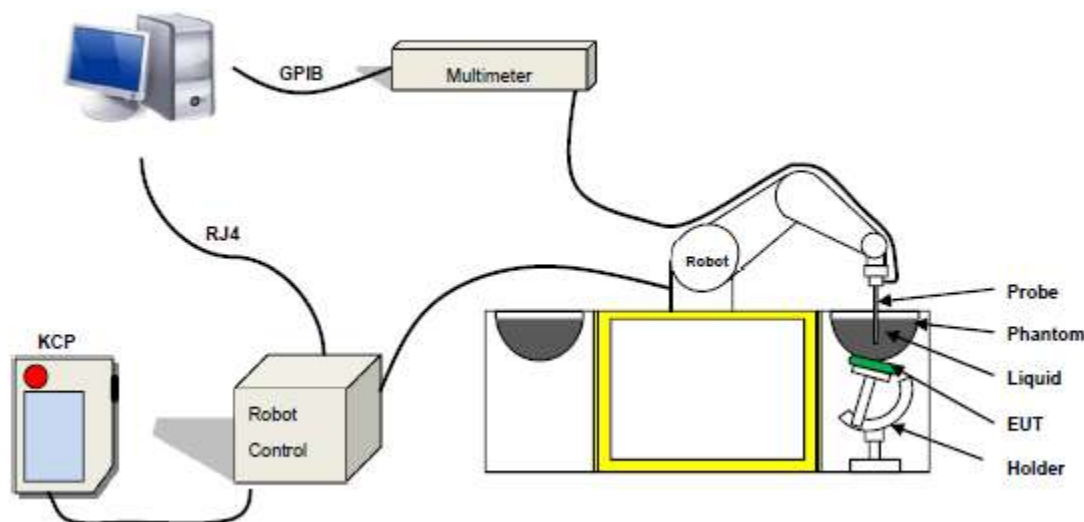
SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

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

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°

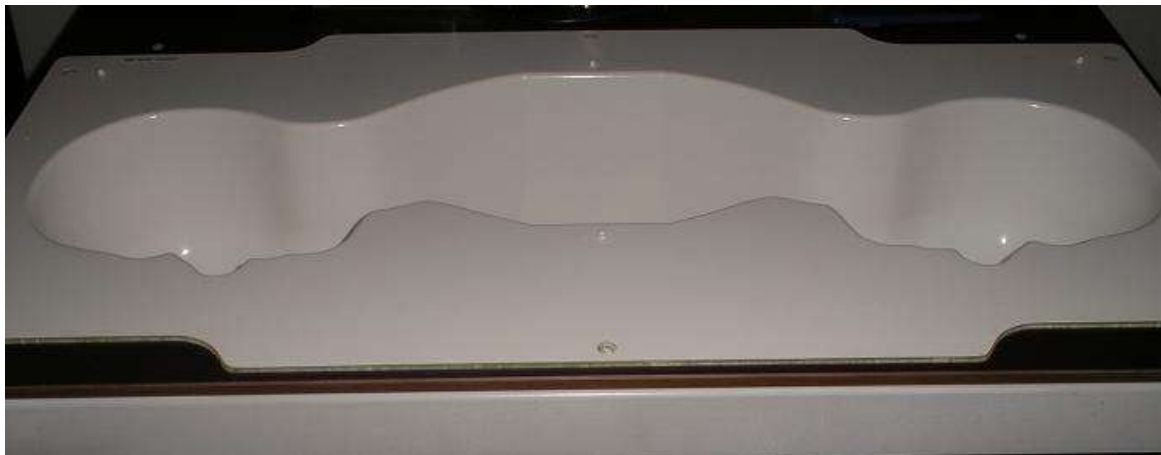


Figure 1 – Satimo COMOSAR Dosimetric E field Dipole

3.2.2 Phantom

For the measurements the Specific Anthropomorphic Mannequin (SAM) defined by the IEEE SCC-34/SC2 group is used. The phantom is a polyurethane shell integrated in a wooden table. The thickness of the phantom amounts to 2mm +/- 0.2mm. It enables the dosimetric evaluation of left and right phone usage and includes an additional flat phantom part for the simplified performance check. The phantom set-up includes a cover, which prevents the evaporation of the liquid.

SN 32/14 SAM115



SN 32/14 SAM116



3.2.3 Device Holder



The SAR in the 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.



4. Tissue Simulating Liquids

4.1 Simulating Liquids Parameter Check

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

LIQUID MEASUREMENT RESULTS

Date: Dec 05, 2015

Ambient condition: Temperature 22.7°C Relative humidity: 49%

Head Simulating Liquid		Parameters	Target	Measured	Deviation[%]	Limited[%]
Frequency	Temp. [°C]					
750 MHz	22.30	Permittivity:	41.9	41.2	-1.67	±5
		Conductivity:	0.89	0.91	2.25	± 5
835 MHz	22.30	Permittivity:	41.50	41	-1.20	±5
		Conductivity:	0.90	0.86	-4.44	± 5
1800 MHz	22.30	Permittivity:	40.10	40.2	0.25	±5
		Conductivity:	1.37	1.31	-4.38	± 5
1900 MHz	22.30	Permittivity:	40.00	39.5	-1.25	± 5
		Conductivity:	1.40	1.43	2.14	± 5
2450 MHz	22.30	Permittivity:	39.2	39.18	-0.05	± 5
		Conductivity:	1.80	1.88	4.44	± 5
2600 MHz	22.30	Permittivity:	39.0	38.5	-1.28	± 5
		Conductivity:	1.96	1.92	-2.04	± 5

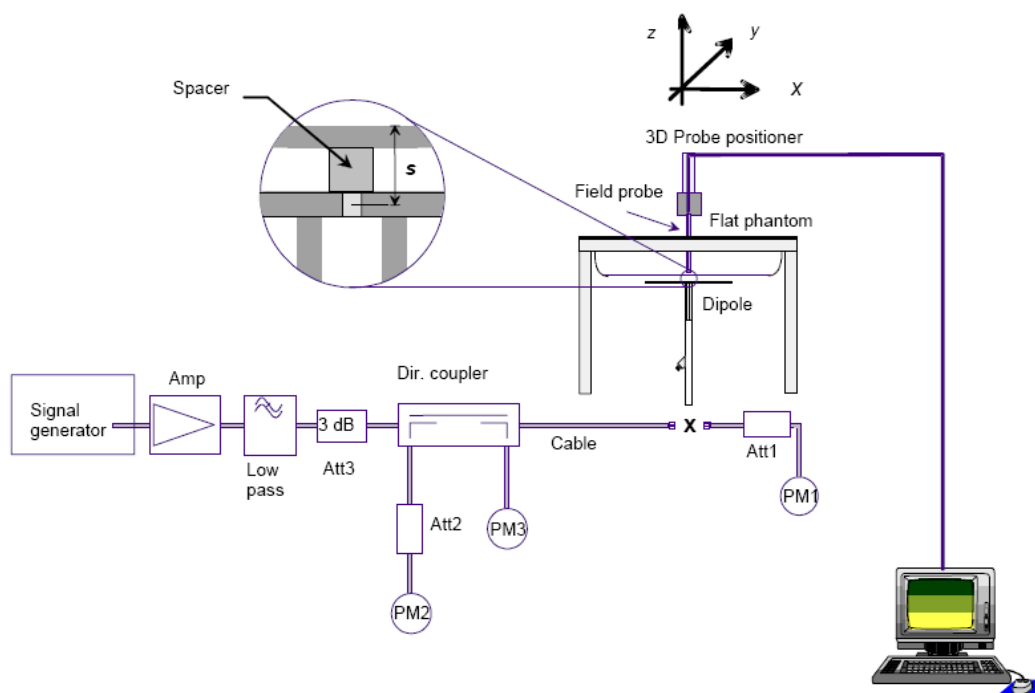
Body Simulating Liquid		Parameters	Target	Measured	Deviation[%]	Limited[%]
Frequency	Temp. [°C]					
750 MHz	22.30	Permittivity:	55.50	55.26	-0.43	± 5
		Conductivity:	0.96	0.91	-5.21	± 5
835 MHz	22.30	Permittivity:	55.20	54.7	-0.91	± 5
		Conductivity:	0.97	0.98	1.03	± 5
1800 MHz	22.30	Permittivity:	53.40	52.6	-1.50	± 5
		Conductivity:	1.49	1.38	-7.38	± 5
1900 MHz	22.30	Permittivity:	53.30	52.31	-1.86	± 5
		Conductivity:	1.52	1.50	-1.32	± 5
2450 MHz	22.30	Permittivity:	52.7	51.6	-2.09	± 5
		Conductivity:	1.95	1.93	-1.03	± 5
2600 MHz	22.30	Permittivity:	52.5	52.3	-0.38	± 5
		Conductivity:	2.16	2.12	-1.85	± 5

5. SAR System Validation

5.1 Validation System

Each SATIMO system is equipped with one or more system validation kits. These units, together with the predefined measurement procedures within the SATIMO software, enable the user to conduct the system performance check and system validation. 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 validation setup is shown as below.



5.2 Validation Result

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

Ambient condition: Temperature 22.7°C **Relative humidity:** 49%

Freq.(MHz)	Power(mW)	Tested Value (W/Kg)	Normalized SAR (W/kg)	Target(W/Kg)	Tolerance(%)	Date
750 Head	100	0.838	8.38	8.49	-1.30	2015-12-05
750 Body	100	0.856	8.56	8.49	0.82	2015-12-05
835 Head	100	0.937	9.37	9.56	-1.99	2015-12-05
835 Body	100	0.947	9.47	9.56	-0.94	2015-12-05
1800 Head	100	3.76	37.6	38.4	-2.08	2015-12-05
1800 Body	100	3.88	38.8	38.4	1.04	2015-12-05
1900 Head	100	3.86	38.6	39.8	-3.02	2015-12-05
1900 Body	100	3.987	39.87	39.8	0.18	2015-12-05
2450 Head	100	5.593	55.93	52.4	6.74	2015-12-05
2450 Body	100	4.864	48.64	52.4	-7.18	2015-12-05
2600 Head	100	5.45	54.5	55.3	-1.45	2015-12-05
2600 Body	100	5.41	54.1	55.3	-2.17	2015-12-05

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



6. SAR Evaluation Procedures

The procedure for assessing the average SAR value consists of the following steps:

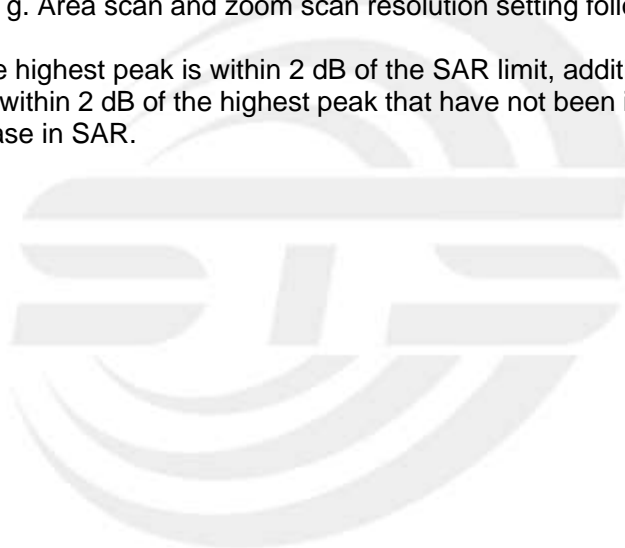
The following steps are used for each test position

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

➤ Area Scan& Zoom Scan

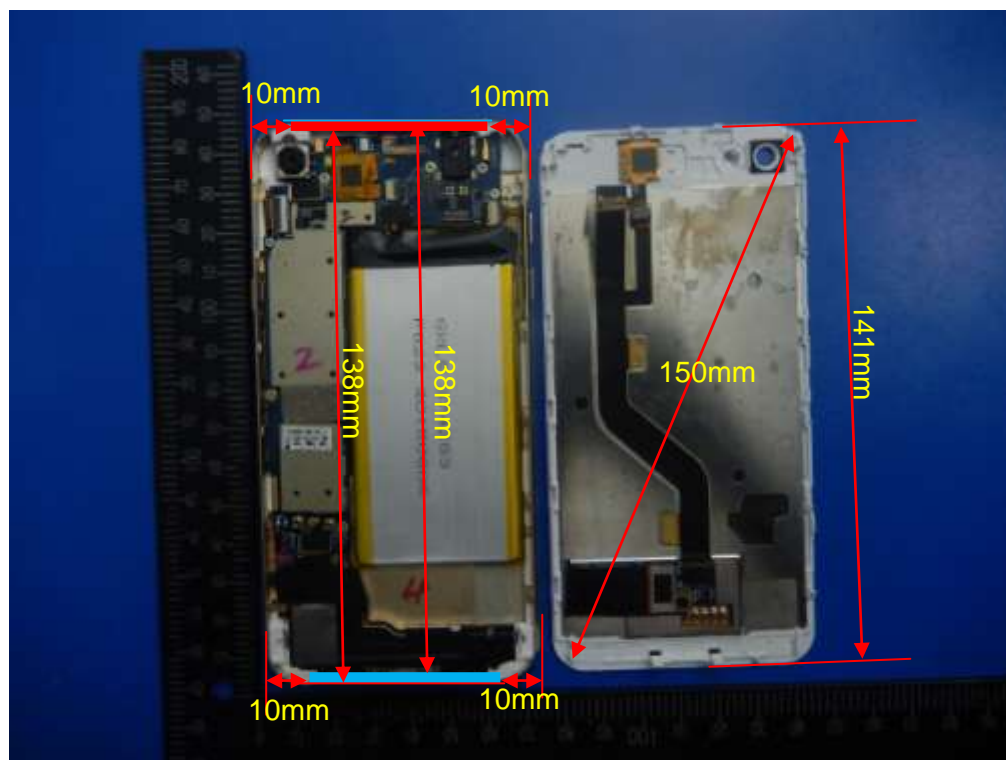
First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. Area scan and zoom scan resolution setting follows KDB 865664 D01v01r01 quoted below.

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

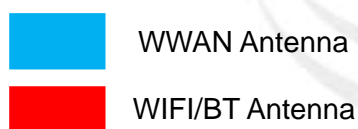


7. EUT Antenna Location Sketch

It is a mobile phone, support GSM/WCDMA/LTE mode.



The bottom sheetmetal of device is WWAN Antenna and the top sheetmetal of device is WIFI/BT Antenna, the width of bottom is 1.5mm. The length of the diagonal is 150mm.





7.1 SAR TEST EXCLUSION CONSIDER TABLE

According with FCC KDB 447498 D01v05r02, appendix A, <SAR test exclusion thresholds for 100MHz~6GHz and≤50mm> table, this device SAR test configurations consider as following:

Band	Test position configurations					
	Front	Back	Right edge	Left edge	Top edge	Bottom edge
GSM850	<5mm	<5mm	10mm	10mm	138mm	<5mm
	Yes	Yes	Yes	Yes	No	Yes
GSM1900	<5mm	<5mm	10mm	10mm	138mm	<5mm
	Yes	Yes	Yes	Yes	No	Yes
WCDMA Band II	<5mm	<5mm	10mm	10mm	138mm	<5mm
	Yes	Yes	Yes	Yes	No	Yes
WCDMA Band V	<5mm	<5mm	10mm	10mm	138mm	<5mm
	Yes	Yes	Yes	Yes	No	Yes
LTE Band 2	<5mm	<5mm	10mm	10mm	138mm	<5mm
	Yes	Yes	Yes	Yes	No	Yes
LTE Band 4	<5mm	<5mm	10mm	10mm	138mm	<5mm
	Yes	Yes	Yes	Yes	No	Yes
LTE Band 7	<5mm	<5mm	10mm	10mm	138mm	<5mm
	Yes	Yes	Yes	Yes	No	Yes
LTE Band 17	<5mm	<5mm	10mm	10mm	138mm	<5mm
	Yes	Yes	Yes	Yes	No	Yes
WLAN	<5mm	<5mm	10mm	10mm	<5mm	138mm
	Yes	Yes	Yes	Yes	Yes	No
Bluetooth	<5mm	<5mm	10mm	10mm	<5mm	138mm
	Yes	Yes	Yes	Yes	Yes	No

Note:

1. maximum power is the source-based time-average power and represents the maximum RF output power among production units.
2. per KDB 447498 D01v05r02, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
3. per KDB 447498 D01v05r02, standalone SAR test exclusion threshold is applied; if the distance of the antenna to the user is <5mm, 5mm is user to determine SAR exclusion threshold
4. per KDB 447498 D01v05r02, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distance ≤50mm are determined by:

$$[(\text{max.power of channel, including tune-up tolerance, Mw})/(\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR}$$

f(GHz) is the RF channel transmit frequency in GHz

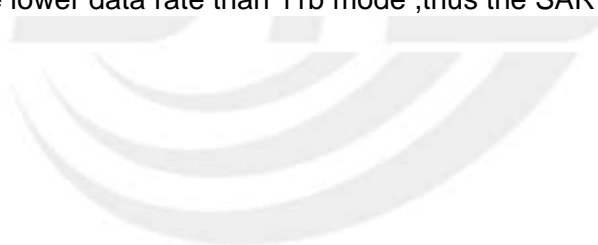


Power and distance are rounded to the nearest mW and mm before calculation

The result is rounded to one decimal place for comparison

For <50mm distance, we just calculate mW of the exclusion threshold value(3.0)to do compare

5. per KDB 447498 D01v05r02, at 100 MHz to 6GHz and for test separation distances >50mm, the SAR test exclusion threshold is determined according to the following
 - a)[threshold at 50mm in step 1]+(test separation distance -50mm)*(f (MHz)/150)]mW, at 100 MHz to 1500 MHz
 - b) [threshold at 50mm in step1]+(test separation distance -50mm) *10]mW at > 1500MHz and ≤6GHz
6. Per KDB 447498 D02v02r02,RMC 12.2kbps setting is used to evaluate SAR. If HSDPA/HSUPA/DC-HSDPA output power is<0.25db higher than RMC 12.2Kbps,or reported SAR with RMC 12.2kbps setting is ≤1.2W/Kg, HSDPA/HSUPA/DC-HSDPA SAR evaluation can be excluded.
7. Per KDB 248227 D01v01r02,choose the highest output power channel to test SAR and determine futher SAR exclusion 8.for each frequency band ,testing at higher data rates and higher order modulations is not required when the maximum average output power for each of each of these configurations is less than 1/4db higher than those measured at the lower data rate than 11b mode ,thus the SAR can be excluded.



8. EUT Test Position

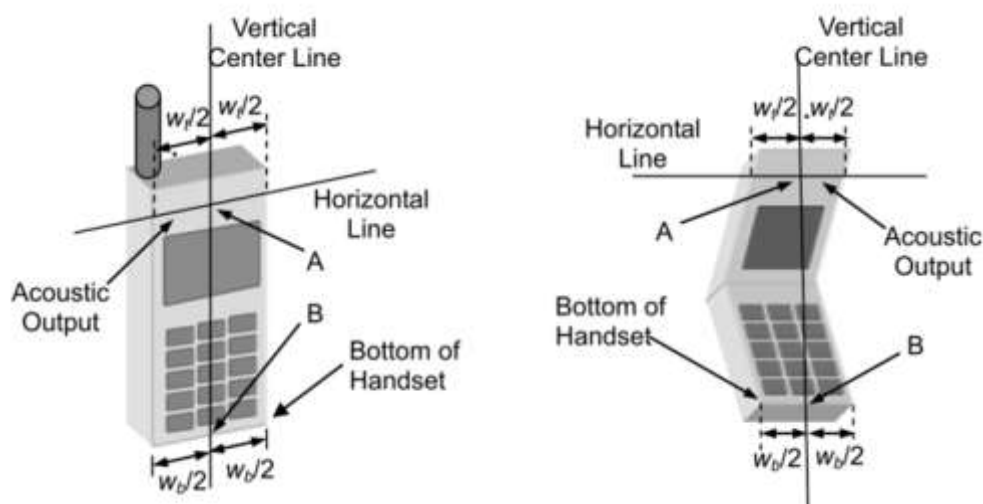
This EUT was tested in Right Cheek, Right Titled, Left Cheek, Left Titled, Front Face and Rear Face.

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.



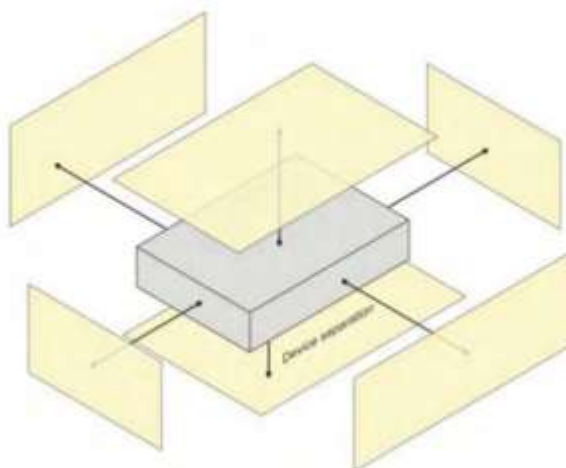
Body-worn Position Conditions

- (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 5mm.



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
Measurement									
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 validation Uncertainty

NO	Source	Tol(%)	Prob. Dist.	Div. k	ci (1g)	ci (10g)	1gUi	10gUi	Veff
Monodipole									
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	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	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:

Burst Average Power (dBm)						
Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
GSM(GMSK, 1-Slot)	31.95	32.01	32.04	28.00	27.85	28.21
GPRS (GMSK, 1-Slot)	31.87	31.97	32.00	27.96	27.81	28.11
GPRS (GMSK, 2-Slot)	31.12	31.03	31.23	27.17	27.00	27.29
GPRS (GMSK, 3-Slot)	29.82	29.72	30.03	25.95	25.63	25.96
GPRS (GMSK, 4-Slot)	29.15	29.18	29.42	25.31	25.06	25.27
EGPRS(8PSK, 1-Slot)	31.83	31.93	31.92	27.94	27.73	28.07
EGPRS(8PSK, 2-Slot)	30.89	30.99	31.06	27.08	26.92	27.11
EGPRS(8PSK, 3-Slot)	29.58	29.61	29.79	25.77	25.67	25.79
EGPRS(8PSK, 4-Slot)	29.07	28.99	29.22	25.13	25.16	25.28
Remark: GPRS, CS4 coding scheme. EGPRS, MCS9 coding scheme. Multi-Slot Class 8 , Support Max 4 downlink, 1 uplink , 5 working link Multi-Slot Class 10 , Support Max 4 downlink, 2 uplink , 5 working link Multi-Slot Class 12 , Support Max 4 downlink, 4 uplink , 5 working link						

Fram- Average Power(dBm)						
Band	GSM 850			PCS 1900		
Channel	128	190	251	512	661	810
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8
GSM(GMSK, 1-Slot)	22.95	23.01	23.04	19.00	18.85	19.21
GPRS (GMSK, 1-Slot)	22.87	22.97	23.00	18.96	18.81	19.11
GPRS (GMSK, 2-Slot)	25.12	25.03	25.23	21.17	21.00	21.29
GPRS (GMSK, 3-Slot)	25.56	25.46	25.77	21.69	21.37	21.70
GPRS (GMSK, 4-Slot)	26.15	26.18	26.42	22.31	22.06	22.27
EGPRS(8PSK, 1-Slot)	22.83	22.93	22.92	18.94	18.73	19.07
EGPRS(8PSK, 2-Slot)	24.89	24.99	25.06	21.08	20.92	21.11
EGPRS(8PSK, 3-Slot)	25.32	25.35	25.53	21.51	21.41	21.53
EGPRS(8PSK, 4-Slot)	26.07	25.99	26.22	22.13	22.16	22.28
Remark : 1. SAR testing was performed on the maximum frame-averaged power mode. 2. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum burst-averaged power based on time slots. The calculated method is shown as below: Frame-averaged power = Burst averaged power (1 Tx Slot) - 9 dB Frame-averaged power = Burst averaged power (2 Tx Slots) - 6 dB Frame-averaged power = Burst averaged power (3 Tx Slots) - 4.26 dB Frame-averaged power = Burst averaged power (4 Tx Slots) - 3 dB						

**WCDMA**

Band	WCDMA Band V			WCDMA Band II		
Channel	4132	4182	4233	9263	9400	9537
Frequency (MHz)	826.4	836.6	846.6	1852.4	1880.0	1907.6
RMC 12.2Kbps	21.64	21.44	21.77	20.77	21.40	21.00
HSDPA Subtest-1	21.59	21.36	21.67	20.67	21.36	20.97
HSDPA Subtest-2	20.82	20.53	20.86	19.84	20.54	20.18
HSDPA Subtest-3	20.23	20.02	20.30	19.26	20.00	19.62
HSDPA Subtest-4	19.65	19.50	19.78	18.72	19.41	19.11
HSUPA Subtest-1	21.55	21.27	21.61	20.64	21.36	20.88
HSUPA Subtest-2	20.60	20.48	20.71	19.69	20.38	20.15
HSUPA Subtest-3	20.04	19.98	20.16	19.14	19.80	19.58
HSUPA Subtest-4	19.54	19.39	19.58	18.62	19.28	19.05
HSUPA Subtest-5	19.02	18.87	19.01	18.07	18.69	18.50

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

Table 6.1A: 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 $\beta_c/\beta_d=12/15$, $\beta_{hs}/\beta_c=24/15$.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	15.73
	6	2437	17.01
	11	2462	15.19
802.11g	1	2412	11.33
	6	2437	13.25
	11	2462	12.44
802.11n(HT 20)	1	2412	11.25
	6	2437	12.89
	11	2462	12.41
802.11n(HT 40)	3	2422	9.81
	6	2437	10.97
	9	2452	10.83

Bluetooth

Mode	Channel Number	Frequency (MHz)	PEAK Power (dBm)
GFSK(1Mbps)	0	2402	5.157
	39	2441	4.505
	78	2480	4.923
$\pi/4$ -DQPSK(2Mbps)	0	2402	2.752
	39	2441	3.493
	78	2480	2.566
8-DPSK(3Mbps)	0	2402	2.972
	39	2441	3.674
	78	2480	2.939

BT 4.0

Mode	Channel Number	Frequency (MHz)	PEAK Power (dBm)
GFSK(1Mbps)	0	2402	-4.664
	19	2422	-4.442
	39	2442	-4.605



LTE Conducted Power

General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r03, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r03, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r03, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r03, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r03, 16QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r03, 16QAM SAR testing is not required.
7. Per KDB 941225 D05v02r03, Smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r03, smaller bandwidth SAR testing is not required.



LTE Band 2

BW(MHz)	Modulation	RB Size	RB Offset	Power Low CH./Freq.	Power Middle CH./Freq.	Power High CH./Freq.
Channel				18700	18900	19100
Frequency(MHz)				1860	1880	1900
20	QPSK	1	0	23.39	23.47	24.35
20	QPSK	1	50	23.46	24.03	22.55
20	QPSK	1	99	23.31	24.24	23.59
20	QPSK	50	0	23.32	22.86	23.16
20	QPSK	50	24	23.24	22.67	23.02
20	QPSK	50	50	22.43	23.11	23.01
20	QPSK	100	0	22.40	22.89	23.02
20	16QAM	1	0	22.36	23.21	23.32
20	16QAM	1	50	22.50	23.08	22.64
20	16QAM	1	99	22.81	22.65	22.84
20	16QAM	50	0	22.25	23.08	23.14
20	16QAM	50	24	22.32	22.91	22.50
20	16QAM	50	50	22.72	22.52	22.71
20	16QAM	100	0	21.42	22.07	22.03
Channel				18675	18900	19125
Frequency(MHz)				1857.5	1880	1902.5
15	QPSK	1	0	23.38	23.77	23.29
15	QPSK	1	38	23.46	24.18	23.39
15	QPSK	1	75	23.41	24.33	22.03
15	QPSK	36	0	22.39	22.81	22.78
15	QPSK	36	18	22.35	22.76	22.57
15	QPSK	36	75	22.44	23.14	22.56
15	QPSK	75	0	22.43	22.99	23.07
15	16QAM	1	0	22.56	22.87	22.77
15	16QAM	1	38	22.51	23.14	22.85
15	16QAM	1	75	22.62	23.26	21.77
15	16QAM	36	0	22.54	22.79	22.65
15	16QAM	36	18	22.48	22.98	22.68
15	16QAM	36	75	22.54	23.10	21.74
15	16QAM	75	0	21.40	22.11	22.05
Channel				18650	18900	19150
Frequency(MHz)				1855	1880	1905
10	QPSK	1	0	23.32	23.71	23.10
10	QPSK	1	13	23.30	24.06	23.68
10	QPSK	1	24	23.44	23.21	23.38
10	QPSK	12	0	22.21	22.90	22.77
10	QPSK	12	6	22.18	23.10	23.25
10	QPSK	12	13	22.23	23.02	22.77
10	QPSK	25	0	22.22	22.98	22.86
10	16QAM	1	0	22.49	22.89	22.25
10	16QAM	1	13	22.42	23.08	22.65
10	16QAM	1	24	22.51	23.19	22.52
10	16QAM	12	0	22.38	22.67	22.00
10	16QAM	12	6	22.25	22.67	22.41
10	16QAM	12	13	22.41	22.89	22.54
10	16QAM	25	0	21.31	22.02	21.87



Channel				18625	18900	19175
Frequency(MHz)				1852.5	1880	1907.5
5	QPSK	1	0	23.39	23.96	23.94
5	QPSK	1	13	23.41	24.07	23.87
5	QPSK	1	24	23.38	24.07	23.40
5	QPSK	12	0	22.28	23.01	22.79
5	QPSK	12	6	22.24	22.92	22.70
5	QPSK	12	13	22.27	23.03	22.64
5	QPSK	25	0	22.20	22.95	22.84
5	16QAM	1	0	22.15	23.06	22.91
5	16QAM	1	13	22.17	23.15	22.82
5	16QAM	1	24	23.13	23.14	22.59
5	16QAM	12	0	21.54	22.01	21.92
5	16QAM	12	6	21.56	22.05	21.94
5	16QAM	12	13	22.01	22.95	22.84
5	16QAM	25	0	21.18	21.92	22.01
Channel				18615	18900	19185
Frequency(MHz)				1851.5	1880	1908.5
3	QPSK	1	0	23.23	23.94	23.82
3	QPSK	1	8	23.28	24.06	23.79
3	QPSK	1	14	23.22	24.01	23.53
3	QPSK	8	0	22.21	22.96	22.72
3	QPSK	8	4	22.18	22.86	22.67
3	QPSK	8	8	22.22	22.98	22.68
3	QPSK	15	0	22.23	22.97	22.62
3	16QAM	1	0	22.41	22.94	22.83
3	16QAM	1	8	22.43	23.02	22.75
3	16QAM	1	14	22.38	23.03	22.61
3	16QAM	8	0	22.39	22.86	22.74
3	16QAM	8	4	22.40	22.91	22.68
3	16QAM	8	8	22.35	22.96	22.54
3	16QAM	15	0	21.29	21.99	21.58
Channel				18607	18900	19193
Frequency(MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	22.33	24.05	23.75
1.4	QPSK	1	3	23.59	24.13	23.59
1.4	QPSK	1	5	23.42	23.96	23.47
1.4	QPSK	3	0	23.17	23.94	23.52
1.4	QPSK	3	1	23.31	24.10	23.64
1.4	QPSK	3	3	23.14	23.96	23.38
1.4	QPSK	6	0	22.30	22.93	22.71
1.4	16QAM	1	0	22.29	22.92	22.57
1.4	16QAM	1	3	22.29	22.85	22.55
1.4	16QAM	1	5	22.30	22.88	22.48
1.4	16QAM	3	0	22.45	23.10	22.74
1.4	16QAM	3	1	22.40	23.21	22.81
1.4	16QAM	3	3	22.25	23.02	22.65
1.4	16QAM	6	0	21.30	21.87	21.48



LTE Band 4

BW(MHz)	Modulation	RB Size	RB Offset	Power Low CH./Freq.	Power Middle CH./Freq.	Power High CH./Freq.
Channel				20050	20175	20300
Frequency(MHz)				1720	1732.5	1745
20	QPSK	1	0	24.55	24.18	24.23
20	QPSK	1	50	24.51	24.21	24.30
20	QPSK	1	99	24.40	24.20	24.44
20	QPSK	50	0	23.22	23.04	23.18
20	QPSK	50	24	23.12	22.86	22.97
20	QPSK	50	50	23.19	23.05	23.11
20	QPSK	100	0	23.20	22.96	23.06
20	16QAM	1	0	23.37	23.18	23.41
20	16QAM	1	50	23.31	23.25	23.39
20	16QAM	1	99	23.23	23.22	23.41
20	16QAM	50	0	23.10	23.01	23.21
20	16QAM	50	24	23.14	23.02	23.16
20	16QAM	50	50	22.99	22.95	23.16
20	16QAM	100	0	22.25	22.07	22.12
Channel				20025	20175	20325
Frequency(MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	24.50	24.26	24.25
15	QPSK	1	38	24.41	24.25	24.32
15	QPSK	1	75	24.41	24.22	24.47
15	QPSK	36	0	23.47	23.24	23.29
15	QPSK	36	18	23.26	22.98	23.05
15	QPSK	36	75	23.45	23.25	23.36
15	QPSK	75	0	23.31	23.24	23.29
15	16QAM	1	0	23.49	23.37	23.14
15	16QAM	1	38	23.43	23.37	23.21
15	16QAM	1	75	23.46	23.34	23.25
15	16QAM	36	0	23.26	23.12	22.96
15	16QAM	36	18	23.19	23.08	22.99
15	16QAM	36	75	23.24	23.12	23.01
15	16QAM	75	0	22.39	22.23	22.28
Channel				20000	20175	20350
Frequency(MHz)				1715	1732.5	1750
10	QPSK	1	0	24.58	24.21	24.30
10	QPSK	1	13	24.45	24.19	24.31
10	QPSK	1	24	24.49	24.22	24.39
10	QPSK	25	0	23.27	23.04	23.06
10	QPSK	25	6	23.12	23.00	22.95
10	QPSK	25	13	23.25	23.05	23.10
10	QPSK	50	0	23.23	23.03	23.04
10	16QAM	1	0	23.37	23.31	23.00
10	16QAM	1	13	23.26	23.32	22.96
10	16QAM	1	24	23.28	23.36	23.01
10	16QAM	25	0	23.12	23.14	22.85
10	16QAM	25	6	23.05	23.10	22.74
10	16QAM	25	13	23.01	23.12	22.84
10	16QAM	50	0	22.20	22.18	22.08



Channel				19975	20175	20375
Frequency(MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	24.26	24.45	24.20
5	QPSK	1	13	24.27	24.45	24.22
5	QPSK	1	24	24.24	24.36	24.21
5	QPSK	12	0	23.31	23.36	23.14
5	QPSK	12	6	23.21	23.25	23.01
5	QPSK	12	13	23.23	23.29	23.13
5	QPSK	25	0	23.20	23.06	23.03
5	16QAM	1	0	22.96	23.30	23.29
5	16QAM	1	13	22.97	22.42	23.27
5	16QAM	1	24	22.97	23.39	23.24
5	16QAM	12	0	22.85	23.11	23.08
5	16QAM	12	6	22.80	22.25	23.04
5	16QAM	12	13	22.79	23.14	23.01
5	16QAM	25	0	22.27	22.03	22.08
Channel				19965	20175	20385
Frequency(MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	24.50	24.12	24.31
3	QPSK	1	8	24.53	24.17	24.36
3	QPSK	1	14	24.46	24.10	24.35
3	QPSK	6	0	23.28	23.05	23.09
3	QPSK	6	4	23.15	22.85	22.89
3	QPSK	6	8	23.26	23.03	23.09
3	QPSK	15	0	23.25	23.25	23.05
3	16QAM	1	0	23.29	23.25	22.97
3	16QAM	1	8	23.31	23.30	22.99
3	16QAM	1	14	23.26	23.24	22.95
3	16QAM	6	0	23.10	23.08	22.84
3	16QAM	6	4	23.14	23.15	22.87
3	16QAM	6	8	23.05	23.06	22.75
3	16QAM	15	0	22.24	22.22	22.17
Channel				19957	20175	20393
Frequency(MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	24.55	24.24	24.35
1.4	QPSK	1	3	24.52	24.21	24.36
1.4	QPSK	1	5	24.55	24.26	24.40
1.4	QPSK	3	0	24.08	24.03	24.10
1.4	QPSK	3	1	24.12	24.15	24.18
1.4	QPSK	3	3	24.04	24.02	24.04
1.4	QPSK	6	0	23.30	24.48	23.16
1.4	16QAM	1	0	23.29	22.94	23.16
1.4	16QAM	1	3	23.27	22.96	23.15
1.4	16QAM	1	5	23.25	22.99	23.17
1.4	16QAM	3	0	23.15	22.86	23.04
1.4	16QAM	3	1	22.08	22.86	22.98
1.4	16QAM	3	3	23.10	22.82	23.04
1.4	16QAM	6	0	22.18	22.26	22.10



LTE Band 7

BW(MHz)	Modulation	RB Size	RB Offset	Power Low CH./Freq.	Power Middle CH./Freq.	Power High CH./Freq.
Channel				20850	21100	21350
Frequency(MHz)				2510	2535	2560
20	QPSK	1	0	22.86	23.23	22.02
20	QPSK	1	50	22.61	23.16	22.23
20	QPSK	1	99	22.77	22.58	22.14
20	QPSK	50	0	22.18	22.13	21.26
20	QPSK	50	24	21.89	21.85	22.01
20	QPSK	50	50	22.00	22.14	21.48
20	QPSK	100	0	22.11	21.99	21.45
20	16QAM	1	0	22.36	22.30	21.28
20	16QAM	1	50	22.16	22.17	21.50
20	16QAM	1	99	22.25	21.86	21.71
20	16QAM	50	0	22.15	22.10	21.15
20	16QAM	50	24	22.18	21.94	21.32
20	16QAM	50	50	22.08	21.69	21.58
20	16QAM	100	0	21.51	21.24	20.66
Channel				20825	21100	21350
Frequency(MHz)				2507.5	2535	2562.5
15	QPSK	1	0	23.14	22.89	22.34
15	QPSK	1	38	22.78	23.02	22.29
15	QPSK	1	75	22.76	22.60	21.71
15	QPSK	36	0	22.41	22.18	21.49
15	QPSK	36	18	22.25	21.89	21.26
15	QPSK	36	75	22.15	22.17	21.69
15	QPSK	75	0	22.17	22.16	21.65
15	16QAM	1	0	22.60	22.22	21.78
15	16QAM	1	38	22.27	22.18	21.72
15	16QAM	1	75	22.45	22.02	21.46
15	16QAM	36	0	22.45	21.95	21.58
15	16QAM	36	18	21.99	21.87	21.56
15	16QAM	36	75	22.23	21.82	21.18
15	16QAM	75	0	21.46	21.29	20.83
Channel				20800	21100	21400
Frequency(MHz)				2505	2535	2565
10	QPSK	1	0	23.32	23.20	22.60
10	QPSK	1	13	23.17	23.15	22.71
10	QPSK	1	24	23.01	23.21	21.77
10	QPSK	25	0	22.51	22.07	21.83
10	QPSK	25	6	22.38	21.78	21.65
10	QPSK	25	13	22.39	22.08	21.84
10	QPSK	50	0	22.46	22.20	21.82
10	16QAM	1	0	23.32	23.20	22.60
10	16QAM	1	13	23.17	23.15	22.71
10	16QAM	1	24	23.01	23.21	21.77
10	16QAM	25	0	22.51	22.07	21.83
10	16QAM	25	6	22.38	21.78	21.65
10	16QAM	25	13	22.39	22.08	21.84
10	16QAM	50	0	22.46	22.20	21.82



Channel				20775	21100	21425
Frequency(MHz)				2502.5	2535	2567.5
5	QPSK	1	0	23.18	23.29	22.75
5	QPSK	1	13	22.91	23.31	22.11
5	QPSK	1	24	22.85	23.27	21.74
5	QPSK	12	0	22.57	22.23	22.04
5	QPSK	12	6	22.48	22.09	21.87
5	QPSK	12	13	22.58	22.21	22.16
5	QPSK	25	0	22.53	22.14	22.07
5	16QAM	1	0	22.55	21.87	22.18
5	16QAM	1	13	22.41	21.84	21.59
5	16QAM	1	24	22.39	21.88	21.35
5	16QAM	12	0	22.34	21.69	21.87
5	16QAM	12	6	22.28	21.63	21.38
5	16QAM	12	13	22.14	21.63	21.13
5	16QAM	25	0	21.54	21.51	21.18

LTE Band 17

BW(MHz)	Modulation	RB Size	RB Offset	Power Low CH./Freq.	Power Middle CH./Freq.	Power High CH./Freq.
Channel				23780	23790	23800
Frequency(MHz)				709	710	711
10	QPSK	1	0	24.02	24.05	24.05
10	QPSK	1	13	24.03	24.04	24.06
10	QPSK	1	24	23.84	23.82	23.85
10	QPSK	25	0	22.94	22.93	22.93
10	QPSK	25	6	22.84	22.81	22.79
10	QPSK	25	13	22.92	22.91	22.89
10	QPSK	50	0	22.94	22.89	22.93
10	16QAM	1	0	23.38	23.10	22.90
10	16QAM	1	13	23.36	23.12	22.96
10	16QAM	1	24	23.29	23.01	22.74
10	16QAM	25	0	23.15	22.88	22.75
10	16QAM	25	6	23.14	22.84	22.76
10	16QAM	25	13	23.02	22.80	22.53
10	16QAM	50	0	22.01	21.92	21.97
Channel				23755	23790	23825
Frequency(MHz)				706.5	710	713.5
5	QPSK	1	0	24.08	23.94	23.98
5	QPSK	1	13	24.07	23.90	23.89
5	QPSK	1	24	24.09	23.79	23.78
5	QPSK	12	0	23.05	23.00	22.92
5	QPSK	12	6	22.79	22.68	22.65
5	QPSK	12	13	23.03	22.98	22.80
5	QPSK	25	0	22.99	22.91	22.82
5	16QAM	1	0	23.17	23.26	22.90
5	16QAM	1	13	23.15	23.28	22.81
5	16QAM	1	24	23.15	23.23	22.69
5	16QAM	12	0	22.86	22.98	22.68
5	16QAM	12	6	22.89	22.99	22.64
5	16QAM	12	13	22.85	22.98	22.45
5	16QAM	25	0	21.91	21.97	21.85

**Turn Power**

Mode	GSM850(AVG)	GSM1900(AVG)
GSM/PCS	31.1±1dBm	27.3±1dBm
GPRS (1 Slot)	31.1±1dBm	27.2±1dBm
GPRS (2 Slot)	30.3±1dBm	26.3±1dBm
GPRS (3 Slot)	29.1±1dBm	25.0±1dBm
GPRS (4 Slot)	28.5±1dBm	24.5±1dBm
EDGE (1 Slot)	31.0±1dBm	27.2±1dBm
EDGE (2 Slot)	30.1±1dBm	26.3±1dBm
EDGE (3 Slot)	29.0±1dBm	25.0±1dBm
EDGE (4 Slot)	28.3±1dBm	24.5±1dBm

Mode	WCDMA Band V(AVG)	WCDMA Band II(AVG)
RMC	21.0±1dBm	20.5±1dBm
HSDPA Subtest-1	21.0±1dBm	20.5±1dBm
HSDPA Subtest-2	20.0±1dBm	20.0±1dBm
HSDPA Subtest-3	19.5±1dBm	19.5±1dBm
HSDPA Subtest-4	19.0±1dBm	19.0±1dBm
HSUPA Subtest-1	21.0±1dBm	20.5±1dBm
HSUPA Subtest-2	20.0±1dBm	19.5±1dBm
HSUPA Subtest-3	19.5±1dBm	19.0±1dBm
HSUPA Subtest-4	19.0±1dBm	18.3±1dBm
HSUPA Subtest-5	18.1±1dBm	18.0±1dBm

Mode	WIFI
IEEE 802.11b	16.1±1dBm
IEEE 802.11g	12.3±1dBm
IEEE 802.11n(HT 20)	12.0±1dBm
IEEE 802.11n(HT 40)	10.0±1dBm

Mode	BT
GFSK	5±1dBm
π/4-DQPSK	3±1dBm
8DPSK	3±1dBm

Mode	BT
GFSK	-4±1dBm



LTE

BW[MHz]	RB Size	Mode	Band II	Band IV	Band VII	Band XVII
1.4	1	QPSK	23.3±1dBm	24±1dBm	N/A	N/A
1.4	3		24±1dBm	24±1dBm	N/A	N/A
1.4	6		22±1dBm	24±1dBm	N/A	N/A
1.4	1	16-QAM	22±1dBm	23±1dBm	N/A	N/A
1.4	3		23±1dBm	23±1dBm	N/A	N/A
1.4	6		21±1dBm	22±1dBm	N/A	N/A
3	1	QPSK	24±1dBm	24±1dBm	N/A	N/A
3	6		22±1dBm	23±1dBm	N/A	N/A
3	15		22±1dBm	23±1dBm	N/A	N/A
3	1	16-QAM	23±1dBm	23±1dBm	N/A	N/A
3	6		22±1dBm	23±1dBm	N/A	N/A
3	15		21±1dBm	22±1dBm	N/A	N/A
5	1	QPSK	24±1dBm	24±1dBm	23±1dBm	24±1dBm
5	12		23±1dBm	23±1dBm	22±1dBm	23±1dBm
5	25		22±1dBm	23±1dBm	22±1dBm	22±1dBm
5	1	16-QAM	23±1dBm	23±1dBm	22±1dBm	23±1dBm
5	12		22±1dBm	23±1dBm	22±1dBm	22±1dBm
5	25		21.1±1dBm	22±1dBm	21±1dBm	21±1dBm
10	1	QPSK	24±1dBm	24±dBm	22.5±1dBm	23.4±1dBm
10	25		23±1dBm	23±dBm	22±1dBm	22±1dBm
10	50		22±1dBm	23±dBm	22±1dBm	22±1dBm
10	1	16-QAM	22.1±1dBm	23±1dBm	22±1dBm	23±1dBm
10	25		22±1dBm	23±1dBm	22±1dBm	23±1dBm
10	50		21.1±1dBm	22±1dBm	21±1dBm	21±1dBm
15	1	QPSK	24±1dBm	24±1dBm	22.2±1dBm	N/A
15	36		22±1dBm	23±1dBm	22±1dBm	N/A
15	75		23±1dBm	23±1dBm	22±1dBm	N/A
15	1	16-QAM	23±1dBm	23±1dBm	22±1dBm	N/A
15	36		23±1dBm	23±1dBm	22±1dBm	N/A
15	75		22±1dBm	22±1dBm	21±1dBm	N/A
20	1	QPSK	23.5±1dBm	23.6±1dBm	22.3±1dBm	N/A
20	50		22.4±1dBm	22.3±1dBm	21.3±1dBm	N/A
20	100		22.1±1dBm	22.3±1dBm	21.2±1dBm	N/A
20	1	16-QAM	23±1dBm	23±1dBm	22±1dBm	N/A
20	50		23±1dBm	23±1dBm	22±1dBm	N/A
20	100		22±1dBm	22±1dBm	21±1dBm	N/A

11. EUT And Test Setup Photo

11.1 EUT Photo

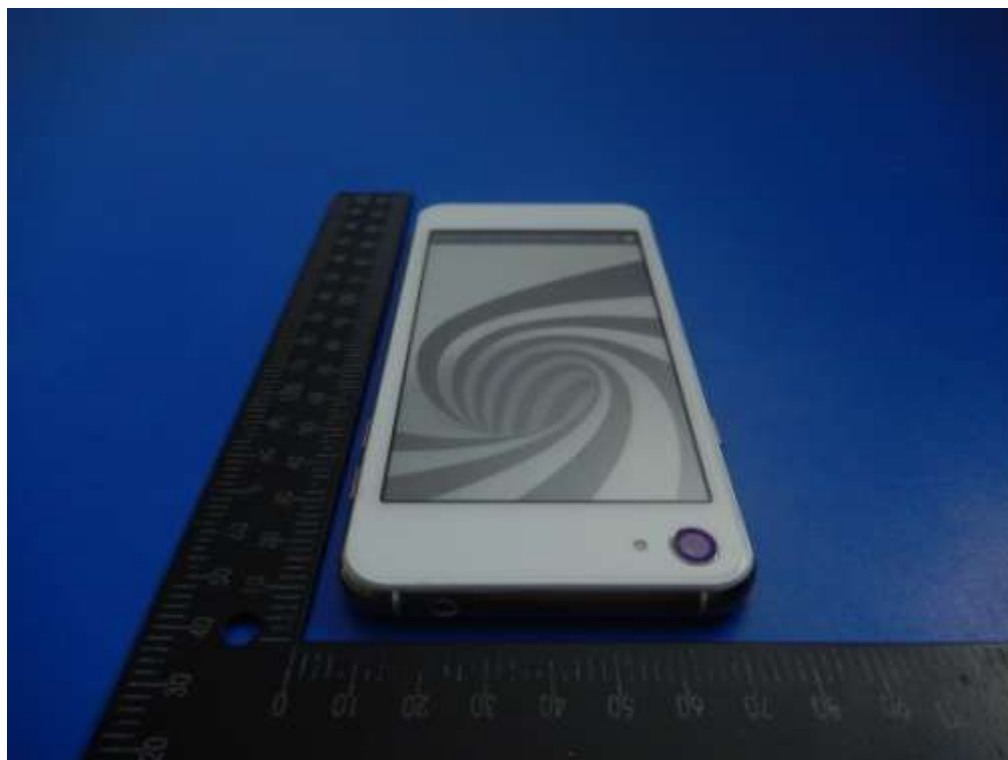
Front side



Back side



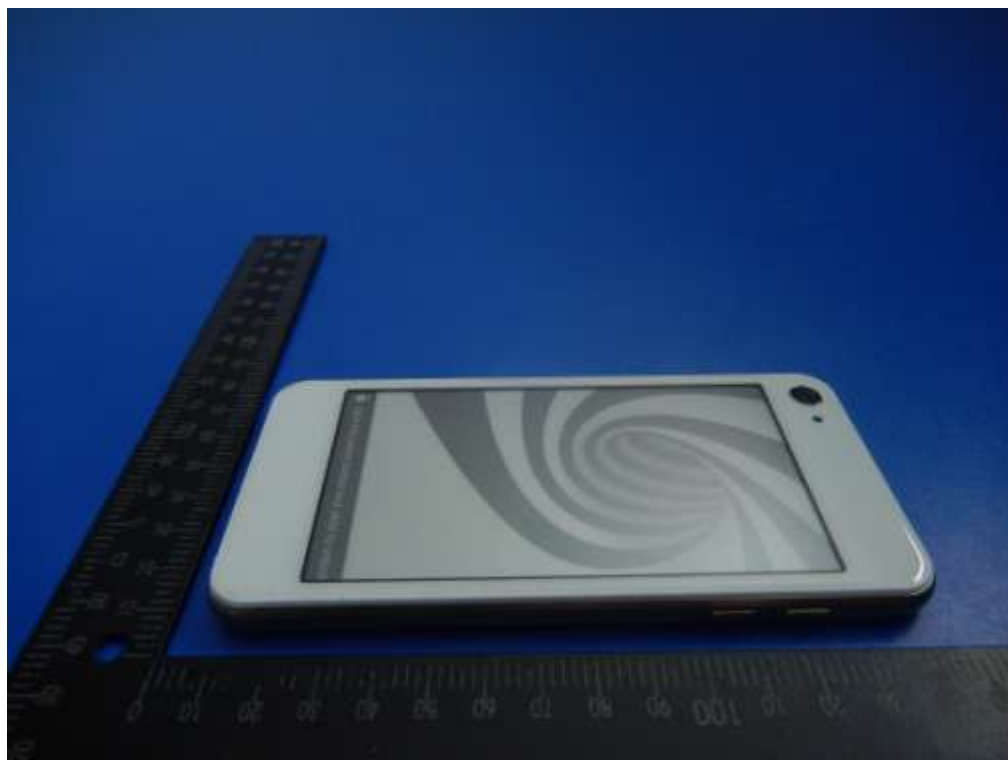
Top side



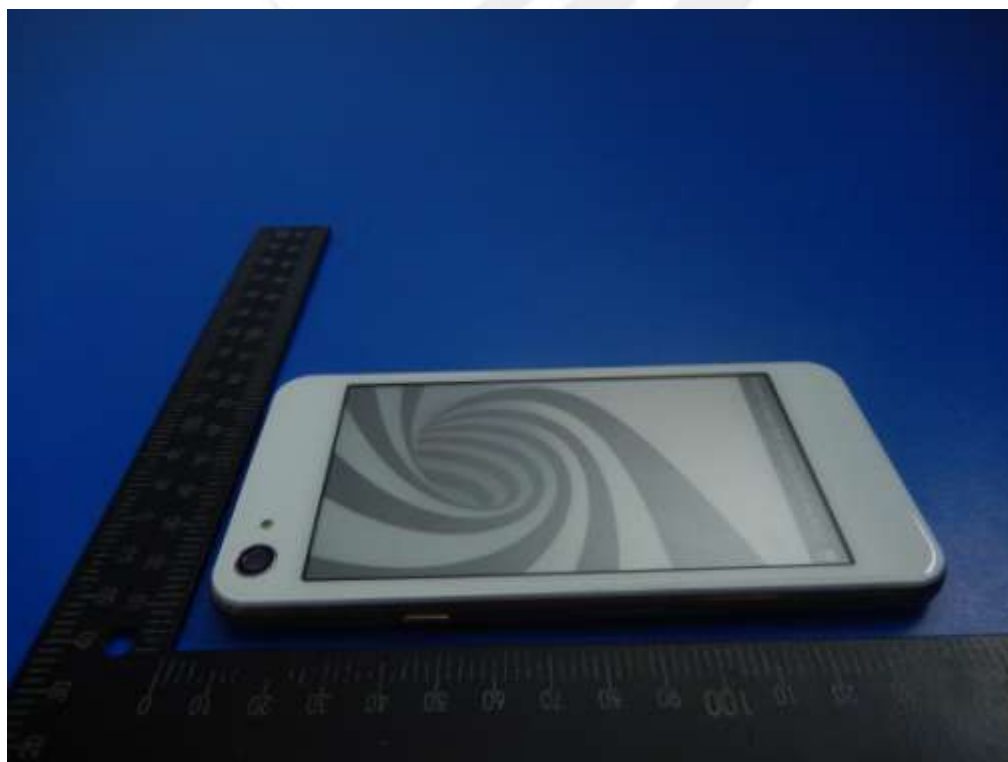
Bottom side



Left side

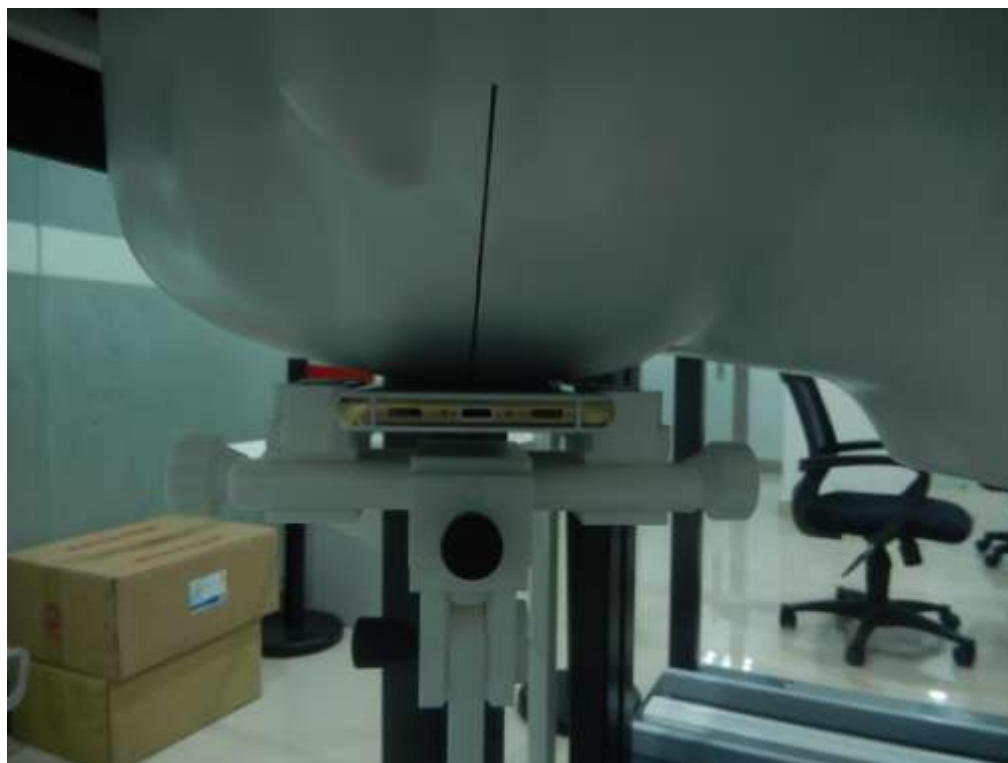


Right side

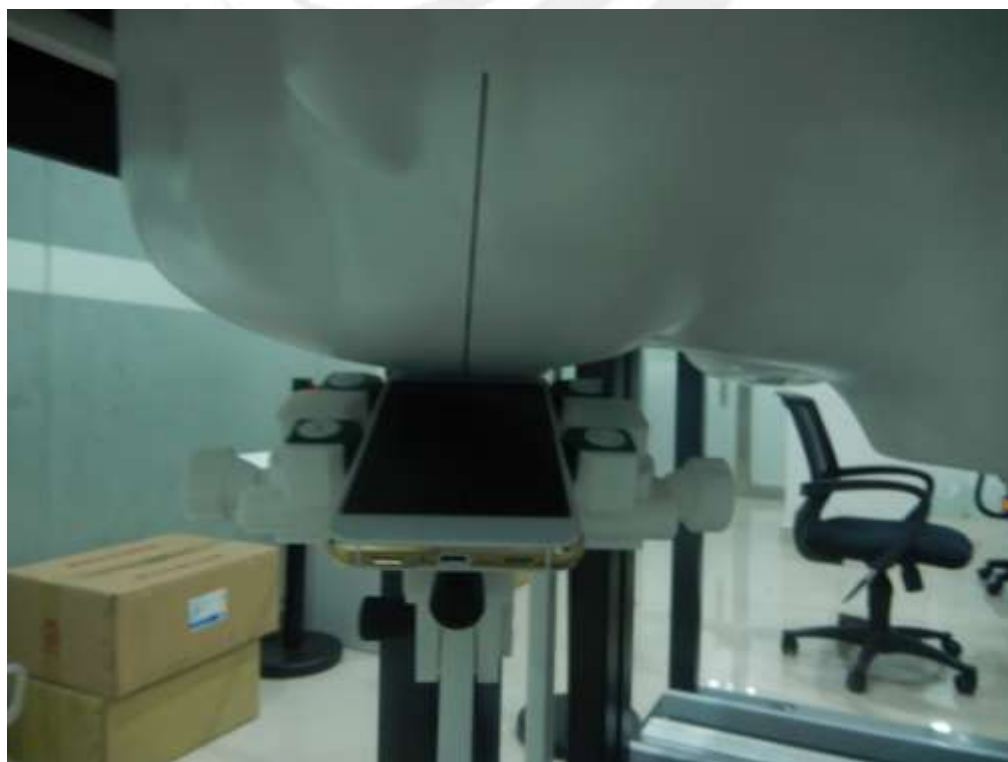


11.2 Setup Photo

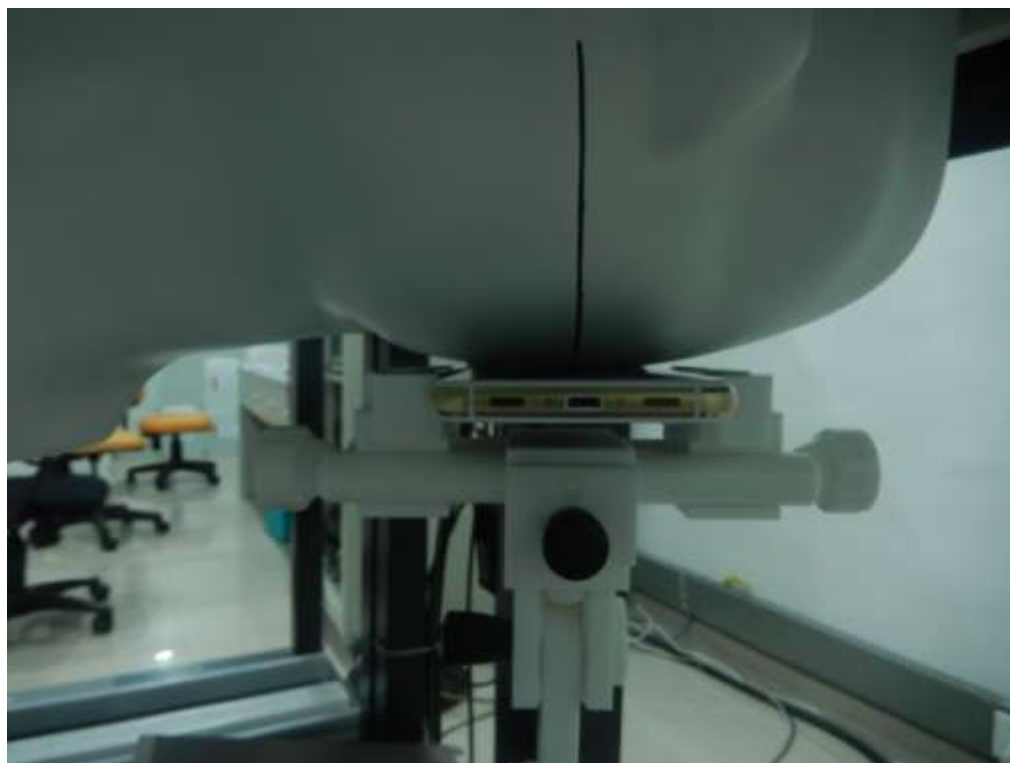
Right Touch



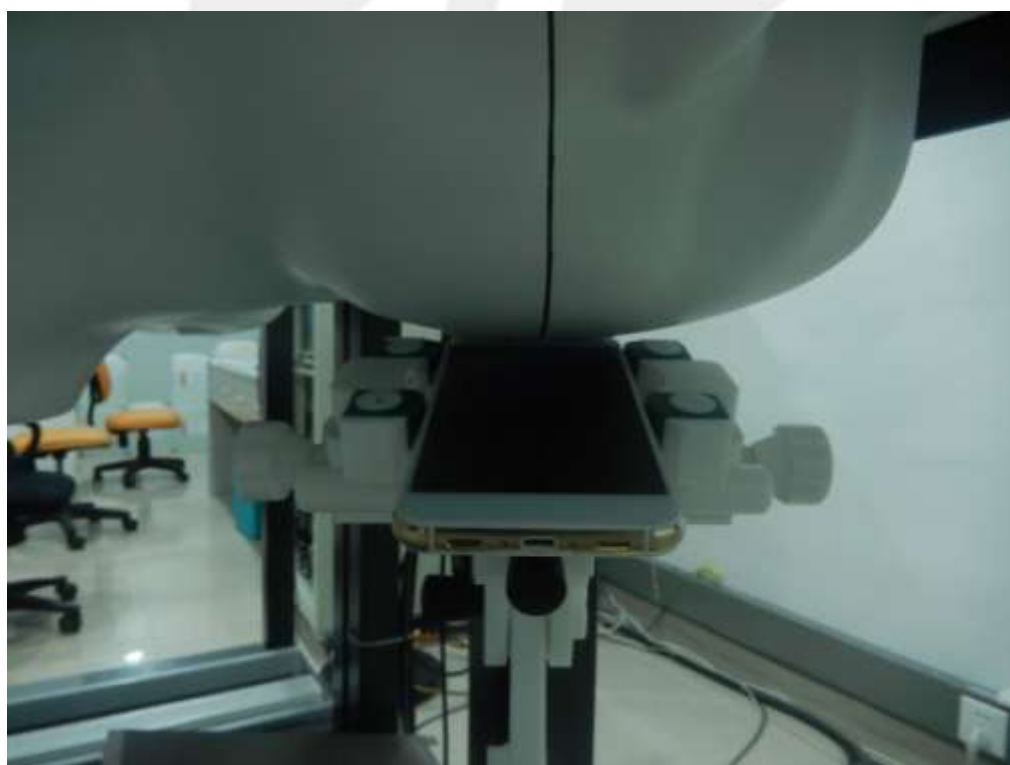
Right Tilt



Left Touch



Left Tilt



Body Front side



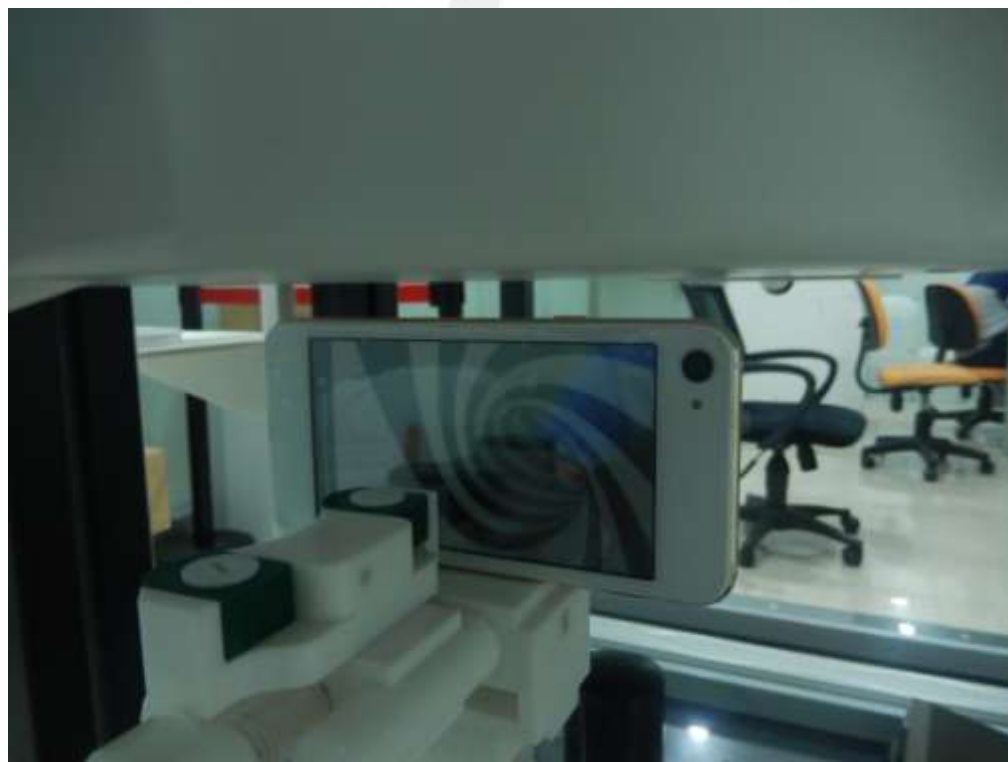
Body Back side



Body left side



Body right side



Body top side



Body Bottom side





Liquid depth (15 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	Right Cheek	CH 251	0.063	4.68	32.1	32.04	0.064	1
		Right Tilt	CH 251	0.026	4.10	32.1	32.04	0.026	2
		Left Cheek	CH 251	0.052	-2.46	32.1	32.04	0.053	3
		Left Tilt	CH 251	0.029	3.09	32.1	32.04	0.029	4
GSM1900	Voice	Right Cheek	CH 810	0.291	-0.34	28.3	28.21	0.297	10
		Right Tilt	CH 810	0.061	-2.57	28.3	28.21	0.062	11
		Left Cheek	CH 810	0.169	1.29	28.3	28.21	0.173	12
		Left Tilt	CH 810	0.060	0.43	28.3	28.21	0.061	13
WCDMA II	RMC	Right Cheek	CH 9400	0.493	-1.71	21.5	21.40	0.504	22
		Right Tilt	CH 9400	0.124	-1.93	21.5	21.40	0.127	23
		Left Cheek	CH 9400	0.243	-0.63	21.5	21.40	0.249	24
		Left Tilt	CH 9400	0.092	-0.81	21.5	21.40	0.094	25
WCDMA V	RMC	Right Cheek	CH4233	0.247	0.02	22	21.77	0.260	34
		Right Tilt	CH4233	0.129	-0.37	22	21.77	0.136	35
		Left Cheek	CH4233	0.268	-4.18	22	21.77	0.283	36
		Left Tilt	CH4233	0.097	-2.35	22	21.77	0.102	37

Band	Mode	Test Position	Channel	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Duty cycle(%)	Scaled SAR (W/Kg)	Meas. No.
WIFI	802.11b	Right Cheek	CH 6	0.423	3.69	17.1	17.01	100	0.432	43
		Right Tilt	CH 6	0.452	-1.03	17.1	17.01	100	0.461	44
		Left Cheek	CH 6	0.140	-1.87	17.1	17.01	100	0.143	45
		Left Tilt	CH 6	0.043	-1.53	17.1	17.01	100	0.044	46



Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
LTE Band 2	20M	QPSK	1	0	Right Cheek	19100	0.513	-0.45	24.5	24.35	0.531	52
			50	0	Right Cheek	18700	0.496	-2.03	23.4	23.32	0.505	/
			1	0	Right Tilt	19100	0.123	-0.04	24.5	24.35	0.127	53
			50	0	Right Tilt	18700	0.122	0.14	23.4	23.32	0.124	/
			1	0	Left Cheek	19100	0.276	-0.63	24.5	24.35	0.286	54
			50	0	Left Cheek	18700	0.254	0.46	23.4	23.32	0.259	/
			1	0	Left Tilt	19100	0.105	-0.42	24.5	24.35	0.109	55
			50	0	Left Tilt	18700	0.096	3.92	23.4	23.32	0.098	/
LTE Band 4	20M	QPSK	1	0	Right Cheek	20050	0.574	-1.30	24.6	24.55	0.581	67
			50	0	Right Cheek	20050	0.552	-1.62	23.3	23.22	0.562	/
			1	0	Right Tilt	20050	0.263	-0.47	24.6	24.55	0.266	68
			50	0	Right Tilt	20050	0.261	-2.93	23.3	23.22	0.266	/
			1	0	Left Cheek	20050	0.549	0.95	24.6	24.55	0.555	69
			50	0	Left Cheek	20050	0.536	0.39	23.3	23.22	0.546	/
			1	0	Left Tilt	20050	0.234	-0.55	24.6	24.55	0.237	70
			50	0	Left Tilt	20050	0.221	0.99	23.3	23.22	0.225	/

Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
LTE Band 7	20M	QPSK	1	0	Right Cheek	21100	0.314	1.29	23.3	23.23	0.319	79
			50	0	Right Cheek	20850	0.298	-0.34	22.3	22.18	0.306	/
			1	0	Right Tilt	21100	0.106	-0.89	23.3	23.23	0.108	80
			50	0	Right Tilt	20850	0.103	1.7	22.3	22.18	0.106	/
			1	0	Left Cheek	21100	0.332	1.06	23.3	23.23	0.337	81
			50	0	Left Cheek	20850	0.324	-0.95	22.3	22.18	0.333	/
			1	0	Left Tilt	21100	0.139	-4.03	23.3	23.23	0.141	82
			50	0	Left Tilt	20850	0.136	-0.89	22.3	22.18	0.140	/
LTE Band 17	10M	QPSK	1	0	Right Cheek	23800	0.133	0.44	24.4	24.06	0.144	88
			25	0	Right Cheek	23780	0.132	3.01	23	22.94	0.134	/
			1	0	Right Tilt	23800	0.085	0.63	24.4	24.06	0.092	89
			25	0	Right Tilt	23780	0.081	1.08	23	22.94	0.082	/
			1	0	Left Cheek	23800	0.145	2.13	24.4	24.06	0.157	90
			25	0	Left Cheek	23780	0.142	-2.41	23	22.94	0.144	/
			1	0	Left Tilt	23800	0.091	0.37	24.4	24.06	0.098	91
			25	0	Left Tilt	23780	0.084	0.53	23	22.94	0.085	/

**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	GPRS Data-4 Slot (hotspot)	Front side	CH 251	0.470	1.45	29.5	29.42	0.479	5
		Back side	CH 251	0.368	-2.20	29.5	29.42	0.375	6
		Left side	CH 251	0.197	-0.88	29.5	29.42	0.201	7
		Right side	CH 251	0.232	-0.66	29.5	29.42	0.236	8
		Bottom side	CH 251	0.284	4.39	29.5	29.42	0.289	9
GSM1900	GPRS Data-4 Slot (hotspot)	Front side	CH 512	1.070	2.85	25.5	25.31	1.118	14
		Front side	CH 661	0.815	0.33	25.5	25.06	0.902	16
		Front side	CH 810	0.750	-0.09	25.5	25.27	0.791	17
		Back side	CH 512	0.675	-2.33	25.5	25.31	0.705	18
		Left side	CH 512	0.200	0.99	25.5	25.31	0.209	19
		Right side	CH 512	0.126	-1.84	25.5	25.31	0.132	20
		Bottom side	CH 512	0.665	0.13	25.5	25.31	0.695	21
WCDMA II	RMC (body-worn and hotspot)	Front side	CH9263	0.617	1.96	21.5	20.77	0.730	26
		Front side	CH9400	0.798	-0.54	21.5	21.40	0.817	27
		Front side	CH9537	0.702	-0.46	21.5	21.00	0.788	29
		Back side	CH9400	0.755	-1.02	21.5	21.40	0.773	30
		Left side	CH9400	0.206	-0.13	21.5	21.40	0.211	31
		Right side	CH9400	0.251	-0.49	21.5	21.40	0.257	32
		Bottom side	CH9400	0.765	-0.27	21.5	21.40	0.783	33
WCDMA V	RMC (body-worn and hotspot)	Front side	CH4233	0.313	0.41	22	21.77	0.330	38
		Back side	CH4233	0.253	-1.07	22	21.77	0.267	39
		Left side	CH4233	0.135	-2.54	22	21.77	0.142	40
		Right side	CH4233	0.150	0.09	22	21.77	0.158	41
		Bottom side	CH4233	0.155	4.41	22	21.77	0.163	42

Band	Mode	Test Position	Channel	Result 1g (W/Kg)	Power Drift(%)	Max.Turn-up Power(dBm)	Meas.Output Power(dBm)	Duty cycle(%)	Scaled SAR (W/Kg)	Meas. No.
WIFI	802.11b	Front side	CH 6	0.143	-0.81	17.1	17.01	100	0.146	47
		Back side	CH 6	0.235	-0.43	17.1	17.01	100	0.240	48
		Left side	CH 6	0.103	-4.56	17.1	17.01	100	0.105	49
		Right side	CH 6	0.116	-0.04	17.1	17.01	100	0.118	50
		Bottom side	CH 6	0.123	-0.72	17.1	17.01	100	0.126	51



Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Ch.	Result 1g (W/Kg)	Power Drift(%)	Max. Turn-up Power(dBm)	Meas. Output Power(dBm)	Scaled SAR (W/Kg)	Meas. No.
LTE Band 2	20M	QPSK	1	0	Front	18700	0.902	0.02	24.5	23.39	1.165	56
			50	0	Front	18700	0.894	2.10	23.4	23.32	0.911	/
			100	0	Front	18700	0.613	-0.52	23.1	22.40	0.720	/
			1	0	Front	18900	0.779	0.13	24.5	23.47	0.988	58
			50	0	Front	18900	0.753	1.69	23.4	22.86	0.853	/
			100	0	Front	18900	0.510	0.50	23.1	22.89	0.535	/
			1	0	Front	19100	0.894	-0.67	24.5	24.35	0.925	59
			50	0	Front	19100	0.886	4.78	23.4	23.16	0.936	/
			100	0	Front	19100	0.642	2.19	23.1	23.02	0.654	/
			1	0	Back	18700	0.753	-0.52	24.5	24.39	0.772	60
			50	0	Back	18700	0.747	-0.70	23.4	23.32	0.761	/
			1	0	Left Side	19100	0.189	-0.30	24.5	24.39	0.194	61
			50	0	Left Side	18700	0.184	1.36	23.4	23.32	0.187	/
			1	0	Right Side	19100	0.280	-0.24	24.5	24.39	0.287	62
			50	0	Right Side	18700	0.276	0.63	23.4	23.32	0.281	/
			1	0	Bottom Side	18700	1.013	0.05	24.5	23.39	1.308	63
			50	0	Bottom Side	18700	1.001	-0.87	23.4	23.32	1.020	/
			100	0	Bottom Side	18700	0.611	1.71	23.1	22.40	0.718	/
			1	0	Bottom Side	18900	1.003	-1.05	24.5	23.47	1.271	64
			50	0	Bottom Side	18900	1.002	-0.87	23.4	22.86	1.135	/
			100	0	Bottom Side	18900	0.858	2.68	23.1	22.89	0.901	/
			1	0	Bottom Side	19100	1.032	-0.05	24.5	24.35	1.068	65
			50	0	Bottom Side	19100	1.000	-2.53	23.4	23.16	1.057	/
			100	0	Bottom Side	19100	0.867	-0.79	23.1	23.02	0.883	/
LTE Band 4	20M	QPSK	1	0	Front	20050	0.792	0.85	24.6	24.55	0.801	71
			50	0	Front	20050	0.776	-2.28	23.3	23.22	0.790	
			100	0	Front	20050	0.572	-0.38	23.3	23.20	0.585	
			1	0	Front	20175	0.716	-1.91	24.6	24.20	0.785	73
			50	0	Front	20175	0.682	-2.05	23.3	23.05	0.722	
			100	0	Front	20175	0.419	-2.47	23.3	22.96	0.453	
			1	0	Front	20300	0.738	-0.88	24.6	24.44	0.766	74
			50	0	Front	20300	0.720	-3.01	23.3	23.18	0.740	
			100	0	Front	20300	0.581	-2.64	23.3	23.06	0.614	/
			1	0	Back	20050	0.700	-0.70	24.6	24.55	0.708	75
			50	0	Back	20050	0.681	-3.17	23.3	23.22	0.694	/
			1	0	Left Side	20050	0.439	0.44	24.6	24.55	0.444	76
			50	0	Left Side	20050	0.420	-1.06	23.3	23.22	0.428	/
			1	0	Right Side	20050	0.173	-0.63	24.6	24.55	0.175	77
			50	0	Right Side	20050	0.165	-4.37	23.3	23.22	0.168	/
			1	0	Bottom Side	20050	0.791	-0.55	24.6	24.55	0.800	78
			50	0	Bottom Side	20050	0.785	-2.36	23.3	23.22	0.800	/



LTE Band 7	20M	QPSK	1	50	Front	21100	0.586	-1.54	23.3	23.23	0.596	83
			50	50	Front	20850	0.566	0.15	22.3	22.18	0.582	/
			1	50	Back	21100	0.614	-2.17	23.3	23.23	0.624	84
			50	50	Back	20850	0.600	1.32	22.3	22.18	0.617	/
			1	50	Left Side	21100	0.163	0.43	23.3	23.23	0.166	85
			50	50	Left Side	20850	0.152	-0.23	22.3	22.18	0.156	/
			1	50	Right Side	21100	0.166	1.06	23.3	23.23	0.169	86
			50	50	Right Side	20850	0.159	-0.94	22.3	22.18	0.163	/
			1	50	Bottom Side	21100	0.730	-0.19	23.3	23.23	0.742	87
			50	50	Bottom Side	20850	0.715	2.89	22.3	22.18	0.735	/
LTE Band 17	10M	QPSK	1	24	Front	23800	0.304	-1.87	24.4	24.06	0.329	92
			25	13	Front	23780	0.294	0.44	23	22.94	0.298	/
			1	24	Back	23800	0.319	-0.28	24.4	24.06	0.345	93
			25	13	Back	23780	0.305	1.01	23	22.94	0.309	/
			1	24	Left Side	23800	0.155	-0.37	24.4	24.06	0.168	94
			25	13	Left Side	23780	0.152	-0.04	23	22.94	0.154	/
			1	24	Right Side	23800	0.064	-2.99	24.4	24.06	0.069	95
			25	13	Right Side	23780	0.062	0.46	23	22.94	0.063	/
			1	24	Bottom Side	23800	0.075	-2.76	24.4	24.06	0.081	96
			25	13	Bottom Side	23780	0.070	1.11	23	22.94	0.071	/

Note:

1. Two card slot can't work at the same time.
2. The Body test separation of all above table is 10mm.
3. Per KDB 248227- When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg. (The highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power was **0.194** W/Kg for Head and **0.101** W/Kg for Body/Hotspot)

**Repeated 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 1900	GPRS Data-4 Slot (hotspot)	Front side	CH 512	0.964	-3.41	25.5	25.31	1.007	15
WCDMA II	RMC (body-worn and hotspot)	Back side	CH 9400	0.786	2.68	21.5	21.40	0.804	28
LTE Band 2	20M, QPSK RB 1,0 offset	Front side	CH 18700	1.001	-0.39	24.5	23.39	1.293	57
	20M, QPSK RB 1,0 offset	Bottom side	CH 19100	0.985	-1.16	24.5	24.35	1.020	66
LTE Band 4	20M, QPSK RB 1,0 offset	Front side	CH 20050	0.780	-0.30	24.6	24.55	0.789	72

12.3 repeated SAR measurement

Band	Mode	Test Position	Channel	Original Measured SAR 1g(mW/g)	1 st Repeated SAR 1g	Ratio	Original Measured SAR 1g(mW/g)	2nd Repeated SAR 1g	Ratio
GSM 1900	GPRS Data-4 Slot (hotspot)	Back side	CH 512	1.070	0.964	1.11	-	-	-
WCDMA II	RMC (body-worn and hotspot)	Back side	CH 9400	0.798	0.786	1.02	-	-	-
LTE Band 2	20M, QPSK RB 1,0 offset	Front side	CH 18700	0.902	1.001	1.11	-	-	-
	20M, QPSK RB 1,0 offset	Bottom side	CH 19100	1.032	0.985	1.05	-	-	-
LTE Band 4	20M, QPSK RB 1,0 offset	Front side	CH 20050	0.792	0.780	1.02	-	-	-

Note:

1. Per KDB 865664 D01V01,for each frequency band ,repeated SAR measurement is required only when the measured SAR is $\geq 0.8\text{W/Kg}$.
2. Per KDB 865664 D01V01,if the ratio of largest to smallest SAR for the original and first repeated measurement is ≤ 1.2 and the measured SAR $< 1.45\text{W/Kg}$, only one repeated measurement is required.
3. Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is $\geq 1.45\text{W/Kg}$
4. The ratio is the difference in percentage between original and repeated measured SAR.

**Simultaneous Multi-band Transmission Evaluation:**

Application Simultaneous Transmission information:

Position	Simultaneous state
Head	1. GSM + WIFI
	2. GSM + Bluetooth
	3. WCDMA + WIFI
	4. WCDMA + Bluetooth
	5. LTE + WIFI
	6. LTE + Bluetooth
Body	1. GSM + WIFI
	2. GSM + Bluetooth
	3. WCDMA + WIFI
	4. WCDMA + Bluetooth
	5. LTE + WIFI
	6. LTE + Bluetooth

NOTE:

- Bluetooth and WIFI can't simultaneous transmission at the same time.
- For simultaneous transmission at head and body exposure position, 2 transmitters simultaneous transmission was the worst state.
- Based upon KDB 447498 D01 v05, BT SAR is excluded as below table.
- If the test separation distance is <5mm, 5mm is used for excluded SAR calculation.
- For minimum test separation distance $\leq 50\text{mm}$, Bluetooth standalone SAR is excluded according to $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f} (\text{GHz}) / x] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR
- The reported SAR summation is calculated based on the same configuration and test position.
- KDB 447498 / 4.3.2 (2) when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:
 - $(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm}) \cdot [\sqrt{f} (\text{GHz}) / x] \text{ W/kg}$ for test separation distances $\leq 50 \text{ mm}$;
Where $x = 7.5$ for 1-g SAR, and $x = 18.75$ for 10-g SAR.
 - 0.4W/Kg for 1-g SAR and 1.0W/Kg for 10-g SAR, when the separation distance is $>50\text{mm}$.

Estimated SAR		Maximum Average Power		Antenna to user(mm)	Frequency(GHz)	Stand alone SAR(1g) [W/kg]
		dBm	mW			
BT	Head	6	3.98	5	2.402	0.164
	Body			10	2.402	0.082



Simultaneous Mode	Position	Mode	Max. 1-g SAR (W/kg)	1-g Sum SAR (W/kg)
GSM + WIFI	Head	GSM Voice	0.297	0.758
		WIFI	0.461	
	Body	GSM Voice	1.118	1.358
		WIFI	0.240	
GSM + Bluetooth	Head	GSM Voice	0.297	0.461
		Bluetooth	0.164	
	Body	GSM Voice	1.118	1.200
		Bluetooth	0.082	
WCDMA + WIFI	Head	WCDMA RMC	0.504	0.965
		WIFI	0.461	
	Body	WCDMA RMC	0.817	1.057
		WIFI	0.240	
WCDMA + Bluetooth	Head	WCDMA RMC	0.504	0.668
		Bluetooth	0.164	
	Body	WCDMA RMC	0.817	0.899
		Bluetooth	0.082	
LTE + WIFI	Head	LTE RMC	0.581	1.042
		WIFI	0.461	
	Body	LTE RMC	1.308	1.548
		WIFI	0.240	
LTE + Bluetooth	Head	LTE RMC	0.581	0.745
		Bluetooth	0.164	
	Body	LTE RMC	1.308	1.390
		Bluetooth	0.082	

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

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
750MHz Dipole	SATIMO	SID750	SN 30/14 DIP0G750-331	2014.09.01	2017.08.31
835MHz Dipole	SATIMO	SID835	SN 30/14 DIP0G835-332	2014.09.01	2017.08.31
1800MHz Dipole	SATIMO	SID1800	SN 30/14 DIP1G800-329	2014.09.01	2017.08.31
1900MHz Dipole	SATIMO	SID1900	SN 30/14 DIP1G900-333	2014.09.01	2017.08.31
2450MHzDipole	SATIMO	SID2450	SN 30/14 DIP2G450-335	2014.09.01	2017.08.31
2600MHzDipole	SATIMO	SID2600	SN 30/14 DIP2G600-336	2014.09.01	2017.08.31
E-Field Probe	SATIMO	SSE5	SN 17/14 EP221	2015.09.01	2016.08.31
Antenna	SATIMO	ANTA3	SN 07/13 ZNTA52	2014.09.01	2017.08.31
Waveguide	SATIMO	SWG5500	SN 13/14 WGA32	2014.09.01	2017.08.31
Phantom1	SATIMO	SAM	SN 32/14 SAM115	N/A	N/A
Phantom2	SATIMO	SAM	SN 32/14 SAM116	N/A	N/A
SAR TEST BENCH	SATIMO	GSM and WCDMA mobile phone POSITIONNIN G SYSTEM	SN 32/14 MSH97	N/A	N/A
SAR TEST BENCH	SATIMO	LAPTOP POSITIONNIN G SYSTEM	SN 32/14 LSH29	N/A	N/A
Dielectric Probe Kit	SATIMO	SCLMP	SN 32/14 OCPG52	2015.09.01	2016.08.31
Multi Meter	Keithley	Multi Meter 2000	4050073	2015.11.20	2016.11.19
Signal Generator	Agilent	N5182A	MY50140530	2015.11.18	2016.11.17
Power Meter	R&S	NRP	100510	2015.10.25	2016.10.24
Power Sensor	R&S	NRP-Z11	101919	2015.10.24	2016.10.23
Power Sensor	Anritsu	MA2411B	1027253	2015.10.10	2016.10.09
Power Sensor	R&S	NRP-Z21	103971	2014.12.12	2015.12.11
Network Analyzer	Agilent	5071C	EMY46103472	2014.12.12	2015.12.11
Attenuator 1	PE	PE7005-10	N/A	2015.10.25	2016.10.24
Attenuator 2	PE	PE7005-3	N/A	2015.10.24	2016.10.23
Attenuator 3	Woken	WK0602-XX	N/A	2014.12.12	2015.12.11
Dual Directional Coupler	Agilent	778D	50422	2015.11.18	2016.11.17



Appendix A. System Validation Plots

System Performance Check Data (750MHz Head)

Type: Phone measurement (Complete)

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

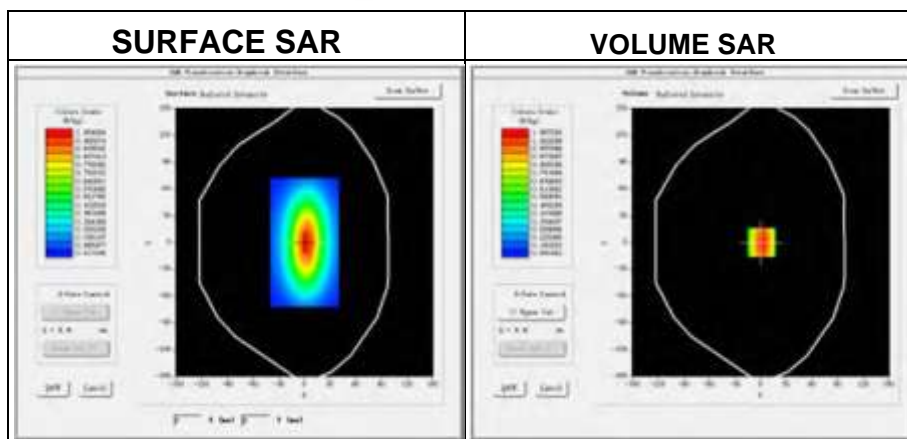
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2015-12-05

Measurement duration: 13 minutes 25 seconds

Experimental conditions

Phantom	Validation plane
Device Position	-
Band	750MHz
Channels	-
Signal	CW
Frequency (MHz)	750MHz
Relative permittivity (real part)	41.2
Relative permittivity	20.8
Conductivity (S/m)	0.91
Power drift (%)	2.35
Ambient Temperature:	22.7°C
Liquid Temperature:	22.3°C
ConvF:	4.53
Crest factor:	1:1





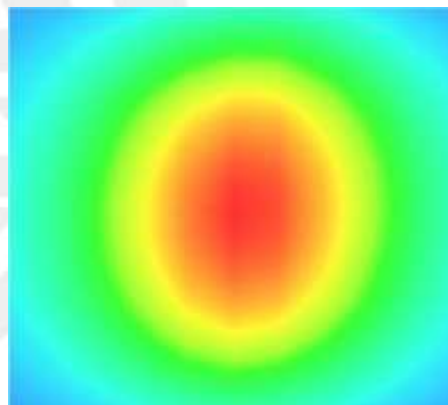
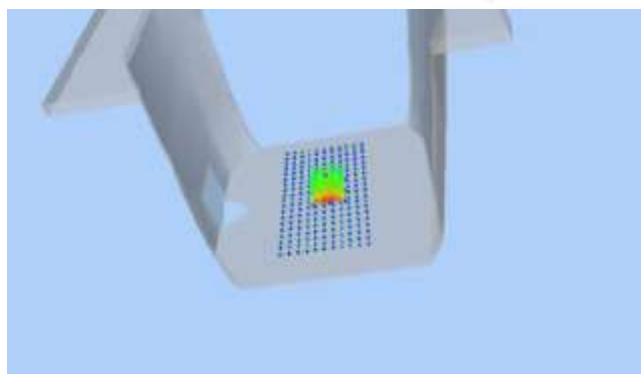
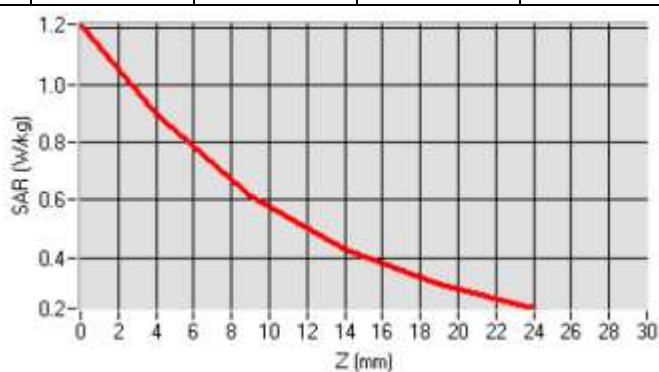
Maximum location: X=1.00, Y=0.00

SAR Peak: 1.30 W/kg

SAR 10g (W/Kg)	0.544560
SAR 1g (W/Kg)	0.838123

Z Axis Scan

Z (mm)	0	4	9	14	19	24	29
SAR(W/Kg)	1.30322	0.86595	0.56114	0.49582	0.31352	0.24266	0.10359



**System Performance Check Data (835MHz Body)**

Type: Phone measurement (Complete)

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

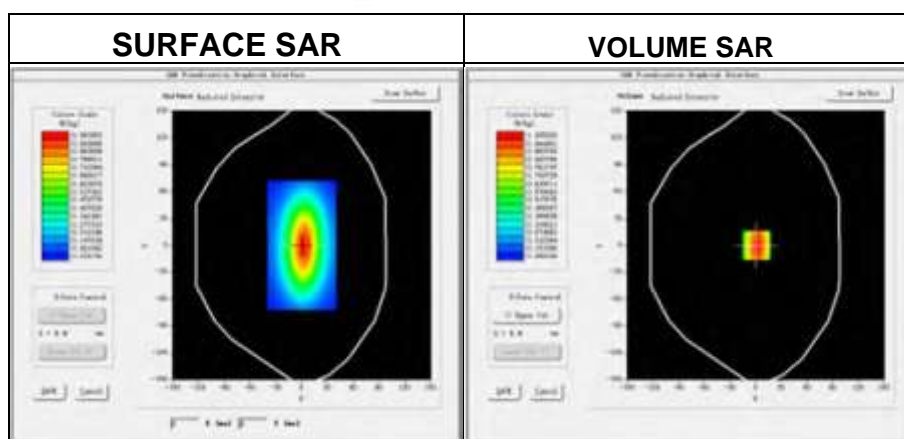
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2015-12-05

Measurement duration: 14 minutes 12 seconds

Experimental conditions.

Probe	
Phantom	Validation plane
Device Position	-
Band	750MHz
Channels	-
Signal	CW
Frequency (MHz)	750MHz
Relative permittivity (real part)	55.26
Relative permittivity	23.251187
Conductivity (S/m)	0.91
Power drift (%)	1.020000
Ambient Temperature:	22.7°C
Liquid Temperature:	22.3°C
ConvF:	4.70
Crest factor:	1:1





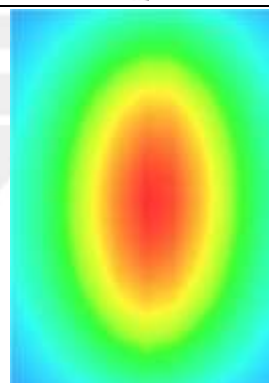
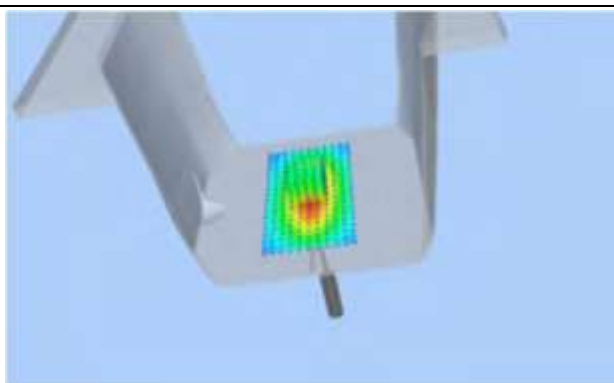
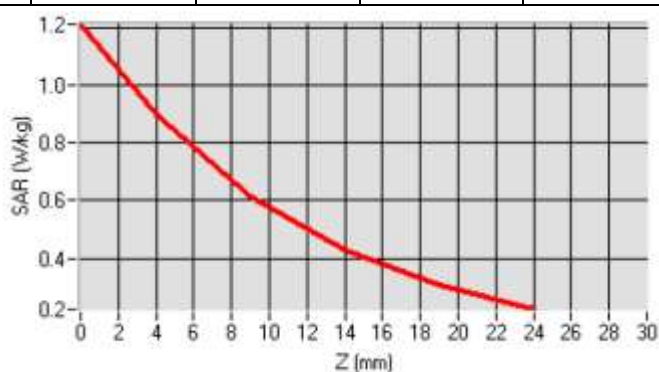
Maximum location: X=1.00, Y=0.00

SAR Peak: 1.30 W/kg

SAR 10g (W/Kg)	0.576142
SAR 1g (W/Kg)	0.856325

Z Axis Scan

Z (mm)	0	4	9	14	19	24	29
SAR(W/Kg)	1.30254	0.85658	0.56325	0.49362	0.31412	0.24366	0.10355



**System Performance Check Data (835MHz Head)**

Type: Phone measurement (Complete)

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

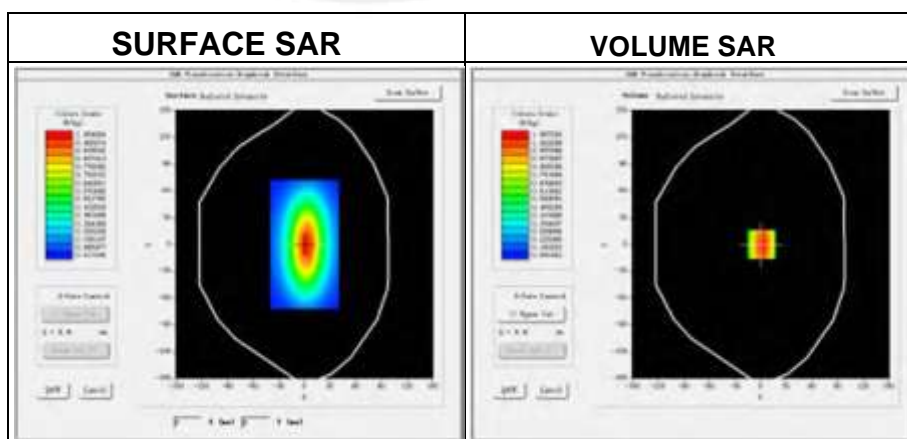
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2015-12-05

Measurement duration: 13 minutes 27 seconds

Experimental conditions

Phantom	Validation plane
Device Position	-
Band	835MHz
Channels	-
Signal	CW
Frequency (MHz)	835MHz
Relative permittivity (real part)	41.00
Relative permittivity	18.72
Conductivity (S/m)	0.86
Power drift (%)	0.45
Ambient Temperature:	22.7°C
Liquid Temperature:	22.3°C
ConvF:	4.83
Crest factor:	1:1





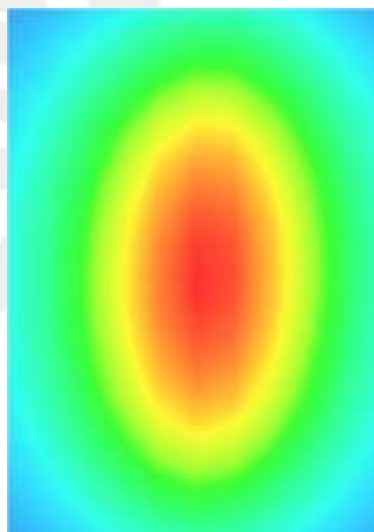
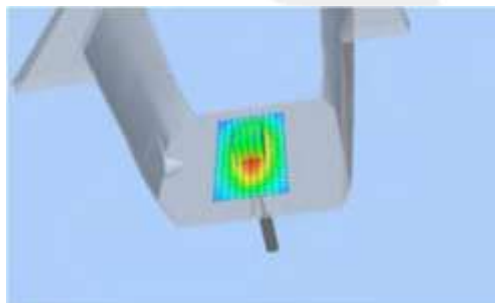
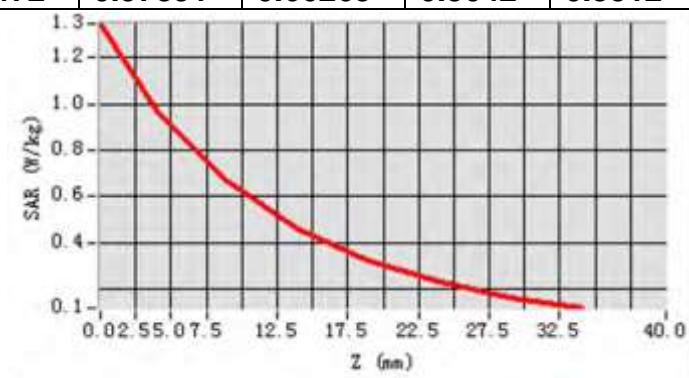
Maximum location: X=1.00, Y=0.00

SAR Peak: 1.39 W/kg

SAR 10g (W/Kg)	0.625623
SAR 1g (W/Kg)	0.937481

Z Axis Scan

Z (mm)	0	4	9	14	19	24	29
SAR(W/Kg)	1.3472	0.97891	0.66265	0.5042	0.3512	0.2505	0.11794



**System Performance Check Data (835MHz Body)**

Type: Phone measurement (Complete)

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

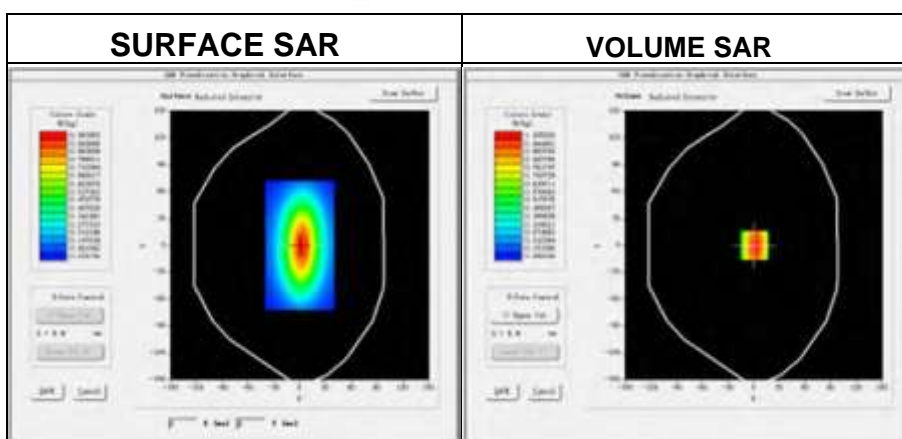
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2015-12-05

Measurement duration: 14 minutes 13 seconds

Experimental conditions.

Probe	
Phantom	Validation plane
Device Position	-
Band	835MHz
Channels	-
Signal	CW
Frequency (MHz)	835MHz
Relative permittivity (real part)	54.70
Relative permittivity	21.408187
Conductivity (S/m)	0.98
Power drift (%)	0.090000
Ambient Temperature:	22.7°C
Liquid Temperature:	22.3°C
ConvF:	5.02
Crest factor:	1:1



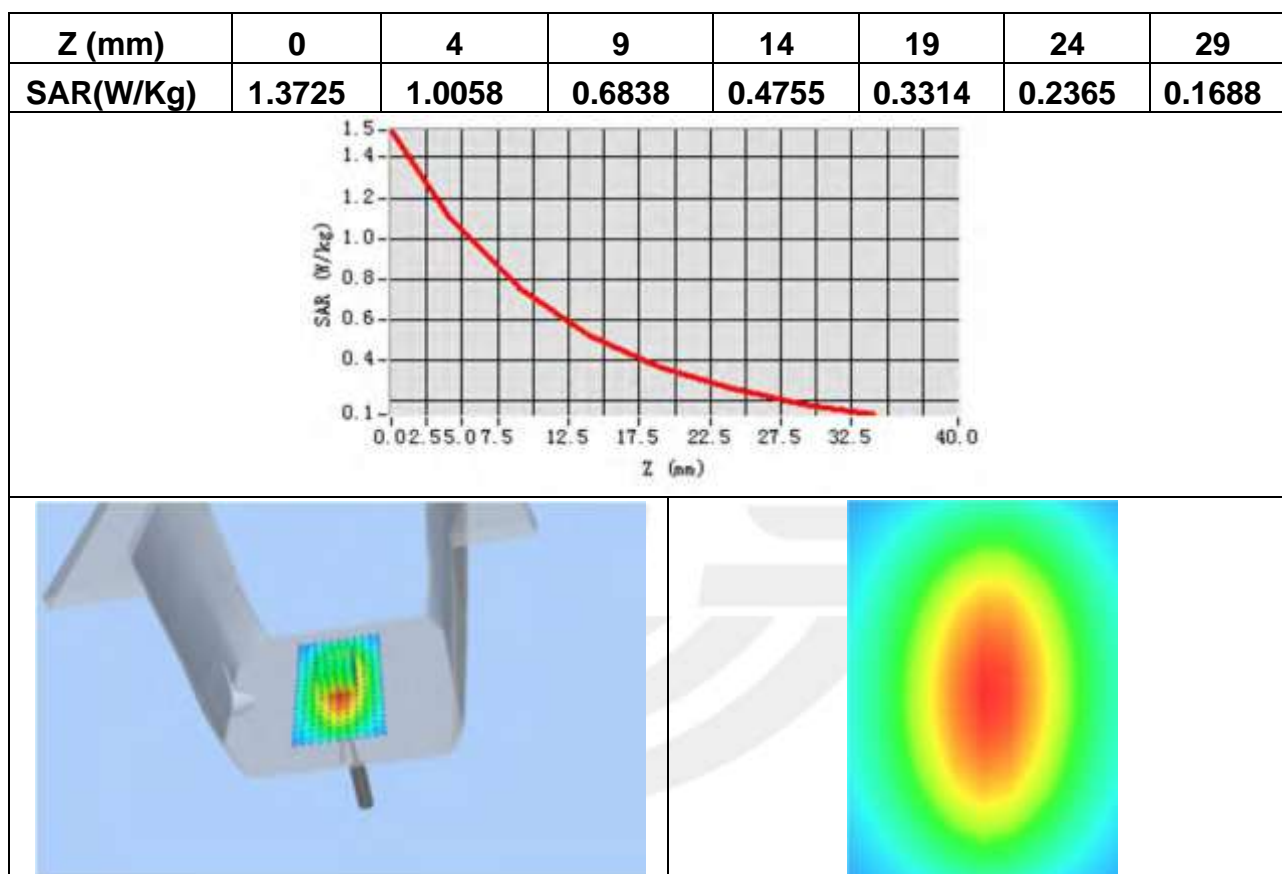


Maximum location: X=1.00, Y=0.00

SAR Peak: 1.50 W/kg

SAR 10g (W/Kg)	0.603221
SAR 1g (W/Kg)	0.946658

Z Axis Scan



**System Performance Check Data(1800MHz Head)**

Type: Phone measurement (Complete)

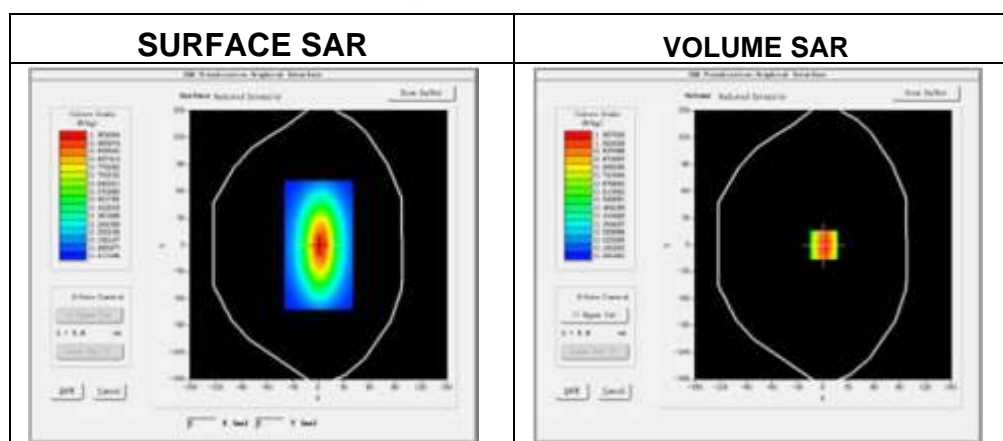
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2015-12-05

Experimental conditions.

Phantom	Validation plane
Device Position	-
Band	1800MHz
Channels	-
Signal	CW
Frequency (MHz)	1800MHz
Relative permittivity (real part)	40.20
Relative permittivity	14.096855
Conductivity (S/m)	1.308491
Power drift (%)	-1.390000
Ambient Temperature	22.7°C
Liquid Temperature	22.3°C
Probe	SN 17/14 EP221
ConvF	4.25
Crest factor:	1:1



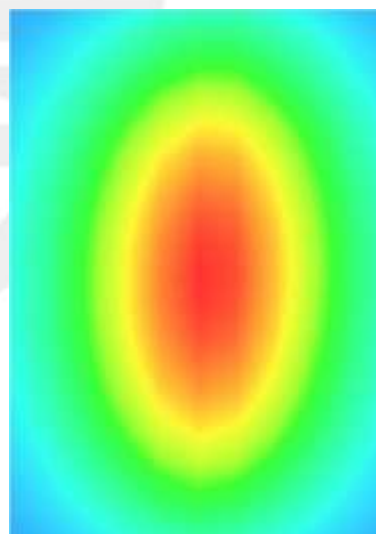
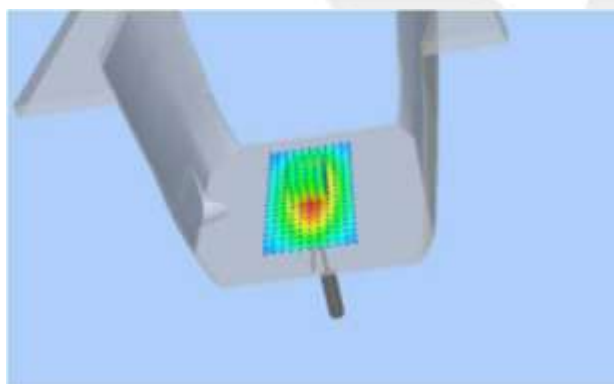
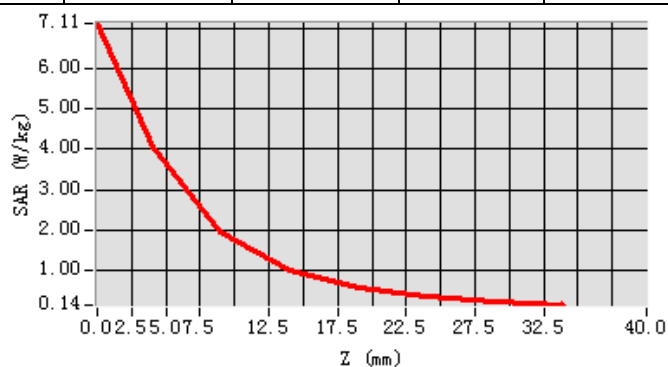


Maximum location: X=7.00, Y=-1.00

SAR 10g (W/Kg)	1.980247
SAR 1g (W/Kg)	3.760154

Z Axis Scan

Z (mm)	0	4	9	14	19	24	29
SAR(W/Kg)	7.1146	4.0782	1.9352	1.0130	0.5642	0.3334	0.2079



**System Performance Check Data(1800MHz Body)**

Type: Phone measurement (Complete)

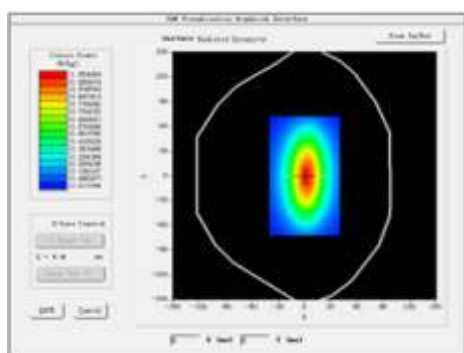
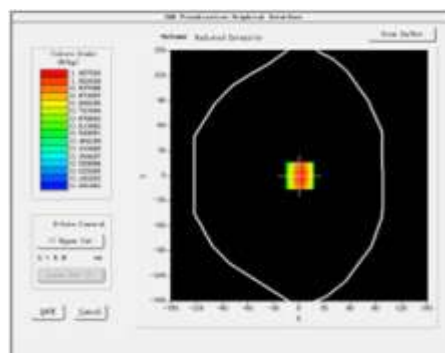
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2015-12-05

Experimental conditions.

Phantom	Validation plane
Device Position	-
Band	1800MHz
Channels	-
Signal	CW
Frequency (MHz)	1800MHz
Relative permittivity (real part)	52.6
Relative permittivity	15.08356
Conductivity (S/m)	1.376582
Power drift (%)	2.351
Ambient Temperature	22.7°C
Liquid Temperature	22.3°C
Probe	SN 17/14 EP221
ConvF	4.34
Crest factor:	1:1

SURFACE SAR**VOLUME SAR**

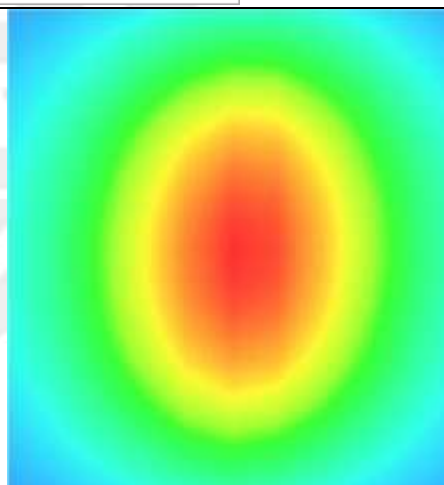
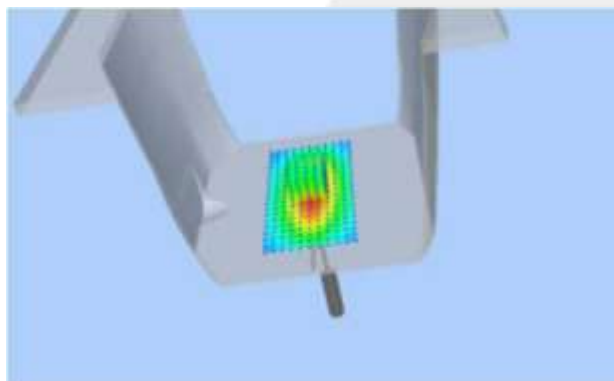
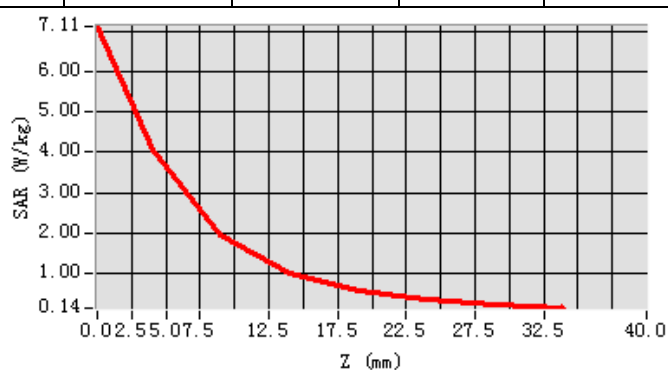


Maximum location: X=6.00, Y=2.00

SAR 10g (W/Kg)	1.99658
SAR 1g (W/Kg)	3.88325

Z Axis Scan

Z (mm)	0	4	9	14	19	24	29
SAR(W/Kg)	7.2356	4.1258	1.9683	1.1253	0.6535	0.3652	0.2658



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

Type: Phone measurement (Complete)

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

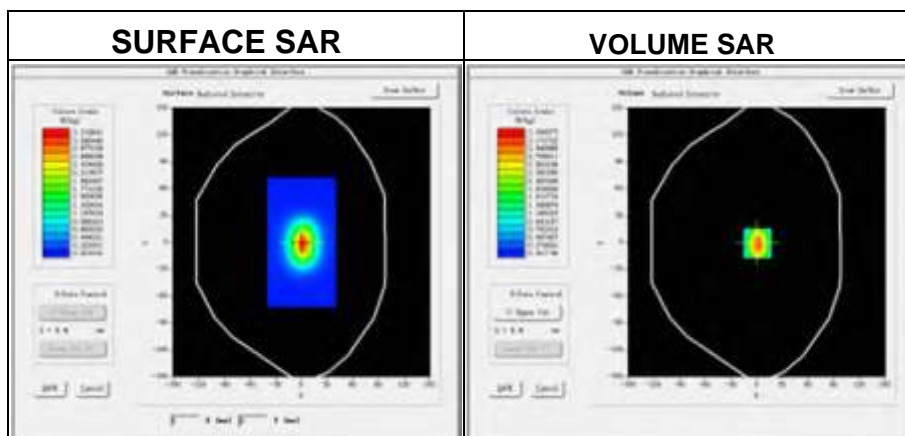
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2015-12-05

Measurement duration: 14 minutes 12 seconds

Experimental conditions.

Phantom	Validation plane
Device Position	-
Band	1900MHz
Channels	-
Signal	CW
Frequency (MHz)	1900MHz
Relative permittivity (real part)	39.50
Relative permittivity	13.26
Conductivity (S/m)	1.43
Power drift (%)	0.47
Ambient Temperature:	22.7°C
Liquid Temperature:	22.3°C
Probe	SN 17/14 EP221
ConvF:	4.71
Crest factor:	1:1



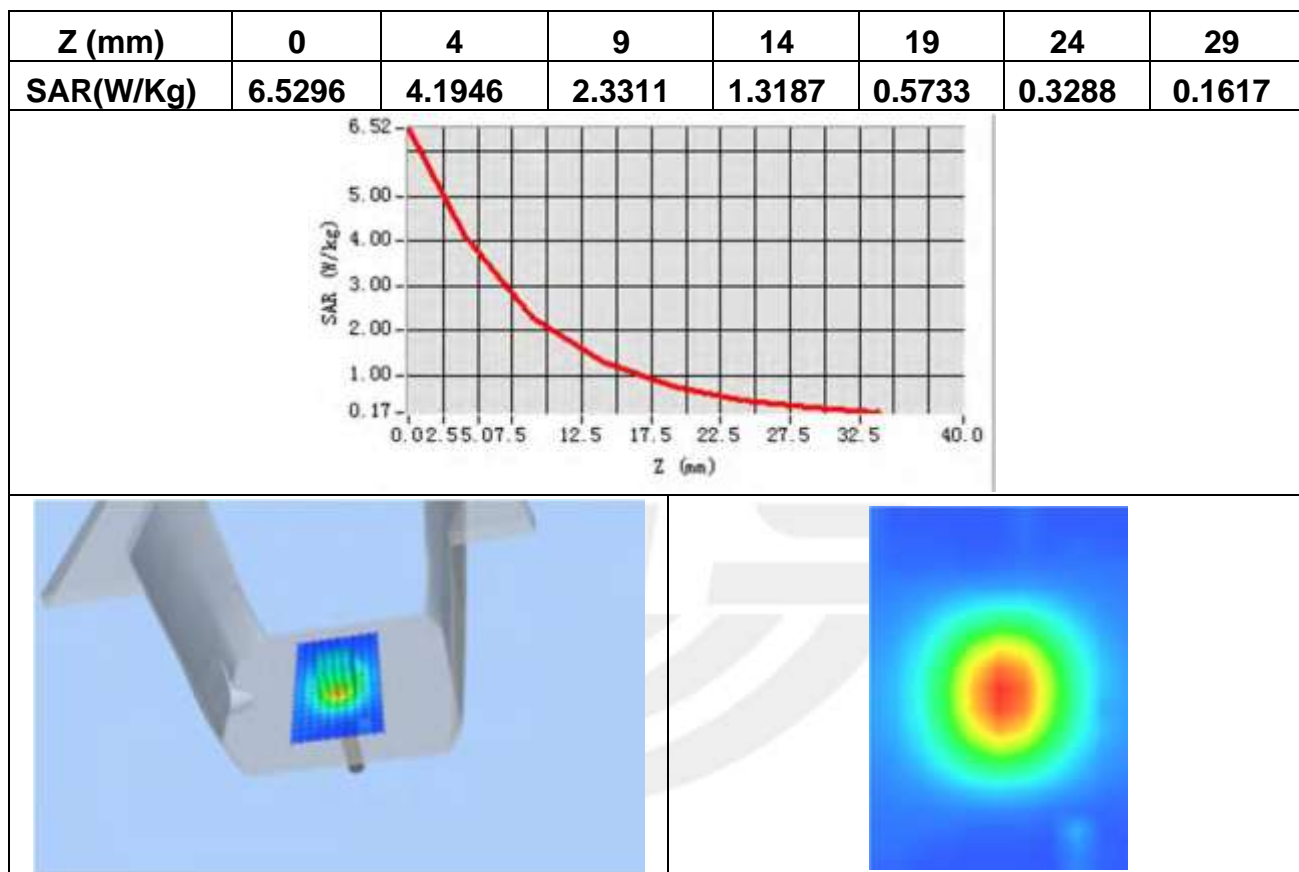


Maximum location: X=1.00, Y=0.00

SAR Peak: 5.41 W/kg

SAR 10g (W/Kg)	1.967525
SAR 1g (W/Kg)	3.856235

Z Axis Scan



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

Type: Phone measurement (Complete)

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

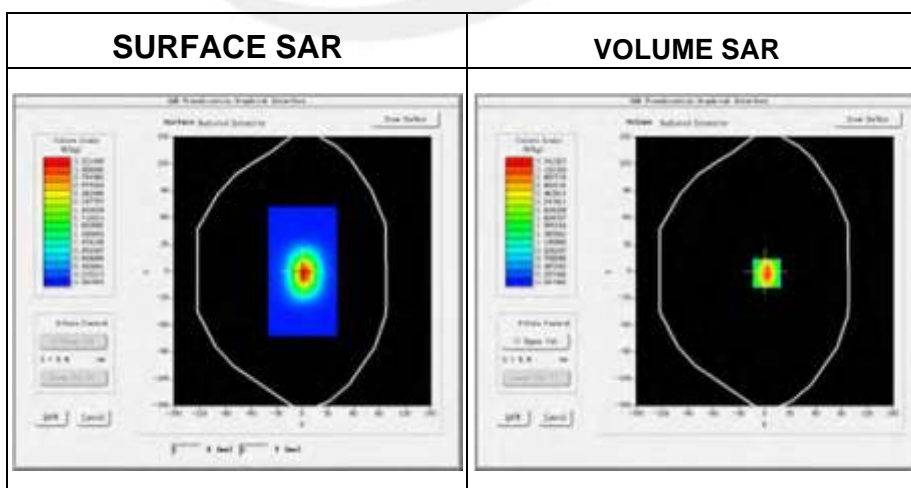
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2015-12-05

Measurement duration: 14 minutes 46 seconds

Experimental conditions.

Device Position	-
Band	1900MHz
Channels	-
Signal	CW
Frequency (MHz)	1900
Relative permittivity (real part)	52.31
Relative permittivity	12.87531
Conductivity (S/m)	1.5
Power drift (%)	0.37
Ambient Temperature:	22.7°C
Liquid Temperature:	22.3°C
Probe	SN 17/14 EP221
ConvF:	4.85
Crest factor:	1:1



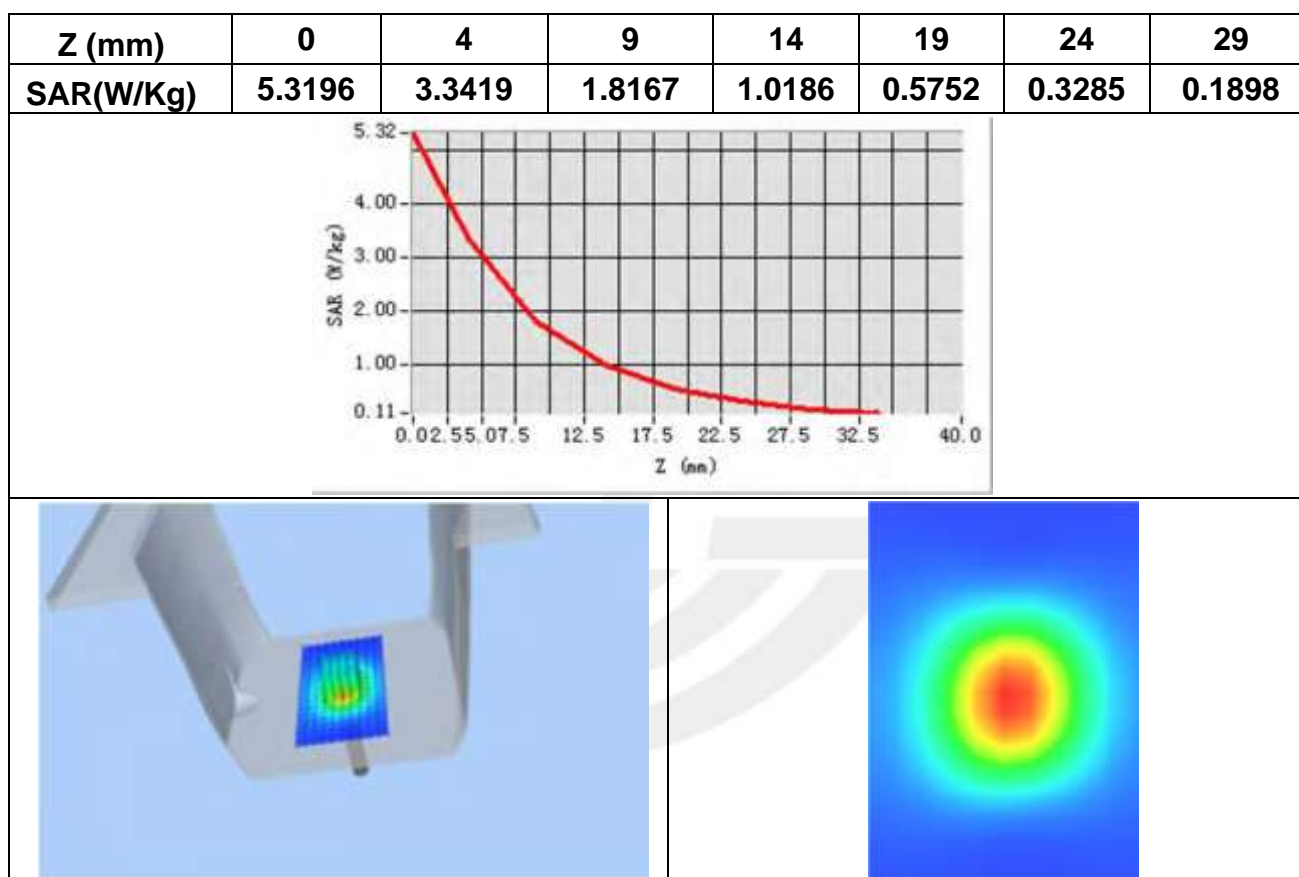


Maximum location: X=2.00, Y=2.00

SAR Peak: 5.27 W/kg

SAR 10g (W/Kg)	2.265354
SAR 1g (W/Kg)	3.986583

Z Axis Scan



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

Type: Phone measurement (Complete)

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

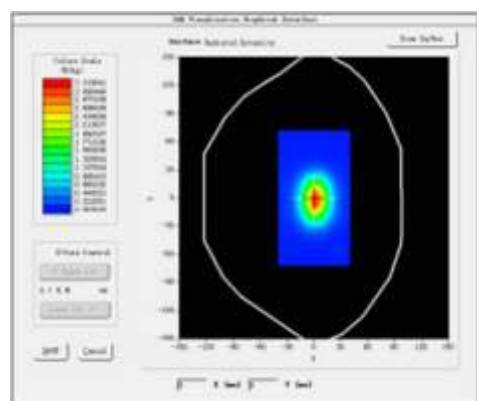
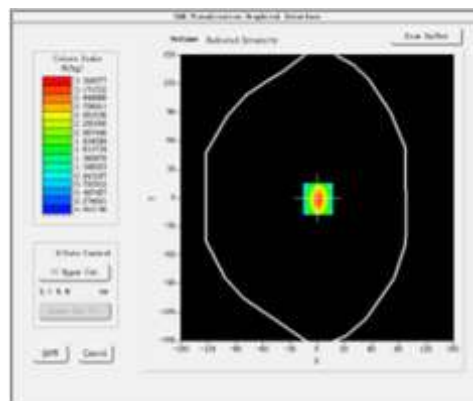
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2015-12-05

Measurement duration: 13 minutes 51seconds

Experimental conditions.

Device Position	Validation plane
Band	2450 MHz
Channels	-
Signal	CW
Frequency (MHz)	2450
Relative permittivity (real part)	39.176002
Relative permittivity	12.930000
Conductivity (S/m)	1.88
Power drift (%)	-1.200000
Ambient Temperature	22.7°C
Liquid Temperature	22.3°C
Probe	SN 17/14 EP221
ConvF	4.11
Crest factor:	1:1

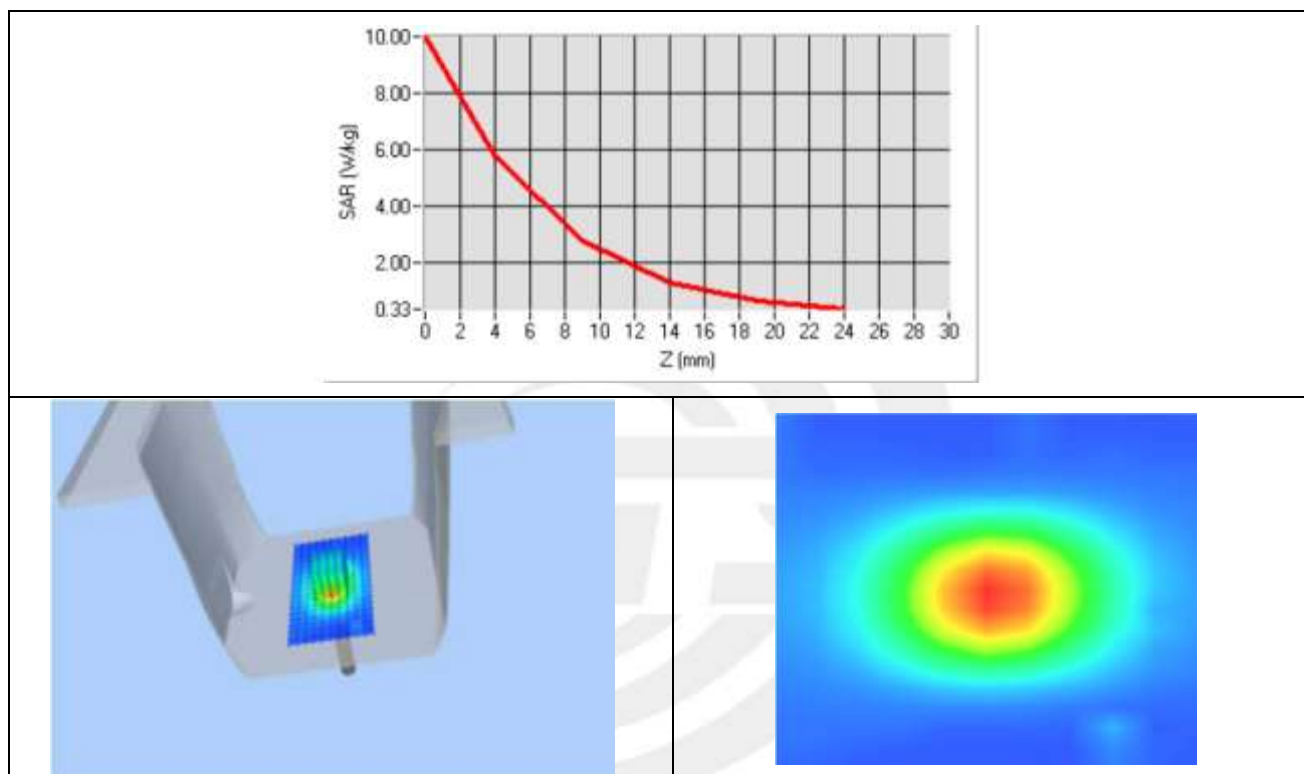
SURFACE SAR**VOLUME SAR**



Maximum location: X=7.00, Y=6.00

SAR 10g (W/Kg)	2.659359
SAR 1g (W/Kg)	5.593465

Z Axis Scan



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

Type: Phone measurement (Complete)

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

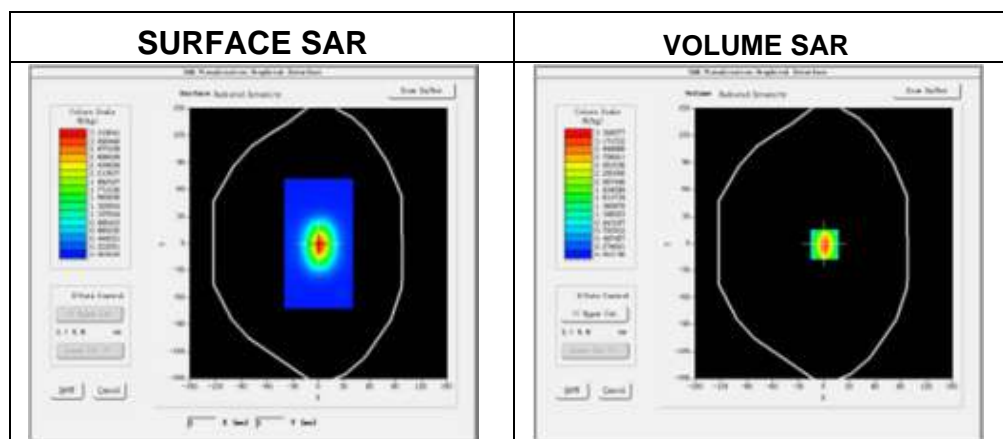
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2015-12-05

Measurement duration: 14 minutes 23 seconds

Experimental conditions.

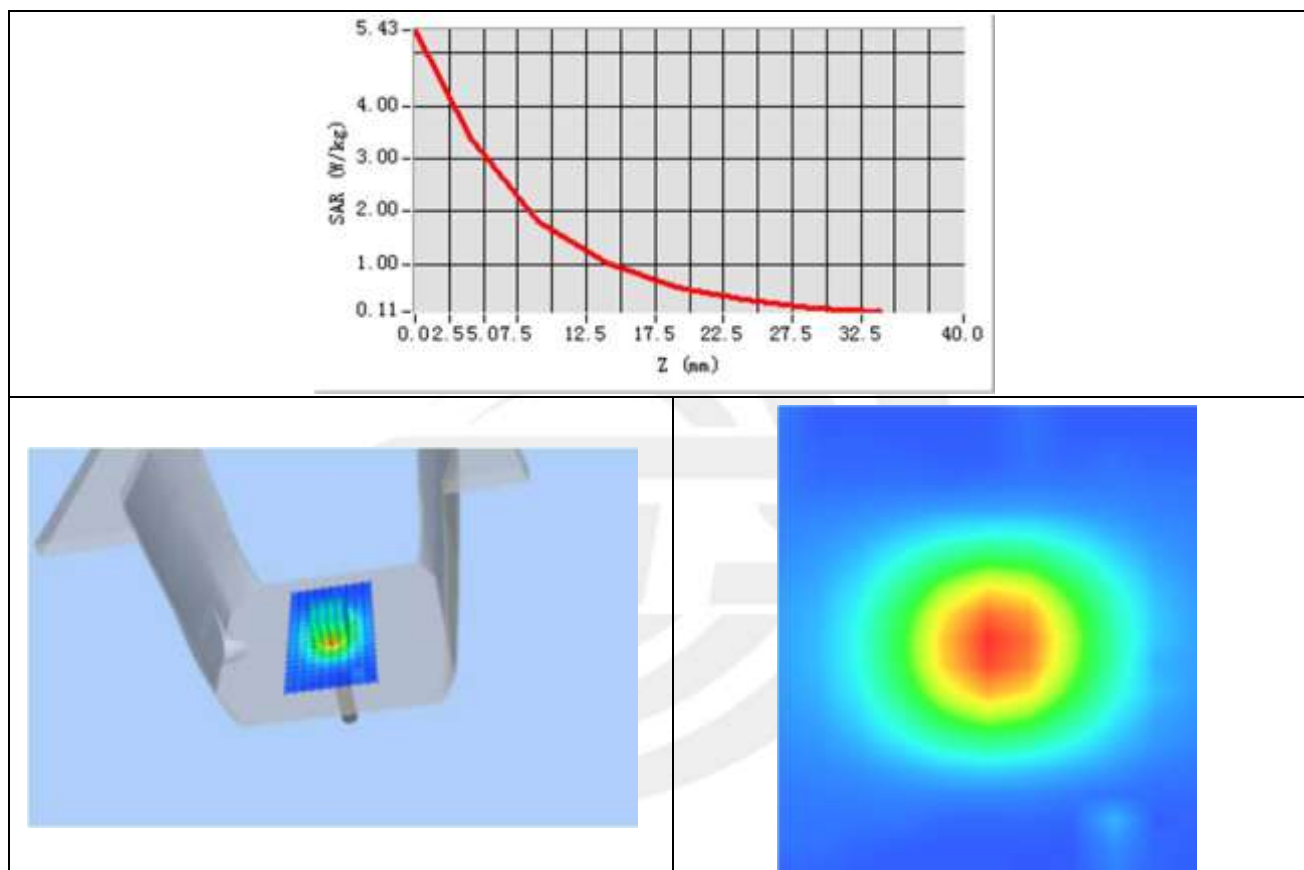
Device Position	Validation plane
Band	2450 MHz
Channels	-
Signal	CW
Frequency (MHz)	2450
Relative permittivity (real part)	52.316002
Relative permittivity	12.930000
Conductivity (S/m)	2.12
Power drift (%)	-1.200000
Ambient Temperature	22.7°C
Liquid Temperature	22.3°C
Probe	SN 17/14 EP221
ConvF	4.25
Crest factor:	1:1



Maximum location: X=3.00, Y=1.00

SAR 10g (W/Kg)	2.156894
SAR 1g (W/Kg)	4.864392

Z Axis Scan



**System Performance Check Data(2600MHz Head)**

Type: Phone measurement (Complete)

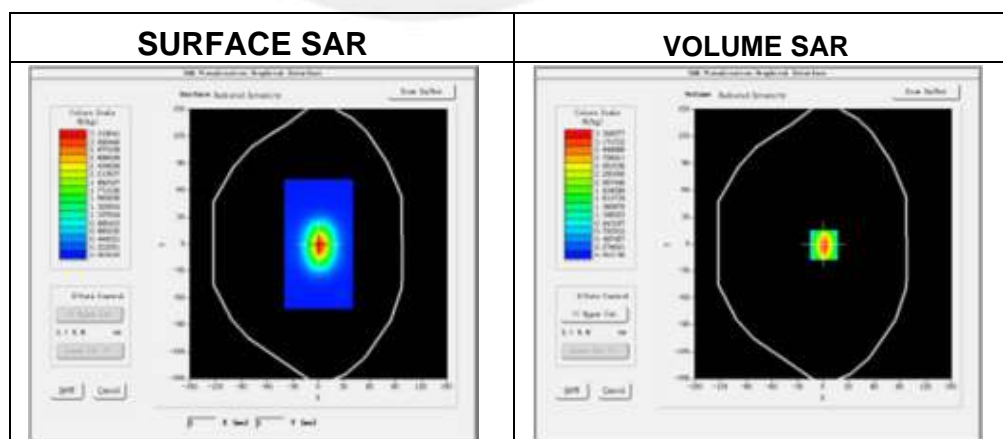
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2015-12-05

Experimental conditions.

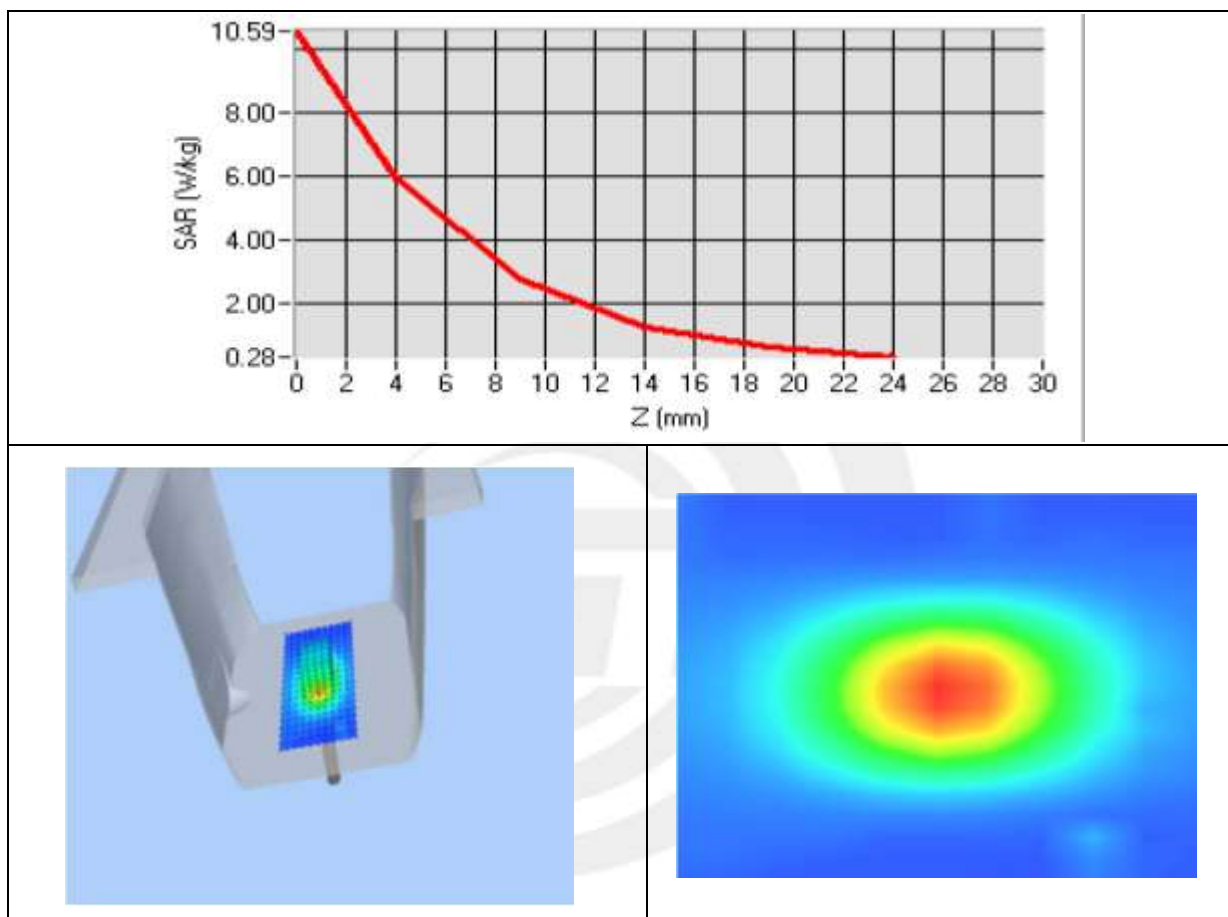
Device Position	Validation plane
Band	2600 MHz
Channels	-
Signal	CW
Frequency (MHz)	2600
Relative permittivity (real part)	38.52544
Relative permittivity	12.862300
Conductivity (S/m)	1.92000
Power drift (%)	-0.2600000
Ambient Temperature	22.7°C
Liquid Temperature	22.3°C
Probe	SN 17/14 EP221
ConvF	4.20
Crest factor:	1:1



Maximum location: X=3.00, Y=1.00

SAR 10g (W/Kg)	2.468341
SAR 1g (W/Kg)	5.452358

Z Axis Scan



**System Performance Check Data(2600MHz Body)**

Type: Phone measurement (Complete)

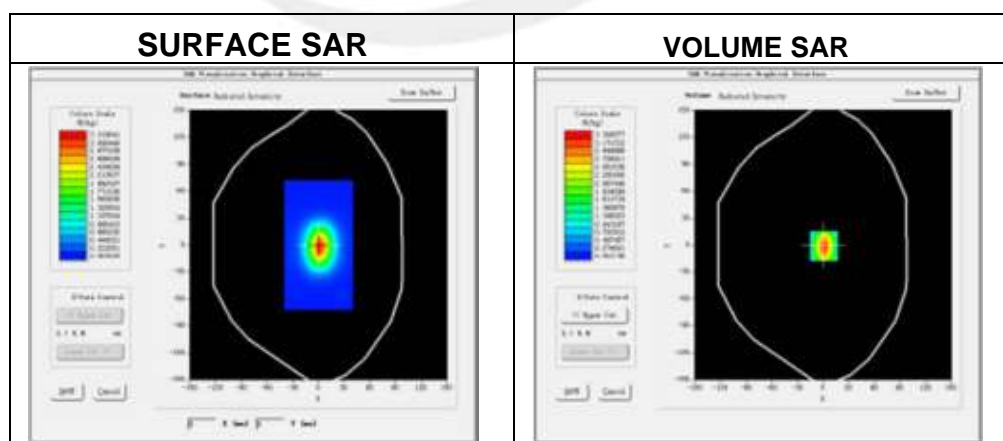
Area scan resolution: dx=8mm,dy=8mm

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

Date of measurement: 2015-12-05

Experimental conditions.

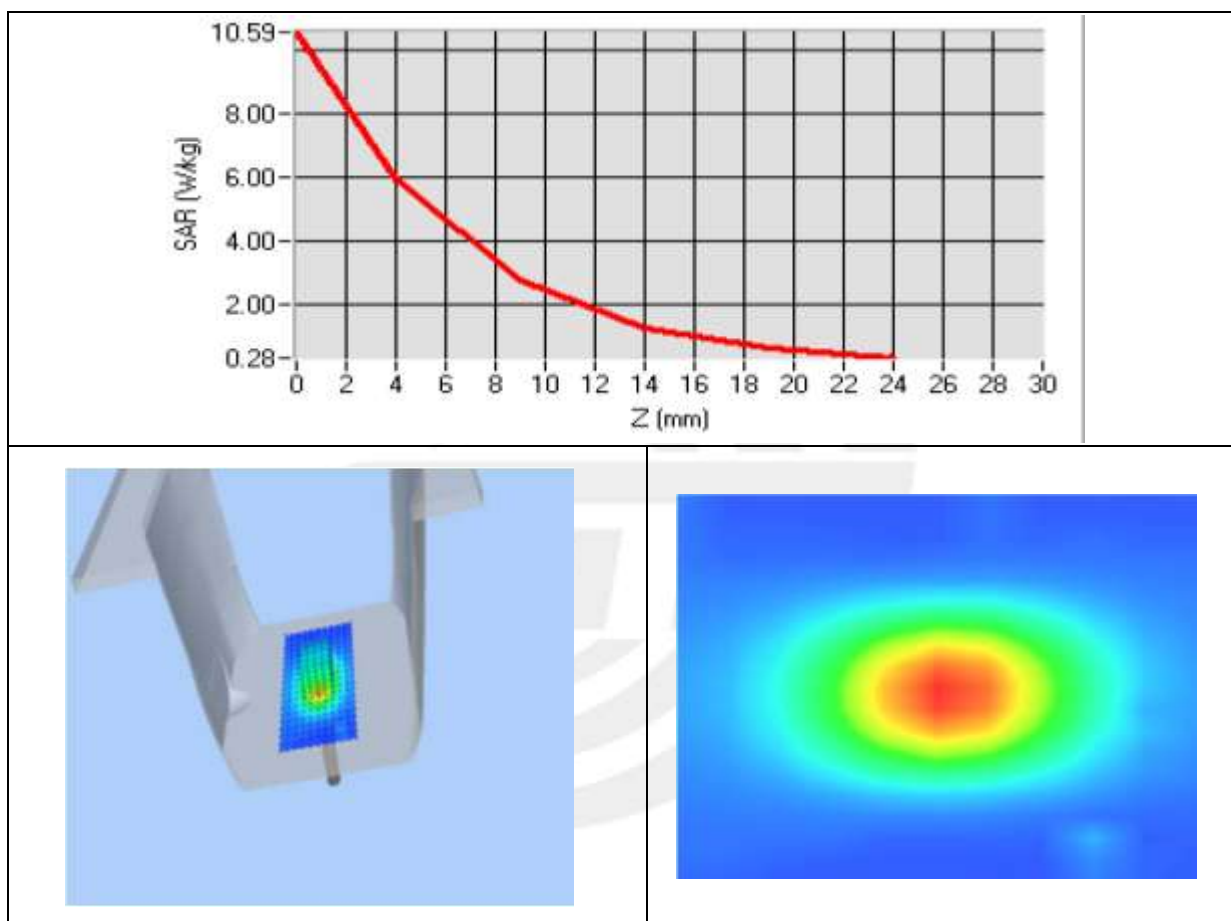
Device Position	Validation plane
Band	2600 MHz
Channels	-
Signal	CW
Frequency (MHz)	2600
Relative permittivity (real part)	52.36814
Relative permittivity	12.62485
Conductivity (S/m)	2.12000
Power drift (%)	2.31
Ambient Temperature	22.7°C
Liquid Temperature	22.3°C
Probe	SN 17/14 EP221
ConvF	4.32
Crest factor:	1:1



Maximum location: X=3.00, Y=1.00

SAR 10g (W/Kg)	2.398862
SAR 1g (W/Kg)	5.413682

Z Axis Scan



Appendix B. SAR Test Plots

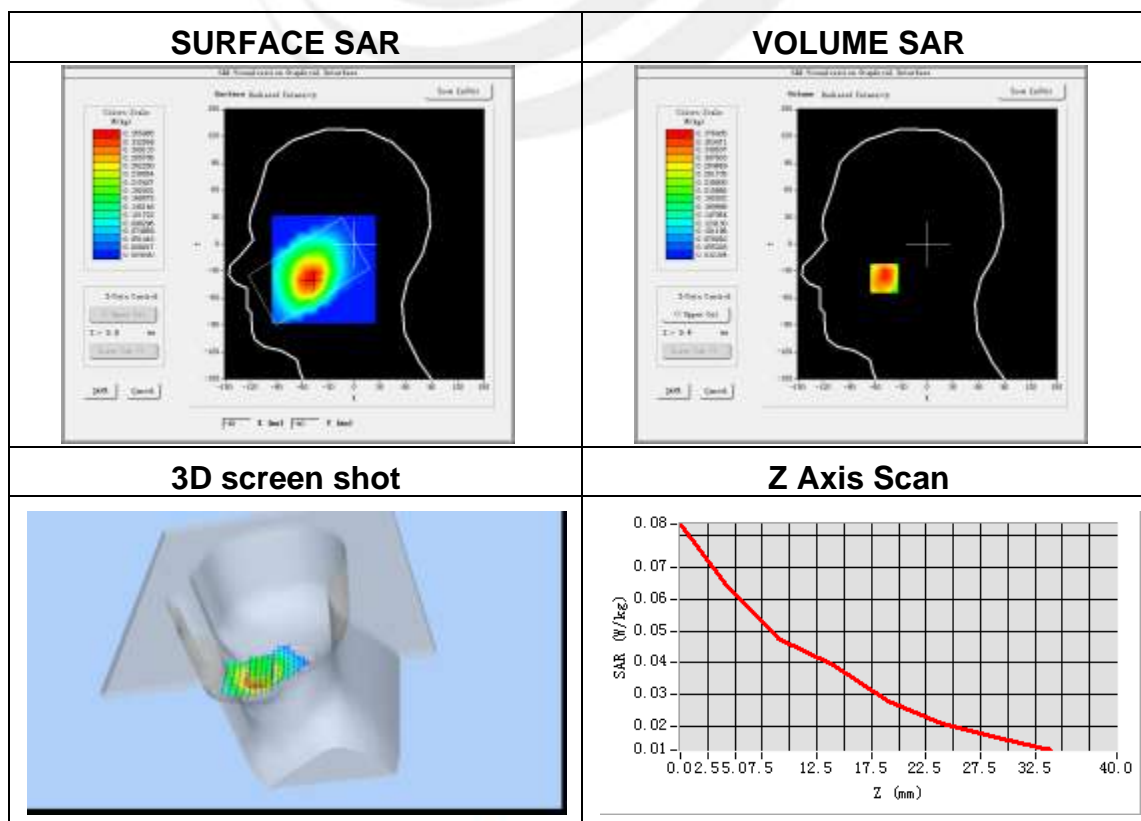
Plot 1: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	GSM850
Channels	High
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	848.8
Relative permittivity (real part)	41.5
Conductivity (S/m)	0.90
Variation (%)	4.68

Maximum location: X=-51.00, Y=-42.00

SAR Peak: 0.09 W/kg

SAR 10g (W/Kg)	0.043555
SAR 1g (W/Kg)	0.063400

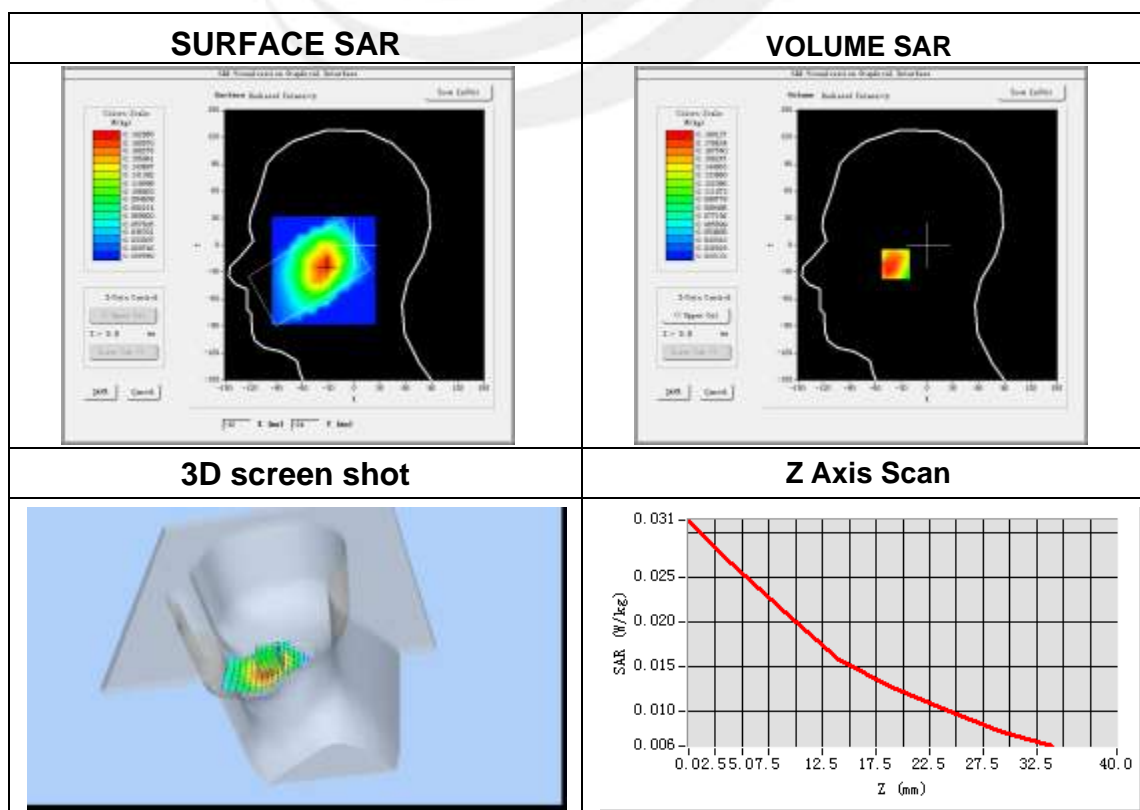


Plot 2: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.83
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Scan	5x5x7,dx=8mmdy=8mmdz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Right head
Device Position	Tilt
Band	GSM850
Channels	High
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	848.8
Relative permittivity (real part)	41.5
Conductivity (S/m)	0.90
Variation (%)	4.10

Maximum location: X=-17.00, Y=-24.00
SAR Peak: 0.04 W/kg

SAR 10g (W/Kg)	0.019119
SAR 1g (W/Kg)	0.026250



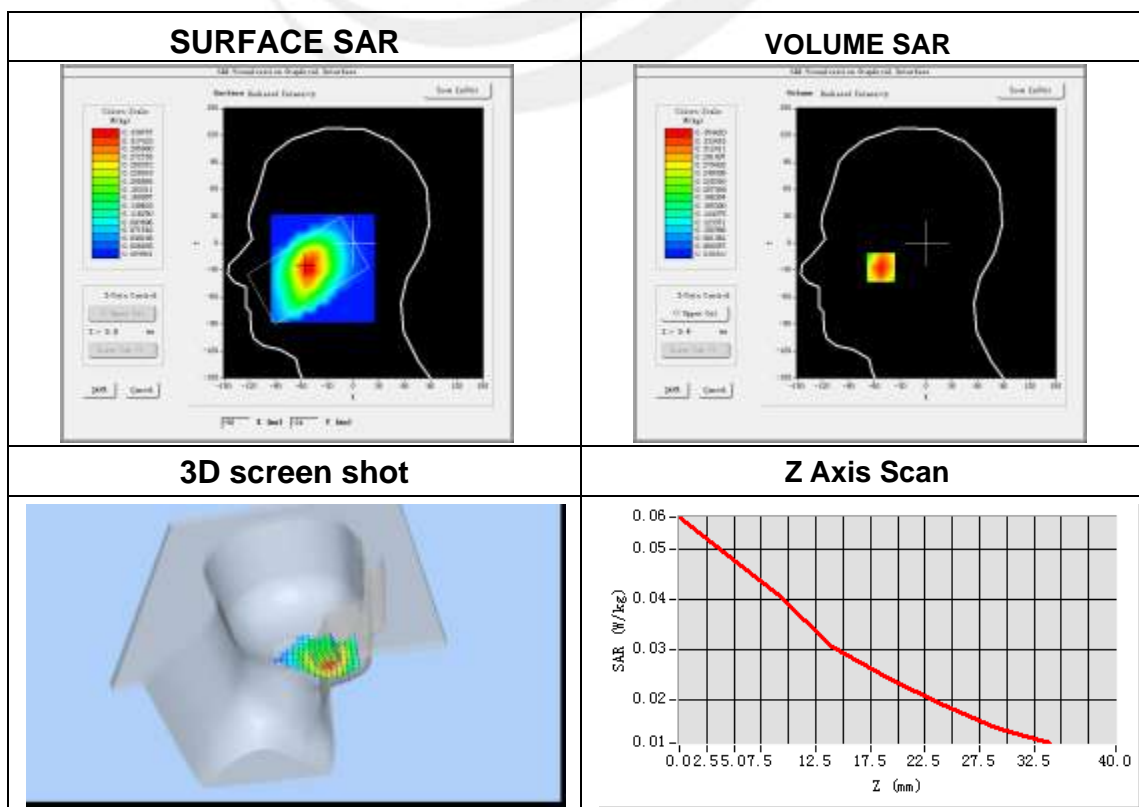


Plot 3: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	High
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	848.8
Relative permittivity (real part)	41.5
Conductivity (S/m)	0.90
Variation (%)	-2.46

Maximum location: X=-50.00, Y=-24.00
SAR Peak: 0.07 W/kg

SAR 10g (W/Kg)	0.036239
SAR 1g (W/Kg)	0.051519

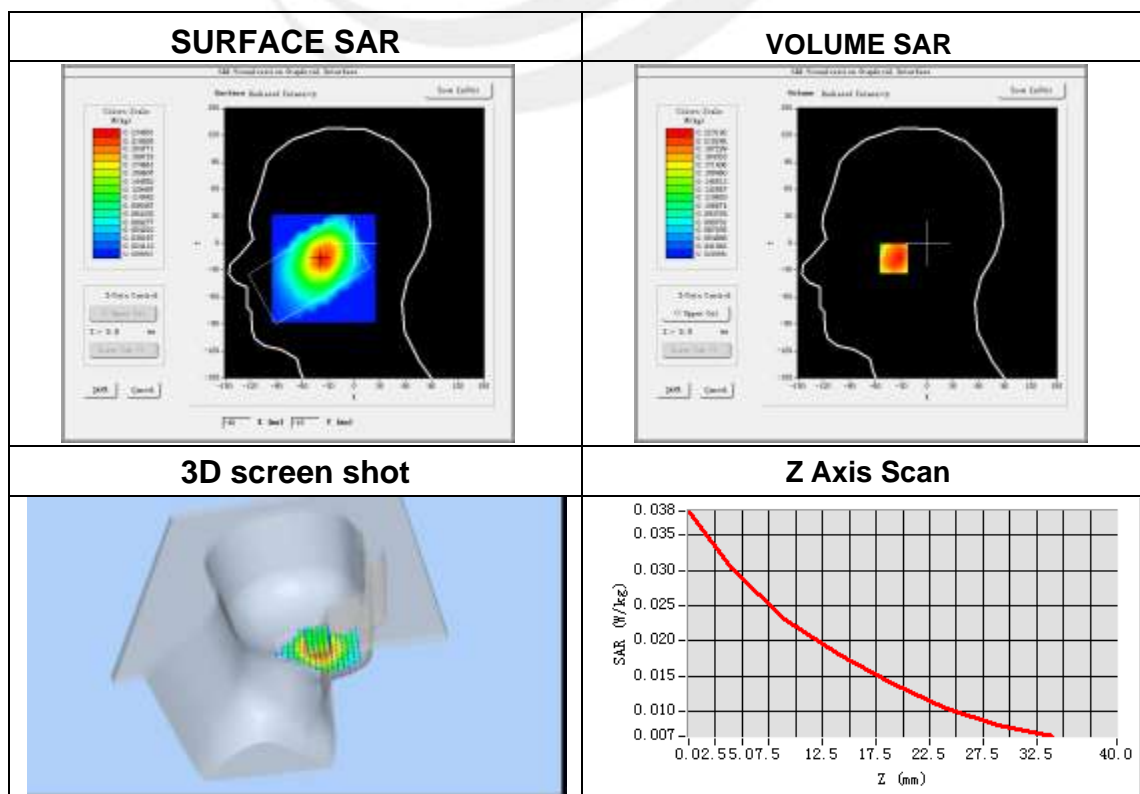


Plot 4: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	Tilt
Band	GSM850
Channels	High
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	848.8
Relative permittivity (real part)	41.5
Conductivity (S/m)	0.90
Variation (%)	3.09

Maximum location: X=-33.00, Y=1.00
SAR Peak: 0.04 W/kg

SAR 10g (W/Kg)	0.021271
SAR 1g (W/Kg)	0.029439

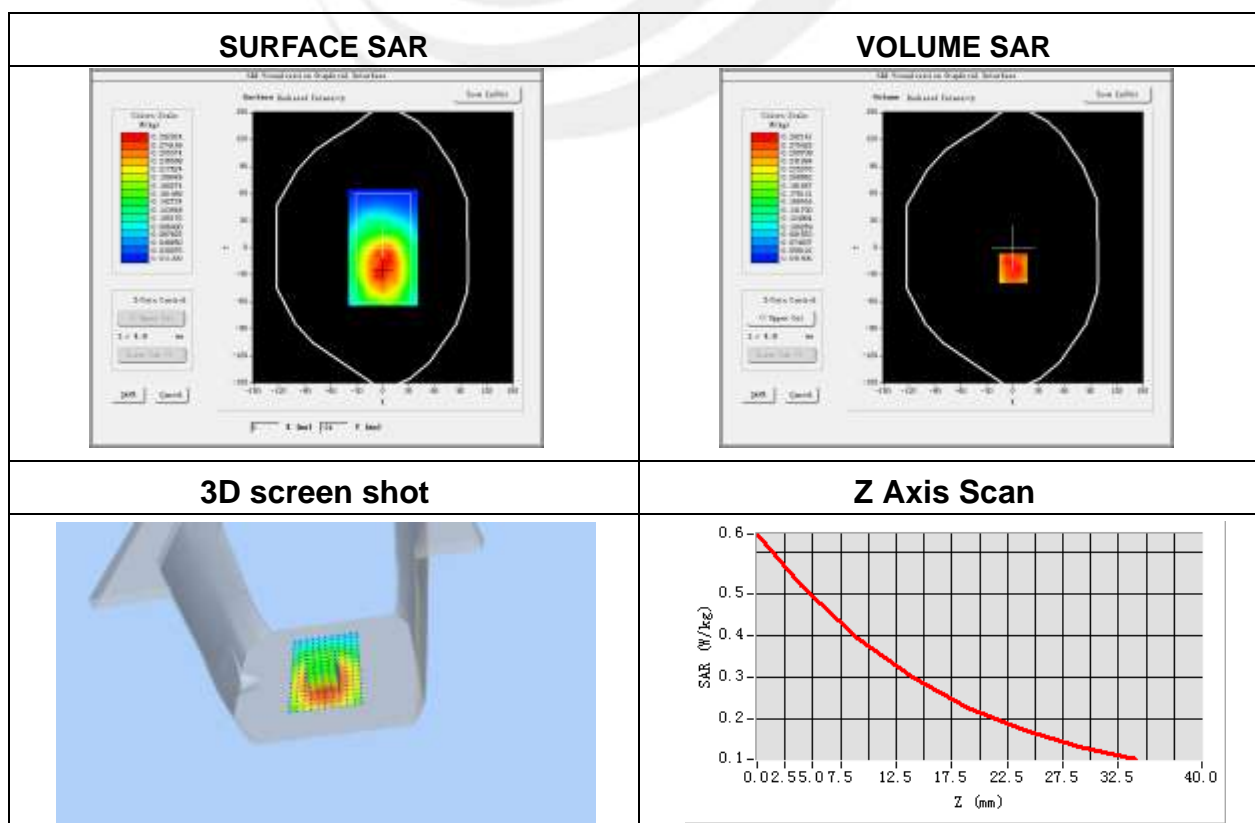


Plot 5: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 Front
Band	GPRS 850
Channels	High
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	848.8
Relative permittivity (real part)	55.20
Conductivity (S/m)	0.97
Variation (%)	1.45

Maximum location: X=-9.00, Y=-9.00
SAR Peak: 0.66 W/kg

SAR 10g (W/Kg)	0.338377
SAR 1g (W/Kg)	0.469574

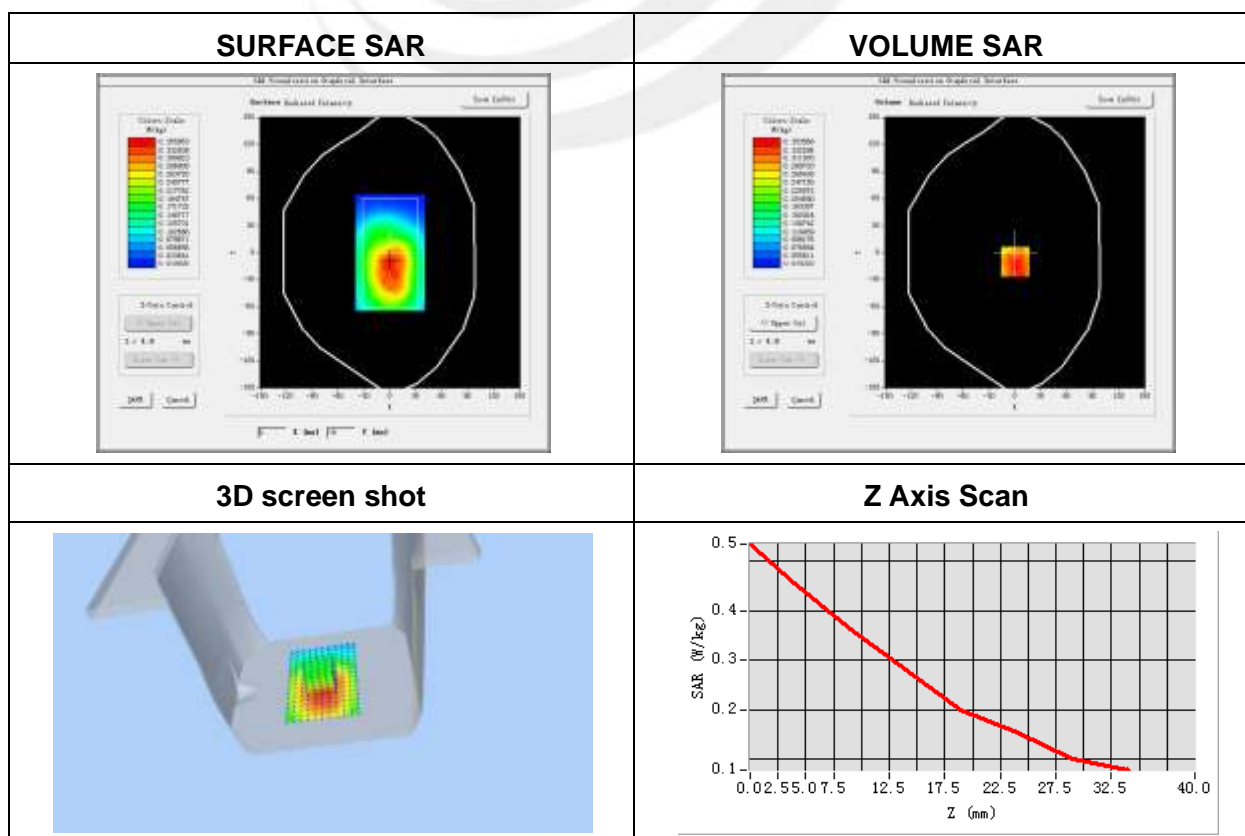


Plot 6: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	High
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	848.8
Relative permittivity (real part)	55.20
Conductivity (S/m)	0.97
Variation (%)	-2.20

Maximum location: X=-15.00, Y=-56.00
SAR Peak: 0.58 W/kg

SAR 10g (W/Kg)	0.128874
SAR 1g (W/Kg)	0.368116

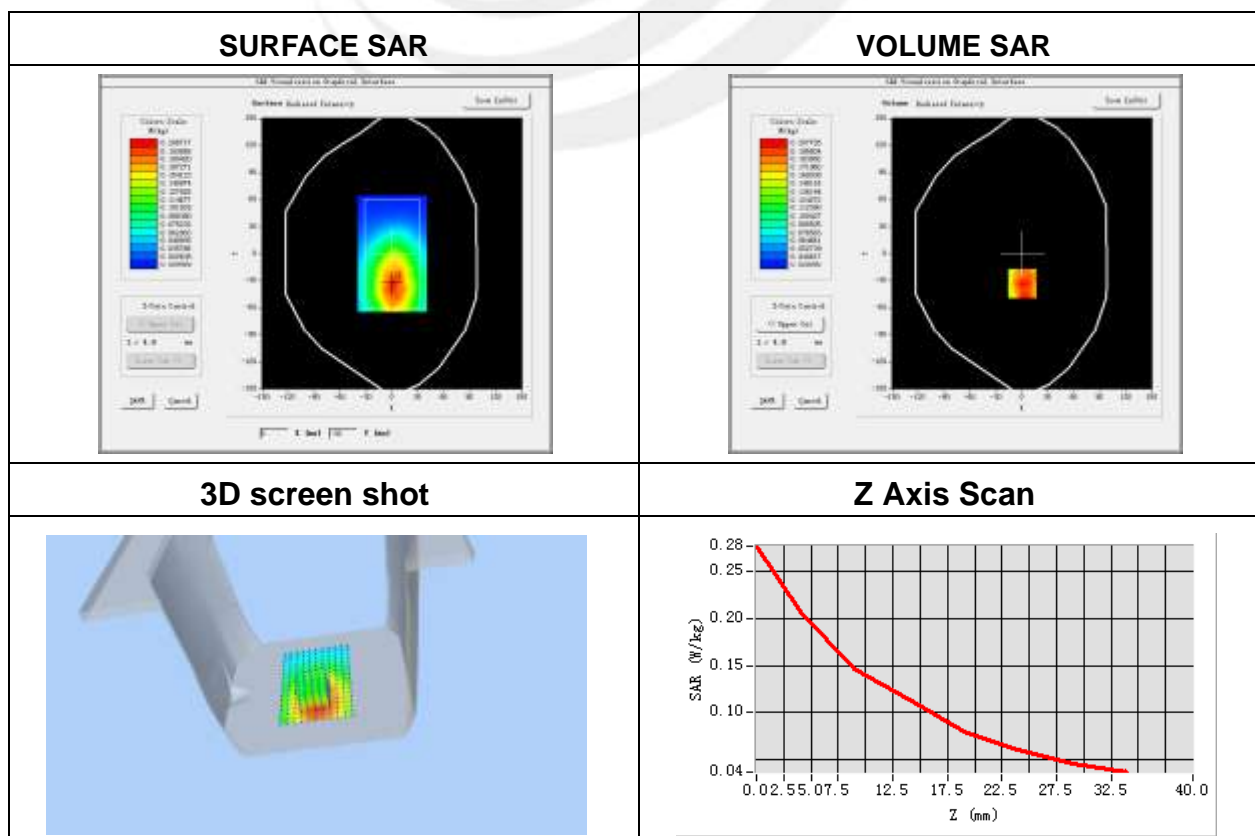


Plot 7: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 lift side
Band	GPRS 850
Channels	High
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	848.8
Relative permittivity (real part)	55.20
Conductivity (S/m)	0.97
Variation (%)	-0.88

Maximum location: X=0.00, Y=-33.00
SAR Peak: 0.30 W/kg

SAR 10g (W/Kg)	0.138624
SAR 1g (W/Kg)	0.197010



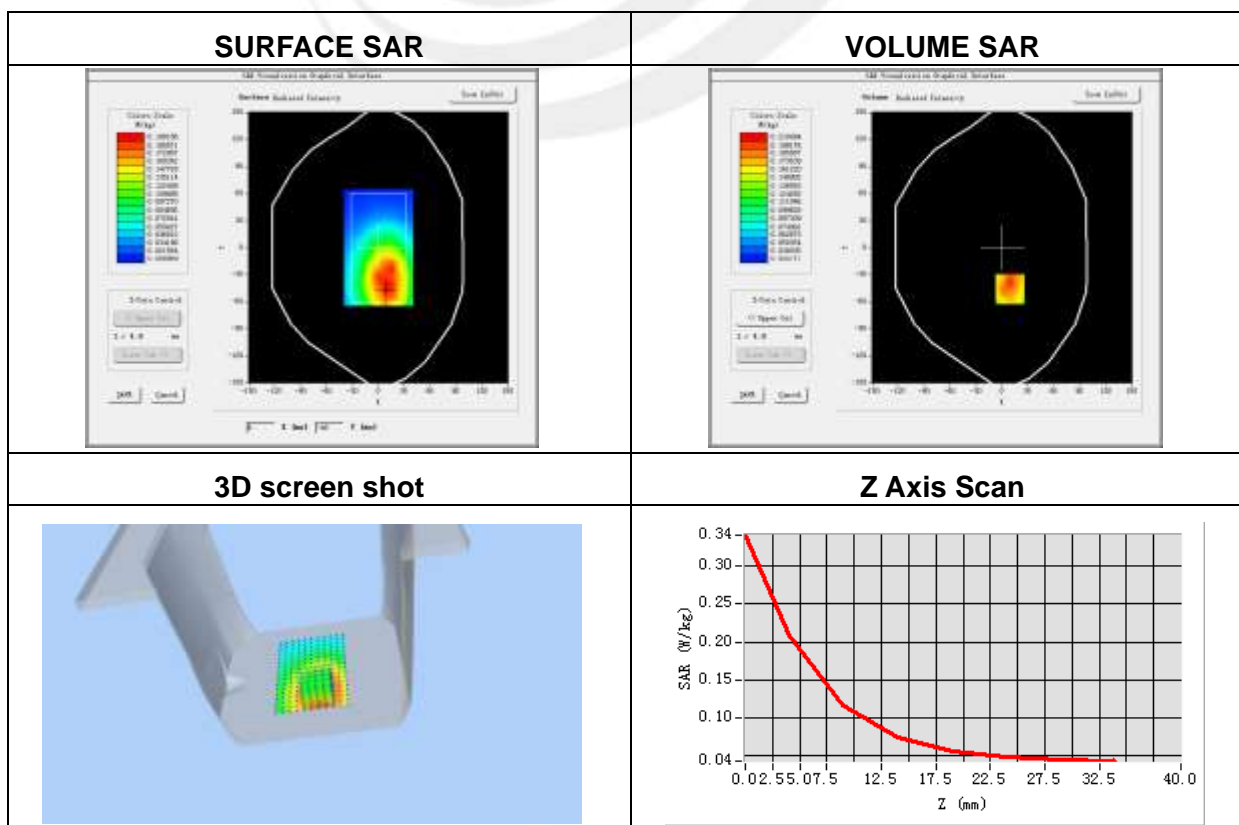
Plot 8: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 right side
Band	GPRS 850
Channels	High
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	848.8
Relative permittivity (real part)	55.20
Conductivity (S/m)	0.97
Variation (%)	-0.66

Maximum location: X=0.00, Y=-48.00

SAR Peak: 0.35 W/kg

SAR 10g (W/Kg)	0.152363
SAR 1g (W/Kg)	0.231972



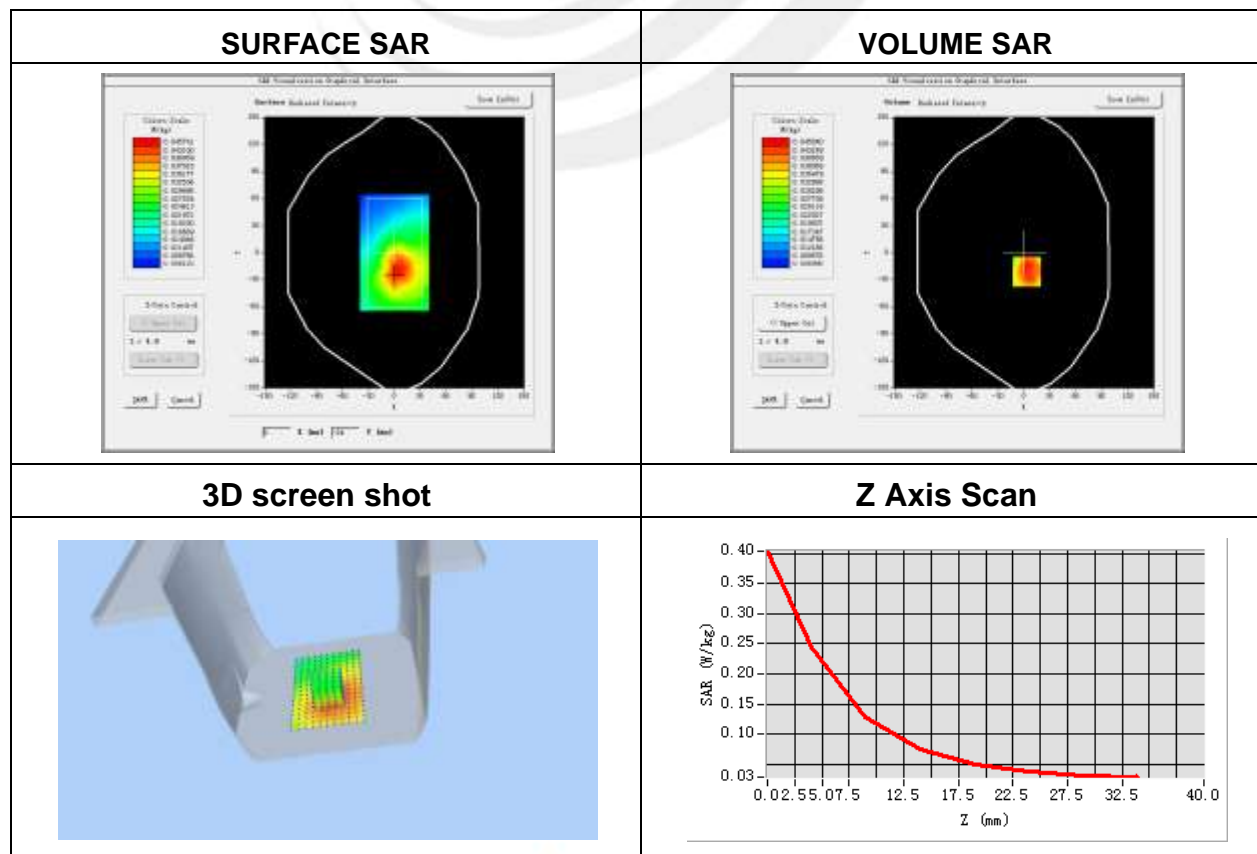
Plot 9: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 bottom side
Band	GPRS 850
Channels	High
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	848.8
Relative permittivity (real part)	55.20
Conductivity (S/m)	0.97
Variation (%)	4.39

Maximum location: X=7.00, Y=-7.00

SAR Peak: 0.44 W/kg

SAR 10g (W/Kg)	0.168758
SAR 1g (W/Kg)	0.284314

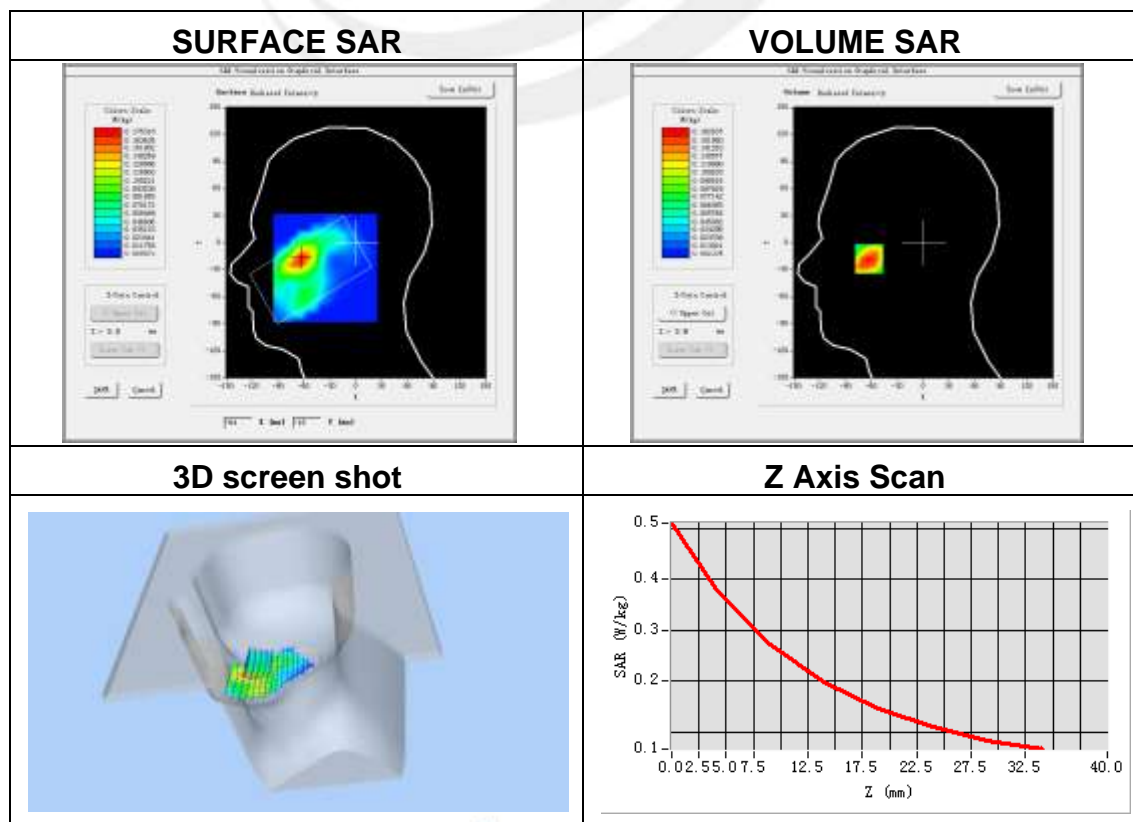


Plot 10: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	High
Signal	TDMA (Crest factor: 4.0)
Frequency (MHz)	1909.8
Relative permittivity (real part)	40.00
Conductivity (S/m)	1.40
Variation (%)	-0.34

Maximum location: X=-56.00, Y=-64.00
SAR Peak: 0.51 W/kg

SAR 10g (W/Kg)	0.160084
SAR 1g (W/Kg)	0.291394

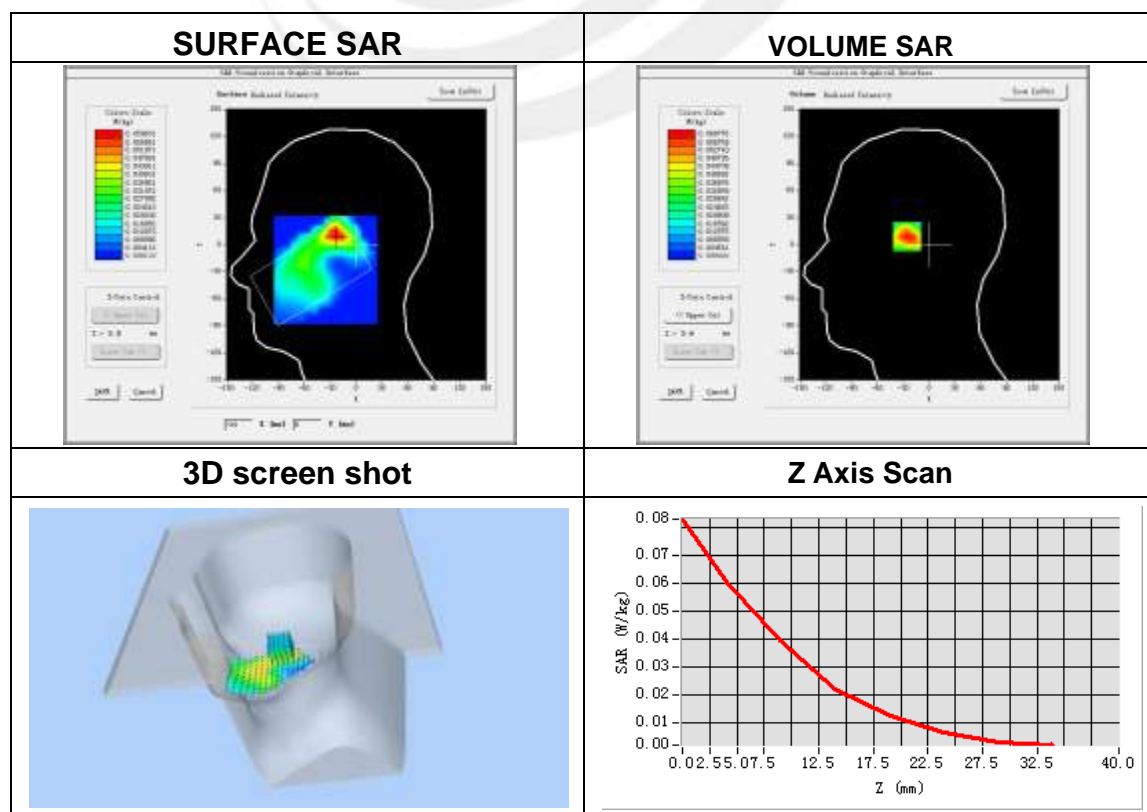


Plot 11: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	Tilt
Band	GSM1900
Channels	High
Signal	TDMA (Crest factor: 4.0)
Frequency (MHz)	1909.8
Relative permittivity (real part)	40.00
Conductivity (S/m)	1.40
Variation (%)	-2.57

Maximum location: X=-1.00, Y=-9.00
SAR Peak: 0.09 W/kg

SAR 10g (W/Kg)	0.036874
SAR 1g (W/Kg)	0.061394

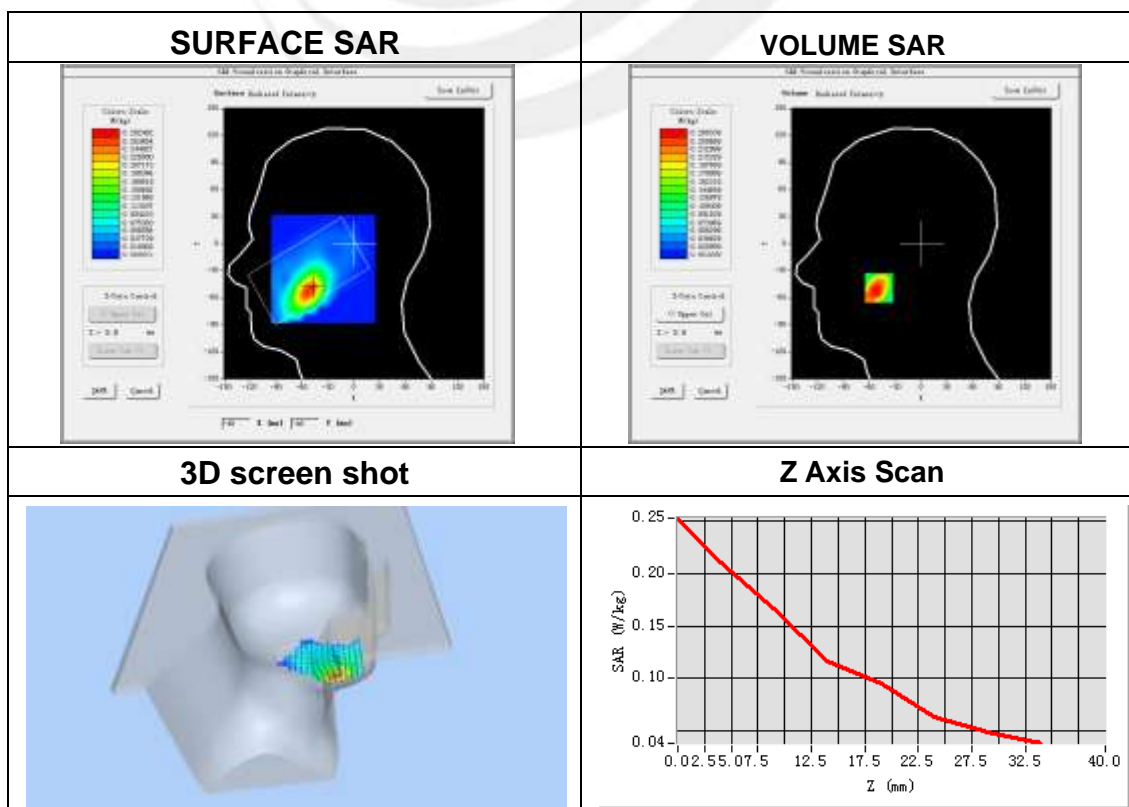


Plot 12: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	Left head
Device Position	Cheek
Band	GSM1900
Channels	High
Signal	TDMA (Crest factor: 4.0)
Frequency (MHz)	1909.8
Relative permittivity (real part)	40.00
Conductivity (S/m)	1.40
Variation (%)	1.29

Maximum location: X=-64.00, Y=-15.00
SAR Peak: 0.26 W/kg

SAR 10g (W/Kg)	0.099462
SAR 1g (W/Kg)	0.168582

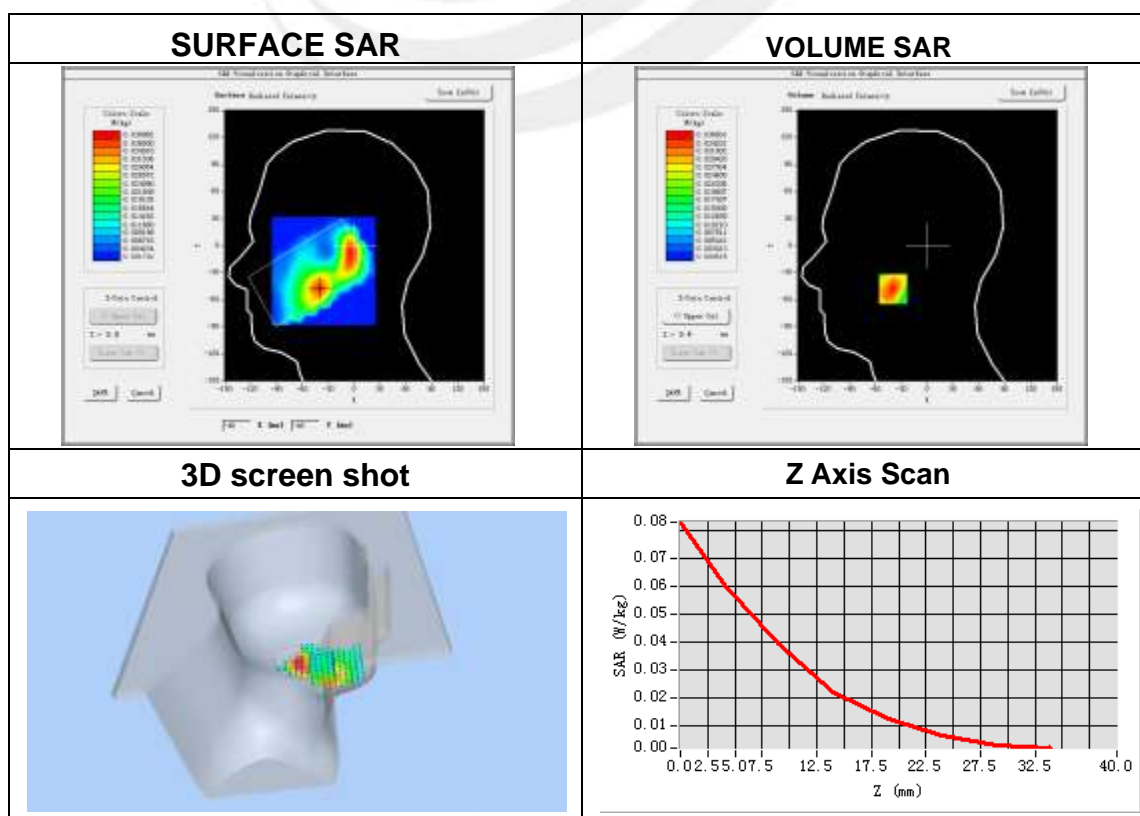


Plot 13: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	Left head
Device Position	Tilt
Band	GSM1900
Channels	High
Signal	TDMA (Crest factor: 4.0)
Frequency (MHz)	1909.8
Relative permittivity (real part)	40.00
Conductivity (S/m)	1.40
Variation (%)	0.43

Maximum location: X=-7.00, Y=8.00
SAR Peak: 0.09 W/kg

SAR 10g (W/Kg)	0.036929
SAR 1g (W/Kg)	0.059610

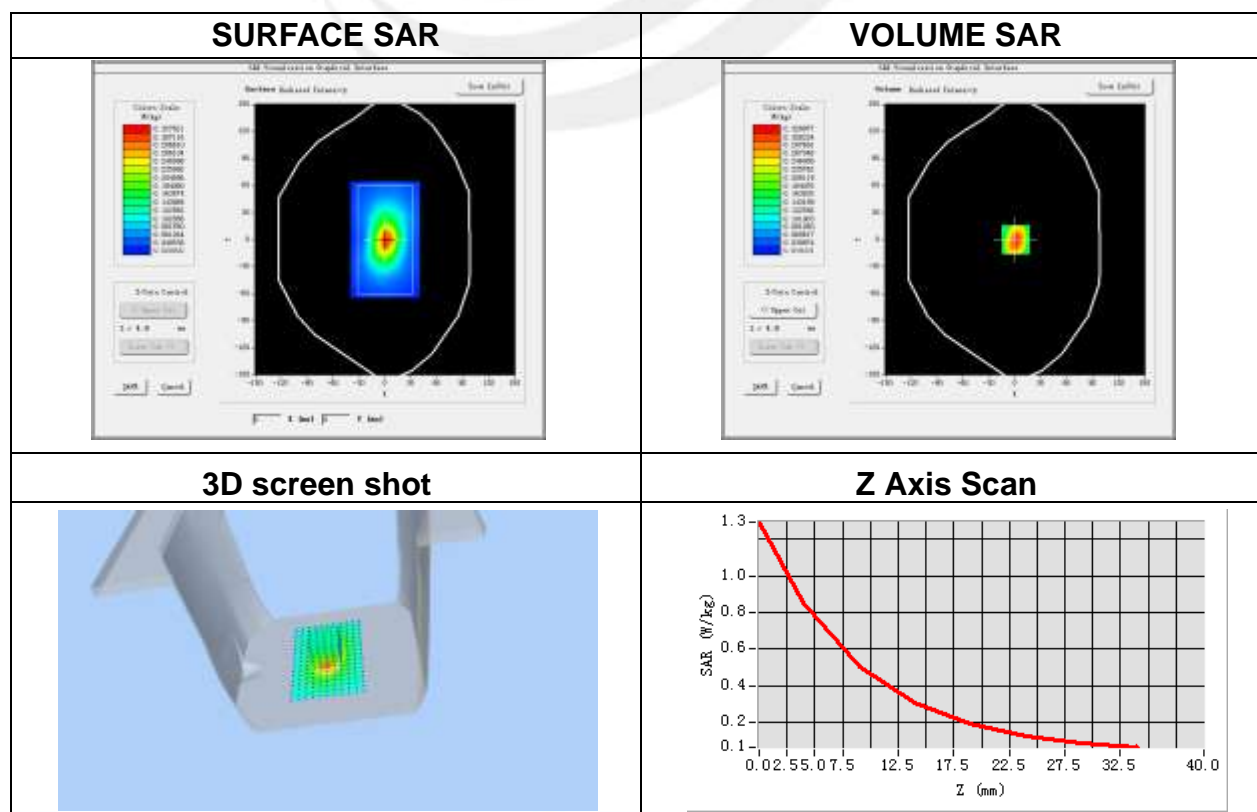


Plot 14: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 front side
Band	GPRS 1900
Channels	Low
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1850.2
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	2.85

Maximum location: X=0.00, Y=-6.00
SAR Peak: 1.42 W/kg

SAR 10g (W/Kg)	0.854510
SAR 1g (W/Kg)	1.070346

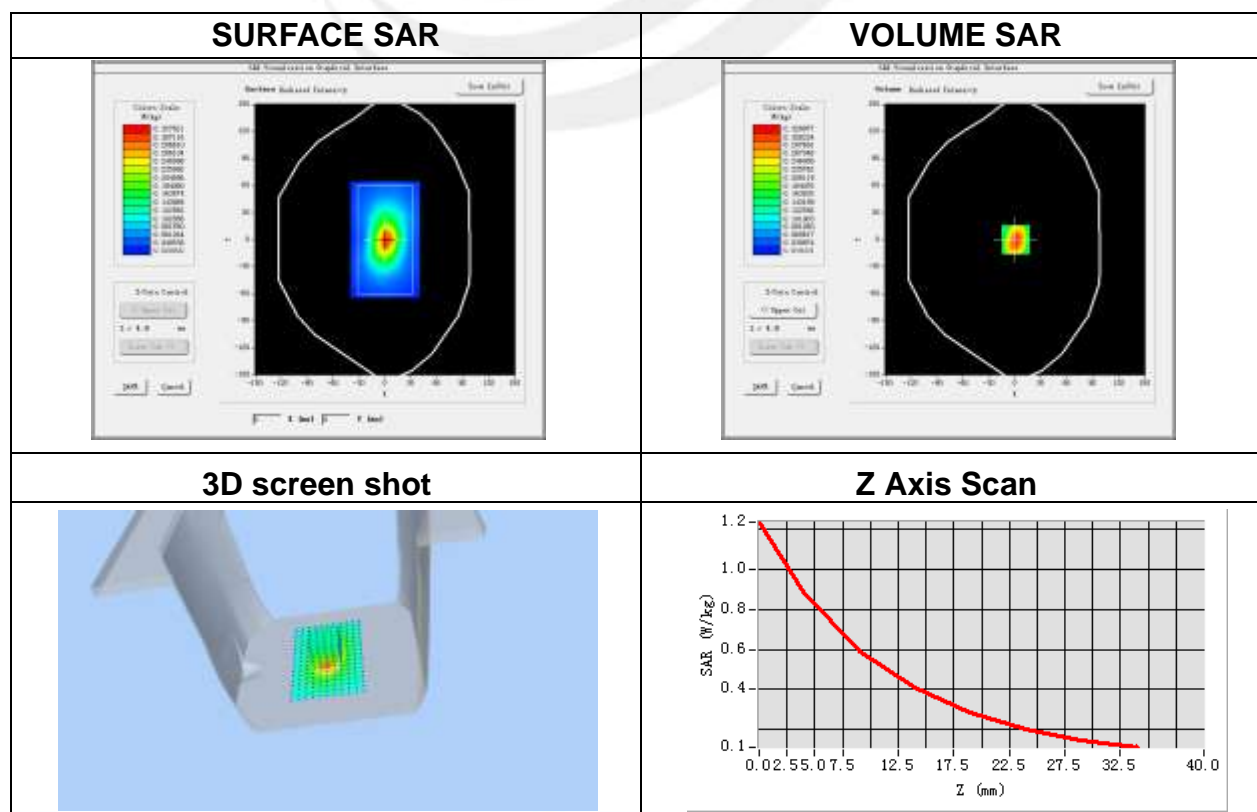


Plot 15: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 front side-repeated
Band	GPRS 1900
Channels	Low
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1850.2
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	-3.41

Maximum location: X=1.00, Y=-6.00
SAR Peak: 1.35 W/kg

SAR 10g (W/Kg)	0.731668
SAR 1g (W/Kg)	0.964358

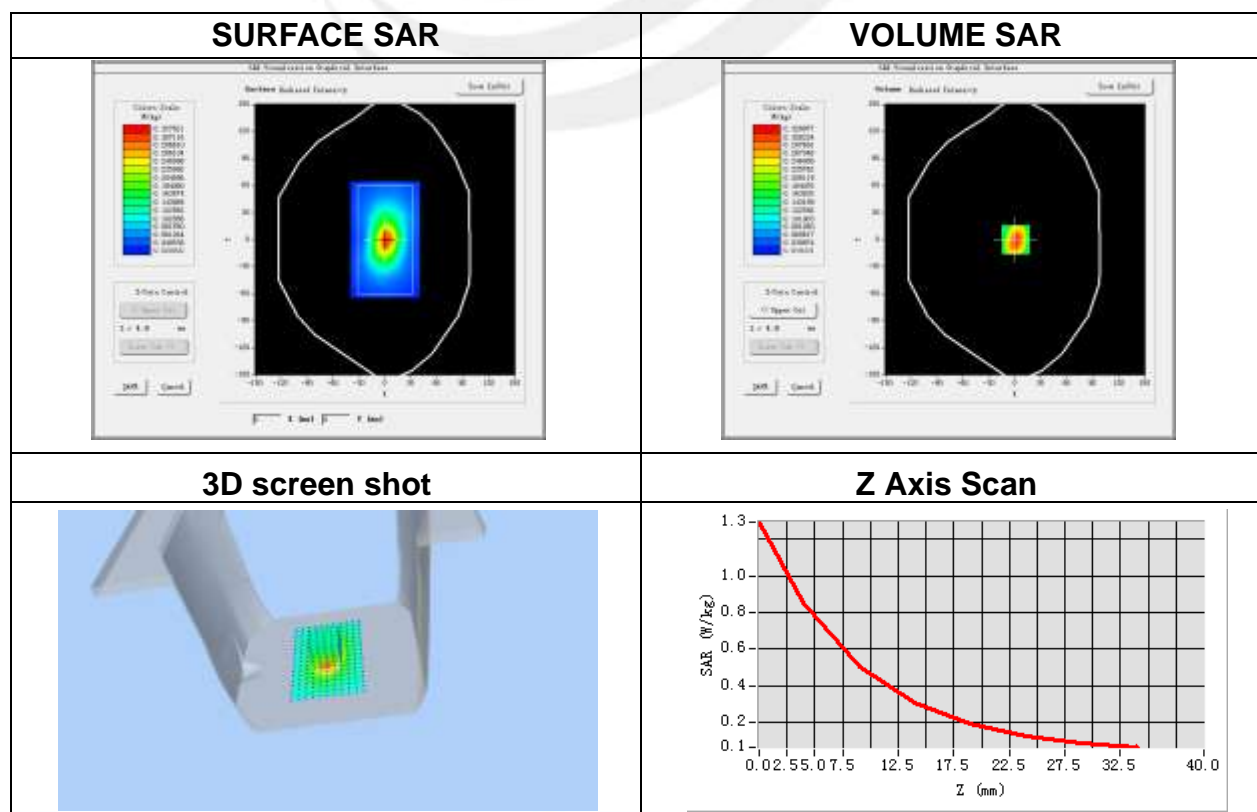


Plot 16: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 front side
Band	GPRS 1900
Channels	Middle
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	0.33

Maximum location: X=0.00, Y=-6.00
SAR Peak: 1.32 W/kg

SAR 10g (W/Kg)	0.452036
SAR 1g (W/Kg)	0.815234

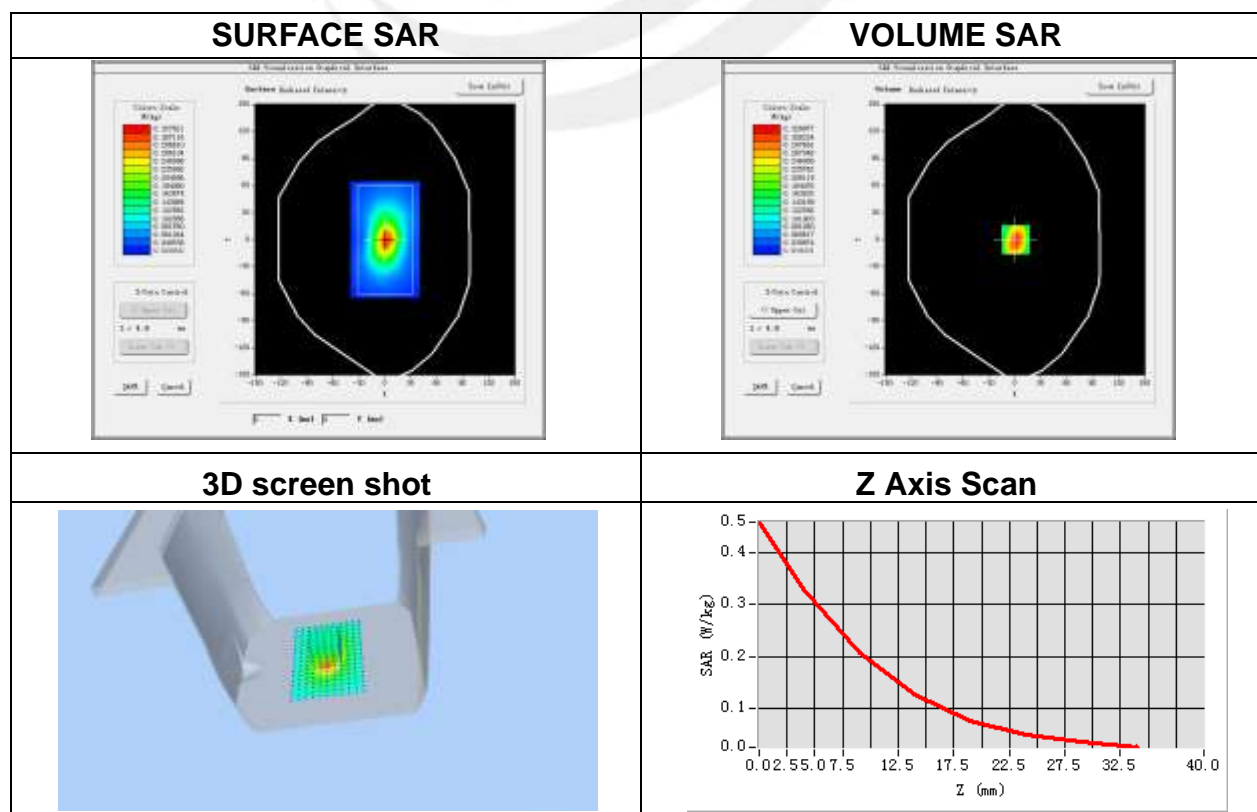


Plot 17: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 front side
Band	GPRS 1900
Channels	High
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1909.8
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	-0.09

Maximum location: X=0.00, Y=-6.00
SAR Peak: 1.20 W/kg

SAR 10g (W/Kg)	0.417110
SAR 1g (W/Kg)	0.749703

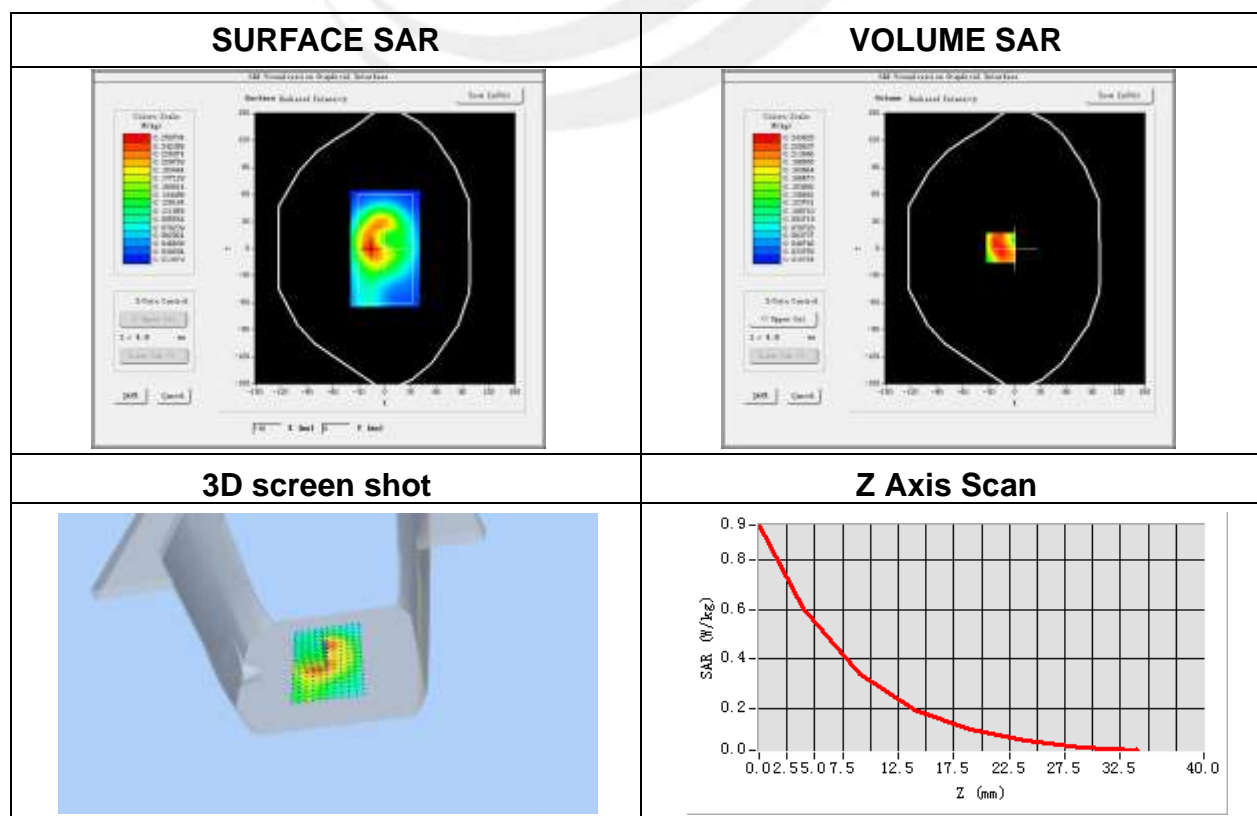


Plot 18: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 Behind
Band	GPRS 1900
Channels	Low
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1850.2
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	-2.33

Maximum location: X=12.00, Y=25.00
SAR Peak: 1.07 W/kg

SAR 10g (W/Kg)	0.386225
SAR 1g (W/Kg)	0.675403

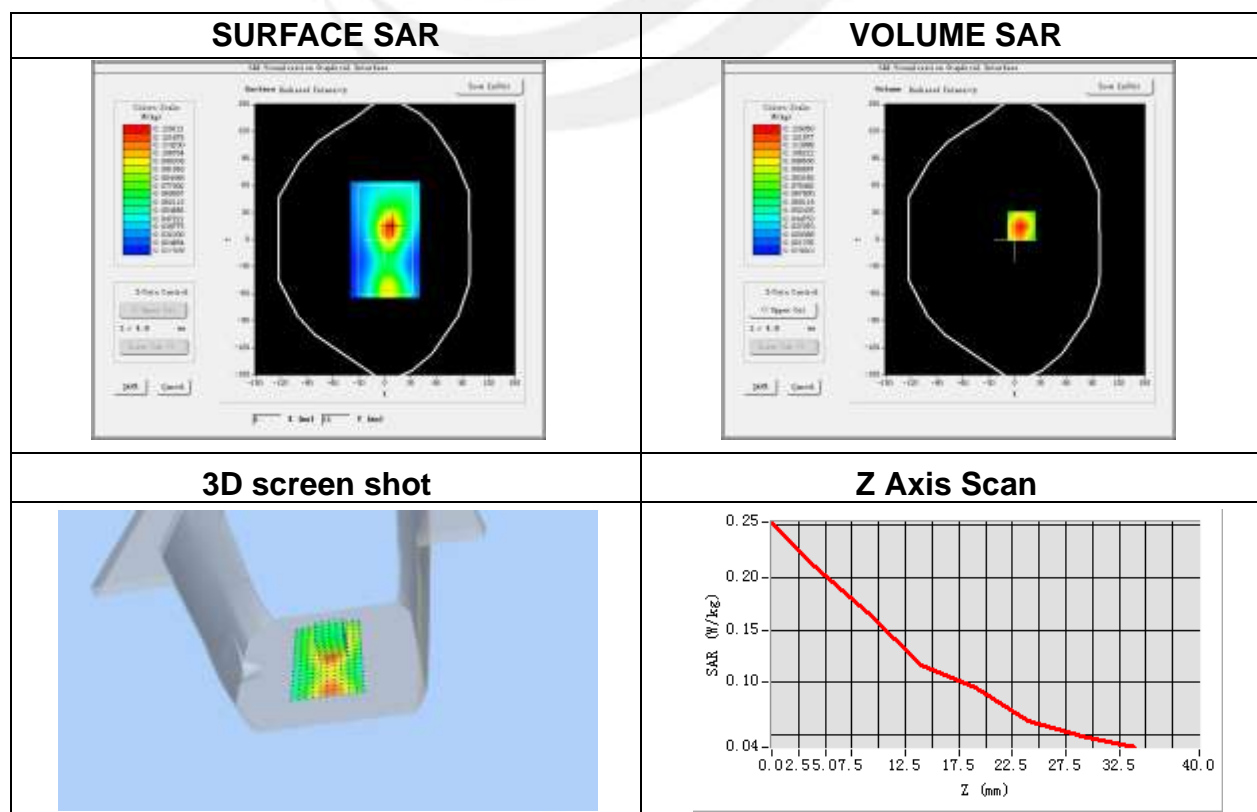


Plot 19: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 right side
Band	GPRS 1900
Channels	Low
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1850.2
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	0.99

Maximum location: X=2.00, Y=-7.00
SAR Peak: 0.30 W/kg

SAR 10g (W/Kg)	0.126687
SAR 1g (W/Kg)	0.199718

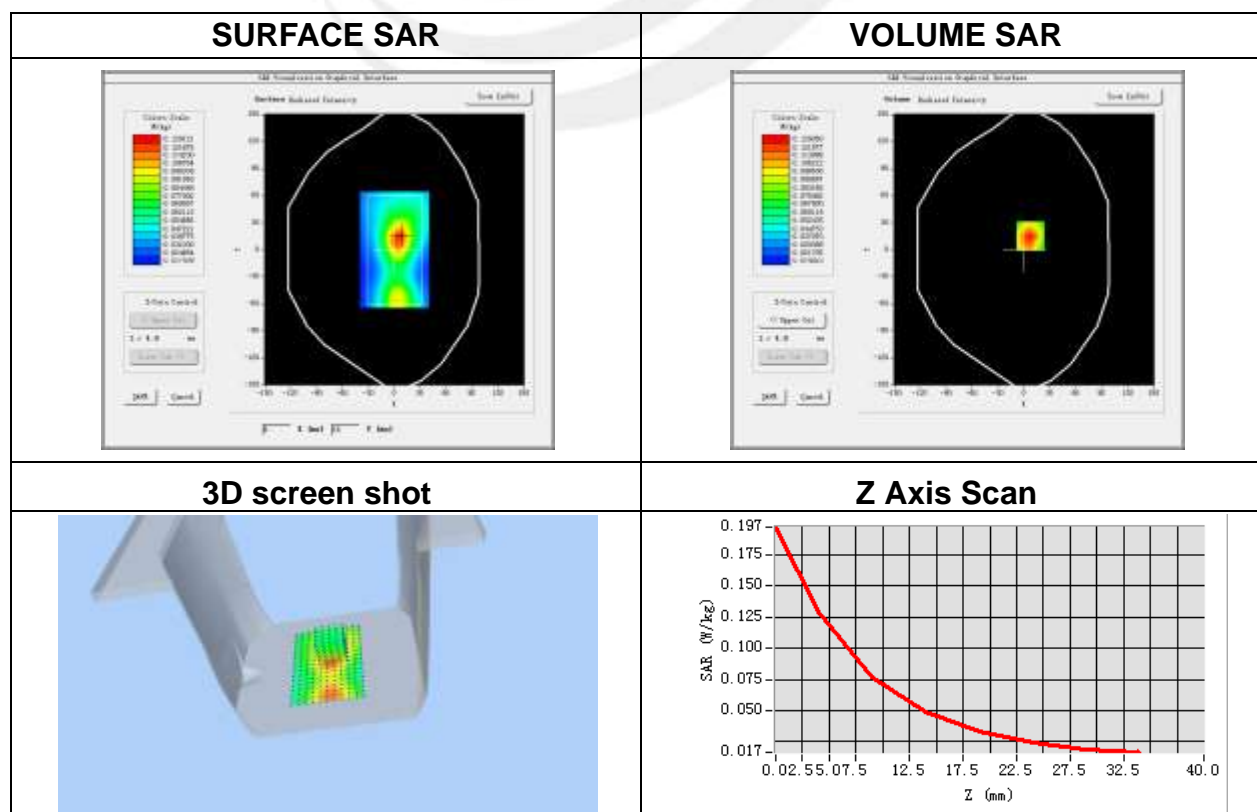


Plot 20: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 lift side
Band	GPRS 1900
Channels	Low
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1850.2
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	-1.84

Maximum location: X=9.00, Y=24.00
SAR Peak: 0.20 W/kg

SAR 10g (W/Kg)	0.074682
SAR 1g (W/Kg)	0.1256824

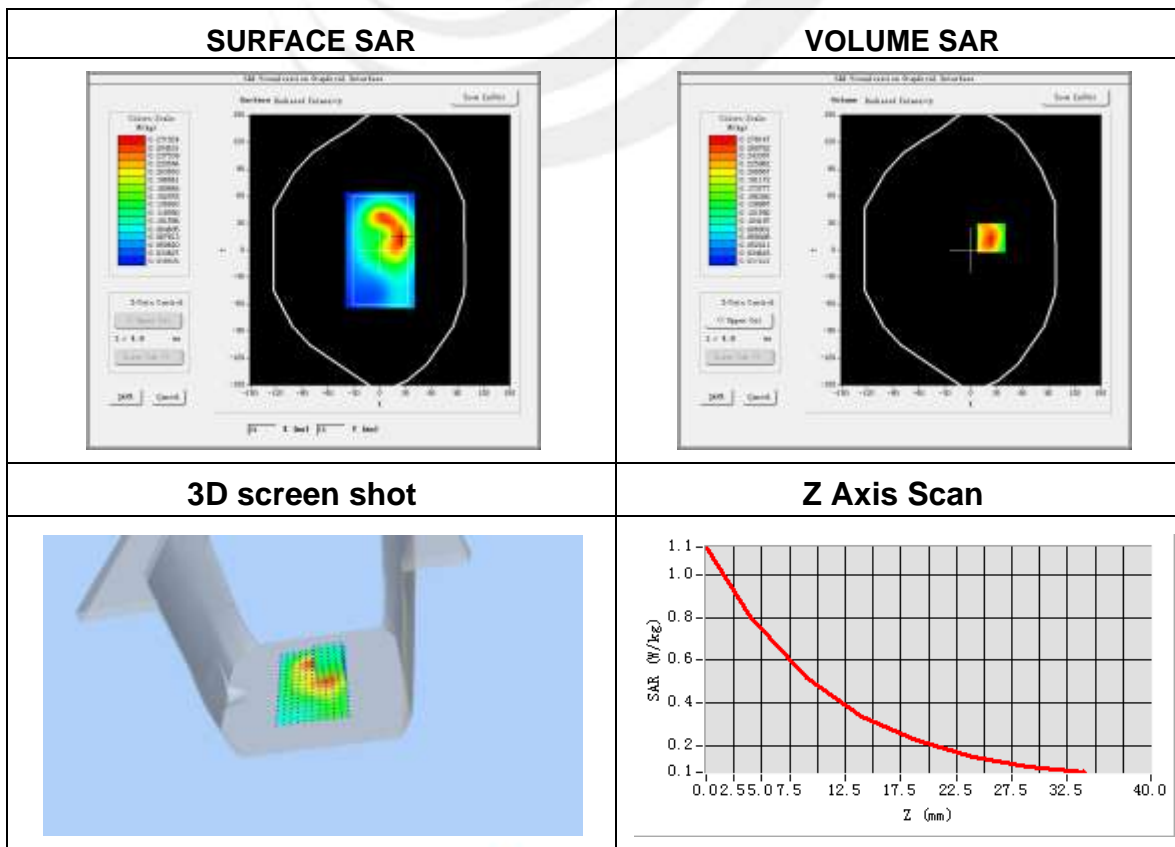


Plot 21: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 bottom side
Band	GPRS 1900
Channels	Low
Signal	Duty Cycle: 2.00 (Crest factor: 2.0)
Frequency (MHz)	1850.2
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	0.13

Maximum location: X=0.00, Y=31.00
SAR Peak:1.05 W/kg

SAR 10g (W/Kg)	0.375836
SAR 1g (W/Kg)	0.665335



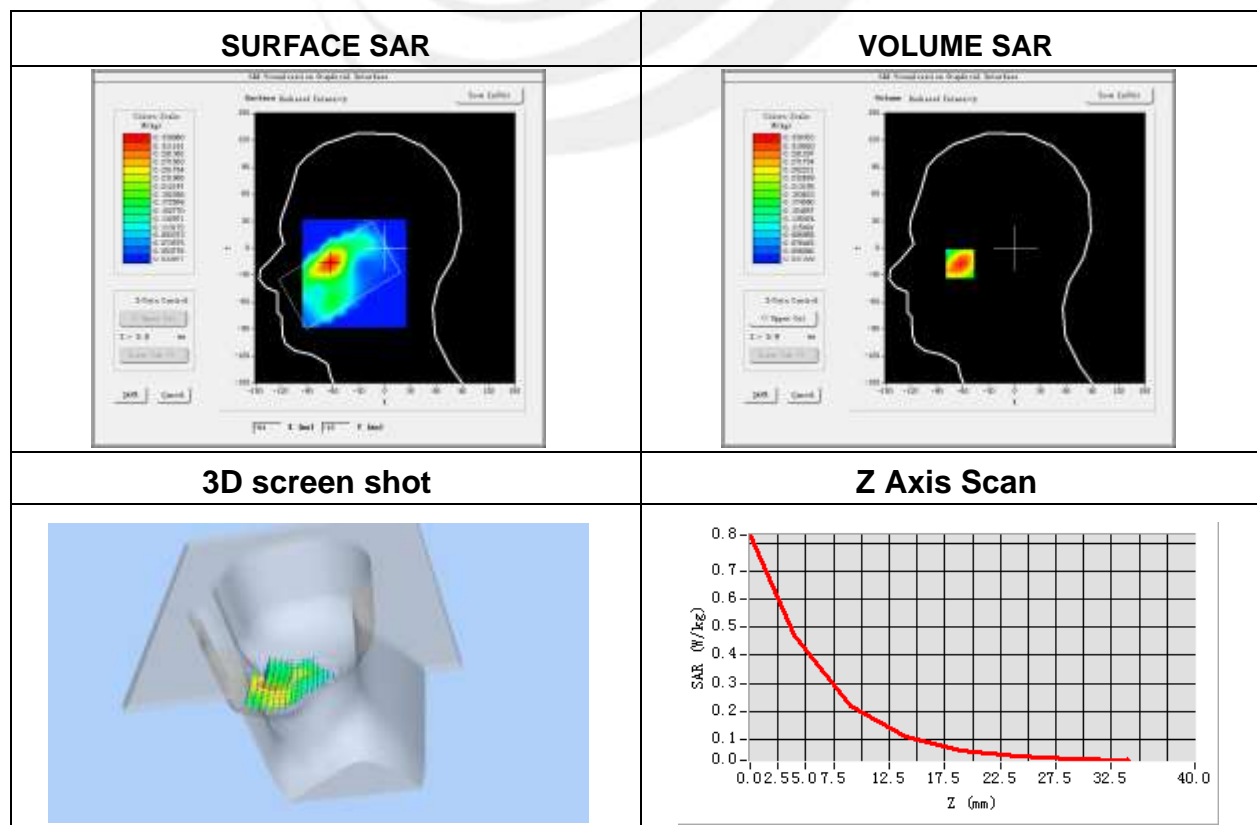
Plot 22: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	40.00
Conductivity (S/m)	1.40
Variation (%)	-1.71

Maximum location: X=-50.00, Y=-63.00

SAR Peak: 0.77 W/kg

SAR 10g (W/Kg)	0.287344
SAR 1g (W/Kg)	0.493068



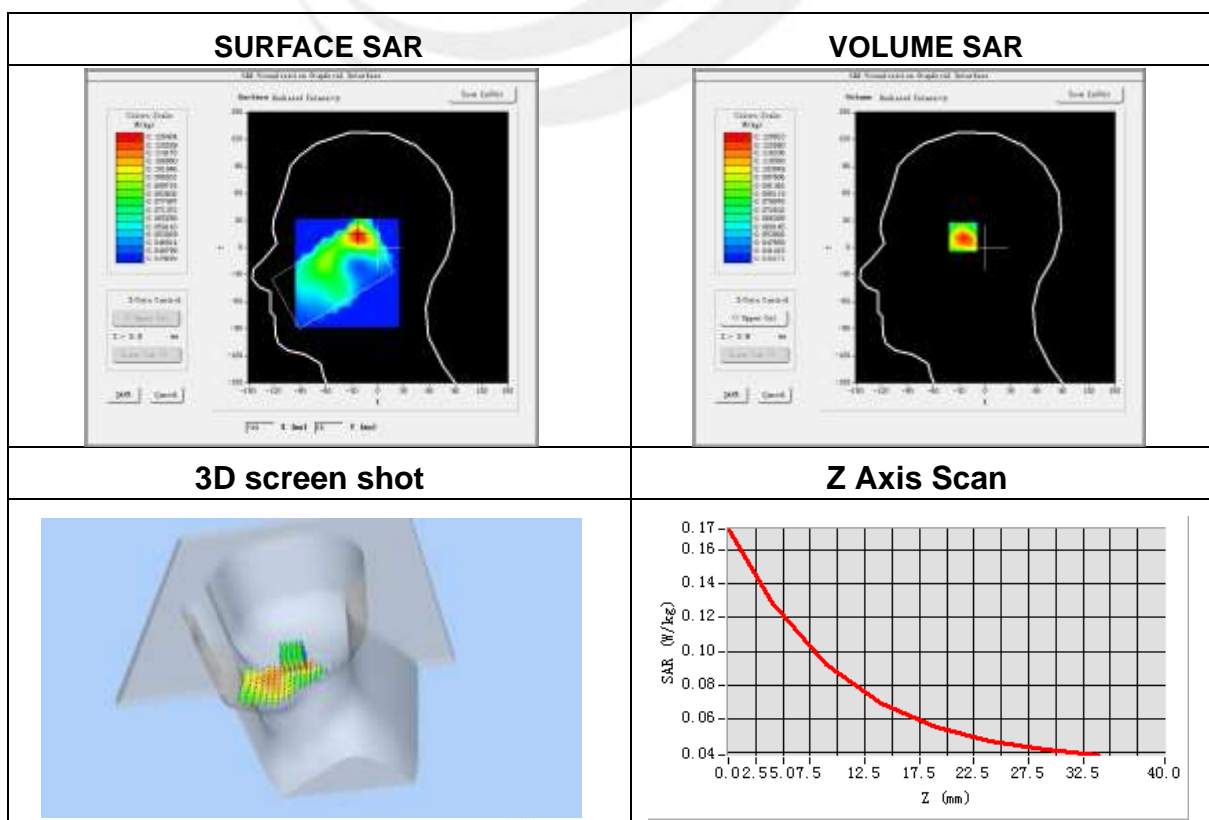
Plot 23: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	Tilt
Band	WCDMA II
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	40.00
Conductivity (S/m)	1.40
Variation (%)	-1.93

Maximum location: X=-46.00, Y=-56.00

SAR Peak: 0.18 W/kg

SAR 10g (W/Kg)	0.079682
SAR 1g (W/Kg)	0.123984



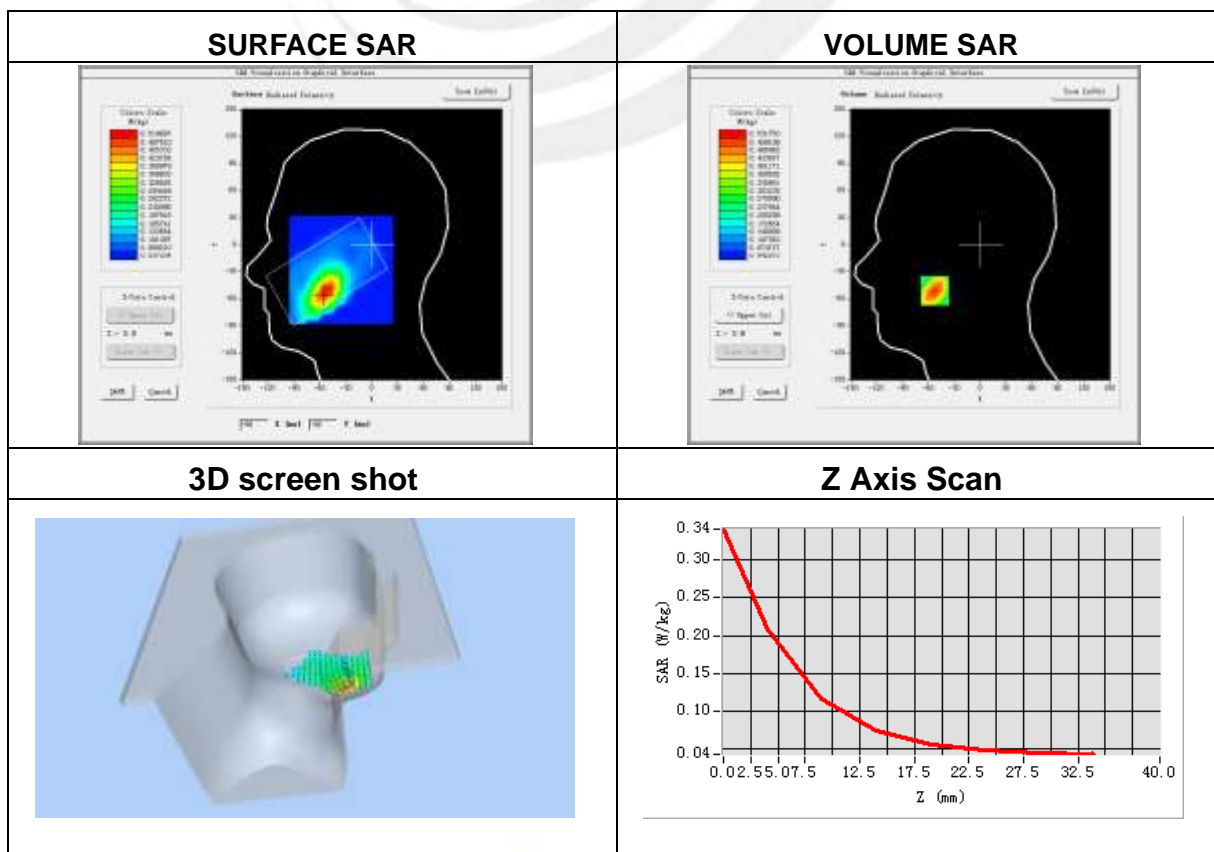
Plot 24: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	Left head
Device Position	Cheek
Band	WCDMA II
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	40.00
Conductivity (S/m)	1.40
Variation (%)	-0.63

Maximum location: X=-54.00, Y=-62.00

SAR Peak: 0.36 W/kg

SAR 10g (W/Kg)	0.145407
SAR 1g (W/Kg)	0.242707



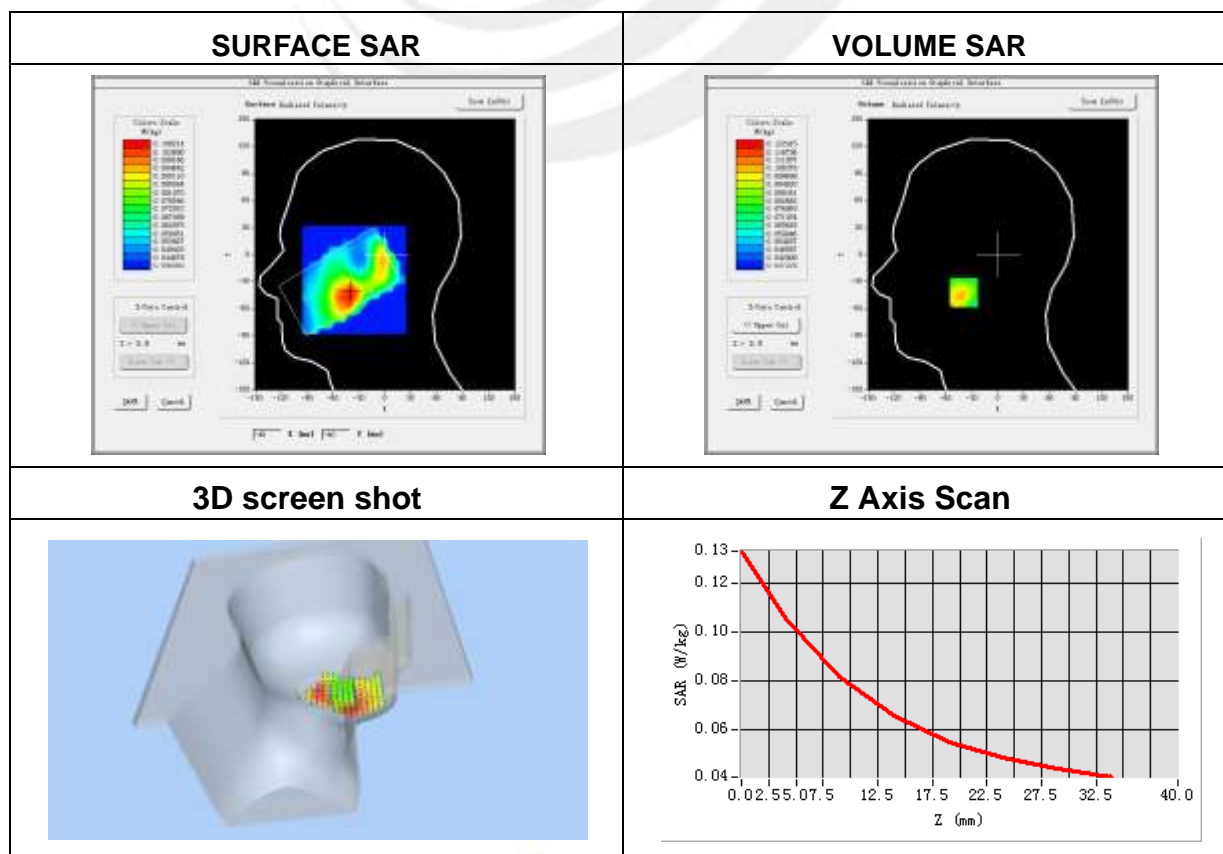
Plot 25: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	Left head
Device Position	Tilt
Band	WCDMA II
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	40.00
Conductivity (S/m)	1.40
Variation (%)	-0.81

Maximum location: X=-8.00, Y=16.00

SAR Peak: 0.14 W/kg

SAR 10g (W/Kg)	0.054604
SAR 1g (W/Kg)	0.092179



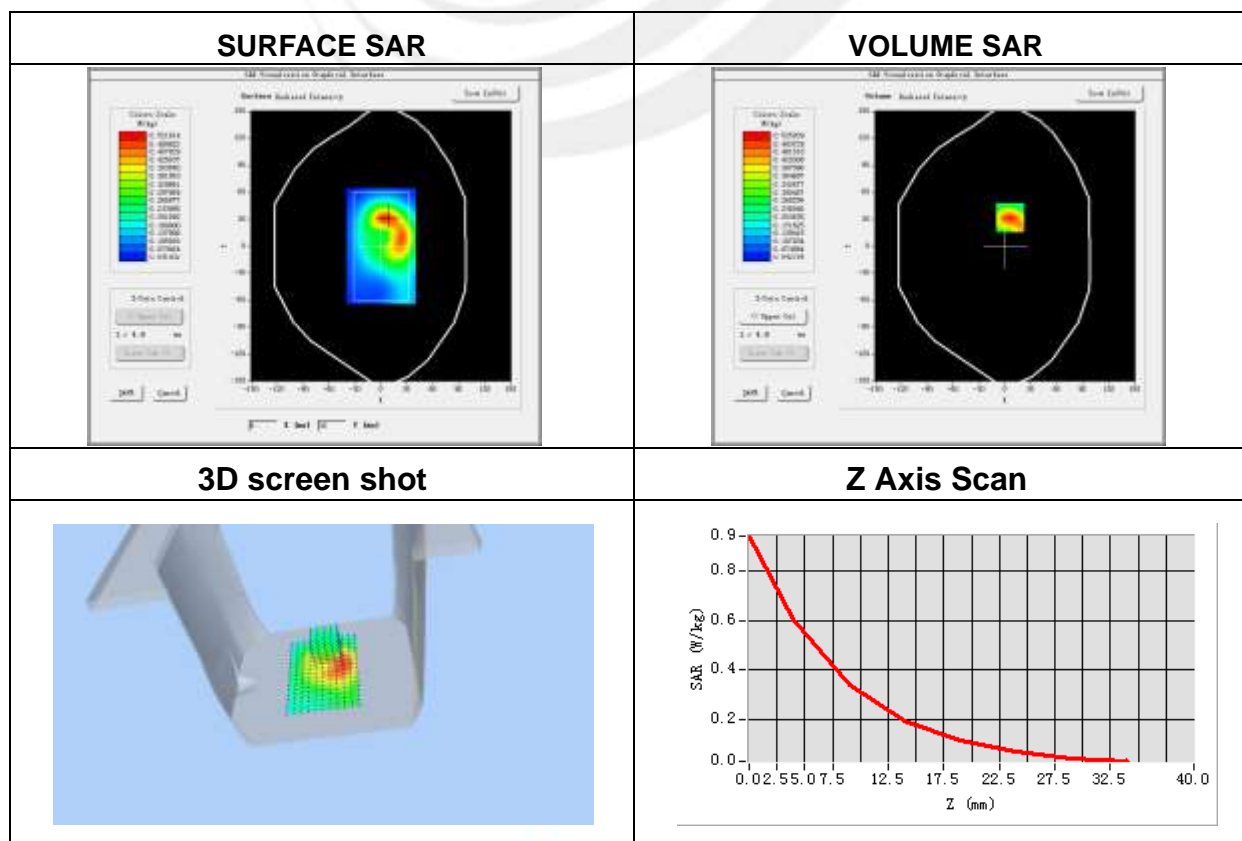
Plot 26: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 Front
Band	WCDMA II
Channels	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1852.4
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	1.96

Maximum location: X=0.00, Y=32.00

SAR Peak: 0.90 W/kg

SAR 10g (W/Kg)	0.318249
SAR 1g (W/Kg)	0.617342



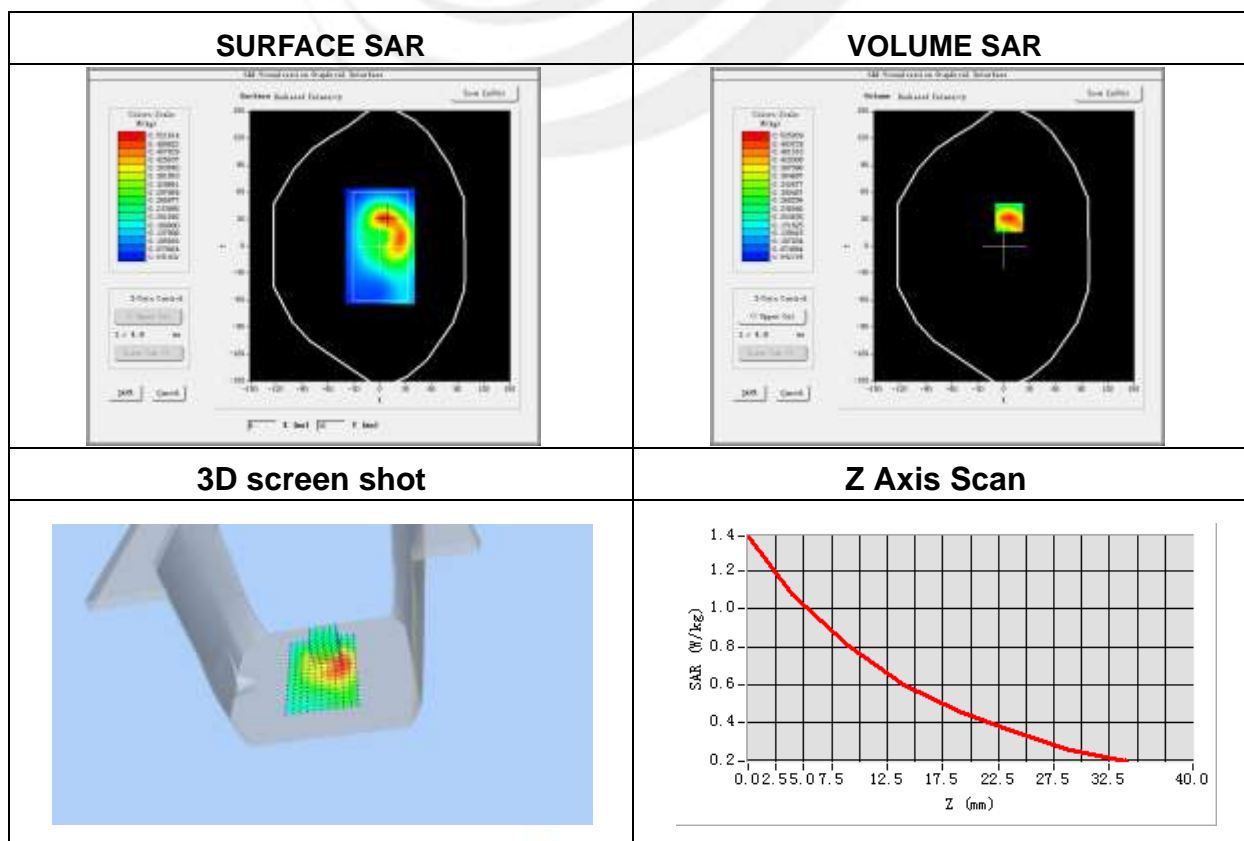
Plot 27: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 Front
Band	WCDMA II
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	-0.54

Maximum location: X=0.00, Y=34.00

SAR Peak: 1.43 W/kg

SAR 10g (W/Kg)	0.433600
SAR 1g (W/Kg)	0.798087



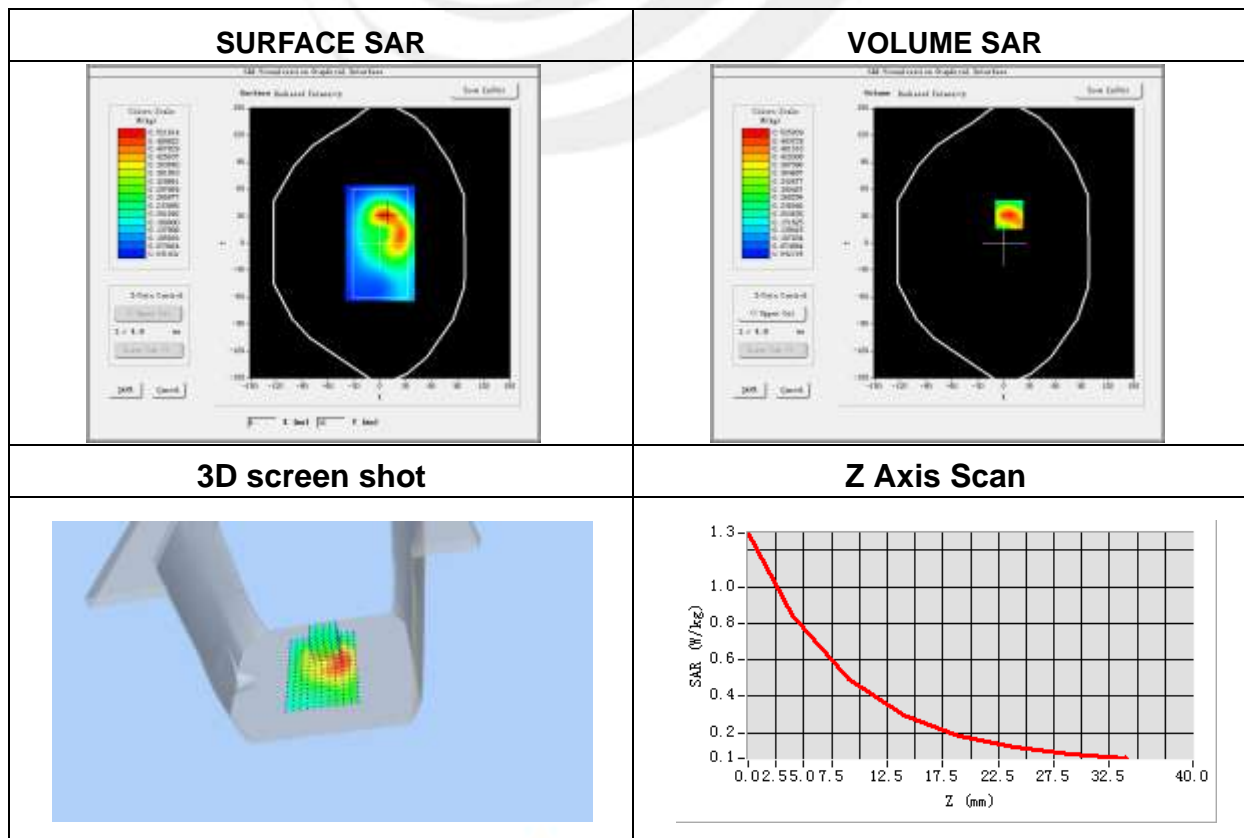
Plot 28: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 Front-repeated
Band	WCDMA II
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	2.68

Maximum location: X=1.00, Y=34.00

SAR Peak: 1.35 W/kg

SAR 10g (W/Kg)	0.386428
SAR 1g (W/Kg)	0.785934



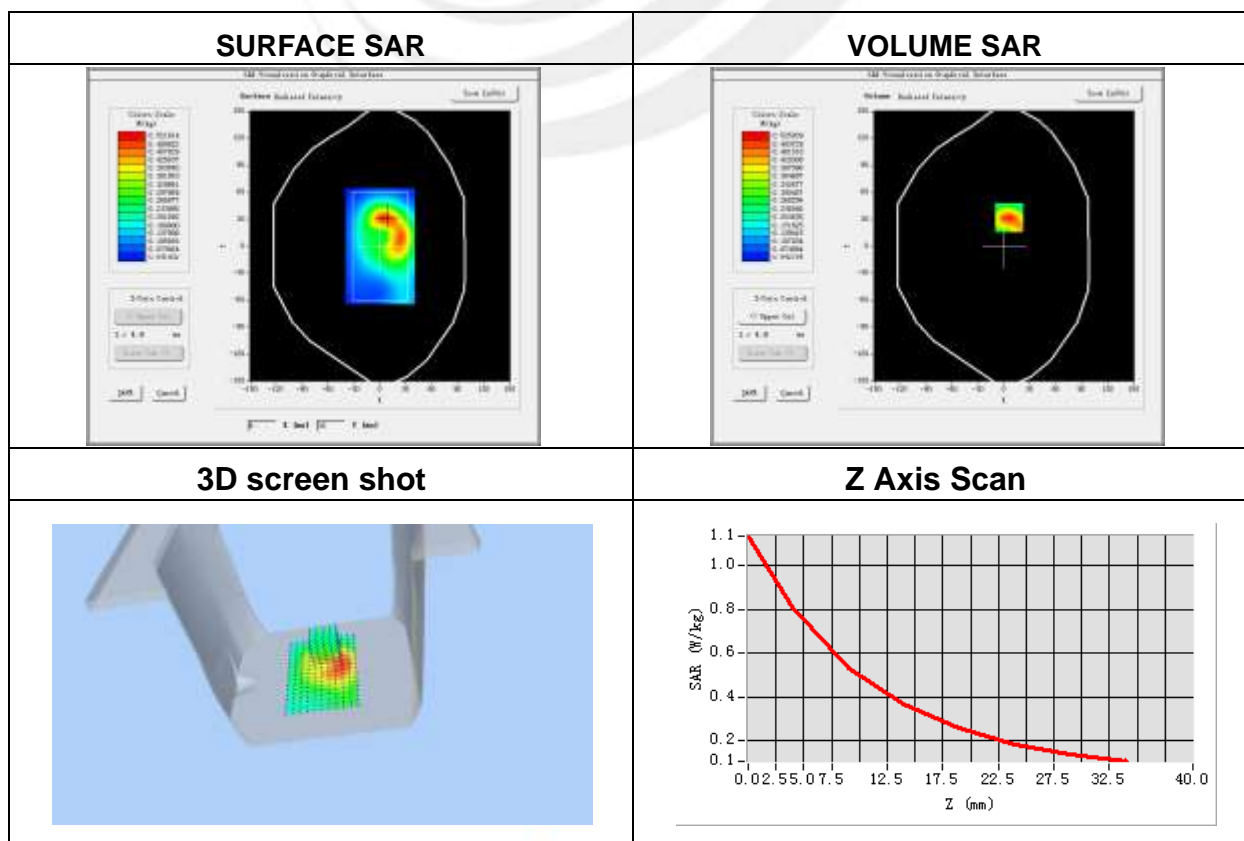
Plot 29: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 Front
Band	WCDMA II
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	-0.46

Maximum location: X=3.00, Y=39.00

SAR Peak: 1.12 W/kg

SAR 10g (W/Kg)	0.341293
SAR 1g (W/Kg)	0.702138



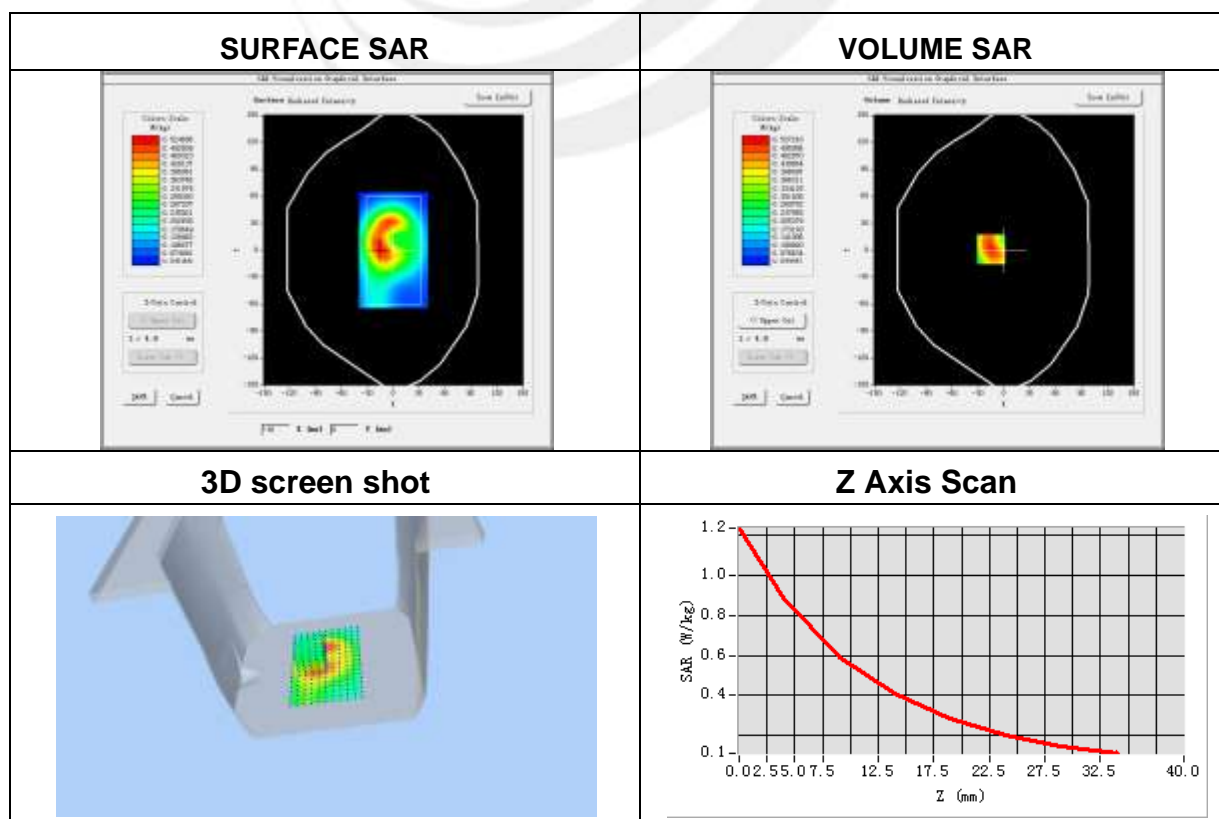
Plot 30: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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)	1880.0
Relative permittivity (real part)	39.71
Conductivity (S/m)	1.40
Variation (%)	-1.02

Maximum location: X=10.00, Y=29.00

SAR Peak: 1.24 W/kg

SAR 10g (W/Kg)	0.450428
SAR 1g (W/Kg)	0.754652



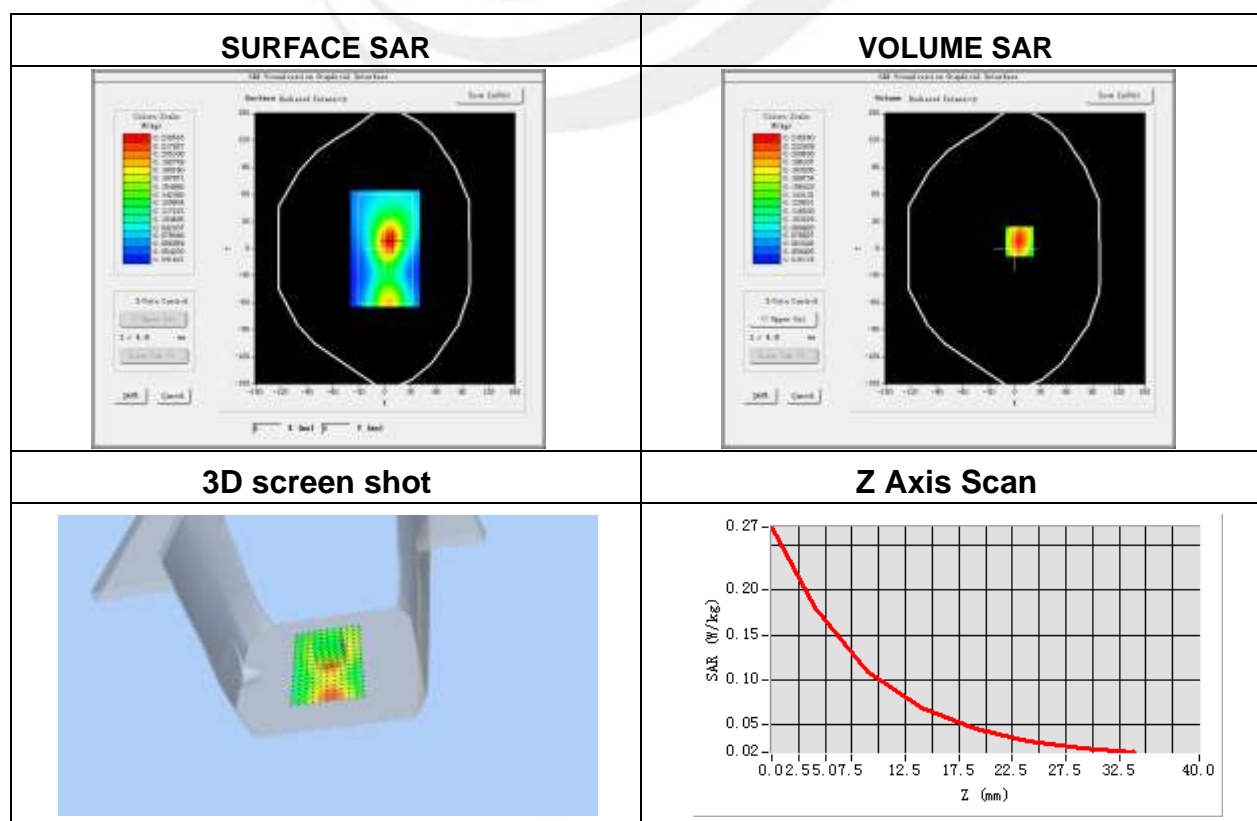
Plot 31: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 left side
Band	WCDMA II
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	-0.13

Maximum location: X=5.00, Y=8.00

SAR Peak: 0.27 W/kg

SAR 10g (W/Kg)	0.126734
SAR 1g (W/Kg)	0.205667



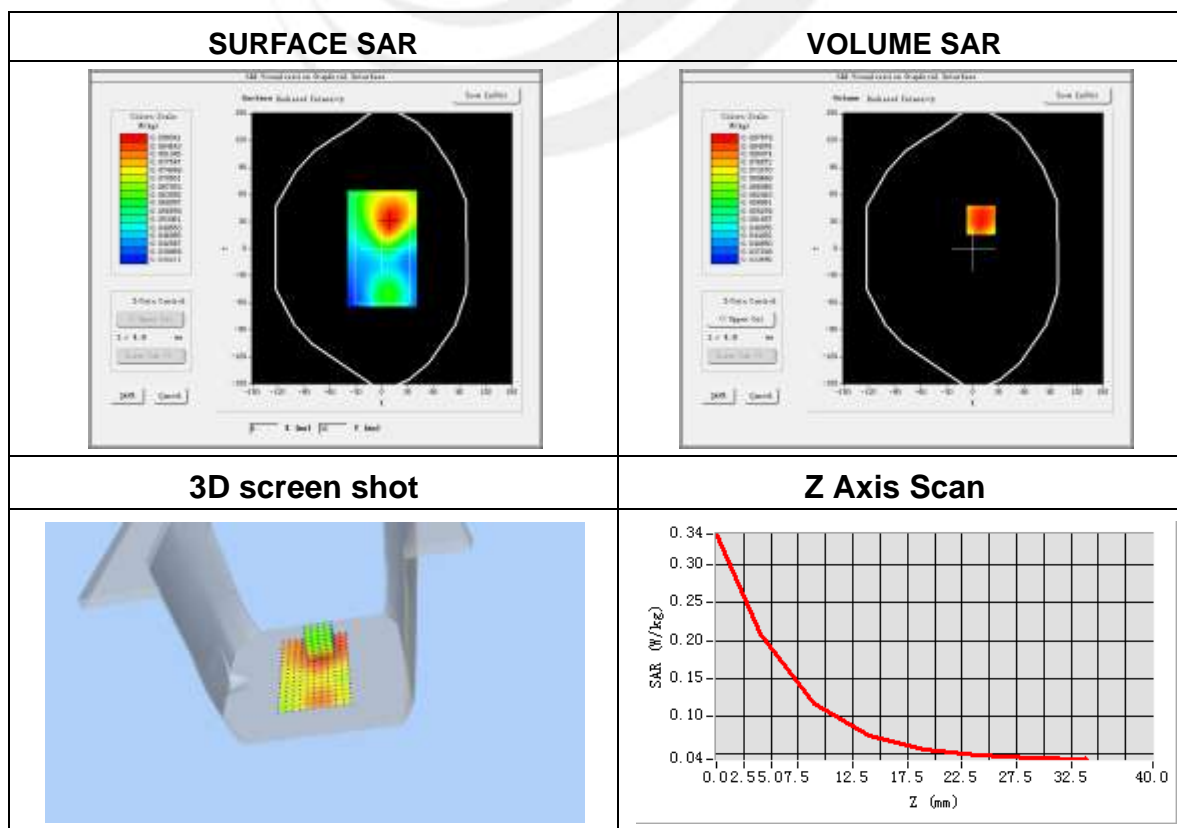

Plot 32: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 right side
Band	WCDMA II
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	-0.49

Maximum location: X=2.00, Y=-6.00

SAR Peak:0.37 W/kg

SAR 10g (W/Kg)	0.162925
SAR 1g (W/Kg)	0.251231



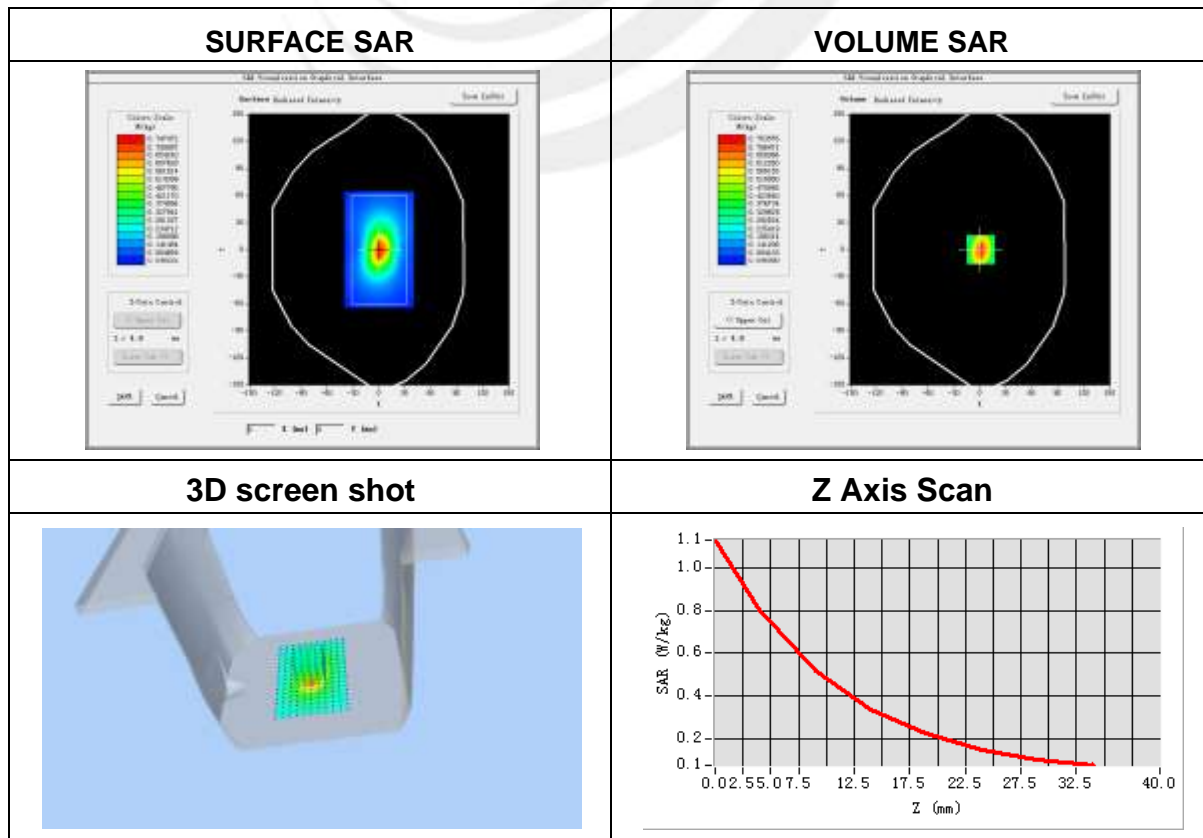
Plot 33: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 Bottom side
Band	WCDMA II
Channels	Middle
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	-0.27

Maximum location: X=1.00, Y=-7.00

SAR Peak: 1.17 W/kg

SAR 10g (W/Kg)	0.431568
SAR 1g (W/Kg)	0.764975



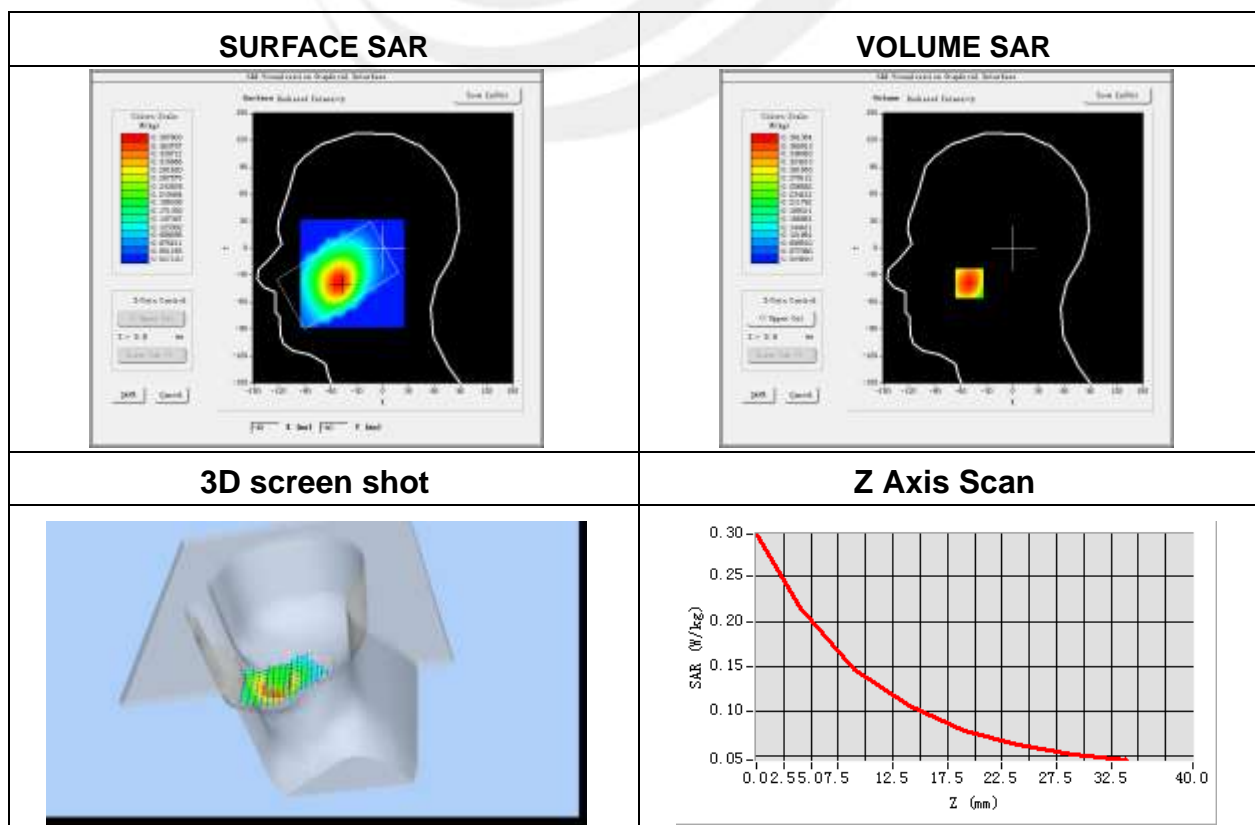
Plot 34: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	846.6
Relative permittivity (real part)	42.27
Conductivity (S/m)	0.91
Variation (%)	0.02

Maximum location: X=-50.00, Y=-30.00

SAR Peak: 0.31 W/kg

SAR 10g (W/Kg)	0.196320
SAR 1g (W/Kg)	0.246701



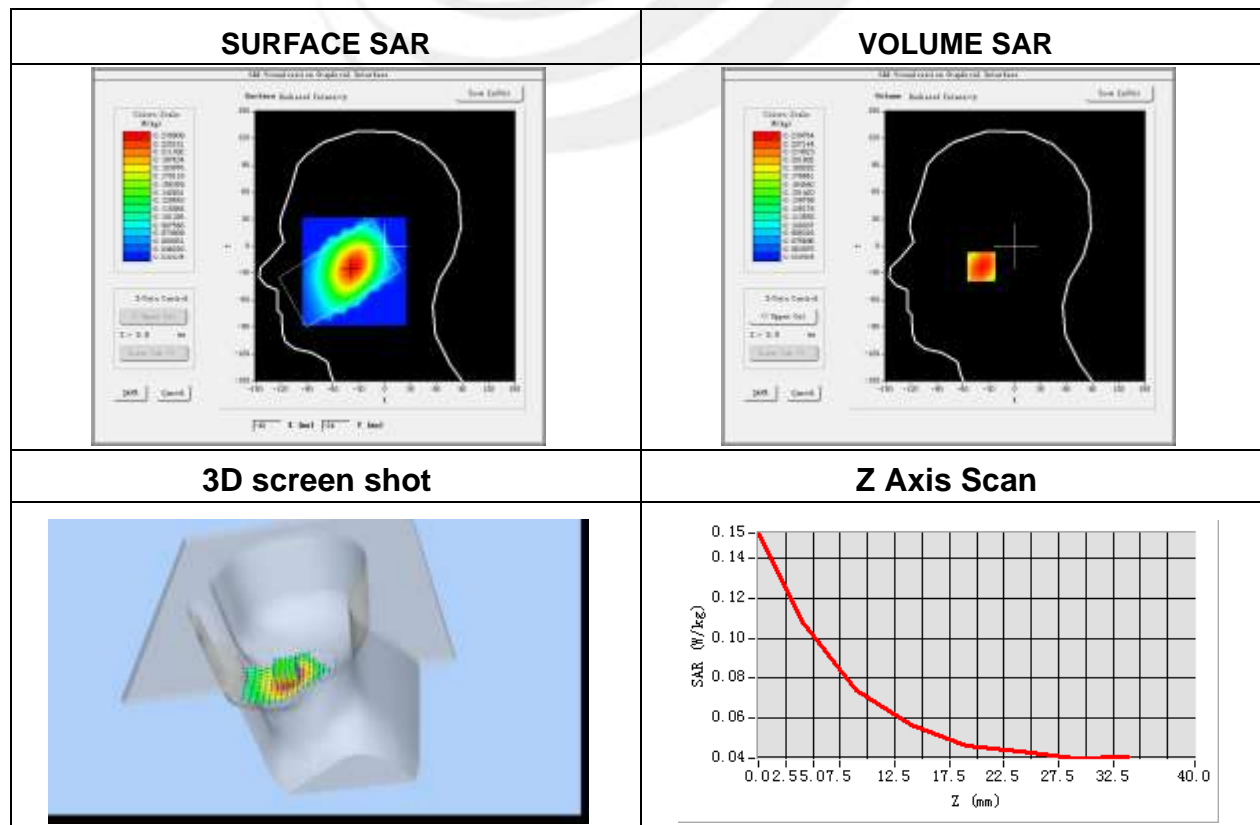
Plot 35: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	Tilt
Band	WCDMA V
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	846.6
Relative permittivity (real part)	42.27
Conductivity (S/m)	0.91
Variation (%)	-0.37

Maximum location: X=-32.00, Y=-5.00

SAR Peak: 0.15 W/kg

SAR 10g (W/Kg)	0.115861
SAR 1g (W/Kg)	0.129023



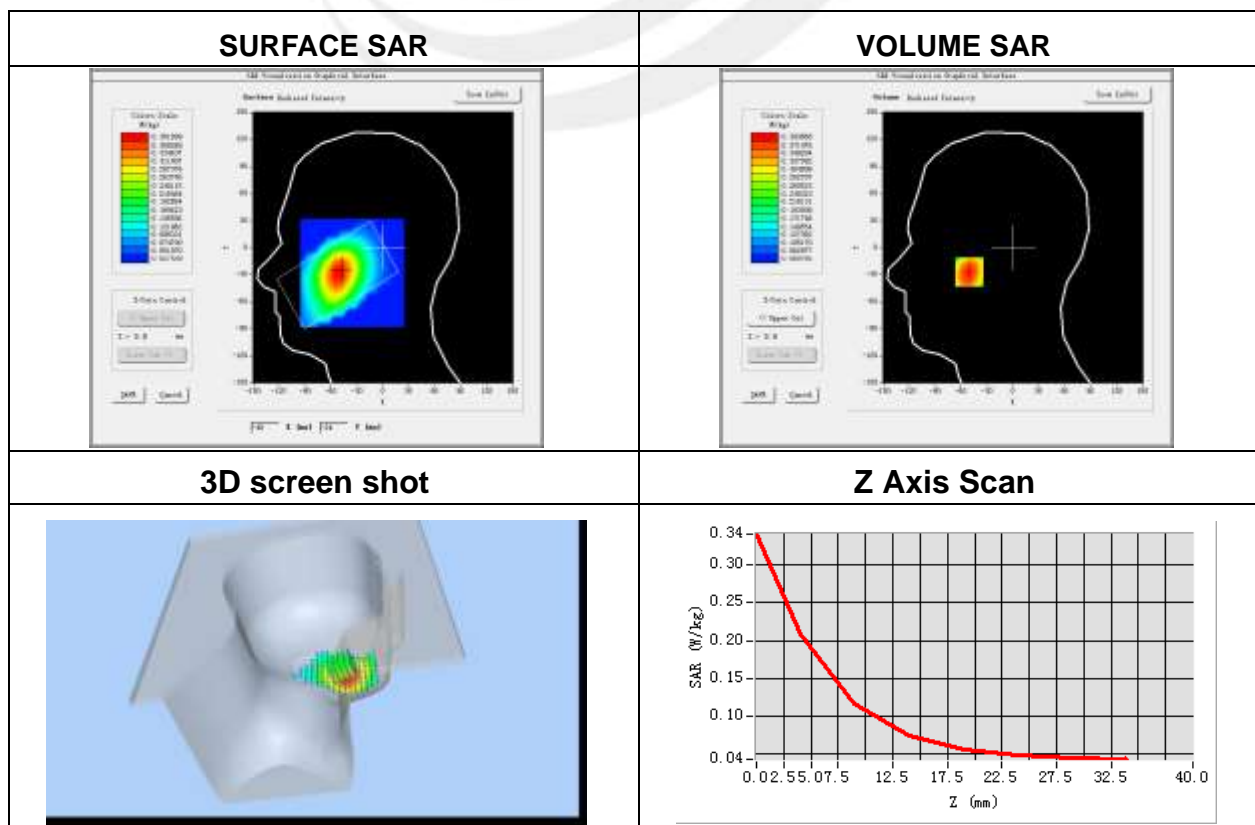
Plot 36: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	WCDMA V
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	846.6
Relative permittivity (real part)	42.27
Conductivity (S/m)	0.91
Variation (%)	-4.18

Maximum location: X=-48.00, Y=-42.00

SAR Peak: 0.34 W/kg

SAR 10g (W/Kg)	0.200378
SAR 1g (W/Kg)	0.267765



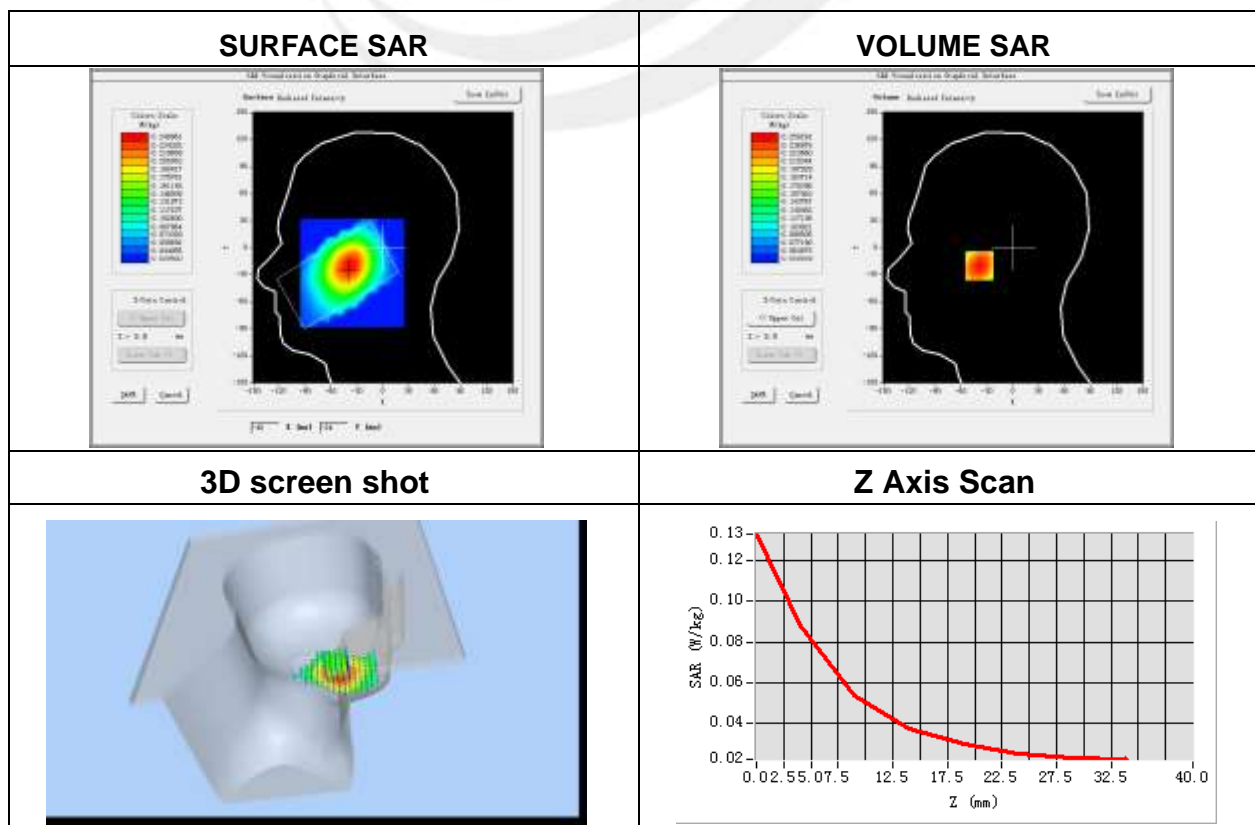
Plot 37: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	Tilt
Band	WCDMA V
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	846.6
Relative permittivity (real part)	42.27
Conductivity (S/m)	0.91
Variation (%)	-2.35

Maximum location: X=-8.00, Y=-24.00

SAR Peak: 0.16 W/kg

SAR 10g (W/Kg)	0.063226
SAR 1g (W/Kg)	0.097398



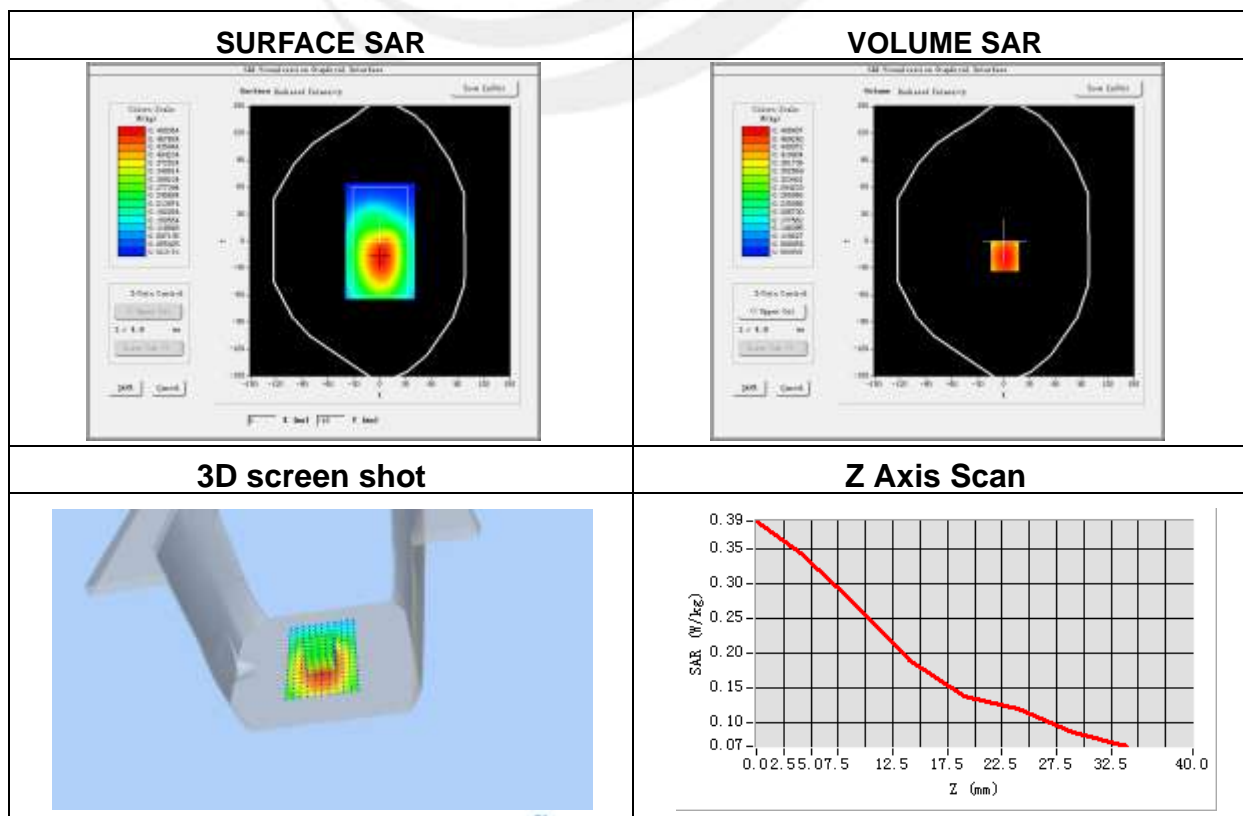
Plot 38: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 front
Band	WCDMA V
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	846.6
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	0.41

Maximum location: X=-11.00, Y=-58.00

SAR Peak: 0.40 W/kg

SAR 10g (W/Kg)	0.233801
SAR 1g (W/Kg)	0.312891



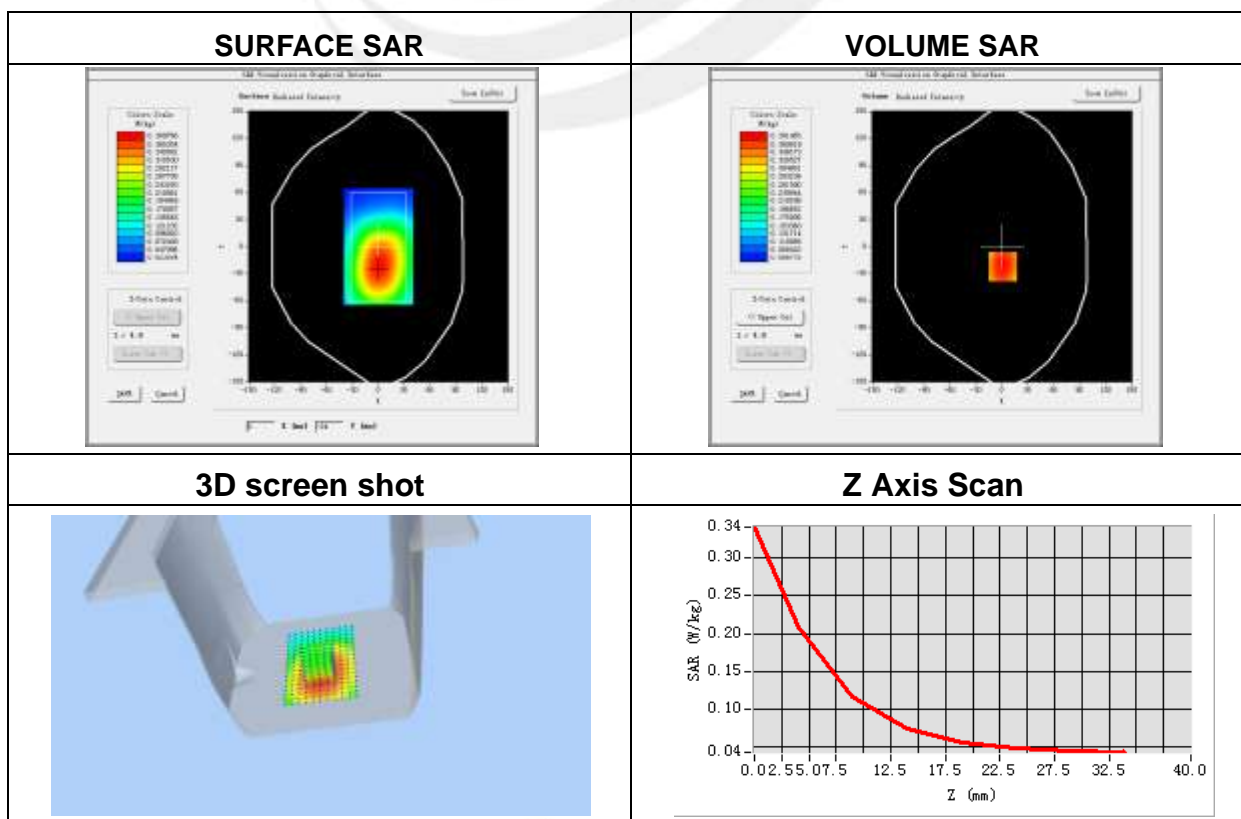
Plot 39: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	846.6
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	-1.07

Maximum location: X=15.00, Y=-40.00

SAR Peak: 0.36 W/kg

SAR 10g (W/Kg)	0.181203
SAR 1g (W/Kg)	0.252833



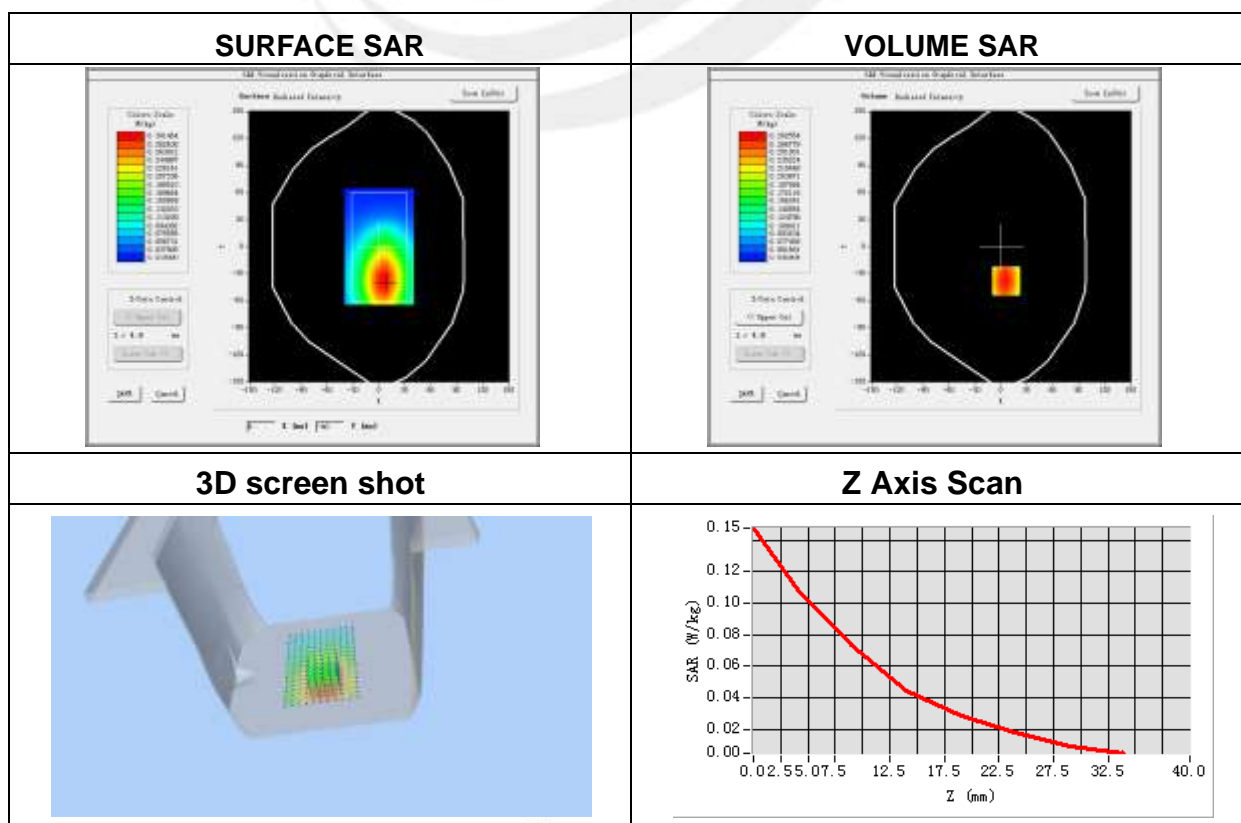
Plot 40: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 left side
Band	WCDMA V
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	846.6
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	-2.54

Maximum location: X=6.00, Y=-38.00

SAR Peak: 0.18 W/kg

SAR 10g (W/Kg)	0.090969
SAR 1g (W/Kg)	0.135061



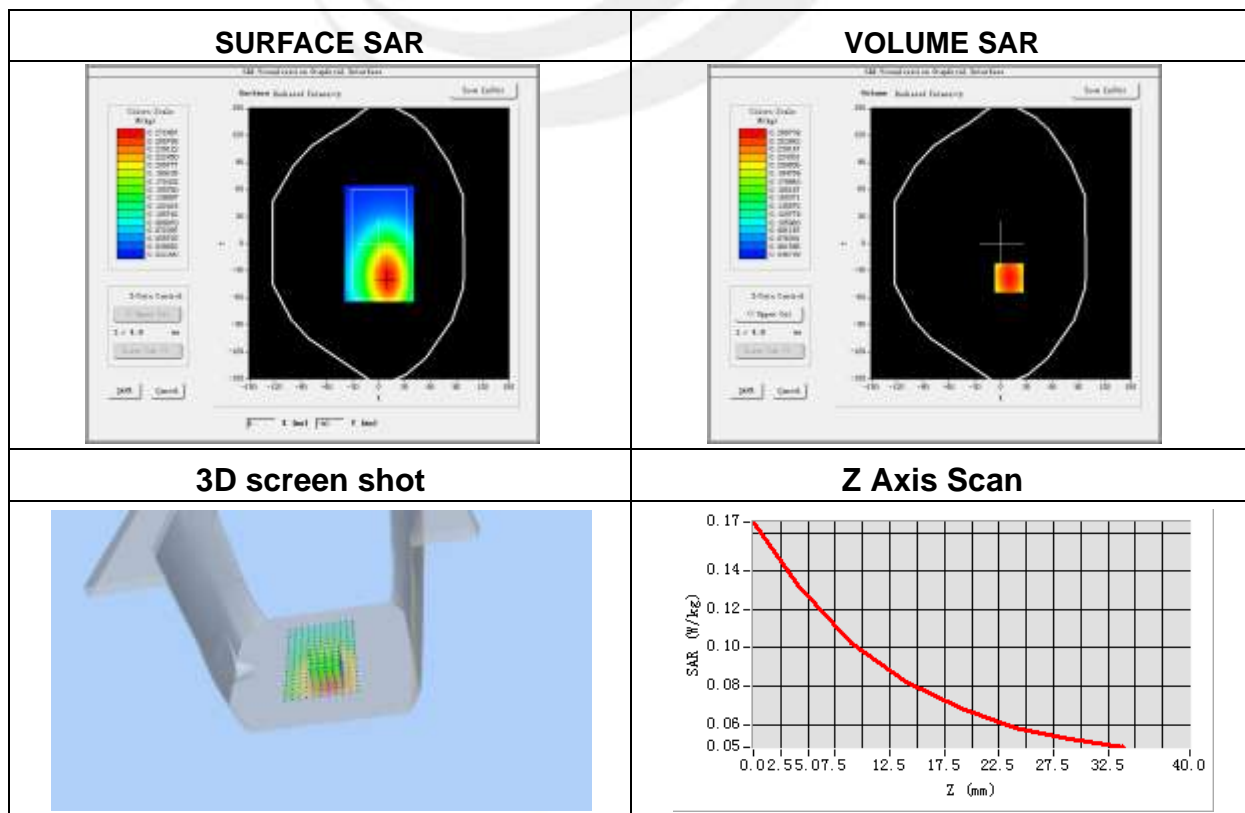
Plot 41: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 right side
Band	WCDMA V
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	846.6
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	0.09

Maximum location: X=0.00, Y=-48.00

SAR Peak: 0.20 W/kg

SAR 10g (W/Kg)	0.109170
SAR 1g (W/Kg)	0.149816



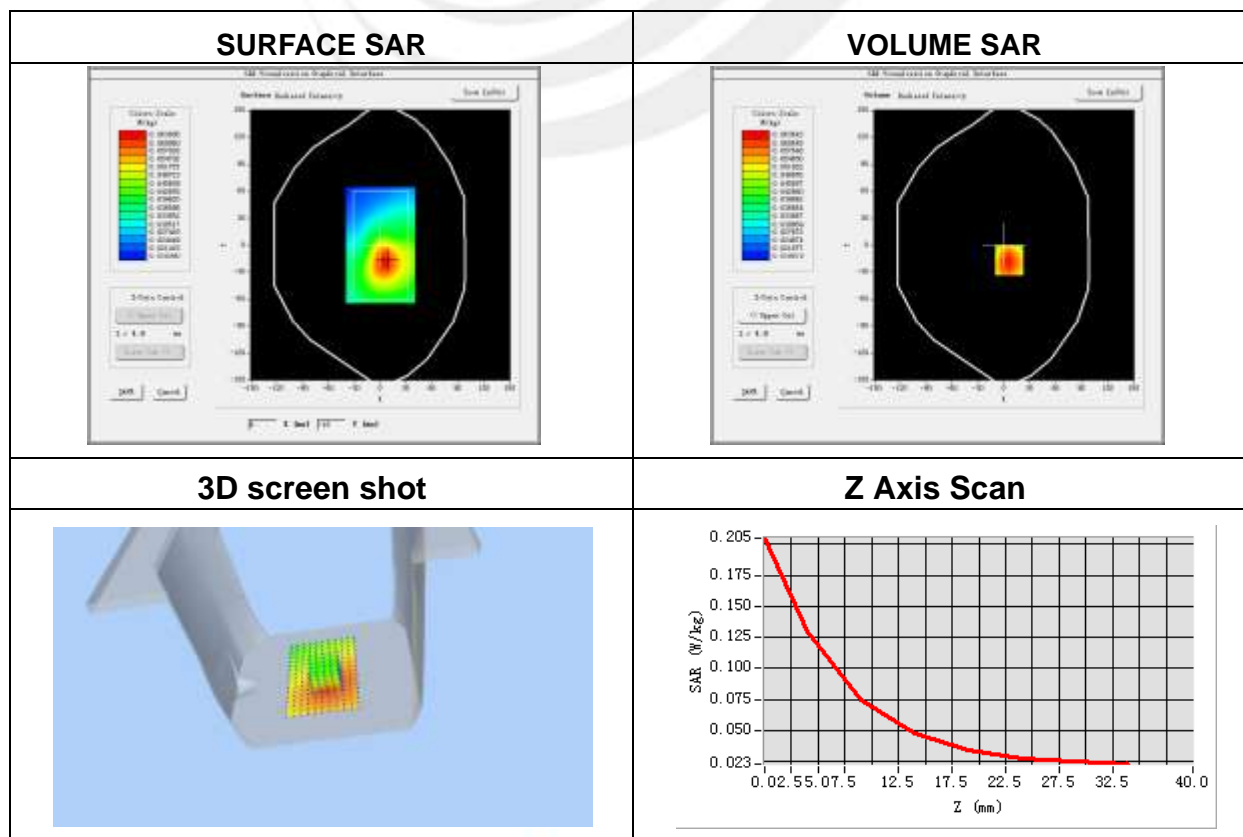
Plot 42: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 bottom side
Band	WCDMA V
Channels	High
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	846.6
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	4.41

Maximum location: X=6.00, Y=-2.00

SAR Peak: 0.23 W/kg

SAR 10g (W/Kg)	0.092124
SAR 1g (W/Kg)	0.154597



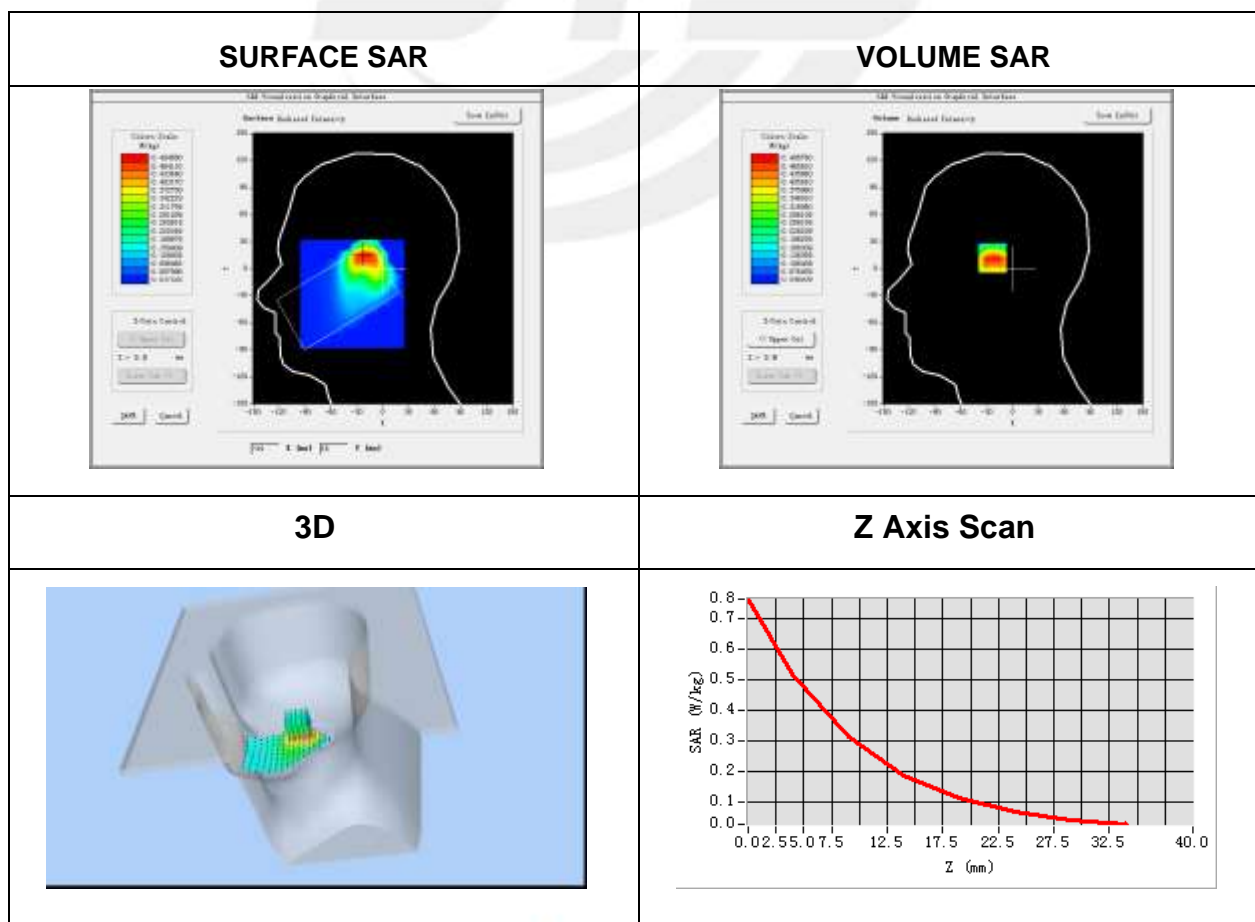
Plot 43: DUT:smart phone; EUT Model: Ilium L200

Test Data	2015-12-05
Probe	SN 17/14 EP221
ConvF	4.11
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	IEEE 802.11b ISM
Channels	Middle
Signal	<u>IEEE802.b (Crest factor: 1.0)</u>
Frequency (MHz)	2437
Relative permittivity (real part)	39.23
Conductivity (S/m)	1.79
Variation (%)	3.69

Maximum location: X=8.00, Y=32.00

SAR Peak: 0.85 W/kg

SAR 10g (W/Kg)	0.185707
SAR 1g (W/Kg)	0.423383



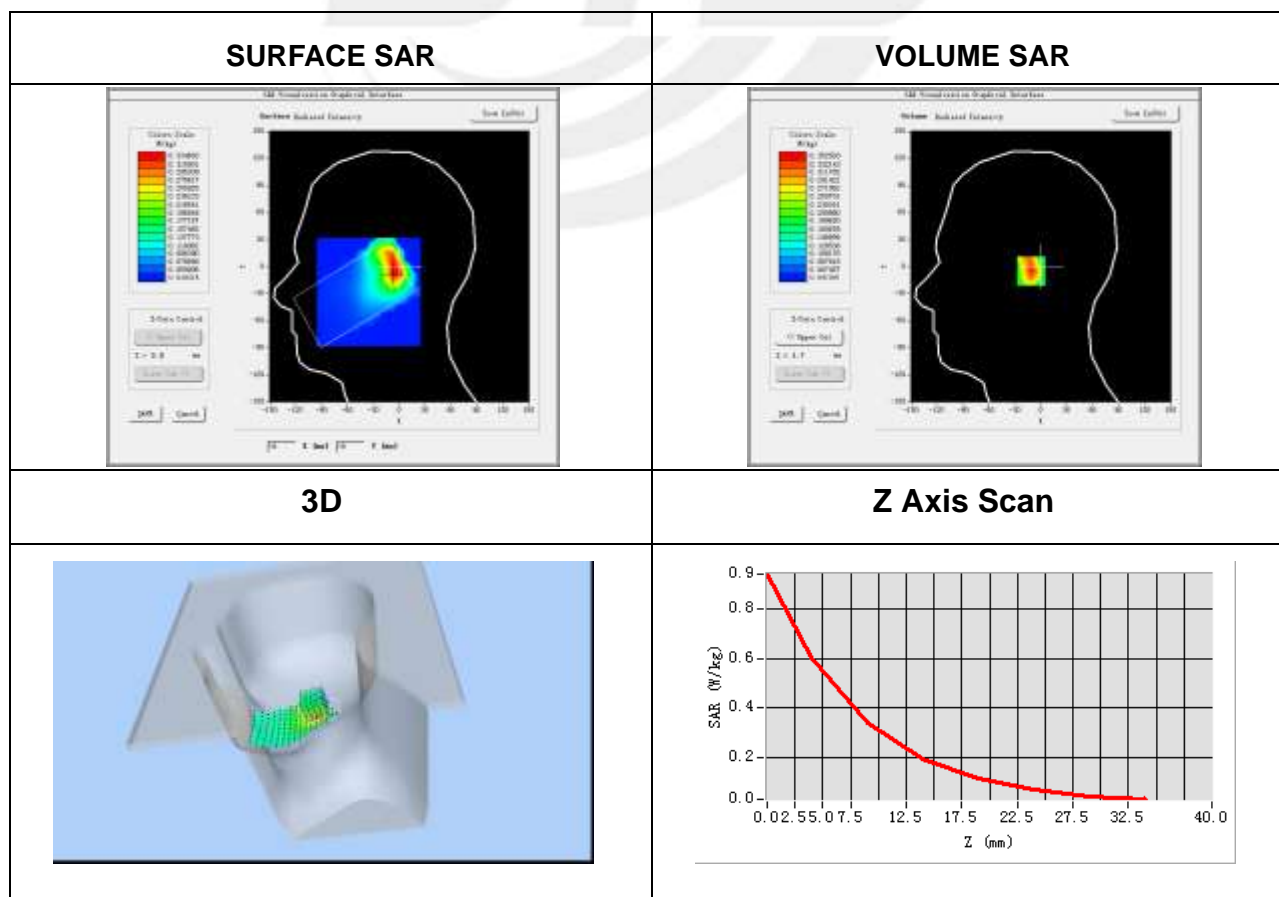
Plot 44: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Probe	SN 17/14 EP221
ConvF	4.11
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	Tilt
Band	IEEE 802.11b ISM
Channels	Middle
Signal	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2437
Relative permittivity (real part)	39.23
Conductivity (S/m)	1.79
Variation (%)	-1.03

Maximum location: X=6.00, Y=32.00

SAR Peak: 0.92 W/kg

SAR 10g (W/Kg)	0.195466
SAR 1g (W/Kg)	0.452314

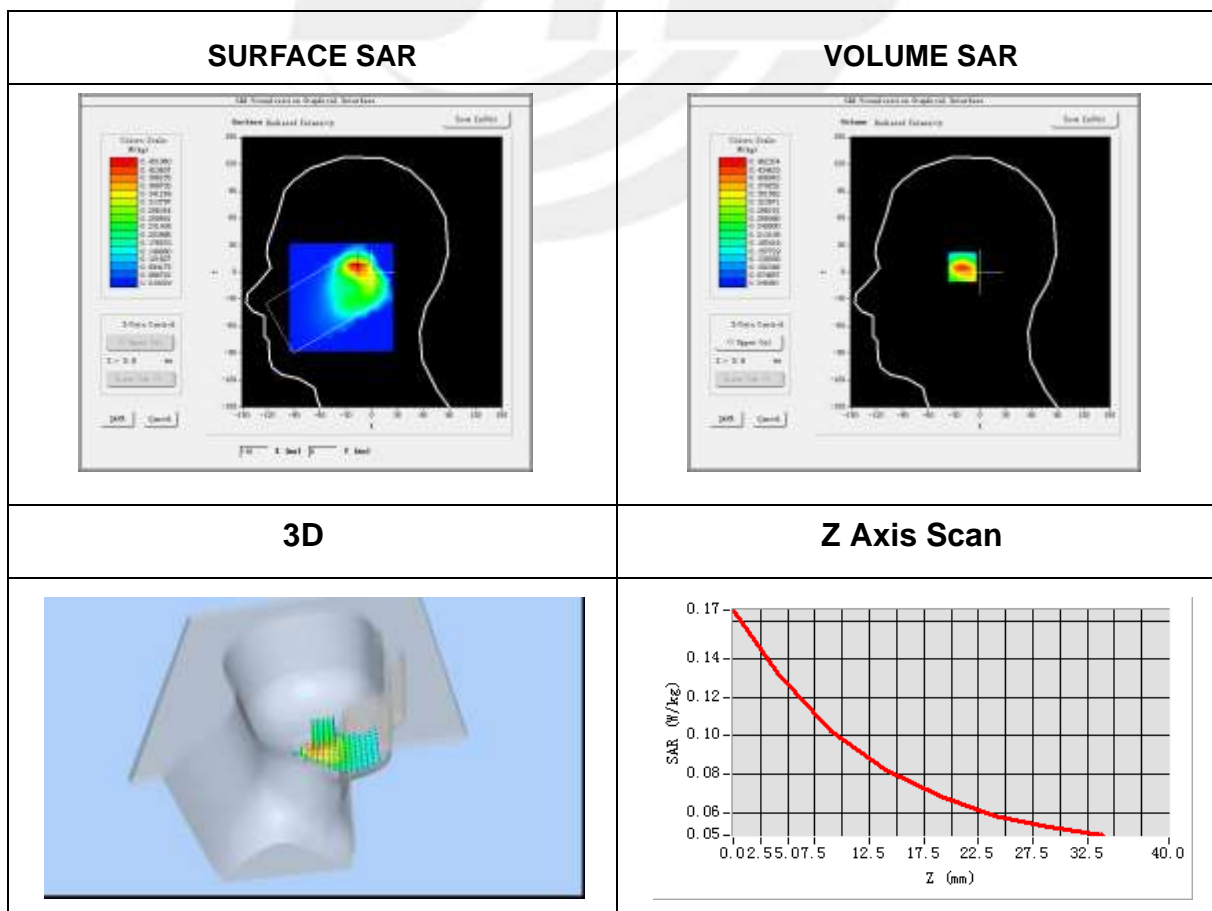


Plot 45: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Probe	SN 17/14 EP221
ConvF	4.11
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	IEEE 802.11b ISM
Channels	Middle
Signal	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2437
Relative permittivity (real part)	39.23
Conductivity (S/m)	1.79
Variation (%)	-1.87

Maximum location: X=13.00, Y=-10.00
SAR Peak: 0.20 W/kg

SAR 10g (W/Kg)	0.117855
SAR 1g (W/Kg)	0.140371

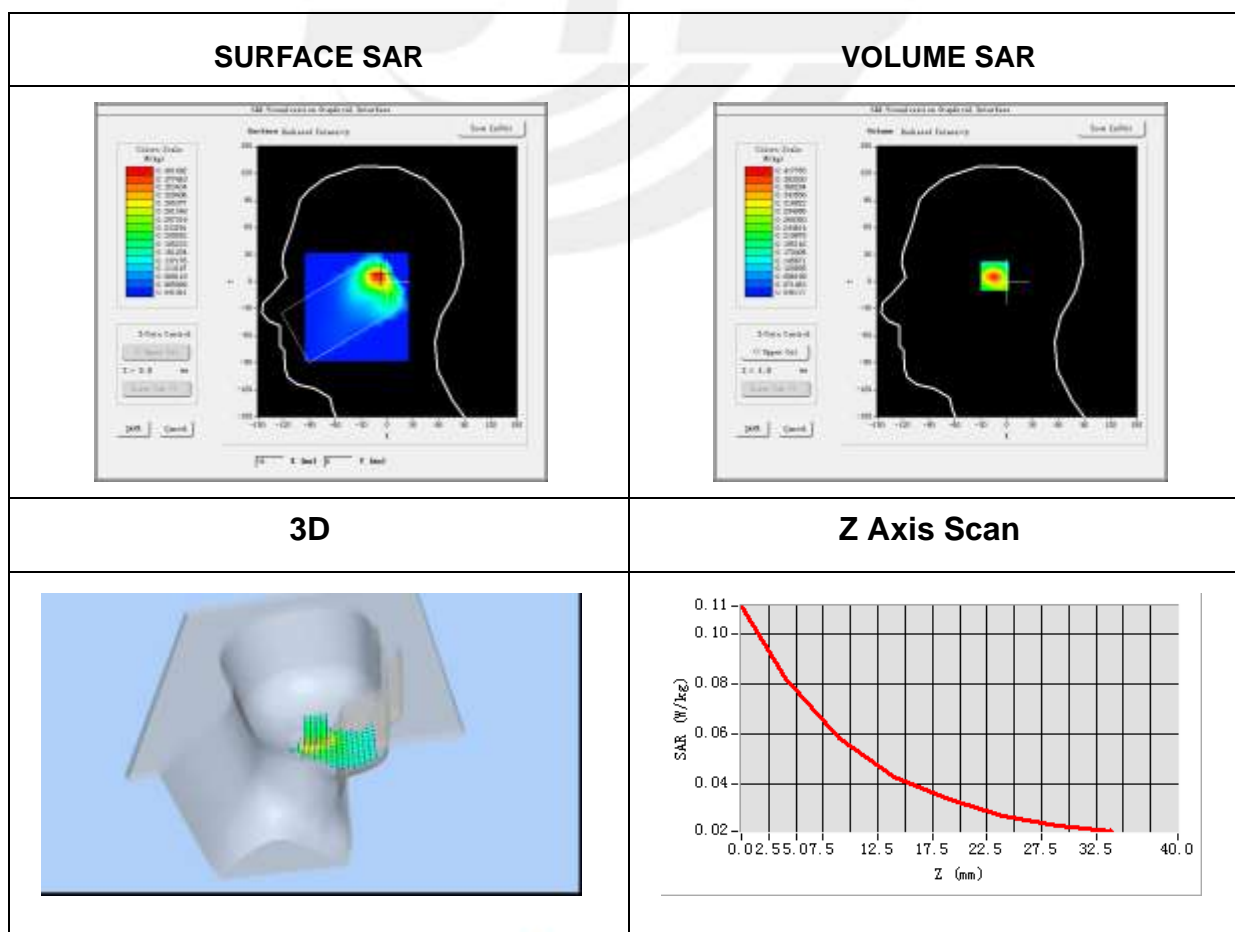


Plot 46: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Probe	SN 17/14 EP221
ConvF	4.11
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	Tilt
Band	IEEE 802.11b ISM
Channels	Middle
Signal	<u>IEEE802.b (Crest factor: 1.0)</u>
Frequency (MHz)	2437
Relative permittivity (real part)	39.23
Conductivity (S/m)	1.79
Variation (%)	-1.53

Maximum location: X=10.00, Y=-9.00
SAR Peak: 0.11 W/kg

SAR 10g (W/Kg)	0.024433
SAR 1g (W/Kg)	0.043443

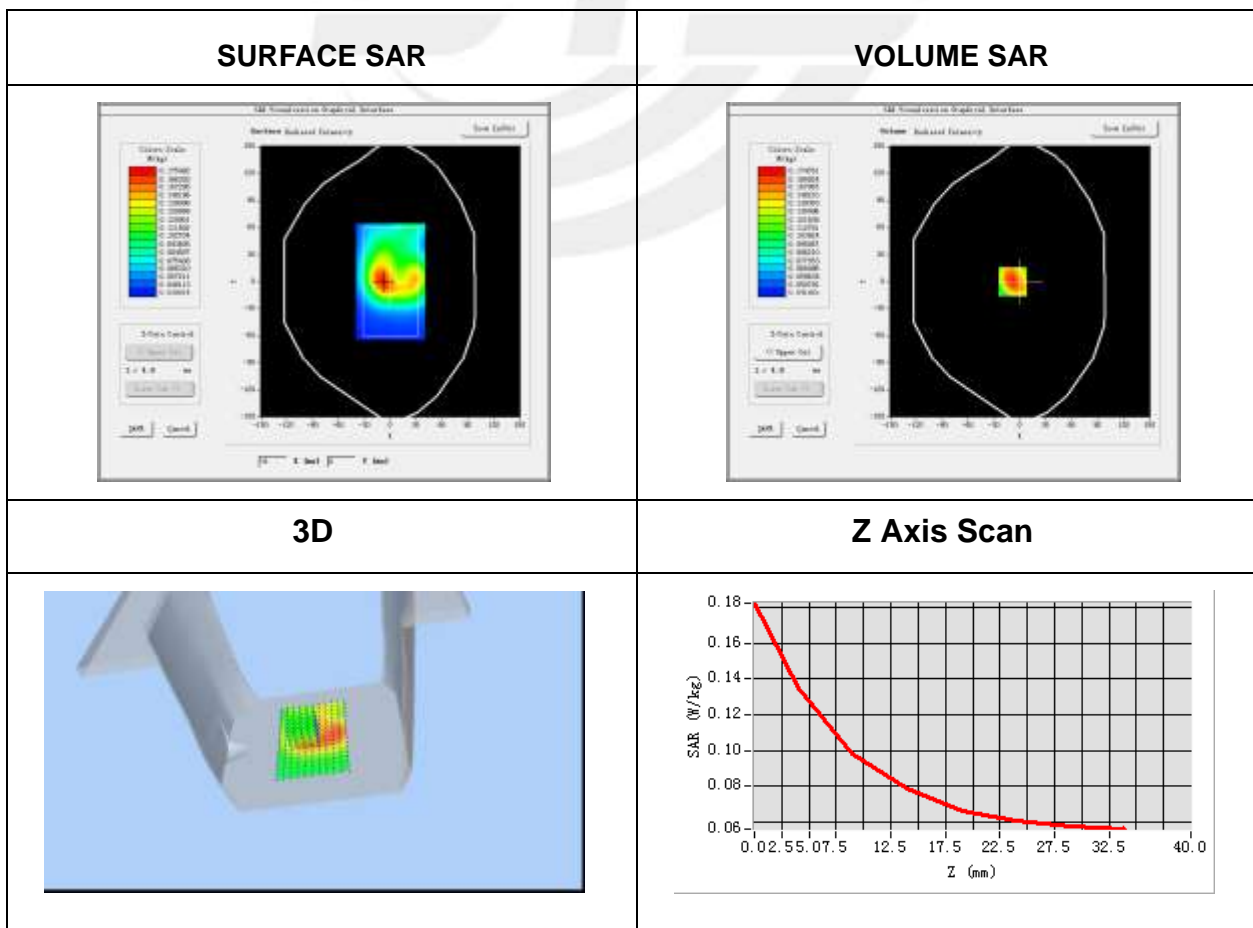


Plot 47: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Probe	SN 17/14 EP221
ConvF	4.25
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 Front side
Band	IEEE 802.11b ISM
Channels	Middle
Signal	<u>IEEE802.b (Crest factor: 1.0)</u>
Frequency (MHz)	2437
Relative permittivity (real part)	39.23
Conductivity (S/m)	1.79
Variation (%)	-0.81

Maximum location: X=8.00, Y=-8.00
SAR Peak: 0.18 W/kg

SAR 10g (W/Kg)	0.063336
SAR 1g (W/Kg)	0.143344

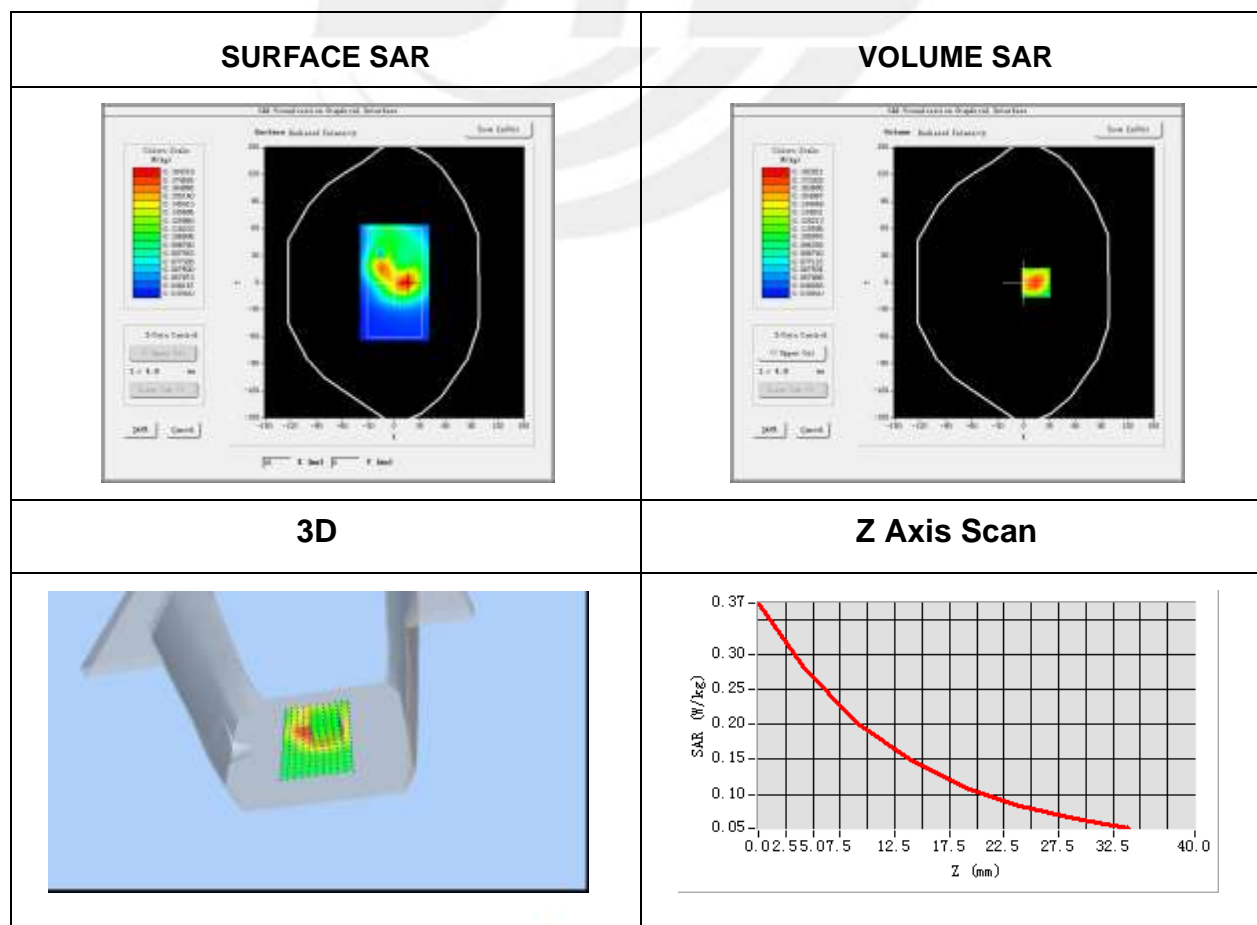


Plot 48: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Probe	SN 17/14 EP221
ConvF	4.25
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	IEEE 802.11b ISM
Channels	Middle
Signal	<u>IEEE802.b (Crest factor: 1.0)</u>
Frequency (MHz)	2437
Relative permittivity (real part)	39.23
Conductivity (S/m)	1.79
Variation (%)	-0.43

Maximum location: X=6.00, Y=-24.00
SAR Peak: 0.37 W/kg

SAR 10g (W/Kg)	0.107071
SAR 1g (W/Kg)	0.234708

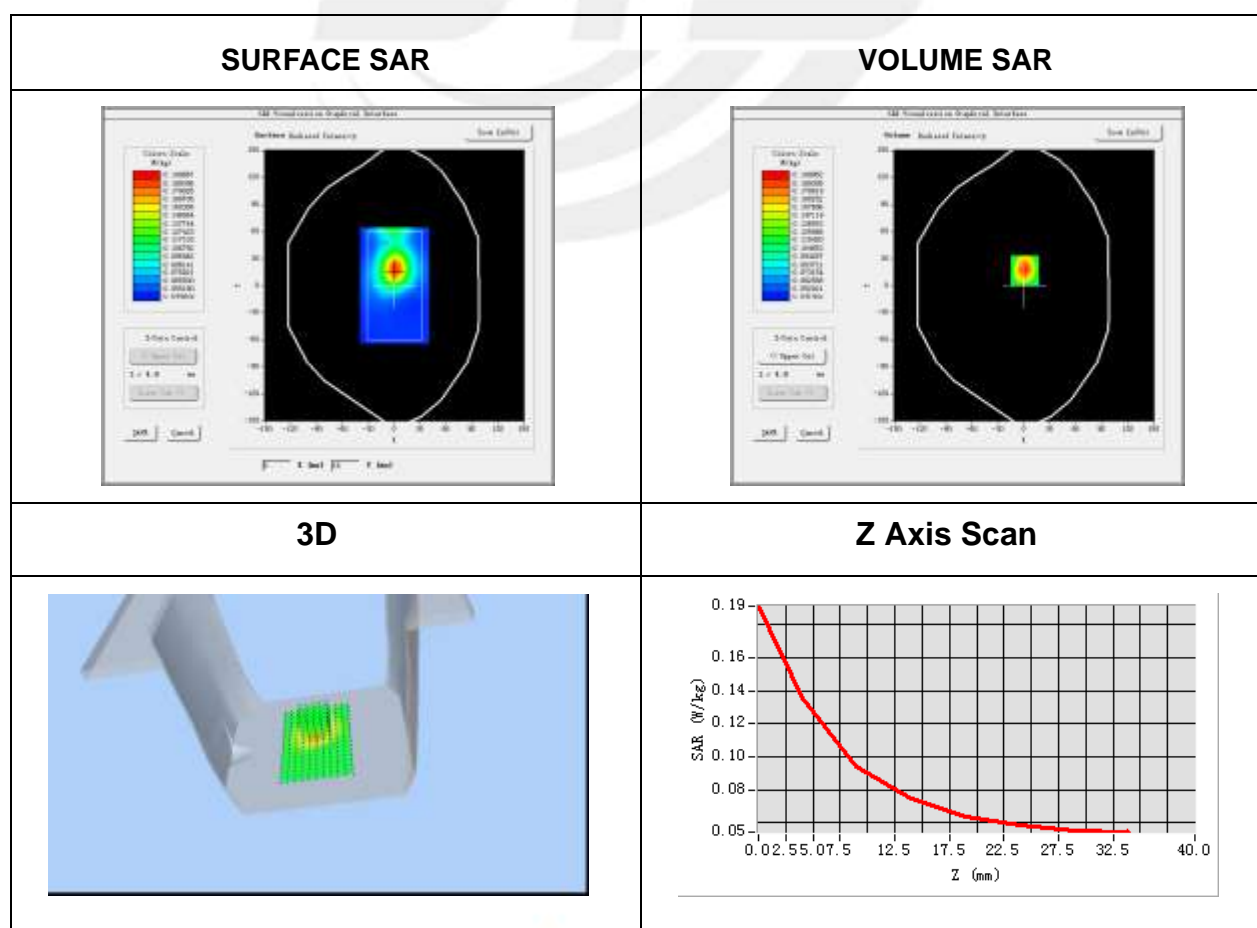


Plot 49: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Probe	SN 17/14 EP221
ConvF	4.25
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 lift side
Band	IEEE 802.11b ISM
Channels	Middle
Signal	<u>IEEE802.b (Crest factor: 1.0)</u>
Frequency (MHz)	2437
Relative permittivity (real part)	39.23
Conductivity (S/m)	1.79
Variation (%)	-4.56

Maximum location: X=6.00, Y=1.00
SAR Peak: 0.19 W/kg

SAR 10g (W/Kg)	0.055186
SAR 1g (W/Kg)	0.103479

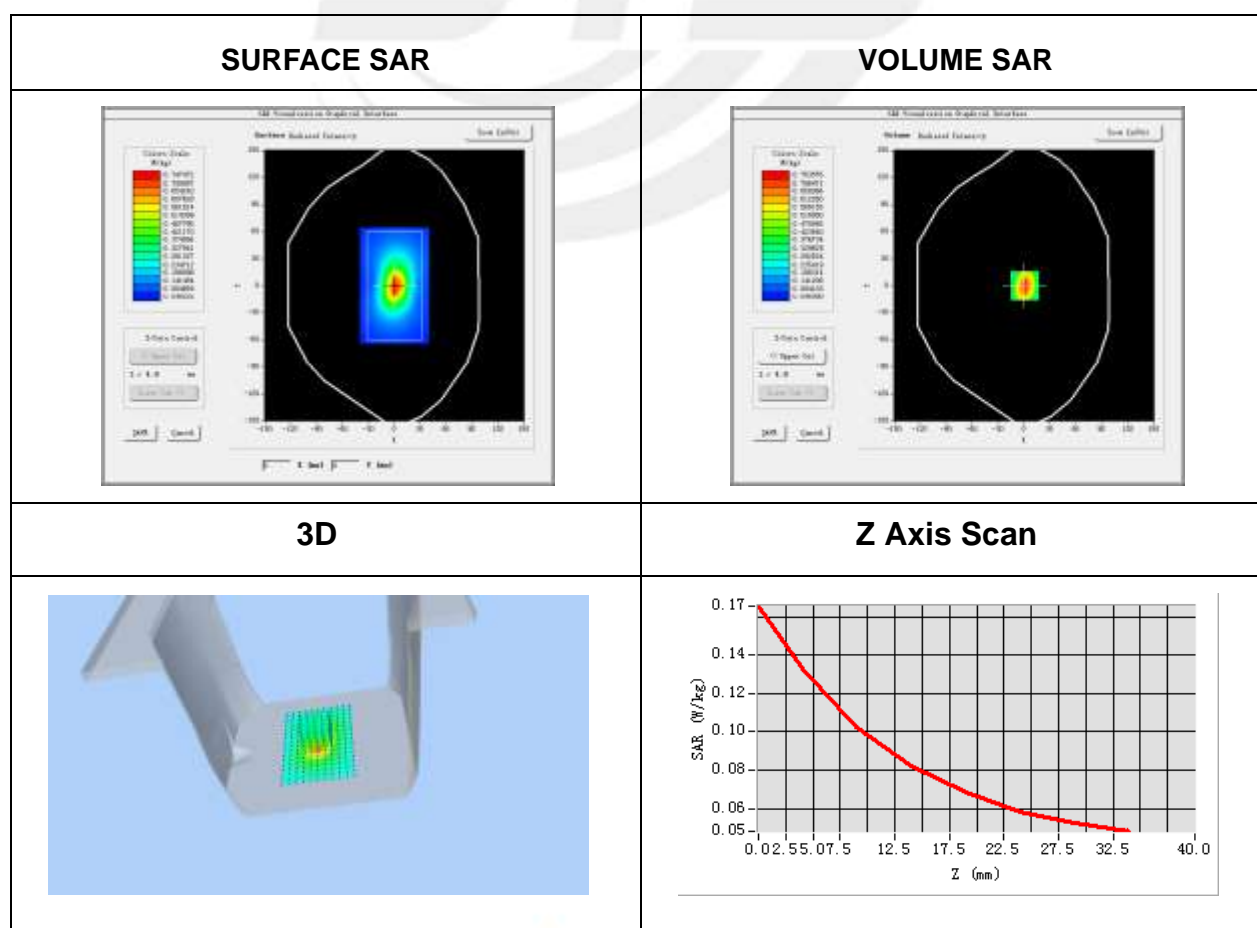


Plot 50: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Probe	SN 17/14 EP221
ConvF	4.25
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 right side
Band	IEEE 802.11b ISM
Channels	Middle
Signal	<u>IEEE802.b (Crest factor: 1.0)</u>
Frequency (MHz)	2437
Relative permittivity (real part)	39.23
Conductivity (S/m)	1.79
Variation (%)	-0.04

Maximum location: X=2.00, Y=-5.00
SAR Peak: 0.17 W/kg

SAR 10g (W/Kg)	0.061248
SAR 1g (W/Kg)	0.116347



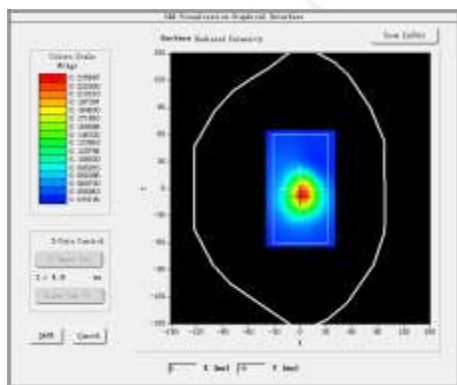
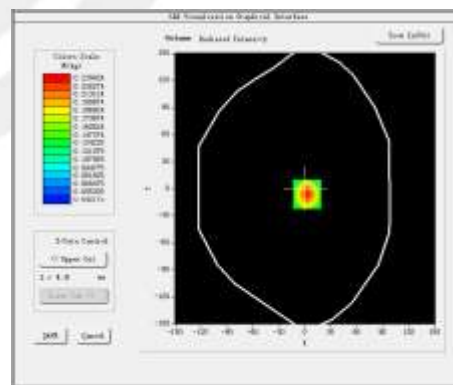
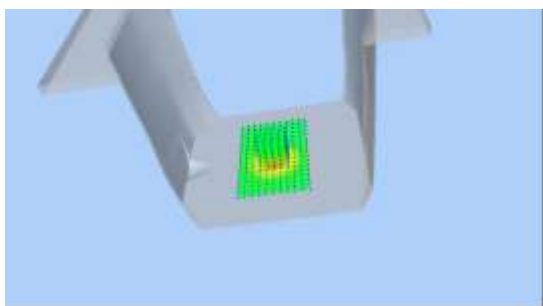
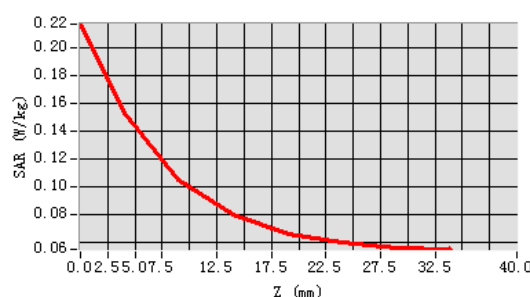
Plot 51: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Probe	SN 17/14 EP221
ConvF	4.25
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 top side
Band	IEEE 802.11b ISM
Channels	Middle
Signal	<u>IEEE802.b (Crest factor: 1.0)</u>
Frequency (MHz)	2437
Relative permittivity (real part)	39.23
Conductivity (S/m)	1.79
Variation (%)	-0.72

Maximum location: X=2.00, Y=-10.00

SAR Peak: 0.22 W/kg

SAR 10g (W/Kg)	0.062021
SAR 1g (W/Kg)	0.122764

SURFACE SAR

VOLUME SAR

3D

Z Axis Scan


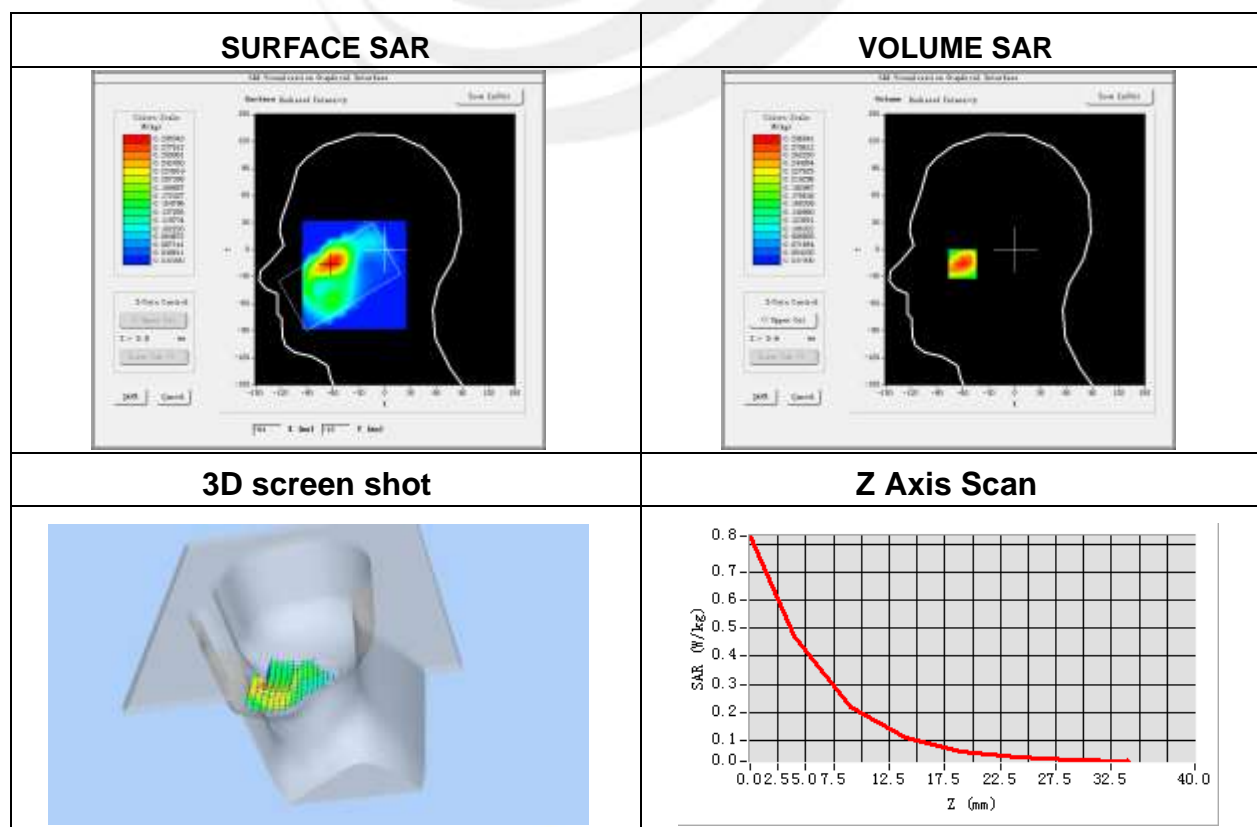
Plot 52: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	LTE Band 2 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1900.0
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	-0.45

Maximum location: X=-50.00, Y=-63.00

SAR Peak: 0.81 W/kg

SAR 10g (W/Kg)	0.303819
SAR 1g (W/Kg)	0.513120



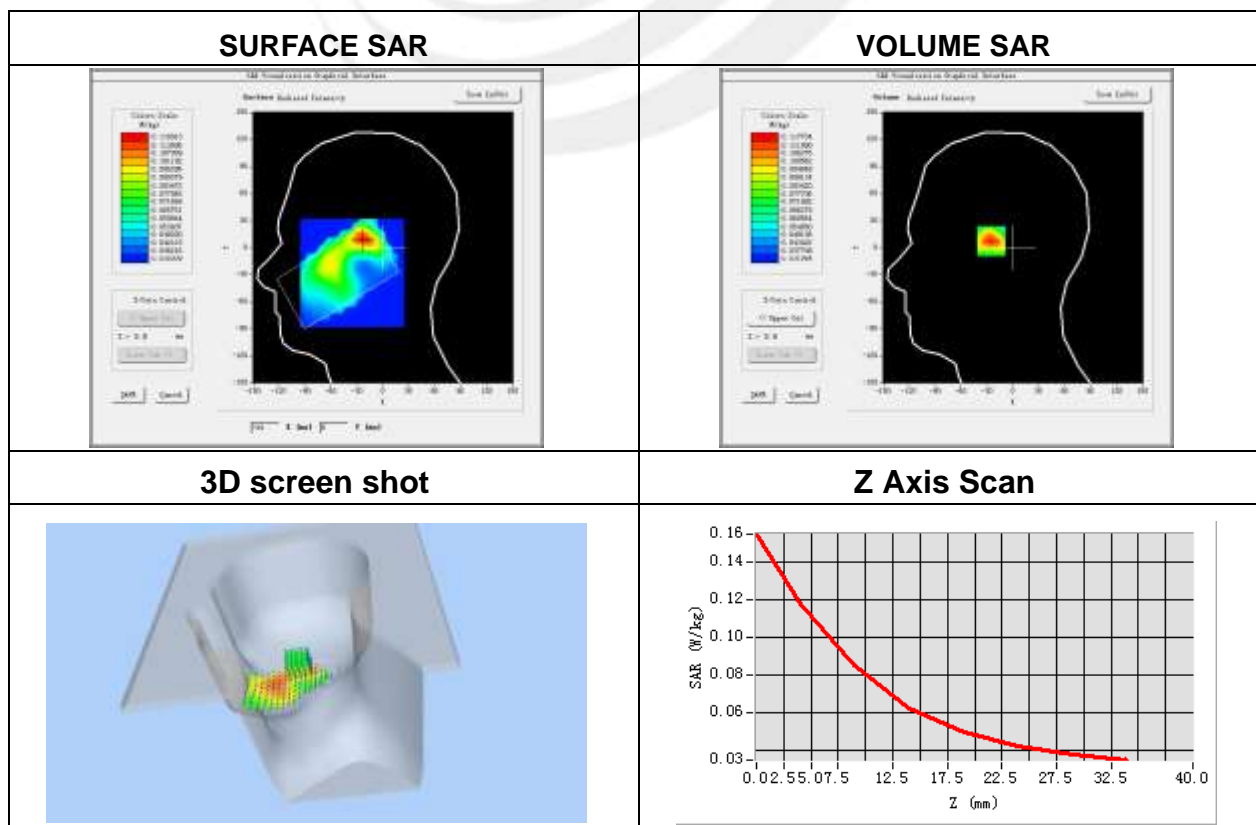
Plot 53: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	Tilt
Band	LTE Band 2 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1900.0
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	-0.04

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

SAR Peak: 0.19 W/kg

SAR 10g (W/Kg)	0.072260
SAR 1g (W/Kg)	0.122827



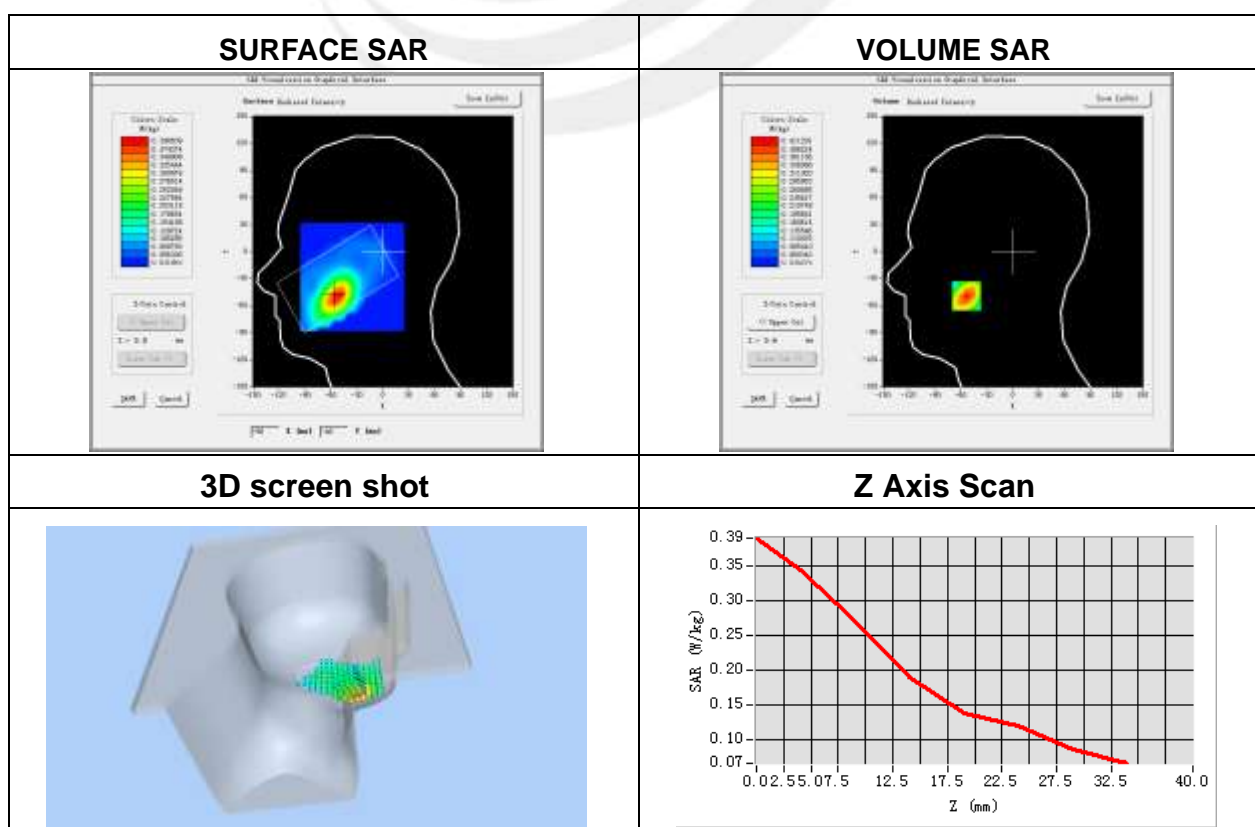
Plot 54: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	LTE Band 2 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1900.0
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	-0.63

Maximum location: X=-55.00, Y=-64.00

SAR Peak: 0.41 W/kg

SAR 10g (W/Kg)	0.168266
SAR 1g (W/Kg)	0.275654



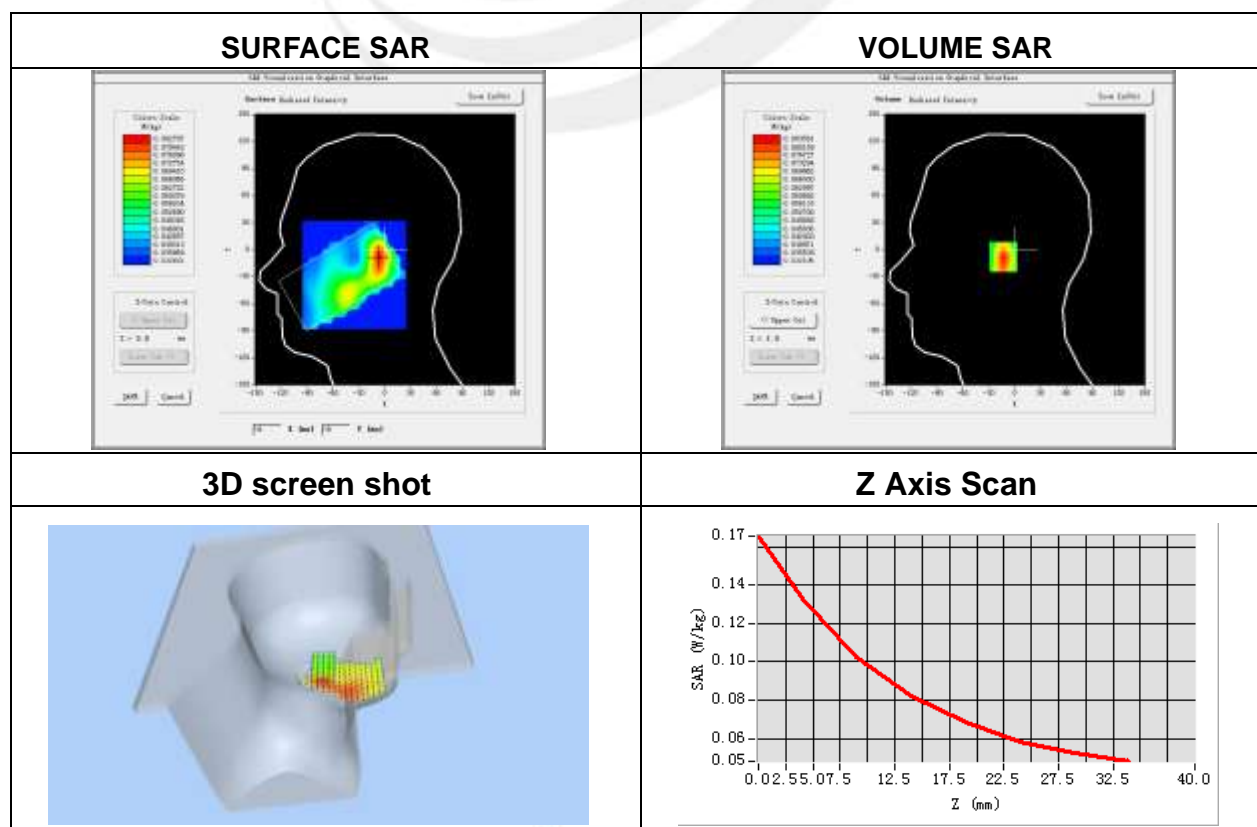
Plot 55: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	Tilt
Band	LTE Band 2(RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1900.0
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	-0.42

Maximum location: X=-18.00, Y=14.00

SAR Peak: 0.17 W/kg

SAR 10g (W/Kg)	0.063881
SAR 1g (W/Kg)	0.105394



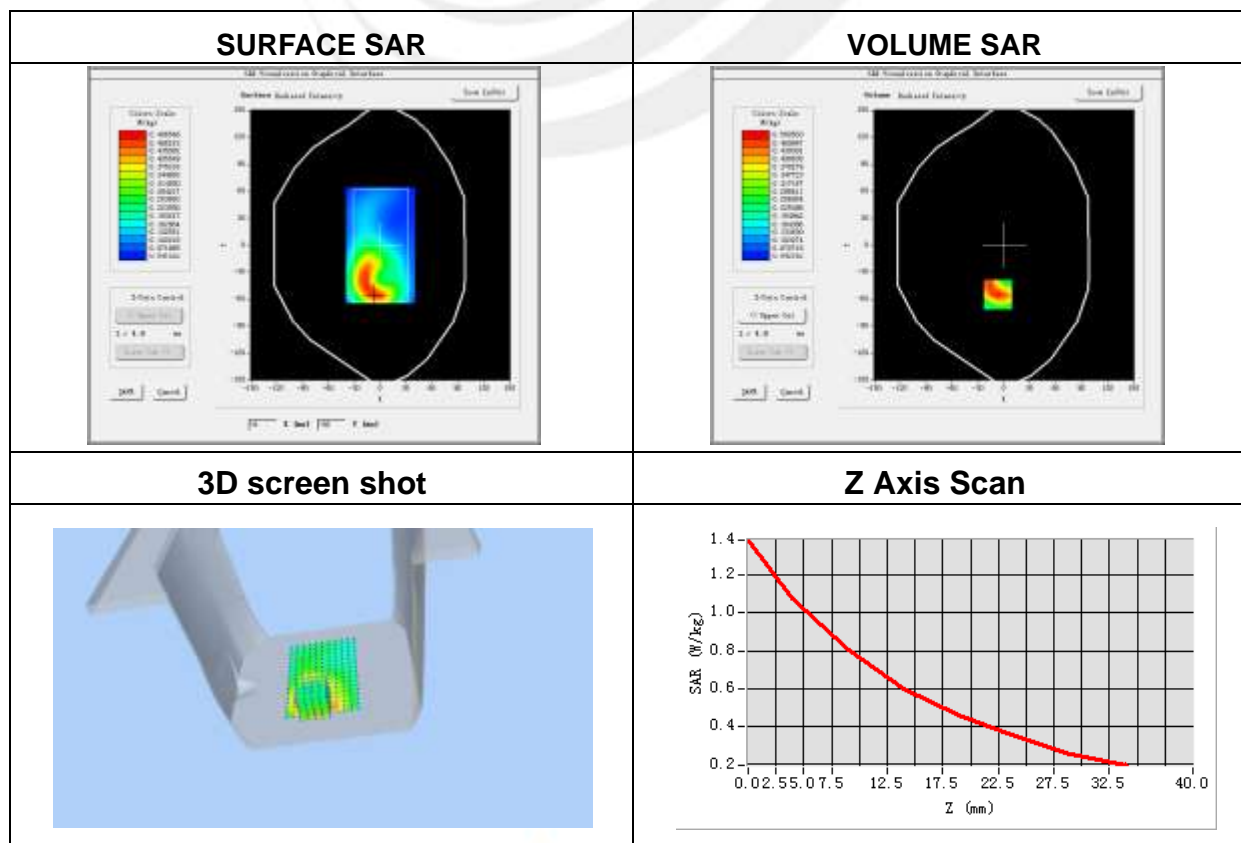
Plot 56: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 front
Band	LTE Band 2(RB 1)
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1859.5
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	0.02

Maximum location: X=0.00, Y=25.00

SAR Peak: 1.46 W/kg

SAR 10g (W/Kg)	0.505116
SAR 1g (W/Kg)	0.901885



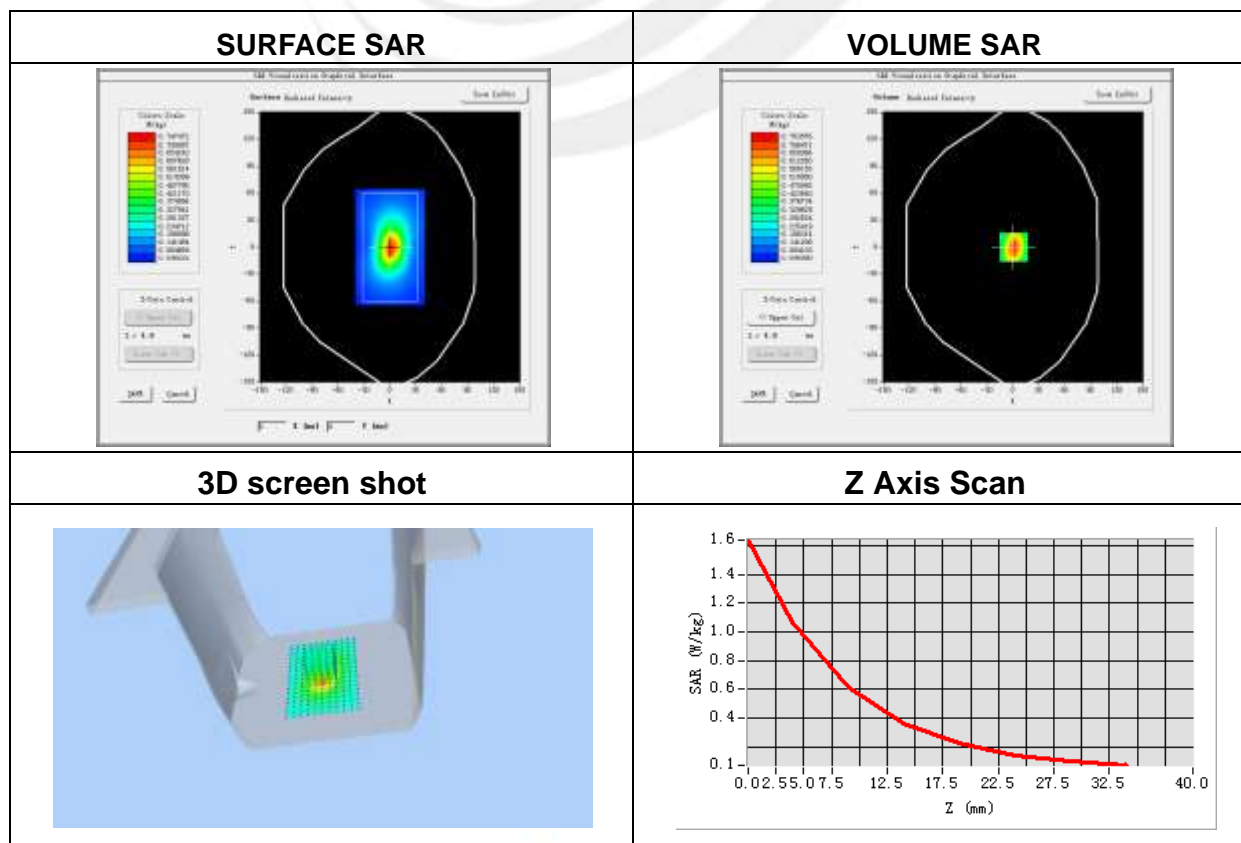
Plot 57: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 front-repeated
Band	LTE Band 2(RB 1)
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1859.5
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	-0.39

Maximum location: X=2.00, Y=-5.00

SAR Peak: 1.62 W/kg

SAR 10g (W/Kg)	0.545696
SAR 1g (W/Kg)	1.000995



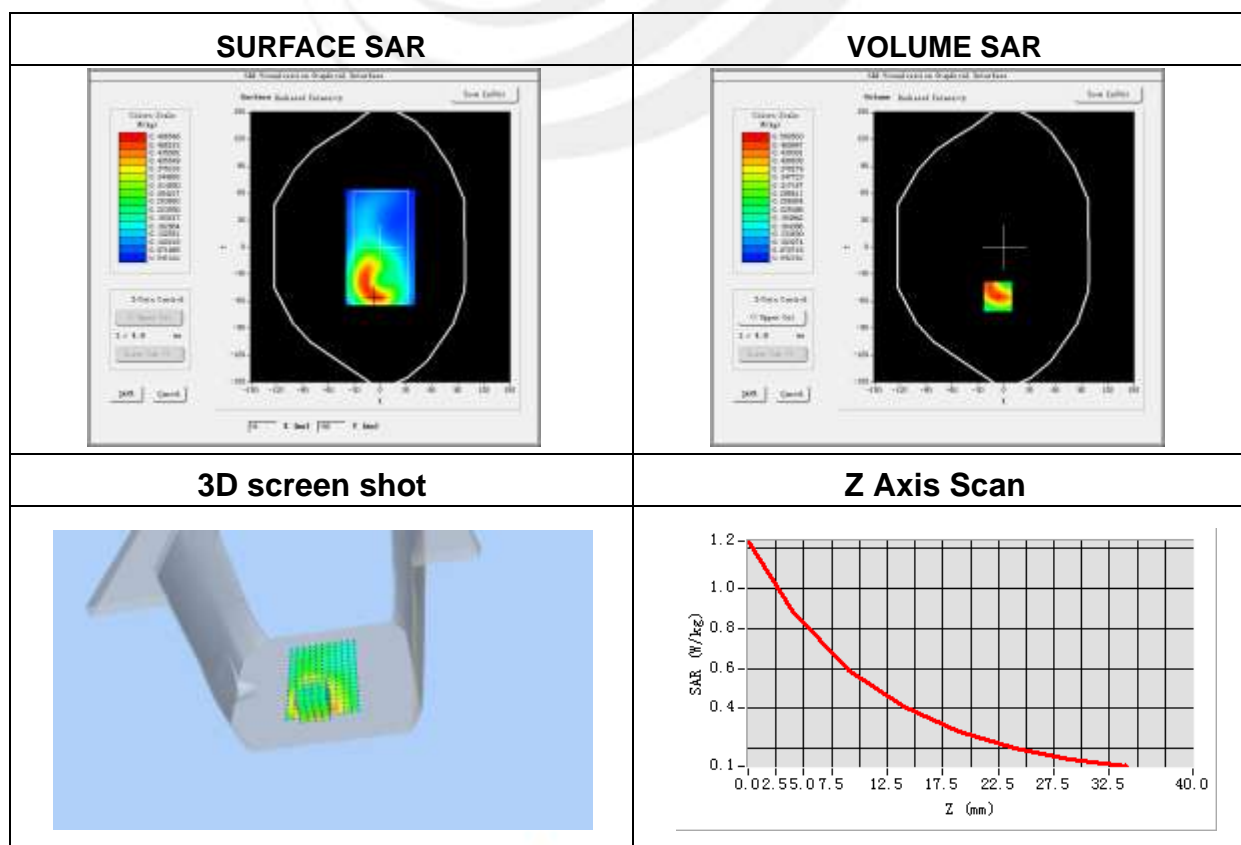
Plot 58: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 front
Band	LTE Band 2(RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1880
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	0.13

Maximum location: X=3.00, Y=29.00

SAR Peak: 1.27 W/kg

SAR 10g (W/Kg)	0.434693
SAR 1g (W/Kg)	0.779171



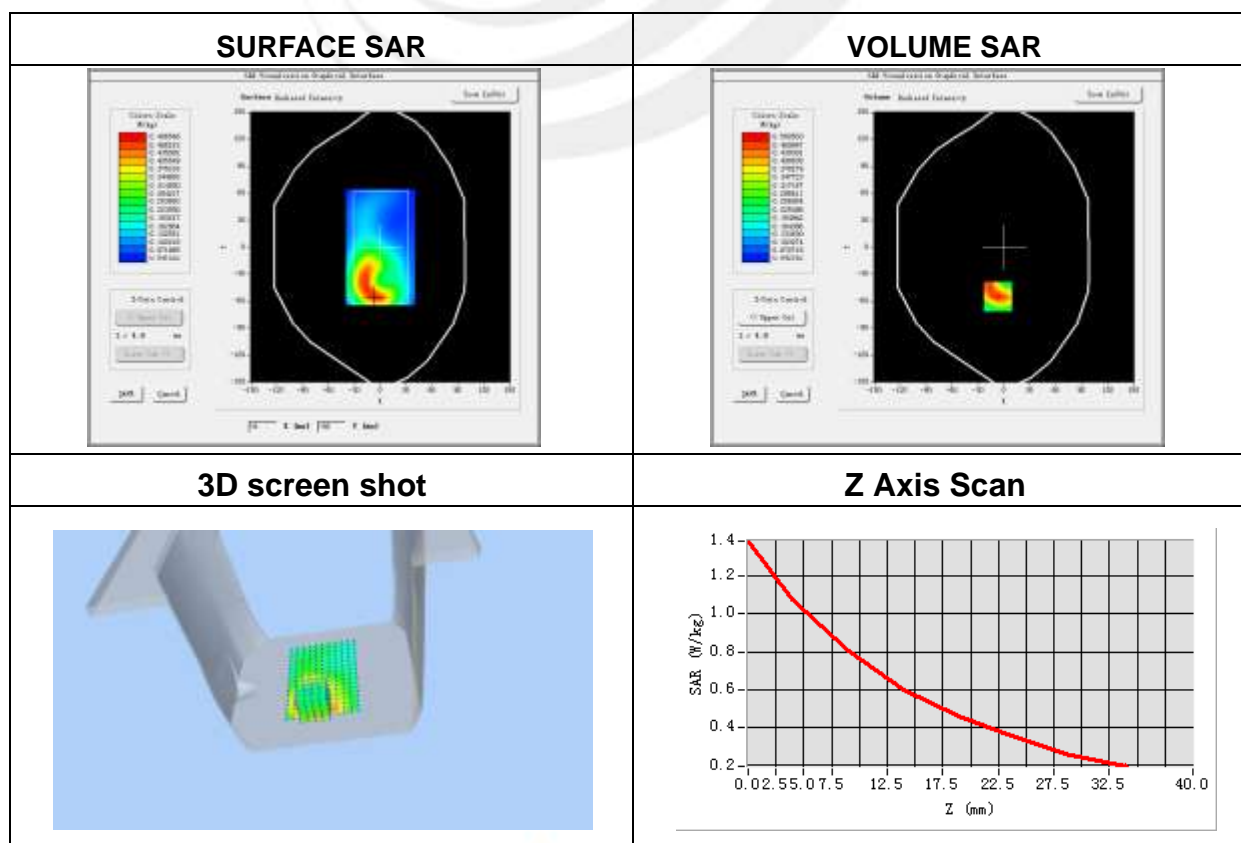
Plot 59: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 front
Band	LTE Band 2(RB 50)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1899.5
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	-0.67

Maximum location: X=1.00, Y=25.00

SAR Peak: 1.45 W/kg

SAR 10g (W/Kg)	0.501402
SAR 1g (W/Kg)	0.893997



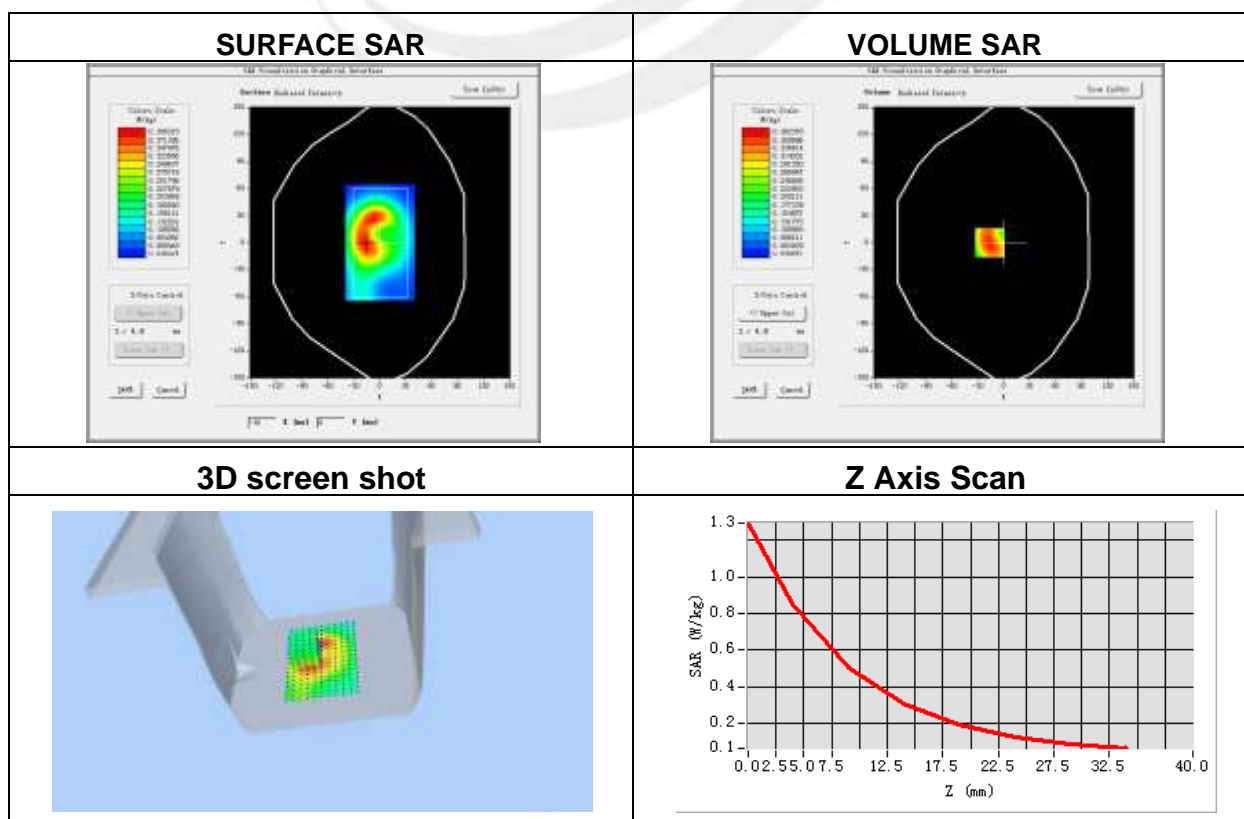

Plot 60: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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	LTE Band 2(RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1900.0
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	-0.52

Maximum location: X=-10.00, Y=25.00

SAR Peak: 1.36 W/kg

SAR 10g (W/Kg)	0.492341
SAR 1g (W/Kg)	0.752960



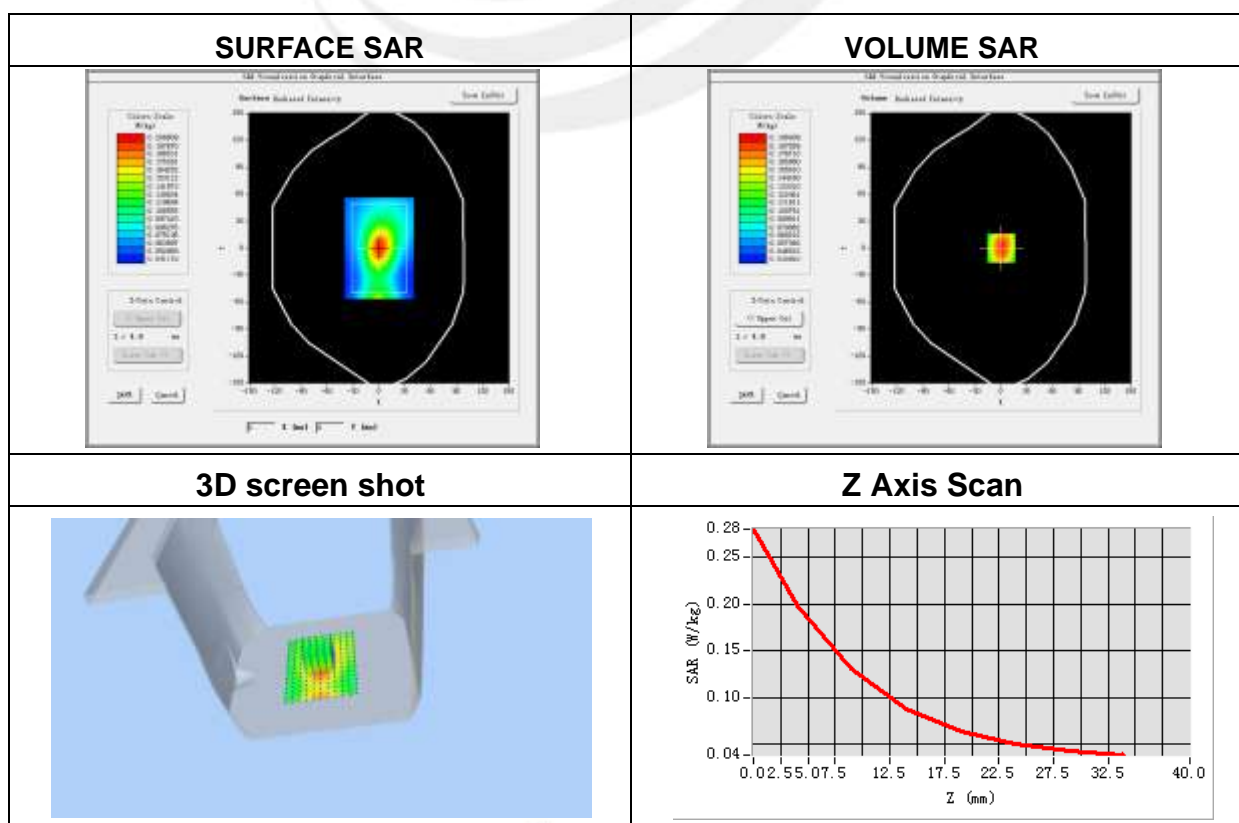
Plot 61: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 left side
Band	LTE Band 2(RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1900.0
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	-0.30

Maximum location: X=0.00, Y=0.00

SAR Peak: 0.28 W/kg

SAR 10g (W/Kg)	0.121227
SAR 1g (W/Kg)	0.189258



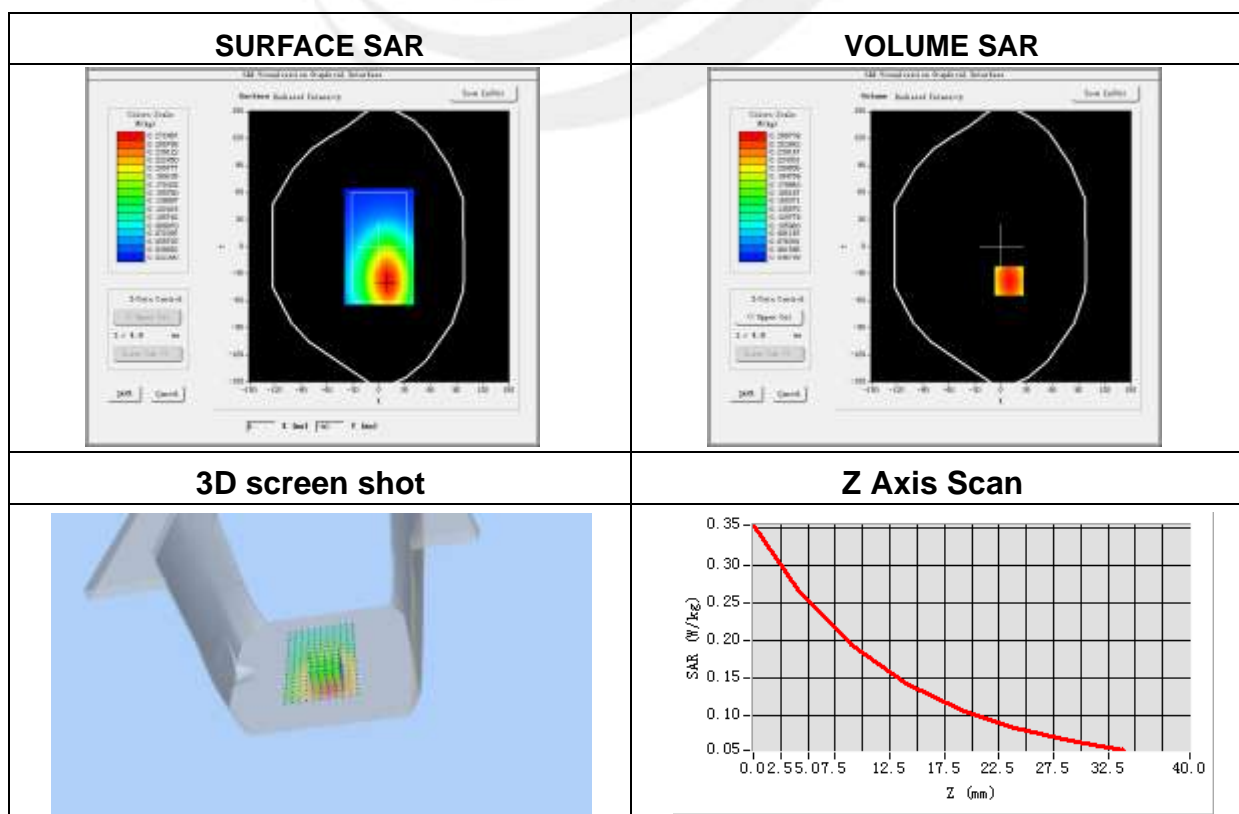
Plot 62: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 right side
Band	LTE Band 2(RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1900.0
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	-0.24

Maximum location: X=0.00, Y=-8.00

SAR Peak: 0.42 W/kg

SAR 10g (W/Kg)	0.179923
SAR 1g (W/Kg)	0.279860



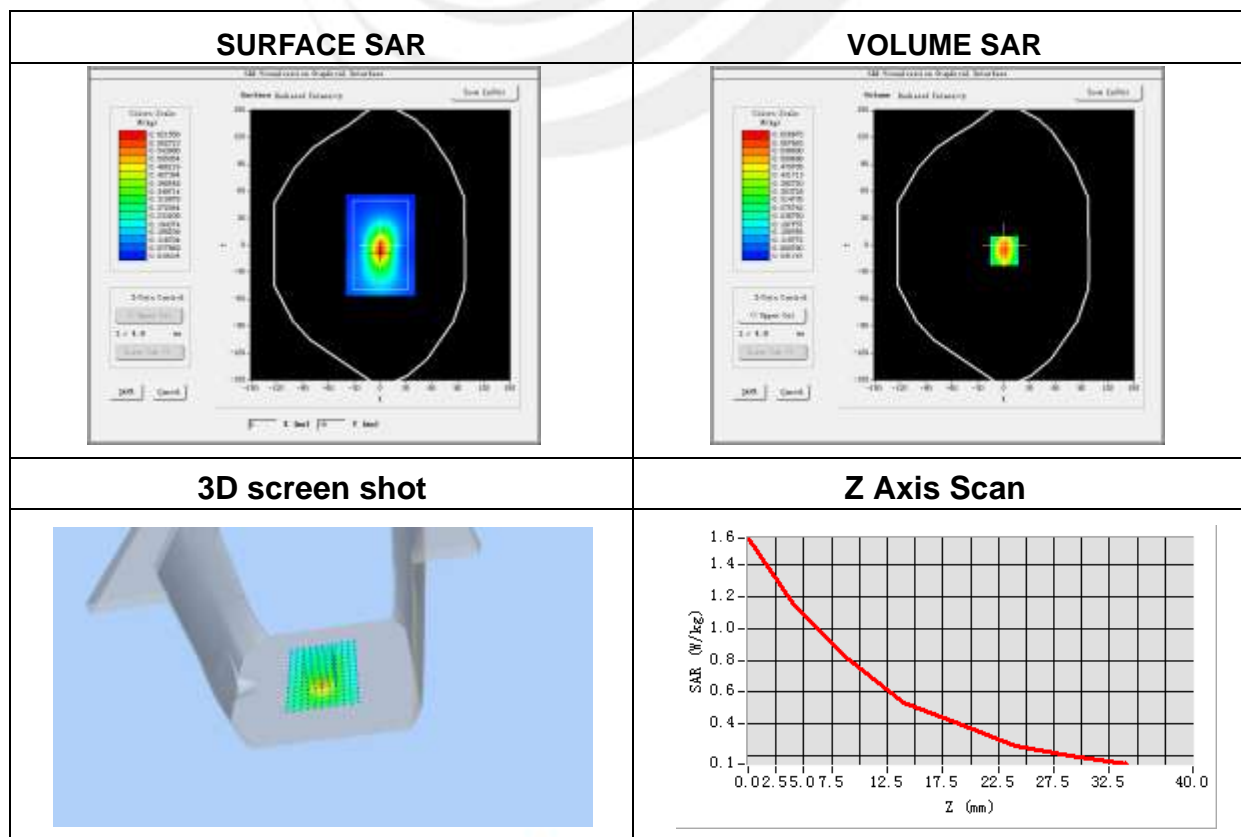
Plot 63: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 bottom side
Band	LTE Band 2(RB 1)
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1859.5
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	0.05

Maximum location: X=1.00, Y=-1.00

SAR Peak: 1.65 W/kg

SAR 10g (W/Kg)	0.556276
SAR 1g (W/Kg)	1.012683



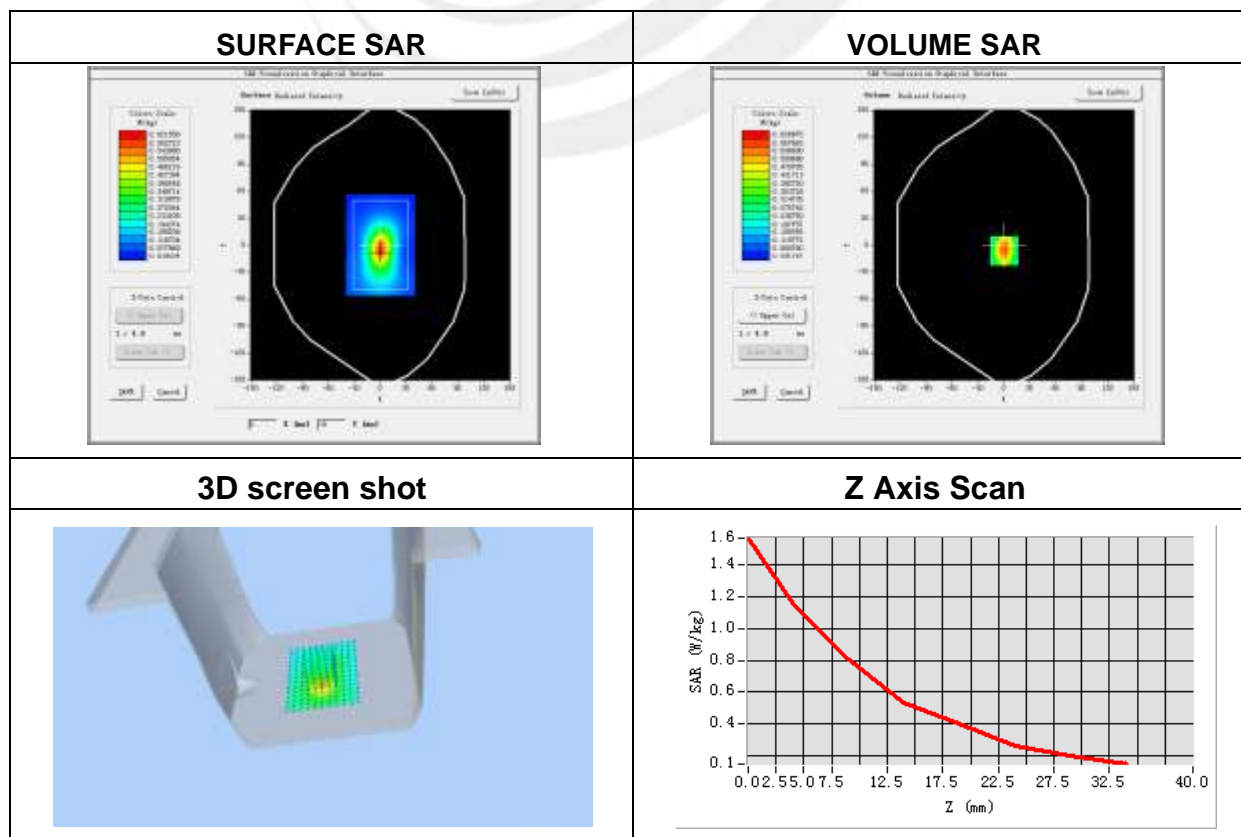
Plot 64: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 bottom side
Band	LTE Band 2(RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1880.0
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	-1.05

Maximum location: X=2.00, Y=0.00

SAR Peak: 1.64 W/kg

SAR 10g (W/Kg)	0.548177
SAR 1g (W/Kg)	1.002538



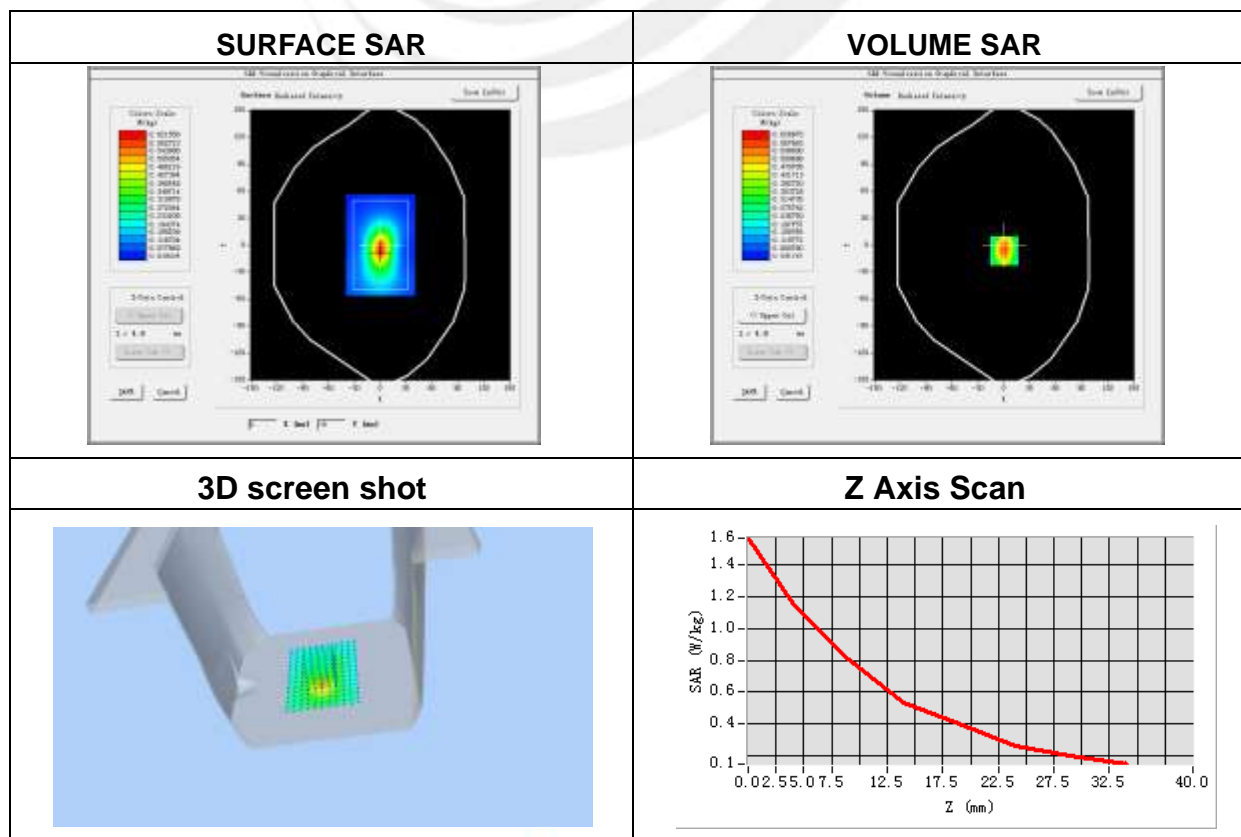
Plot 65: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 bottom side
Band	LTE Band 2(RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1899.5
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	-0.05

Maximum location: X=2.00, Y=0.00

SAR Peak: 1.70 W/kg

SAR 10g (W/Kg)	0.564049
SAR 1g (W/Kg)	1.031663



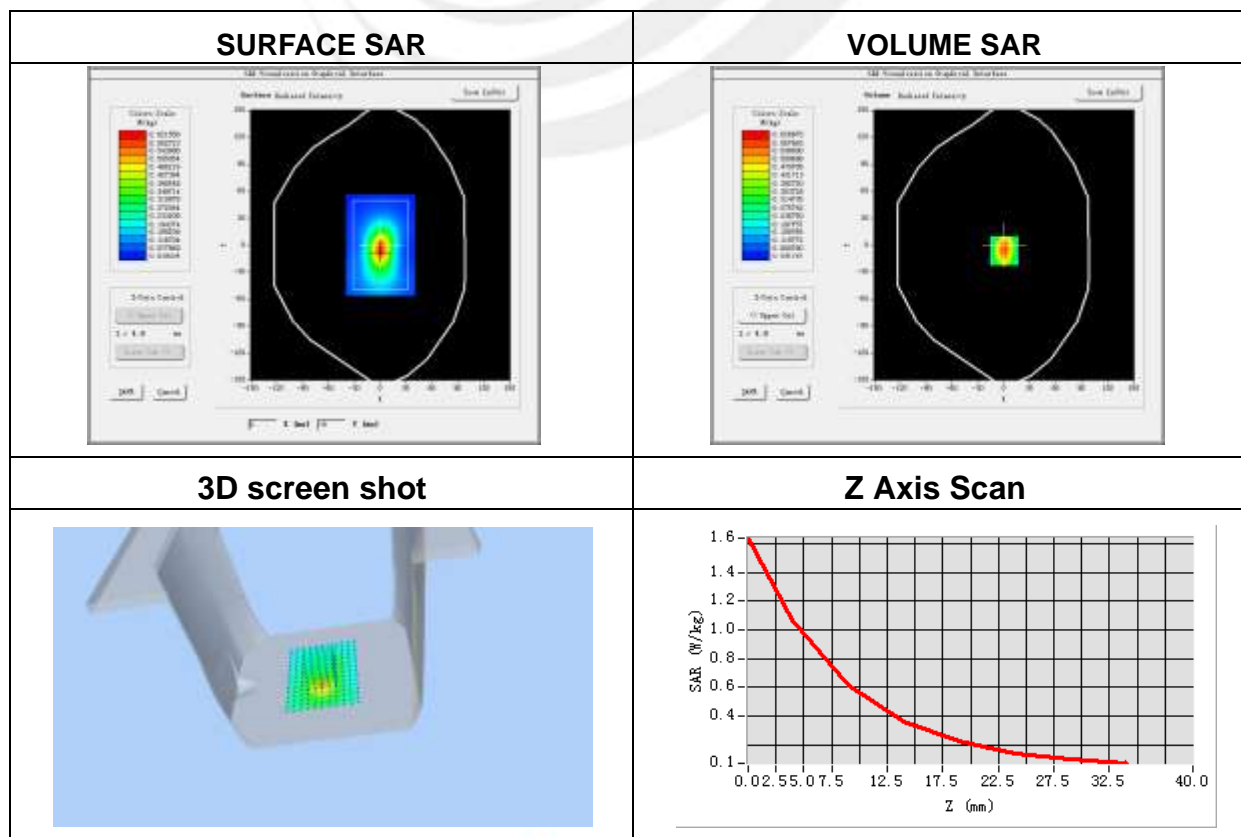
Plot 66: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
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 bottom side-repeated
Band	LTE Band 2(RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1899.5
Relative permittivity (real part)	40.0
Conductivity (S/m)	0.91
Variation (%)	-1.16

Maximum location: X=2.00, Y=3.00

SAR Peak: 1.67 W/kg

SAR 10g (W/Kg)	0.428319
SAR 1g (W/Kg)	0.984638



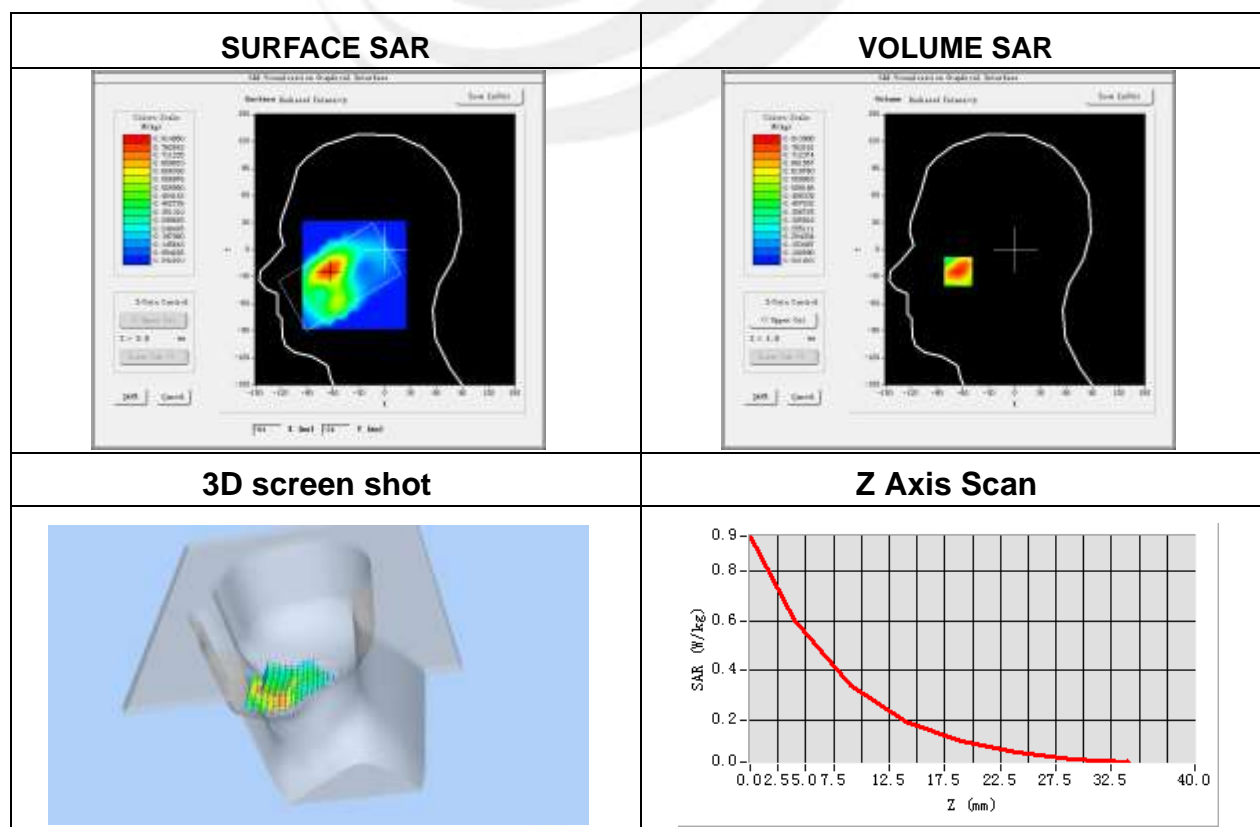
Plot 67: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.25
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	LTE Band 4 (RB 1)
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1720
Relative permittivity (real part)	40.2
Conductivity (S/m)	1.31
Variation (%)	-1.30

Maximum location: X=-66.00, Y=-24.00

SAR Peak: 0.90 W/kg

SAR 10g (W/Kg)	0.272430
SAR 1g (W/Kg)	0.574077



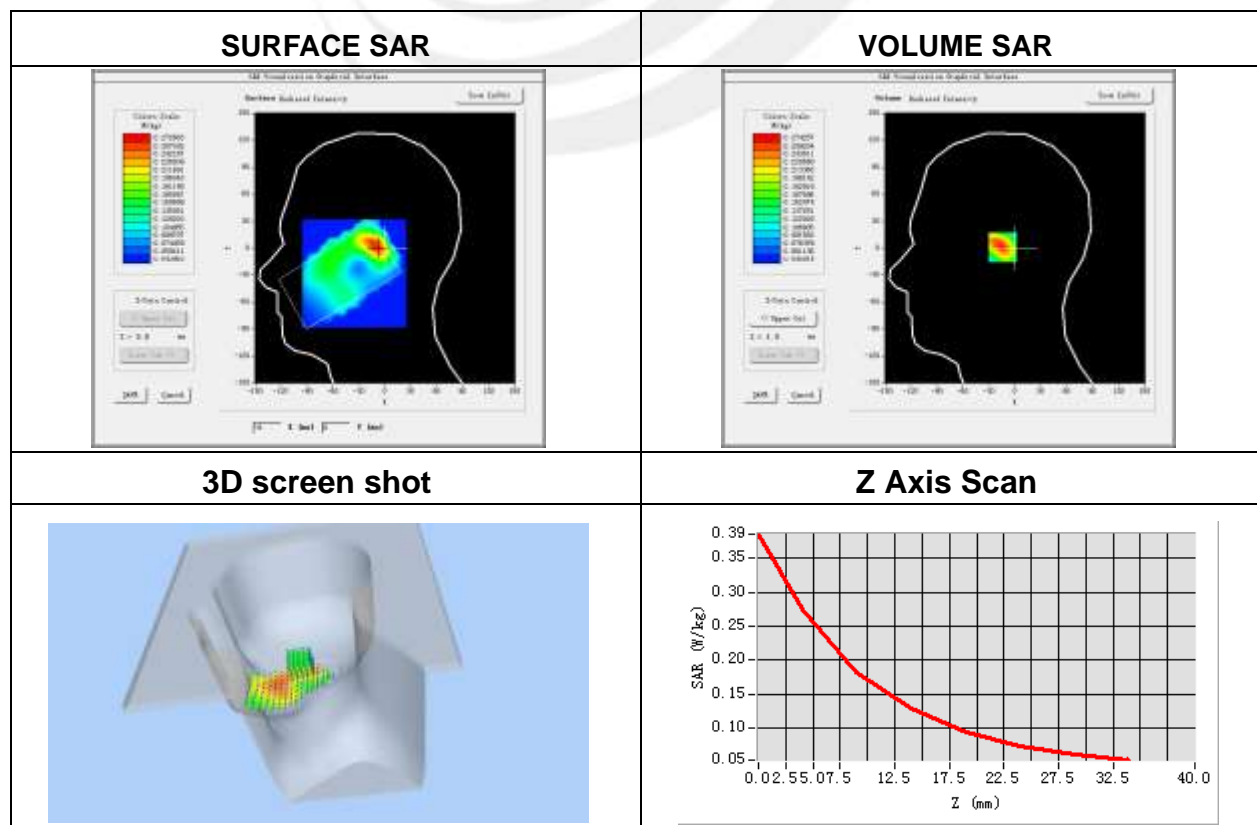
Plot 68: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.25
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	Tilt
Band	LTE Band 4 (RB 1)
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1720
Relative permittivity (real part)	40.2
Conductivity (S/m)	1.31
Variation (%)	-0.47

Maximum location: X=-9.00, Y=1.00

SAR Peak: 0.40 W/kg

SAR 10g (W/Kg)	0.165611
SAR 1g (W/Kg)	0.262874



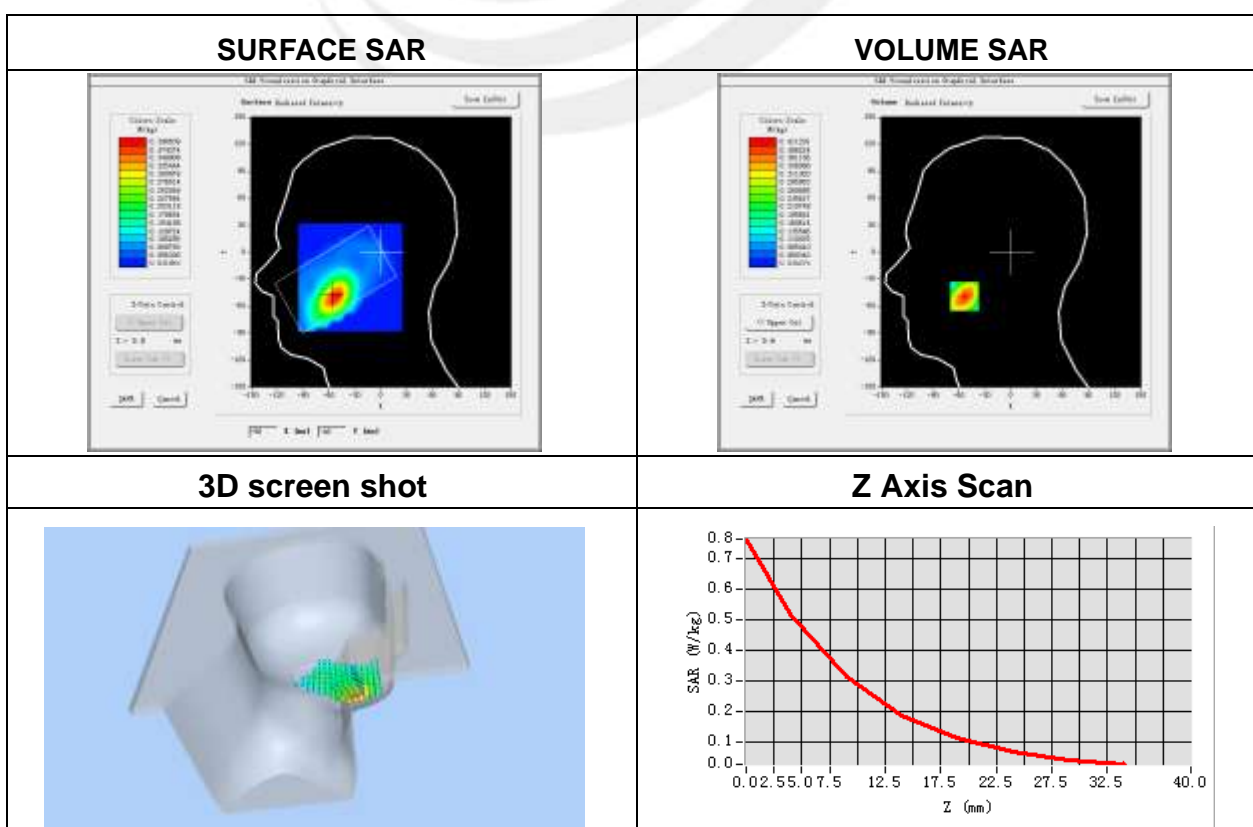
Plot 69: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.25
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	LTE Band 4 (RB 1)
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1720
Relative permittivity (real part)	40.2
Conductivity (S/m)	1.31
Variation (%)	0.95

Maximum location: X=-55.00, Y=-55.00

SAR Peak: 0.85 W/kg

SAR 10g (W/Kg)	0.366225
SAR 1g (W/Kg)	0.548969



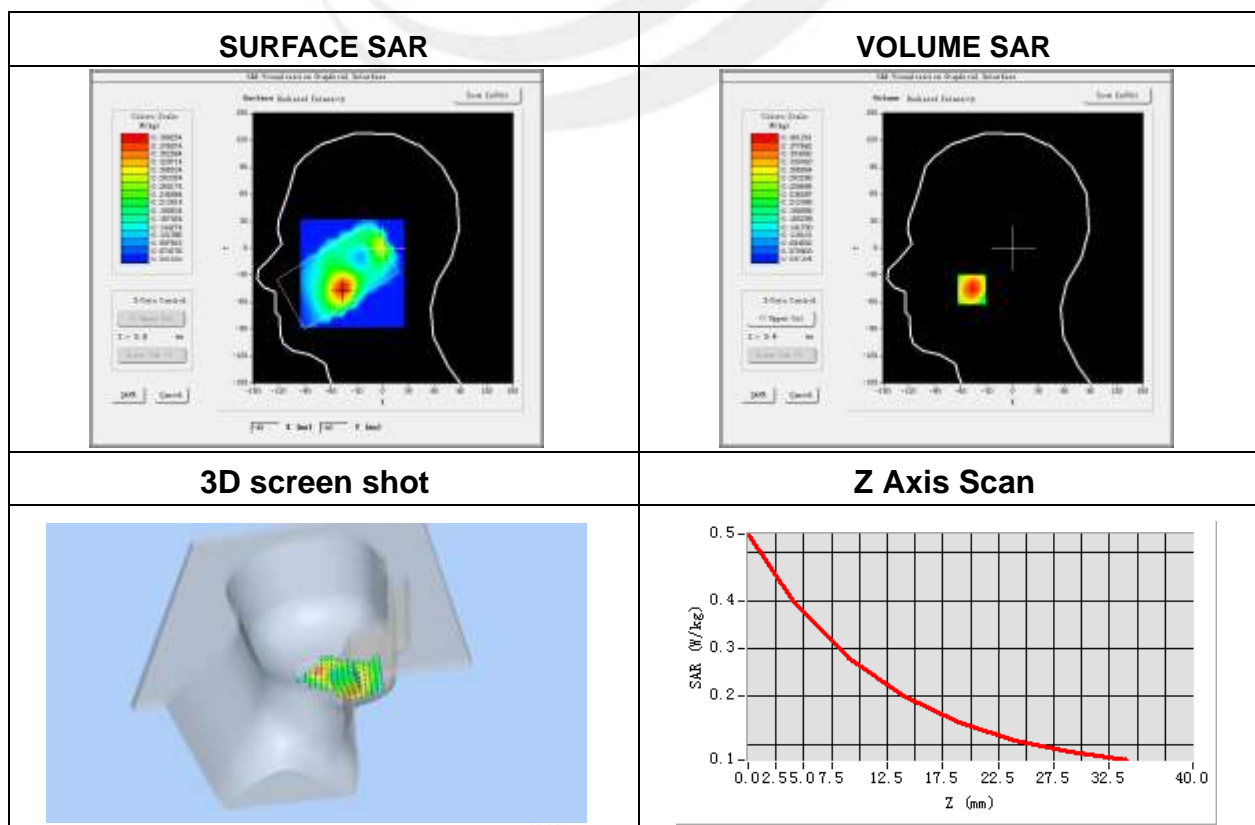
Plot 70: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.25
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	Tilt
Band	LTE Band 4 (RB 1)
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1720
Relative permittivity (real part)	40.2
Conductivity (S/m)	1.31
Variation (%)	-0.55

Maximum location: X=-48.00, Y=-46.00

SAR Peak: 0.54 W/kg

SAR 10g (W/Kg)	0.148727
SAR 1g (W/Kg)	0.233685



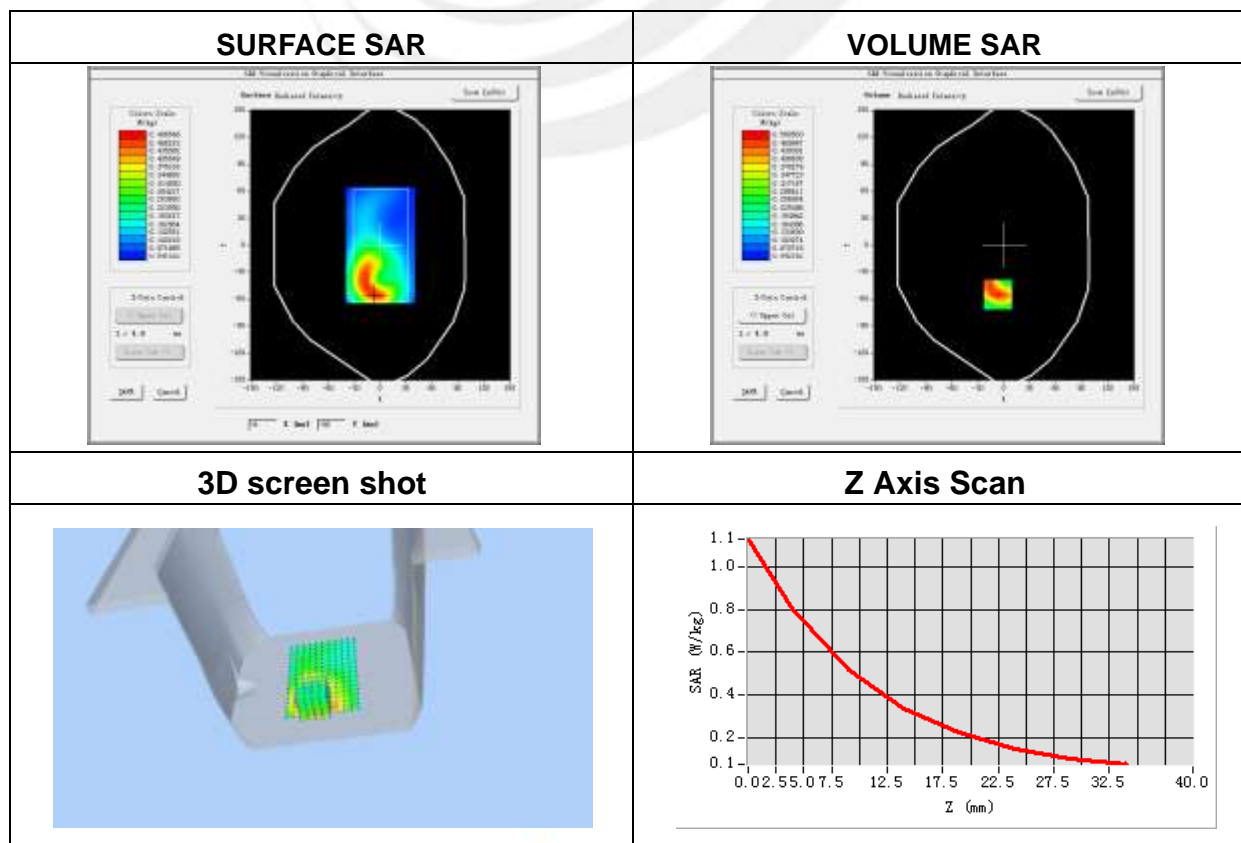
Plot 71: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.34
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 front
Band	LTE Band 4 (RB 1)
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1720
Relative permittivity (real part)	52.6
Conductivity (S/m)	1.38
Variation (%)	0.85

Maximum location: X=17.00, Y=-7.00

SAR Peak: 1.12 W/kg

SAR 10g (W/Kg)	0.548721
SAR 1g (W/Kg)	0.792246



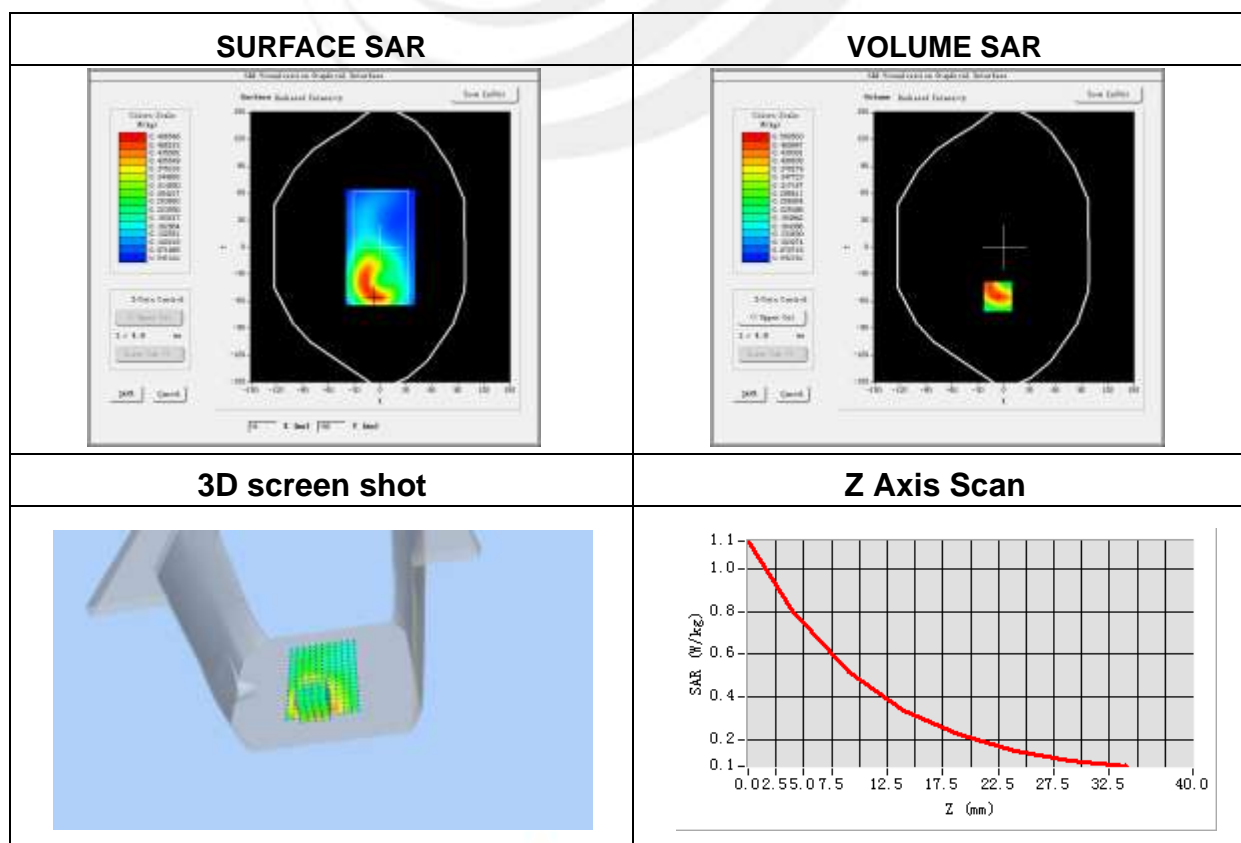
Plot 72: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.34
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 front-repeated
Band	LTE Band 4 (RB 1)
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1720
Relative permittivity (real part)	52.6
Conductivity (S/m)	1.38
Variation (%)	0.85

Maximum location: X=17.00, Y=-7.00

SAR Peak: 1.11 W/kg

SAR 10g (W/Kg)	0.513791
SAR 1g (W/Kg)	0.779827



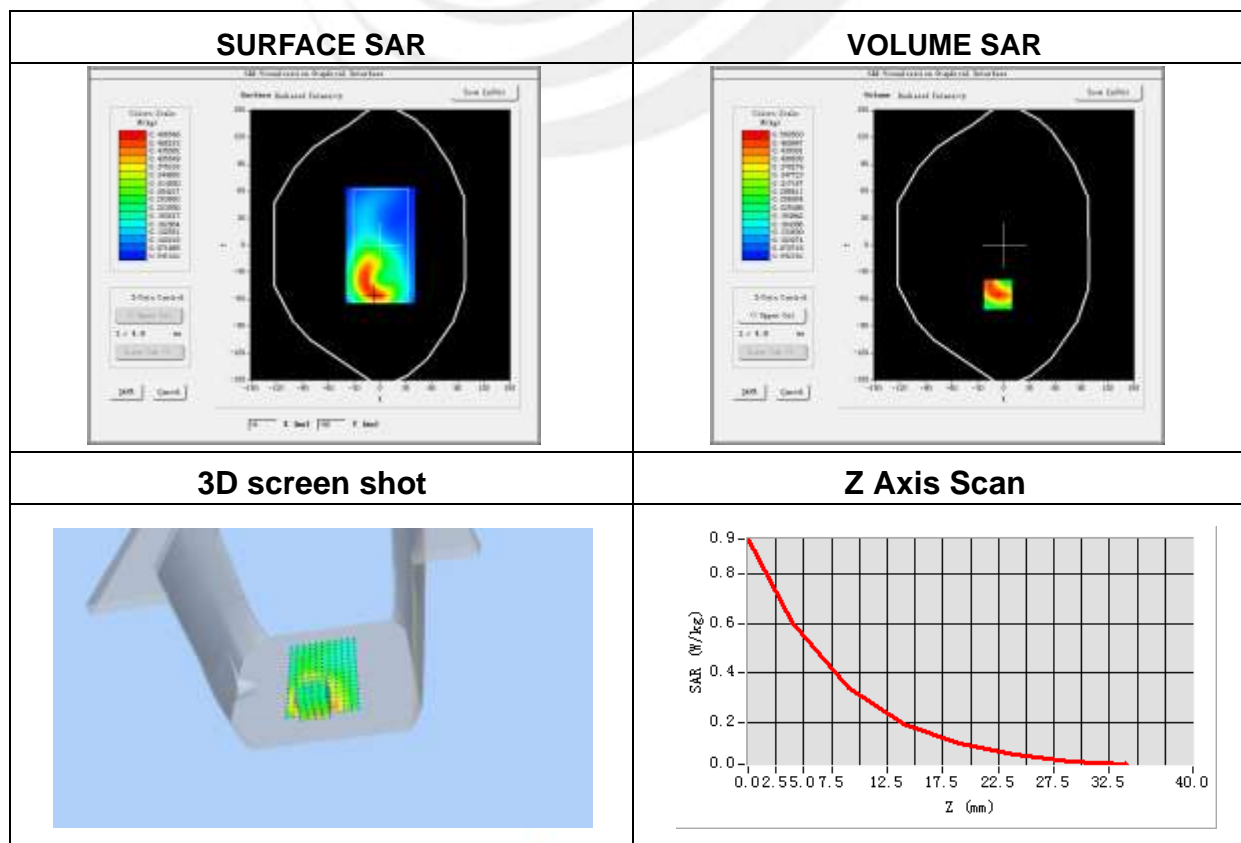
Plot 73: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.34
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 front
Band	LTE Band 4 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1732.5
Relative permittivity (real part)	52.6
Conductivity (S/m)	1.38
Variation (%)	-1.91

Maximum location: X=15.00, Y=-7.00

SAR Peak: 0.92 W/kg

SAR 10g (W/Kg)	0.496831
SAR 1g (W/Kg)	0.716321



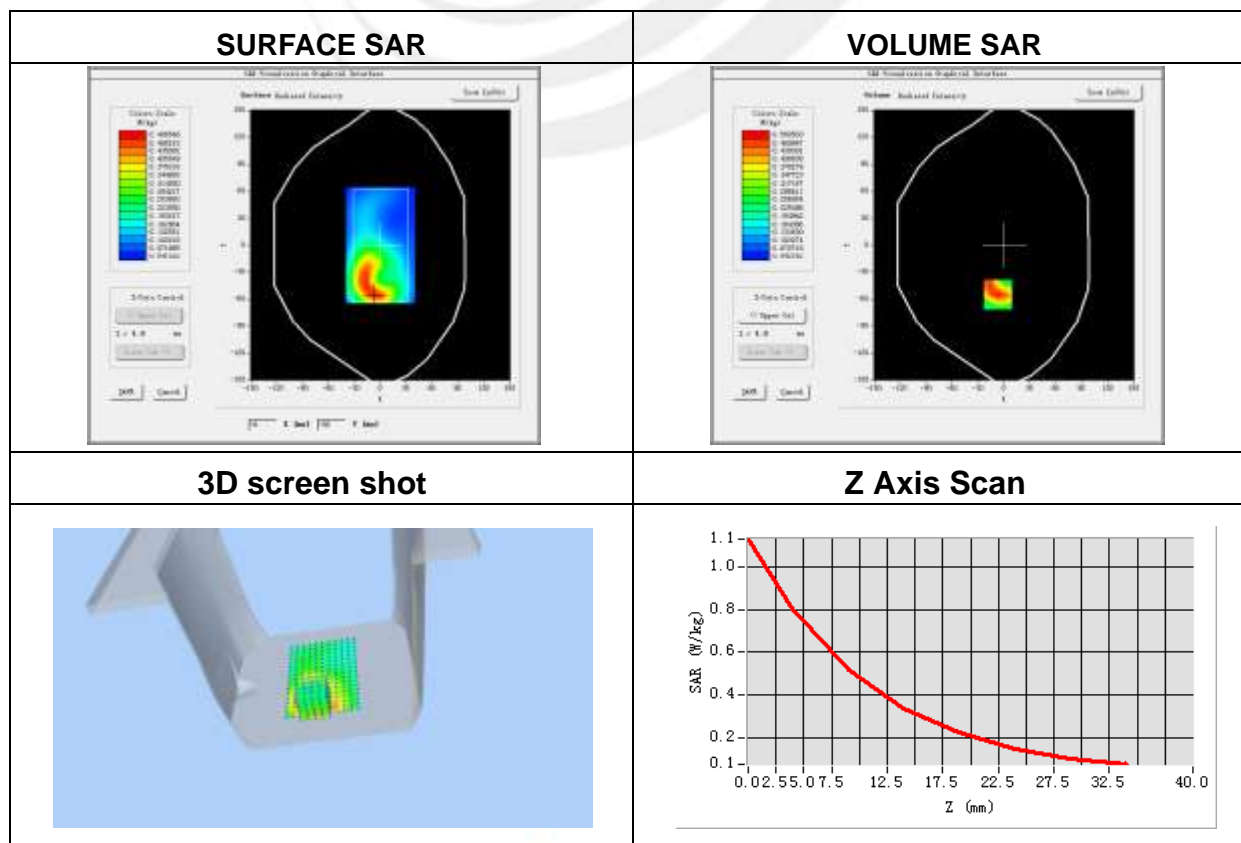
Plot 74: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.34
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 front
Band	LTE Band 4 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1745.0
Relative permittivity (real part)	52.6
Conductivity (S/m)	1.38
Variation (%)	-0.88

Maximum location: X=15.00, Y=-2.00

SAR Peak: 1.12 W/kg

SAR 10g (W/Kg)	0.548721
SAR 1g (W/Kg)	0.792246



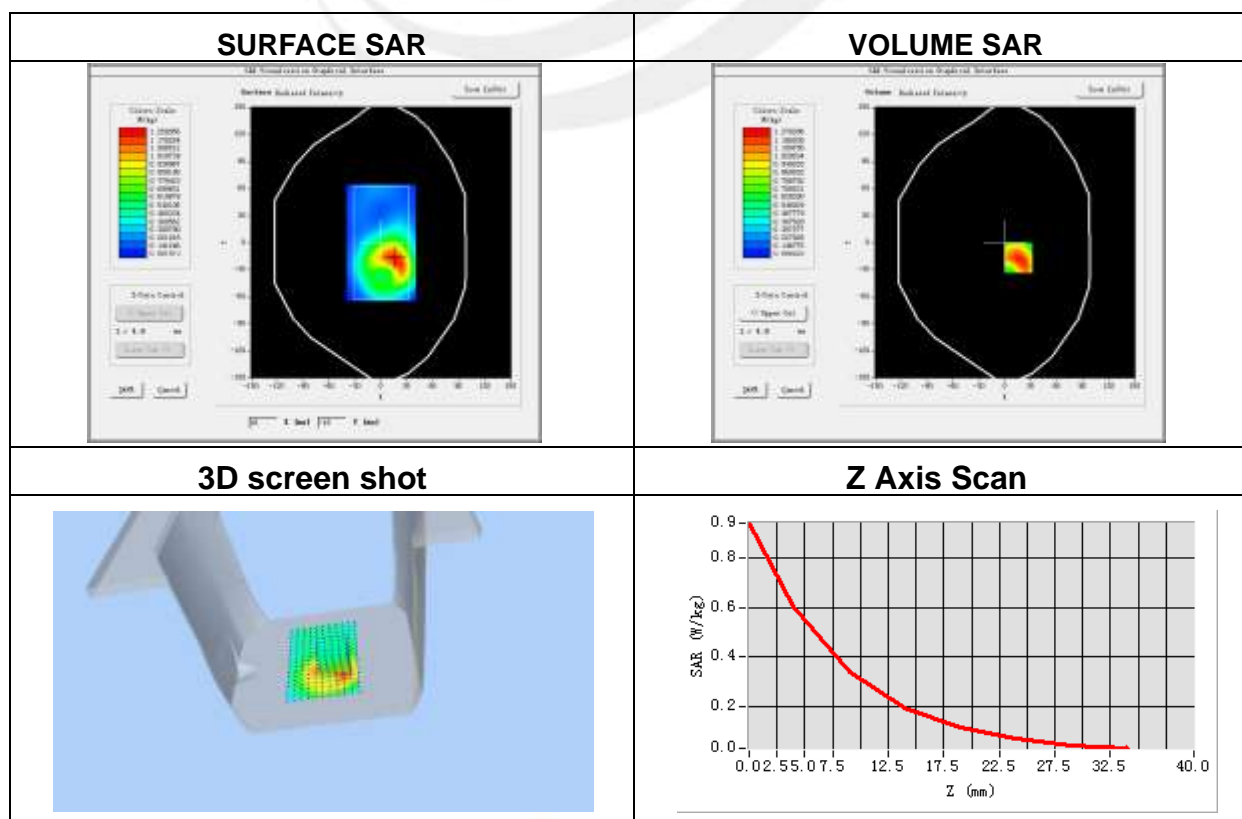

Plot 75: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.34
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	LTE Band 4 (RB 1)
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1720
Relative permittivity (real part)	52.6
Conductivity (S/m)	1.38
Variation (%)	-0.70

Maximum location: X=25.00, Y=3.00

SAR Peak: 0.98 W/kg

SAR 10g (W/Kg)	0.463364
SAR 1g (W/Kg)	0.699929



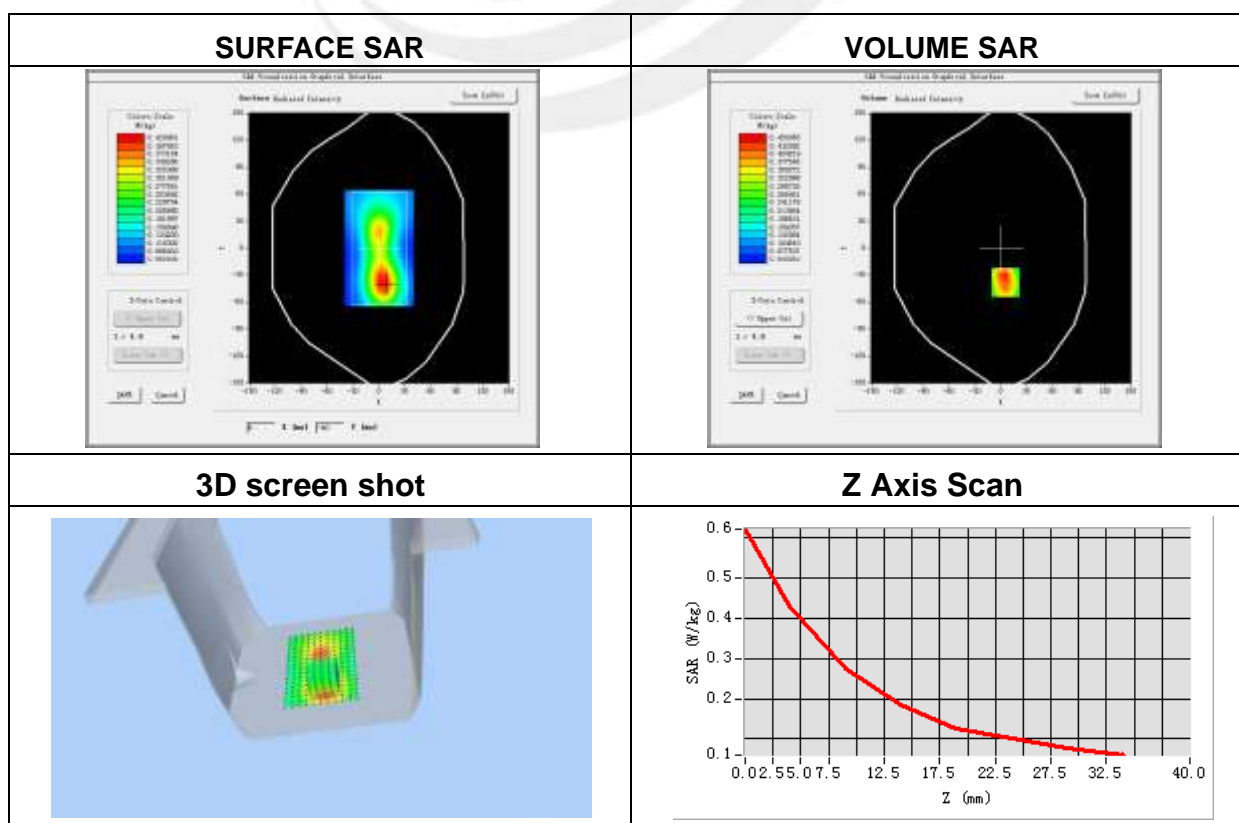
Plot 76: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.34
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 left side
Band	LTE Band 4 (RB 1)
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1720
Relative permittivity (real part)	52.6
Conductivity (S/m)	1.38
Variation (%)	0.44

Maximum location: X=5.00, Y=-38.00

SAR Peak: 0.74 W/kg

SAR 10g (W/Kg)	0.260020
SAR 1g (W/Kg)	0.439145



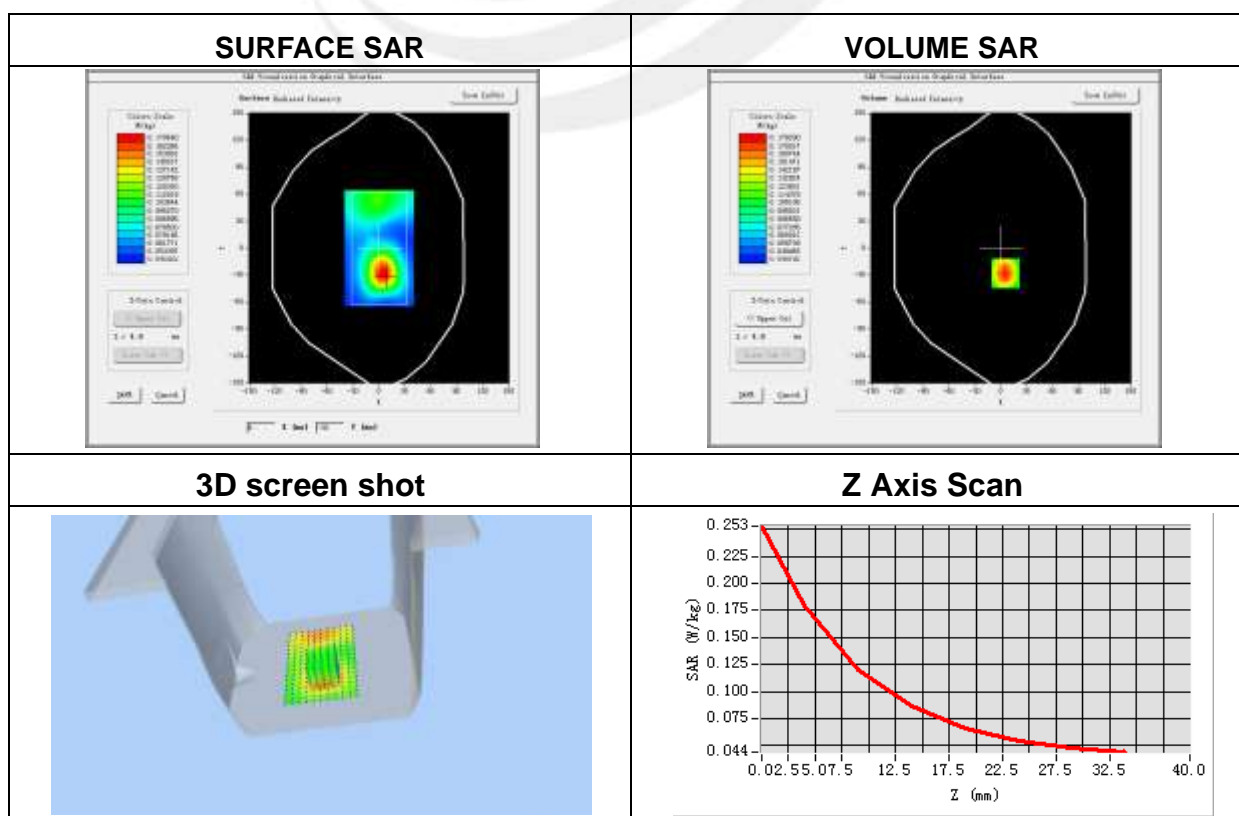
Plot 77: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.34
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 right side
Band	LTE Band 4 (RB 1)
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1720
Relative permittivity (real part)	52.6
Conductivity (S/m)	1.38
Variation (%)	-0.63

Maximum location: X=5.00, Y=-28.00

SAR Peak: 0.25 W/kg

SAR 10g (W/Kg)	0.113100
SAR 1g (W/Kg)	0.172991



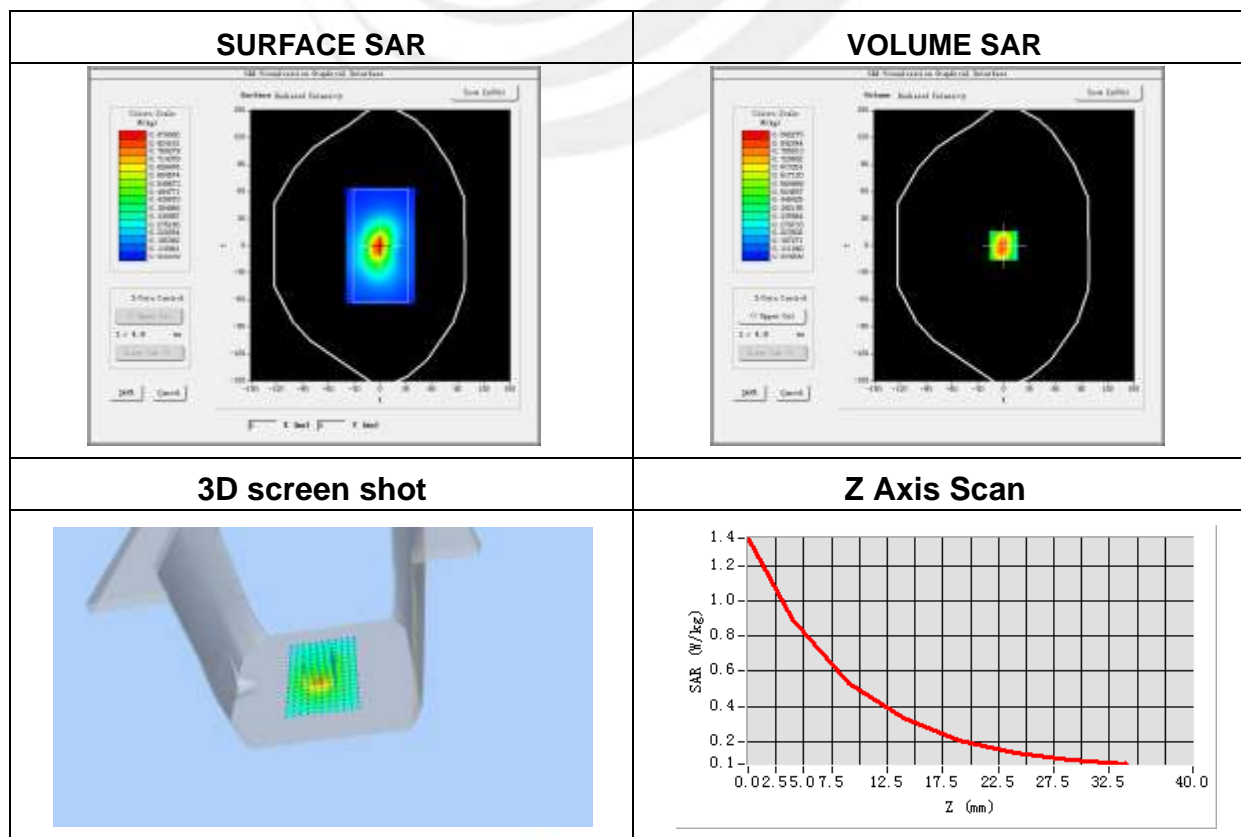
Plot 78: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.34
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 bottom side
Band	LTE Band 4 (RB 1)
Channels	Low
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	1720
Relative permittivity (real part)	52.6
Conductivity (S/m)	1.38
Variation (%)	-0.55

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

SAR Peak: 1.42 W/kg

SAR 10g (W/Kg)	0.525982
SAR 1g (W/Kg)	0.791192



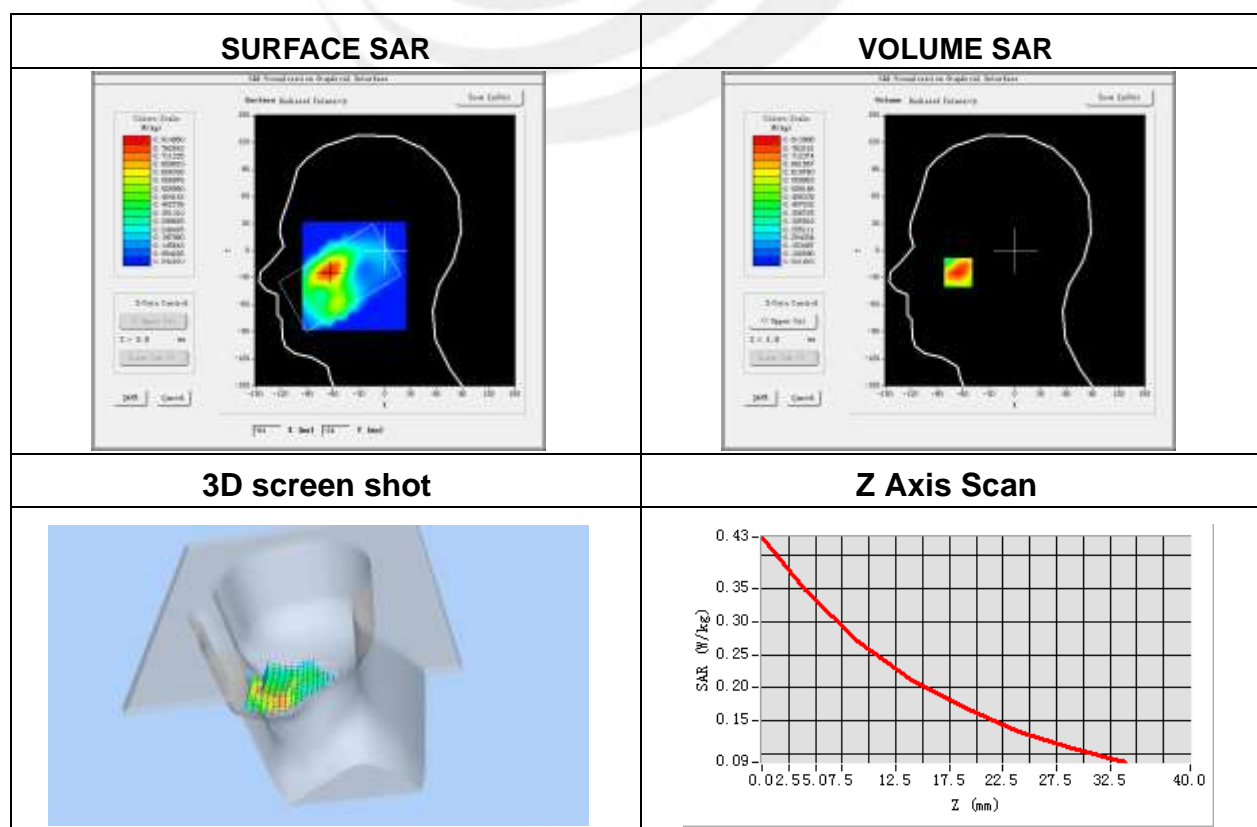
Plot 79: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.20
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	LTE Band 7 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2535
Relative permittivity (real part)	38.5
Conductivity (S/m)	1.92
Variation (%)	1.29

Maximum location: X=-50.00, Y=-10.00

SAR Peak: 0.43 W/kg

SAR 10g (W/Kg)	0.236359
SAR 1g (W/Kg)	0.313881



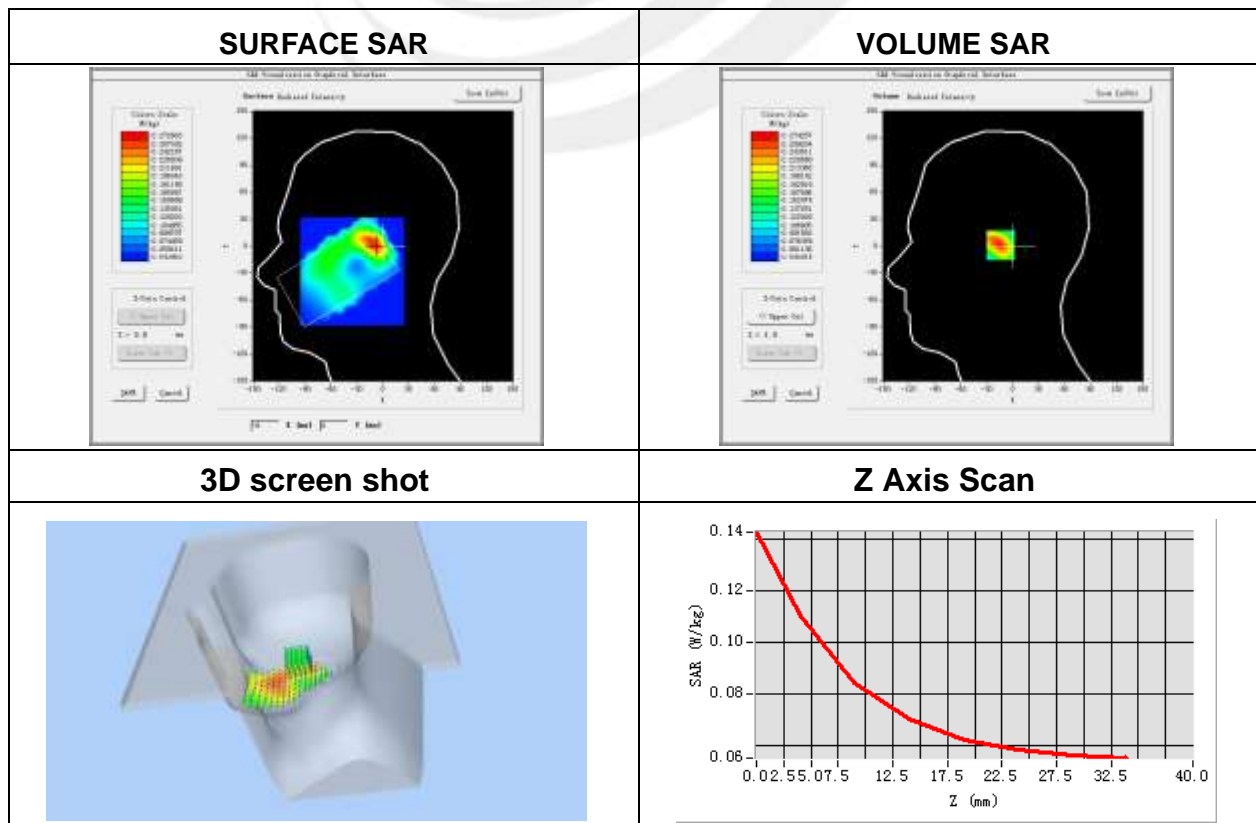
Plot 80: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.20
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	Tilt
Band	LTE Band 7 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2535
Relative permittivity (real part)	38.5
Conductivity (S/m)	1.92
Variation (%)	-0.89

Maximum location: X=-16.00, Y=8.00

SAR Peak: 0.14 W/kg

SAR 10g (W/Kg)	0.079764
SAR 1g (W/Kg)	0.106168



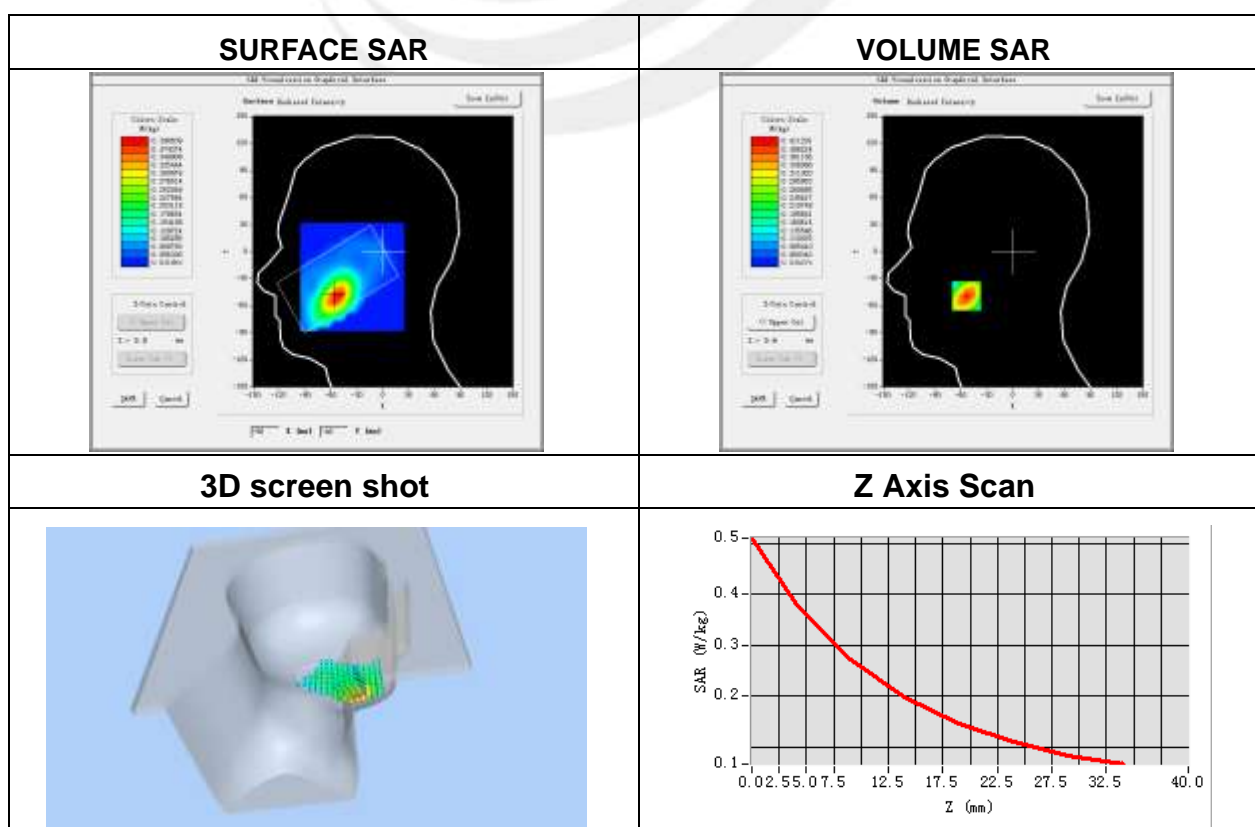
Plot 81: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.20
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	LTE Band 7 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2535
Relative permittivity (real part)	38.5
Conductivity (S/m)	1.92
Variation (%)	1.06

Maximum location: X=-49.00, Y=-47.00

SAR Peak: 0.53 W/kg

SAR 10g (W/Kg)	0.191834
SAR 1g (W/Kg)	0.331812



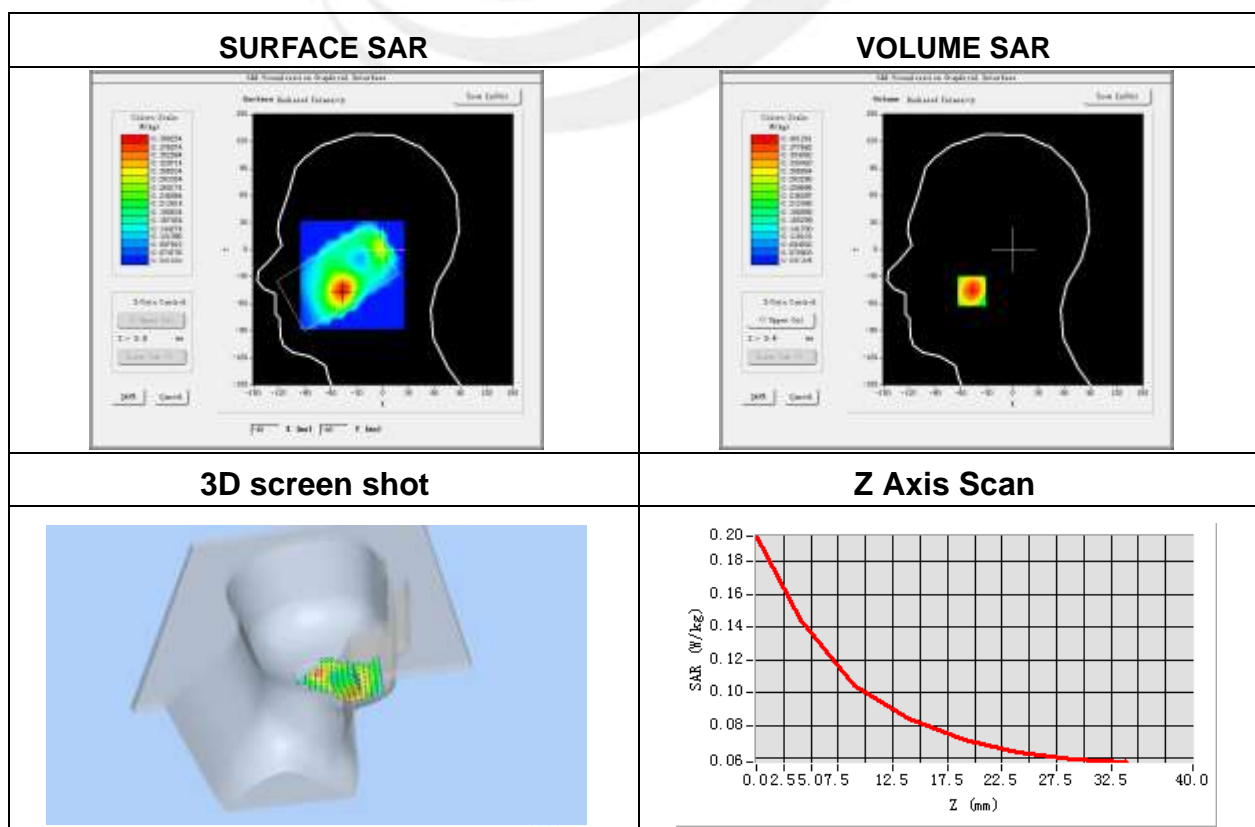
Plot 82: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.20
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	Tilt
Band	LTE Band 7 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2535
Relative permittivity (real part)	38.5
Conductivity (S/m)	1.92
Variation (%)	-4.03

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

SAR Peak: 0.19 W/kg

SAR 10g (W/Kg)	0.098184
SAR 1g (W/Kg)	0.139227



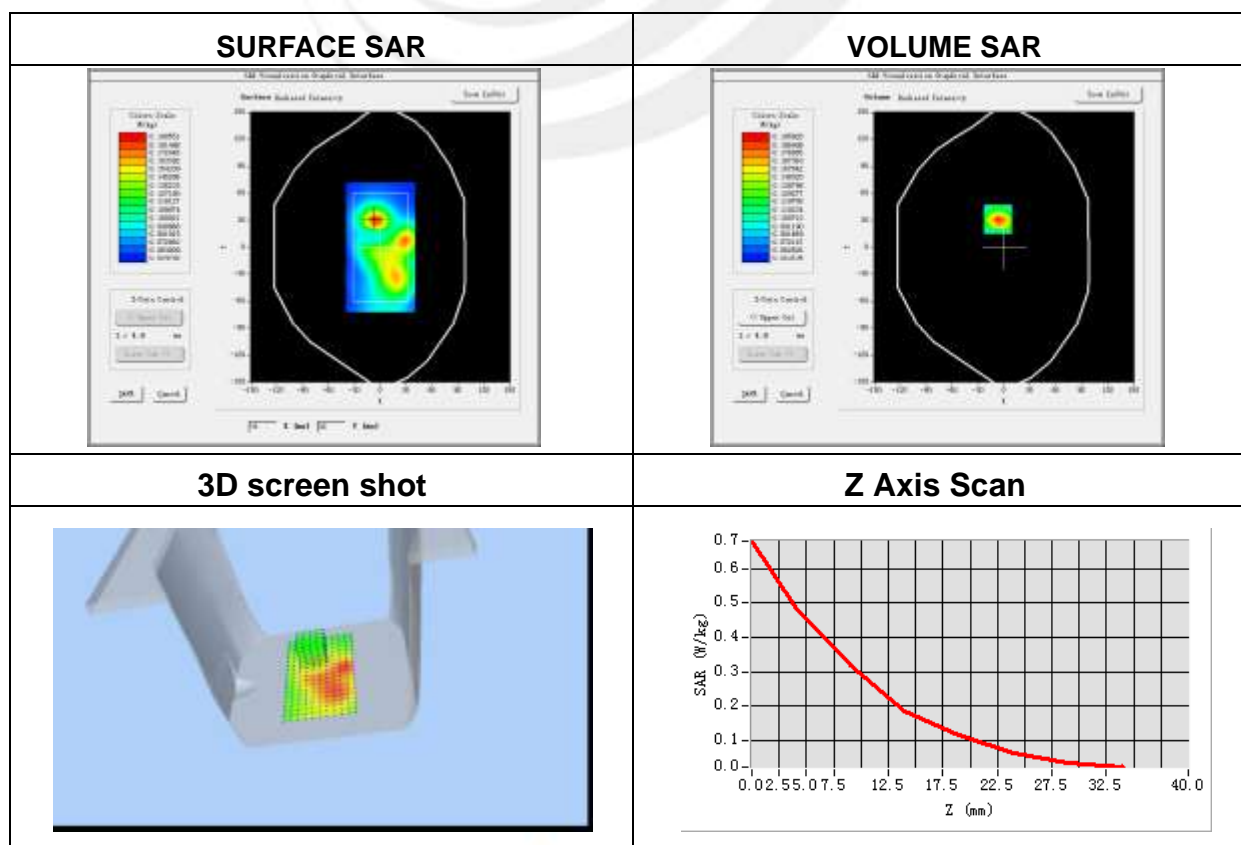
Plot 83: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.32
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 front
Band	LTE Band 7 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2535
Relative permittivity (real part)	52.3
Conductivity (S/m)	2.12
Variation (%)	-1.54

Maximum location: X=-7.00, Y=31.00

SAR Peak: 0.79 W/kg

SAR 10g (W/Kg)	0.413540
SAR 1g (W/Kg)	0.586351



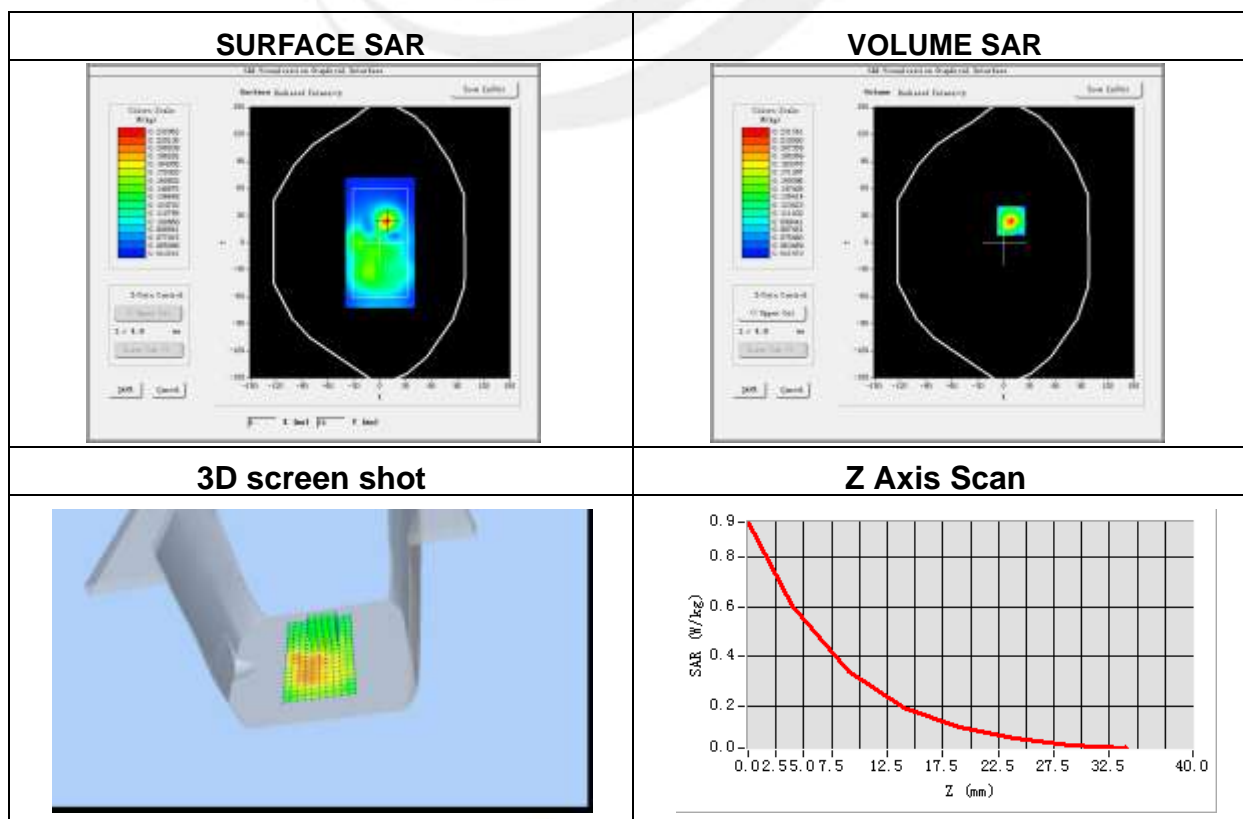
Plot 84: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.32
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	LTE Band 7 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2535
Relative permittivity (real part)	52.3
Conductivity (S/m)	2.12
Variation (%)	-2.17

Maximum location: X=8.00, Y=24.00

SAR Peak: 0.90 W/kg

SAR 10g (W/Kg)	0.420133
SAR 1g (W/Kg)	0.613856



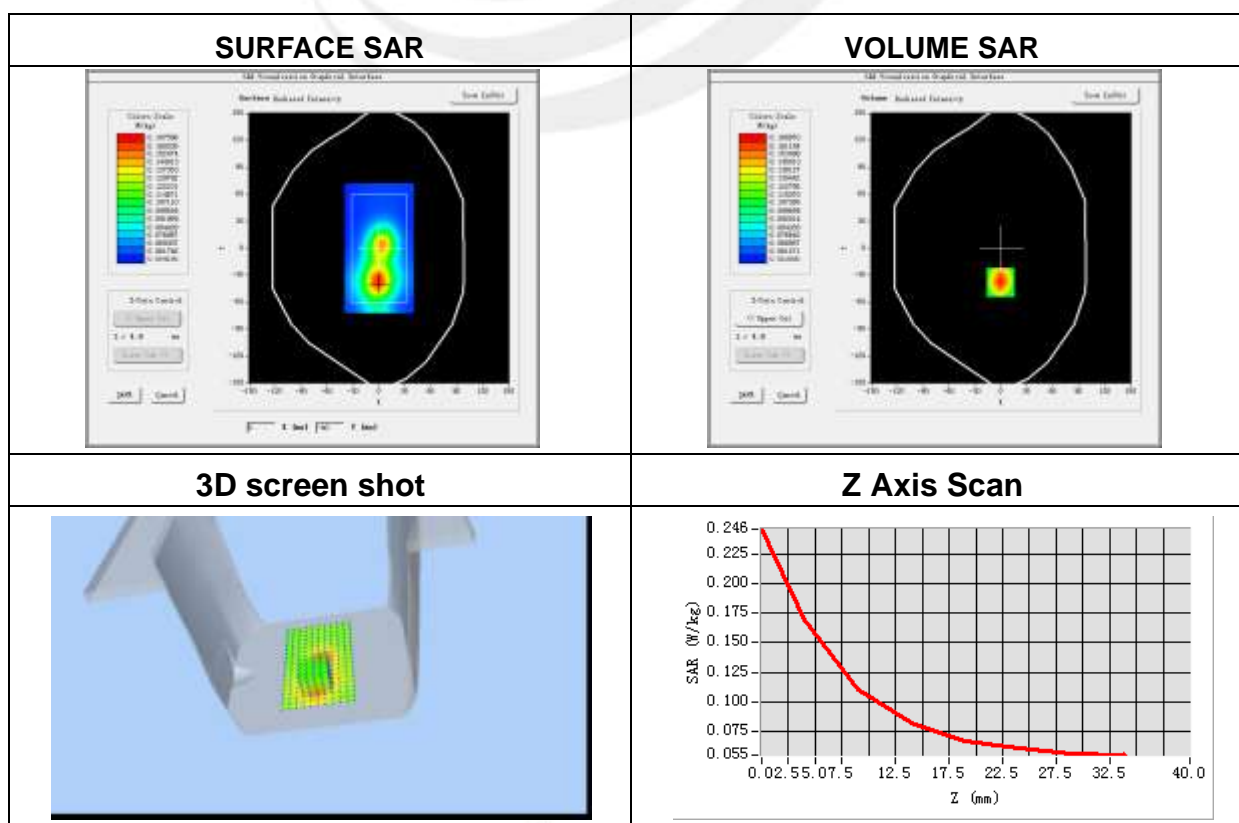
Plot 85: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.32
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 left side
Band	LTE Band 7 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2535
Relative permittivity (real part)	52.3
Conductivity (S/m)	2.12
Variation (%)	0.43

Maximum location: X=-1.00, Y=-38.00

SAR Peak: 0.24 W/kg

SAR 10g (W/Kg)	0.108231
SAR 1g (W/Kg)	0.163152



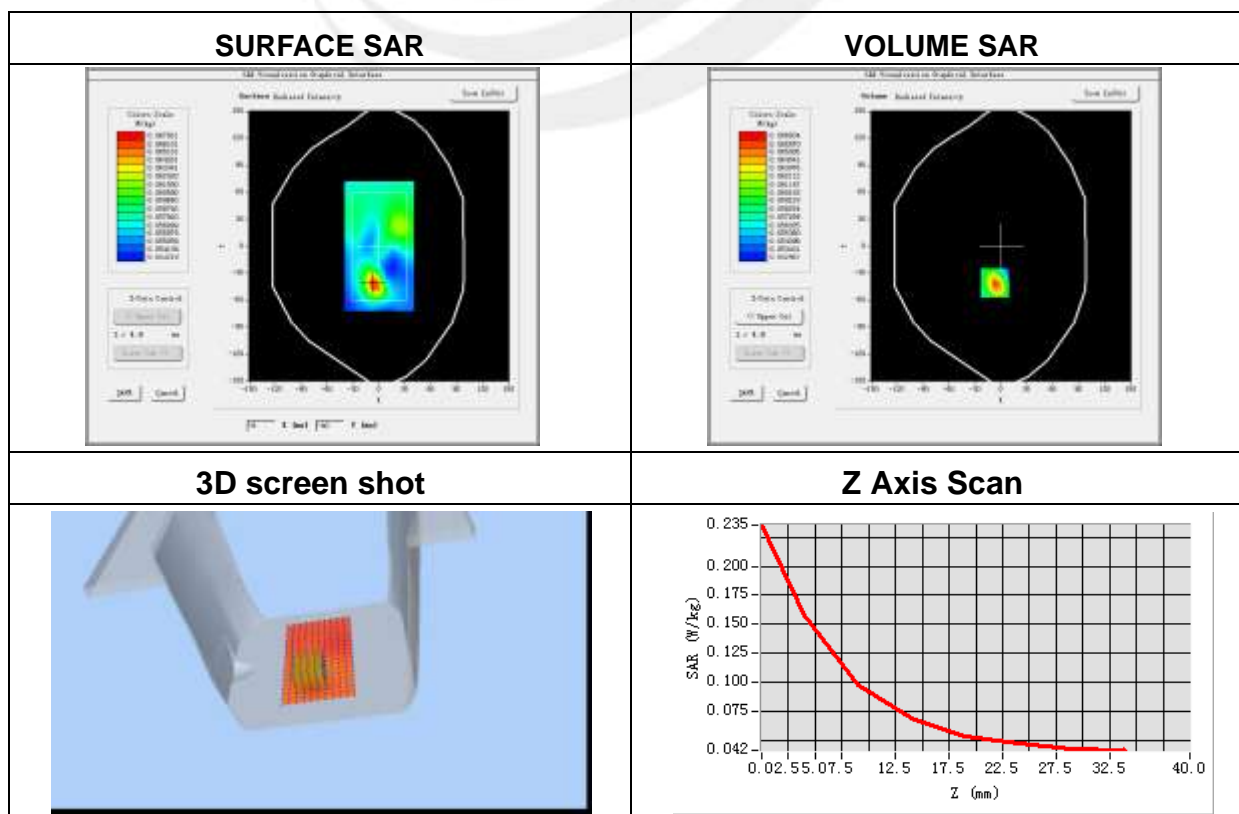

Plot 86: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.32
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 right side
Band	LTE Band 7 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2535
Relative permittivity (real part)	52.3
Conductivity (S/m)	2.12
Variation (%)	1.06

Maximum location: X=-7.00, Y=-41.00

SAR Peak: 0.24 W/kg

SAR 10g (W/Kg)	0.085581
SAR 1g (W/Kg)	0.166077



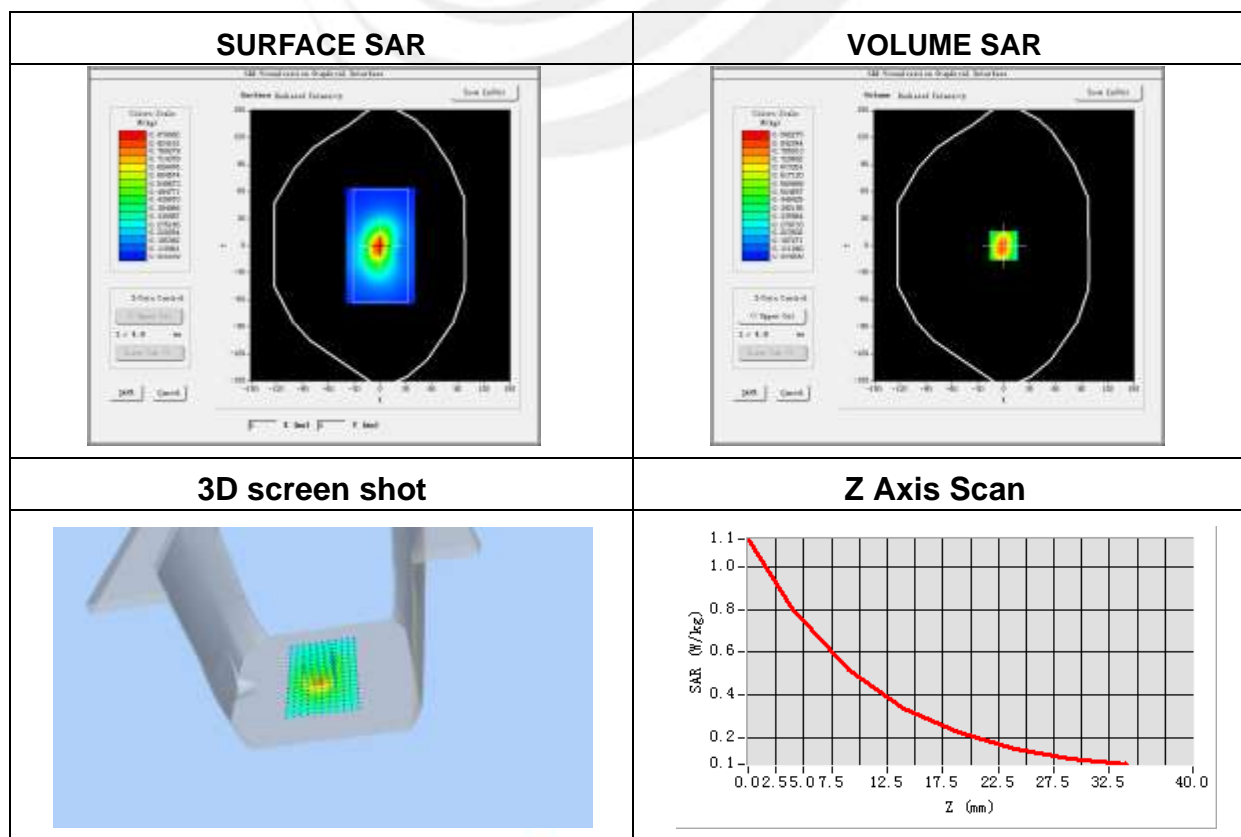
Plot 87: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.32
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 bottom side
Band	LTE Band 7 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	2535
Relative permittivity (real part)	52.3
Conductivity (S/m)	2.12
Variation (%)	-0.19

Maximum location: X=5.00, Y=8.00

SAR Peak: 1.15 W/kg

SAR 10g (W/Kg)	0.556632
SAR 1g (W/Kg)	0.729903



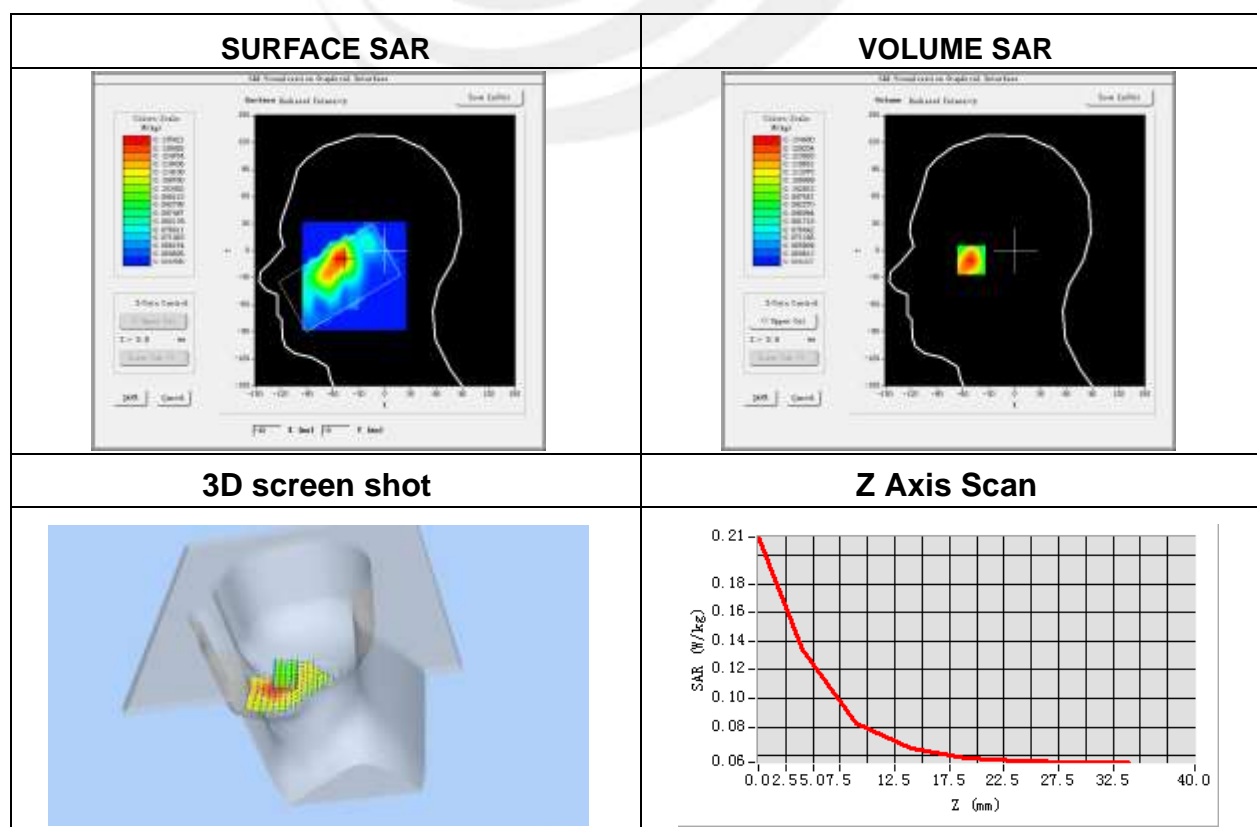
Plot 88: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.53
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	LTE Band 17 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711
Relative permittivity (real part)	41.2
Conductivity (S/m)	0.91
Variation (%)	0.44

Maximum location: X=-51.00, Y=-8.00

SAR Peak: 0.21 W/kg

SAR 10g (W/Kg)	0.089199
SAR 1g (W/Kg)	0.133151



Plot 89: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.53
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	Tilt
Band	LTE Band 17 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711
Relative permittivity (real part)	41.2
Conductivity (S/m)	0.91
Variation (%)	0.63

Maximum location: X=-41.00, Y=-24.00

SAR Peak: 0.10 W/kg

SAR 10g (W/Kg)	0.071288
SAR 1g (W/Kg)	0.085086



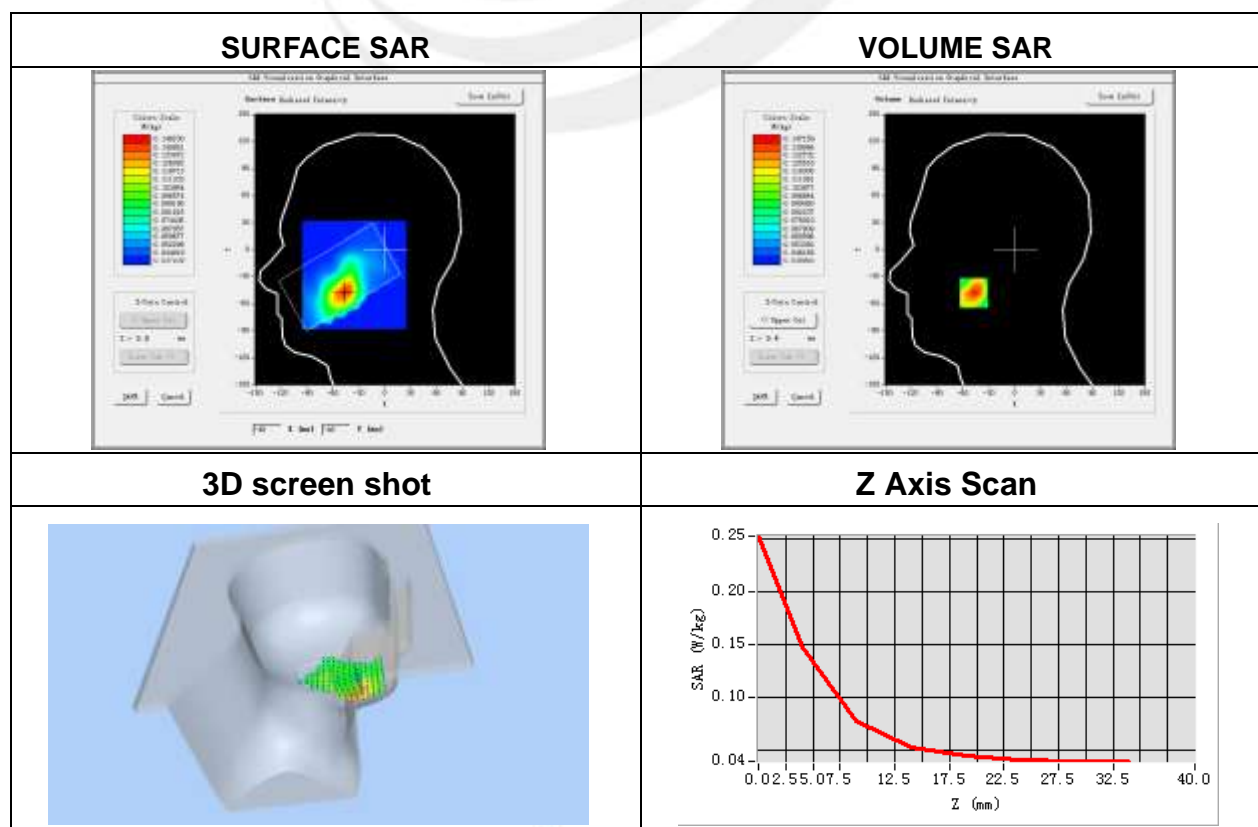
Plot 90: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.53
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	LTE Band 17 (RB 1)
Channels	Middle
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	710
Relative permittivity (real part)	41.2
Conductivity (S/m)	0.91
Variation (%)	2.13

Maximum location: X=-48.00, Y=-48.00

SAR Peak: 0.25 W/kg

SAR 10g (W/Kg)	0.084365
SAR 1g (W/Kg)	0.145489



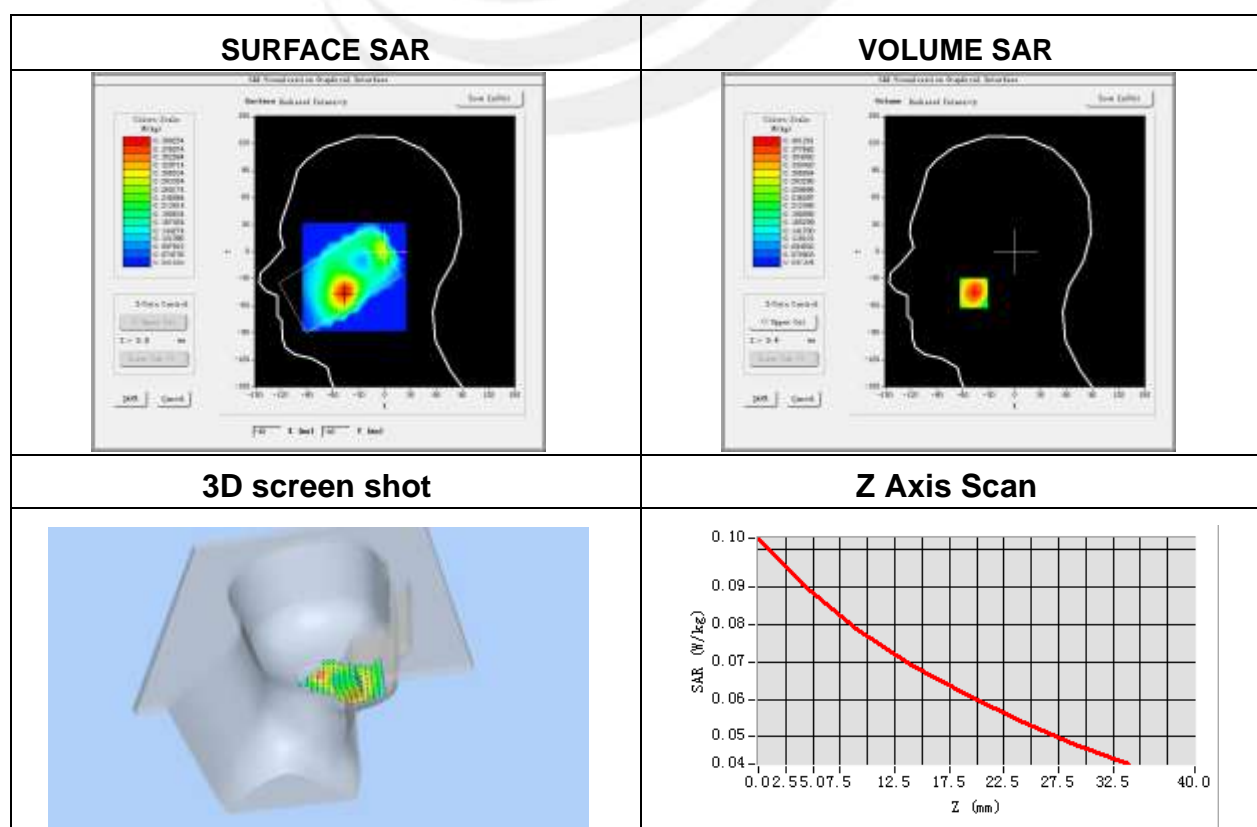
Plot 91: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.53
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	Tilt
Band	LTE Band 17 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711
Relative permittivity (real part)	41.2
Conductivity (S/m)	0.91
Variation (%)	0.37

Maximum location: X=-40.00, Y=-24.00

SAR Peak: 0.10 W/kg

SAR 10g (W/Kg)	0.075055
SAR 1g (W/Kg)	0.090565



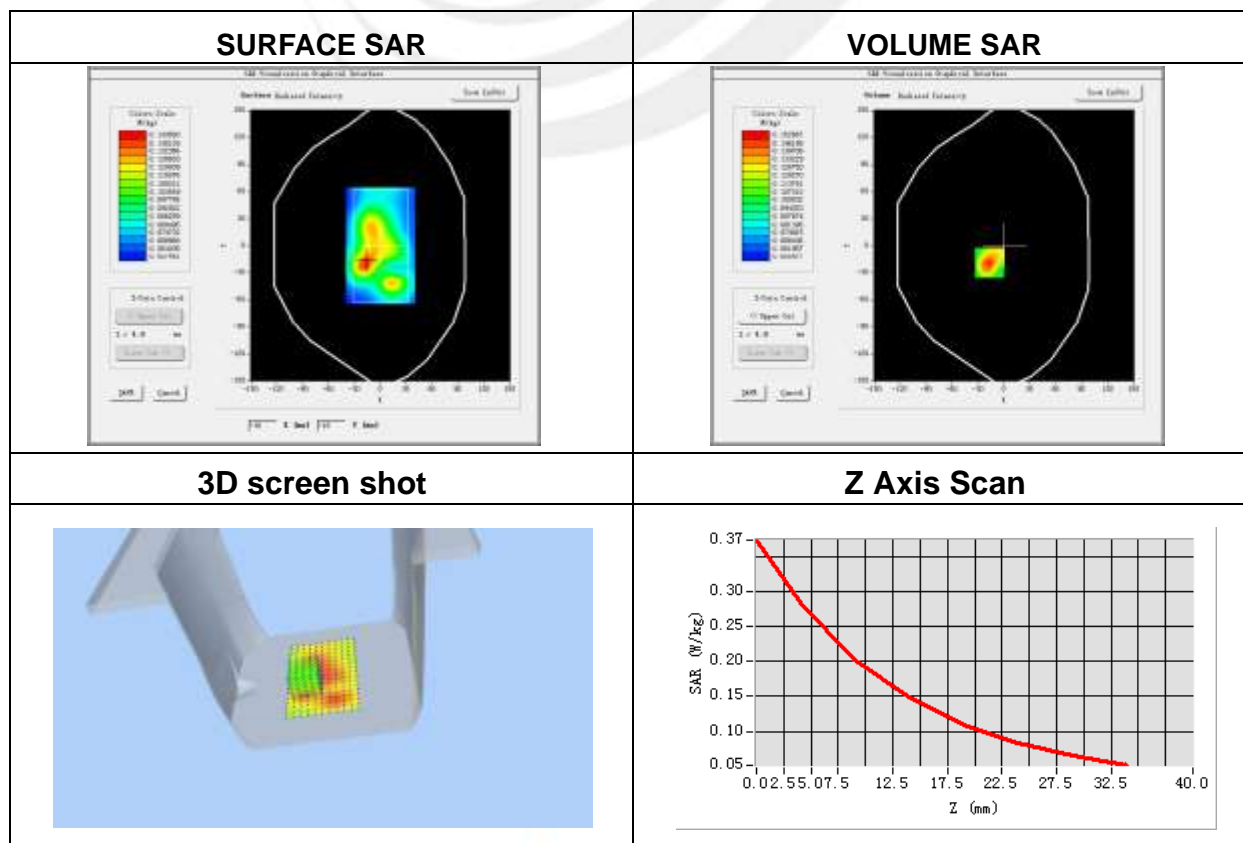
Plot 92: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.70
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 front
Band	LTE Band 17 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711
Relative permittivity (real part)	55.26
Conductivity (S/m)	0.91
Variation (%)	-1.87

Maximum location: X=-16.00, Y=-48.00

SAR Peak: 0.37 W/kg

SAR 10g (W/Kg)	0.229048
SAR 1g (W/Kg)	0.303943



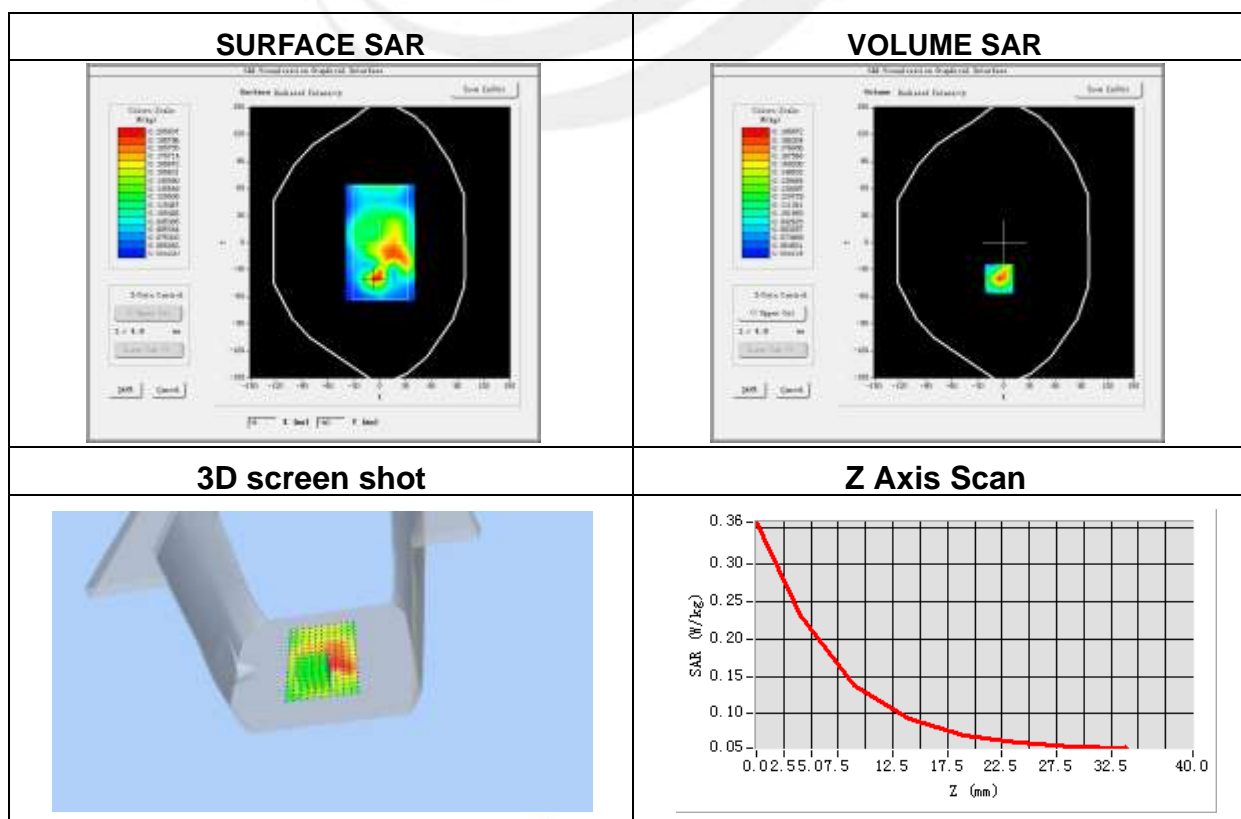
Plot 93: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.70
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	LTE Band 17 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711
Relative permittivity (real part)	55.26
Conductivity (S/m)	0.91
Variation (%)	-0.28

Maximum location: X=0.00, Y=-64.00

SAR Peak: 0.38 W/kg

SAR 10g (W/Kg)	0.249234
SAR 1g (W/Kg)	0.319150



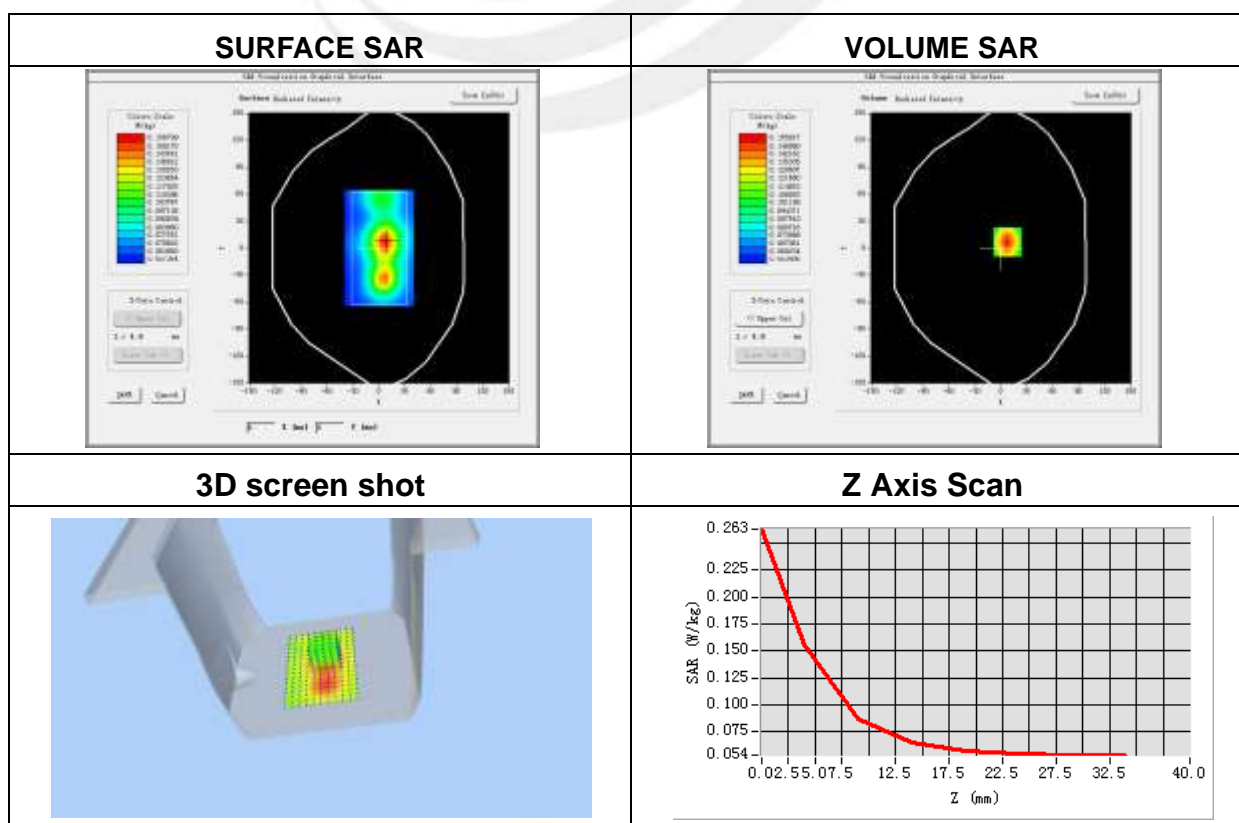

Plot 94: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.70
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 left side
Band	LTE Band 17 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711
Relative permittivity (real part)	55.26
Conductivity (S/m)	0.91
Variation (%)	-0.37

Maximum location: X=7.00, Y=7.00

SAR Peak: 0.26 W/kg

SAR 10g (W/Kg)	0.096902
SAR 1g (W/Kg)	0.154659



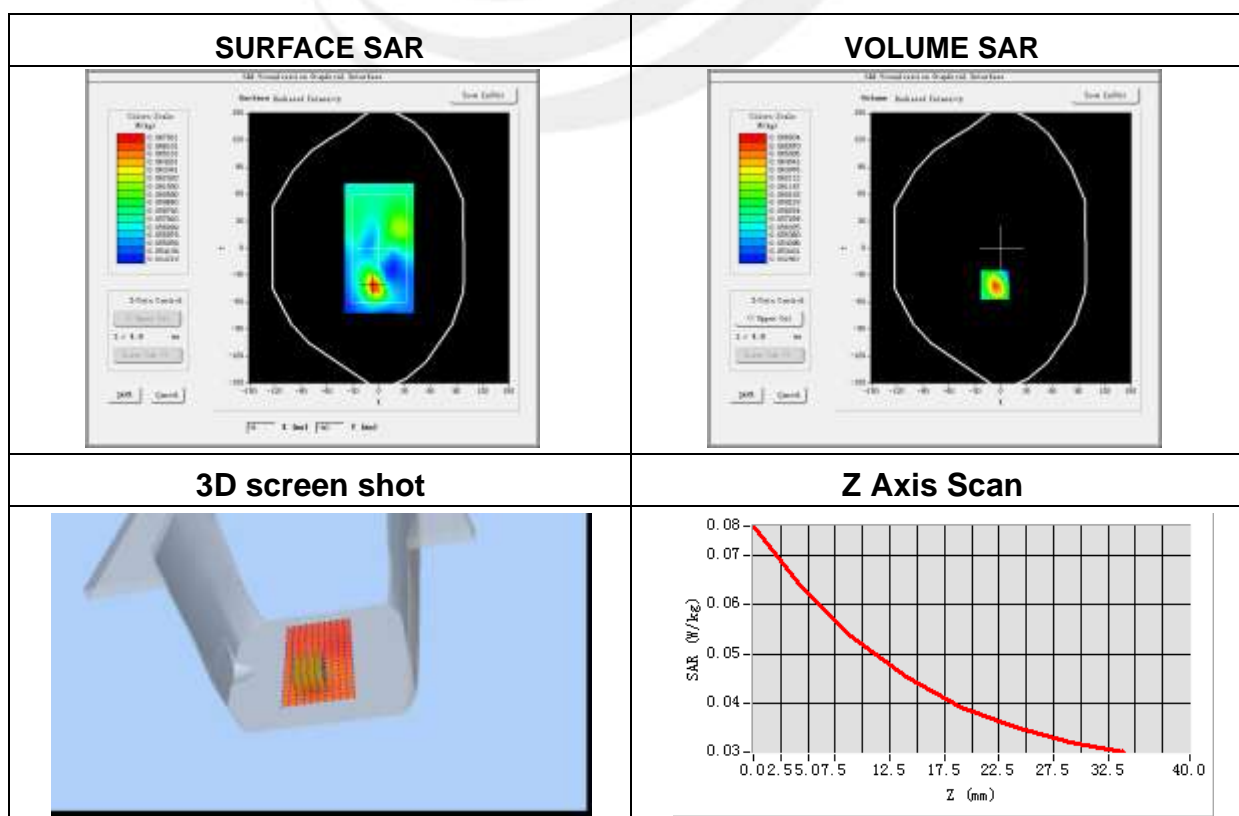
Plot 95: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.70
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 right side
Band	LTE Band 17 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711
Relative permittivity (real part)	55.26
Conductivity (S/m)	0.91
Variation (%)	-2.99

Maximum location: X=5.00, Y=-31.00

SAR Peak: 0.08 W/kg

SAR 10g (W/Kg)	0.051931
SAR 1g (W/Kg)	0.064220



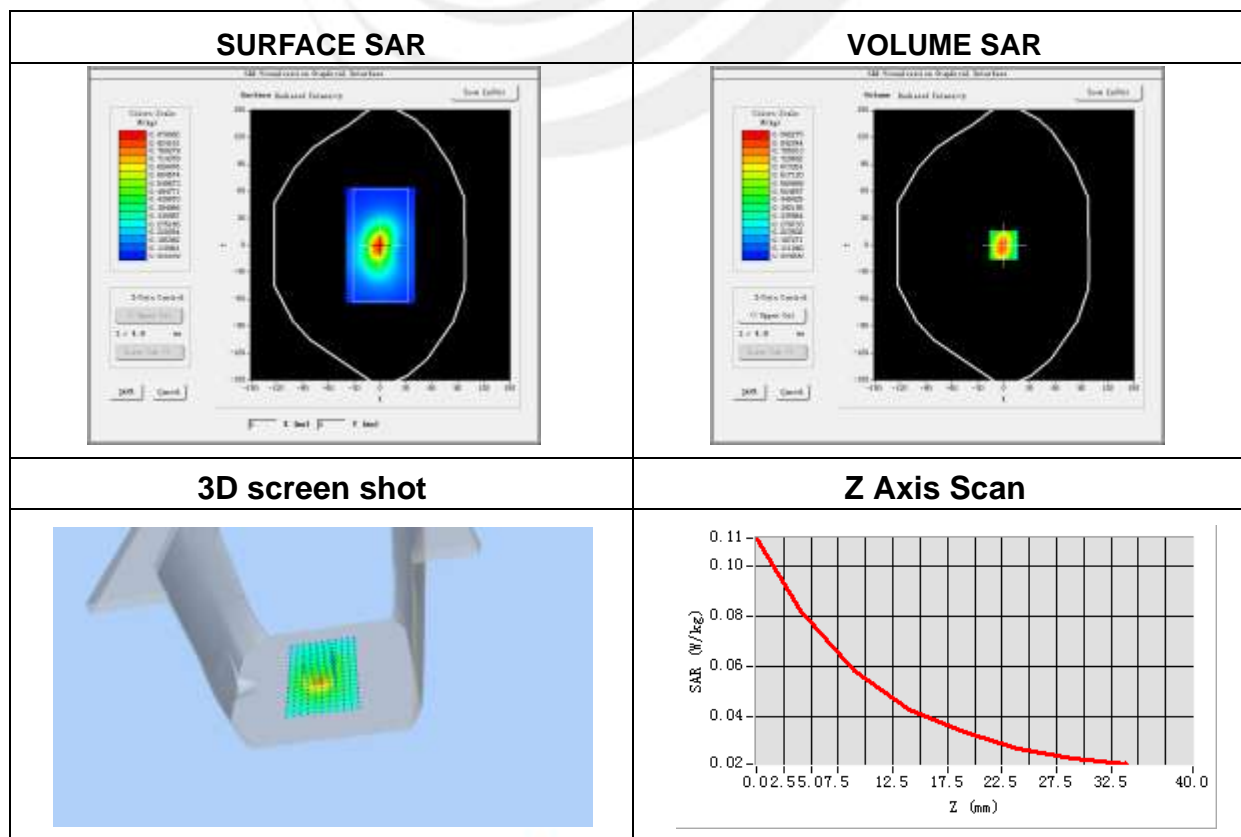
Plot 96: DUT: 4G smart phone; EUT Model: 7x

Test Data	2015-12-05
Ambient Temperature(°C)	22.70
Liquid Temperature(°C)	22.30
Probe	SN 17/14 EP221
ConvF	4.70
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 bottom side
Band	LTE Band 17 (RB 1)
Channels	High
Signal	LTE (Crest factor: 1.0)
Frequency (MHz)	711
Relative permittivity (real part)	55.26
Conductivity (S/m)	0.91
Variation (%)	-2.76

Maximum location: X=7.00, Y=-15.00

SAR Peak: 0.11 W/kg

SAR 10g (W/Kg)	0.056504
SAR 1g (W/Kg)	0.074551





Appendix C. Probe Calibration And Dipole Calibration Report

Refer the appendix Calibration Report.

※※※※※END OF THE REPORT※※※※※

