



# FCC SAR TEST REPORT

Report No: STS1509022H01

**Issued for** 

SENWA MEXICO, S.A.DE C.V

Av. Javier Barros Sierra 540, Torre I, Piso 5; COL. LOMAS DE SANTA FE DELEGACION ALVARO OBREGON C.P. 01210 MEXICO, DISTRITO FEDERAL

Product Name:	Mobile Phone
Brand Name:	SENWA
Model No.:	S605
Series Model:	N/A
FCC ID:	2AAA6-S605
	ANSI/IEEE Std. C95.1
Test Standard:	FCC 47 CFR Part 2 ( 2.1093)
	IEEE 1528: 2013
Mary CAR (4a)	Head:0.668 W/kg
Max. SAR (1g):	Body(Hotspot):1.177 W/kg

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## **Test Report Certification**

Applicant's name ...... SENWA MEXICO, S.A.DE C.V

SANTA FE DELEGACION ALVARO OBREGON C.P. 01210

MEXICO, DISTRITO FEDERAL

Manufacture's Name.....: Senwa Mobile HK Ltd

Address .....: Room 910, International Trade Centre 11-19 Sha Tsui Road, Tsuen

Wan, NT, HK

**Product description** 

Product name .....: Mobile Phone

Trademark .....: SENWA Model and/or type reference : S605

Serial Model: N/A

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

Test Result..... Pass

Testing Engineer: Allen Chen

(Allen Chen)

Technical Manager:

Authorized Signatory:

(John Zou)

10

(Bovey Yang)







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## 1. General Information

## 1.1 EUT Description

Equipment	Mobile Phone				
Brand Name	SENWA				
Model No.	S605				
Serial Model	N/A				
FCC ID	2AAA6-S605				
Model Difference	N/A				
Adapter	Input: AC100-240 V, 0.15 A, 50/60 Output: DC 5V, 500mA	) Hz			
Battery	Rated Voltage: 3.7 V Charge Limit: 4.2 V Capacity: 1200 mAh				
Hardware Version	N/A				
Software Version	N/A				
Frequency Range	GSM 850:824.2 ~ 848.8 MHz PCS1900:1850.2 ~ 1909.8 MHz WCDMA II:1852.4~1907.6 MHz WCDMA V:826.4~846.6 MHz WLAN 802.11 b/g/n(HT20):2412~2462 MHz Bluetooth:2402~2480 MHz				
Transmit Power(Average):	GSM 850: 32.08dBm GSM 1900: 28.11dBm WCDMA II: 21.52dBm WCDMA V: 22.38dBm	802.11b: 15.4dBm 802.11g: 8.2dBm 802.11 n(HT20): 5.2dBm Bluetooth: 8.810dBm			
Max. Reported SAR(1g):	Head: GSM 850: 0.297 W/kg GSM 1900: 0.144 W/kg WCDMA II: 0.631 W/kg WCDMA V: 0.668 W/kg WIFI: 0.144 W/kg	Body(Hotspot): GSM 850: 1.177 W/kg GSM 1900: 0.321 W/kg WCDMA II: 0.753 W/kg WCDMA V: 0.540 W/kg WIFI: 0.068 W/kg			
Operating Mode:	GSM: GSM Voice, GPRS, EDGE Class 12; WCDMA: RMC, HSDPA, HSUPA Release 6; WLAN: 802.11 b/g/n; Bluetooth: V2.1 + EDR (GFSK + π /4DQPSK+8DPSK)				
Antenna Specification:	GSM/WCDMA: PIFA Antenna BT/WIFI: PIFA Antenna				
Hotspot Mode:	Support				
DTM Mode:	Not Support				



#### 1.2 Test Environment

Ambient conditions in the SAR laboratory:

Items	Required	Actual		
Temperature (℃)	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 v05r02	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 865664 D01 v01r03	SAR Measurement 100 MHz to 6 GHz
6	FCC KDB 865664 D02 v01r01	RF Exposure Reporting
7	FCC KDB 941225 D01	SAR Measurement Procedures for 3G Devices
8	FCC KDB 248227 D01 Wi-Fi SAR v02	SAR Considerations for 802.11 Devices

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 ( $\rho$ ). The equation description is as below:

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

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

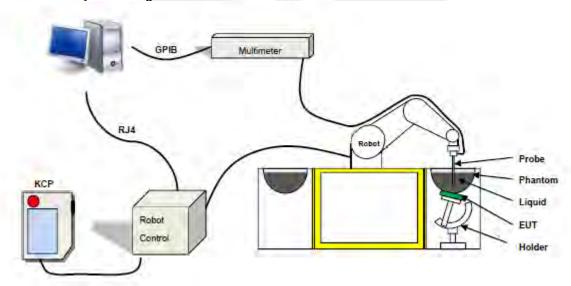
$$SAR = \frac{\sigma E^2}{\rho}$$

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

 $\rho$  is the mass density of the tissue and E is the RMS electrical field strength.

## 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 suface 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 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:** Sep.14, 2015 Ambient condition: Temperature 22.0°C Relative humidity: 49%

Head Simula	Head Simulating Liquid		T	Manageral	D : (: F0/1	1 :: 4 150/1	
Frequency	Temp. [°C]	Parameters Targe		Measured	Deviation[%]	Limited[%]	
835 MHz	21.5	Permitivity:	41.5	41.19	-0.75	±5	
655 WITZ	21.0	Conductivity:	0.9	0.89	-1.11	± 5	
1900 MHz	21.5	Permitivity:	40.0	39.44	-1.40	± 5	
1900 MHZ	21.5	Conductivity:	1.4	1.42	1.43	± 5	
2450 MHz	21.5	Permitivity:	39.2	39.38	0.46	± 5	
2450 MHZ	21.5	Conductivity:	1.8	1.77	-1.67	± 5	

Body Simulating Liquid		Danamatana	Towns	Management	D	1 :::::t==:1[0/]	
Frequency	Temp. [°C]	Parameters	Target	Measured	Deviation[%]	Limited[%]	
	21.5	Permitivity:	55.2	54.262	-1.70	± 5	
033 WII 12	21.5	Conductivity:	0.97	0.97 0.99 2.06 ± 5	± 5		
1900 MHz	21.5	Permitivity:	53.3	52.78	-0.98	± 5	
	21.5	Conductivity:	1.52	1.55	1.97	± 5	
2450 MH-	21.5	Permitivity:	52.7	52.41	-0.55	± 5	
2450 MHz		Conductivity:	1.95	1.93	-1.03	± 5	

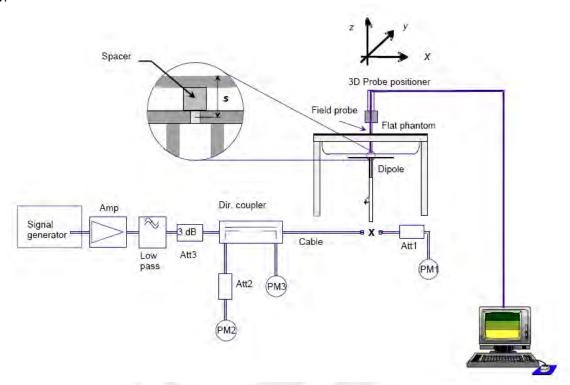


## 5. SAR System Validation

#### 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
835 Head	100	0.928	9.28	9.56	3.02	2015-09-14
835 Body	100	0.988	9.88	9.56	-3.24	2015-09-14
1900 Head	100	3.892	38.92	39.8	2.26	2015-09-14
1900 Body	100	4.124	41.24	39.8	-3.49	2015-09-14
2450 Head	100	5.156	51.56	52.4	1.63	2015-09-14
2450 Body	100	5.108	51.08	52.4	2.58	2015-09-14

Note: The tolerance limit of System validation ±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

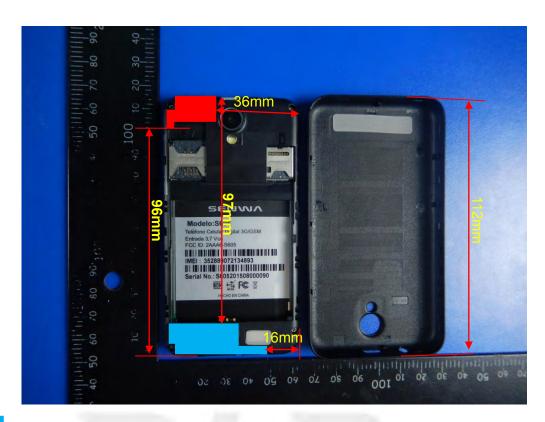
First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan 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 mode and WCDMA mode.





WWAN Antenna



WIFI/BT Antenna



#### 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:

	Test position configurations								
Band	Front	Back	Left edge	Right edge	Top edge	Bottom edge			
0014050	<5mm	<5mm	16mm	<5mm	97mm	<5mm			
GSM850	Yes	Yes	Yes	Yes	No	Yes			
0014000	<5mm	<5mm	16mm	<5mm	97mm	<5mm			
GSM1900	Yes	Yes	Yes	Yes	No	Yes			
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<5mm	<5mm	16mm	<5mm	97mm	<5mm			
WCDMA Band2	Yes	Yes	Yes	Yes	No	Yes			
	<5mm	<5mm	16mm	<5mm	97mm	<5mm			
WCDMA Band5	Yes	Yes	Yes	Yes	No	Yes			
	<5mm	<5mm	36mm	<5mm	<5mm	96mm			
WLAN	Yes	Yes	No	Yes	Yes	No			
51 1 11	<5mm	<5mm	36mm	<5mm	<5mm	96mm			
Bluetooth	Yes	Yes	No	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:
  - [(max.power of channel, including tune-up tolerance, Mw)/( min. test separation distance, mm)]\*[ $\sqrt{f(GHZ)}$ ) $\leq$ 3.0 for 1-g SAR and $\leq$ 7.5 for10-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



- 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.





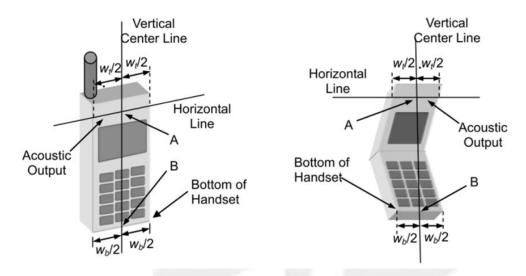


#### 8. EUT Test Position

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 wt of the handset at the level of the acoustic output, and the midpoint of the width wb 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



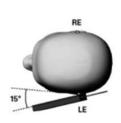
#### Title Position

- (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.



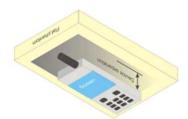






#### **Body-worn Position Conditions**

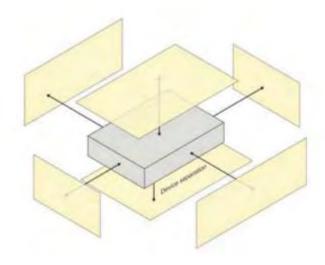
- (1) To position the EUT parallel to the phantom surface.
- (2) To adjust the EUT parallel to the flat phantom.
- (3) To adjust the distance between the EUT surface and the flat phantom to 5mm.





#### 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 form 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	
Me	Material System									
1	Probe calibration	5.8	N	1	1	1	5.8	5.8	8	
2	Axial isotropy	3.5	R	√3	(1-cp) <sup>1/2</sup>	(1-cp) <sup>1/2</sup>	1.43	1.43	8	
3	Hemispherical isotropy	5.9	R	√3	√Cp	√Cp	2.41	2.41	8	
4	Boundary effect	1.0	R	√3	1	1	0.58	0.58	8	
5	Linearity	4.7	R	√3	1	1	2.71	2.71	8	
6	System Detection limits	1.0	R	√3	1	1	0.58	0.58	8	
7	Readout electronics	0.5	N	1_	1	1	0.50	0.50	8	
8	Response time	0	R	√3	1	1	0	0	8	
9	Integration time	1.4	R	√3	1	1	0.81	0.81	8	
10	Ambient noise	3.0	R	√3	1	1	1.73	1.73	8	
11	Ambient reflections	3.0	R	√3	1	1	1.73	1.73	8	
12	Probe positioner mech. restrictions	1.4	R	√3	1	1	0.81	0.81	8	
13	Probe positioning with respect to phantom shell	1.4	R	√3	1	1	0.81	0.81	8	
14	Max.SAR evaluation	1.0	R	√3	1	1	0.6	0.6	8	
Test s	ample 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	



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17	Drift of output power	5.0	R	√3	1	1	2.89	2.89	∞		
Phant	Phantom and set-up										
18	Phantom uncertainty	4.0	R	√3	1	1	2.31	2.31	<b>∞</b>		
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	8		
Comb	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} \ , \mbox{k=2} $				2		21.26%	21.08%				



# 9.2 System validation Uncertainty

NO	Source	Tol(%)	Prob. Dist.	Div. k	ci (1g)	ci (10g)	1gUi	10gUi	Veff
Mee	Masurement System								
1	Probe calibration	5.8	N	1	1	1	5.8	5.8	∞
2	Axial isotropy	3.5	R	√3	(1-cp) <sup>1/2</sup>	(1-cp) <sup>1/2</sup>	1.43	1.43	8
3	Hemispherical isotropy	5.9	R	√3	√Cp	√Cp	2.41	2.41	∞
4	Boundary effect	1.0	R	√3	1	1	0.58	0.58	80
5	Linearity	4.7	R	√3	1	1	2.71	2.71	∞
6	System Detection limits	1.0	R	√3	1	11	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	√3	1	1	0	0	∞
10	Integration time	1.4	R	√3	1	1	0.81	0.81	∞
11	Ambient noise	3.0	R	√3	1	1	1.73	1.73	∞
12	Ambient reflections	3.0	R	√3	1	1	1.73	1.73	∞
13	Probe positioner mech. restrictions	1.4	R	√3	1	1	0.81	0.81	∞
14	Probe positioning with respect to phantom shell	1.4	R	√3	1	1	0.81	0.81	∞
15	Max.SAR evaluation	1.0	R	√3	1	1	0.6	0.6	<b>&amp;</b>
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	8



Page 21 of 100 Report No.: STS1509022H01 Dipole Axis to ∞ 18 2 R √3 1 1 liquid Distance Phantom and set-up Phantom 19 4.0 R √3 1 1 2.31 2.31 ∞ uncertainty Uncertainty in SAR 20 correction for 2.0 Ν 1 1 0.84 1.68 2 ∞ deviation(in Liquid conductivity 2 0.84 2.00 1.68 21 1 Ν 1 ∞ (target) Liquid conductivity 22 (temperature 2.5 1 0.78 0.71 1.95 1.78 5 Ν uncertainty) Liquid conductivity 5 23 4 1 0.23 0.26 0.92 1.04 Ν (meas) Liquid Permittivity 24 2.5 Ν 1 0.78 0.71 1.95 1.78 (target) Liquid Permittivity 25 (temperature 2.5 Ν 0.78 0.71 1.95 1.78 5 uncertainty) Liquid Permittivity ∞ 26 5.0 Ν 1 0.23 0.26 1.15 1.30 (meas)  $U_{C} = \sqrt{\sum_{i=1}^{n} C_{i}^{2} U_{i}^{2}}$ RSS Combined standard 10.15% 10.05%

U = k  $U_{\scriptscriptstyle C}$  ,k=2

21.29%

21.10%

Expanded uncertainty

(P=95%)



#### 10. Conducted Power Measurement

#### **Test Result:**

Maximum Burst-Averaged Output 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)	32.08	31.75	31.79	28.01	27.87	28.11	
GPRS (GMSK, 1-Slot)	31.99	31.80	31.66	28.02	27.78	28.02	
GPRS (GMSK, 2-Slot)	31.04	30.57	30.69	27.01	26.70	26.82	
GPRS (GMSK, 3-Slot)	28.94	28.65	28.63	24.74	24.46	24.79	
GPRS (GMSK, 4-Slot)	27.81	27.45	27.47	23.70	23.32	23.74	
EGPRS(8PSK, 1-Slot)	31.90	31.69	31.62	28.05	27.73	27.88	
EGPRS(8PSK, 2-Slot)	31.01	30.53	30.63	26.96	26.63	26.96	
EGPRS(8PSK, 3-Slot)	28.85	28.64	28.57	24.94	24.62	24.91	
EGPRS(8PSK, 4-Slot)	27.81	27.28	27.65	23.80	23.58	23.83	

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

Maximum Frame-Averaged Output Power(dBm)							
Band GSM 850 PCS 1900							
Channel	128	190	251	512 661 81			
Frequency (MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8	
GSM(GMSK, 1-Slot)	23.08	22.75	22.79	19.01	18.87	19.11	
GPRS (GMSK, 1-Slot)	22.99	22.80	22.66	19.02	18.78	19.02	
GPRS (GMSK, 2-Slot)	25.04	24.57	24.69	21.01	20.70	20.82	
GPRS (GMSK, 3-Slot)	24.68	24.39	24.37	20.48	20.20	20.53	
GPRS (GMSK, 4-Slot)	24.81	24.45	24.47	20.70	20.32	20.74	
EGPRS(8PSK, 1-Slot)	22.90	22.69	22.62	19.05	18.73	18.88	
EGPRS(8PSK, 2-Slot)	25.01	24.53	24.63	20.96	20.63	20.96	
EGPRS(8PSK, 3-Slot)	24.59	24.38	24.31	20.68	20.36	20.65	
EGPRS(8PSK, 4-Slot)	24.81	24.28	24.65	20.80	20.58	20.83	

#### 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



Band	W	CDMA Band '	V	WC	DMA Ban	d 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	22.38	22.21	22.34	21.52	21.42	21.33
HSDPA Subtest-1	22.04	21.74	21.75	21.08	21.38	20.73
HSDPA Subtest-2	20.94	20.64	20.76	20.16	20.22	19.66
HSDPA Subtest-3	20.41	19.98	20.07	19.68	19.67	19.14
HSDPA Subtest-4	19.81	19.45	19.42	18.97	19.12	18.45
HSUPA Subtest-1	22.00	21.76	21.85	21.12	21.35	20.86
HSUPA Subtest-2	20.74	20.67	20.73	20.05	20.16	19.59
HSUPA Subtest-3	20.27	20.02	20.10	19.52	19.58	18.88
HSUPA Subtest-4	19.76	19.45	19.38	18.89	19.08	18.21
HSUPA Subtest-5	19.23	18.72	18.70	18.16	18.32	17.72

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≤ CM≤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.



Mode	Channel Number	Frequency (MHz)	Average Power (dBm)
	1	2412	14.0
802.11b	6	2437	15.4
	11	2462	15.2
	1	2412	7.1
802.11g	6	2437	7.6
	11	2462	8.2
	1	2412	4.1
802.11n(HT-20)	6	2437	4.5
	11	2462	5.2

Justification for test configurations for WLAN per KDB publication 248227 D01Wi-Fi SAR v02:

- 1. Powermeasurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
- 2. For transmission modes with the same maximum output power specification, power were measured for the largest Channel bandwidth, lowest order modulation and lowest data rate.
- 3. For transmission modes with identical maximum specified output power, channel bandwidth, modulation and data rates, power measurements were required for all identical configurations.
- 4. For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-band channels, due to an even number of channels, both channels were measured.
- 5. The bolded data rate and channel above were tested for SAR.

#### Bluetooth

Mode	Channel Number	Frequency (MHz)	Average Power (dBm)
	0	2402	7.049
GFSK(1Mbps)	39	2441	8.469
	78	2480	8.810
	0	2402	8.593
π/4-DQPSK(2Mbps)	39	2441	6.022
	78	2480	6.836
	0	2402	8.588
8-DPSK(3Mbps)	39	2441	6.521
	78	2480	7.475



Mode	GSM850(AVG)	GSM1900(AVG)
GSM/PCS	31.5±1dBm	27.5±1dBm
GPRS (1 Slot)	31.0±1dBm	27.5±1dBm
GPRS (2 Slot)	30.5±1dBm	26.5±1dBm
GPRS (3 Slot)	28.0±1dBm	24.0±1dBm
GPRS (4 Slot)	27.0±1dBm	23.0±1dBm
EDGE (1 Slot)	31.0±1dBm	27.5±1dBm
EDGE (2 Slot)	30.5±1dBm	26.0±1dBm
EDGE (3 Slot)	28.0±1dBm	24.0±1dBm
EDGE (4 Slot)	27.0±1dBm	23.0±1dBm

Mode	WCDMA Band V(AVG)	WCDMA Band II(AVG)
AMR	21.5±1dBm	21.0±1dBm
HSDPA Subtest-1	21.5±1dBm	20.5±1dBm
HSDPA Subtest-2	20.0±1dBm	19.5±1dBm
HSDPA Subtest-3	19.5±1dBm	19.0±1dBm
HSDPA Subtest-4	19.0±1dBm	18.5±1dBm
HSUPA Subtest-1	21.5±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	18.5±1dBm
HSUPA Subtest-5	18.5±1dBm	17.5±1dBm

Mode	WIFI
IEEE 802.11b	14.5±1dBm
IEEE 802.11g	7.5±1dBm
IEEE 802.11n HT20	4.5±1dBm

	ВТ					
Mode	Low	Middle	High			
GFSK	7±1dBm	8±1dBm	8.9±1dBm			
π/4-DQPSK	8±1dBm	6±1dBm	6±1dBm			
8DPSK	8±1dBm	6±1dBm	7±1dBm			



# 11. EUT And Test Setup Photo

#### 11.1 EUT Photo





Back side





Top side



Bottom side





#### Left side

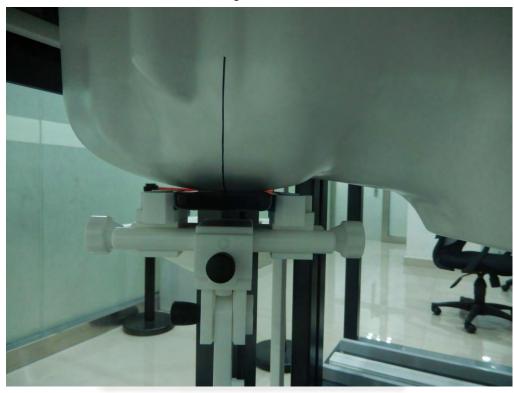


Right side

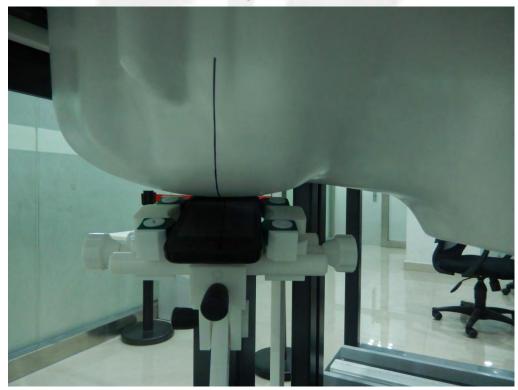




Right Touch

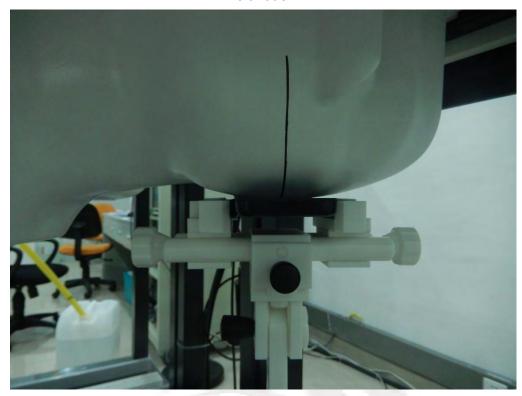


Right Tilt

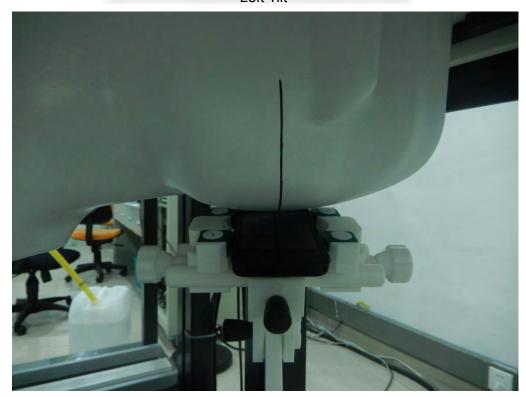




#### Left Touch

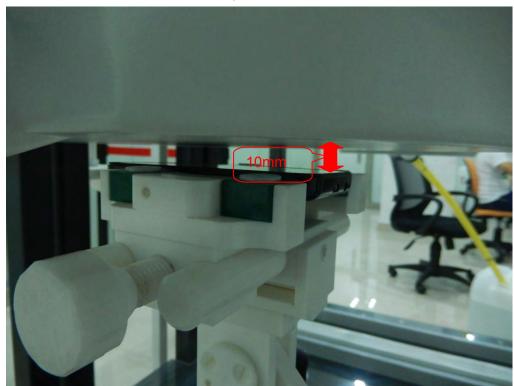


Left Tilt

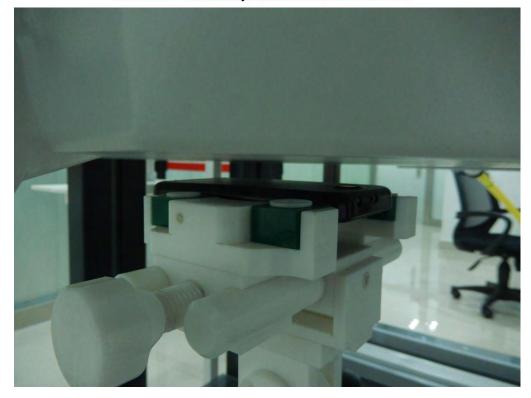




## Body Front side

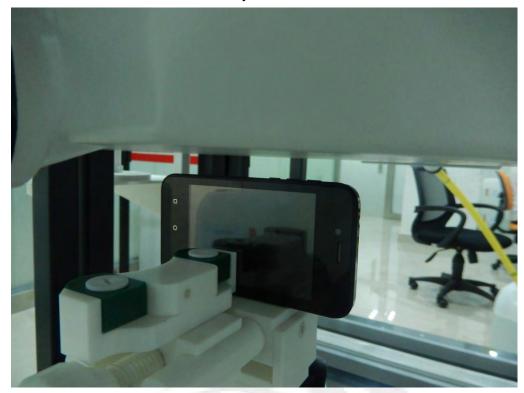


Body Back side

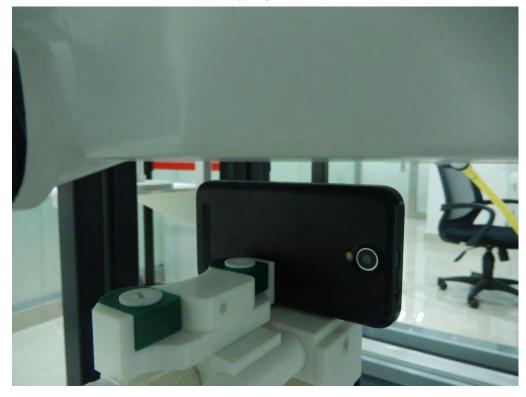




## Body Left side



Body Right side

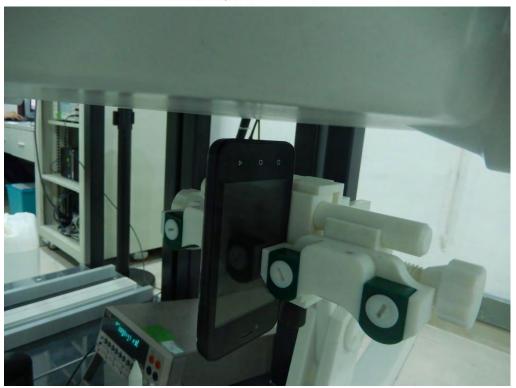




## Body Top side



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.
		Right Cheek	CH 128	0.270	4.73	32.5	32.08	0.297	1
GSM 850	Voice	Right Tilt	CH 128	0.158	-1.77	32.5	32.08	0.174	2
GSIVI 630	VOICE	Left Cheek	CH 128	0.268	-3.19	32.5	32.08	0.295	3
		Left Tilt	CH 128	0.115	1.29	32.5	32.08	0.127	4
		Right Cheek	CH 810	0.132	3.70	28.5	28.11	0.144	13
GSM1900	Voice	Right Tilt	CH 810	0.023	-4.75	28.5	28.11	0.025	14
GSM1900	VOICE	Left Cheek	CH 810	0.082	3.18	28.5	28.11	0.090	15
		Left Tilt	CH 810	0.020	1.35	28.5	Meas.Output Power(dBm)  32.08  32.08  0.297  32.08  0.174  2  32.08  0.127  4  28.11  0.144  13  28.11  0.025  14  28.11  0.090  15  28.11  0.022  16  21.52  0.105  23  21.52  0.426  24  21.52  0.087  25  22.38  0.668  33	16	
		Right Cheek	CH 9262	0.565	-1.01	22.	21.52	0.631	22
WCDMA II	RMC	Right Tilt	CH 9262	0.094	0.06	22.	21.52	0.105	23
WODWATI	TOWIC	Left Cheek	CH 9262	0.381	-1.43	22.	21.52	0.426	24
		Left Tilt	CH 9262	0.078	2.79	22.	21.52	0.087	25
		Right Cheek	CH4132	0.507	0.87	23.5	22.38	0.656	31
WCDMA V	RMC	Right Tilt	CH4132	0.340	0.52	23.5	22.38	0.440	32
VVODIVIAV	TAIVIO	Left Cheek	CH4132	0.516	1.00	23.5	22.38	0.668	33
		Left Tilt	CH4132	0.342	-0.07	23.5	22.38	0.443	34

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	0.114	3.68	15.5	15.4	100	0.117	40
		Right Tilt	CH 6	0.022	-3.13	15.5	15.4	100	0.023	41
		Left Cheek	CH 6	0.141	1.23	15.5	15.4	100	0.144	42
		Left Tilt	CH 6	0.090	-1.13	15.5	15.4	100	0.092	43



#### 12.2 Body SAR And Hotspot

Band	Mode	Test Position	Channel	Result 1g (W/Kg)	Power Drift(%)	Max.Turn -up Power(d Bm)	Meas.Ou tput Power(d Bm)	Scaled SAR (W/Kg)	Meas. No.
GSM 850		Front side	CH 128	0.676	-1.25	31.5	31.04	0.752	5
		Back side	CH 128	0.951	-1.63	31.5	31.04	1.057	6
	GPRS Data-2 Slot (hotspot)	Back side	CH 190	0.950	-4.06	31.5	30.57	1.177	8
		Back side	CH 251	0.889	-2.23	31.5	30.69	1.071	9
		Left side	CH 128	0.421	-1.62	31.5	31.04	0.468	10
		Right side	CH 128	0.480	-3.59	31.5	31.04	0.534	11
		Bottom side	CH 128	0.166	4.05	31.5	31.04	0.185	12
GSM 1900	GPRS Data-2 Slot (hotspot)	Front side	CH 512	0.150	-3.21	27.5	27.01	0.168	17
		Back side	CH 512	0.194	-2.03	27.5	27.01	0.217	18
		Left side	CH 512	0.064	1.45	27.5	27.01	0.072	19
		Right side	CH 512	0.107	-2.33	27.5	27.01	0.120	20
		Bottom side	CH 512	0.287	-3.62	27.5	27.01	0.321	21
	RMC (body-worn and hotspot)	Front side	CH 9263	0.382	-1.87	22.	21.52	0.427	26
		Back side	CH 9263	0.505	-1.14	22.	21.52	0.564	27
WCDMA II		Left side	CH 9537	0.146	0.61	22.	21.52	0.163	28
		Right side	CH 9537	0.219	-0.93	22.	21.52	0.245	29
		Bottom side	CH 9537	0.674	-0.50	22.	21.52	0.753	30
	RMC ( body-worn and hotspot )	Front side	CH4132	0.341	0.17	23.5	22.38	0.441	35
WCDMA V		Back side	CH4132	0.417	0.16	23.5	22.38	0.540	36
		Left side	CH4132	0.212	0.01	23.5	22.38	0.274	37
		Right side	CH4132	0.258	0.14	23.5	22.38	0.334	38
		Bottom side	CH4132	0.135	-0.37	23.5	22.38	0.175	39

Band	Mode	Test Position	Channel	Result 1g (W/Kg)	Power Drift(%)	Max.Turn -up Power(d Bm)	Meas.Ou tput Power(d Bm)	Duty cycle(%)	Scaled SAR (W/Kg)	Meas. No.
WIFI	802.11b	Front side	CH 6	0.036	-0.15	15.5	15.4	100	0.037	44
		Back side	CH 6	0.066	-0.01	15.5	15.4	100	0.068	45
		Left side	CH 6	0.033	-0.35	15.5	15.4	100	0.034	46
		Top side	CH 6	0.060	-1.18	15.5	15.4	100	0.061	47

#### Note:

- 1. The test separation of all above table is 10mm.
- 2. 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 **0.027** W/Kg for Head and **0.013** 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 850	GPRS Data-2 Slot (hotspot)	Back side	CH 128	0.949	-1.28	31.5	31.04	1.055	7

## 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 850	GPRS Data-2 Slot (hotspot)	Back side	CH 128	0.951	0.949	1.00	ı	ı	-

#### Note:

- 1. Per KDB 865664 D01V01,for each frequency band ,repeated SAR measurement is required only when the measured SAR is ≥0.8W/Kg.
- 2. Per KDB 865664 D01V01,if the ratio of largest to smallest SAR for the original and first repeated measurement is ≤1.2and the measured SAR<1.45W/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 ≥ 1.45W/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			
	1. GSM + WIFI			
	2. GSM + Bluetooth			
Head	3. WCDMA + WIFI			
	4. WCDMA + Bluetooth			
	1. GSM + WIFI			
<b>.</b>	2. GSM + Bluetooth			
Body	3. WCDMA + WIFI			
	4. WCDMA + Bluetooth			

#### NOTE:

- 1. Bluetooth and WIFI can't simultaneous transmission at the same time.
- 2. For simultaneous transmission at head and body exposure position, 2 transmitters simultaneous transmission was the worst state.
- 3. Based upon KDB 447498 D01 v05, BT SAR is excluded as below table.
- 4. If the test separation distance is <5mm, 5mm is used for excluded SAR calculation.
- 5. For minimum test separation distance  $\leq$  50mm,Bluetooth standalone SAR is excluded according to [(max. power of channel, including tune-up tolerance, mW)/ (min. test separation distance, mm)  $\cdot [\sqrt{f} (GHz)/x] \leq 3.0$  for 1-g SAR and  $\leq$  7.5 for 10-g extremity SAR
- 6. The reported SAR summation is calculated based on the same configuration and test position.
- 7. 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:
- a) (max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]  $[\sqrt{f} (GHz)/x]$  W/kg for test separation distances  $\leq$  50 mm; Where x = 7.5 for 1-g SAR, and x = 18.75 for 10-g SAR.
- b) 0.4W/Kg for 1-g SAR and 1.0W/Kg for 10-g SAR, when the separation distance is >50mm.

Estimated SAR		Maximum Average Power		Antenna	Frequency(GHz)	Stand alone
		dBm	mW	to user(mm)	, ,	SAR(1g) [W/kg]
	Head	9	7.94	5	2.480	0.334
ВТ	Body	9	7.94	10	2.480	0.167



Simultaneous Mode	Position	Mode	Max. 1-g SAR (W/kg)	1-g Sum SAR (W/kg)	
	Head	GSM Voice	0.297	0.443	
GSM + WIFI	Пеац	WIFI	0.144	0.443	
GSW + WIFI	Dody worn	GSM DATA	1.177	1.245	
	Body-worn	WIFI	0.068	1.245	
	Head	GSM Voice	0.297	0.631	
GSM + Bluetooth	пеац	Bluetooth	0.334	0.631	
GSIVI + Bluetootri	Dadwara	GSM Voice	1.177	1.344	
	Body-worn	Bluetooth	0.167	1.344	
	Head	WCDMA RMC	0.668	0.812	
WCDMA RMC+ WIFI	пеац	WIFI	0.144	0.812	
WCDIVIA RIVIC+ WIFI	Body-worn	WCDMA RMC	0.753	0.824	
	Hotspot	WIFI	0.068	0.821	
	Head	WCDMA RMC	0.668	1.002	
WCDMA RMC+ Bluetooth	пеац	Bluetooth	0.334	1.002	
WCDIVIA RIVIC+ Bluetooth	Body-worn	WCDMA RMC	0.753	0.020	
	Hotspot	Bluetooth	0.167	0.920	

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
835MHz Dipole	SATIMO	SID835	SN 30/14 DIP0G835-332	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
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	2014.11.20	2015.11.19
Signal Generator	Agilent	N5182A	MY50140530	2014.11.18	2015.11.17
Power Meter	R&S	NRP	100510	2014.10.25	2015.10.24
Power Sensor	R&S	NRP-Z11	101919	2014.10.24	2015.10.23
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	2014.10.25	2015.10.24
Attenuator 2	PE	PE7005-3	N/A	2014.10.24	2015.10.23
Attenuator 3	Woken	WK0602-XX	N/A	2014.12.12	2015.12.11
Dual Directional Coupler	Agilent	778D	50422	2014.11.18	2015.11.17



# Appendix A. System Validation Plots

## System Performance Check Data (835MHz Head)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm

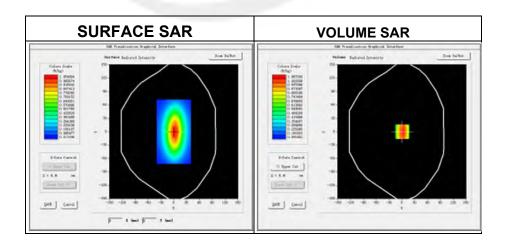
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2015-09-14

Measurement duration: 13 minutes 27 seconds

### **Experimental conditions**

Phantom	Validation plane		
Device Position	-		
Band	835MHz		
Channels	<u>-</u>		
Signal	CW		
Frequency (MHz)	835MHz		
Relative permittivity (real part)	41.19		
Relative permittivity	18.72		
Conductivity (S/m)	0.89		
Power drift (%)	0.45		
Ambient Temperature:	22.7°C		
Liquid Temperature:	22.3°C		
ConvF:	4.83		
Crest factor:	1:1		







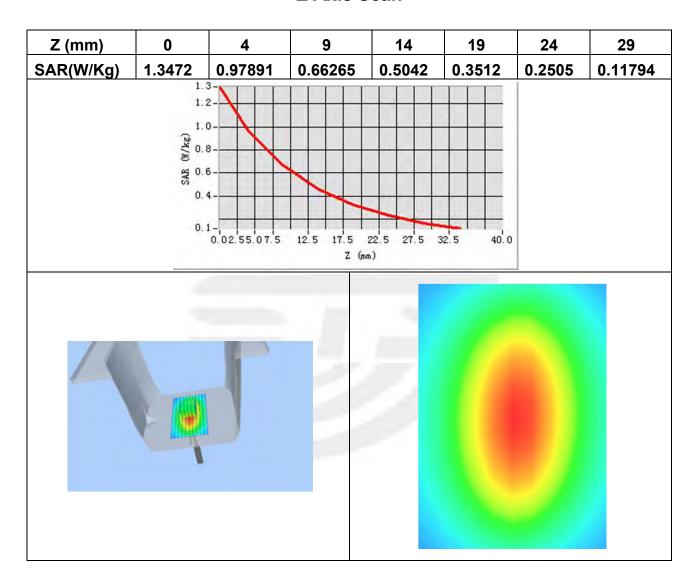


Maximum location: X=1.00, Y=0.00

SAR Peak: 1.46 W/kg

SAR 10g (W/Kg)	0.612584
SAR 1g (W/Kg)	0.928356

#### **Z Axis Scan**





# System Performance Check Data (835MHz Body)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm

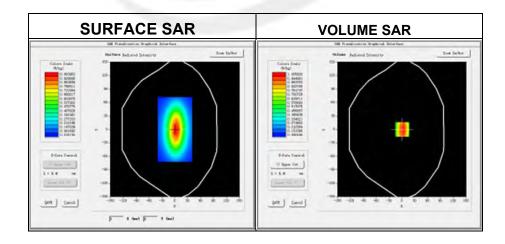
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2015-09-14

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)	54.26		
Relative permittivity	21.408187		
Conductivity (S/m)	0.99		
Power drift (%)	0.090000		
Ambient Temperature:	22.7°C		
Liquid Temperature:	22.3°C		
ConvF:	5.02		
Crest factor:	1:1		



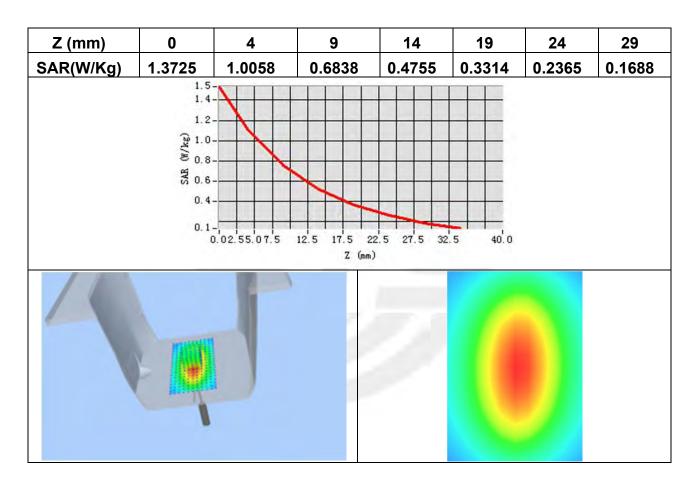


Maximum location: X=1.00, Y=0.00

SAR Peak: 1.48 W/kg

SAR 10g (W/Kg)	0.695261
SAR 1g (W/Kg)	0.987695

# **Z Axis Scan**





# System Performance Check Data (1900MHz Head)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm

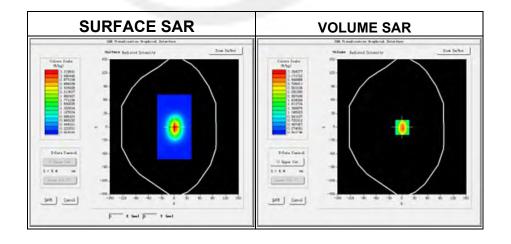
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2015-09-14

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)	39.44		
Relative permittivity	13.26		
Conductivity (S/m)	1.42		
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		



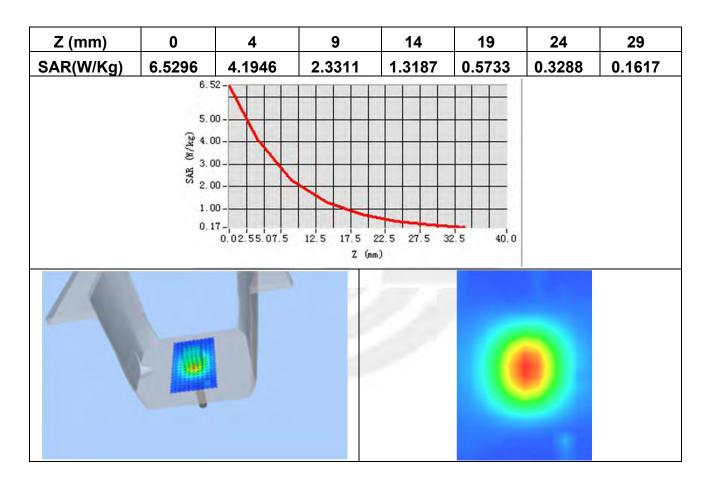


Maximum location: X=1.00, Y=0.00

SAR Peak: 5.39 W/kg

SAR 10g (W/Kg)	1.975658
SAR 1g (W/Kg)	3.892354

#### **Z Axis Scan**





# System Performance Check Data (1900MHz Body)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm

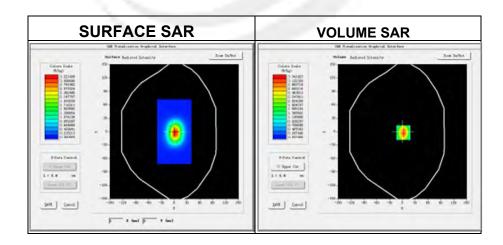
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2015-09-14

Measurement duration: 14 minutes 46 seconds

### **Experimental conditions.**

Device Position	-
Band	1900MHz
Channels	-
Signal	CW
Frequency (MHz)	1900
Relative permittivity (real part)	52.78
Relative permittivity	12.87531
Conductivity (S/m)	1.55
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



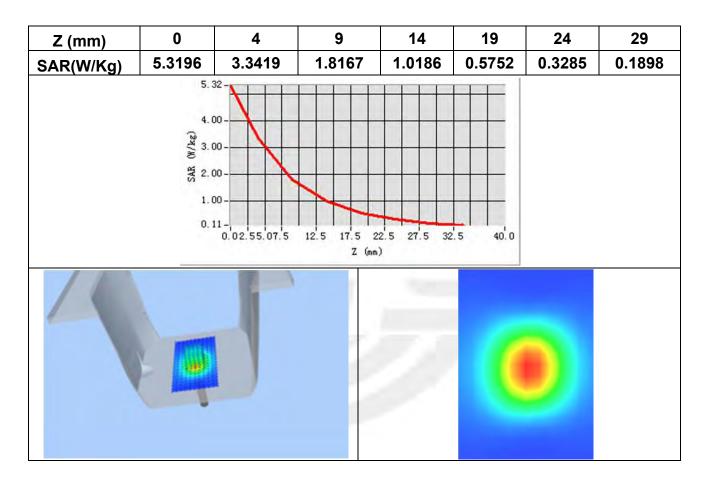


Maximum location: X=2.00, Y=2.00

SAR Peak: 5.27 W/kg

SAR 10g (W/Kg)	2.135625
SAR 1g (W/Kg)	4.123621

## **Z Axis Scan**





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

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm

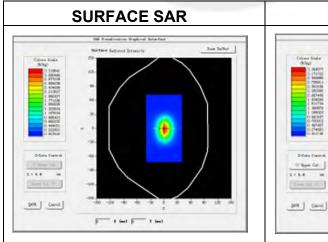
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

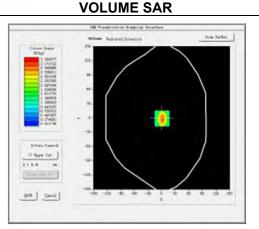
Date of measurement: 2015-09-14

Measurement duration: 13 minutes 51 seconds

### Experimental conditions.

Device Position	Validation plane
Band	2450 MHz
Channels	-
Signal	CW
Frequency (MHz)	2450
Relative permittivity (real part)	39.38
Relative permittivity	12.930000
Conductivity (S/m)	1.77
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







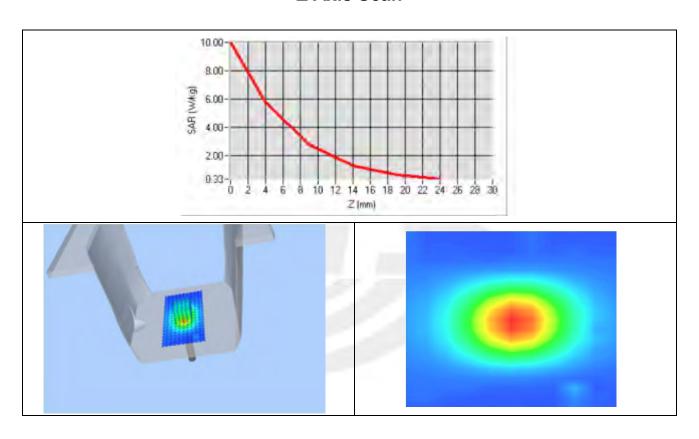




Maximum location: X=7.00, Y=6.00

SAR 10g (W/Kg)	2.635821
SAR 1g (W/Kg)	5.156285

# **Z Axis Scan**





# System Performance Check Data (2450MHz Body)

Type: Phone measurement (Complete)
Area scan resolution: dx=8mm,dy=8mm

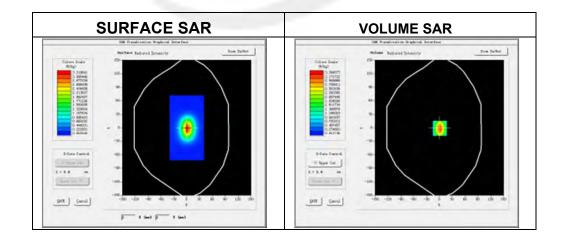
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2015-09-14

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)	52.41
Relative permittivity	12.930000
Conductivity (S/m)	1.93
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

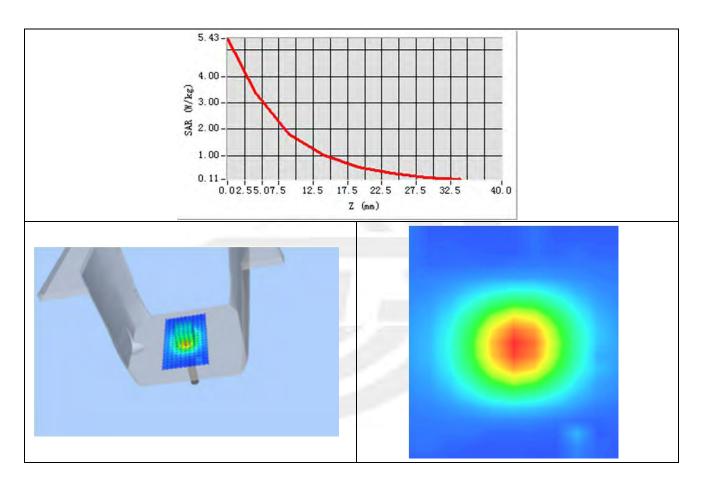




Maximum location: X=3.00, Y=1.00

SAR 10g (W/Kg)	2.536281
SAR 1g (W/Kg)	5.108165

# **Z Axis Scan**





# **Appendix B. SAR Test Plots**

Plot 1: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
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	Low
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	824.2
Relative permittivity (real part)	42.27
Conductivity (S/m)	0.91
Variation (%)	4.73

Maximum location: X=-49.00, Y=-32.00

SAR Peak: 0.41 W/kg

SAR 10g (W/Kg)	0.180056
SAR 1g (W/Kg)	0.269825



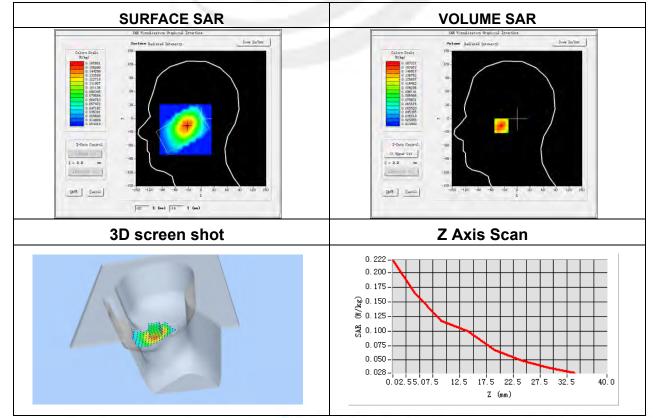


Plot 2: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(C)	22.70
Liquid Temperature(℃)	22.30
Probe	SN 17/14 EP221
ConvF	4.83
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
Zoom Soon	5x5x7,dx=8mmdy=8mmdz=5mm,
Zoom Scan	Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Right head
Device Position	Tilt
Band	GSM850
Channels	Low
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	824.2
Relative permittivity (real part)	42.27
Conductivity (S/m)	0.91
Variation (%)	-1.77

Maximum location: X=-32.00, Y=-16.00 SAR Peak: 0.22 W/kg

SAR 10g (W/Kg) 0.108773
SAR 1g (W/Kg) 0.158099



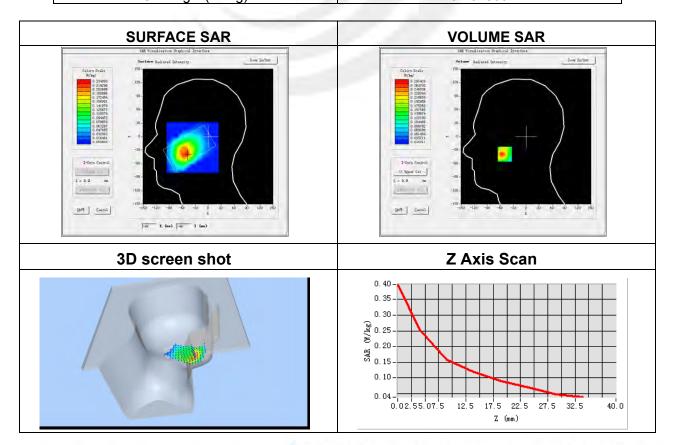


Plot 3: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(ℂ)	22.70
Liquid Temperature(℃)	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	Low
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	824.2
Relative permittivity (real part)	42.27
Conductivity (S/m)	0.91
Variation (%)	-3.19

Maximum location: X=-49.00, Y=-39.00 SAR Peak: 0.46 W/kg

er a tri ocala or ro rivitg	
SAR 10g (W/Kg)	0.158062
SAR 1a (W/Ka)	0.267859



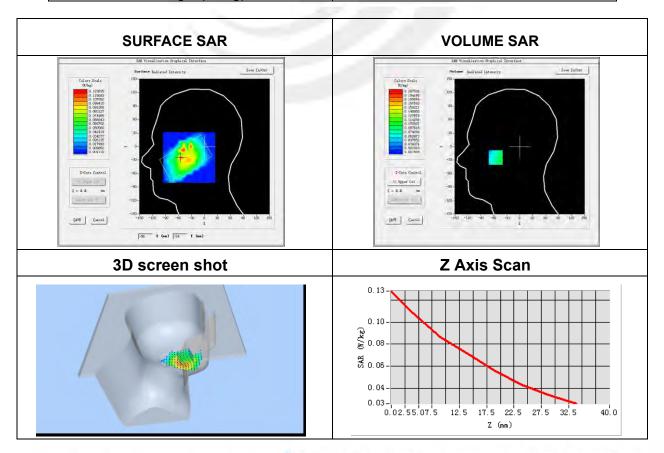


Plot 4: DUT: Mobile Phone; EUT Model: S605

•	
Test Data	2015-09-14
Ambient Temperature(℃)	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	Low
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	824.2
Relative permittivity (real part)	42.27
Conductivity (S/m)	0.91
Variation (%)	1.29

Maximum location: X=-56.00, Y=-24.00 SAR Peak: 0.18 W/kg

	3
SAR 10g (W/Kg)	0.068348
SAR 1g (W/Kg)	0.114698



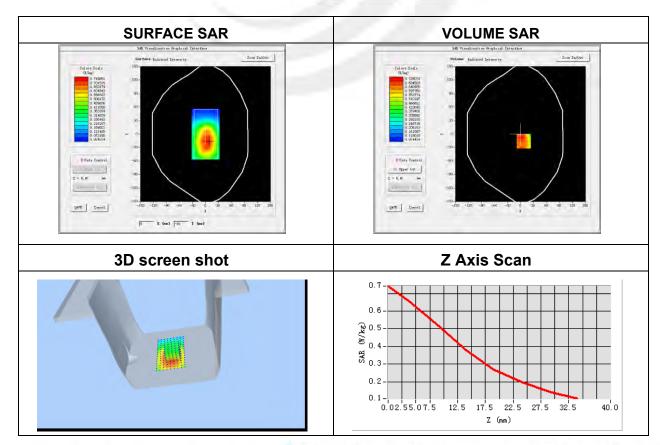


Plot 5: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	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	Middle
Signal	Duty Cycle:4.0 (Crest factor:4.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	-1.25

Maximum location: X=7.00, Y=-16.00 SAR Peak: 1.03 W/kg

SAR 10g (W/Kg)	0.476866
SAR 1g (W/Kg)	0.676344



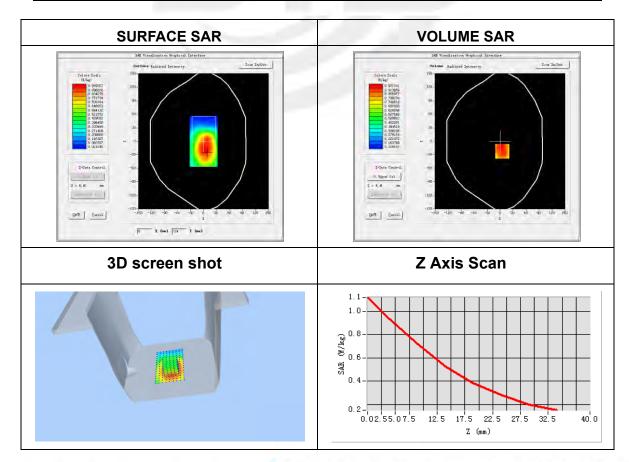


### Plot 6: DUT: Mobile Phone; EUT Model: S605

	<del>,</del>
Test Data	2015-09-14
Ambient Temperature(ℂ)	22.70
Liquid Temperature(で)	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	Low
Signal	Duty Cycle:4.0 (Crest factor:4.0)
Frequency (MHz)	824.2
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	-1.63

Maximum location: X=5.00, Y=-22.00 SAR Peak: 1.34 W/kg

SAR 10g (W/Kg)	0.659631
SAR 1a (W/Ka)	0.951295





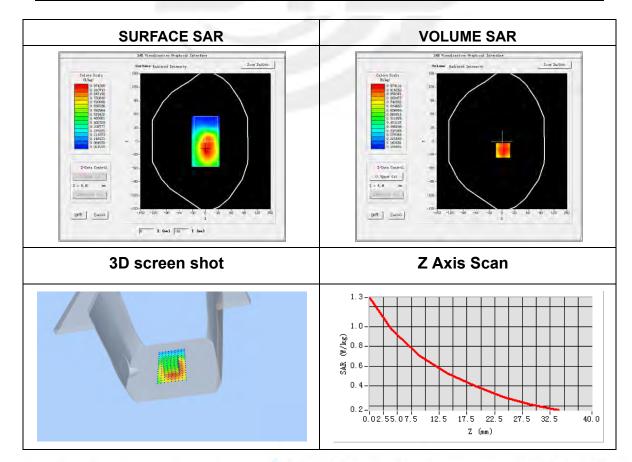
Plot 7: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	22.70
Liquid Temperature(℃)	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-repeated
Band	GPRS 850
Channels	Low
Signal	Duty Cycle:4.0 (Crest factor:4.0)
Frequency (MHz)	824.2
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	-1.28

Maximum location: X=2.00, Y=-20.00

SAR Peak: 1.30 W/kg

SAR 10g (W/Kg)	0.652025
SAR 1a (W/Ka)	0.948808



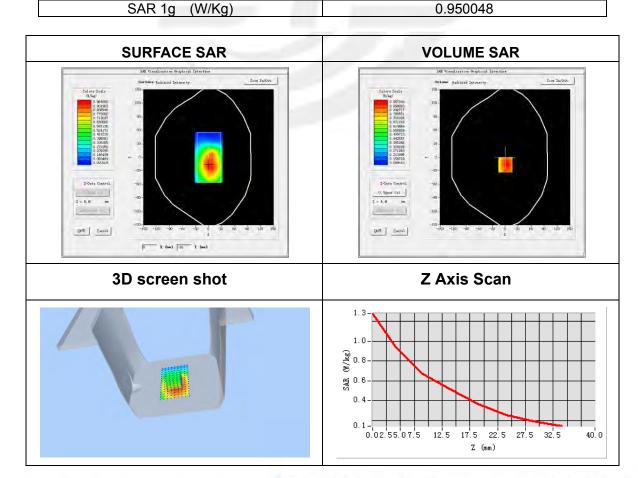


### Plot 8: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
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	Middle
Signal	Duty Cycle:4.0 (Crest factor:4.0)
Frequency (MHz)	836.6
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	-4.06

Maximum location: X=1.00, Y=-17.00

SAR Peak: 1.37 W/kg
SAR 10g (W/Kg) 0.641400



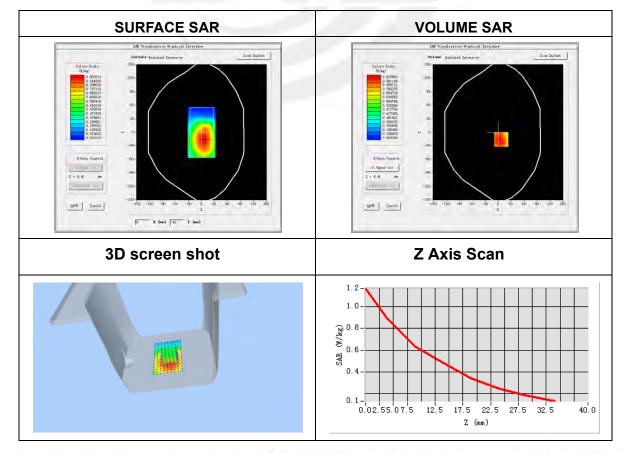


Plot 9: DUT: Mobile Phone; EUT Model: S605

Toot Data	2015 00 14
Test Data	2015-09-14
Ambient Temperature(C)	22.70
Liquid Temperature(で)	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:4.0 (Crest factor:4.0)
Frequency (MHz)	848.8
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	-2.23

Maximum location: X=7.00, Y=-16.00 SAR Peak: 1.25 W/kg

SAR 10g (W/Kg)	0.612079
SAR 1a (W/Ka)	0.889019



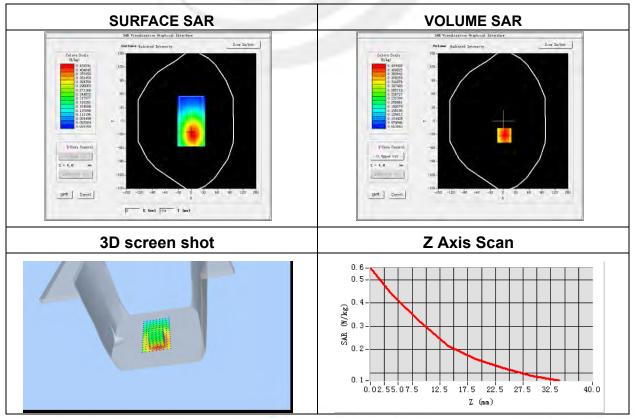


Plot 10: DUT: Mobile Phone; EUT Model: S605

Took Data	0045 00 44
Test Data	2015-09-14
Ambient Temperature(℃)	22.70
Liquid Temperature(で)	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	GPRS 850
Channels	Low
Signal	Duty Cycle:4.0 (Crest factor:4.0)
Frequency (MHz)	824.2
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	-1.62

Maximum location: X=3.00, Y=-32.00 SAR Peak: 0.60 W/kg

SAR 10g (W/Kg)	0.285380
SAR 1g (W/Kg)	0.421000



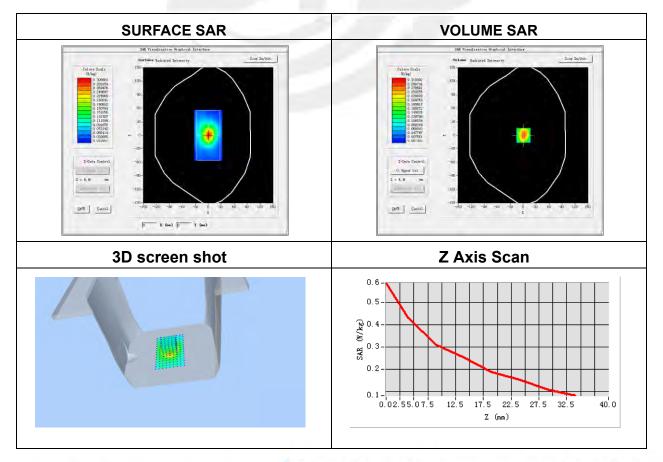


Plot 11: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	22.70
Liquid Temperature(℃)	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	Low
Signal	Duty Cycle:4.0 (Crest factor:4.0)
Frequency (MHz)	824.2
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	-3.59

Maximum location: X=0.00, Y=-33.00 SAR Peak: 0.68 W/kg

SAR 10g (W/Kg)	0.323964
SAR 1g (W/Kg)	0.480228



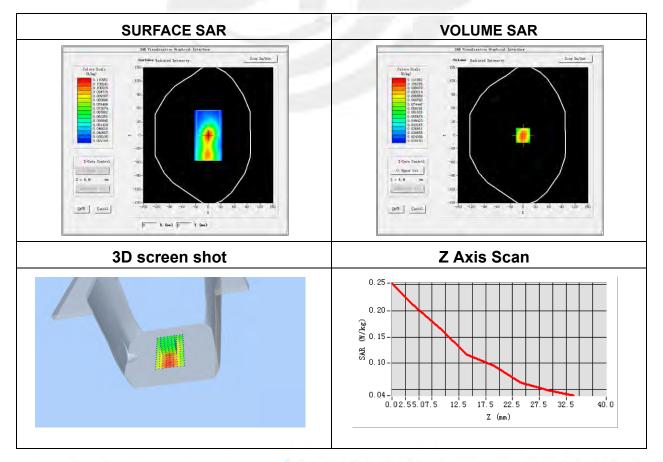


Plot 12: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	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	Low
Signal	Duty Cycle:4.0 (Crest factor:4.0)
Frequency (MHz)	824.2
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	4.05

Maximum location: X=9.00, Y=0.00 SAR Peak: 0.25 W/kg

SAR 10g (W/Kg)	0.103242
SAR 1g (W/Kg)	0.165503



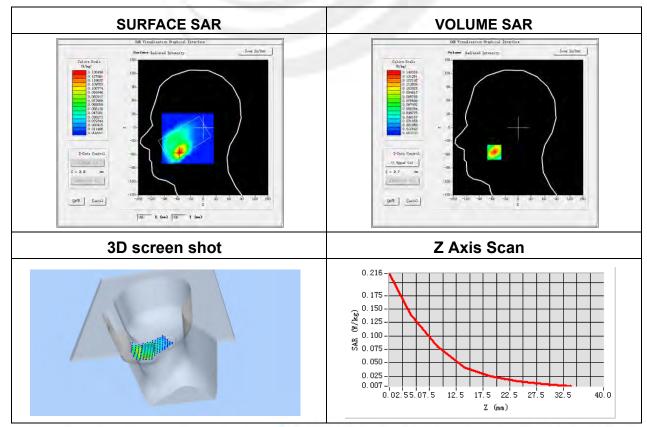


### Plot 13: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(C)	22.70
Liquid Temperature(℃)	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: 8.32)
Frequency (MHz)	1909.8
Relative permittivity (real part)	39.57
Conductivity (S/m)	1.43
Variation (%)	3.70
<u> </u>	•

Maximum location: X=-55.00, Y=-55.00 SAR Peak: 0.22 W/kg

SAR 10g (W/Kg)	0.068208
SAR 1g (W/Kg)	0.131707





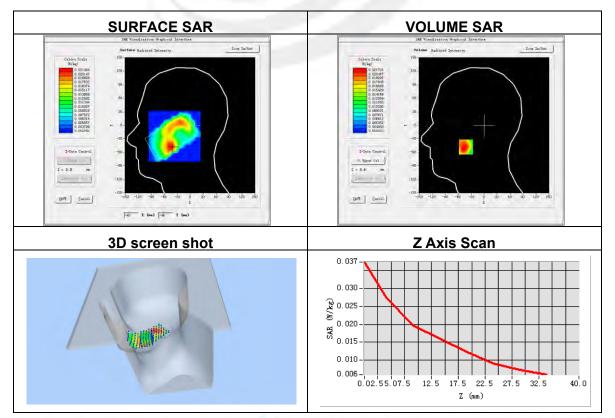
### Plot 14: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	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
70.0mC00n	5x5x7,dx=8mm dy=8mm dz=5mm,
ZoomScan	Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Right head
Device Position	Tilt
Band	GSM1900
Channels	High
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	1909.8
Relative permittivity (real part)	39.57
Conductivity (S/m)	1.43
Variation (%)	-4.75

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

SAR Peak: 0.04 W/kg

SAR 10g (W/Kg)	0.014790
SAR 1g (W/Kg)	0.023174



1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road, Fuyong Street, Bao'an District, Shenzhen, Guangdong, China Tel: 0755-36886288 Fax: 0755-36886277 Http://www.stsapp.com E-mail: sts@stsapp.com

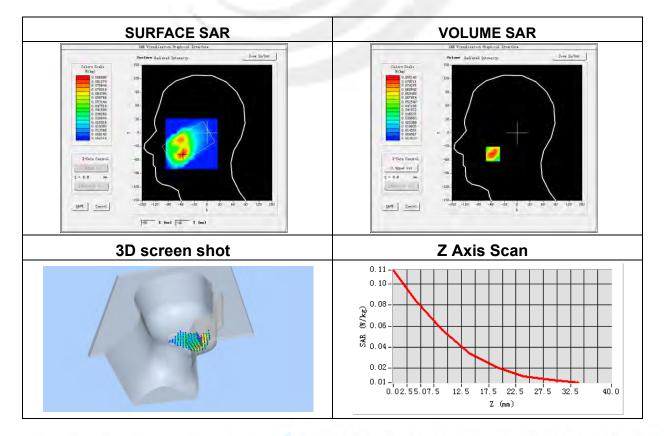


Plot 15: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	22.70
Liquid Temperature(℃)	22.30
Probe	SN 17/14 EP221
ConvF	4.71
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomSoon	5x5x7,dx=8mm dy=8mm dz=5mm,
ZoomScan	Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Channels	High
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	1909.8
Relative permittivity (real part)	39.57
Conductivity (S/m)	1.43
Variation (%)	3.18

Maximum location: X=-56.00, Y=-47.00 SAR Peak: 0.13 W/kg

SAR 10g (W/Kg)	0.046021
SAR 1g (W/Kg)	0.081570





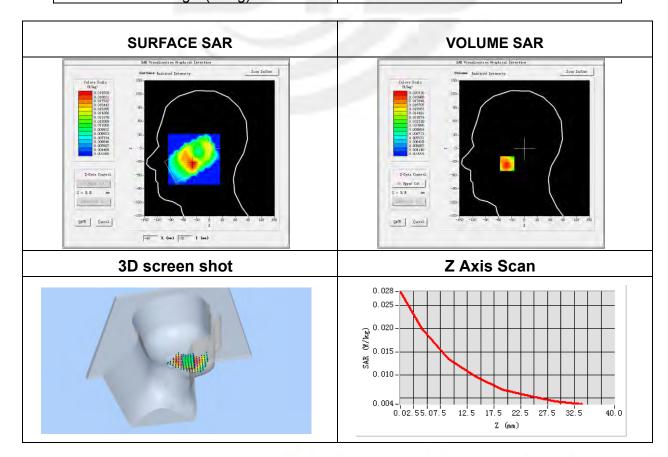
Plot 16: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	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
7	5x5x7,dx=8mm dy=8mm dz=5mm,
ZoomScan	Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Left head
Device Position	Tilt
Band	GSM1900
Channels	High
Signal	TDMA (Crest factor: 8.32)
Frequency (MHz)	1909.8
Relative permittivity (real part)	39.57
Conductivity (S/m)	1.43
Variation (%)	1.35

Maximum location: X=-39.00, Y=-34.00

SAR Peak: 0.03 W/kg

SAR 10g (W/Kg)	0.012542
SAR 1g (W/Kg)	0.019753



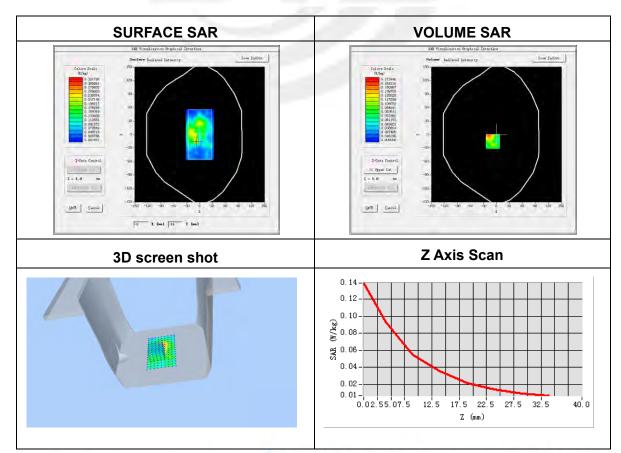


Plot 17: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(ℂ)	22.70
Liquid Temperature(℃)	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	GPRS 1900
Channels	Low
Signal	Duty Cycle:4.0 (Crest factor:4.0)
Frequency (MHz)	1850.2
Relative permittivity (real part)	51.68
Conductivity (S/m)	1.51
Variation (%)	-3.21

Maximum location: X=-9.00, Y=-15.00 SAR Peak:0.28 W/kg

SAR 10g (W/Kg)	0.071517
SAR 1g (W/Kg)	0.149698





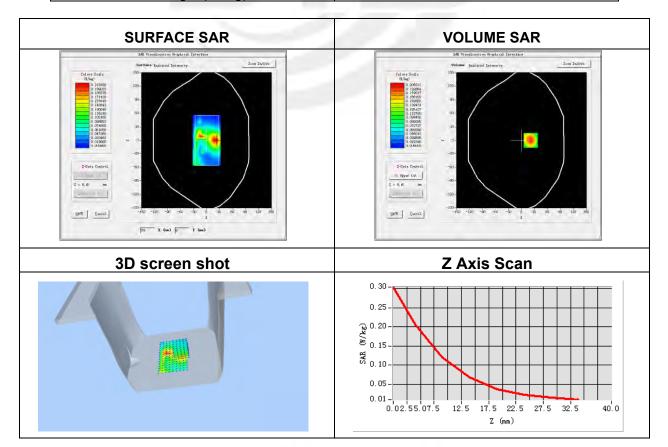
Plot 18: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	22.70
Liquid Temperature(℃)	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:4.0 (Crest factor:4.0)
Frequency (MHz)	1850.2
Relative permittivity (real part)	51.68
Conductivity (S/m)	1.51
Variation (%)	-2.03

Maximum location: X=21.00, Y=0.00

SAR Peak: 0.32 W/kg

SAR 10g (W/Kg)	0.105103
SAR 1g (W/Kg)	0.193523



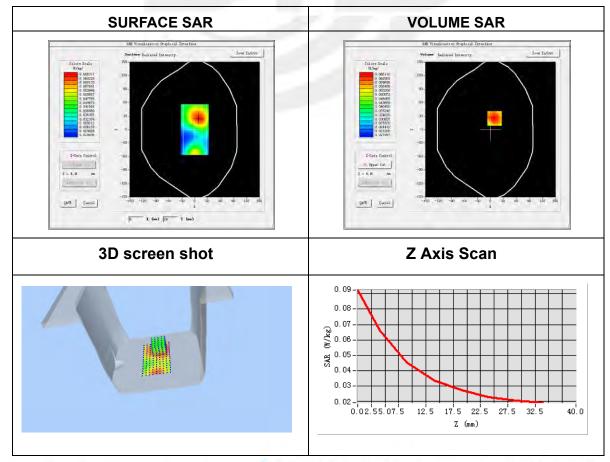


Plot 19: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
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	GPRS 1900
Channels	Low
Signal	Duty Cycle:4.0 (Crest factor:4.0)
Frequency (MHz)	1850.2
Relative permittivity (real part)	51.68
Conductivity (S/m)	1.51
Variation (%)	1.45

Maximum location: X=9.00, Y=25.00 SAR Peak: 0.09 W/kg

SAR 10g (W/Kg)	0.044698
SAR 1a (W/Ka)	0.064234



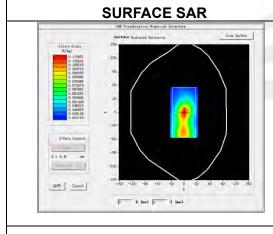


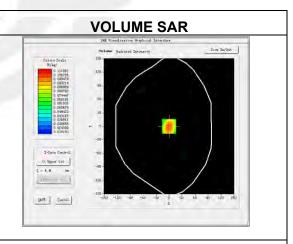
Plot 20: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
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:2.66 (Crest factor:2.66)
Frequency (MHz)	1850.2
Relative permittivity (real part)	51.68
Conductivity (S/m)	1.51
Variation (%)	-2.33

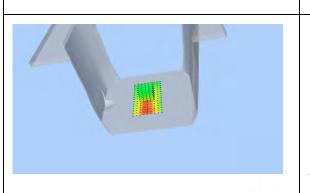
Maximum location: X=0.00, Y=0.00 SAR Peak: 0.17 W/kg

SAR 10g (W/Kg)	0.065226
SAR 1g (W/Kg)	0.107225

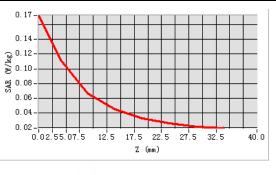




#### 3D screen shot



#### **Z** Axis Scan



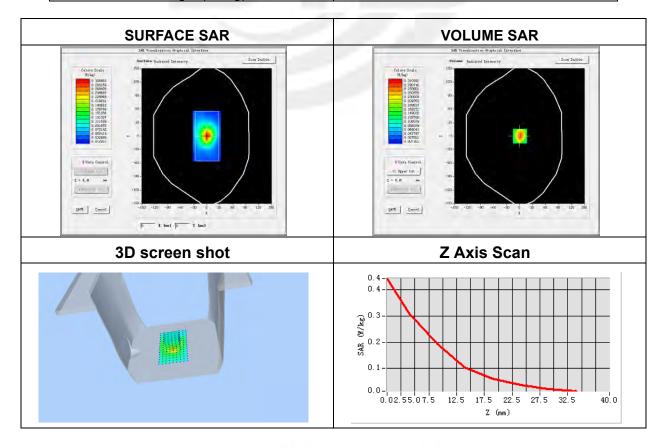


Plot 21: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	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:4.0 (Crest factor:4.0)
Frequency (MHz)	1850.2
Relative permittivity (real part)	51.68
Conductivity (S/m)	1.51
Variation (%)	-3.62

Maximum location: X=1.00, Y=0.00 SAR Peak: 0.46 W/kg

SAR 10g (W/Kg)	0.154155
SAR 1g (W/Kg)	0.287183





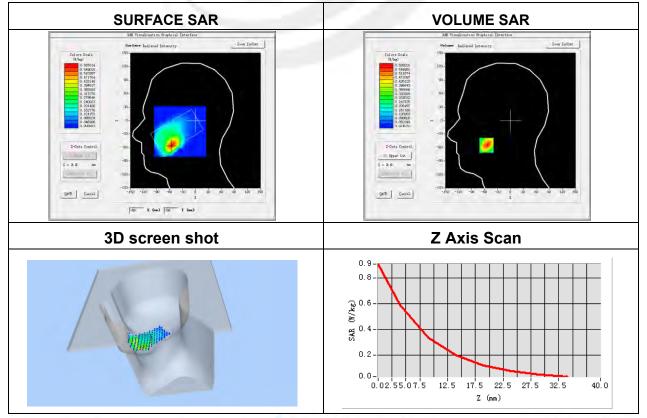
Plot 22: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
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	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1852.4
Relative permittivity (real part)	40.00
Conductivity (S/m)	1.40
Variation (%)	-1.01

Maximum location: X=-56.00, Y=-55.00

SAR Peak: 0.91 W/kg

SAR 10g (W/Kg)	0.305108
SAR 1g (W/Kg)	0.565146



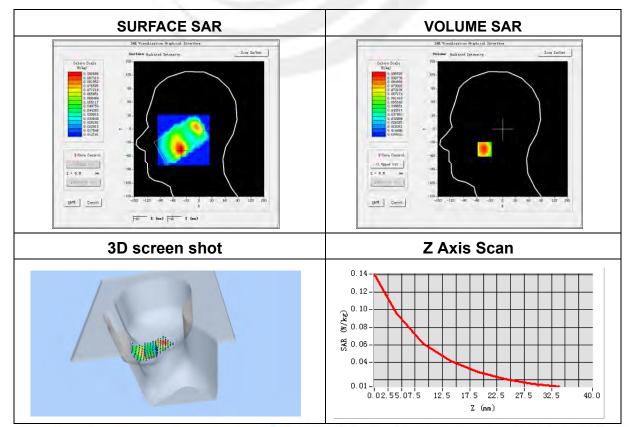


Plot 23: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	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	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1852.4
Relative permittivity (real part)	40.00
Conductivity (S/m)	1.40
Variation (%)	0.06

Maximum location: X=-42.00, Y=-45.00 SAR Peak: 0.14 W/kg

SAR 10g (W/Kg)	0.058120
SAR 1g (W/Kg)	0.093931





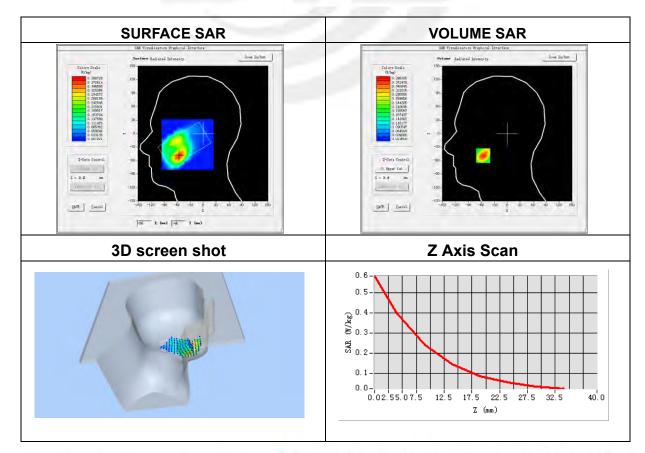
## Plot 24: DUT: Mobile Phone; EUT Model: S605

2015-09-14
22.70
22.30
SN 17/14 EP221
4.71
dx=8mm dy=8mm, h= 5.00 mm
5x5x7,dx=8mm dy=8mm dz=5mm,
Complete/ndx=8mm dy=8mm, h= 5.00 mm
Left head
Cheek
WCDMA II
Low
WCDMA (Crest factor: 1.0)
1852.4
40.00
1.40
-1.43

Maximum location: X=-56.00, Y=-49.00

SAR Peak: 0.59 W/kg

SAR 10g (W/Kg)	0.210020
SAR 1g (W/Kg)	0.381264





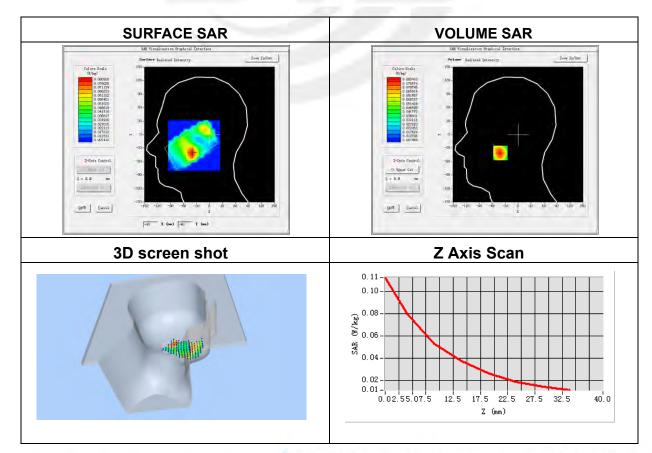
Plot 25: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(ℂ)	22.70
Liquid Temperature(℃)	22.30
Probe	SN 17/14 EP221
ConvF	4.71
Area Scan	dx=8mm dy=8mm, h= 5.00 mm
ZoomSoon	5x5x7,dx=8mm dy=8mm dz=5mm,
ZoomScan	Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Left head
Device Position	Tilt
Band	WCDMA II
Channels	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1852.4
Relative permittivity (real part)	40.00
Conductivity (S/m)	1.40
Variation (%)	2.79

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

SAR Peak: 0.11 W/kg

SAR 10g (W/Kg)	0.048963
SAR 1g (W/Kg)	0.077868





Plot 26: DUT: Mobile Phone; EUT Model: S605

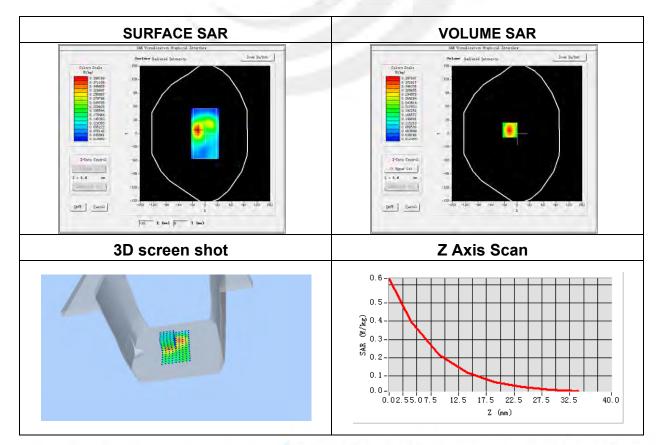
2015-09-14
22.70
22.30
SN 17/14 EP221
4.85
dx=8mm dy=8mm, h= 5.00 mm
5x5x7,dx=8mm dy=8mm dz=5mm,
Complete/ndx=8mm dy=8mm, h= 5.00 mm
Validation plane
Body Front
WCDMA II
Low
WCDMA (Crest factor: 1.0)
1852.4
53.30
1.52
-1.87

Maximum location: X=17.00, Y=8.00

SAR Peak: 0.63 W/kg

SAR 10g (W/Kg) 0.202486

SAR 1g (W/Kg) 0.382001



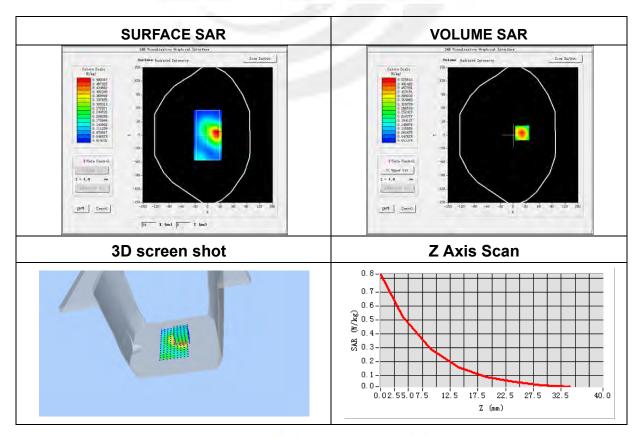


Plot 27: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	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
ZoomSoon	5x5x7,dx=8mm dy=8mm dz=5mm,
ZoomScan	Complete/ndx=8mm dy=8mm, h= 5.00 mm
Phantom	Validation plane
Device Position	Body back side
Band	WCDMA II
Channels	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1852.4
Relative permittivity (real part)	39.71
Conductivity (S/m)	1.40
Variation (%)	-1.14

Maximum location: X=21.00, Y=5.00 SAR Peak: 0.82 W/kg

SAR 10g (W/Kg)	0.271029
SAR 1g (W/Kg)	0.504518



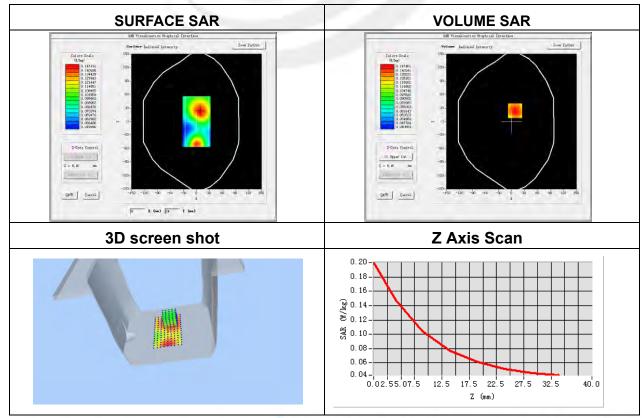


## Plot 28: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	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	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1852.4
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	0.61

Maximum location: X=8.00, Y=24.00 SAR Peak: 0.20 W/kg

SAR 10g (W/Kg) 0.101728 SAR 1g (W/Kg) 0.145576



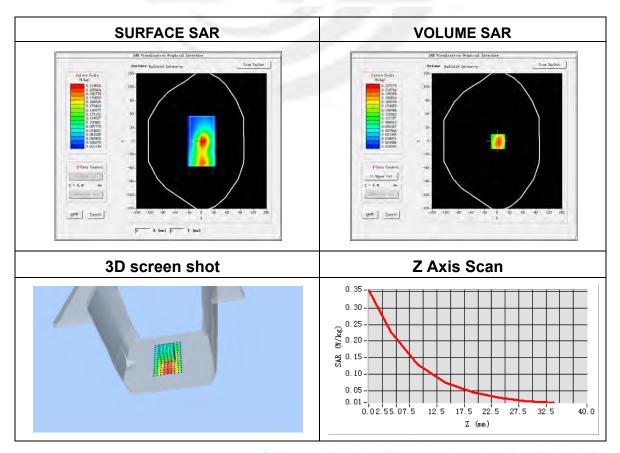


## Plot 29: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(C)	22.70
Liquid Temperature(℃)	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	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	1852.4
Relative permittivity (real part)	53.30
Conductivity (S/m)	1.52
Variation (%)	-0.93

Maximum location: X=2.00, Y=-1.00 SAR Peak:0.35 W/kg

SAR 10g (W/Kg) 0.121520 SAR 1g (W/Kg) 0.219458



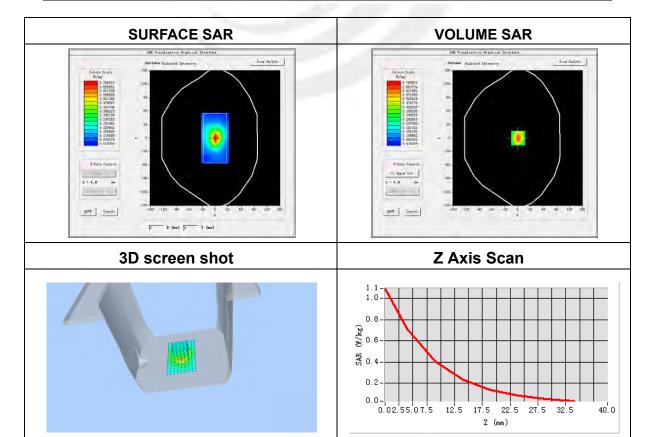


Plot 30: DUT: Mobile Phone; EUT Model: S605

2015-09-14
22.70
22.30
SN 17/14 EP221
4.85
dx=8mm dy=8mm, h= 5.00 mm
5x5x7,dx=8mm dy=8mm dz=5mm,
Complete/ndx=8mm dy=8mm, h= 5.00 mm
Validation plane
Body Bottom side
WCDMA II
Low
WCDMA (Crest factor: 1.0)
1852.4
53.30
1.52
-0.50

Maximum location: X=1.00, Y=0.00 SAR Peak: 1.09 W/kg

SAR 10g (W/Kg)	0.354501
SAR 1g (W/Kg)	0.673681





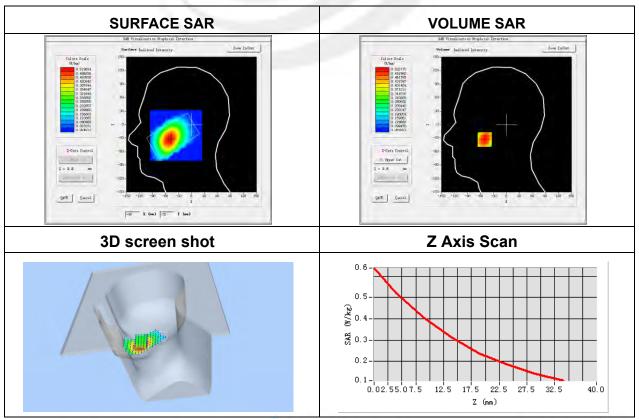
Plot 31: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
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	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	826.4
Relative permittivity (real part)	42.27
Conductivity (S/m)	0.91
Variation (%)	0.87

Maximum location: X=-51.00, Y=-33.00

SAR Peak: 0.65 W/kg

SAR 10g (W/Kg)	0.367752
SAR 1a (W/Ka)	0.506894



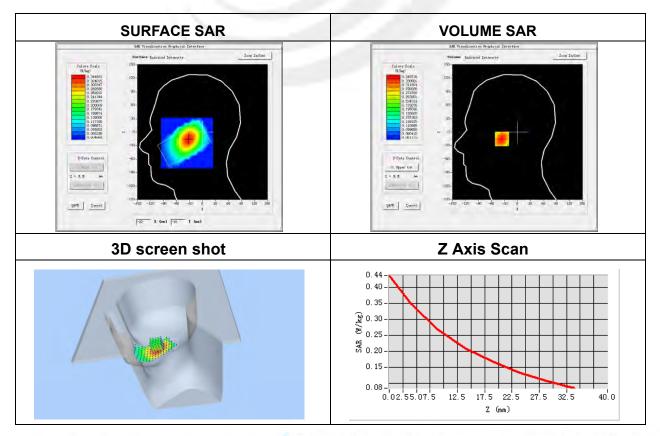


Plot 32: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(C)	22.70
Liquid Temperature(℃)	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	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	826.4
Relative permittivity (real part)	42.27
Conductivity (S/m)	0.91
Variation (%)	0.52

Maximum location: X=-32.00, Y=-15.00 SAR Peak: 0.44 W/kg

	9
SAR 10g (W/Kg)	0.248142
SAR 1g (W/Kg)	0.340140



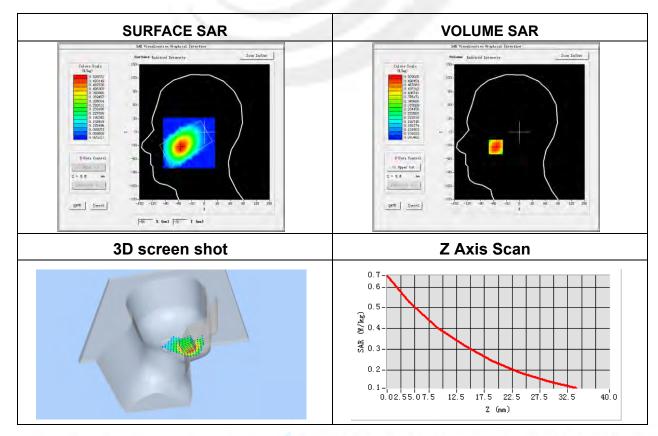


Plot 33: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	22.70
Liquid Temperature(℃)	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	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	826.4
Relative permittivity (real part)	42.27
Conductivity (S/m)	0.91
Variation (%)	1.00

Maximum location: X=-55.00, Y=-33.00 SAR Peak: 0.67 W/kg

SAR 10g (W/Kg)	0.368786
SAR 1g (W/Kg)	0.516187



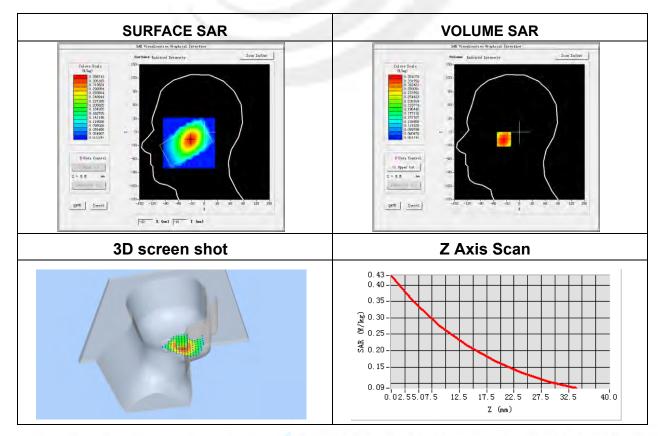


Plot 34: DUT: Mobile Phone; EUT Model: S605

2015-09-14
22.70
22.30
SN 17/14 EP221
4.83
dx=8mm dy=8mm, h= 5.00 mm
5x5x7,dx=8mm dy=8mm dz=5mm,
Complete/ndx=8mm dy=8mm, h= 5.00 mm
Left head
Tilt
WCDMA V
Low
WCDMA (Crest factor: 1.0)
826.4
42.27
0.91
-0.07

Maximum location: X=-32.00, Y=-16.00 SAR Peak: 0.43 W/kg

SAR 10g (W/Kg) 0.252060 SAR 1g (W/Kg) 0.342356





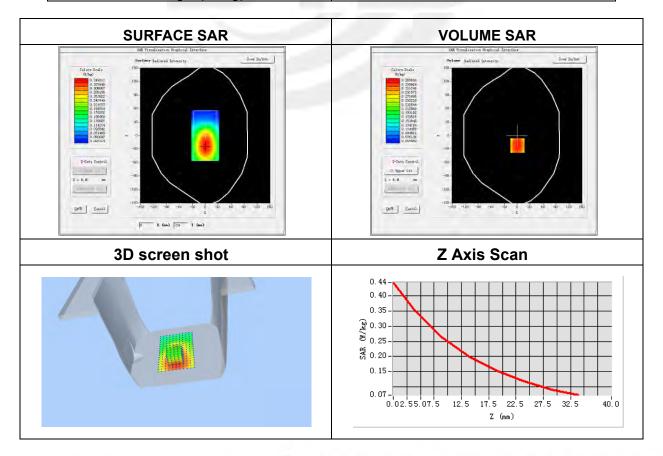
Plot 35: DUT: Mobile Phone; EUT Model: S605

<u> </u>	,, , , , , , , , , , , , , , , , ,	
Test Data	2015-09-14	
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	Low	
Signal	WCDMA (Crest factor: 1.0)	
Frequency (MHz)	826.4	
Relative permittivity (real part)	55.5	
Conductivity (S/m)	0.96	
Variation (%)	0.17	
L CONTRACTOR CONTRACTO		

Maximum location: X=1.00, Y=-22.00

SAR Peak: 0.44 W/kg

SAR 10g (W/Kg)	0.246491
SAR 1g (W/Kg)	0.341083



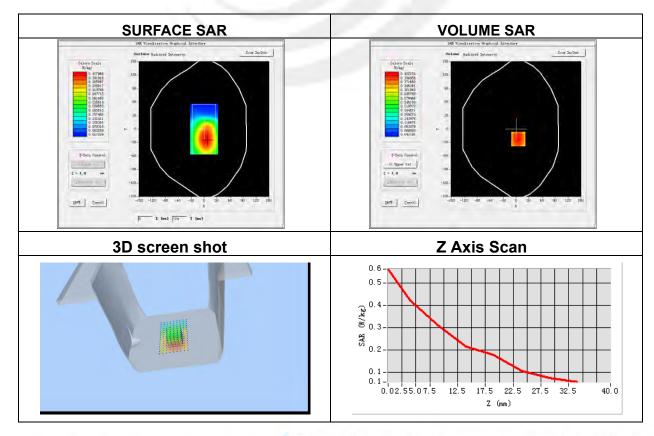


Plot 36: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	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	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	826.4
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	0.16

Maximum location: X=5.00, Y=-22.00 SAR Peak: 0.58 W/kg

Chillian Coo Wing	
SAR 10g (W/Kg)	0.284466
SAR 1a (W/Ka)	0.417267



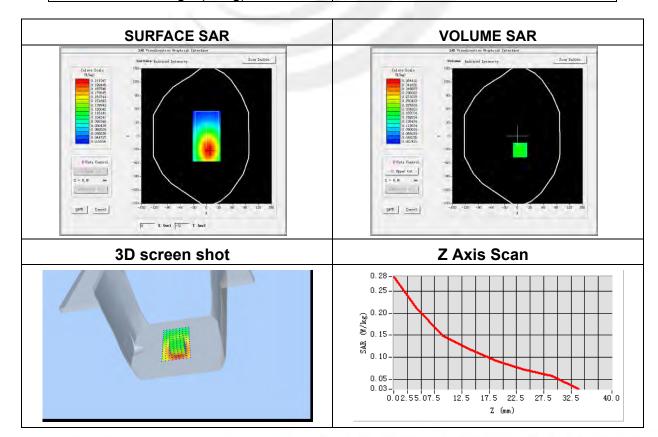


Plot 37: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(ℂ)	22.70
Liquid Temperature(℃)	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	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	826.4
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	0.01

Maximum location: X=6.00, Y=-31.00 SAR Peak: 0.37 W/kg

SAR 10g (W/Kg)	0.142254
SAR 1g (W/Kg)	0.211834



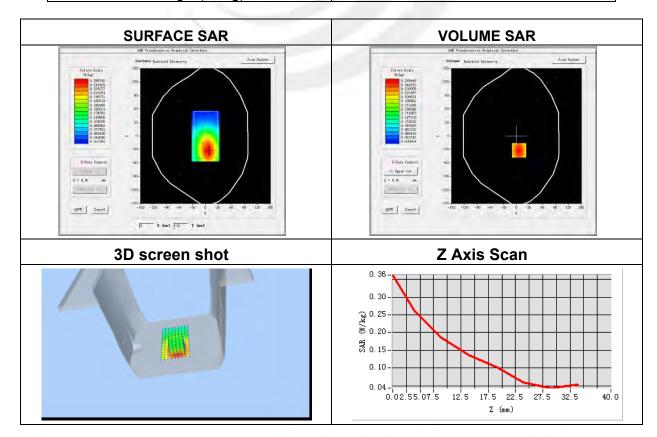


Plot 38: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	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	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	826.4
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	0.14

Maximum location: X=6.00, Y=-32.00 SAR Peak: 0.36 W/kg

	<u> </u>
SAR 10g (W/Kg)	0.173190
SAR 1g (W/Kg)	0.257519



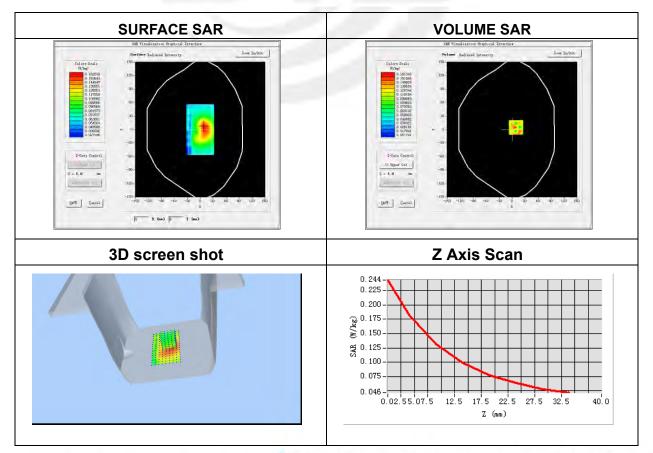


Plot 39: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
Ambient Temperature(℃)	22.70
Liquid Temperature(℃)	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	Low
Signal	WCDMA (Crest factor: 1.0)
Frequency (MHz)	826.4
Relative permittivity (real part)	55.5
Conductivity (S/m)	0.96
Variation (%)	-0.37

Maximum location: X=9.00, Y=5.00 SAR Peak: 0.30 W/kg

SAR 10g (W/Kg)	0.090542
SAR 1g (W/Kg)	0.135268



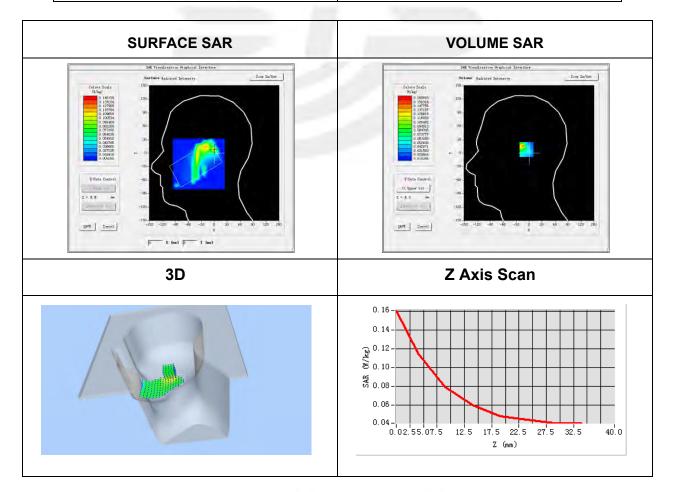


Plot 40: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
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	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2437
Relative permittivity (real part)	37.8
Conductivity (S/m)	1.86
Variation (%)	3.68

Maximum location: X=-67.00, Y=-35.00 SAR Peak: 0.20 W/kg

SAR 10g (W/Kg)	0.072410
SAR 1g (W/Kg)	0.114470



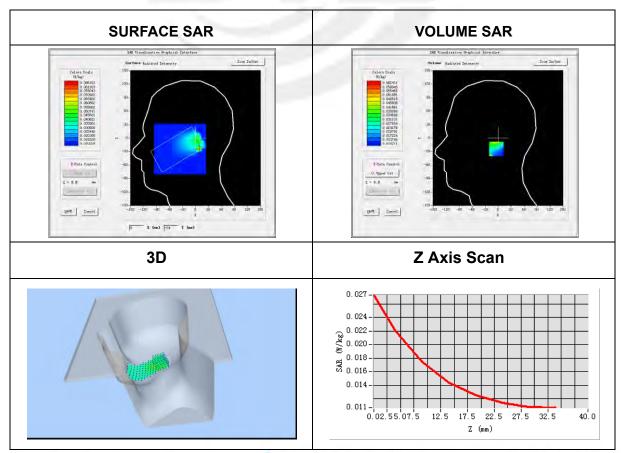


Plot 41: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
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)	37.8
Conductivity (S/m)	1.86
Variation (%)	-3.13

Maximum location: X=8.00, Y=-24.00 SAR Peak: 0.15 W/kg

SAR 10g (W/Kg)	0.017755
SAR 1g (W/Kg)	0.022164



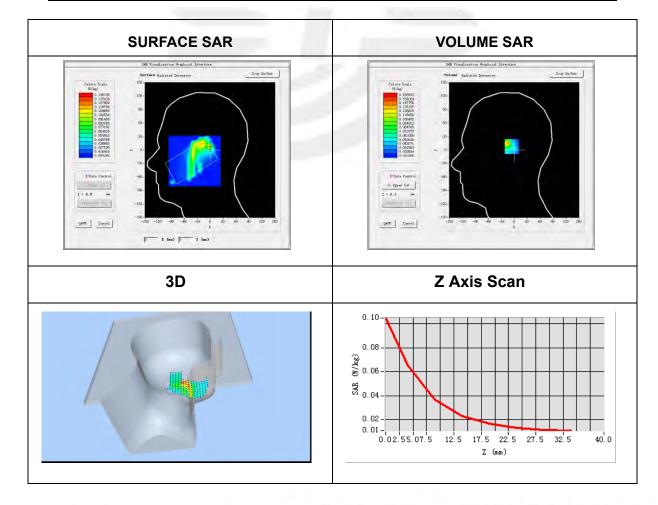


Plot 42: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
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)	37.8
Conductivity (S/m)	1.86
Variation (%)	1.23

Maximum location: X=0.00, Y=8.00 SAR Peak: 0.39 W/kg

SAR 10g (W/Kg)	0.050615
SAR 1g (W/Kg)	0.141152



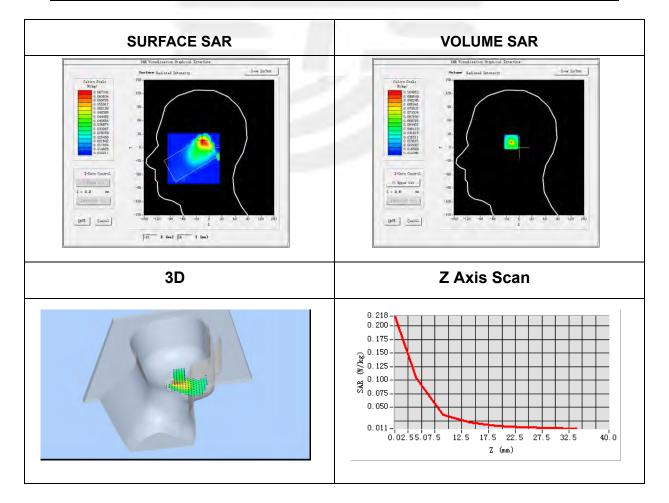


Plot 43: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
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	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2437
Relative permittivity (real part)	37.8
Conductivity (S/m)	1.86
Variation (%)	-1.13

Maximum location: X=-15.00, Y=14.00 SAR Peak: 0.21 W/kg

SAR 10g (W/Kg)	0.039050
SAR 1g (W/Kg)	0.090207



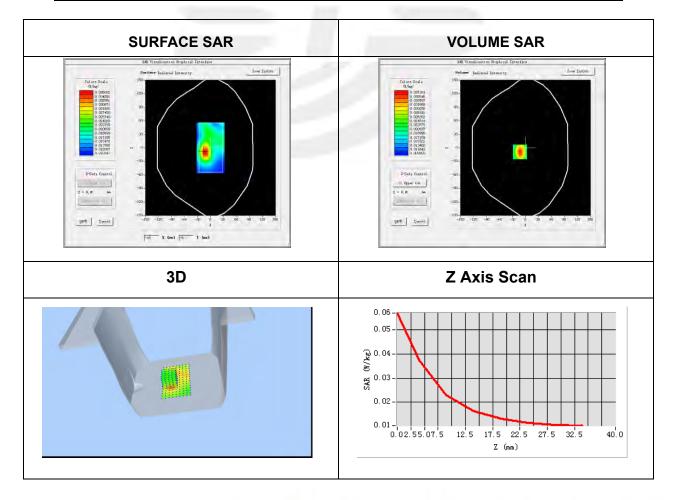


Plot 44: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
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	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2437
Relative permittivity (real part)	51.2
Conductivity (S/m)	1.95
Variation (%)	-0.15

Maximum location: X=-13.00, Y=-9.00 SAR Peak: 0.06 W/kg

SAR 10g (W/Kg)	0.022370
SAR 1g (W/Kg)	0.035953



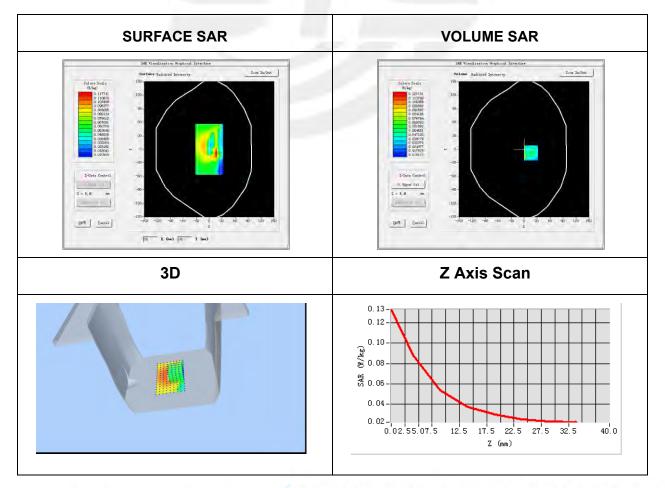


## Plot 45: DUT: Mobile Phone; EUT Model: S605

Test Data	2015-09-14
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	IEEE802.b (Crest factor: 1.0)
Frequency (MHz)	2437
Relative permittivity (real part)	51.2
Conductivity (S/m)	1.95
Variation (%)	-0.01

Maximum location: X=16.00, Y=-8.00 SAR Peak: 0.13 W/kg

SAR 10g (W/Kg)	0.035569
SAR 1g (W/Kg)	0.066133



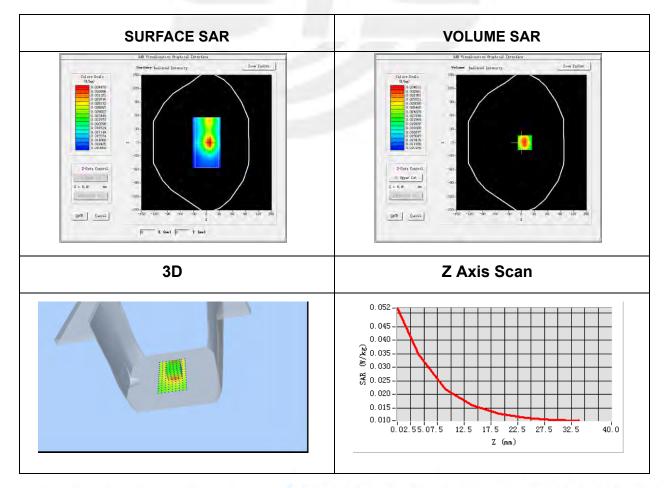


## Plot 46: DUT: Mobile Phone; EUT Model: S605

<del>-</del>
2015-09-14
SN 17/14 EP221
4.25
dx=8mm dy=8mm, h= 5.00 mm
5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Validation plane
Body right side
IEEE 802.11b ISM
Middle
IEEE802.b (Crest factor: 1.0)
2437
51.2
1.95
-0.35

Maximum location: X=7.00, Y=0.00 SAR Peak: 0.05 W/kg

SAR 10g (W/Kg)	0.021615
SAR 1g (W/Kg)	0.033491



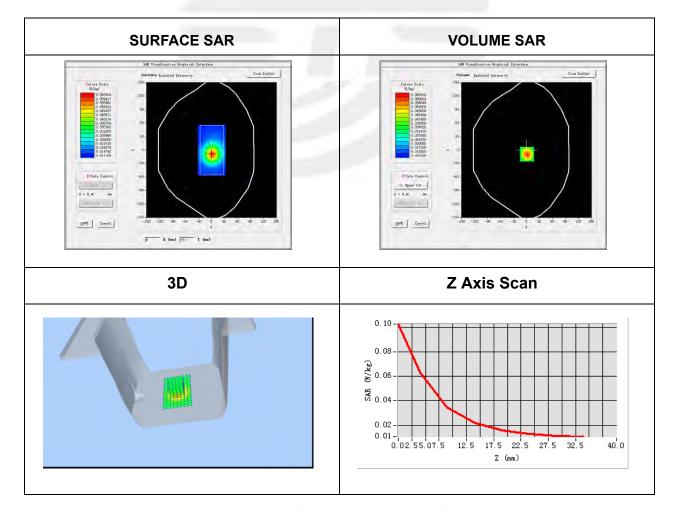


Plot 47: DUT: Mobile Phone; EUT Model: S605

2015-09-14
SN 17/14 EP221
4.25
dx=8mm dy=8mm, h= 5.00 mm
5x5x7,dx=8mm dy=8mm dz=5mm, Complete/ndx=8mm dy=8mm, h= 5.00 mm
Validation plane
Body top side
IEEE 802.11b ISM
Middle
IEEE802.b (Crest factor: 1.0)
2437
51.2
1.95
-1.18

Maximum location: X=1.00, Y=-9.00 SAR Peak: 0.10 W/kg

SAR 10g (W/Kg)	0.033962
SAR 1g (W/Kg)	0.060466





# Appendix C. Probe Calibration And Dipole Calibration Report

Refer the appendix Calibration Report.

\*\*\*\*\*END OF THE REPORT\*\*\*