

FCC SAR TEST REPORT

ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR
LTE Digital Mobile Handset

ISSUED TO
ZTE Corporation

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District,
Shenzhen, Guangdong, P.R.China



Tested by: Tu Lang
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Date: Jun. 16, 2016
Approved by: Deng Jiankun
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(General Manager)
Date: Jun. 24, 2016

Report No.: BL-SZ1660087-701

EUT Type: LTE Digital Mobile Handset

Model Name: ZTE Blade A511

Brand Name: ZTE

FCC ID: SRQ-A511

Test Standard: FCC 47 CFR Part 2.1093

ANSI C95.1: 1999

IEEE 1528: 2013

Maximum SAR: Head (1 g): 0.514 W/kg

Body (1 g): 1.125 W/kg

Test Conclusion: Pass

Test Date: Jun. 16, 2016 ~ Jun. 21, 2016

Date of Issue: Jun. 24, 2016

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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Jun. 24, 2016</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100
Fax Number	+86 755 6182 4271

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A-1. The laboratory has been listed by US Federal Communications Commission to perform electromagnetic emission measurements. The recognition numbers of test site are 832625. The laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L6791.
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

1.3 Test Environment Condition

Ambient Temperature	20 to 23°C
Ambient Relative Humidity	38 to 49%
Ambient Pressure	100 to 102KPa

1.4 Announce

- (1) The test report reference to the report template version v2.2.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- (5) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.
- (6) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	ZTE Corporation
Address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China

2.2 Manufacturer Information

Manufacturer	ZTE Corporation
Address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China

2.3 Factory Information

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Type	LTE Digital Mobile Handset
Model Name Under Test	ZTE Blade A511
Series Model Name	Blade A511
Description of Model Name Differentiation	The equipment model ZTE Blade A511 and Blade A511 are LTE Digital Mobile Handset, the electrical parameters and internal structure of circuit are same, only the model name is different.
Hardware Version	V1AMB_A
Software Version	A511_ChileMovistar_1.01
Dimensions	145 × 73 × 7mm
Overall Diagonal	156mm
Display Diagonal	128mm
Network and Wireless connectivity	2G Network GSM 850/ 1900;GPRS Class 12; EDGE Class 12; 3G Network WCDMA Band 2/ 5, HSDPA, HSUPA; 4G Network FDD LTE Band 4/ 7/ 28 2.4G WLAN, Bluetooth, FM, GPS, GLONASS

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	ZTE
	Model No.	Li3822T43P3h786032
	Serial No.	N/A
	Capacitance	2200 mAh
	Rated Voltage	3.8 V
	Extreme Voltage	4.35 V
Ancillary Equipment 2	Charger 1	
	Brand Name	ZTE
	Model No.	STC-A22O50I1000USBA-A
	Rated Input	100-240 V~, 0.2 A, 50/60 Hz
	Rated Output	5 V=, 1 A
Ancillary Equipment 3	Charger 2	
	Brand Name	OPPO
	Model No.	S01A22
	Rated Input	100-240 V~, 0.3 A, 50/60 Hz
	Rated Output	5 V=, 1 A

2.6 Technical Information

The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	GSM, WCDMA, FDD-LTE, 2.4G WLAN, Bluetooth		
Frequency Range	GSM 850	TX: 824 MHz ~ 849 MHz	RX: 869 MHz ~ 894 MHz
	GSM 1900	TX: 1850 MHz ~ 1910 MHz	RX: 1930 MHz ~ 1990 MHz
	WCDMA Band 2	TX: 1850 MHz ~ 1910 MHz	RX: 1930 MHz ~ 1990 MHz
	WCDMA Band 5	TX: 824 MHz ~ 849 MHz	RX: 869 MHz ~ 894 MHz
	LTE Band 4	TX: 1710 MHz ~ 1755 MHz	RX: 2110 MHz ~ 2155 MHz
	LTE Band 7	TX: 2500 MHz ~ 2570 MHz	RX: 2620 MHz ~ 2690 MHz
	LTE Band 28	TX: 703 MHz ~ 748 MHz	RX: 758 MHz ~ 803 MHz
	802.11b/g /n(HT20/HT40)	2400~2483.5 MHz	
	Bluetooth	2400~2483.5 MHz	
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna		
DTM	Not Support		
Hotspot Function	Support		
Power Reduction	Not Support		
Exposure Category	General Population/Uncontrolled exposure		
EUT Stage	Portable Device		
Product	Type		
	☒ Production unit		☐ Identical prototype

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-1999	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 941225 D01 v03r01	3G SAR MEAUREMENT PROCEDURES
6	FCC KDB 941225 D05 v02r05	SAR Evaluation Considerations for LTE Devices
7	FCC KDB 941225 D06 v02r01	SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities
8	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
9	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
10	FCC KDB 648474 D04 v01r03	SAR Evaluation Considerations for Wireless Handsets

3.2 Device Category and SAR Limit

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user. Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

Table of Exposure Limits:

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

NOTE:

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

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

3.3 Test Result Summary

3.3.1 Highest SAR (1 g Value)

Band	Maximum Scaled SAR (W/kg)			Maximum Report SAR (W/kg)			Limit (W/kg)
	Head	Body-worn	Hotspot	Head	Body-worn	Hotspot	
GSM 850	0.336	0.587	0.727	0.514	1.125	1.125	1.6
GSM 1900	0.355	0.939	1.074				
WCDMA Band 2	0.333	1.125	1.125				
WCDMA Band 5	0.278	0.367	0.367				
LTE Band 4	0.514	1.069	1.069				
LTE Band 7	0.328	0.891	0.891				
LTE Band 28	0.211	0.261	0.261				
2.4G WLAN	0.347	0.160	0.160				
Verdict	Pass						

3.3.2 Highest Simultaneous SAR

Position	Simultaneous Configuration	Simultaneous SAR (W/kg)	Limit (W/kg)	Verdict
Head	LTE QPSK + 2.4G WLAN	0.861	1.6	Pass
Body-worn	WCDMA RMC + 2.4G WLAN	1.285	1.6	Pass
Hotspot Mode	WCDMA RMC + 2.4G WLAN	1.285	1.6	Pass

3.4 Test Uncertainty

According to KDB 865664 D01, When the highest measured 1 g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis is not required in SAR reports submitted for equipment approval.

The maximum 1 g SAR for the EUT in this report is 1.125 W/kg, which is lower than 1.5 W/kg, so the the extensive SAR measurement uncertainty analysis is not required in this report.

4 SAR MEASUREMENT SYSTEM

4.1 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:

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

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

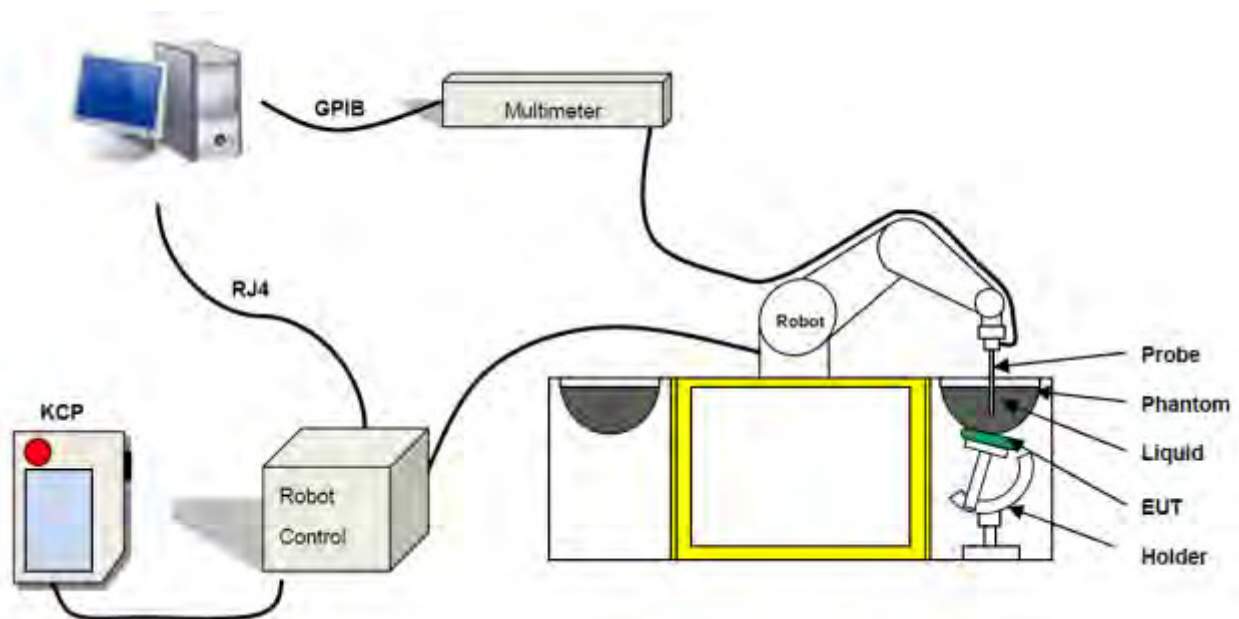
$$\text{SAR} = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue,

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

4.2 SATIMO SAR System

4.2.1 SATIMO SAR System Diagram



These measurements were performed with the automated near-field scanning system OPENSAR from SATIMO. The system is based on a high precision robot (working range: 850 mm), which positions the probes with a positional repeatability of better than ± 0.02 mm. Special E- and H-field probes have been developed for measurements close to material discontinuity, the sensors of which are directly loaded with a Schottky diode and connected via highly resistive lines to the data acquisition unit.

The SAR measurements were conducted with dosimetric probe (manufactured by SATIMO), designed in the classical triangular configuration and optimized for dosimetric evaluation. The probe has been calibrated according to the procedure described in SAR standard with accuracy of better than $\pm 10\%$. The spherical isotropy was evaluated with the procedure described in SAR standard and found to be better than ± 0.25 dB. The phantom used was the SAM Phantom as described in FCC supplement C, IEEE P1528.

4.2.2 Robot

The SATIMO SAR system uses the high precision robots from KUKA. For the 6-axis controller system, the robot controller version (KUKA) from KUKA is used. The KUKA robot series have many features that are important for our application:



- High precision (repeatability ± 0.035 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)

4.2.3 E-Field Probe

For the measurements the Specific Dosimetric E-Field Probe SN 34/15 EPGO 265 with following specifications is used

- Dynamic range: 0.01-100 W/kg
- Tip Diameter : 2.5 mm
- Lower detection limit : 7 mW/kg
- (repeatability better than ± 1 mm)
- Probe linearity: ± 0.07 dB

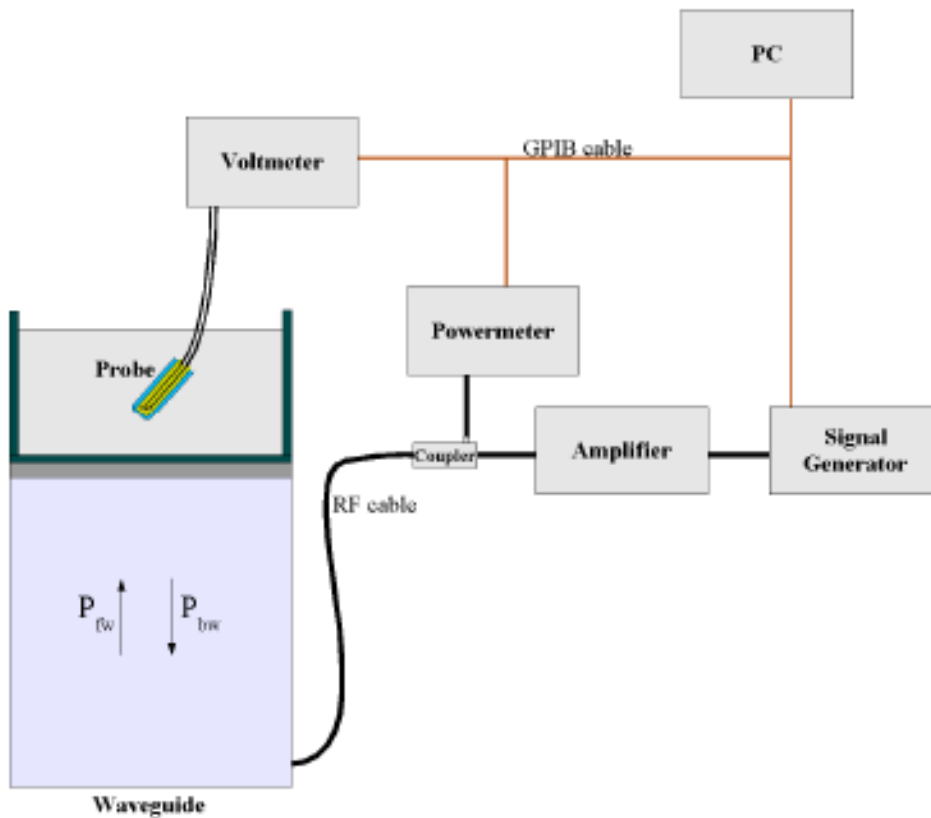
- Calibration range: 450 MHz to 5800 MHz for head & body simulating liquid.

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



E-Field Probe Calibration Process

Probe calibration is realized, in compliance with CENELEC EN 62209-1/-2 and IEEE 1528 std, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the IEC62209-1/2 annexe technique using reference guide at the five frequencies.



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

Where :

P_{fw} = Forward Power

P_{bw} = Backward Power

a and b = Waveguide Dimensions

δ = Skin Depth

Keithley configuration

Rate = Medium; Filter =ON; RDGS=10; FILTER TYPE =MOVING AVERAGE; RANGE AUTO After each calibration, a SAR measurement is performed on a validation dipole and compared with a NPL calibrated probe, to verify it.

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

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

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

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

Where the DCP is the diode compression point in mV.

4.2.4 Phantoms

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

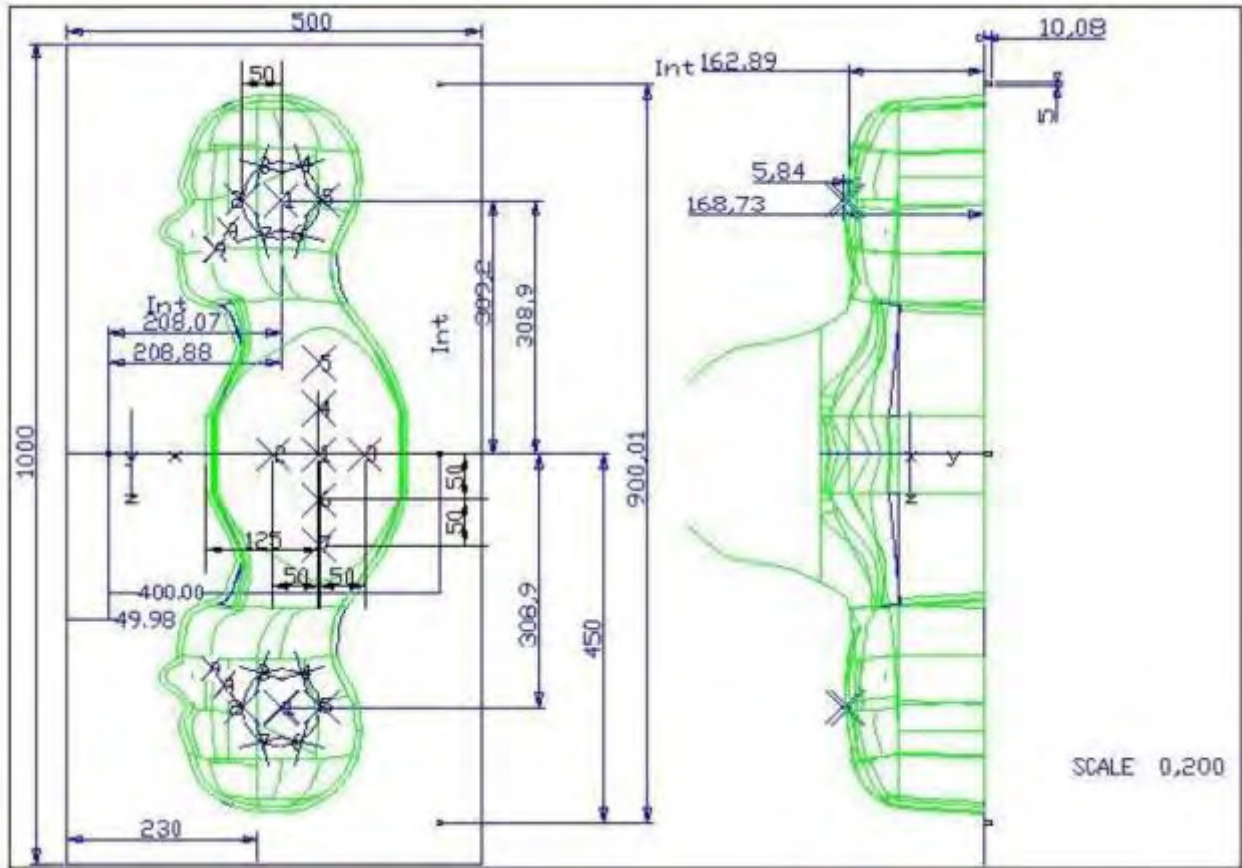
Photo of Phantom SN 30/13 SAM103



Photo of Phantom SN 30/13 SAM104



Serial Number	Positionner Material	Permittivity	Loss Tangent
SN 30/13 SAM103	Gelcoat with fiberglass	3.4	0.02
SN 30/13 SAM104	Gelcoat with fiberglass	3.4	0.02



Serial Number	Left Head		Right Head		Flat Part	
SN 30/13 SAM103	2	2.00	2	2.03	1	2.09
	3	2.02	3	2.05	2	2.10
	4	2.04	4	2.04	3	2.09
	5	2.04	5	2.07	4	2.11
	6	2.02	6	2.07	5	2.11
	7	2.01	7	2.09	6	2.09
	8	2.04	8	2.10	7	2.11
	9	2.02	9	2.09	-	-
SN 30/13 SAM104	2	2.05	2	2.06	1	2.03
	3	2.08	3	2.03	2	2.03
	4	2.05	4	2.03	3	2.01
	5	2.06	5	2.02	4	2.03
	6	2.08	6	2.02	5	2.03
	7	2.06	7	2.04	6	2.00
	8	2.07	8	2.04	7	1.98
	9	2.07	9	2.05	-	-

4.2.5 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.

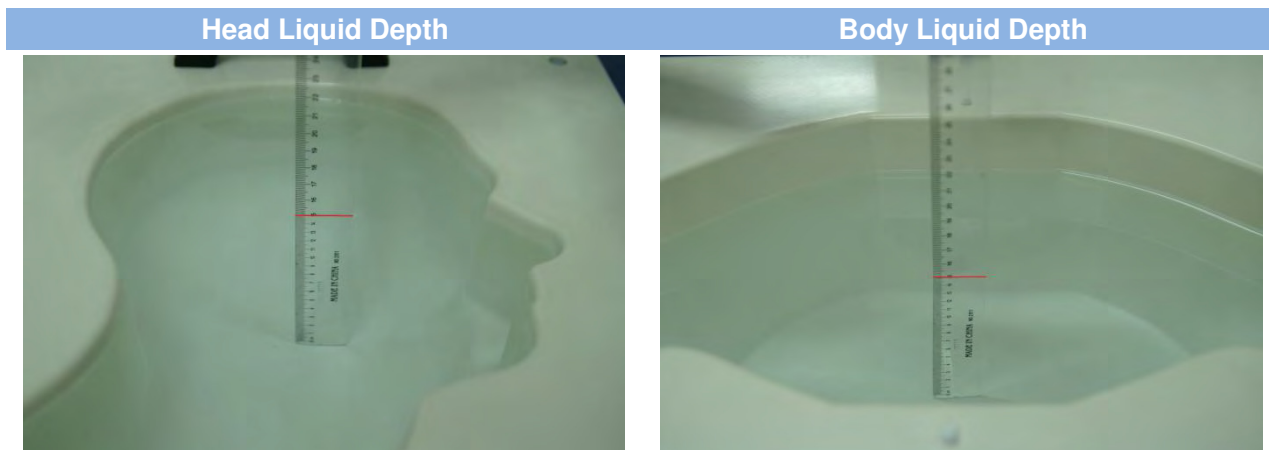


Serial Number	Holder Material	Permittivity	Loss Tangent
SN 25/13 MSH87	Deirin	3.7	0.005
SN 25/13 MSH88	Deirin	3.7	0.005

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

4.2.6 Simulating Liquid

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



The following table gives the recipes for tissue simulating liquid and the theoretical Conductivity/Permittivity.

Head (Reference IEEE1528)								
Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity σ (S/m)	Permittivity ϵ
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
900	40.3	57.9	0.2	1.4	0.2	0	0.97	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.4	40.0
2450	55.0	0	0	0.1	0	44.9	1.80	39.2
2600	54.9	0	0	0.1	0	45.0	1.96	39.0
Frequency(MHz)	Water (%)	Hexyl Carbitol (%)			Triton X-100 (%)		Conductivity σ (S/m)	Permittivity ϵ
5200	62.52	17.24			17.24		4.66	36.0
5800	62.52	17.24			17.24		5.27	35.3
Body (From instrument manufacturer)								
Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity σ (S/m)	Permittivity ϵ
750	51.7	47.2	0	0.9	0.1	0	0.96	55.5
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
900	50.8	48.2	0	0.9	0.1	0	1.05	55.0
1800, 1900, 2000	70.2	0	0	0.4	0	29.4	1.52	53.3
2450	68.6	0	0	0.1	0	31.3	1.95	52.7
2600	68.2	0	0	0.1	0	31.7	2.16	52.5

Frequency(MHz)	Water	DGBE (%)	Salt (%)	Conductivity σ (S/m)	Permittivity ϵ
5200	78.60	21.40	/	5.54	47.86
5800	78.50	21.40	0.1	6.0	48.20

5 SYSTEM VERIFICATION

5.1 Antenna Port Test Requirement

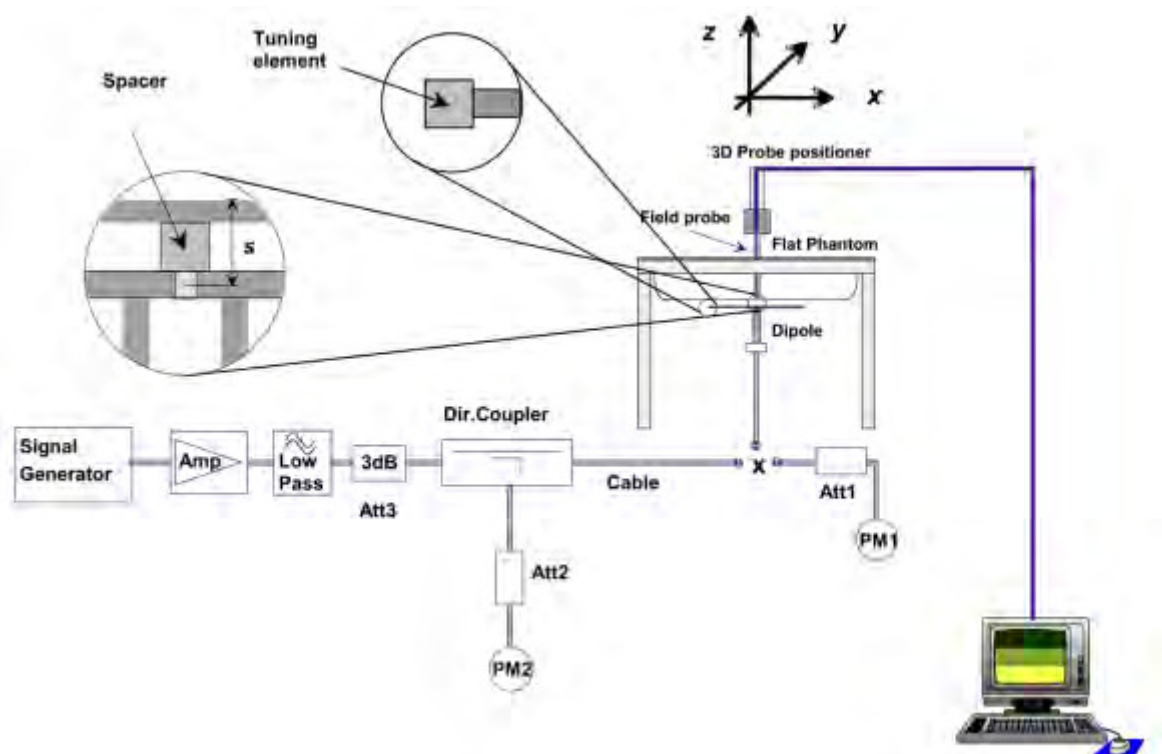
The SATIMO SAR system is equipped with one or more system validation kits. These units together with the predefined measurement procedures within the SATIMO software enable the user to conduct the system performance check and system validation. System validation kit includes a dipole, tripod holder to fix it underneath the flat phantom and a corresponding distance holder.

5.2 Purpose of System Check

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

5.3 System Check Setup

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



6 EUT TEST POSITION CONFIGURATIONS

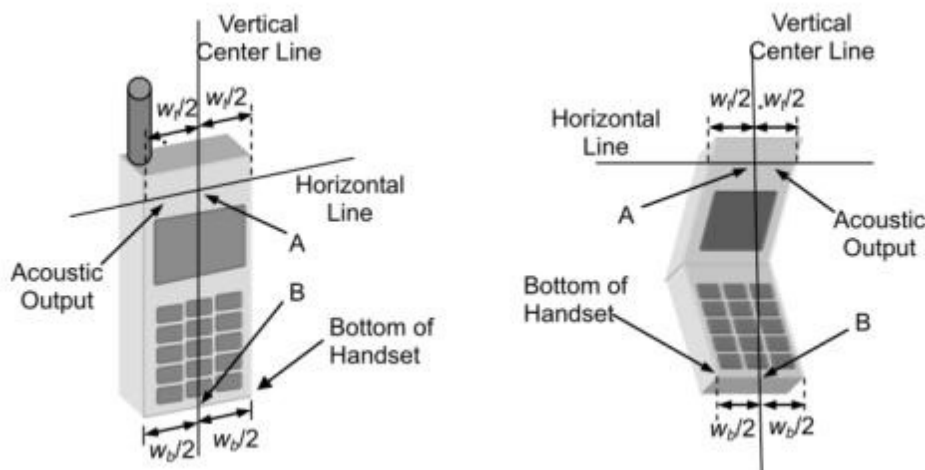
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

6.1 Head Exposure Conditions

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

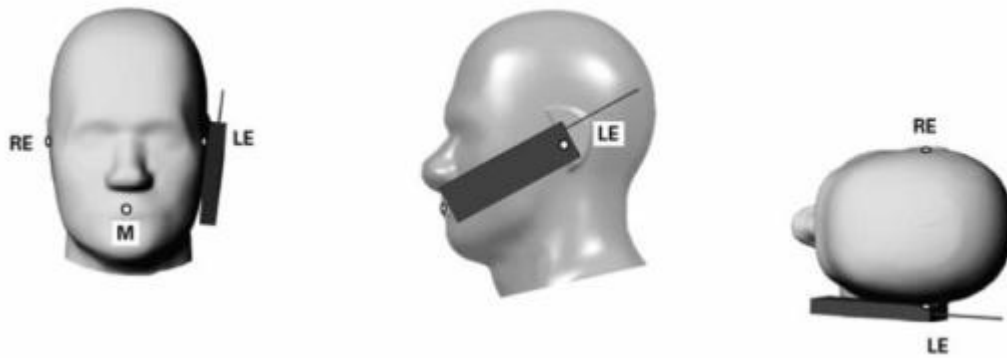
6.1.1 Define two imaginary lines on the handset

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



6.1.2 Cheek Position

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



6.1.3 Tilted Position

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



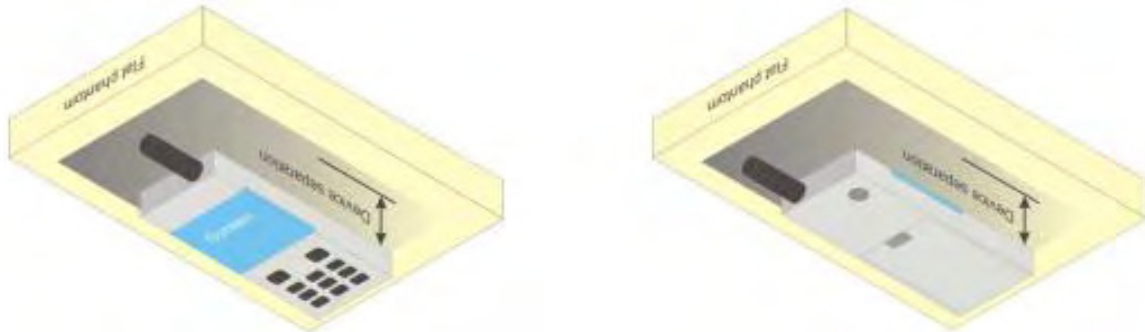
6.2 Body-worn Position Conditions

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB 447498 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is $> 1.2 \text{ W/kg}$, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

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

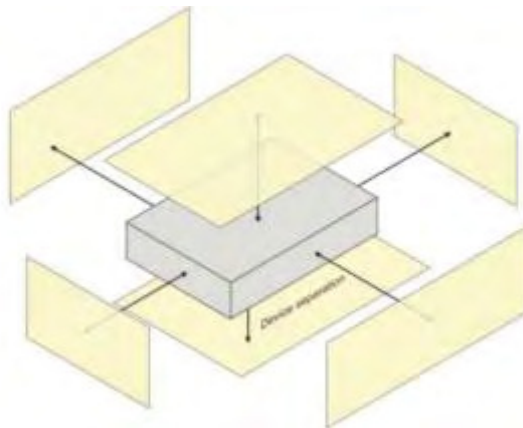
Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice only operations in its normal and expected use conditions, testing of data mode for body-worn compliance is not required. A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by

users of consumer handsets is used to test for body-worn accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, will be tested using a conservative minimum test separation distance ≤ 5 mm to support compliance.



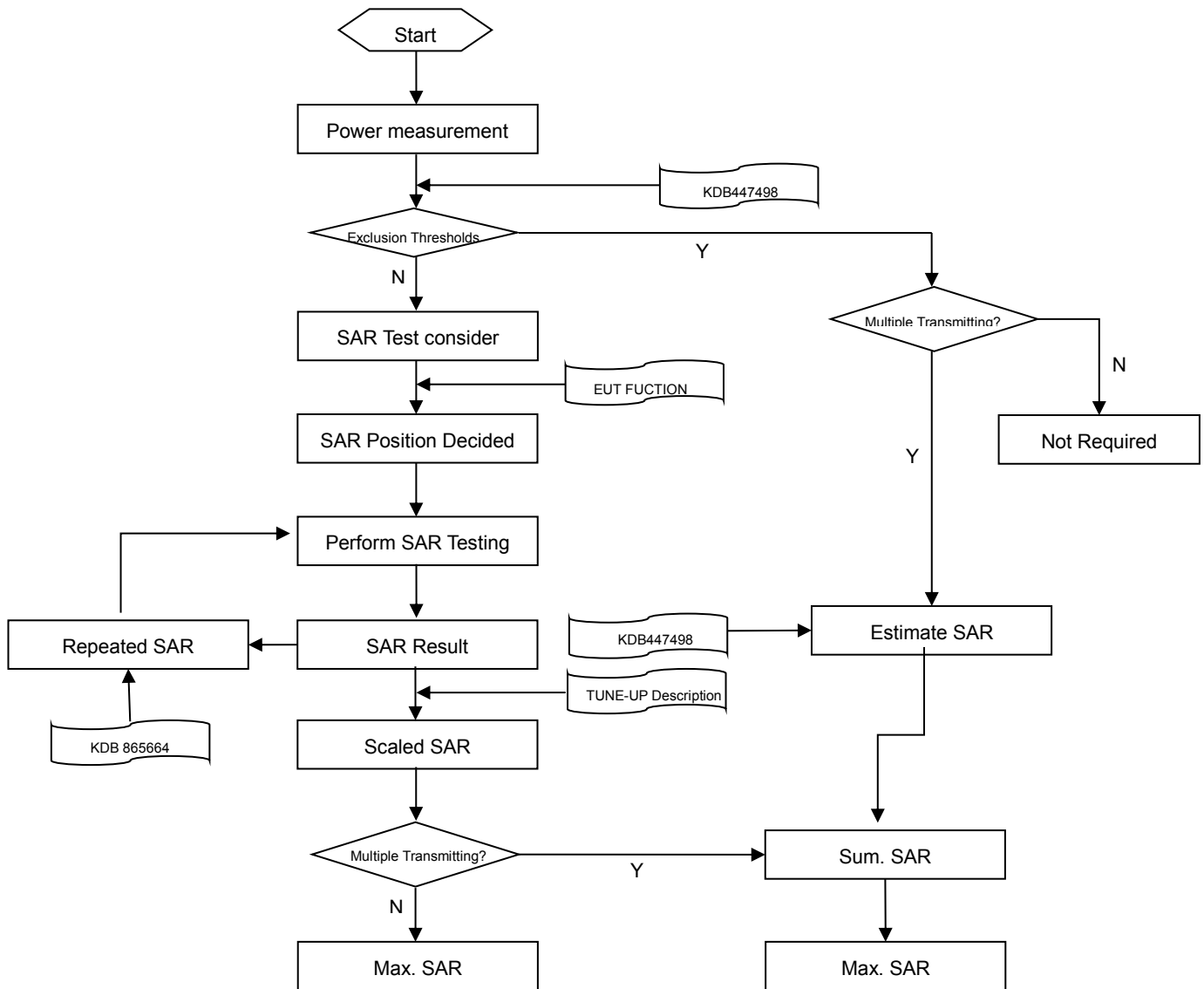
6.3 Hotspot Mode Exposure Position Conditions

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



7 SAR MEASUREMENT PROCEDURES

7.1 SAR Measurement Process Diagram



7.2 SAR Scan General Requirements

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

			≤3GHz	>3GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5±1 mm	½·δ·ln(2)±0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30°±1°	20°±1°
Maximum area scan spatial resolution: Δx Area , Δy Area			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3–4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx Zoom , Δy Zoom			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3–4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: Δz Zoom (n)		≤ 5 mm	3–4 GHz: ≤ 4 mm
				4–5 GHz: ≤ 3 mm
				5–6 GHz: ≤ 2 mm
	graded grid	Δ z Zoom (1): between 1st two points closest to phantom surface	≤ 4 mm	3–4 GHz: ≤ 3 mm
				4–5 GHz: ≤ 2.5 mm
				5–6 GHz: ≤ 2 mm
		Δ z Zoom (n>1): between subsequent points		≤ 1.5·Δz Zoom (n-1)
Minimum zoom scan volume	x, y, z		≥30 mm	3–4 GHz: ≥ 28 mm
				4–5 GHz: ≥ 25 mm
				5–6 GHz: ≥ 22 mm

Note:

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

7.3 SAR Measurement Procedure

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.

7.4 Area & Zoom Scan Procedures

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan 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 D01 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.

8 CONDUCTED RF OUTPUT POWER

8.1 GSM

GSM 850 Band	Burst Average Power(dBm)			Frame-averaged power(dBm)		
Channel	128	190	251	128	190	251
GSM (GMSK, 1-Slot)	33.16	33.16	33.13	24.16	24.16	24.13
GPRS (GMSK, 1-Slot)	32.11	32.13	32.08	23.11	23.13	23.08
GPRS (GMSK, 2-Slots)	31.47	31.49	31.45	25.47	25.49	25.45
GPRS (GMSK, 3-Slots)	30.32	30.34	30.31	26.06	26.08	26.05
GPRS (GMSK, 4-Slots)	29.28	29.34	29.29	26.28	26.34	26.29
EGPRS (8PSK, 1-Slot)	28.95	28.87	28.78	19.95	19.87	19.78
EGPRS (8PSK, 2-Slots)	28.77	28.55	28.25	22.77	22.55	22.25
EGPRS (8PSK, 3-Slots)	27.32	27.40	27.44	23.06	23.14	23.18
EGPRS (8PSK, 4-Slots)	26.33	26.29	26.27	23.33	23.29	23.27
GSM 1900 Band	Burst Average Power(dBm)			Frame-averaged power(dBm)		
Channel	512	661	810	512	661	810
GSM (GMSK, 1-Slot)	30.36	30.43	30.45	21.36	21.43	21.45
GPRS (GMSK, 1-Slot)	28.16	28.43	28.58	19.16	19.43	19.58
GPRS (GMSK, 2-Slots)	27.75	27.95	27.41	21.75	21.95	21.41
GPRS (GMSK, 3-Slots)	26.03	26.24	26.01	21.77	21.98	21.75
GPRS (GMSK, 4-Slots)	25.01	25.21	25.58	22.01	22.21	22.58
EGPRS (8PSK, 1-Slot)	29.34	29.35	29.45	20.34	20.35	20.45
EGPRS (8PSK, 2-Slots)	26.92	26.87	27.15	20.92	20.87	21.15
EGPRS (8PSK, 3-Slots)	24.71	24.73	25.01	20.45	20.47	20.75
EGPRS (8PSK, 4-Slots)	23.62	23.57	23.83	20.62	20.57	20.83

Note:

- SAR testing was performed on the maximum frame-Peaked power mode.
- 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

8.2 WCDMA

WCDMA Band	Band 2			Band 5		
Channel	9263	9400	9538	4132	4182	4233
RMC 12.2Kbps	22.81	22.66	22.59	22.96	22.85	23.00
HSDPA Subtest-1	20.71	20.60	20.55	20.99	20.83	20.97
HSDPA Subtest-2	20.75	20.60	20.58	21.04	20.85	21.00
HSDPA Subtest-3	20.31	20.16	20.12	20.60	20.41	20.54
HSDPA Subtest-4	20.29	20.10	20.04	20.58	20.39	20.53
HSUPA Subtest-1	18.92	18.78	18.61	18.87	18.94	19.08
HSUPA Subtest-2	18.85	18.68	18.66	19.06	18.99	19.06
HSUPA Subtest-3	19.81	19.62	19.60	20.04	19.94	20.03
HSUPA Subtest-4	18.40	18.21	18.15	18.62	18.48	18.58
HSUPA Subtest-5	20.73	20.67	20.59	21.08	21.14	20.92

8.3 LTE

FDD LTE Band 4							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20050	20175	20300	20050	20175	20300
20MHz	1 (RB_Pos:0)	22.15	22.31	22.40	21.62	21.64	21.66
	1 (RB_Pos:50)	22.19	22.25	22.34	21.67	21.55	21.62
	1 (RB_Pos:99)	22.16	22.28	22.29	21.60	21.56	21.54
	50 (RB_Pos:0)	21.14	21.20	21.32	20.16	20.22	20.30
	50 (RB_Pos:25)	21.15	21.17	21.29	20.18	20.19	20.25
	50 (RB_Pos:50)	21.14	21.19	21.23	20.16	20.20	20.22
	100 (RB_Pos:0)	21.14	21.18	21.27	20.17	20.18	20.27
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20025	20175	20325	20025	20175	20325
15MHz	1 (RB_Pos:0)	22.18	22.30	22.41	21.01	21.55	21.62
	1 (RB_Pos:38)	22.18	22.27	22.31	21.03	21.50	21.56
	1 (RB_Pos:74)	22.18	22.28	22.26	21.00	21.47	21.49
	36 (RB_Pos:0)	21.18	21.23	21.32	20.11	20.26	20.26
	36 (RB_Pos:20)	21.22	21.25	21.28	20.17	20.24	20.22
	36 (RB_Pos:39)	21.20	21.25	21.23	20.14	20.23	20.18
	75 (RB_Pos:0)	21.20	21.26	21.29	20.16	20.24	20.25
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20000	20175	20300	20000	20175	20300
10MHz	1 (RB_Pos:0)	22.20	22.22	22.18	20.97	21.48	21.14
	1 (RB_Pos:25)	22.22	22.27	22.17	21.05	21.50	21.13
	1 (RB_Pos:49)	22.24	22.24	22.13	21.02	21.47	21.08
	25 (RB_Pos:0)	21.09	21.15	21.13	20.11	20.17	20.23
	25 (RB_Pos:12)	21.12	21.15	21.13	20.12	20.19	20.21
	25 (RB_Pos:25)	21.11	21.15	21.10	20.14	20.19	20.19
	50 (RB_Pos:0)	21.11	21.14	21.12	20.09	20.17	20.16
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	19975	20175	20375	19975	20175	20375
5MHz	1 (RB_Pos:0)	22.16	22.20	22.22	21.27	21.65	21.21
	1 (RB_Pos:13)	22.17	22.22	22.21	21.29	21.64	21.21
	1 (RB_Pos:24)	22.14	22.24	22.18	21.30	21.62	21.20
	12 (RB_Pos:0)	21.15	21.20	21.17	20.20	20.32	20.22
	12 (RB_Pos:6)	21.15	21.18	21.16	20.22	20.33	20.21
	12 (RB_Pos:13)	21.16	21.19	21.16	20.23	20.31	20.19
	25 (RB_Pos:0)	21.08	21.14	21.10	20.11	20.19	20.05
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		

	Channel	19965	20175	20385	19965	20175	20385
3.0MHz	1 (RB_Pos:0)	22.10	22.15	22.05	20.90	21.43	21.05
	1 (RB_Pos:8)	22.19	22.22	22.11	20.98	21.47	21.07
	1 (RB_Pos:14)	22.11	22.15	22.04	20.91	21.42	21.02
	8 (RB_Pos:0)	21.14	21.19	21.16	20.19	20.25	20.16
	8 (RB_Pos:3)	21.16	21.22	21.17	20.25	20.28	20.18
	8 (RB_Pos:7)	21.16	21.21	21.14	20.22	20.25	20.16
	15 (RB_Pos:0)	21.11	21.14	21.11	20.12	20.17	20.06
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	19957	20175	20393	19957	20175	20393
1.4MHz	1 (RB_Pos:0)	22.10	22.17	22.06	21.09	21.46	21.06
	1 (RB_Pos:3)	22.16	22.25	22.16	21.17	21.48	21.12
	1 (RB_Pos:5)	22.13	22.18	22.09	21.11	21.46	21.09
	3 (RB_Pos:0)	22.12	22.21	22.15	21.11	21.36	21.29
	3 (RB_Pos:1)	22.13	22.22	22.17	21.11	21.32	21.30
	3 (RB_Pos:3)	22.13	22.23	22.17	21.14	21.36	21.29
	6 (RB_Pos:0)	21.04	21.14	21.09	20.17	20.03	20.23
FDD LTE Band 7							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20850	21100	21350	20850	21100	21350
20MHz	1 (RB_Pos:0)	21.53	21.69	21.84	20.88	21.04	21.09
	1 (RB_Pos:50)	21.62	21.53	21.57	21.05	20.95	20.98
	1 (RB_Pos:99)	21.67	21.68	21.81	21.00	21.05	21.11
	50 (RB_Pos:0)	20.61	20.67	20.77	19.61	19.67	19.70
	50 (RB_Pos:25)	20.54	20.72	20.73	19.57	19.67	19.68
	50 (RB_Pos:50)	20.56	20.72	20.78	19.58	19.68	19.72
	100 (RB_Pos:0)	20.56	20.71	20.76	19.58	19.64	19.71
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20825	21100	21375	20825	21100	21375
15MHz	1 (RB_Pos:0)	21.53	21.70	21.73	20.41	20.92	20.89
	1 (RB_Pos:38)	21.60	21.52	21.45	20.45	20.90	20.81
	1 (RB_Pos:74)	21.61	21.62	21.63	20.42	20.96	20.89
	36 (RB_Pos:0)	20.65	20.71	20.73	19.57	19.69	19.58
	36 (RB_Pos:20)	20.65	20.69	20.70	19.58	19.69	19.60
	36 (RB_Pos:39)	20.62	20.70	20.74	19.57	19.68	19.62
	75 (RB_Pos:0)	20.66	20.71	20.72	19.61	19.68	19.64
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20800	21100	21400	20800	21100	21400
10MHz	1 (RB_Pos:0)	21.45	21.61	21.51	20.26	20.95	20.52

	1 (RB_Pos:25)	21.54	21.63	21.51	20.50	20.94	20.57
	1 (RB_Pos:49)	21.59	21.39	21.37	20.49	20.89	20.45
	25 (RB_Pos:0)	20.63	20.62	20.56	19.61	19.63	19.60
	25 (RB_Pos:12)	20.60	20.60	20.58	19.58	19.64	19.63
	25 (RB_Pos:25)	20.60	20.68	20.63	19.59	19.67	19.68
	50 (RB_Pos:0)	20.62	20.62	20.61	19.58	19.63	19.60
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20775	21100	21425	20775	21100	21425
5MHz	1 (RB_Pos:0)	21.74	21.70	21.66	20.76	21.07	20.65
	1 (RB_Pos:13)	21.63	21.55	21.60	20.75	21.08	20.66
	1 (RB_Pos:24)	21.75	21.69	21.71	20.79	21.13	20.70
	12 (RB_Pos:0)	20.68	20.65	20.65	19.72	19.76	19.66
	12 (RB_Pos:6)	20.68	20.62	20.65	19.71	19.74	19.66
	12 (RB_Pos:13)	20.68	20.64	20.68	19.72	19.76	19.69
	25 (RB_Pos:0)	20.65	20.58	20.61	19.64	19.62	19.52
FDD LTE Band 28							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	27310	27460	27560	27310	27460	27560
20MHz	1 (RB_Pos:0)	22.41	22.45	22.51	21.92	21.89	21.89
	1 (RB_Pos:50)	22.45	22.42	22.40	21.91	21.83	21.93
	1 (RB_Pos:99)	22.50	22.40	22.44	22.05	21.96	21.78
	50 (RB_Pos:0)	21.41	21.49	21.55	20.44	20.56	20.57
	50 (RB_Pos:25)	21.40	21.47	21.49	20.43	20.52	20.58
	50 (RB_Pos:50)	21.45	21.49	21.53	20.50	20.55	20.57
	100 (RB_Pos:0)	21.44	21.45	21.50	20.48	20.53	20.57
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	27285	27435	27585	27285	27435	27585
15MHz	1 (RB_Pos:0)	22.37	22.45	22.49	21.31	21.78	21.85
	1 (RB_Pos:38)	22.37	22.46	22.41	21.27	21.80	21.92
	1 (RB_Pos:74)	22.39	22.48	22.41	21.34	21.77	21.67
	36 (RB_Pos:0)	21.43	21.43	21.44	20.41	20.49	20.46
	36 (RB_Pos:20)	21.43	21.48	21.43	20.40	20.51	20.45
	36 (RB_Pos:39)	21.45	21.52	21.46	20.41	20.53	20.44
	75 (RB_Pos:0)	21.46	21.47	21.48	20.43	20.48	20.49
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	27260	27410	27610	27260	27410	27610
10MHz	1 (RB_Pos:0)	22.28	22.40	22.34	21.25	21.74	21.52
	1 (RB_Pos:25)	22.34	22.43	22.35	21.27	21.79	21.47
	1 (RB_Pos:49)	22.37	22.49	22.27	21.26	21.81	21.34

	25 (RB_Pos:0)	21.34	21.39	21.46	20.38	20.44	20.62
	25 (RB_Pos:12)	21.32	21.40	21.42	20.35	20.46	20.58
	25 (RB_Pos:25)	21.35	21.43	21.39	20.38	20.51	20.55
	50 (RB_Pos:0)	21.35	21.44	21.47	20.35	20.46	20.57
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	27235	27385	27635	27235	27385	27635
5MHz	1 (RB_Pos:0)	22.42	22.40	22.43	21.50	21.92	21.53
	1 (RB_Pos:13)	22.44	22.45	22.39	21.51	21.96	21.46
	1 (RB_Pos:24)	22.43	22.42	22.35	21.51	21.96	21.41
	12 (RB_Pos:0)	21.37	21.47	21.47	20.47	20.63	20.59
	12 (RB_Pos:6)	21.38	21.46	21.43	20.46	20.62	20.54
	12 (RB_Pos:13)	21.39	21.49	21.43	20.49	20.65	20.54
	25 (RB_Pos:0)	21.34	21.43	21.39	20.36	20.50	20.41
Bandwidth (MHz)	RB Set						
		QPSK			16QAM		
	Channel	27225	27375	27645	27225	27375	27645
3.0MHz	1 (RB_Pos:0)	22.21	22.35	22.26	21.17	21.70	21.34
	1 (RB_Pos:8)	22.32	22.43	22.30	21.24	21.79	21.34
	1 (RB_Pos:14)	22.26	22.37	22.20	21.15	21.73	21.25
	8 (RB_Pos:0)	21.36	21.39	21.35	20.48	20.51	20.45
	8 (RB_Pos:3)	21.37	21.42	21.36	20.48	20.54	20.46
	8 (RB_Pos:7)	21.37	21.41	21.33	20.48	20.52	20.42
	15 (RB_Pos:0)	21.34	21.41	21.37	20.37	20.46	20.39

8.4 WIFI

8.4.1 2.4GWIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Avg. Power (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	15.41	No
		6	2437	15.58	Yes
		11	2462	15.54	No
	802.11g	1	2412	12.96	No
		6	2437	13.23	No
		11	2462	12.92	No
	802.11n(HT20)	1	2412	13.15	No
		6	2437	13.17	No
		11	2462	12.85	No
	802.11n(HT40)	3	2422	12.68	No
		6	2437	12.51	No
		9	2452	12.64	No

8.5 Bluetooth

Mode	BR(GFSK)			EDR($\pi/4$ -DQPSK)		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Peak Power (dBm)	1.42	2.27	0.52	0.76	1.66	-0.15
Mode	EDR(8-DPSK)			BLE(GFSK)		
Channel	0	39	78	0	19	39
Frequency (MHz)	2402	2441	2480	2402	2440	2480
Peak Power (dBm)	0.88	1.75	-0.08	-2.32	-1.49	-3.27

8.6 Rated RF power output:

Mode	Range(dBm)
GSM850	32.50-33.50
GPRS850(1 Slot)	32.00-32.50
GPRS850(2 Slots)	30.50-31.50
GPRS850(3 Slots)	29.50-30.50
GPRS850(4 Slots)	28.50-29.50
GSM1900	29.50-30.50
GPRS1900(1 Slot)	28.00-29.00
GPRS1900(2 Slots)	27.00-28.00
GPRS1900(3 Slots)	26.00-27.00
GPRS1900(4 Slots)	25.00-26.00
WCDMA Band 2 RMC	20.00-23.00
HSDPA Band 2	20.00-20.85
HSUPA Subtest1	18.50-19.00
HSUPA Subtest2	18.55-18.95
HSUPA Subtest3	19.50-19.90
HSUPA Subtest4	18.05-18.50
HSUPA Subtest5	20.50-20.80
WCDMA Band 5 RMC	20.50-23.50
HSDPA Band 5	20.30-21.15
HSUPA Subtest1	18.80-19.15
HSUPA Subtest2	18.90-19.15
HSUPA Subtest3	19.85-20.15
HSUPA Subtest4	18.40-18.70
HSUPA Subtest5	20.85-21.20

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 4	20 MHz	1	QPSK	21.50-22.50
		50		20.50-22.00
		100		21.00-22.00
		1	16QAM	21.45-21.75
		50		20.10-20.40
		100		20.05-20.35
	15 MHz	1	QPSK	22.10-22.50
		36		21.10-21.40
		75		21.10-21.40
		1	16QAM	20.95-21.70
		36		20.00-20.35
		75		20.10-20.35
	10 MHz	1	QPSK	22.05-22.35
		25		21.00-21.25
		50		21.00-21.25

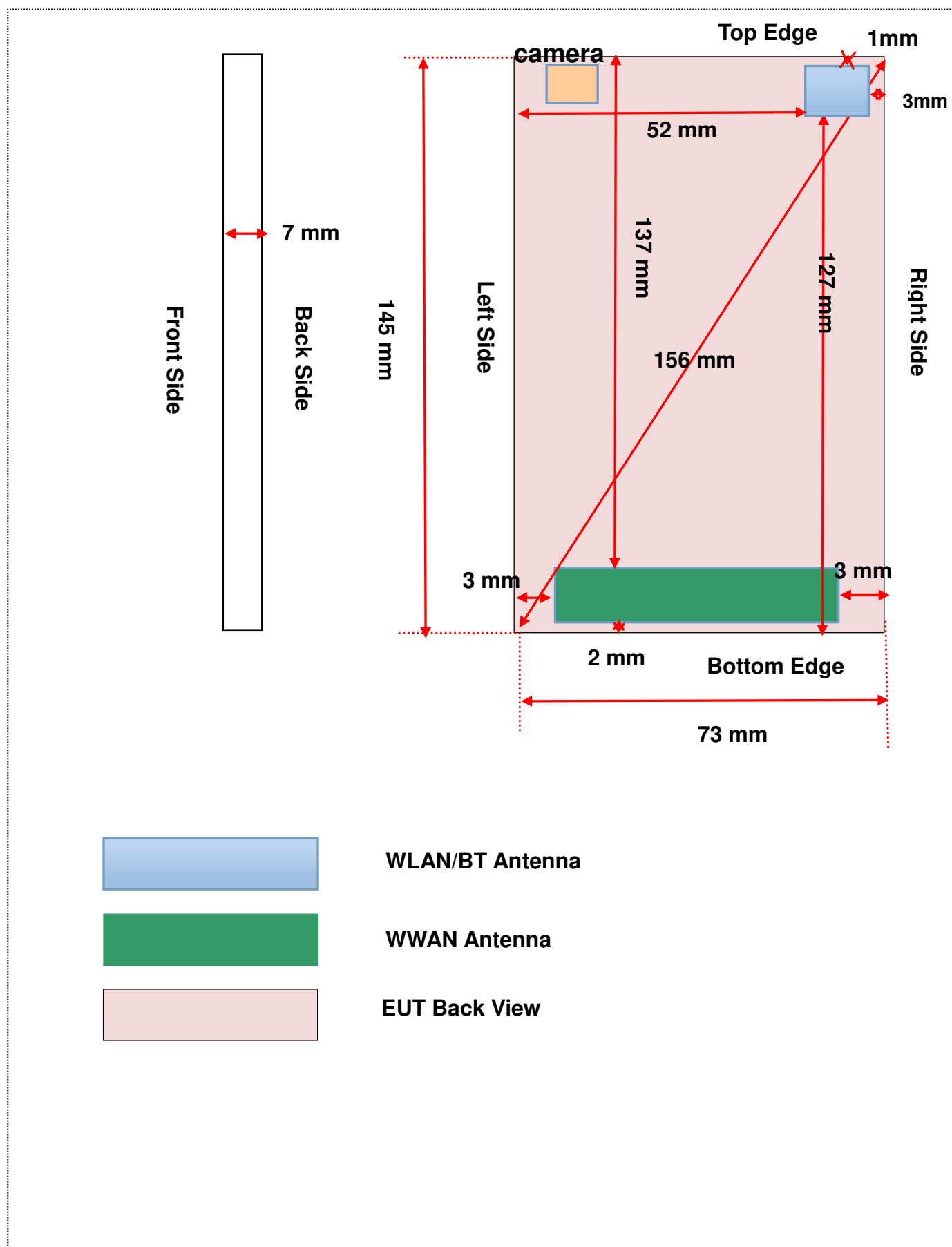
		1	16QAM	20.85-21.60
		25		20.00-20.30
		50		20.00-20.25
	5 MHz	1	QPSK	22.05-22.35
		12		21.05-21.30
		25		21.00-21.25
		1	16QAM	20.95-21.60
		12		20.10-20.40
		25		19.95-20.30
	3 MHz	1	QPSK	21.95-22.30
		8		21.00-21.30
		15		21.00-21.25
		1	16QAM	20.95-21.55
		8		20.05-20.35
		15		19.95-20.30
	1.4 MHz	1	QPSK	22.00-22.35
		3		22.00-22.35
		6		20.95-21.25
		1	16QAM	20.95-21.60
		3		21.20-21.45
		6		19.95-20.30
LTE Band 7	20 MHz	1	QPSK	21.50-22.00
		50		20.00-21.00
		100		20.50-20.85
		1	16QAM	20.80-21.20
		50		19.50-19.80
		100		19.5-19.80
	15 MHz	1	QPSK	21.40-21.85
		36		20.50-20.80
		75		20.55-20.80
		1	16QAM	20.30-21.00
		36		19.50-19.80
		75		19.50-19.80
	10 MHz	1	QPSK	21.30-21.70
		25		20.45-20.70
		50		20.50-20.70
		1	16QAM	20.15-21.00
		25		19.50-19.80
		50		19.50-19.75
	5 MHz	1	QPSK	21.45-21.80
		12		20.55-20.75
		25		20.50-20.70
		1	16QAM	20.70-21.20
		12		19.55-19.85

		25		19.40-19.70
LTE Band 28	20 MHz	1	QPSK	22.30-22.60
		50		21.30-21.65
		100		21.35-21.60
		1	16QAM	21.70-22.15
		50		20.35-20.65
		100		20.40-20.70
	15 MHz	1	QPSK	22.30-22.60
		36		21.35-21.60
		75		21.35-21.55
		1	16QAM	21.20-22.00
		36		20.30-20.60
		75		20.30-20.60
	10 MHz	1	QPSK	22.25-22.60
		25		21.20-21.55
		50		21.25-21.55
		1	16QAM	21.15-21.90
		25		20.25-20.70
		50		20.25-20.65
	5 MHz	1	QPSK	22.25-22.55
		12		21.25-21.60
		25		21.25-21.55
		1	16QAM	21.30-22.00
		12		20.35-20.75
		25		20.25-20.60
	3 MHz	1	QPSK	22.10-22.55
		8		21.25-21.50
		15		21.25-21.50
		1	16QAM	21.05-21.90
		8		20.30-20.60
		15		20.25-20.55

Band (GHz)	Mode	Range(dBm)
2.4 (2.4~2.4835)	802.11b	15.00-16.00
	802.11g	12.85-13.35
	802.11n(HT20)	12.75-13.25
	802.11n(HT40)	12.40-12.80

Band (GHz)	Mode	Range(dBm)
Bluetooth	BR/EDR	(-0.00)-(-2.35)
	BLE	(-2.40)-(-1.40)

9 EUT ANTENNA LOCATION SKETCH



9.1 SAR Test Exclusion Consider Table

According with FCC KDB 447498 D01, Appendix A, <SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm> Table, this Device SAR test configurations consider as following :

Band	Mode	Max. Peak Power		Test Position Configurations					
		dBm	mW	Head	Front/ Back	Left Edge	Right Edge	Top Edge	Bottom Edge
GSM 850	Distance to User			<5mm	<5 mm	10 mm	<5 mm	137 mm	<5mm
	Voice	33.50	2238.72	Yes	Yes	Yes	Yes	No	Yes
	Data	29.50	891.25	No	Yes	Yes	Yes	No	Yes
GSM 1900	Distance to User			<5mm	<5 mm	10 mm	<5 mm	137 mm	<5mm
	Voice	30.50	1122.02	Yes	Yes	Yes	Yes	No	Yes
	Data	26.00	398.11	No	Yes	Yes	Yes	No	Yes
WCDMA Band 2	Distance to User			<5mm	<5 mm	10 mm	<5 mm	137 mm	<5mm
	RMC	23.00	199.53	Yes	Yes	Yes	Yes	No	Yes
WCDMA Band 5	Distance to User			<5mm	<5 mm	10 mm	<5 mm	137 mm	<5mm
	RMC	23.50	223.87	Yes	Yes	Yes	Yes	No	Yes
LTE Band 4	Distance to User			<5mm	<5 mm	10 mm	<5 mm	137 mm	<5mm
	QPSK	23.00	199.53	Yes	Yes	Yes	Yes	No	Yes
LTE Band 7	Distance to User			<5mm	<5 mm	10 mm	<5 mm	137 mm	<5mm
	QPSK	22.00	158.49	Yes	Yes	Yes	Yes	No	Yes
LTE Band 28	Distance to User			<5mm	<5 mm	10 mm	<5 mm	137 mm	<5mm
	QPSK	22.60	181.96	Yes	Yes	Yes	Yes	No	Yes
WLAN 2.4 G	Distance to User			<5mm	<5mm	52mm	<5mm	<5mm	127mm
	802.11b	16.00	39.81	Yes	Yes	No	Yes	Yes	No
	802.11g	13.35	21.63	Yes	Yes	No	Yes	Yes	No
	802.11n(HT20)	13.25	21.13	Yes	Yes	No	Yes	Yes	No
	802.11n(HT40)	12.80	19.05	Yes	Yes	No	Yes	Yes	No
Bluetooth	Distance to User			<5mm	<5mm	52mm	<5mm	<5mm	127mm
	Bluetooth BR/EDR	2.35	1.72	No	No	No	No	No	No
	Bluetooth BLE	-1.40	0.72	No	No	No	No	No	No

Note:

- Maximum power is the source-based time-average power and represents the maximum RF output power among production units.
- Per KDB 447498 D01, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
- Per KDB 447498 D01, standalone SAR test exclusion threshold is applied; If the distance of the antenna to the user is < 5mm, 5mm is used to determine SAR exclusion threshold
- Per KDB 447498 D01, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR}$$
 - f(GHz) is the RF channel transmit frequency in GHz
 - Power and distance are rounded to the nearest mW and mm before calculation

- c. The result is rounded to one decimal place for comparison
- d. For < 50 mm distance, we just calculate mW of the exclusion threshold value (3.0) to do compare.

This formula is $[3.0] / [\sqrt{f(\text{GHz})}] \cdot [(\text{min. test separation distance, mm})] = \text{exclusion threshold of mW}$.

- 5. Per KDB 447498 D01, at 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:
 - a. [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · (f(MHz)/150)] mW, at 100 MHz to 1500 MHz
 - b. [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · 10] mW at > 1500 MHz and ≤ 6 GHz
- 6. Per KDB 941225 D01, RMC 12.2kbps setting is used to evaluate SAR. If HSDPA /HSUPA /DC-HSDPA output power is < 0.25dB higher than RMC12.2Kbps, 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 D01 , choose the highest output power channel to test SAR and determine further 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 these configurations is less than 1/4dB higher than those measured at the lowest data rate
- 8. Apply the test exclusion rule in KDB 248227 D01 v02 11g, 11n-HT20 and HT40 output power is less than 1/4dB higher than 11b mode, thus the SAR can be excluded.

9.2 10g Extremity Exposure Consider

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

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

Conclusion:

The EUT hotspot mode 1-g reported SAR is 1.125 W/Kg, which is less than 1.2W/Kg, 10-g extremity SAR is not required.

10 TEST RESULTS

10.1 GSM 850

Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (%)	1 g Meas. SAR (W/Kg)	Meas. Power (dBm)	Max. tune-up Power(dBm)	Scaling Factor	1 g Scaled SAR (W/Kg)	Meas. No.
Head											
Voice	Left Cheek	0	190	836.6	0.27	0.268	33.16	33.50	1.08	0.290	1#
	Left Tilt	0	190	836.6	-1.99	0.103	33.16	33.50	1.08	0.111	2#
	Right Cheek	0	190	836.6	-3.22	0.311	33.16	33.50	1.08	0.336	3#
	Right Tilt	0	190	836.6	-2.60	0.147	33.16	33.50	1.08	0.159	4#
Body-worn Accessory											
Voice	Front Side	10	190	836.6	-0.54	0.274	33.16	33.50	1.08	0.296	5#
	Back Side	10	190	836.6	-1.14	0.543	33.16	33.50	1.08	0.587	6#
Hotspot											
GPRS 4 slots	Front Side	10	190	836.6	-2.35	0.369	29.34	29.50	1.04	0.383	7#
	Back Side	10	190	836.6	1.00	0.701	29.34	29.50	1.04	0.727	8#
	Left Edge	10	190	836.6	-1.48	0.099	29.34	29.50	1.04	0.103	9#
	Right Edge	10	190	836.6	-0.03	0.145	29.34	29.50	1.04	0.150	10#
	Bottom Edge	10	190	836.6	-2.21	0.212	29.34	29.50	1.04	0.220	11#

10.2 GSM 1900

Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (%)	1 g Meas. SAR (W/Kg)	Meas. Power (dBm)	Max. tune-up Power(dBm)	S caling Factor	1 g Scaled SAR (W/Kg)	Meas. No.
Head											
Voice	Left Cheek	0	810	1909.8	-2.91	0.351	30.45	30.50	1.01	0.355	12#
	Left Tilt	0	810	1909.8	-4.58	0.101	30.45	30.50	1.01	0.102	13#
	Right Cheek	0	810	1909.8	-2.79	0.215	30.45	30.50	1.01	0.217	14#
	Right Tilt	0	810	1909.8	-3.13	0.124	30.45	30.50	1.01	0.125	15#
Body-worn Accessory											
Voice	Front Side	10	810	1909.8	1.89	0.324	30.45	30.50	1.01	0.328	16#
	Back Side	10	810	1909.8	-4.00	0.928	30.45	30.50	1.01	0.939	17#
		10	512	1850.2	1.50	0.486	30.45	30.50	1.01	0.492	18#
		10	661	1880.0	-1.95	0.579	30.45	30.50	1.01	0.586	19#
Hotspot											
GPRS 4 slots	Front Side	10	810	1909.8	-3.80	0.258	25.58	26.00	1.10	0.284	20#
	Back Side	10	810	1909.8	-3.58	0.975	25.58	26.00	1.10	1.074	21#
		10	512	1850.2	-1.50	0.526	25.58	26.00	1.10	0.579	22#
		10	661	1880.0	0.79	0.739	25.58	26.00	1.10	0.814	23#
	Left Edge	10	810	1909.8	1.02	0.055	25.58	26.00	1.10	0.061	24#

	Right Edge	10	810	1909.8	-1.33	0.188	25.58	26.00	1.10	0.207	25#
	Bottom Edge	10	810	1909.8	-0.46	0.620	25.58	26.00	1.10	0.683	26#

10.3WCDMA Band 2

Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (%)	1 g Meas. SAR (W/Kg)	Meas. Power (dBm)	Max. tune-up Power(dBm)	Scaling Factor	1 g Scaled SAR (W/Kg)	Meas. No.
Head											
RMC	Left Cheek	0	9262	1852.4	-3.36	0.319	22.81	23.00	1.04	0.333	27#
	Left Tilt	0	9262	1852.4	0.62	0.149	22.81	23.00	1.04	0.156	28#
	Right Cheek	0	9262	1852.4	-2.16	0.188	22.81	23.00	1.04	0.196	29#
	Right Tilt	0	9262	1852.4	-2.43	0.128	22.81	23.00	1.04	0.134	30#
Body-worn Accessory & Hotspot											
RMC	Front Side	10	9262	1852.4	-0.19	0.391	22.81	23.00	1.04	0.408	31#
	Back Side	10	9262	1852.4	-0.89	0.805	22.81	23.00	1.04	0.841	33#
		10	9400	1880.0	-0.87	0.635	22.66	23.00	1.08	0.687	32#
		10	9538	1907.6	-1.67	1.024	22.59	23.00	1.10	1.125	34#
Hotspot											
RMC	Left Edge	10	9262	1852.4	-1.63	0.098	22.81	23.00	1.04	0.102	35#
	Right Edge	10	9262	1852.4	-0.88	0.298	22.81	23.00	1.04	0.311	36#
	Bottom Edge	10	9262	1852.4	-0.76	0.669	22.81	23.00	1.04	0.699	37#

10.4WCDMA Band 5

Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (%)	1 g Meas. SAR (W/Kg)	Meas. Power (dBm)	Max. tune-up Power(dBm)	Scaling Factor	1 g Scaled SAR (W/Kg)	Meas. No.
Head											
RMC	Left Cheek	0	4233	846.6	-3.10	0.206	23.00	23.50	1.12	0.231	38#
	Left Tilt	0	4233	846.6	-1.55	0.111	23.00	23.50	1.12	0.125	39#
	Right Cheek	0	4233	846.6	-2.60	0.248	23.00	23.50	1.12	0.278	40#
	Right Tilt	0	4233	846.6	-1.08	0.113	23.00	23.50	1.12	0.127	41#
Body-worn Accessory & Hotspot											
RMC	Front Side	10	4233	846.6	-1.21	0.183	23.00	23.50	1.12	0.205	42#
	Back Side	10	4233	846.6	-0.90	0.327	23.00	23.50	1.12	0.367	43#
Hotspot											
RMC	Left Edge	10	4233	846.6	-1.07	0.265	23.00	23.50	1.12	0.297	44#
	Right Edge	10	4233	846.6	-1.79	0.085	23.00	23.50	1.12	0.095	45#
	Bottom Edge	10	4233	846.6	-1.74	0.140	23.00	23.50	1.12	0.157	46#

10.5LTE Band 4 (20MHz Bandwidth)

Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Numb.	RB Start	Power Drift (%)	1 g Meas. SAR (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	1 g Scaled SAR (W/Kg)	Meas. No.
Head													
QPSK	Left Cheek	0	20300	1745	1	Low	-3.97	0.448	22.40	23.00	1.15	0.514	47#
			20300	1745	50	Low	-2.32	0.359	22.40	23.00	1.15	0.412	48#
	Left Tilt	0	20300	1745	1	Low	-3.63	0.234	22.40	23.00	1.15	0.269	49#
			20300	1745	50	Low	-4.08	0.184	22.40	23.00	1.15	0.211	50#
	Right Cheek	0	20300	1745	1	Low	-2.22	0.238	22.40	23.00	1.15	0.273	51#
			20300	1745	50	Low	-4.05	0.193	22.40	23.00	1.15	0.222	52#
	Right Tilt	0	20300	1745	1	Low	-3.45	0.174	22.40	23.00	1.15	0.200	53#
			20300	1745	50	Low	-4.30	0.142	22.40	23.00	1.15	0.163	54#
Body-worn Accessory & Hotspot													
QPSK	Front Side	10	20300	1745	1	Low	-1.36	0.425	22.40	23.00	1.15	0.488	55#
			20300	1745	50	Low	-1.35	0.328	22.40	23.00	1.15	0.377	56#
	Back Side	10	20300	1745	1	Low	-2.16	0.872	22.40	23.00	1.15	1.001	57#
			20050	1720	1	Low	-0.86	0.879	22.15	23.00	1.22	1.069	58#
			20175	1732.5	1	Low	-1.58	0.884	22.31	23.00	1.17	1.036	59#
			20300	1745	50	Low	-1.44	0.677	22.40	23.00	1.15	0.777	60#
Hotspot													
QPSK	Left Edge	10	20300	1745	1	Low	-3.34	0.143	22.40	23.00	1.15	0.164	61#
			20300	1745	50	Low	-4.23	0.116	22.40	23.00	1.15	0.133	62#
	Right Edge	10	20300	1745	1	Low	3.49	0.276	22.40	23.00	1.15	0.317	63#
			20300	1745	50	Low	-2.24	0.222	22.40	23.00	1.15	0.255	64#
	Bottom Edge	10	20300	1745	1	Low	0.60	0.591	22.40	23.00	1.15	0.679	65#
			20300	1745	50	Low	-1.53	0.471	22.40	23.00	1.15	0.541	66#

10.6LTE Band 7 (20MHz Bandwidth)

Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Numb.	RB Start	Power Drift (%)	1 g Meas. SAR (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	1 g Scaled SAR (W/Kg)	Meas. No.
Head													
QPSK	Left Cheek	0	21350	2560	1	Low	-0.76	0.316	21.84	22.00	1.04	0.328	67#
			21350	2560	50	High	-3.10	0.264	21.84	22.00	1.04	0.274	68#
	Left Tilt	0	21350	2560	1	Low	-1.81	0.155	21.84	22.00	1.04	0.161	69#
			21350	2560	50	High	-1.30	0.137	21.84	22.00	1.04	0.142	70#
	Right Cheek	0	21350	2560	1	Low	-0.83	0.276	21.84	22.00	1.04	0.286	71#
			21350	2560	50	High	-2.64	0.237	21.84	22.00	1.04	0.246	72#
	Right Tilt	0	21350	2560	1	Low	-2.06	0.147	21.84	22.00	1.04	0.153	73#
			21350	2560	50	High	-0.65	0.136	21.84	22.00	1.04	0.141	74#
Body-worn Accessory & Hotspot													
QPSK	Front Side	10	21350	2560	1	Low	-0.47	0.463	21.84	22.00	1.04	0.480	75#
			21350	2560	50	High	-1.73	0.321	21.84	22.00	1.04	0.333	76#
	Back Side	10	21350	2560	1	Low	-1.71	0.817	21.84	22.00	1.04	0.848	77#
			20850	2510	1	Low	-1.40	0.782	21.53	22.00	1.11	0.871	78#
			21100	2535	1	High	-0.99	0.830	21.69	22.00	1.07	0.891	79#
			21350	2560	50	High	-1.78	0.640	21.84	22.00	1.04	0.664	80#
Hotspot													
QPSK	Left Edge	10	21350	2560	1	Low	-3.29	0.243	21.84	22.00	1.04	0.252	81#
			21350	2560	50	High	0.80	0.217	21.84	22.00	1.04	0.225	82#
	Right Edge	10	21350	2560	1	Low	-2.99	0.272	21.84	22.00	1.04	0.282	83#
			21350	2560	50	High	-1.18	0.248	21.84	22.00	1.04	0.257	84#
	Bottom Edge	10	21350	2560	1	Low	-3.20	0.500	21.84	22.00	1.04	0.519	85#
			21350	2560	50	High	-1.46	0.399	21.84	22.00	1.04	0.414	86#

10.7LTE Band 28 (20MHz Bandwidth)

Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Numb.	RB Start	Power Drift (%)	1 g Meas. SAR (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	1 g Scaled SAR (W/Kg)	Meas. No.
Head													
QPSK	Left Cheek	0	27560	738	1	Low	-3.75	0.178	22.51	22.60	1.02	0.182	87#
			27560	738	50	Low	-2.53	0.154	21.55	21.65	1.02	0.158	88#
	Left Tilt	0	27560	738	1	Low	0.48	0.111	22.51	22.60	1.02	0.113	89#
			27560	738	50	Low	-1.04	0.095	21.55	21.65	1.02	0.097	90#
	Right Cheek	0	27560	738	1	Low	-0.72	0.207	22.51	22.60	1.02	0.211	91#
			27560	738	50	Low	-1.31	0.179	21.55	21.65	1.02	0.183	92#
	Right Tilt	0	27560	738	1	Low	-2.08	0.111	22.51	22.60	1.02	0.113	93#
			27560	738	50	Low	-1.52	0.098	21.55	21.65	1.02	0.100	94#
Body-worn Accessory & Hotspot													
QPSK	Front Side	10	27560	738	1	Low	-1.41	0.178	22.51	22.60	1.02	0.182	95#
			27560	738	50	Low	-1.15	0.169	21.55	21.65	1.02	0.173	96#
	Back Side	10	27560	738	1	Low	-1.00	0.256	22.51	22.60	1.02	0.261	97#
			27560	738	50	Low	-0.57	0.228	21.55	21.65	1.02	0.233	98#
Hotspot													
QPSK	Left Edge	10	27560	738	1	Low	-0.71	0.095	22.51	22.60	1.02	0.097	99#
			27560	738	50	Low	-0.47	0.093	21.55	21.65	1.02	0.095	100#
	Right Edge	10	27560	738	1	Low	-0.89	0.074	22.51	22.60	1.02	0.076	101#
			27560	738	50	Low	-0.93	0.074	21.55	21.65	1.02	0.076	102#
	Bottom Edge	10	27560	738	1	Low	-0.30	0.069	22.51	22.60	1.02	0.070	103#
			27560	738	50	Low	-3.40	0.067	21.55	21.65	1.02	0.069	104#

10.8WIFI 2.4GHz

Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (%)	1 g Meas. SAR (W/Kg)	Meas. Power (dBm)	Max. tune-up Power(dBm)	Scaling Factor	1 g Scaled SAR (W/Kg)	Meas. No.
Head											
RMC	Left Cheek	0	6	2437	-0.81	0.220	15.58	16.00	1.10	0.242	105#
	Left Tilt	0	6	2437	-2.83	0.252	15.58	16.00	1.10	0.278	106#
	Right Cheek	0	6	2437	-0.81	0.315	15.58	16.00	1.10	0.347	107#
	Right Tilt	0	6	2437	0.26	0.263	15.58	16.00	1.10	0.290	108#
Body-worn Accessory & Hotspot											
RMC	Front Side	10	6	2437	-2.41	0.098	15.58	16.00	1.10	0.108	109#
	Back Side	10	6	2437	-4.65	0.145	15.58	16.00	1.10	0.160	110#
Hotspot											
RMC	Right Edge	10	6	2437	-3.95	0.102	15.58	16.00	1.10	0.112	111#
	Top Edge	10	6	2437	1.31	0.090	15.58	16.00	1.10	0.099	112#

11 SAR Measurement Variability

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

SAR repeated measurement procedure:

1. When the highest measured SAR is < 0.80 W/kg, repeated measurement is not required.
2. When the highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3. If the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 , or when the original or repeated measurement is ≥ 1.45 W/kg, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 , and the original, first or second repeated measurement is ≥ 1.5 W/kg, perform a third repeated measurement.

Frequency Band (MHz)	Wireless Band	RF Exposure Conditions	Test Position	Highest Measured SAR (W/kg)	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	Largest to Smallest SAR Ratio
1900	GSM 1900	Body	Back Side	0.928	Yes	0.917	1.01
	GPRS 1900	Body	Back Side	0.975	Yes	0.963	1.01
	WCDMA Band 2	Body	Back Side	0.805	Yes	0.796	1.01
	WCDMA Band 2	Body	Back Side	1.024	Yes	0.998	1.03
1750	LTE Band 4	Body	Back Side	0.872	Yes	0.863	1.01
	LTE Band 4	Body	Back Side	0.879	Yes	0.872	1.01
	LTE Band 4	Body	Back Side	0.884	Yes	0.869	1.02
2600	LTE Band 7	Body	Back Side	0.817	Yes	0.806	1.01
	LTE Band 7	Body	Back Side	0.830	Yes	0.811	1.02

Note: The ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , the second repeated measurement is not required.

12 SIMULTANEOUS TRANSMISSION

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR 1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR 1g 1.6 W/kg), SAR test exclusion is determined by the SAR to Peak Location Ratio (SPLSR).

12.1 Simultaneous Transmission Mode Consider

NO.	Mode	2.4G WLAN & 2.4G Bluetooth		
		Head	Body-worn	Hotspot
1	GSM (Voice)	+ 2.4G WLAN	+ 2.4G WLAN	--
		--	+ Bluetooth	--
2	GSM (Data)	--	+ 2.4G WLAN	+ 2.4G WLAN
		--	+ Bluetooth	
3	WCDMA RMC	+ 2.4G WLAN	+ 2.4G WLAN	+ 2.4G WLAN
		--	+ Bluetooth	--
4	LTE	+ 2.4G WLAN	+ 2.4G WLAN	+ 2.4G WLAN
		--	+ Bluetooth	--

Note:

- 2G&3G&4G share the same antenna and can't transmit simultaneously.
- The Bluetooth and 2.4G WLAN share the same antenna, can't transmitting together.
- 2.4G WLAN can transmit simultaneously with each WWAN.
- 2.4G WLAN supports hotspot mode.

12.2 Estimated SAR Calculation

According to KDB 447498 D01 when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR was estimated according to following formula to result in substantially conservative SAR values of ≤ 0.4 W/kg to determine simultaneous transmission SAR test exclusion.

$$\text{Estimated SAR} = \frac{\text{Max. Tune Up Power (mw)}}{\text{Min Test Separation Distance}} * \frac{\sqrt{f_{\text{GHz}}}}{x} \quad (\text{where } x = 7.5 \text{ for 1-g SAR})$$

If the minimum test separation distance is < 5 mm, a distance of 5 mm is used for estimated SAR calculation. When the test separation distance is > 50 mm, the 0.4 W/kg is used for SAR-1g.

Band	Mode	Position	Antenna To user (mm)	SAR Testing	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Frequency (GHz)	Calculation Distance/Gap (mm)	Estimated SAR (W/kg)
Bluetooth	GFSK	Right Cheek	5	NO	2.35	1.72	2402	5	0.002
		Left Cheek	5	NO	2.35	1.72	2402	5	0.002
		Front side	10	NO	2.35	1.72	2402	10	0.001
		Back Side	10	NO	2.35	1.72	2402	10	0.001
		Right Edge	10	NO	2.35	1.72	2402	10	0.001
		Top Edge	10	NO	2.35	1.72	2402	10	0.001

12.3 Sum SAR of Simultaneous Transmission

12.3.1 Sum Head SAR of Simultaneous Transmission

Simultaneous Mode	Mode	Max. 1g SAR (W/kg)	1g Sum SAR (W/kg)	SPLSR (Yes/No)
GSM Voice + 2.4G WLAN	GSM Voice	0.355	0.702	No
	2.4G WLAN	0.347		
WCDMA RMC +2.4G WLAN	WCDMA RMC	0.333	0.680	No
	2.4G WLAN	0.347		
LTE QPSK + 2.4G WLAN	LTE QPSK	0.514	0.861	No
	2.4G WLAN	0.347		

12.3.2 Sum Body-worn SAR of Simultaneous Transmission

Simultaneous Mode	Mode	Max. 1g SAR (W/kg)	1g Sum SAR (W/kg)	SPLSR (Yes/No)
GSM Voice + 2.4G WLAN	GSM Voice	0.939	1.099	No
	2.4G WLAN	0.160		
GSM Voice + Bluetooth	GSM Voice	0.939	0.940	No
	Bluetooth	0.001		
WCDMA RMC +2.4G WLAN	WCDMA RMC	1.125	1.285	No
	2.4G WLAN	0.160		
WCDMA RMC + Bluetooth	WCDMA RMC	1.125	1.126	No
	Bluetooth	0.001		
LTE QPSK + 2.4G WLAN	LTE QPSK	1.069	1.229	No
	2.4G WLAN	0.160		
LTE QPSK + Bluetooth	LTE QPSK	1.069	1.070	No
	Bluetooth	0.001		

12.3.3 Sum Hotspot mode SAR of Simultaneous Transmission

Simultaneous Mode	Mode	Max. 1g SAR (W/kg)	1g Sum SAR (W/kg)	SPLSR (Yes/No)
GSM DATA + 2.4G WLAN	GSM DATA	1.074	1.234	No
	2.4G WLAN	0.160		
WCDMA RMC + 2.4G WLAN	WCDMA RMC	1.125	1.285	No
	2.4G WLAN	0.160		
LTE QPSK + 2.4G WLAN	LTE QPSK	1.069	1.229	No
	2.4G WLAN	0.160		

13 TEST EQUIPMENTS LIST

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
PC	Dell	N/A	N/A	N/A	N/A
750MHz Dipole	SATIMO	SID 750	S/N 25/13 DIP 0G750-253	2015/03/16	2018/03/15
835MHz Dipole	SATIMO	SID 835	S/N 25/13 DIP 0G835-246	2015/03/16	2018/03/15
1800MHz Dipole	SATIMO	SID 1900	S/N 25/13 DIP 1G800-248	2015/03/16	2018/03/15
1900MHz Dipole	SATIMO	SID 1900	S/N 25/13 DIP 1G900-249	2015/03/16	2018/03/15
2450MHz Dipole	SATIMO	SID 2450	S/N 25/13 DIP 2G450-251	2015/03/16	2018/03/15
2600MHz Dipole	SATIMO	SID 2600	SN 25/13 DIP 2G600-254	2015/03/16	2018/03/15
E-Field Probe	MVG	SSE2	S/N 34/15 EPGO 265	2015/10/12	2016/10/11
Antenna	SATIMO	ANTA3	SN 17/13 ZNTA45	N/A	N/A
Phantom1	SATIMO	SAM	SN 30/13 SAM103	N/A	N/A
Phantom2	SATIMO	SAM	SN 30/13 SAM104	N/A	N/A
Dielectric Probe Kit	SATIMO	SCLMP	SN 25/13 OCPG56	2015/08/17	2016/08/16
MultiMeter	Keithley	MultiMeter 2000	4024022	2015/07/16	2016/07/15
Signal Generator	R&S	SMF100A	1167.0000k02/104260	2015/07/16	2016/07/15
Power Meter	Agilent	E4419B	GB40201833	2015/10/14	2016/10/13
Power Sensor	R&S	NRP-Z21	103971	2015/07/16	2016/07/15
Power Amplifier	SATIMO	6552B	22374	N/A	N/A
Wireless Communication Test Set	R&S	CMW 500	138884	2015/07/16	2016/07/15
Network Analyzer	R&S	ZVL-6	101380	2015/07/16	2016/07/15
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

Note: Per KDB 865664D01 Dipole SAR Validation Verification, BALUN LAB has adopted 3 years calibration intervals. On annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:

1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss in within 20% of calibrated measurement.

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an SCLMP Dielectric Probe Kit.

Date	Liquid Type	Fre. (MHz)	Temp. (°C)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ϵ)	Target Conductivity (σ) (S/m)	Target Permittivity (ϵ)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2016.06.16	Head	750	21.3	0.88	42.61	0.89	41.90	-1.12	1.69
2016.06.18	Body	750	21.1	0.93	57.18	0.96	55.50	-3.12	3.03
2016.06.16	Head	835	21.3	0.90	41.98	0.90	41.50	0.00	1.16
2016.06.18	Body	835	21.1	0.98	55.95	0.97	55.20	1.03	1.36
2016.06.17	Head	1800	21.1	1.41	39.61	1.40	40.00	0.71	-0.98
2016.06.17	Body	1800	21.1	1.51	53.11	1.52	53.30	-0.66	-0.36
2016.06.19	Head	1900	20.8	1.41	39.68	1.40	40.00	0.71	-0.80
2016.06.19	Body	1900	20.8	1.53	53.44	1.52	53.30	0.66	0.26
2016.06.20	Head	2450	20.7	1.85	39.97	1.80	39.20	2.78	1.96
2016.06.21	Body	2450	20.5	1.95	52.59	1.95	52.70	0.00	-0.21
2016.06.20	Head	2600	20.7	1.99	38.38	1.96	39.00	1.53	-1.59
2016.06.21	Body	2600	20.5	2.17	52.13	2.16	52.50	0.46	-0.70

Note: The tolerance limit of Conductivity and Permittivity is $\pm 5\%$.

ANNEX B SYSTEM CHECK RESULT

Comparing to the original SAR value provided by SATIMO, the validation data should be within its specification of 10%(for 1 g).

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)	Targeted SAR(W/kg)	Tolerance (%)
2016.06.16	Head	750	100	0.850	8.50	8.60	0.12	8.49	0.12
2016.06.18	Body	750	100	0.886	8.86	8.91	4.36	8.49	4.36
2016.06.16	Head	835	100	0.929	9.29	9.81	-2.82	9.56	-2.82
2016.06.18	Body	835	100	1.013	10.13	10.53	5.96	9.56	5.96
2016.06.17	Head	1800	100	3.922	39.22	38.72	2.14	38.40	2.14
2016.06.17	Body	1800	100	4.011	40.11	40.42	4.45	38.40	4.45
2016.06.19	Head	1900	100	3.910	39.10	40.75	-1.51	39.70	-1.51
2016.06.19	Body	1900	100	4.116	41.16	42.06	3.68	39.70	3.68
2016.06.20	Head	2450	100	5.356	53.56	54.29	2.21	52.40	2.21
2016.06.21	Body	2450	100	5.463	54.63	54.70	4.26	52.40	4.26
2016.06.20	Head	2600	100	5.358	53.58	57.37	-3.11	55.30	-3.11
2016.06.21	Body	2600	100	5.787	57.87	57.62	4.65	55.30	4.65

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

System Performance Check Data(750 MHz Head)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

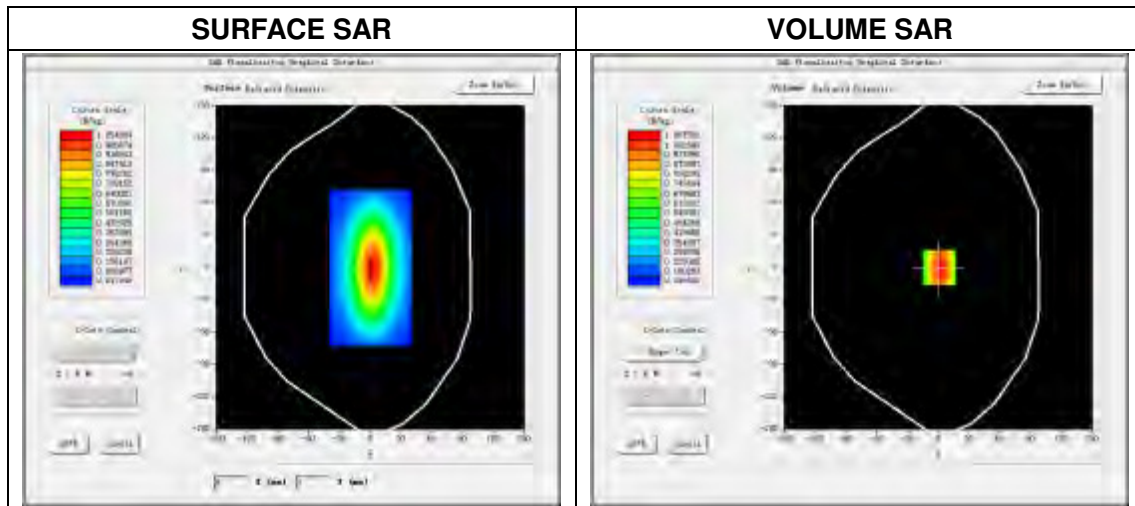
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.06.16

Measurement duration: 13 minutes 26 seconds

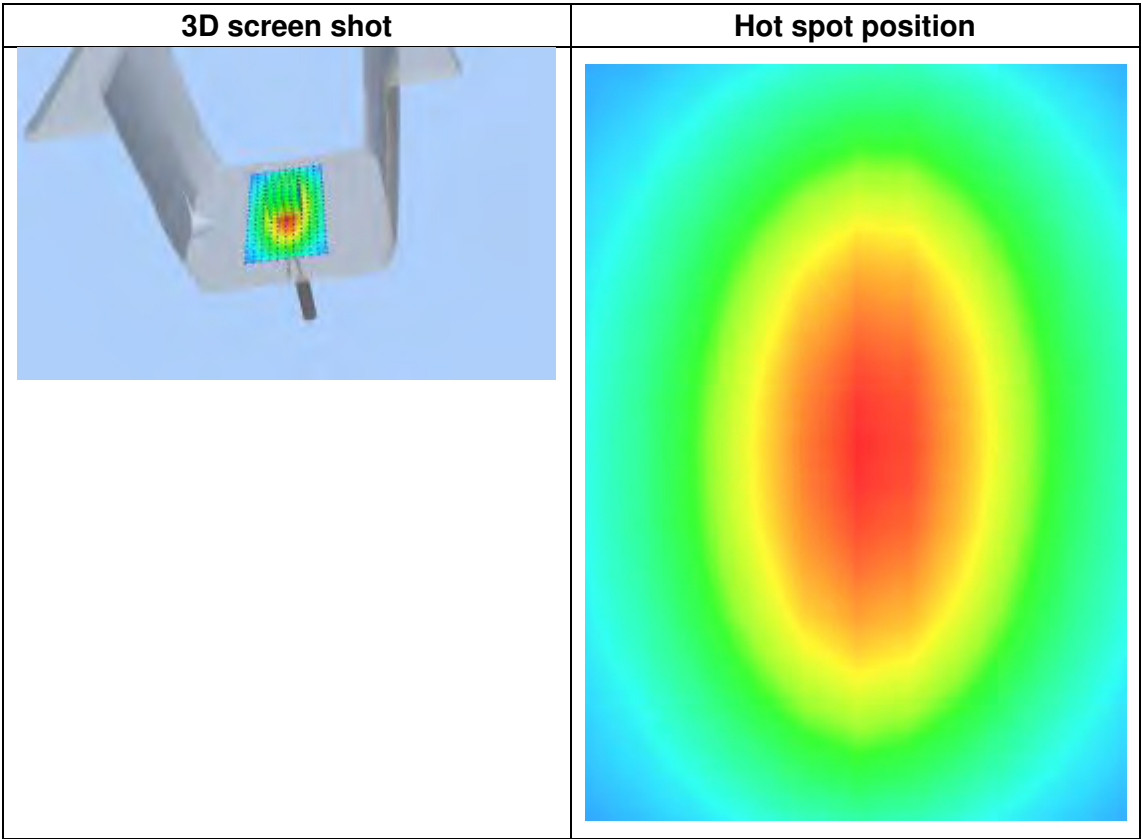
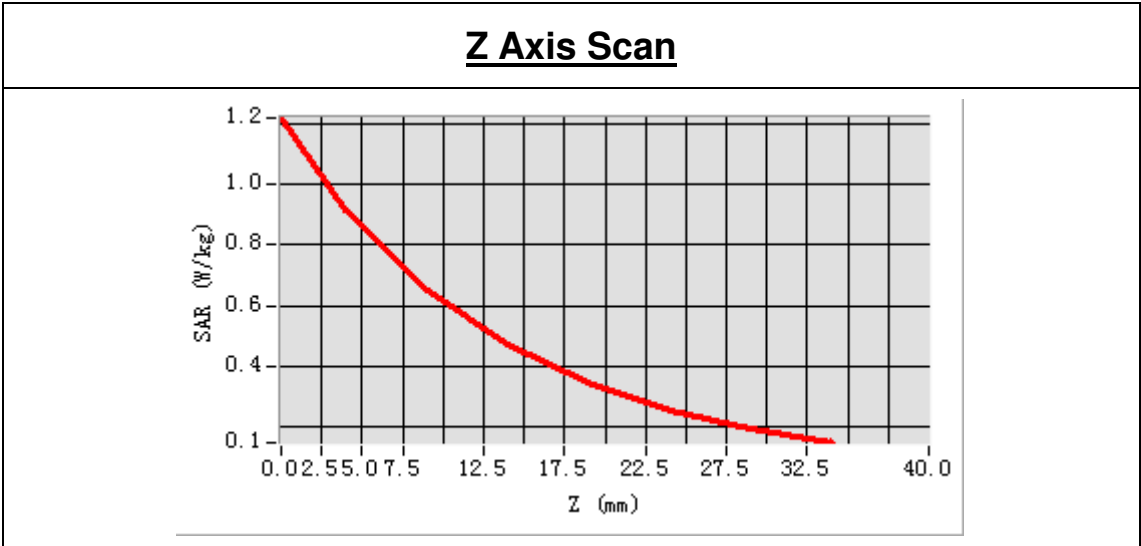
Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	750MHz
Signal	CW
Frequency (MHz)	750.000000
Relative permittivity (real part)	42.613526
Conductivity (S/m)	0.883686
Power drift (%)	-0.310000
Ambient Temperature:	22.5C
Liquid Temperature:	21.3C
ConvF:	1.81
Crest factor:	1:1



Maximum location: X=0.00, Y=0.00
 SAR Peak: 1.19 W/kg

SAR 10 g (W/Kg)	0.588563
SAR 1g (W/Kg)	0.850356



System Performance Check Data(750 MHz Body)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

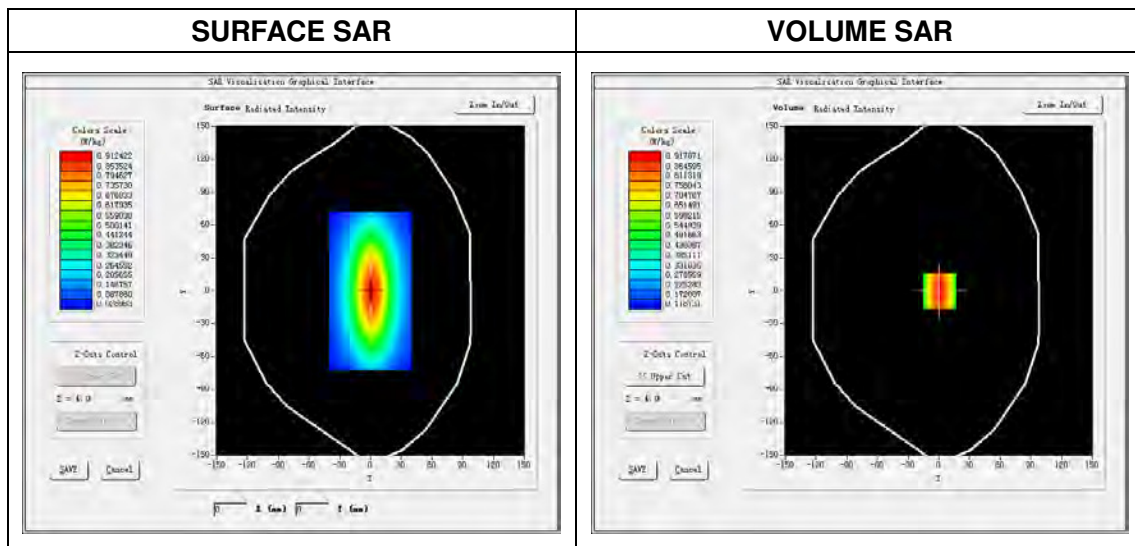
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.06.18

Measurement duration: 13 minutes 25 seconds

Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	750MHz
Signal	CW
Frequency (MHz)	750.000000
Relative permittivity (real part)	57.183739
Conductivity (S/m)	0.933268
Power drift (%)	-0.600000
Ambient Temperature:	22.3C
Liquid Temperature:	21.1C
ConvF:	1.88
Crest factor:	1:1

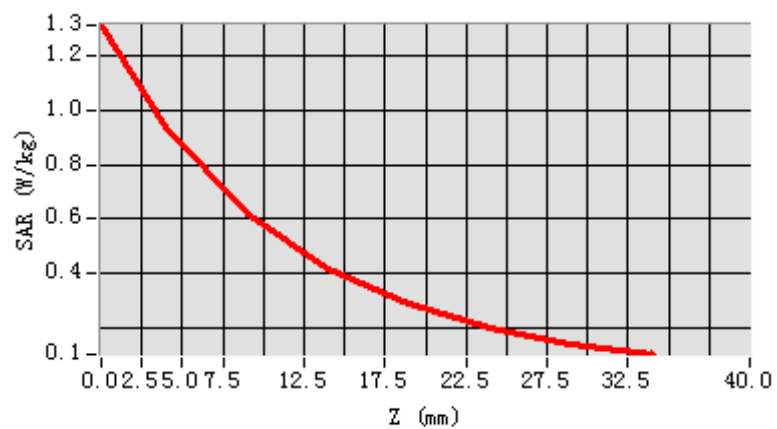


Maximum location: X=0.00, Y=0.00

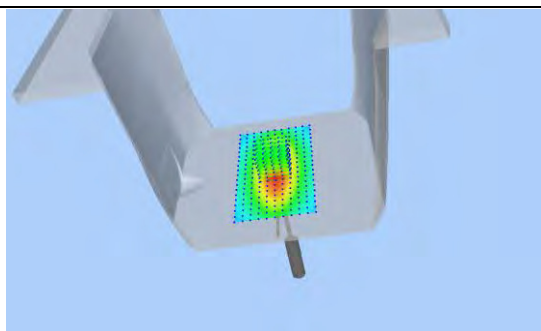
SAR Peak: 1.25 W/kg

SAR 10 g (W/Kg)	0.595395
SAR 1g (W/Kg)	0.885736

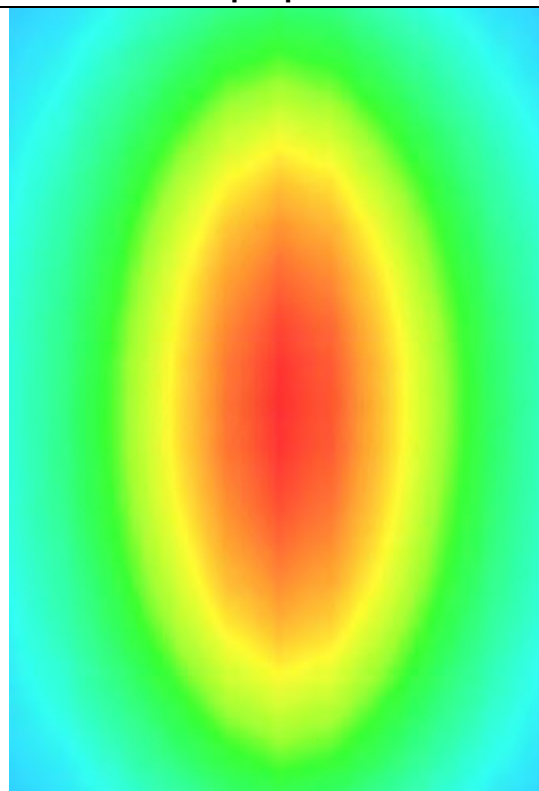
Z Axis Scan



3D screen shot



Hot spot position



System Performance Check Data(835MHz Head)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

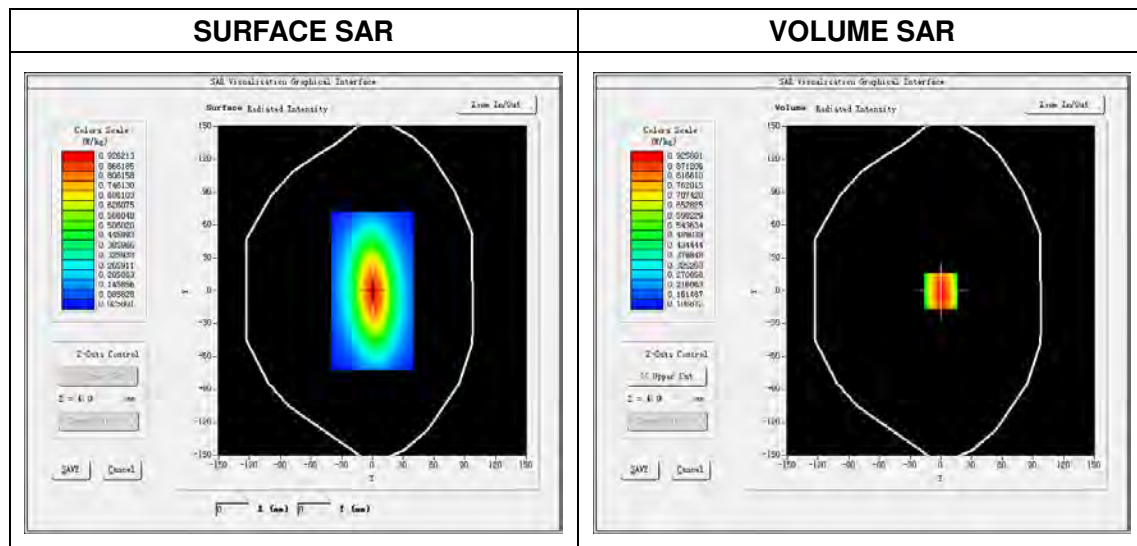
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.06.16

Measurement duration: 13 minutes 29 seconds

Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	835MHz
Signal	CW
Frequency (MHz)	835.000000
Relative permittivity (real part)	41.983651
Conductivity (S/m)	0.896943
Power drift (%)	-0.150000
Ambient Temperature:	22.5C
Liquid Temperature:	21.3C
ConvF:	2.04
Crest factor:	1:1

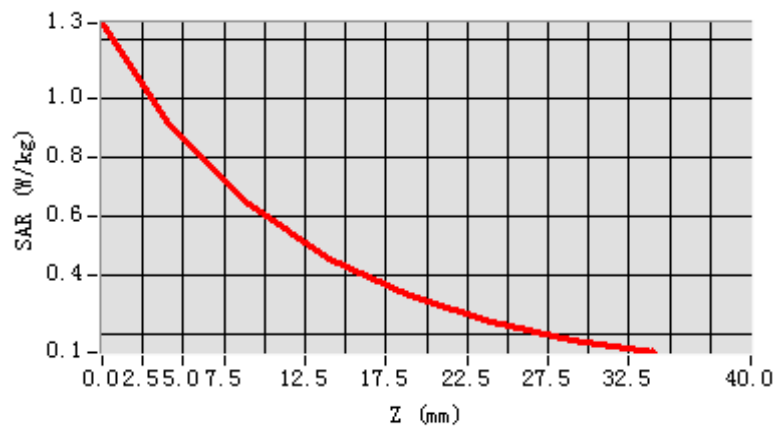


Maximum location: X=0.00, Y=0.00

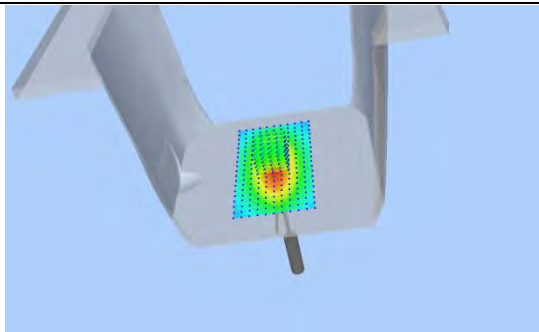
SAR Peak: 1.26 W/kg

SAR 10 g (W/Kg)	0.597177
SAR 1g (W/Kg)	0.928599

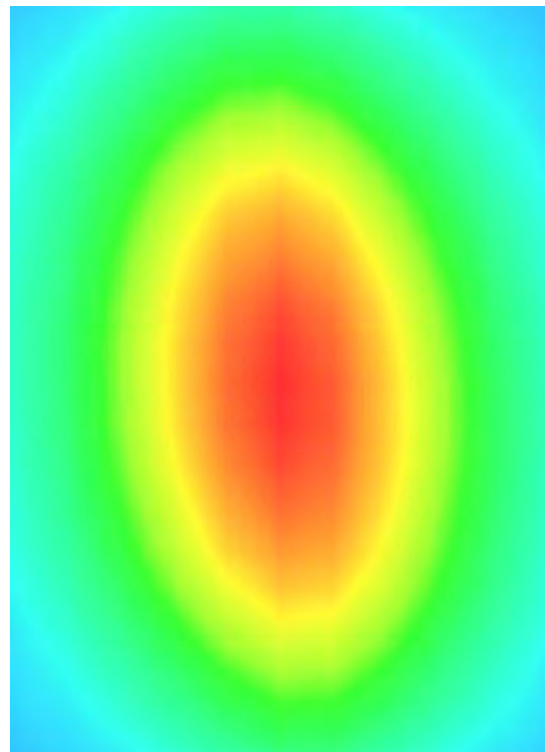
Z Axis Scan



3D screen shot



Hot spot position



System Performance Check Data(835MHz Body)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

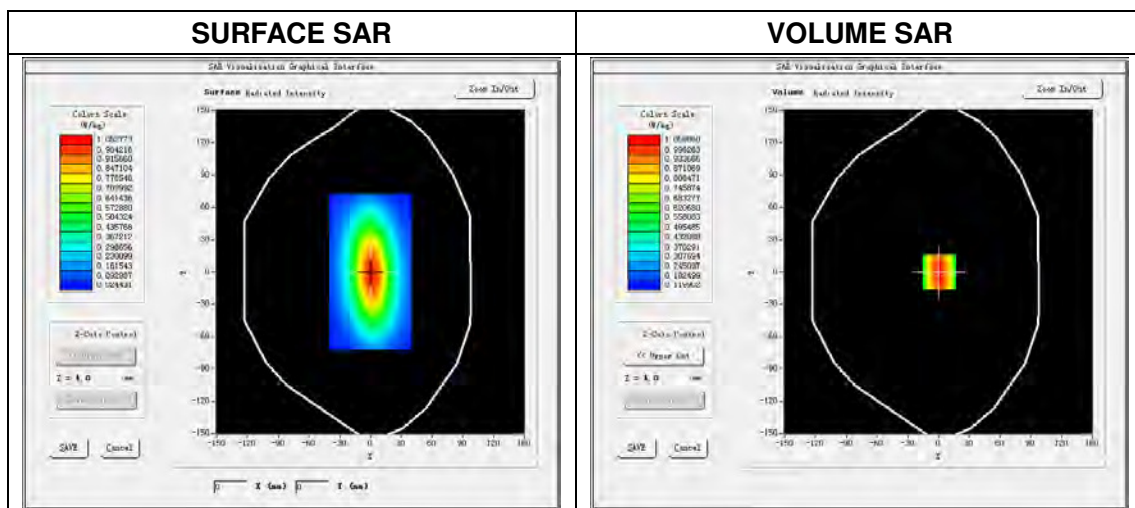
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.06.18

Measurement duration: 13 minutes 33 seconds

Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	835MHz
Signal	CW
Frequency (MHz)	835.000000
Relative permittivity (real part)	55.954595
Conductivity (S/m)	0.979147
Power drift (%)	0.390000
Ambient Temperature:	22.3C
Liquid Temperature:	21.1C
ConvF:	2.12
Crest factor:	1:1

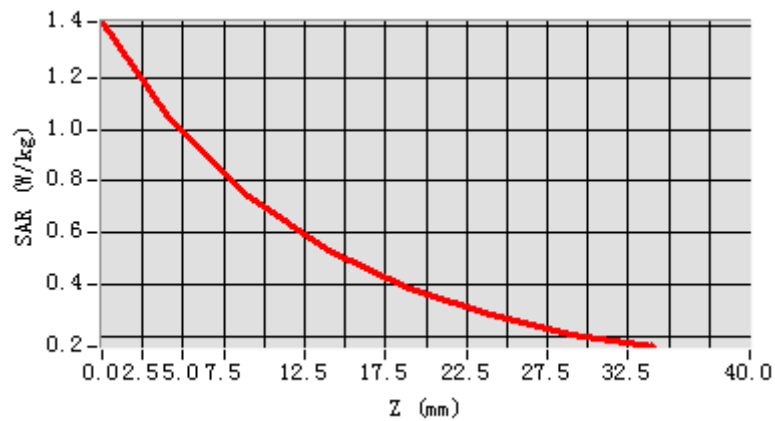


Maximum location: X=1.00, Y=0.00

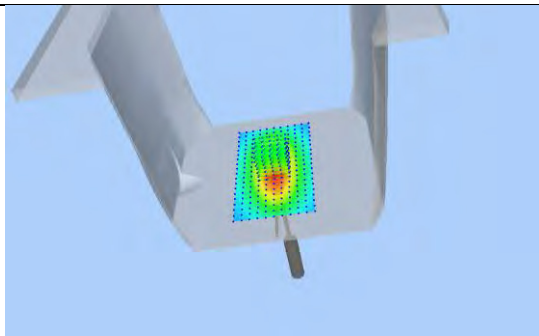
SAR Peak: 1.41 W/kg

SAR 10 g (W/Kg)	0.639168
SAR 1g (W/Kg)	1.013364

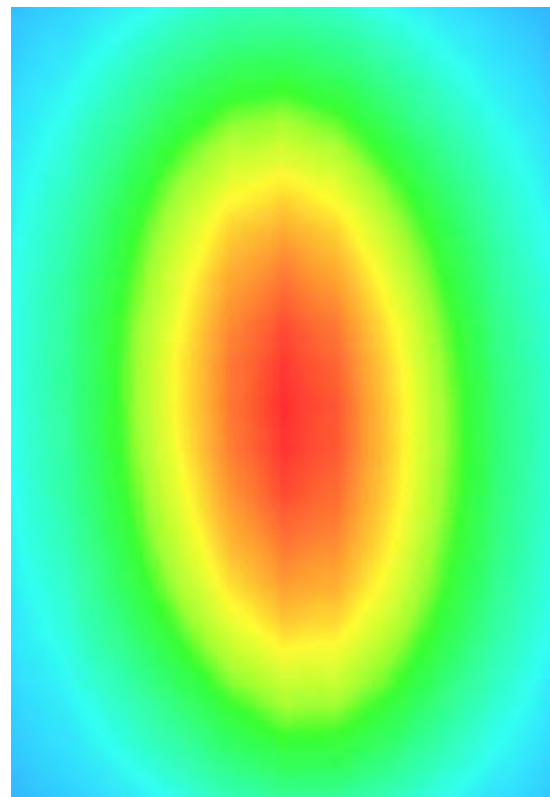
Z Axis Scan



3D screen shot



Hot spot position



System Performance Check Data(1800MHz Head)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

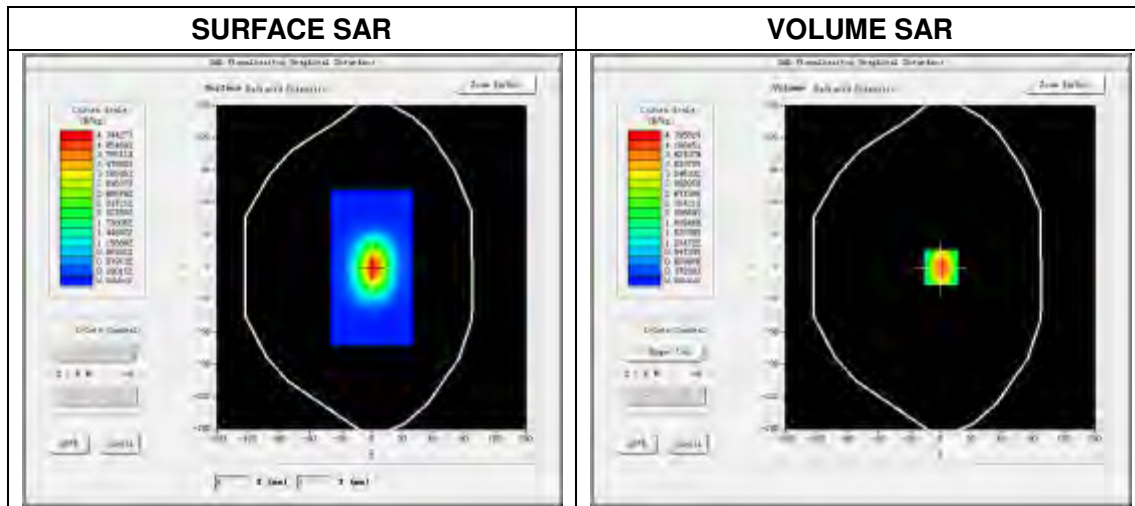
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.06.17

Measurement duration: 13 minutes 24 seconds

Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	1800MHz
Signal	CW
Frequency (MHz)	1800.000000
Relative permittivity (real part)	39.611029
Conductivity (S/m)	1.413274
Power drift (%)	0.110000
Ambient Temperature:	22.4C
Liquid Temperature:	21.1C
ConvF:	2.04
Crest factor:	1:1

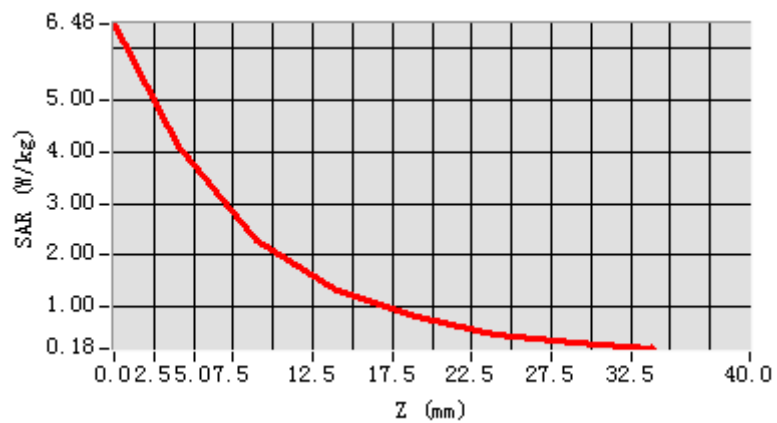


Maximum location: X=0.00, Y=0.00

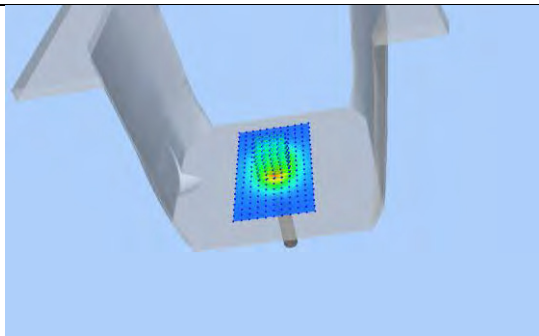
SAR Peak: 6.41 W/kg

SAR 10 g (W/Kg)	2.034125
SAR 1g (W/Kg)	3.922053

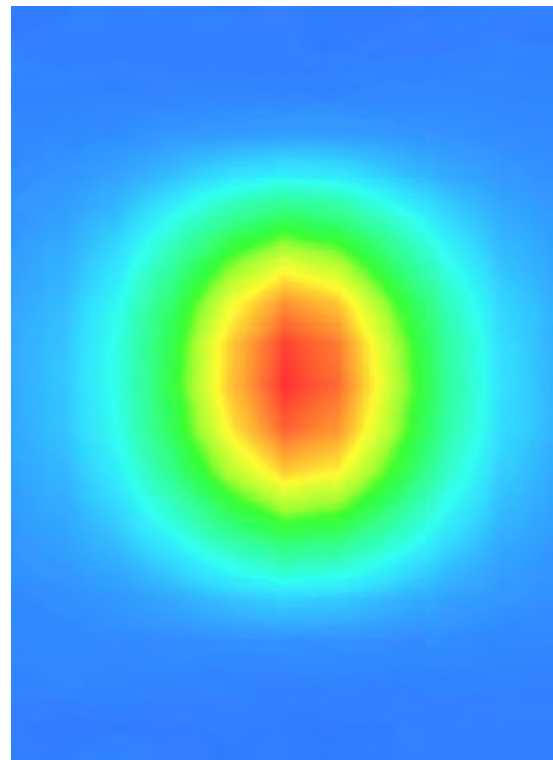
Z Axis Scan



3D screen shot



Hot spot position



System Performance Check Data(1800MHz Body)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

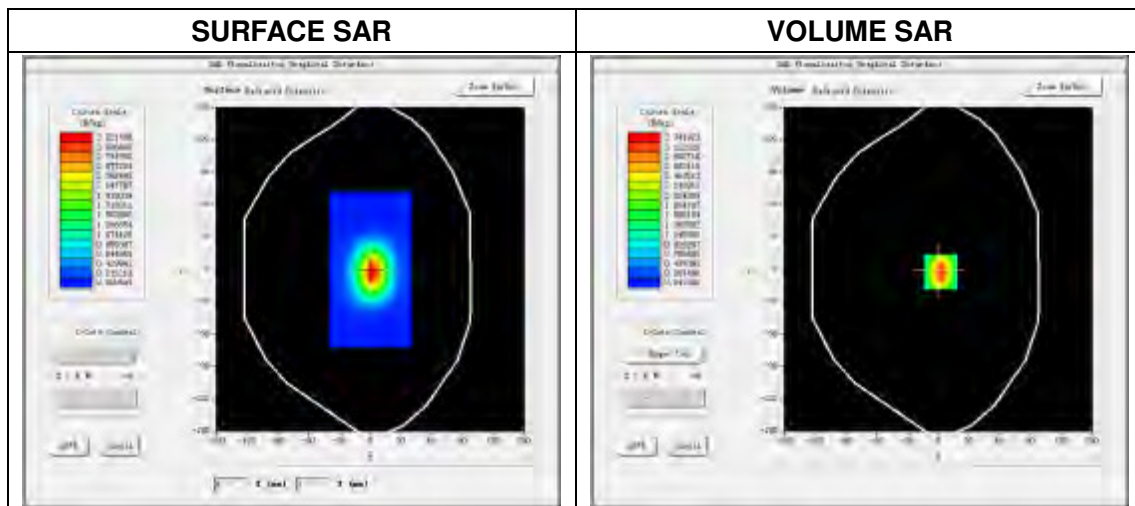
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.06.17

Measurement duration: 14 minutes 51 seconds

Experimental conditions.

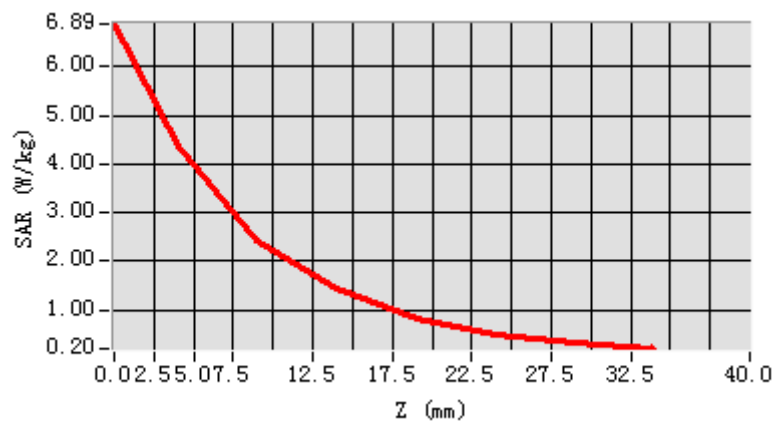
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	1800MHz
Signal	CW
Frequency (MHz)	1800.000000
Relative permittivity (real part)	53.112143
Conductivity (S/m)	1.513568
Power drift (%)	0.130000
Ambient Temperature:	22.4C
Liquid Temperature:	21.1C
ConvF:	2.08
Crest factor:	1:1



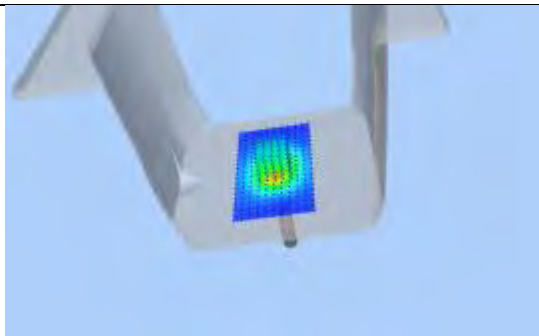
Maximum location: X=2.00, Y=2.00
SAR Peak: 6.86 W/kg

SAR 10 g (W/Kg)	2.087632
SAR 1g (W/Kg)	4.010863

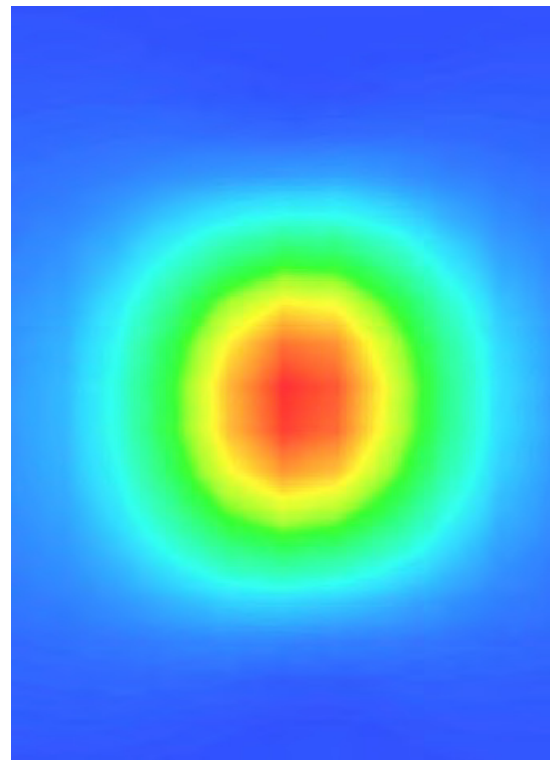
Z Axis Scan



3D screen shot



Hot spot position



System Performance Check Data(1900MHz Head)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

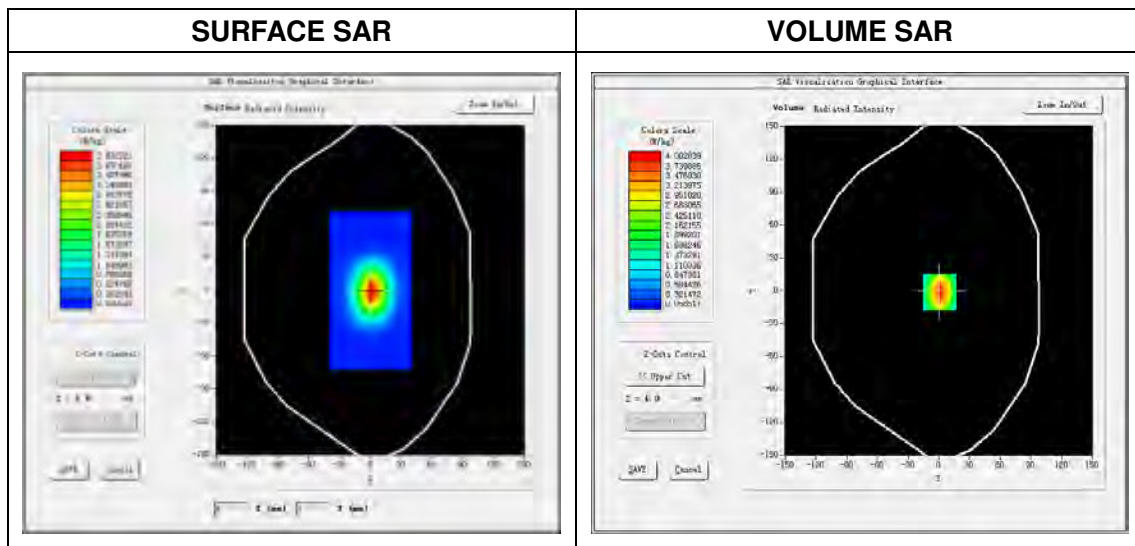
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.06.19

Measurement duration: 13 minutes 33 seconds

Experimental conditions.

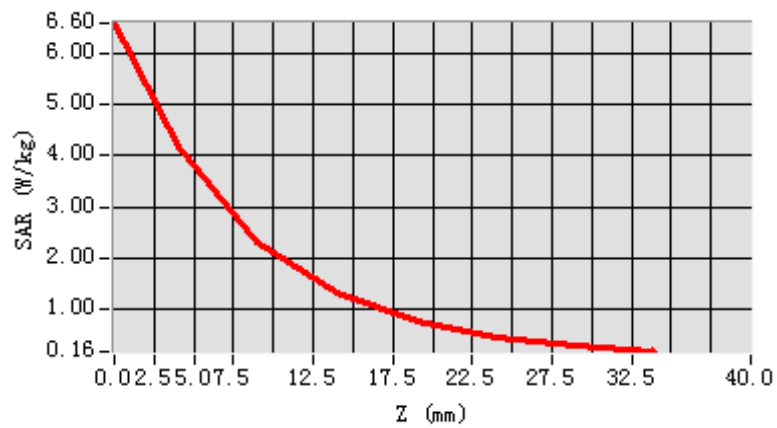
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	1900MHz
Signal	CW
Frequency (MHz)	1900.000000
Relative permittivity (real part)	39.682471
Conductivity (S/m)	1.413474
Power drift (%)	-0.150000
Ambient Temperature:	21.9C
Liquid Temperature:	20.8C
ConvF:	2.35
Crest factor:	1:1



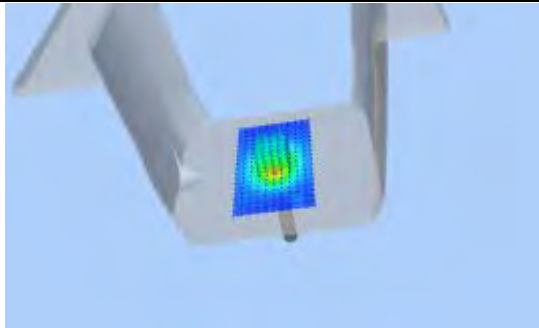
Maximum location: X=1.00, Y=0.00
SAR Peak: 6.58W/kg

SAR 10g (W/Kg)	1.974124
SAR 1g (W/Kg)	3.910074

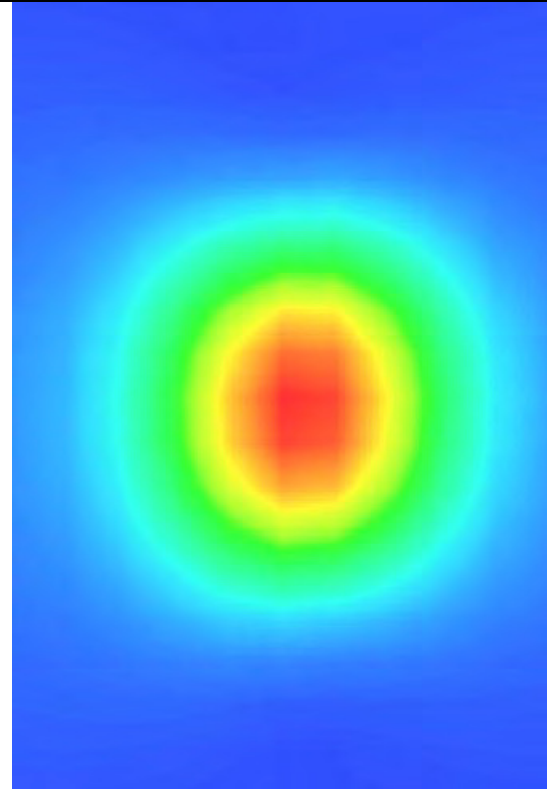
Z Axis Scan



3D screen shot



Hot spot position



System Performance Check Data(1900MHz Body)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

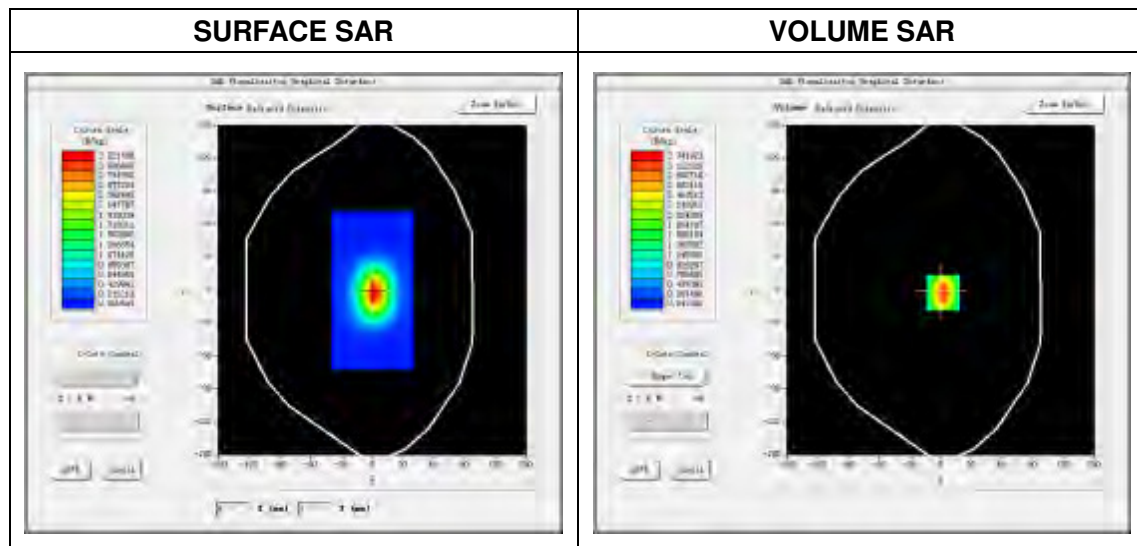
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.06.19

Measurement duration: 13 minutes 26 seconds

Experimental conditions.

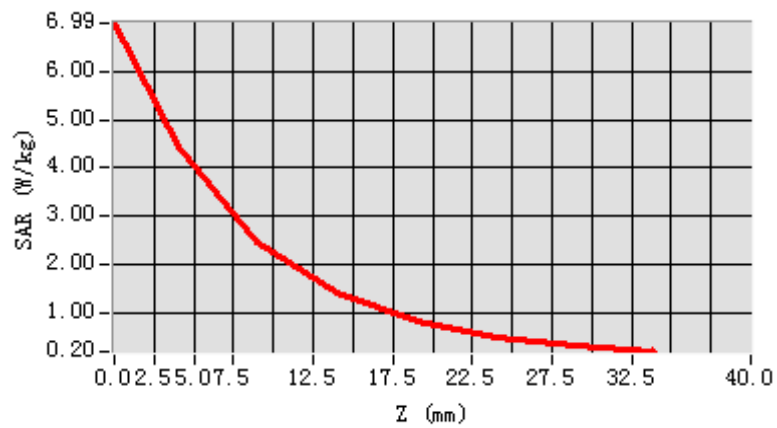
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	1900MHz
Signal	CW
Frequency (MHz)	1900.000000
Relative permittivity (real part)	53.443122
Conductivity (S/m)	1.528021
Power drift (%)	0.290000
Ambient Temperature:	21.9C
Liquid Temperature:	20.8C
ConvF:	2.42
Crest factor:	1:1



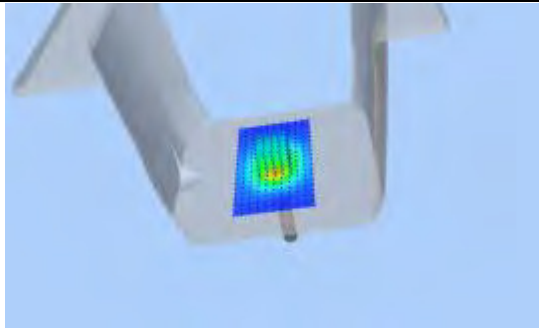
Maximum location: X=2.00, Y=-2.00
SAR Peak: 6.92W/kg

SAR 10g (W/Kg)	1.985632
SAR 1g (W/Kg)	4.115863

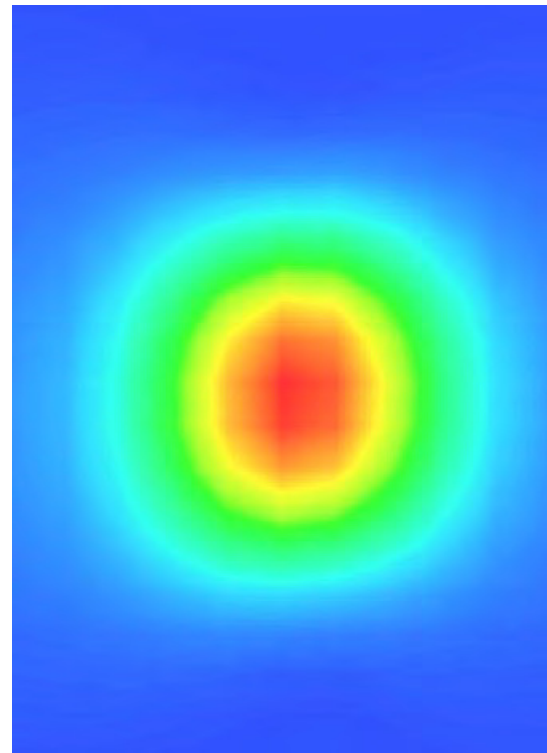
Z Axis Scan



3D screen shot



Hot spot position



System Performance Check Data(2450MHz Head)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

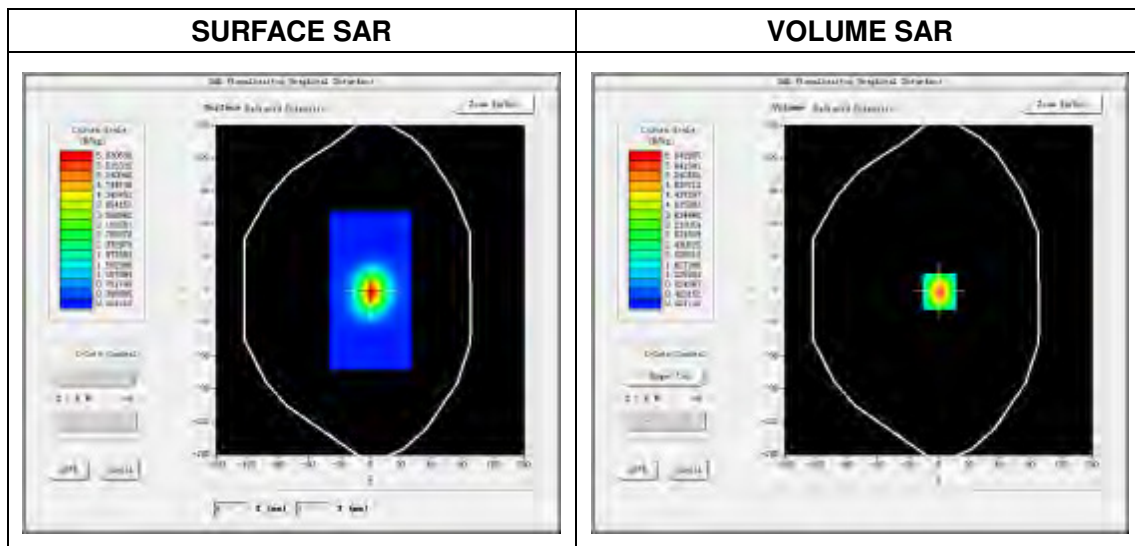
Zoom scan resolution: dx=5mm, dy=5mm, dz=5mm

Date of measurement: 2016.06.20

Measurement duration: 18 minutes 41 seconds

Experimental conditions.

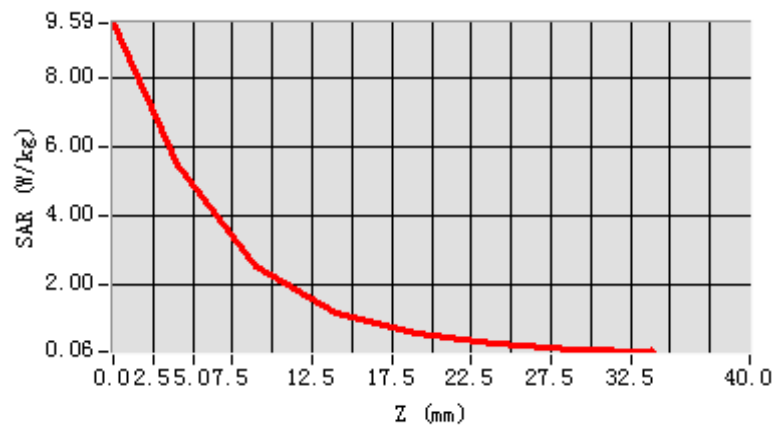
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	2450MHz
Signal	CW
Frequency (MHz)	2450.000000
Relative permittivity (real part)	39.970052
Conductivity (S/m)	1.853262
Power drift (%)	-1.210000
Ambient Temperature:	22.0C
Liquid Temperature:	20.7C
ConvF:	2.47
Crest factor:	1:1



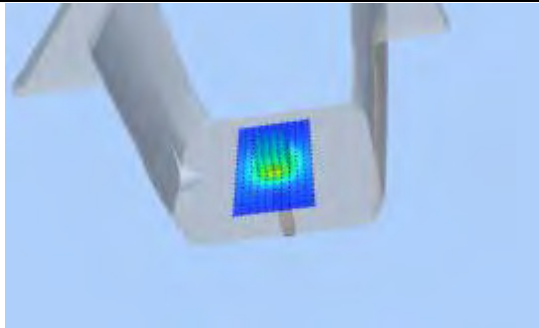
Maximum location: X=1.00, Y=-1.00
SAR Peak: 9.56W/kg

SAR 10g (W/Kg)	2.287836
SAR 1g (W/Kg)	5.356203

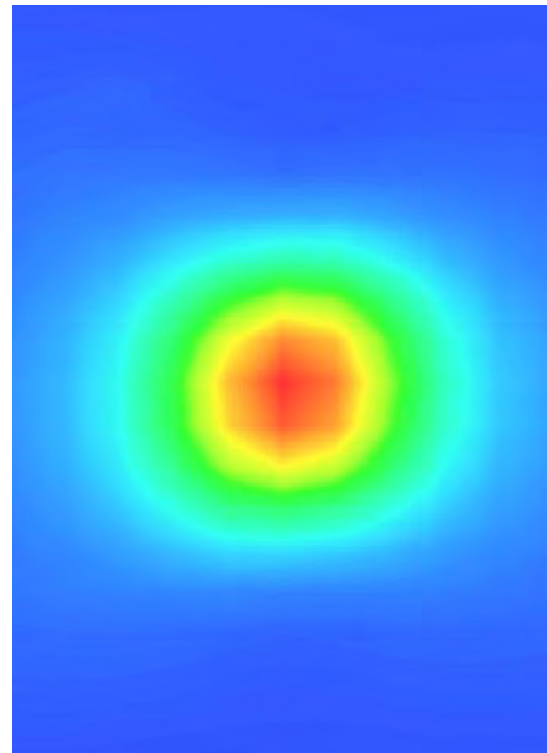
Z Axis Scan



3D screen shot



Hot spot position



System Performance Check Data(2450MHz Body)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

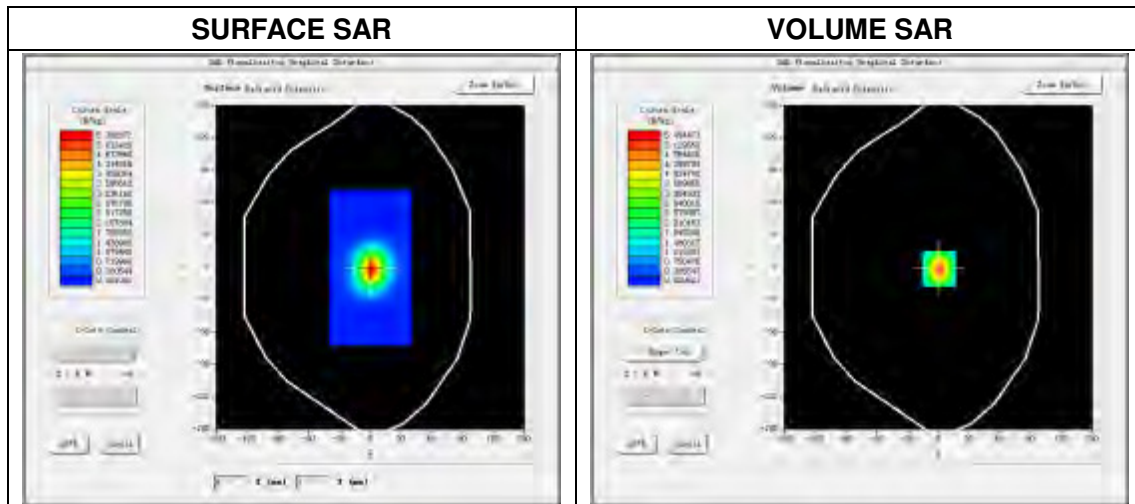
Zoom scan resolution: dx=5mm, dy=5mm, dz=5mm

Date of measurement: 2016.06.21

Measurement duration: 19 minutes 37 seconds

Experimental conditions.

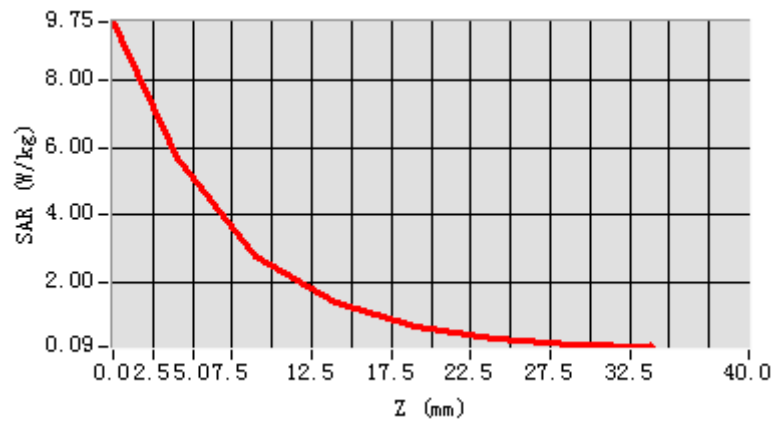
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	2450MHz
Signal	CW
Frequency (MHz)	2450.000000
Relative permittivity (real part)	52.589845
Conductivity (S/m)	1.954598
Power drift (%)	-0.160000
Ambient Temperature:	21.8C
Liquid Temperature:	20.5C
ConvF:	2.55
Crest factor:	1:1



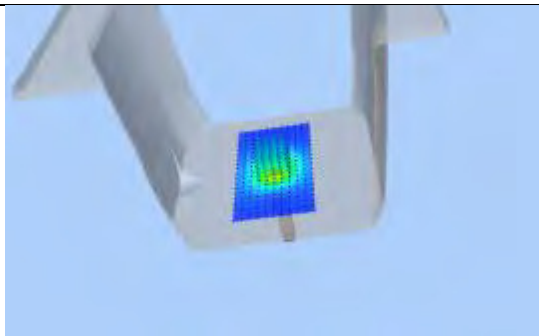
Maximum location: X=1.00, Y=-1.00
SAR Peak: 9.68W/kg

SAR 10g (W/Kg)	2.302133
SAR 1g (W/Kg)	5.462953

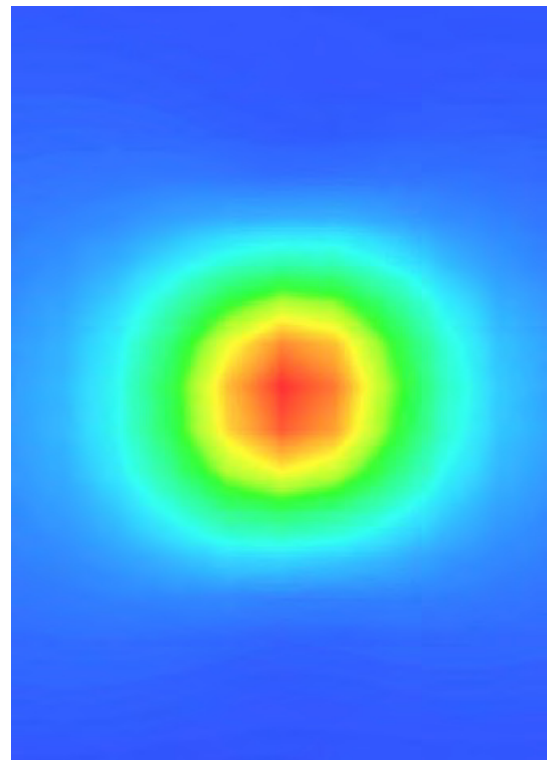
Z Axis Scan



3D screen shot



Hot spot position



System Performance Check Data(2600MHz Head)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

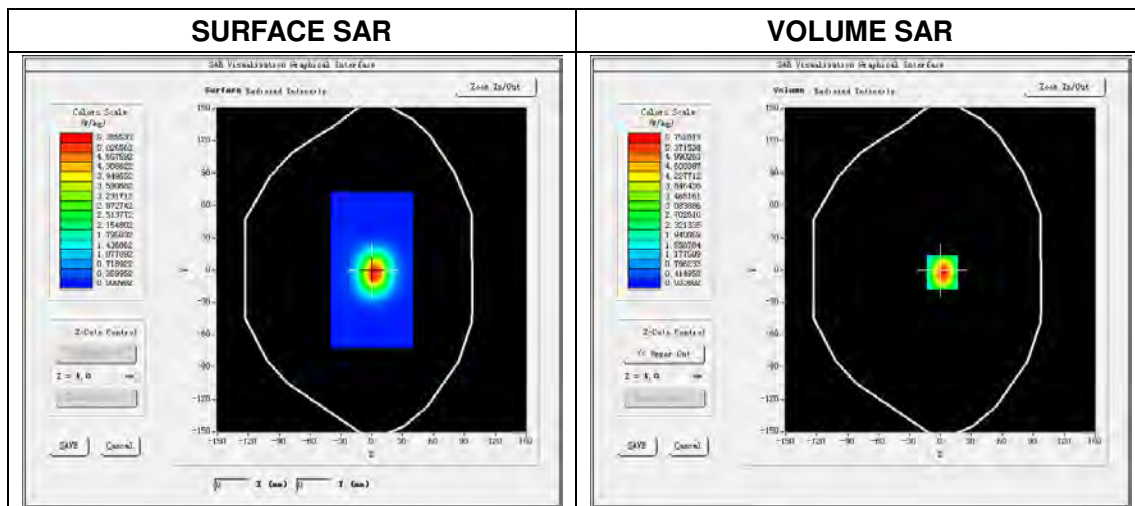
Zoom scan resolution: dx=5mm, dy=5mm, dz=5mm

Date of measurement: 2016.06.20

Measurement duration: 18 minutes 20 seconds

Experimental conditions.

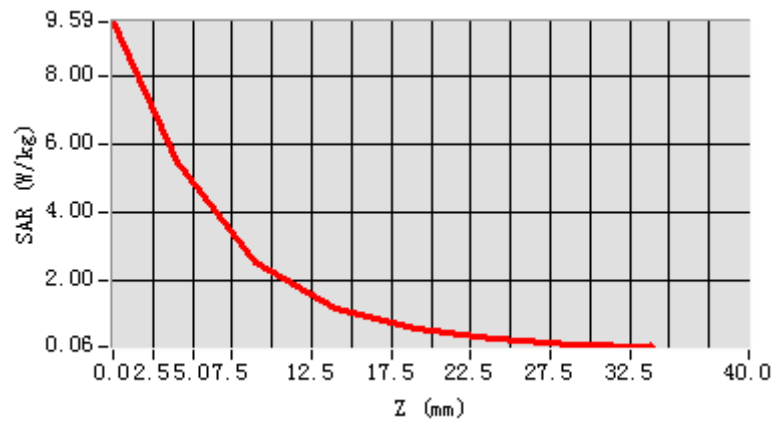
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	2600MHz
Signal	CW
Frequency (MHz)	2600.000000
Relative permittivity (real part)	38.376951
Conductivity (S/m)	1.990794
Power drift (%)	-0.350000
Ambient Temperature:	22.0C
Liquid Temperature:	20.7C
ConvF:	2.36
Crest factor:	1:1



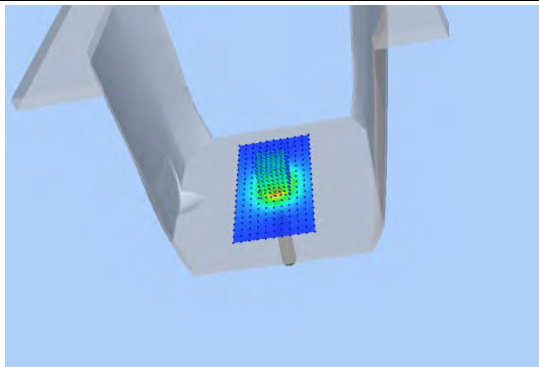
Maximum location: X=3.00, Y=1.00
SAR Peak: 9.48W/kg

SAR 10g (W/Kg)	2.283244
SAR 1g (W/Kg)	5.358480

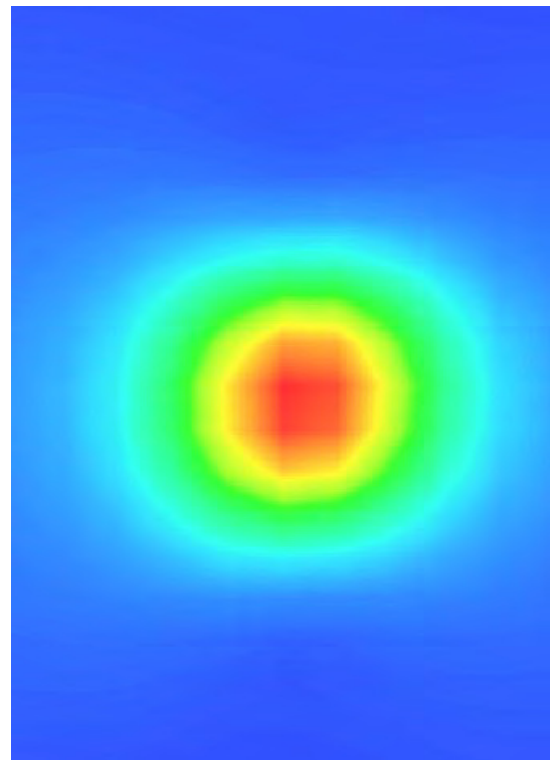
Z Axis Scan



3D screen shot



Hot spot position



System Performance Check Data(2600MHz Body)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

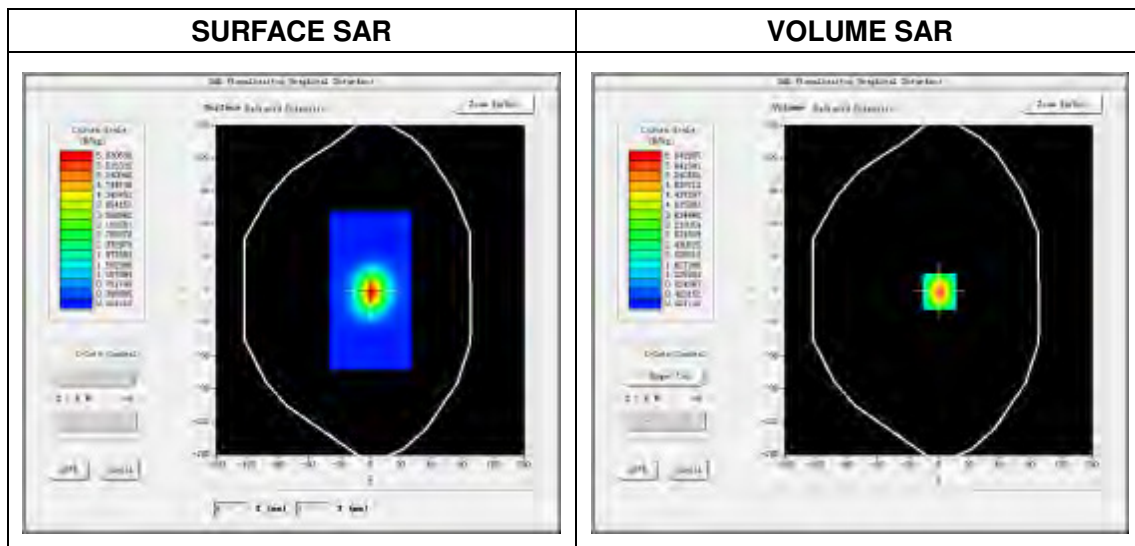
Zoom scan resolution: dx=5mm, dy=5mm, dz=5mm

Date of measurement: 2016.06.21

Measurement duration: 17 minutes 36 seconds

Experimental conditions.

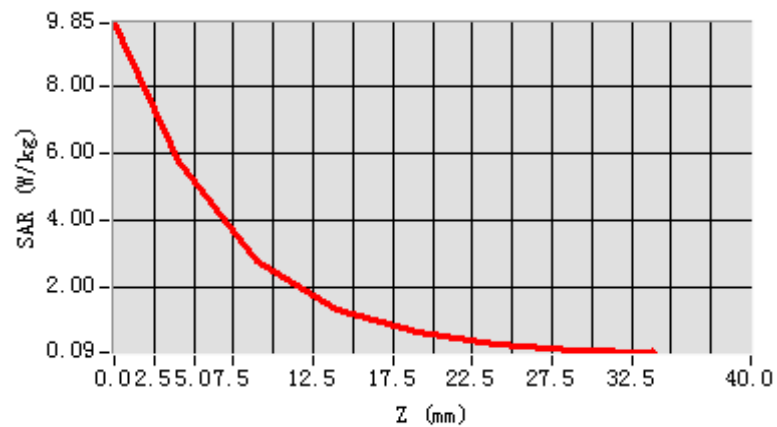
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	2600MHz
Signal	CW
Frequency (MHz)	2600.000000
Relative permittivity (real part)	52.130214
Conductivity (S/m)	2.173247
Power drift (%)	-0.870000
Ambient Temperature:	21.8C
Liquid Temperature:	20.5C
ConvF:	2.43
Crest factor:	1:1



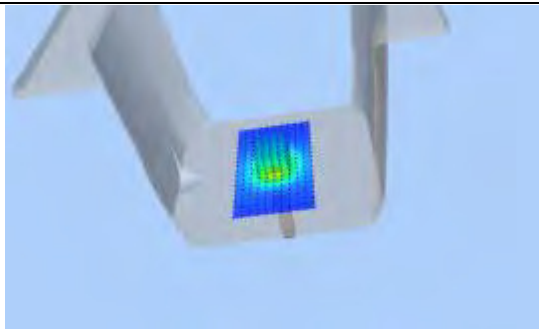
Maximum location: X=1.00, Y=-1.00
SAR Peak: 9.81W/kg

SAR 10g (W/Kg)	2.387846
SAR 1g (W/Kg)	5.786582

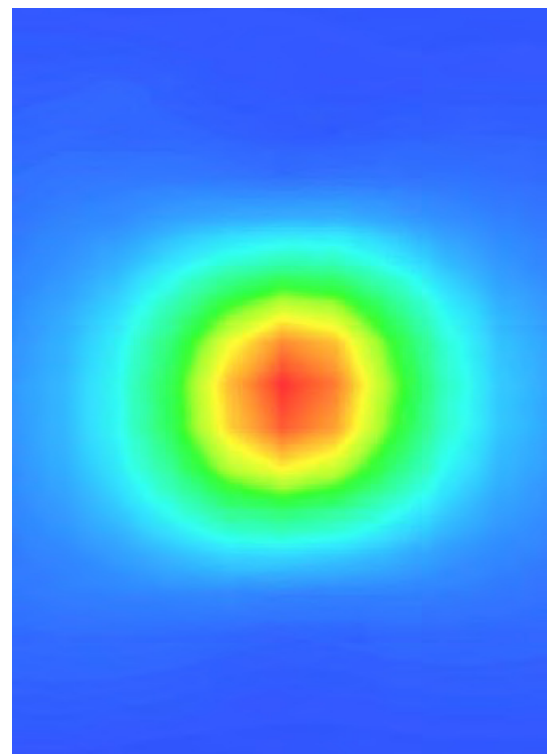
Z Axis Scan



3D screen shot



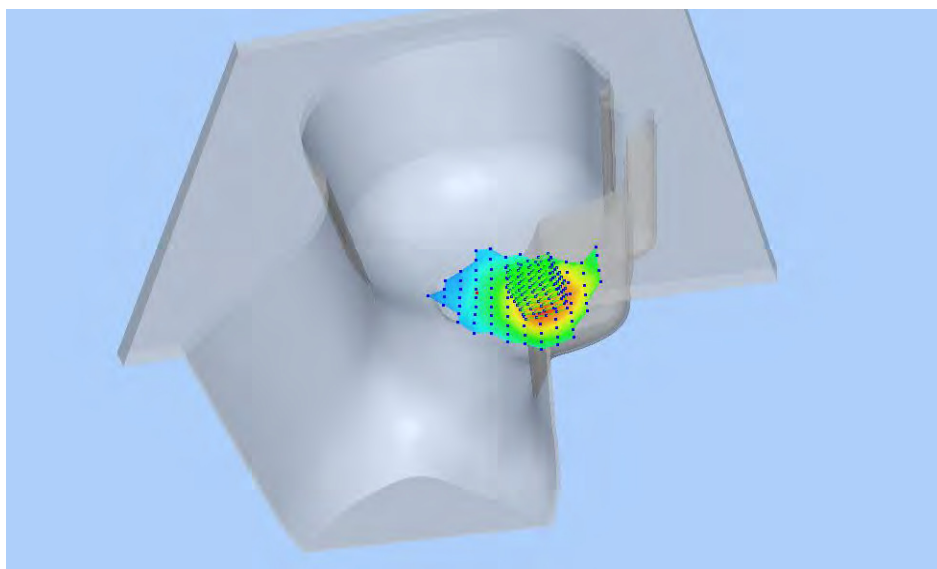
Hot spot position



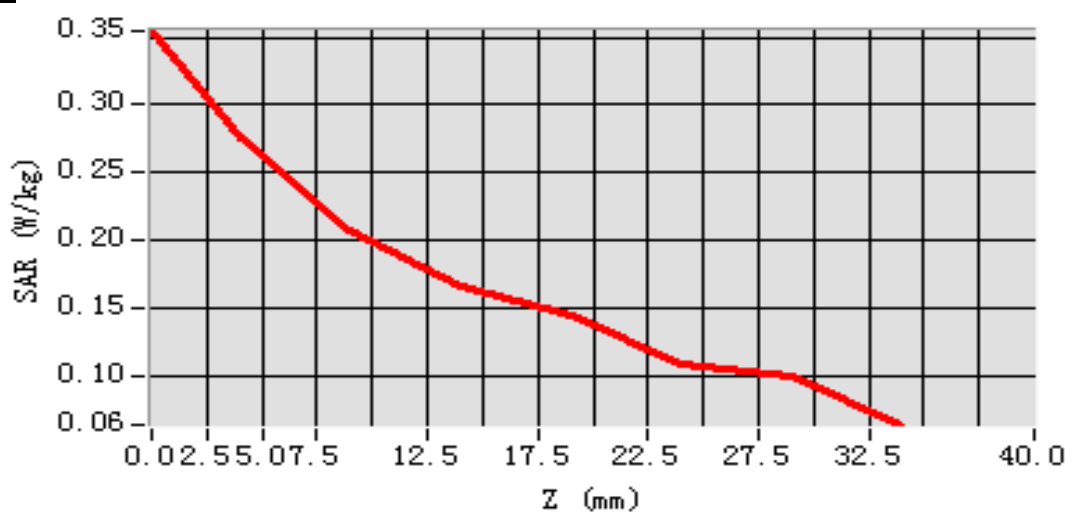
ANNEX C TEST DATA

MEAS. 1 Left Head with Cheek on Middle Channel in GSM 850 mode

Test Date: 16/6/2016
Measurement duration: 10 minutes 35 seconds
Signal: GSM, f=836.6 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 41.96; Conductivity: 0.90 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-24.000000
SAR 10g (W/Kg): 0.195510
SAR 1g (W/Kg): 0.267525
Power drift (%): 0.27
3D screen shot

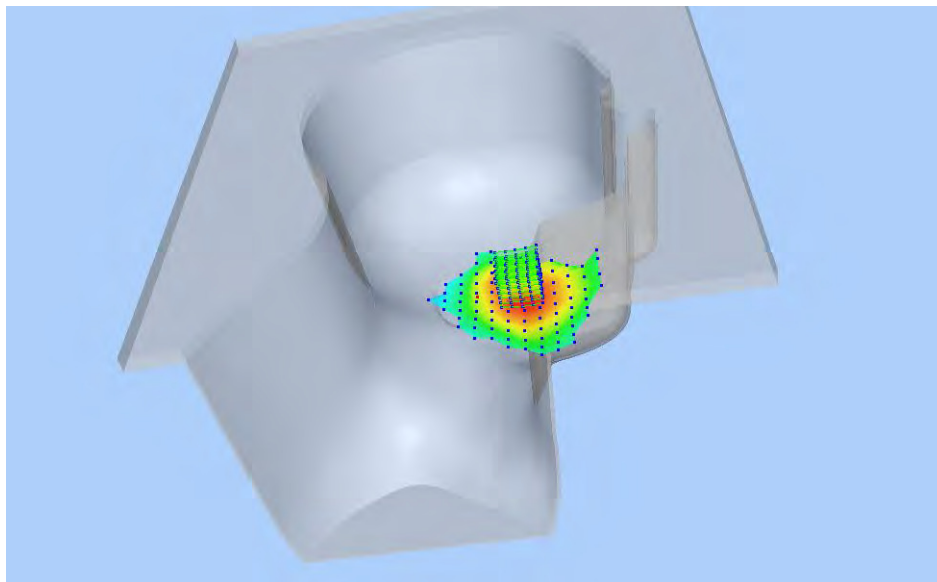


Z Axis Scan

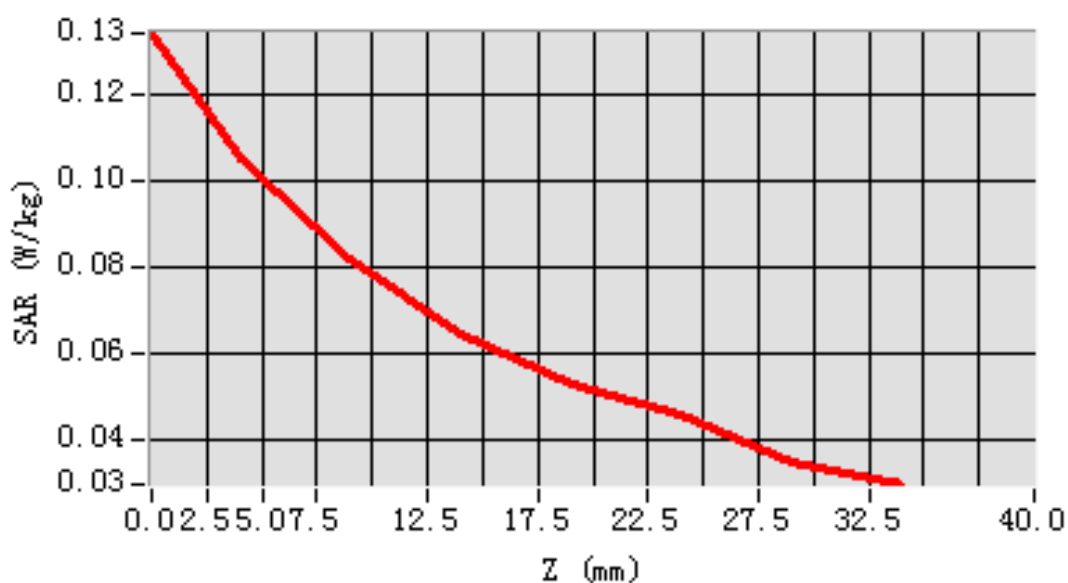


MEAS. 2 Left Head with Tilt on Middle Channel in GSM 850 mode

Test Date: 16/6/2016
Measurement duration: 8 minutes 45 seconds
Signal: GSM, f=836.6 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 41.96; Conductivity: 0.90 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-36.000000, Y=0.000000
SAR 10g (W/Kg): 0.076618
SAR 1g (W/Kg): 0.102589
Power drift (%): -1.99
3D screen shot

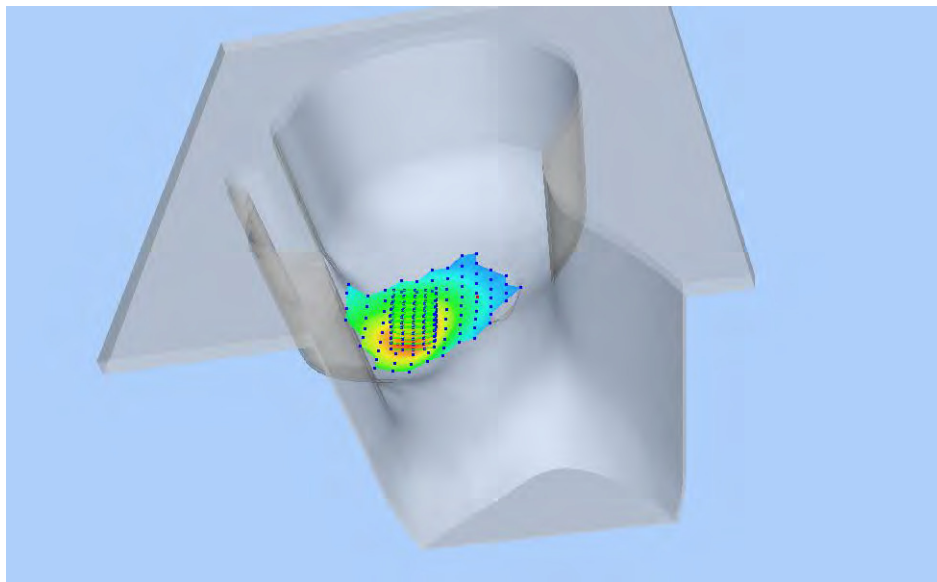


Z Axis Scan

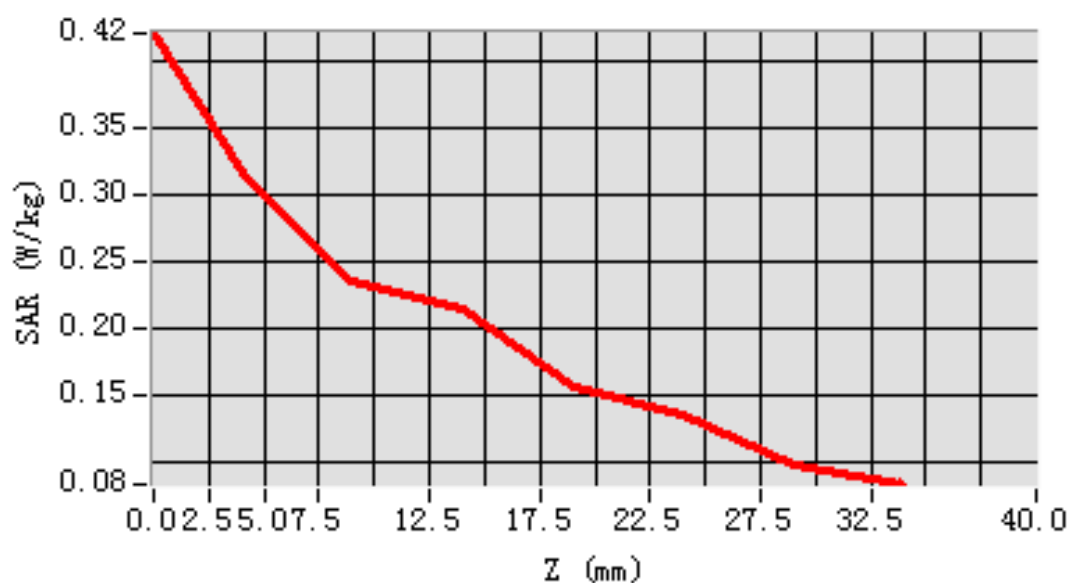


MEAS. 3 Right Head with Cheek on Middle Channel in GSM 850 mode

Test Date: 16/6/2016
Measurement duration: 9 minutes 42 seconds
Signal: GSM, f=836.6 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 41.96; Conductivity: 0.90 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-36.000000
SAR 10g (W/Kg): 0.232211
SAR 1g (W/Kg): 0.310964
Power drift (%): -3.22
3D screen shot

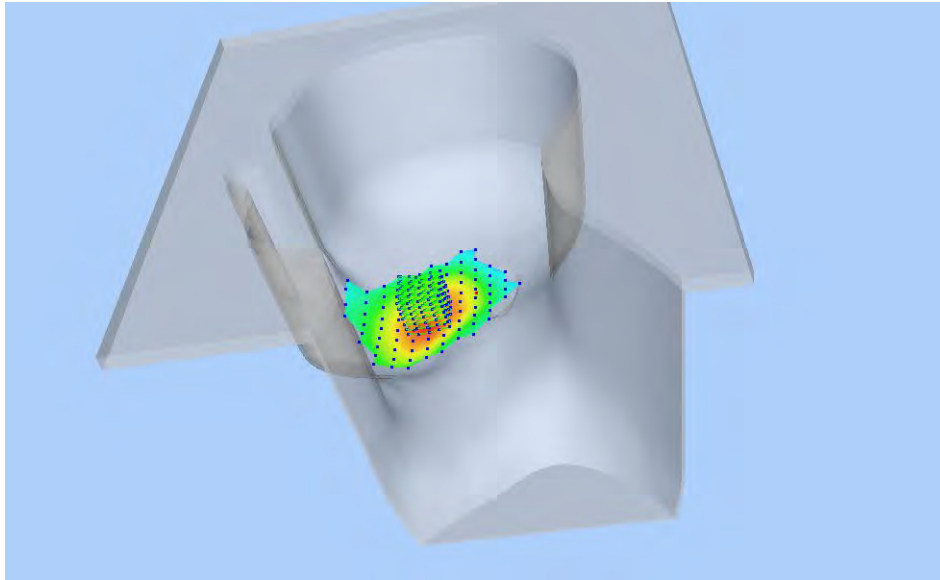


Z Axis Scan

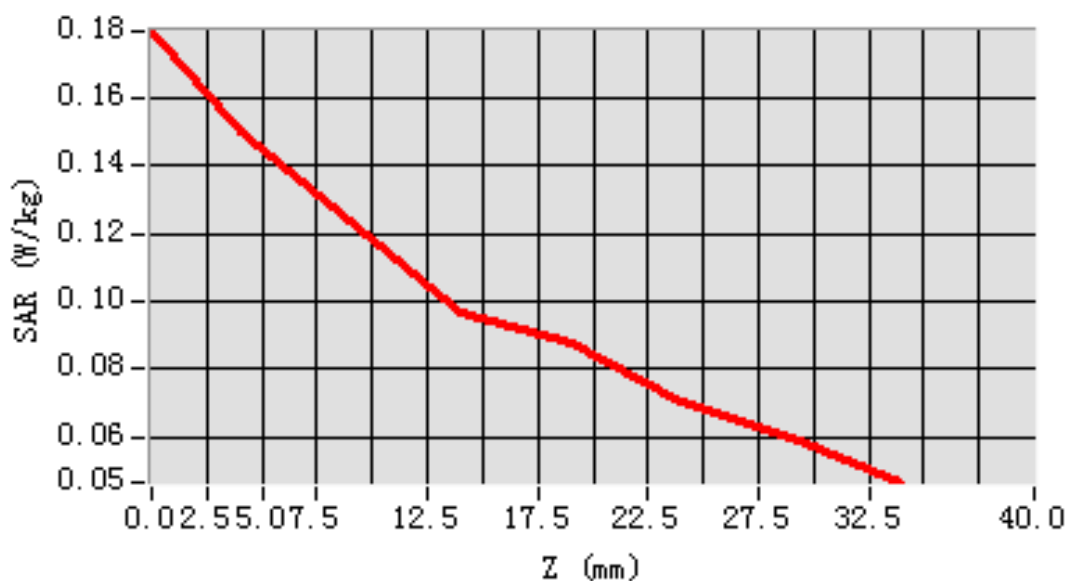


MEAS. 4 Right Head with Tilt on Middle Channel in GSM 850 mode

Test Date: 16/6/2016
Measurement duration: 8 minutes 55 seconds
Signal: GSM, f=836.6 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 41.96; Conductivity: 0.90 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-36.000000, Y=-24.000000
SAR 10g (W/Kg): 0.110180
SAR 1g (W/Kg): 0.147398
Power drift (%): -2.60
3D screen shot

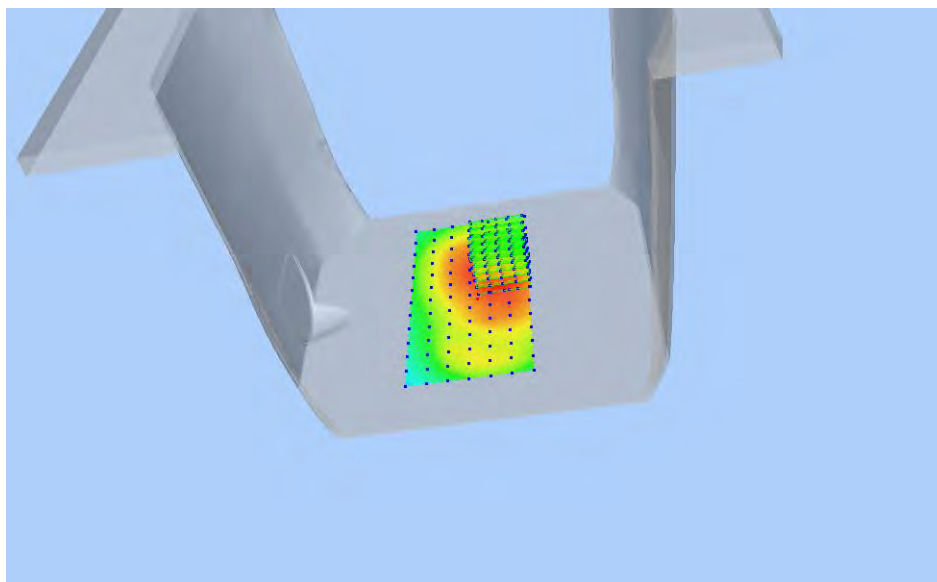


Z Axis Scan

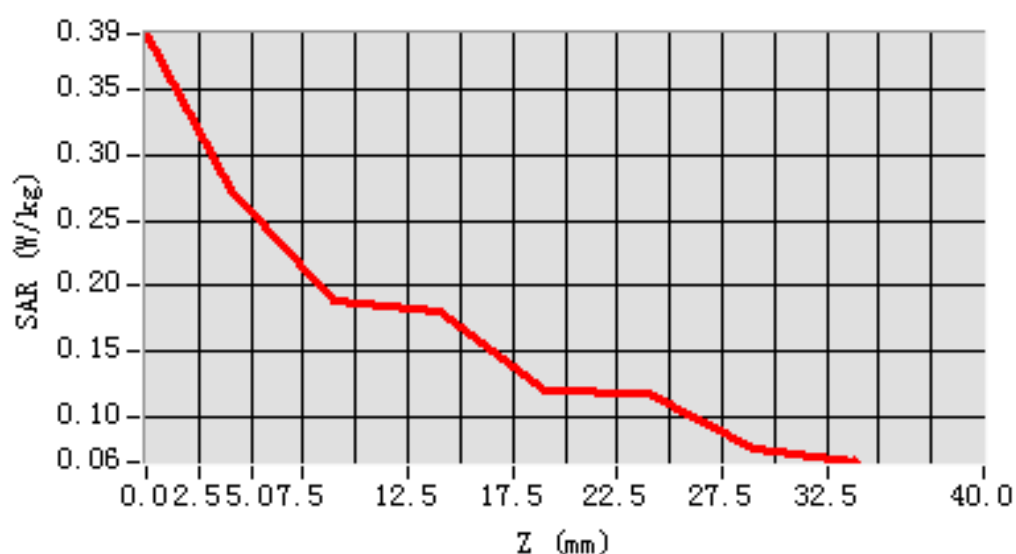


MEAS. 5 Back Side Plane with Front Side on Middle Channel in GSM 850 mode

Test Date: 18/6/2016
Measurement duration: 11 minutes 58 seconds
Signal: GSM, f=836.6 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 55.93; Conductivity: 0.98 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.12
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=20.000000, Y=12.000000
SAR 10g (W/Kg): 0.205934
SAR 1g (W/Kg): 0.273892
Power drift (%): -0.54
3D screen shot

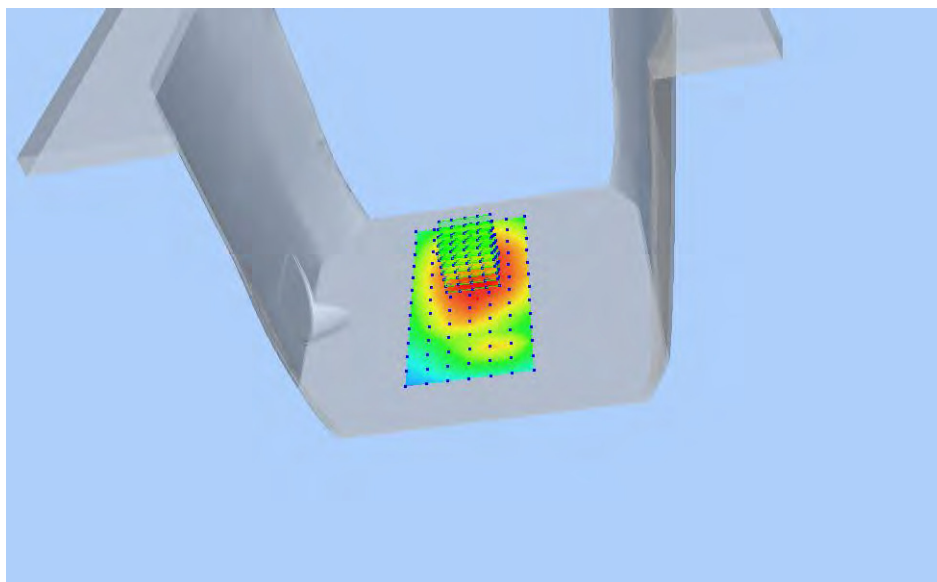


Z Axis Scan

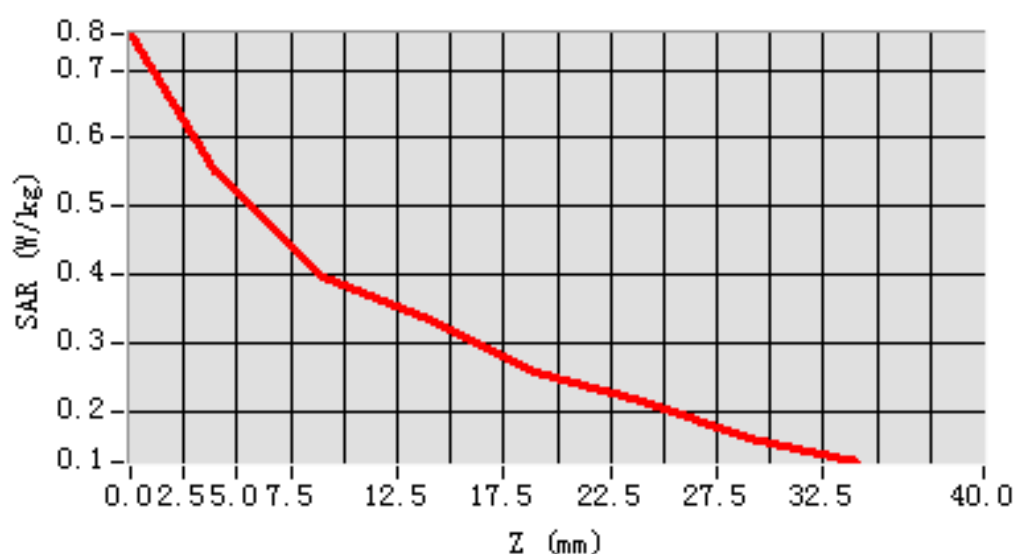


MEAS. 6 Back Side Plane with Back Side on Middle Channel in GSM 850 mode

Test Date: 18/6/2016
Measurement duration: 10 minutes 22 seconds
Signal: GSM, f=836.6 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 55.93; Conductivity: 0.98 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.12
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=24.000000
SAR 10g (W/Kg): 0.402325
SAR 1g (W/Kg): 0.543437
Power drift (%): -1.14
3D screen shot



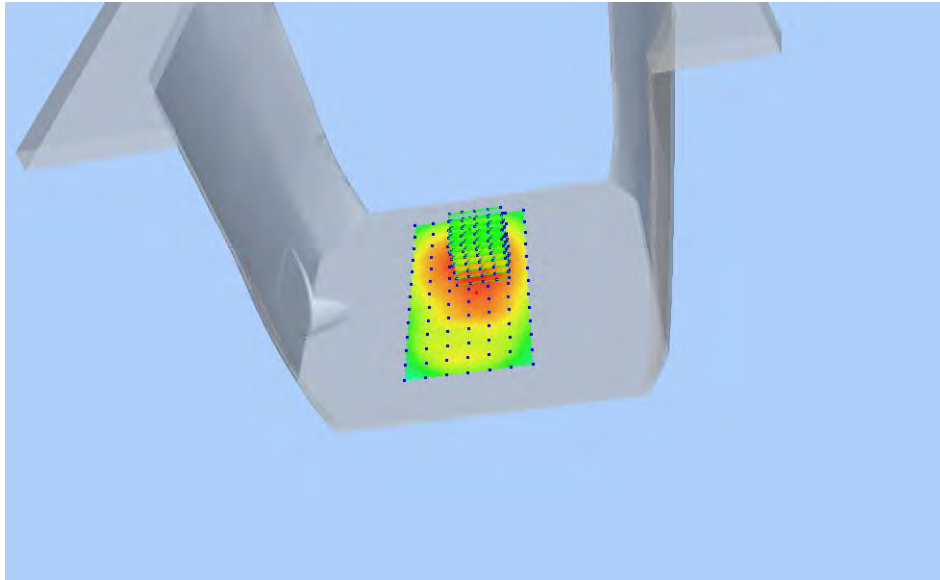
Z Axis Scan



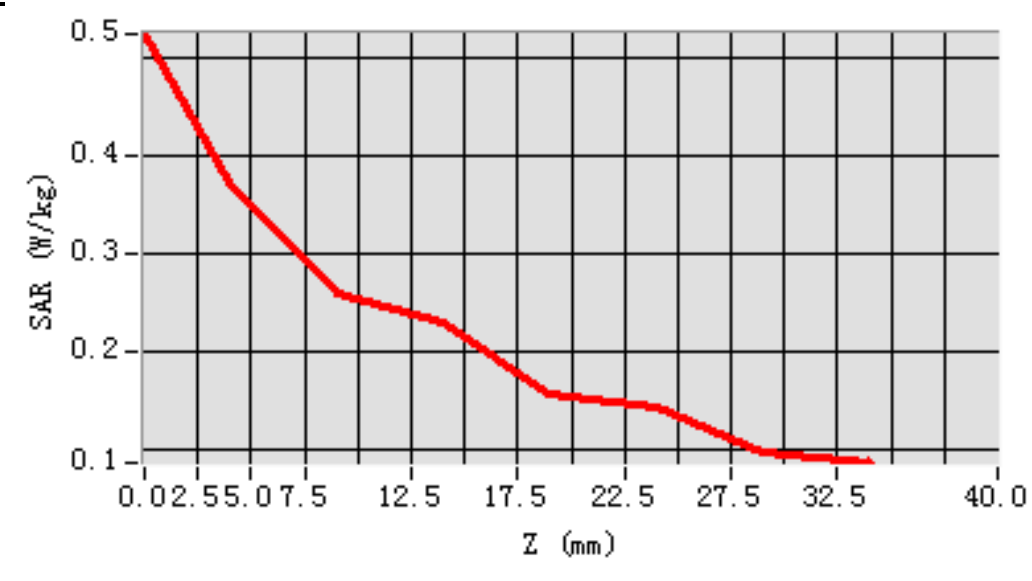
MEAS. 7 Back Side Plane with Front Side on Middle Channel in GPRS850

mode

Test Date: 18/6/2016
Measurement duration: 11 minutes 33 seconds
Signal: GPRS, f=836.6 MHz, Duty Cycle: 1:2.0
Liquid Parameters: Permittivity: 55.93; Conductivity: 0.98 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.12
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=24.000000
SAR 10g (W/Kg): 0.273461
SAR 1g (W/Kg): 0.369236
Power drift (%): -2.35
3D screen shot

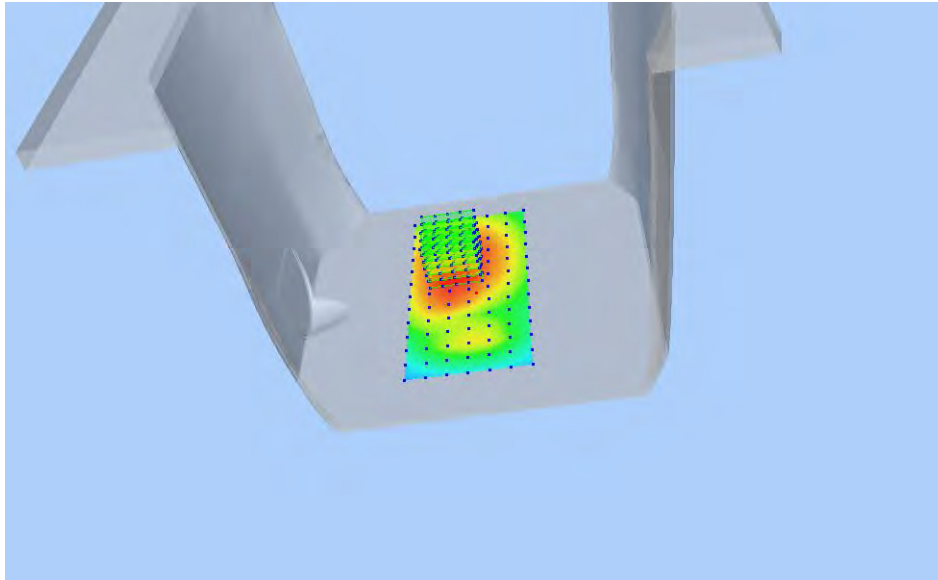


Z Axis Scan

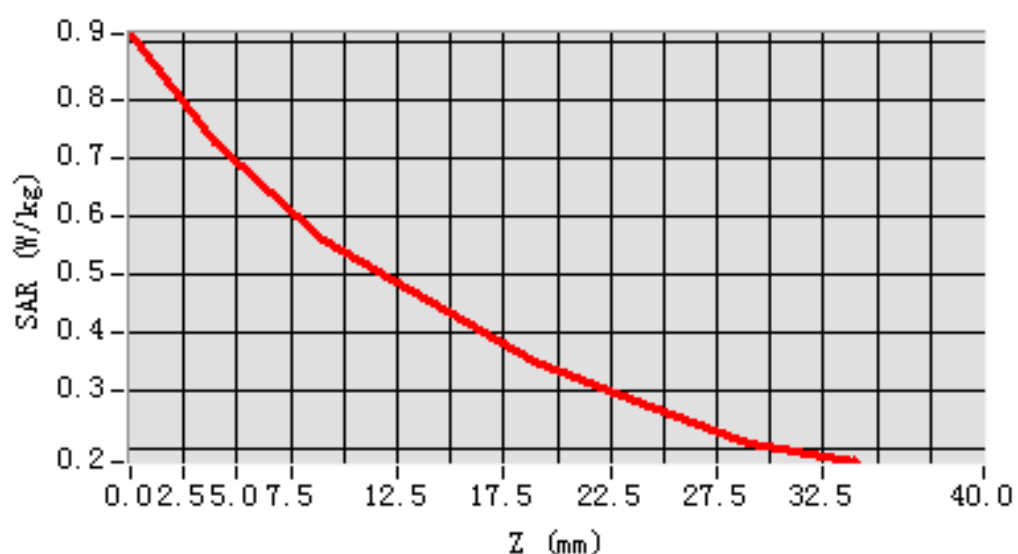


MEAS. 8 Back Side Plane with Back Side on Middle Channel in GPRS850 mode

Test Date: 18/6/2016
Measurement duration: 8 minutes 44 seconds
Signal: GPRS, $f=836.6$ MHz, Duty Cycle: 1:2.0
Liquid Parameters: Permittivity: 55.93; Conductivity: 0.98 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.12
Area Scan: sam_direct_droit2_surf12mm.txt, $h=5.00$ mm
Zoom Scan: 5x5x7, $dx=8$ mm, $dy=8$ mm, $dz=5$ mm, Complete
Maximum location: X=-16.000000, Y=24.000000
SAR 10g (W/Kg): 0.519844
SAR 1g (W/Kg): 0.700880
Power drift (%): 1.00
3D screen shot

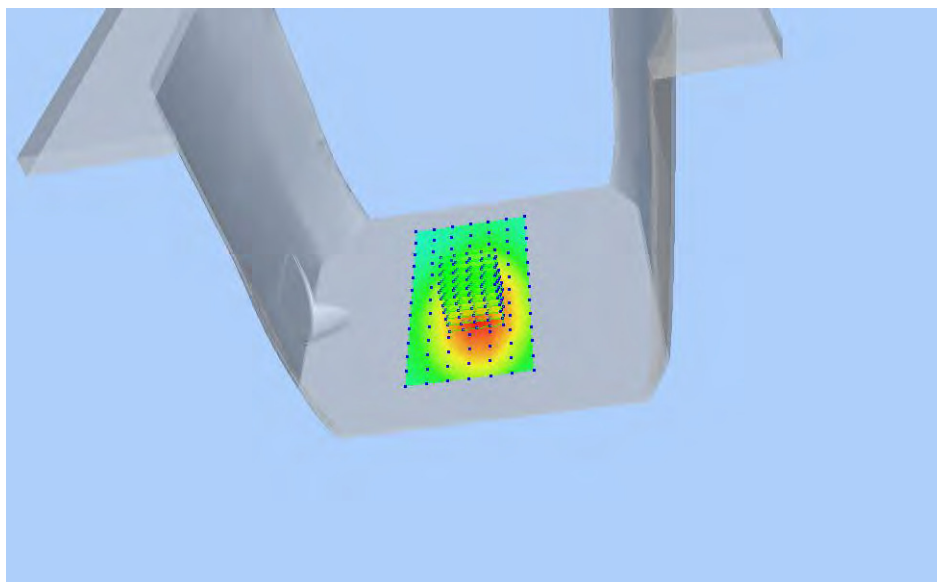


Z Axis Scan

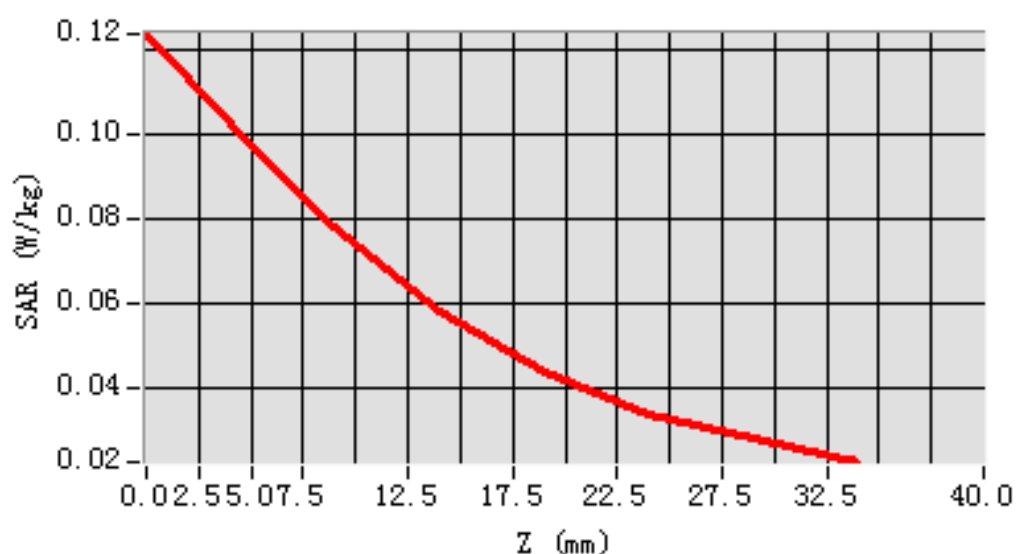


MEAS. 9 Back Side Plane with Left Side on Middle Channel in GPRS850 mode

Test Date: 18/6/2016
Measurement duration: 10 minutes 37 seconds
Signal: GPRS, $f=836.6$ MHz, Duty Cycle: 1:2.0
Liquid Parameters: Permittivity: 55.93; Conductivity: 0.98 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.12
Area Scan: sam_direct_droit2_surf12mm.txt, $h=5.00$ mm
Zoom Scan: 5x5x7, $dx=8$ mm, $dy=8$ mm, $dz=5$ mm, Complete
Maximum location: X=-4.000000, Y=-12.000000
SAR 10g (W/Kg): 0.069842
SAR 1g (W/Kg): 0.098691
Power drift (%): -1.48
3D screen shot



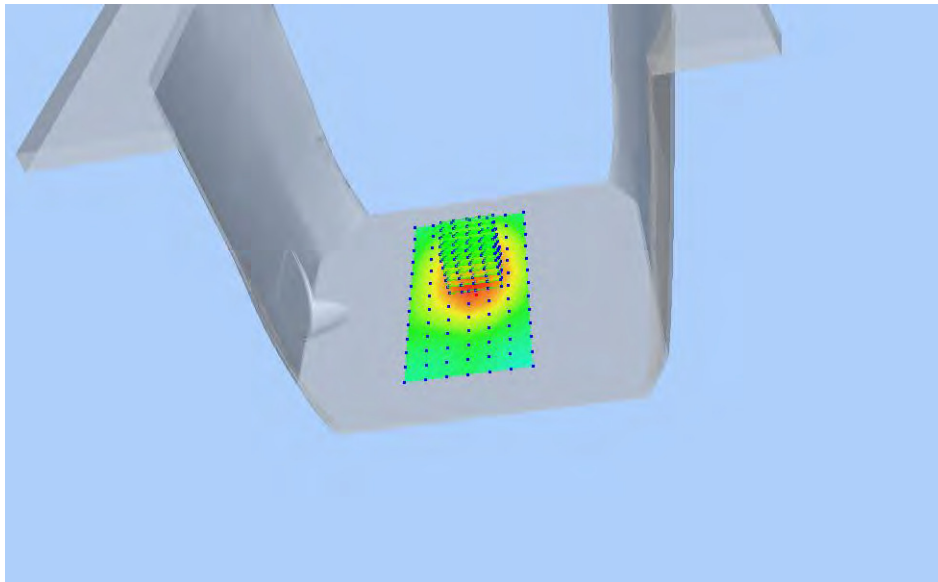
Z Axis Scan



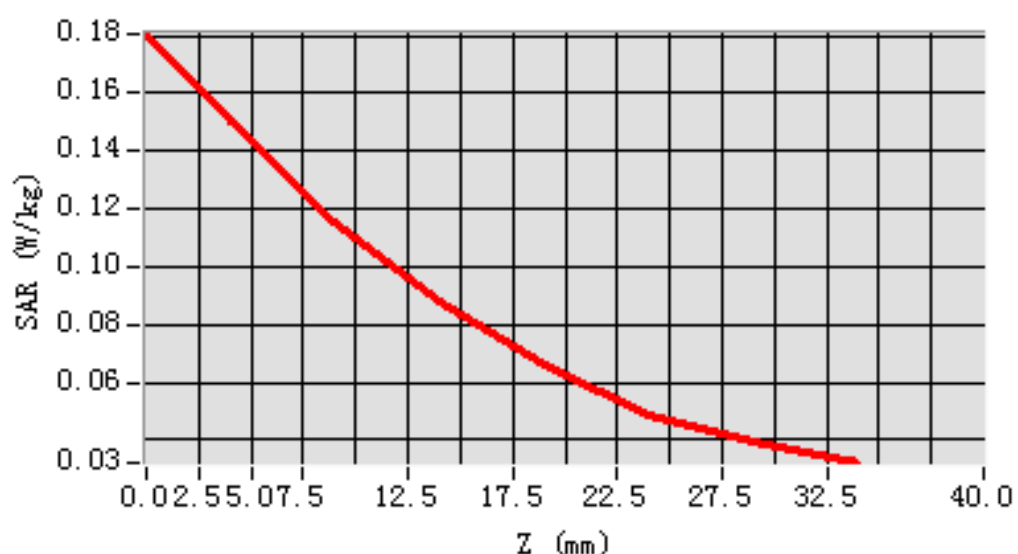
MEAS. 10 Back Side Plane with Right Side on Middle Channel in GPRS850

mode

Test Date: 18/6/2016
Measurement duration: 10 minutes 47 seconds
Signal: GPRS, f=836.6 MHz, Duty Cycle: 1:2.0
Liquid Parameters: Permittivity: 55.93; Conductivity: 0.98 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.12
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=12.000000
SAR 10g (W/Kg): 0.103442
SAR 1g (W/Kg): 0.145467
Power drift (%): -0.03
3D screen shot



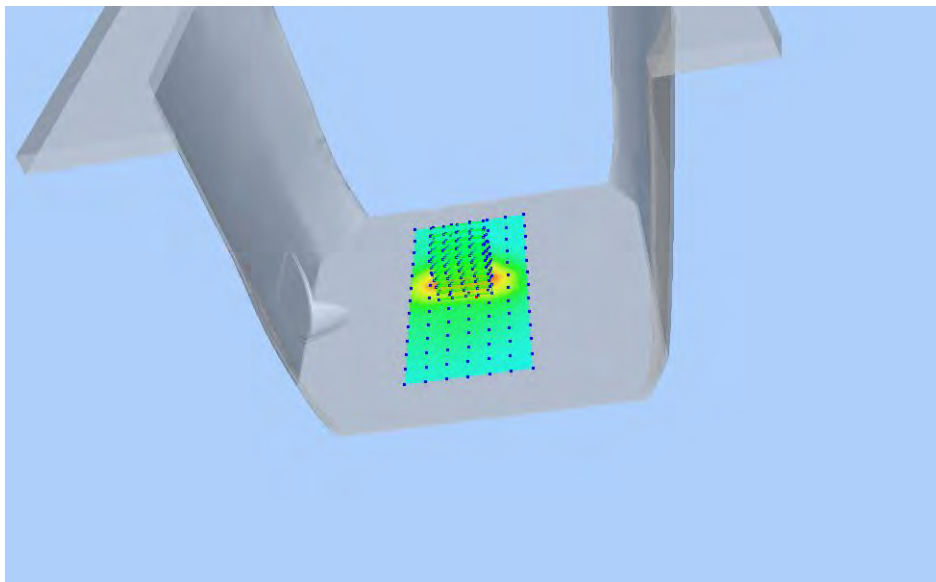
Z Axis Scan



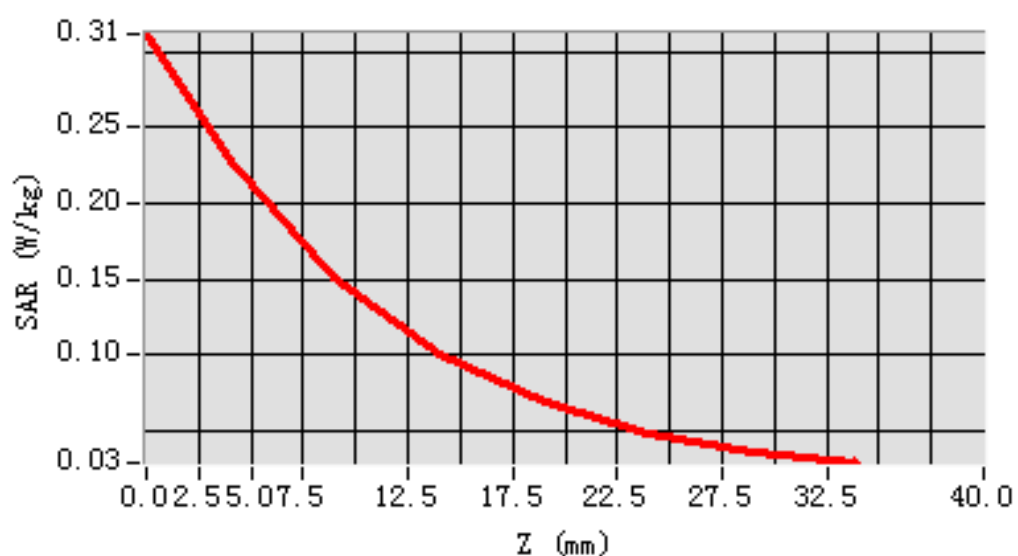
MEAS. 11 Back Side Plane with Bottom Side on Middle Channel in GPRS850

mode

Test Date: 18/6/2016
Measurement duration: 9 minutes 49 seconds
Signal: GPRS, f=836.6 MHz, Duty Cycle: 1:2.0
Liquid Parameters: Permittivity: 55.93; Conductivity: 0.98 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.12
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=12.000000
SAR 10g (W/Kg): 0.127503
SAR 1g (W/Kg): 0.212209
Power drift (%): -2.21
3D screen shot

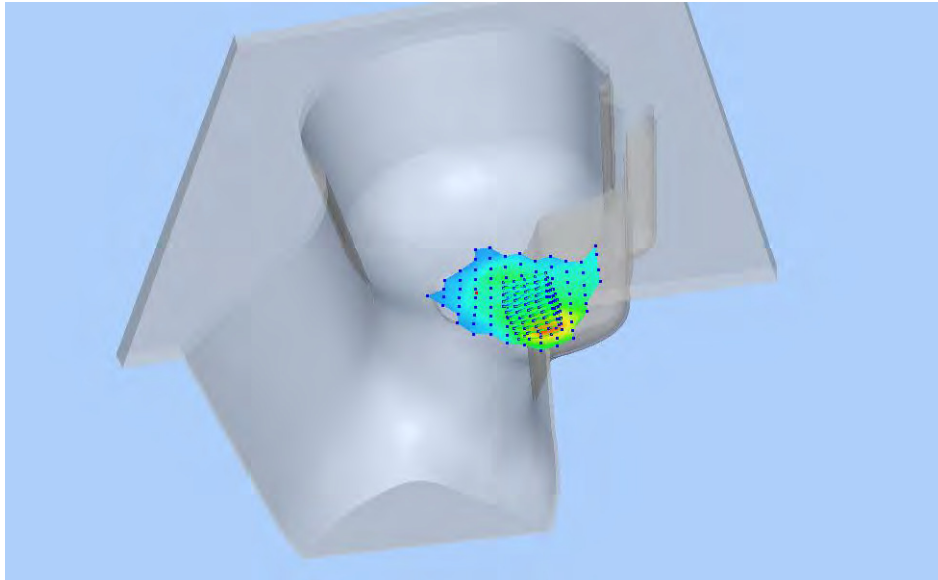


Z Axis Scan

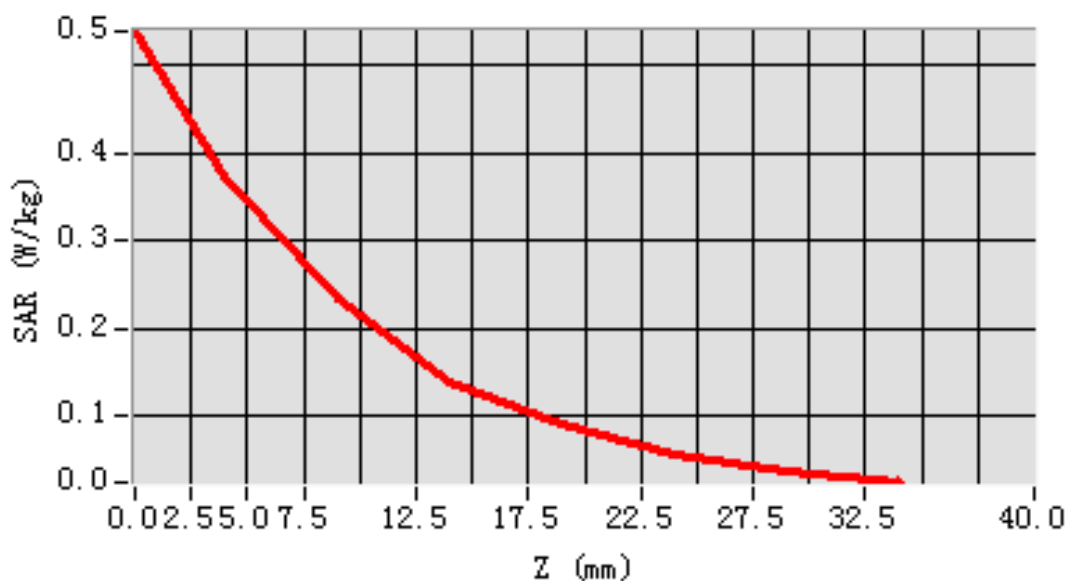


MEAS. 12 Left Head with Cheek on High Channel in GSM 1900 mode

Test Date: 19/6/2016
Measurement duration: 9 minutes 53 seconds
Signal: GSM, f=1909.8 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 39.60; Conductivity: 1.41 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.35
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-48.000000
SAR 10g (W/Kg): 0.194755
SAR 1g (W/Kg): 0.351076
Power drift (%): -2.91
3D screen shot

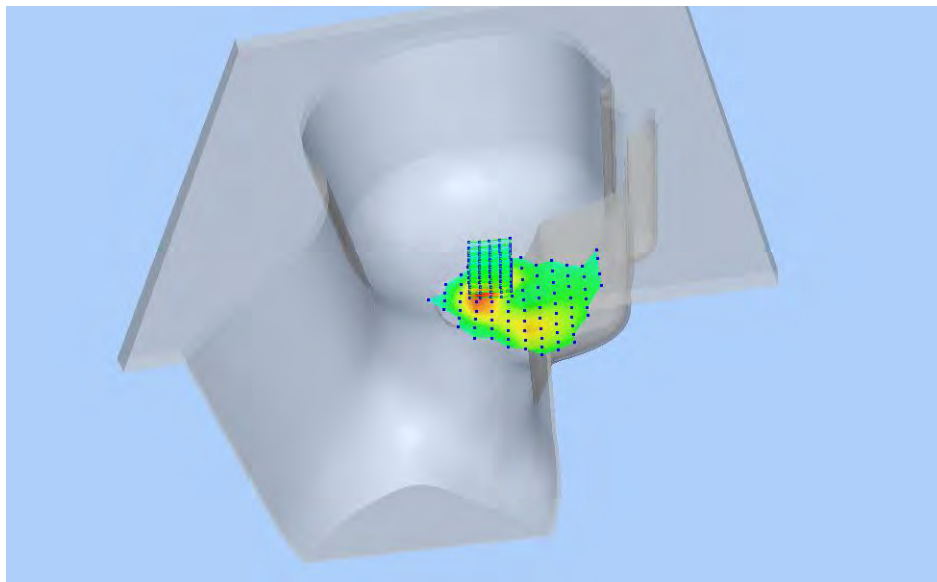


Z Axis Scan

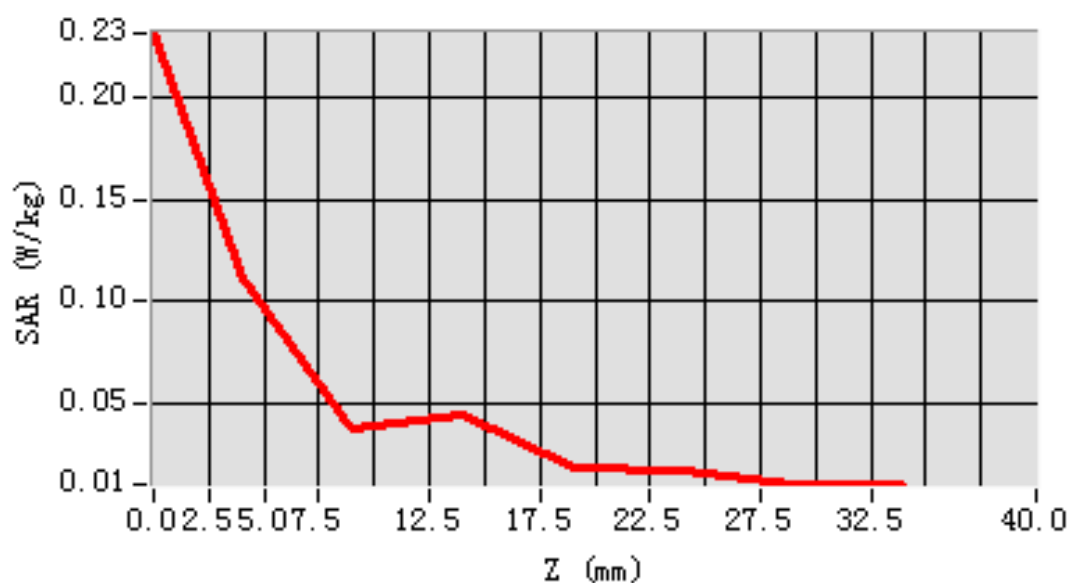


MEAS. 13 Left Head with Tilt on High Channel in GSM 1900 mode

Test Date: 19/6/2016
Measurement duration: 8 minutes 34 seconds
Signal: GSM, f=1909.8 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 39.60; Conductivity: 1.41 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.35
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=12.000000
SAR 10g (W/Kg): 0.059233
SAR 1g (W/Kg): 0.101040
Power drift (%): -4.58
3D screen shot

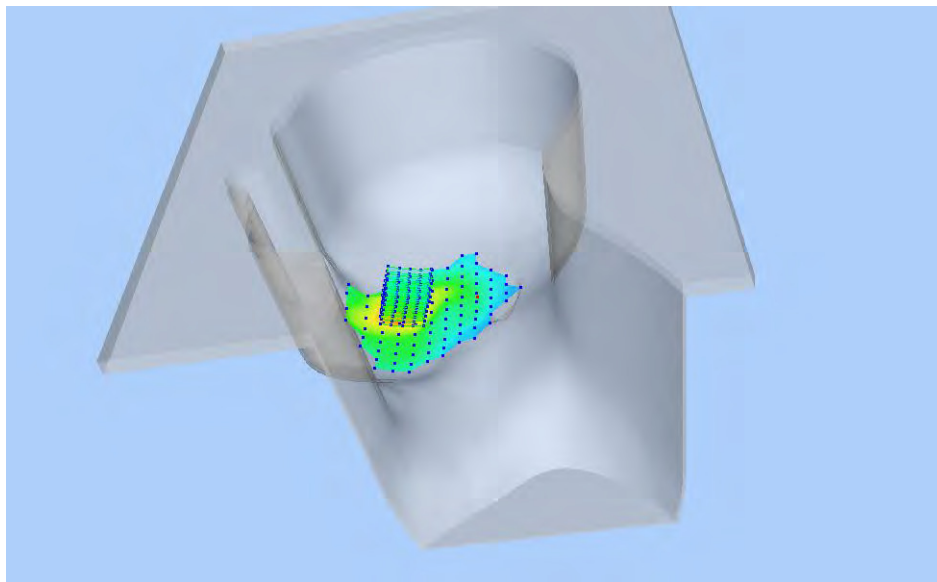


Z Axis Scan

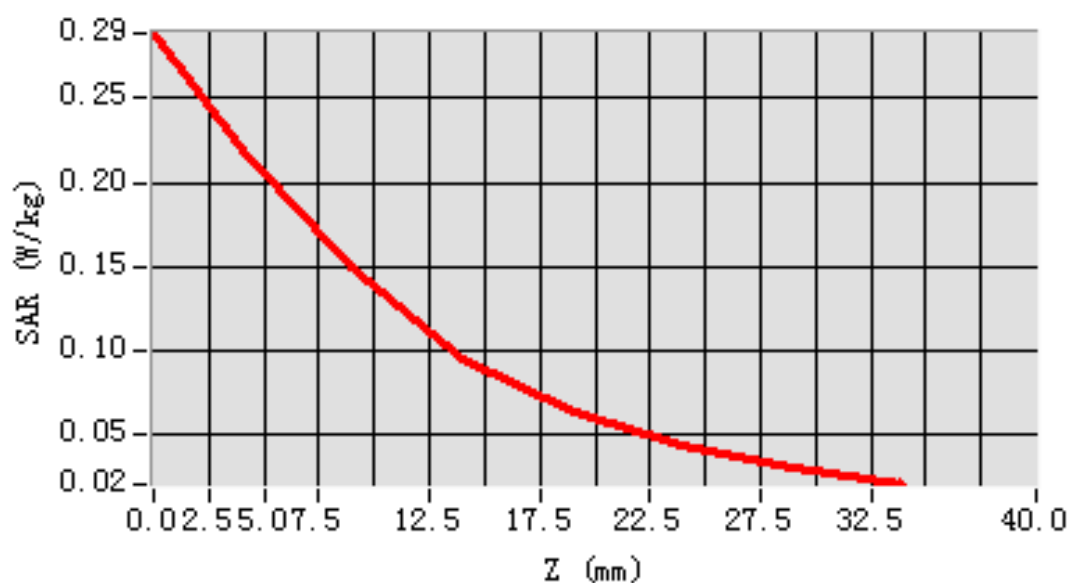


MEAS. 14 Right Head with Cheek on High Channel in GSM 1900 mode

Test Date: 19/6/2016
Measurement duration: 10 minutes 46 seconds
Signal: GSM, f=1909.8 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 39.60; Conductivity: 1.41 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.35
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-60.000000, Y=-12.000000
SAR 10g (W/Kg): 0.124535
SAR 1g (W/Kg): 0.215053
Power drift (%): -2.79
3D screen shot

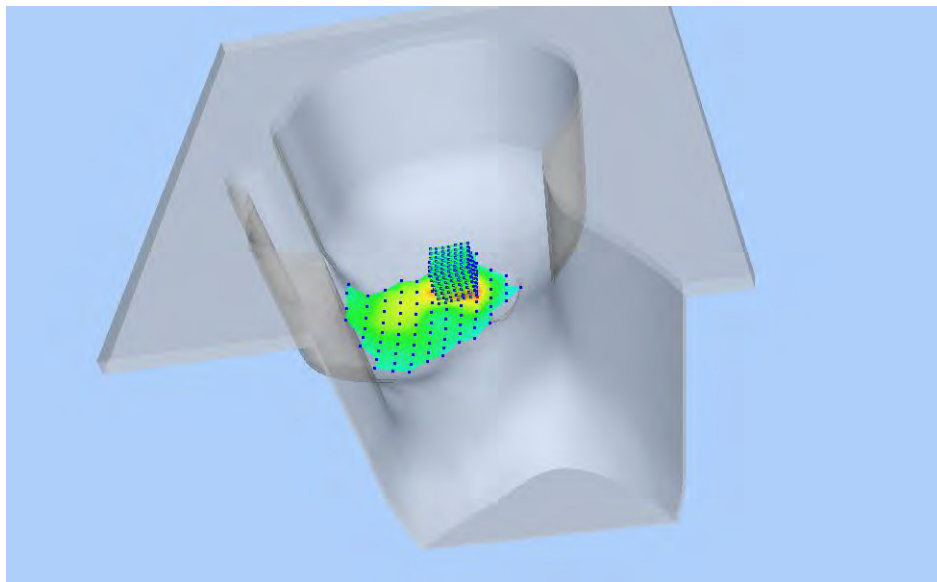


Z Axis Scan

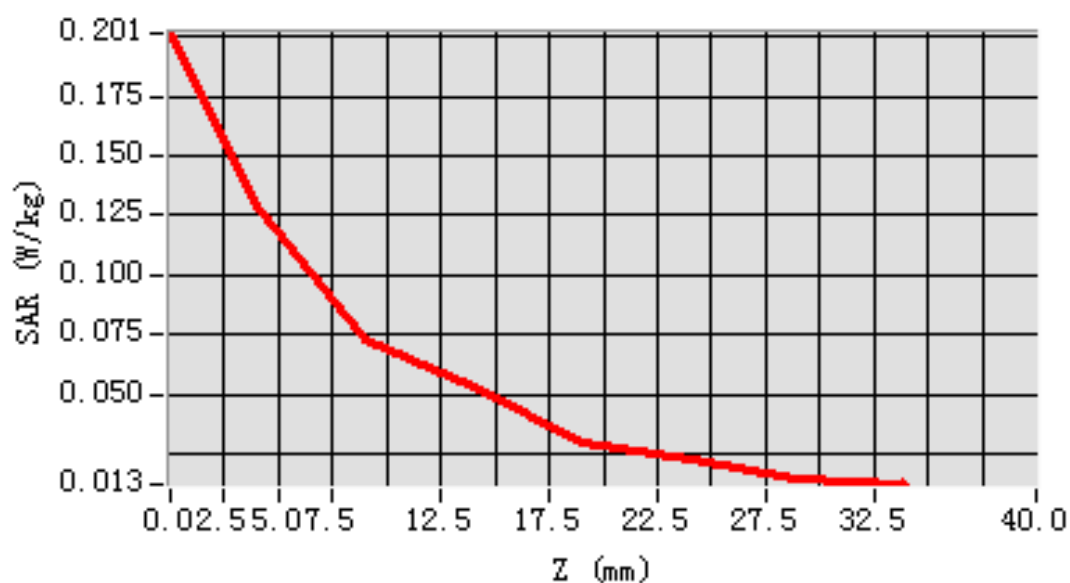


MEAS. 15 Right Head with Tilt on High Channel in GSM 1900 mode

Test Date: 19/6/2016
Measurement duration: 12 minutes 36 seconds
Signal: GSM, f=1909.8 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 39.60; Conductivity: 1.41 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.35
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=12.000000
SAR 10g (W/Kg): 0.071234
SAR 1g (W/Kg): 0.123822
Power drift (%): -3.13
3D screen shot

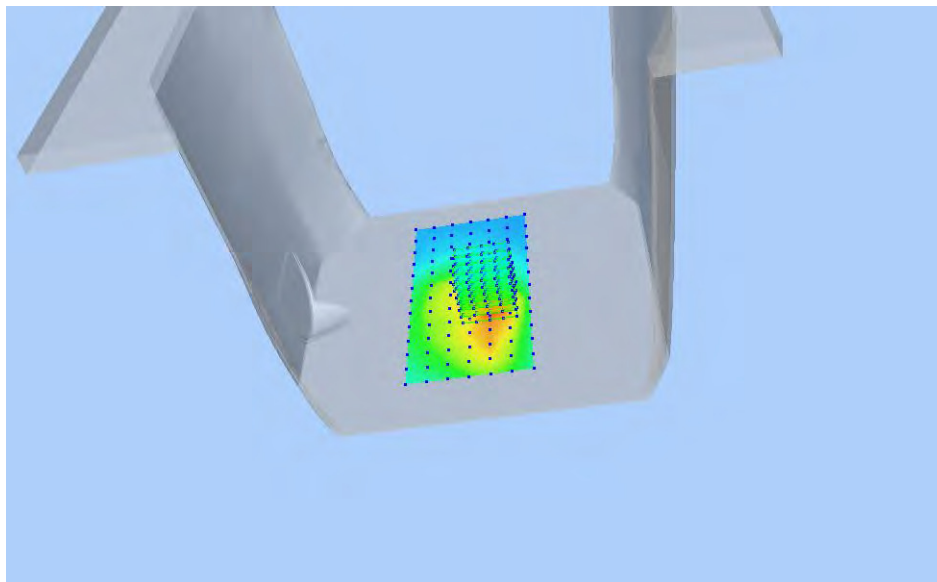


Z Axis Scan

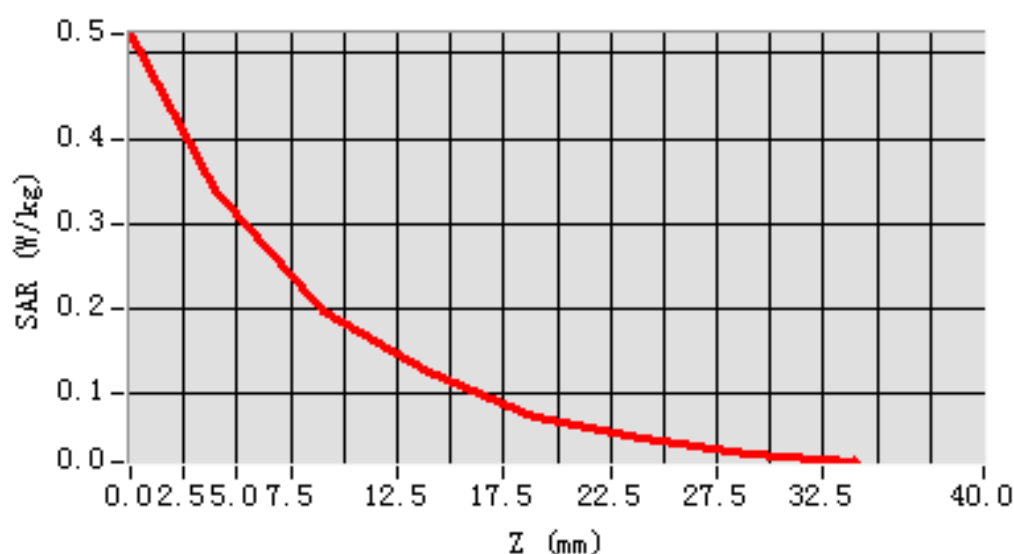


MEAS. 16 Back Side Plane with Front Side on High Channel in GSM 1900 mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 56 seconds
Signal: GSM, f=1909.8 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 53.30; Conductivity: 1.53 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=-12.000000
SAR 10g (W/Kg): 0.175496
SAR 1g (W/Kg): 0.324157
Power drift (%): 1.89
3D screen shot

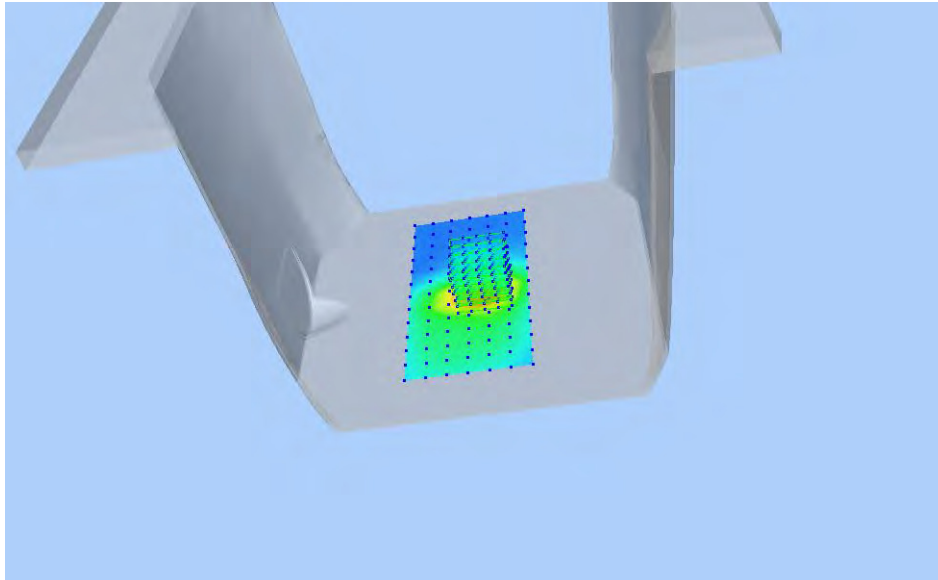


Z Axis Scan

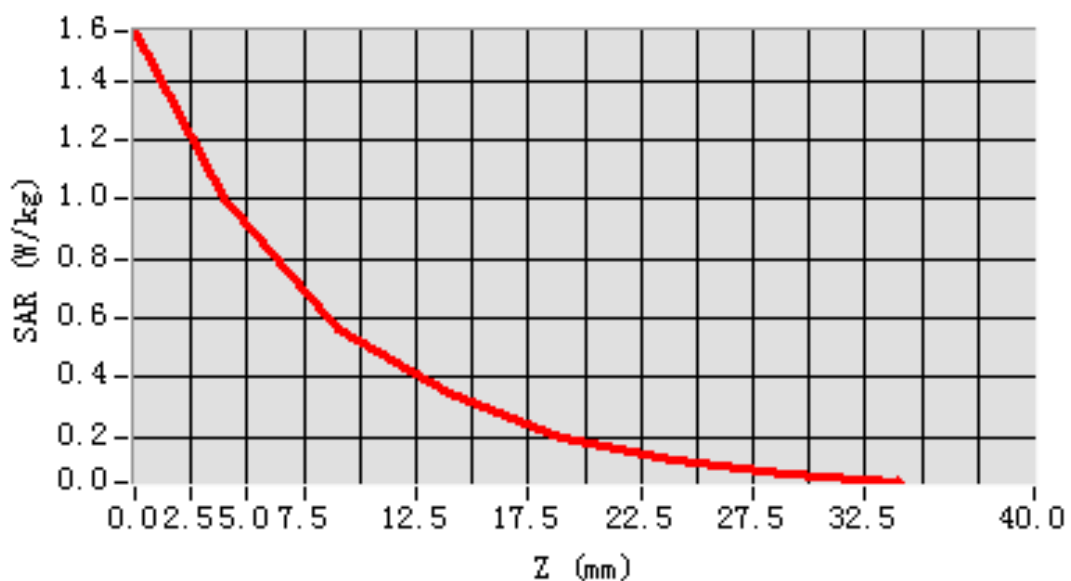


MEAS. 17 Back Side Plane with Back Side on High Channel in GSM 1900 mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 42 seconds
Signal: GSM, f=1909.8 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 53.30; Conductivity: 1.53 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.466785
SAR 1g (W/Kg): 0.928150
Power drift (%): -4.00
3D screen shot

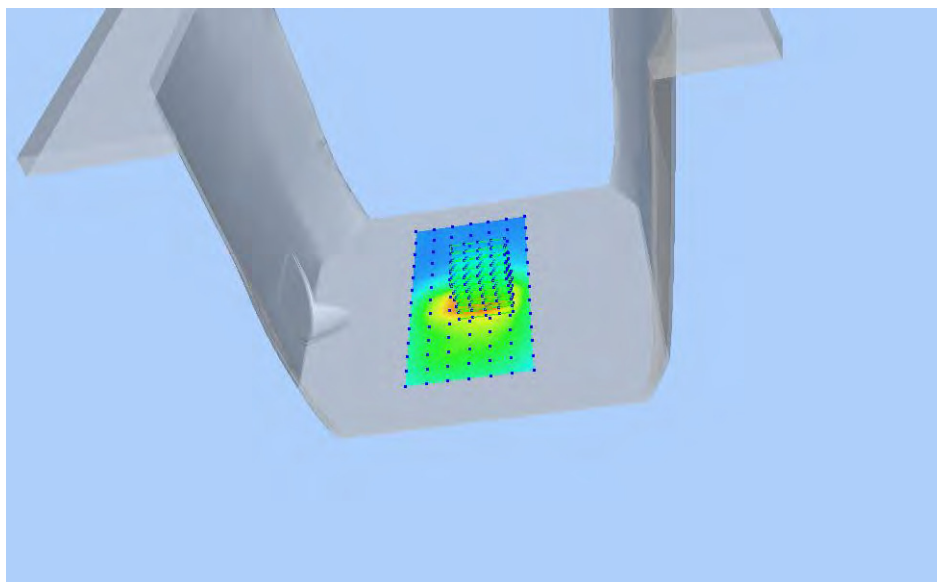


Z Axis Scan

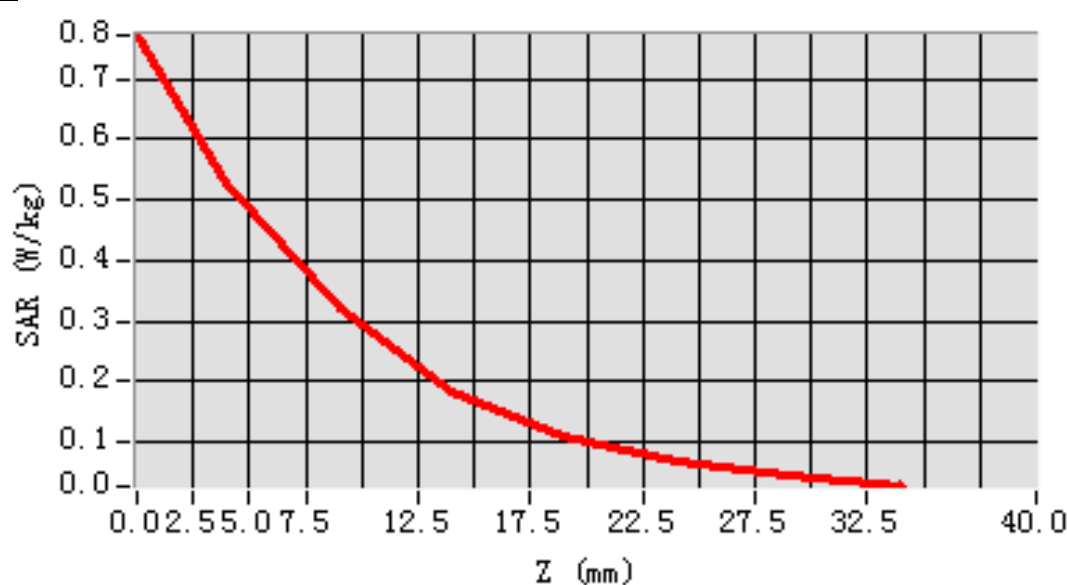


MEAS. 18 Back Side Plane with Back Side on Low Channel in GSM 1900 mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 44 seconds
Signal: GSM, f=1850.2 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 53.73; Conductivity: 1.51 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.254038
SAR 1g (W/Kg): 0.485889
Power drift (%): 1.50
3D screen shot



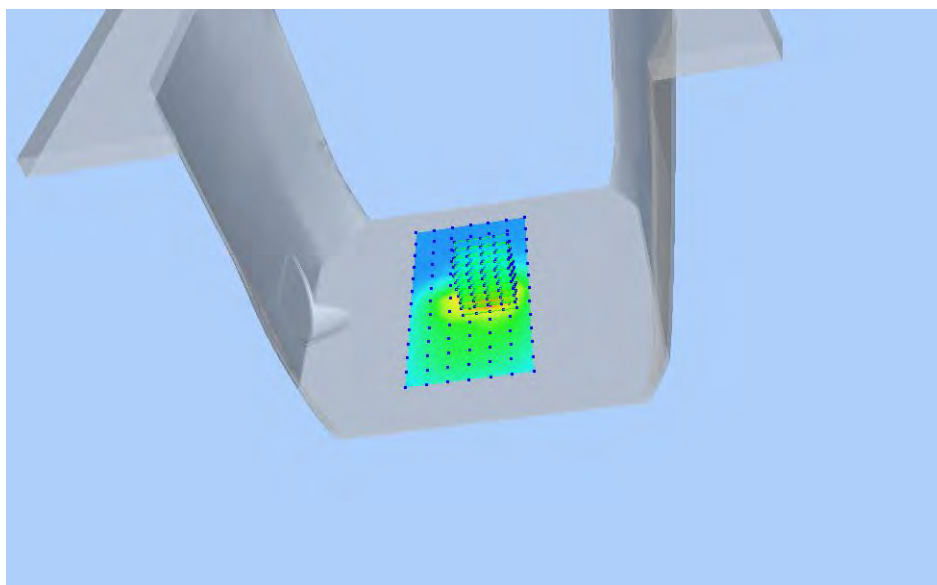
Z Axis Scan



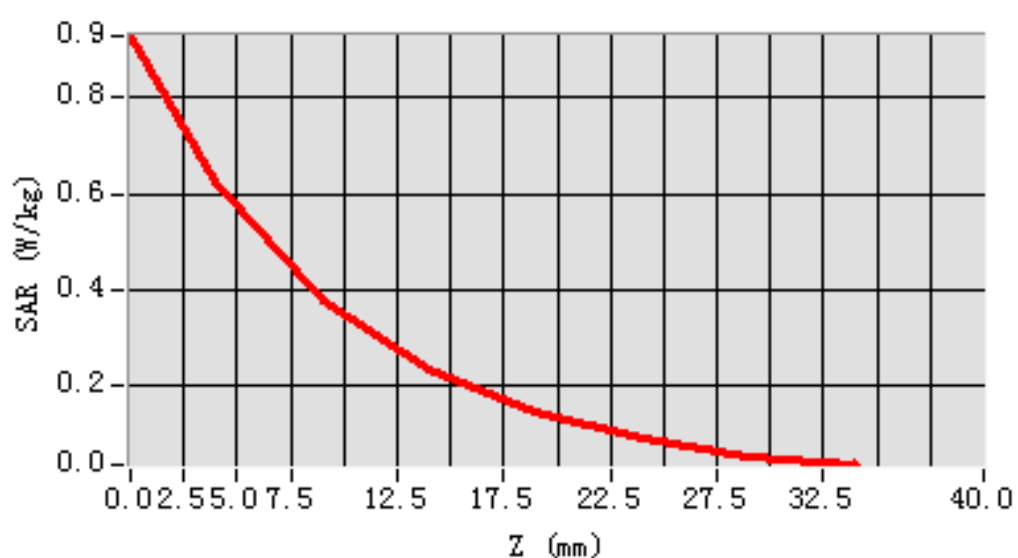
MEAS. 19 Back Side Plane with Back Side on Middle Channel in GSM 1900

mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 54 seconds
Signal: GSM, f=1880.0 MHz, Duty Cycle: 1:8.3
Liquid Parameters: Permittivity: 53.67; Conductivity: 1.52 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.313331
SAR 1g (W/Kg): 0.578950
Power drift (%): -1.95
3D screen shot



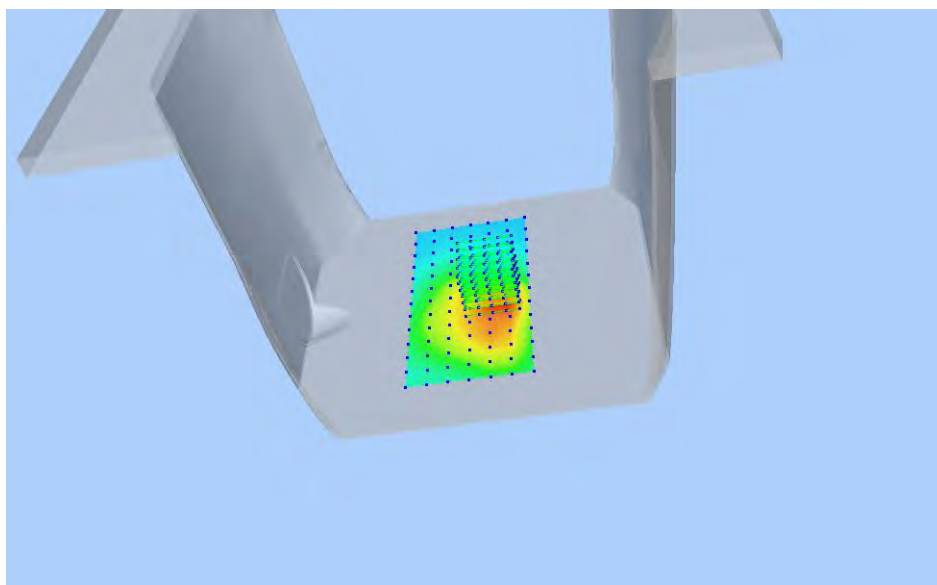
Z Axis Scan



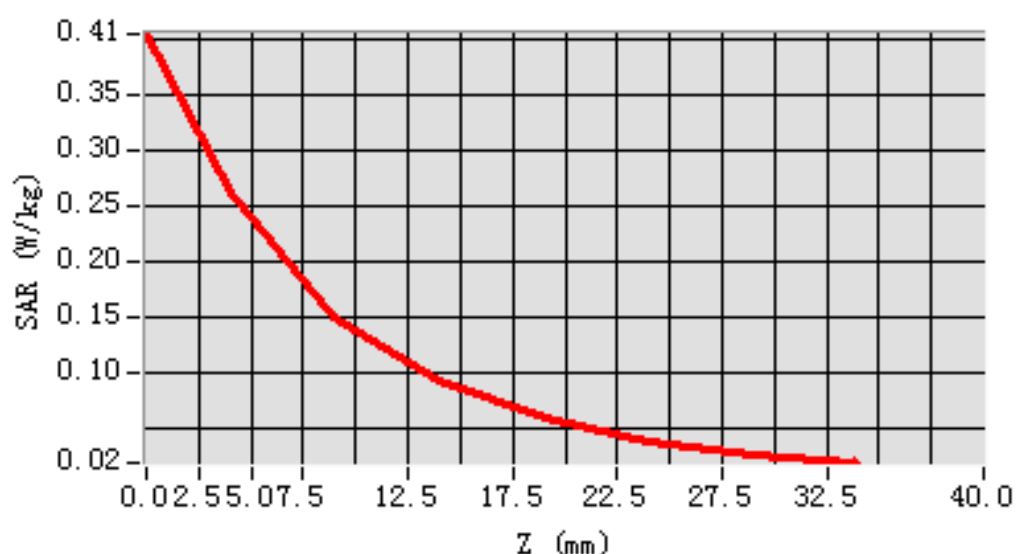
MEAS. 20 Back Side Plane with Front Side on High Channel in GPRS1900

mode

Test Date: 19/6/2016
Measurement duration: 12 minutes 12 seconds
Signal: GPRS, f=1909.8 MHz, Duty Cycle: 1:2.0
Liquid Parameters: Permittivity: 53.30; Conductivity: 1.53 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.144271
SAR 1g (W/Kg): 0.258241
Power drift (%): -3.80
3D screen shot



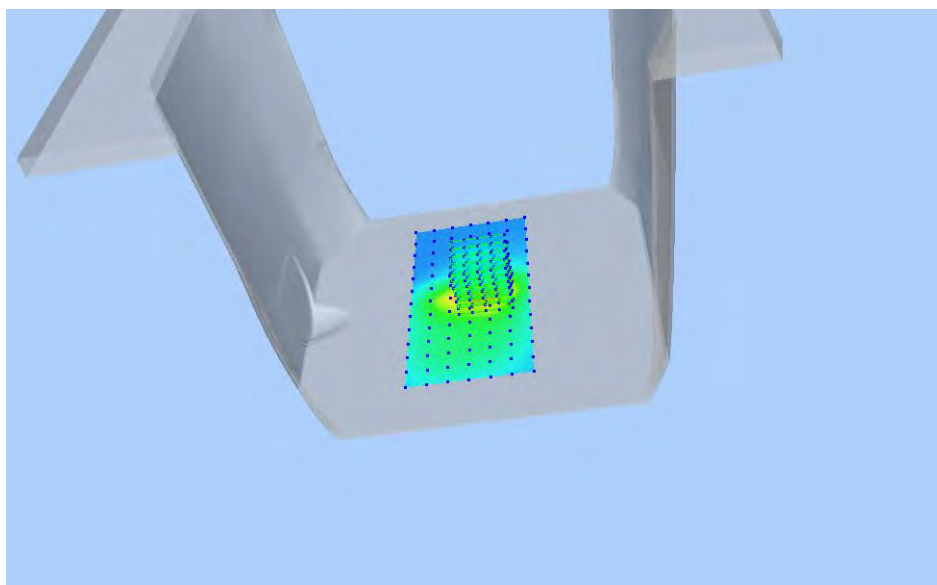
Z Axis Scan



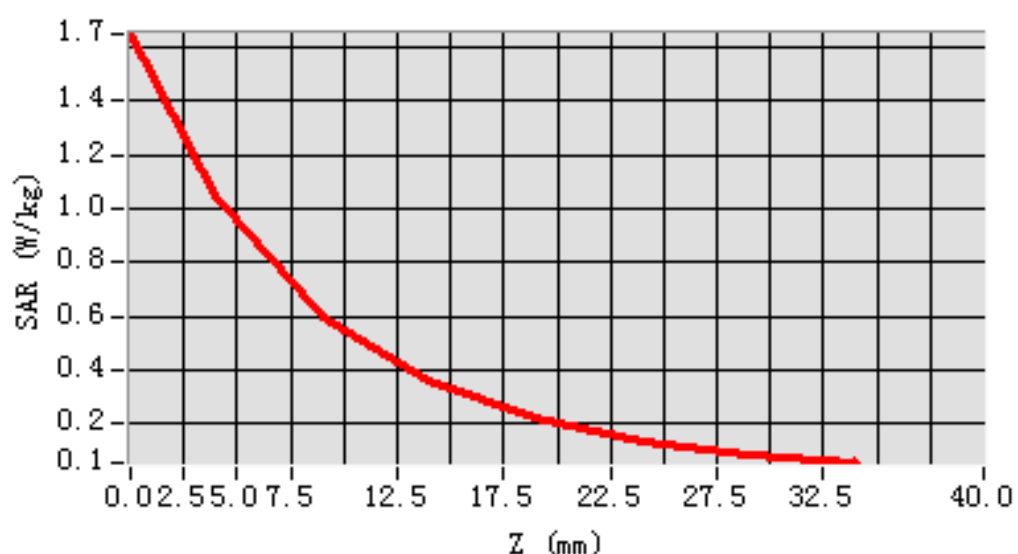
MEAS. 21 Back Side Plane with Back Side on High Channel in GPRS1900

mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 41 seconds
Signal: GPRS, f=1909.8 MHz, Duty Cycle: 1:2.0
Liquid Parameters: Permittivity: 53.30; Conductivity: 1.53 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.498378
SAR 1g (W/Kg): 0.975473
Power drift (%): -3.58
3D screen shot

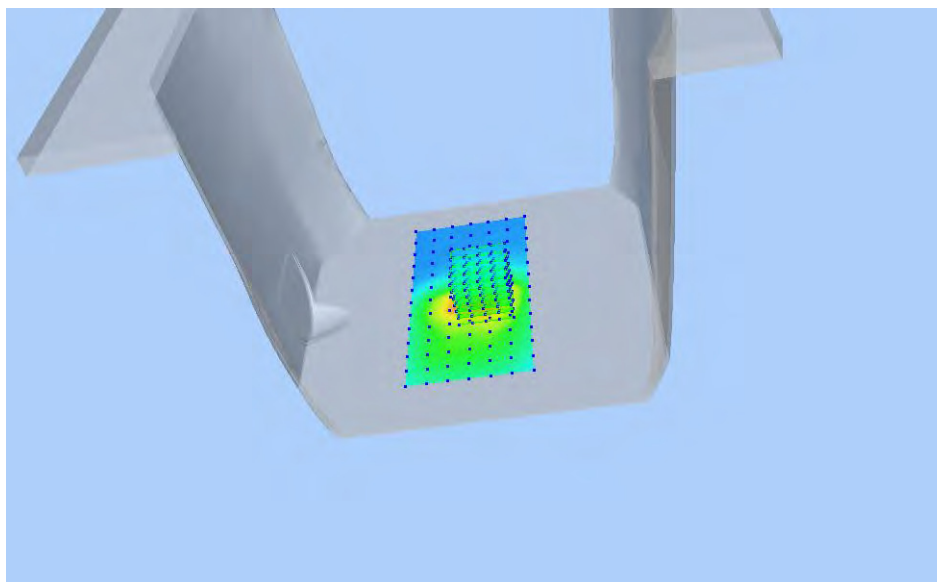


Z Axis Scan

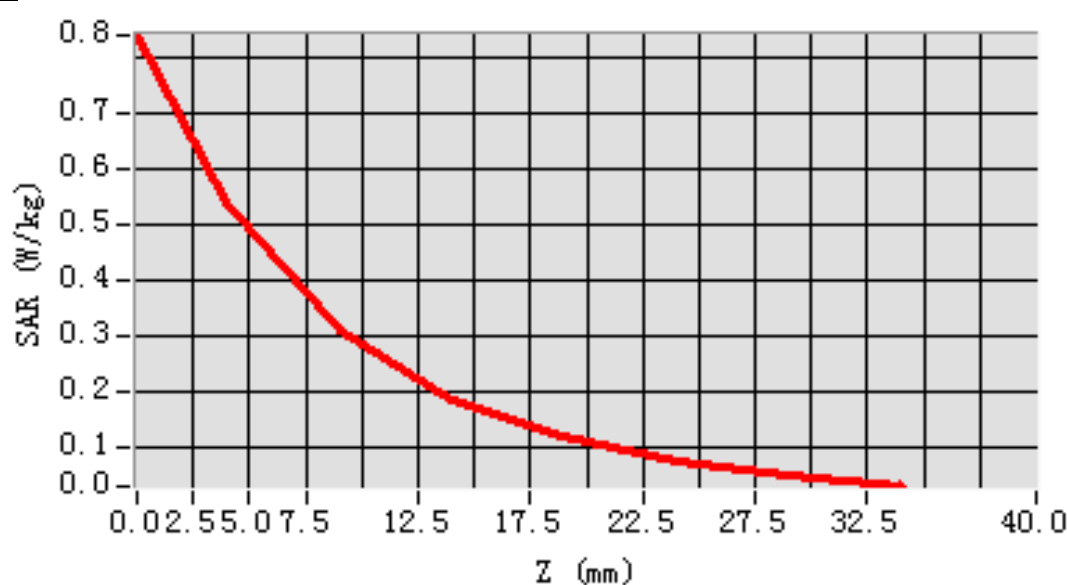


MEAS. 22 Back Side Plane with Back Side on Low Channel in GPRS1900 mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 41 seconds
Signal: GPRS, f=1850.2 MHz, Duty Cycle: 1:2.0
Liquid Parameters: Permittivity: 53.73; Conductivity: 1.51 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=-12.000000
SAR 10g (W/Kg): 0.278672
SAR 1g (W/Kg): 0.525578
Power drift (%): -1.50
3D screen shot



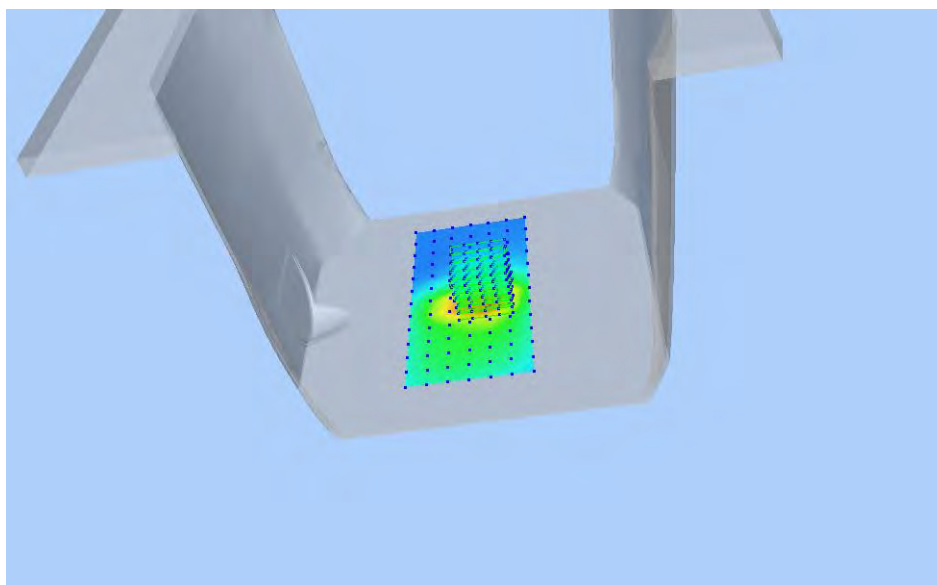
Z Axis Scan



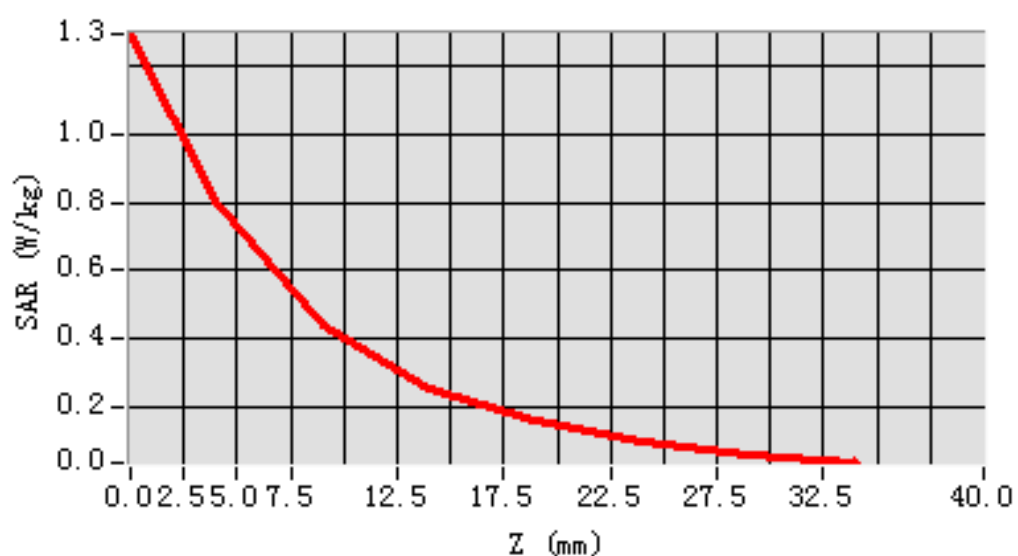
MEAS. 23 Back Side Plane with Back Side on Middle Channel in GPRS1900

mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 42 seconds
Signal: GPRS, f=1880.0 MHz, Duty Cycle: 1:2.0
Liquid Parameters: Permittivity: 53.67; Conductivity: 1.52 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.367162
SAR 1g (W/Kg): 0.738998
Power drift (%): 0.79
3D screen shot

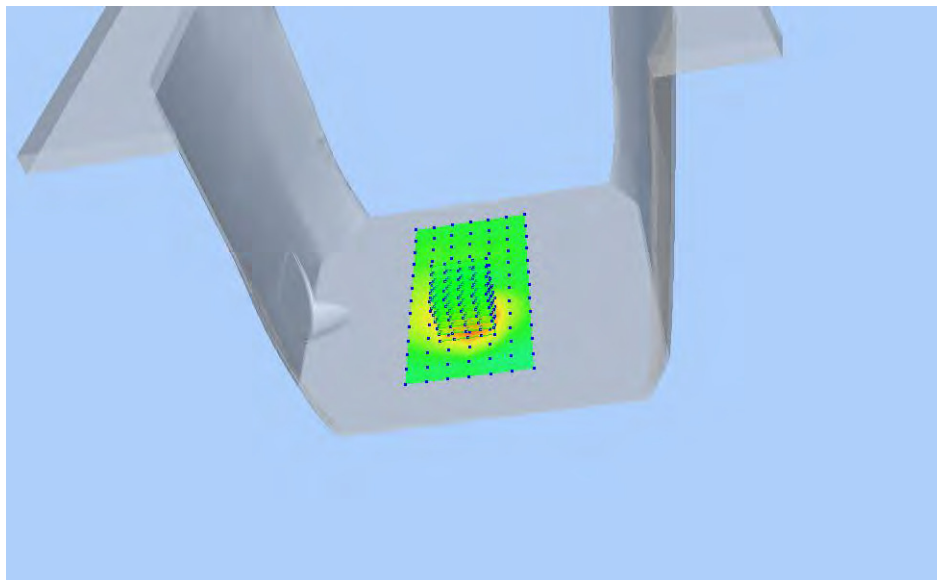


Z Axis Scan

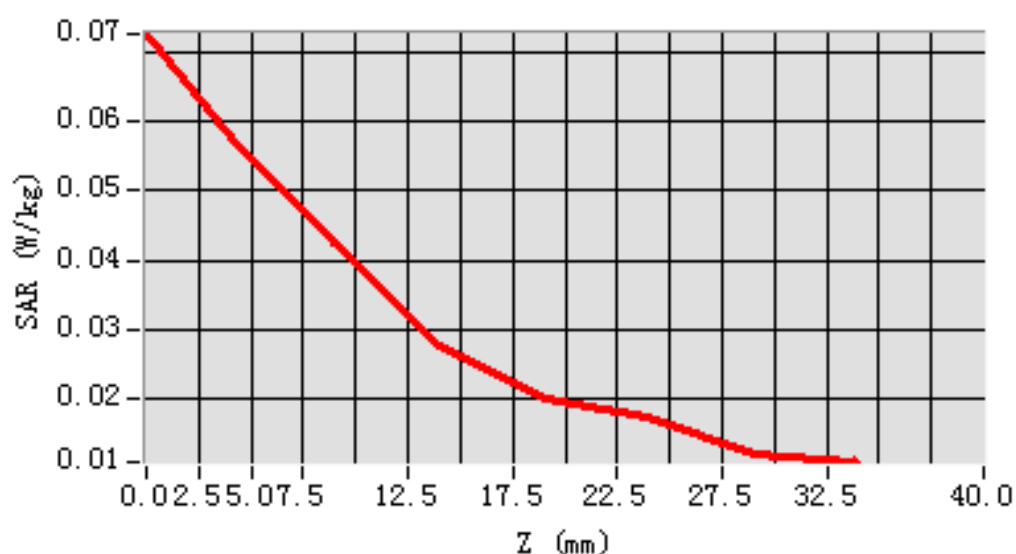


MEAS. 24 Back Side Plane with Left Side on High Channel in GPRS1900 mode

Test Date: 19/6/2016
Measurement duration: 9 minutes 48 seconds
Signal: GPRS, $f=1909.8$ MHz, Duty Cycle: 1:2.0
Liquid Parameters: Permittivity: 53.30; Conductivity: 1.53 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, $h=5.00$ mm
Zoom Scan: 5x5x7, $dx=8$ mm, $dy=8$ mm, $dz=5$ mm, Complete
Maximum location: X=-4.000000, Y=-24.000000
SAR 10g (W/Kg): 0.035983
SAR 1g (W/Kg): 0.055369
Power drift (%): 1.02
3D screen shot



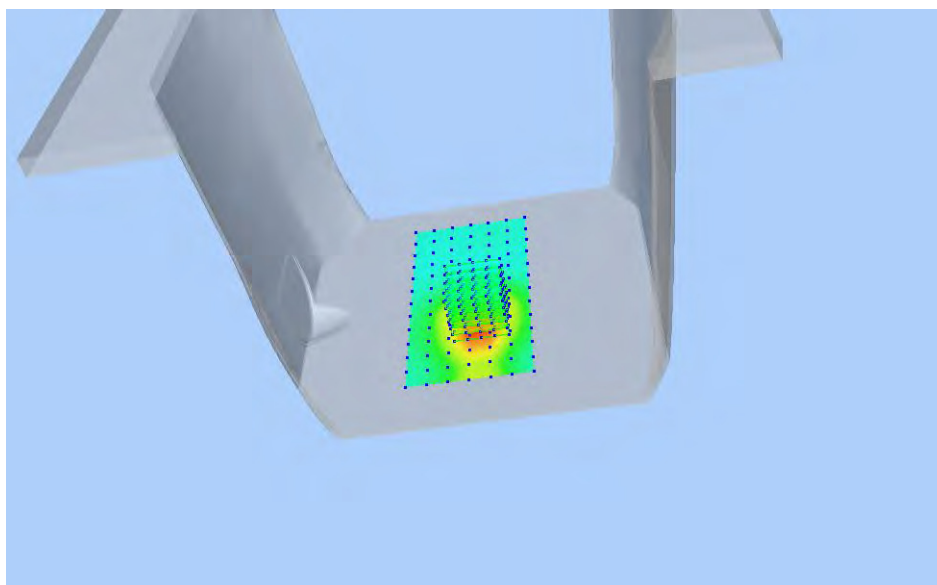
Z Axis Scan



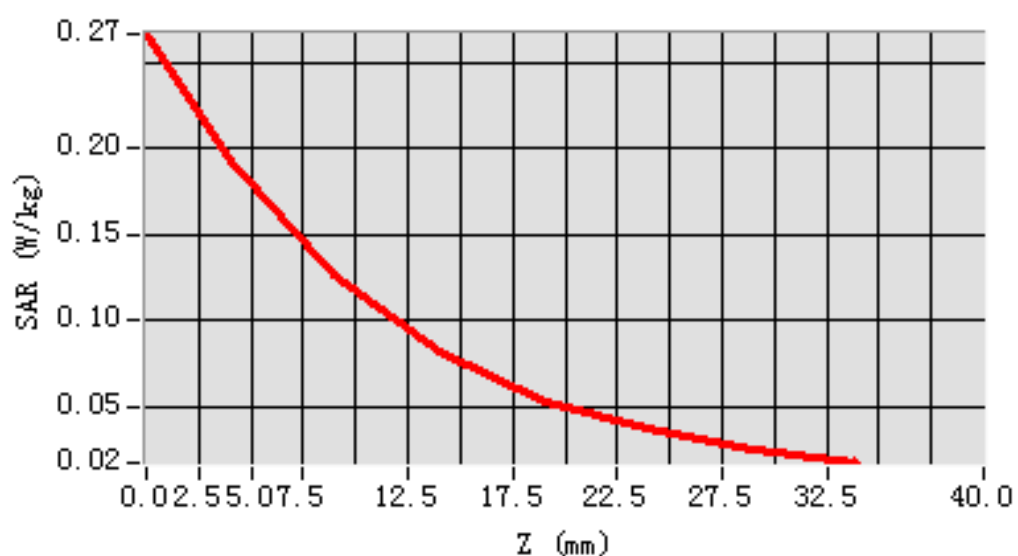
MEAS. 25 Back Side Plane with Right Side on High Channel in GPRS1900

mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 6 seconds
Signal: GPRS, $f=1909.8$ MHz, Duty Cycle: 1:2.0
Liquid Parameters: Permittivity: 53.30; Conductivity: 1.53 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, $h=5.00$ mm
Zoom Scan: 5x5x7, $dx=8$ mm, $dy=8$ mm, $dz=5$ mm, Complete
Maximum location: X=8.000000, Y=-24.000000
SAR 10g (W/Kg): 0.110130
SAR 1g (W/Kg): 0.187668
Power drift (%): -1.33
3D screen shot



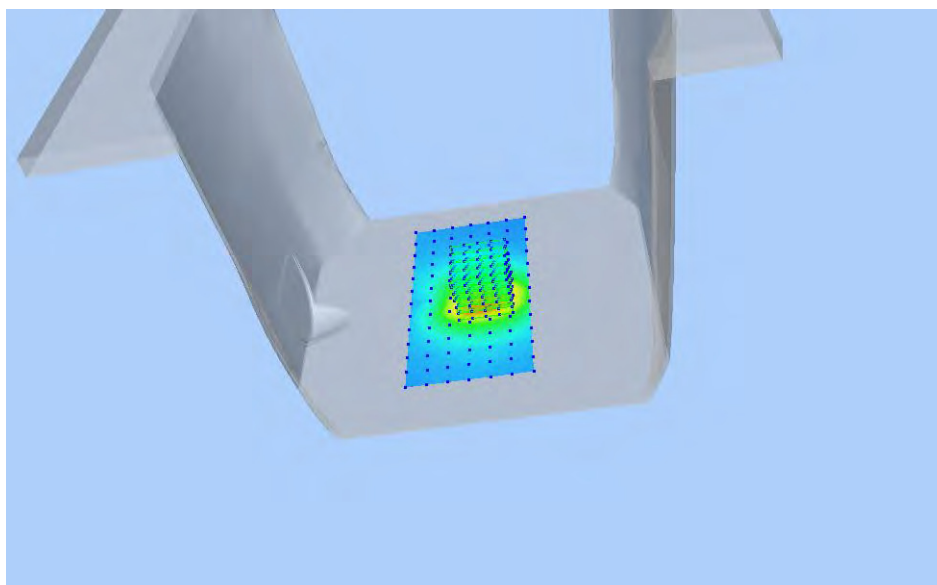
Z Axis Scan



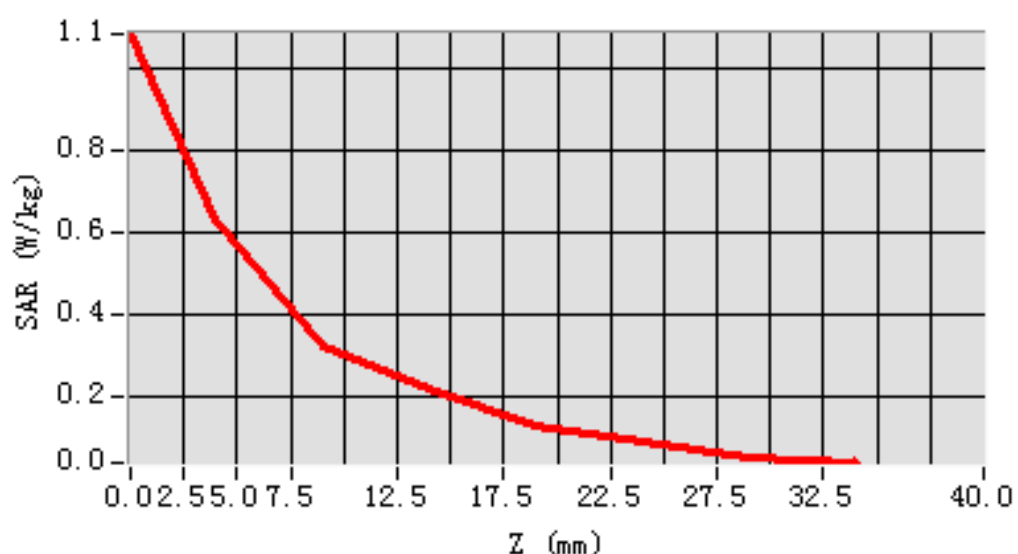
MEAS. 26 Back Side Plane with Bottom Side on High Channel in GPRS1900

mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 39 seconds
Signal: GPRS, f=1909.8 MHz, Duty Cycle: 1:2.0
Liquid Parameters: Permittivity: 53.30; Conductivity: 1.53 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.338173
SAR 1g (W/Kg): 0.620290
Power drift (%): -0.46
3D screen shot

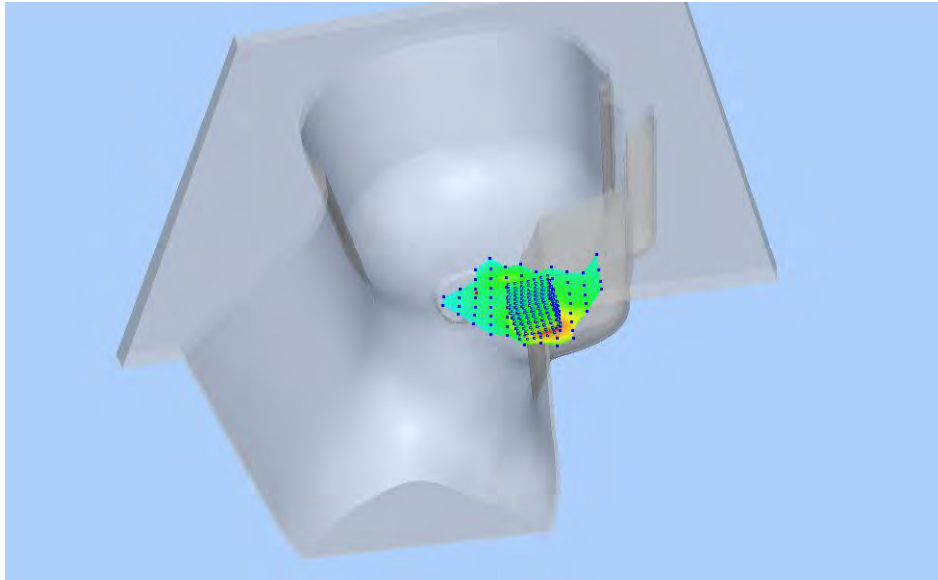


Z Axis Scan

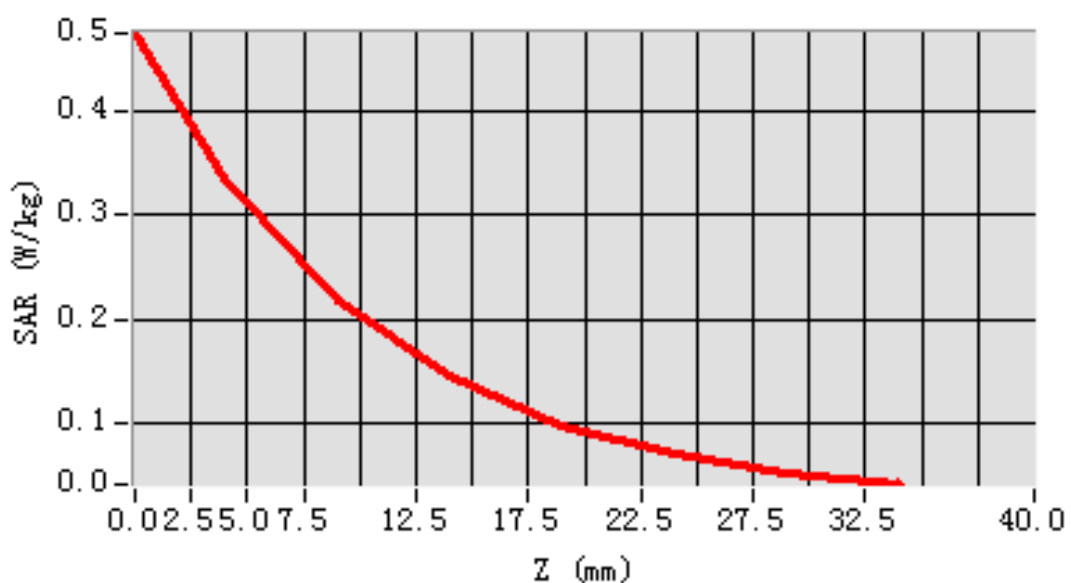


MEAS. 27 Left Head with Cheek on Low Channel in WCDMA Band 2 mode

Test Date: 19/6/2016
Measurement duration: 13 minutes 54 seconds
Signal: WCDMA, f=1852.4 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 39.77; Conductivity: 1.40 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.35
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-48.000000
SAR 10g (W/Kg): 0.191757
SAR 1g (W/Kg): 0.318944
Power drift (%): -3.36
3D screen shot

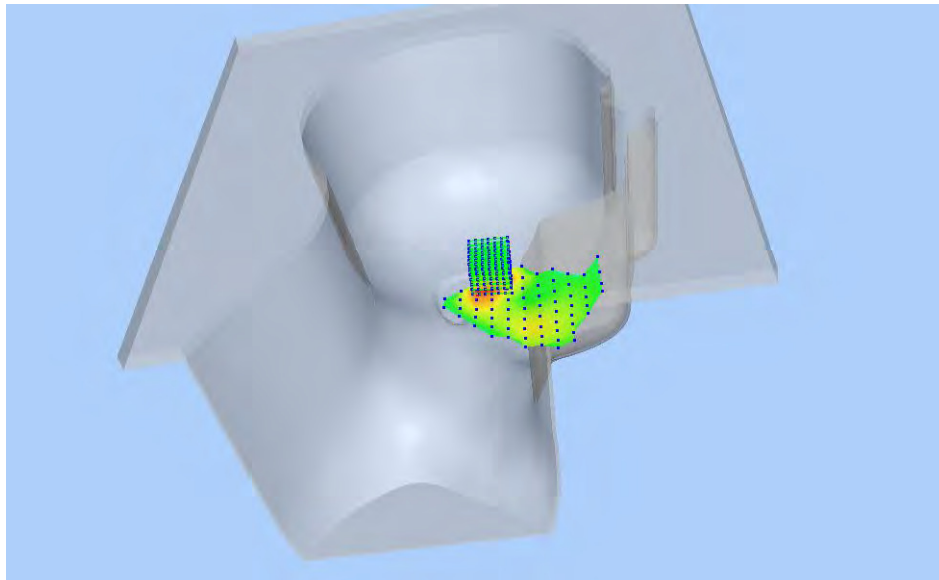


Z Axis Scan

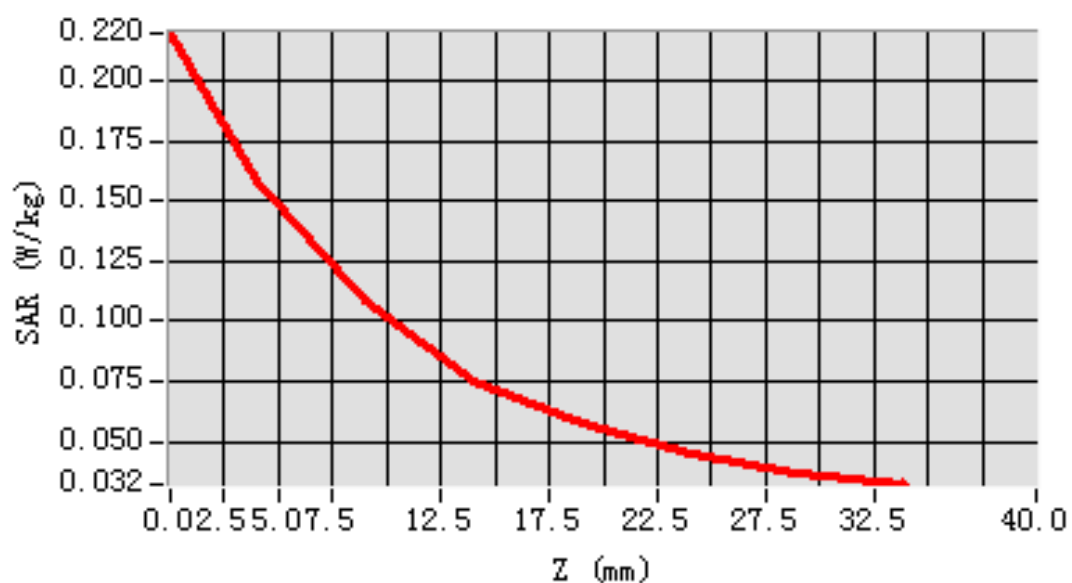


MEAS. 28 Left Head with Tilt on Low Channel in WCDMA Band 2 mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 53 seconds
Signal: WCDMA, f=1852.4 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 39.77; Conductivity: 1.40 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.35
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=12.000000
SAR 10g (W/Kg): 0.095492
SAR 1g (W/Kg): 0.148955
Power drift (%): 0.62
3D screen shot

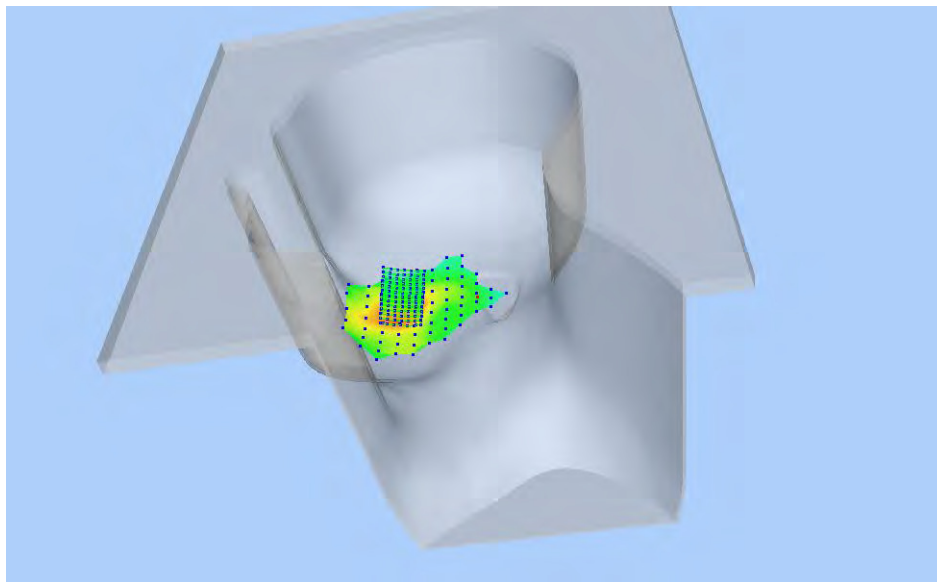


Z Axis Scan

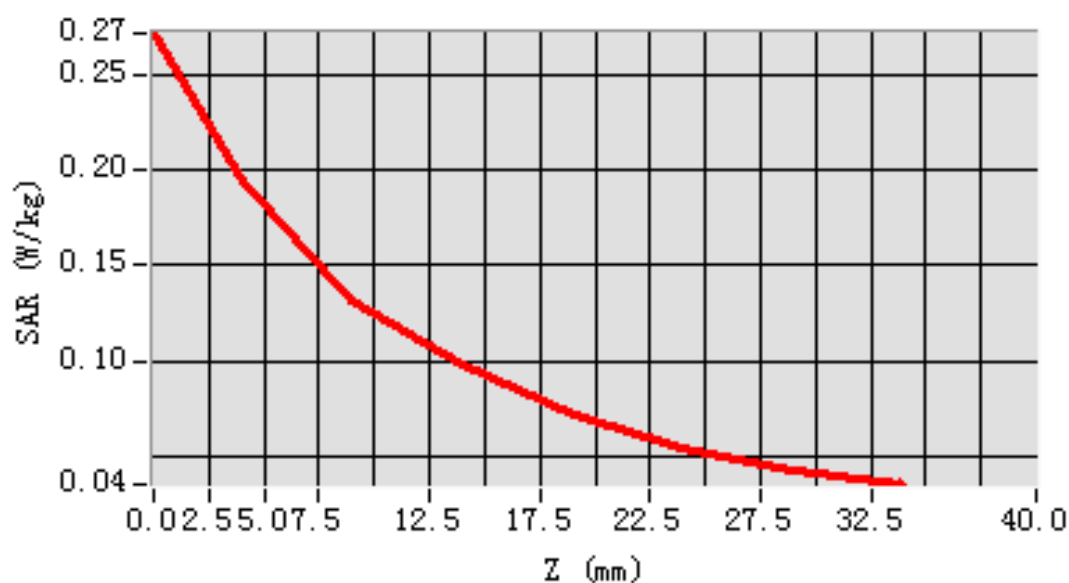


MEAS. 29 Right Head with Cheek on Low Channel in WCDMA Band 2 mode

Test Date: 19/6/2016
Measurement duration: 15 minutes 51 seconds
Signal: WCDMA, f=1852.4 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 39.77; Conductivity: 1.40 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.35
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-60.000000, Y=-12.000000
SAR 10g (W/Kg): 0.120874
SAR 1g (W/Kg): 0.188290
Power drift (%): -2.16
3D screen shot

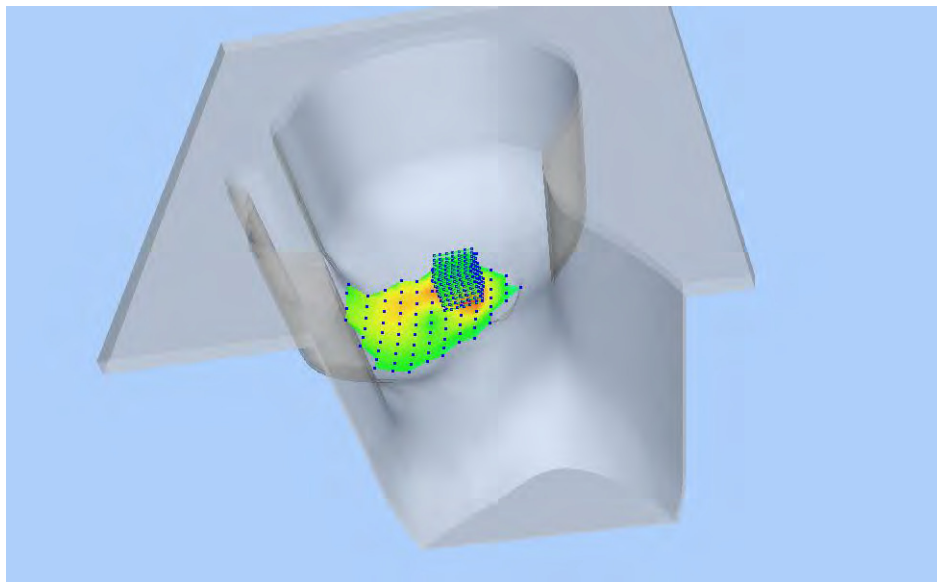


Z Axis Scan

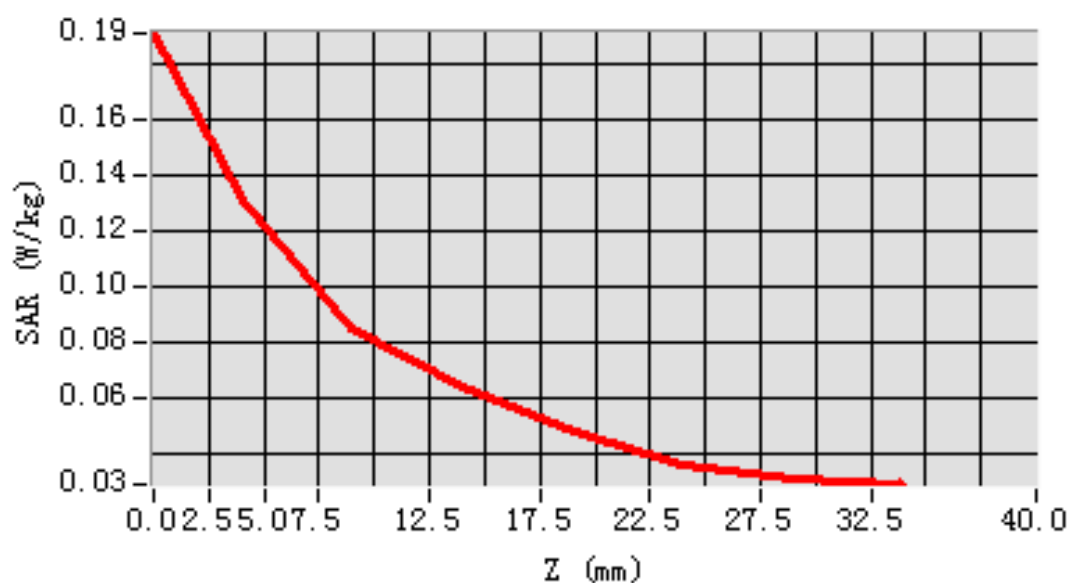


MEAS. 30 Right Head with Tilt on Low Channel in WCDMA Band 2 mode

Test Date: 19/6/2016
Measurement duration: 12 minutes 31 seconds
Signal: WCDMA, f=1852.4 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 39.77; Conductivity: 1.40 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.35
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=0.000000
SAR 10g (W/Kg): 0.081730
SAR 1g (W/Kg): 0.127579
Power drift (%): -2.43
3D screen shot

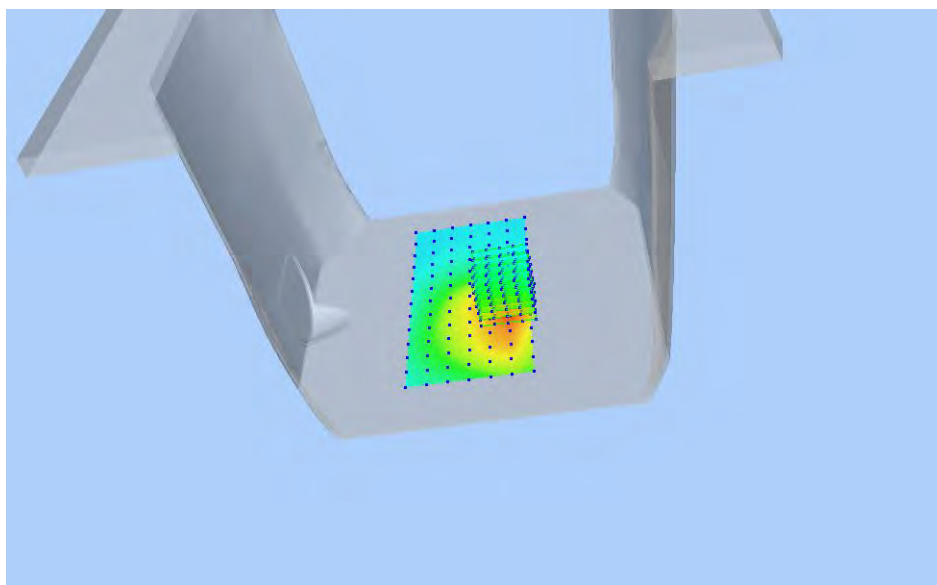


Z Axis Scan

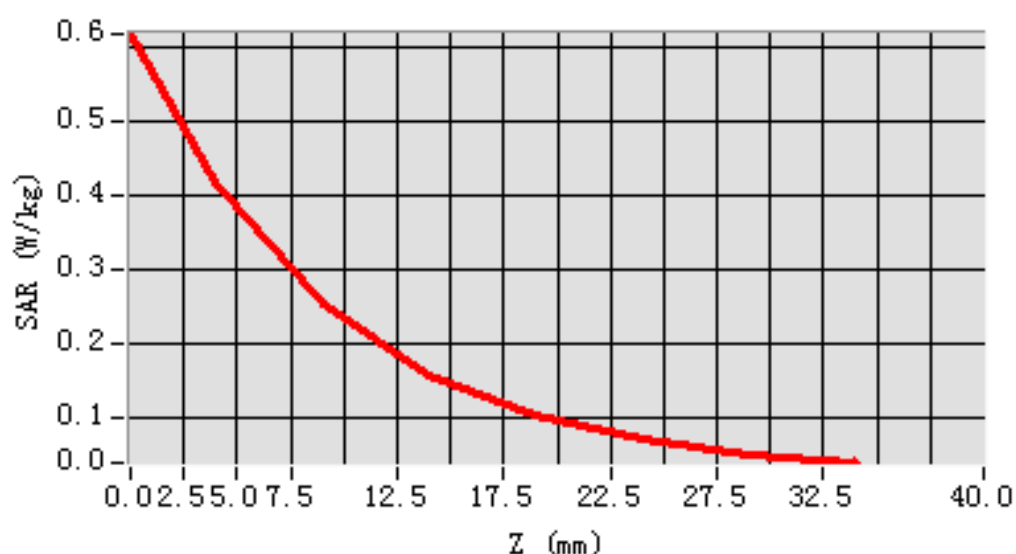


MEAS. 31 Back Side Plane with Front Side on Low Channel in WCDMA Band 2 mode

Test Date: 19/6/2016
Measurement duration: 12 minutes 0 seconds
Signal: WCDMA, f=1852.4 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.70; Conductivity: 1.51 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=20.000000, Y=-12.000000
SAR 10g (W/Kg): 0.228603
SAR 1g (W/Kg): 0.390908
Power drift (%): -0.19
3D screen shot

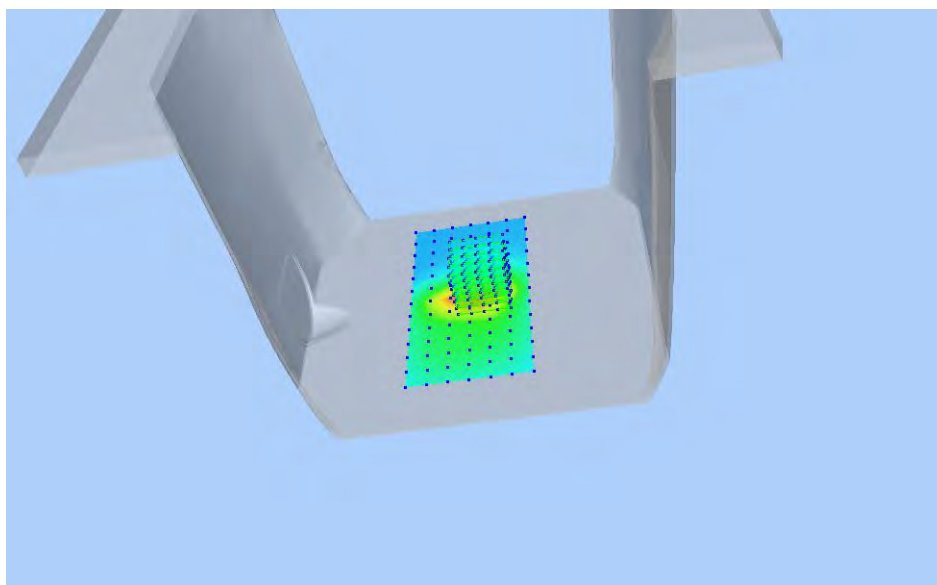


Z Axis Scan

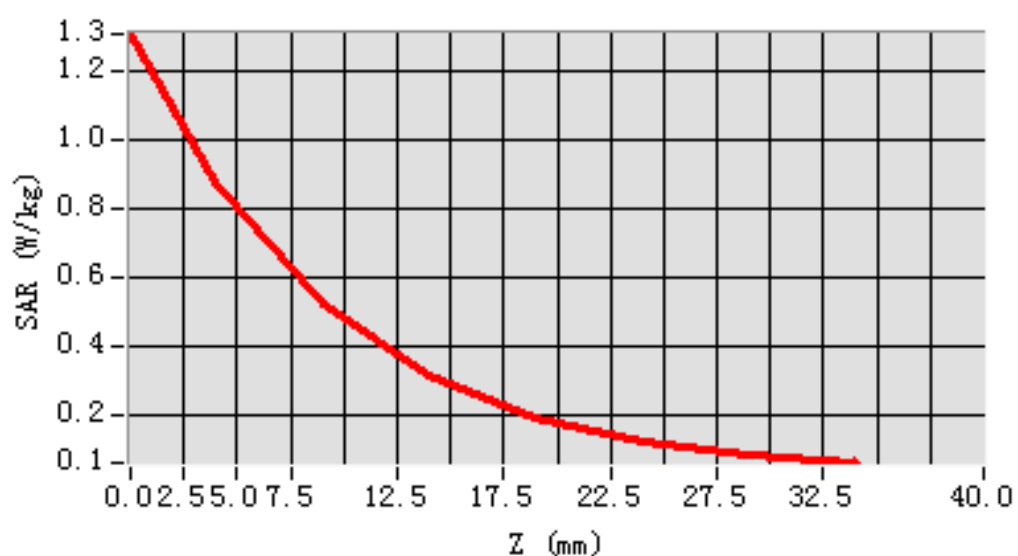


MEAS. 32 Back Side Plane with Back Side on Low Channel in WCDMA Band 2 mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 31 seconds
Signal: WCDMA, f=1852.4 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.70; Conductivity: 1.51 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.430261
SAR 1g (W/Kg): 0.804671
Power drift (%): -0.89
3D screen shot



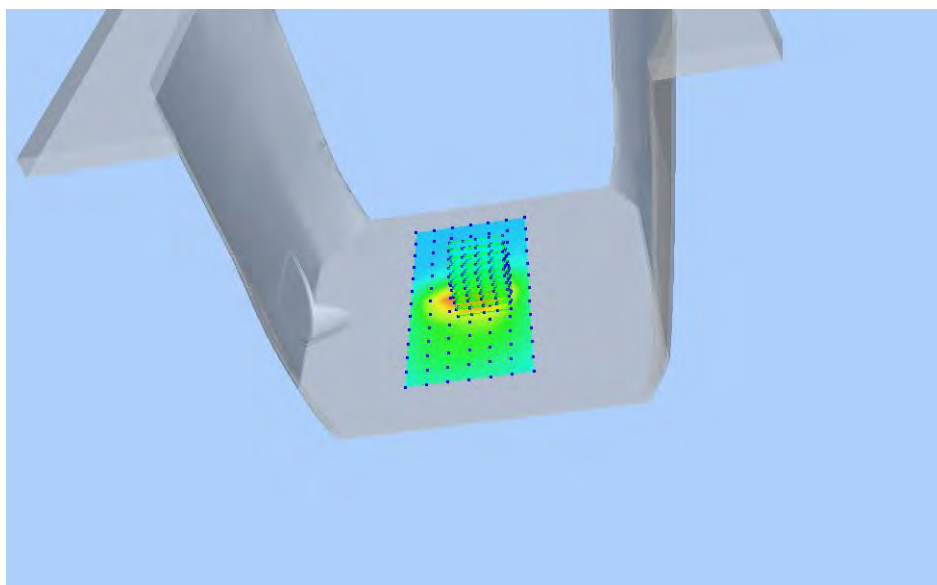
Z Axis Scan



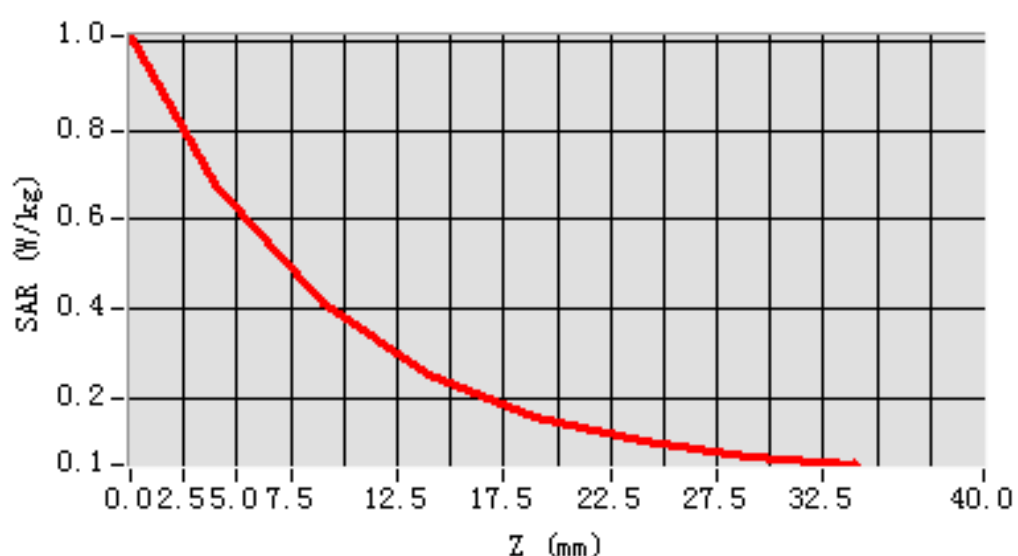
MEAS. 33 Back Side Plane with Back Side on Middle Channel in WCDMA Band

2 mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 31 seconds
Signal: WCDMA, f=1880.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.67; Conductivity: 1.52 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=0.000000
SAR 10g (W/Kg): 0.348301
SAR 1g (W/Kg): 0.634975
Power drift (%): -0.87
3D screen shot

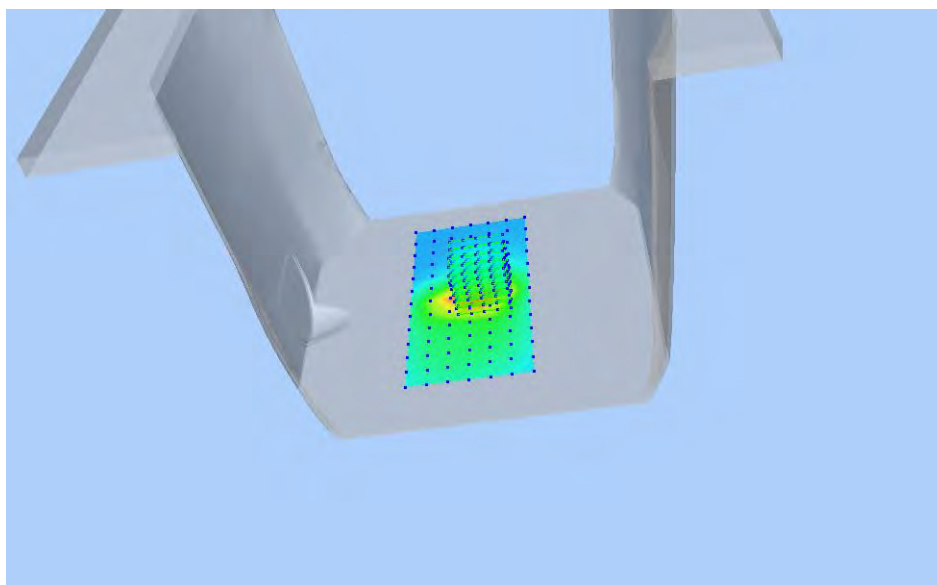


Z Axis Scan

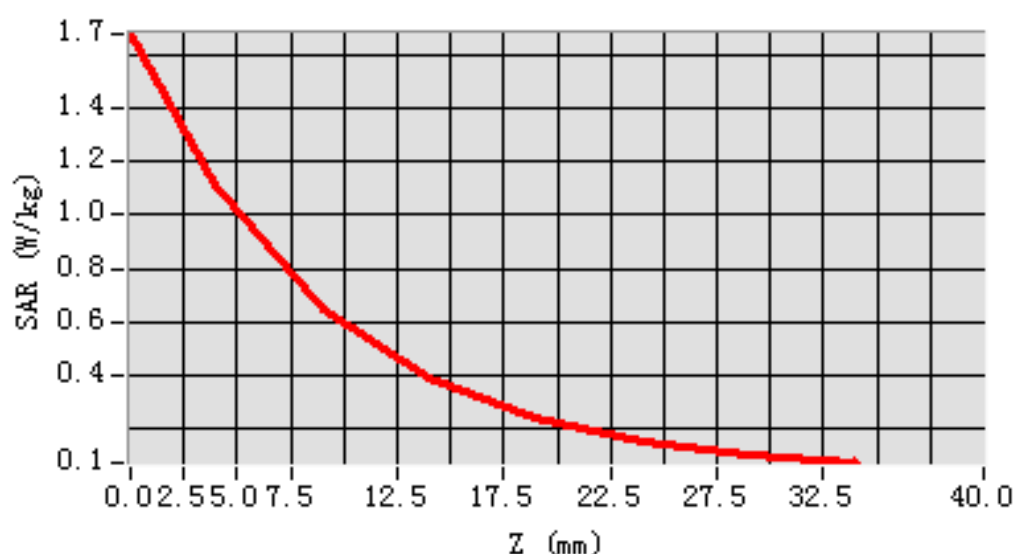


MEAS. 34 Back Side Plane with Back Side on High Channel in WCDMA Band 2 mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 35 seconds
Signal: WCDMA, f=1907.6 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.35; Conductivity: 1.53 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.536676
SAR 1g (W/Kg): 1.024356
Power drift (%): -1.67
3D screen shot

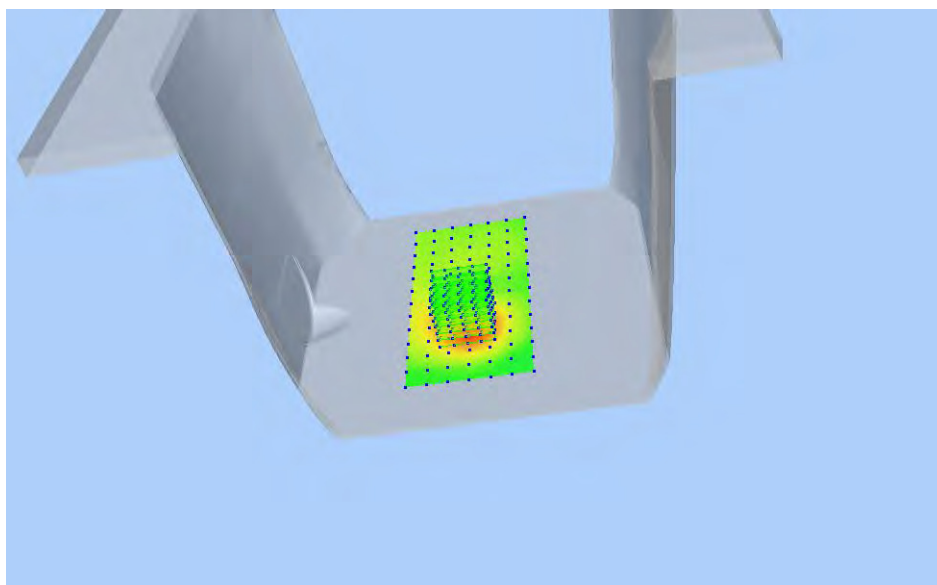


Z Axis Scan

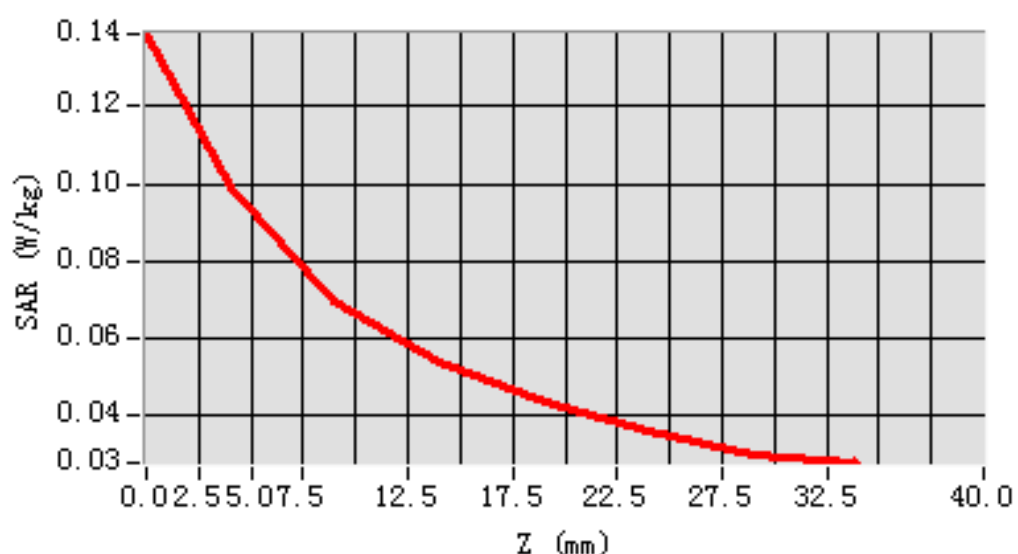


MEAS. 35 Back Side Plane with Left Side on Low Channel in WCDMA Band 2 mode

Test Date: 19/6/2016
Measurement duration: 9 minutes 47 seconds
Signal: WCDMA, f=1852.4 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.70; Conductivity: 1.51 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=-24.000000
SAR 10g (W/Kg): 0.065782
SAR 1g (W/Kg): 0.098247
Power drift (%): -1.63
3D screen shot

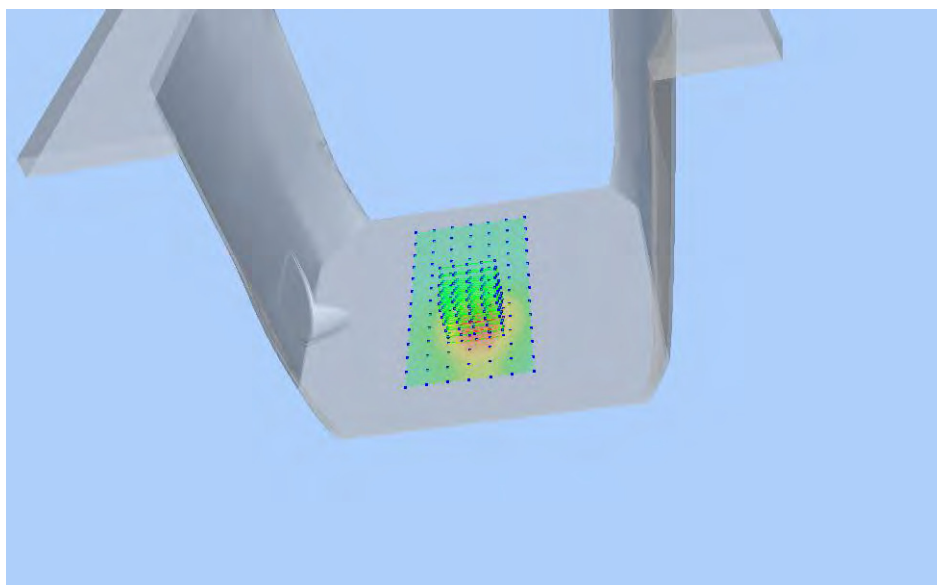


Z Axis Scan

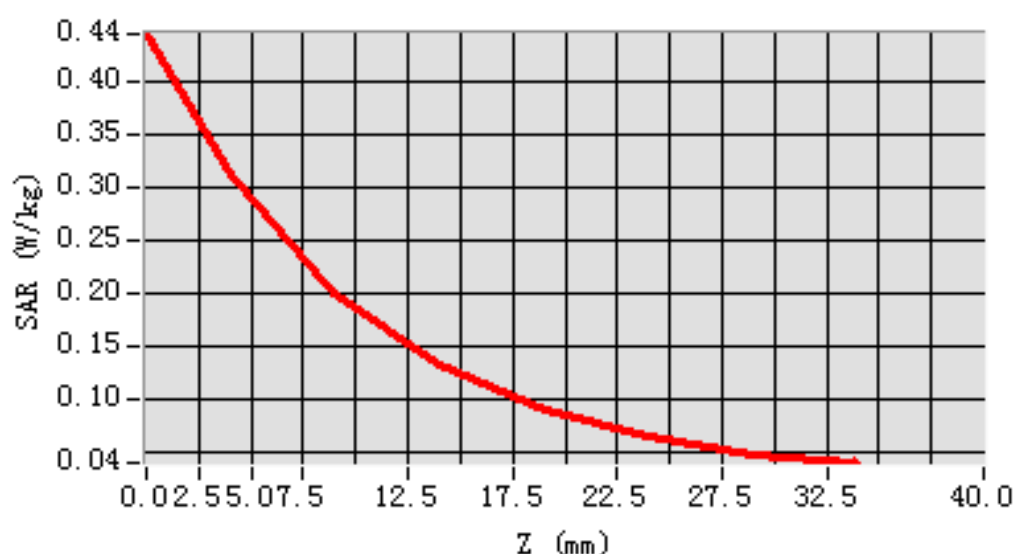


MEAS. 36 Back Side Plane with Right Side on Low Channel in WCDMA Band 2 mode

Test Date: 19/6/2016
Measurement duration: 10 minutes 40 seconds
Signal: WCDMA, f=1852.4 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.70; Conductivity: 1.51 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=-24.000000
SAR 10g (W/Kg): 0.180572
SAR 1g (W/Kg): 0.297623
Power drift (%): -0.88
3D screen shot



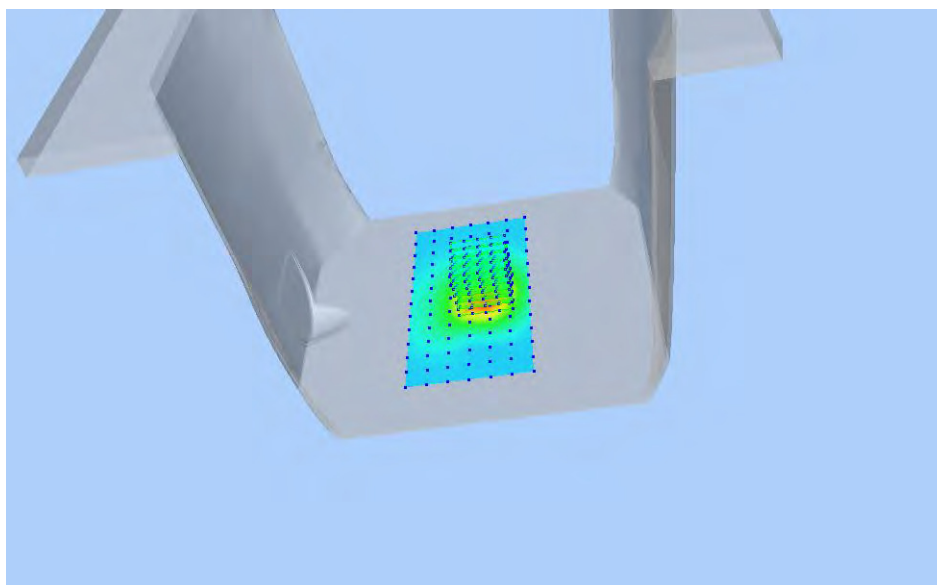
Z Axis Scan



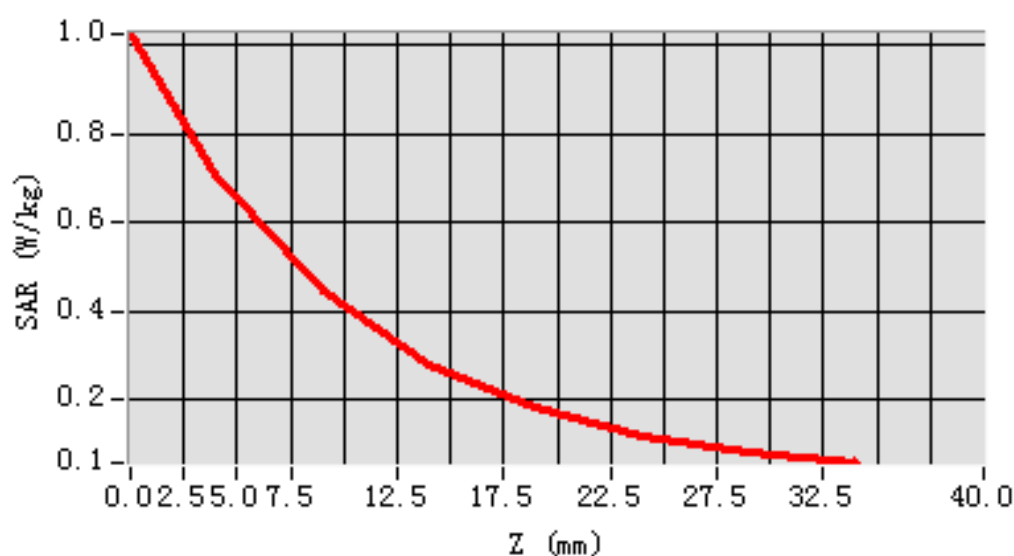
MEAS. 37 Back Side Plane with Bottom Side on Low Channel in WCDMA Band

2 mode

Test Date: 19/6/2016
Measurement duration: 11 minutes 40 seconds
Signal: WCDMA, f=1852.4 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.70; Conductivity: 1.51 S/m
Test condition: Ambient Temperature: 21.9°C, Liquid Temperature: 20.8°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.42
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.378499
SAR 1g (W/Kg): 0.668569
Power drift (%): -0.76
3D screen shot

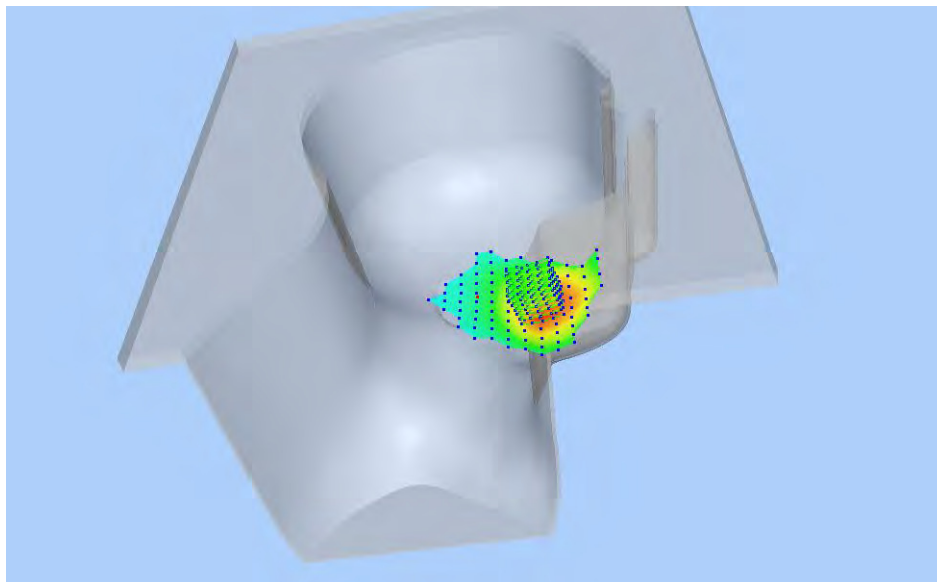


Z Axis Scan

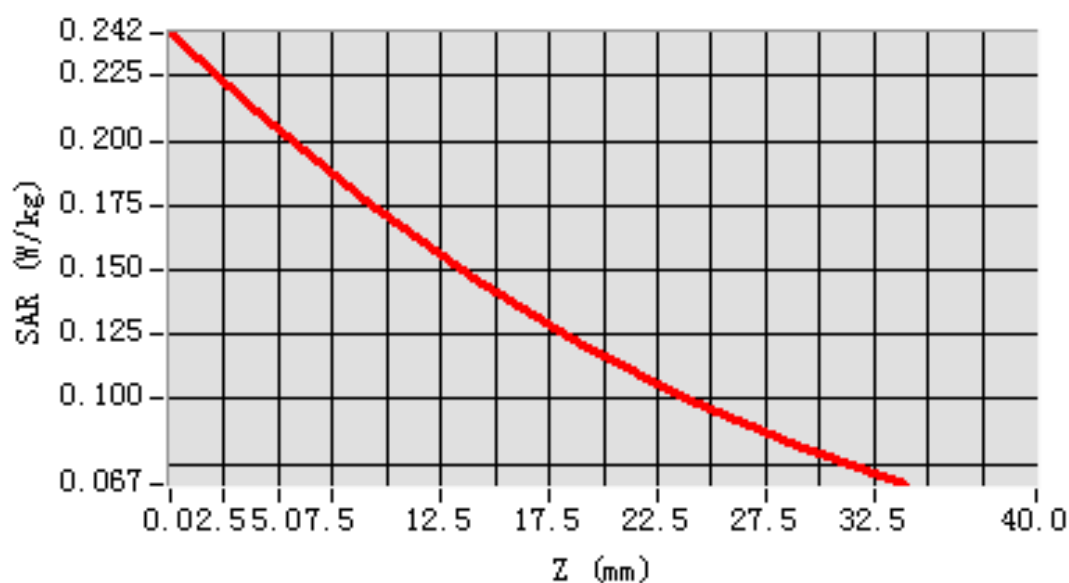


MEAS. 38 Left Head with Cheek on High Channel in WCDMA Band 5 mode

Test Date: 16/6/2016
Measurement duration: 9 minutes 28 seconds
Signal: WCDMA, f=846.6 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 41.55; Conductivity: 0.91 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-24.000000
SAR 10g (W/Kg): 0.159628
SAR 1g (W/Kg): 0.206130
Power drift (%): -3.10
3D screen shot

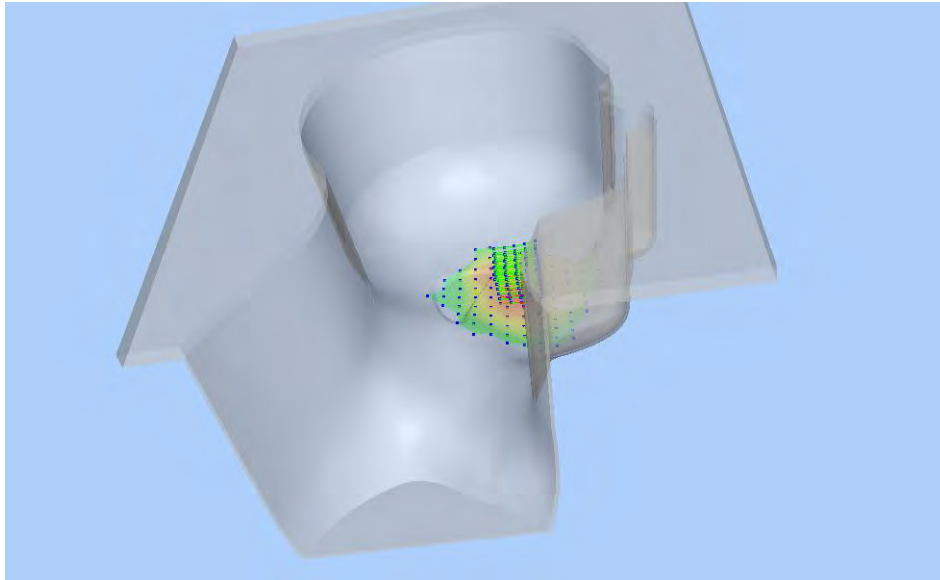


Z Axis Scan

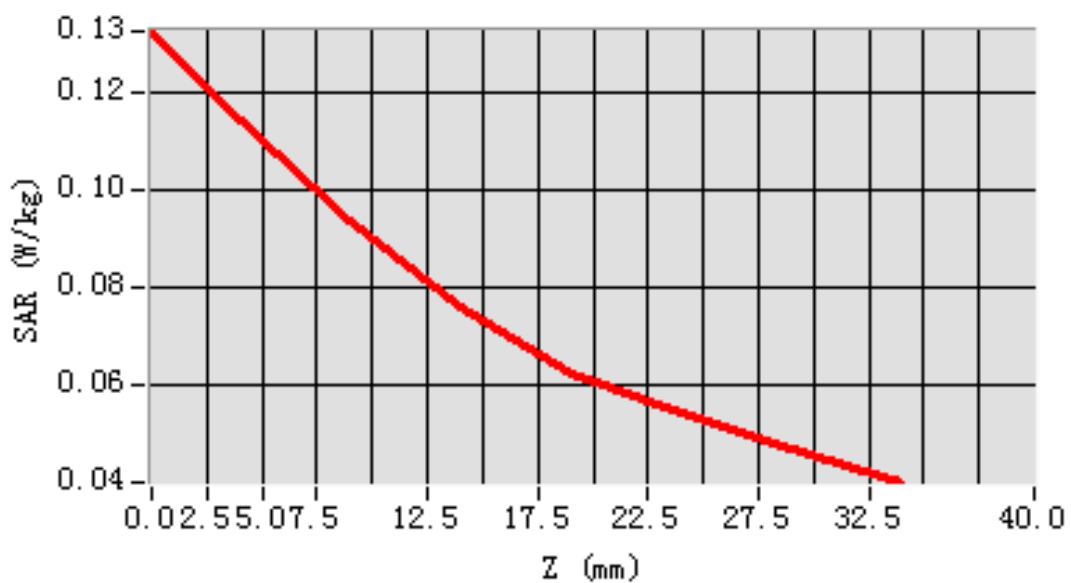


MEAS. 39 Left Head with Tilt on High Channel in WCDMA Band 5 mode

Test Date: 16/6/2016
Measurement duration: 8 minutes 48 seconds
Signal: WCDMA, f=846.6 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 41.55; Conductivity: 0.91 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-36.000000, Y=0.000000
SAR 10g (W/Kg): 0.087044
SAR 1g (W/Kg): 0.111066
Power drift (%): -1.55
3D screen shot

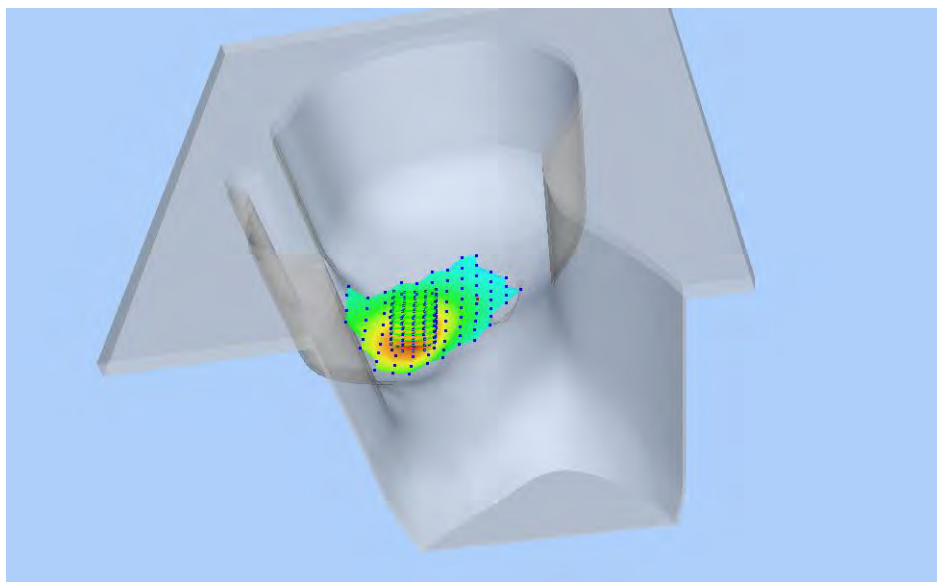


Z Axis Scan

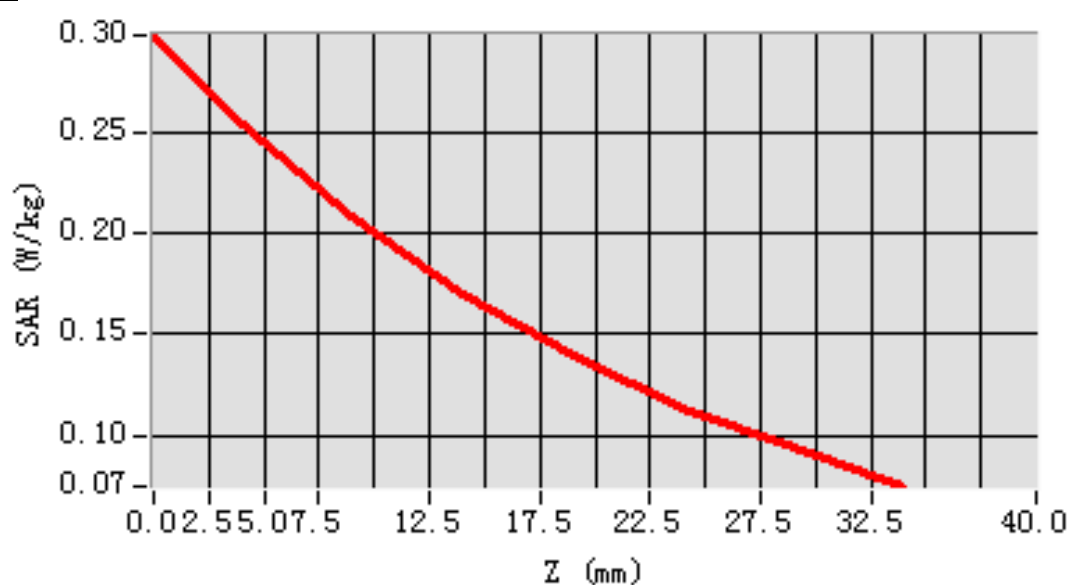


MEAS. 40 Right Head with Cheek on High Channel in WCDMA Band 5 mode

Test Date: 16/6/2016
Measurement duration: 9 minutes 41 seconds
Signal: WCDMA, f=846.6 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 41.55; Conductivity: 0.91 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-36.000000
SAR 10g (W/Kg): 0.188530
SAR 1g (W/Kg): 0.248055
Power drift (%): -2.60
3D screen shot

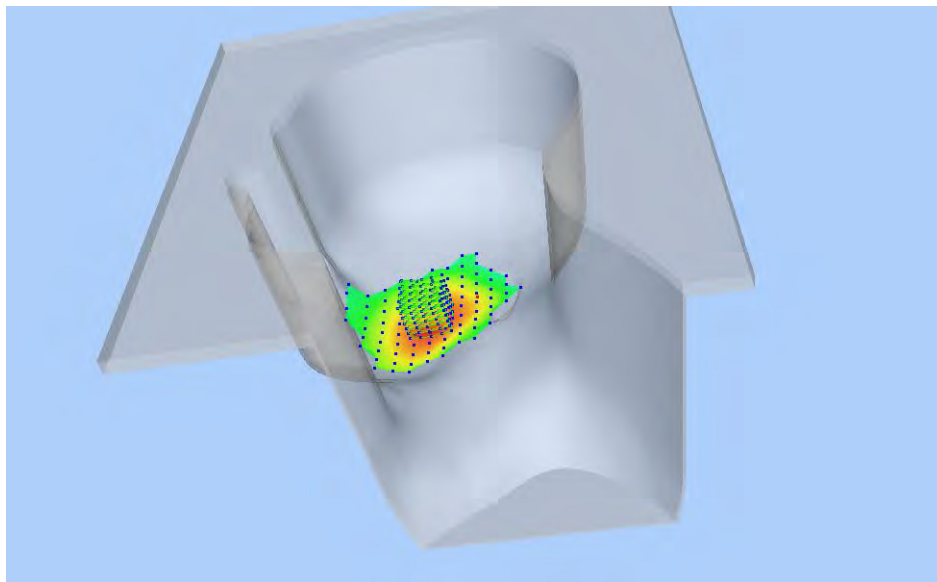


Z Axis Scan

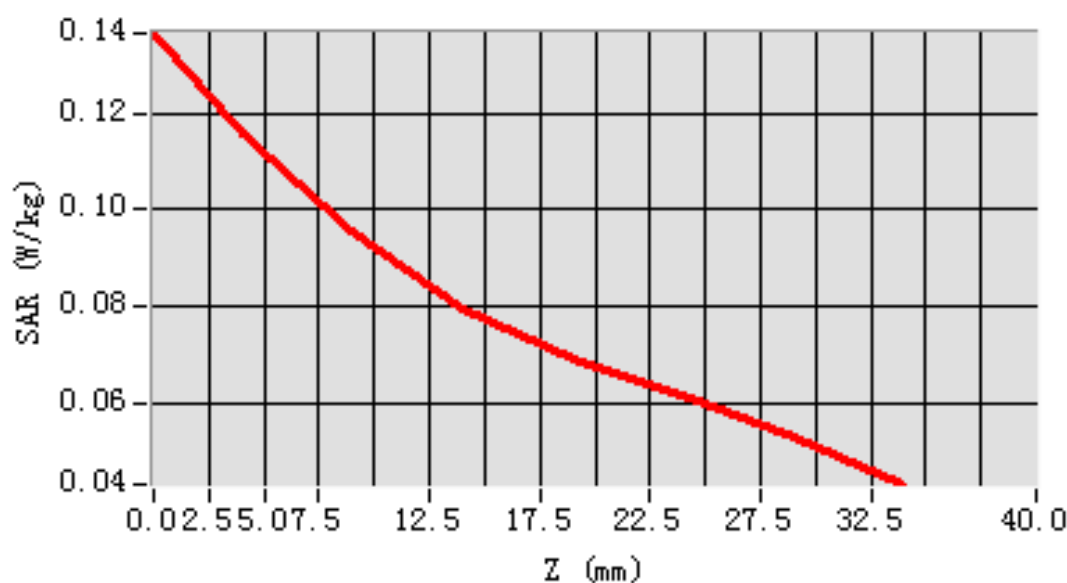


MEAS. 41 Right Head with Tilt on High Channel in WCDMA Band 5 mode

Test Date: 16/6/2016
Measurement duration: 8 minutes 56 seconds
Signal: WCDMA, f=846.6 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 41.55; Conductivity: 0.91 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-36.000000, Y=-24.000000
SAR 10g (W/Kg): 0.088790
SAR 1g (W/Kg): 0.112526
Power drift (%): -1.08
3D screen shot

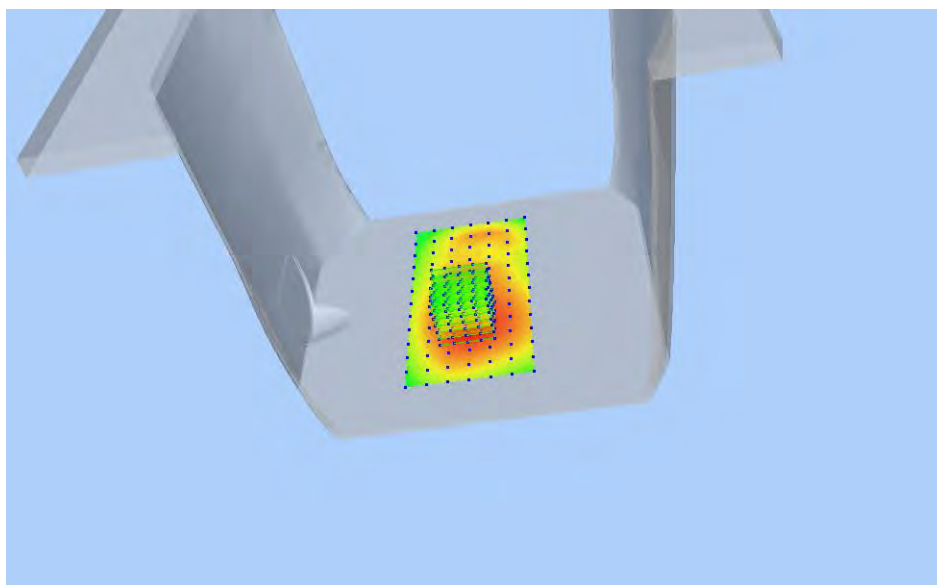


Z Axis Scan

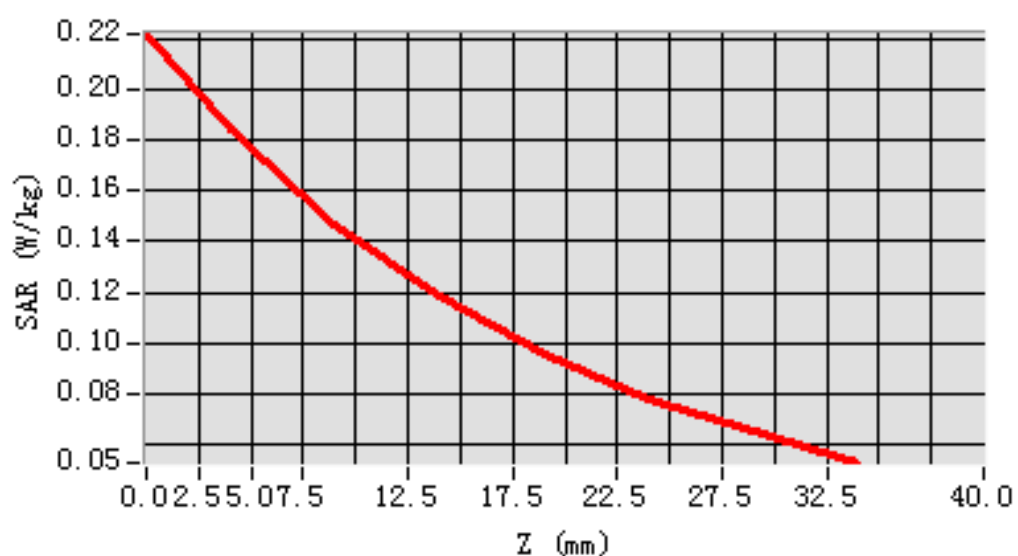


MEAS. 42 Back Side Plane with Front Side on High Channel in WCDMA Band 5 mode

Test Date: 18/6/2016
Measurement duration: 9 minutes 47 seconds
Signal: WCDMA, f=846.6 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 55.57; Conductivity: 0.99 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.12
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=-24.000000
SAR 10g (W/Kg): 0.140835
SAR 1g (W/Kg): 0.183392
Power drift (%): -1.21
3D screen shot

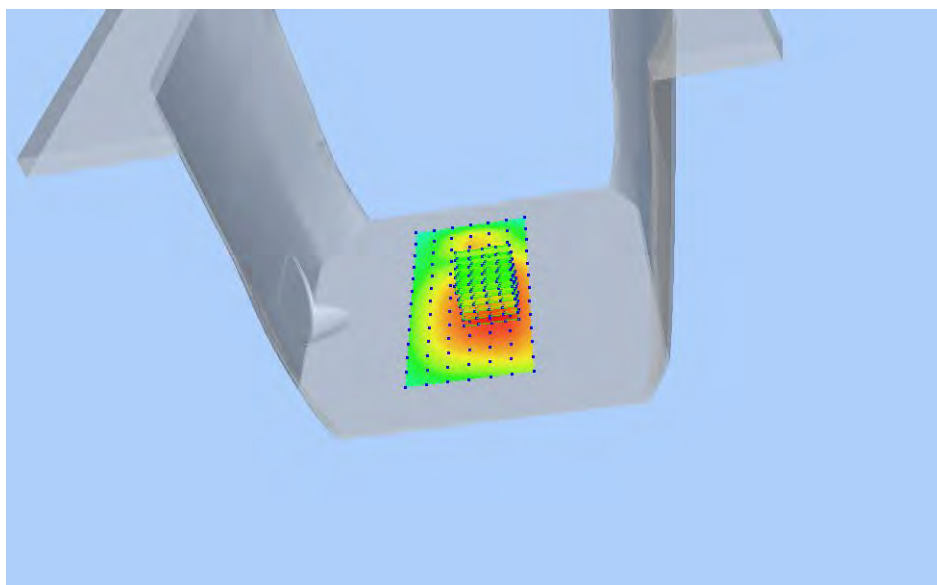


Z Axis Scan

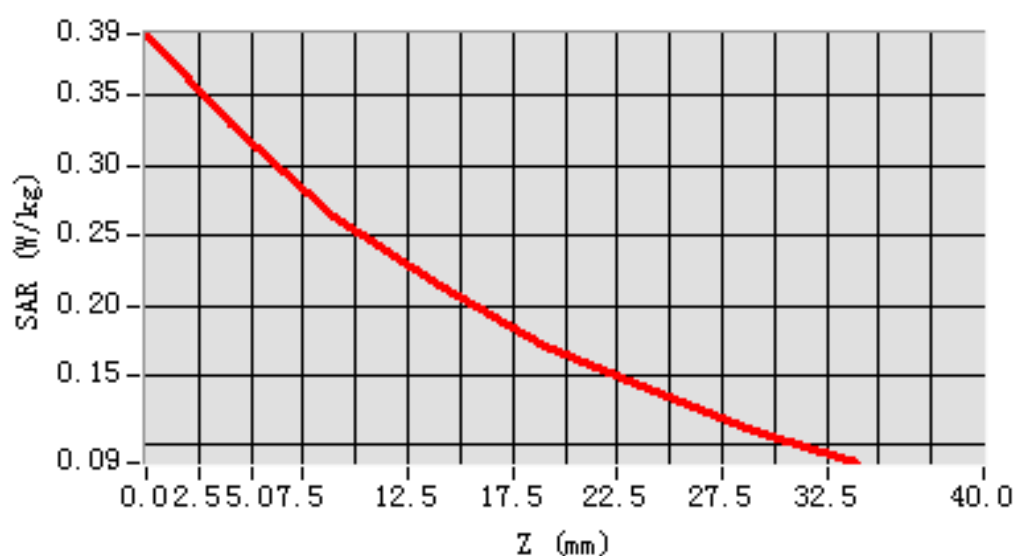


MEAS. 43 Back Side Plane with Back Side on High Channel in WCDMA Band 5 mode

Test Date: 18/6/2016
Measurement duration: 12 minutes 1 seconds
Signal: WCDMA, f=846.6 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 55.57; Conductivity: 0.99 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.12
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=-12.000000
SAR 10g (W/Kg): 0.251211
SAR 1g (W/Kg): 0.327377
Power drift (%): -0.90
3D screen shot



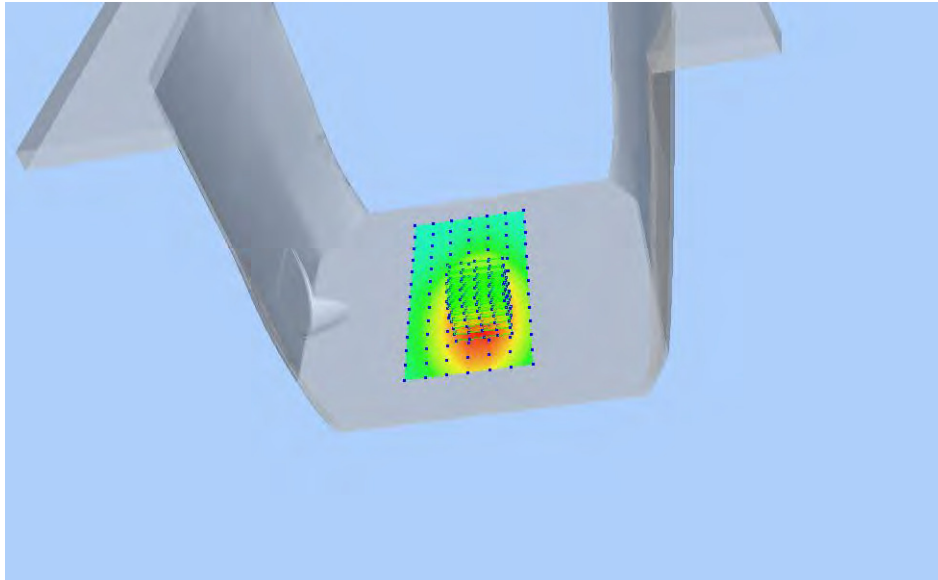
Z Axis Scan



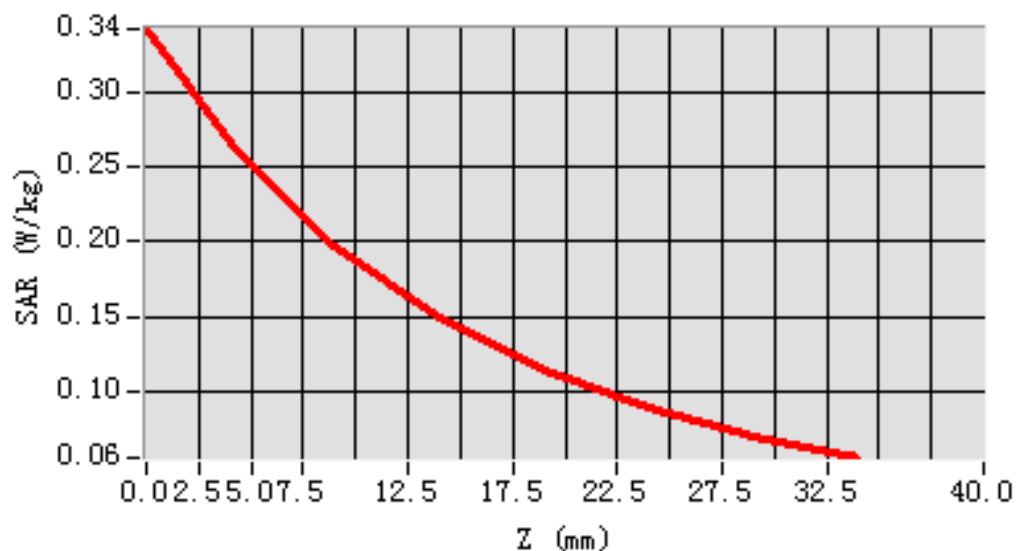
MEAS. 44 Back Side Plane with Left Side on High Channel in WCDMA Band 5

mode

Test Date: 18/6/2016
Measurement duration: 11 minutes 23 seconds
Signal: WCDMA, f=846.6 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 55.57; Conductivity: 0.99 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.12
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=-24.000000
SAR 10g (W/Kg): 0.185877
SAR 1g (W/Kg): 0.264979
Power drift (%): -1.07
3D screen shot

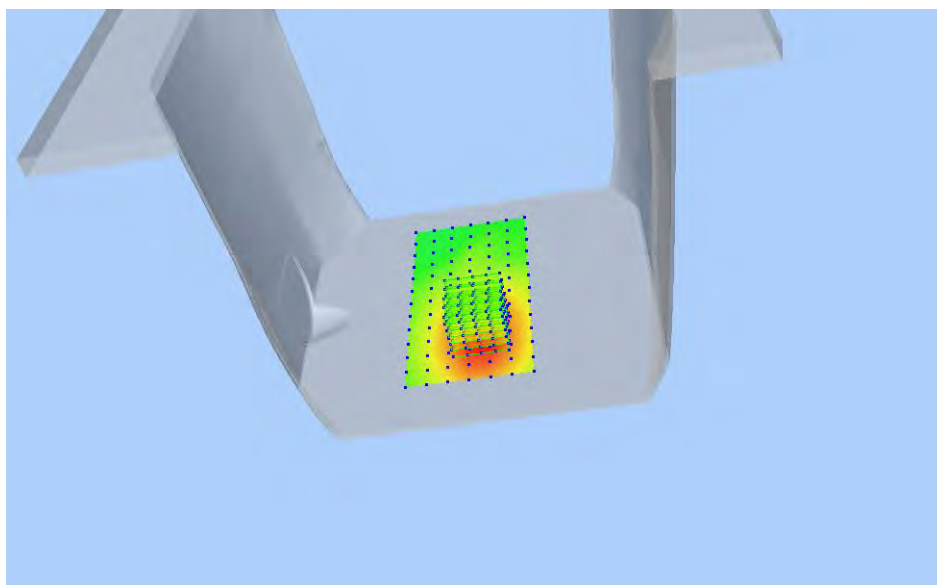


Z Axis Scan

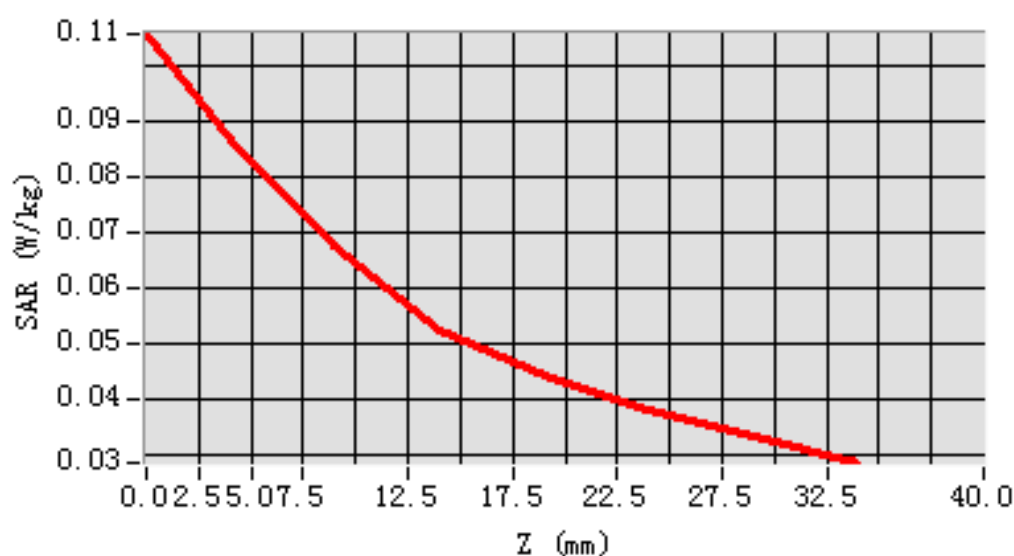


MEAS. 45 Back Side Plane with Right Side on High Channel in WCDMA Band 5 mode

Test Date: 18/6/2016
Measurement duration: 10 minutes 57 seconds
Signal: WCDMA, f=846.6 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 55.57; Conductivity: 0.99 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.12
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=-36.000000
SAR 10g (W/Kg): 0.063783
SAR 1g (W/Kg): 0.085013
Power drift (%): -1.79
3D screen shot



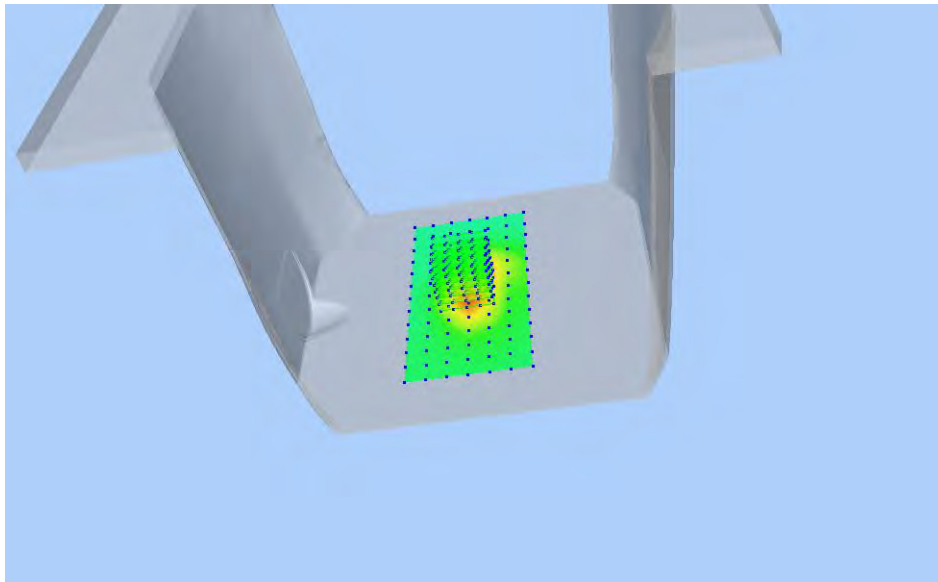
Z Axis Scan



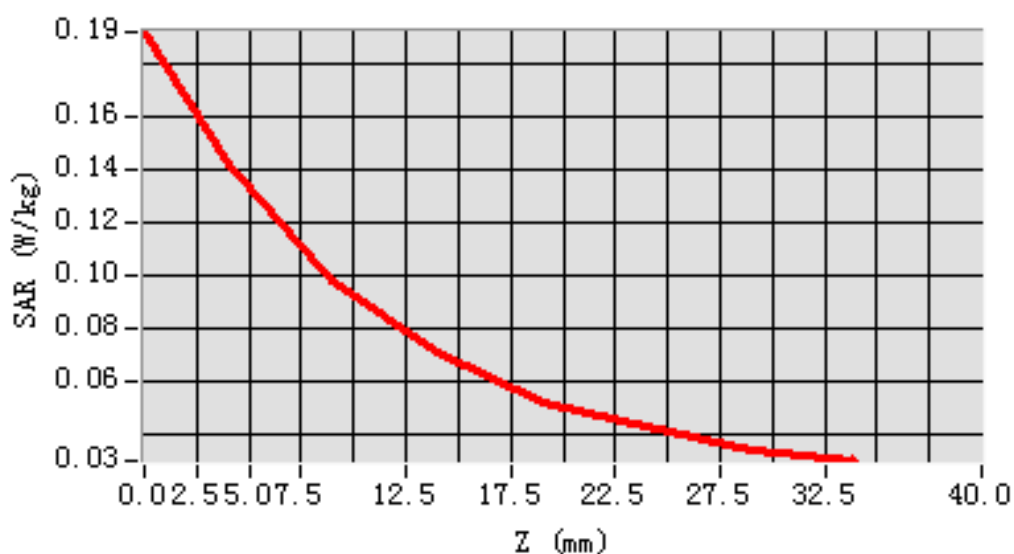
MEAS. 46 Back Side Plane with Bottom Side on High Channel in WCDMA Band

5 mode

Test Date: 18/6/2016
Measurement duration: 9 minutes 57 seconds
Signal: WCDMA, f=846.6 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 55.57; Conductivity: 0.99 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.12
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=0.000000
SAR 10g (W/Kg): 0.088152
SAR 1g (W/Kg): 0.140046
Power drift (%): -1.74
3D screen shot

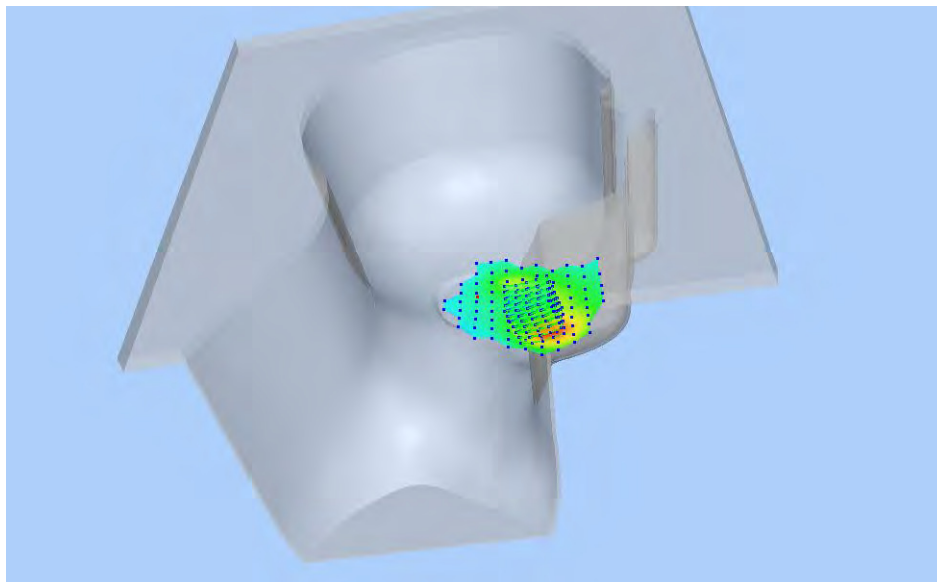


Z Axis Scan

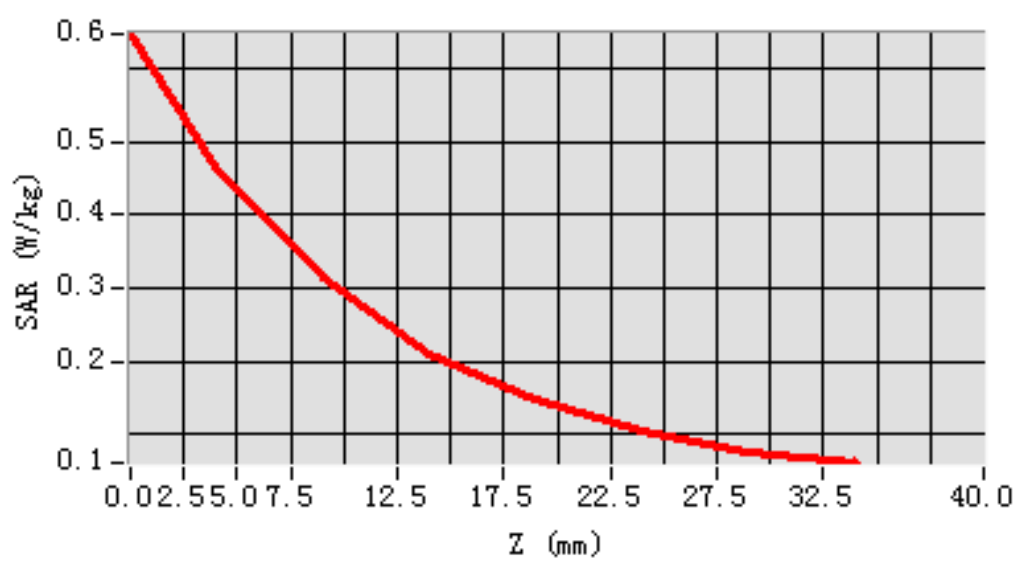


MEAS. 47 Left Head with Cheek on High Channel in LTE Band 4 mode with 1RB

Test Date: 17/6/2016
Measurement duration: 9 minutes 46 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 40.10; Conductivity: 1.37 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-48.000000
SAR 10g (W/Kg): 0.275498
SAR 1g (W/Kg): 0.447657
Power drift (%): -3.97
3D screen shot

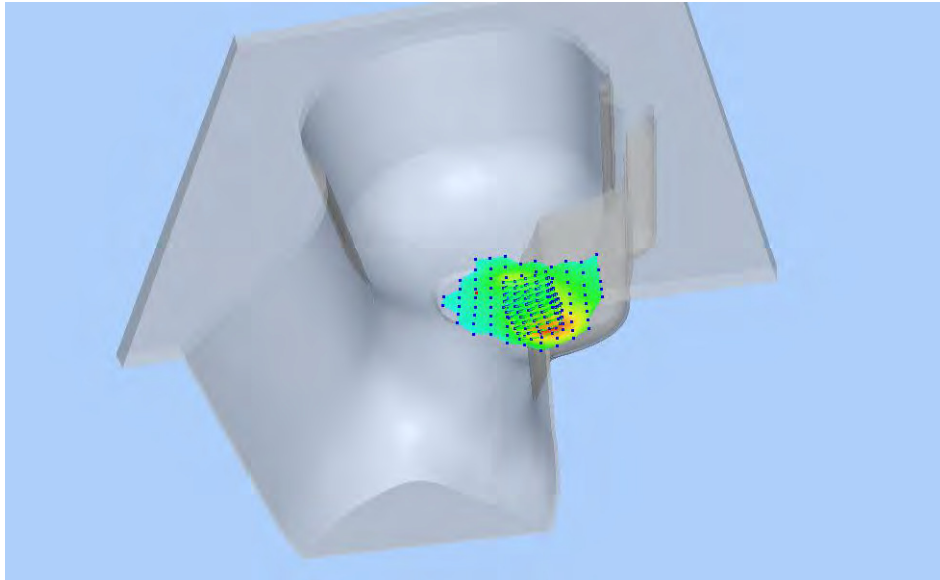


Z Axis Scan

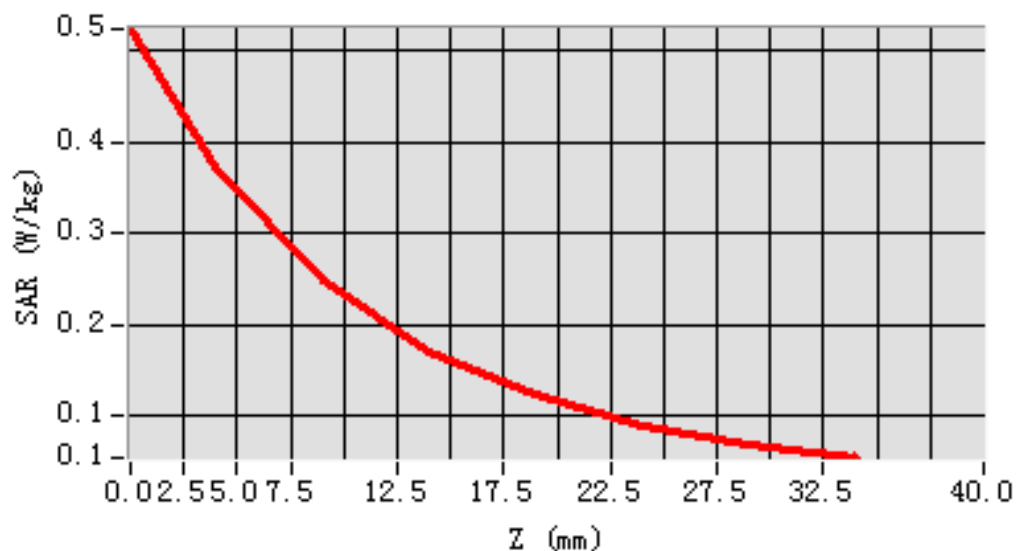


MEAS. 48 Left Head with Cheek on High Channel in LTE Band 4 mode with 50%RB

Test Date: 17/6/2016
Measurement duration: 9 minutes 46 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 40.10; Conductivity: 1.37 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-48.000000
SAR 10g (W/Kg): 0.220884
SAR 1g (W/Kg): 0.358956
Power drift (%): -2.32
3D screen shot

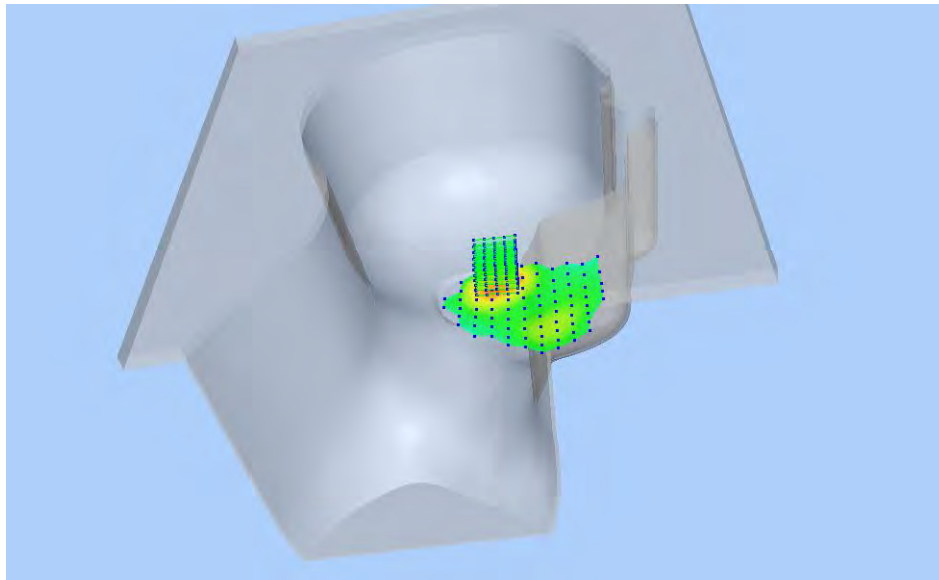


Z Axis Scan

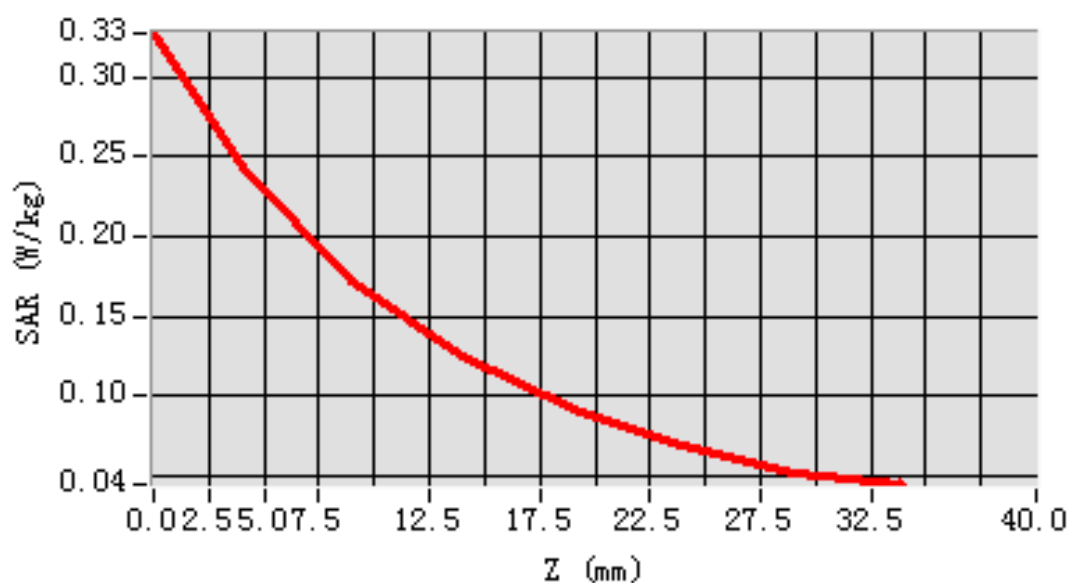


MEAS. 49 Left Head with Tilt on High Channel in LTE Band 4 mode with 1RB

Test Date: 17/6/2016
Measurement duration: 8 minutes 31 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 40.10; Conductivity: 1.37 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=12.000000
SAR 10g (W/Kg): 0.149825
SAR 1g (W/Kg): 0.233695
Power drift (%): -3.63
3D screen shot

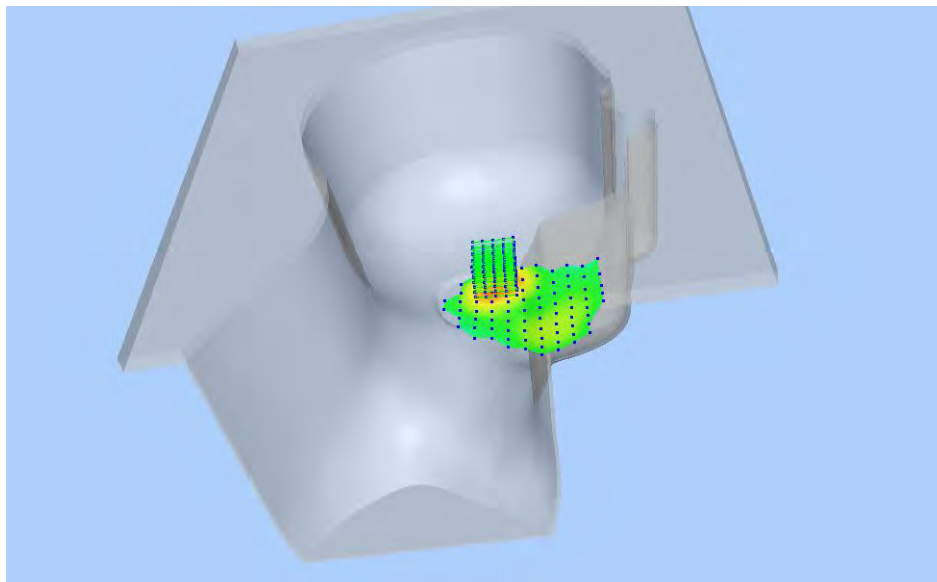


Z Axis Scan

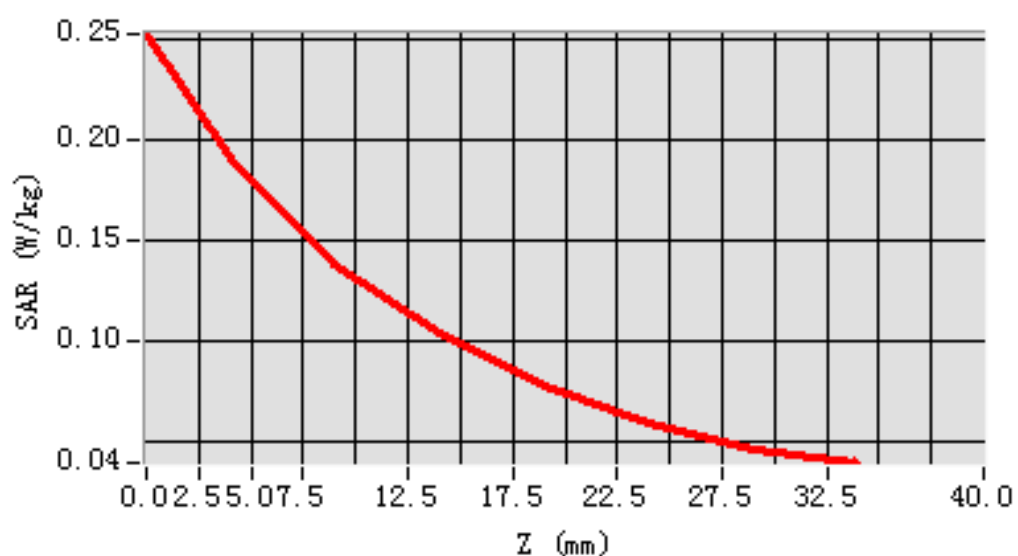


MEAS. 50 Left Head with Tilt on High Channel in LTE Band 4 mode with 50%RB

Test Date: 17/6/2016
Measurement duration: 8 minutes 30 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 40.10; Conductivity: 1.37 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=12.000000
SAR 10g (W/Kg): 0.120055
SAR 1g (W/Kg): 0.184317
Power drift (%): -4.08
3D screen shot

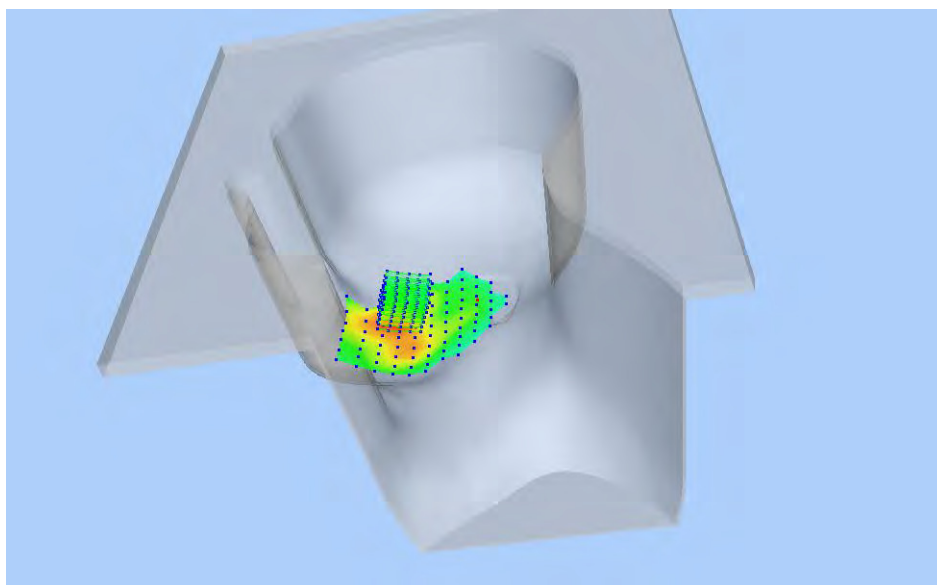


Z Axis Scan

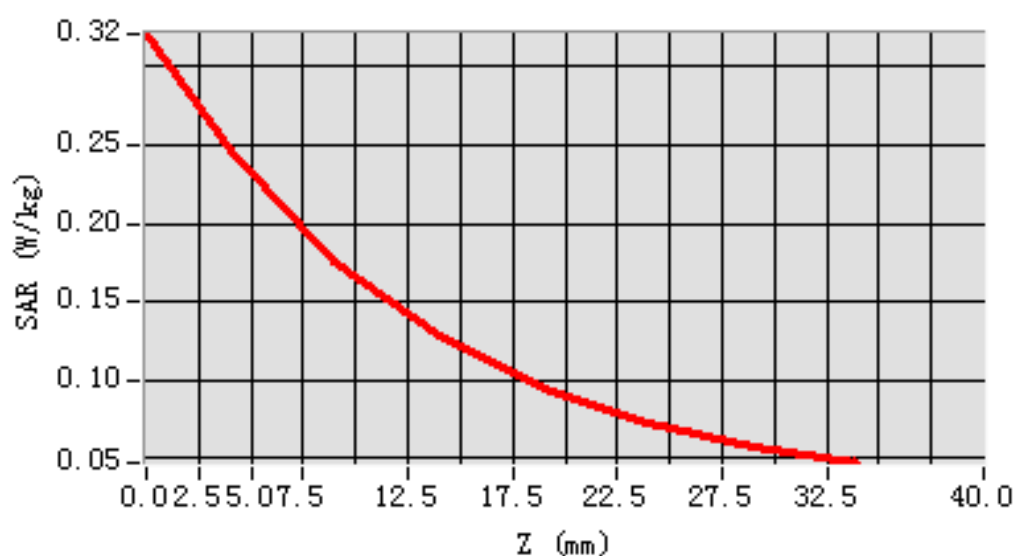


MEAS. 51 Right Head with Cheek on High Channel in LTE Band 4 mode with 1RB

Test Date: 17/6/2016
Measurement duration: 10 minutes 23 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 40.10; Conductivity: 1.37 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-60.000000, Y=-12.000000
SAR 10g (W/Kg): 0.154628
SAR 1g (W/Kg): 0.238145
Power drift (%): -2.22
3D screen shot

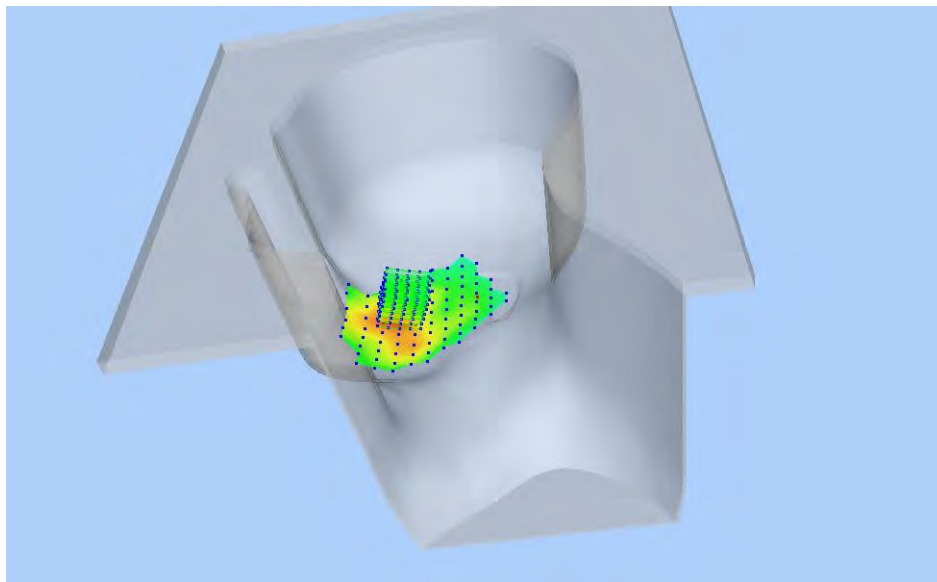


Z Axis Scan

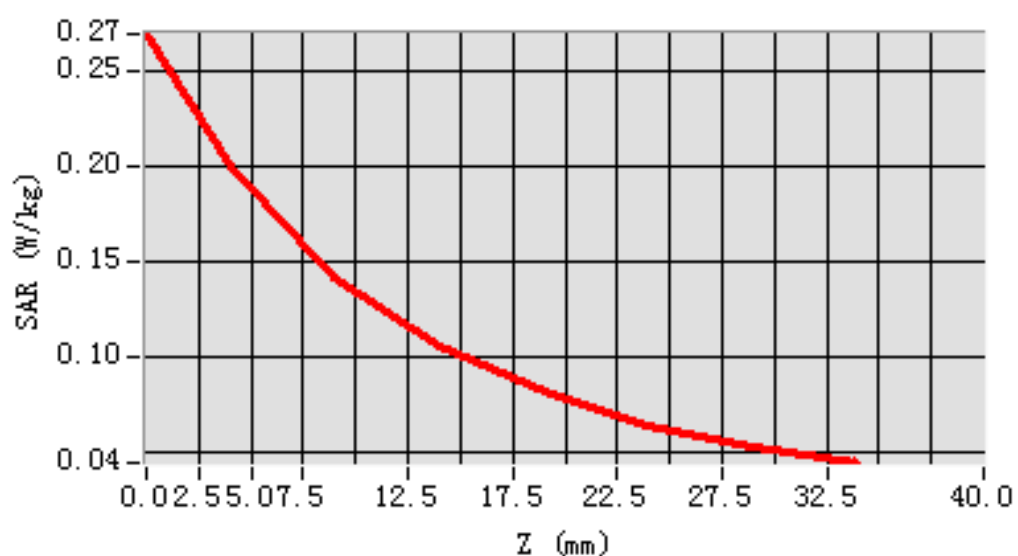


MEAS. 52 Right Head with Cheek on High Channel in LTE Band 4 mode with 50%RB

Test Date: 17/6/2016
Measurement duration: 10 minutes 44 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 40.10; Conductivity: 1.37 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-60.000000, Y=-12.000000
SAR 10g (W/Kg): 0.127646
SAR 1g (W/Kg): 0.193236
Power drift (%): -4.05
3D screen shot

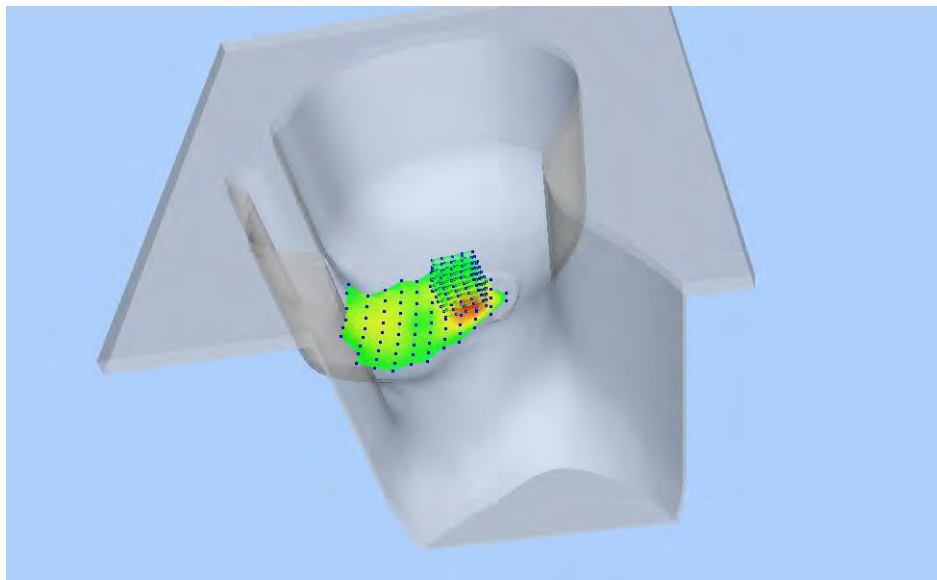


Z Axis Scan

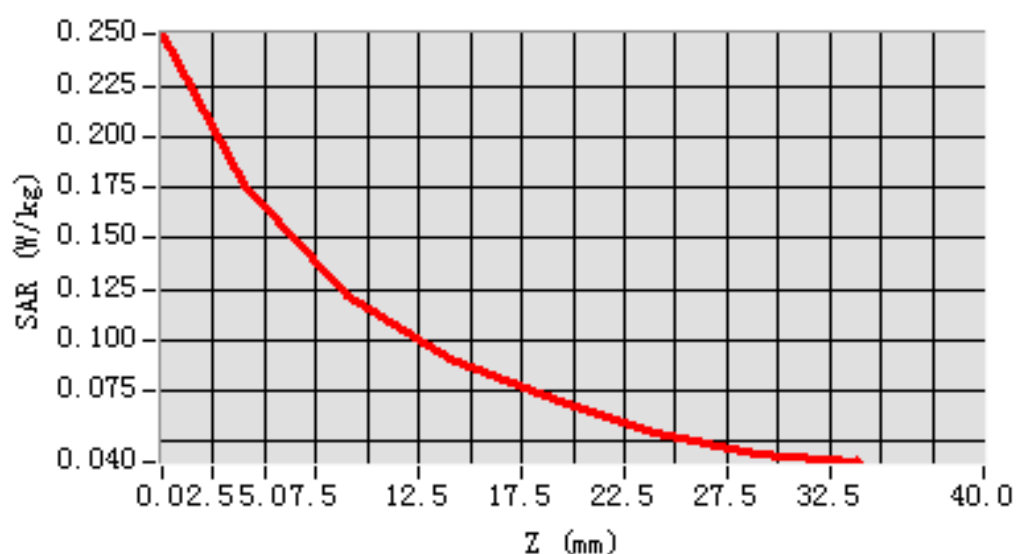


MEAS. 53 Right Head with Tilt on High Channel in LTE Band 4 mode with 1RB

Test Date: 17/6/2016
Measurement duration: 8 minutes 44 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 40.10; Conductivity: 1.37 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=0.000000
SAR 10g (W/Kg): 0.114766
SAR 1g (W/Kg): 0.173958
Power drift (%): -3.45
3D screen shot

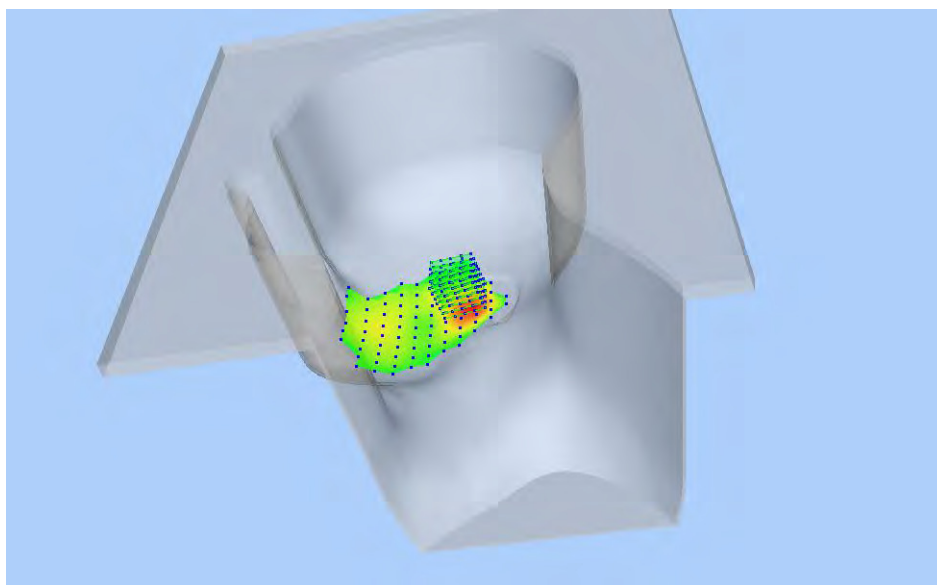


Z Axis Scan

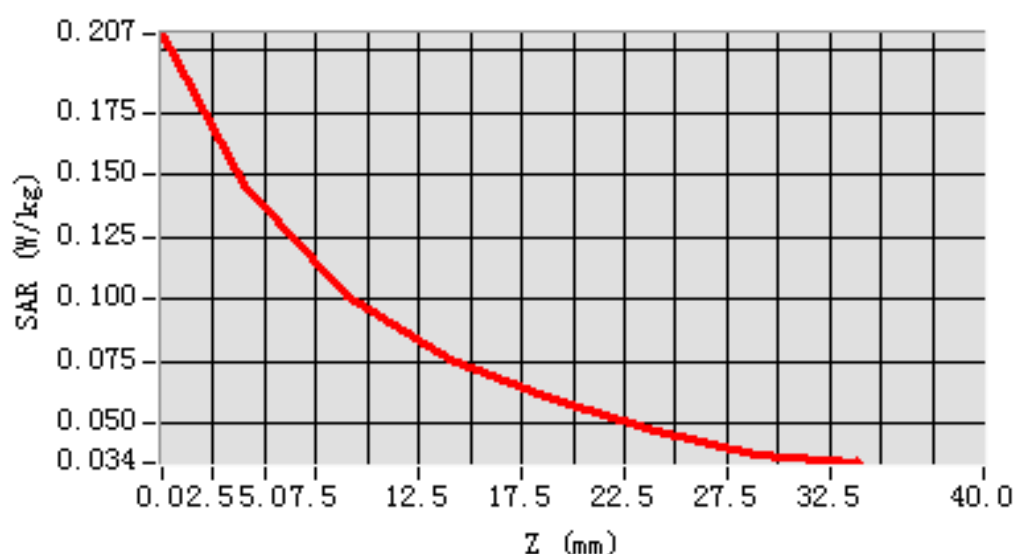


MEAS. 54 Right Head with Tilt on High Channel in LTE Band 4 mode with 50%RB

Test Date: 17/6/2016
Measurement duration: 8 minutes 41 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 40.10; Conductivity: 1.37 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.04
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=0.000000
SAR 10g (W/Kg): 0.096370
SAR 1g (W/Kg): 0.142471
Power drift (%): -4.30
3D screen shot

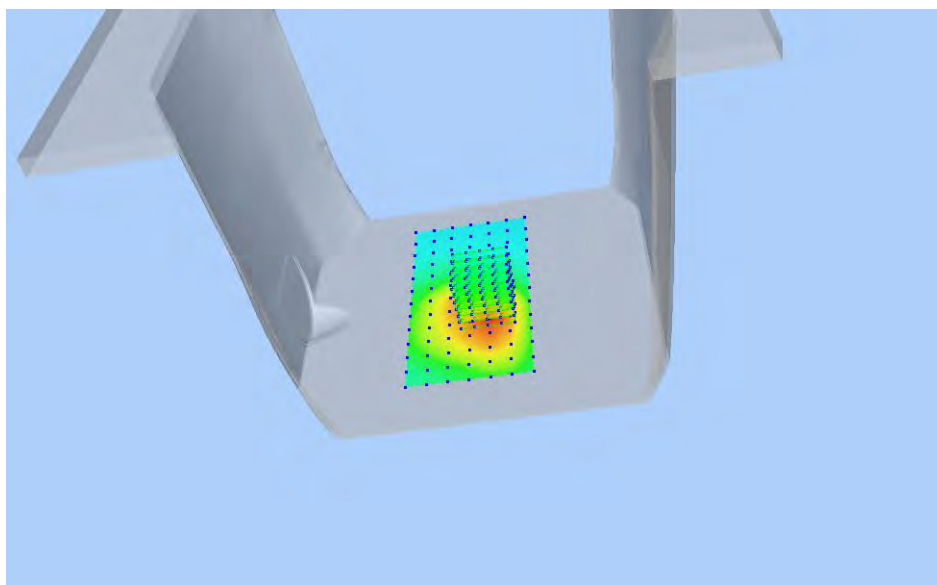


Z Axis Scan

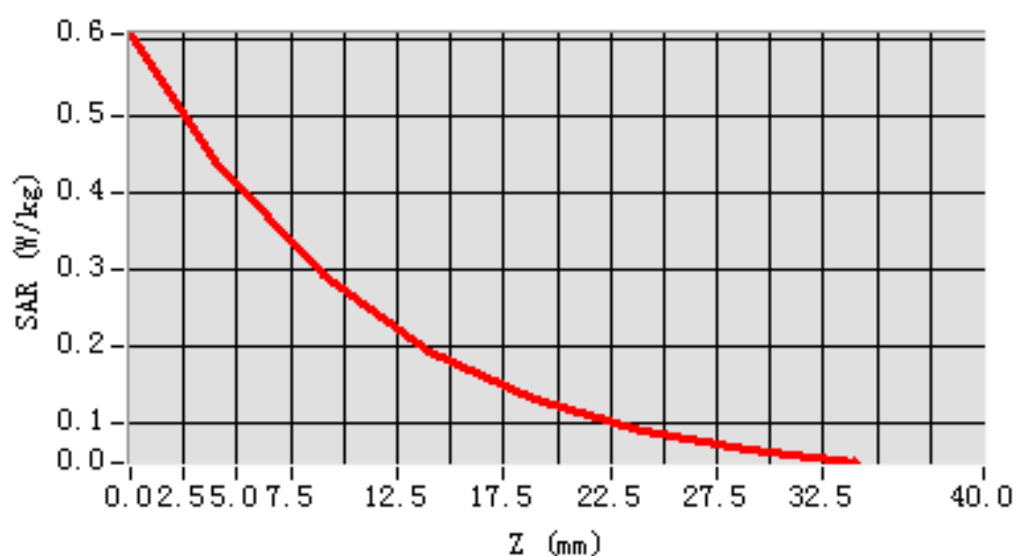


MEAS. 55 Back Side Plane with Front Side on High Channel in LTE Band 4 mode with 1RB

Test Date: 17/6/2016
Measurement duration: 11 minutes 44 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.45; Conductivity: 1.49 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.08
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=-12.000000
SAR 10g (W/Kg): 0.267176
SAR 1g (W/Kg): 0.424916
Power drift (%): -1.36
3D screen shot

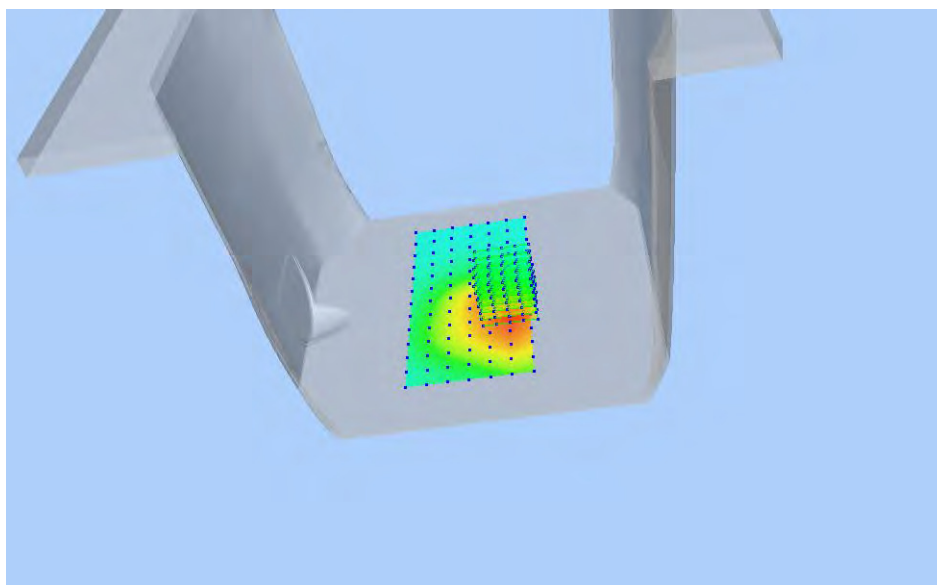


Z Axis Scan

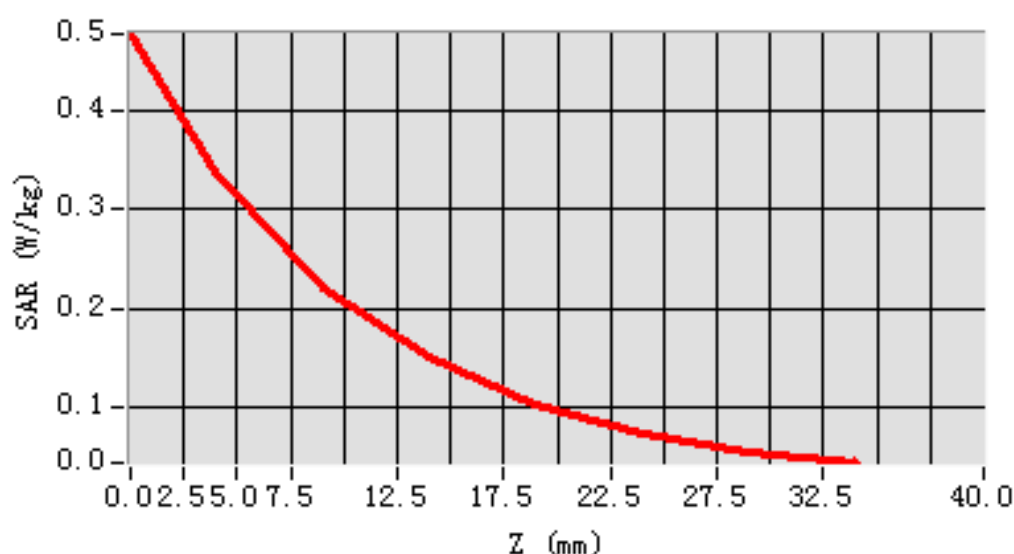


MEAS. 56 Back Side Plane with Front Side on High Channel in LTE Band 4 mode with 50%RB

Test Date: 17/6/2016
Measurement duration: 11 minutes 42 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.45; Conductivity: 1.49 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.08
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=20.000000, Y=-12.000000
SAR 10g (W/Kg): 0.206657
SAR 1g (W/Kg): 0.327848
Power drift (%): -1.35
3D screen shot

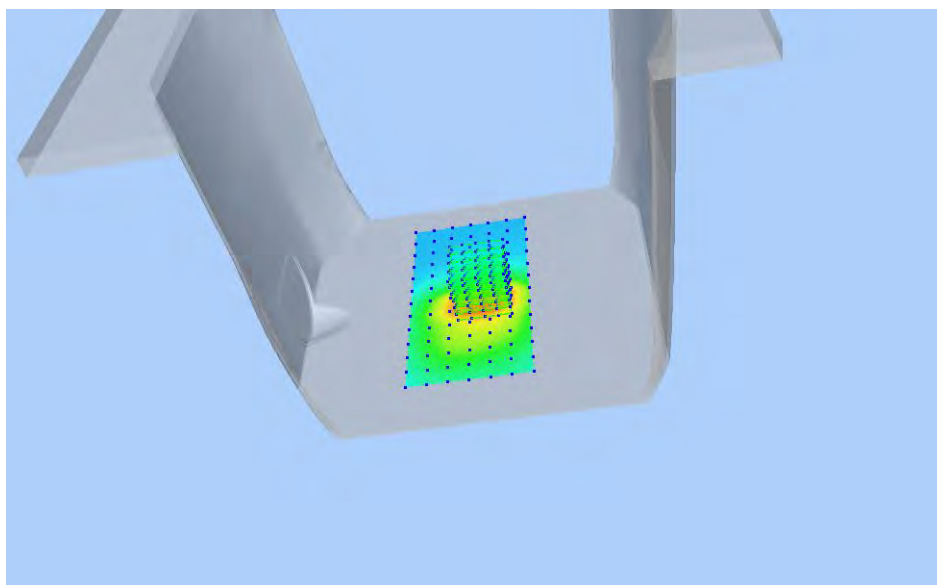


Z Axis Scan

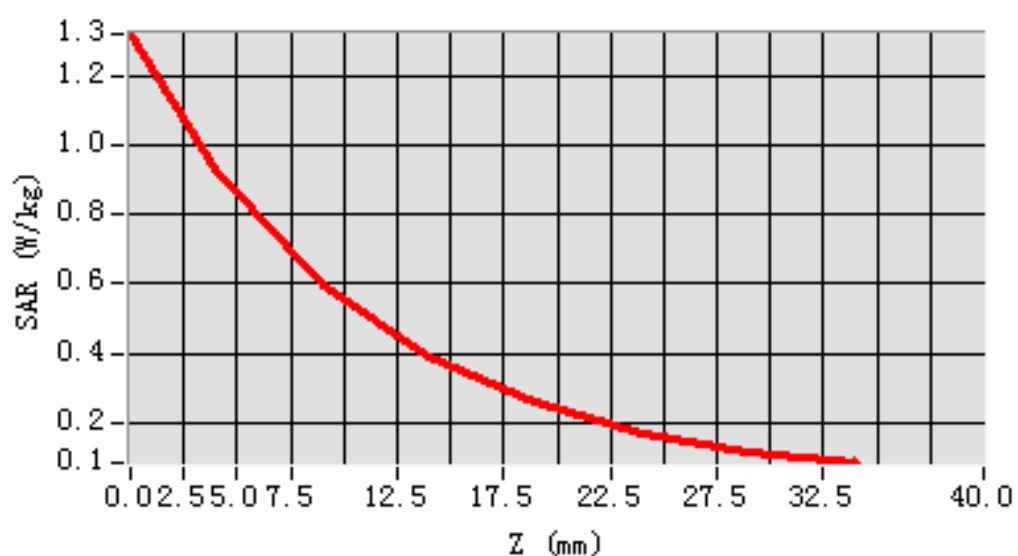


MEAS. 57 Back Side Plane with Back Side on High Channel in LTE Band 4 mode with 1RB

Test Date: 17/6/2016
Measurement duration: 11 minutes 31 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.45; Conductivity: 1.49 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.08
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.509916
SAR 1g (W/Kg): 0.872089
Power drift (%): -2.16
3D screen shot

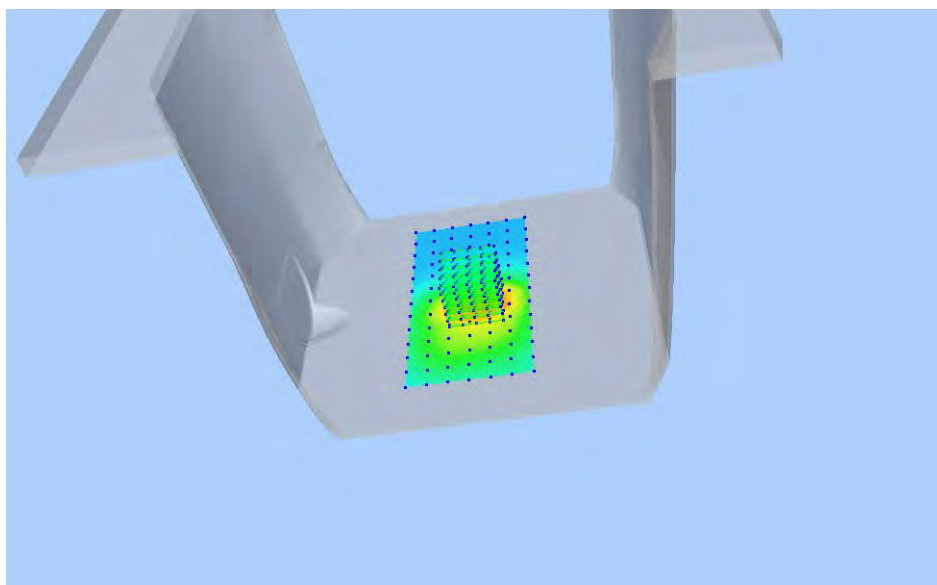


Z Axis Scan

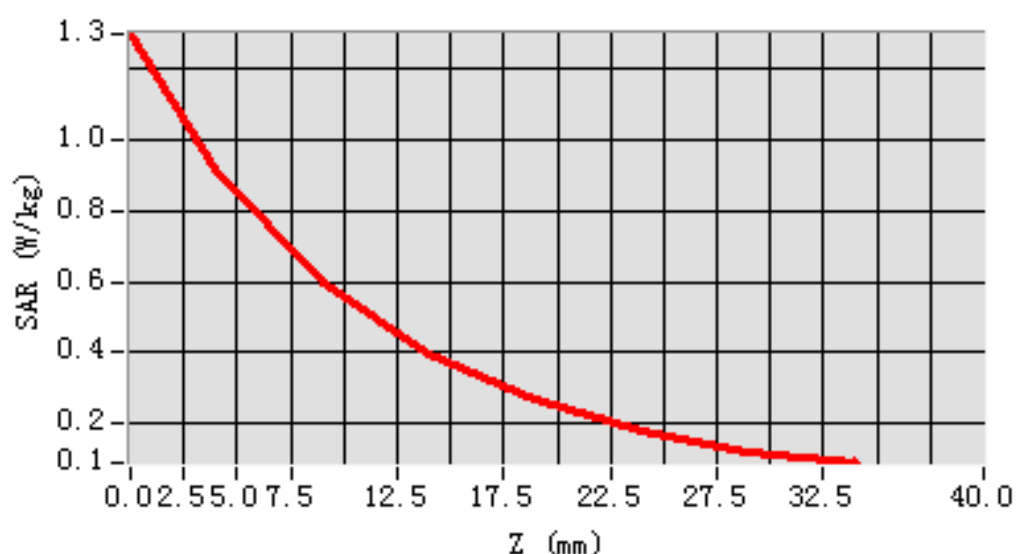


MEAS. 58 Back Side Plane with Back Side on Low Channel in LTE Band 4 mode with 50%RB

Test Date: 17/6/2016
Measurement duration: 10 minutes 43 seconds
Signal: LTE, f=1720.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.51; Conductivity: 1.47 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.08
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=-12.000000
SAR 10g (W/Kg): 0.512087
SAR 1g (W/Kg): 0.878522
Power drift (%): -0.86
3D screen shot

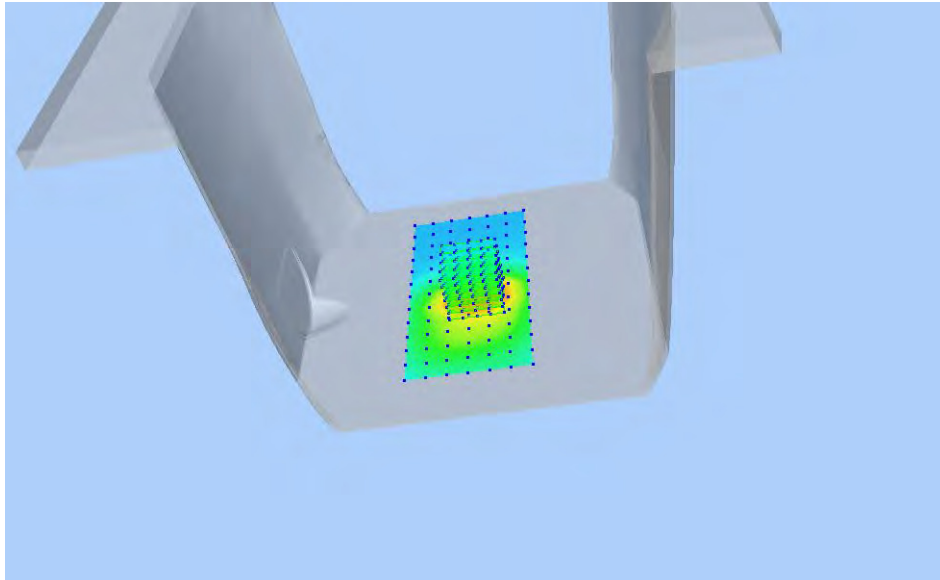


Z Axis Scan

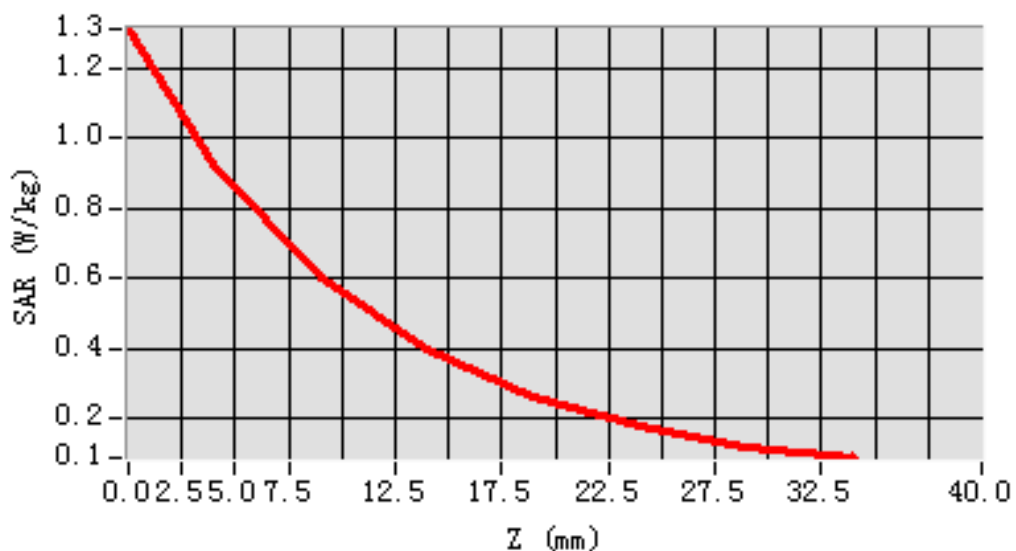


MEAS. 59 Back Side Plane with Back Side on Middle Channel in LTE Band 4 mode with 1RB

Test Date: 17/6/2016
Measurement duration: 10 minutes 53 seconds
Signal: LTE, f=1732.5 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.48; Conductivity: 1.48 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.08
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=-12.000000
SAR 10g (W/Kg): 0.514243
SAR 1g (W/Kg): 0.884216
Power drift (%): -1.58
3D screen shot

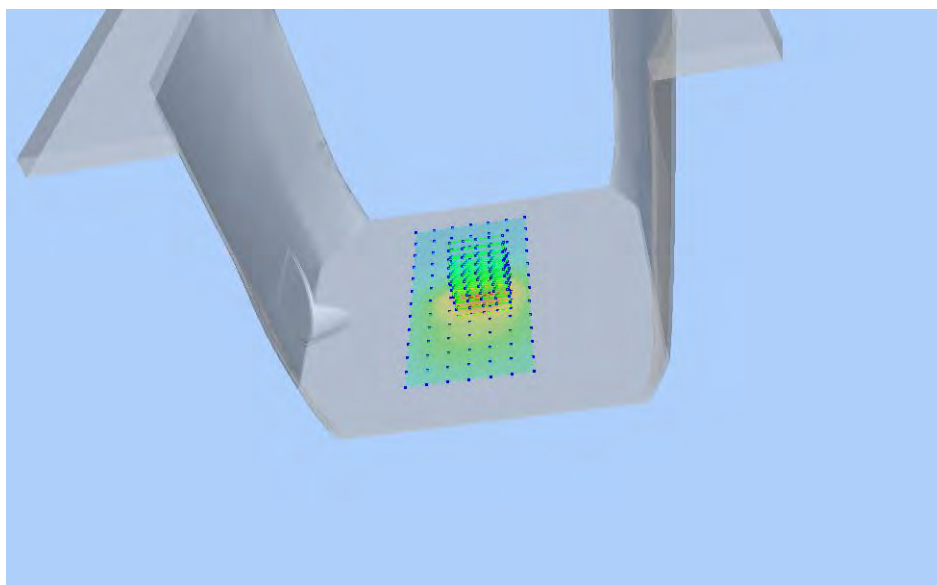


Z Axis Scan

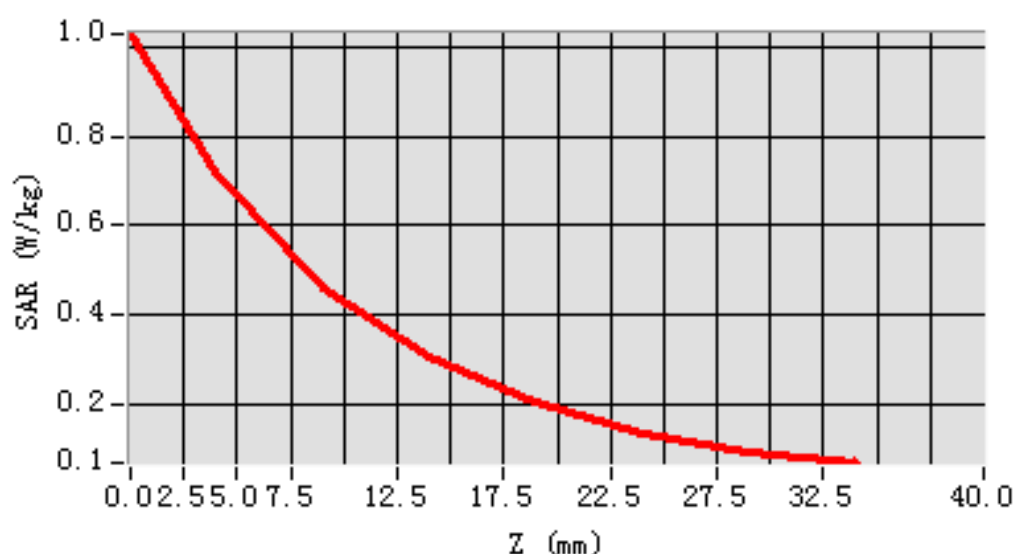


MEAS. 60 Back Side Plane with Back Side on High Channel in LTE Band 4 mode with 50%RB

Test Date: 17/6/2016
Measurement duration: 11 minutes 30 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.45; Conductivity: 1.49 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.08
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.399130
SAR 1g (W/Kg): 0.677499
Power drift (%): -1.44
3D screen shot

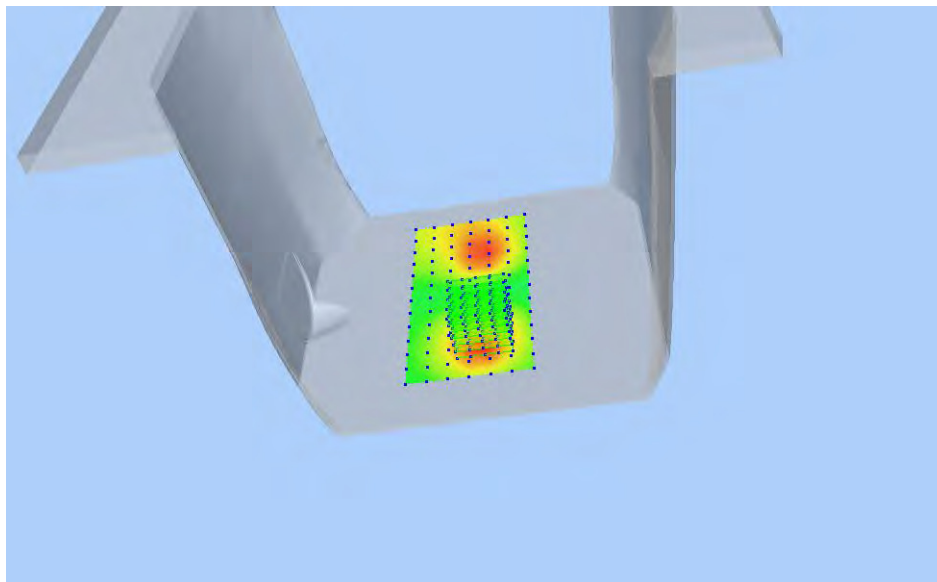


Z Axis Scan

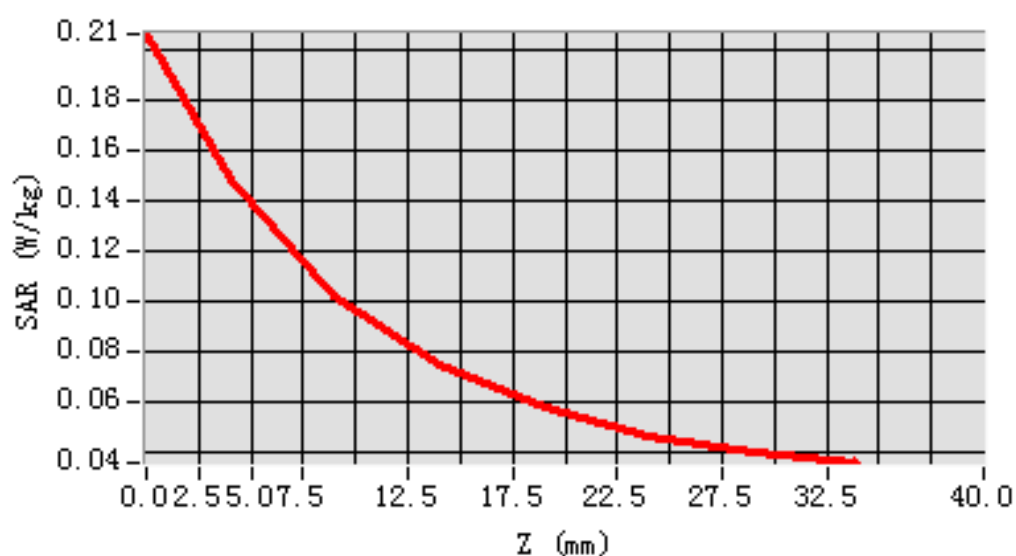


MEAS. 61 Back Side Plane with Left Side on High Channel in LTE Band 4 mode with 1RB

Test Date: 17/6/2016
Measurement duration: 11 minutes 10 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.45; Conductivity: 1.49 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.08
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=-36.000000
SAR 10g (W/Kg): 0.094056
SAR 1g (W/Kg): 0.143066
Power drift (%): -3.34
3D screen shot

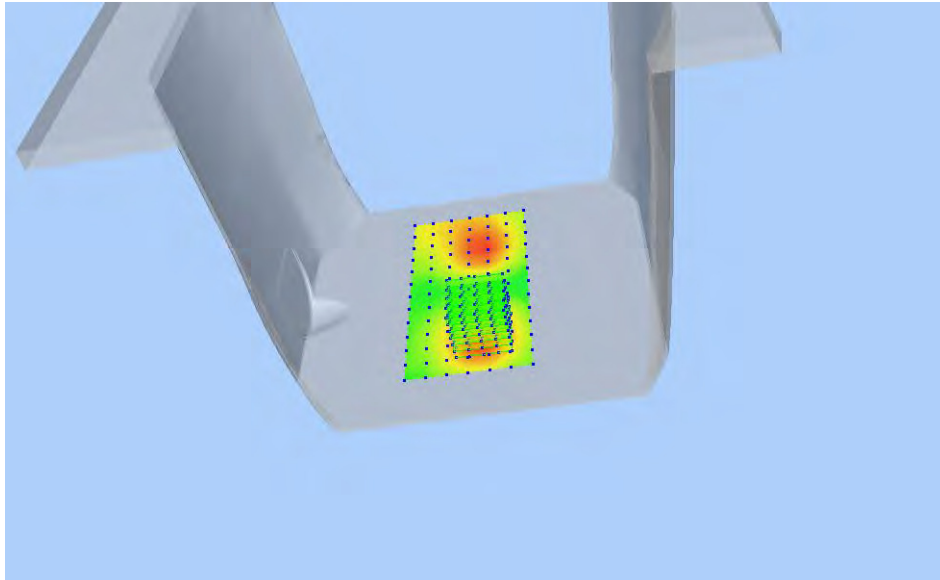


Z Axis Scan

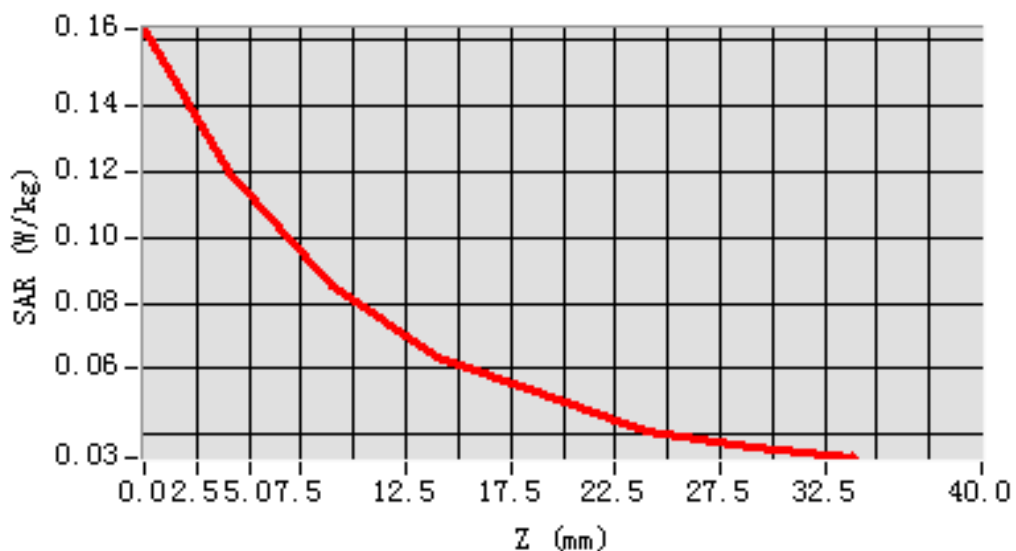


MEAS. 62 Back Side Plane with Left Side on High Channel in LTE Band 4 mode with 50%RB

Test Date: 17/6/2016
Measurement duration: 11 minutes 7 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.45; Conductivity: 1.49 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.08
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=-48.000000
SAR 10g (W/Kg): 0.078974
SAR 1g (W/Kg): 0.116457
Power drift (%): -4.23
3D screen shot

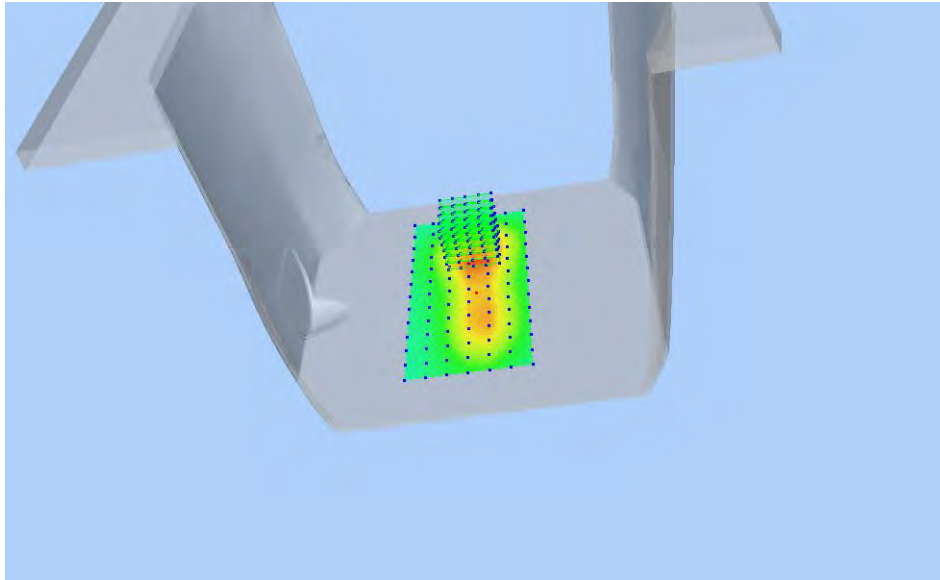


Z Axis Scan

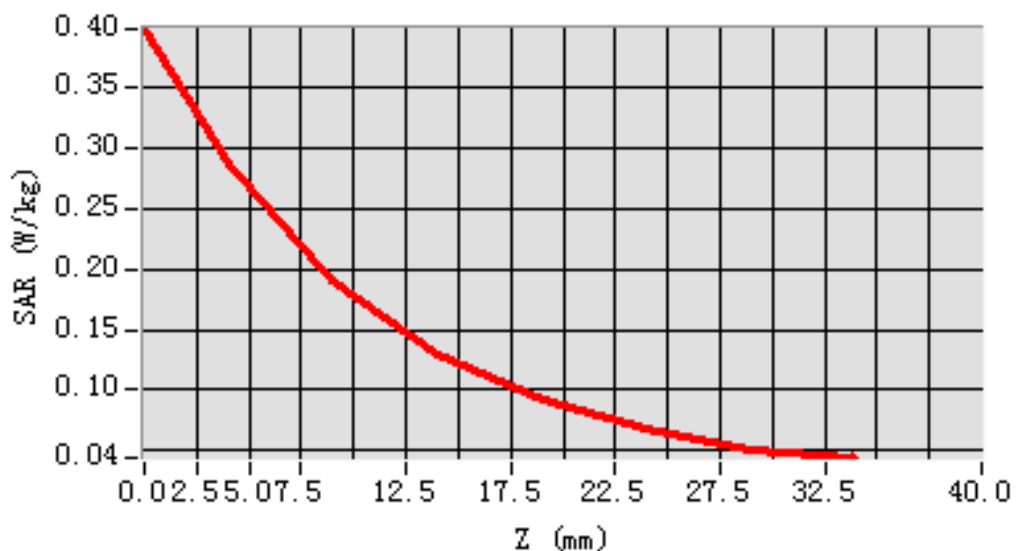


MEAS. 63 Back Side Plane with Right Side on High Channel in LTE Band 4 mode with 1RB

Test Date: 17/6/2016
Measurement duration: 10 minutes 26 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.45; Conductivity: 1.49 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.08
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=36.000000
SAR 10g (W/Kg): 0.170239
SAR 1g (W/Kg): 0.275555
Power drift (%): 3.49
3D screen shot

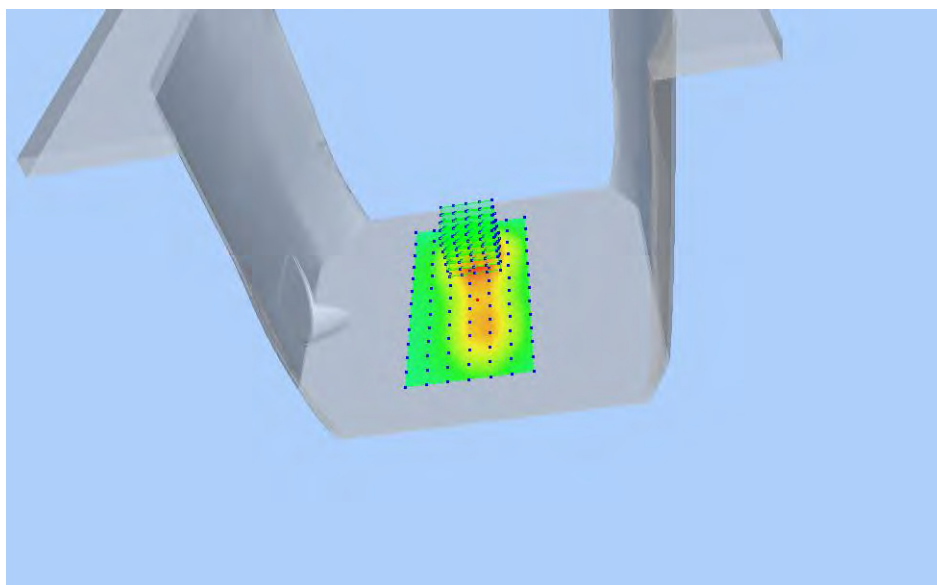


Z Axis Scan

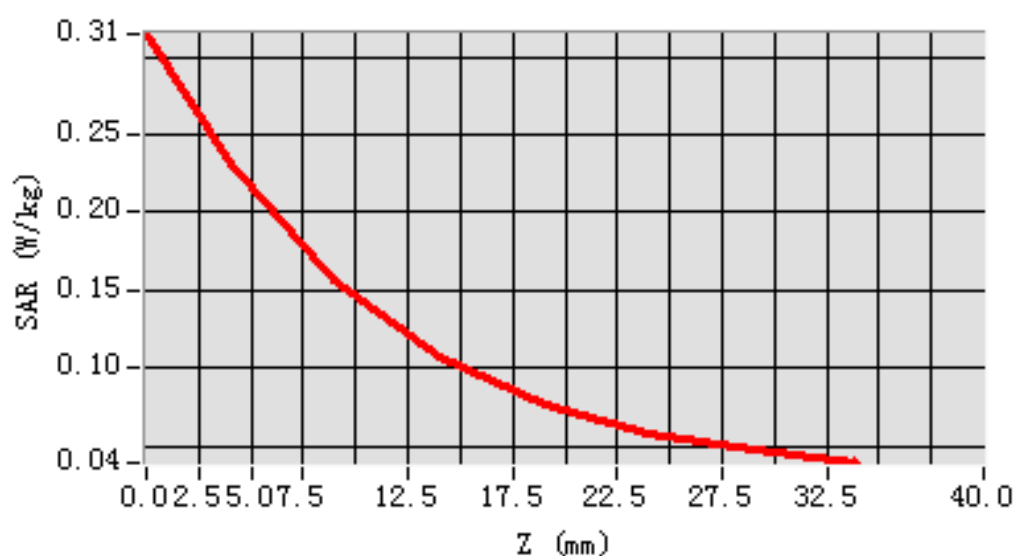


MEAS. 64 Back Side Plane with Right Side on High Channel in LTE Band 4 mode with 50%RB

Test Date: 17/6/2016
Measurement duration: 10 minutes 24 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.45; Conductivity: 1.49 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.08
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=36.000000
SAR 10g (W/Kg): 0.139163
SAR 1g (W/Kg): 0.221800
Power drift (%): -2.24
3D screen shot

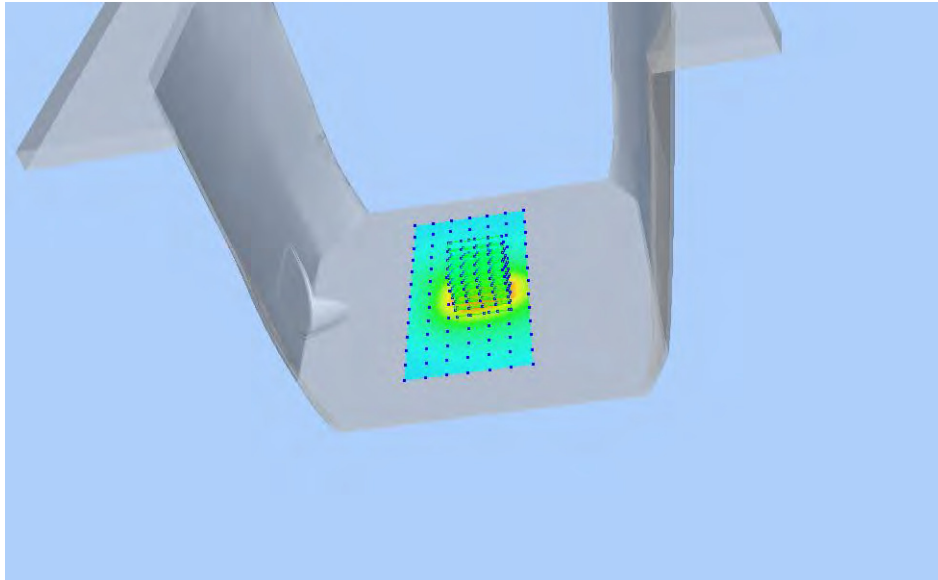


Z Axis Scan

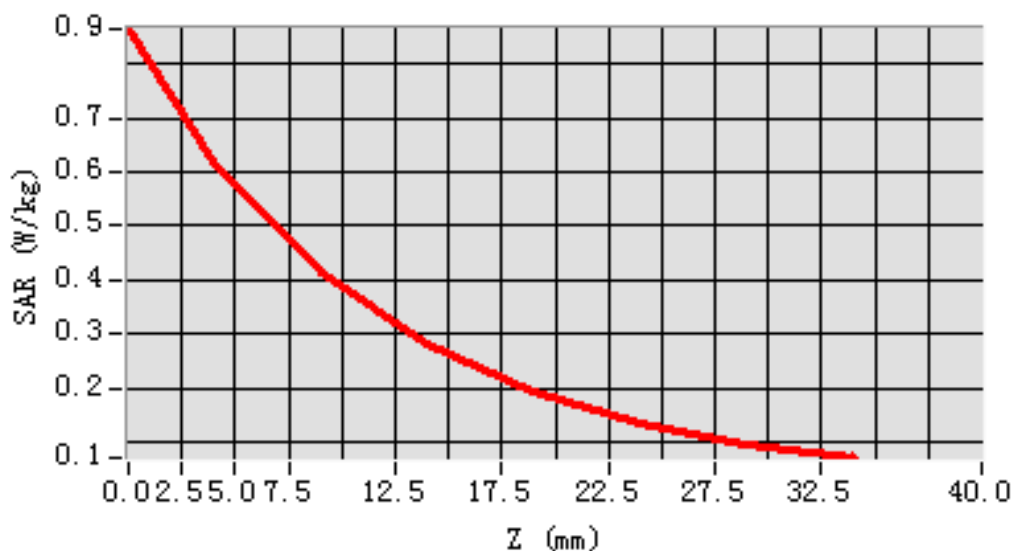


MEAS. 65 Back Side Plane with Bottom Side on High Channel in LTE Band 4 mode with 1RB

Test Date: 17/6/2016
Measurement duration: 11 minutes 29 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.45; Conductivity: 1.49 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.08
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=-12.000000
SAR 10g (W/Kg): 0.354472
SAR 1g (W/Kg): 0.590625
Power drift (%): 0.60
3D screen shot

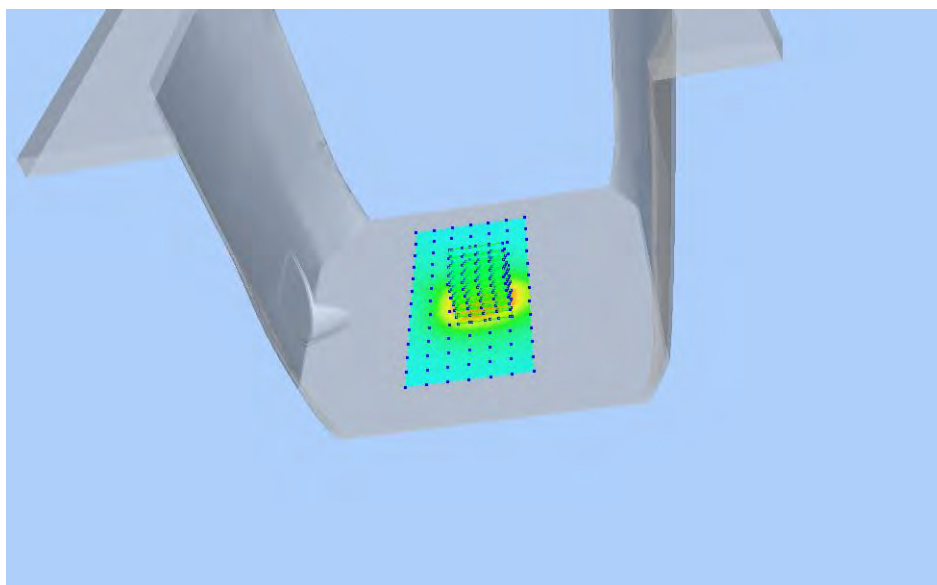


Z Axis Scan

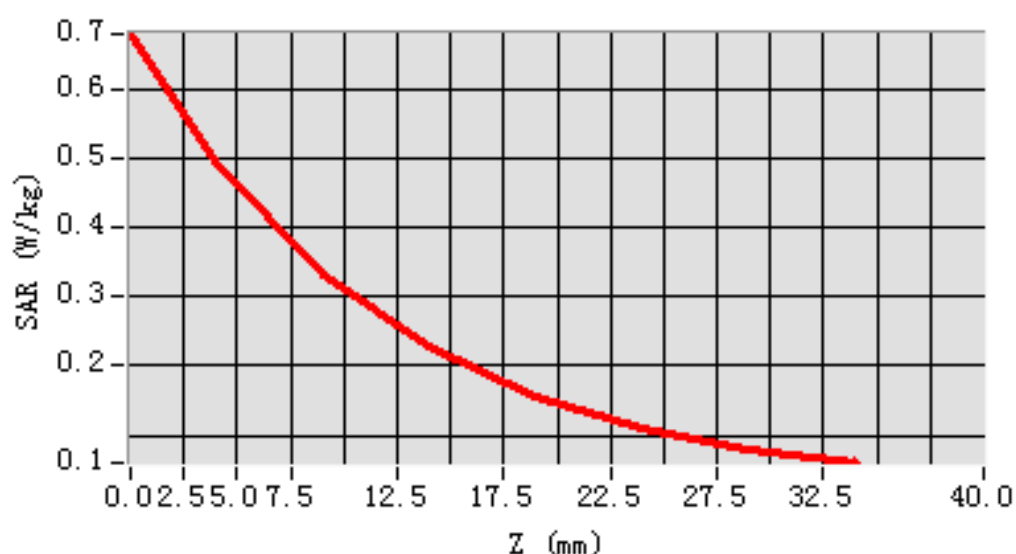


MEAS. 66 Back Side Plane with Bottom Side on High Channel in LTE Band 4 mode with 50%RB

Test Date: 17/6/2016
Measurement duration: 11 minutes 35 seconds
Signal: LTE, f=1745.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.45; Conductivity: 1.49 S/m
Test condition: Ambient Temperature: 22.4°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.08
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=-12.000000
SAR 10g (W/Kg): 0.285147
SAR 1g (W/Kg): 0.470632
Power drift (%): -1.53
3D screen shot

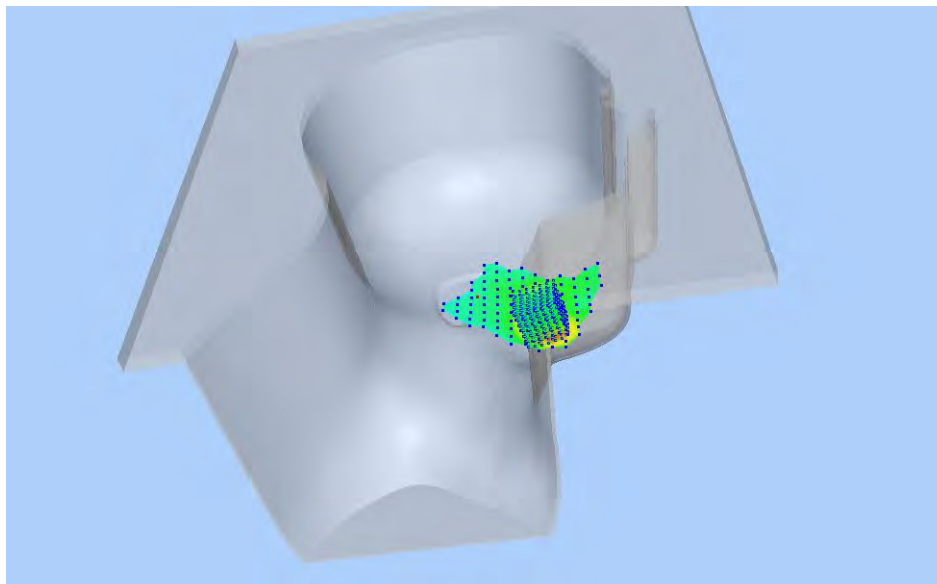


Z Axis Scan

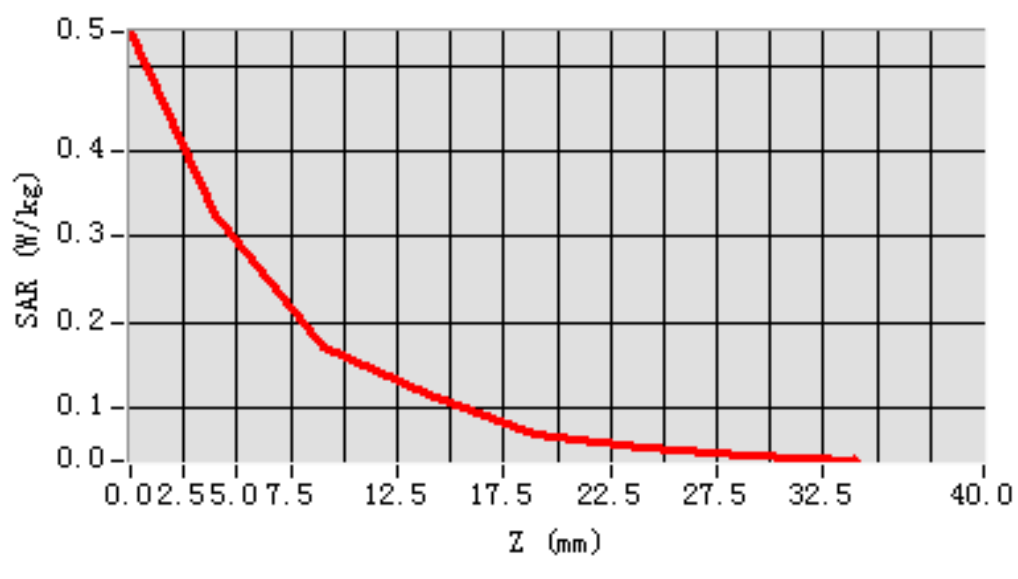


MEAS. 67 Left Head with Cheek on High Channel in LTE Band 7 mode with 1RB

Test Date: 20/6/2016
Measurement duration: 14 minutes 14 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 38.73; Conductivity: 1.98 S/m
Test condition: Ambient Temperature: 22.0°C, Liquid Temperature: 20.7°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.36
Area Scan: sam_direct_droit2_surf10mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-56.000000, Y=-56.000000
SAR 10g (W/Kg): 0.172858
SAR 1g (W/Kg): 0.316456
Power drift (%): -0.76
3D screen shot

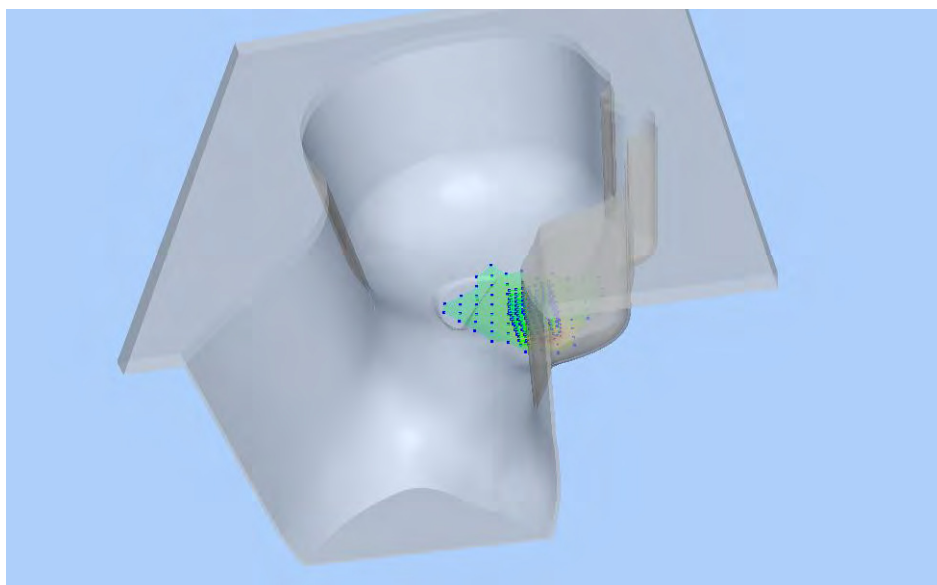


Z Axis Scan

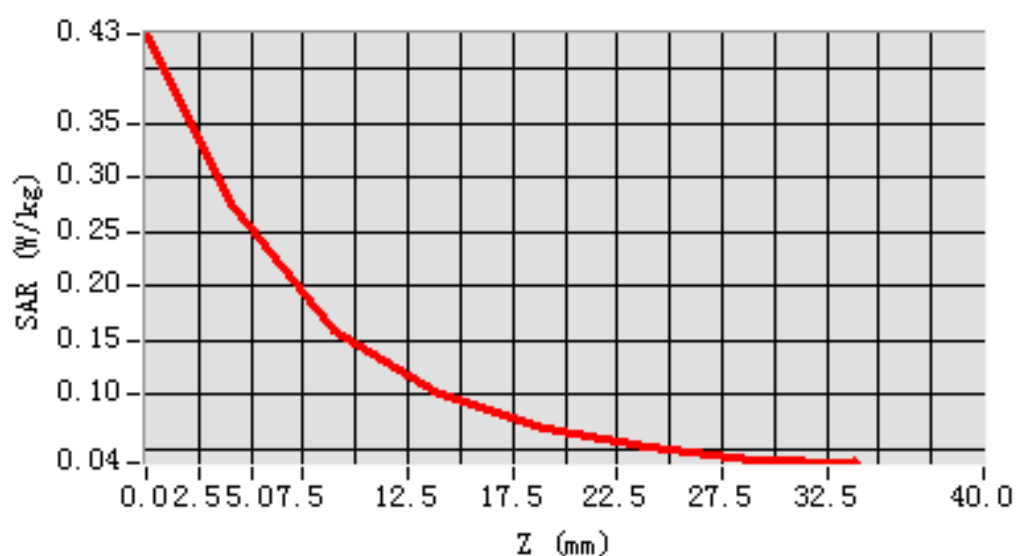


MEAS. 68 Left Head with Cheek on High Channel in LTE Band 7 mode with 50%RB

Test Date: 20/6/2016
Measurement duration: 13 minutes 53 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 38.73; Conductivity: 1.98 S/m
Test condition: Ambient Temperature: 22.0°C, Liquid Temperature: 20.7°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.36
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-48.000000
SAR 10g (W/Kg): 0.149310
SAR 1g (W/Kg): 0.263657
Power drift (%): -3.10
3D screen shot

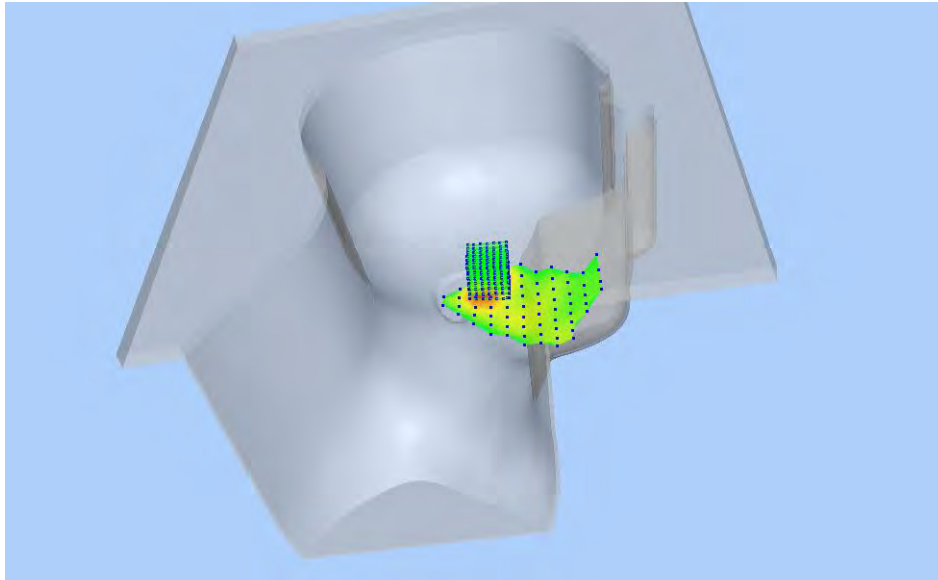


Z Axis Scan

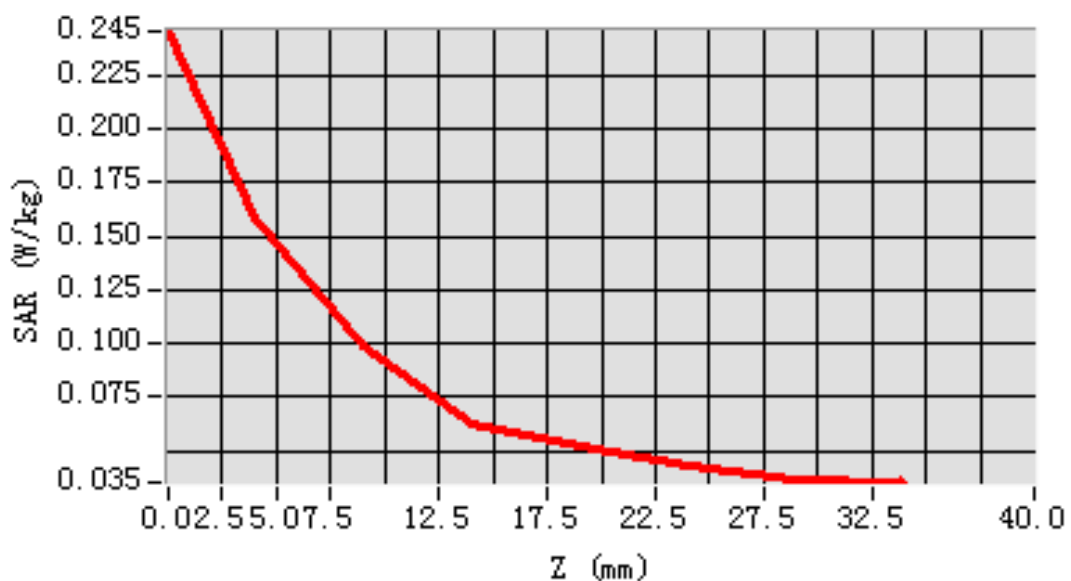


MEAS. 69 Left Head with Tilt on High Channel in LTE Band 7 mode with 1RB

Test Date: 20/6/2016
Measurement duration: 11 minutes 55 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 38.73; Conductivity: 1.98 S/m
Test condition: Ambient Temperature: 22.0°C, Liquid Temperature: 20.7°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.36
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=0.000000
SAR 10g (W/Kg): 0.095120
SAR 1g (W/Kg): 0.155271
Power drift (%): -1.81
3D screen shot

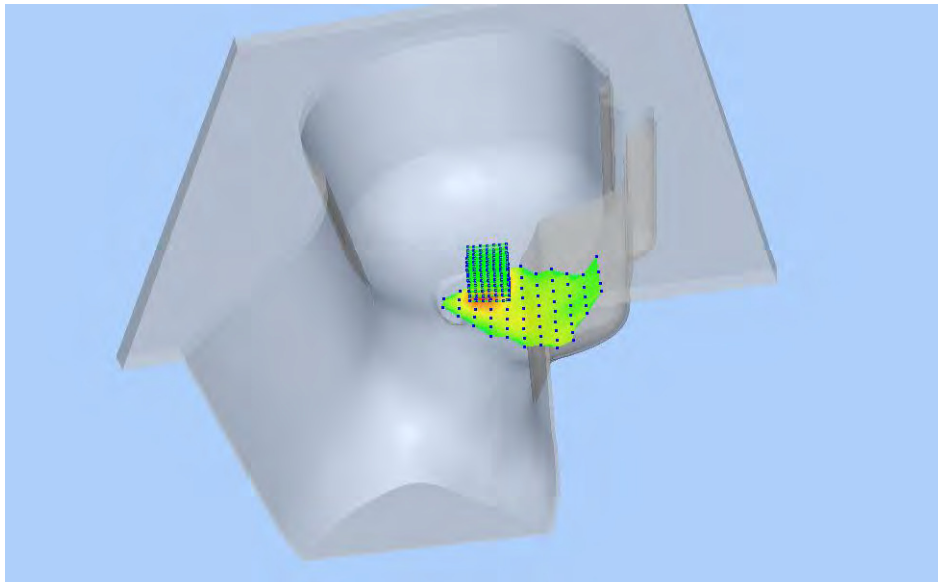


Z Axis Scan

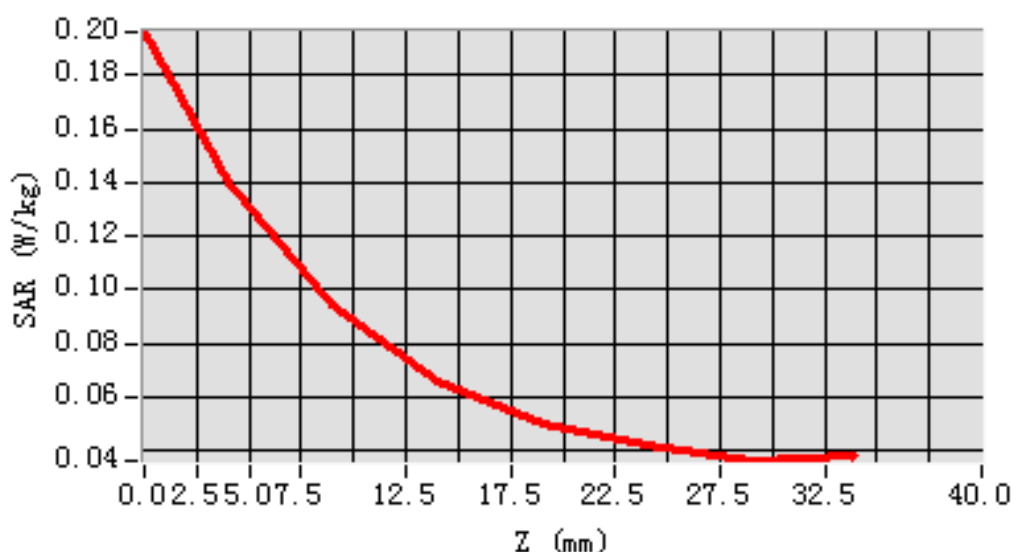


MEAS. 70 Left Head with Tilt on High Channel in LTE Band 7 mode with 50%RB

Test Date: 20/6/2016
Measurement duration: 11 minutes 52 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 38.73; Conductivity: 1.98 S/m
Test condition: Ambient Temperature: 22.0°C, Liquid Temperature: 20.7°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.36
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=0.000000
SAR 10g (W/Kg): 0.085359
SAR 1g (W/Kg): 0.136608
Power drift (%): -1.30
3D screen shot

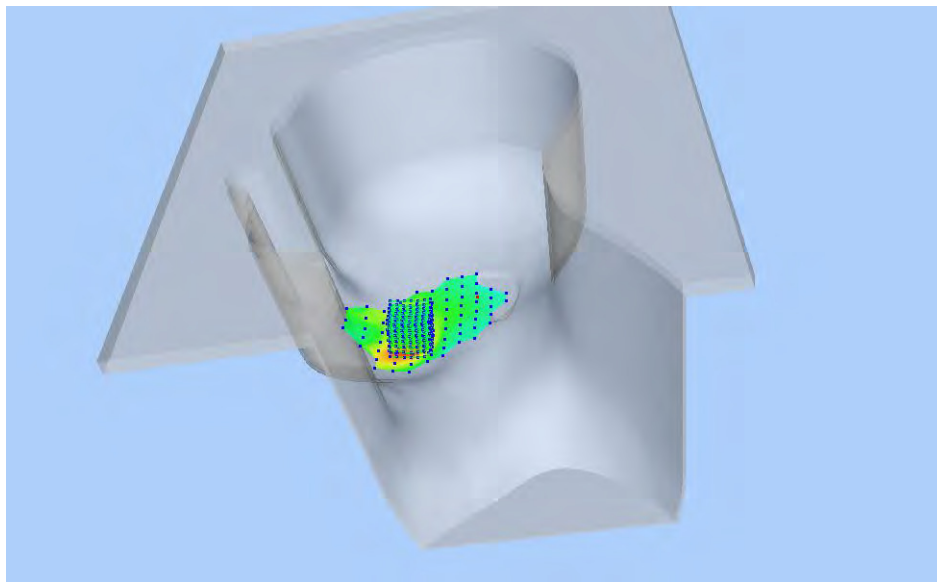


Z Axis Scan

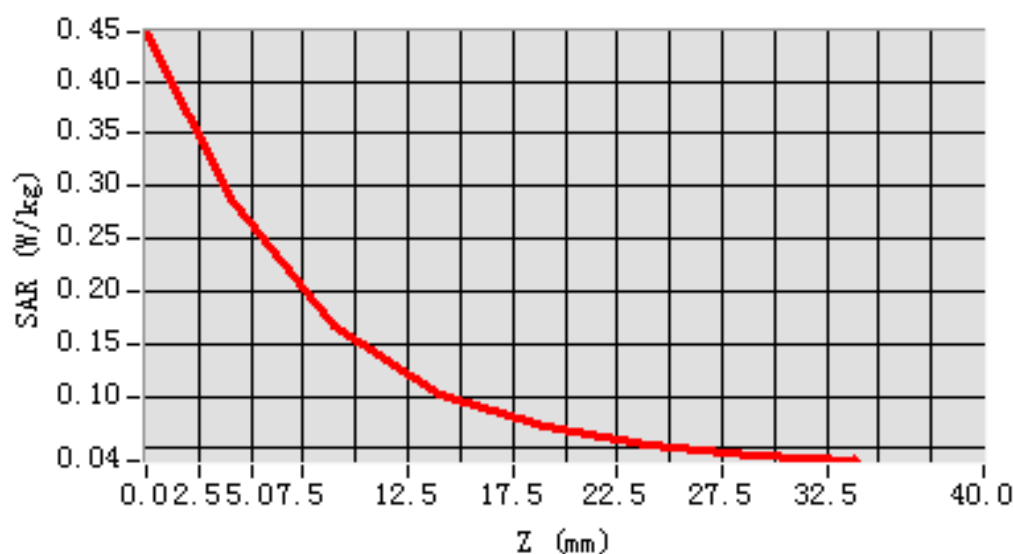


MEAS. 71 Right Head with Cheek on High Channel in LTE Band 7 mode with 1RB

Test Date: 20/6/2016
Measurement duration: 13 minutes 53 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 38.73; Conductivity: 1.98 S/m
Test condition: Ambient Temperature: 22.0°C, Liquid Temperature: 20.7°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.36
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-48.000000
SAR 10g (W/Kg): 0.158218
SAR 1g (W/Kg): 0.275938
Power drift (%): -0.83
3D screen shot

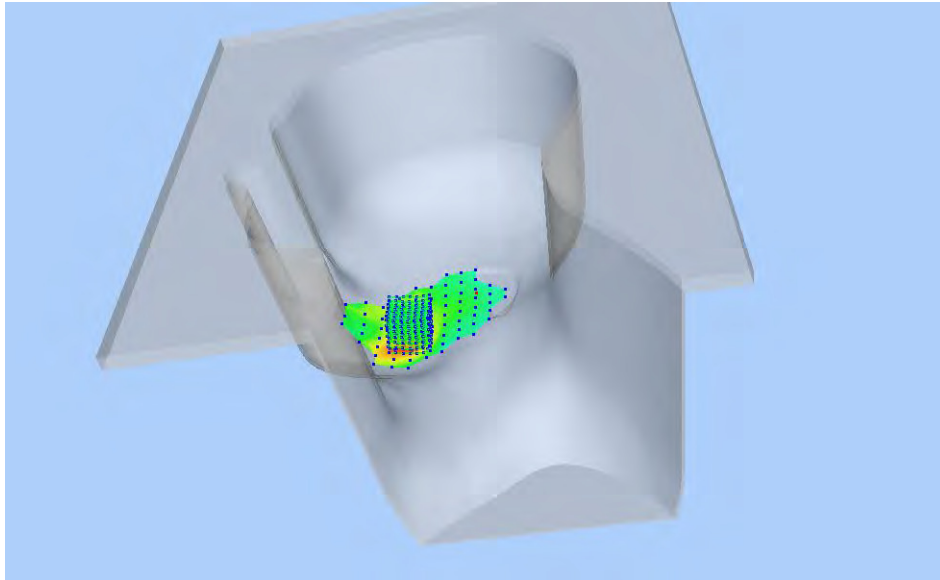


Z Axis Scan

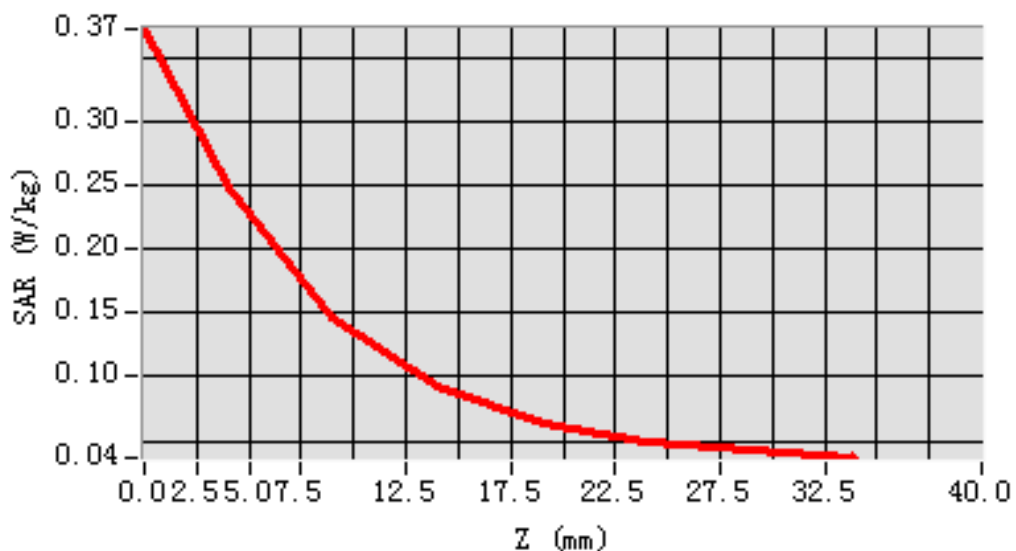


MEAS. 72 Right Head with Cheek on High Channel in LTE Band 7 mode with 50%RB

Test Date: 20/6/2016
Measurement duration: 13 minutes 54 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 38.73; Conductivity: 1.98 S/m
Test condition: Ambient Temperature: 22.0°C, Liquid Temperature: 20.7°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.36
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-48.000000
SAR 10g (W/Kg): 0.139082
SAR 1g (W/Kg): 0.237319
Power drift (%): -2.64
3D screen shot

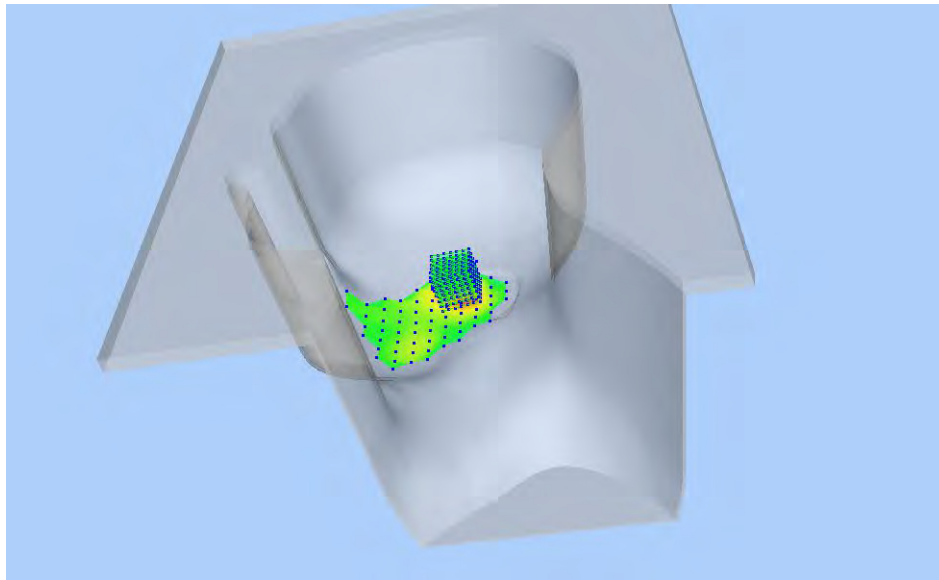


Z Axis Scan

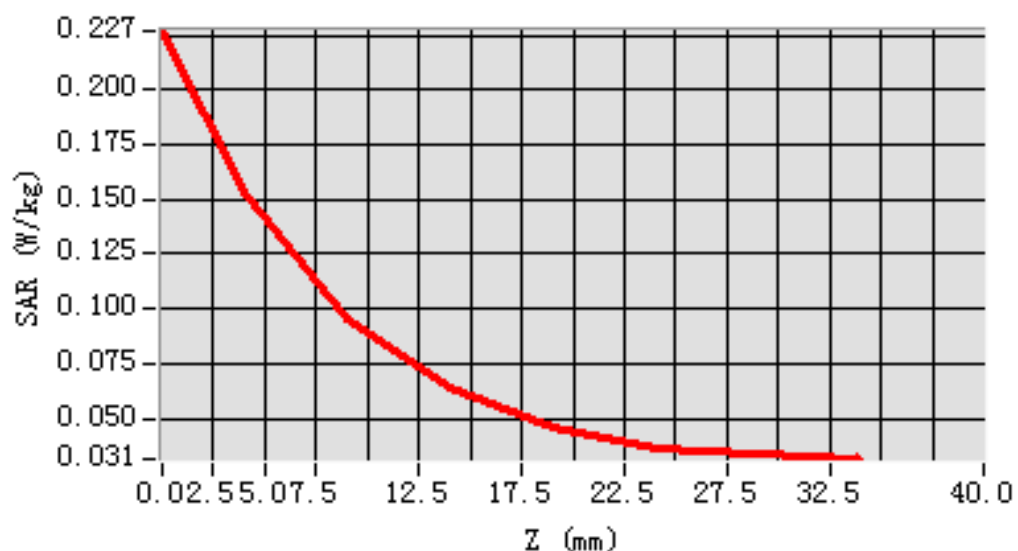


MEAS. 73 Right Head with Tilt on High Channel in LTE Band 7 mode with 1RB

Test Date: 20/6/2016
Measurement duration: 11 minutes 36 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 38.73; Conductivity: 1.98 S/m
Test condition: Ambient Temperature: 22.0°C, Liquid Temperature: 20.7°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.36
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=0.000000
SAR 10g (W/Kg): 0.089324
SAR 1g (W/Kg): 0.147409
Power drift (%): -2.06
3D screen shot

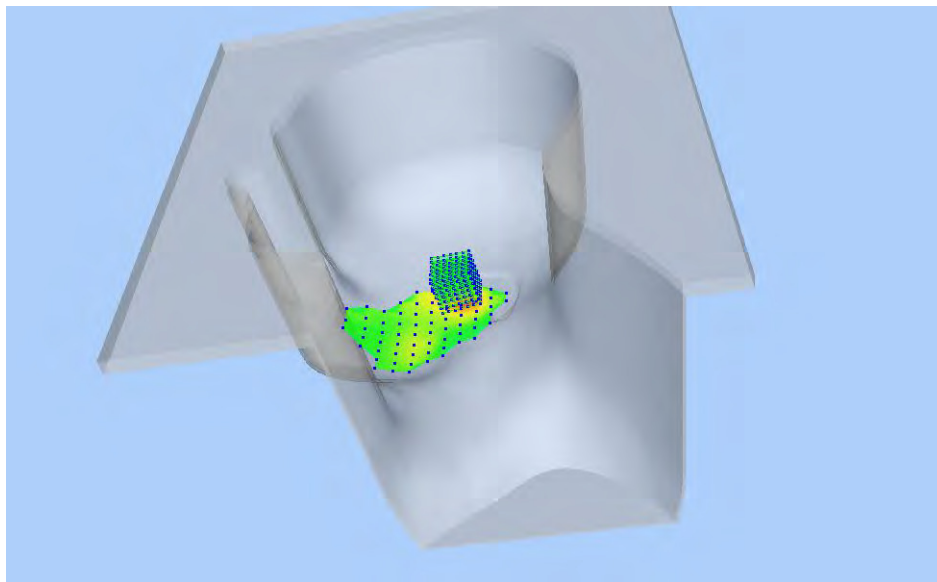


Z Axis Scan

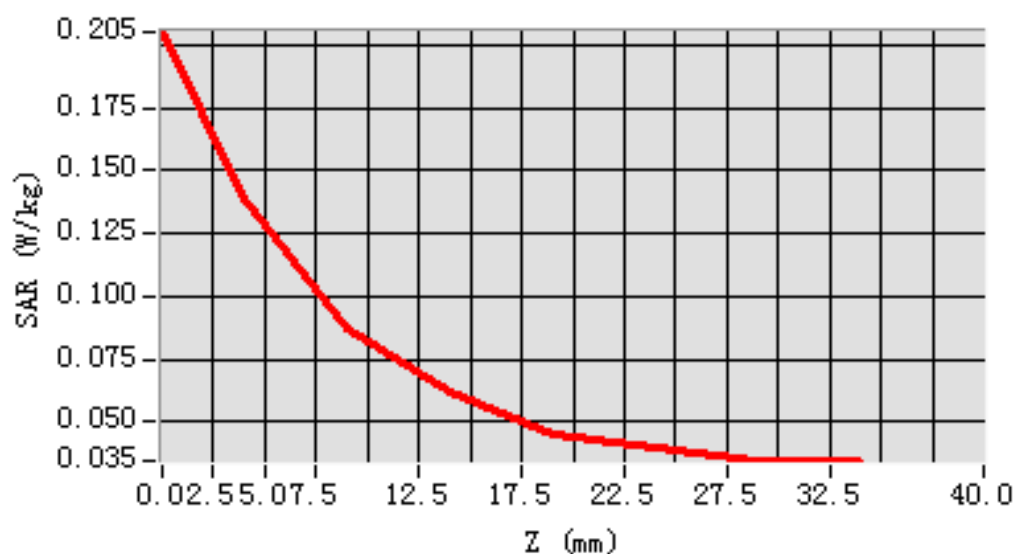


MEAS. 74 Right Head with Tilt on High Channel in LTE Band 7 mode with 50%RB

Test Date: 20/6/2016
Measurement duration: 11 minutes 54 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 38.73; Conductivity: 1.98 S/m
Test condition: Ambient Temperature: 22.0°C, Liquid Temperature: 20.7°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.36
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=0.000000
SAR 10g (W/Kg): 0.084286
SAR 1g (W/Kg): 0.135756
Power drift (%): -0.65
3D screen shot

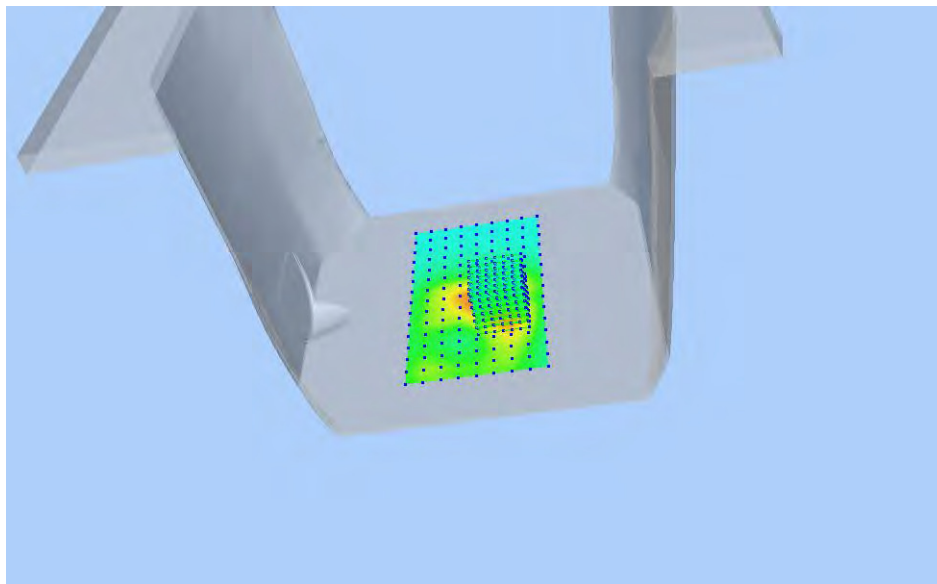


Z Axis Scan

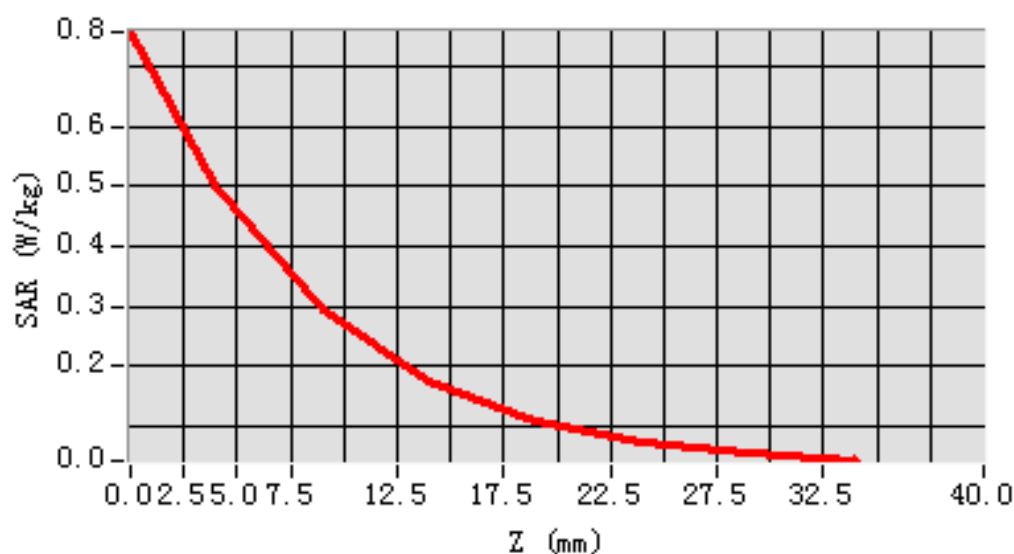


MEAS. 75 Back Side Plane with Front Side on High Channel in LTE Band 7 mode with 1RB

Test Date: 21/6/2016
Measurement duration: 18 minutes 46 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 52.27; Conductivity: 2.16 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.43
Area Scan: sam_direct_droit2_surf10mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=10.000000, Y=-22.000000
SAR 10g (W/Kg): 0.245635
SAR 1g (W/Kg): 0.463100
Power drift (%): -0.47
3D screen shot



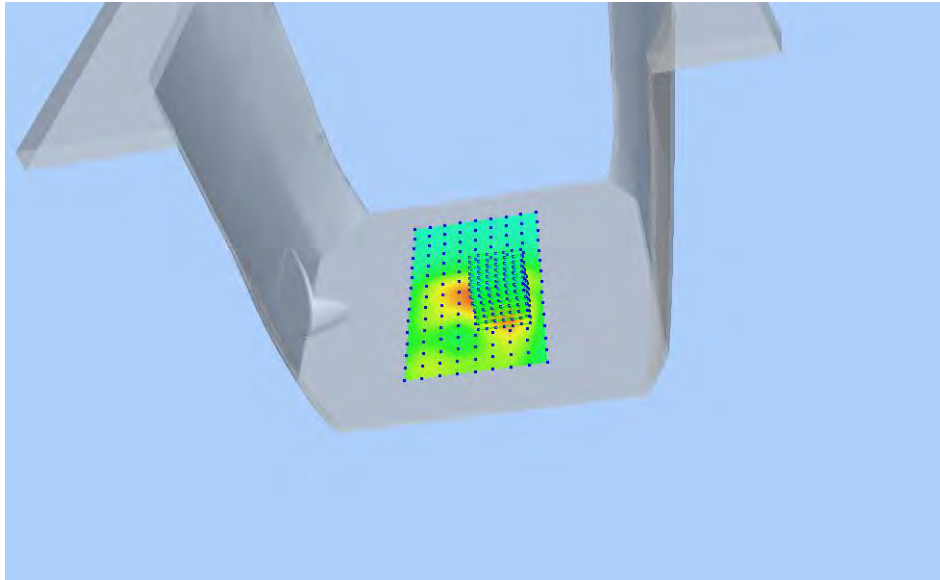
Z Axis Scan



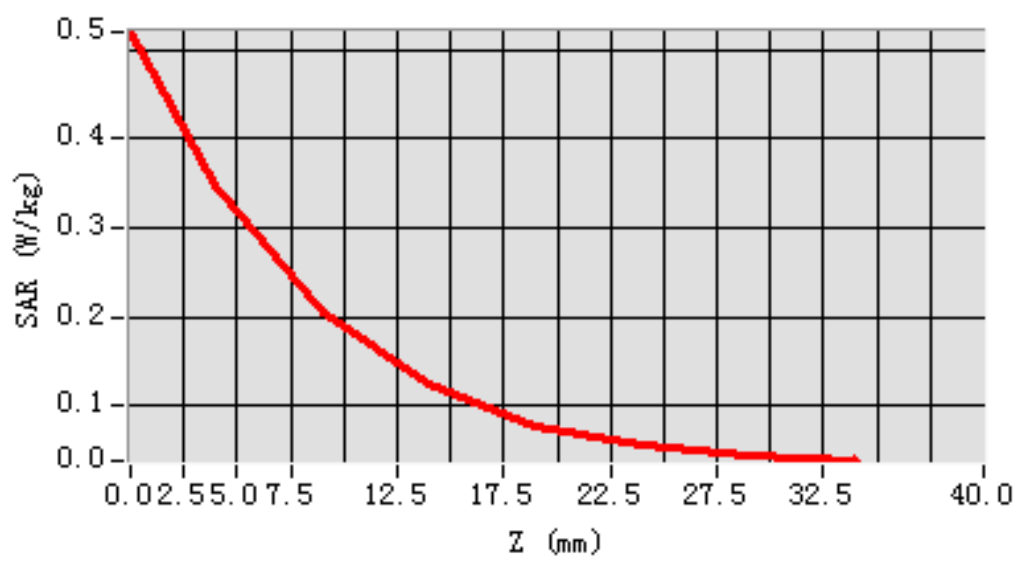
MEAS. 76 Back Side Plane with Front Side on High Channel in LTE Band 7

mode with 50%RB

Test Date: 21/6/2016
Measurement duration: 18 minutes 39 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 52.27; Conductivity: 2.16 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.43
Area Scan: sam_direct_droit2_surf10mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=20.000000, Y=-22.000000
SAR 10g (W/Kg): 0.174682
SAR 1g (W/Kg): 0.320650
Power drift (%): -1.73
3D screen shot



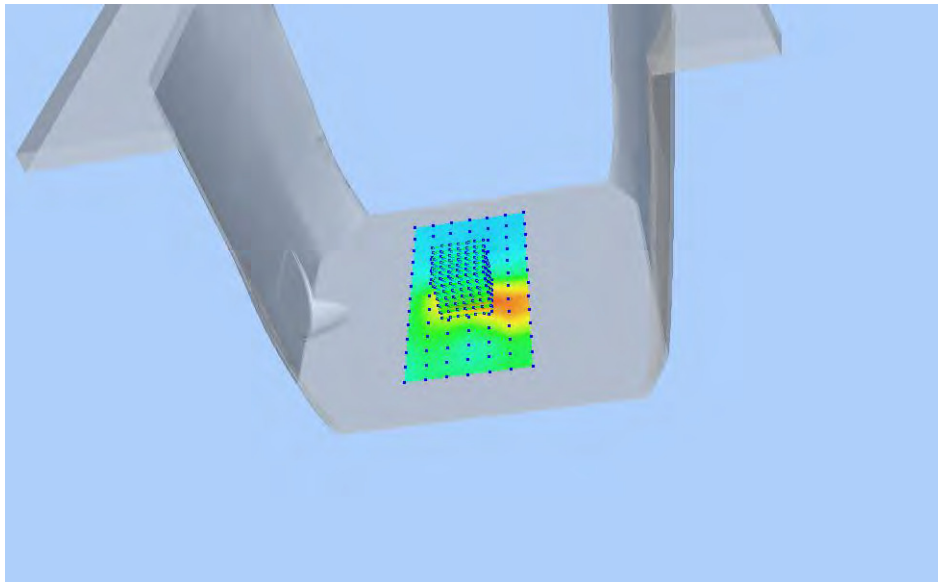
Z Axis Scan



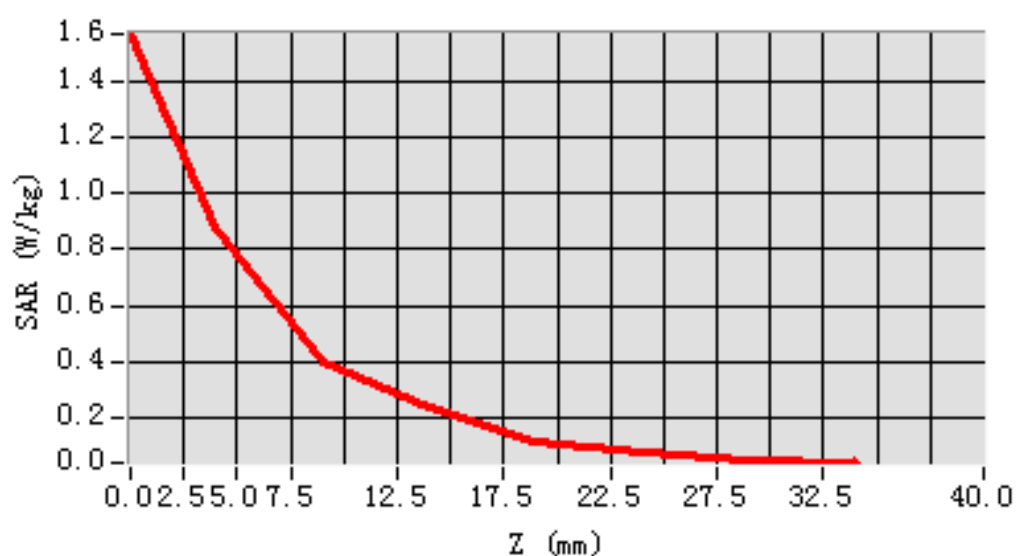
MEAS. 77 Back Side Plane with Back Side on High Channel in LTE Band 7

mode with 1RB

Test Date: 21/6/2016
Measurement duration: 14 minutes 24 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 52.27; Conductivity: 2.16 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.43
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=-12.000000
SAR 10g (W/Kg): 0.378283
SAR 1g (W/Kg): 0.817191
Power drift (%): -1.71
3D screen shot

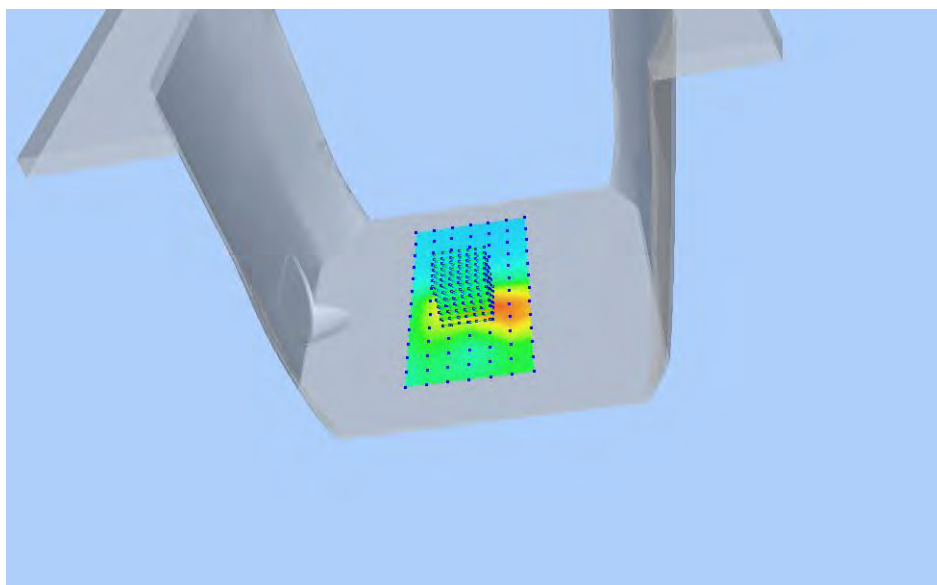


Z Axis Scan

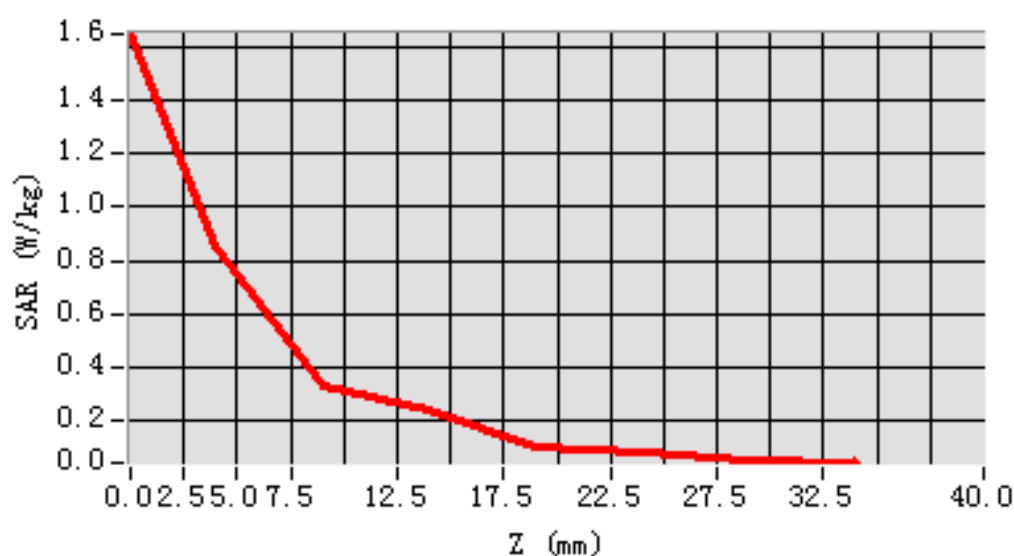


MEAS. 78 Back Side Plane with Back Side on Low Channel in LTE Band 7 mode with 50%RB

Test Date: 21/6/2016
Measurement duration: 14 minutes 28 seconds
Signal: LTE, f=2510.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 52.75; Conductivity: 2.09 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.43
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=-12.000000
SAR 10g (W/Kg): 0.364426
SAR 1g (W/Kg): 0.782131
Power drift (%): -1.40
3D screen shot

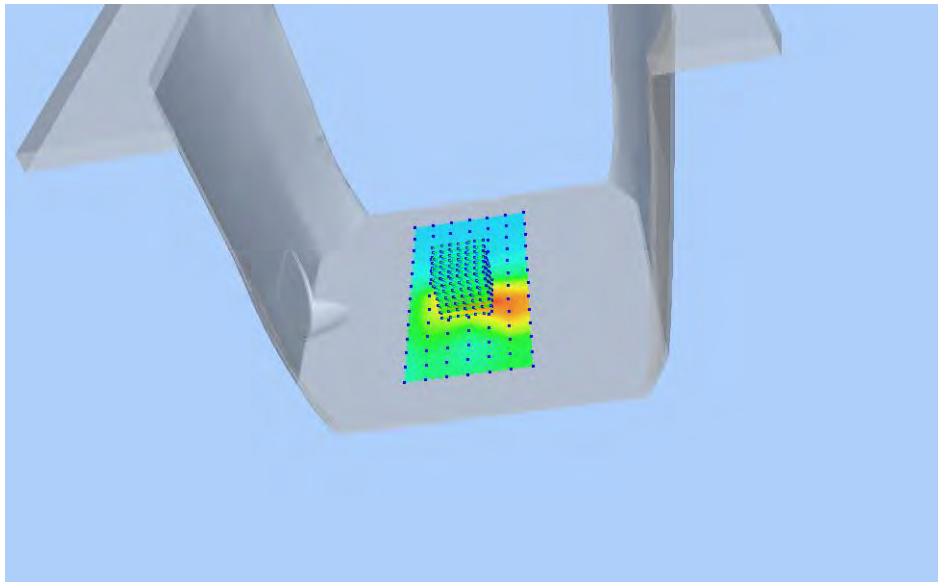


Z Axis Scan

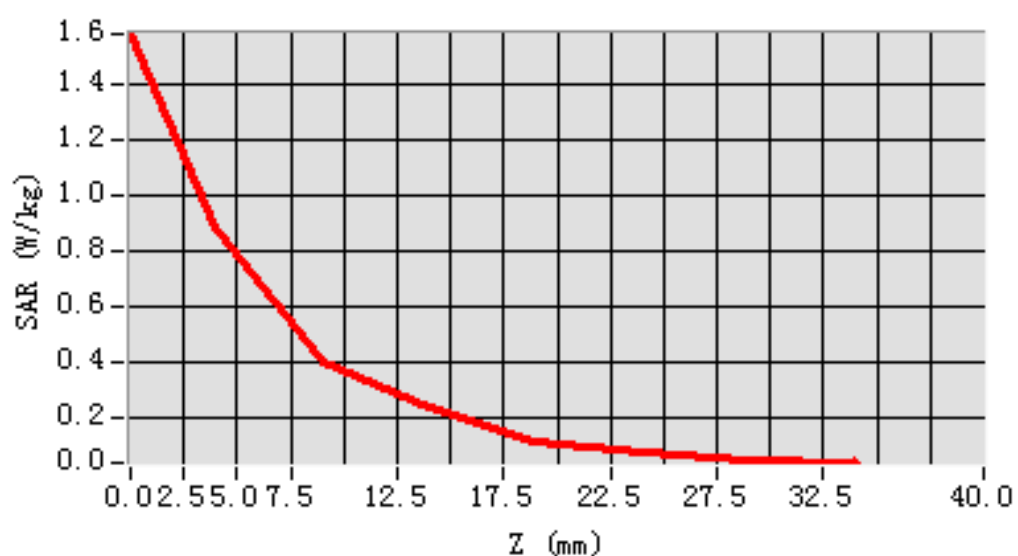


MEAS. 79 Back Side Plane with Back Side on Middle Channel in LTE Band 7 mode with 1RB

Test Date: 21/6/2016
Measurement duration: 14 minutes 31 seconds
Signal: LTE, f=2535.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 52.67; Conductivity: 2.13 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.43
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=-12.000000
SAR 10g (W/Kg): 0.384622
SAR 1g (W/Kg): 0.829528
Power drift (%): -0.99
3D screen shot



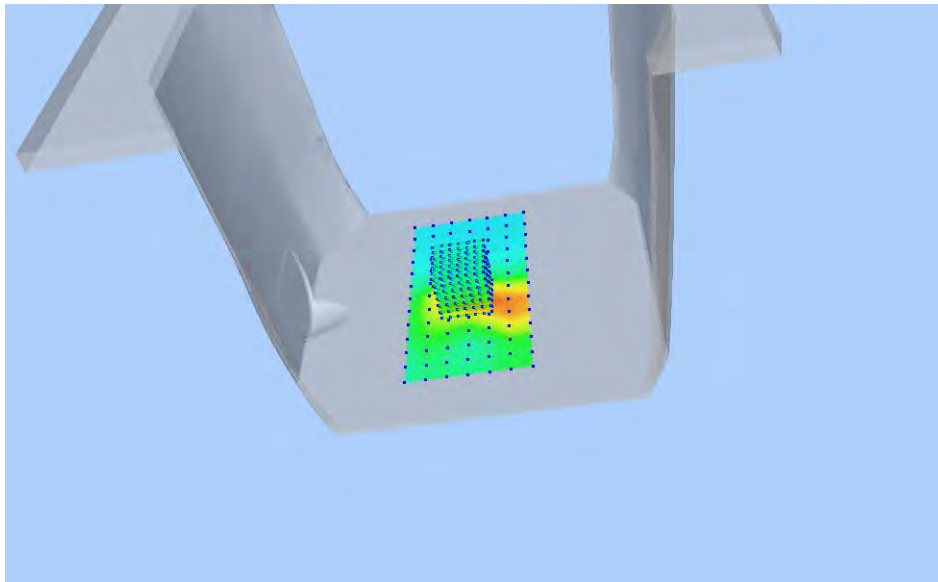
Z Axis Scan



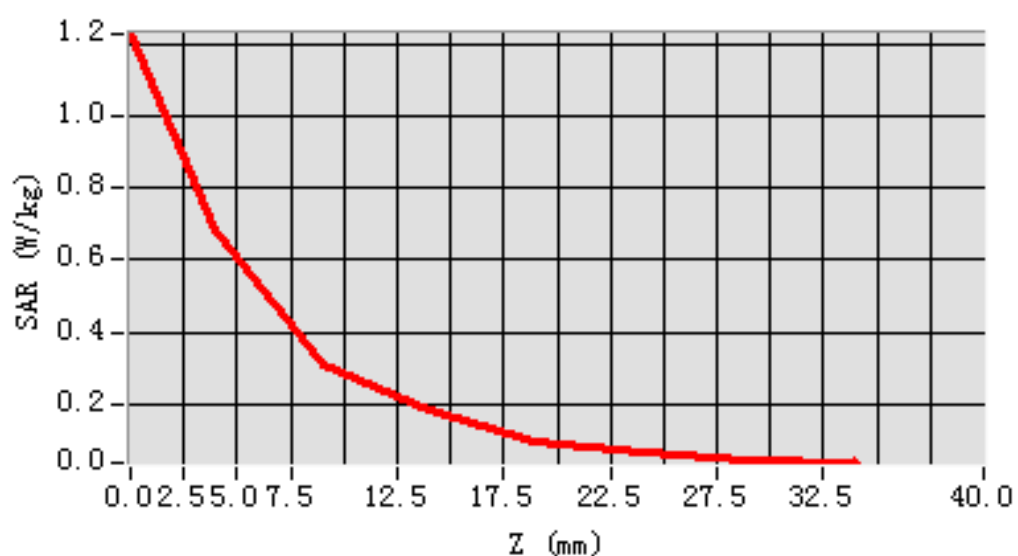
MEAS. 80 Back Side Plane with Back Side on High Channel in LTE Band 7

mode with 50%RB

Test Date: 21/6/2016
Measurement duration: 14 minutes 31 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 52.27; Conductivity: 2.16 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.43
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=-12.000000
SAR 10g (W/Kg): 0.299191
SAR 1g (W/Kg): 0.640088
Power drift (%): -1.78
3D screen shot

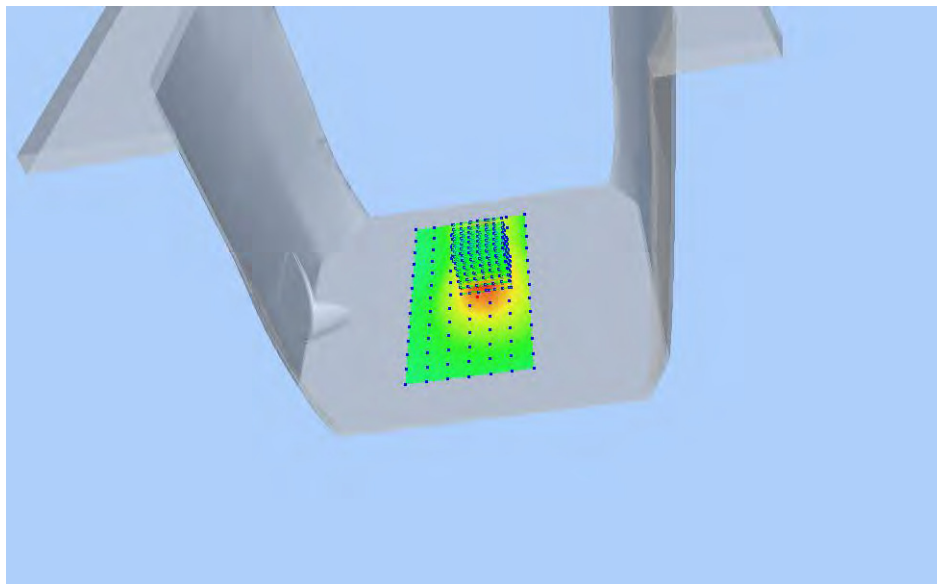


Z Axis Scan

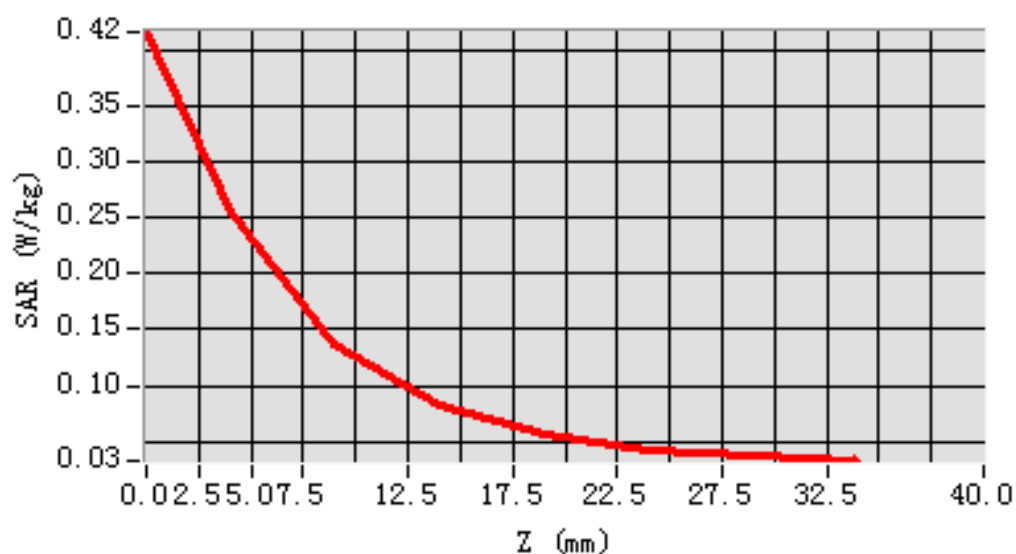


MEAS. 81 Back Side Plane with Left Side on High Channel in LTE Band 7 mode with 1RB

Test Date: 21/6/2016
Measurement duration: 17 minutes 7 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 52.27; Conductivity: 2.16 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.43
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=12.000000
SAR 10g (W/Kg): 0.137021
SAR 1g (W/Kg): 0.243007
Power drift (%): -3.29
3D screen shot

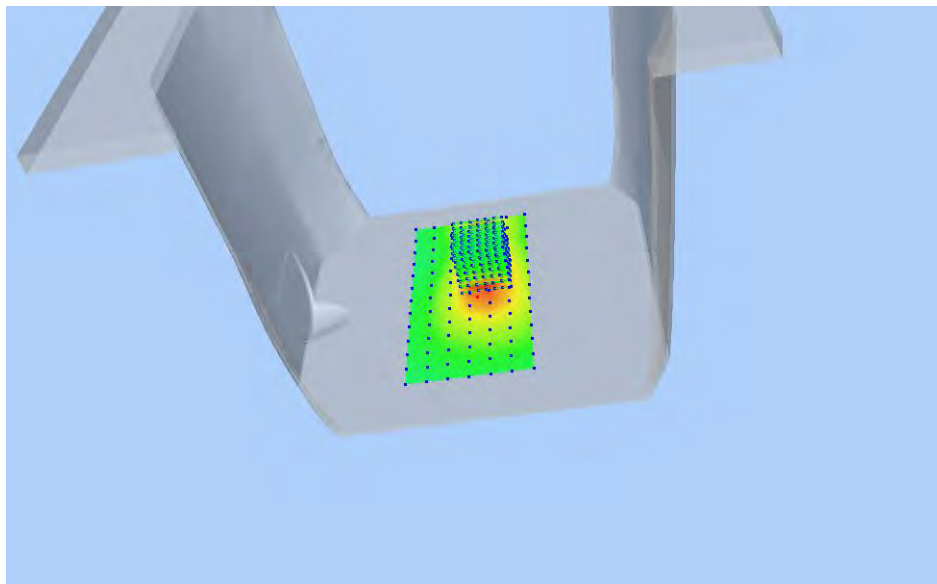


Z Axis Scan

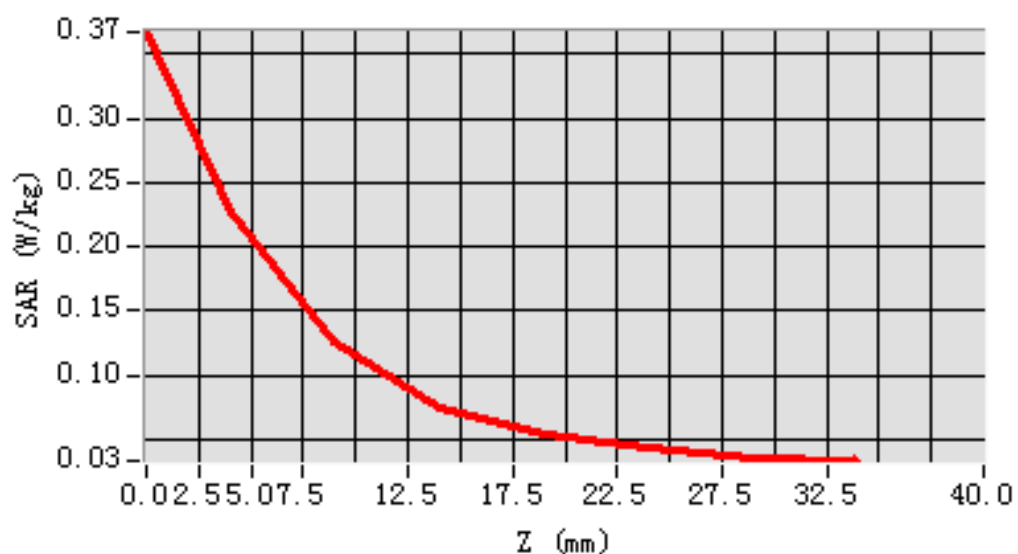


MEAS. 82 Back Side Plane with Left Side on High Channel in LTE Band 7 mode with 50%RB

Test Date: 21/6/2016
Measurement duration: 17 minutes 8 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 52.27; Conductivity: 2.16 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.43
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=12.000000
SAR 10g (W/Kg): 0.123616
SAR 1g (W/Kg): 0.216565
Power drift (%): 0.80
3D screen shot

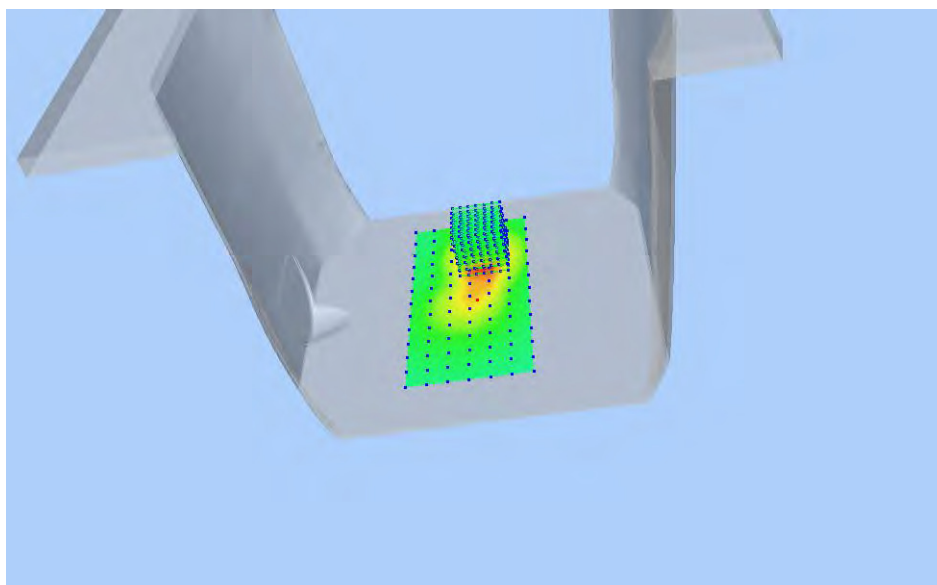


Z Axis Scan

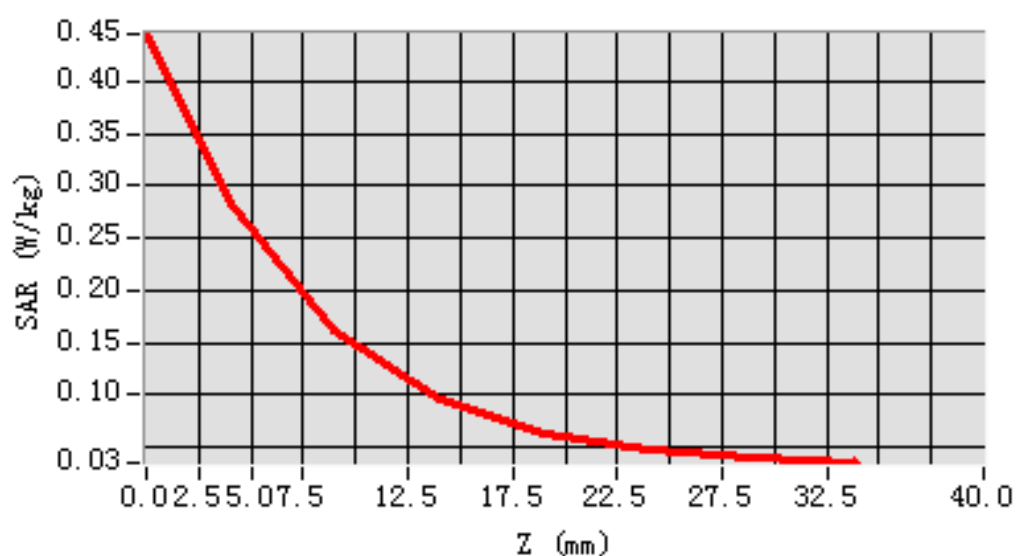


MEAS. 83 Back Side Plane with Right Side on High Channel in LTE Band 7 mode with 1RB

Test Date: 21/6/2016
Measurement duration: 16 minutes 42 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 52.27; Conductivity: 2.16 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.43
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=36.000000
SAR 10g (W/Kg): 0.153221
SAR 1g (W/Kg): 0.272107
Power drift (%): -2.99
3D screen shot

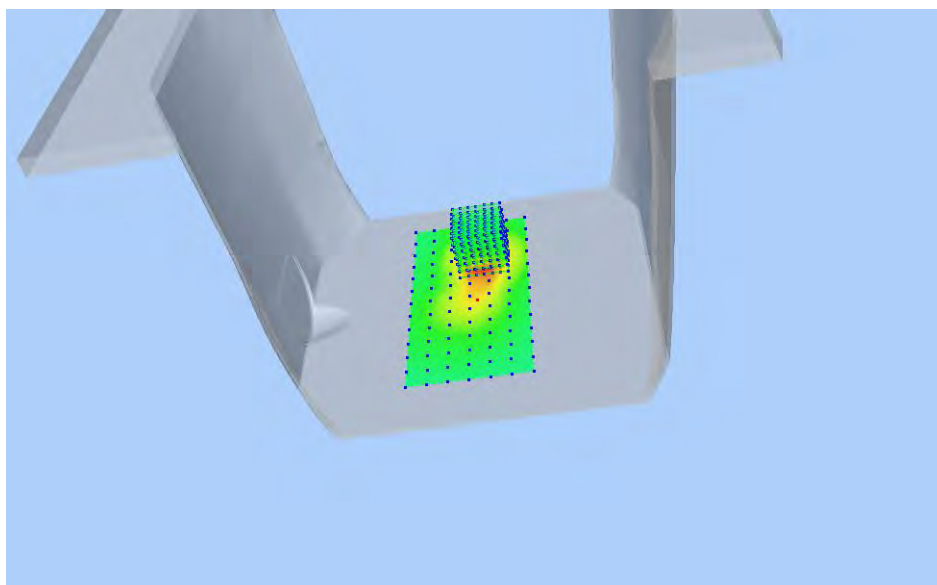


Z Axis Scan

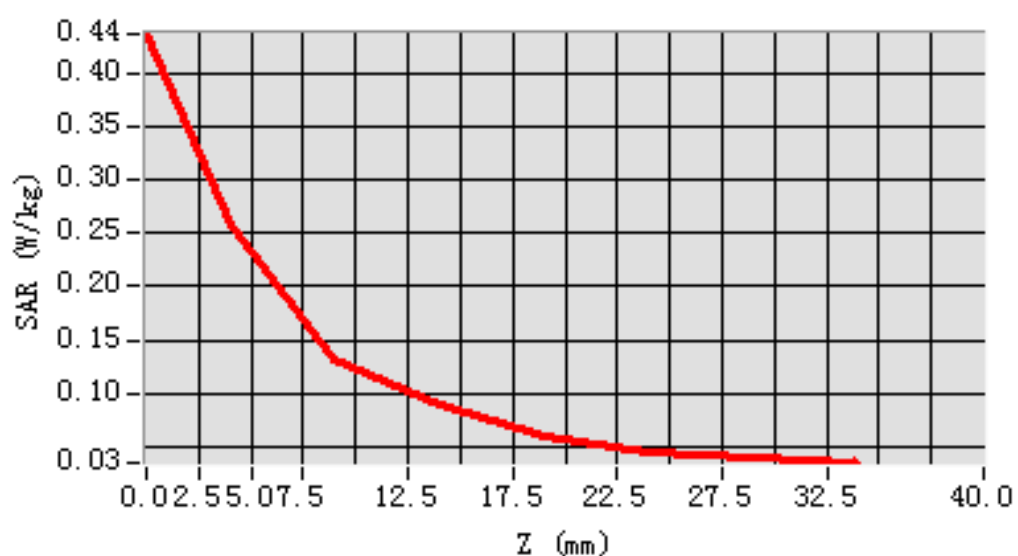


MEAS. 84 Back Side Plane with Right Side on High Channel in LTE Band 7 mode with 50%RB

Test Date: 21/6/2016
Measurement duration: 16 minutes 46 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 52.27; Conductivity: 2.16 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.43
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=36.000000
SAR 10g (W/Kg): 0.140284
SAR 1g (W/Kg): 0.248422
Power drift (%): -1.18
3D screen shot



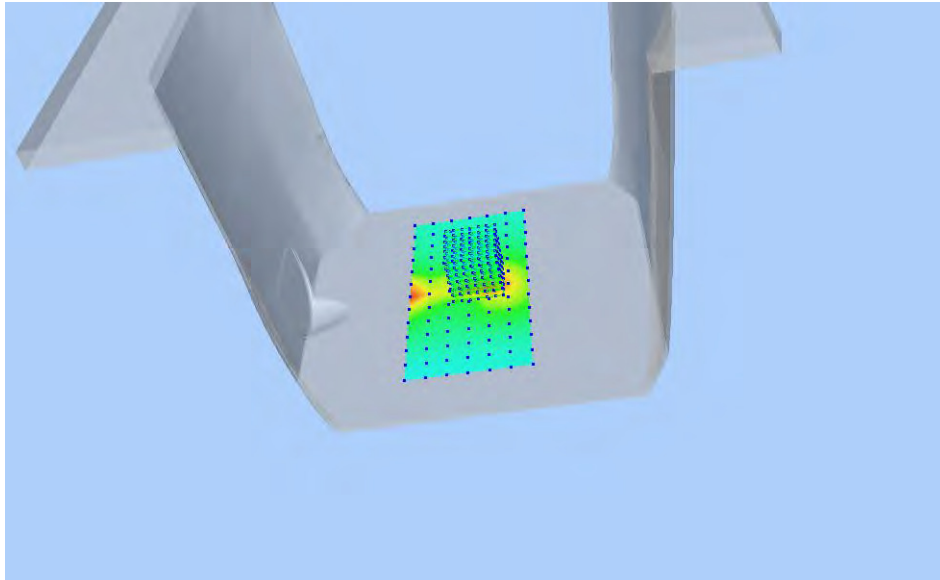
Z Axis Scan



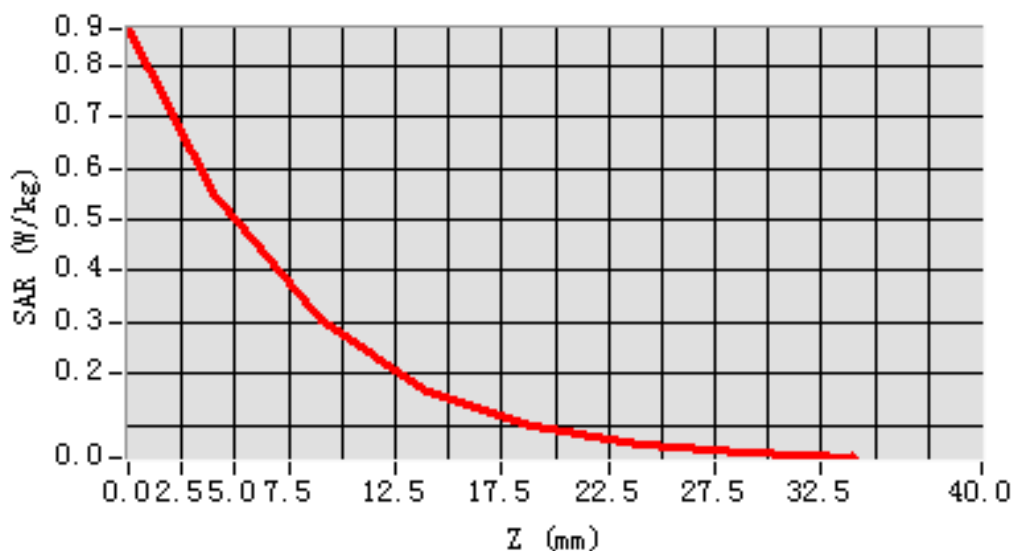
MEAS. 85 Back Side Plane with Bottom Side on High Channel in LTE Band 7

mode with 1RB

Test Date: 21/6/2016
Measurement duration: 16 minutes 16 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 52.27; Conductivity: 2.16 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.43
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.248904
SAR 1g (W/Kg): 0.500414
Power drift (%): -3.20
3D screen shot



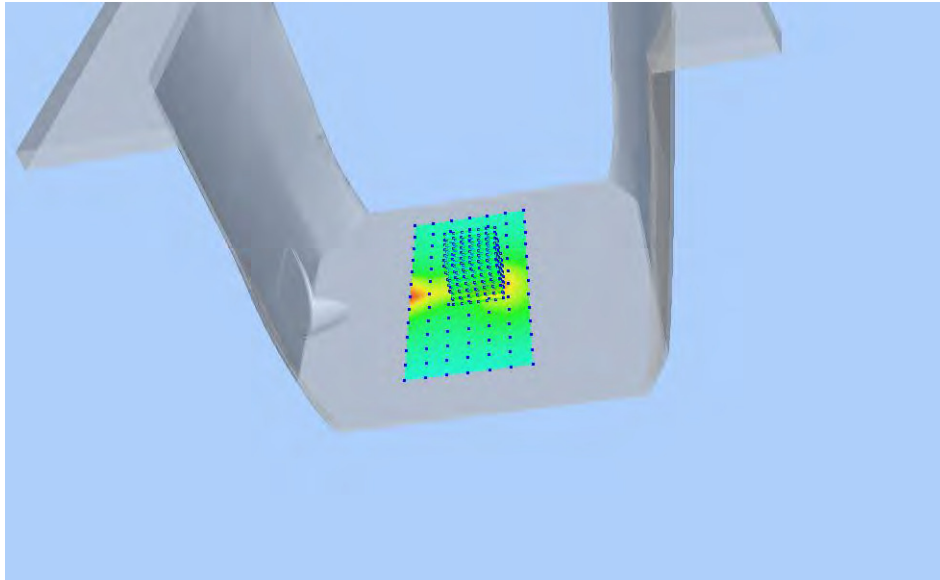
Z Axis Scan



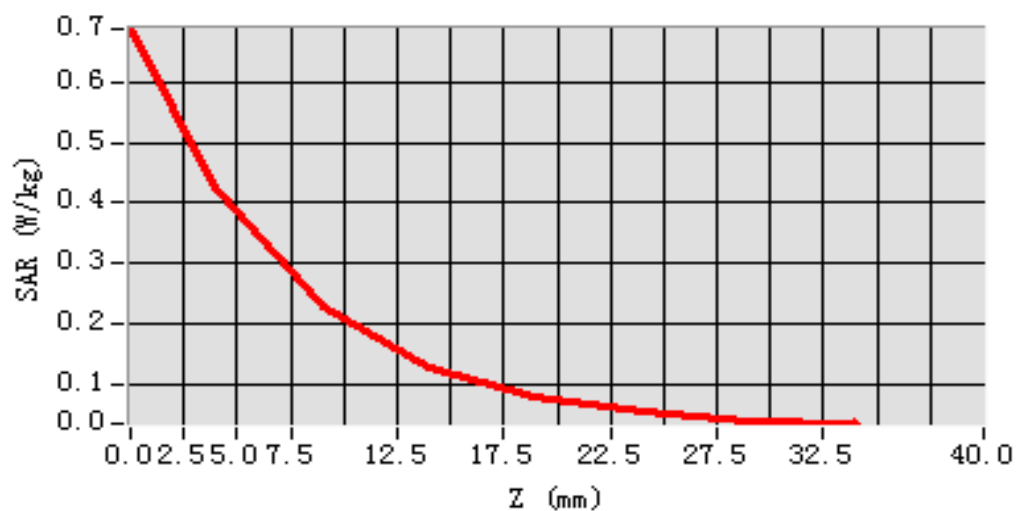
MEAS. 86 Back Side Plane with Bottom Side on High Channel in LTE Band 7

mode with 50%RB

Test Date: 21/6/2016
Measurement duration: 16 minutes 14 seconds
Signal: LTE, f=2560.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 52.27; Conductivity: 2.16 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.43
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.196504
SAR 1g (W/Kg): 0.399042
Power drift (%): -1.46
3D screen shot

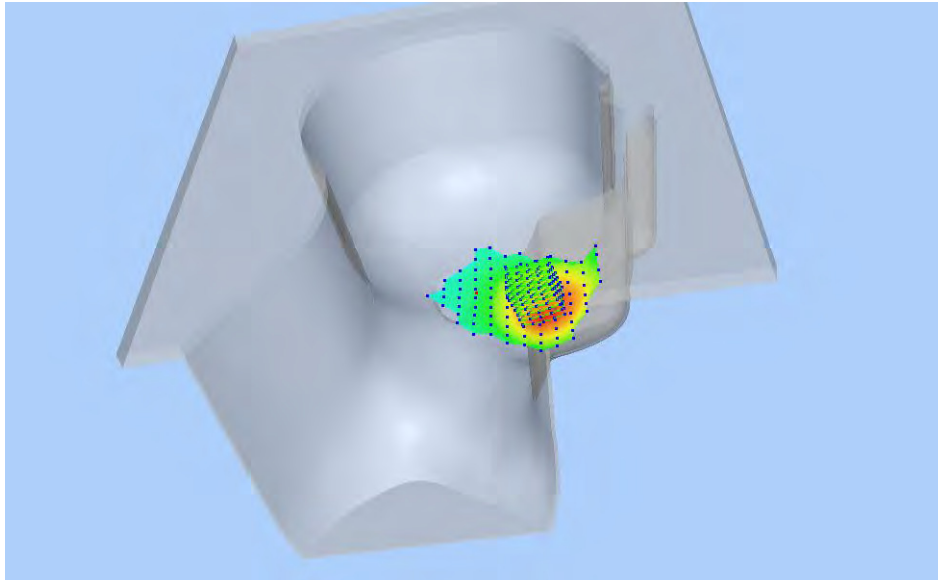


Z Axis Scan

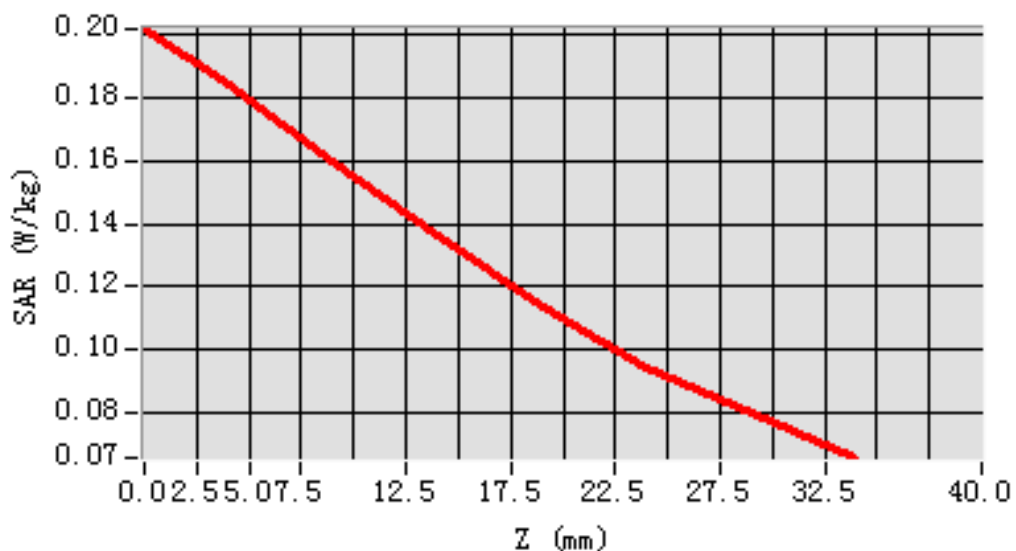


MEAS. 87 Left Head with Cheek on High Channel in LTE Band28 mode with 1RB

Test Date: 16/6/2016
Measurement duration: 9 minutes 30 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 42.58; Conductivity: 0.88 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.81
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-24.000000
SAR 10g (W/Kg): 0.144083
SAR 1g (W/Kg): 0.178489
Power drift (%): -3.75
3D screen shot

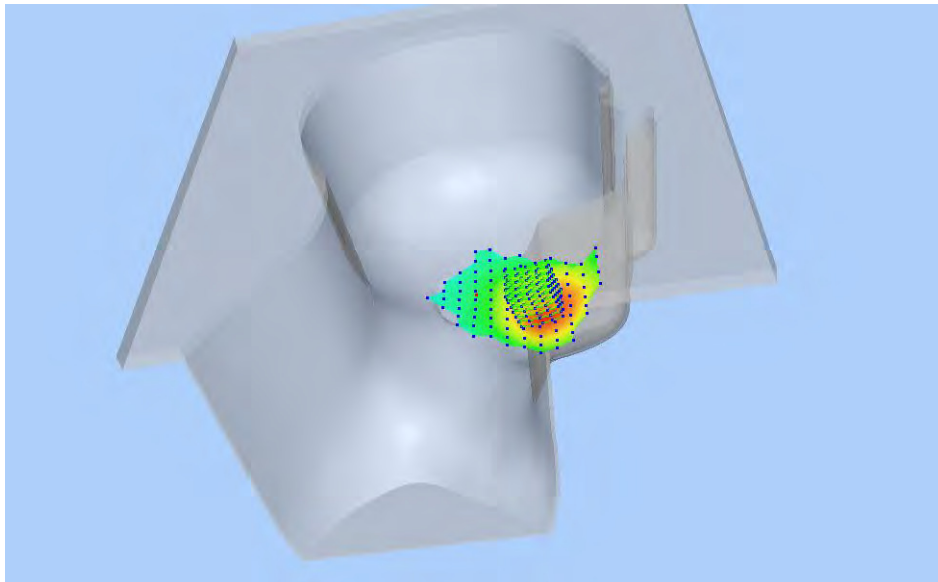


Z Axis Scan

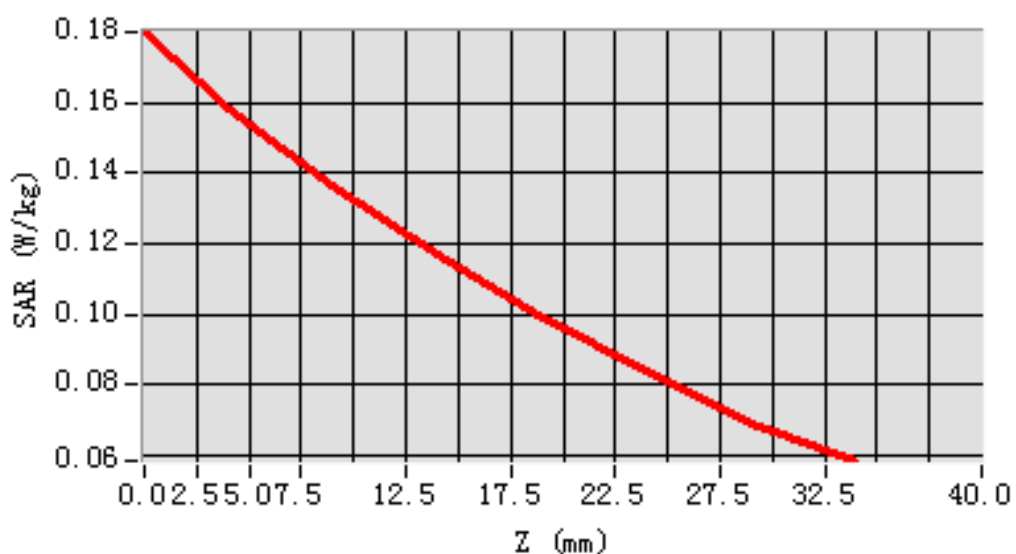


MEAS. 88 Left Head with Cheek on High Channel in LTE Band28 mode with 50%RB

Test Date: 16/6/2016
Measurement duration: 9 minutes 31 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 42.58; Conductivity: 0.88 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.81
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-24.000000
SAR 10g (W/Kg): 0.124212
SAR 1g (W/Kg): 0.154498
Power drift (%): -2.53
3D screen shot

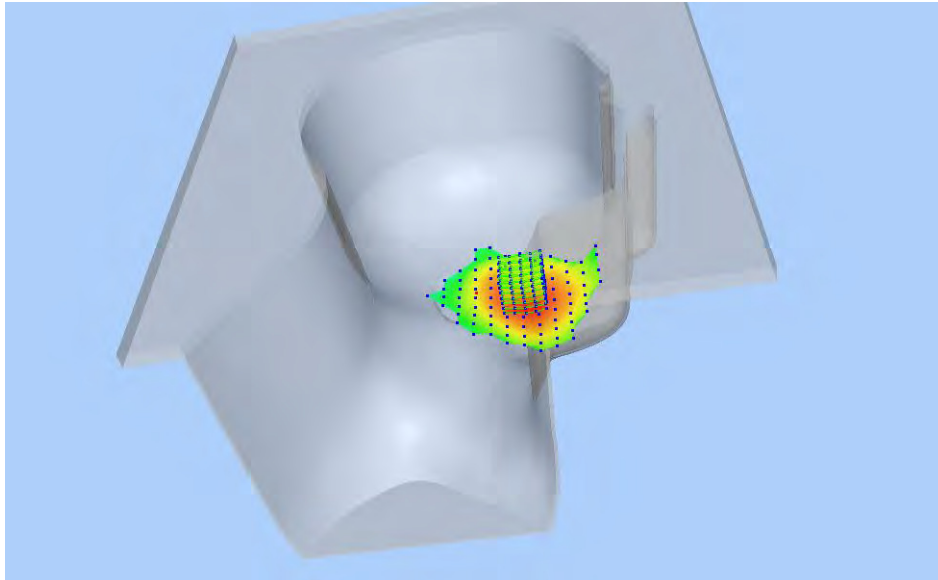


Z Axis Scan

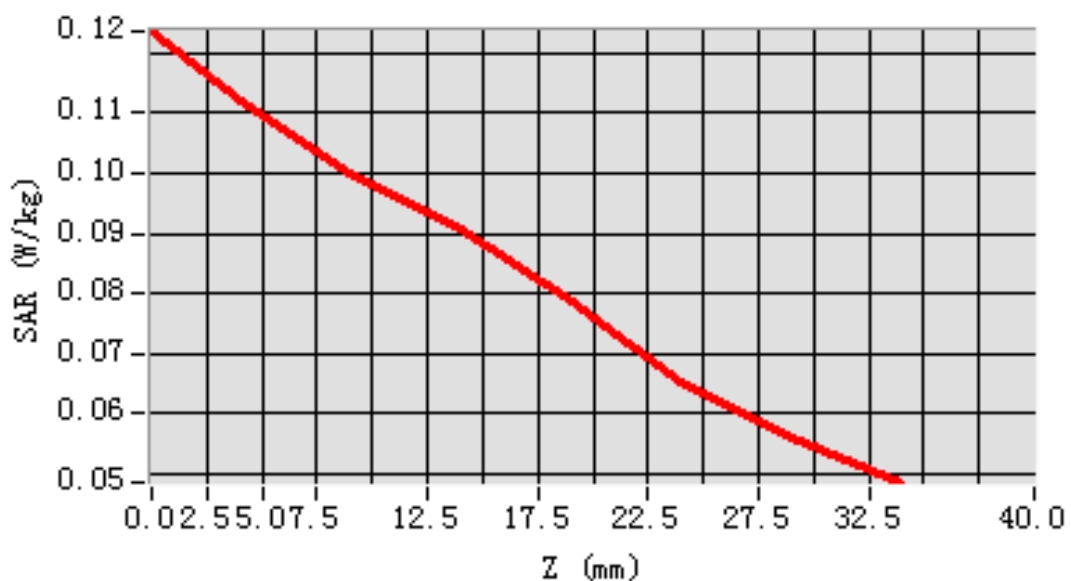


MEAS. 89 Left Head with Tilt on High Channel in LTE Band28 mode with 1RB

Test Date: 16/6/2016
Measurement duration: 9 minutes 2 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 42.58; Conductivity: 0.88 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.81
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-36.000000, Y=-12.000000
SAR 10g (W/Kg): 0.093244
SAR 1g (W/Kg): 0.110956
Power drift (%): 0.48
3D screen shot

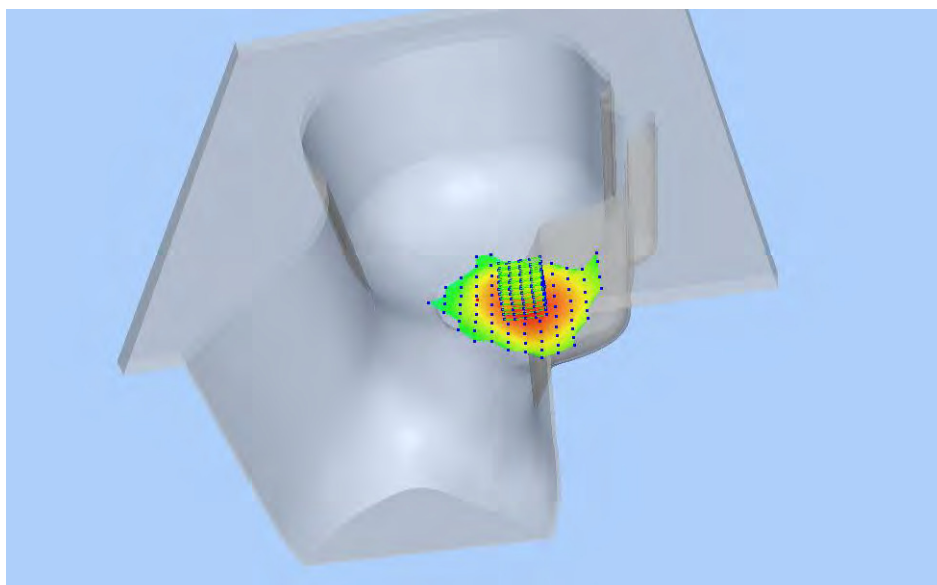


Z Axis Scan

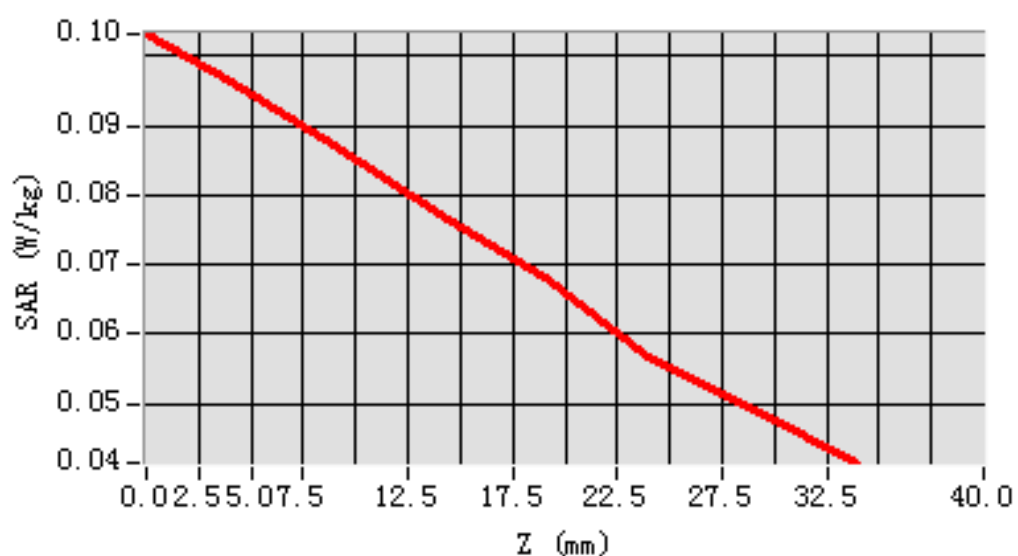


MEAS. 90 Left Head with Tilt on High Channel in LTE Band28 mode with 50%RB

Test Date: 16/6/2016
Measurement duration: 9 minutes 2 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 42.58; Conductivity: 0.88 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.81
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-36.000000, Y=-12.000000
SAR 10g (W/Kg): 0.080628
SAR 1g (W/Kg): 0.094789
Power drift (%): -1.04
3D screen shot

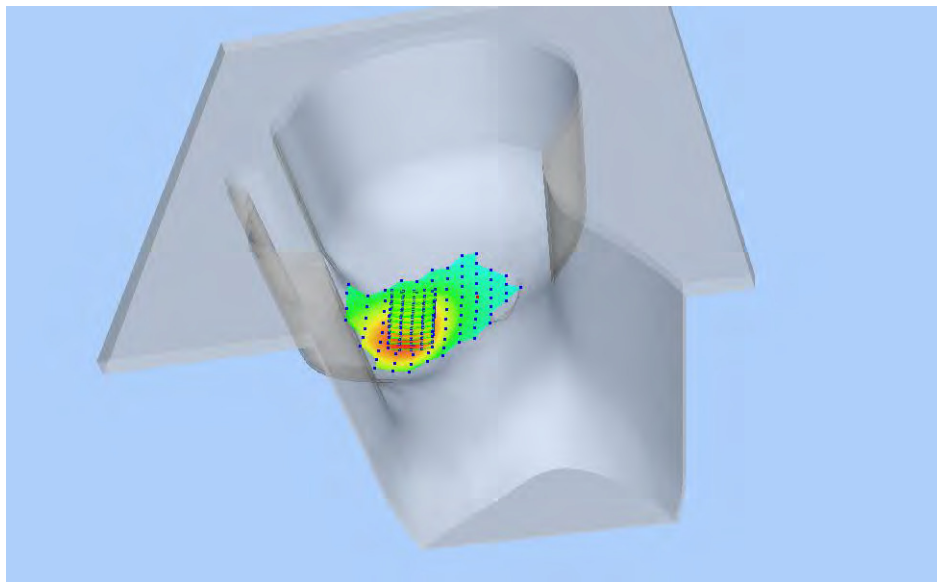


Z Axis Scan

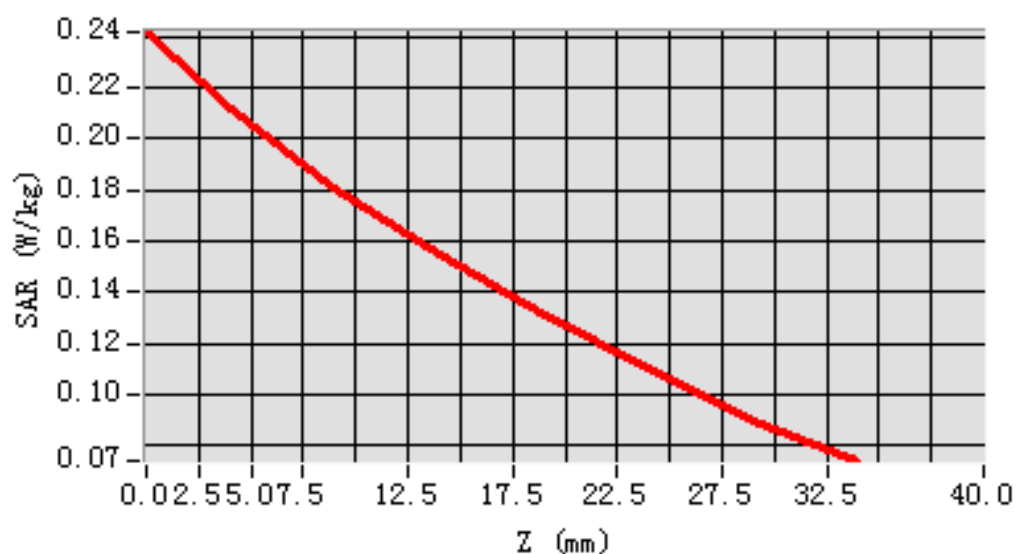


MEAS. 91 Right Head with Cheek on High Channel in LTE Band28 mode with 1RB

Test Date: 16/6/2016
Measurement duration: 9 minutes 41 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 42.58; Conductivity: 0.88 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.81
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-36.000000
SAR 10g (W/Kg): 0.165747
SAR 1g (W/Kg): 0.207052
Power drift (%): -0.72
3D screen shot

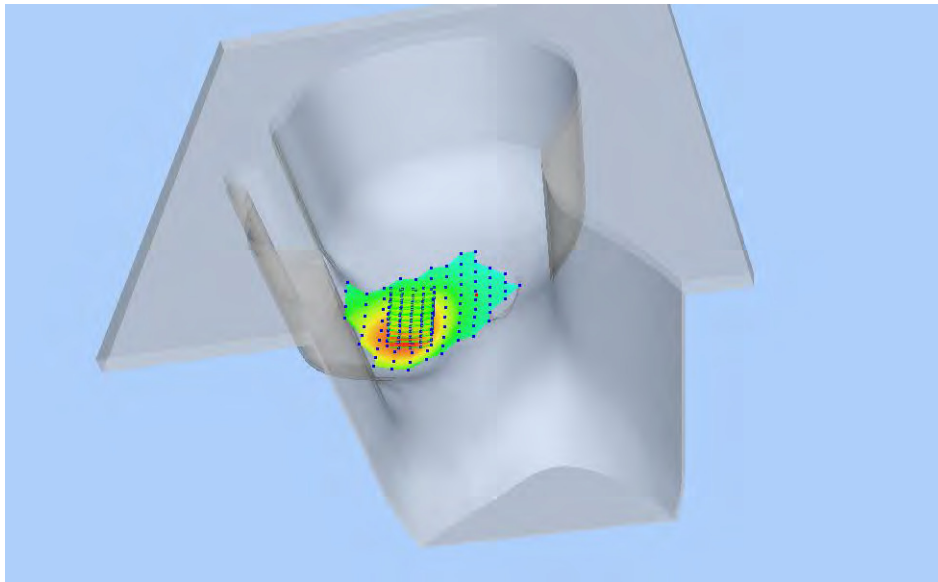


Z Axis Scan

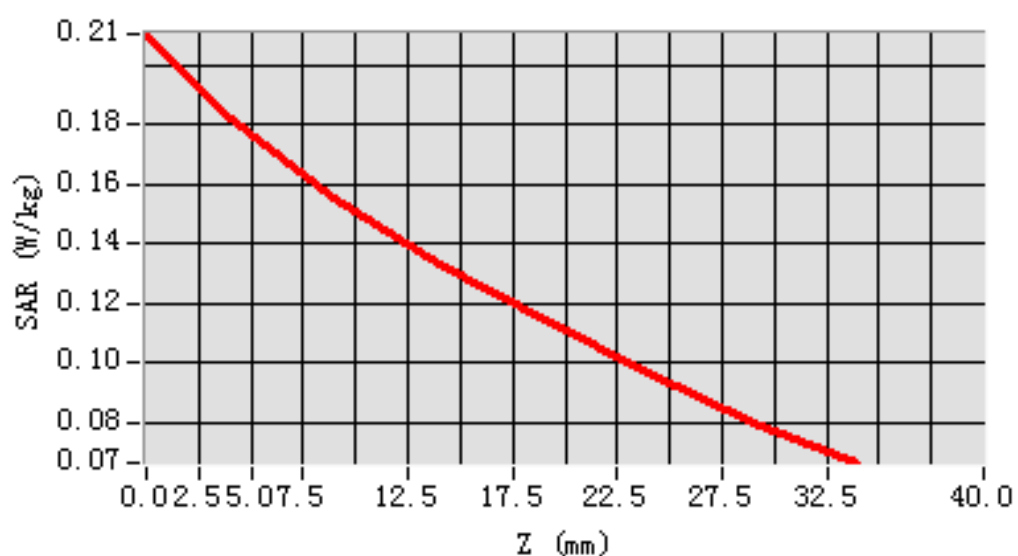


MEAS. 92 Right Head with Cheek on High Channel in LTE Band28 mode with 50%RB

Test Date: 16/6/2016
Measurement duration: 9 minutes 40 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 42.58; Conductivity: 0.88 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.81
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-48.000000, Y=-36.000000
SAR 10g (W/Kg): 0.143308
SAR 1g (W/Kg): 0.179395
Power drift (%): -1.31
3D screen shot

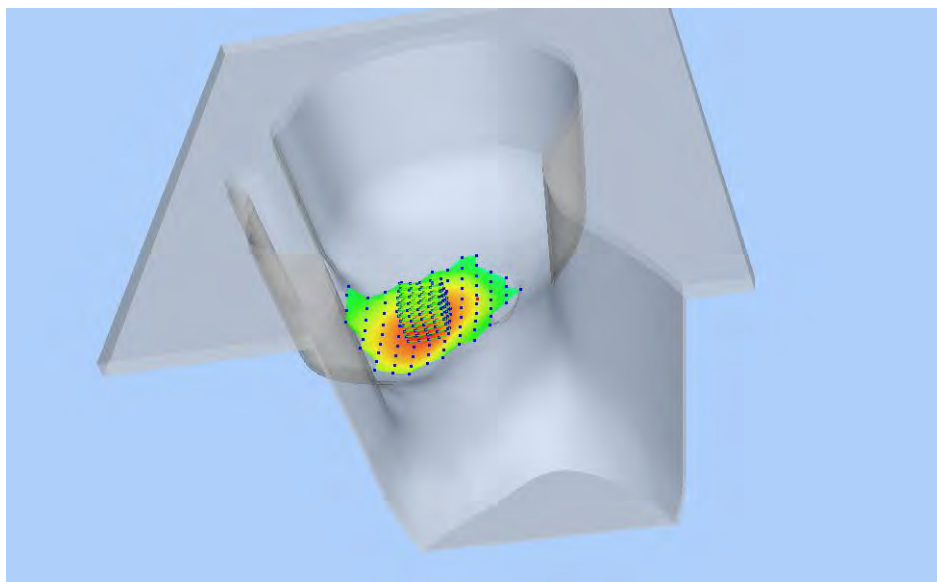


Z Axis Scan

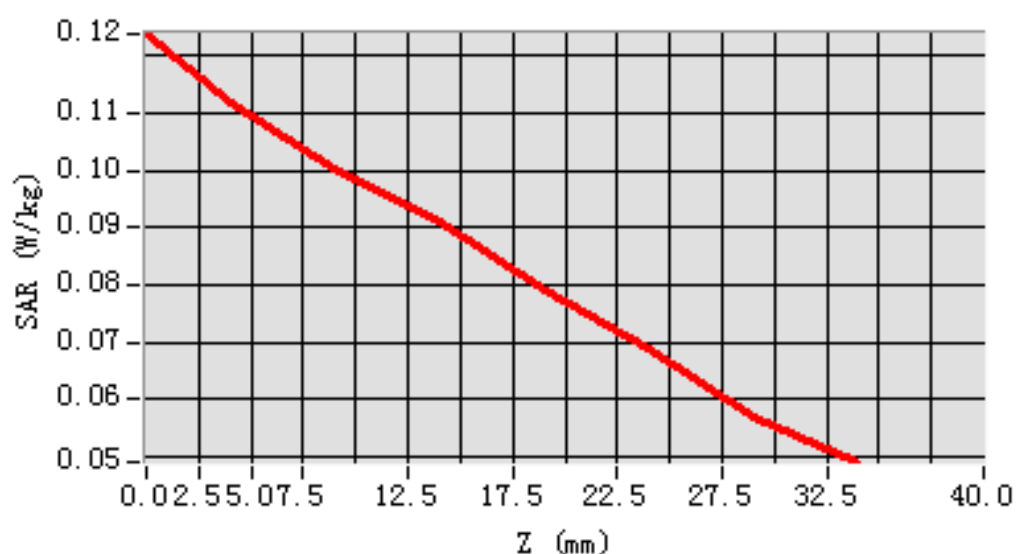


MEAS. 93 Right Head with Tilt on High Channel in LTE Band28 mode with 1RB

Test Date: 16/6/2016
Measurement duration: 9 minutes 7 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 42.58; Conductivity: 0.88 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.81
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-36.000000, Y=-24.000000
SAR 10g (W/Kg): 0.093755
SAR 1g (W/Kg): 0.110601
Power drift (%): -2.08
3D screen shot

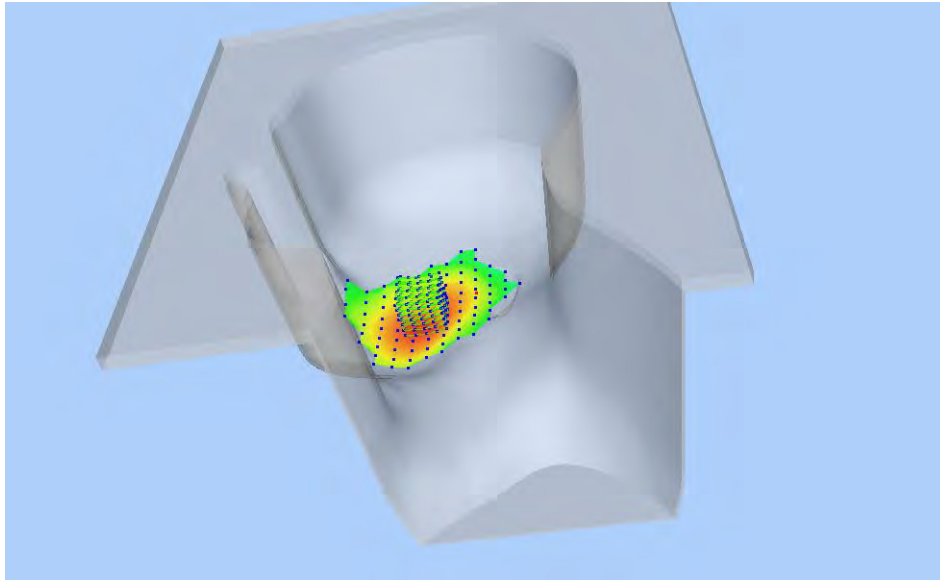


Z Axis Scan

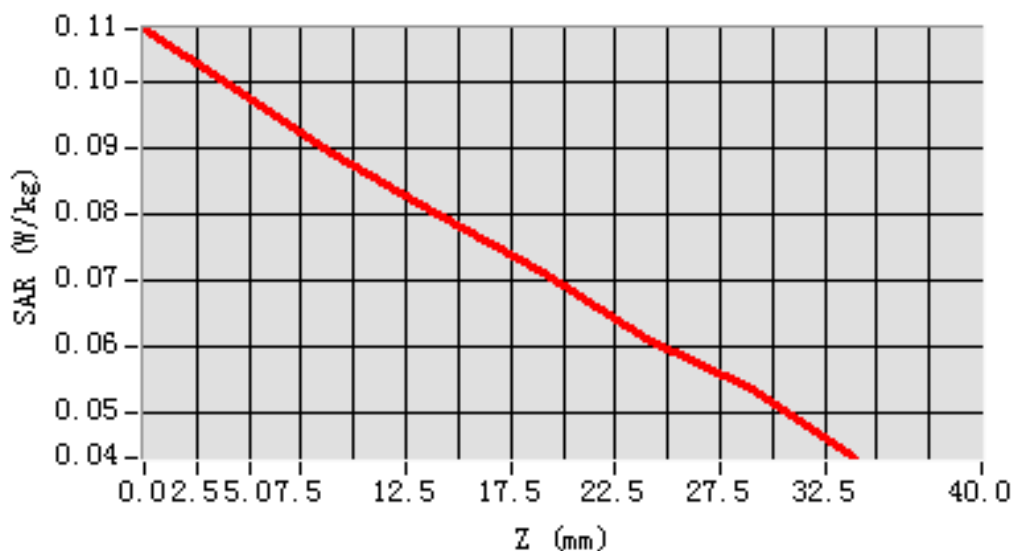


MEAS. 94 Right Head with Tilt on High Channel in LTE Band28 mode with 50%RB

Test Date: 16/6/2016
Measurement duration: 9 minutes 9 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 42.58; Conductivity: 0.88 S/m
Test condition: Ambient Temperature: 22.5°C, Liquid Temperature: 21.3°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.81
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-36.000000, Y=-24.000000
SAR 10g (W/Kg): 0.083438
SAR 1g (W/Kg): 0.098379
Power drift (%): -1.52
3D screen shot

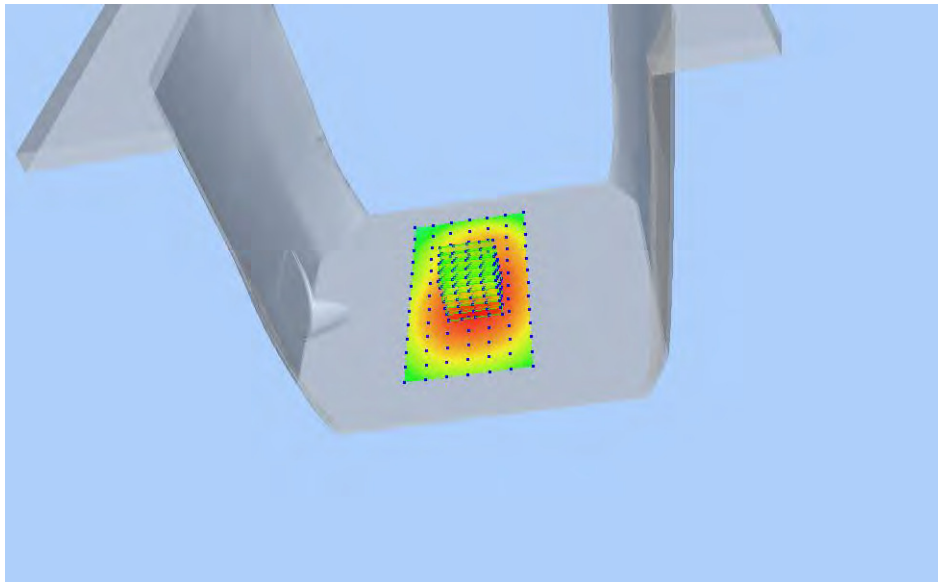


Z Axis Scan

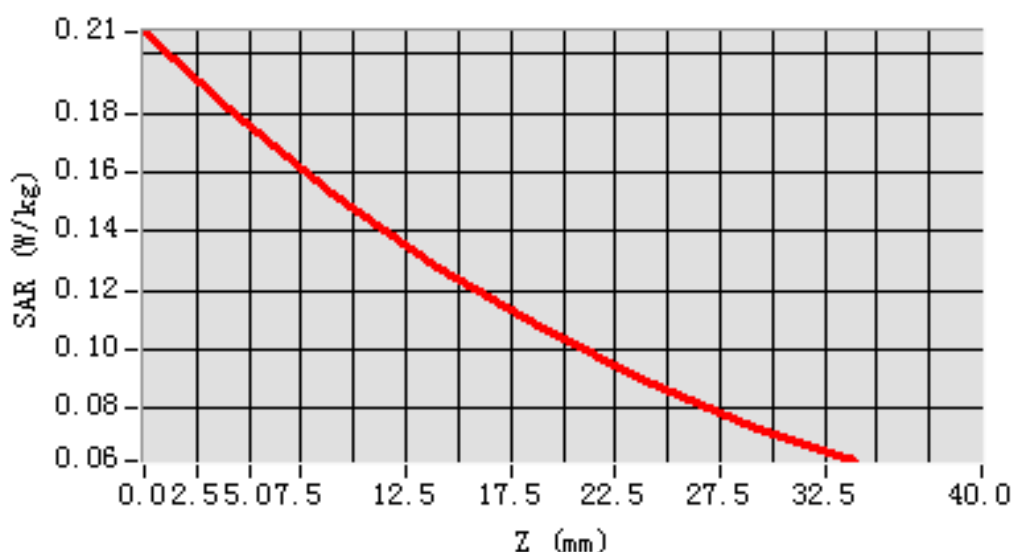


MEAS. 95 Back Side Plane with Front Side on High Channel in LTE Band28 mode with 1RB

Test Date: 18/6/2016
Measurement duration: 10 minutes 46 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 57.14; Conductivity: 0.93 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.88
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=-12.000000
SAR 10g (W/Kg): 0.143023
SAR 1g (W/Kg): 0.177665
Power drift (%): -1.41
3D screen shot

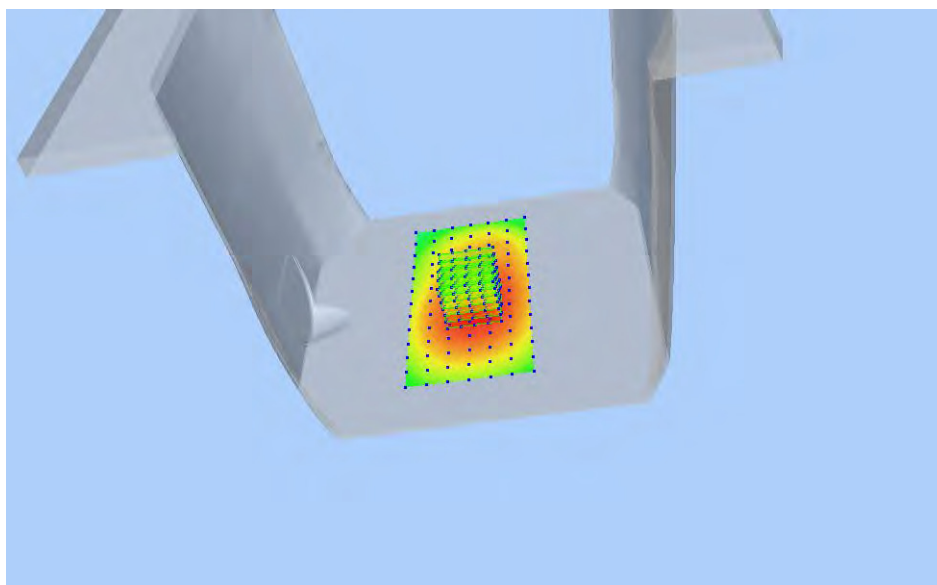


Z Axis Scan

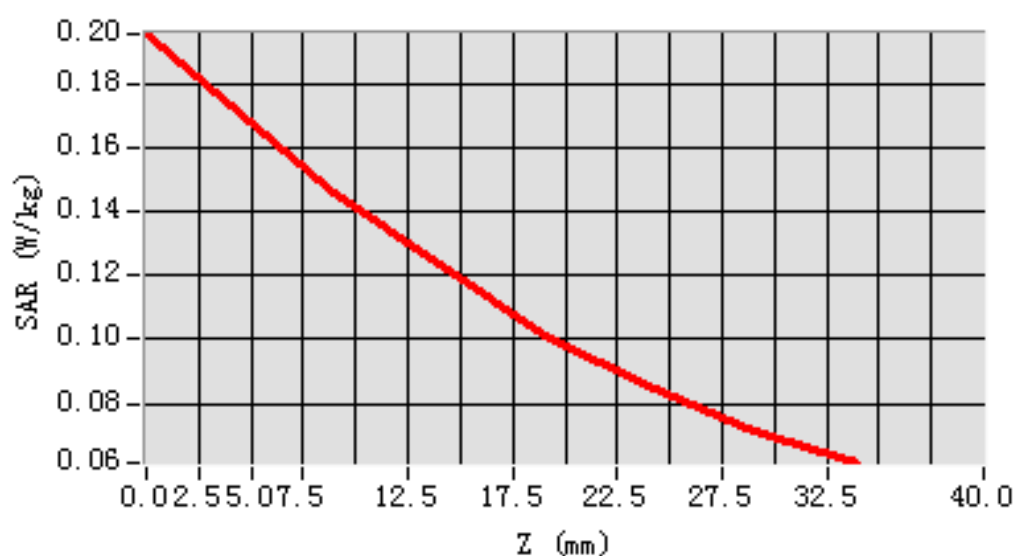


MEAS. 96 Back Side Plane with Front Side on High Channel in LTE Band28 mode with 50%RB

Test Date: 18/6/2016
Measurement duration: 10 minutes 37 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 57.14; Conductivity: 0.93 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.88
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=-12.000000
SAR 10g (W/Kg): 0.136396
SAR 1g (W/Kg): 0.168512
Power drift (%): -1.15
3D screen shot

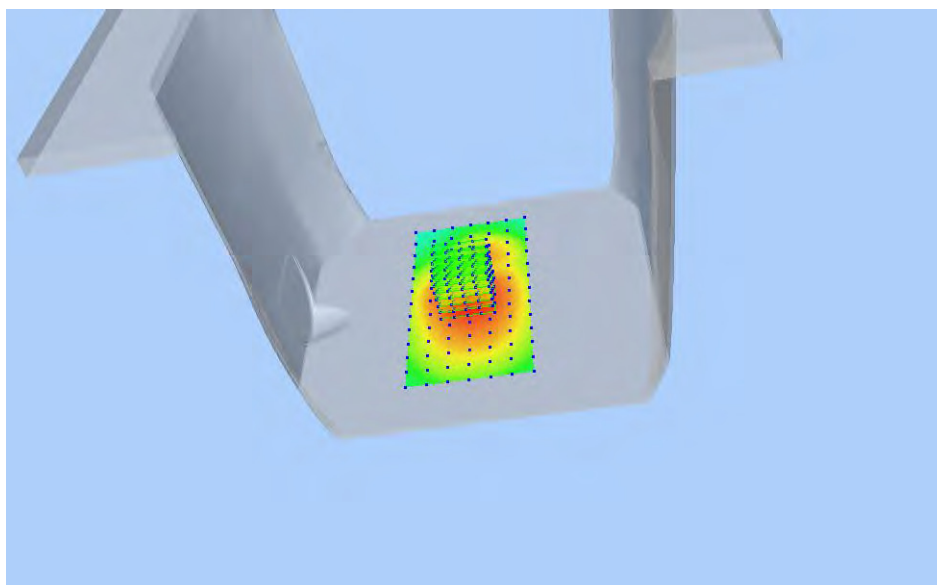


Z Axis Scan

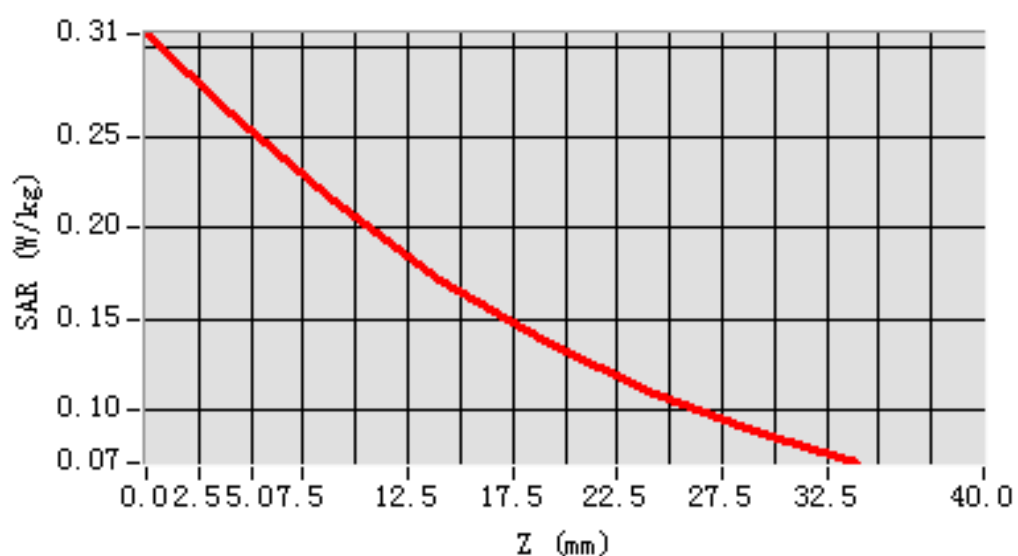


MEAS. 97 Back Side Plane with Back Side on High Channel in LTE Band28 mode with 1RB

Test Date: 18/6/2016
Measurement duration: 9 minutes 57 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 57.14; Conductivity: 0.93 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.88
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=0.000000
SAR 10g (W/Kg): 0.198479
SAR 1g (W/Kg): 0.255974
Power drift (%): -1.00
3D screen shot

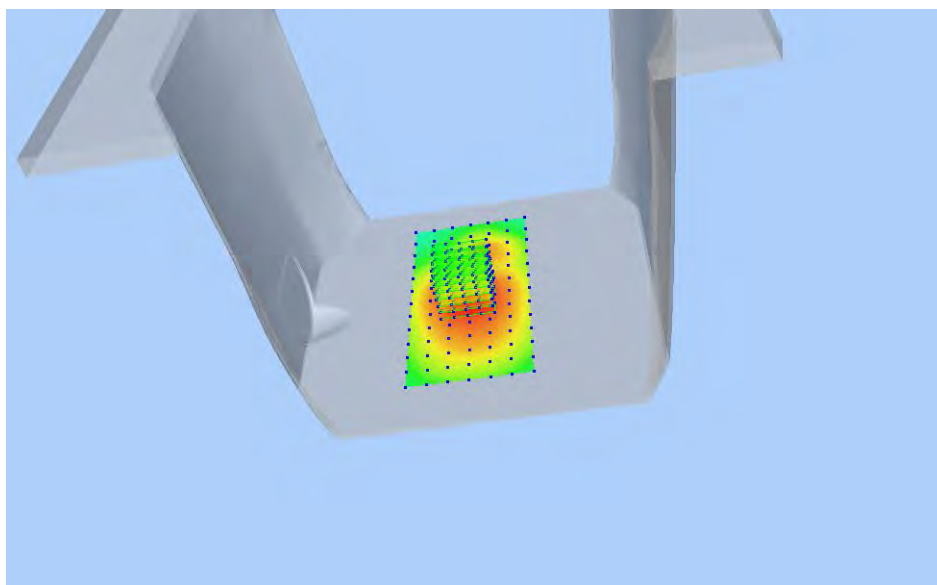


Z Axis Scan

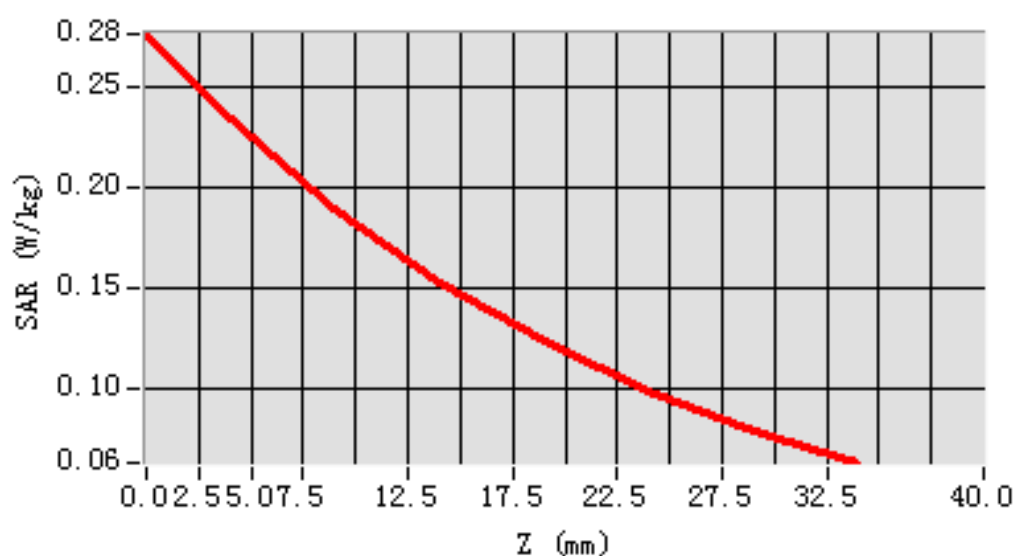


MEAS. 98 Back Side Plane with Back Side on High Channel in LTE Band28 mode with 50%RB

Test Date: 18/6/2016
Measurement duration: 9 minutes 55 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 57.14; Conductivity: 0.93 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.88
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=0.000000
SAR 10g (W/Kg): 0.176922
SAR 1g (W/Kg): 0.228023
Power drift (%): -0.57
3D screen shot

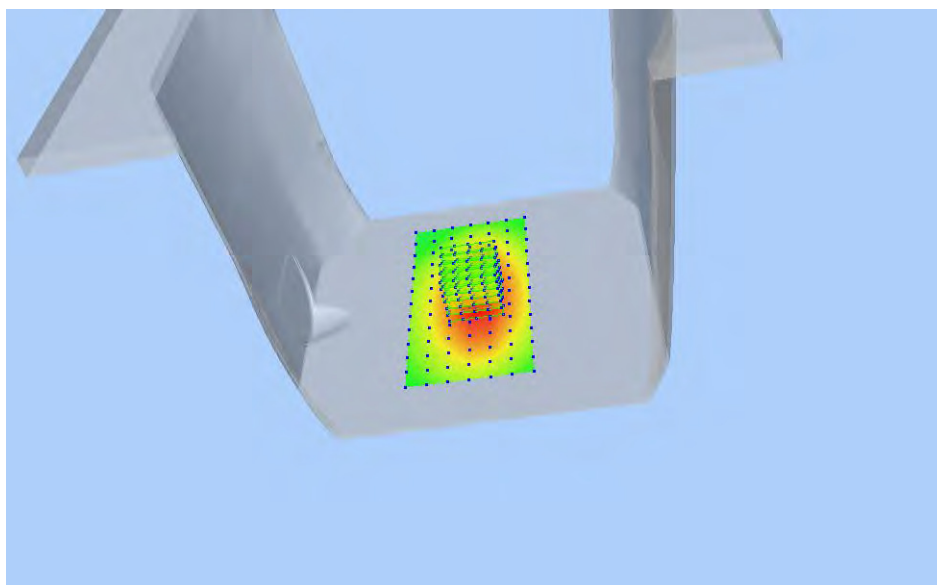


Z Axis Scan

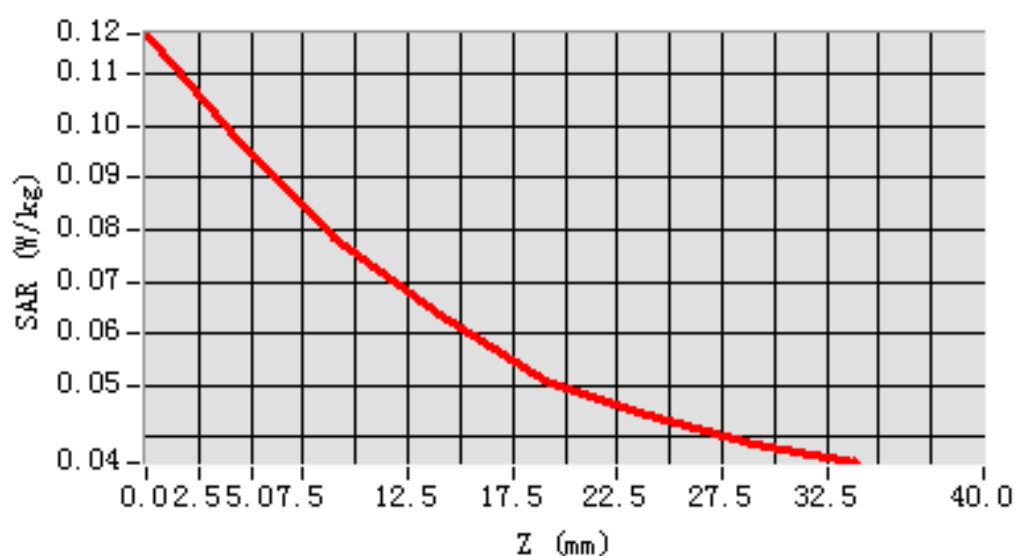


MEAS. 99 Back Side Plane with Left Side on High Channel in LTE Band28 mode with 1RB

Test Date: 18/6/2016
Measurement duration: 10 minutes 48 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 57.14; Conductivity: 0.93 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.88
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=0.000000
SAR 10g (W/Kg): 0.072954
SAR 1g (W/Kg): 0.095045
Power drift (%): -0.71
3D screen shot

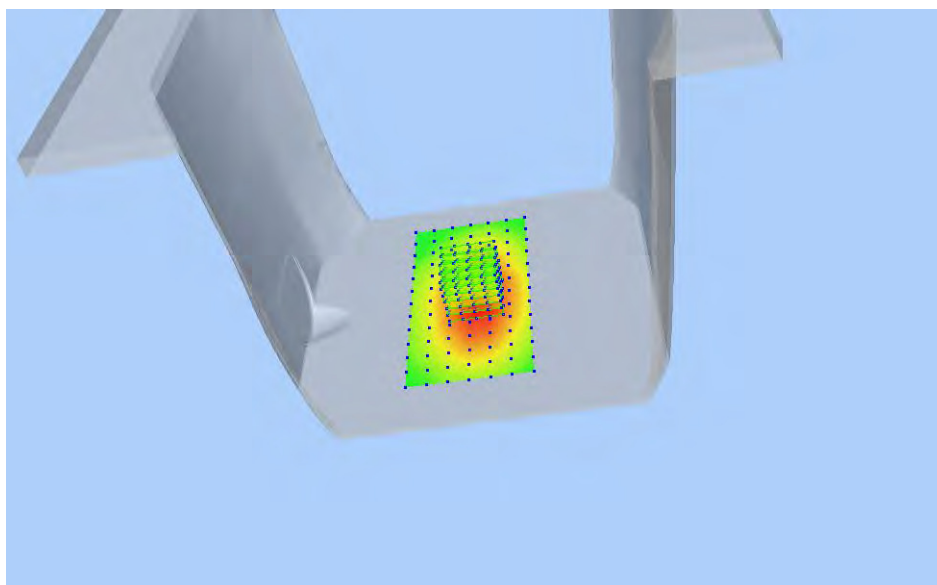


Z Axis Scan

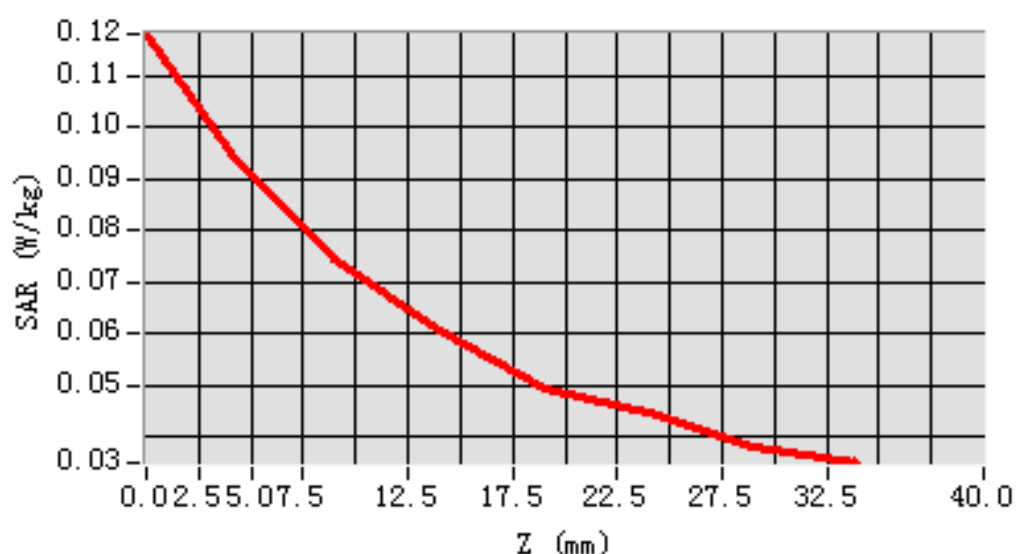


MEAS. 100 Back Side Plane with Left Side on High Channel in LTE Band28 mode with 50%RB

Test Date: 18/6/2016
Measurement duration: 10 minutes 47 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 57.14; Conductivity: 0.93 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.88
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=0.000000
SAR 10g (W/Kg): 0.070469
SAR 1g (W/Kg): 0.092576
Power drift (%): -0.47
3D screen shot

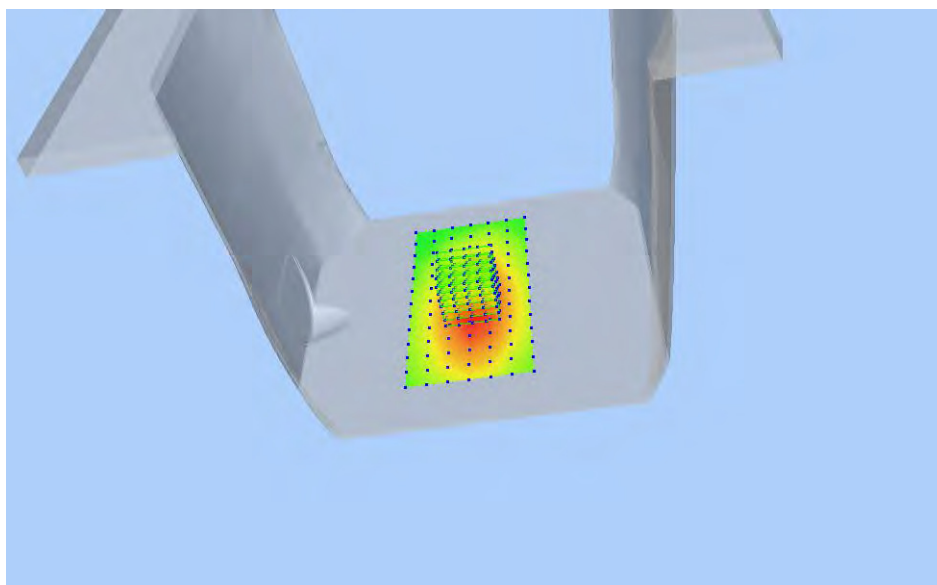


Z Axis Scan

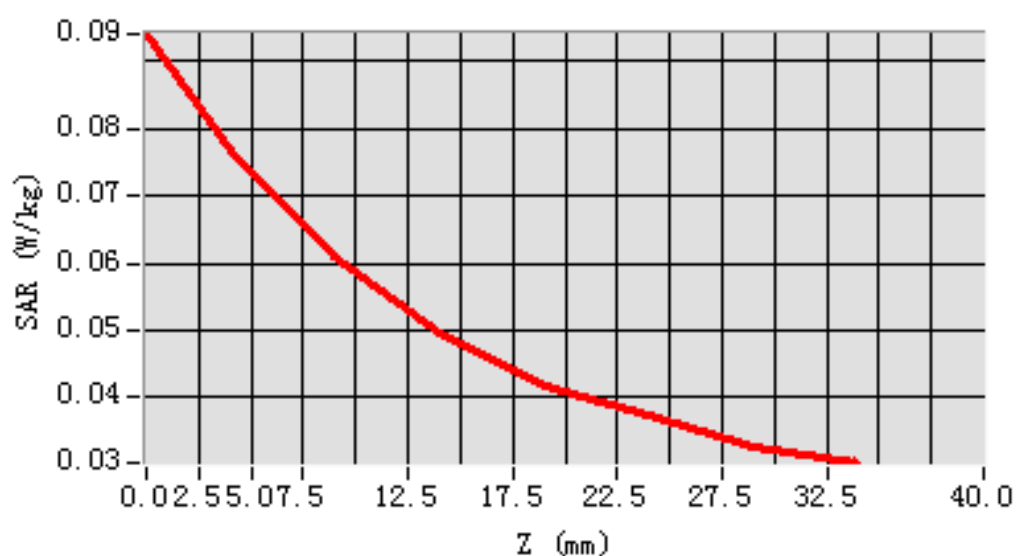


MEAS. 101 Back Side Plane with Right Side on High Channel in LTE Band28 mode with 1RB

Test Date: 18/6/2016
Measurement duration: 10 minutes 27 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 57.14; Conductivity: 0.93 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.88
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=-12.000000
SAR 10g (W/Kg): 0.057370
SAR 1g (W/Kg): 0.074427
Power drift (%): -0.89
3D screen shot

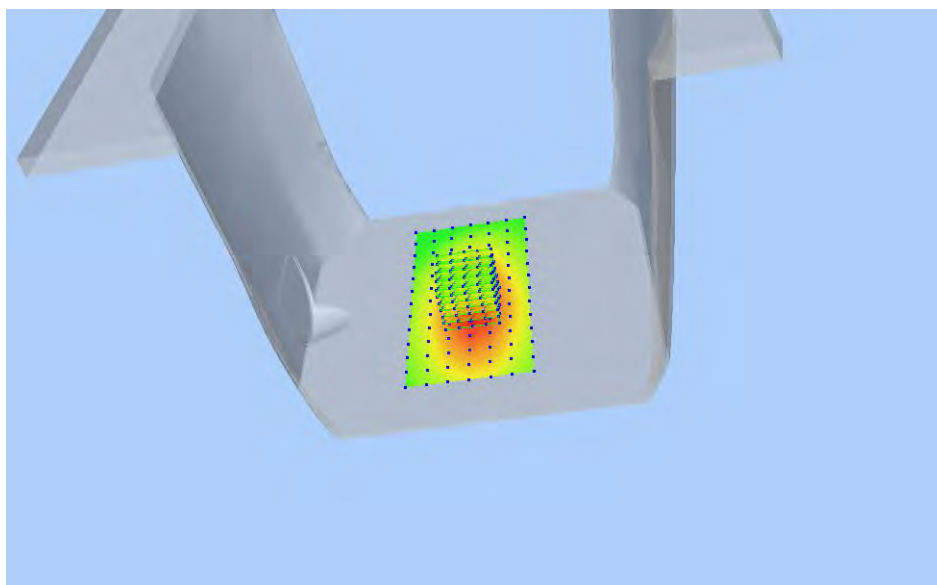


Z Axis Scan

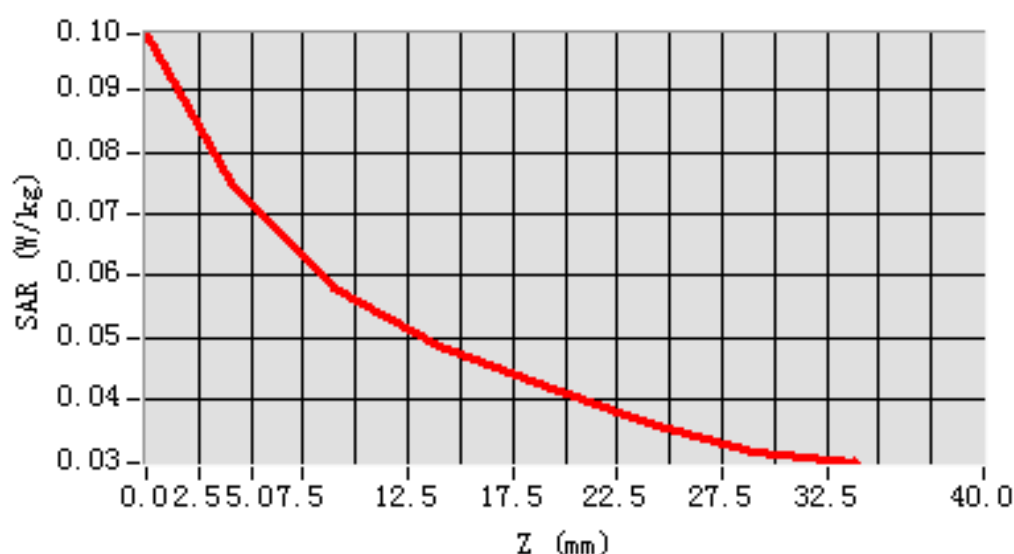


MEAS. 102 Back Side Plane with Right Side on High Channel in LTE Band28 mode with 50%RB

Test Date: 18/6/2016
Measurement duration: 10 minutes 25 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 57.14; Conductivity: 0.93 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.88
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=-12.000000
SAR 10g (W/Kg): 0.056033
SAR 1g (W/Kg): 0.074029
Power drift (%): -0.93
3D screen shot

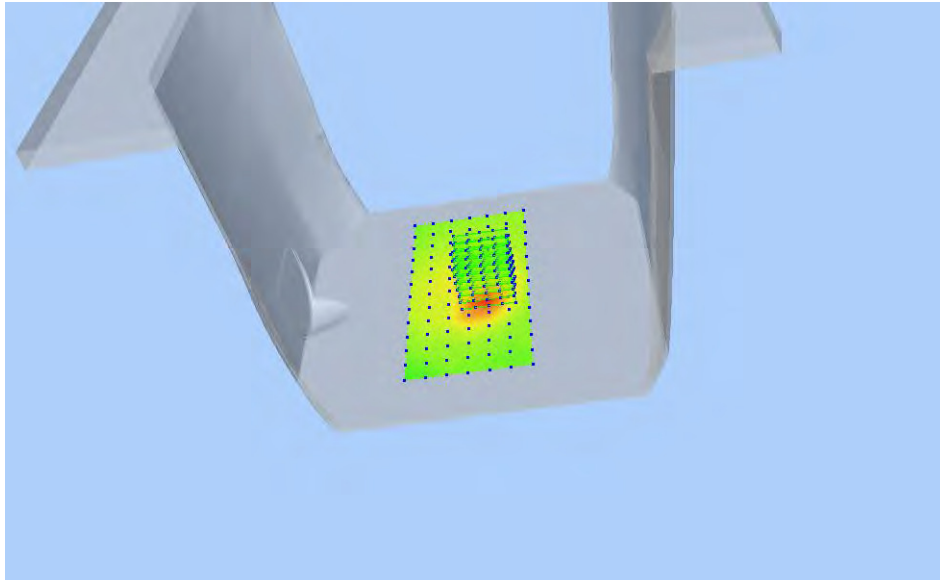


Z Axis Scan

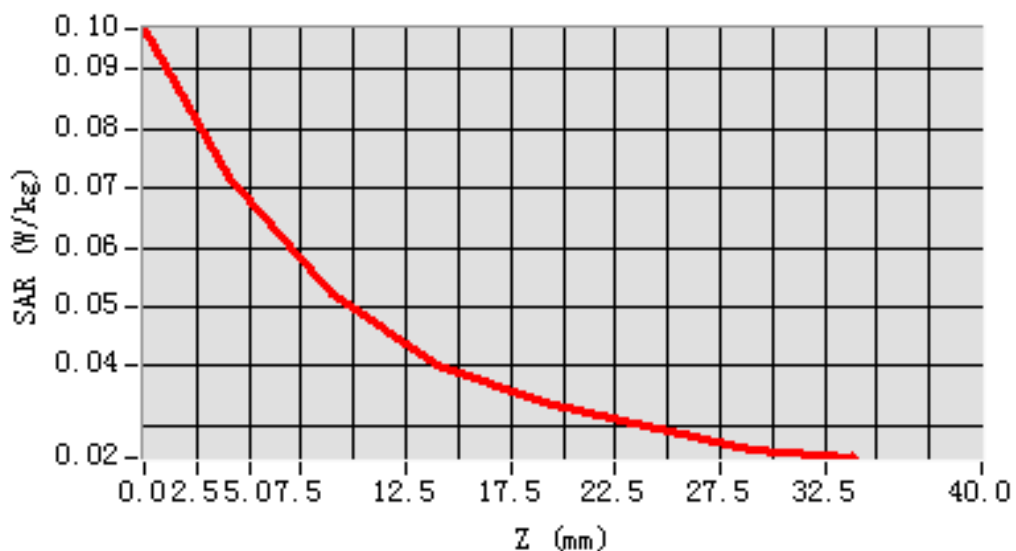


MEAS. 103 Back Side Plane with Bottom Side on High Channel in LTE Band28 mode with 1RB

Test Date: 18/6/2016
Measurement duration: 11 minutes 53 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 57.14; Conductivity: 0.93 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.88
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.047825
SAR 1g (W/Kg): 0.069431
Power drift (%): -0.30
3D screen shot

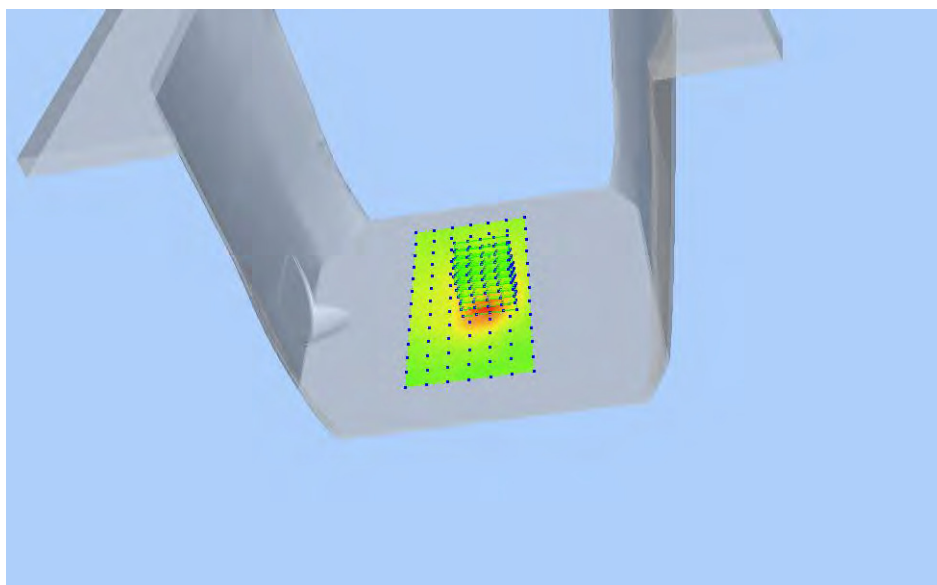


Z Axis Scan

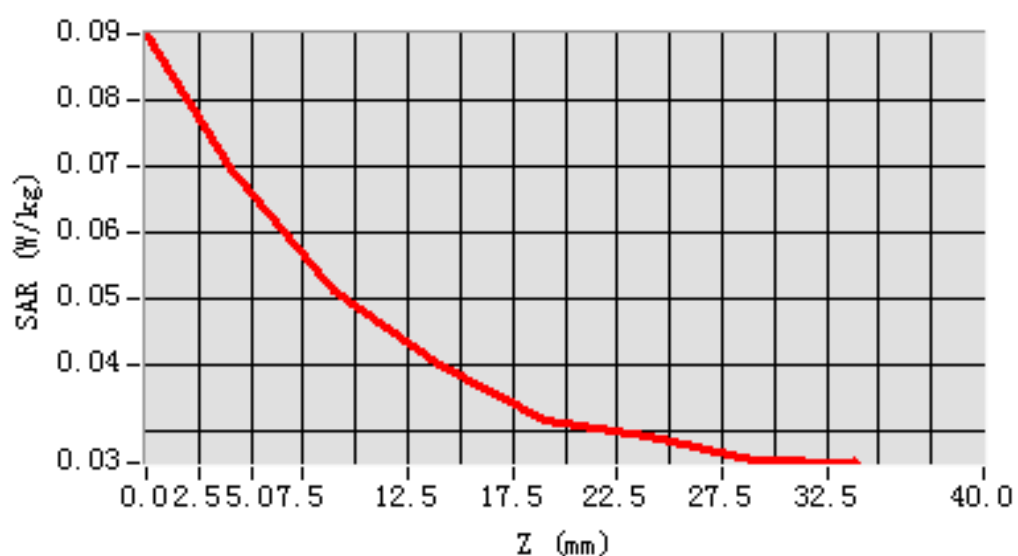


MEAS. 104 Back Side Plane with Bottom Side on High Channel in LTE Band28 mode with 50%RB

Test Date: 18/6/2016
Measurement duration: 11 minutes 57 seconds
Signal: LTE, f=738.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 57.14; Conductivity: 0.93 S/m
Test condition: Ambient Temperature: 22.3°C, Liquid Temperature: 21.1°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 1.88
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=8mm, dy=8mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=0.000000
SAR 10g (W/Kg): 0.046766
SAR 1g (W/Kg): 0.066517
Power drift (%): -3.40
3D screen shot

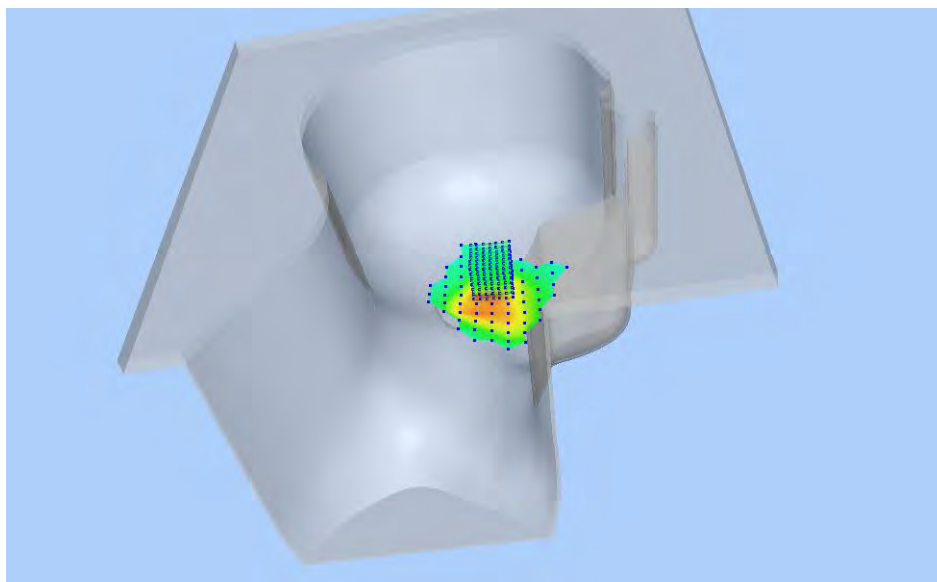


Z Axis Scan

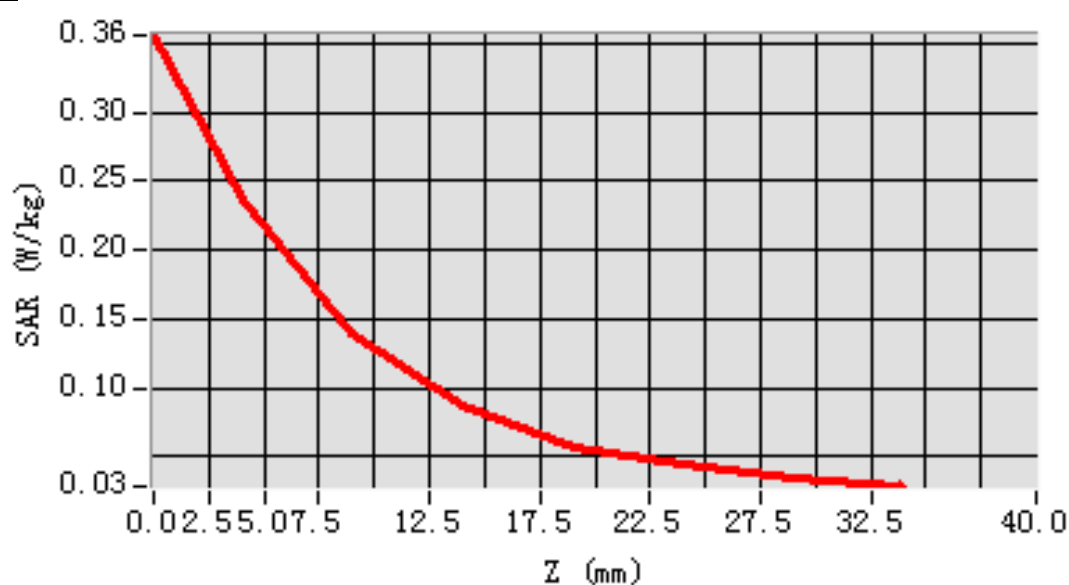


MEAS. 105 Left Head with Cheek on Middle Channel in IEEE 802.b mode

Test Date: 20/6/2016
Measurement duration: 10 minutes 48 seconds
Signal: WLAN, f=2437.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 40.30; Conductivity: 1.82 S/m
Test condition: Ambient Temperature: 22.0°C, Liquid Temperature: 20.7°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.47
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=12.000000
SAR 10g (W/Kg): 0.127345
SAR 1g (W/Kg): 0.220346
Power drift (%): -0.81
3D screen shot

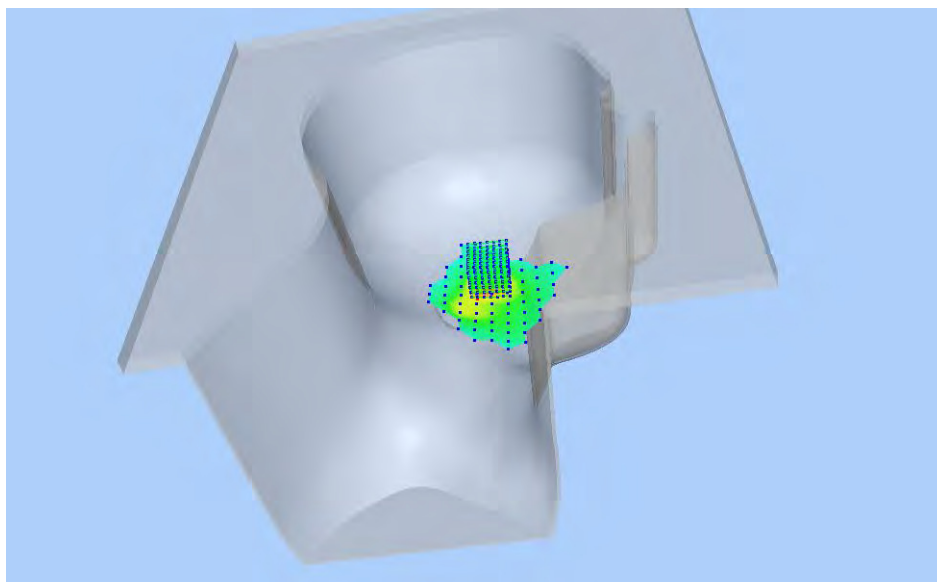


Z Axis Scan

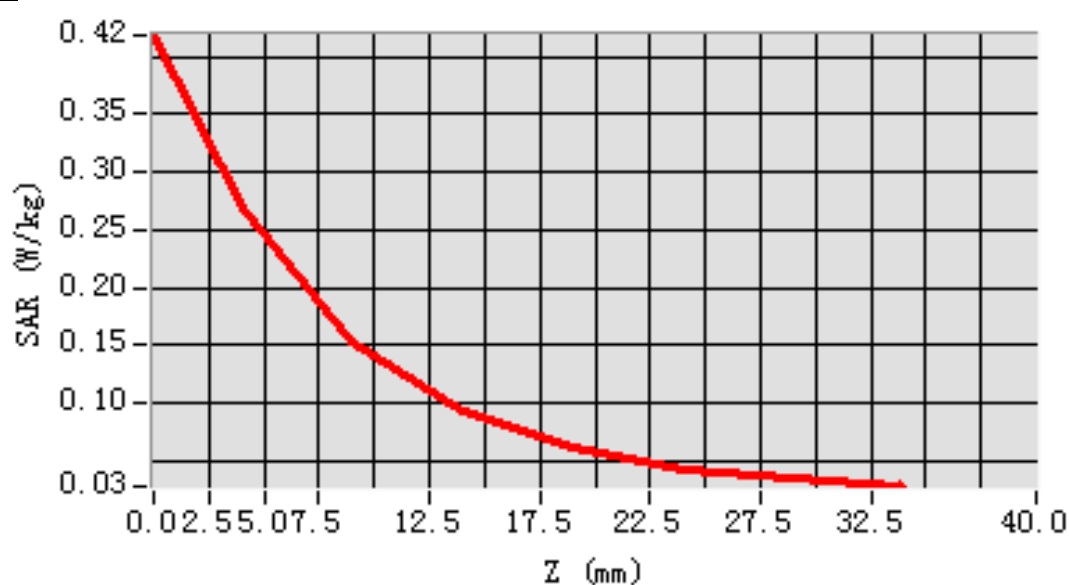


MEAS. 106 Left Head with Tilt on Middle Channel in IEEE 802.b mode

Test Date: 20/6/2016
Measurement duration: 10 minutes 43 seconds
Signal: WLAN, f=2437.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 40.30; Conductivity: 1.82 S/m
Test condition: Ambient Temperature: 22.0°C, Liquid Temperature: 20.7°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.47
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=12.000000
SAR 10g (W/Kg): 0.134878
SAR 1g (W/Kg): 0.251747
Power drift (%): -2.83
3D screen shot

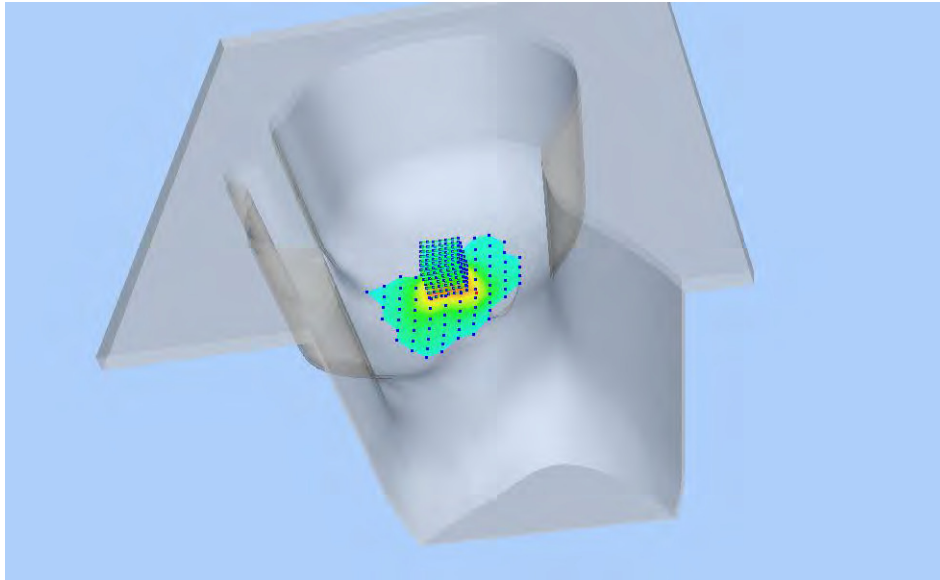


Z Axis Scan

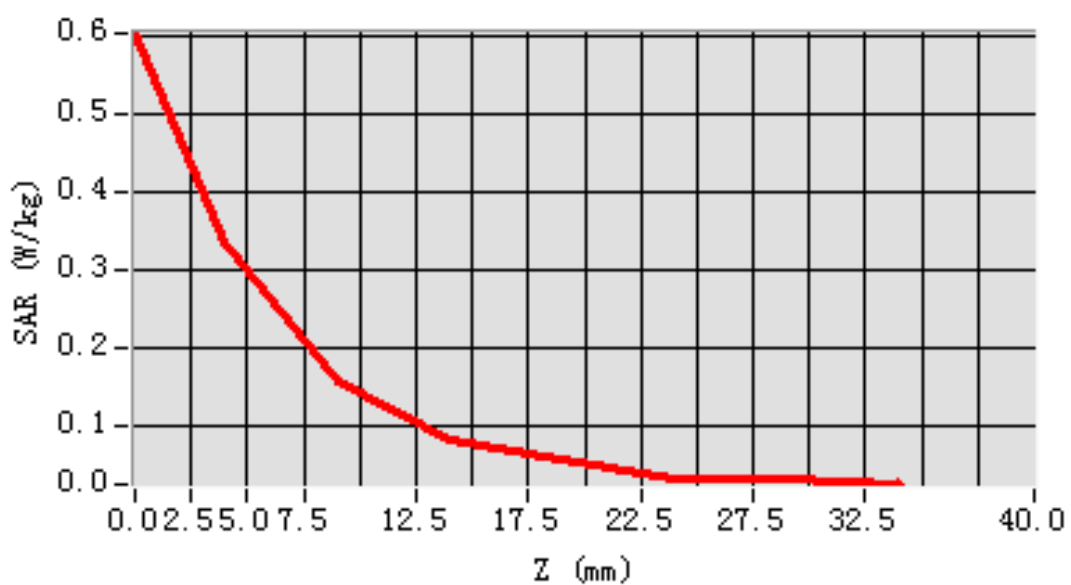


MEAS. 107 Right Head with Cheek on Middle Channel in IEEE 802.b mode

Test Date: 20/6/2016
Measurement duration: 11 minutes 35 seconds
Signal: WLAN, f=2437.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 40.30; Conductivity: 1.82 S/m
Test condition: Ambient Temperature: 22.0°C, Liquid Temperature: 20.7°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.47
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-24.000000, Y=12.000000
SAR 10g (W/Kg): 0.158449
SAR 1g (W/Kg): 0.314981
Power drift (%): -0.81
3D screen shot

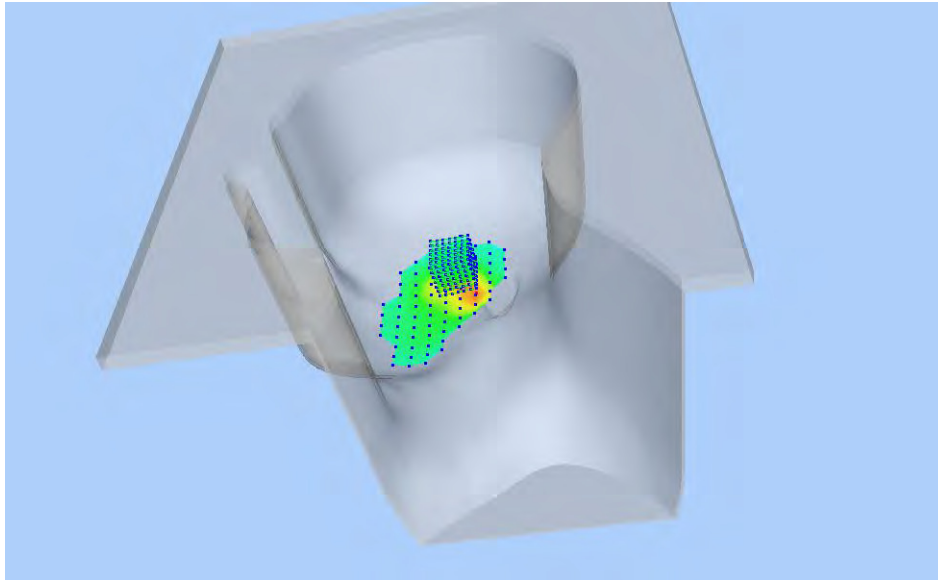


Z Axis Scan

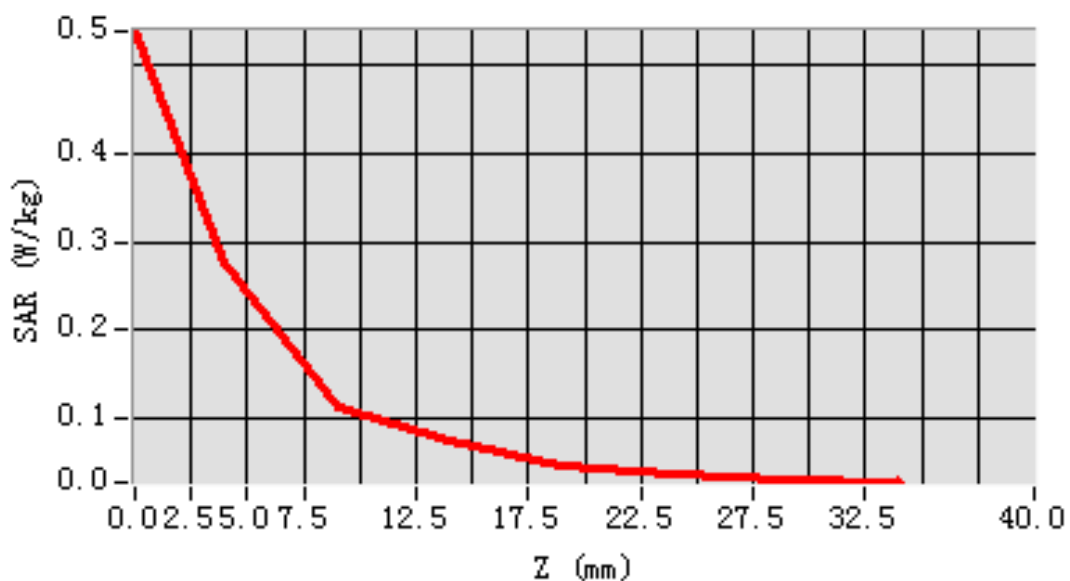


MEAS. 108 Right Head with Tilt on Middle Channel in IEEE 802.b mode

Test Date: 20/6/2016
Measurement duration: 11 minutes 2 seconds
Signal: WLAN, f=2437.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 40.30; Conductivity: 1.82 S/m
Test condition: Ambient Temperature: 22.0°C, Liquid Temperature: 20.7°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.47
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-12.000000, Y=16.000000
SAR 10g (W/Kg): 0.129695
SAR 1g (W/Kg): 0.262839
Power drift (%): 0.26
3D screen shot



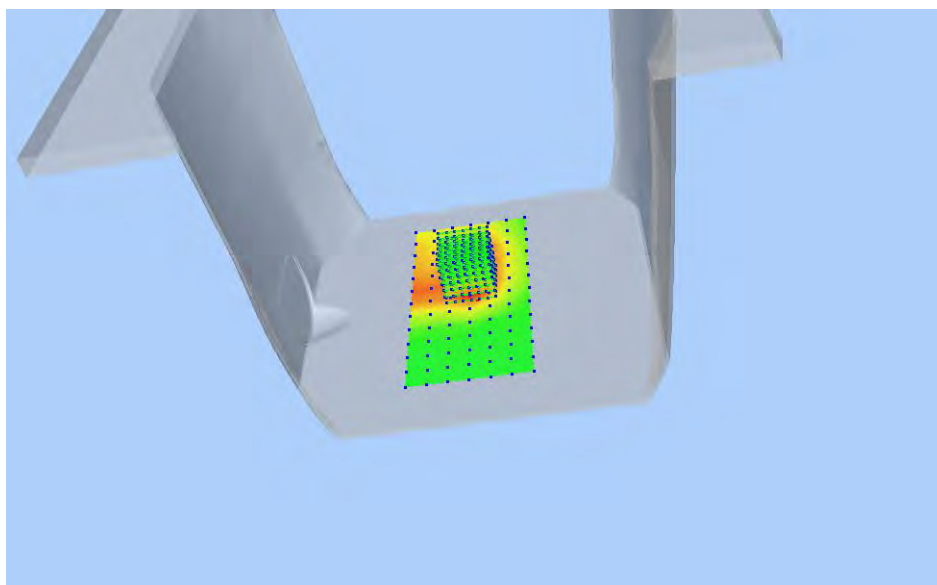
Z Axis Scan



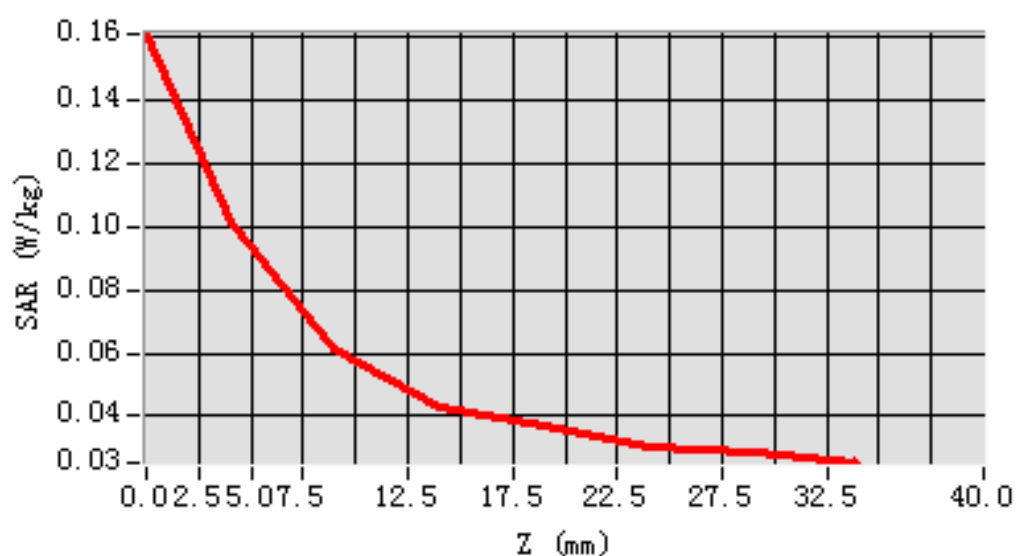
MEAS. 109 Back Side Plane with Front Side on Middle Channel in IEEE 802.b

mode

Test Date: 21/6/2016
Measurement duration: 15 minutes 6 seconds
Signal: WLAN, f=2437.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.62; Conductivity: 1.94 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.55
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=-4.000000, Y=12.000000
SAR 10g (W/Kg): 0.062916
SAR 1g (W/Kg): 0.098245
Power drift (%): -2.41
3D screen shot



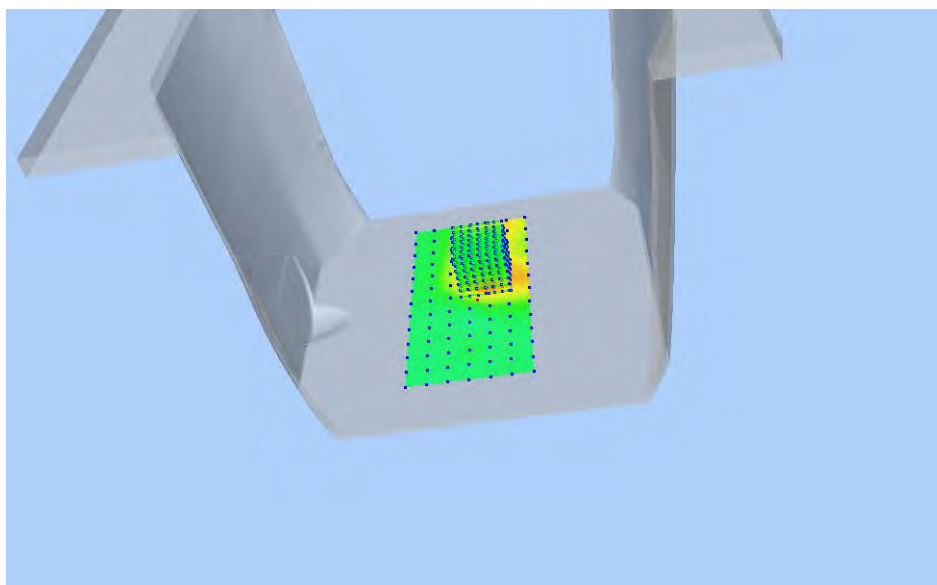
Z Axis Scan



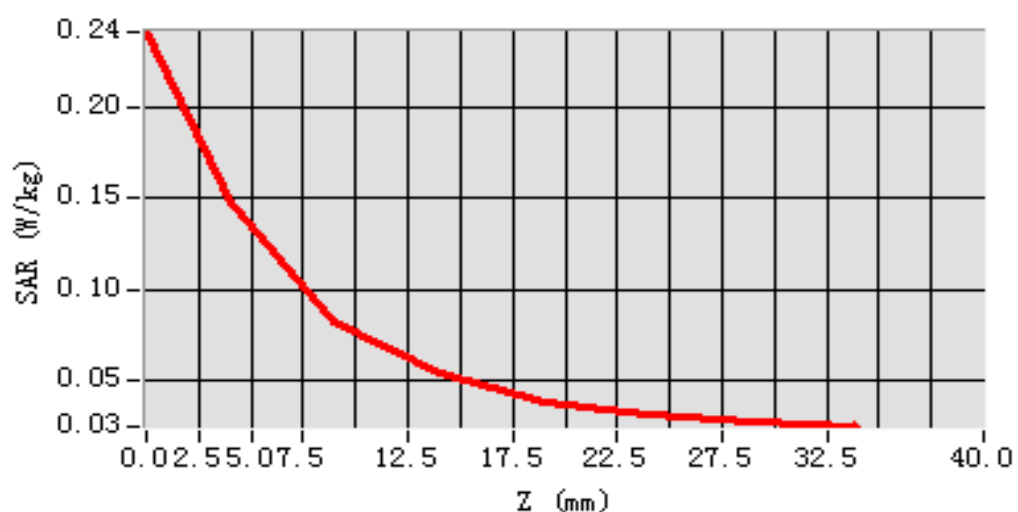
MEAS. 110 Back Side Plane with Back Side on Middle Channel in IEEE 802.b

mode

Test Date: 21/6/2016
Measurement duration: 17 minutes 9 seconds
Signal: WLAN, f=2437.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.62; Conductivity: 1.94 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.55
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=12.000000
SAR 10g (W/Kg): 0.083405
SAR 1g (W/Kg): 0.145113
Power drift (%): -4.65
3D screen shot

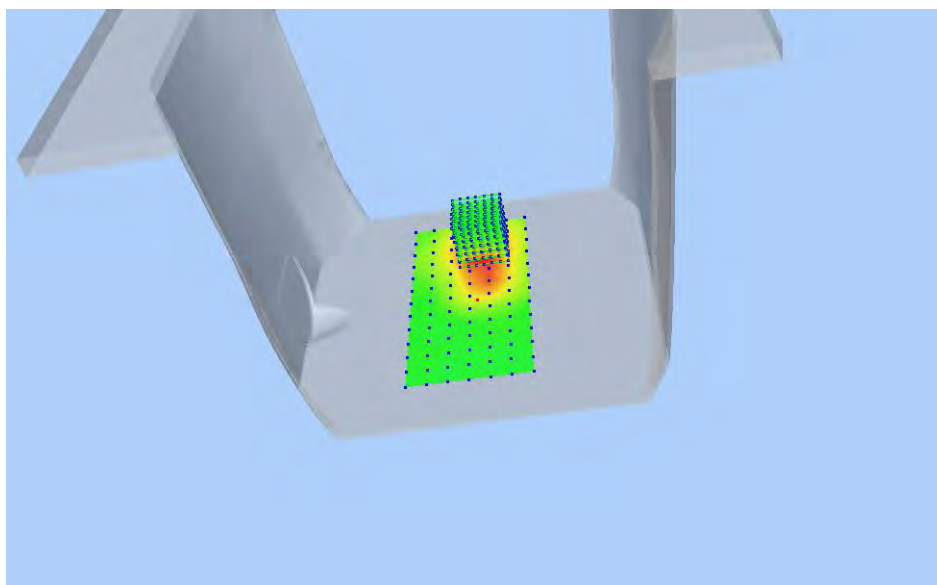


Z Axis Scan



MEAS. 111 Back Side Plane with Right Side on Middle Channel in IEEE 802.b mode

Test Date: 21/6/2016
Measurement duration: 16 minutes 34 seconds
Signal: WLAN, f=2437.0 MHz, Duty Cycle: 1:1.0
Liquid Parameters: Permittivity: 53.62; Conductivity: 1.94 S/m
Test condition: Ambient Temperature: 21.8°C, Liquid Temperature: 20.5°C
Probe: SN 34/15 SSE2 EPGO265, ConvF: 2.55
Area Scan: sam_direct_droit2_surf12mm.txt, h= 5.00 mm
Zoom Scan: 5x5x7,dx=5mm, dy=5mm, dz=5mm,Complete
Maximum location: X=8.000000, Y=48.000000
SAR 10g (W/Kg): 0.065913
SAR 1g (W/Kg): 0.101823
Power drift (%): 3.95
3D screen shot



Z Axis Scan

