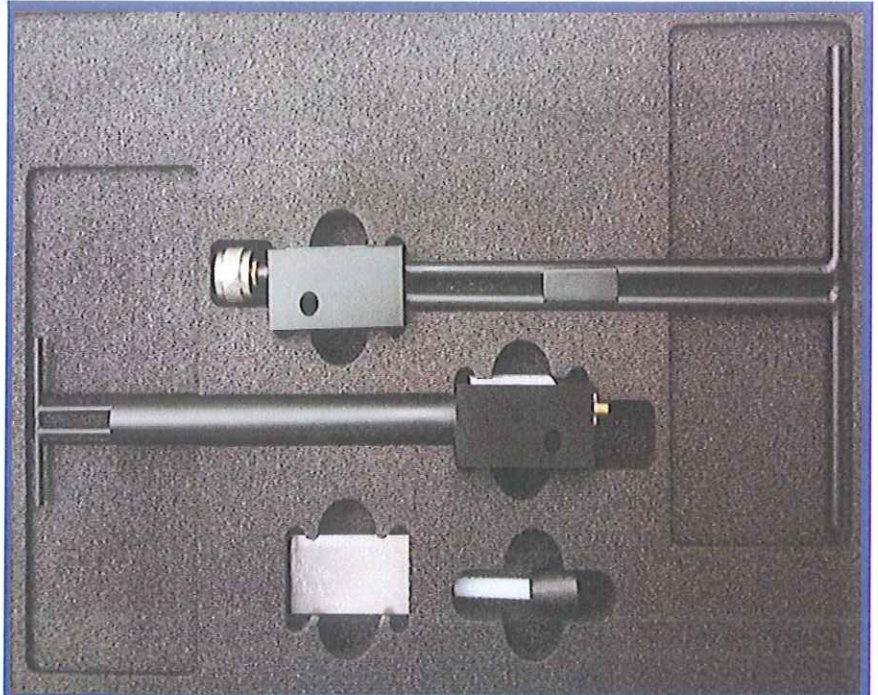


# SAR Dipole Performance Measurement Report

ISSUED BY  
Shenzhen BALUN Technology Co., Ltd.



FOR  
Validation Dipoles



Tested by:

Tu Lang  
(Engineer)

Approved by:

Liao Jianming  
(Technical Director)

Report No.: LW-SZ15C0264-701  
EUT Type: SAR Validation Dipole and Waveguide  
Model Name: DIP 0G750-253, DIP 0G835-246  
DIP 1G800-248, DIP 1G900-249  
DIP 2G450-251, DIP 2G600-25

Brand Name: SATIMO  
Test Conclusion: Pass  
Test Date: Mar. 1, 2016 ~ Mar. 3, 2016  
Date of Issue: Aug. 19, 2016

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### Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Mar. 31, 2016</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Aug. 19, 2016</u>	<u>Delete the unnecessary dipoles for certificate application</u> <u>Re-edit the section 3 for clear descriptions for the deviation of dipoles' return-loss and impedance.</u>



# 1 GENERAL INFORMATION

## 1.1 Introduction

This document contains a summary of the requirements set forth by the IEEE 1528, FCC KDB 865664 D01 for reference dipoles used for SAR measurement system validations. Instead of the typical annual calibration recommended by measurement standards, the reference dipoles were demonstrated that the SAR target, impedance and return loss have remain stable, so the longer calibration interval is acceptable.

## 1.2 General Description for Equipment under Test (EUT)

Model	Frequency	Serial Number	Product Condition (New/ Used)	Last Cal. Date
<b>Dipole</b>				
DIP 0G750	750 MHz	SN 25/13 DIP 0G750-253	Used	2015/03/16
DIP 0G835	835 MHz	SN 25/13 DIP 0G835-246	Used	2015/03/16
DIP 1G800	1800 MHz	SN 25/13 DIP 1G900-248	Used	2015/03/16
DIP 1G900	1900 MHz	SN 25/13 DIP 1G900-249	Used	2015/03/16
DIP 2G450	2450 MHz	SN 25/13 DIP 2G450-251	Used	2015/03/16
DIP 2G600	2600 MHz	SN 25/13 DIP 2G600-254	Used	2015/03/16



### 1.3 EUT Photos

DIP 0G750-253



DIP 0G835-246



DIP 1G800-248



DIP 1G900-249



DIP 2G450-251



DIP 2G600-254



## 2 SIMULATING LIQUID VERIFICATION

Liquid Type	Fre. (MHz)	Meas. Conductivity ( $\sigma$ ) (S/m)	Meas. Permittivity ( $\epsilon$ )	Target Conductivity ( $\sigma$ ) (S/m)	Target Permittivity ( $\epsilon$ )	Conductivity Tolerance (%)	Permittivity Tolerance (%)
Head	750	0.88	41.92	0.89	41.94	-1.12	-0.05
Body		0.95	57.19	0.96	55.53	-1.04	2.99
Head	835	0.90	43.33	0.90	41.50	0.00	4.41
Body		0.99	54.65	0.97	55.20	2.06	-1.00
Head	1800	1.41	39.56	1.40	40.00	0.71	-1.10
Body		1.51	54.69	1.52	53.30	-0.66	2.61
Head	1900	1.42	39.40	1.40	40.00	1.43	-1.50
Body		1.53	53.16	1.52	53.30	0.66	-0.26
Head	2450	1.82	38.92	1.80	39.20	1.11	-0.71
Body		1.96	52.96	1.95	52.70	0.51	0.49
Head	2600	1.98	38.10	1.96	39.01	1.02	-2.33
Body		2.15	53.51	2.16	52.51	-0.46	1.90



### 3 DIPOLE IMPEDANCE AND RETURN LOSS

The dipoles are designed to have low return loss when presented against a flat phantom at the specified distance. A Vector Network Analyzer was used to perform a return loss measurement on the specific dipole when in the measurement location against the phantom and the distance was specified by the manufacturer with a special, low loss and low relative permittivity spacer.

The impedance was measured at the SMA-connector with the network analyzer.

The measurement of verification with return loss should not deviate by more than 20% and minimum of 20 dB of the return loss, and the impedance (real or imaginary parts) should not deviate by more than 5 Ohms from the previous measurement using network analyzer.

Note:

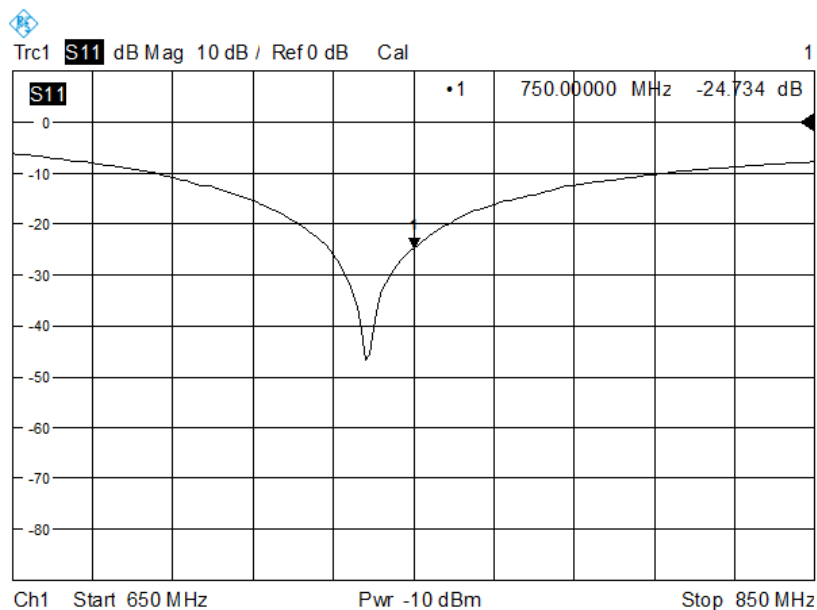
The "Previous Meas." in the following table refer to dipoles or other equivalent RF sources calibration reports.

### 3.1 DIP 0G750

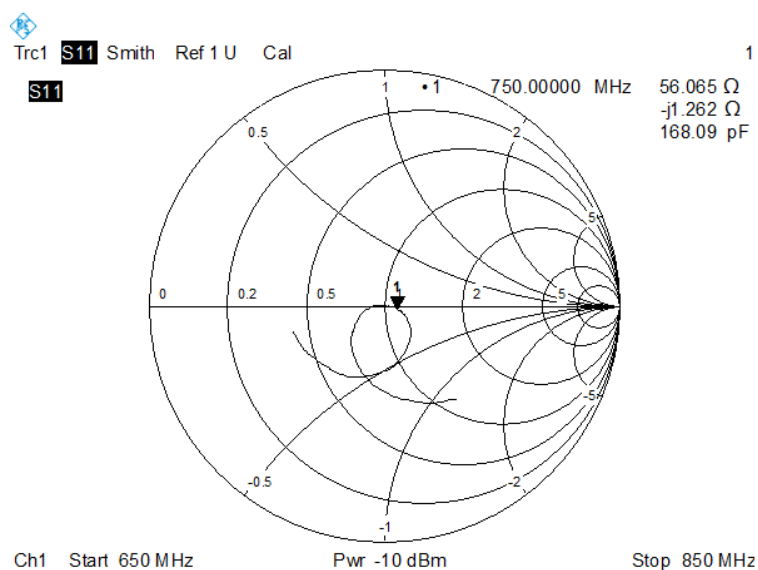
#### RETURN LOSS AND IMPEDANCE IN HEAD LIQUID

Meas. Results	Current Meas.	Previous Meas.	Max. Deviation
Return Loss (dB)	-24.73	-25.86	4.6 %
Impedance	56.1 $\Omega$ - 1.26 j $\Omega$	54.5 $\Omega$ - 2.7 j $\Omega$	1.6 $\Omega$ (Real part)

#### Return Loss



#### Impedance

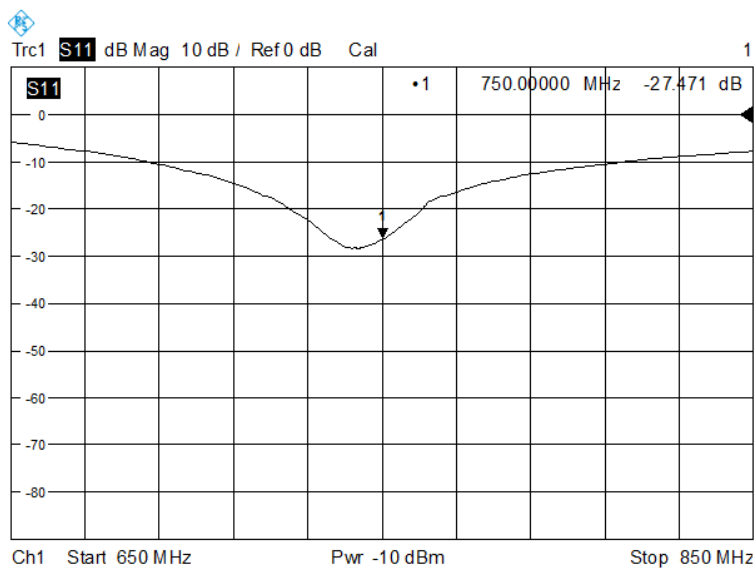




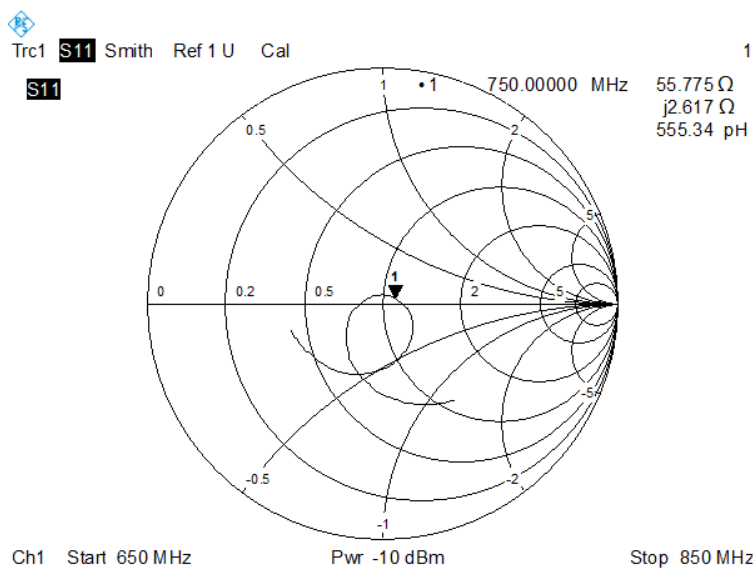
# RETURN LOSS AND IMPEDANCE IN BODY LIQUID

Meas. Results	Current Meas.	Previous Meas.	Max. Deviation
Return Loss (dB)	-27.47	-29.45	7.2 %
Impedance	$55.8 \Omega + 2.6 j\Omega$	$52.6 \Omega + 2.3 j\Omega$	$3.2 \Omega$ (Real part)

## Return Loss



## Impedance

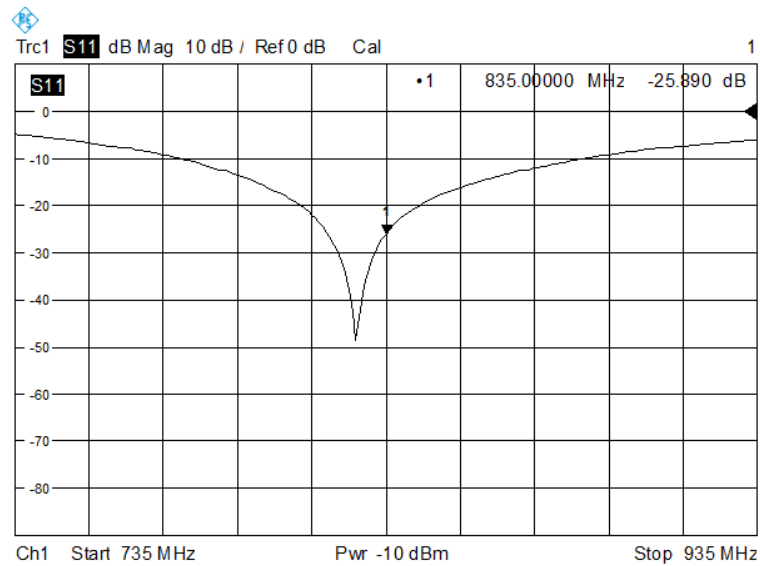


## 3.2 DIP 0G835

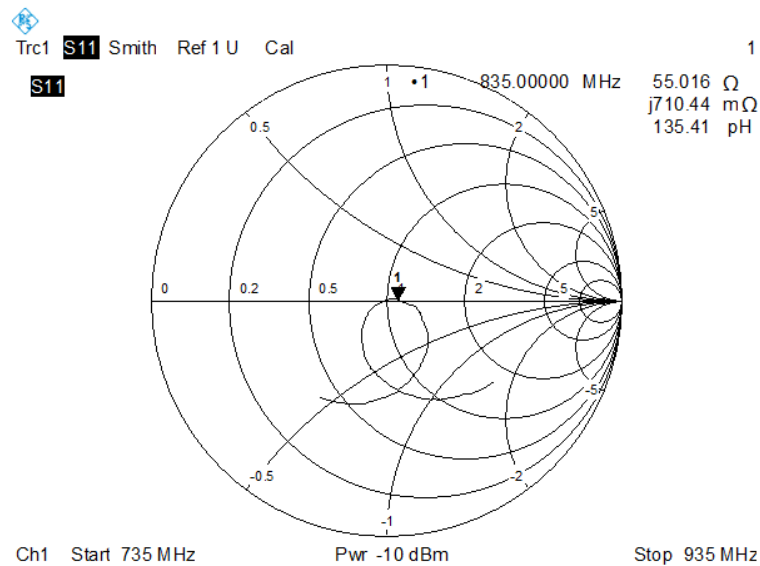
### RETURN LOSS AND IMPEDANCE IN HEAD LIQUID

Meas. Results	Current Meas.	Previous Meas.	Max. Deviation
Return Loss (dB)	-25.89	-25.01	3.4 %
Impedance	$55.0 \Omega + 0.7 j\Omega$	$55.9 \Omega + 0.9 j\Omega$	$0.9 \Omega$ (Real part)

#### Return Loss



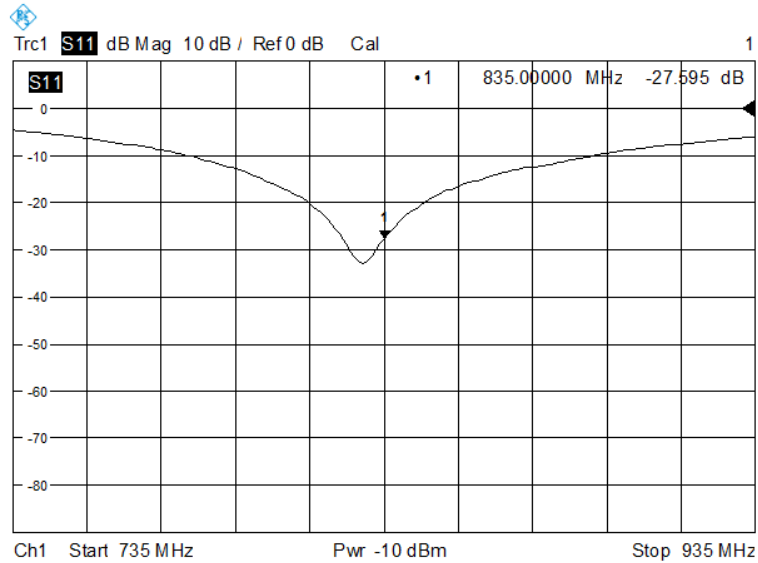
#### Impedance



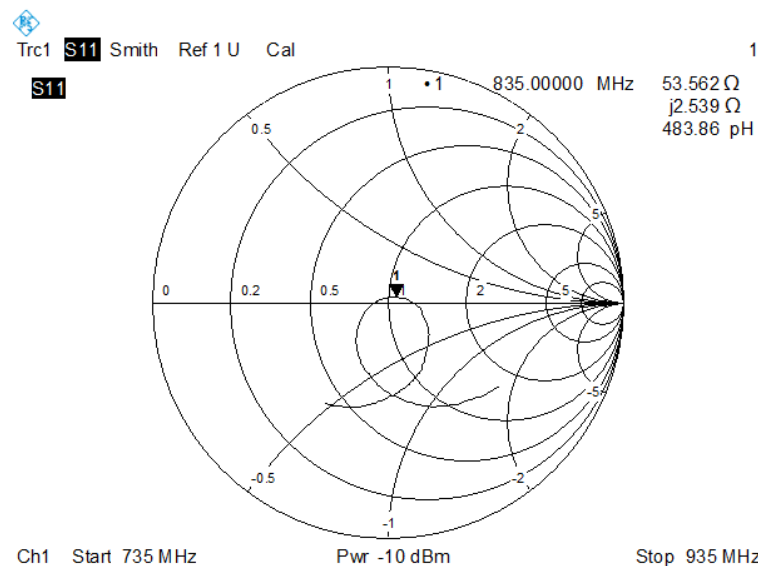
## RETURN LOSS AND IMPEDANCE IN BODY LIQUID

Meas. Results	Current Meas.	Previous Meas.	Max. Deviation
Return Loss (dB)	-27.60	-27.41	0.7 %
Impedance	$53.6 \Omega + 2.6 j\Omega$	$52.1 \Omega + 3.8 j\Omega$	$1.5 \Omega$ (Real part)

### Return Loss



### Impedance

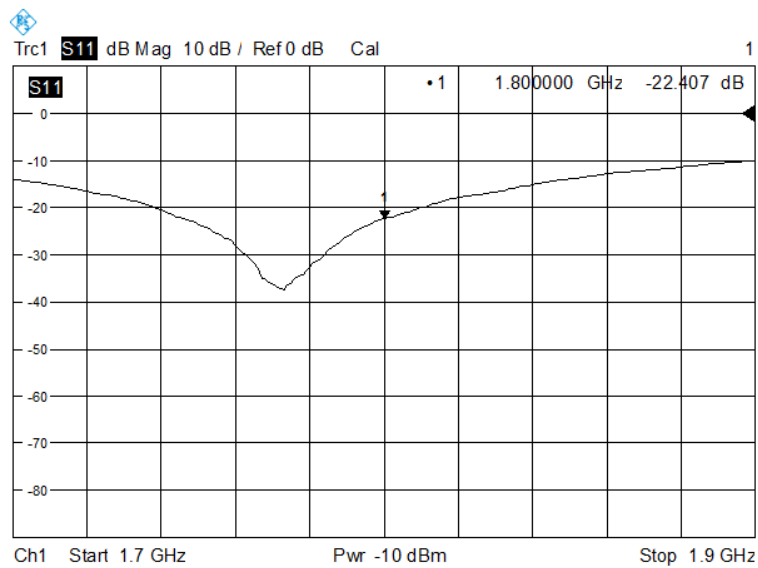


### 3.3 DIP 1G800

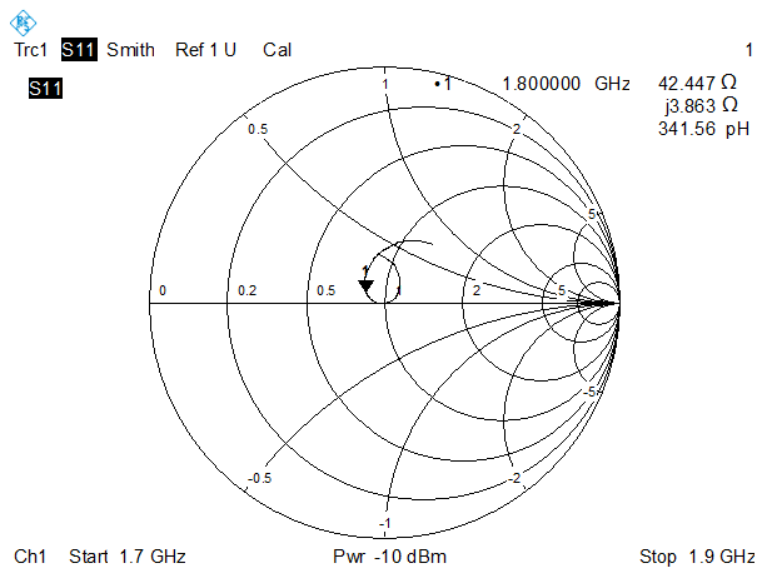
#### RETURN LOSS AND IMPEDANCE IN HEAD LIQUID

Meas. Results	Current Meas.	Previous Meas.	Max. Deviation
Return Loss (dB)	-22.41	-23.63	5.4 %
Impedance	$42.4 \Omega + 3.9 j\Omega$	$45.1 \Omega + 4.0 j\Omega$	$2.7 \Omega$ (Real part)

#### Return Loss



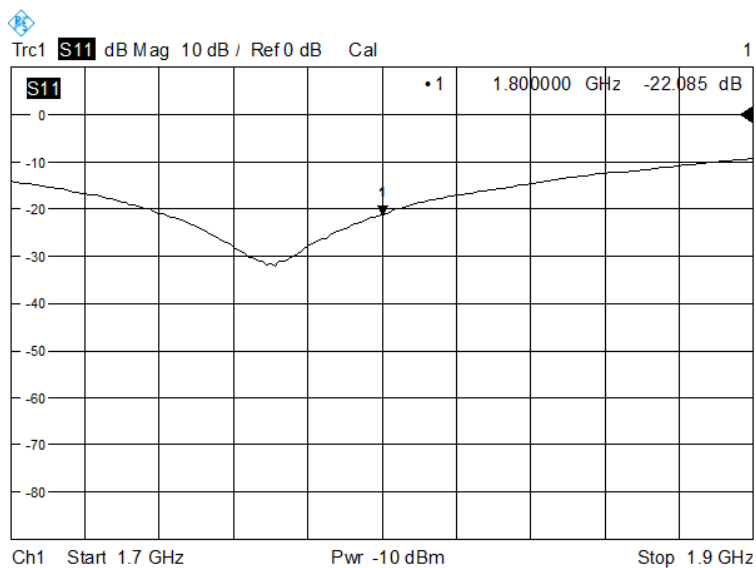
#### Impedance



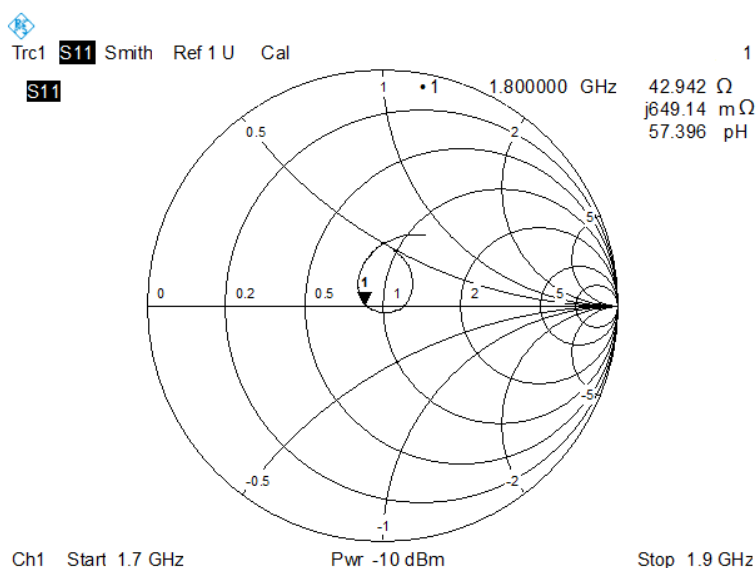
# RETURN LOSS AND IMPEDANCE IN BODY LIQUID

Meas. Results	Current Meas.	Previous Meas.	Max. Deviation
Return Loss (dB)	-22.09	-26.47	19.8 %
Impedance	42.9 $\Omega$ + 0.7 j $\Omega$	45.5 $\Omega$ - 0.3 j $\Omega$	2.6 $\Omega$ (Real part)

## Return Loss



## Impedance



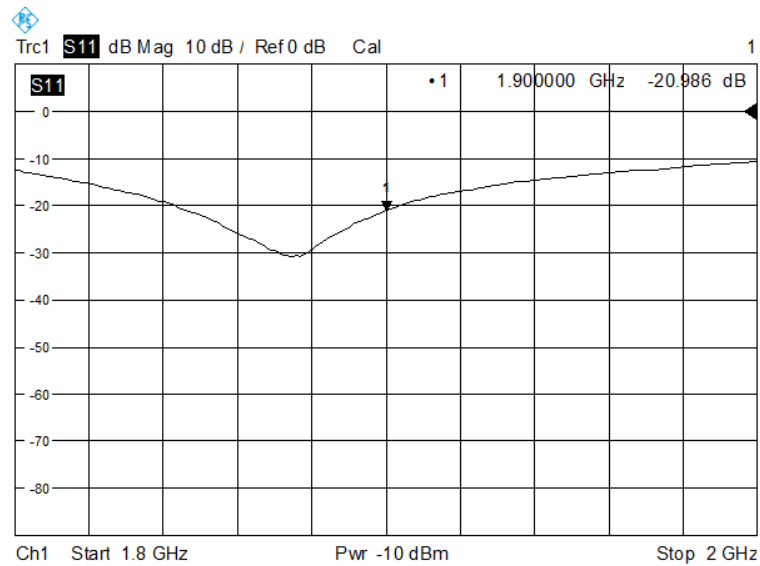


### 3.4 DIP 1G900

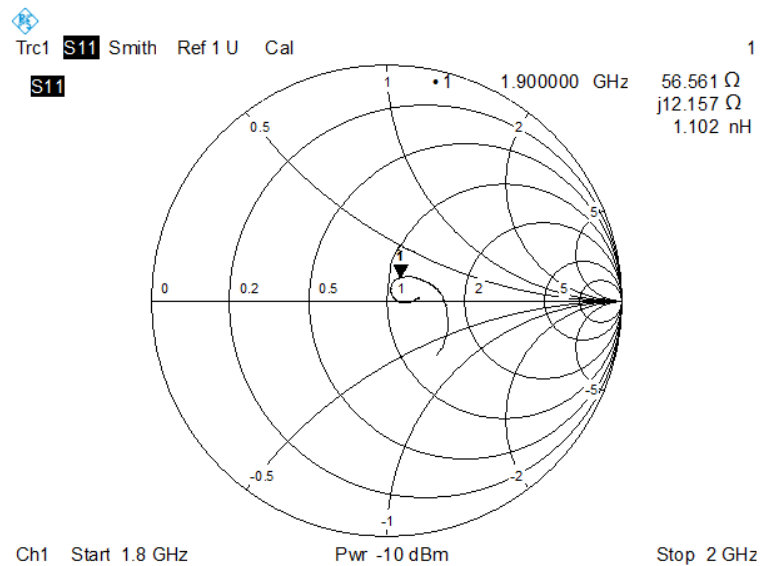
#### RETURN LOSS AND IMPEDANCE IN HEAD LIQUID

Meas. Results	Current Meas.	Previous Meas.	Max. Deviation
Return Loss (dB)	-20.99	-21.63	3.0 %
Impedance	$56.6 \Omega + 12.12 j\Omega$	$53.9 \Omega + 7.7 j\Omega$	$4.42 \Omega$ (Imaginary part)

#### Return Loss



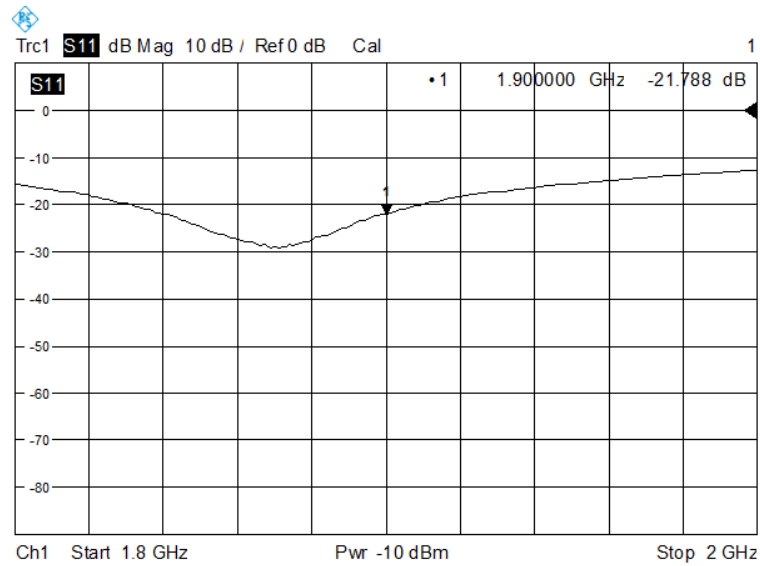
#### Impedance



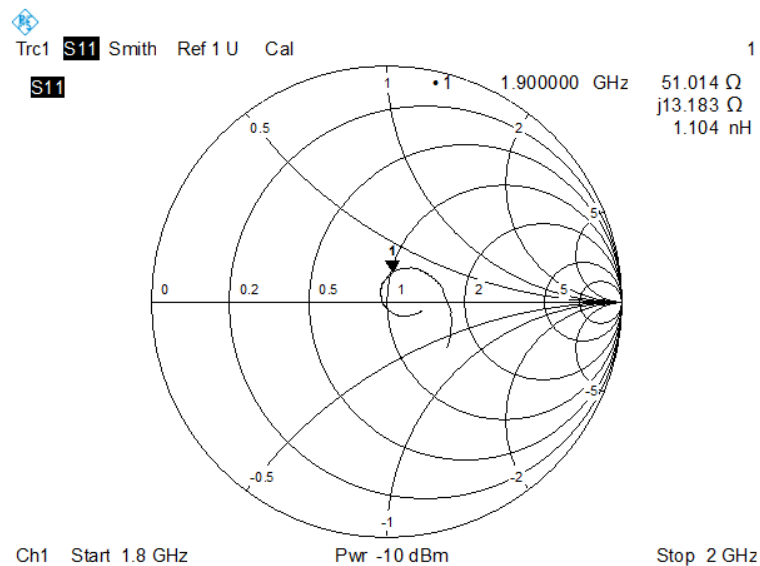
## RETURN LOSS AND IMPEDANCE IN BODY LIQUID

Meas. Results	Current Meas.	Previous Meas.	Max. Deviation
Return Loss (dB)	-21.79	-21.47	1.5 %
Impedance	51.0 $\Omega$ + 13.2 j $\Omega$	48.9 $\Omega$ + 8.4 j $\Omega$	4.8 $\Omega$ (Imaginary part)

### Return Loss



### Impedance

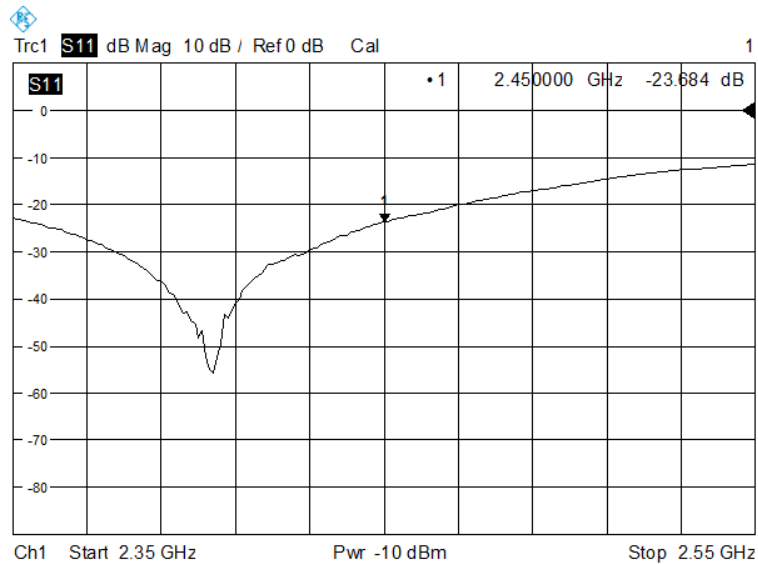


### 3.5 DIP 2G450

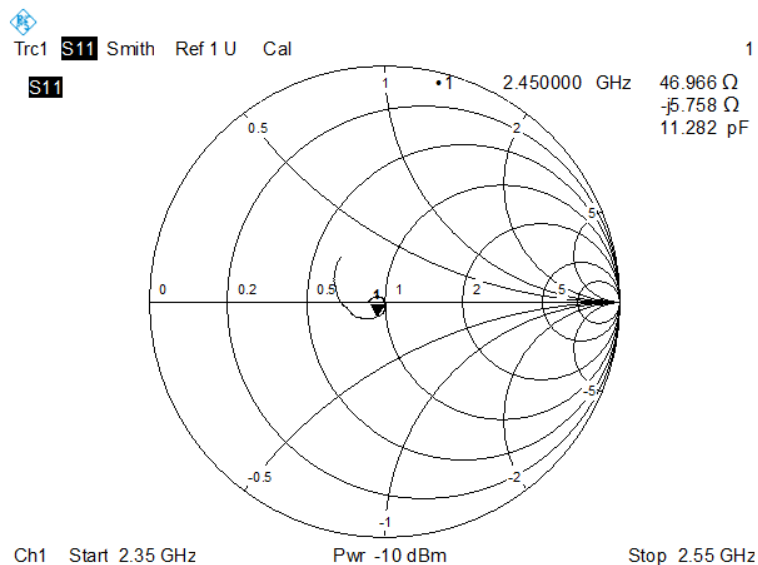
#### RETURN LOSS AND IMPEDANCE IN HEAD LIQUID

Meas. Results	Current Meas.	Previous Meas.	Max. Deviation
Return Loss (dB)	-23.68	-26.46	11.7 %
Impedance	$47.0 \Omega + 5.76 j\Omega$	$49.3 \Omega - 4.7 j\Omega$	$2.3 \Omega$ (Imaginary part)

#### Return Loss



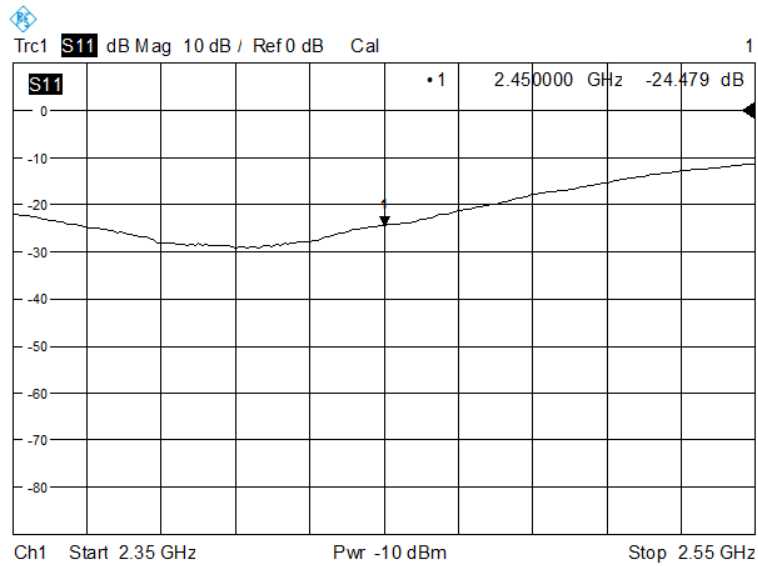
#### Impedance



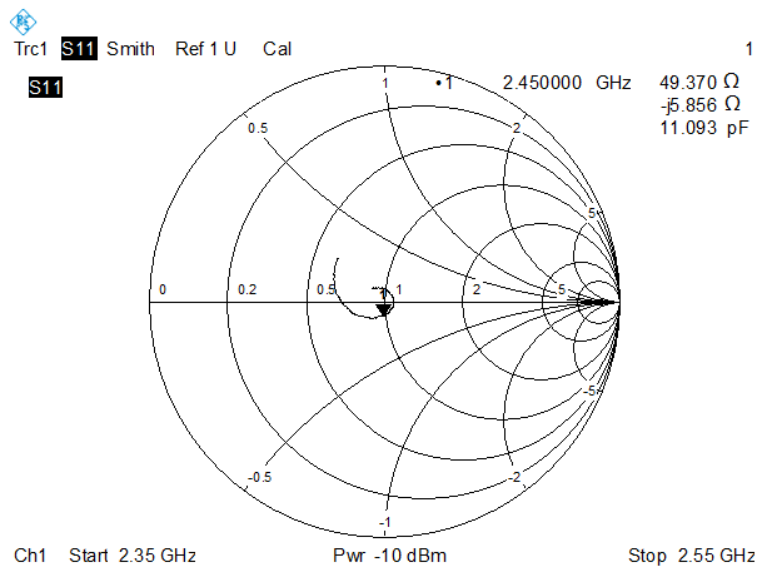
## RETURN LOSS AND IMPEDANCE IN BODY LIQUID

Meas. Results	Current Meas.	Previous Meas.	Max. Deviation
Return Loss (dB)	-24.48	-23.34	4.7 %
Impedance	49.4 $\Omega$ - 5.86 j $\Omega$	53.4 $\Omega$ - 6.2 j $\Omega$	4 $\Omega$ (Real part)

### Return Loss



### Impedance

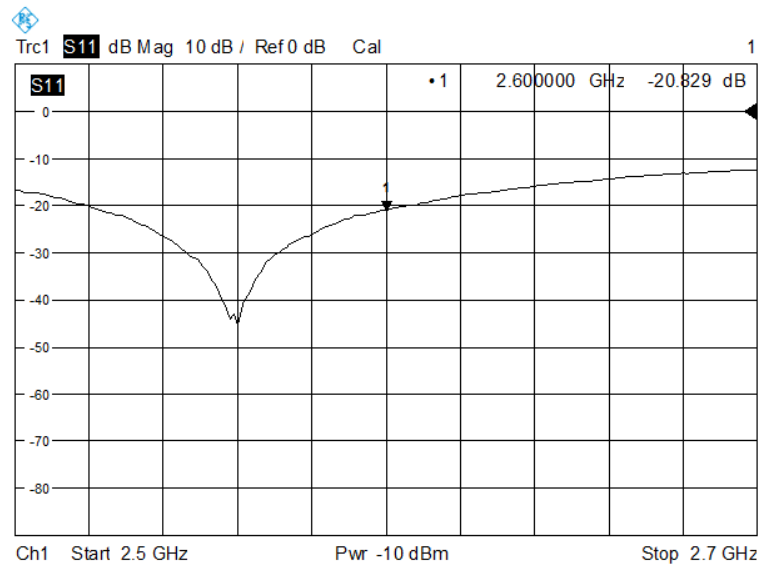


### 3.6 DIP 2G600

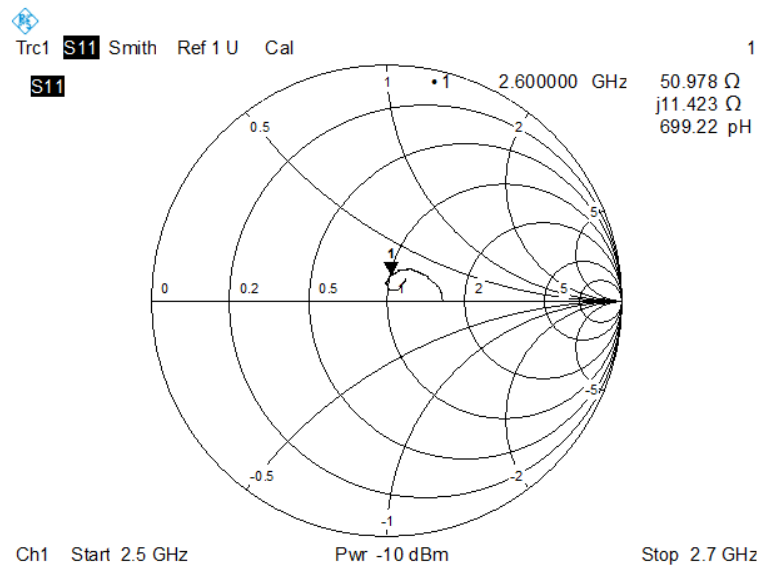
#### RETURN LOSS AND IMPEDANCE IN HEAD LIQUID

Meas. Results	Current Meas.	Previous Meas.	Max. Deviation
Return Loss (dB)	-20.83	-20.66	0.8 %
Impedance	51.0 $\Omega$ + 11.42 j $\Omega$	51.0 $\Omega$ + 9.4 j $\Omega$	2.02 $\Omega$ (Imaginary part)

#### Return Loss



#### Impedance

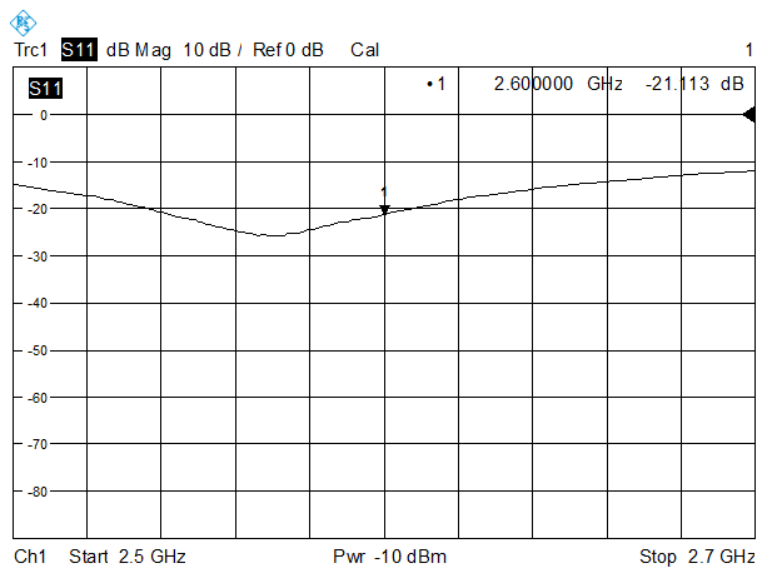




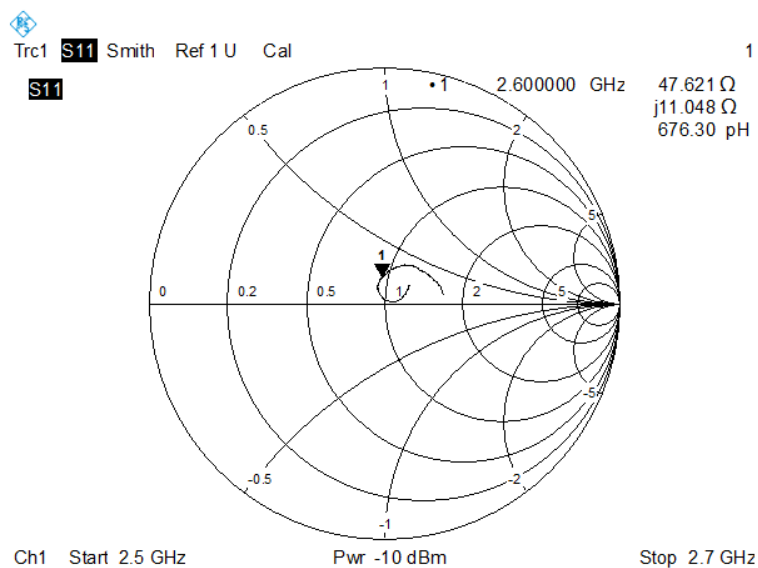
# RETURN LOSS AND IMPEDANCE IN BODY LIQUID

Meas. Results	Current Meas.	Previous Meas.	Max. Deviation
Return Loss (dB)	-21.11	-22.17	5.0 %
Impedance	47.6 $\Omega$ + 11.05 j $\Omega$	47.9 $\Omega$ + 7.5 j $\Omega$	3.55 $\Omega$ (Imaginary part)

## Return Loss

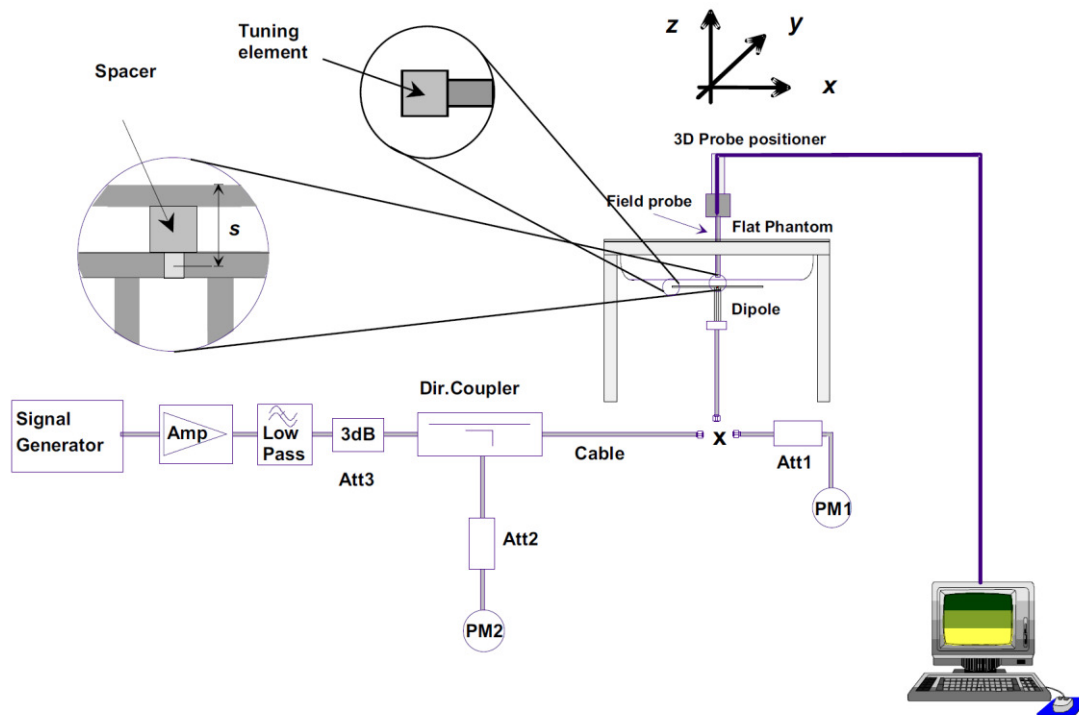


## Impedance



## 4 VALIDATION MEASUREMENT

The IEEE Std. 1528, FCC KDBs and CEI/IEC 62209 standards state that the system validation measurements must be performed using a reference dipole meeting the fore mentioned return loss and mechanical dimension requirements. The validation measurement must be performed against a liquid filled flat phantom, with the phantom constructed as outlined in the fore mentioned standards. Per the standards, the dipole shall be positioned below the bottom of the phantom, with the dipole length centered and parallel to the longest dimension of the flat phantom, with the top surface of the dipole at the described distance from the bottom surface of the phantom.



## 4.1 Dipole SAR Validation Measurement Result

Freq. (MHz)	Liquid Type	Power (mW)	1 g Measured SAR (W/kg)	Normaliz ed SAR (W/kg)	10 g Measured SAR (W/kg)	Normaliz ed SAR (W/kg)	1 g Targeted SAR (W/kg)	Tolerance (%)	10 g Targeted SAR (W/kg)	Tolerance (%)
750	Head	100	0.861	8.61	0.576	5.76	8.49	1.41	5.55	3.78
	Body	100	0.879	8.79	0.592	5.92	8.49	3.53	5.55	6.67
835	Head	100	0.983	9.83	0.609	6.09	9.56	2.82	6.22	-2.09
	Body	100	1.013	10.13	0.659	6.59	9.56	5.96	6.22	5.95
1800	Head	100	3.892	38.92	1.964	19.64	38.40	1.35	20.10	-2.29
	Body	100	3.911	39.11	1.989	19.89	38.40	1.85	20.10	-1.04
1900	Head	100	3.890	38.90	1.968	19.68	39.70	-2.02	20.50	-4.00
	Body	100	3.943	39.43	2.001	20.01	39.70	-0.68	20.50	-2.39
2450	Head	100	5.328	53.28	2.483	24.83	52.40	1.68	24.00	3.46
	Body	100	5.094	50.94	2.450	24.50	52.40	-2.79	24.00	2.08
2600	Head	100	5.323	53.23	2.515	25.15	55.30	-3.74	24.60	2.24
	Body	100	5.174	51.74	2.377	23.77	55.30	-6.44	24.60	-3.37

## 4.2 DIP 0G750

### 4.2.1 Dipole 750 MHz Validation Measurement for Head Tissue

# System Performance Check Data(750 MHz Head)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPG0265

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

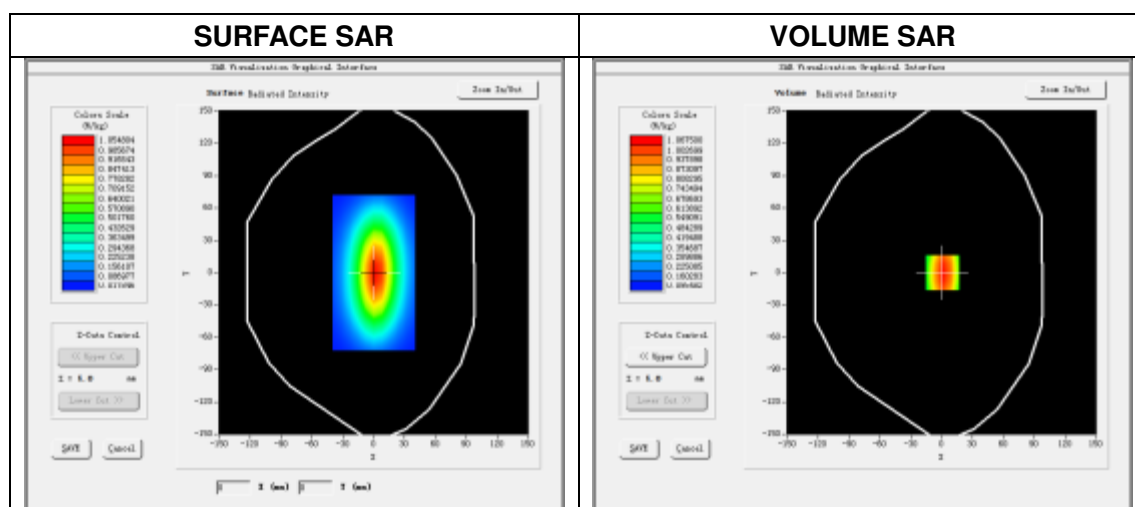
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.03.01

Measurement duration: 13 minutes 27 seconds

## Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	750MHz
Signal	CW
Frequency (MHz)	750MHz
Relative permittivity (real part)	41.923526
Conductivity (S/m)	0.883686
Power drift (%)	-3.100000
Ambient Temperature:	21.6°C
Liquid Temperature:	21.1°C
ConvF:	1.81
Crest factor:	1:1

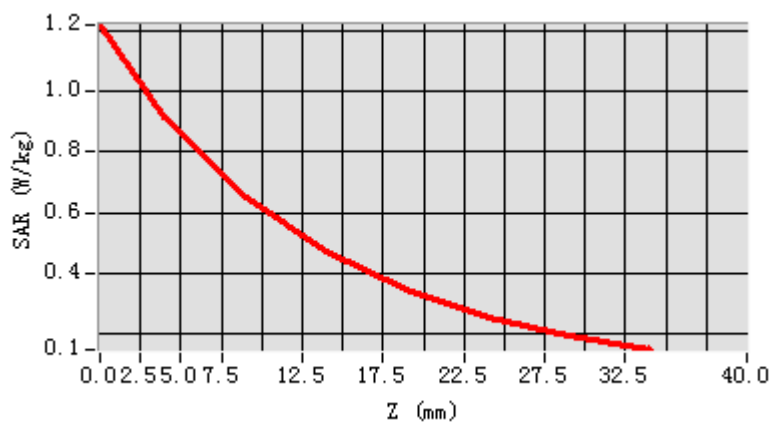


Maximum location: X=1.00, Y=0.00

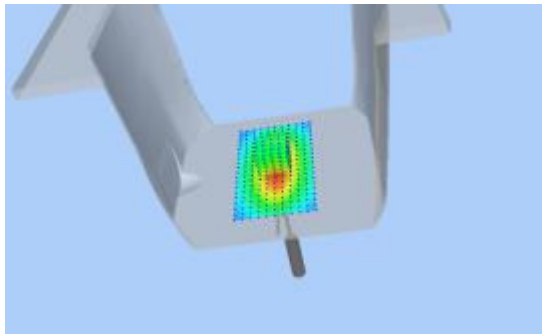
SAR Peak: 1.28 W/kg

SAR 10g (W/Kg)	0.576457
SAR 1g (W/Kg)	0.861462

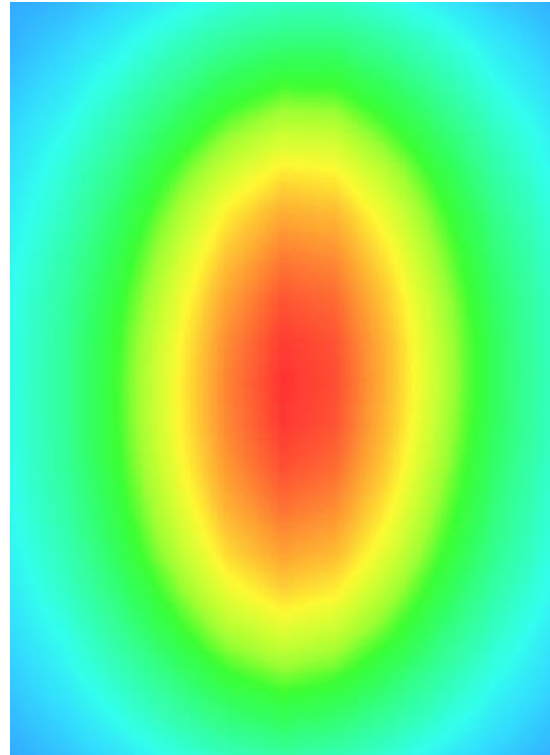
### Z Axis Scan



### 3D screen shot



### Hot spot position





## 4.2.2 Dipole 750 MHz Validation Measurement for Body Tissue

### 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

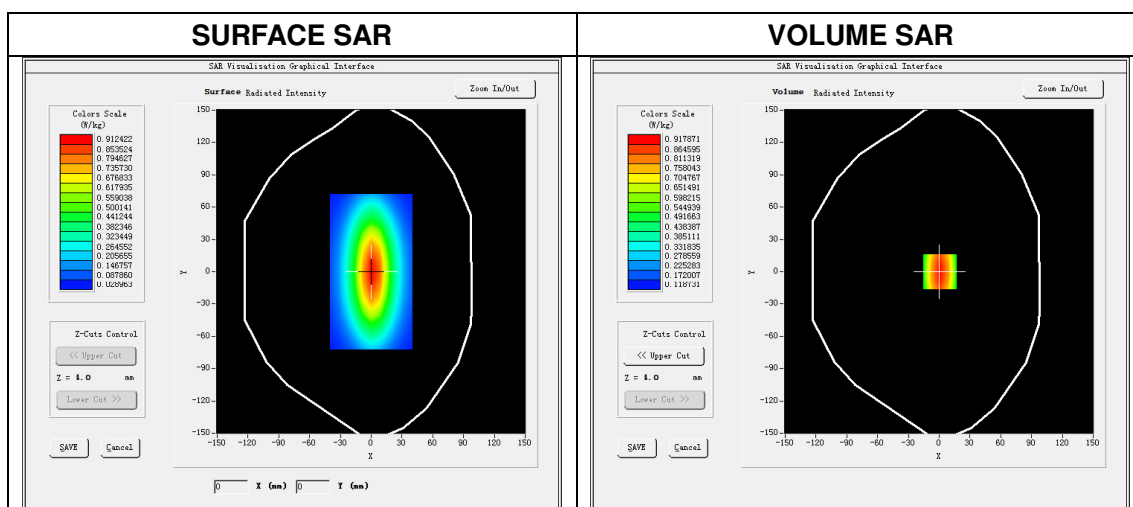
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.03.01

Measurement duration: 13 minutes 27 seconds

### Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	750MHz
Signal	CW
Frequency (MHz)	750MHz
Relative permittivity (real part)	57.188739
Conductivity (S/m)	0.946268
Power drift (%)	-0.600000
Ambient Temperature:	21.6°C
Liquid Temperature:	21.1°C
ConvF:	1.88
Crest factor:	1:1

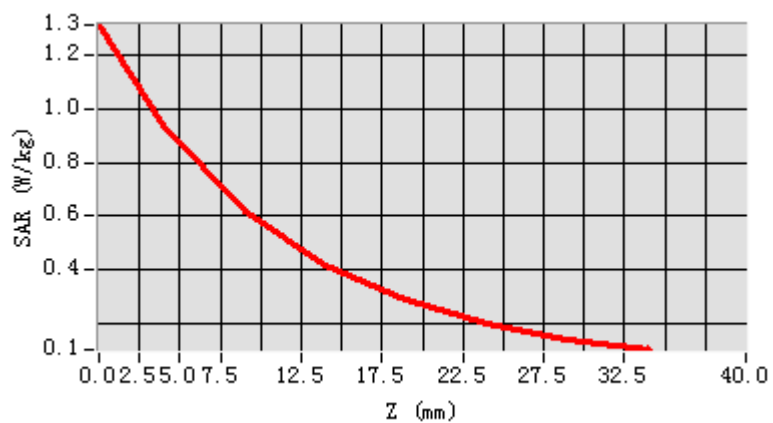


Maximum location: X=1.00, Y=0.00

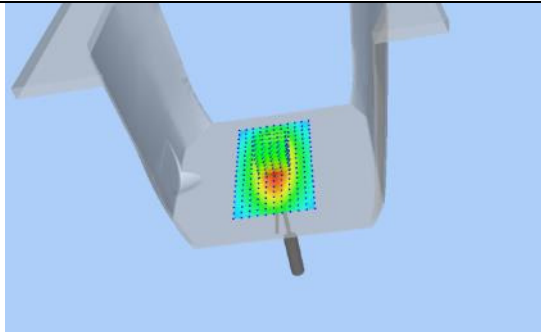
SAR Peak: 1.28 W/kg

SAR 10g (W/Kg)	0.592395
SAR 1g (W/Kg)	0.878736

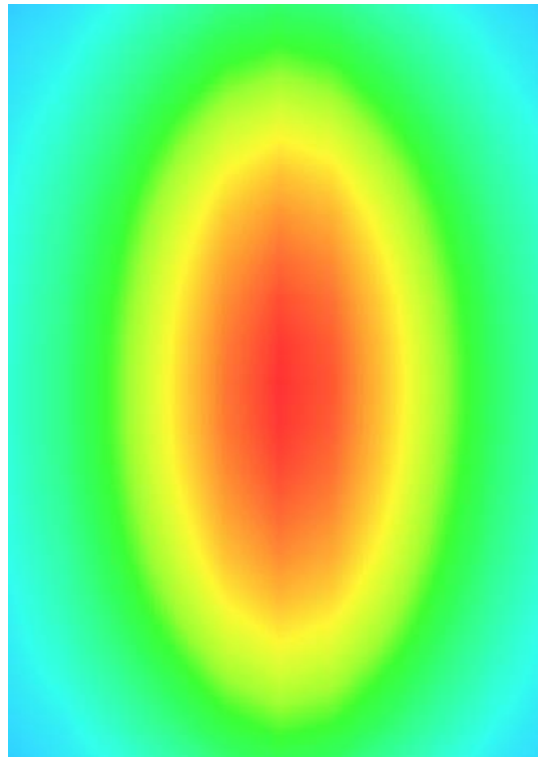
### Z Axis Scan



### 3D screen shot



### Hot spot position



### 4.3 DIP 0G835

#### 4.3.1 Dipole 835 MHz Validation Measurement for Head Tissue

## System Performance Check Data(835 MHz Head)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPG0265

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

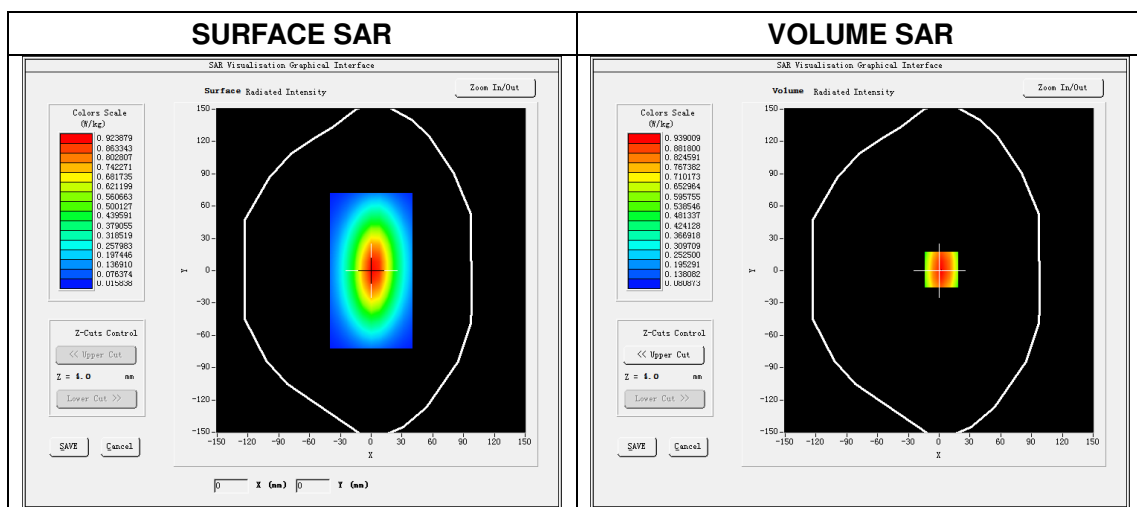
Zoom scan resolution: dx=8 mm, dy=8 mm, dz=5 mm

Date of measurement: 2016.03.01

Measurement duration: 14 minutes 2 seconds

### Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	835 MHz
Signal	CW
Frequency (MHz)	835.000000
Relative permittivity (real part)	43.331142
Conductivity (S/m)	0.897827
Power drift (%)	-0.050000
Ambient Temperature:	21.6°C
Liquid Temperature:	21.1°C
ConvF:	2.04
Crest factor:	1:1

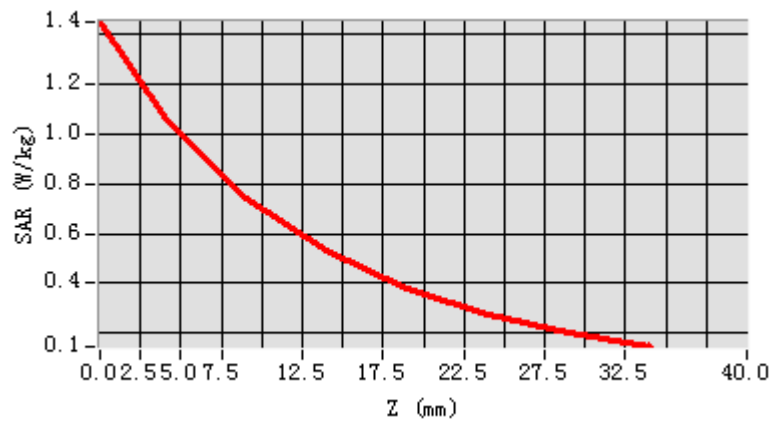


Maximum location: X=0.00, Y=0.00

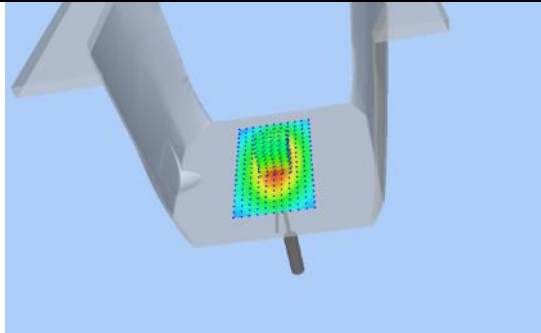
SAR Peak: 1.40 W/kg

SAR 10 g (W/Kg)	0.609437
SAR 1 g (W/Kg)	0.983275

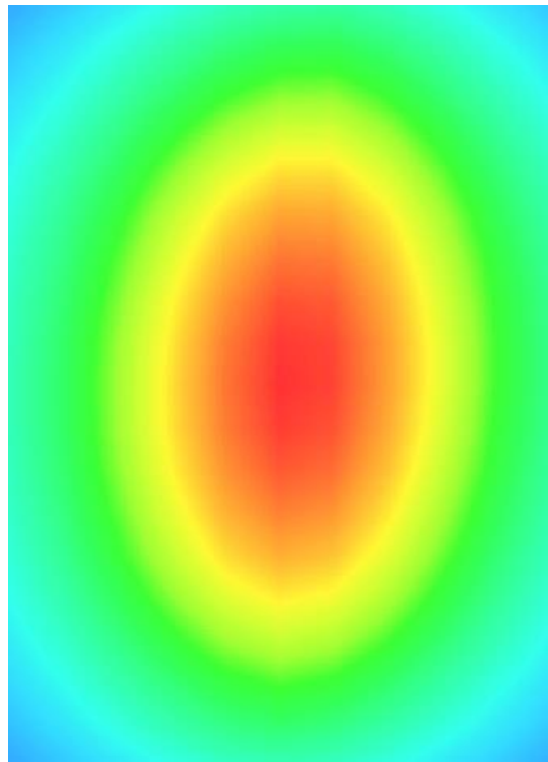
### Z Axis Scan



3D screen shot



Hot spot position



## 4.3.2 Dipole 835 MHz Validation Measurement for Body Tissue

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

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPG0265

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

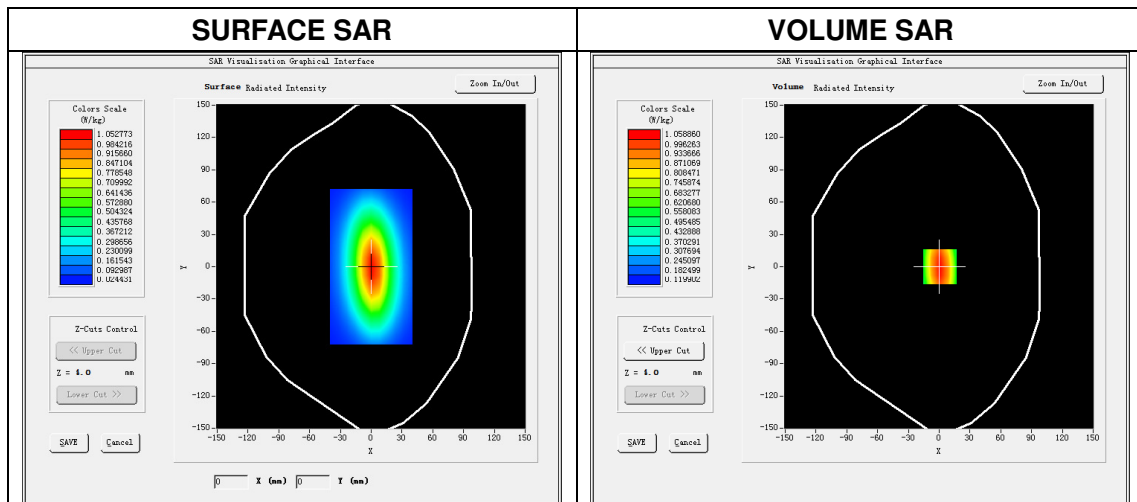
Zoom scan resolution: dx=8 mm, dy=8 mm, dz=5 mm

Date of measurement: 2016.03.01

Measurement duration: 14 minutes 2 seconds

### Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	835 MHz
Signal	CW
Frequency (MHz)	835.000000
Relative permittivity (real part)	54.652059
Conductivity (S/m)	0.991147
Power drift (%)	0.390000
Ambient Temperature:	21.6°C
Liquid Temperature:	21.1°C
ConvF:	2.12
Crest factor:	1:1



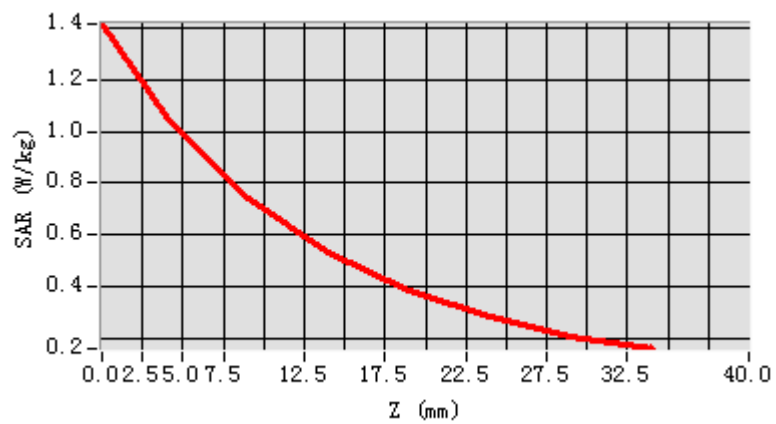


Maximum location: X=0.00, Y=0.00

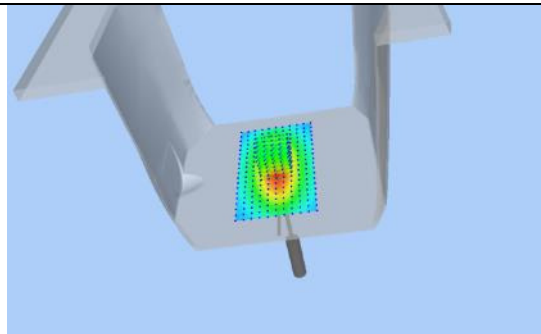
SAR Peak: 1.41 W/kg

SAR 10 g (W/Kg)	0.659168
SAR 1 g (W/Kg)	1.013364

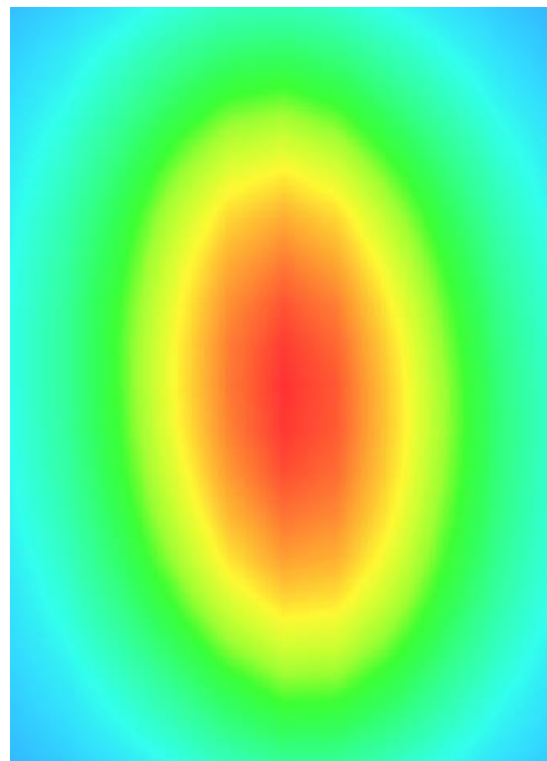
### Z Axis Scan



### 3D screen shot



### Hot spot position



## 4.4 DIP 1G800

### 4.4.1 Dipole 1800 MHz Validation Measurement for Head Tissue

# System Performance Check Data(1800 MHz Head)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

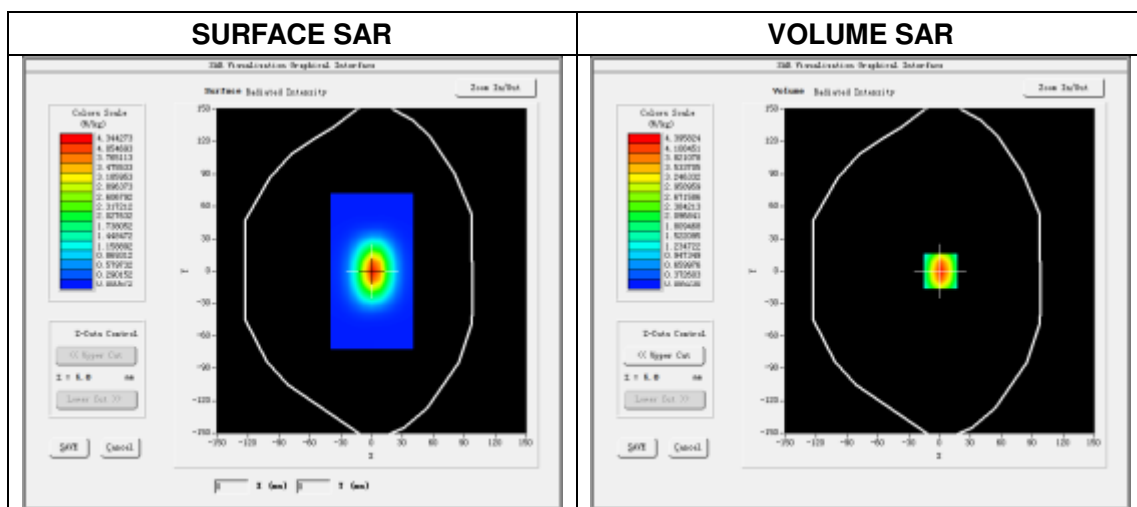
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.03.02

Measurement duration: 13 minutes 27 seconds

## Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	1800MHz
Signal	CW
Frequency (MHz)	1800.000000
Relative permittivity (real part)	39.562781
Conductivity (S/m)	1.413274
Power drift (%)	1.160000
Ambient Temperature:	21.6°C
Liquid Temperature:	21.1°C
ConvF:	2.04
Crest factor:	1:1

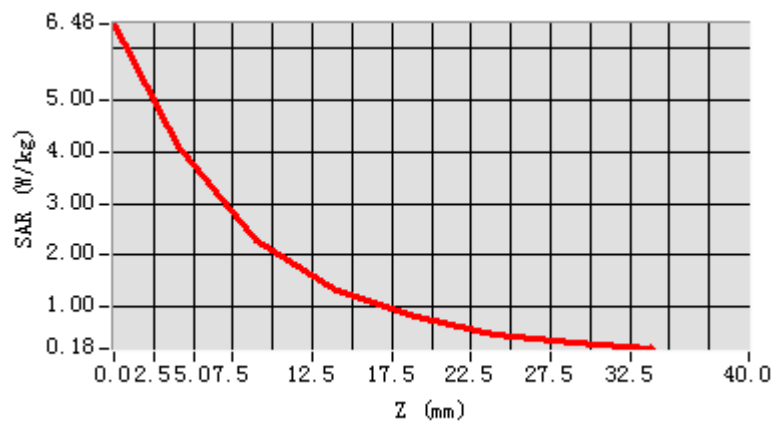


Maximum location: X=0.00, Y=0.00

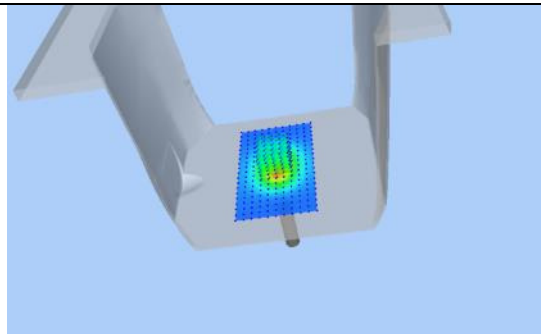
SAR Peak: 6.47 W/kg

SAR 10 g (W/Kg)	1.964125
SAR 1g (W/Kg)	3.892053

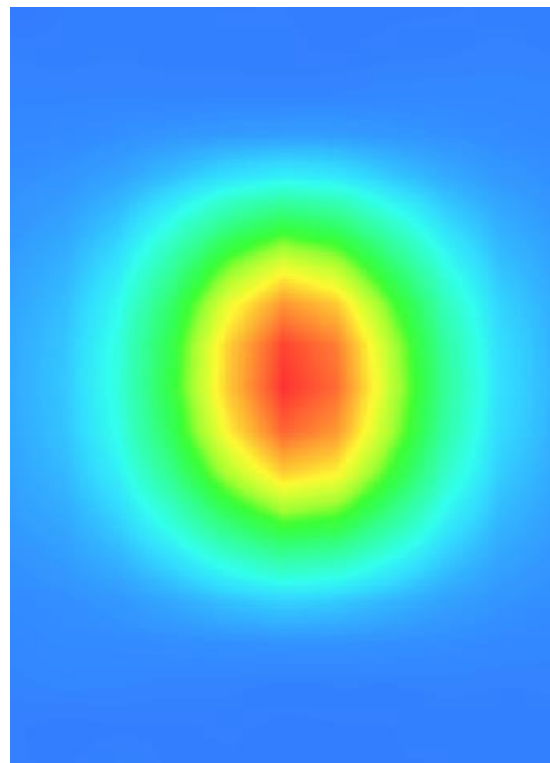
### Z Axis Scan



### 3D screen shot



### Hot spot position



#### 4.4.2 Dipole 1800 MHz Validation Measurement for Body Tissue

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

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPG0265

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

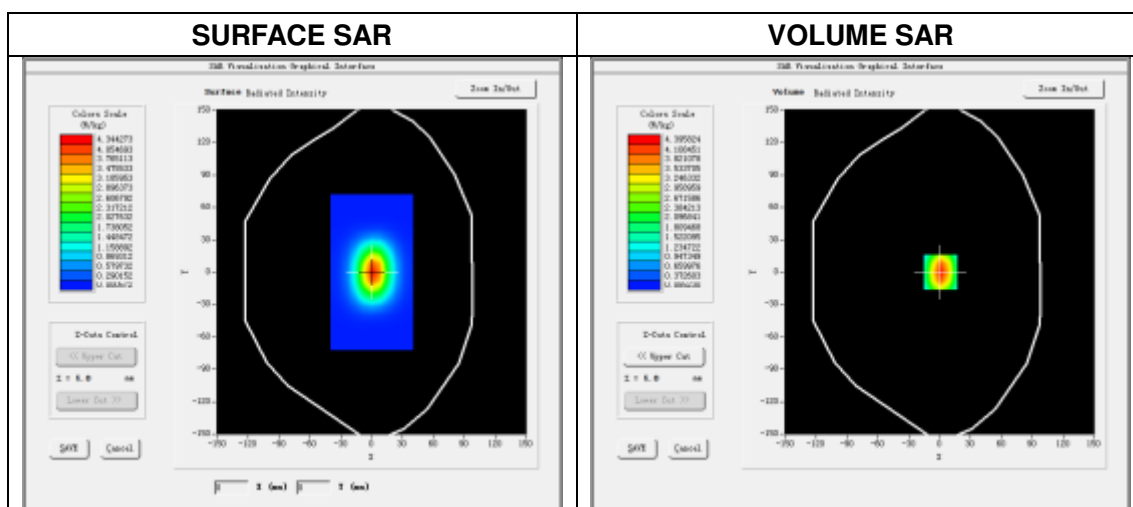
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.03.02

Measurement duration: 13 minutes 27 seconds

#### Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	1800MHz
Signal	CW
Frequency (MHz)	1800.000000
Relative permittivity (real part)	54.685214
Conductivity (S/m)	1.508863
Power drift (%)	1.160000
Ambient Temperature:	21.6°C
Liquid Temperature:	21.1°C
ConvF:	2.08
Crest factor:	1:1

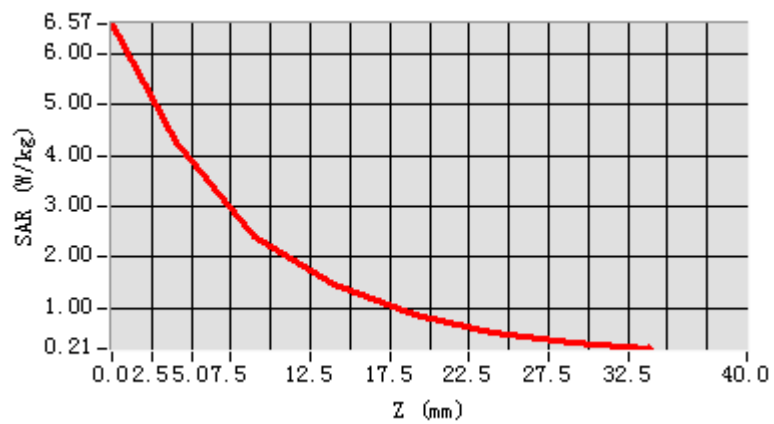


Maximum location: X=0.00, Y=0.00

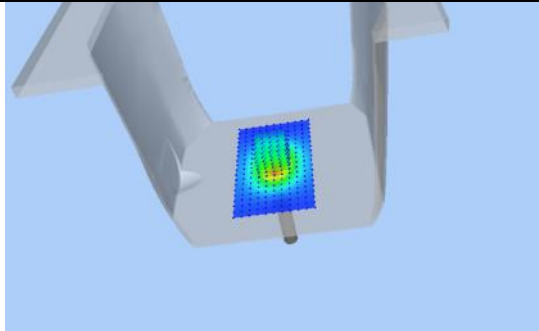
SAR Peak: 6.52 W/kg

SAR 10 g (W/Kg)	1.989471
SAR 1g (W/Kg)	3.911256

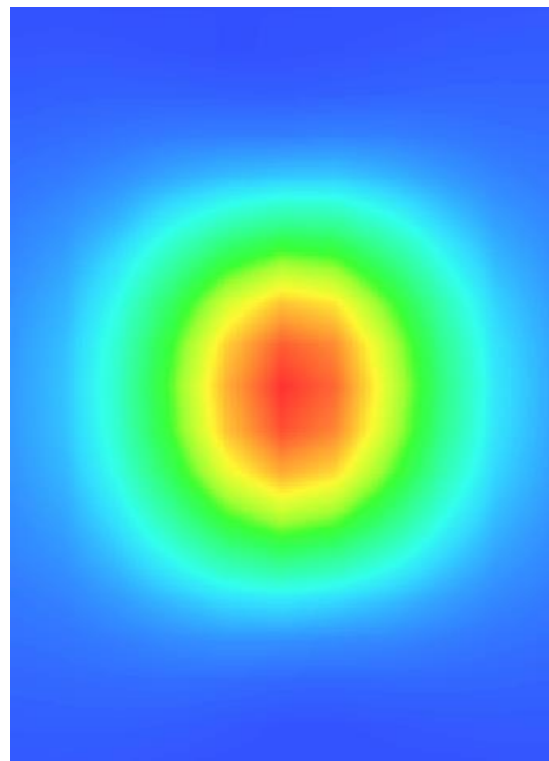
### Z Axis Scan



### 3D screen shot



### Hot spot position





## 4.5 DIP 1G900

### 4.5.1 Dipole 1900 MHz Validation Measurement for Head Tissue

# System Performance Check Data(1900 MHz Head)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

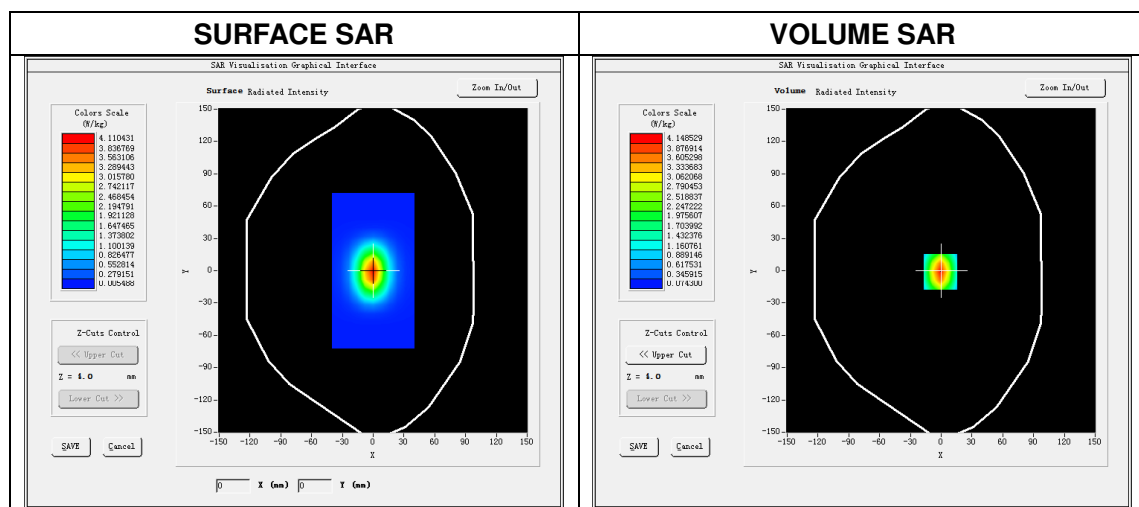
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.03.02

Measurement duration: 13 minutes 20 seconds

## Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	1900MHz
Signal	CW
Frequency (MHz)	1900.000000
Relative permittivity (real part)	39.402471
Conductivity (S/m)	1.425793
Power drift (%)	1.260000
Ambient Temperature:	21.8°C
Liquid Temperature:	21.2°C
ConvF:	2.35
Crest factor:	1:1

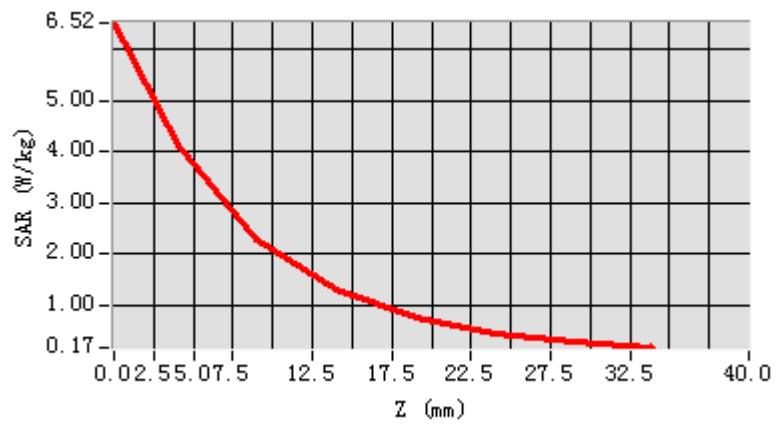


Maximum location: X=0.00, Y=0.00

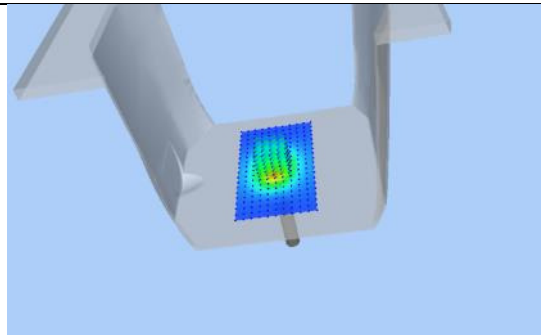
SAR Peak: 6.46W/kg

SAR 10g (W/Kg)	1.967525
SAR 1g (W/Kg)	3.890170

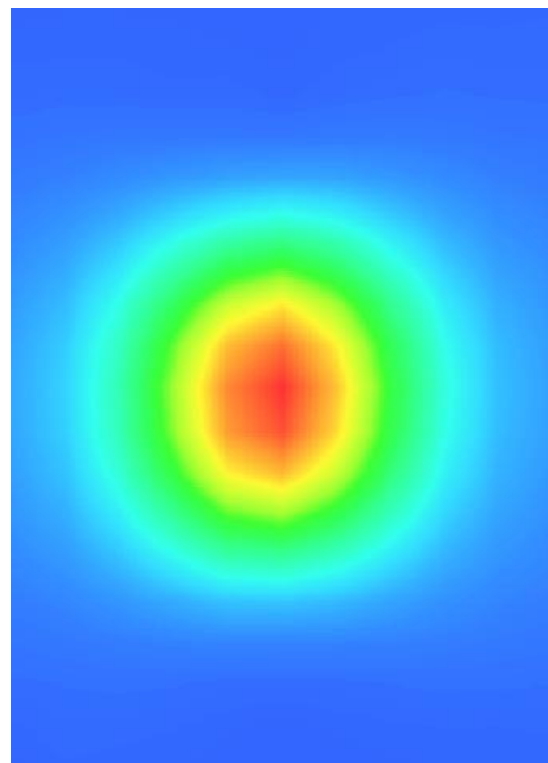
### Z Axis Scan



### 3D screen shot



### Hot spot position



## 4.5.2 Dipole 1900 MHz Validation Measurement for Body Tissue

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

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

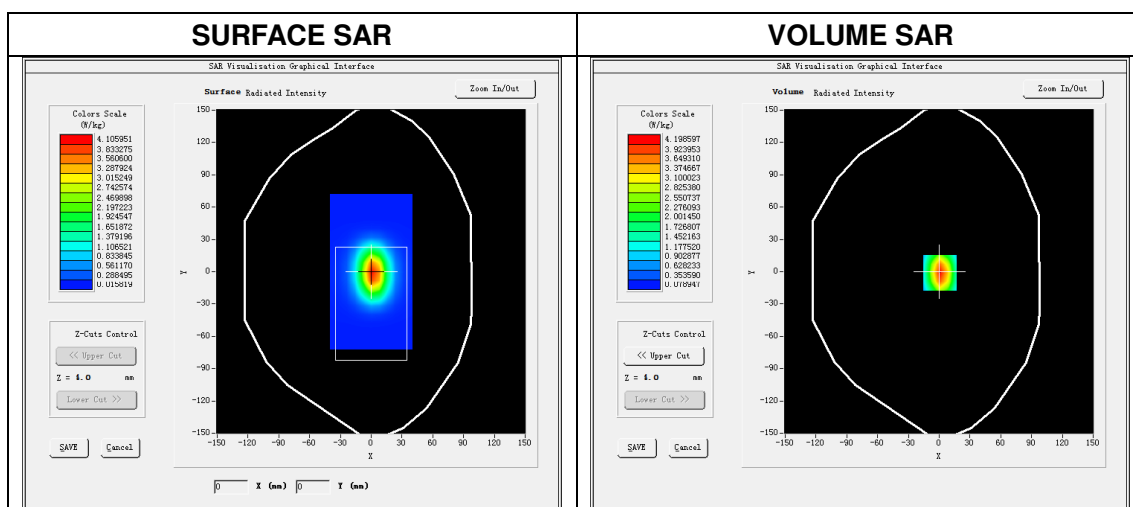
Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm

Date of measurement: 2016.03.02

Measurement duration: 13 minutes 20 seconds

### Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	1900 MHz
Signal	CW
Frequency (MHz)	1900.000000
Relative permittivity (real part)	53.158287
Conductivity (S/m)	1.534258
Power drift (%)	0.180000
Ambient Temperature:	21.8°C
Liquid Temperature:	21.2°C
ConvF:	2.42
Crest factor:	1:1



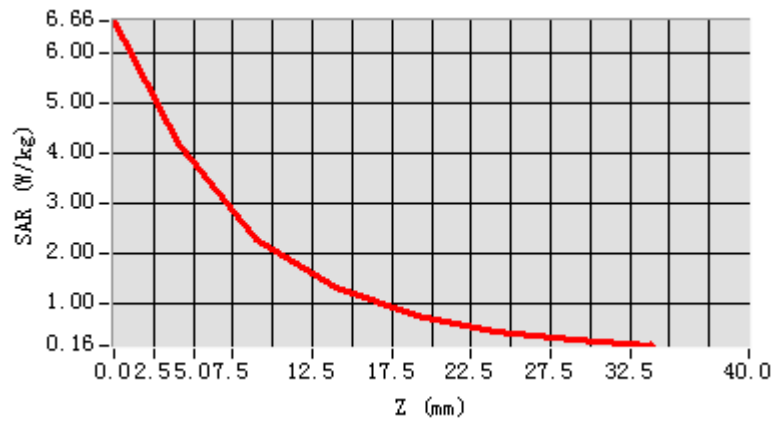


Maximum location: X=0.00, Y=0.00

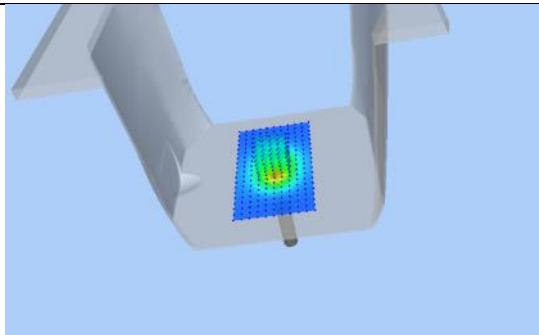
SAR Peak: 6.64W/kg

SAR 10g (W/Kg)	2.001651
SAR 1g (W/Kg)	3.943225

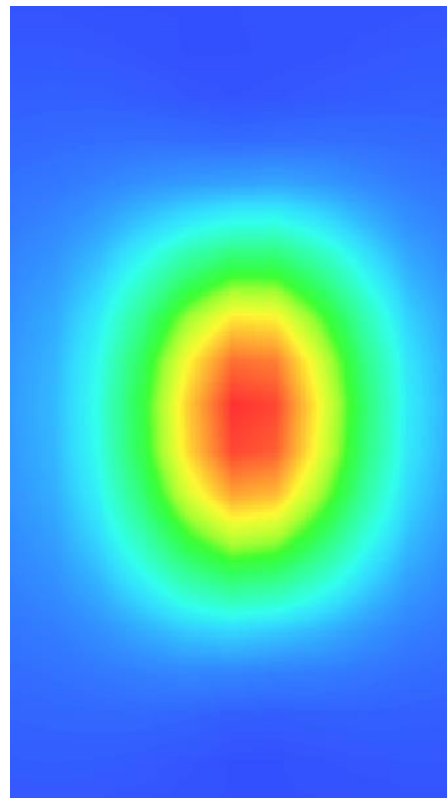
### Z Axis Scan



### 3D screen shot



### Hot spot position



## 4.6 DIP 2G450

### 4.6.1 Dipole 2450 MHz Validation Measurement for Head Tissue

# System Performance Check Data(2450 MHz Head)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPGO265

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

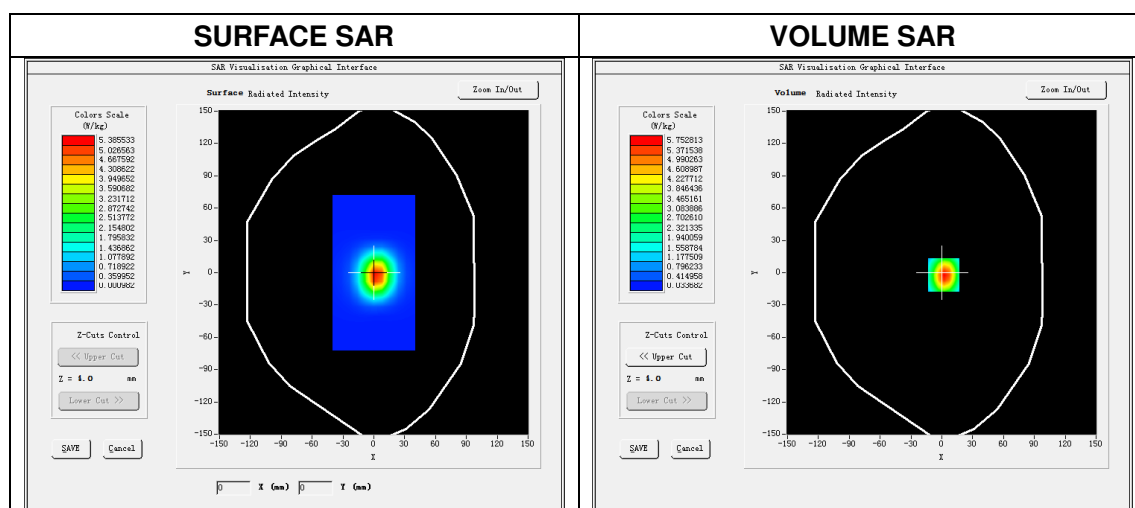
Zoom scan resolution: dx=5mm, dy=5mm, dz=5mm

Date of measurement: 2016.03.02

Measurement duration: 18 minutes 47 seconds

## Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	2450MHz
Signal	CW
Frequency (MHz)	2450.000000
Relative permittivity (real part)	38.916950
Conductivity (S/m)	1.816079
Power drift (%)	2.570000
Ambient Temperature:	21.8°C
Liquid Temperature:	21.2°C
ConvF:	2.47
Crest factor:	1:1

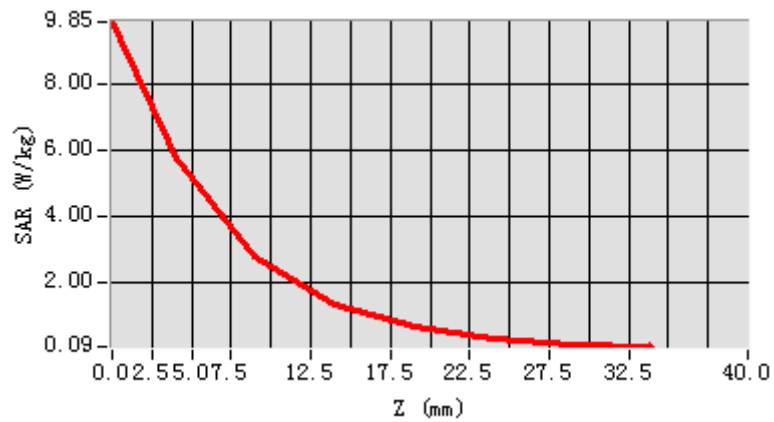


Maximum location: X=0.00, Y=0.00

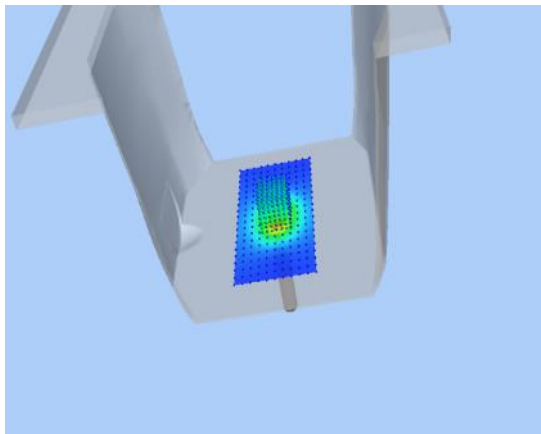
SAR Peak: 9.52 W/kg

SAR 10g (W/Kg)	2.483244
SAR 1g (W/Kg)	5.328480

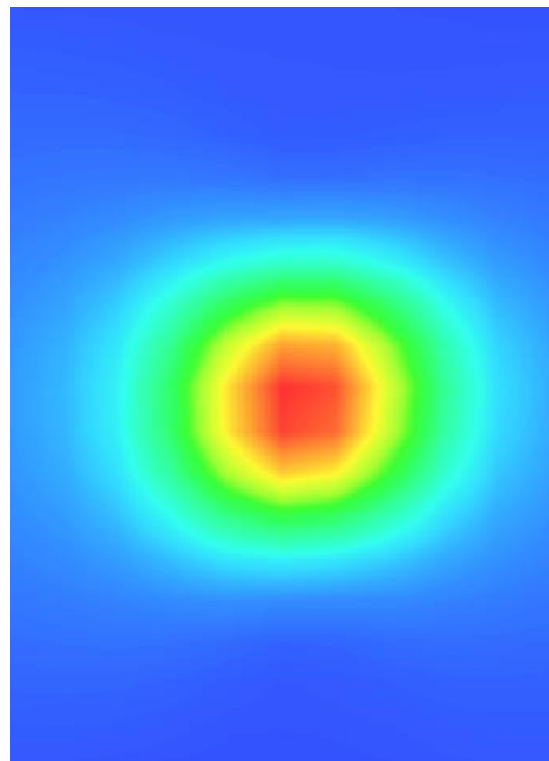
### Z Axis Scan



### 3D screen shot



### Hot spot position



## 4.6.2 Dipole 2450 MHz Validation Measurement for Body Tissue

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

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPG0265

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

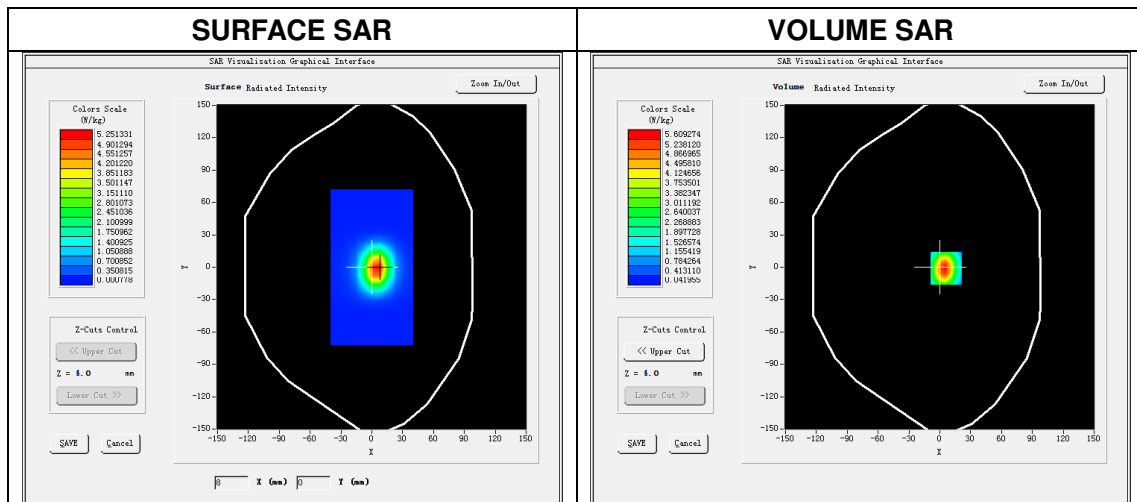
Zoom scan resolution: dx=5 mm, dy=5 mm, dz=5 mm

Date of measurement: 2016.03.02

Measurement duration: 19 minutes 58 seconds

### Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	2450 MHz
Signal	CW
Frequency (MHz)	2450.000000
Relative permittivity (real part)	52.962515
Conductivity (S/m)	1.960472
Power drift (%)	-0.560000
Ambient Temperature:	21.8°C
Liquid Temperature:	21.2°C
ConvF:	2.55
Crest factor:	1:1

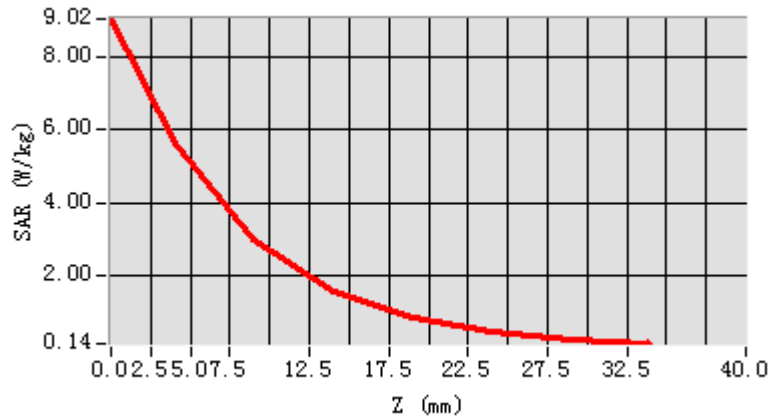


Maximum location: X=0.00, Y=0.00

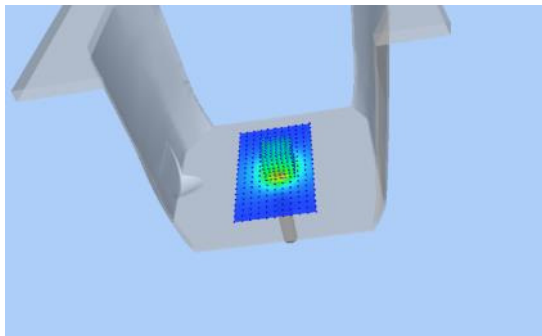
SAR Peak: 9.02 W/kg

SAR 10 g (W/Kg)	2.450144
SAR 1 g (W/Kg)	5.094052

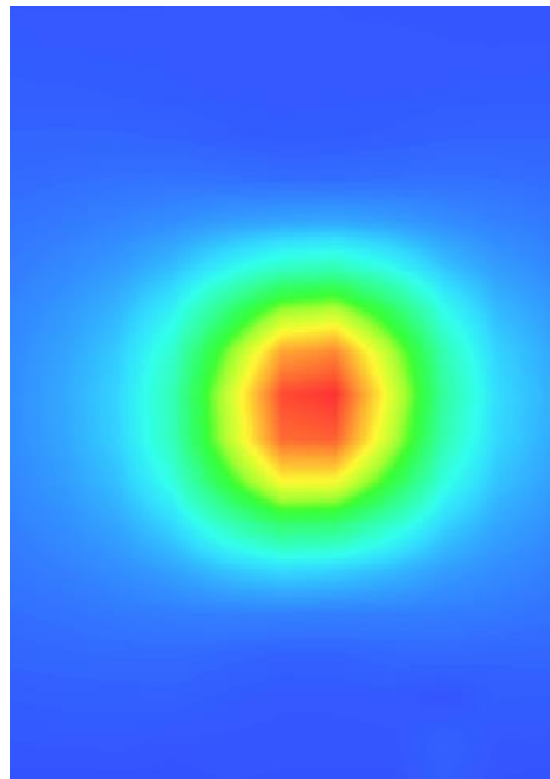
### Z Axis Scan



### 3D screen shot



### Hot spot position



## 4.7 DIP 2G600

### 4.7.1 Dipole 2600 MHz Validation Measurement for Head Tissue

# System Performance Check Data(2600 MHz Head)

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPG0265

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

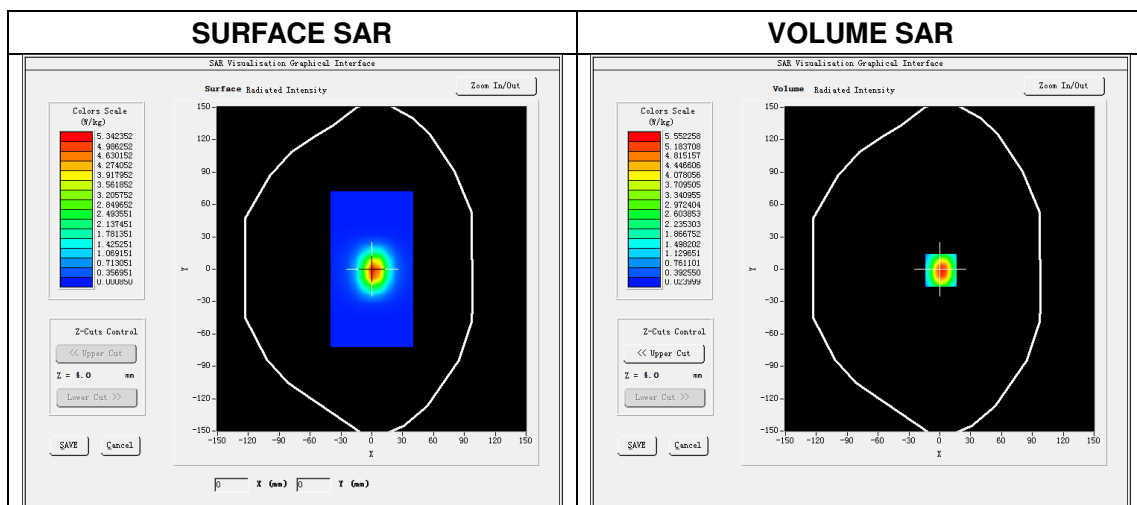
Zoom scan resolution: dx=5 mm, dy=5 mm, dz=5 mm

Date of measurement: 2016.03.03

Measurement duration: 19 minutes 3 seconds

## Experimental conditions.

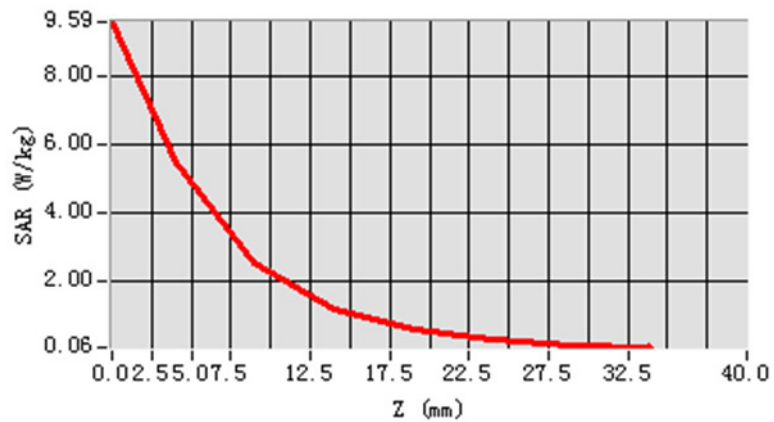
<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Band</b>	2600 MHz
<b>Signal</b>	CW
<b>Frequency (MHz)</b>	2600.000000
<b>Relative permittivity (real part)</b>	38.097251
<b>Conductivity (S/m)</b>	1.978736
<b>Power drift (%)</b>	-0.050000
<b>Ambient Temperature:</b>	21.8°C
<b>Liquid Temperature:</b>	21.2°C
<b>ConvF:</b>	2.36
<b>Crest factor:</b>	1:1



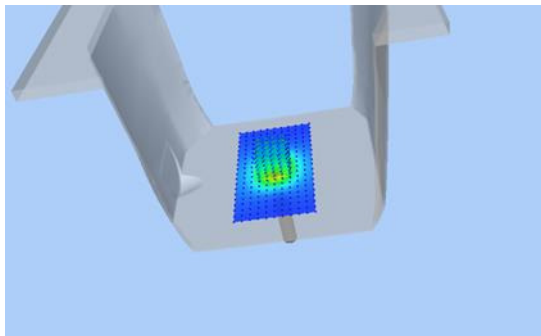
Maximum location: X=0.00, Y=0.00  
SAR Peak: 9.58 W/kg

SAR 10 g (W/Kg)	2.514654
SAR 1 g (W/Kg)	5.322832

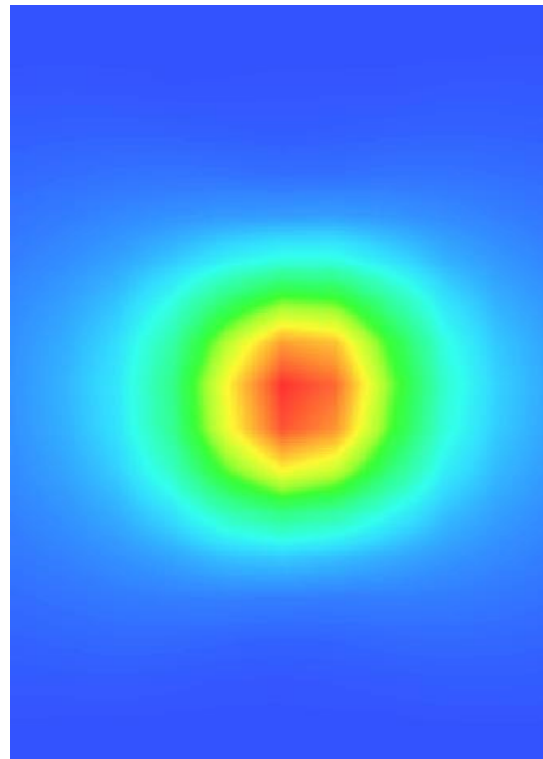
### Z Axis Scan



### 3D screen shot



### Hot spot position



## 4.7.2 Dipole 2600 MHz Validation Measurement for Body Tissue

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

Type: Phone measurement (Complete)

E-Field Probe: SN 34/15 SSE2 EPG0265

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

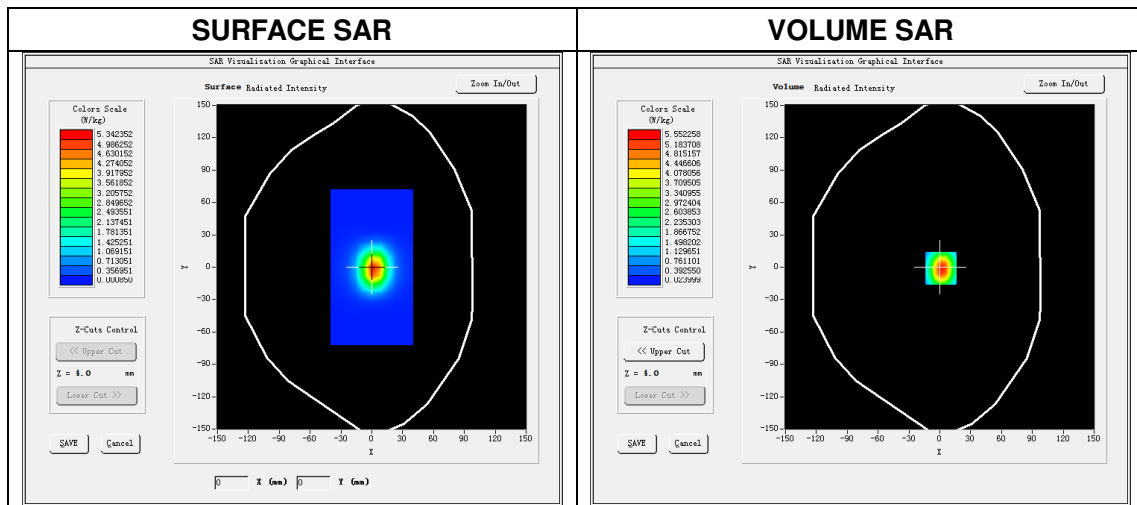
Zoom scan resolution: dx=5 mm, dy=5 mm, dz=5 mm

Date of measurement: 2016.03.03

Measurement duration: 19 minutes 1 seconds

### Experimental conditions.

Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Band	2600 MHz
Signal	CW
Frequency (MHz)	2600.000000
Relative permittivity (real part)	53.509271
Conductivity (S/m)	2.150646
Power drift (%)	0.180000
Ambient Temperature:	21.8°C
Liquid Temperature:	21.2°C
ConvF:	2.43
Crest factor:	1:1



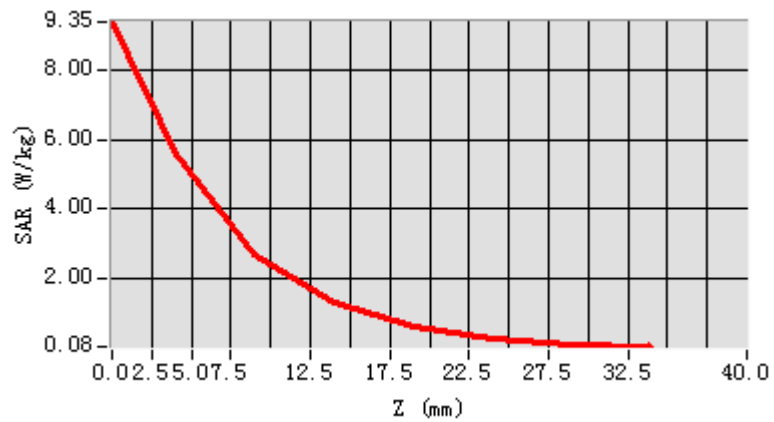


Maximum location: X=0.00, Y=0.00

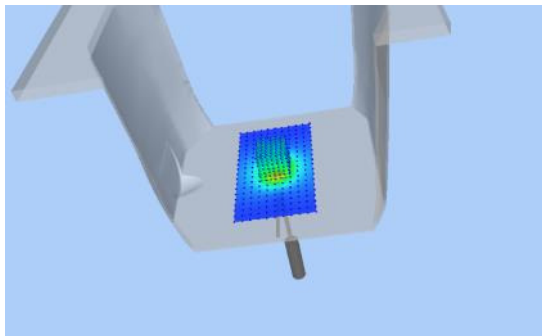
SAR Peak: 9.36 W/kg

SAR 10 g (W/Kg)	2.376986
SAR 1 g (W/Kg)	5.174332

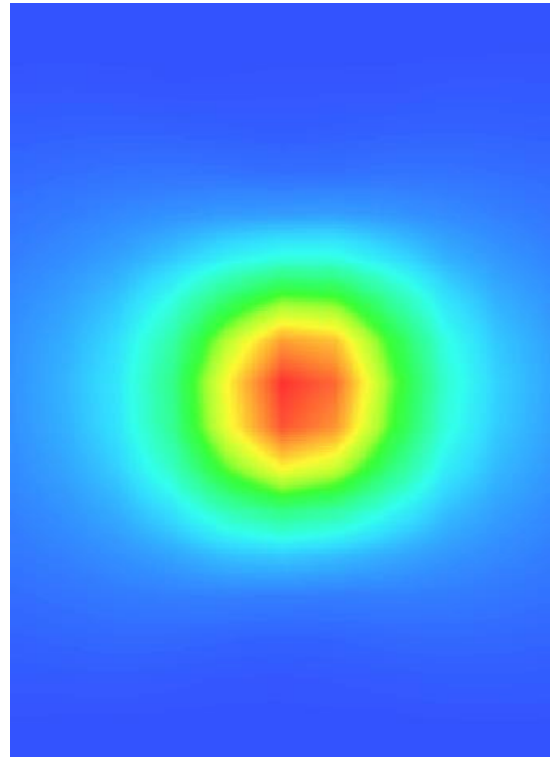
### Z Axis Scan



### 3D screen shot



### Hot spot position



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