

## MEASUREMENT 25

Type: Phone measurement (Complete)

Area scan resolution:  $dx=8\text{mm}, dy=8\text{mm}$

Zoom scan resolution:  $dx=8\text{mm}, dy=8\text{mm}, dz=5\text{mm}$

Date of measurement: 5/11/2009

Measurement duration: 7 minutes 33 seconds

### A. Experimental conditions.

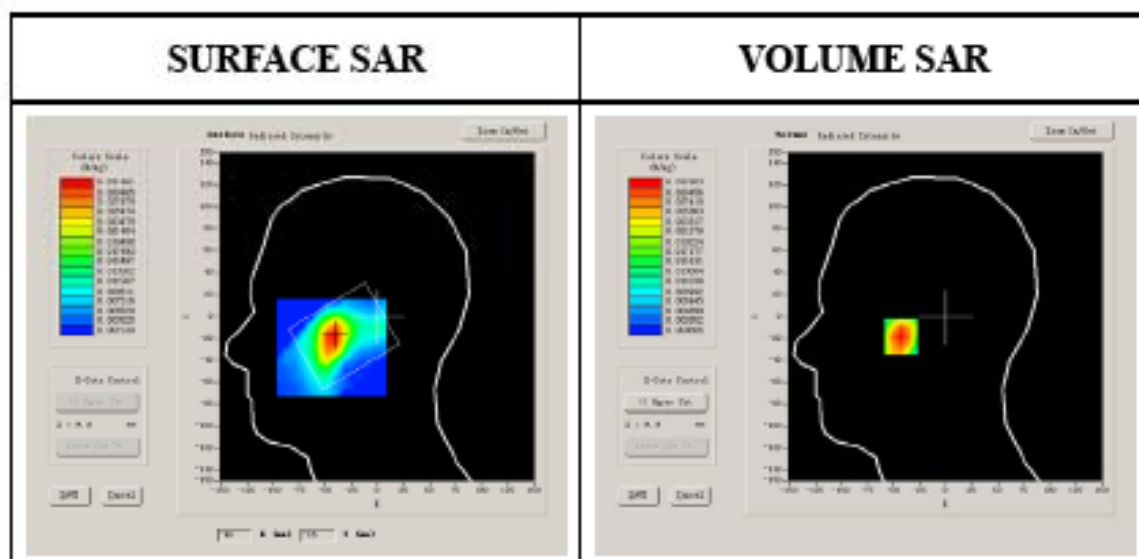
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Channels	Low
Signal	GSM

### B. SAR Measurement Results

Lower Band SAR (Channel 512):

Frequency (MHz)	1850.199951
Relative permittivity (real part)	39.993999
Relative permittivity	12.991650

<b>Conductivity (S/m)</b>	1.335397
<b>Variation (%)</b>	-2.980000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8

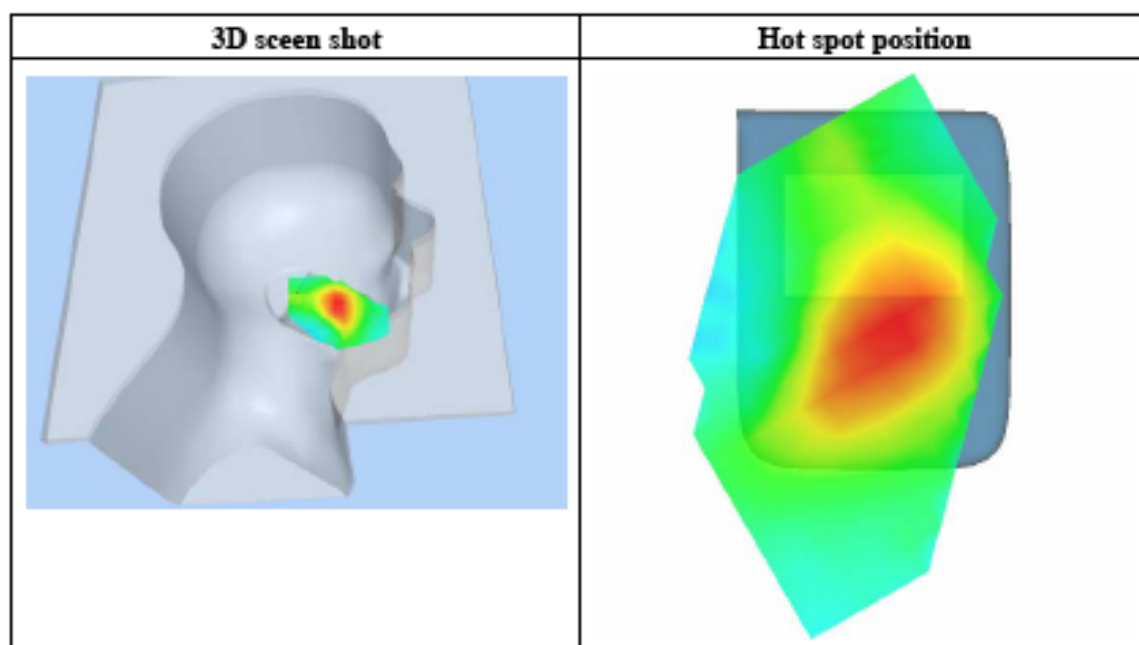
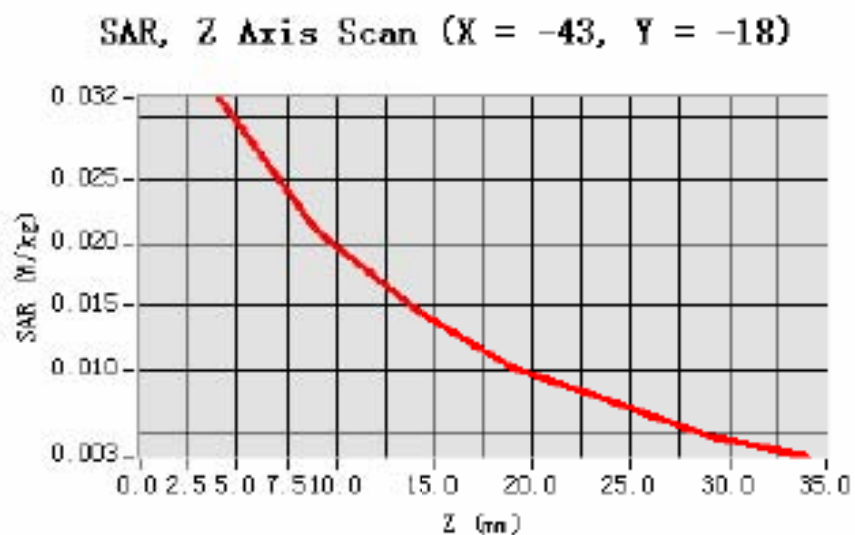


**Maximum location: X=-43.00, Y=-18.00**

<b>SAR 10g (W/Kg)</b>	0.018206
<b>SAR 1g (W/Kg)</b>	0.029970

### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.0315	0.0210	0.0148	0.0101	0.0074	0.0047



## MEASUREMENT 26

Type: Phone measurement (Complete)

Area scan resolution:  $dx=8\text{mm}, dy=8\text{mm}$

Zoom scan resolution:  $dx=8\text{mm}, dy=8\text{mm}, dz=5\text{mm}$

Date of measurement: 5/11/2009

Measurement duration: 7 minutes 49 seconds

### A. Experimental conditions.

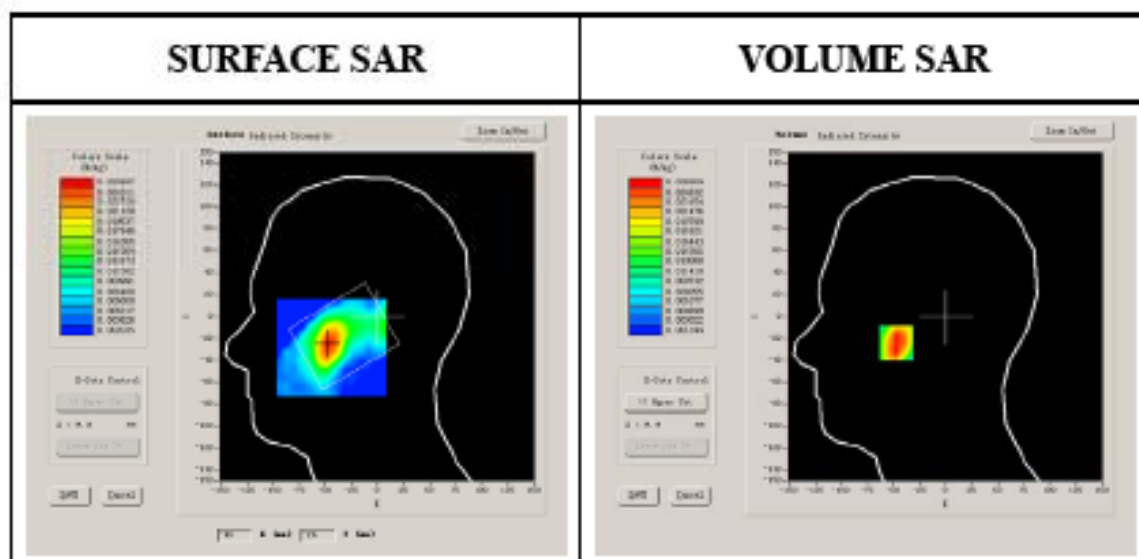
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Channels	Middle
Signal	GSM

### B. SAR Measurement Results

Middle Band SAR (Channel 661):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.509998
Relative permittivity	13.750000

<b>Conductivity (S/m)</b>	1.436111
<b>Variation (%)</b>	0.670000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8

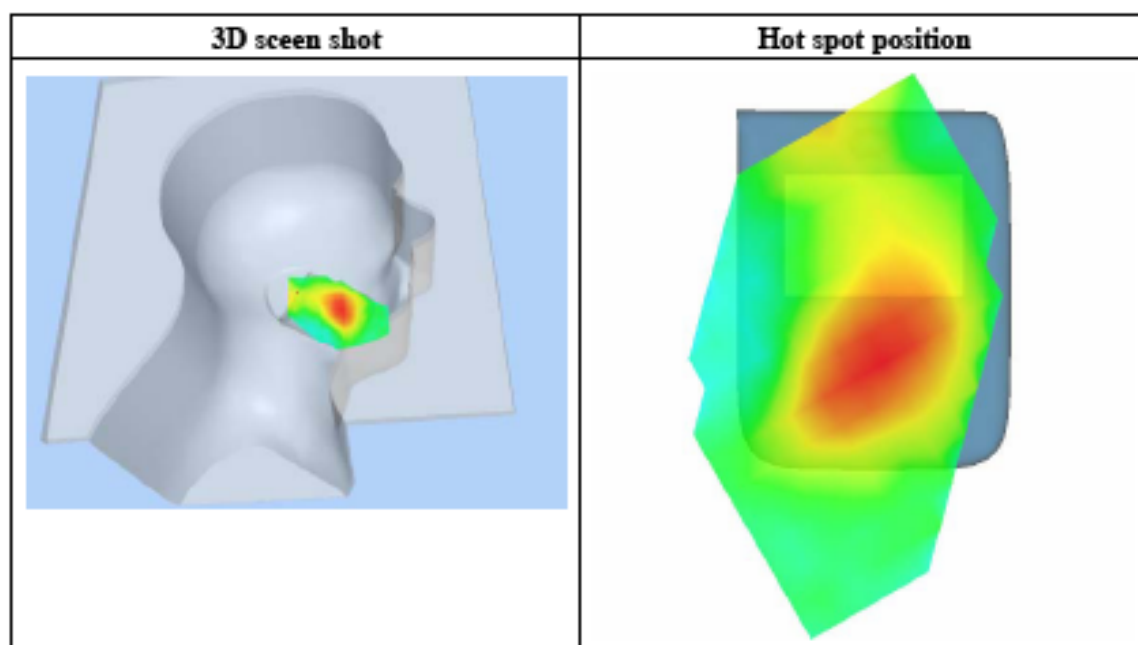
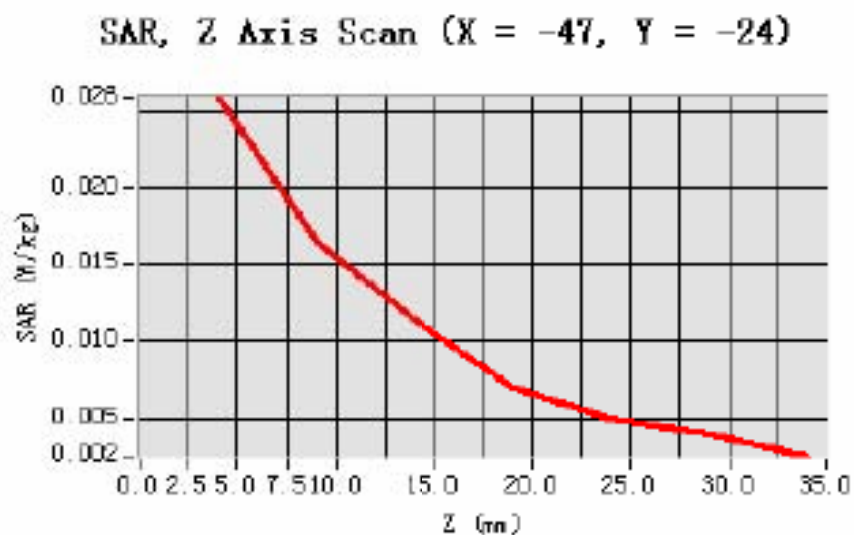


**Maximum location: X=-47.00, Y=-24.00**

<b>SAR 10g (W/Kg)</b>	0.014859
<b>SAR 1g (W/Kg)</b>	0.024874

### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.0259	0.0165	0.0115	0.0070	0.0049	0.0039



## MEASUREMENT 27

Type: Phone measurement (Complete)

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

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

Date of measurement: 5/11/2009

Measurement duration: 7 minutes 47 seconds

### A. Experimental conditions.

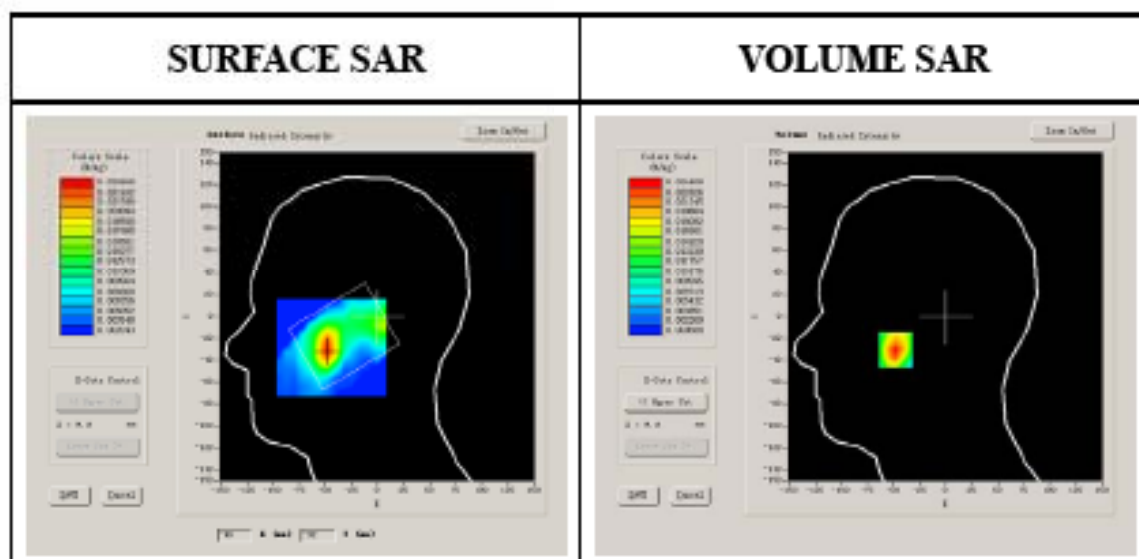
Phantom File	sam_direct_droit2_surf8mm.txt
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Channels	High
Signal	GSM

### B. SAR Measurement Results

Higher Band SAR (Channel 810):

Frequency (MHz)	1909.800049
Relative permittivity (real part)	39.929001
Relative permittivity	13.156500

<b>Conductivity (S/m)</b>	1.395905
<b>Variation (%)</b>	2.020000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



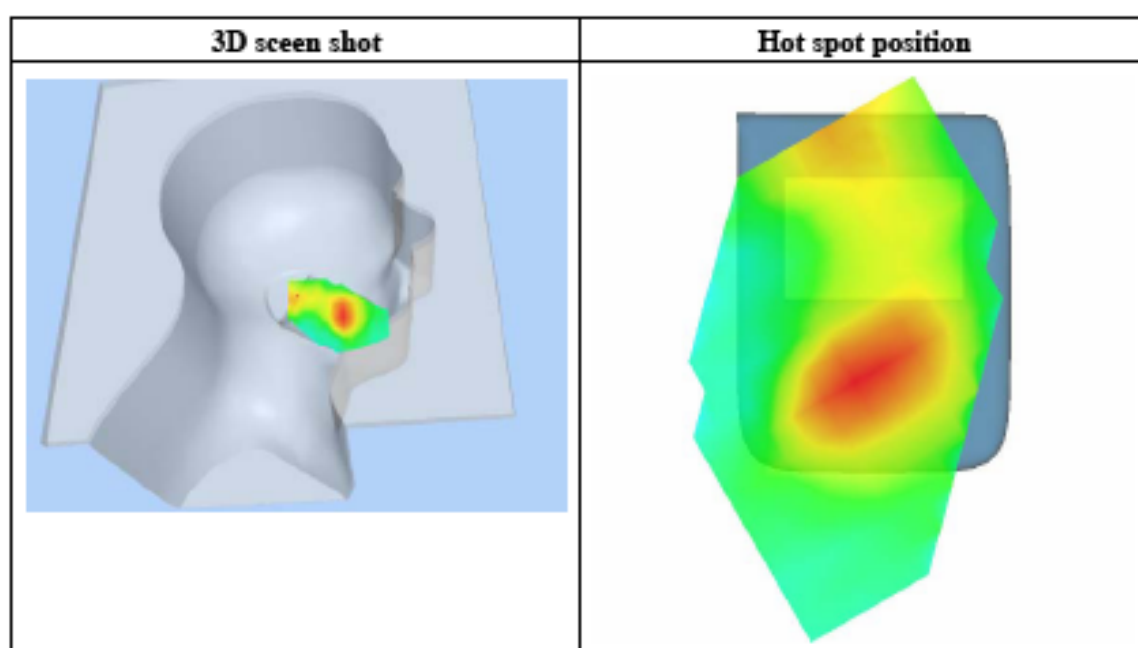
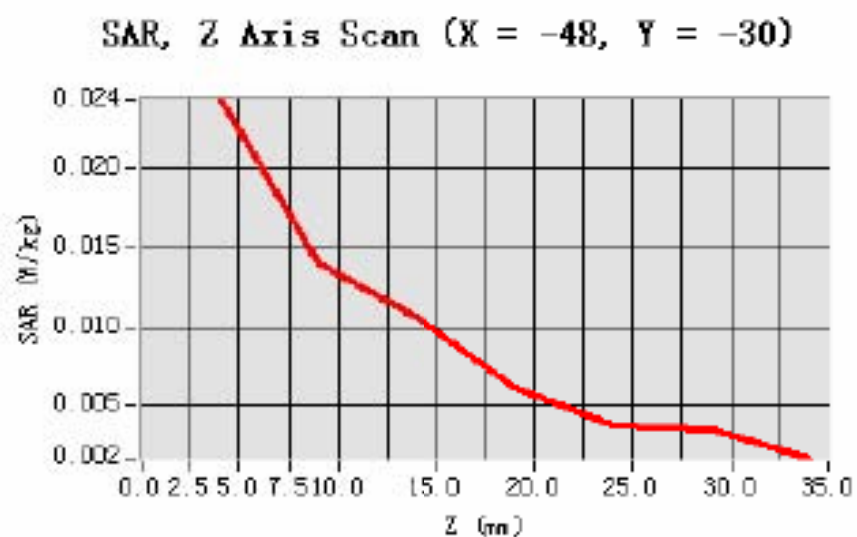
**Maximum location: X=-48.00, Y=-30.00**

<b>SAR 10g (W/Kg)</b>	0.013132
<b>SAR 1g (W/Kg)</b>	0.022541



### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.0244	0.0141	0.0106	0.0061	0.0037	0.0035



## MEASUREMENT 28

Type: Phone measurement (Complete)

Area scan resolution:  $dx=8\text{mm}, dy=8\text{mm}$

Zoom scan resolution:  $dx=8\text{mm}, dy=8\text{mm}, dz=5\text{mm}$

Date of measurement: 5/11/2009

Measurement duration: 7 minutes 28 seconds

### A. Experimental conditions.

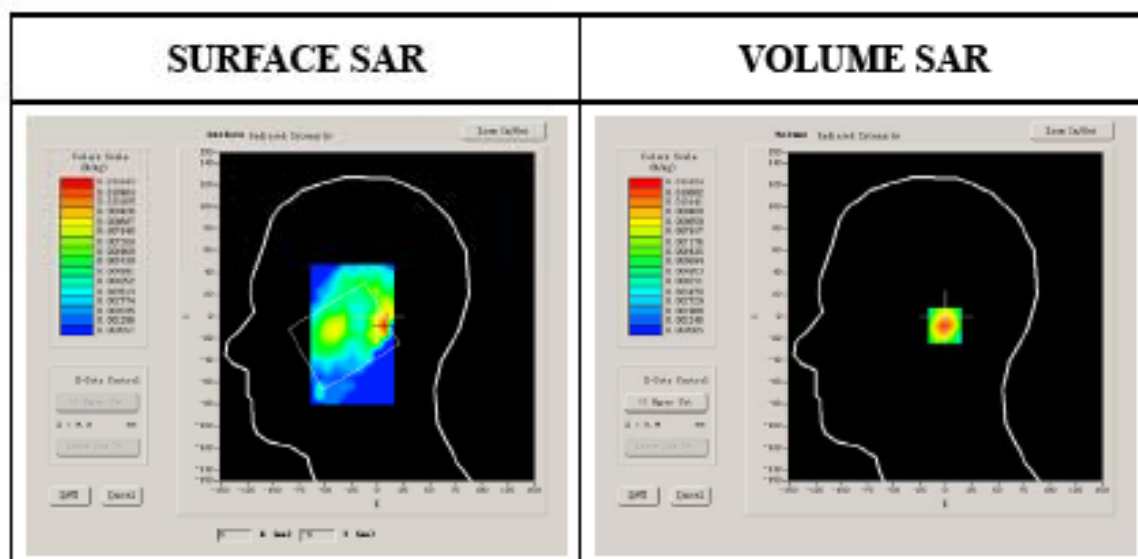
Phantom File	zinf3.txt
Phantom	Left head
Device Position	Tilt
Band	GSM1900
Channels	Low
Signal	GSM

### B. SAR Measurement Results

Lower Band SAR (Channel 512):

Frequency (MHz)	1850.199951
Relative permittivity (real part)	39.993999
Relative permittivity	12.991650

<b>Conductivity (S/m)</b>	1.335397
<b>Variation (%)</b>	-1.620000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



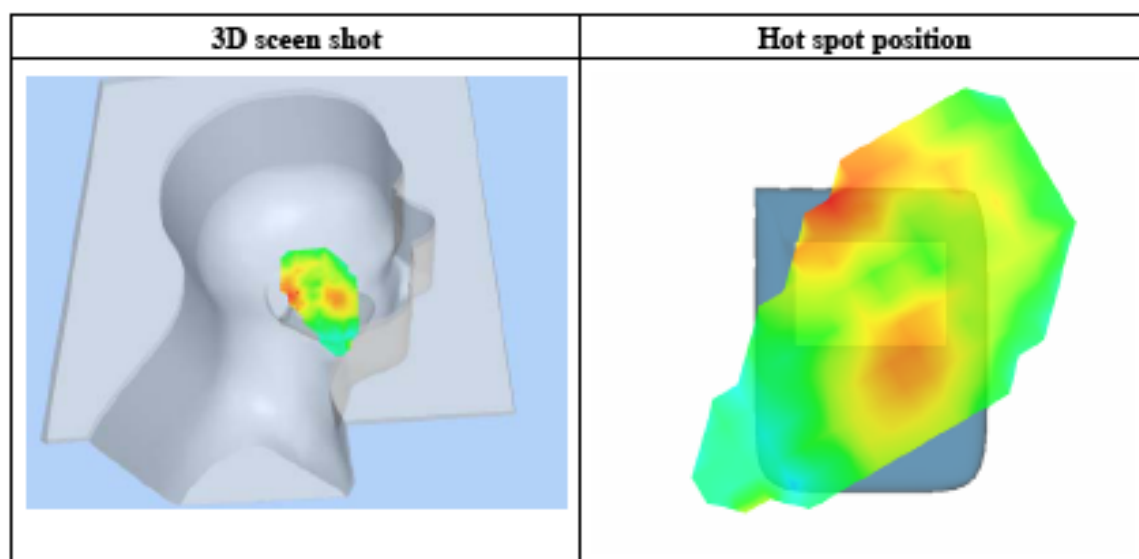
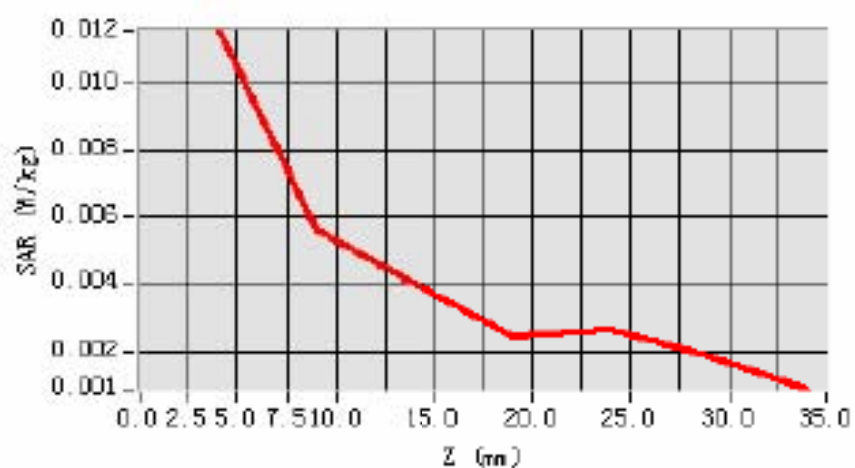
**Maximum location: X=8.00, Y=-8.00**

<b>SAR 10g (W/Kg)</b>	0.005838
<b>SAR 1g (W/Kg)</b>	0.010765

### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.0116	0.0056	0.0040	0.0024	0.0027	0.0018

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



## MEASUREMENT 29

Type: Phone measurement (Complete)

Area scan resolution:  $dx=8\text{mm}, dy=8\text{mm}$

Zoom scan resolution:  $dx=8\text{mm}, dy=8\text{mm}, dz=5\text{mm}$

Date of measurement: 5/11/2009

Measurement duration: 7 minutes 28 seconds

### A. Experimental conditions.

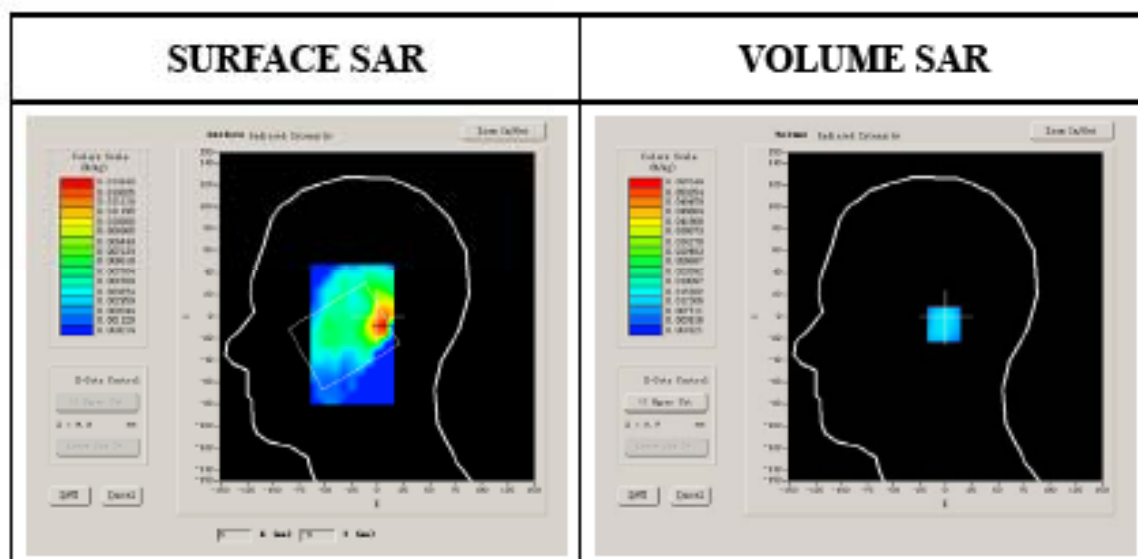
Phantom File	zinf3.txt
Phantom	Left head
Device Position	Tilt
Band	GSM1900
Channels	Middle
Signal	GSM

### B. SAR Measurement Results

Middle Band SAR (Channel 661):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.509998
Relative permittivity	13.750000

<b>Conductivity (S/m)</b>	1.436111
<b>Variation (%)</b>	2.530001
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



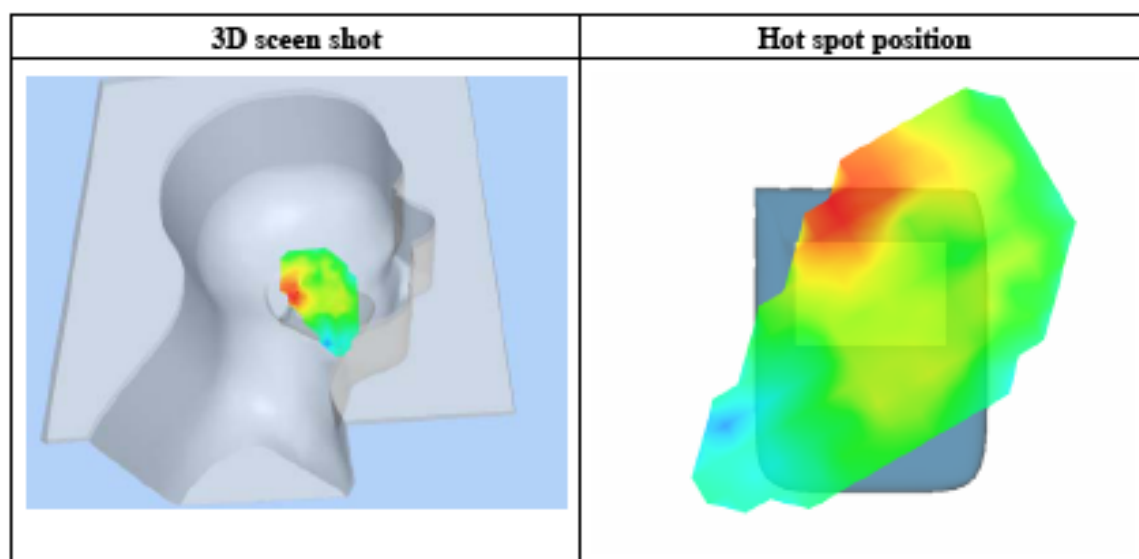
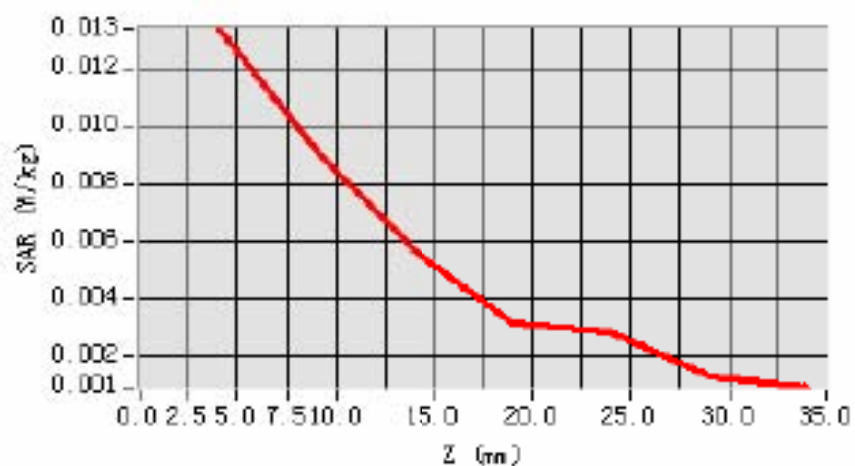
**Maximum location: X=7.00, Y=-7.00**

<b>SAR 10g (W/Kg)</b>	0.007725
<b>SAR 1g (W/Kg)</b>	0.012739

### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.0134	0.0092	0.0057	0.0031	0.0029	0.0013

SAR, Z Axis Scan (X = 7, Y = -7)



## MEASUREMENT 30

Type: Phone measurement (Complete)

Area scan resolution:  $dx=8\text{mm}, dy=8\text{mm}$

Zoom scan resolution:  $dx=8\text{mm}, dy=8\text{mm}, dz=5\text{mm}$

Date of measurement: 5/11/2009

Measurement duration: 7 minutes 24 seconds

### A. Experimental conditions.

Phantom File	zinf3.txt
Phantom	Left head
Device Position	Tilt
Band	GSM1900
Channels	High
Signal	GSM

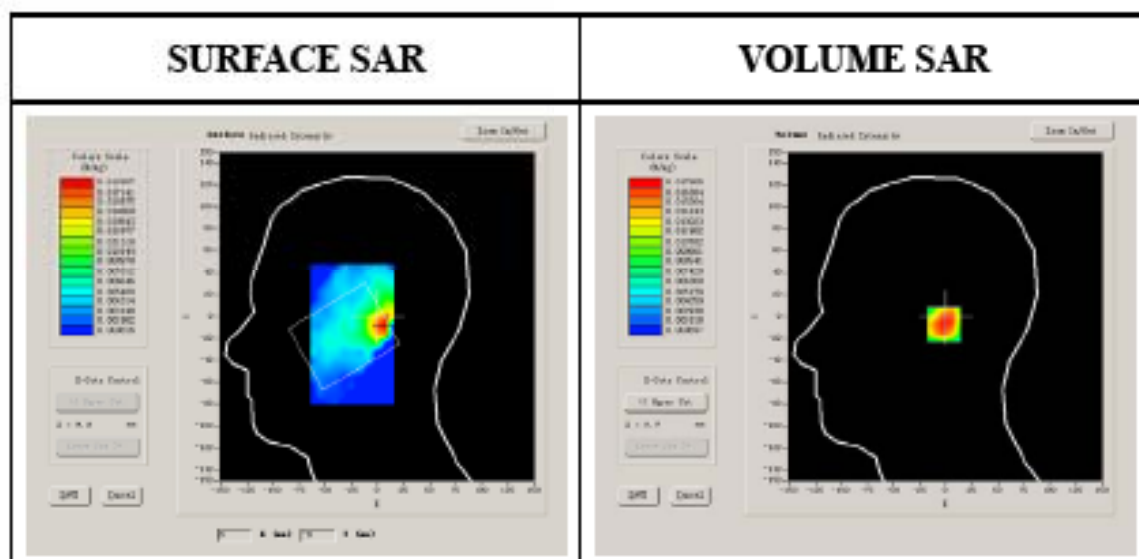
### B. SAR Measurement Results

Higher Band SAR (Channel 810):

Frequency (MHz)	1909.800049
Relative permittivity (real part)	39.929001
Relative permittivity	13.156500



<b>Conductivity (S/m)</b>	1.395905
<b>Variation (%)</b>	-1.989990
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



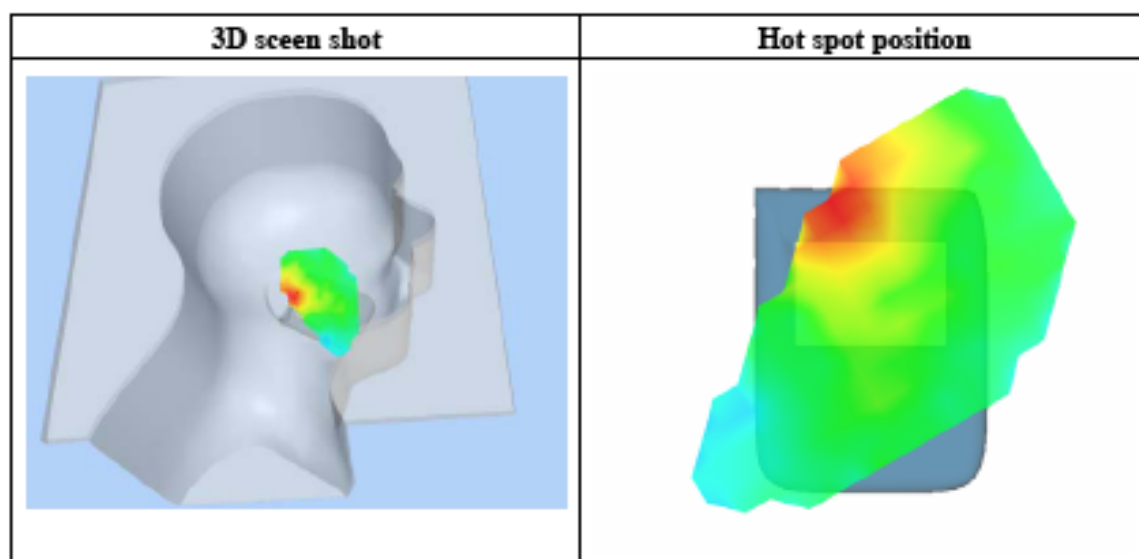
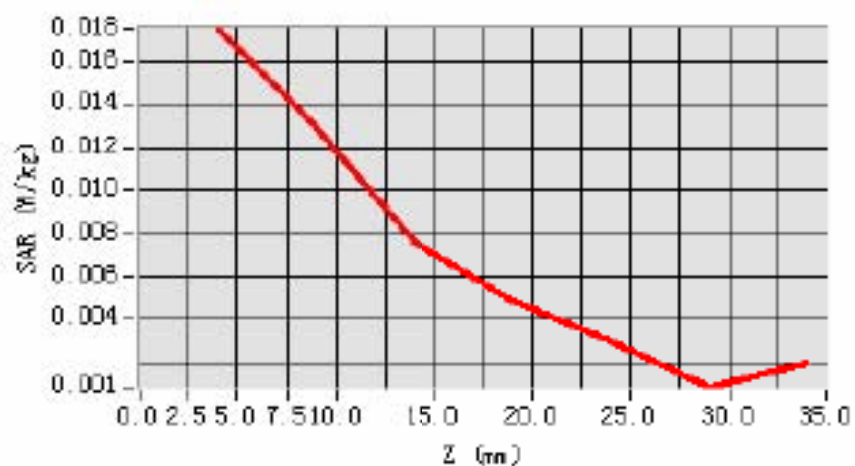
**Maximum location: X=7.00, Y=-7.00**

<b>SAR 10g (W/Kg)</b>	0.010222
<b>SAR 1g (W/Kg)</b>	0.017512

### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.0175	0.0129	0.0077	0.0049	0.0030	0.0009

SAR, Z Axis Scan (X = 7, Y = -7)



## MEASUREMENT 31

Type: Phone measurement (Complete)

Area scan resolution:  $dx=8\text{mm}, dy=8\text{mm}$

Zoom scan resolution:  $dx=8\text{mm}, dy=8\text{mm}, dz=5\text{mm}$

Date of measurement: 5/11/2009

Measurement duration: 9 minutes 12 seconds

### A. Experimental conditions.

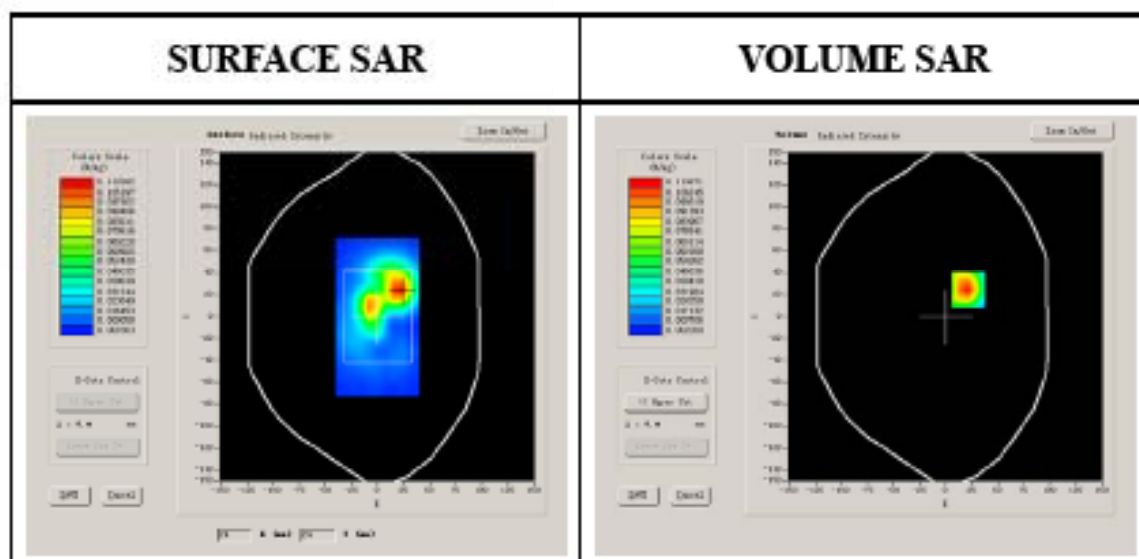
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Low
Signal	GSM

### B. SAR Measurement Results

Lower Band SAR (Channel 512):

Frequency (MHz)	1850.199951
Relative permittivity (real part)	10.000000
Relative permittivity	15.070000

<b>Conductivity (S/m)</b>	1.233467
<b>Variation (%)</b>	-1.120000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



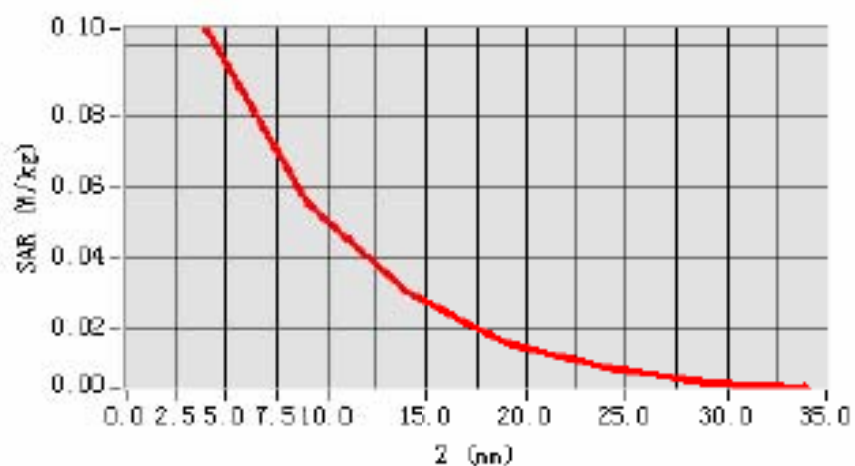
**Maximum location: X=22.00, Y=25.00**

<b>SAR 10g (W/Kg)</b>	0.051746
<b>SAR 1g (W/Kg)</b>	0.099130

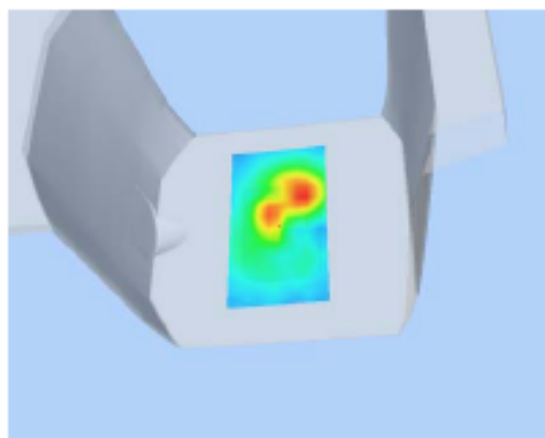
### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1050	0.0557	0.0303	0.0159	0.0093	0.0049

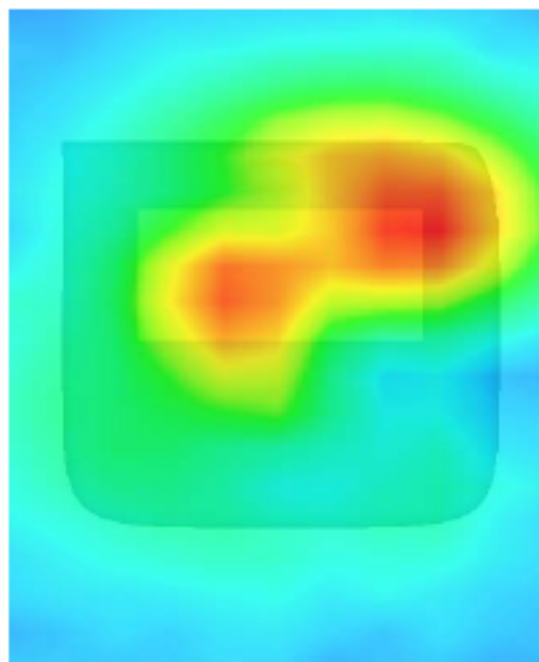
SAR, Z Axis Scan (X = 22, Y = 25)



3D scene shot



Hot spot position



## MEASUREMENT 32

Type: Phone measurement (Complete)

Area scan resolution:  $dx=8\text{mm}, dy=8\text{mm}$

Zoom scan resolution:  $dx=8\text{mm}, dy=8\text{mm}, dz=5\text{mm}$

Date of measurement: 5/11/2009

Measurement duration: 9 minutes 8 seconds

### A. Experimental conditions.

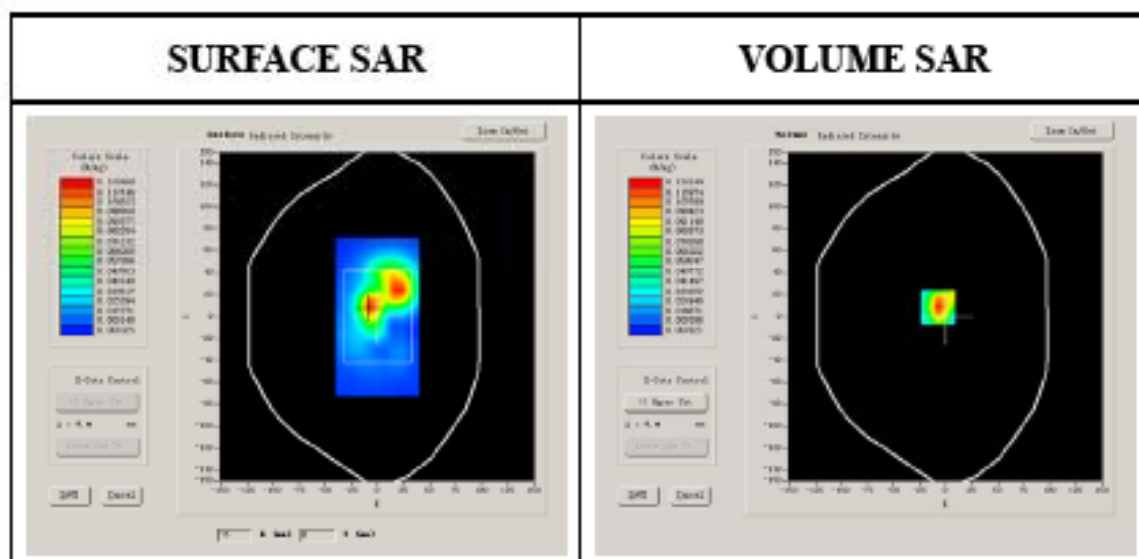
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Middle
Signal	GSM

### B. SAR Measurement Results

Middle Band SAR (Channel 661):

Frequency (MHz)	1880.000000
Relative permittivity (real part)	51.540001
Relative permittivity	15.070000

<b>Conductivity (S/m)</b>	1.573978
<b>Variation (%)</b>	-0.620000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



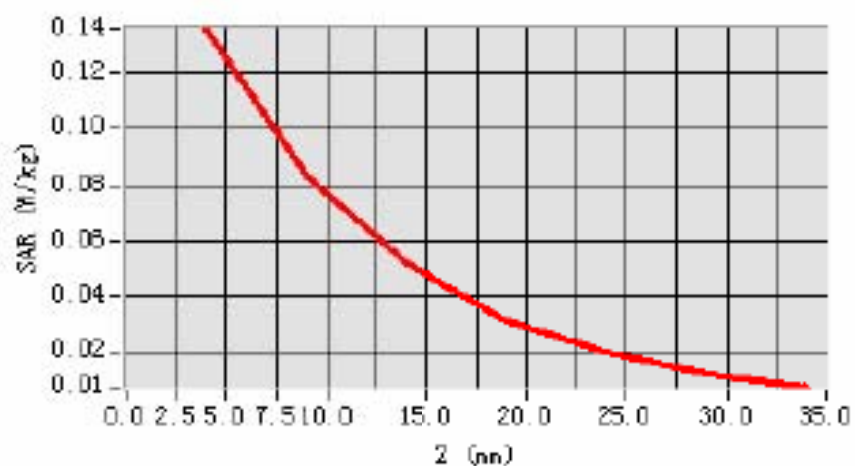
**Maximum location: X=-7.00, Y=9.00**

<b>SAR 10g (W/Kg)</b>	0.066980
<b>SAR 1g (W/Kg)</b>	0.125366

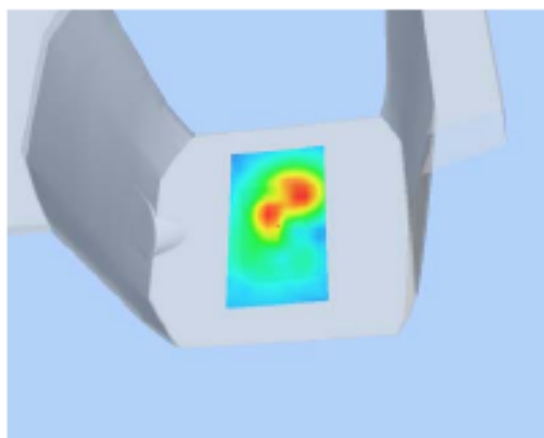
### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1362	0.0828	0.0515	0.0311	0.0197	0.0123

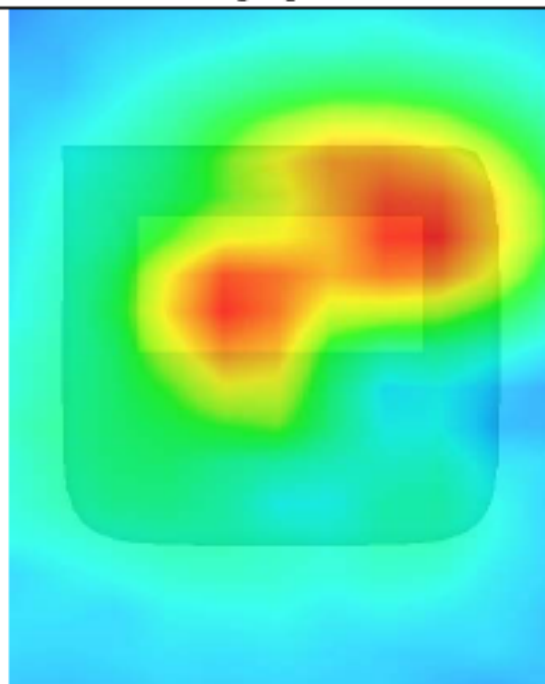
SAR, Z Axis Scan (X = -7, Y = 9)



3D scene shot



Hot spot position





## MEASUREMENT 33

Type: Phone measurement (Complete)

Area scan resolution:  $dx=8\text{mm}, dy=8\text{mm}$

Zoom scan resolution:  $dx=8\text{mm}, dy=8\text{mm}, dz=5\text{mm}$

Date of measurement: 5/11/2009

Measurement duration: 9 minutes 9 seconds

### A. Experimental conditions.

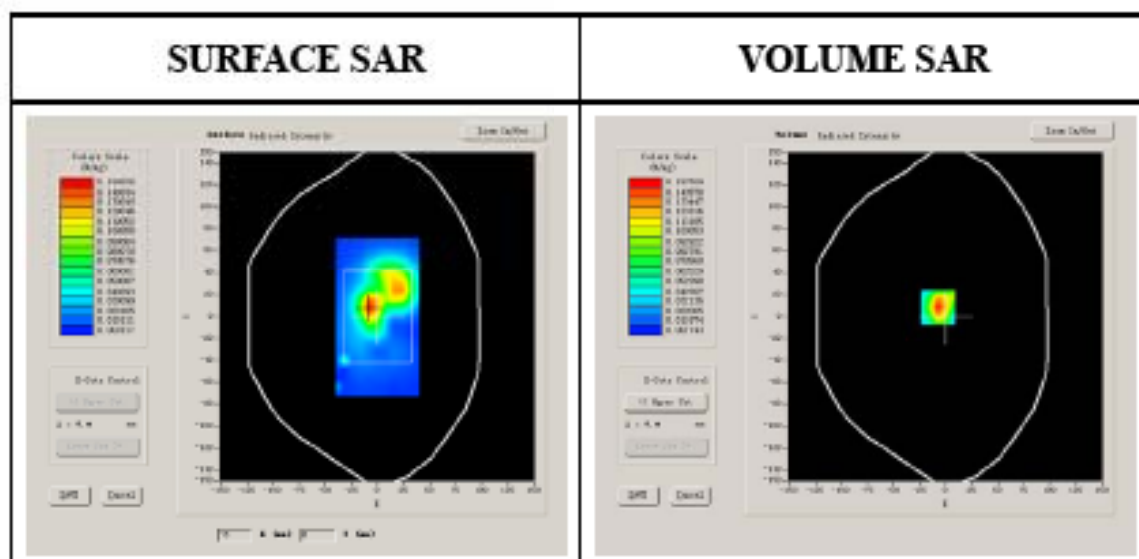
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	High
Signal	GSM

### B. SAR Measurement Results

Higher Band SAR (Channel 810):

Frequency (MHz)	1909.800049
Relative permittivity (real part)	51.540001
Relative permittivity	12.000000

<b>Conductivity (S/m)</b>	1.273200
<b>Variation (%)</b>	0.510000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



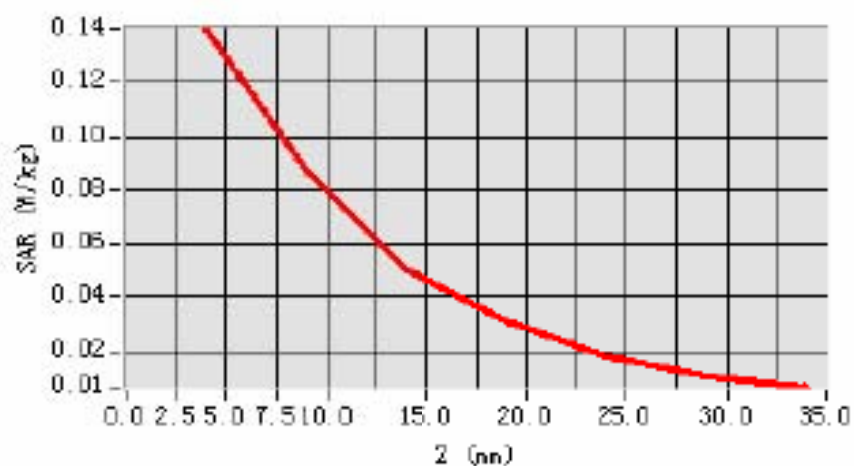
**Maximum location: X=-7.00, Y=9.00**

<b>SAR 10g (W/Kg)</b>	0.067442
<b>SAR 1g (W/Kg)</b>	0.127820

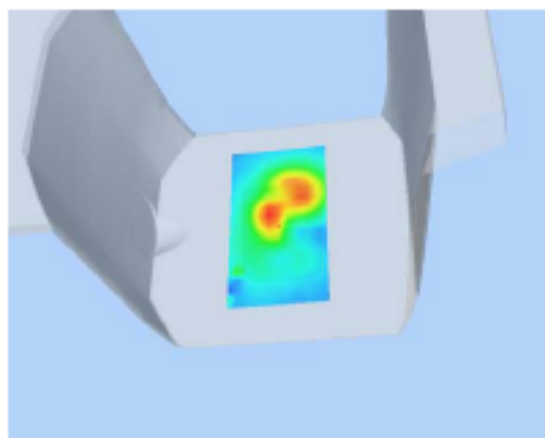
### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1402	0.0869	0.0506	0.0312	0.0184	0.0105

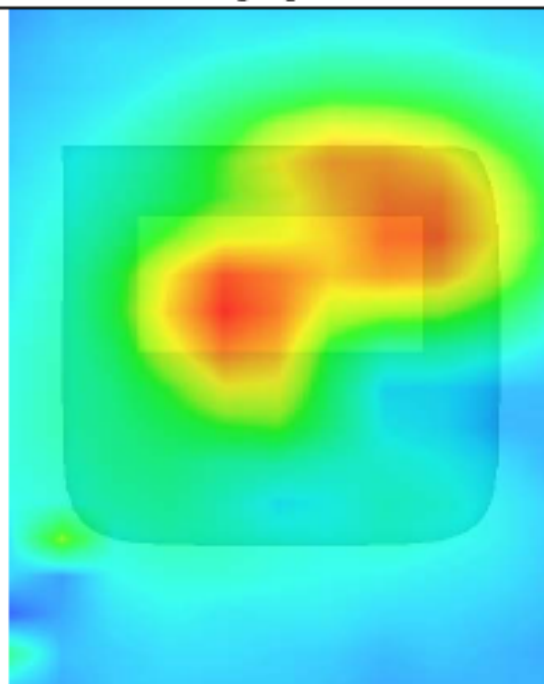
SAR, Z Axis Scan (X = -7, Y = 9)



3D scene shot



Hot spot position



## MEASUREMENT 34

Type: Phone measurement (Complete)

Area scan resolution:  $dx=8\text{mm}, dy=8\text{mm}$

Zoom scan resolution:  $dx=8\text{mm}, dy=8\text{mm}, dz=5\text{mm}$

Date of measurement: 5/11/2009

Measurement duration: 9 minutes 9 seconds

### A. Experimental conditions.

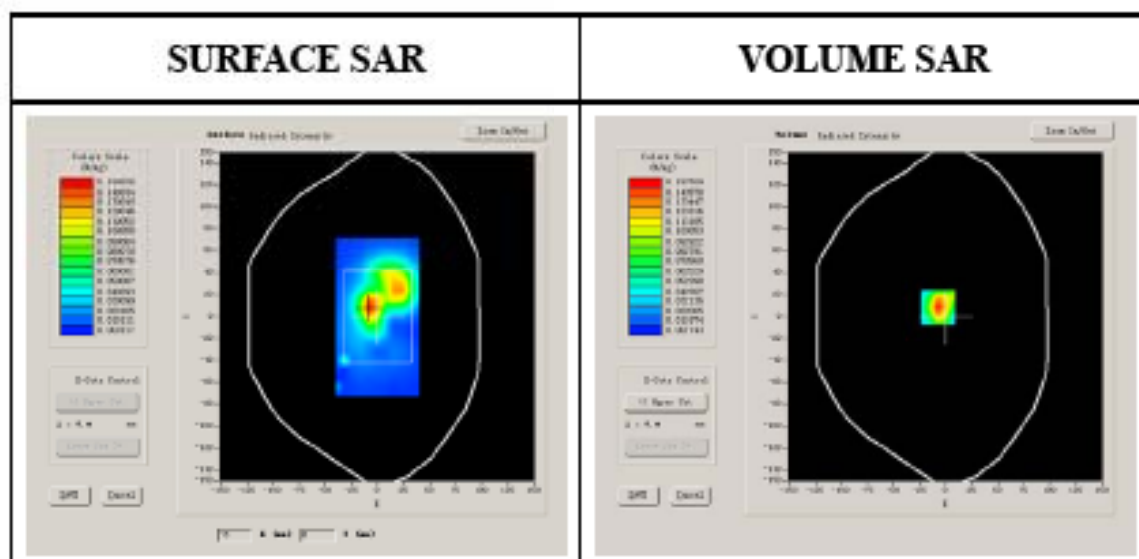
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	High
Signal	GSM

### B. SAR Measurement Results

Higher Band SAR (Channel 810):

Frequency (MHz)	1909.800049
Relative permittivity (real part)	51.540001
Relative permittivity	12.000000

<b>Conductivity (S/m)</b>	1.273200
<b>Variation (%)</b>	0.510000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



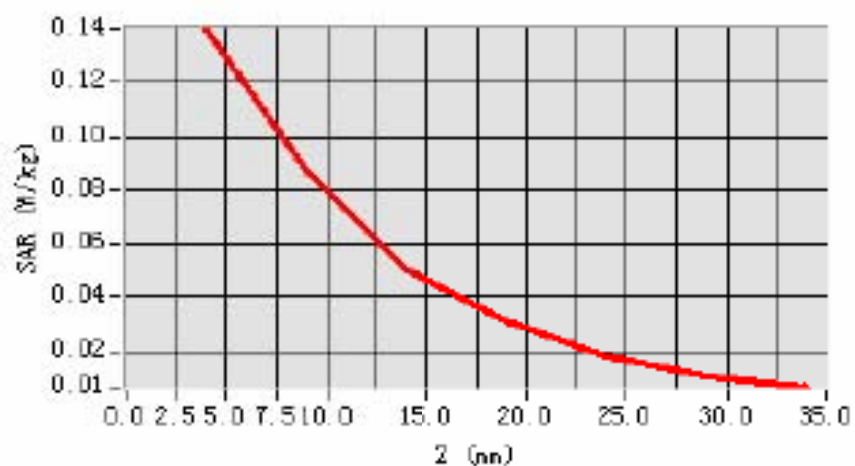
**Maximum location: X=-7.00, Y=9.00**

<b>SAR 10g (W/Kg)</b>	0.066355
<b>SAR 1g (W/Kg)</b>	0.114324

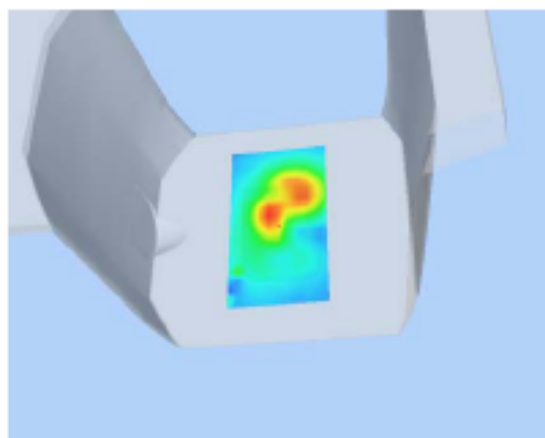
### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1402	0.0869	0.0506	0.0312	0.0184	0.0105

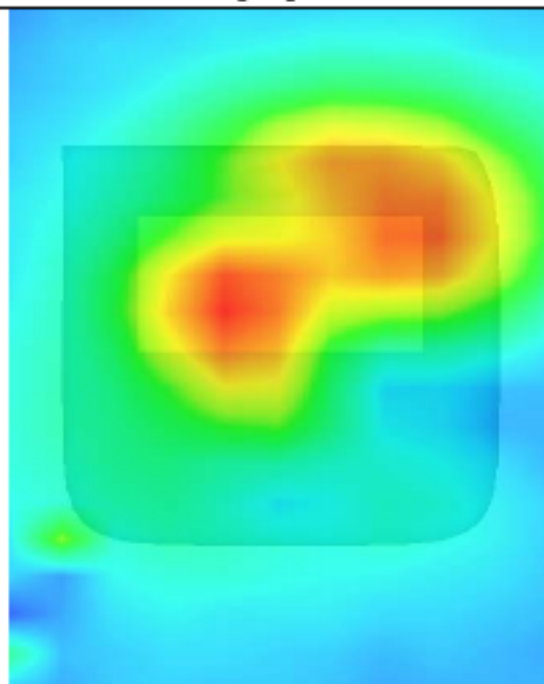
SAR, Z Axis Scan (X = -7, Y = 9)



3D scene shot



Hot spot position



## MEASUREMENT 35

Type: Phone measurement (Complete)

Area scan resolution:  $dx=8\text{mm}, dy=8\text{mm}$

Zoom scan resolution:  $dx=8\text{mm}, dy=8\text{mm}, dz=5\text{mm}$

Date of measurement: 5/11/2009

Measurement duration: 9 minutes 9 seconds

### A. Experimental conditions.

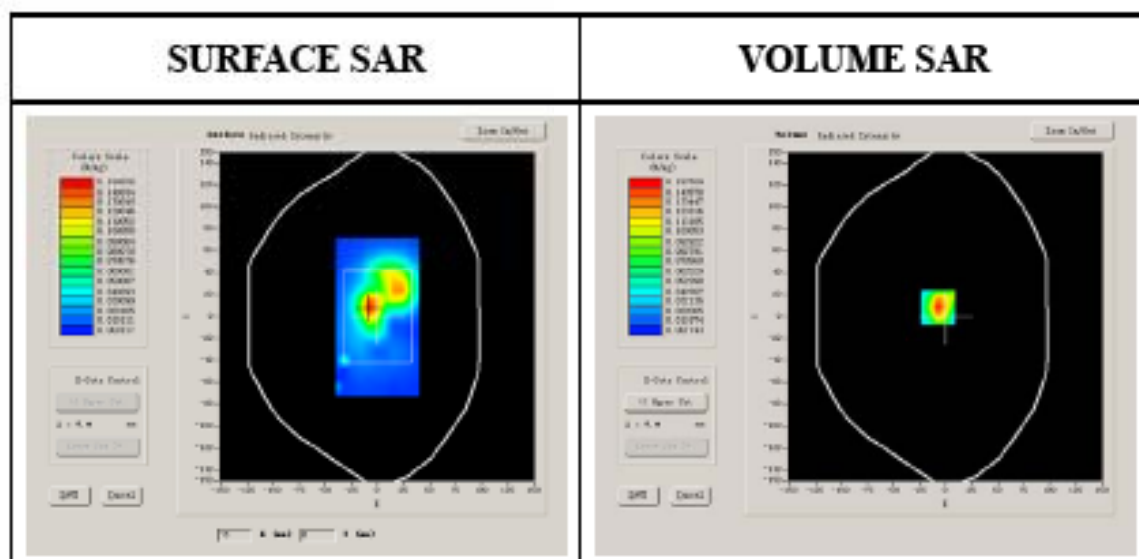
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	High
Signal	GSM

### B. SAR Measurement Results

Higher Band SAR (Channel 810):

Frequency (MHz)	1909.800049
Relative permittivity (real part)	51.540001
Relative permittivity	12.000000

<b>Conductivity (S/m)</b>	1.273200
<b>Variation (%)</b>	0.510000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



**Maximum location: X=-7.00, Y=9.00**

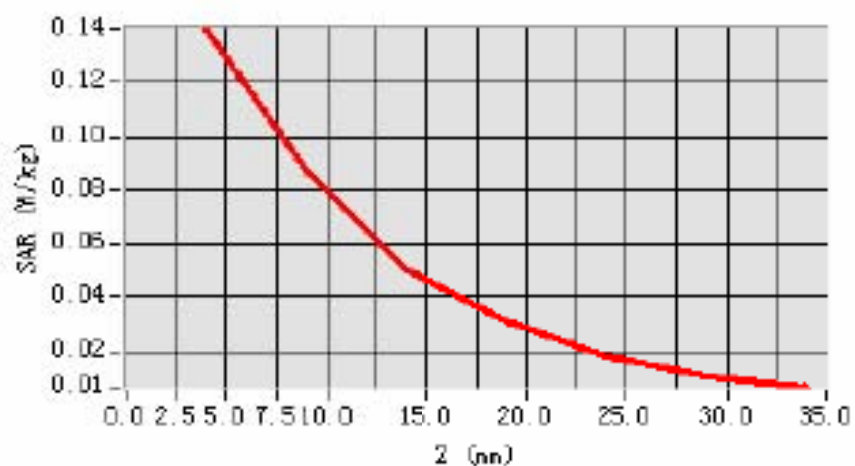
<b>SAR 10g (W/Kg)</b>	0.052443
<b>SAR 1g (W/Kg)</b>	0.105766



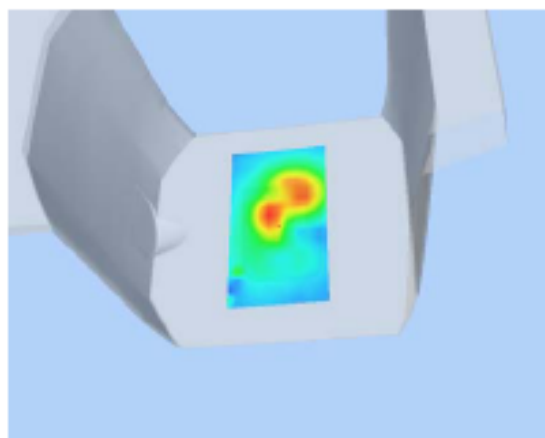
### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1402	0.0869	0.0506	0.0312	0.0184	0.0105

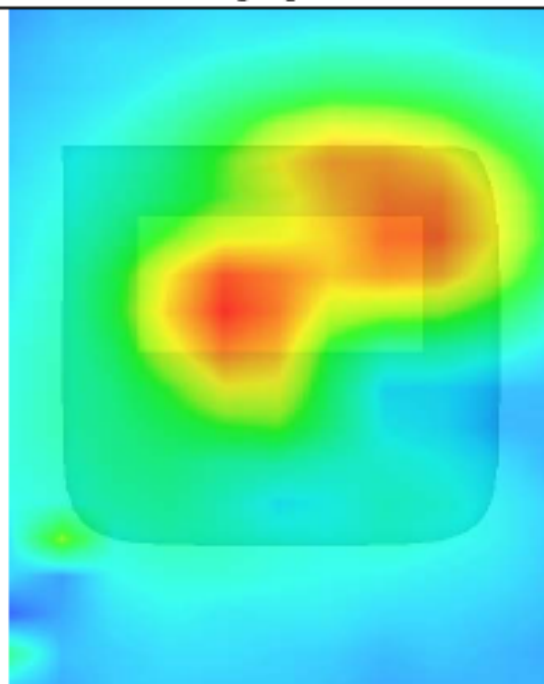
SAR, Z Axis Scan (X = -7, Y = 9)



3D scene shot



Hot spot position



## MEASUREMENT 36

Type: Phone measurement (Complete)

Area scan resolution:  $dx=8\text{mm}, dy=8\text{mm}$

Zoom scan resolution:  $dx=8\text{mm}, dy=8\text{mm}, dz=5\text{mm}$

Date of measurement: 5/11/2009

Measurement duration: 9 minutes 9 seconds

### A. Experimental conditions.

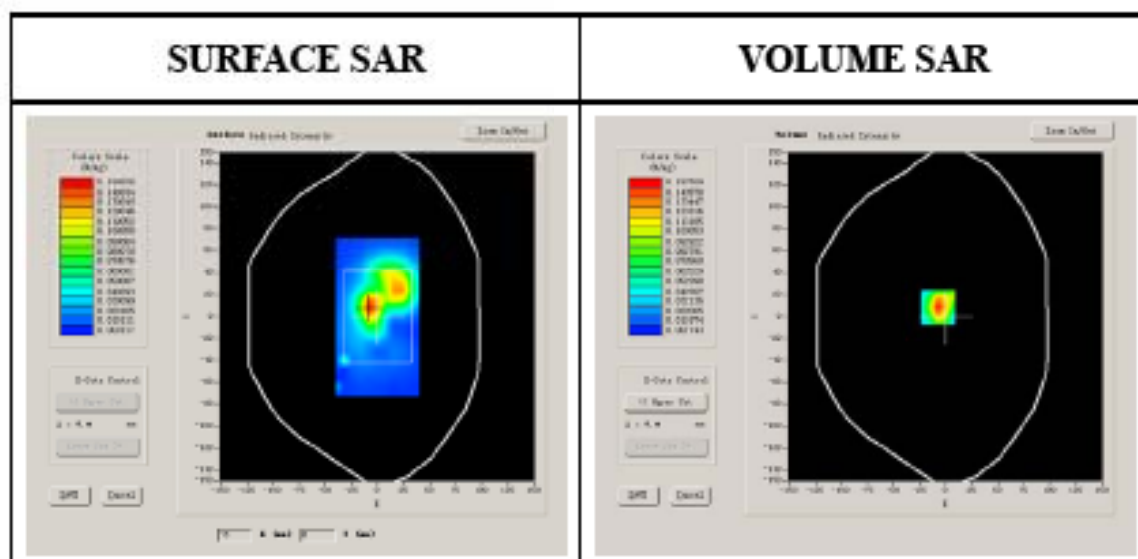
Phantom File	surf_sam_plan.txt
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	High
Signal	GSM

### B. SAR Measurement Results

Higher Band SAR (Channel 810):

Frequency (MHz)	1909.800049
Relative permittivity (real part)	51.540001
Relative permittivity	12.000000

<b>Conductivity (S/m)</b>	1.273200
<b>Variation (%)</b>	0.510000
<b>Ambient Temperature:</b>	22.5°C
<b>Liquid Temperature:</b>	22.3°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:8



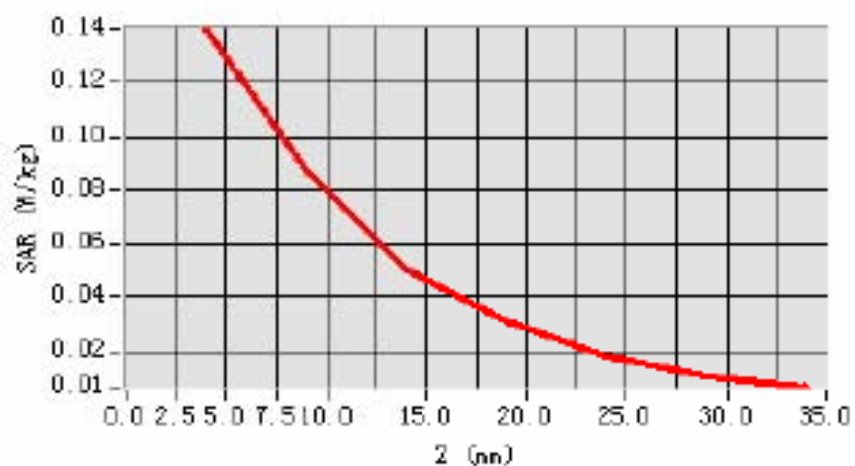
**Maximum location: X=-7.00, Y=9.00**

<b>SAR 10g (W/Kg)</b>	0.014534
<b>SAR 1g (W/Kg)</b>	0.038489

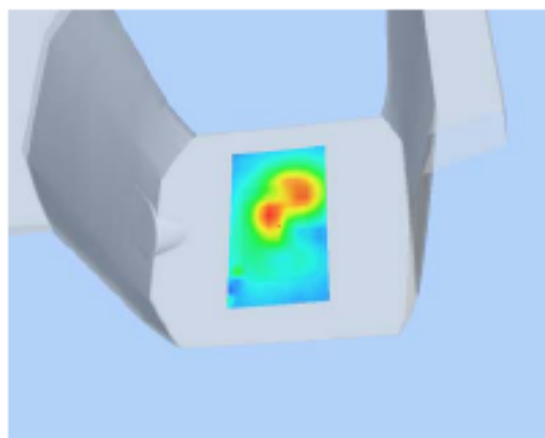
### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	0.1402	0.0869	0.0506	0.0312	0.0184	0.0105

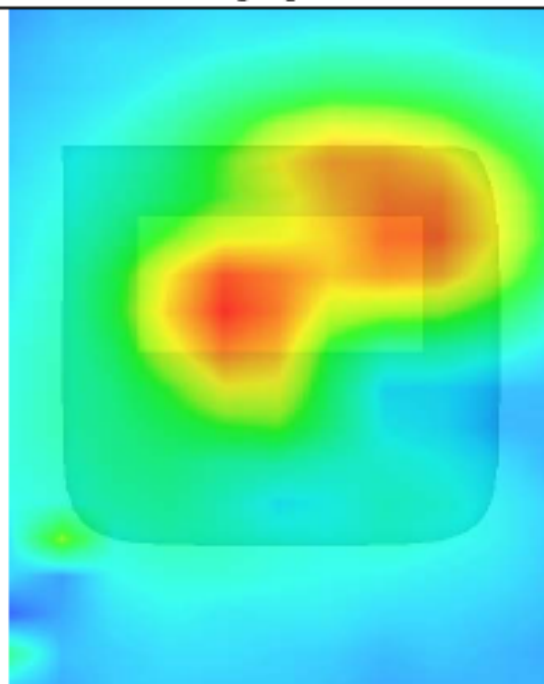
SAR, Z Axis Scan (X = -7, Y = 9)



3D scene shot



Hot spot position



## System Performance Check Data(835MHz Head)

Type: Phone measurement (Complete)

Date of measurement: 5/11/2009

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

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

### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM 835MHz
<b>Channels</b>	
<b>Signal</b>	GSM

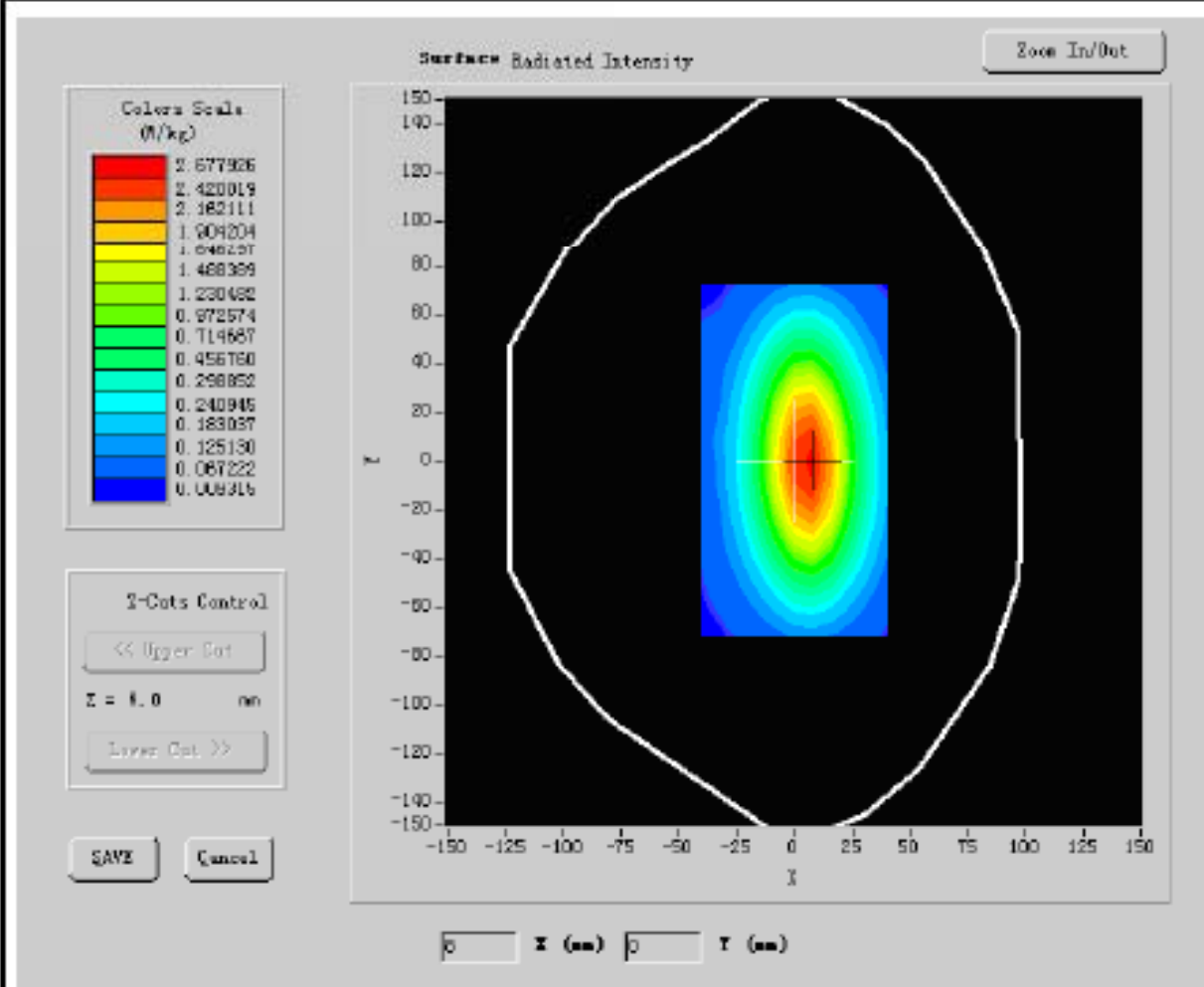
### B. SAR Measurement Results

Middle Band SAR:

<b>Frequency (MHz)</b>	835.00000
<b>Relative permittivity (real part)</b>	41.790001
<b>Relative permittivity</b>	18.926250
<b>Conductivity (S/m)</b>	0.866612

<b>Variation (%)</b>	-0.050000
<b>Ambient Temperature:</b>	23.5°C
<b>Liquid Temperature:</b>	22.8°C
<b>ConvF:</b>	28.479,25.214,27.196
<b>Crest factor:</b>	1:1

## SURFACE SAR



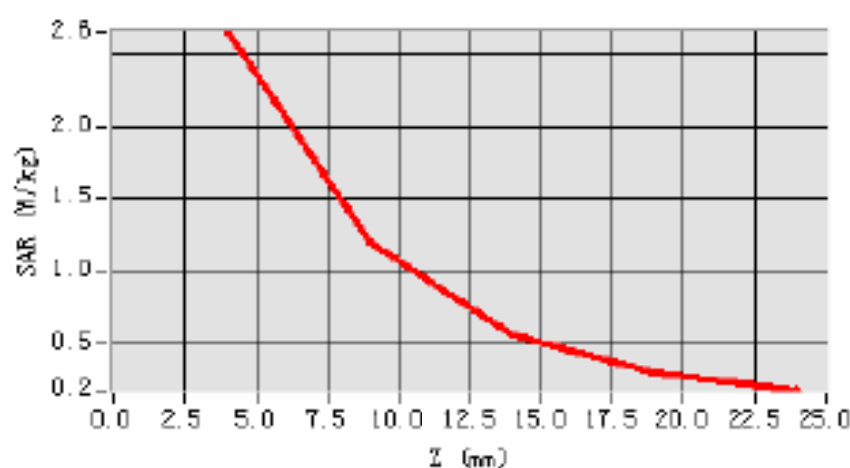
**Maximum location: X=5.00, Y=1.00**

SAR 10g (W/Kg)	1.875252
SAR 1g (W/Kg)	2.709422

### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	2.6486	1.2069	0.5583	0.3002

SAR, Z Axis Scan (X = 5, Y = 1)



## System Performance Check Data(835MHz Body)

Type: Phone measurement (Complete)

Date of measurement: 5/11/2009

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

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

### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM 835MHz
<b>Channels</b>	
<b>Signal</b>	GSM

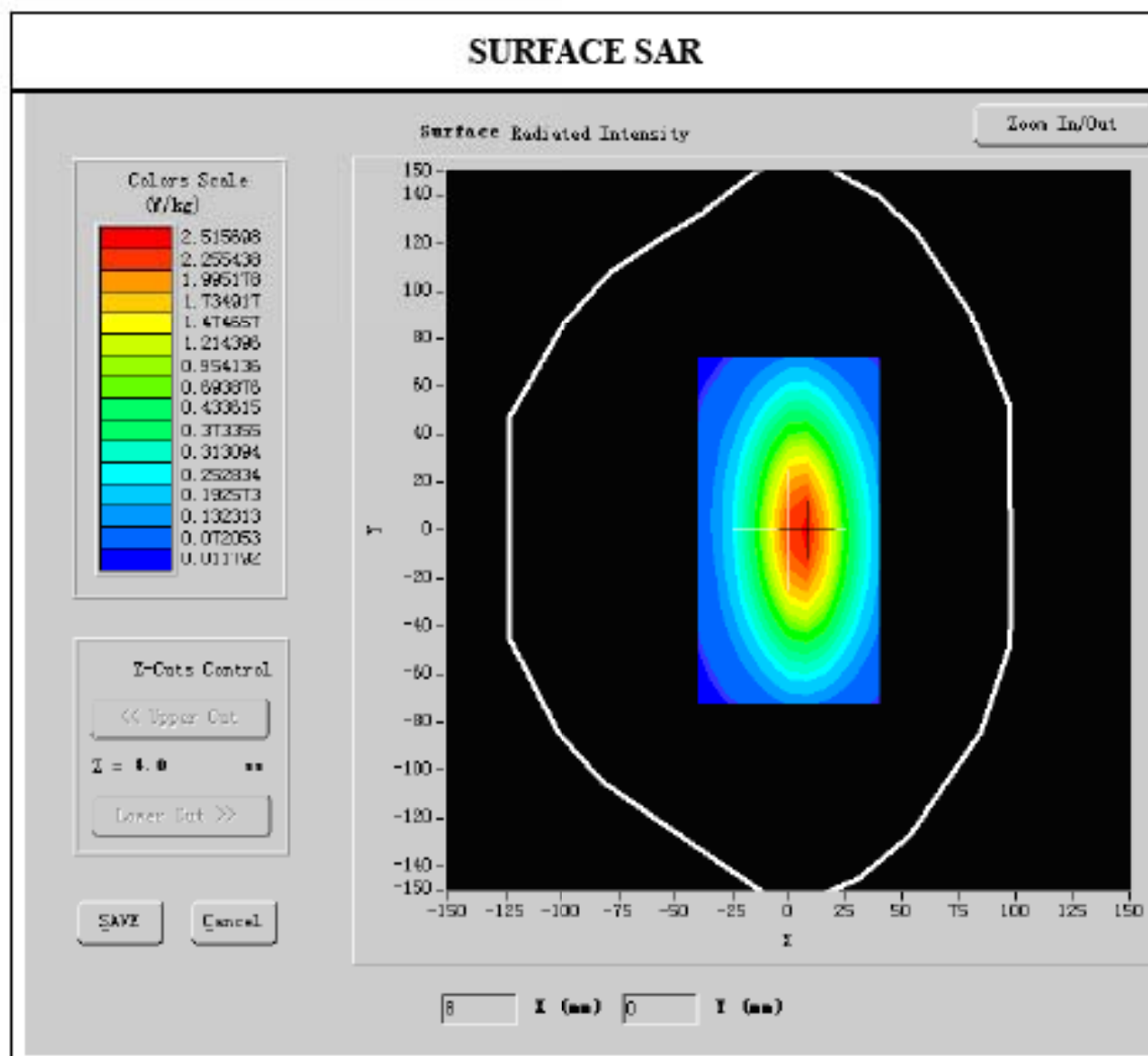
### B. SAR Measurement Results

Middle Band SAR:

<b>Frequency (MHz)</b>	835.000000
<b>Relative permittivity (real part)</b>	54.872231
<b>Relative permittivity</b>	15.070000
<b>Conductivity (S/m)</b>	1.054822



Variation (%)	-0.140000
Ambient Temperature:	23.5°C
Liquid Temperature:	22.8°C
ConvF:	28.479,25.214,27.196
Crest factor:	1:1



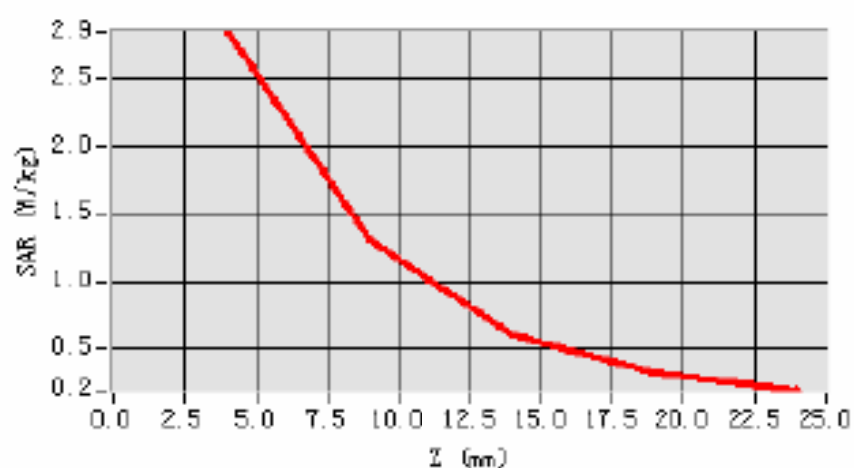
Maximum location: X=5.00, Y=1.00

SAR 10g (W/Kg)	1.652852
SAR 1g (W/Kg)	2.701584

### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	2.8536	1.3061	0.6041	0.3211

SAR, Z Axis Scan (X = 5, Y = 1)



## System Performance Check Data(1900MHz Head)

Type: Phone measurement (Complete)

Date of measurement: 5/11/2009

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

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

### A. Experimental conditions.

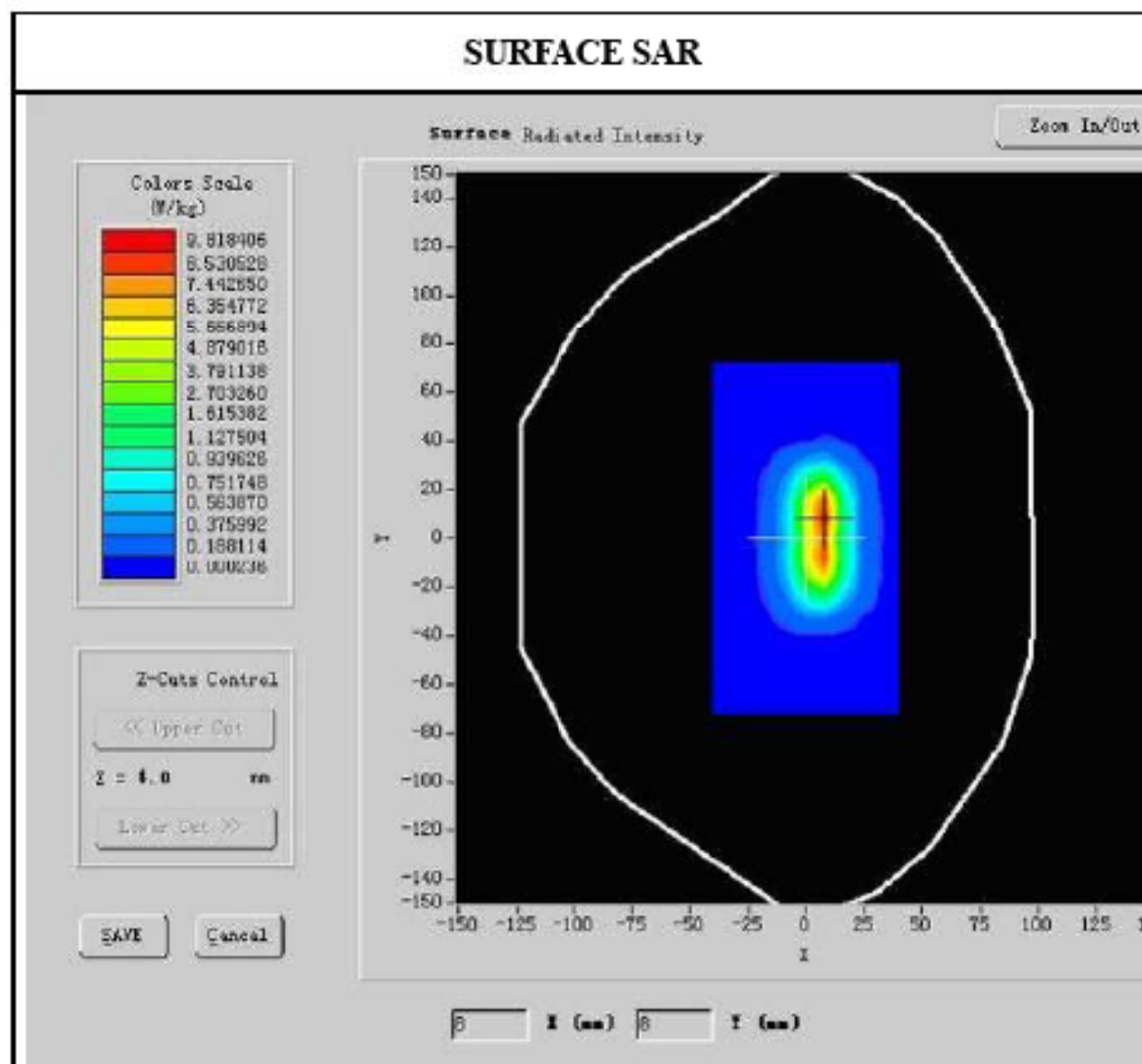
<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	
<b>Signal</b>	GSM

### B. SAR Measurement Results

Lower Band SAR:

<b>Frequency (MHz)</b>	1900.000000
<b>Relative permittivity (real part)</b>	39.481223
<b>Relative permittivity (</b>	12.991650
<b>Conductivity (S/m)</b>	1.395758

Variation (%)	0.570000
Ambient Temperature:	23.5°C
Liquid Temperature:	22.8°C
ConvF:	40.136,34.843,38.721
Crest factor:	1:1

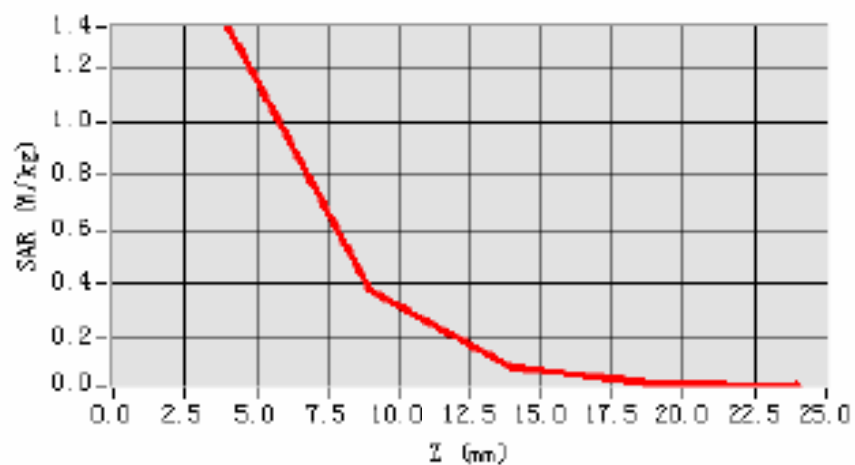


SAR 10g (W/Kg)	5.873331
SAR 1g (W/Kg)	9.843651

### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.3503	0.3791	0.0904	0.0338

SAR, Z Axis Scan (X = 7, Y = 8)



## System Performance Check Data(1900MHz Body)

Type: Phone measurement (Complete)

Date of measurement: 5/11/2009

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

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

### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Body
<b>Band</b>	GSM1900
<b>Channels</b>	
<b>Signal</b>	GSM

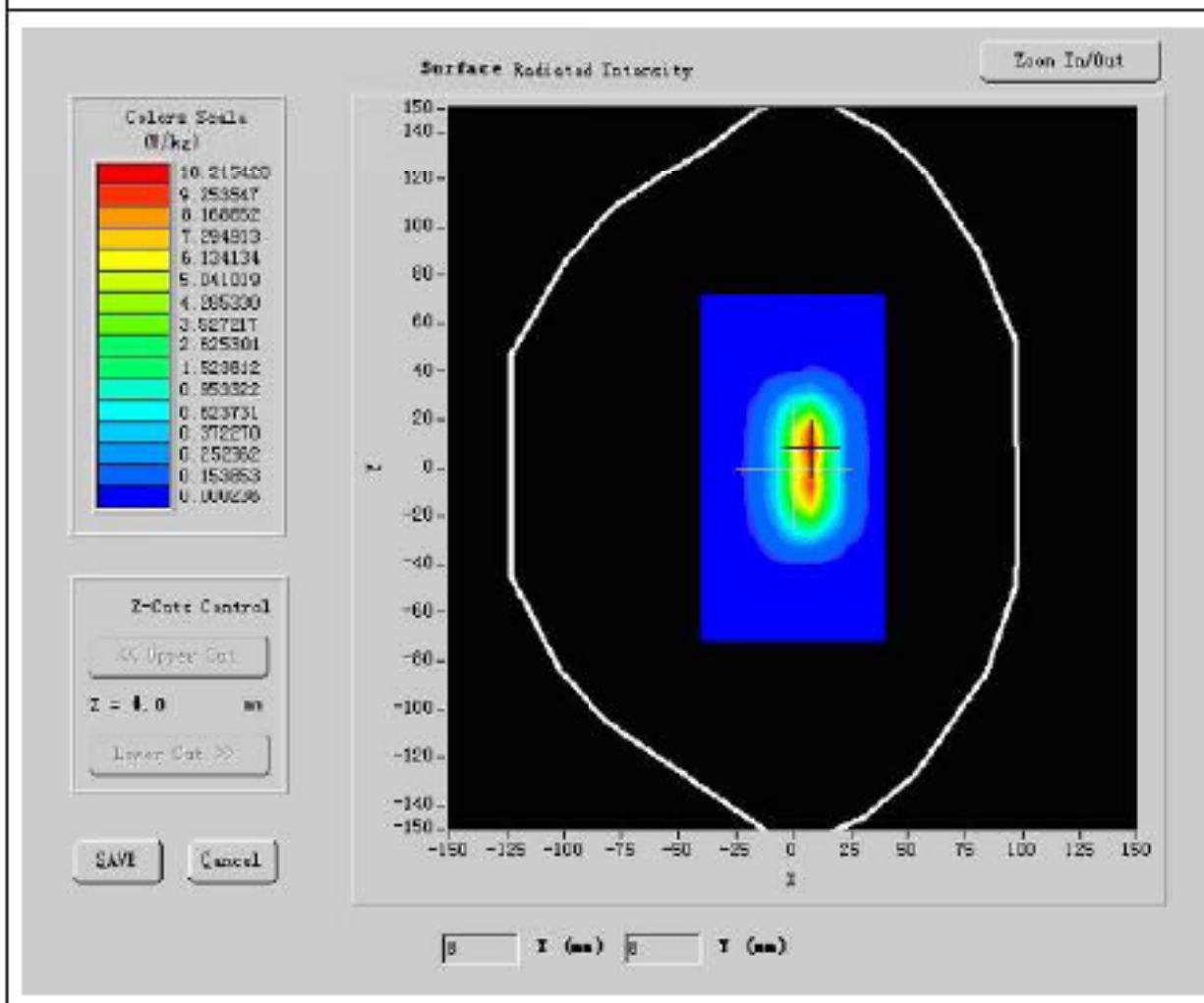
### B. SAR Measurement Results

#### Lower Band SAR:

<b>Frequency (MHz)</b>	1900.000000
<b>Relative permittivity (real part)</b>	52.548876
<b>Relative permittivity (imaginary part)</b>	12.991650

<b>Conductivity (S/m)</b>	1.573978
<b>Variation (%)</b>	0.570000
<b>Ambient Temperature:</b>	23.5°C
<b>Liquid Temperature:</b>	22.8°C
<b>ConvF:</b>	40.136,34.843,38.721
<b>Crest factor:</b>	1:1

### SURFACE SAR



**Maximum location: X=7.00, Y=8.00**

SAR 10g (W/Kg)	5.487222
SAR 1g (W/Kg)	10.225723

### Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0000	1.3503	0.3791	0.0904	0.0338

SAR, Z Axis Scan (X = 7, Y = 8)

