

Test Laboratory: AGC Lab

Date: Aug. 14,2012

PCS 1900 Mid-Touch- Left<SIM 1>

DUT: mobile phone; Type: AM521

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3;

Conv.F=6.42;Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz;  $\sigma = 1.38$  mho/m;  $\epsilon_r = 39.94$ ;

$\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Left Section

Ambient temperature (°C): 21.0, Liquid temperature (°C): 21.0

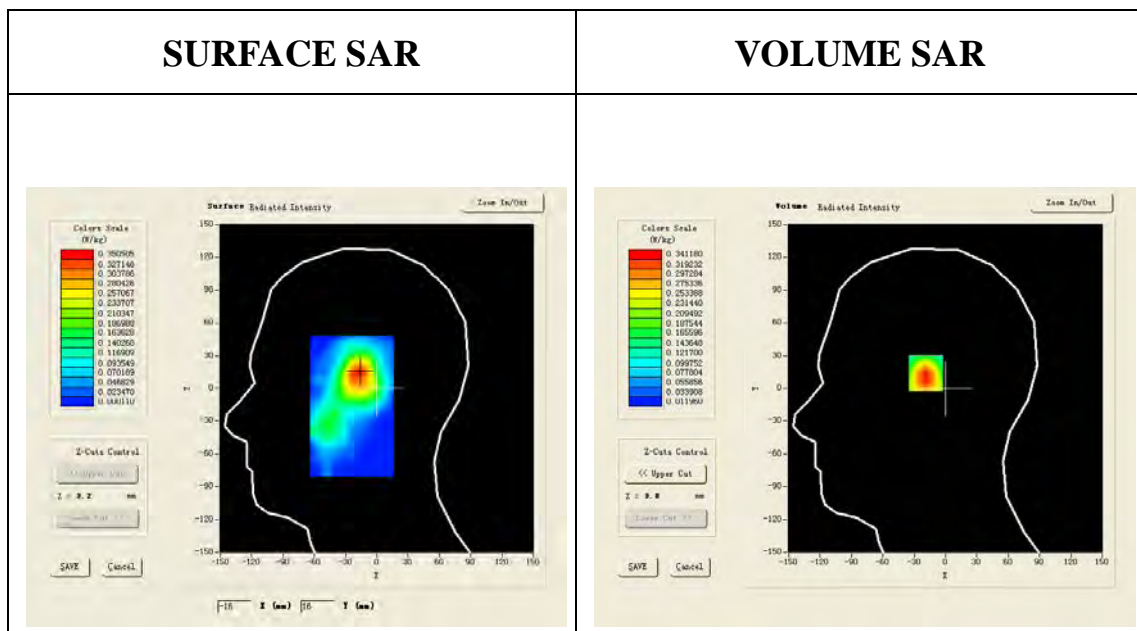
Satimo Configuration:

- Probe:SSE5; Calibrated: 12/09/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM1; Type: SAM
- Measurement SW: OpenSAR V4\_02\_01

Configuration/PCS1900 Mid Touch-Left/Area Scan: Measurement grid: dx=20mm, dy=20mm

Configuration/PCS1900 Mid Touch-Left/Zoom Scan: Measurement grid: dx=8mm, dy=8mm, dz=5mm;

Area Scan	sam_direct_droit2_surf8mm.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Very fast
Phantom	Left head
Device Position	Cheek
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)

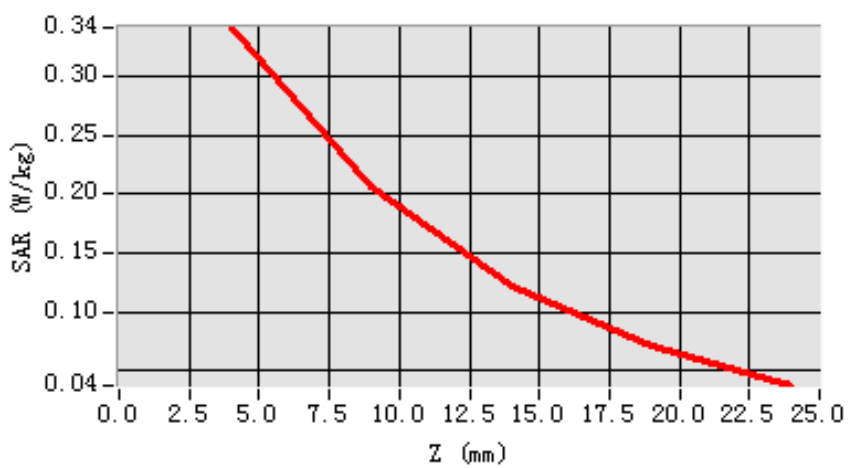


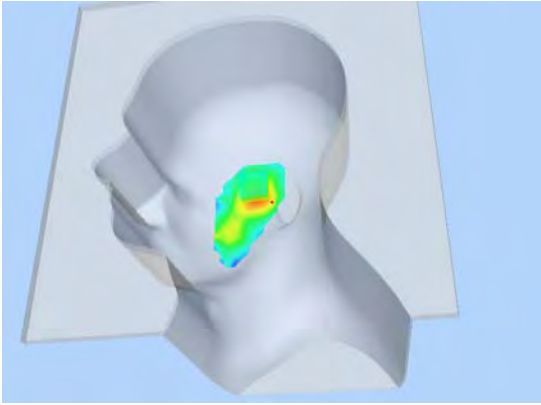
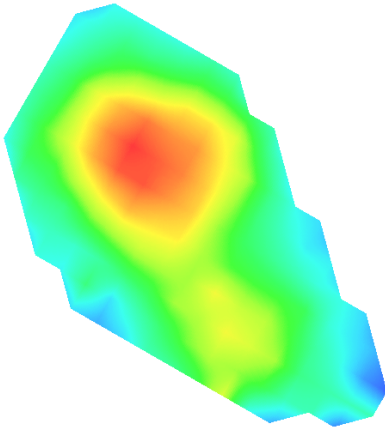
Maximum location: X=-17.00, Y=15.00

<b>SAR 10g (W/Kg)</b>	0.181197
<b>SAR 1g (W/Kg)</b>	0.323300

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.3412</b>	<b>0.2068</b>	<b>0.1224</b>	<b>0.0708</b>

**SAR, Z Axis Scan (X = -17, Y = 15)**



<b>3D screen shot</b>	<b>Hot spot position</b>
	

Test Laboratory: AGC Lab

Date: Aug. 14,2012

PCS 1900 Mid-Tilt-Left<SIM 1>

DUT: mobile phone; Type: AM521

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3;

Conv.F=6.42;Frequency: 1880 MHz; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.38$  mho/m;  $\epsilon_r = 39.94$ ;

$\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Left Section

Ambient temperature (°C): 21.0, Liquid temperature (°C): 21.0

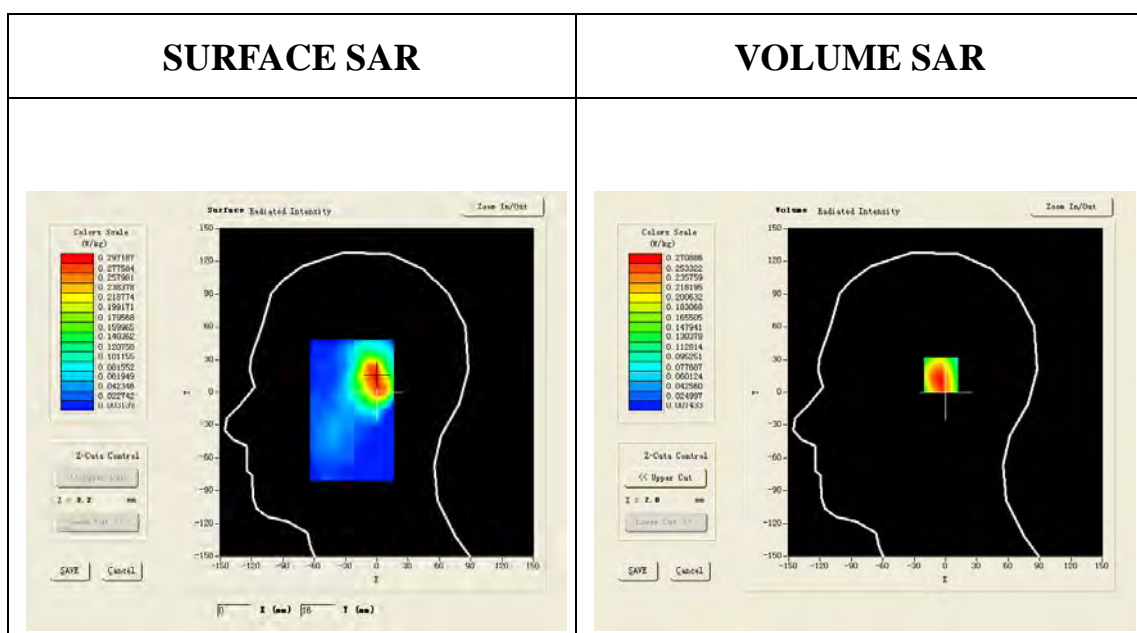
Satimo Configuration:

- Probe:SSE5; Calibrated: 12/09/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM1; Type: SAM
- Measurement SW: OpenSAR V4\_02\_01

Configuration/PCS1900 Mid Tilt-Left/Area Scan: Measurement grid: dx=20mm, dy=20mm

Configuration/PCS1900 Mid Tilt-Left/Zoom Scan: Measurement grid: dx=8mm, dy=8mm, dz=5mm;

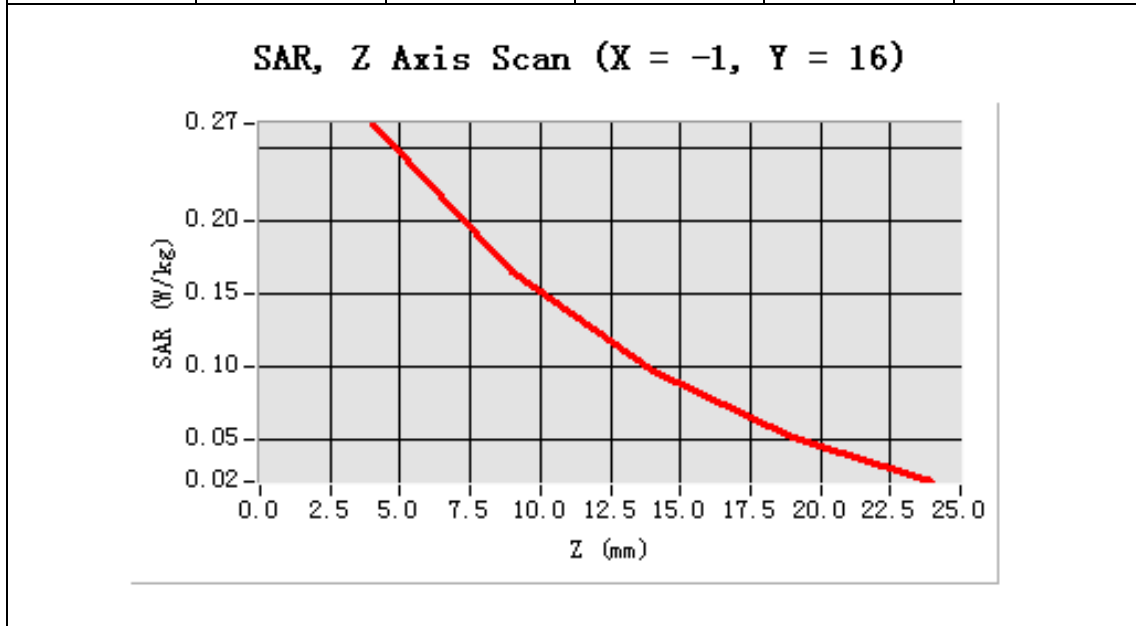
Area Scan	sam_direct_droit2_surf8mm.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Very fast
Phantom	Left head
Device Position	Tilt
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)



**Maximum location: X=-1.00, Y=16.00**

<b>SAR 10g (W/Kg)</b>	0.145567
<b>SAR 1g (W/Kg)</b>	0.258160

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.2674</b>	<b>0.1661</b>	<b>0.0968</b>	<b>0.0511</b>



<b>3D screen shot</b>	<b>Hot spot position</b>

Test Laboratory: AGC Lab

Date: Aug. 14,2012

PCS 1900 Mid-Touch- Right<SIM 1>

DUT: mobile phone; Type: AM521

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3;

Conv.F=6.42;Frequency: 1880 MHz; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.38$  mho/m;  $\epsilon_r = 39.94$ ;

$\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Right Section

Ambient temperature (°C): 21.0, Liquid temperature (°C): 21.0

Satimo Configuration:

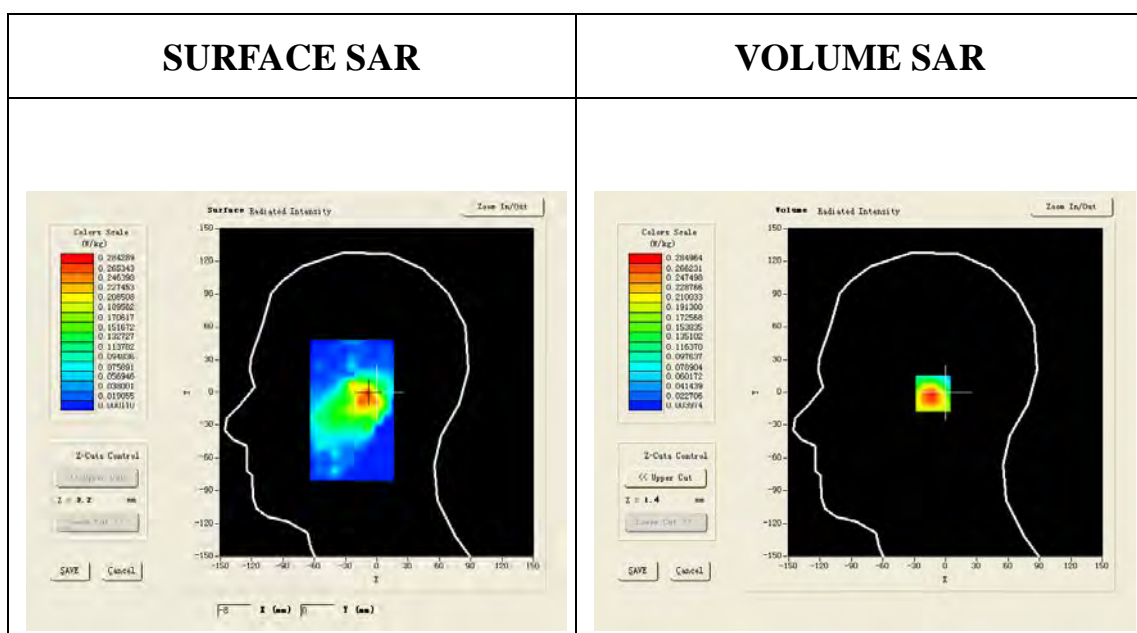
- Probe:SSE5; Calibrated: 12/09/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM1; Type: SAM
- Measurement SW: OpenSAR V4\_02\_01

Configuration/PCS1900 Mid Touch-Right/Area Scan: Measurement grid: dx=20mm, dy=20mm

Configuration/PCS1900 Mid Touch-Right/Zoom Scan: Measurement grid: dx=8mm,

dy=8mm, dz=5mm;

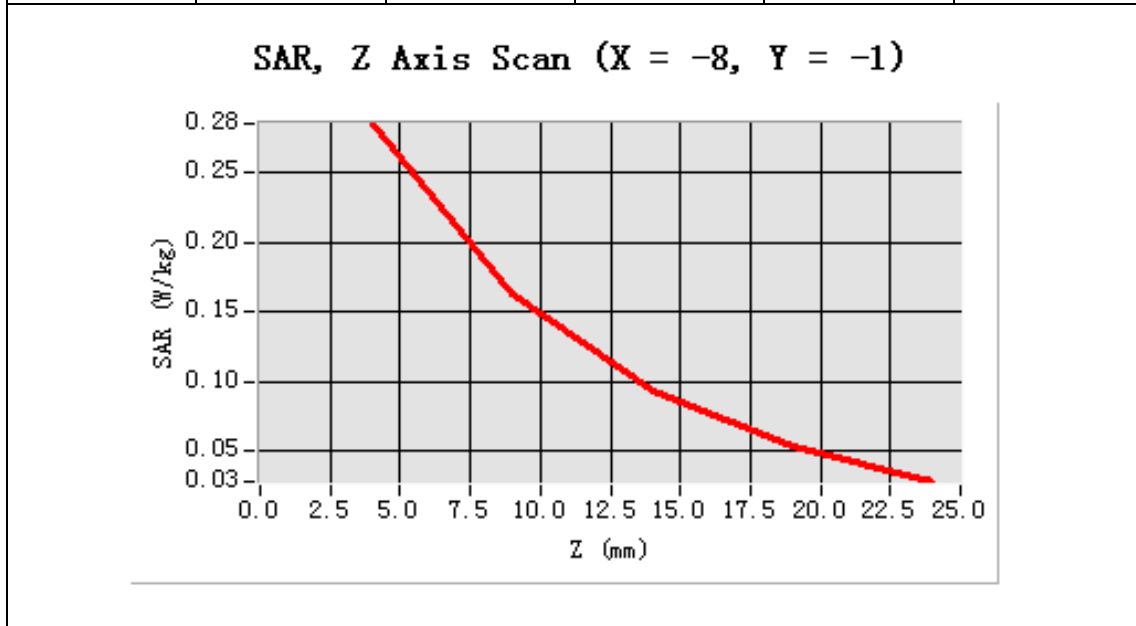
Area Scan	sam_direct_droit2_surf8mm.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Very fast
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)



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

<b>SAR 10g (W/Kg)</b>	0.143328
<b>SAR 1g (W/Kg)</b>	0.269246

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.2850</b>	<b>0.1636</b>	<b>0.0929</b>	<b>0.0532</b>



<b>3D screen shot</b>	<b>Hot spot position</b>

Test Laboratory: AGC Lab

Date: Aug. 14,2012

PCS 1900 Mid-Tilt- Right<SIM 1>

DUT: mobile phone; Type: AM521

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3;

Conv.F=6.42; Frequency: 1880 MHz; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.38$  mho/m;  $\epsilon_r = 39.94$ ;

$\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Right Section

Ambient temperature (°C): 21.0, Liquid temperature (°C): 21.0

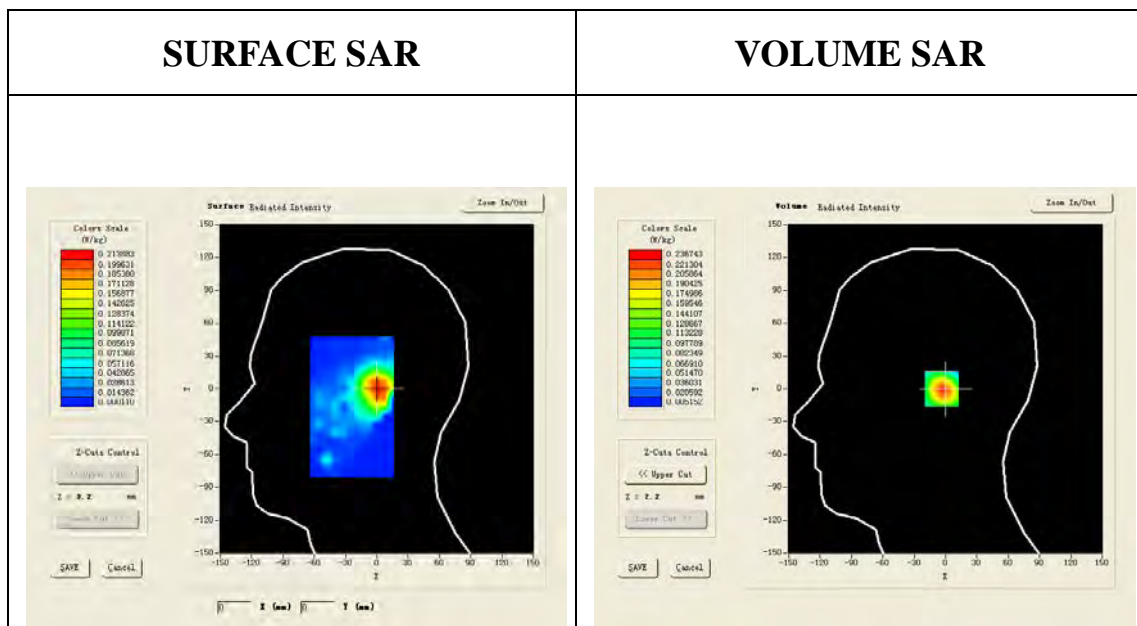
Satimo Configuration:

- Probe:SSE5; Calibrated: 12/09/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM1; Type: SAM
- Measurement SW: OpenSAR V4\_02\_01

Configuration/PCS1900 Mid Tilt-Right/Area Scan: Measurement grid: dx=20mm, dy=20mm

Configuration/PCS1900 Mid Tilt-Right/Zoom Scan: Measurement grid: dx=8mm, dy=8mm, dz=5mm;

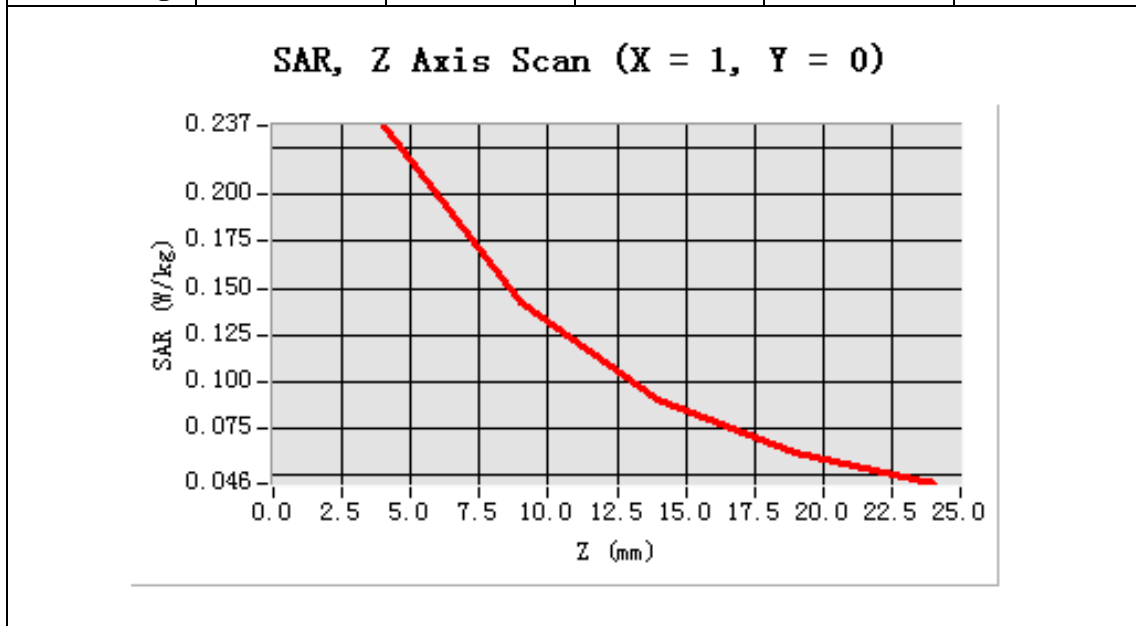
Area Scan	sam_direct_droit2_surf8mm.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Very fast
Phantom	Right head
Device Position	Tilt
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)



**Maximum location: X=1.00, Y=0.00**

<b>SAR 10g (W/Kg)</b>	0.123142
<b>SAR 1g (W/Kg)</b>	0.220384

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.2367</b>	<b>0.1425</b>	<b>0.0901</b>	<b>0.0626</b>



<b>3D screen shot</b>	<b>Hot spot position</b>



Test Laboratory: AGC Lab

Date: Aug. 14,2012

PCS 1900 Mid-Touch-Left<SIM 2>

DUT: mobile phone; Type: AM521

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3;

Conv.F=6.42; Frequency: 1880 MHz; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.38$  mho/m;  $\epsilon_r = 39.94$ ;

$\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Left Section

Ambient temperature (°C): 21.0, Liquid temperature (°C): 21.0

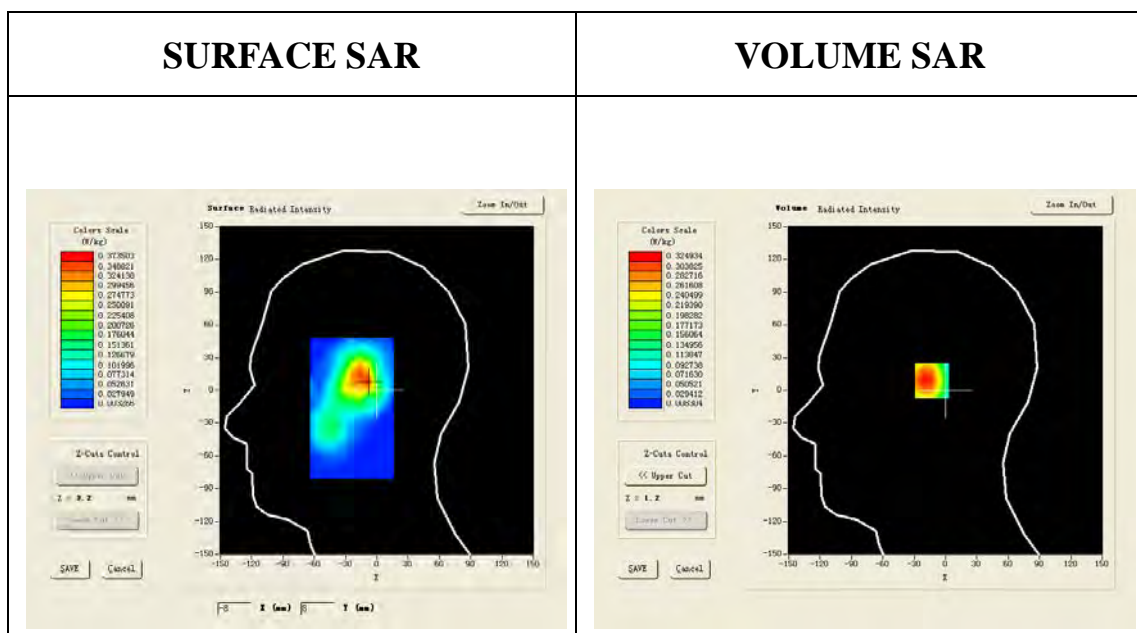
Satimo Configuration:

- Probe:SSE5; Calibrated: 12/09/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM1; Type: SAM
- Measurement SW: OpenSAR V4\_02\_01

Configuration/PCS1900 Mid Touch-Left/Area Scan: Measurement grid: dx=20mm, dy=20mm

Configuration/PCS1900 Mid Touch-Left/Zoom Scan: Measurement grid: dx=8mm, dy=8mm, dz=5mm;

Area Scan	sam_direct_droit2_surf8mm.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Very fast
Phantom	Left head
Device Position	Touch
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)

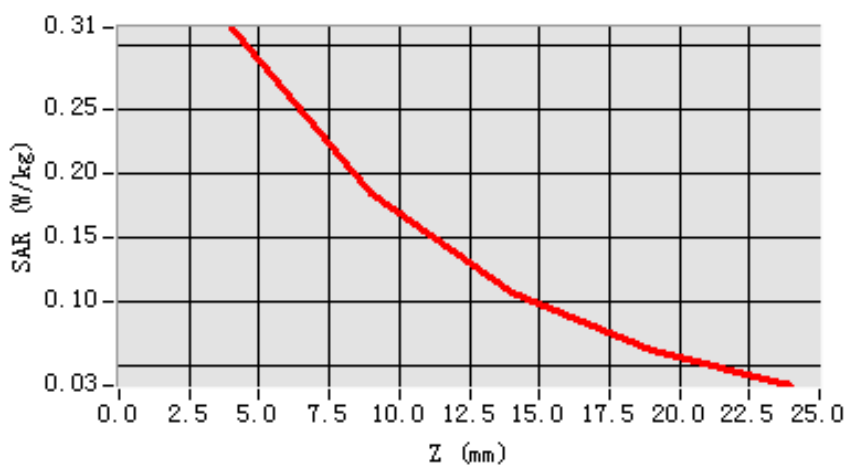


Maximum location: X=-10.00, Y=9.00

<b>SAR 10g (W/Kg)</b>	0.176662
<b>SAR 1g (W/Kg)</b>	0.310013

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.3138</b>	<b>0.1838</b>	<b>0.1065</b>	<b>0.0620</b>

**SAR, Z Axis Scan (X = -10, Y = 9)**



<b>3D screen shot</b>	<b>Hot spot position</b>

Test Laboratory: AGC Lab

Date: Aug. 14,2012

PCS 1900 Mid-Body- Back(MS) <SIM 1>

DUT: mobile phone; Type: AM521

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3;

Conv.F=6.42;Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz;  $\sigma = 1.50$  mho/m;  $\epsilon_r = 52.77$ ;

$\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Flat Section

Ambient temperature (°C): 21.0, Liquid temperature (°C): 21.0

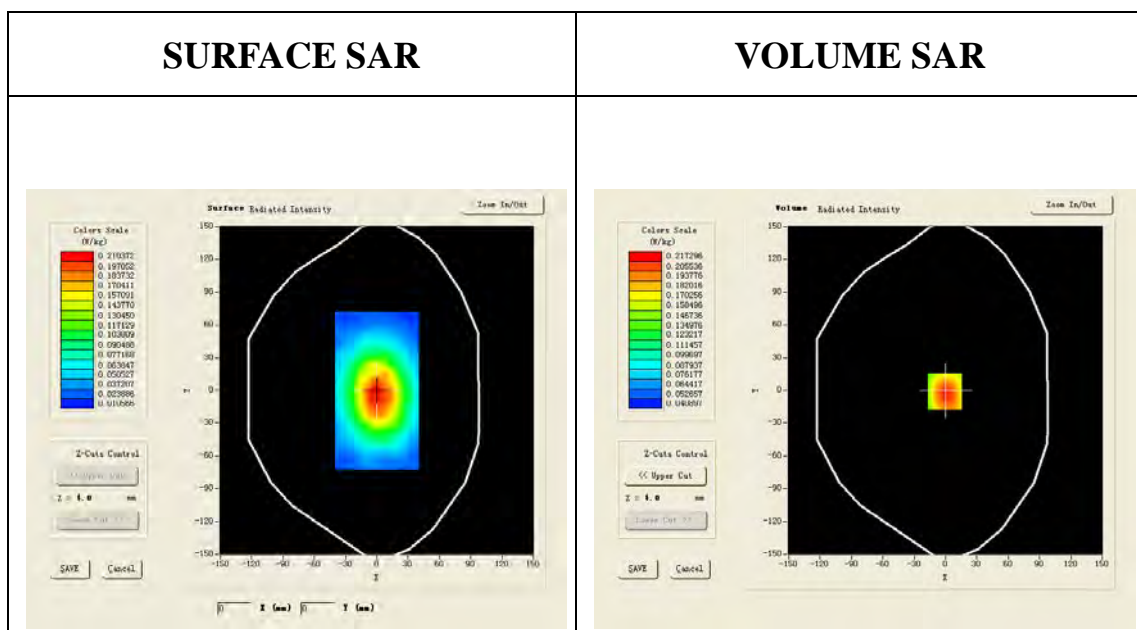
Satimo Configuration:

- Probe:SSE5; Calibrated: 12/09/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM1; Type: SAM
- Measurement SW: OpenSAR V4\_02\_01

Configuration/PCS1900 Mid Body-Back/Area Scan: Measurement grid: dx=20mm, dy=20mm

Configuration/PCS1900 Mid Body-Back/Zoom Scan: Measurement grid: dx=8mm, dy=8mm, dz=5mm;

Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Very fast
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)

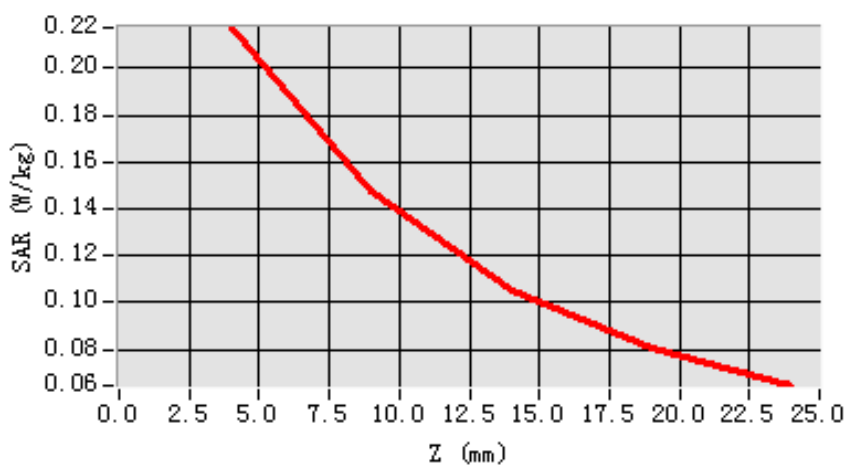


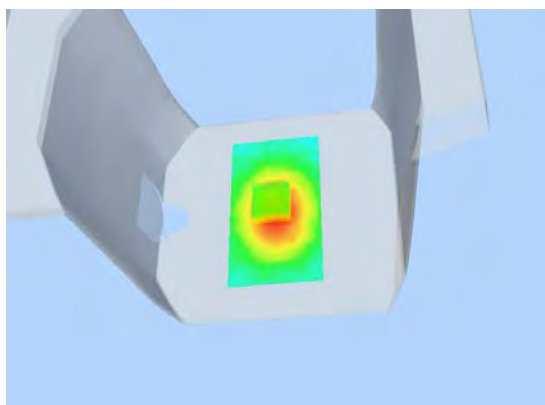
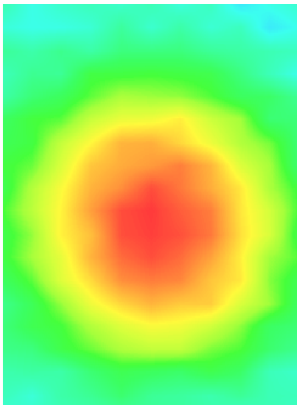
Maximum location: X=-1.00, Y=-1.00

<b>SAR 10g (W/Kg)</b>	0.152752
<b>SAR 1g (W/Kg)</b>	0.226321

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.2173</b>	<b>0.1474</b>	<b>0.1052</b>	<b>0.0809</b>

**SAR, Z Axis Scan (X = -1, Y = -1)**



<b>3D screen shot</b>	<b>Hot spot position</b>
	

Test Laboratory: AGC Lab

Date: Aug. 14,2012

PCS 1900 Mid-Body- Back (2up) <SIM 1>

DUT: mobile phone; Type: AM521

Communication System: GPRS-2 Slot; Communication System Band: PCS1900; Duty Cycle: 1:4.2 ;

Conv.F=6.42; Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz;  $\sigma = 1.50$  mho/m;  $\epsilon_r = 52.77$ ;

$\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Flat Section

Ambient temperature (°C): 21.0, Liquid temperature (°C): 21.0

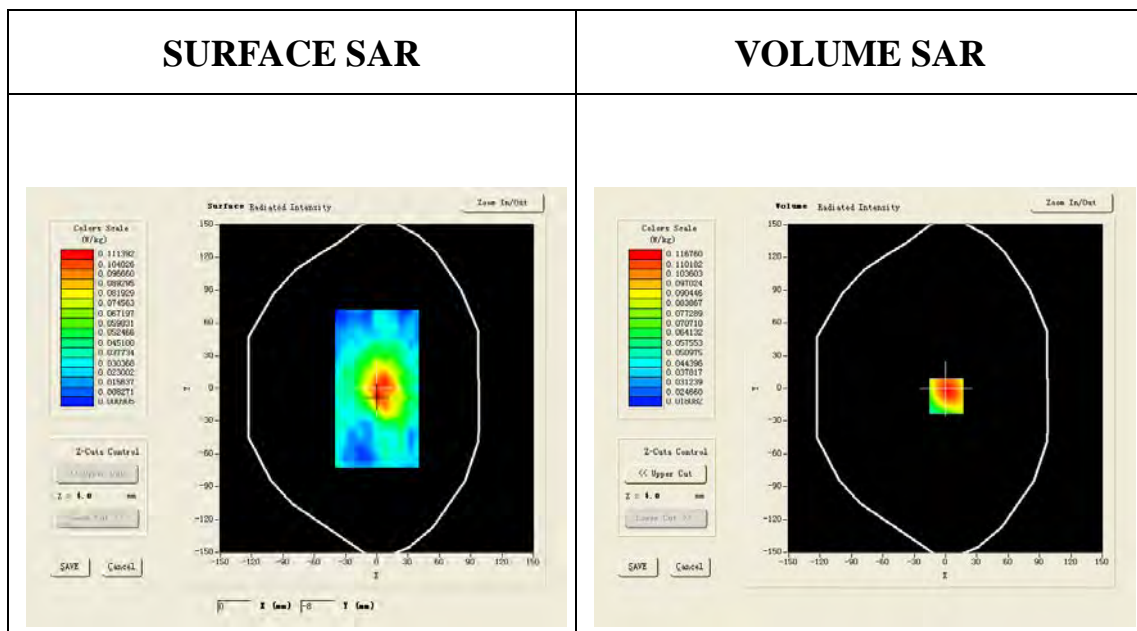
Satimo Configuration:

- Probe:SSE5; Calibrated: 12/09/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM1; Type: SAM
- Measurement SW: OpenSAR V4\_02\_01

Configuration/GPRS1900 Mid Body-Back/Area Scan: Measurement grid: dx=20mm, dy=20mm

Configuration/GPRS1900 Mid Body-Back/Zoom Scan: Measurement grid: dx=8mm, dy=8mm, dz=5mm;

Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Very fast
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 4.0)

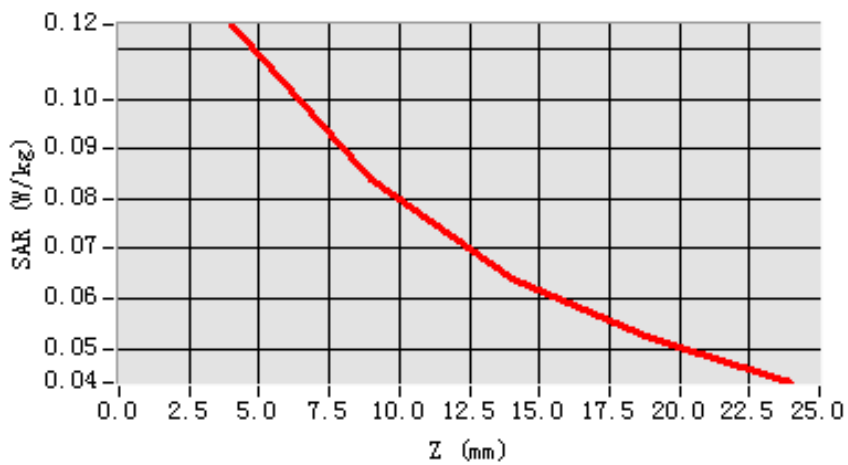


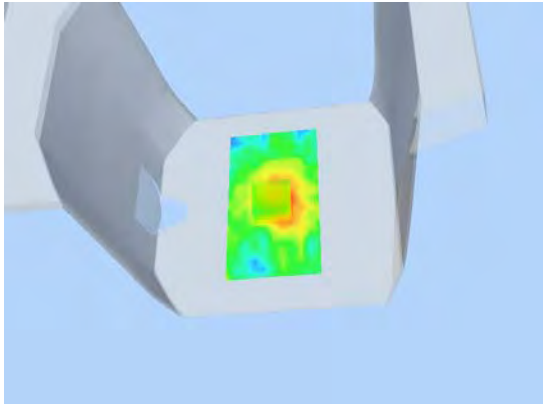
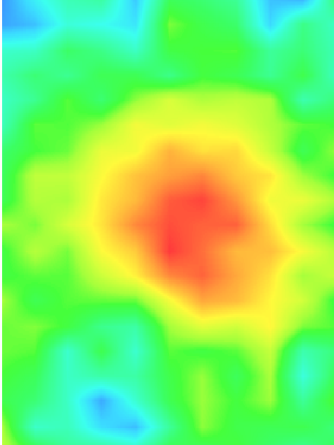
Maximum location: X=1.00, Y=-7.00

<b>SAR 10g (W/Kg)</b>	0.080270
<b>SAR 1g (W/Kg)</b>	0.113216

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.1151</b>	<b>0.0840</b>	<b>0.0642</b>	<b>0.0519</b>

**SAR, Z Axis Scan (X = 1, Y = -7)**



<b>3D screen shot</b>	<b>Hot spot position</b>
	

Test Laboratory: AGC Lab

Date: Aug. 14,2012

PCS 1900 Mid-Body- Back (3up) <SIM 1>

DUT: mobile phone; Type: AM521

Communication System: GPRS-3 Slot; Communication System Band: PCS1900;Duty Cycle: 1:2.7;

Conv.F=6.42

Frequency: 1880 MHz; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.50$  mho/m;  $\epsilon_r = 52.77$ ;

$\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Flat Section

Ambient temperature (°C):21, Liquid temperature (°C):21

Satimo Configuration:

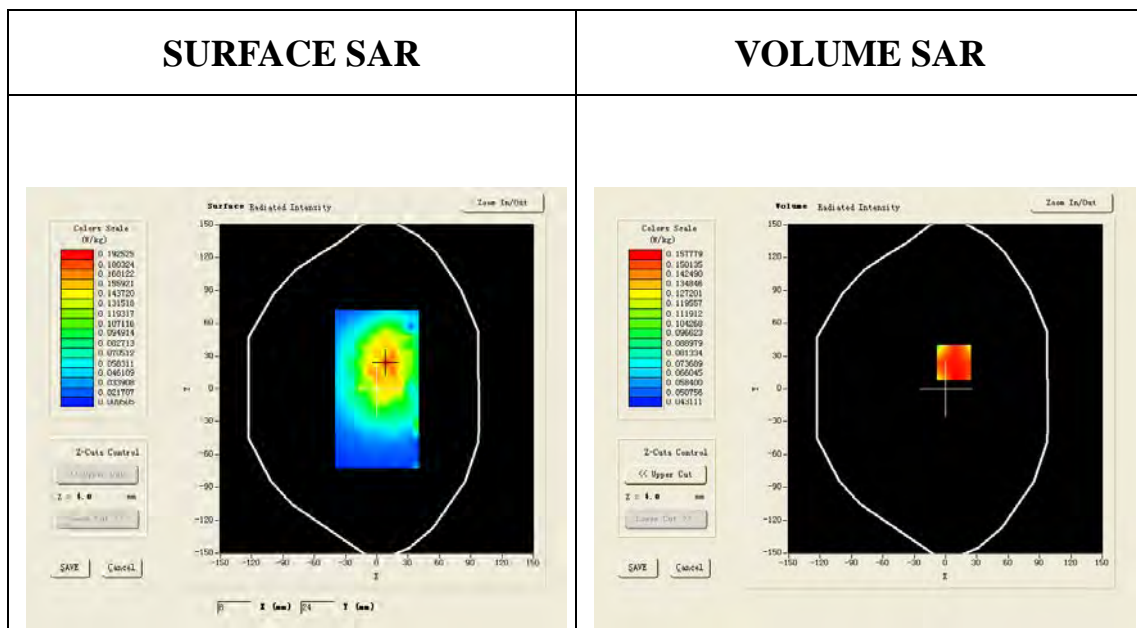
Probe:SSE5; Calibrated: 12/09/2011

- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM1; Type: SAM
- Measurement SW: OpenSAR V4\_02\_01

Configuration/GPRS1900 Mid Body- Back /Area Scan: Measurement grid: dx=20mm, dy=20mm

Configuration/GPRS1900 Mid Body- Back /Zoom Scan: Measurement grid: dx=8mm, dy=8mm, dz=5m;

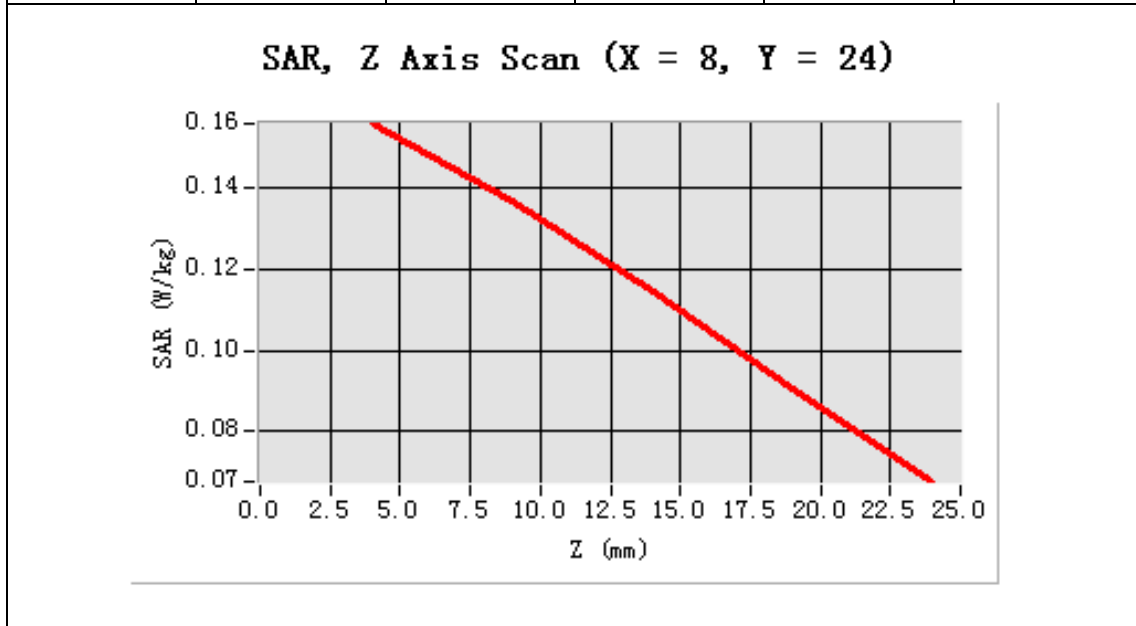
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Very fast
Phantom	Validation plane
Device Position	Body Back
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 2.7)



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

<b>SAR 10g (W/Kg)</b>	0.134024
<b>SAR 1g (W/Kg)</b>	0.167340

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.1561</b>	<b>0.1372</b>	<b>0.1146</b>	<b>0.0904</b>



<b>3D screen shot</b>	<b>Hot spot position</b>



Test Laboratory: AGC Lab

Date: Aug. 14,2012

PCS 1900 Mid-Body- Back (4up) <SIM 1>

DUT: mobile phone; Type: AM521

Communication System: GPRS-4 Slot; Communication System Band: PCS1900;Duty Cycle: 1:2.0;  
Conv.F=6.42

Frequency: 1880 MHz; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.50$  mho/m;  $\epsilon_r = 52.77$ ;  
 $\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Flat Section

Ambient temperature (°C):21, Liquid temperature (°C):21

Satimo Configuration:

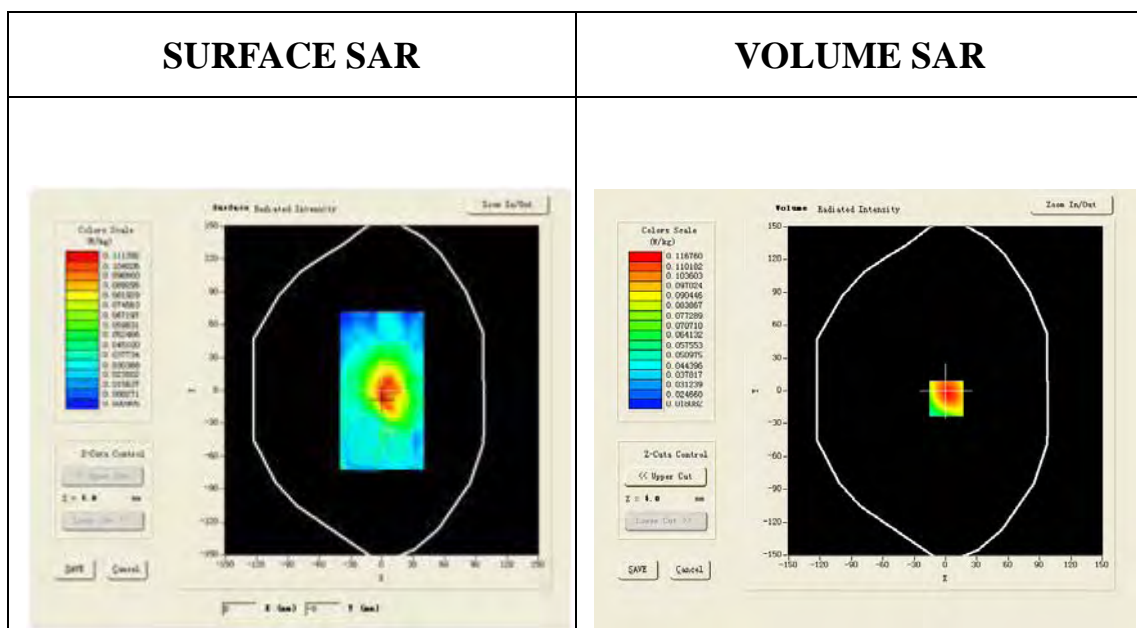
Probe:SSE5; Calibrated: 12/09/2011

- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM1; Type: SAM
- Measurement SW: OpenSAR V4\_02\_01

Configuration/GPRS1900 Mid Body- Back /Area Scan: Measurement grid: dx=20mm, dy=20mm

Configuration/GPRS1900 Mid Body- Back /Zoom Scan: Measurement grid: dx=8mm,  
dy=8mm, dz=5m;

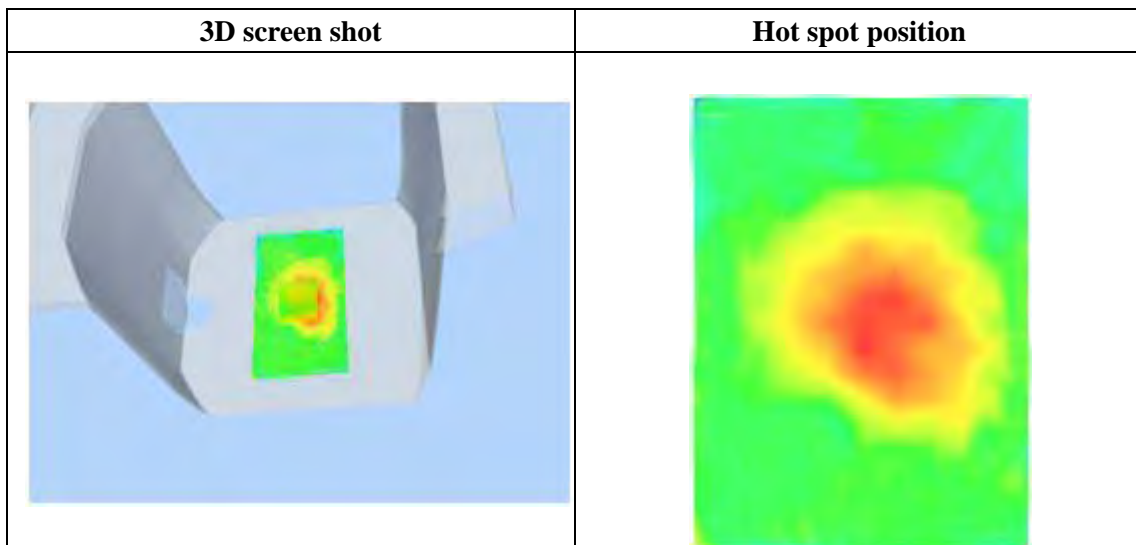
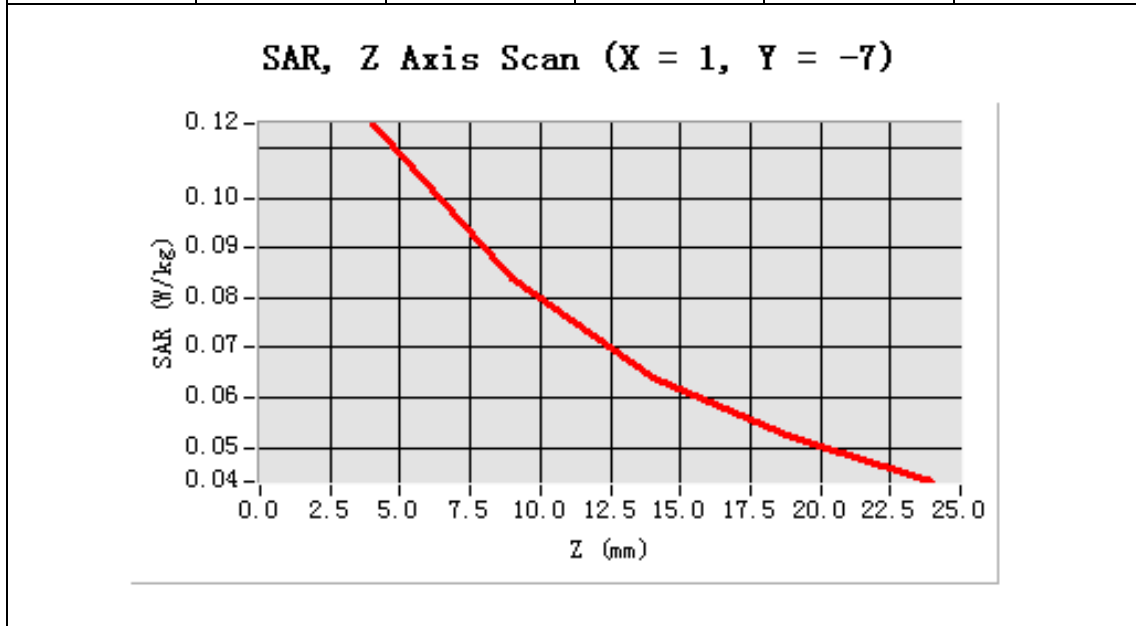
Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Very fast
Phantom	Validation plane
Device Position	Body Back
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 2.0)



**Maximum location: X=1.00, Y=-7.00**

<b>SAR 10g (W/Kg)</b>	0.081367
<b>SAR 1g (W/Kg)</b>	0.114325

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.1151</b>	<b>0.0840</b>	<b>0.0642</b>	<b>0.0519</b>



Test Laboratory: AGC Lab

Date: Aug. 14,2012

PCS 1900 Mid-Body -Front (MS) <SIM 1>

DUT: mobile phone; Type: AM521

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3;

Conv.F=6.42;Frequency: 1880 MHz; Medium parameters used: f = 1900 MHz;  $\sigma = 1.50$  mho/m;  $\epsilon_r = 52.77$ ;

$\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Flat Section

Ambient temperature (°C): 21.0, Liquid temperature (°C): 21.0

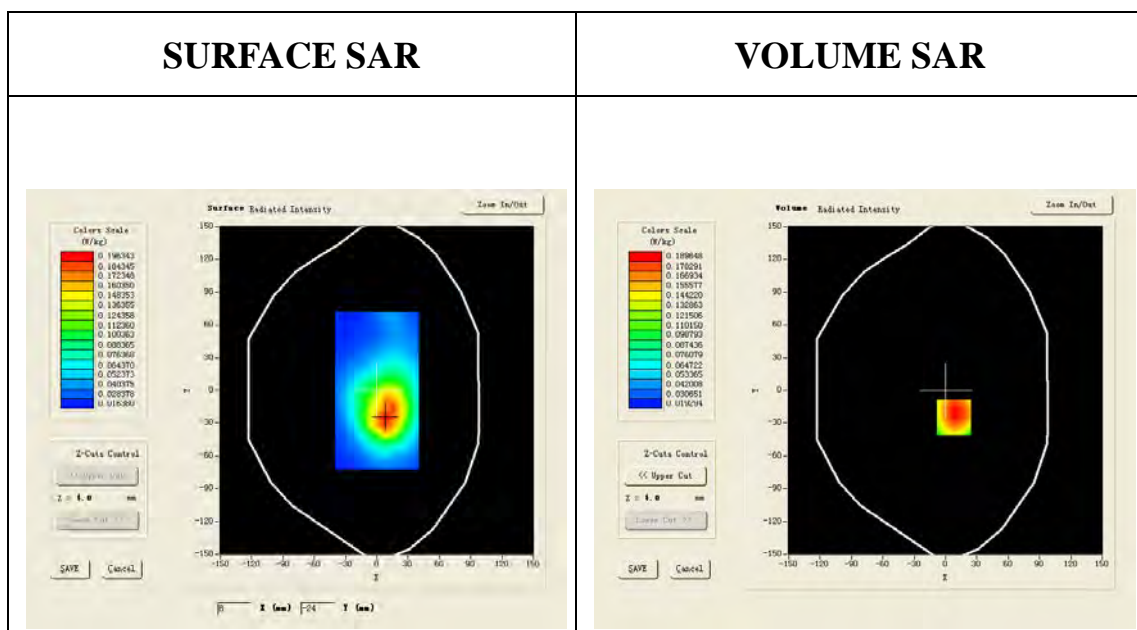
Satimo Configuration:

- Probe:SSE5; Calibrated: 12/09/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM1; Type: SAM
- Measurement SW: OpenSAR V4\_02\_01

Configuration/PCS1900 Mid Body-Back/Area Scan: Measurement grid: dx=20mm, dy=20mm

Configuration/PCS1900 Mid Body-Back/Zoom Scan: Measurement grid: dx=8mm, dy=8mm, dz=5mm;

Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Very fast
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)

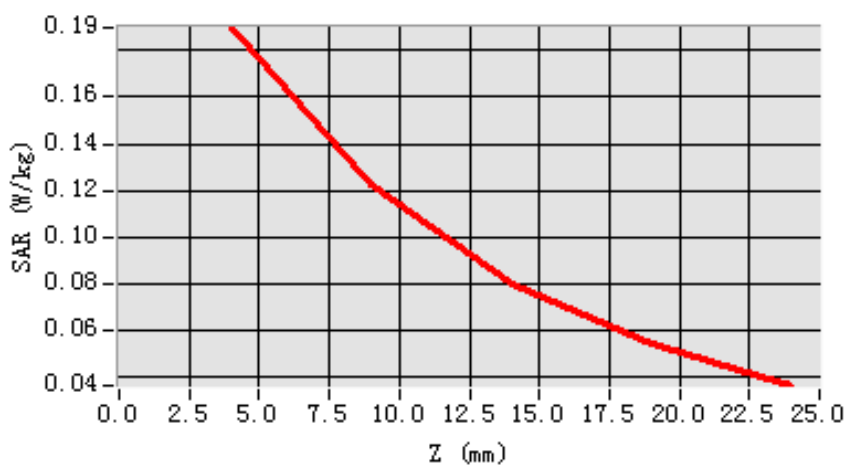


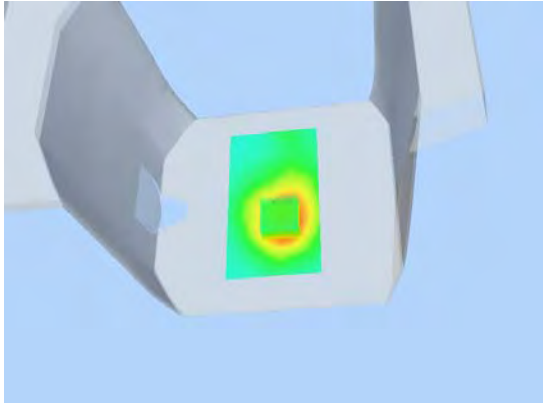
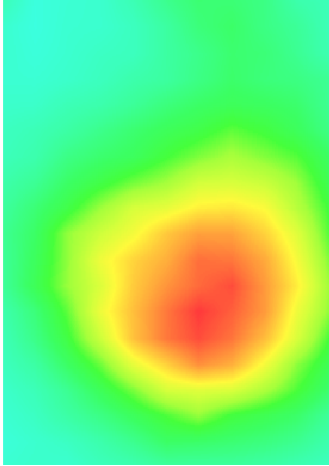
Maximum location: X=8.00, Y=-25.00

<b>SAR 10g (W/Kg)</b>	0.116753
<b>SAR 1g (W/Kg)</b>	0.183364

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.1896</b>	<b>0.1221</b>	<b>0.0800</b>	<b>0.0542</b>

**SAR, Z Axis Scan (X = 8, Y = -25)**



<b>3D screen shot</b>	<b>Hot spot position</b>
	

Test Laboratory: AGC Lab

Date: Aug. 14,2012

PCS 1900 Mid-Body- Back (MS with earphone) <SIM 1>

DUT: mobile phone; Type: AM521

Communication System: Generic GSM; Communication System Band: PCS 1900; Duty Cycle: 1:8.3;

Conv.F=6.42;Frequency: 1880 MHz; Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.50$  mho/m;  $\epsilon_r = 52.77$ ;

$\rho = 1000$  kg/m<sup>3</sup> ;

Phantom section: Flat Section

Ambient temperature (°C): 21.0, Liquid temperature (°C): 21.0

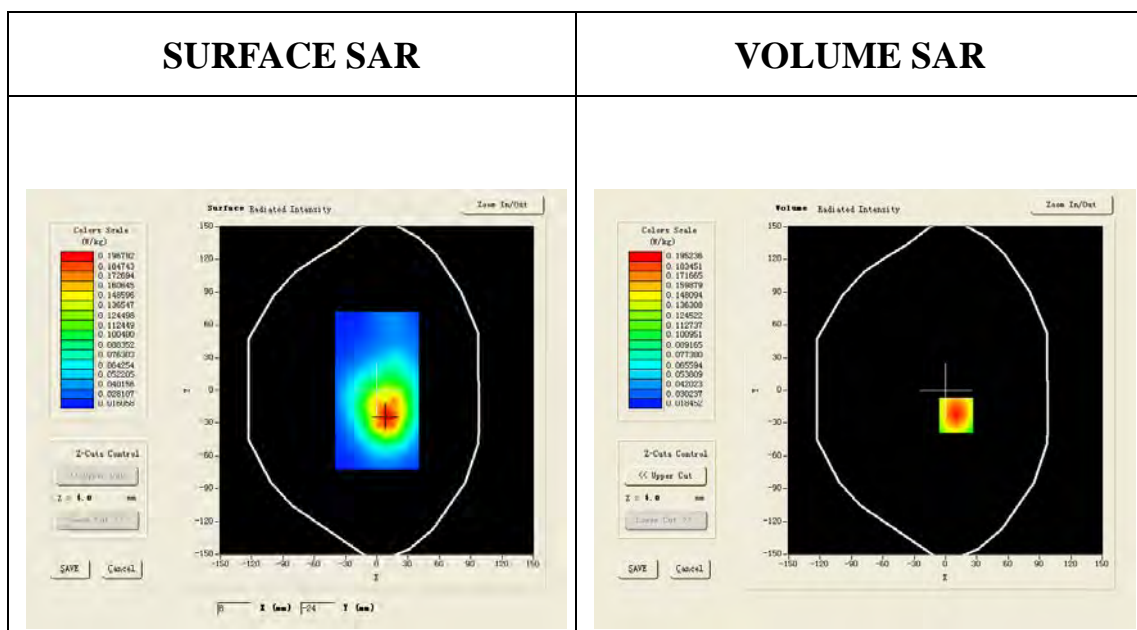
Satimo Configuration:

- Probe:SSE5; Calibrated: 12/09/2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Phantom: SAM1; Type: SAM
- Measurement SW: OpenSAR V4\_02\_01

Configuration/PCS1900 Mid Body-Back/Area Scan: Measurement grid: dx=20mm, dy=20mm

Configuration/PCS1900 Mid Body-Back/Zoom Scan: Measurement grid: dx=8mm, dy=8mm, dz=5mm;

Area Scan	surf_sam_plan.txt
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm,Very fast
Phantom	Validation plane
Device Position	Body
Band	GSM1900
Channels	Middle
Signal	TDMA (Crest factor: 8.0)

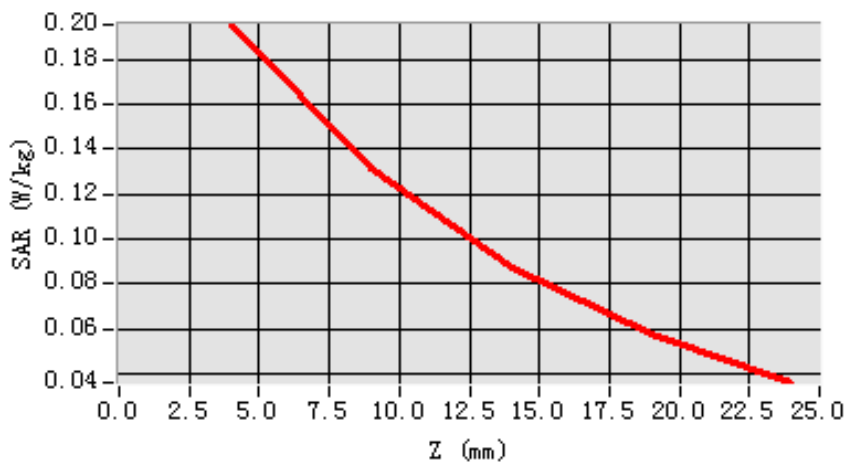


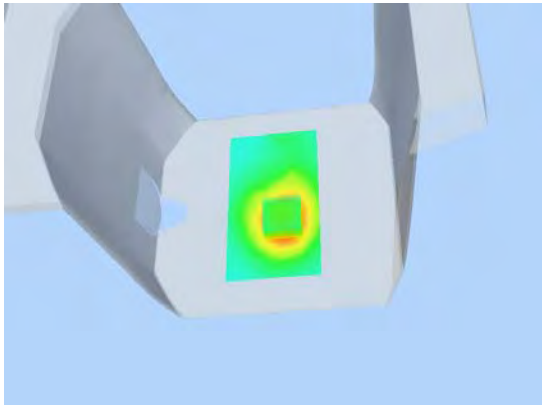
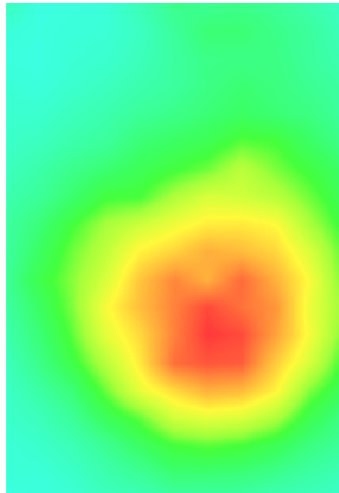
Maximum location: X=10.00, Y=-23.00

<b>SAR 10g (W/Kg)</b>	0.116032
<b>SAR 1g (W/Kg)</b>	0.184974

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>0.1952</b>	<b>0.1310</b>	<b>0.0872</b>	<b>0.0576</b>

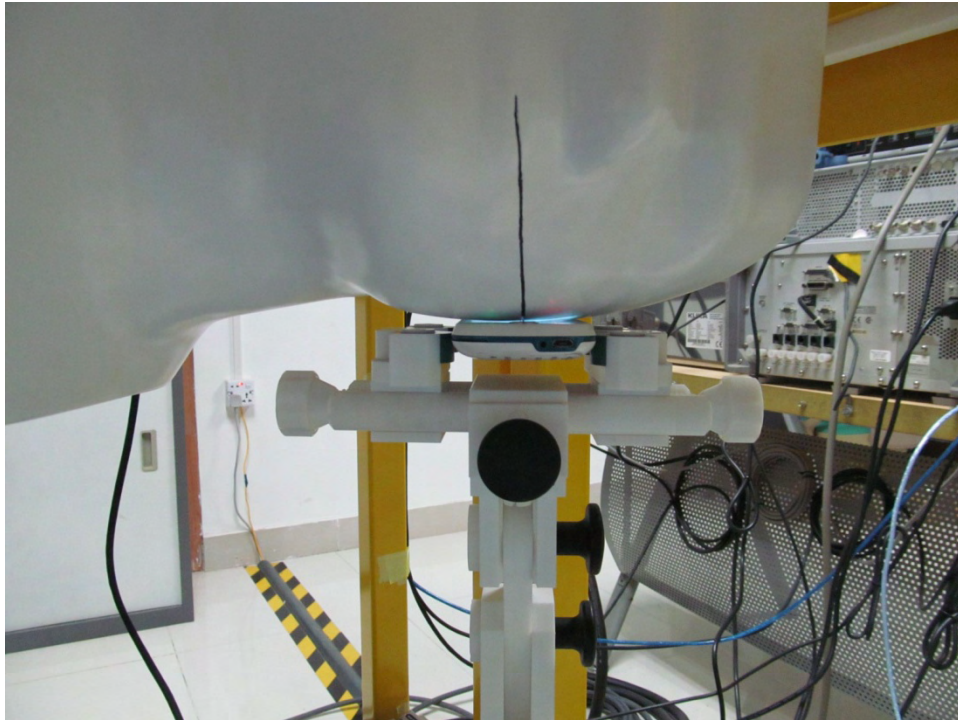
**SAR, Z Axis Scan (X = 10, Y = -23)**



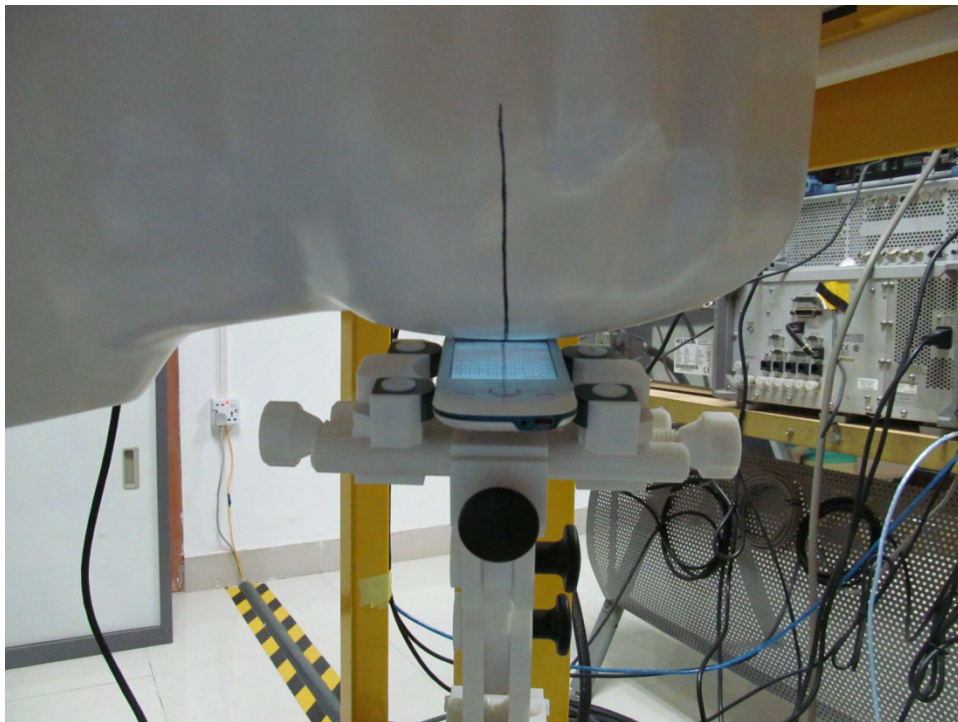
<b>3D screen shot</b>	<b>Hot spot position</b>
	



**Appendix C. TEST SETUP PHOTOGRAPHS & EUT PHOTOGRAPHS**  
**Test Setup Photographs**  
LEFT-CHECK TOUCH



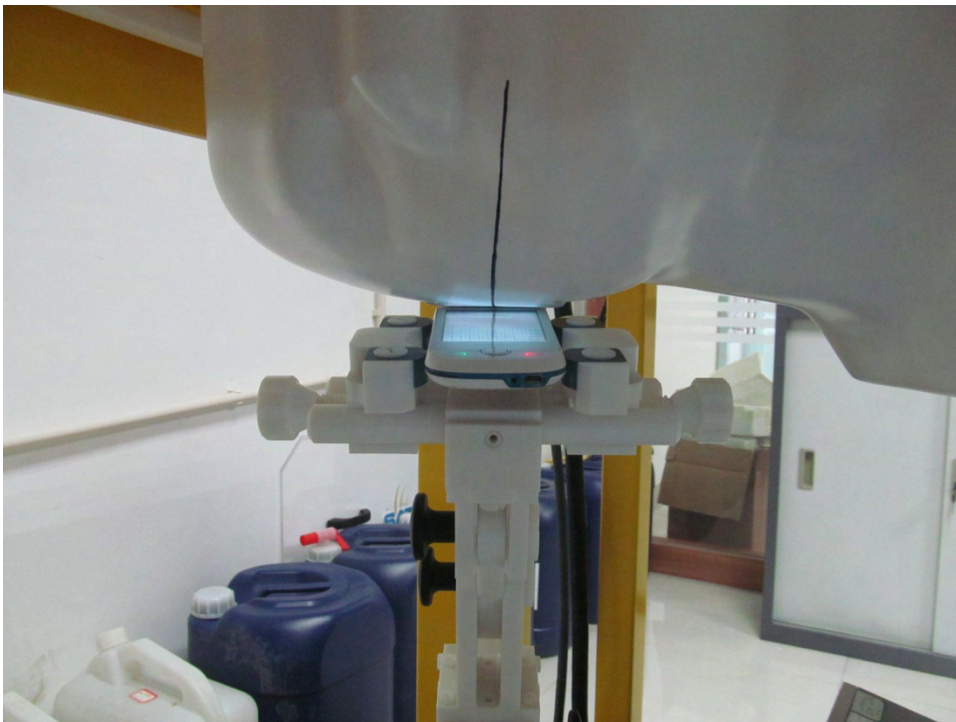
LEFT-TILT 15°



RIGHT-CHECK TOUCH



RIGHT-TILT 15°





Body Back15mm



Body Front 15mm



Body back with Headset



### DEPTH OF THE LIQUID IN THE PHANTOM—ZOOM IN

Note : The position used in the measurement were according to IEEE 1528-2003



**EUT PHOTOGRAPS**  
**TOP VIEW OF SAMPLE**



**BOTTOM VIEW OF SAMPLE**





LEFT VIEW OF SAMPLE



RIGHT VIEW OF SAMPLE



FRONT VIEW OF SAMPLE



BACK VEIW OF SAMPLE





ALL VIEW OF SAMPLE

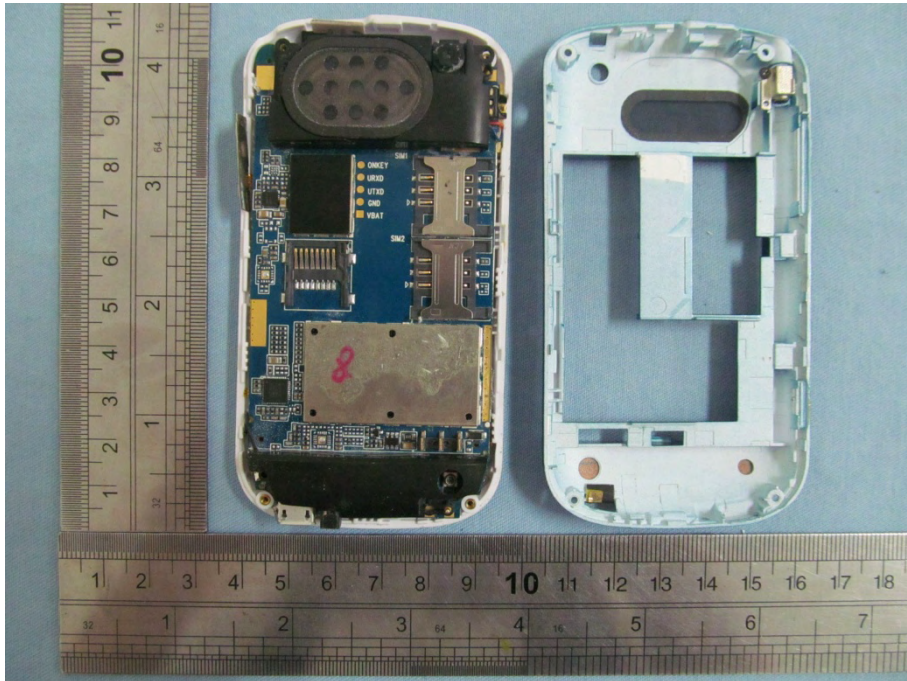


GSM  
Antenna

OPEN VIEW OF SAMPLE-1



OPEN VIEW OF SAMPLE-2

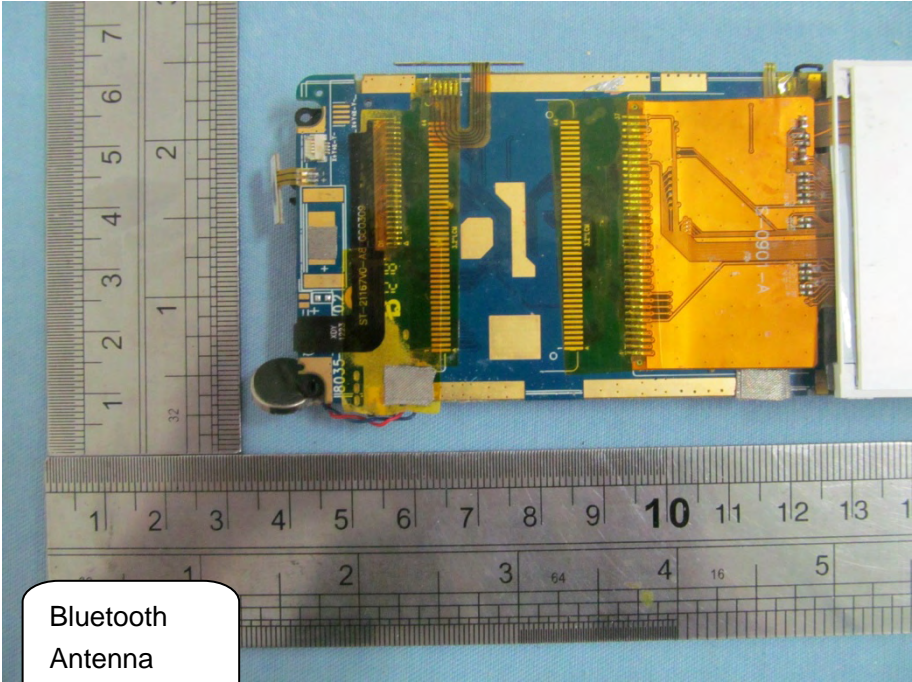


OPEN VIEW OF SAMPLE-3





INTERNAL VIEW OF SAMPLE-1



Bluetooth  
Antenna

INTERNAL VIEW OF SAMPLE-2

