

	Annex A: System Check
	Project Name : W5
	Report Number: FCC16083896A-6

I. RESULTS

<u>TYPE</u>	<u>BAND</u>	<u>PARAMETERS</u>
Validation	CW835	<u>Measurement 1:</u> Validation Plane with Dipole device position on Middle Channel in CW mode
Validation	CW835	<u>Measurement 2:</u> Validation Plane with Dipole device position on Middle Channel in CW mode
Validation	CW1800	<u>Measurement 3:</u> Validation Plane with Dipole device position on Middle Channel in CW mode
Validation	CW1800	<u>Measurement 4:</u> Validation Plane with Dipole device position on Middle Channel in CW mode
Validation	CW1900	<u>Measurement 5:</u> Validation Plane with Dipole device position on Middle Channel in CW mode
Validation	CW1900	<u>Measurement 6:</u> Validation Plane with Dipole device position on Middle Channel in CW mode
Validation	CW2450	<u>Measurement 7:</u> Validation Plane with Dipole device position on Middle Channel in CW mode
Validation	CW2450	<u>Measurement 8:</u> Validation Plane with Dipole device position on Middle Channel in CW mode
Validation	CW2600	<u>Measurement 9:</u> Validation Plane with Dipole device position on Middle Channel in CW mode
Validation	CW2600	<u>Measurement 10:</u> Validation Plane with Dipole device position on Middle Channel in CW mode

MEASUREMENT 1

HEAD

Type: Validation measurement (Complete)

Date of measurement: 19/8/2016

Measurement duration: 11 minutes 48 seconds

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm</u>
<u>ZoomScan</u>	<u>5x5x7, dx=8mm dy=8mm</u> <u>dz=5mm, Complete</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW835</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>

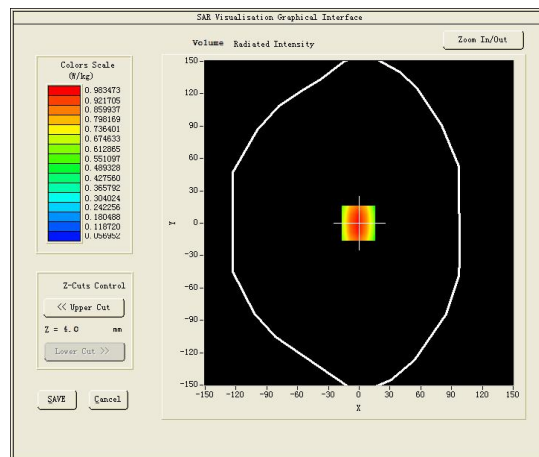
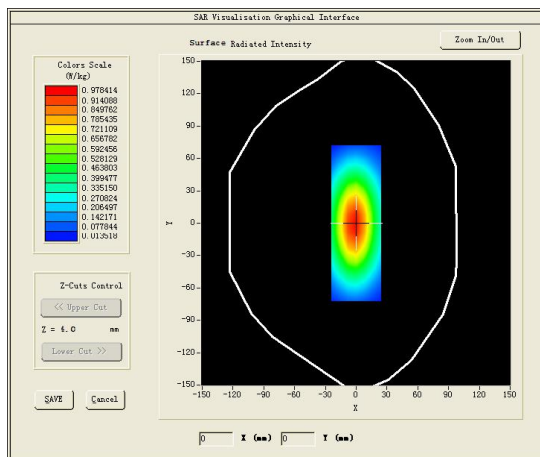
B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	835.000000
Relative permittivity (real part)	40.526699
Relative permittivity (imaginary part)	19.965200
Conductivity (S/m)	0.926163
Variation (%)	0.920000

SURFACE SAR

VOLUME SAR

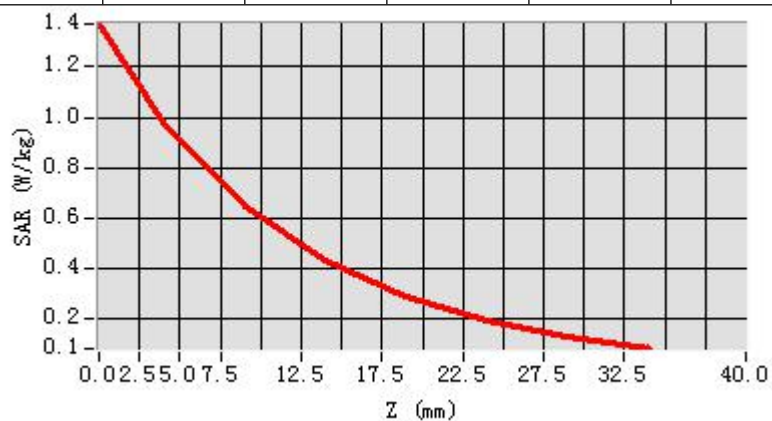


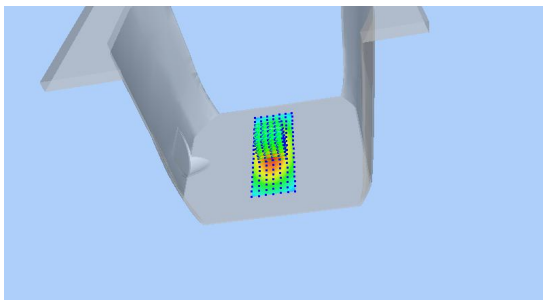
Maximum location: X=-1.00, Y=0.00

SAR Peak: 1.37 W/kg

SAR 10g (W/Kg)	6.10478
SAR 1g (W/Kg)	9.69519

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.3713	0.9835	0.6484	0.4339	0.2906	0.1933	0.1261



3D screen shot	Hot spot position
	

MEASUREMENT 2

BODY

Type: Validation measurement (Complete)

Date of measurement: 19/8/2016

Measurement duration: 11 minutes 47 seconds

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm</u>
<u>ZoomScan</u>	<u>5x5x7, dx=8mm dy=8mm</u> <u>dz=5mm, Complete</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW835</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>

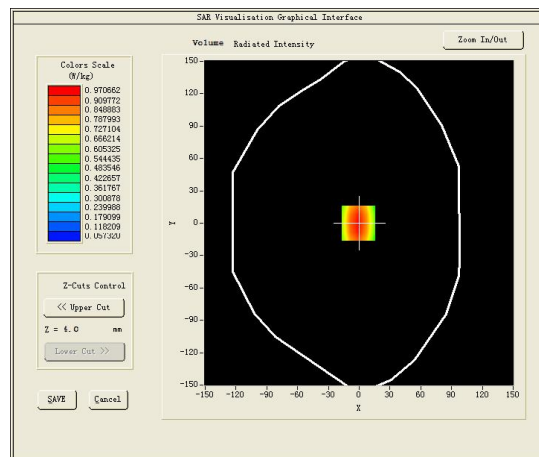
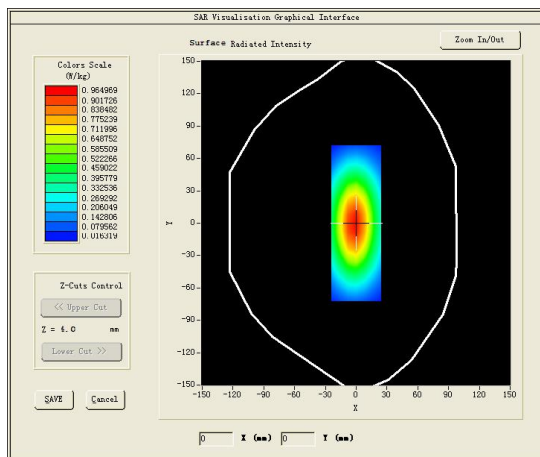
B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	835.000000
Relative permittivity (real part)	53.439098
Relative permittivity (imaginary part)	21.715401
Conductivity (S/m)	1.007353
Variation (%)	0.760000

SURFACE SAR

VOLUME SAR

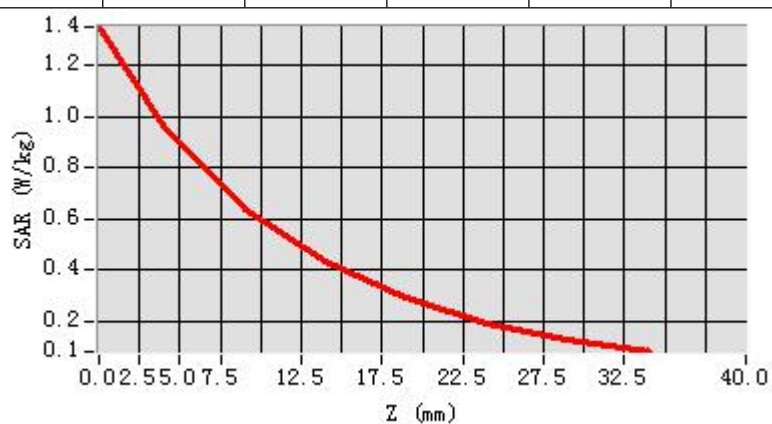


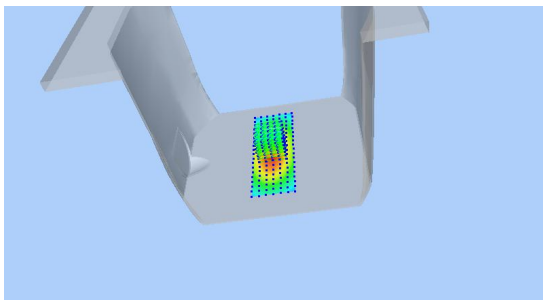
Maximum location: X=-1.00, Y=0.00

SAR Peak: 1.47 W/kg

SAR 10g (W/Kg)	6.61623
SAR 1g (W/Kg)	10.49474

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.3515	0.9707	0.6410	0.4295	0.2884	0.1920	0.1262



3D screen shot	Hot spot position
	

MEASUREMENT 3

BODY

Type: Validation measurement (Complete)

Date of measurement: 27/8/2016

Measurement duration: 11 minutes 59 seconds

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm</u>
<u>ZoomScan</u>	<u>5x5x7, dx=8mm dy=8mm</u> <u>dz=5mm, Complete</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW1800</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>

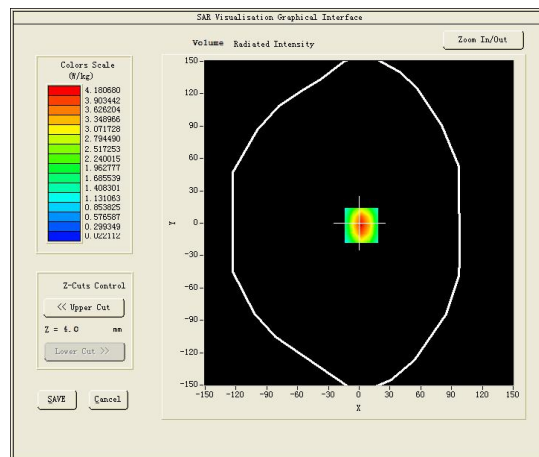
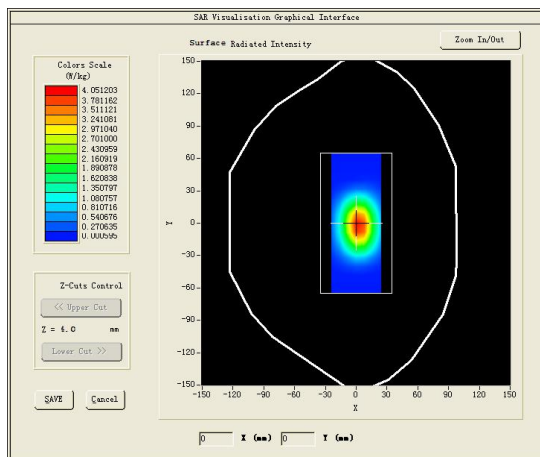
B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	1800.000000
Relative permittivity (real part)	53.054001
Relative permittivity (imaginary part)	14.715600
Conductivity (S/m)	1.471560
Variation (%)	0.070000

SURFACE SAR

VOLUME SAR

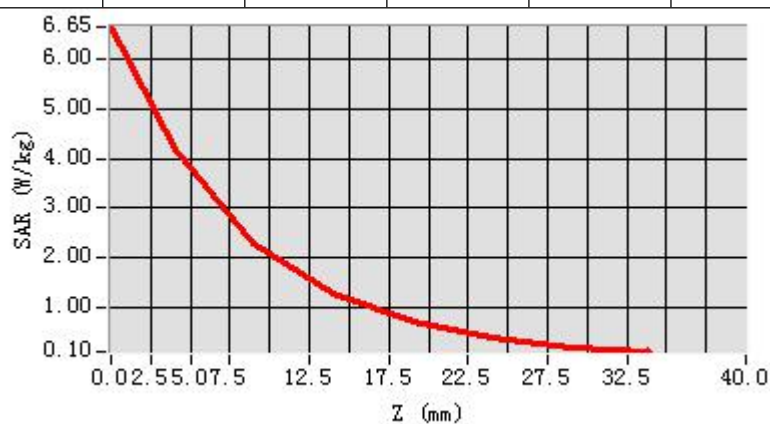


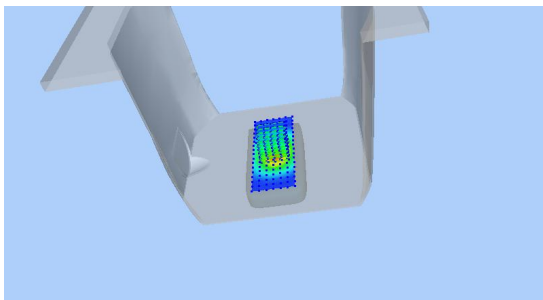
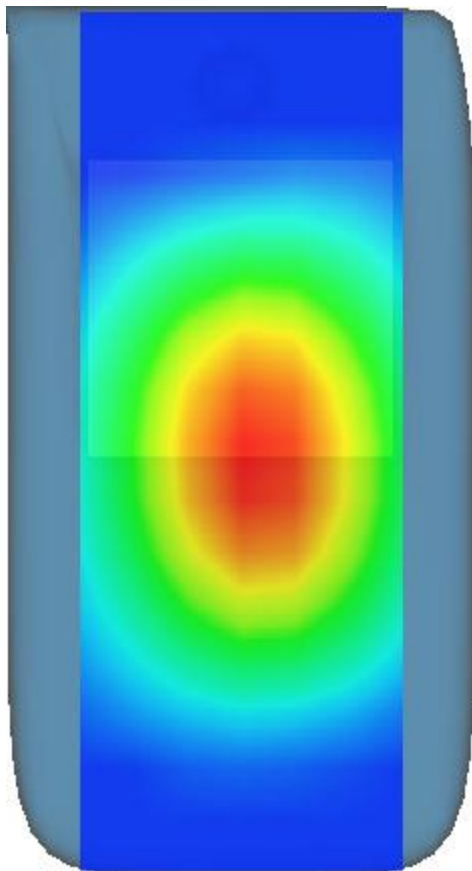
Maximum location: X=2.00, Y=-2.00

SAR Peak: 6.88 W/kg

SAR 10g (W/Kg)	21.32362
SAR 1g (W/Kg)	41.04705

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	6.6543	4.1807	2.2751	1.2686	0.7073	0.3838	0.1975



3D screen shot	Hot spot position
	

MEASUREMENT 4

HEAD

Type: Validation measurement (Complete)

Date of measurement: 27/8/2016

Measurement duration: 12 minutes 2 seconds

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm</u>
<u>ZoomScan</u>	<u>5x5x7, dx=8mm dy=8mm</u> <u>dz=5mm, Complete</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW1800</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>

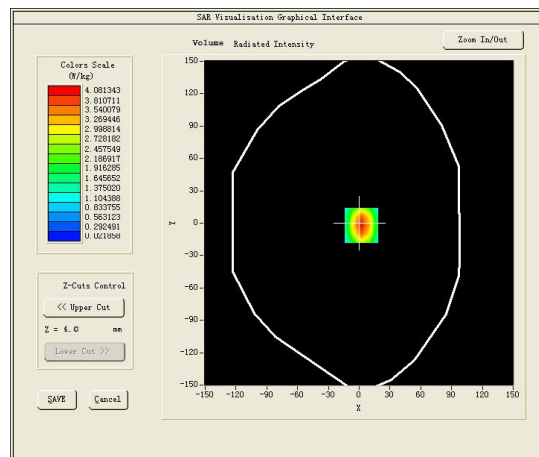
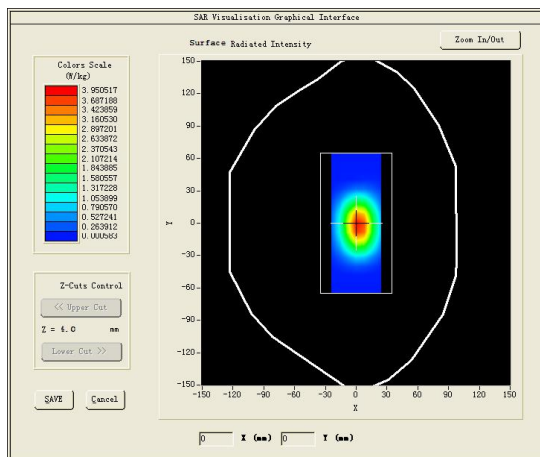
B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	1800.000000
Relative permittivity (real part)	39.970501
Relative permittivity (imaginary part)	14.110600
Conductivity (S/m)	1.411060
Variation (%)	0.430000

SURFACE SAR

VOLUME SAR

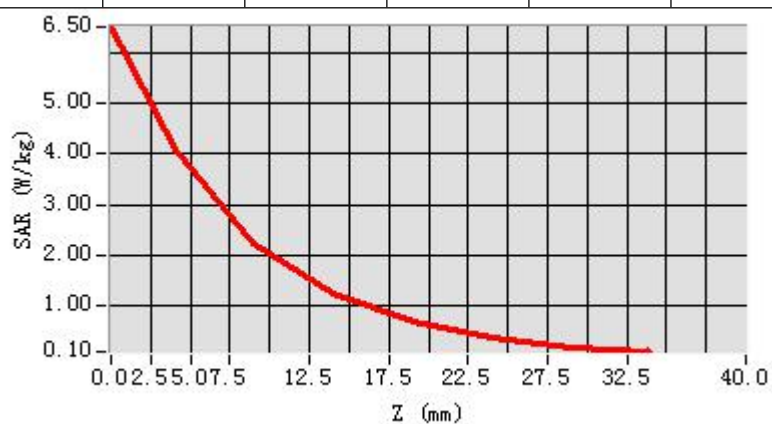


Maximum location: X=2.00, Y=-2.00

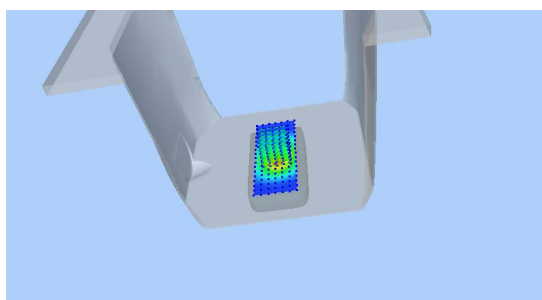
SAR Peak: 6.44 W/kg

SAR 10g (W/Kg)	20.07012
SAR 1g (W/Kg)	38.65479

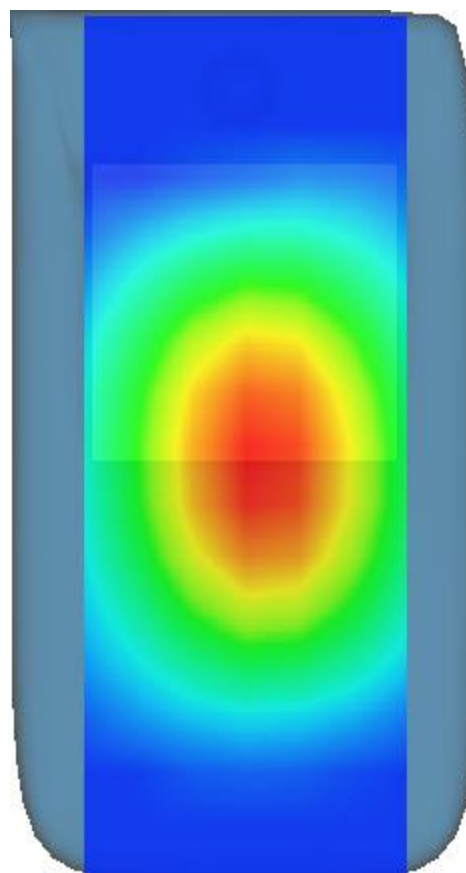
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	6.4983	4.0813	2.2222	1.2407	0.6952	0.3777	0.1952



3D screen shot



Hot spot position



MEASUREMENT 5

BODY

Type: Validation measurement (Complete)

Date of measurement: 24/8/2016

Measurement duration: 11 minutes 20 seconds

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm</u>
<u>ZoomScan</u>	<u>5x5x7, dx=8mm dy=8mm</u> <u>dz=5mm, Complete</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW1900</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>

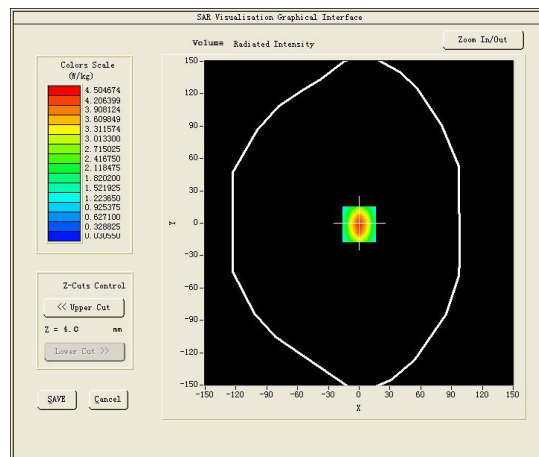
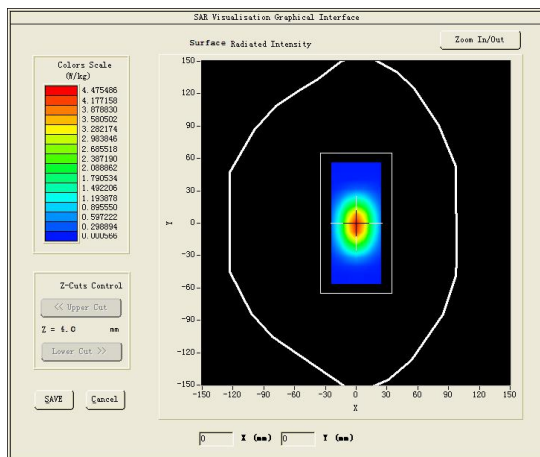
B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	1900.000000
Relative permittivity (real part)	52.238701
Relative permittivity (imaginary part)	14.662300
Conductivity (S/m)	1.547687
Variation (%)	-0.120000

SURFACE SAR

VOLUME SAR

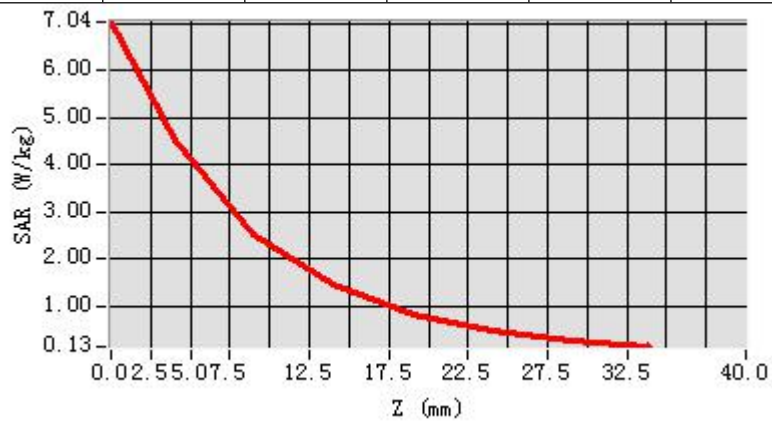


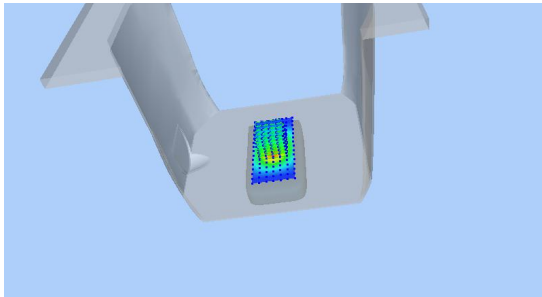
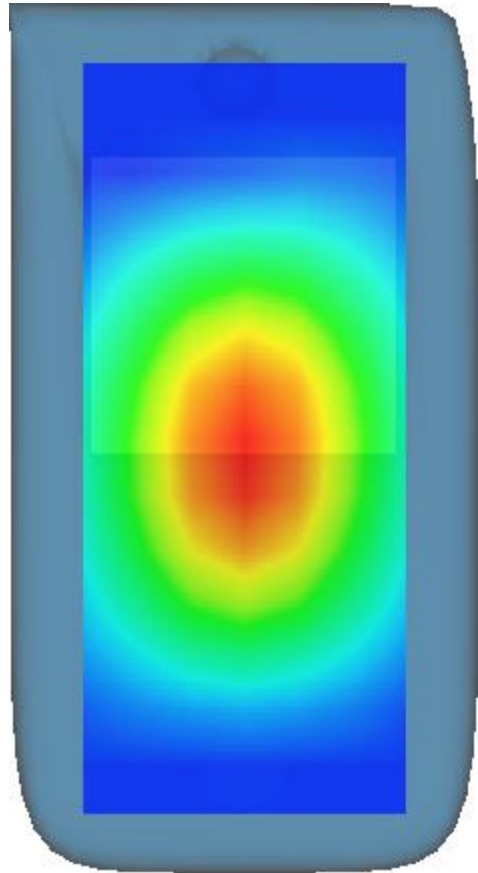
Maximum location: X=0.00, Y=-1.00

SAR Peak: 7.00 W/kg

SAR 10g (W/Kg)	22.16406
SAR 1g (W/Kg)	42.98718

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	7.0414	4.5047	2.5140	1.4403	0.8196	0.4627	0.2535



3D screen shot	Hot spot position
	

MEASUREMENT 6

HEAD

Type: Validation measurement (Complete)

Date of measurement: 24/8/2016

Measurement duration: 11 minutes 21 seconds

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm</u>
<u>ZoomScan</u>	<u>5x5x7, dx=8mm dy=8mm</u> <u>dz=5mm, Complete</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW1900</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>

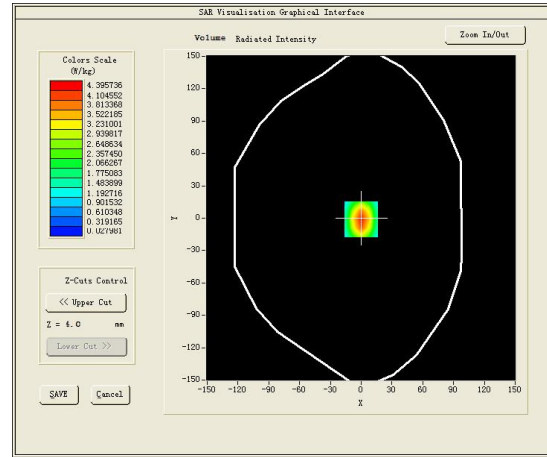
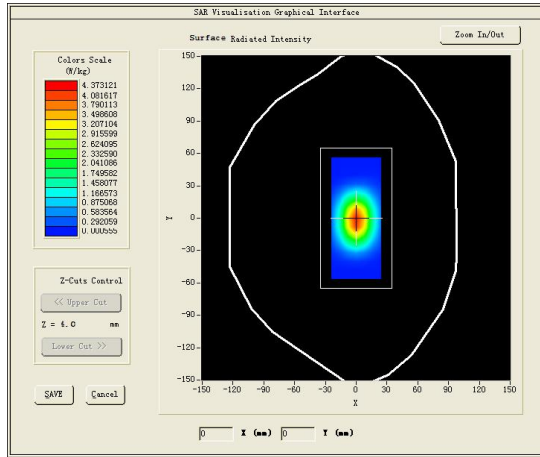
B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	1900.000000
Relative permittivity (real part)	52.238701
Relative permittivity (imaginary part)	14.662300
Conductivity (S/m)	1.547687
Variation (%)	-0.060000

SURFACE SAR

VOLUME SAR

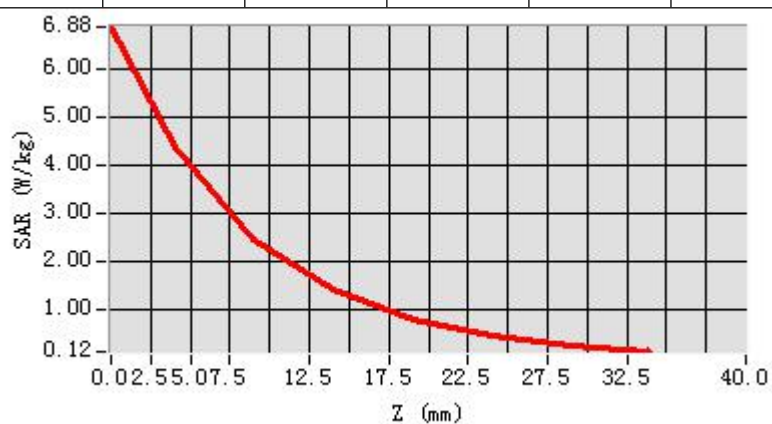


Maximum location: X=0.00, Y=-1.00

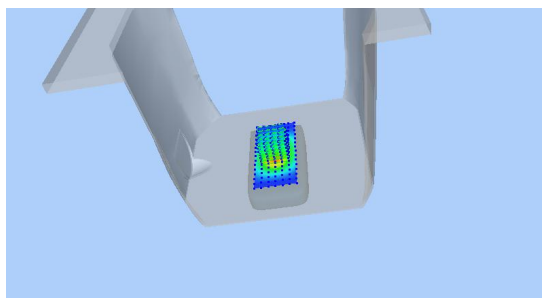
SAR Peak: 6.84 W/kg

SAR 10g (W/Kg)	21.46633
SAR 1g (W/Kg)	41.50148

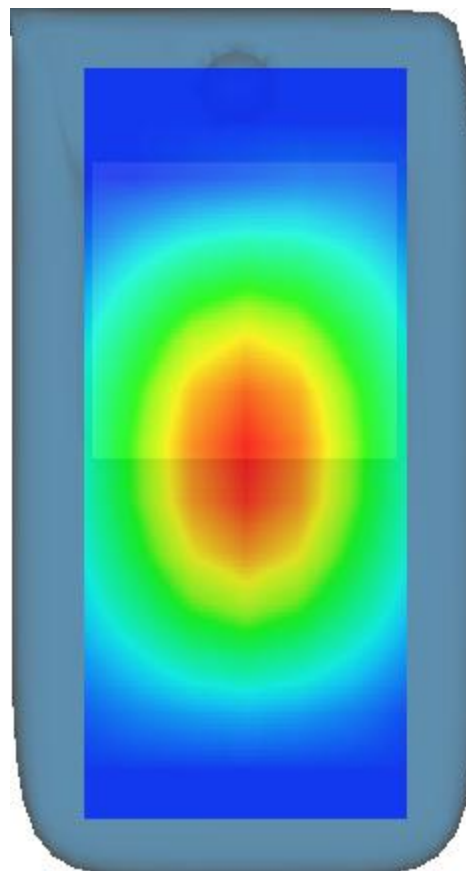
Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	6.8761	4.3957	2.4510	1.4045	0.7983	0.4499	0.2451



3D screen shot



Hot spot position



MEASUREMENT 7

BODY

Type: Validation measurement (Complete)

Date of measurement: 20/8/2016

Measurement duration: 10 minutes 15 seconds

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm</u> <u>dz=5mm,Complete</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW2450</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>

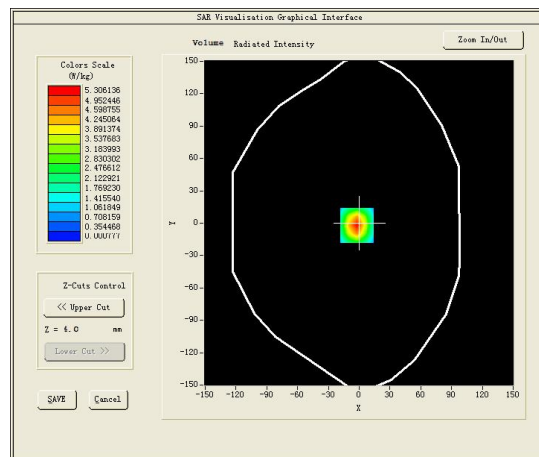
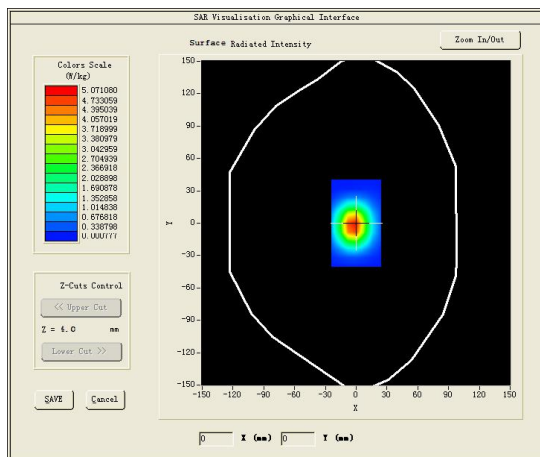
B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	2450.000000
Relative permittivity (real part)	54.220600
Relative permittivity (imaginary part)	14.968800
Conductivity (S/m)	2.037420
Variation (%)	0.050000

SURFACE SAR

VOLUME SAR

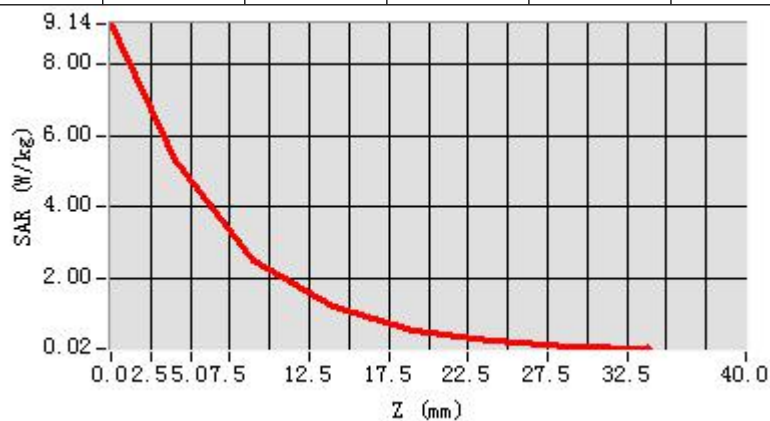


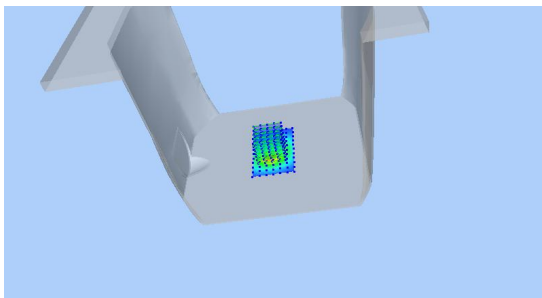
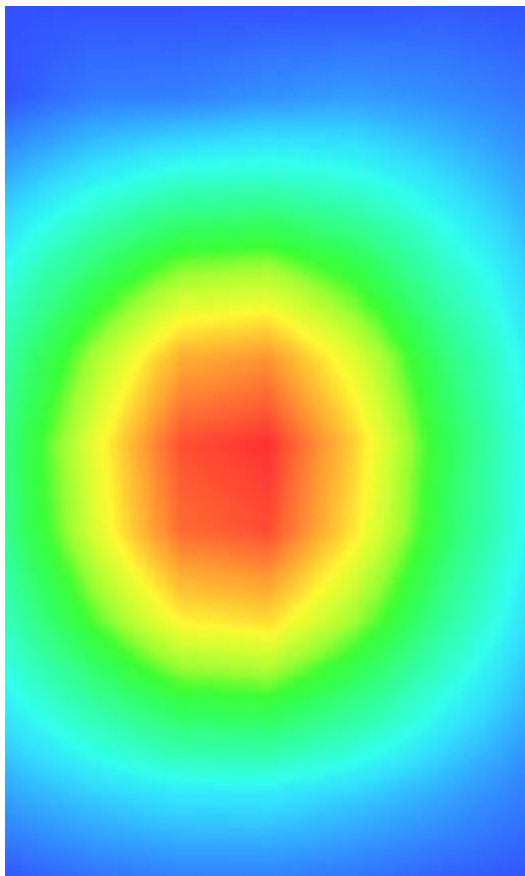
Maximum location: X=-2.00, Y=-2.00

SAR Peak: 10.27 W/kg

SAR 10g (W/Kg)	25.83320
SAR 1g (W/Kg)	57.34640

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	9.1411	5.3061	2.4999	1.1841	0.5409	0.2294	0.0858



3D screen shot	Hot spot position
	

MEASUREMENT 8

HEAD

Type: Validation measurement (Complete)

Date of measurement: 20/8/2016

Measurement duration: 10 minutes 16 seconds

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm</u>
<u>ZoomScan</u>	<u>5x5x7, dx=8mm dy=8mm</u> <u>dz=5mm, Complete</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW2450</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>

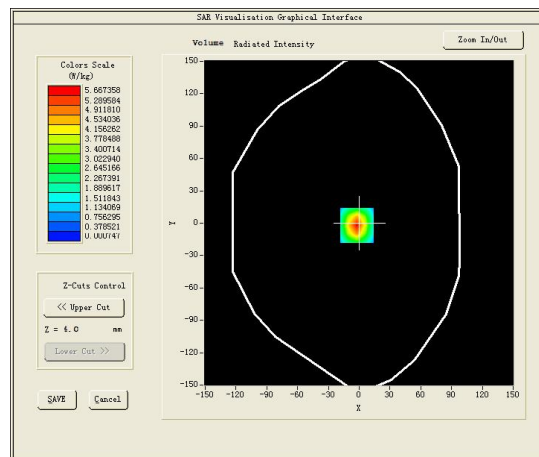
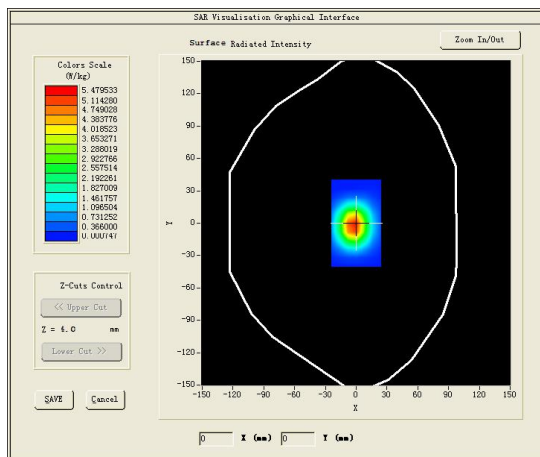
B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	2450.000000
Relative permittivity (real part)	39.274300
Relative permittivity (imaginary part)	13.209200
Conductivity (S/m)	1.797919
Variation (%)	-0.070000

SURFACE SAR

VOLUME SAR

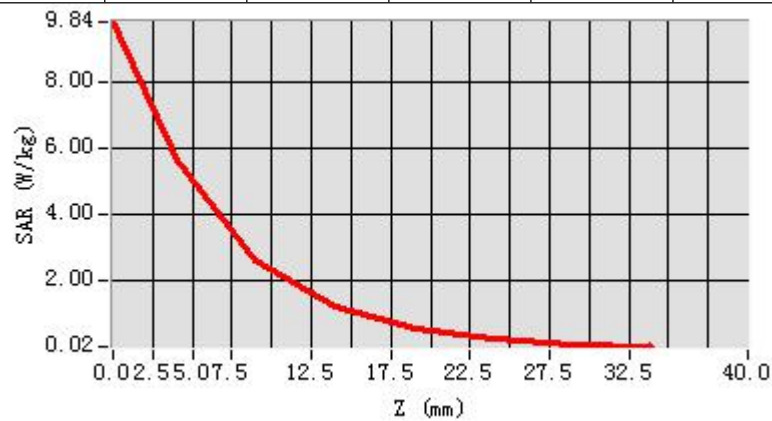


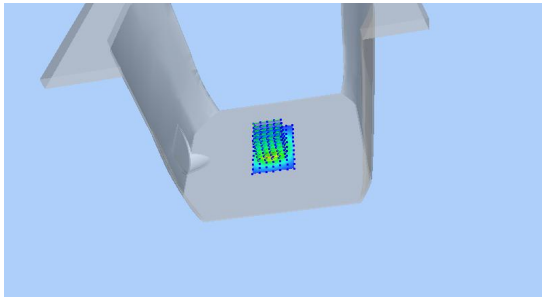
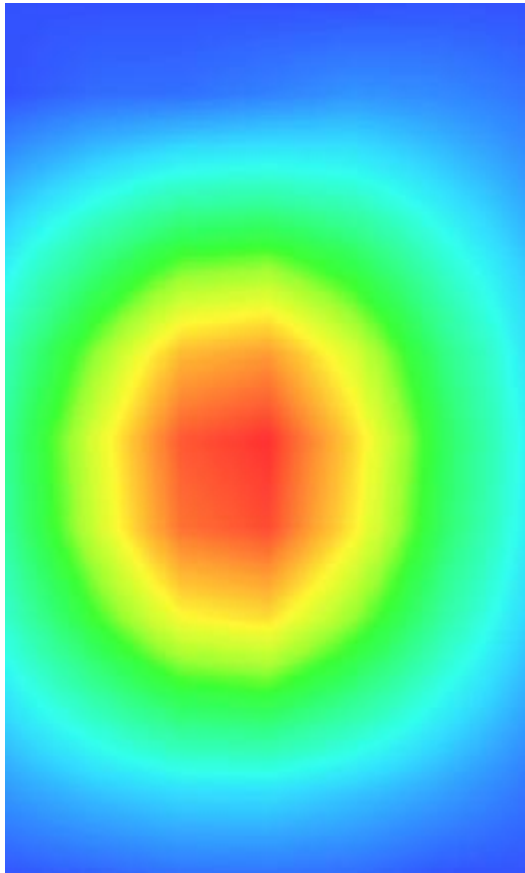
Maximum location: X=-2.00, Y=-2.00

SAR Peak: 9.73 W/kg

SAR 10g (W/Kg)	23.89643
SAR 1g (W/Kg)	53.19294

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	9.8410	5.6674	2.6392	1.2582	0.5748	0.2432	0.0901



3D screen shot	Hot spot position
	

MEASUREMENT 9

BODY

Type: Validation measurement (Complete)

Date of measurement: 29/8/2016

Measurement duration: 10 minutes 30 seconds

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm</u>
<u>ZoomScan</u>	<u>5x5x7, dx=8mm dy=8mm</u> <u>dz=5mm, Complete</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW2600</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>

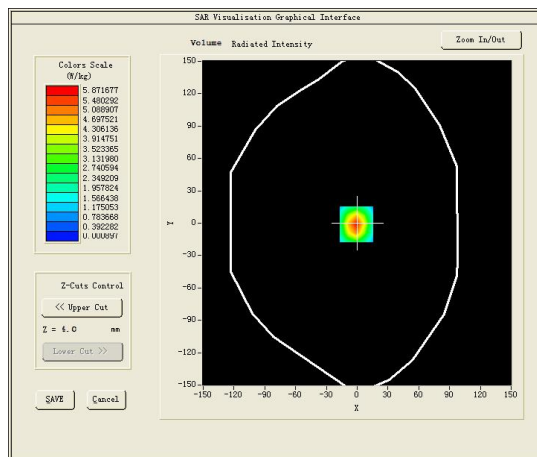
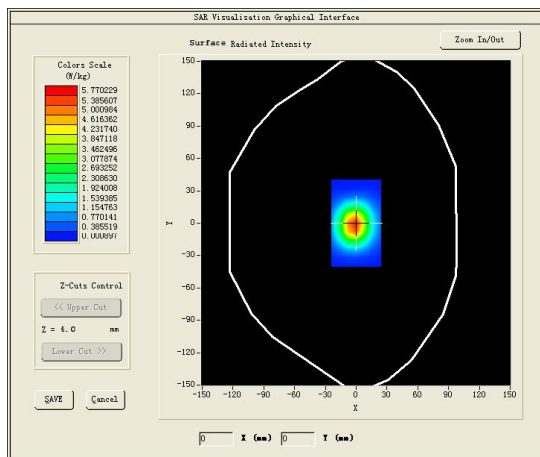
B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	2600.000000
Relative permittivity (real part)	52.593700
Relative permittivity (imaginary part)	15.205400
Conductivity (S/m)	2.196336
Variation (%)	-0.080000

SURFACE SAR

VOLUME SAR

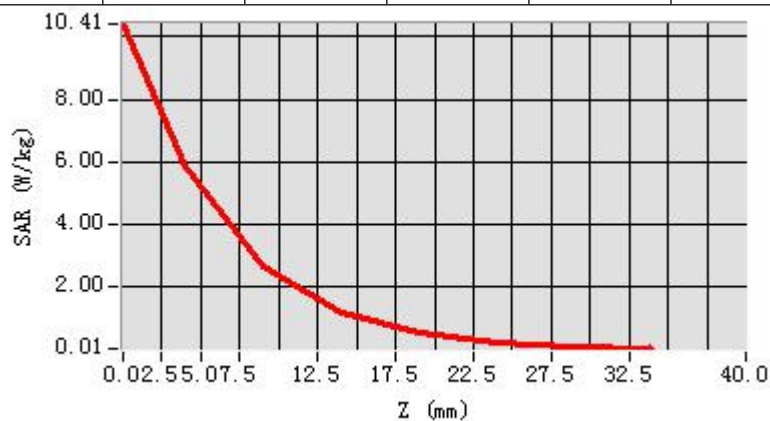


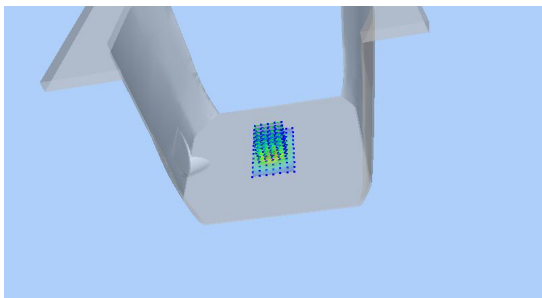
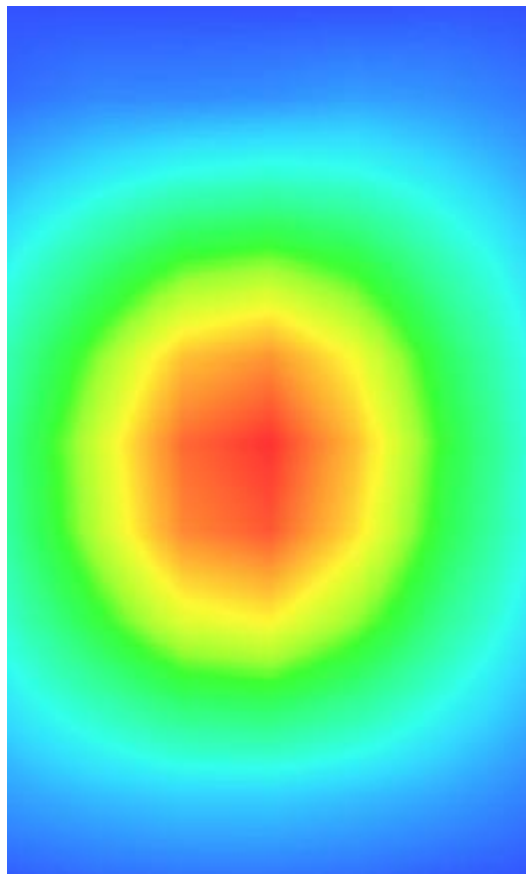
Maximum location: X=-1.00, Y=-1.00

SAR Peak: 11.30 W/kg

SAR 10g (W/Kg)	26.74928
SAR 1g (W/Kg)	60.96026

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	10.4107	5.8717	2.6201	1.1660	0.4942	0.1858	0.0567



3D screen shot	Hot spot position
	

MEASUREMENT 10

HEAD

Type: Validation measurement (Complete)

Date of measurement: 29/8/2016

Measurement duration: 10 minutes 28 seconds

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm</u>
<u>ZoomScan</u>	<u>5x5x7, dx=8mm dy=8mm</u> <u>dz=5mm, Complete</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW2600</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>

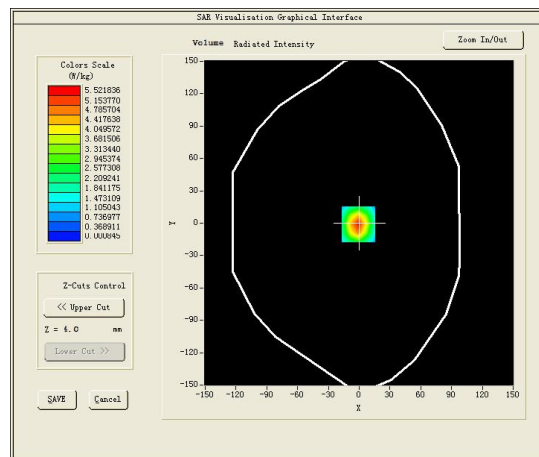
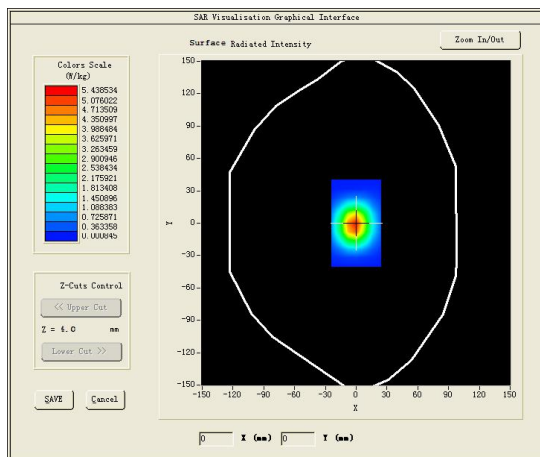
B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	2600.000000
Relative permittivity (real part)	39.051800
Relative permittivity (imaginary part)	13.905600
Conductivity (S/m)	2.008587
Variation (%)	-0.120000

SURFACE SAR

VOLUME SAR

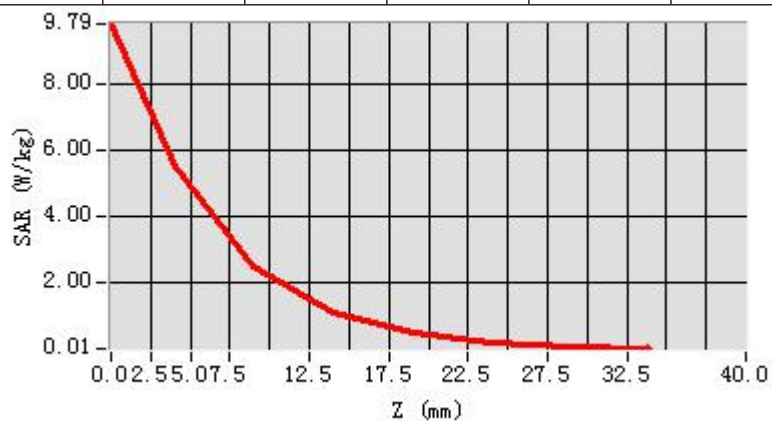


Maximum location: X=-1.00, Y=-1.00

SAR Peak: 9.72 W/kg

SAR 10g (W/Kg)	23.06832
SAR 1g (W/Kg)	52.61117

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	9.7899	5.5218	2.4644	1.1017	0.4671	0.1769	0.0546



3D screen shot	Hot spot position
