| | |
|---|---|
| | **Annex A: System Check** |
| | **Tested Model : N5001L** |
| | **Report Number: WSCT-R&E17040291A-SAR** |

# I. RESULTS

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

# MEASUREMENT 1

BODY

Type: Validation measurement (Complete)

Date of measurement: 10/6/2017

Measurement duration: 11 minutes 54 seconds

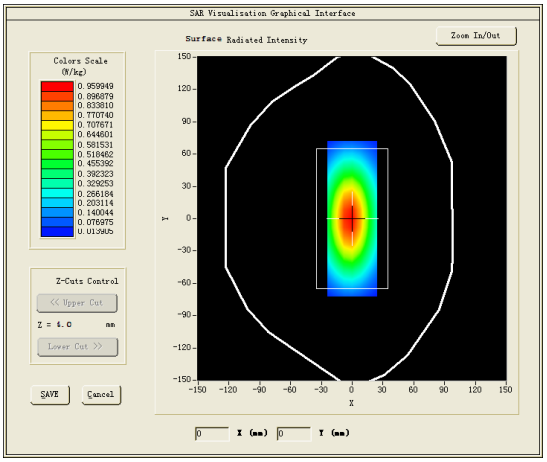
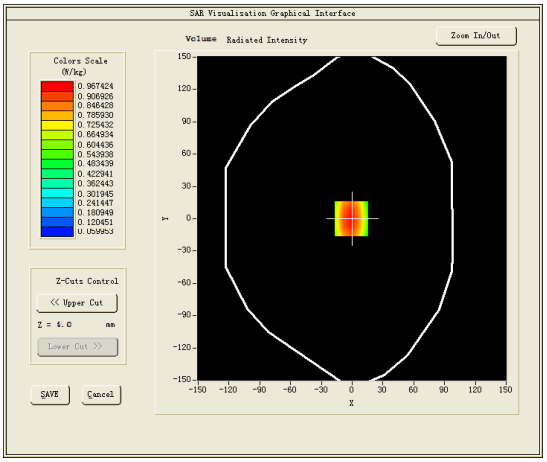
## A. Experimental conditions.

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm |
| **ZoomScan** | 5x5x7,dx=8mm dy=8mm dz=5mm,Complete |
| **Phantom** | Validation plane |
| **Device Position** | Dipole |
| **Band** | CW835 |
| **Channels** | Middle |
| **Signal** | CW (Crest factor: 1.0) |

## B. SAR Measurement Results

Middle Band SAR (Channel -1):

| | |
|---|---|
| **Frequency (MHz)** | 835.000000 |
| **Relative permittivity (real part)** | 53.927799 |
| **Relative permittivity (imaginary part)** | 21.281300 |
| **Conductivity (S/m)** | 0.987216 |
| **Variation (%)** | 0.120000 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |



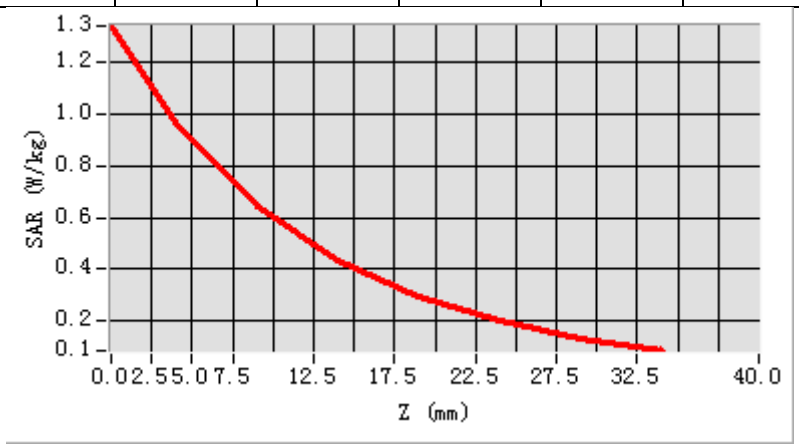


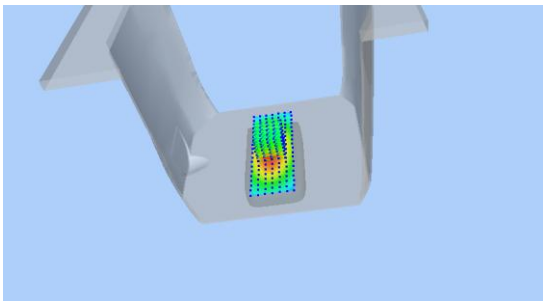
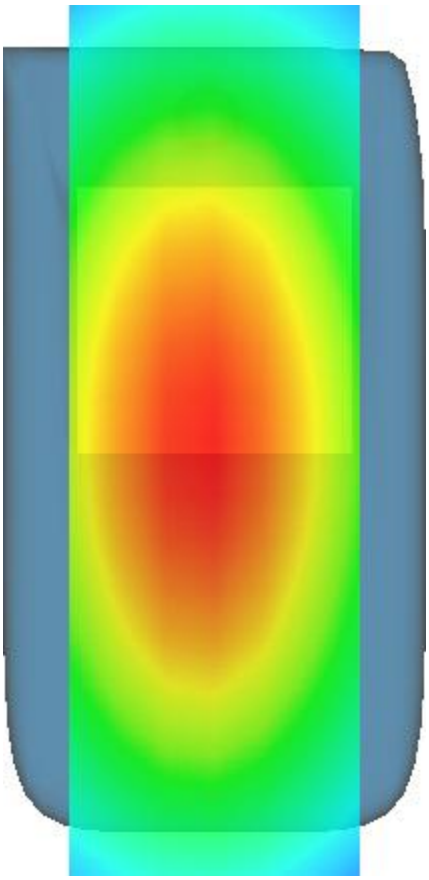
**Maximum location: X=-1.00, Y=0.00**

**SAR Peak: 1.44 W/kg**

| | |
|---|---|
| **SAR 10g (W/Kg)** | 0.644746 |
| **SAR 1g (W/Kg)** | 1.014583 |

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 1.3418 | 0.9674 | 0.6426 | 0.4358 | 0.2947 | 0.1989 | 0.1326 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |

# MEASUREMENT 2

HEAD

Type: Validation measurement (Complete)

Date of measurement: 10/6/2017

Measurement duration: 11 minutes 54 seconds

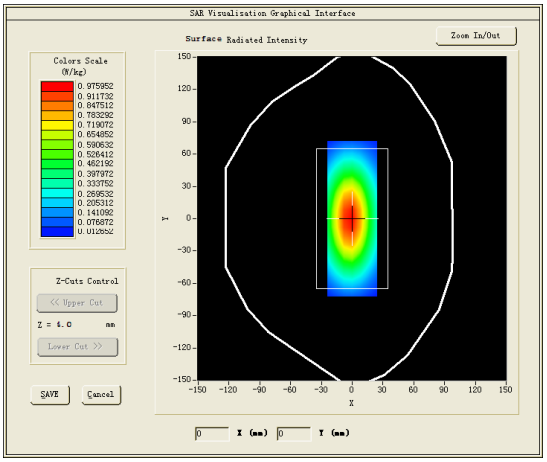
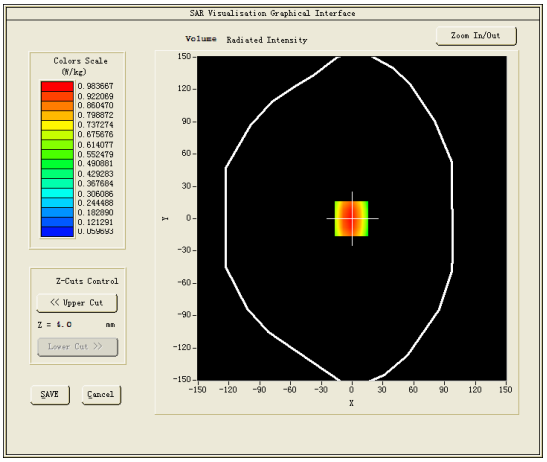
## A. Experimental conditions.

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm |
| **ZoomScan** | 5x5x7,dx=8mm dy=8mm dz=5mm,Complete |
| **Phantom** | Validation plane |
| **Device Position** | Dipole |
| **Band** | CW835 |
| **Channels** | Middle |
| **Signal** | CW (Crest factor: 1.0) |

## B. SAR Measurement Results

Middle Band SAR (Channel -1):

| | |
|---|---|
| **Frequency (MHz)** | 835.000000 |
| **Relative permittivity (real part)** | 40.328999 |
| **Relative permittivity (imaginary part)** | 19.880501 |
| **Conductivity (S/m)** | 0.922234 |
| **Variation (%)** | -0.070000 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |



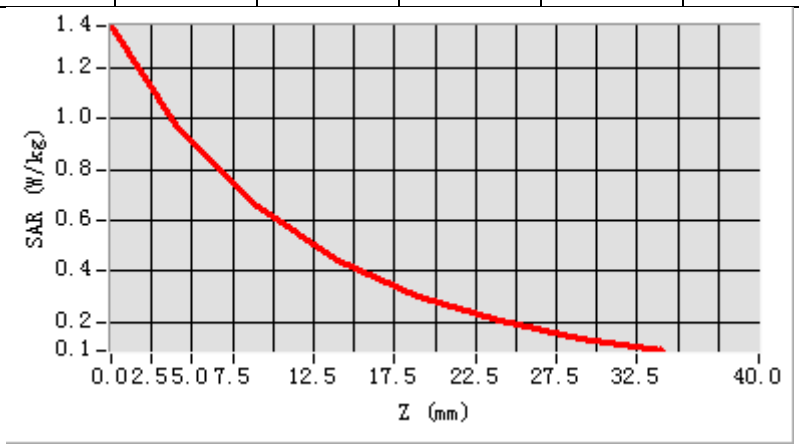


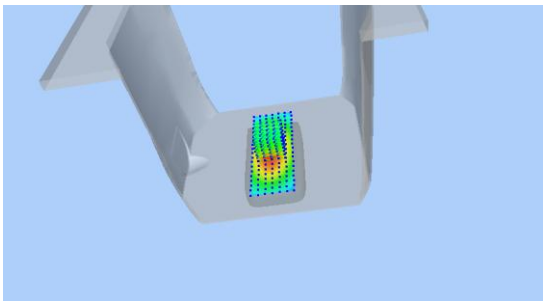
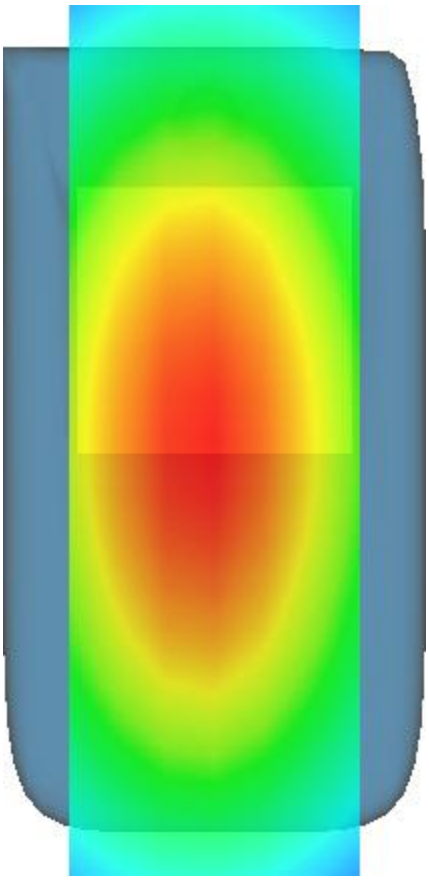
**Maximum location: X=-1.00, Y=0.00**

**SAR Peak: 1.37 W/kg**

| | |
|---|---|
| **SAR 10g (W/Kg)** | 0.615004 |
| **SAR 1g (W/Kg)** | 0.970049 |

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 1.3669 | 0.9837 | 0.6529 | 0.4412 | 0.2993 | 0.2017 | 0.1343 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |

# MEASUREMENT 3

BODY

Type: Validation measurement (Complete)

Date of measurement: 15/6/2017

Measurement duration: 11 minutes 43 seconds

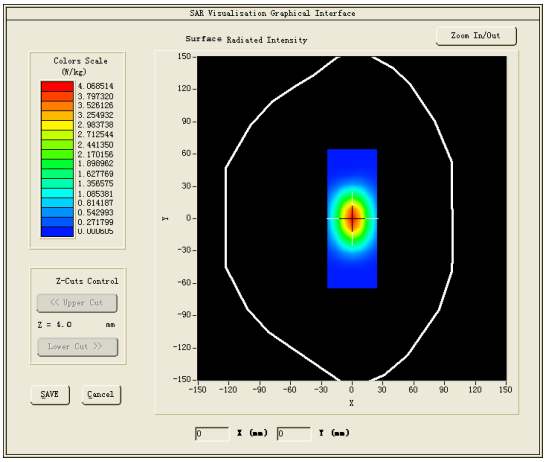
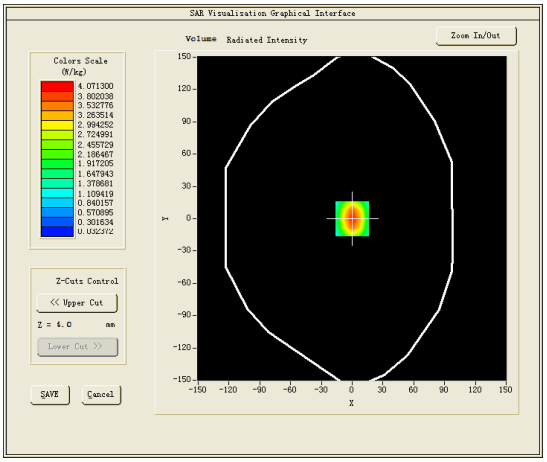
## A. Experimental conditions.

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm |
| **ZoomScan** | 5x5x7,dx=8mm dy=8mm dz=5mm,Complete |
| **Phantom** | Validation plane |
| **Device Position** | Dipole |
| **Band** | CW1800 |
| **Channels** | Middle |
| **Signal** | CW (Crest factor: 1.0) |

## B. SAR Measurement Results

Middle Band SAR (Channel -1):

| | |
|---|---|
| **Frequency (MHz)** | 1800.000000 |
| **Relative permittivity (real part)** | 52.970200 |
| **Relative permittivity (imaginary part)** | 15.414900 |
| **Conductivity (S/m)** | 1.541490 |
| **Variation (%)** | -0.080000 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |



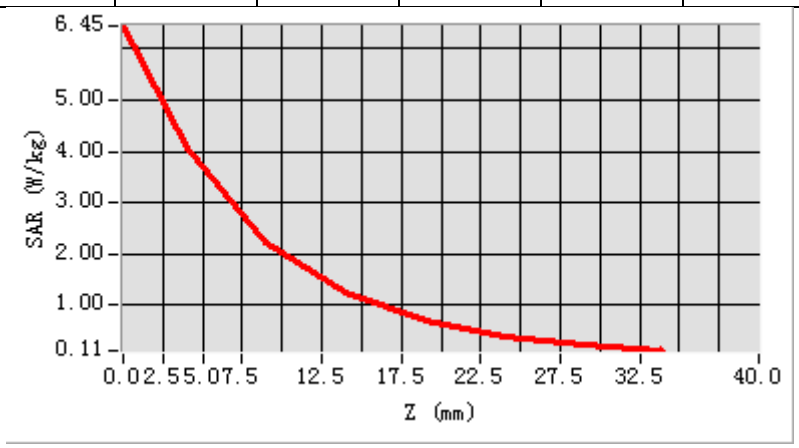


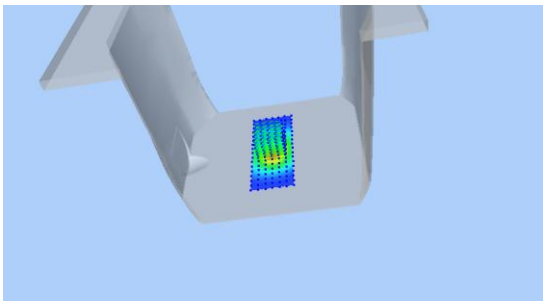
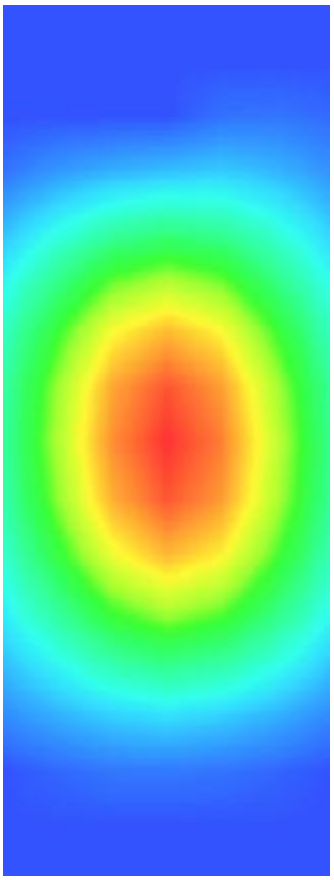
**Maximum location: X=0.00, Y=0.00**

**SAR Peak: 6.86 W/kg**

| | |
|---|---|
| **SAR 10g (W/Kg)** | 2.171523 |
| **SAR 1g (W/Kg)** | 4.155761 |

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 6.4478 | 4.0713 | 2.2310 | 1.2495 | 0.7043 | 0.3895 | 0.2089 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |

# MEASUREMENT 4

HEAD

Type: Validation measurement (Complete)

Date of measurement: 15/6/2017

Measurement duration: 11 minutes 41 seconds

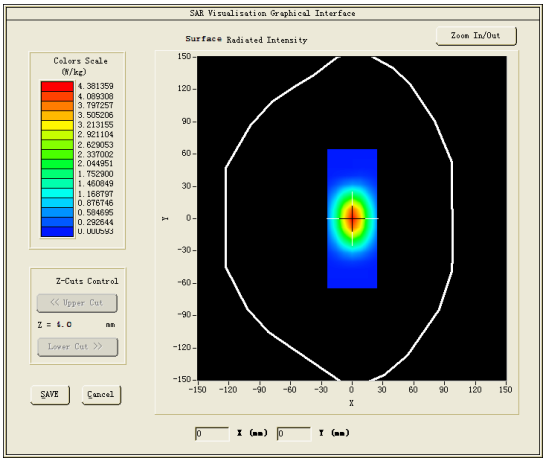
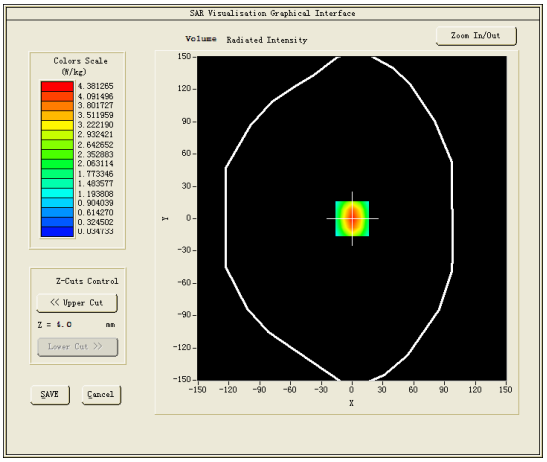
## A. Experimental conditions.

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm |
| **ZoomScan** | 5x5x7,dx=8mm dy=8mm dz=5mm,Complete |
| **Phantom** | Validation plane |
| **Device Position** | Dipole |
| **Band** | CW1800 |
| **Channels** | Middle |
| **Signal** | CW (Crest factor: 1.0) |

## B. SAR Measurement Results

Middle Band SAR (Channel -1):

| | |
|---|---|
| **Frequency (MHz)** | 1800.000000 |
| **Relative permittivity (real part)** | 39.484501 |
| **Relative permittivity (imaginary part)** | 14.358300 |
| **Conductivity (S/m)** | 1.435830 |
| **Variation (%)** | 0.610000 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |



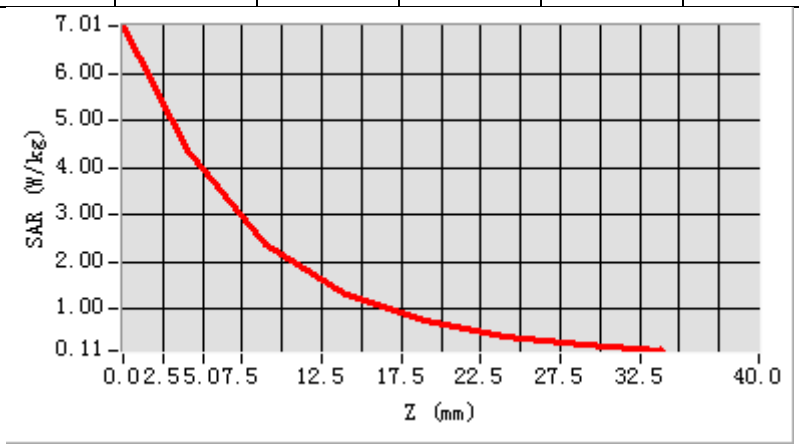


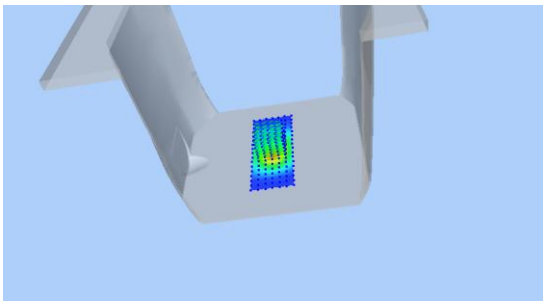
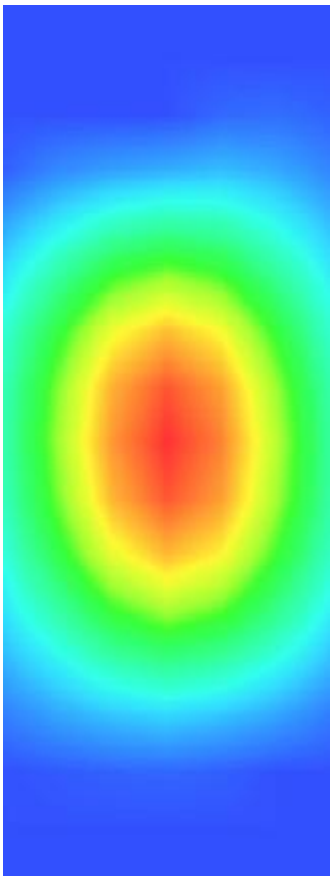
**Maximum location: X=0.00, Y=0.00**

**SAR Peak: 6.95 W/kg**

| | |
|---|---|
| **SAR 10g (W/Kg)** | 2.160484 |
| **SAR 1g (W/Kg)** | 4.198096 |

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 7.0118 | 4.3813 | 2.3674 | 1.3177 | 0.7415 | 0.4093 | 0.2206 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |

# MEASUREMENT 5

BODY

Type: Validation measurement (Complete)

Date of measurement: 24/5/2017

Measurement duration: 10 minutes 57 seconds

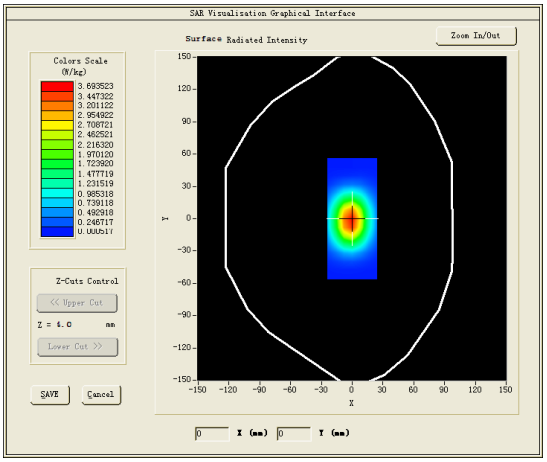
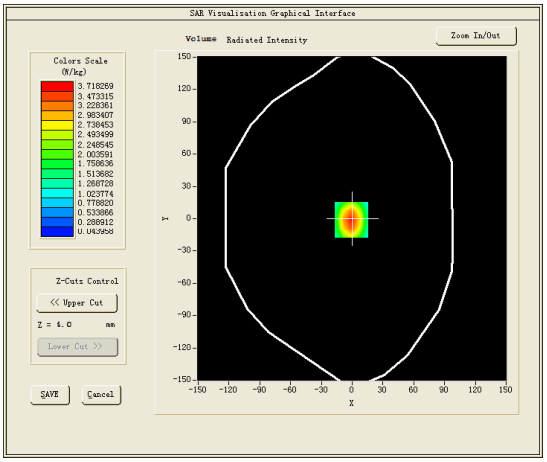
## A. Experimental conditions.

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm |
| **ZoomScan** | 5x5x7,dx=8mm dy=8mm dz=5mm,Complete |
| **Phantom** | Validation plane |
| **Device Position** | Dipole |
| **Band** | CW1900 |
| **Channels** | Middle |
| **Signal** | CW (Crest factor: 1.0) |

## B. SAR Measurement Results

Middle Band SAR (Channel -1):

| | |
|---|---|
| **Frequency (MHz)** | 1900.000000 |
| **Relative permittivity (real part)** | 53.365299 |
| **Relative permittivity (imaginary part)** | 14.757600 |
| **Conductivity (S/m)** | 1.557747 |
| **Variation (%)** | -0.450000 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |



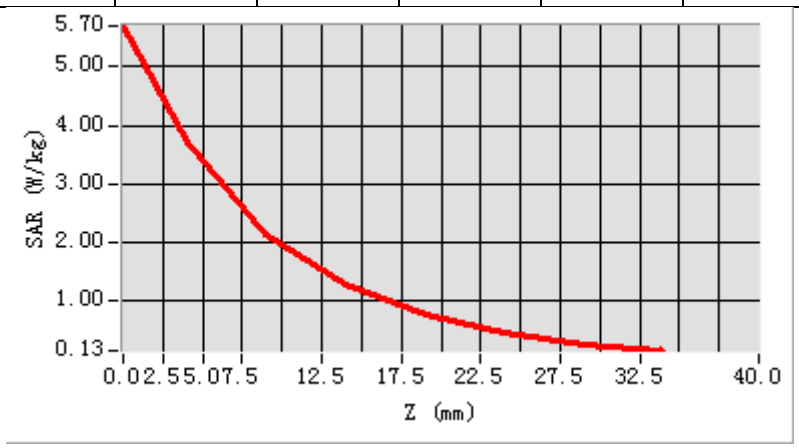


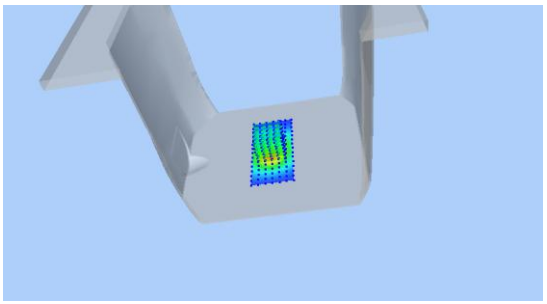
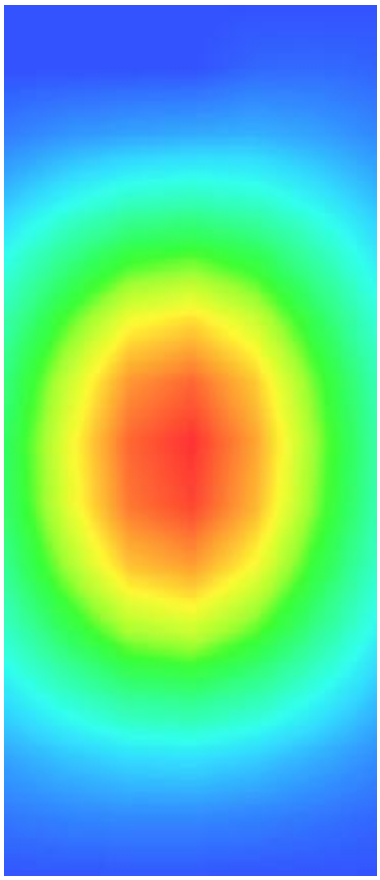
**Maximum location: X=-1.00, Y=-1.00**

**SAR Peak: 6.26 W/kg**

| | |
|---|---|
| **SAR 10g (W/Kg)** | 2.093533 |
| **SAR 1g (W/Kg)** | 3.932904 |

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 5.7034 | 3.7183 | 2.1347 | 1.2560 | 0.7338 | 0.4260 | 0.2429 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |

# MEASUREMENT 6

HEAD

Type: Validation measurement (Complete)

Date of measurement: 24/5/2017

Measurement duration: 11 minutes 6 seconds

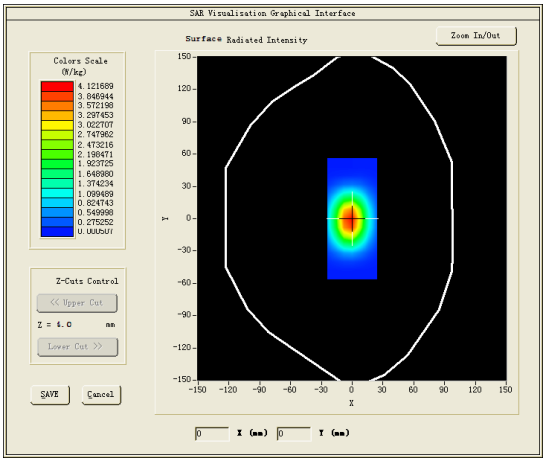
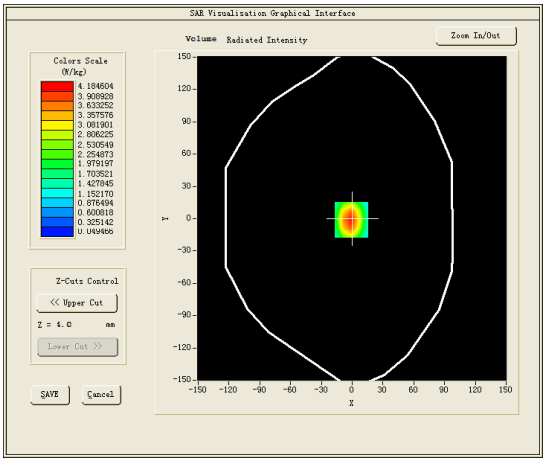
## A. Experimental conditions.

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm |
| **ZoomScan** | 5x5x7,dx=8mm dy=8mm dz=5mm,Complete |
| **Phantom** | Validation plane |
| **Device Position** | Dipole |
| **Band** | CW1900 |
| **Channels** | Middle |
| **Signal** | CW (Crest factor: 1.0) |

## B. SAR Measurement Results

Middle Band SAR (Channel -1):

| | |
|---|---|
| **Frequency (MHz)** | 1900.000000 |
| **Relative permittivity (real part)** | 39.976398 |
| **Relative permittivity (imaginary part)** | 13.386300 |
| **Conductivity (S/m)** | 1.412998 |
| **Variation (%)** | -0.040000 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |



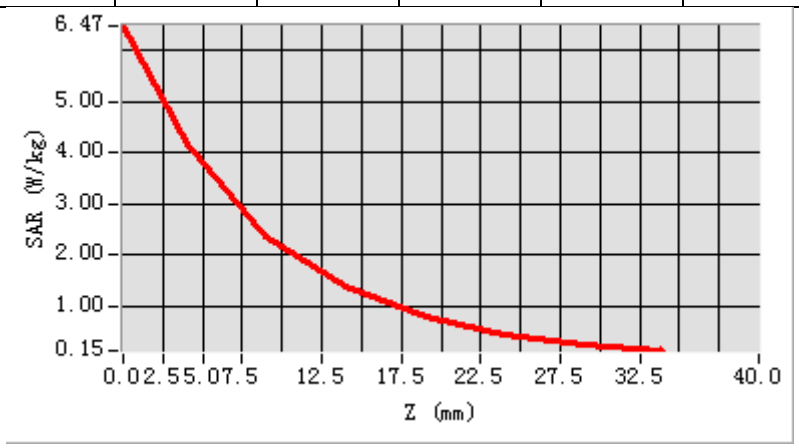


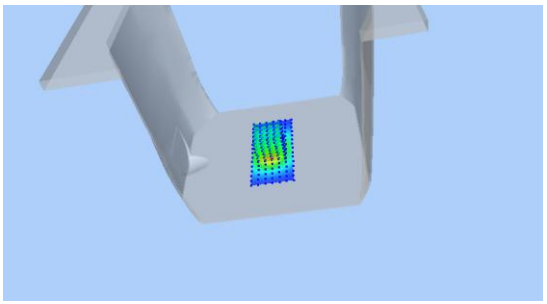
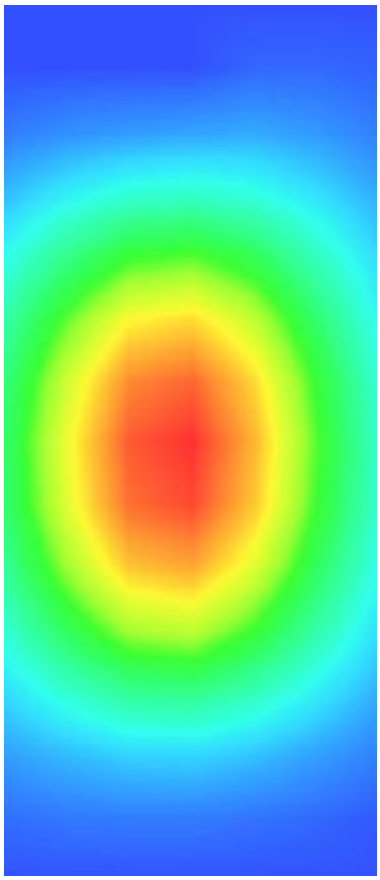
**Maximum location: X=-1.00, Y=-1.00**

**SAR Peak: 6.48 W/kg**

| | |
|---|---|
| **SAR 10g (W/Kg)** | 2.107104 |
| **SAR 1g (W/Kg)** | 3.997625 |

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 6.4693 | 4.1846 | 2.3780 | 1.3892 | 0.8084 | 0.4680 | 0.2662 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |

# MEASUREMENT 7

BODY

Type: Validation measurement (Complete)

Date of measurement: 17/6/2017

Measurement duration: 9 minutes 46 seconds

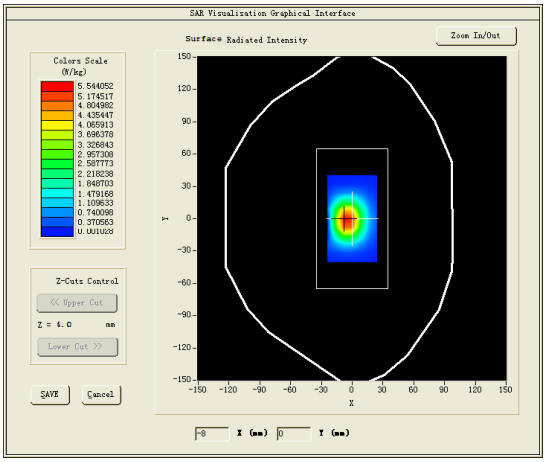
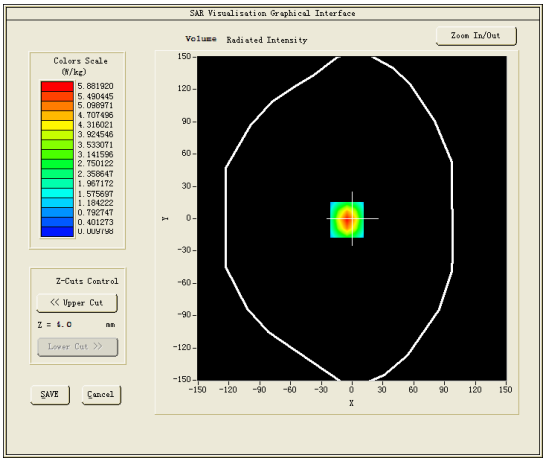
## A. Experimental conditions.

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm |
| **ZoomScan** | 5x5x7,dx=8mm dy=8mm dz=5mm,Complete |
| **Phantom** | Validation plane |
| **Device Position** | Dipole |
| **Band** | CW2450 |
| **Channels** | Middle |
| **Signal** | CW (Crest factor: 1.0) |

## B. SAR Measurement Results

Middle Band SAR (Channel -1):

| | |
|---|---|
| **Frequency (MHz)** | 2450.000000 |
| **Relative permittivity (real part)** | 52.735699 |
| **Relative permittivity (imaginary part)** | 14.017300 |
| **Conductivity (S/m)** | 1.907910 |
| **Variation (%)** | 0.390000 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |



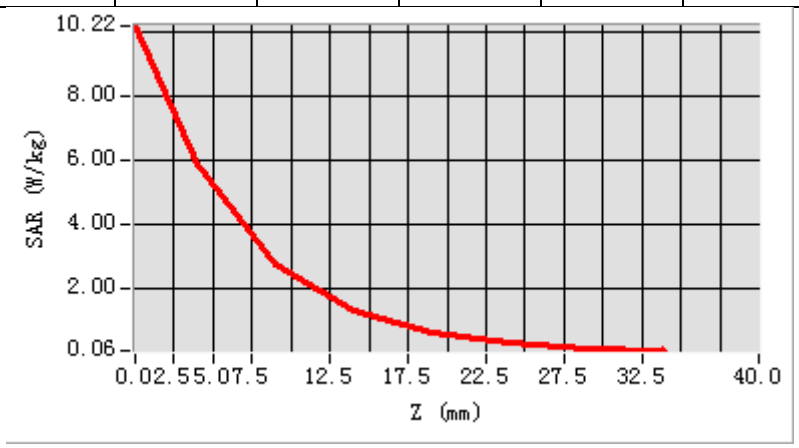


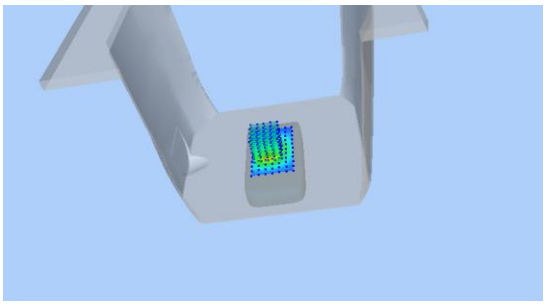
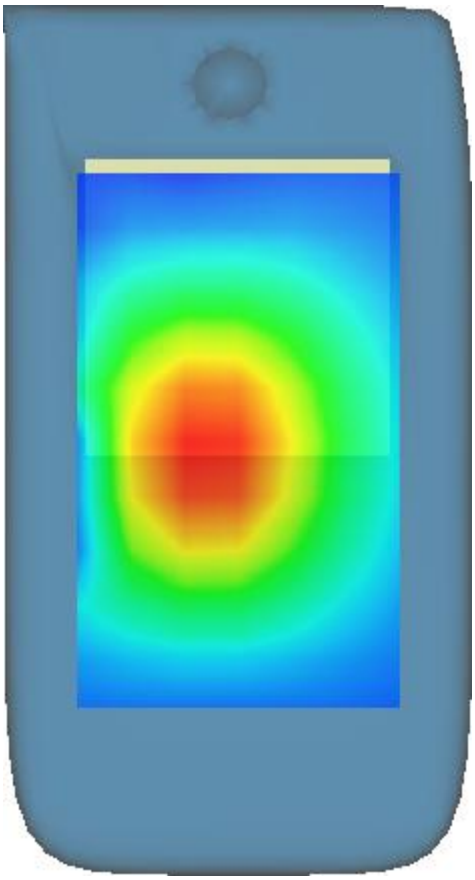
**Maximum location: X=-5.00, Y=-1.00**

**SAR Peak: 10.96 W/kg**

| | |
|---|---|
| **SAR 10g (W/Kg)** | 2.633453 |
| **SAR 1g (W/Kg)** | 5.988343 |

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 10.2188 | 5.8819 | 2.7478 | 1.3151 | 0.6266 | 0.2969 | 0.1341 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |

# MEASUREMENT 8

HEAD

Type: Validation measurement (Complete)

Date of measurement: 17/6/2017

Measurement duration: 9 minutes 46 seconds

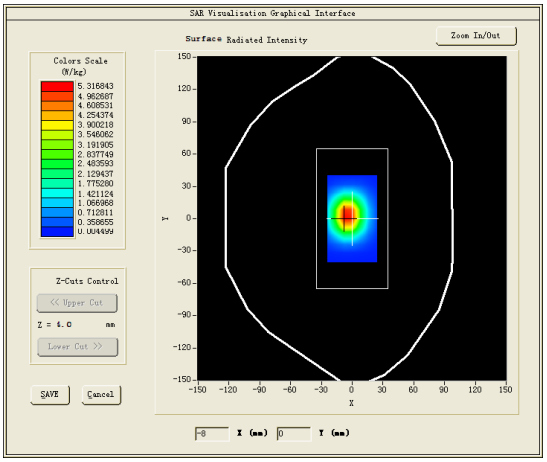
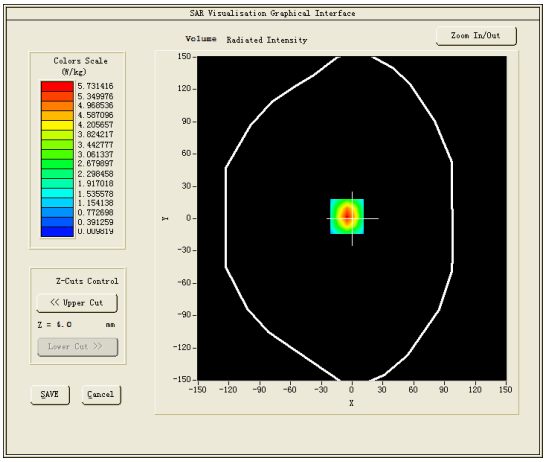
## A. Experimental conditions.

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm |
| **ZoomScan** | 5x5x7,dx=8mm dy=8mm dz=5mm,Complete |
| **Phantom** | Validation plane |
| **Device Position** | Dipole |
| **Band** | CW2450 |
| **Channels** | Middle |
| **Signal** | CW (Crest factor: 1.0) |

## B. SAR Measurement Results

Middle Band SAR (Channel -1):

| | |
|---|---|
| **Frequency (MHz)** | 2450.000000 |
| **Relative permittivity (real part)** | 39.235699 |
| **Relative permittivity (imaginary part)** | 12.917300 |
| **Conductivity (S/m)** | 1.758188 |
| **Variation (%)** | 2.820000 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |



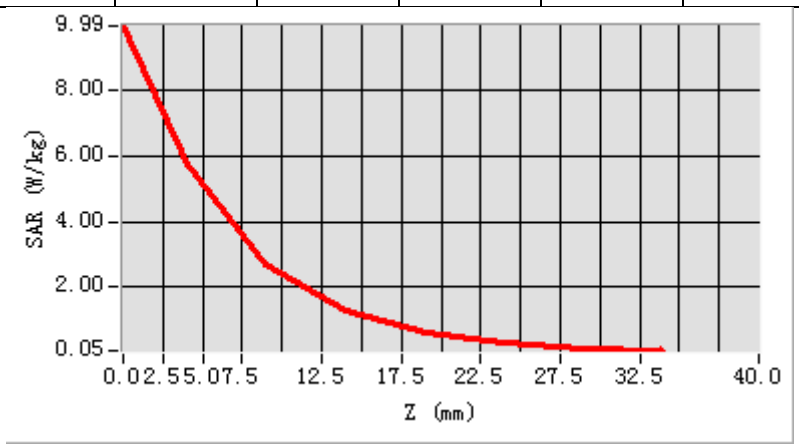


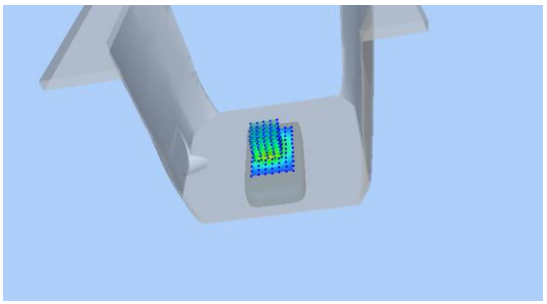
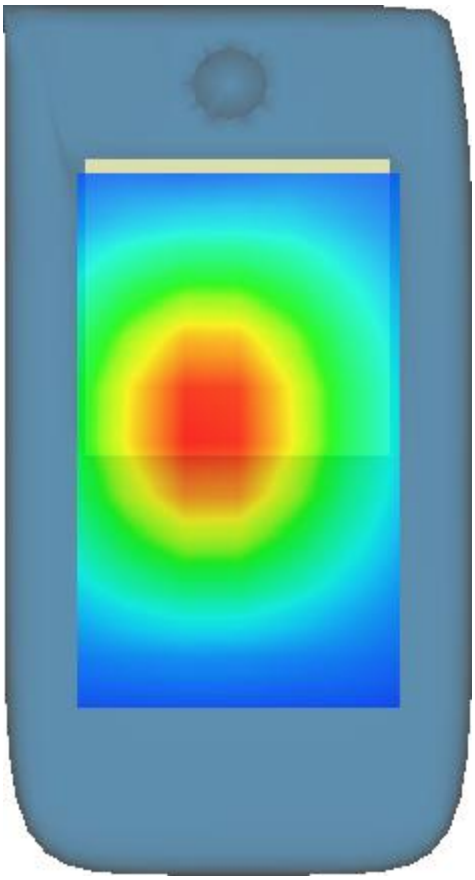
**Maximum location: X=-5.00, Y=2.00**

**SAR Peak: 9.92 W/kg**

| | |
|---|---|
| **SAR 10g (W/Kg)** | 2.452895 |
| **SAR 1g (W/Kg)** | 5.393069 |

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 9.9915 | 5.7314 | 2.6626 | 1.2722 | 0.6047 | 0.2852 | 0.1274 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |

# MEASUREMENT 9

BODY

Type: Validation measurement (Complete)

Date of measurement: 8/6/2017

Measurement duration: 10 minutes 13 seconds

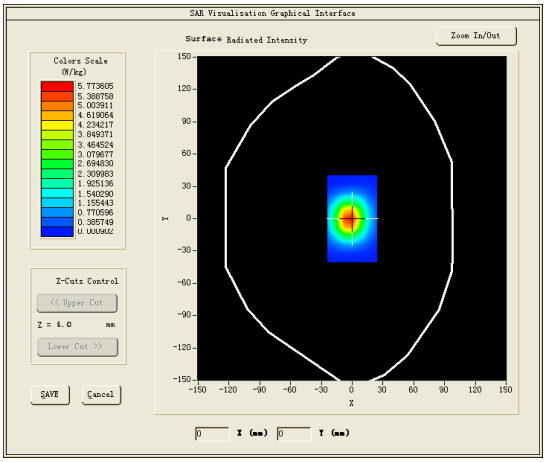
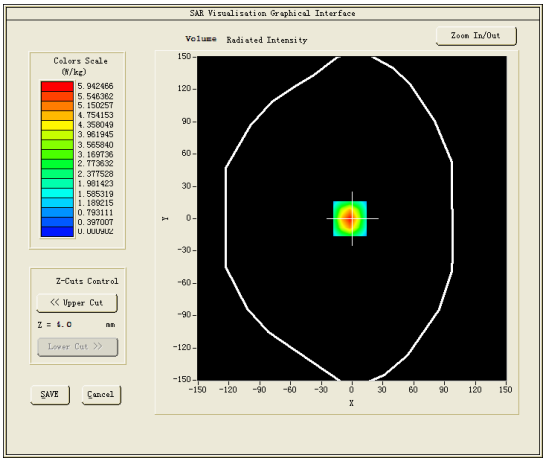
## A. Experimental conditions.

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm |
| **ZoomScan** | 5x5x7,dx=8mm dy=8mm dz=5mm,Complete |
| **Phantom** | Validation plane |
| **Device Position** | Dipole |
| **Band** | CW2600 |
| **Channels** | Middle |
| **Signal** | CW (Crest factor: 1.0) |

## B. SAR Measurement Results

Middle Band SAR (Channel -1):

| | |
|---|---|
| **Frequency (MHz)** | 2600.000000 |
| **Relative permittivity (real part)** | 52.007900 |
| **Relative permittivity (imaginary part)** | 14.458500 |
| **Conductivity (S/m)** | 2.088450 |
| **Variation (%)** | -0.220000 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |



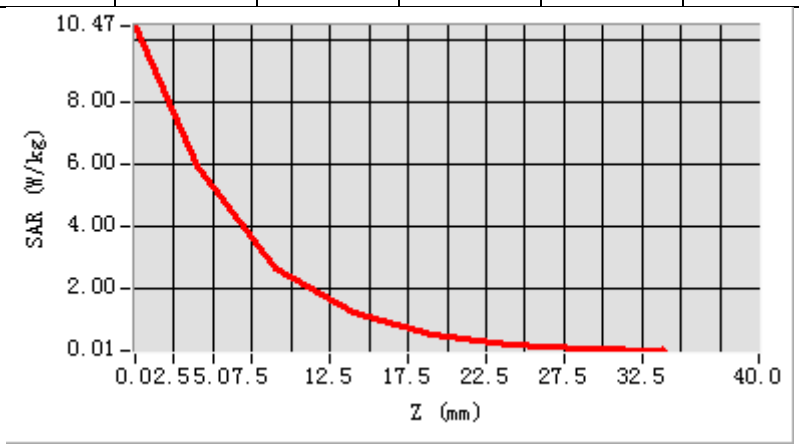


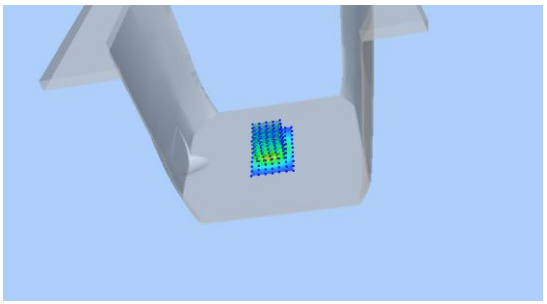
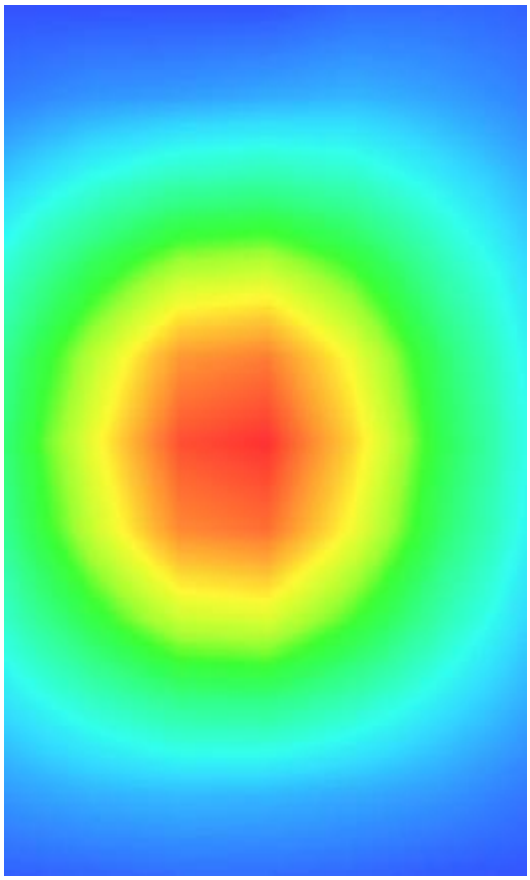
**Maximum location: X=-2.00, Y=0.00**

**SAR Peak: 10.74 W/kg**

| | |
|---|---|
| **SAR 10g (W/Kg)** | 2.559674 |
| **SAR 1g (W/Kg)** | 5.786435 |

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 10.4745 | 5.9425 | 2.6827 | 1.2126 | 0.5266 | 0.2069 | 0.0714 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |

# MEASUREMENT 10

HEAD

Type: Validation measurement (Complete)

Date of measurement: 8/6/2017

Measurement duration: 10 minutes 12 seconds

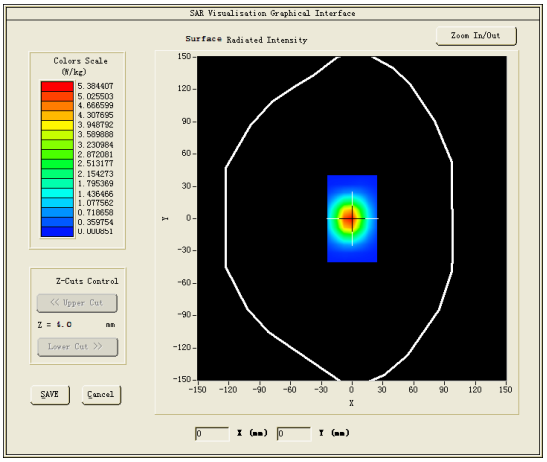
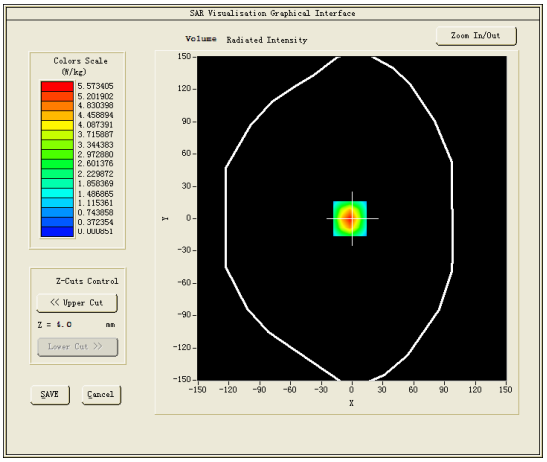
## A. Experimental conditions.

| | |
|---|---|
| **Area Scan** | dx=8mm dy=8mm |
| **ZoomScan** | 5x5x7,dx=8mm dy=8mm dz=5mm,Complete |
| **Phantom** | Validation plane |
| **Device Position** | Dipole |
| **Band** | CW2600 |
| **Channels** | Middle |
| **Signal** | CW (Crest factor: 1.0) |

## B. SAR Measurement Results

Middle Band SAR (Channel -1):

| | |
|---|---|
| **Frequency (MHz)** | 2600.000000 |
| **Relative permittivity (real part)** | 38.979599 |
| **Relative permittivity (imaginary part)** | 13.989700 |
| **Conductivity (S/m)** | 2.020734 |
| **Variation (%)** | 0.250000 |

| SURFACE SAR | VOLUME SAR |
|---|---|
|  |  |



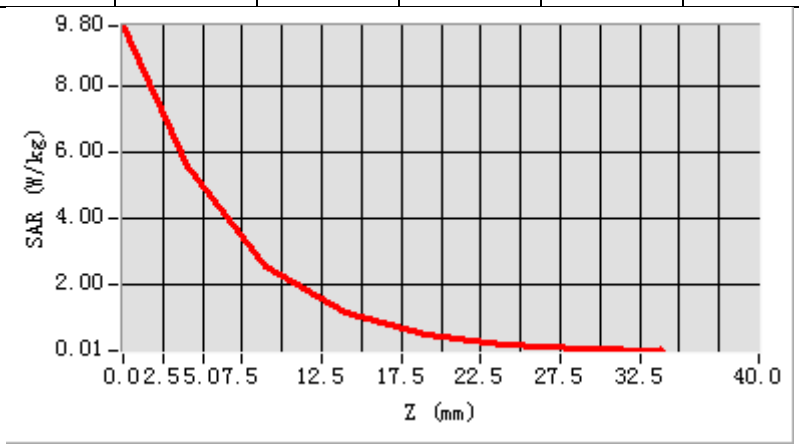


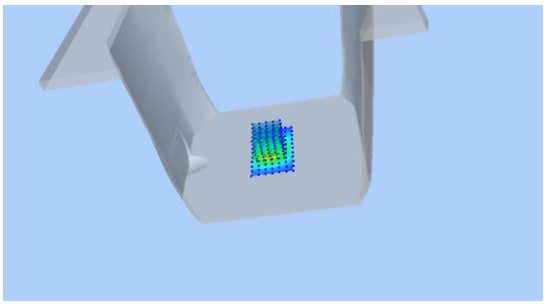
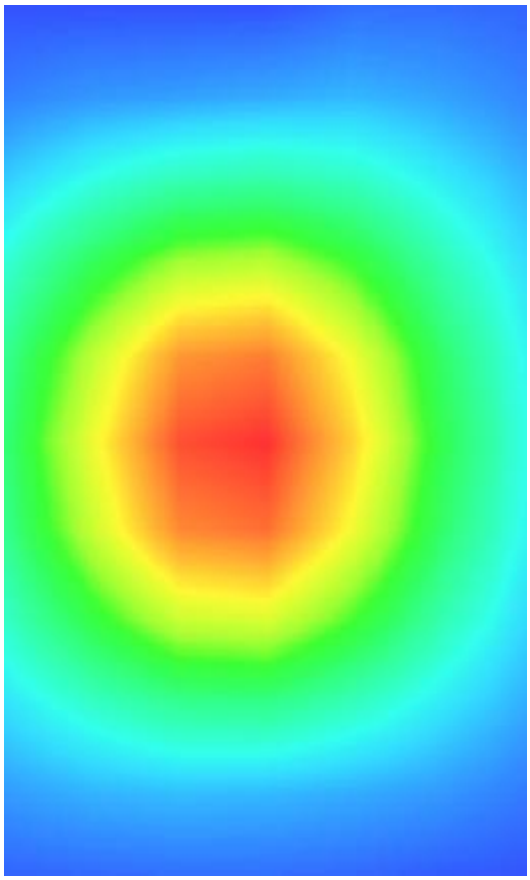
**Maximum location: X=-2.00, Y=0.00**

**SAR Peak: 9.73 W/kg**

| | |
|---|---|
| **SAR 10g (W/Kg)** | 2.342963 |
| **SAR 1g (W/Kg)** | 5.318259 |

| Z (mm) | 0.00 | 4.00 | 9.00 | 14.00 | 19.00 | 24.00 | 29.00 |
|---|---|---|---|---|---|---|---|
| SAR (W/Kg) | 9.8044 | 5.5734 | 2.5229 | 1.1430 | 0.4950 | 0.1964 | 0.0689 |




| 3D screen shot | Hot spot position |
|---|---|
|  |  |