

Annex A: System Check

Project Name : X601-LTE

Report Number:

FCC16083896A-6



HEAD

Type: Validation measurement (Complete)

Date of measurement: 19/8/2016

Measurement duration: 11 minutes 48 seconds

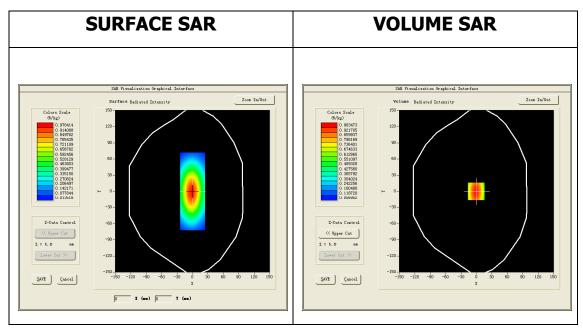
A. Experimental conditions.

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

B. SAR Measurement Results

Middle Band SAR (Channel -1):

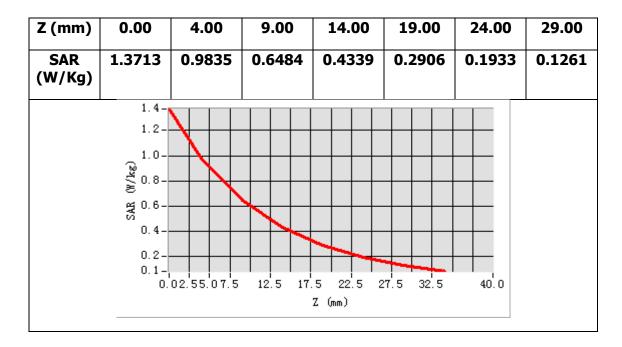
Frequency (MHz)	835.000000
Relative permittivity (real part)	40.526699
Relative permittivity (imaginary part)	19.965200
Conductivity (S/m)	0.926163
Variation (%)	0.920000

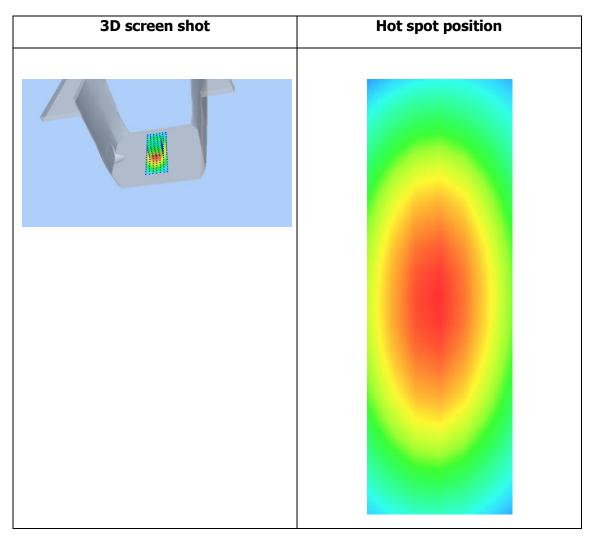


Maximum location: X=-1.00, Y=0.00

SAR Peak: 1.37 W/kg

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







BODY

Type: Validation measurement (Complete)

Date of measurement: 19/8/2016

Measurement duration: 11 minutes 47 seconds

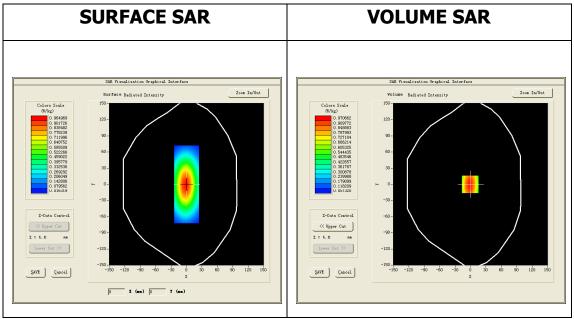
A. Experimental conditions.

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

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



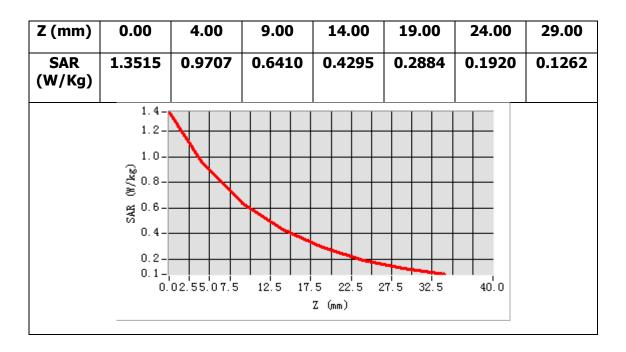
Maximum location: X=-1.00, Y=0.00

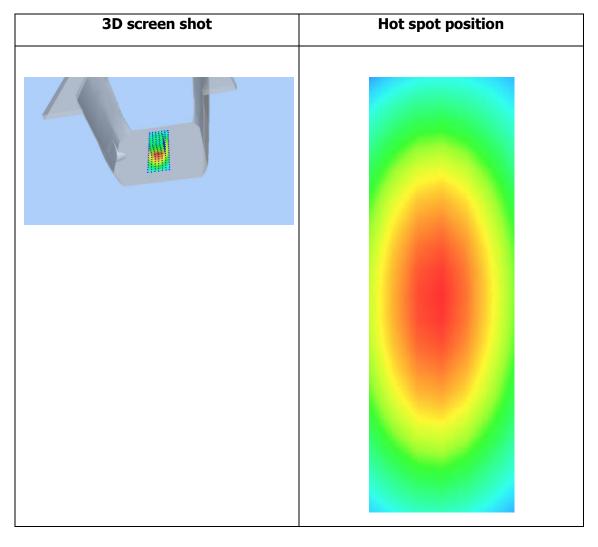
SAR Peak: 1.47 W/kg

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

SATIMO 225, rue Pierre Rivoalon 29200 Brest - France

Tel:+33 (0)2 98 05 13 34; Fax: +33 (0)2 98 05 53 87; www.satimo.com







BODY

Type: Validation measurement (Complete)

Date of measurement: 27/8/2016

Measurement duration: 11 minutes 59 seconds

A. Experimental conditions.

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

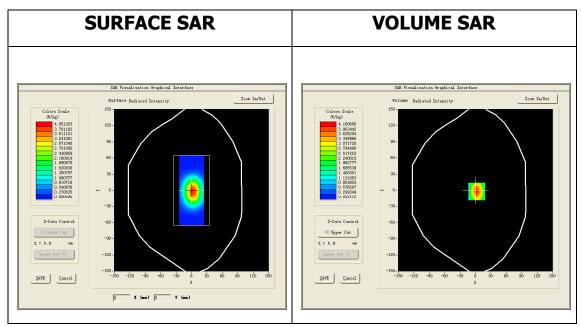
B. SAR Measurement Results

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

SATIMO 225, rue Pierre Rivoalon 29200 Brest - France

Tel:+33 (0)2 98 05 13 34; Fax: +33 (0)2 98 05 53 87; www.satimo.com

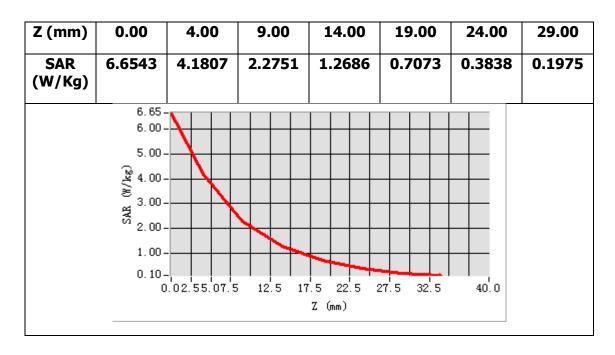


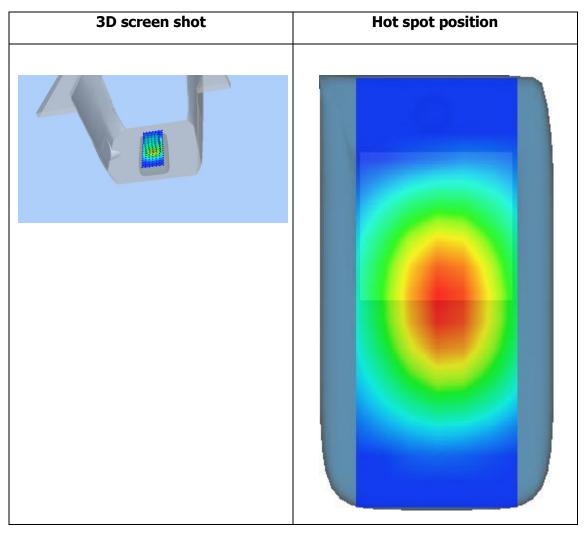
Maximum location: X=2.00, Y=-2.00

SAR Peak: 6.88 W/kg

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









HEAD

Type: Validation measurement (Complete)

Date of measurement: 27/8/2016

Measurement duration: 12 minutes 2 seconds

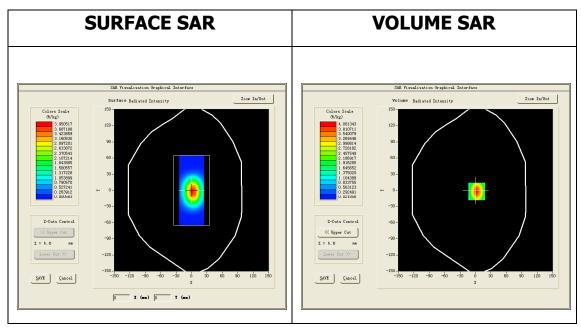
A. Experimental conditions.

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

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

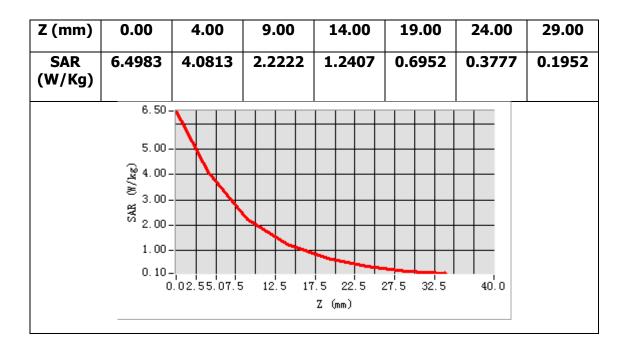


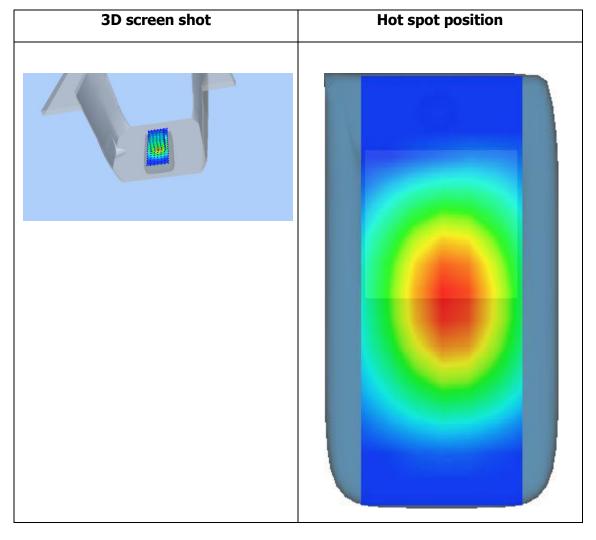
Maximum location: X=2.00, Y=-2.00

SAR Peak: 6.44 W/kg

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









BODY

Type: Validation measurement (Complete)

Date of measurement: 24/8/2016

Measurement duration: 11 minutes 20 seconds

A. Experimental conditions.

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

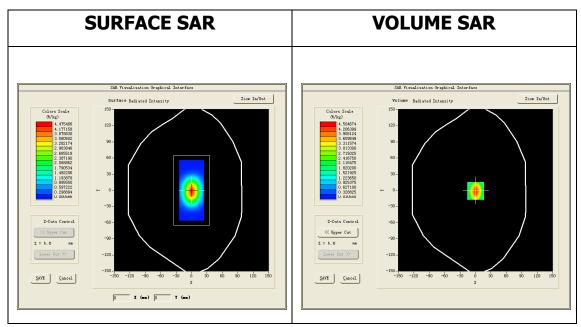
B. SAR Measurement Results

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

SATIMO 225, rue Pierre Rivoalon 29200 Brest - France

Tel:+33 (0)2 98 05 13 34; Fax: +33 (0)2 98 05 53 87; www.satimo.com

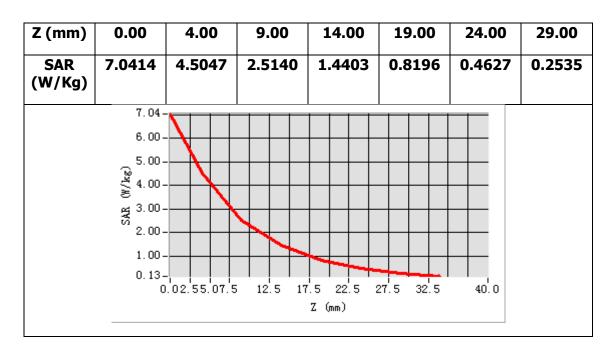


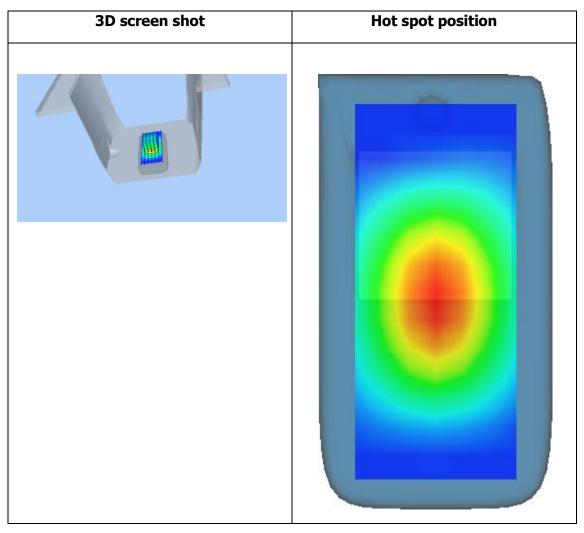
Maximum location: X=0.00, Y=-1.00

SAR Peak: 7.00 W/kg

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









HEAD

Type: Validation measurement (Complete)

Date of measurement: 24/8/2016

Measurement duration: 11 minutes 21 seconds

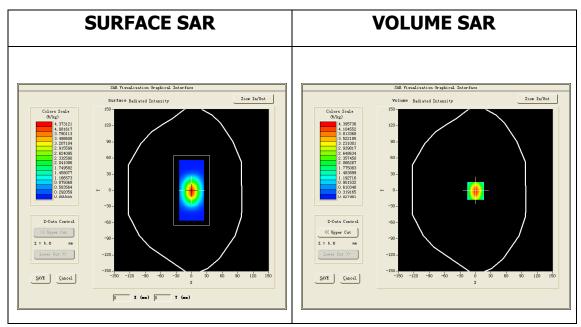
A. Experimental conditions.

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

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

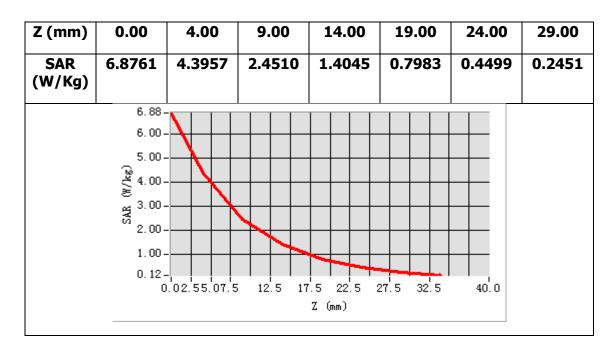


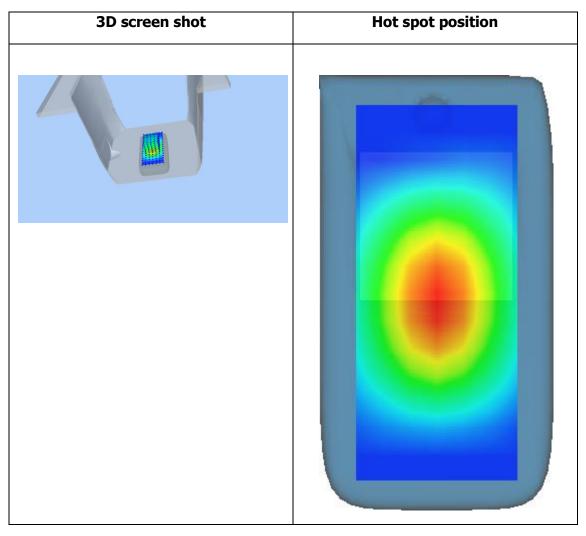
Maximum location: X=0.00, Y=-1.00

SAR Peak: 6.84 W/kg

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









BODY

Type: Validation measurement (Complete)

Date of measurement: 20/8/2016

Measurement duration: 10 minutes 15 seconds

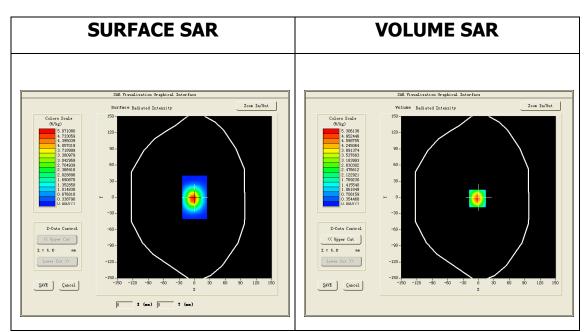
A. Experimental conditions.

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

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

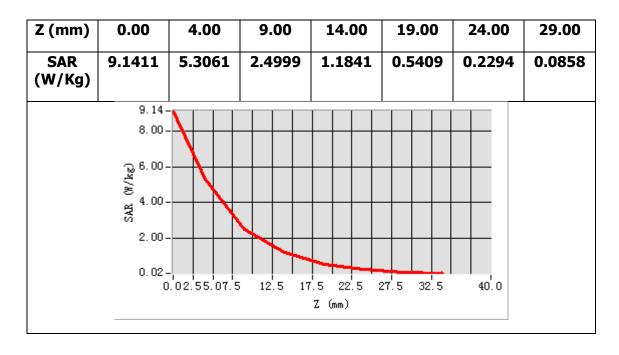


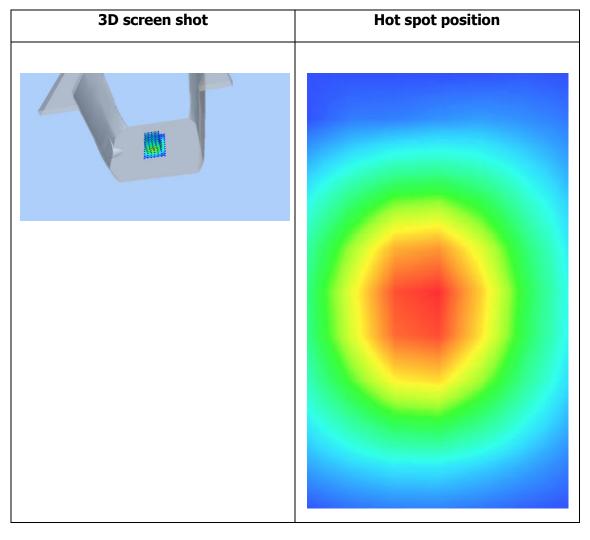
Maximum location: X=-2.00, Y=-2.00

SAR Peak: 10.27 W/kg

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









HEAD

Type: Validation measurement (Complete)

Date of measurement: 20/8/2016

Measurement duration: 10 minutes 16 seconds

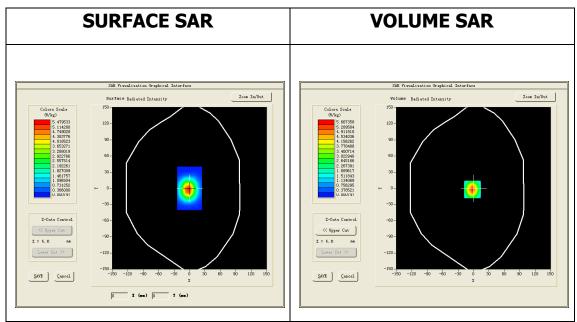
A. Experimental conditions.

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

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

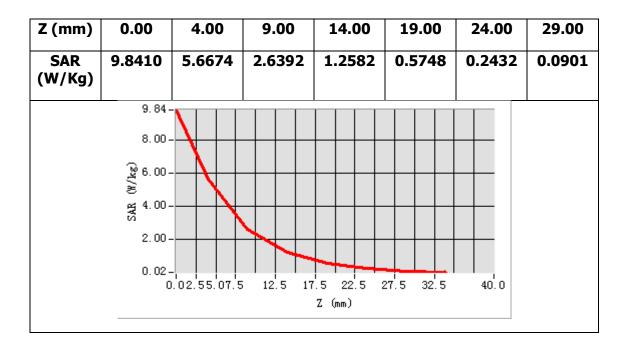


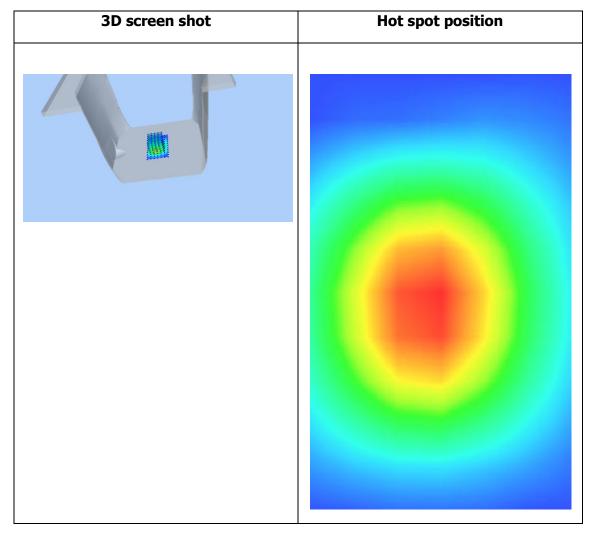
Maximum location: X=-2.00, Y=-2.00

SAR Peak: 9.73 W/kg

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









BODY

Type: Validation measurement (Complete)

Date of measurement: 29/8/2016

Measurement duration: 10 minutes 30 seconds

A. Experimental conditions.

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

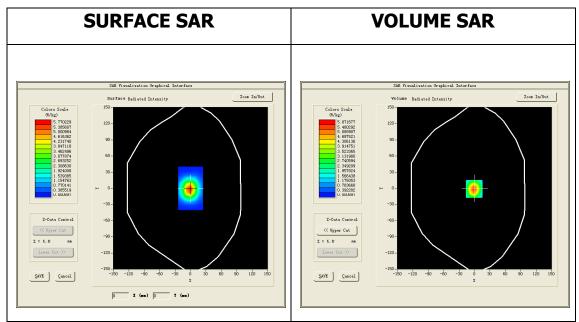
B. SAR Measurement Results

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

SATIMO 225, rue Pierre Rivoalon 29200 Brest - France

Tel:+33 (0)2 98 05 13 34; Fax: +33 (0)2 98 05 53 87; www.satimo.com

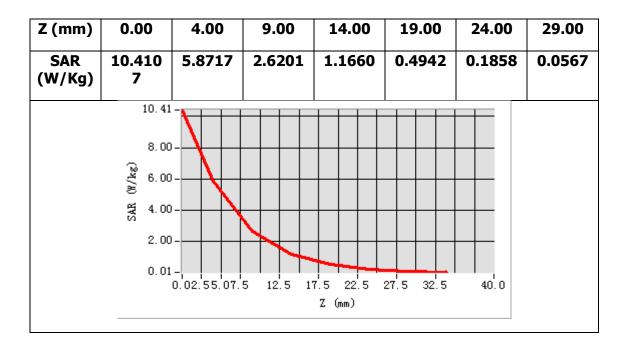


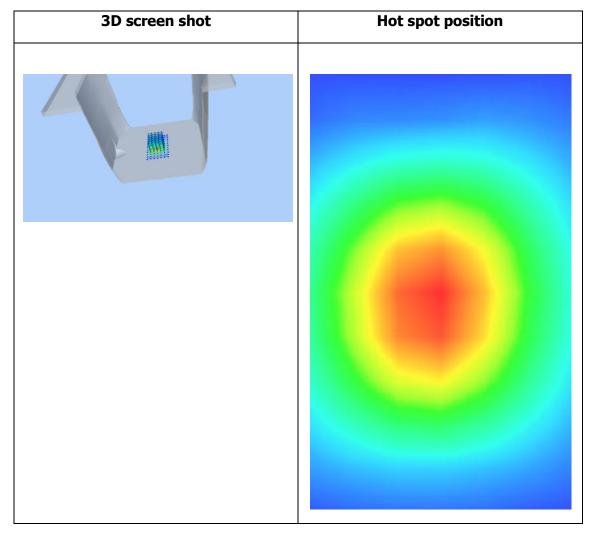
Maximum location: X=-1.00, Y=-1.00

SAR Peak: 11.30 W/kg

SAR 10g (W/Kg)	26.79928
SAR 1g (W/Kg)	60.96026









HEAD

Type: Validation measurement (Complete)

Date of measurement: 29/8/2016

Measurement duration: 10 minutes 28 seconds

A. Experimental conditions.

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

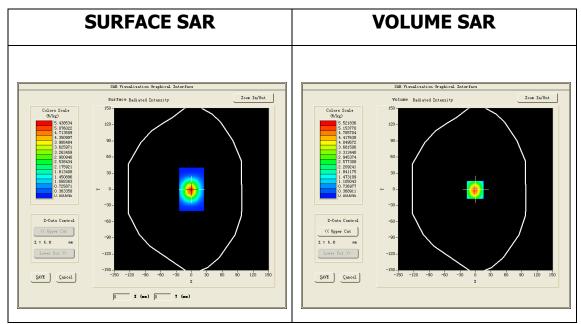
B. SAR Measurement Results

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

SATIMO 225, rue Pierre Rivoalon 29200 Brest - France

Tel:+33 (0)2 98 05 13 34; Fax: +33 (0)2 98 05 53 87; www.satimo.com

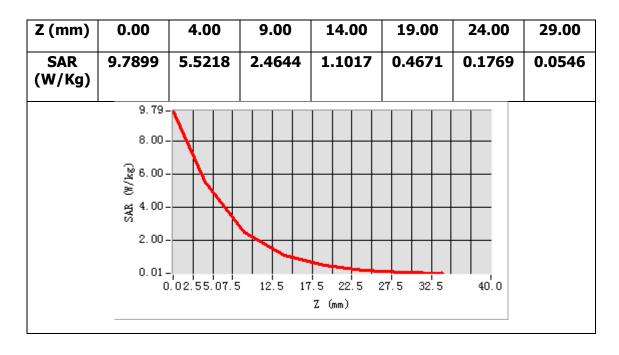


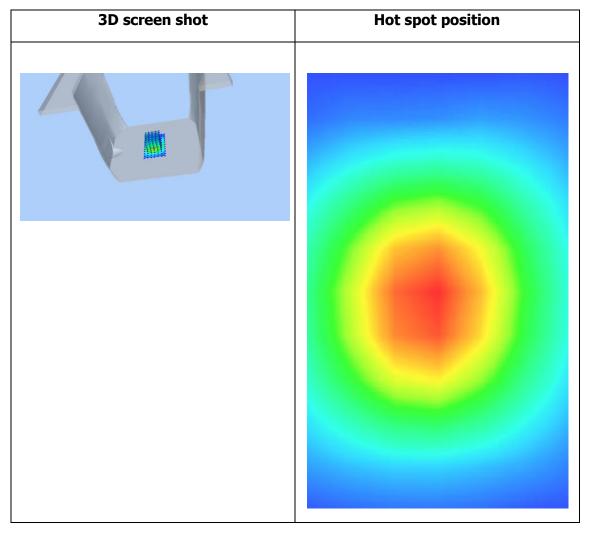
Maximum location: X=-1.00, Y=-1.00

SAR Peak: 9.72 W/kg

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









HEAD

Type: Validation measurement (Complete)

Date of measurement: 30/8/2016

Measurement duration: 13 minutes 45 seconds

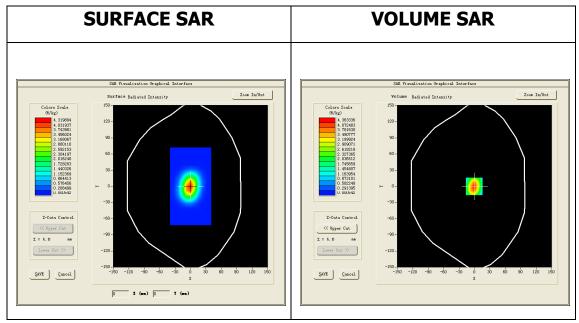
A. Experimental conditions.

<u>Area Scan</u>	dx=10mm dy=10mm	
<u>ZoomScan</u>	8x8x7,dx=4mm dy=4mm dz=2mm,Complete	
<u>Phantom</u>	<u>Validation plane</u>	
Device Position	<u>Dipole</u>	
<u>Band</u>	<u>CW5200</u>	
<u>Channels</u>	<u>Middle</u>	
<u>Signal</u>	CW (Crest factor: 1.0)	

B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	5200.000000
Relative permittivity (real part)	35.553182
Relative permittivity (imaginary part)	16.497414
Conductivity (S/m)	4.773841
Variation (%)	0.330000

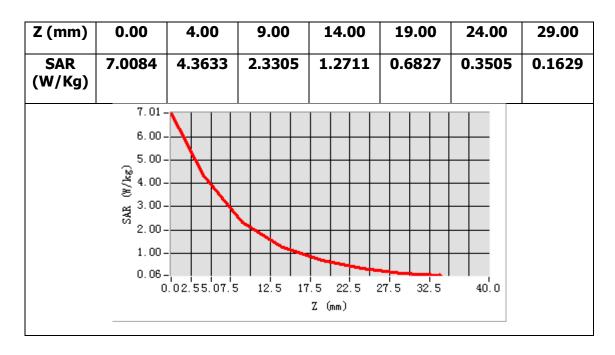


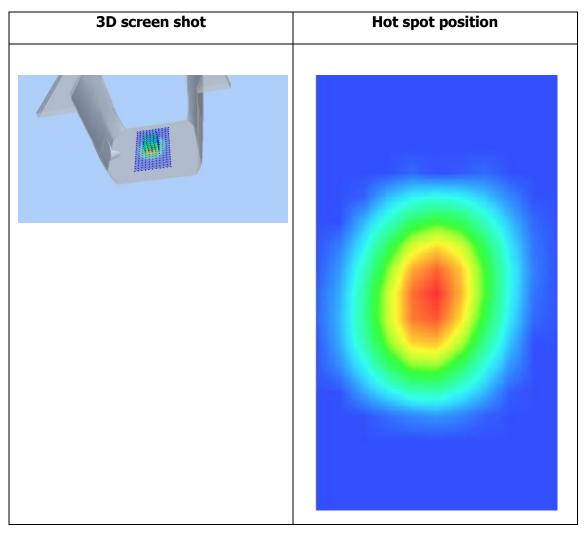
Maximum location: X=-1.00, Y=0.00

SAR Peak: 15 W/kg

SAR 10g (W/Kg)	23.57172
SAR 1g (W/Kg)	83.92412









BODY

Type: Validation measurement (Complete)

Date of measurement: 30/8/2016

Measurement duration: 11 minutes 20 seconds

A. Experimental conditions.

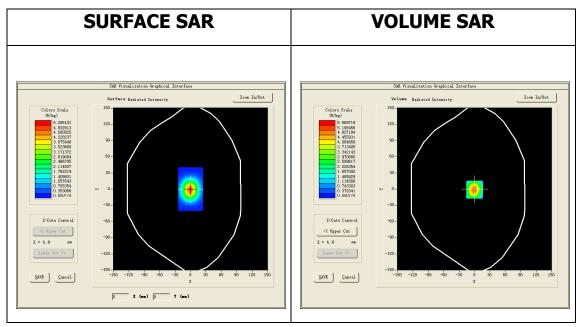
<u>Area Scan</u>	dx=10mm dy=10mm	
<u>ZoomScan</u>	8x8x7,dx=4mm dy=4mm dz=2mm,Complete	
<u>Phantom</u>	<u>Validation plane</u>	
Device Position	<u>Dipole</u>	
<u>Band</u>	<u>CW5200</u>	
<u>Channels</u>	<u>Middle</u>	
<u>Signal</u>	CW (Crest factor: 1.0)	

B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	5200.000000
Relative permittivity (real part)	50.422599
Relative permittivity (imaginary part)	18.202492
Conductivity (S/m)	5.26371
Variation (%)	2.020000



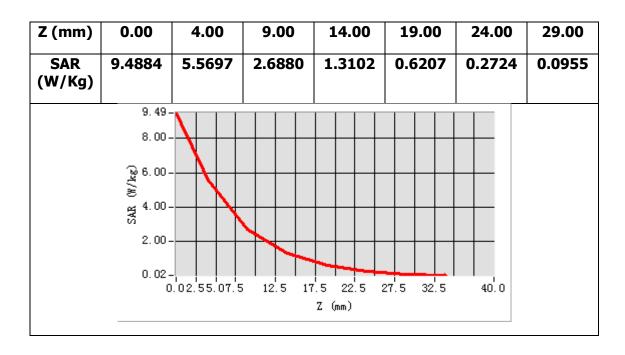


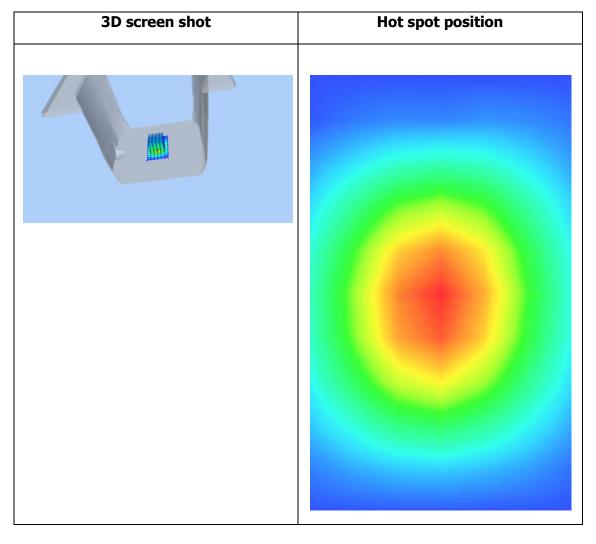
Maximum location: X=0.00, Y=-1.00

SAR Peak: 10.20 W/kg

SAR 10g (W/Kg)	22.37202
SAR 1g (W/Kg)	77.83191









HEAD

Type: Validation measurement (Complete)

Date of measurement: 30/8/2016

Measurement duration: 10 minutes 39 seconds

A. Experimental conditions.

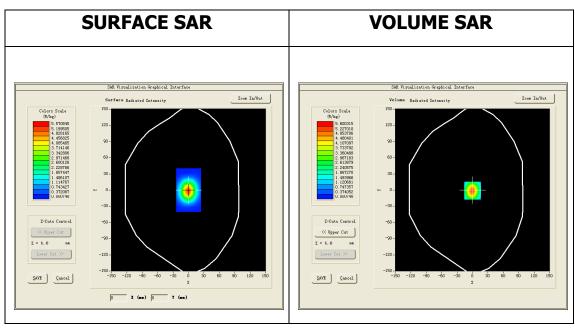
<u>Area Scan</u>	dx=10mm dy=10mm	
<u>ZoomScan</u>	8x8x7,dx=4mm dy=4mm dz=2mm,Complete	
<u>Phantom</u>	<u>Validation plane</u>	
Device Position	<u>Dipole</u>	
<u>Band</u>	<u>CW5800</u>	
<u>Channels</u>	<u>Middle</u>	
<u>Signal</u>	CW (Crest factor: 1.0)	

B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	5800.000000
Relative permittivity (real part)	34.225599
Relative permittivity (imaginary part)	16.160852
Conductivity (S/m)	5.211844
Variation (%)	0.310000



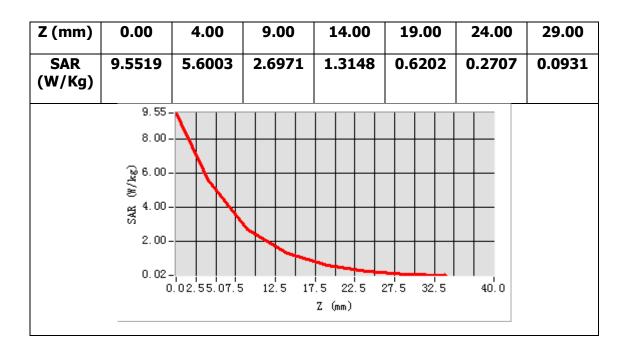


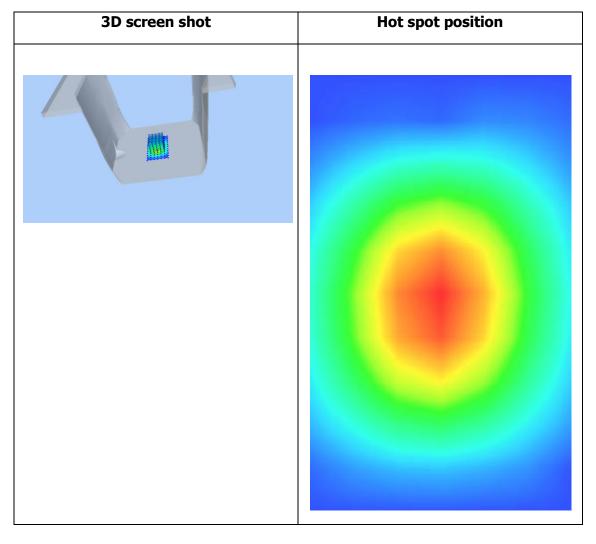
Maximum location: X=0.00, Y=-1.00

SAR Peak: 9.48 W/kg

SAR 10g (W/Kg)	23.57353
SAR 1g (W/Kg)	83.92489









BODY

Type: Validation measurement (Complete)

Date of measurement: 30/8/2016

Measurement duration: 11 minutes 52 seconds

A. Experimental conditions.

Area Scan	dx=10mm dy=10mm	
<u>ZoomScan</u>	8x8x7,dx=4mm dy=4mm dz=2mm,Complete	
<u>Phantom</u>	<u>Validation plane</u>	
Device Position	<u>Dipole</u>	
<u>Band</u>	<u>CW5800</u>	
<u>Channels</u>	<u>Middle</u>	
<u>Signal</u>	CW (Crest factor: 1.0)	

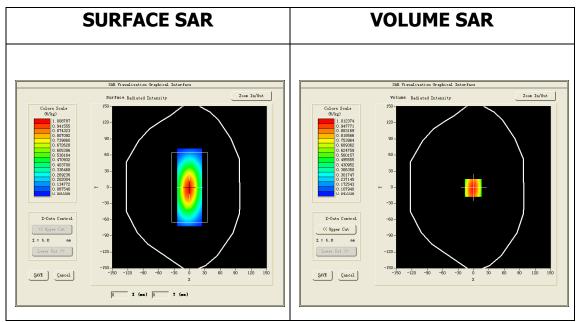
B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	5800.000000
Relative permittivity (real part)	48.090699
Relative permittivity (imaginary part)	19.043921
Conductivity (S/m)	6.14163
Variation (%)	-0.080000

SATIMO 225, rue Pierre Rivoalon 29200 Brest - France

Tel:+33 (0)2 98 05 13 34; Fax: +33 (0)2 98 05 53 87; www.satimo.com

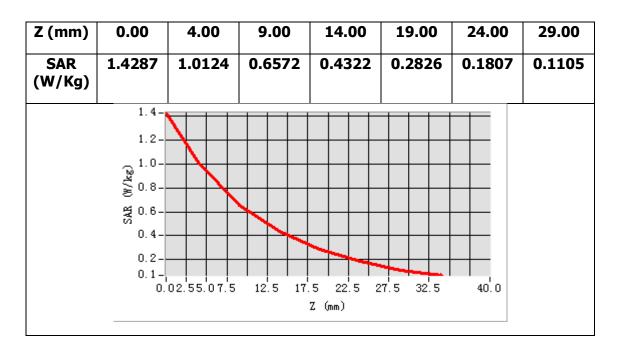


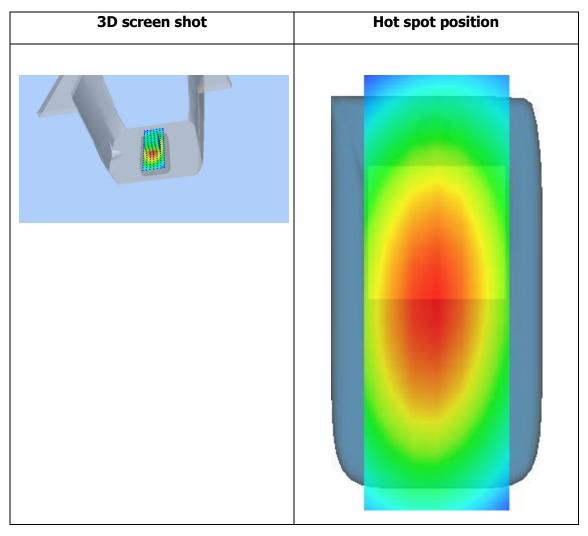
Maximum location: X=-1.00, Y=-1.00

SAR Peak: 1.42 W/kg

SAR 10g (W/Kg)	22.02128
SAR 1g (W/Kg)	77.66225









HEAD

Type: Validation measurement (Complete)

Date of measurement: 30/8/2016

Measurement duration: 10 minutes 35 seconds

A. Experimental conditions.

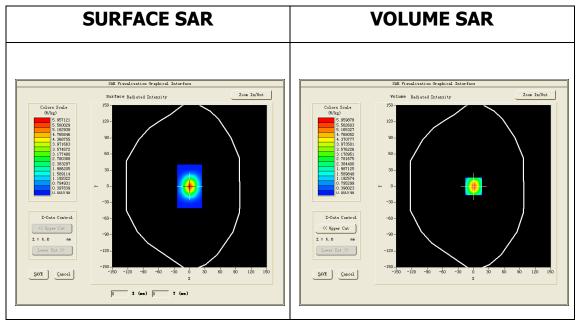
<u>Area Scan</u>	dx=10mm dy=10mm	
<u>ZoomScan</u>	8x8x7,dx=4mm dy=4mm dz=2mm,Complete	
<u>Phantom</u>	<u>Validation plane</u>	
<u>Device Position</u>	<u>Dipole</u>	
<u>Band</u>	<u>CW5300</u>	
<u>Channels</u>	<u>Middle</u>	
<u>Signal</u>	CW (Crest factor: 1.0)	

B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	5300.000000
Relative permittivity (real part)	35.343199
Relative permittivity (imaginary part)	16.591080
Conductivity (S/m)	4.881334
Variation (%)	-0.220000

SATIMO 225, rue Pierre Rivoalon 29200 Brest - France Tel:+33 (0)2 98 05 13 34; Fax: +33 (0)2 98 05 53 87; www.satimo.com

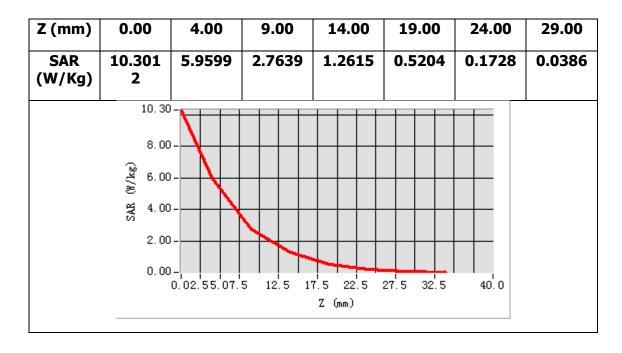


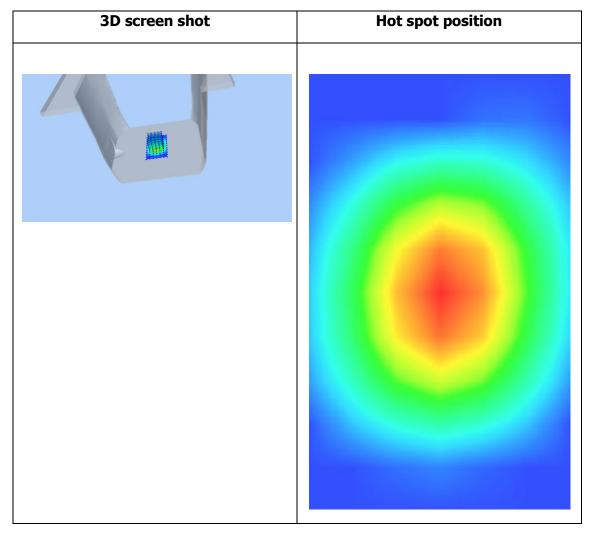
Maximum location: X=0.00, Y=0.00

SAR Peak: 41.12 W/kg

SAR 10g (W/Kg)	25.70497
SAR 1g (W/Kg)	89.512652









BODY

Type: Validation measurement (Complete)

Date of measurement: 30/8/2016

Measurement duration: 10 minutes 20 seconds

A. Experimental conditions.

<u>Area Scan</u>	dx=10mm dy=10mm	
<u>ZoomScan</u>	8x8x7,dx=4mm dy=4mm dz=2mm,Complete	
<u>Phantom</u>	<u>Validation plane</u>	
<u>Device Position</u>	<u>Dipole</u>	
<u>Band</u>	<u>CW5300</u>	
<u>Channels</u>	<u>Middle</u>	
<u>Signal</u>	CW (Crest factor: 1.0)	

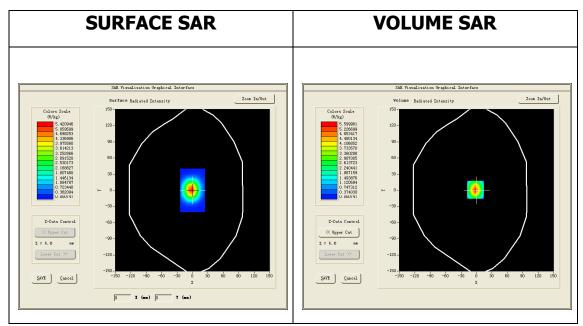
B. SAR Measurement Results

Middle Band SAR (Channel -1):

Frequency (MHz)	5300.000000
Relative permittivity (real part)	47.944300
Relative permittivity (imaginary part)	18.167566
Conductivity (S/m)	5.353919
Variation (%)	0.280000

SATIMO 225, rue Pierre Rivoalon 29200 Brest - France

Tel:+33 (0)2 98 05 13 34; Fax: +33 (0)2 98 05 53 87; www.satimo.com



Maximum location: X=-2.00, Y=1.00

SAR Peak: 40.47 W/kg

SAR 10g (W/Kg)	22.521496
SAR 1g (W/Kg)	81.240974



