

ANNEX C

of

CCIC-SET

CONFORMANCE TEST REPORT FOR

HUMAN EXPOSURE TO ELECTROMAGNETIC FIELDS

SET2017-10788

Smartphone

Type Name: HM-G501-W, U33

Hardware Version: V1.2_B

Software Version: U33-H03-S005-AM

System Performance Check Data and Highest SAR Plots

This Annex consists of 33 pages

Date of Report: 2017-07-25

System Performance Check (Head, 835MHz)

Type: Validation measurement

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

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

Date of measurement: 09/09/2016

Measurement duration: 21 minutes 22 seconds

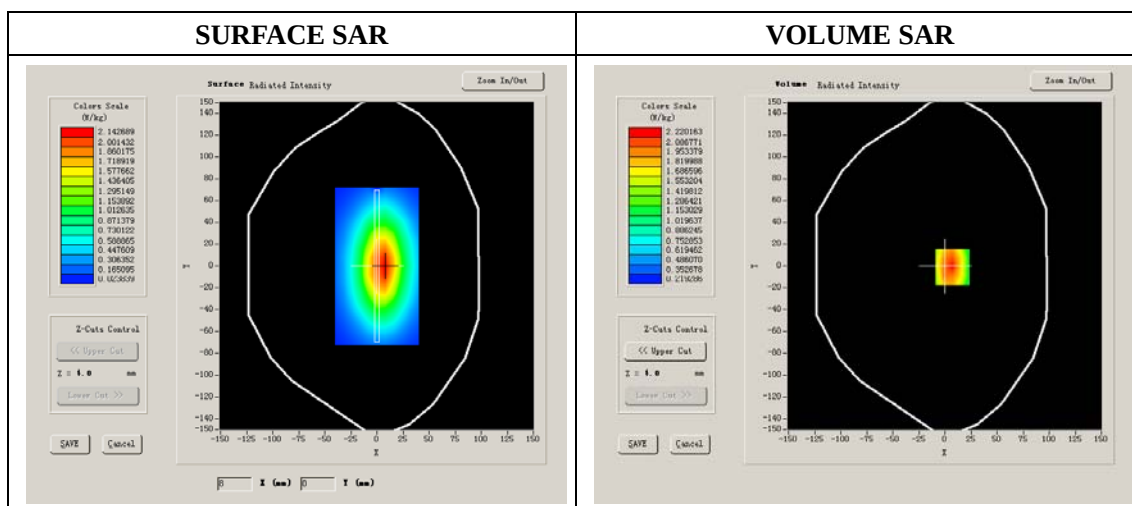
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	5x5x7,dx=8mm dy=8mm dz=5mm
Device Position	
Band	850MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	850
Relative permittivity (real part)	41.39
Relative permittivity	19.19
Conductivity (S/m)	0.89
Power drift (%)	-1.24
Ambient Temperature:	23.2°C
Liquid Temperature:	23.5°C
ConvF:	6.81
Duty factor:	1:1



Maximum location: X=7.00, Y=-1.00

SAR 10g (W/Kg)	1.814368
SAR 1g (W/Kg)	2.382653

System Performance Check (Head, 1900MHz)

Type: Validation measurement

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

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

Date of measurement: 10/09/2016

Measurement duration: 22 minutes 20seconds

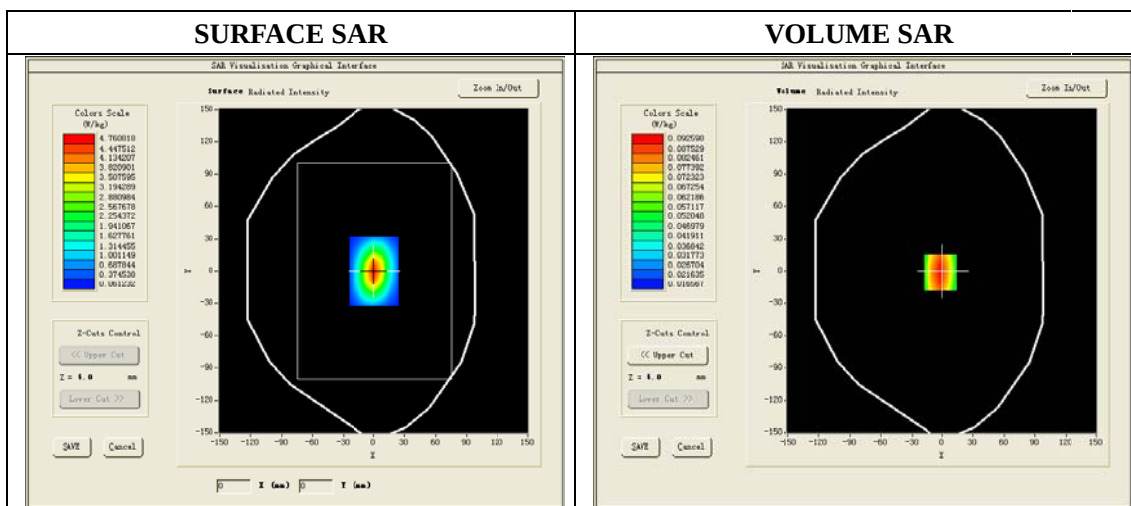
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	5x5x7,dx=8mm dy=8mm dz=5mm
Device Position	
Band	1900MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	1900
Relative permittivity (real part)	39.92
Relative permittivity	13.17
Conductivity (S/m)	1.39
Power drift (%)	1.24
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
ConvF:	6.05
Duty factor:	1:1



Maximum location: X=6.00, Y=0.00

SAR 10g (W/Kg)	5.167586
SAR 1g (W/Kg)	9.943642

System Performance Check (Head, 2450MHz)

Type: Phone measurement

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

Zoom scan resolution: dx=5mm dy=5mm dz=4mm

Date of measurement:11/09/2016

Measurement duration: 21 minutes 13 seconds

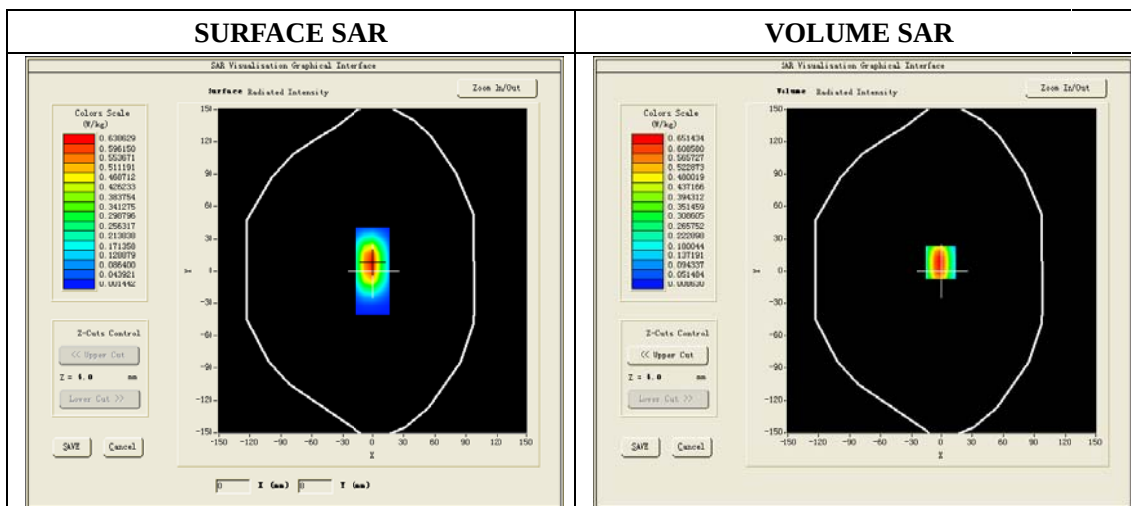
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	7x7x8,dx=5mm dy=5mm dz=4mm
Device Position	Dipole
Band	2450MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	2450
Relative permittivity (real part)	39.63
Relative permittivity	13.15
Conductivity (S/m)	1.79
Power Drift (%)	-0.18
ConvF:	5.52
Duty factor:	1:1



Maximum location: X=0.00, Y=8.00

SAR 10g (W/Kg)	5.954311
SAR 1g (W/Kg)	13.203145

System Performance Check (Body, 835MHz)

Type: Validation measurement

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

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

Date of measurement: 05/09/2016

Measurement duration: 21 minutes 14seconds

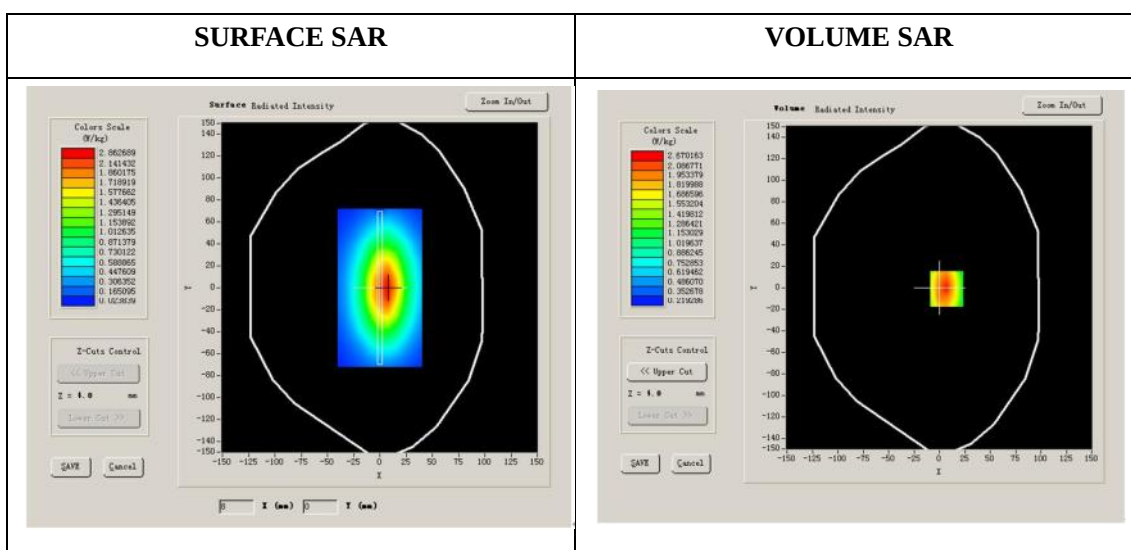
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	5x5x7,dx=8mm dy=8mm dz=5mm
Device Position	Dipole
Band	835MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	850
Relative permittivity (real part)	55.08
Relative permittivity	20.54
Conductivity (S/m)	0.97
Power drift (%)	1.24
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
ConvF:	7.07
Duty factor:	1:1



Maximum location: X=7.00, Y=-1.00

SAR 10g (W/Kg)	1.635247
SAR 1g (W/Kg)	2.523584

System Performance Check (Body, 1900MHz)

Type: Validation measurement

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

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

Date of measurement: 07/09/2016

Measurement duration: 21 minutes 48 seconds

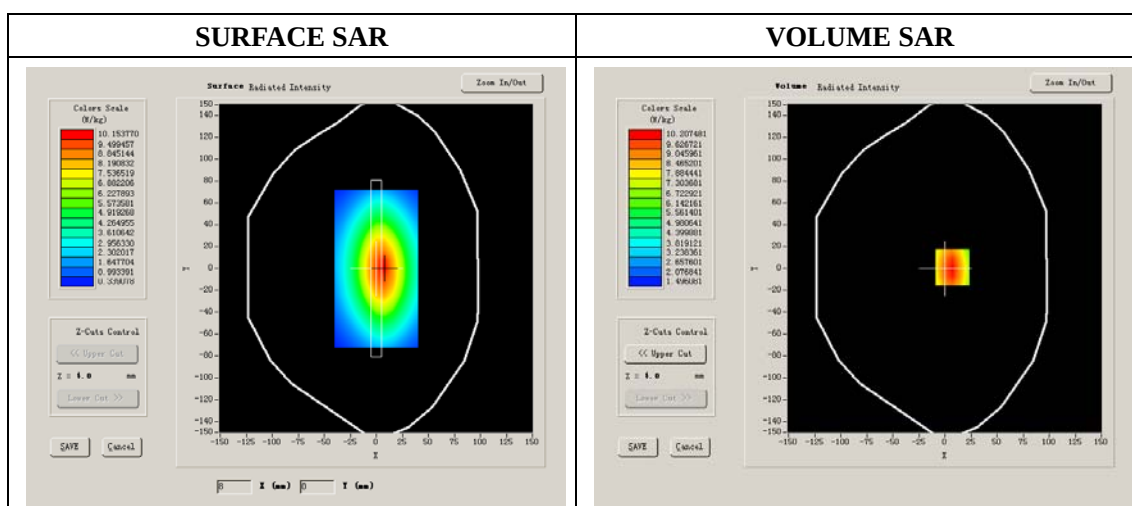
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	5x5x7,dx=8mm dy=8mm dz=5mm
Device Position	Dipole
Band	1900MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	1900
Relative permittivity (real part)	53.11
Relative permittivity	14.40
Conductivity (S/m)	1.52
Power Drift (%)	1.05
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	6.18
Duty factor:	1:1



Maximum location: X=1.00, Y=6.00

SAR 10g (W/Kg)	5.275322
SAR 1g (W/Kg)	10.152543

System Performance Check (Body, 2450MHz)

Type: Phone measurement

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

Zoom scan resolution: dx=5mm, dy=5mm, dz=4mm

Date of measurement: 08/09/2016

Measurement duration: 22 minutes 23 seconds

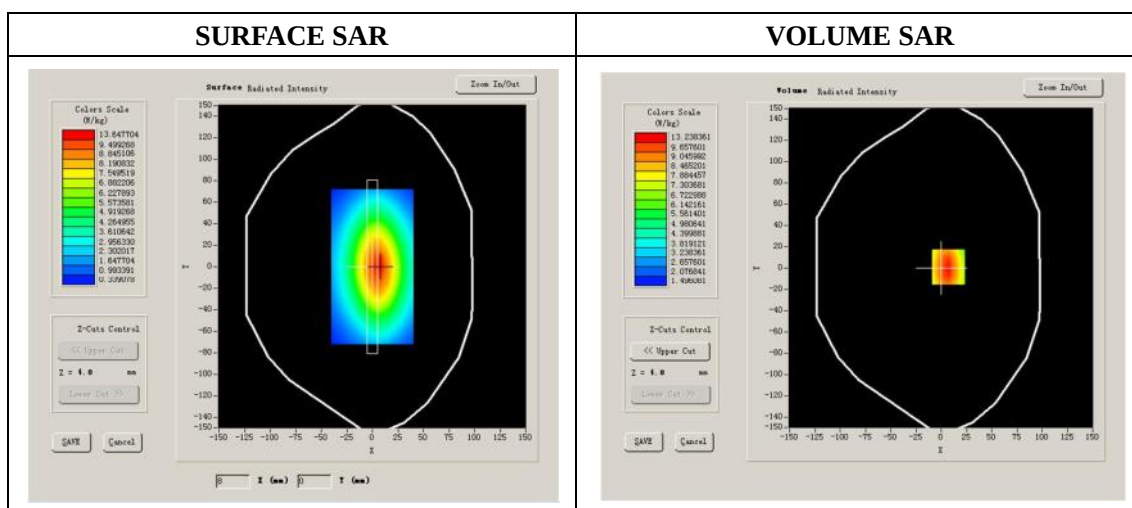
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	7x7x8,dx=5mm dy=5mm dz=4mm
Device Position	Dipole
Band	2450MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	2450
Relative permittivity (real part)	52.56
Relative permittivity	14.25
Conductivity (S/m)	1.94
Power Drift (%)	2.75
Duty factor:	1:1
ConvF:	5.70



Maximum location: X=0.00, Y=8.00

SAR 10g (W/Kg)	6.061314
SAR 1g (W/Kg)	13.051214

Plot 1: GSM850,Right Cheek, Mid

Type: Phone measurement

Date of measurement: 09/09/2016

Measurement duration: 22 minutes 11seconds

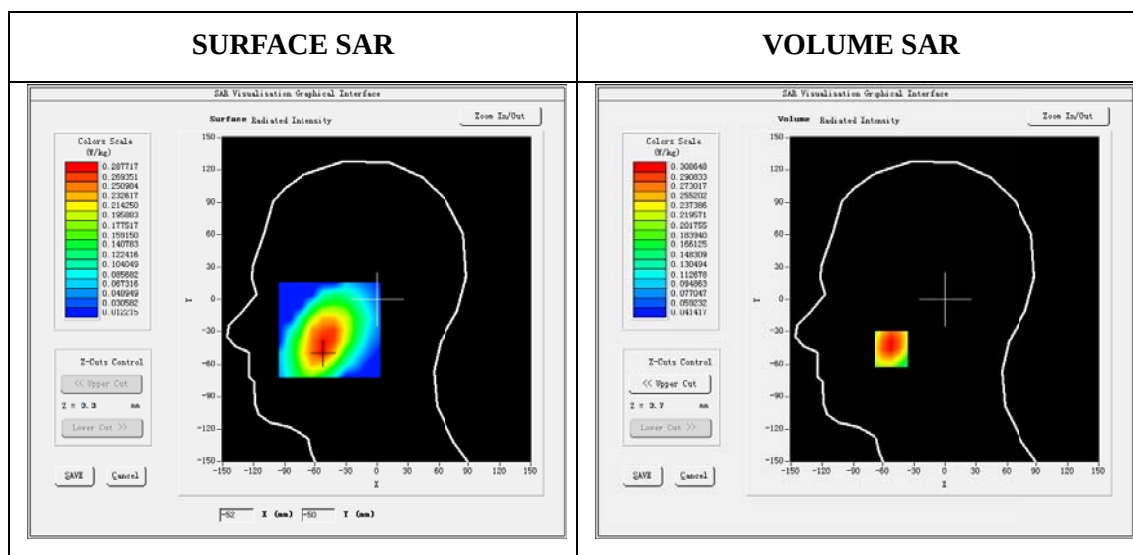
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	GSM850
Channels	190
Signal	GSM (Duty cycle: 1:8)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	836.6
Relative permittivity (real part)	41.39
Relative permittivity (imaginary part)	19.19
Conductivity (S/m)	0.89
Variation (%)	1.04
ConvF:	6.81



Maximum location: X=-52.00, Y=-46.00
SAR Peak: 0.41 W/kg

SAR 10g (W/Kg)	0.206943
SAR 1g (W/Kg)	0.298389

Plot 2: GSM850, Back-Worn, Mid

Type: Phone measurement

Date of measurement: 05/09/2016

Measurement duration: 22minutes 03 seconds

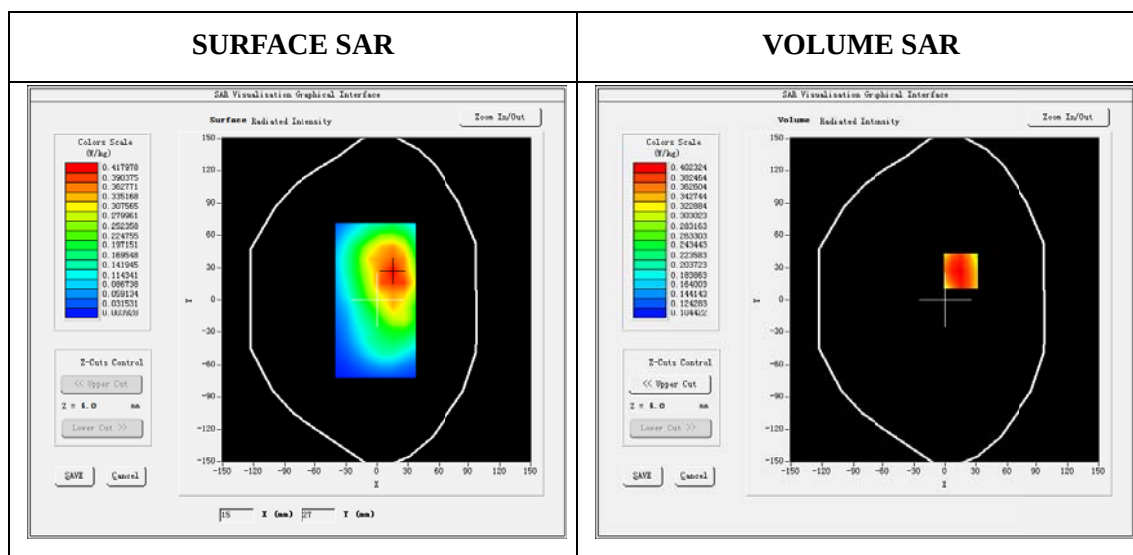
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	GSM850
Channels	190
Signal	GSM(Duty cycle: 1:8)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	836.6
Relative permittivity (real part)	55.08
Relative permittivity (imaginary part)	20.54
Conductivity (S/m)	0.97
Variation (%)	1.69
ConvF:	7.07



Maximum location: X=15.00, Y=27.00

SAR Peak: 0.48 W/kg

SAR 10g (W/Kg)	0.300651
SAR 1g (W/Kg)	0.393353

Plot 3: GPRS850, Back, Mid, Hotspot

Type: Phone measurement

Date of measurement: 05/09/2016

Measurement duration: 21 minutes 12 seconds

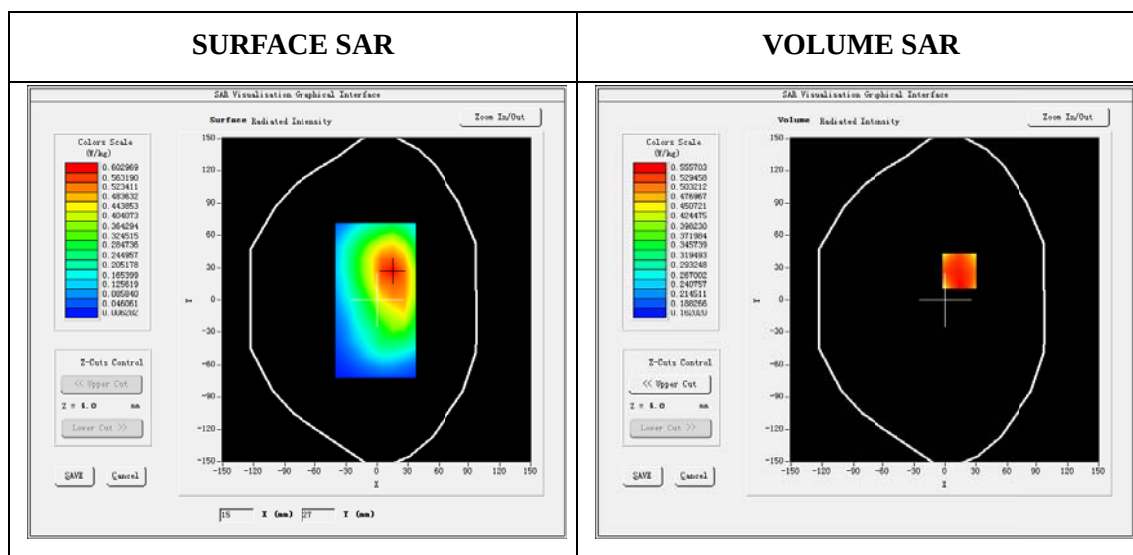
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	GSPRS850_4Tx
Channels	190
Signal	GPRS(Duty cycle: 1:2)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	836.6
Relative permittivity (real part)	55.08
Relative permittivity (imaginary part)	20.54
Conductivity (S/m)	0.97
Variation (%)	4.14
ConvF:	7.07



Maximum location: X=14.00, Y=27.00

SAR Peak: 0.68 W/kg

SAR 10g (W/Kg)	0.424818
SAR 1g (W/Kg)	0.545039

Plot 4: GSM1900, Right Cheek, Middle

Type: Phone measurement

Date of measurement: 10/09/2016

Measurement duration: 21 minutes 16 seconds

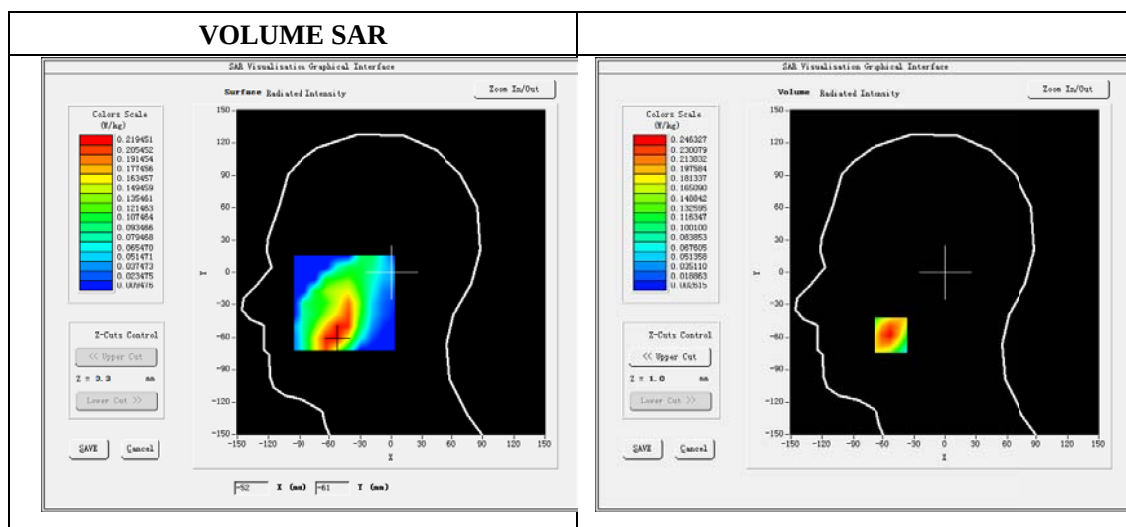
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	GSM1900
Channels	661
Signal	GSM (Duty cycle: 1:8)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	1880.0
Relative permittivity (real part)	39.92
Relative permittivity (imaginary part)	13.17
Conductivity (S/m)	1.39
Variation (%)	0.65
ConvF:	6.05



Maximum location: X=-53.00, Y=-58.00

SAR Peak: 0.46 W/kg

SAR 10g (W/Kg)	0.117683
SAR 1g (W/Kg)	0.237097

Plot 5: GSM1900, body-worn Back, Middle

Type: Phone measurement

Date of measurement: 06/09/2016

Measurement duration: 21 minutes 18 seconds

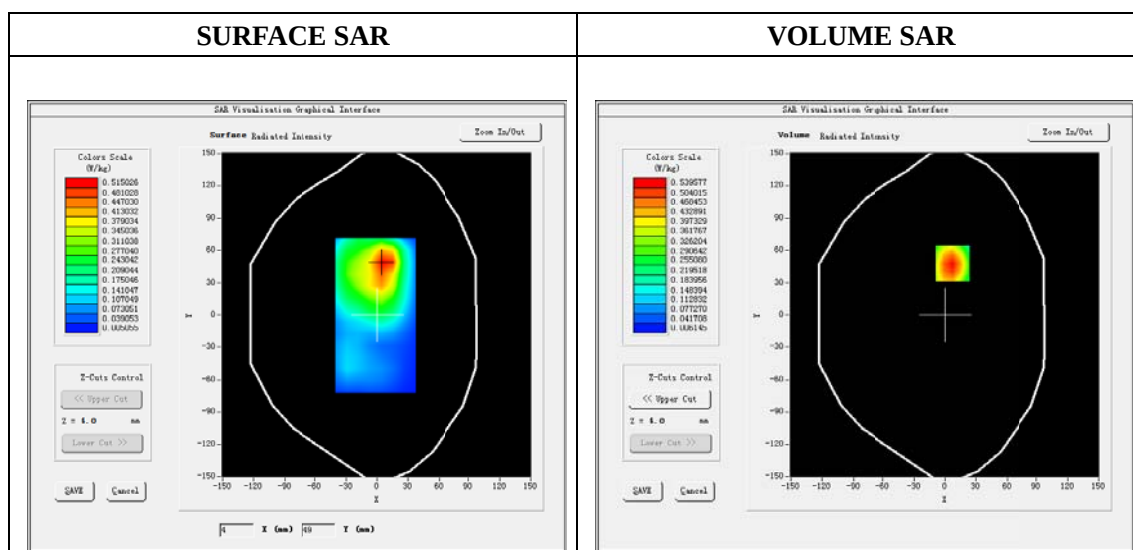
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	GSM1900
Channels	661
Signal	GSM (Duty cycle: 1:8)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	1880
Relative permittivity (real part)	53.11
Relative permittivity (imaginary part)	14.40
Conductivity (S/m)	1.52
Variation (%)	-2.91
ConvF:	6.18



Maximum location: X=7.00, Y=48.00

SAR Peak: 1.02 W/kg

SAR 10g (W/Kg)	0.252841
SAR 1g (W/Kg)	0.519846

Plot 6: GPRS1900, Body Back/hotspot , Middle

Type: Phone measurement

Date of measurement: 07/09/2016

Measurement duration: 21 minutes 16 seconds

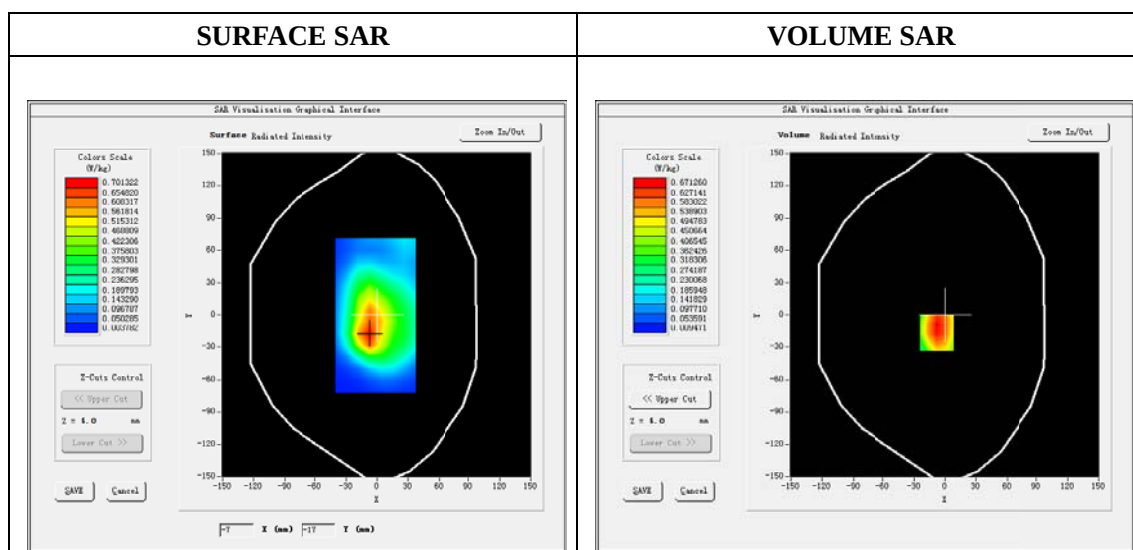
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	GPRS1900_4Tx
Channels	661
Signal	GPRS (Duty cycle: 1:2)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	1880.0
Relative permittivity (real part)	53.11
Relative permittivity (imaginary part)	14.40
Conductivity (S/m)	1.52
Variation (%)	-0.92
ConvF:	6.18



Maximum location: X=-8.00, Y=-17.00

SAR Peak: 1.21 W/kg

SAR 10g (W/Kg)	0.330870
SAR 1g (W/Kg)	0.645608

Plot 7: WCDMA850, Right Cheek, Mid

Type: Phone measurement

Date of measurement: 09/09/2016

Measurement duration: 21 minutes 02seconds

Mobile Phone IMEI number: --

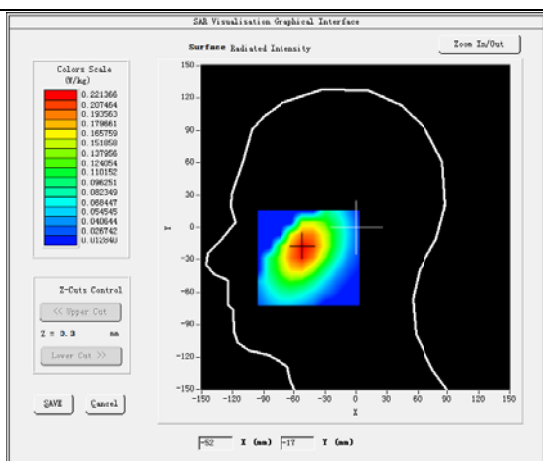
A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7, dx=8mm dy=8mm dz=5mm
Phantom	Right head
Device Position	Cheek
Band	Band5_WCDMA850
Channels	4183
Signal	WCDMA (Duty cycle: 1:1)

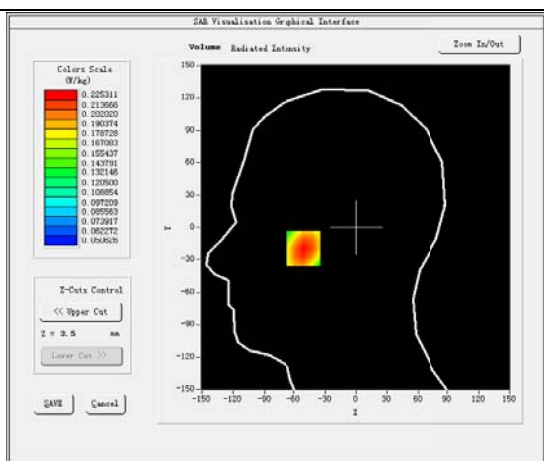
B. SAR Measurement Results

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	836.6
Relative permittivity (real part)	41.39
Relative permittivity (imaginary part)	19.19
Conductivity (S/m)	0.89
Variation (%)	-0.53
ConvF:	6.81

SURFACE SAR



VOLUME SAR



Maximum location: X=-51.00, Y=-19.00

SAR Peak: 0.27 W/kg

SAR 10g (W/Kg)	0.162544
SAR 1g (W/Kg)	0.217151

Plot 8: WCDMA850, Back Upward(Body-worn, hotspot), Mid

Type: Phone measurement

Date of measurement:05/09/2016

Measurement duration: 21 minutes 02 seconds

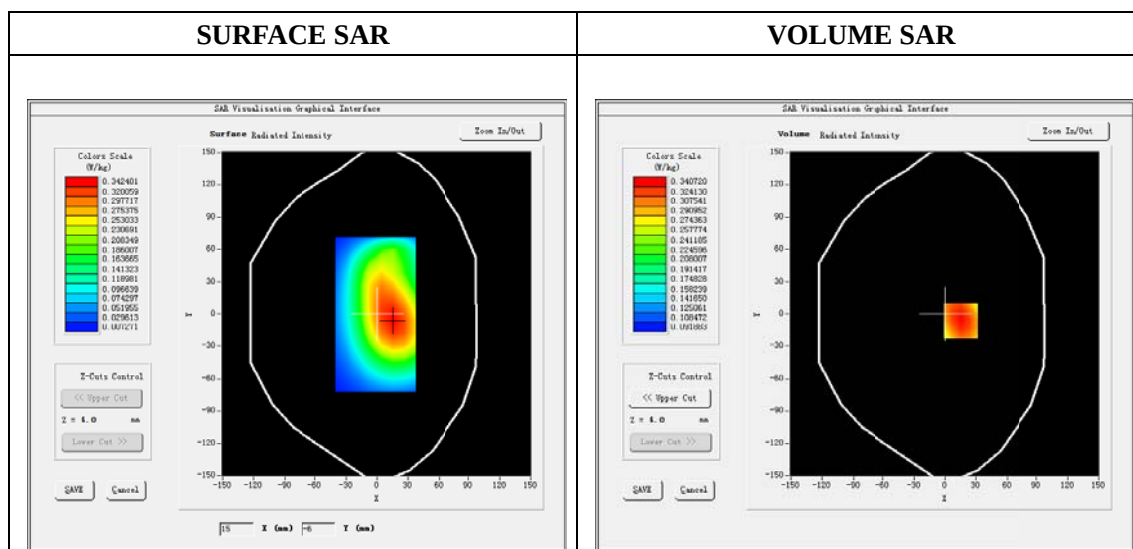
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	Band5_WCDMA850
Channels	4283
Signal	WCDMA (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	836.6
Relative permittivity (real part)	55.08
Relative permittivity (imaginary part)	20.54
Conductivity (S/m)	0.97
Variation (%)	-0.49
ConvF:	7.07



Maximum location: X=15.00, Y=-6.00

SAR Peak: 0.42 W/kg

SAR 10g (W/Kg)	0.245638
SAR 1g (W/Kg)	0.328994

Plot 9: WCDMA1900, Right Cheek, Mid

Type: Phone measurement

Date of measurement: 10/09/2016

Measurement duration: 22 minutes 21 seconds

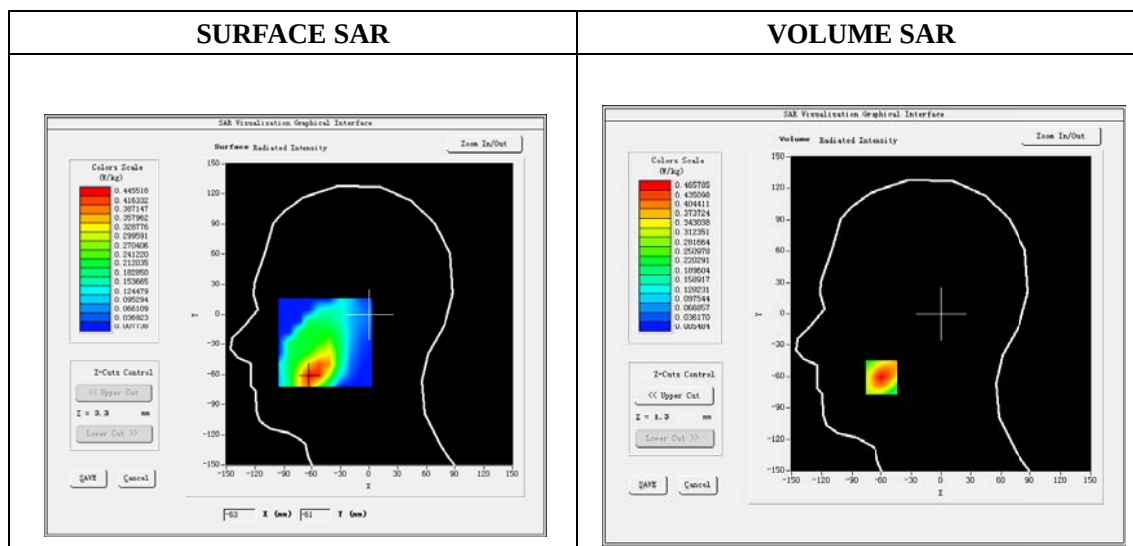
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7, dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Right head
Band	Cheek
Channels	9400
Signal	WCDMA (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	1880.0
Relative permittivity (real part)	38.92
Relative permittivity (imaginary)	13.17
Conductivity (S/m)	1.39
Variation (%)	-0.49
ConvF:	6.05



Maximum location: X=-60.00, Y=-61.00

SAR Peak: -0.10 W/kg

SAR 10g (W/Kg)	0.220254
SAR 1g (W/Kg)	0.439851

Plot 10: WCDMA1900, Body-Worn/Hotspot, Middle

Type: Phone measurement

Date of measurement: 07/09/2016

Measurement duration: 22 minutes 06 seconds

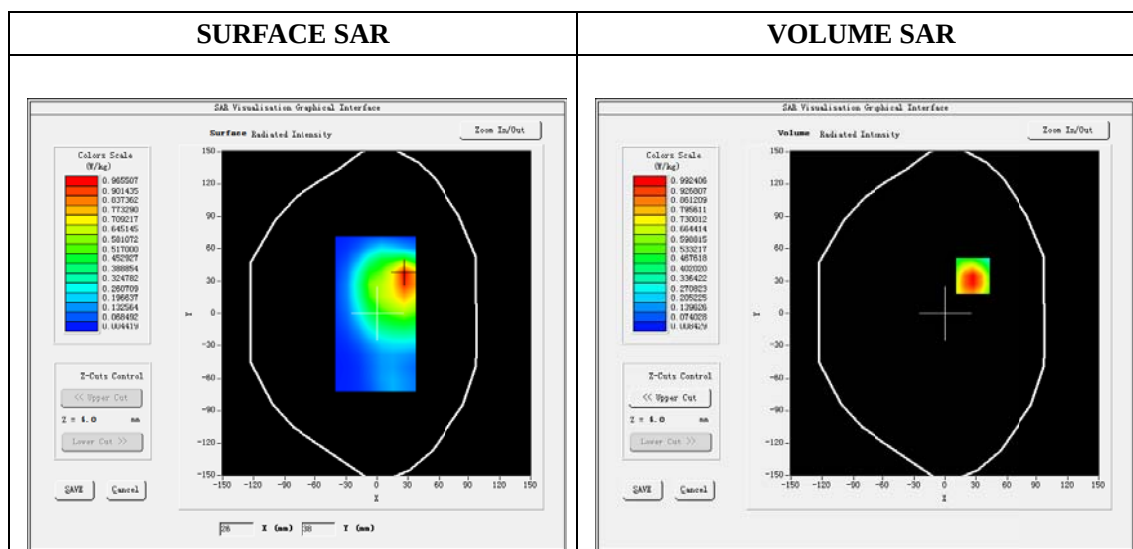
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	Band2_WCDMA1900
Channels	9400
Signal	WCDMA (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	1907.6
Relative permittivity (real part)	53.11
Relative permittivity (imaginary)	14.40
Conductivity (S/m)	1.52
Variation (%)	-0.49
ConvF:	6.18



Maximum location: X=27.00, Y=35.00

SAR Peak: 1.89 W/kg

SAR 10g (W/Kg)	0.466475
SAR 1g (W/Kg)	0.964283

Plot 11: Wi-Fi 802.11b , Left-Cheek, Middle

Type: Phone measurement (11 points in the volume)

Date of measurement: 11/09/2016

Measurement duration: 20 minutes 02 seconds

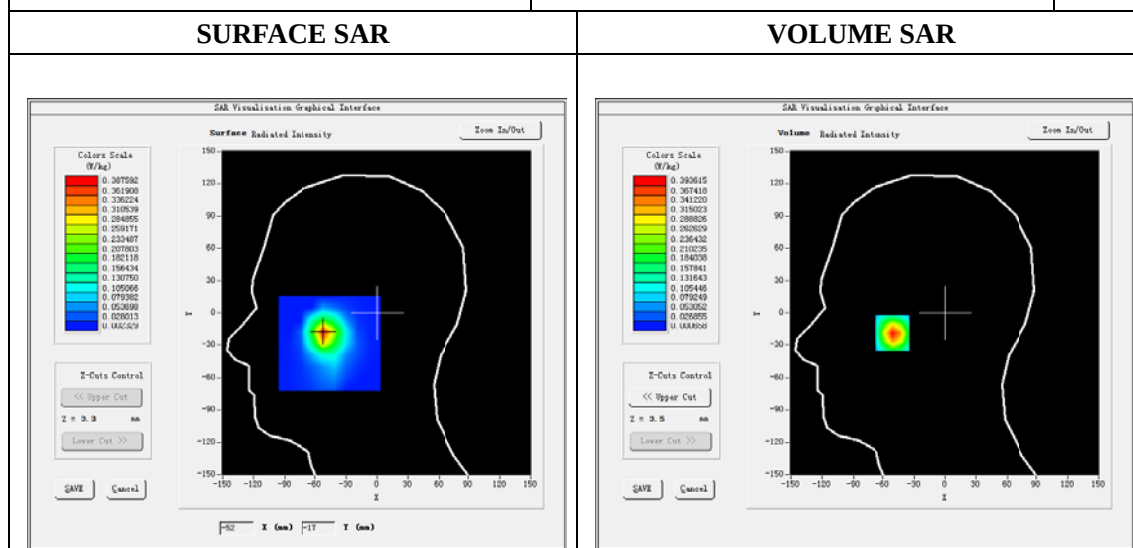
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	7x7x8,dx=5mm dy=5mm dz=4mm
Phantom	Left head
Device Position	Cheek
Band	IEEE 802.11b ISM
Channels	6
Signal	DSSS (Crest factor: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	2437
Relative permittivity (real part)	38.48
Relative permittivity (imaginary part)	13.15
Conductivity (S/m)	1.94
Variation (%)	0.01
ConvF:	5.52



Maximum location: X=-51.00, Y=-18.00

SAR Peak: 0.86 W/kg

SAR 10g (W/Kg)	0.150270
SAR 1g (W/Kg)	0.373821

Plot 12: Wi-Fi 802.11b , Body-Worn/ (Hotspot), Mid

Type: Phone measurement

Date of measurement: 08/09/2016

Measurement duration: 21 minutes 11 seconds

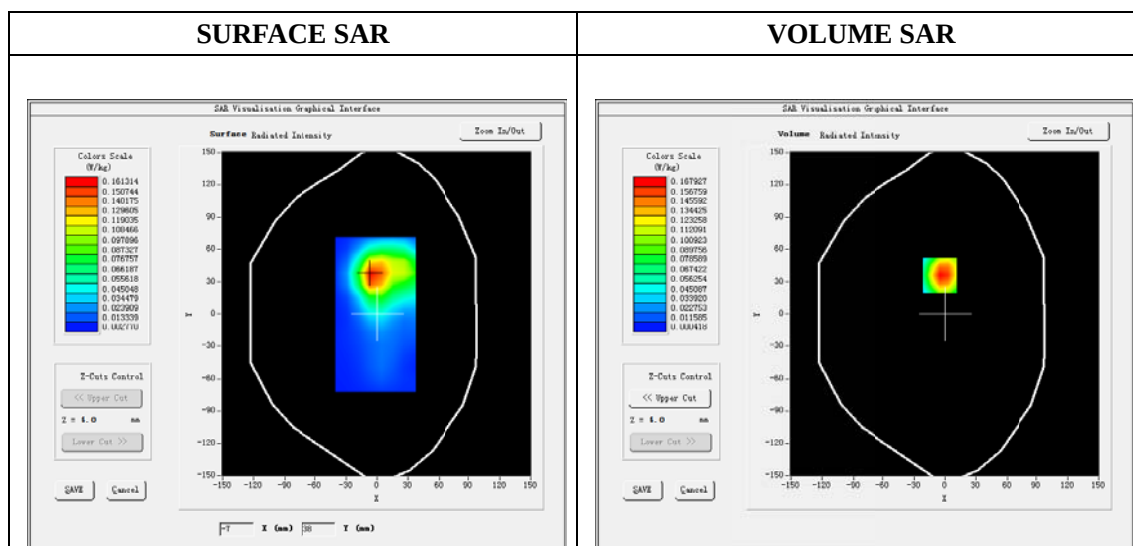
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	7x7x8,dx=5mm dy=5mm dz=4mm
Phantom	Validation plane
Device Position	Back
Band	IEEE 802.11b
Channels	6
Signal	DSSS (Crest factor: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_43/15_EP276
Frequency (MHz)	2437
Relative permittivity (real part)	52.56
Relative permittivity (imaginary part)	14.25
Conductivity (S/m)	1.94
Variation (%)	-0.81
ConvF:	5.70



Maximum location: X=-5.00, Y=36.00

SAR Peak: 0.37 W/kg

SAR 10g (W/Kg)	0.072852
SAR 1g (W/Kg)	0.165447