Appendix B: SAR Measurement results Plots

Plot	Frequency/Mode	Testing Position and Channel	Test Date
1	GSM850	Left Cheek Middle	2019/08/26
2	GSM850/GPRS4Tx	Body Back, Middle ,10mm	2019/08/26
3	GSM1900	Left Cheek Middle	2019/08/28
4	GSM1900/GPRS4Tx	Body Back, Middle ,10mm	2019/08/28
5	GSM1900/GPRS4Tx	Edge C, Middle ,10mm	2019/08/28
6	WCDMA1900	Left Cheek Middle	2019/08/28
7	WCDMA1900	Body Back, Middle ,10mm	2019/08/28
8	WCDMA1900	Edge C, Middle ,10mm	2019/08/28
9	WCDMA1700	Right Cheek Middle	2019/08/27
10	WCDMA1700	Body Back, Middle ,10mm	2019/08/27
11	WCDMA850	Right Cheek Middle	2019/08/26
12	WCDMA850	Body Back, Middle ,10mm	2019/08/26
13	LTE Band2	Left Cheek Middle	2019/08/28
14	LTE Band2	Body Back, Middle ,10mm	2019/08/28
15	LTE Band2	Edge C, Middle ,10mm	2019/08/28
16	LTE Band4	Left Cheek Middle	2019/08/27
17	LTE Band4	Body Back, Middle ,10mm	2019/08/27
18	LTE Band4	Edge C, Middle ,10mm	2019/08/27
19	LTE Band5	Right Cheek Middle	2019/08/26
20	LTE Band5	Body Back, Middle ,10mm	2019/08/26
21	LTE Band7	Left Cheek Middle	2019/08/30
22	LTE Band7	Body Back, Middle ,10mm	2019/08/30
23	LTE Band26	Right Cheek Middle	2019/08/26
24	LTE Band26	Body Back, Middle ,10mm	2019/08/26
25	LTE Band66	Right Cheek Middle	2019/08/27
26	LTE Band66	Body Back, Middle ,10mm	2019/08/27
27	LTE Band66	Edge C, Middle ,10mm	2019/08/27
28	WIFI 2.4G 802.11b	Left Cheek Middle	2019/08/29
29	WIFI 2.4G 802.11b	Body Back, Middle ,10mm	2019/08/29
30	BT 3.0 GFSK	Right Cheek Middle	2019/08/29
31	BT 3.0 GFSK	Body Back, Middle ,10mm	2019/08/29
32	WIFI 5G 802.11a	Right Cheek Middle	2019/08/31
33	WIFI 5G 802.11a	Body Back, Middle ,10mm	2019/08/31

Plot 1: GSM850, Left Cheek, Middle

Type: Phone measurement

Date of measurement: 08/26/2019

Measurement duration: 22 minutes 02 seconds

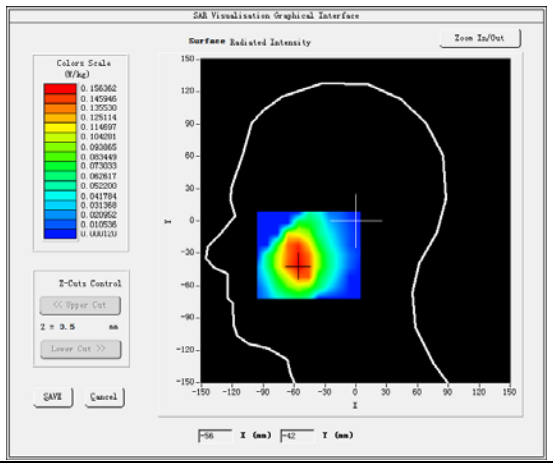
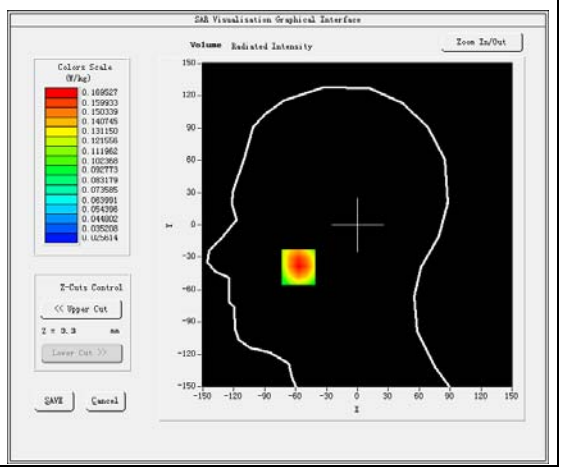
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Left Cheek
Band	GSM850
Channels	190
Signal	GSM (Duty cycle: 1:8.3)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	836.6
Relative permittivity (real part)	41.52
Relative permittivity (imaginary part)	20.69
Conductivity (S/m)	0.96
Variation (%)	-2.78
ConvF:	1.92

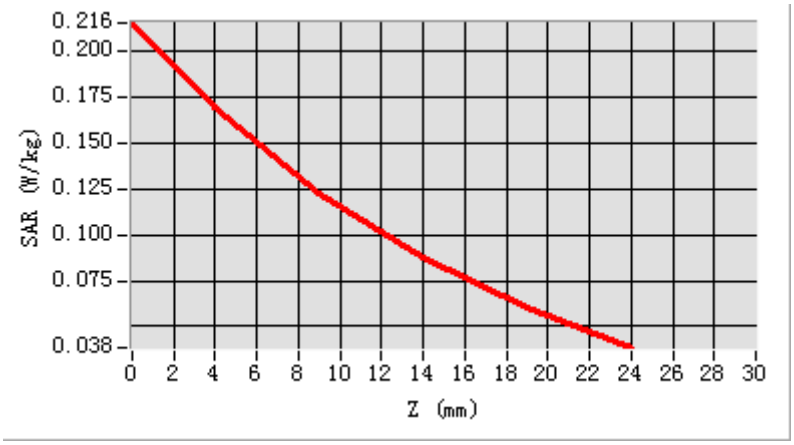
SURFACE SAR	**VOLUME SAR**
	

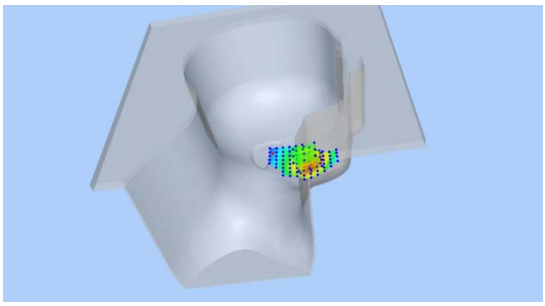
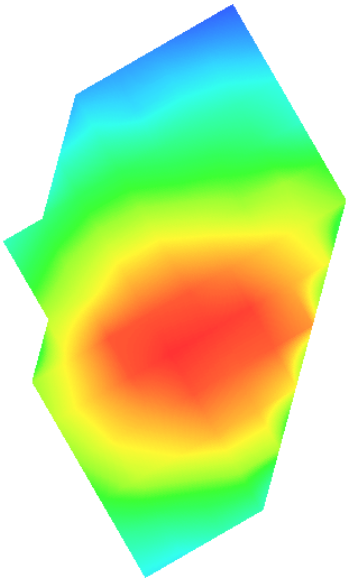
Maximum location: X=-57.00, Y=-39.00

SAR Peak: 0.22W/kg

SAR 10g (W/Kg)	0.109800
SAR 1g (W/Kg)	0.161840

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.2156	0.1695	0.1231	0.0872	0.0597



3D screen shot	Hot spot position
	

Plot 2: GPRS850, Back, Middle,10mm

Type: Phone measurement

Date of measurement: 08/26/2019

Measurement duration: 22 minutes 04 seconds

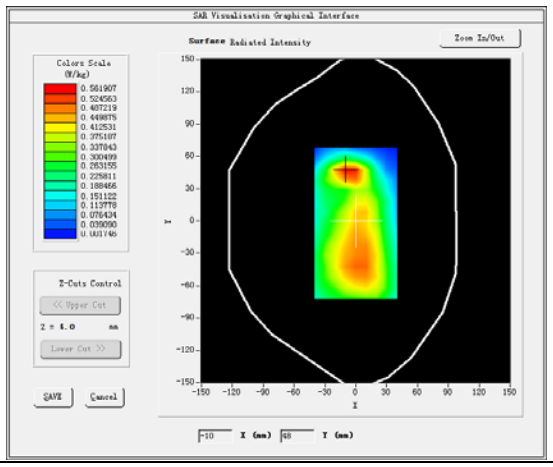
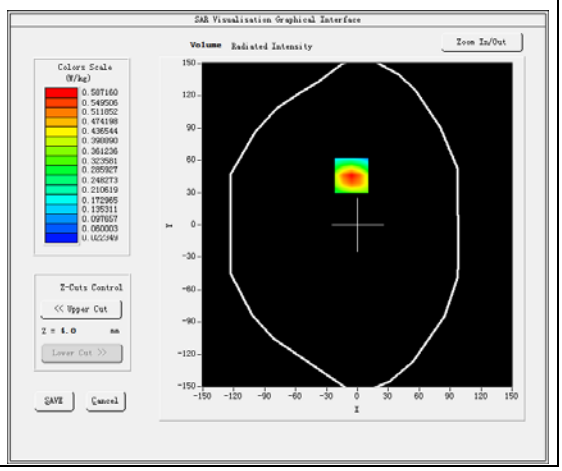
Mobile Phone IMEI number: --

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_27/15_EPG0261
Frequency (MHz)	836.6
Relative permittivity (real part)	55.57
Relative permittivity (imaginary part)	20.48
Conductivity (S/m)	0.95
Variation (%)	-0.15
ConvF:	1.99

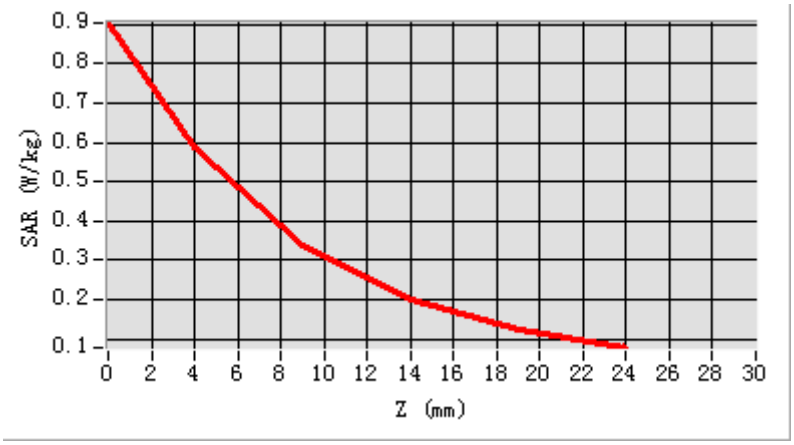
SURFACE SAR	**VOLUME SAR**
	

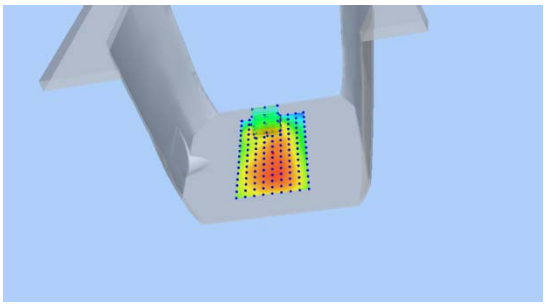
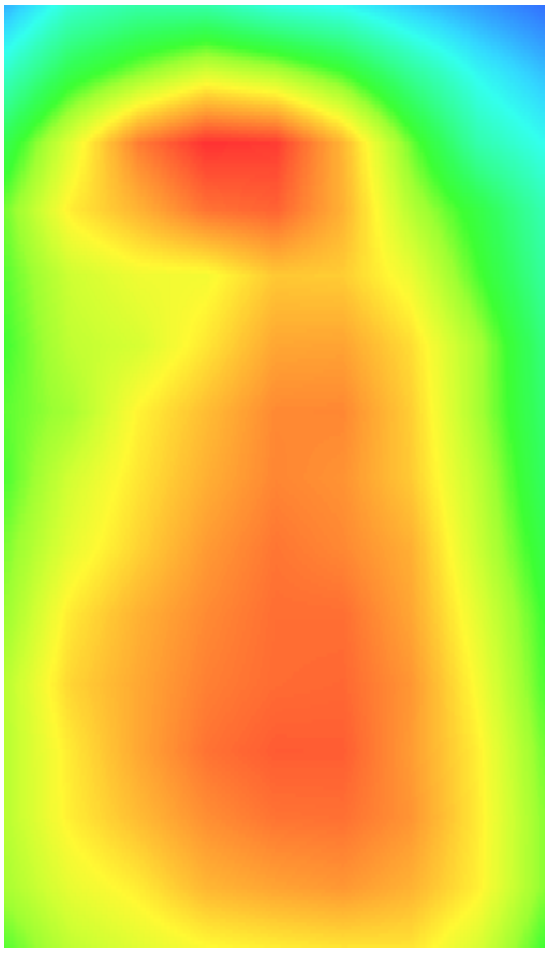
Maximum location: X=-6.00, Y=46.00

SAR Peak: 0.92 W/kg

SAR 10g (W/Kg)	0.306894
SAR 1g (W/Kg)	0.563089

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.9038	0.5872	0.3368	0.1972	0.1228



3D screen shot	Hot spot position
	

Plot 3: GSM1900, Left Cheek, Middle

Type: Phone measurement

Date of measurement: 08/28/2019

Measurement duration: 22 minutes 01 seconds

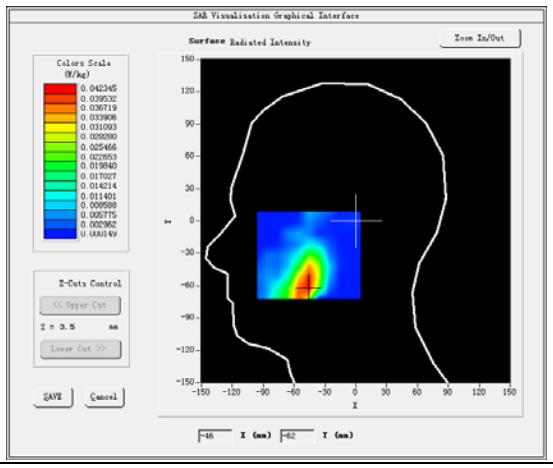
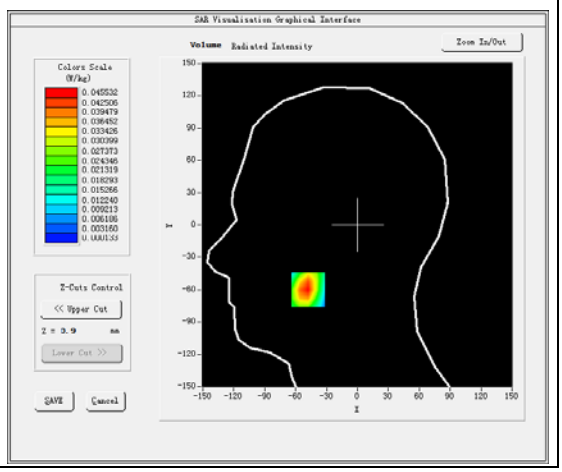
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Left Cheek
Band	GSM1900
Channels	661
Signal	GSM (Duty cycle: 1:8.3)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1880
Relative permittivity (real part)	40.76
Relative permittivity (imaginary part)	13.55
Conductivity (S/m)	1.43
Variation (%)	2.82
ConvF:	2.34

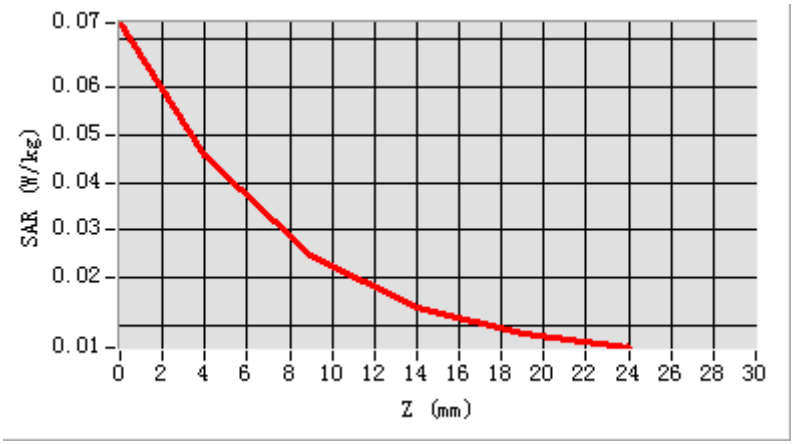
SURFACE SAR	**VOLUME SAR**
	

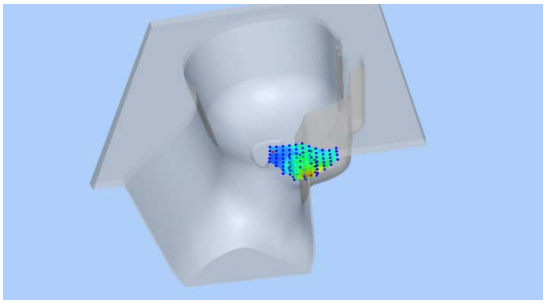
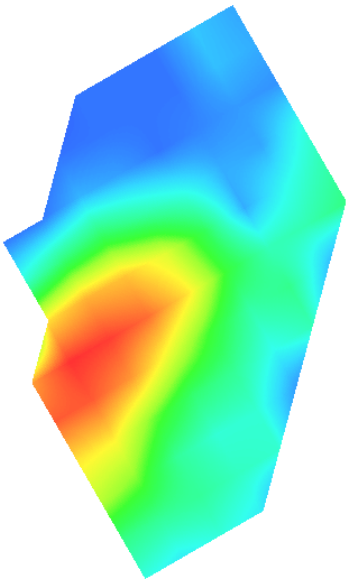
Maximum location: X=-48.00, Y=-60.00

SAR Peak: 0.07 W/kg

SAR 10g (W/Kg)	0.022939
SAR 1g (W/Kg)	0.043085

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0736	0.0455	0.0244	0.0135	0.0082



3D screen shot	Hot spot position
	

Plot 4: GPRS1900, Back, Middle ,10mm

Type: Phone measurement

Date of measurement: 08/28/2019

Measurement duration: 22 minutes 06 seconds

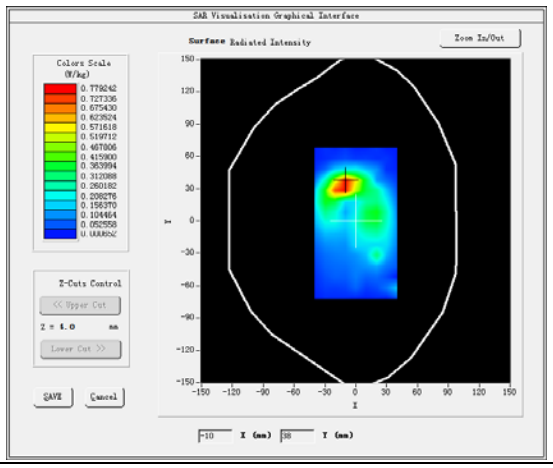
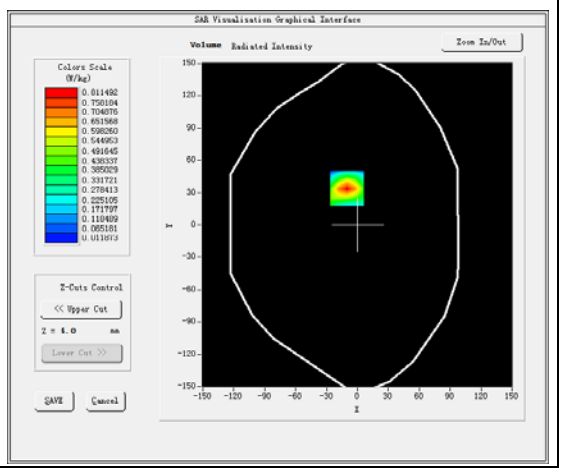
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
Zoom Scan	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_27/15_EPG0261
Frequency (MHz)	1880
Relative permittivity (real part)	53.62
Relative permittivity (imaginary part)	14.87
Conductivity (S/m)	1.57
Variation (%)	-4.51
ConvF:	2.39

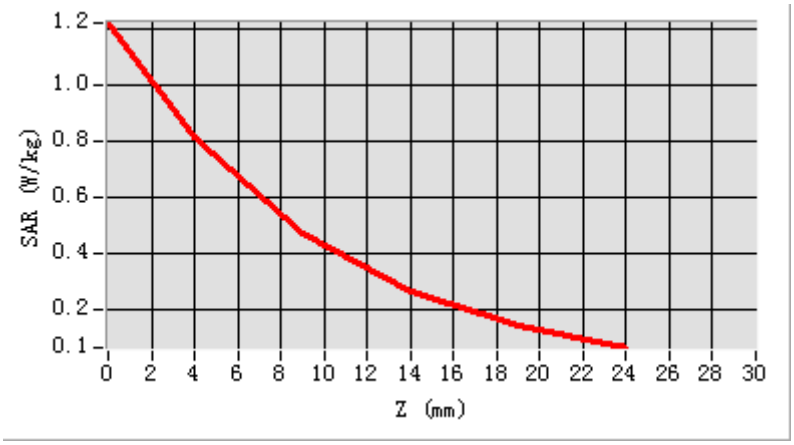
SURFACE SAR	**VOLUME SAR**
	

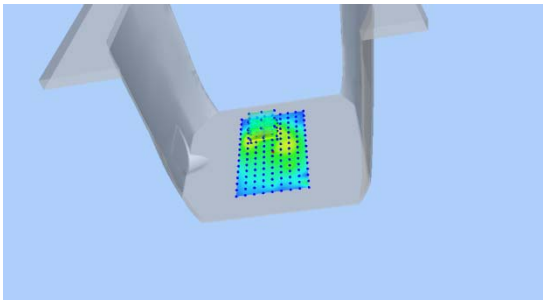
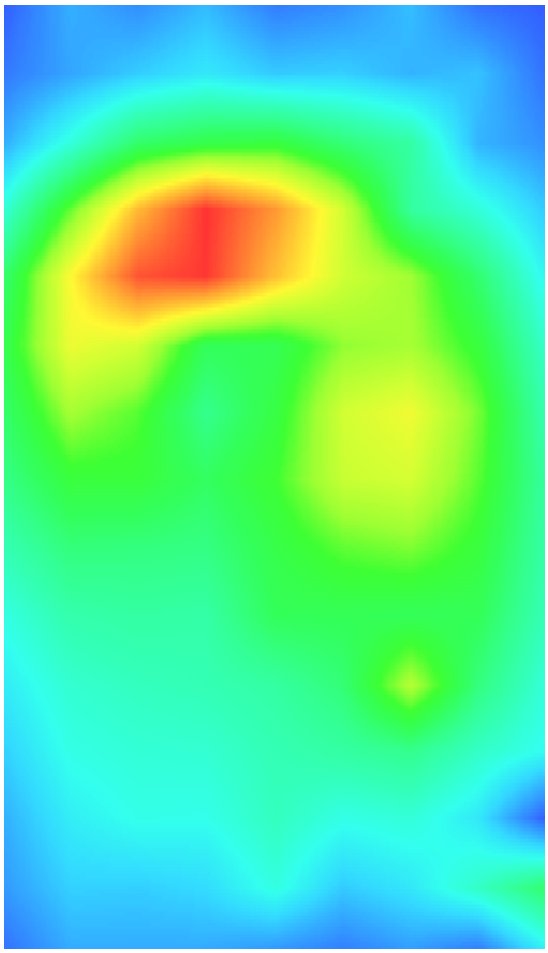
Maximum location: X=-10.00, Y=34.00

SAR Peak: 1.22W/kg

SAR 10g (W/Kg)	0.370449
SAR 1g (W/Kg)	0.735974

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.2178	0.8115	0.4706	0.2629	0.1407



3D screen shot	Hot spot position
	

Plot 5: GPRS1900, Edge C, Middle ,10mm

Type: Phone measurement

Date of measurement: 08/28/2019

Measurement duration: 22 minutes 05 seconds

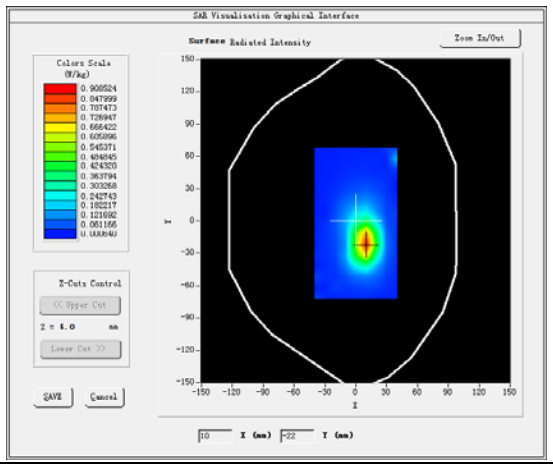
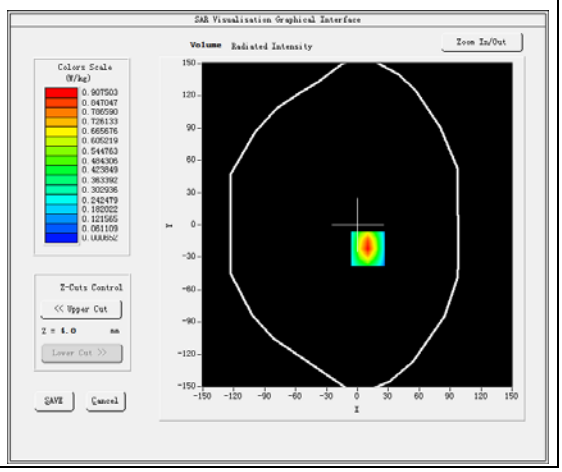
Mobile Phone IMEI number: --

A. Experimental conditions.

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

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1880
Relative permittivity (real part)	53.62
Relative permittivity (imaginary part)	14.87
Conductivity (S/m)	1.57
Variation (%)	-3.72
ConvF:	2.39

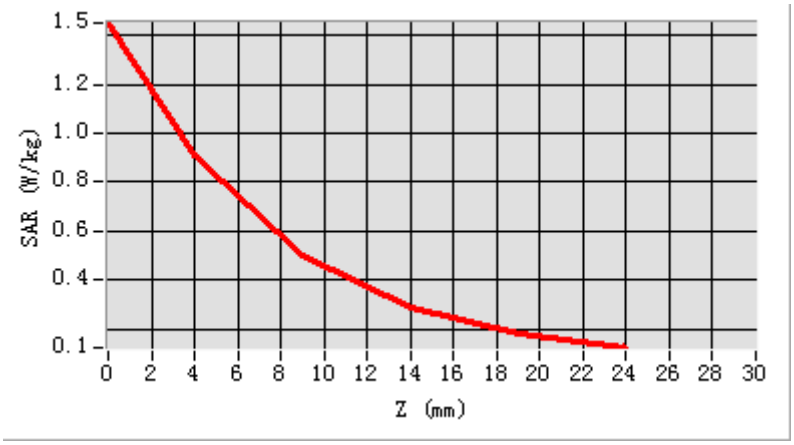
SURFACE SAR	**VOLUME SAR**
	

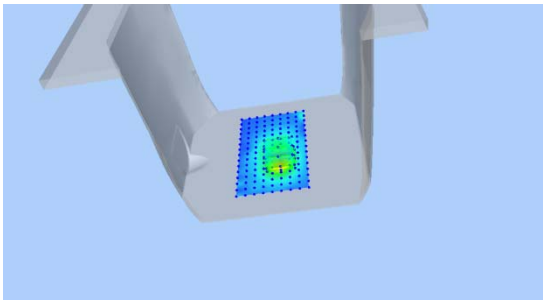
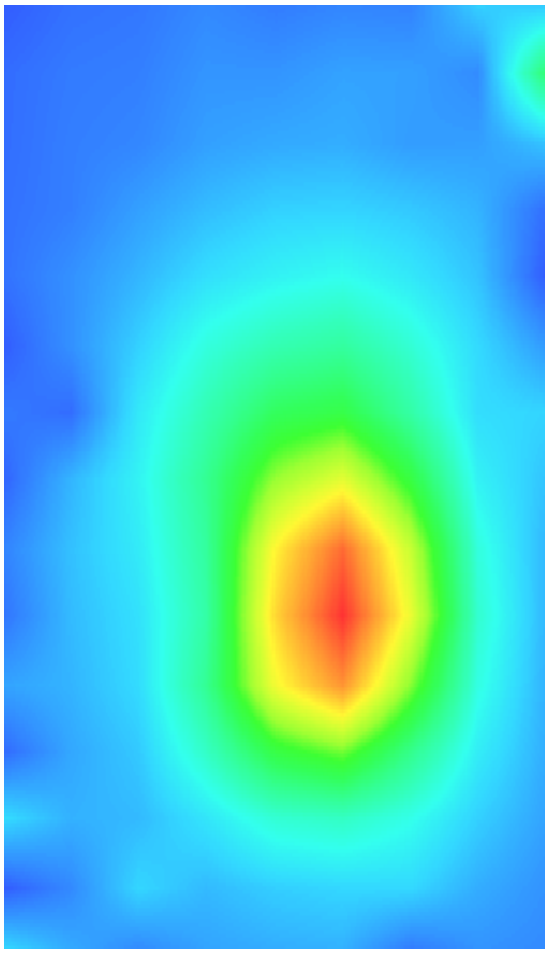
Maximum location: X=10.00, Y=-22.00

SAR Peak: 1.47W/kg

SAR 10g (W/Kg)	0.419686
SAR 1g (W/Kg)	0.835293

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.4500	0.9075	0.4973	0.2842	0.1811



3D screen shot	Hot spot position
	

Plot 6: WCDMA1900, Left Cheek, Middle,10mm

Type: Phone measurement

Date of measurement: 08/28/2019

Measurement duration: 22 minutes 07 seconds

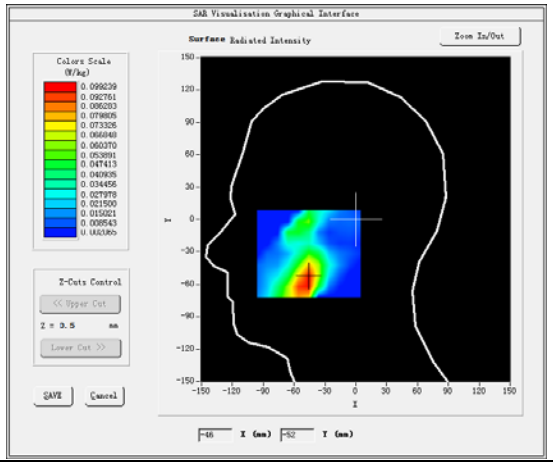
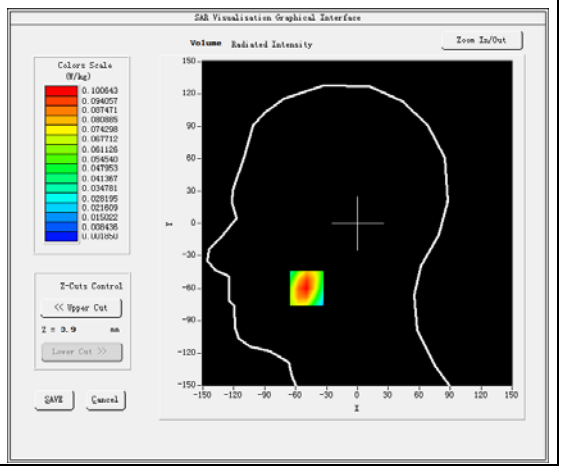
Mobile Phone IMEI number: --

A. Experimental conditions.

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

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1880
Relative permittivity (real part)	40.76
Relative permittivity (imaginary part)	13.55
Conductivity (S/m)	1.43
Variation (%)	1.53
ConvF:	2.34

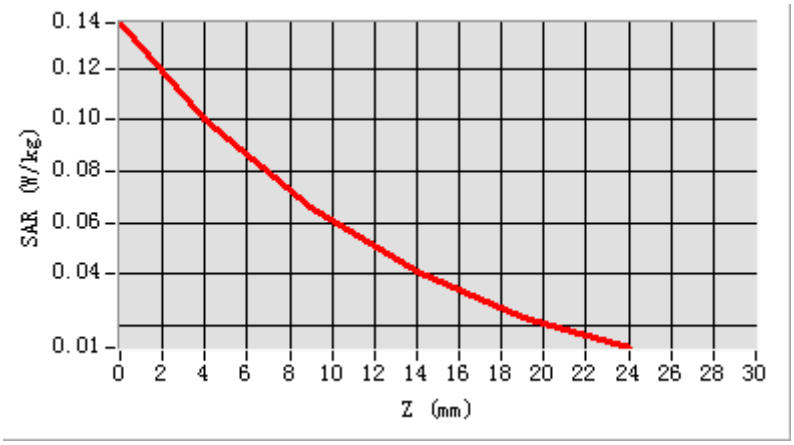
SURFACE SAR	VOLUME SAR
	

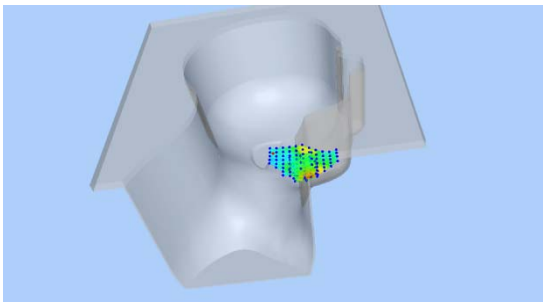
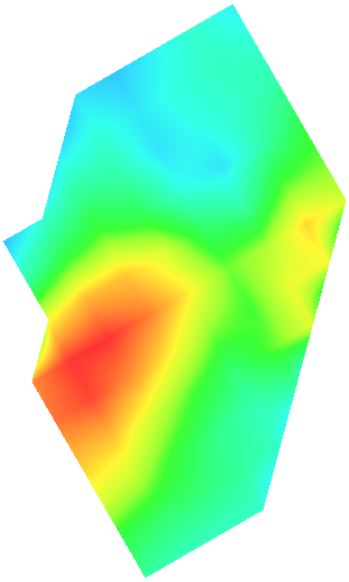
Maximum location: X=-49.00, Y=-60.00

SAR Peak: 0.14W/kg

SAR 10g (W/Kg)	0.055550
SAR 1g (W/Kg)	0.094604

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1377	0.1006	0.0656	0.0407	0.0234



3D screen shot	Hot spot position
	

Plot 7: WCDMA1900, Back, Middle,10mm

Type: Phone measurement

Date of measurement: 08/28/2019

Measurement duration: 22 minutes 03 seconds

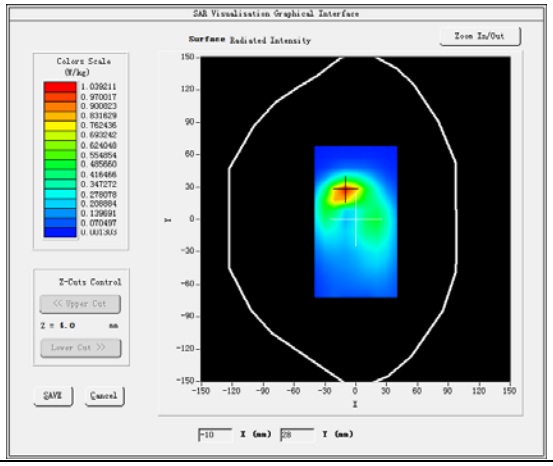
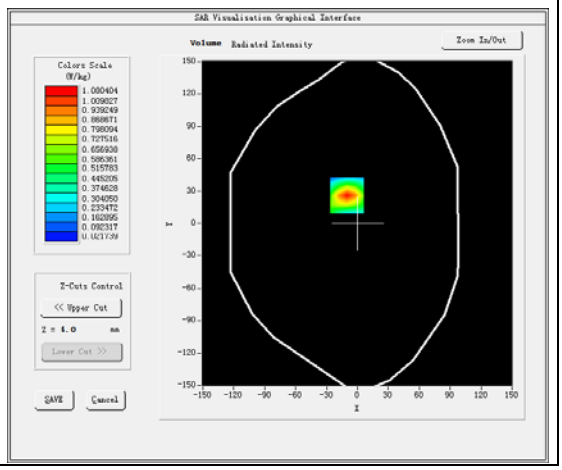
Mobile Phone IMEI number: --

A. Experimental conditions.

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

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1880
Relative permittivity (real part)	53.62
Relative permittivity (imaginary part)	14.87
Conductivity (S/m)	1.57
Variation (%)	-2.19
ConvF:	2.39

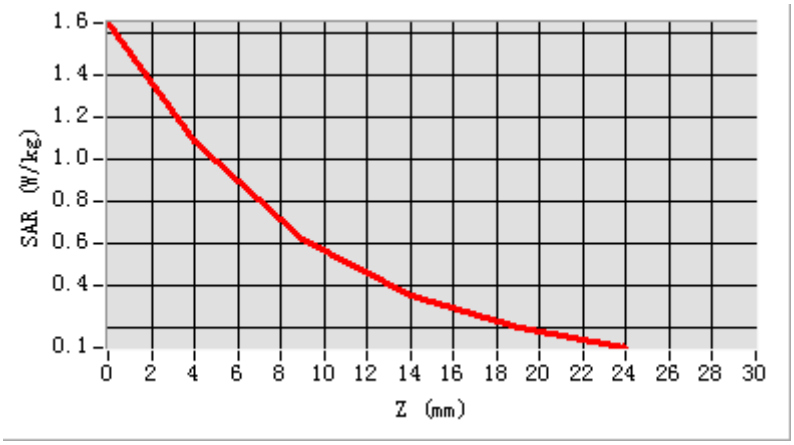
SURFACE SAR	VOLUME SAR
	

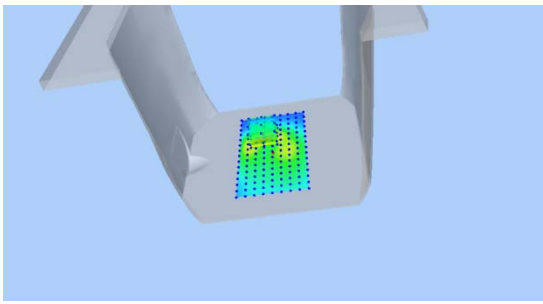
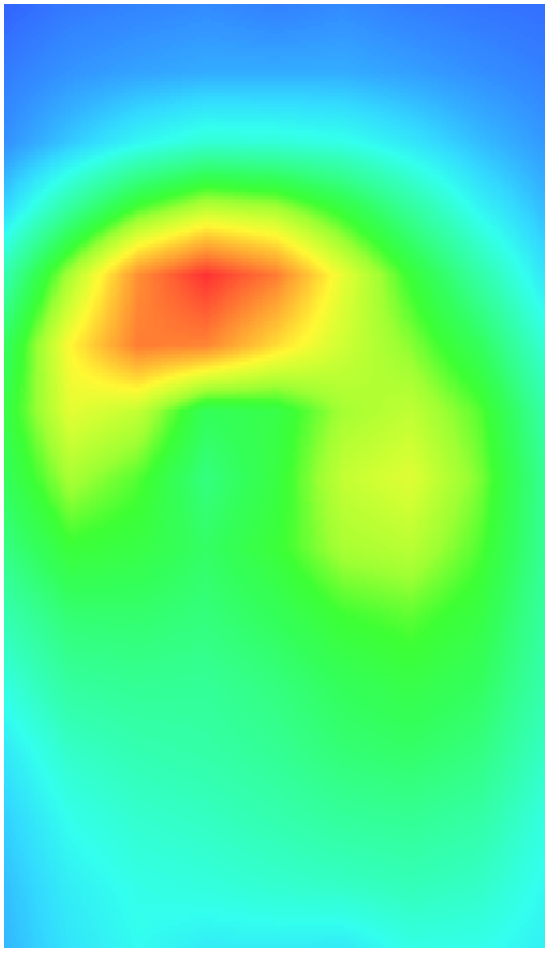
Maximum location: X=-10.00, Y=26.00

SAR Peak: 1.65W/kg

SAR 10g (W/Kg)	0.500043
SAR 1g (W/Kg)	0.980969

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.6476	1.0804	0.6180	0.3472	0.1944



3D screen shot	Hot spot position
	

Plot 8: WCDMA1900, Edge C, Middle,10mm

Type: Phone measurement

Date of measurement: 08/28/2019

Measurement duration: 22 minutes 08 seconds

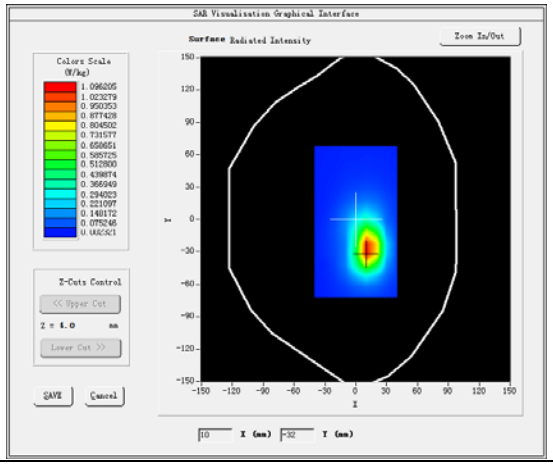
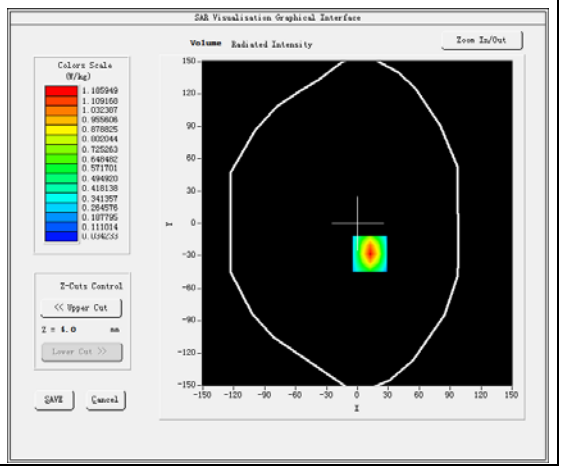
Mobile Phone IMEI number: --

A. Experimental conditions.

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

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1880
Relative permittivity (real part)	53.62
Relative permittivity (imaginary part)	14.87
Conductivity (S/m)	1.57
Variation (%)	-0.35
ConvF:	2.39

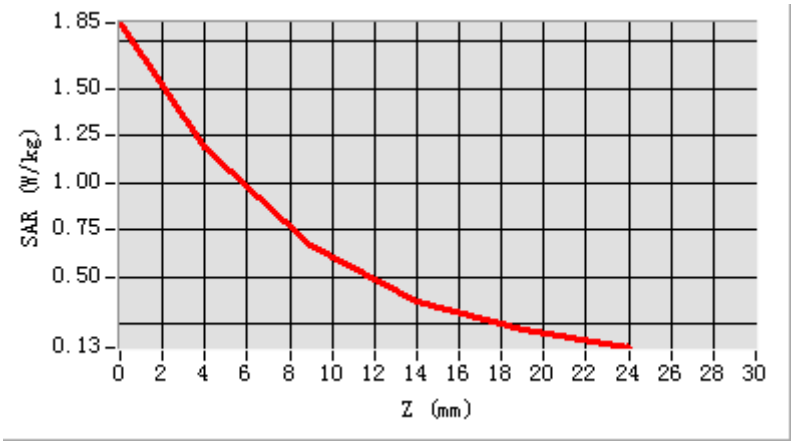
SURFACE SAR	**VOLUME SAR**
	

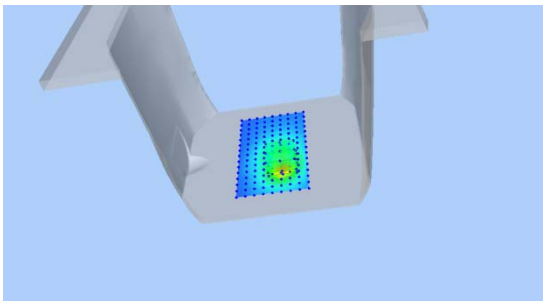
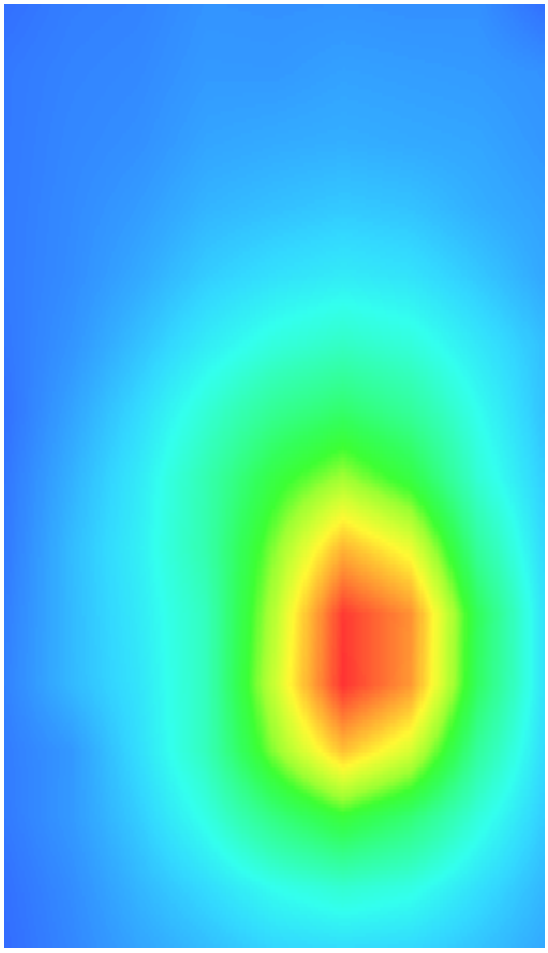
Maximum location: X=12.00, Y=-28.00

SAR Peak: 1.85W/kg

SAR 10g (W/Kg)	0.549162
SAR 1g (W/Kg)	1.100475

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.8491	1.1859	0.6636	0.3732	0.2189



3D screen shot	Hot spot position
	

Plot 9: WCDMA1700, Right Cheek, Middle

Type: Phone measurement

Date of measurement: 08/27/2019

Measurement duration: 22 minutes 09 seconds

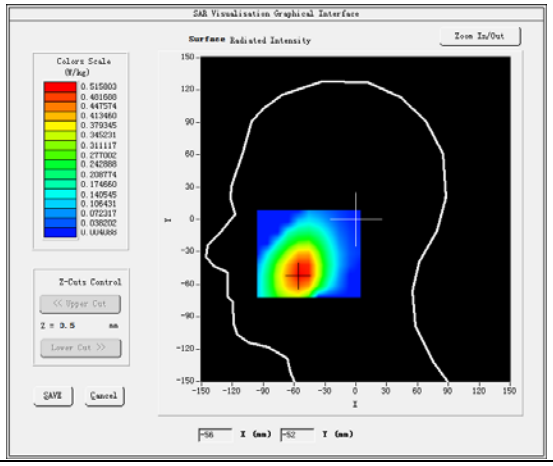
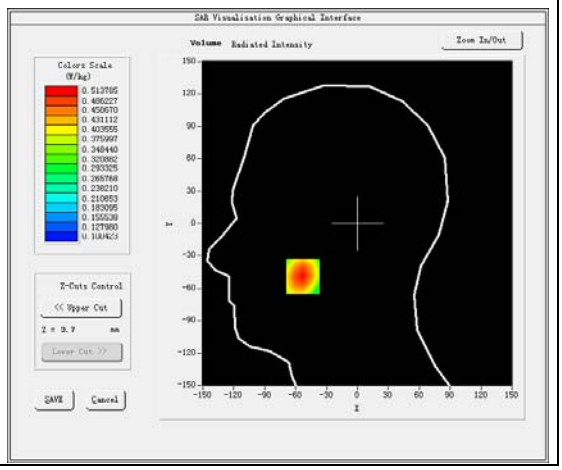
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Right Cheek
Band	Band2_WCDMA1700
Channels	1413
Signal	WCDMA (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1732.6
Relative permittivity (real part)	40.96
Relative permittivity (imaginary part)	14.10
Conductivity (S/m)	1.41
Variation (%)	-4.82
ConvF:	2.14

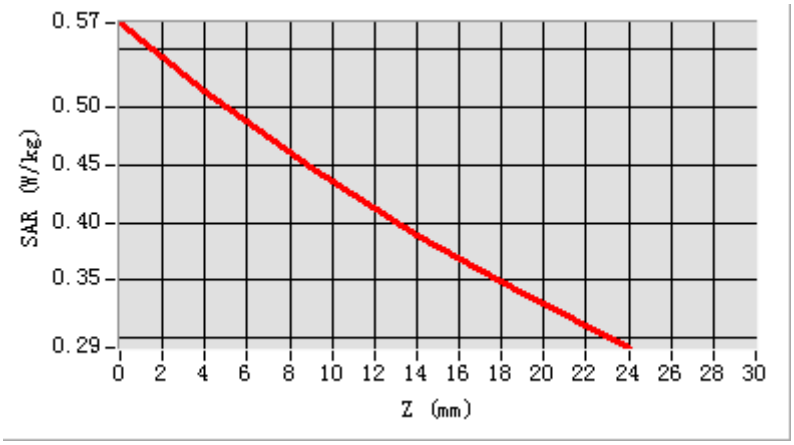
SURFACE SAR	**VOLUME SAR**
	

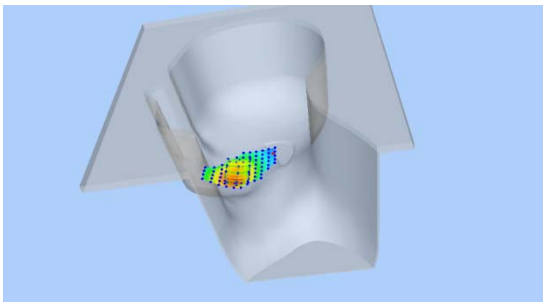
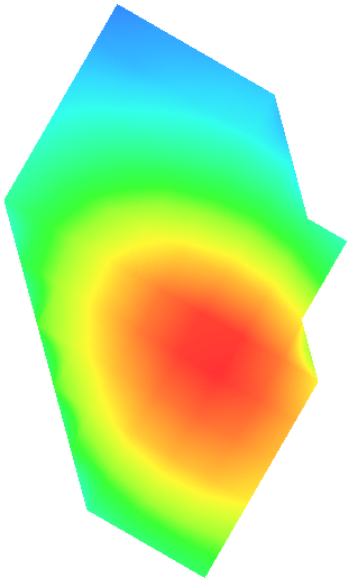
Maximum location: X=-53.00, Y=-49.00

SAR Peak: 0.57W/kg

SAR 10g (W/Kg)	0.408080
SAR 1g (W/Kg)	0.508368

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.5730	0.5138	0.4475	0.3893	0.3380



3D screen shot	Hot spot position
	

Plot 10: WCDMA1700,Back, Middle,10mm

Type: Phone measurement

Date of measurement: 08/27/2019

Measurement duration: 22 minutes 12 seconds

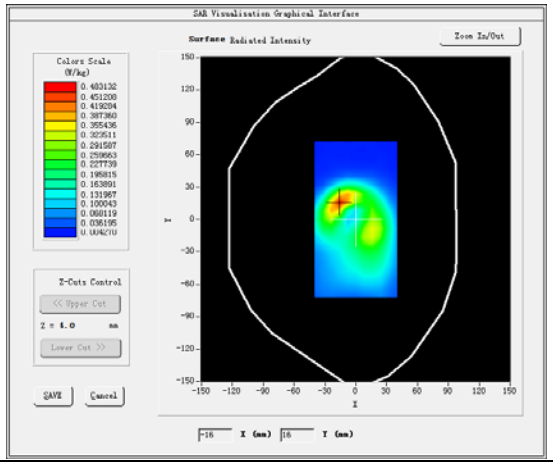
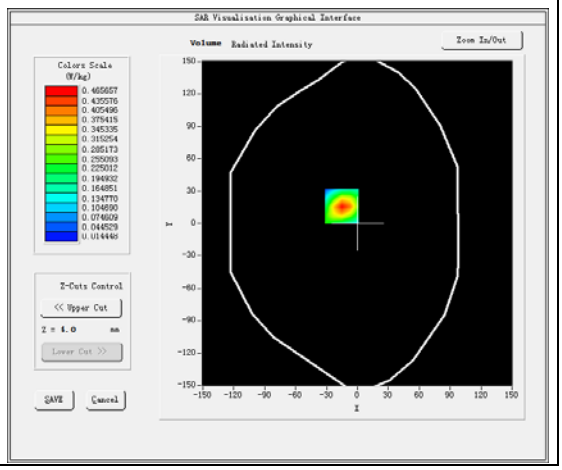
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	Band2_WCDMA1700
Channels	1413
Signal	WCDMA (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1732.6
Relative permittivity (real part)	53.87
Relative permittivity (imaginary part)	15.40
Conductivity (S/m)	1.54
Variation (%)	-2.70
ConvF:	2.22

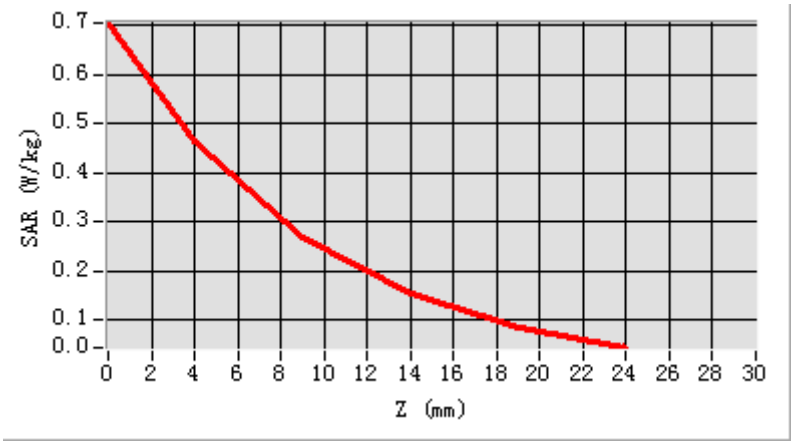
SURFACE SAR	VOLUME SAR
	

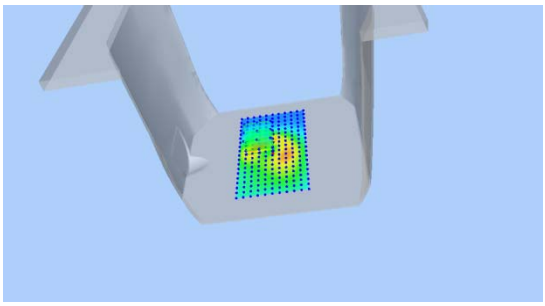
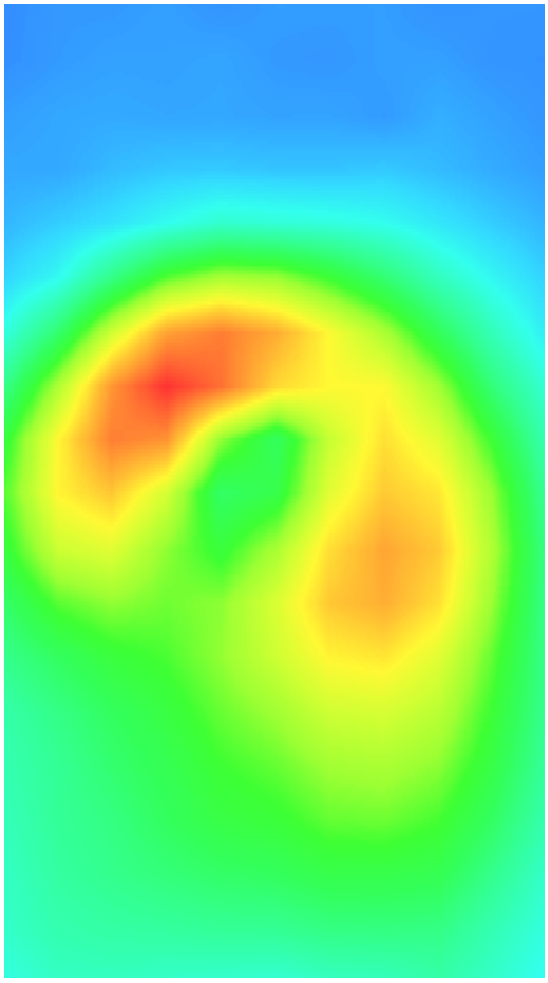
Maximum location: X=-15.00, Y=16.00

SAR Peak: 0.72W/kg

SAR 10g (W/Kg)	0.220755
SAR 1g (W/Kg)	0.428833

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.7053	0.4657	0.2684	0.1514	0.0843



3D screen shot	Hot spot position
	

Plot 11: WCDMA850, Right Cheek, Middle

Type: Phone measurement

Date of measurement: 08/26/2019

Measurement duration: 22 minutes 10 seconds

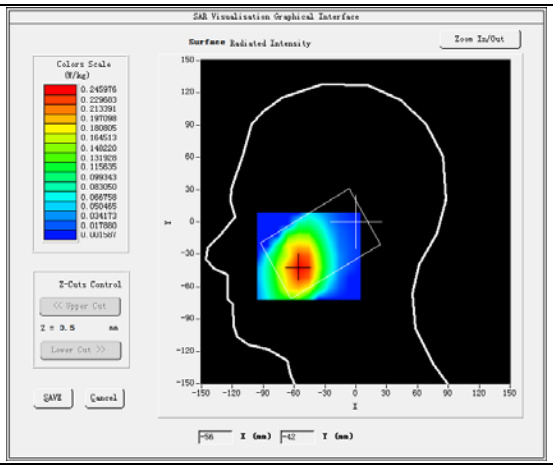
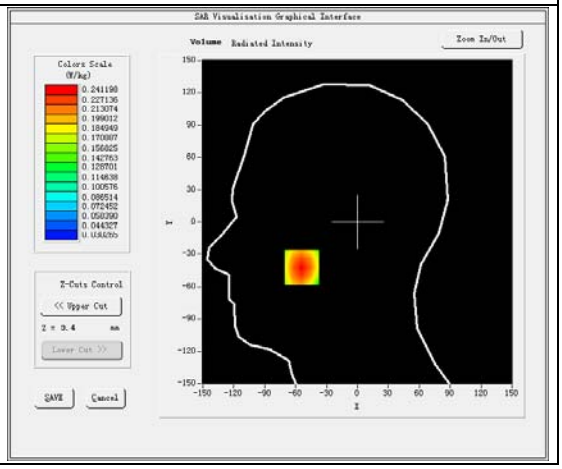
Mobile Phone IMEI number: --

A. Experimental conditions.

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

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	836.6
Relative permittivity (real part)	41.52
Relative permittivity (imaginary part)	20.69
Conductivity (S/m)	0.96
Variation (%)	-0.10
ConvF:	1.92

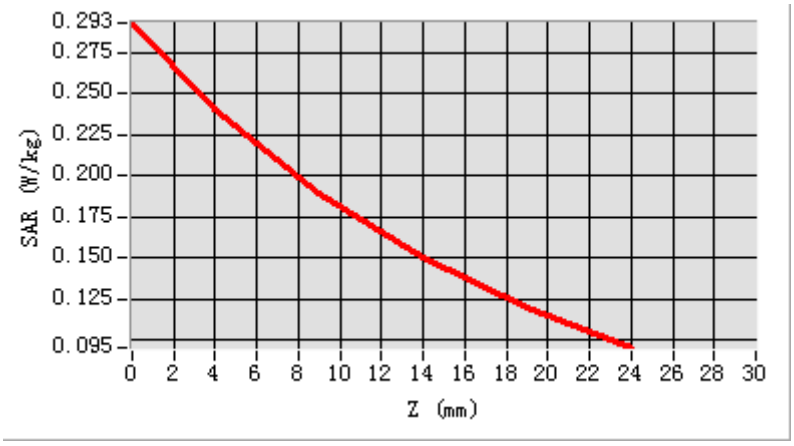
SURFACE SAR	**VOLUME SAR**
	

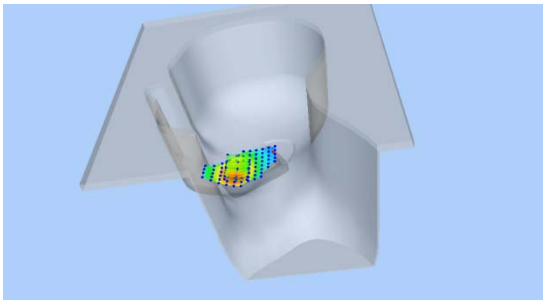
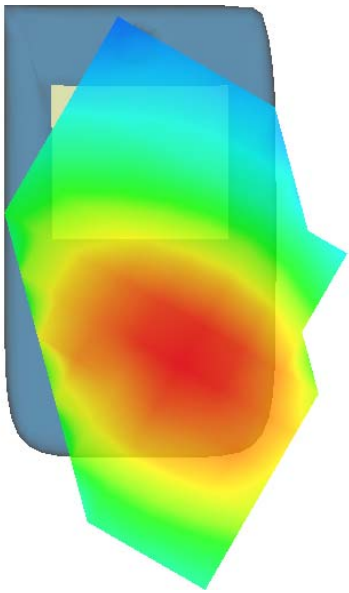
Maximum location: X=-54.00, Y=-42.00

SAR Peak: 0.30W/kg

SAR 10g (W/Kg)	0.170738
SAR 1g (W/Kg)	0.231760

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.2933	0.2412	0.1893	0.1500	0.1200



3D screen shot	Hot spot position
	

Plot 12: WCDMA850, Back, Middle,10mm

Type: Phone measurement

Date of measurement: 08/26/2019

Measurement duration: 22 minutes 11 seconds

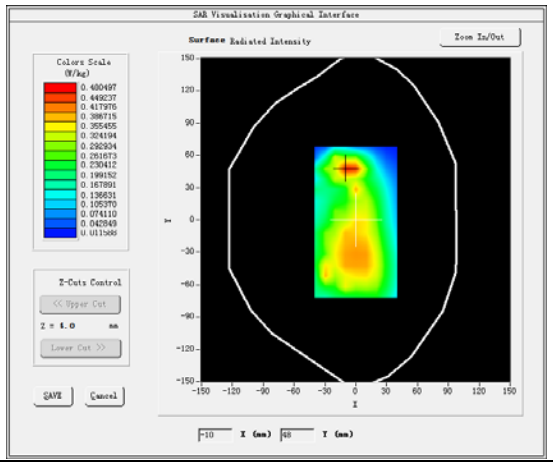
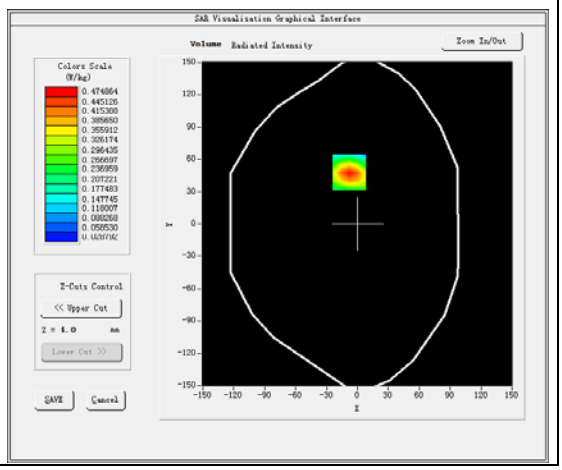
Mobile Phone IMEI number: --

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	4183
Signal	WCDMA (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	836.6
Relative permittivity (real part)	55.57
Relative permittivity (imaginary part)	20.48
Conductivity (S/m)	0.95
Variation (%)	-2.47
ConvF:	1.99

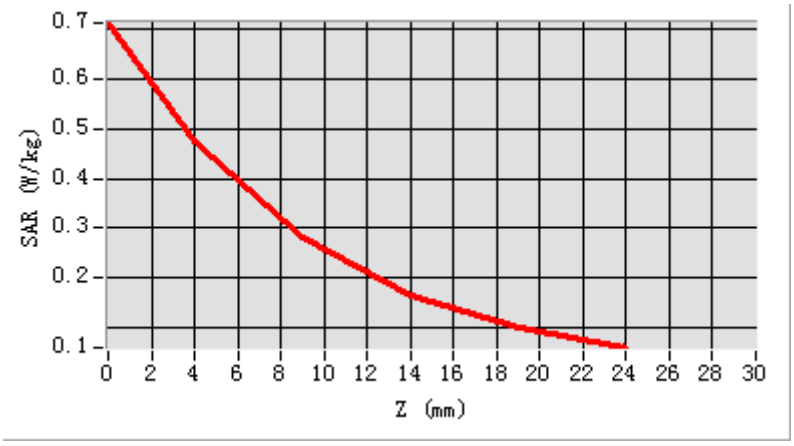
SURFACE SAR	**VOLUME SAR**
	

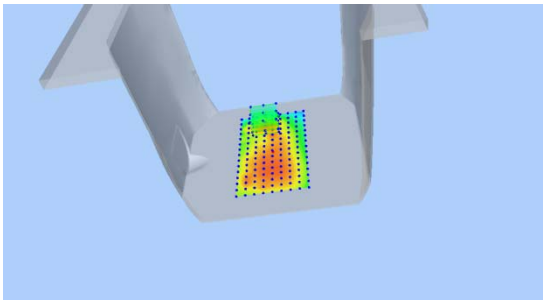
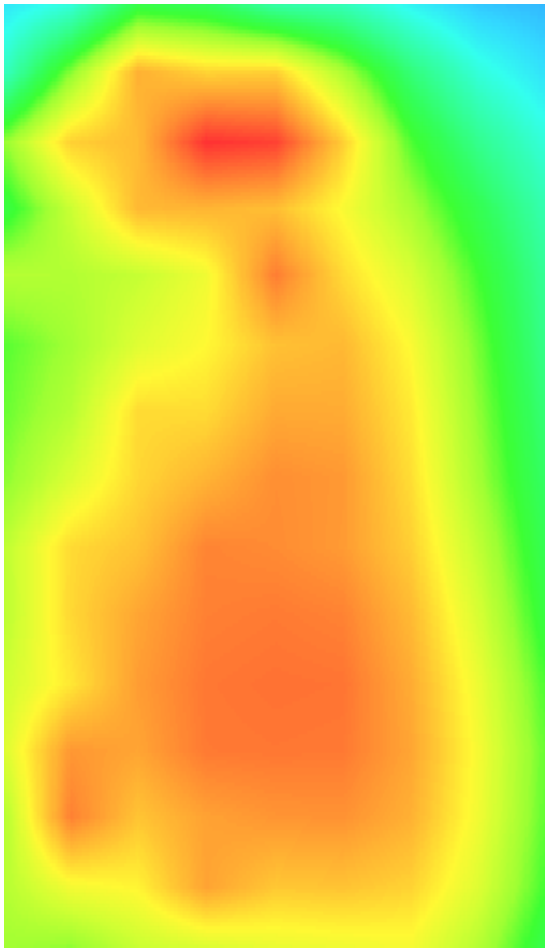
Maximum location: X=-8.00, Y=48.00

SAR Peak: 0.72W/kg

SAR 10g (W/Kg)	0.249750
SAR 1g (W/Kg)	0.450819

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.7132	0.4749	0.2801	0.1658	0.1009



3D screen shot	Hot spot position
	

Plot 13: LTE Band2, 20MHz,Left Cheek, Middle

Type: Phone measurement

Date of measurement: 08/28/2019

Measurement duration: 22 minutes 13 econds

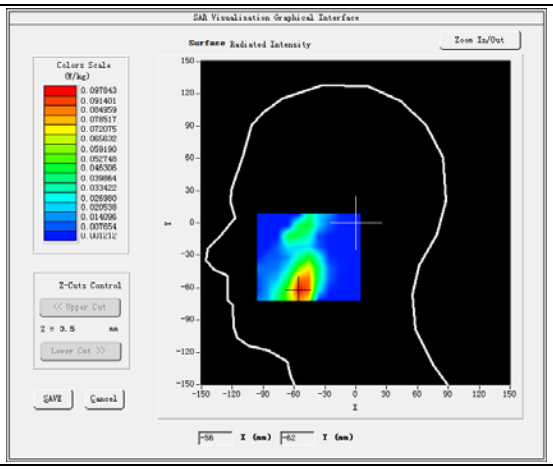
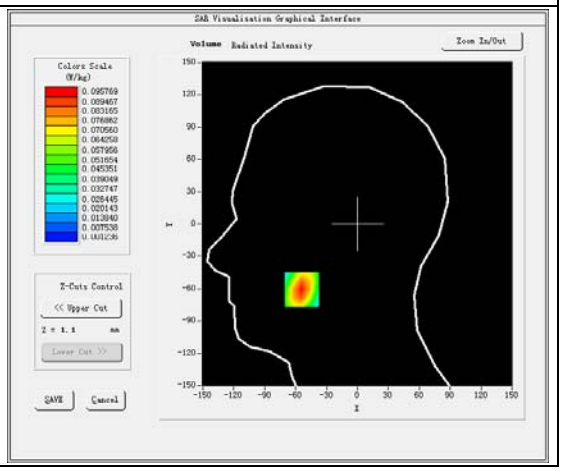
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Left Cheek
Band	LTE Band 2
Channels	18900
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1880
Relative permittivity (real part)	40.76
Relative permittivity (imaginary part)	13.55
Conductivity (S/m)	1.43
Variation (%)	3.89
ConvF:	2.34

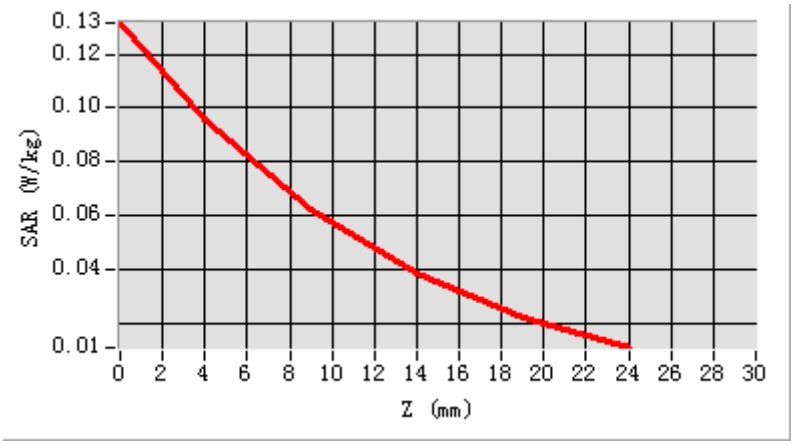
SURFACE SAR	VOLUME SAR
	

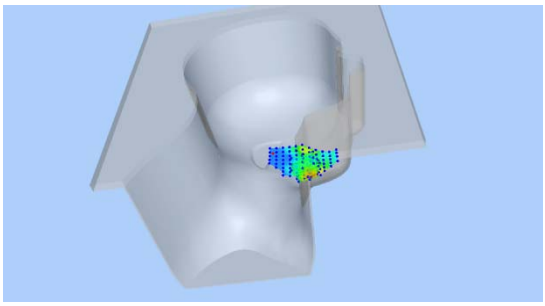
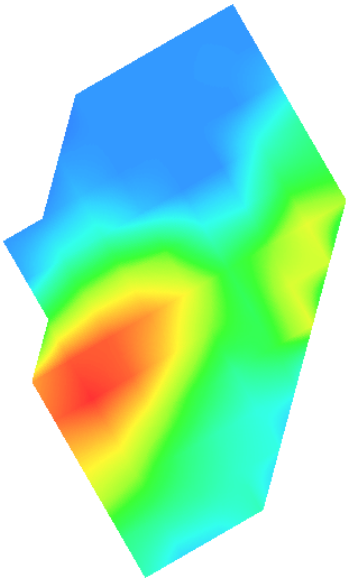
Maximum location: X=-54.00, Y=-61.00

SAR Peak: 0.13 W/kg

SAR 10g (W/Kg)	0.050773
SAR 1g (W/Kg)	0.089033

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1316	0.0958	0.0622	0.0385	0.0222



3D screen shot	Hot spot position
	

Plot 14: LTE Band2, 20MHz, Back, Middle,10mm

Type: Phone measurement

Date of measurement: 08/28/2019

Measurement duration: 22 minutes 16 seconds

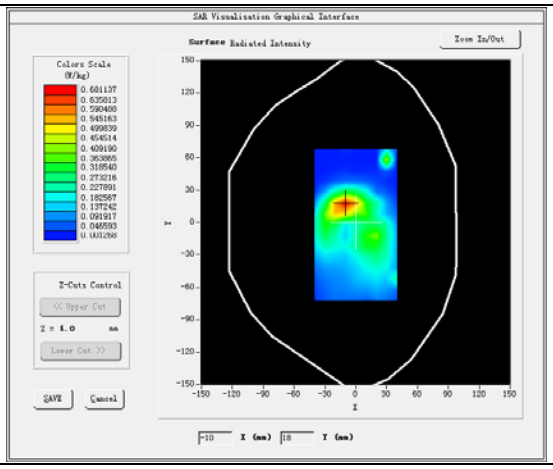
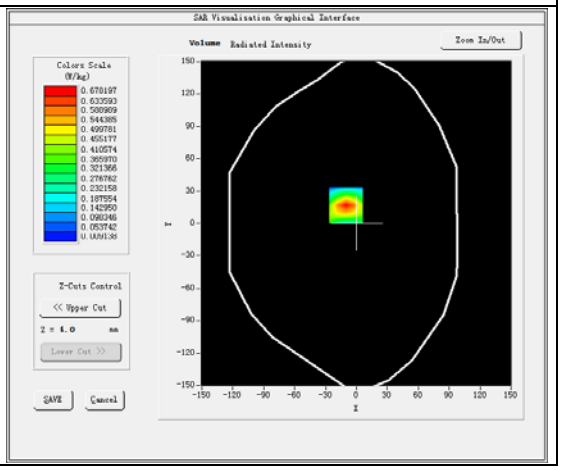
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	LTE Band 2
Channels	18900
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1880
Relative permittivity (real part)	53.62
Relative permittivity (imaginary part)	14.87
Conductivity (S/m)	1.57
Variation (%)	-4.89
ConvF:	2.39

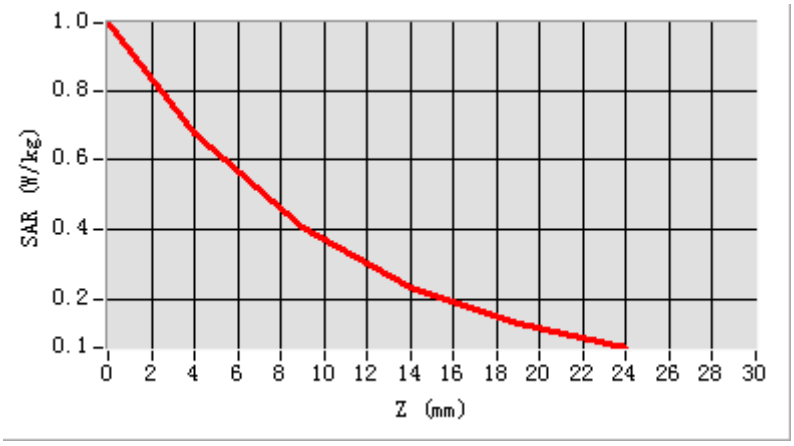
SURFACE SAR	**VOLUME SAR**
	

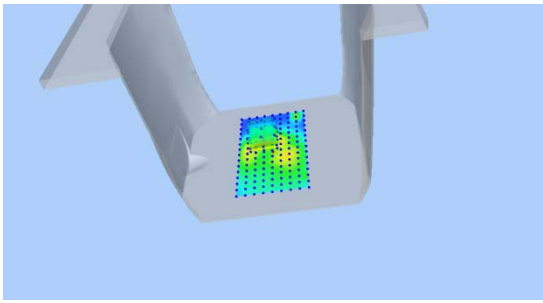
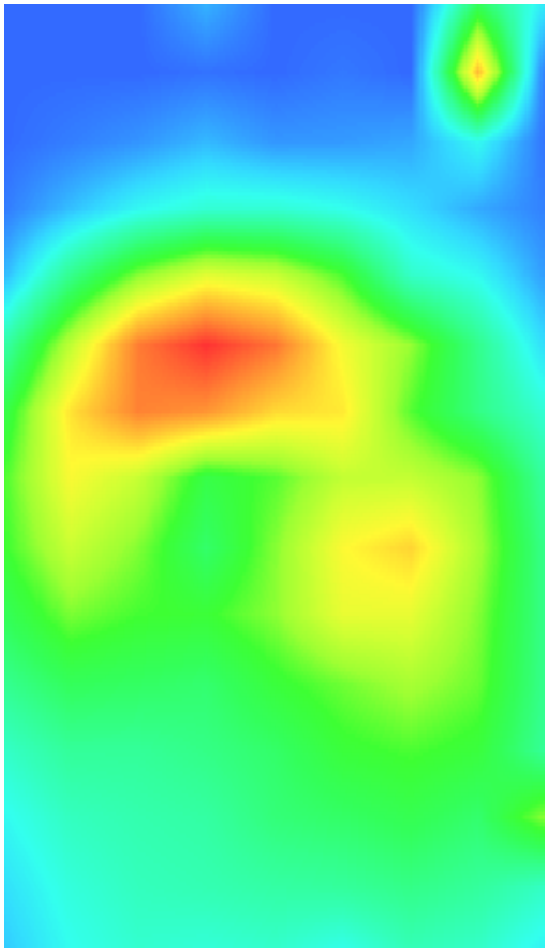
Maximum location: X=-10.00, Y=17.00

SAR Peak: 1.00W/kg

SAR 10g (W/Kg)	0.321797
SAR 1g (W/Kg)	0.620128

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.9939	0.6782	0.4056	0.2328	0.1266



3D screen shot	Hot spot position
	

Plot 15: LTE Band2, 20MHz, Edge C, Middle,10mm

Type: Phone measurement

Date of measurement: 08/28/2019

Measurement duration: 22 minutes 15 seconds

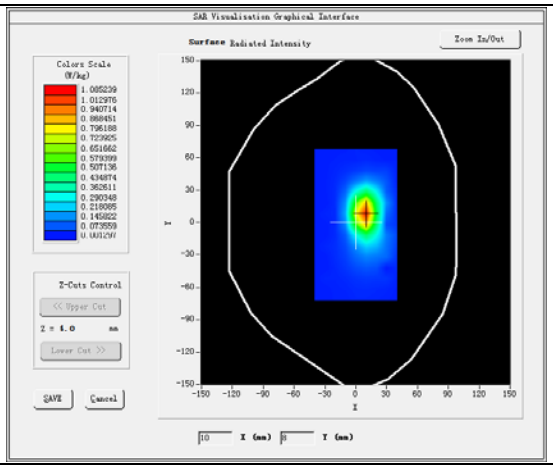
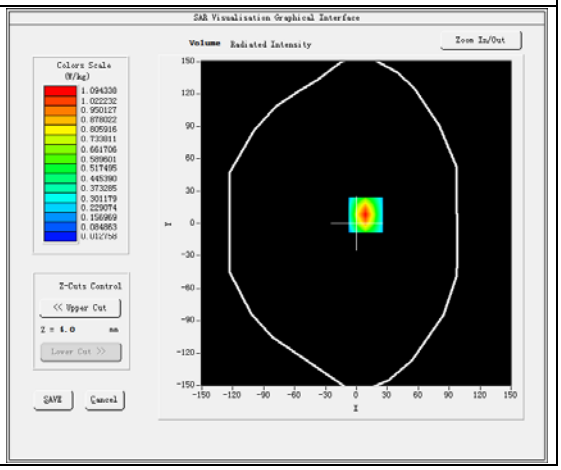
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Edge C
Band	LTE Band 2
Channels	18900
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1880
Relative permittivity (real part)	53.62
Relative permittivity (imaginary part)	14.87
Conductivity (S/m)	1.57
Variation (%)	-1.16
ConvF:	2.39

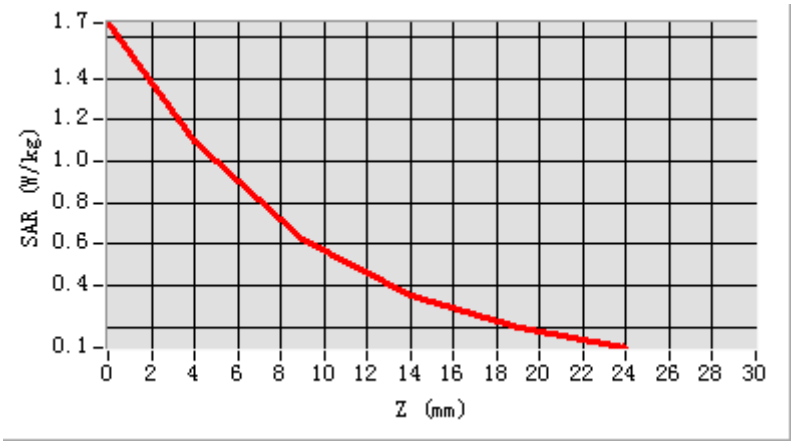
SURFACE SAR	VOLUME SAR
	

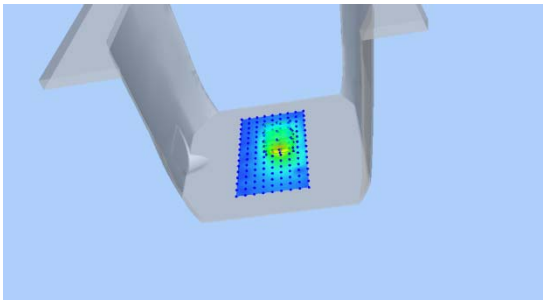
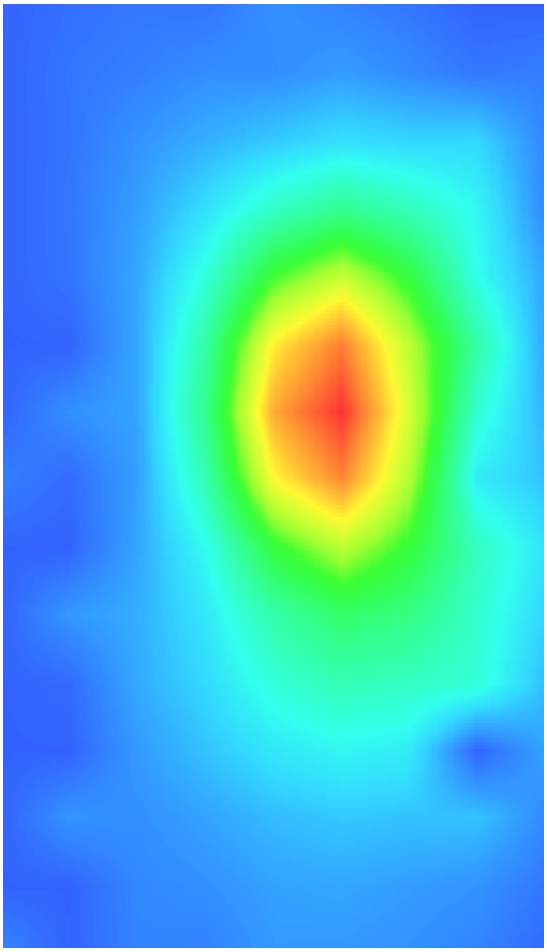
Maximum location: X=9.00, Y=8.00

SAR Peak: 1.67W/kg

SAR 10g (W/Kg)	0.497937
SAR 1g (W/Kg)	0.991604

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.6677	1.0943	0.6259	0.3510	0.1953



3D screen shot	Hot spot position
	

Plot 16: LTE Band4, 20MHz,Left Cheek, Middle

Type: Phone measurement

Date of measurement: 08/27/2019

Measurement duration: 22 minutes 14 econds

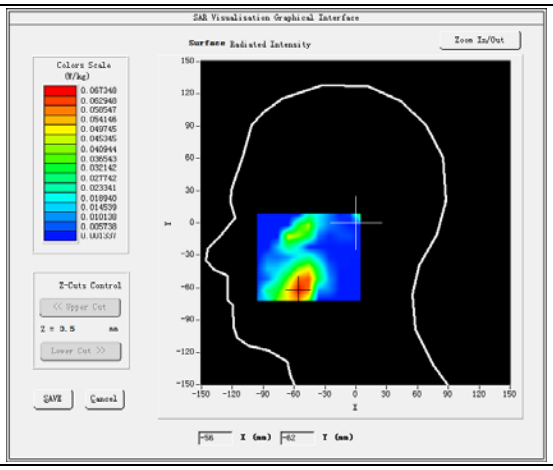
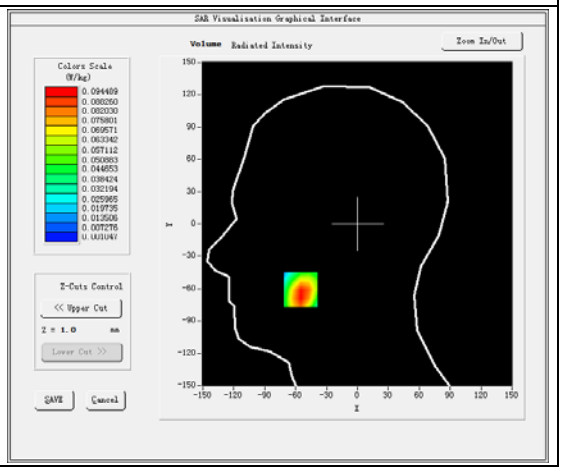
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Left Cheek
Band	LTE Band 4
Channels	20175
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1732.5
Relative permittivity (real part)	40.96
Relative permittivity (imaginary part)	14.10
Conductivity (S/m)	1.41
Variation (%)	0.03
ConvF:	2.14

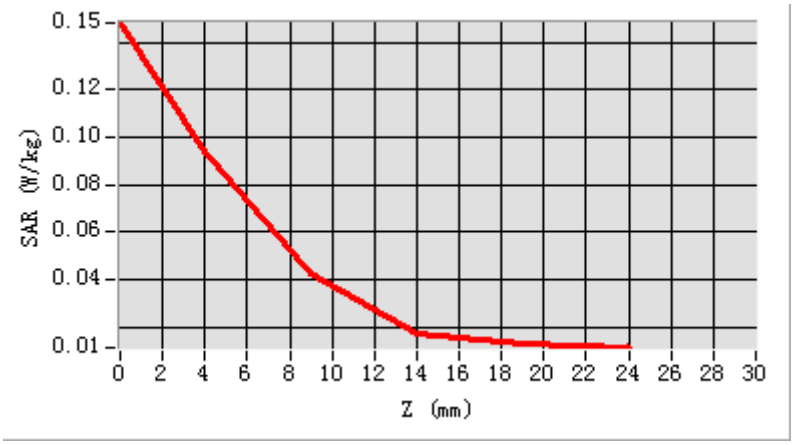
SURFACE SAR	VOLUME SAR
	

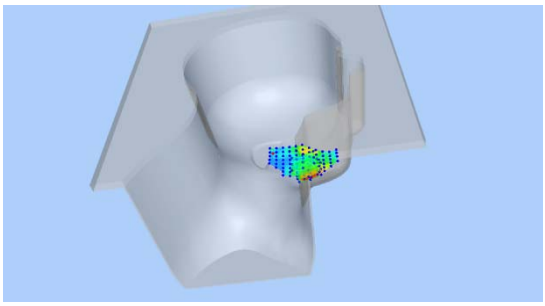
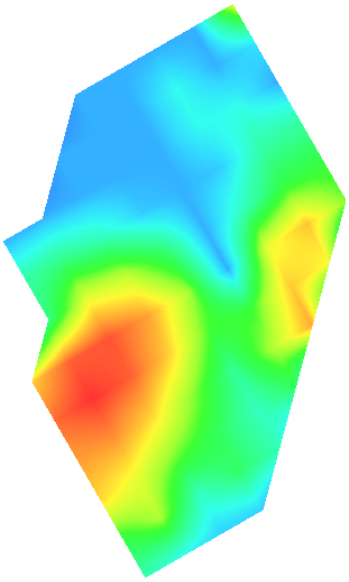
Maximum location: X=-55.00, Y=-61.00

SAR Peak: 0.19 W/kg

SAR 10g (W/Kg)	0.047966
SAR 1g (W/Kg)	0.094881

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1482	0.0945	0.0427	0.0170	0.0129



3D screen shot	Hot spot position
	

Plot 17: LTE Band4, 20MHz, Back, Middle,10mm

Type: Phone measurement

Date of measurement: 08/27/2019

Measurement duration: 22 minutes 17 seconds

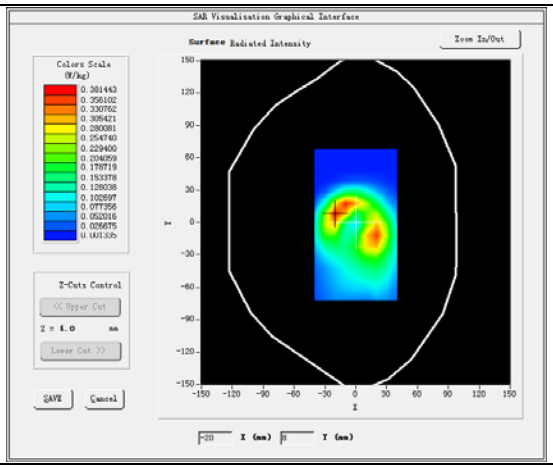
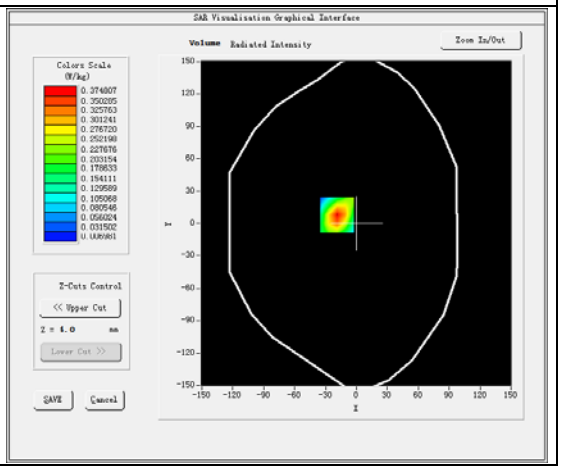
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	LTE Band 4
Channels	20175
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1732.5
Relative permittivity (real part)	53.87
Relative permittivity (imaginary part)	15.40
Conductivity (S/m)	1.54
Variation (%)	-1.23
ConvF:	2.22

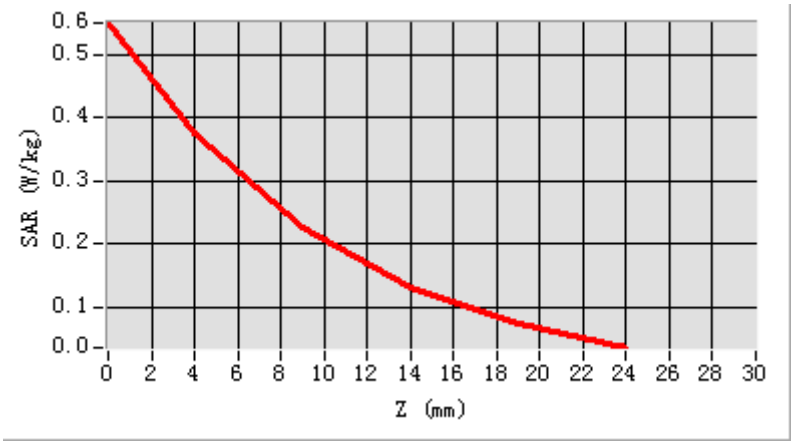
SURFACE SAR	**VOLUME SAR**
	

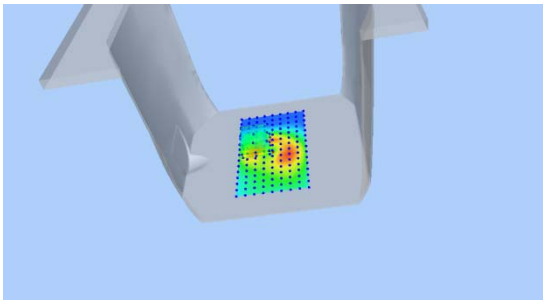
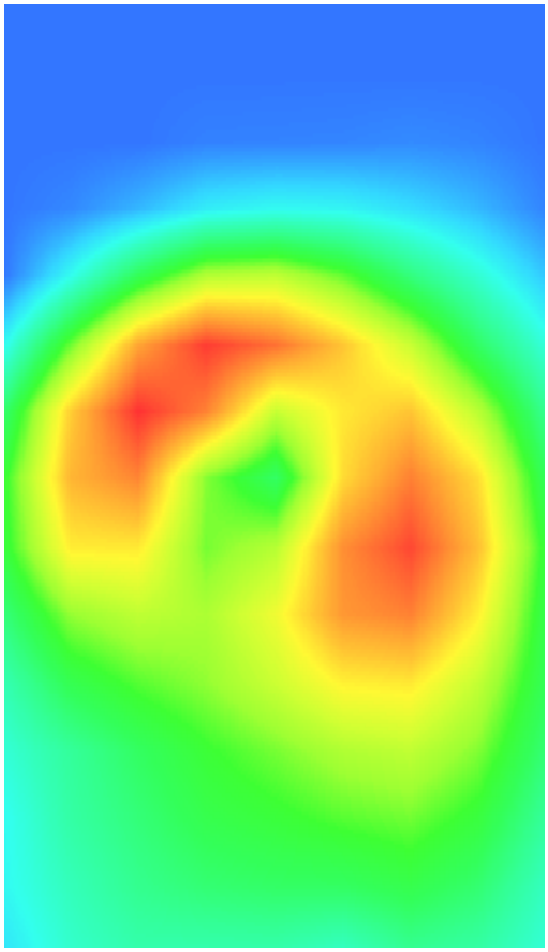
Maximum location: X=-19.00, Y=8.00

SAR Peak: 0.56W/kg

SAR 10g (W/Kg)	0.183771
SAR 1g (W/Kg)	0.346842

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.5502	0.3748	0.2244	0.1299	0.0722



3D screen shot	Hot spot position
	

Plot 18: LTE Band4, 20MHz, Edge C, Middle,10mm

Type: Phone measurement

Date of measurement: 08/27/2019

Measurement duration: 22 minutes 19seconds

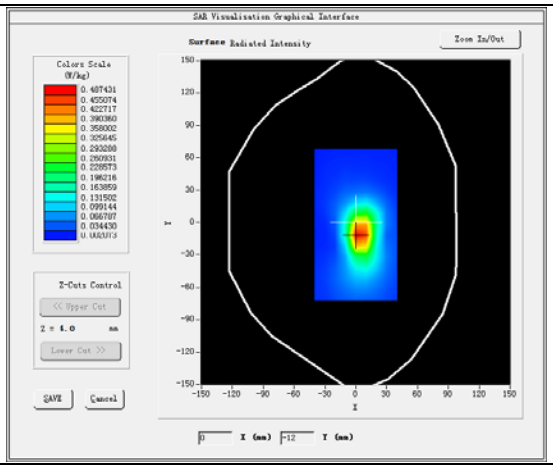
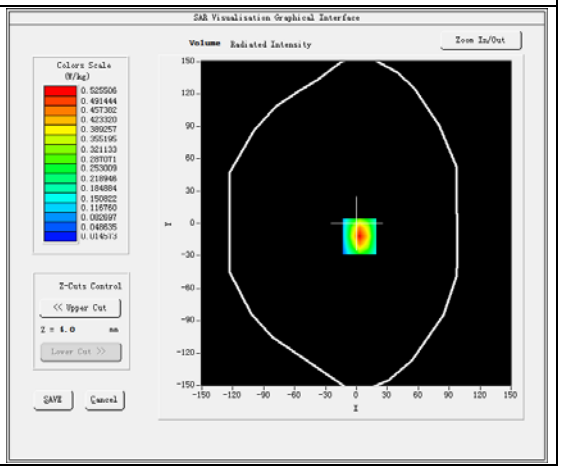
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Edge C
Band	LTE Band 4
Channels	20175
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1732.5
Relative permittivity (real part)	53.87
Relative permittivity (imaginary part)	15.40
Conductivity (S/m)	1.54
Variation (%)	-4.43
ConvF:	2.22

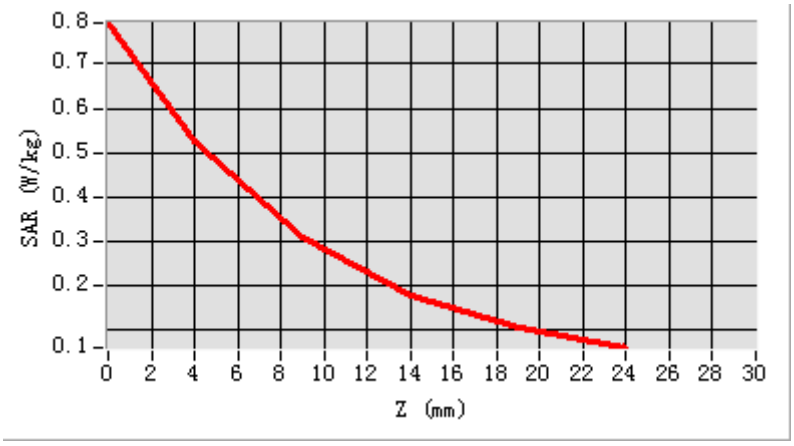
SURFACE SAR	**VOLUME SAR**
	

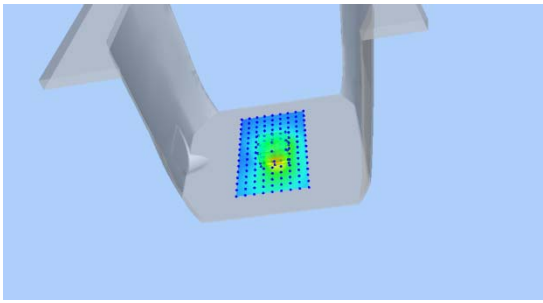
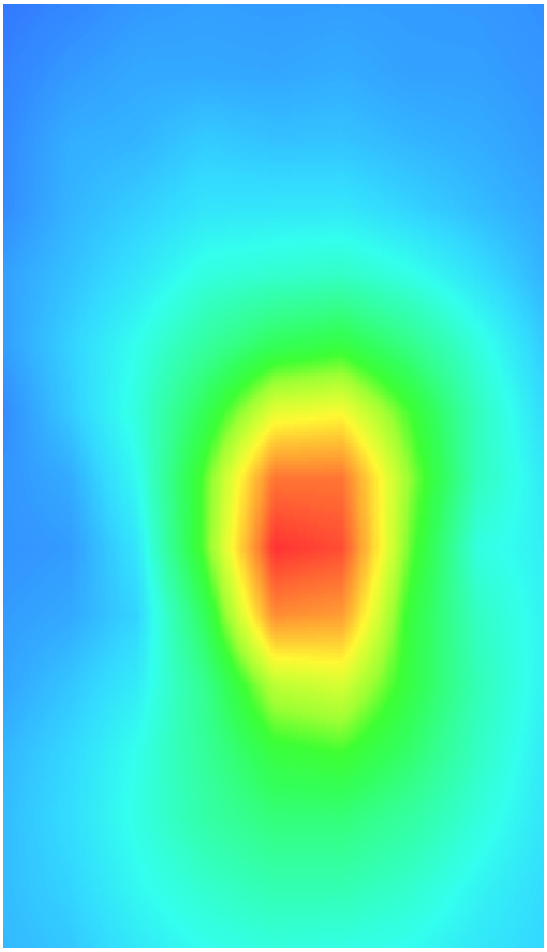
Maximum location: X=3.00, Y=-12.00

SAR Peak: 0.80W/kg

SAR 10g (W/Kg)	0.248795
SAR 1g (W/Kg)	0.480709

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.7924	0.5255	0.3072	0.1789	0.1059



3D screen shot	Hot spot position
	

Plot 19: LTE Band5, 10MHz,Right Cheek, Middle

Type: Phone measurement

Date of measurement: 08/26/2019

Measurement duration: 22 minutes 20 seconds

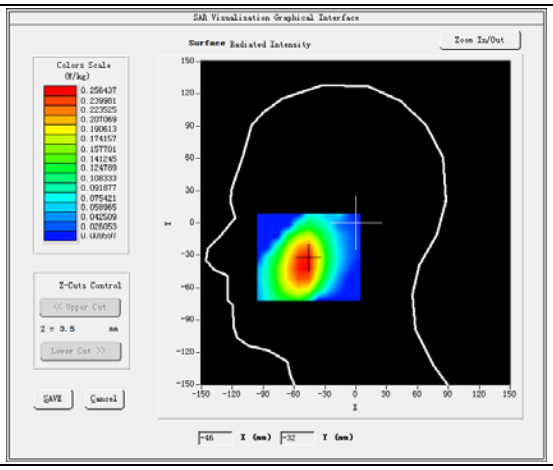
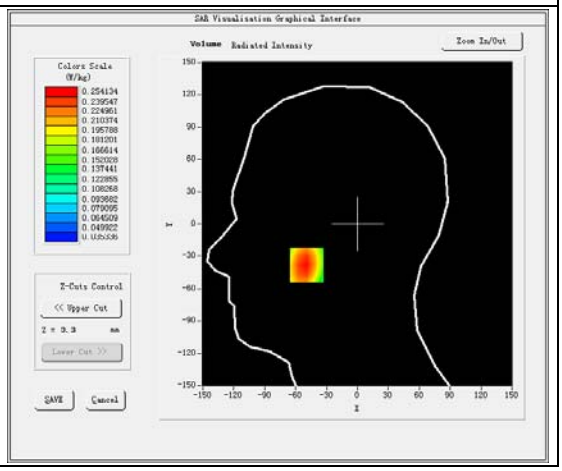
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Right Cheek
Band	LTE Band 5
Channels	20525
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	836.5
Relative permittivity (real part)	41.52
Relative permittivity (imaginary part)	20.69
Conductivity (S/m)	0.96
Variation (%)	-2.99
ConvF:	1.92

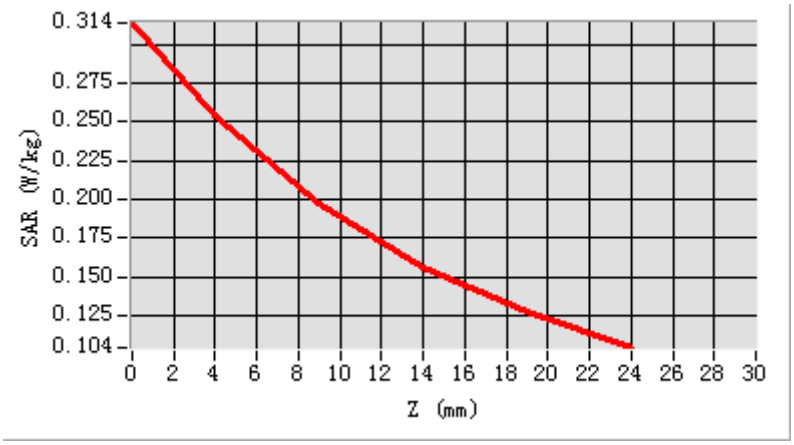
SURFACE SAR	VOLUME SAR
	

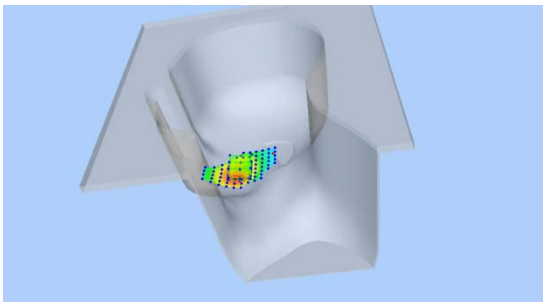
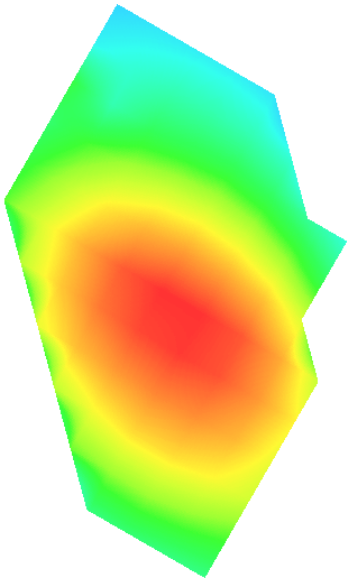
Maximum location: X=-49.00, Y=-31.00

SAR Peak: 0.31 W/kg

SAR 10g (W/Kg)	0.179739
SAR 1g (W/Kg)	0.245019

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.3138	0.2541	0.1971	0.1563	0.1272



3D screen shot	Hot spot position
	

Plot 20: LTE Band5, 10MHz, Back, Middle,10mm

Type: Phone measurement

Date of measurement: 08/26/2019

Measurement duration: 22 minutes 18 seconds

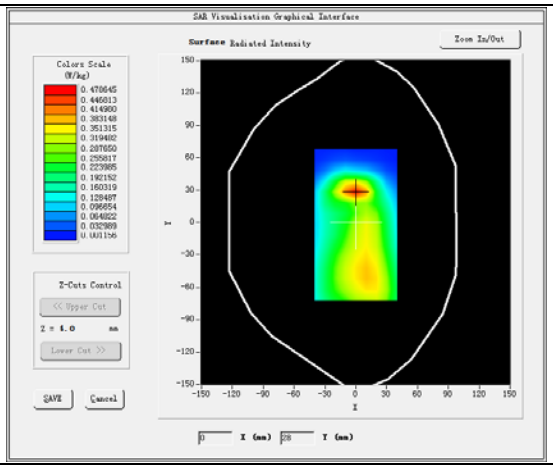
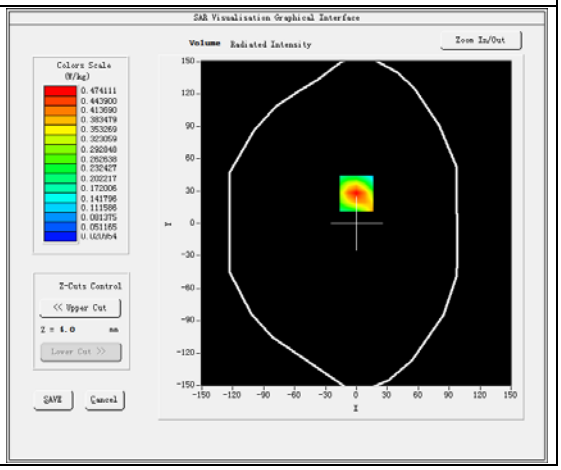
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	LTE Band 5
Channels	20525
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	836.5
Relative permittivity (real part)	55.57
Relative permittivity (imaginary part)	20.48
Conductivity (S/m)	0.95
Variation (%)	-2.40
ConvF:	1.99

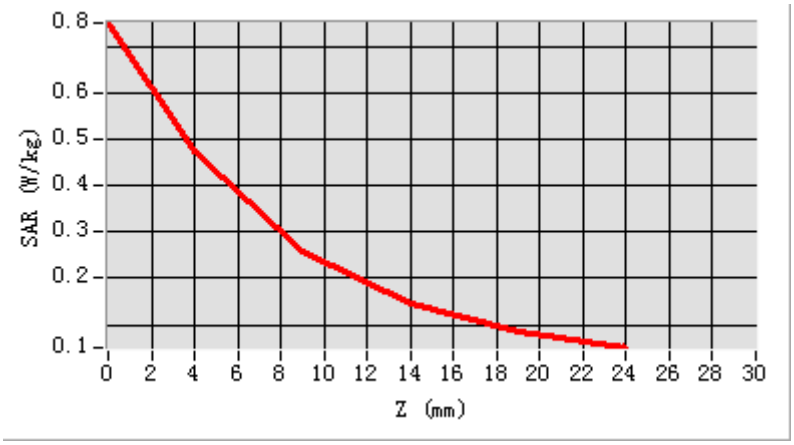
SURFACE SAR	VOLUME SAR
	

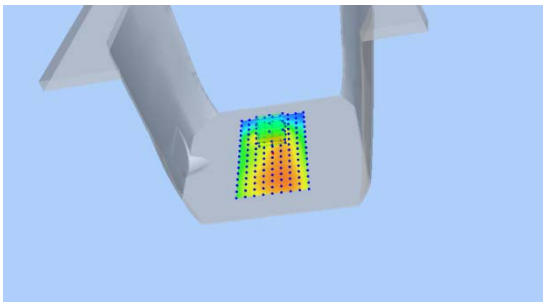
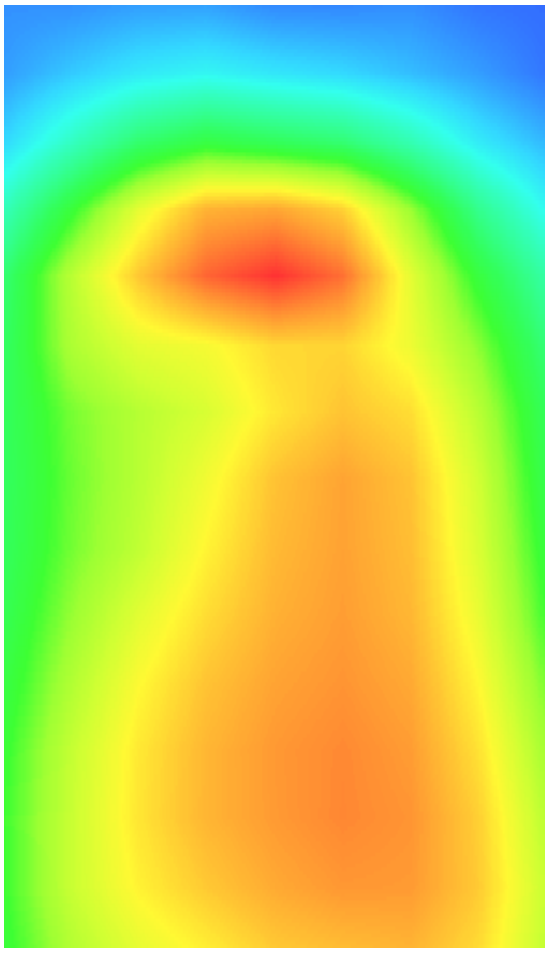
Maximum location: X=0.00, Y=28.00

SAR Peak: 0.75W/kg

SAR 10g (W/Kg)	0.244739
SAR 1g (W/Kg)	0.450771

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.7525	0.4741	0.2594	0.1438	0.0849



3D screen shot	Hot spot position
	

Plot 21: LTE Band7, 20MHz,Left Cheek, Middle

Type: Phone measurement

Date of measurement: 08/30/2019

Measurement duration: 22 minutes 22 seconds

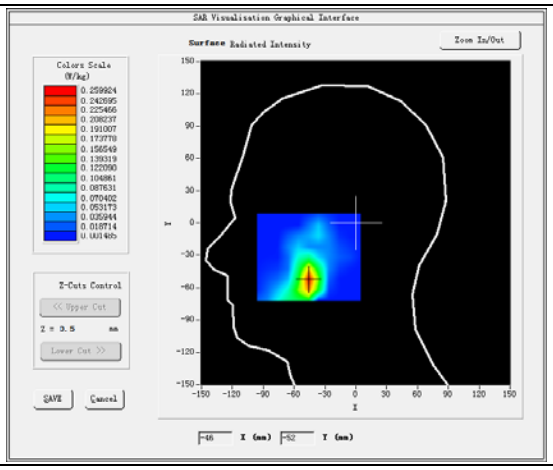
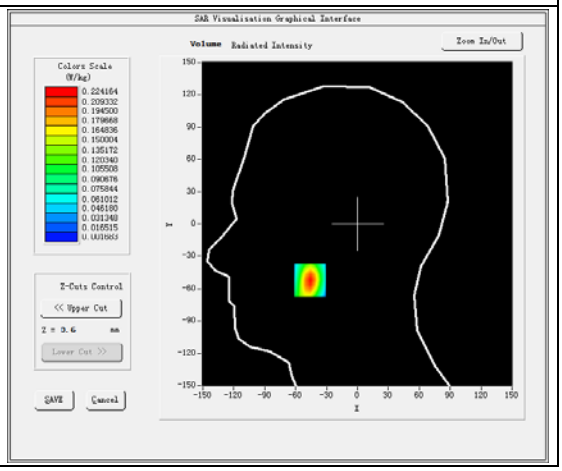
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=5mm,dy=5mm
ZoomScan	7x7x8,dx=5mm dy=5mm dz=4mm
Phantom	Validation plane
Device Position	Left Cheek
Band	LTE Band 7
Channels	21100
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2535
Relative permittivity (real part)	40.08
Relative permittivity (imaginary part)	13.57
Conductivity (S/m)	1.96
Variation (%)	0.07
ConvF:	2.35

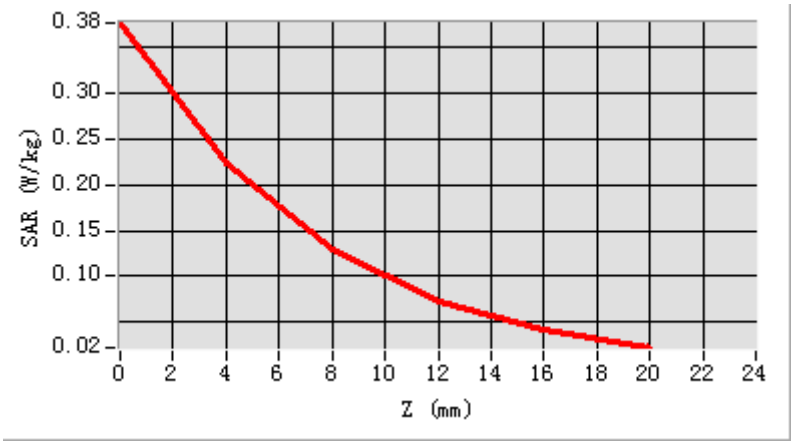
SURFACE SAR	**VOLUME SAR**
	

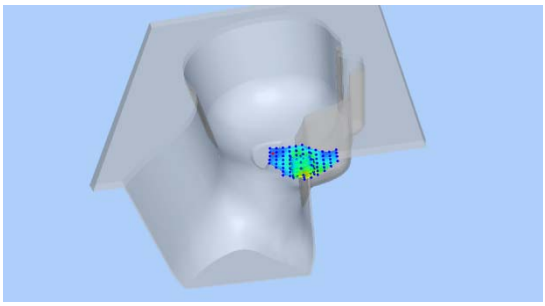
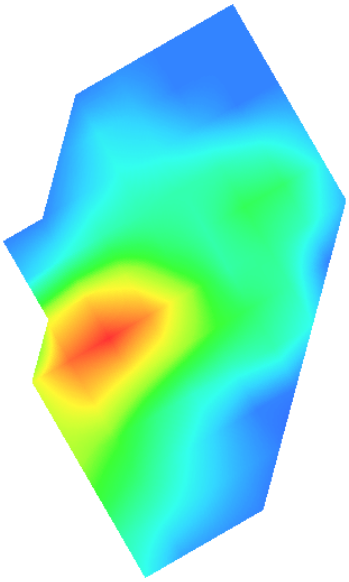
Maximum location: X=-46.00 Y=-52.00

SAR Peak: 0.38W/kg

SAR 10g (W/Kg)	0.095305
SAR 1g (W/Kg)	0.203305

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	0.3762	0.2242	0.1293	0.0736	0.0419



3D screen shot	Hot spot position
	

Plot 22: LTE Band7, 20MHz, Back, Middle,10mm

Type: Phone measurement

Date of measurement: 08/30/2019

Measurement duration: 22 minutes 21 seconds

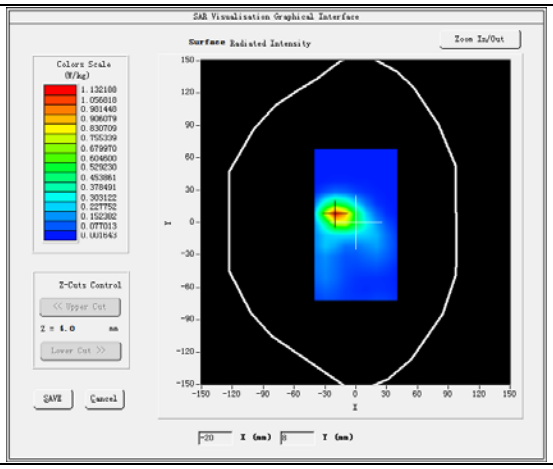
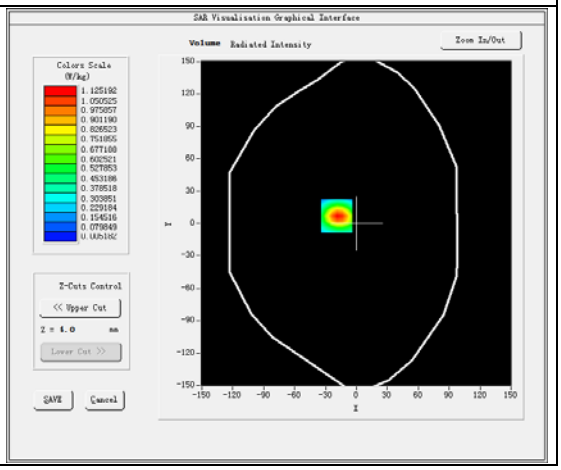
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=5mm,dy=5mm
ZoomScan	7x7x8,dx=5mm dy=5mm dz=4mm
Phantom	Validation plane
Device Position	Back
Band	LTE Band 7
Channels	21100
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2535
Relative permittivity (real part)	52.65
Relative permittivity (imaginary part)	15.09
Conductivity (S/m)	2.18
Variation (%)	-3.35
ConvF:	2.43

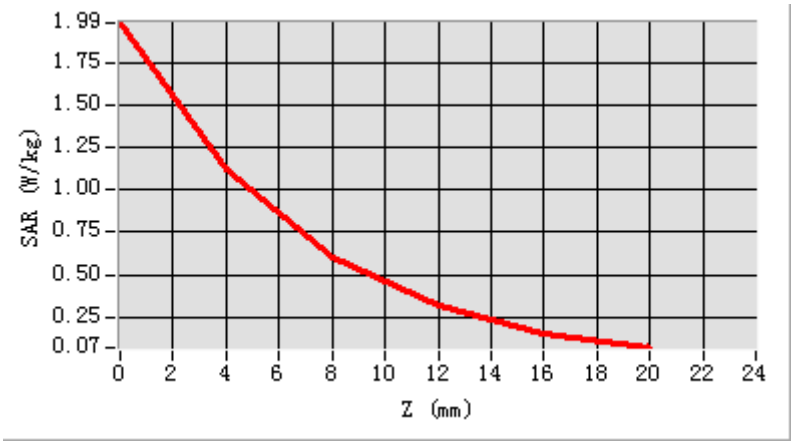
SURFACE SAR	**VOLUME SAR**
	

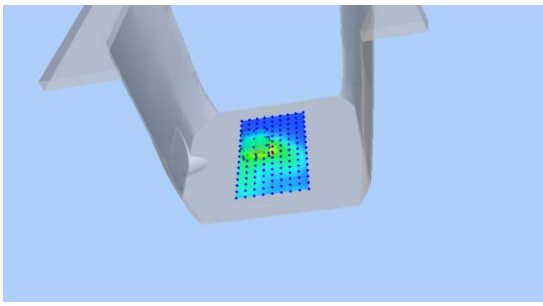
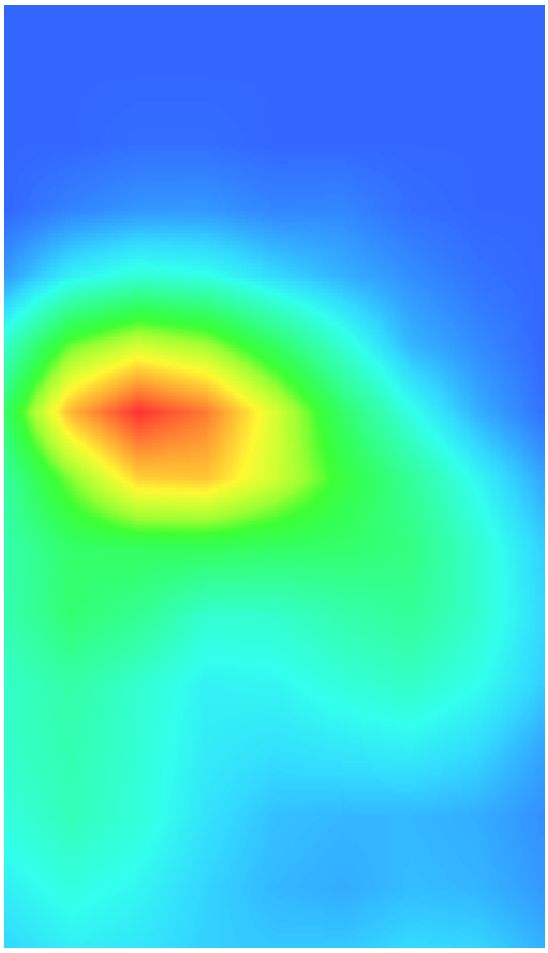
Maximum location: X=-19.00 Y=7.00

SAR Peak: 2.00 W/kg

SAR 10g (W/Kg)	0.449049
SAR 1g (W/Kg)	1.009898

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	1.9896	1.1252	0.6042	0.3117	0.1558



3D screen shot	Hot spot position
	

Plot 23: LTE Band26, 10MHz,Right Cheek, Middle

Type: Phone measurement

Date of measurement: 08/26/2019

Measurement duration: 22 minutes 23 seconds

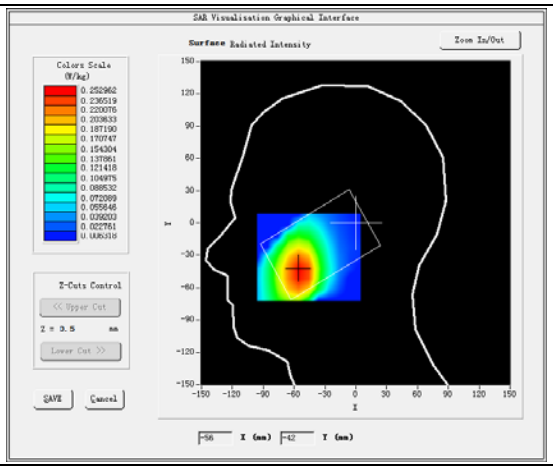
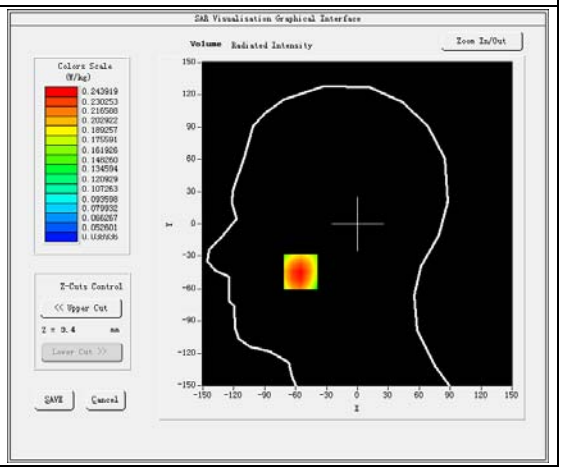
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Right Cheek
Band	LTE Band 26
Channels	26865
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	831.5
Relative permittivity (real part)	41.52
Relative permittivity (imaginary part)	20.69
Conductivity (S/m)	0.96
Variation (%)	-4.14
ConvF:	1.92

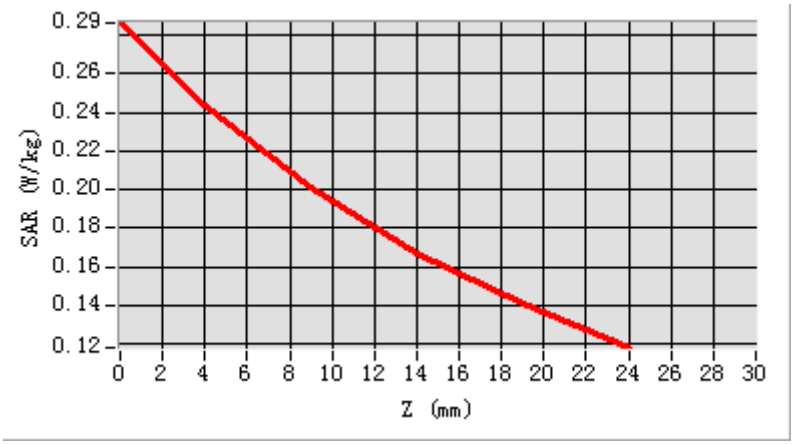
SURFACE SAR	VOLUME SAR
	

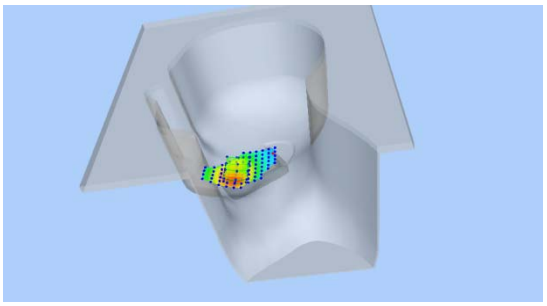
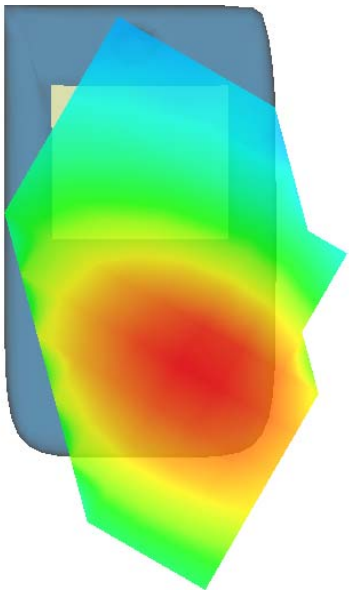
Maximum location: X=-55.00, Y=-44.00

SAR Peak: 0.29 W/kg

SAR 10g (W/Kg)	0.180759
SAR 1g (W/Kg)	0.236596

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.2862	0.2439	0.2008	0.1670	0.1405



3D screen shot	Hot spot position
	

Plot 24: LTE Band26, 10MHz, Back, Middle,10mm

Type: Phone measurement

Date of measurement: 08/26/2019

Measurement duration: 22 minutes 25 seconds

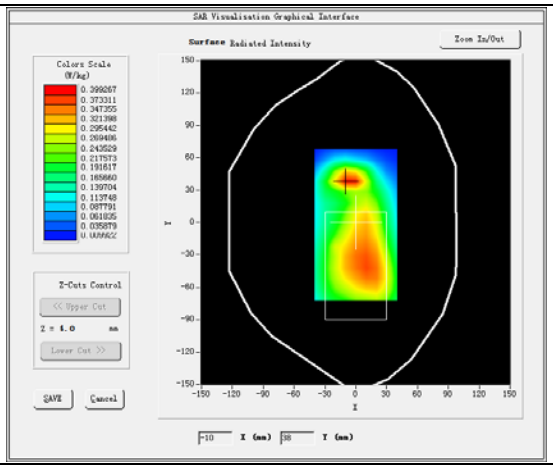
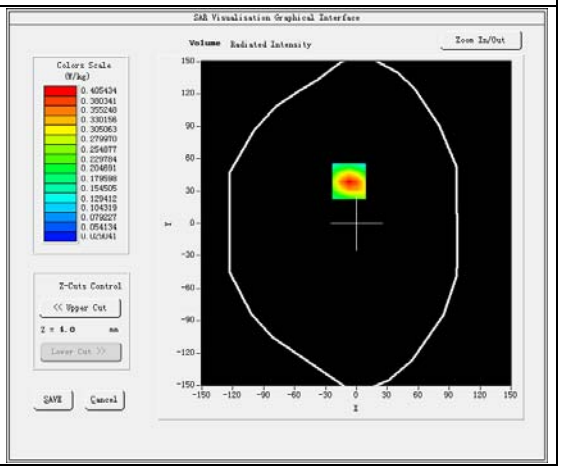
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	LTE Band 26
Channels	26865
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	831.5
Relative permittivity (real part)	55.57
Relative permittivity (imaginary part)	20.48
Conductivity (S/m)	0.95
Variation (%)	-3.74
ConvF:	1.99

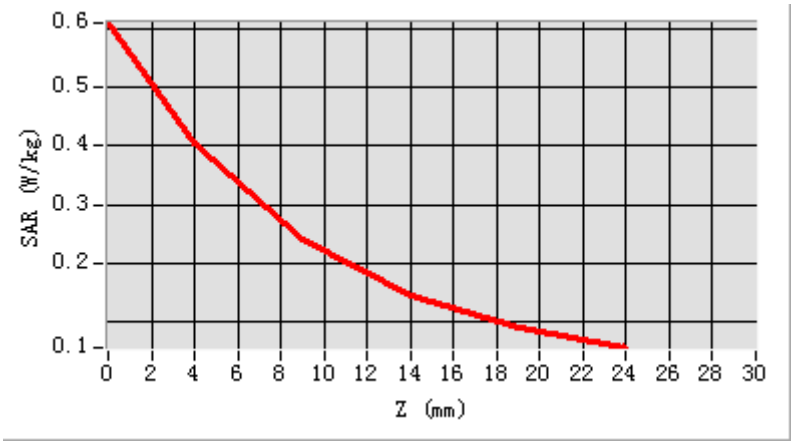
SURFACE SAR	VOLUME SAR
	

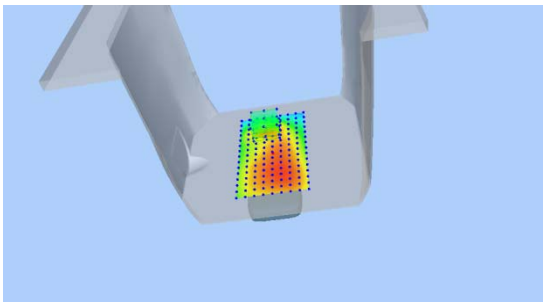
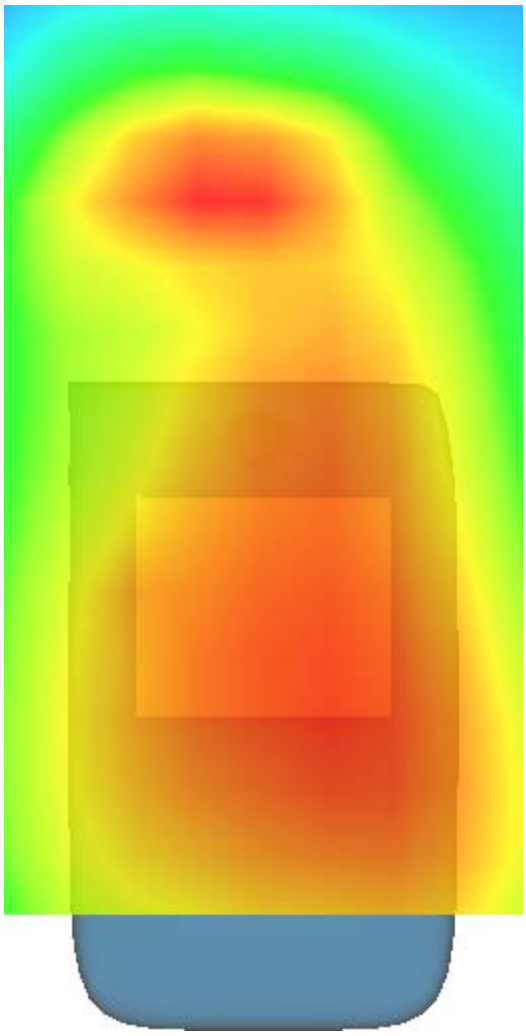
Maximum location: X=-7.00, Y=39.00

SAR Peak: 0.62W/kg

SAR 10g (W/Kg)	0.217213
SAR 1g (W/Kg)	0.386088

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.6097	0.4054	0.2399	0.1441	0.0905



3D screen shot	Hot spot position
	

Plot 25: LTE Band66, 20MHz,Right Cheek, Middle

Type: Phone measurement

Date of measurement: 08/27/2019

Measurement duration: 22 minutes 24 seconds

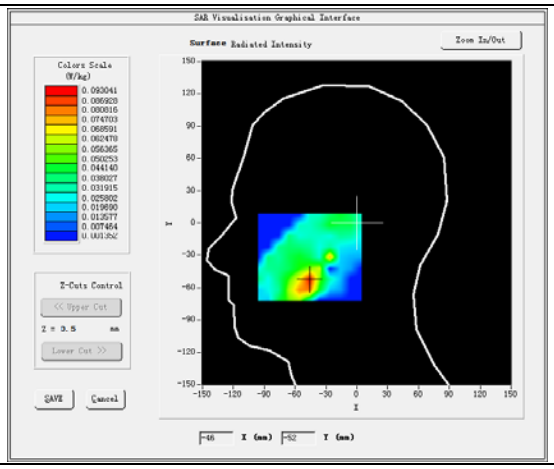
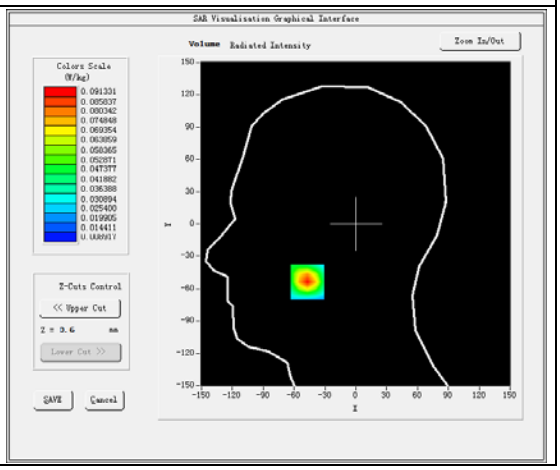
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Right Cheek
Band	LTE Band 66
Channels	132197
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1732.5
Relative permittivity (real part)	40.96
Relative permittivity (imaginary part)	14.10
Conductivity (S/m)	1.41
Variation (%)	3.66
ConvF:	2.14

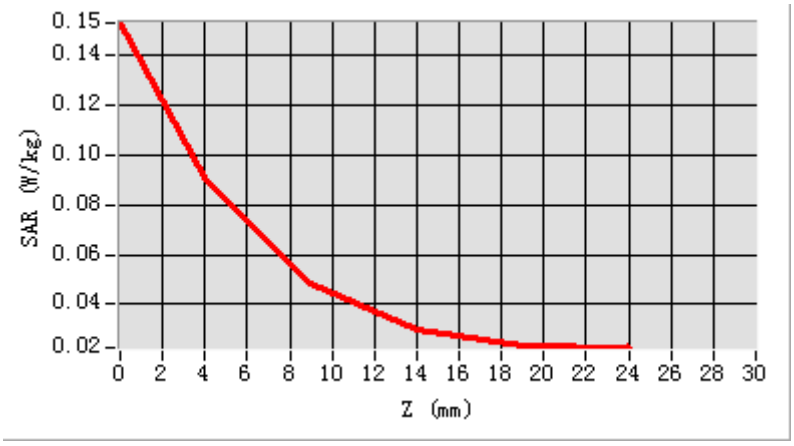
SURFACE SAR	VOLUME SAR
	

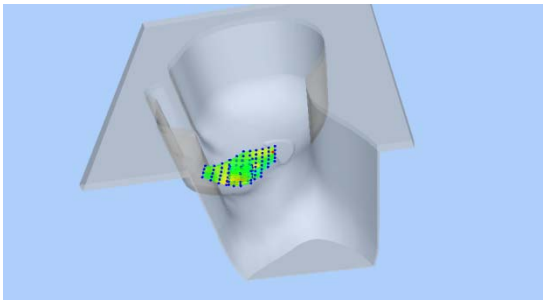
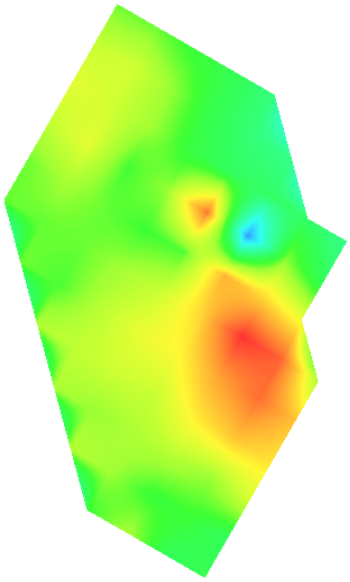
Maximum location: X=-47.00, Y=-54.00

SAR Peak: 0.16W/kg

SAR 10g (W/Kg)	0.049190
SAR 1g (W/Kg)	0.087304

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1533	0.0913	0.0483	0.0295	0.0236



3D screen shot	Hot spot position
	

Plot 26: LTE Band66, 20MHz, Back, Middle,10mm

Type: Phone measurement

Date of measurement: 08/27/2019

Measurement duration: 22 minutes 26 seconds

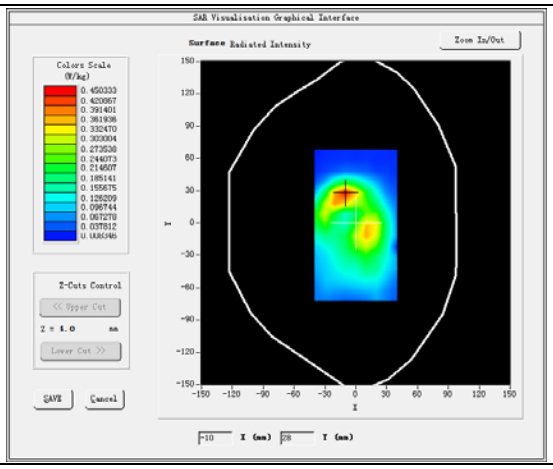
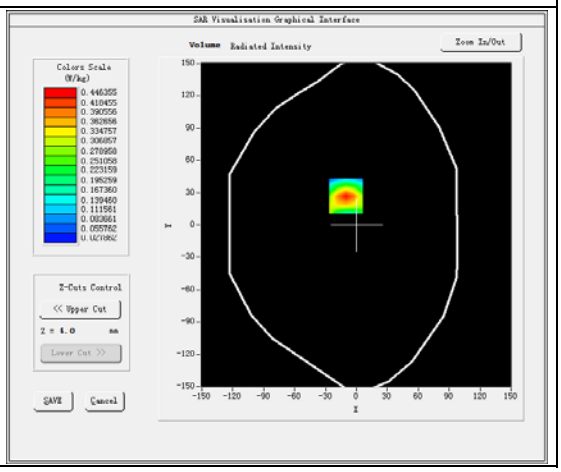
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	LTE Band 66
Channels	132197
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1732.5
Relative permittivity (real part)	53.87
Relative permittivity (imaginary part)	15.40
Conductivity (S/m)	1.54
Variation (%)	-4.01
ConvF:	2.22

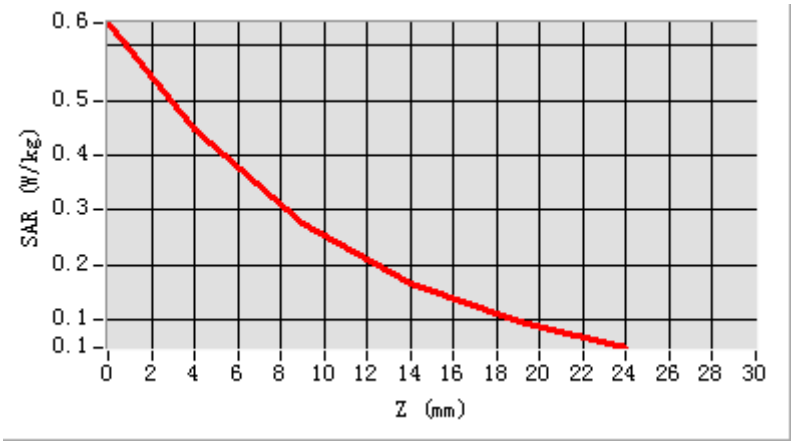
SURFACE SAR	**VOLUME SAR**
	

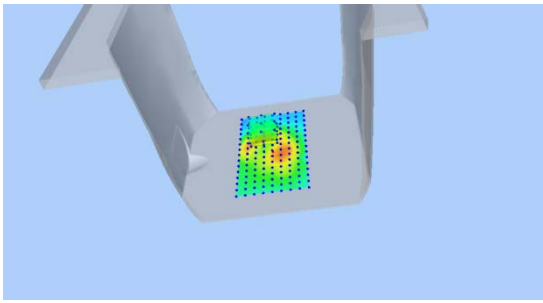
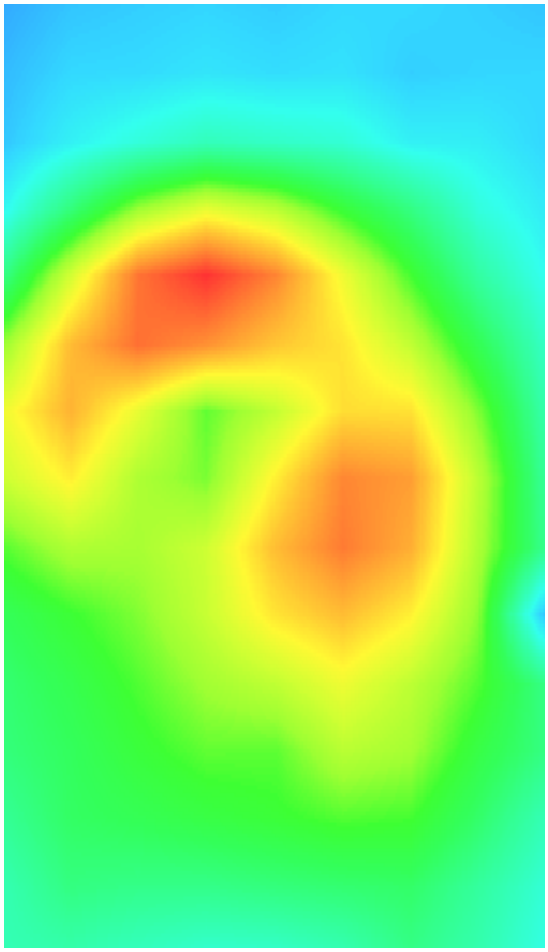
Maximum location: X=-10.00, Y=27.00

SAR Peak: 0.65W/kg

SAR 10g (W/Kg)	0.222833
SAR 1g (W/Kg)	0.410433

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.6407	0.4464	0.2761	0.1661	0.0965



3D screen shot	Hot spot position
	

Plot 27: LTE Band66, 20MHz, Edge C, Middle,10mm

Type: Phone measurement

Date of measurement: 08/27/2019

Measurement duration: 22 minutes 28 seconds

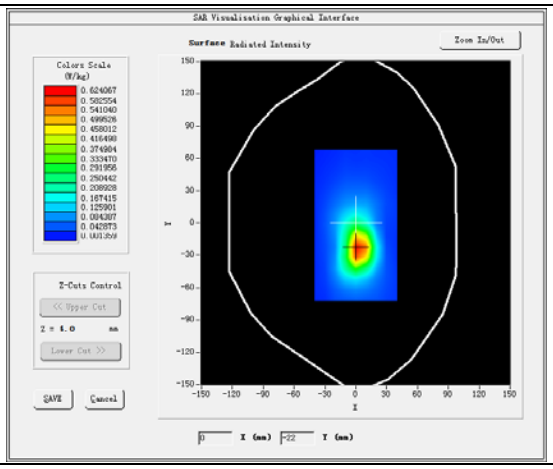
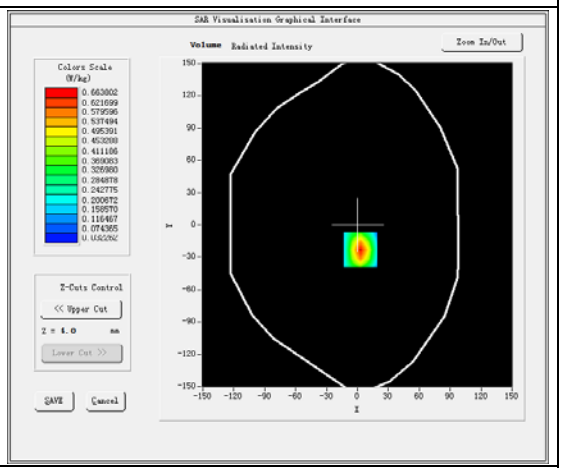
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Edge C
Band	LTE Band 66
Channels	132197
Signal	LTE (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1732.5
Relative permittivity (real part)	53.87
Relative permittivity (imaginary part)	15.40
Conductivity (S/m)	1.54
Variation (%)	1.58
ConvF:	2.22

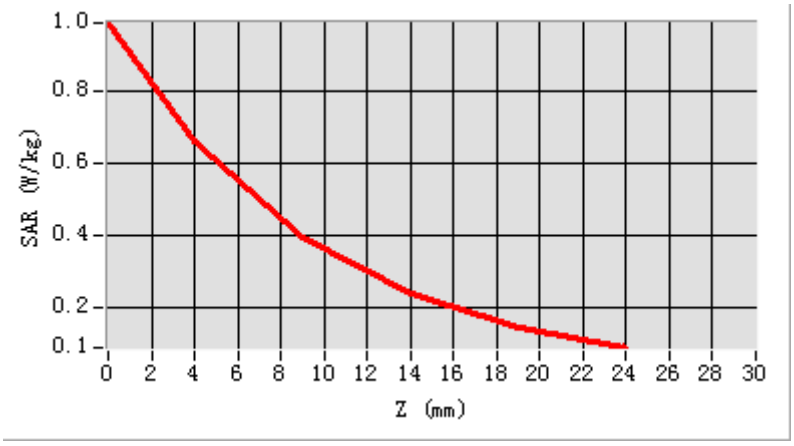
SURFACE SAR	**VOLUME SAR**
	

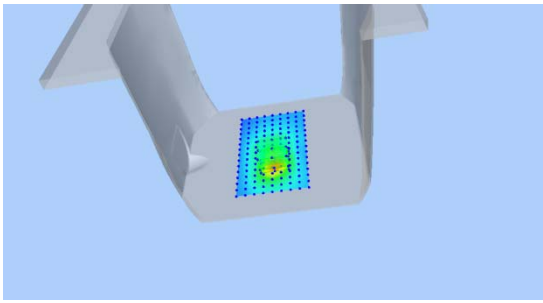
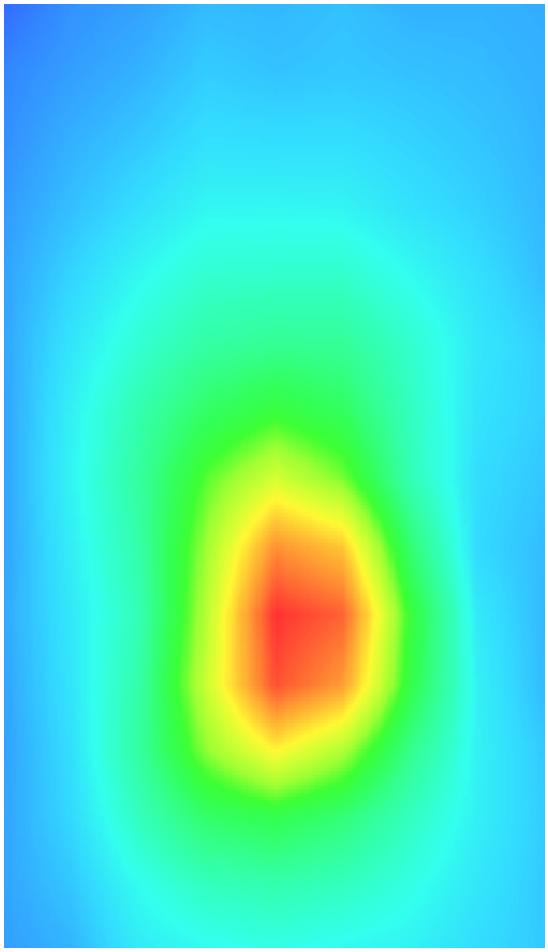
Maximum location: X=3.00, Y=-23.00

SAR Peak: 0.99W/kg

SAR 10g (W/Kg)	0.321896
SAR 1g (W/Kg)	0.606983

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.9916	0.6638	0.3953	0.2374	0.1474



3D screen shot	Hot spot position
	

Plot 28: Wi-Fi 802.11b Left Cheek, Middle

Type: Phone measurement

Date of measurement: 08/29/2019

Measurement duration: 22 minutes 27 seconds

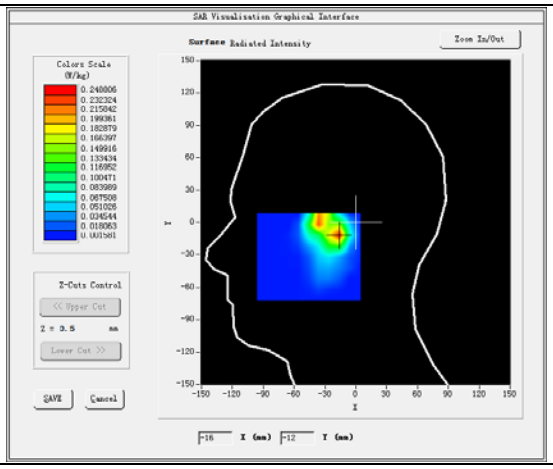
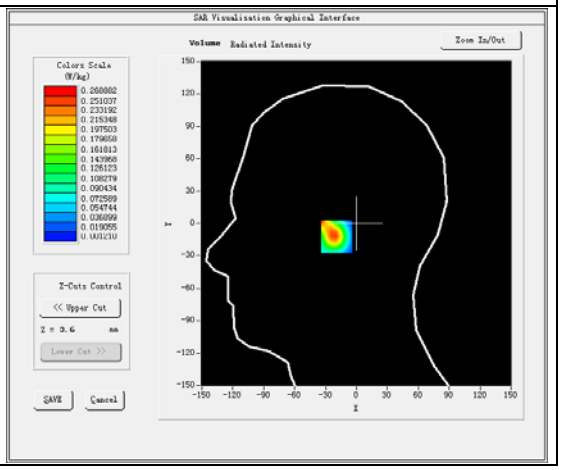
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=5mm,dy=5mm
ZoomScan	7x7x8,dx=5mm dy=5mm dz=4mm
Phantom	Validation plane
Device Position	Left Cheek
Band	WIFI
Channels	6
Signal	DSSS (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2437
Relative permittivity (real part)	40.25
Relative permittivity (imaginary part)	13.44
Conductivity (S/m)	1.83
Variation (%)	3.78
ConvF:	2.37

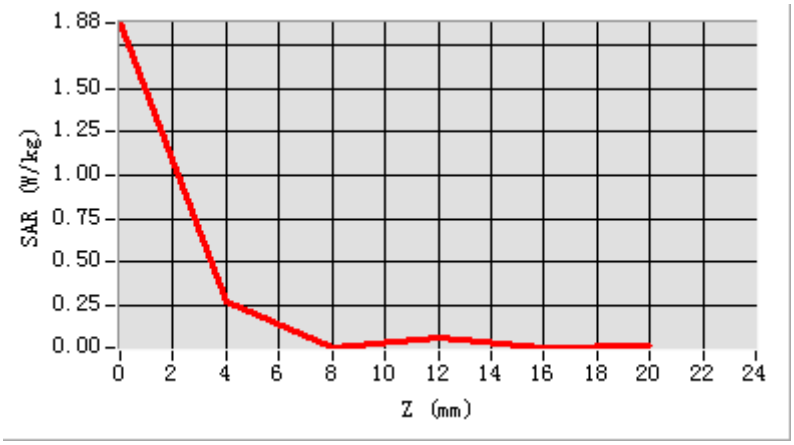
SURFACE SAR	VOLUME SAR
	

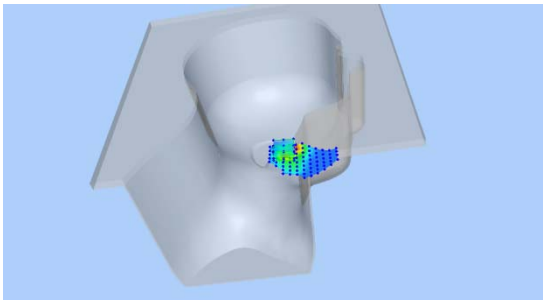
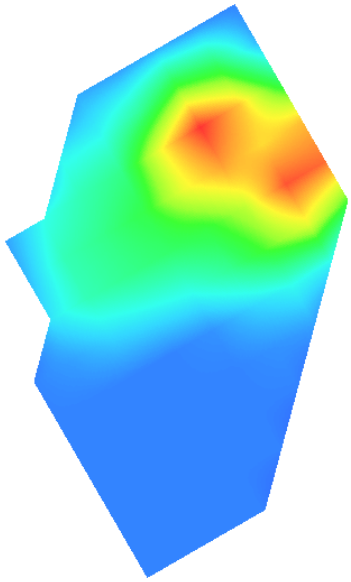
Maximum location: X=-17.00 Y=-12.00

SAR Peak: 0.54 W/kg

SAR 10g (W/Kg)	0.097370
SAR 1g (W/Kg)	0.222131

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	1.8813	0.2689	0.0053	0.0591	0.0019



3D screen shot	Hot spot position
	

Plot 29: Wi-Fi 802.11b, Back ,Middle, 10mm

Type: Phone measurement

Date of measurement: 08/29/2019

Measurement duration: 22 minutes 29 seconds

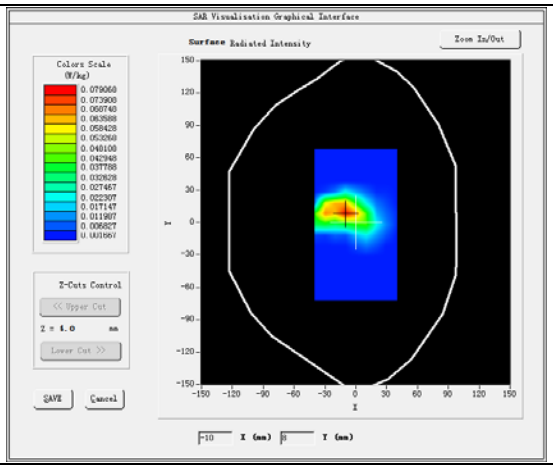
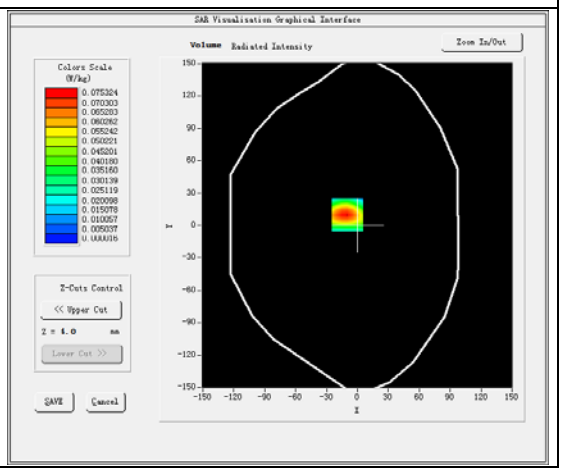
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=5mm,dy=5mm
ZoomScan	7x7x8,dx=5mm dy=5mm dz=4mm
Phantom	Validation plane
Device Position	Back
Band	WIFI
Channels	6
Signal	DSSS (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2437
Relative permittivity (real part)	52.88
Relative permittivity (imaginary part)	14.40
Conductivity (S/m)	1.96
Variation (%)	2.26
ConvF:	2.46

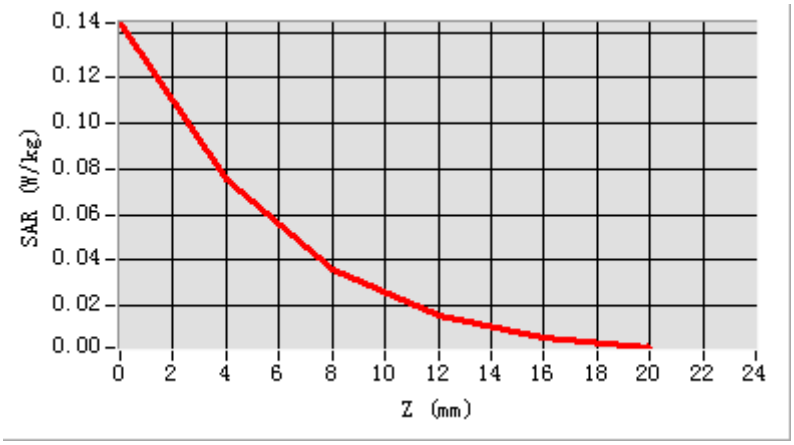
SURFACE SAR	**VOLUME SAR**
	

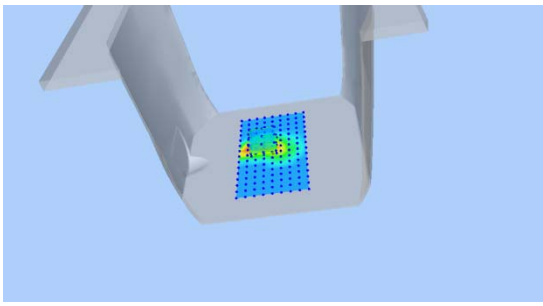
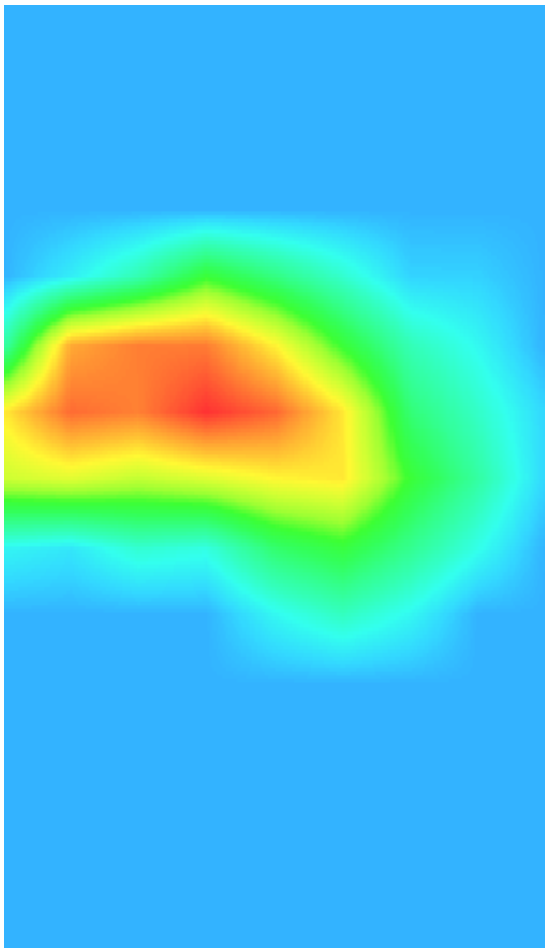
Maximum location: X=-10.00 Y=10.00

SAR Peak: 0.15W/kg

SAR 10g (W/Kg)	0.030930
SAR 1g (W/Kg)	0.070884

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	0.1441	0.0753	0.0362	0.0159	0.0063



3D screen shot	Hot spot position
	

Plot 30: BT3.0 GFSK, Right Cheek, Middle

Type: Phone measurement

Date of measurement: 08/29/2019

Measurement duration: 22 minutes 32 seconds

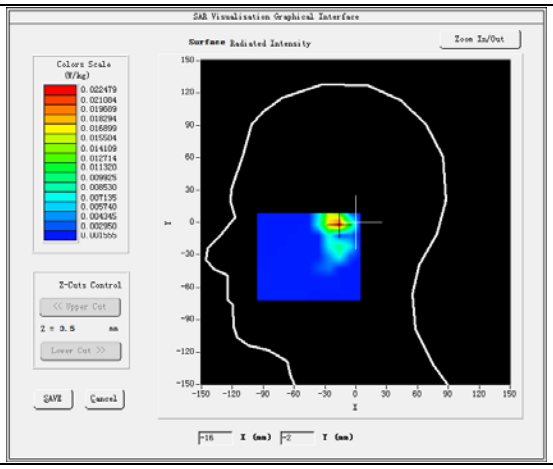
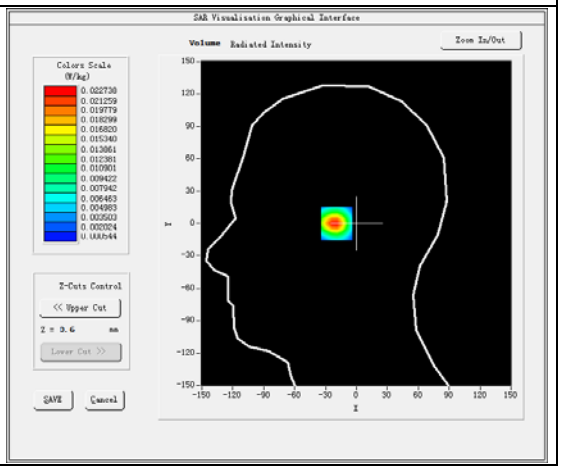
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Right Cheek
Band	BT3.0
Channels	39
Signal	GFSK (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2441
Relative permittivity (real part)	40.25
Relative permittivity (imaginary part)	13.44
Conductivity (S/m)	1.83
Variation (%)	-3.37
ConvF:	2.37

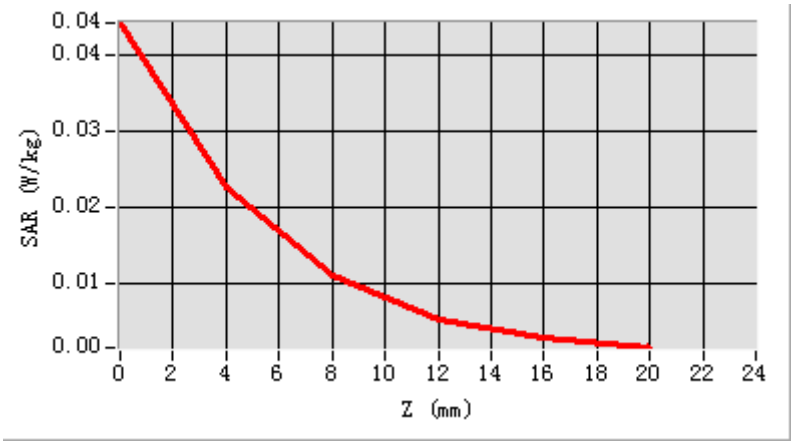
SURFACE SAR	VOLUME SAR
	

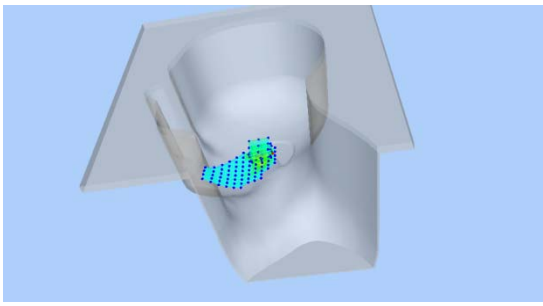
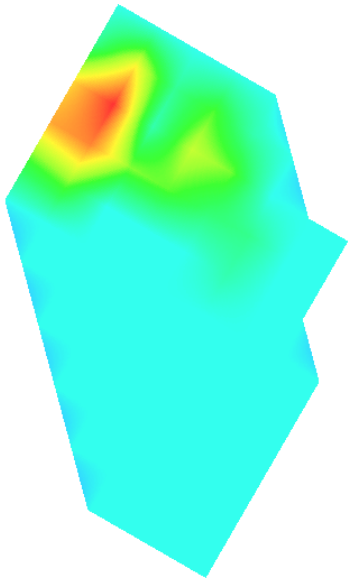
Maximum location: X=-17.00 Y=0.00

SAR Peak: 0.04 W/kg

SAR 10g (W/Kg)	0.009121
SAR 1g (W/Kg)	0.020969

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	0.0443	0.0227	0.0110	0.0054	0.0029



3D screen shot	Hot spot position
	

Plot 31: BT3.0 GFSK, Back,Middle, 10mm

Type: Phone measurement

Date of measurement: 08/29/2019

Measurement duration: 22 minutes 31 seconds

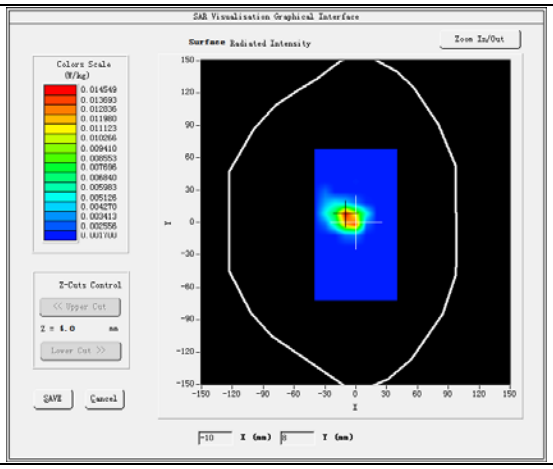
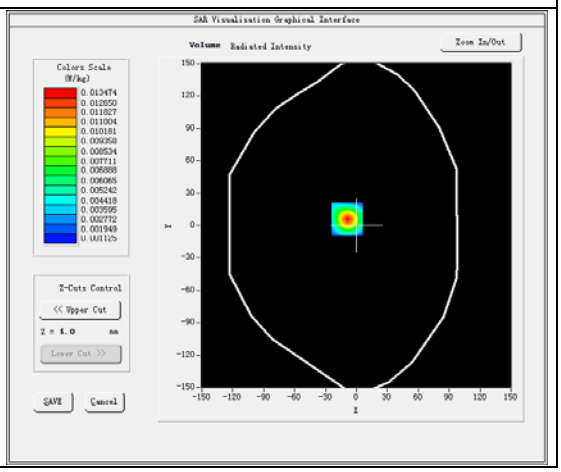
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	BT3.0
Channels	39
Signal	GFSK (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2441
Relative permittivity (real part)	52.88
Relative permittivity (imaginary part)	14.40
Conductivity (S/m)	1.96
Variation (%)	-3.16
ConvF:	2.46

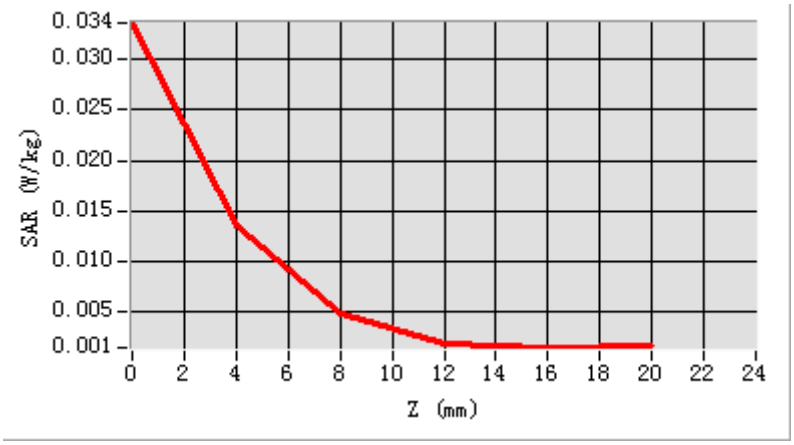
SURFACE SAR	**VOLUME SAR**
	

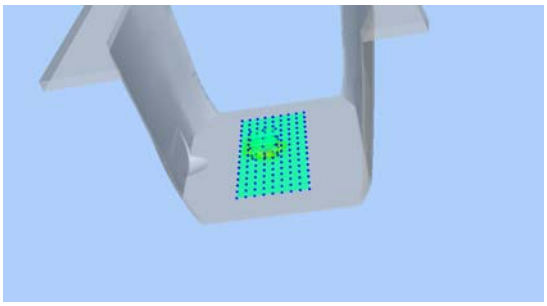
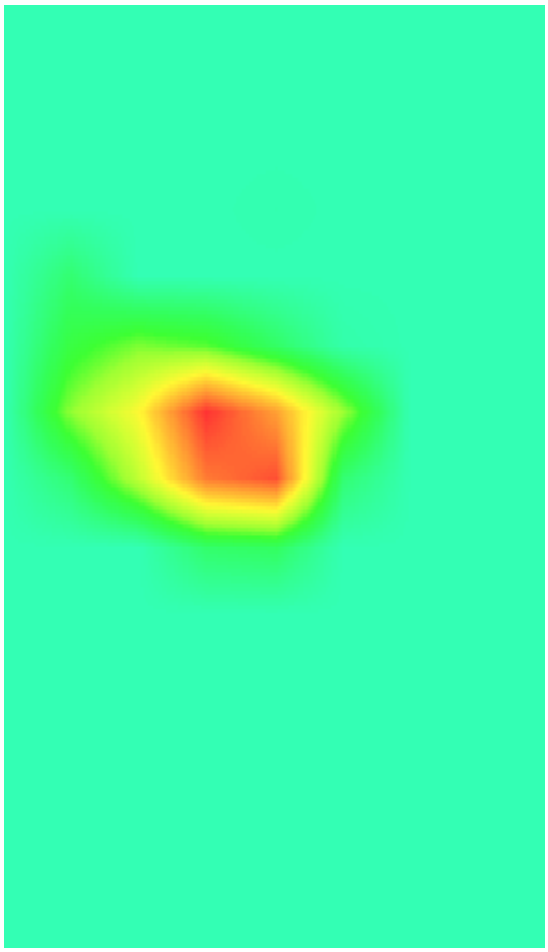
Maximum location: X=-9.00 Y=6.00

SAR Peak: 0.03 W/kg

SAR 10g (W/Kg)	0.005399
SAR 1g (W/Kg)	0.012769

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	0.0336	0.0135	0.0048	0.0019	0.0014



3D screen shot	Hot spot position
	

Plot 32: WIFI 5G 802.11a(20MHZ), Left Cheek,Middle

Type: Phone measurement

Date of measurement: 08/31/2019

Measurement duration: 22 minutes 33 seconds

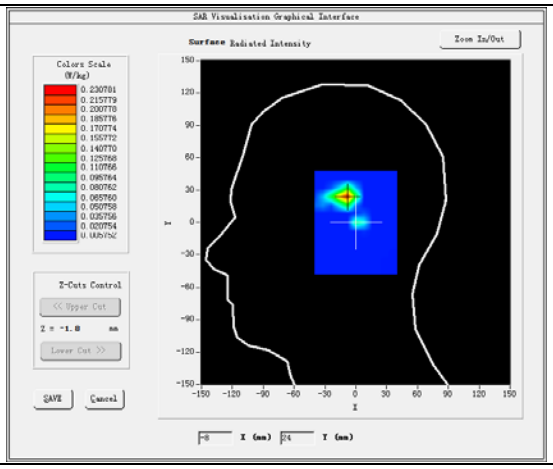
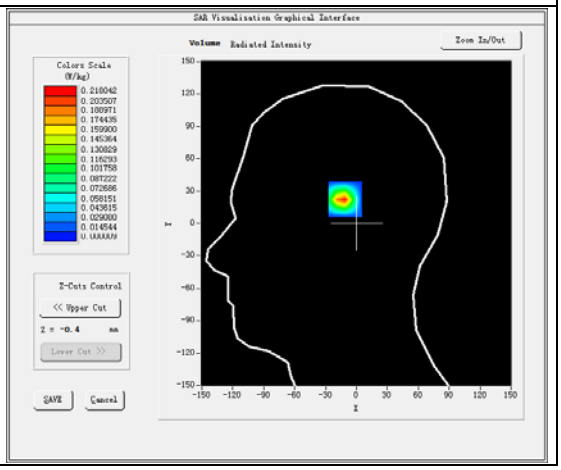
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=4mm,dy=4mm
ZoomScan	7x7x12,dx=4m, dy=4mm, dz=2mm
Phantom	Validation plane
Device Position	Left Cheek
Band	WIFI 5G
Channels	44
Signal	OFDM (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	5220
Relative permittivity (real part)	36.66
Relative permittivity (imaginary part)	16.20
Conductivity (S/m)	4.68
Variation (%)	1.10
ConvF:	2.15

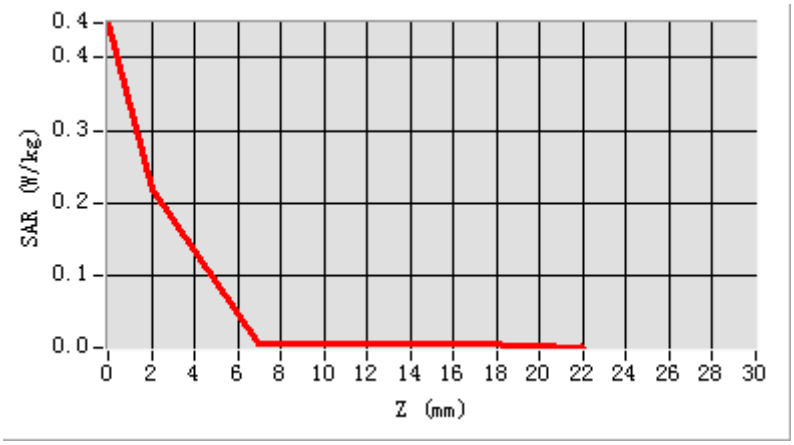
SURFACE SAR	**VOLUME SAR**
	

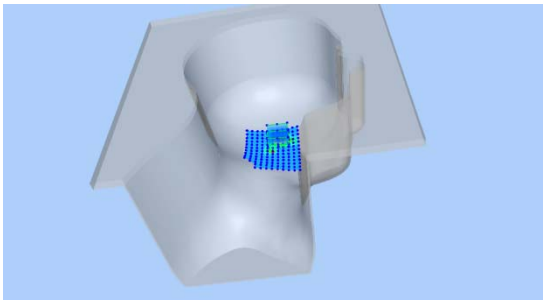
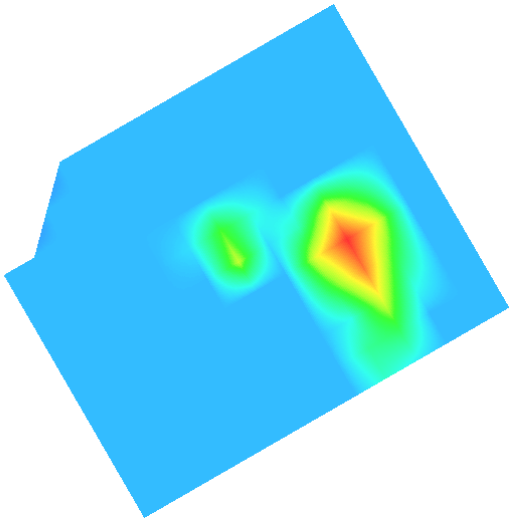
Maximum location: X=-9.00 Y=24.00

SAR Peak: 0.85 W/kg

SAR 10g (W/Kg)	0.076316
SAR 1g (W/Kg)	0.247868

Z (mm)	0.00	2.00	7.00	12.00	17.00
SAR (W/Kg)	0.4482	0.2180	0.0063	0.0059	0.0059



3D screen shot	Hot spot position
	

Plot 33: WIFI 5G 802.11a(20MHz), Back , Middle,10mm

Type: Phone measurement

Date of measurement: 08/31/2019

Measurement duration: 22 minutes 38 seconds

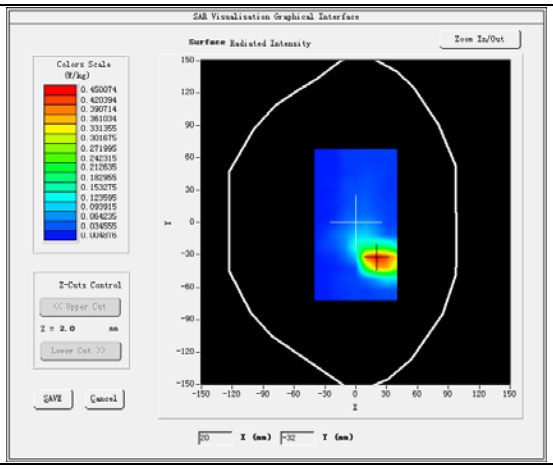
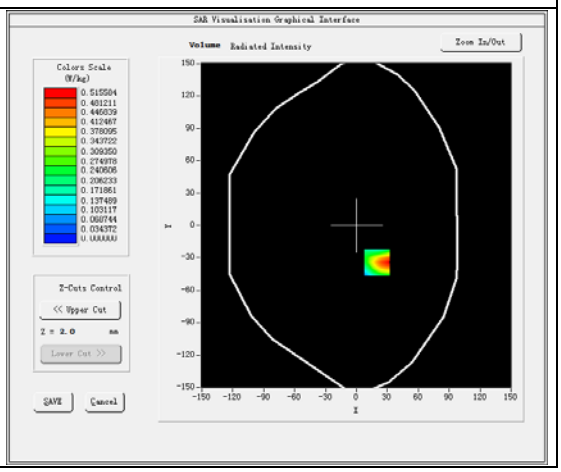
Mobile Phone IMEI number: --

A. Experimental conditions.

Area Scan	dx=4mm,dy=4mm
ZoomScan	7x7x12,dx=4m, dy=4mm, dz=2mm
Phantom	Validation plane
Device Position	Back
Band	WIFI 5G
Channels	44
Signal	OFDM (Duty cycle: 1:1)

B. SAR Measurement Results

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	5220
Relative permittivity (real part)	50.23
Relative permittivity (imaginary part)	18.10
Conductivity (S/m)	5.23
Variation (%)	1.65
ConvF:	2.21

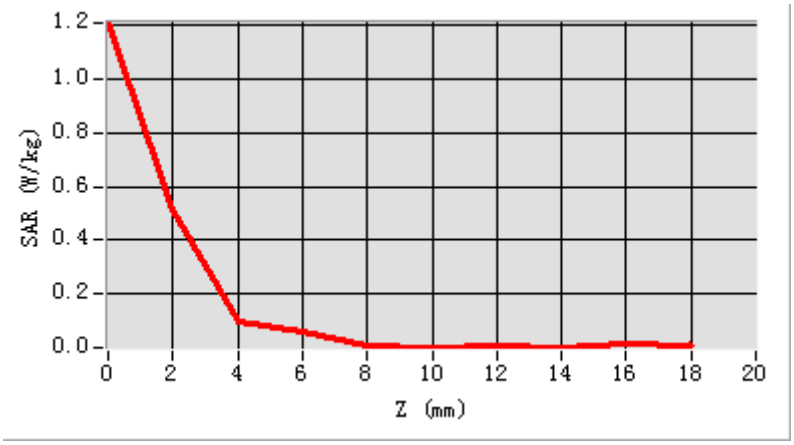
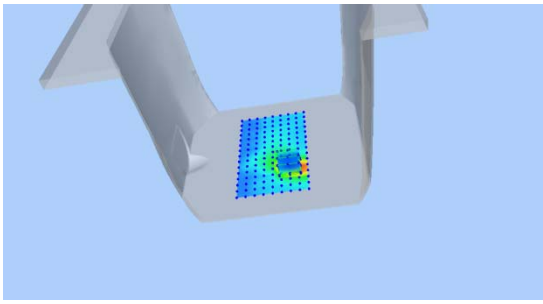
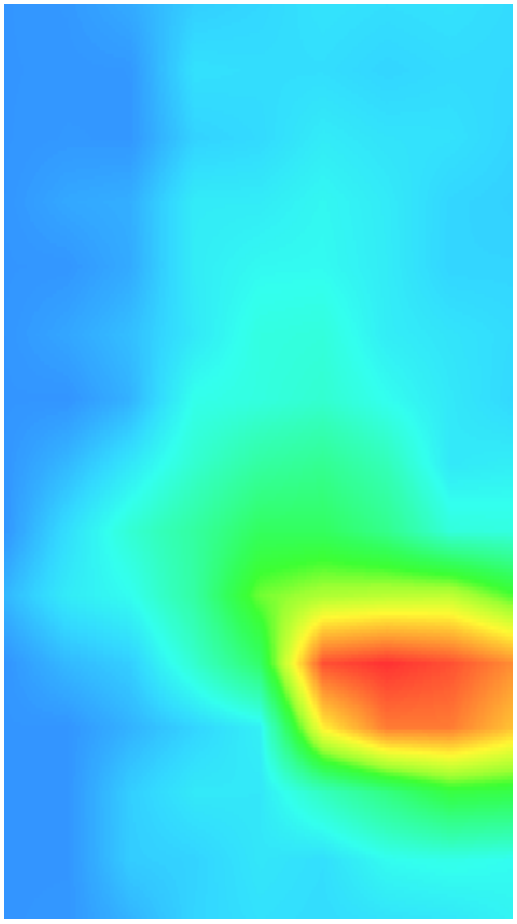
SURFACE SAR	VOLUME SAR
	

Maximum location: X=20.00 Y=-34.00

SAR Peak: 1.18 W/kg

SAR 10g (W/Kg)	0.075524
SAR 1g (W/Kg)	0.291400

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	1.2090	0.5156	0.0995	0.0594	0.0100	0.0028	0.0052	0.0009	0.0132



3D screen shot	Hot spot position