

## Appendix B: SAR Measurement results Plots

Plot	Frequency/Mode	Testing Position and Channel	Test Date
1	GSM850	Right Cheek Middle	2018-12-17
2	GSM850/GPRS4Tx	Body Back, Middle ,10mm	2018-12-17
3	GSM1900	Right Cheek Middle	2018-12-18
4	GSM1900/GPRS4Tx	Body Back Middle ,10mm	2018-12-18
5	WCDMA850	Right Cheek Middle	2018-12-17
6	WCDMA850	Body Back, Middle ,10mm	2018-12-17
7	WCDMA1900	Left Cheek Middle	2018-12-18
8	WCDMA1900	Body Back, Middle ,10mm	2018-12-18
9	LTE Band2	Right Cheek Middle	2018-12-18
10	LTE Band2	Body Back, Middle ,10mm	2018-12-18
11	LTE Band4	Right Cheek Middle	2018-12-18
12	LTE Band4	Body Back, Middle ,10mm	2018-12-18
13	LTE Band5	Left Cheek Middle	2018-12-17
14	LTE Band5	Body Back, Middle ,10mm	2018-12-17
15	LTE Band7	Left Cheek Middle	2018-12-20
16	LTE Band7	Body Back, Middle ,10mm	2018-12-20
17	LTE Band12	Right Cheek Middle	2018-12-23
18	LTE Band12	Body Back, Middle ,10mm	2018-12-23
19	LTE Band66	Left Cheek Middle	2018-12-18



<b>20</b>	<b>LTE Band66</b>	<b>Body Back, Middle ,10mm</b>	<b>2018-12-18</b>
<b>21</b>	<b>WIFI 2.4G 802 11b</b>	<b>Right Cheek Middle</b>	<b>2018-12-19</b>
<b>22</b>	<b>WIFI 2.4G 802 11b</b>	<b>Body Back, Middle ,10mm</b>	<b>2018-12-19</b>
<b>23</b>	<b>WIFI 5G 802 11ac 80MHz</b>	<b>Left Cheek Middle</b>	<b>2018-12-24</b>
<b>24</b>	<b>WIFI 5G 802 11ac 80MHz</b>	<b>Body Face, Middle ,10mm</b>	<b>2018-12-24</b>
<b>25</b>	<b>WIFI 5G 802 11a 20MHz</b>	<b>Left Cheek Middle</b>	<b>2018-12-25</b>
<b>26</b>	<b>WIFI 5G 802 11a 20MHz</b>	<b>Body Face, Middle ,10mm</b>	<b>2018-12-25</b>
<b>27</b>	<b>Bluetooth</b>	<b>Left Tilt Middle</b>	<b>2019-1-9</b>
<b>28</b>	<b>Bluetooth</b>	<b>Body Back, Middle ,10mm</b>	<b>2019-1-9</b>

**Plot 1: GSM850, Right Cheek, Middle**

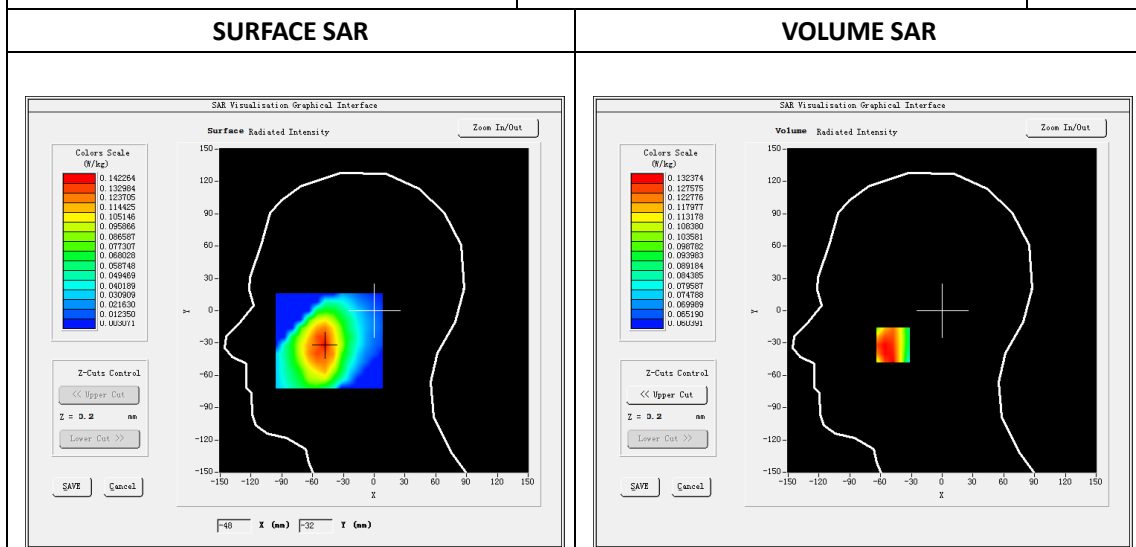
Type: Phone measurement  
 Date of measurement: 12/17/2018  
 Measurement duration: 22 minutes 31 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

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

**B. SAR Measurement Results**

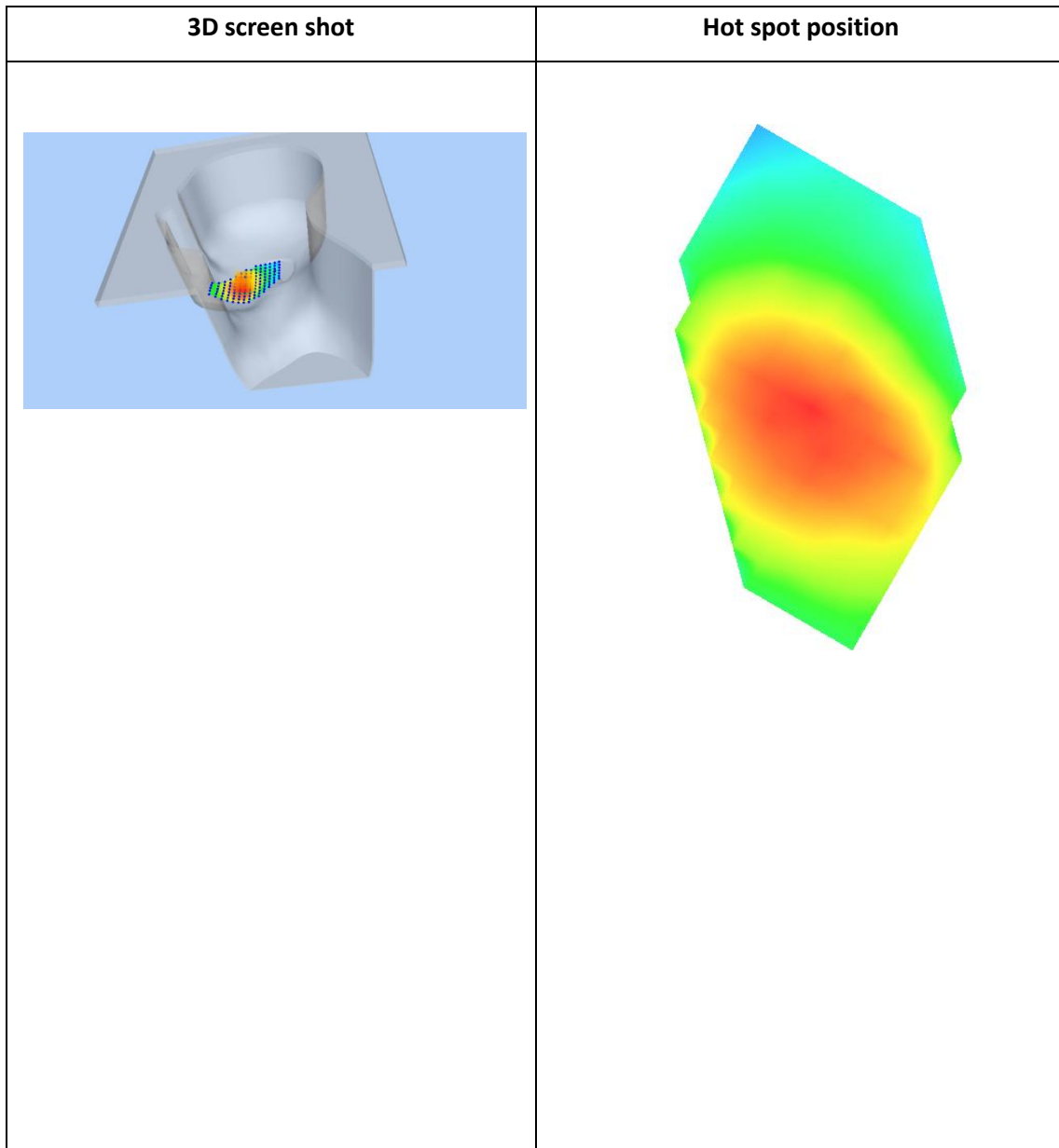
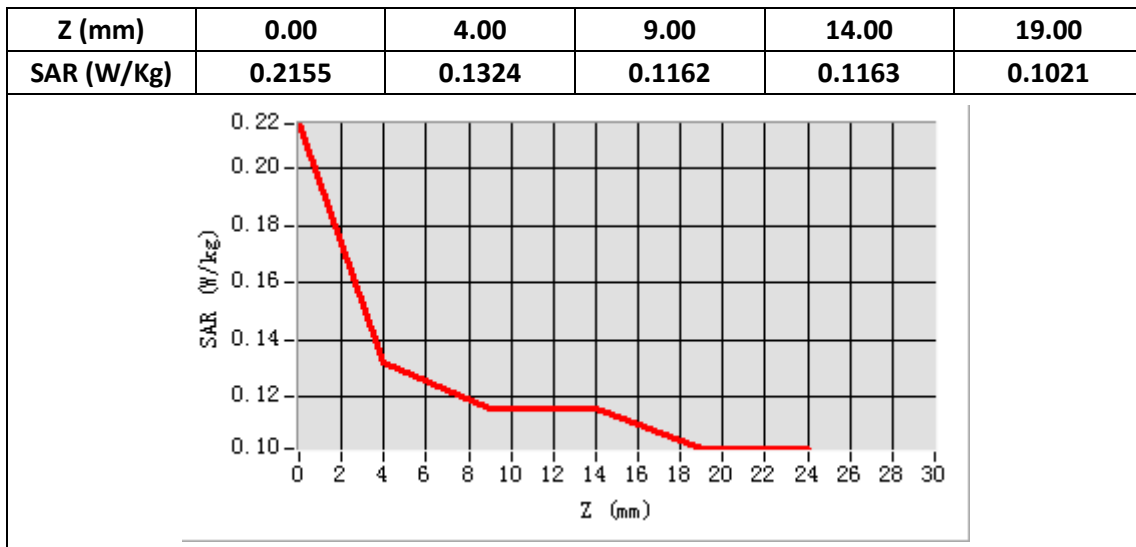
E-Field Probe	SATIMO SN_04/13_EP166
Frequency (MHz)	836.6
Relative permittivity (real part)	41.3
Relative permittivity (imaginary part)	19.18
Conductivity (S/m)	0.89
Variation (%)	2.93
ConvF:	5.85



**Maximum location: X=-48.00, Y=-32.00**

**SAR Peak: 0.14 W/kg**

SAR 10g (W/Kg)	0.117432
SAR 1g (W/Kg)	0.142985



**Plot 2: GPRS850, Back, Middle,10mm**

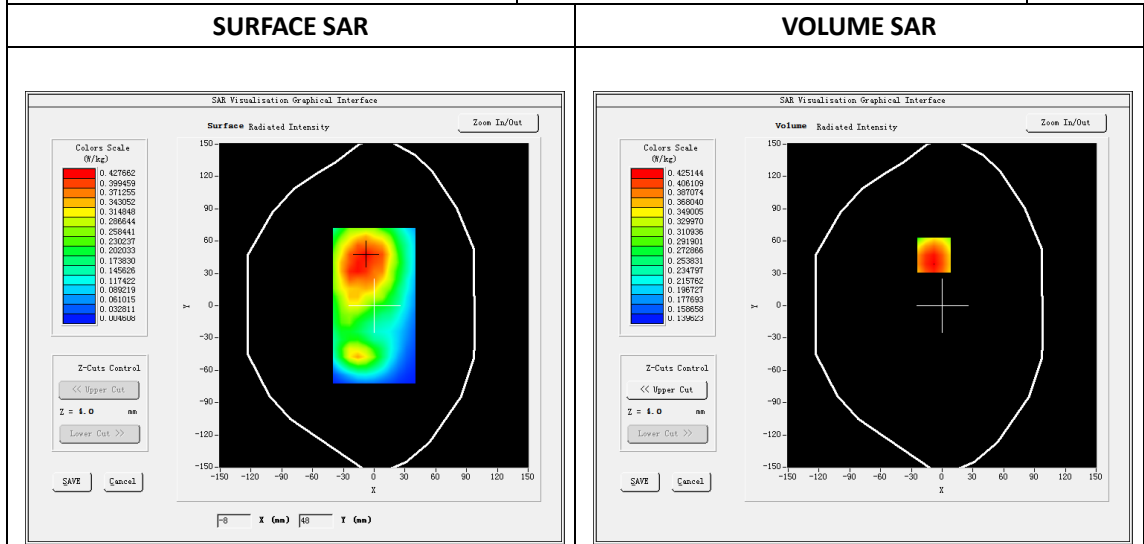
Type: Phone measurement  
 Date of measurement: 12/17/2018  
 Measurement duration: 22 minutes 33 seconds  
 Mobile Phone IMEI number: --

**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: 1:2.08)

**B. SAR Measurement Results**

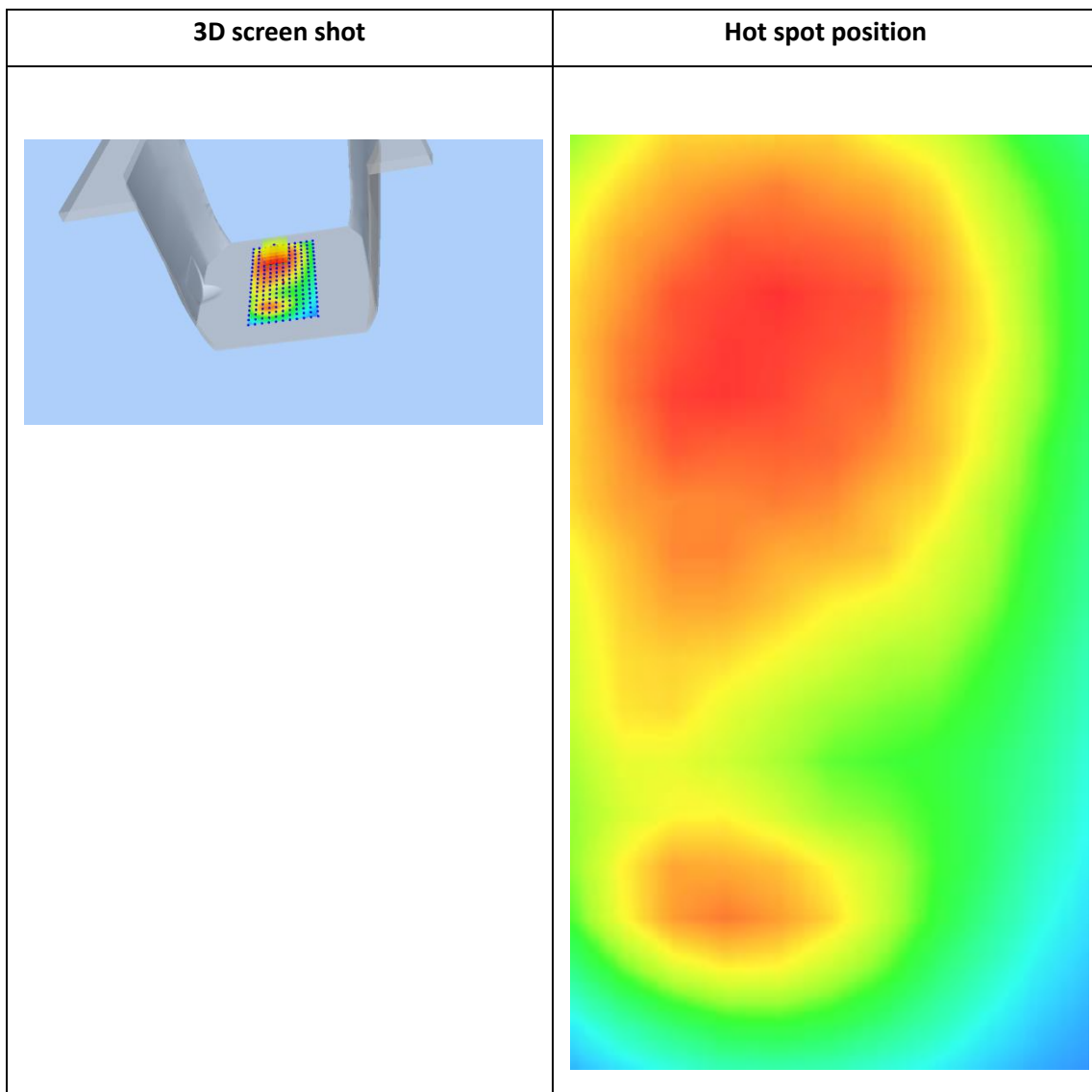
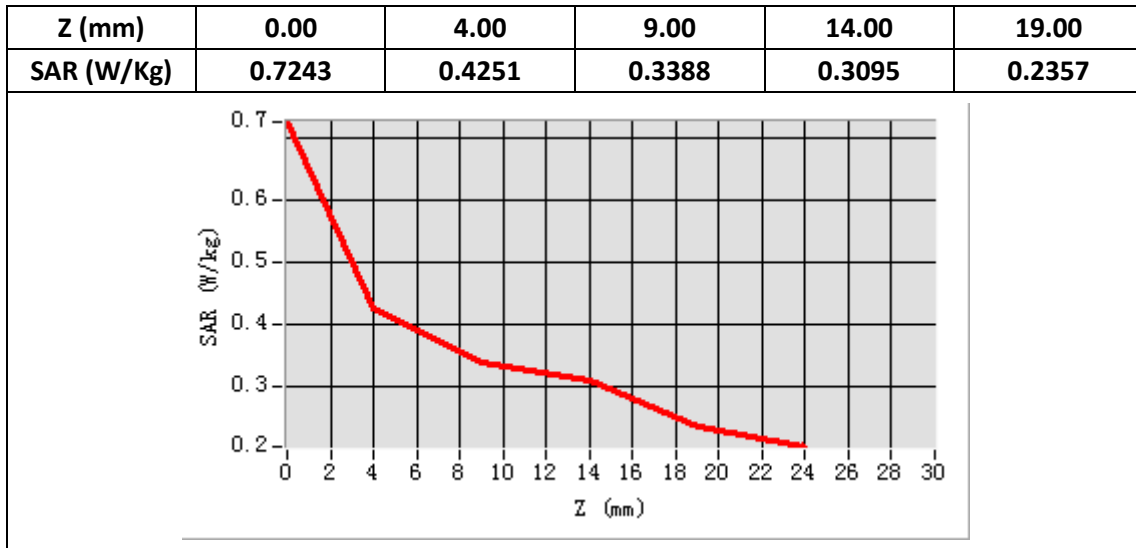
E-Field Probe	SATIMO SN_04/13_EP166
Frequency (MHz)	836.6
Relative permittivity (real part)	55.12
Relative permittivity (imaginary part)	20.69
Conductivity (S/m)	0.96
Variation (%)	-0.83
ConvF:	6.17



**Maximum location: X=-8.00, Y=47.00**

**SAR Peak: 0.48 W/kg**

SAR 10g (W/Kg)	0.339517
SAR 1g (W/Kg)	0.422365



### Plot3: GSM1900, Right Cheek Middle

Type: Phone measurement

Date of measurement: 12/18/2018

Measurement duration: 22 minutes 24 seconds

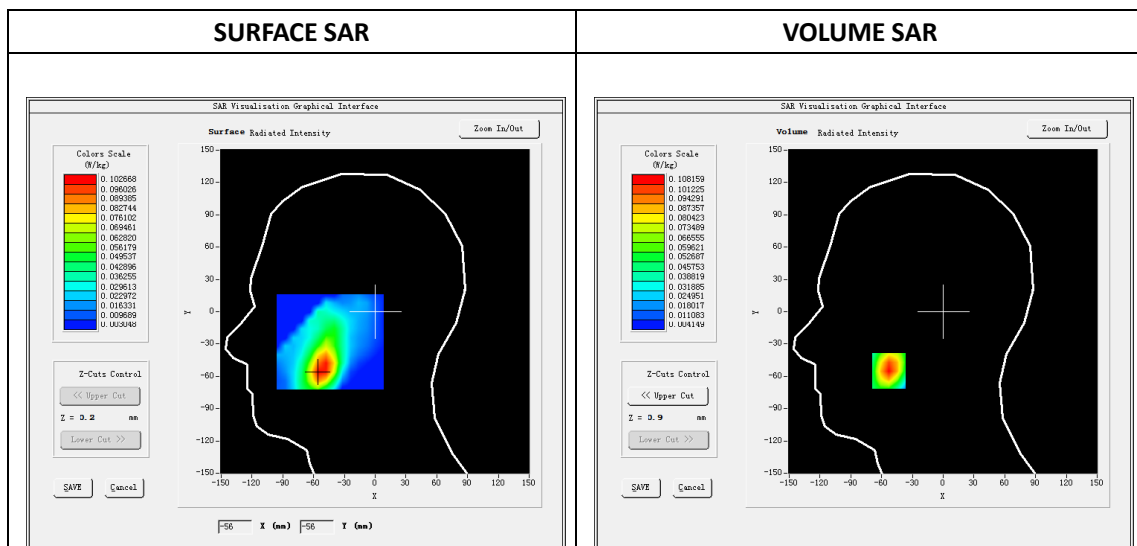
Mobile Phone IMEI number: --

**A. Experimental conditions.**

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

**B. SAR Measurement Results**

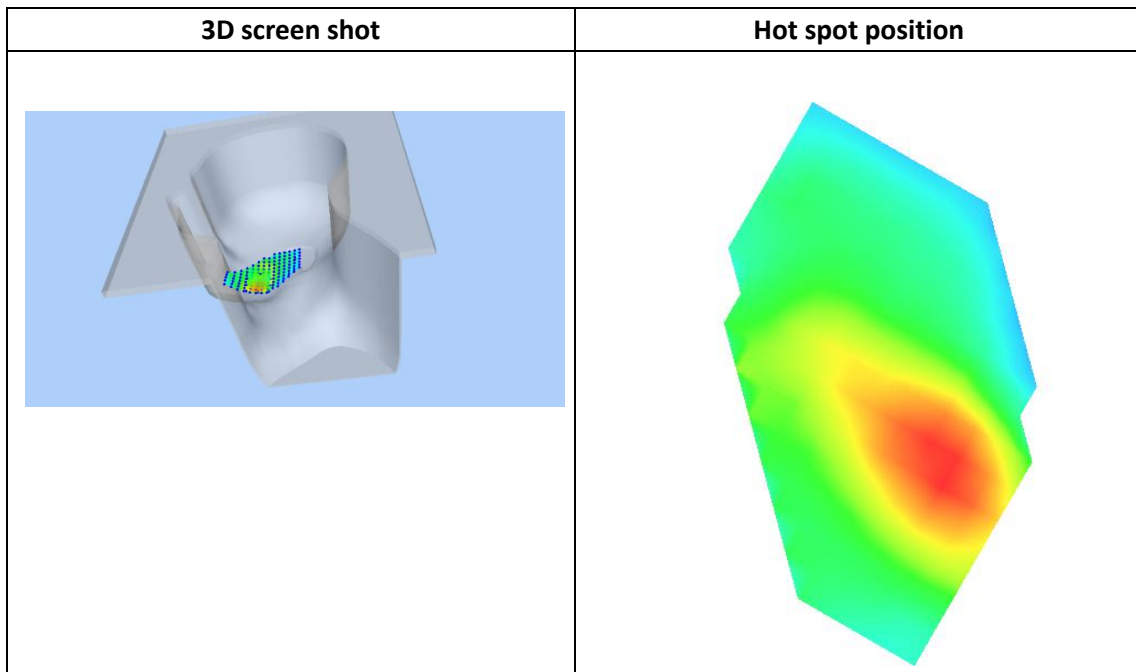
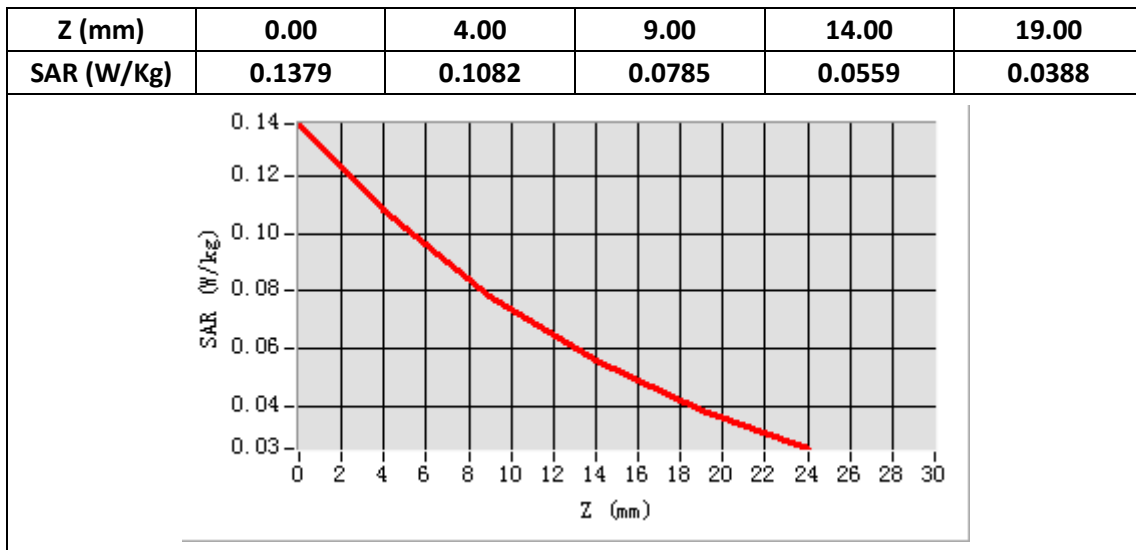
<b>E-Field Probe</b>	SATIMO SN_04/13_EP166
<b>Frequency (MHz)</b>	1880
<b>Relative permittivity (real part)</b>	40.51
<b>Relative permittivity (imaginary part)</b>	13.45
<b>Conductivity (S/m)</b>	1.42
<b>Variation (%)</b>	-3.14
<b>ConvF:</b>	5.90



Maximum location: X=-53.00, Y=-55.00

SAR Peak: 0.14 W/kg

SAR 10g (W/Kg)	0.063166
SAR 1g (W/Kg)	0.101386





**Plot3: GPRS1900, Back Middle ,10mm**

Type: Phone measurement

Date of measurement: 12/18/2018

Measurement duration: 22 minutes 33 seconds

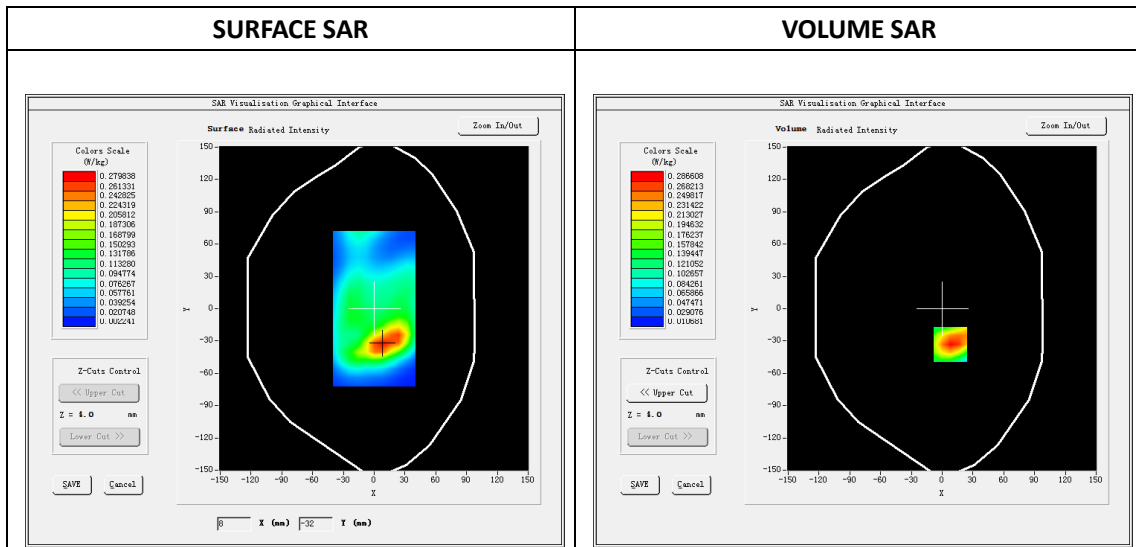
Mobile Phone IMEI number: --

**A. Experimental conditions.**

<b>Area Scan</b>	dx=8mm dy=8mm
<b>Zoom Scan</b>	5x5x7,dx=8mm dy=8mm dz=5mm
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Back
<b>Band</b>	GPRS1900
<b>Channels</b>	661
<b>Signal</b>	GPRS(Duty cycle: 1:2.08)

**B. SAR Measurement Results**

<b>E-Field Probe</b>	SATIMO SN_04/13_EP166
<b>Frequency (MHz)</b>	1880
<b>Relative permittivity (real part)</b>	53.32
<b>Relative permittivity (imaginary part)</b>	14.30
<b>Conductivity (S/m)</b>	1.51
<b>Variation (%)</b>	-1.26
<b>ConvF:</b>	6.10

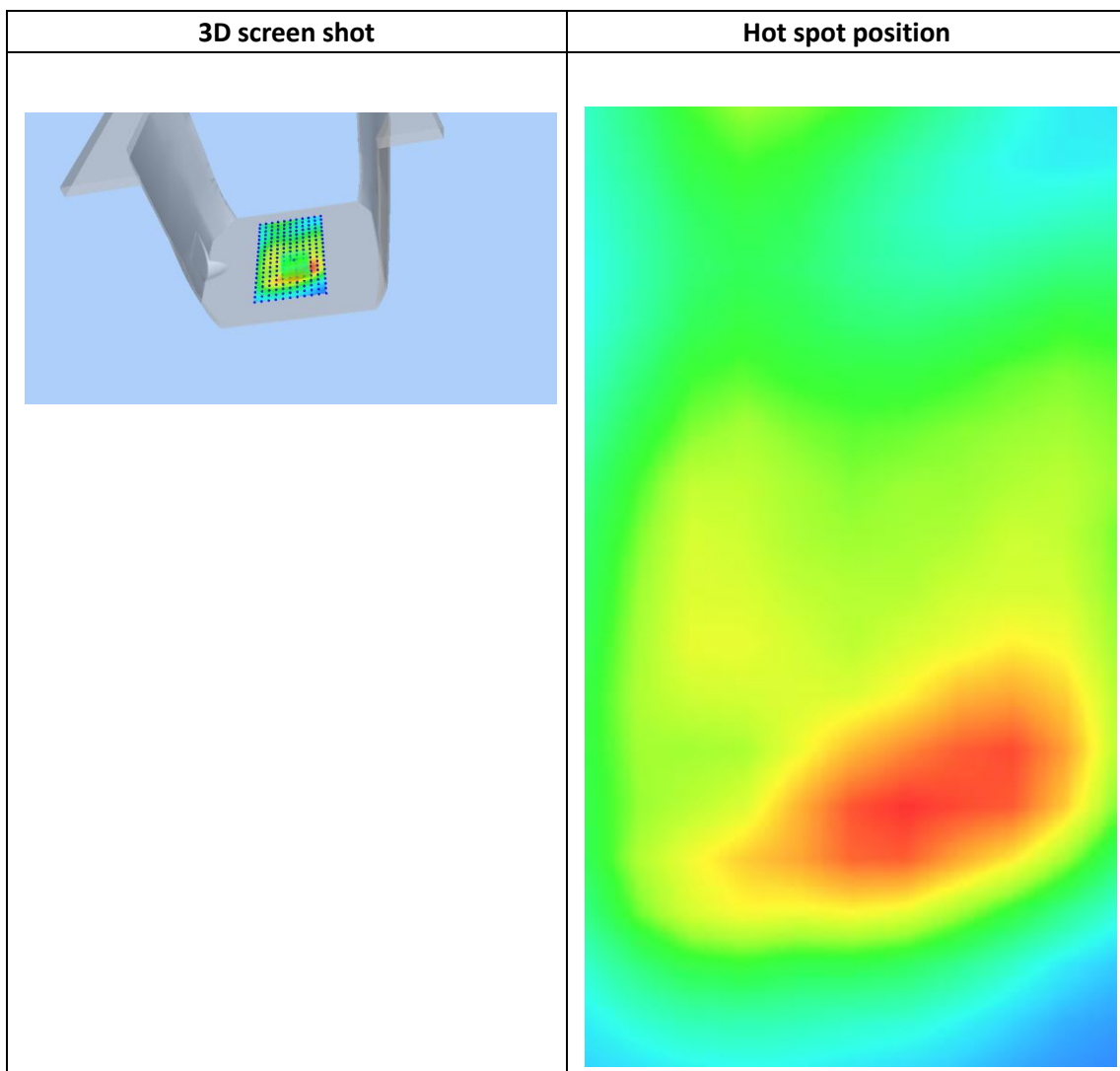
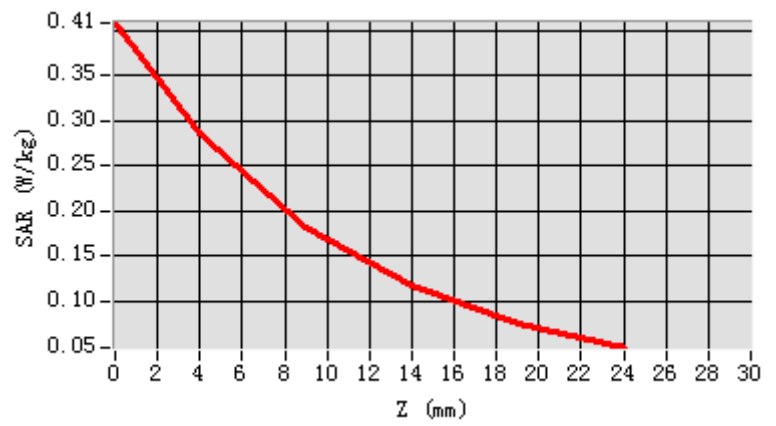


Maximum location: X=8.00, Y=-33.00

SAR Peak: 0.41W/kg

SAR 10g (W/Kg)	0.159463
SAR 1g (W/Kg)	0.270114

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.4078	0.2866	0.1825	0.1171	0.0767



## Plot 5: WCDMA850, Right Cheek, Middle

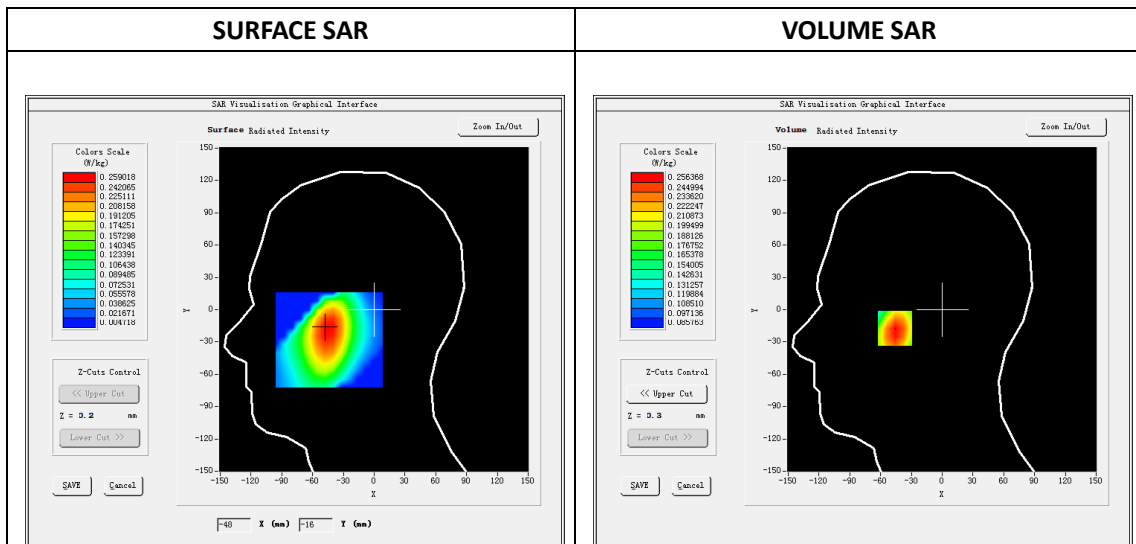
Type: Phone measurement  
 Date of measurement: 12/17/2018  
 Measurement duration: 22 minutes 17 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

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

**B. SAR Measurement Results**

E-Field Probe	SATIMO SN_04/13_EP166
Frequency (MHz)	836.6
Relative permittivity (real part)	41.3
Relative permittivity (imaginary part)	19.18
Conductivity (S/m)	0.89
Variation (%)	-1.22
ConvF:	5.85

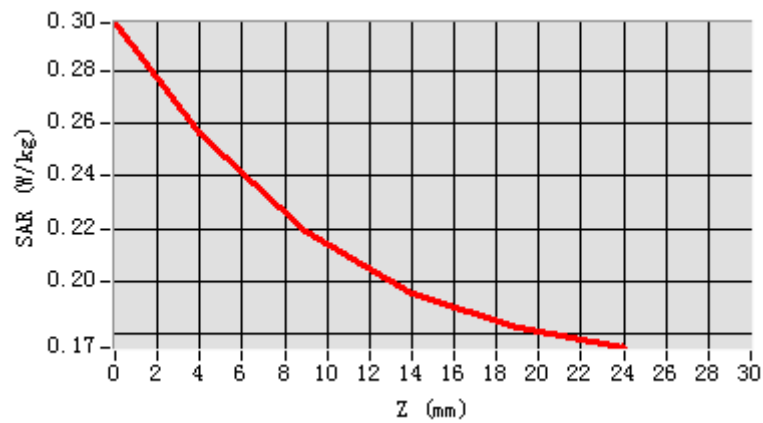


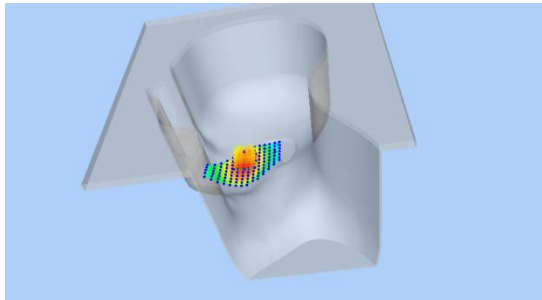
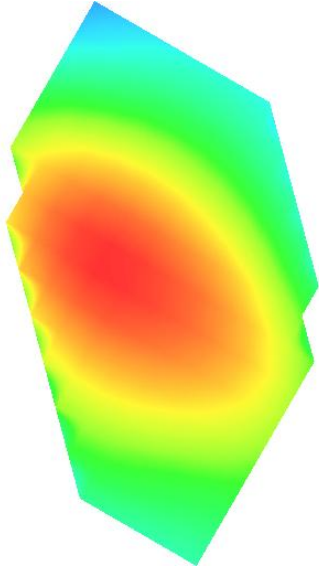
**Maximum location: X=-46.00, Y=-17.00**

**SAR Peak: 0.30 W/kg**

<b>SAR 10g (W/Kg)</b>	0.211748
<b>SAR 1g (W/Kg)</b>	0.254157

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.2979	0.2564	0.2187	0.1952	0.1825



3D screen shot	Hot spot position
	

**Plot 6: WCDMA850, BACK, Middle,10mm**

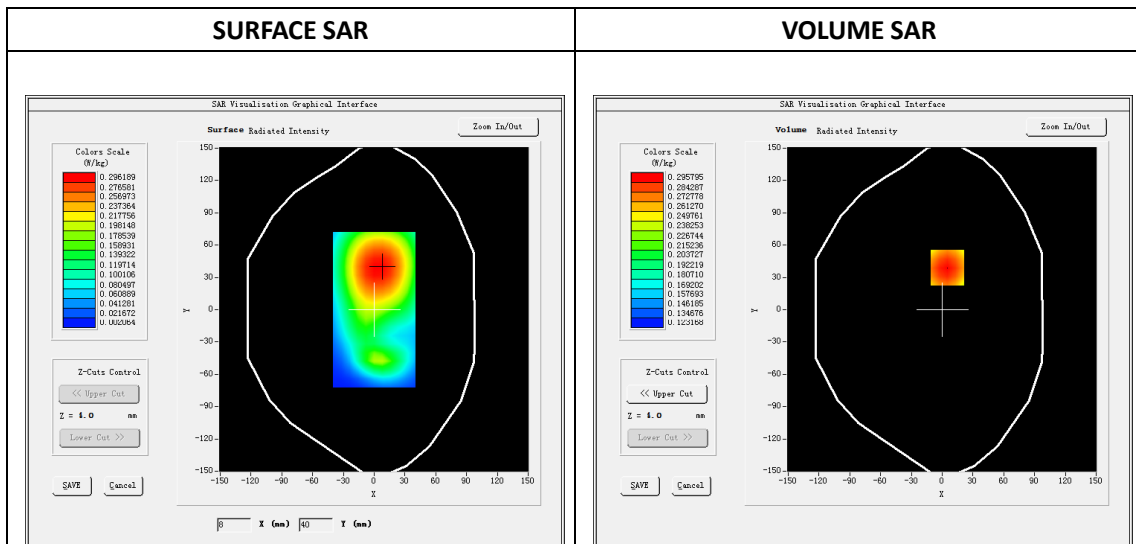
Type: Phone measurement  
 Date of measurement: 12/17/2018  
 Measurement duration: 22 minutes 23 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

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

**B. SAR Measurement Results**

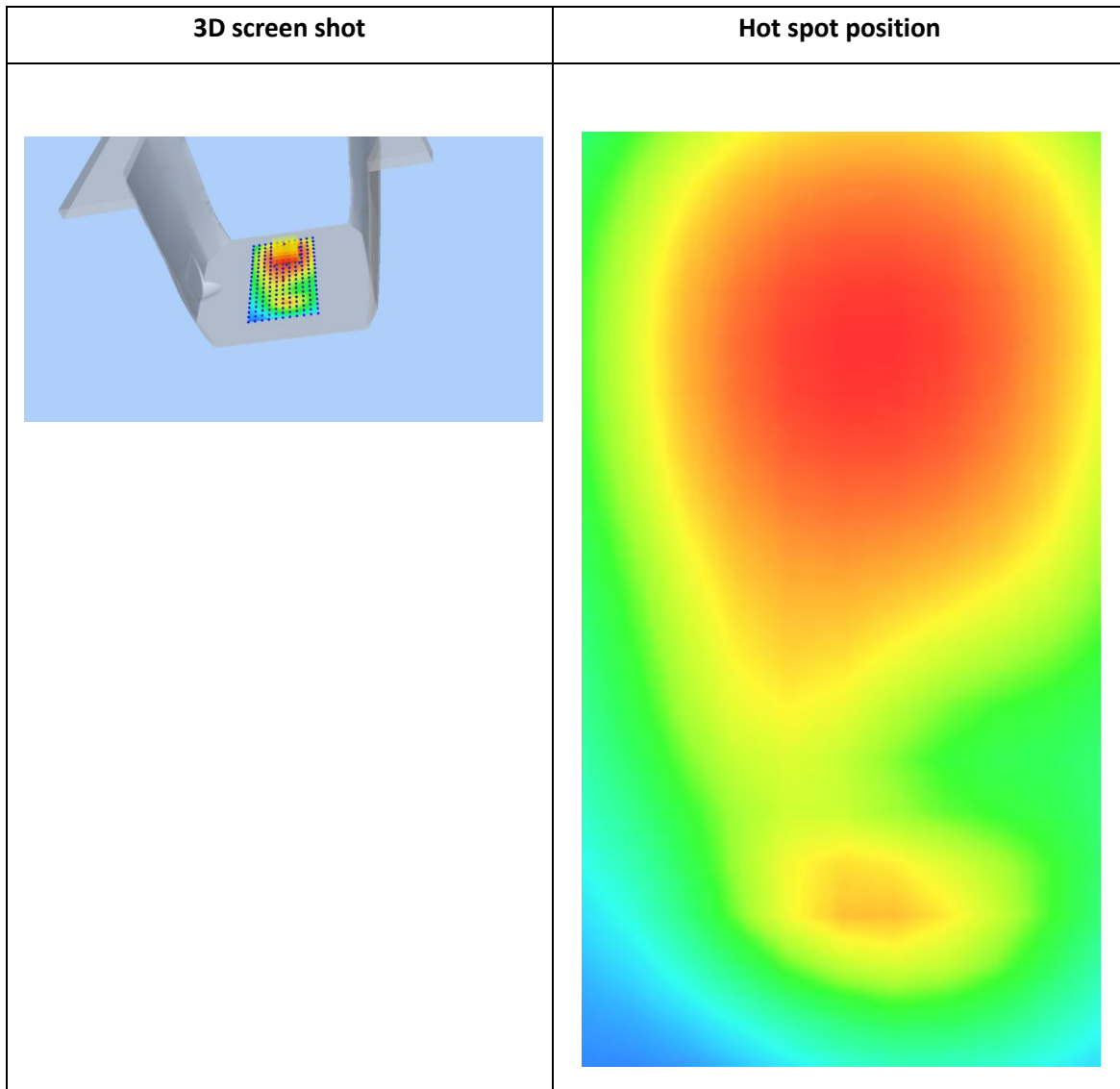
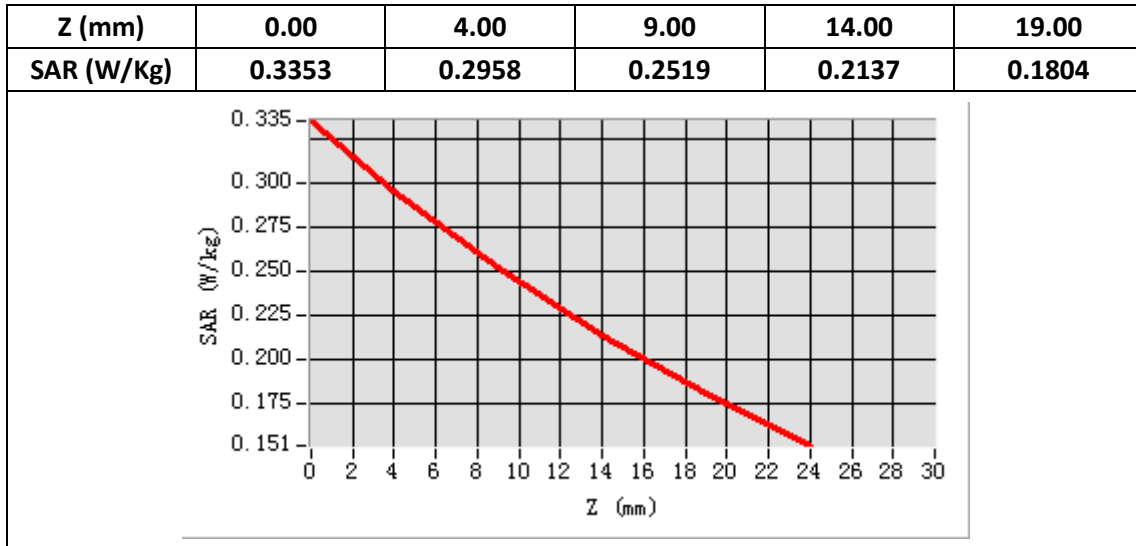
<b>E-Field Probe</b>	SATIMO SN_04/13_EP166
<b>Frequency (MHz)</b>	836.6
<b>Relative permittivity (real part)</b>	55.12
<b>Relative permittivity (imaginary part)</b>	20.69
<b>Conductivity (S/m)</b>	0.96
<b>Variation (%)</b>	-0.38
<b>ConvF:</b>	6.17



**Maximum location: X=5.00, Y=39.00**

**SAR Peak: 0.34 W/kg**

<b>SAR 10g (W/Kg)</b>	0.237449
<b>SAR 1g (W/Kg)</b>	0.292679



## Plot 7: WCDMA1900, Left Cheek, Middle,10mm

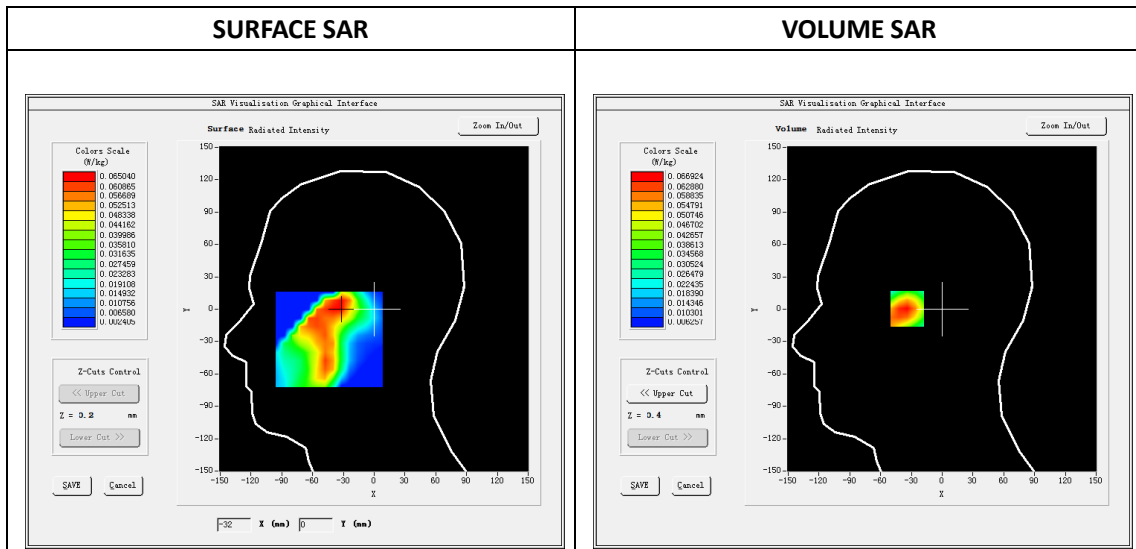
Type: Phone measurement  
 Date of measurement: 12/18/2018  
 Measurement duration: 22 minutes 36 seconds  
 Mobile Phone IMEI number: --

**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**

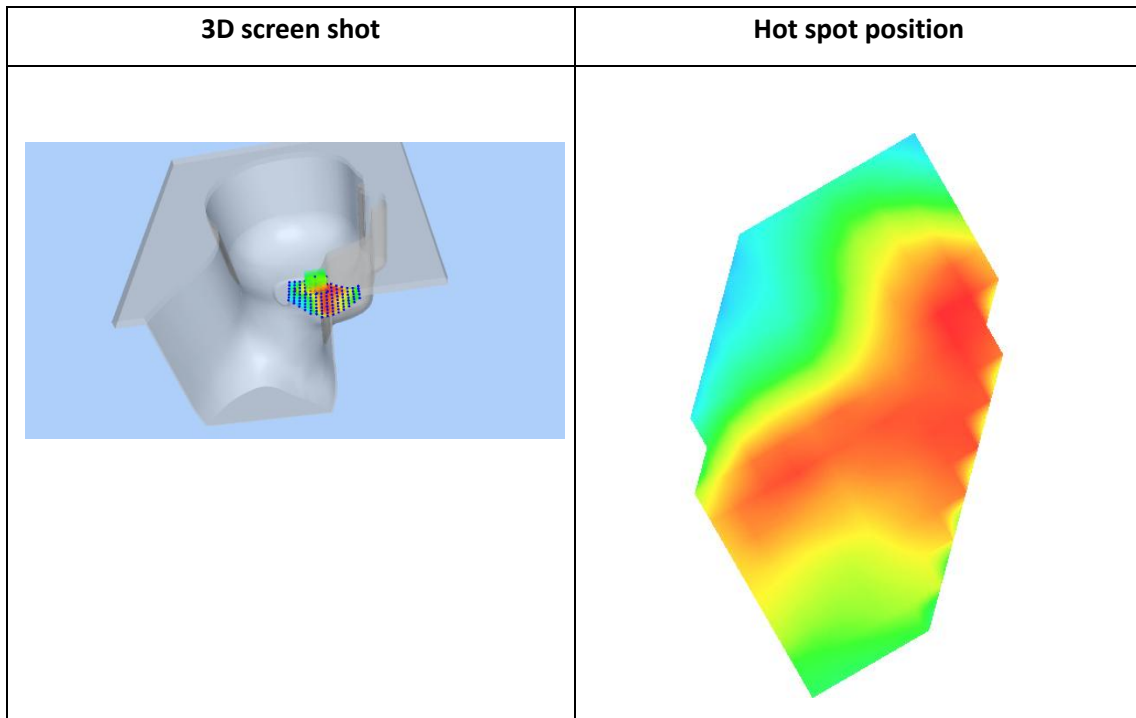
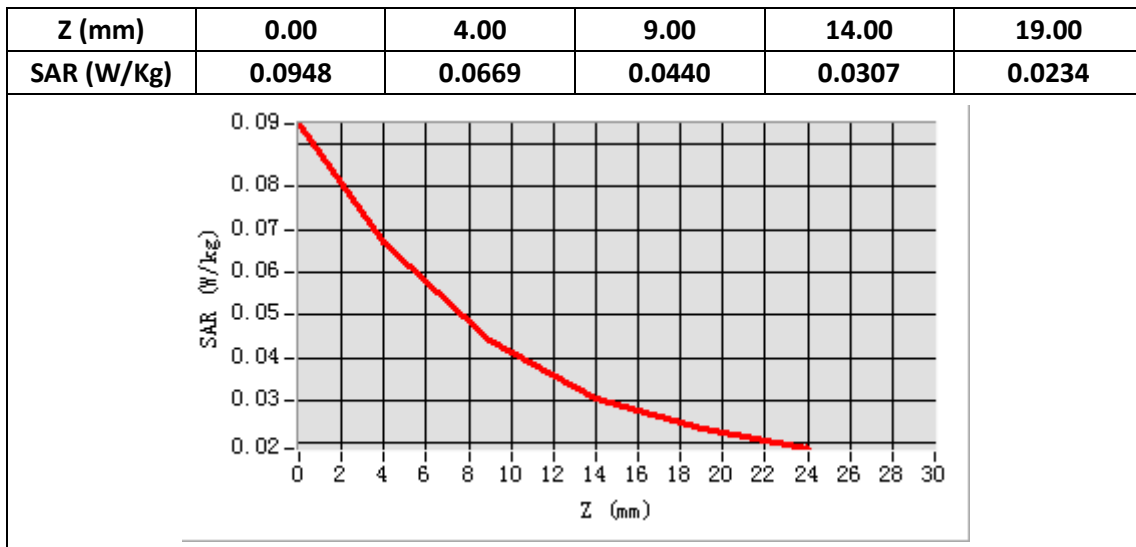
E-Field Probe	SATIMO SN_04/13_EP166
Frequency (MHz)	1880
Relative permittivity (real part)	40.51
Relative permittivity (imaginary part)	13.45
Conductivity (S/m)	1.42
Variation (%)	-4.64
ConvF:	5.90



Maximum location: X=-34.00, Y=2.00

SAR Peak: 0.10W/kg

SAR 10g (W/Kg)	0.041226
SAR 1g (W/Kg)	0.063889





## Plot 8: WCDMA1900,Back, Middle,10mm

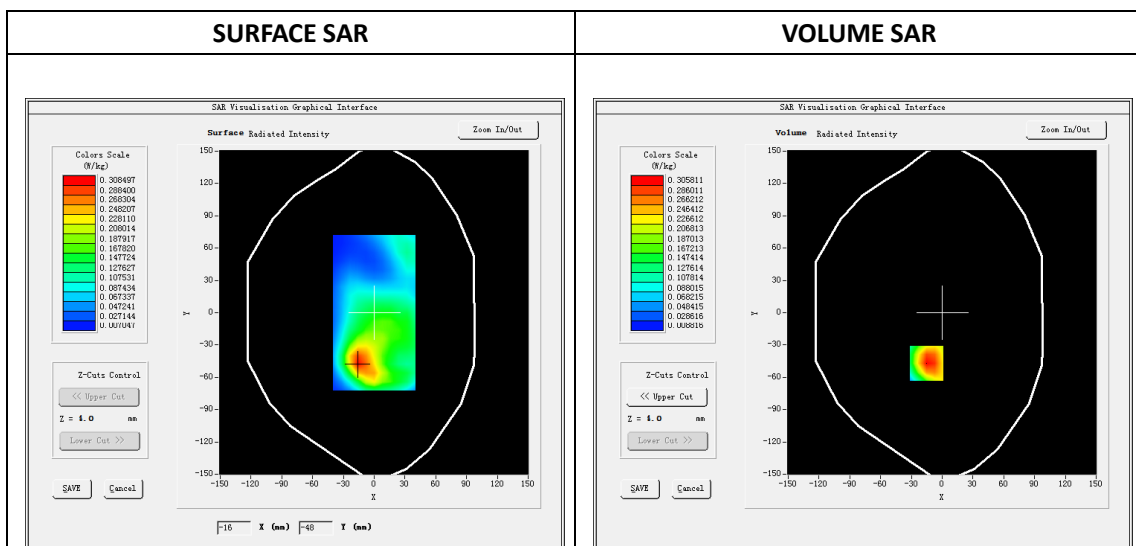
Type: Phone measurement  
 Date of measurement: 12/18/2018  
 Measurement duration: 22 minutes 36 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

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

**B. SAR Measurement Results**

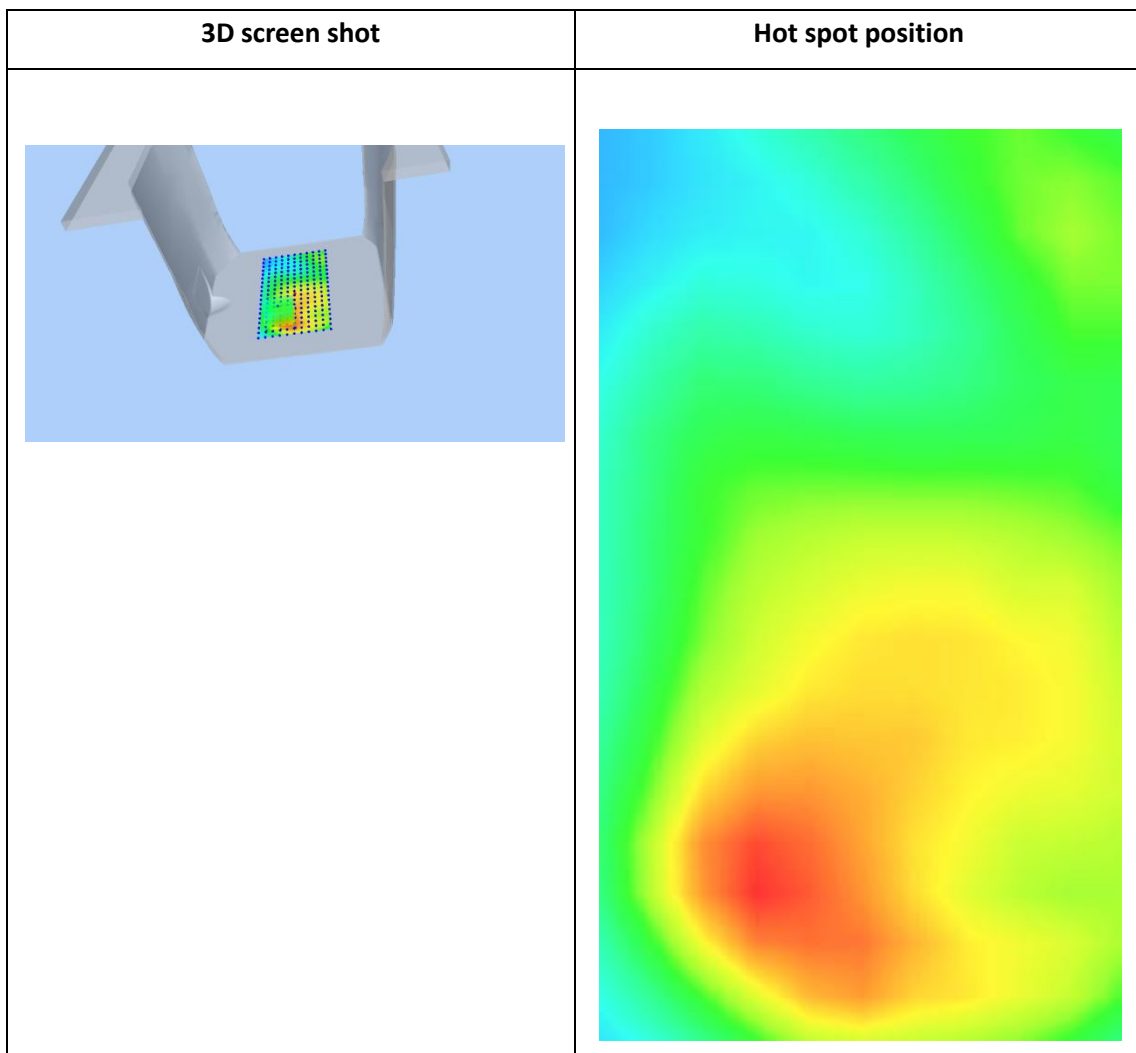
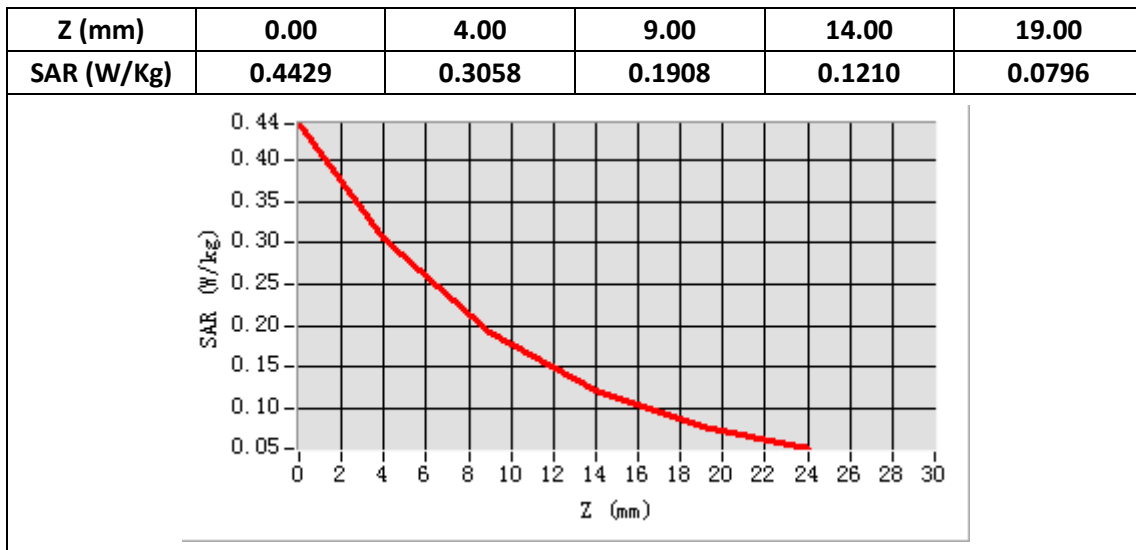
<b>E-Field Probe</b>	SATIMO SN_04/13_EP166
<b>Frequency (MHz)</b>	1880
<b>Relative permittivity (real part)</b>	53.32
<b>Relative permittivity (imaginary part)</b>	14.30
<b>Conductivity (S/m)</b>	1.51
<b>Variation (%)</b>	-2.71
<b>ConvF:</b>	6.10



**Maximum location: X=-15.00, Y=-47.00**

**SAR Peak: 0.45W/kg**

<b>SAR 10g (W/Kg)</b>	0.172441
<b>SAR 1g (W/Kg)</b>	0.291398



## Plot 9: LTE Band2, 20MHz, Right Cheek , Middle

Type: Phone measurement

Date of measurement: 12/18/2018

Measurement duration: 22 minutes 35 seconds

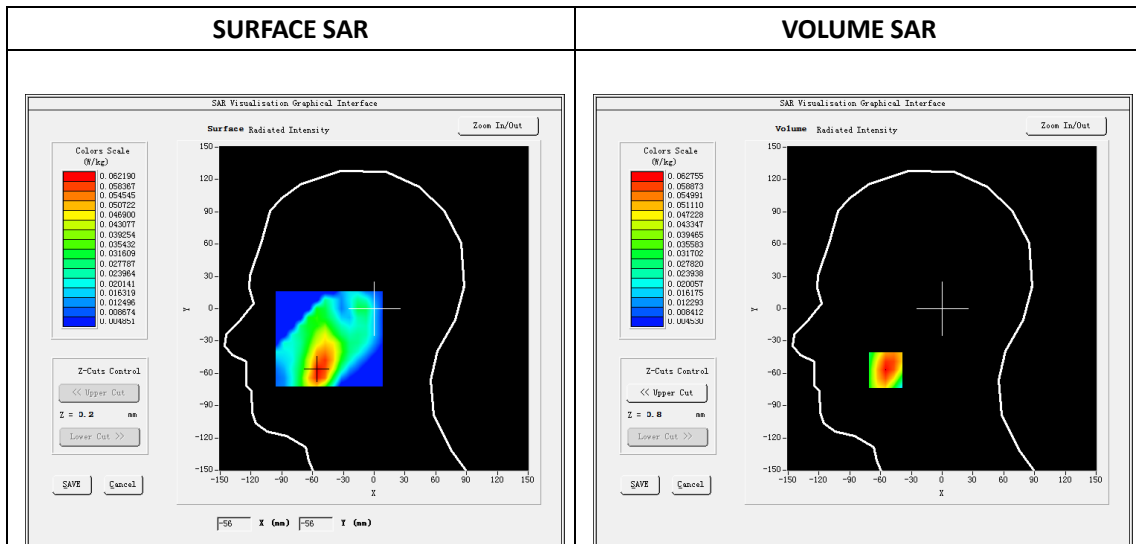
Mobile Phone IMEI number: --

**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 2
Channels	18900
Signal	LTE (Duty cycle: 1:1)

**B. SAR Measurement Results**

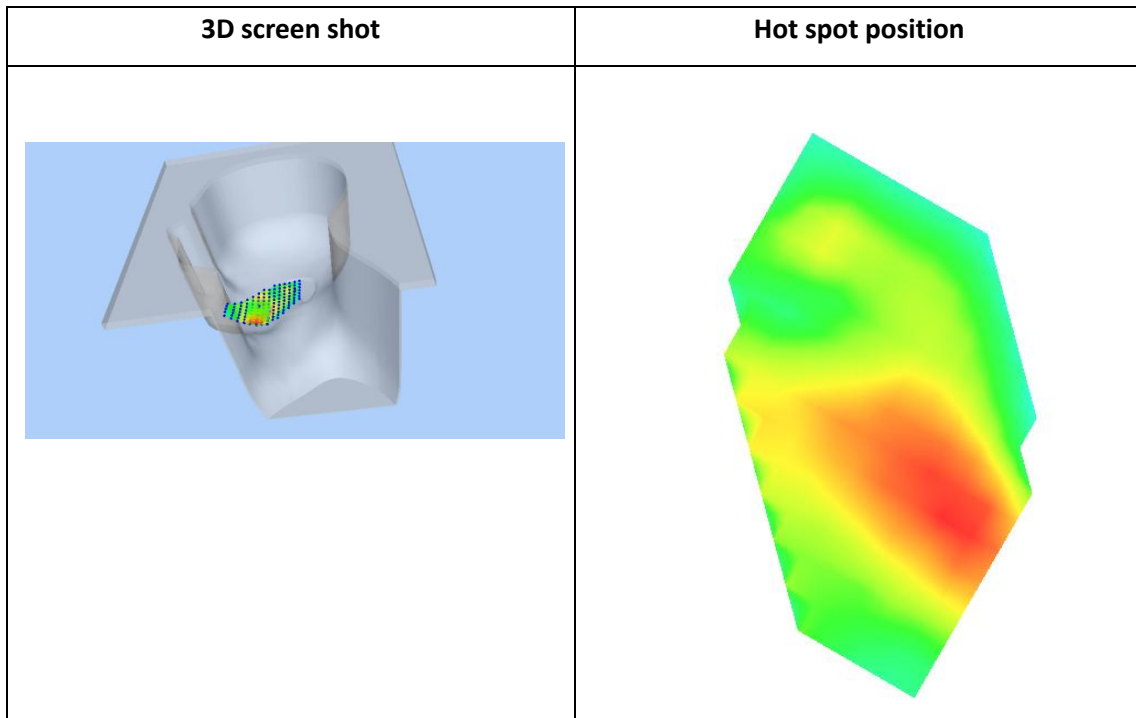
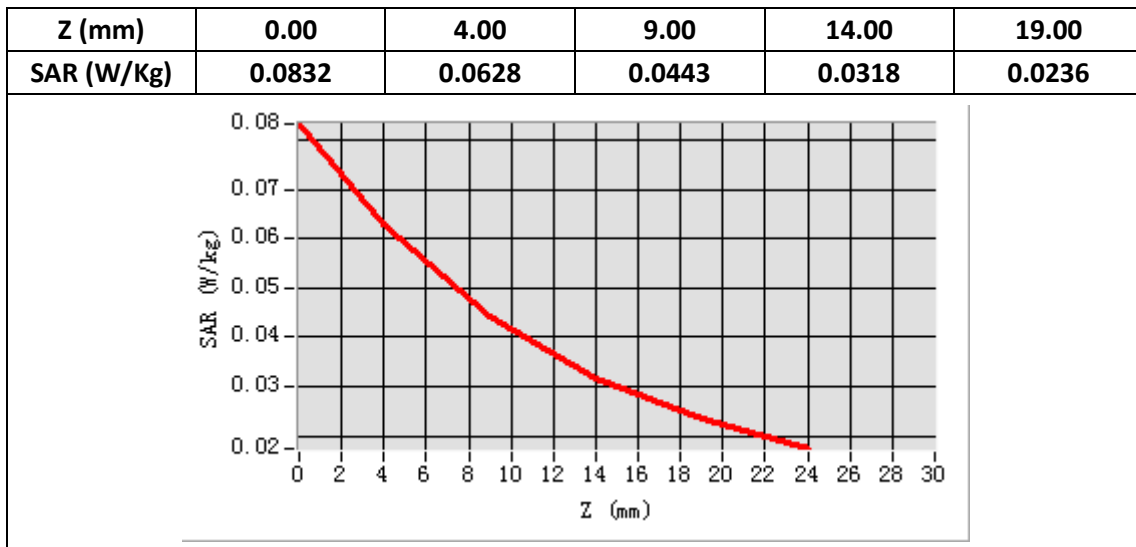
E-Field Probe	SATIMO SN_04/13_EP166
Frequency (MHz)	1880
Relative permittivity (real part)	40.51
Relative permittivity (imaginary part)	13.45
Conductivity (S/m)	1.42
Variation (%)	-2.35
ConvF:	5.90



**Maximum location: X=-55.00, Y=-57.00**

**SAR Peak: 0.08 W/kg**

<b>SAR 10g (W/Kg)</b>	0.039730
<b>SAR 1g (W/Kg)</b>	0.059920



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

Type: Phone measurement

Date of measurement: 12/18/2018

Measurement duration: 22 minutes 23 seconds

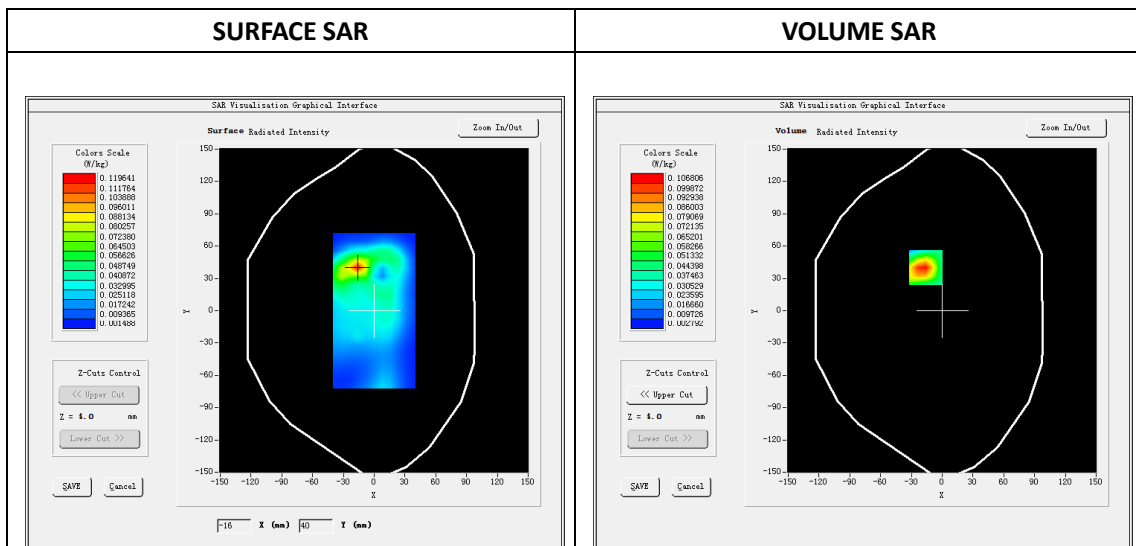
Mobile Phone IMEI number: --

**A. Experimental conditions.**

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

**B. SAR Measurement Results**

E-Field Probe	SATIMO SN_04/13_EP166
Frequency (MHz)	1880
Relative permittivity (real part)	53.32
Relative permittivity (imaginary part)	14.30
Conductivity (S/m)	1.51
Variation (%)	0.43
ConvF:	5.90

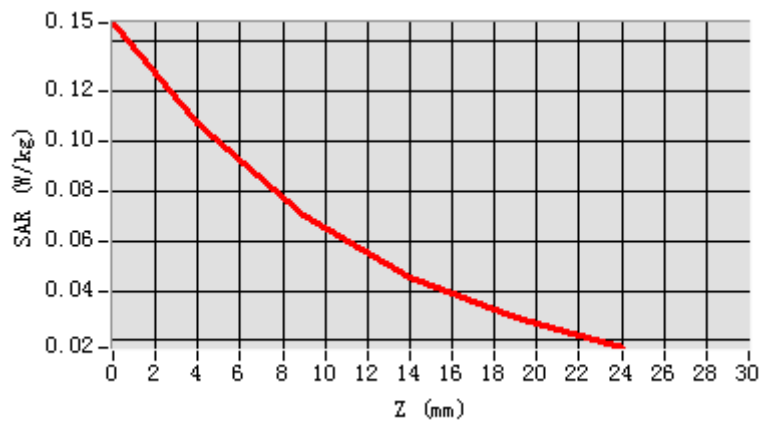


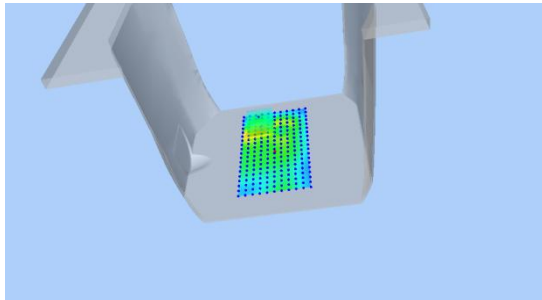
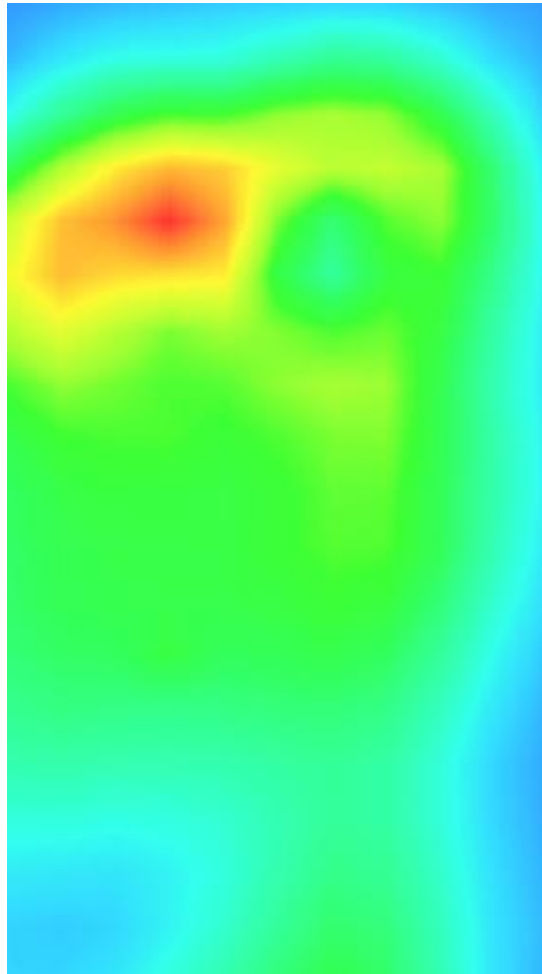
Maximum location: X=-16.00, Y=40.00

SAR Peak: 0.15 W/kg

SAR 10g (W/Kg)	0.055640
SAR 1g (W/Kg)	0.100070

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>
<b>SAR (W/Kg)</b>	<b>0.1473</b>	<b>0.1068</b>	<b>0.0702</b>	<b>0.0454</b>	<b>0.0288</b>



3D screen shot	Hot spot position
	

## Plot 11: LTE Band4, 20MHz,Right Cheek, Middle

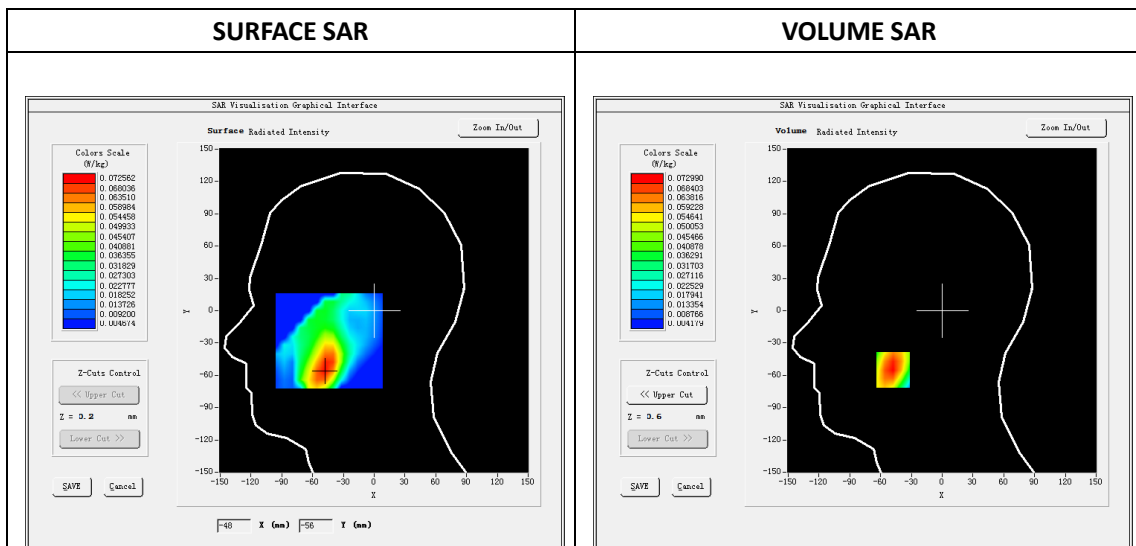
Type: Phone measurement  
 Date of measurement: 12/18/2018  
 Measurement duration: 22 minutes 23 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

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

**B. SAR Measurement Results**

<b>E-Field Probe</b>	SATIMO SN_04/13_EP166
<b>Frequency (MHz)</b>	1732.5
<b>Relative permittivity (real part)</b>	40.45
<b>Relative permittivity (imaginary part)</b>	14.10
<b>Conductivity (S/m)</b>	1.41
<b>Variation (%)</b>	-1.56
<b>ConvF:</b>	5.43

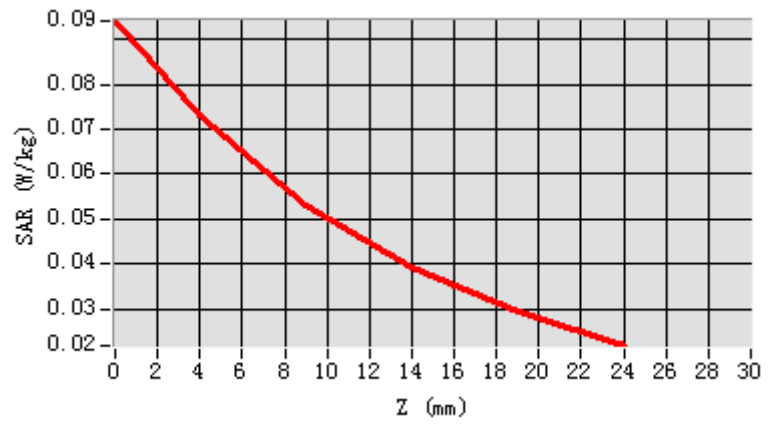


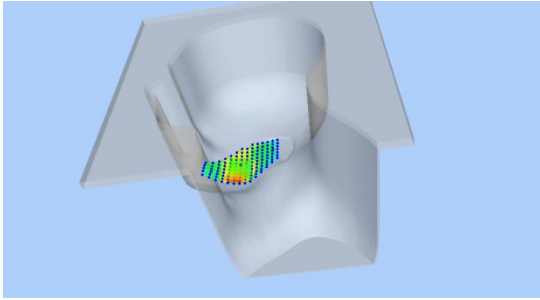
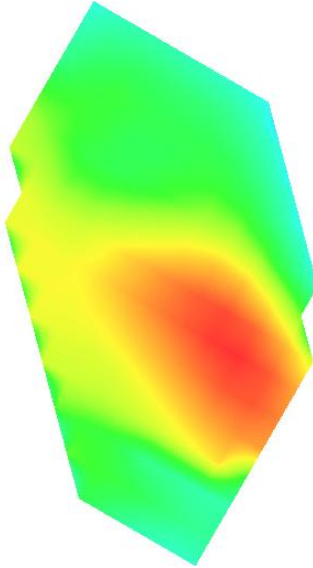
**Maximum location: X=-48.00, Y=-55.00**

**SAR Peak: 0.09 W/kg**

<b>SAR 10g (W/Kg)</b>	0.047565
<b>SAR 1g (W/Kg)</b>	0.071117

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.0941	0.0730	0.0532	0.0392	0.0294



3D screen shot	Hot spot position
	



**Plot 12: LTE Band4, 20MHz, BACK, Middle,10mm**

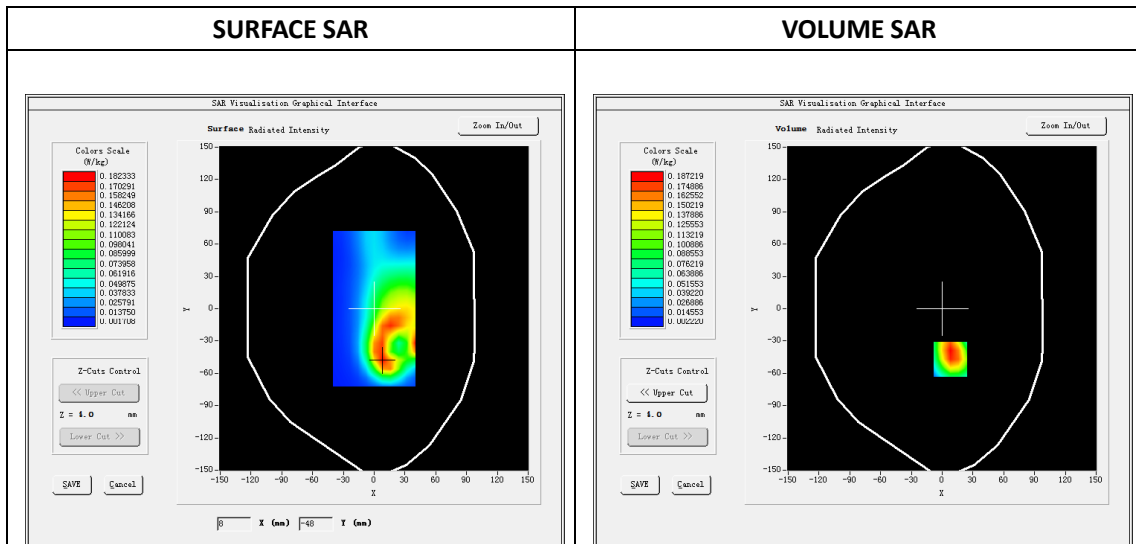
Type: Phone measurement  
 Date of measurement: 12/18/2018  
 Measurement duration: 22 minutes 19 seconds  
 Mobile Phone IMEI number: --

**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_04/13_EP166
Frequency (MHz)	1732.5
Relative permittivity (real part)	53.36
Relative permittivity (imaginary part)	15.30
Conductivity (S/m)	1.53
Variation (%)	-0.30
ConvF:	5.60

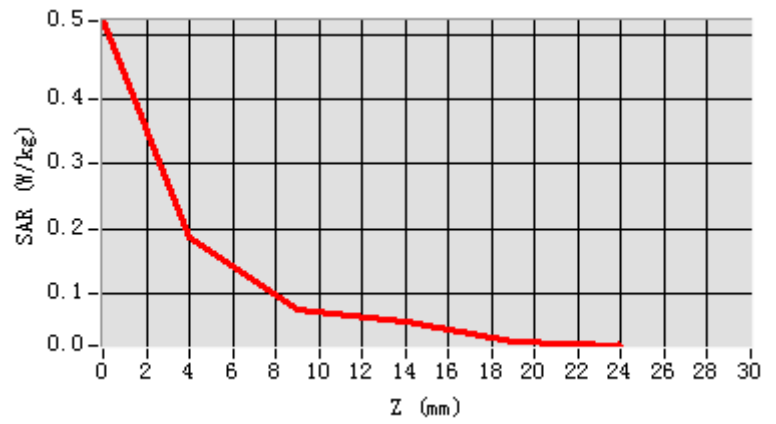


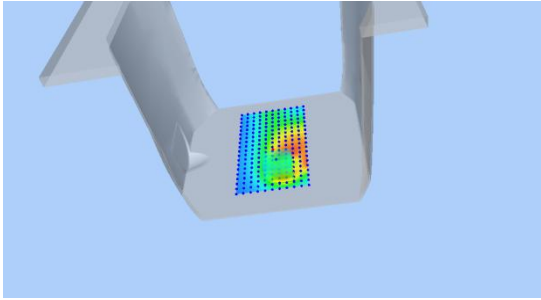
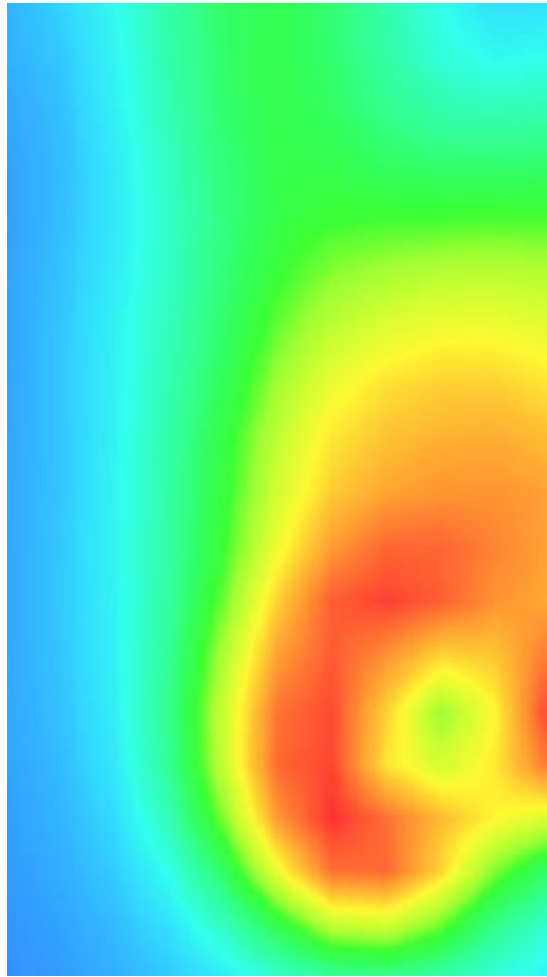
Maximum location: X=8.00, Y=-47.00

SAR Peak: 0.30 W/kg

SAR 10g (W/Kg)	0.096994
SAR 1g (W/Kg)	0.224113

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.5203	0.1872	0.0760	0.0594	0.0256



3D screen shot	Hot spot position
	

### Plot 13: LTE Band5, 10MHz, Left Cheek, Middle

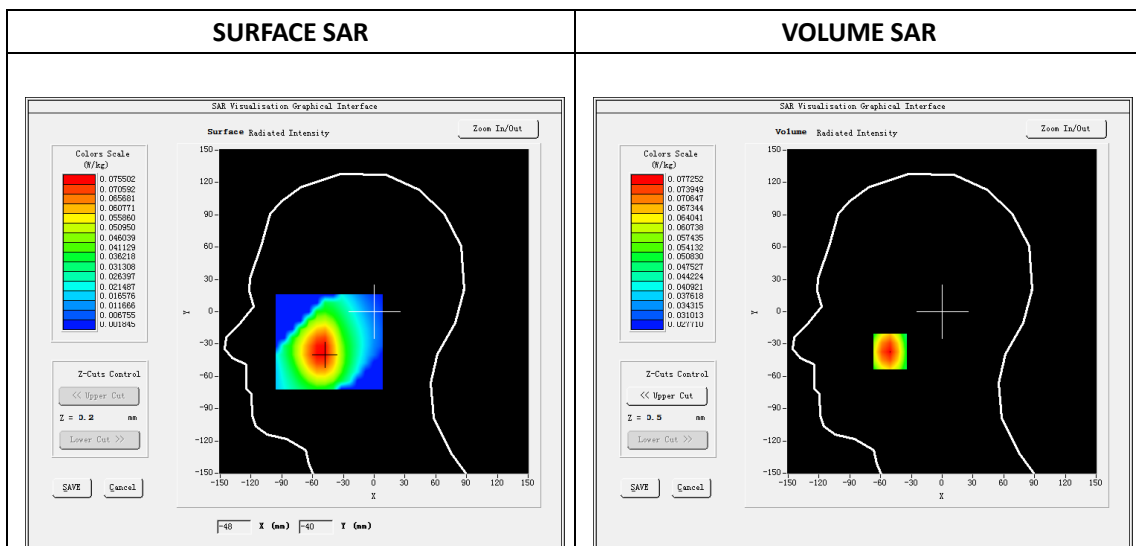
Type: Phone measurement  
 Date of measurement: 12/27/2018  
 Measurement duration: 22 minutes 26 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

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

**B. SAR Measurement Results**

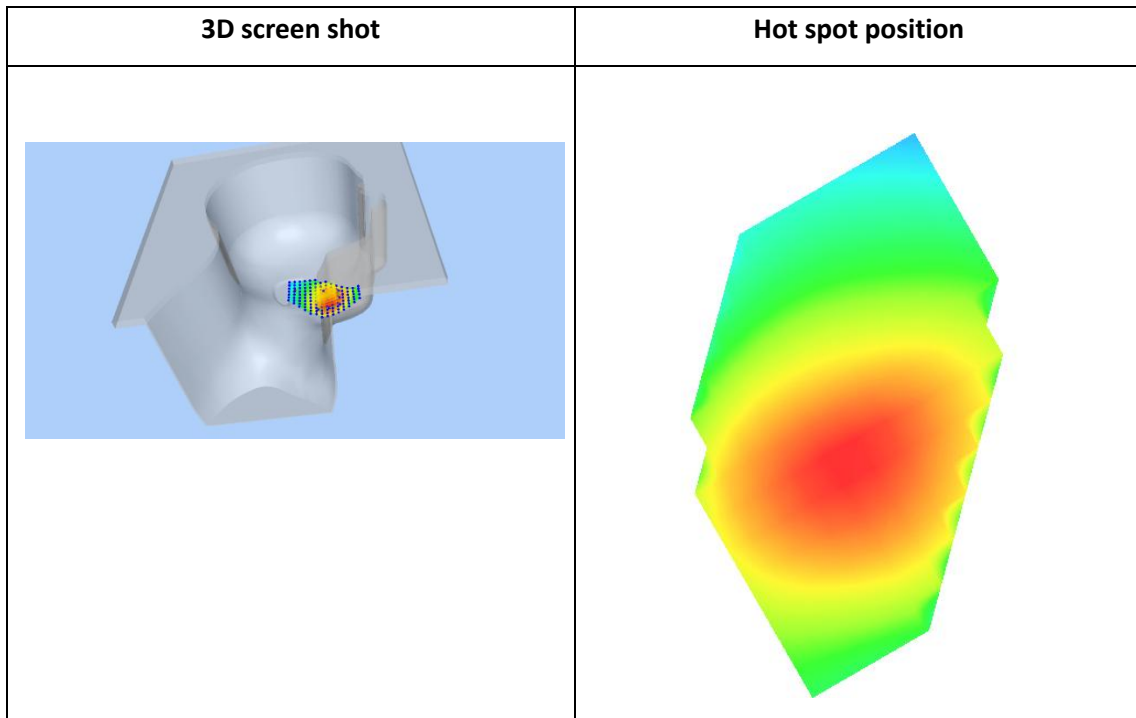
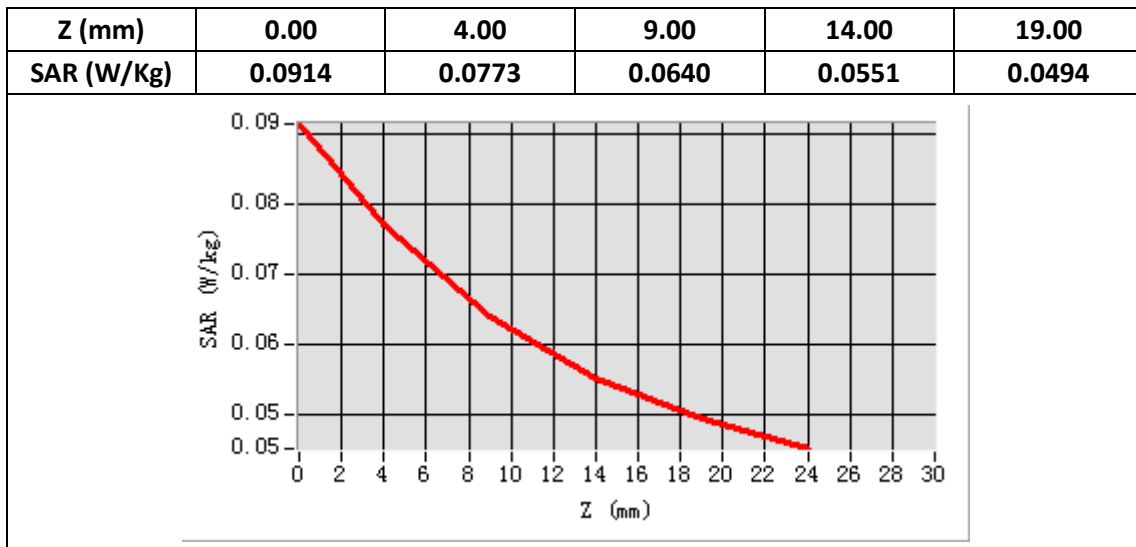
<b>E-Field Probe</b>	SATIMO SN_04/13_EP166
<b>Frequency (MHz)</b>	836.5
<b>Relative permittivity (real part)</b>	41.30
<b>Relative permittivity (imaginary part)</b>	19.18
<b>Conductivity (S/m)</b>	0.98
<b>Variation (%)</b>	-0.28
<b>ConvF:</b>	5.85



**Maximum location: X=-51.00, Y=-37.00**

**SAR Peak: 0.09 W/kg**

<b>SAR 10g (W/Kg)</b>	0.060515
<b>SAR 1g (W/Kg)</b>	0.076032



**Plot 14: LTE Band5, 10MHz, Back, Middle,10mm**

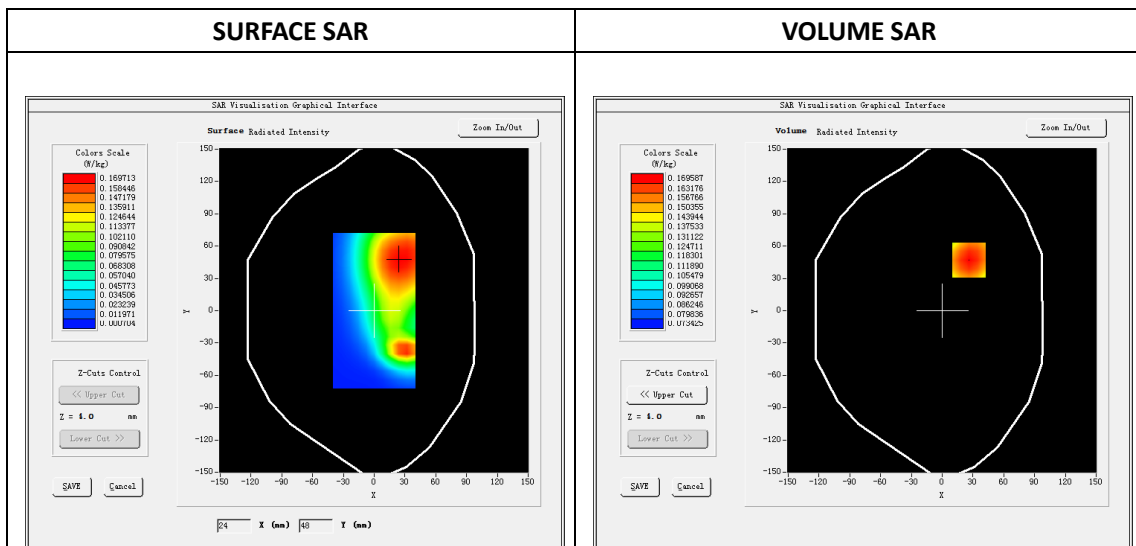
Type: Phone measurement  
 Date of measurement: 12/17/2018  
 Measurement duration: 22 minutes 15 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

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

**B. SAR Measurement Results**

<b>E-Field Probe</b>	SATIMO SN_04/13_EP166
<b>Frequency (MHz)</b>	836.5
<b>Relative permittivity (real part)</b>	55.12
<b>Relative permittivity (imaginary part)</b>	20.69
<b>Conductivity (S/m)</b>	0.96
<b>Variation (%)</b>	-0.58
<b>ConvF:</b>	6.17

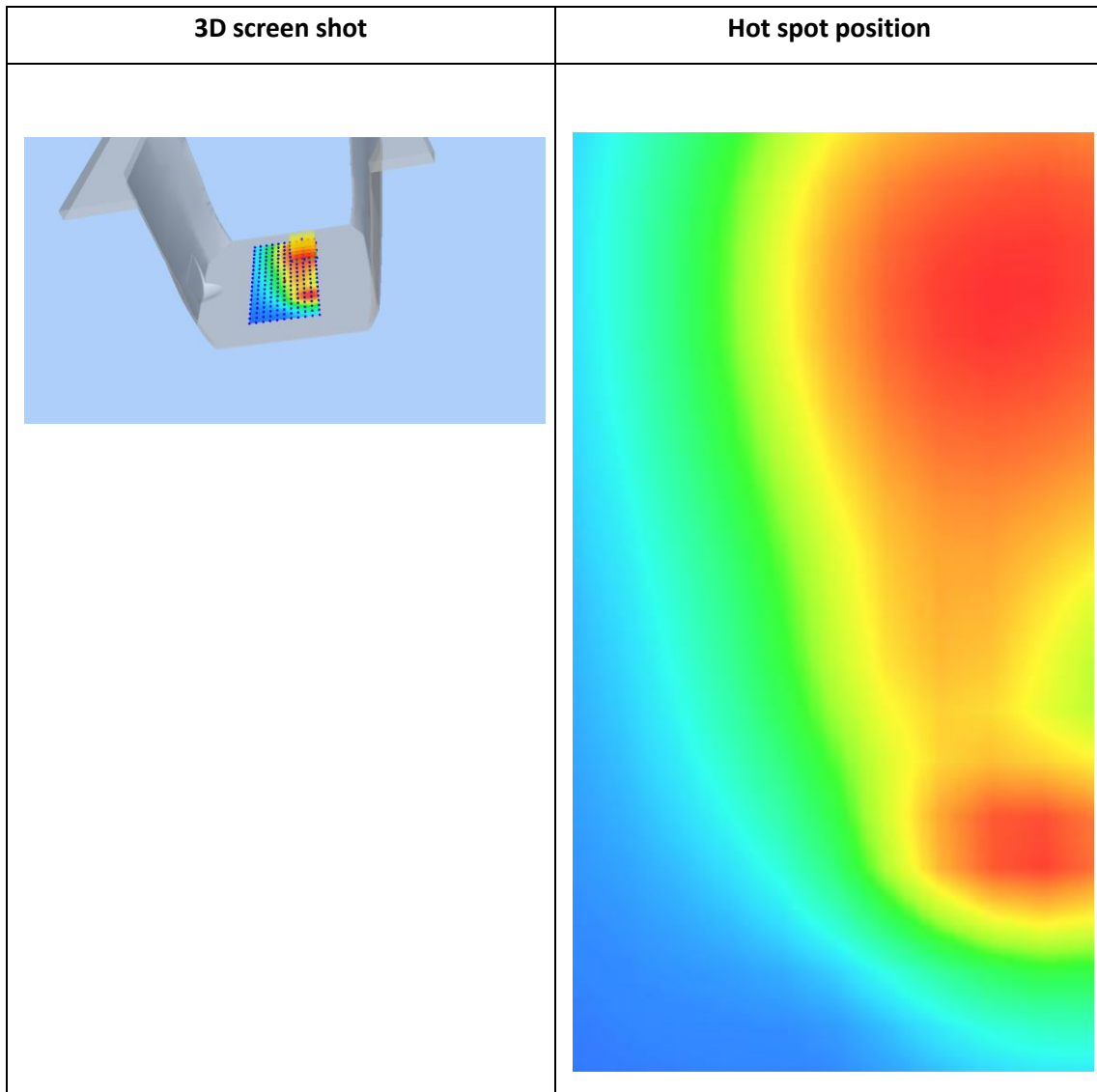
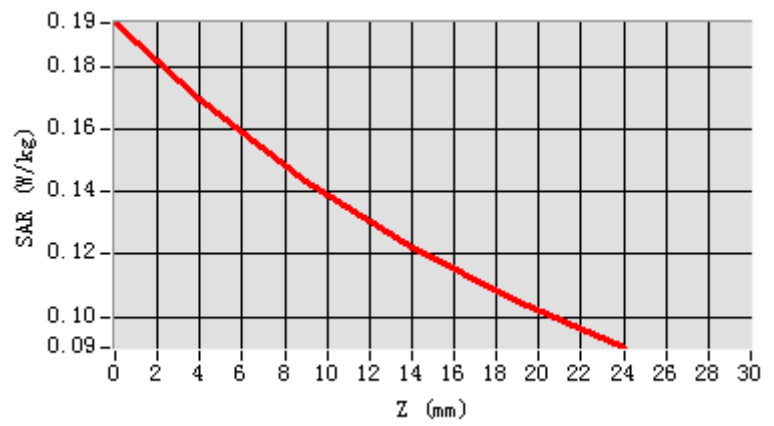


**Maximum location: X=26.00, Y=47.00**

**SAR Peak: 0.19W/kg**

<b>SAR 10g (W/Kg)</b>	0.136902
<b>SAR 1g (W/Kg)</b>	0.167719

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1942	0.1696	0.1436	0.1225	0.1051



**Plot 15: LTE Band7, 20MHz, Left Cheek, Middle**

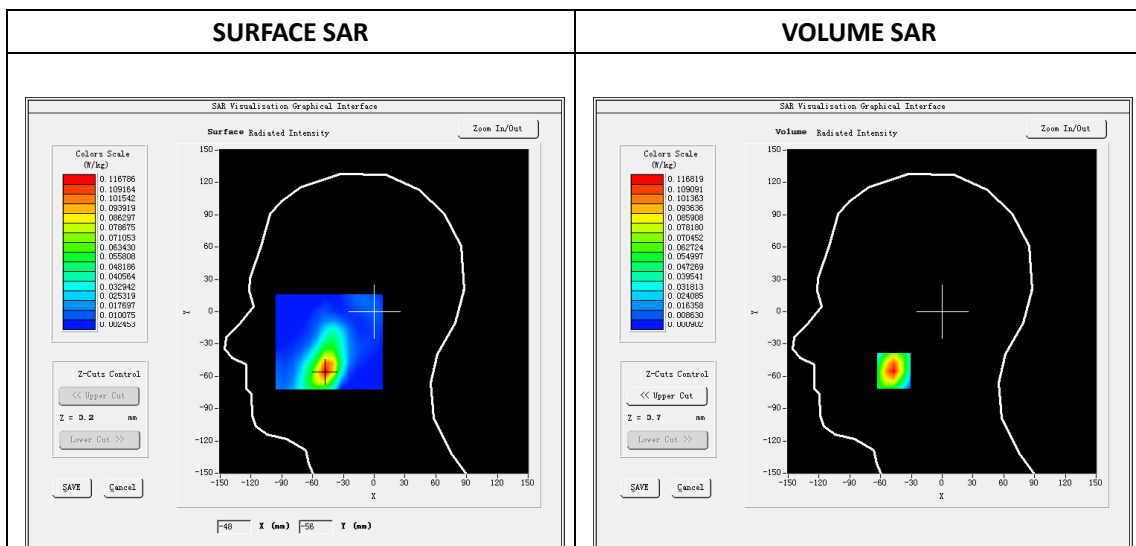
Type: Phone measurement  
 Date of measurement: 12/20/2018  
 Measurement duration: 22 minutes 26 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7, dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Left Cheek
Band	LTE Band 7
Channels	21100
Signal	LTE (Duty cycle: 1:1)

**B. SAR Measurement Results**

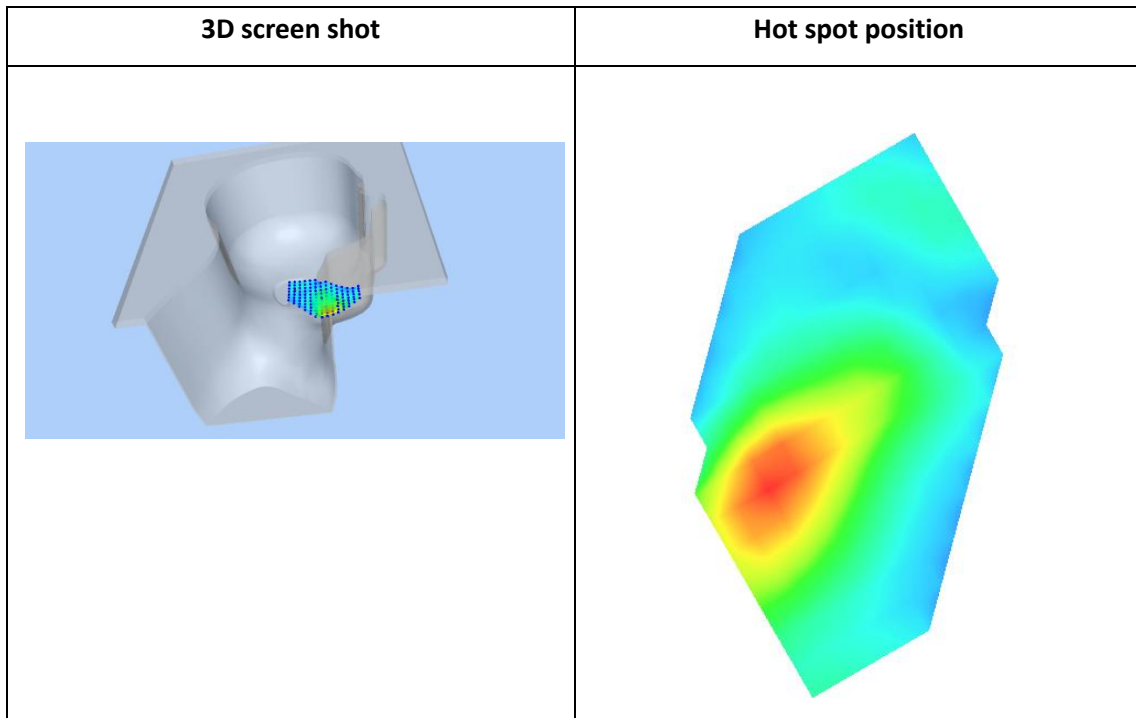
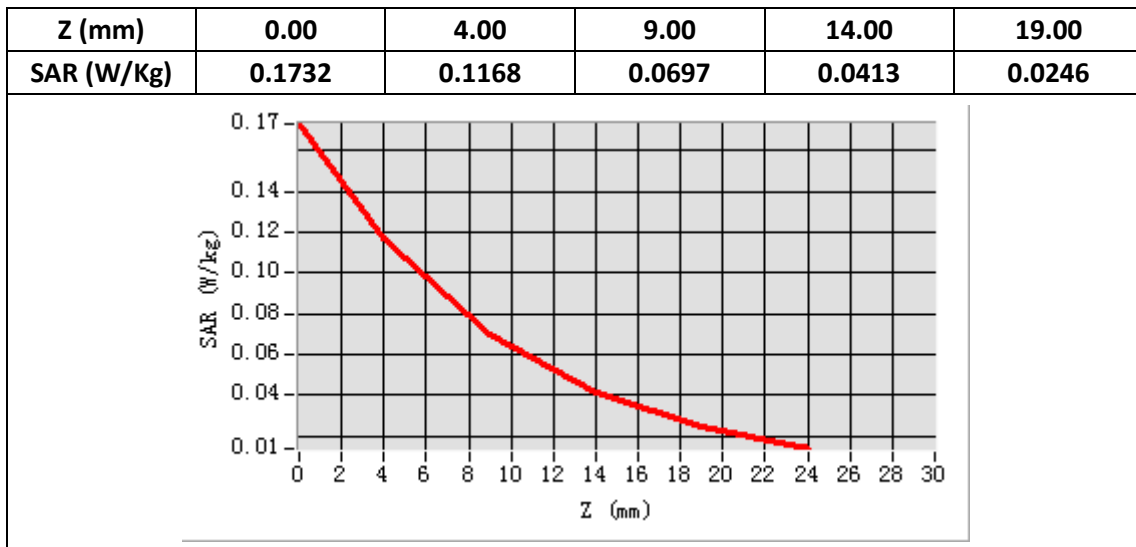
E-Field Probe	SATIMO SN_04/13_EP166
Frequency (MHz)	2535
Relative permittivity (real part)	39.30
Relative permittivity (imaginary part)	13.70
Conductivity (S/m)	1.98
Variation (%)	-0.24
ConvF:	5.25



Maximum location: X=-47.00, Y=-55.00

SAR Peak: 0.18 W/kg

SAR 10g (W/Kg)	0.056900
SAR 1g (W/Kg)	0.108242





**Plot 16: LTE Band7, 20MHz, Back, Middle,10mm**

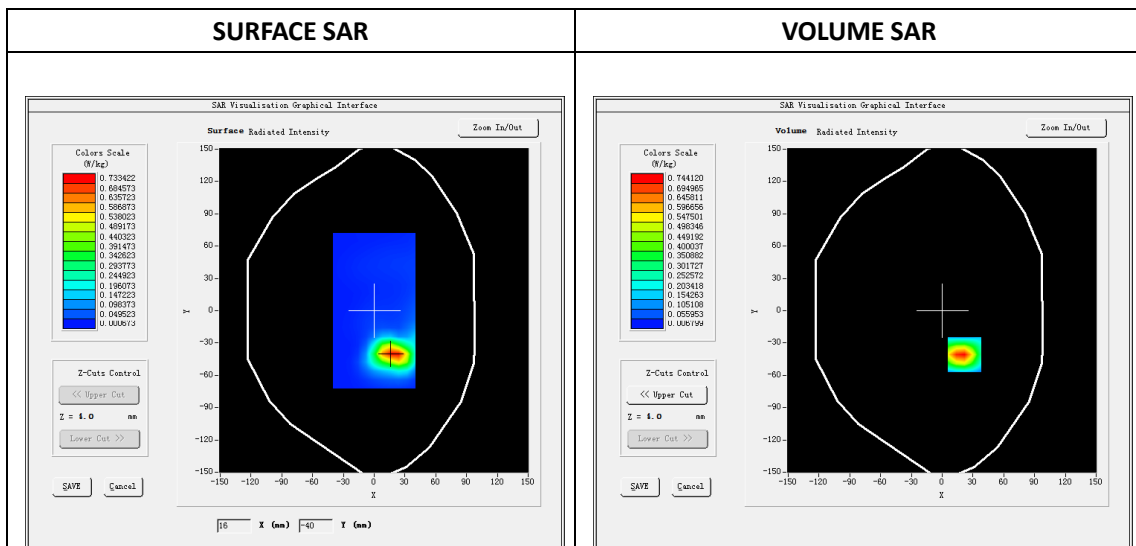
Type: Phone measurement  
 Date of measurement: 12/20/2018  
 Measurement duration: 22 minutes 33 seconds  
 Mobile Phone IMEI number: --

**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 7
Channels	21100
Signal	LTE (Duty cycle: 1:1)

**B. SAR Measurement Results**

E-Field Probe	SATIMO SN_04/13_EP166
Frequency (MHz)	2535
Relative permittivity (real part)	52.45
Relative permittivity (imaginary part)	14.88
Conductivity (S/m)	2.15
Variation (%)	-0.50
ConvF:	5.28

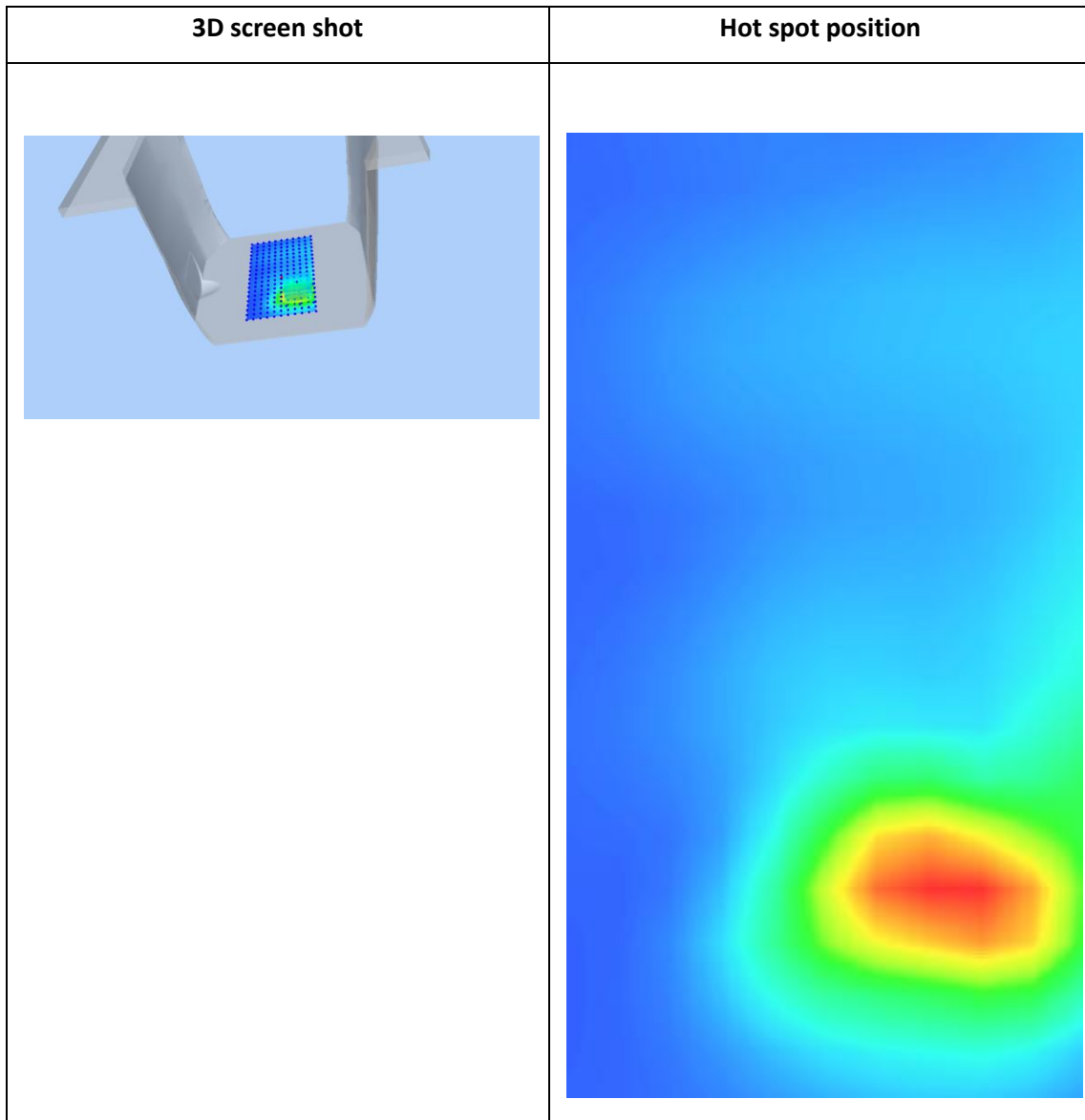
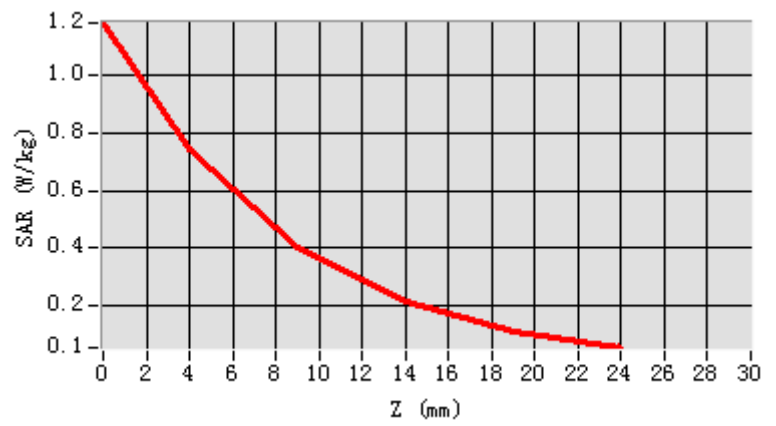


**Maximum location: X=22.00, Y=-41.00**

**SAR Peak: 1.21W/kg**

<b>SAR 10g (W/Kg)</b>	0.326071
<b>SAR 1g (W/Kg)</b>	0.686231

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.1831	0.7441	0.4003	0.2104	0.1106



## Plot 17: LTE Band12, 10MHz,Right Cheek, Middle

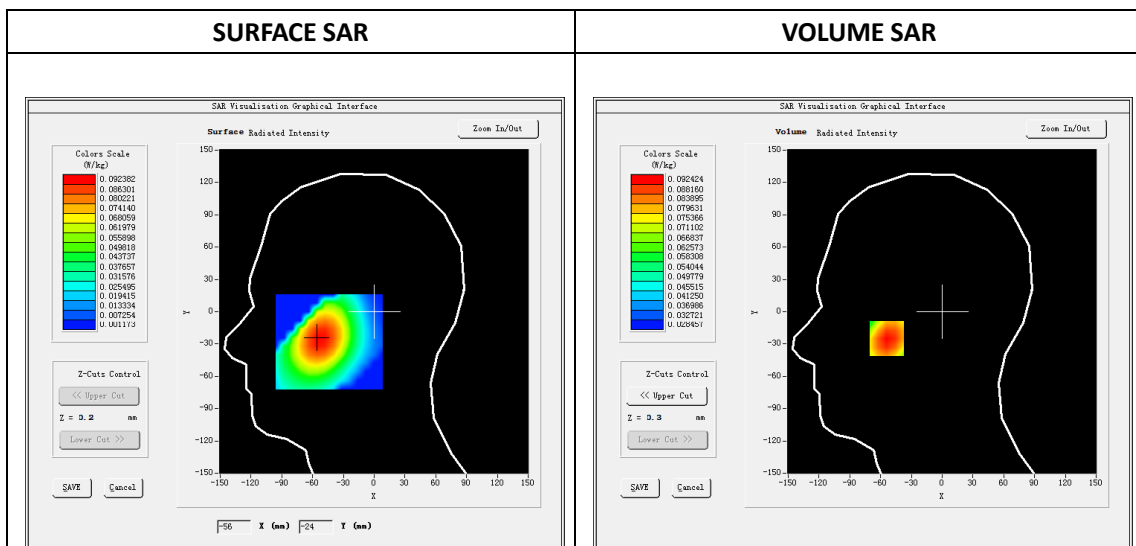
Type: Phone measurement  
 Date of measurement: 12/23/2018  
 Measurement duration: 22 minutes 16 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

<b>Area Scan</b>	dx=8mm dy=8mm
<b>ZoomScan</b>	5x5x7,dx=8mm dy=8mm dz=5mm
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Right Cheek
<b>Band</b>	LTE Band 12
<b>Channels</b>	23095
<b>Signal</b>	LTE (Duty cycle: 1:1)

**B. SAR Measurement Results**

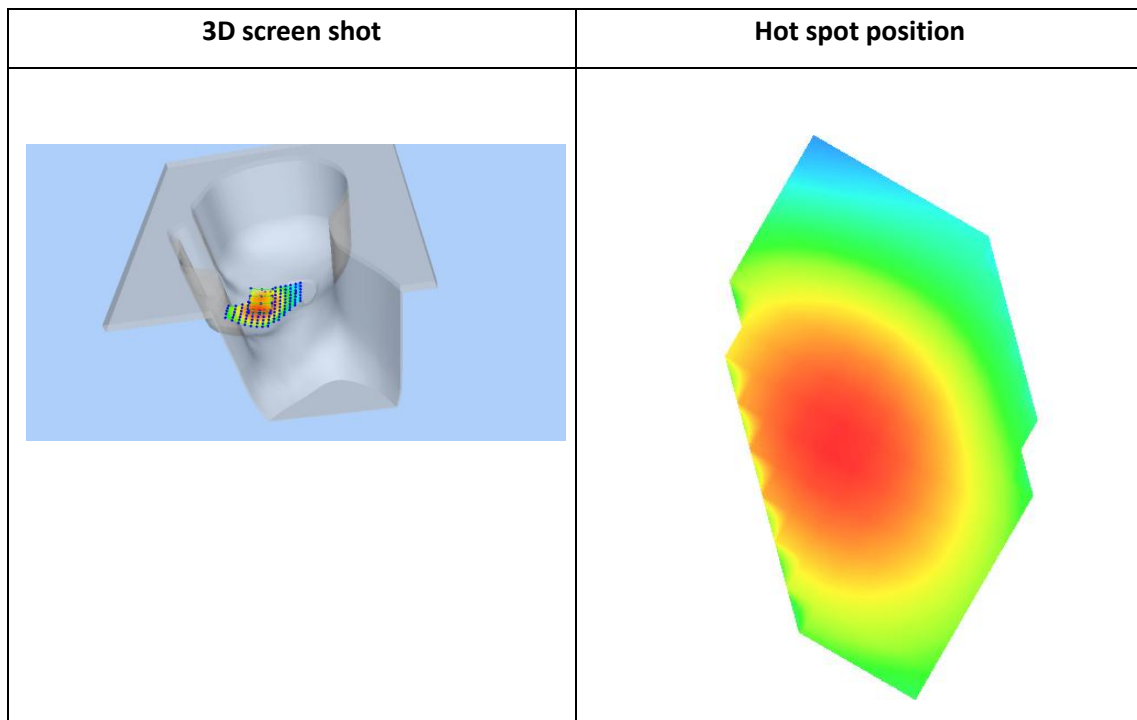
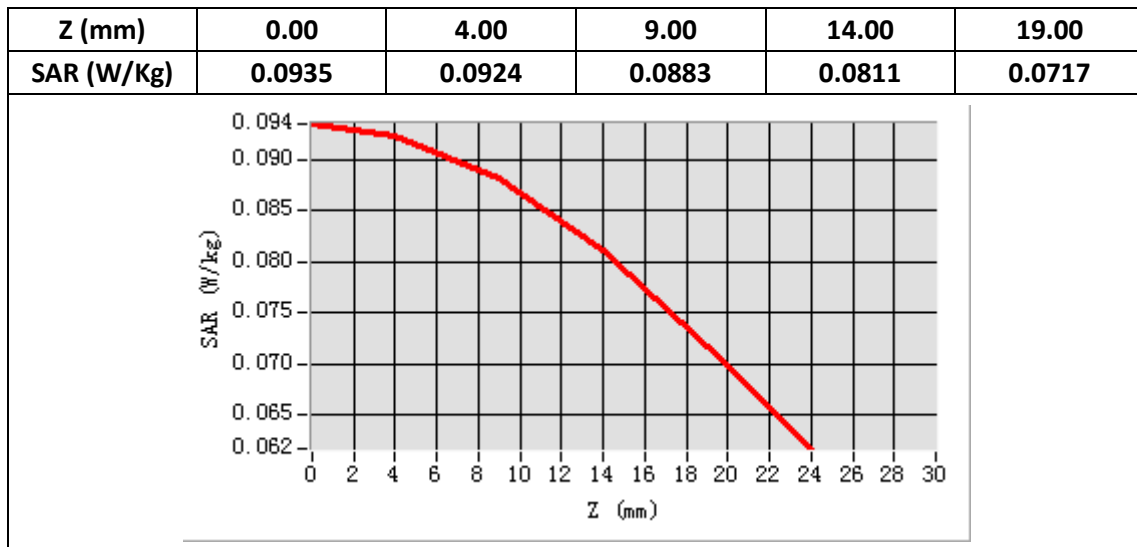
<b>E-Field Probe</b>	SATIMO SN_04/13_EP166
<b>Frequency (MHz)</b>	707.5
<b>Relative permittivity (real part)</b>	41.90
<b>Relative permittivity (imaginary part)</b>	21.12
<b>Conductivity (S/m)</b>	0.88
<b>Variation (%)</b>	-1.48
<b>ConvF:</b>	5.74



**Maximum location: X=-54.00, Y=-25.00**

**SAR Peak: 0.09 W/kg**

<b>SAR 10g (W/Kg)</b>	0.080144
<b>SAR 1g (W/Kg)</b>	0.092859



**Plot 18: LTE Band12, 10MHz, Back, Middle,10mm**

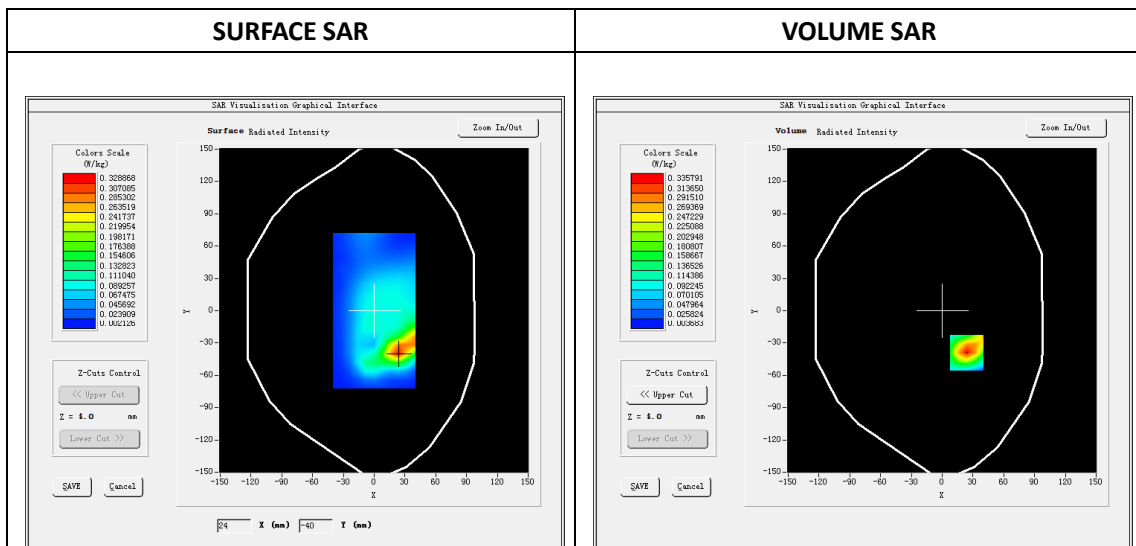
Type: Phone measurement  
 Date of measurement: 12/23/2018  
 Measurement duration: 22 minutes 15 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	LTE Band 12
Channels	23095
Signal	LTE (Duty cycle: 1:1)

**B. SAR Measurement Results**

E-Field Probe	SATIMO SN_04/13_EP166
Frequency (MHz)	707.5
Relative permittivity (real part)	55.40
Relative permittivity (imaginary part)	22.80
Conductivity (S/m)	0.95
Variation (%)	-0.04
ConvF:	5.95

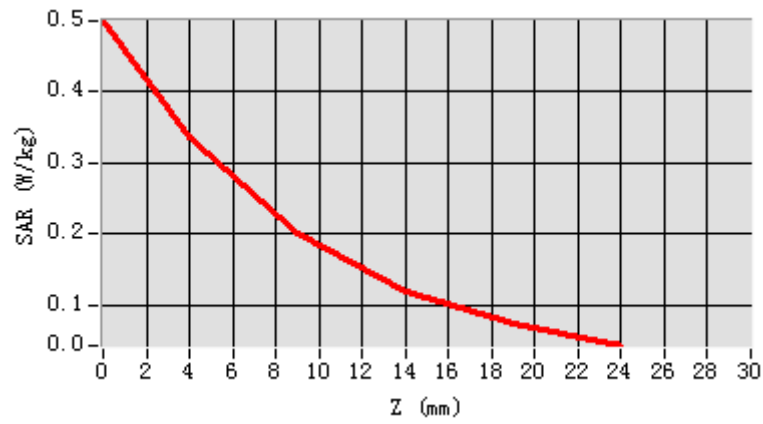


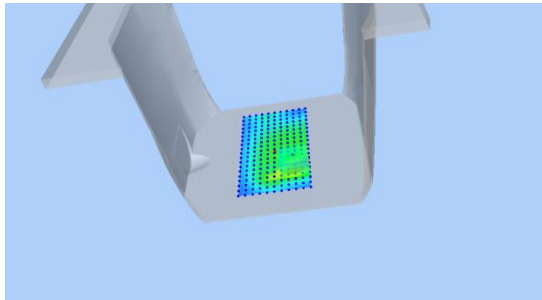
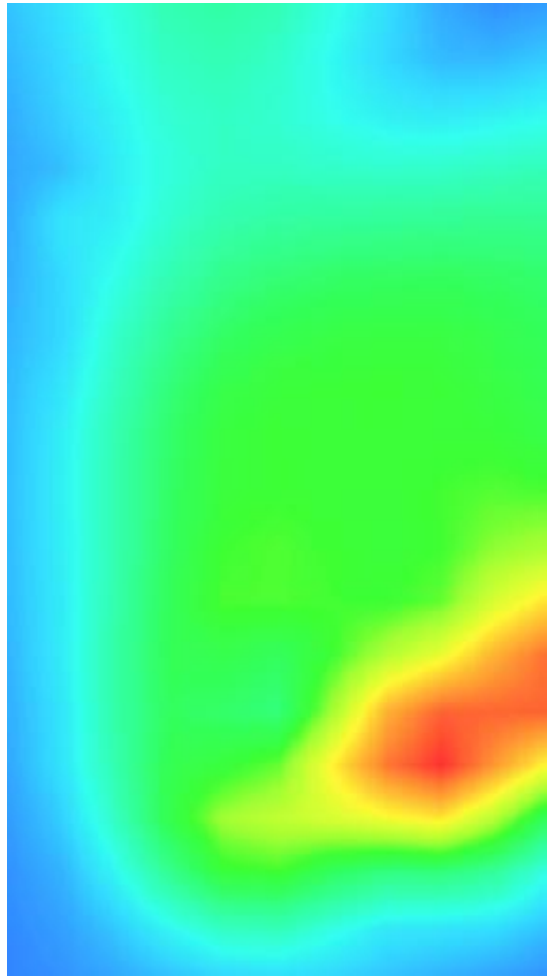
**Maximum location: X=24.00, Y=-39.00**

**SAR Peak: 0.50W/kg**

<b>SAR 10g (W/Kg)</b>	0.167823
<b>SAR 1g (W/Kg)</b>	0.317552

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.4980	0.3358	0.2014	0.1211	0.0743



3D screen shot	Hot spot position
	

### Plot 19: LTE Band66, 20MHz,Left Cheek, Middle

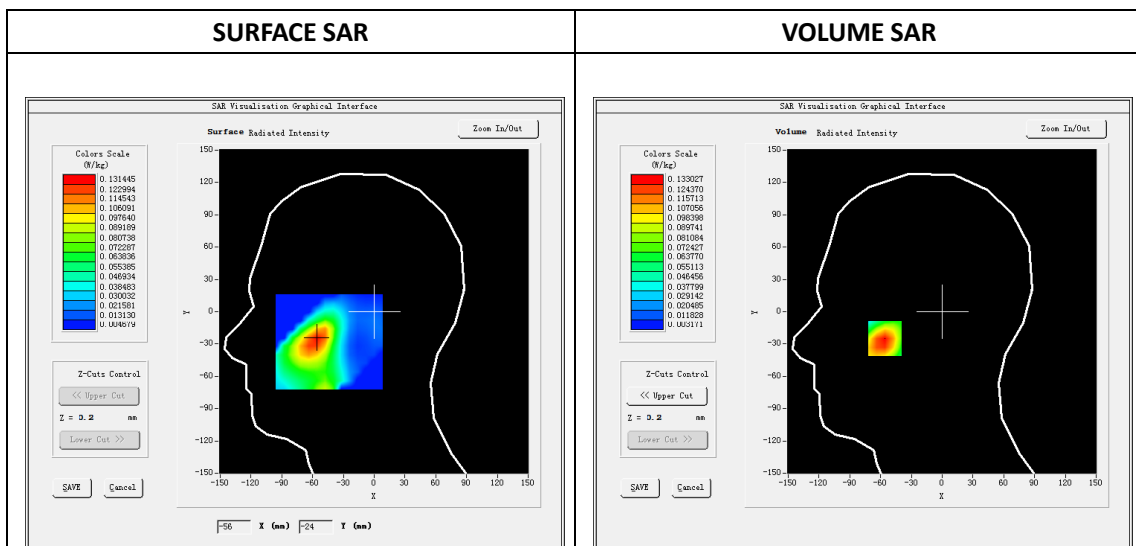
Type: Phone measurement  
 Date of measurement: 12/18/2018  
 Measurement duration: 22 minutes 13 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

<b>Area Scan</b>	dx=8mm dy=8mm
<b>ZoomScan</b>	5x5x7,dx=8mm dy=8mm dz=5mm
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Left Cheek
<b>Band</b>	LTE Band 66
<b>Channels</b>	131979
<b>Signal</b>	LTE (Duty cycle: 63.33%)

**B. SAR Measurement Results**

<b>E-Field Probe</b>	SATIMO SN_04/13_EP166
<b>Frequency (MHz)</b>	1710.7
<b>Relative permittivity (real part)</b>	40.45
<b>Relative permittivity (imaginary part)</b>	14.1
<b>Conductivity (S/m)</b>	1.41
<b>Variation (%)</b>	0.64
<b>ConvF:</b>	5.43

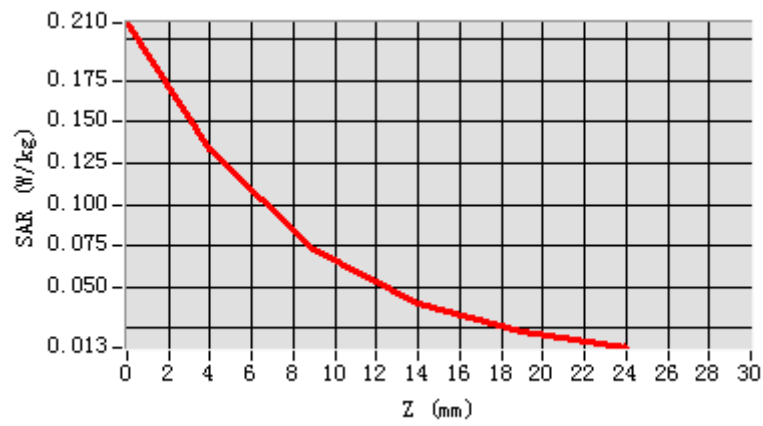


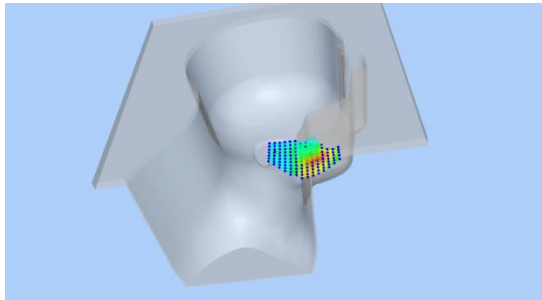
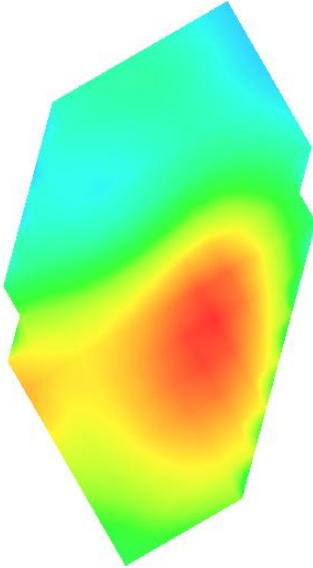
**Maximum location: X=-56.00, Y=-25.00**

**SAR Peak: 0.21 W/kg**

<b>SAR 10g (W/Kg)</b>	0.081741
<b>SAR 1g (W/Kg)</b>	0.143212

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.2102	0.1330	0.0730	0.0402	0.0232



3D screen shot	Hot spot position
	



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

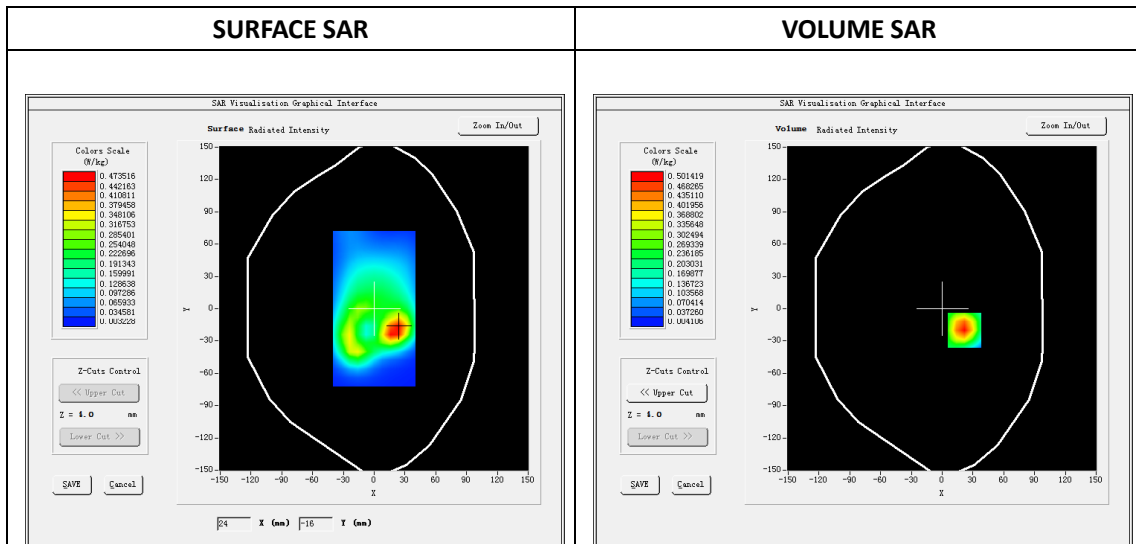
Type: Phone measurement  
 Date of measurement: 12/18/2018  
 Measurement duration: 22 minutes 23 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	LTE Band 66
Channels	131979
Signal	LTE (Duty cycle: 63.33%)

**B. SAR Measurement Results**

E-Field Probe	SATIMO SN_04/13_EP166
Frequency (MHz)	1710.7
Relative permittivity (real part)	53.36
Relative permittivity (imaginary part)	15.30
Conductivity (S/m)	1.53
Variation (%)	-0.79
ConvF:	5.60

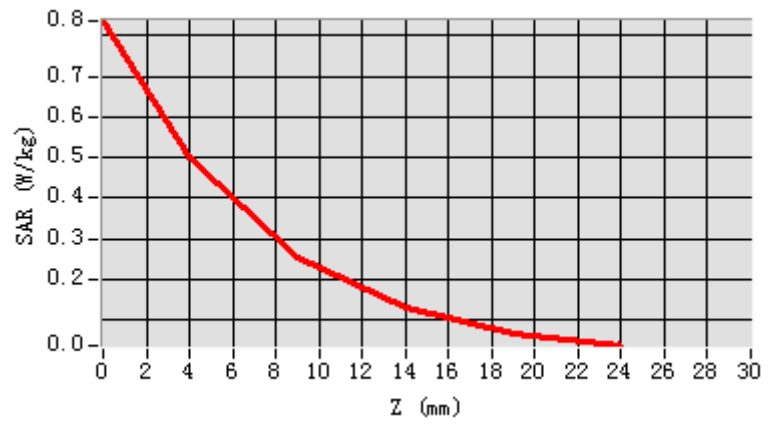


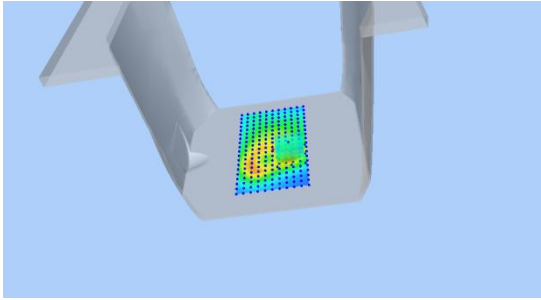
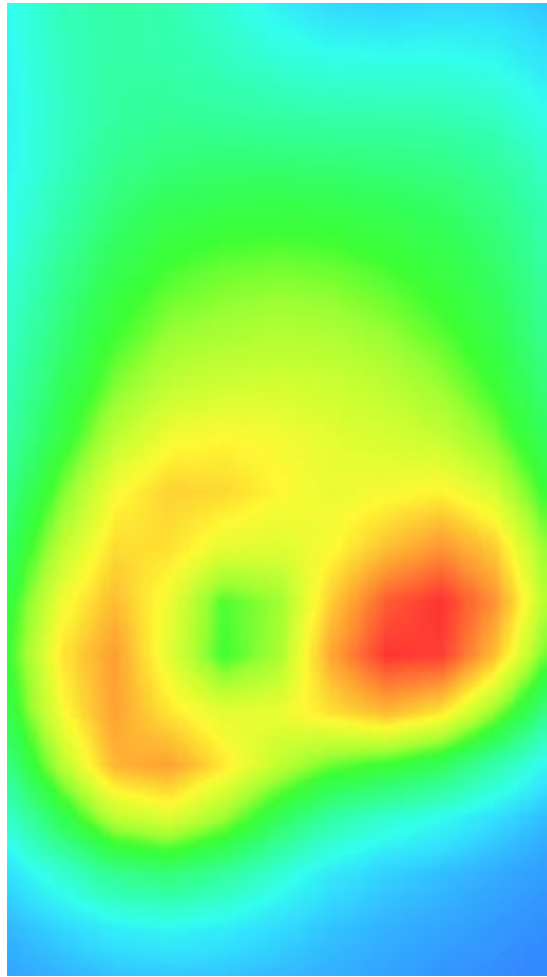
**Maximum location: X=22.00, Y=-20.00**

**SAR Peak: 0.84W/kg**

<b>SAR 10g (W/Kg)</b>	0.234283
<b>SAR 1g (W/Kg)</b>	0.476428

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.8359	0.5014	0.2534	0.1275	0.0680



3D screen shot	Hot spot position
	

**Plot 21: WIFI 2.4G 802.11b, Right Cheek, Middle**

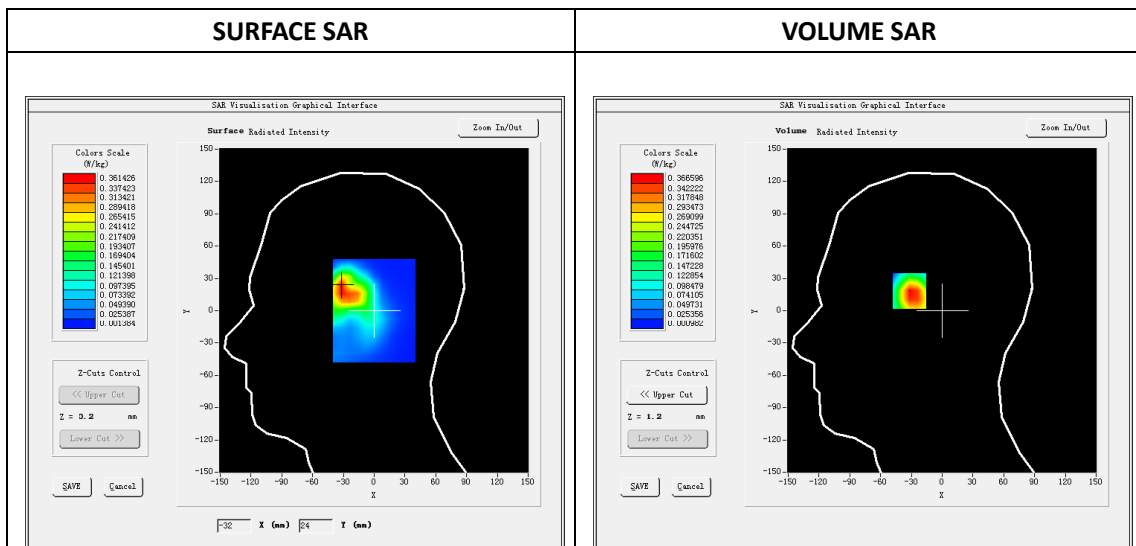
Type: Phone measurement  
 Date of measurement: 12/19/2018  
 Measurement duration: 22 minutes 27 seconds  
 Mobile Phone IMEI number: --

**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	WIFI
Channels	6
Signal	OFDM (Duty cycle: 1:1)

**B. SAR Measurement Results**

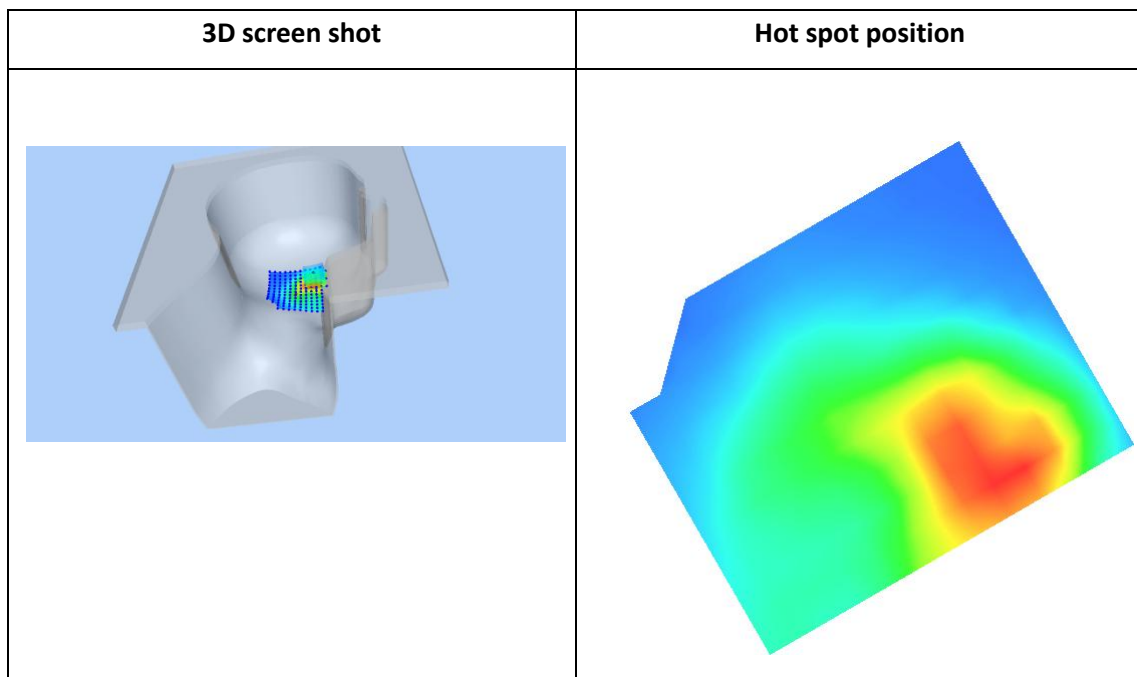
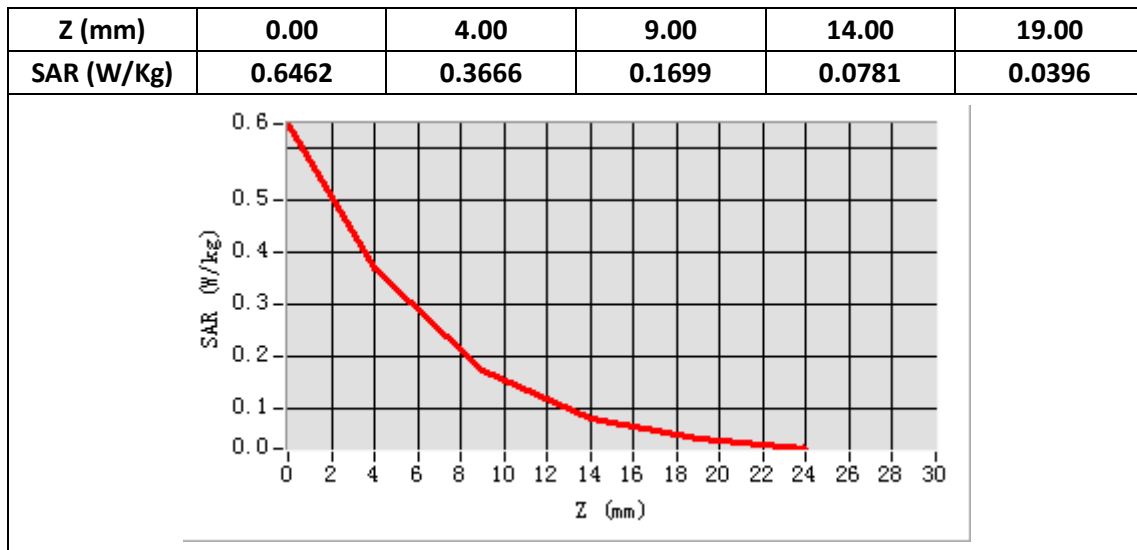
E-Field Probe	SATIMO SN_04/13_EP166
Frequency (MHz)	2437
Relative permittivity (real part)	39.10
Relative permittivity (imaginary part)	13.37
Conductivity (S/m)	1.82
Variation (%)	-0.77
ConvF:	5.35



Maximum location: X=-32.00, Y=22.00

SAR Peak: 0.68W/kg

SAR 10g (W/Kg)	0.180402
SAR 1g (W/Kg)	0.383058



**Plot 22: WIFI 2.4G 802.11b, Back ,Middle ,10mm**

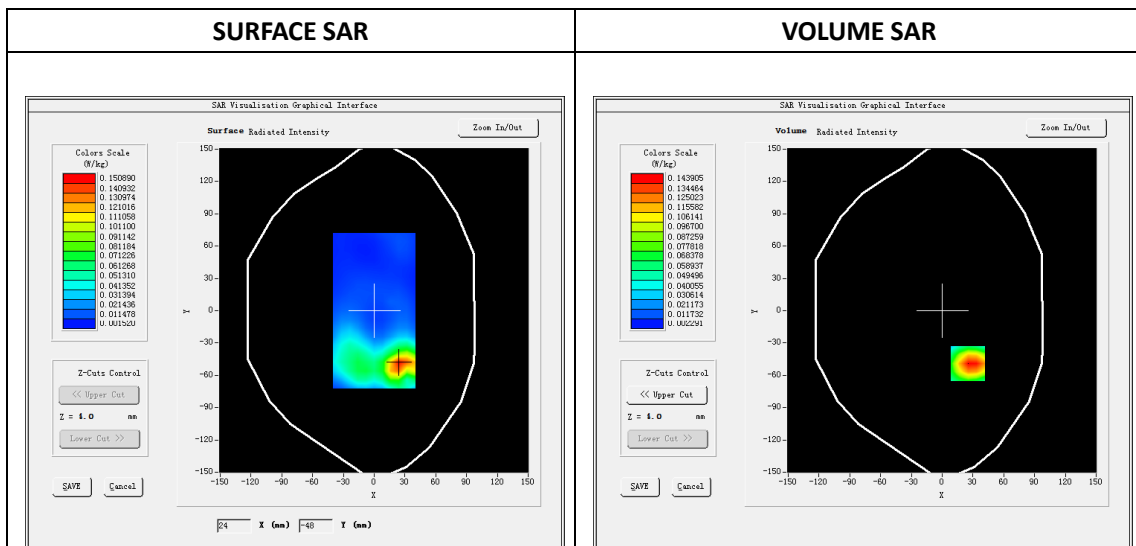
Type: Phone measurement  
 Date of measurement: 12/19/2018  
 Measurement duration: 22 minutes 31 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

<b>Area Scan</b>	dx=8mm dy=8mm
<b>ZoomScan</b>	5x5x7,dx=8mm dy=8mm dz=5mm
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Back
<b>Band</b>	WIFI
<b>Channels</b>	6
<b>Signal</b>	OFDM (Duty cycle: 1:1)

**B. SAR Measurement Results**

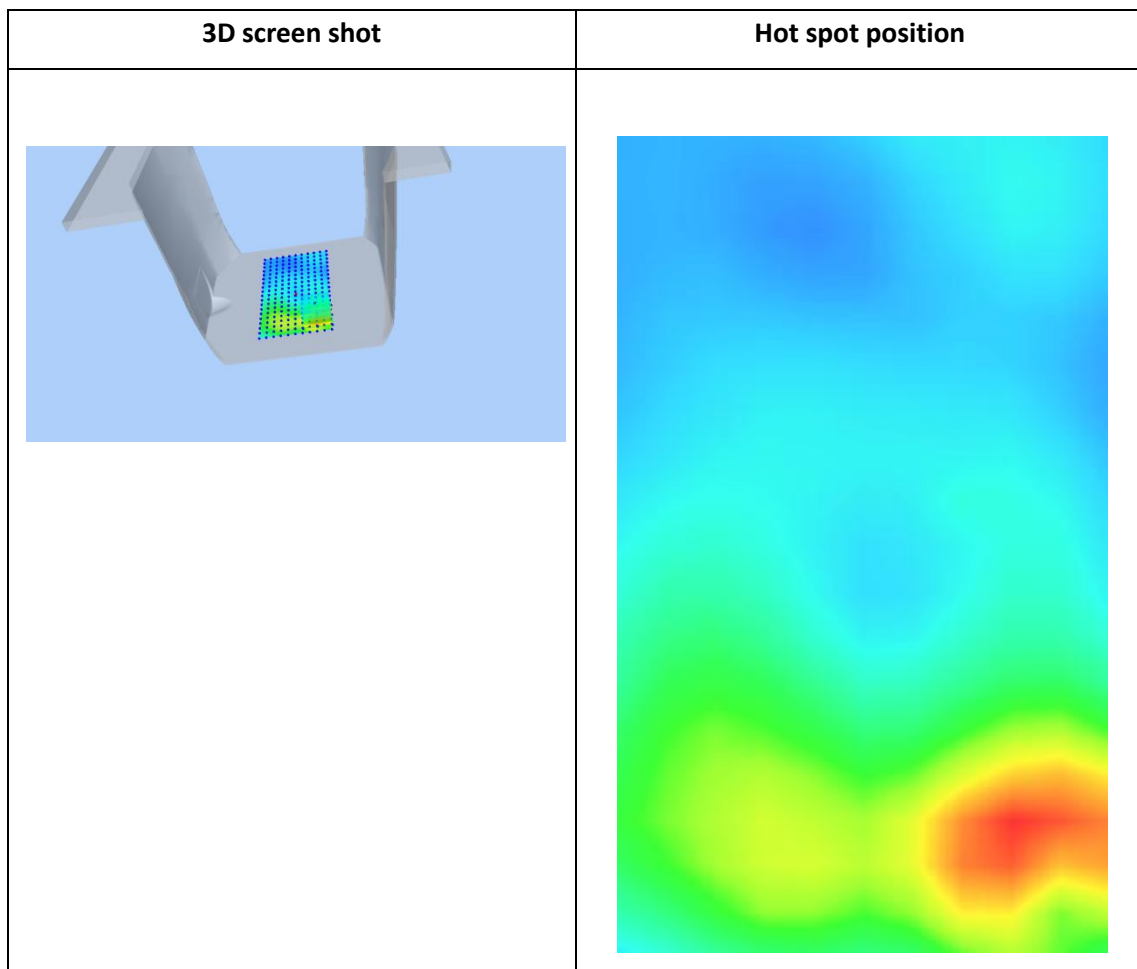
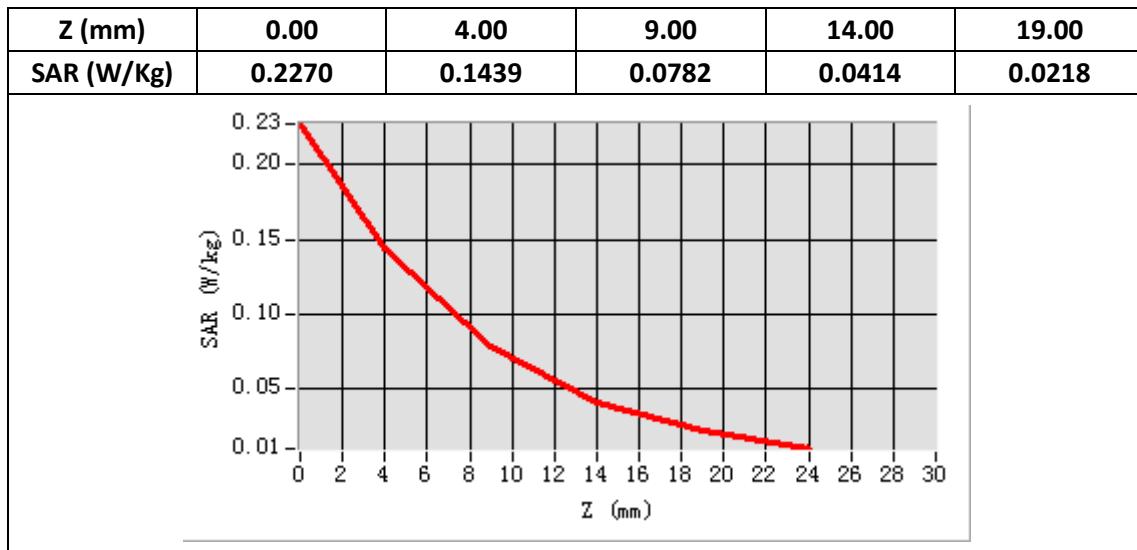
<b>E-Field Probe</b>	SATIMO SN_04/13_EP166
<b>Frequency (MHz)</b>	2437
<b>Relative permittivity (real part)</b>	52.56
<b>Relative permittivity (imaginary part)</b>	14.25
<b>Conductivity (S/m)</b>	1.94
<b>Variation (%)</b>	-1.71
<b>ConvF:</b>	5.56



**Maximum location: X=25.00, Y=-49.00**

**SAR Peak: 0.23W/kg**

<b>SAR 10g (W/Kg)</b>	0.073644
<b>SAR 1g (W/Kg)</b>	0.146133



**Plot 23: WIFI 5G 802.11ac 80MHz, Left Cheek, Middle**

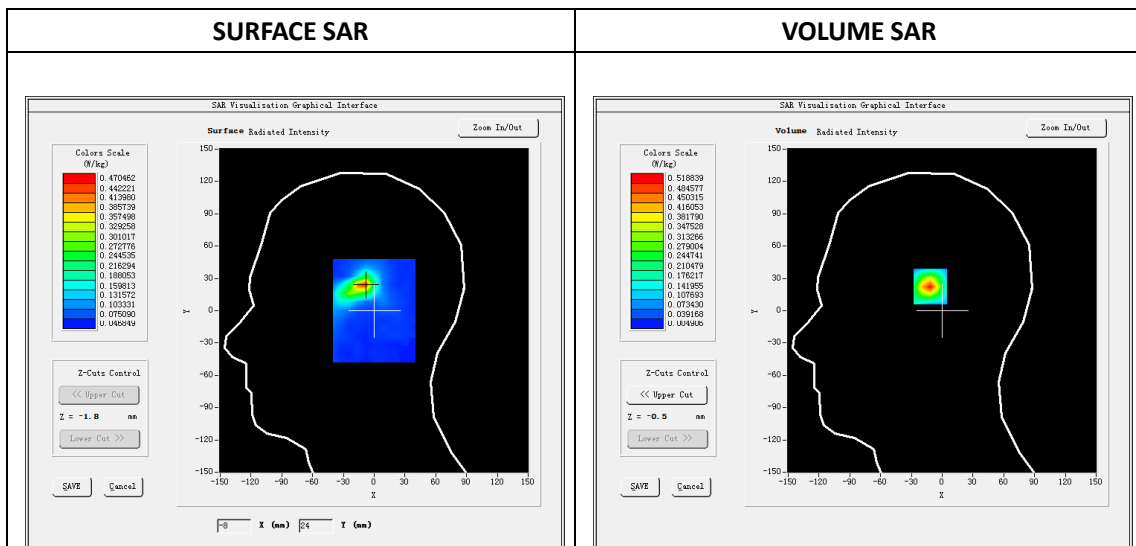
Type: Phone measurement  
 Date of measurement: 12/24/2018  
 Measurement duration: 22 minutes 25 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

<b>Area Scan</b>	dx=8mm dy=8mm
<b>ZoomScan</b>	5x5x7,dx=8mm dy=8mm dz=5mm
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Left Cheek
<b>Band</b>	802 11ac
<b>Channels</b>	42
<b>Signal</b>	OFDM (Duty cycle: 1:1)

**B. SAR Measurement Results**

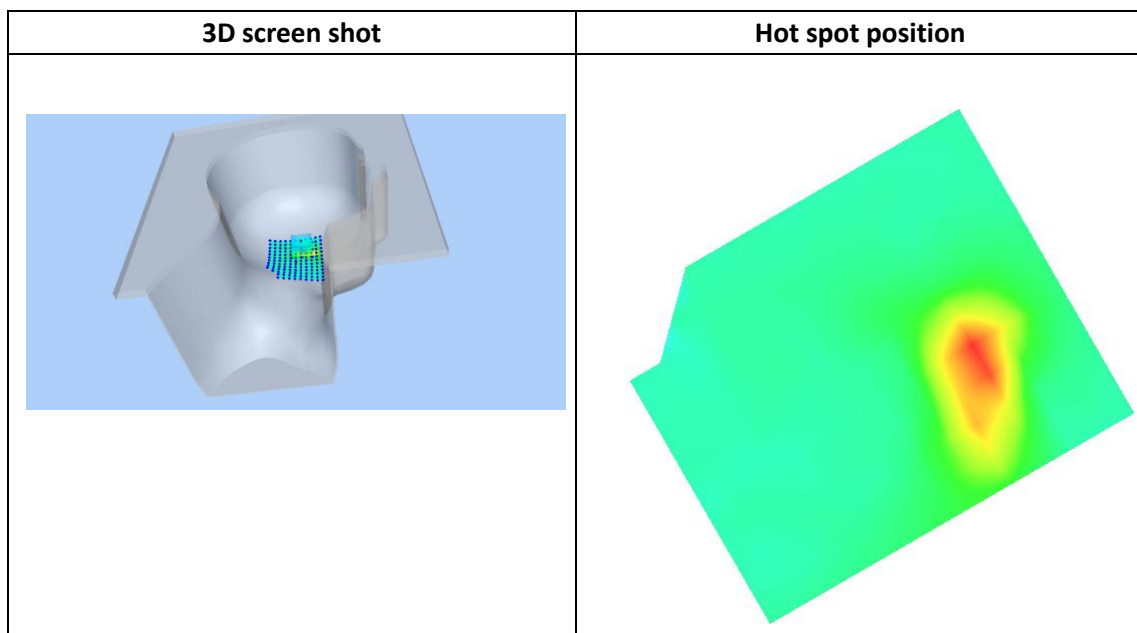
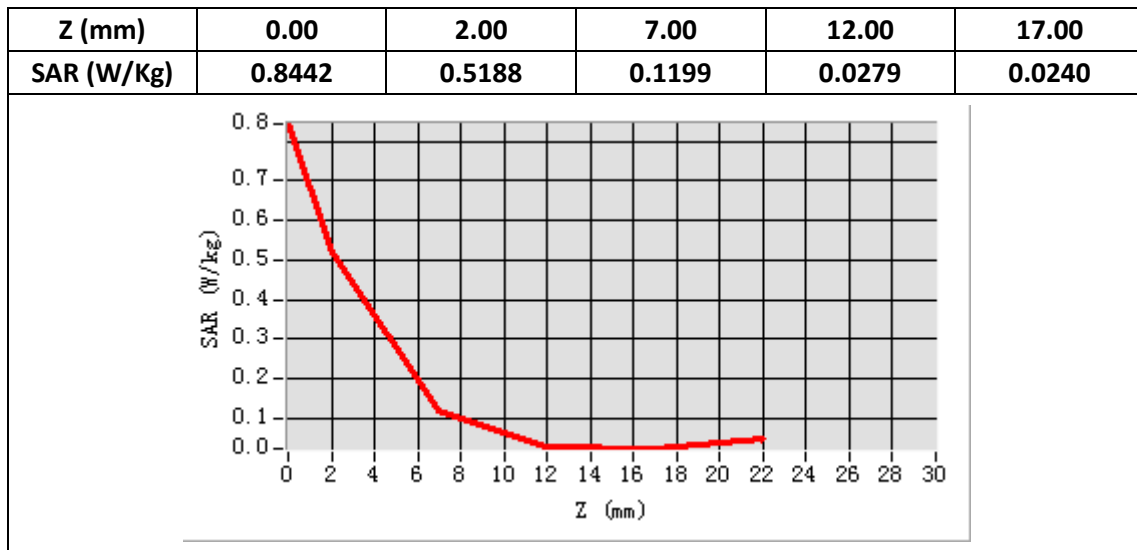
<b>E-Field Probe</b>	SATIMO SN_27/15_EP261
<b>Frequency (MHz)</b>	5210
<b>Relative permittivity (real part)</b>	36.22
<b>Relative permittivity (imaginary part)</b>	15.64
<b>Conductivity (S/m)</b>	4.52
<b>Variation (%)</b>	-3.42
<b>ConvF:</b>	2.30



**Maximum location: X=-10.00, Y=24.00**

**SAR Peak: 1.30 W/kg**

<b>SAR 10g (W/Kg)</b>	0.191919
<b>SAR 1g (W/Kg)</b>	0.500486





**Plot 24: WIFI 5G 802.11ac 80MHz,Back, Middle,10mm**

Type: Phone measurement

Date of measurement: 12/24/2018

Measurement duration: 22 minutes 31 seconds

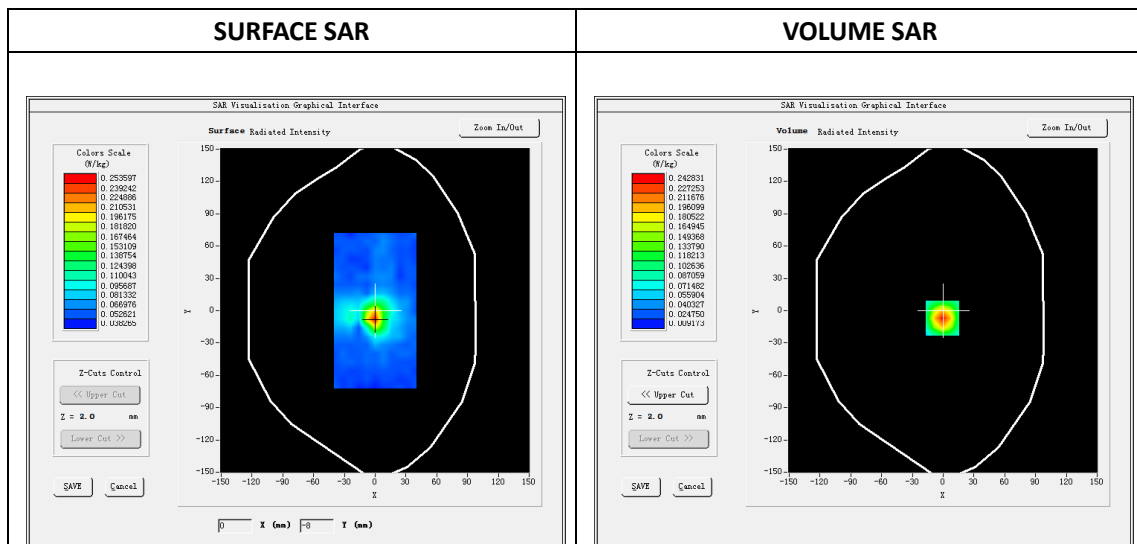
Mobile Phone IMEI number: --

**A. Experimental conditions.**

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	802 11a
Channels	42
Signal	OFDM (Duty cycle: 1:1)

**B. SAR Measurement Results**

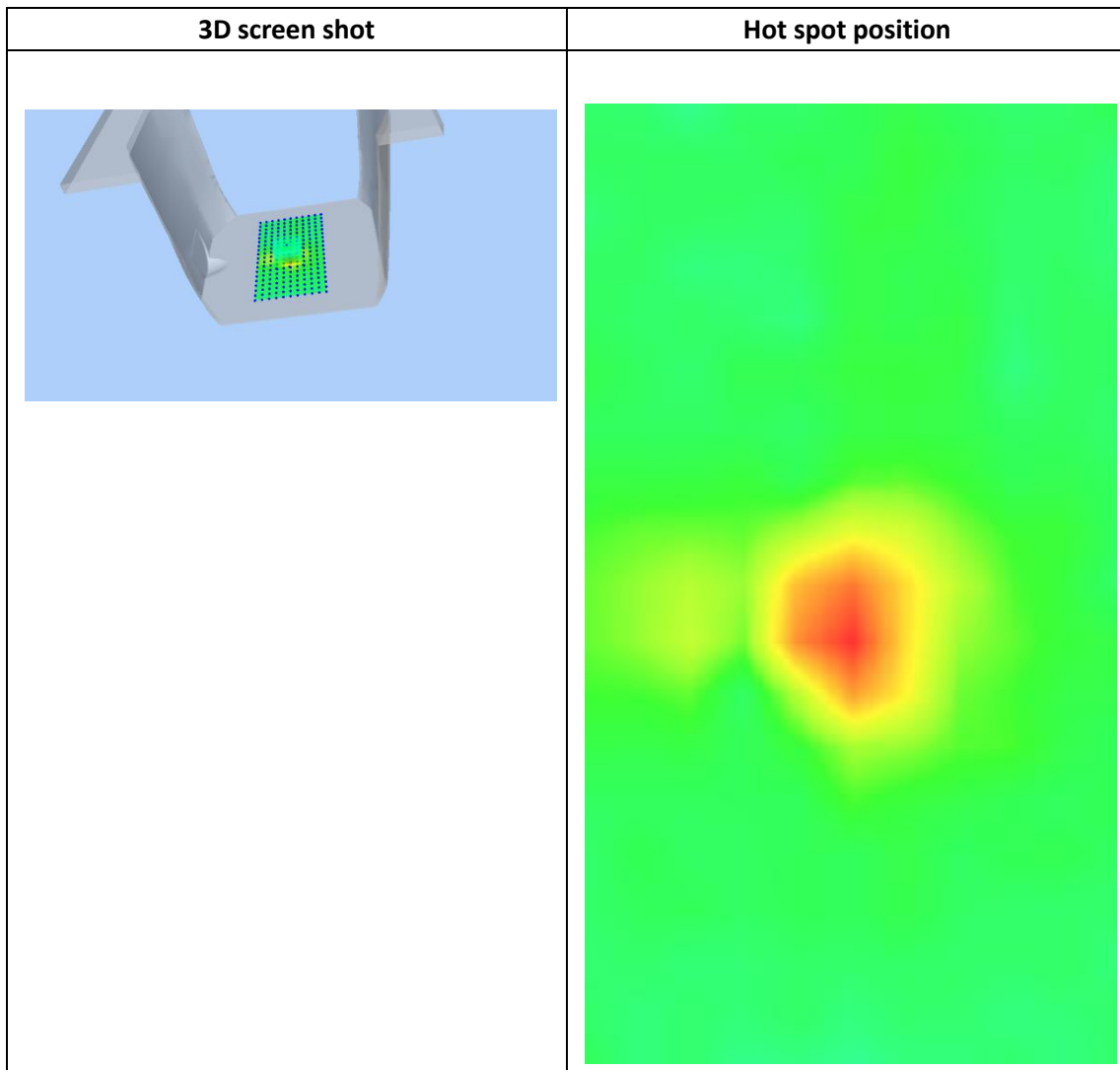
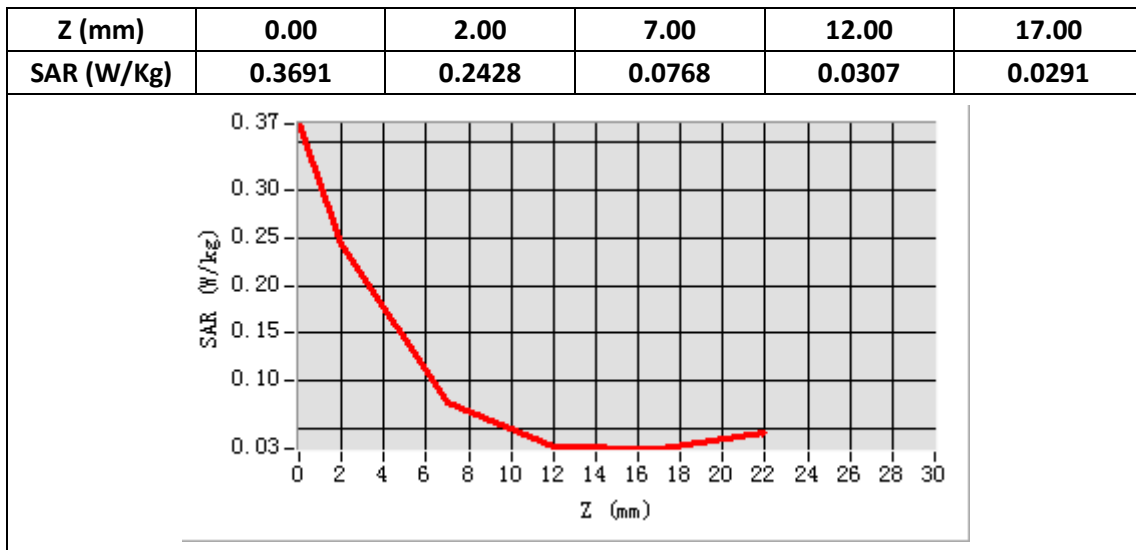
E-Field Probe	SATIMO SN_27/15_EP261
Frequency (MHz)	5210
Relative permittivity (real part)	49.33
Relative permittivity (imaginary part)	17.72
Conductivity (S/m)	5.12
Variation (%)	-3.06
ConvF:	2.37



Maximum location: X=-1.00, Y=-7.00

SAR Peak: 0.38 W/kg

SAR 10g (W/Kg)	0.078069
SAR 1g (W/Kg)	0.154557



**Plot 25: WIFI 5G 802.11a 20MHz, Left, Middle ,10mm**

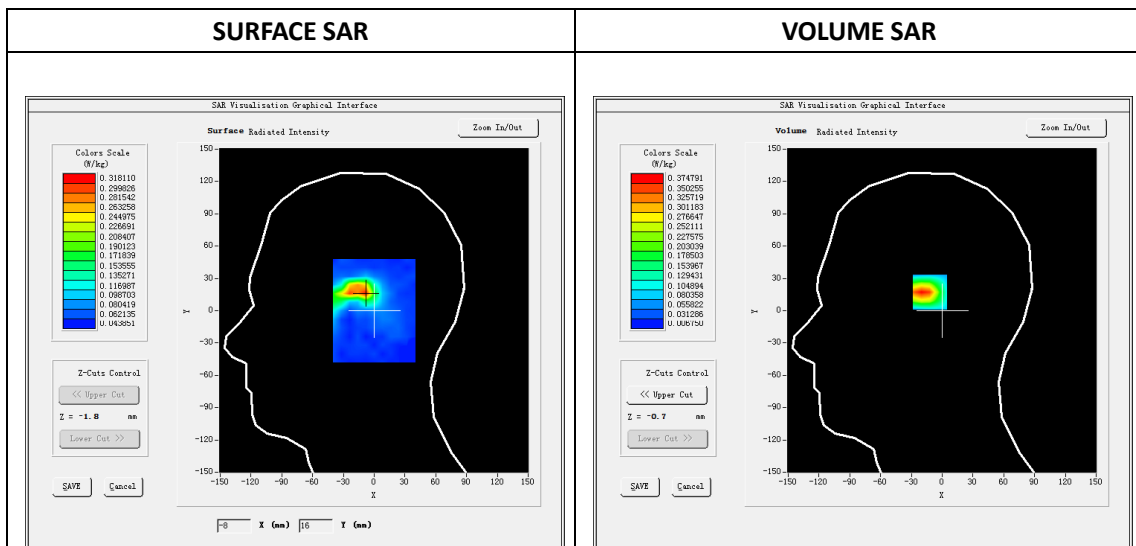
Type: Phone measurement  
 Date of measurement: 12/25/2018  
 Measurement duration: 22 minutes 18 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Left Cheek
Band	802 11a
Channels	165
Signal	OFDM (Duty cycle: 1:1)

**B. SAR Measurement Results**

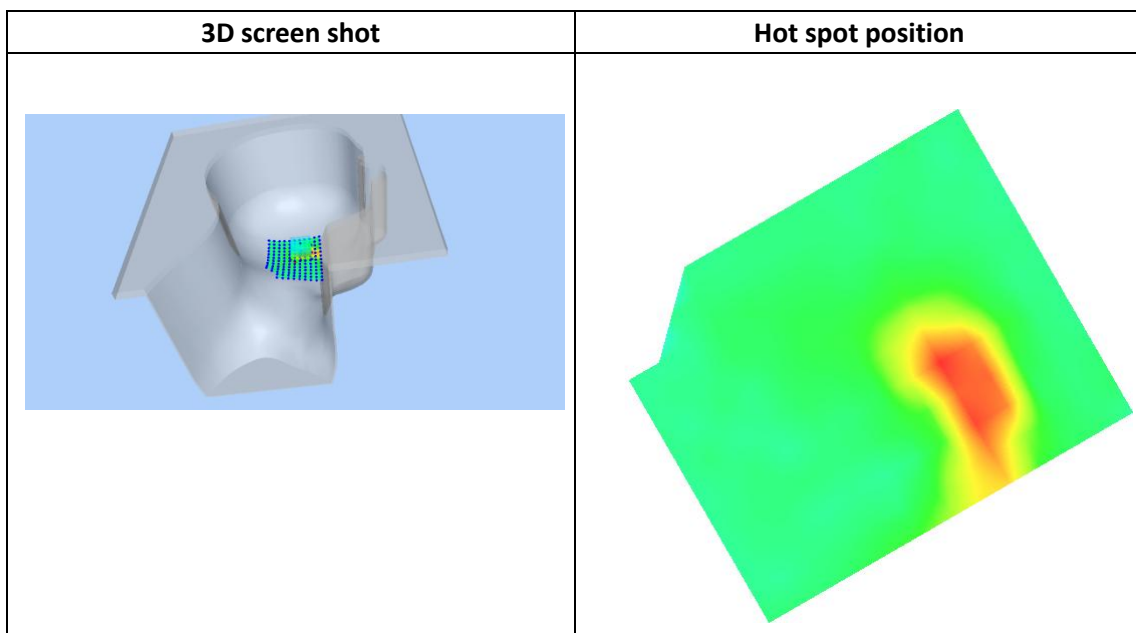
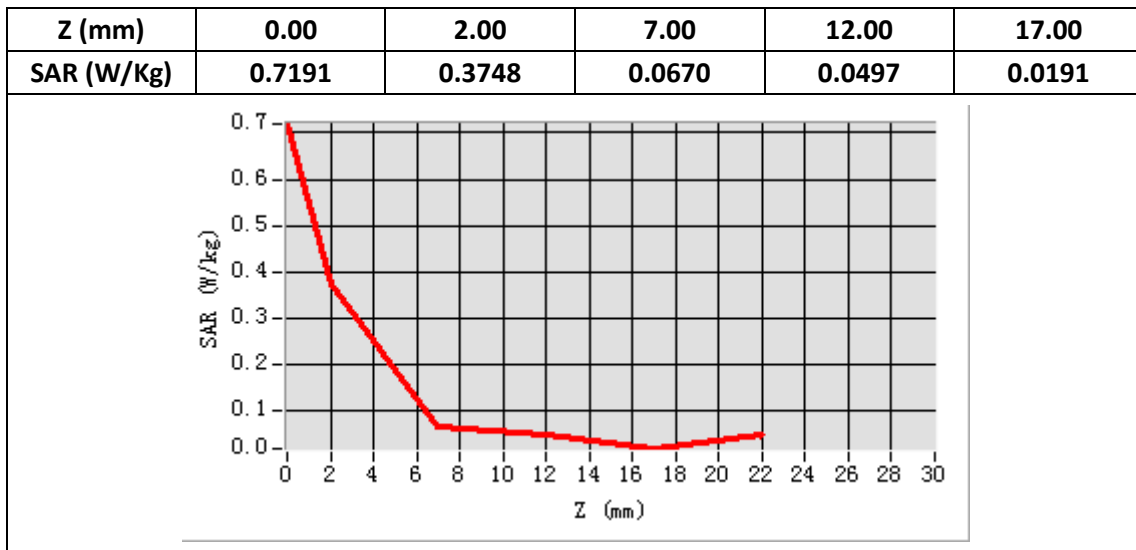
E-Field Probe	SATIMO SN_27/15_EP261
Frequency (MHz)	5825
Relative permittivity (real part)	35.2
Relative permittivity (imaginary part)	16.29
Conductivity (S/m)	5.25
Variation (%)	-1.91
ConvF:	2.26



**Maximum location: X=-10.00, Y=18.00**

**SAR Peak: 0.90 W/kg**

<b>SAR 10g (W/Kg)</b>	0.158590
<b>SAR 1g (W/Kg)</b>	0.378315



**Plot 26: WIFI 5G 802.11a 20MHz, Back, Middle,10mm**

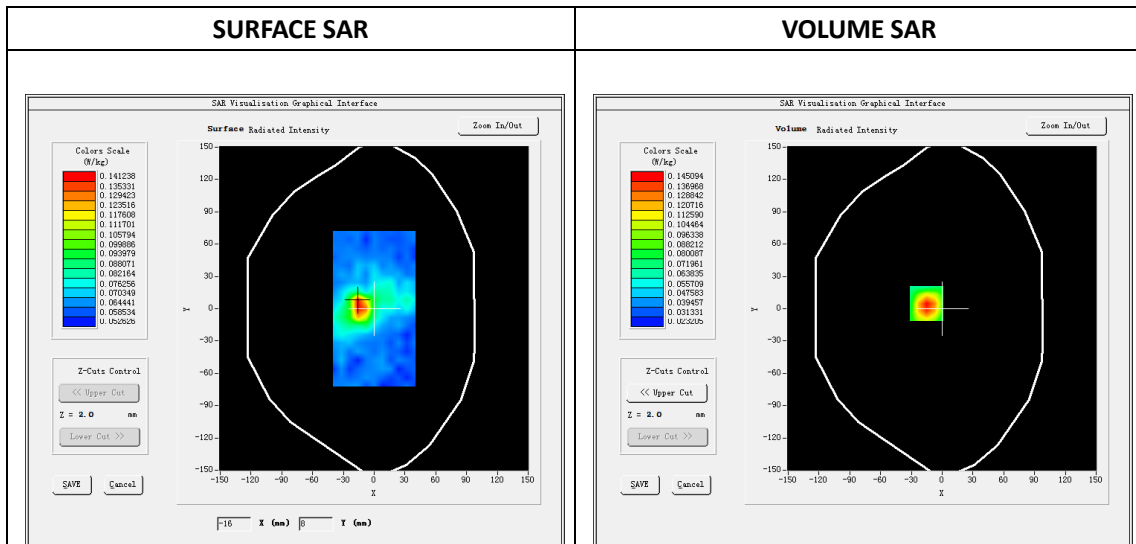
Type: Phone measurement  
 Date of measurement: 12/25/2018  
 Measurement duration: 22 minutes 27 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

Area Scan	dx=8mm dy=8mm
ZoomScan	5x5x7,dx=8mm dy=8mm dz=5mm
Phantom	Validation plane
Device Position	Back
Band	802 11a
Channels	165
Signal	OFDM (Duty cycle: 1:1)

**B. SAR Measurement Results**

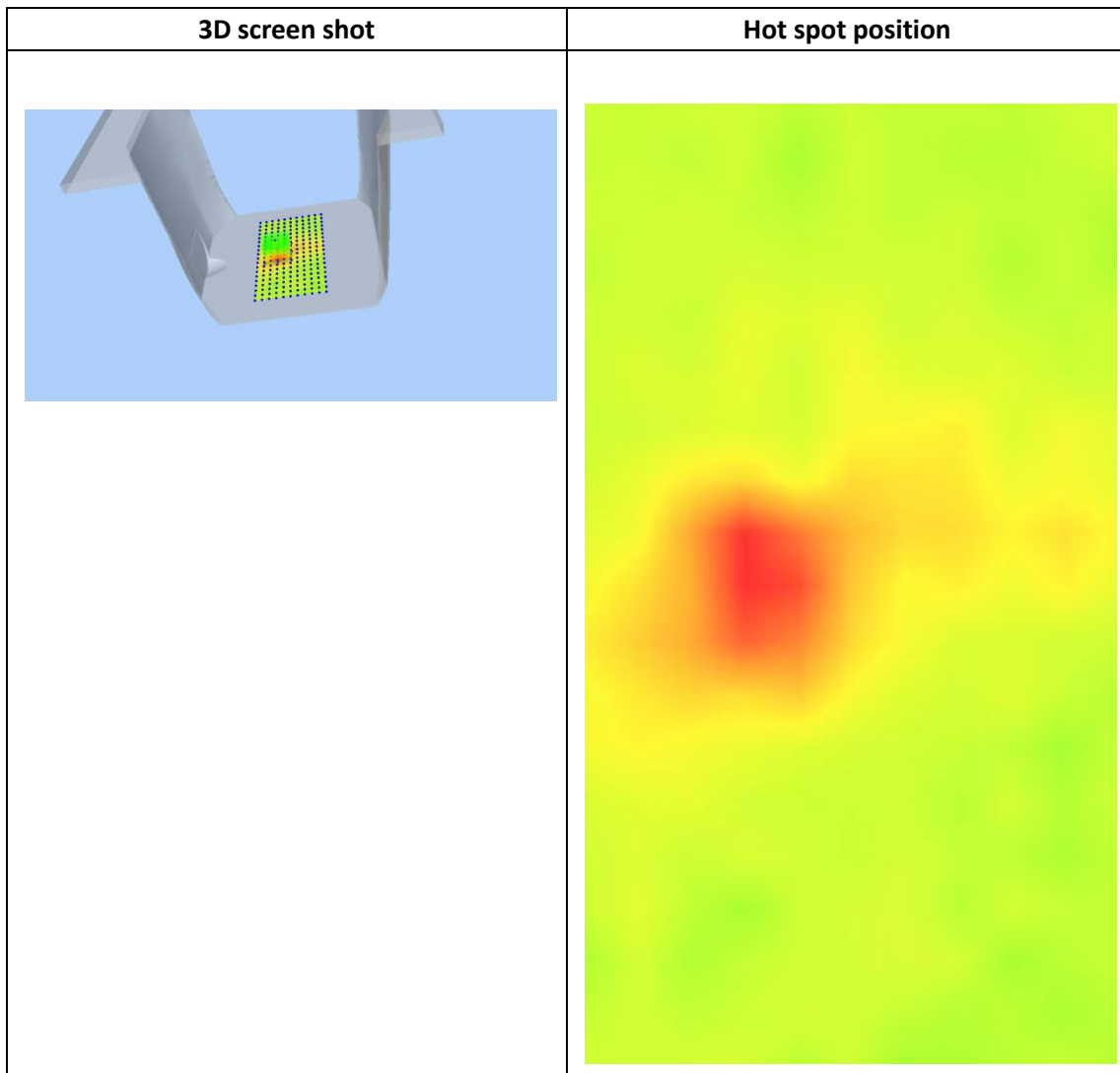
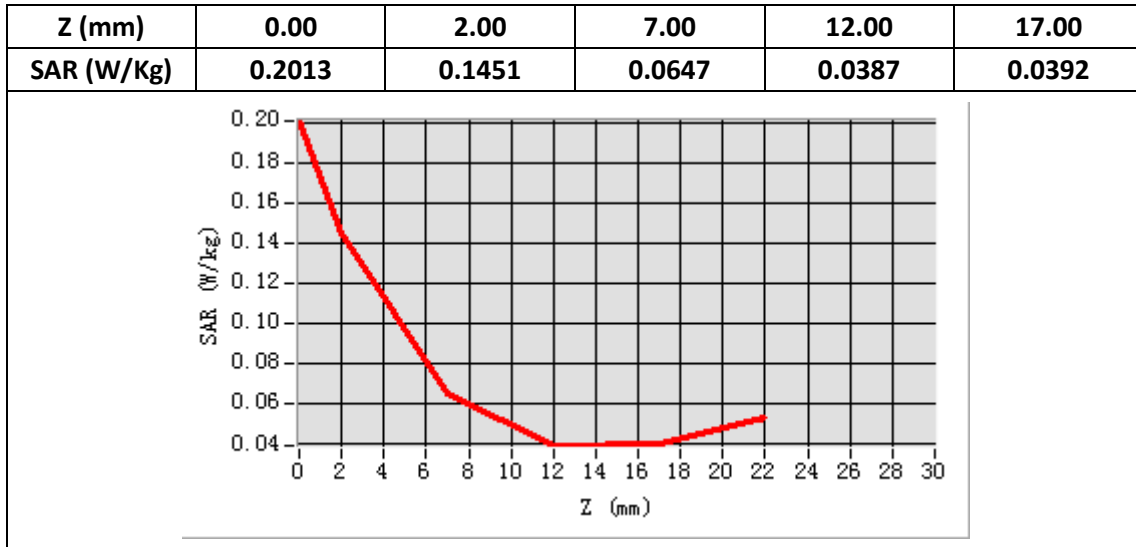
E-Field Probe	SATIMO SN_27/15_EP261
Frequency (MHz)	5825
Relative permittivity (real part)	48.15
Relative permittivity (imaginary part)	18.27
Conductivity (S/m)	5.89
Variation (%)	-2.73
ConvF:	2.38



Maximum location: X=-15.00, Y=5.00

SAR Peak: 0.21 W/kg

SAR 10g (W/Kg)	0.068737
SAR 1g (W/Kg)	0.108669



## Plot 27: Bluetooth, Left Tilt, Middle

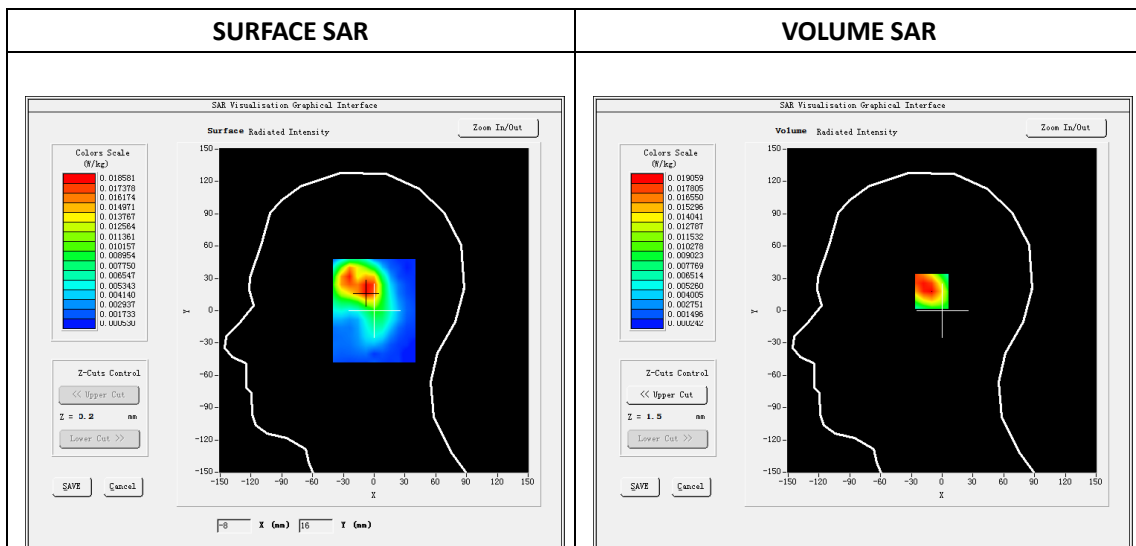
Type: Phone measurement  
 Date of measurement: 1/9/2019  
 Measurement duration: 22 minutes 27 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

<b>Area Scan</b>	dx=8mm dy=8mm
<b>ZoomScan</b>	5x5x7,dx=8mm dy=8mm dz=5mm
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Left Tilt
<b>Band</b>	Bluetooth
<b>Channels</b>	78
<b>Signal</b>	OFDM (Duty cycle: 1:1)

**B. SAR Measurement Results**

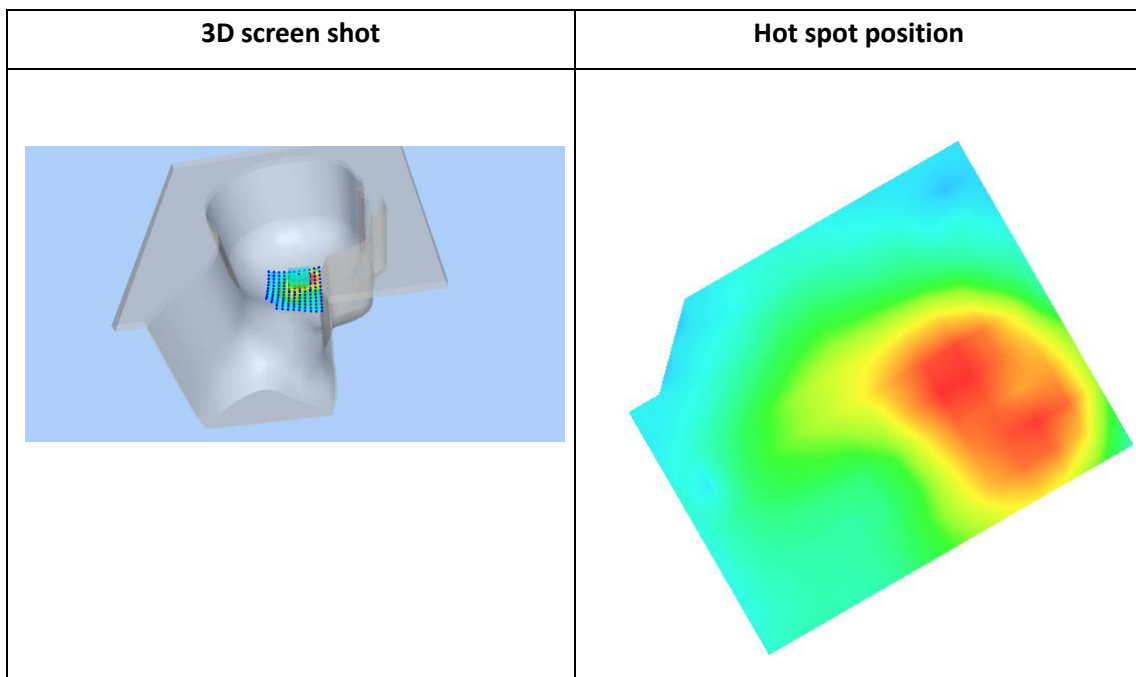
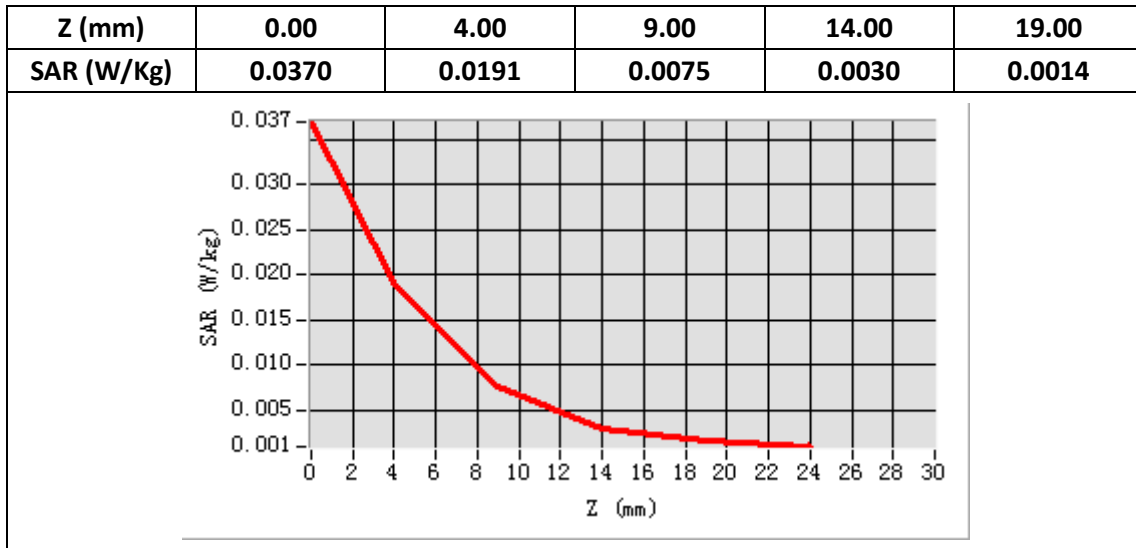
<b>E-Field Probe</b>	SATIMO SN_04/13_EP166
<b>Frequency (MHz)</b>	2480
<b>Relative permittivity (real part)</b>	38.85
<b>Relative permittivity (imaginary part)</b>	13.29
<b>Conductivity (S/m)</b>	1.81
<b>Variation (%)</b>	-0.63
<b>ConvF:</b>	5.35



**Maximum location: X=-8.00, Y=19.00**

**SAR Peak: 0.04W/kg**

<b>SAR 10g (W/Kg)</b>	0.009531
<b>SAR 1g (W/Kg)</b>	0.021897





**Plot 28: Bluetooth, Back ,Middle ,10mm**

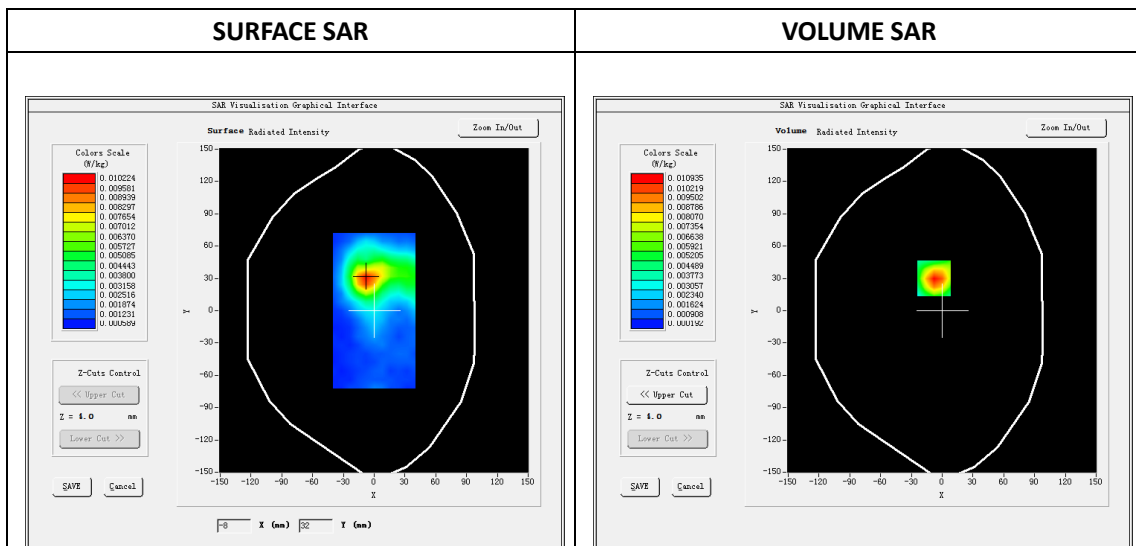
Type: Phone measurement  
 Date of measurement: 1/9/2019  
 Measurement duration: 22 minutes 31 seconds  
 Mobile Phone IMEI number: --

**A. Experimental conditions.**

<b>Area Scan</b>	dx=8mm dy=8mm
<b>ZoomScan</b>	5x5x7,dx=8mm dy=8mm dz=5mm
<b>Phantom</b>	Validation plane
<b>Device Position</b>	Back
<b>Band</b>	Bluetooth
<b>Channels</b>	78
<b>Signal</b>	OFDM (Duty cycle: 1:1)

**B. SAR Measurement Results**

<b>E-Field Probe</b>	SATIMO SN_04/13_EP166
<b>Frequency (MHz)</b>	2480
<b>Relative permittivity (real part)</b>	52.53
<b>Relative permittivity (imaginary part)</b>	14.17
<b>Conductivity (S/m)</b>	1.93
<b>Variation (%)</b>	-0.15
<b>ConvF:</b>	5.56



**Maximum location: X=-8.00, Y=30.00**

**SAR Peak: 0.02W/kg**

<b>SAR 10g (W/Kg)</b>	0.005070
<b>SAR 1g (W/Kg)</b>	0.011165

