

Appendix A: SAR System performance Check Plots

Measurement	Liquid	Frequency	Test Date
System Check	Body	835	2019-09-02
System Check	Body	1900	2019-09-03
System Check	Body	2450	2019-09-04
System Check	Body	2600	2019-09-05
System Check	Body	5200	2019-09-06
System Check	Body	5400	2019-09-09
System Check	Body	5600	2019-09-10
System Check	Body	5800	2019-09-11

System Performance Check (Body, 850MHz)

Type: Phone measurement

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

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

Date of measurement: 09/02/2019

Measurement duration: 22 minutes 11 seconds

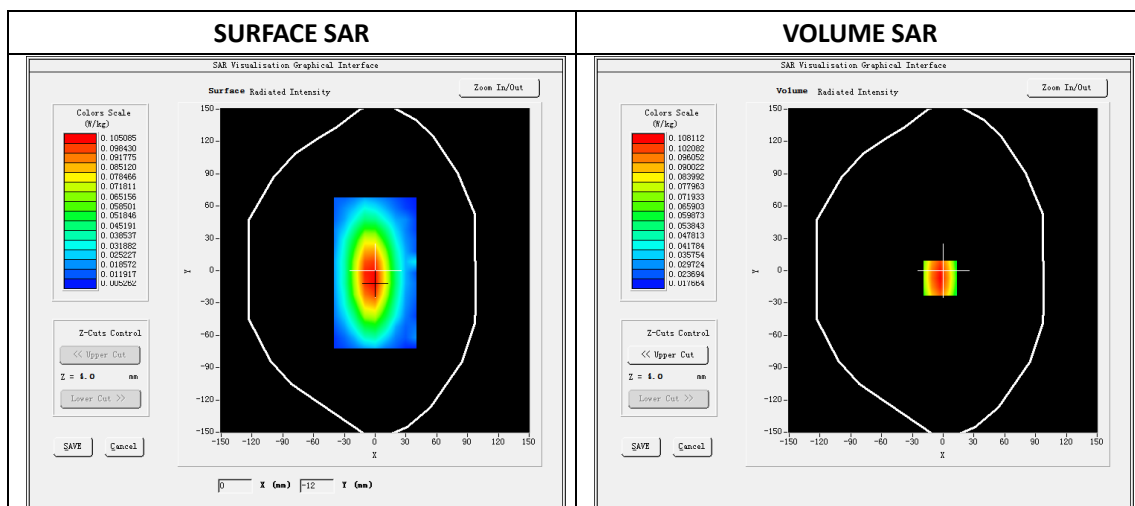
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

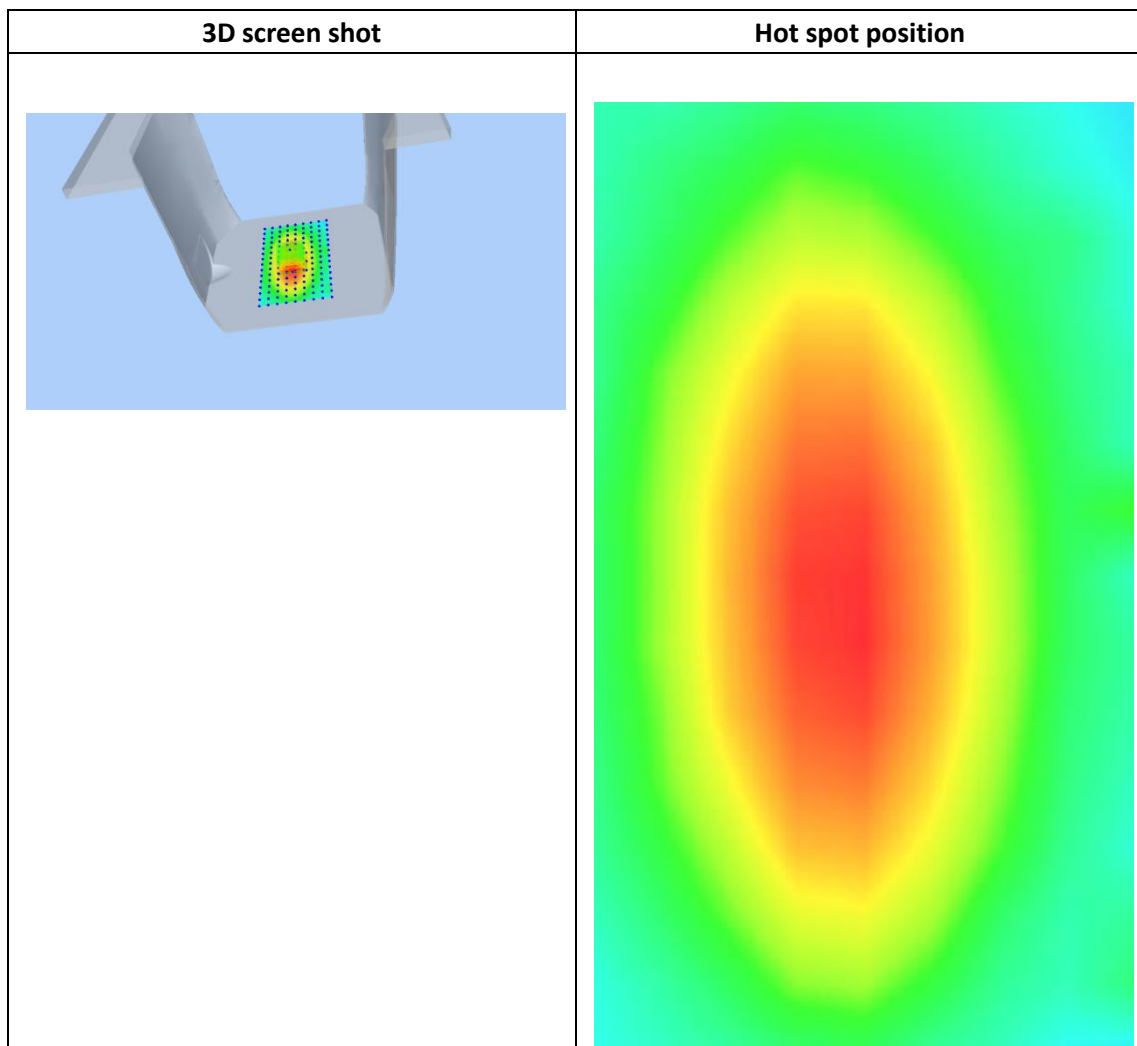
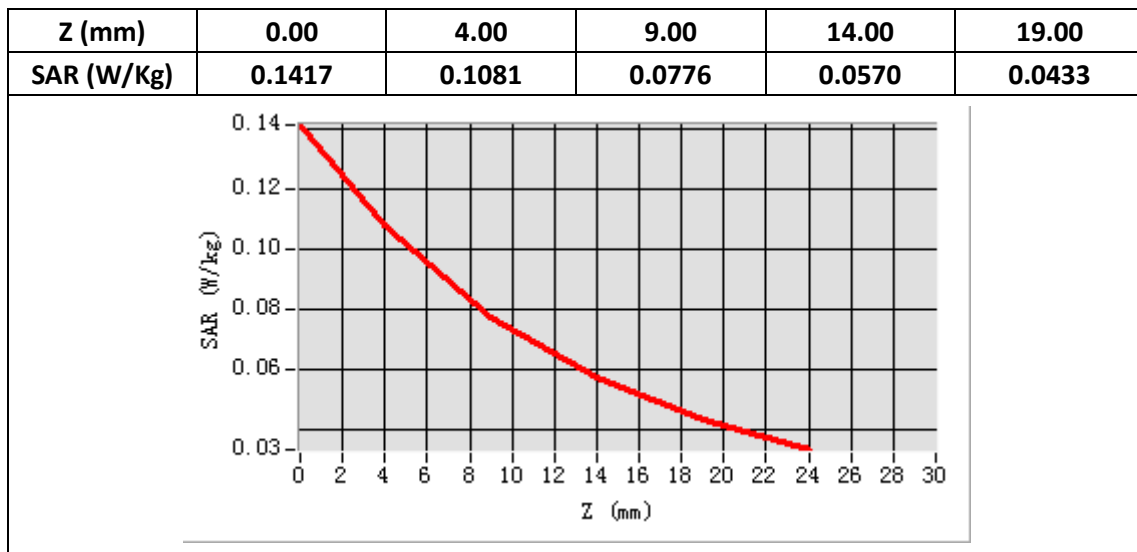
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	835
Relative permittivity (real part)	55.56
Relative permittivity	20.91
Conductivity (S/m)	0.97
Power drift (%)	2.34
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.99
Crest factor:	1:1



Maximum location: X=-3.00, Y=-7.00

SAR Peak: 0.14 W/kg

SAR 10g (W/Kg)	0.071804
SAR 1g (W/Kg)	0.105193



System Performance Check (Body, 1900MHz)

Type: Validation measurement

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

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

Date of measurement: 09/03/2019

Measurement duration: 22 minutes 14 seconds

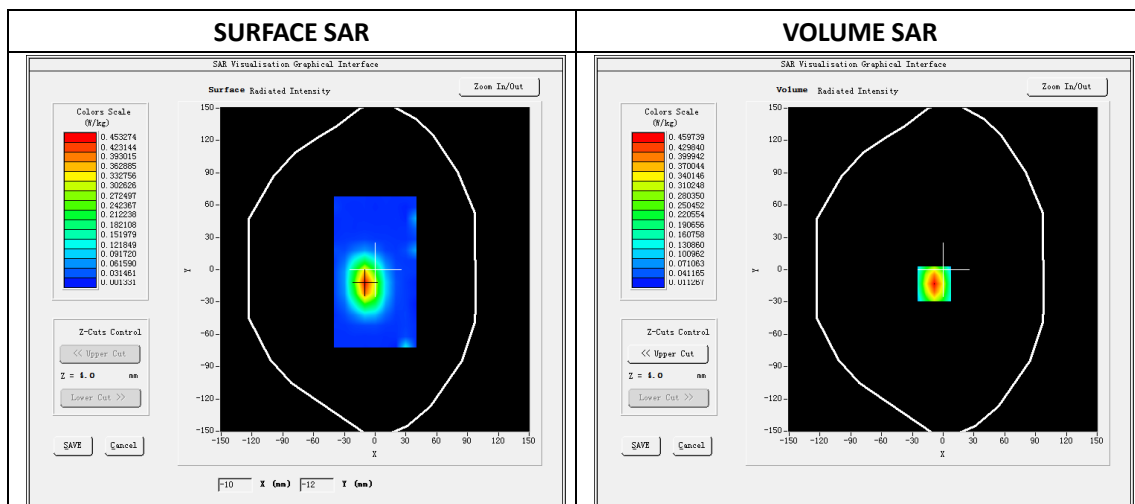
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

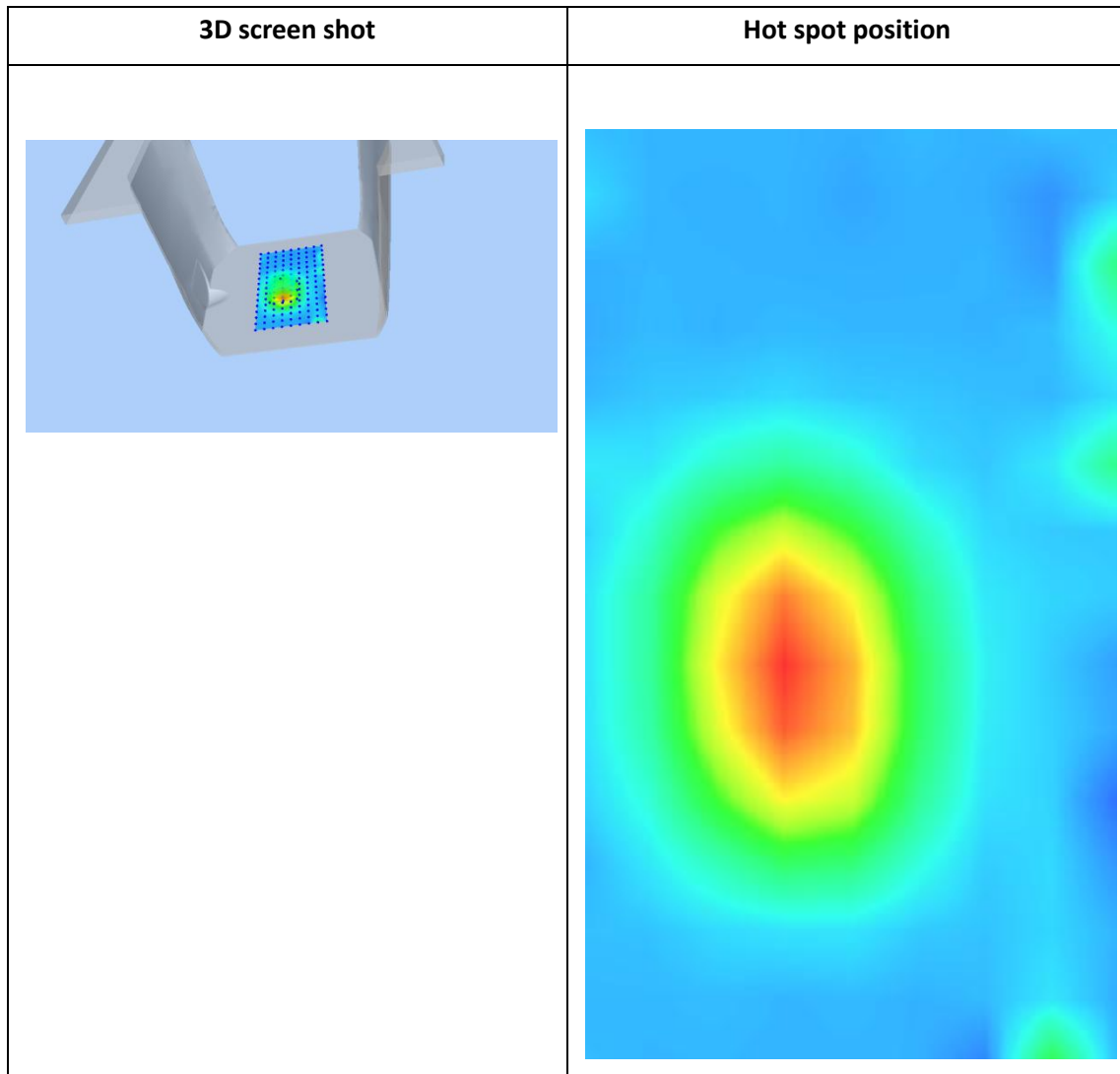
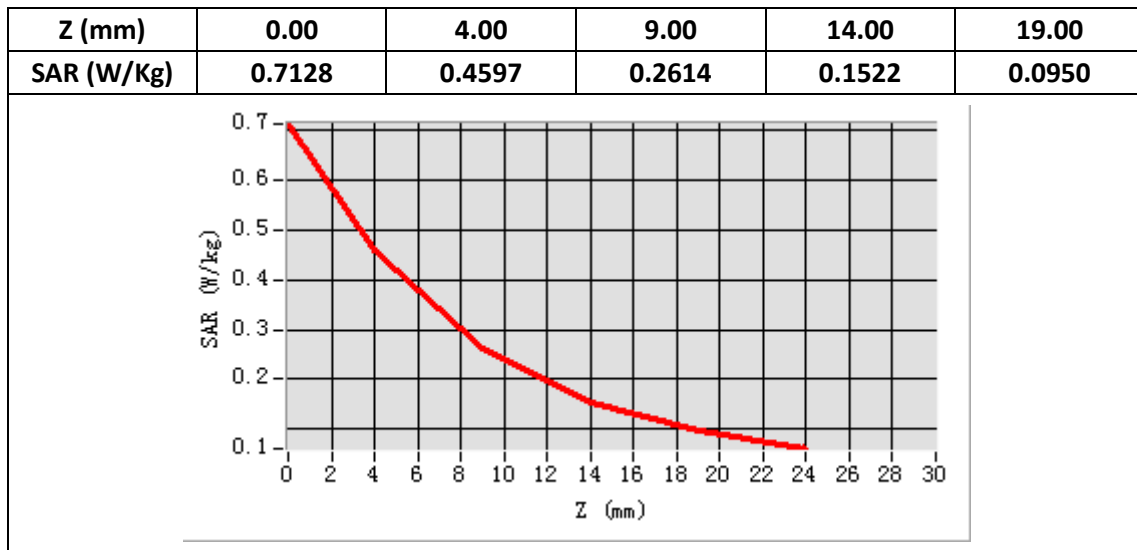
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1900
Relative permittivity (real part)	53.54
Relative permittivity	14.31
Conductivity (S/m)	1.51
Power Drift (%)	-3.47
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.39
Duty factor:	1:1



Maximum location: X=-9.00, Y=-13.00

SAR Peak: 0.71 W/kg

SAR 10g (W/Kg)	0.221605
SAR 1g (W/Kg)	0.423105



System Performance Check (Body, 2450MHz)

Type: Phone measurement

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

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

Date of measurement: 09/04/2019

Measurement duration: 22 minutes 09 seconds

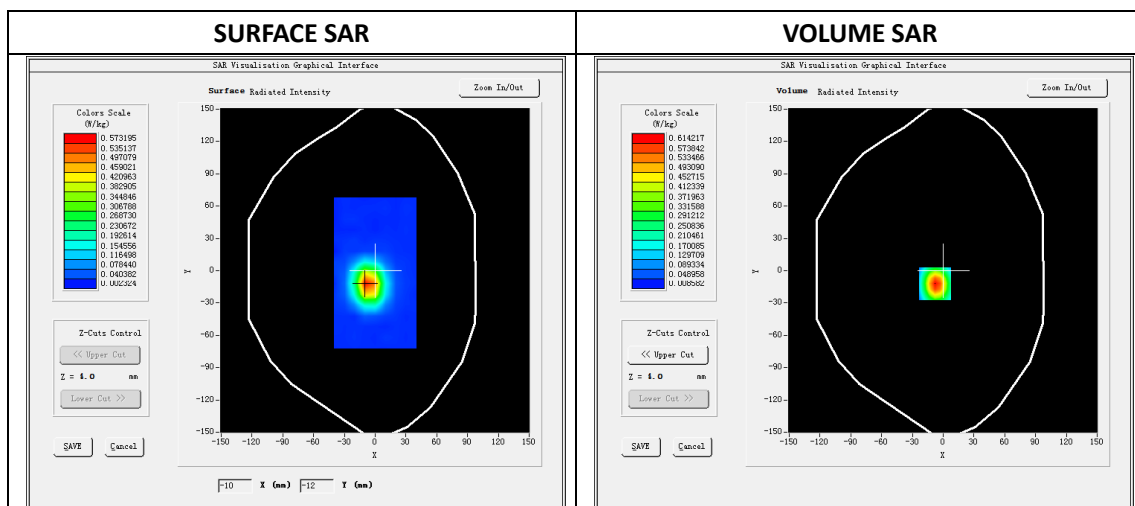
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

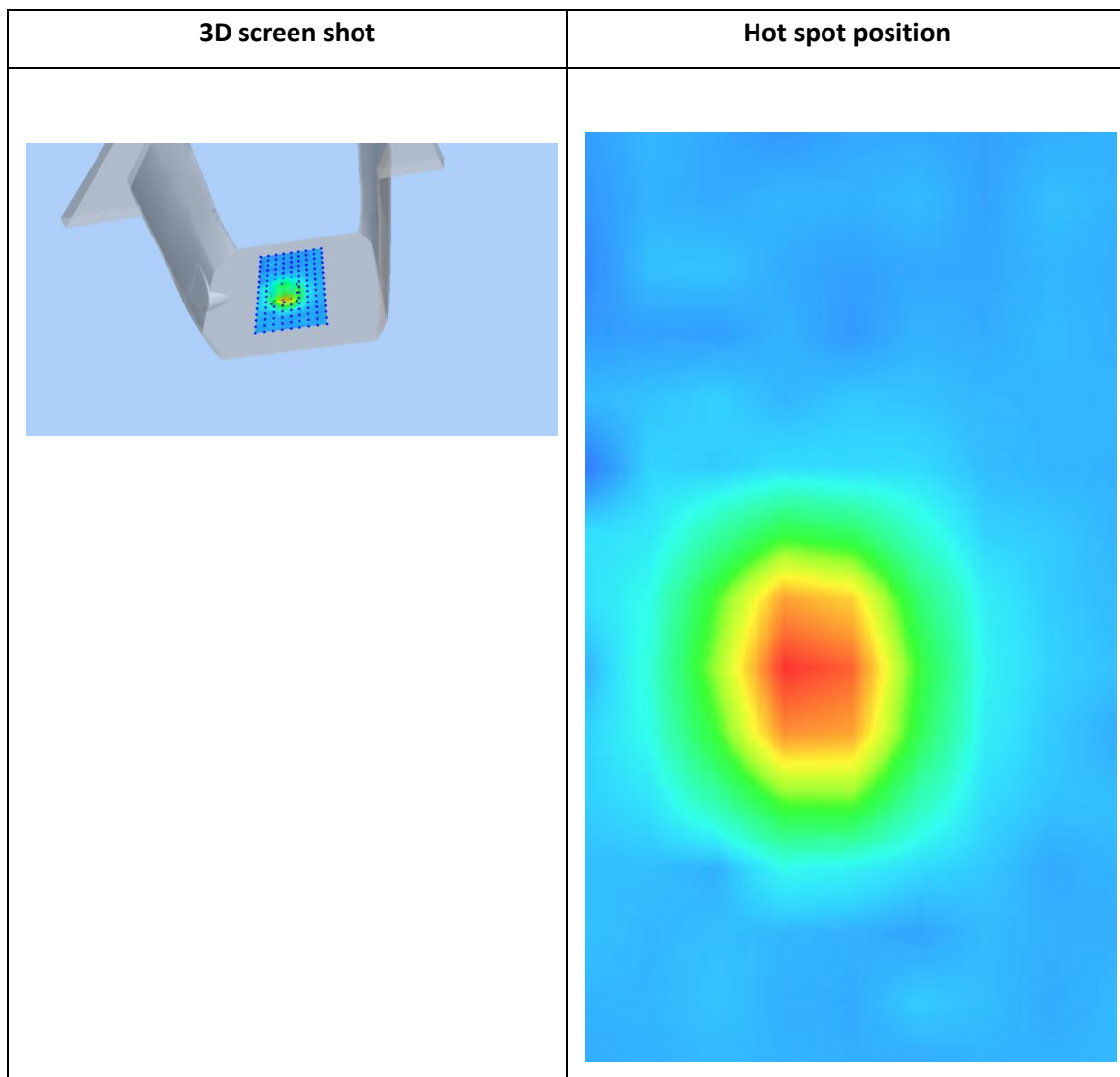
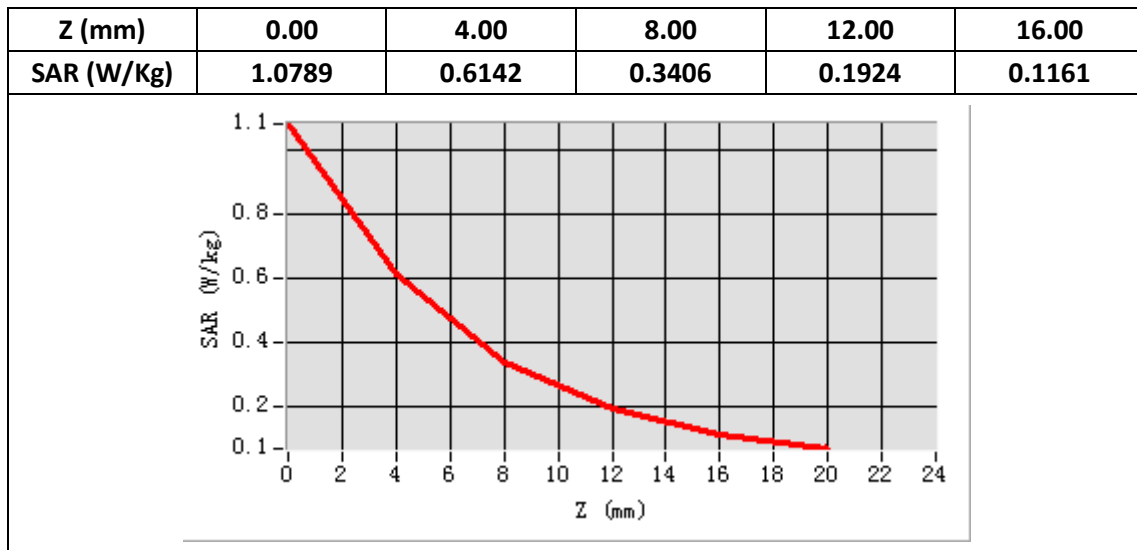
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2450
Relative permittivity (real part)	53.23
Relative permittivity	14.33
Conductivity (S/m)	1.95
Power Drift (%)	0.90
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.46
Duty factor:	1:1



Maximum location: X=-8.00, Y=-12.00

SAR Peak: 1.08 W/kg

SAR 10g (W/Kg)	0.257866
SAR 1g (W/Kg)	0.559058



System Performance Check (Body, 2600MHz)

Type: Phone measurement

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

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

Date of measurement: 09/05/2019

Measurement duration: 22 minutes 15 seconds

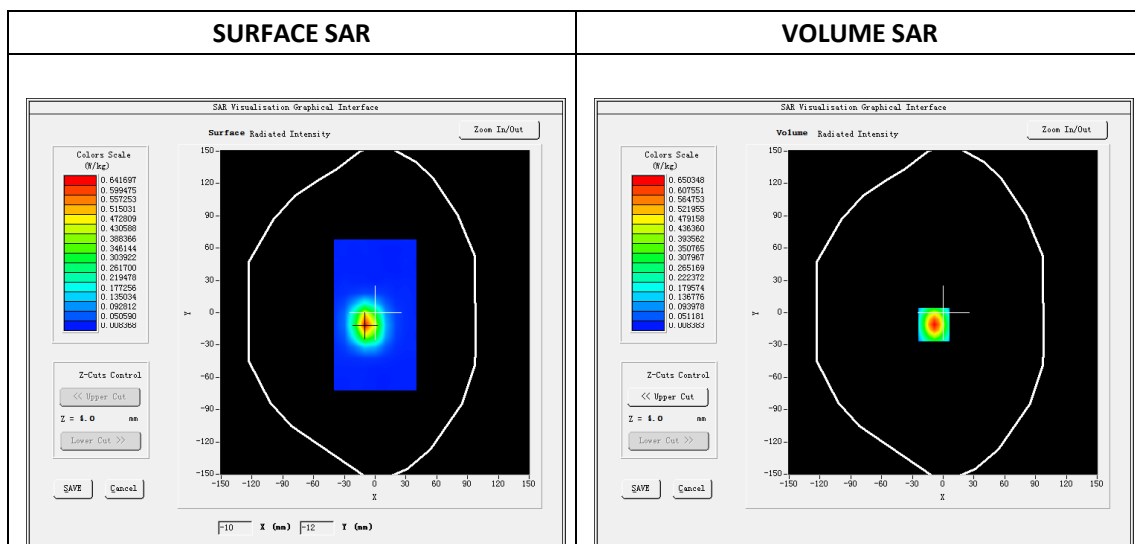
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	7x7x8,dx=5mm dy=5mm dz=4mm
Device Position	Dipole
Band	2600MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

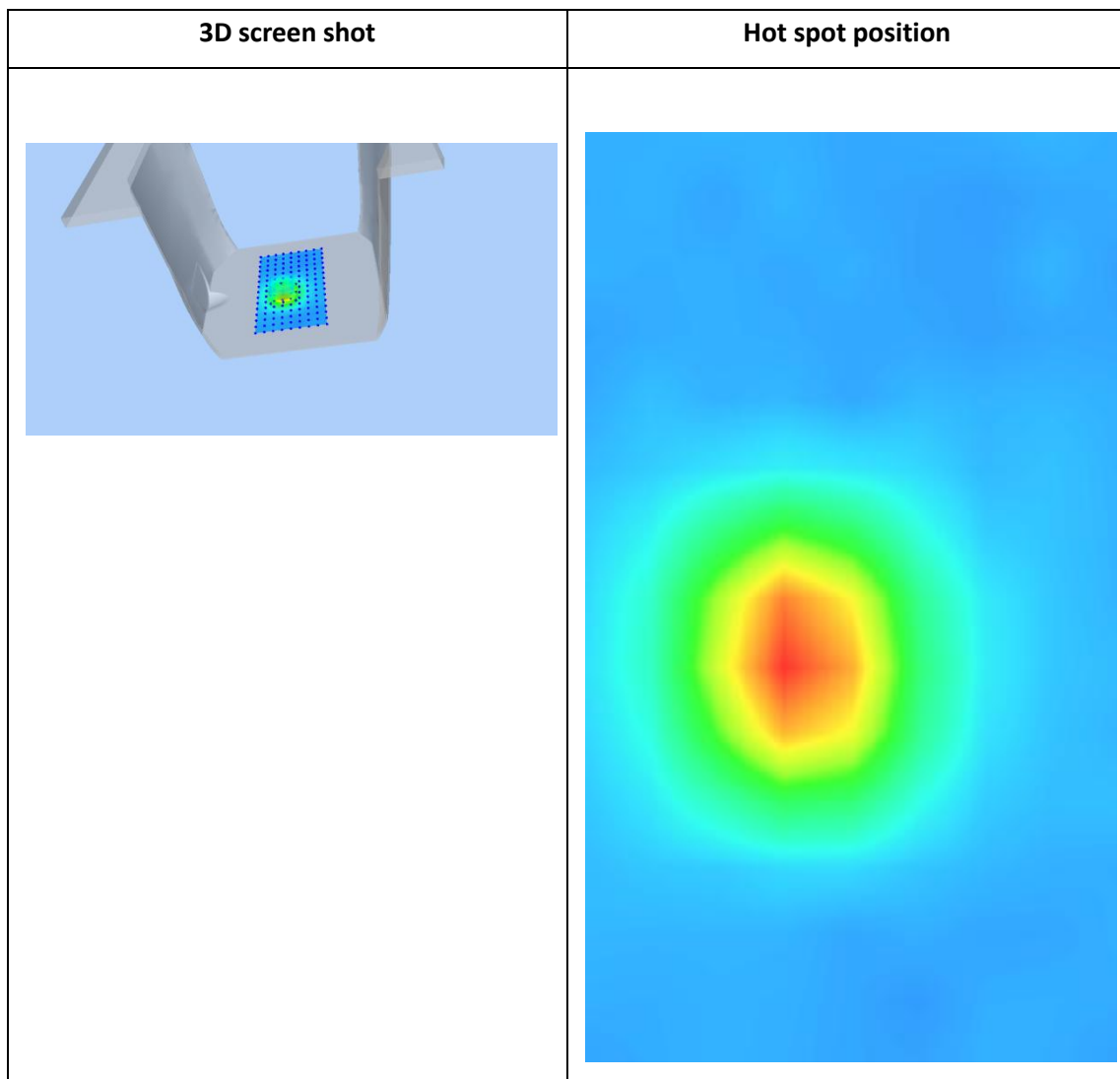
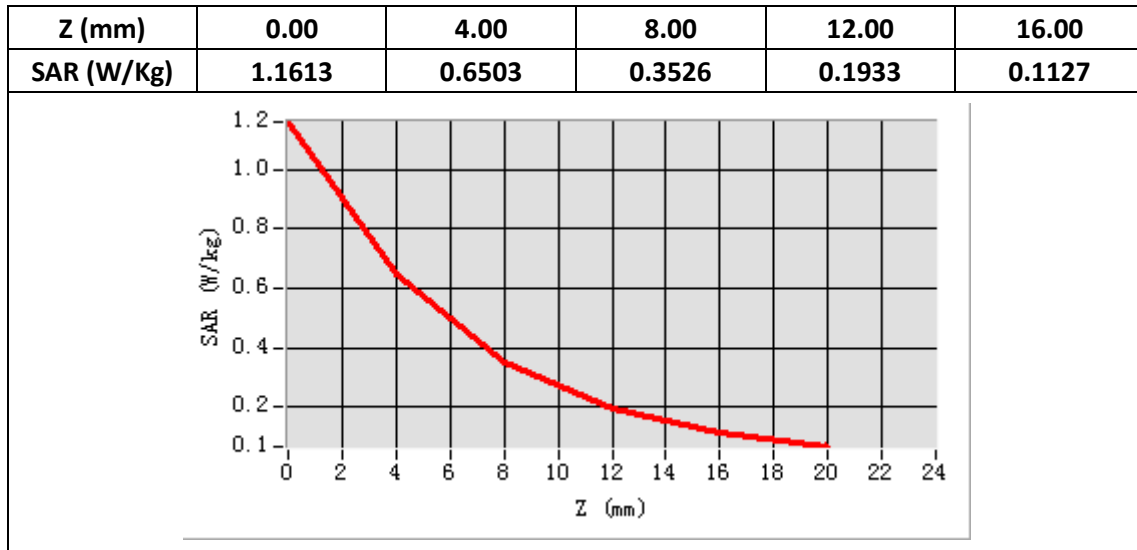
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2600
Relative permittivity (real part)	53.01
Relative permittivity	15.02
Conductivity (S/m)	2.17
Power drift (%)	0.17
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.43



Maximum location: X=-9.00, Y=-11.00

SAR Peak: 1.16 W/kg

SAR 10g (W/Kg)	0.264536
SAR 1g (W/Kg)	0.586482



System Performance Check (Body, 5200MHz)

Type: Phone measurement

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

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

Date of measurement: 09/06/2019

Measurement duration: 22 minutes 56 seconds

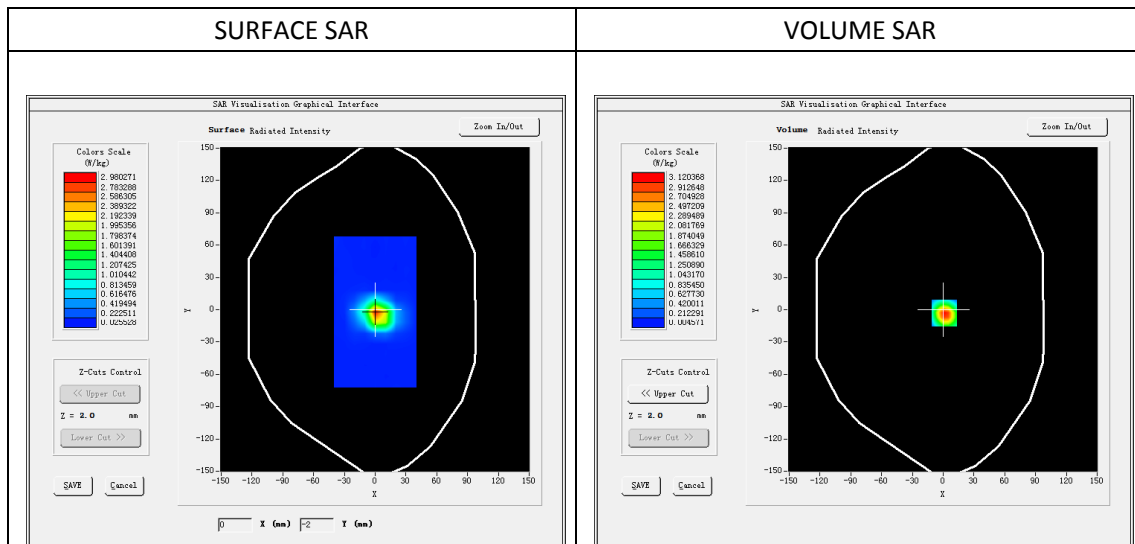
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	7x7x8,dx=4mm dy=4mm dz=2mm
Device Position	Dipole
Band	5200MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	5200
Relative permittivity (real part)	50.45
Relative permittivity	18.14
Conductivity (S/m)	5.24
Power drift (%)	-0.66
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.21

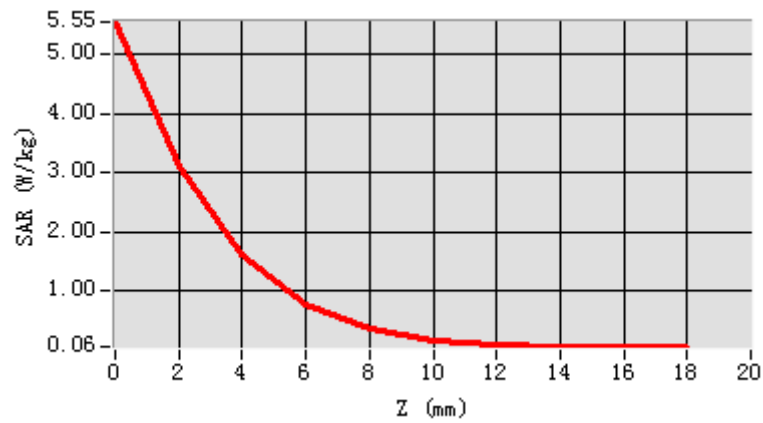


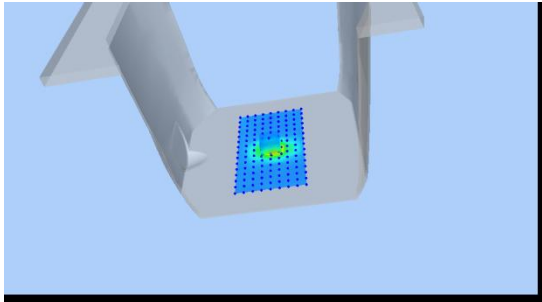
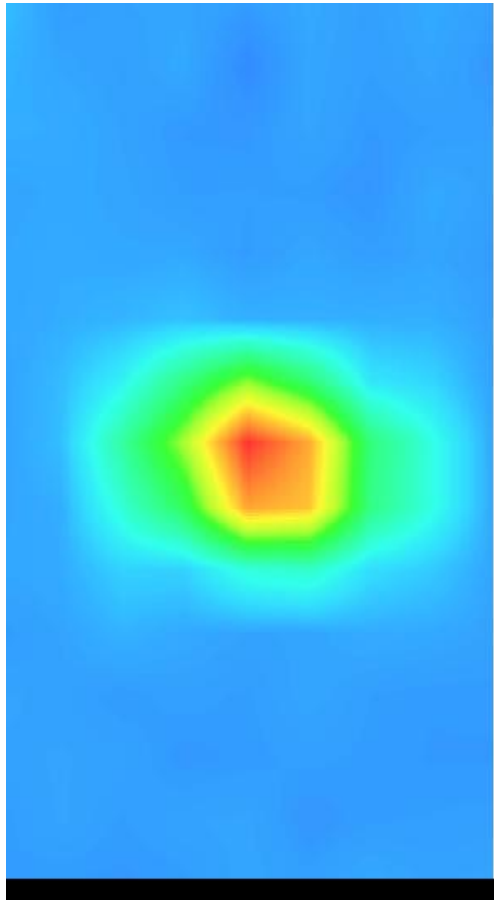
Maximum location: X=1.00, Y=-3.00

SAR Peak: 5.83 W/kg

SAR 10g (W/Kg)	0.522914
SAR 1g (W/Kg)	1.696814

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	5.5528	3.1204	1.6152	0.7772	0.3657	0.1778	0.0983	0.0685	0.0612



3D screen shot	Hot spot position
	

System Performance Check (Body, 5400MHz)

Type: Phone measurement

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

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

Date of measurement: 09/09/2019

Measurement duration: 22 minutes 21 seconds

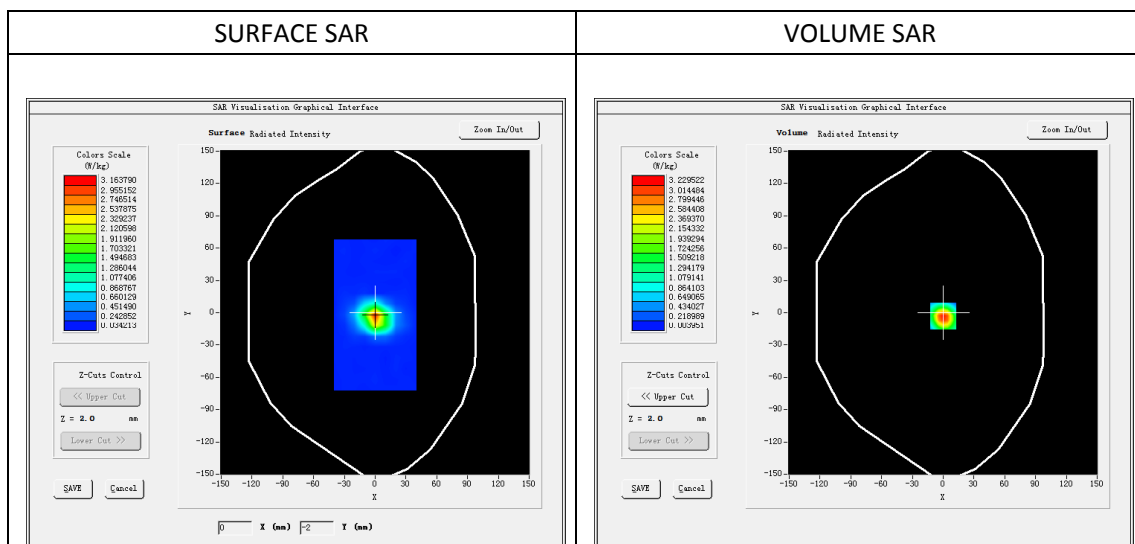
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	7x7x8,dx=4mm dy=4mm dz=2mm
Device Position	Dipole
Band	5400MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	5400
Relative permittivity (real part)	50.16
Relative permittivity	18.40
Conductivity (S/m)	5.52
Power drift (%)	-1.19
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.16

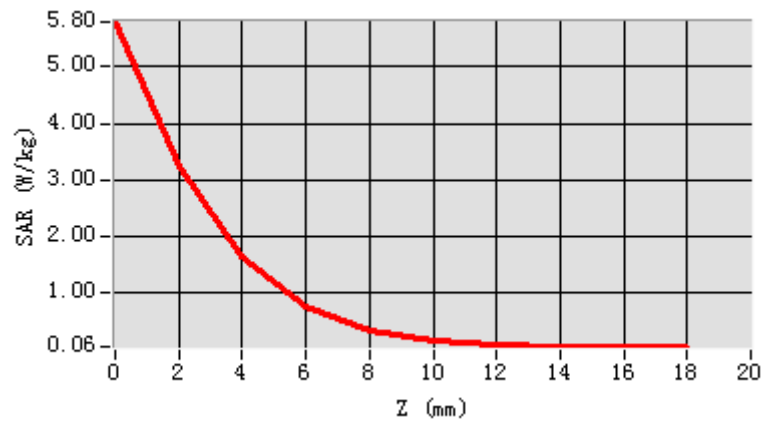


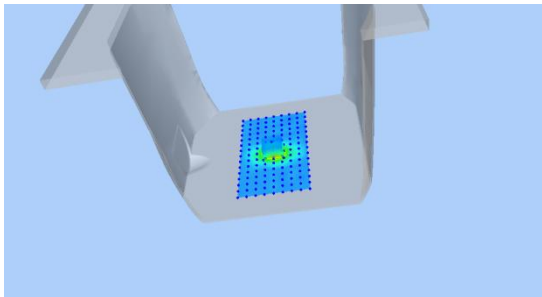
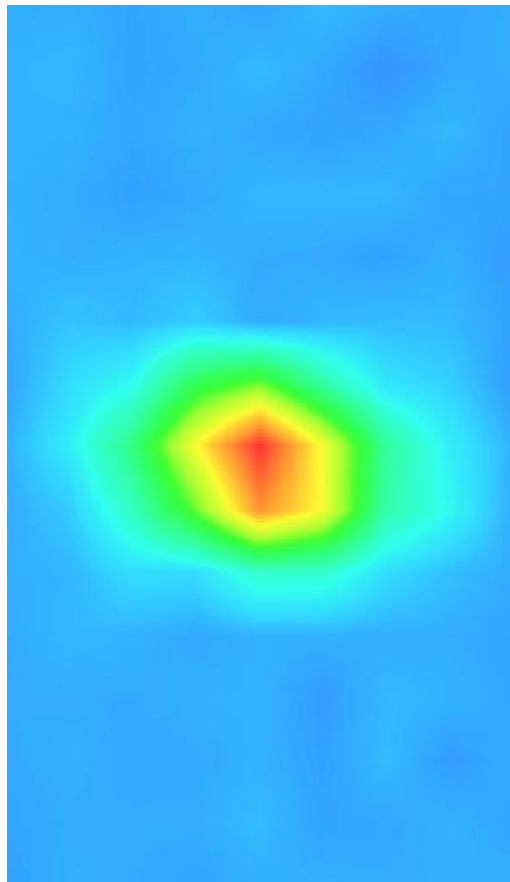
Maximum location: X=0.00, Y=-3.00

SAR Peak: 6.08 W/kg

SAR 10g (W/Kg)	0.534339
SAR 1g (W/Kg)	1.740278

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	5.7968	3.2295	1.6491	0.7782	0.3570	0.1687	0.0913	0.0637	0.0584



3D screen shot	Hot spot position
	

System Performance Check (Body, 5600MHz)

Type: Phone measurement

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

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

Date of measurement: 09/10/2019

Measurement duration: 22 minutes 25 seconds

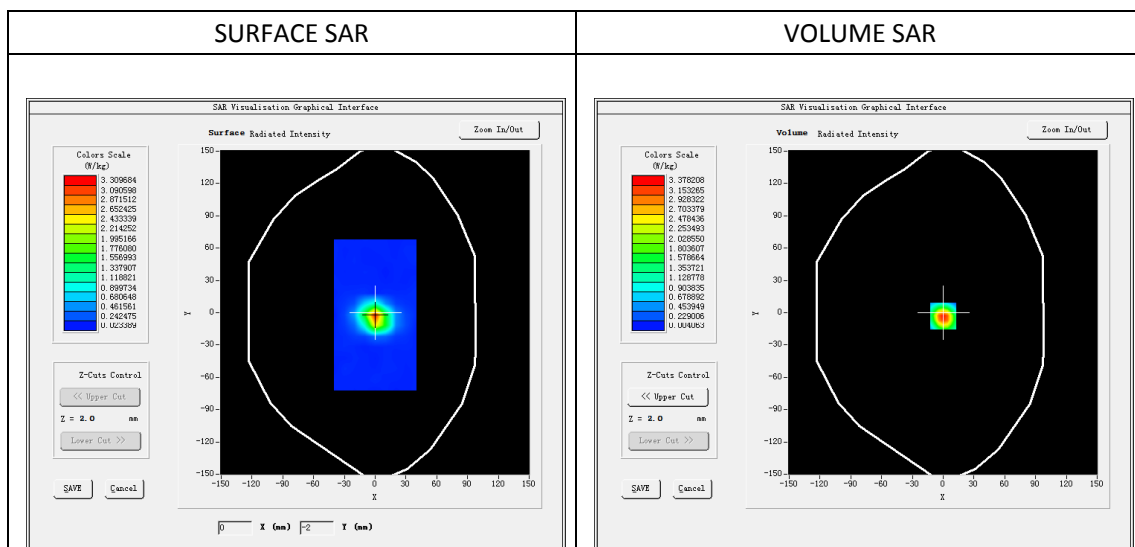
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	7x7x8,dx=4mm dy=4mm dz=2mm
Device Position	Dipole
Band	5600MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	5600
Relative permittivity (real part)	49.89
Relative permittivity	18.19
Conductivity (S/m)	5.66
Power drift (%)	-0.59
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.24

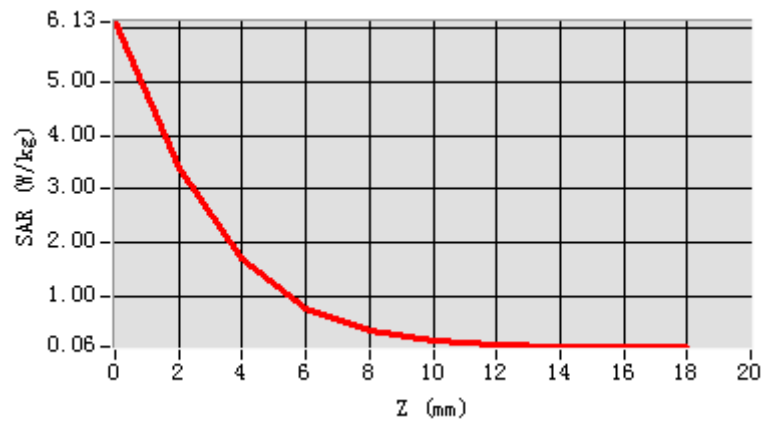


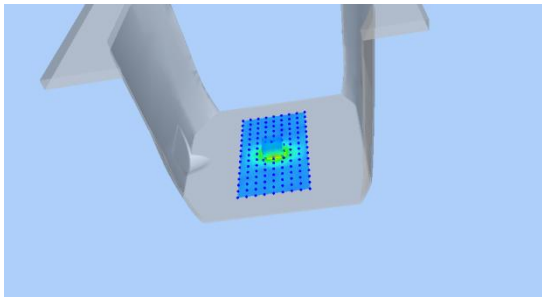
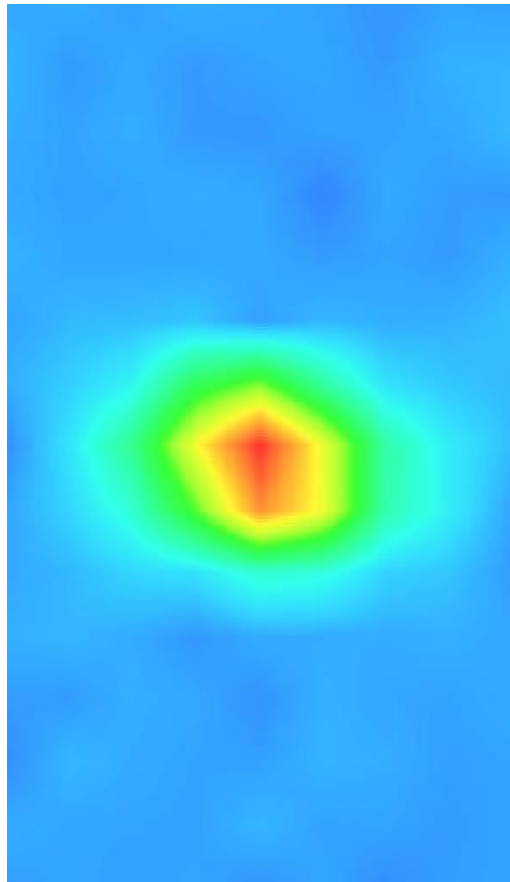
Maximum location: X=0.00, Y=-3.00

SAR Peak: 6.44 W/kg

SAR 10g (W/Kg)	0.547979
SAR 1g (W/Kg)	1.810090

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	6.1270	3.3782	1.6968	0.7823	0.3488	0.1601	0.0855	0.0609	0.0589



3D screen shot	Hot spot position
	

System Performance Check (Body, 5800MHz)

Type: Phone measurement

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

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

Date of measurement: 09/11/2019

Measurement duration: 22 minutes 29 seconds

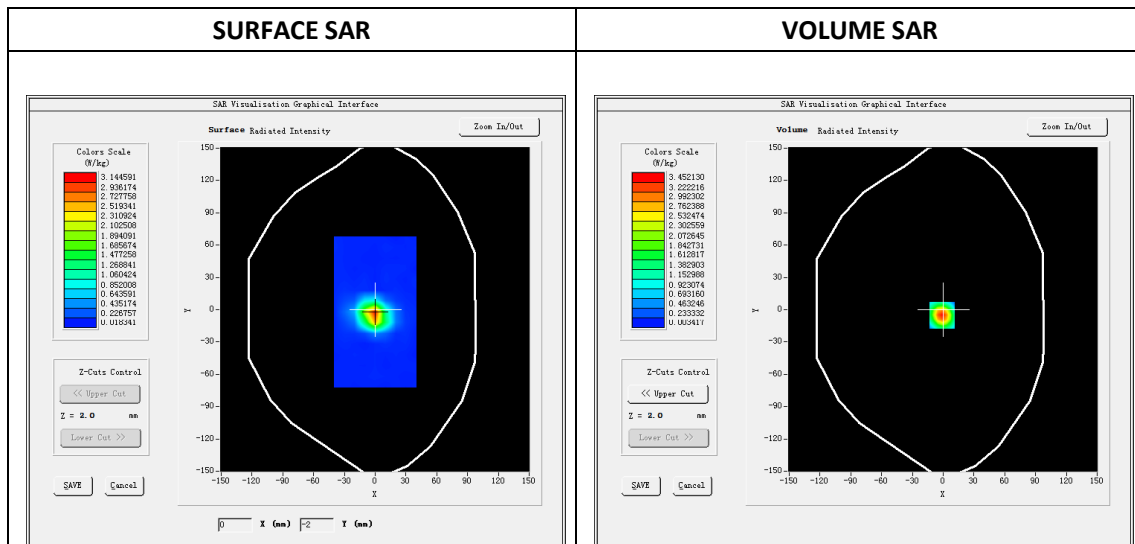
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	7x7x8,dx=4mm dy=4mm dz=2mm
Device Position	Dipole
Band	5800MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	5800
Relative permittivity (real part)	49.61
Relative permittivity	18.37
Conductivity (S/m)	5.92
Power drift (%)	-0.61
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.26

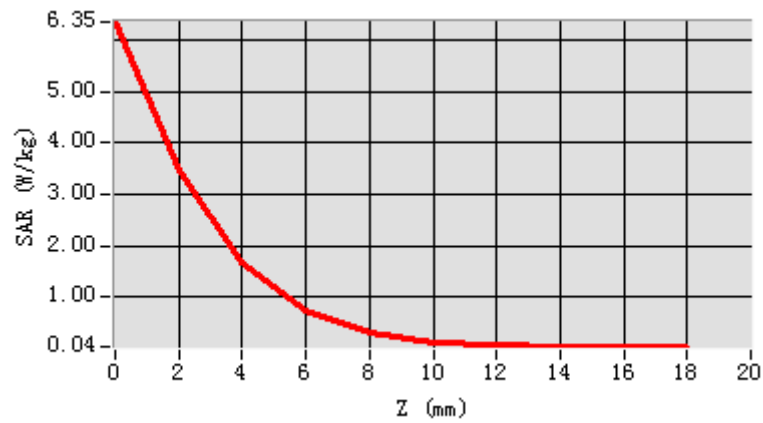


Maximum location: X=-1.00, Y=-5.00

SAR Peak: 6.64 W/kg

SAR 10g (W/Kg)	0.522691
SAR 1g (W/Kg)	1.794857

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	6.3521	3.4521	1.6925	0.7509	0.3159	0.1337	0.0655	0.0446	0.0439



3D screen shot	Hot spot position
