

Appendix A: SAR System performance Check Plots

Measurement	Liquid	Frequency	Test Date
System Check	Head	750	2021-01-18
System Check	Body	750	2021-01-18
System Check	Head	835	2021-01-19
System Check	Body	835	2021-01-19
System Check	Head	1800	2021-01-20
System Check	Body	1800	2021-01-20
System Check	Head	1900	2021-01-21
System Check	Body	1900	2021-01-21
System Check	Head	2450	2021-01-22
System Check	Body	2450	2021-01-22
System Check	Head	2600	2021-01-23
System Check	Body	2600	2021-01-23
System Check	Head	5200	2021-01-24
System Check	Body	5200	2021-01-24
System Check	Head	5400	2021-01-24
System Check	Body	5400	2021-01-24
System Check	Head	5800	2021-01-24
System Check	Body	5800	2021-01-24

System Performance Check (Head, 750MHz)

Type: Phone measurement

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

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

Date of measurement: 01/18/2021

Measurement duration: 22 minutes 03 seconds

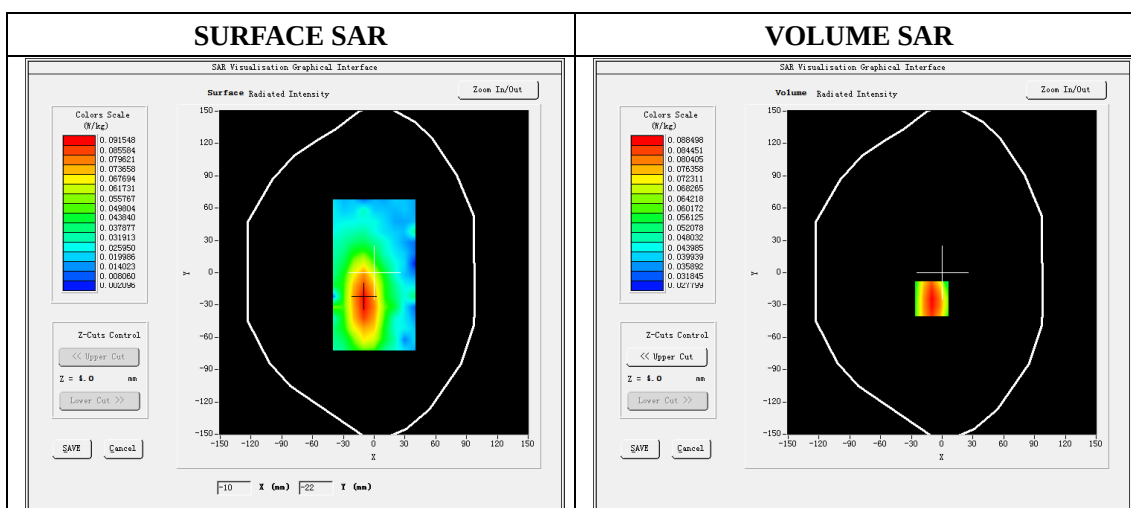
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	5x5x7,dx=8mm dy=8mm dz=5mm
Device Position	Dipole
Band	750MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

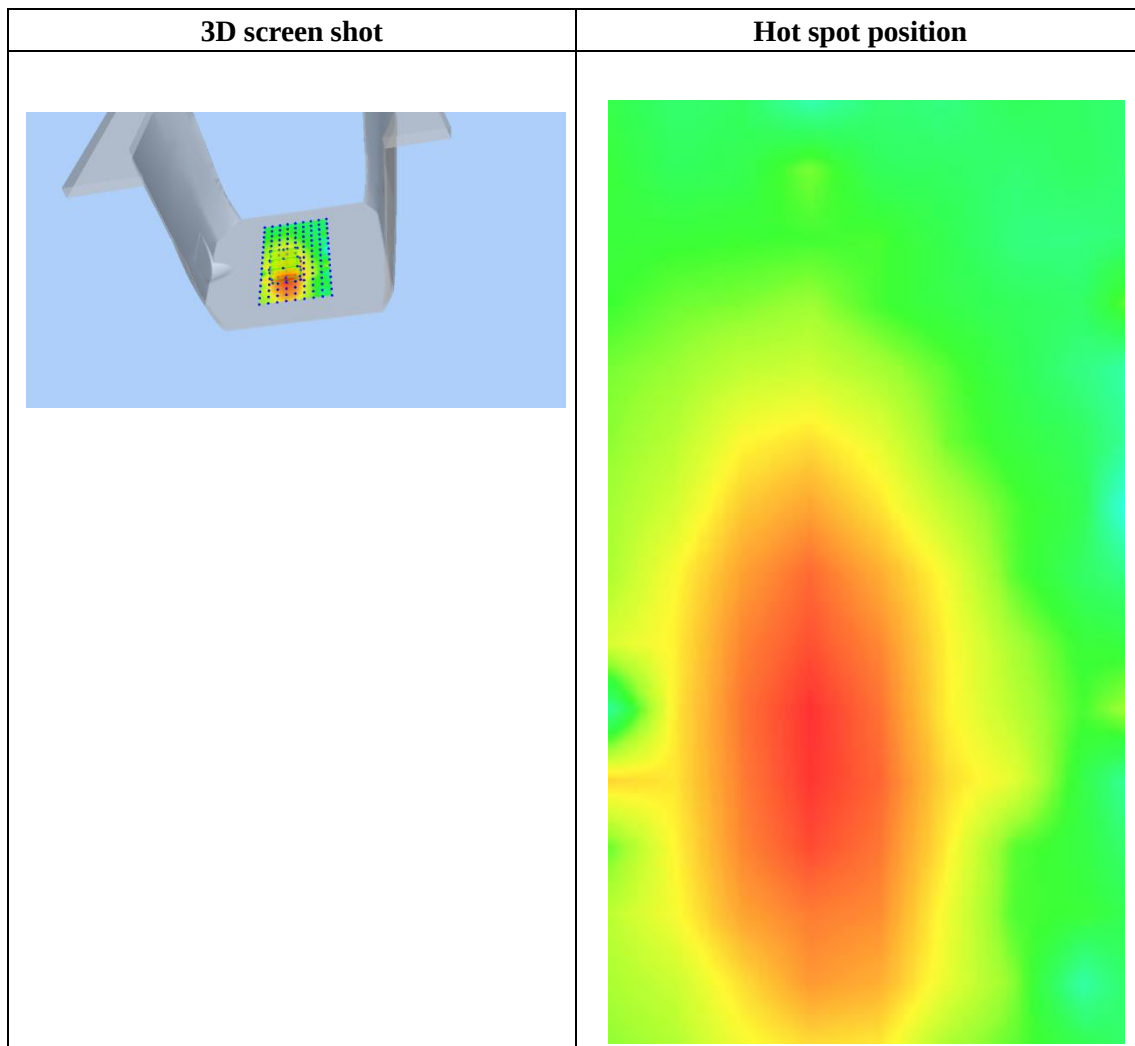
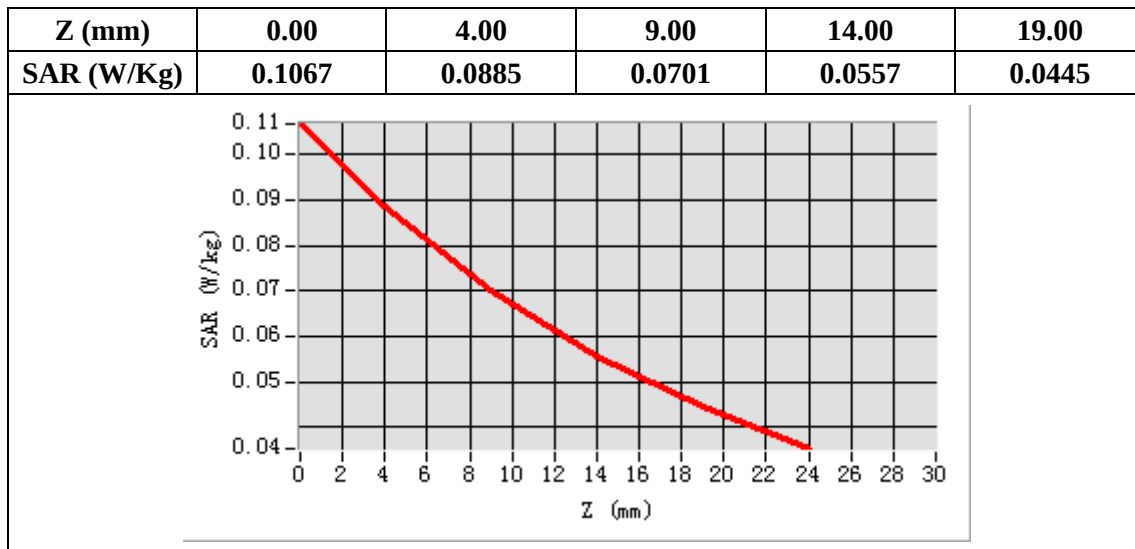
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	750
Relative permittivity (real part)	41.92
Relative permittivity	21.84
Conductivity (S/m)	0.91
Power drift (%)	-0.32
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.78
Crest factor:	1:1



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

SAR Peak: 0.11 W/kg

SAR 10g (W/Kg)	0.064013
SAR 1g (W/Kg)	0.086263



System Performance Check (Body, 750MHz)

Type: Phone measurement

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

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

Date of measurement: 01/18/2021

Measurement duration: 22 minutes 01 seconds

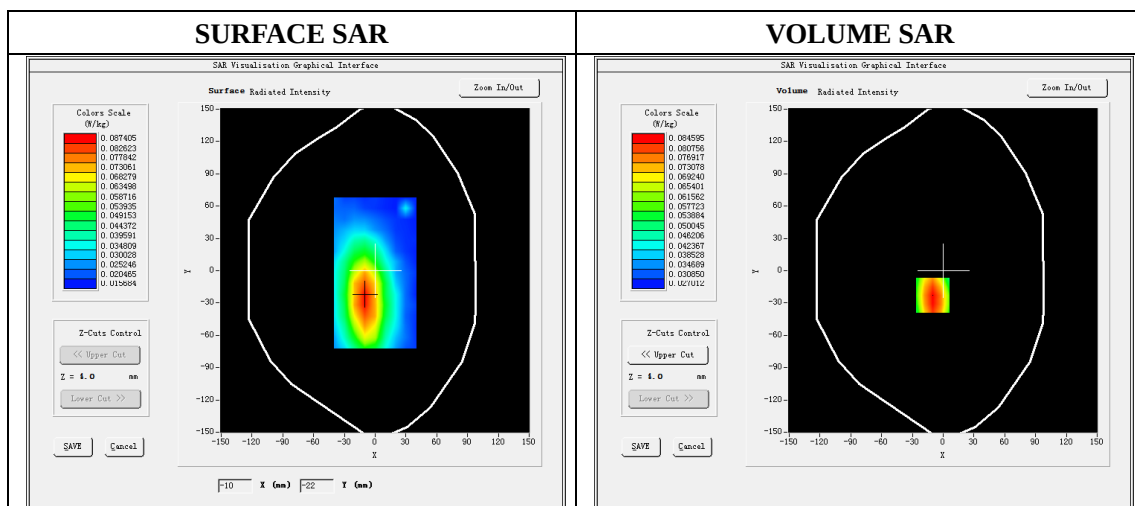
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	5x5x7,dx=8mm dy=8mm dz=5mm
Device Position	Dipole
Band	750MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

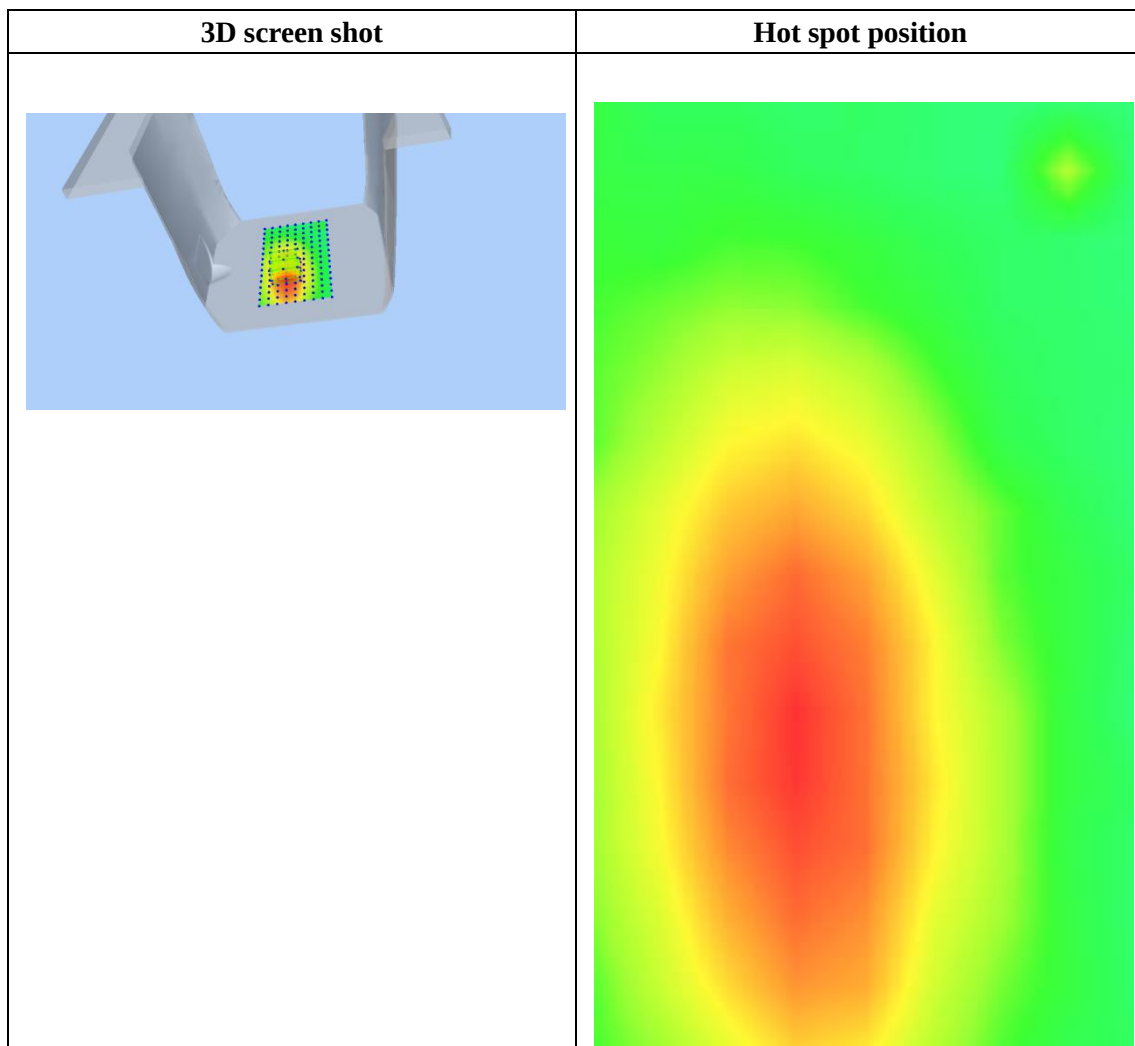
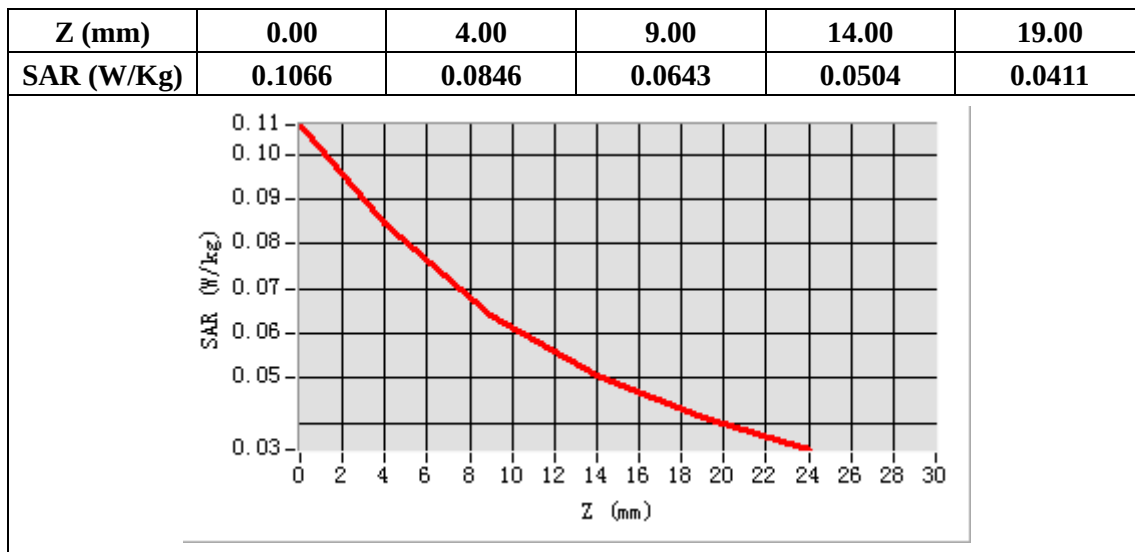
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	750
Relative permittivity (real part)	55.49
Relative permittivity	23.04
Conductivity (S/m)	0.96
Power drift (%)	-2.33
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.88
Crest factor:	1:1



Maximum location: X=-10.00, Y=-23.00

SAR Peak: 0.11 W/kg

SAR 10g (W/Kg)	0.060410
SAR 1g (W/Kg)	0.081939



System Performance Check (Head, 835MHz)

Type: Phone measurement

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

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

Date of measurement: 01/19/2021

Measurement duration: 22 minutes 02 seconds

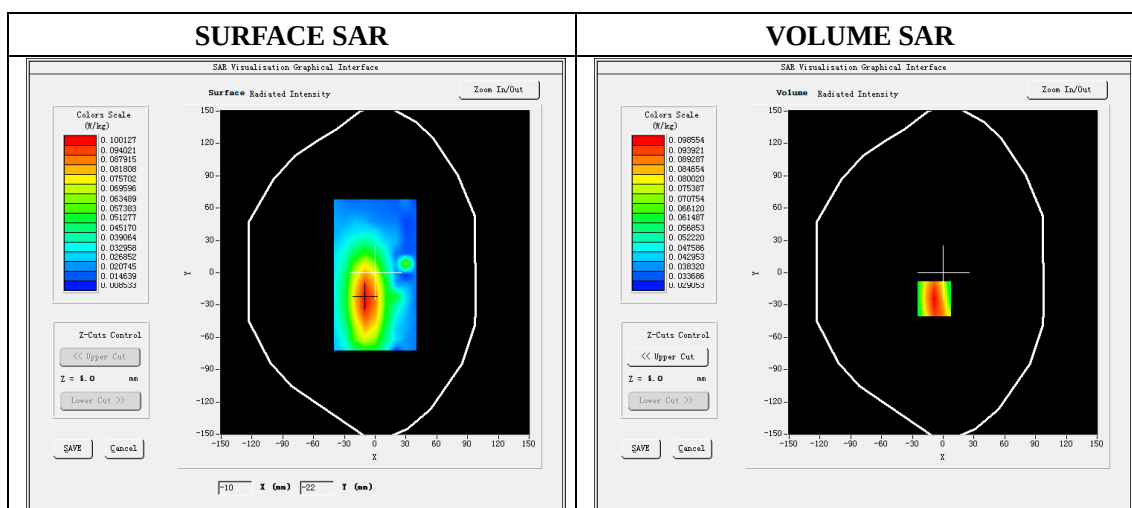
A. Experimental conditions.

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

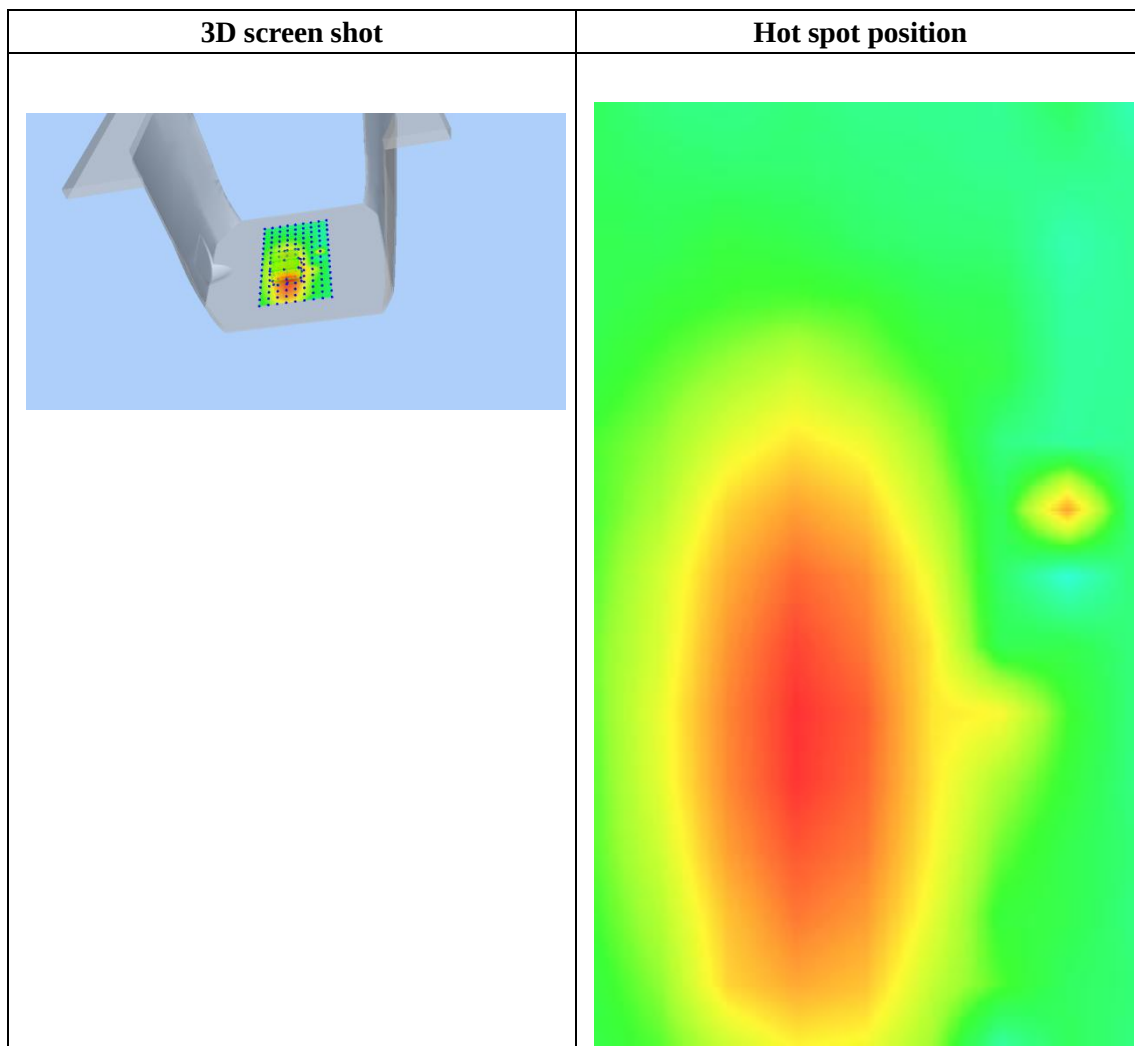
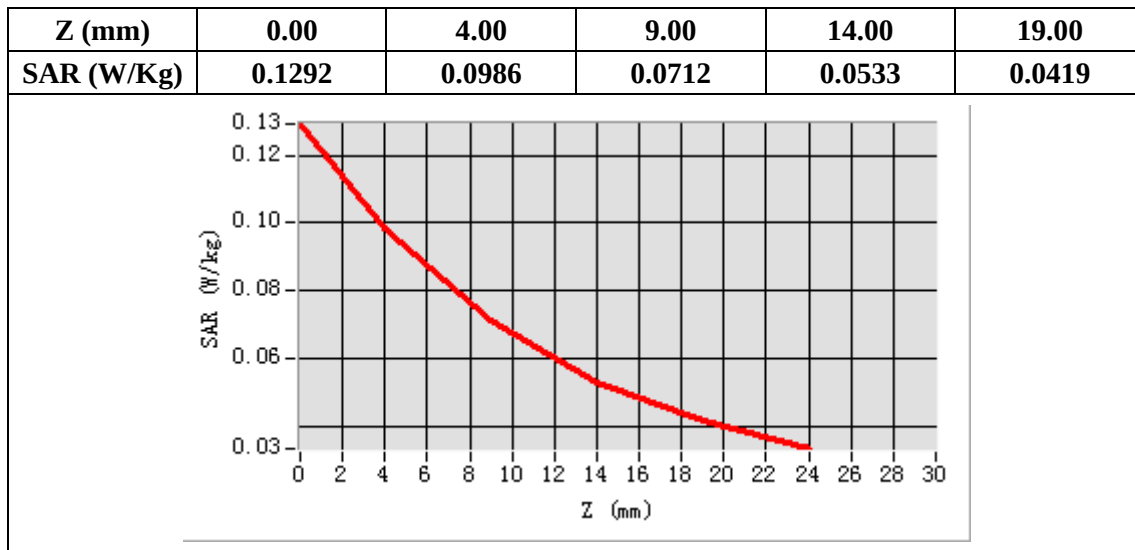
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	835
Relative permittivity (real part)	41.51
Relative permittivity	19.40
Conductivity (S/m)	0.90
Power drift (%)	-3.36
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.86
Crest factor:	1:1



Maximum location: X=-9.00, Y=-24.00

SAR Peak: 0.13 W/kg

SAR 10g (W/Kg)	0.066314
SAR 1g (W/Kg)	0.094162



System Performance Check (Body, 835MHz)

Type: Phone measurement

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

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

Date of measurement: 01/19/2021

Measurement duration: 22 minutes 04 seconds

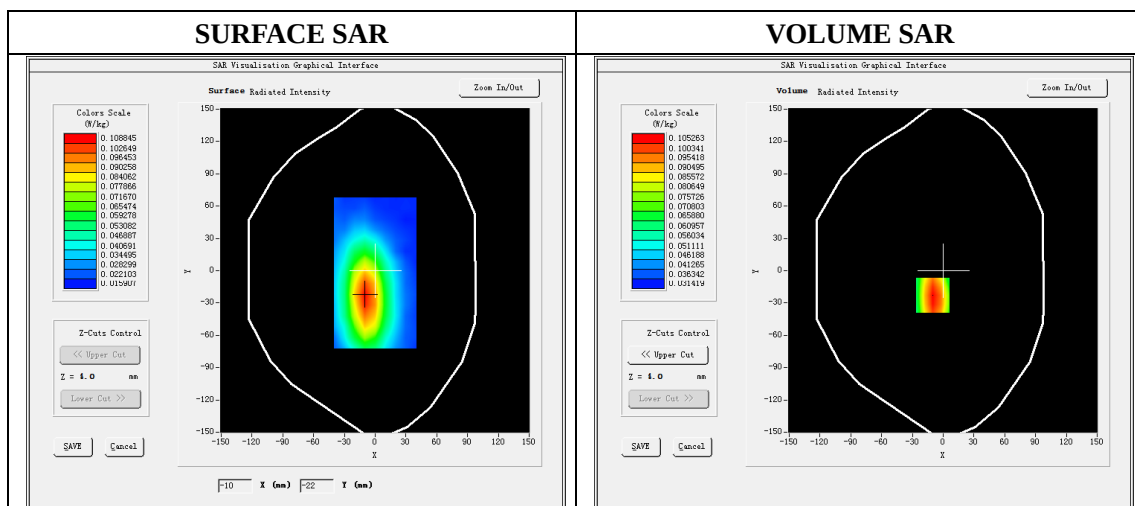
A. Experimental conditions.

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

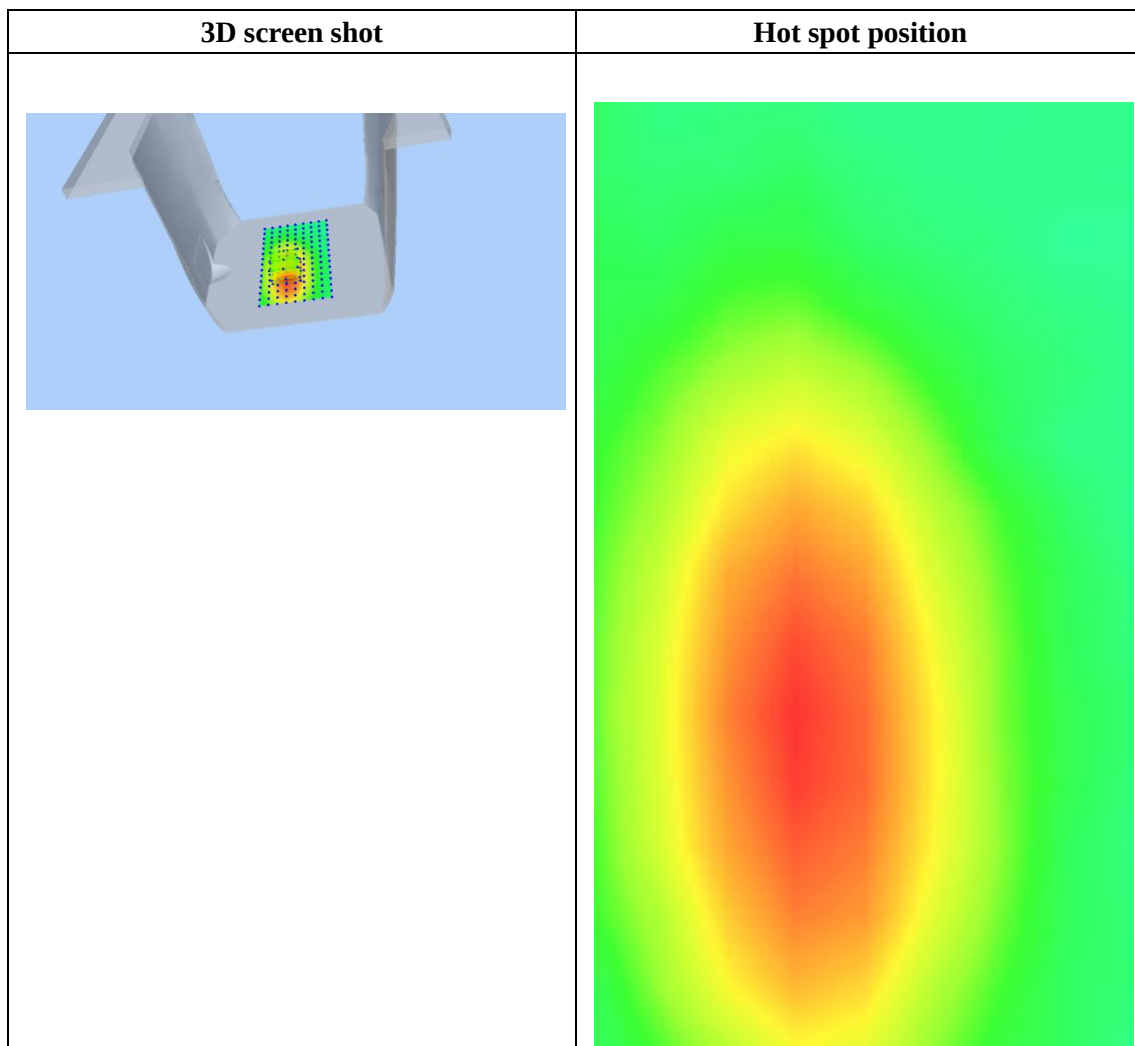
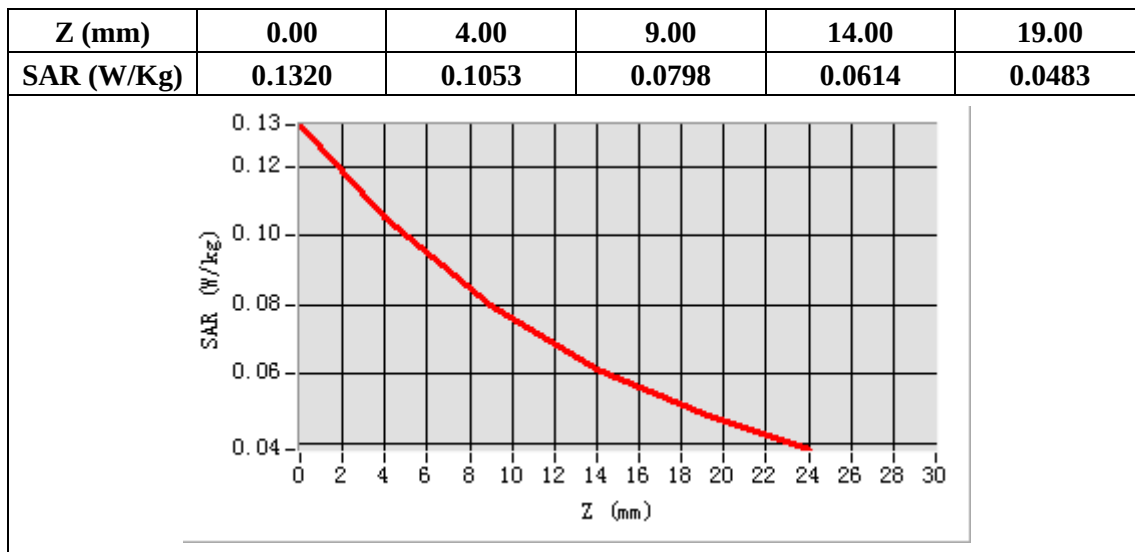
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	835
Relative permittivity (real part)	55.19
Relative permittivity	20.91
Conductivity (S/m)	0.97
Power drift (%)	-3.21
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.90
Crest factor:	1:1



Maximum location: X=-10.00, Y=-23.00

SAR Peak: 0.13 W/kg

SAR 10g (W/Kg)	0.073597
SAR 1g (W/Kg)	0.102875



System Performance Check (Head, 1800MHz)

Type: Validation measurement

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

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

Date of measurement: 01/20/2021

Measurement duration: 22 minutes 06 seconds

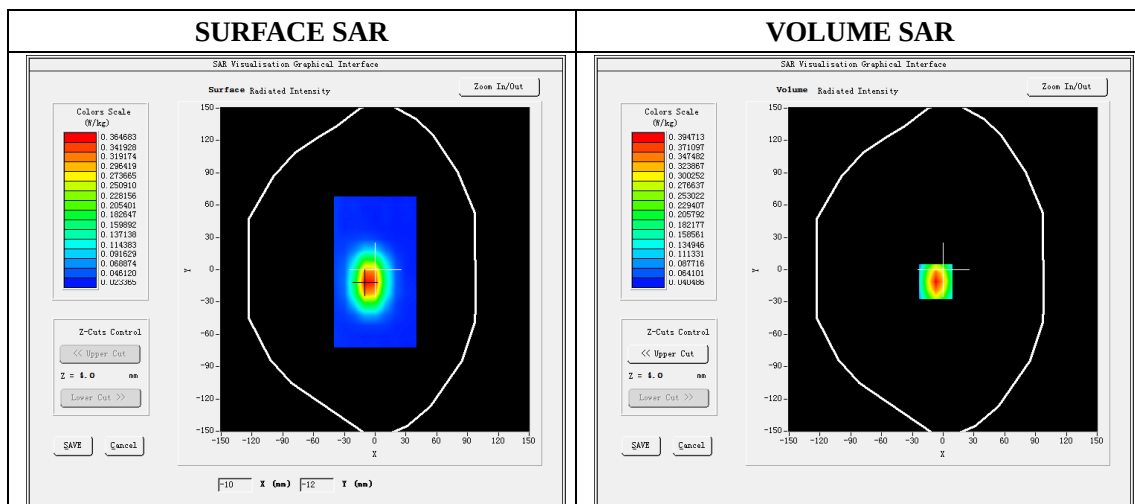
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	5x5x7,dx=8mm dy=8mm dz=5mm
Device Position	Dipole
Band	1800MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

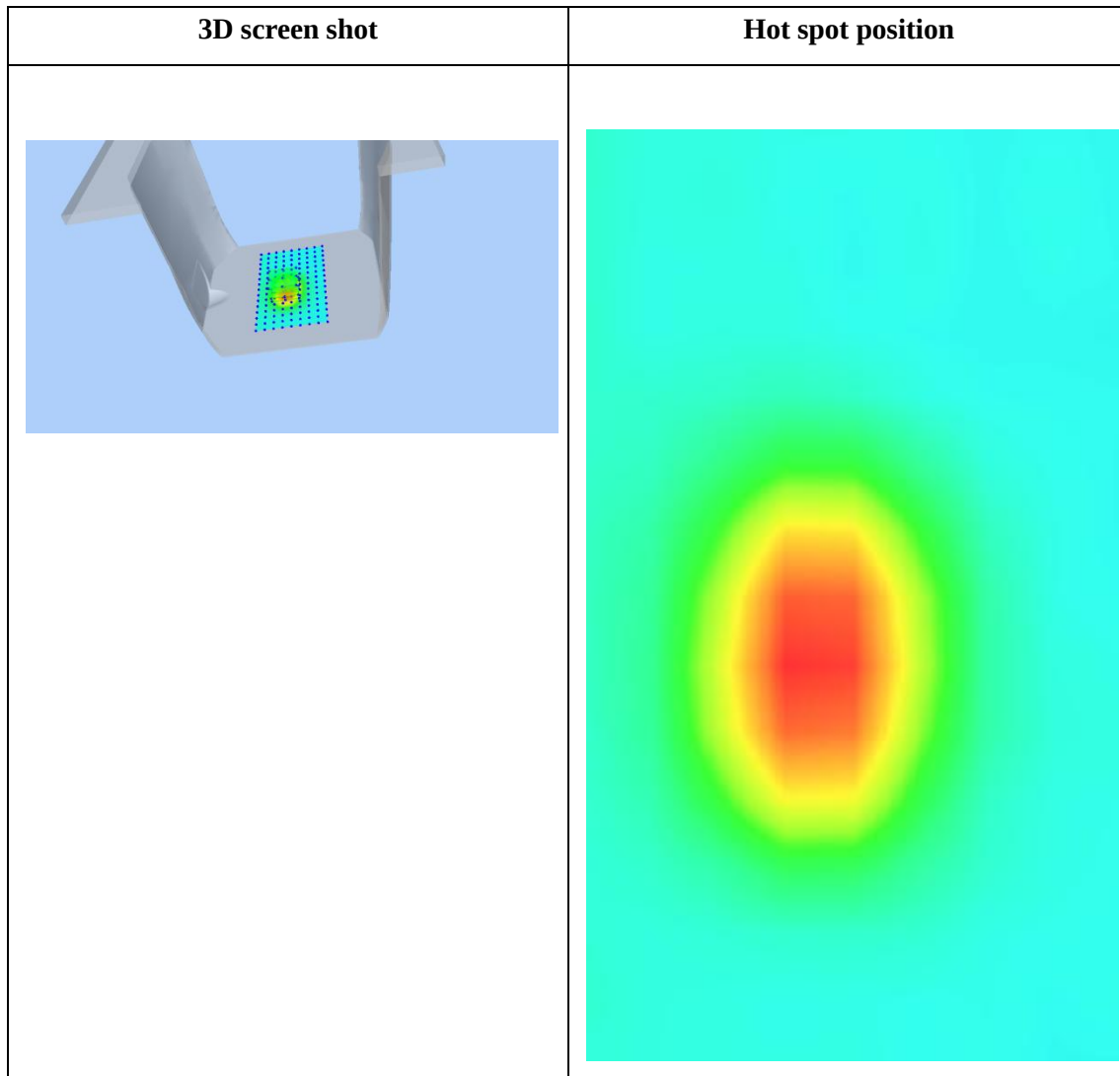
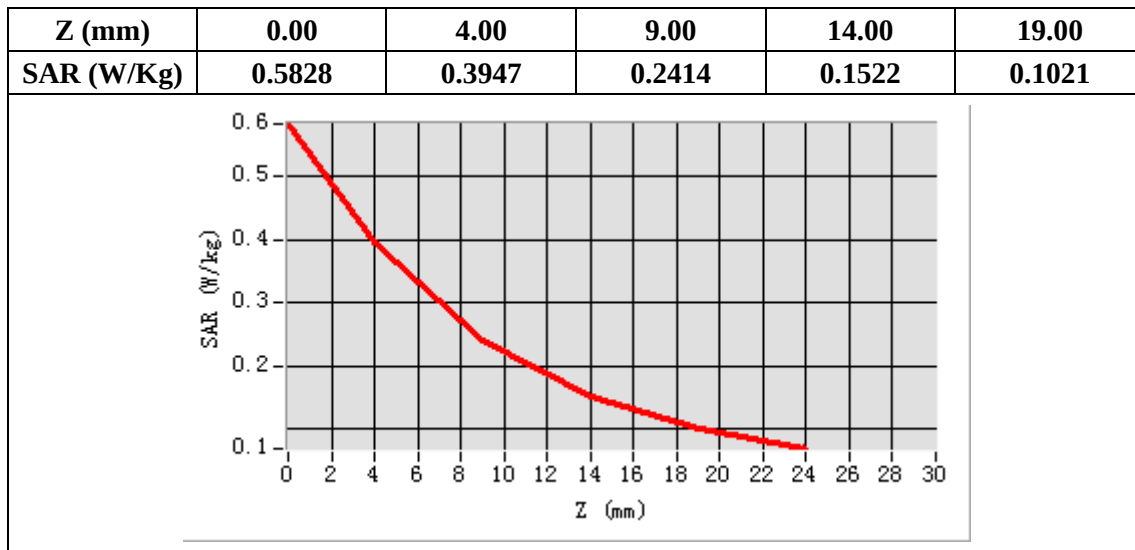
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1800
Relative permittivity (real part)	40.53
Relative permittivity	14.30
Conductivity (S/m)	1.43
Power Drift (%)	-0.78
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.04
Duty factor:	1:1



Maximum location: X=-7.00, Y=-11.00

SAR Peak: 0.59 W/kg

SAR 10g (W/Kg)	0.209604
SAR 1g (W/Kg)	0.371584



System Performance Check (Body, 1800MHz)

Type: Validation measurement

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

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

Date of measurement: 01/20/2021

Measurement duration: 22 minutes 05 seconds

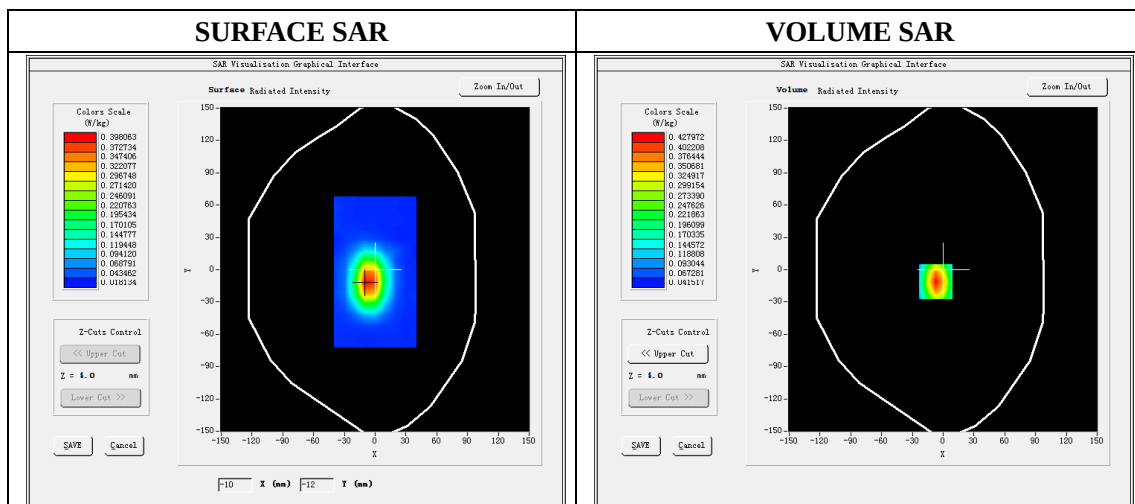
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	5x5x7,dx=8mm dy=8mm dz=5mm
Device Position	Dipole
Band	1800MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

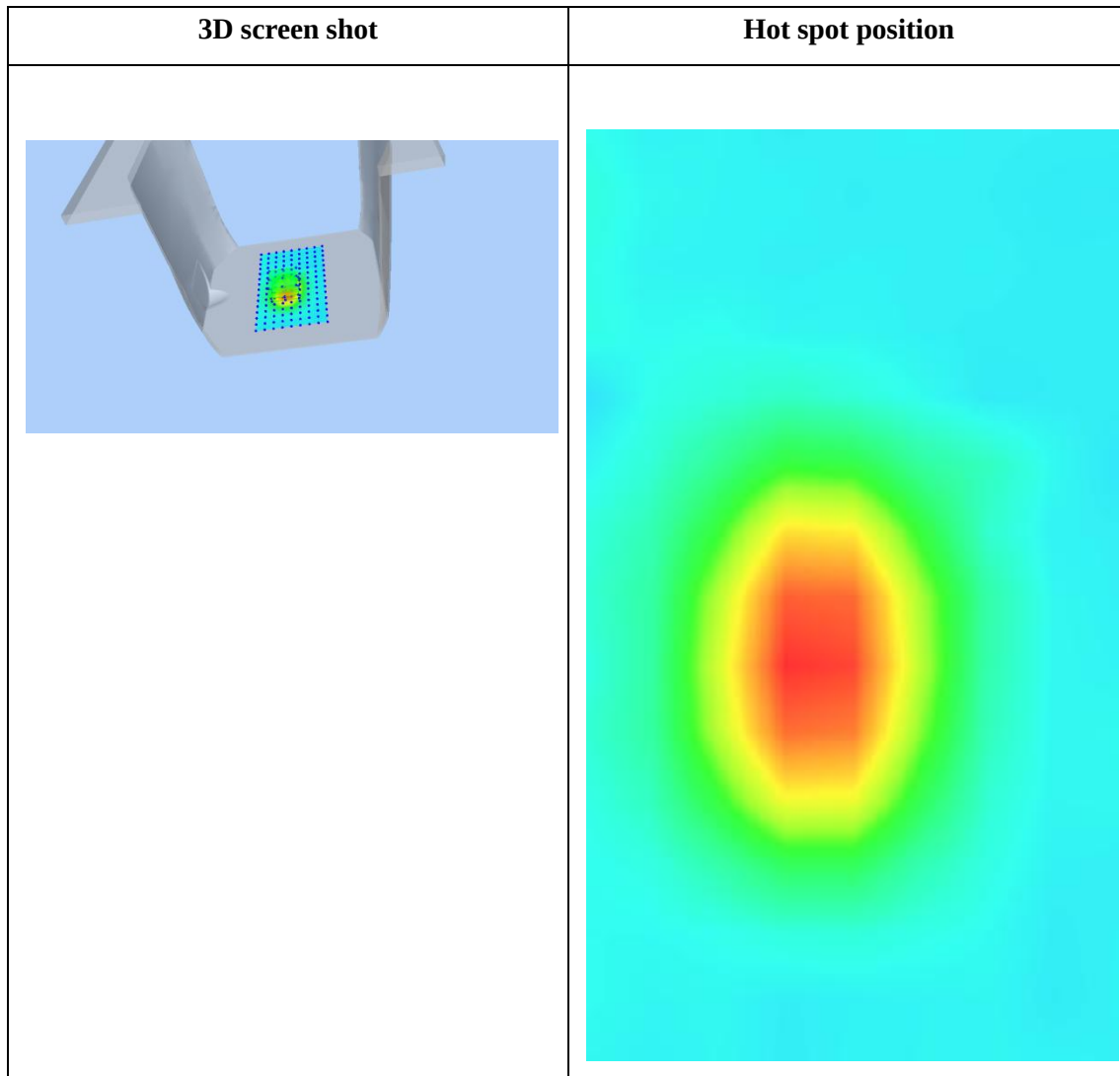
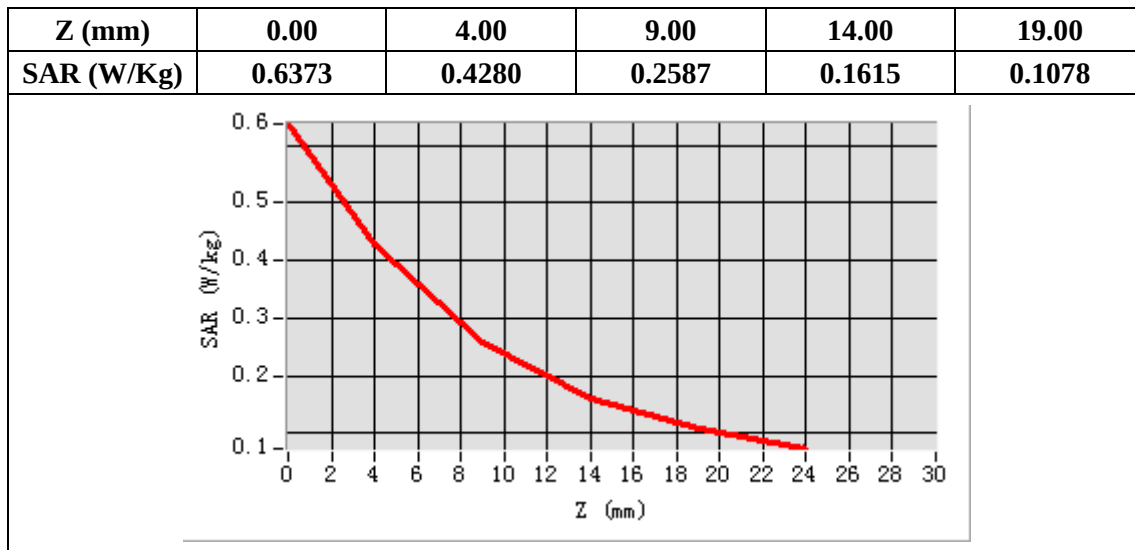
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1800
Relative permittivity (real part)	53.35
Relative permittivity	15.70
Conductivity (S/m)	1.57
Power Drift (%)	-1.33
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.09
Duty factor:	1:1



Maximum location: X=-7.00, Y=-11.00

SAR Peak: 0.64 W/kg

SAR 10g (W/Kg)	0.223855
SAR 1g (W/Kg)	0.397609



System Performance Check (Head, 1900MHz)

Type: Validation measurement

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

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

Date of measurement: 01/21/2021

Measurement duration: 22 minutes 08 seconds

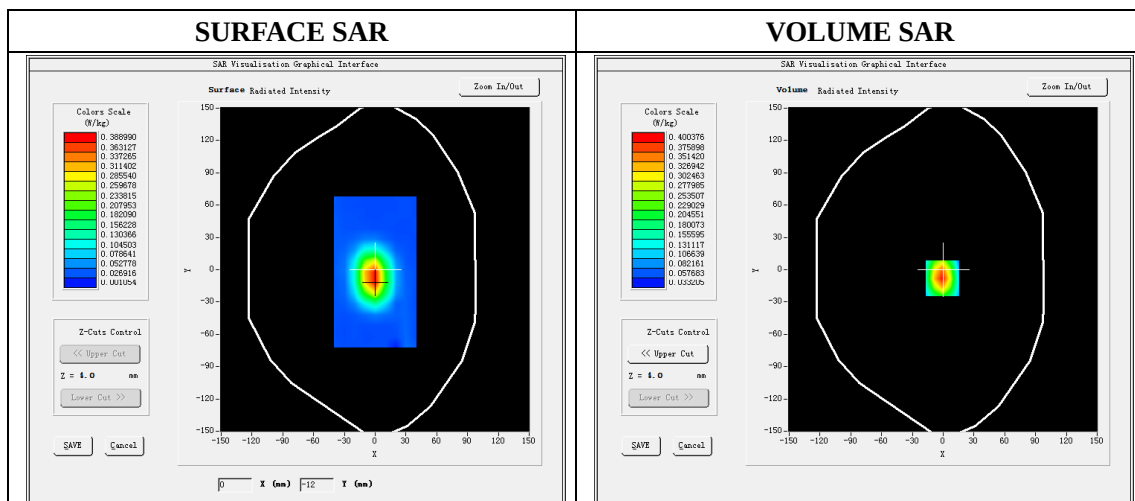
A. Experimental conditions.

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

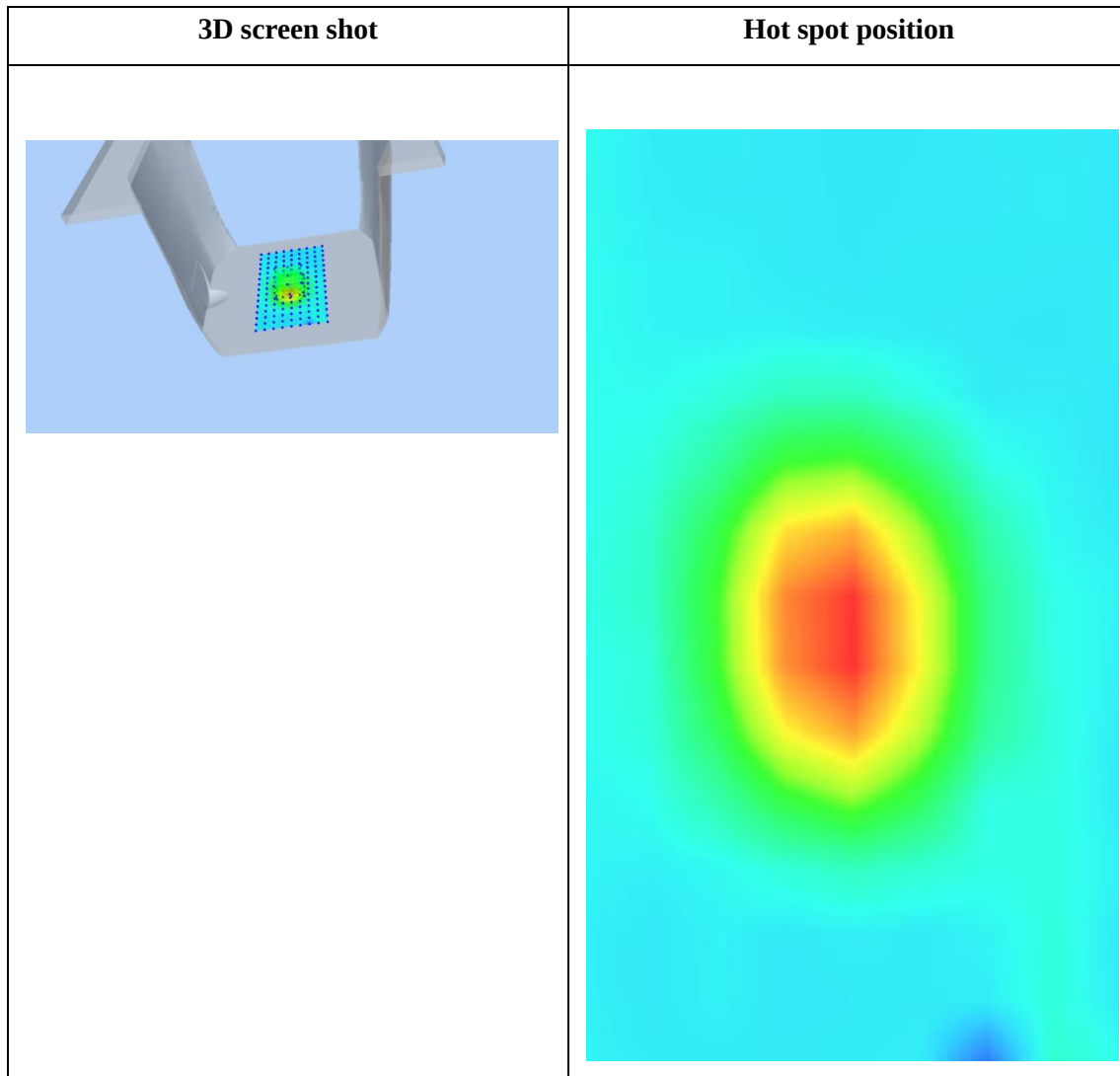
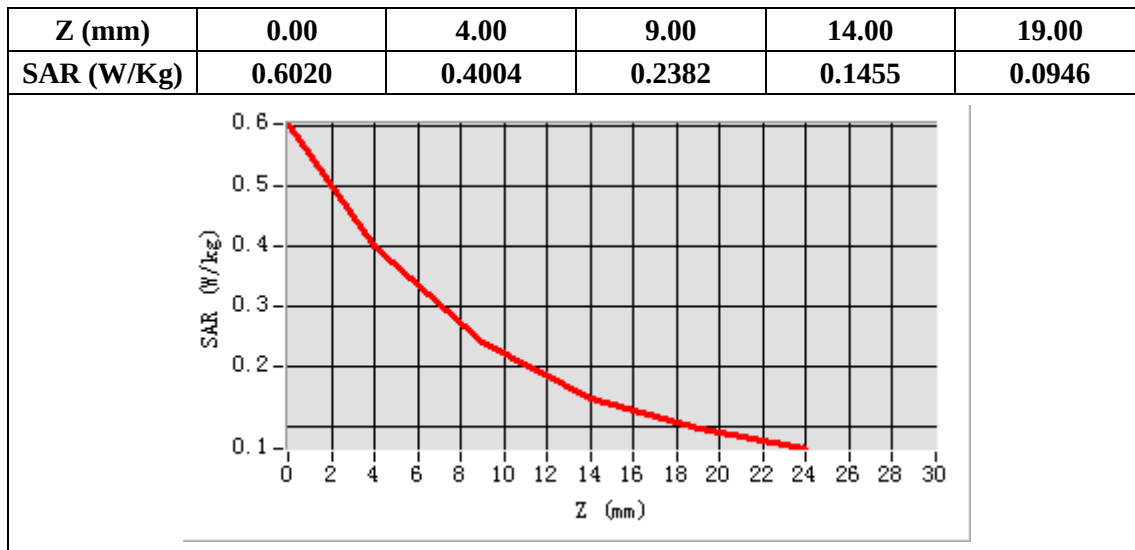
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1900
Relative permittivity (real part)	40.46
Relative permittivity	12.98
Conductivity (S/m)	1.37
Power Drift (%)	-1.30
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.20
Duty factor:	1:1



Maximum location: X=-1.00, Y=-8.00

SAR Peak: 0.60 W/kg

SAR 10g (W/Kg)	0.205233
SAR 1g (W/Kg)	0.370885



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: 01/21/2021

Measurement duration: 22 minutes 07 seconds

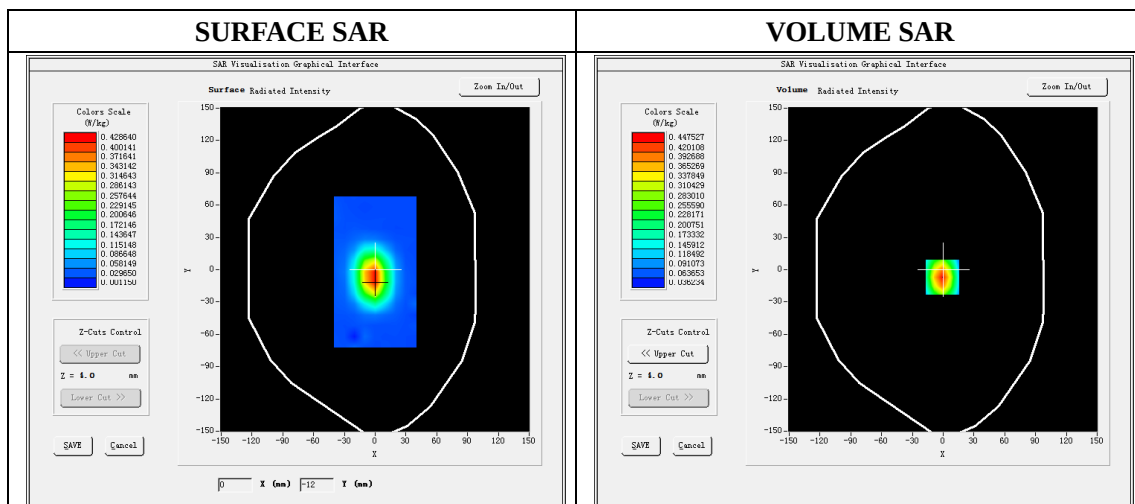
A. Experimental conditions.

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

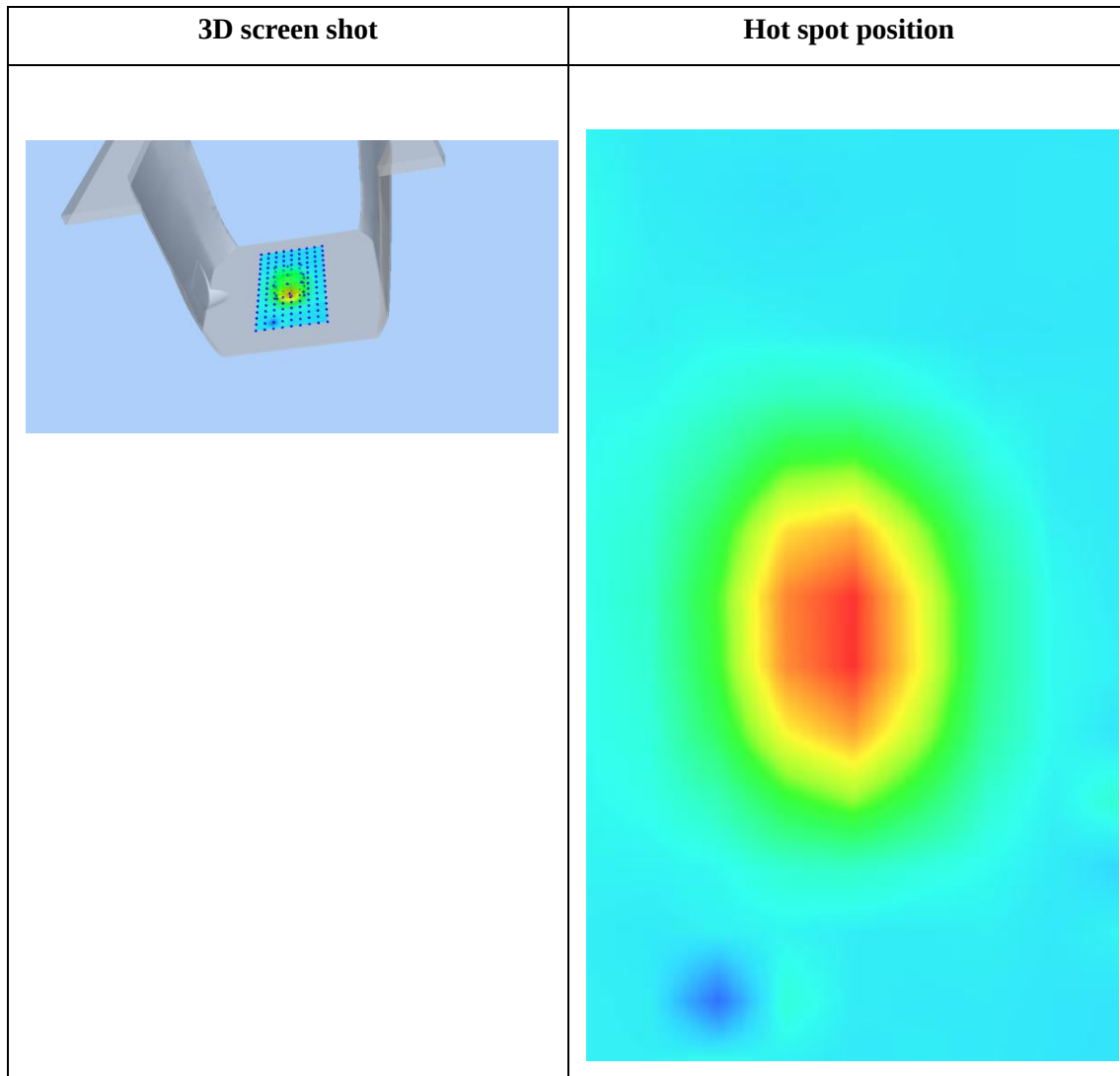
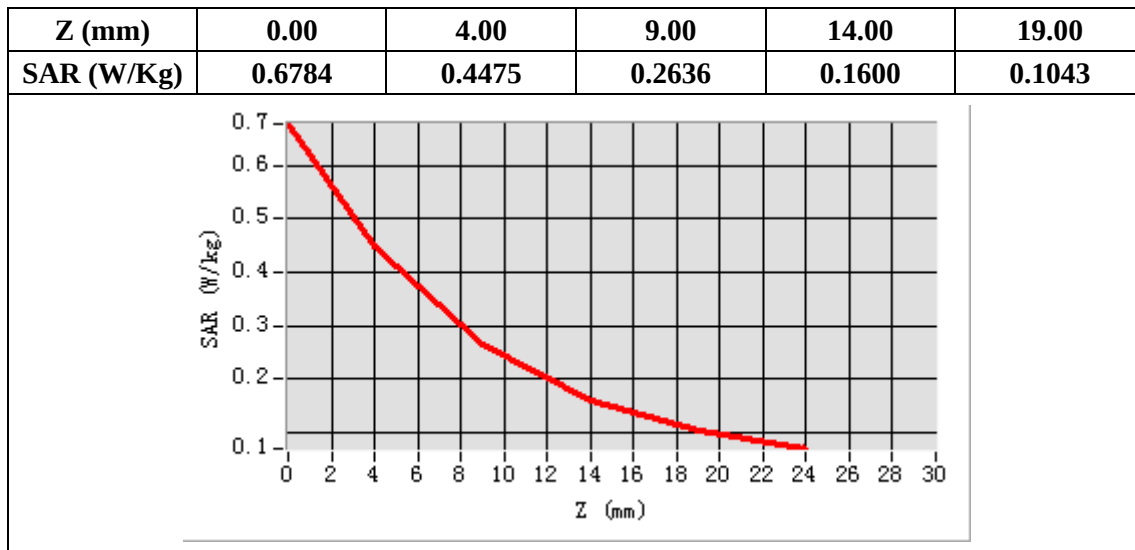
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1900
Relative permittivity (real part)	53.30
Relative permittivity	14.40
Conductivity (S/m)	1.52
Power Drift (%)	-1.68
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.26
Duty factor:	1:1



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

SAR Peak: 0.68 W/kg

SAR 10g (W/Kg)	0.226953
SAR 1g (W/Kg)	0.414023



System Performance Check (Head, 2450MHz)

Type: Phone measurement

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

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

Date of measurement: 01/22/2021

Measurement duration: 22 minutes 09 seconds

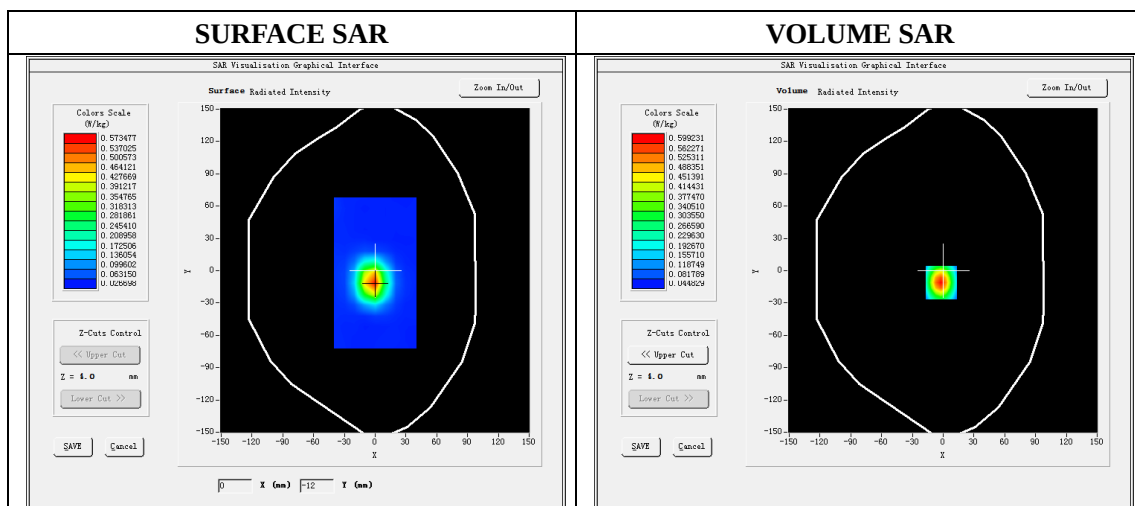
A. Experimental conditions.

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

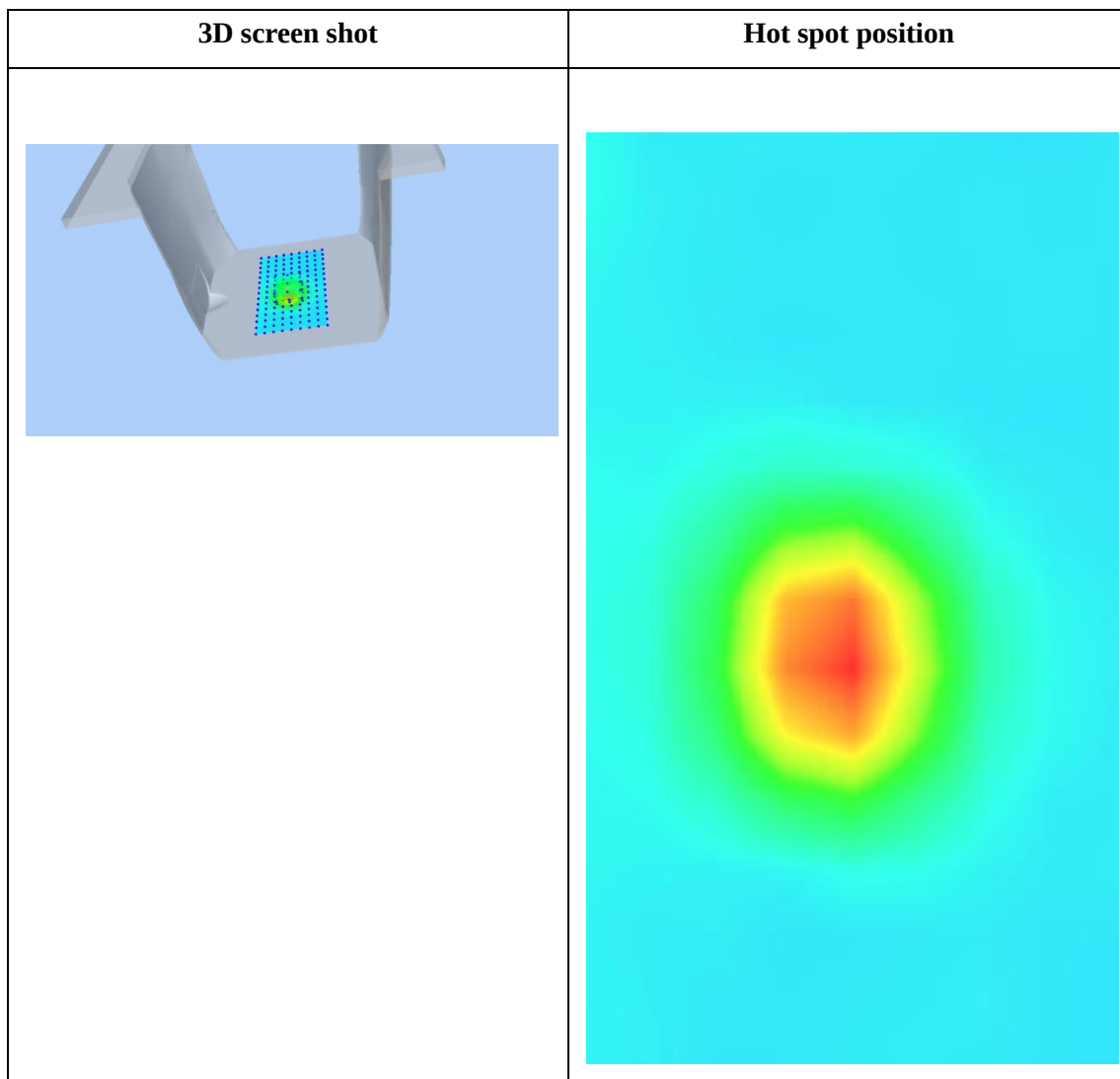
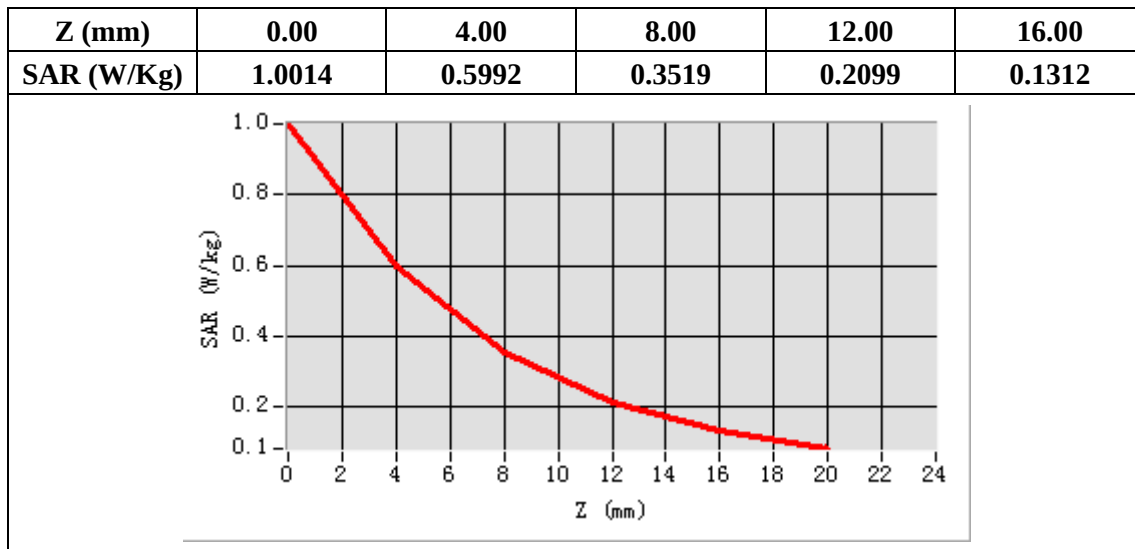
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2450
Relative permittivity (real part)	39.18
Relative permittivity	13.15
Conductivity (S/m)	1.79
Power Drift (%)	-1.13
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.18
Duty factor:	1:1



Maximum location: X=-2.00, Y=-11.00

SAR Peak: 1.00 W/kg

SAR 10g (W/Kg)	0.263901
SAR 1g (W/Kg)	0.536475



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: 01/22/2021

Measurement duration: 22 minutes 10 seconds

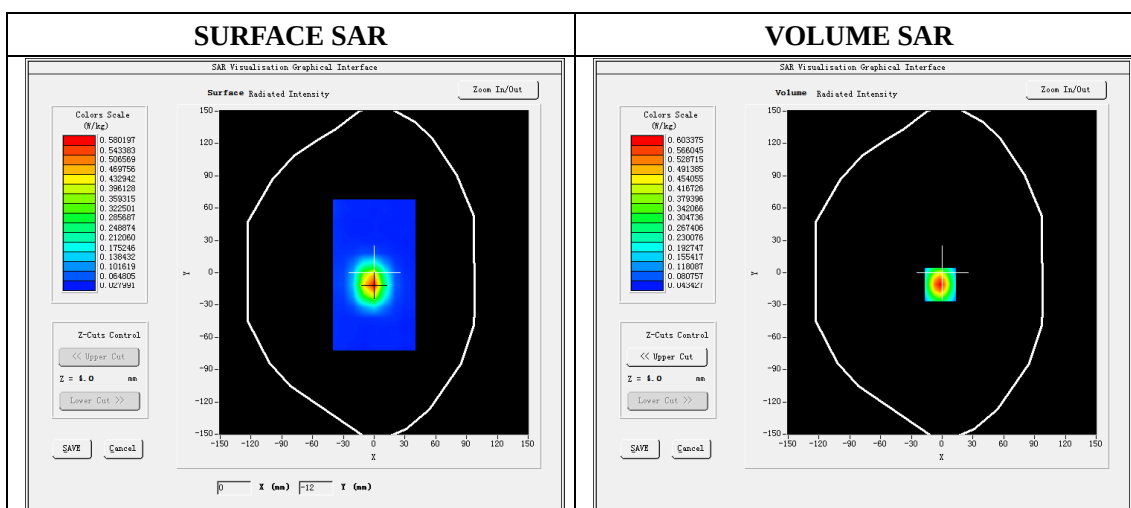
A. Experimental conditions.

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

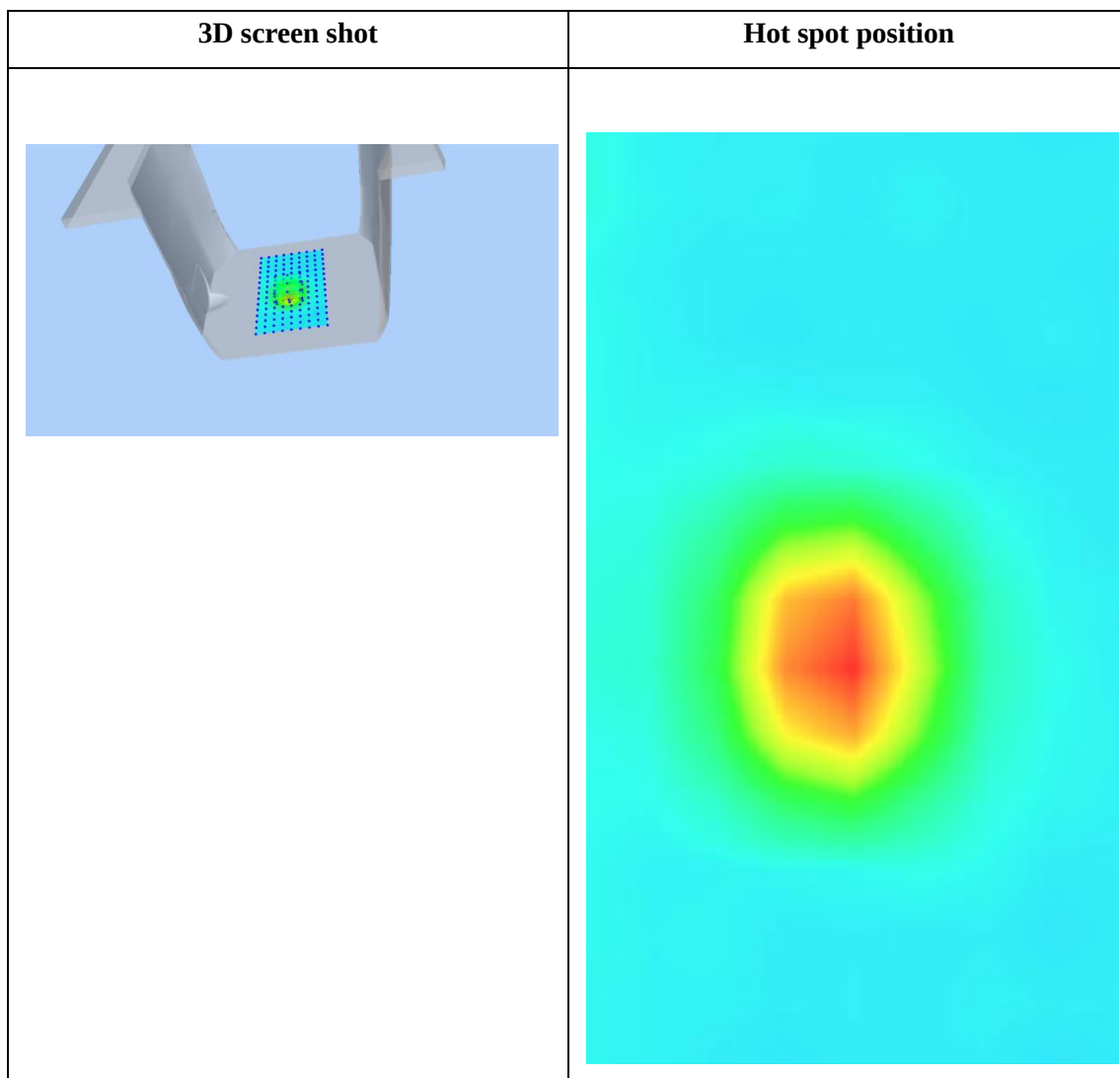
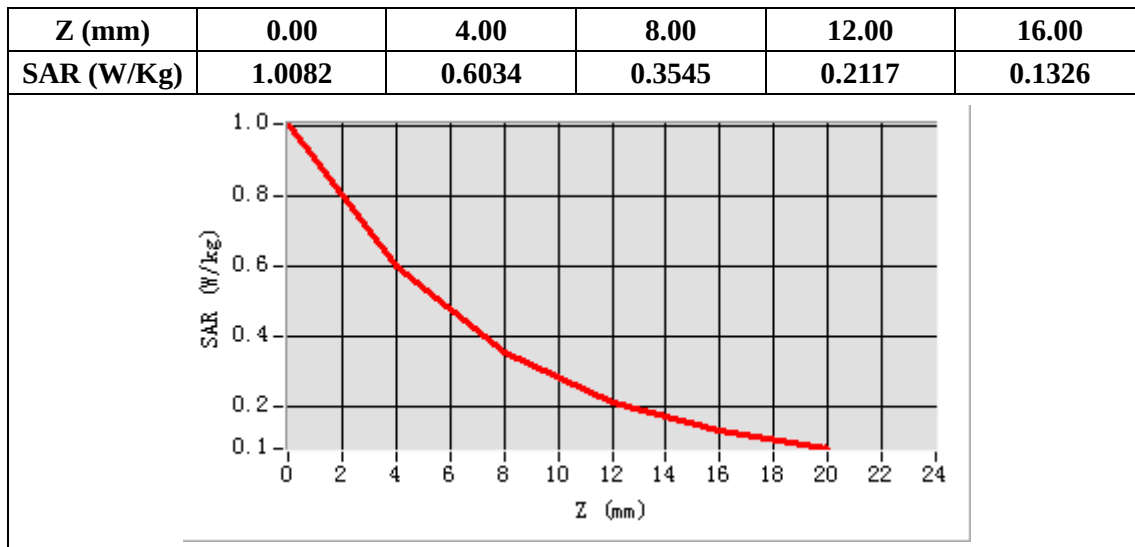
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2450
Relative permittivity (real part)	52.71
Relative permittivity	14.40
Conductivity (S/m)	1.96
Power Drift (%)	-0.84
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.47
Duty factor:	1:1



Maximum location: X=-2.00, Y=-11.00

SAR Peak: 1.01 W/kg

SAR 10g (W/Kg)	0.267245
SAR 1g (W/Kg)	0.546066



System Performance Check (Head, 2600MHz)

Type: Phone measurement

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

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

Date of measurement: 01/23/2021

Measurement duration: 22 minutes 12 seconds

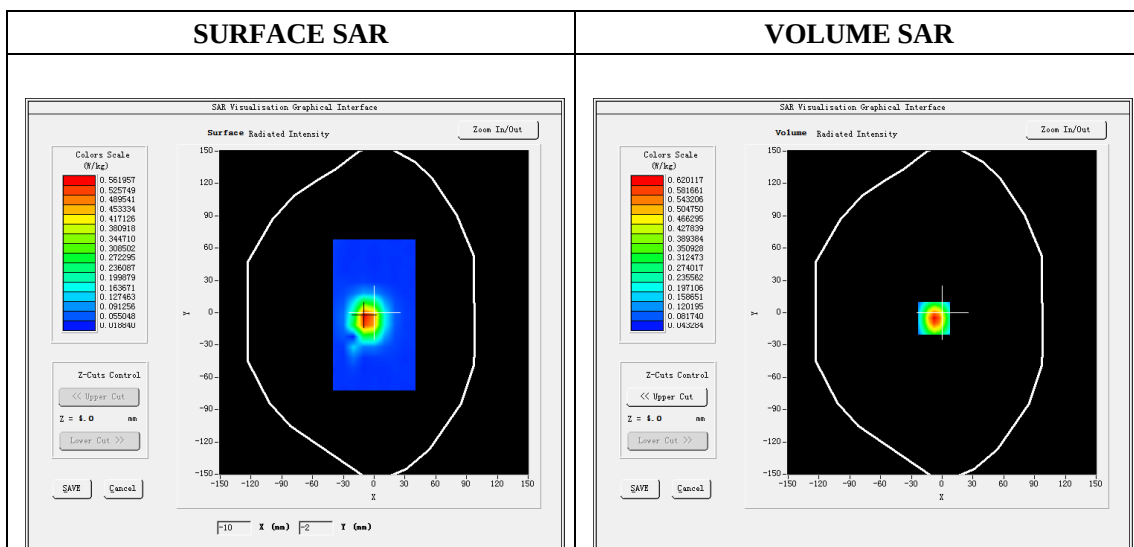
A. Experimental conditions.

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

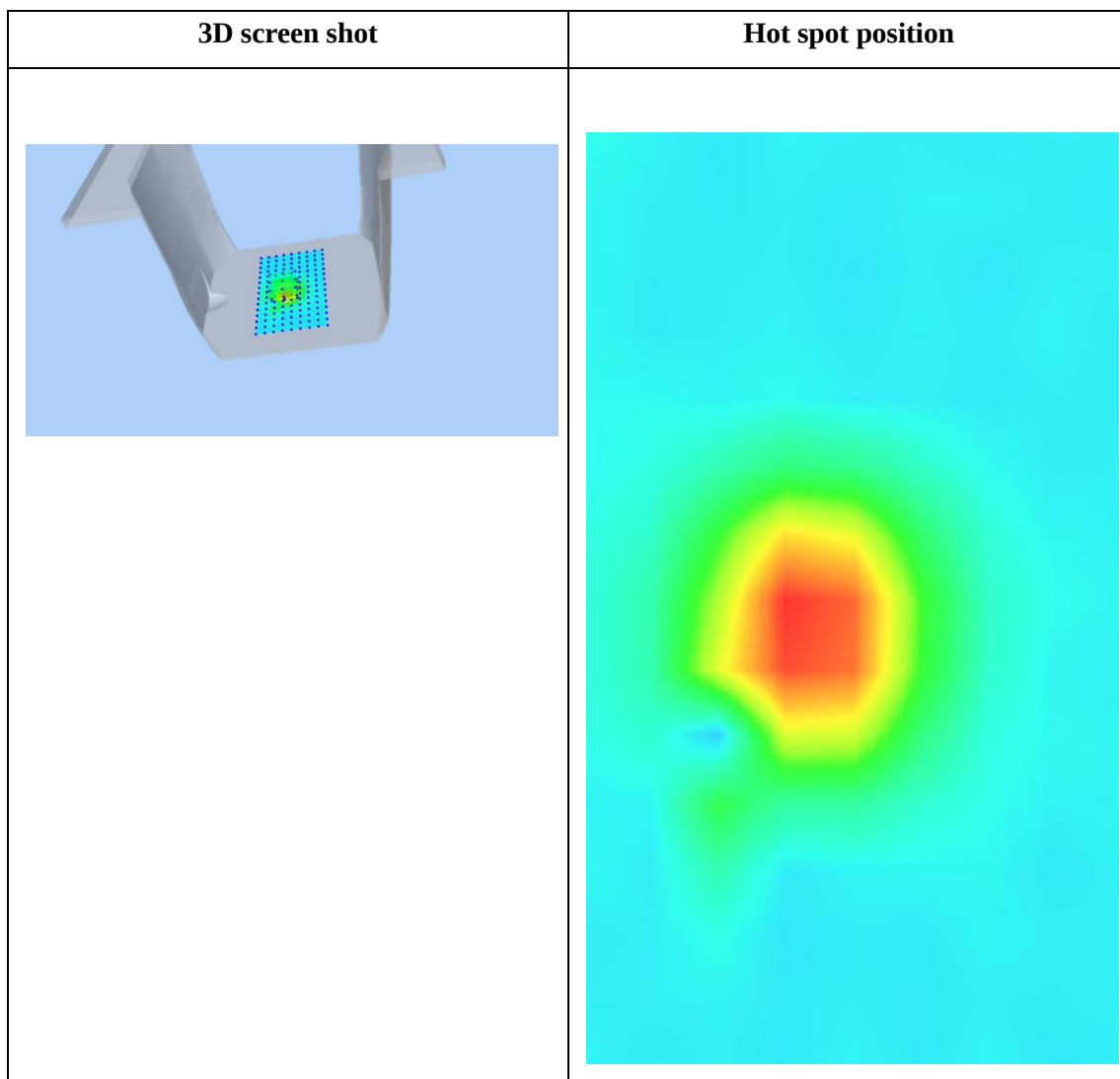
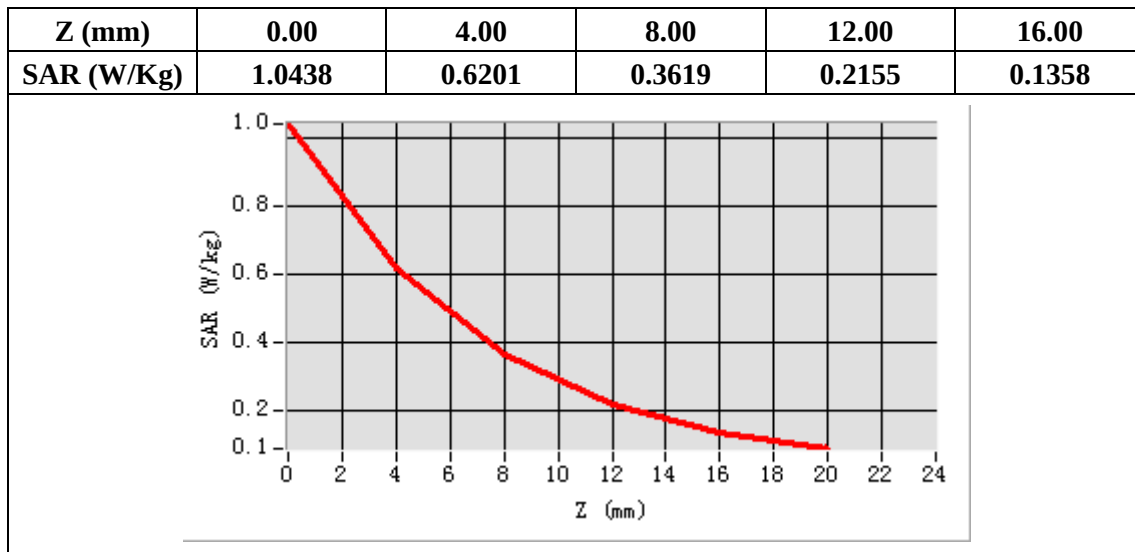
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2600
Relative permittivity (real part)	38.99
Relative permittivity	13.50
Conductivity (S/m)	1.95
Power drift (%)	-0.40
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.07



Maximum location: X=-8.00, Y=-5.00

SAR Peak: 1.05 W/kg

SAR 10g (W/Kg)	0.274070
SAR 1g (W/Kg)	0.560069



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: 01/23/2021

Measurement duration: 22 minutes 11 seconds

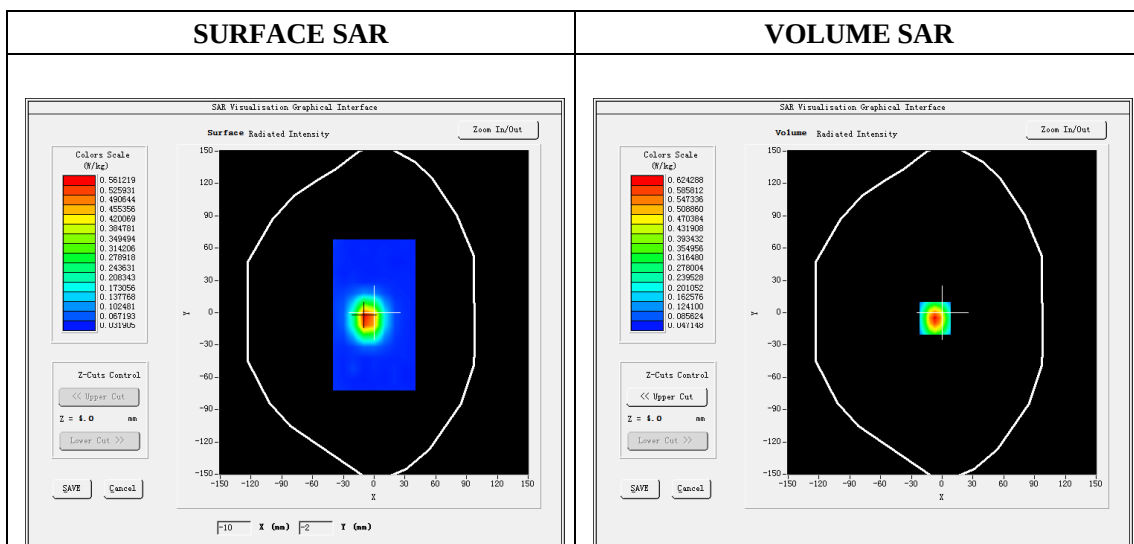
A. Experimental conditions.

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

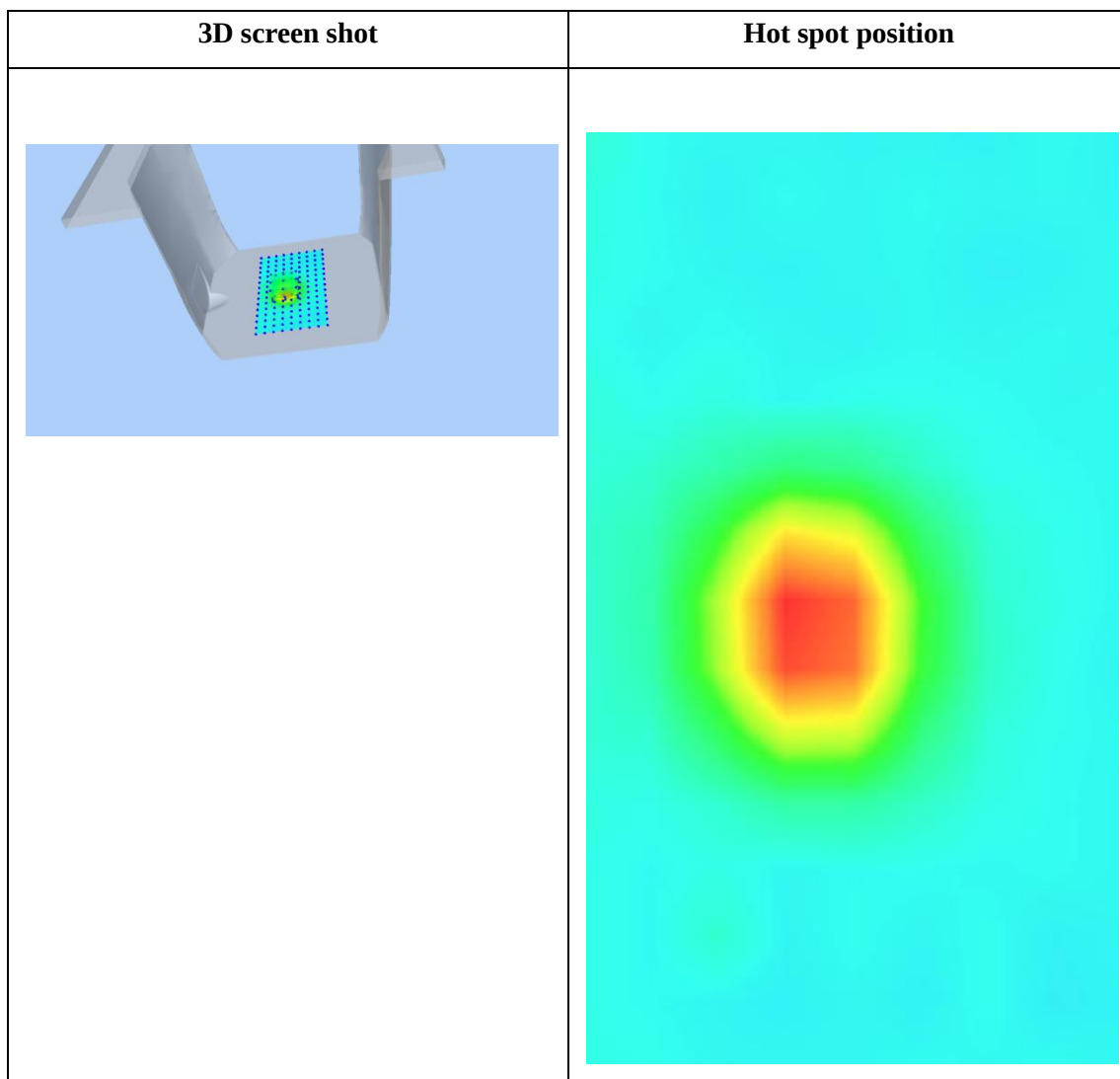
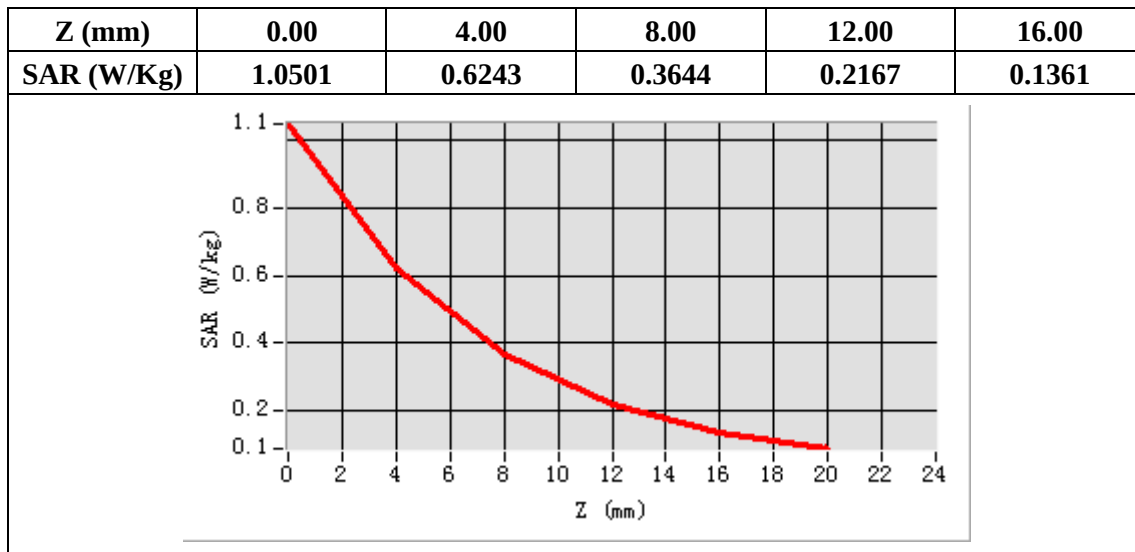
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2600
Relative permittivity (real part)	52.49
Relative permittivity	14.95
Conductivity (S/m)	2.16
Power drift (%)	-0.81
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.25



Maximum location: X=-7.00, Y=-5.00

SAR Peak: 1.05 W/kg

SAR 10g (W/Kg)	0.274103
SAR 1g (W/Kg)	0.563658



System Performance Check (Head, 5200MHz)

Type: Phone measurement

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

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

Date of measurement: 01/24/2021

Measurement duration: 22 minutes 13 seconds

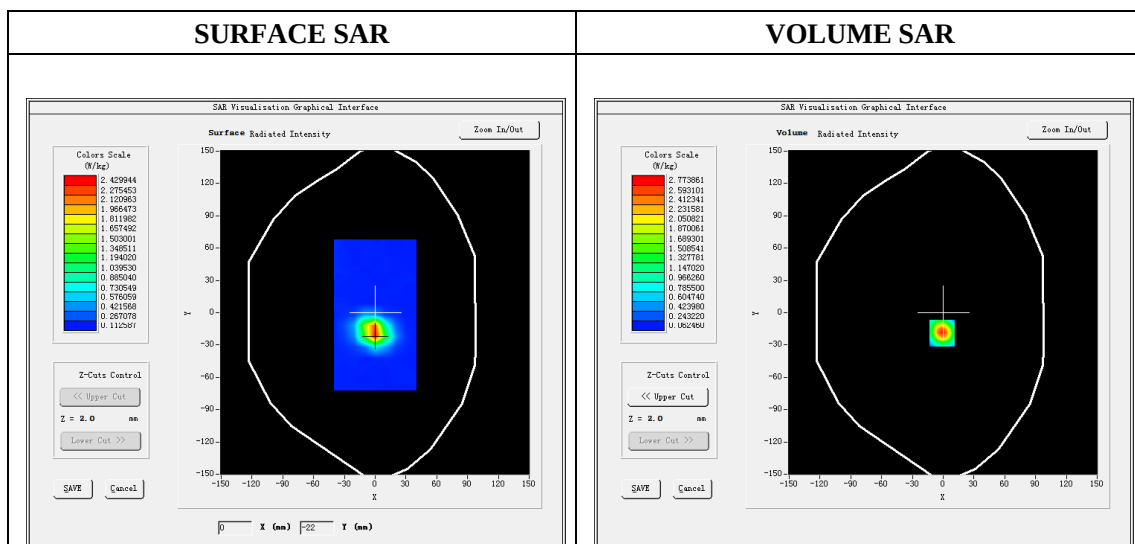
A. Experimental conditions.

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)	35.97
Relative permittivity	16.06
Conductivity (S/m)	4.64
Power drift (%)	-1.80
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.02

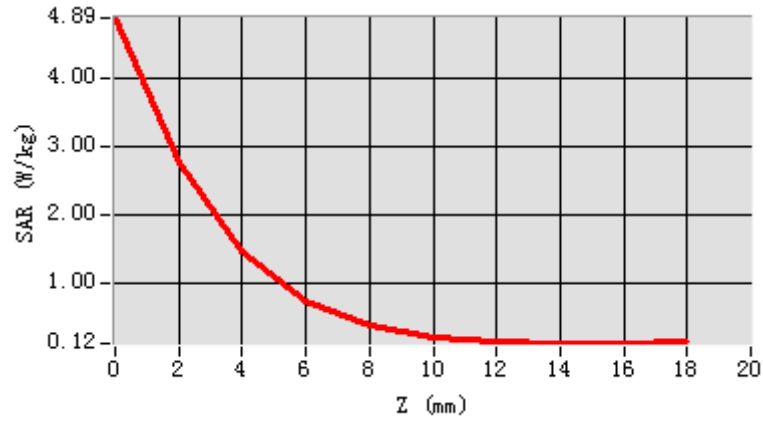


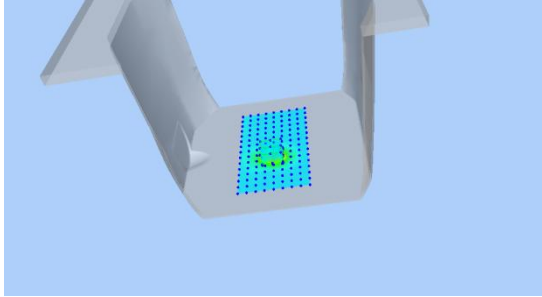
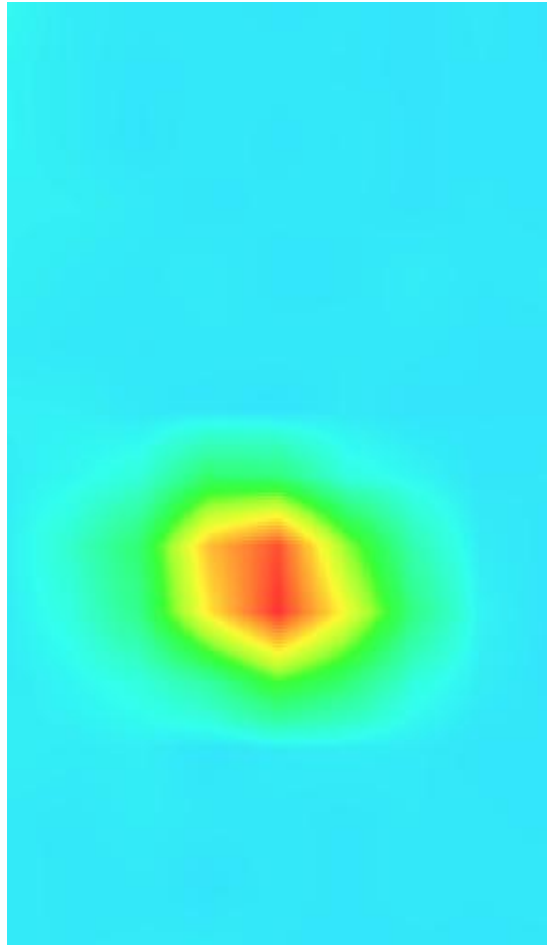
Maximum location: X=-1.00, Y=-19.00

SAR Peak: 5.10W/kg

SAR 10g (W/Kg)	0.505230
SAR 1g (W/Kg)	1.523953

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	4.8922	2.7739	1.4610	0.7304	0.3712	0.2065	0.1384	0.1184	0.1241



3D screen shot	Hot spot position
	

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: 01/24/2021

Measurement duration: 22 minutes 15 seconds

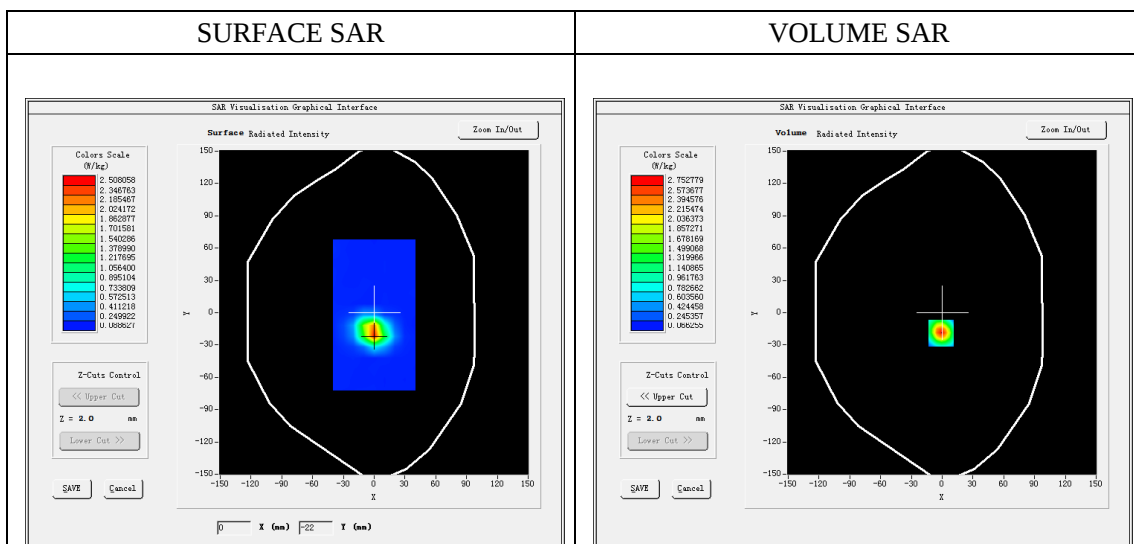
A. Experimental conditions.

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)	49.03
Relative permittivity	18.38
Conductivity (S/m)	5.31
Power drift (%)	-3.09
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.09

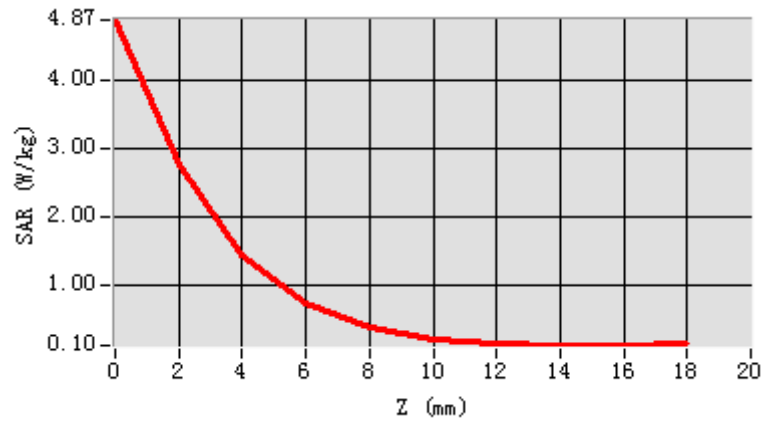


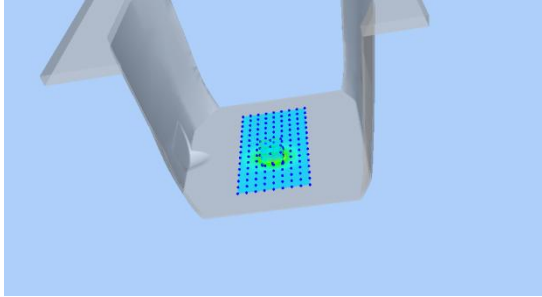
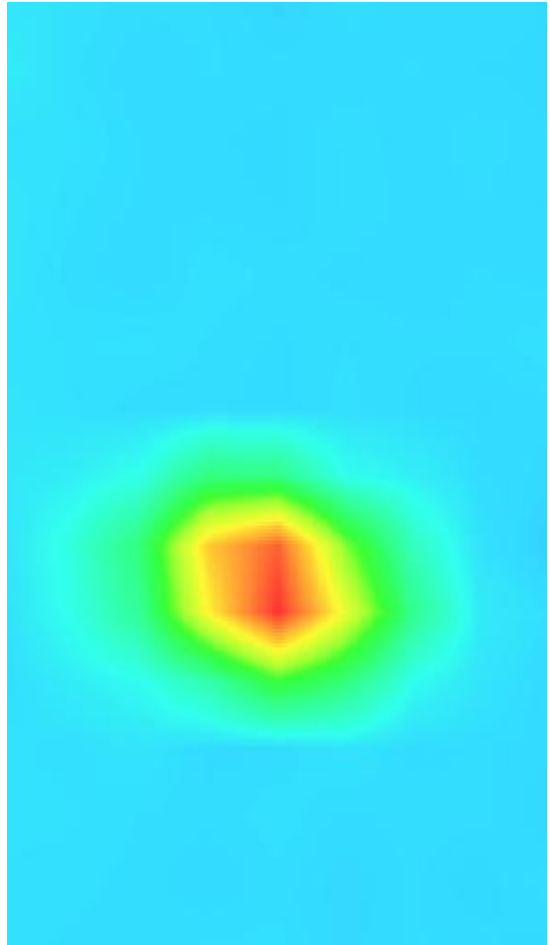
Maximum location: X=-1.00, Y=-19.00

SAR Peak: 5.08 W/kg

SAR 10g (W/Kg)	0.485035
SAR 1g (W/Kg)	1.481103

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	4.8714	2.7528	1.4414	0.7128	0.3556	0.1923	0.1246	0.1034	0.1064



3D screen shot	Hot spot position
	

System Performance Check (Head, 5400MHz)

Type: Phone measurement

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

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

Date of measurement: 01/24/2021

Measurement duration: 22 minutes 14 seconds

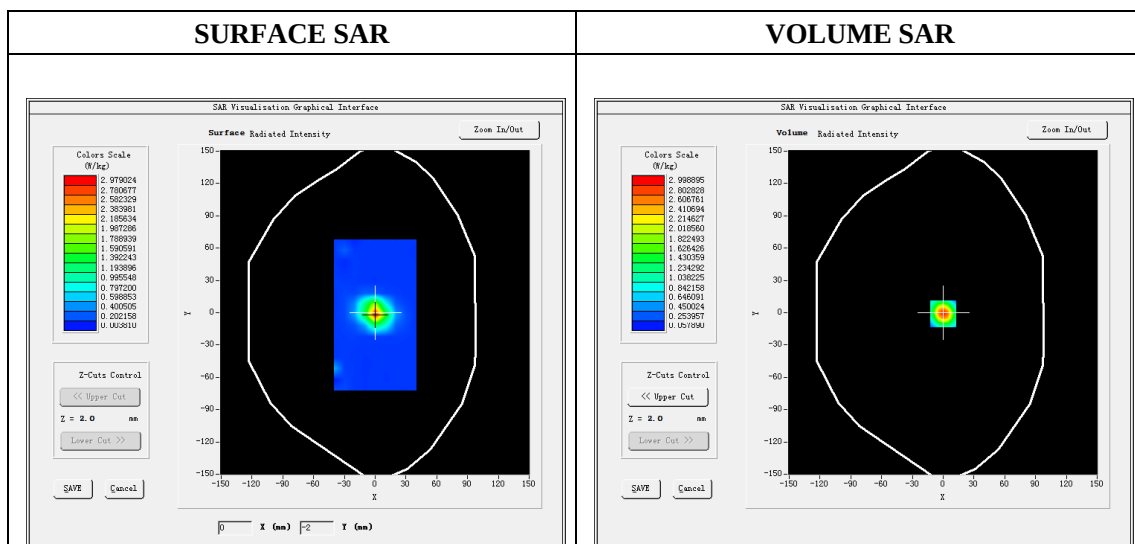
A. Experimental conditions.

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)	35.81
Relative permittivity	16.20
Conductivity (S/m)	4.86
Power drift (%)	-0.69
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.12

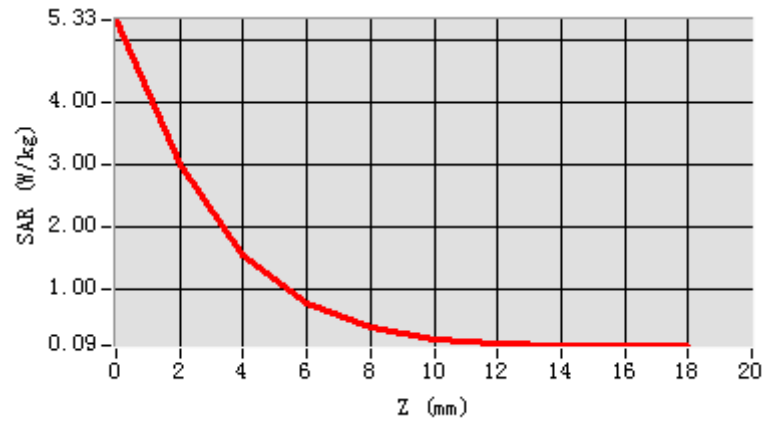


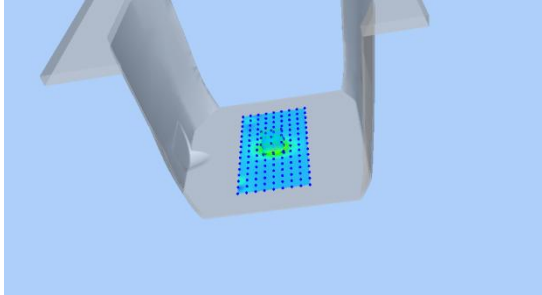
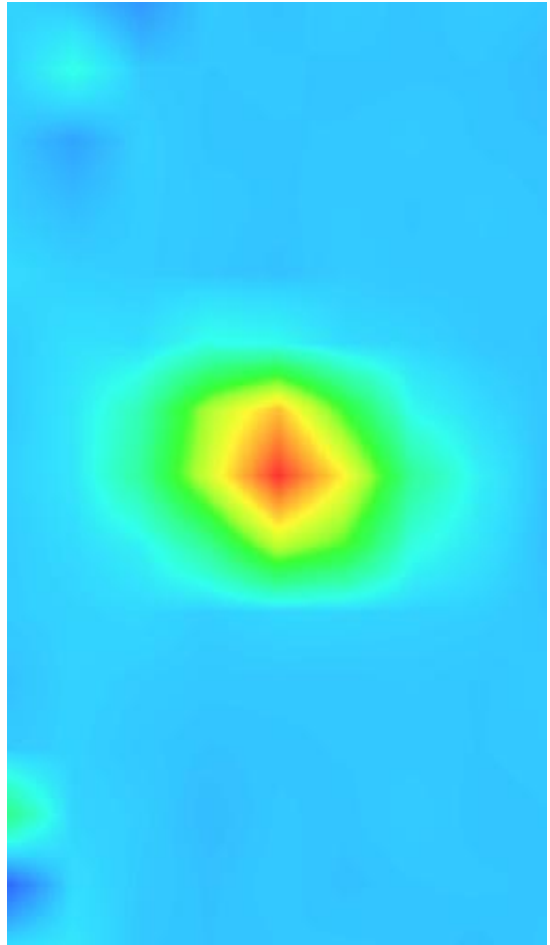
Maximum location: X=0.00, Y=-1.00

SAR Peak: 5.54W/kg

SAR 10g (W/Kg)	0.497773
SAR 1g (W/Kg)	1.598647

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	5.3314	2.9989	1.5576	0.7588	0.3686	0.1913	0.1177	0.0931	0.0930



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: 01/24/2021

Measurement duration: 22 minutes 16 seconds

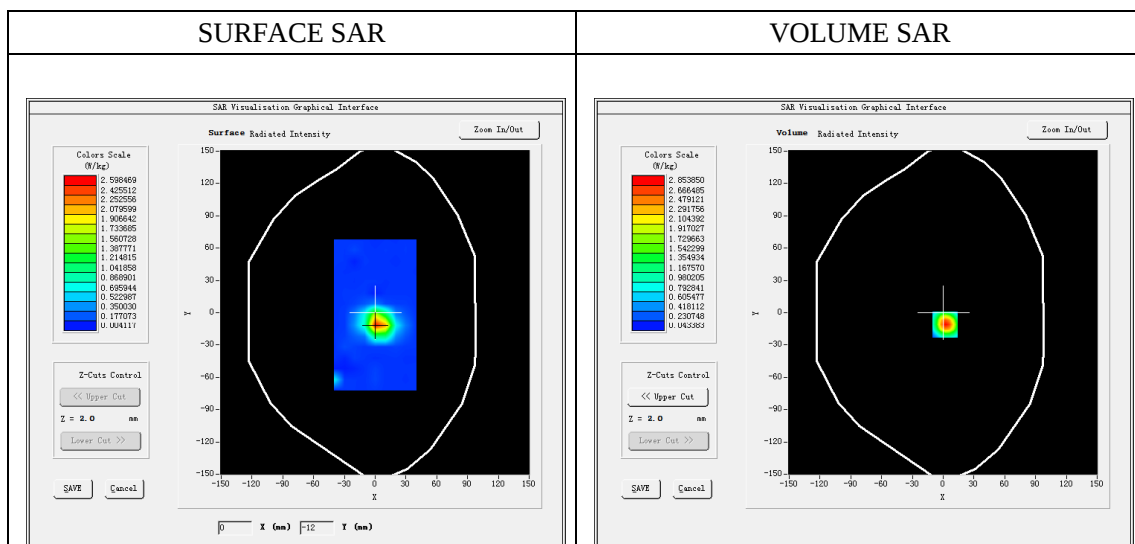
A. Experimental conditions.

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)	48.72
Relative permittivity	18.47
Conductivity (S/m)	5.54
Power drift (%)	-1.04
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.22

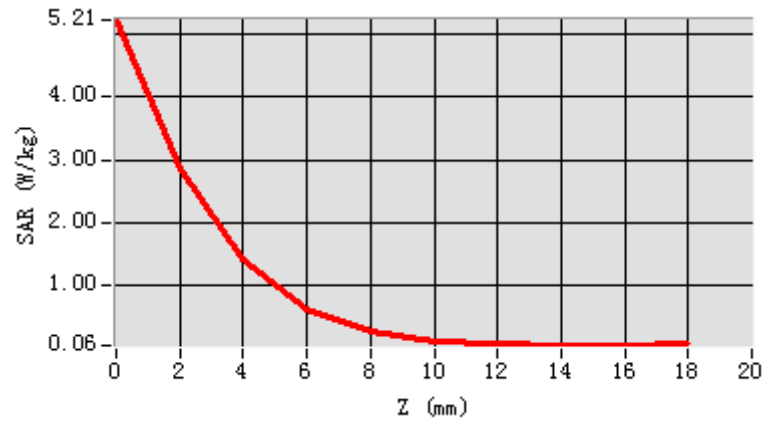


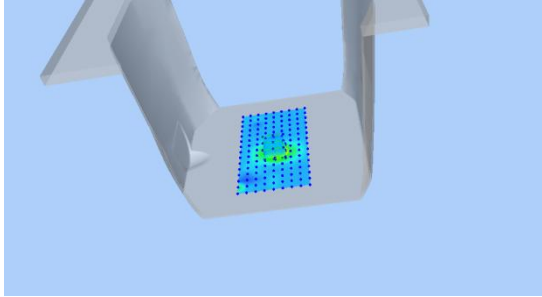
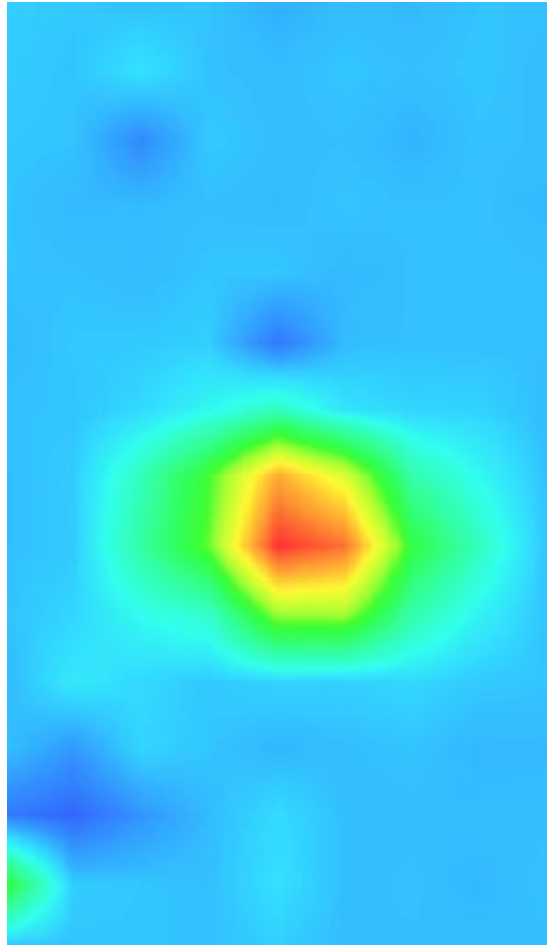
Maximum location: X=2.00, Y=-11.00

SAR Peak: 5.47 W/kg

SAR 10g (W/Kg)	0.455384
SAR 1g (W/Kg)	1.511269

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	5.2095	2.8538	1.4200	0.6492	0.2897	0.1364	0.0780	0.0618	0.0661



3D screen shot	Hot spot position
	

System Performance Check (Head, 5800MHz)

Type: Phone measurement

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

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

Date of measurement: 01/24/2021

Measurement duration: 22 minutes 17 seconds

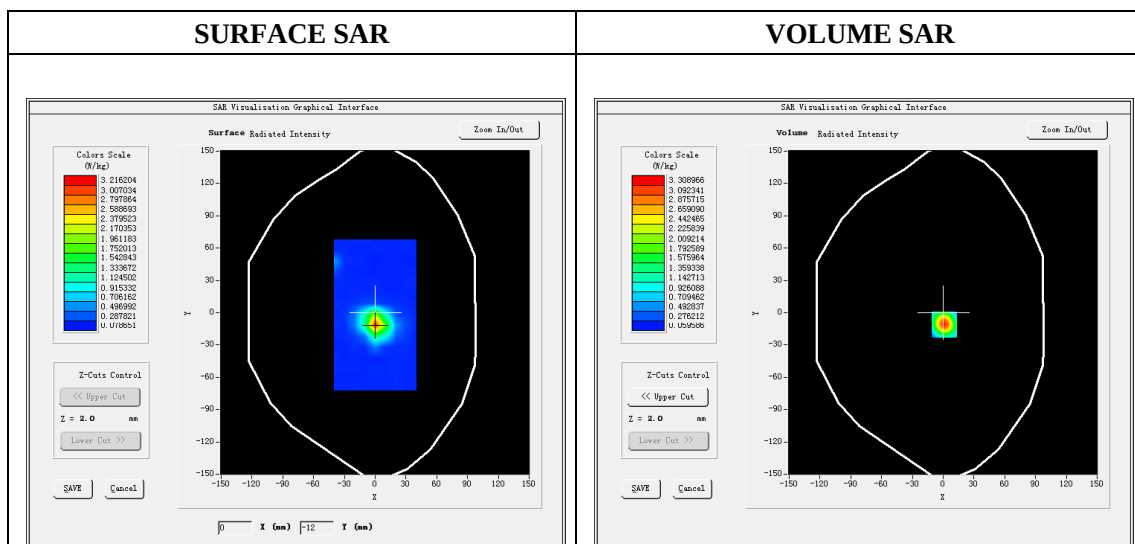
A. Experimental conditions.

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)	35.29
Relative permittivity	16.32
Conductivity (S/m)	5.26
Power drift (%)	-0.68
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.24

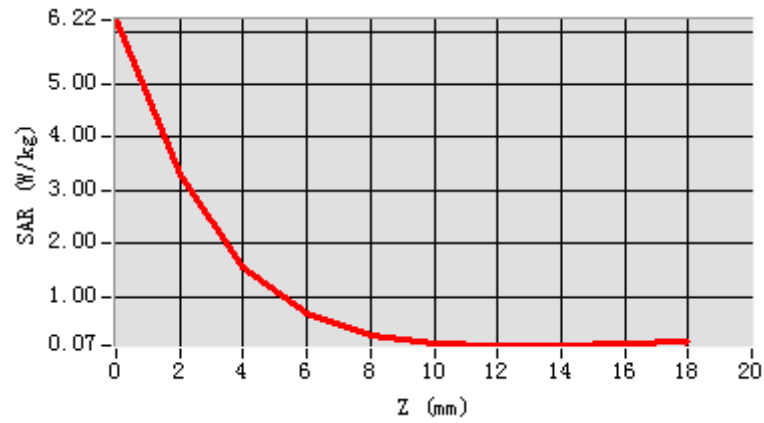


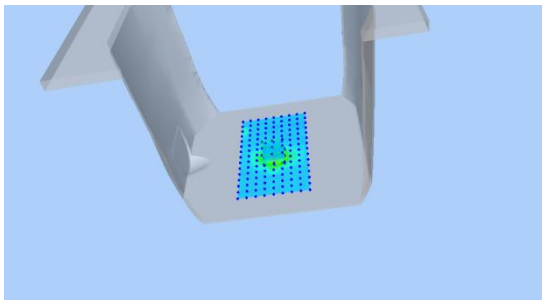
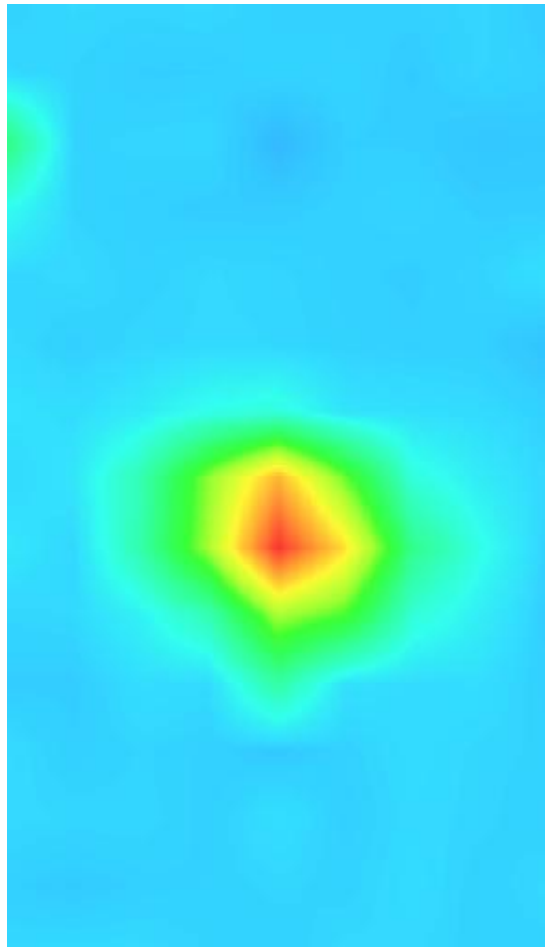
Maximum location: X=1.00, Y=-11.00

SAR Peak: 6.53 W/kg

SAR 10g (W/Kg)	0.513479
SAR 1g (W/Kg)	1.725298

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	6.2205	3.3090	1.5686	0.6714	0.2785	0.1252	0.0752	0.0705	0.0922



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: 01/24/2021

Measurement duration: 22 minutes 18 seconds

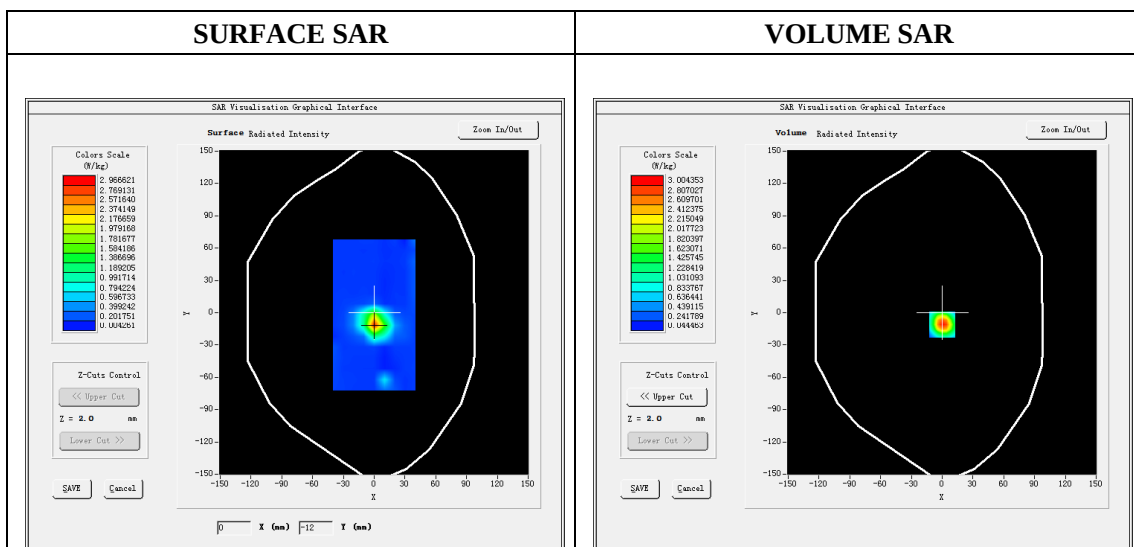
A. Experimental conditions.

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)	48.24
Relative permittivity	18.71
Conductivity (S/m)	6.03
Power drift (%)	0.05
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.34

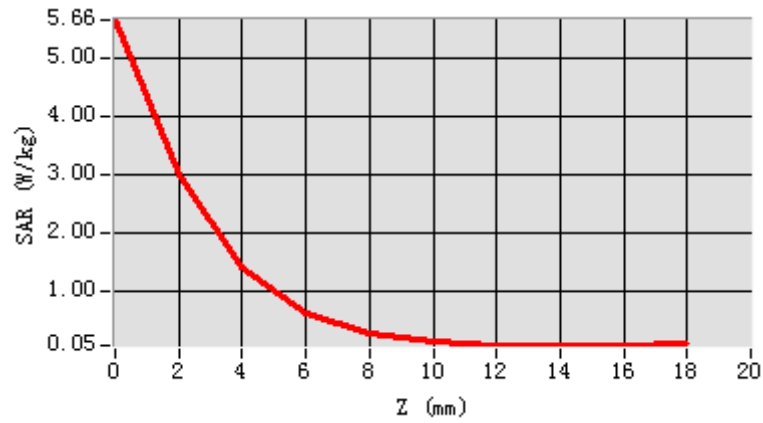


Maximum location: X=0.00, Y=-11.00

SAR Peak: 5.96 W/kg

SAR 10g (W/Kg)	0.458853
SAR 1g (W/Kg)	1.566208

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	5.6619	3.0044	1.4172	0.5995	0.2423	0.1036	0.0581	0.0516	0.0666



3D screen shot	Hot spot position
