

Appendix A: SAR System performance Check Plots

Measurement	Liquid	Frequency	Test Date
System Check	Head	750	2019-04-15
System Check	Body	750	2019-04-15
System Check	Head	850	2019-04-16
System Check	Body	850	2019-04-16
System Check	Head	1800	2019-04-17
System Check	Body	1800	2019-04-17
System Check	Head	1900	2019-04-18
System Check	Body	1900	2019-04-18
System Check	Head	2450	2019-04-19
System Check	Body	2450	2019-04-19
System Check	Head	2600	2019-04-20
System Check	Body	2600	2019-04-20
System Check	Head	5200	2019-04-21
System Check	Body	5200	2019-04-21
System Check	Head	5800	2019-04-22
System Check	Body	5800	2019-04-22
System Check	Head	2600	2019-04-30
System Check	Body	2600	2019-04-30

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: 04/15/2019

Measurement duration: 22 minutes 10 seconds

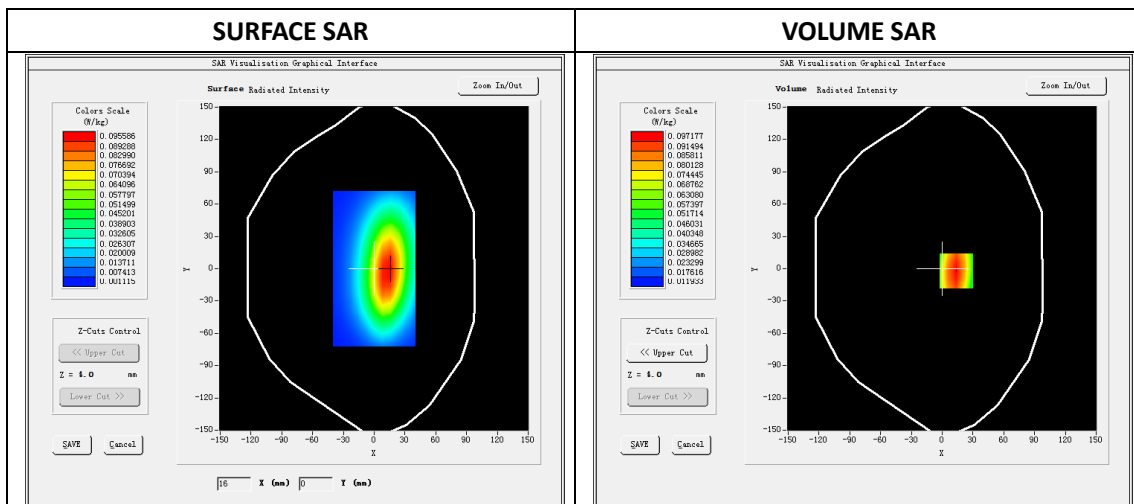
A. Experimental conditions.

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

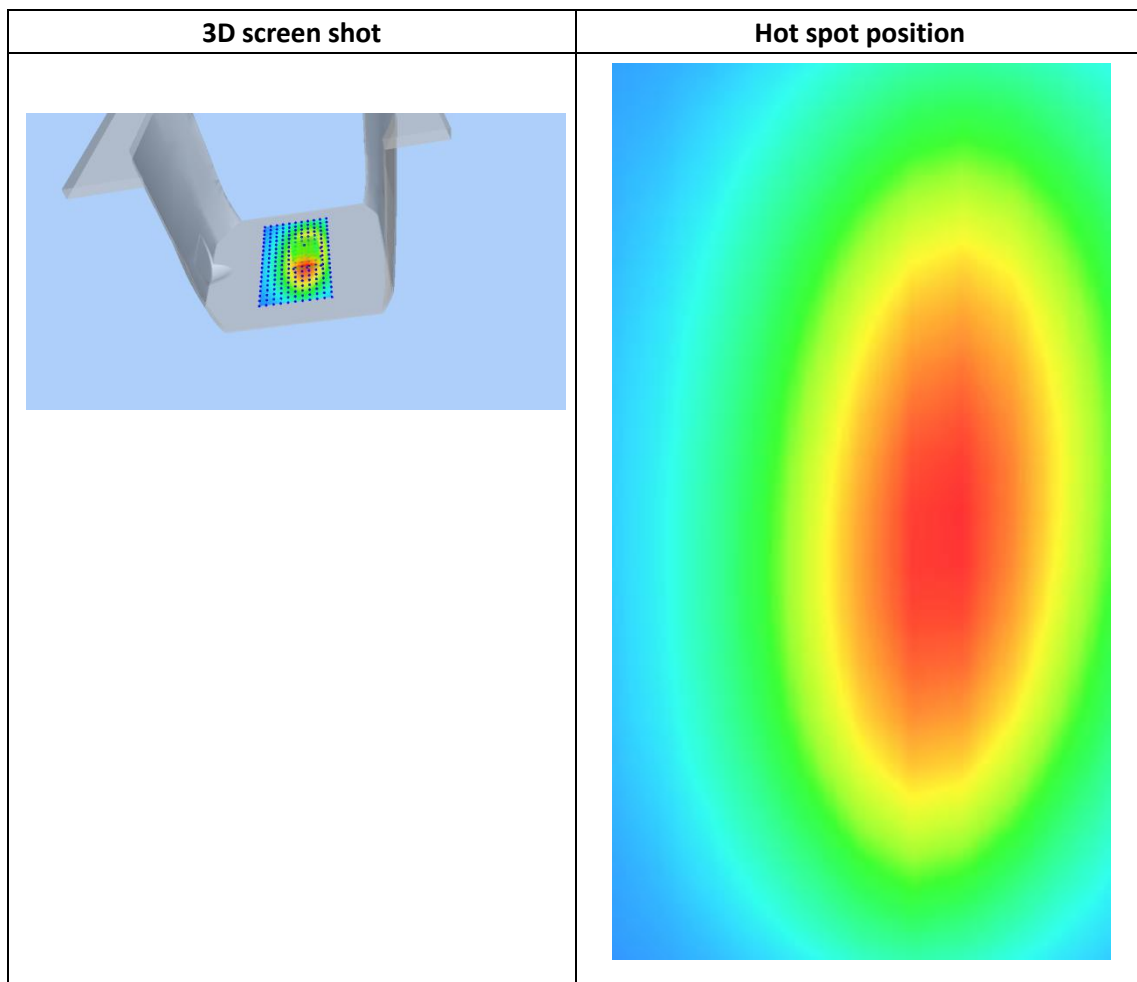
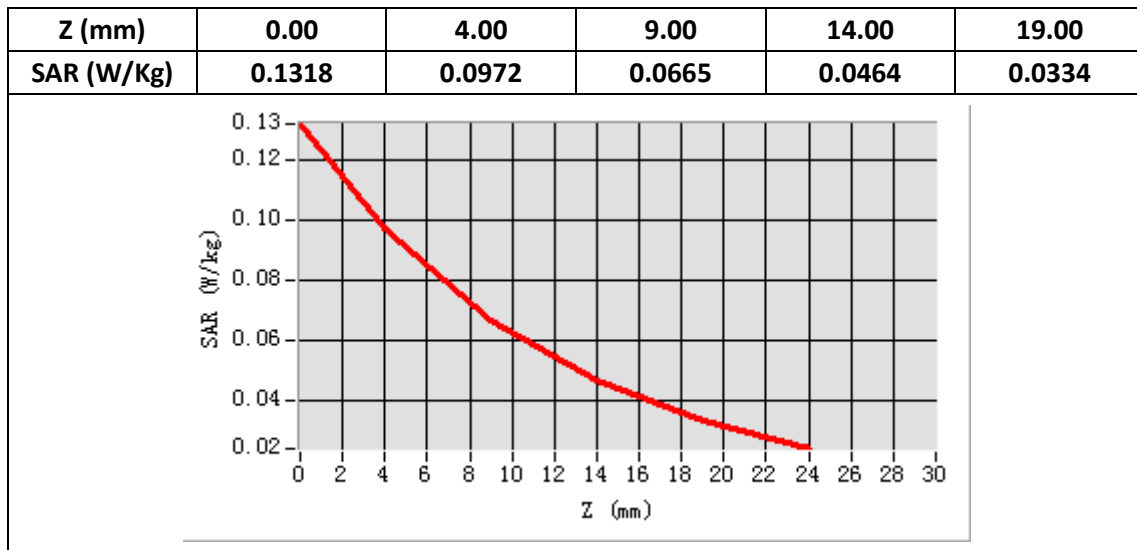
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	750
Relative permittivity (real part)	41.97
Relative permittivity	21.12
Conductivity (S/m)	0.88
Power drift (%)	-0.41
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.87
Crest factor:	1:1



Maximum location: X=14.00, Y=-2.00

SAR Peak: 0.12 W/kg

SAR 10g (W/Kg)	0.051072
SAR 1g (W/Kg)	0.083159



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: 04/15/2019

Measurement duration: 22 minutes 45 seconds

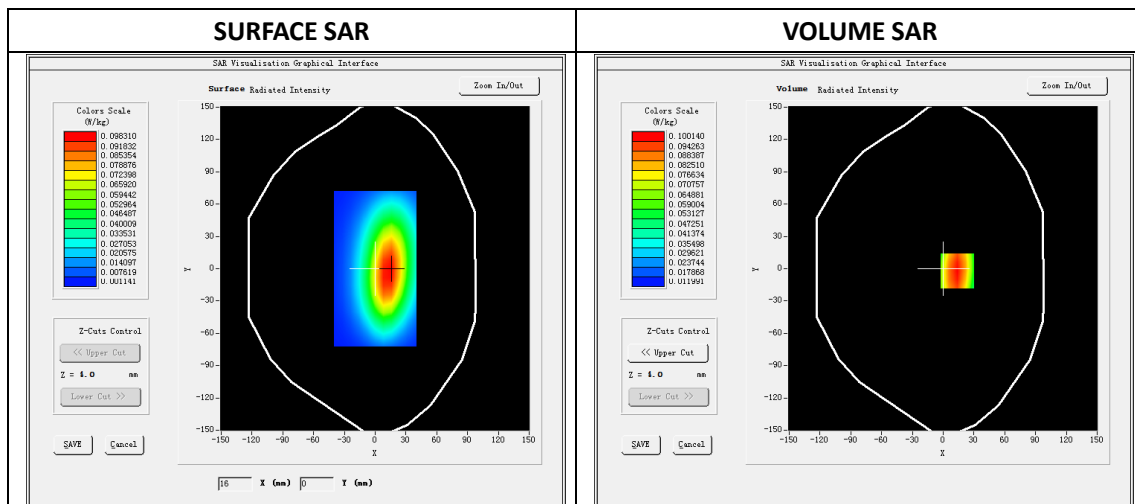
A. Experimental conditions.

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

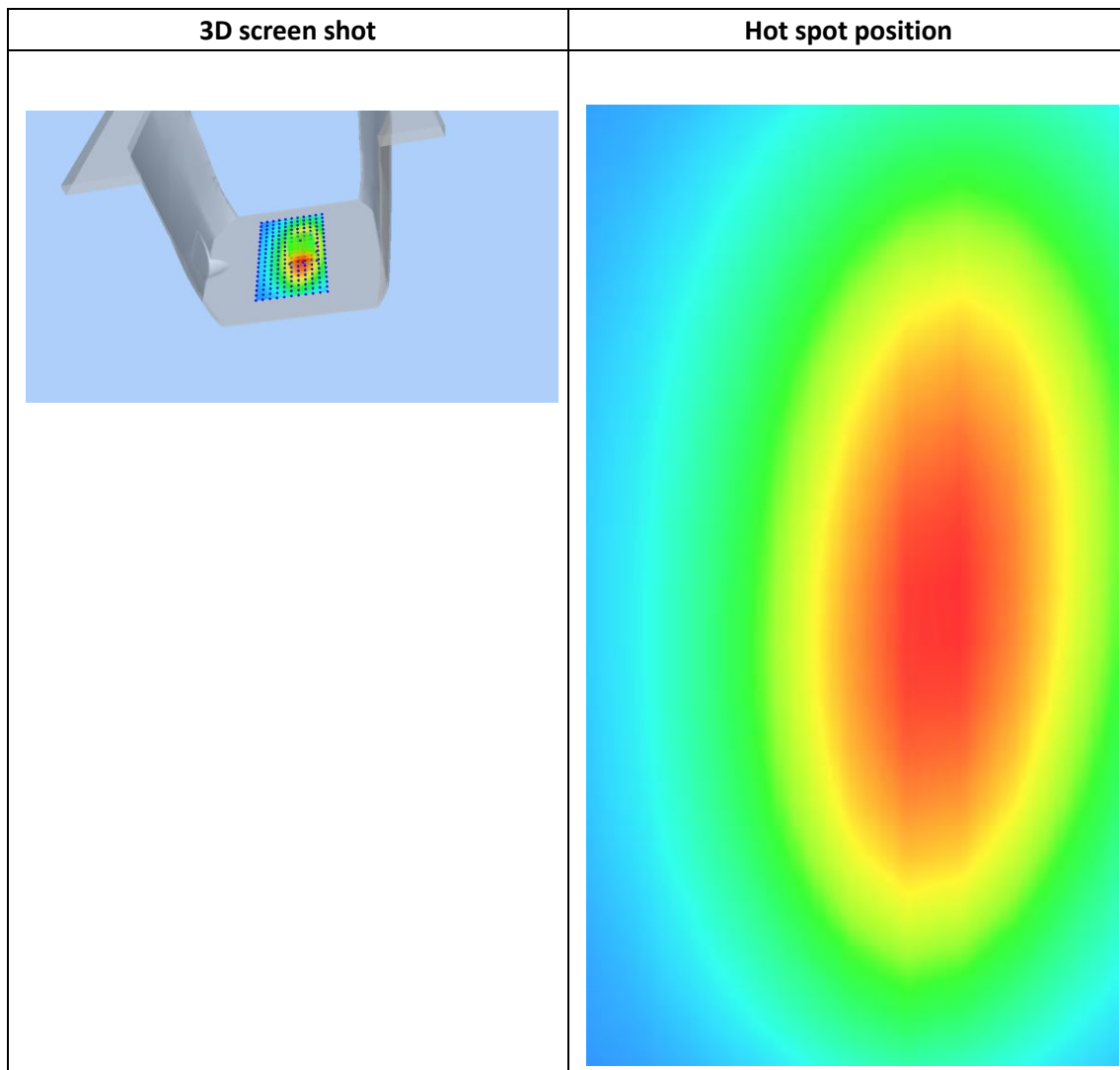
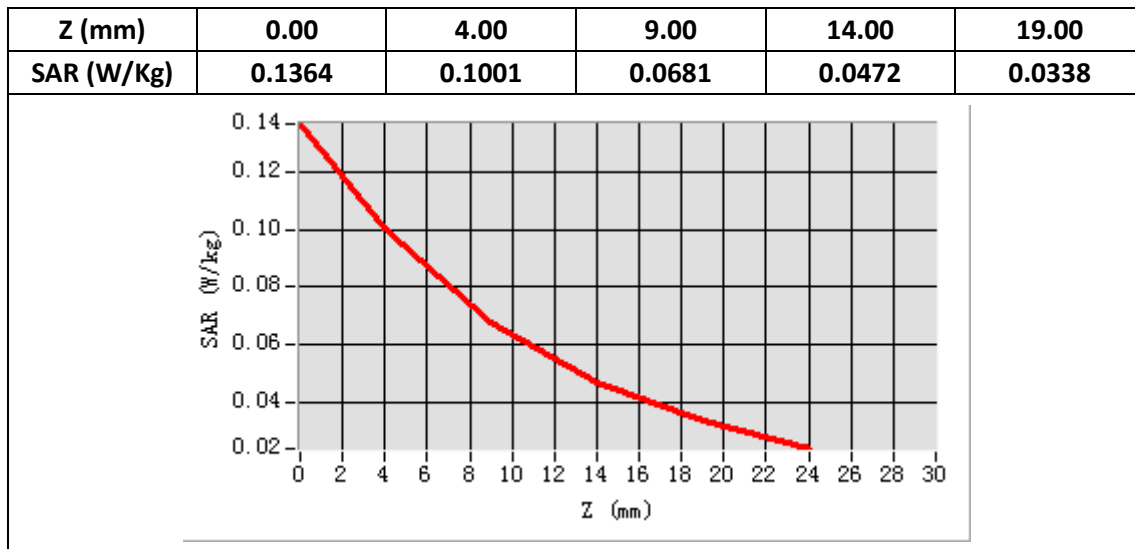
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	750
Relative permittivity (real part)	55.52
Relative permittivity	23.52
Conductivity (S/m)	0.98
Power drift (%)	0.12
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.93
Crest factor:	1:1



Maximum location: X=14.00, Y=-2.00

SAR Peak: 0.14 W/kg

SAR 10g (W/Kg)	0.052647
SAR 1g (W/Kg)	0.085983



System Performance Check (Head, 850MHz)

Type: Phone measurement

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

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

Date of measurement: 04/16/2019

Measurement duration: 22 minutes 28 seconds

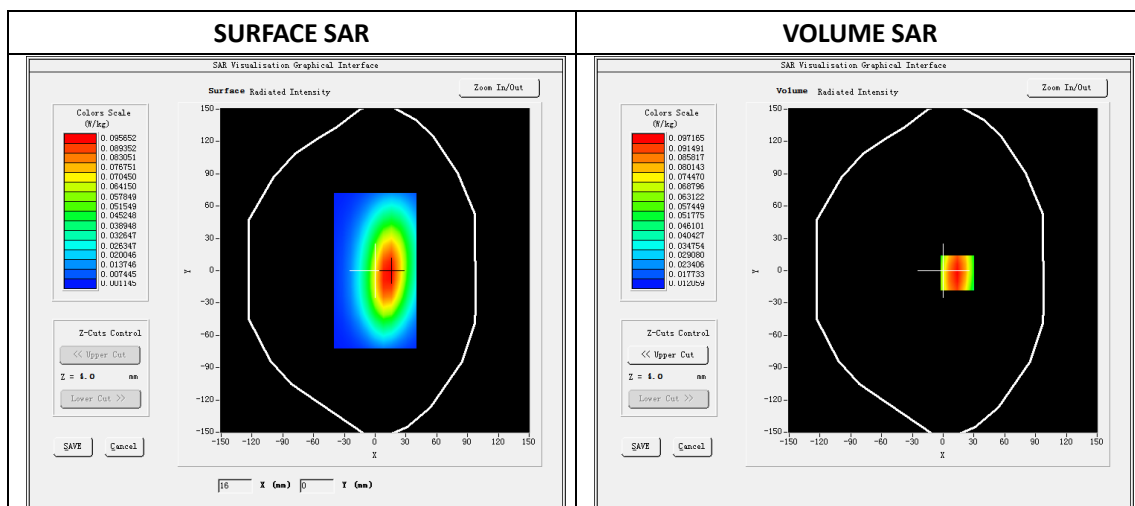
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

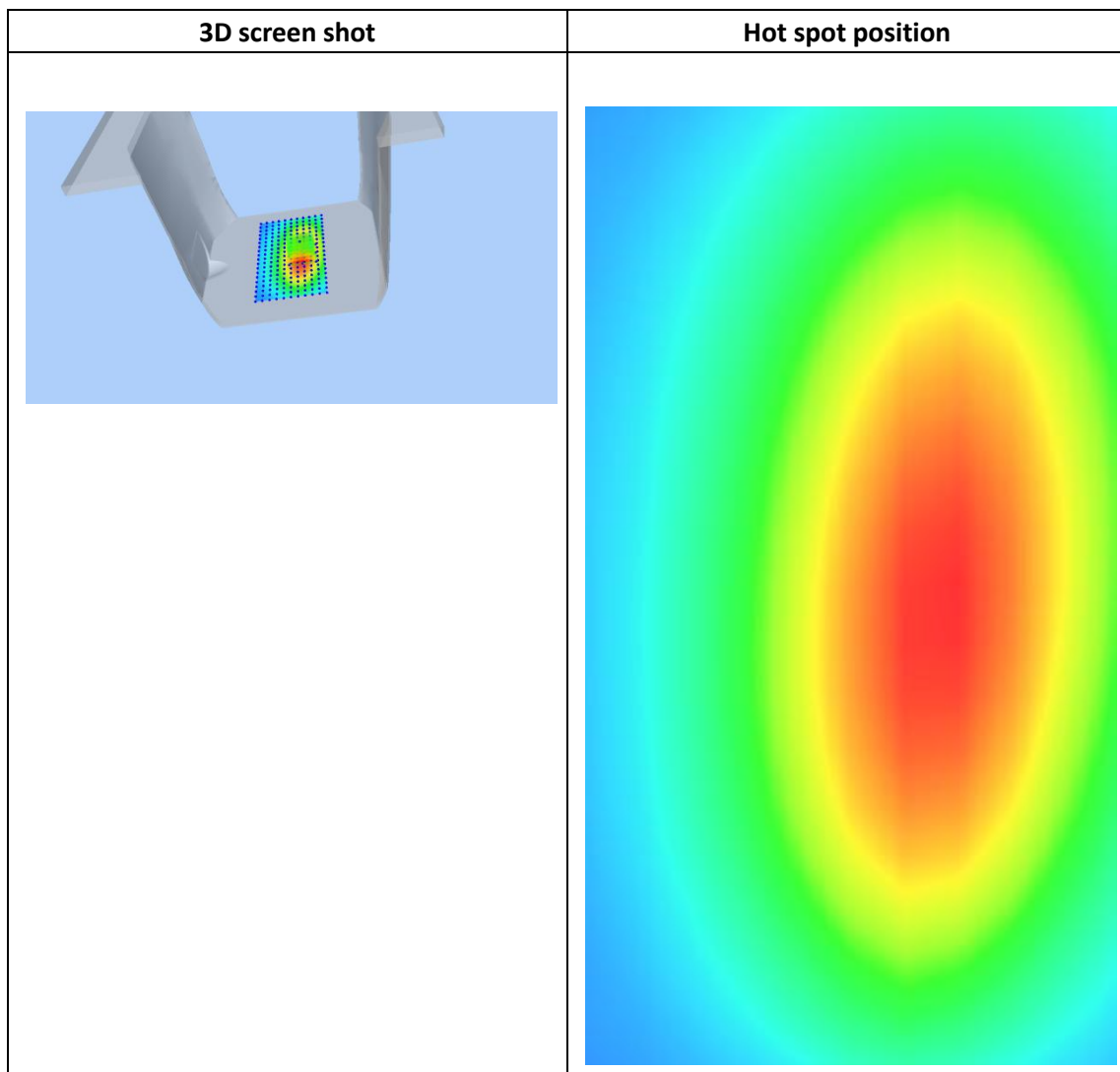
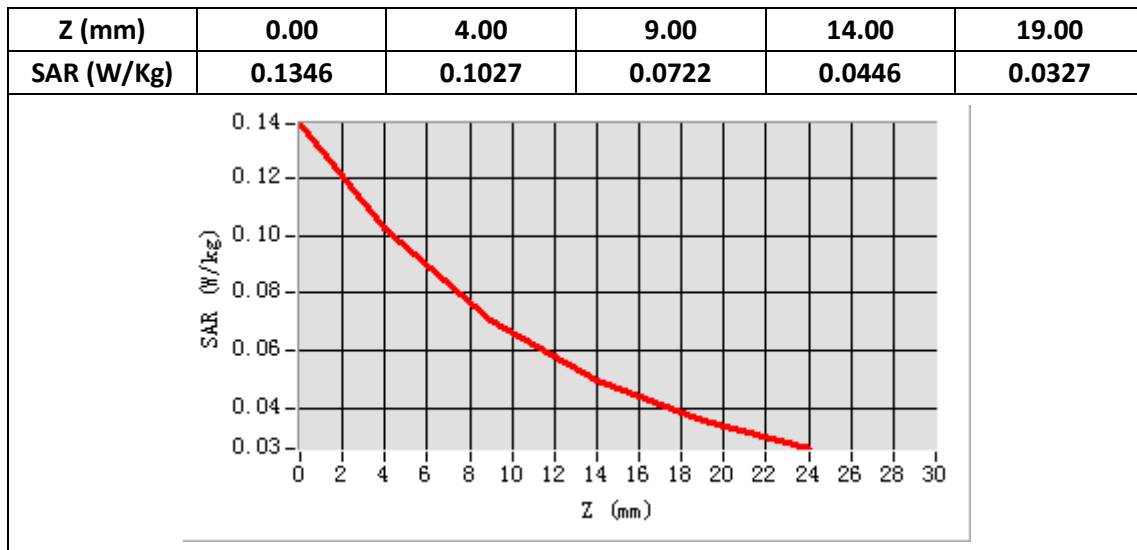
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	850
Relative permittivity (real part)	41.32
Relative permittivity	18.42
Conductivity (S/m)	0.87
Power drift (%)	-0.26
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.92
Crest factor:	1:1



Maximum location: X=14.00, Y=-2.00

SAR Peak: 0.13 W/kg

SAR 10g (W/Kg)	0.061227
SAR 1g (W/Kg)	0.093184



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: 04/16/2019

Measurement duration: 22 minutes 42 seconds

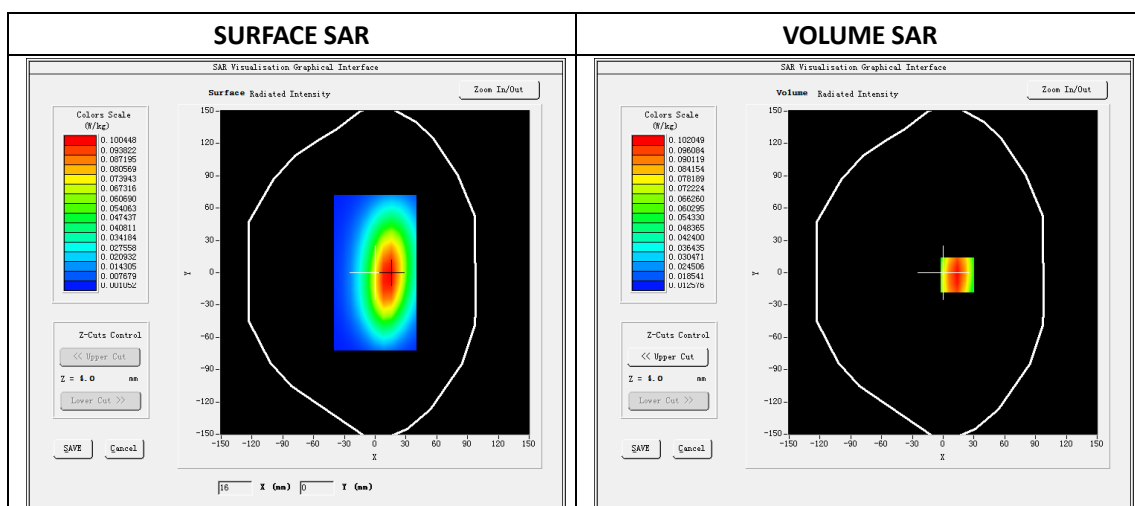
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

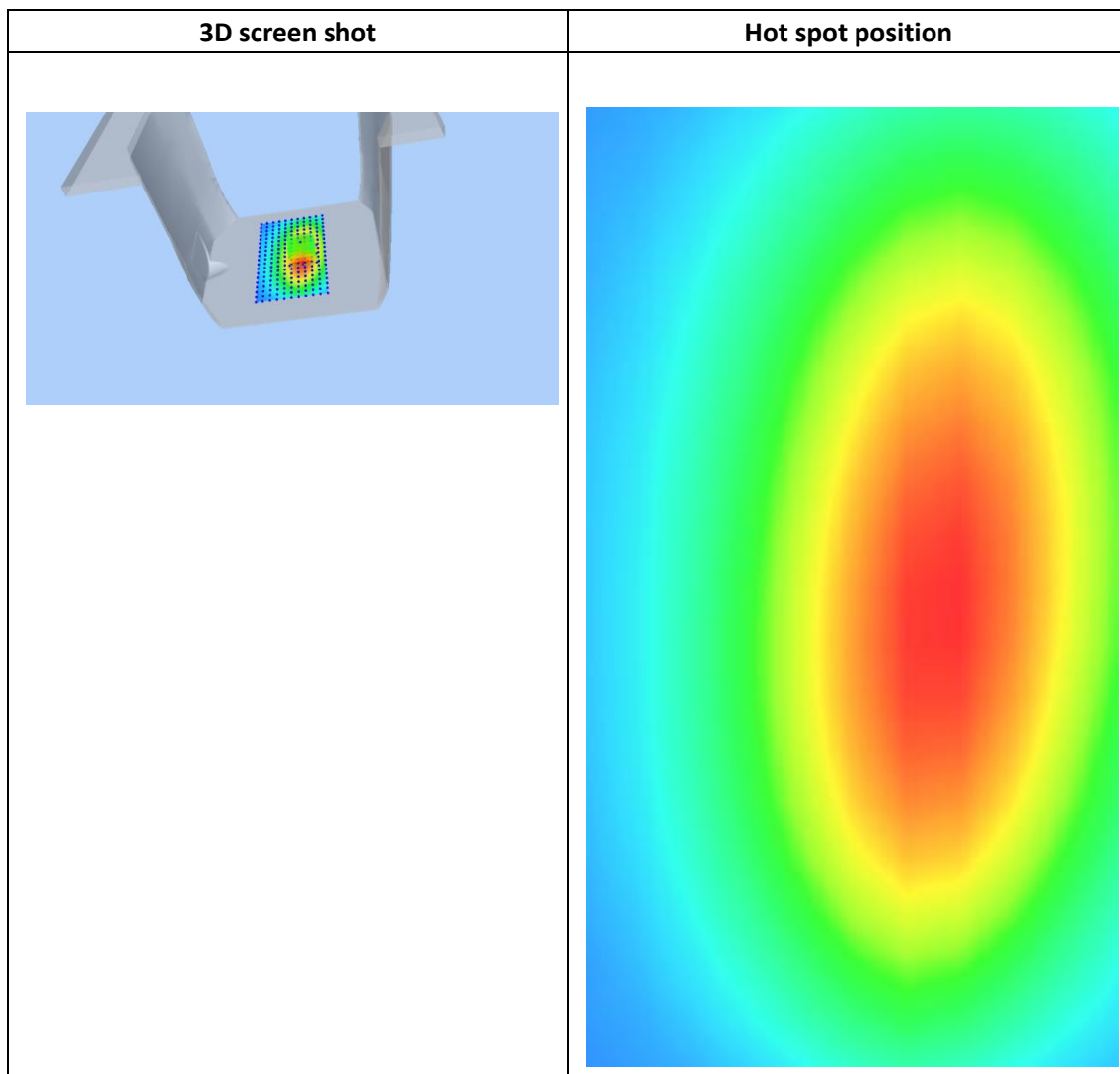
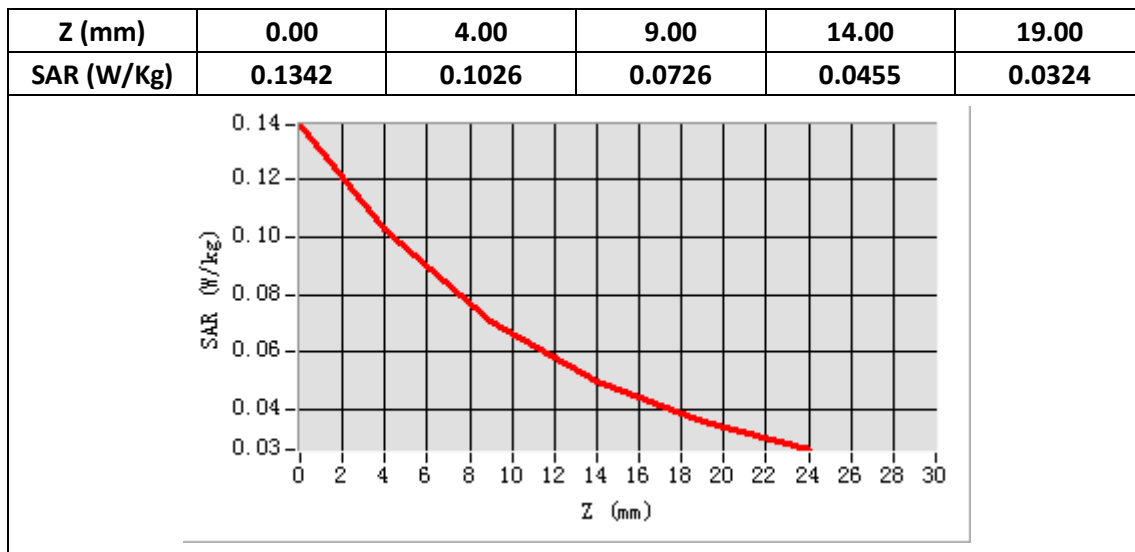
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	850
Relative permittivity (real part)	55.24
Relative permittivity	20.96
Conductivity (S/m)	0.99
Power drift (%)	0.05
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.99
Crest factor:	1:1



Maximum location: X=14.00, Y=-2.00

SAR Peak: 0.14 W/kg

SAR 10g (W/Kg)	0.064131
SAR 1g (W/Kg)	0.097816



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: 04/17/2019

Measurement duration: 22 minutes 16 seconds

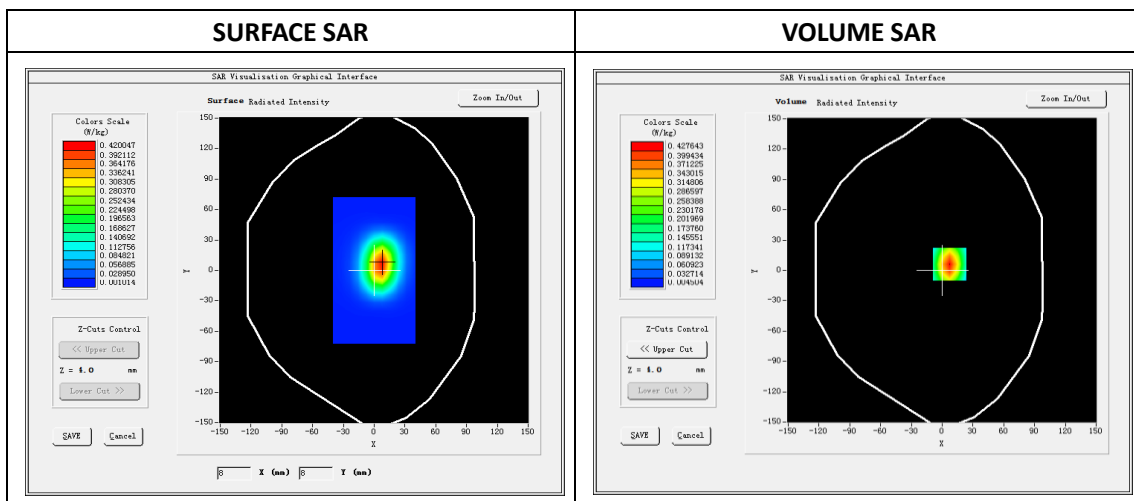
A. Experimental conditions.

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

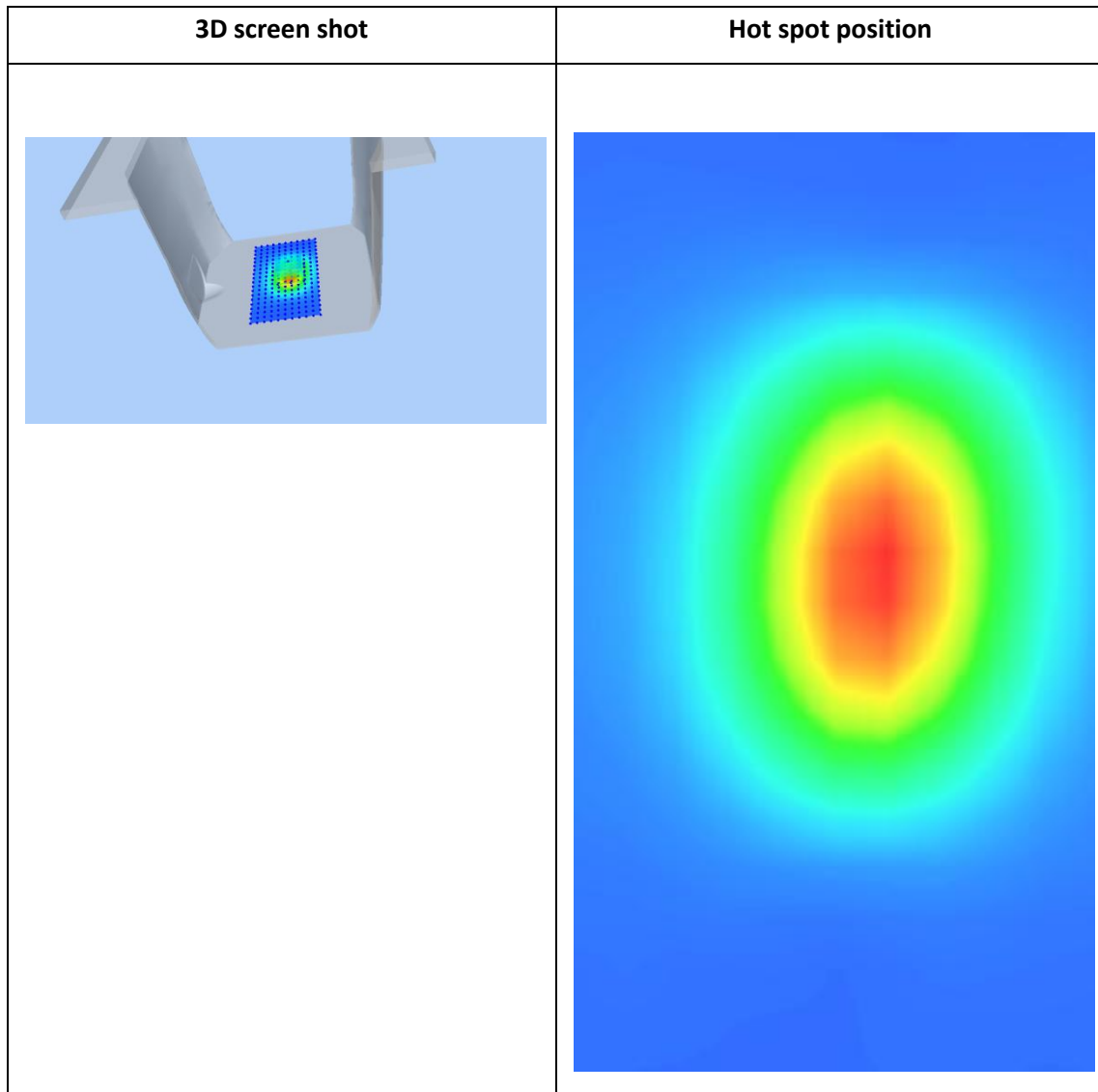
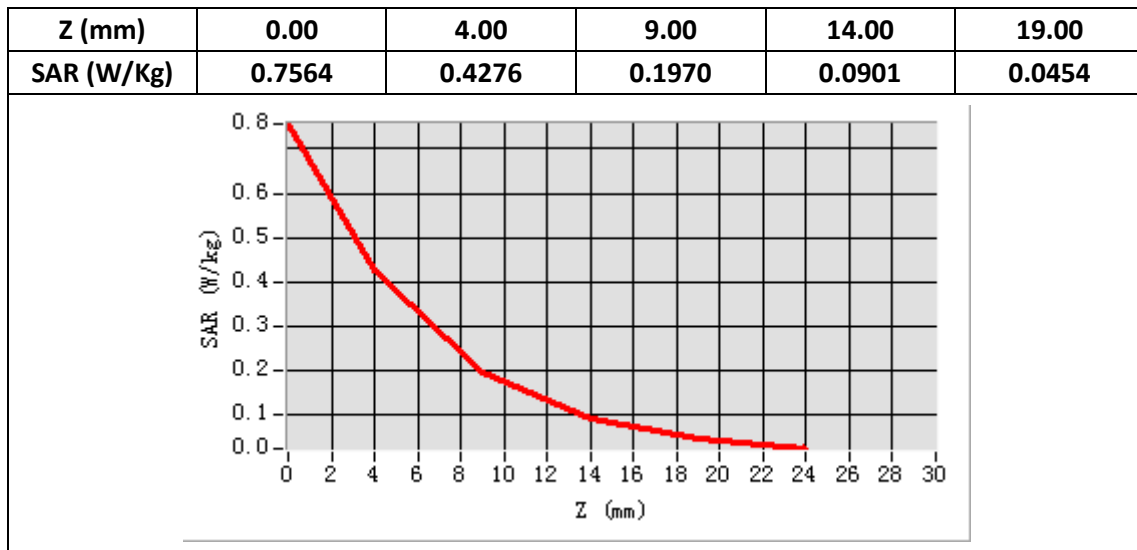
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1800
Relative permittivity (real part)	40.34
Relative permittivity	13.10
Conductivity (S/m)	1.31
Power Drift (%)	0.16
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.14
Duty factor:	1:1



Maximum location: X=7.00, Y=6.00

SAR Peak: 0.75 W/kg

SAR 10g (W/Kg)	0.188914
SAR 1g (W/Kg)	0.397102



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: 04/17/2019

Measurement duration: 22 minutes 34 seconds

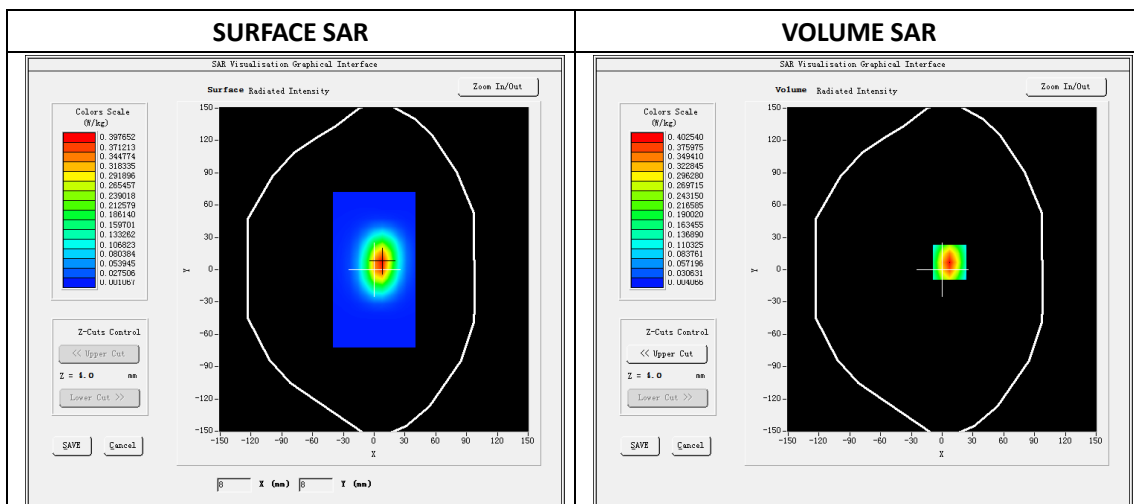
A. Experimental conditions.

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

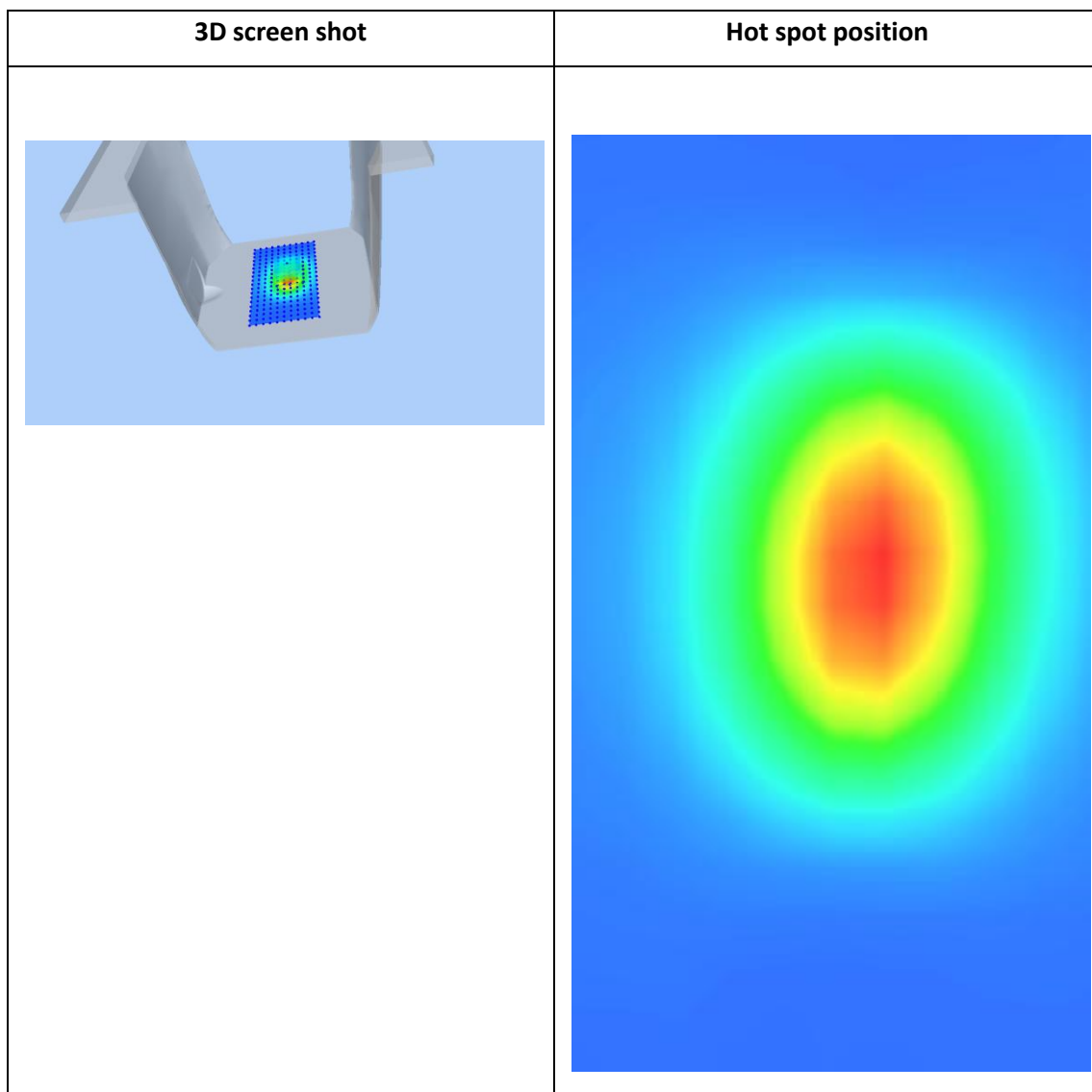
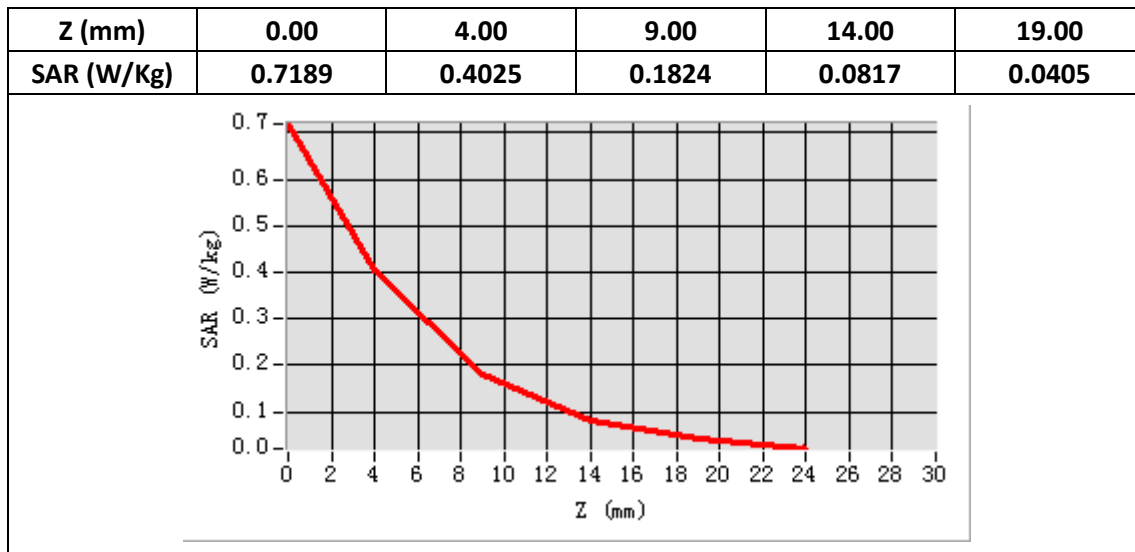
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1800
Relative permittivity (real part)	53.39
Relative permittivity	15.20
Conductivity (S/m)	1.52
Power Drift (%)	-0.07
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.22
Duty factor:	1:1



Maximum location: X=7.00, Y=7.00

SAR Peak: 0.72 W/kg

SAR 10g (W/Kg)	0.177150
SAR 1g (W/Kg)	0.374639



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: 04/18/2019

Measurement duration: 22 minutes 17 seconds

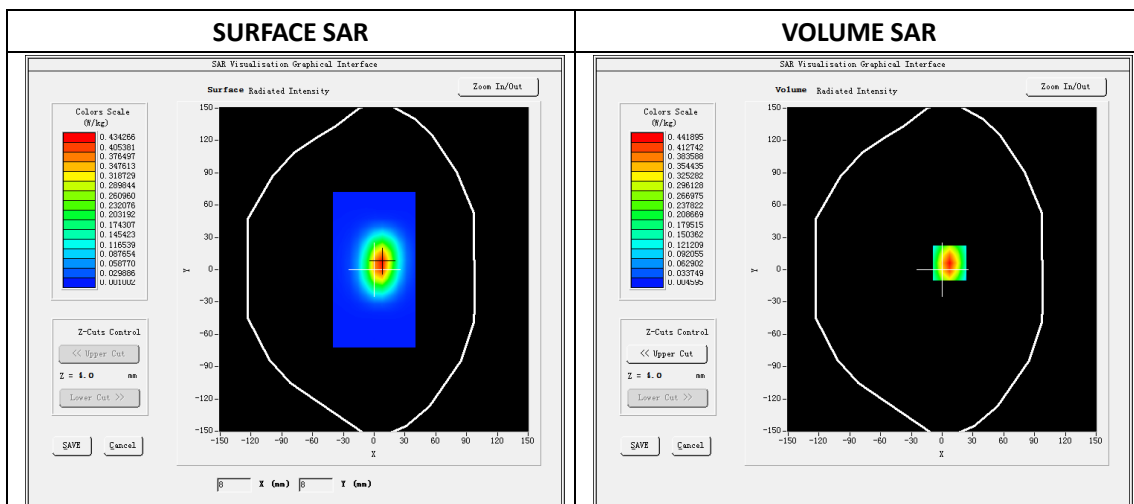
A. Experimental conditions.

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

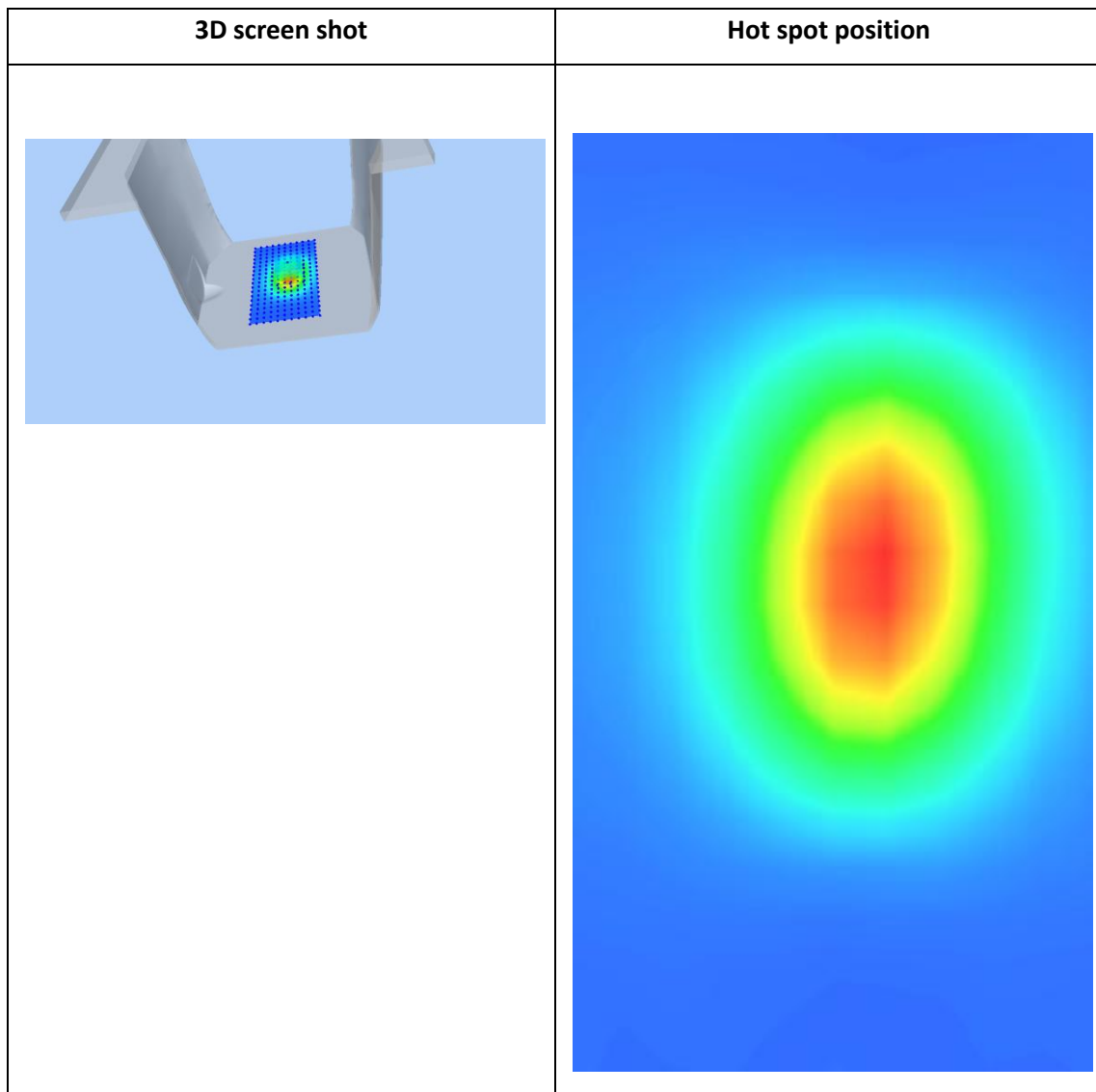
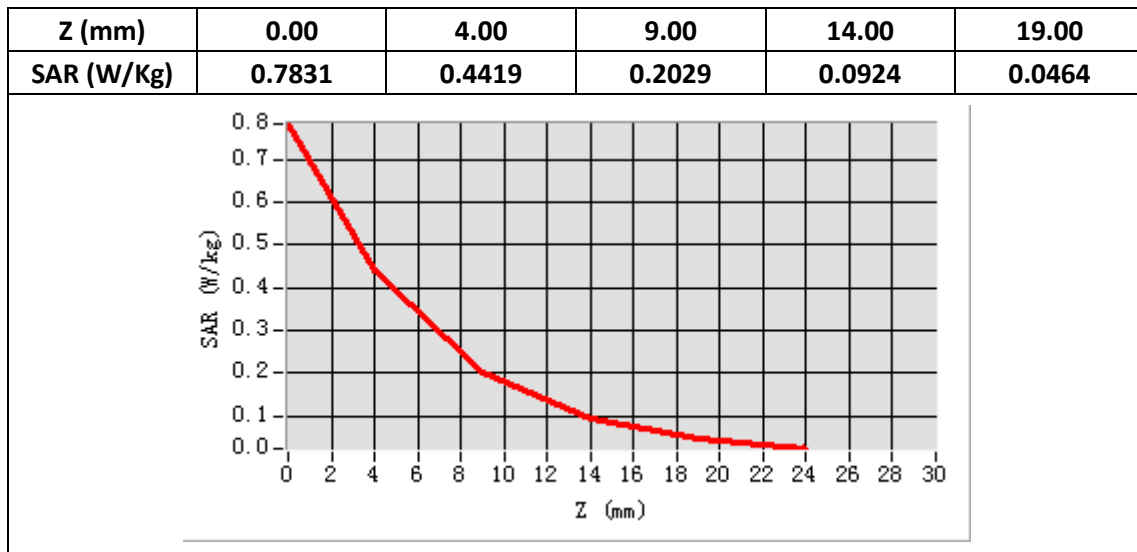
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1900
Relative permittivity (real part)	40.65
Relative permittivity	13.45
Conductivity (S/m)	1.42
Power Drift (%)	-0.05
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.34
Duty factor:	1:1



Maximum location: X=7.00, Y=6.00

SAR Peak: 0.78 W/kg

SAR 10g (W/Kg)	0.194636
SAR 1g (W/Kg)	0.410405



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: 04/18/2019

Measurement duration: 22 minutes 32 seconds

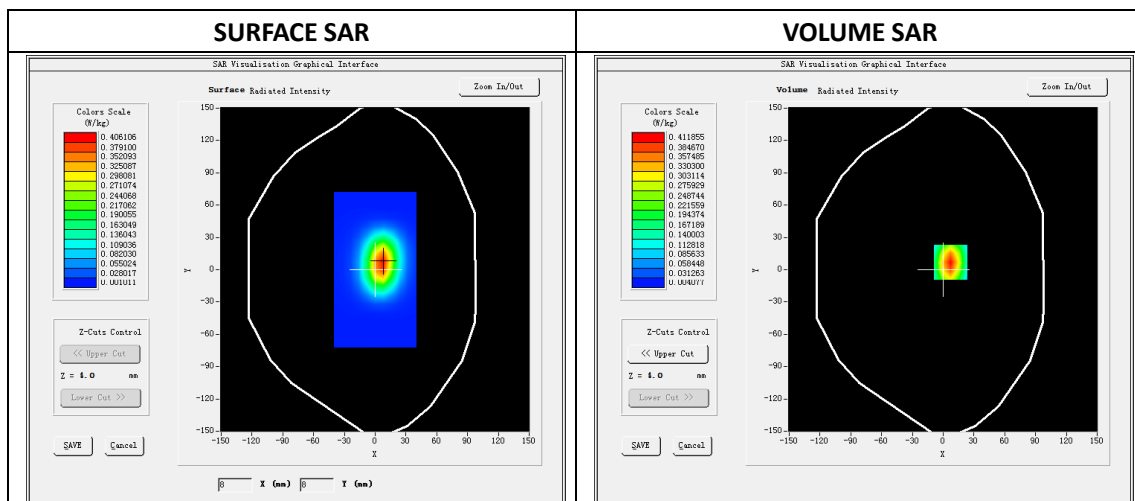
A. Experimental conditions.

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

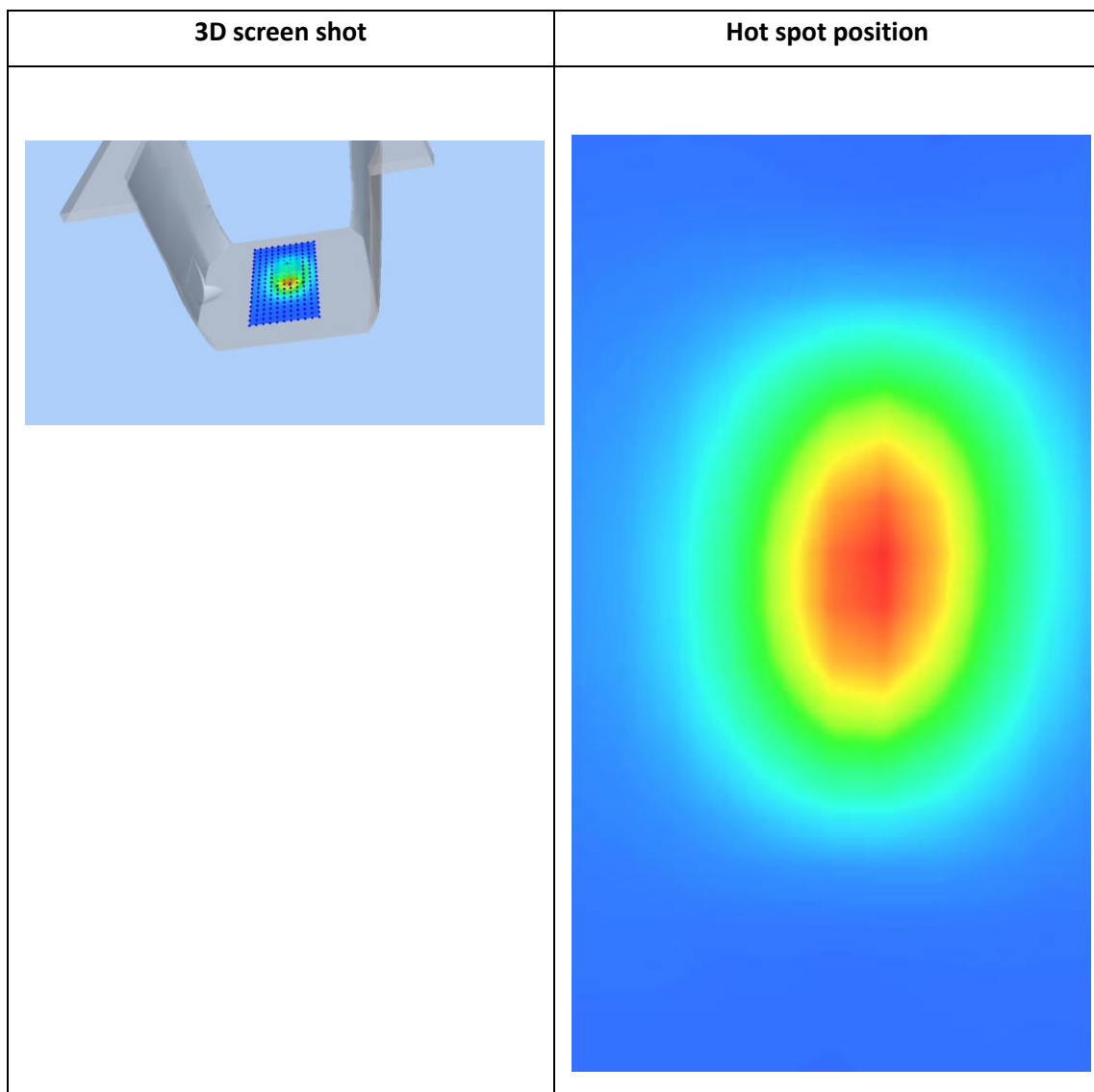
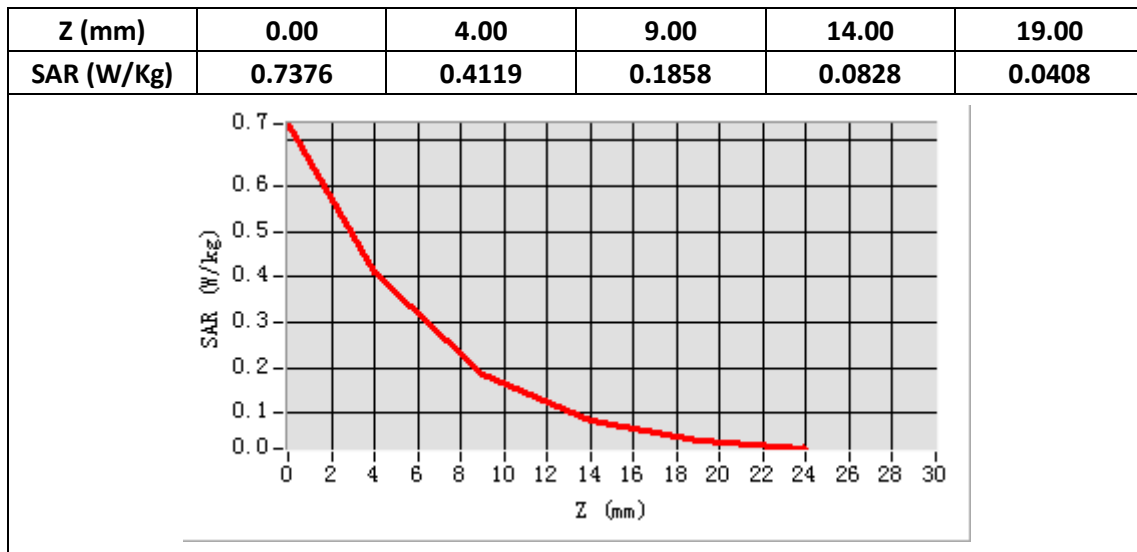
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	1900
Relative permittivity (real part)	53.40
Relative permittivity	14.49
Conductivity (S/m)	1.53
Power Drift (%)	0.02
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.39
Duty factor:	1:1



Maximum location: X=7.00, Y=7.00

SAR Peak: 0.74 W/kg

SAR 10g (W/Kg)	0.180967
SAR 1g (W/Kg)	0.383856



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: 04/19/2019

Measurement duration: 22 minutes 33seconds

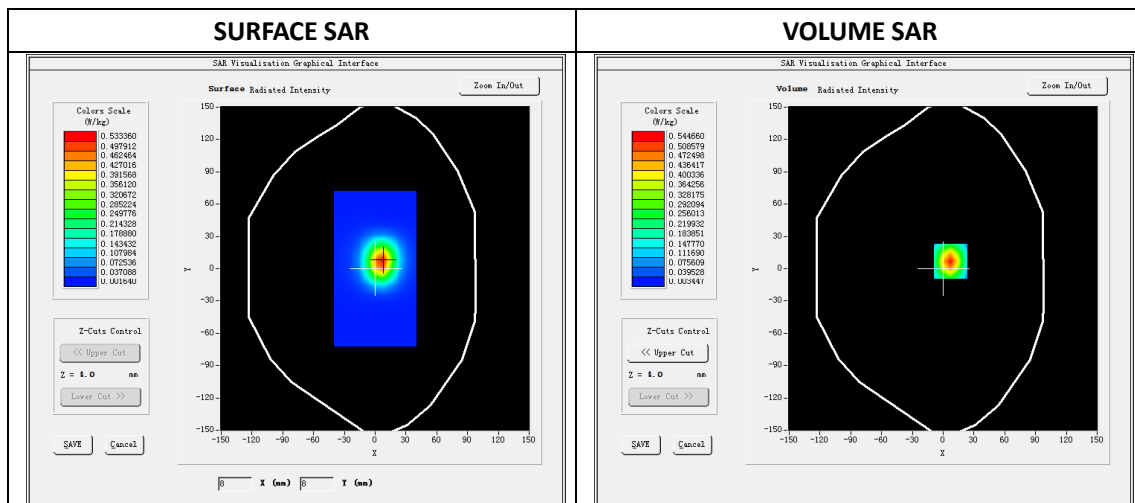
A. Experimental conditions.

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

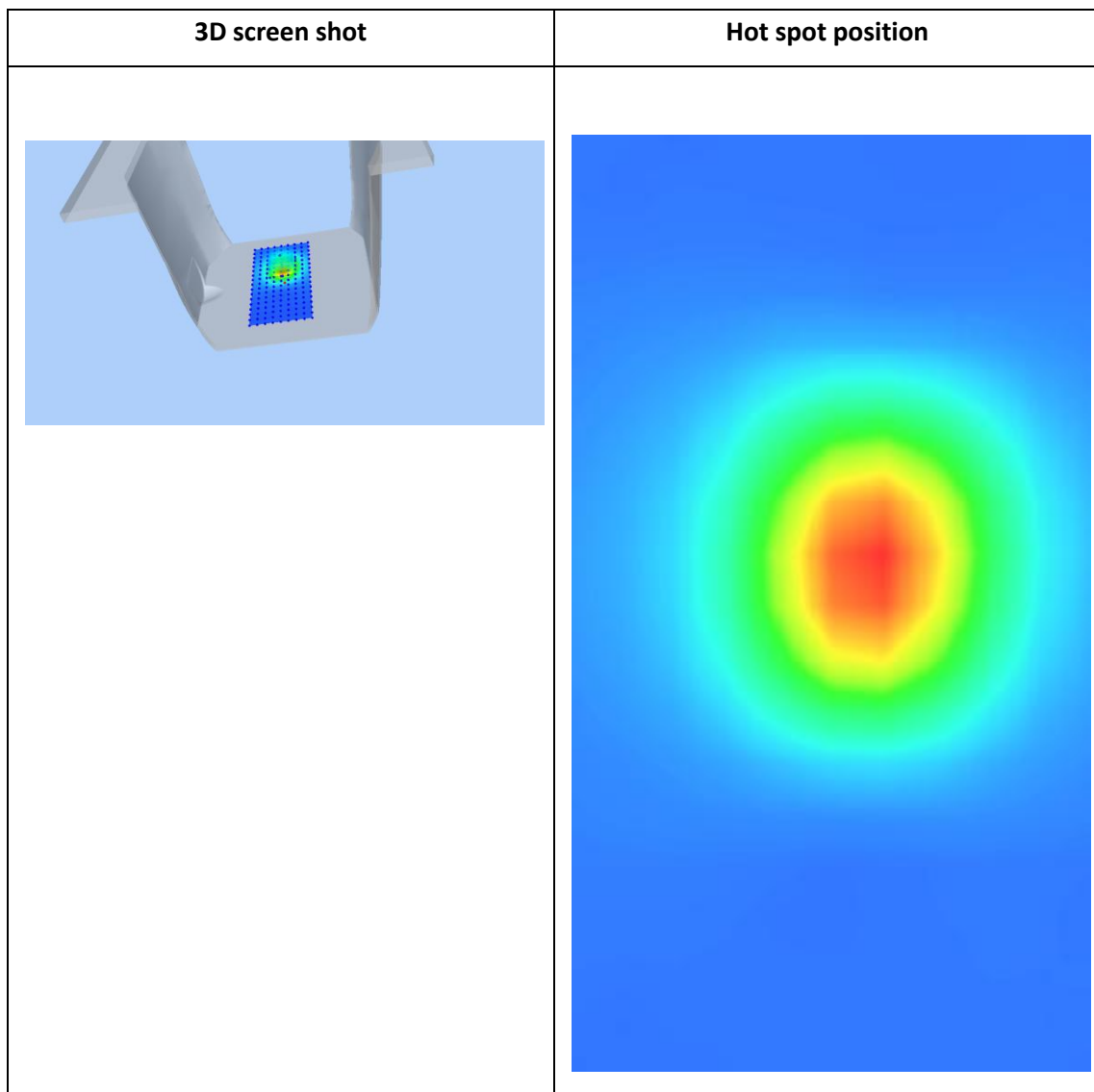
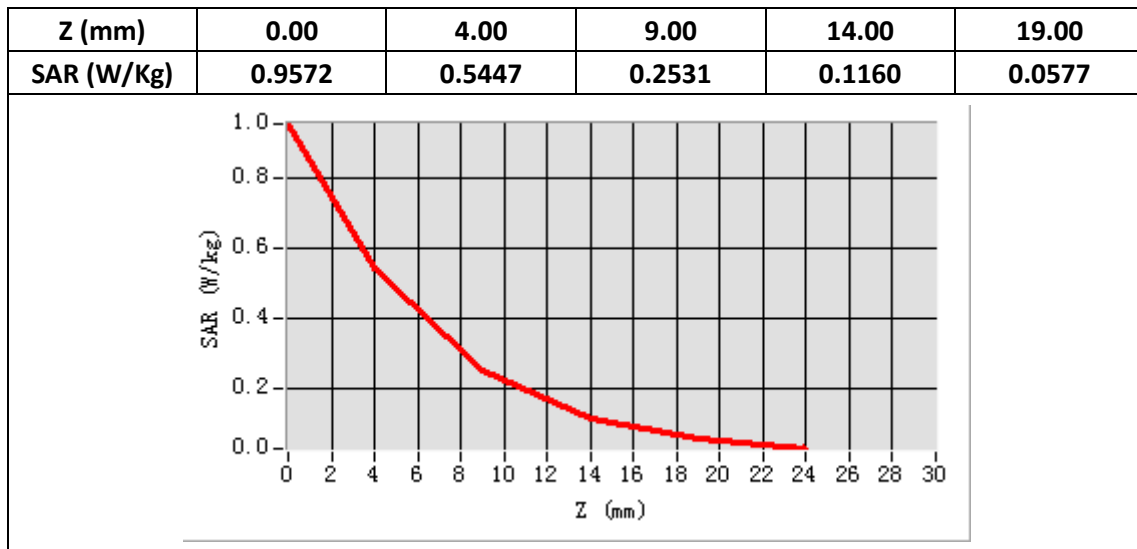
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2450
Relative permittivity (real part)	39.34
Relative permittivity	13.37
Conductivity (S/m)	1.82
Power Drift (%)	-0.24
Duty factor:	1:1
ConvF:	2.37



Maximum location: X=-7.00, Y=7.00

SAR Peak: 0.96 W/kg

SAR 10g (W/Kg)	0.233205
SAR 1g (W/Kg)	0.531054



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: 04/19/2019

Measurement duration: 22 minutes 26 seconds

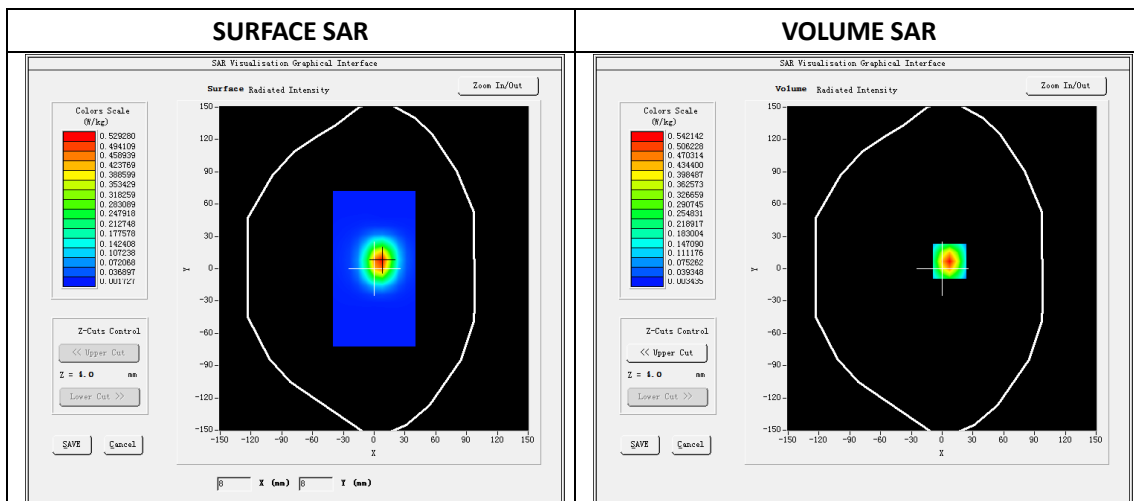
A. Experimental conditions.

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

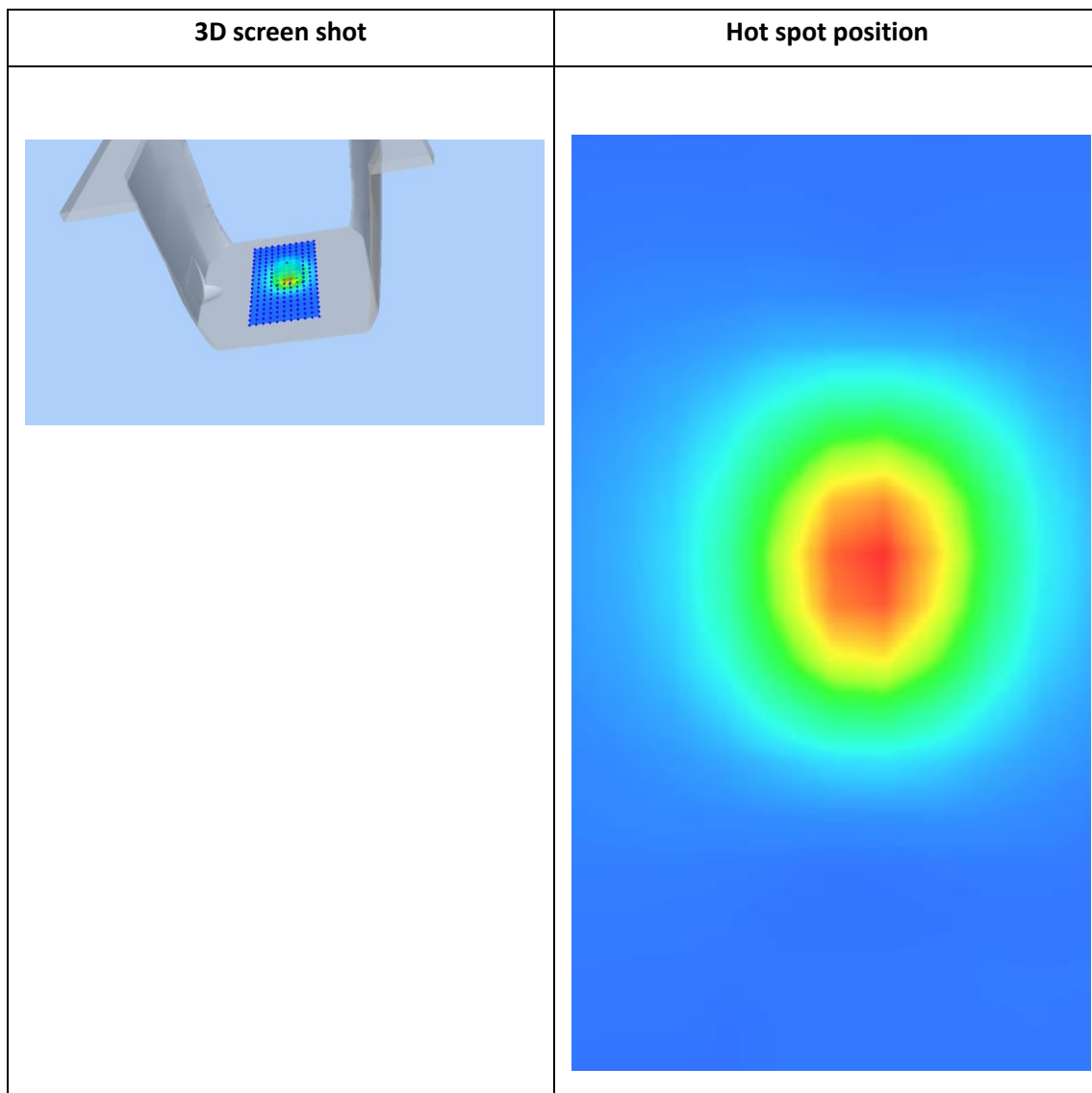
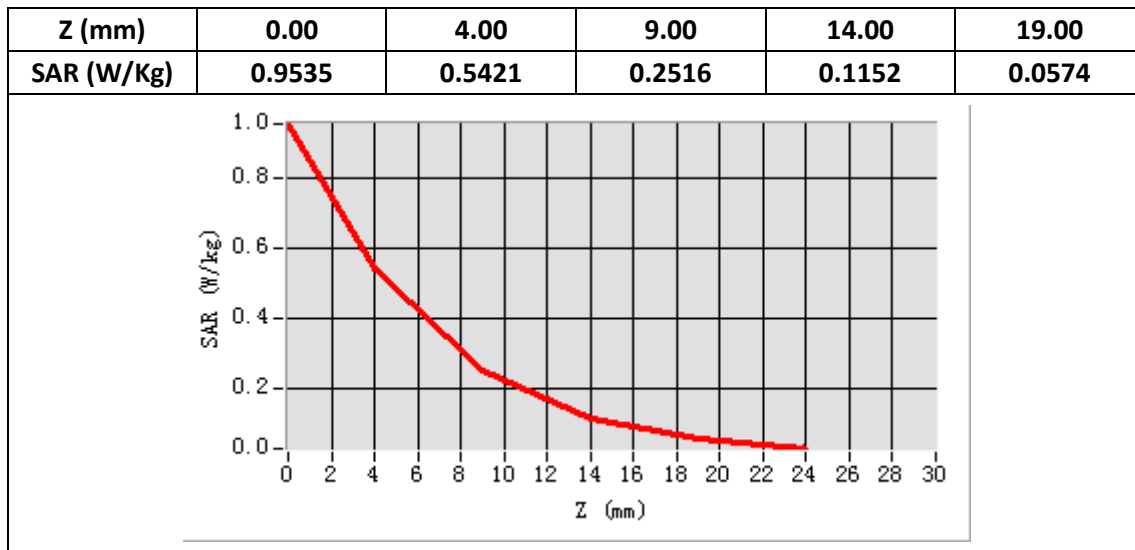
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2450
Relative permittivity (real part)	52.65
Relative permittivity	14.18
Conductivity (S/m)	1.93
Power Drift (%)	0.21
Duty factor:	1:1
ConvF:	2.46



Maximum location: X=-7.00, Y=7.00

SAR Peak: 0.95 W/kg

SAR 10g (W/Kg)	0.232358
SAR 1g (W/Kg)	0.528859



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: 04/20/2019

Measurement duration: 22 minutes 38 seconds

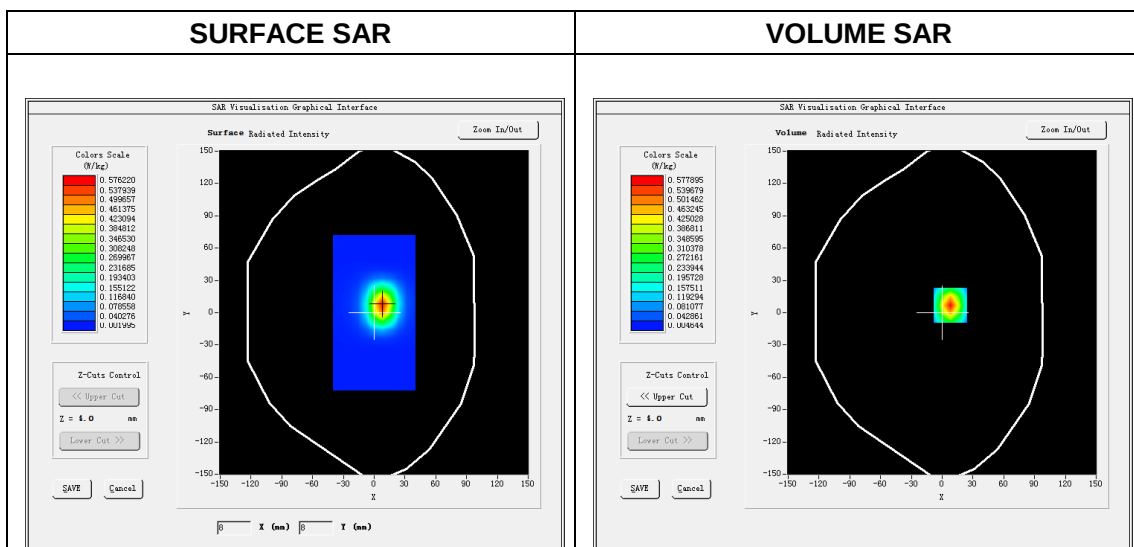
A. Experimental conditions.

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

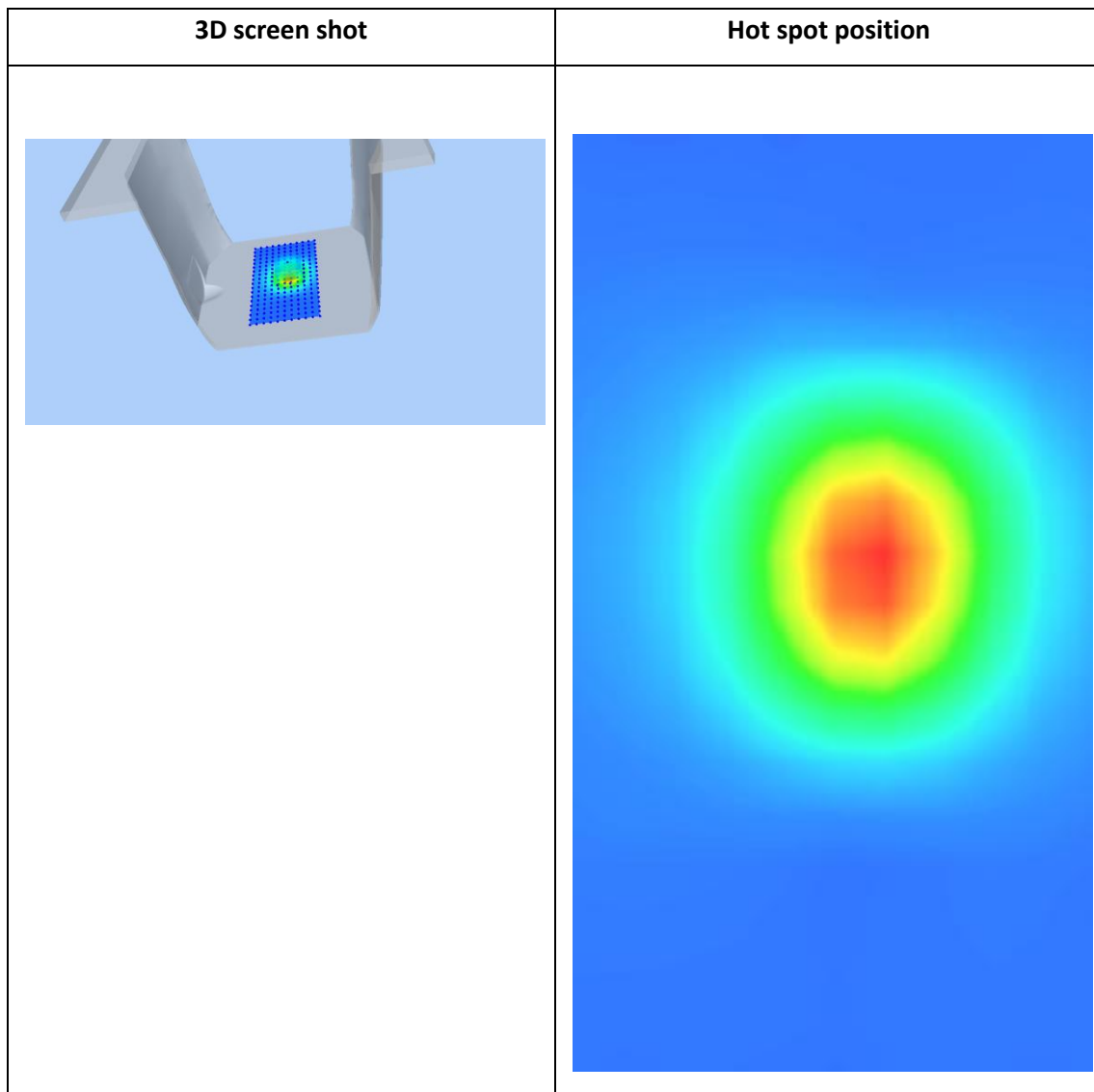
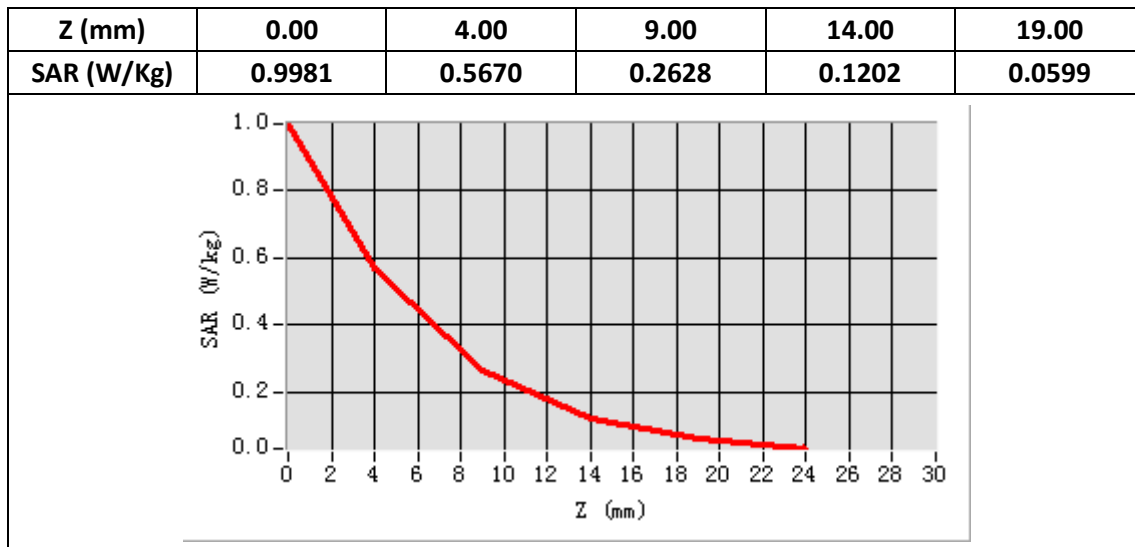
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2600
Relative permittivity (real part)	39.12
Relative permittivity	13.71
Conductivity (S/m)	1.98
Power drift (%)	0.12
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.35



Maximum location: X=7.00, Y=7.00

SAR Peak: 1.00 W/kg

SAR 10g (W/Kg)	0.242420
SAR 1g (W/Kg)	0.552818



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: 04/20/2019

Measurement duration: 22 minutes 35 seconds

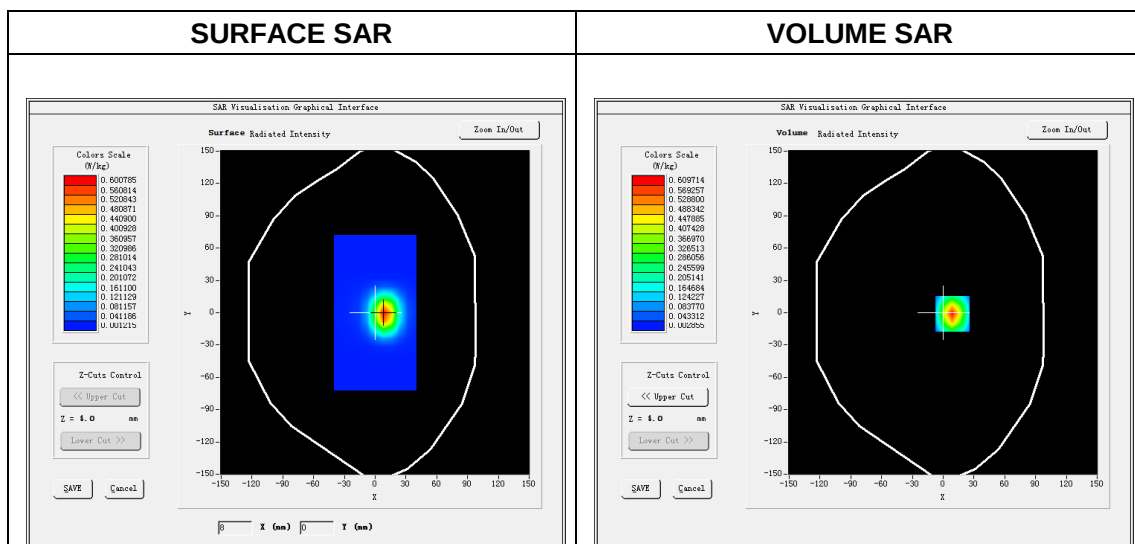
A. Experimental conditions.

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

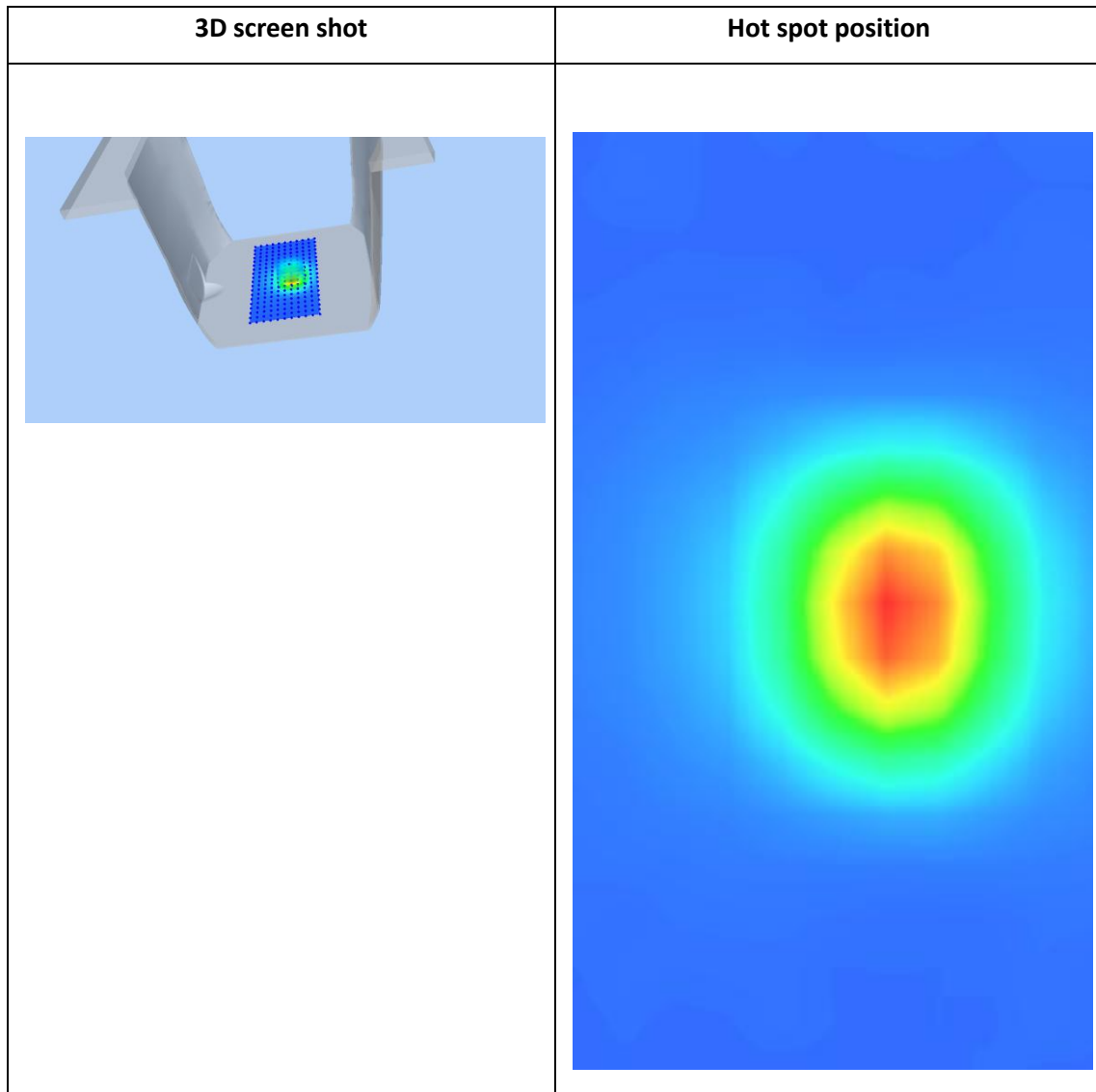
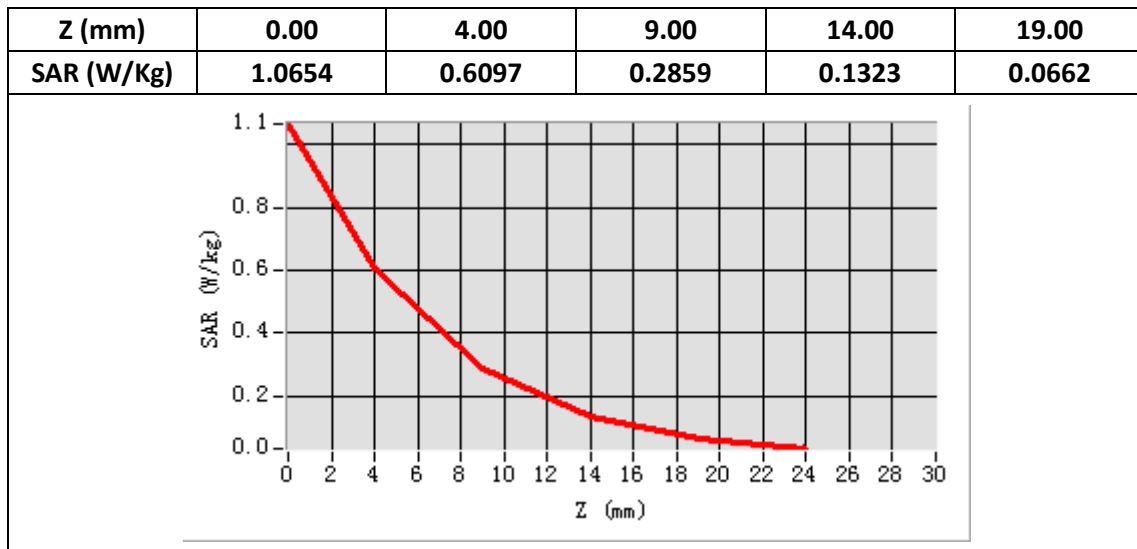
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2600
Relative permittivity (real part)	52.35
Relative permittivity	14.68
Conductivity (S/m)	2.12
Power drift (%)	-0.21
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.43



Maximum location: X=-9.00, Y=1.00

SAR Peak: 1.06 W/kg

SAR 10g (W/Kg)	0.241353
SAR 1g (W/Kg)	0.550893



System Performance Check (Head, 5200MHz)

Type: Phone measurement

Date of measurement: 04/21/2019

Measurement duration: 22 minutes 05 seconds

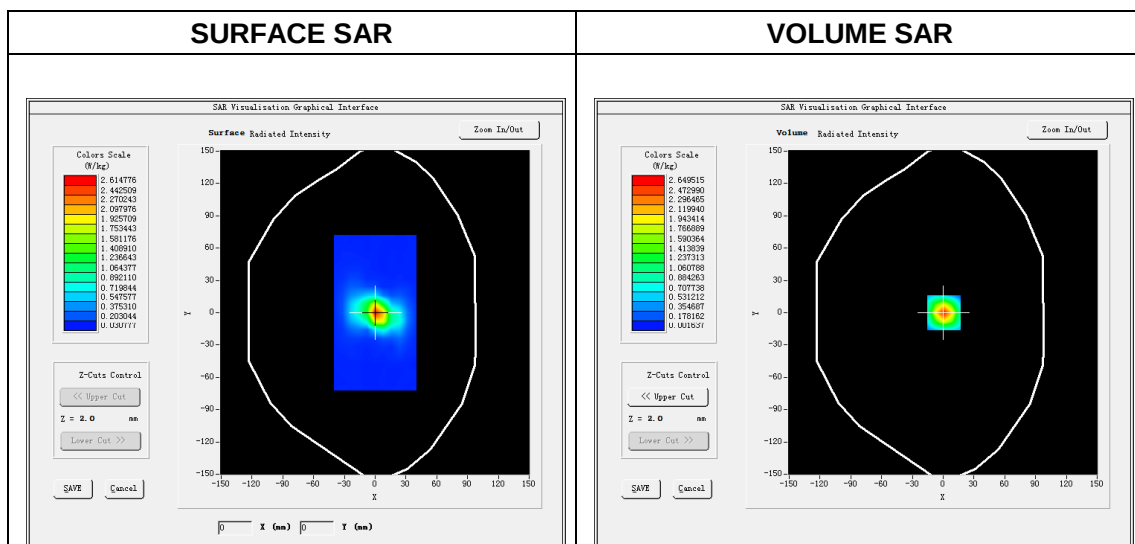
A. Experimental conditions.

Phantom File	dx=4mm,dy=4mm
Phantom	7x7x12,dx=4m, dy=4mm, dz=2mm
Device Position	Dipole
Band	5200MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

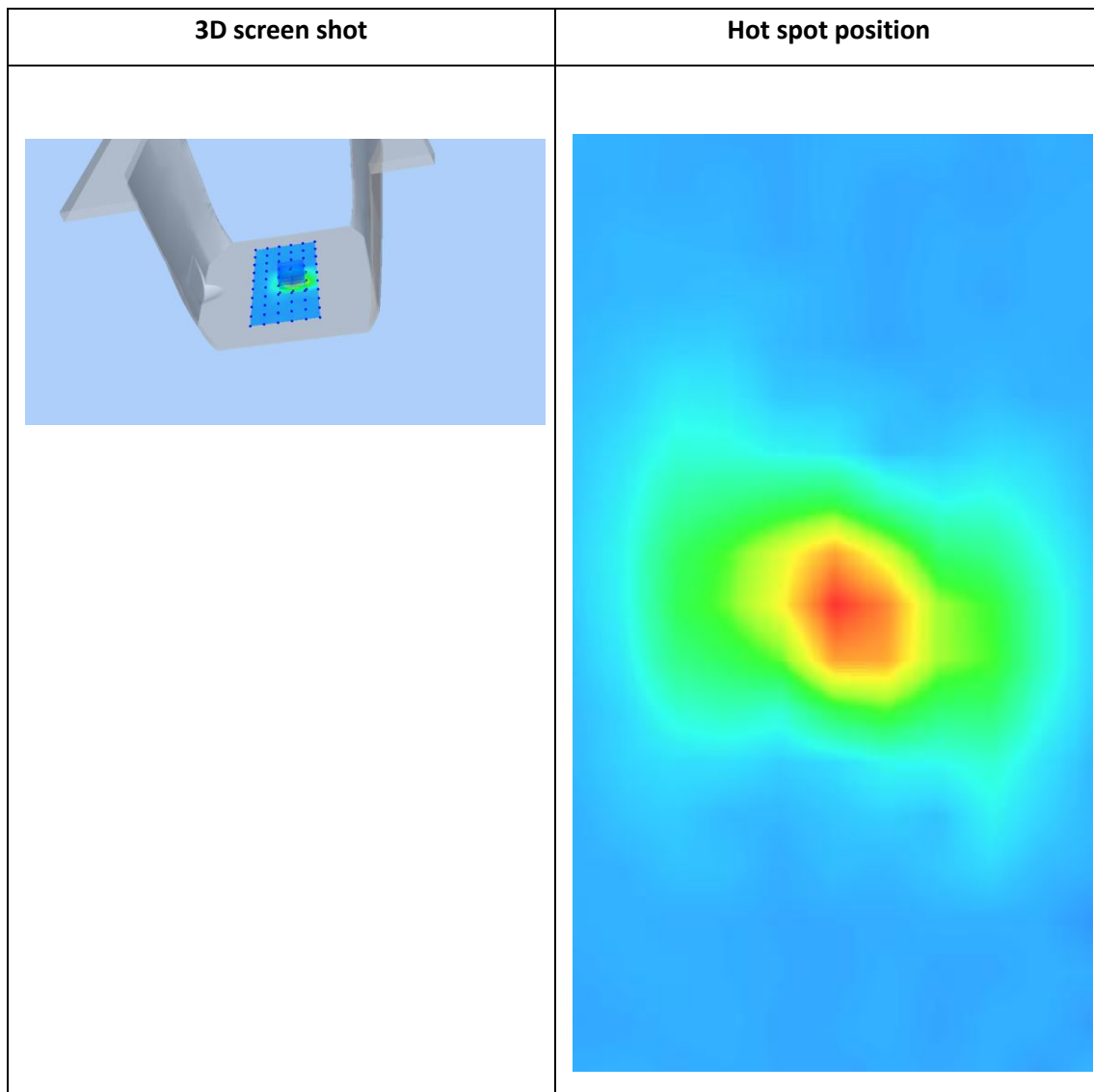
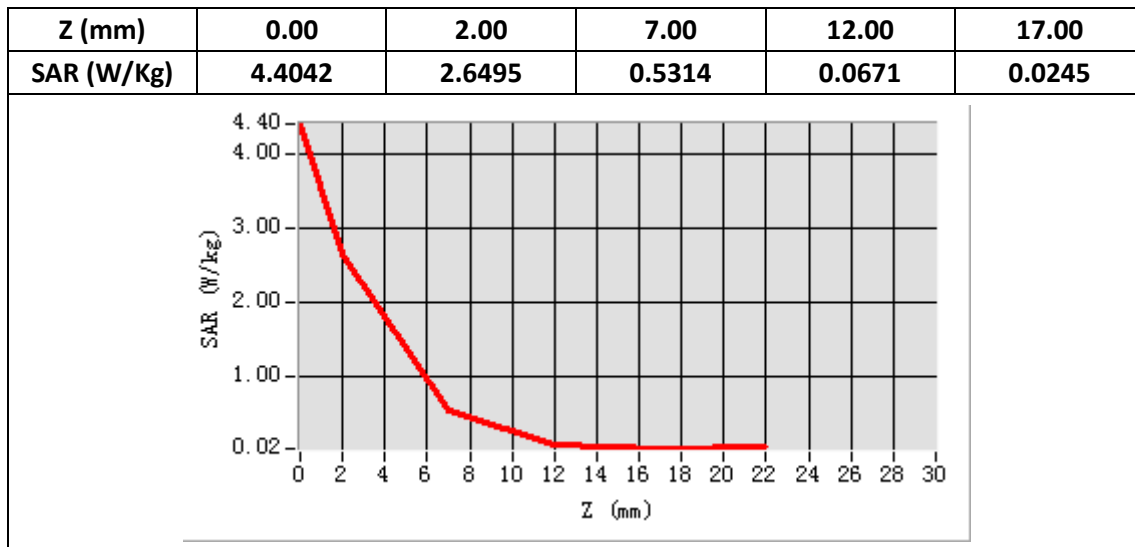
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	5200
Relative permittivity (real part)	36.22
Relative permittivity	15.65
Conductivity (S/m)	4.52
Power drift (%)	-2.10
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.15



Maximum location: X=1.00, Y=0.00

SAR Peak: 4.56W/kg

SAR 10g (W/Kg)	0.577491
SAR 1g (W/Kg)	1.524798



System Performance Check (Body, 5200MHz)

Type: Phone measurement

Date of measurement: 04/21/2019

Measurement duration: 22 minutes 56 seconds

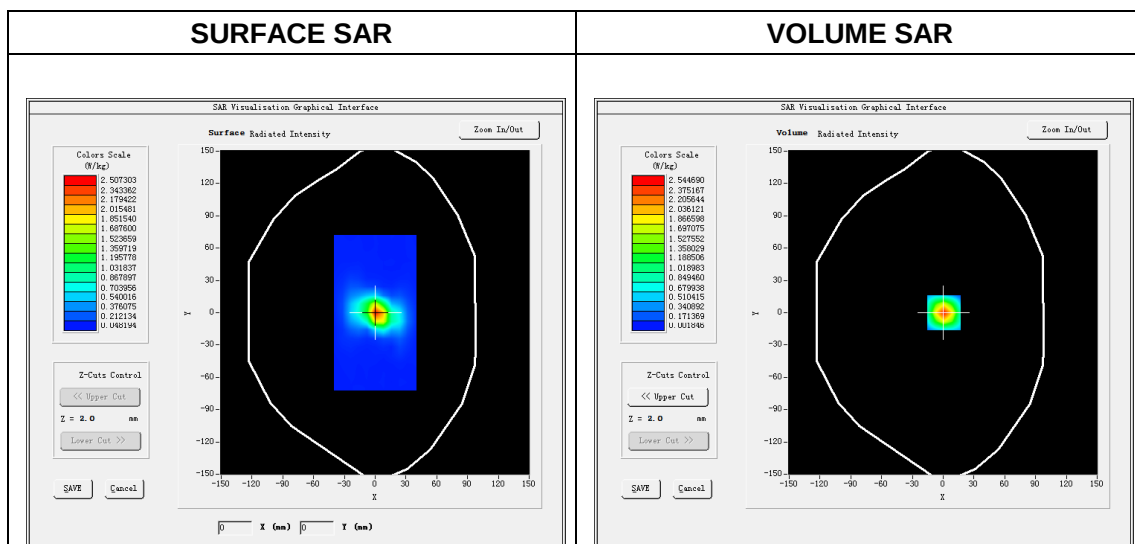
A. Experimental conditions.

Phantom File	dx=4mm,dy=4mm
Phantom	7x7x12,dx=4m, dy=4mm, dz=2mm
Device Position	Dipole
Band	5200MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

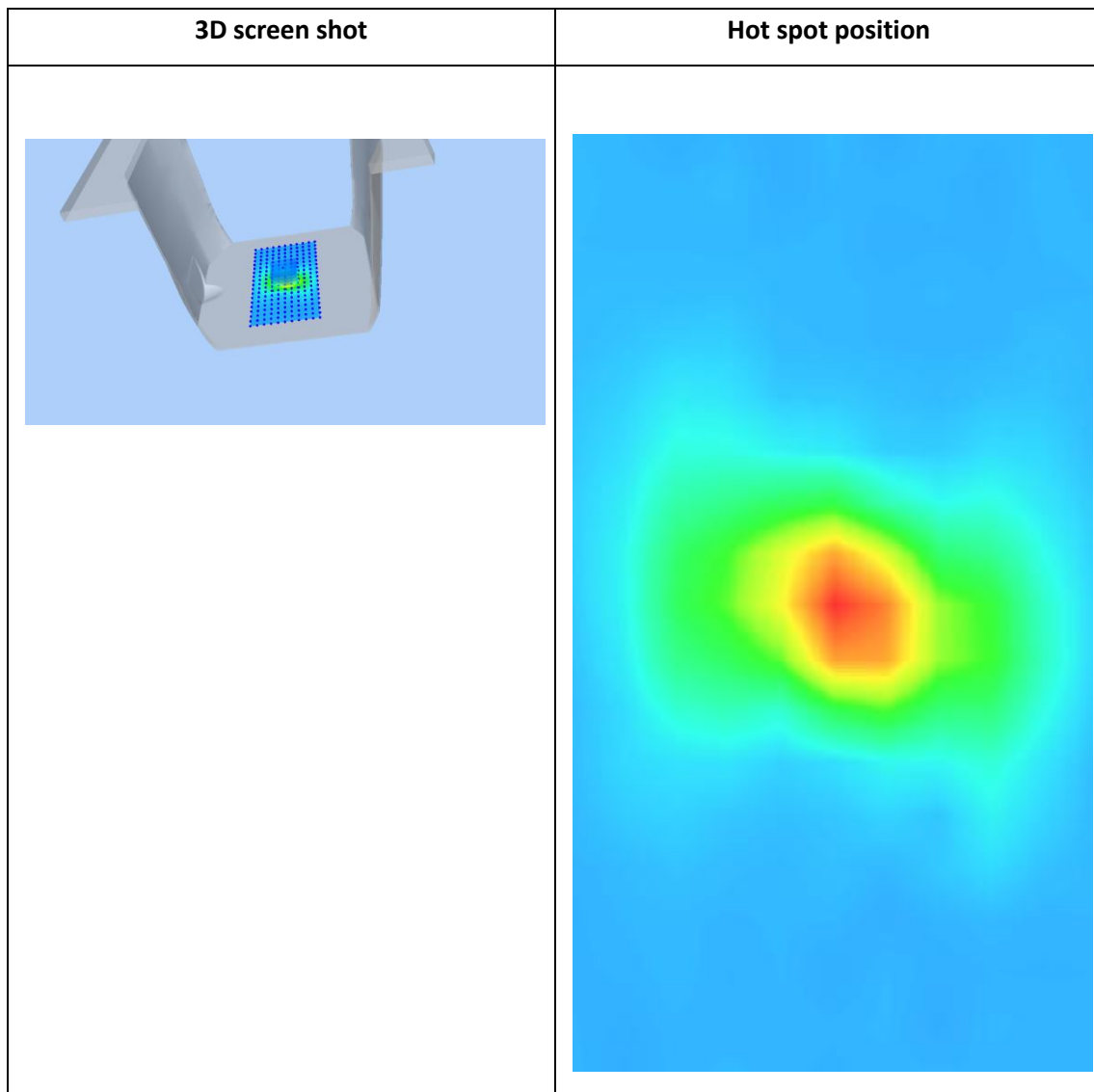
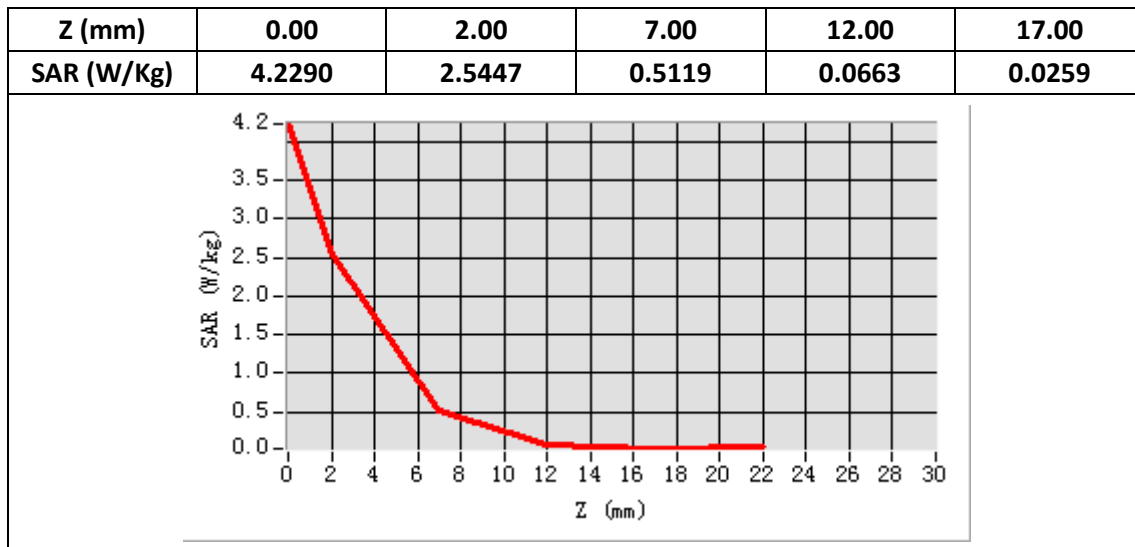
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	5200
Relative permittivity (real part)	49.33
Relative permittivity	17.72
Conductivity (S/m)	5.12
Power drift (%)	-0.13
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.21



Maximum location: X=1.00, Y=0.00

SAR Peak: 4.38 W/kg

SAR 10g (W/Kg)	0.547163
SAR 1g (W/Kg)	1.443766



System Performance Check (Head, 5800MHz)

Type: Phone measurement

Date of measurement: 04/22/2019

Measurement duration: 22 minutes 45 seconds

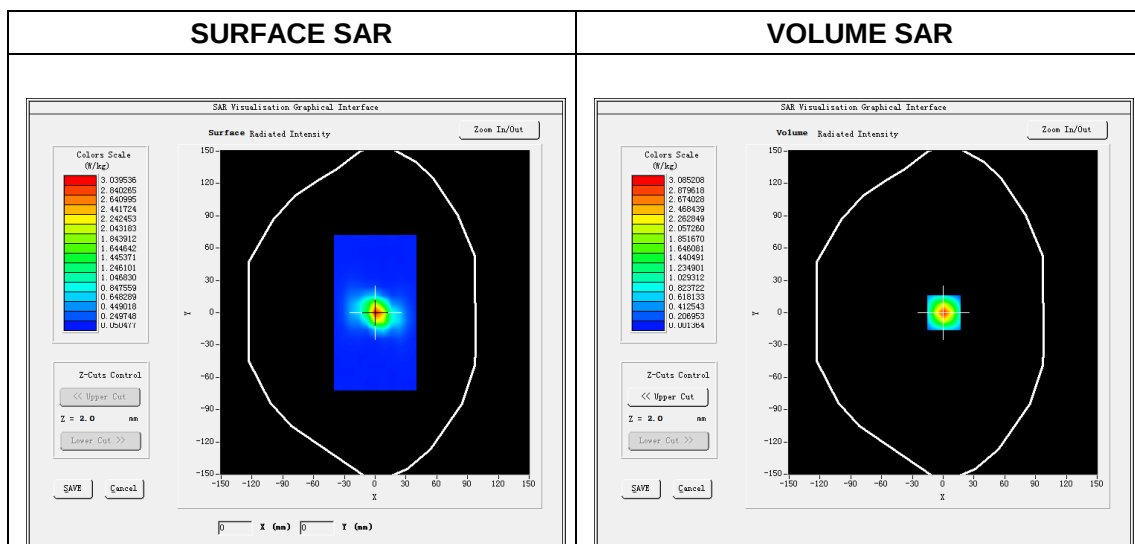
A. Experimental conditions.

Phantom File	dx=4mm,dy=4mm
Phantom	7x7x12,dx=4m, dy=4mm, dz=2mm
Device Position	Dipole
Band	5800MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

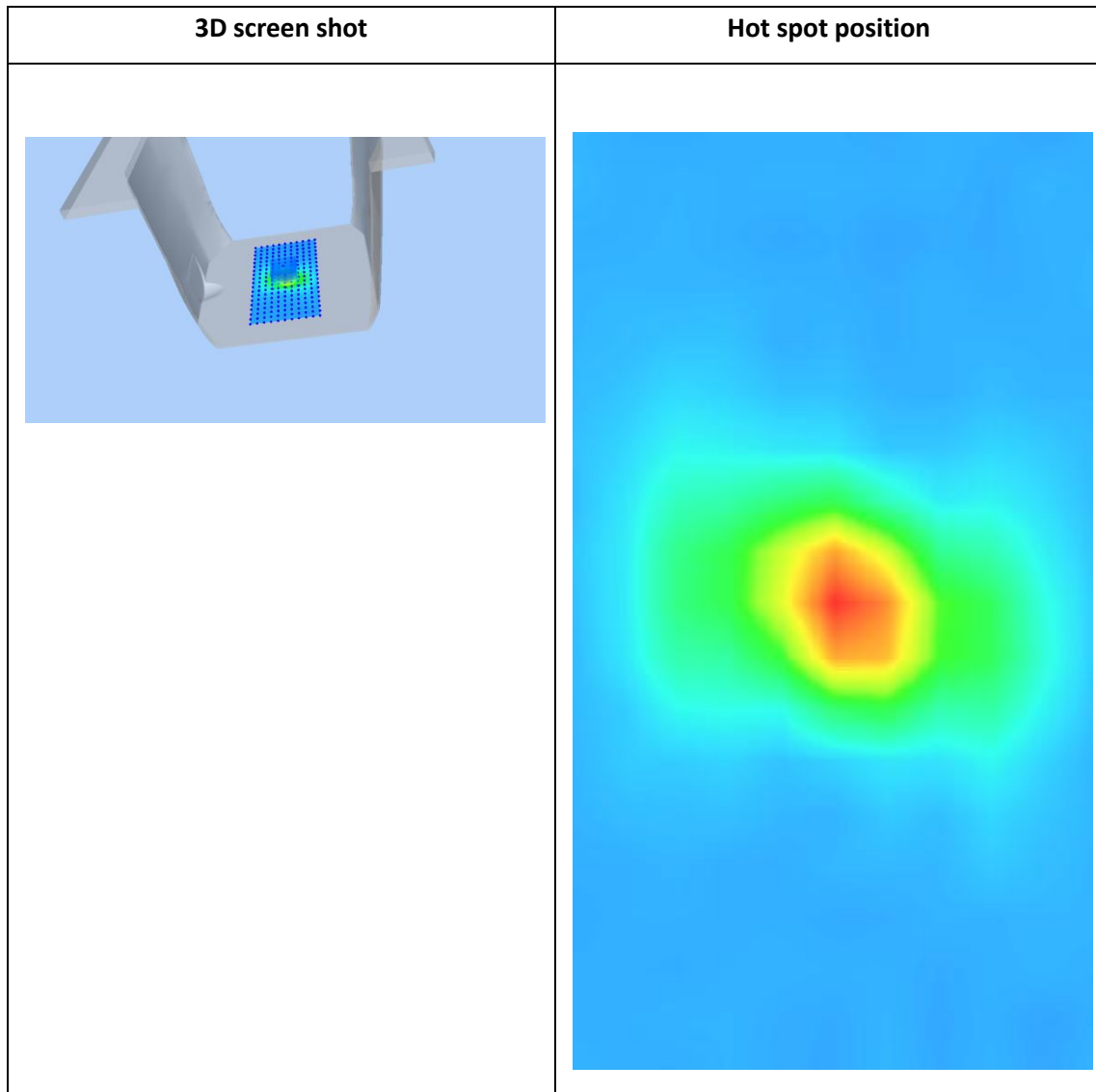
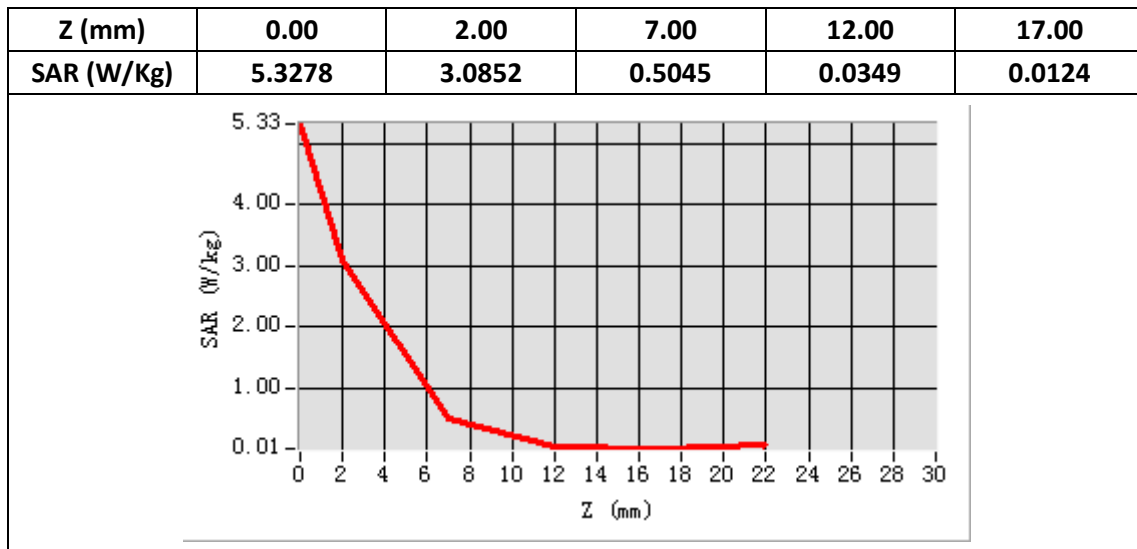
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	5800
Relative permittivity (real part)	35.2
Relative permittivity	16.29
Conductivity (S/m)	5.25
Power drift (%)	-0.36
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.19



Maximum location: X=1.00, Y=0.00

SAR Peak: 5.55 W/kg

SAR 10g (W/Kg)	0.623343
SAR 1g (W/Kg)	1.709552



System Performance Check (Body, 5800MHz)

Type: Phone measurement

Date of measurement: 04/22/2019

Measurement duration: 22 minutes 26 seconds

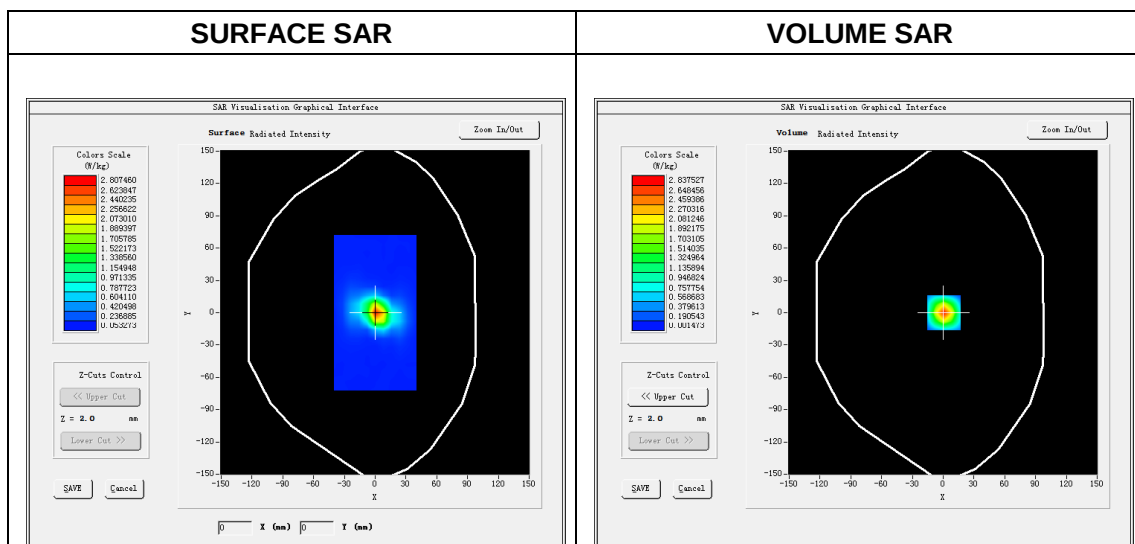
A. Experimental conditions.

Phantom File	dx=4mm,dy=4mm
Phantom	7x7x12,dx=4m, dy=4mm, dz=2mm
Device Position	Dipole
Band	5800MHz
Channels	
Signal	CW

B. SAR Measurement Results

Band SAR

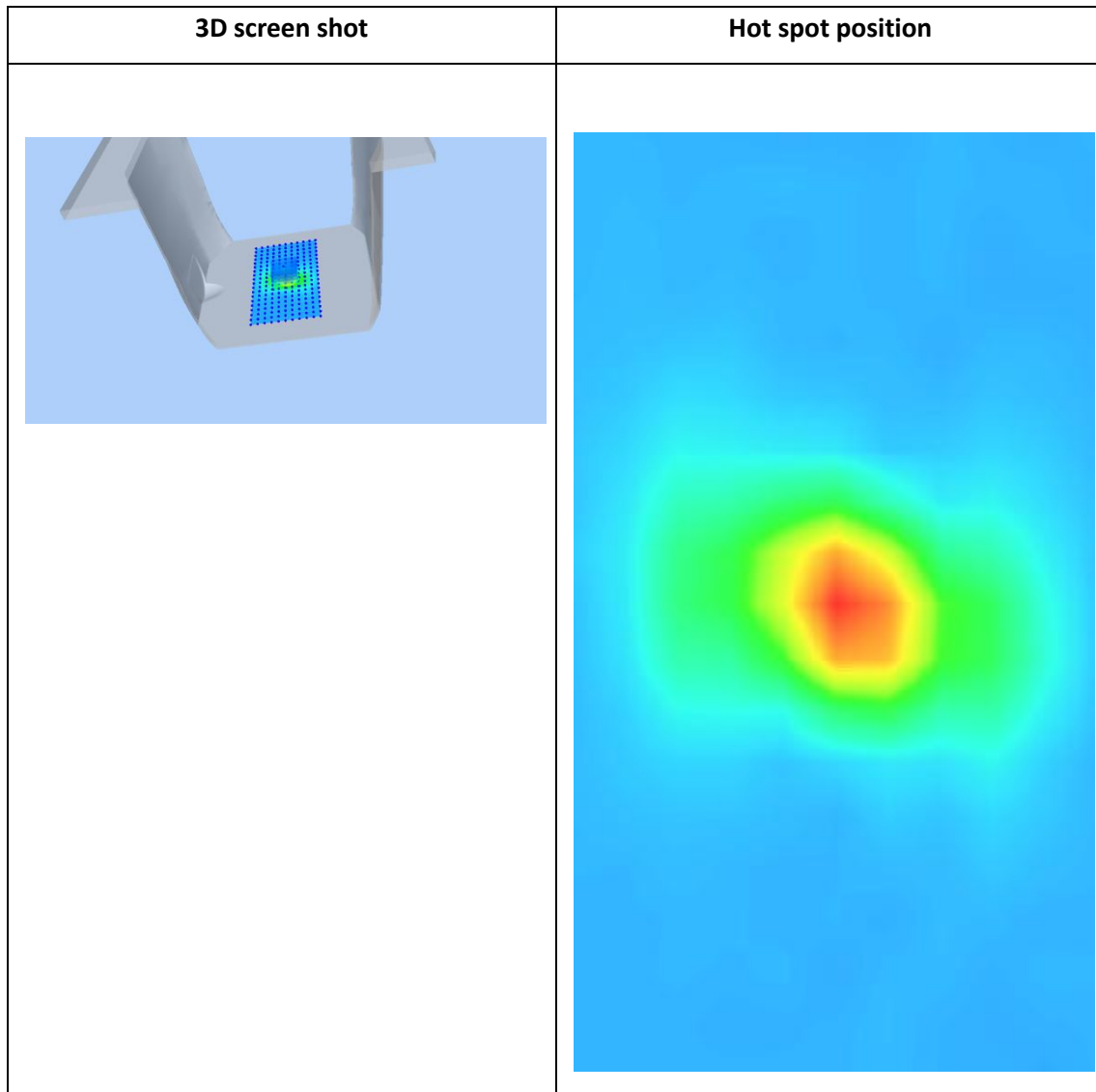
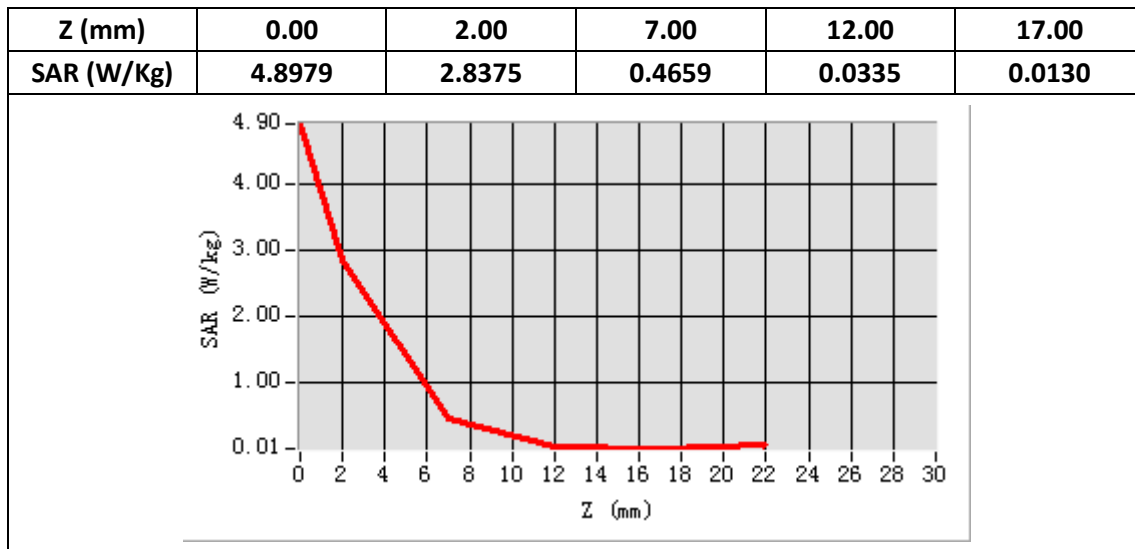
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	5800
Relative permittivity (real part)	48.15
Relative permittivity	18.28
Conductivity (S/m)	5.89
Power drift (%)	-0.50
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.26



Maximum location: X=1.00, Y=0.00

SAR Peak: 5.11 W/kg

SAR 10g (W/Kg)	0.574303
SAR 1g (W/Kg)	1.573579



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: 04/30/2019

Measurement duration: 22 minutes 02 seconds

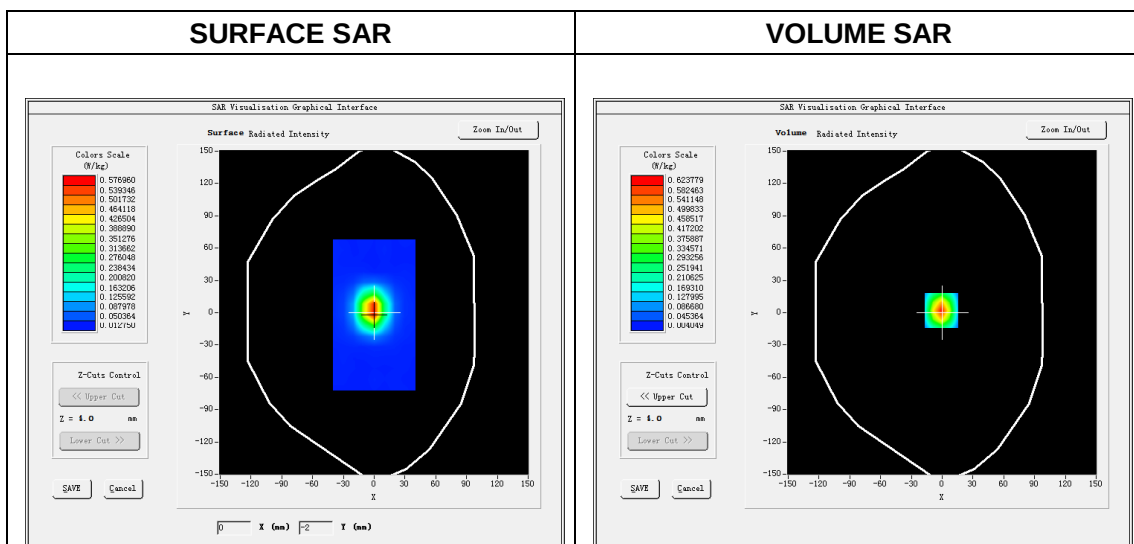
A. Experimental conditions.

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

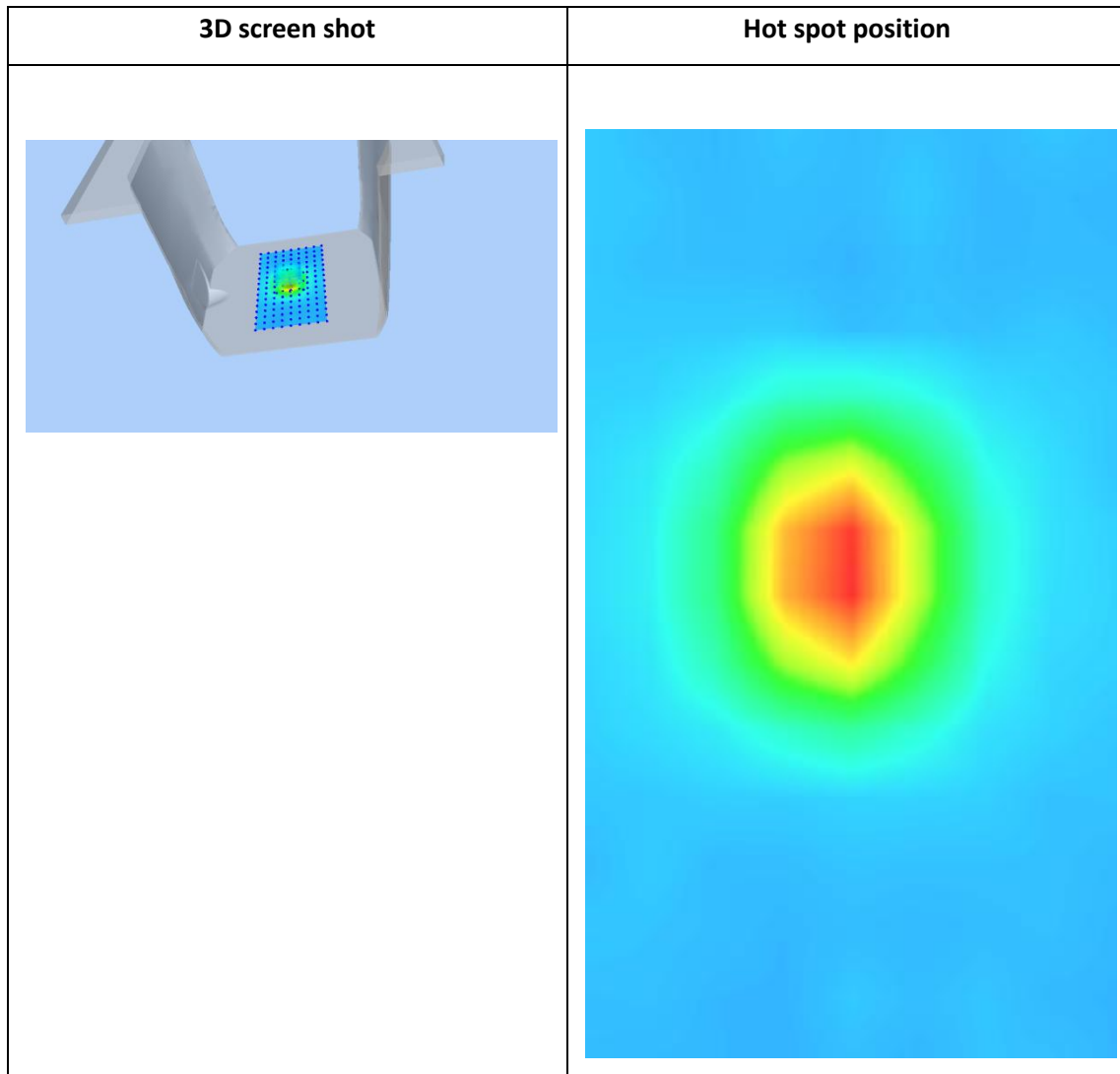
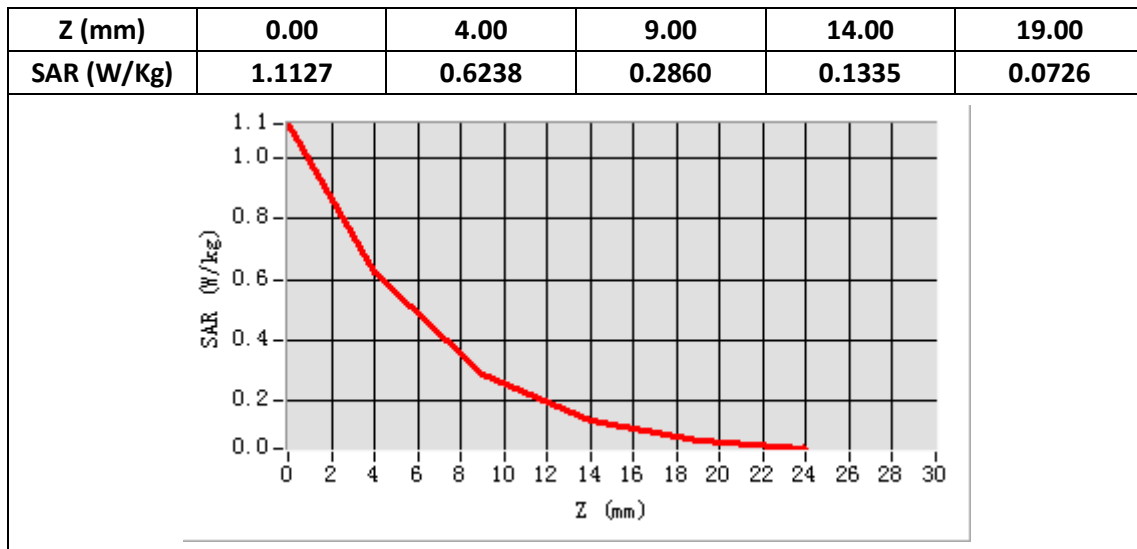
E-Field Probe	SATIMO SN_27/15_EPG0261
Frequency (MHz)	2600
Relative permittivity (real part)	39.08
Relative permittivity	13.78
Conductivity (S/m)	1.99
Power drift (%)	-1.33
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.35



Maximum location: X=-1.00, Y=2.00

SAR Peak: 1.11 W/kg

SAR 10g (W/Kg)	0.252931
SAR 1g (W/Kg)	0.567325



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: 04/30/2019

Measurement duration: 22 minutes 55 seconds

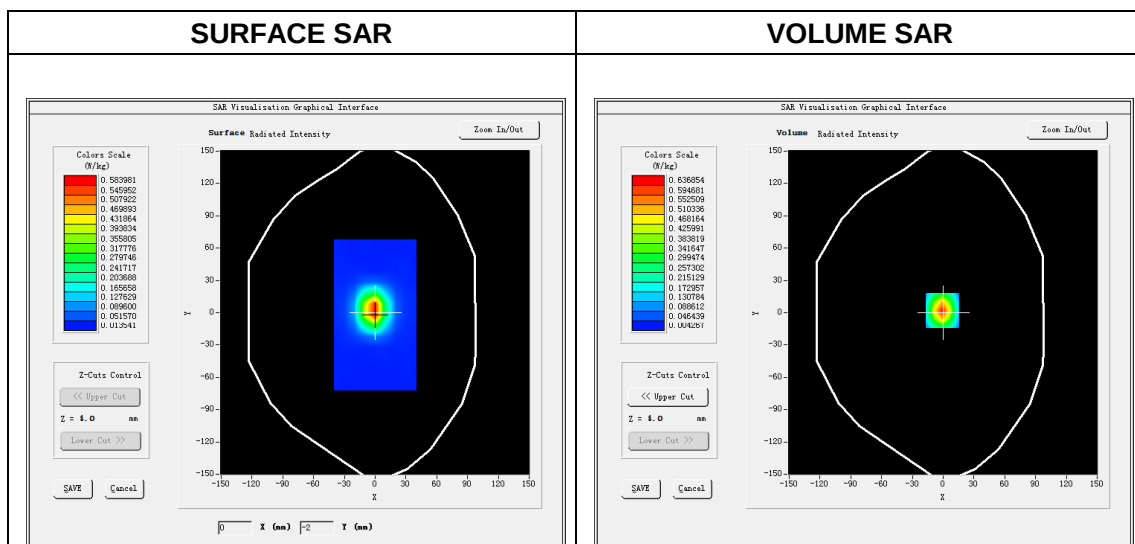
A. Experimental conditions.

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)	52.25
Relative permittivity	14.82
Conductivity (S/m)	2.14
Power drift (%)	-1.19
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.43



Maximum location: X=-1.00, Y=2.00

SAR Peak: 1.13 W/kg

SAR 10g (W/Kg)	0.258340
SAR 1g (W/Kg)	0.579066

