Appendix A: SAR System performance Check Plots

Measurement	Liquid	Frequency	Test Date
System Check	Head	750	2020-02-19
System Check	Body	750	2020-02-19
System Check	Head	835	2020-02-20
System Check	Body	835	2020-02-20
System Check	Head	1800	2020-02-21
System Check	Body	1800	2020-02-21
System Check	Head	1900	2020-02-22
System Check	Body	1900	2020-02-22
System Check	Head	2450	2020-02-24
System Check	Body	2450	2020-02-24

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: 02/19/2020

Measurement duration: 22 minutes 03 seconds

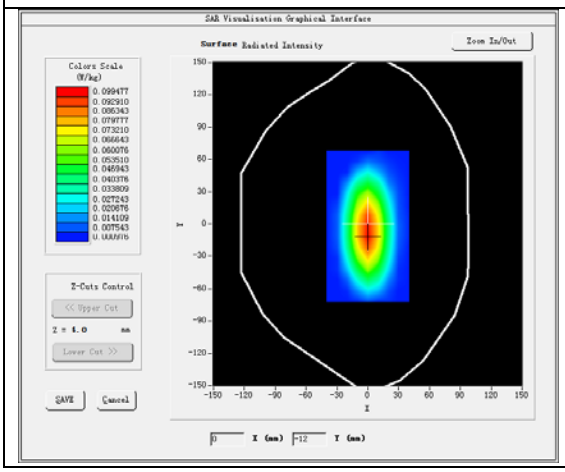
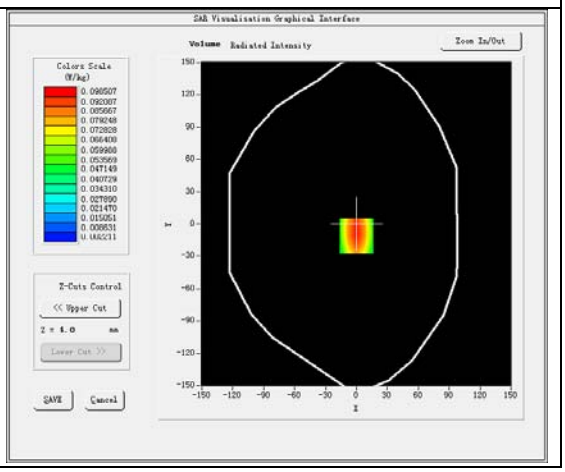
A. Experimental conditions.

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_41/18_EPG0330
Frequency (MHz)	750
Relative permittivity (real part)	41.88
Relative permittivity	22.56
Conductivity (S/m)	0.94
Power drift (%)	-0.35
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.54
Crest factor:	1:1

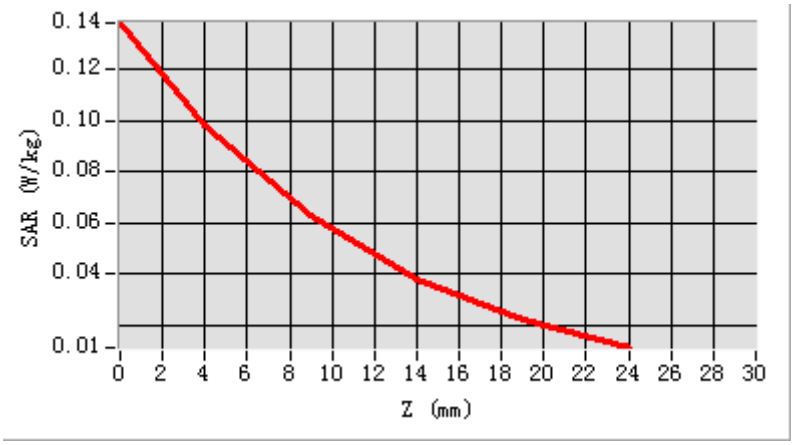
SURFACE SAR	**VOLUME SAR**
	

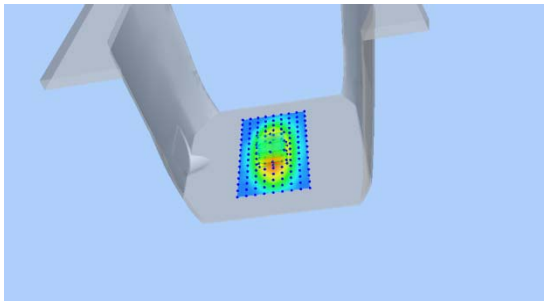
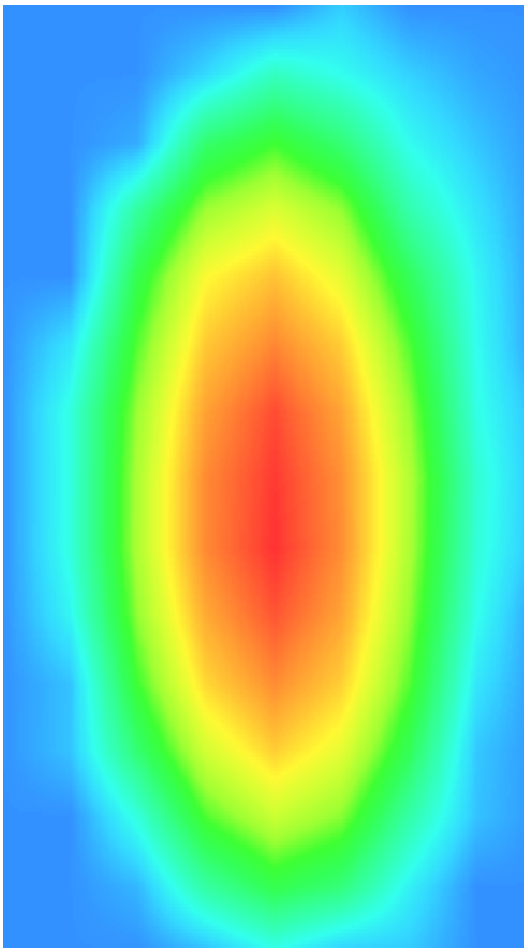
Maximum location: X=0.00, Y=-11.00

SAR Peak: 0.14 W/kg

SAR 10g (W/Kg)	0.055651
SAR 1g (W/Kg)	0.093661

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1382	0.0985	0.0625	0.0381	0.0220



3D screen shot	Hot spot position
	

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: 02/19/2020

Measurement duration: 22 minutes 01 seconds

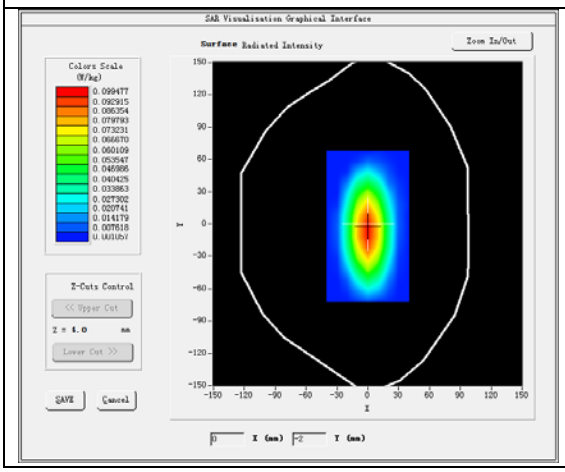
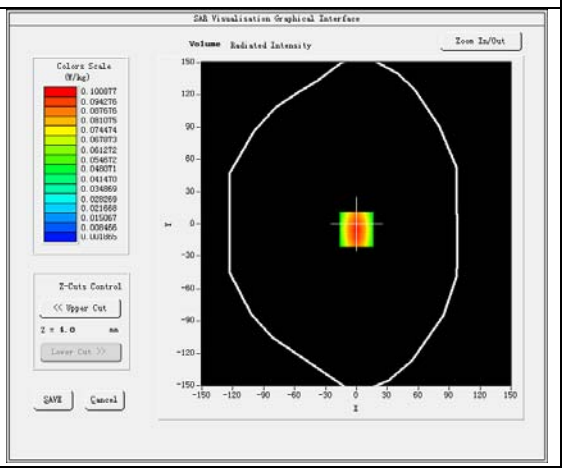
A. Experimental conditions.

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_41/18_EPG0330
Frequency (MHz)	750
Relative permittivity (real part)	55.61
Relative permittivity	23.04
Conductivity (S/m)	0.96
Power drift (%)	-1.16
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.59
Crest factor:	1:1

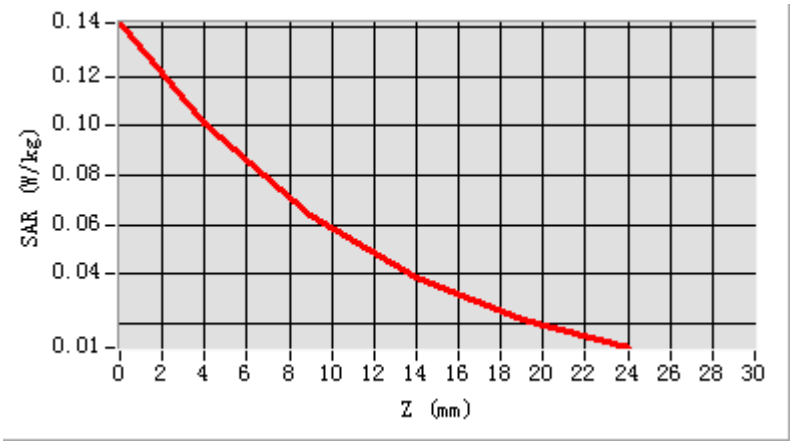
SURFACE SAR	**VOLUME SAR**
	

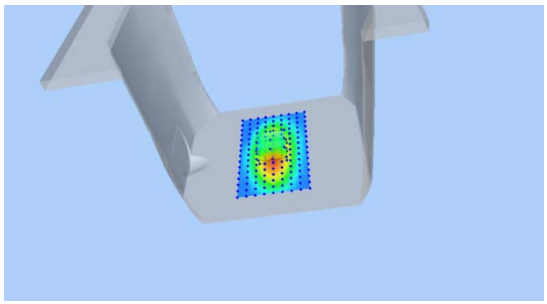
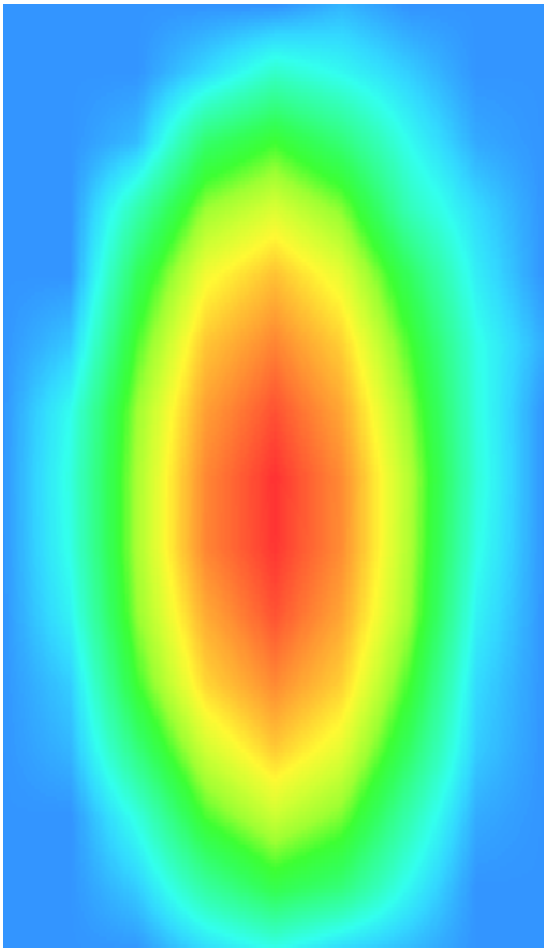
Maximum location: X=0.00, Y=-5.00

SAR Peak: 0.14 W/kg

SAR 10g (W/Kg)	0.055479
SAR 1g (W/Kg)	0.094951

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1417	0.1009	0.0636	0.0381	0.0213



3D screen shot	Hot spot position
	

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: 02/20/2020

Measurement duration: 22 minutes 09 seconds

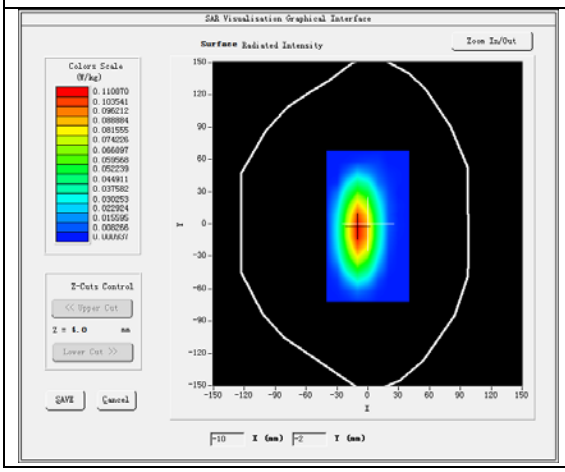
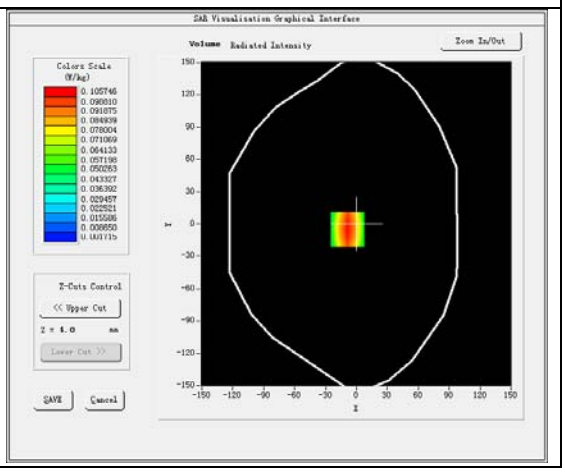
A. Experimental conditions.

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_41/18_EPG0330
Frequency (MHz)	835
Relative permittivity (real part)	41.56
Relative permittivity	20.91
Conductivity (S/m)	0.97
Power drift (%)	-1.93
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.60
Crest factor:	1:1

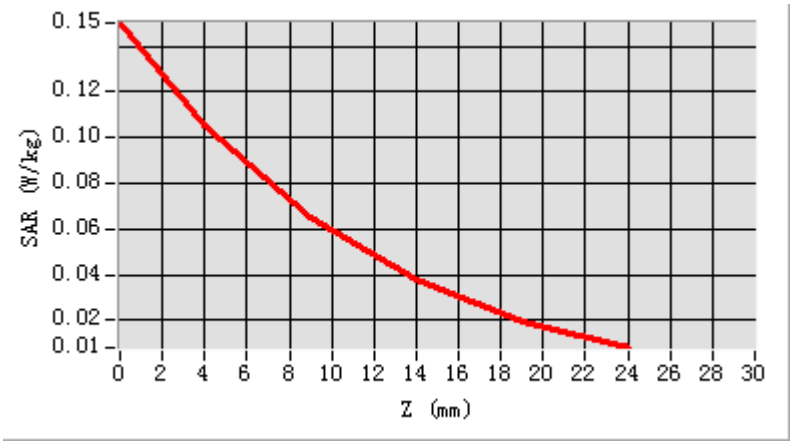
SURFACE SAR	**VOLUME SAR**
	

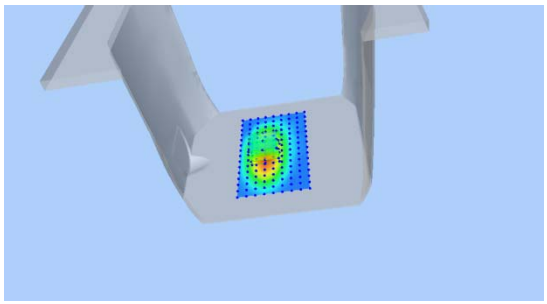
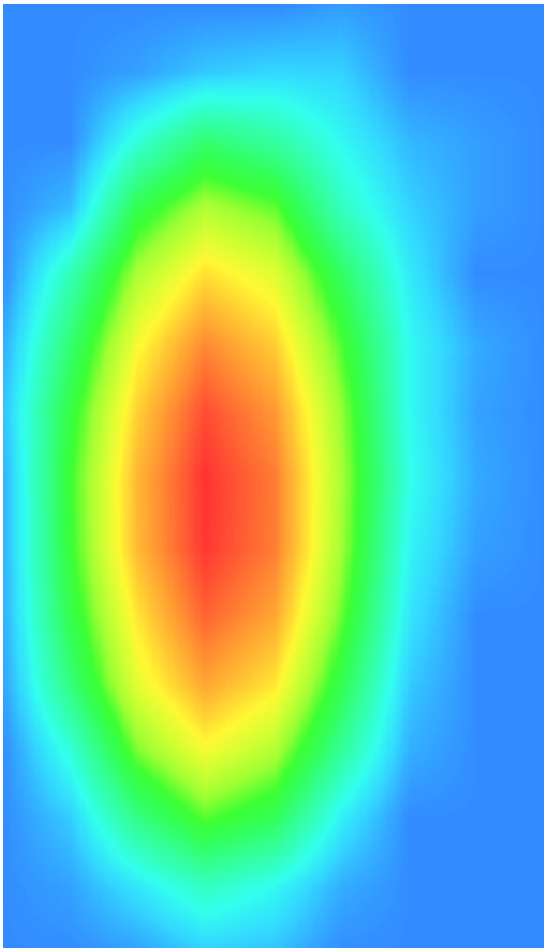
Maximum location: X=-9.00, Y=-5.00

SAR Peak: 0.15 W/kg

SAR 10g (W/Kg)	0.056355
SAR 1g (W/Kg)	0.099016

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1502	0.1057	0.0652	0.0376	0.0196



3D screen shot	Hot spot position
	

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: 02/20/2020

Measurement duration: 22 minutes 02 seconds

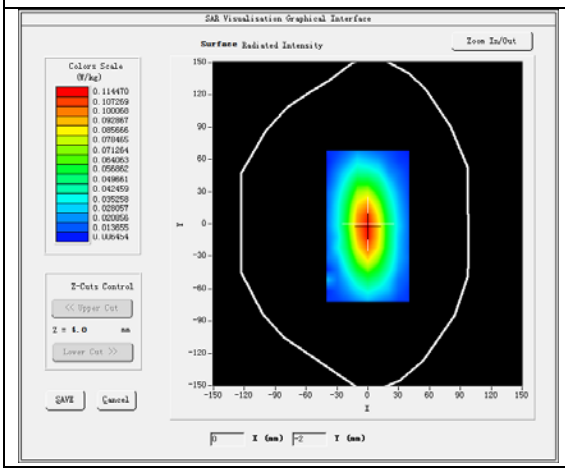
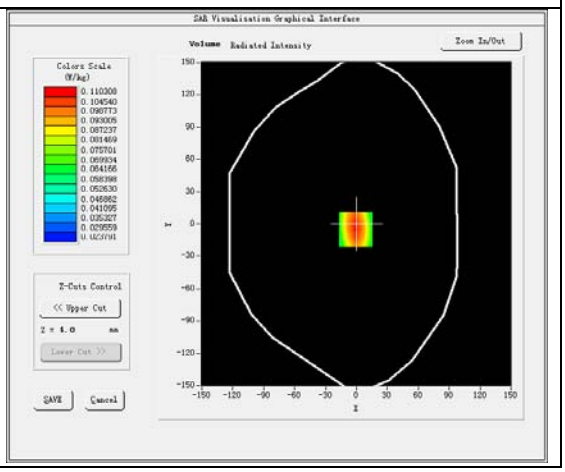
A. Experimental conditions.

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_41/18_EPG0330
Frequency (MHz)	835
Relative permittivity (real part)	55.30
Relative permittivity	21.34
Conductivity (S/m)	0.99
Power drift (%)	-2.69
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.64
Crest factor:	1:1

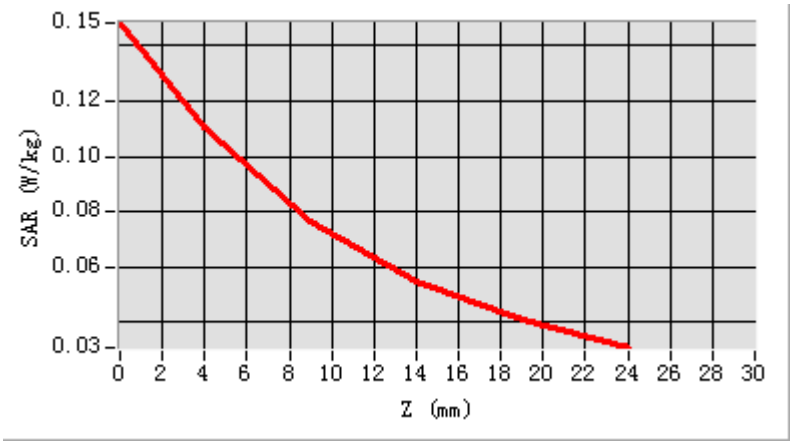
SURFACE SAR	**VOLUME SAR**
	

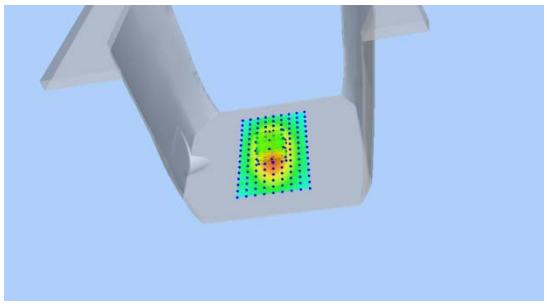
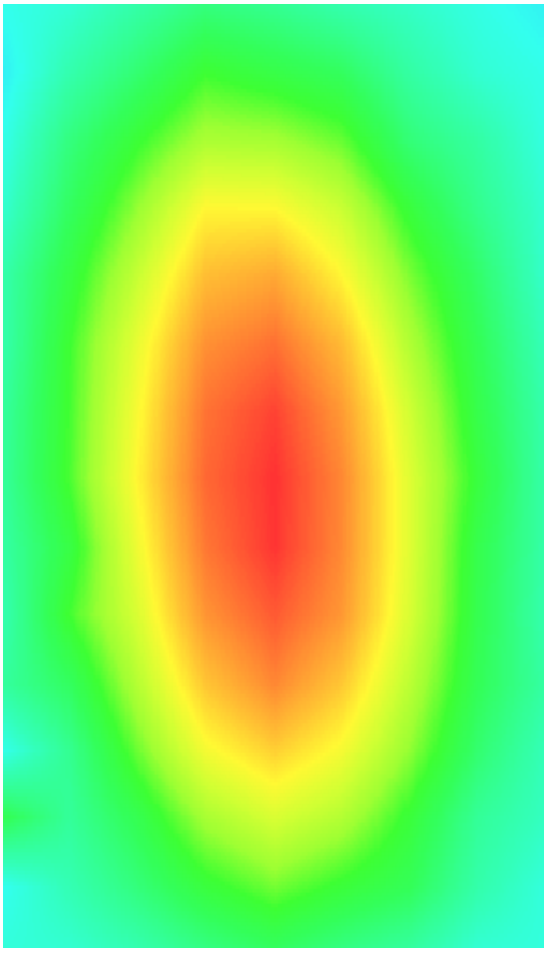
Maximum location: X=-1.00, Y=-5.00

SAR Peak: 0.15 W/kg

SAR 10g (W/Kg)	0.071769
SAR 1g (W/Kg)	0.106869

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1483	0.1103	0.0767	0.0549	0.0409



3D screen shot	Hot spot position
	

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: 02/21/2020

Measurement duration: 22 minutes 07 seconds

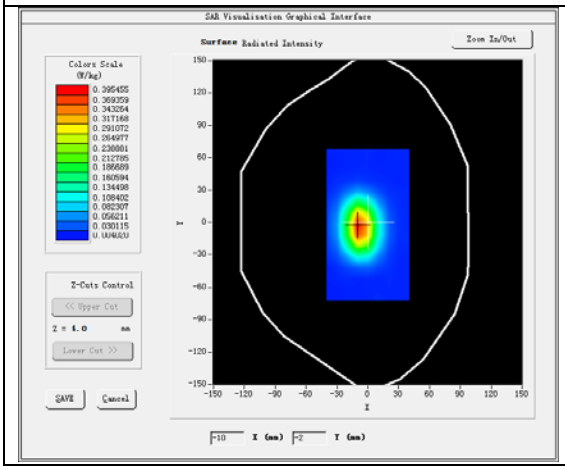
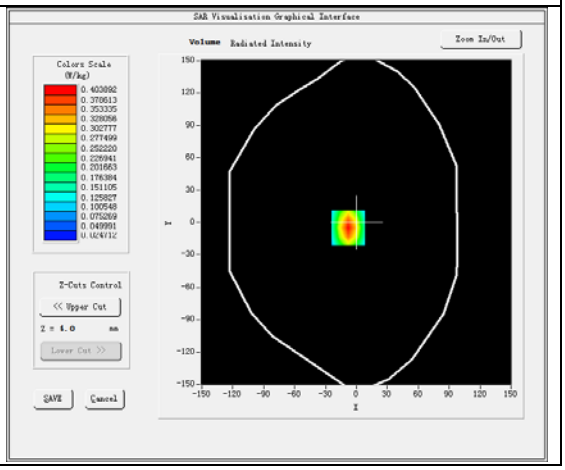
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_41/18_EPG0330
Frequency (MHz)	1800
Relative permittivity (real part)	40.42
Relative permittivity	13.80
Conductivity (S/m)	1.38
Power Drift (%)	-1.95
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	1.74
Duty factor:	1:1

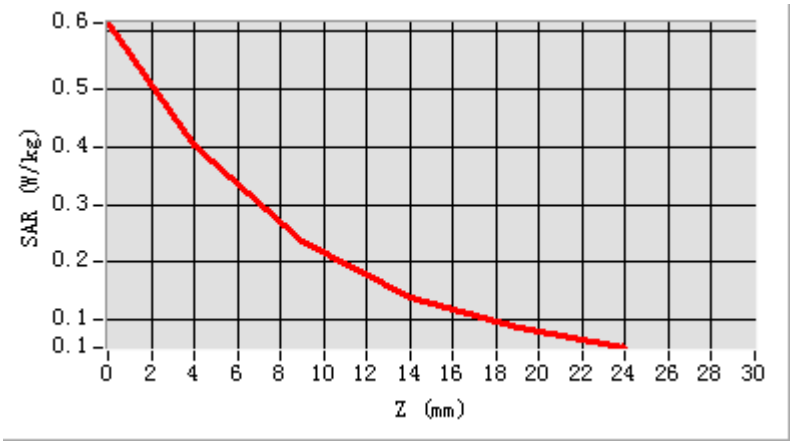
SURFACE SAR	VOLUME SAR
	

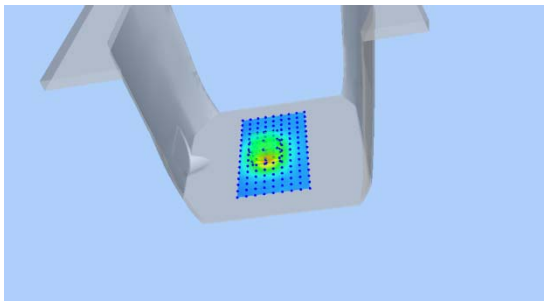
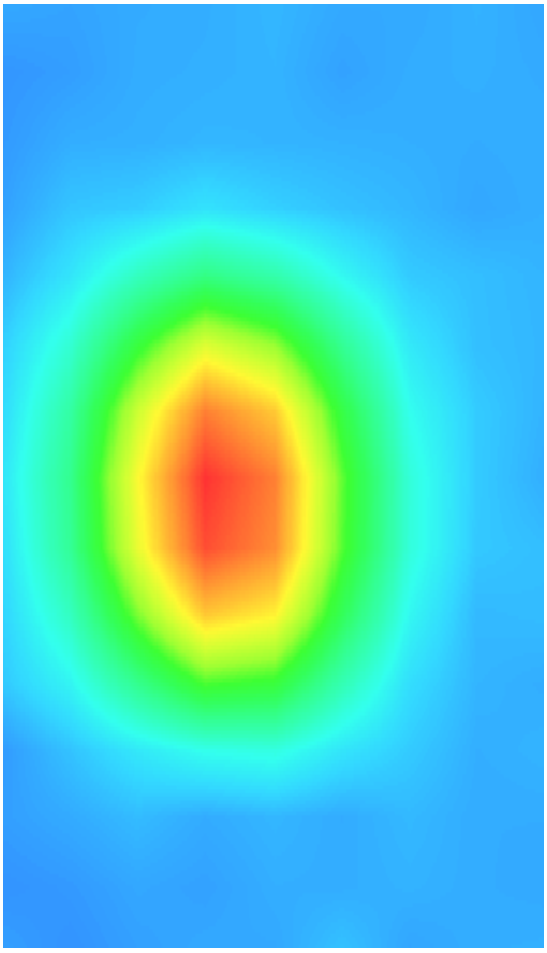
Maximum location: X=-8.00, Y=-5.00

SAR Peak: 0.61 W/kg

SAR 10g (W/Kg)	0.204249
SAR 1g (W/Kg)	0.378897

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.6144	0.4039	0.2349	0.1384	0.0854



3D screen shot	Hot spot position
	

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: 02/21/2020

Measurement duration: 22 minutes 04 seconds

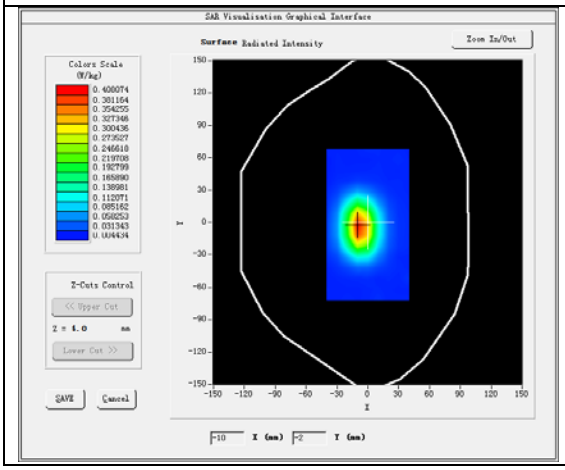
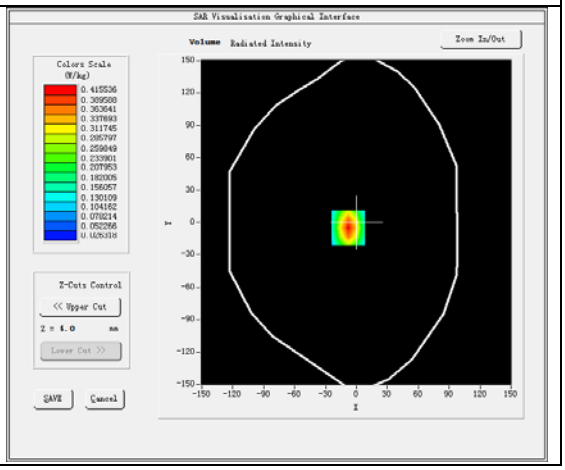
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_41/18_EPG0330
Frequency (MHz)	1800
Relative permittivity (real part)	53.37
Relative permittivity	15.00
Conductivity (S/m)	1.50
Power Drift (%)	-1.73
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	1.81
Duty factor:	1:1

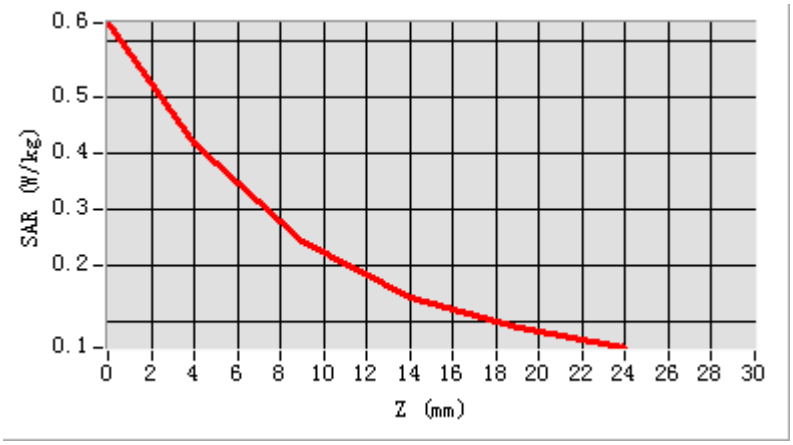
SURFACE SAR	VOLUME SAR
	

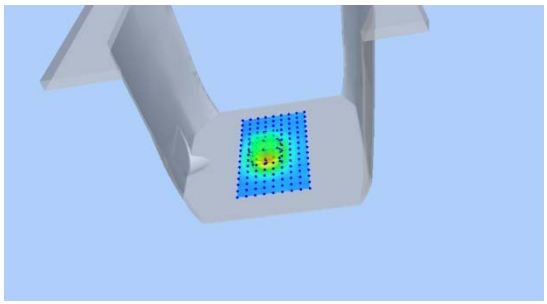
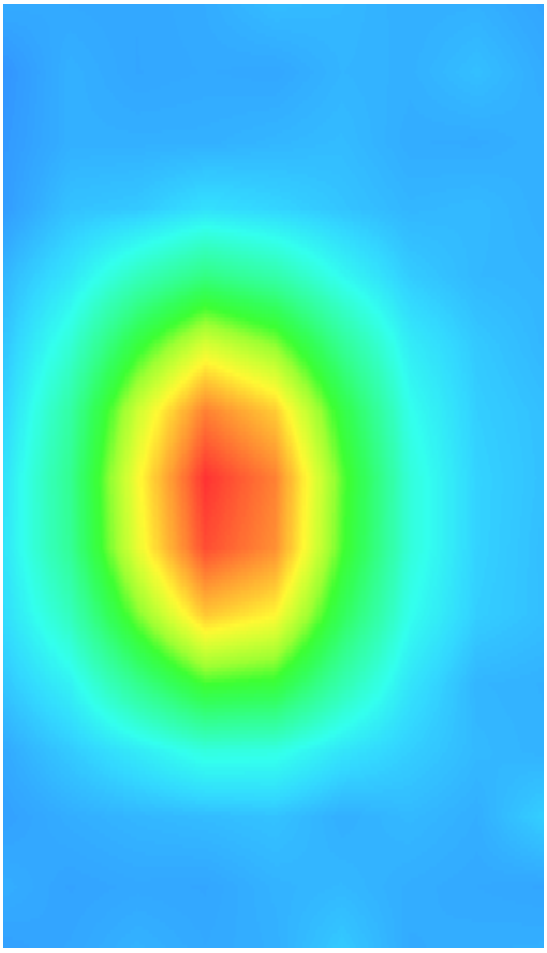
Maximum location: X=-8.00, Y=-5.00

SAR Peak: 0.63 W/kg

SAR 10g (W/Kg)	0.208553
SAR 1g (W/Kg)	0.384199

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.6305	0.4155	0.2425	0.1433	0.0885



3D screen shot	Hot spot position
	

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: 02/22/2020

Measurement duration: 22 minutes 05 seconds

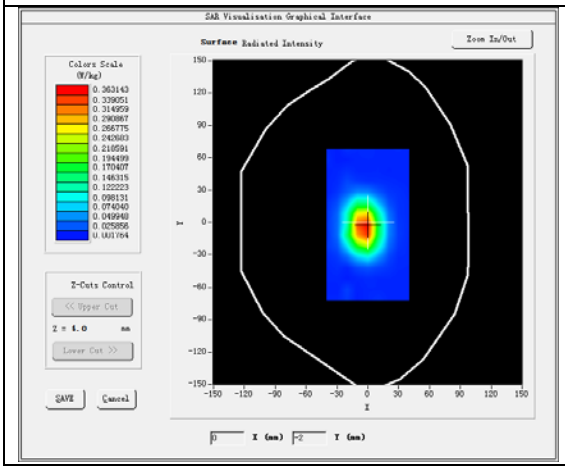
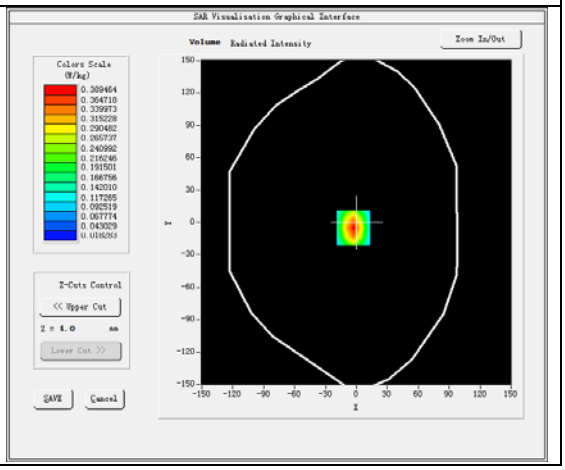
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_41/18_EPG0330
Frequency (MHz)	1900
Relative permittivity (real part)	40.33
Relative permittivity	13.26
Conductivity (S/m)	1.40
Power Drift (%)	-2.84
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.03
Duty factor:	1:1

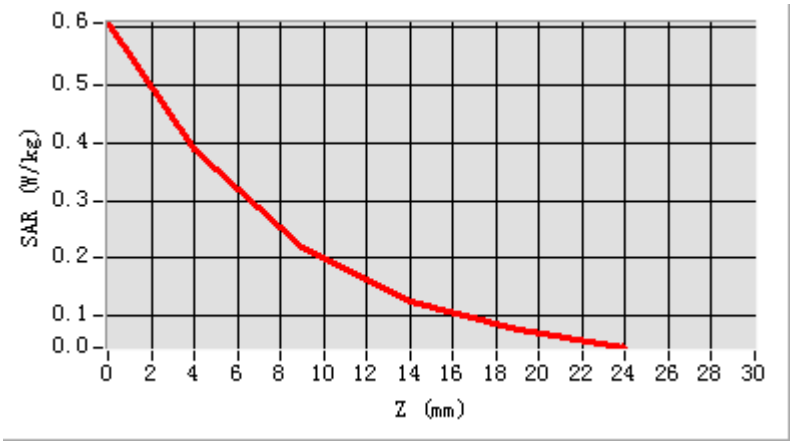
SURFACE SAR	VOLUME SAR
	

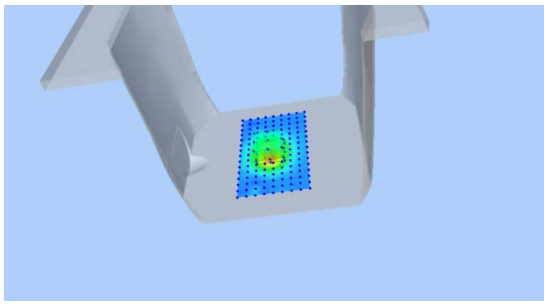
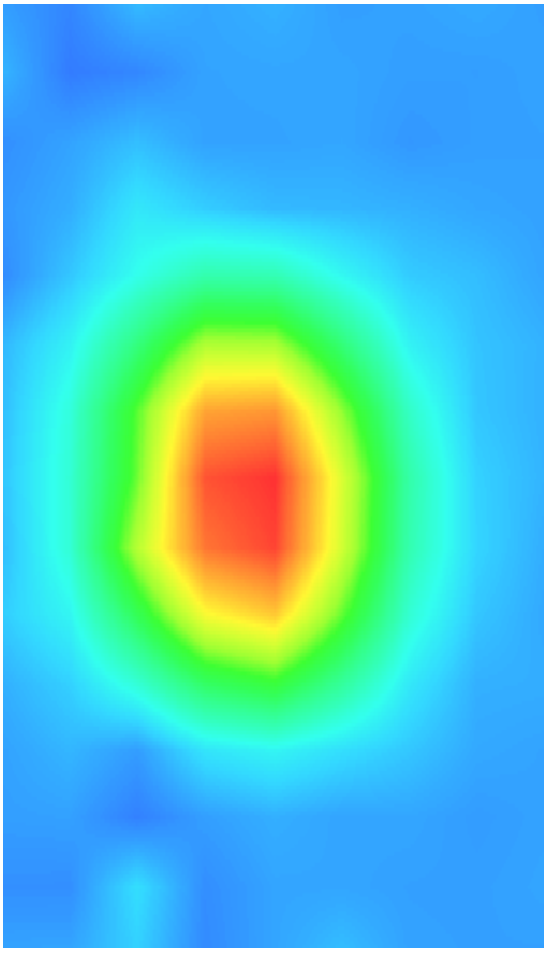
Maximum location: X=-3.00, Y=-5.00

SAR Peak: 0.61 W/kg

SAR 10g (W/Kg)	0.188347
SAR 1g (W/Kg)	0.358809

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.6085	0.3895	0.2179	0.1234	0.0738



3D screen shot	Hot spot position
	

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: 02/22/2020

Measurement duration: 22 minutes 06 seconds

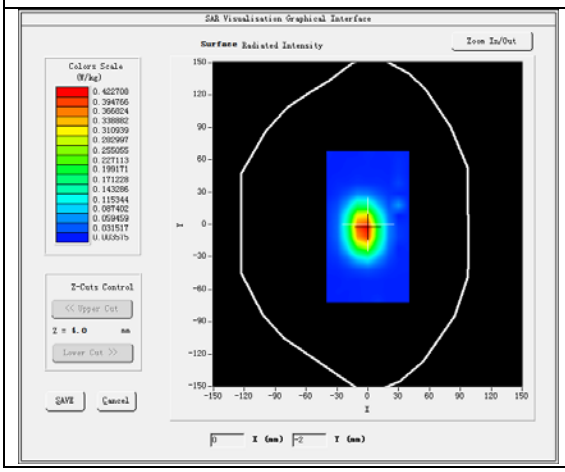
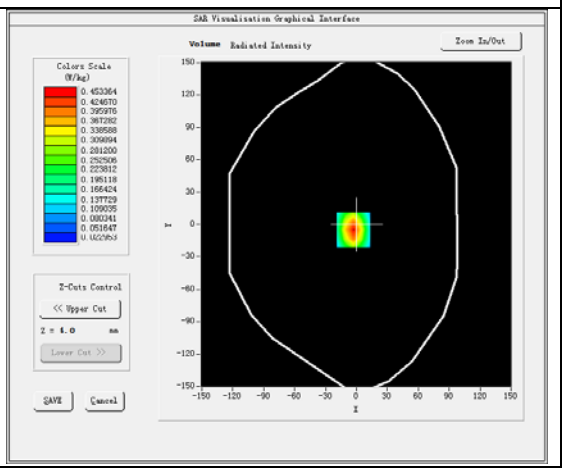
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_41/18_EPG0330
Frequency (MHz)	1900
Relative permittivity (real part)	53.29
Relative permittivity	14.40
Conductivity (S/m)	1.52
Power Drift (%)	-2.10
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.08
Duty factor:	1:1

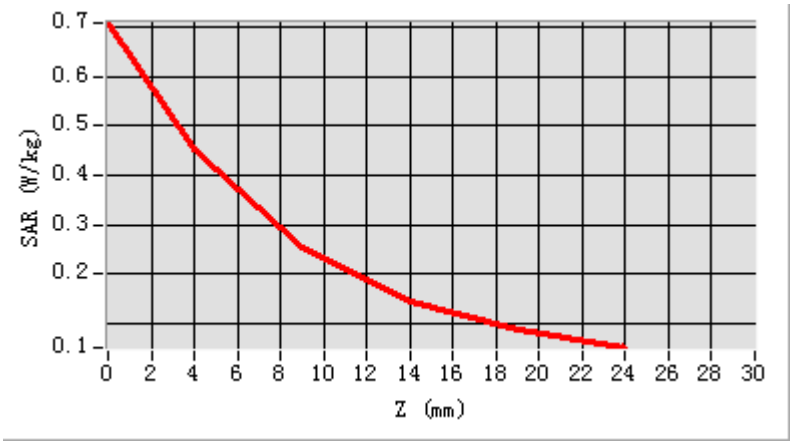
SURFACE SAR	**VOLUME SAR**
	

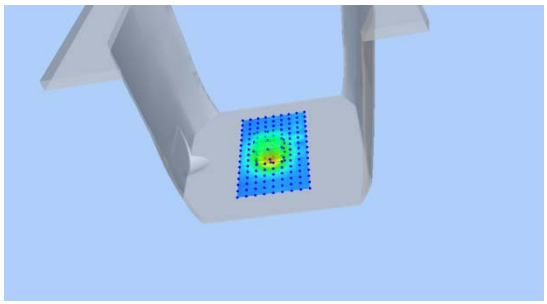
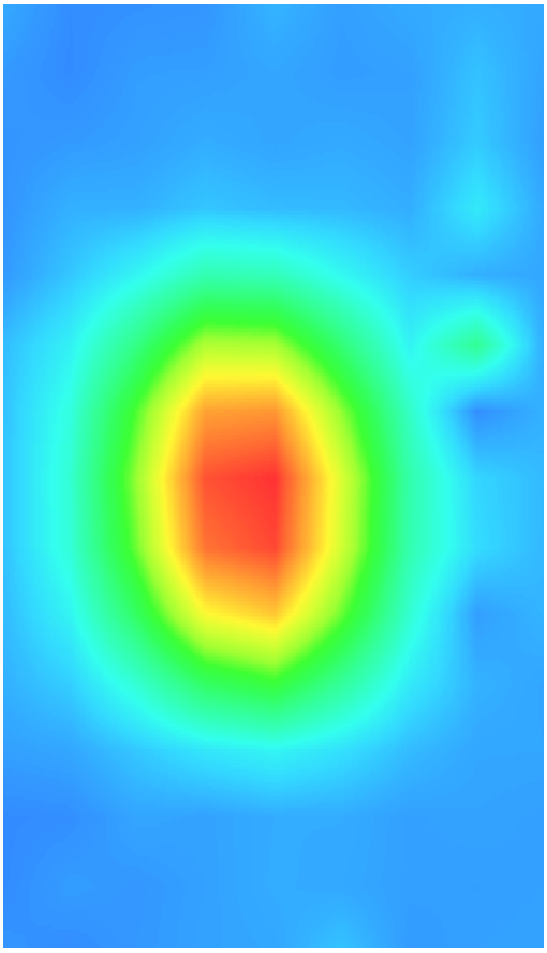
Maximum location: X=-3.00, Y=-5.00

SAR Peak: 0.71 W/kg

SAR 10g (W/Kg)	0.219116
SAR 1g (W/Kg)	0.417570

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.7083	0.4534	0.2535	0.1433	0.0854



3D screen shot	Hot spot position
	

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: 02/24/2020

Measurement duration: 22 minutes 14 seconds

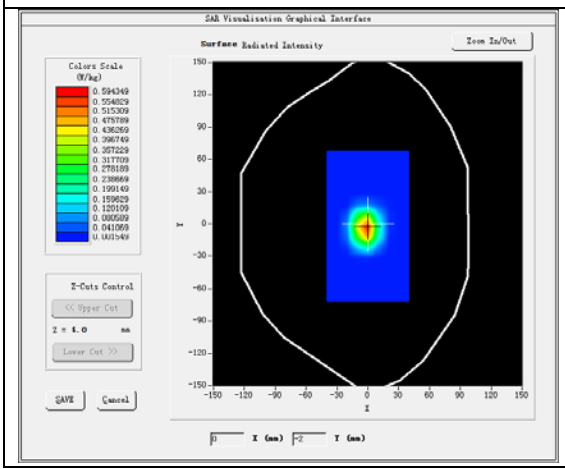
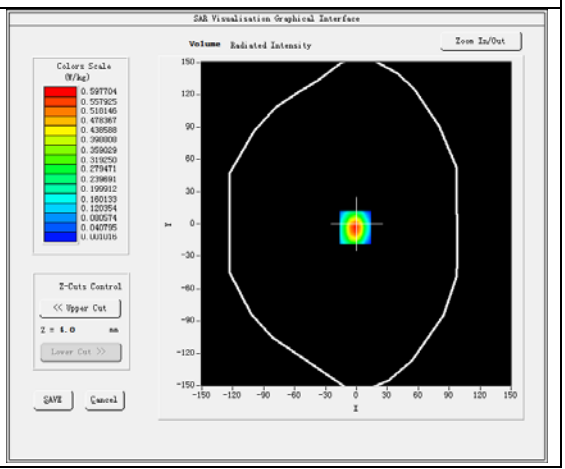
A. Experimental conditions.

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_41/18_EPG0330
Frequency (MHz)	2450
Relative permittivity (real part)	39.30
Relative permittivity	13.37
Conductivity (S/m)	1.82
Power Drift (%)	-1.36
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.05
Duty factor:	1:1

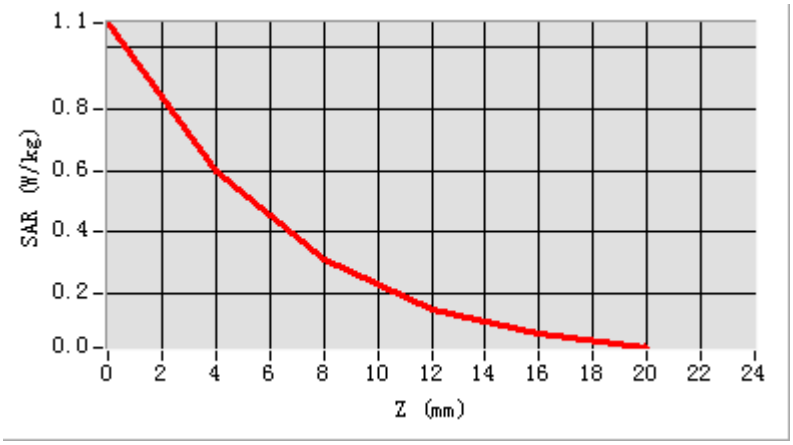
SURFACE SAR	**VOLUME SAR**
	

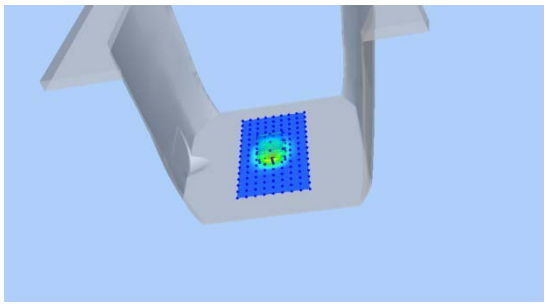
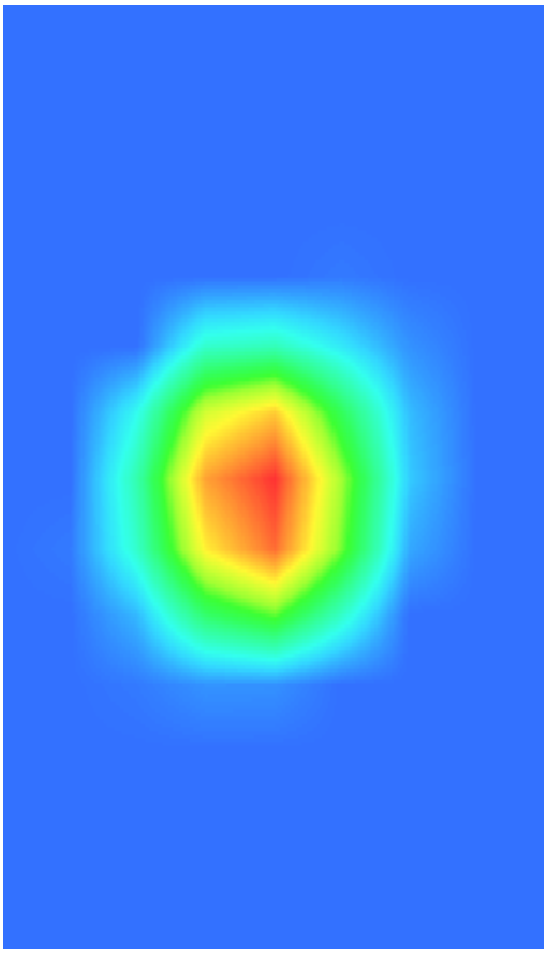
Maximum location: X=-1.00, Y=-3.00

SAR Peak: 1.08 W/kg

SAR 10g (W/Kg)	0.215043
SAR 1g (W/Kg)	0.527074

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	1.0814	0.5977	0.3087	0.1485	0.0655



3D screen shot	Hot spot position
	

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: 02/24/2020

Measurement duration: 22 minutes 12 seconds

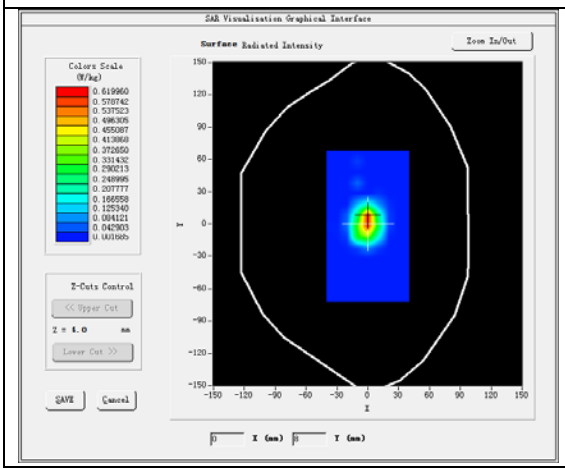
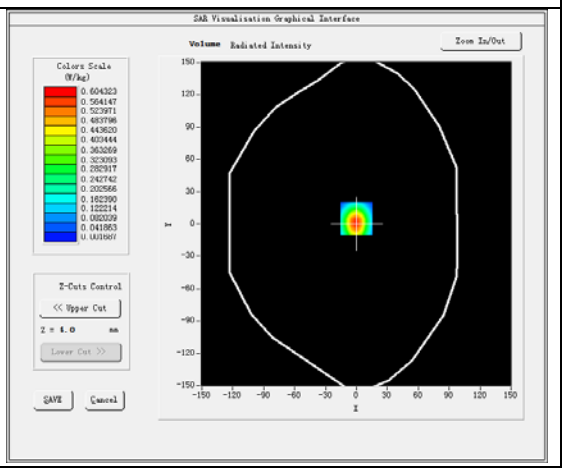
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

E-Field Probe	SATIMO SN_41/18_EPG0330
Frequency (MHz)	2450
Relative permittivity (real part)	52.74
Relative permittivity	14.47
Conductivity (S/m)	1.97
Power Drift (%)	-1.25
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.12
Duty factor:	1:1

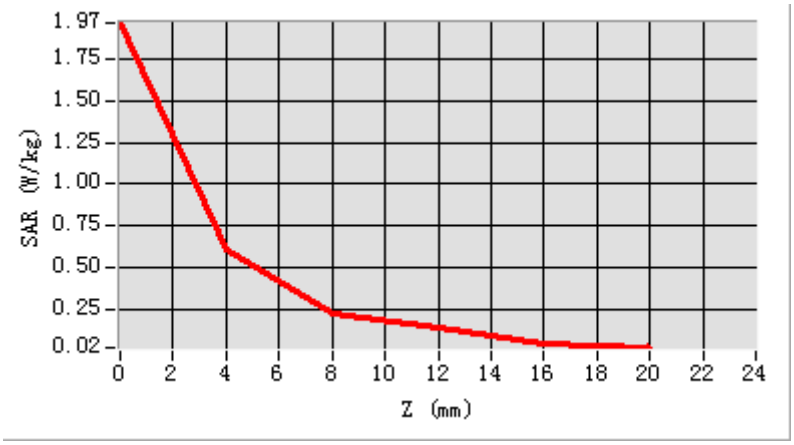
SURFACE SAR	**VOLUME SAR**
	

Maximum location: X=0.00, Y=5.00

SAR Peak: 1.13 W/kg

SAR 10g (W/Kg)	0.225590
SAR 1g (W/Kg)	0.547420

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	1.9679	0.6043	0.2254	0.1404	0.0446



3D screen shot	Hot spot position