Appendix A: SAR System performance Check Plots

Measurement	Liquid	Frequency	Test Date
System Check	Body	750	2019-12-15
System Check	Body	835	2019-12-16
System Check	Body	1800	2019-12-17
System Check	Body	1900	2019-12-18
System Check	Body	2450	2019-12-19
System Check	Body	2600	2019-12-20
System Check	Body	5200	2019-12-21

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: 12/15/2019

Measurement duration: 22 minutes 02 seconds

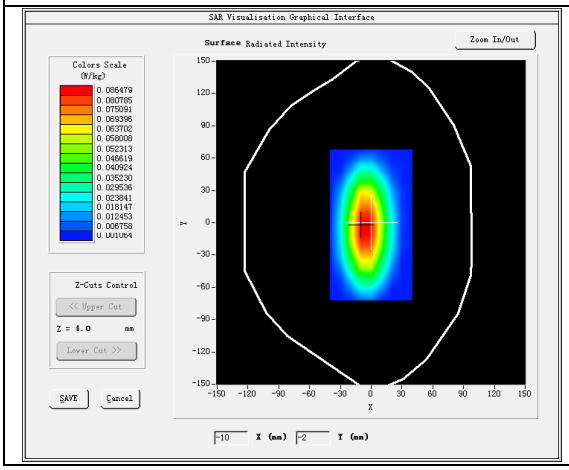
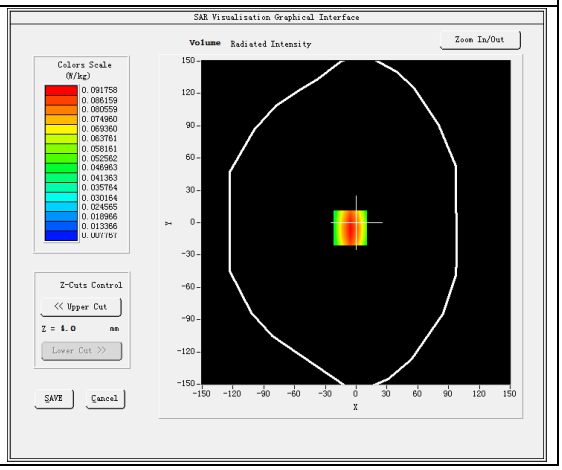
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	5x5x7,dx=8mm dy=8mm dz=5mm
Device Position	Dipole
Band	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)	55.63
Relative permittivity	23.28
Conductivity (S/m)	0.97
Power drift (%)	1.48
Ambient Temperature:	22.2℃
Liquid Temperature:	22.6℃
ConvF:	1.93
Crest factor:	1:1

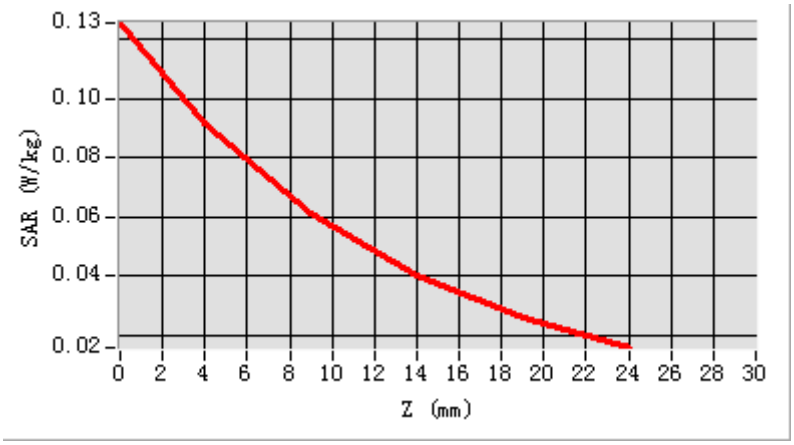
SURFACE SAR	**VOLUME SAR**
	

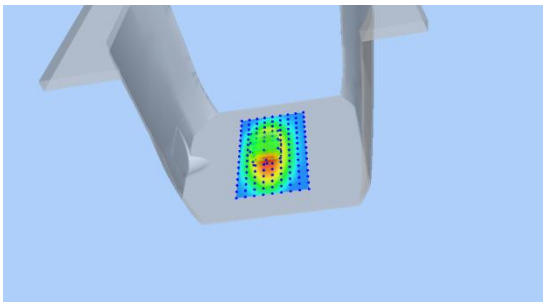
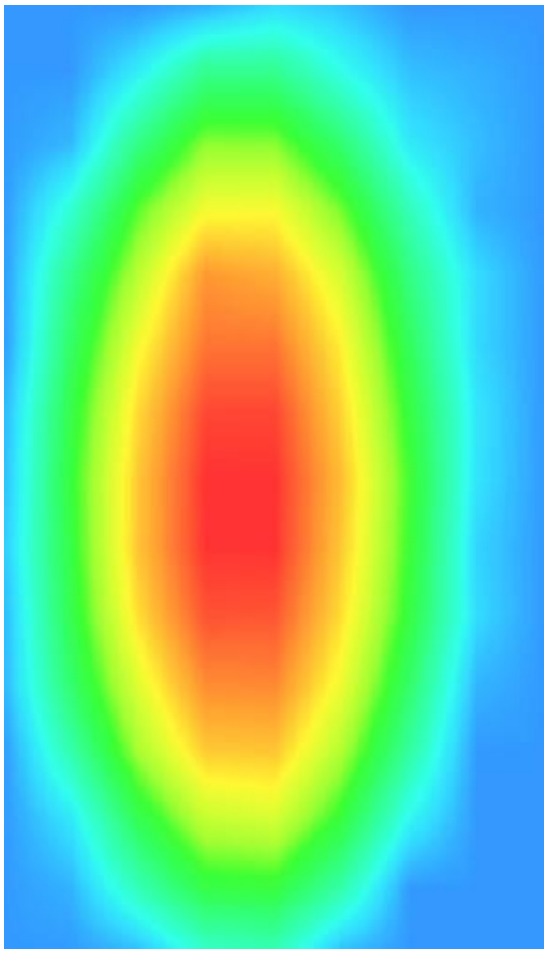
Maximum location: X=-6.00, Y=-5.00

SAR Peak: 0.13 W/kg

SAR 10g (W/Kg)	0.054197
SAR 1g (W/Kg)	0.086997

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1257	0.0918	0.0609	0.0399	0.0257



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: 12/16/2019

Measurement duration: 22 minutes 04 seconds

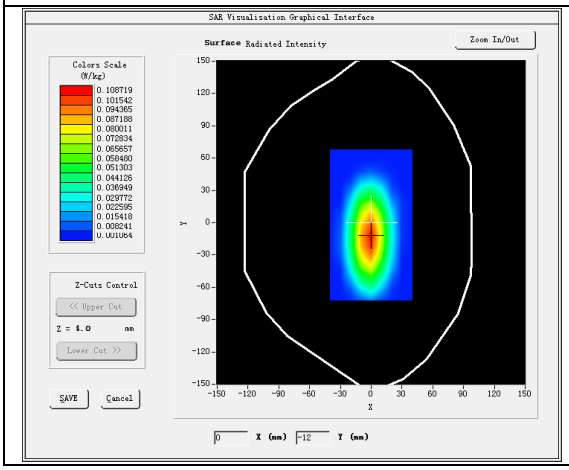
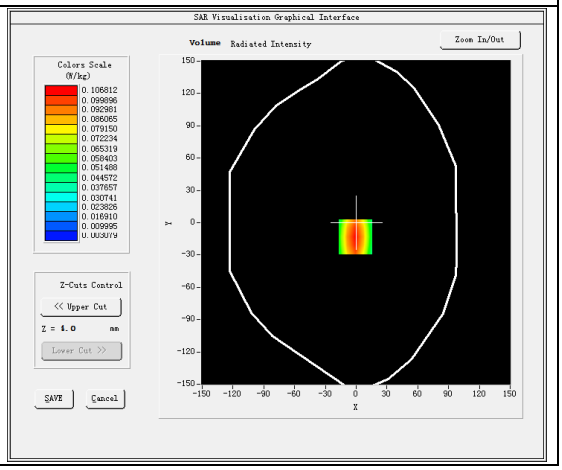
A. Experimental conditions.

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)	55.28
Relative permittivity	21.13
Conductivity (S/m)	0.98
Power drift (%)	-2.16
Ambient Temperature:	22.2℃
Liquid Temperature:	22.6℃
ConvF:	1.99
Crest factor:	1:1

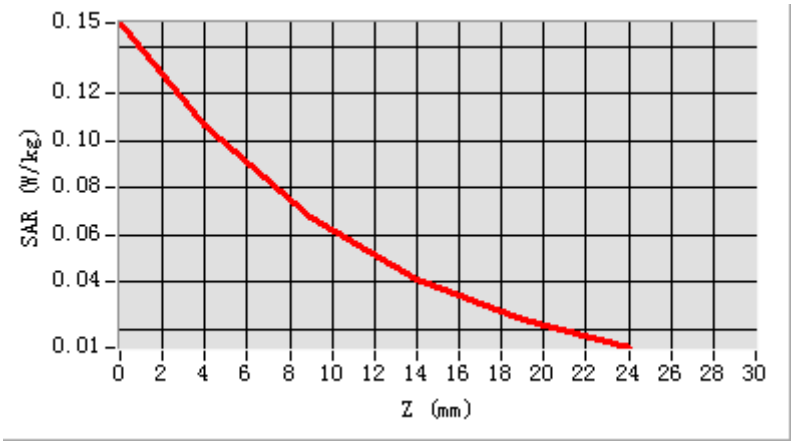
SURFACE SAR	VOLUME SAR
	

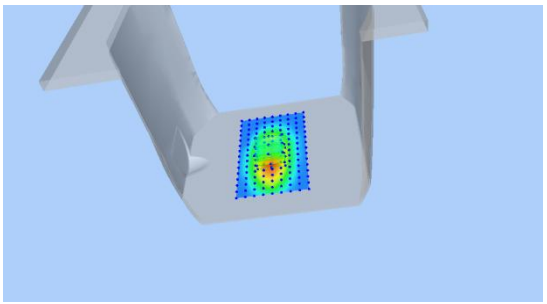
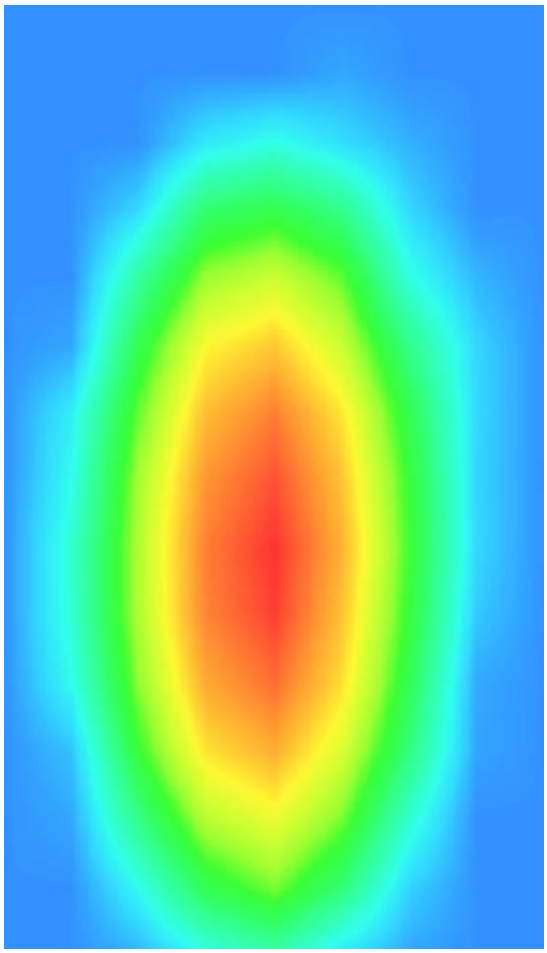
Maximum location: X=-1.00, Y=-13.00

SAR Peak: 0.15 W/kg

SAR 10g (W/Kg)	0.059511
SAR 1g (W/Kg)	0.101892

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1498	0.1068	0.0678	0.0414	0.0240



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: 12/17/2019

Measurement duration: 22 minutes 08 seconds

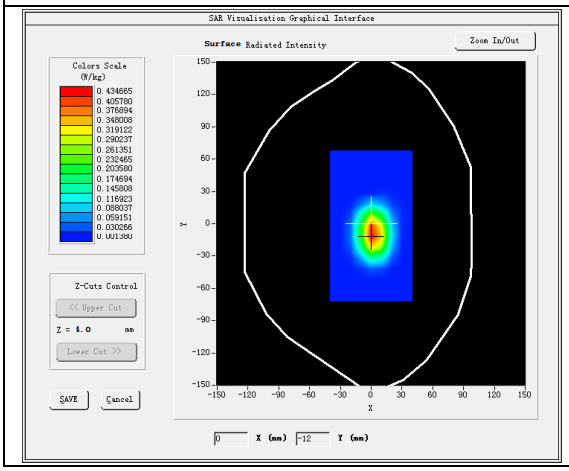
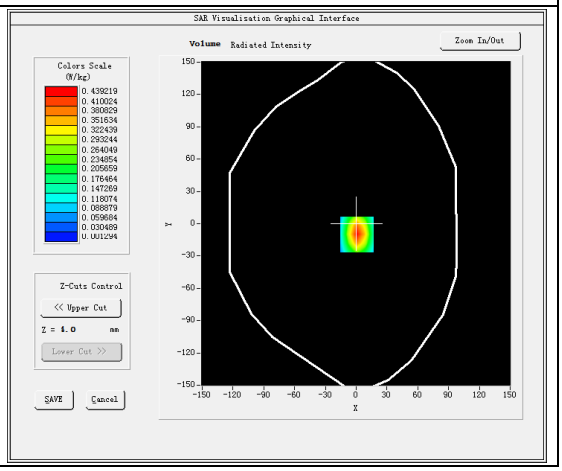
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	5x5x7,dx=8mm dy=8mm dz=5mm
Device Position	Dipole
Band	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)	53.40
Relative permittivity	15.10
Conductivity (S/m)	1.51
Power Drift (%)	-2.95
Ambient Temperature:	22.1℃
Liquid Temperature:	22.6℃
ConvF:	2.22
Duty factor:	1:1

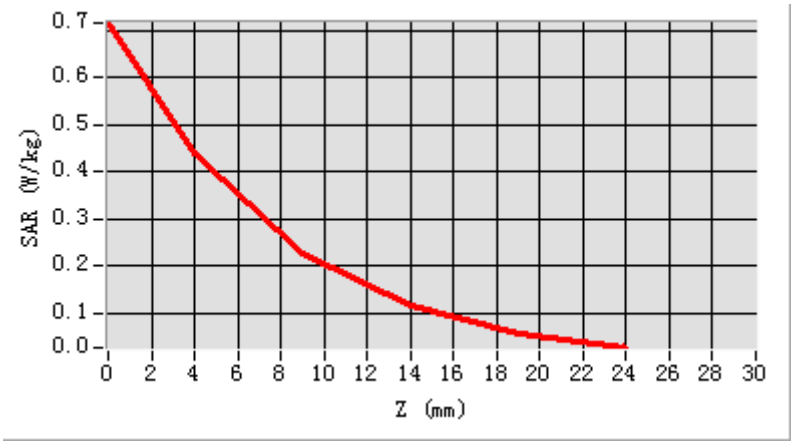
SURFACE SAR	VOLUME SAR
	

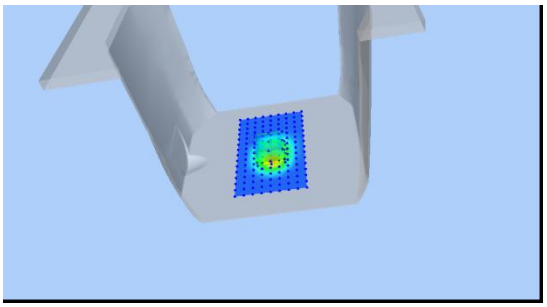
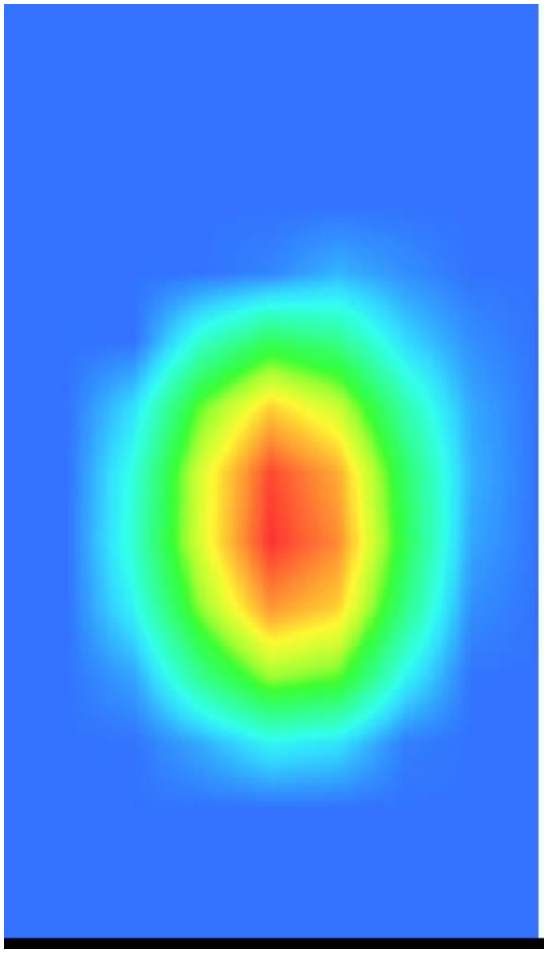
Maximum location: X=1.00, Y=-10.00

SAR Peak: 0.72 W/kg

SAR 10g (W/Kg)	0.195907
SAR 1g (W/Kg)	0.403010

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.7173	0.4392	0.2268	0.1138	0.0572



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: 12/18/2019

Measurement duration: 22 minutes 06 seconds

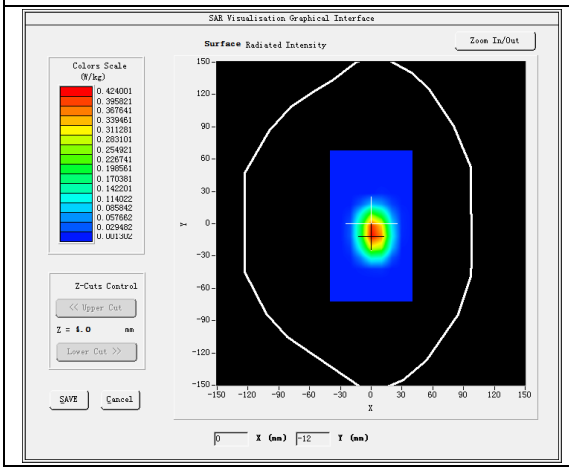
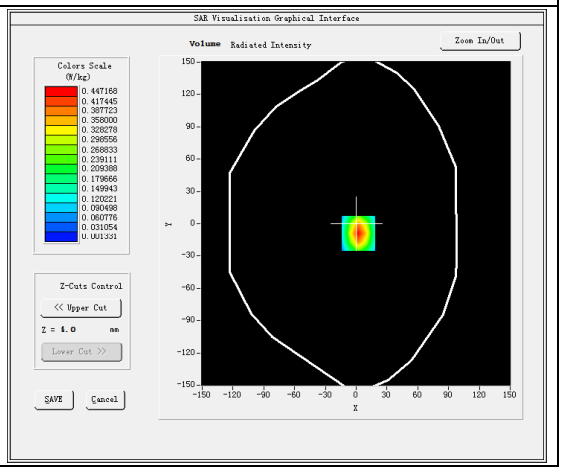
A. Experimental conditions.

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_27/15_EPG0261
Frequency (MHz)	1900
Relative permittivity (real part)	53.32
Relative permittivity	14.49
Conductivity (S/m)	1.53
Power Drift (%)	-1.89
Ambient Temperature:	22.1℃
Liquid Temperature:	22.6℃
ConvF:	2.39
Duty factor:	1:1

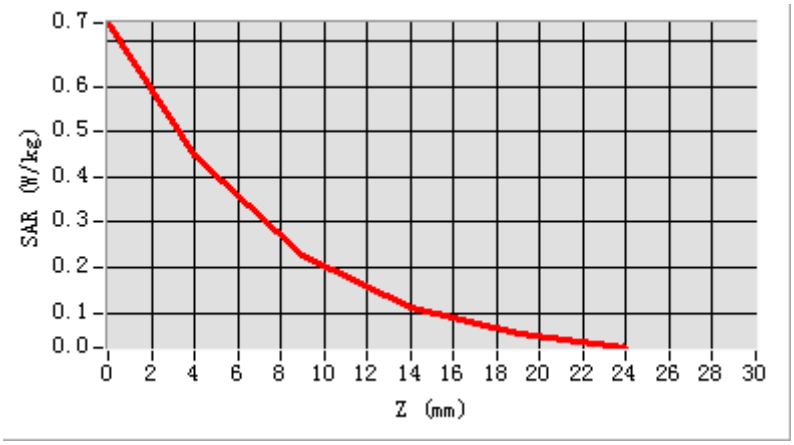
SURFACE SAR	VOLUME SAR
	

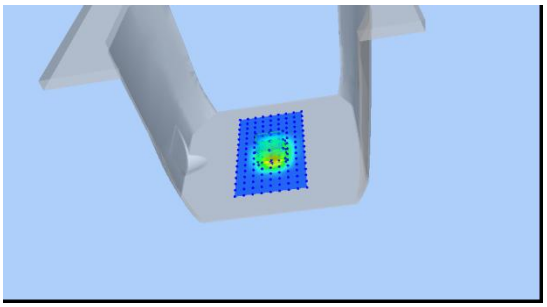
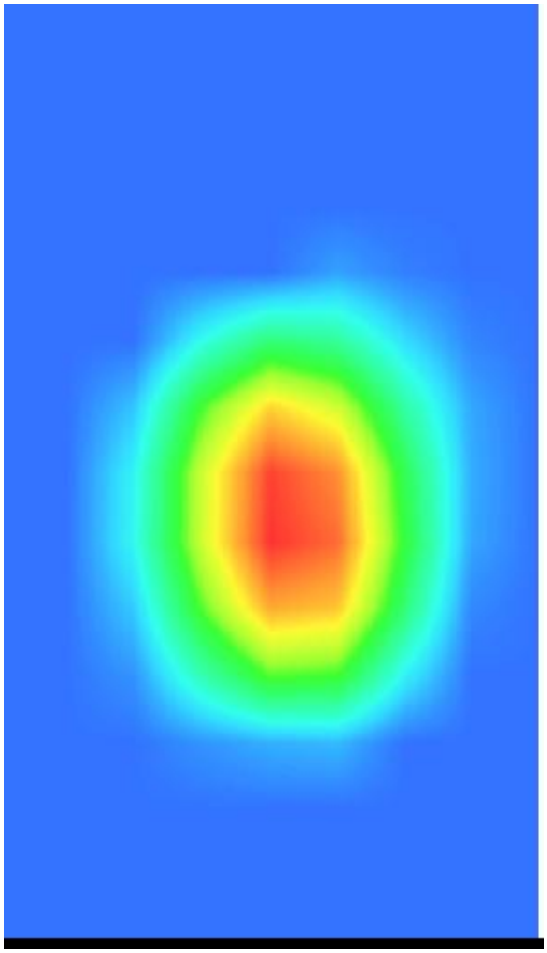
Maximum location: X=2.00, Y=-9.00

SAR Peak: 0.74 W/kg

SAR 10g (W/Kg)	0.194266
SAR 1g (W/Kg)	0.408734

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.7410	0.4472	0.2253	0.1095	0.0529



3D screen shot	Hot spot position
	

S 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: 12/19/2019

Measurement duration: 22 minutes 07 seconds

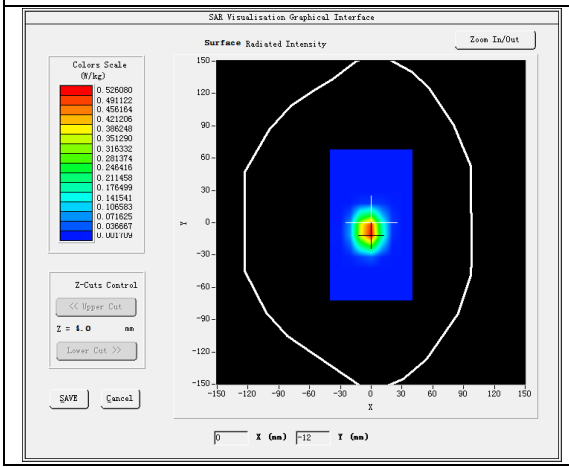
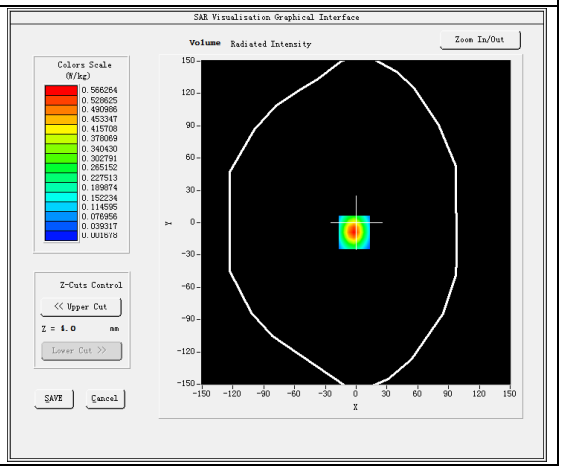
A. Experimental conditions.

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)	52.76
Relative permittivity	14.40
Conductivity (S/m)	1.96
Power Drift (%)	-2.97
Ambient Temperature:	22.1℃
Liquid Temperature:	22.6℃
ConvF:	2.46
Duty factor:	1:1

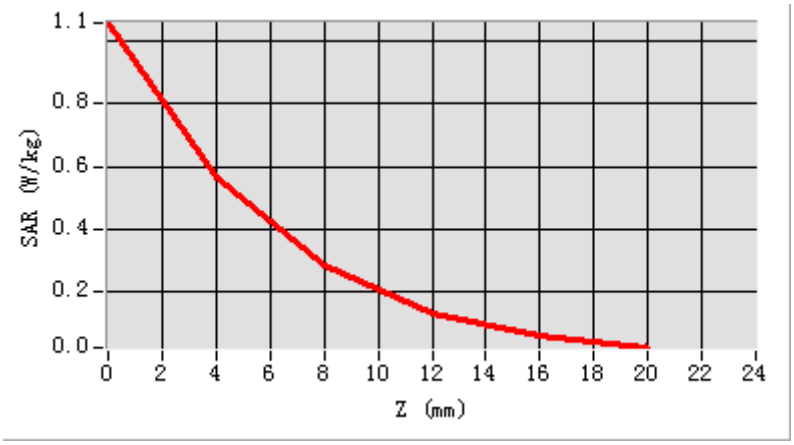
SURFACE SAR	**VOLUME SAR**
	

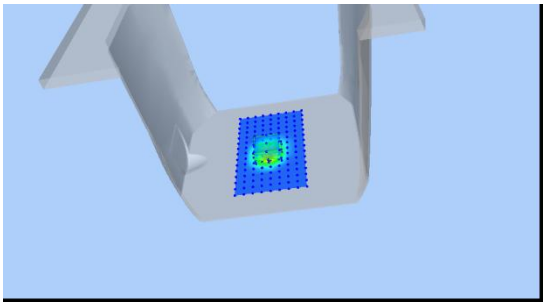
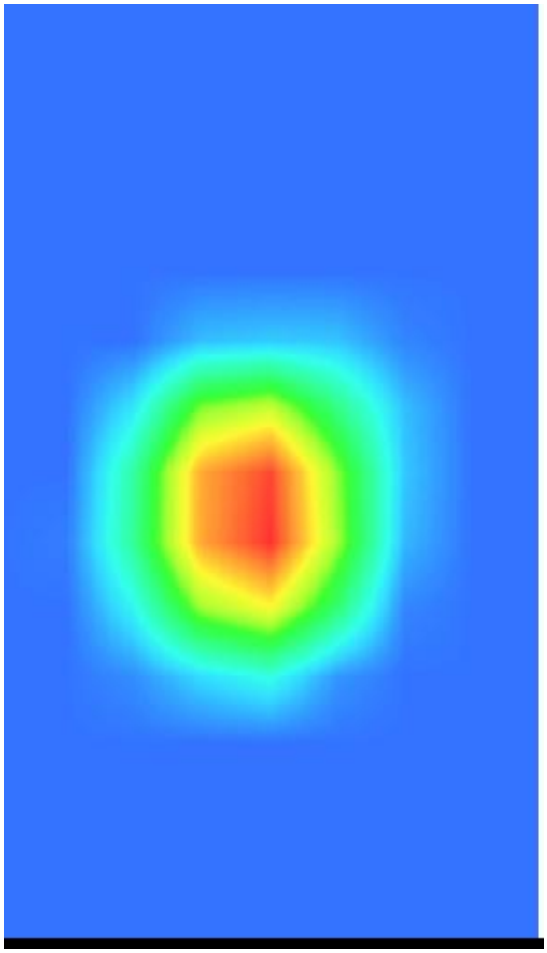
Maximum location: X=-2.00, Y=-9.00

SAR Peak: 1.06 W/kg

SAR 10g (W/Kg)	0.208463
SAR 1g (W/Kg)	0.508058

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	1.0596	0.5663	0.2820	0.1320	0.0584



3D screen shot	Hot spot position
	

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: 12/20/2019

Measurement duration: 22 minutes 09 seconds

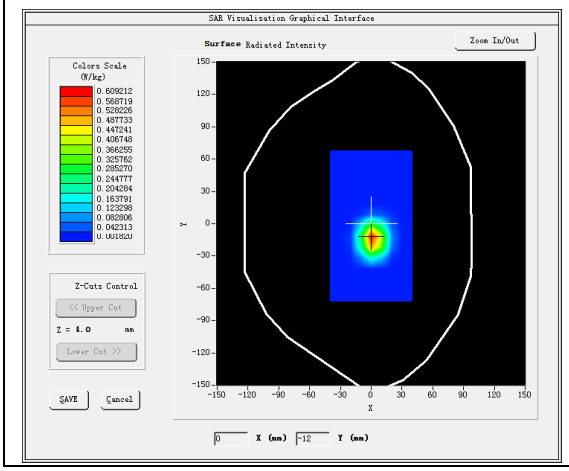
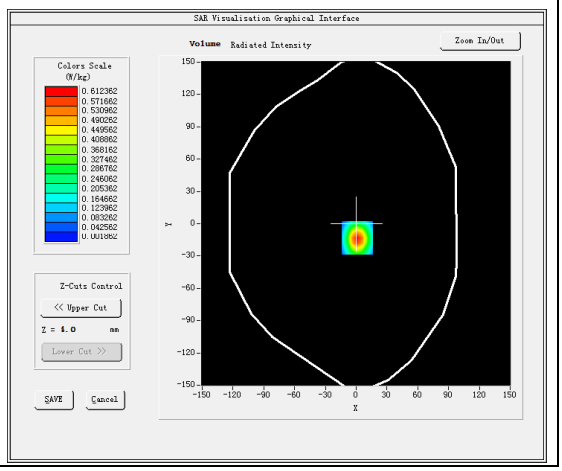
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	7x7x8,dx=5mm dy=5mm dz=4mm
Device Position	Dipole
Band	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)	52.54
Relative permittivity	14.88
Conductivity (S/m)	2.15
Power drift (%)	-2.92
Ambient Temperature:	22.2℃
Liquid Temperature:	22.5℃
Crest factor:	1:1
ConvF:	2.43

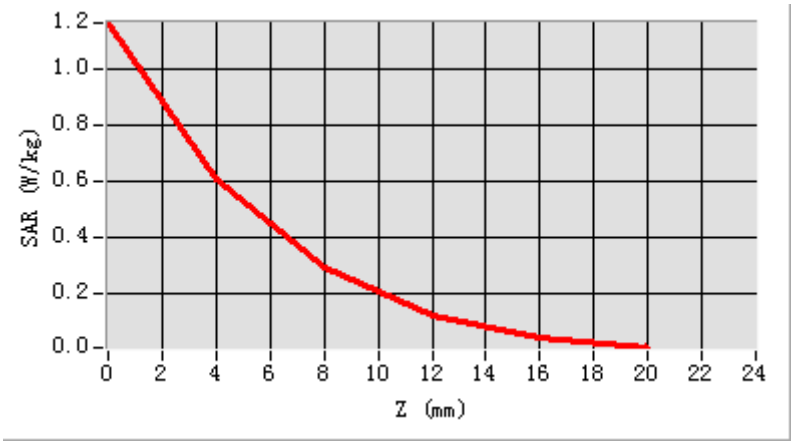
SURFACE SAR	**VOLUME SAR**
	

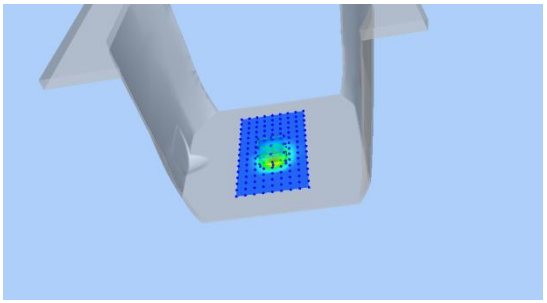
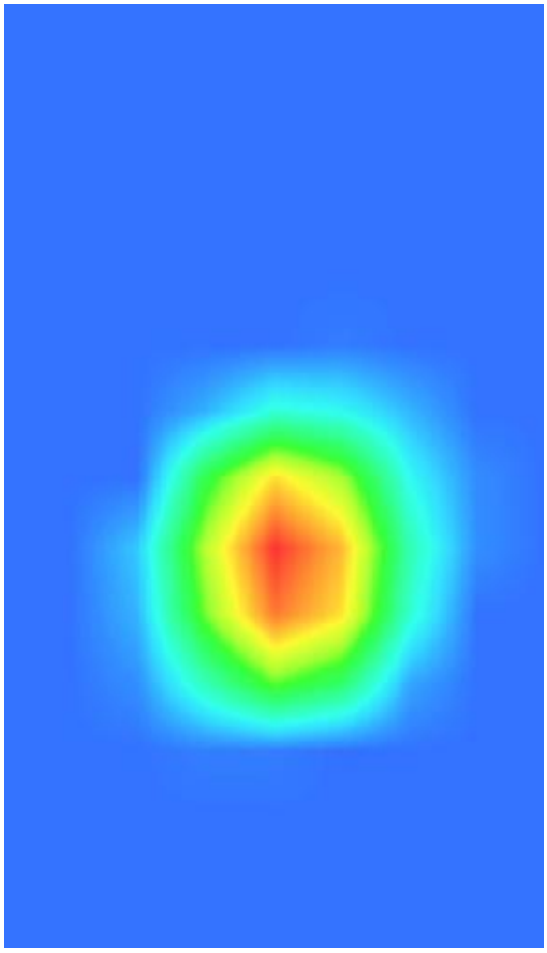
Maximum location: X=1.00, Y=-13.00

SAR Peak: 1.17 W/kg

SAR 10g (W/Kg)	0.218561
SAR 1g (W/Kg)	0.548354

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	1.1671	0.6124	0.2940	0.1274	0.0478



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=4mm, dy=4mm, dz=2mm

Date of measurement: 12/21/2019

Measurement duration: 22 minutes 05 seconds

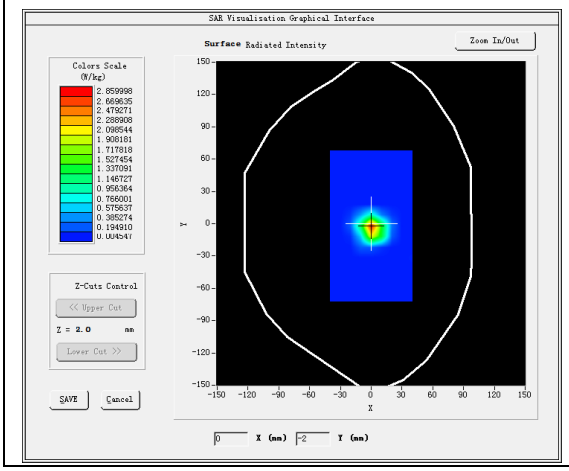
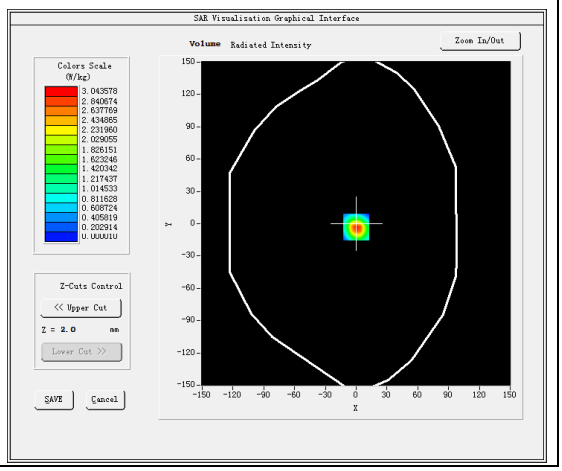
A. Experimental conditions.

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)	49.12
Relative permittivity	18.35
Conductivity (S/m)	5.30
Power drift (%)	-1.85
Ambient Temperature:	22.2℃
Liquid Temperature:	22.5℃
Crest factor:	1:1
ConvF:	2.21

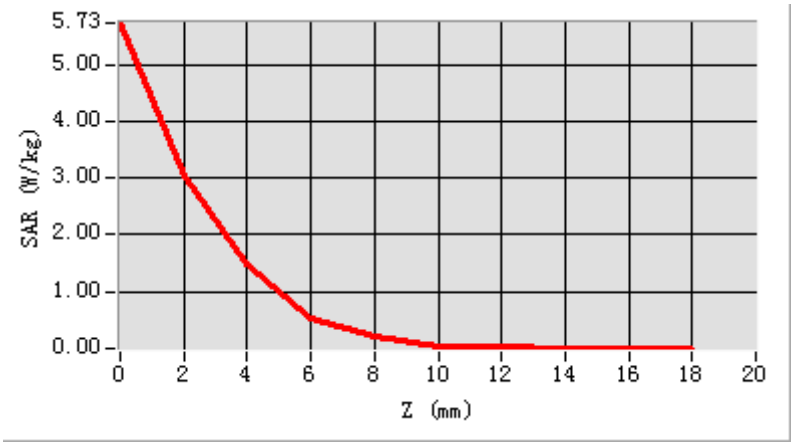
SURFACE SAR	VOLUME SAR
	

Maximum location: X=0.00, Y=-3.00

SAR Peak: 5.95 W/kg

SAR 10g (W/Kg)	0.391836
SAR 1g (W/Kg)	1.554786

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	5.7269	3.0436	1.4694	0.5371	0.2066	0.0419	0.0224	0.0018	0.0033



3D screen shot	Hot spot position