Appendix A: SAR System performance Check Plots

Measurement	Liquid	Frequency	Test Date
System Check	Body	835	2019-07-18
System Check	Body	1800	2019-07-22
System Check	Body	1900	2019-07-22
System Check	Body	2450	2019-07-24
System Check	Body	2600	2019-07-25

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: 07/18/2019

Measurement duration: 22 minutes 12 seconds

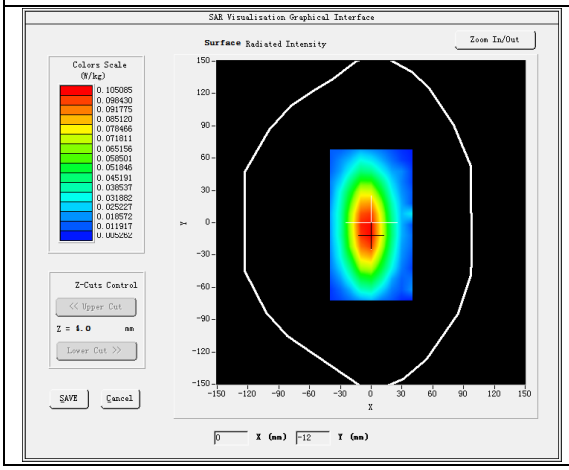
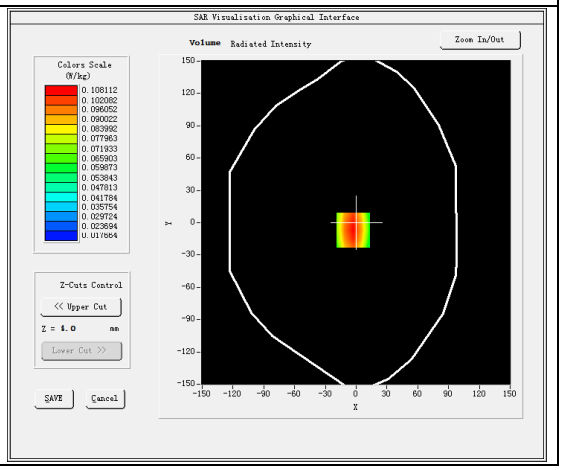
A. Experimental conditions.

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)	55.23
Relative permittivity	20.26
Conductivity (S/m)	0.94
Power drift (%)	2.34
Ambient Temperature:	22.2°C
Liquid Temperature:	22.6°C
ConvF:	1.99
Crest factor:	1:1

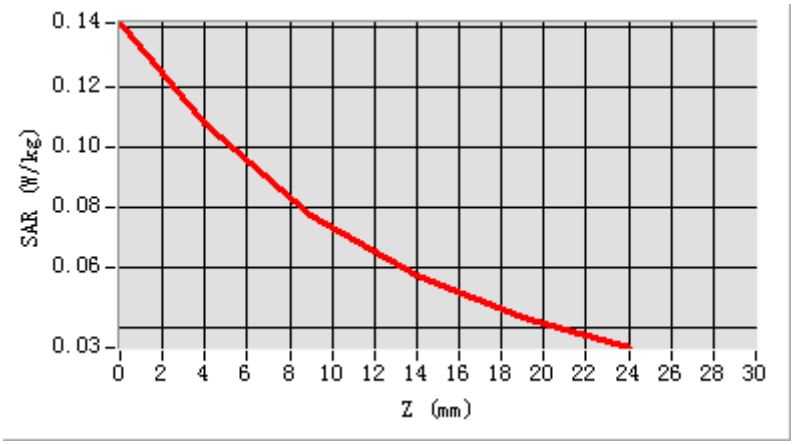
SURFACE SAR	**VOLUME SAR**
	

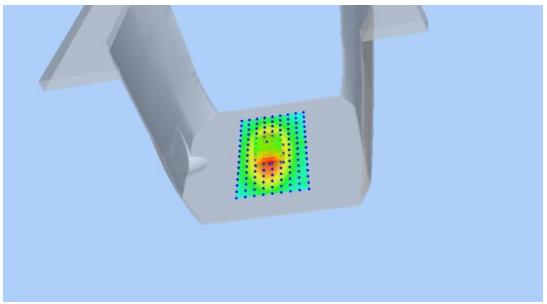
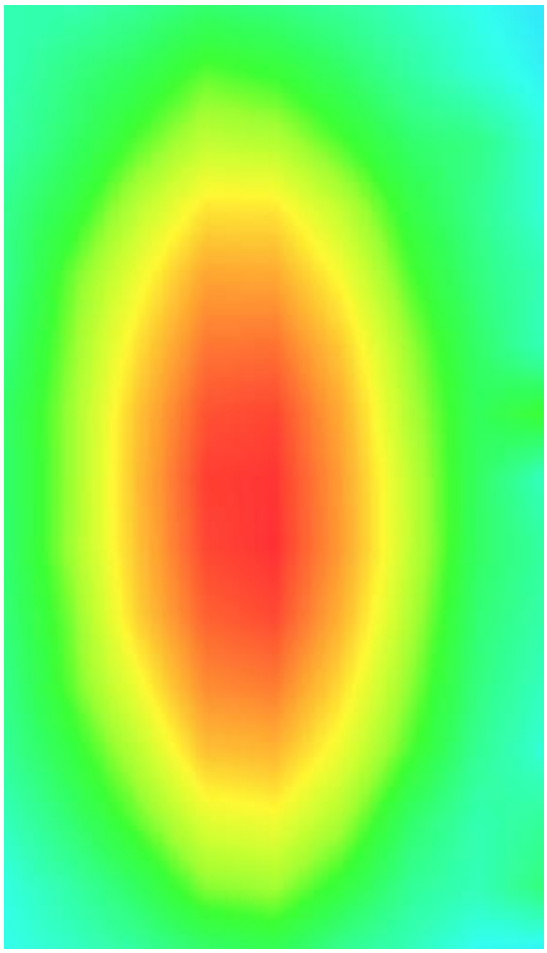
Maximum location: X=-3.00, Y=-7.00

SAR Peak: 0.14 W/kg

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

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.1417	0.1081	0.0776	0.0570	0.0433



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: 07/22/2019

Measurement duration: 22 minutes 18 seconds

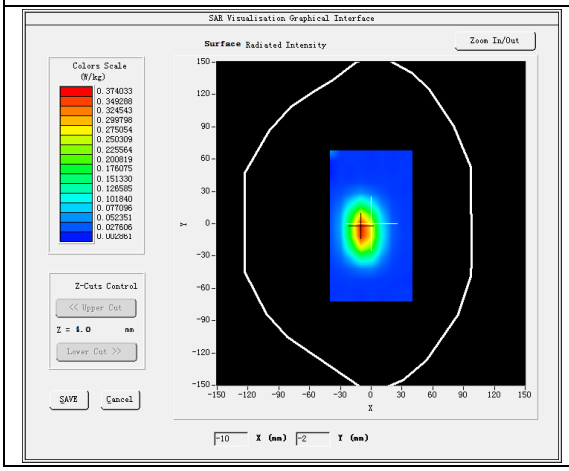
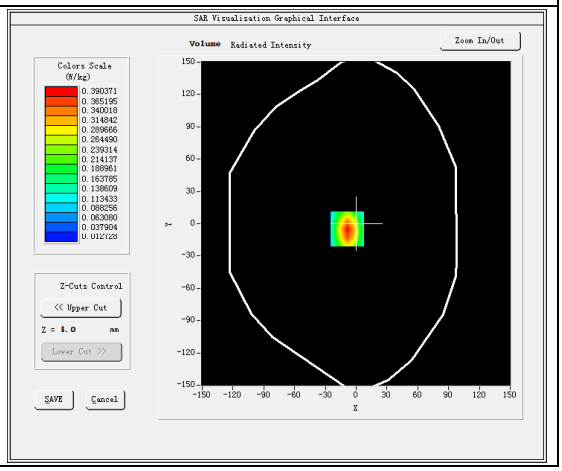
A. Experimental conditions.

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)	53.61
Relative permittivity	15.30
Conductivity (S/m)	1.53
Power Drift (%)	3.55
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.22
Duty factor:	1:1

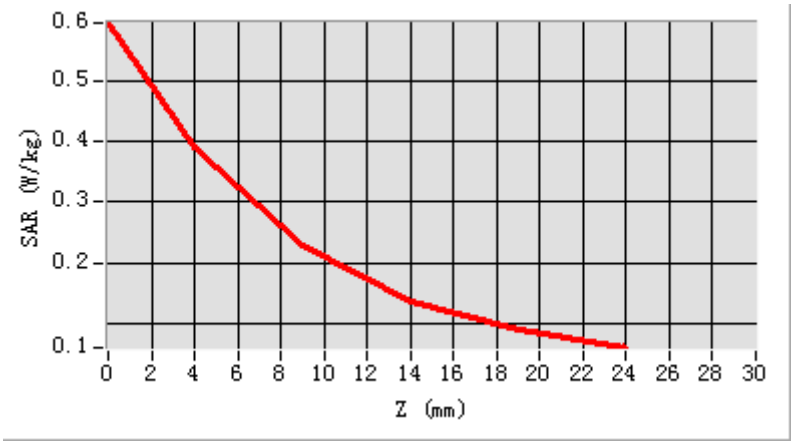
SURFACE SAR	**VOLUME SAR**
	

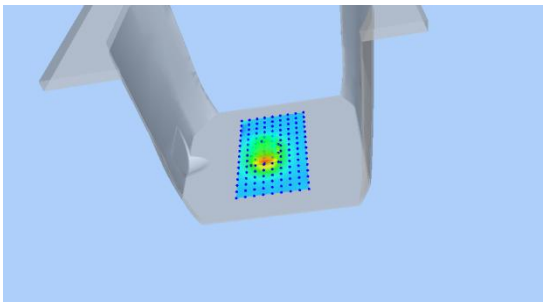
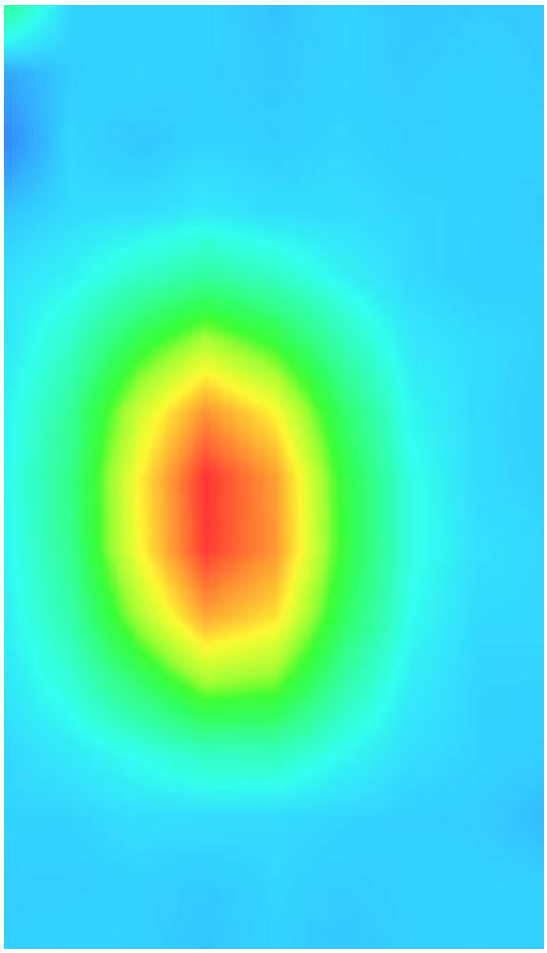
Maximum location: X=-9.00, Y=-5.00

SAR Peak: 0.60 W/kg

SAR 10g (W/Kg)	0.195698
SAR 1g (W/Kg)	0.360813

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.5959	0.3904	0.2278	0.1374	0.0893



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: 07/22/2019

Measurement duration: 22 minutes 16 seconds

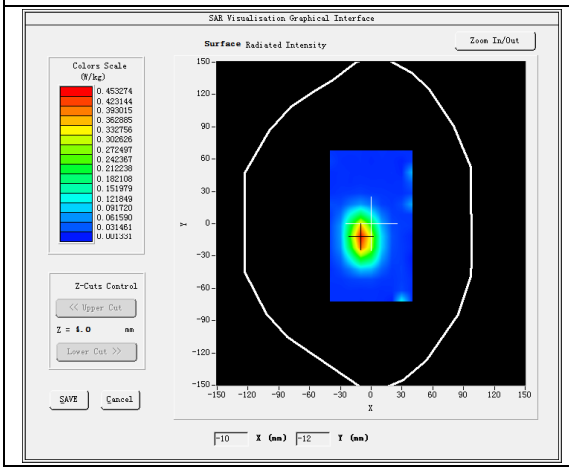
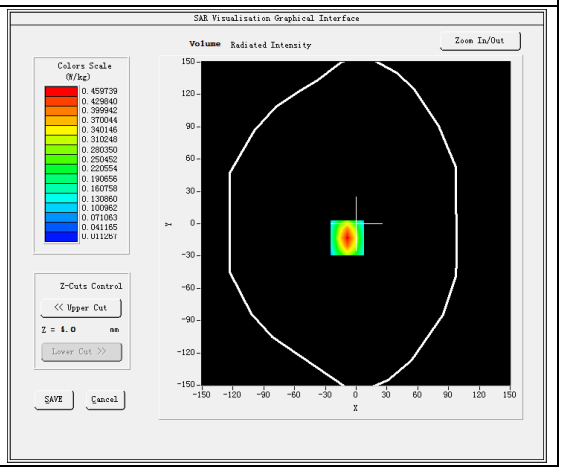
A. Experimental conditions.

Phantom File	dx=8mm dy=8mm
Phantom	5x5x7,dx=8mm dy=8mm dz=5mm
Device Position	Dipole
Band	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	14.21
Conductivity (S/m)	1.50
Power Drift (%)	-3.47
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.39
Duty factor:	1:1

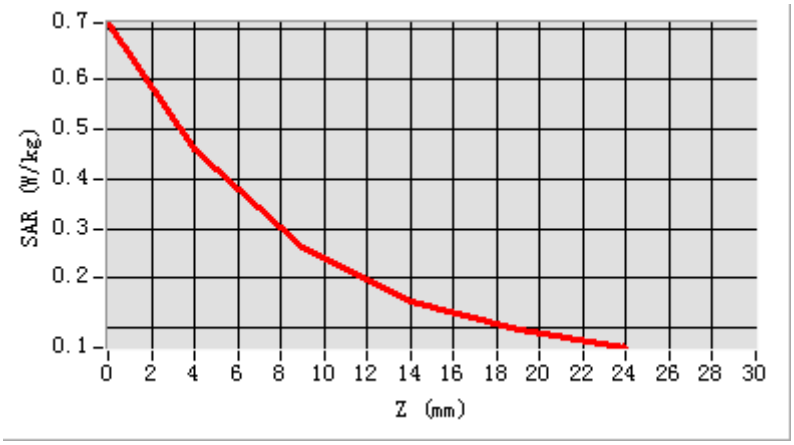
SURFACE SAR	**VOLUME SAR**
	

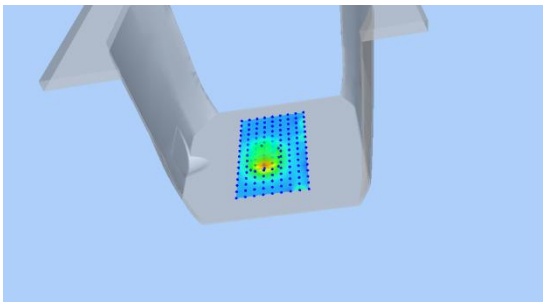
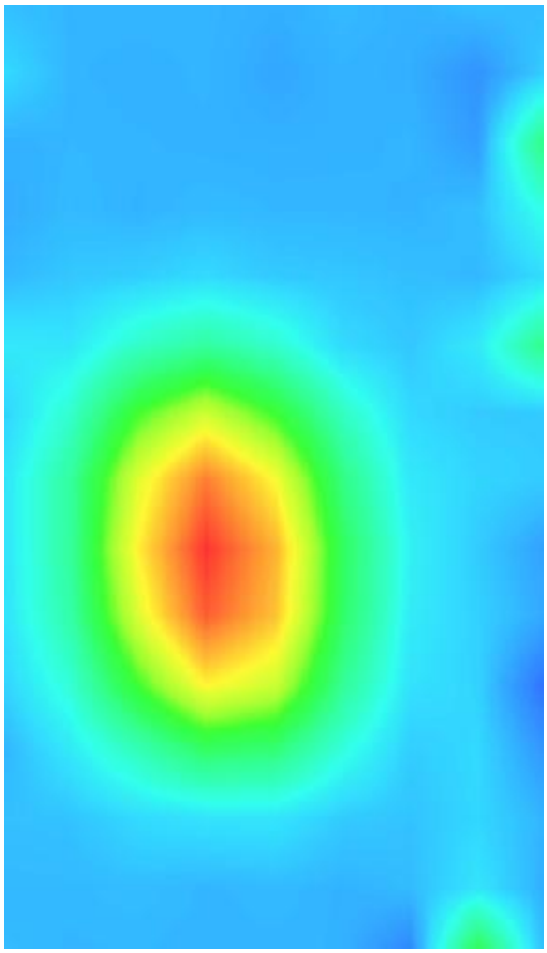
Maximum location: X=-9.00, Y=-13.00

SAR Peak: 0.71 W/kg

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

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.7128	0.4597	0.2614	0.1522	0.0950



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: 07/24/2019

Measurement duration: 22 minutes 22 seconds

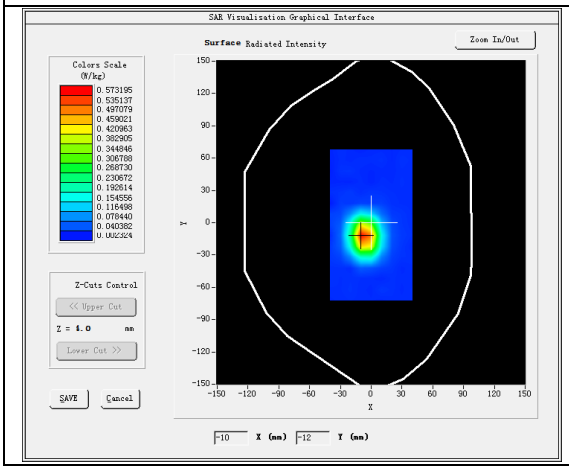
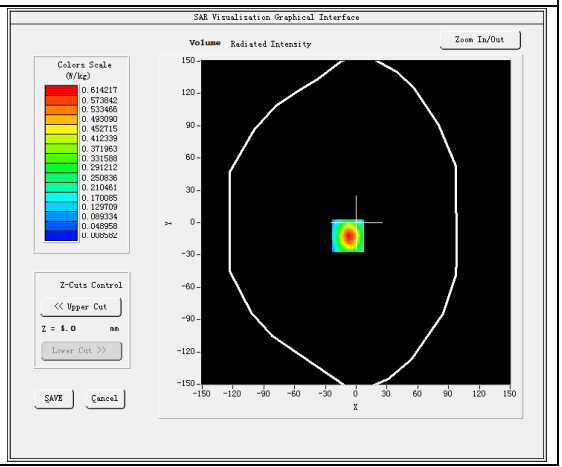
A. Experimental conditions.

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)	53.10
Relative permittivity	14.40
Conductivity (S/m)	1.96
Power Drift (%)	0.90
Ambient Temperature:	22.1°C
Liquid Temperature:	22.6°C
ConvF:	2.46
Duty factor:	1:1

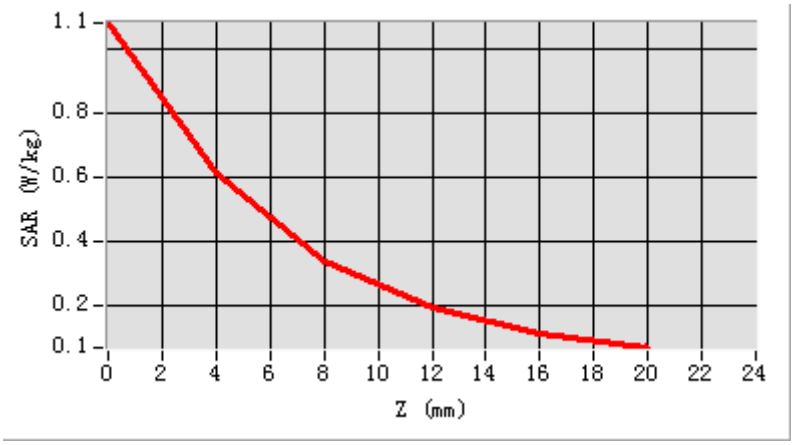
SURFACE SAR	**VOLUME SAR**
	

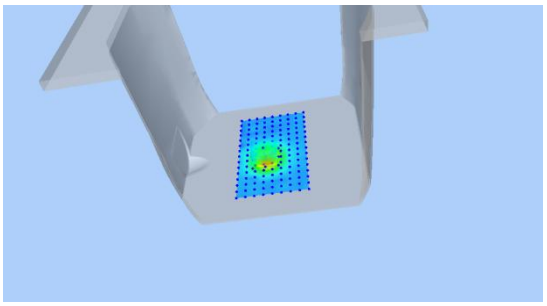
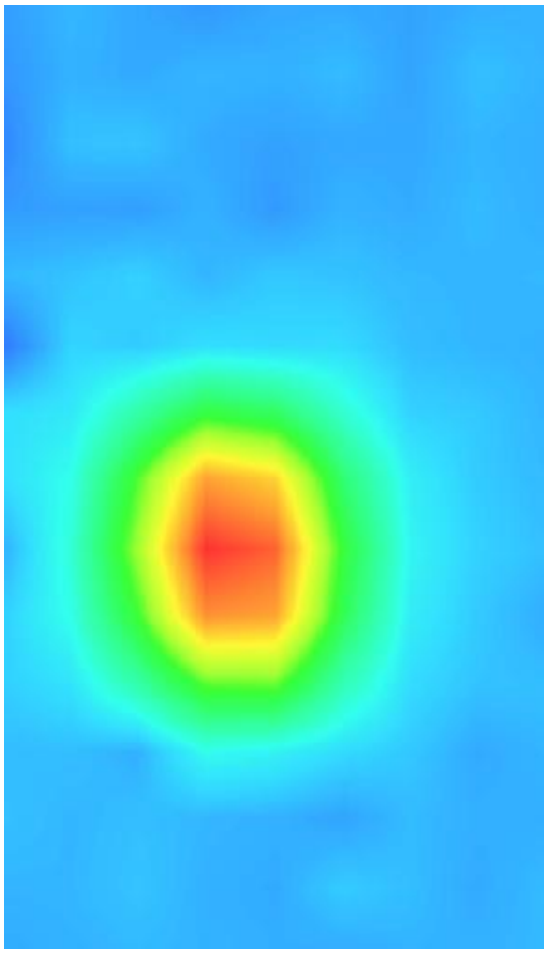
Maximum location: X=-8.00, Y=-12.00

SAR Peak: 1.08 W/kg

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

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	1.0789	0.6142	0.3406	0.1924	0.1161



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: 07/25/2019

Measurement duration: 22 minutes 20 seconds

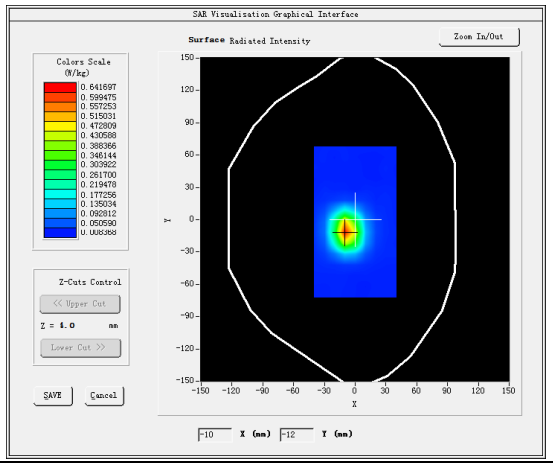
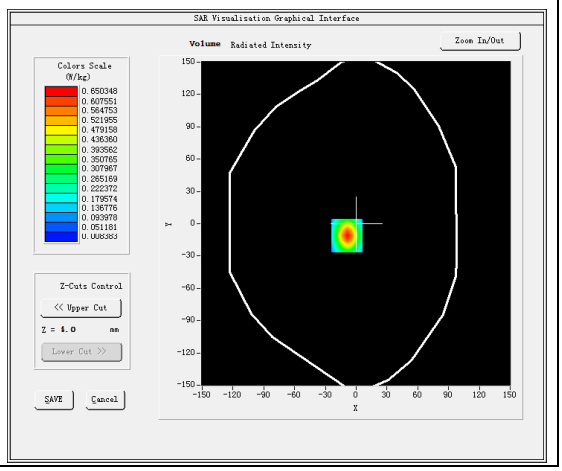
A. Experimental conditions.

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)	52.84
Relative permittivity	14.95
Conductivity (S/m)	2.16
Power drift (%)	0.17
Ambient Temperature:	22.2°C
Liquid Temperature:	22.5°C
Crest factor:	1:1
ConvF:	2.43

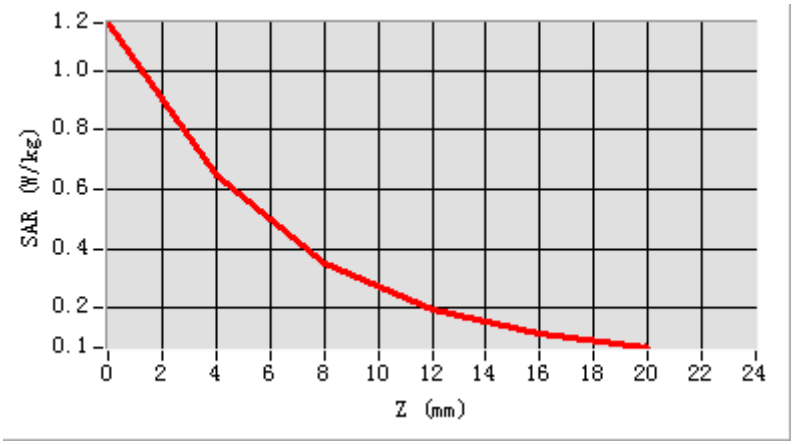
SURFACE SAR	**VOLUME SAR**
	

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

SAR Peak: 1.16 W/kg

SAR 10g (W/Kg)	0.264536
SAR 1g (W/Kg)	0.586483

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	1.1613	0.6503	0.3526	0.1933	0.1127



3D screen shot	Hot spot position