



# Annex C Plots of System Performance Check

## System Performance Check Data (835MHz Head)

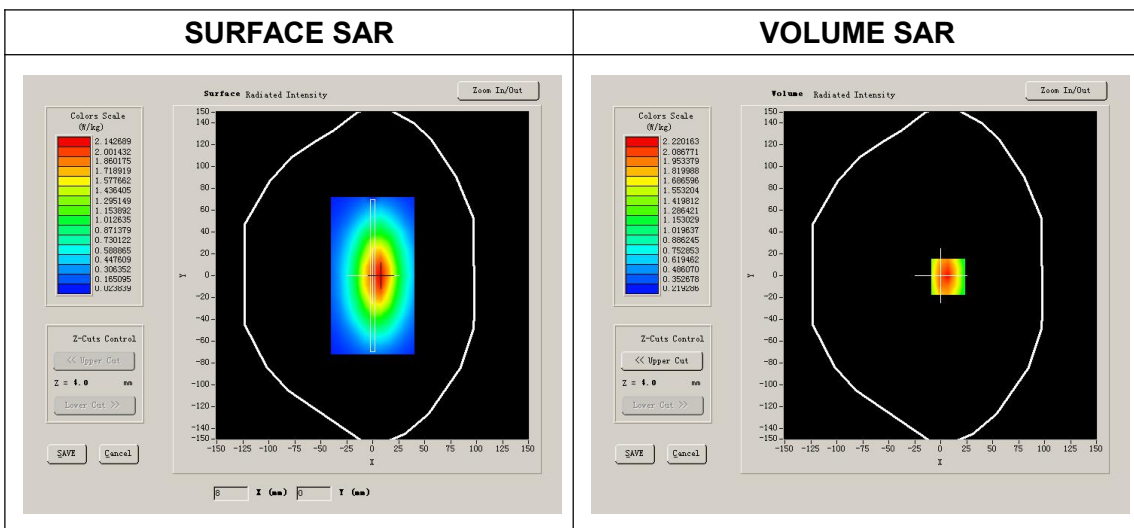
Type: Phone measurement (Complete)  
 Area scan resolution: dx=8mm,dy=8mm  
 Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm  
 Date of measurement: 2018.07.06  
 Measurement duration: 13 minutes 37 seconds

### A. Experimental conditions.

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Flat
<b>Device Position</b>	
<b>Band</b>	835MHz
<b>Channels</b>	
<b>Signal</b>	CW

### B. SAR Measurement Results

<b>Frequency (MHz)</b>	835.000000
<b>Relative permittivity (real part)</b>	41.185285
<b>Conductivity (S/m)</b>	0.875717
<b>Power drift (%)</b>	1.010000
<b>Ambient Temperature:</b>	22.2°C
<b>Liquid Temperature:</b>	21.4°C
<b>ConvF:</b>	6.13
<b>Crest factor:</b>	1:1

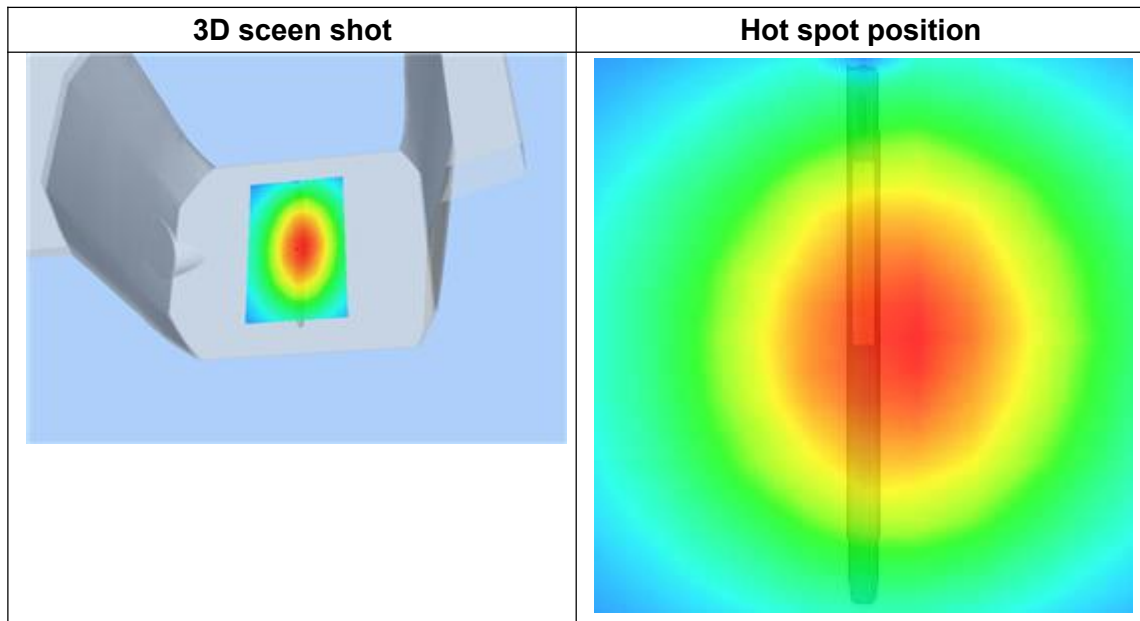
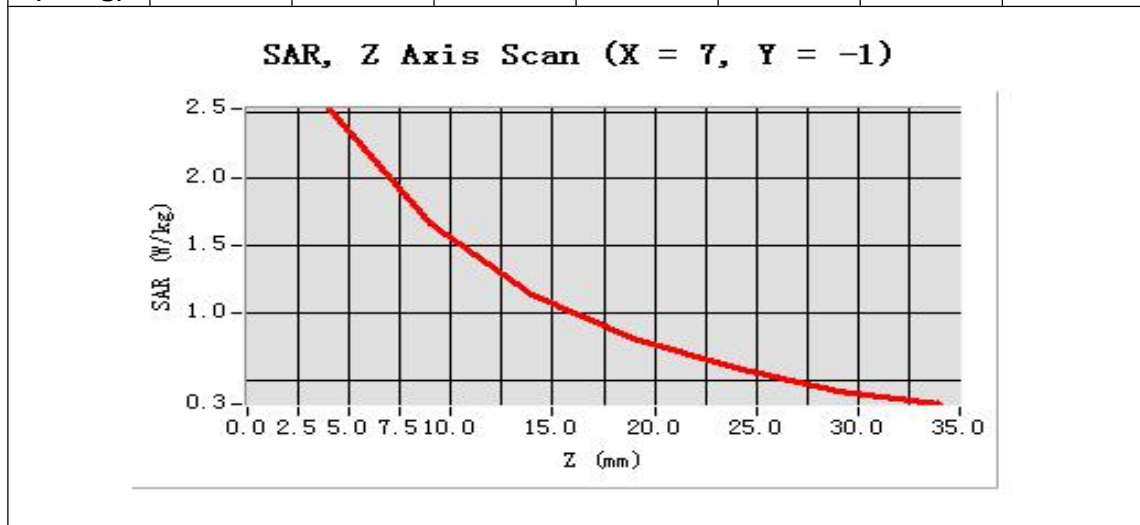


Maximum location: X=7.00, Y=-1.00

SAR 10g (W/Kg)	0.625122
SAR 1g (W/Kg)	0.969154

**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.5209	1.6629	1.1437	0.8075	0.5889	0.4143





**System Performance Check Data (835MHz Body)**

Type: Phone measurement (Complete)  
 Area scan resolution: dx=8mm,dy=8mm  
 Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm  
 Date of measurement: 2018.07.02  
 Measurement duration: 13 minutes 47 seconds

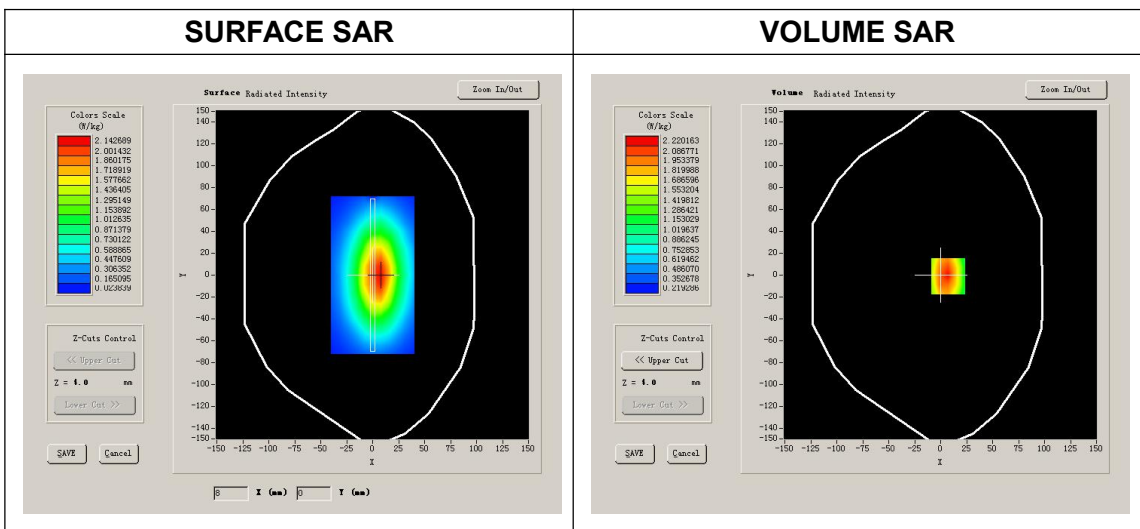
**A. Experimental conditions.**

Phantom File	surf_sam_plan.txt
Phantom	Flat
Device Position	
Band	835MHz
Channels	
Signal	CW

**B. SAR Measurement Results**

**Band SAR**

Frequency (MHz)	835.000000
Relative permittivity (real part)	55.3842702
Conductivity (S/m)	0.968174
Power drift (%)	0.970000
Ambient Temperature:	22.7°C
Liquid Temperature:	21.8°C
ConvF:	6.37
Crest factor:	1:1

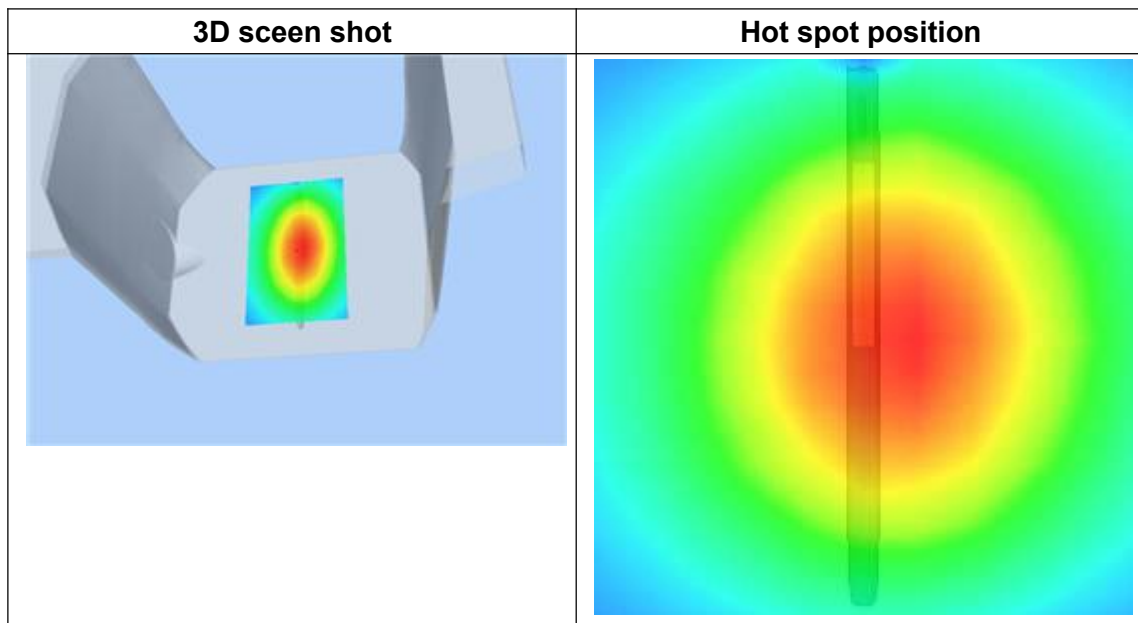
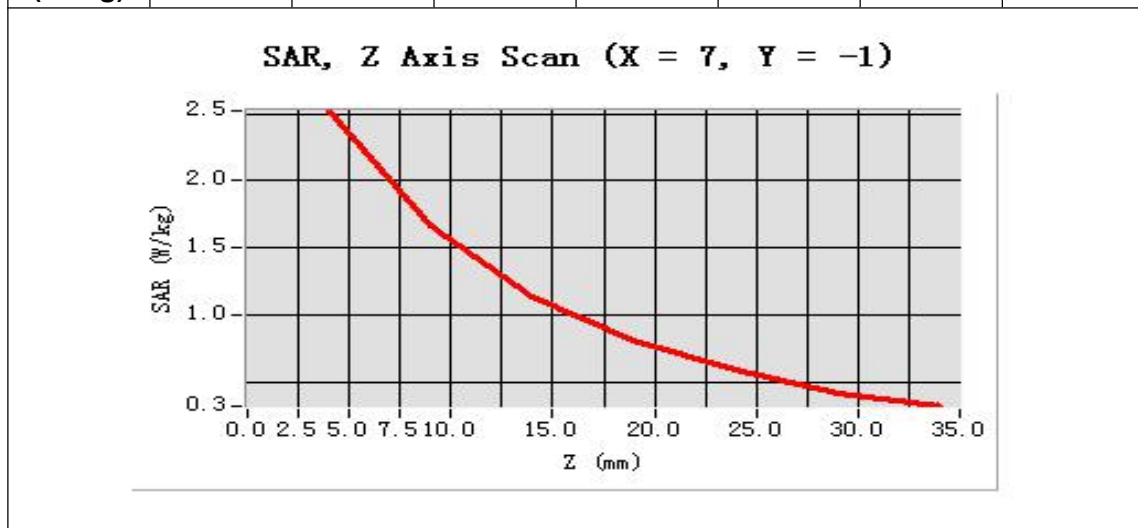


Maximum location: X=7.00, Y=-1.00

SAR 10g (W/Kg)	0.629542
SAR 1g (W/Kg)	0.987475

**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	2.5209	1.6629	1.1437	0.8075	0.5889	0.4143





**System Performance Check Data(1800MHz Head)**

Type: Phone measurement (Complete)  
 Area scan resolution: dx=8mm,dy=8mm  
 Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm  
 Date of measurement: 2018.06.30  
 Measurement duration: 13 minutes 27 seconds

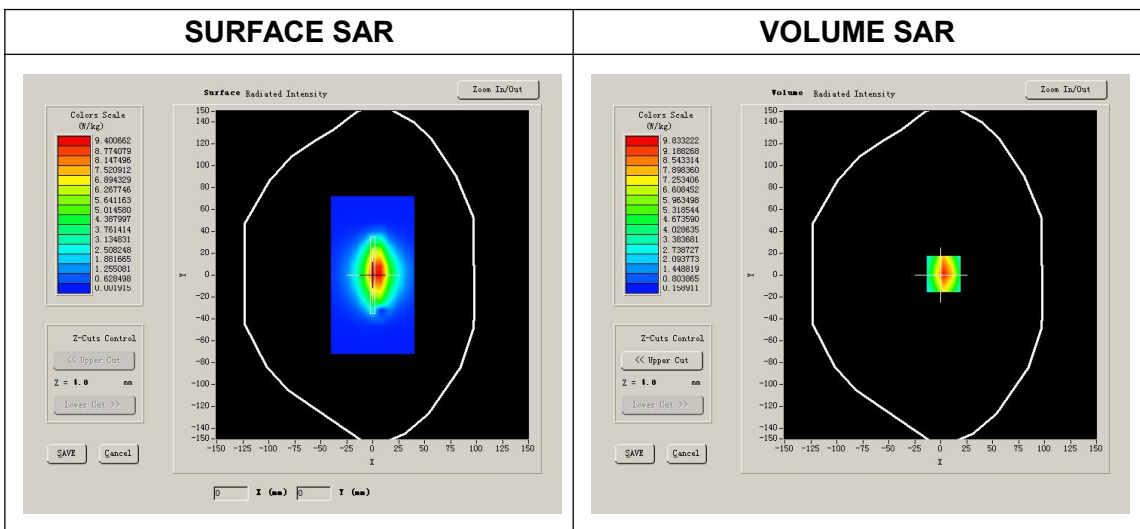
**A. Experimental conditions.**

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Flat
<b>Device Position</b>	
<b>Band</b>	1800MHz
<b>Channels</b>	
<b>Signal</b>	CW

**B. SAR Measurement Results**

Band SAR

<b>Frequency (MHz)</b>	1800.000000
<b>Relative permittivity (real part)</b>	40.095167
<b>Conductivity (S/m)</b>	1.365073
<b>Power drift (%)</b>	0.310000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	21.5°C
<b>ConvF:</b>	5.21
<b>Crest factor:</b>	1:1

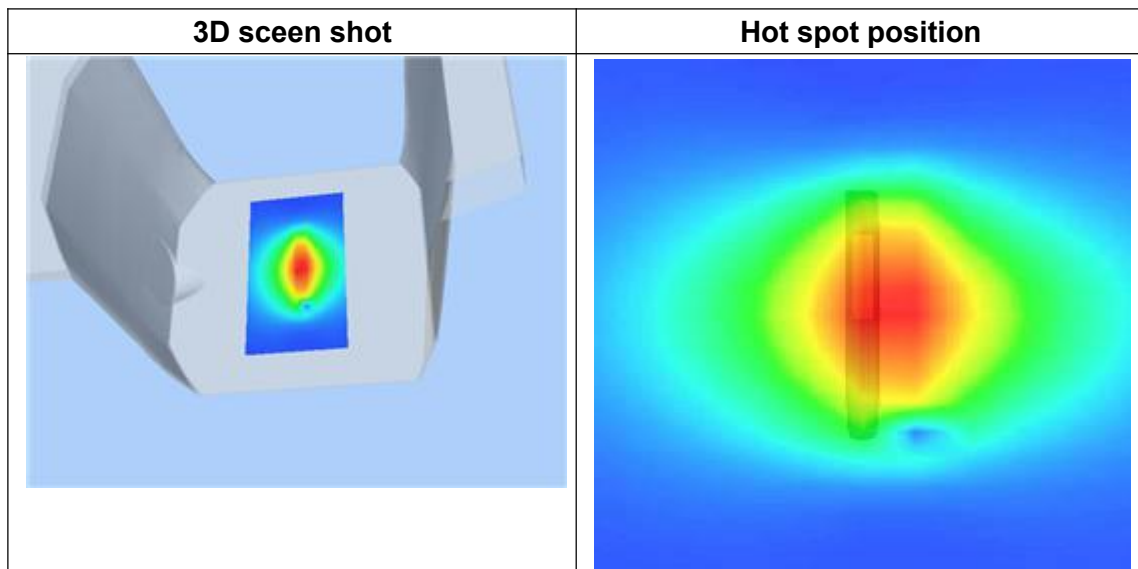
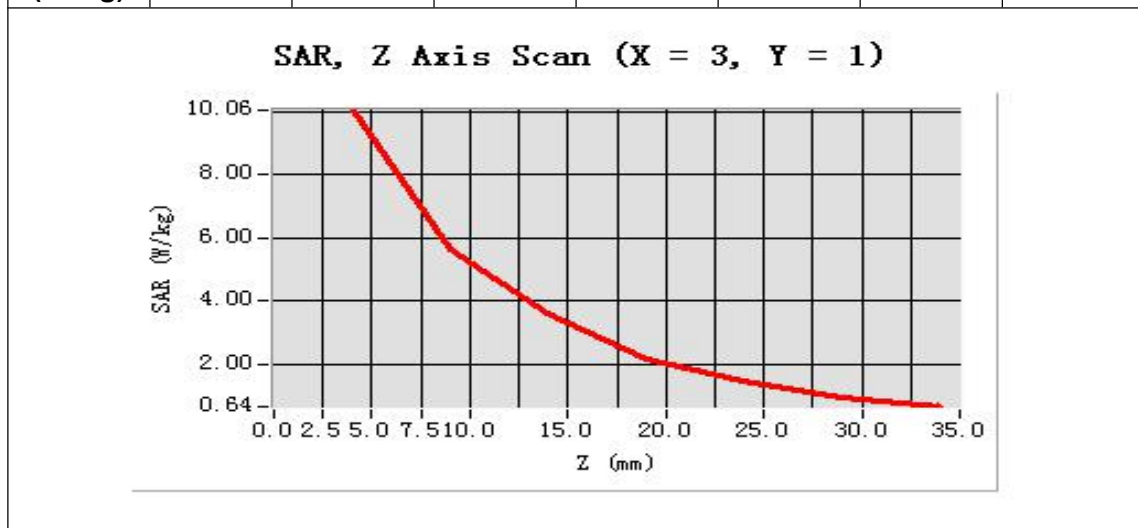


Maximum location: X=3.00, Y=1.00

SAR 10g (W/Kg)	2.048472
SAR 1g (W/Kg)	3.695054

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	10.0621	5.6445	3.6226	2.1642	1.4521	0.9078





**System Performance Check Data(1800MHz Body)**

Type: Phone measurement (Complete)  
 Area scan resolution: dx=8mm,dy=8mm  
 Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm  
 Date of measurement: 2018.07.05  
 Measurement duration: 13 minutes 27 seconds

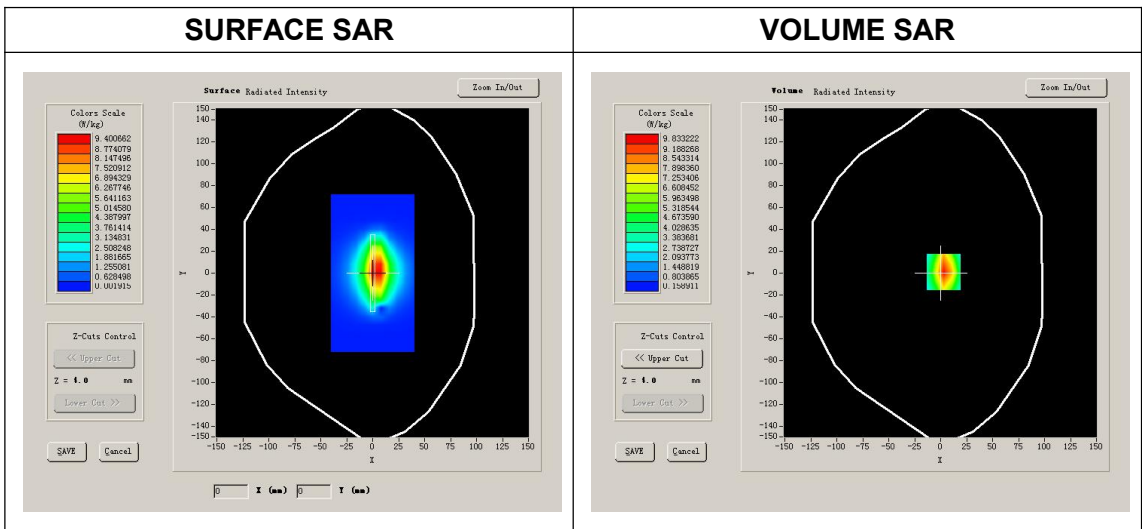
**A. Experimental conditions.**

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Flat
<b>Device Position</b>	
<b>Band</b>	1800MHz
<b>Channels</b>	
<b>Signal</b>	CW

**B. SAR Measurement Results**

Band SAR

<b>Frequency (MHz)</b>	1800.000000
<b>Relative permittivity (real part)</b>	53.294148
<b>Conductivity (S/m)</b>	1.517075
<b>Power drift (%)</b>	0.520000
<b>Ambient Temperature:</b>	22.6°C
<b>Liquid Temperature:</b>	21.4°C
<b>ConvF:</b>	5.38
<b>Crest factor:</b>	1:1

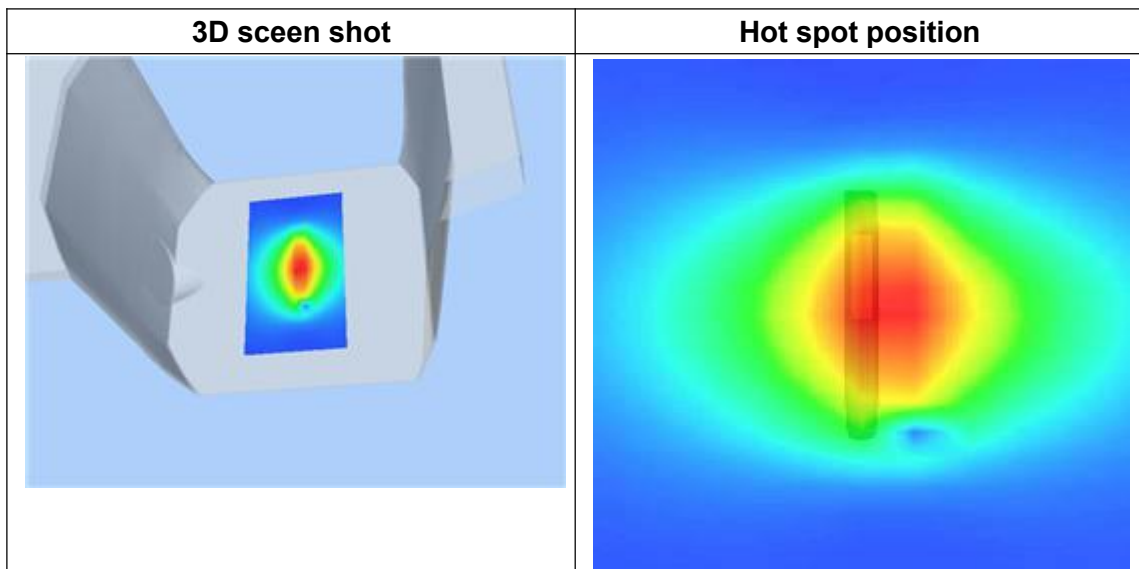
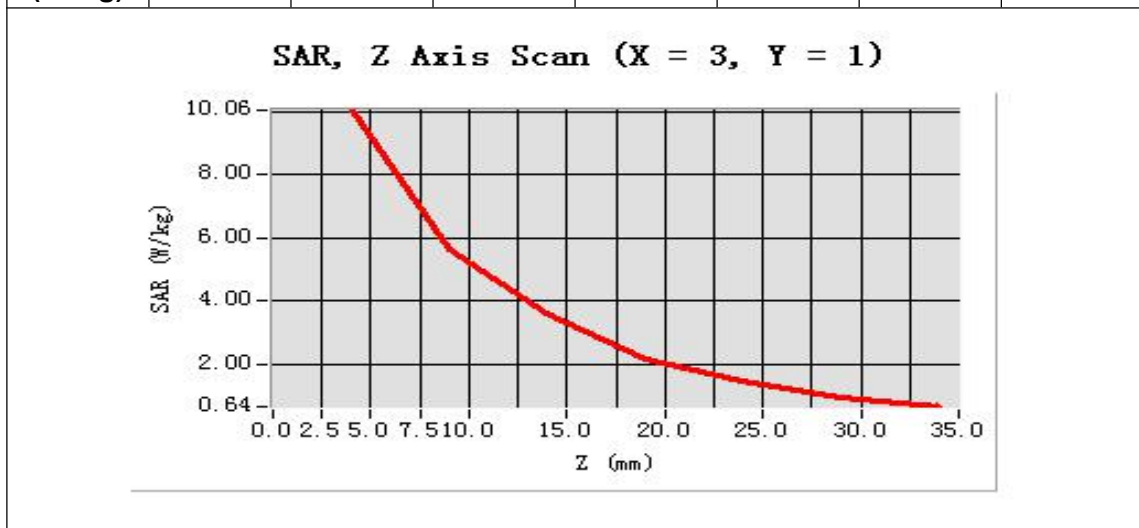


Maximum location: X=3.00, Y=1.00

SAR 10g (W/Kg)	2.039173
SAR 1g (W/Kg)	3.760455

Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	10.0621	5.6445	3.6226	2.1642	1.4521	0.9078







**System Performance Check Data(2000MHz Head)**

Type: Phone measurement (Complete)  
 Area scan resolution: dx=8mm,dy=8mm  
 Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm  
 Date of measurement: 2018.06.30  
 Measurement duration: 13 minutes 27 seconds

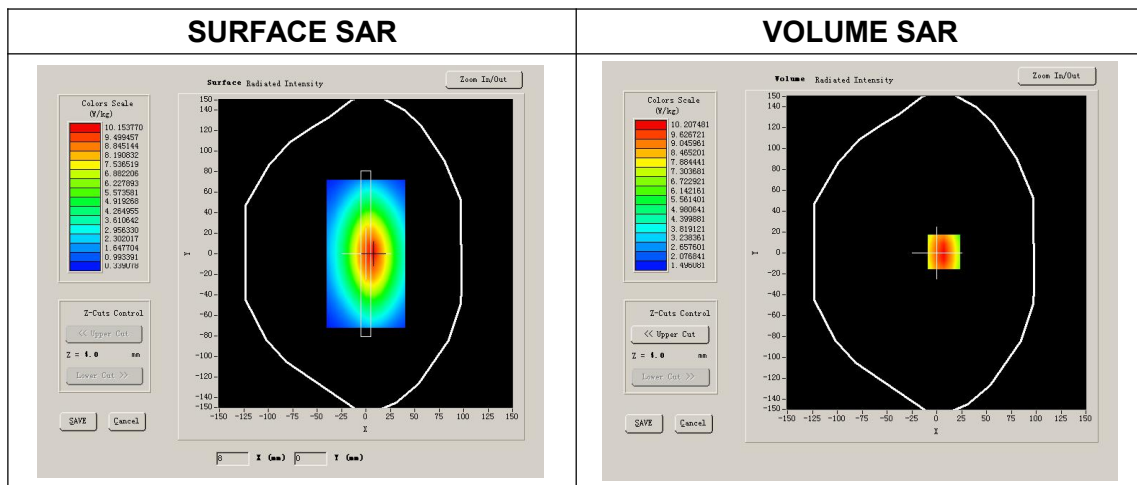
**A. Experimental conditions.**

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Flat
<b>Device Position</b>	
<b>Band</b>	2000MHz
<b>Channels</b>	
<b>Signal</b>	CW

**B. SAR Measurement Results**

Band SAR

<b>Frequency (MHz)</b>	2000.000000
<b>Relative permittivity (real part)</b>	39.984477
<b>Conductivity (S/m)</b>	1.414283
<b>Power drift (%)</b>	-0.830000
<b>Ambient Temperature:</b>	22.1°C
<b>Liquid Temperature:</b>	21.5°C
<b>ConvF:</b>	5.61
<b>Crest factor:</b>	1:1

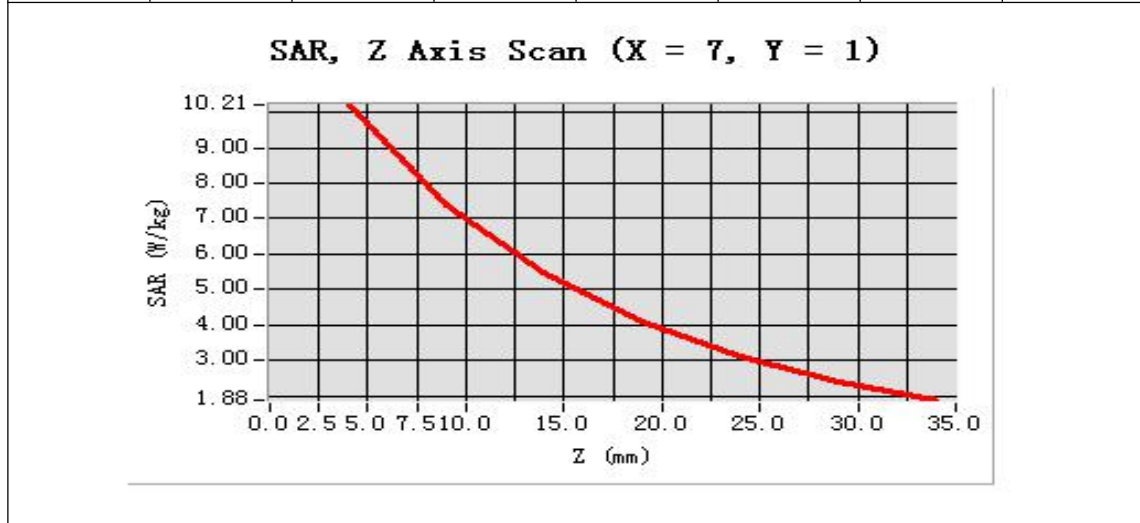


**Maximum location: X=7.00, Y=1.00**

<b>SAR 10g (W/Kg)</b>	1.992518
<b>SAR 1g (W/Kg)</b>	4.255954

**Z Axis Scan**

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>	<b>24.00</b>	<b>29.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>10.2075</b>	<b>7.3996</b>	<b>5.4654</b>	<b>4.1101</b>	<b>3.1286</b>	<b>2.4128</b>





**System Performance Check Data(2000MHz Body)**

Type: Phone measurement (Complete)  
 Area scan resolution: dx=8mm,dy=8mm  
 Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm  
 Date of measurement: 2018.07.05  
 Measurement duration: 13 minutes 27 seconds

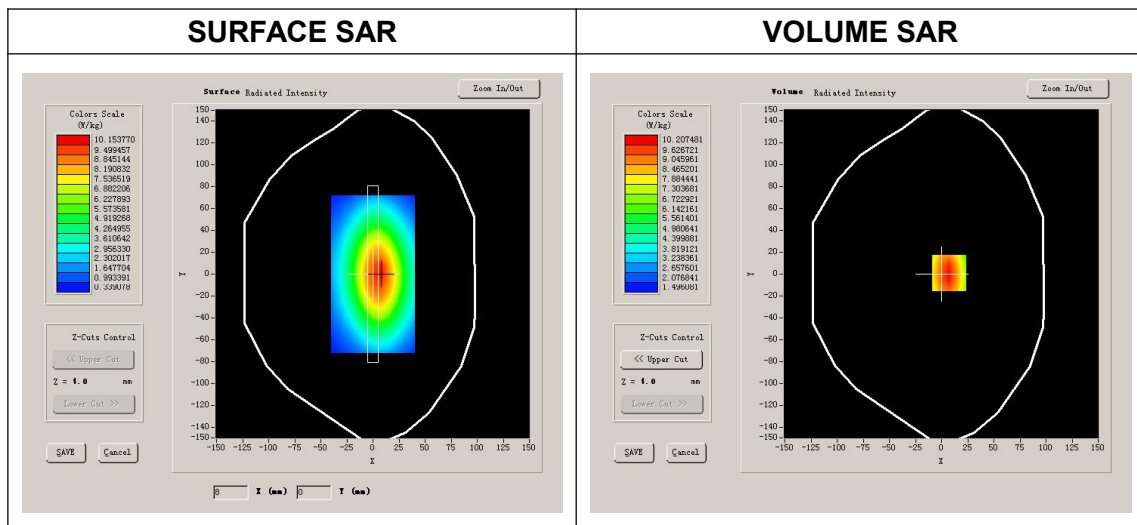
**A. Experimental conditions.**

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Flat
<b>Device Position</b>	
<b>Band</b>	2000MHz
<b>Channels</b>	
<b>Signal</b>	CW

**B. SAR Measurement Results**

Band SAR

<b>Frequency (MHz)</b>	2000.000000
<b>Relative permittivity (real part)</b>	53.285167
<b>Conductivity (S/m)</b>	1.514073
<b>Power drift (%)</b>	-1.860000
<b>Ambient Temperature:</b>	22.1°C
<b>Liquid Temperature:</b>	21.4°C
<b>ConvF:</b>	5.71
<b>Crest factor:</b>	1:1

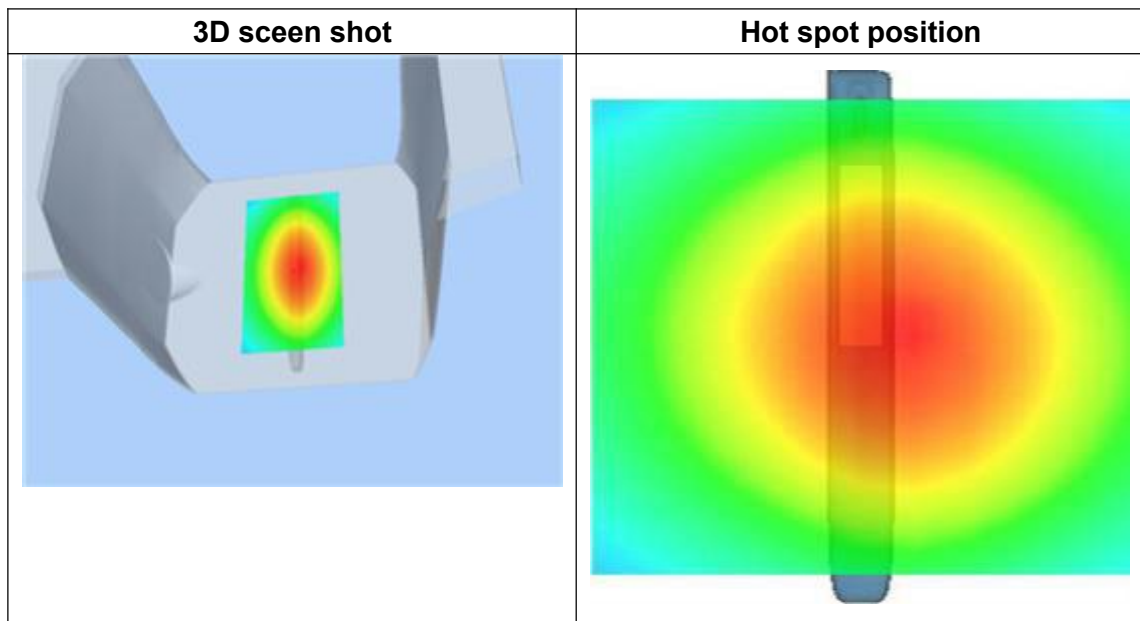
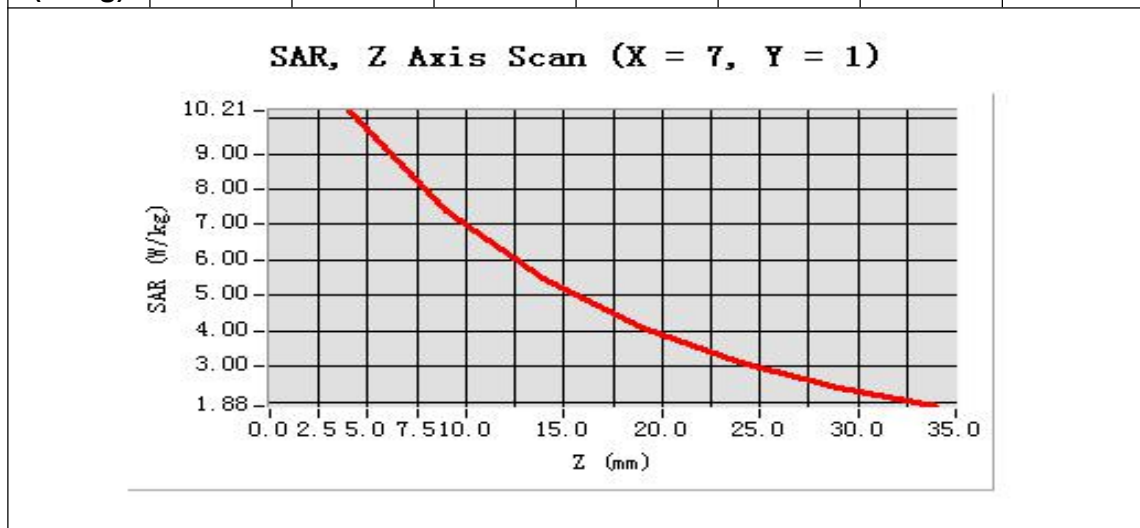


Maximum location: X=7.00, Y=1.00

SAR 10g (W/Kg)	2.092518
SAR 1g (W/Kg)	4.119540

**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	10.2075	7.3996	5.4654	4.1101	3.1286	2.4128



**System Performance Check Data(2450MHz Head)**

Type: Phone measurement (Complete)

Area scan resolution: dx=12mm,dy=12mm

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

Date of measurement: 2018.07.10

Measurement duration: 13 minutes 26 seconds

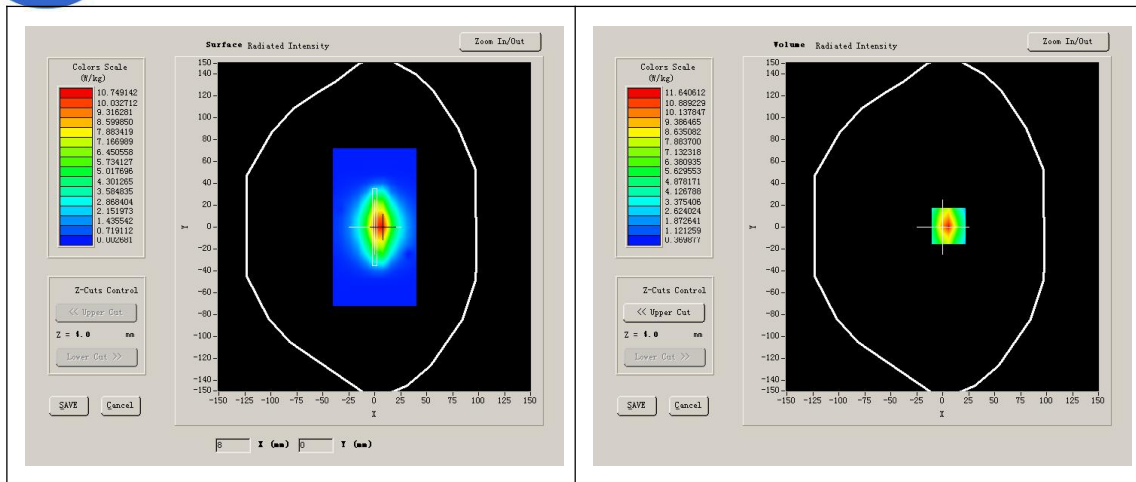
**A. Experimental conditions.**

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Flat
<b>Device Position</b>	
<b>Band</b>	2450MHz
<b>Channels</b>	
<b>Signal</b>	CW

**B. SAR Measurement Results****Band SAR**

<b>Frequency (MHz)</b>	2450.000000
<b>Relative permittivity (real part)</b>	39.291348
<b>Conductivity (S/m)</b>	1.840166
<b>Power Drift (%)</b>	0.980000
<b>Ambient Temperature:</b>	22.2°C
<b>Liquid Temperature:</b>	21.3°C
<b>ConvF:</b>	4.82
<b>Crest factor:</b>	1:1

<b>SURFACE SAR</b>	<b>VOLUME SAR</b>
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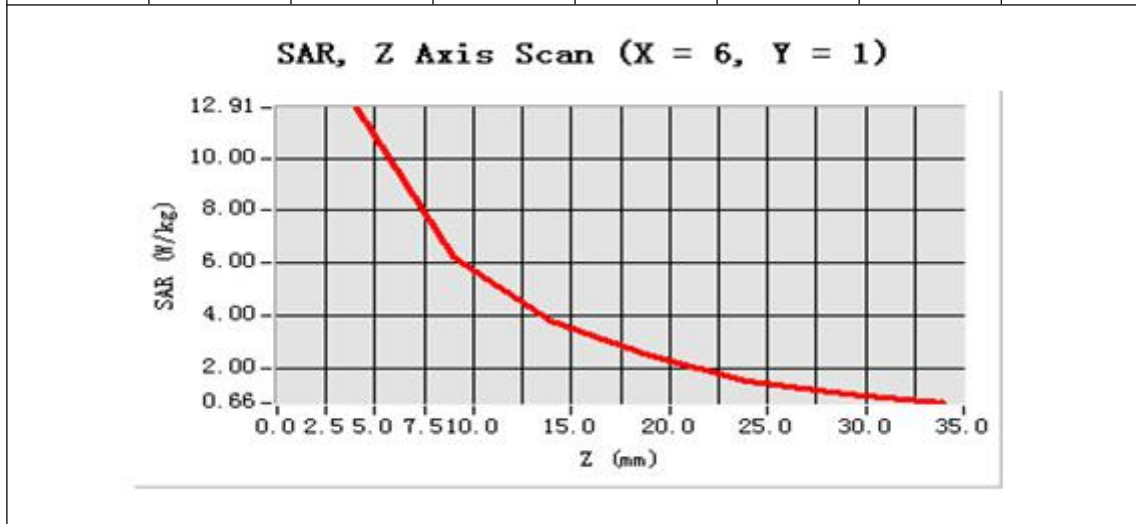


Maximum location: X=6.00, Y=1.00

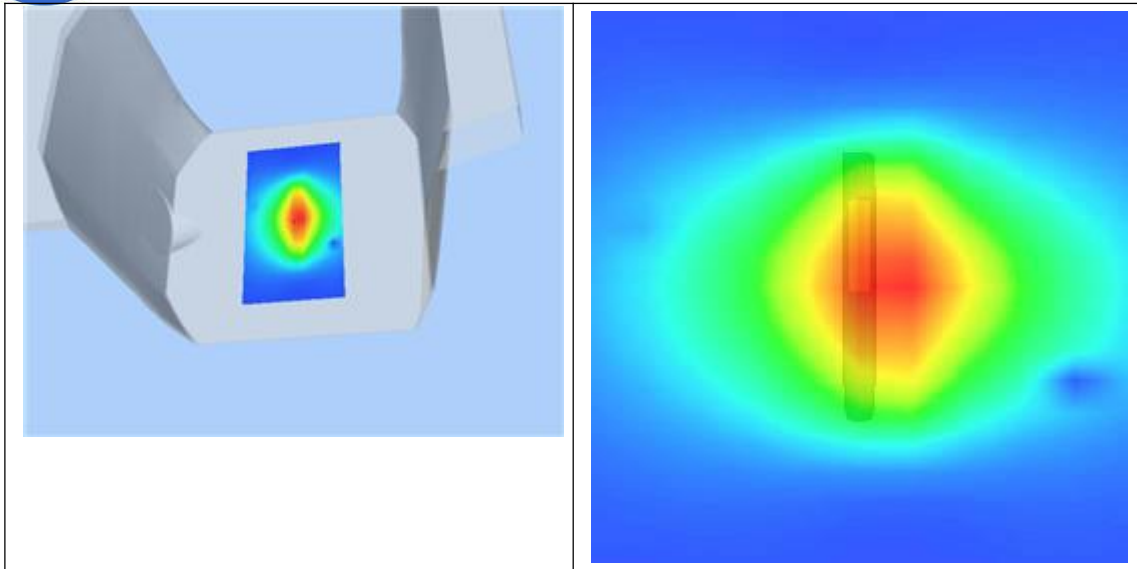
SAR 10g (W/Kg)	2.381254
SAR 1g (W/Kg)	5.326168

**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.0000	12.9615	6.2096	3.8187	2.4504	1.5036	1.0219



3D scene shot	Hot spot position
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**System Performance Check Data(2450MHz Body)**

Type: Phone measurement (Complete)  
 Area scan resolution: dx=12mm,dy=12mm  
 Zoom scan resolution: dx=5mm, dy=5mm, dz=4mm  
 Date of measurement: 2018.07.11  
 Measurement duration: 13 minutes 26 seconds

**A. Experimental conditions.**

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Flat
<b>Device Position</b>	
<b>Band</b>	2450MHz
<b>Channels</b>	
<b>Signal</b>	CW

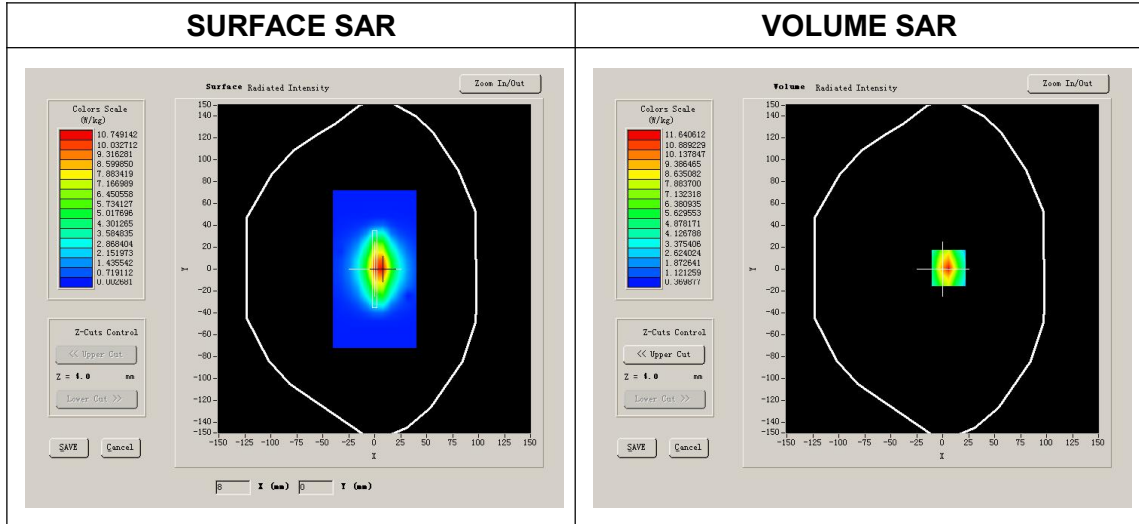
**B. SAR Measurement Results**

Band SAR

<b>Frequency (MHz)</b>	2450.000000
<b>Relative permittivity (real part)</b>	52.887643
<b>Conductivity (S/m)</b>	1.965147
<b>Power Drift (%)</b>	1.080000
<b>Ambient Temperature:</b>	22.4°C
<b>Liquid Temperature:</b>	21.5°C



<b>ConvF:</b>	4.93
<b>Crest factor:</b>	1:1

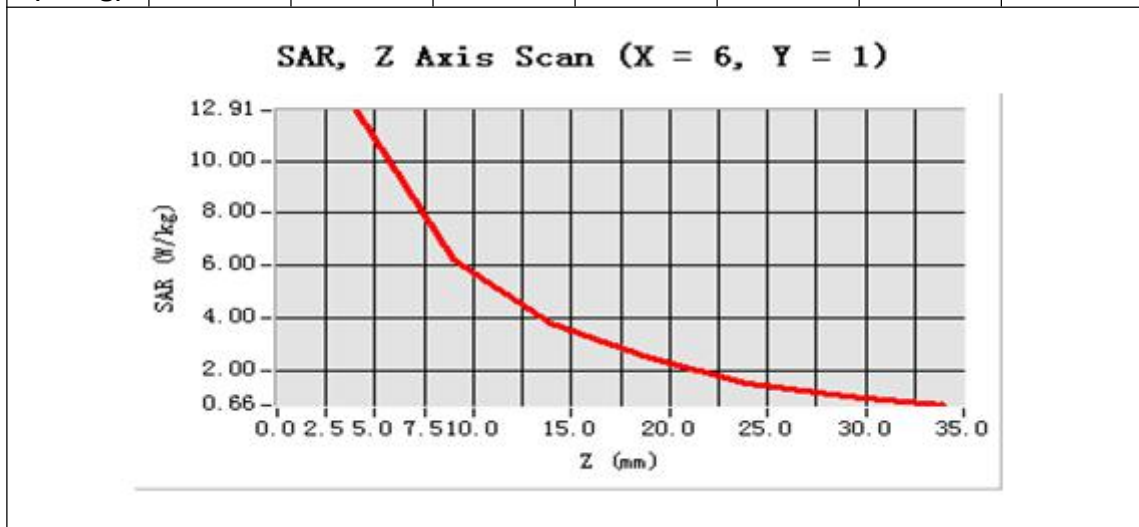


**Maximum location: X=6.00, Y=1.00**

<b>SAR 10g (W/Kg)</b>	2.378054
<b>SAR 1g (W/Kg)</b>	5.090178

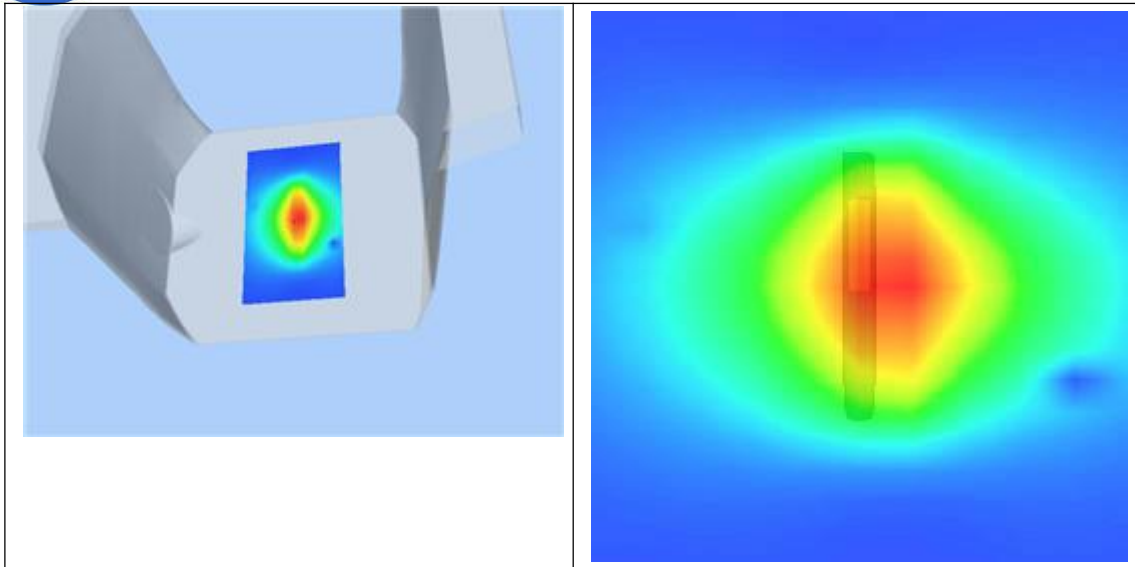
**Z Axis Scan**

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
<b>SAR (W/Kg)</b>	0.0000	12.9615	6.2096	3.8187	2.4504	1.5036	1.0219



<b>3D scen shot</b>	<b>Hot spot position</b>
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**System Performance Check Data(2600MHz Head)**

Type: Phone measurement (Complete)  
 Area scan resolution: dx=12mm,dy=12mm  
 Zoom scan resolution: dx=5mm, dy=5mm, dz=5mm  
 Date of measurement: 2018.06.30  
 Measurement duration: 13 minutes 27 seconds

**A. Experimental conditions.**

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Flat
<b>Device Position</b>	
<b>Band</b>	2600MHz
<b>Channels</b>	
<b>Signal</b>	CW

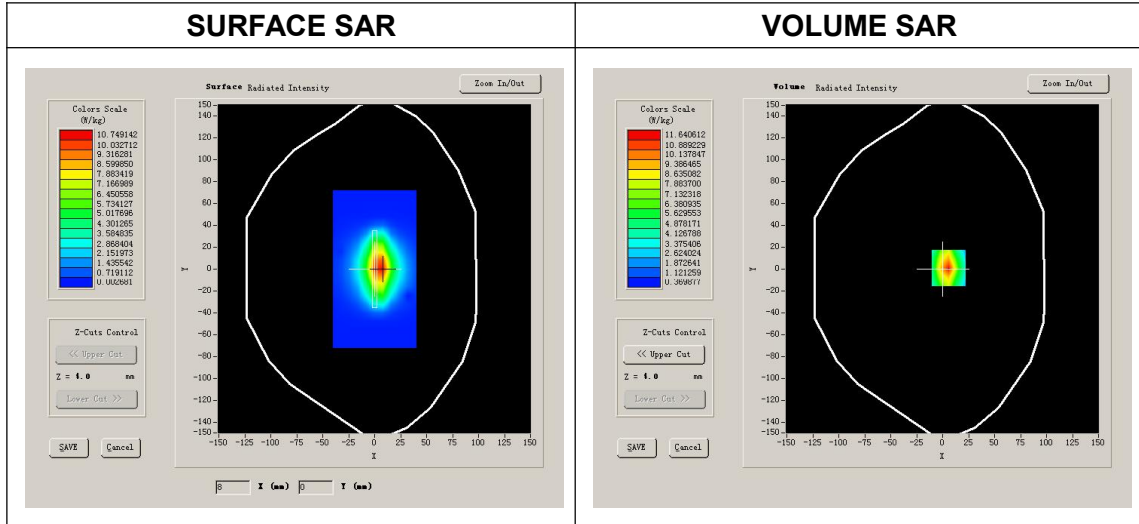
**B. SAR Measurement Results**

Band SAR

<b>Frequency (MHz)</b>	2600.000000
<b>Relative permittivity (real part)</b>	39.025532
<b>Conductivity (S/m)</b>	1.969234
<b>Power Drift (%)</b>	0.920000
<b>Ambient Temperature:</b>	22.3°C
<b>Liquid Temperature:</b>	21.5°C



<b>ConvF:</b>	4.74
<b>Crest factor:</b>	1:1

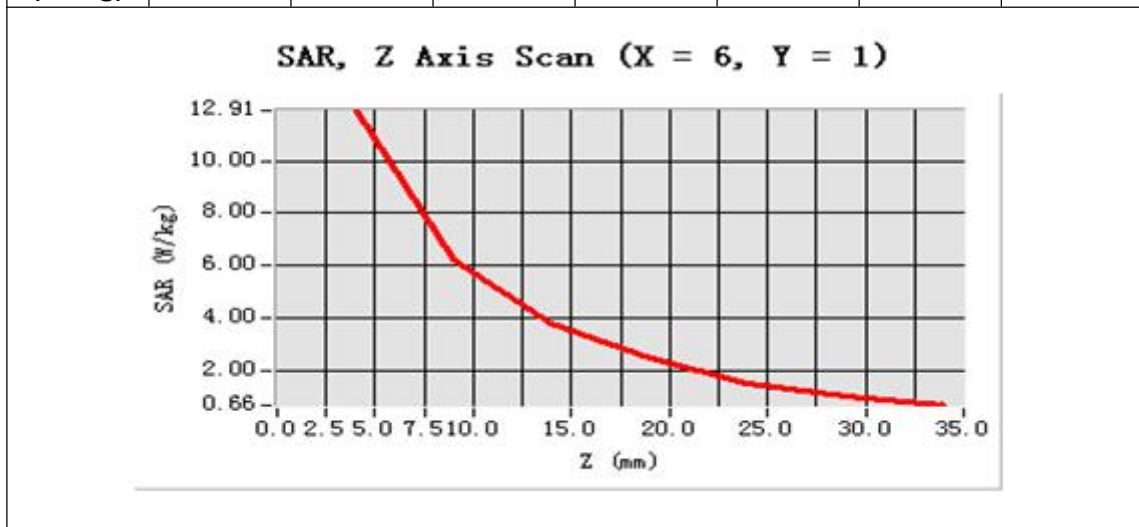


**Maximum location: X=6.00, Y=1.00**

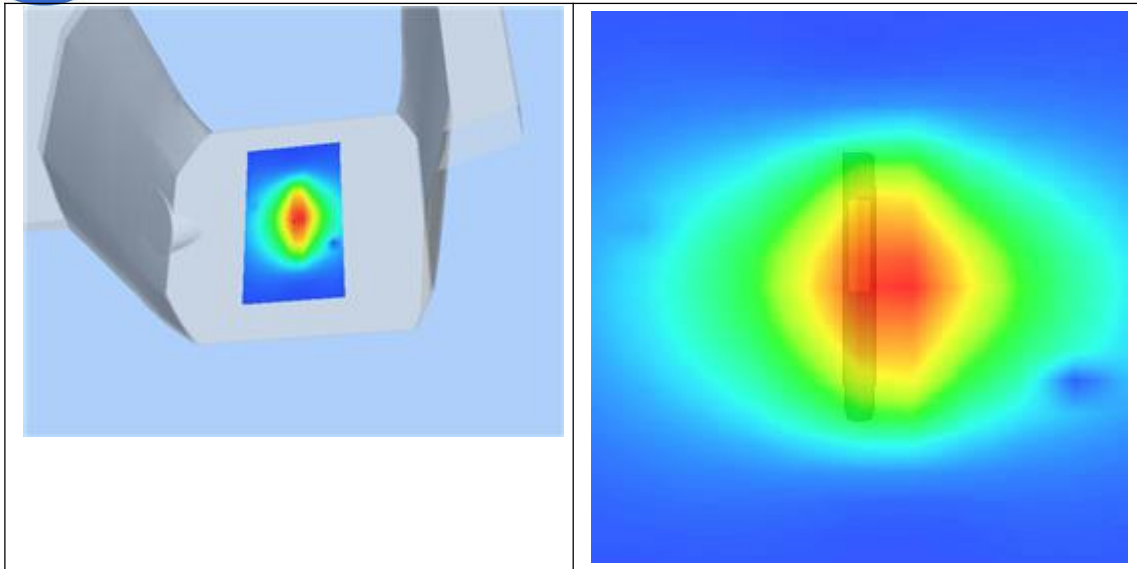
<b>SAR 10g (W/Kg)</b>	2.501150
<b>SAR 1g (W/Kg)</b>	5.682471

**Z Axis Scan**

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>	<b>24.00</b>	<b>29.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>12.9745</b>	<b>6.2193</b>	<b>3.8245</b>	<b>2.4624</b>	<b>1.5033</b>	<b>1.0220</b>



<b>3D scene shot</b>	<b>Hot spot position</b>
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**System Performance Check Data(2600MHz Body)**

Type: Phone measurement (Complete)  
 Area scan resolution: dx=8mm,dy=8mm  
 Zoom scan resolution: dx=8mm, dy=8mm, dz=5mm  
 Date of measurement: 2018.07.05  
 Measurement duration: 13 minutes 31 seconds

**A. Experimental conditions.**

<b>Phantom File</b>	surf_sam_plan.txt
<b>Phantom</b>	Flat
<b>Device Position</b>	
<b>Band</b>	2600MHz
<b>Channels</b>	
<b>Signal</b>	CW

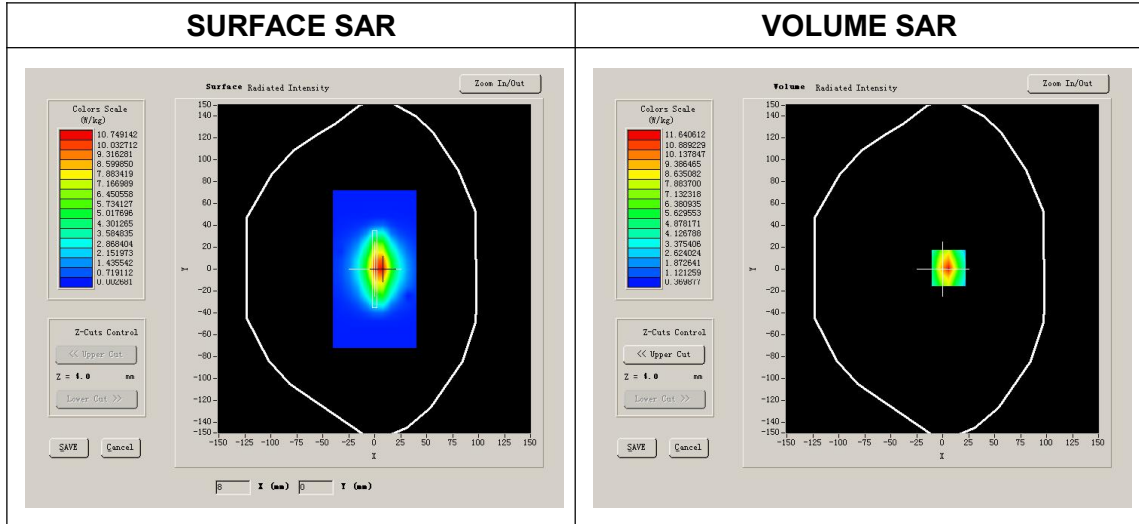
**B. SAR Measurement Results**

Band SAR

<b>Frequency (MHz)</b>	2600.000000
<b>Relative permittivity (real part)</b>	52.370564
<b>Conductivity (S/m)</b>	2.110258
<b>Power Drift (%)</b>	1.380000
<b>Ambient Temperature:</b>	22.6°C
<b>Liquid Temperature:</b>	21.4°C



<b>ConvF:</b>	4.93
<b>Crest factor:</b>	1:1

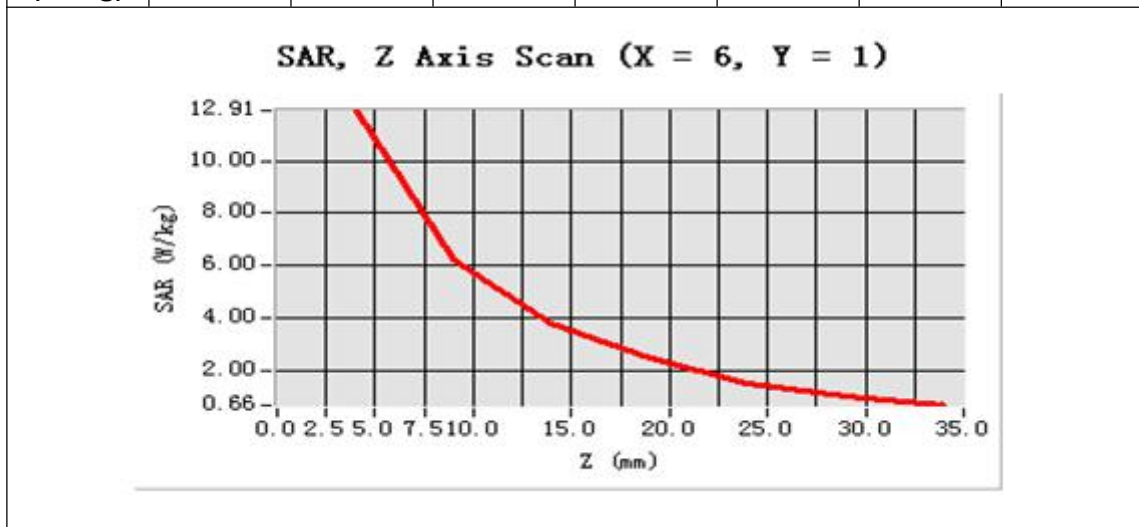


**Maximum location: X=6.00, Y=1.00**

<b>SAR 10g (W/Kg)</b>	2.370851
<b>SAR 1g (W/Kg)</b>	5.385472

**Z Axis Scan**

<b>Z (mm)</b>	<b>0.00</b>	<b>4.00</b>	<b>9.00</b>	<b>14.00</b>	<b>19.00</b>	<b>24.00</b>	<b>29.00</b>
<b>SAR (W/Kg)</b>	<b>0.0000</b>	<b>12.9745</b>	<b>6.2193</b>	<b>3.8245</b>	<b>2.4624</b>	<b>1.5033</b>	<b>1.0220</b>



<b>3D scen shot</b>	<b>Hot spot position</b>
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