



Appendix A: SAR System performance Check Plots

| Measurement | Liquid | Frequency | Test Date |
|--------------|--------|-----------|------------|
| System Check | Head | 835 | 2020-01-09 |
| System Check | Body | 835 | 2020-01-09 |
| System Check | Head | 1800 | 2020-01-10 |
| System Check | Body | 1800 | 2020-01-10 |
| System Check | Head | 1900 | 2020-01-11 |
| System Check | Body | 1900 | 2020-01-11 |
| System Check | Head | 2450 | 2020-01-12 |
| System Check | Body | 2450 | 2020-01-12 |
| System Check | Head | 2600 | 2020-01-13 |
| System Check | Body | 2600 | 2020-01-13 |

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: 01/09/2020

Measurement duration: 22 minutes 02 seconds

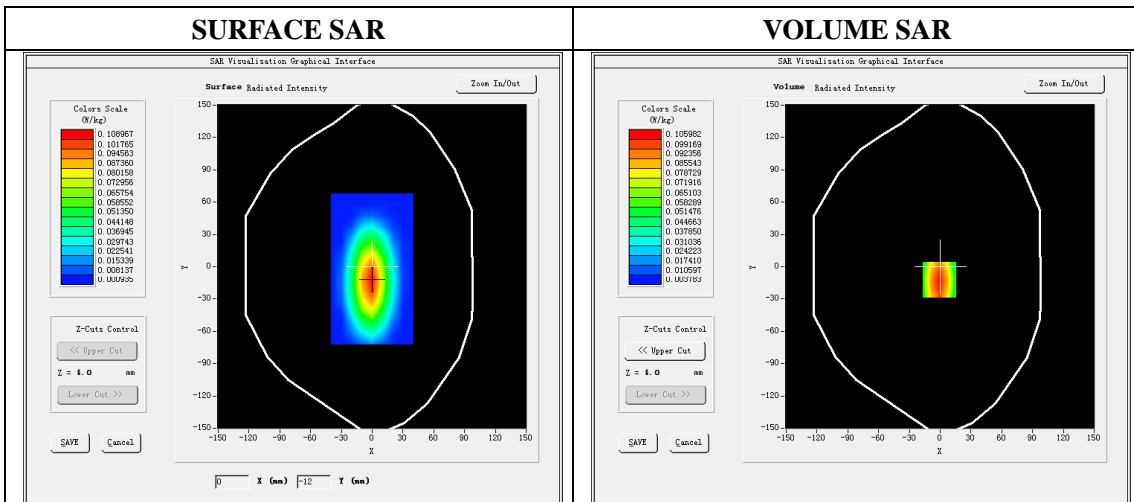
A. Experimental conditions.

| | |
|------------------------|----------------------------|
| 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

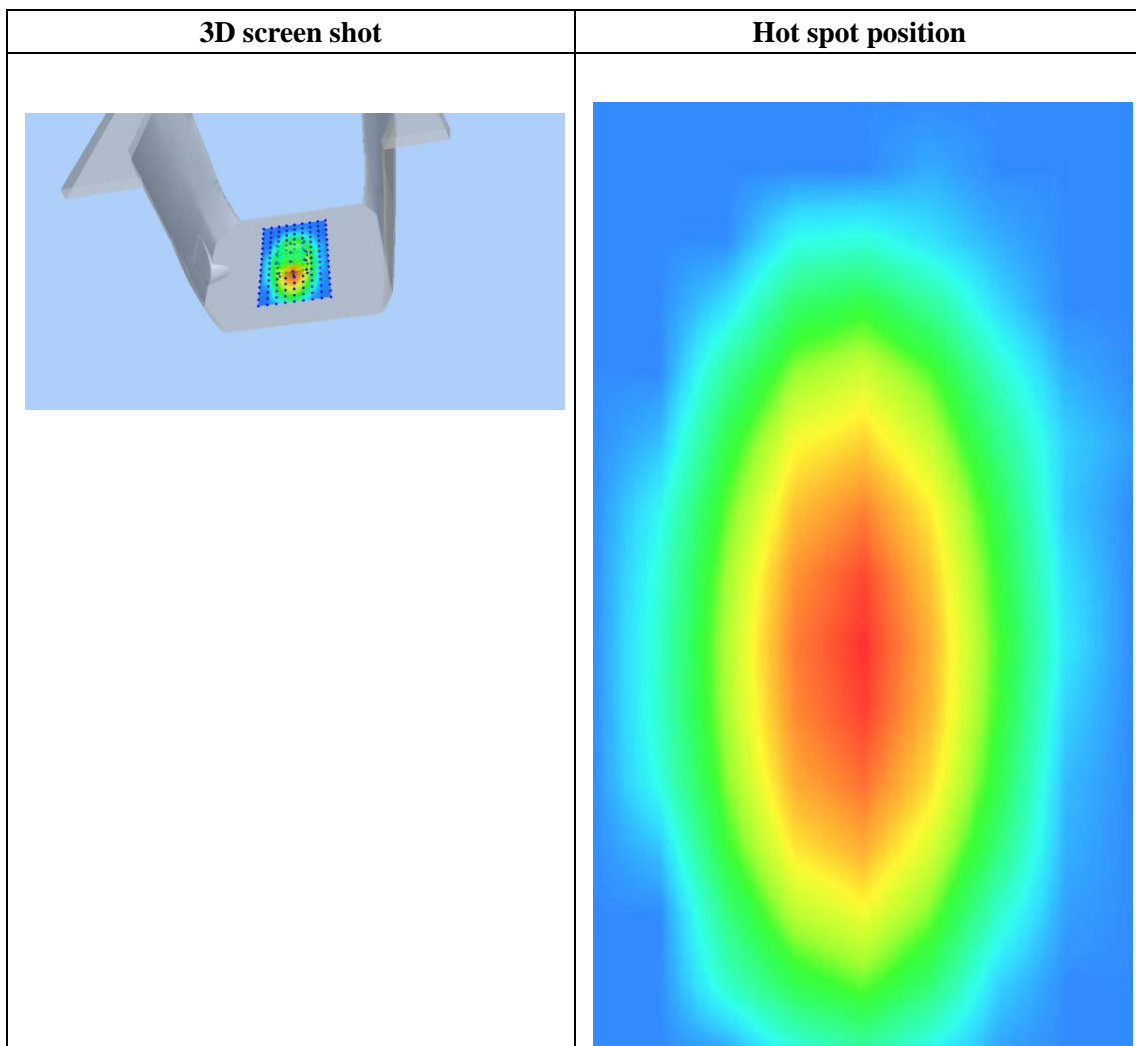
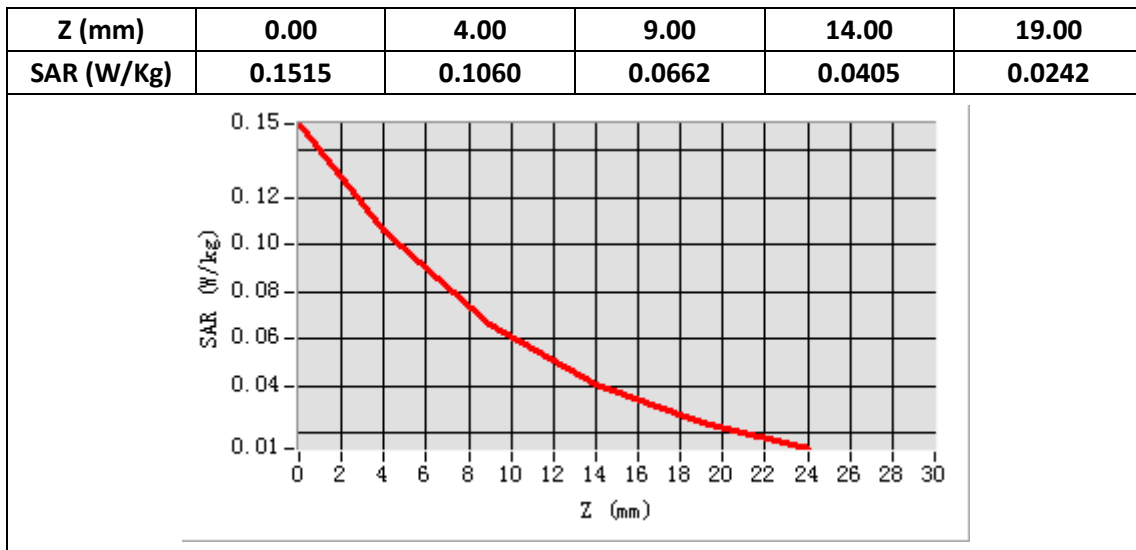
| | |
|--|-------------------------|
| E-Field Probe | SATIMO SN_27/15_EPG0261 |
| Frequency (MHz) | 835 |
| Relative permittivity (real part) | 41.53 |
| Relative permittivity | 19.83 |
| Conductivity (S/m) | 0.92 |
| Power drift (%) | -3.20 |
| Ambient Temperature: | 22.2°C |
| Liquid Temperature: | 22.6°C |
| ConvF: | 1.92 |
| Crest factor: | 1:1 |



Maximum location: X=-1.00, Y=-12.00

SAR Peak: 0.15 W/kg

| | |
|-----------------------|----------|
| SAR 10g (W/Kg) | 0.058774 |
| SAR 1g (W/Kg) | 0.099622 |



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: 01/09/2020

Measurement duration: 22 minutes 04 seconds

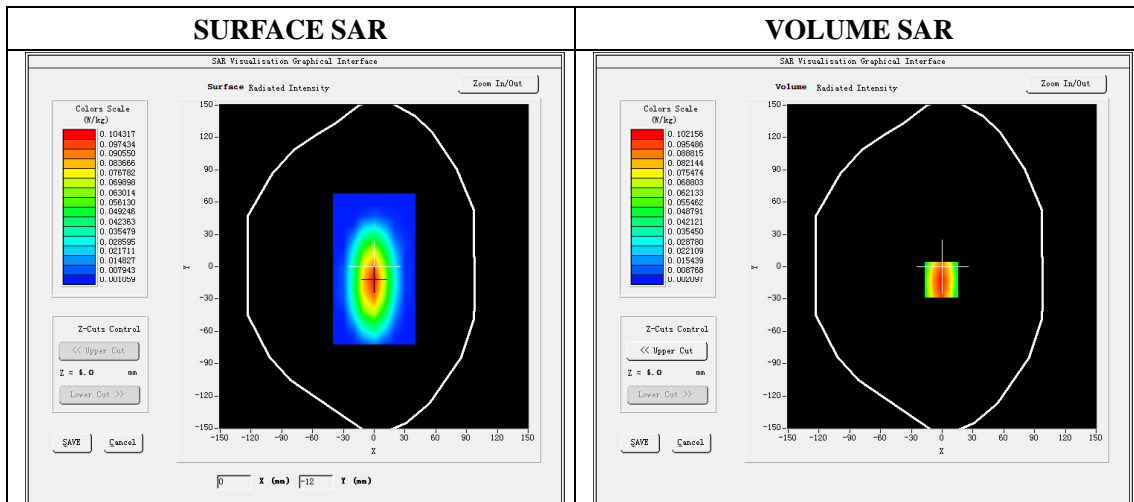
A. Experimental conditions.

| | |
|------------------------|----------------------------|
| Phantom File | dx=8mm dy=8mm |
| Phantom | 5x5x7,dx=8mm dy=8mm dz=5mm |
| Device Position | Dipole |
| Band | 835MHz |
| Channels | |
| Signal | CW |

B. SAR Measurement Results

Band SAR

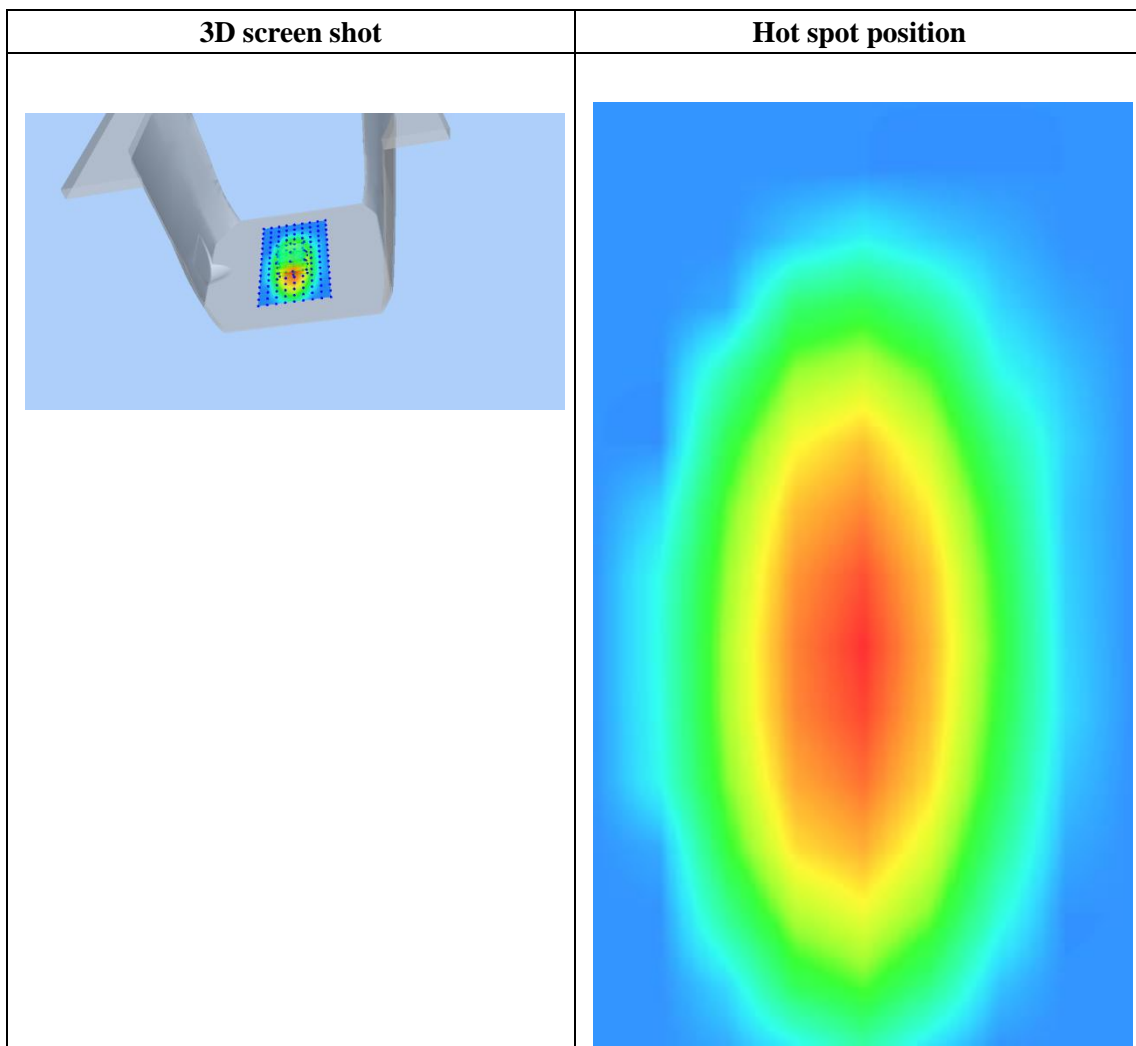
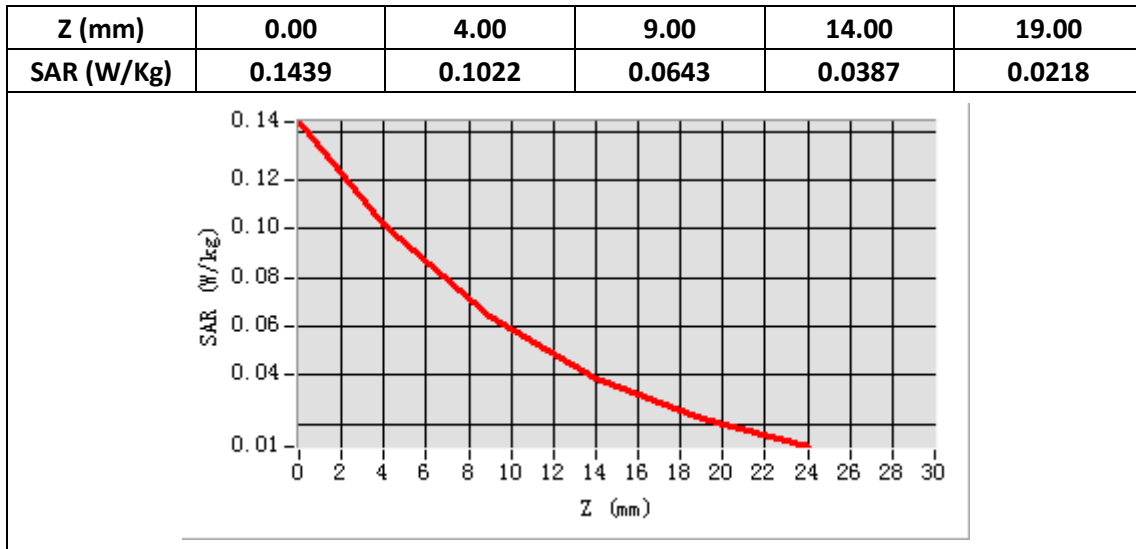
| | |
|--|-------------------------|
| E-Field Probe | SATIMO SN_27/15_EPG0261 |
| Frequency (MHz) | 835 |
| Relative permittivity (real part) | 55.31 |
| Relative permittivity | 20.91 |
| Conductivity (S/m) | 0.97 |
| Power drift (%) | -1.52 |
| Ambient Temperature: | 22.2°C |
| Liquid Temperature: | 22.6°C |
| ConvF: | 1.99 |
| Crest factor: | 1:1 |



Maximum location: X=-1.00, Y=-12.00

SAR Peak: 0.14 W/kg

| | |
|-----------------------|----------|
| SAR 10g (W/Kg) | 0.056693 |
| SAR 1g (W/Kg) | 0.097610 |



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: 01/10/2020

Measurement duration: 22 minutes 01 seconds

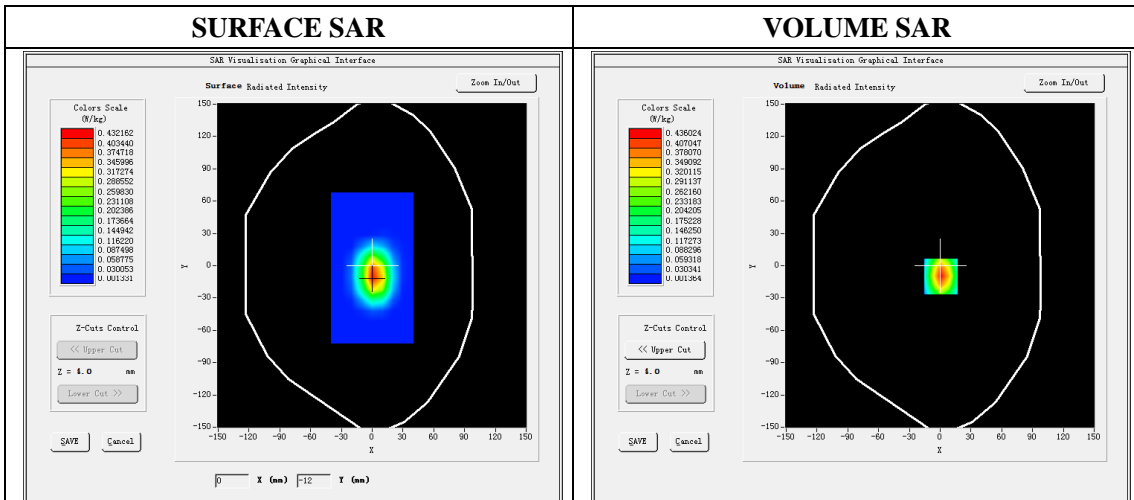
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

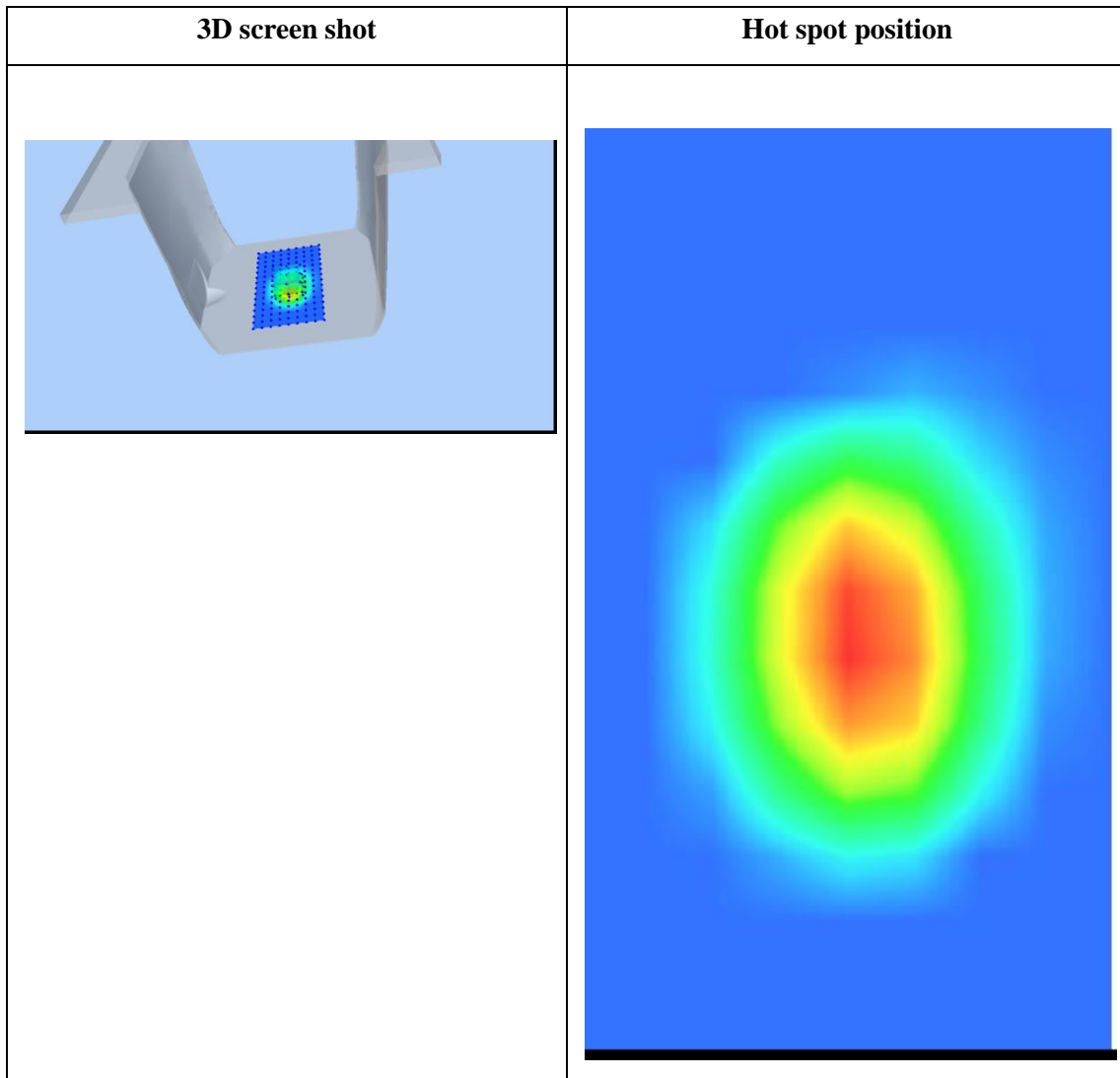
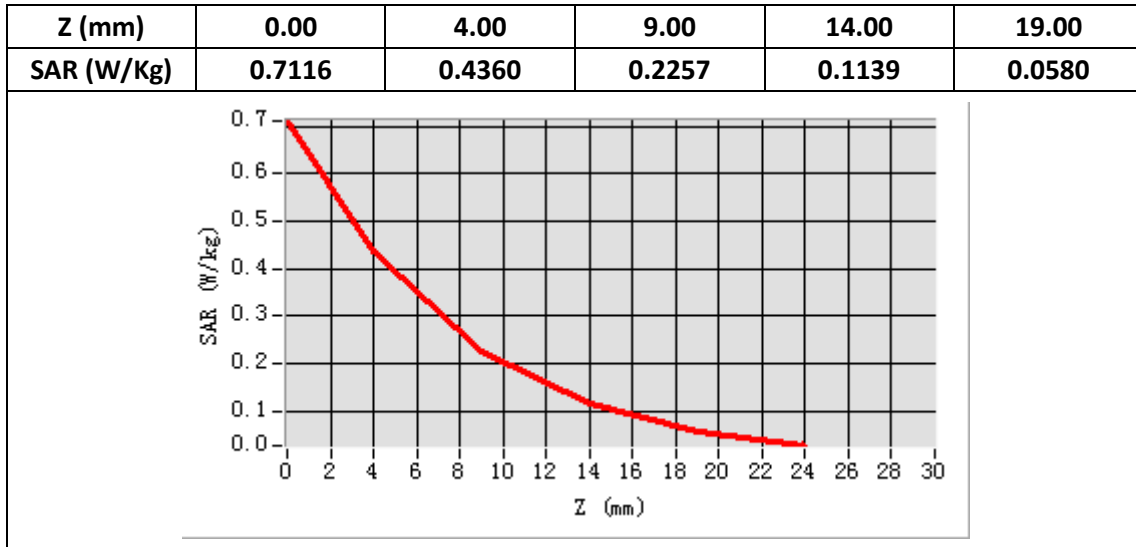
| | |
|--|-------------------------|
| E-Field Probe | SATIMO SN_27/15_EPG0261 |
| Frequency (MHz) | 1800 |
| Relative permittivity (real part) | 40.48 |
| Relative permittivity | 14.00 |
| Conductivity (S/m) | 1.40 |
| Power Drift (%) | -3.37 |
| Ambient Temperature: | 22.1 °C |
| Liquid Temperature: | 22.6 °C |
| ConvF: | 2.14 |
| Duty factor: | 1:1 |



Maximum location: X=1.00, Y=-10.00

SAR Peak: 0.71 W/kg

| | |
|-----------------------|----------|
| SAR 10g (W/Kg) | 0.197553 |
| SAR 1g (W/Kg) | 0.406608 |



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: 01/10/2020

Measurement duration: 22 minutes 05 seconds

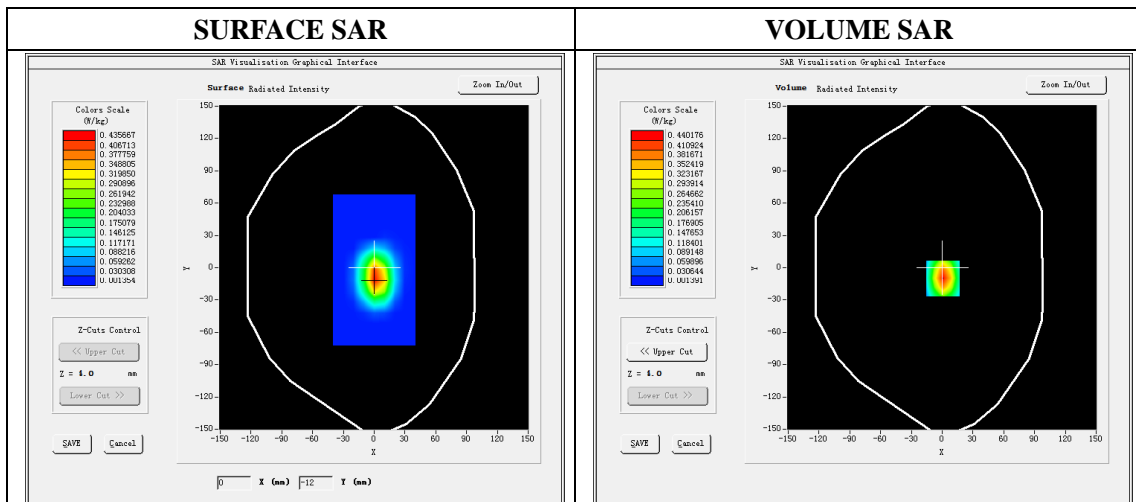
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

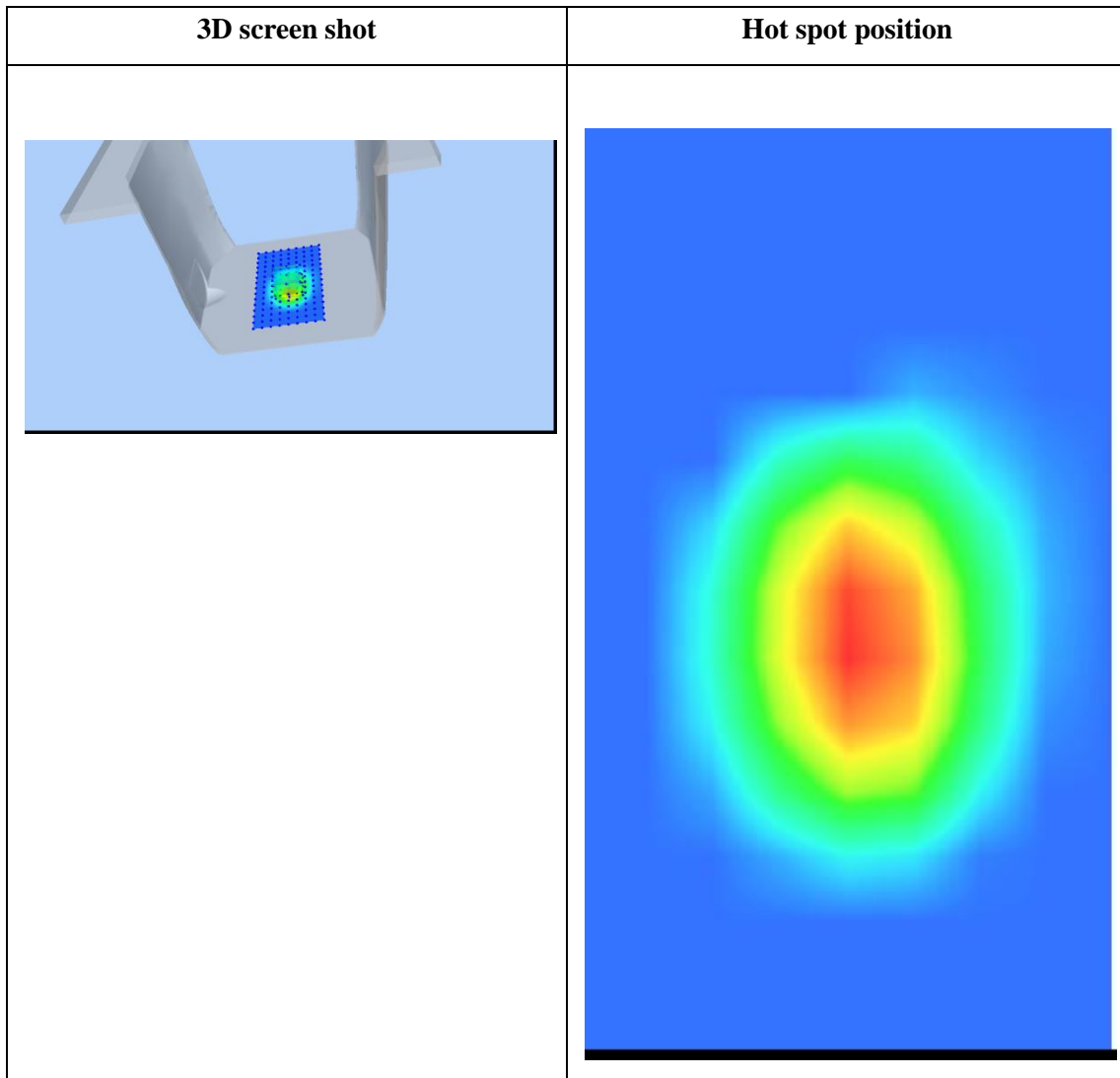
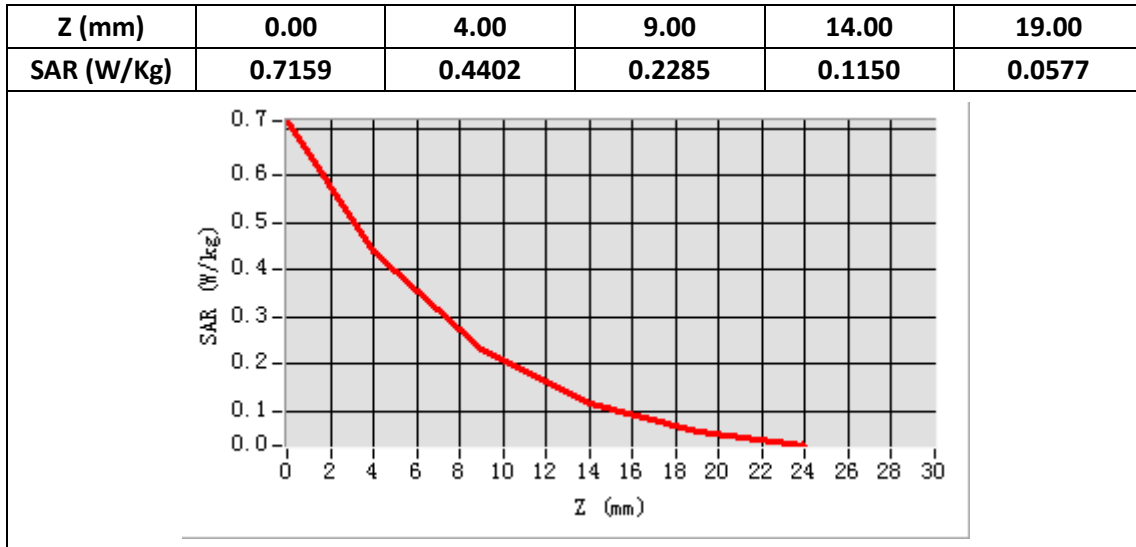
| | |
|--|-------------------------|
| E-Field Probe | SATIMO SN_27/15_EPG0261 |
| Frequency (MHz) | 1800 |
| Relative permittivity (real part) | 53.45 |
| Relative permittivity | 15.50 |
| Conductivity (S/m) | 1.55 |
| Power Drift (%) | -1.83 |
| Ambient Temperature: | 22.1 °C |
| Liquid Temperature: | 22.6 °C |
| ConvF: | 2.22 |
| Duty factor: | 1:1 |



Maximum location: X=1.00, Y=-10.00

SAR Peak: 0.72 W/kg

| | |
|-----------------------|----------|
| SAR 10g (W/Kg) | 0.197442 |
| SAR 1g (W/Kg) | 0.404420 |



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: 01/11/2020

Measurement duration: 22 minutes 07 seconds

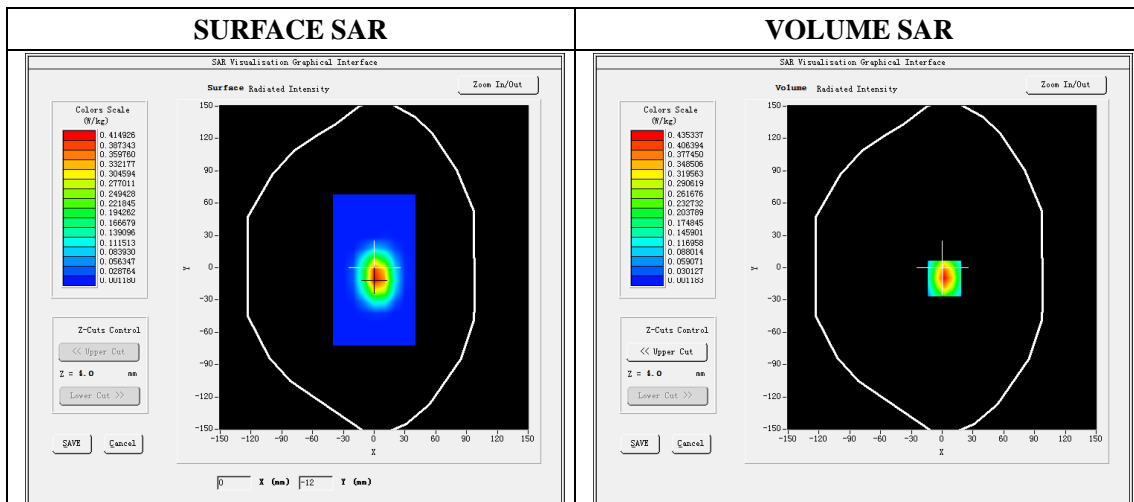
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

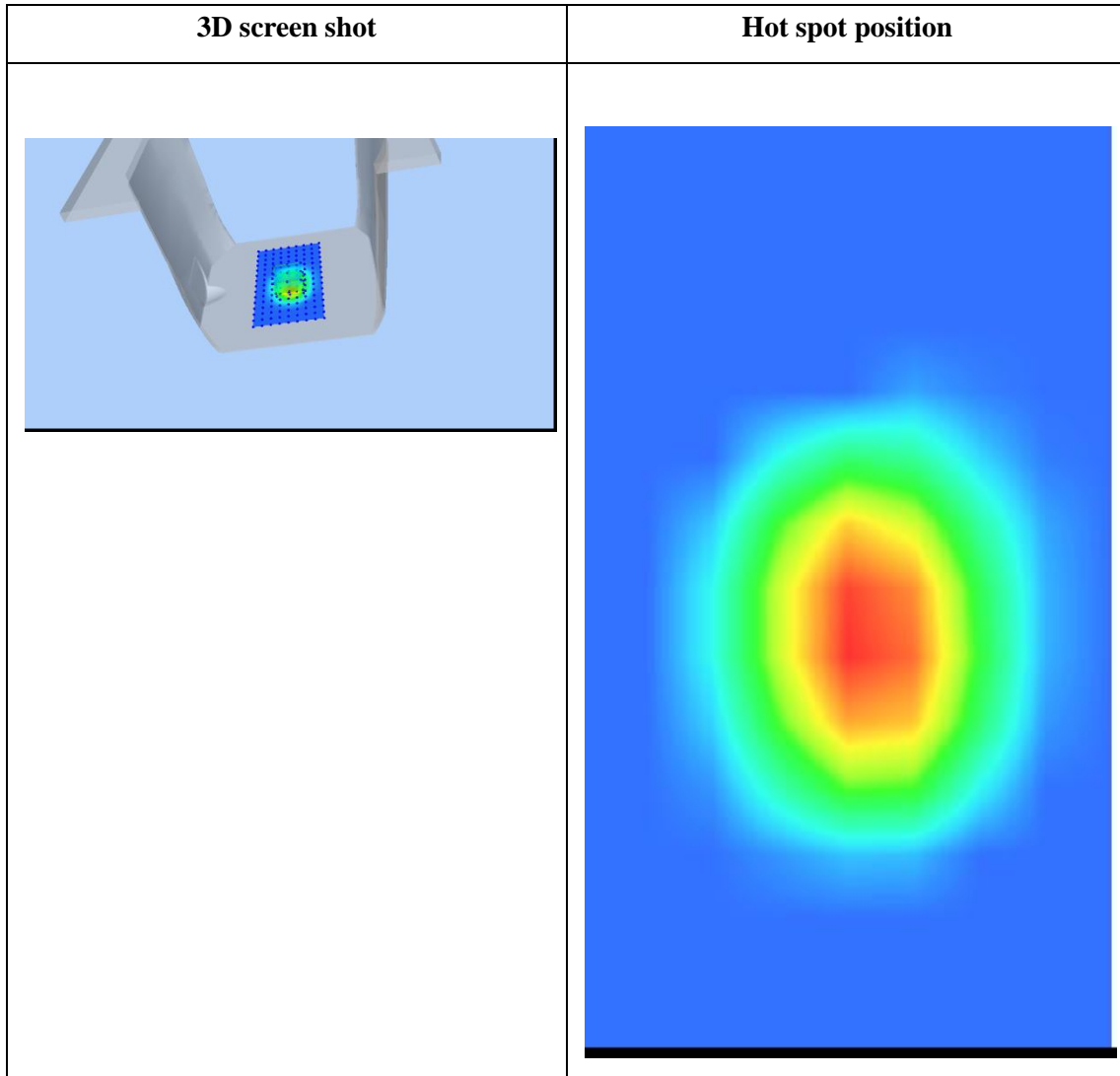
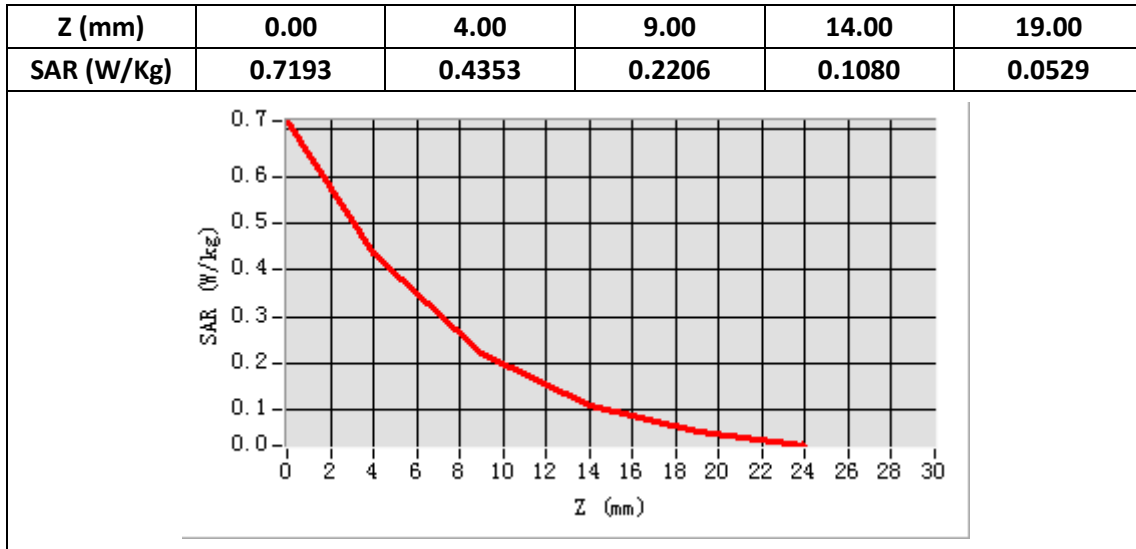
| | |
|--|-------------------------|
| E-Field Probe | SATIMO SN_27/15_EPG0261 |
| Frequency (MHz) | 1900 |
| Relative permittivity (real part) | 40.40 |
| Relative permittivity | 13.36 |
| Conductivity (S/m) | 1.41 |
| Power Drift (%) | -2.26 |
| Ambient Temperature: | 22.1 °C |
| Liquid Temperature: | 22.6 °C |
| ConvF: | 2.34 |
| Duty factor: | 1:1 |



Maximum location: X=-2.00, Y=-10.00

SAR Peak: 0.72 W/kg

| | |
|-----------------------|----------|
| SAR 10g (W/Kg) | 0.190604 |
| SAR 1g (W/Kg) | 0.399069 |



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: 01/11/2020

Measurement duration: 22 minutes 08 seconds

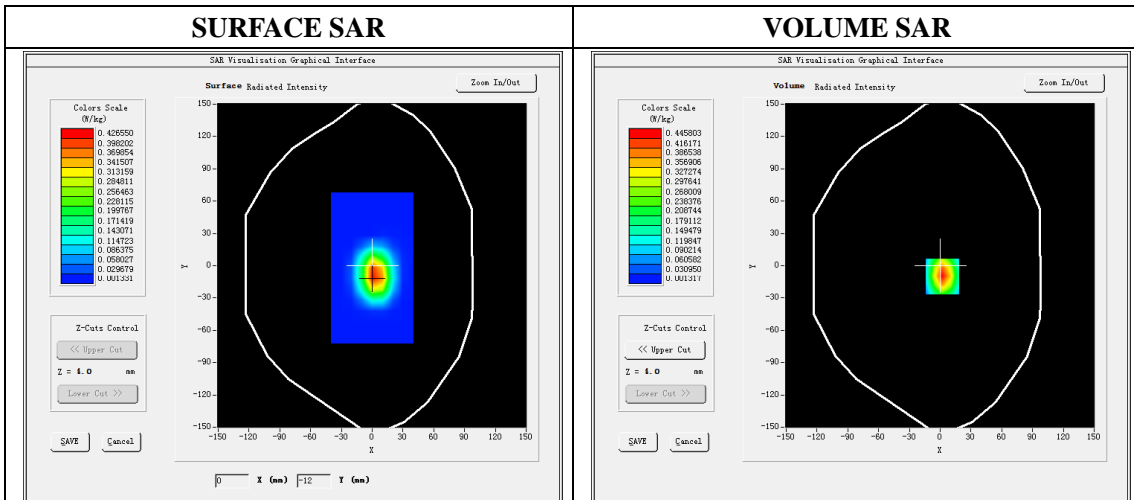
A. Experimental conditions.

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

B. SAR Measurement Results

Band SAR

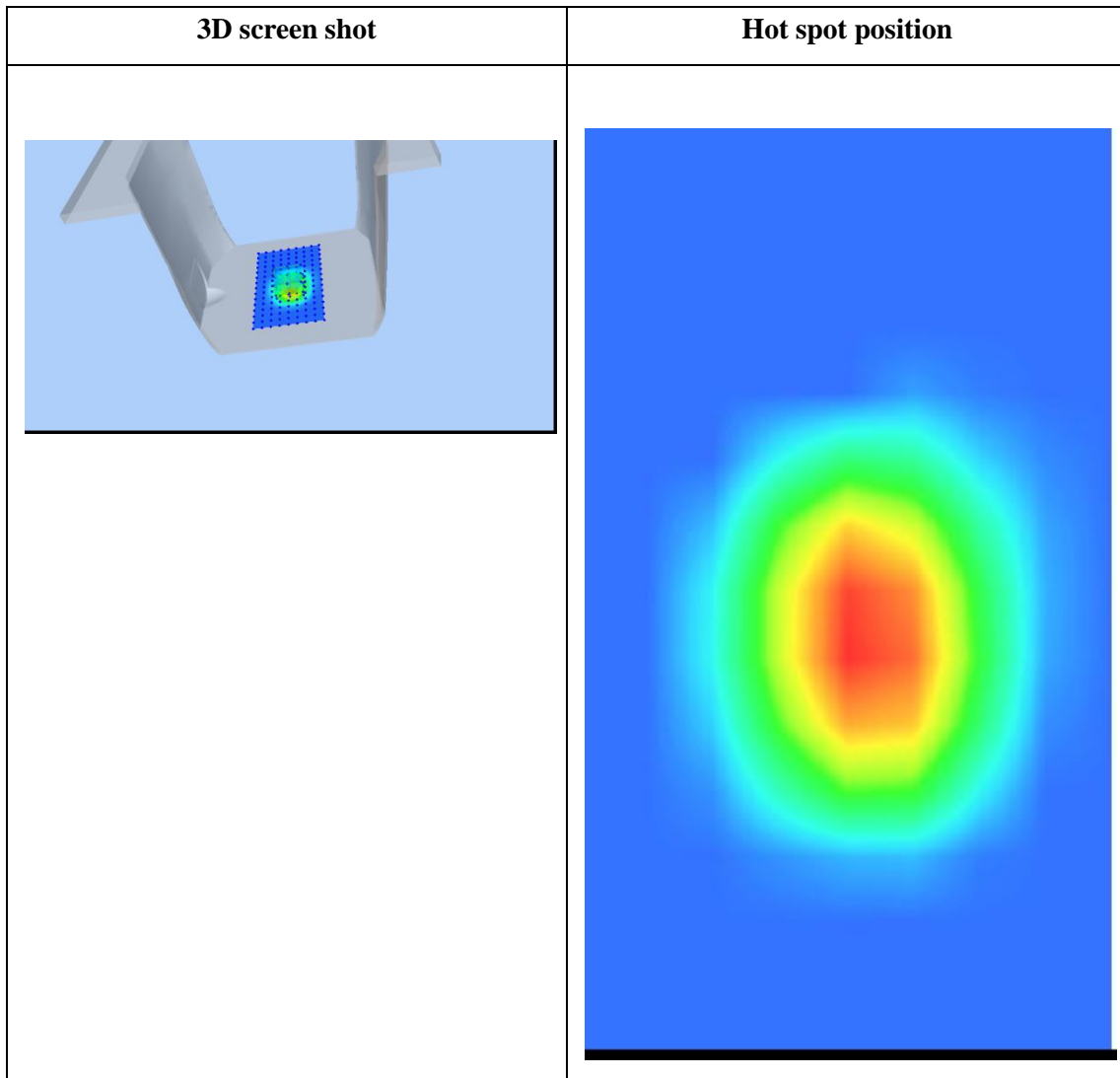
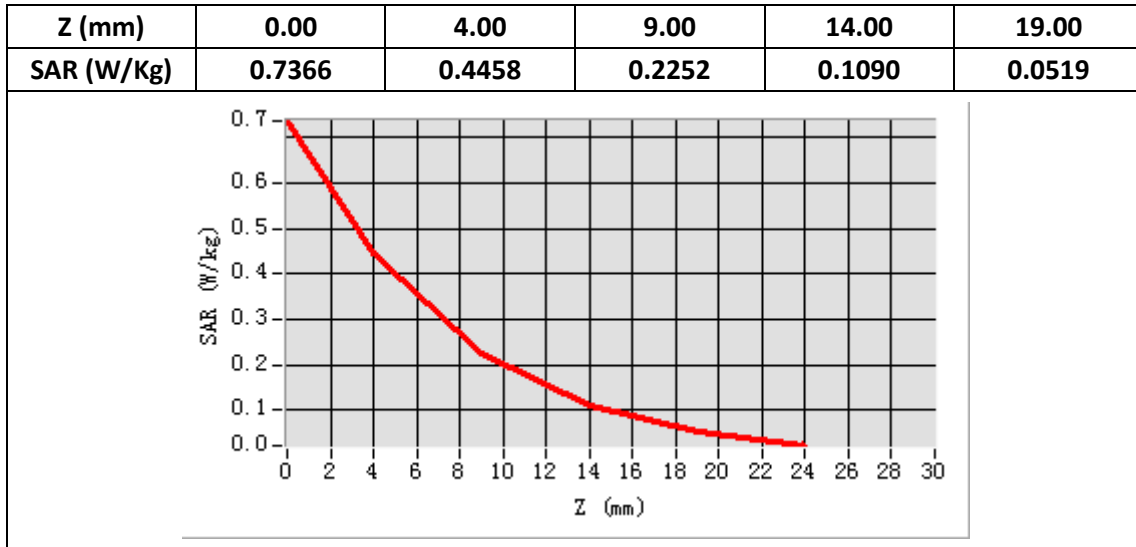
| | |
|--|-------------------------|
| E-Field Probe | SATIMO SN_27/15_EPG0261 |
| Frequency (MHz) | 1900 |
| Relative permittivity (real part) | 53.38 |
| Relative permittivity | 14.59 |
| Conductivity (S/m) | 1.54 |
| Power Drift (%) | -2.36 |
| Ambient Temperature: | 22.1 °C |
| Liquid Temperature: | 22.6 °C |
| ConvF: | 2.39 |
| Duty factor: | 1:1 |



Maximum location: X=2.00, Y=-10.00

SAR Peak: 0.74 W/kg

| | |
|-----------------------|----------|
| SAR 10g (W/Kg) | 0.194485 |
| SAR 1g (W/Kg) | 0.408629 |



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: 01/12/2020

Measurement duration: 22 minutes 06 seconds

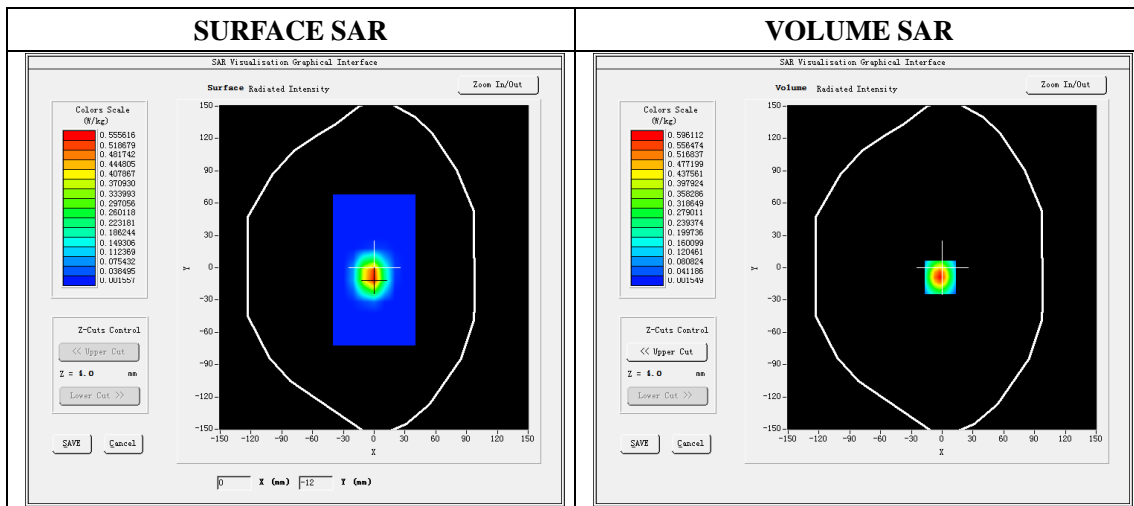
A. Experimental conditions.

| | |
|------------------------|----------------------------|
| 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

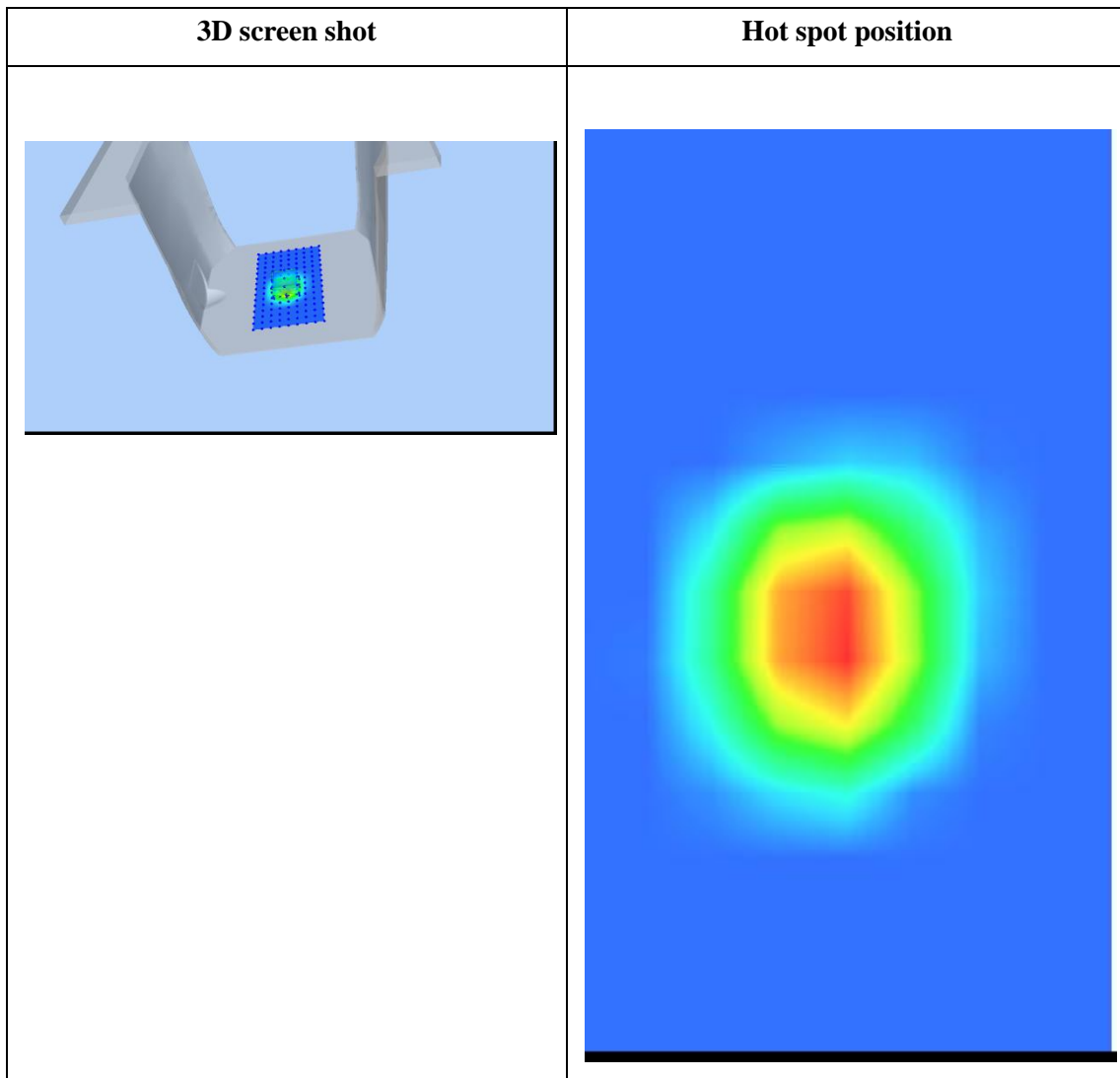
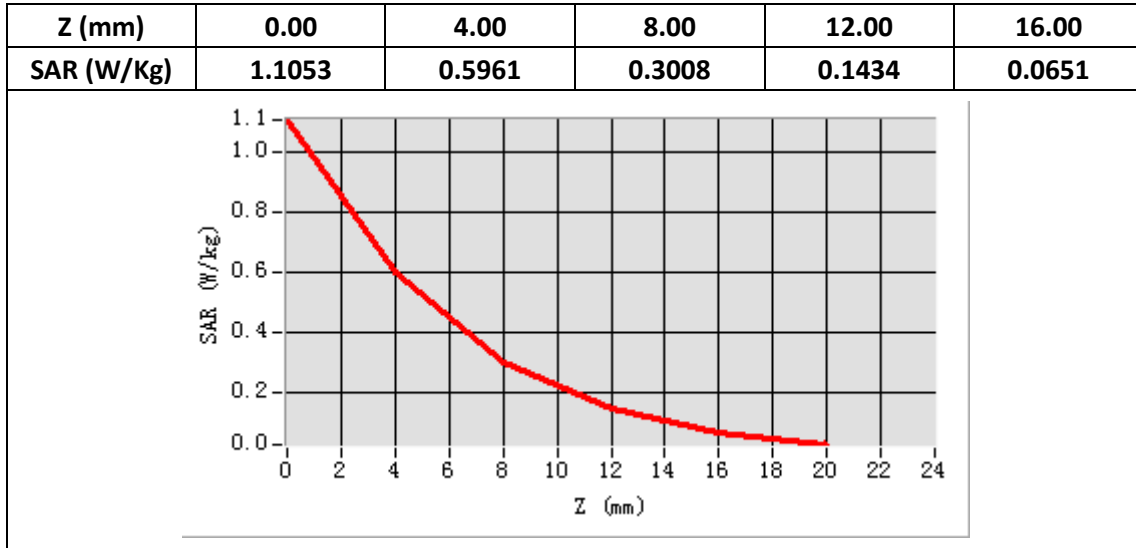
| | |
|--|-------------------------|
| E-Field Probe | SATIMO SN_27/15_EPG0261 |
| Frequency (MHz) | 2450 |
| Relative permittivity (real part) | 39.32 |
| Relative permittivity | 13.30 |
| Conductivity (S/m) | 1.81 |
| Power Drift (%) | -2.53 |
| Ambient Temperature: | 22.1°C |
| Liquid Temperature: | 22.6°C |
| ConvF: | 2.37 |
| Duty factor: | 1:1 |



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

SAR Peak: 1.11 W/kg

| | |
|-----------------------|----------|
| SAR 10g (W/Kg) | 0.220870 |
| SAR 1g (W/Kg) | 0.531722 |



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: 01/12/2020

Measurement duration: 22 minutes 09 seconds

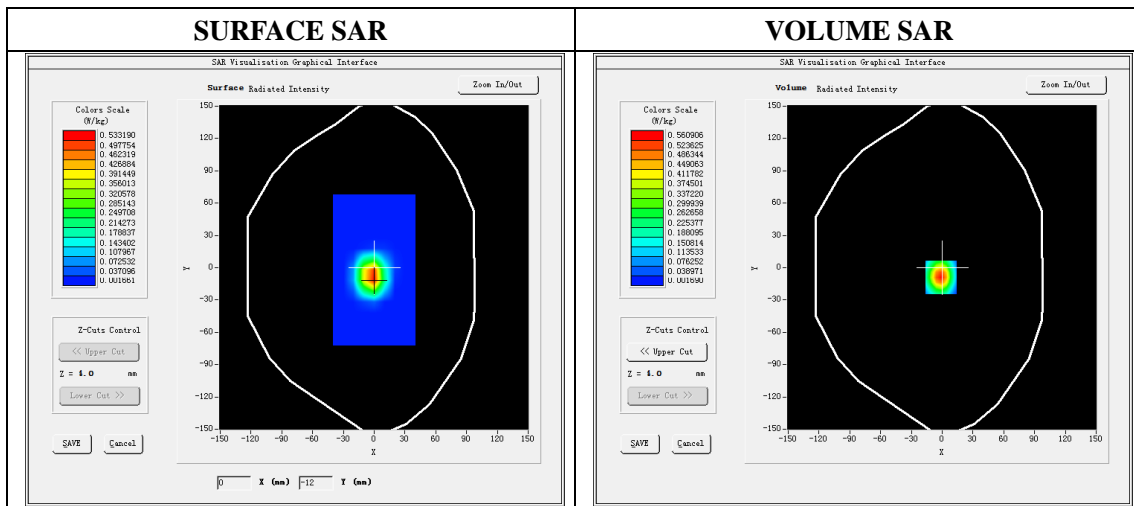
A. Experimental conditions.

| | |
|------------------------|----------------------------|
| Phantom File | dx=8mm dy=8mm |
| Phantom | 7x7x8,dx=5mm dy=5mm dz=4mm |
| Device Position | Dipole |
| Band | 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) | 52.80 |
| Relative permittivity | 14.47 |
| Conductivity (S/m) | 1.97 |
| Power Drift (%) | -2.48 |
| Ambient Temperature: | 22.1°C |
| Liquid Temperature: | 22.6°C |
| ConvF: | 2.46 |
| Duty factor: | 1:1 |

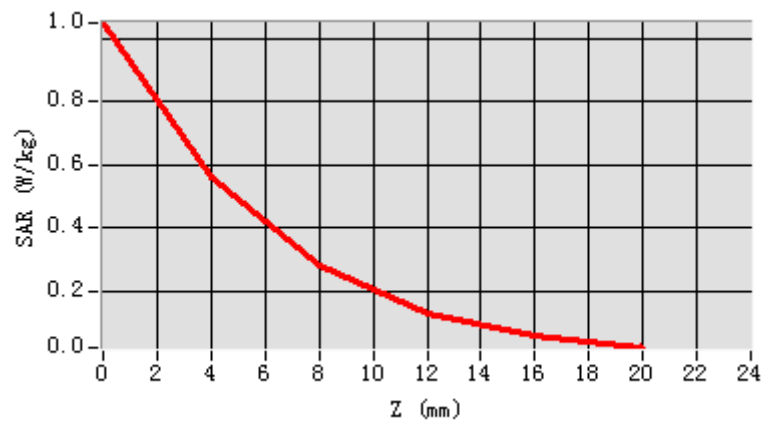


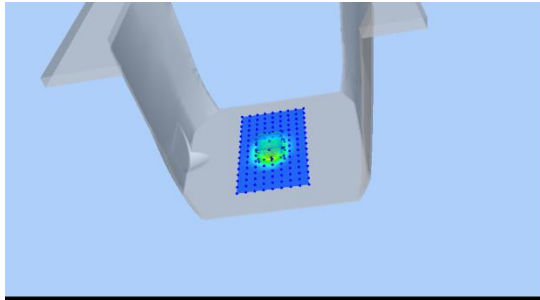
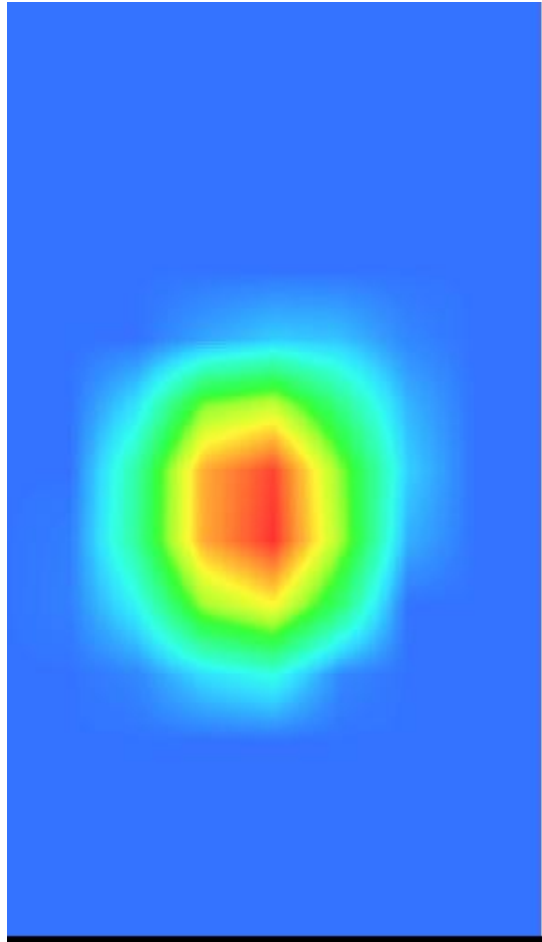
Maximum location: X=-1.00, Y=-9.00

SAR Peak: 1.05 W/kg

| | |
|-----------------------|----------|
| SAR 10g (W/Kg) | 0.208125 |
| SAR 1g (W/Kg) | 0.506883 |

| Z (mm) | 0.00 | 4.00 | 8.00 | 12.00 | 16.00 |
|------------|--------|--------|--------|--------|--------|
| SAR (W/Kg) | 1.0494 | 0.5609 | 0.2794 | 0.1308 | 0.0578 |



| 3D screen shot | Hot spot position |
|--|---|
|  |  |

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: 01/13/2020

Measurement duration: 22 minutes12 seconds

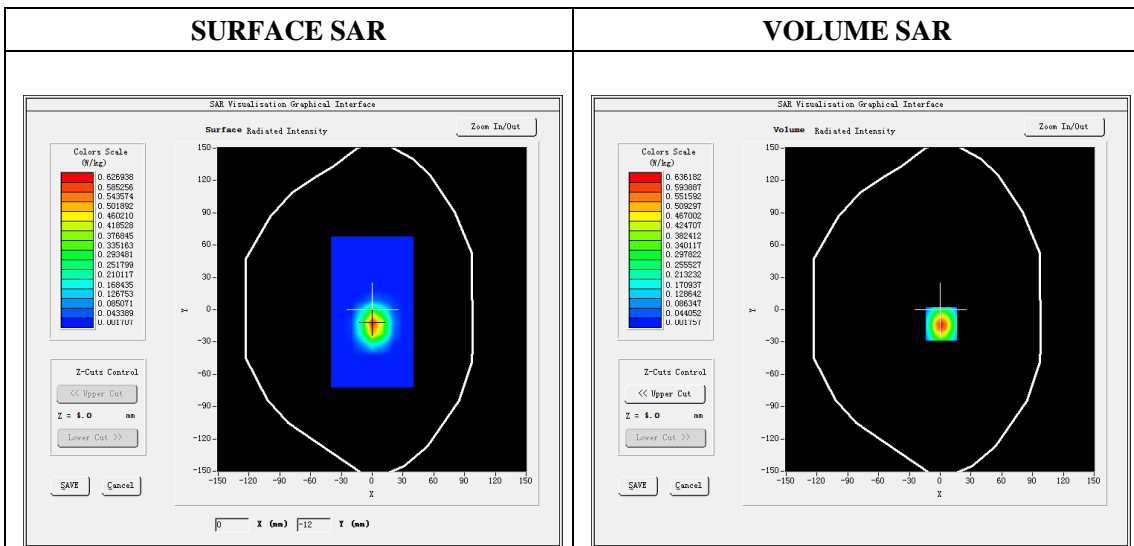
A. Experimental conditions.

| | |
|------------------------|----------------------------|
| 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

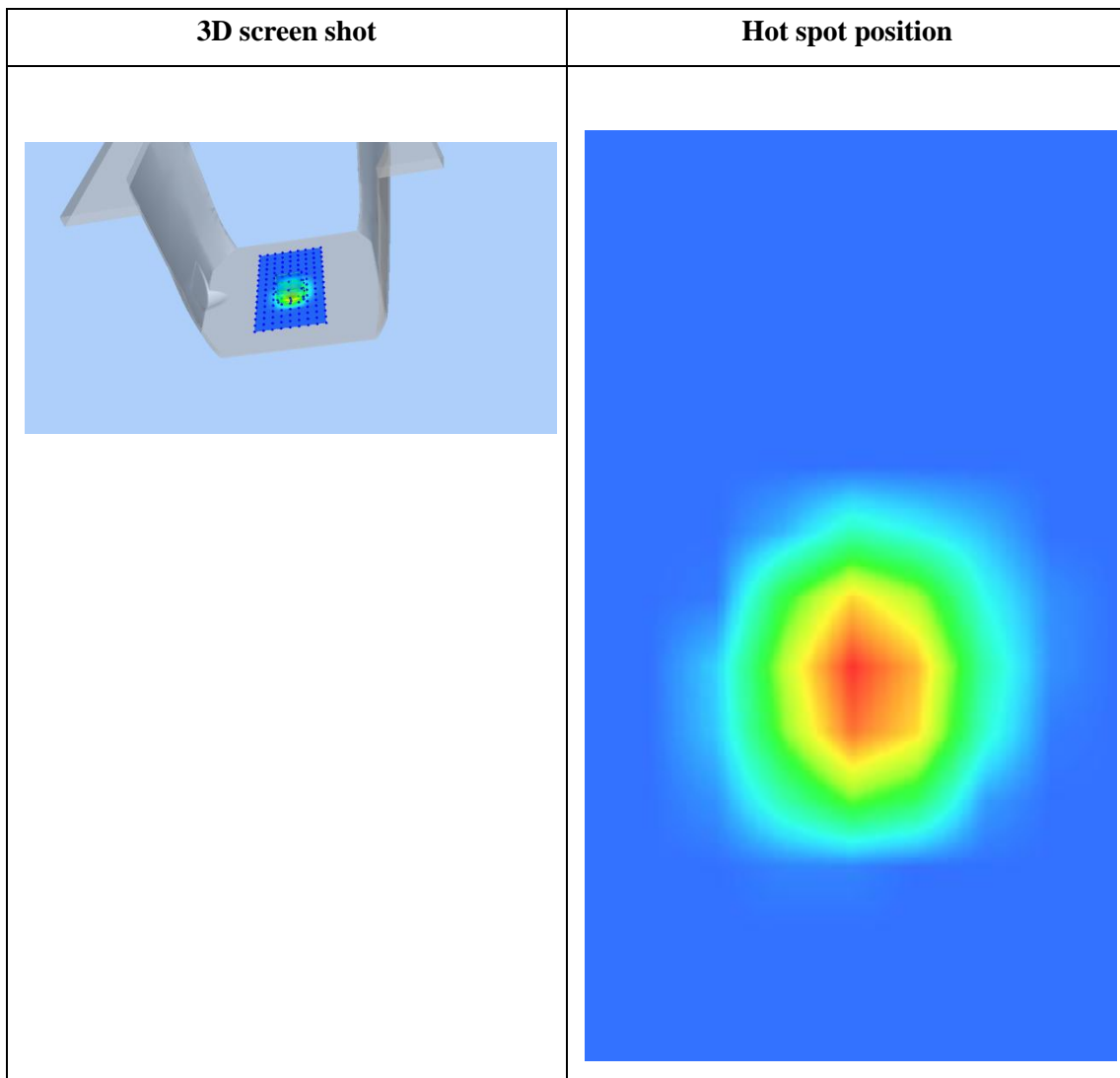
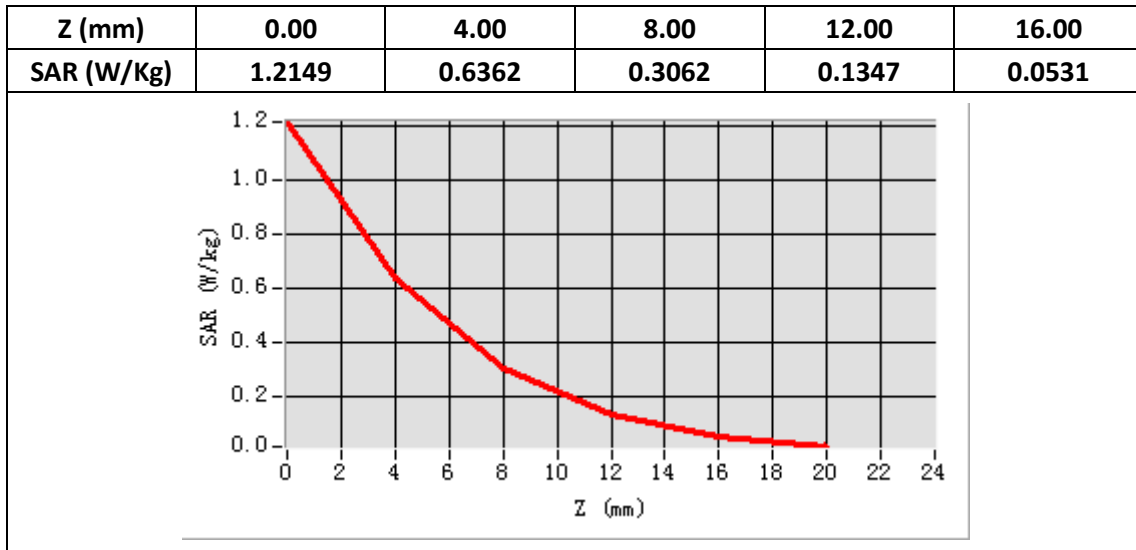
| | |
|--|-------------------------|
| E-Field Probe | SATIMO SN_27/15_EPG0261 |
| Frequency (MHz) | 2600 |
| Relative permittivity (real part) | 39.09 |
| Relative permittivity | 13.64 |
| Conductivity (S/m) | 1.97 |
| Power drift (%) | -1.12 |
| Ambient Temperature: | 22.2°C |
| Liquid Temperature: | 22.5°C |
| Crest factor: | 1:1 |
| ConvF: | 2.35 |



Maximum location: X=1.00, Y=-13.00

SAR Peak: 1.22 W/kg

| | |
|-----------------------|----------|
| SAR 10g (W/Kg) | 0.230541 |
| SAR 1g (W/Kg) | 0.575947 |



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: 01/13/2020

Measurement duration: 22 minutes 10 seconds

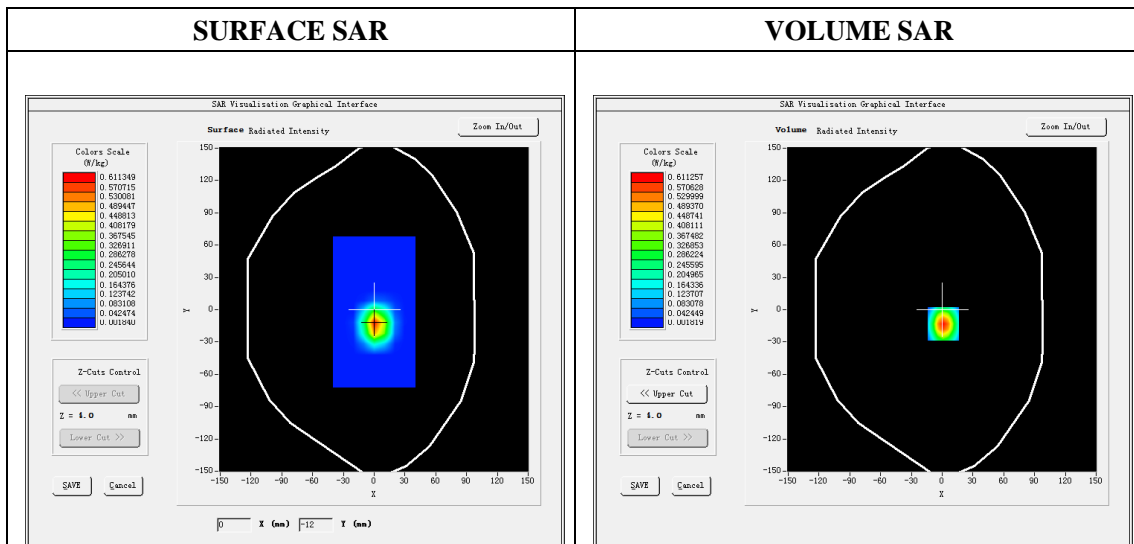
A. Experimental conditions.

| | |
|------------------------|----------------------------|
| 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) | 52.61 |
| Relative permittivity | 15.09 |
| Conductivity (S/m) | 2.18 |
| Power drift (%) | -2.98 |
| Ambient Temperature: | 22.2°C |
| Liquid Temperature: | 22.5°C |
| Crest factor: | 1:1 |
| ConvF: | 2.43 |



Maximum location: X=1.00, Y=-13.00

SAR Peak: 1.16 W/kg

| | |
|-----------------------|----------|
| SAR 10g (W/Kg) | 0.218972 |
| SAR 1g (W/Kg) | 0.546557 |

