

MEASUREMENT 7

Date of measurement: 24/10/2024

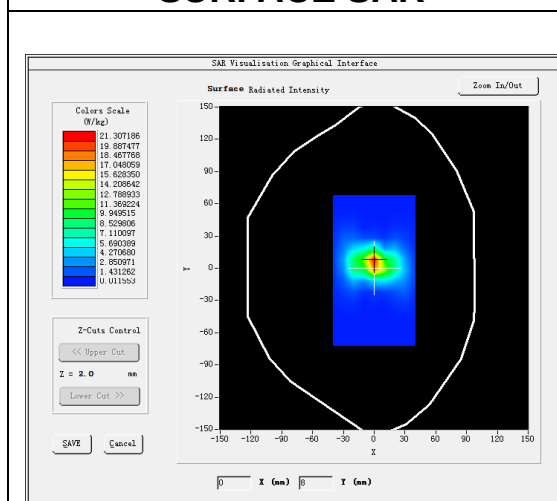
A. Experimental conditions.

Area Scan	<u>dx=10mm dy=10mm, h= 2.00 mm</u>
ZoomScan	<u>7x7x12,dx=4mm dy=4mm dz=2mm</u>
Phantom	<u>Validation plane</u>
Device Position	<u>Dipole</u>
Band	<u>CW5200</u>
Channels	<u>Middle</u>
Signal	<u>CW (Crest factor: 1.0)</u>
ConvF	<u>1.89</u>

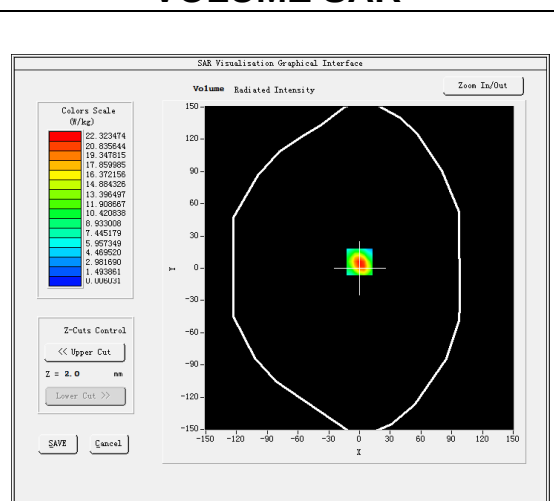
B. SAR Measurement Results

Frequency (MHz)	5200.000000
Relative permittivity (real part)	36.620948
Relative permittivity (imaginary part)	15.628512
Conductivity (S/m)	4.516237
Variation (%)	3.790000

SURFACE SAR



VOLUME SAR

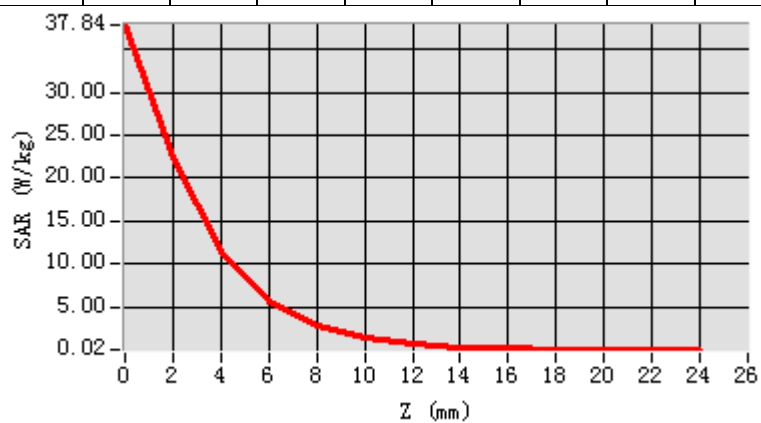


Maximum location: X=0.00, Y=6.00

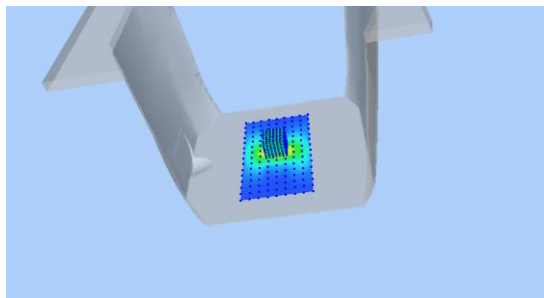
SAR Peak: 40.06 W/kg

SAR 10g (W/Kg)	5.96217
SAR 1g (W/Kg)	15.218024

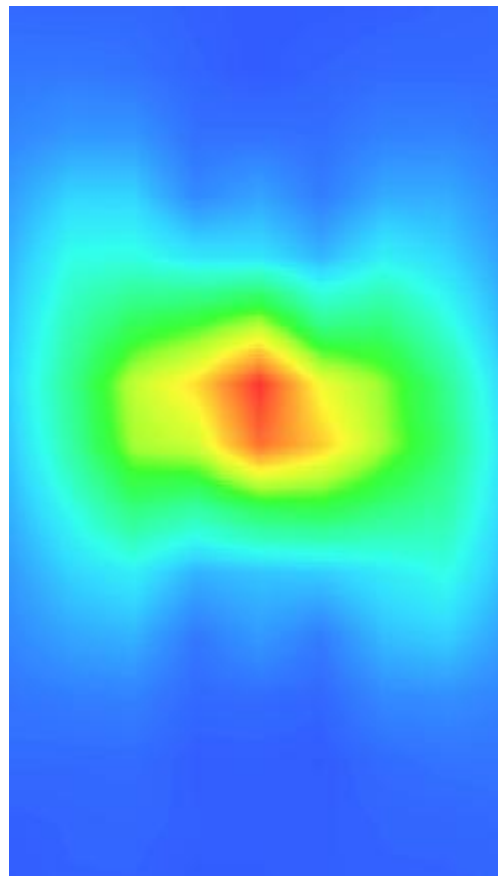
Z (m m)	0.00	2.00	4.00	6.00	8.00	10.0 0	12.0 0	14.0 0	16.0 0	18.0 0	20.0 0	22.0 0
SAR (W/ Kg)	37.8 23	22.3 59	11.3 97	5.66 31	2.82 50	1.40 23	0.71 98	0.36 20	0.18 37	0.10 96	0.05 42	0.03 27



3D screen shot



Hot spot position



MEASUREMENT 8

Date of measurement: 25/10/2024

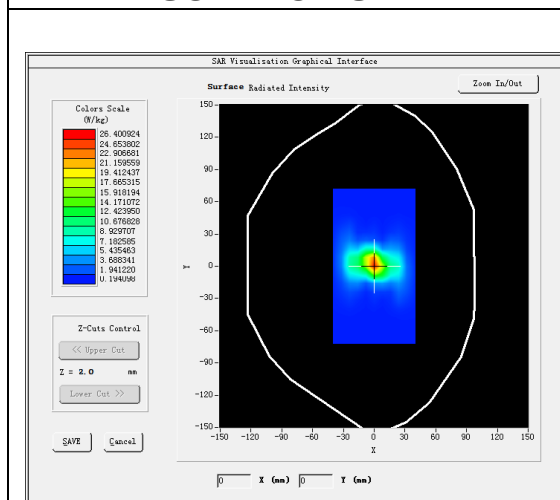
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=10mm dy=10mm, h= 2.00 mm</u>
<u>ZoomScan</u>	<u>7x7x12,dx=4mm dy=4mm dz=2mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW5400</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>1.97</u>

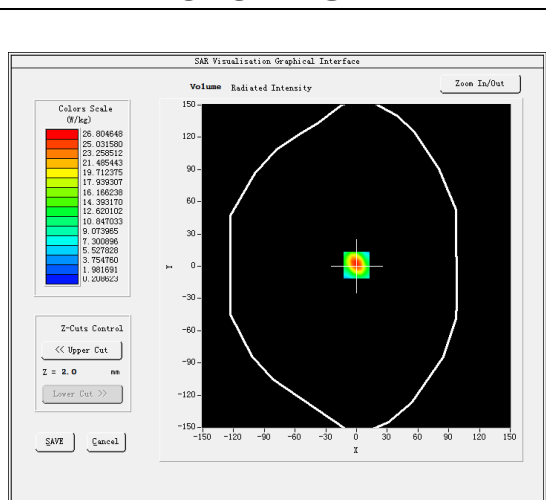
B. SAR Measurement Results

Frequency (MHz)	5400.000000
Relative permittivity (real part)	35.591825
Relative permittivity (imaginary part)	15.728485
Conductivity (S/m)	4.718546
Variation (%)	1.350000

SURFACE SAR



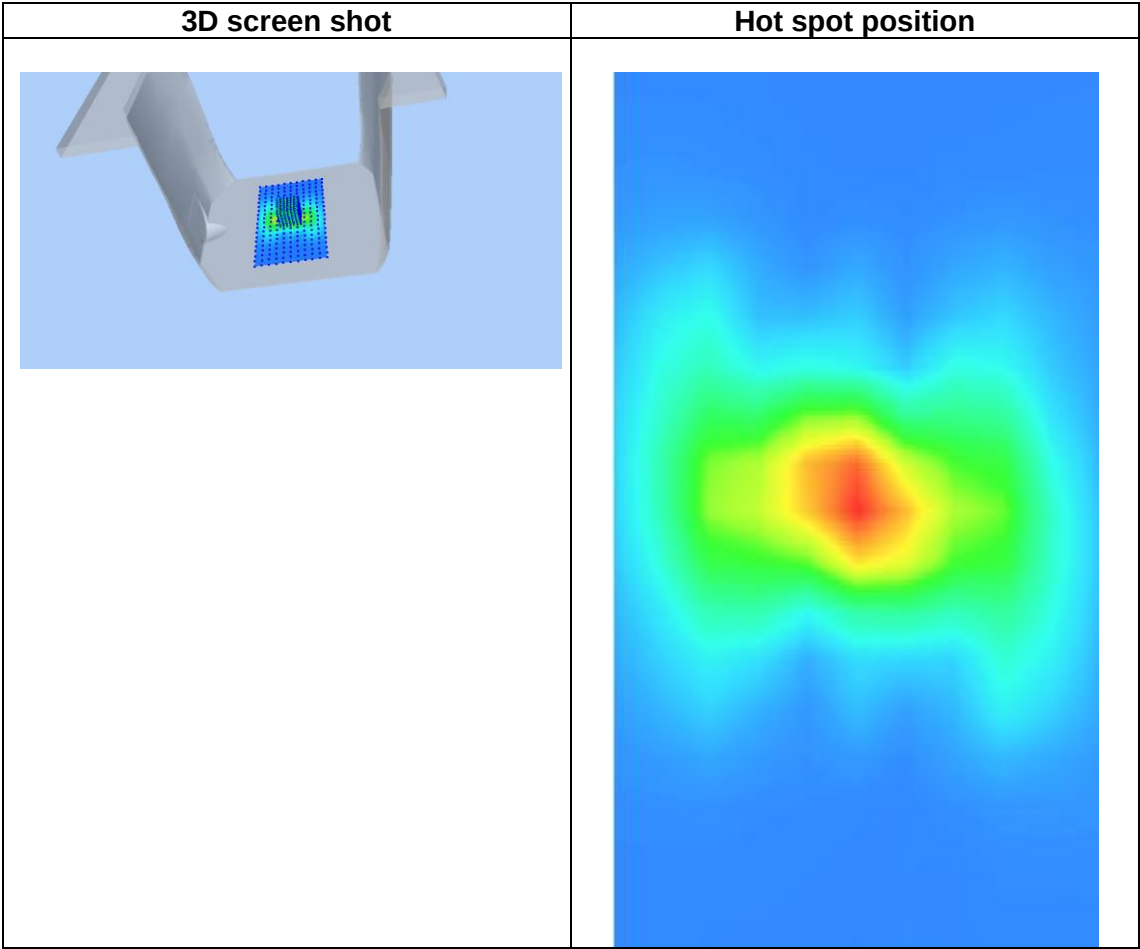
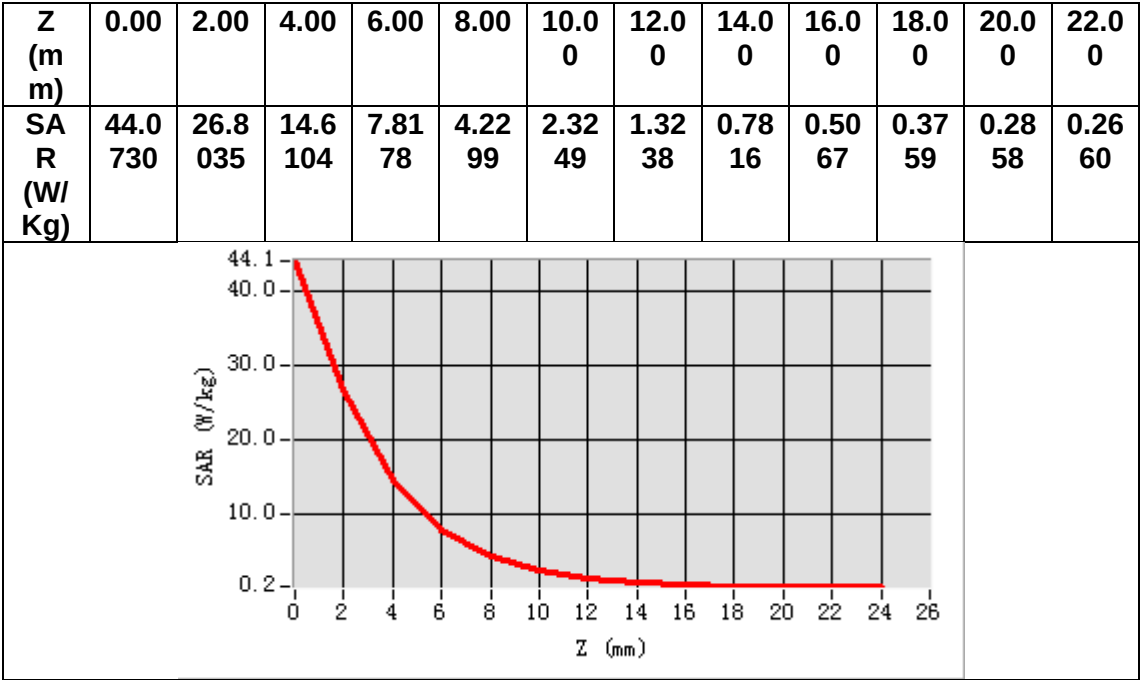
VOLUME SAR



Maximum location: X=0.00, Y=1.00

SAR Peak: 46.18 W/kg

SAR 10g (W/Kg)	5.988428
SAR 1g (W/Kg)	17.137225



MEASUREMENT 9

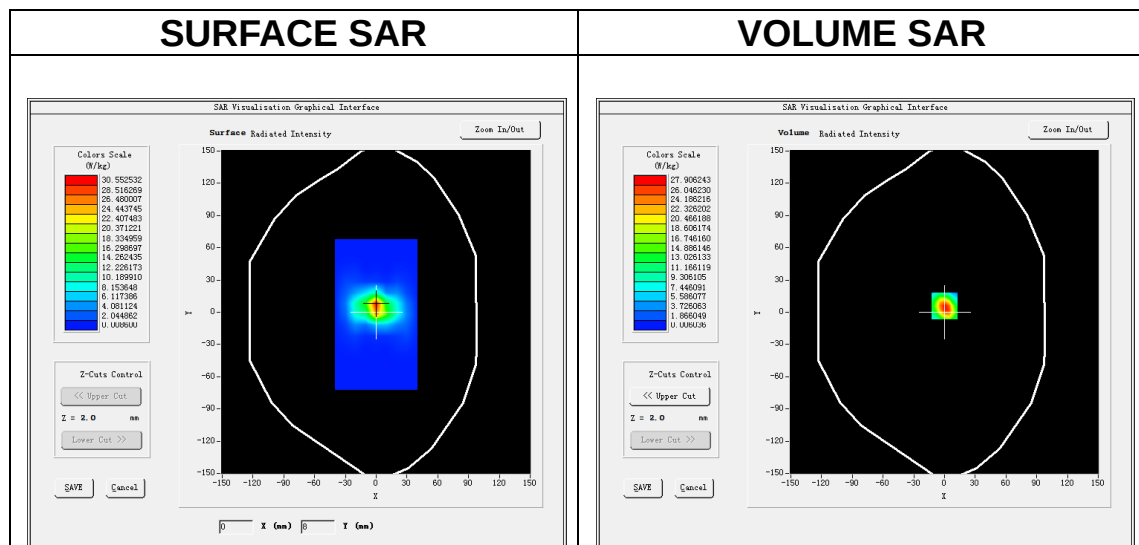
Date of measurement: 4/11/2024

A. Experimental conditions.

Area Scan	<u>dx=10mm dy=10mm, h= 2.00 mm</u>
ZoomScan	<u>7x7x12,dx=4mm dy=4mm dz=2mm</u>
Phantom	<u>Validation plane</u>
Device Position	<u>Dipole</u>
Band	<u>CW5600</u>
Channels	<u>Middle</u>
Signal	<u>CW (Crest factor: 1.0)</u>
ConvF	<u>1.88</u>

B. SAR Measurement Results

Frequency (MHz)	5600.000000
Relative permittivity (real part)	34.643255
Relative permittivity (imaginary part)	16.113609
Conductivity (S/m)	5.013123
Variation (%)	0.134270

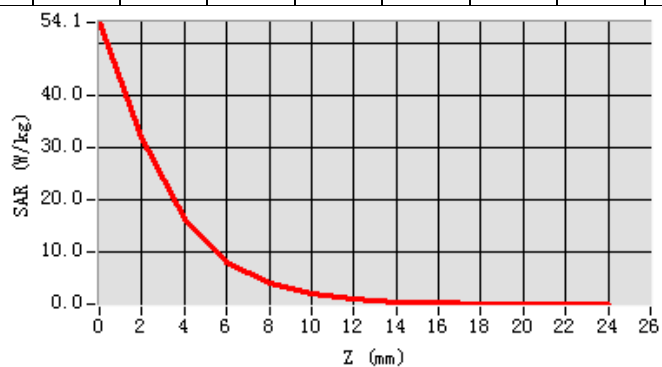


Maximum location: X=0.00, Y=6.00

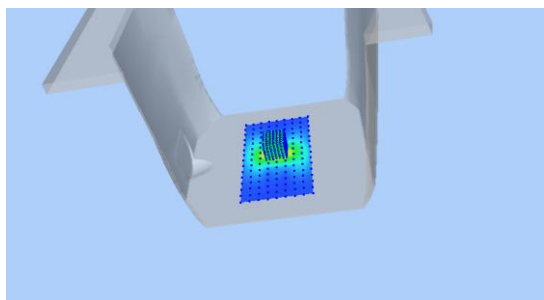
SAR Peak: 51.23 W/kg

SAR 10g (W/Kg)	5.603995
SAR 1g (W/Kg)	16.149308

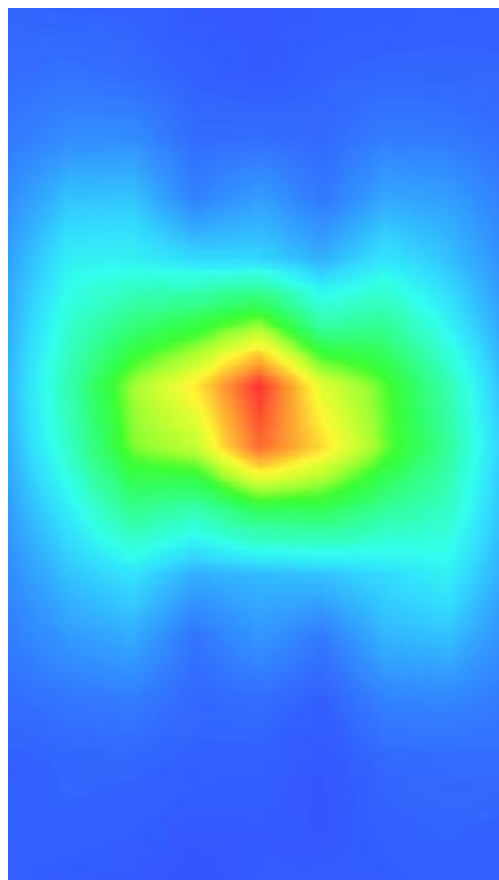
Z (m m)	0.00	2.00	4.00	6.00	8.00	10.0 0	12.0 0	14.0 0	16.0 0	18.0 0	20.0 0	22.0 0
SAR (W/ Kg)	54.1 388	31.9 062	16.3 510	8.17 83	4.08 24	3.81 66	1.03 45	0.46 87	0.27 29	0.13 26	0.07 55	0.05 02



3D screen shot



Hot spot position



MEASUREMENT 10

Date of measurement: 26/10/2024

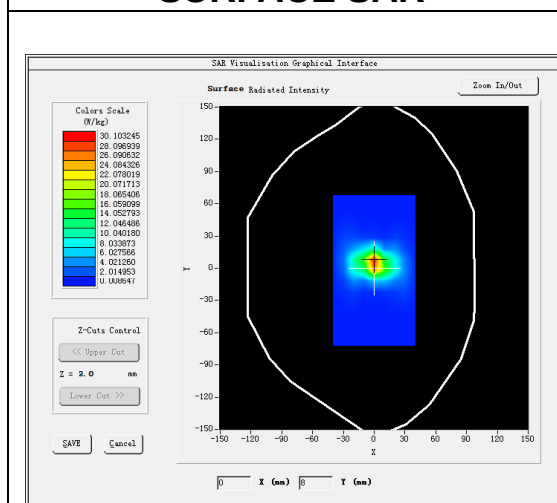
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=10mm dy=10mm, h= 2.00 mm</u>
<u>ZoomScan</u>	<u>7x7x12,dx=4mm dy=4mm dz=2mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW5800</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>1.90</u>

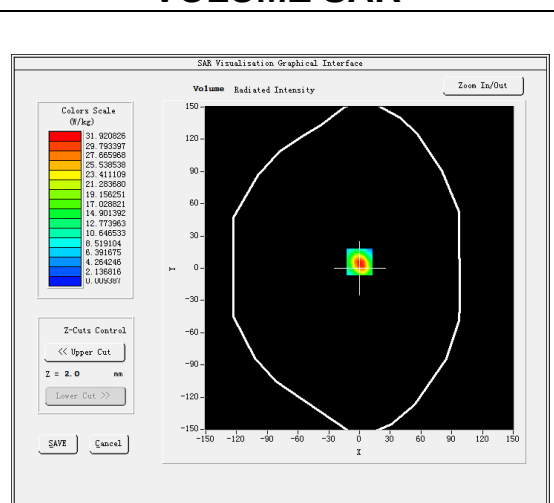
B. SAR Measurement Results

Frequency (MHz)	5800.000000
Relative permittivity (real part)	35.472098
Relative permittivity (imaginary part)	15.972741
Conductivity (S/m)	5.135105
Variation (%)	-1.540000

SURFACE SAR



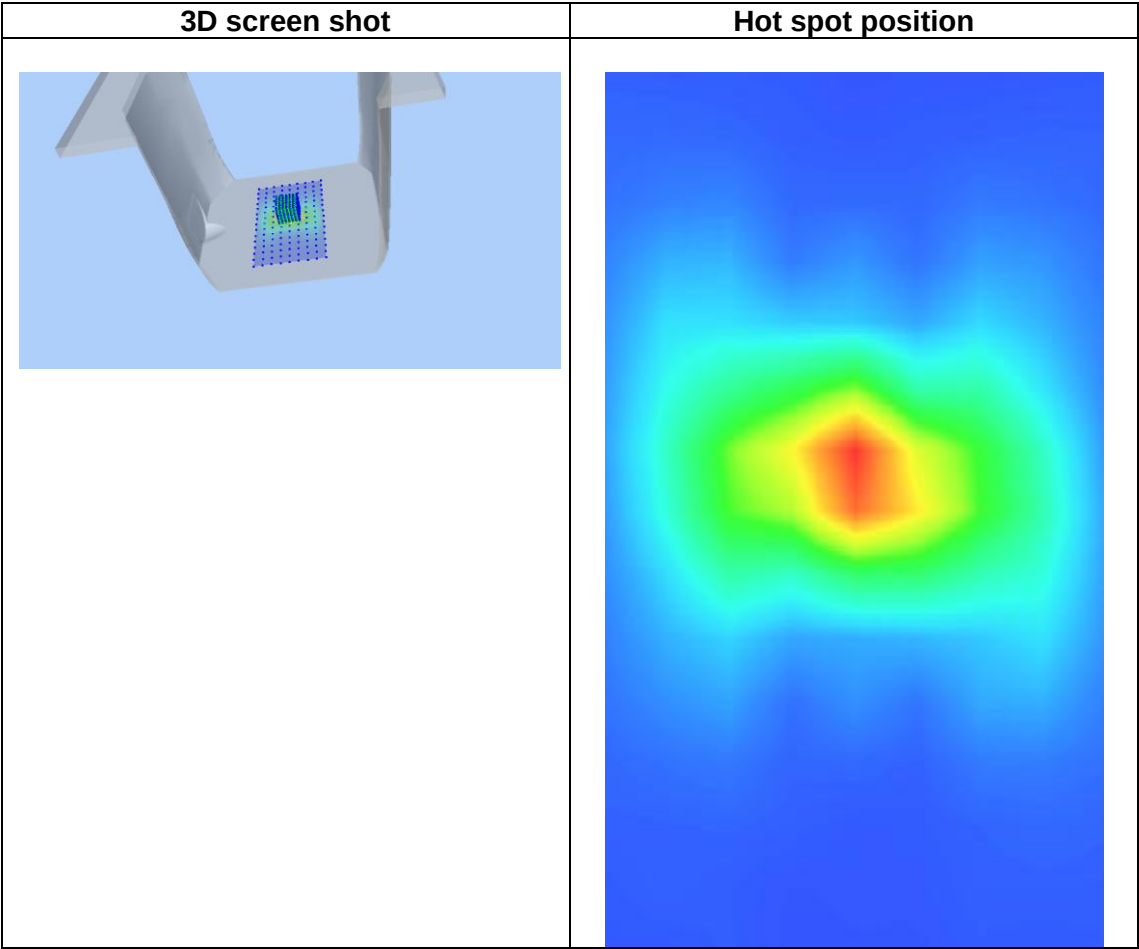
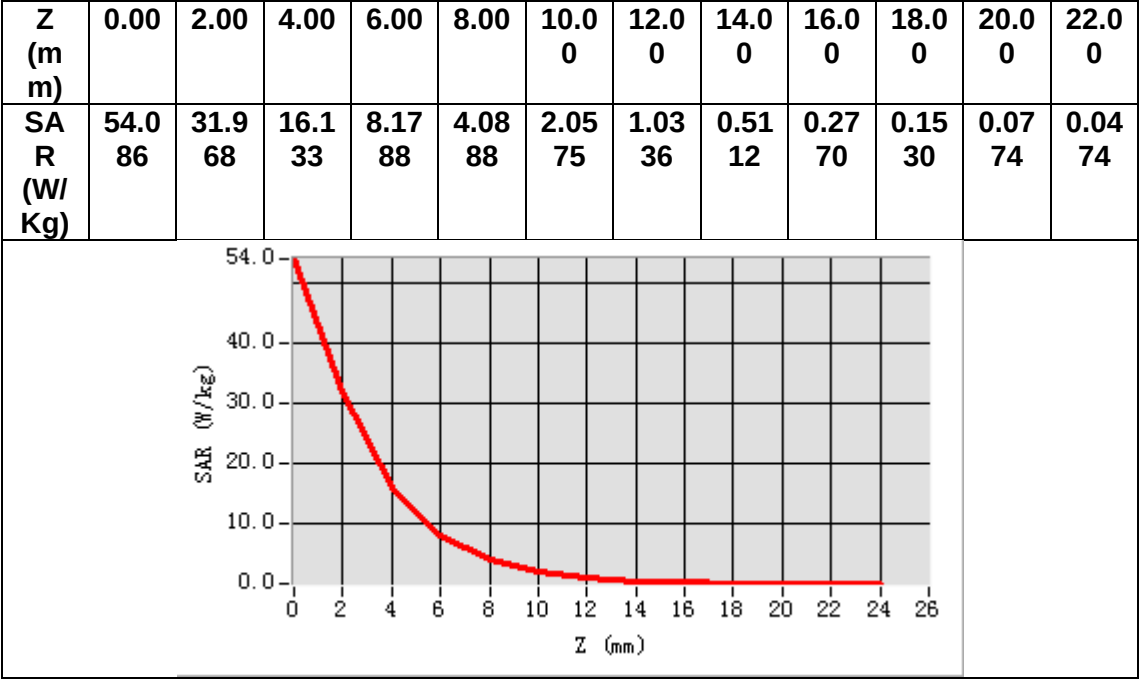
VOLUME SAR



Maximum location: X=0.00, Y=6.00

SAR Peak: 57.37 W/kg

SAR 10g (W/Kg)	5.570177
SAR 1g (W/Kg)	17.515230



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MEASUREMENT 1

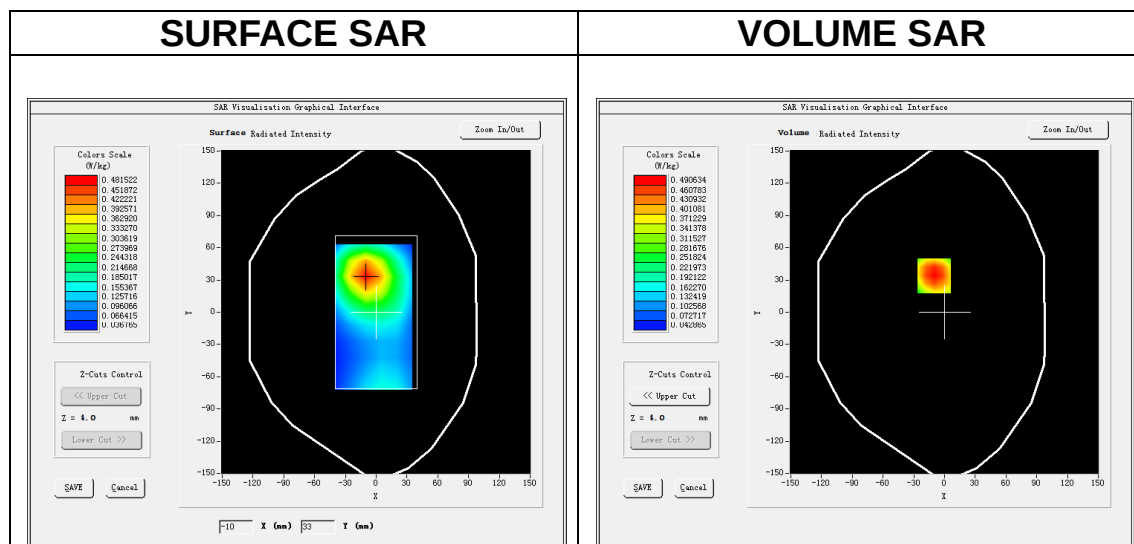
Date of measurement: 5/11/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>GSM850</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>TDMA (Crest factor: 8.0)</u>
<u>ConvF</u>	<u>2.34</u>

B. SAR Measurement Results

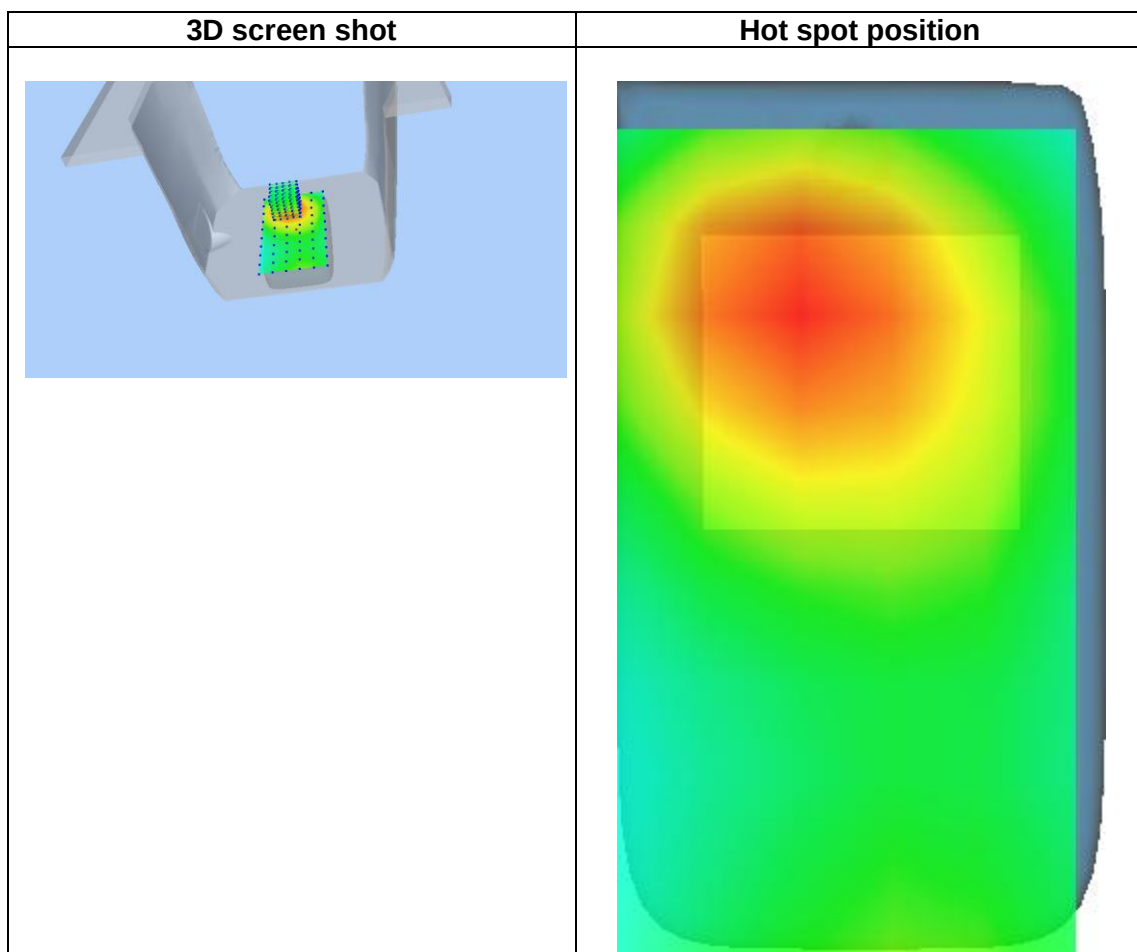
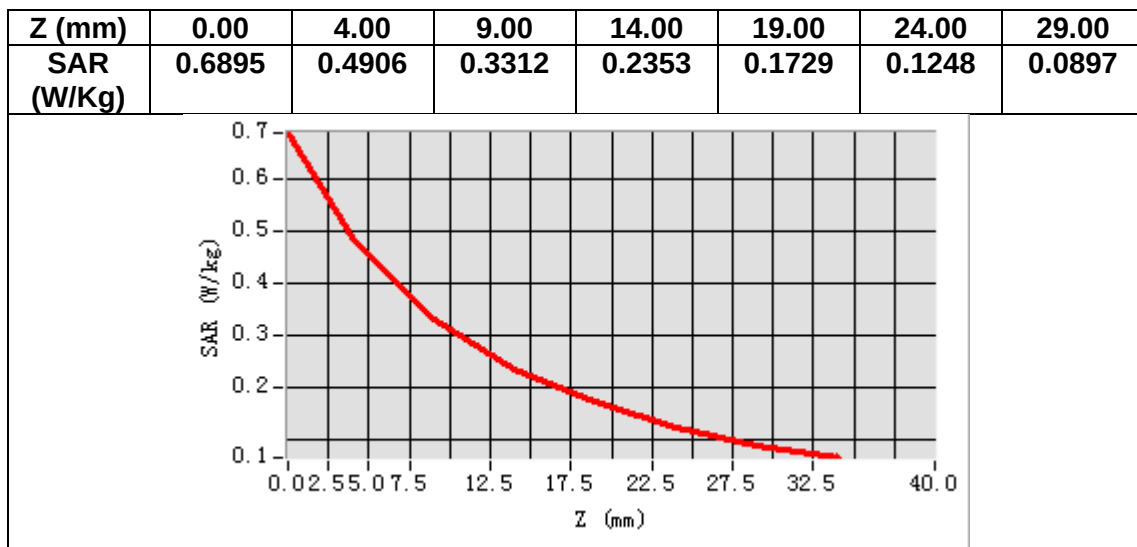
Frequency (MHz)	836.400000
Relative permittivity (real part)	41.997749
Relative permittivity (imaginary part)	19.853529
Conductivity (S/m)	0.922527
Variation (%)	-1.720000



Maximum location: X=-10.00, Y=34.00

SAR Peak: 0.69 W/kg

SAR 10g (W/Kg)	0.315867
SAR 1g (W/Kg)	0.482587



MEASUREMENT 2

Date of measurement: 6/11/2024

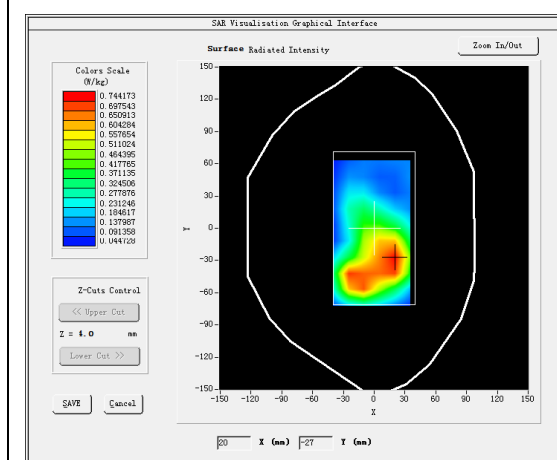
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>GSM1900</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>TDMA (Crest factor: 8.0)</u>
<u>ConvF</u>	<u>2.57</u>

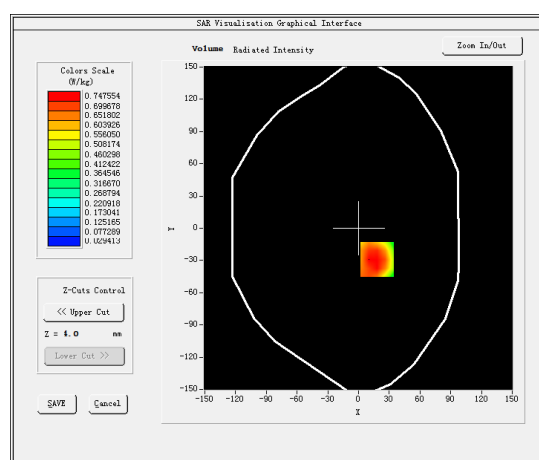
B. SAR Measurement Results

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.562634
Relative permittivity (imaginary part)	13.814889
Conductivity (S/m)	1.442888
Variation (%)	0.180000

SURFACE SAR



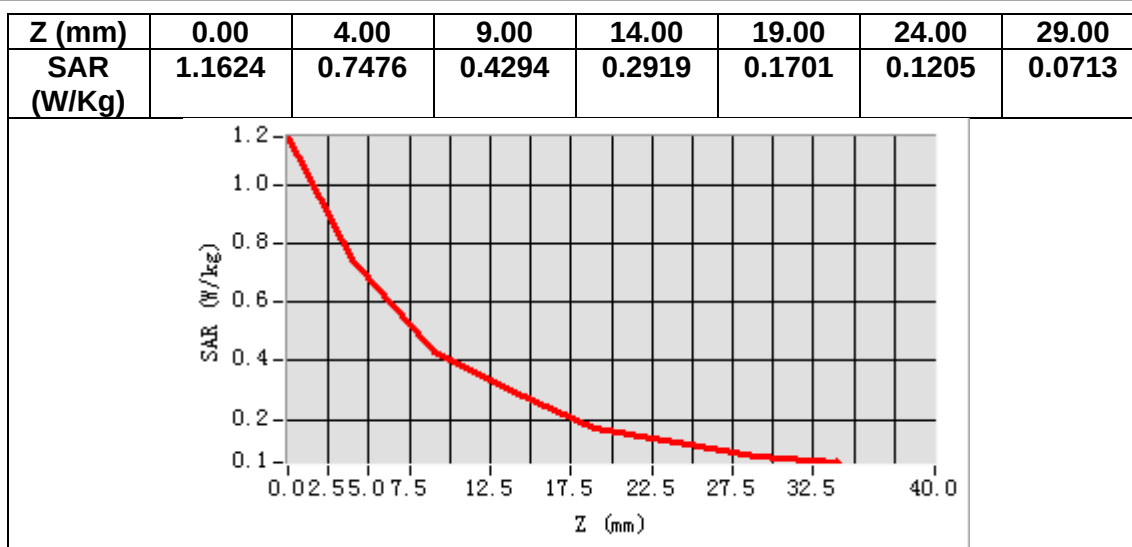
VOLUME SAR



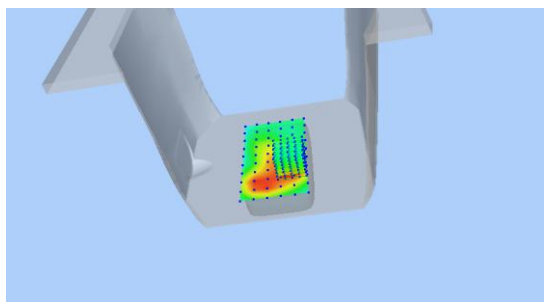
Maximum location: X=18.00, Y=-29.00

SAR Peak: 1.14 W/kg

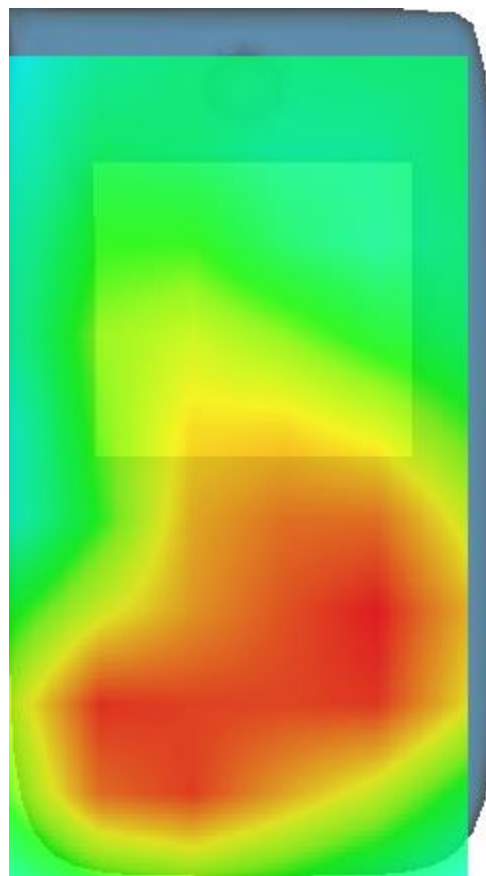
SAR 10g (W/Kg)	0.456543
SAR 1g (W/Kg)	0.756166



3D screen shot



Hot spot position



MEASUREMENT 3

Date of measurement: 6/11/2024

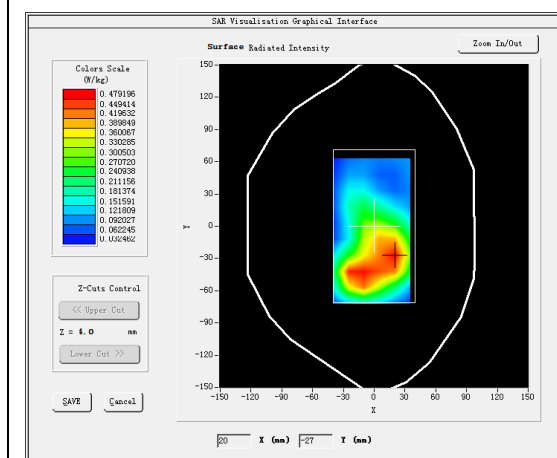
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>Band2 WCDMA1900</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>WCDMA (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.57</u>

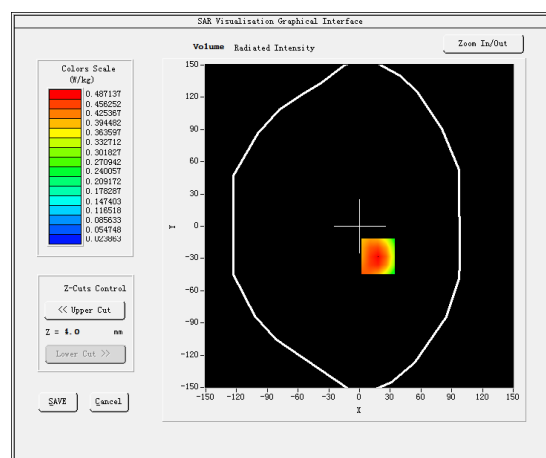
B. SAR Measurement Results

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.562634
Relative permittivity (imaginary part)	13.814889
Conductivity (S/m)	1.442888
Variation (%)	-0.530000

SURFACE SAR



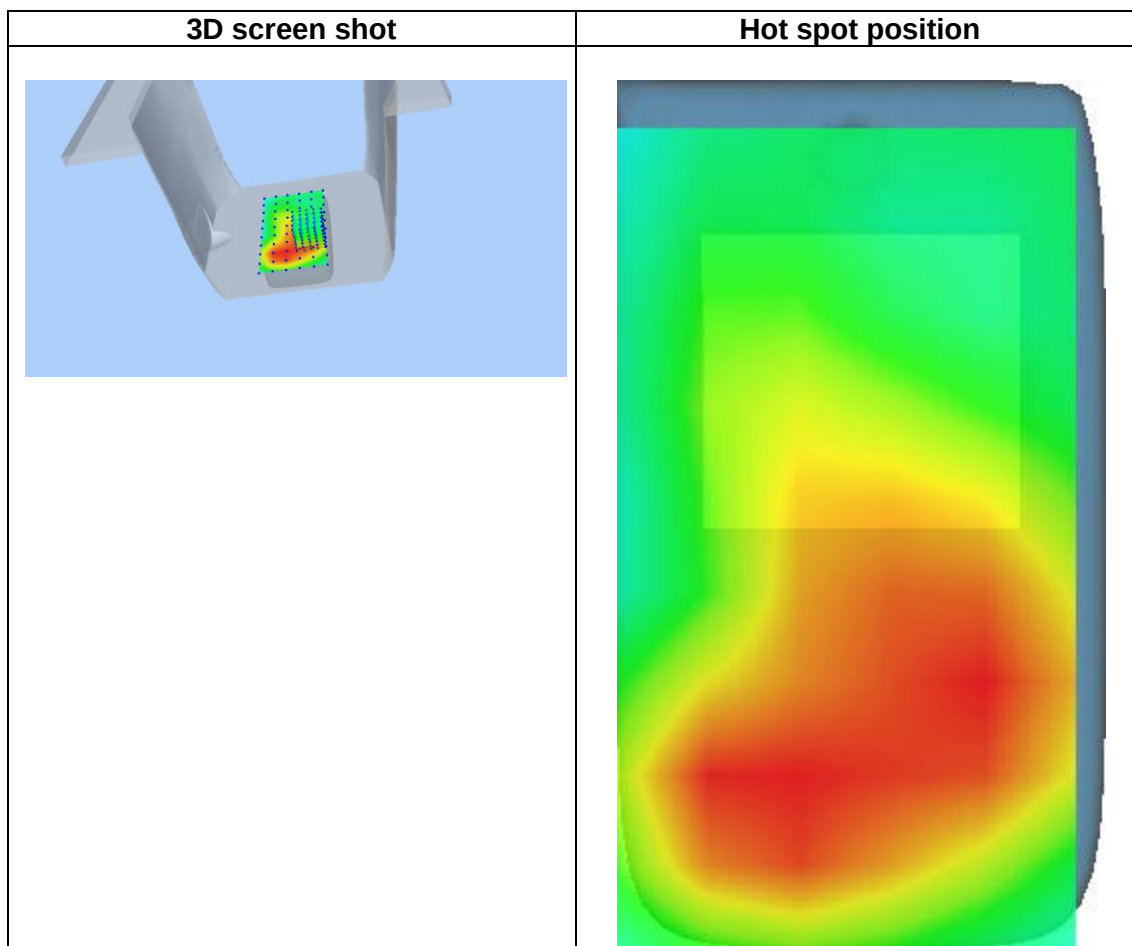
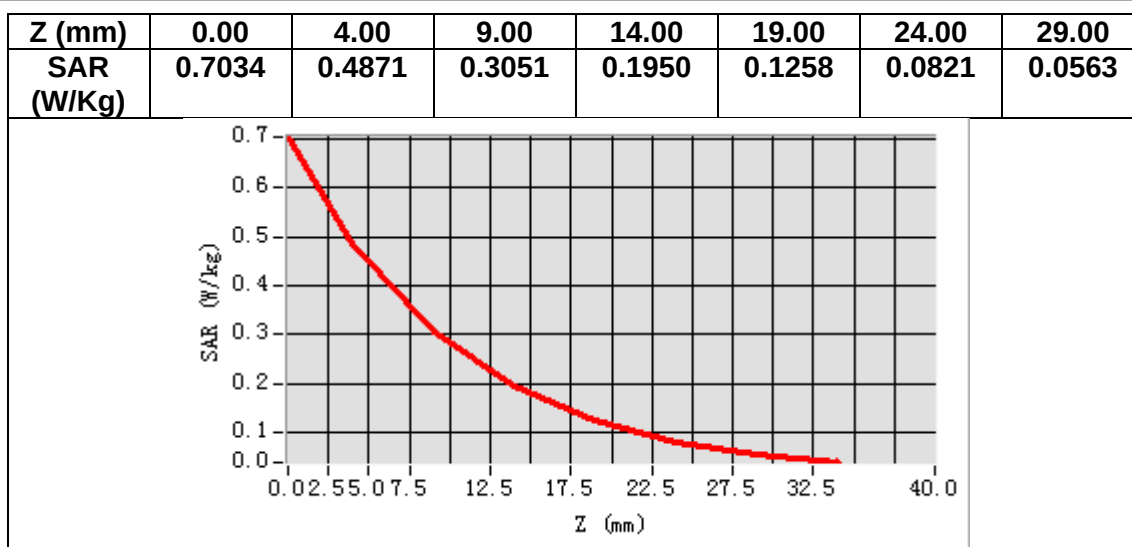
VOLUME SAR



Maximum location: X=18.00, Y=-28.00

SAR Peak: 0.71 W/kg

SAR 10g (W/Kg)	0.294132
SAR 1g (W/Kg)	0.481328



MEASUREMENT 4

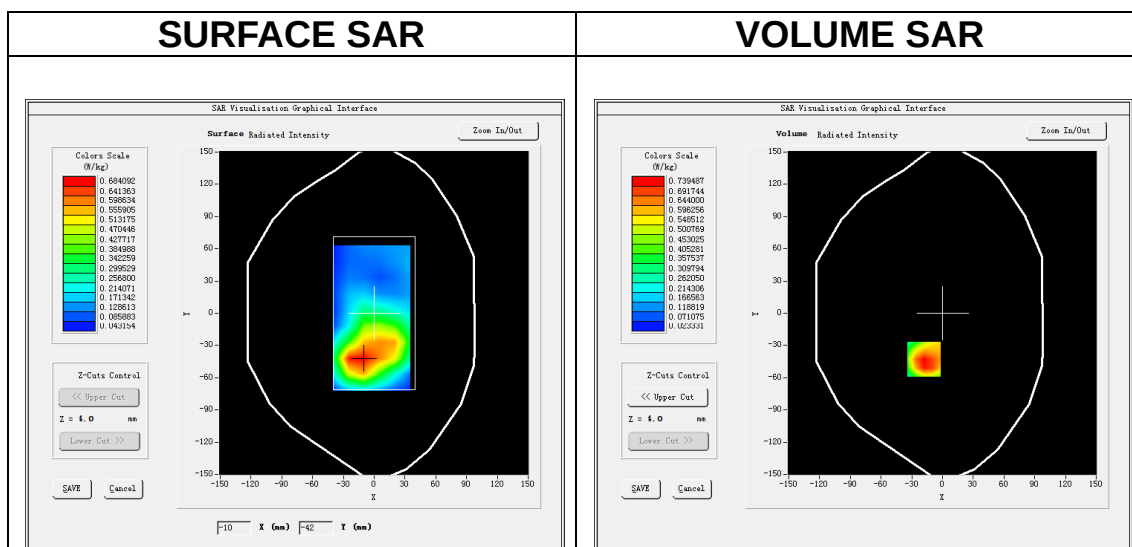
Date of measurement: 30/10/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>Band4 WCDMA1700</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>WCDMA (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.51</u>

B. SAR Measurement Results

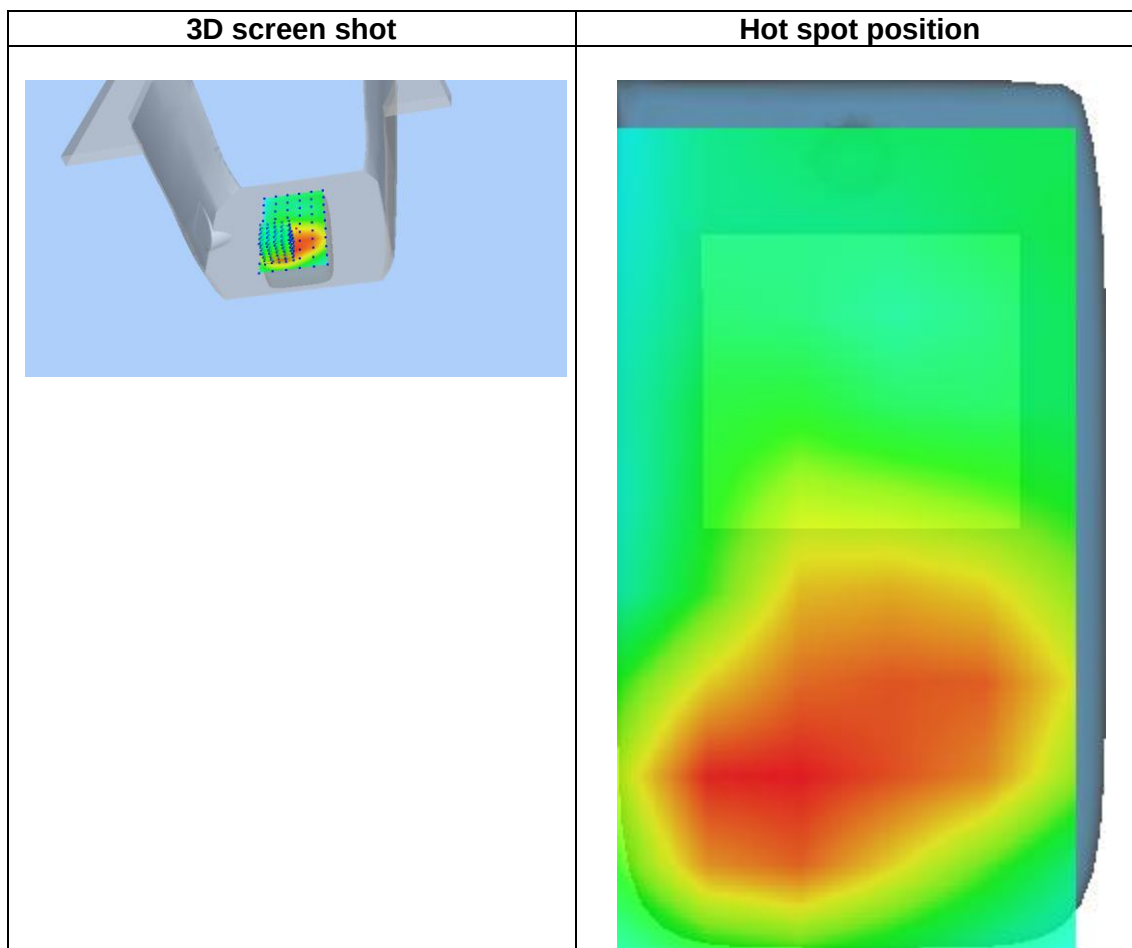
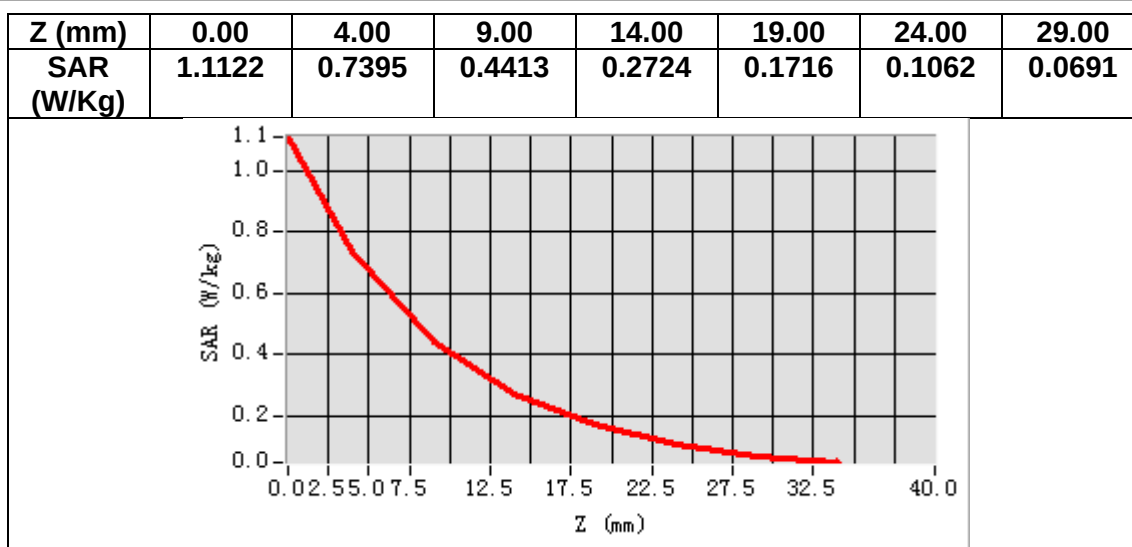
Frequency (MHz)	1732.600000
Relative permittivity (real part)	39.684925
Relative permittivity (imaginary part)	13.934763
Conductivity (S/m)	1.340834
Variation (%)	-0.270000



Maximum location: X=-18.00, Y=-43.00

SAR Peak: 1.15 W/kg

SAR 10g (W/Kg)	0.416242
SAR 1g (W/Kg)	0.725589



MEASUREMENT 5

Date of measurement: 5/11/2024

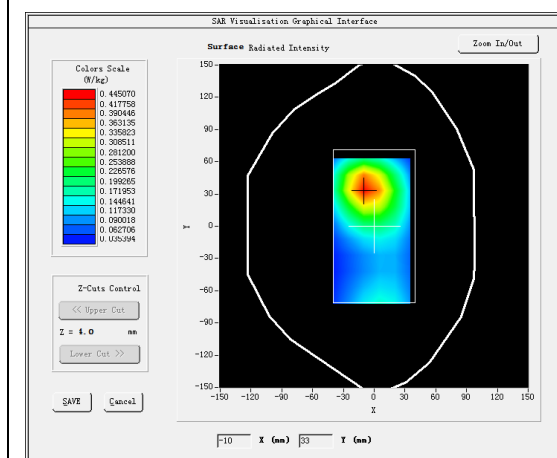
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>Band5 WCDMA850</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>WCDMA (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.34</u>

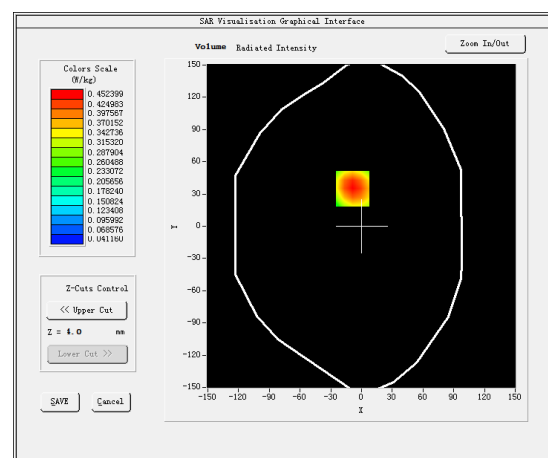
B. SAR Measurement Results

Frequency (MHz)	836.400000
Relative permittivity (real part)	41.997749
Relative permittivity (imaginary part)	19.853529
Conductivity (S/m)	0.922527
Variation (%)	-1.120000

SURFACE SAR



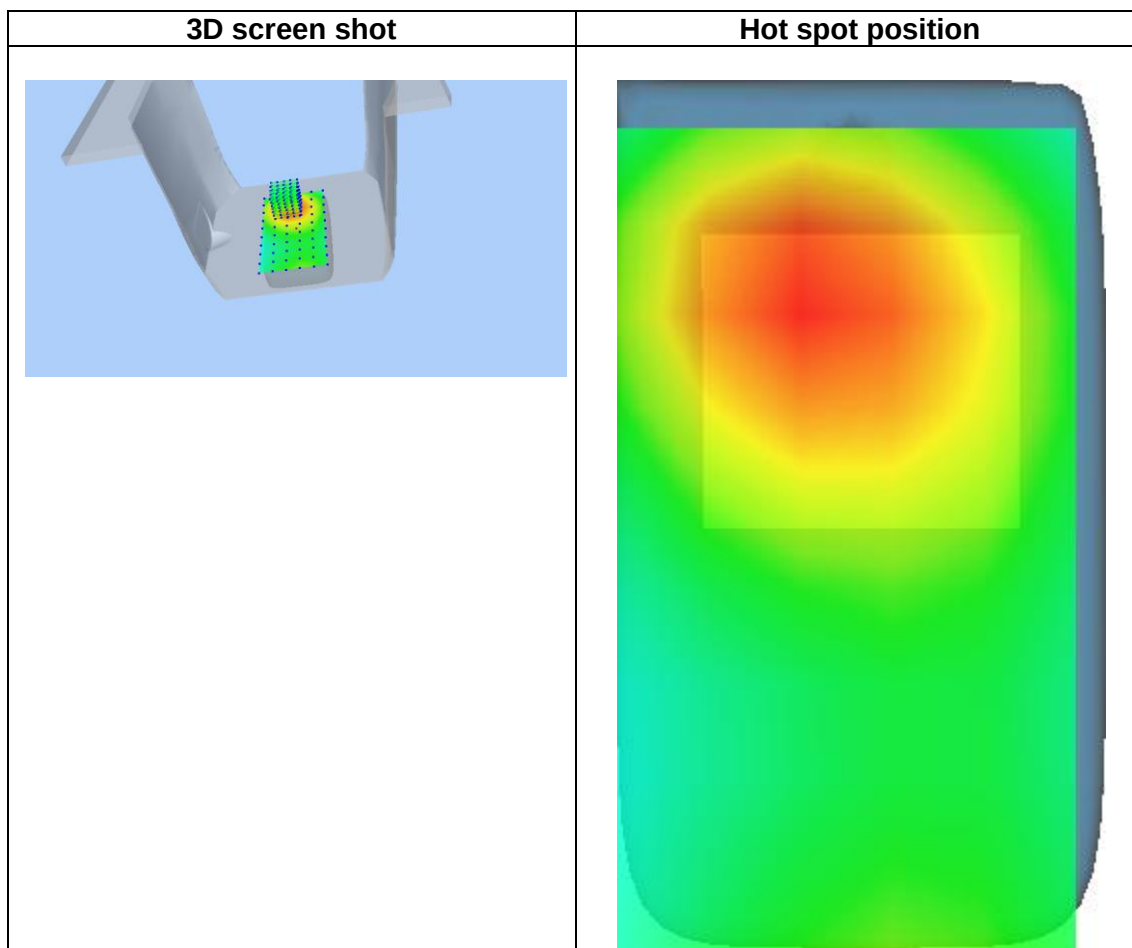
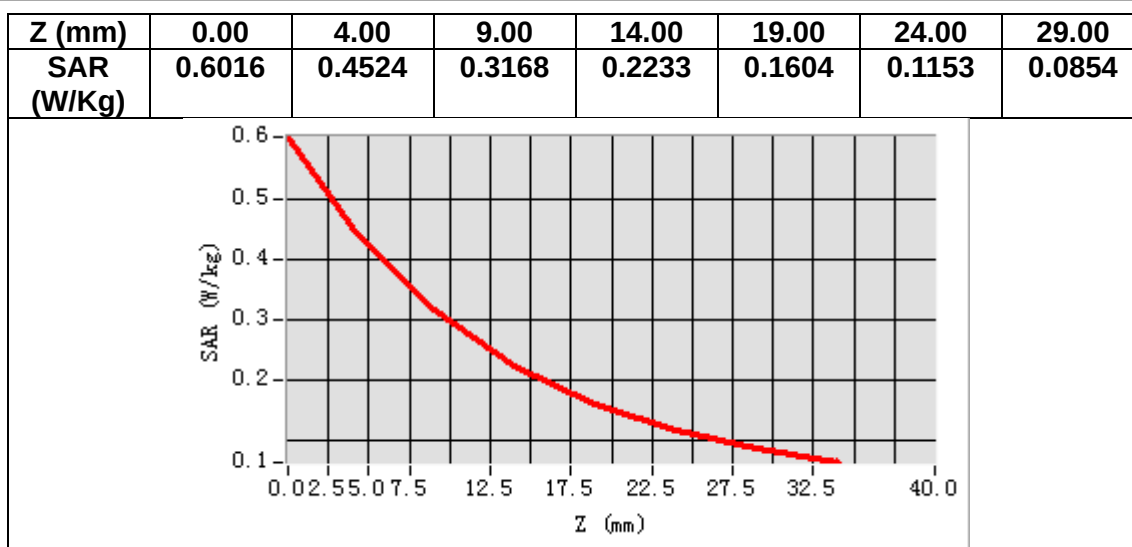
VOLUME SAR



Maximum location: X=-9.00, Y=35.00

SAR Peak: 0.61 W/kg

SAR 10g (W/Kg)	0.294133
SAR 1g (W/Kg)	0.441372



MEASUREMENT 6

Date of measurement: 5/11/2024

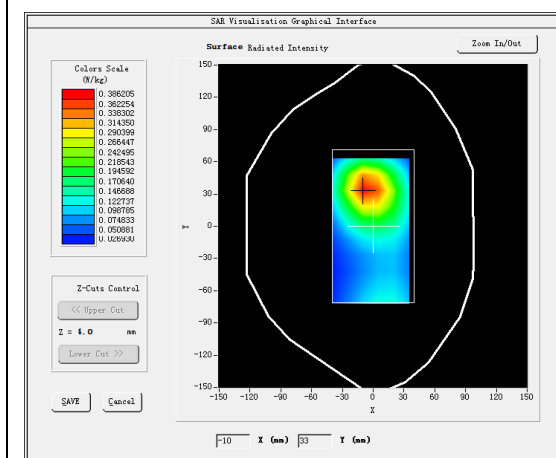
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>BC0 Korean Cellular</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CDMA (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.34</u>

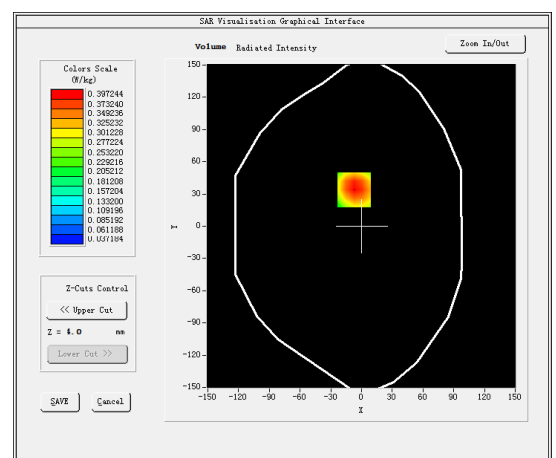
B. SAR Measurement Results

Frequency (MHz)	836.520000
Relative permittivity (real part)	42.000858
Relative permittivity (imaginary part)	19.851921
Conductivity (S/m)	0.922585
Variation (%)	0.230000

SURFACE SAR



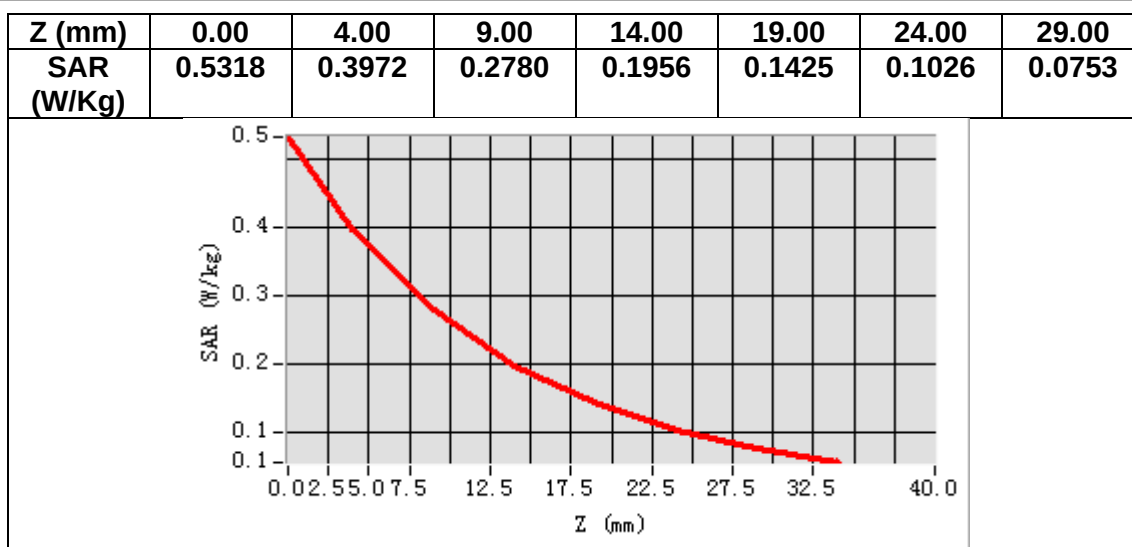
VOLUME SAR



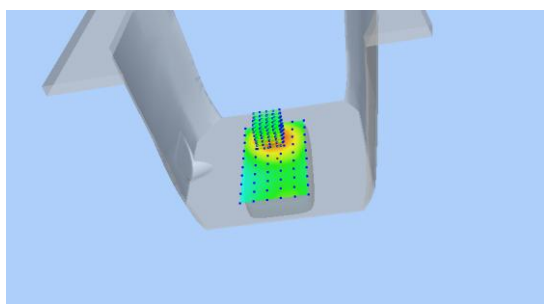
Maximum location: X=-7.00, Y=34.00

SAR Peak: 0.54 W/kg

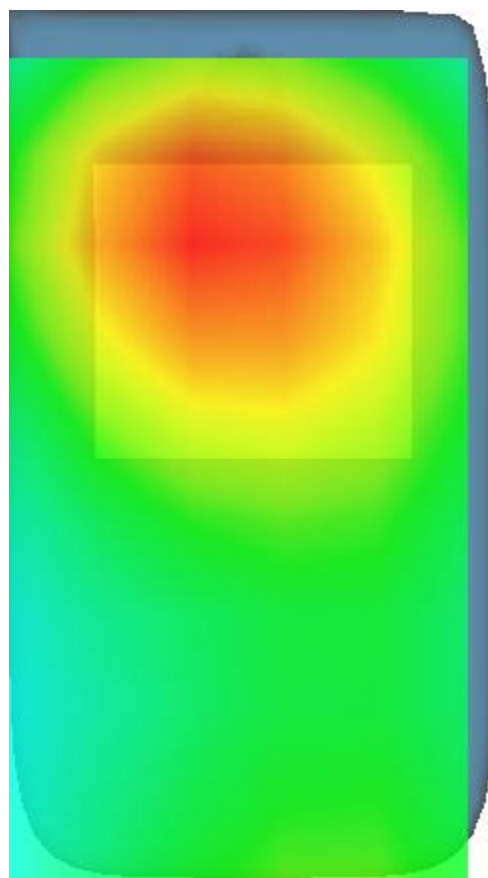
SAR 10g (W/Kg)	0.259509
SAR 1g (W/Kg)	0.389387



3D screen shot



Hot spot position



MEASUREMENT 7

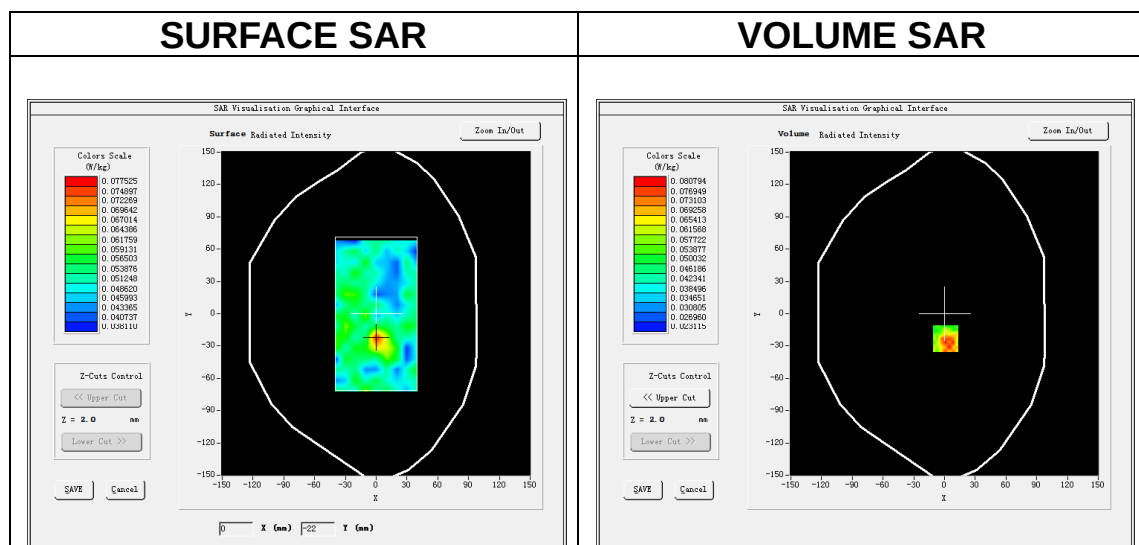
Date of measurement: 24/10/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=10mm dy=10mm, h= 2.00 mm</u>
<u>ZoomScan</u>	<u>7x7x12,dx=4mm dy=4mm dz=2mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>IEEE 802.11a U-NII</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>IEEE802.11a (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>1.89</u>

B. SAR Measurement Results

Frequency (MHz)	5200.000000
Relative permittivity (real part)	36.619694
Relative permittivity (imaginary part)	15.632473
Conductivity (S/m)	4.516048
Variation (%)	2.460000

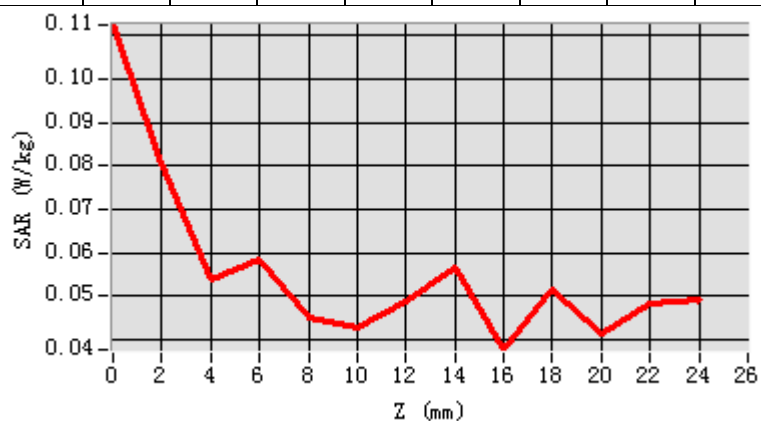


Maximum location: X=1.00, Y=-23.00

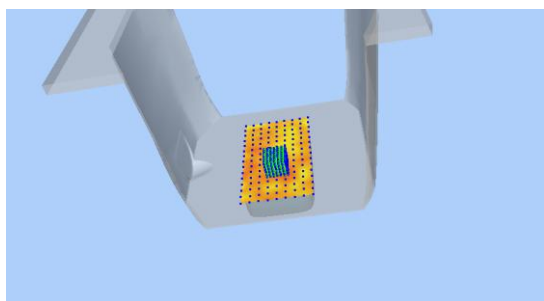
SAR Peak: 0.11 W/kg

SAR 10g (W/Kg)	0.053577
SAR 1g (W/Kg)	0.063796

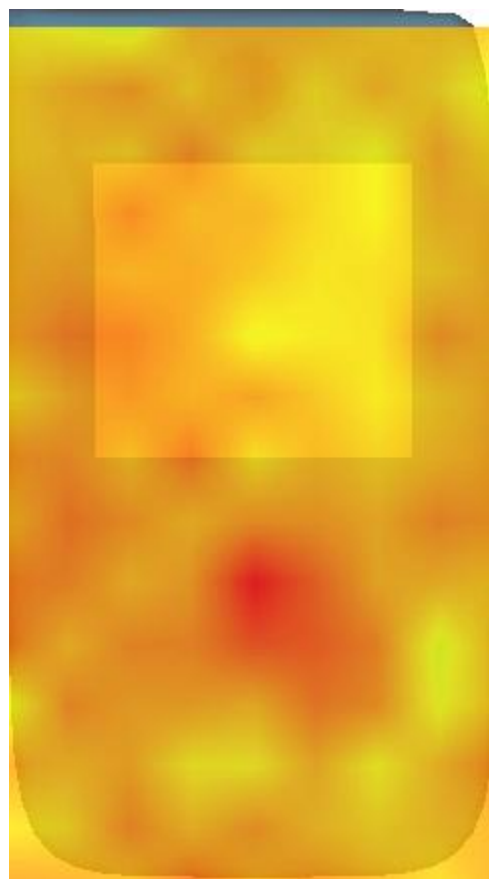
Z (m m)	0.00	2.00	4.00	6.00	8.00	10.0 0	12.0 0	14.0 0	16.0 0	18.0 0	20.0 0	22.0 0
SAR (W/ Kg)	0.11 25	0.08 08	0.05 38	0.05 86	0.04 53	0.04 30	0.04 87	0.05 64	0.03 77	0.05 17	0.04 15	0.04 82



3D screen shot



Hot spot position



MEASUREMENT 8

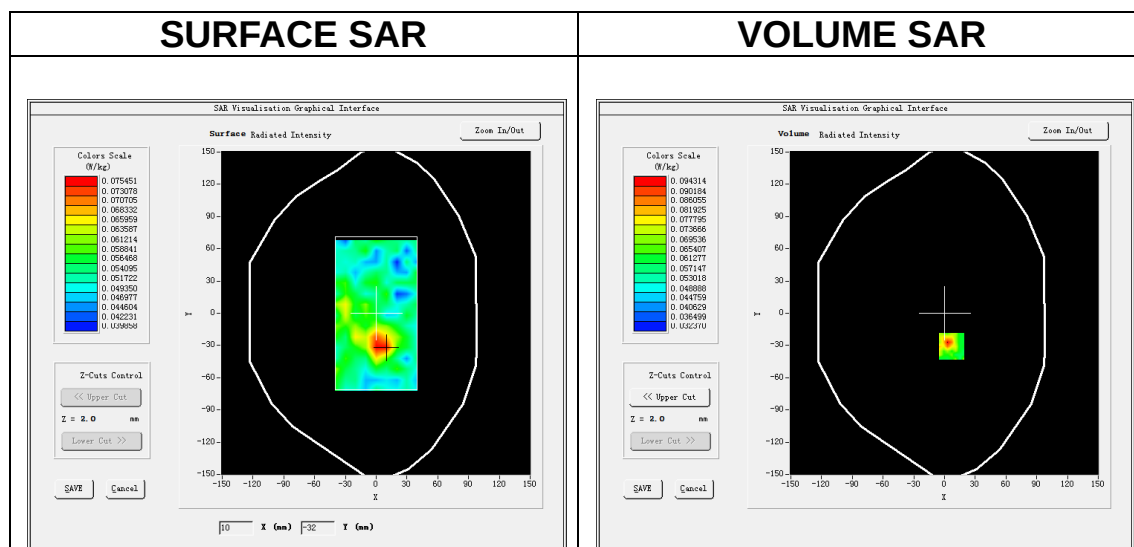
Date of measurement: 25/10/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=10mm dy=10mm, h= 2.00 mm</u>
<u>ZoomScan</u>	<u>7x7x12,dx=4mm dy=4mm dz=2mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>IEEE 802.11a U-NII</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>IEEE802.11a (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>1.97</u>

B. SAR Measurement Results

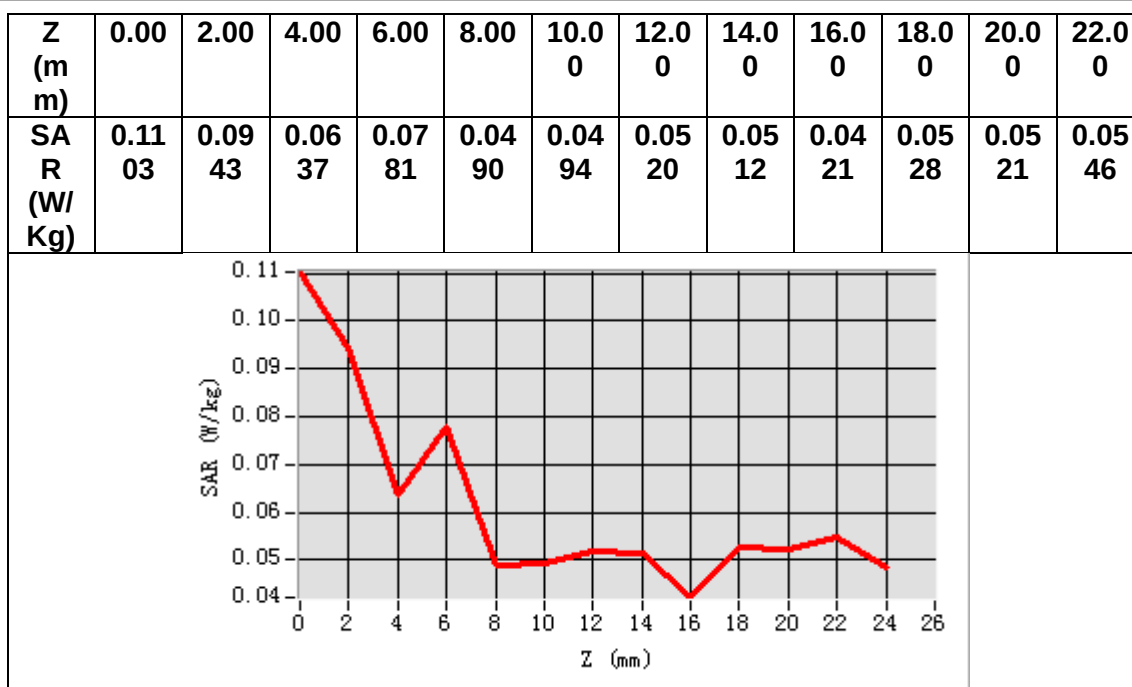
Frequency (MHz)	5280.000000
Relative permittivity (real part)	35.945820
Relative permittivity (imaginary part)	15.480026
Conductivity (S/m)	4.540808
Variation (%)	3.880000



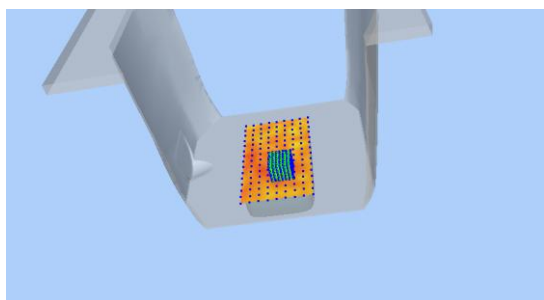
Maximum location: X=7.00, Y=-31.00

SAR Peak: 0.12 W/kg

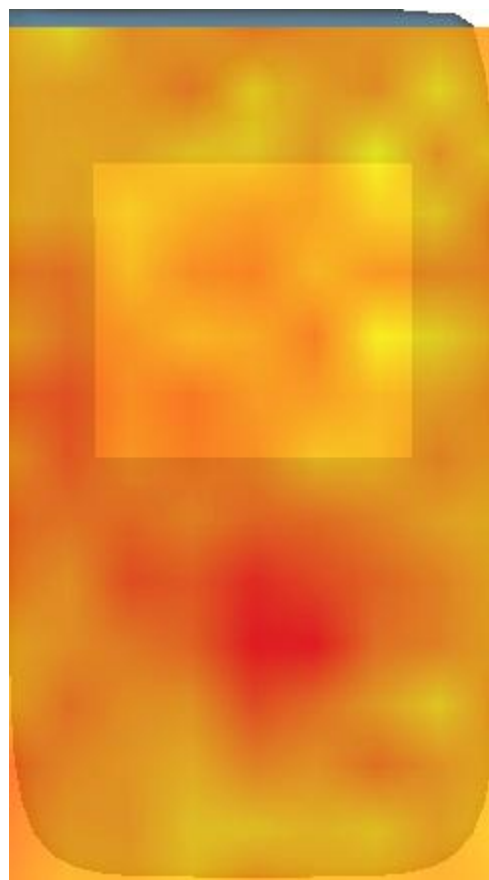
SAR 10g (W/Kg)	0.056549
SAR 1g (W/Kg)	0.069474



3D screen shot



Hot spot position



MEASUREMENT 9

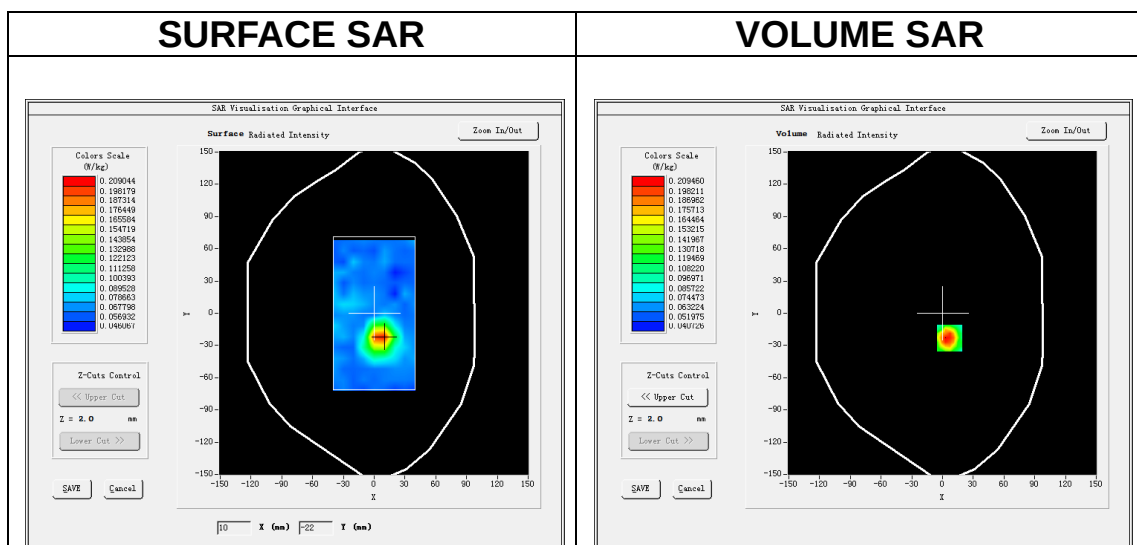
Date of measurement: 4/11/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=10mm dy=10mm, h= 2.00 mm</u>
<u>ZoomScan</u>	<u>7x7x12,dx=4mm dy=4mm dz=2mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>IEEE 802.11a U-NII</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>IEEE802.11a (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>1.88</u>

B. SAR Measurement Results

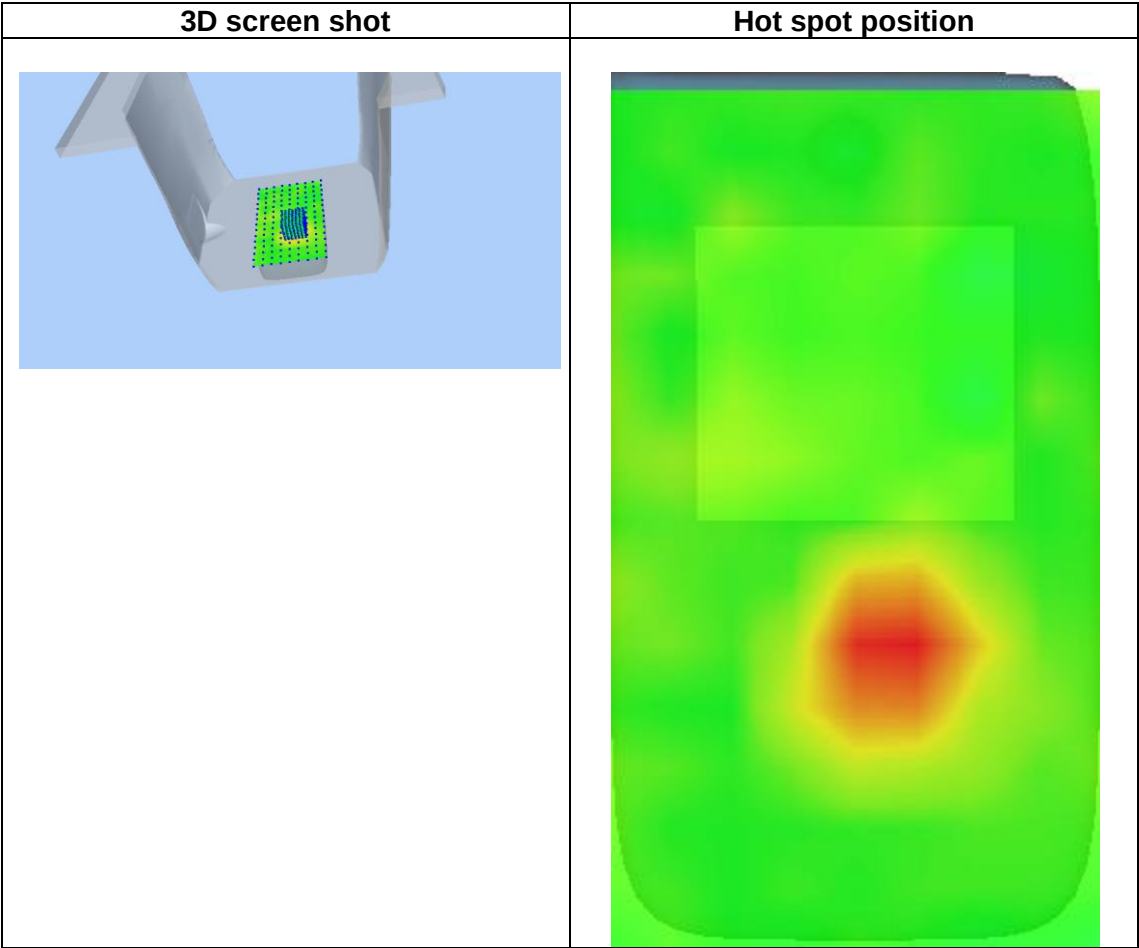
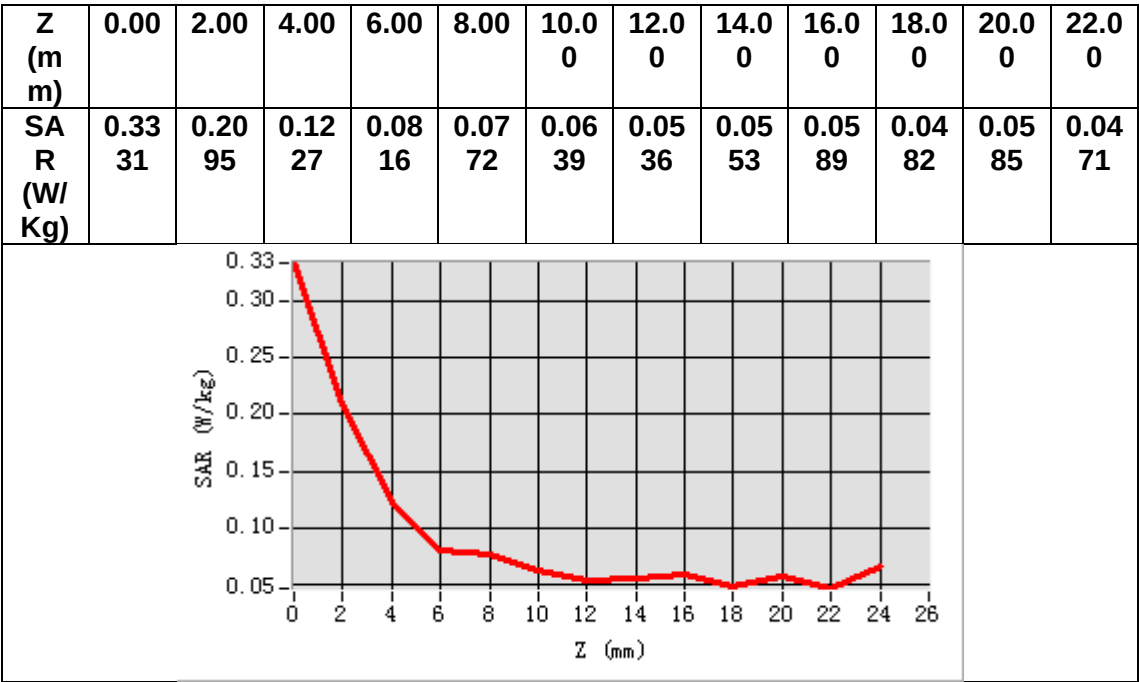
Frequency (MHz)	5600.000000
Relative permittivity (real part)	34.643253
Relative permittivity (imaginary part)	16.113609
Conductivity (S/m)	5.013123
Variation (%)	0.400000



Maximum location: X=7.00, Y=-23.00

SAR Peak: 0.36 W/kg

SAR 10g (W/Kg)	0.088399
SAR 1g (W/Kg)	0.143953



MEASUREMENT 10

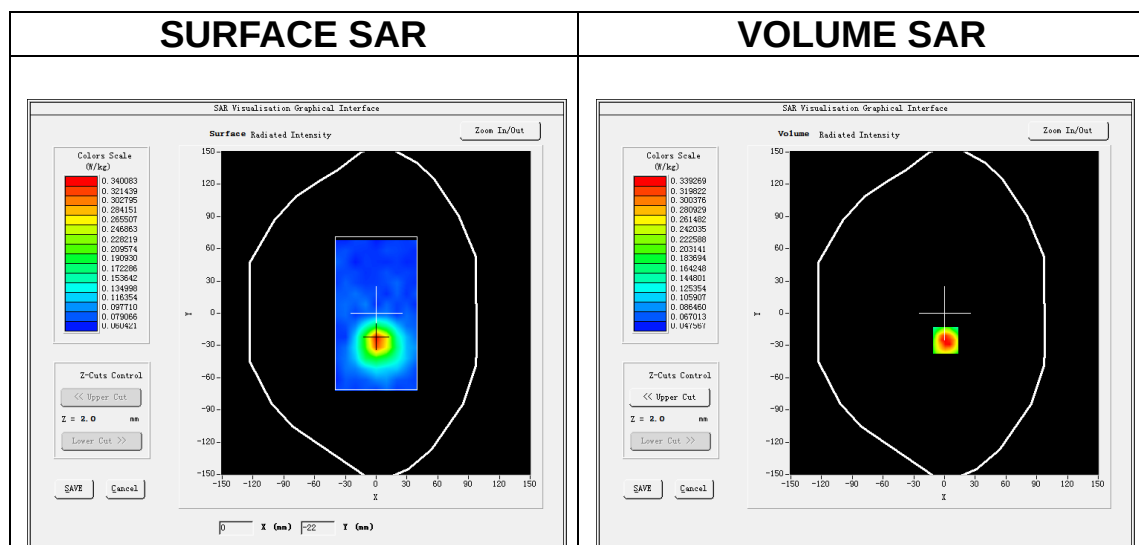
Date of measurement: 26/10/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=10mm dy=10mm, h= 2.00 mm</u>
<u>ZoomScan</u>	<u>7x7x12,dx=4mm dy=4mm dz=2mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>IEEE 802.11a U-NII</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>IEEE802.11a (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>1.90</u>

B. SAR Measurement Results

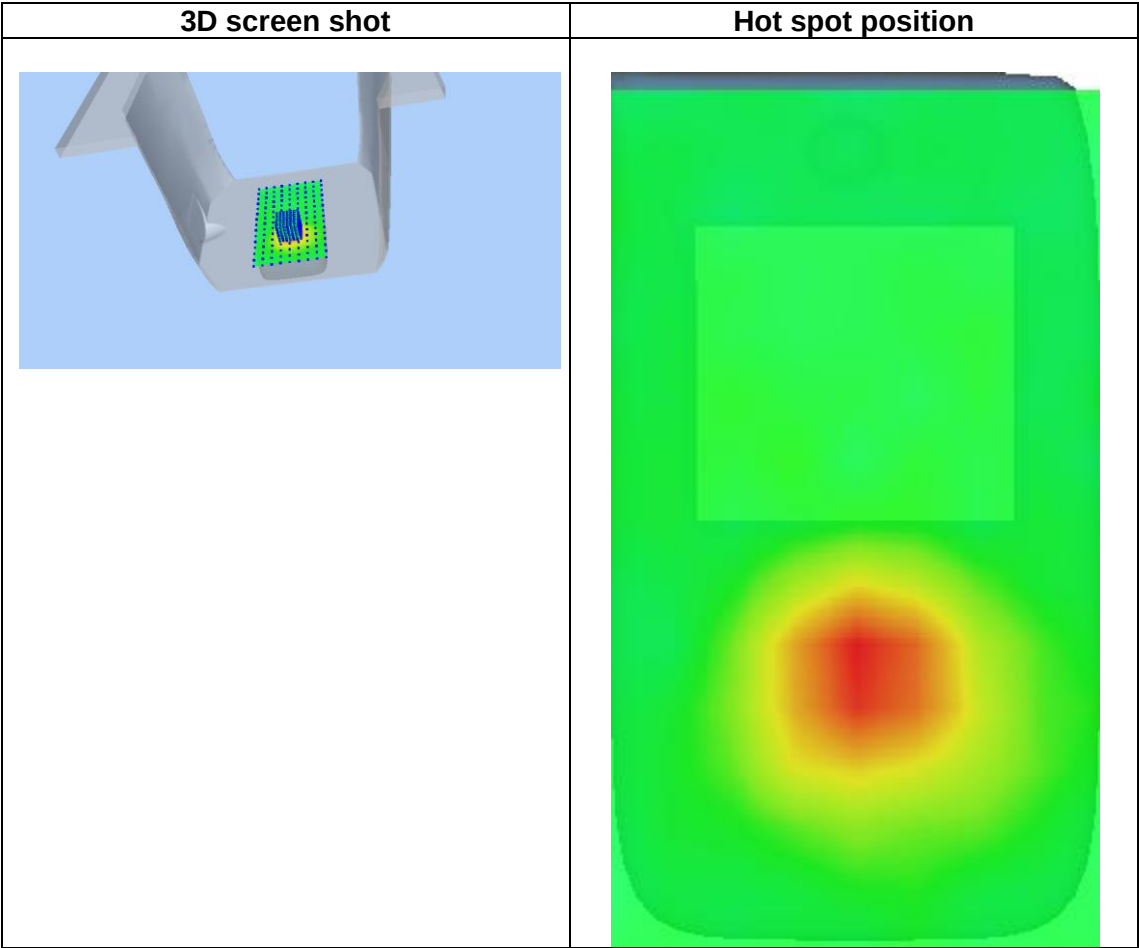
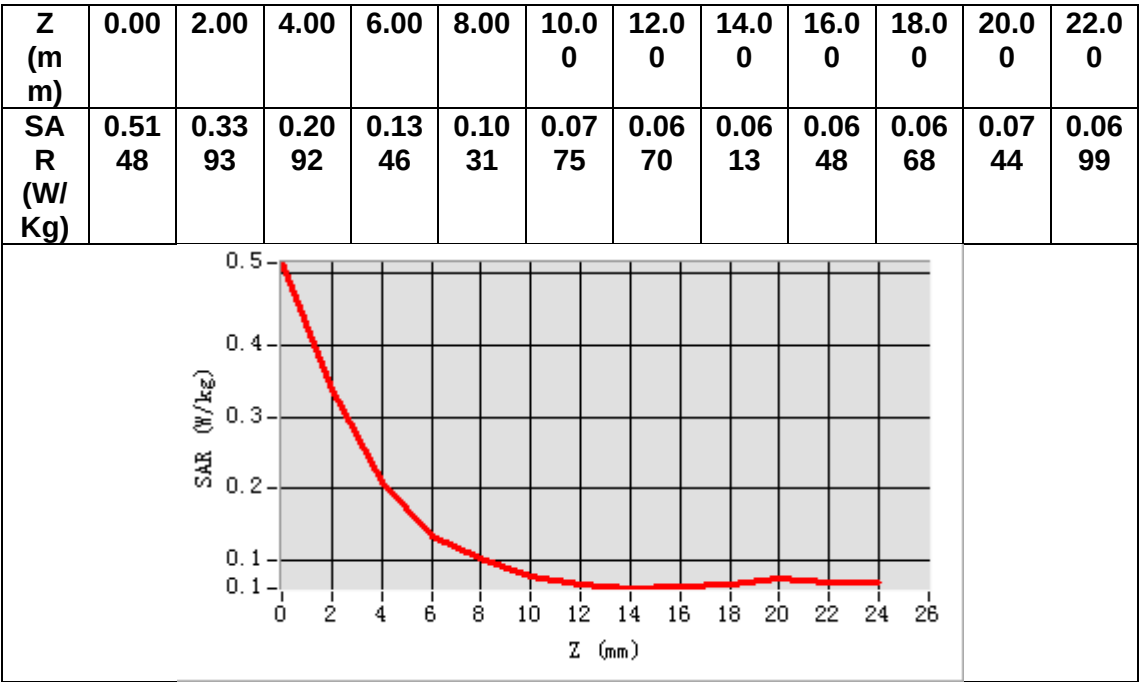
Frequency (MHz)	5785.000000
Relative permittivity (real part)	35.542805
Relative permittivity (imaginary part)	15.840995
Conductivity (S/m)	5.091120
Variation (%)	0.980000



Maximum location: X=1.00, Y=-25.00

SAR Peak: 0.55 W/kg

SAR 10g (W/Kg)	0.124722
SAR 1g (W/Kg)	0.218939



MEASUREMENT 11

Date of measurement: 3/11/2024

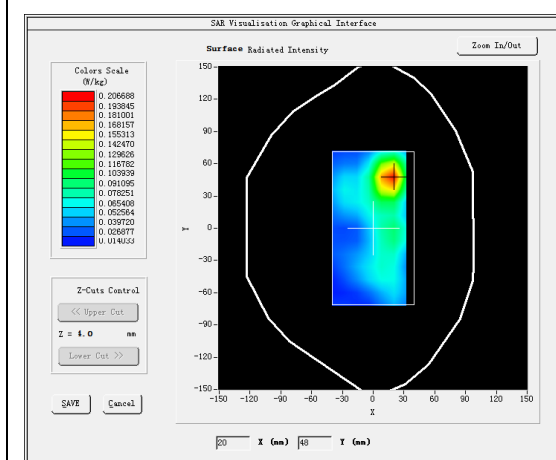
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>7x7x7,dx=5mm dy=5mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>IEEE 802.11b ISM</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>IEEE802.11b (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.74</u>

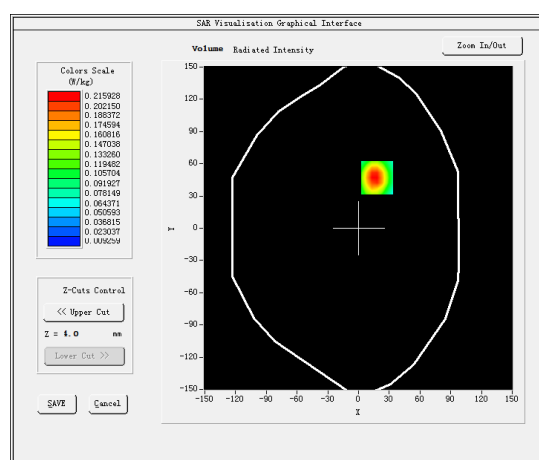
B. SAR Measurement Results

Frequency (MHz)	2437.000000
Relative permittivity (real part)	37.891087
Relative permittivity (imaginary part)	13.004079
Conductivity (S/m)	1.760608
Variation (%)	-1.030000

SURFACE SAR



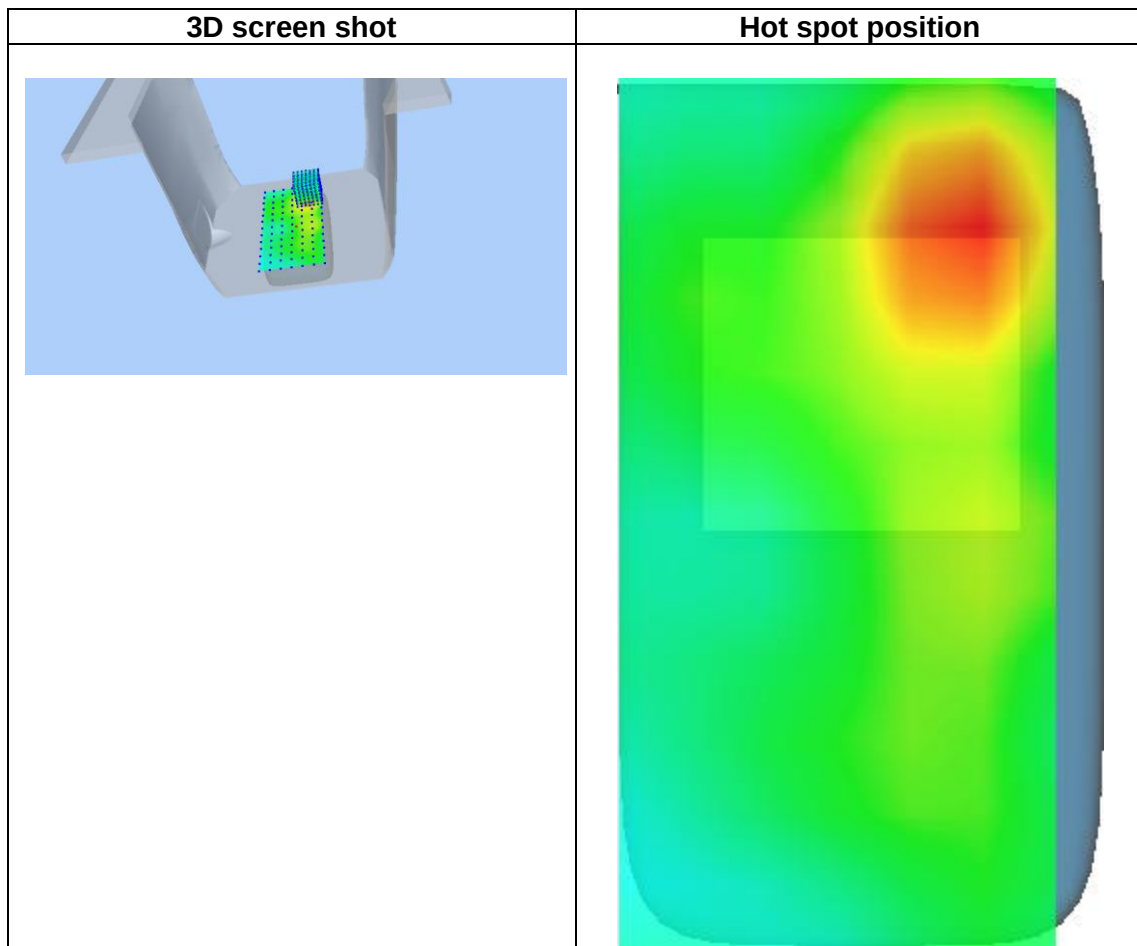
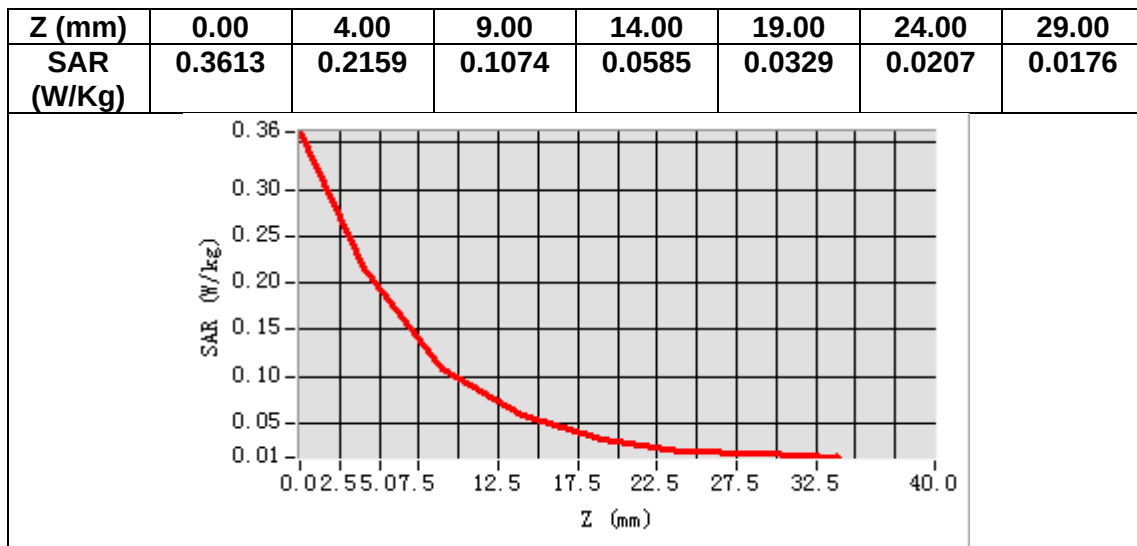
VOLUME SAR



Maximum location: X=18.00, Y=47.00

SAR Peak: 0.37 W/kg

SAR 10g (W/Kg)	0.104369
SAR 1g (W/Kg)	0.207096



MEASUREMENT 12

Date of measurement: 6/11/2024

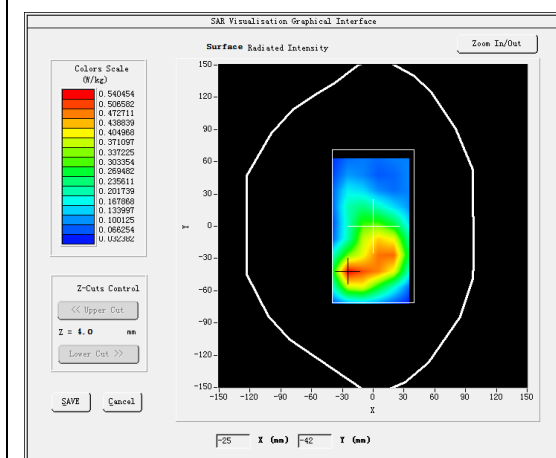
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 2</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.57</u>

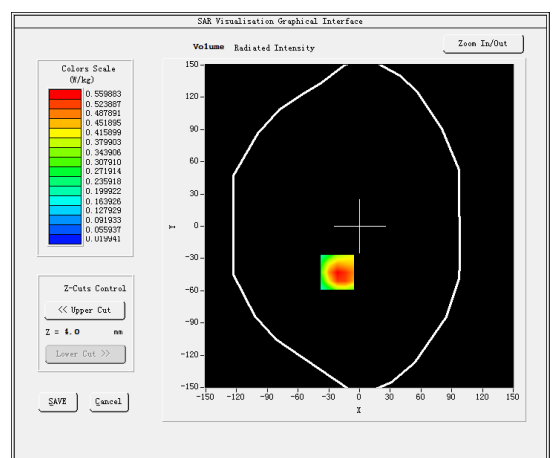
B. SAR Measurement Results

Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.562634
Relative permittivity (imaginary part)	13.814889
Conductivity (S/m)	1.442888
Variation (%)	-0.470000

SURFACE SAR



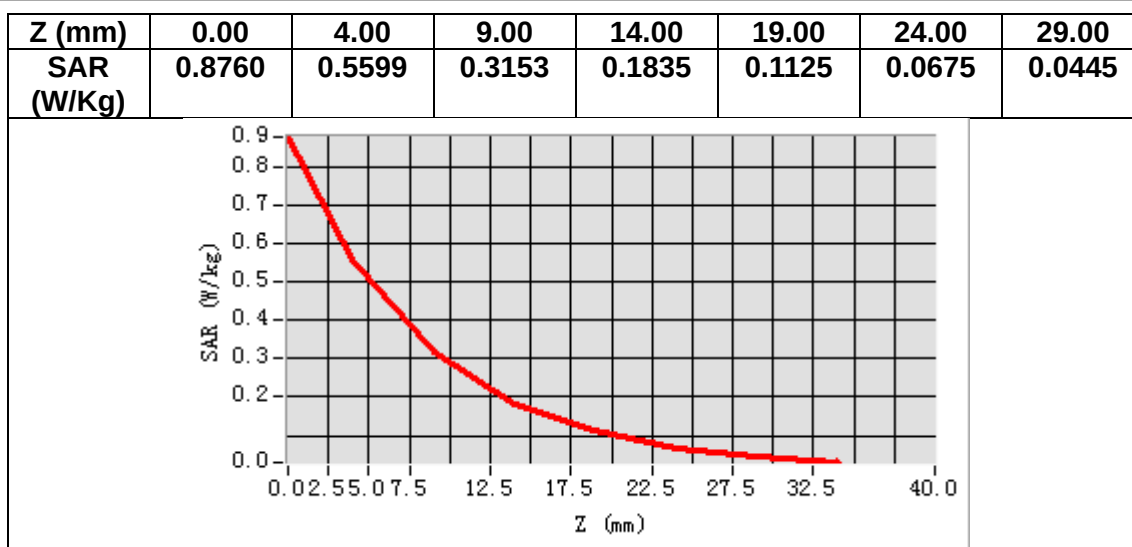
VOLUME SAR



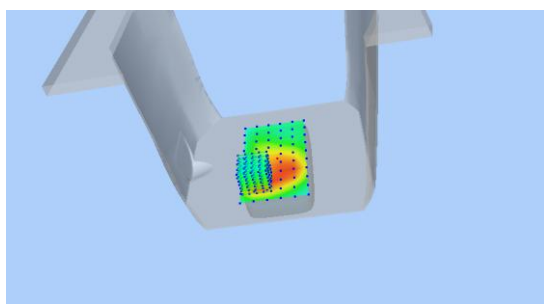
Maximum location: X=-22.00, Y=-43.00

SAR Peak: 0.89 W/kg

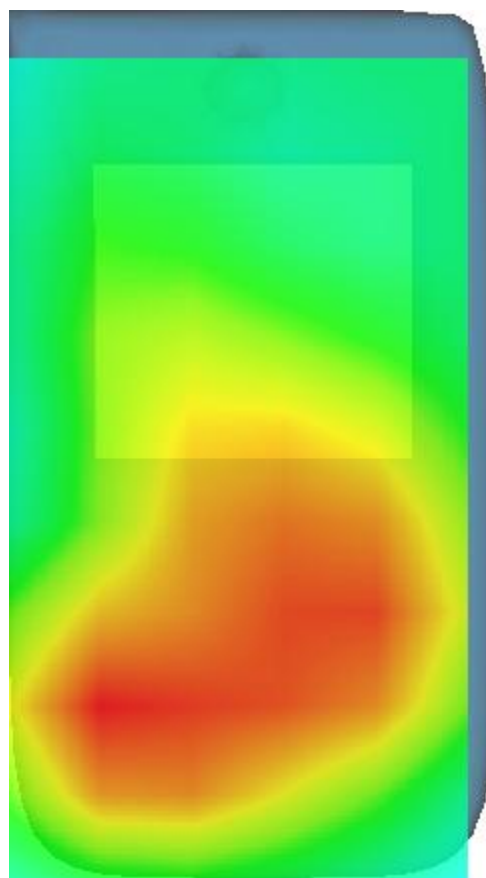
SAR 10g (W/Kg)	0.309675
SAR 1g (W/Kg)	0.558949



3D screen shot



Hot spot position



MEASUREMENT 13

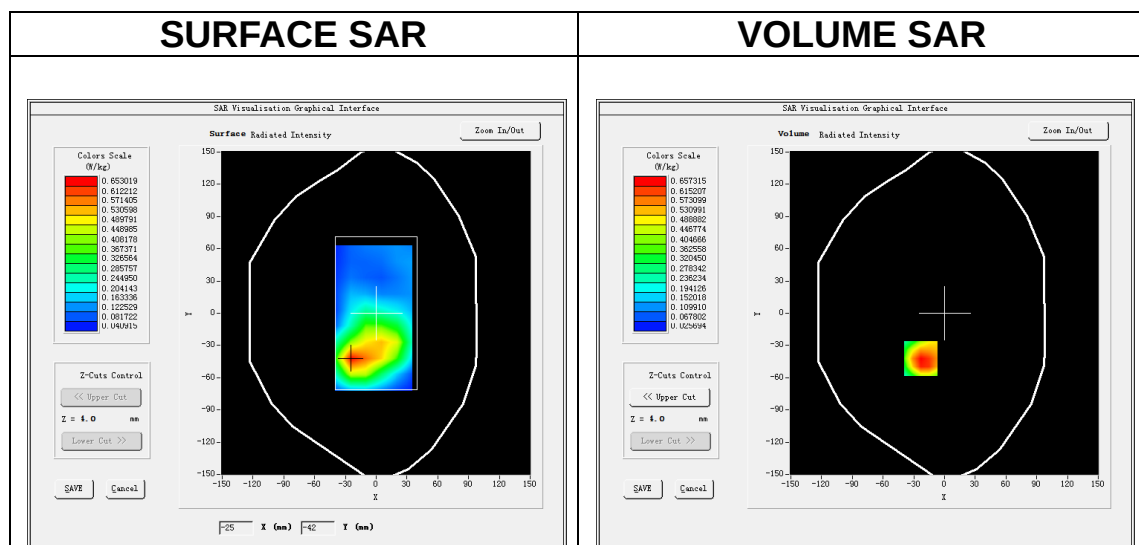
Date of measurement: 30/10/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7, dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 4</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.51</u>

B. SAR Measurement Results

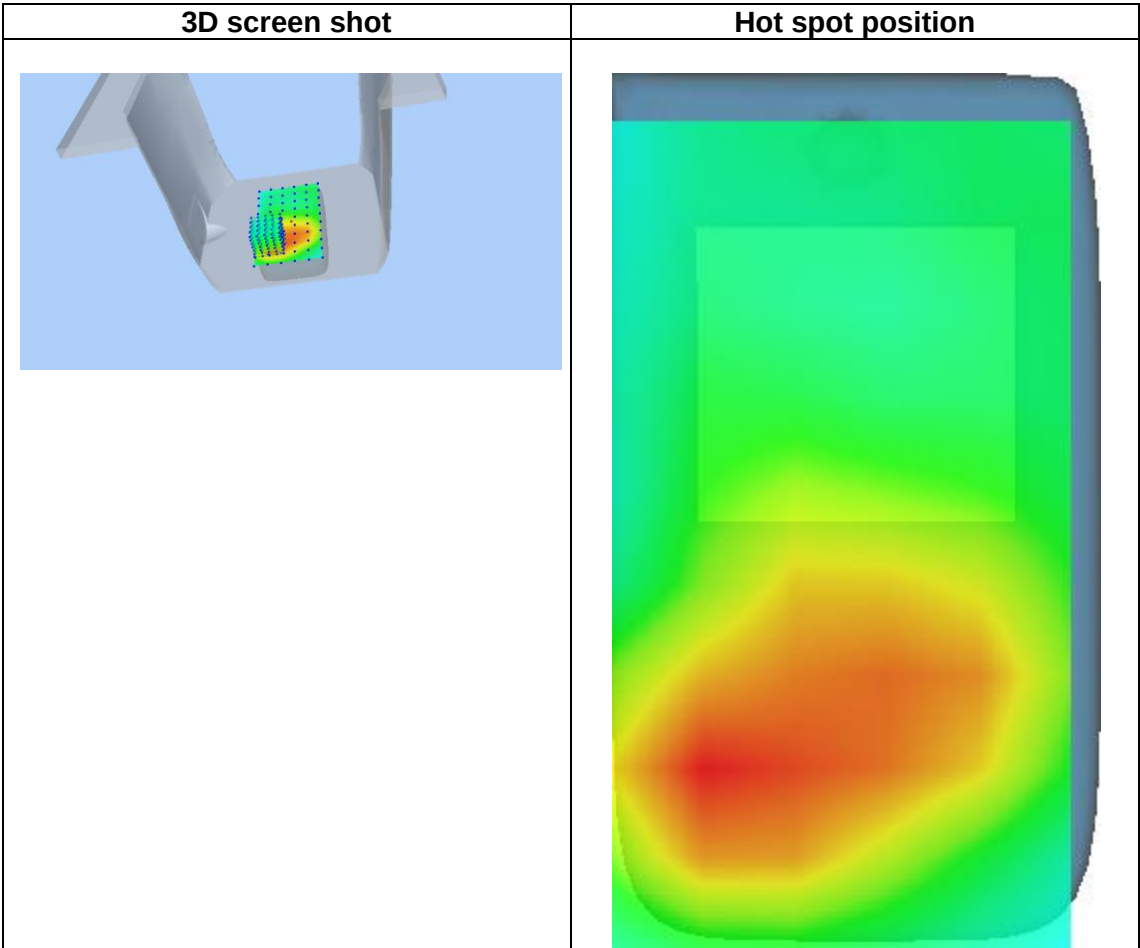
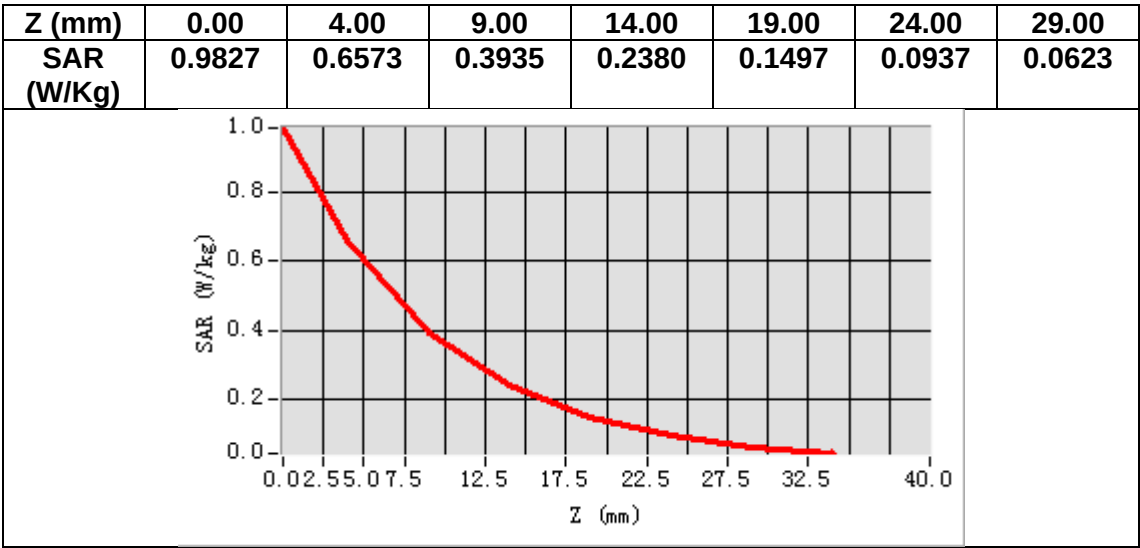
Frequency (MHz)	1732.500000
Relative permittivity (real part)	39.692825
Relative permittivity (imaginary part)	13.919613
Conductivity (S/m)	1.339763
Variation (%)	-0.630000



Maximum location: X=-23.00, Y=-42.00

SAR Peak: 1.02 W/kg

SAR 10g (W/Kg)	0.370675
SAR 1g (W/Kg)	0.643256



MEASUREMENT 14

Date of measurement: 5/11/2024

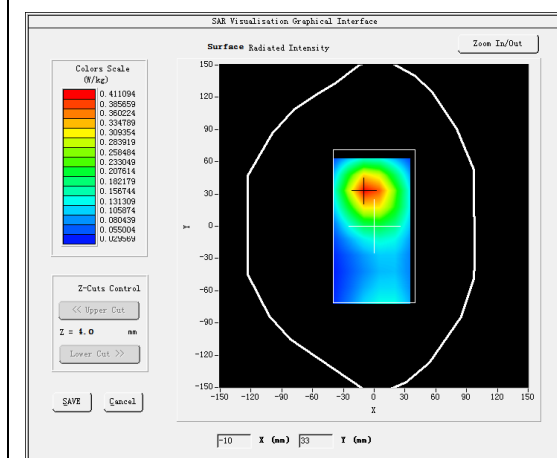
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 5</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.34</u>

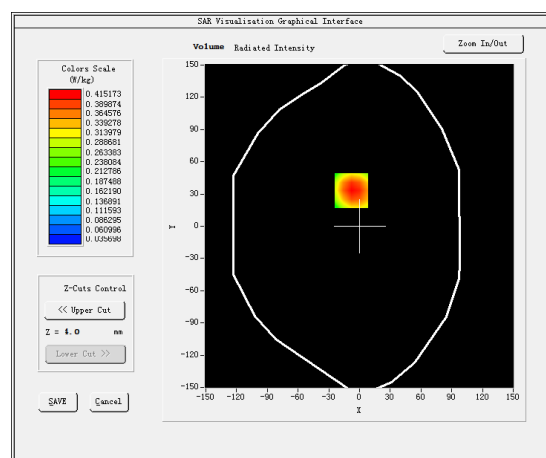
B. SAR Measurement Results

Frequency (MHz)	836.500000
Relative permittivity (real part)	42.000340
Relative permittivity (imaginary part)	19.852188
Conductivity (S/m)	0.922575
Variation (%)	-1.500000

SURFACE SAR



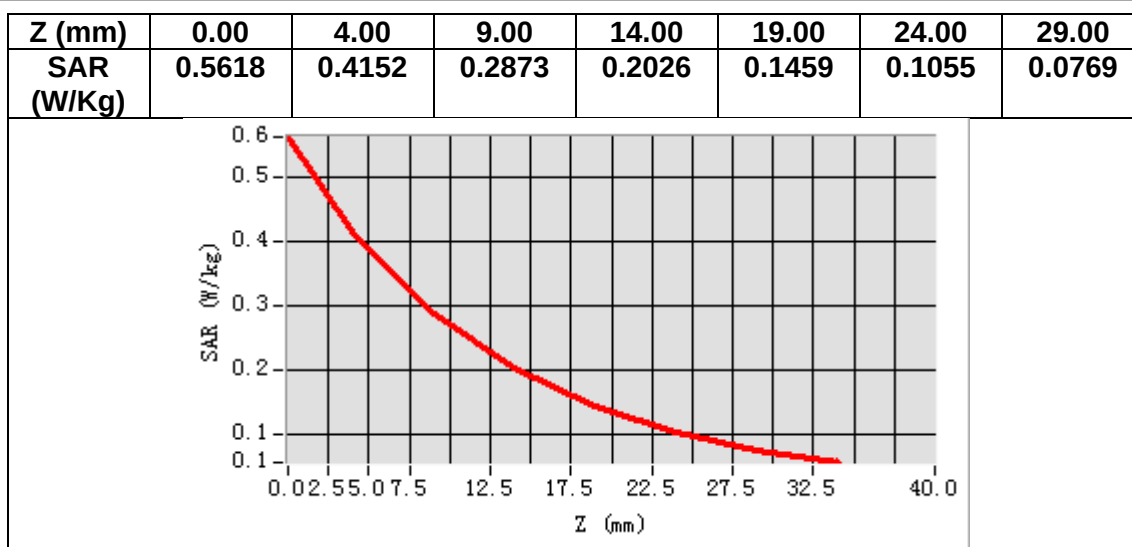
VOLUME SAR



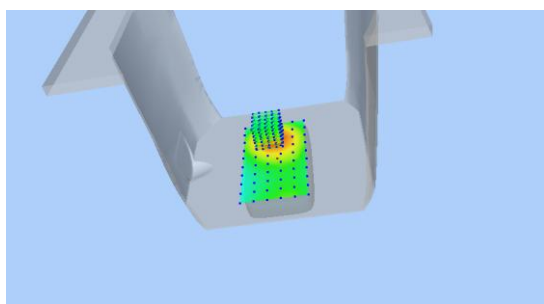
Maximum location: X=-8.00, Y=33.00

SAR Peak: 0.57 W/kg

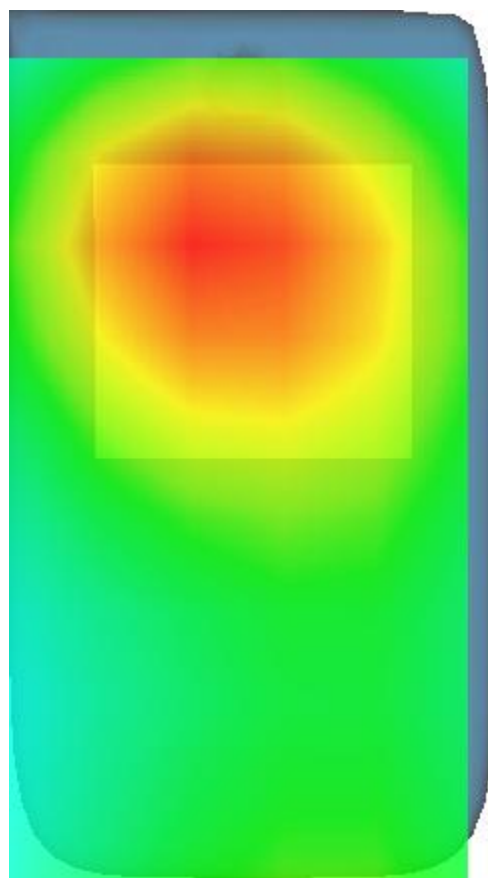
SAR 10g (W/Kg)	0.271386
SAR 1g (W/Kg)	0.407085



3D screen shot



Hot spot position



MEASUREMENT 15

Date of measurement: 2/11/2024

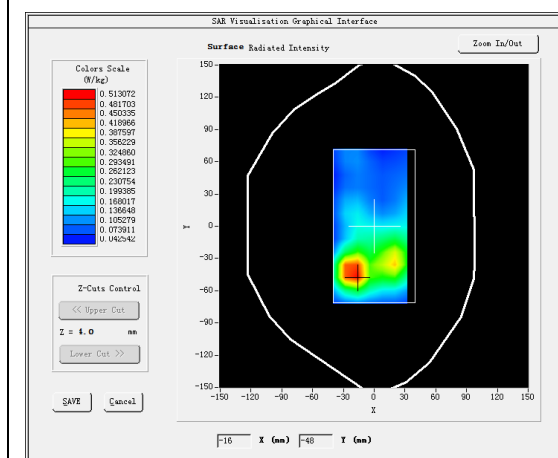
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>7x7x7,dx=5mm dy=5mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 7</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.51</u>

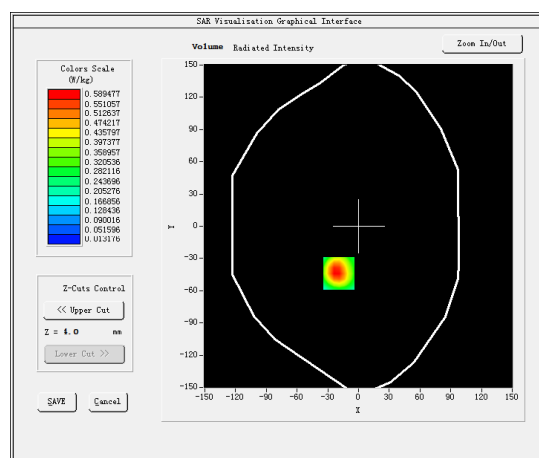
B. SAR Measurement Results

Frequency (MHz)	2535.000000
Relative permittivity (real part)	39.361263
Relative permittivity (imaginary part)	13.716830
Conductivity (S/m)	1.931787
Variation (%)	0.000000

SURFACE SAR



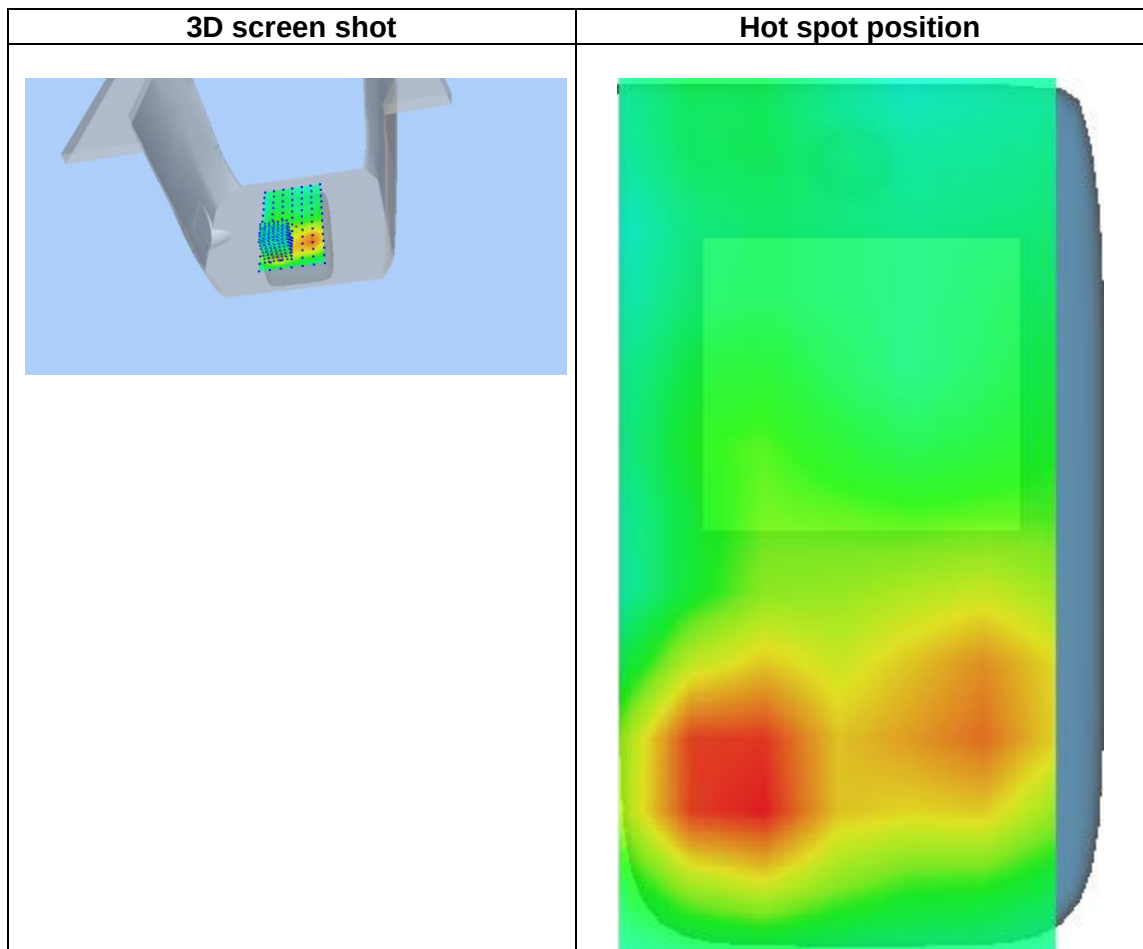
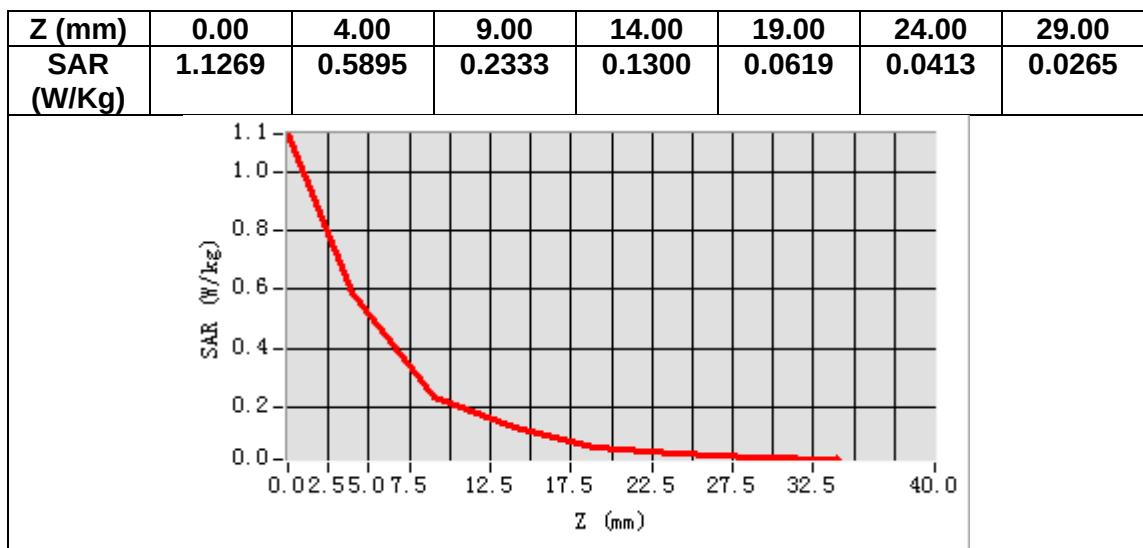
VOLUME SAR



Maximum location: X=-19.00, Y=-44.00

SAR Peak: 1.05 W/kg

SAR 10g (W/Kg)	0.269200
SAR 1g (W/Kg)	0.570207



MEASUREMENT 16

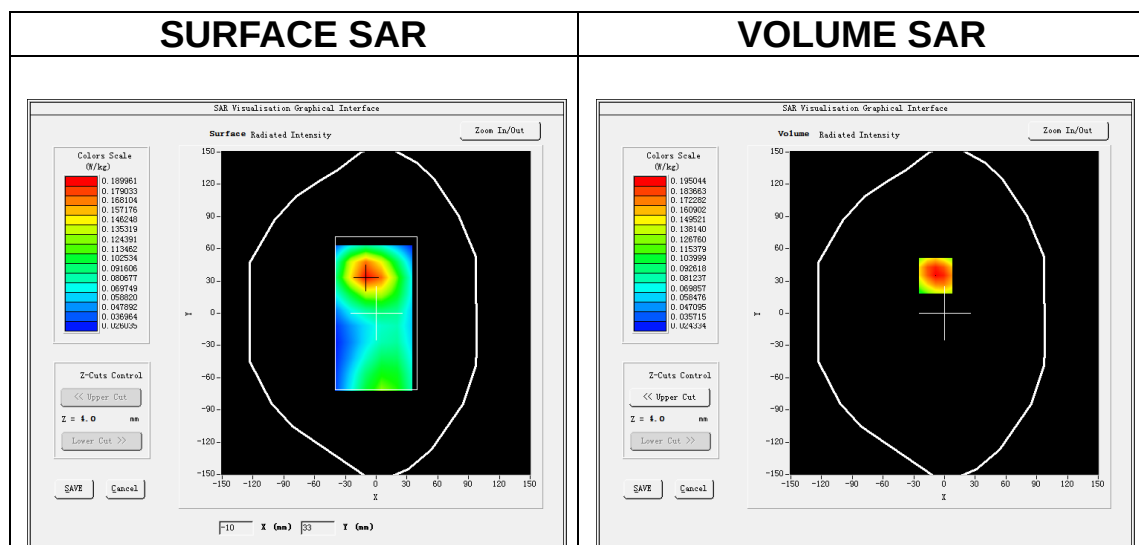
Date of measurement: 28/10/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 12</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.42</u>

B. SAR Measurement Results

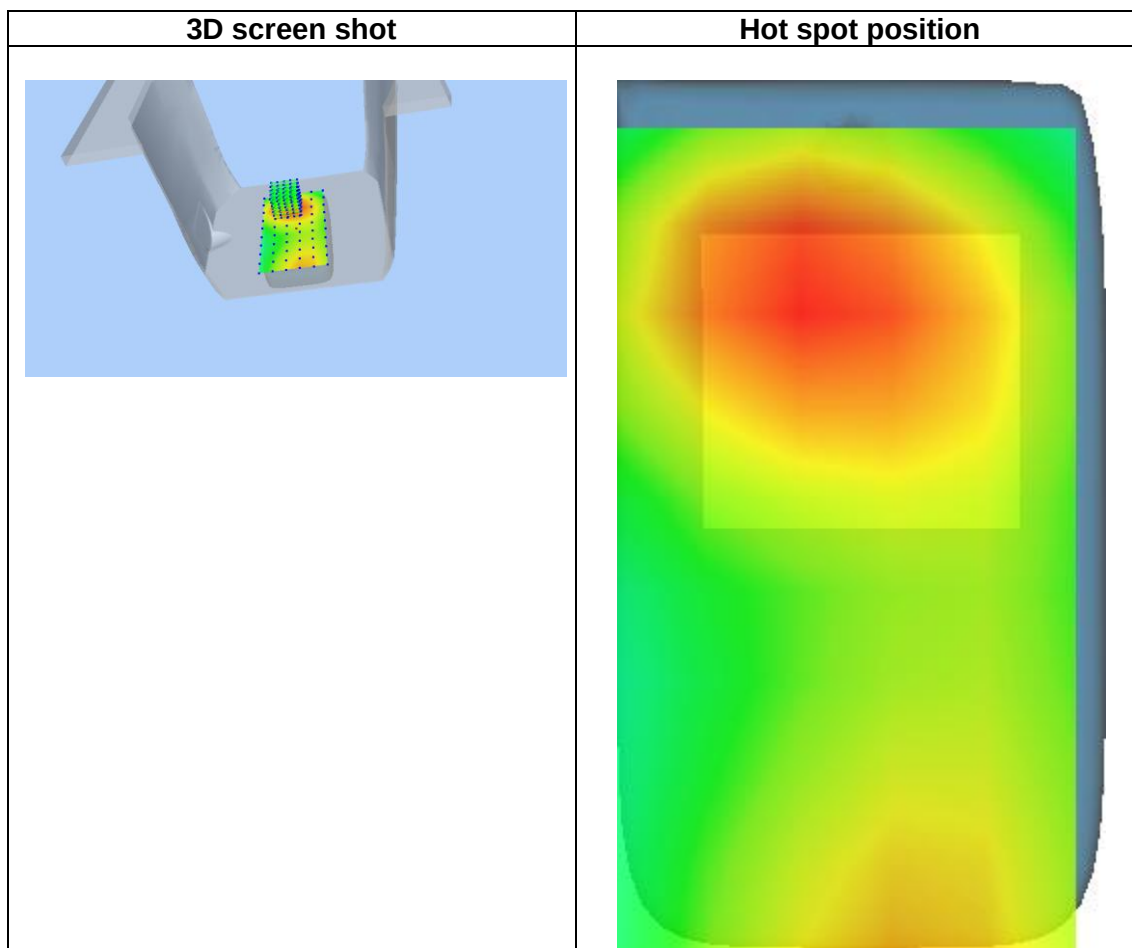
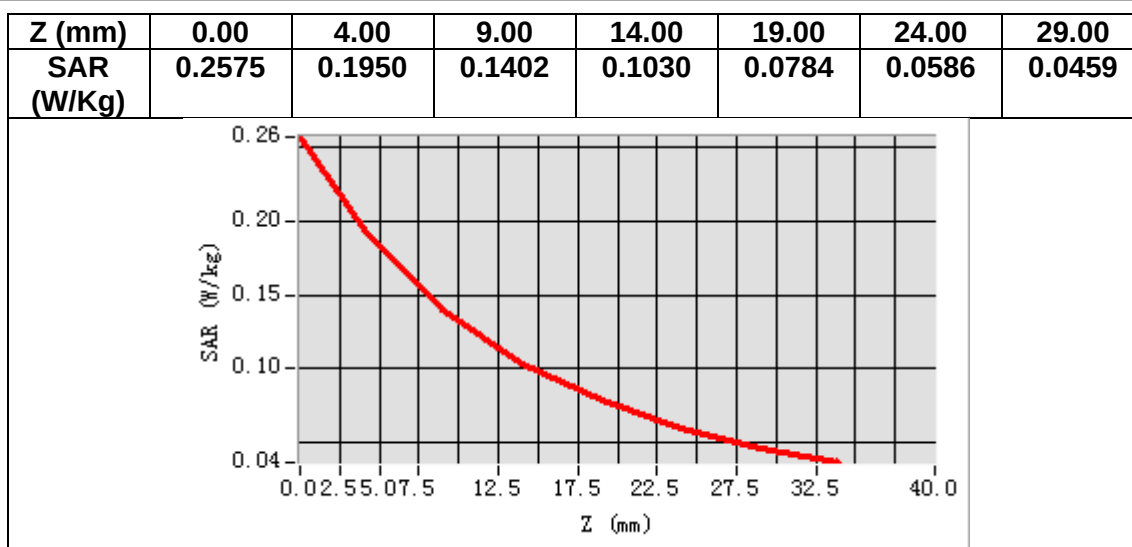
Frequency (MHz)	707.500000
Relative permittivity (real part)	41.559696
Relative permittivity (imaginary part)	21.927753
Conductivity (S/m)	0.861883
Variation (%)	-1.700000



Maximum location: X=-9.00, Y=35.00

SAR Peak: 0.26 W/kg

SAR 10g (W/Kg)	0.130320
SAR 1g (W/Kg)	0.189672



MEASUREMENT 17

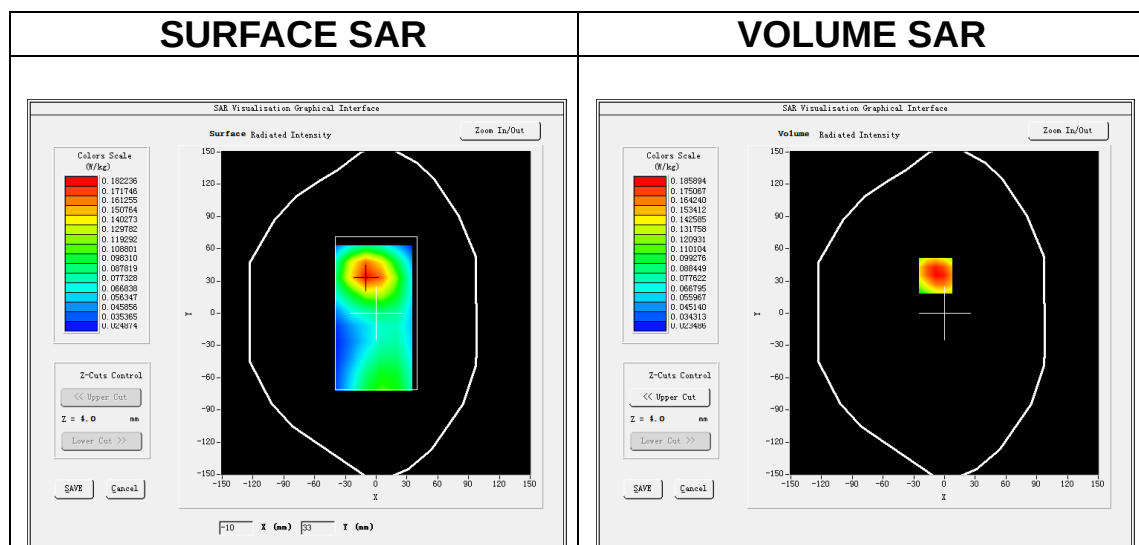
Date of measurement: 28/10/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 17</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.42</u>

B. SAR Measurement Results

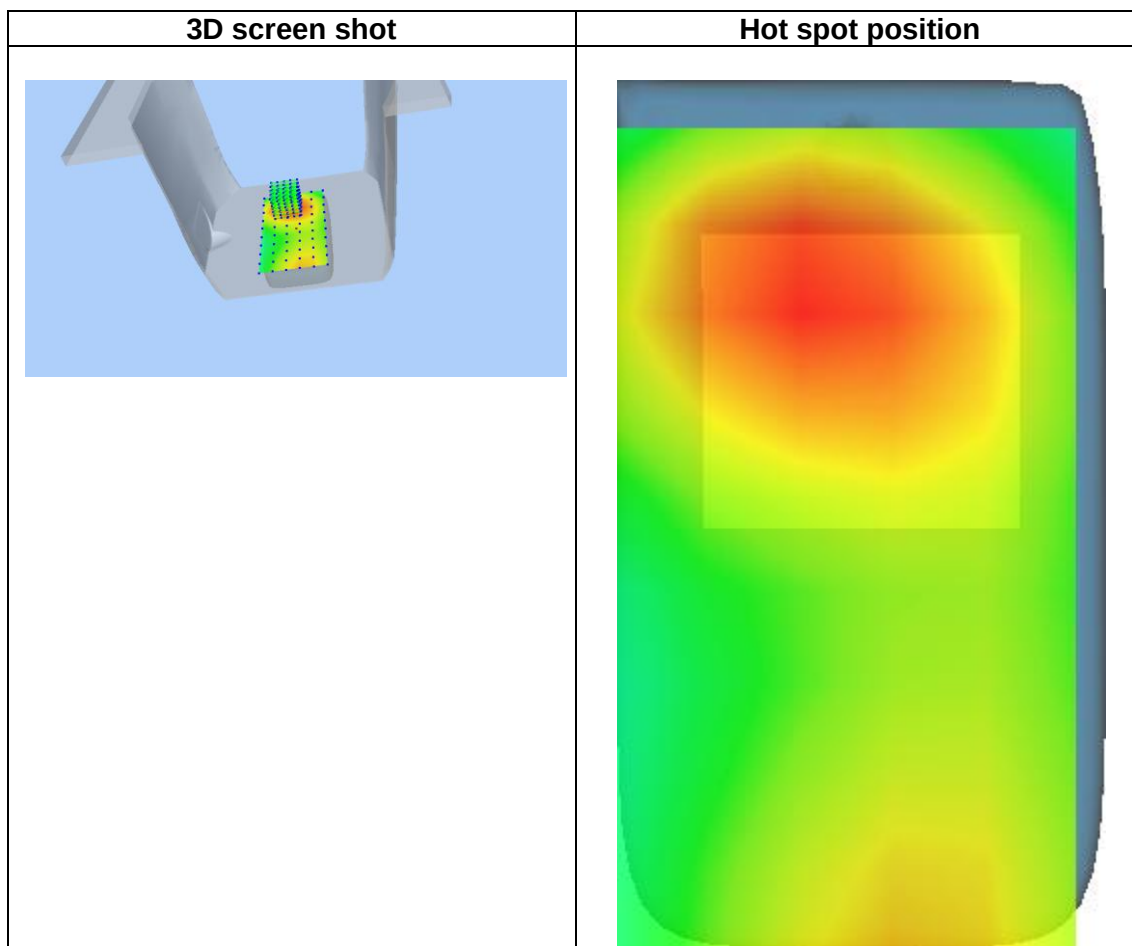
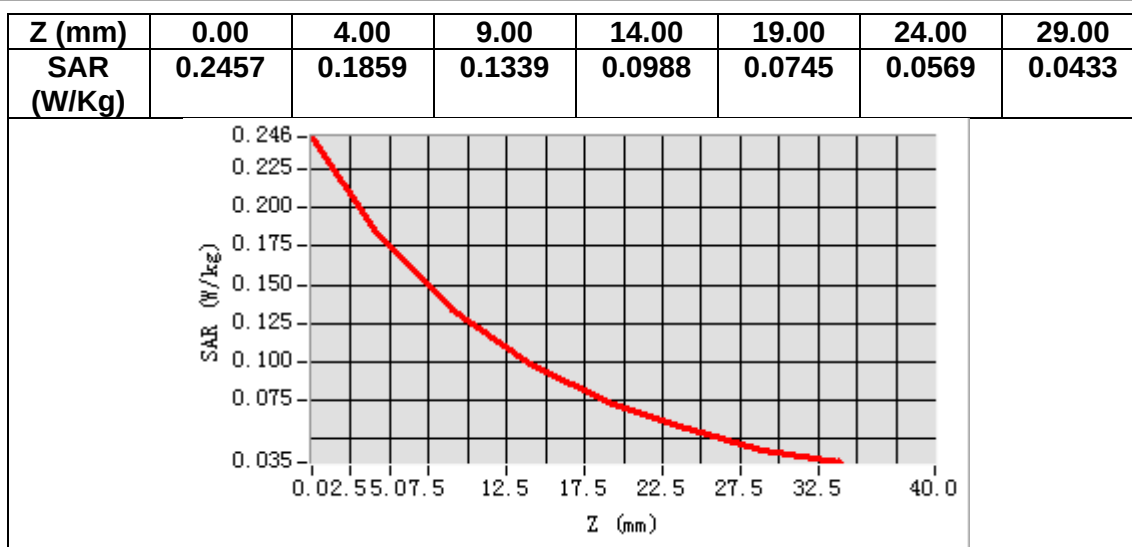
Frequency (MHz)	710.000000
Relative permittivity (real part)	41.544346
Relative permittivity (imaginary part)	21.868204
Conductivity (S/m)	0.862579
Variation (%)	-2.000000



Maximum location: X=-9.00, Y=35.00

SAR Peak: 0.25 W/kg

SAR 10g (W/Kg)	0.125073
SAR 1g (W/Kg)	0.181268



MEASUREMENT 18

Date of measurement: 2/11/2024

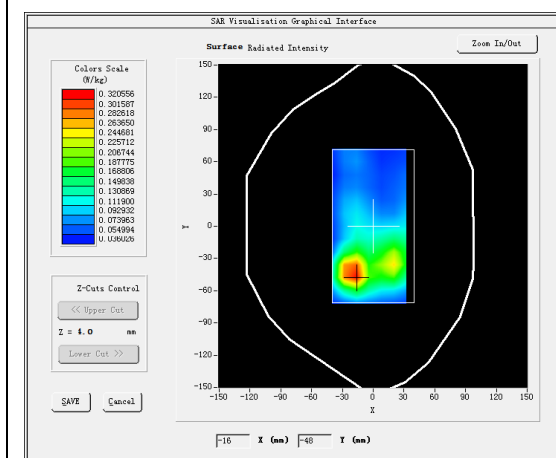
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>7x7x7,dx=5mm dy=5mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 38</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.6)</u>
<u>ConvF</u>	<u>2.51</u>

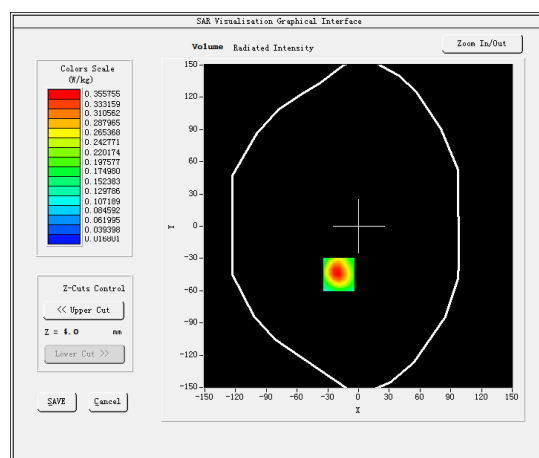
B. SAR Measurement Results

Frequency (MHz)	2595.000000
Relative permittivity (real part)	38.993362
Relative permittivity (imaginary part)	13.930630
Conductivity (S/m)	2.008332
Variation (%)	0.660000

SURFACE SAR



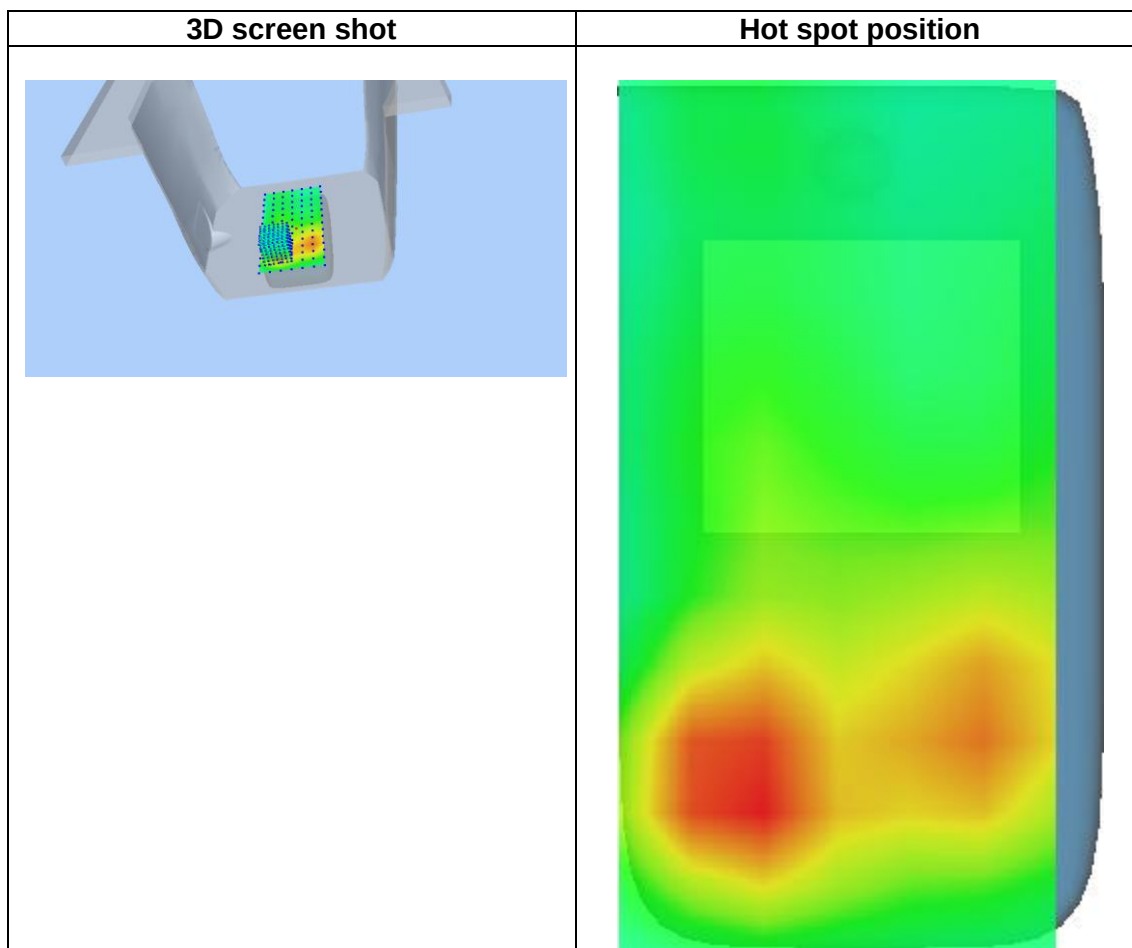
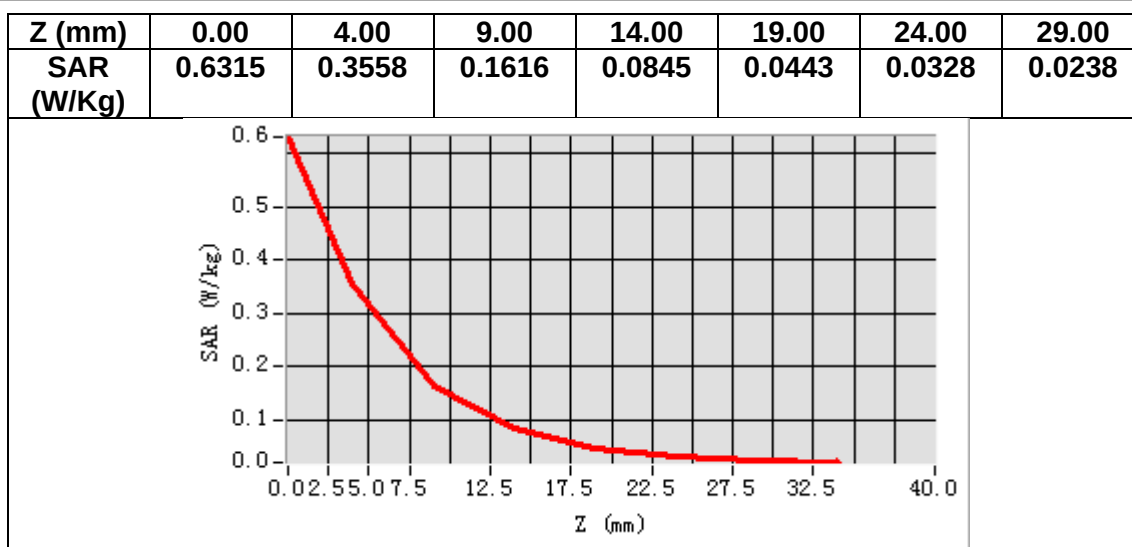
VOLUME SAR



Maximum location: X=-19.00, Y=-45.00

SAR Peak: 0.63 W/kg

SAR 10g (W/Kg)	0.167070
SAR 1g (W/Kg)	0.346602



MEASUREMENT 19

Date of measurement: 2/11/2024

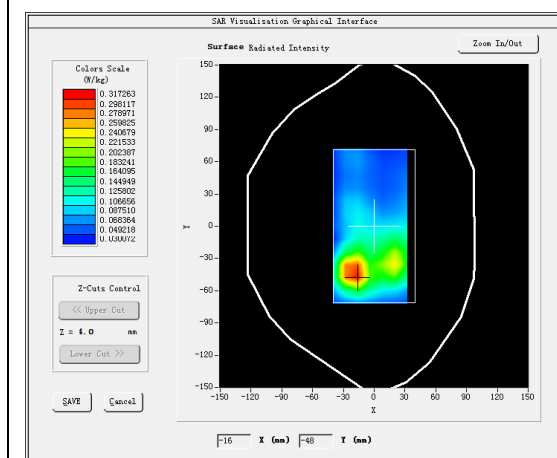
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>7x7x7,dx=5mm dy=5mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 41</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.51</u>

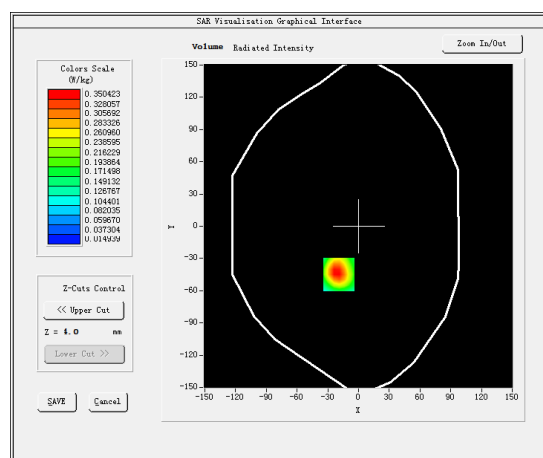
B. SAR Measurement Results

Frequency (MHz)	2593.000000
Relative permittivity (real part)	39.079762
Relative permittivity (imaginary part)	13.880430
Conductivity (S/m)	1.999553
Variation (%)	0.150000

SURFACE SAR



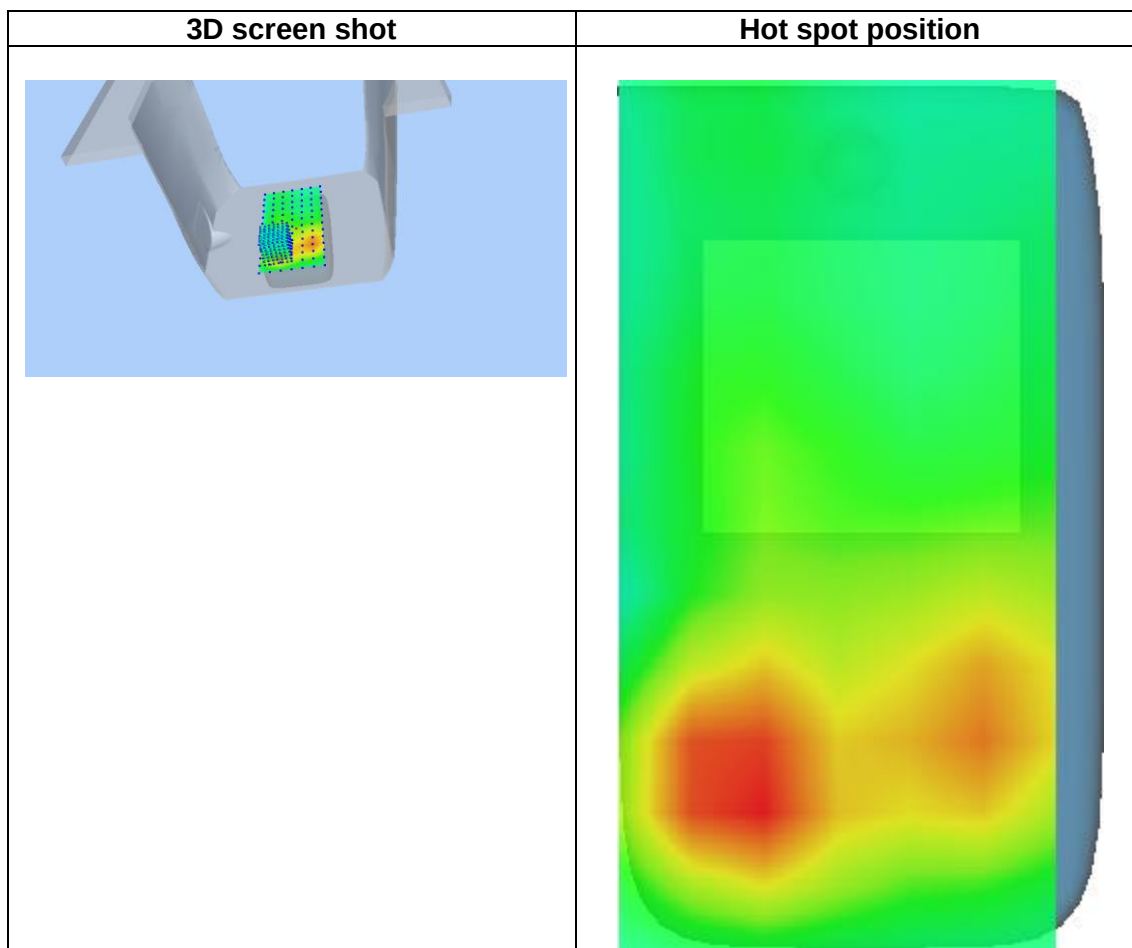
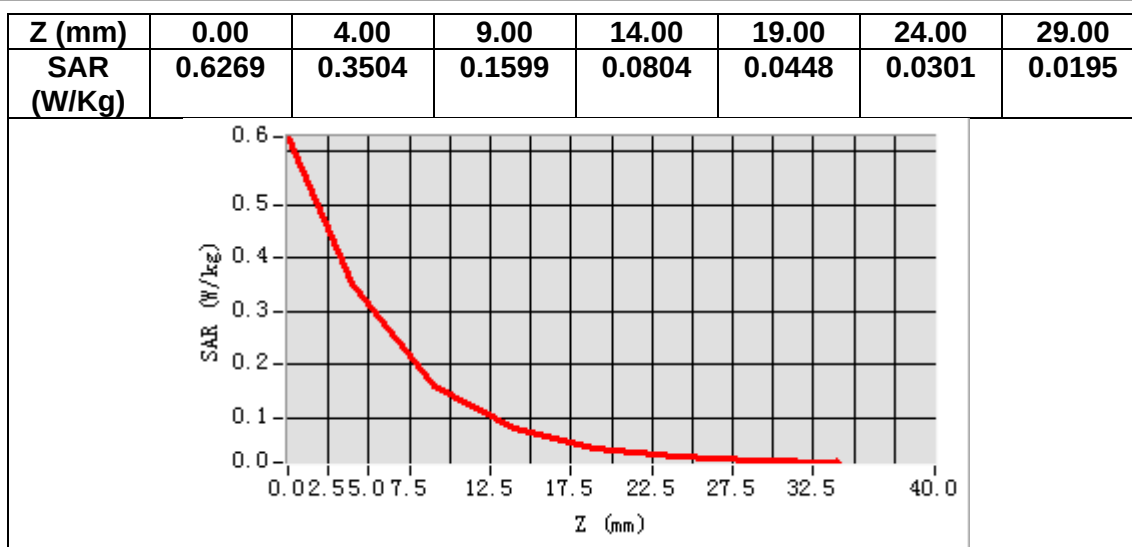
VOLUME SAR



Maximum location: X=-19.00, Y=-45.00

SAR Peak: 0.63 W/kg

SAR 10g (W/Kg)	0.163681
SAR 1g (W/Kg)	0.344341



MEASUREMENT 20

Date of measurement: 5/11/2024

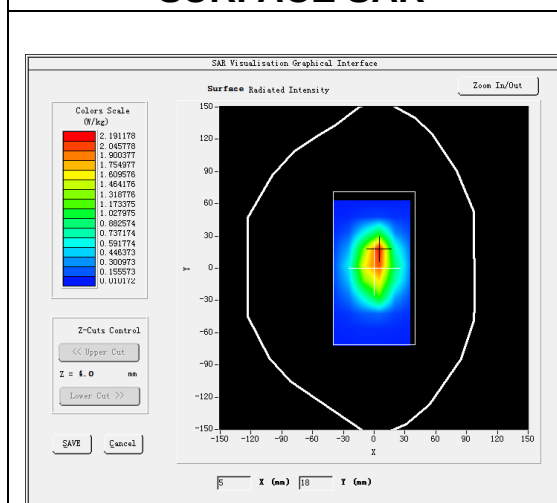
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>GSM850</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>TDMA (Crest factor: 8.0)</u>
<u>ConvF</u>	<u>2.34</u>

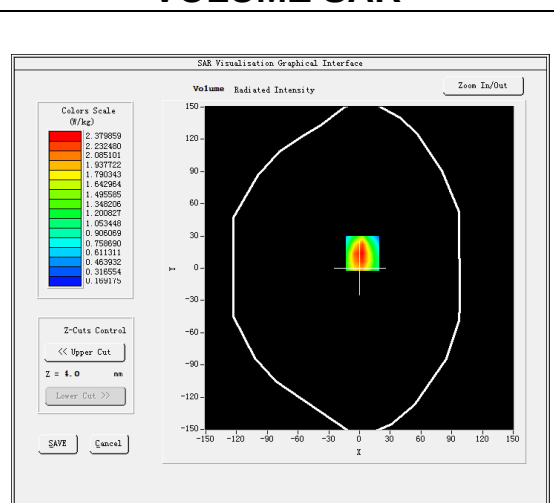
B. SAR Measurement Results

Frequency (MHz)	836.400000
Relative permittivity (real part)	41.997749
Relative permittivity (imaginary part)	19.853529
Conductivity (S/m)	0.922527
Variation (%)	0.790000

SURFACE SAR



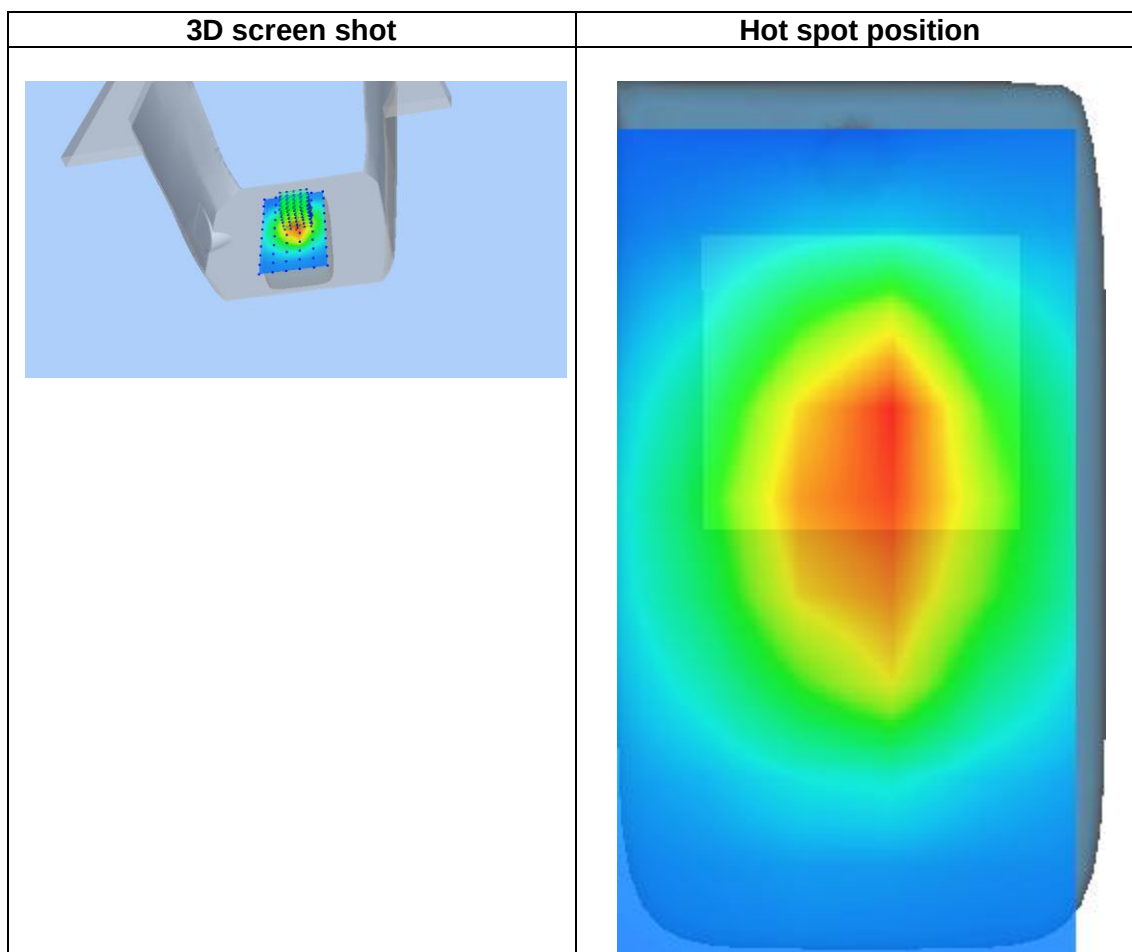
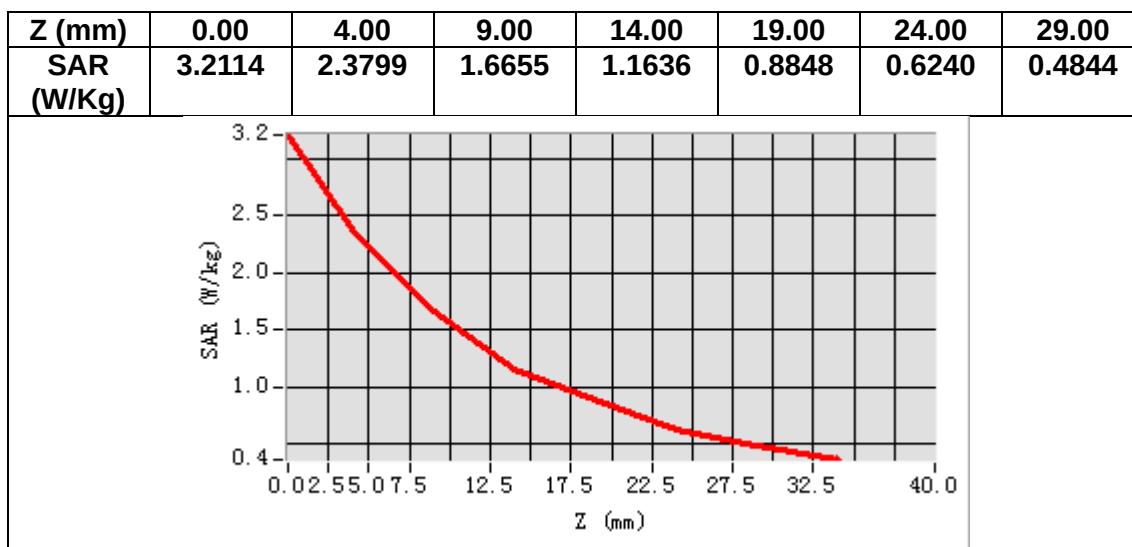
VOLUME SAR



Maximum location: X=3.00, Y=14.00

SAR Peak: 3.51 W/kg

SAR 10g (W/Kg)	1.464807
SAR 1g (W/Kg)	2.316710



MEASUREMENT 21

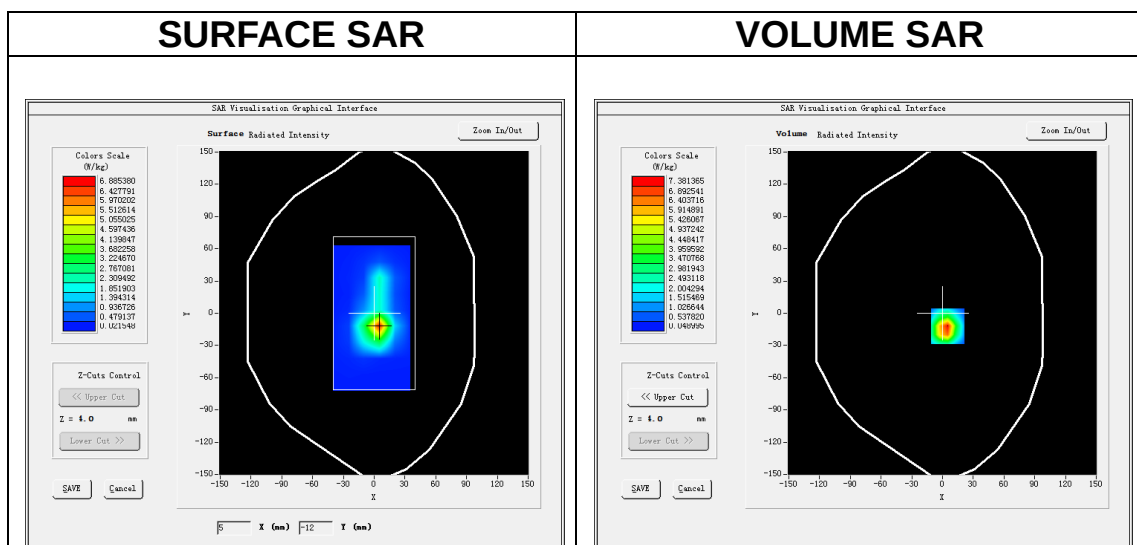
Date of measurement: 6/11/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>GSM1900</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>TDMA (Crest factor: 8.0)</u>
<u>ConvF</u>	<u>2.57</u>

B. SAR Measurement Results

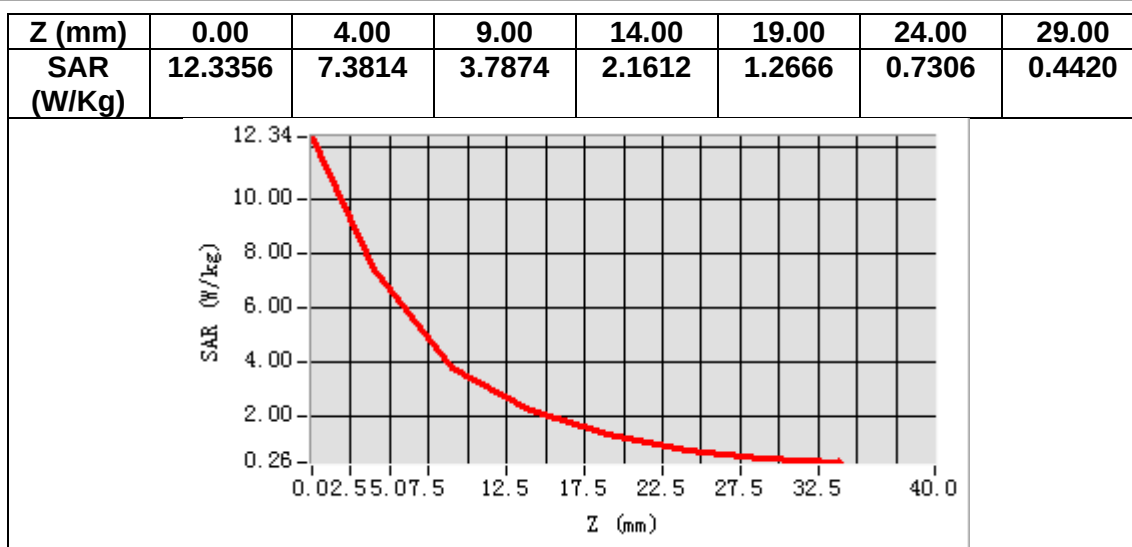
Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.562634
Relative permittivity (imaginary part)	13.814889
Conductivity (S/m)	1.442888
Variation (%)	2.240000



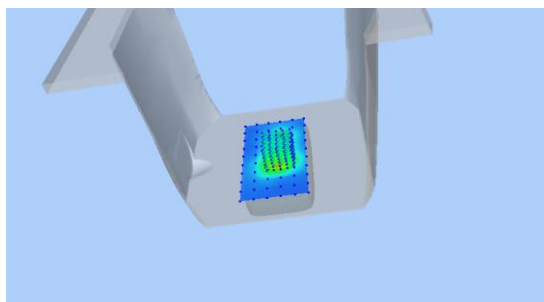
Maximum location: X=5.00, Y=-12.00

SAR Peak: 13.07 W/kg

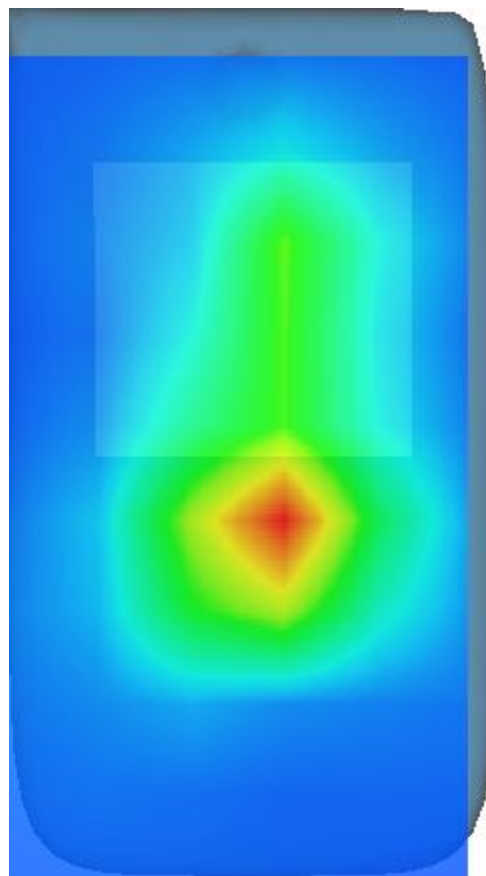
SAR 10g (W/Kg)	2.744987
SAR 1g (W/Kg)	6.522632



3D screen shot



Hot spot position



MEASUREMENT 22

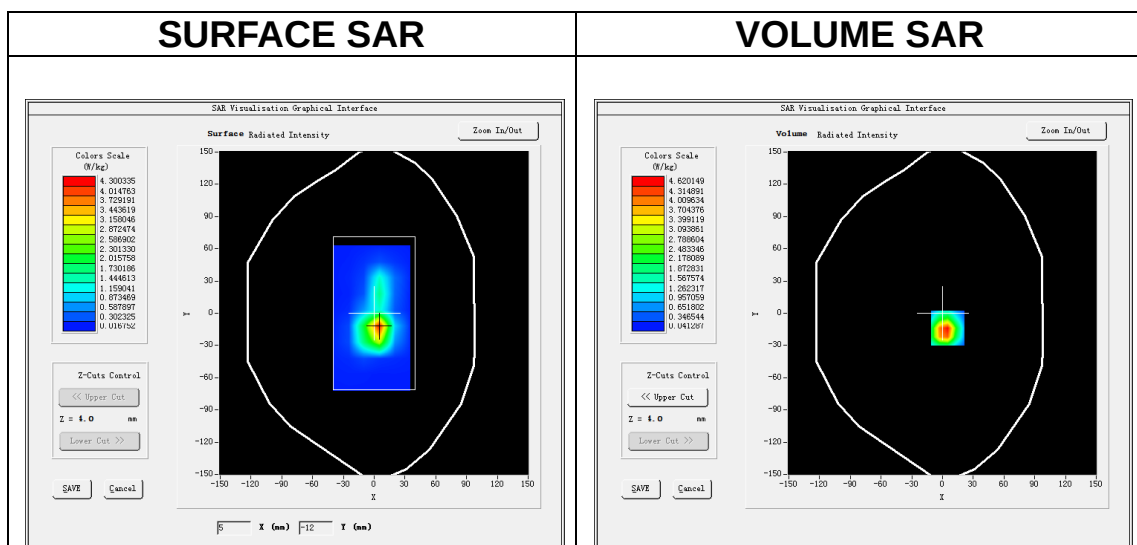
Date of measurement: 6/11/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>Band2 WCDMA1900</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>WCDMA (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.57</u>

B. SAR Measurement Results

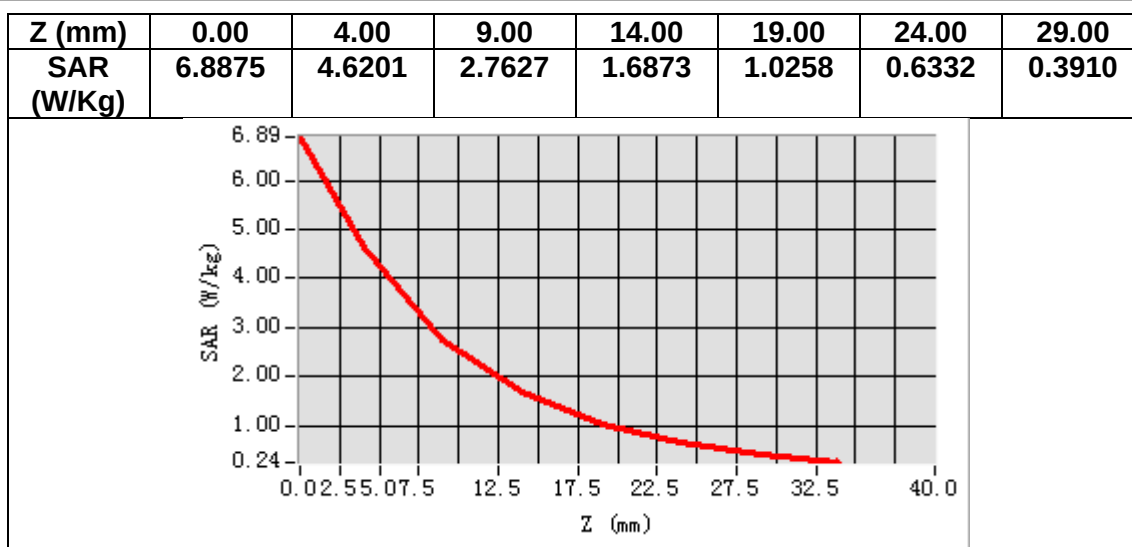
Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.562634
Relative permittivity (imaginary part)	13.814889
Conductivity (S/m)	1.442888
Variation (%)	-0.290000



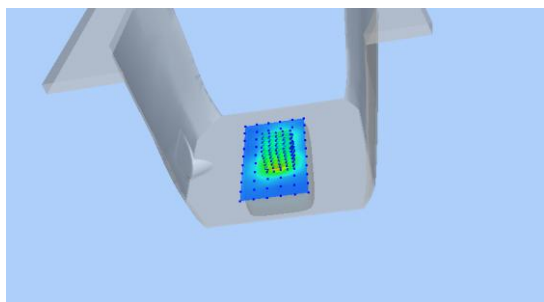
Maximum location: X=5.00, Y=-14.00

SAR Peak: 7.58 W/kg

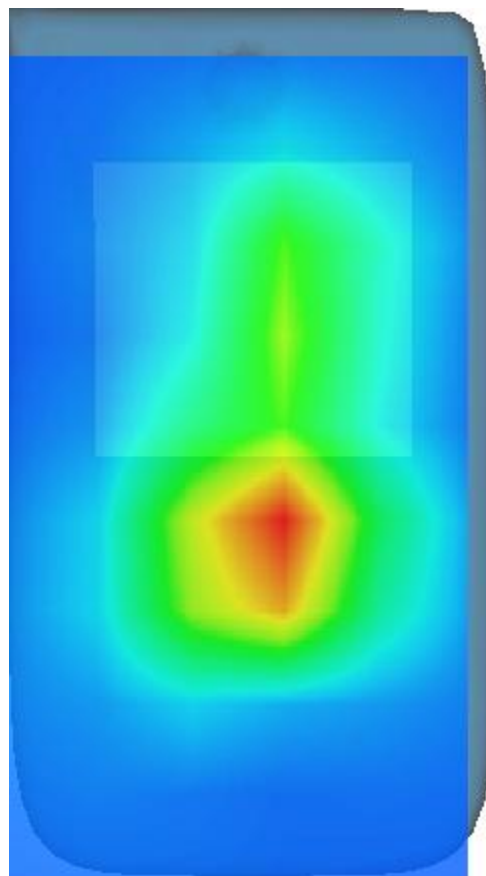
SAR 10g (W/Kg)	2.166360
SAR 1g (W/Kg)	4.588485



3D screen shot



Hot spot position



MEASUREMENT 23

Date of measurement: 30/10/2024

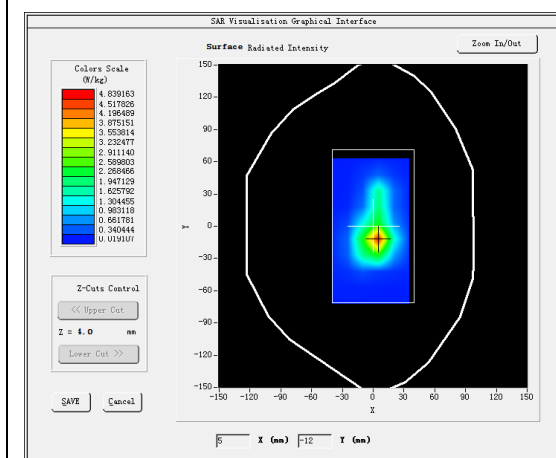
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>Band4 WCDMA1700</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>WCDMA (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.51</u>

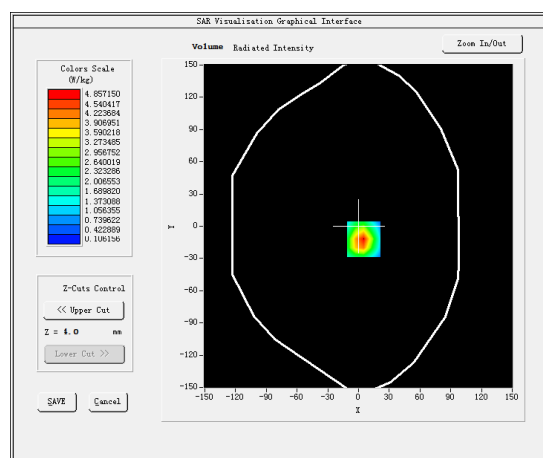
B. SAR Measurement Results

Frequency (MHz)	1732.600000
Relative permittivity (real part)	39.684925
Relative permittivity (imaginary part)	13.934763
Conductivity (S/m)	1.340834
Variation (%)	0.010000

SURFACE SAR



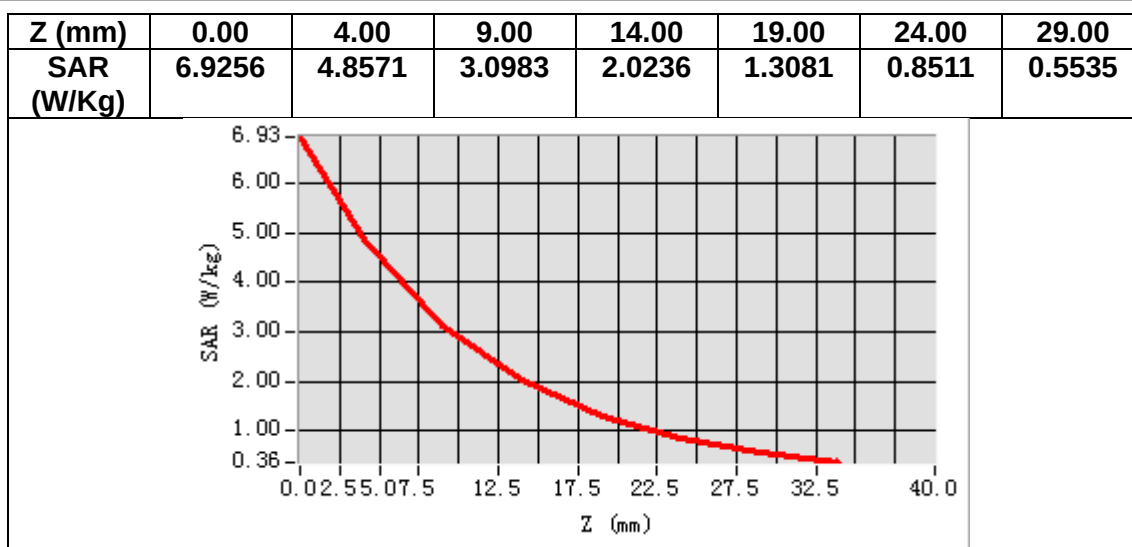
VOLUME SAR



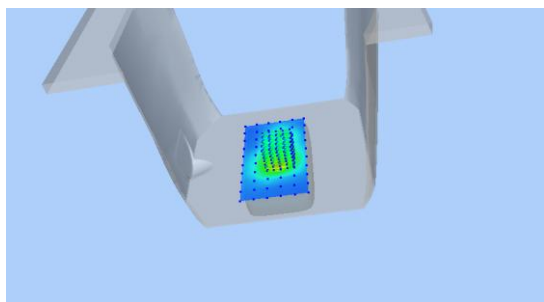
Maximum location: X=5.00, Y=-12.00

SAR Peak: 7.23 W/kg

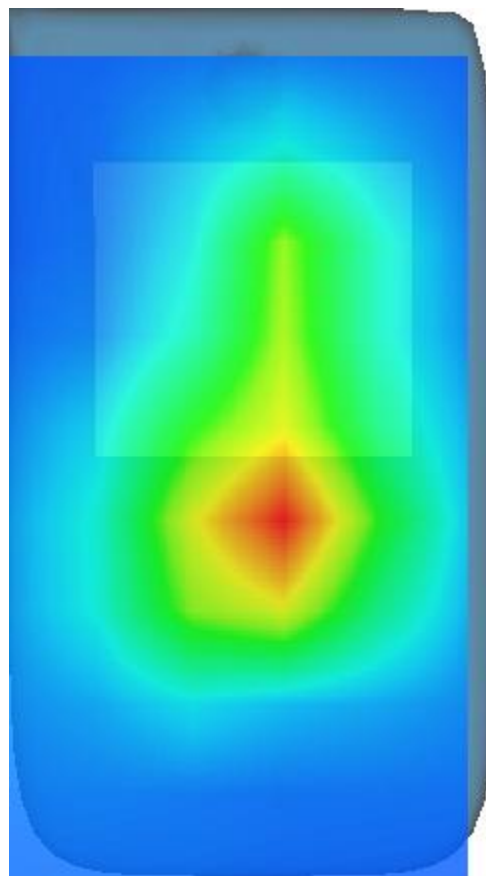
SAR 10g (W/Kg)	2.428728
SAR 1g (W/Kg)	4.554835



3D screen shot



Hot spot position



MEASUREMENT 24

Date of measurement: 5/11/2024

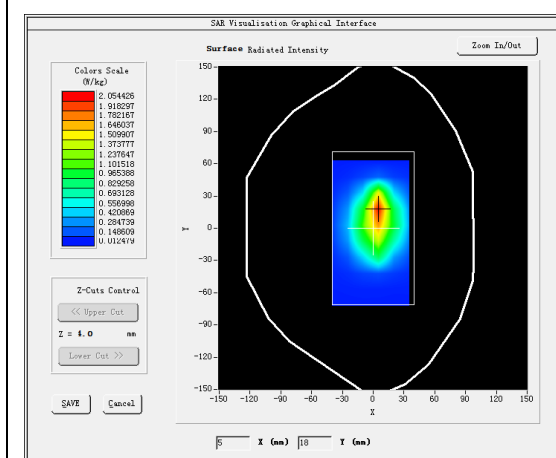
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>Band5 WCDMA850</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>WCDMA (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.34</u>

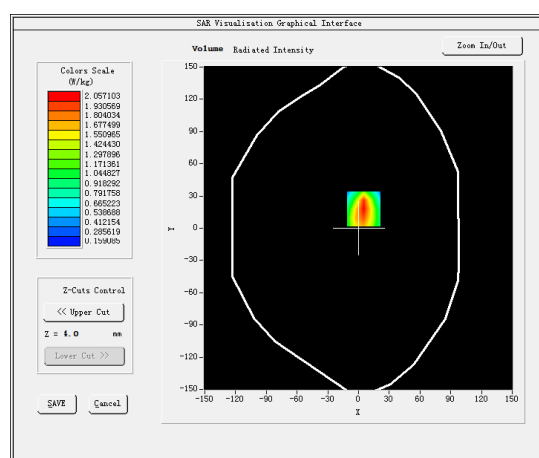
B. SAR Measurement Results

Frequency (MHz)	836.400000
Relative permittivity (real part)	41.997749
Relative permittivity (imaginary part)	19.853529
Conductivity (S/m)	0.922527
Variation (%)	-0.610000

SURFACE SAR



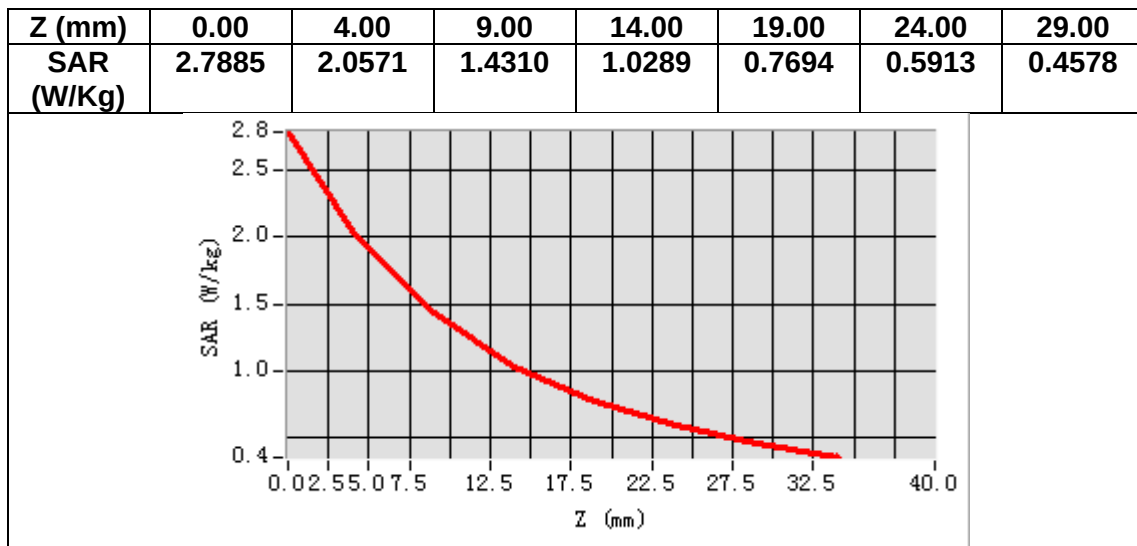
VOLUME SAR



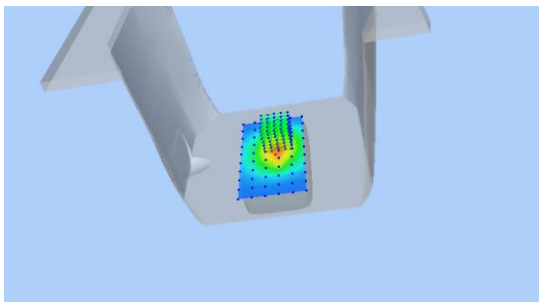
Maximum location: X=5.00, Y=18.00

SAR Peak: 3.05 W/kg

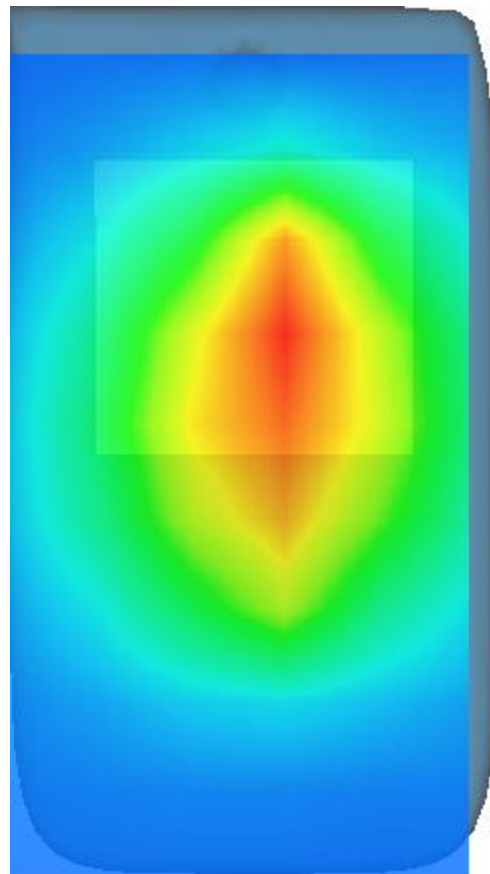
SAR 10g (W/Kg)	1.255159
SAR 1g (W/Kg)	1.967311



3D screen shot



Hot spot position



MEASUREMENT 25

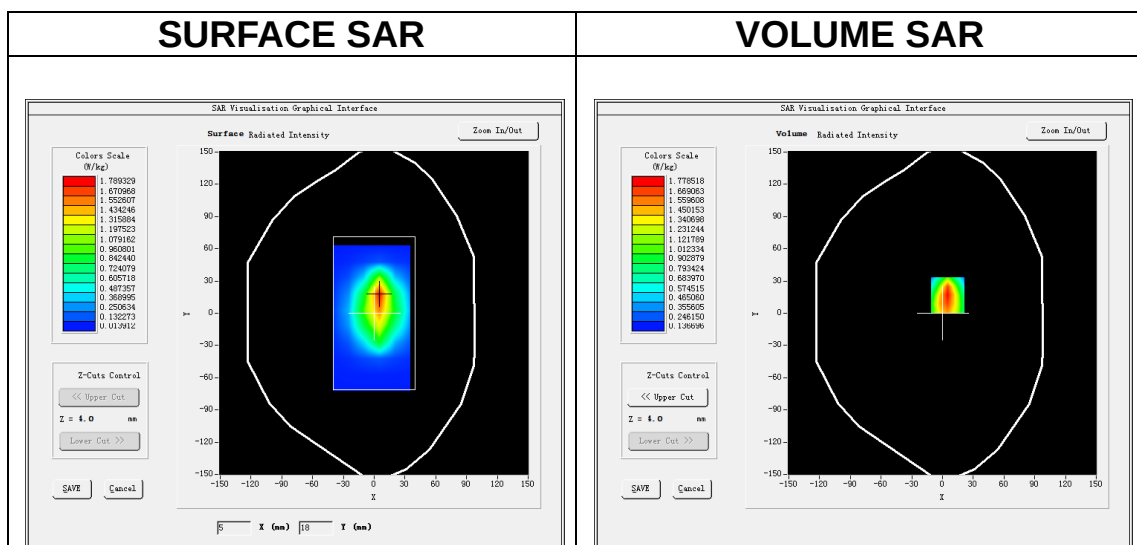
Date of measurement: 5/11/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>BC0 Korean Cellular</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CDMA (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.34</u>

B. SAR Measurement Results

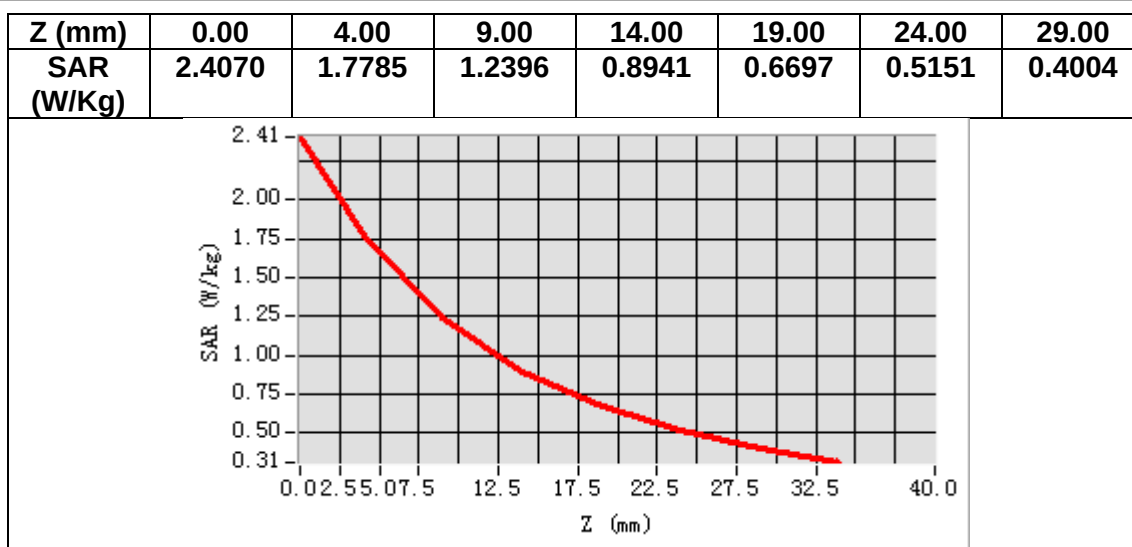
Frequency (MHz)	836.520020
Relative permittivity (real part)	42.000858
Relative permittivity (imaginary part)	19.851921
Conductivity (S/m)	0.922585
Variation (%)	-0.490000



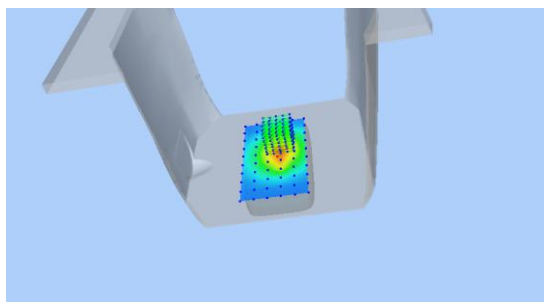
Maximum location: X=5.00, Y=17.00

SAR Peak: 2.60 W/kg

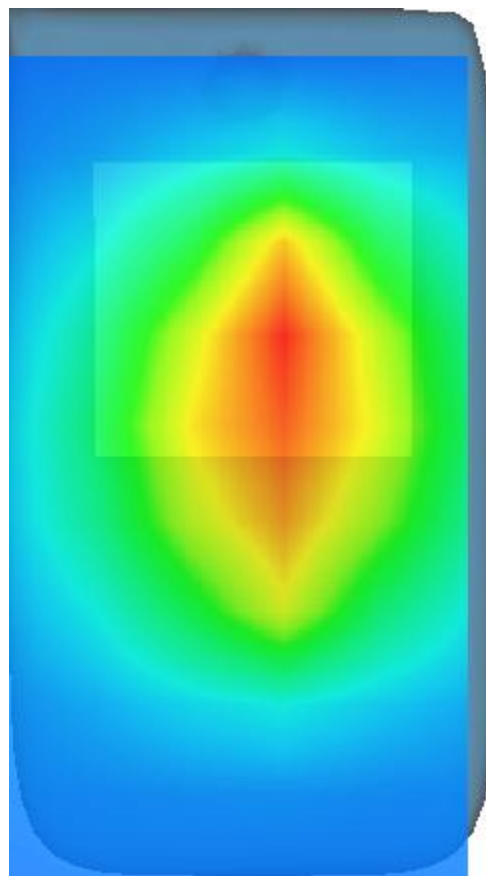
SAR 10g (W/Kg)	1.096265
SAR 1g (W/Kg)	1.698743



3D screen shot



Hot spot position



MEASUREMENT 26

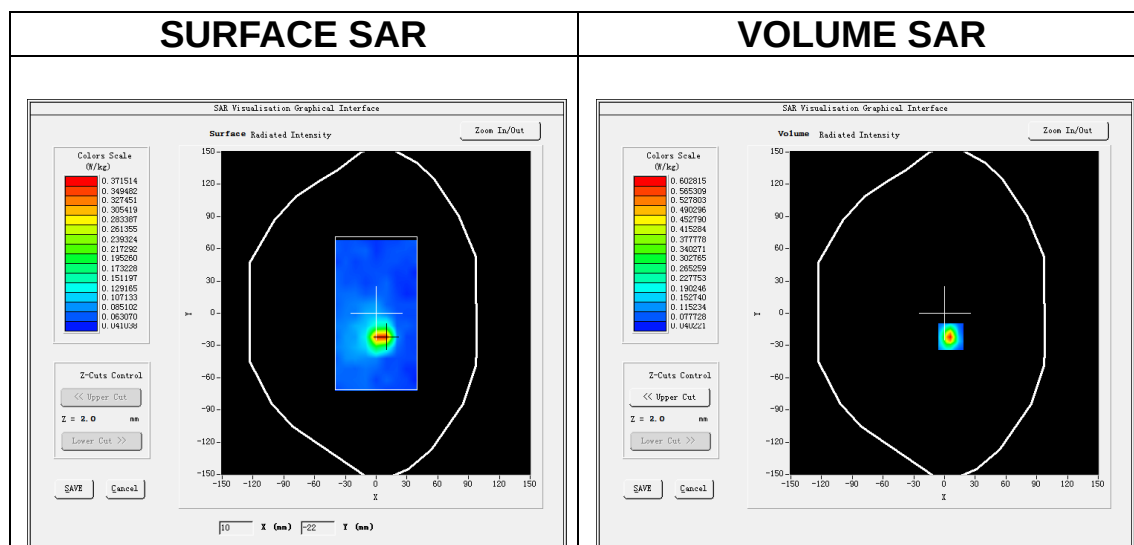
Date of measurement: 24/10/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=10mm dy=10mm, h= 2.00 mm</u>
<u>ZoomScan</u>	<u>7x7x12,dx=4mm dy=4mm dz=2mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>IEEE 802.11a U-NII</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>IEEE802.11a (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>1.89</u>

B. SAR Measurement Results

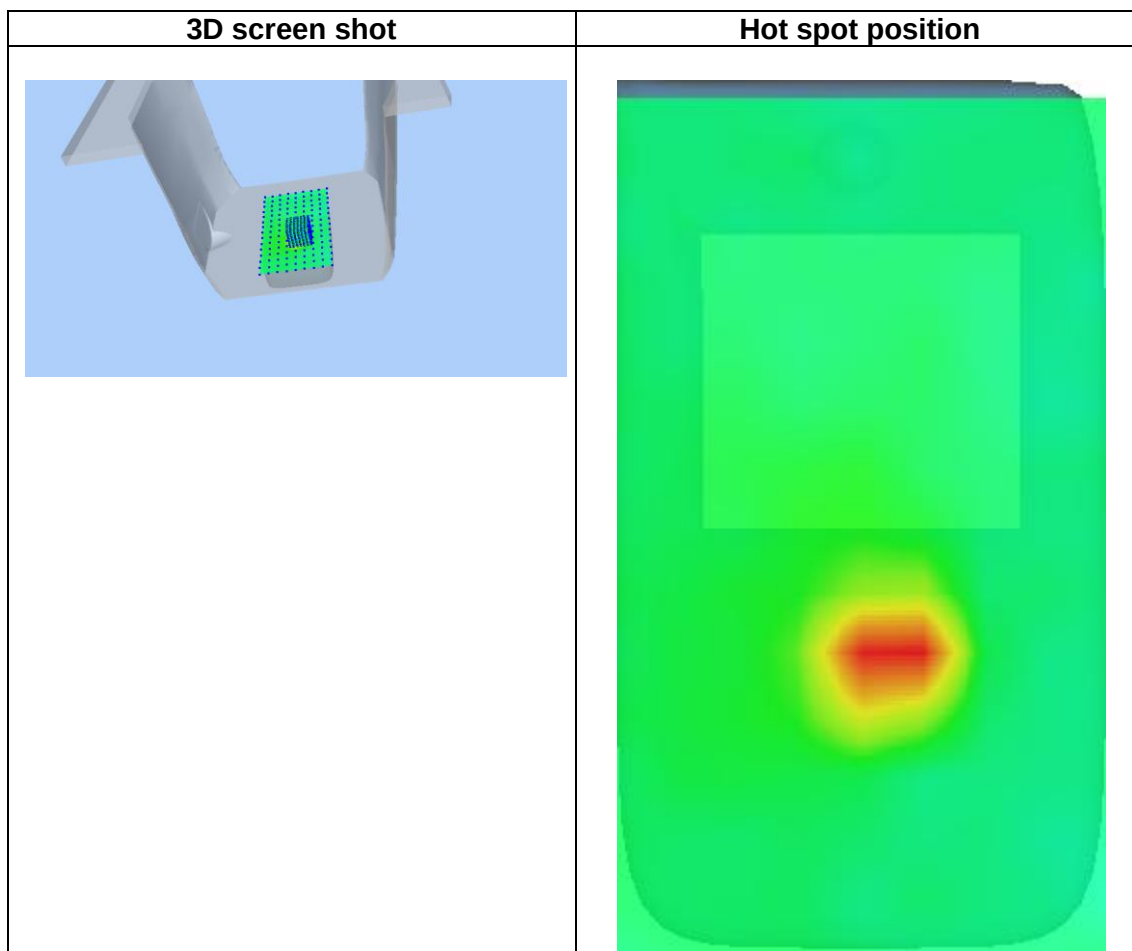
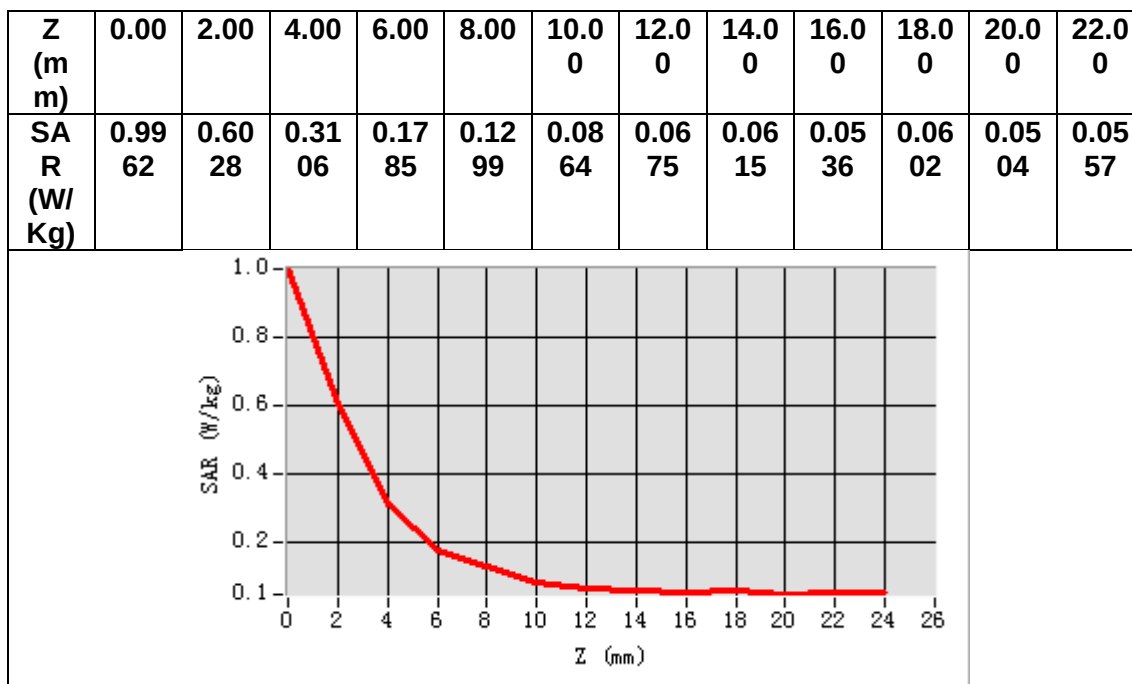
Frequency (MHz)	5180.000000
Relative permittivity (real part)	36.619694
Relative permittivity (imaginary part)	15.632473
Conductivity (S/m)	4.516048
Variation (%)	-4.630000



Maximum location: X=6.00, Y=-22.00

SAR Peak: 1.07 W/kg

SAR 10g (W/Kg)	0.117694
SAR 1g (W/Kg)	0.313007



MEASUREMENT 27

Date of measurement: 25/10/2024

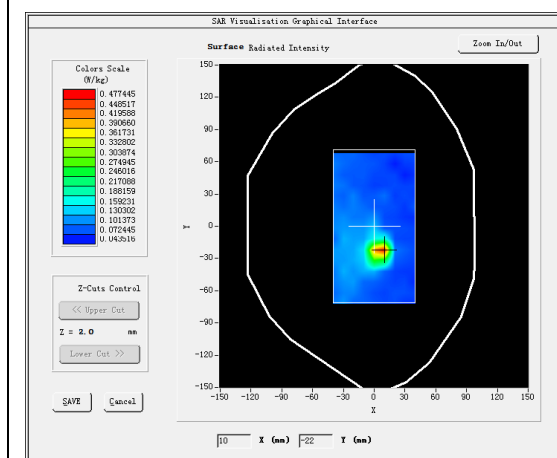
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=10mm dy=10mm, h= 2.00 mm</u>
<u>ZoomScan</u>	<u>7x7x12,dx=4mm dy=4mm dz=2mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>IEEE 802.11a U-NII</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>IEEE802.11a (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>1.97</u>

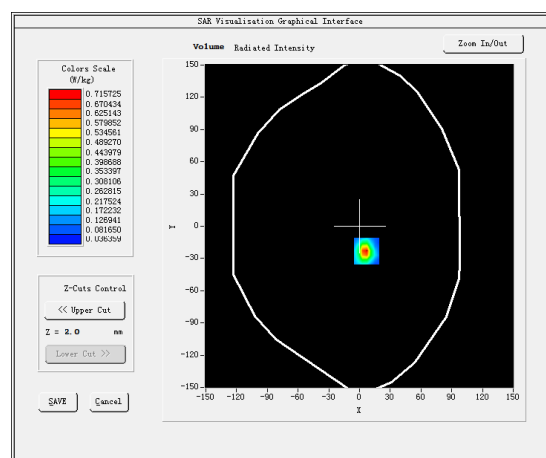
B. SAR Measurement Results

Frequency (MHz)	5280.000000
Relative permittivity (real part)	35.945820
Relative permittivity (imaginary part)	15.480026
Conductivity (S/m)	4.540808
Variation (%)	-3.630000

SURFACE SAR



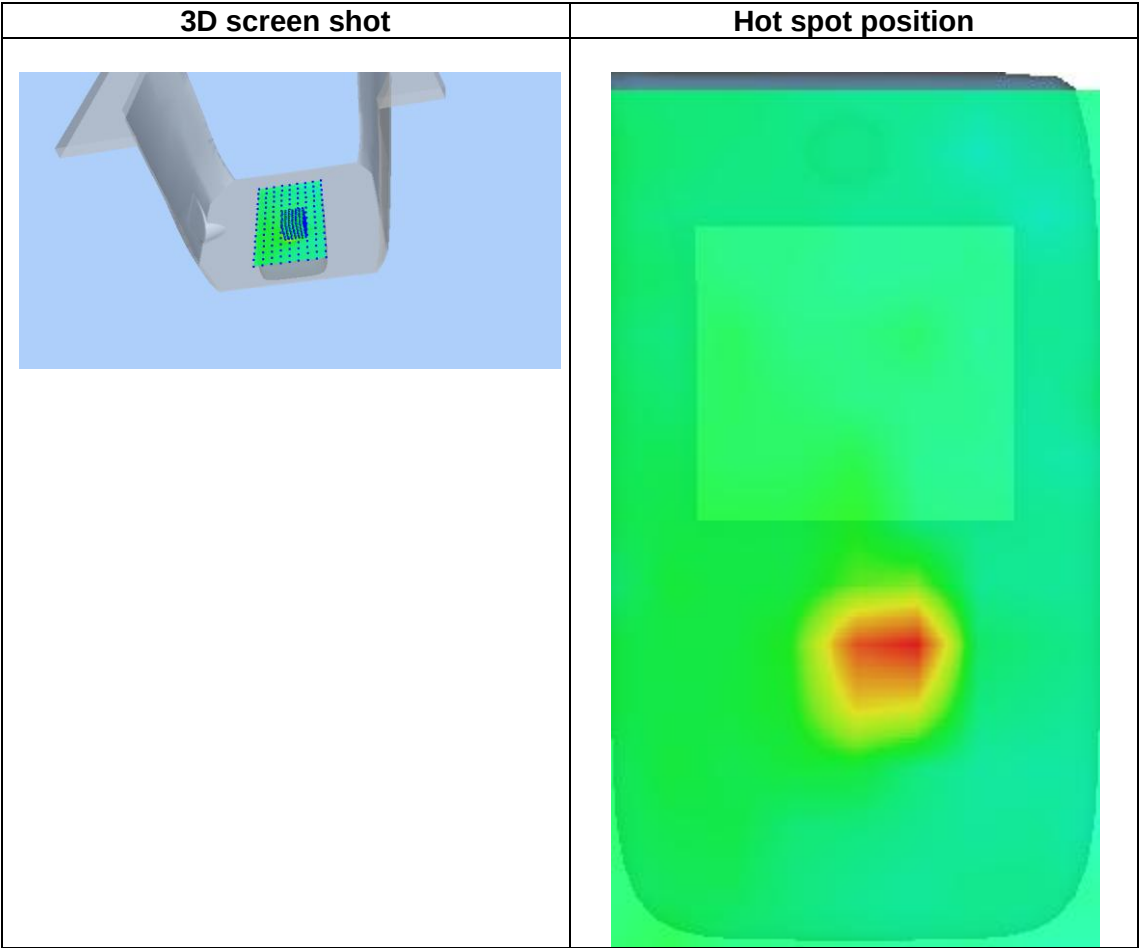
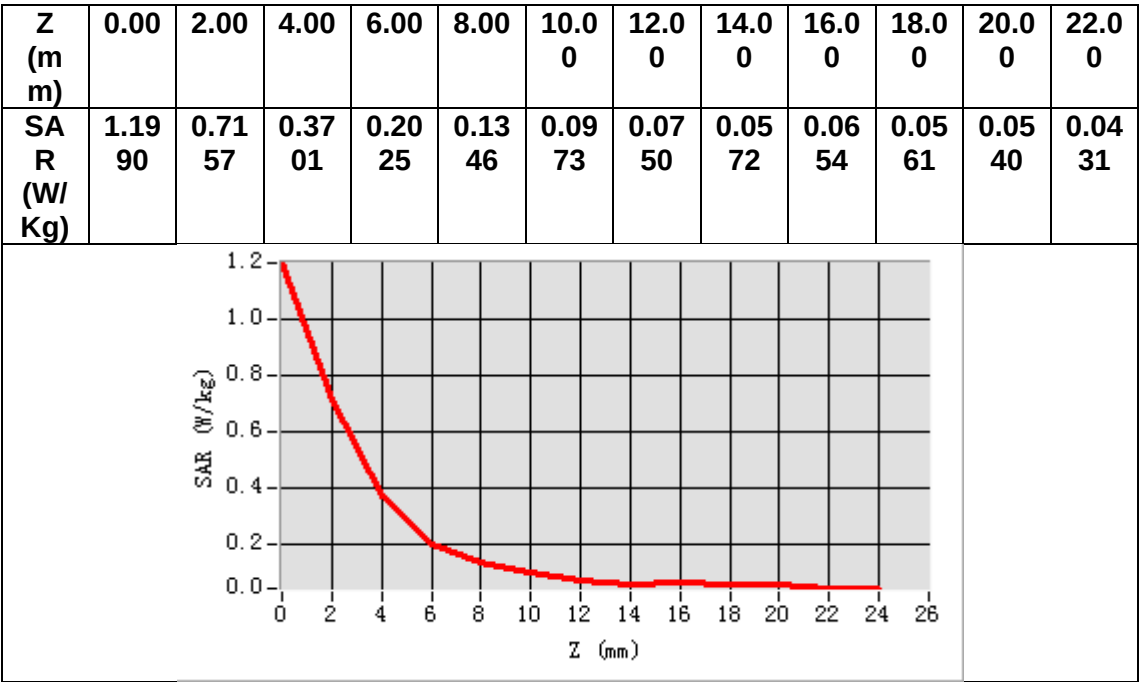
VOLUME SAR



Maximum location: X=7.00, Y=-23.00

SAR Peak: 1.32 W/kg

SAR 10g (W/Kg)	0.134256
SAR 1g (W/Kg)	0.382506



MEASUREMENT 28

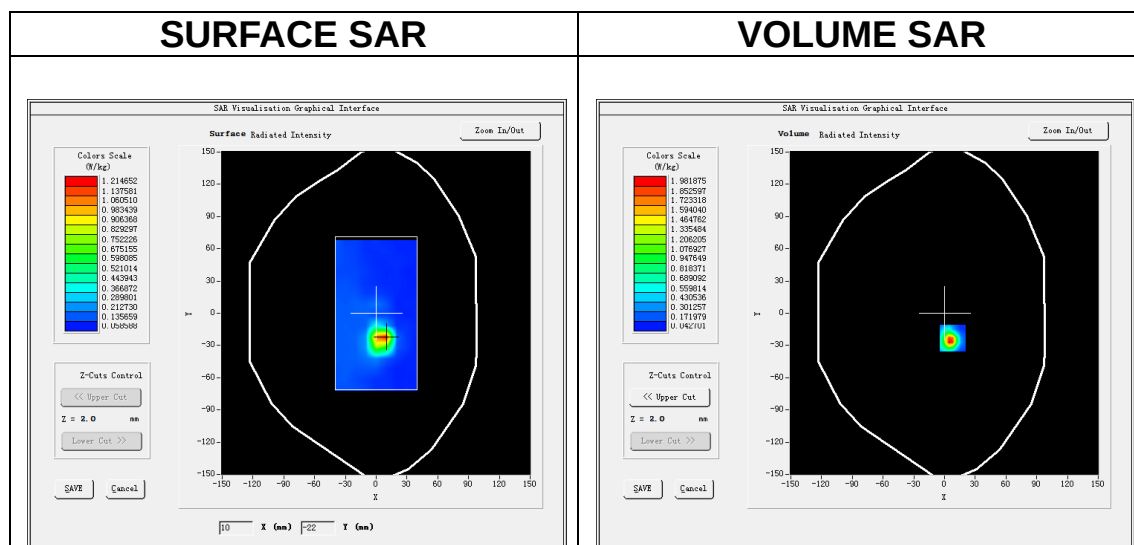
Date of measurement: 4/11/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=10mm dy=10mm, h= 2.00 mm</u>
<u>ZoomScan</u>	<u>7x7x12,dx=4mm dy=4mm dz=2mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>IEEE 802.11a U-NII</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>IEEE802.11a (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>1.88</u>

B. SAR Measurement Results

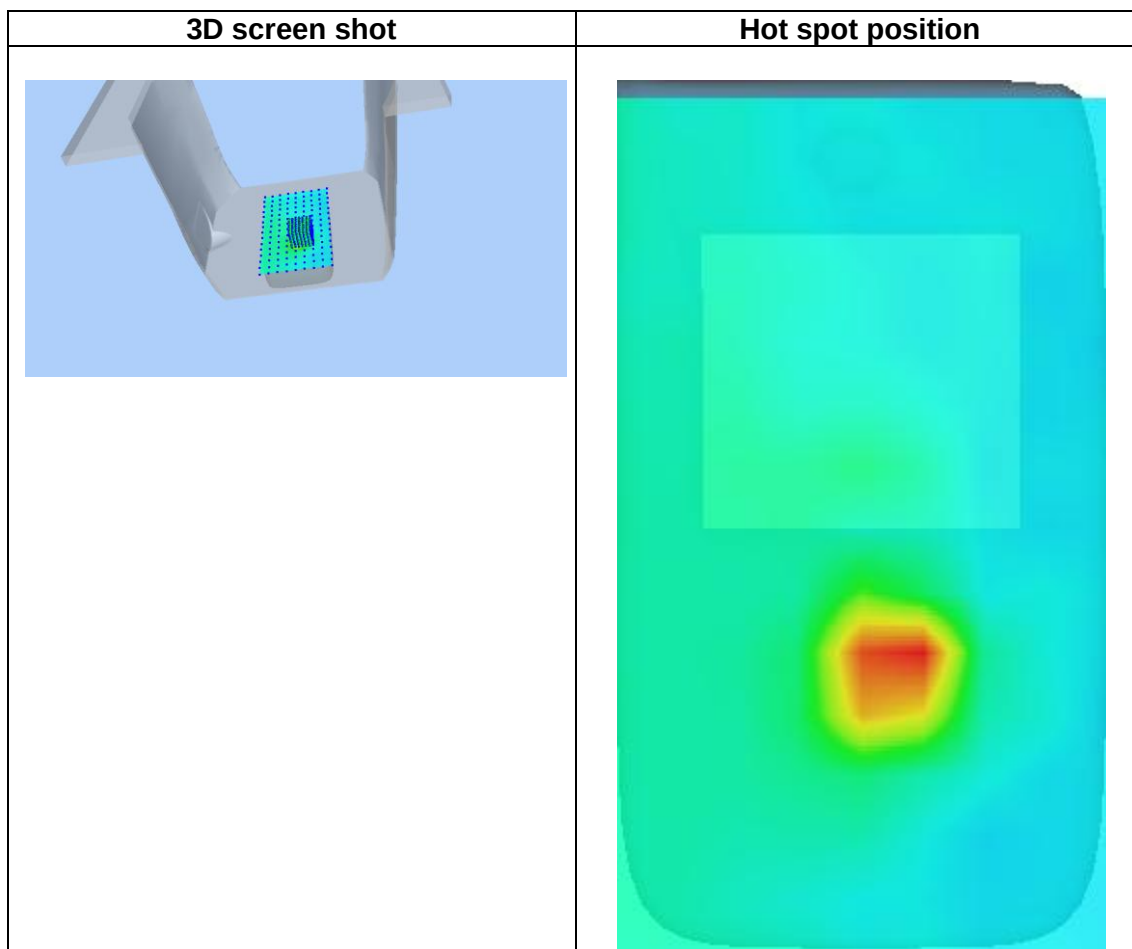
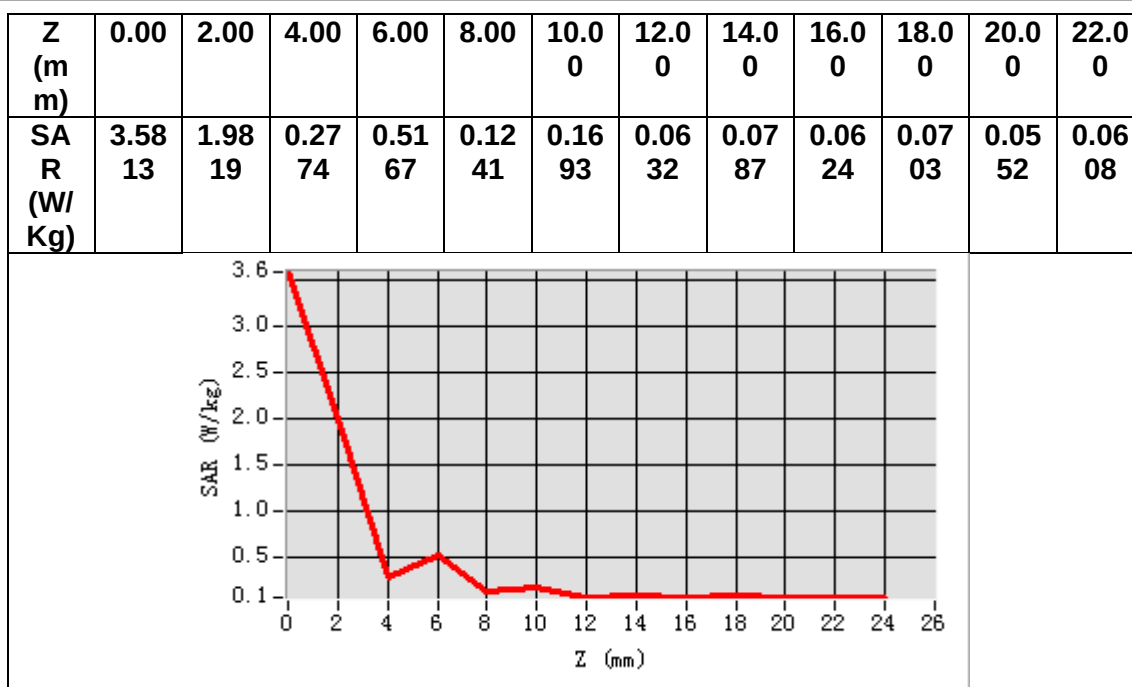
Frequency (MHz)	5510.000000
Relative permittivity (real part)	34.643253
Relative permittivity (imaginary part)	16.113609
Conductivity (S/m)	5.013123
Variation (%)	-3.180000



Maximum location: X=8.00, Y=-23.00

SAR Peak: 3.89 W/kg

SAR 10g (W/Kg)	0.287636
SAR 1g (W/Kg)	1.023891



MEASUREMENT 29

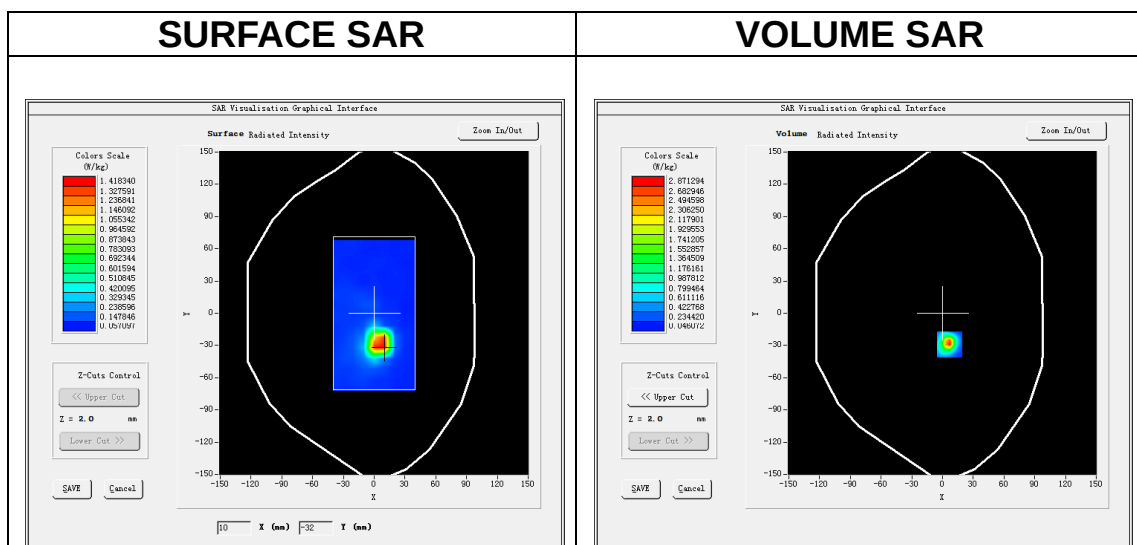
Date of measurement: 26/10/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=10mm dy=10mm, h= 2.00 mm</u>
<u>ZoomScan</u>	<u>7x7x12,dx=4mm dy=4mm dz=2mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>IEEE 802.11a U-NII</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>IEEE802.11a (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>1.90</u>

B. SAR Measurement Results

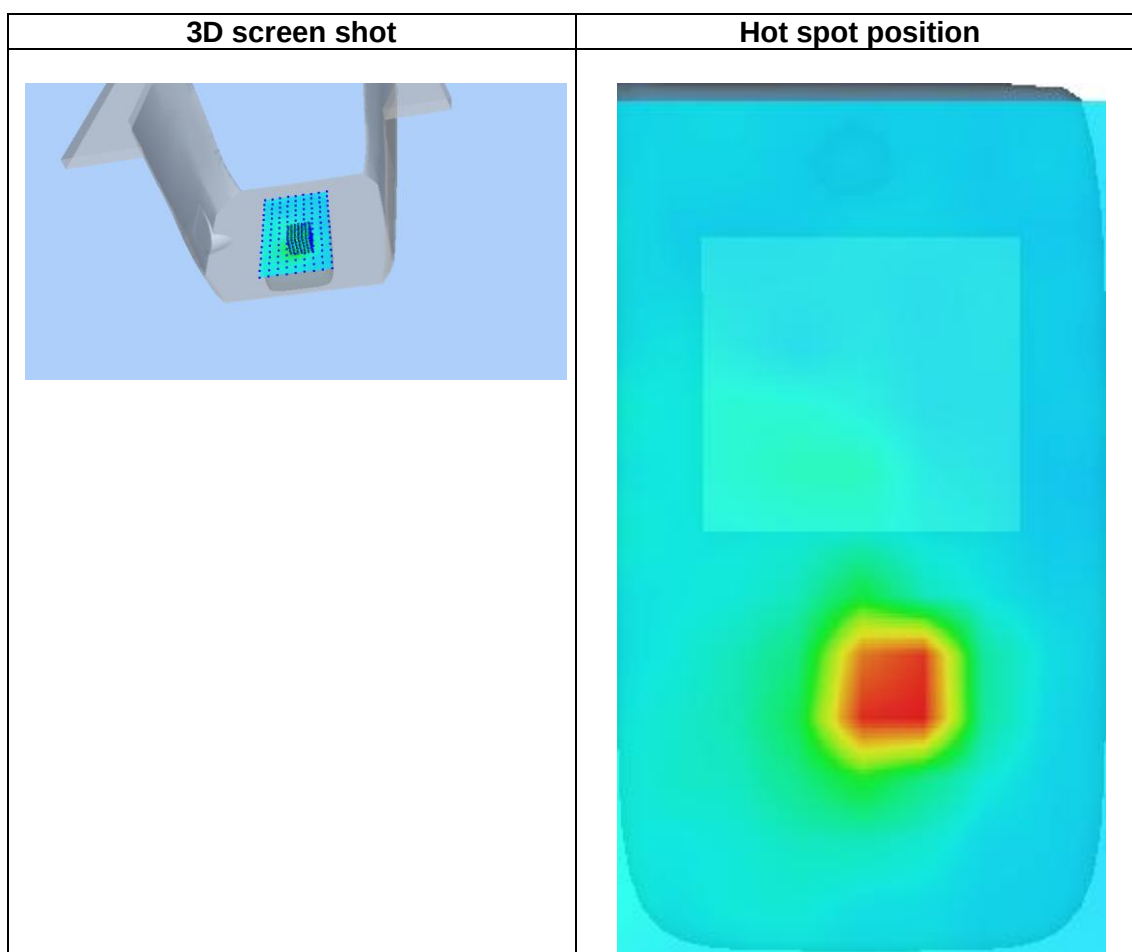
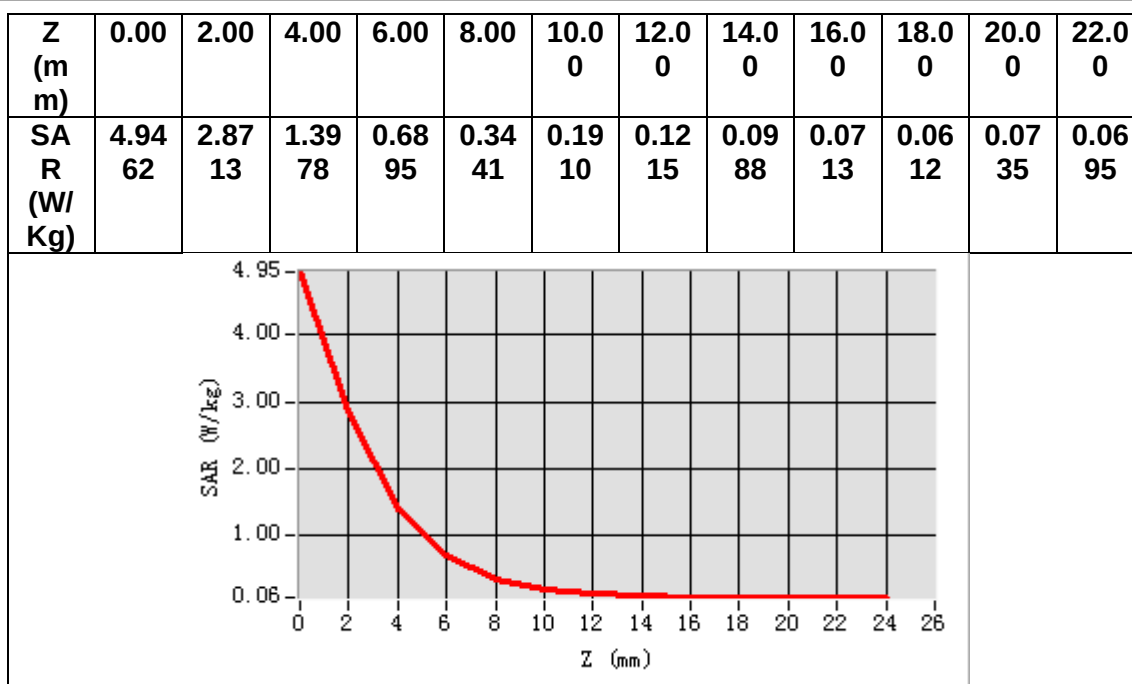
Frequency (MHz)	5745.000000
Relative permittivity (real part)	35.542805
Relative permittivity (imaginary part)	15.840995
Conductivity (S/m)	5.091120
Variation (%)	-1.680000



Maximum location: X=7.00, Y=-29.00

SAR Peak: 5.49 W/kg

SAR 10g (W/Kg)	0.371321
SAR 1g (W/Kg)	1.366043



MEASUREMENT 30

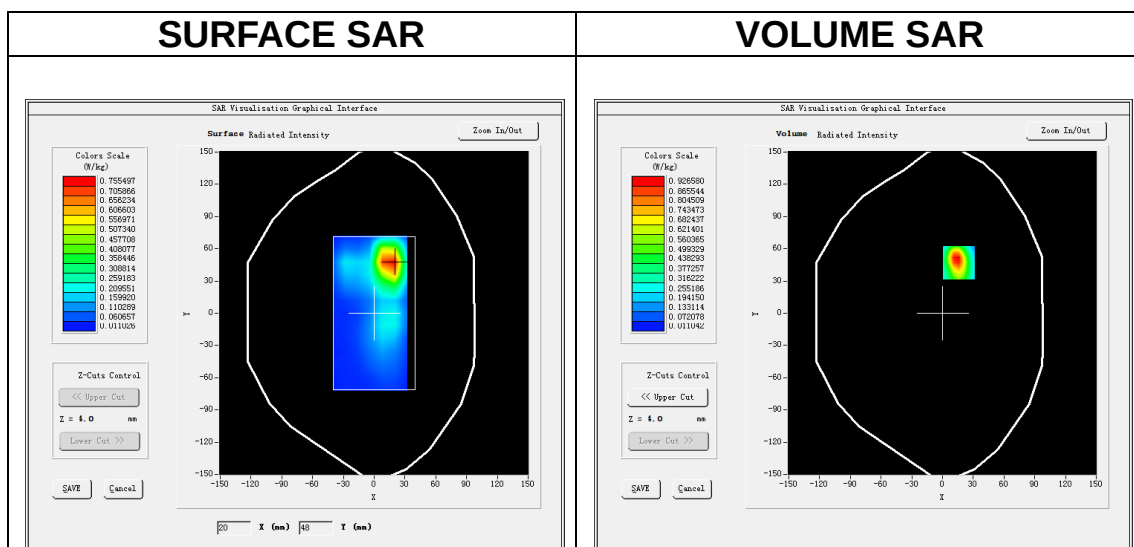
Date of measurement: 3/11/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>7x7x7,dx=5mm dy=5mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>IEEE 802.11b ISM</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>IEEE802.11b (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.74</u>

B. SAR Measurement Results

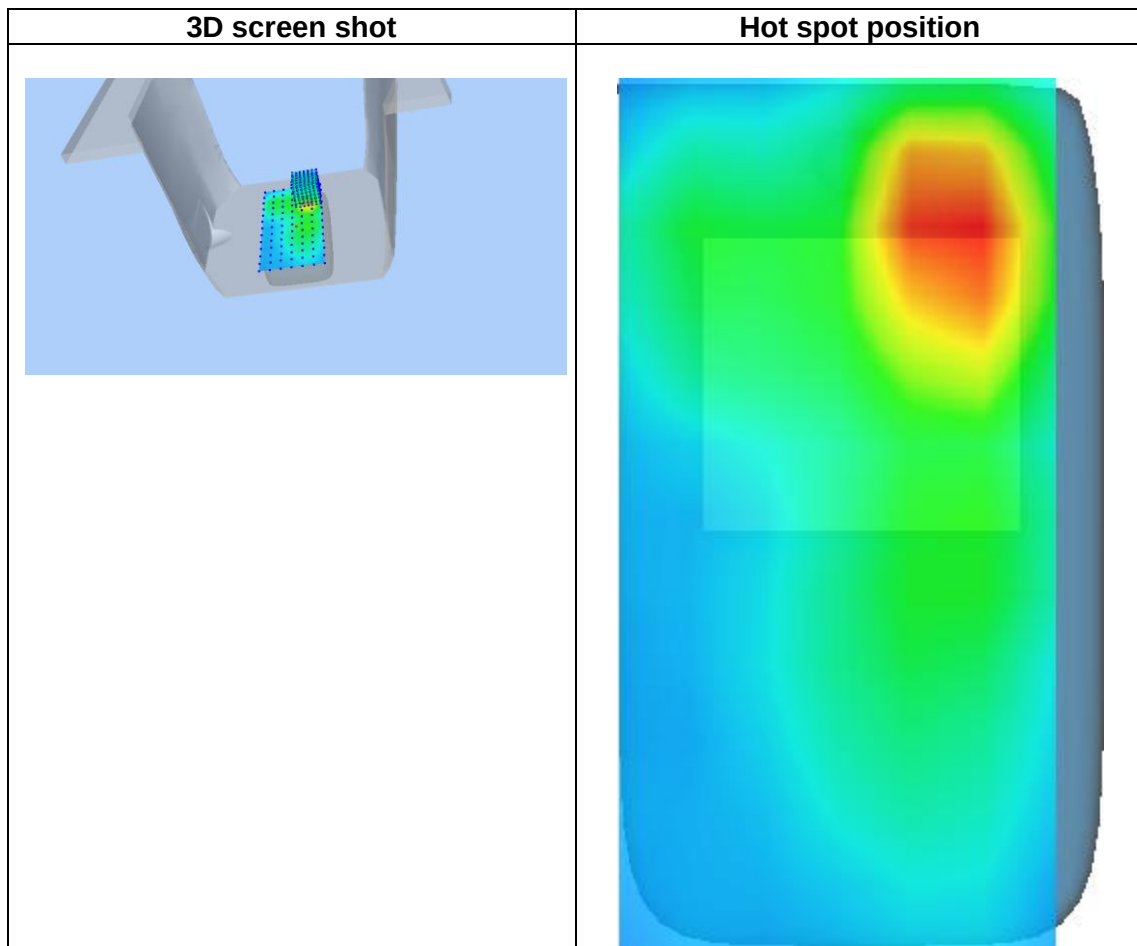
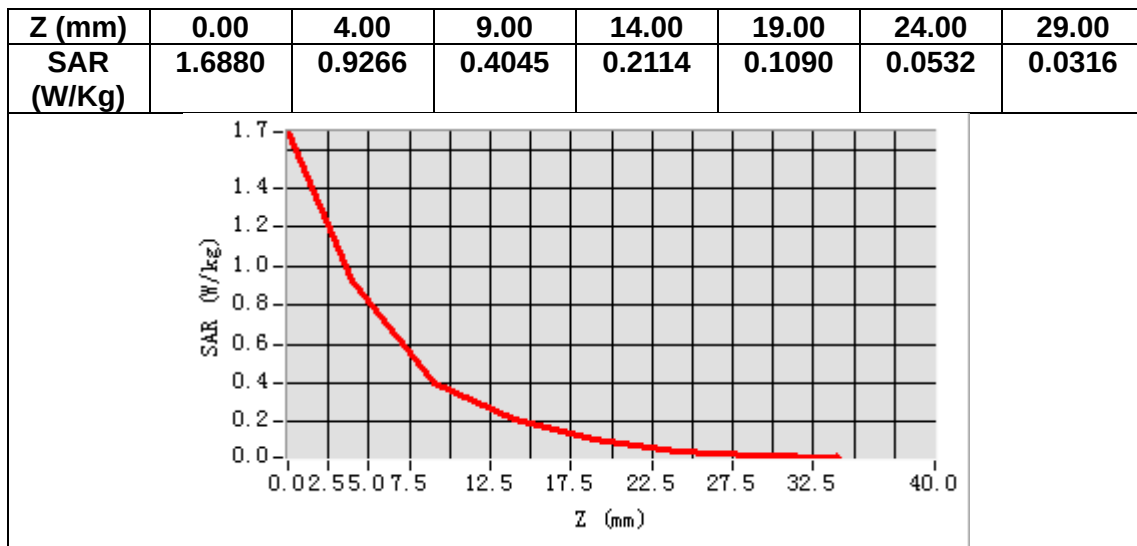
Frequency (MHz)	2462.000000
Relative permittivity (real part)	37.891087
Relative permittivity (imaginary part)	13.004079
Conductivity (S/m)	1.760608
Variation (%)	-0.620000



Maximum location: X=16.00, Y=47.00

SAR Peak: 1.63 W/kg

SAR 10g (W/Kg)	0.375477
SAR 1g (W/Kg)	0.860806



MEASUREMENT 31

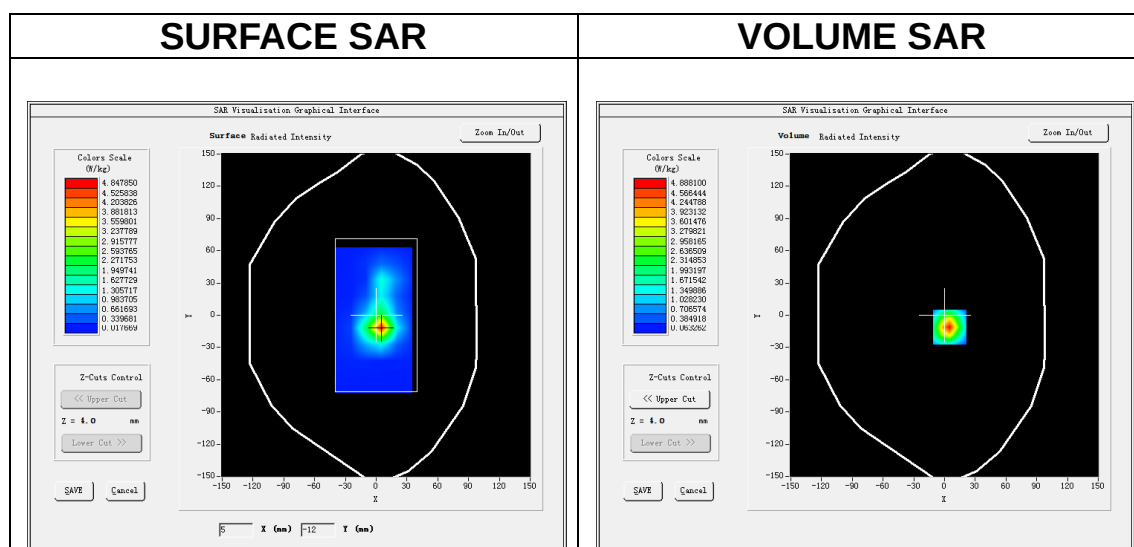
Date of measurement: 6/11/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 2</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.57</u>

B. SAR Measurement Results

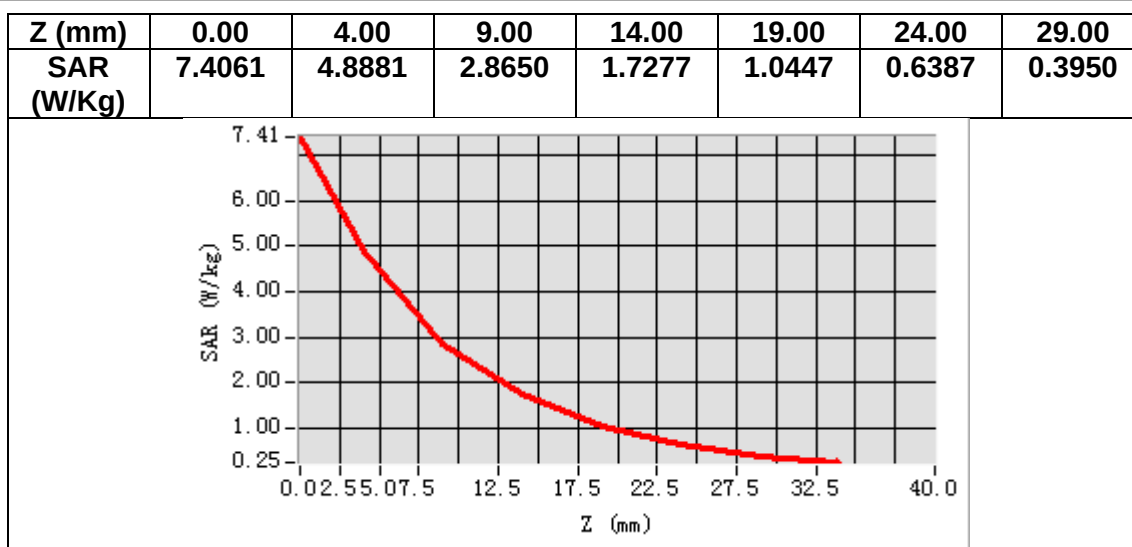
Frequency (MHz)	1880.000000
Relative permittivity (real part)	38.562634
Relative permittivity (imaginary part)	13.814889
Conductivity (S/m)	1.442888
Variation (%)	-0.020000



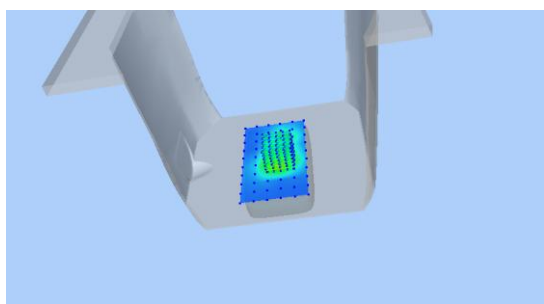
Maximum location: X=5.00, Y=-11.00

SAR Peak: 7.45 W/kg

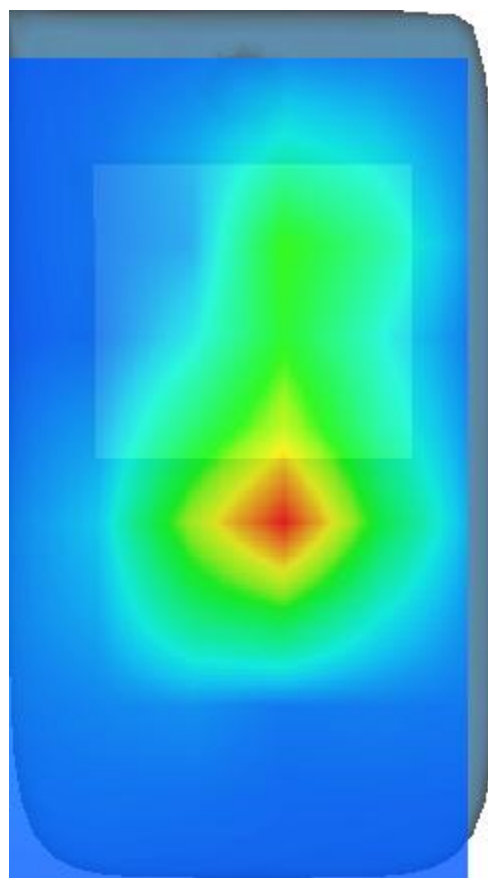
SAR 10g (W/Kg)	2.178574
SAR 1g (W/Kg)	4.524754



3D screen shot



Hot spot position



MEASUREMENT 32

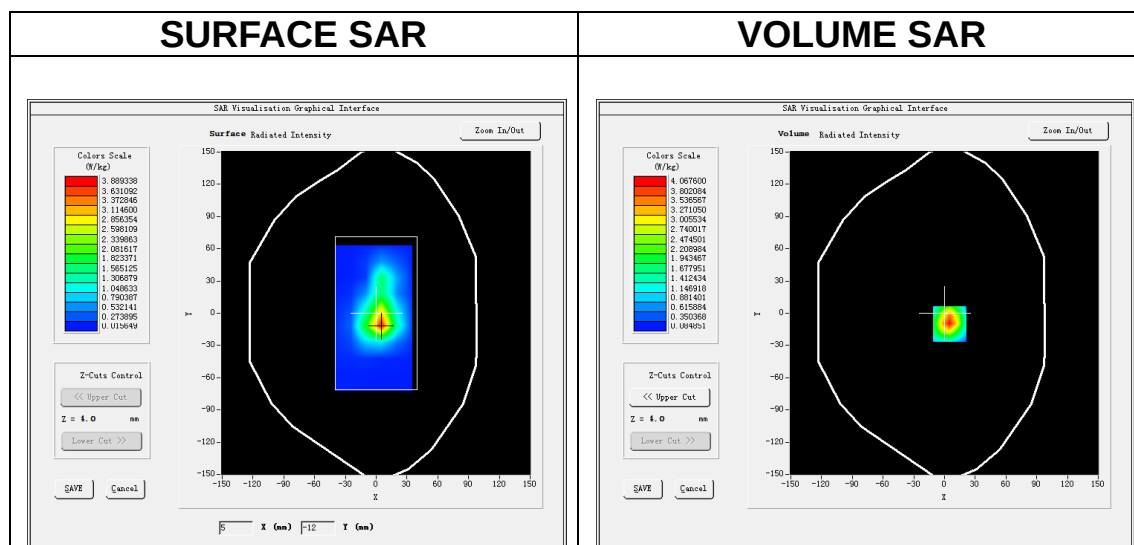
Date of measurement: 30/10/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 4</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.51</u>

B. SAR Measurement Results

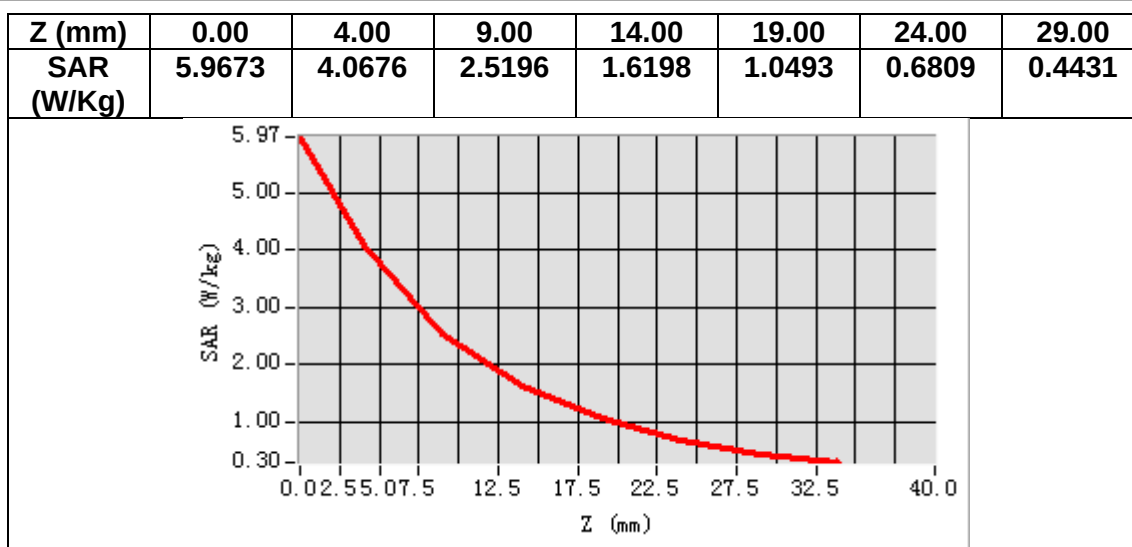
Frequency (MHz)	1732.500000
Relative permittivity (real part)	39.692825
Relative permittivity (imaginary part)	13.919613
Conductivity (S/m)	1.339763
Variation (%)	0.220000



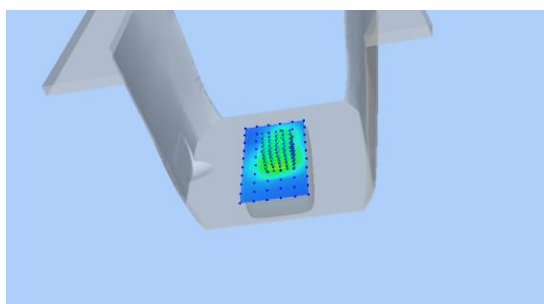
Maximum location: X=5.00, Y=-10.00

SAR Peak: 5.93 W/kg

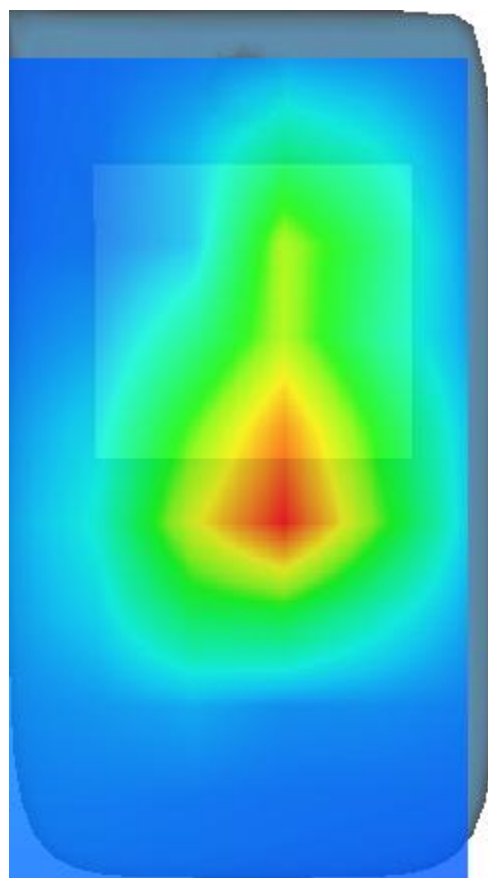
SAR 10g (W/Kg)	2.031193
SAR 1g (W/Kg)	3.752841



3D screen shot



Hot spot position



MEASUREMENT 33

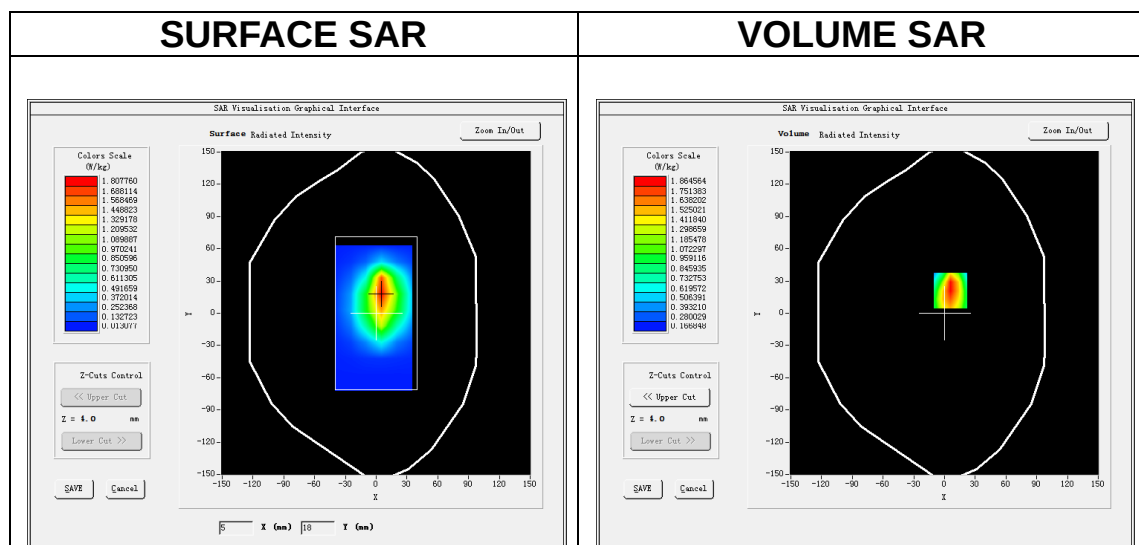
Date of measurement: 5/11/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 5</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.34</u>

B. SAR Measurement Results

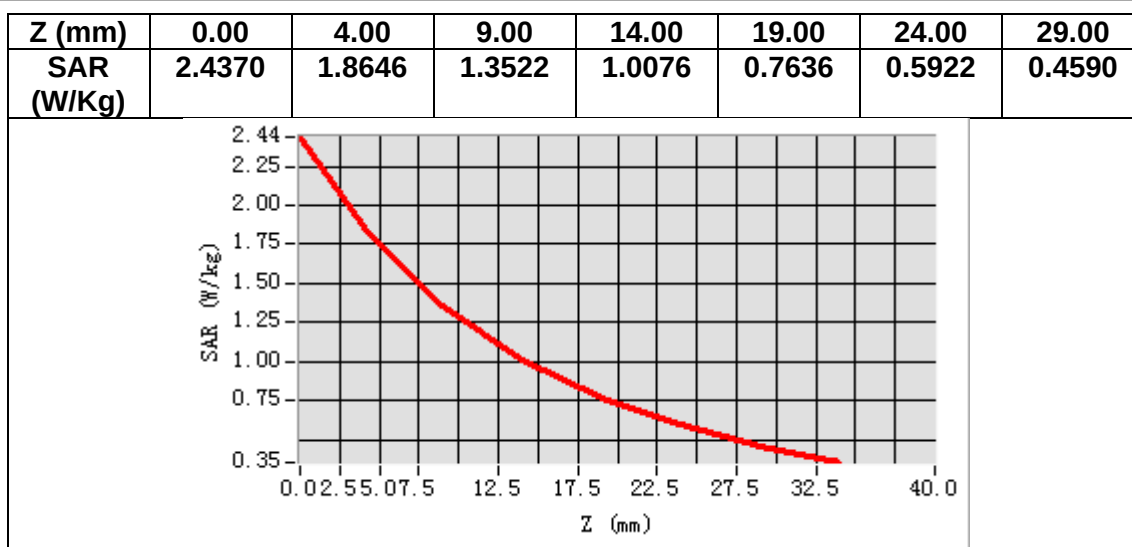
Frequency (MHz)	836.500000
Relative permittivity (real part)	42.000340
Relative permittivity (imaginary part)	19.852188
Conductivity (S/m)	0.922575
Variation (%)	-0.430000



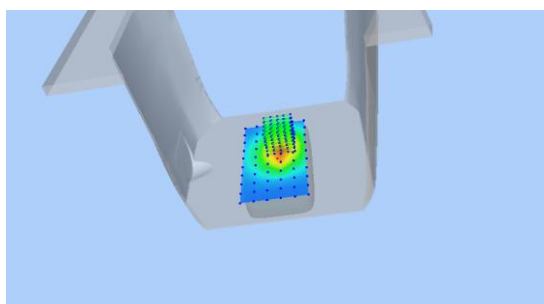
Maximum location: X=6.00, Y=21.00

SAR Peak: 2.71 W/kg

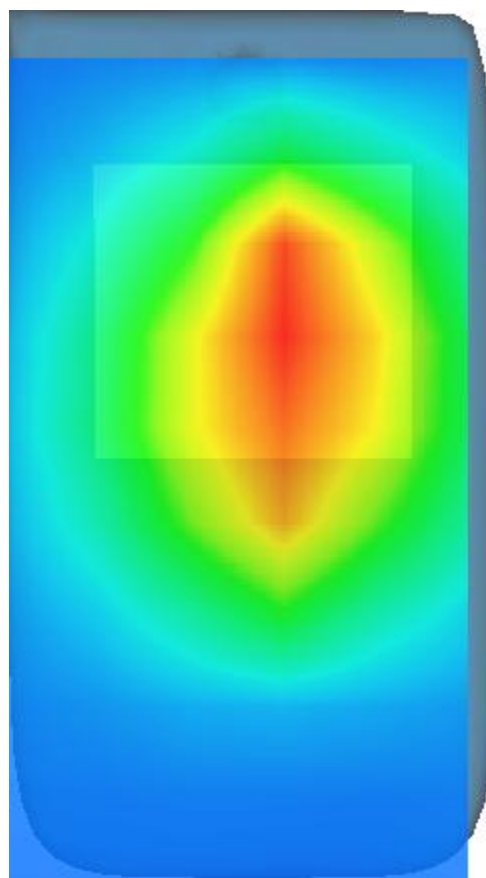
SAR 10g (W/Kg)	1.187814
SAR 1g (W/Kg)	1.815432



3D screen shot



Hot spot position



MEASUREMENT 34

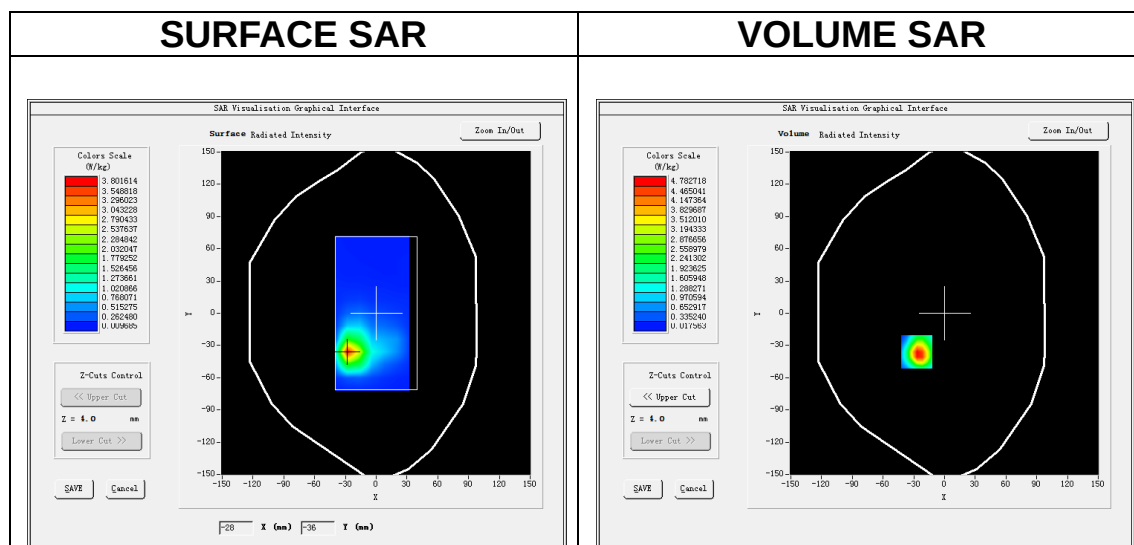
Date of measurement: 2/11/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>7x7x7, dx=5mm dy=5mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 7</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.51</u>

B. SAR Measurement Results

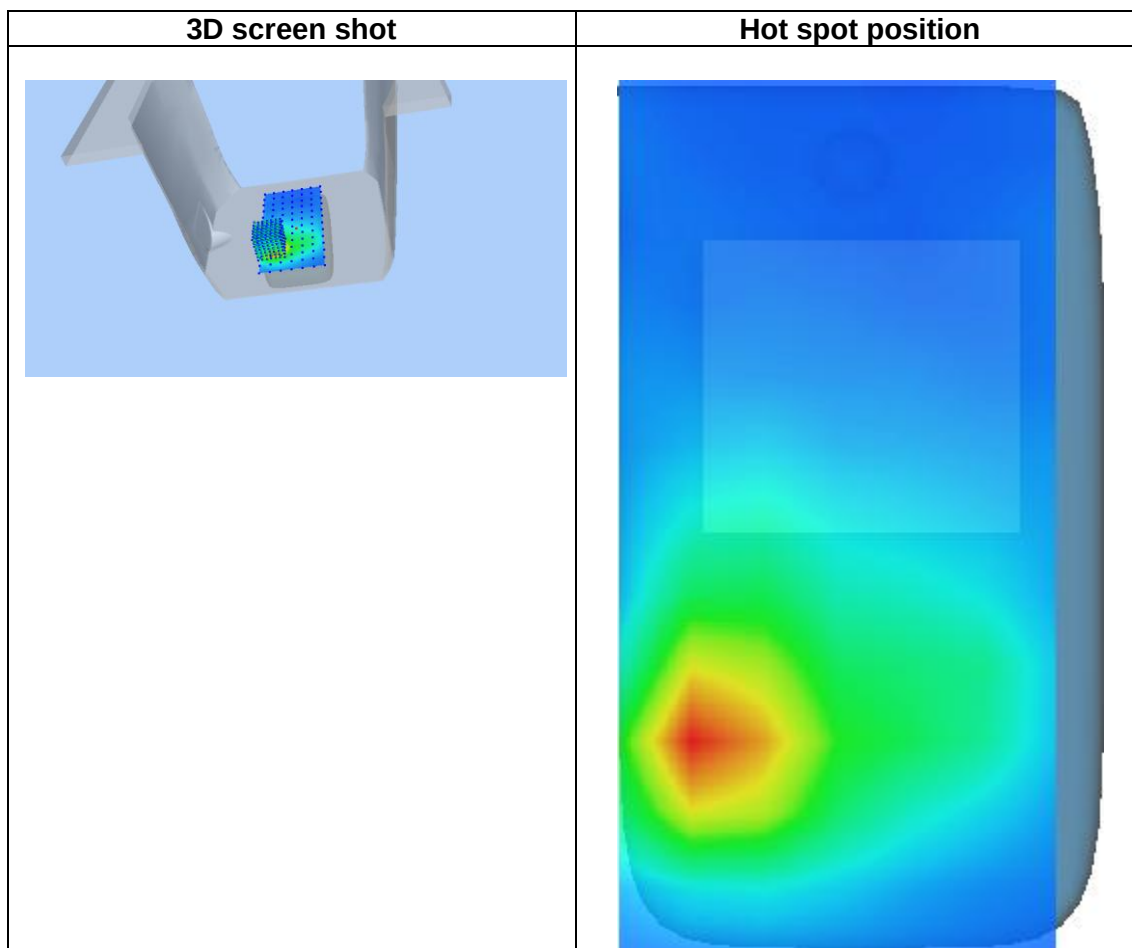
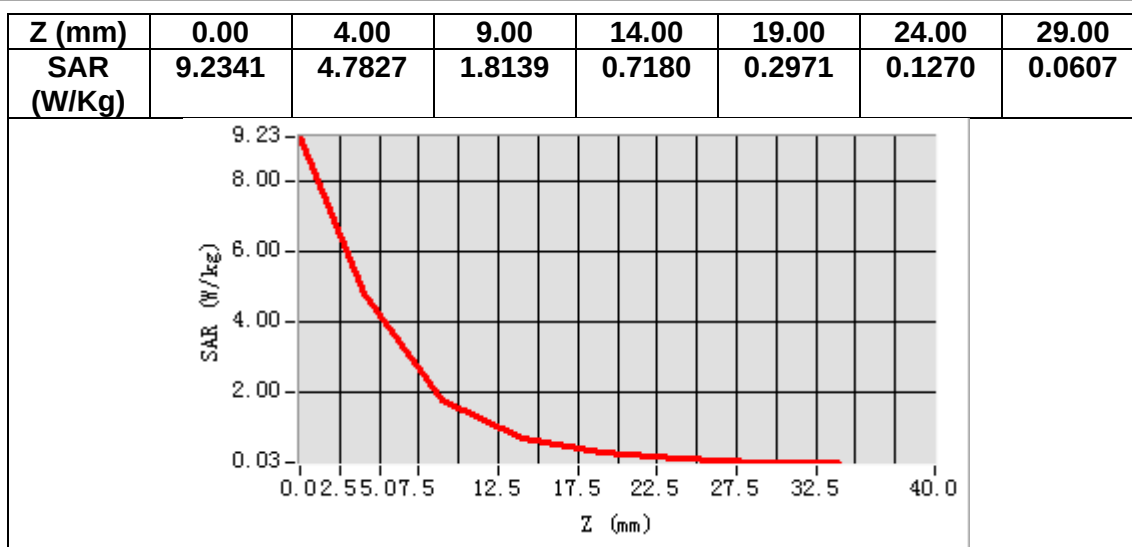
Frequency (MHz)	2535.000000
Relative permittivity (real part)	39.361263
Relative permittivity (imaginary part)	13.716830
Conductivity (S/m)	1.931787
Variation (%)	4.510000



Maximum location: X=-27.00, Y=-36.00

SAR Peak: 9.50 W/kg

SAR 10g (W/Kg)	1.763578
SAR 1g (W/Kg)	4.582108



MEASUREMENT 35

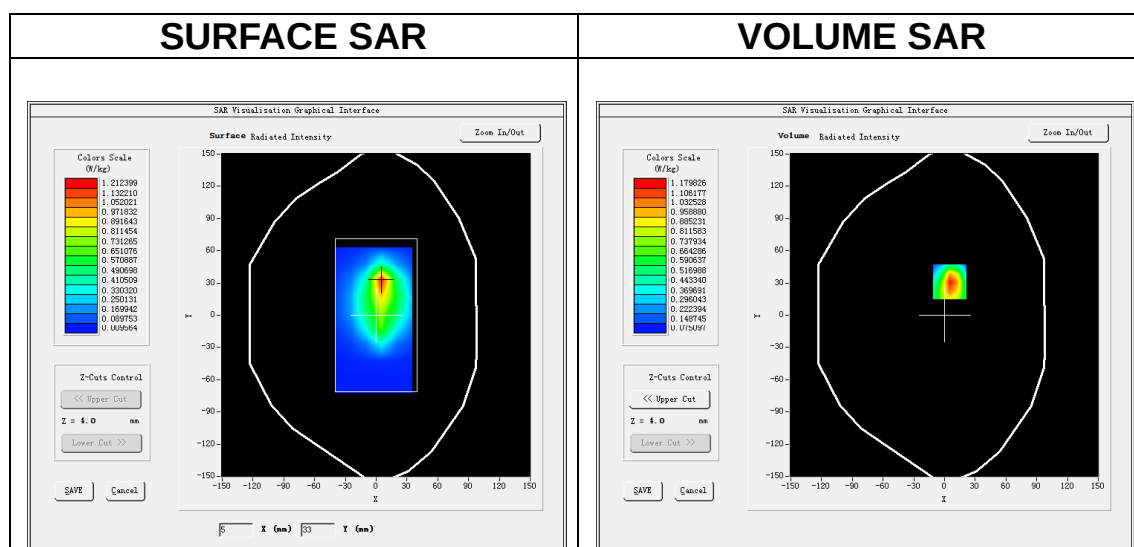
Date of measurement: 28/10/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 12</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.42</u>

B. SAR Measurement Results

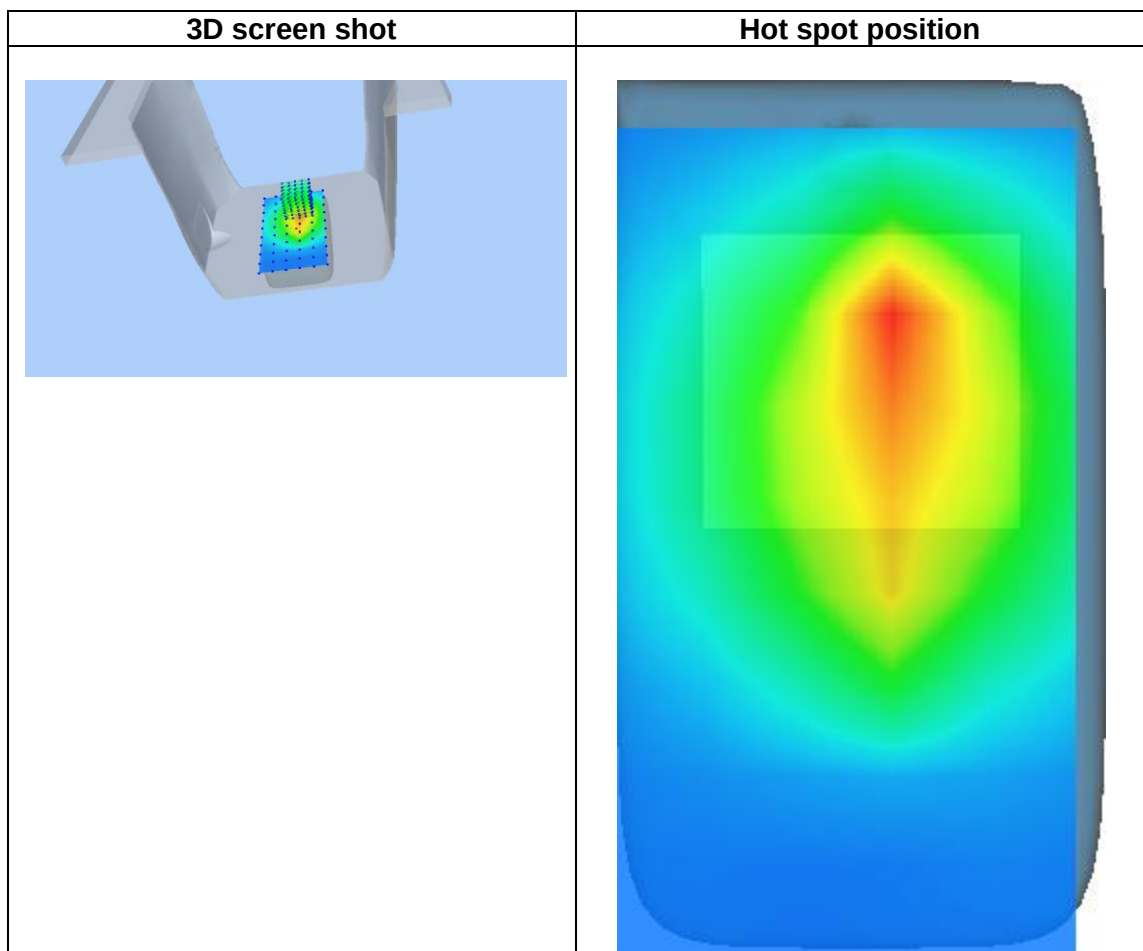
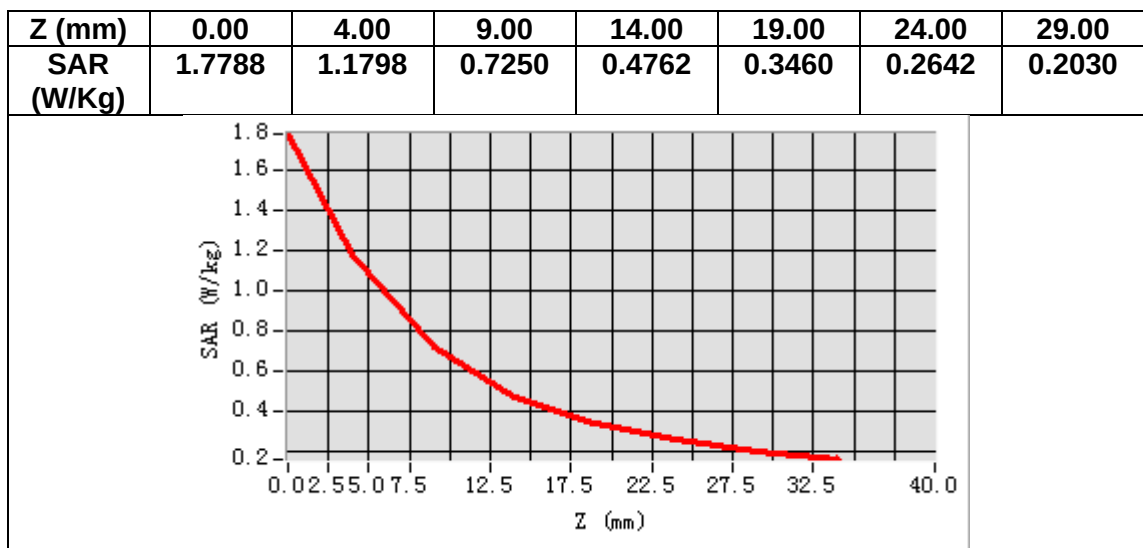
Frequency (MHz)	707.500000
Relative permittivity (real part)	41.559696
Relative permittivity (imaginary part)	21.927753
Conductivity (S/m)	0.861883
Variation (%)	-0.150000



Maximum location: X=5.00, Y=31.00

SAR Peak: 1.90 W/kg

SAR 10g (W/Kg)	0.646920
SAR 1g (W/Kg)	1.122645



MEASUREMENT 36

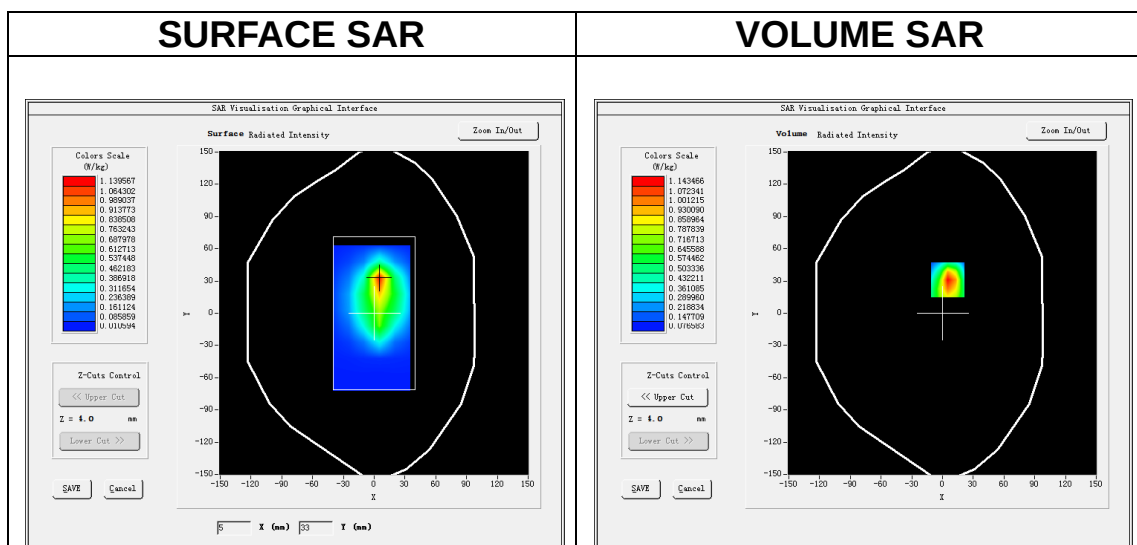
Date of measurement: 28/10/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 17</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.42</u>

B. SAR Measurement Results

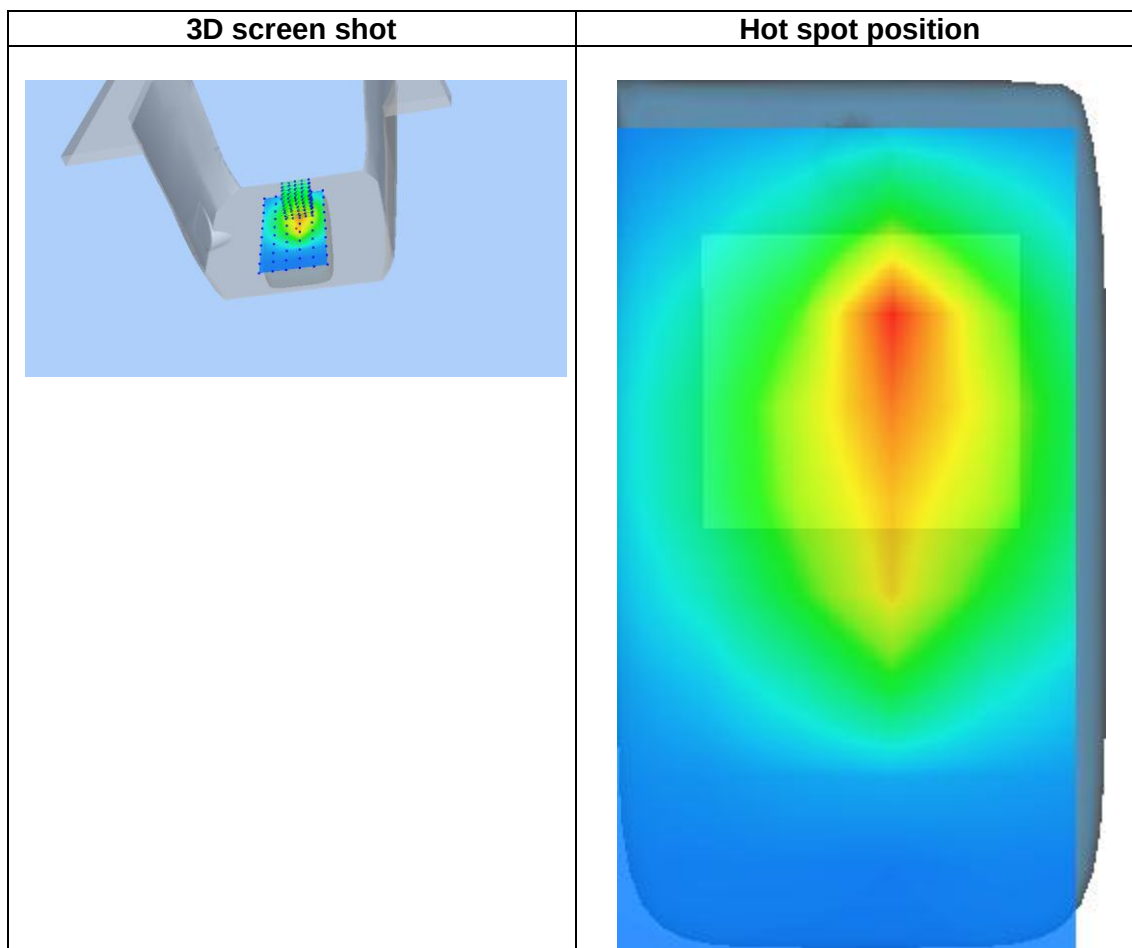
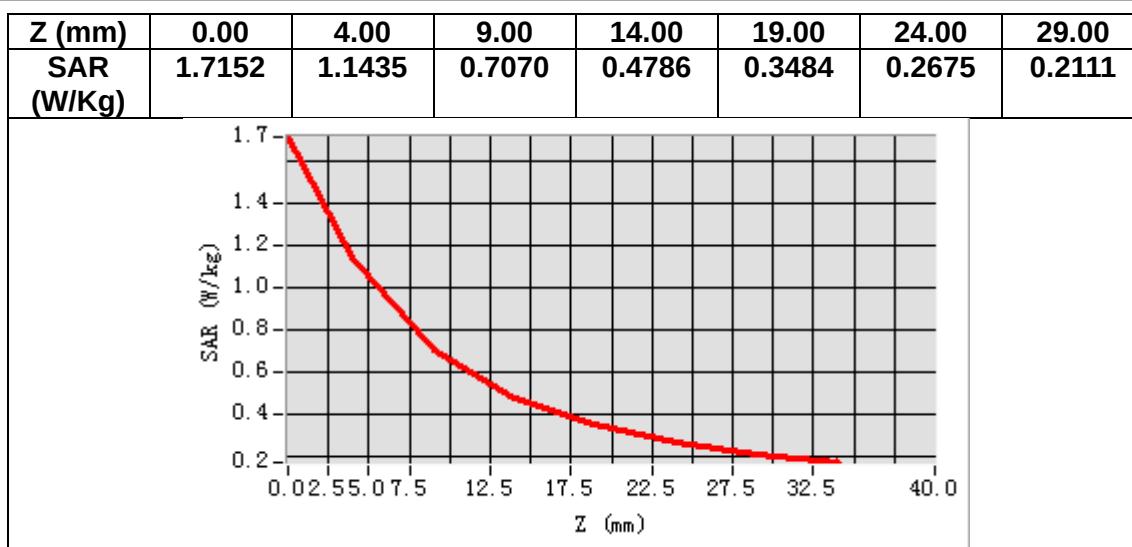
Frequency (MHz)	710.000000
Relative permittivity (real part)	41.544346
Relative permittivity (imaginary part)	21.868204
Conductivity (S/m)	0.862579
Variation (%)	-1.040000



Maximum location: X=5.00, Y=31.00

SAR Peak: 1.83 W/kg

SAR 10g (W/Kg)	0.635478
SAR 1g (W/Kg)	1.089925



MEASUREMENT 37

Date of measurement: 2/11/2024

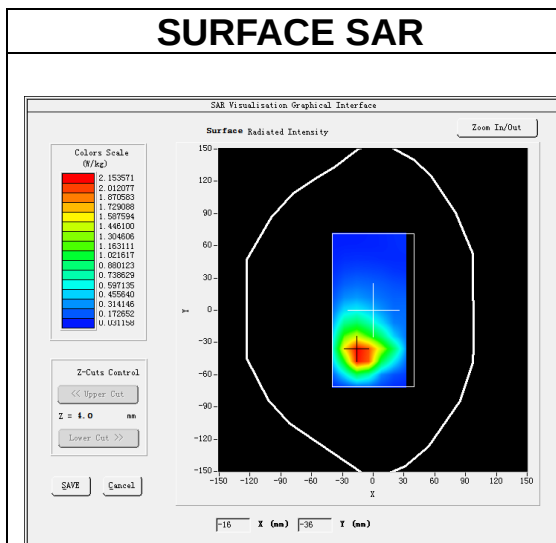
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>7x7x7,dx=5mm dy=5mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 38</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.6)</u>
<u>ConvF</u>	<u>2.51</u>

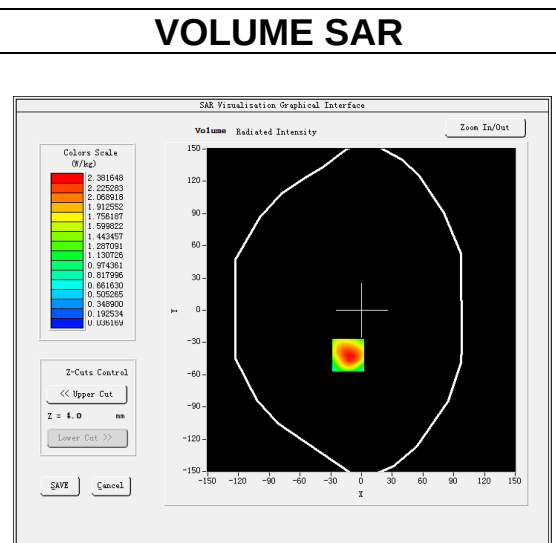
B. SAR Measurement Results

Frequency (MHz)	2595.000000
Relative permittivity (real part)	38.993362
Relative permittivity (imaginary part)	13.930630
Conductivity (S/m)	2.008332
Variation (%)	0.350000

SURFACE SAR



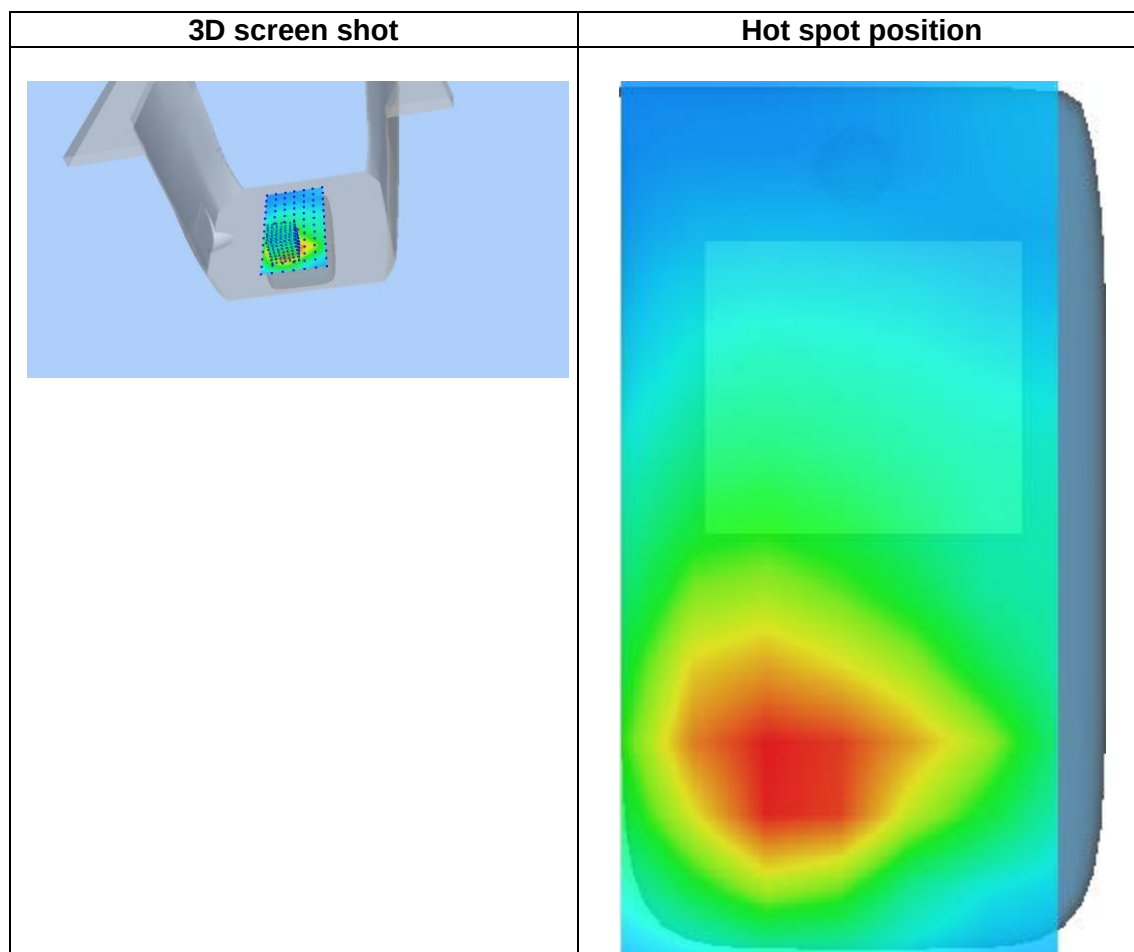
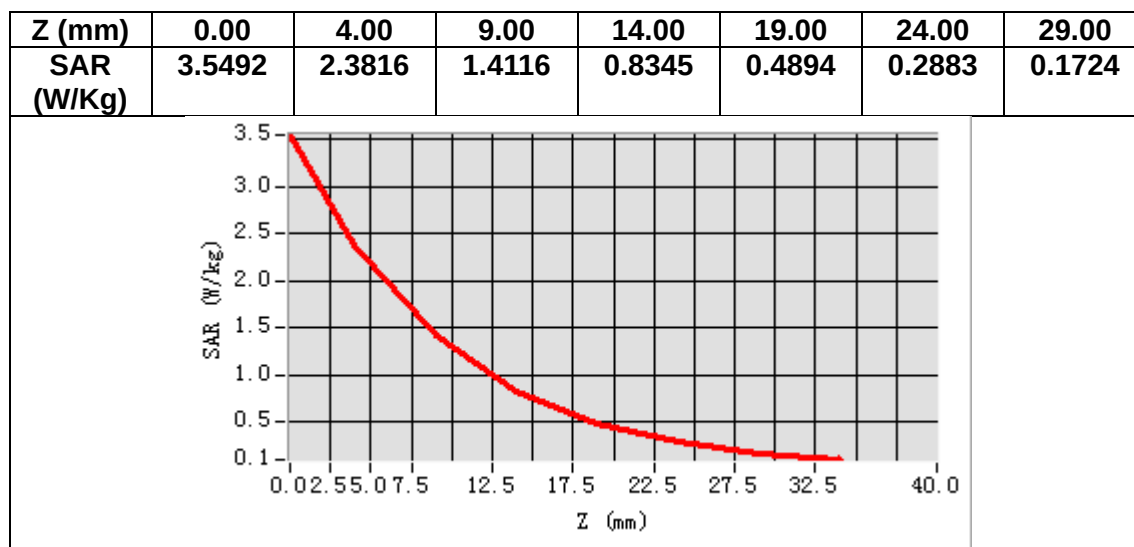
VOLUME SAR



Maximum location: X=-13.00, Y=-42.00

SAR Peak: 3.71 W/kg

SAR 10g (W/Kg)	1.311873
SAR 1g (W/Kg)	2.308042



MEASUREMENT 38

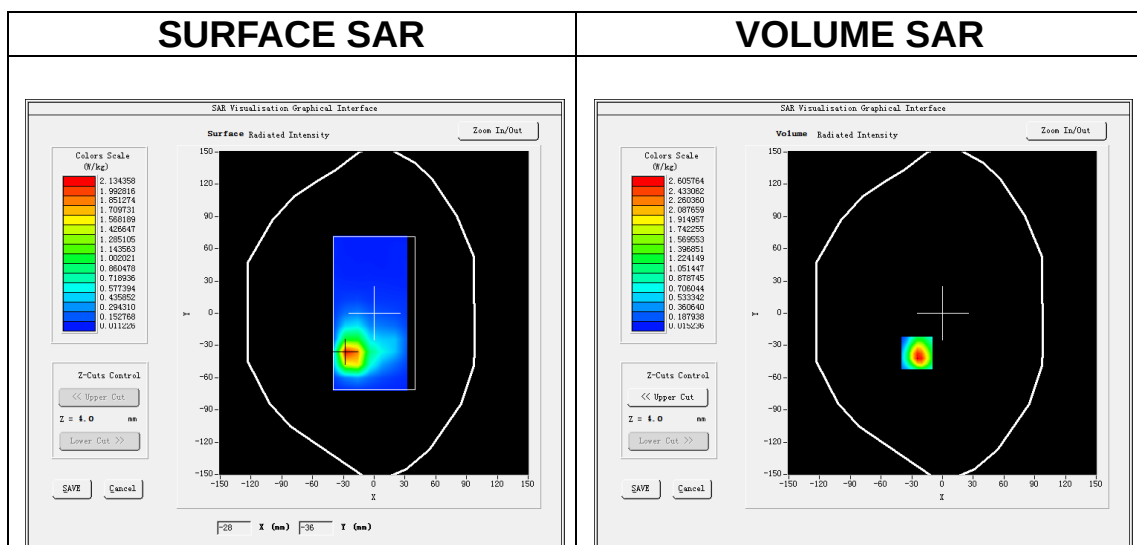
Date of measurement: 2/11/2024

A. Experimental conditions.

<u>Area Scan</u>	<u>dx=12mm dy=12mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>7x7x7,dx=5mm dy=5mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Body</u>
<u>Band</u>	<u>LTE band 41</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>LTE (Crest factor: 1.6)</u>
<u>ConvF</u>	<u>2.51</u>

B. SAR Measurement Results

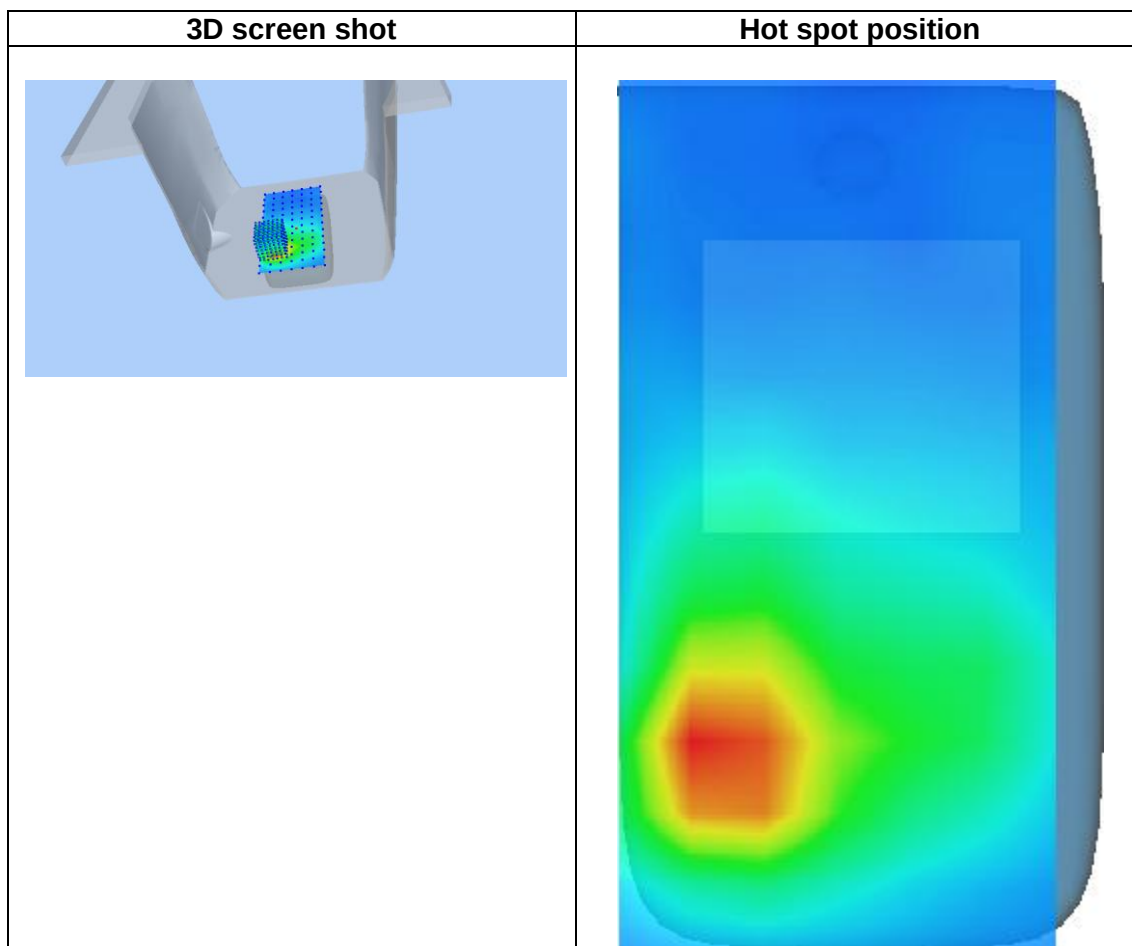
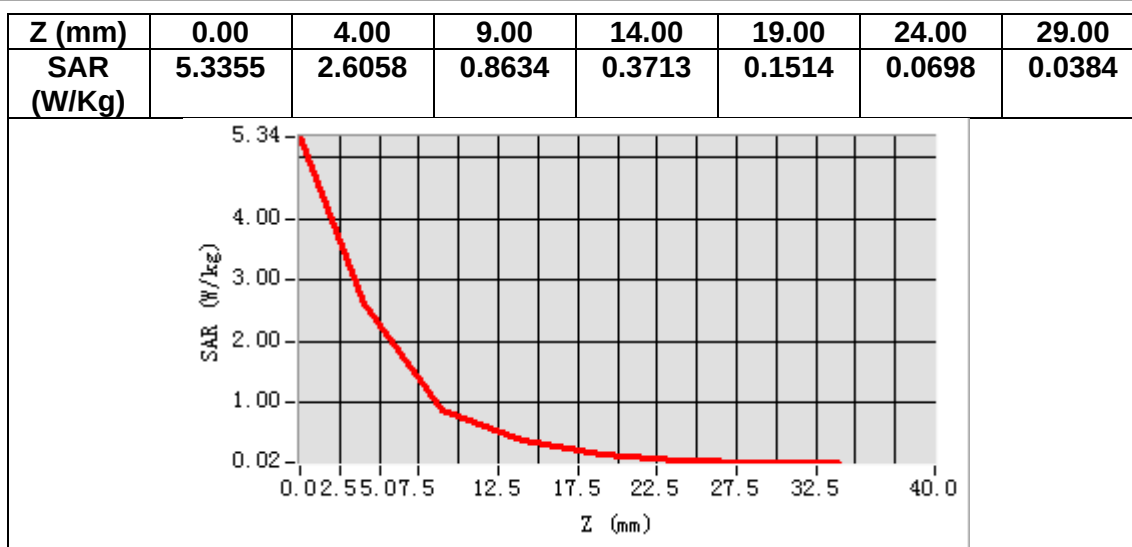
Frequency (MHz)	2593.000000
Relative permittivity (real part)	39.079762
Relative permittivity (imaginary part)	13.880430
Conductivity (S/m)	1.999553
Variation (%)	-0.610000



Maximum location: X=-25.00, Y=-37.00

SAR Peak: 5.10 W/kg

SAR 10g (W/Kg)	0.974888
SAR 1g (W/Kg)	2.501112



14. Appendix D. Calibration Certificate

Table of contents
E Field Probe - 4024-EPGO-442
750 MHz Dipole - SN 03/15 DIP 0G750-355
835 MHz Dipole - SN 03/15 DIP 0G835-347
1800 MHz Dipole - SN 03/15 DIP 1G800-349
1900 MHz Dipole - SN 03/15 DIP 1G900-350
2450 MHz Dipole - SN 03/15 DIP 2G450-352
2600 MHz Dipole - SN 03/15 DIP 2G600-356
5000-6000 MHz Dipole - SN 13/14 WGA 33

DocuSign Envelope ID: 223C1A7C-4751-4B95-8502-1618DC0951E3



COMOSAR E-Field Probe Calibration Report

Ref : ACR.278.12.24.BES.A

SHENZHEN NTEK TESTING TECHNOLOGY CO., LTD.

BUILDING E, FENDA SCIENCE PARK, SANWEI
COMMUNITY, XIXIANG STREET,
BAO'AN DISTRICT, SHENZHEN GUANGDONG, CHINA
MVG COMOSAR DOSIMETRIC E-FIELD PROBE
SERIAL NO.: 4024-EPGO-442

Calibrated at MVG

Z.I. de la pointe du diable

Technopôle Brest Iroise – 295 avenue Alexis de Rochon
29280 PLOUZANE - FRANCE

Calibration date: 10/04/2024



Accreditations #2-6789
Scope available on www.cofrac.fr

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Summary:

This document presents the method and results from an accredited COMOSAR Dosimetric E-Field Probe calibration performed at MVG, using the CALIPROBE test bench, for use with a MVG COMOSAR system only. The test results covered by accreditation are traceable to the International System of Units (SI).

DocuSign Envelope ID: 223C1A7C-4751-4B95-8502-1618DC0951E3



COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.278.12.24.BES.A

	Name	Function	Date	Signature
Prepared by :	Cyrille ONNEE	Measurement Responsible	10/4/2024	
Checked & approved by:	Pedro Ruiz	Technical Manager	10/4/2024	
Authorized by:	Pedro Ruiz	Laboratory Director	10/4/2024	

Assinado por:

Pedro RUIZ

29093B31C46F428...

	Customer Name
Distribution :	SHENZHEN NTEK TESTING TECHNOLOGY CO., LTD.

Issue	Name	Date	Modifications
A	Cyrille ONNEE	10/4/2024	Initial release

Docusign Envelope ID: 223C1A7C-4751-4B95-8502-1618DC0951E3



COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.278.12.24.BES.A

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Docusign Envelope ID: 223C1A7C-4751-4B95-8502-1618DC0951E3



COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.278.12.24.BES.A

1 DEVICE UNDER TEST

Device Under Test	
Device Type	COMOSAR DOSIMETRIC E FIELD PROBE
Manufacturer	MVG
Model	SSE2
Serial Number	4024-EPGO-442
Product Condition (new / used)	New
Frequency Range of Probe	0.15 GHz-7.5GHz
Resistance of Three Dipoles at Connector	Dipole 1: R1=0.206 MΩ Dipole 2: R2=0.223 MΩ Dipole 3: R3=0.235 MΩ

2 PRODUCT DESCRIPTION**2.1 GENERAL INFORMATION**

MVG's COMOSAR E field Probes are built in accordance to the IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards.

**Figure 1 – MVG COMOSAR Dosimetric E field Probe**

Probe Length	330 mm
Length of Individual Dipoles	2 mm
Maximum external diameter	8 mm
Probe Tip External Diameter	2.5 mm
Distance between dipoles / probe extremity	1 mm

3 MEASUREMENT METHOD

The IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards provide recommended practices for the probe calibrations, including the performance characteristics of interest and methods by which to assess their effect. All calibrations / measurements performed meet the fore-mentioned standards.

3.1 SENSITIVITY

The sensitivity factors of the three dipoles were determined using a two step calibration method (air and tissue simulating liquid) using waveguides as outlined in the standards for frequency range 600-7500MHz and using the calorimeter cell method (transfer method) as outlined in the standards for frequency 150-450 MHz.

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COMOSAR E-FIELD PROBE CALIBRATION REPORT

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3.2 LINEARITY

The evaluation of the linearity was done in free space using the waveguide, performing a power sweep to cover the SAR range 0.01W/kg to 100W/kg.

3.3 ISOTROPY

The axial isotropy was evaluated by exposing the probe to a reference wave from a standard dipole with the dipole mounted under the flat phantom in the test configuration suggested for system validations and checks. The probe was rotated along its main axis from 0 to 360 degrees in 15-degree steps. The hemispherical isotropy is determined by inserting the probe in a thin plastic box filled with tissue-equivalent liquid, with the plastic box illuminated with the fields from a half wave dipole. The dipole is rotated about its axis (0°–180°) in 15° increments. At each step the probe is rotated about its axis (0°–360°).

3.4 BOUNDARY EFFECT

The boundary effect is defined as the deviation between the SAR measured data and the expected exponential decay in the liquid when the probe is oriented normal to the interface. To evaluate this effect, the liquid filled flat phantom is exposed to fields from either a reference dipole or waveguide. With the probe normal to the phantom surface, the peak spatial average SAR is measured and compared to the analytical value at the surface.

The boundary effect uncertainty can be estimated according to the following uncertainty approximation formula based on linear and exponential extrapolations between the surface and $d_{be} + d_{step}$ along lines that are approximately normal to the surface:

$$SAR_{uncertainty} [\%] = \Delta SAR_{be} \frac{(d_{be} + d_{step})^2}{2d_{step}} \frac{(e^{-d_{be}/(\delta/2)})}{\delta/2} \quad \text{for } (d_{be} + d_{step}) < 10 \text{ mm}$$

where

$SAR_{uncertainty}$ is the uncertainty in percent of the probe boundary effect

d_{be} is the distance between the surface and the closest *zoom-scan* measurement point, in millimetre

Δ_{step} is the separation distance between the first and second measurement points that are closest to the phantom surface, in millimetre, assuming the boundary effect at the second location is negligible

δ is the minimum penetration depth in millimetres of the head tissue-equivalent liquids defined in this standard, i.e., $\delta \approx 14$ mm at 3 GHz;

ΔSAR_{be} in percent of SAR is the deviation between the measured SAR value, at the distance d_{be} from the boundary, and the analytical SAR value.

The measured worst case boundary effect SARuncertainty[%] for scanning distances larger than 4mm is 1.0% Limit, 2%).

Docusign Envelope ID: 223C1A7C-4751-4B95-8502-1618DC0951E3



COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.278.12.24.BES.A

3.5 PROBE MODULATION RESPONSE

MVG's probe were evaluated experimentally with various modulated signal and the deviation from CW response were found neglectable in the used power range of the probe. So the correction to taking into account the linearization parameters for different modulation is null, therefore the CW factor given in this report can be used whatever the measured modulation

4 MEASUREMENT UNCERTAINTY

The guidelines outlined in the IEC/IEEE 62209-1528 and FCC KDB865664 D01 standards were followed to generate the measurement uncertainty associated with a SAR probe calibration using the waveguide or calorimetric cell technique depending on the frequency.

The estimated expanded uncertainty (k=2) in calibration for SAR (W/kg) is +/-11% for the frequency range 150-450MHz.

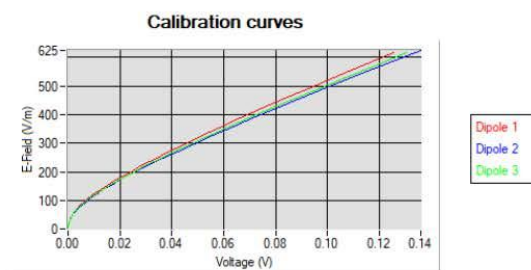
The estimated expanded uncertainty (k=2) in calibration for SAR (W/kg) is +/-14% for the frequency range 600-7500MHz.

5 CALIBRATION RESULTS

Ambient condition	
Liquid Temperature	20 +/- 1 °C
Lab Temperature	20 +/- 1 °C
Lab Humidity	30-70 %

5.1 CALIBRATION IN AIR

The following curve represents the measurement in waveguide of the voltage picked up by the probe toward the E-field generated inside the waveguide.



From this curve, the sensitivity in air is calculated using the below formula.

$$E^2 = \sum_{i=1}^3 \frac{V_i (1 + V_i / DCP_i)}{Norm_i}$$

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