

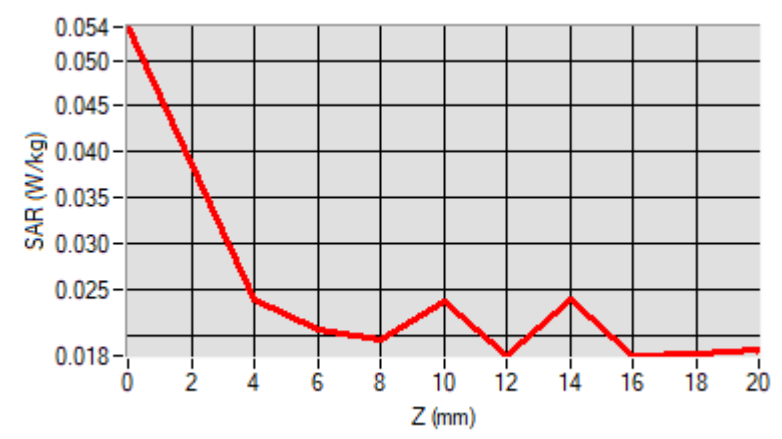
Maximum location: X=2.00, Y=-30.00

D. SAR 1g & 10g

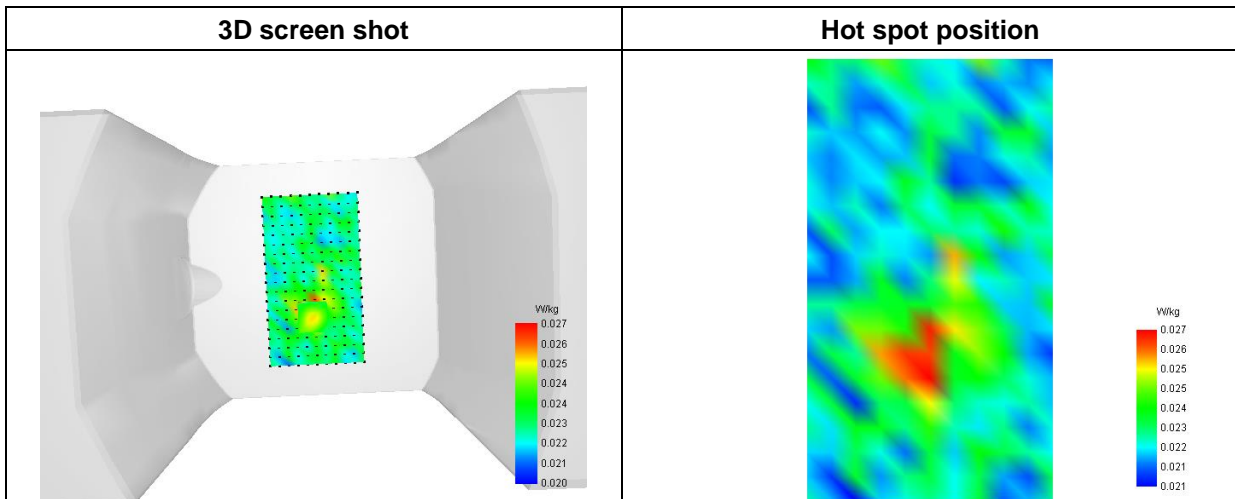
SAR 10g (W/Kg)	0.020354
SAR 1g (W/Kg)	0.024216

E. Z Axis Scan

Z (mm)	0.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
SAR (W/Kg)	0.0536	0.0238	0.0205	0.0195	0.0235	0.0178	0.0239	0.0177	0.0180



F. 3D Image



MEASUREMENT 22

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-07
 Measurement duration: 12 minutes 3 seconds

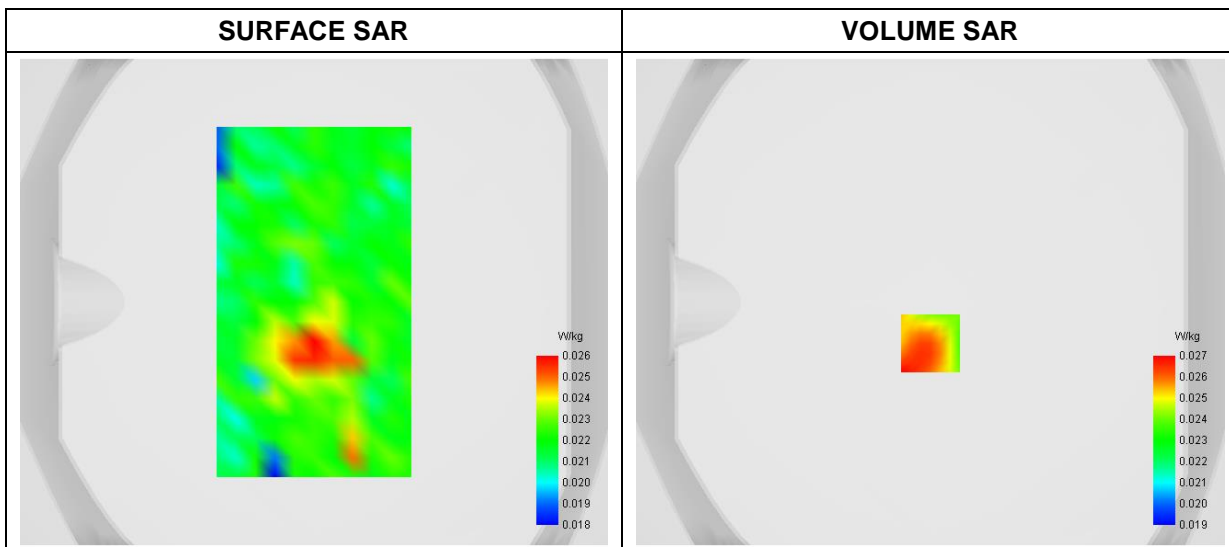
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	5G NR-N78_3450-3550MHz
Channels	DFT-s-OFDM QPSK, 100MHz, 1RB, Middle
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	3500.000000
Relative Permittivity (real part)	50.522187
Conductivity (S/m)	3.251428
Power Variation (%)	2.171000
Ambient Temperature	23.4
Liquid Temperature	23.4

C. SAR Surface and Volume



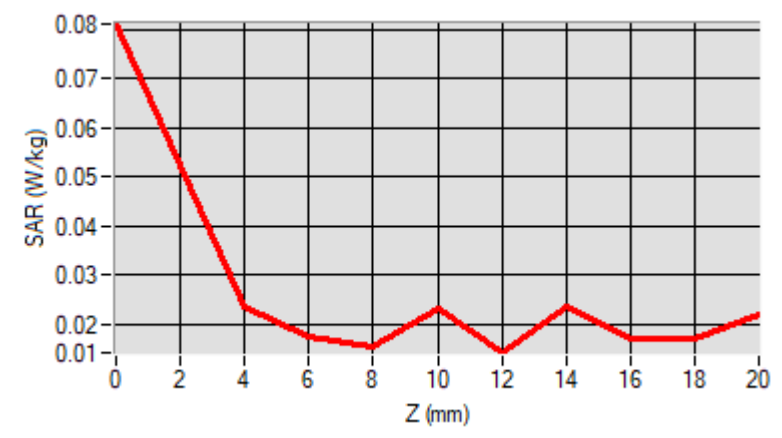
Maximum location: X=0.00, Y=-16.00

D. SAR 1g & 10g

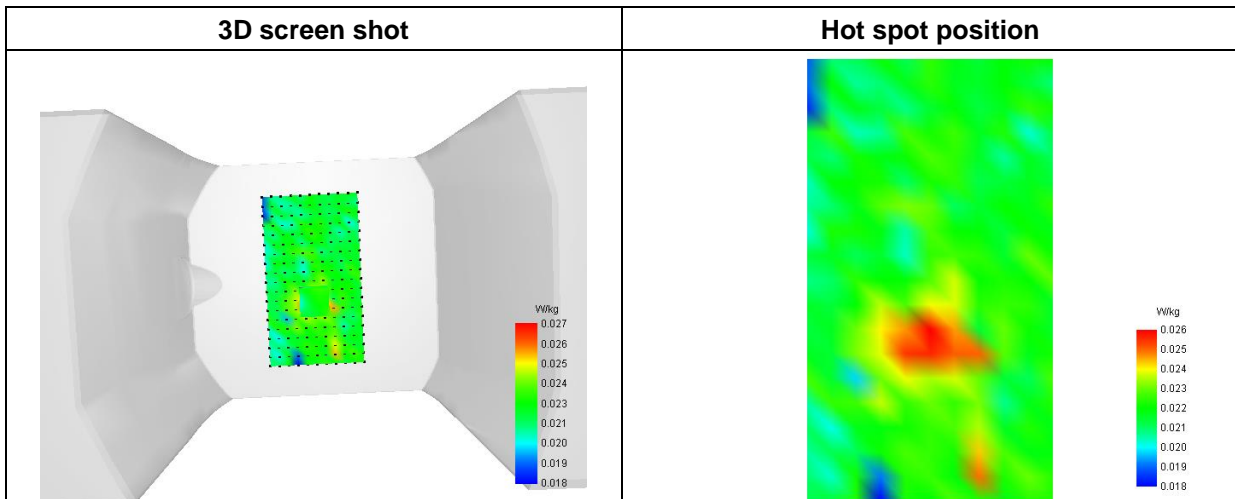
SAR 10g (W/Kg)	0.018477
SAR 1g (W/Kg)	0.019905

E. Z Axis Scan

Z (mm)	0.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
SAR (W/Kg)	0.0811	0.0236	0.0174	0.0156	0.0231	0.0142	0.0235	0.0169	0.0169



F. 3D Image



MEASUREMENT 23

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-07
 Measurement duration: 12 minutes 3 seconds

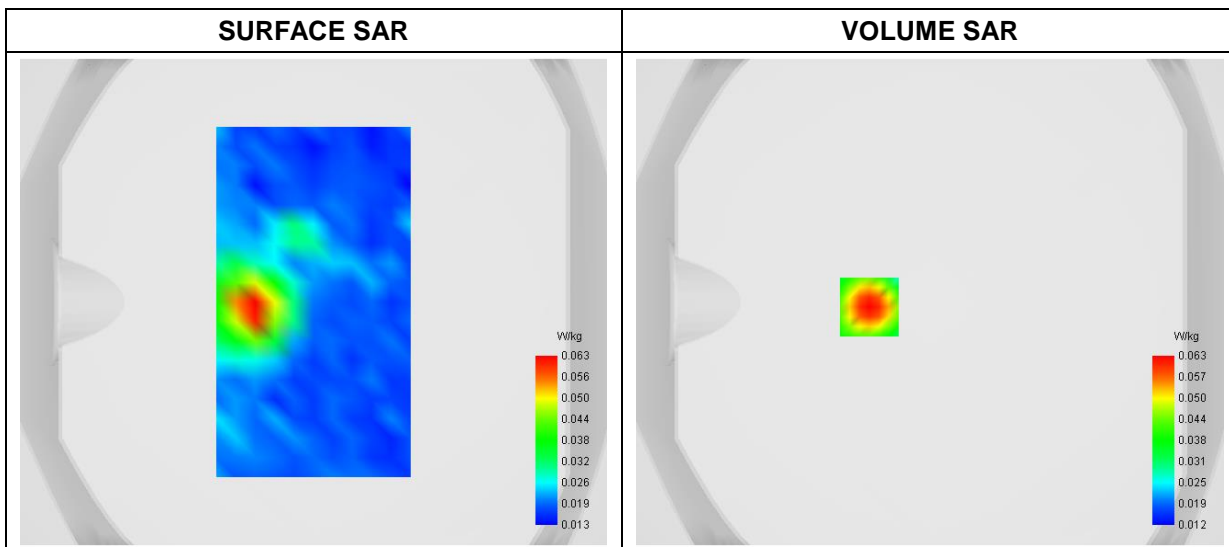
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	5G NR-N78_3700-3800MHz
Channels	DFT-s-OFDM QPSK, 100MHz, 1RB, High
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	3750.000000
Relative Permittivity (real part)	48.524890
Conductivity (S/m)	3.562508
Power Variation (%)	1.374600
Ambient Temperature	23.4
Liquid Temperature	23.4

C. SAR Surface and Volume



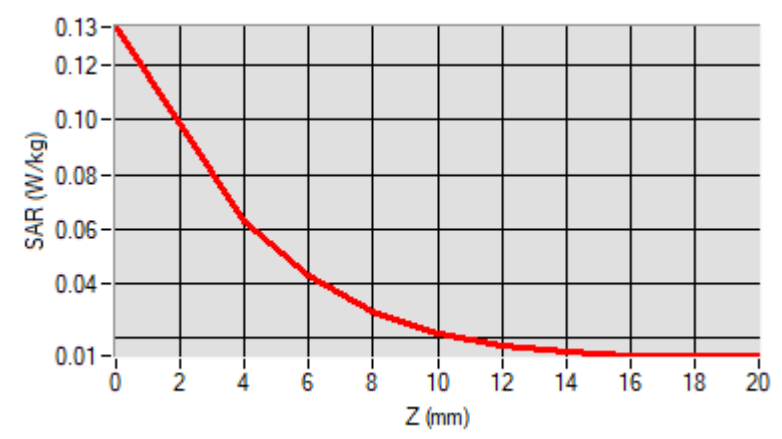
Maximum location: X=-25.00, Y=-2.00

D. SAR 1g & 10g

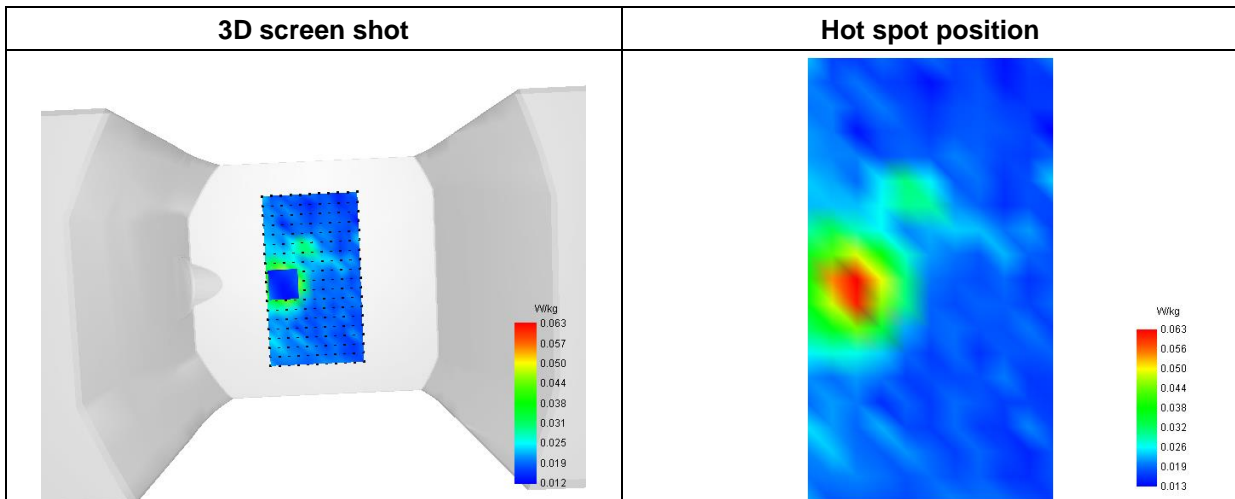
SAR 10g (W/Kg)	0.032464
SAR 1g (W/Kg)	0.061096

E. Z Axis Scan

Z (mm)	0.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
SAR (W/Kg)	0.1342	0.0630	0.0429	0.0298	0.0219	0.0174	0.0149	0.0138	0.0135



F. 3D Image



MEASUREMENT 24

Type: Phone measurement (Complete)
 Date of measurement: 2023-02-15
 Measurement duration: 12 minutes 3 seconds

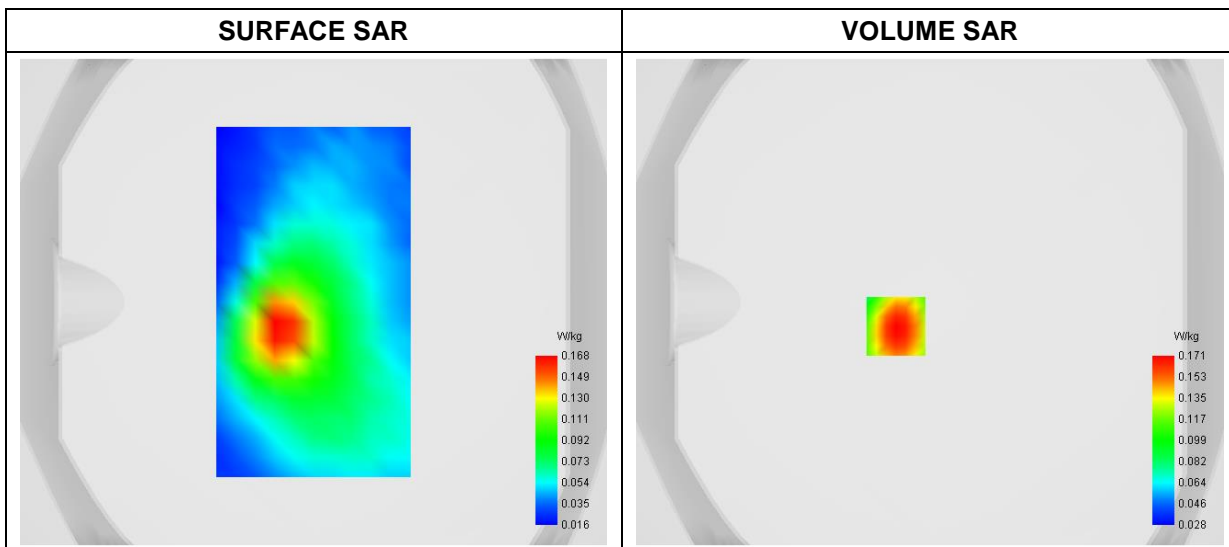
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	DC_5A_n41A
Channels	DFT-s-OFDM QPSK, 100MHz, 1RB, Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	2593.000000
Relative Permittivity (real part)	53.262874
Conductivity (S/m)	2.092264
Power Variation (%)	1.462814
Ambient Temperature	23.5
Liquid Temperature	23.5

C. SAR Surface and Volume



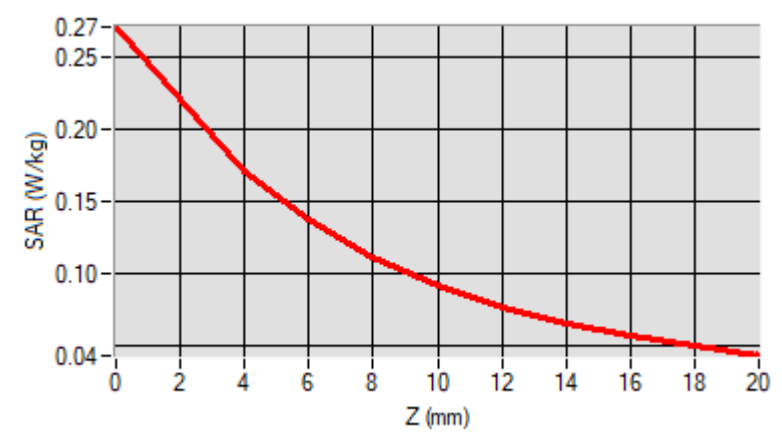
Maximum location: X=-14.00, Y=-10.00

D. SAR 1g & 10g

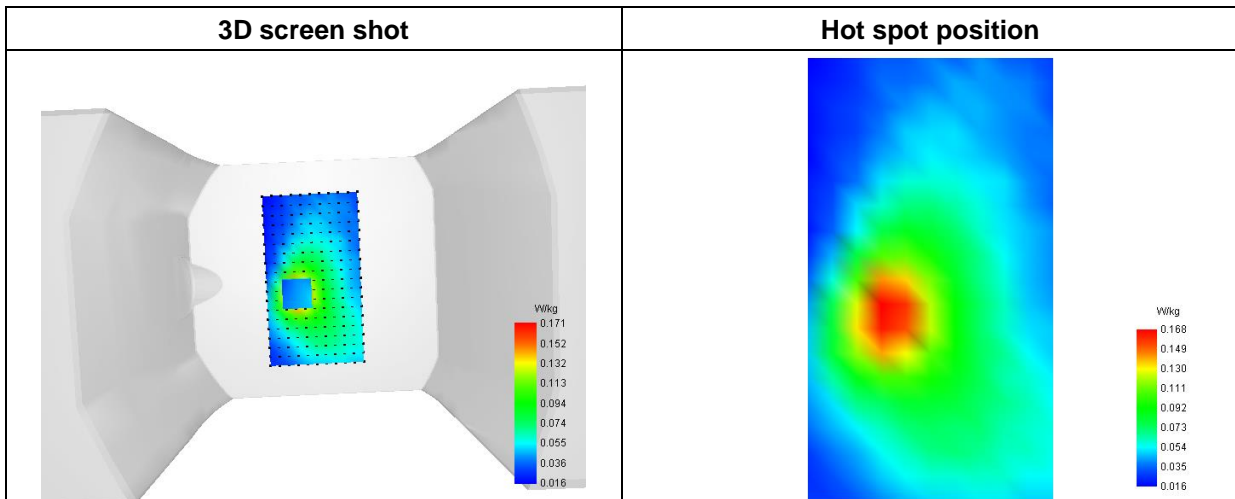
SAR 10g (W/Kg)	0.098795
SAR 1g (W/Kg)	0.160185

E. Z Axis Scan

Z (mm)	0.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
SAR (W/Kg)	0.2705	0.1709	0.1372	0.1111	0.0916	0.0768	0.0655	0.0566	0.0493



F. 3D Image



MEASUREMENT 25

Type: Phone measurement (Complete)
 Date of measurement: 2023-02-15
 Measurement duration: 12 minutes 3 seconds

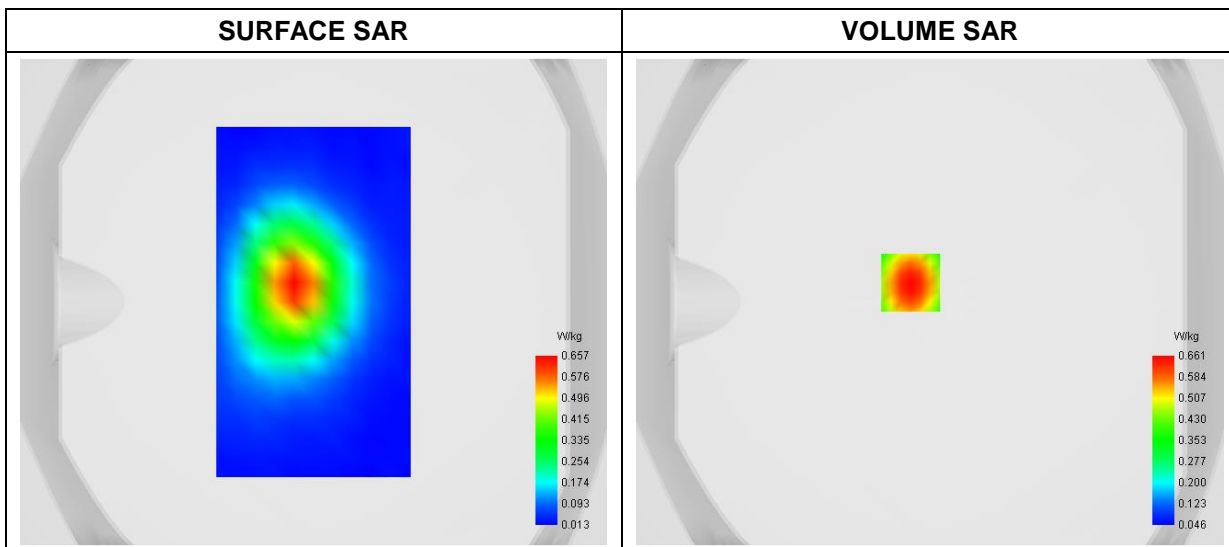
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	DC_2A_N78A_3450-3550MHz
Channels	DFT-s-OFDM QPSK, 100MHz, 1RB, High
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	2560.000000
Relative Permittivity (real part)	53.251092
Conductivity (S/m)	2.081764
Power Variation (%)	-1.420000
Ambient Temperature	23.5
Liquid Temperature	23.5

C. SAR Surface and Volume



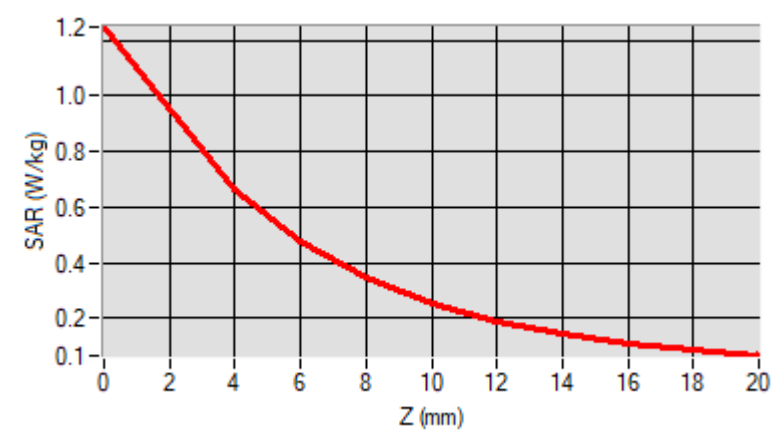
Maximum location: X=-8.00, Y=8.00

D. SAR 1g & 10g

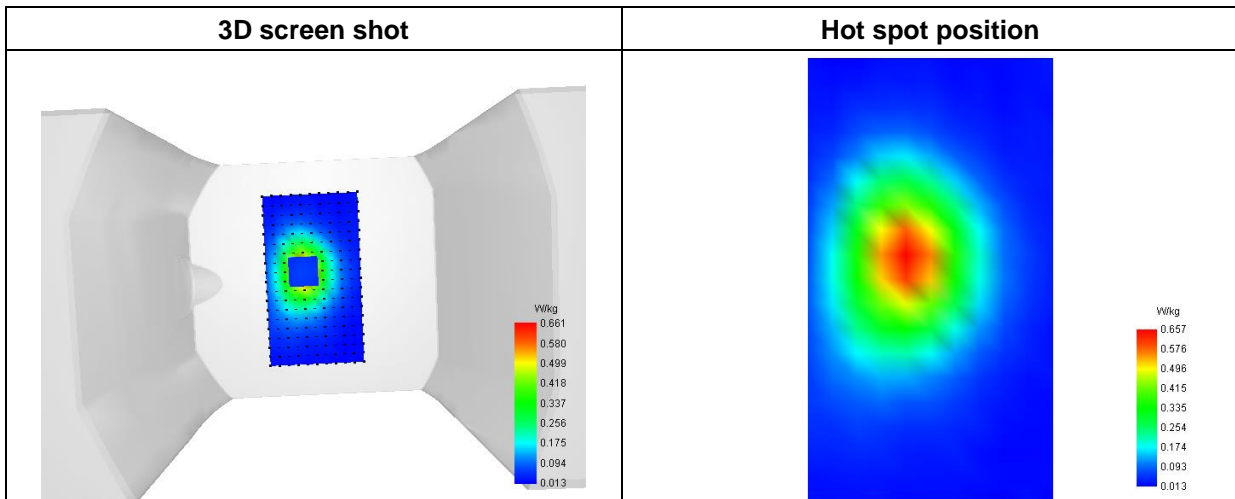
SAR 10g (W/Kg)	0.314549
SAR 1g (W/Kg)	0.620095

E. Z Axis Scan

Z (mm)	0.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
SAR (W/Kg)	1.2473	0.6608	0.4775	0.3449	0.2528	0.1886	0.1434	0.1106	0.0858



F. 3D Image



MEASUREMENT 26

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-07
 Measurement duration: 12 minutes 3 seconds

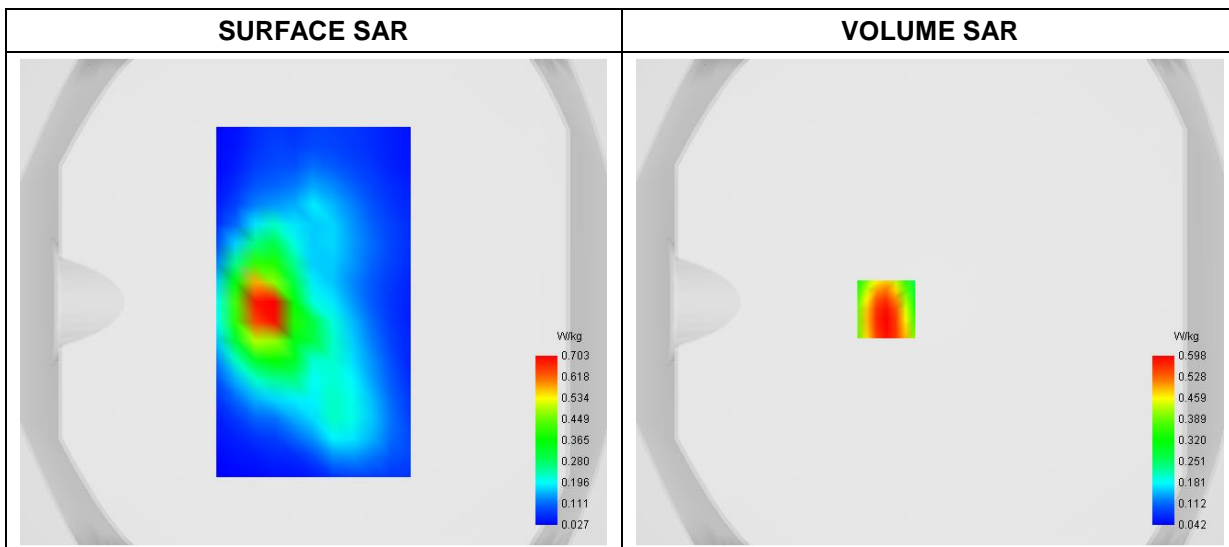
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	DC_2A_N78A_3700-3800MHz
Channels	DFT-s-OFDM QPSK, 100MHz, 1RB, Middle
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	3750.000000
Relative Permittivity (real part)	48.522457
Conductivity (S/m)	3.562459
Power Variation (%)	0.361700
Ambient Temperature	23.4
Liquid Temperature	23.4

C. SAR Surface and Volume



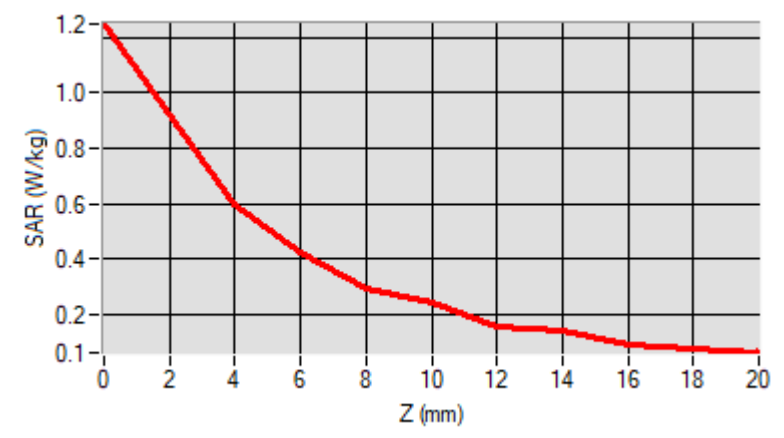
Maximum location: X=-18.00, Y=-3.00

D. SAR 1g & 10g

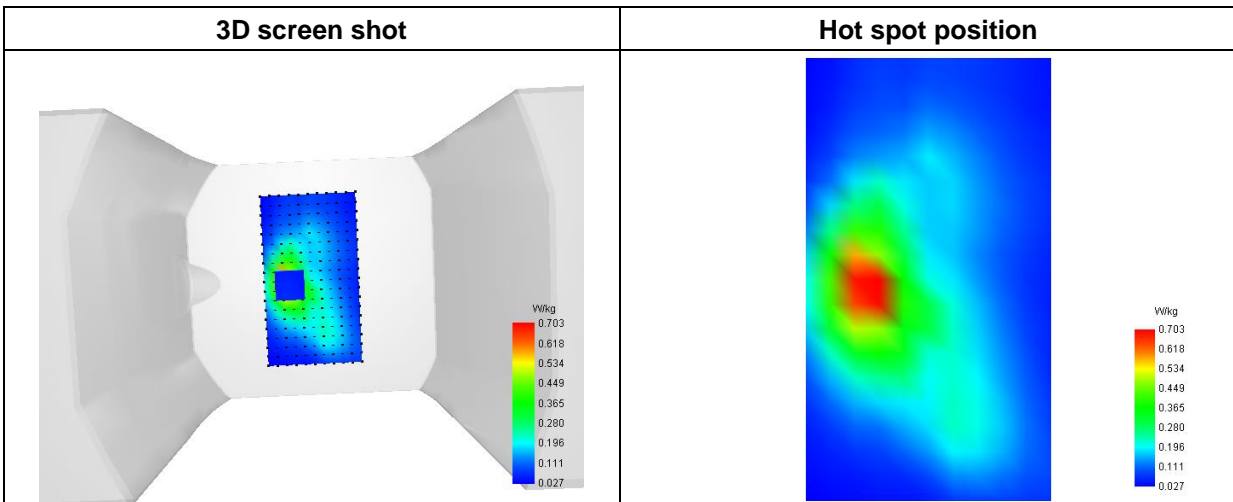
SAR 10g (W/Kg)	0.287459
SAR 1g (W/Kg)	0.602227

E. Z Axis Scan

Z (mm)	0.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
SAR (W/Kg)	1.2486	0.5978	0.4225	0.2898	0.2402	0.1525	0.1389	0.0924	0.0752



F. 3D Image



MEASUREMENT 27

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-07
 Measurement duration: 12 minutes 3 seconds

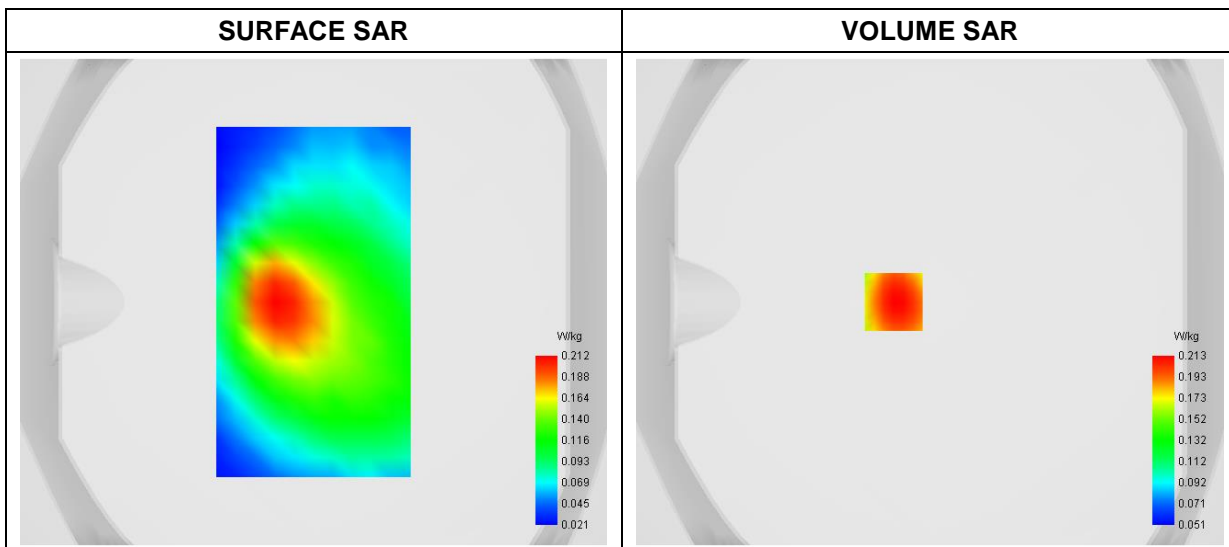
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	DC_12A_N77A_3450-3550MHz
Channels	DFT-s-OFDM QPSK, 100MHz, 1RB,Middle
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	3500.000000
Relative Permittivity (real part)	50.521634
Conductivity (S/m)	3.253645
Power Variation (%)	1.650000
Ambient Temperature	23.4
Liquid Temperature	23.4

C. SAR Surface and Volume



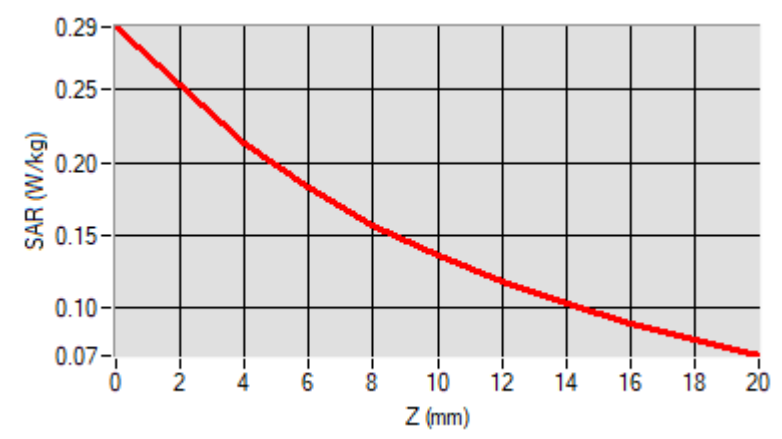
Maximum location: X=-15.00, Y=0.00

D. SAR 1g & 10g

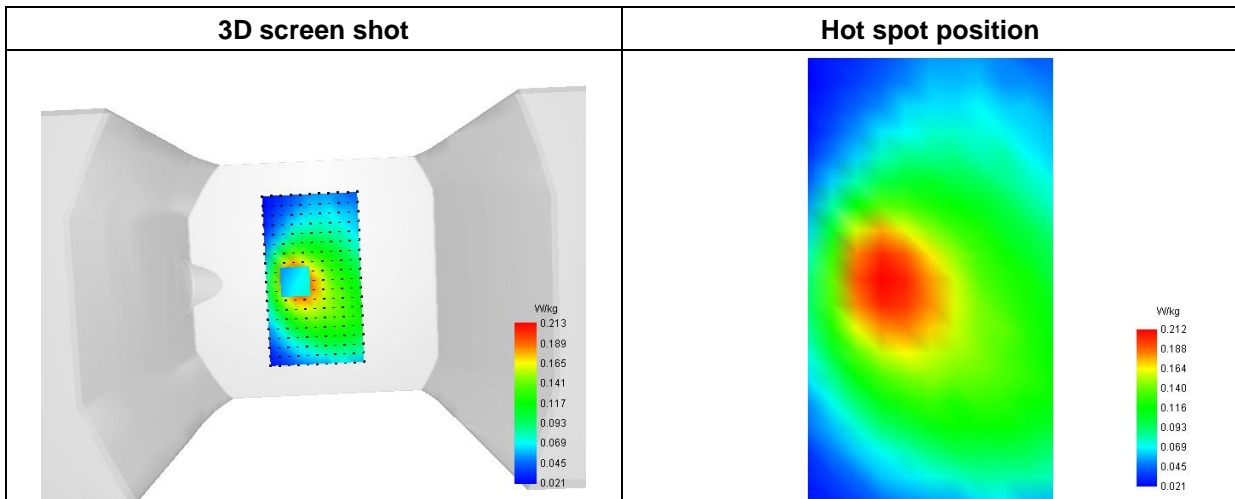
SAR 10g (W/Kg)	0.138441
SAR 1g (W/Kg)	0.205850

E. Z Axis Scan

Z (mm)	0.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
SAR (W/Kg)	0.2927	0.2133	0.1829	0.1574	0.1361	0.1183	0.1030	0.0898	0.0781



F. 3D Image



MEASUREMENT 28

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-07
 Measurement duration: 12 minutes 3 seconds

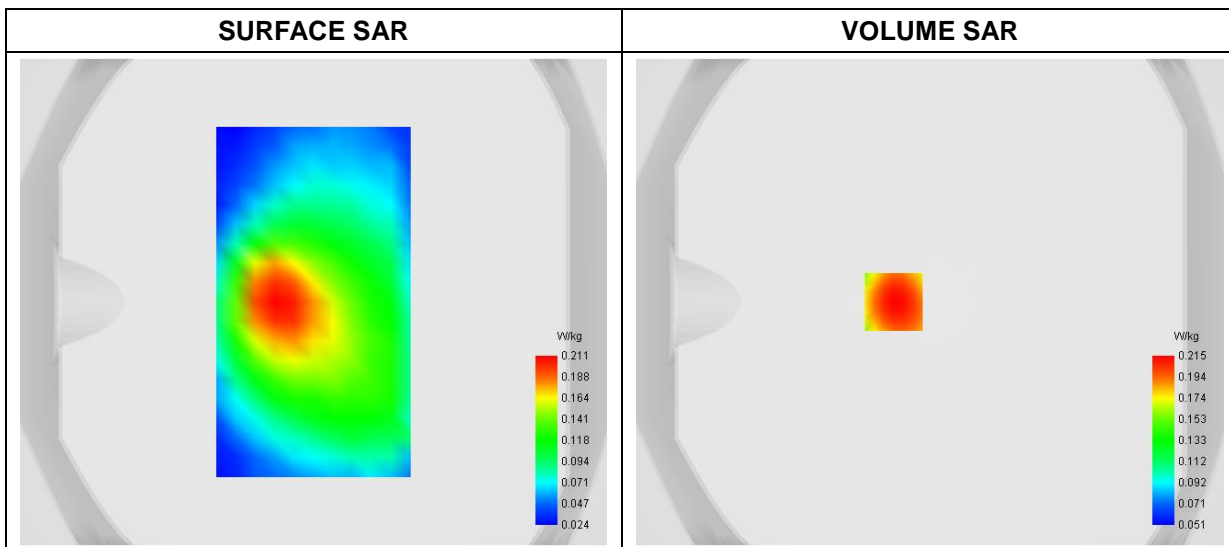
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	DC_12A_N77A_3700-3980MHz
Channels	DFT-s-OFDM QPSK, 100MHz, 1RB, Middle
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	3845.000000
Relative Permittivity (real part)	47.812631
Conductivity (S/m)	4.043625
Power Variation (%)	1.860000
Ambient Temperature	23.4
Liquid Temperature	23.4

C. SAR Surface and Volume



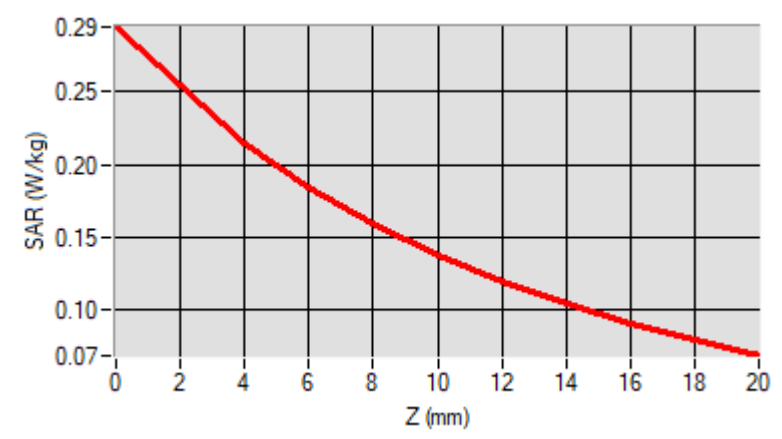
Maximum location: X=-15.00, Y=0.00

D. SAR 1g & 10g

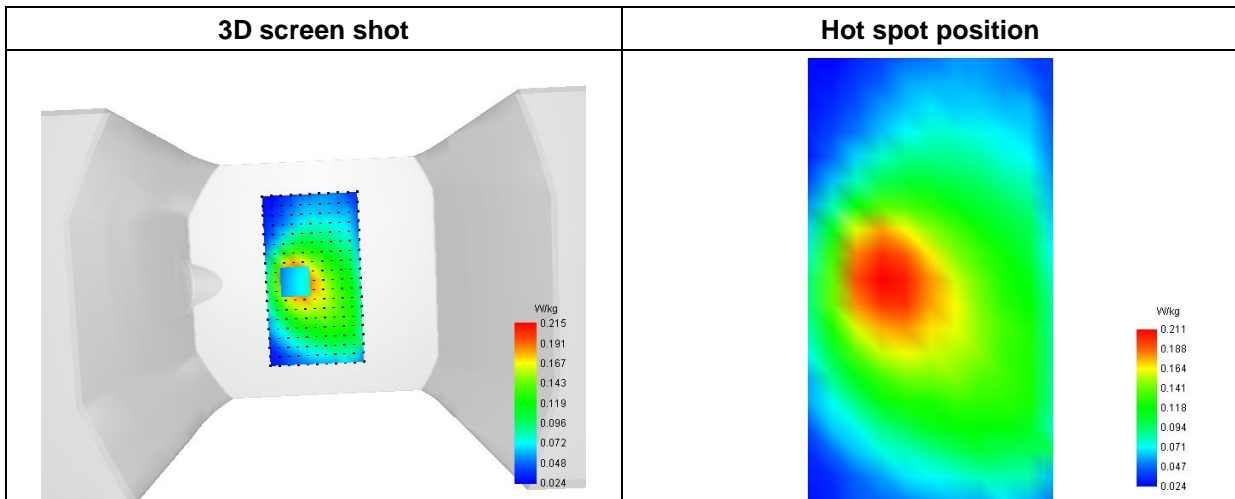
SAR 10g (W/Kg)	0.139317
SAR 1g (W/Kg)	0.205872

E. Z Axis Scan

Z (mm)	0.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
SAR (W/Kg)	0.2947	0.2150	0.1845	0.1588	0.1374	0.1194	0.1041	0.0907	0.0789



F. 3D Image



MEASUREMENT 29

Type: Phone measurement (Complete)
 Date of measurement: 2023-02-15
 Measurement duration: 12 minutes 3 seconds

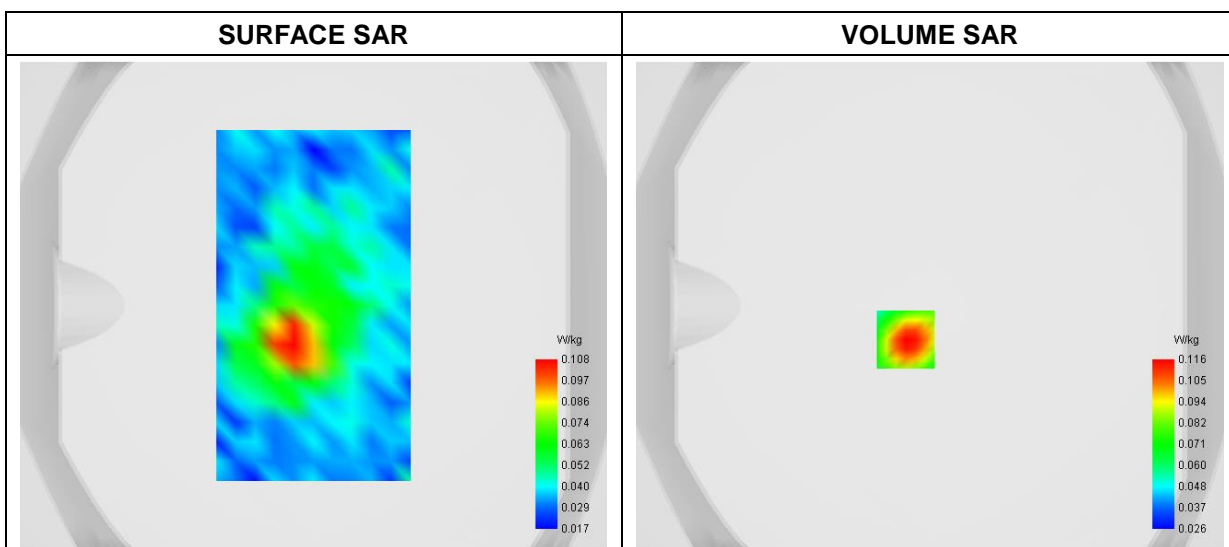
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	WiFi_802.11b-ANT1
Channels	Low
Signal	Duty Cycle 1:1

B. SAR Measurement Results

Frequency (MHz)	2412.000000
Relative Permittivity (real part)	53.570212
Conductivity (S/m)	1.932554
Power Variation (%)	2.403721
Ambient Temperature	23.5
Liquid Temperature	23.5

C. SAR Surface and Volume



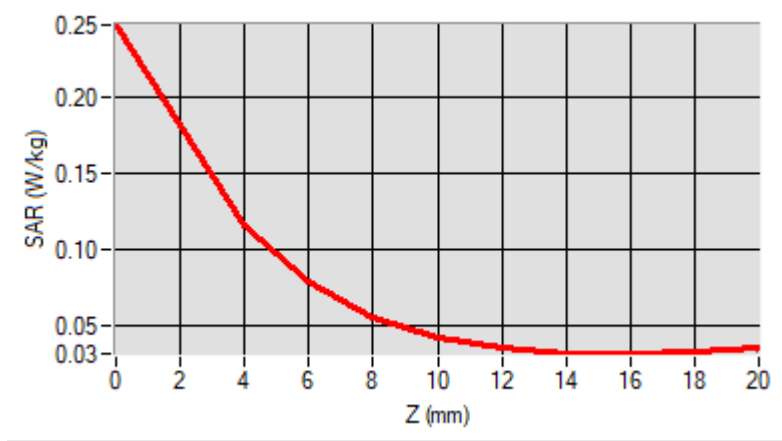
Maximum location: X=-10.00, Y=-14.00

D. SAR 1g & 10g

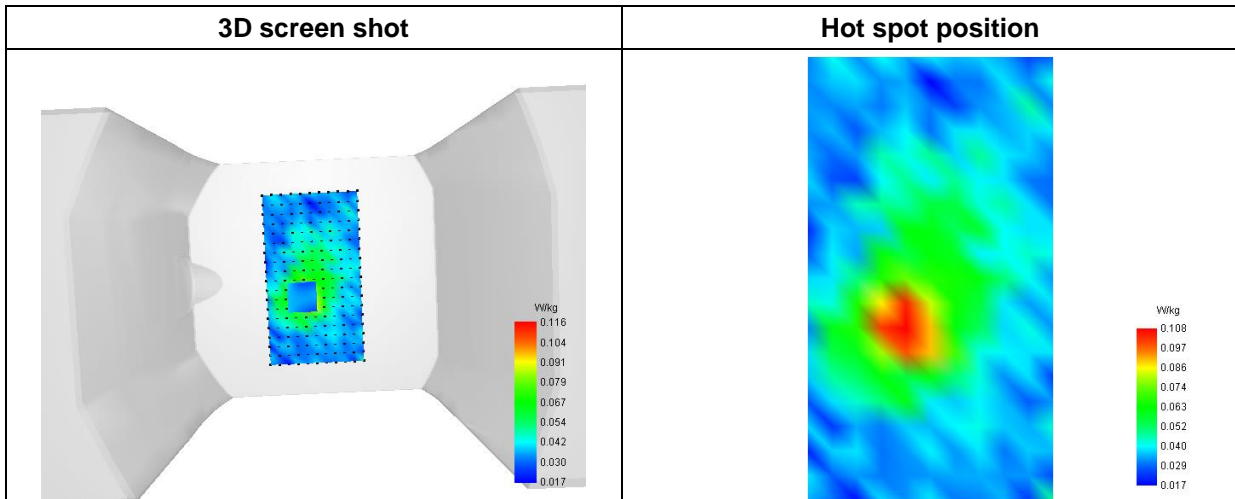
SAR 10g (W/Kg)	0.064258
SAR 1g (W/Kg)	0.114406

E. Z Axis Scan

Z (mm)	0.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
SAR (W/Kg)	0.2482	0.1161	0.0794	0.0560	0.0424	0.0352	0.0321	0.0316	0.0329



F. 3D Image



MEASUREMENT 30

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-04
 Measurement duration: 12 minutes 3 seconds

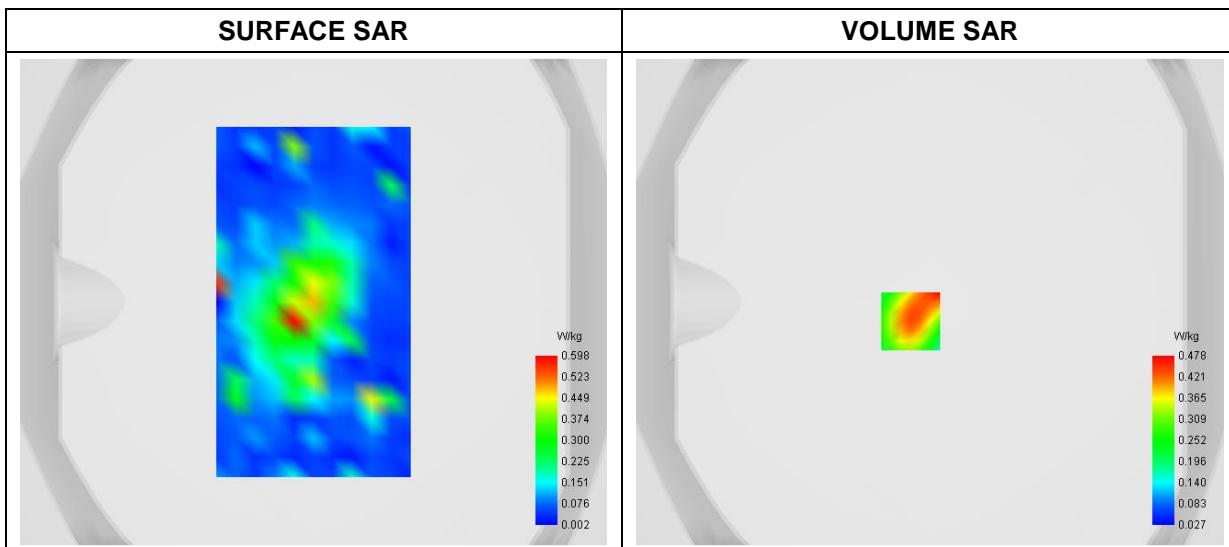
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Front
Band	WiFi(5.2GHz)_802.11a-ANT1
Channels	Middle
Signal	Duty Cycle: 1:1

B. SAR Measurement Results

Frequency (MHz)	5200.000000
Relative Permittivity (real part)	47.112911
Conductivity (S/m)	5.431483
Power Variation (%)	0.542660
Ambient Temperature	22.3
Liquid Temperature	22.3

C. SAR Surface and Volume



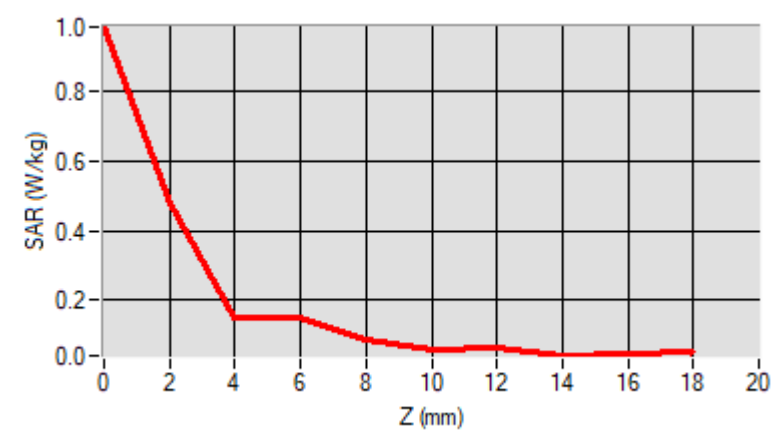
Maximum location: X=-8.00, Y=-8.00

D. SAR 1g & 10g

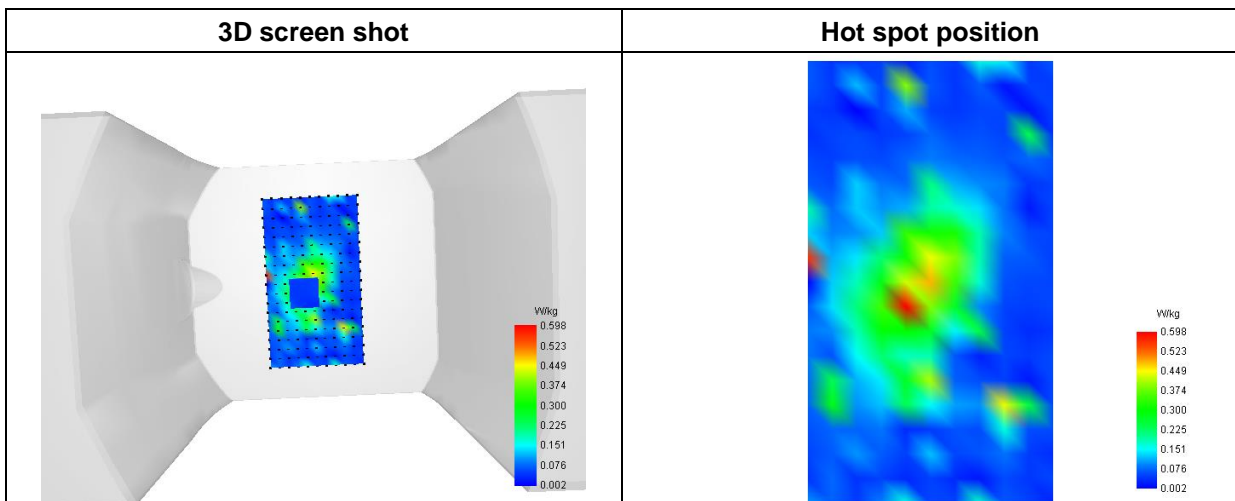
SAR 10g (W/Kg)	0.128672
SAR 1g (W/Kg)	0.275572

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	0.9813	0.4776	0.1533	0.1488	0.0871	0.0574	0.0674	0.0424	0.0509



F. 3D Image



MEASUREMENT 31

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-04
 Measurement duration: 12 minutes 3 seconds

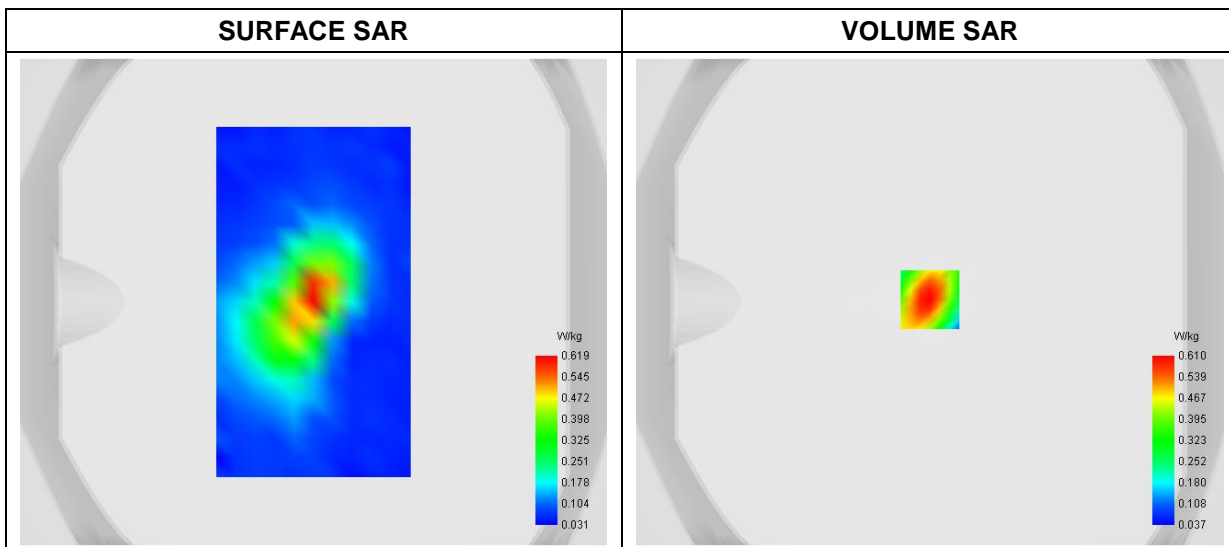
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Front
Band	WiFi(5.3GHz)_802.11a-ANT1
Channels	Middle
Signal	Duty Cycle: 1:1

B. SAR Measurement Results

Frequency (MHz)	5260.000000
Relative Permittivity (real part)	47.122839
Conductivity (S/m)	5.432192
Power Variation (%)	0.463782
Ambient Temperature	22.3
Liquid Temperature	22.3

C. SAR Surface and Volume



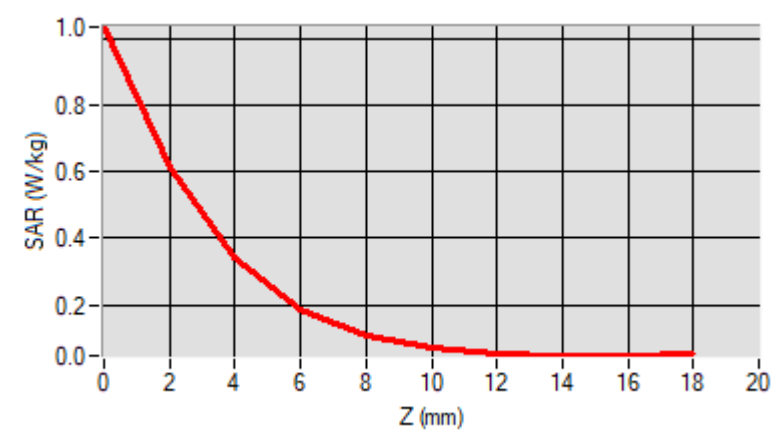
Maximum location: X=0.00, Y=1.00

D. SAR 1g & 10g

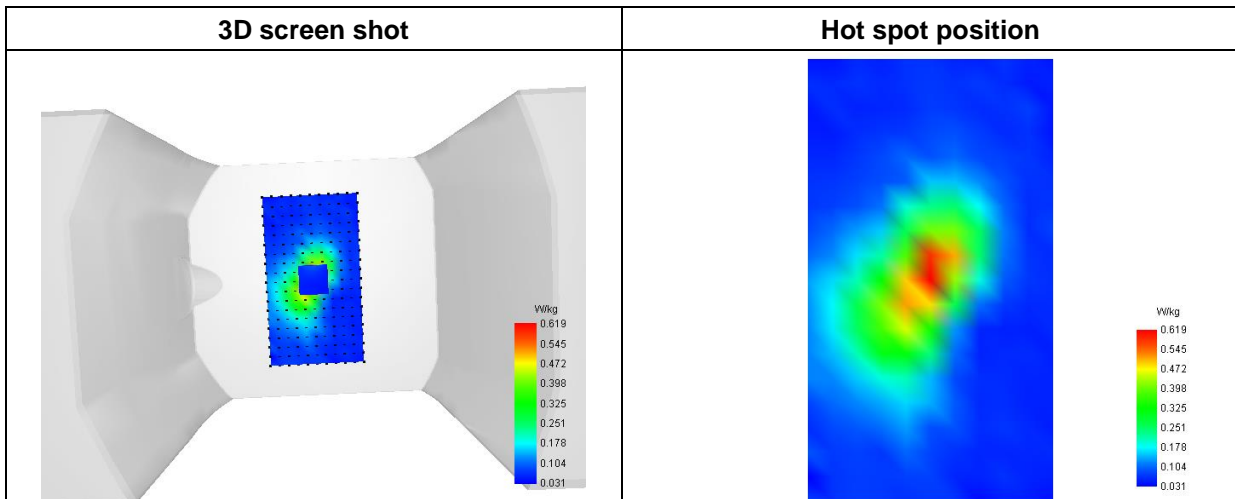
SAR 10g (W/Kg)	0.157259
SAR 1g (W/Kg)	0.362892

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	1.0346	0.6104	0.3422	0.1875	0.1076	0.0688	0.0519	0.0469	0.0490



F. 3D Image



MEASUREMENT 32

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-04
 Measurement duration: 12 minutes 3 seconds

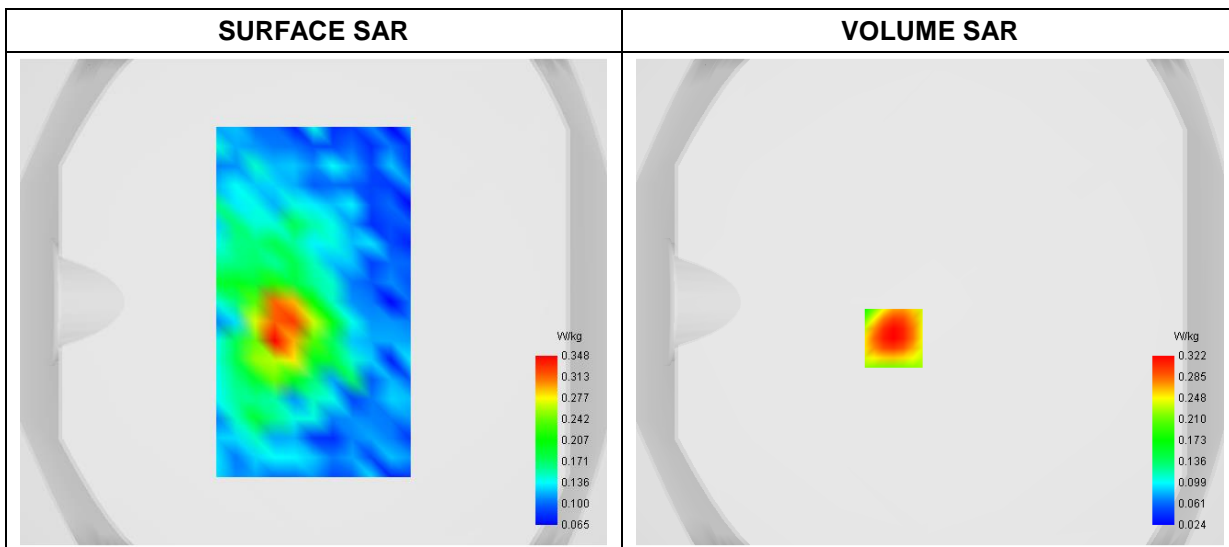
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	WiFi(5.6GHz)_802.11n(HT40)_ANT1
Channels	Low
Signal	Duty Cycle: 1:1

B. SAR Measurement Results

Frequency (MHz)	5510.000000
Relative Permittivity (real part)	47.341254
Conductivity (S/m)	5.720512
Power Variation (%)	0.848732
Ambient Temperature	22.3
Liquid Temperature	22.3

C. SAR Surface and Volume



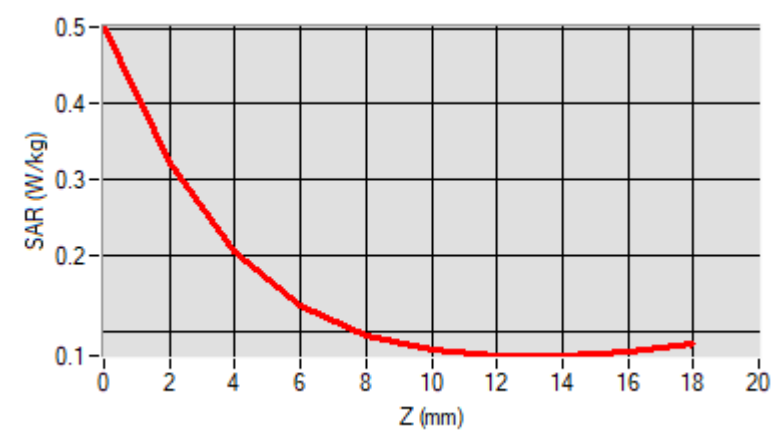
Maximum location: X=-15.00, Y=-15.00

D. SAR 1g & 10g

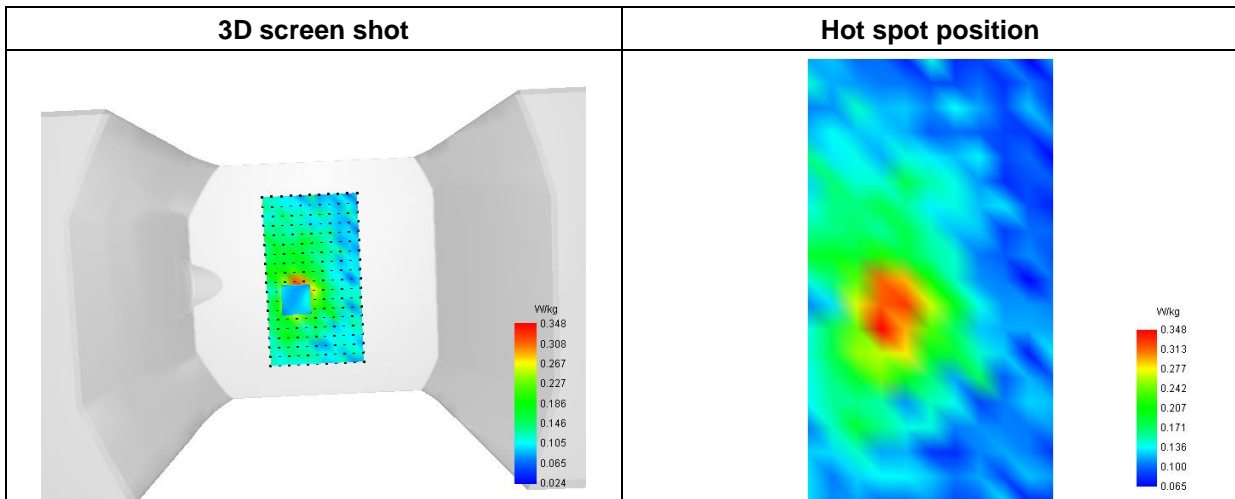
SAR 10g (W/Kg)	0.134617
SAR 1g (W/Kg)	0.228311

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
SAR (W/Kg)	0.5017	0.3223	0.2049	0.1336	0.0947	0.0754	0.0681	0.0688	0.0747	



F. 3D Image



MEASUREMENT 33

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-04
 Measurement duration: 12 minutes 3 seconds

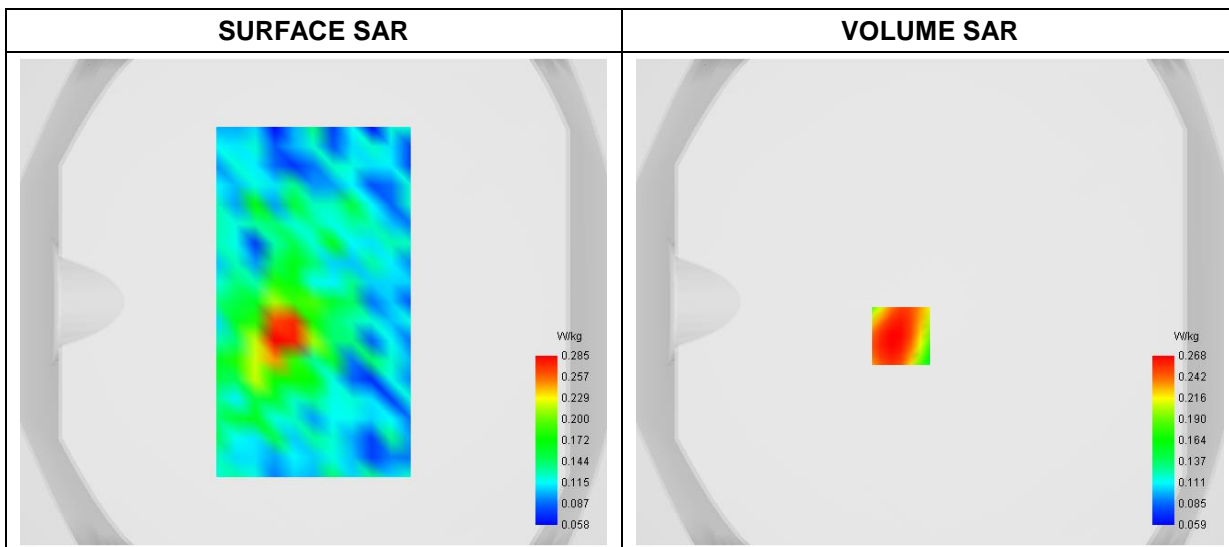
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	WiFi(5.8GHz)_ 802.11a -ANT1
Channels	High
Signal	Duty Cycle: 1:1

B. SAR Measurement Results

Frequency (MHz)	5825.000000
Relative Permittivity (real part)	49.922839
Conductivity (S/m)	5.911254
Power Variation (%)	5.210512
Ambient Temperature	22.3
Liquid Temperature	22.3

C. SAR Surface and Volume



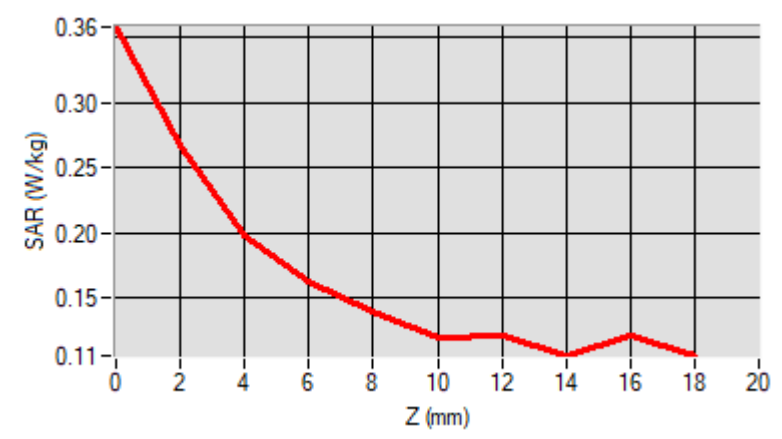
Maximum location: X=-12.00, Y=-14.00

D. SAR 1g & 10g

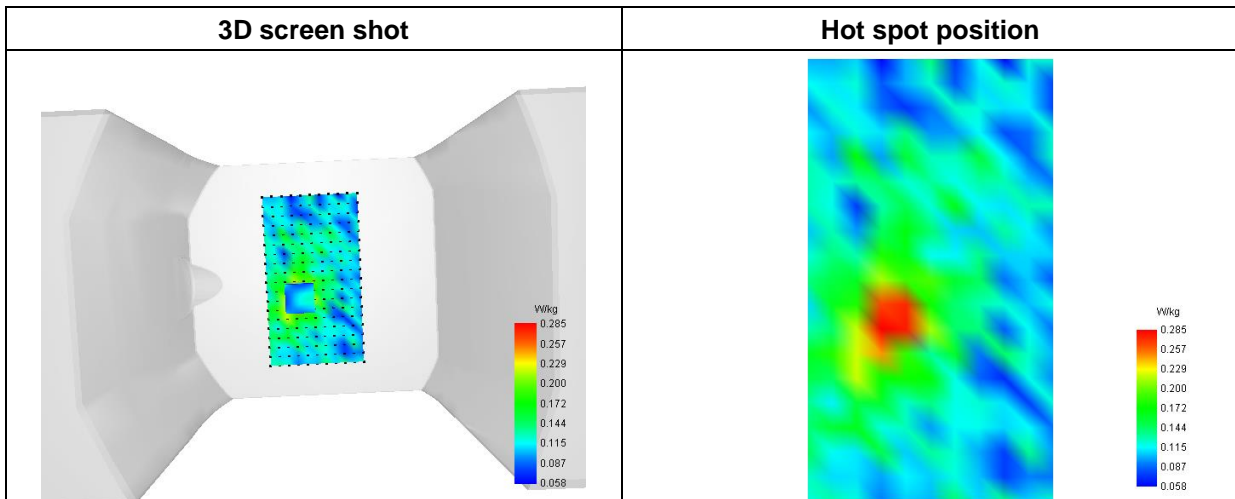
SAR 10g (W/Kg)	0.141809
SAR 1g (W/Kg)	0.216804

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	16.00
SAR (W/Kg)	0.3581	0.2678	0.1975	0.1627	0.1399	0.1187	0.1210	0.1056	0.1210	0.1210



F. 3D Image



MEASUREMENT 34

Type: Phone measurement (Complete)
 Date of measurement: 2023-02-15
 Measurement duration: 12 minutes 3 seconds

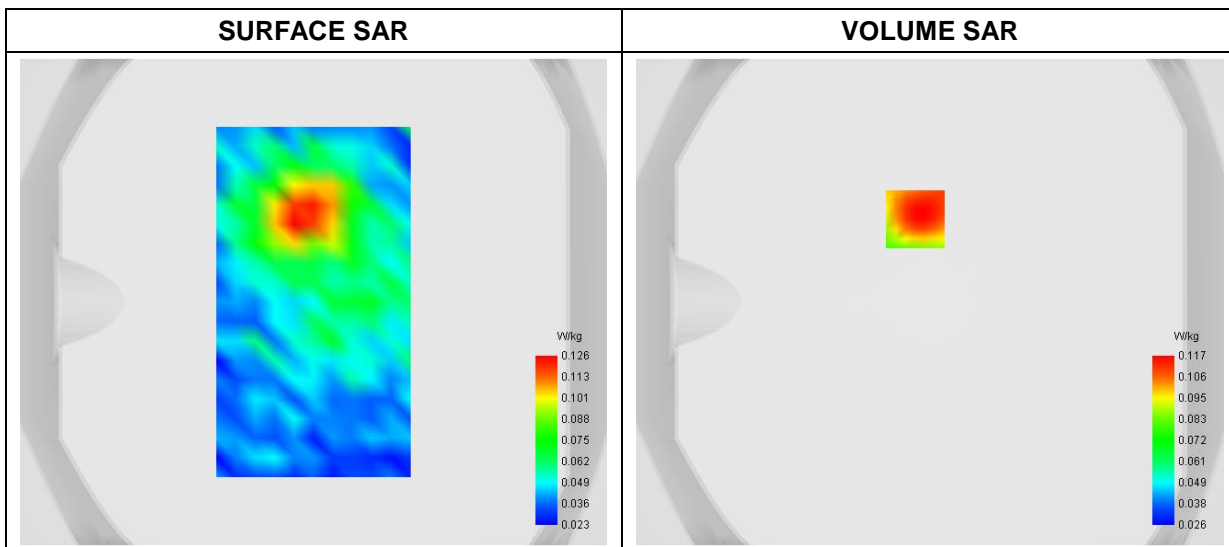
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	WiFi_802.11b-ANT2
Channels	High
Signal	Duty Cycle: 1:1

B. SAR Measurement Results

Frequency (MHz)	2462.000000
Relative Permittivity (real part)	53.581212
Conductivity (S/m)	1.931202
Power Variation (%)	0.568374
Ambient Temperature	23.5
Liquid Temperature	23.5

C. SAR Surface and Volume



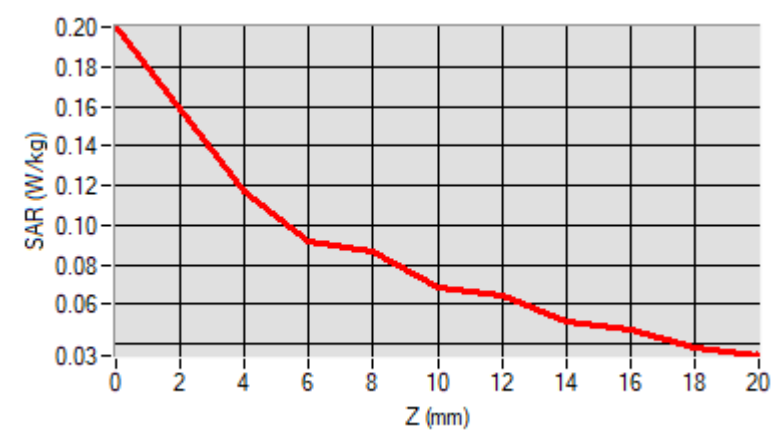
Maximum location: X=-6.00, Y=34.00

D. SAR 1g & 10g

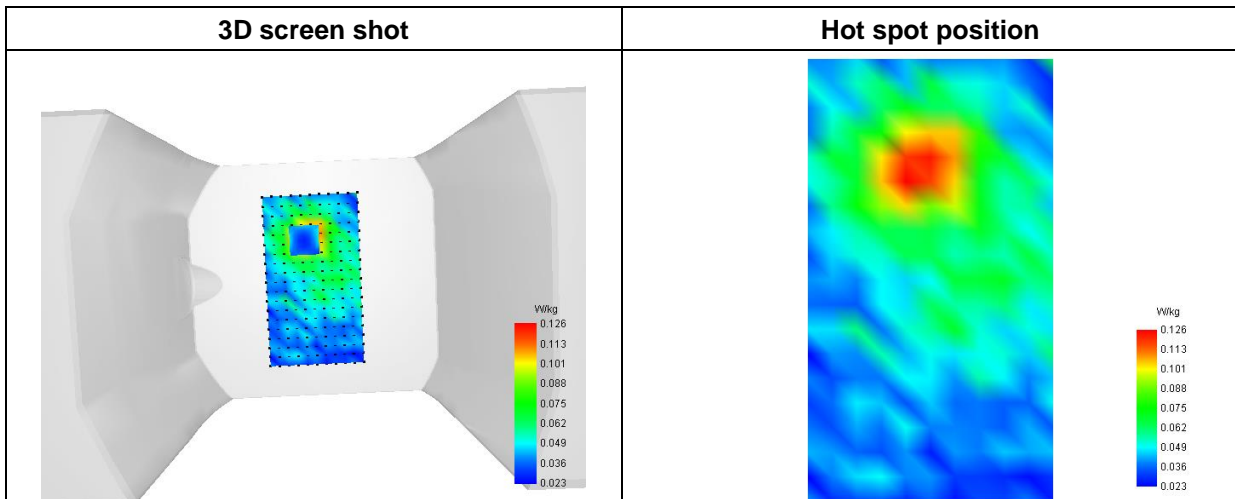
SAR 10g (W/Kg)	0.074998
SAR 1g (W/Kg)	0.118601

E. Z Axis Scan

Z (mm)	0.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
SAR (W/Kg)	0.2001	0.1174	0.0912	0.0866	0.0688	0.0641	0.0511	0.0473	0.0381



F. 3D Image



MEASUREMENT 35

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-04
 Measurement duration: 12 minutes 3 seconds

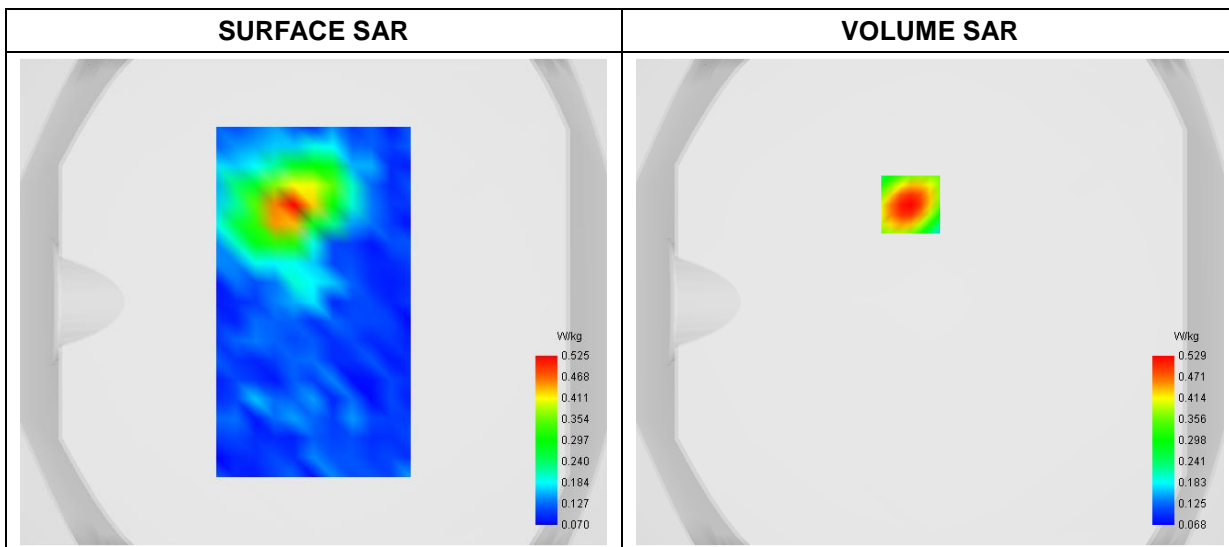
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	WLAN(5.2GHz)_802.11a-ANT2
Channels	Low
Signal	Duty Cycle: 1:1

B. SAR Measurement Results

Frequency (MHz)	5200.000000
Relative Permittivity (real part)	47.112911
Conductivity (S/m)	5.431483
Power Variation (%)	-1.660000
Ambient Temperature	22.3
Liquid Temperature	22.3

C. SAR Surface and Volume



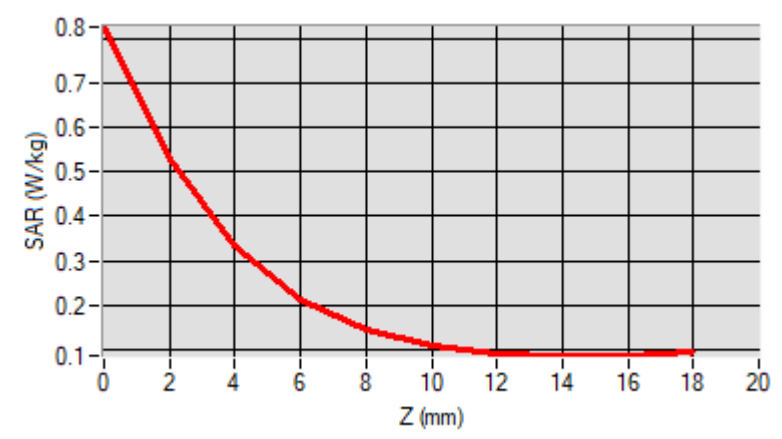
Maximum location: X=-8.00, Y=40.00

D. SAR 1g & 10g

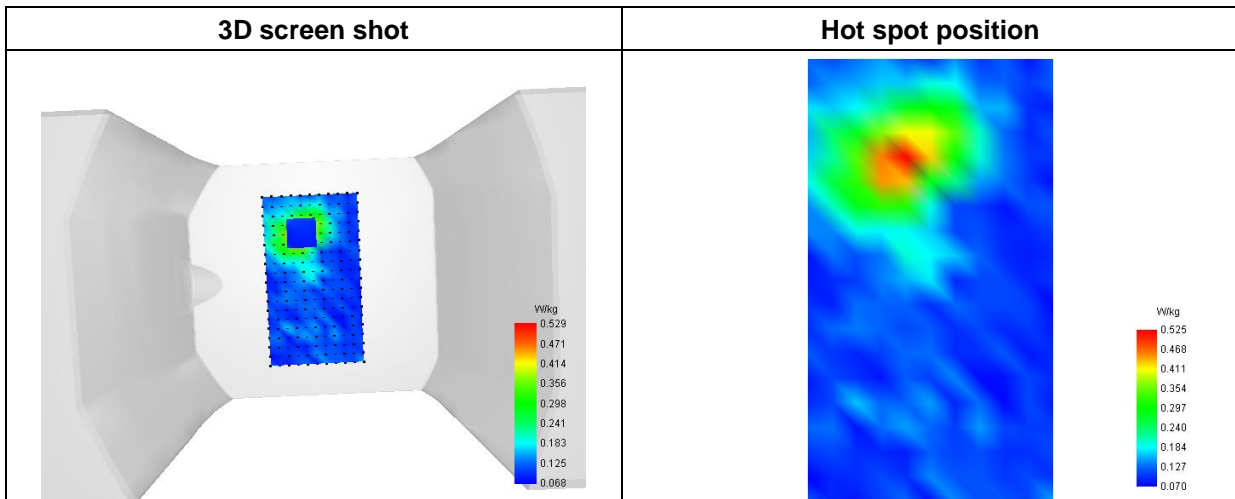
SAR 10g (W/Kg)	0.178822
SAR 1g (W/Kg)	0.343274

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	0.8277	0.5288	0.3324	0.2115	0.1437	0.1077	0.0908	0.0854	0.0872



F. 3D Image



MEASUREMENT 36

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-04
 Measurement duration: 12 minutes 3 seconds

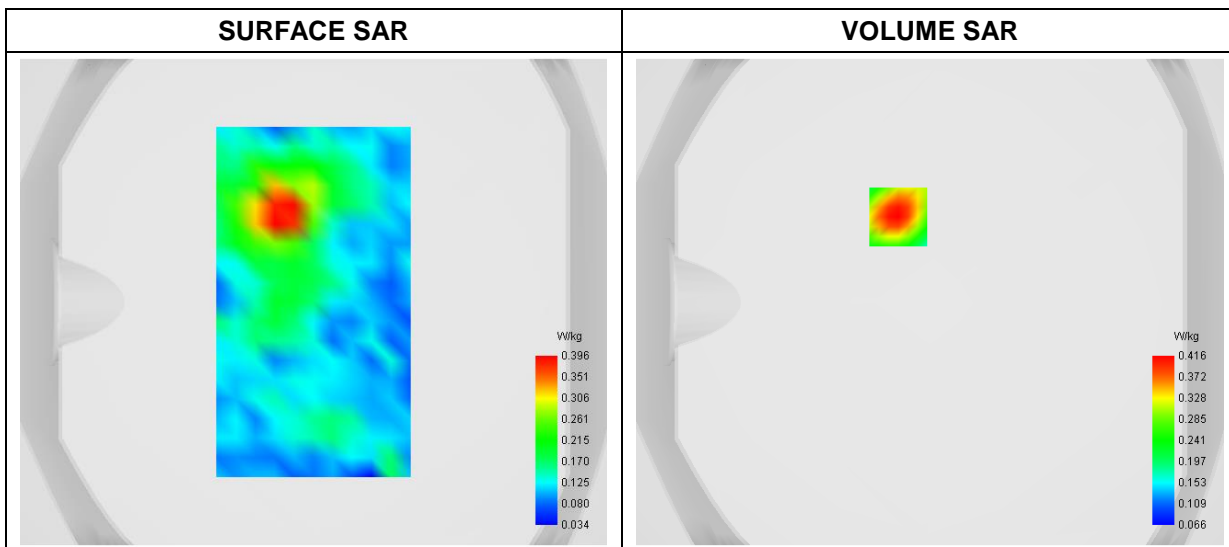
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	WLAN(5.3GHz)_802.11a-ANT2
Channels	High
Signal	Duty Cycle: 1:1

B. SAR Measurement Results

Frequency (MHz)	5320.000000
Relative Permittivity (real part)	46.913248
Conductivity (S/m)	5.642715
Power Variation (%)	0.950000
Ambient Temperature	22.3
Liquid Temperature	22.3

C. SAR Surface and Volume



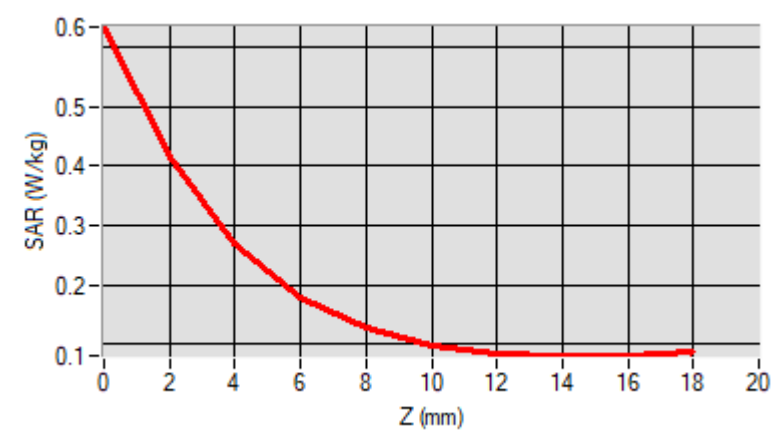
Maximum location: X=-13.00, Y=35.00

D. SAR 1g & 10g

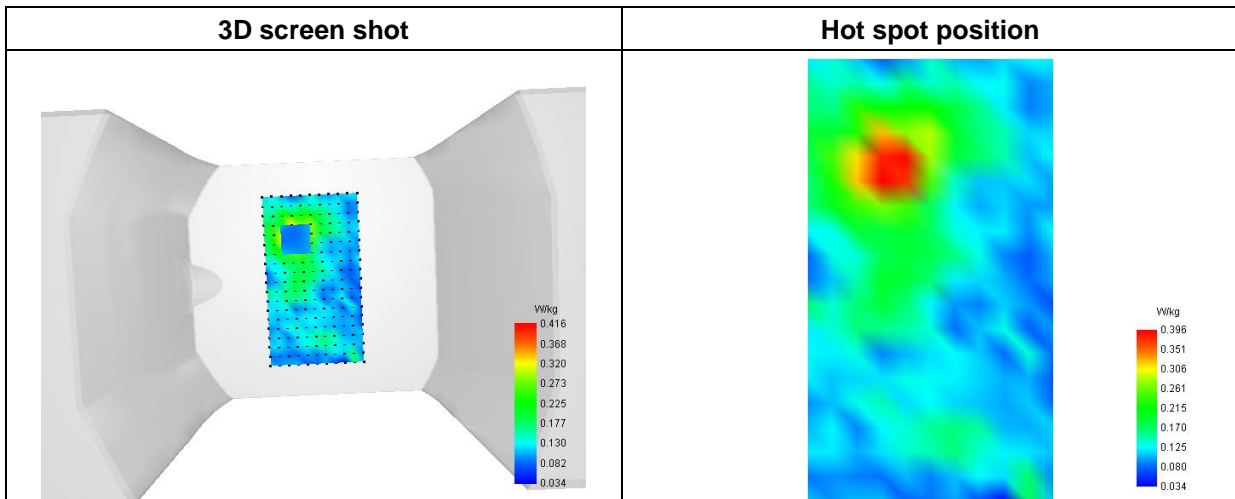
SAR 10g (W/Kg)	0.153187
SAR 1g (W/Kg)	0.270900

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	0.6334	0.4158	0.2710	0.1800	0.1277	0.0993	0.0856	0.0811	0.0822



F. 3D Image



MEASUREMENT 37

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-04
 Measurement duration: 12 minutes 3 seconds

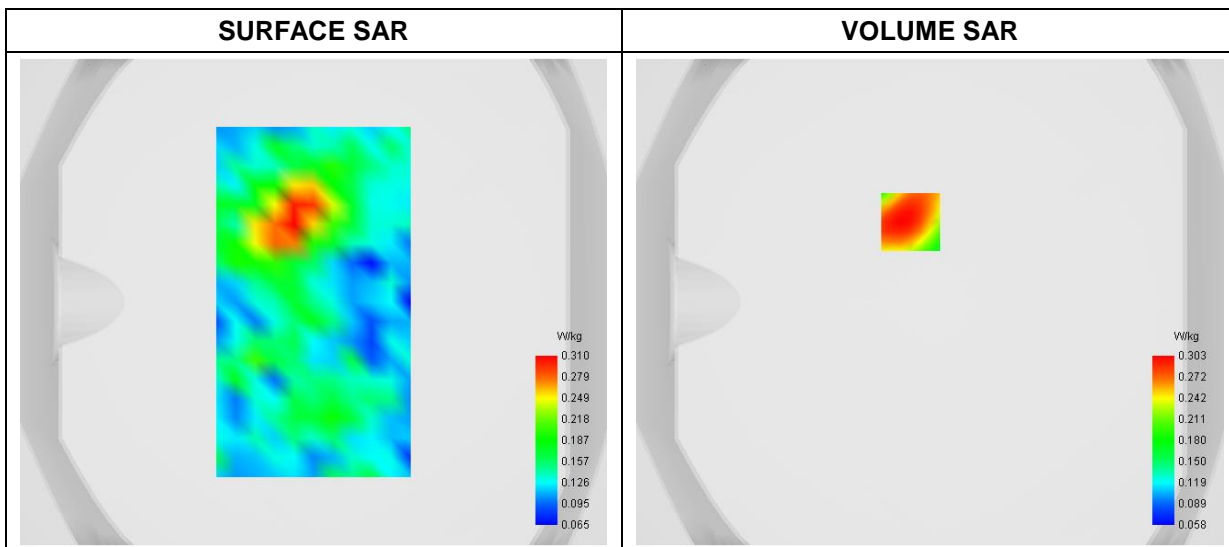
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	WLAN(5.6GHz)_ 802.11n (HT40)-ANT2
Channels	High
Signal	Duty Cycle: 1:1

B. SAR Measurement Results

Frequency (MHz)	5670.000000
Relative Permittivity (real part)	47.322911
Conductivity (S/m)	5.724268
Power Variation (%)	-1.660000
Ambient Temperature	22.3
Liquid Temperature	22.3

C. SAR Surface and Volume



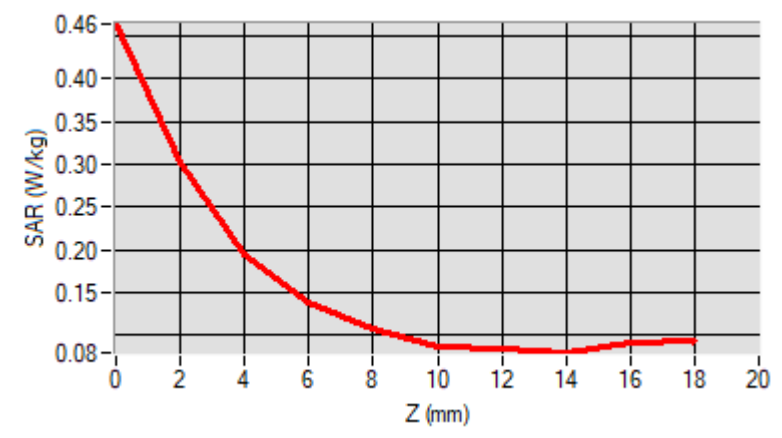
Maximum location: X=-8.00, Y=33.00

D. SAR 1g & 10g

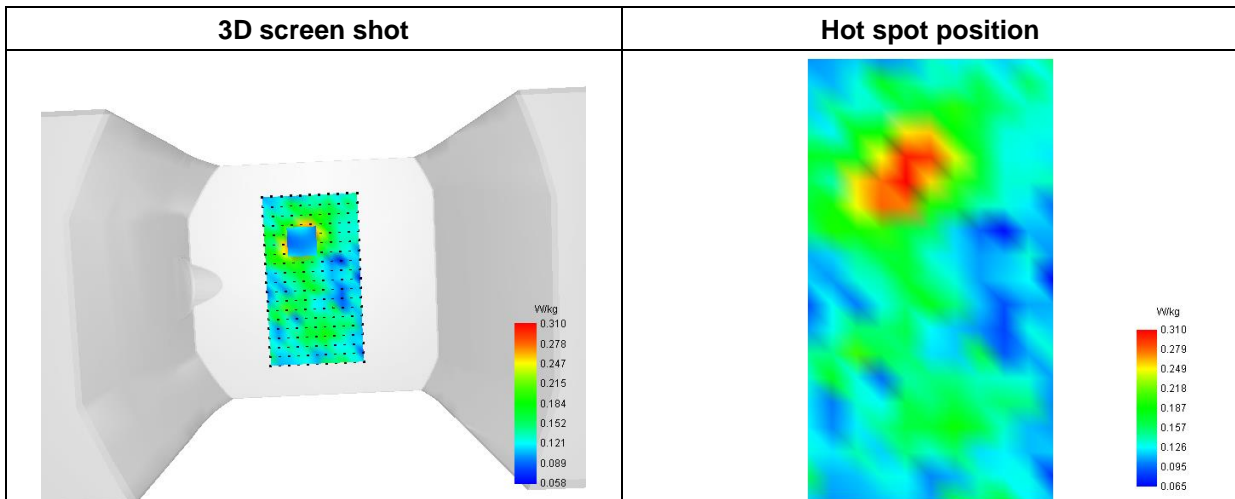
SAR 10g (W/Kg)	0.143763
SAR 1g (W/Kg)	0.224525

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
SAR (W/Kg)	0.4639	0.3029	0.1947	0.1390	0.1080	0.0859	0.0853	0.0797	0.0907	0.0907



F. 3D Image



MEASUREMENT 38

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-04
 Measurement duration: 12 minutes 3 seconds

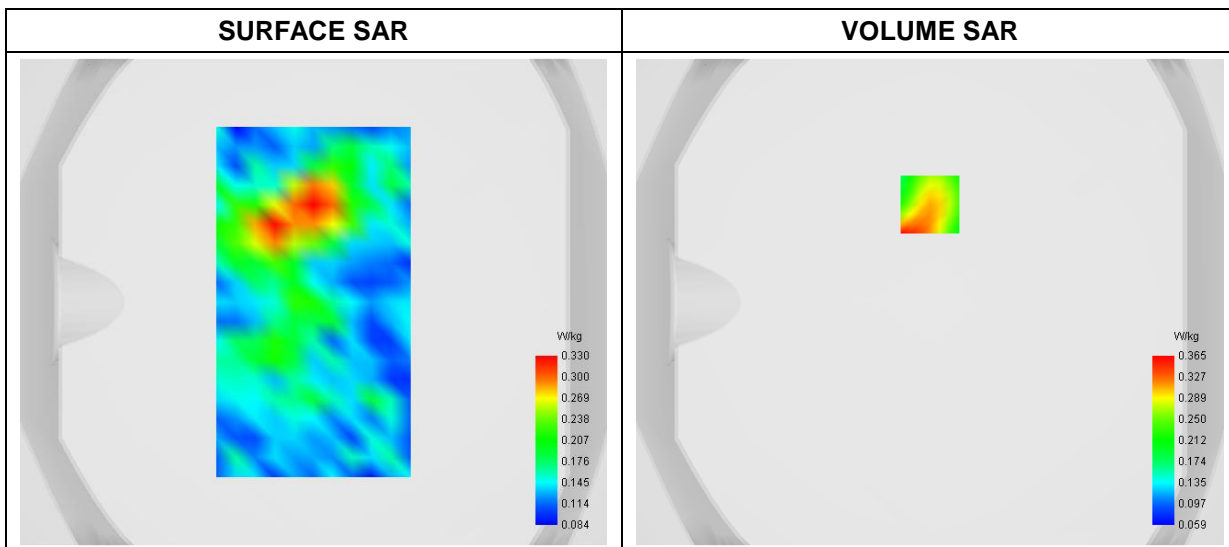
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Front
Band	SRD(5.8GHz)_802.11a-ANT2
Channels	Low
Signal	Duty Cycle: 1:1

B. SAR Measurement Results

Frequency (MHz)	5745.000000
Relative Permittivity (real part)	49.933247
Conductivity (S/m)	5.902715
Power Variation (%)	0.950000
Ambient Temperature	22.3
Liquid Temperature	22.3

C. SAR Surface and Volume



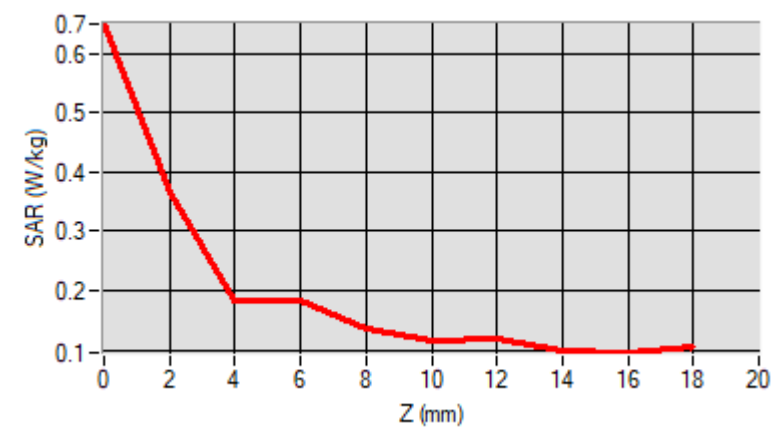
Maximum location: X=0.00, Y=40.00

D. SAR 1g & 10g

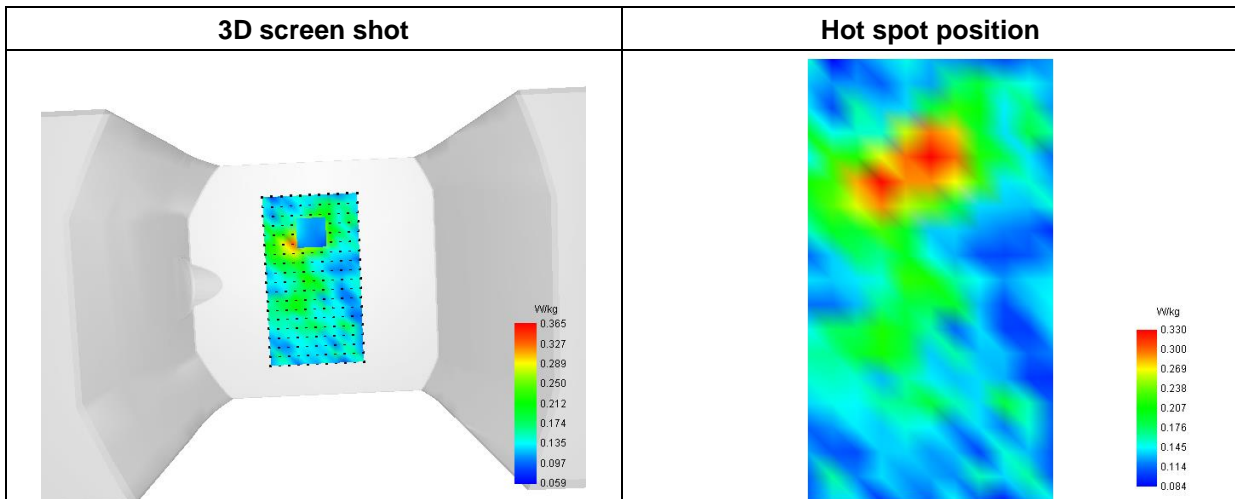
SAR 10g (W/Kg)	0.155208
SAR 1g (W/Kg)	0.234330

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	0.6503	0.3652	0.1814	0.1816	0.1371	0.1150	0.1192	0.1001	0.0951



F. 3D Image



MEASUREMENT 39

Type: Phone measurement (Complete)
 Date of measurement: 2023-03-04
 Measurement duration: 12 minutes 3 seconds

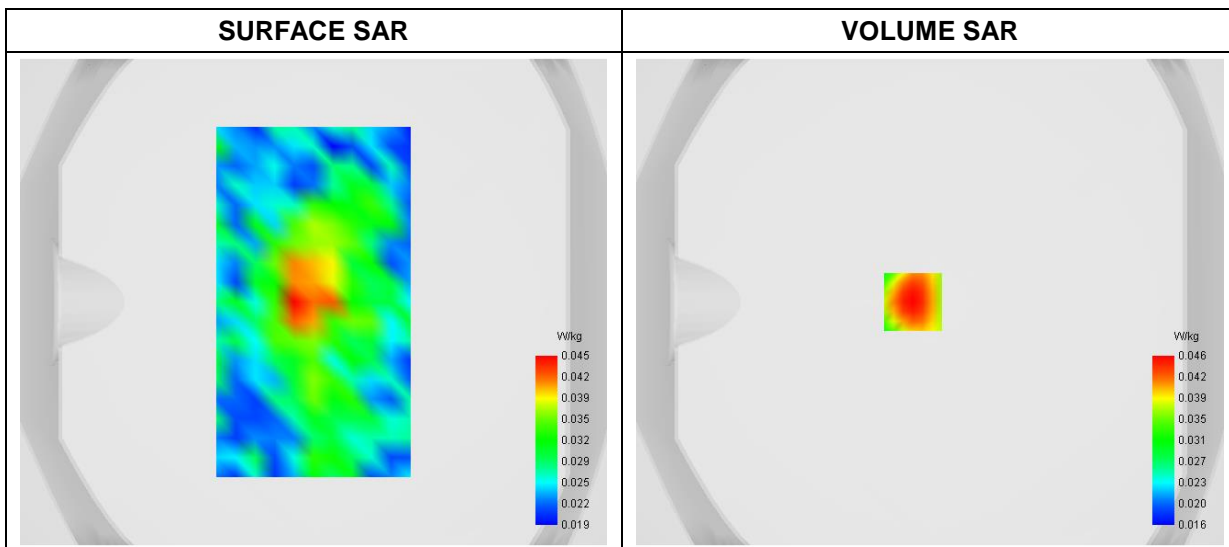
A. Experimental conditions

Area Scan	dx=8mm dy=8mm
Zoom Scan	dx=4mm dy=4mm dz=2mm
Phantom	Flat Plane
Device Position	Back
Band	Bluetooth
Channels	Low
Signal	Duty Cycle: 1:1

B. SAR Measurement Results

Frequency (MHz)	2480.000000
Relative Permittivity (real part)	53.582208
Conductivity (S/m)	1.934330
Power Variation (%)	1.5174000
Ambient Temperature	23.5
Liquid Temperature	23.5

C. SAR Surface and Volume



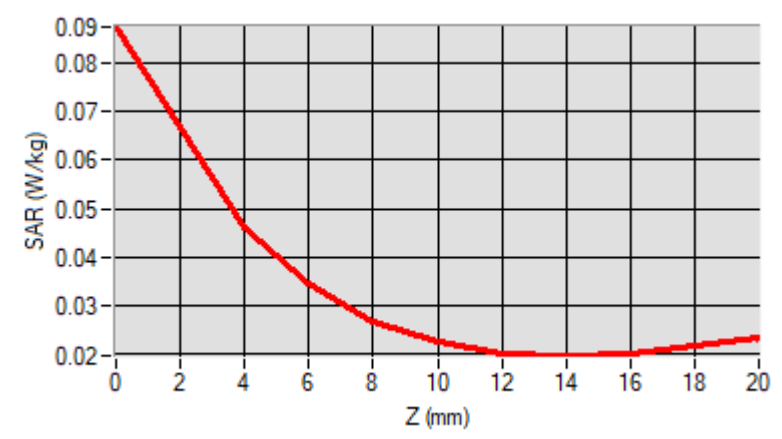
Maximum location: X=-7.00, Y=0.00

D. SAR 1g & 10g

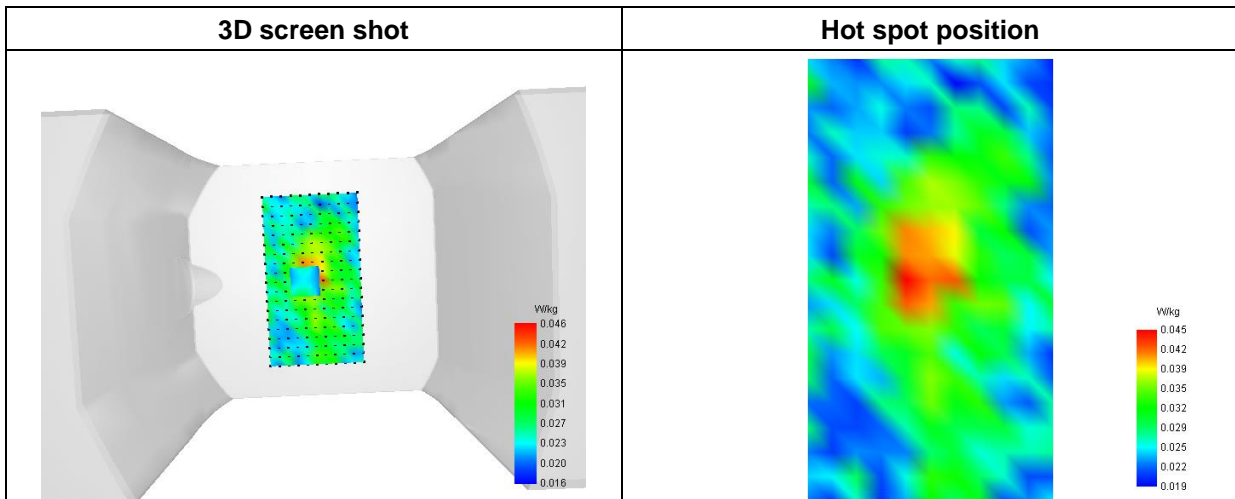
SAR 10g (W/Kg)	0.031462
SAR 1g (W/Kg)	0.046582

E. Z Axis Scan

Z (mm)	0.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00
SAR (W/Kg)	0.0874	0.0462	0.0344	0.0268	0.0224	0.0203	0.0197	0.0203	0.0216

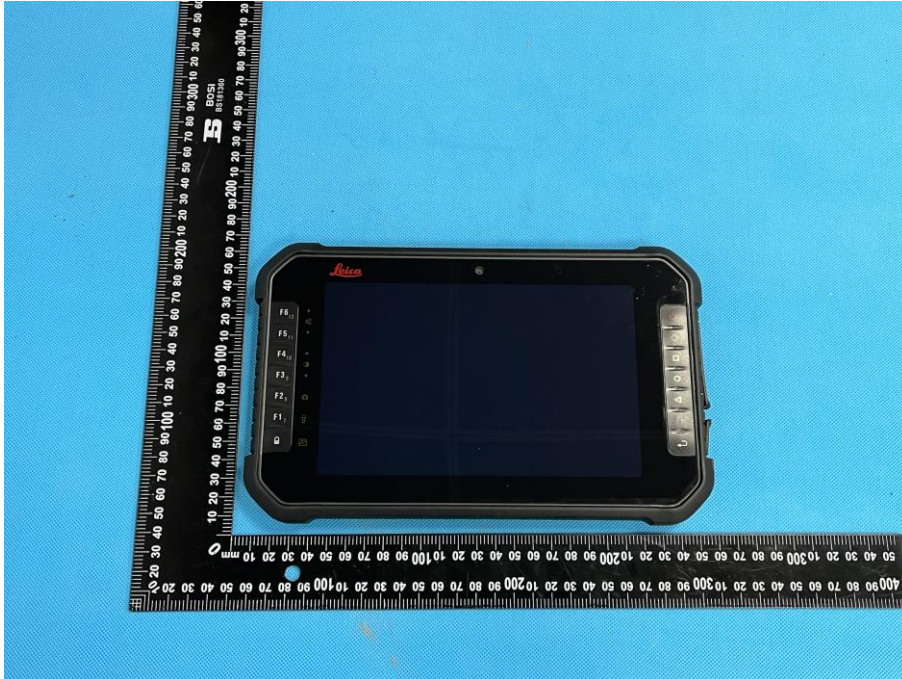


F. 3D Image

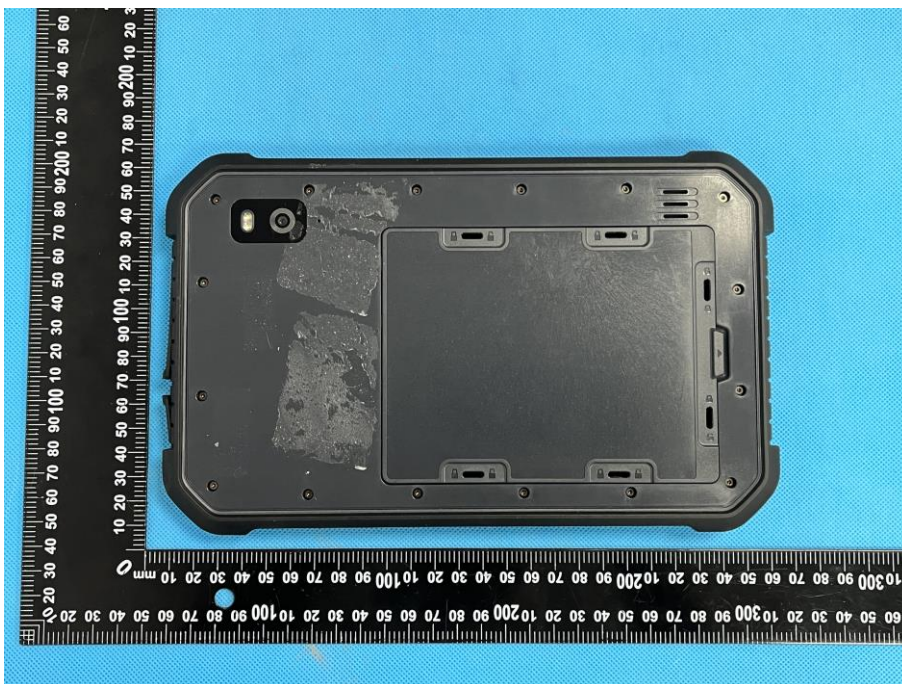


Annex C. EUT Photos

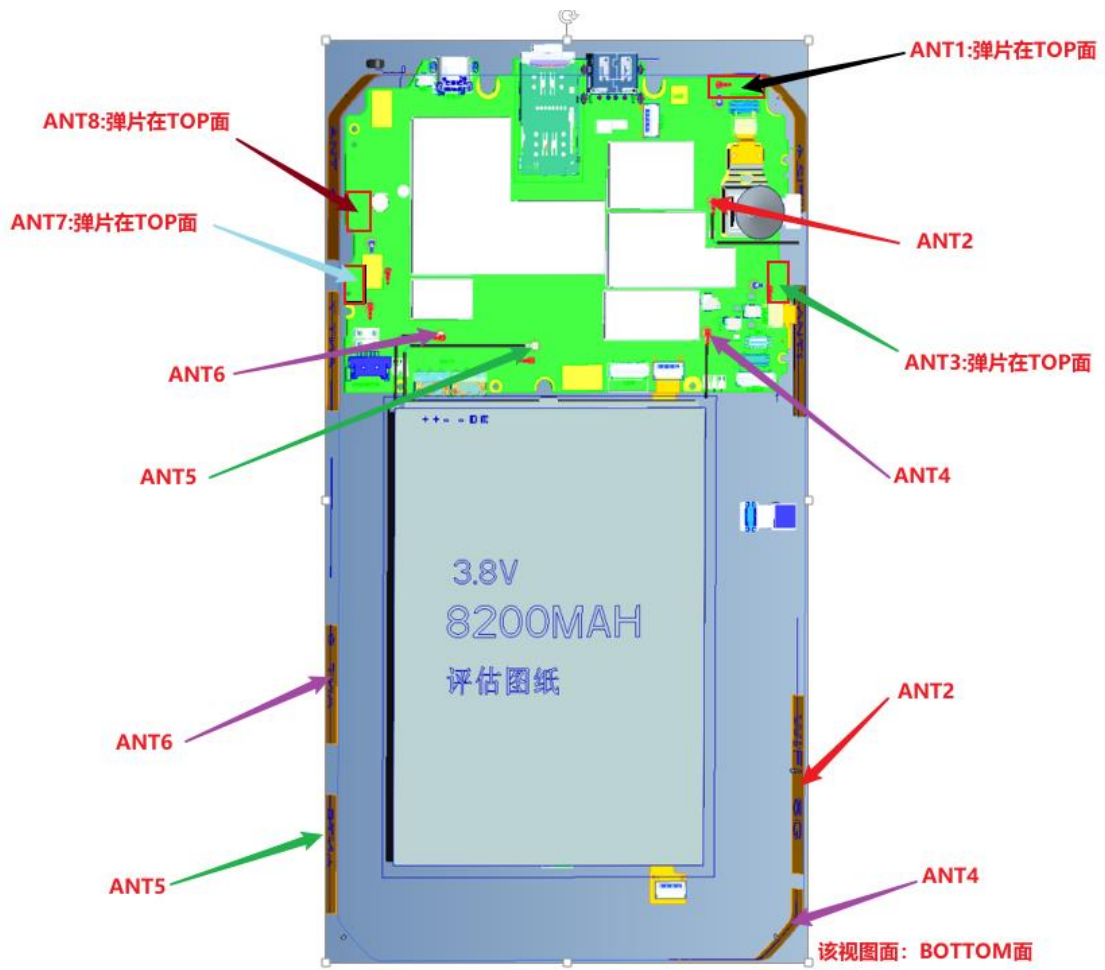
EUT View 1



EUT View 2



Antenna View



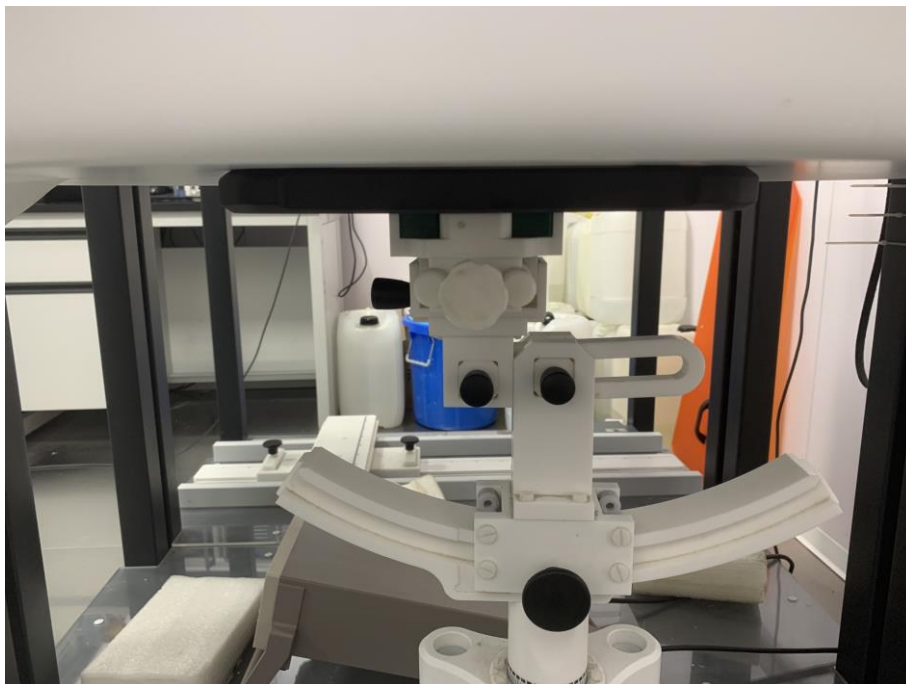
Annex D. Test Setup Photos

Body mode Exposure Conditions
Test distance: 0mm

Body Front



Body Back



Body Right



Body Left



Body Top



Body Bottom



Annex E. Calibration Certificate

Please refer to the exhibit for the calibration certificate

******* END OF REPORT *******