

SAR Measurement at IEEE 802.11ac U-NII (Tilt, Right)

Date of measurement: 28/02/2023

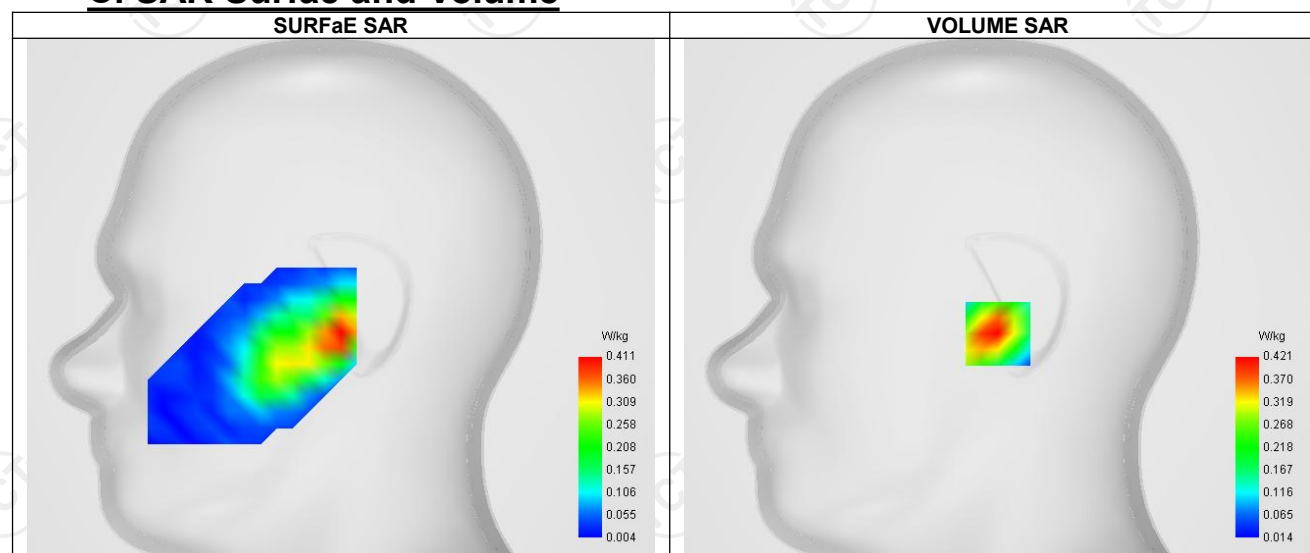
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	2.13
Area Scan	sam_direct droit2 surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Right head
Device Position	Tilt
Band	IEEE 802.11ac U-NII
Channels	Lower (151)
Signal	IEEE 802.11

B. Permittivity

Frequency (MHz)	5755.000
Relative permittivity (real part)	47.594
Relative permittivity (imaginary part)	14.935
Conductivity (S/m)	5.955

C. SAR Surface and Volume



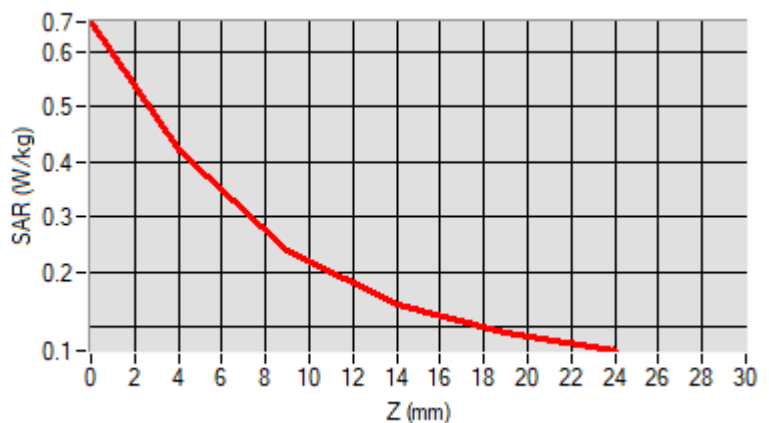
Maximum location: X=0.00, Y=-17.00 ; SAR Peak: 0.66 W/kg

D. SAR 1g & 10g

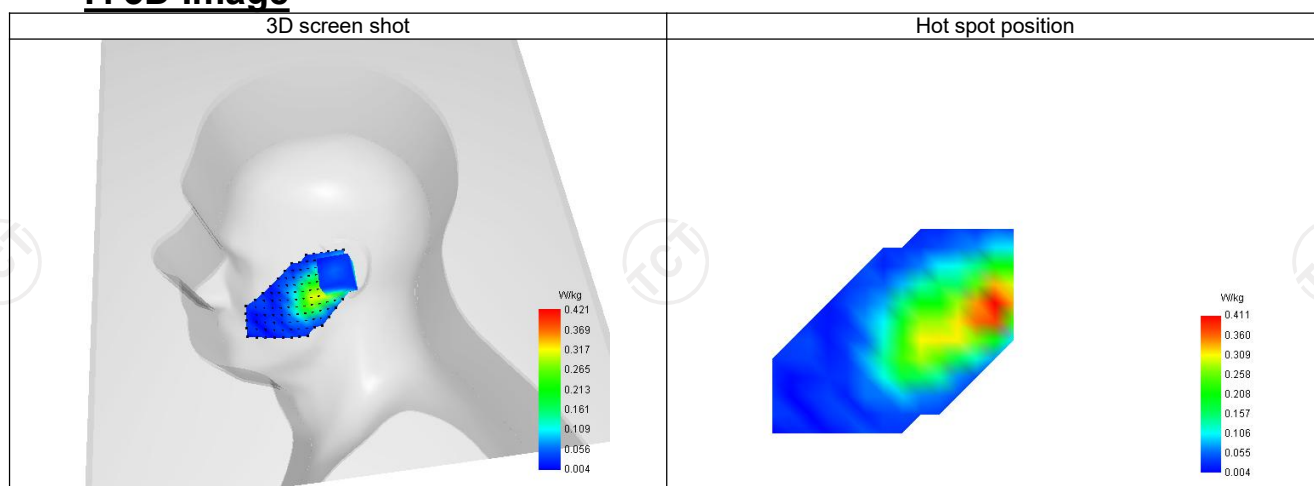
SAR 10g (W/Kg)	0.192
SAR 1g (W/Kg)	0.218
Variation (%)	-1.228
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.655	0.421	0.239	0.139	0.087



F. 3D Image



SAR Measurement at IEEE 802.11ac U-NII (Body, Validation Plane)

Date of measurement: 28/02/2023

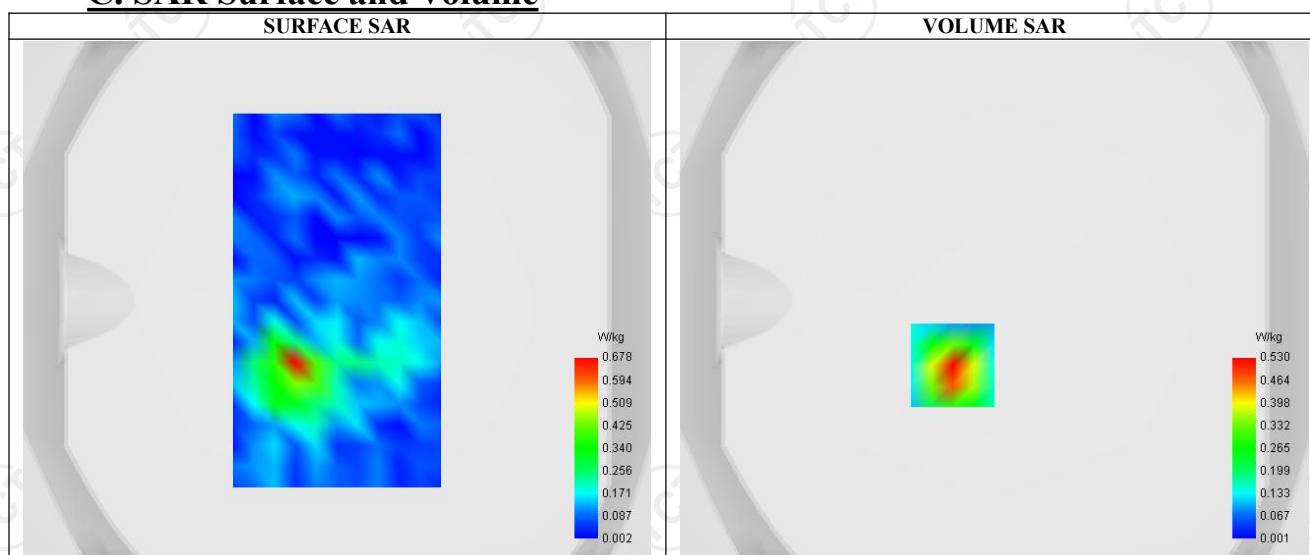
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	2.13
Area Scan	surf sam plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Validation plane
Device Position	Body
Band	IEEE 802.11ac U-NII
Channels	Lower (151)
Signal	IEEE 802.11

B. Permittivity

Frequency (MHz)	5755.000
Relative permittivity (real part)	47.594
Relative permittivity (imaginary part)	14.935
Conductivity (S/m)	5.955

C. SAR Surface and Volume

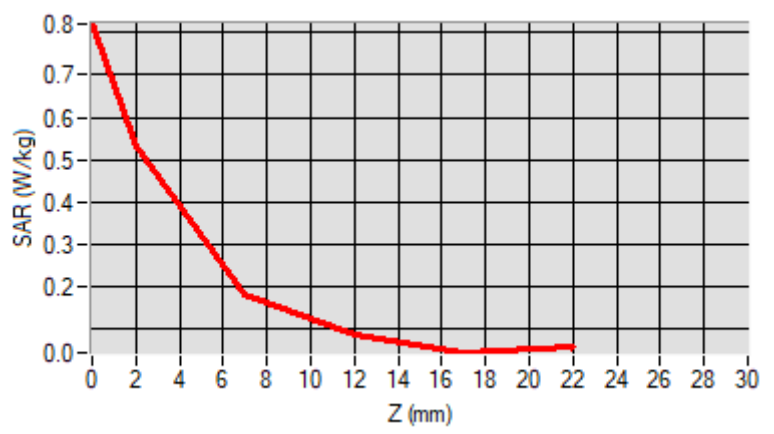


D. SAR 1g & 10g

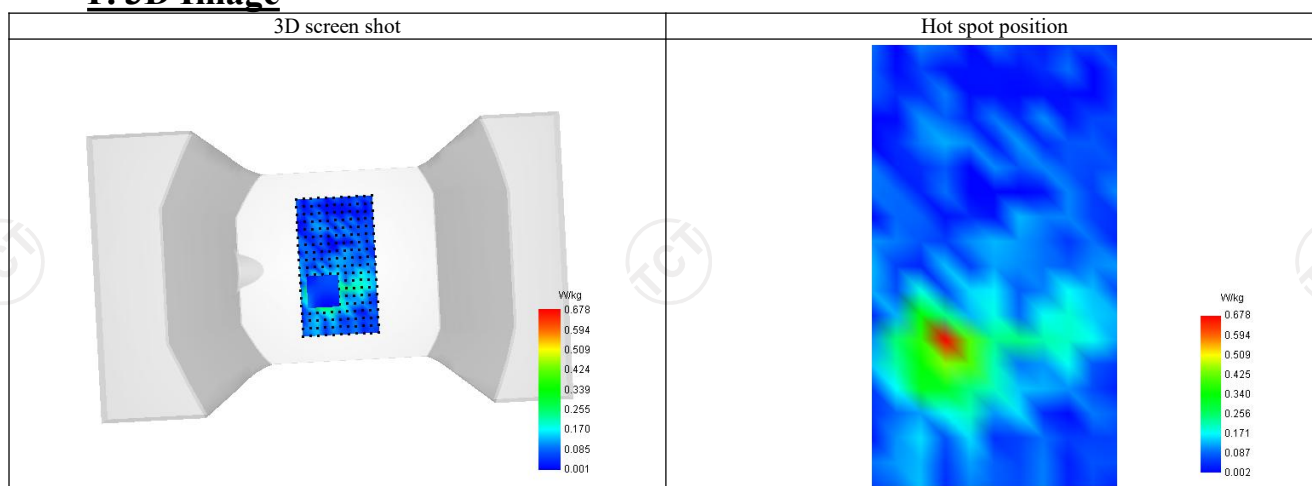
SAR 10g (W/Kg)	0.156
SAR 1g (W/Kg)	0.343
Variation (%)	-2.420
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	2.00	7.00	12.00	17.00
SAR (W/Kg)	0.820	0.530	0.182	0.086	0.045



F. 3D Image



SAR Measurement at LTE band 2 (Cheek, Right)

Date of measurement: 24/02/2023

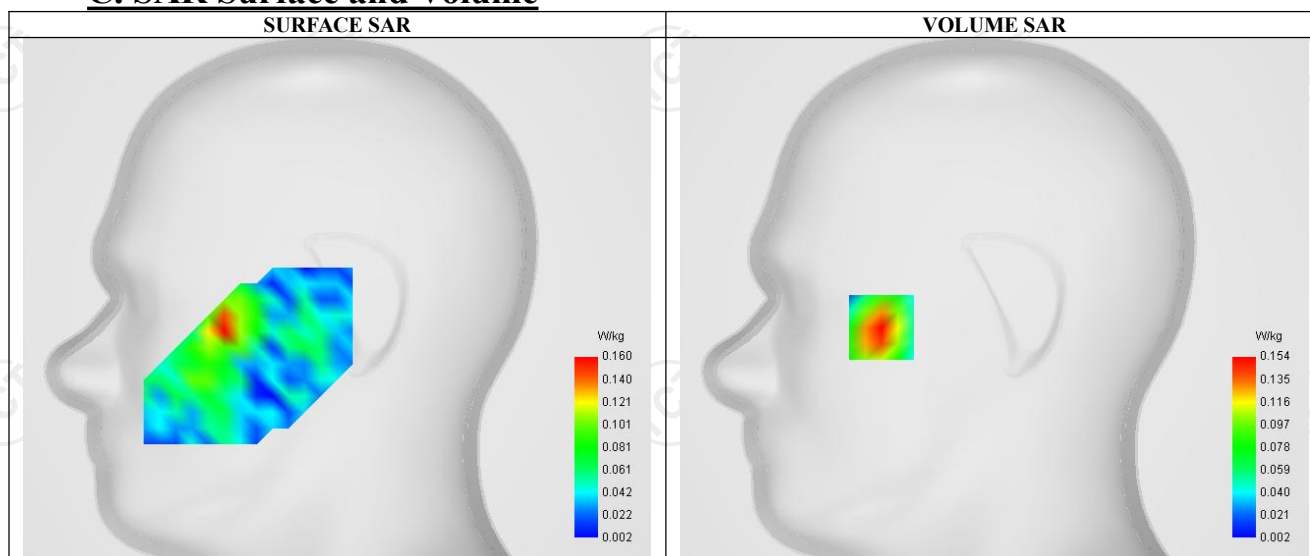
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	2.32
Area Scan	sam_direct droit2 surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 2
Channels	Middle (18900)
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	1871.090
Relative permittivity (real part)	52.253
Relative permittivity (imaginary part)	14.330
Conductivity (S/m)	1.560

C. SAR Surface and Volume



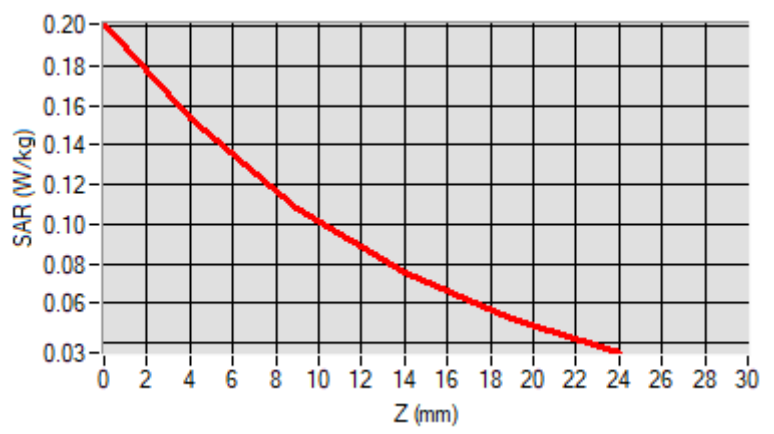
Maximum location: X=-56.00, Y=-14.00 ; SAR Peak: 0.22 W/kg

D. SAR 1g & 10g

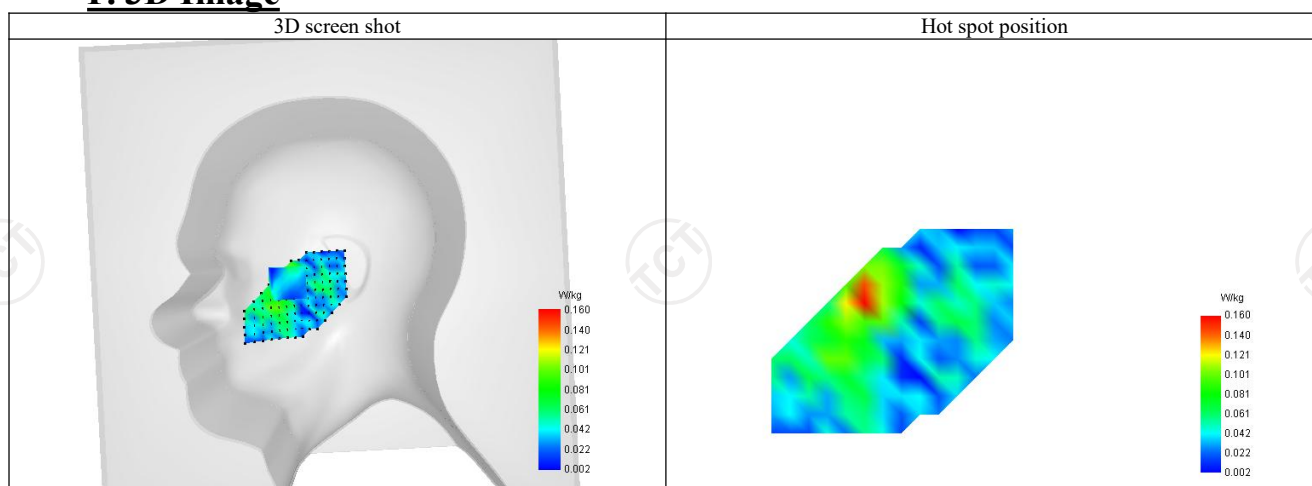
SAR 10g (W/Kg)	0.088
SAR 1g (W/Kg)	0.146
Variation (%)	0.350
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.201	0.154	0.108	0.076	0.053



F. 3D Image



SAR Measurement at LTE band 2 (Body, Validation Plane)

Date of measurement: 24/02/2023

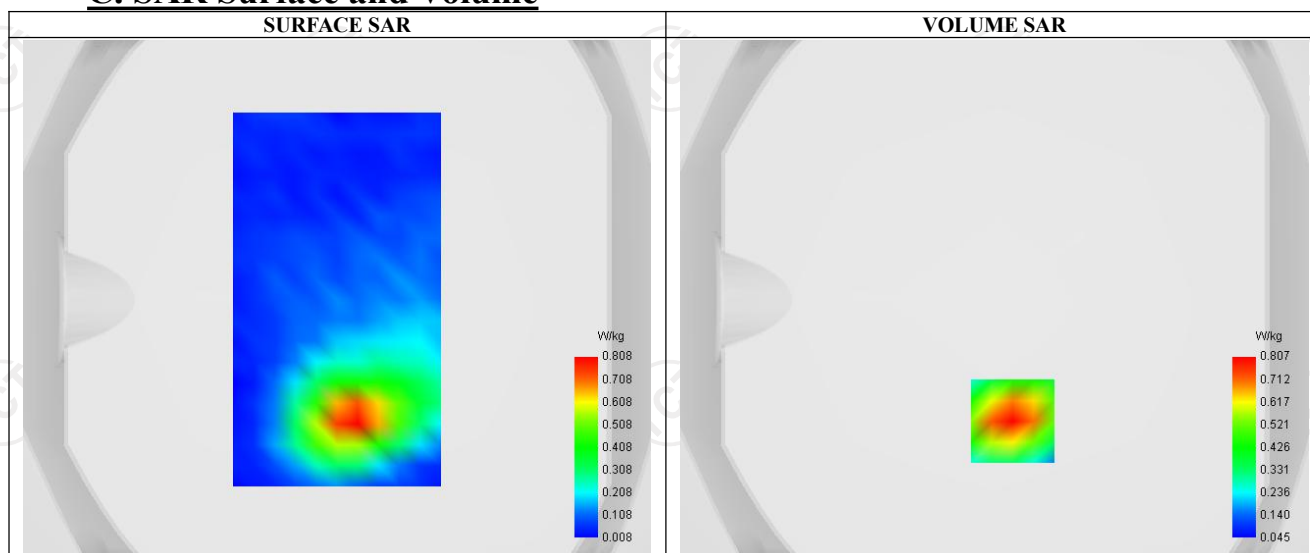
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	2.32
Area Scan	surf sam plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 2
Channels	Middle (18900)
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	1871.090
Relative permittivity (real part)	52.253
Relative permittivity (imaginary part)	14.330
Conductivity (S/m)	1.560

C. SAR Surface and Volume



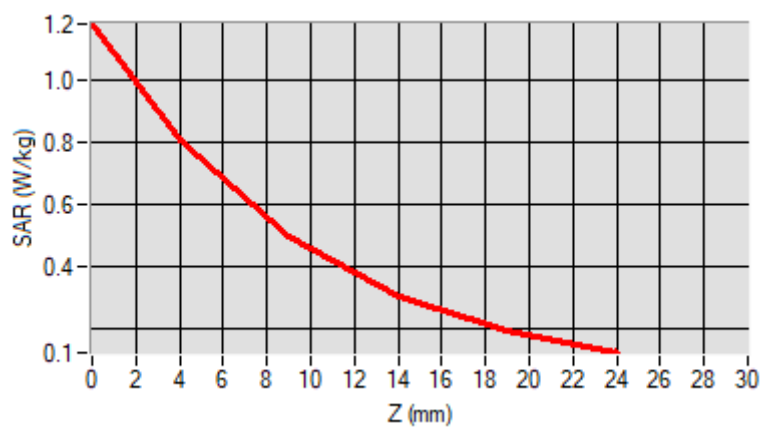
Maximum location: X=7.00, Y=-47.00 ; SAR Peak: 1.19 W/kg

D. SAR 1g & 10g

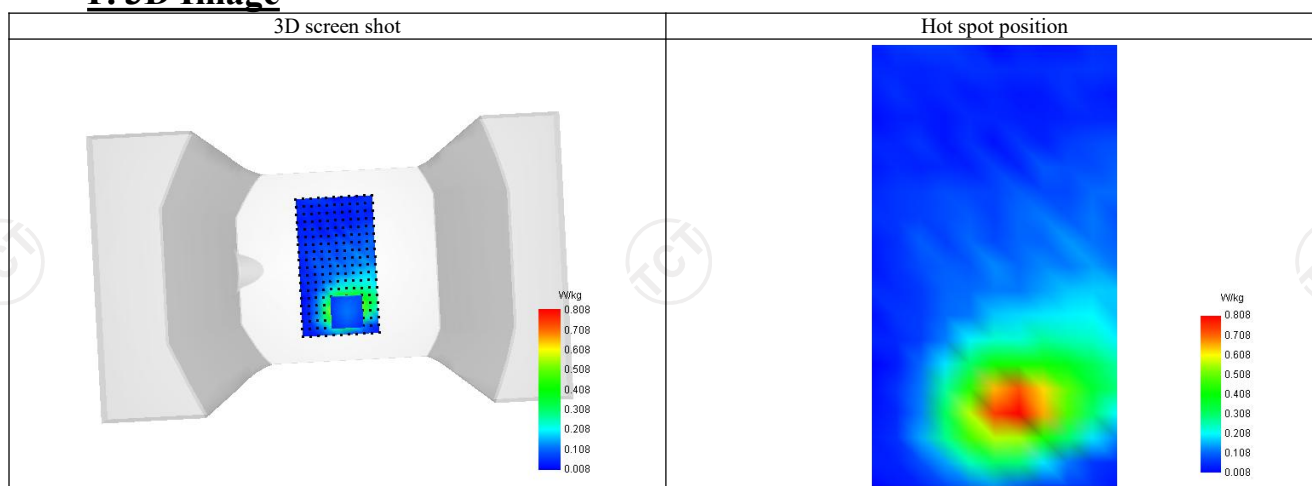
SAR 10g (W/Kg)	0.428
SAR 1g (W/Kg)	0.754
Variation (%)	1.110
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.183	0.807	0.494	0.305	0.194



F. 3D Image



SAR Measurement at LTE band 4 (Cheek, Right)

Date of measurement: 24/02/2023

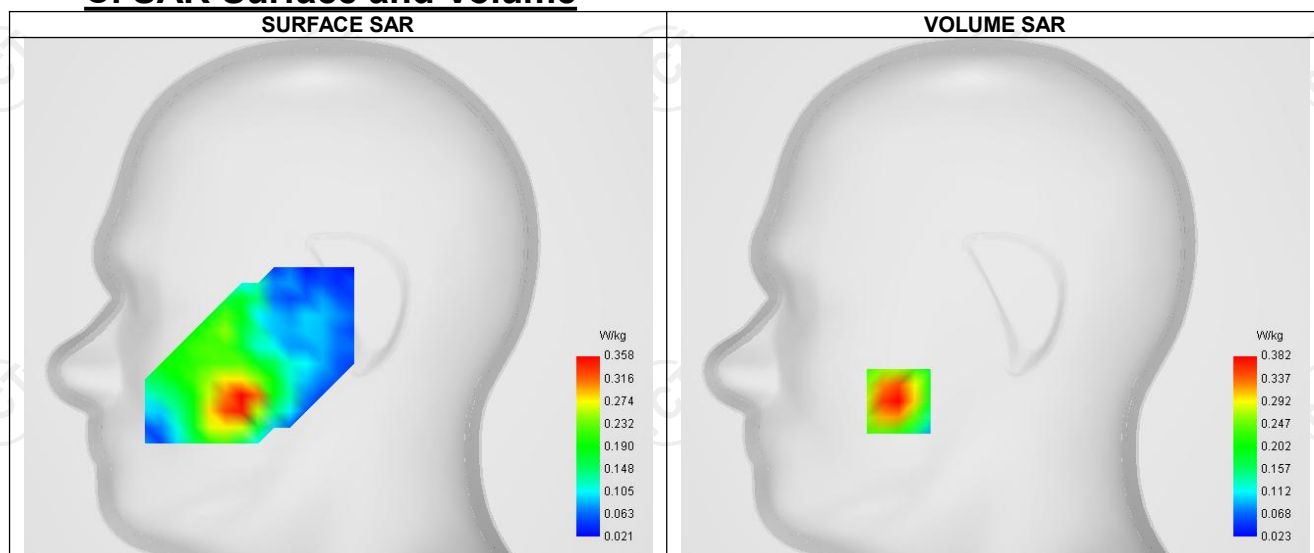
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	2.16
Area Scan	sam_direct_droit2_surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 4
Channels	Middle (20175)
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	1723.590
Relative permittivity (real part)	53.322
Relative permittivity (imaginary part)	15.122
Conductivity (S/m)	1.501

C. SAR Surface and Volume

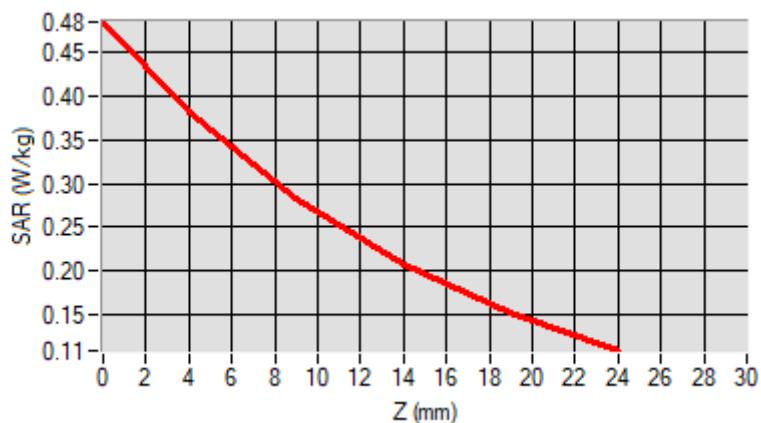


D. SAR 1g & 10g

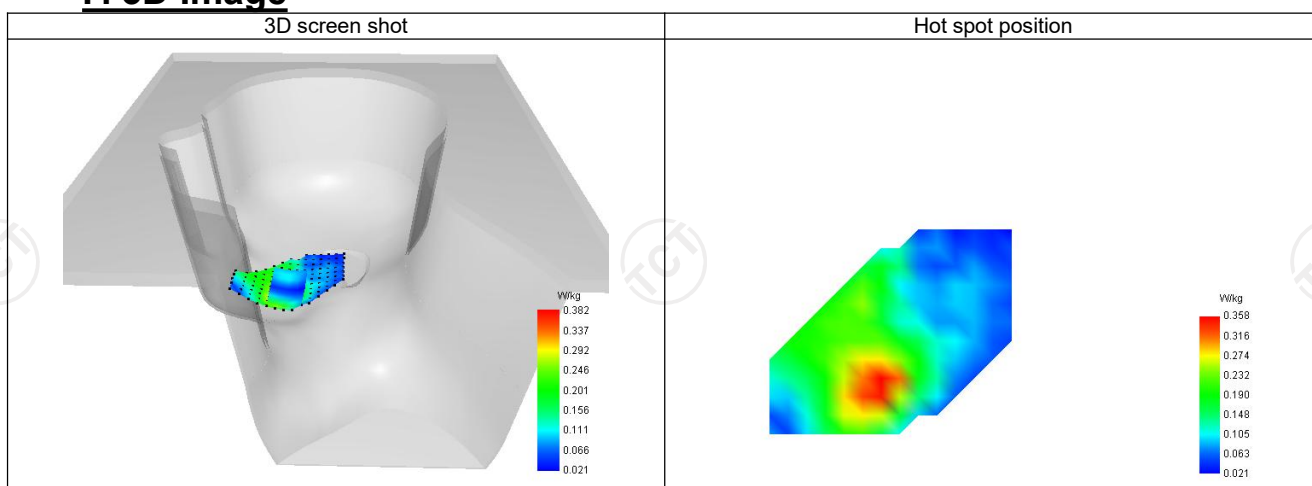
SAR 10g (W/Kg)	0.135
SAR 1g (W/Kg)	0.237
Variation (%)	4.100
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.483	0.382	0.282	0.208	0.153



F. 3D Image



SAR Measurement at LTE band 4 (Body, Validation Plane)

Date of measurement: 24/02/2023

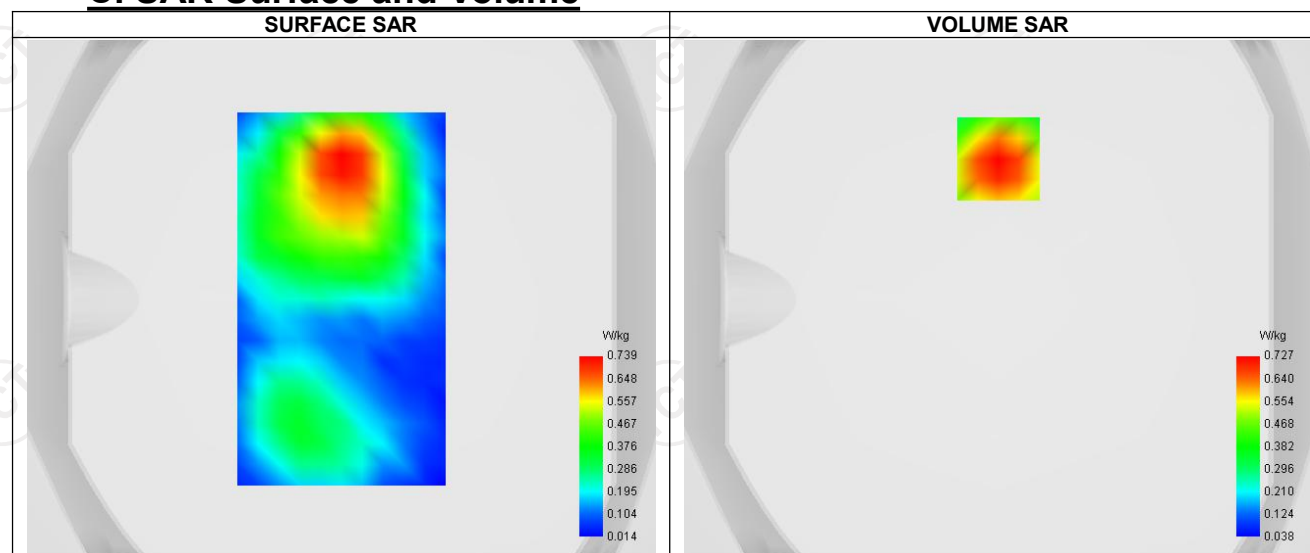
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	2.16
Area Scan	surf sam plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 4
Channels	Middle (20175)
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	1723.590
Relative permittivity (real part)	53.322
Relative permittivity (imaginary part)	15.122
Conductivity (S/m)	1.501

C. SAR Surface and Volume

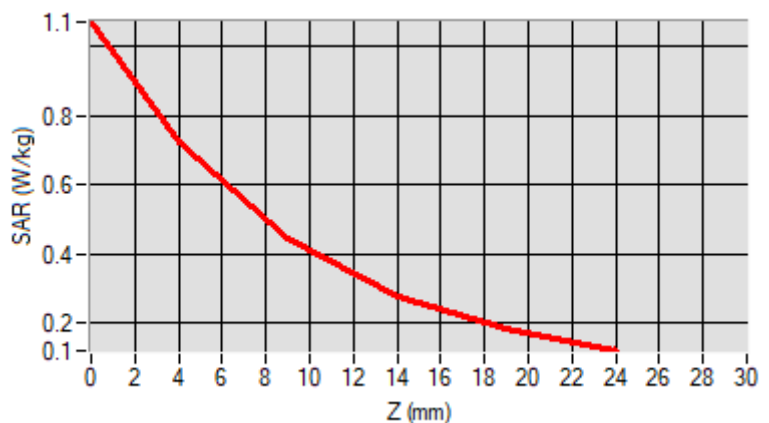


D. SAR 1g & 10g

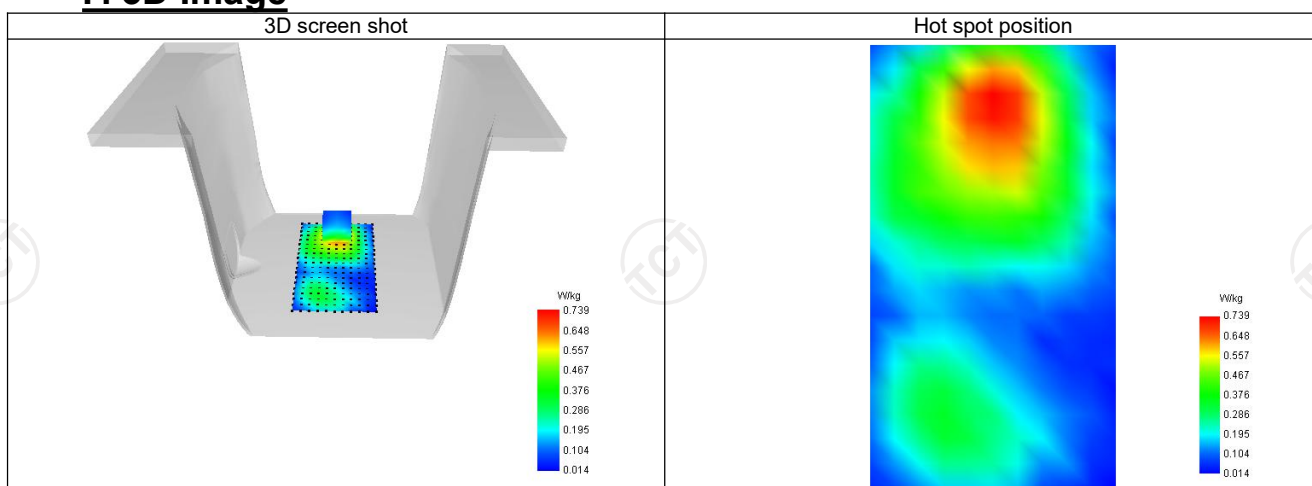
SAR 10g (W/Kg)	0.328
SAR 1g (W/Kg)	0.587
Variation (%)	-4.350
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.072	0.727	0.443	0.277	0.182



F. 3D Image



SAR Measurement at LTE band 5 (Cheek, Right)

Date of measurement: 23/02/2023

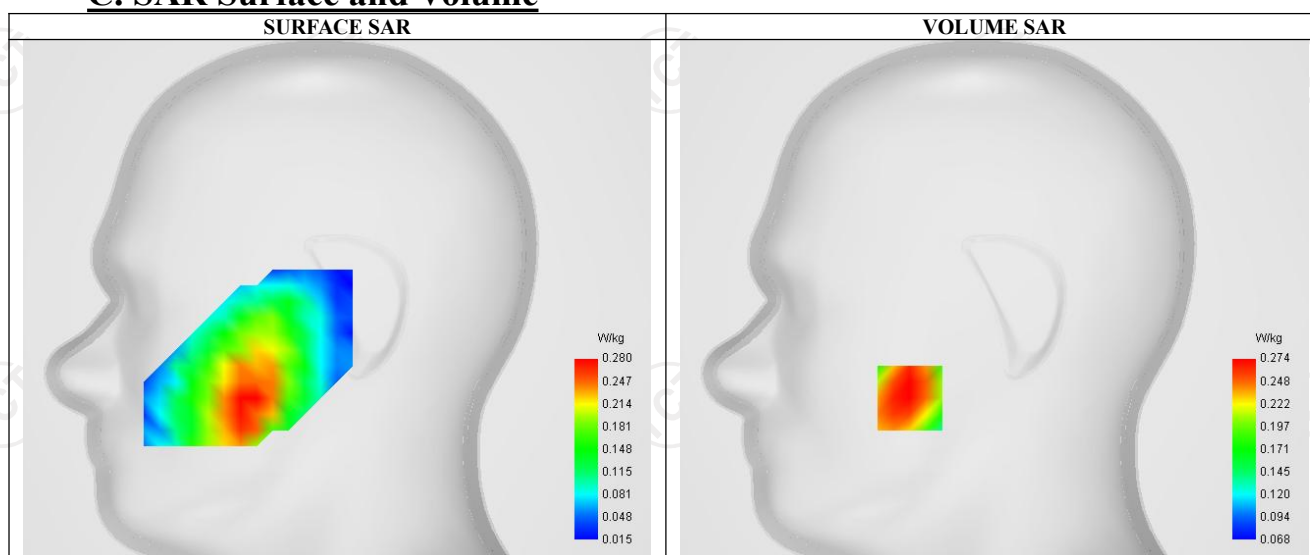
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	1.86
Area Scan	sam_direct droit2 surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 5
Channels	Higher (20600)
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	839.590
Relative permittivity (real part)	55.240
Relative permittivity (imaginary part)	21.378
Conductivity (S/m)	0.940

C. SAR Surface and Volume



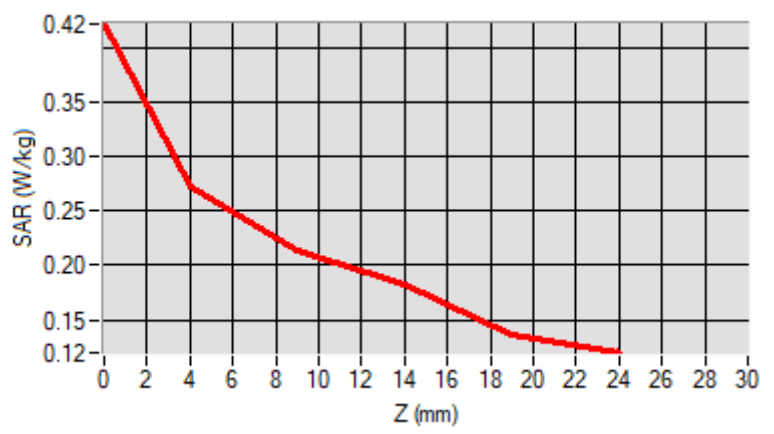
Maximum location: X=-42.00, Y=-48.00 ; SAR Peak: 0.35 W/kg

D. SAR 1g & 10g

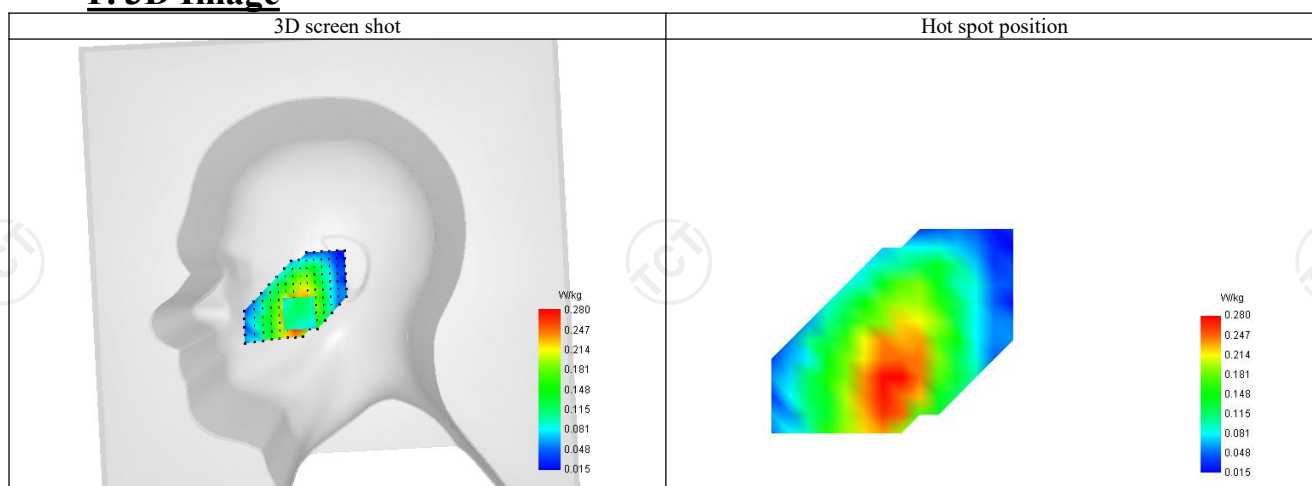
SAR 10g (W/Kg)	0.207
SAR 1g (W/Kg)	0.271
Variation (%)	3.090
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.422	0.274	0.214	0.182	0.137



F. 3D Image



SAR Measurement at LTE band 5 (Body, Validation Plane)

Date of measurement: 23/02/2023

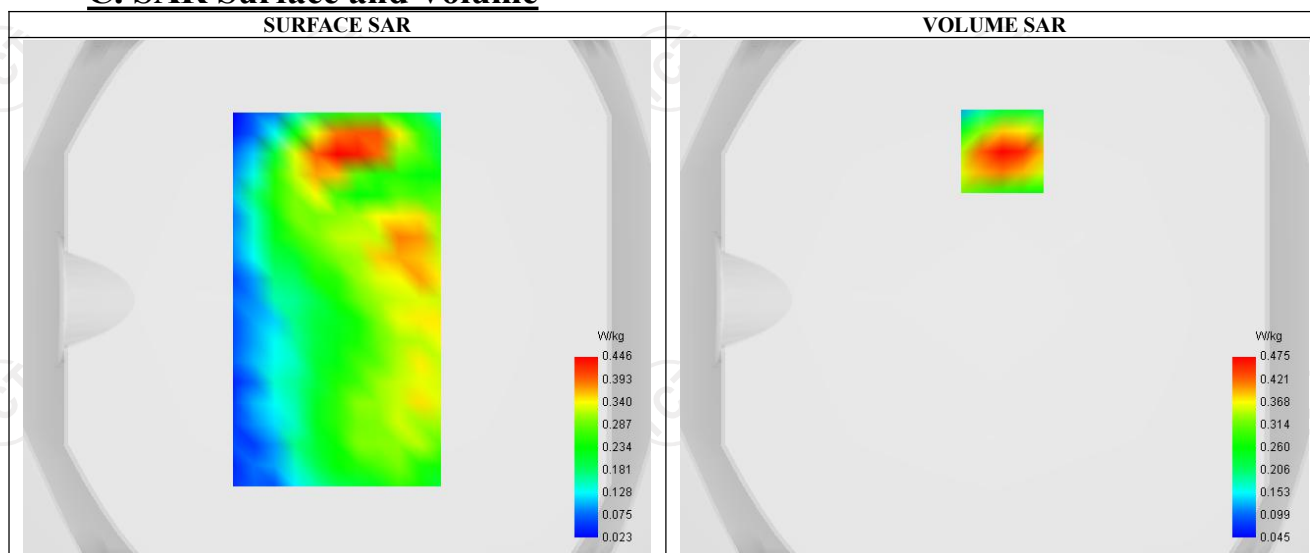
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	1.86
Area Scan	surf sam plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 5
Channels	Higher (20600)
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	839.590
Relative permittivity (real part)	55.240
Relative permittivity (imaginary part)	21.378
Conductivity (S/m)	0.940

C. SAR Surface and Volume



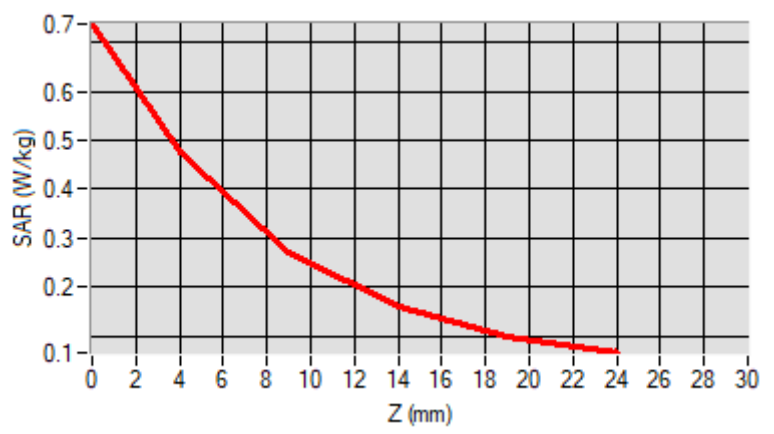
Maximum location: X=3.00, Y=57.00 ; SAR Peak: 0.74 W/kg

D. SAR 1g & 10g

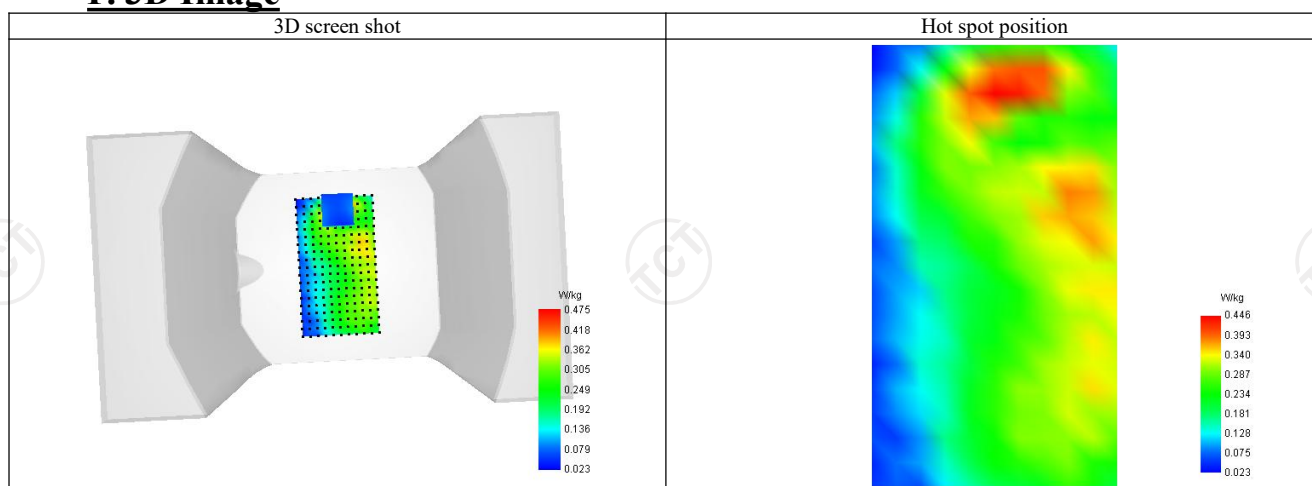
SAR 10g (W/Kg)	0.263
SAR 1g (W/Kg)	0.449
Variation (%)	-3.980
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.738	0.475	0.270	0.159	0.101



F. 3D Image



SAR Measurement at LTE band 7 (Cheek, Right)

Date of measurement: 27/02/2023

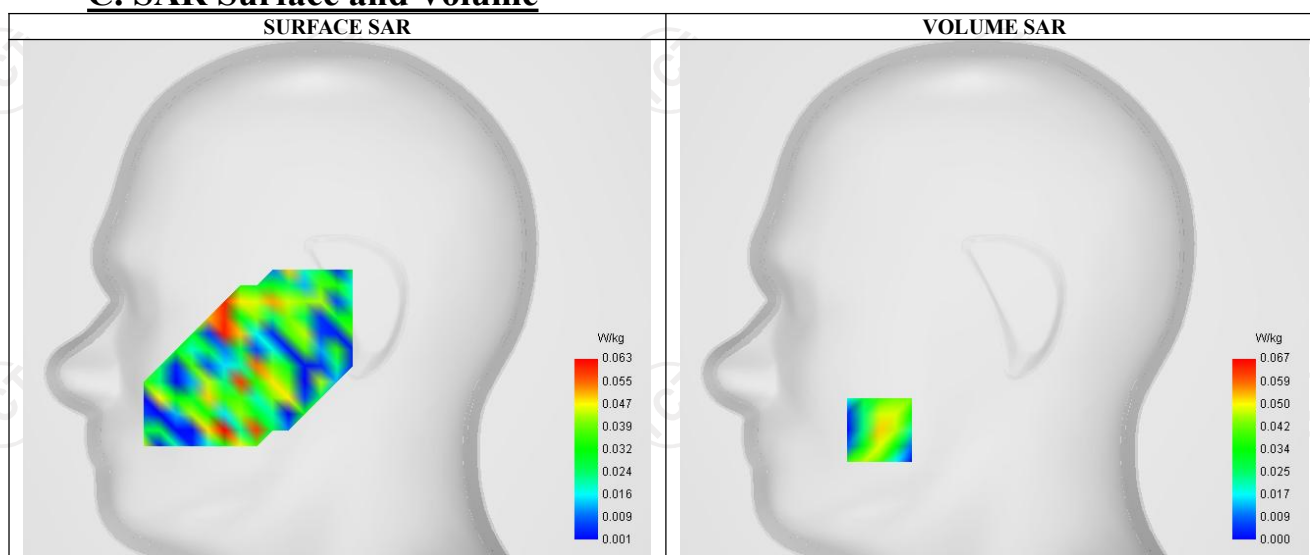
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	2.23
Area Scan	sam_direct droit2 surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 7
Channels	Middle (21100)
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	2526.090
Relative permittivity (real part)	51.854
Relative permittivity (imaginary part)	14.935
Conductivity (S/m)	2.104

C. SAR Surface and Volume



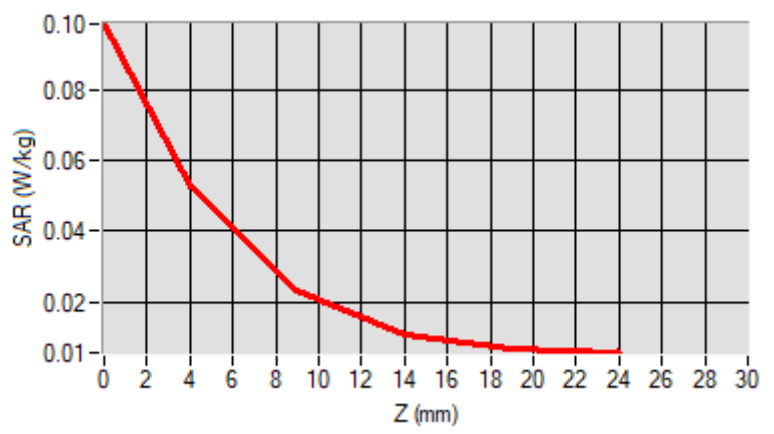
Maximum location: X=-57.00, Y=-64.00 ; SAR Peak: 0.12 W/kg

D. SAR 1g & 10g

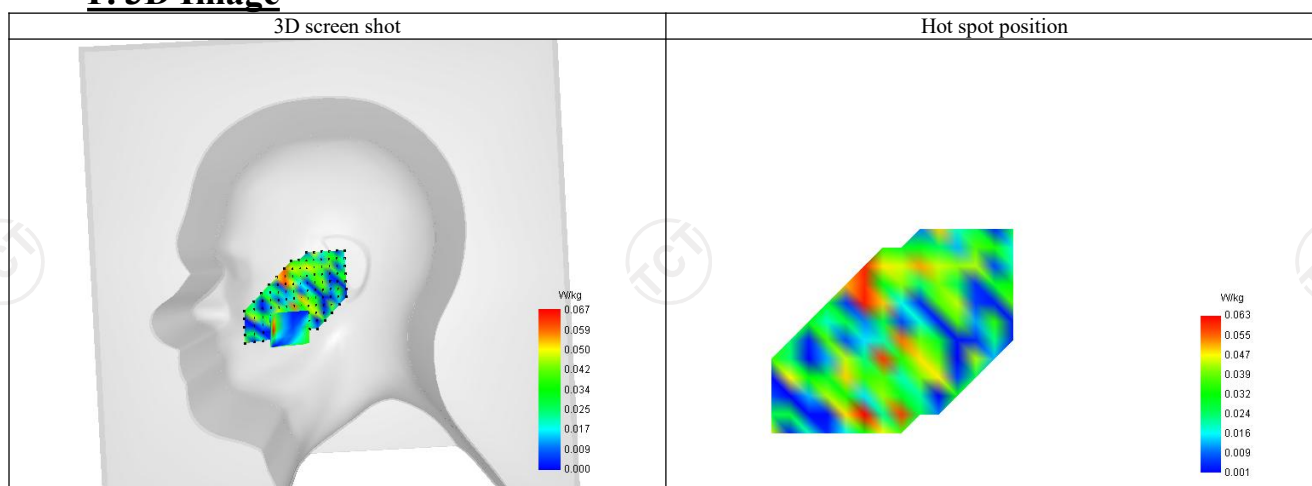
SAR 10g (W/Kg)	0.035
SAR 1g (W/Kg)	0.057
Variation (%)	-4.150
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.099	0.053	0.023	0.011	0.007



F. 3D Image



SAR Measurement at LTE band 7 (Body, Validation Plane)

Date of measurement: 27/02/2023

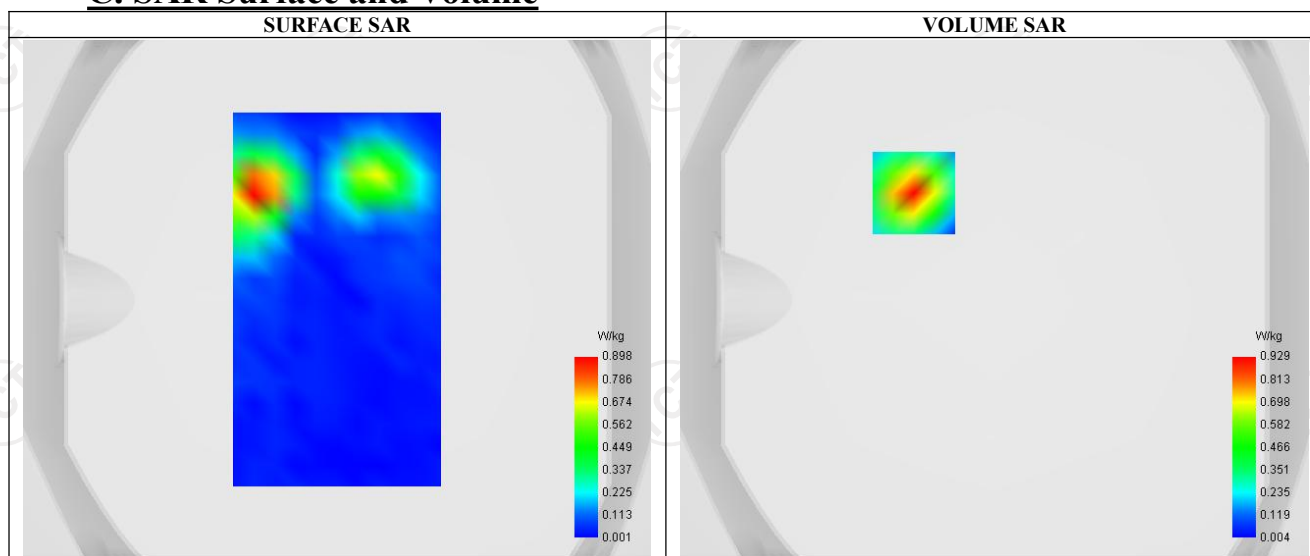
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	2.23
Area Scan	surf sam plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 7
Channels	Middle (21100)
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	2526.090
Relative permittivity (real part)	51.854
Relative permittivity (imaginary part)	14.935
Conductivity (S/m)	2.104

C. SAR Surface and Volume



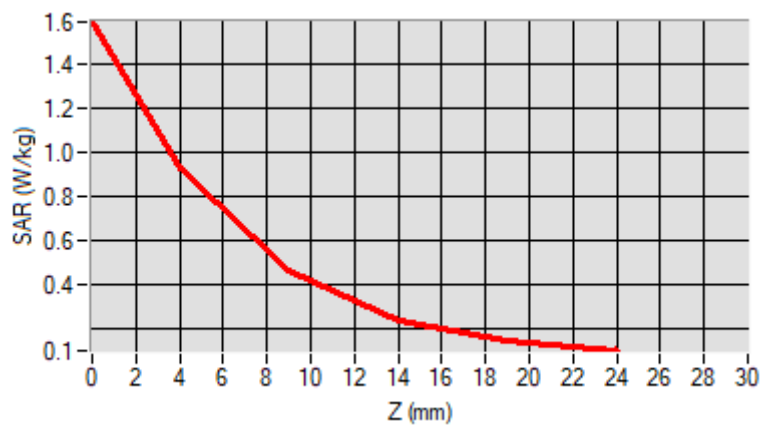
Maximum location: X=-31.00, Y=41.00 ; SAR Peak: 1.59 W/kg

D. SAR 1g & 10g

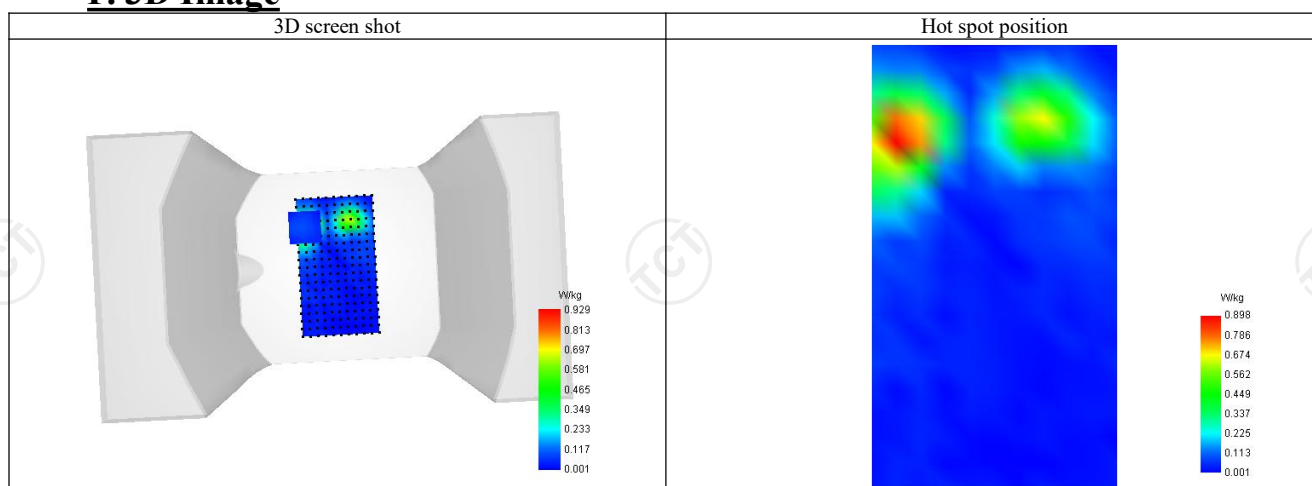
SAR 10g (W/Kg)	0.305
SAR 1g (W/Kg)	0.757
Variation (%)	3.120
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.595	0.929	0.456	0.234	0.141



F. 3D Image



SAR Measurement at LTE band 12 (Cheek, Right)

Date of measurement: 23/02/2023

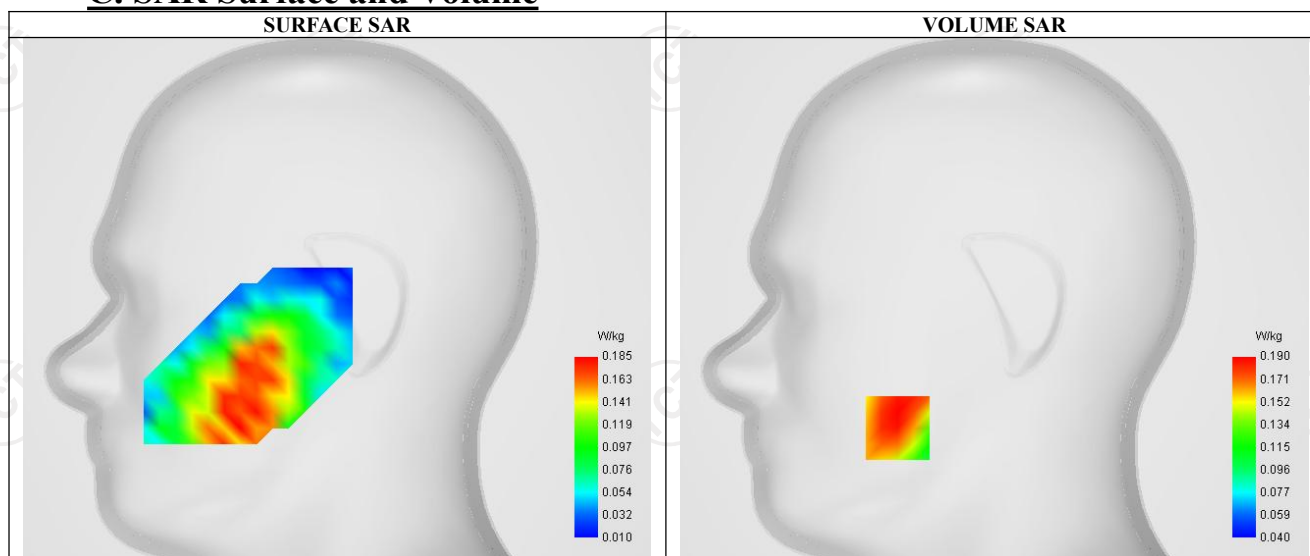
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	1.78
Area Scan	sam_direct droit2 surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 12
Channels	Lower (23060)
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	699.590
Relative permittivity (real part)	57.118
Relative permittivity (imaginary part)	20.015
Conductivity (S/m)	0.913

C. SAR Surface and Volume



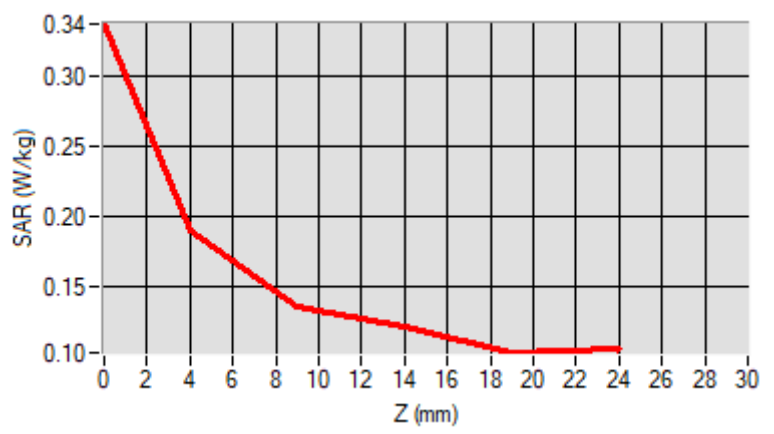
Maximum location: X=-48.00, Y=-64.00 ; SAR Peak: 0.25 W/kg

D. SAR 1g & 10g

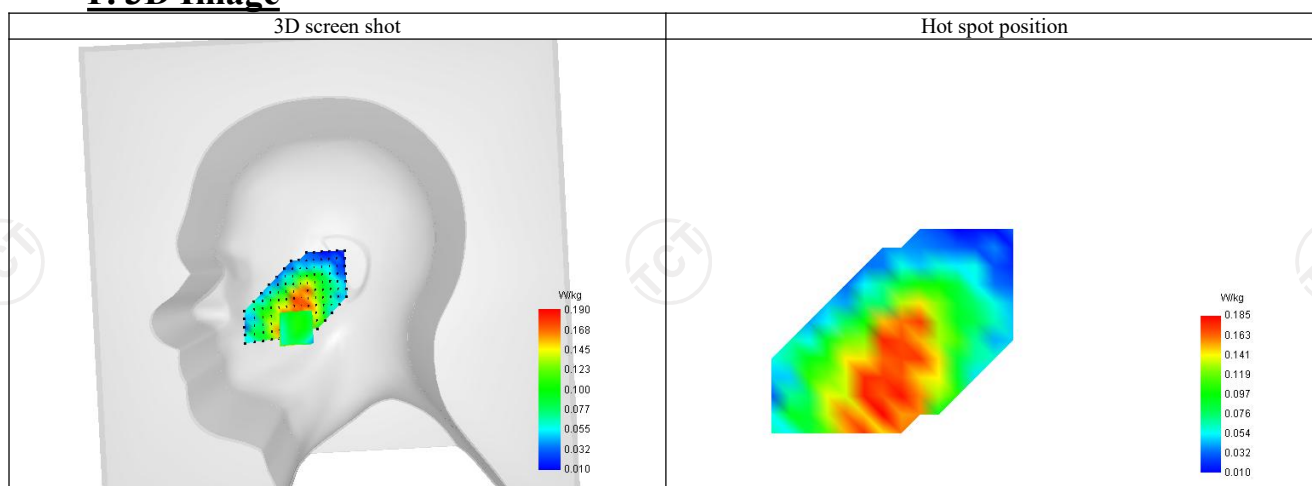
SAR 10g (W/Kg)	0.147
SAR 1g (W/Kg)	0.191
Variation (%)	-1.880
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.337	0.190	0.136	0.123	0.104



F. 3D Image



SAR Measurement at LTE band 12 (Body, Validation Plane)

Date of measurement: 23/02/2023

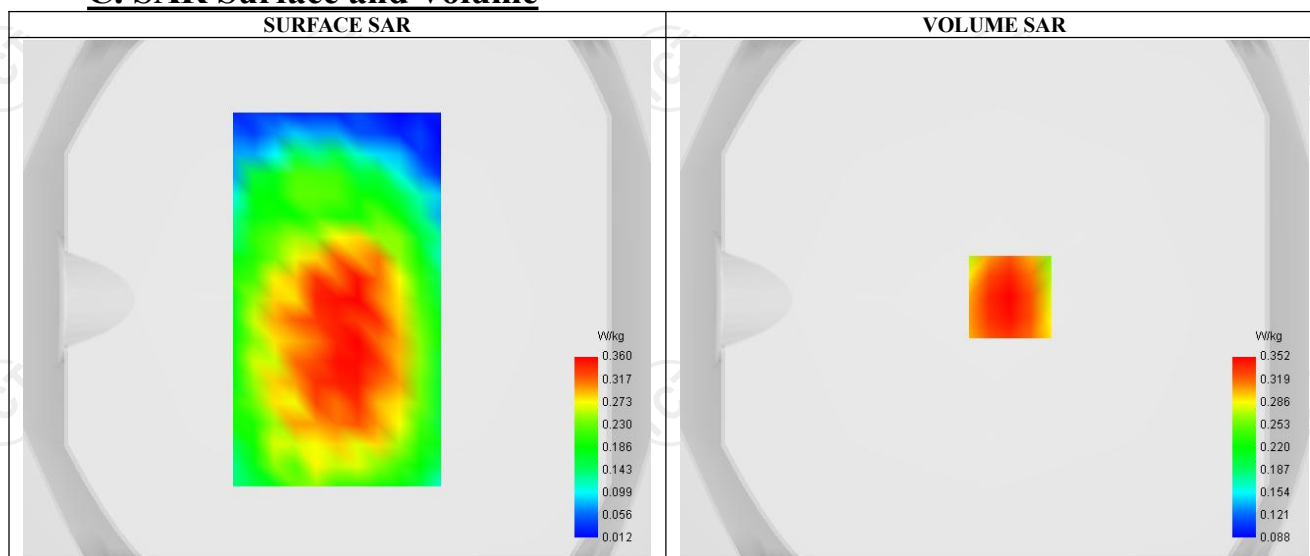
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	1.78
Area Scan	surf sam plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 12
Channels	Lower (23060)
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	699.590
Relative permittivity (real part)	57.118
Relative permittivity (imaginary part)	20.015
Conductivity (S/m)	0.913

C. SAR Surface and Volume



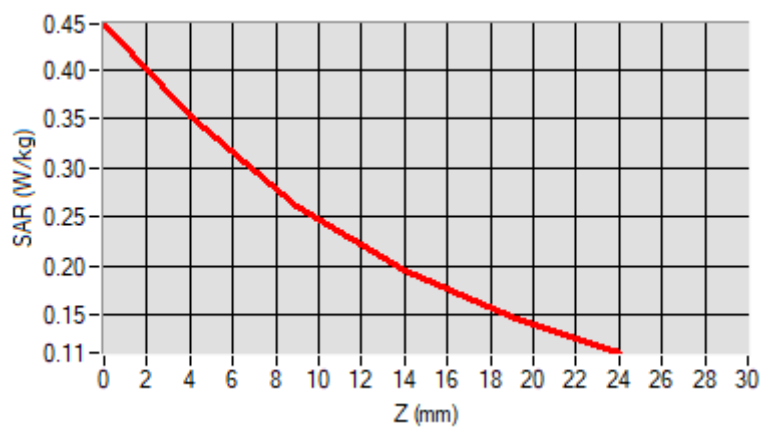
Maximum location: X=6.00, Y=1.00 ; SAR Peak: 0.45 W/kg

D. SAR 1g & 10g

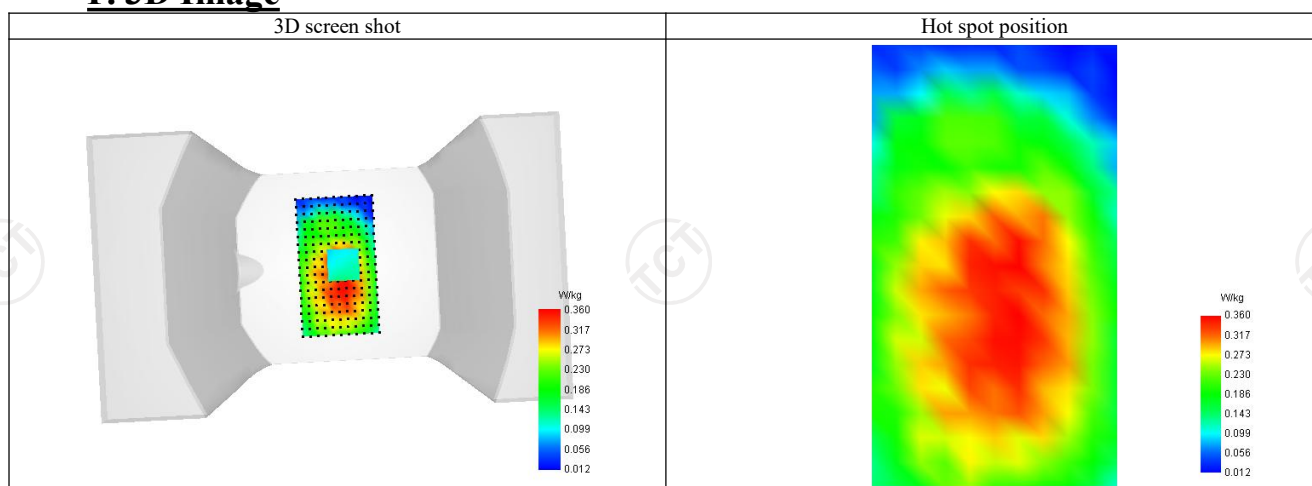
SAR 10g (W/Kg)	0.261
SAR 1g (W/Kg)	0.353
Variation (%)	2.620
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.447	0.352	0.261	0.196	0.148



F. 3D Image



SAR Measurement at LTE band 17 (Cheek, Right)

Date of measurement: 23/02/2023

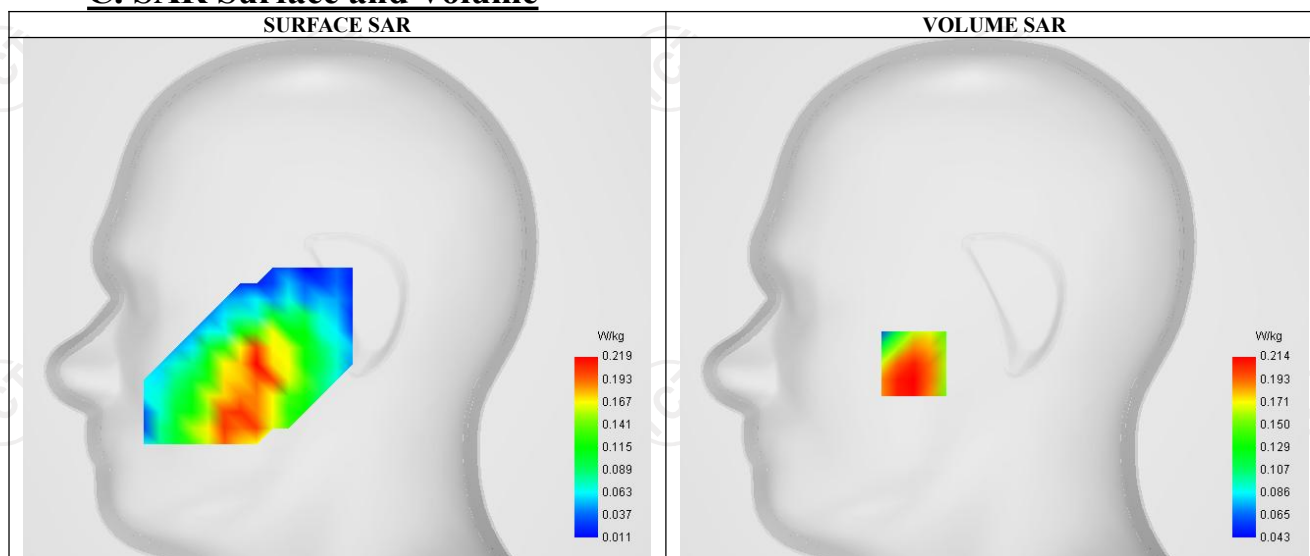
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	1.78
Area Scan	sam_direct droit2 surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 17
Channels	Higher (23800)
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	706.590
Relative permittivity (real part)	57.100
Relative permittivity (imaginary part)	20.011
Conductivity (S/m)	0.914

C. SAR Surface and Volume



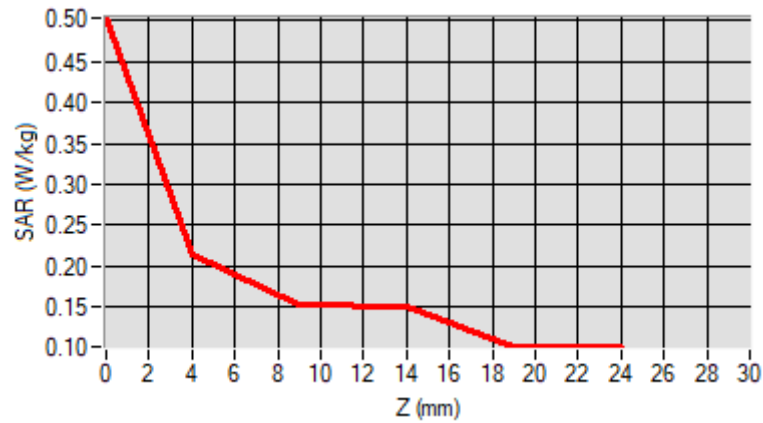
Maximum location: X=-40.00, Y=-32.00 ; SAR Peak: 0.25 W/kg

D. SAR 1g & 10g

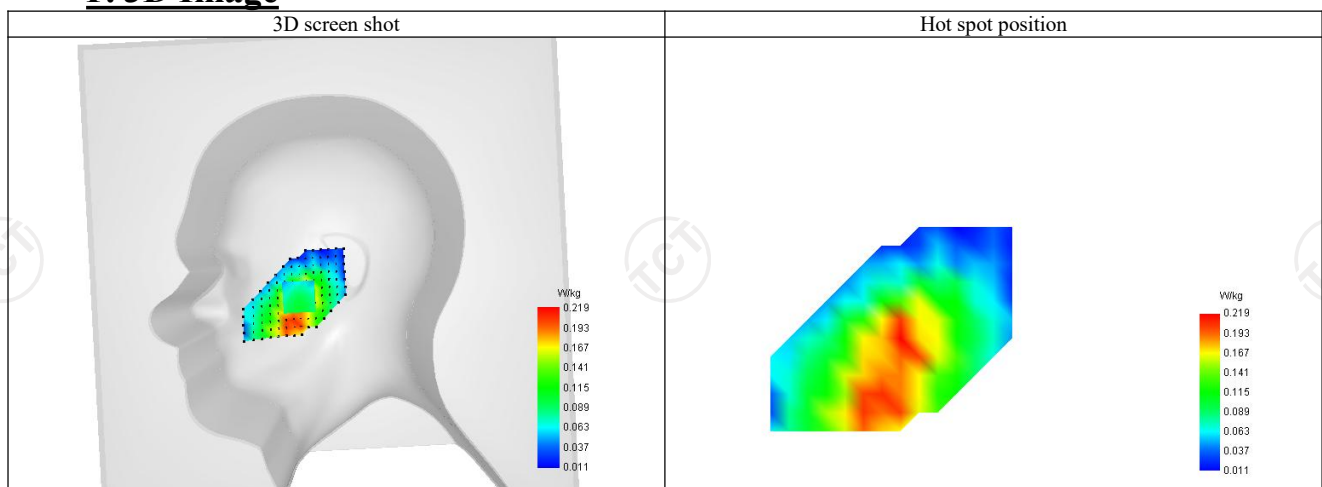
SAR 10g (W/Kg)	0.166
SAR 1g (W/Kg)	0.213
Variation (%)	-2.470
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.503	0.214	0.154	0.152	0.102



F. 3D Image



SAR Measurement at LTE band 17 (Body, Validation Plane)

Date of measurement: 23/02/2023

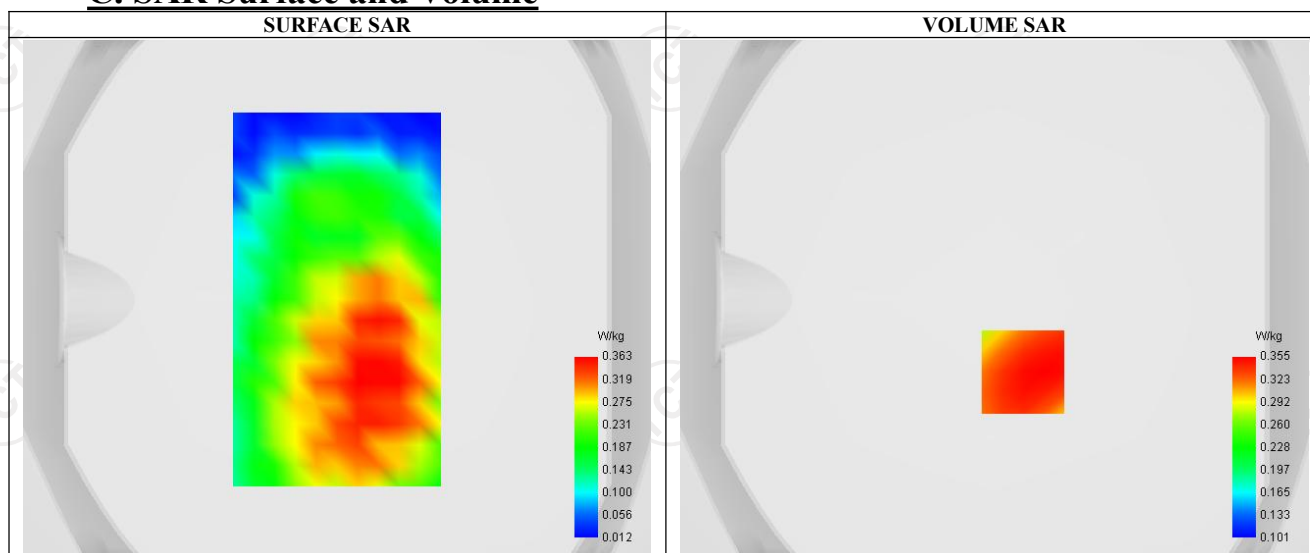
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	1.78
Area Scan	surf sam plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 17
Channels	Higher (23800)
Signal	LTE FDD
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	706.590
Relative permittivity (real part)	57.100
Relative permittivity (imaginary part)	20.011
Conductivity (S/m)	0.914

C. SAR Surface and Volume



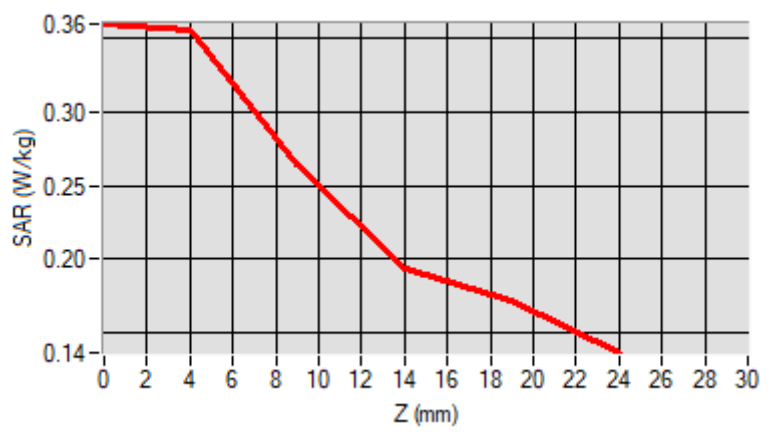
Maximum location: X=11.00, Y=-28.00 ; SAR Peak: 0.51 W/kg

D. SAR 1g & 10g

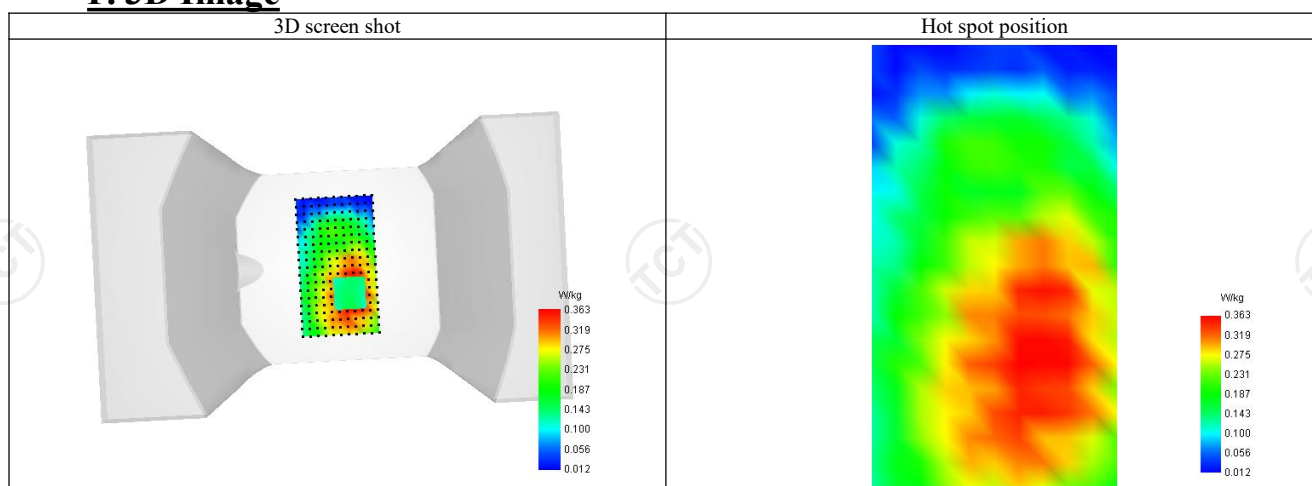
SAR 10g (W/Kg)	0.266
SAR 1g (W/Kg)	0.361
Variation (%)	-1.630
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.359	0.355	0.265	0.194	0.173



F. 3D Image



SAR Measurement at LTE band 66 (Cheek, Right)

Date of measurement: 24/02/2023

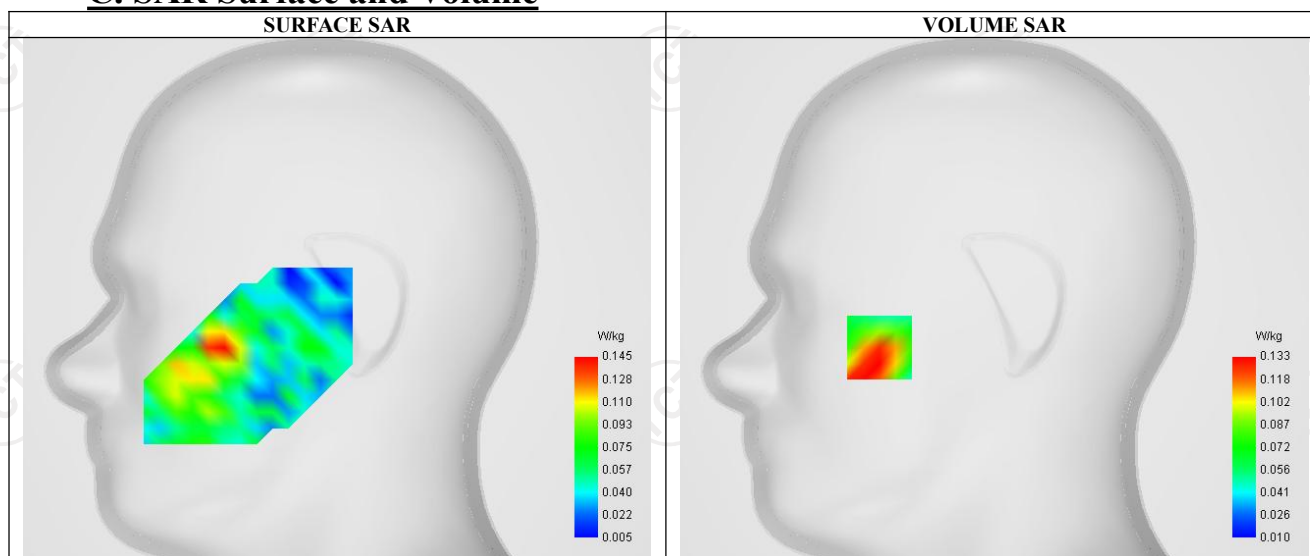
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	2.16
Area Scan	sam_direct droit2 surf8mm.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Right head
Device Position	Cheek
Band	LTE band 66
Channels	Higher (132572)
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	1761.090
Relative permittivity (real part)	53.308
Relative permittivity (imaginary part)	15.122
Conductivity (S/m)	1.513

C. SAR Surface and Volume



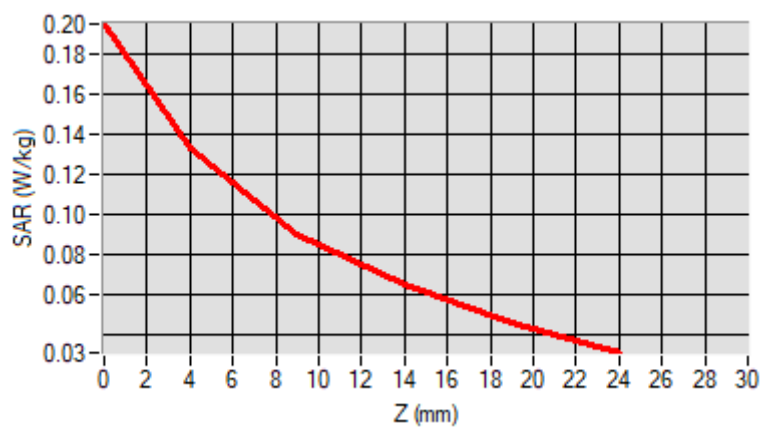
Maximum location: X=-57.00, Y=-24.00 ; SAR Peak: 0.21 W/kg

D. SAR 1g & 10g

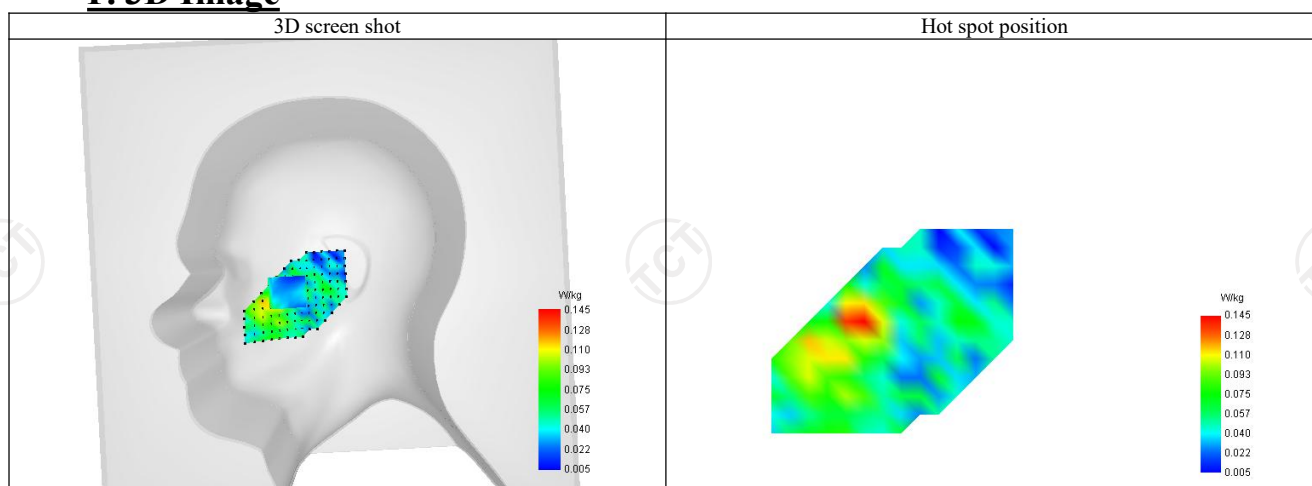
SAR 10g (W/Kg)	0.085
SAR 1g (W/Kg)	0.130
Variation (%)	-2.740
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	0.195	0.133	0.090	0.065	0.046



F. 3D Image



SAR Measurement at LTE band 66 (Body, Validation Plane)

Date of measurement: 24/02/2023

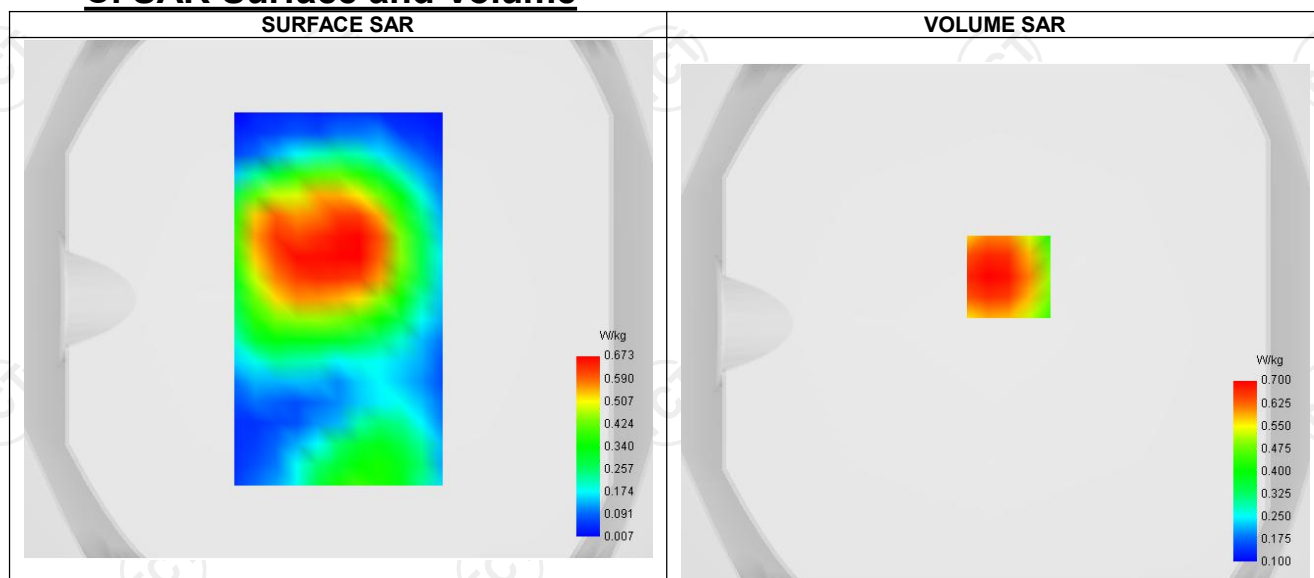
A. Experimental conditions.

Probe	SN 36/20 EPG0346
ConvF	2.16
Area Scan	surf_sam_plan.txt
Zoom Scan	5x5x7,dx=8mm dy=8mm dz=5mm,Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 66
Channels	Higher (132572)
Signal	LTE FDD
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
RB offset	0
RB size	1

B. Permittivity

Frequency (MHz)	1761.090
Relative permittivity (real part)	53.308
Relative permittivity (imaginary part)	15.122
Conductivity (S/m)	1.513

C. SAR Surface and Volume



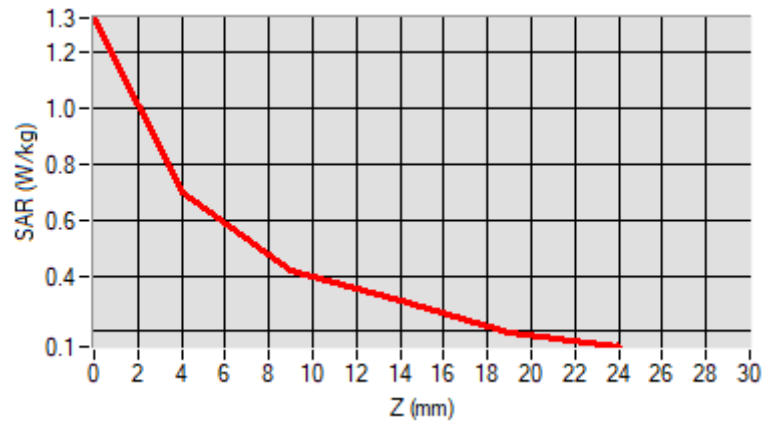
Maximum location: X=5.00, Y=18.00 ; SAR Peak: 0.97 W/kg

D. SAR 1g & 10g

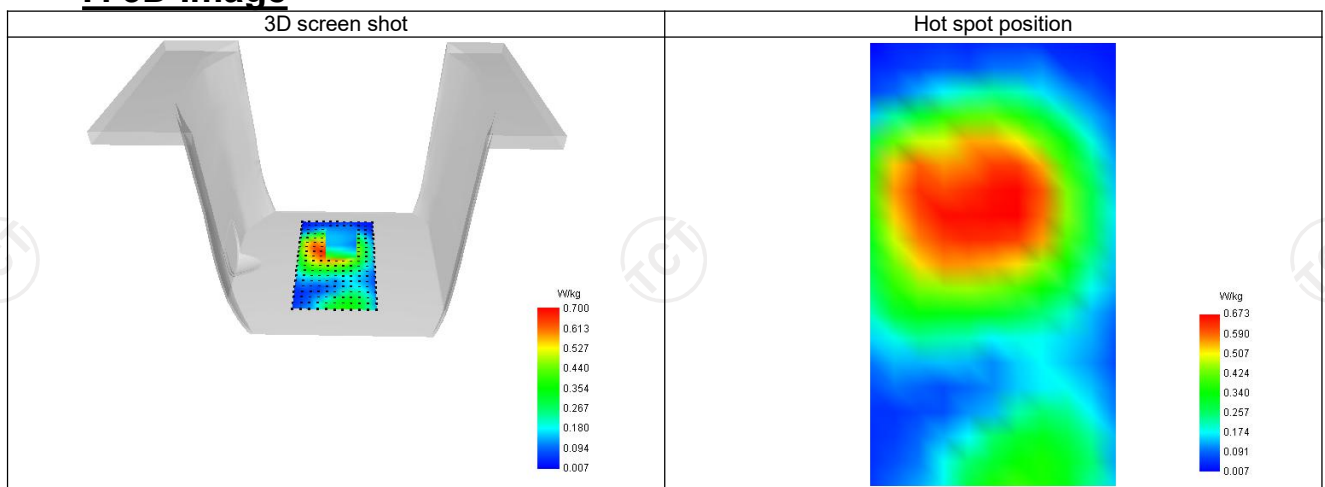
SAR 10g (W/Kg)	0.441
SAR 1g (W/Kg)	0.673
Variation (%)	-1.370
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.323	0.700	0.418	0.309	0.197



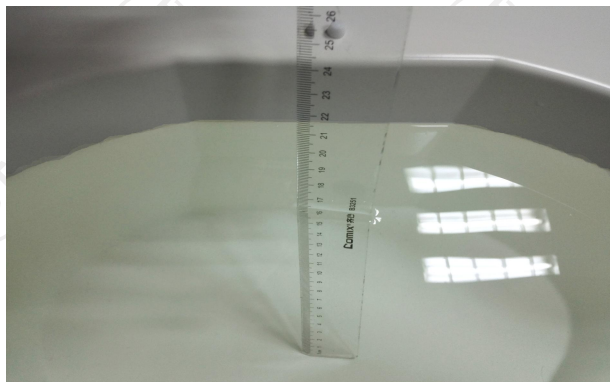
F. 3D Image



Appendix A: EUT Photos

Please refer to RF report.

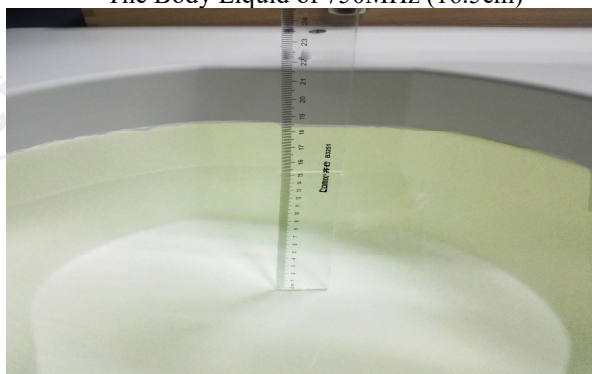
Liquid depth



The Body Liquid of 750MHz (16.5cm)



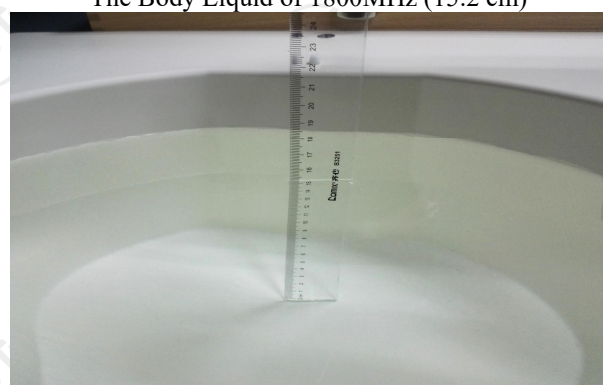
The Body Liquid of 835MHz (15.4cm)



The Body Liquid of 1800MHz (15.2 cm)



The Body Liquid of 1900MHz (16.4 cm)



The Body Liquid of 2450MHz (15.3cm)



The Body Liquid of 5000-6000MHz (16.5cm)