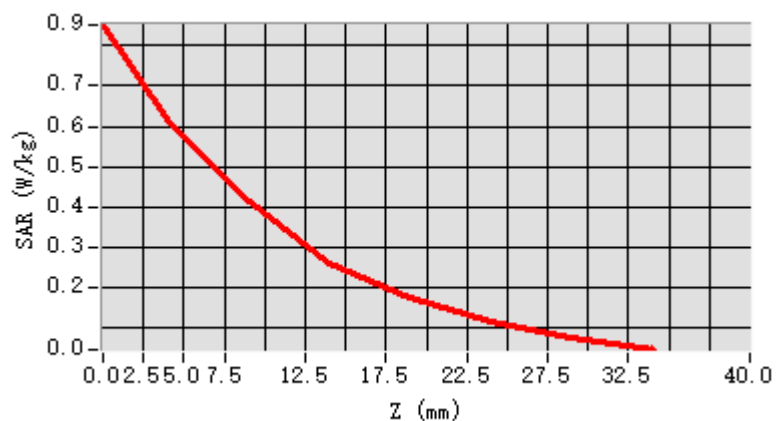
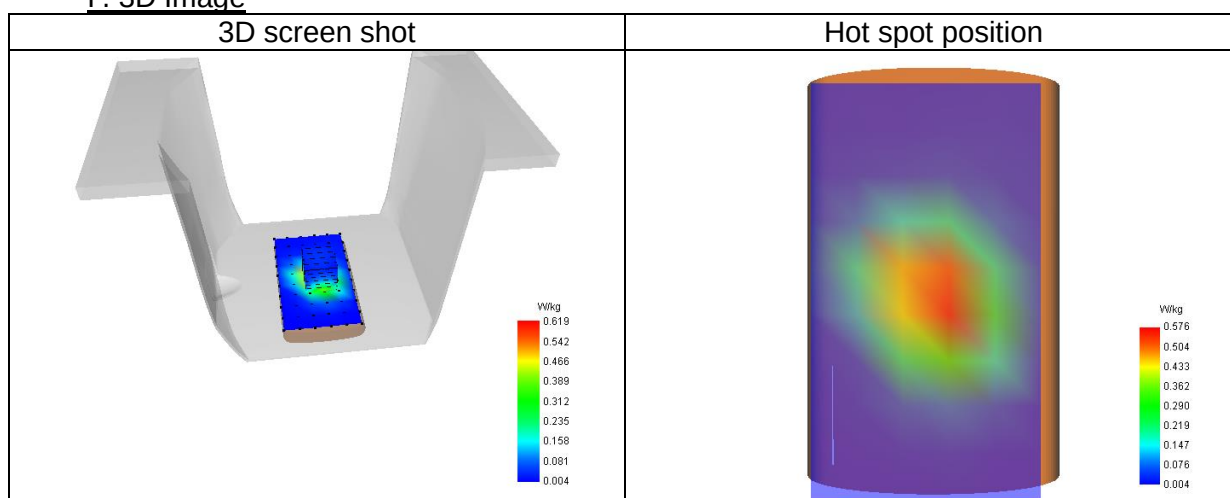




F. 3D Image



7# SAR Measurement at Band 4 (1700) (Body, Validation Plane)

Date of measurement: 24/4/2026

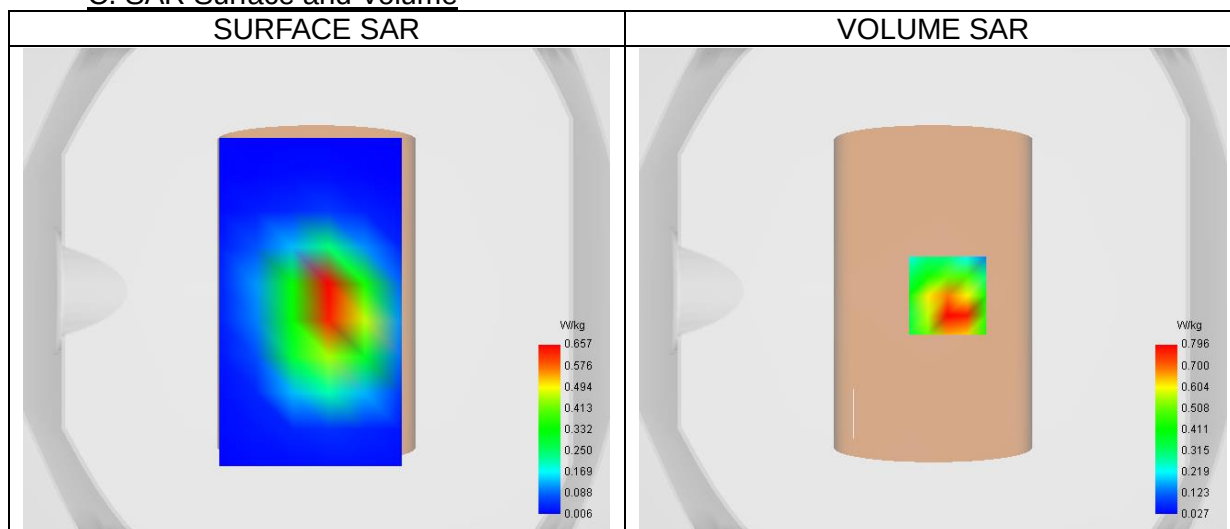
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	Band 4 (1700)
Signal	WCDMA
Channels/Frequency	Middle (1413)/ frequency 1732.60 Mhz
Mode	Release 99
Connection Type	RMC, 12.2 kbps

B. Permittivity

Middle TX Frequency (MHz)	1732.60
Relative permittivity (real part)	40.20
Relative permittivity (imaginary part)	14.07
Conductivity (S/m)	1.35

C. SAR Surface and Volume



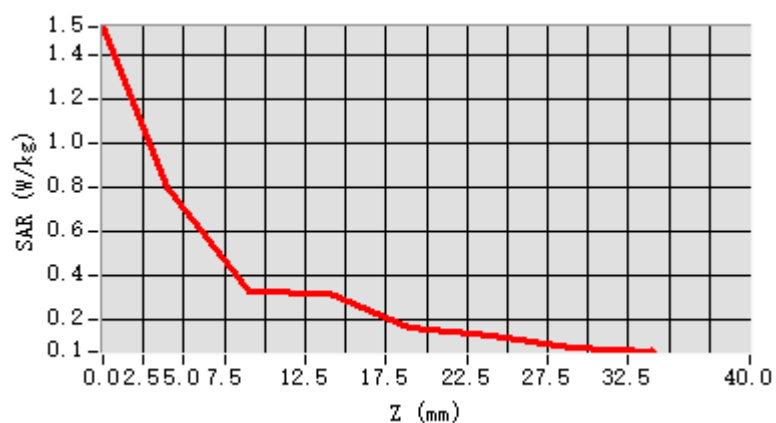
Maximum location: X=6.00, Y=-2.00 ; SAR Peak: 1.37 W/kg

D. SAR 1g & 10g

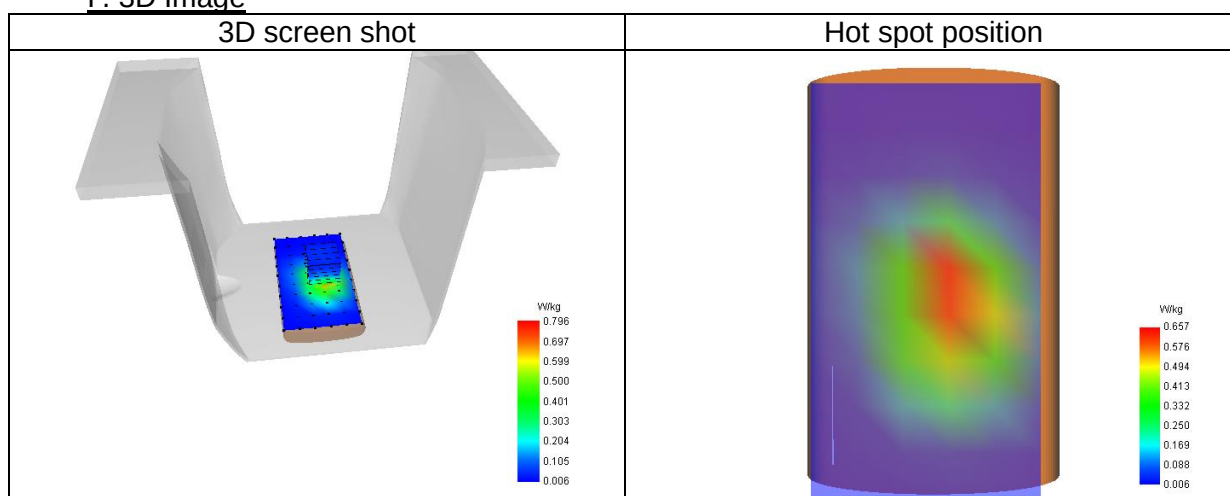
SAR 10g (W/Kg)	0.399
SAR 1g (W/Kg)	0.769
Variation (%)	-4.79
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	57.15

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.523	0.796	0.332	0.323	0.165	0.126	0.074



F. 3D Image



8# SAR Measurement at Band 4 (1700) (Body, Validation Plane)

Date of measurement: 24/4/2026

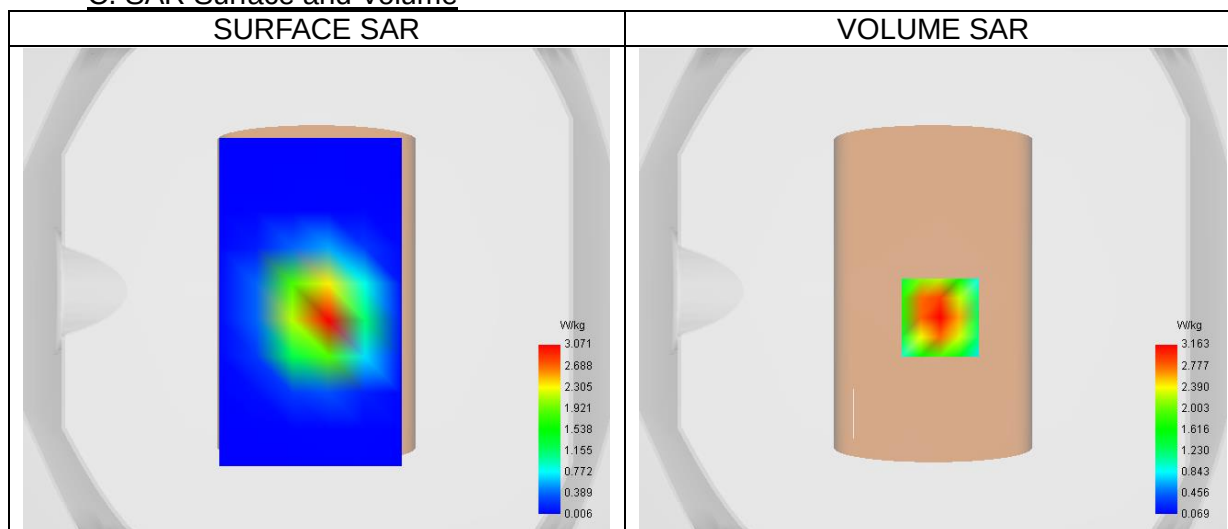
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	Band 4 (1700)
Signal	WCDMA
Channels/Frequency	Middle (1413)/ frequency 1732.60 Mhz
Mode	Release 99
Connection Type	RMC, 12.2 kbps

B. Permittivity

Middle TX Frequency (MHz)	1732.60
Relative permittivity (real part)	40.20
Relative permittivity (imaginary part)	14.07
Conductivity (S/m)	1.35

C. SAR Surface and Volume



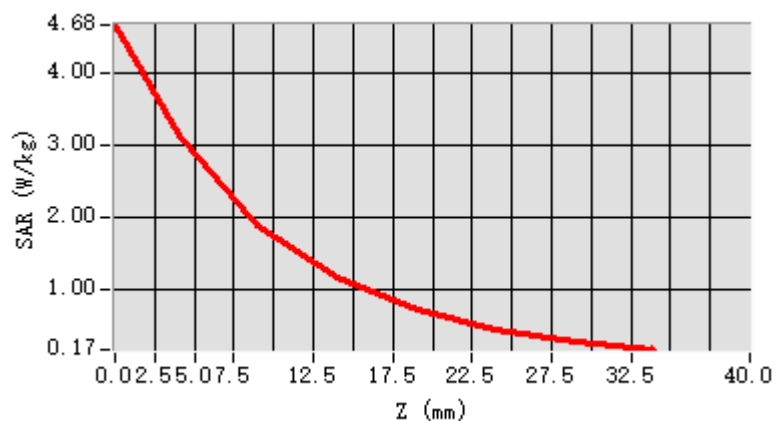
Maximum location: X=3.00, Y=-11.00 ; SAR Peak: 4.71 W/kg

D. SAR 1g & 10g

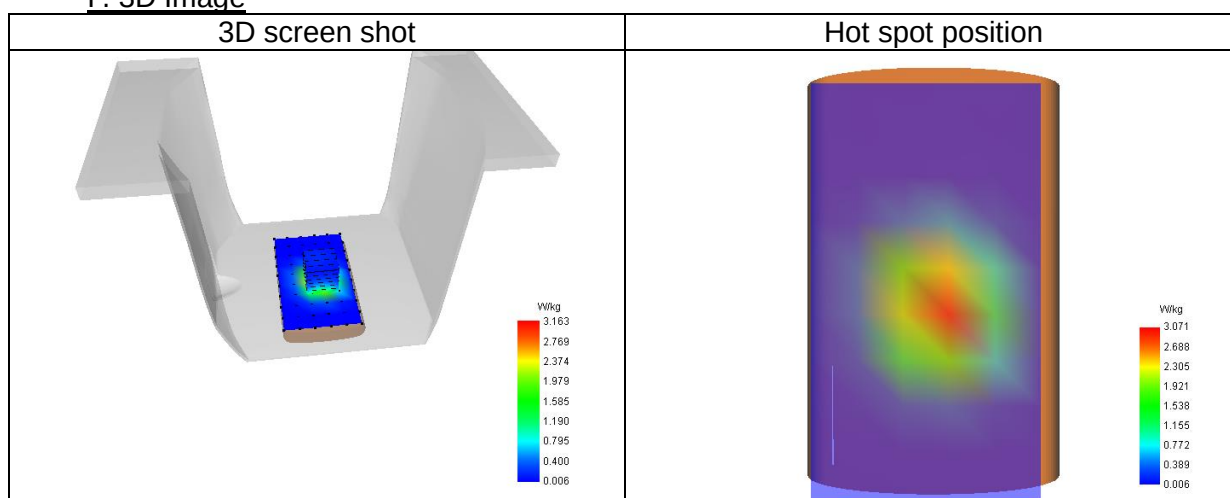
SAR 10g (W/Kg)	1.689
SAR 1g (W/Kg)	3.013
Variation (%)	-0.38
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	60.31

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	4.683	3.163	1.908	1.165	0.716	0.438	0.276



F. 3D Image



9# SAR Measurement at Band 5 (850) (Body, Validation Plane)

Date of measurement: 20/4/2026

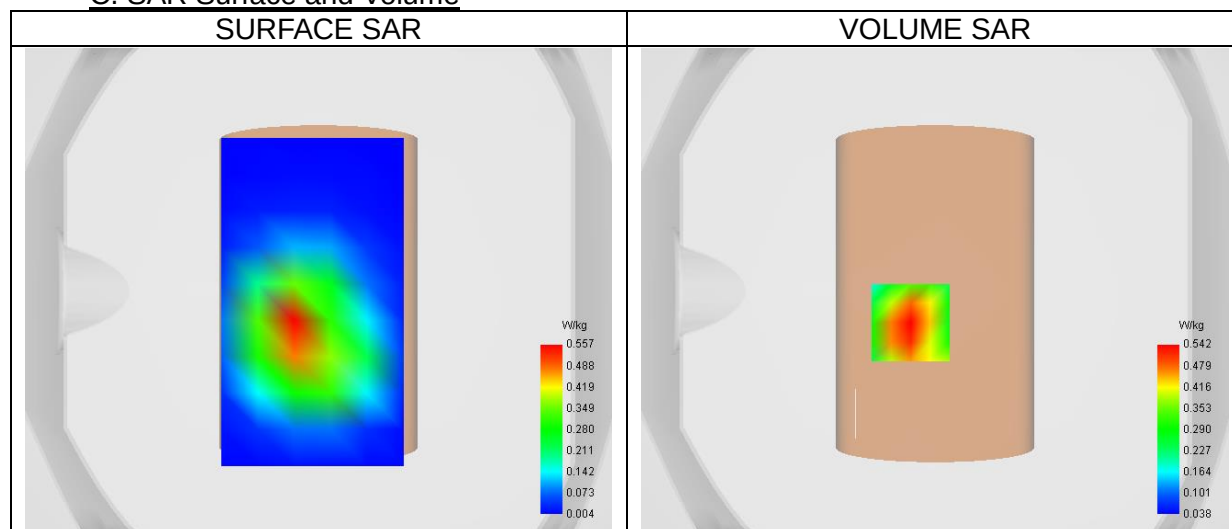
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.34
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	Band 5 (850)
Signal	WCDMA
Channels/Frequency	Middle (4182)/ frequency 836.40 Mhz
Mode	Release 99
Connection Type	RMC, 12.2 kbps

B. Permittivity

Middle TX Frequency (MHz)	836.40
Relative permittivity (real part)	42.48
Relative permittivity (imaginary part)	20.05
Conductivity (S/m)	0.93

C. SAR Surface and Volume



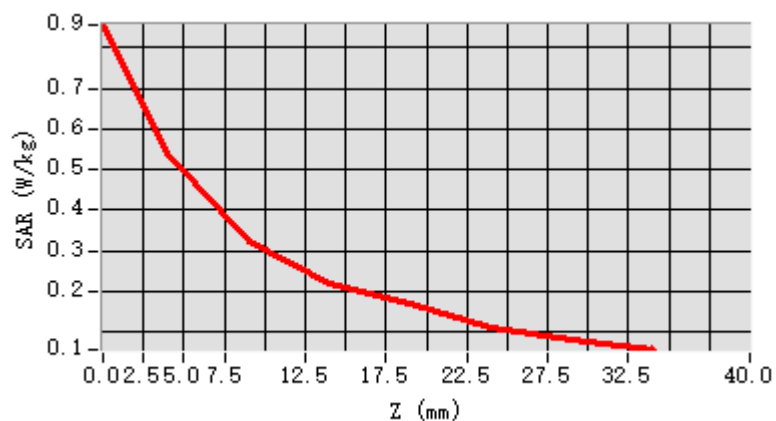
Maximum location: X=-10.00, Y=-13.00 ; SAR Peak: 0.85 W/kg

D. SAR 1g & 10g

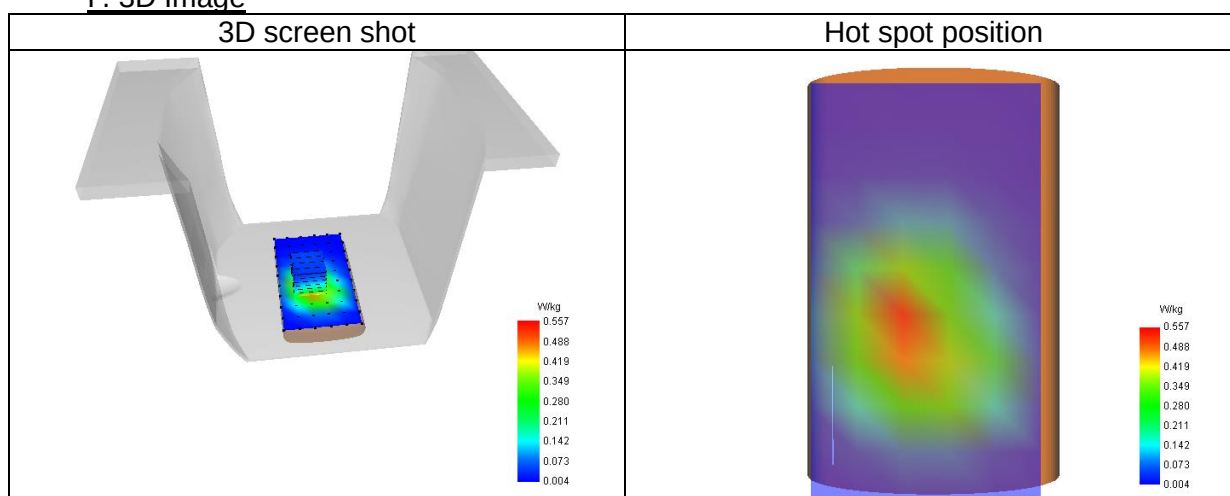
SAR 10g (W/Kg)	0.318
SAR 1g (W/Kg)	0.542
Variation (%)	-1.51
Horizontal validation criteria: minimum distance (mm)	17.89
Vertical validation criteria: SAR ratio M2/M1 (%)	59.85

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.856	0.542	0.325	0.222	0.168	0.112	0.079



F. 3D Image



10# SAR Measurement at Band 5 (850) (Body, Validation Plane)

Date of measurement: 20/4/2026

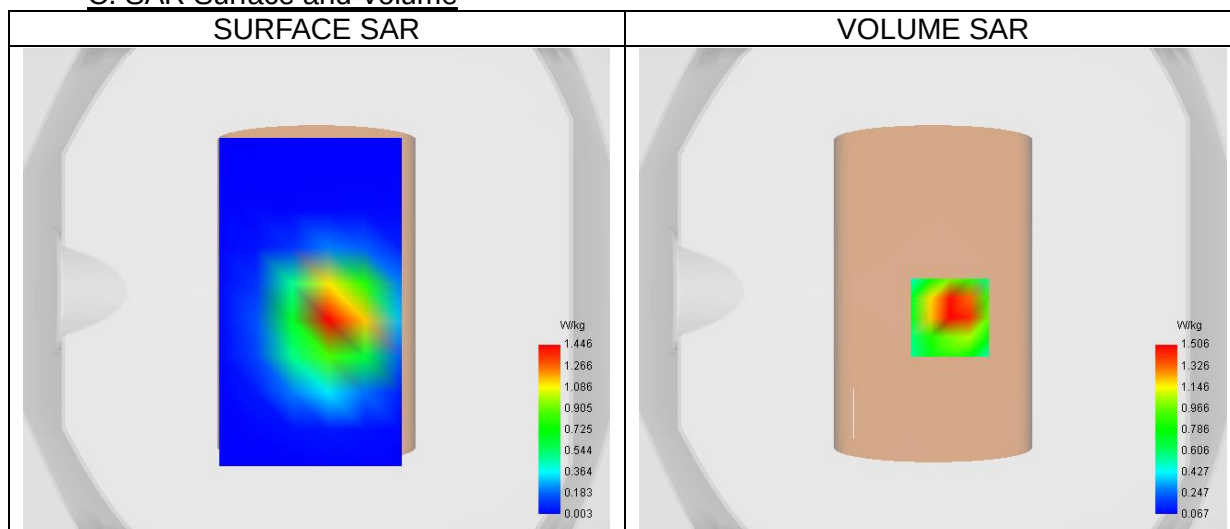
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.34
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	Band 5 (850)
Signal	WCDMA
Channels/Frequency	Middle (4182)/ frequency 836.40 Mhz
Mode	Release 99
Connection Type	RMC, 12.2 kbps

B. Permittivity

Middle TX Frequency (MHz)	836.40
Relative permittivity (real part)	42.48
Relative permittivity (imaginary part)	20.05
Conductivity (S/m)	0.93

C. SAR Surface and Volume



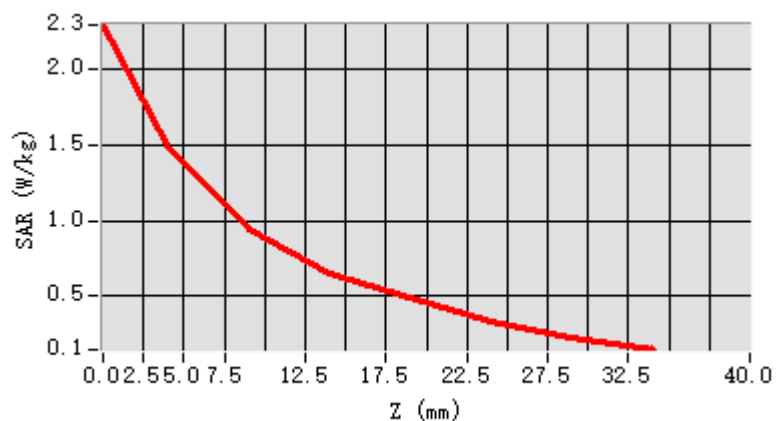
Maximum location: X=7.00, Y=-11.00 ; SAR Peak: 2.41 W/kg

D. SAR 1g & 10g

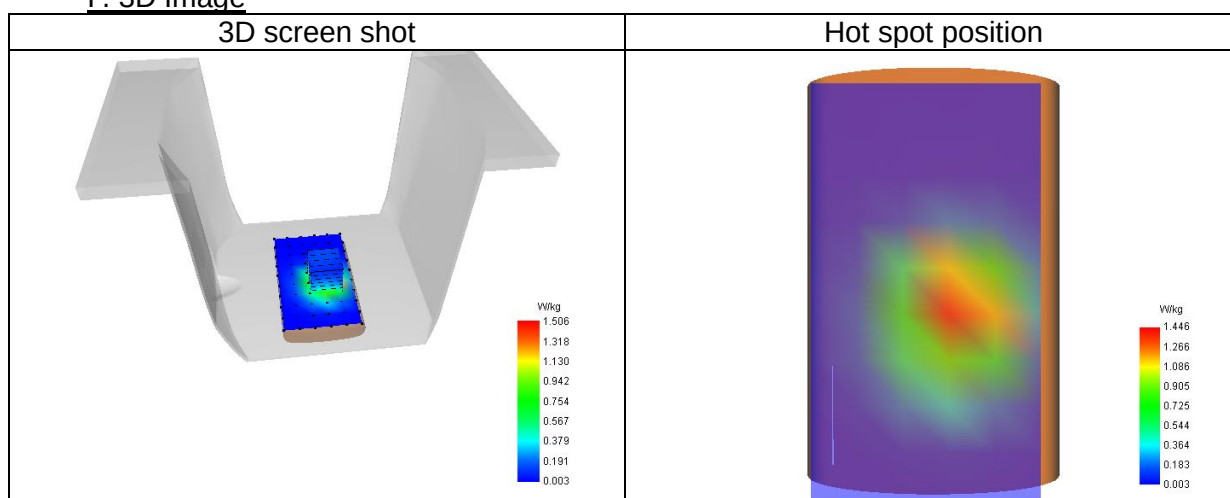
SAR 10g (W/Kg)	0.892
SAR 1g (W/Kg)	1.558
Variation (%)	1.56
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	66.05

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	2.298	1.506	0.942	0.656	0.495	0.325	0.219



F. 3D Image



11# SAR Measurement at ISM (Body, Validation Plane)

Date of measurement: 29/4/2026

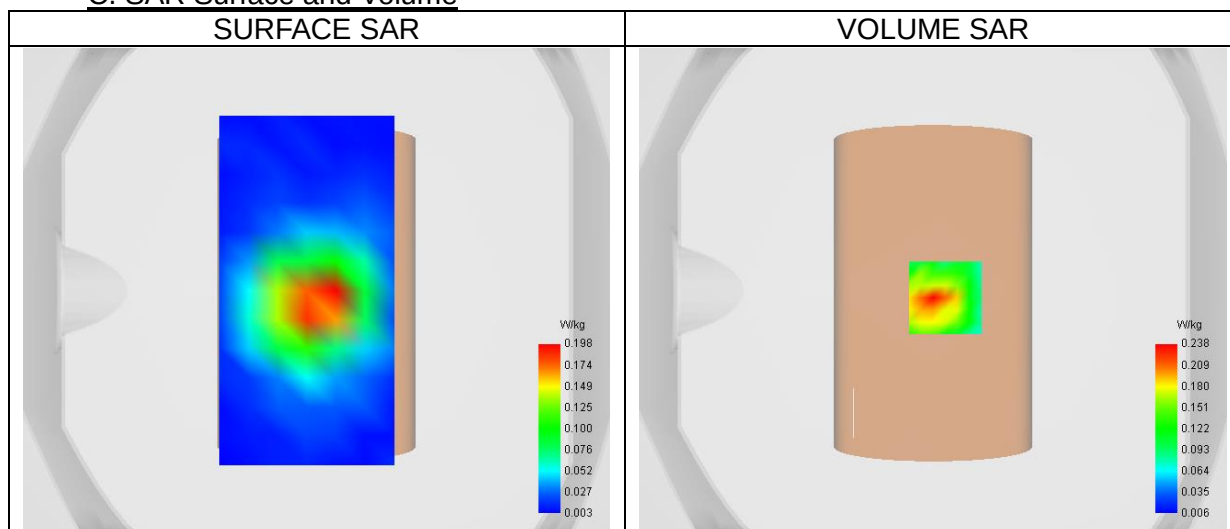
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.74
Area Scan	dx=12mm dy=12mm, Complete
Zoom Scan	7x7x7,dx=5mm dy=5mm dz=5.0mm,Complete
Phantom	Validation plane
Device Position	Body
Band	ISM
Signal	IEEE 802.11 b
Channels/Frequency	Middle (6)/ frequency 2437.00 Mhz

B. Permittivity

Middle TX Frequency (MHz)	2437.00
Relative permittivity (real part)	40.75
Relative permittivity (imaginary part)	13.58
Conductivity (S/m)	1.84

C. SAR Surface and Volume



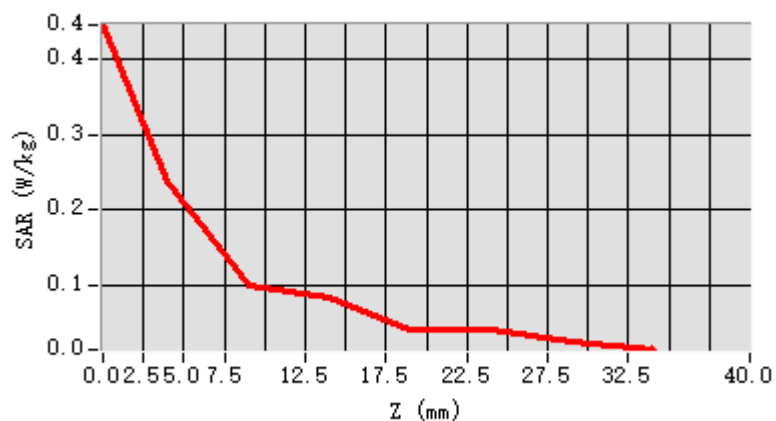
Maximum location: X=5.00, Y=-3.00 ; SAR Peak: 0.37 W/kg

D. SAR 1g & 10g

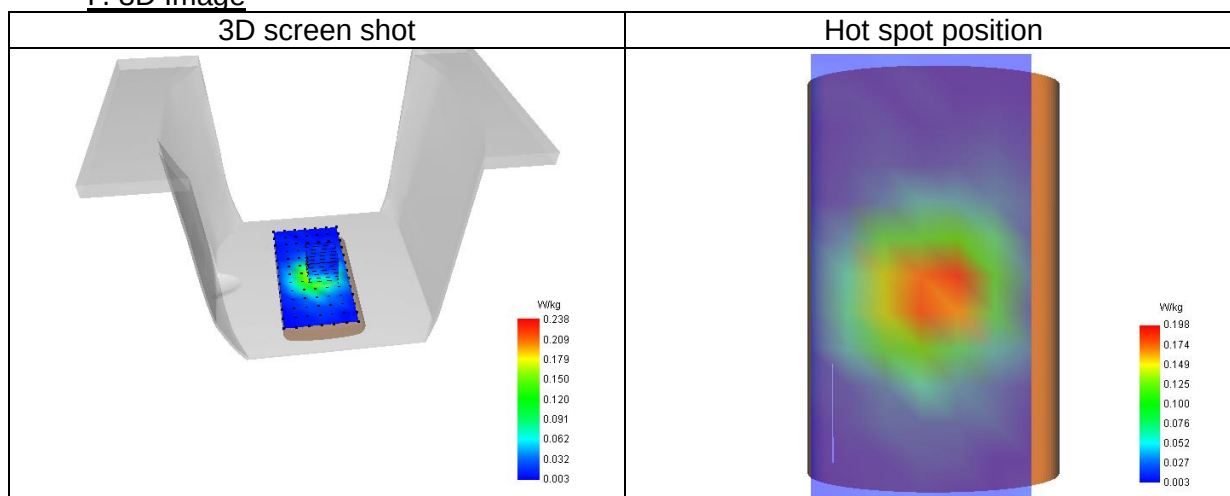
SAR 10g (W/Kg)	0.110
SAR 1g (W/Kg)	0.201
Variation (%)	-0.66
Horizontal validation criteria: minimum distance (mm)	15.00
Vertical validation criteria: SAR ratio M2/M1 (%)	59.94

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.445	0.238	0.100	0.084	0.040	0.042	0.026



F. 3D Image



12# SAR Measurement at ISM (Body, Validation Plane)

Date of measurement: 29/4/2026

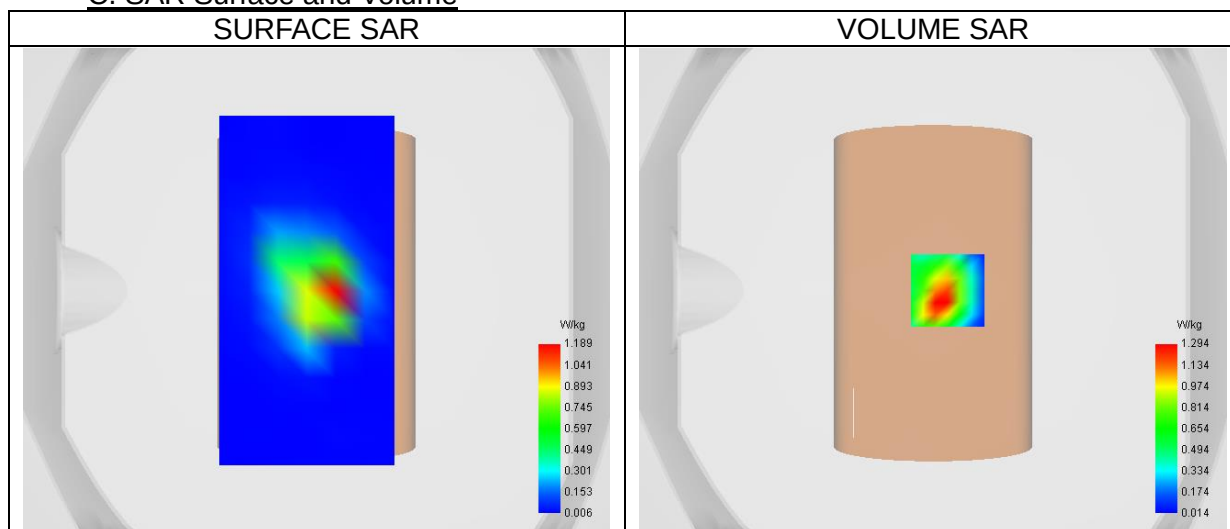
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.74
Area Scan	dx=12mm dy=12mm, Complete
Zoom Scan	7x7x7,dx=5mm dy=5mm dz=5.0mm,Complete
Phantom	Validation plane
Device Position	Body
Band	ISM
Signal	IEEE 802.11 b
Channels/Frequency	Middle (6)/ frequency 2437.00 Mhz

B. Permittivity

Middle TX Frequency (MHz)	2437.00
Relative permittivity (real part)	40.75
Relative permittivity (imaginary part)	13.58
Conductivity (S/m)	1.84

C. SAR Surface and Volume



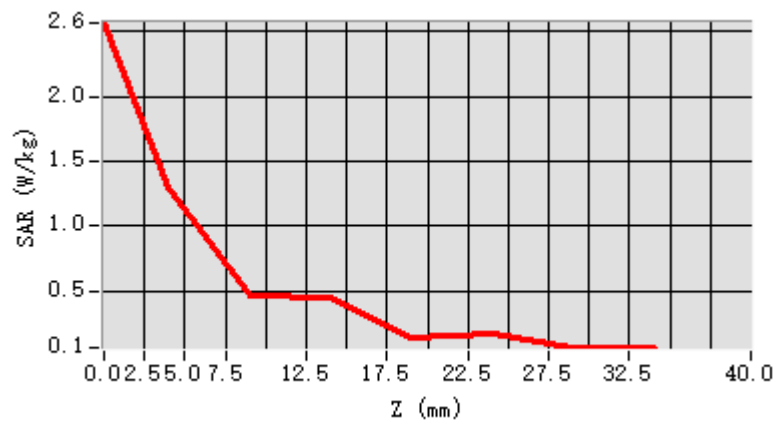
Maximum location: X=6.00, Y=0.00 ; SAR Peak: 1.95 W/kg

D. SAR 1g & 10g

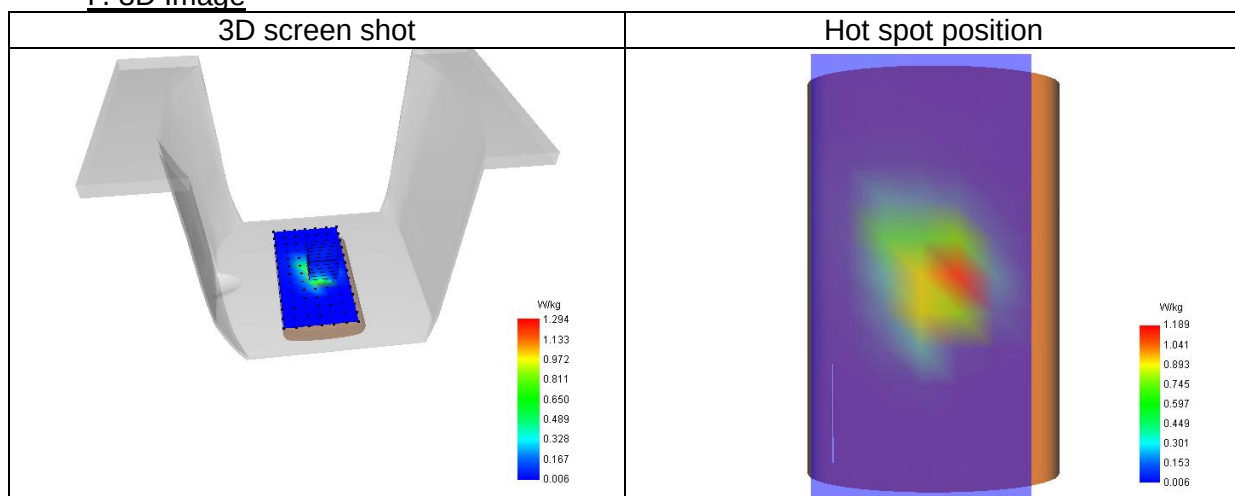
SAR 10g (W/Kg)	0.546
SAR 1g (W/Kg)	1.170
Variation (%)	-0.84
Horizontal validation criteria: minimum distance (mm)	10.00
Vertical validation criteria: SAR ratio M2/M1 (%)	62.13

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	2.564	1.294	0.466	0.444	0.138	0.173	0.062



F. 3D Image



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

Date of measurement: 3/5/2026

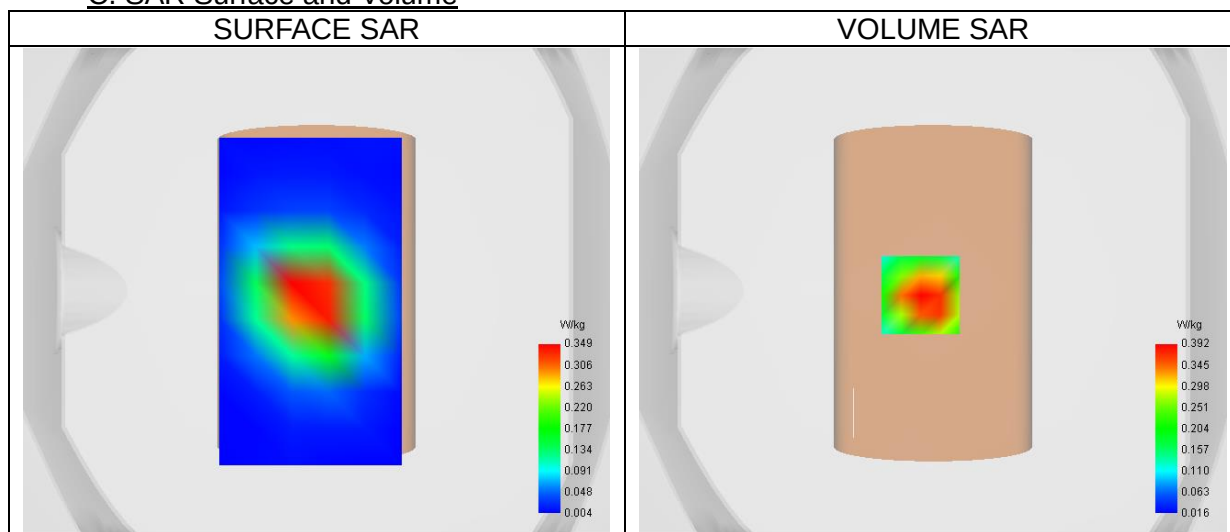
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.57
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 2
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (18900)/ frequency 1880.00 Mhz
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	1880.00

B. Permittivity

Middle TX Frequency (MHz)	1880.00
Relative permittivity (real part)	39.17
Relative permittivity (imaginary part)	13.66
Conductivity (S/m)	1.43

C. SAR Surface and Volume



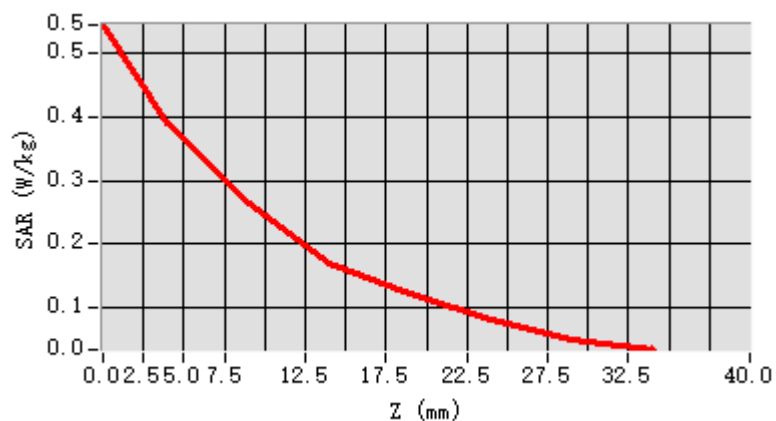
Maximum location: X=-5.00, Y=-2.00 ; SAR Peak: 0.58 W/kg

D. SAR 1g & 10g

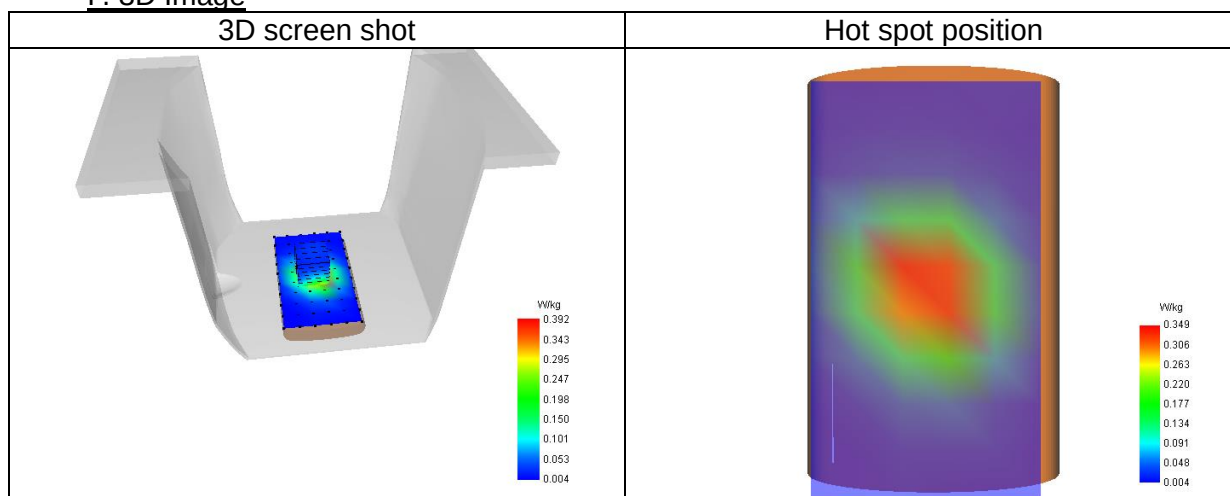
SAR 10g (W/Kg)	0.225
SAR 1g (W/Kg)	0.383
Variation (%)	1.86
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	67.72

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.545	0.392	0.265	0.171	0.122	0.082	0.049



F. 3D Image



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

Date of measurement: 3/5/2026

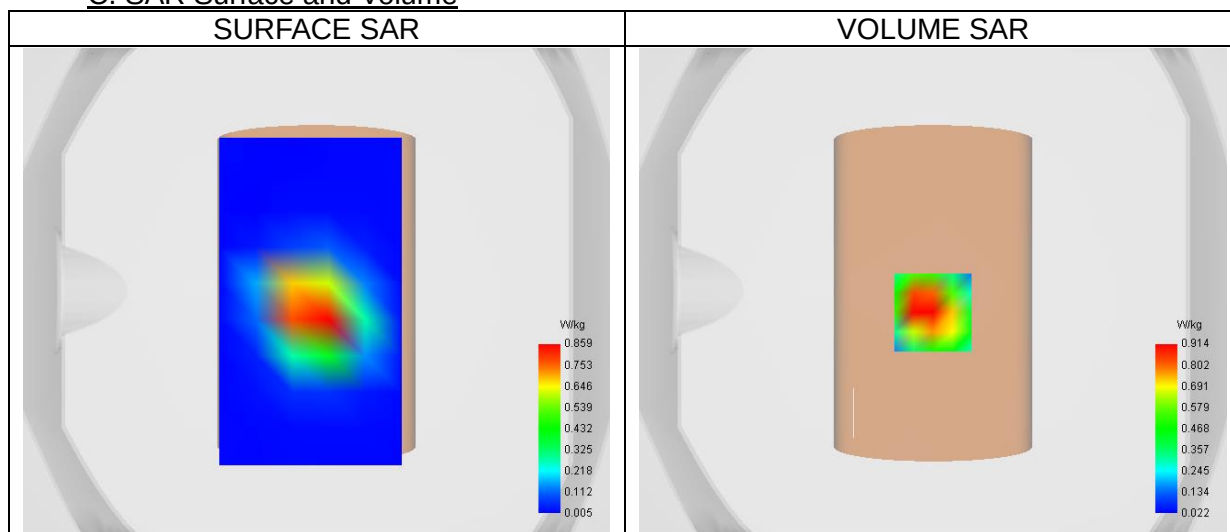
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.57
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 2
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (18900)/ frequency 1880.00 Mhz
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	1880.00

B. Permittivity

Middle TX Frequency (MHz)	1880.00
Relative permittivity (real part)	39.17
Relative permittivity (imaginary part)	13.66
Conductivity (S/m)	1.43

C. SAR Surface and Volume



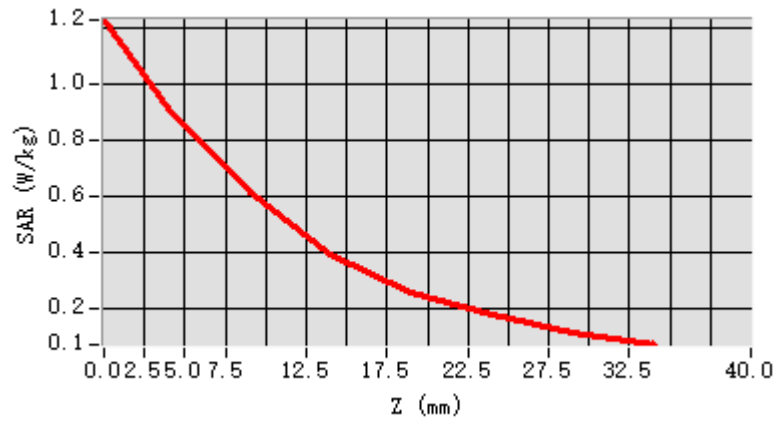
Maximum location: X=0.00, Y=-9.00 ; SAR Peak: 1.40 W/kg

D. SAR 1g & 10g

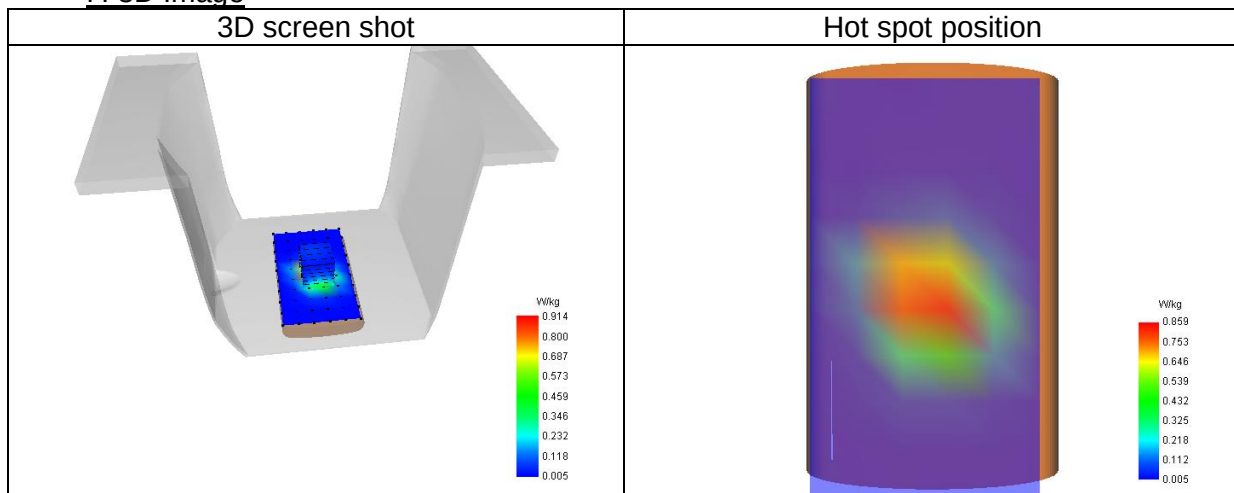
SAR 10g (W/Kg)	0.508
SAR 1g (W/Kg)	0.918
Variation (%)	0.61
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	67.39

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.229	0.914	0.616	0.395	0.257	0.180	0.115



F. 3D Image



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

Date of measurement: 24/4/2026

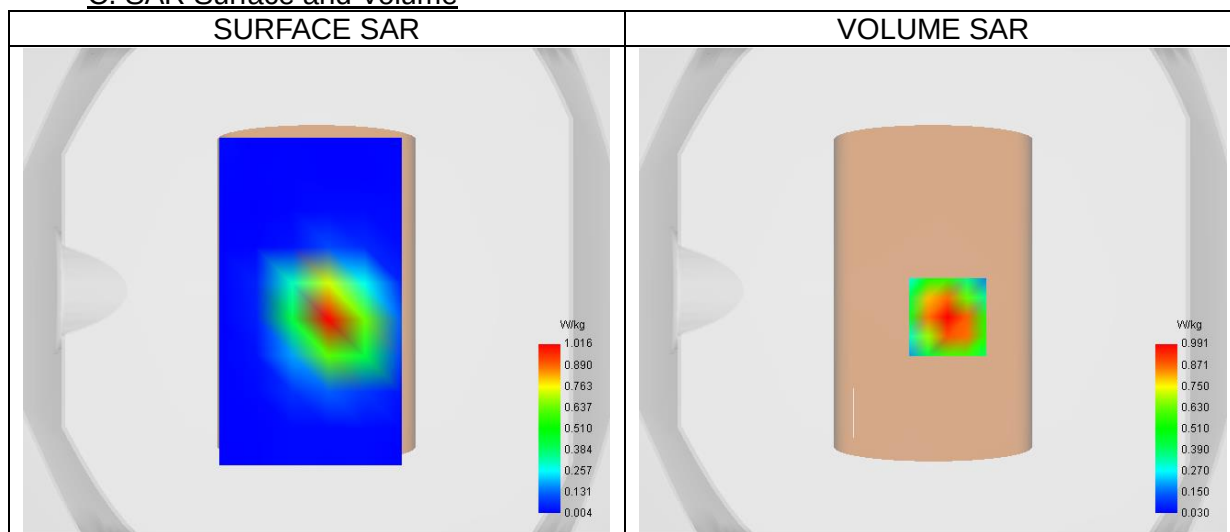
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 4
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (20175)/ frequency 1732.50 Mhz
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	1732.50

B. Permittivity

Middle TX Frequency (MHz)	1732.50
Relative permittivity (real part)	40.20
Relative permittivity (imaginary part)	14.07
Conductivity (S/m)	1.35

C. SAR Surface and Volume



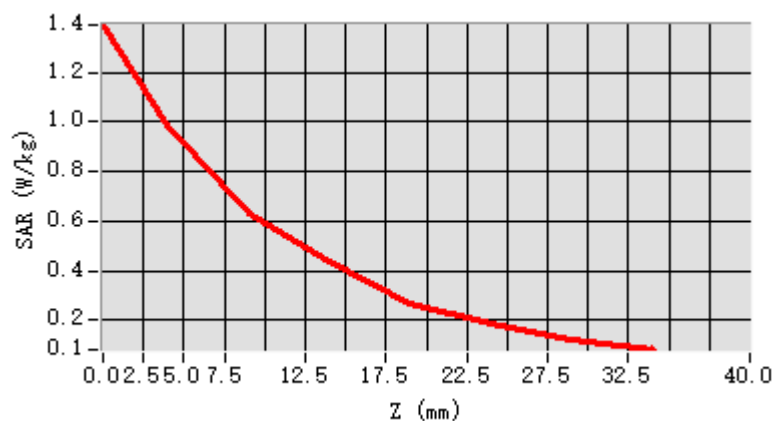
Maximum location: X=6.00, Y=-11.00 ; SAR Peak: 1.49 W/kg

D. SAR 1g & 10g

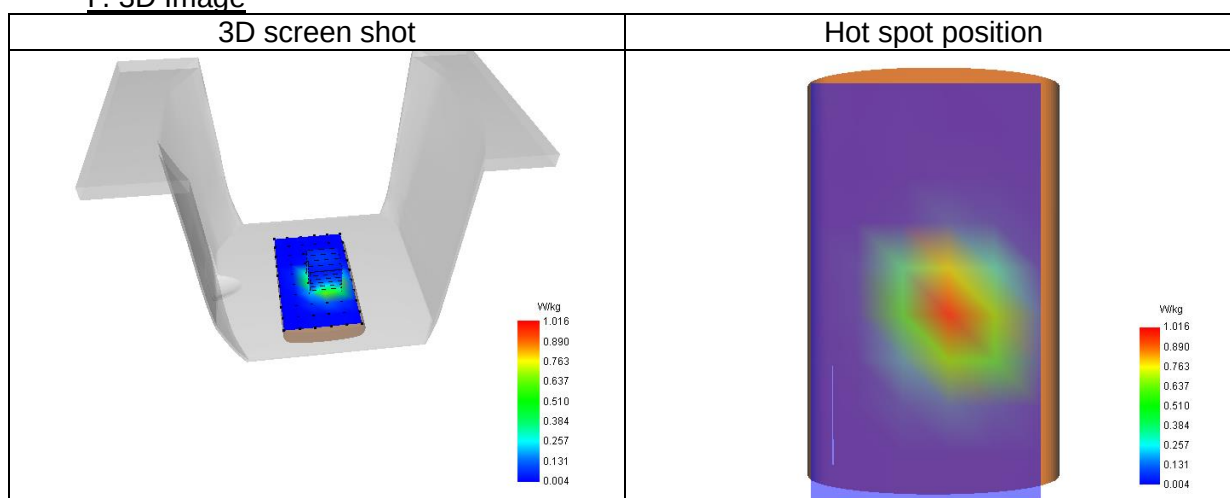
SAR 10g (W/Kg)	0.534
SAR 1g (W/Kg)	0.936
Variation (%)	-1.65
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	63.85

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.392	0.991	0.632	0.438	0.264	0.189	0.123



F. 3D Image



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

Date of measurement: 24/4/2026

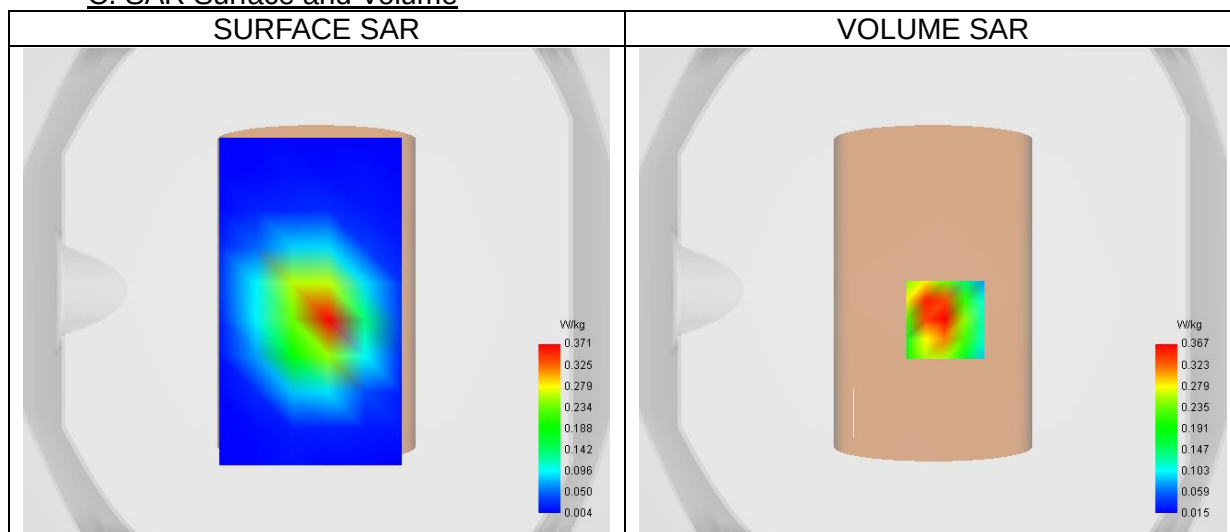
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 4
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (20175)/ frequency 1732.50 Mhz
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	1732.50

B. Permittivity

Middle TX Frequency (MHz)	1732.50
Relative permittivity (real part)	40.20
Relative permittivity (imaginary part)	14.07
Conductivity (S/m)	1.35

C. SAR Surface and Volume



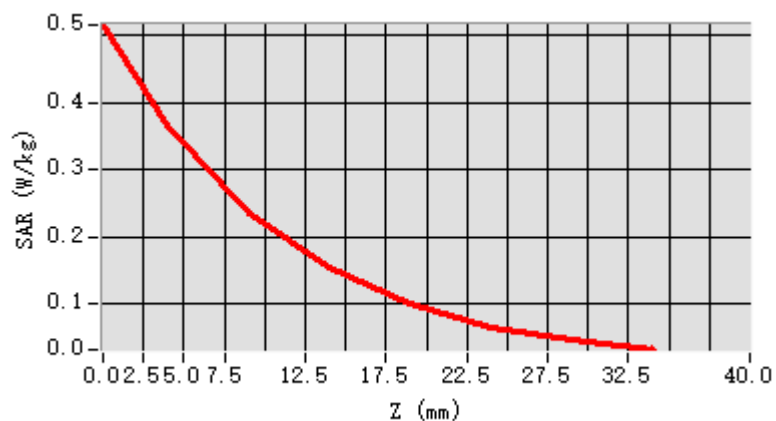
Maximum location: X=5.00, Y=-12.00 ; SAR Peak: 0.54 W/kg

D. SAR 1g & 10g

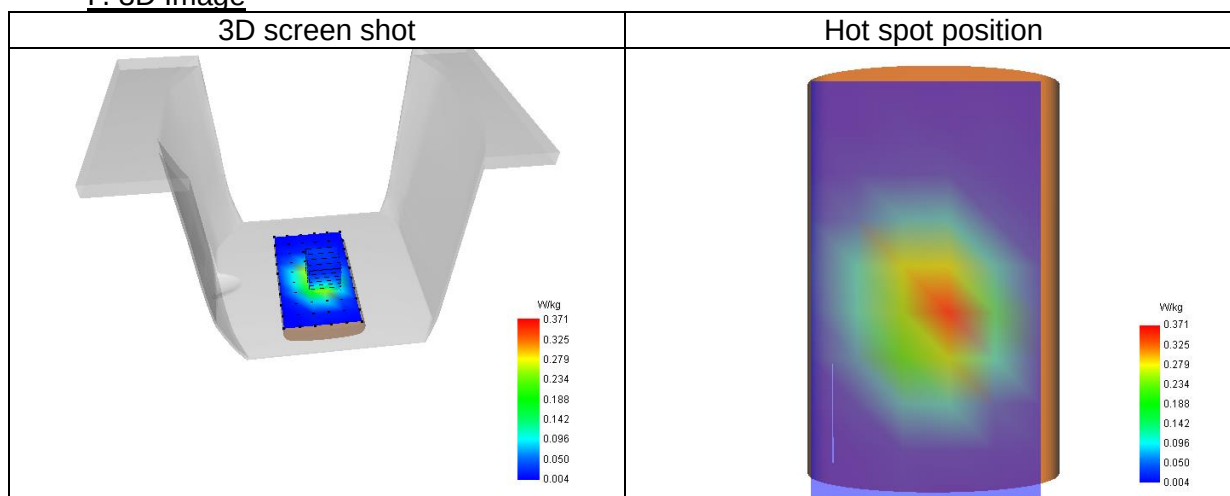
SAR 10g (W/Kg)	0.206
SAR 1g (W/Kg)	0.355
Variation (%)	-0.56
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	64.36

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.516	0.367	0.236	0.155	0.101	0.066	0.047



F. 3D Image



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

Date of measurement: 20/4/2026

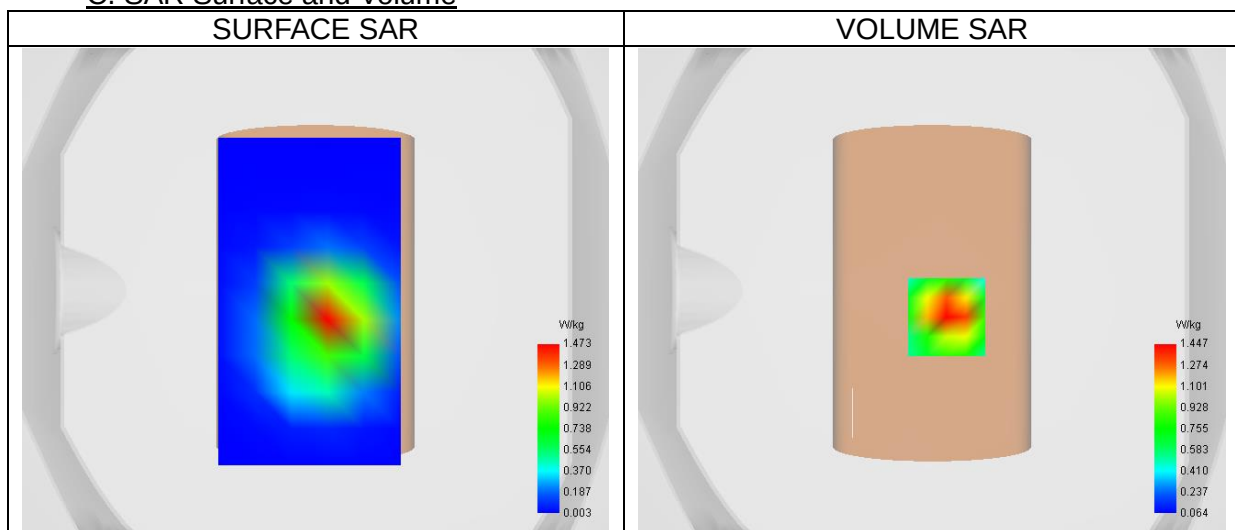
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.34
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 5
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (20525)/ frequency 836.50 Mhz
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	836.50

B. Permittivity

Middle TX Frequency (MHz)	836.50
Relative permittivity (real part)	42.48
Relative permittivity (imaginary part)	20.04
Conductivity (S/m)	0.93

C. SAR Surface and Volume



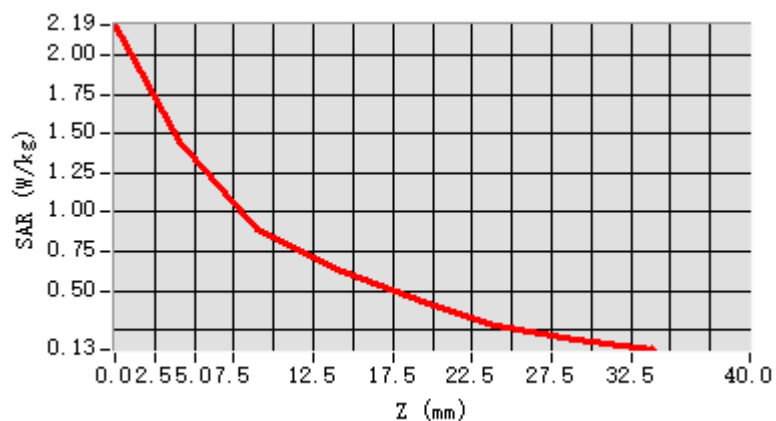
Maximum location: X=6.00, Y=-11.00 ; SAR Peak: 2.21 W/kg

D. SAR 1g & 10g

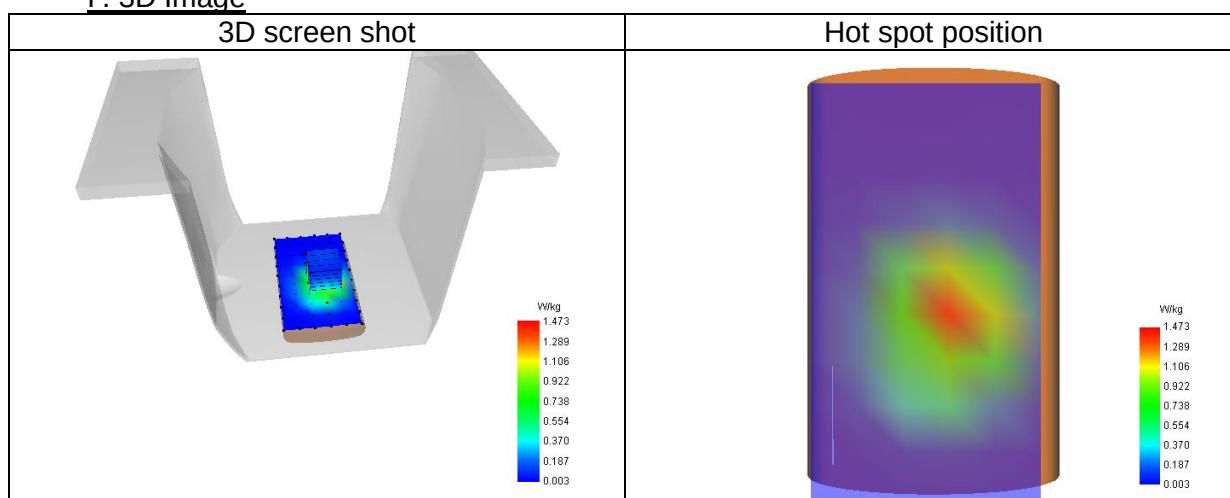
SAR 10g (W/Kg)	0.822
SAR 1g (W/Kg)	1.432
Variation (%)	-0.59
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	61.67

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	2.190	1.447	0.892	0.630	0.439	0.284	0.191



F. 3D Image



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

Date of measurement: 20/4/2026

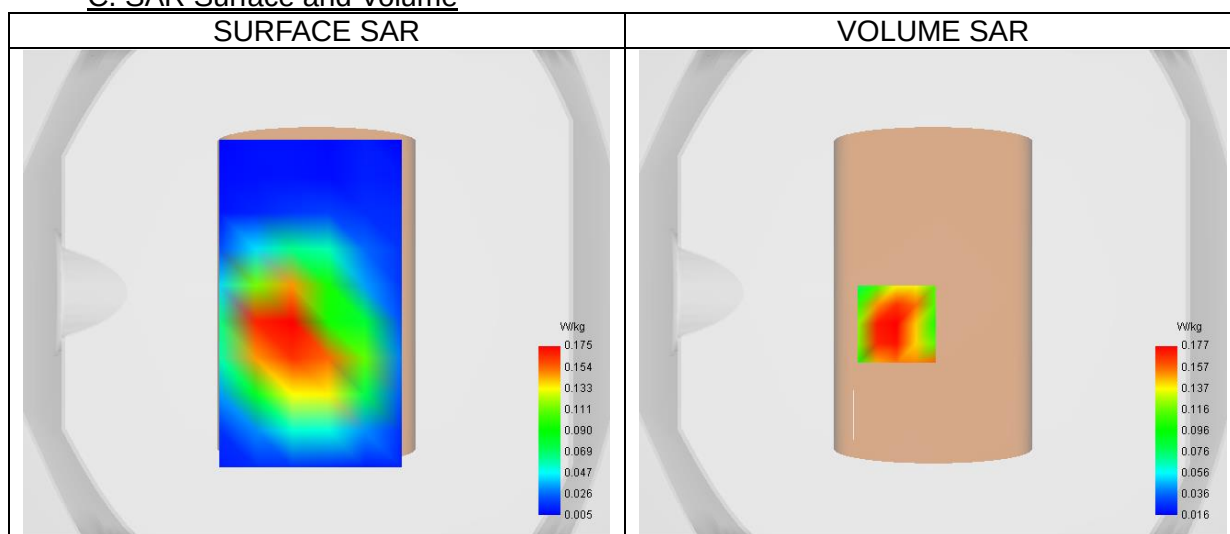
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.34
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 5
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (20525)/ frequency 836.50 Mhz
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	836.50

B. Permittivity

Middle TX Frequency (MHz)	836.50
Relative permittivity (real part)	42.48
Relative permittivity (imaginary part)	20.04
Conductivity (S/m)	0.93

C. SAR Surface and Volume



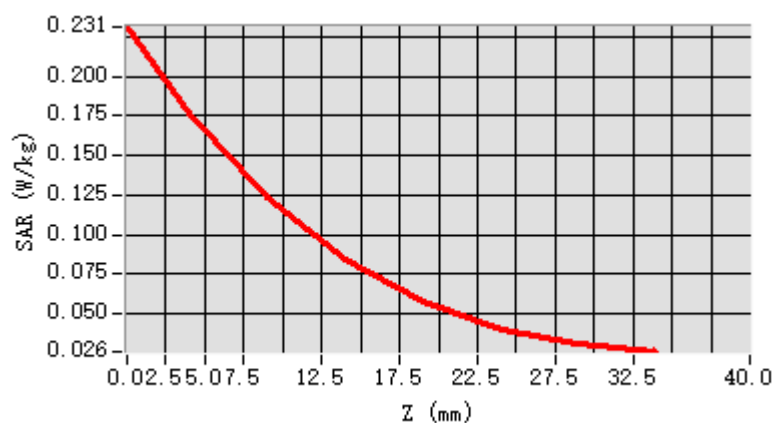
Maximum location: X=-15.00, Y=-13.00 ; SAR Peak: 0.25 W/kg

D. SAR 1g & 10g

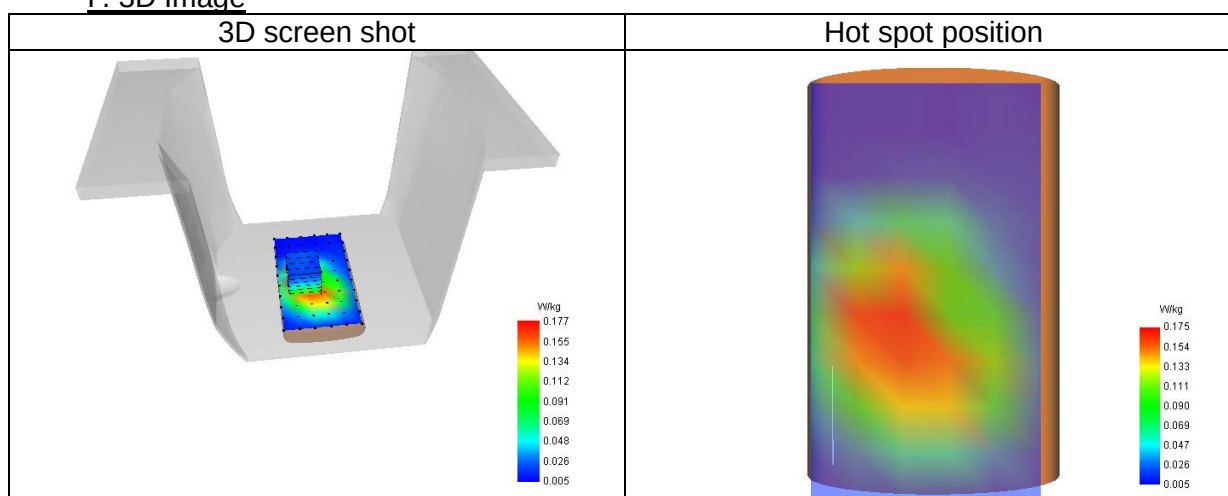
SAR 10g (W/Kg)	0.112
SAR 1g (W/Kg)	0.176
Variation (%)	-3.85
Horizontal validation criteria: minimum distance (mm)	22.63
Vertical validation criteria: SAR ratio M2/M1 (%)	69.70

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.231	0.177	0.123	0.084	0.057	0.040	0.031



F. 3D Image



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

Date of measurement: 22/4/2026

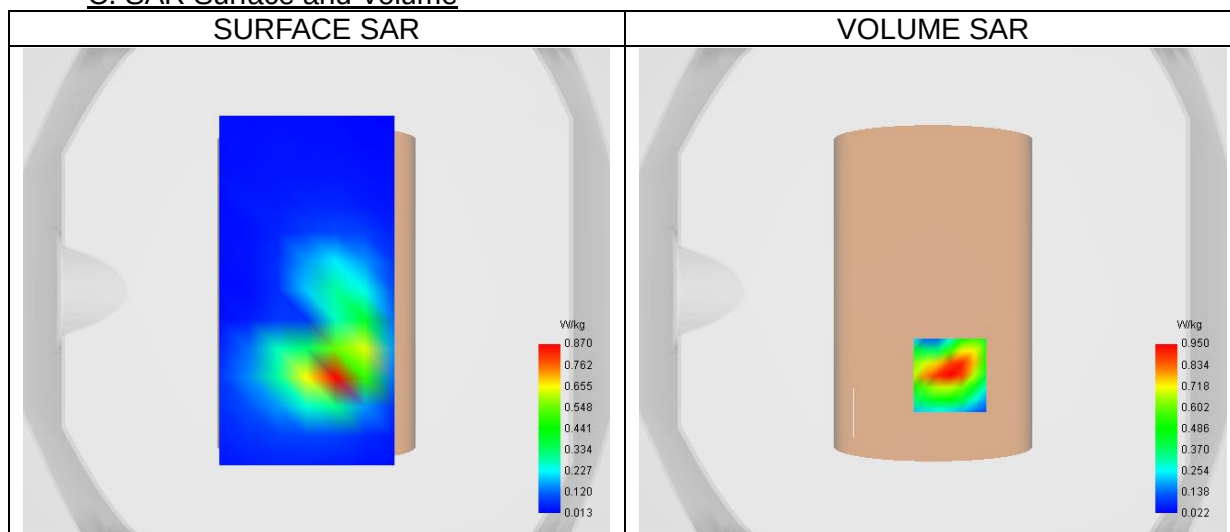
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
Area Scan	dx=12mm dy=12mm, Complete
Zoom Scan	7x7x7,dx=5mm dy=5mm dz=5.0mm,Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 7
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (21100)/ frequency 2535.00 Mhz
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	2535.00

B. Permittivity

Middle TX Frequency (MHz)	2535.00
Relative permittivity (real part)	39.72
Relative permittivity (imaginary part)	13.71
Conductivity (S/m)	1.93

C. SAR Surface and Volume



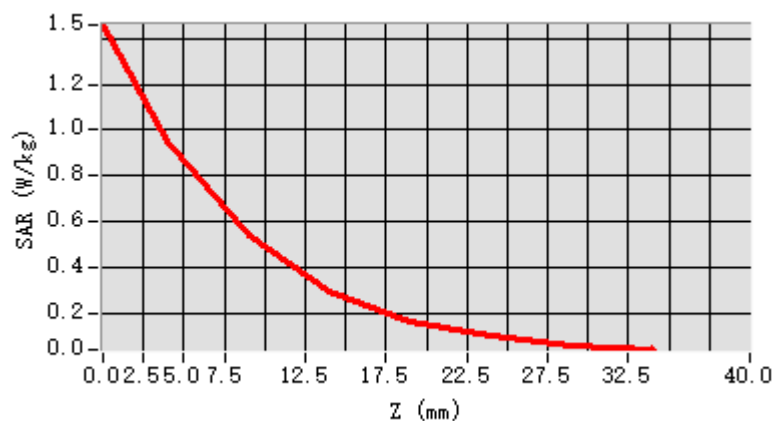
Maximum location: X=7.00, Y=-35.00 ; SAR Peak: 1.51 W/kg

D. SAR 1g & 10g

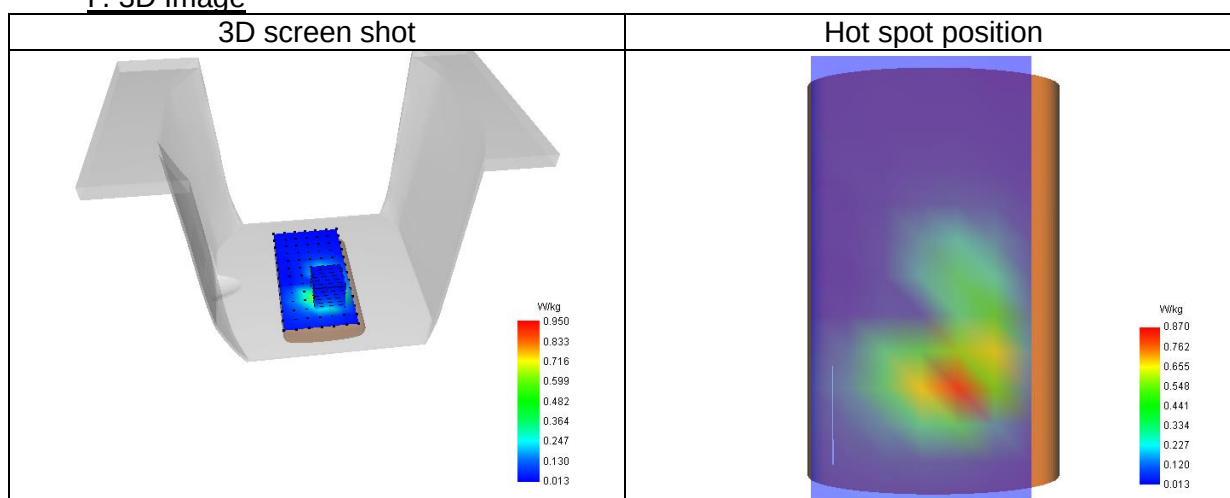
SAR 10g (W/Kg)	0.419
SAR 1g (W/Kg)	0.860
Variation (%)	3.53
Horizontal validation criteria: minimum distance (mm)	11.18
Vertical validation criteria: SAR ratio M2/M1 (%)	56.68

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.458	0.950	0.538	0.297	0.169	0.101	0.063



F. 3D Image



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

Date of measurement: 22/4/2026

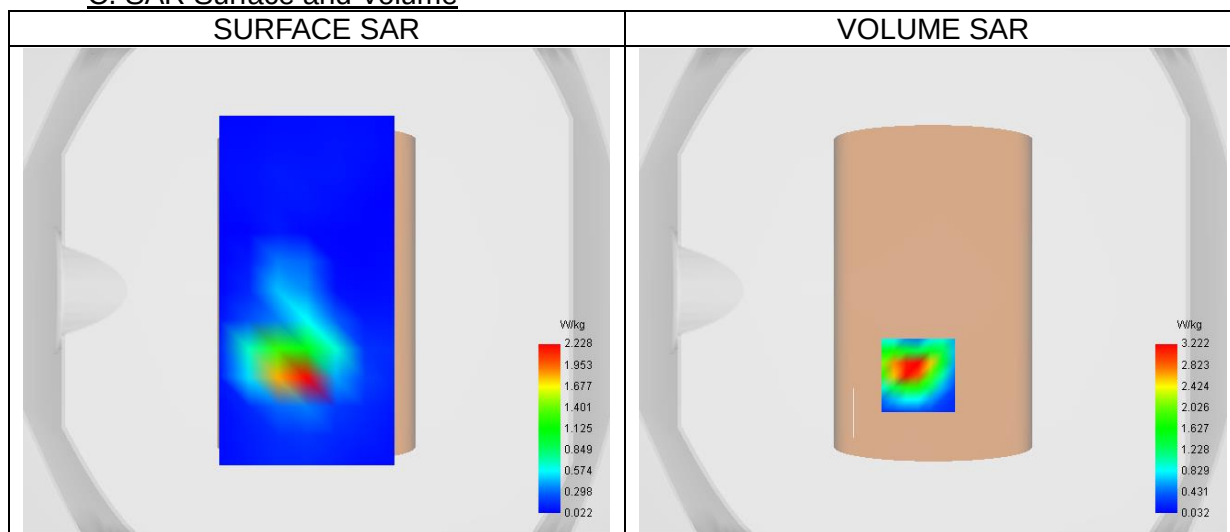
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
Area Scan	dx=12mm dy=12mm, Complete
Zoom Scan	7x7x7, dx=5mm dy=5mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 7
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (21100)/ frequency 2535.00 Mhz
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	2535.00

B. Permittivity

Middle TX Frequency (MHz)	2535.00
Relative permittivity (real part)	39.72
Relative permittivity (imaginary part)	13.71
Conductivity (S/m)	1.93

C. SAR Surface and Volume



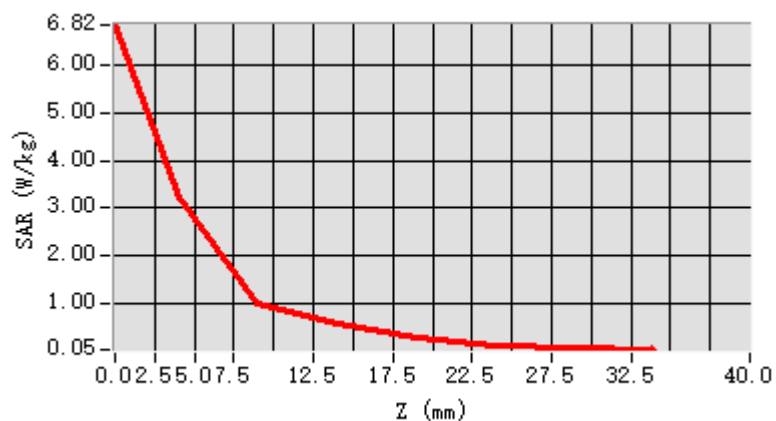
Maximum location: X=-6.00, Y=-35.00 ; SAR Peak: 6.12 W/kg

D. SAR 1g & 10g

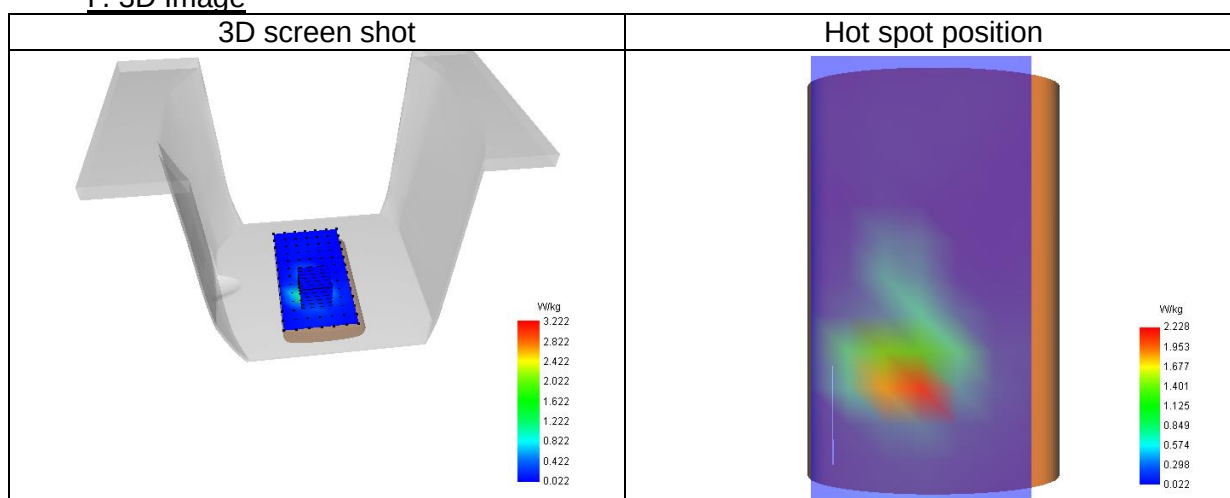
SAR 10g (W/Kg)	1.126
SAR 1g (W/Kg)	2.947
Variation (%)	-0.89
Horizontal validation criteria: minimum distance (mm)	5.00
Vertical validation criteria: SAR ratio M2/M1 (%)	47.60

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	6.824	3.222	1.002	0.586	0.290	0.133	0.089



F. 3D Image



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

Date of measurement: 21/4/2026

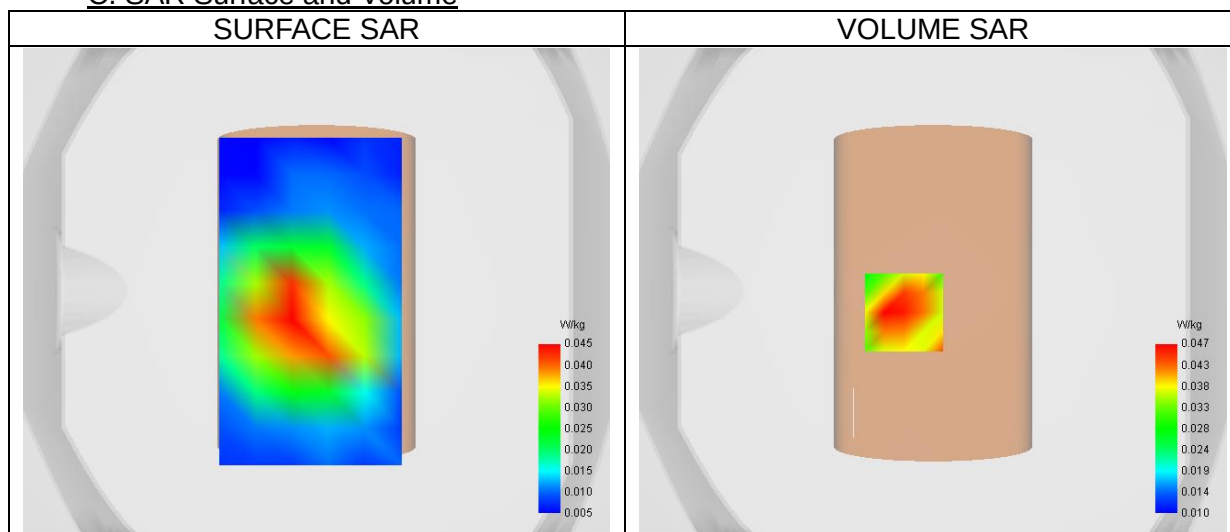
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.42
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 12
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (23095)/ frequency 707.50 Mhz
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	707.50

B. Permittivity

Middle TX Frequency (MHz)	707.50
Relative permittivity (real part)	43.37
Relative permittivity (imaginary part)	21.80
Conductivity (S/m)	0.86

C. SAR Surface and Volume



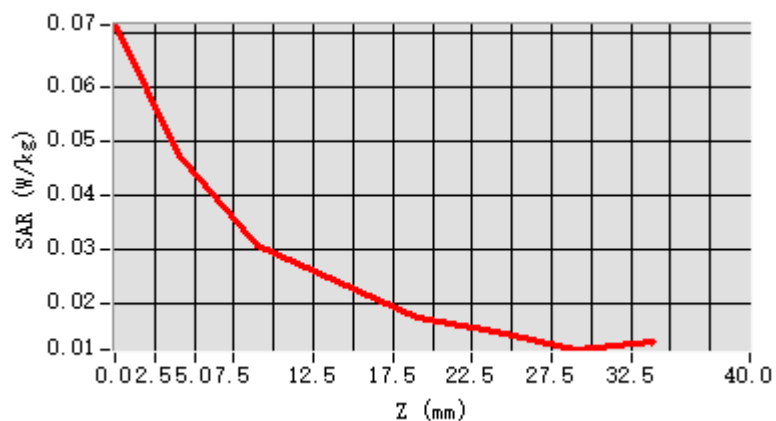
Maximum location: X=-12.00, Y=-9.00 ; SAR Peak: 0.06 W/kg

D. SAR 1g & 10g

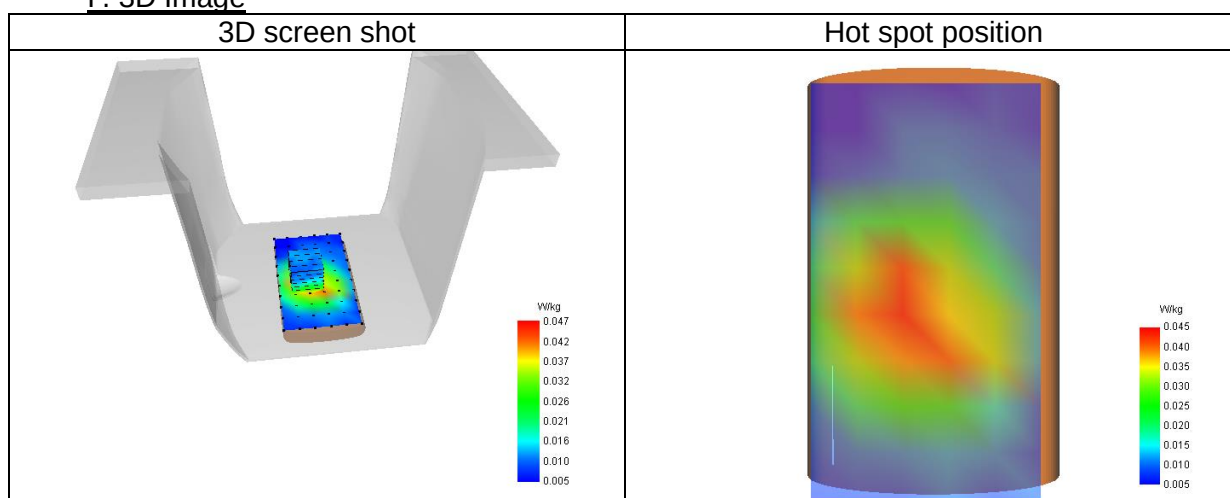
SAR 10g (W/Kg)	0.030
SAR 1g (W/Kg)	0.045
Variation (%)	0.76
Horizontal validation criteria: minimum distance (mm)	17.89
Vertical validation criteria: SAR ratio M2/M1 (%)	63.29

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.071	0.047	0.031	0.024	0.017	0.015	0.011



F. 3D Image



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

Date of measurement: 21/4/2026

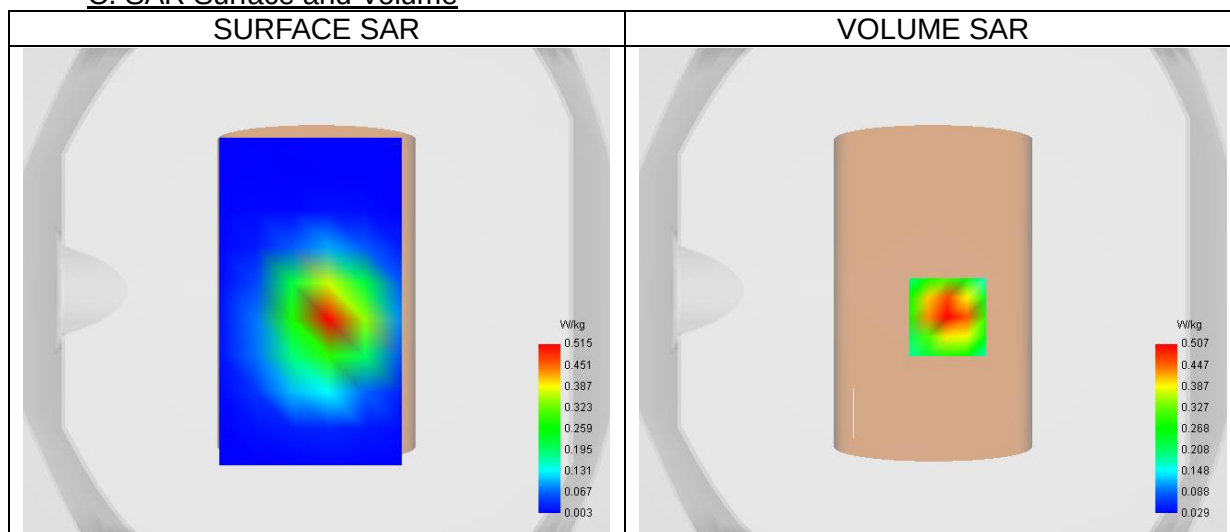
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.42
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 12
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (23095)/ frequency 707.50 Mhz
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	707.50

B. Permittivity

Middle TX Frequency (MHz)	707.50
Relative permittivity (real part)	43.37
Relative permittivity (imaginary part)	21.80
Conductivity (S/m)	0.86

C. SAR Surface and Volume



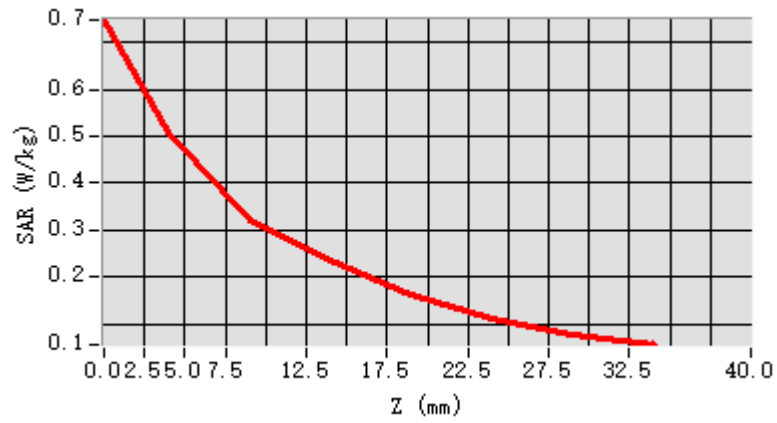
Maximum location: X=6.00, Y=-11.00 ; SAR Peak: 0.74 W/kg

D. SAR 1g & 10g

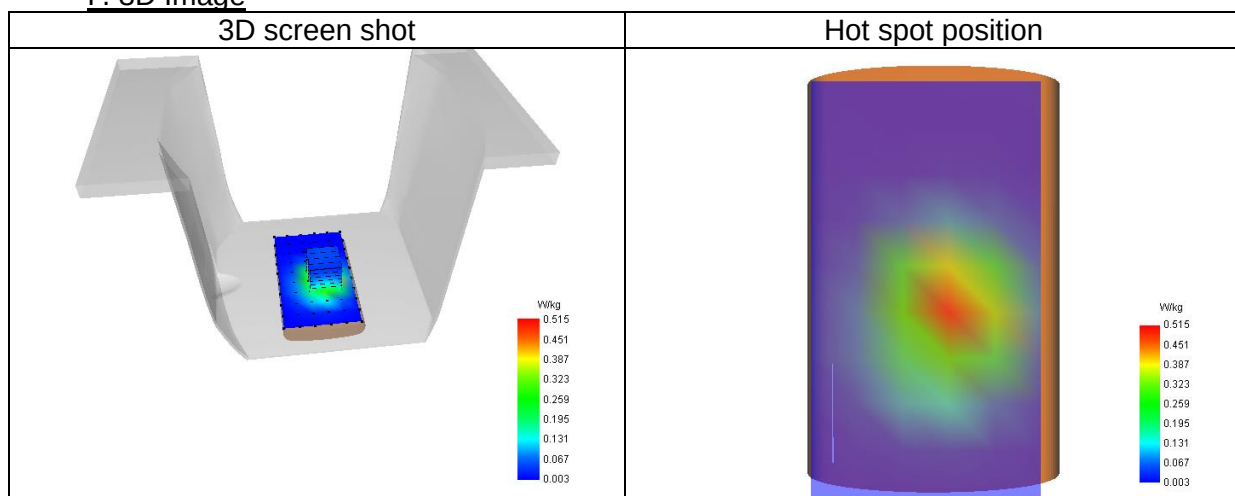
SAR 10g (W/Kg)	0.293
SAR 1g (W/Kg)	0.490
Variation (%)	-1.28
Horizontal validation criteria: minimum distance (mm)	17.89
Vertical validation criteria: SAR ratio M2/M1 (%)	63.29

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.748	0.507	0.321	0.235	0.162	0.112	0.078



F. 3D Image



23# SAR Measurement at LTE band 13 (Body, Validation Plane)

Date of measurement: 21/4/2026

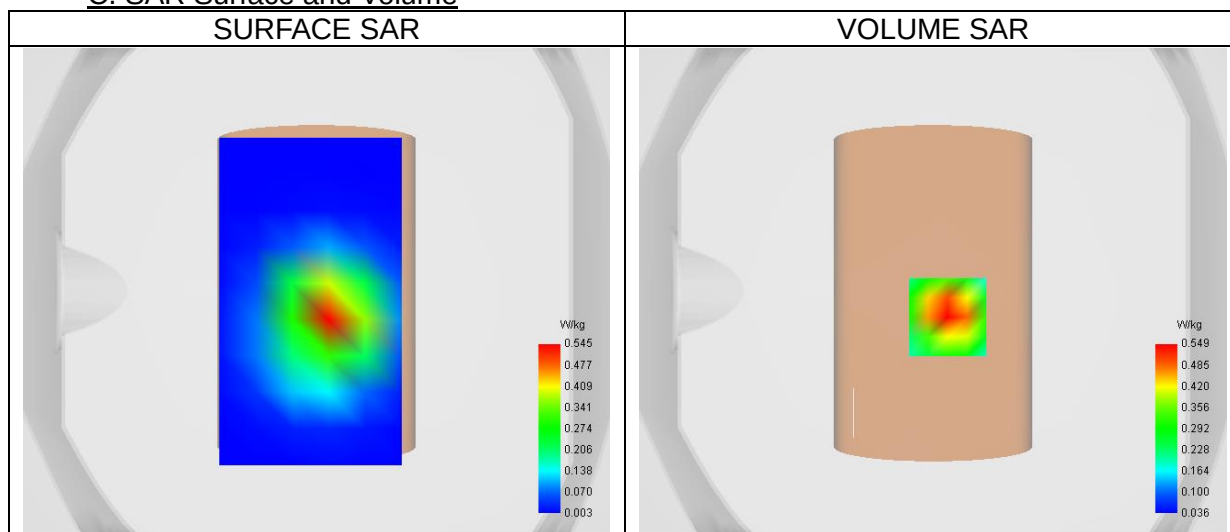
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.42
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 13
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (23230)/ frequency 782.00 Mhz
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	782.00

B. Permittivity

Middle TX Frequency (MHz)	782.00
Relative permittivity (real part)	42.41
Relative permittivity (imaginary part)	21.16
Conductivity (S/m)	0.92

C. SAR Surface and Volume



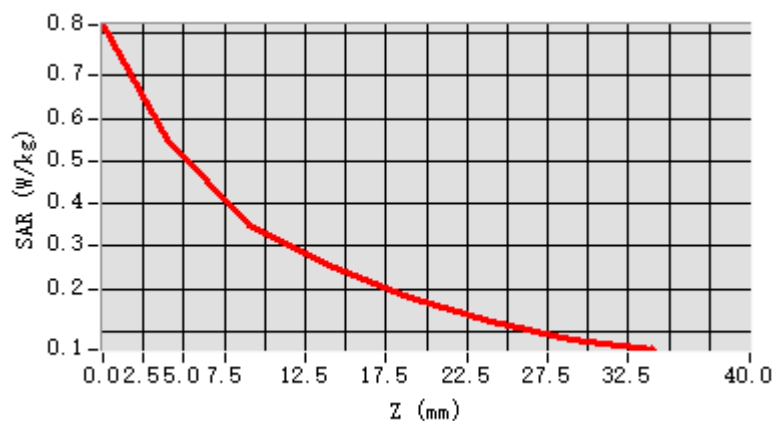
Maximum location: X=6.00, Y=-11.00 ; SAR Peak: 0.81 W/kg

D. SAR 1g & 10g

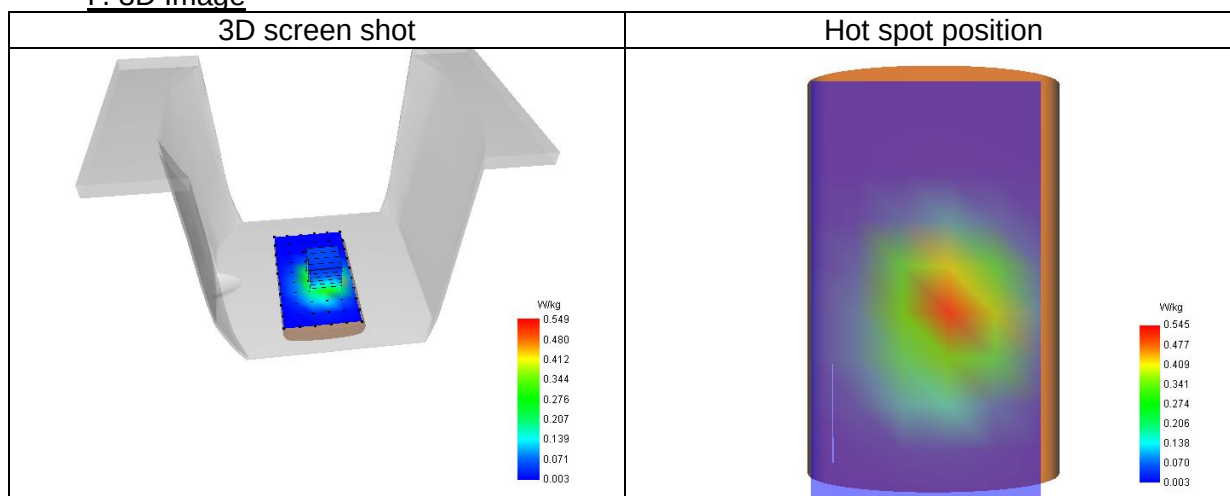
SAR 10g (W/Kg)	0.321
SAR 1g (W/Kg)	0.541
Variation (%)	-0.66
Horizontal validation criteria: minimum distance (mm)	17.89
Vertical validation criteria: SAR ratio M2/M1 (%)	63.71

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.818	0.549	0.350	0.253	0.182	0.123	0.082



F. 3D Image



24# SAR Measurement at LTE band 13 (Body, Validation Plane)

Date of measurement: 21/4/2026

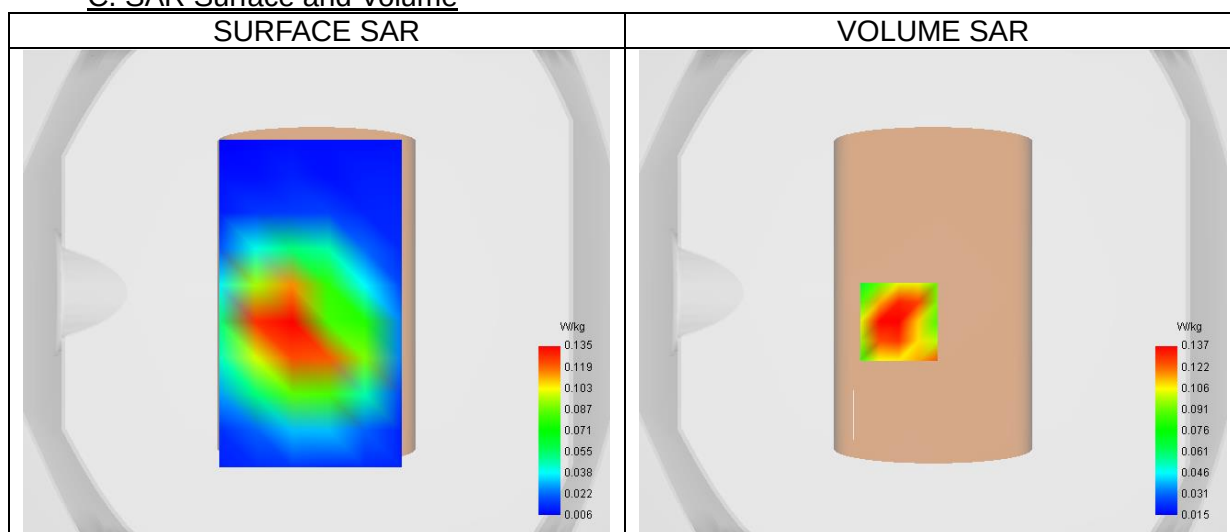
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.42
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 13
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (23230)/ frequency 782.00 Mhz
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	782.00

B. Permittivity

Middle TX Frequency (MHz)	782.00
Relative permittivity (real part)	42.41
Relative permittivity (imaginary part)	21.16
Conductivity (S/m)	0.92

C. SAR Surface and Volume



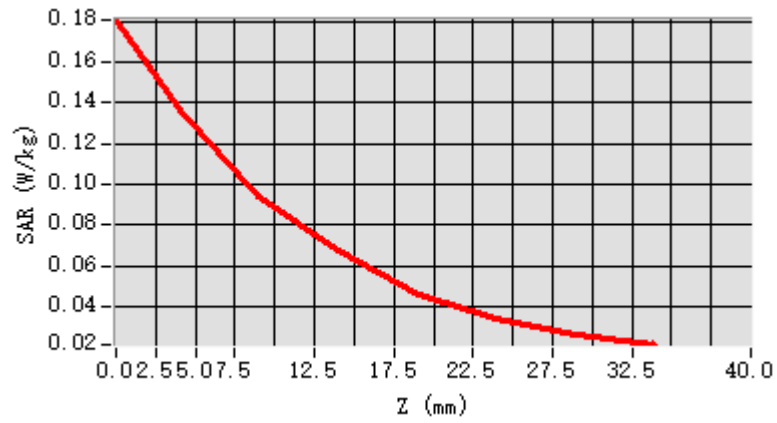
Maximum location: X=-14.00, Y=-12.00 ; SAR Peak: 0.19 W/kg

D. SAR 1g & 10g

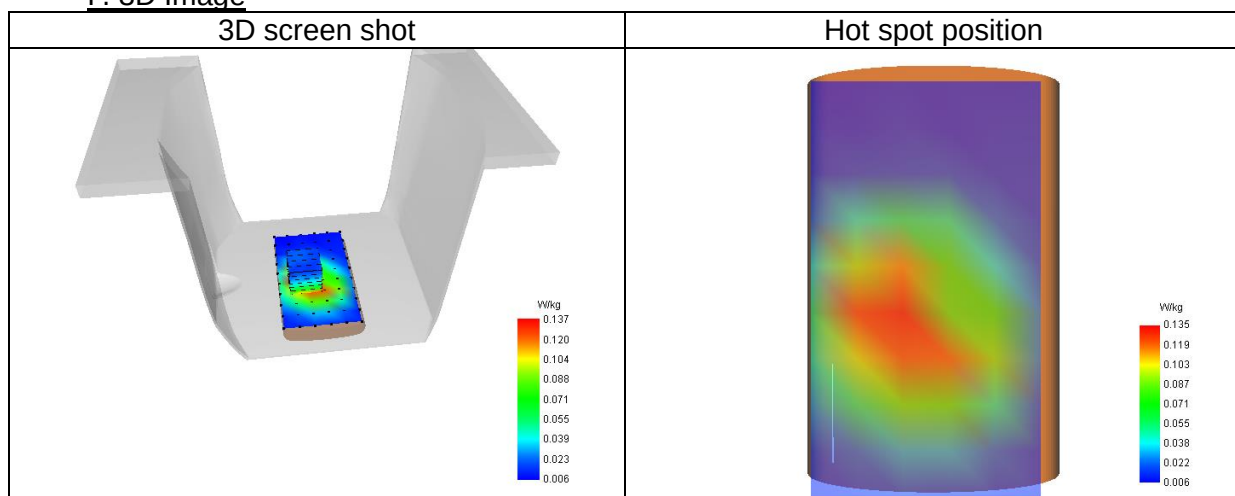
SAR 10g (W/Kg)	0.088
SAR 1g (W/Kg)	0.136
Variation (%)	0.13
Horizontal validation criteria: minimum distance (mm)	17.89
Vertical validation criteria: SAR ratio M2/M1 (%)	63.71

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.181	0.137	0.095	0.067	0.046	0.034	0.026



F. 3D Image



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

Date of measurement: 21/4/2026

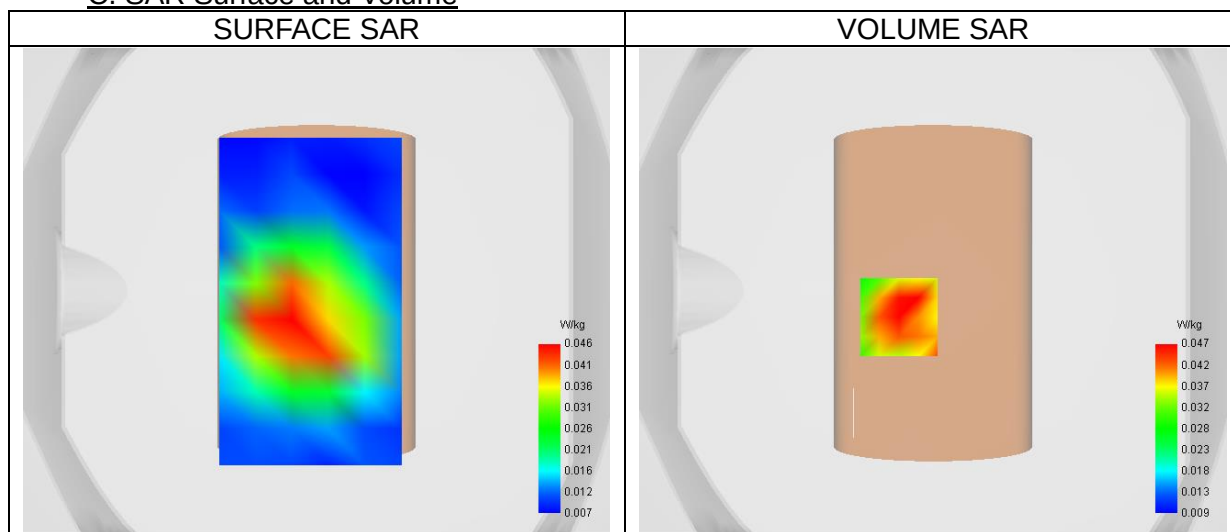
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.42
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 17
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (23790)/ frequency 710.00 Mhz
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	710.00

B. Permittivity

Middle TX Frequency (MHz)	710.00
Relative permittivity (real part)	43.35
Relative permittivity (imaginary part)	21.83
Conductivity (S/m)	0.86

C. SAR Surface and Volume



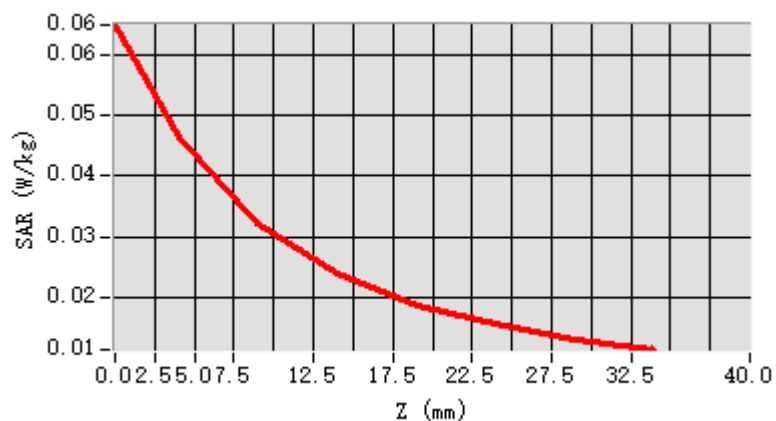
Maximum location: X=-14.00, Y=-11.00 ; SAR Peak: 0.07 W/kg

D. SAR 1g & 10g

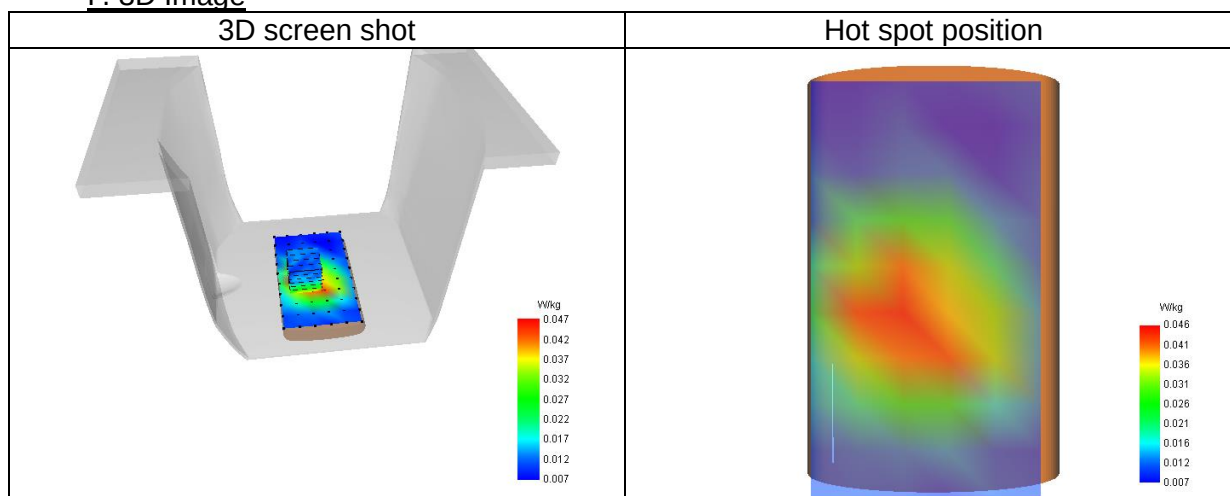
SAR 10g (W/Kg)	0.030
SAR 1g (W/Kg)	0.045
Variation (%)	2.73
Horizontal validation criteria: minimum distance (mm)	17.89
Vertical validation criteria: SAR ratio M2/M1 (%)	63.71

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.065	0.047	0.032	0.024	0.019	0.016	0.013



F. 3D Image



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

Date of measurement: 21/4/2026

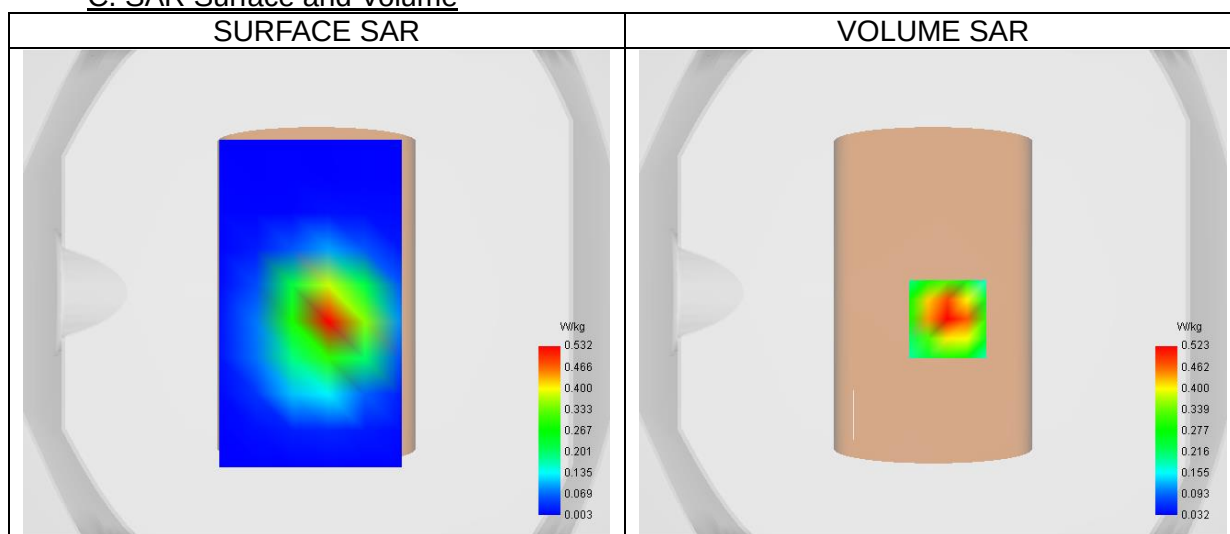
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.42
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 17
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (23790)/ frequency 710.00 Mhz
Cell Bandwidth	10 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	710.00

B. Permittivity

Middle TX Frequency (MHz)	710.00
Relative permittivity (real part)	43.35
Relative permittivity (imaginary part)	21.83
Conductivity (S/m)	0.86

C. SAR Surface and Volume



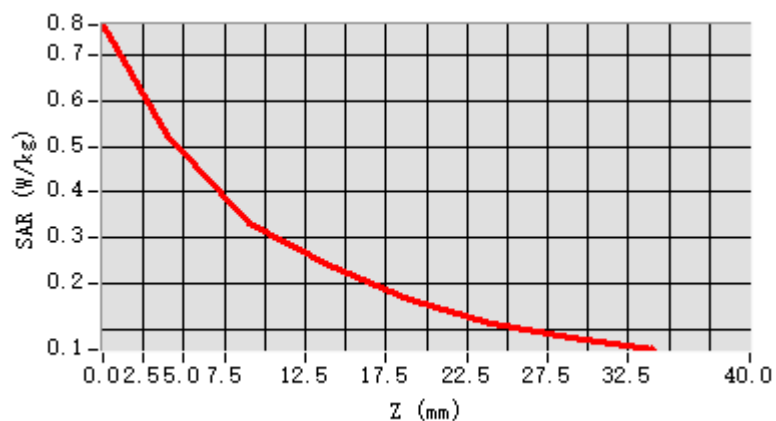
Maximum location: X=6.00, Y=-11.00 ; SAR Peak: 0.77 W/kg

D. SAR 1g & 10g

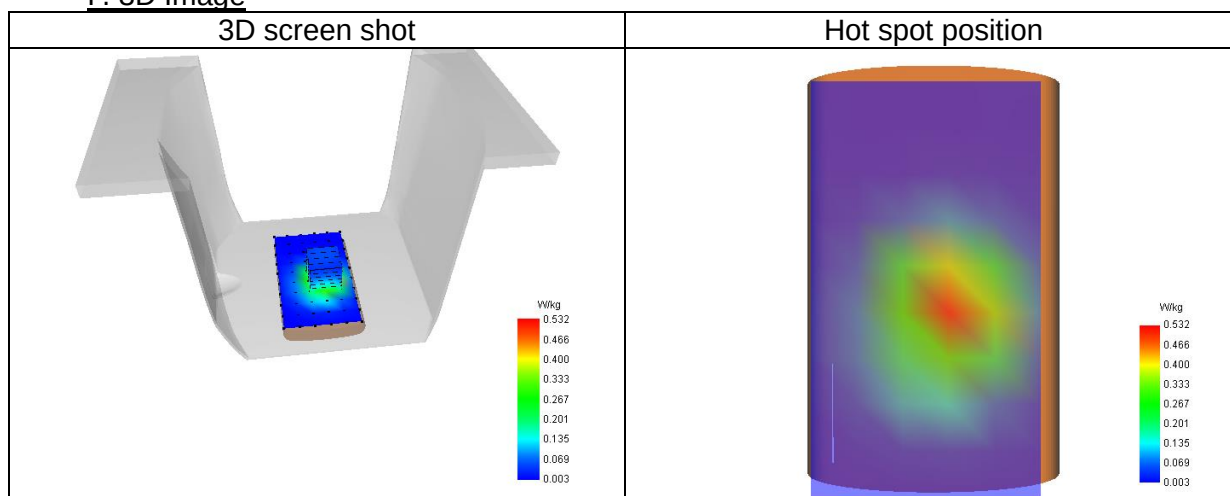
SAR 10g (W/Kg)	0.301
SAR 1g (W/Kg)	0.504
Variation (%)	-0.66
Horizontal validation criteria: minimum distance (mm)	17.89
Vertical validation criteria: SAR ratio M2/M1 (%)	63.71

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.765	0.523	0.333	0.240	0.167	0.114	0.081



F. 3D Image



27# SAR Measurement at LTE band 38 (Body, Validation Plane)

Date of measurement: 22/4/2026

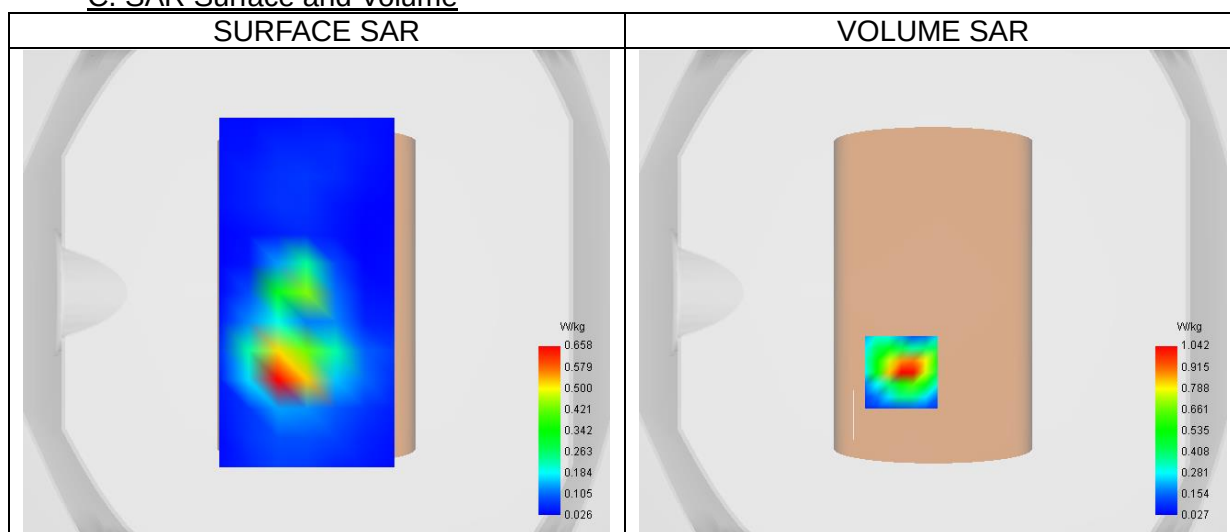
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
Area Scan	dx=12mm dy=12mm, Complete
Zoom Scan	7x7x7, dx=5mm dy=5mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 38
Signal	LTE TDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (38000)/ frequency 2595.00 Mhz
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	2595.00

B. Permittivity

Middle TX Frequency (MHz)	2595.00
Relative permittivity (real part)	39.35
Relative permittivity (imaginary part)	13.92
Conductivity (S/m)	2.01

C. SAR Surface and Volume



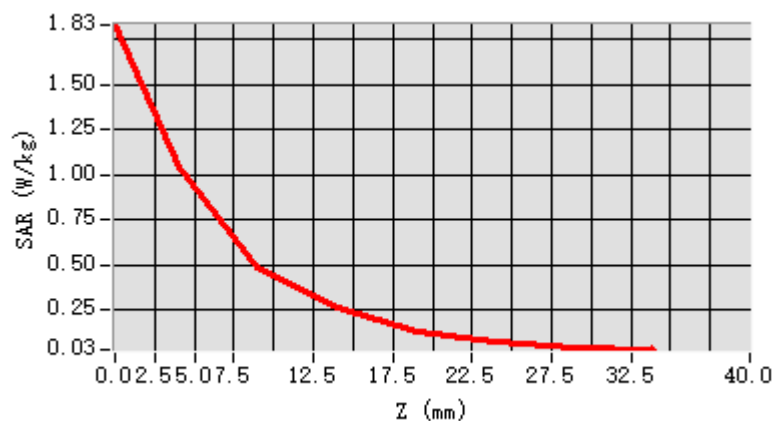
Maximum location: X=-13.00, Y=-33.00 ; SAR Peak: 1.98 W/kg

D. SAR 1g & 10g

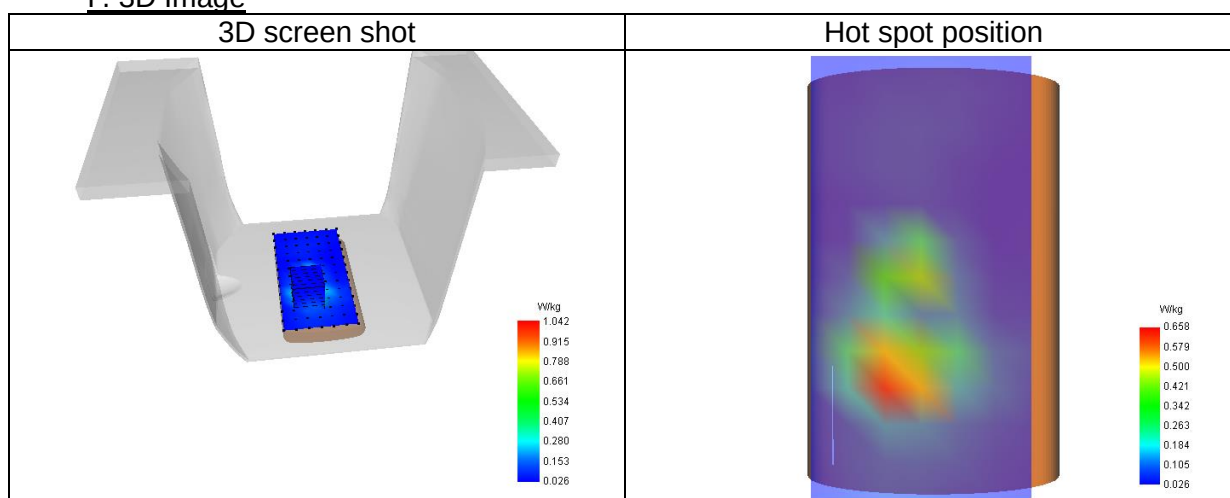
SAR 10g (W/Kg)	0.376
SAR 1g (W/Kg)	0.948
Variation (%)	-3.14
Horizontal validation criteria: minimum distance (mm)	7.07
Vertical validation criteria: SAR ratio M2/M1 (%)	46.25

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.832	1.042	0.482	0.268	0.136	0.077	0.047



F. 3D Image



28# SAR Measurement at LTE band 38 (Body, Validation Plane)

Date of measurement: 22/4/2026

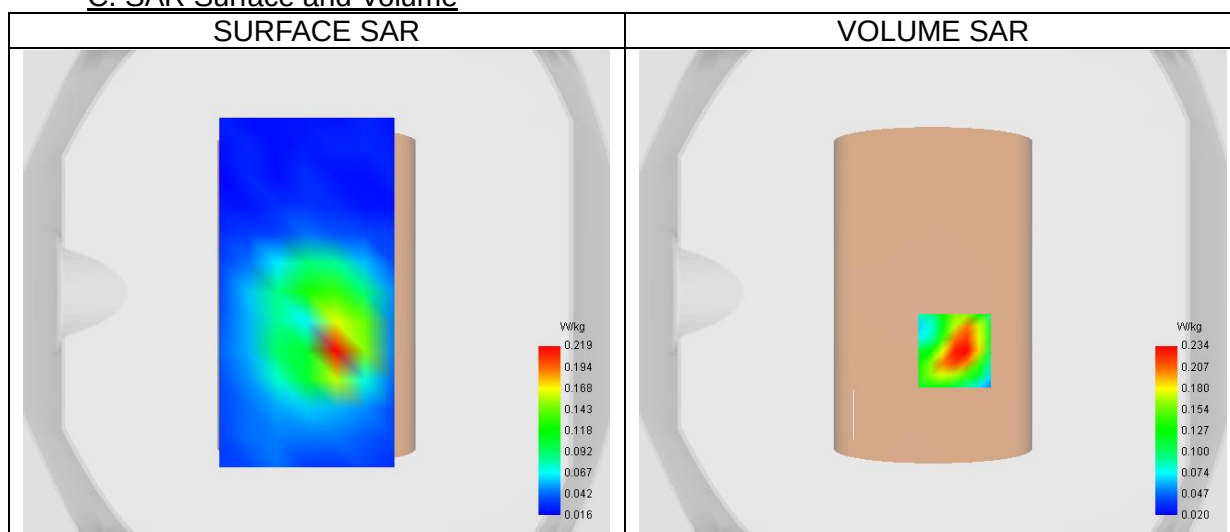
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
Area Scan	dx=12mm dy=12mm, Complete
Zoom Scan	7x7x7, dx=5mm dy=5mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 38
Signal	LTE TDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (38000)/ frequency 2595.00 Mhz
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	2595.00

B. Permittivity

Middle TX Frequency (MHz)	2595.00
Relative permittivity (real part)	39.35
Relative permittivity (imaginary part)	13.92
Conductivity (S/m)	2.01

C. SAR Surface and Volume



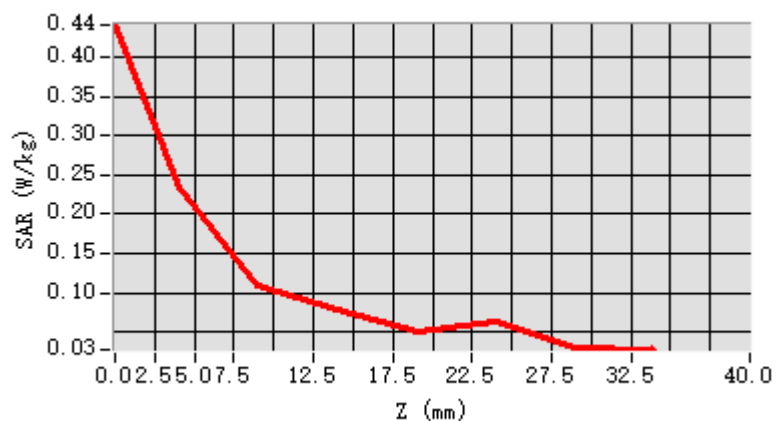
Maximum location: X=9.00, Y=-24.00 ; SAR Peak: 0.40 W/kg

D. SAR 1g & 10g

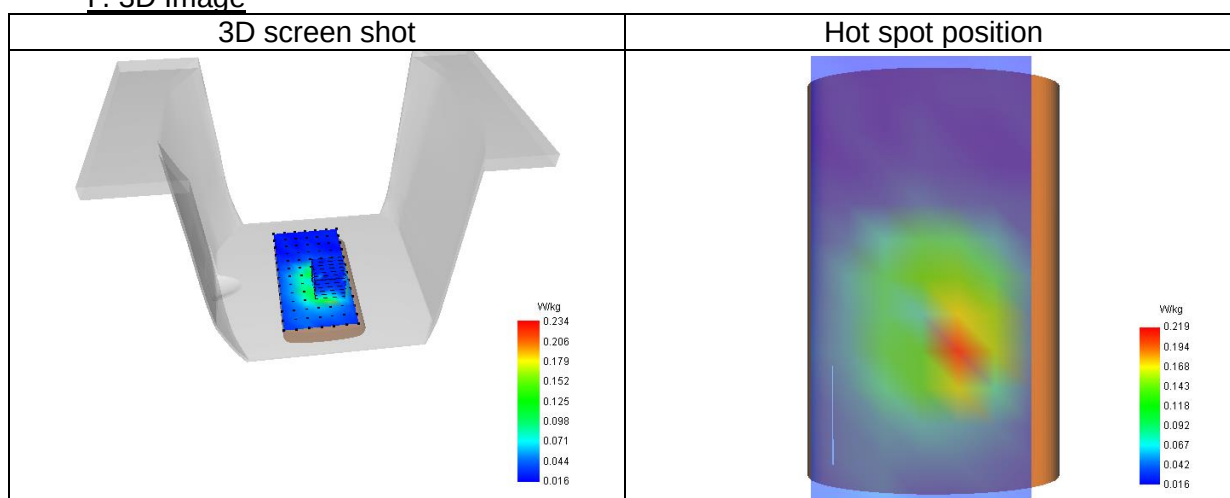
SAR 10g (W/Kg)	0.111
SAR 1g (W/Kg)	0.218
Variation (%)	-1.53
Horizontal validation criteria: minimum distance (mm)	10.00
Vertical validation criteria: SAR ratio M2/M1 (%)	54.47

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.440	0.234	0.110	0.079	0.051	0.063	0.031



F. 3D Image



29# SAR Measurement at LTE band 41 (Body, Validation Plane)

Date of measurement: 22/4/2026

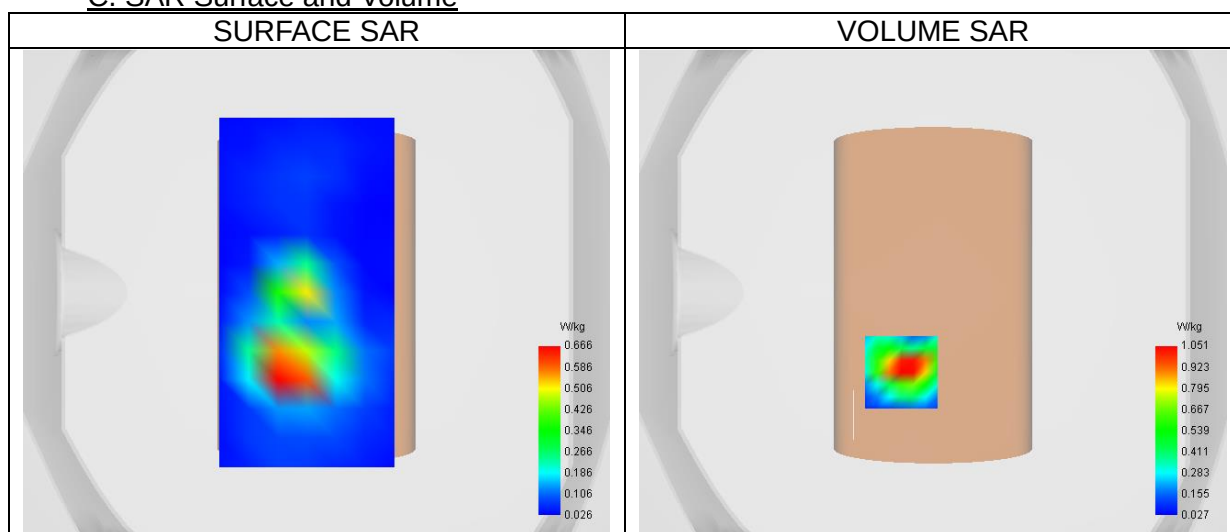
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
Area Scan	dx=12mm dy=12mm, Complete
Zoom Scan	7x7x7,dx=5mm dy=5mm dz=5.0mm,Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 41
Signal	LTE TDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (40620)/ frequency 2593.00 Mhz
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	2593.00

B. Permittivity

Middle TX Frequency (MHz)	2593.00
Relative permittivity (real part)	39.43
Relative permittivity (imaginary part)	13.87
Conductivity (S/m)	2.00

C. SAR Surface and Volume



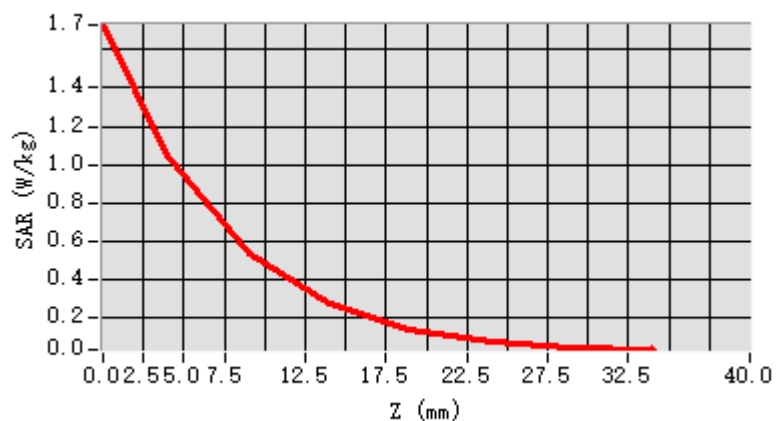
Maximum location: X=-13.00, Y=-33.00 ; SAR Peak: 2.09 W/kg

D. SAR 1g & 10g

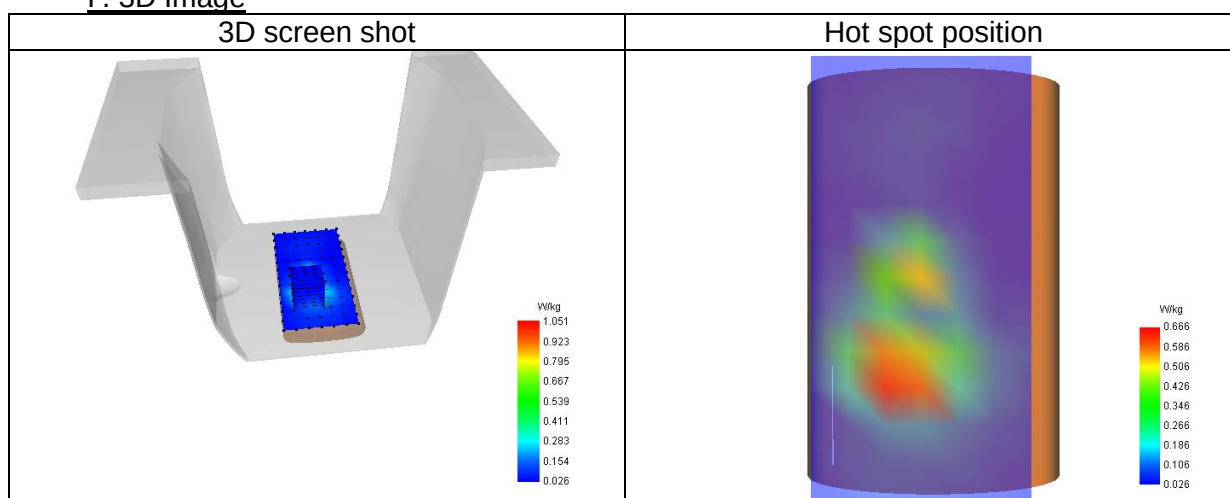
SAR 10g (W/Kg)	0.405
SAR 1g (W/Kg)	0.998
Variation (%)	-0.17
Horizontal validation criteria: minimum distance (mm)	7.07
Vertical validation criteria: SAR ratio M2/M1 (%)	50.76

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.728	1.051	0.534	0.281	0.140	0.078	0.049



F. 3D Image



30# SAR Measurement at LTE band 41 (Body, Validation Plane)

Date of measurement: 22/4/2026

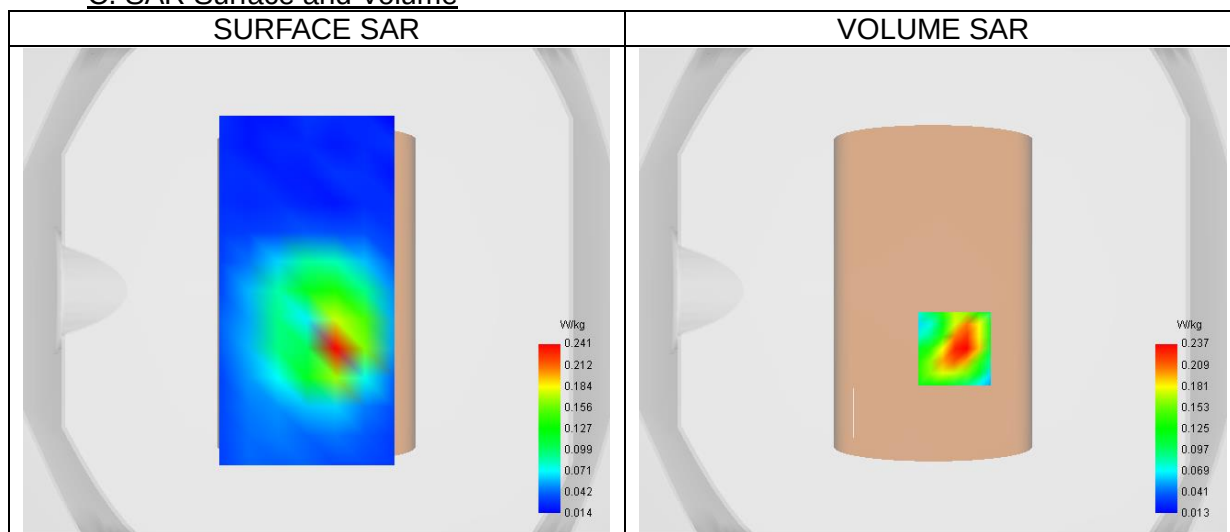
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
Area Scan	dx=12mm dy=12mm, Complete
Zoom Scan	7x7x7, dx=5mm dy=5mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 41
Signal	LTE TDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (40620)/ frequency 2593.00 Mhz
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	2593.00

B. Permittivity

Middle TX Frequency (MHz)	2593.00
Relative permittivity (real part)	39.43
Relative permittivity (imaginary part)	13.87
Conductivity (S/m)	2.00

C. SAR Surface and Volume



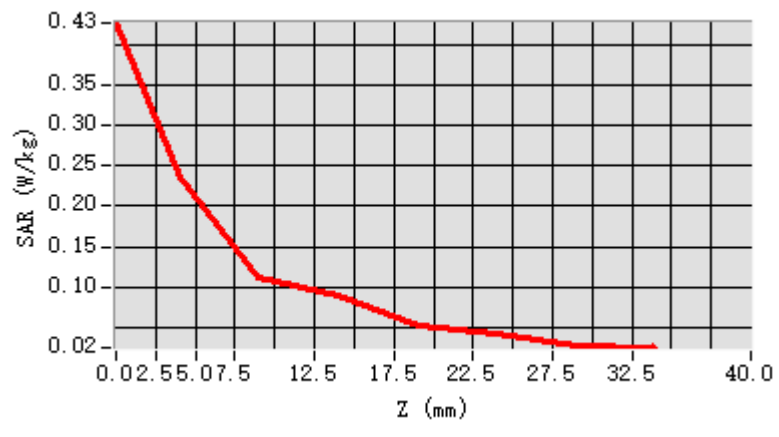
Maximum location: X=9.00, Y=-24.00 ; SAR Peak: 0.39 W/kg

D. SAR 1g & 10g

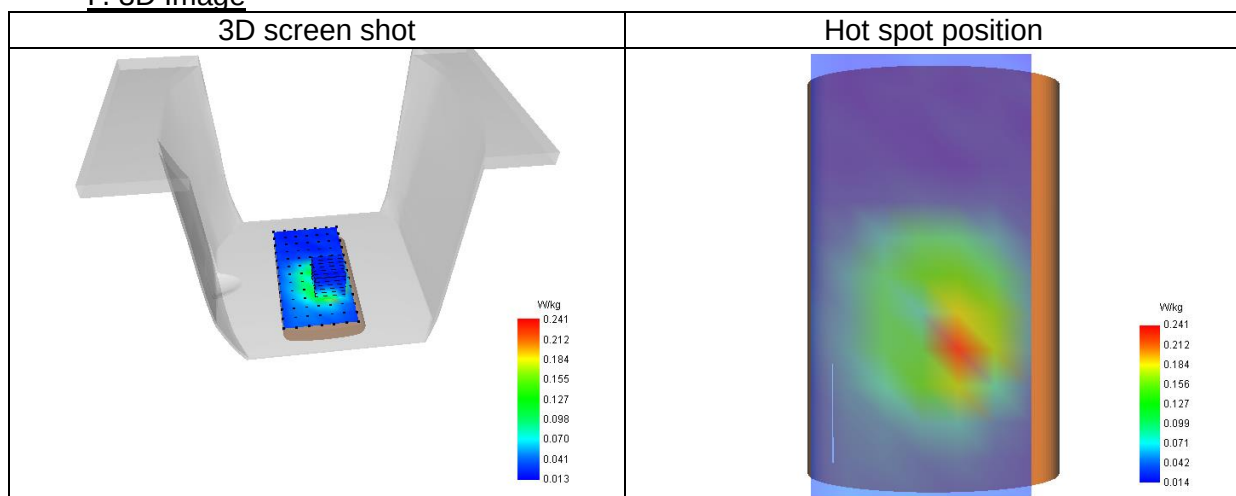
SAR 10g (W/Kg)	0.116
SAR 1g (W/Kg)	0.224
Variation (%)	-1.49
Horizontal validation criteria: minimum distance (mm)	10.00
Vertical validation criteria: SAR ratio M2/M1 (%)	57.95

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.428	0.237	0.111	0.089	0.051	0.042	0.028



F. 3D Image



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

Date of measurement: 24/4/2026

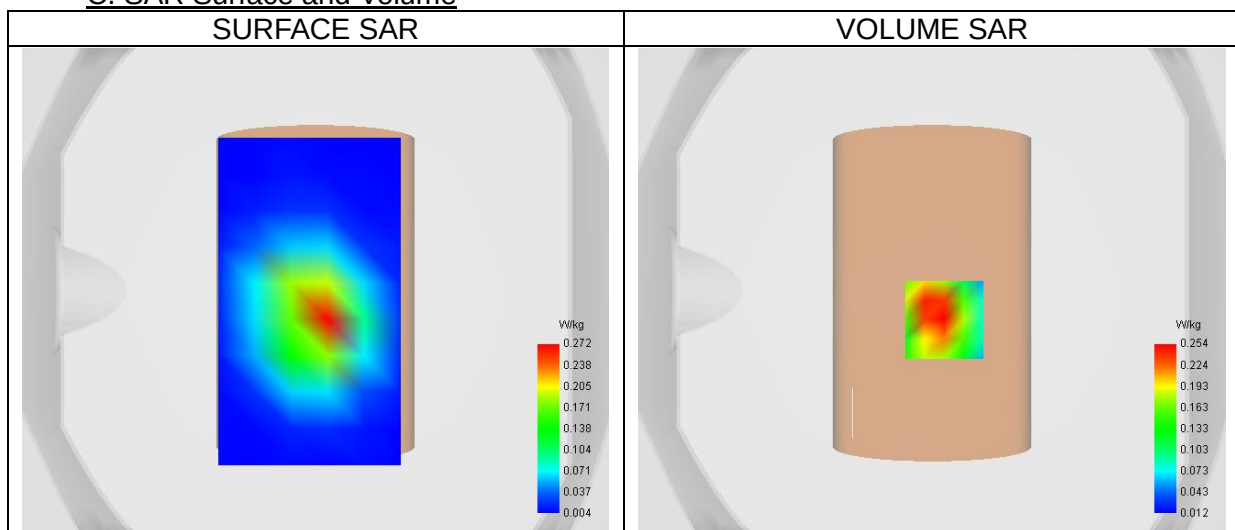
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 66
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (132322)/ frequency 1745.00 Mhz
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	1745.00

B. Permittivity

Middle TX Frequency (MHz)	1745.00
Relative permittivity (real part)	40.13
Relative permittivity (imaginary part)	14.07
Conductivity (S/m)	1.36

C. SAR Surface and Volume



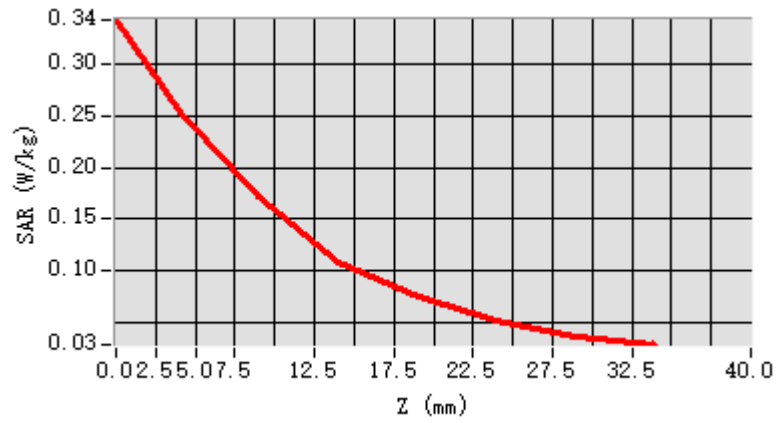
Maximum location: X=5.00, Y=-12.00 ; SAR Peak: 0.35 W/kg

D. SAR 1g & 10g

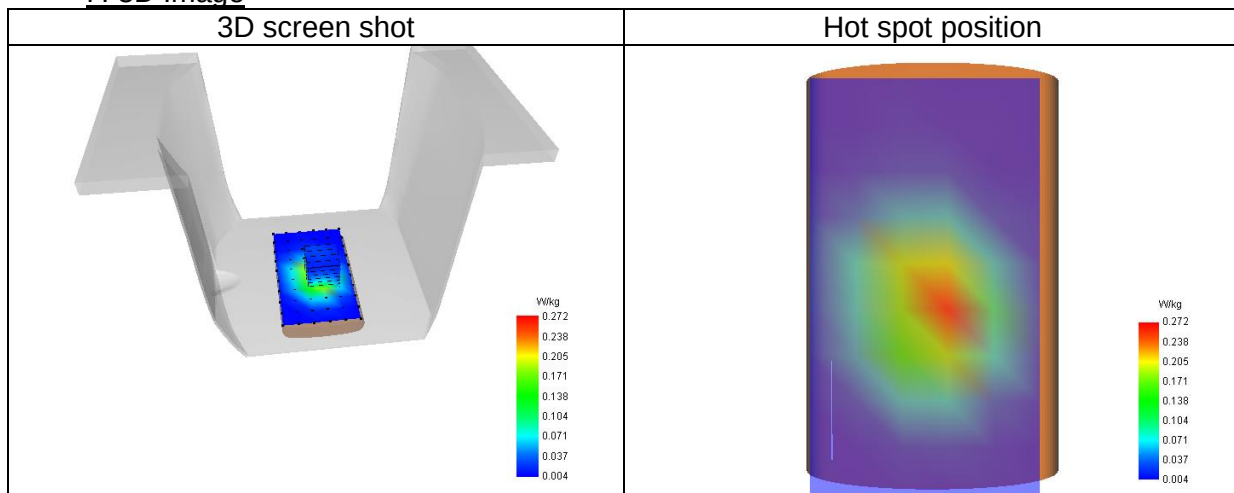
SAR 10g (W/Kg)	0.146
SAR 1g (W/Kg)	0.244
Variation (%)	-2.57
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	67.60

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	0.343	0.254	0.172	0.108	0.074	0.051	0.037



F. 3D Image



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

Date of measurement: 24/4/2026

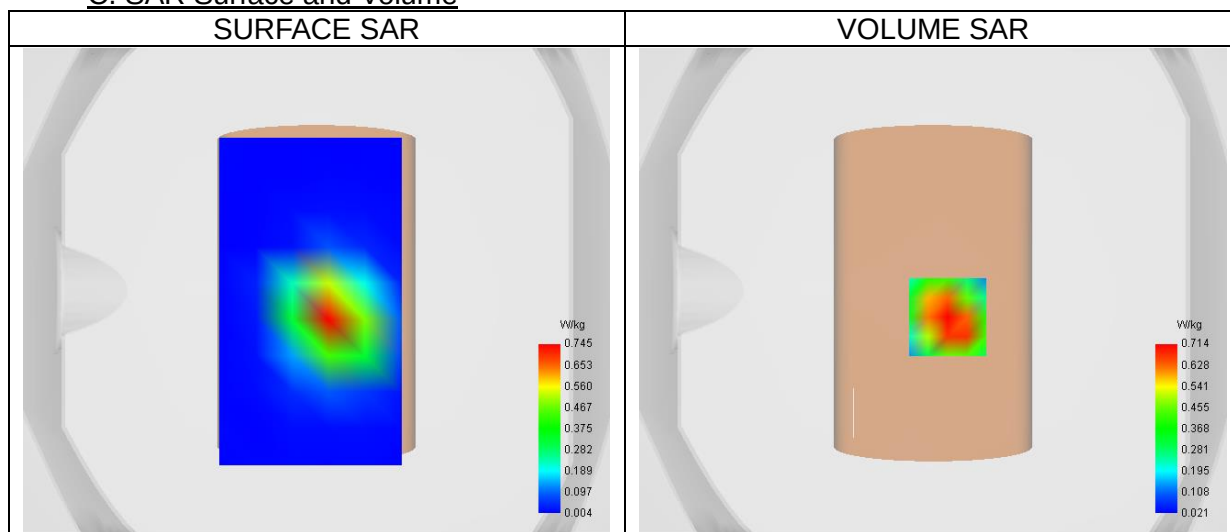
A. Experimental conditions.

Probe	4024-EPGO-442
ConvF	2.51
Area Scan	dx=15mm dy=15mm, Complete
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5.0mm, Complete
Phantom	Validation plane
Device Position	Body
Band	LTE band 66
Signal	LTE FDD
Channel Center [EARFCN] / Channel Center [MHz]	Middle (132322)/ frequency 1745.00 Mhz
Cell Bandwidth	20 Mhz
Modulation	SC-OFDM - QPSK
Middle TX Frequency (MHz)	1745.00

B. Permittivity

Middle TX Frequency (MHz)	1745.00
Relative permittivity (real part)	40.13
Relative permittivity (imaginary part)	14.07
Conductivity (S/m)	1.36

C. SAR Surface and Volume



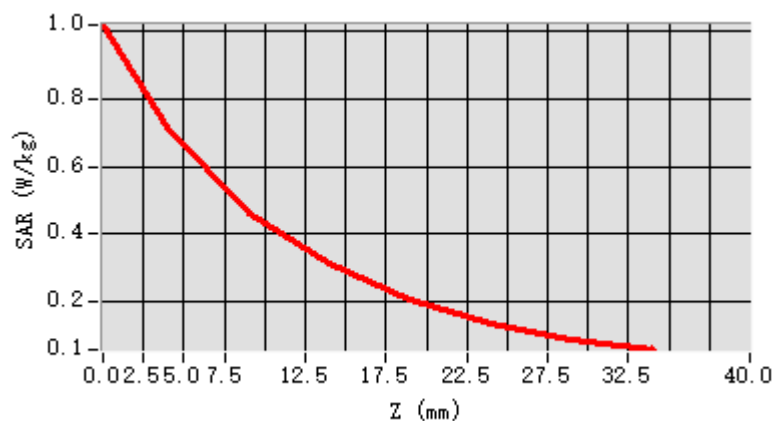
Maximum location: X=6.00, Y=-11.00 ; SAR Peak: 1.15 W/kg

D. SAR 1g & 10g

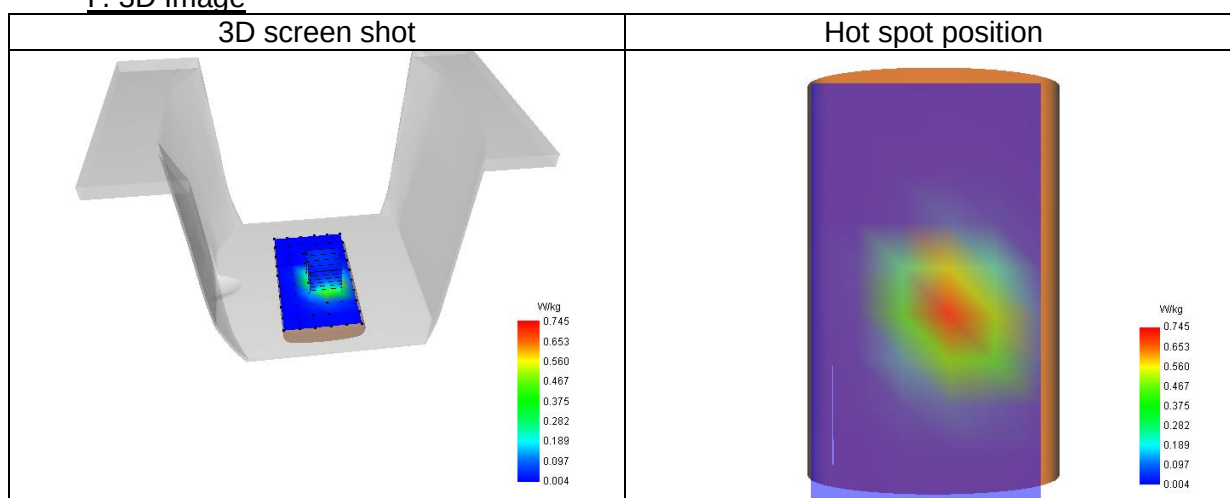
SAR 10g (W/Kg)	0.392
SAR 1g (W/Kg)	0.694
Variation (%)	-0.08
Horizontal validation criteria: minimum distance (mm)	16.00
Vertical validation criteria: SAR ratio M2/M1 (%)	64.33

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00	24.00	29.00
SAR (W/Kg)	1.019	0.714	0.460	0.311	0.206	0.134	0.089



F. 3D Image



13. 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
Justification of the extended calibration

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**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

The use of the Cofrac brand and the accreditation references is prohibited from any reproduction.

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).

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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
29093B31C48F42B...

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

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

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COMOSAR E-FIELD PROBE CALIBRATION REPORT

Ref: ACR.278.12.24.BES.A

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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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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 0.01 W/kg to 100 W/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:

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

where

$SAR_{uncertainty}$	is the uncertainty in percent of the probe boundary effect
d_{be}	is the distance between the surface and the closest <i>zoom-scan</i> measurement point, in millimetre
$\Delta step$	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., $\delta \approx 14 \text{ mm}$ 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 $SAR_{uncertainty}[\%]$ for scanning distances larger than 4mm is 1.0% Limit, 2%).

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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.

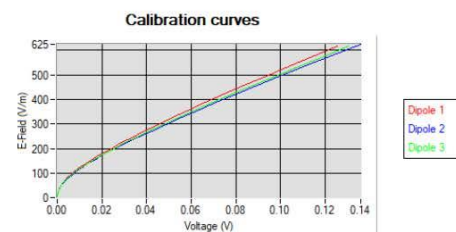
The estimated expanded uncertainty (k=2) in calibration for SAR (W/kg) is +/-14% for the frequency range 600-7500MHz.

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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where

V_i =voltage readings on the 3 channels of the probe

DCPi=diode compression point given below for the 3 channels of the probe

Normi=dipole sensitivity given below for the 3 channels of the probe

Normx dipole 1 ($\mu V/(V/m)^2$)	Normy dipole 2 ($\mu V/(V/m)^2$)	Normz dipole 3 ($\mu V/(V/m)^2$)
0.73	0.79	0.78

DCP dipole 1 (mV)	DCP dipole 2 (mV)	DCP dipole 3 (mV)
105	109	103

5.2 CALIBRATION IN LIQUID

The calorimeter cell or the waveguide is used to determine the calibration in liquid using the formula below.

$$ConvF = \frac{E_{liquid}^2}{E_{air}^2}$$

The E-field in the liquid is determined from the SAR measurement according to the below formula.

$$E_{liquid}^2 = \frac{\rho SAR}{\sigma}$$

where

σ =the conductivity of the liquid

ρ =the volumetric density of the liquid

SAR=the SAR measured from the formula that depends on the setup used. The SAR formulas are given below

For the calorimeter cell (150-450 MHz), the formula is:

$$SAR = c \frac{dT}{dt}$$

where

c =the specific heat for the liquid

dT/dt =the temperature rises over the time

For the waveguide setup (600-75000 MHz), the formula is:

$$SAR = \frac{4P_W}{ab\delta} e^{-\frac{2z}{\delta}}$$

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where

a=the larger cross-sectional of the waveguide

b=the smaller cross-sectional of the waveguide

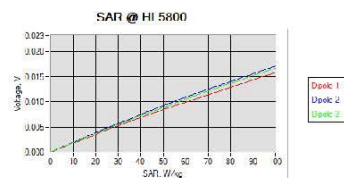
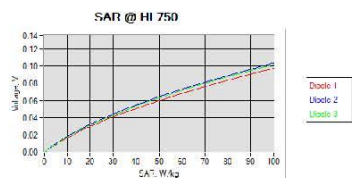
δ =the skin depth for the liquid in the waveguide

Pw=the power delivered to the liquid

The below table summarize the ConvF for the calibrated liquid. The curves give examples for the measured SAR depending on the voltage in some liquid.

Liquid	Frequency (MHz*)	ConvF
HL750	750	2.42
HL850	835	2.34
HL900	900	2.24
HL1800	1800	2.51
HL1900	1900	2.57
HL2000	2000	2.64
HL2300	2300	2.73
HL2450	2450	2.74
HL2600	2600	2.51
HL3300	3300	2.11
HL3500	3500	2.15
HL3700	3700	2.08
HL3900	3900	2.27
HL4200	4200	2.39
HL4600	4600	2.30
HL4900	4900	2.13
HL5200	5200	1.89
HL5400	5400	1.97
HL5600	5600	1.88
HL5800	5800	1.90

(*) Frequency validity is ± 50 MHz below 600MHz, ± 100 MHz from 600MHz to 6GHz and ± 700 MHz above 6GHz



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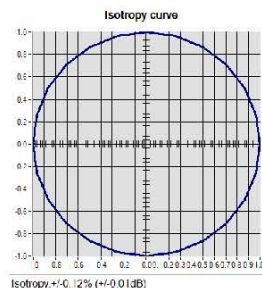
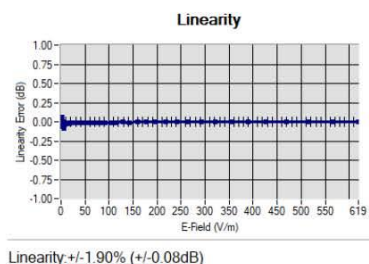


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6 VERIFICATION RESULTS

The figures below represent the measured linearity and axial isotropy for this probe. The probe specification is ± 0.2 dB for linearity and ± 0.15 dB for axial isotropy.



7 LIST OF EQUIPMENT

Equipment Summary Sheet				
Equipment Description	Manufacturer / Model	Identification No.	Current Calibration Date	Next Calibration Date
CALIPROBE Test Bench	Version 2	NA	Validated. No cal required.	Validated. No cal required.
Network Analyzer	Rohde & Schwarz ZVM	100203	08/2021	08/2026
Network Analyzer – Calibration kit	Rohde & Schwarz ZV-Z235	101223	07/2022	07/2025
Multimeter	Keithley 2000	4013982	02/2023	02/2026
Signal Generator	Rohde & Schwarz SMB	106589	03/2022	03/2025
Amplifier	MVG	MODU-023-C-0002	Characterized prior to test. No cal required.	Characterized prior to test. No cal required.
Power Meter	NI-USB 5680	170100013	06/2021	06/2026
USB Sensor	Keysight U2000A	SN: MY62340002	10/2022	10/2025
Directional Coupler	Krytar 158020	131467	Characterized prior to test. No cal required.	Characterized prior to test. No cal required.
Fluoroptic Thermometer	LumaSense Luxtron 812	94264	09/2022	09/2025
Coaxial cell	MVG	SN 32/16 COAXCELL_1	Validated. No cal required.	Validated. No cal required.

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