

**LTE Band 30 Head**

Date: 2025-03-30

Electronics: DAE4 Sn1790

Medium: Head 2300MHz

Medium parameters used:  $f = 2310$  MHz;  $\sigma = 1.701$  S/m;  $\epsilon_r = 38.539$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, LTE\_FDD Frequency: 2310 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.14, 7.75, 7.59)

**Right Cheek Middle 1RB24/Area Scan (111x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.862 W/kg

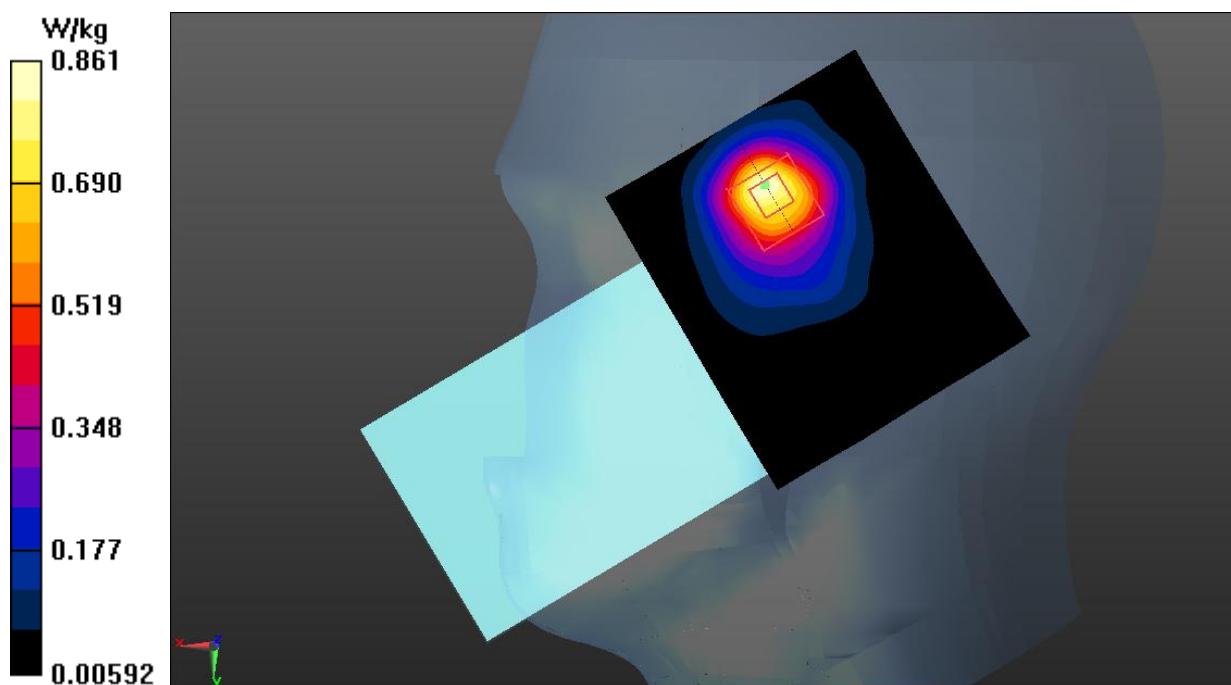
**Right Cheek Middle 1RB24/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.564 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 1.14 W/kg

**SAR(1 g) = 0.627 W/kg; SAR(10 g) = 0.334 W/kg**

Maximum value of SAR (measured) = 0.861 W/kg



**Fig.27 LTE Band 30 Head**

**LTE Band 30 Body**

Date: 2025-03-30

Electronics: DAE4 Sn1790

Medium: Head 2300MHz

Medium parameters used:  $f = 2310$  MHz;  $\sigma = 1.701$  S/m;  $\epsilon_r = 38.539$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, LTE\_FDD Frequency: 2310 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.14, 7.75, 7.59)

**Rear Side Middle 1RB24/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.842 W/kg

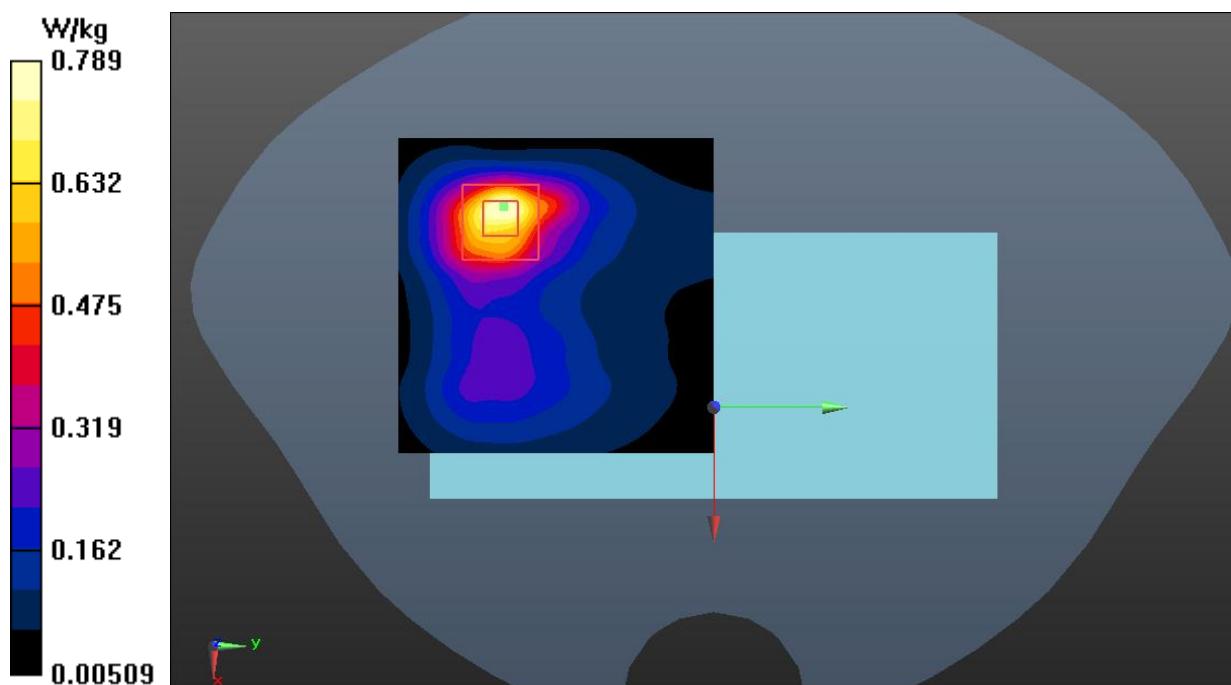
**Rear Side Middle 1RB24/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.781 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.05 W/kg

**SAR(1 g) = 0.571 W/kg; SAR(10 g) = 0.290 W/kg**

Maximum value of SAR (measured) = 0.789 W/kg



**Fig.28 LTE Band 30 Body**

**LTE Band 41 Head**

Date: 2025-04-14

Electronics: DAE4 Sn1790

Medium: Head 2550MHz

Medium parameters used (interpolated):  $f = 2593$  MHz;  $\sigma = 1.996$  S/m;  $\epsilon_r = 37.768$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, LTE\_TDD HP (0) Frequency: 2593 MHz Duty Cycle: 1:2.31

Probe: EX3DV4 - SN7683 ConvF (7.93, 7.55, 7.39)

**Right Cheek Middle 1RB50/Area Scan (121x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.971 W/kg

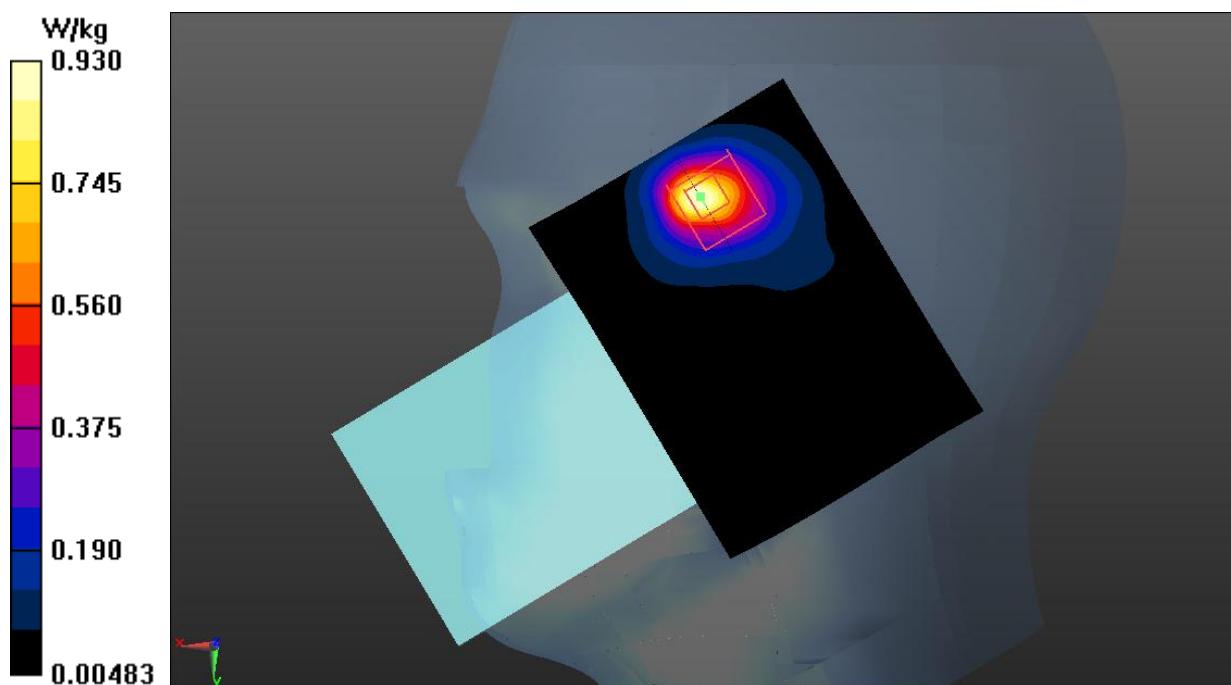
**Right Cheek Middle 1RB50/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.221 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.24 W/kg

**SAR(1 g) = 0.586 W/kg; SAR(10 g) = 0.278 W/kg**

Maximum value of SAR (measured) = 0.930 W/kg



**Fig.29 LTE Band 41 Head**

**LTE Band 41 Body**

Date: 2025-04-14

Electronics: DAE4 Sn1790

Medium: Head 2550MHz

Medium parameters used (interpolated):  $f = 2593$  MHz;  $\sigma = 1.996$  S/m;  $\epsilon_r = 37.768$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, LTE\_TDD HP (0) Frequency: 2593 MHz Duty Cycle: 1:2.31

Probe: EX3DV4 - SN7683 ConvF (7.93, 7.55, 7.39)

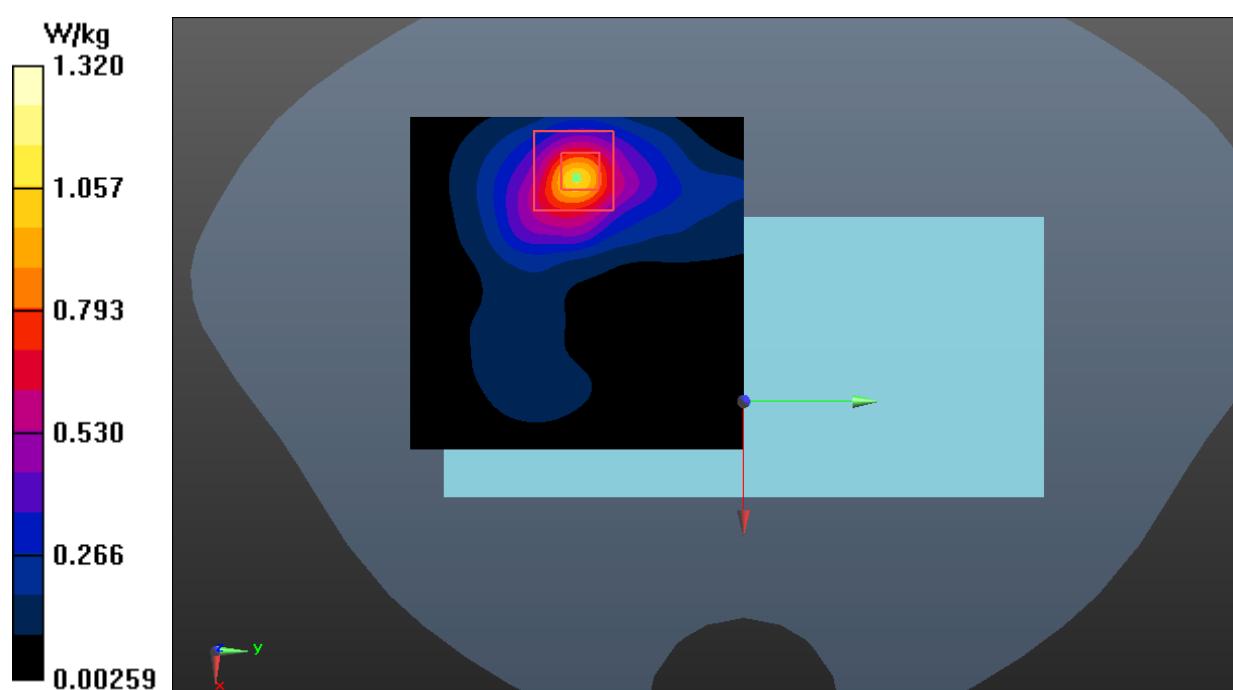
**Rear Side Middle 50RB25/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 1.07 W/kg**Rear Side Middle 50RB25/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.777 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 1.80 W/kg

**SAR(1 g) = 0.885 W/kg; SAR(10 g) = 0.410 W/kg**

Maximum value of SAR (measured) = 1.32 W/kg

**Fig.30 LTE Band 41 Body**

**LTE Band 48 Head**

Date: 2025-04-10

Electronics: DAE4 Sn1790

Medium: Head 3700MHz

Medium parameters used (interpolated):  $f = 3646.7$  MHz;  $\sigma = 3.01$  S/m;  $\epsilon_r = 38.927$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, LTE\_TDD (0) Frequency: 3646.7 MHz Duty Cycle: 1:1.58

Probe: EX3DV4 - SN7683 ConvF (7.08, 6.74, 6.60)

**Left Cheek H-M 50RB0/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.913 W/kg

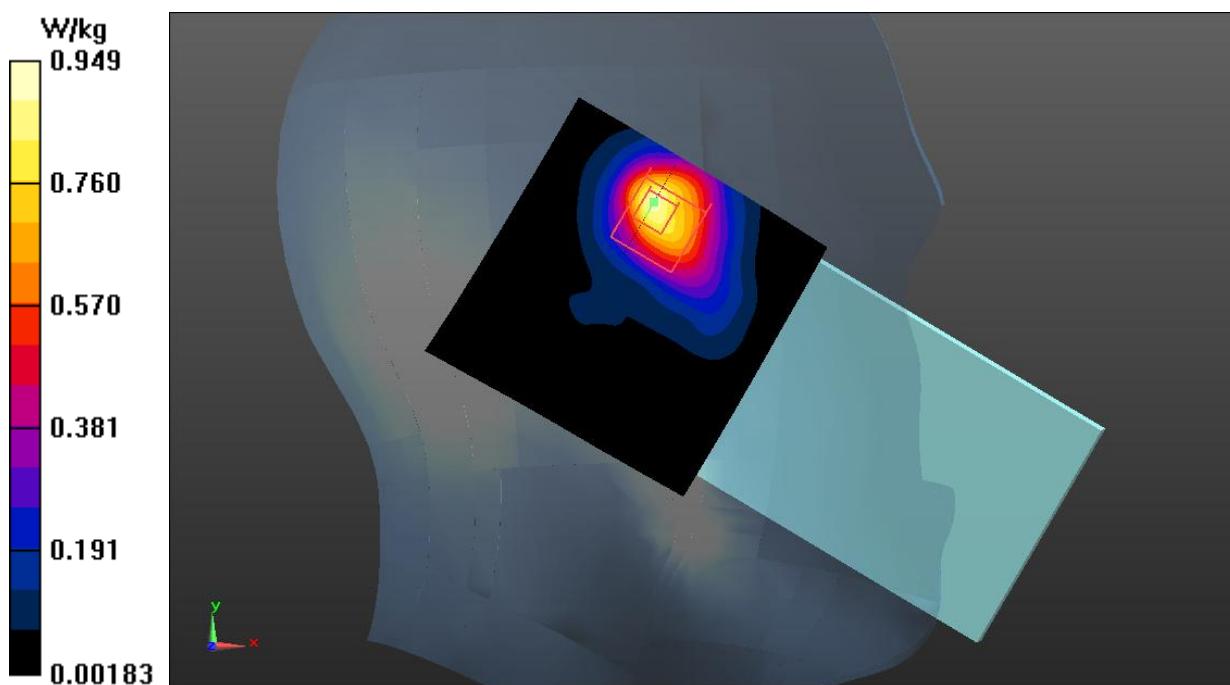
**Left Cheek H-M 50RB0/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.197 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.34 W/kg

**SAR(1 g) = 0.606 W/kg; SAR(10 g) = 0.277 W/kg**

Maximum value of SAR (measured) = 0.949 W/kg



**Fig.31 LTE Band 48 Head**

**LTE Band 48 Body**

Date: 2025-04-10

Electronics: DAE4 Sn1790

Medium: Head 3700MHz

Medium parameters used:  $f = 3690$  MHz;  $\sigma = 3.061$  S/m;  $\epsilon_r = 38.784$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, LTE\_TDD (0) Frequency: 3690 MHz Duty Cycle: 1:1.58

Probe: EX3DV4 - SN7683 ConvF (7.08, 6.74, 6.60)

**Rear Side High 50RB0/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.442 W/kg

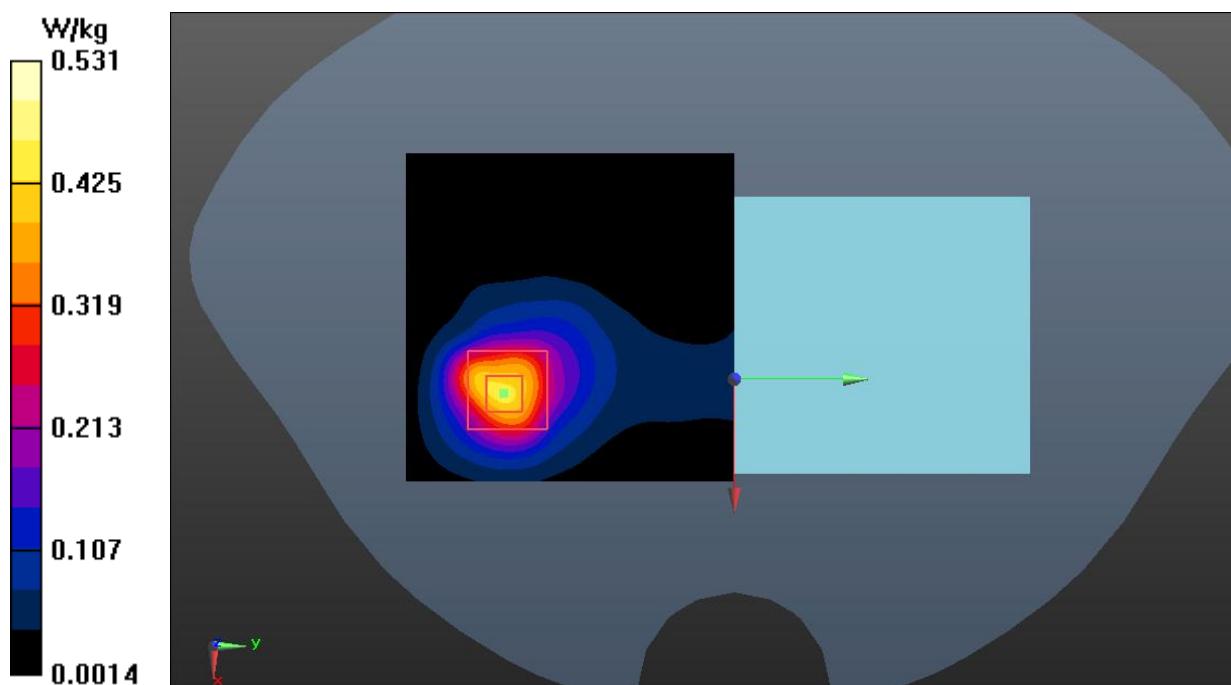
**Rear Side High 50RB0/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.778 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.756 W/kg

**SAR(1 g) = 0.329 W/kg; SAR(10 g) = 0.142 W/kg**

Maximum value of SAR (measured) = 0.531 W/kg

**Fig.32 LTE Band 48 Body**

**LTE Band 66 Head**

Date: 2025-03-26

Electronics: DAE4 Sn1790

Medium: Head 1750MHz

Medium parameters used (interpolated):  $f = 1745$  MHz;  $\sigma = 1.371$  S/m;  $\epsilon_r = 39.513$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, LTE\_FDD (0) Frequency: 1745 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

**Left Cheek Middle 50RB0/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.727 W/kg

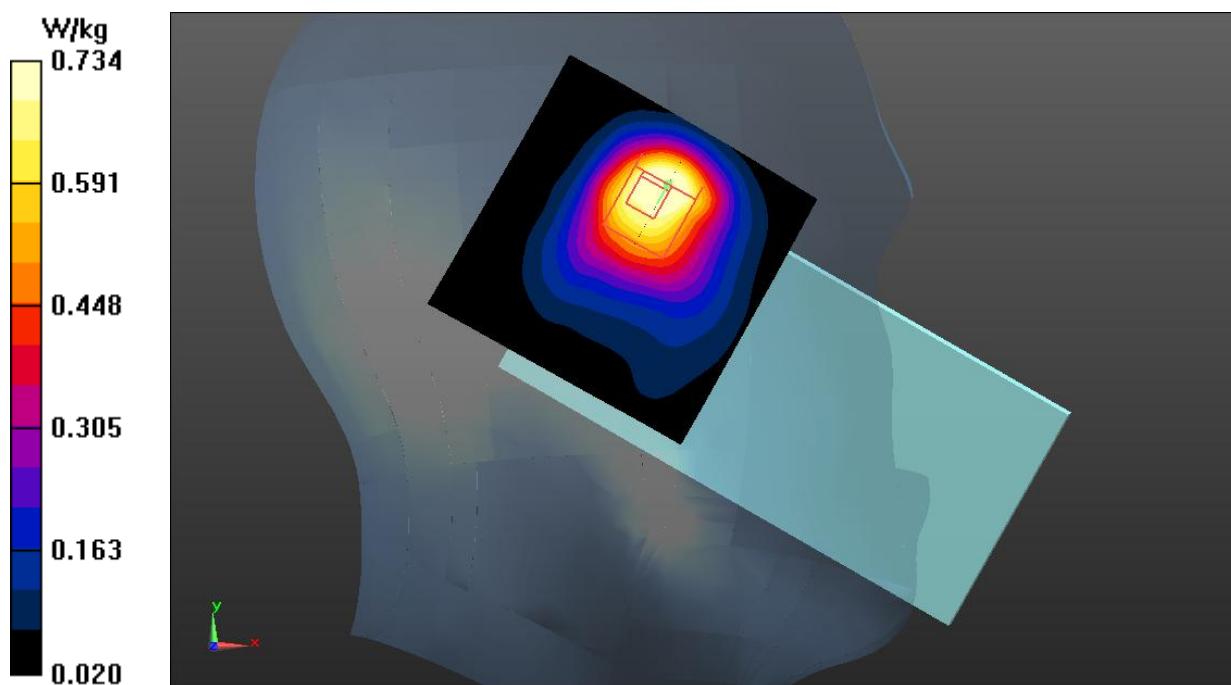
**Left Cheek Middle 50RB0/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.50 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.988 W/kg

**SAR(1 g) = 0.557 W/kg; SAR(10 g) = 0.332 W/kg**

Maximum value of SAR (measured) = 0.734 W/kg



**Fig.33 LTE Band 66 Head**

**LTE Band 66 Body**

Date: 2025-03-26

Electronics: DAE4 Sn1790

Medium: Head 1750MHz

Medium parameters used:  $f = 1770$  MHz;  $\sigma = 1.393$  S/m;  $\epsilon_r = 39.416$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, LTE\_FDD (0) Frequency: 1770 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

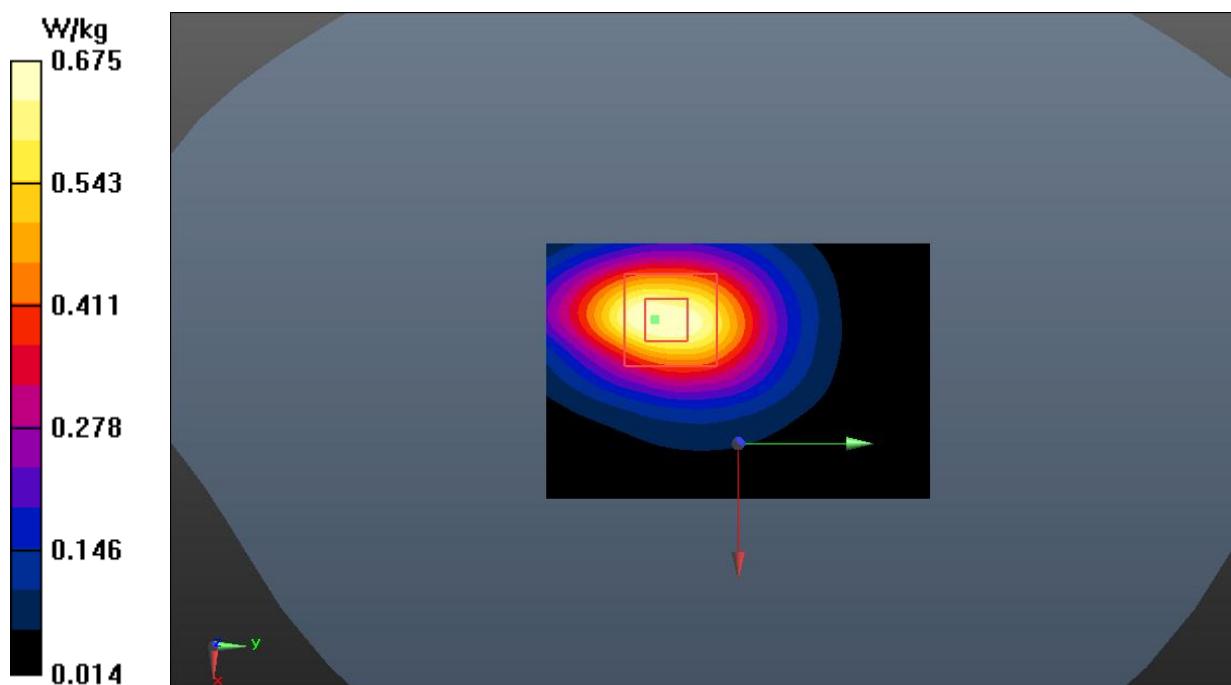
**Bottom Side High 50RB50/Area Scan (41x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.683 W/kg**Bottom Side High 50RB50/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.60 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.805 W/kg

**SAR(1 g) = 0.517 W/kg; SAR(10 g) = 0.305 W/kg**

Maximum value of SAR (measured) = 0.675 W/kg

**Fig.34 LTE Band 66 Body**

**LTE Band 71 Head**

Date: 2025-03-31

Electronics: DAE4 Sn1790

Medium: Head 750MHz

Medium parameters used (extrapolated):  $f = 673$  MHz;  $\sigma = 0.867$  S/m;  $\epsilon_r = 42.382$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, LTE\_FDD (0) Frequency: 673 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

**Left Cheek Low 1RB99/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.463 W/kg

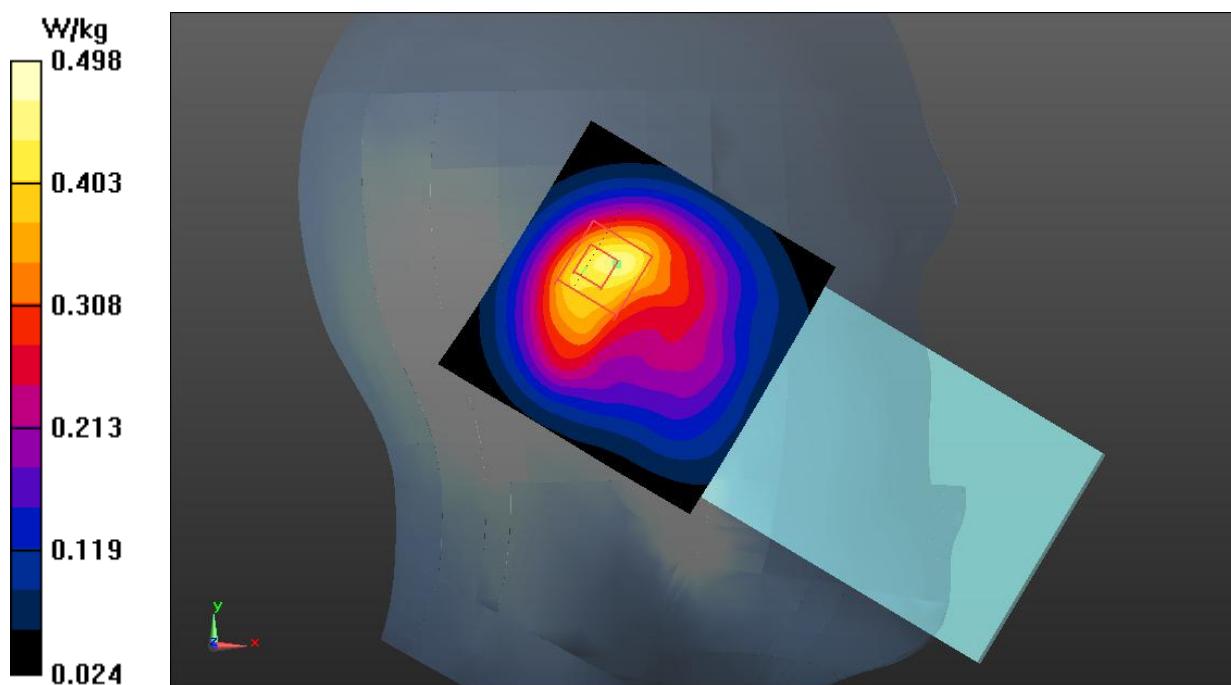
**Left Cheek Low 1RB99/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.57 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.695 W/kg

**SAR(1 g) = 0.359 W/kg; SAR(10 g) = 0.206 W/kg**

Maximum value of SAR (measured) = 0.498 W/kg



**Fig.35 LTE Band 71 Head**

**LTE Band 71 Body**

Date: 2025-03-31

Electronics: DAE4 Sn1790

Medium: Head 750MHz

Medium parameters used (extrapolated):  $f = 673$  MHz;  $\sigma = 0.867$  S/m;  $\epsilon_r = 42.382$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, LTE\_FDD (0) Frequency: 673 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

**Left Side Low 1RB99/Area Scan (41x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.317 W/kg

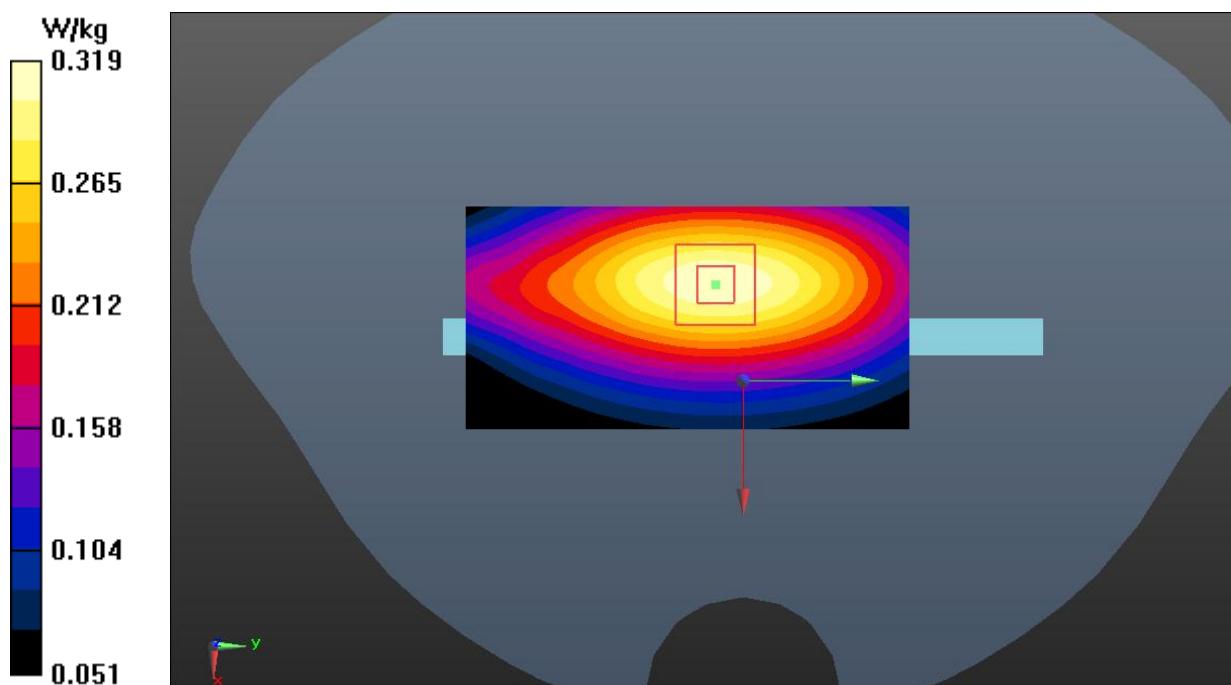
**Left Side Low 1RB99/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.72 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.366 W/kg

**SAR(1 g) = 0.263 W/kg; SAR(10 g) = 0.190 W/kg**

Maximum value of SAR (measured) = 0.319 W/kg

**Fig.36 LTE Band 71 Body**

**NR n2 Head**

Date: 2025-04-09

Electronics: DAE4 Sn1790

Medium: Head 1900MHz

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.417$  S/m;  $\epsilon_r = 39.791$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

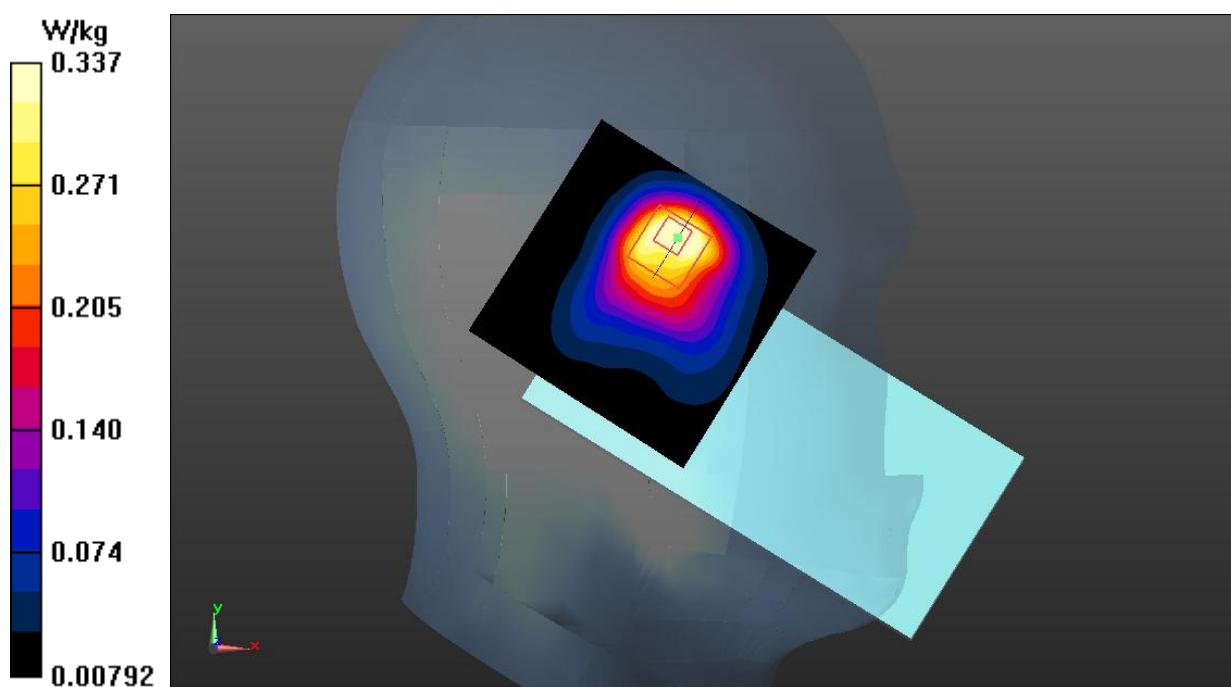
**Left Cheek Middle 50@25/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.409 W/kg**Left Cheek Middle 50@25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.575 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.451 W/kg

**SAR(1 g) = 0.246 W/kg; SAR(10 g) = 0.140 W/kg**

Maximum value of SAR (measured) = 0.337 W/kg

**Fig.37 NR n2 Head**

**NR n2 Body**

Date: 2025-04-09

Electronics: DAE4 Sn1790

Medium: Head 1900MHz

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.417$  S/m;  $\epsilon_r = 39.791$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

**Bottom Side Middle 50@25/Area Scan (41x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.496 W/kg

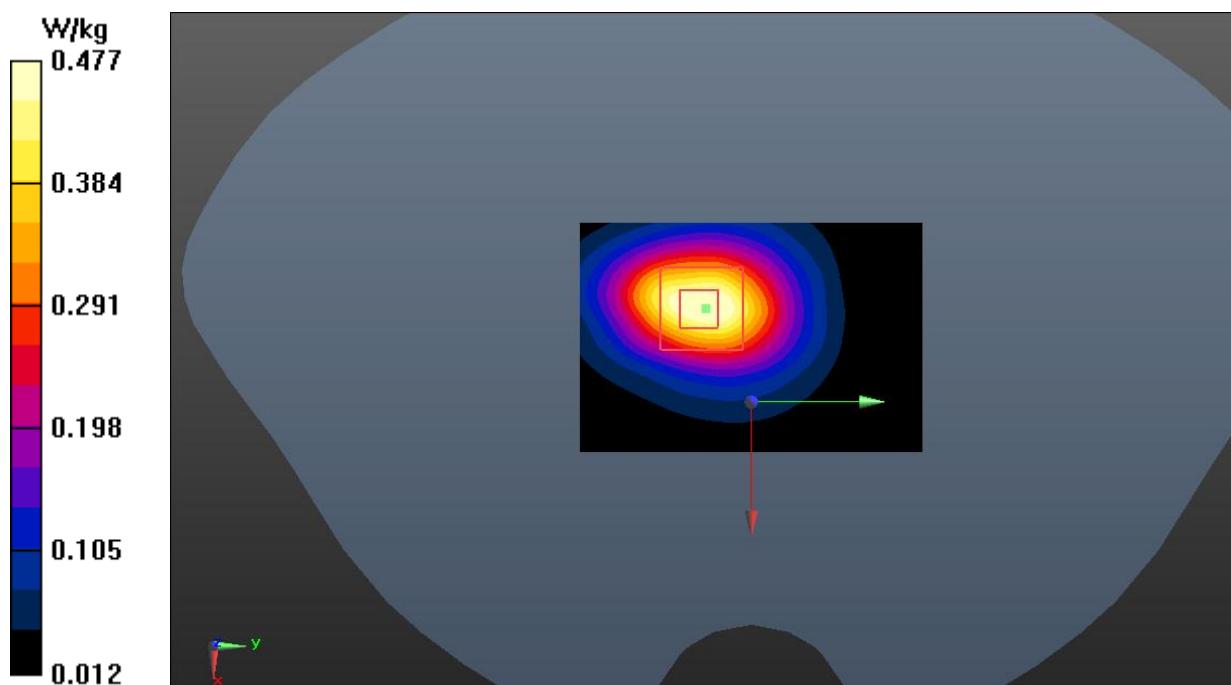
**Bottom Side Middle 50@25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.13 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.578 W/kg

**SAR(1 g) = 0.362 W/kg; SAR(10 g) = 0.211 W/kg**

Maximum value of SAR (measured) = 0.477 W/kg



**Fig.38 NR n2 Body**

**NR n5 Head**

Date: 2025-03-27

Electronics: DAE4 Sn1790

Medium: Head 835MHz

Medium parameters used (interpolated):  $f = 836.5$  MHz;  $\sigma = 0.885$  S/m;  $\epsilon_r = 42.107$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 836.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

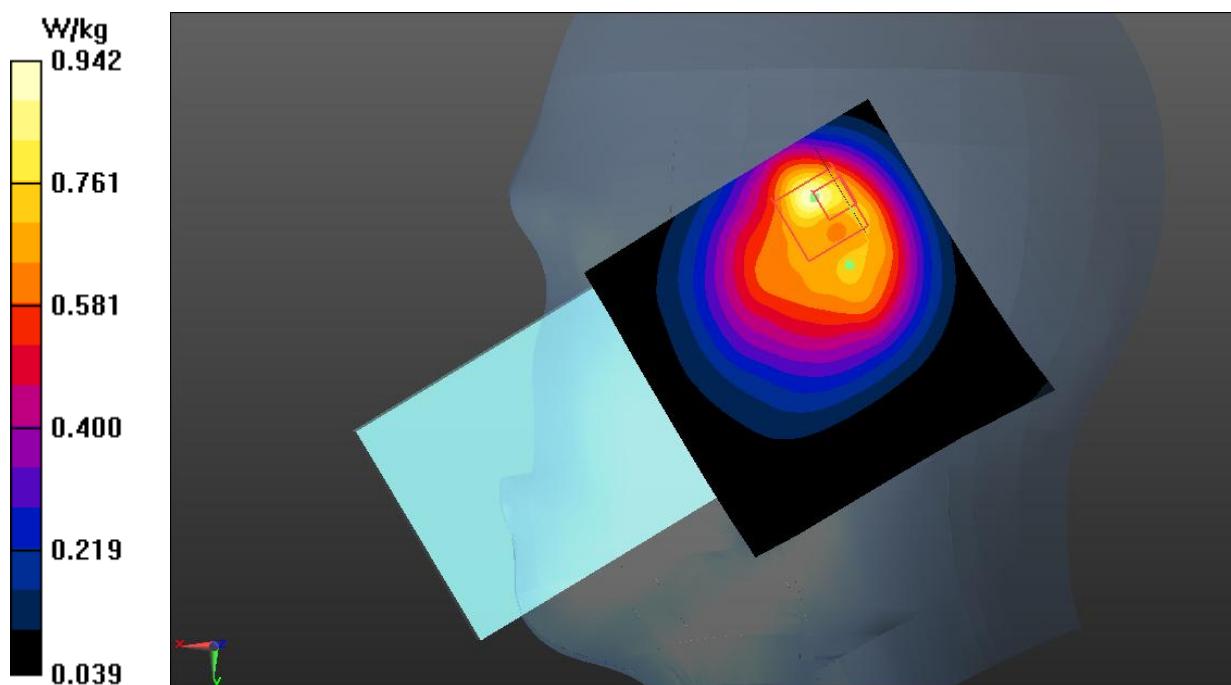
**Right Cheek Middle 50@25/Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.931 W/kg**Right Cheek Middle 50@25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.66 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.28 W/kg

**SAR(1 g) = 0.645 W/kg; SAR(10 g) = 0.392 W/kg**

Maximum value of SAR (measured) = 0.942 W/kg

**Fig.39 NR n5 Head**

**NR n5 Body**

Date: 2025-03-27

Electronics: DAE4 Sn1790

Medium: Head 835MHz

Medium parameters used (interpolated):  $f = 836.5$  MHz;  $\sigma = 0.885$  S/m;  $\epsilon_r = 42.107$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 836.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

**Top Side Middle 50@25/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.508 W/kg

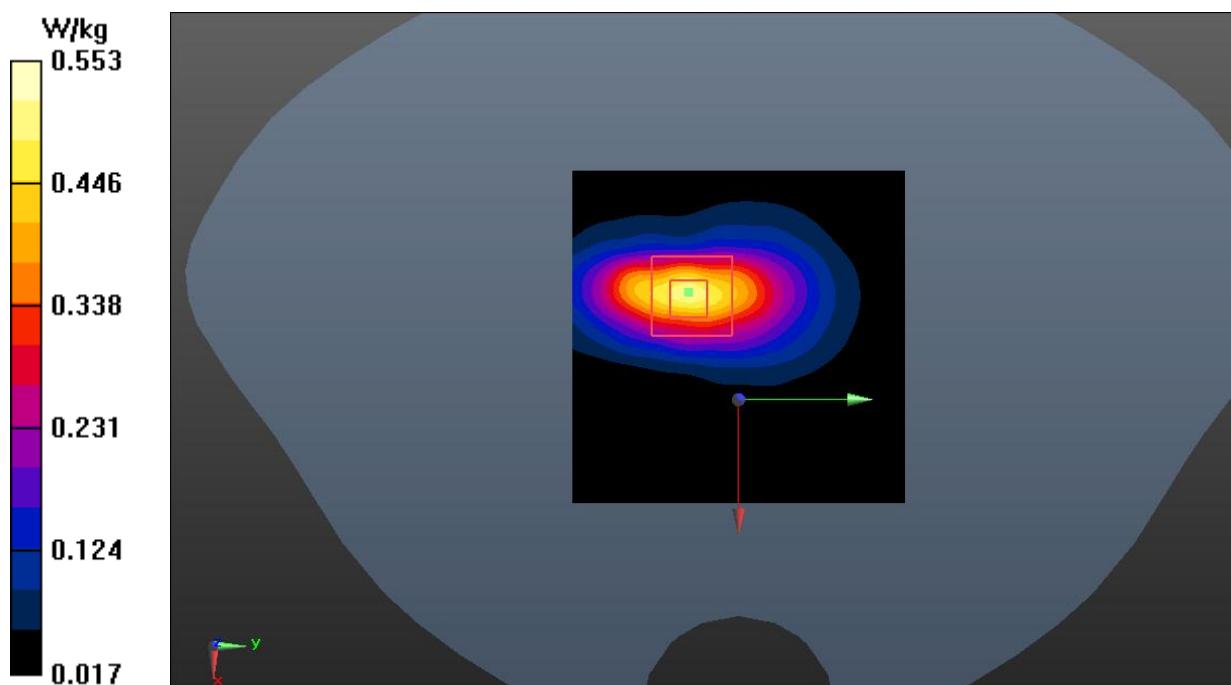
**Top Side Middle 50@25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.41 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.744 W/kg

**SAR(1 g) = 0.390 W/kg; SAR(10 g) = 0.207 W/kg**

Maximum value of SAR (measured) = 0.553 W/kg

**Fig.40 NR n 5 Body**

**NR n25 Head**

Date: 2025-04-09

Electronics: DAE4 Sn1790

Medium: Head 1900MHz

Medium parameters used (interpolated):  $f = 1882.5$  MHz;  $\sigma = 1.42$  S/m;  $\epsilon_r = 39.782$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 1882.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

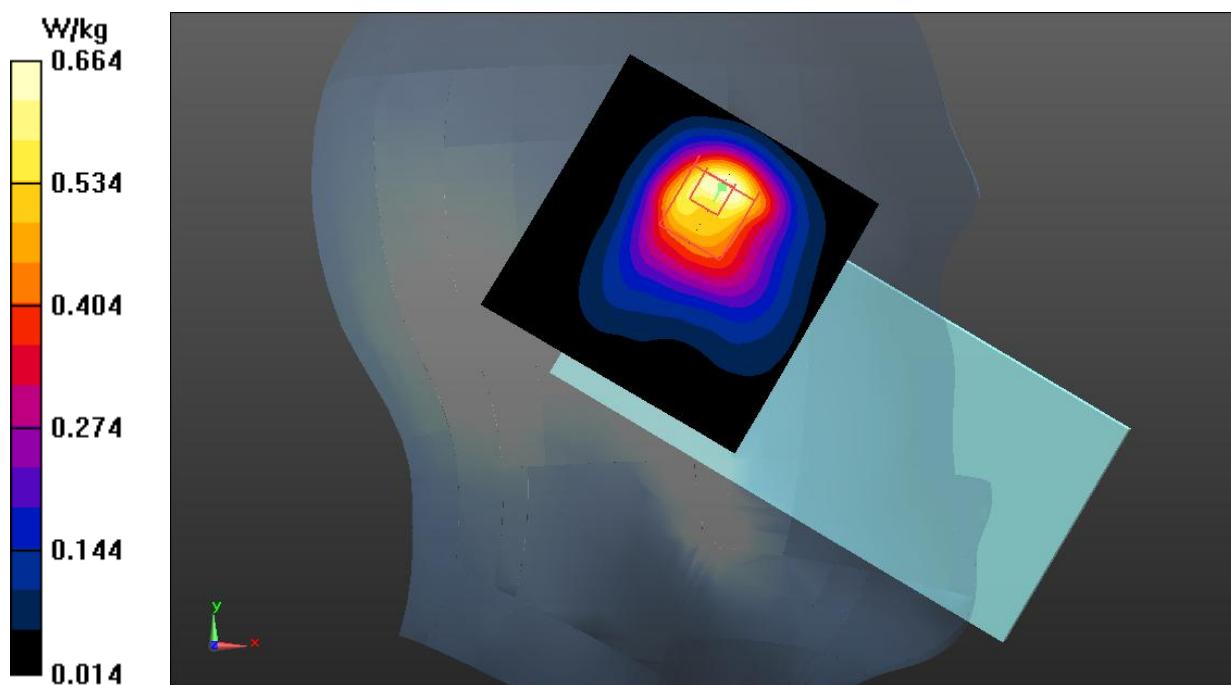
**Left Cheek Middle 120@60/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.712 W/kg**Left Cheek Middle 120@60/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.039 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.860 W/kg

**SAR(1 g) = 0.467 W/kg; SAR(10 g) = 0.268 W/kg**

Maximum value of SAR (measured) = 0.664 W/kg

**Fig.41 NR n25 Head**

**NR n25 Body**

Date: 2025-04-09

Electronics: DAE4 Sn1790

Medium: Head 1900MHz

Medium parameters used (interpolated):  $f = 1882.5$  MHz;  $\sigma = 1.42$  S/m;  $\epsilon_r = 39.782$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 1882.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

**Rear Side Middle 120@60/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.857 W/kg

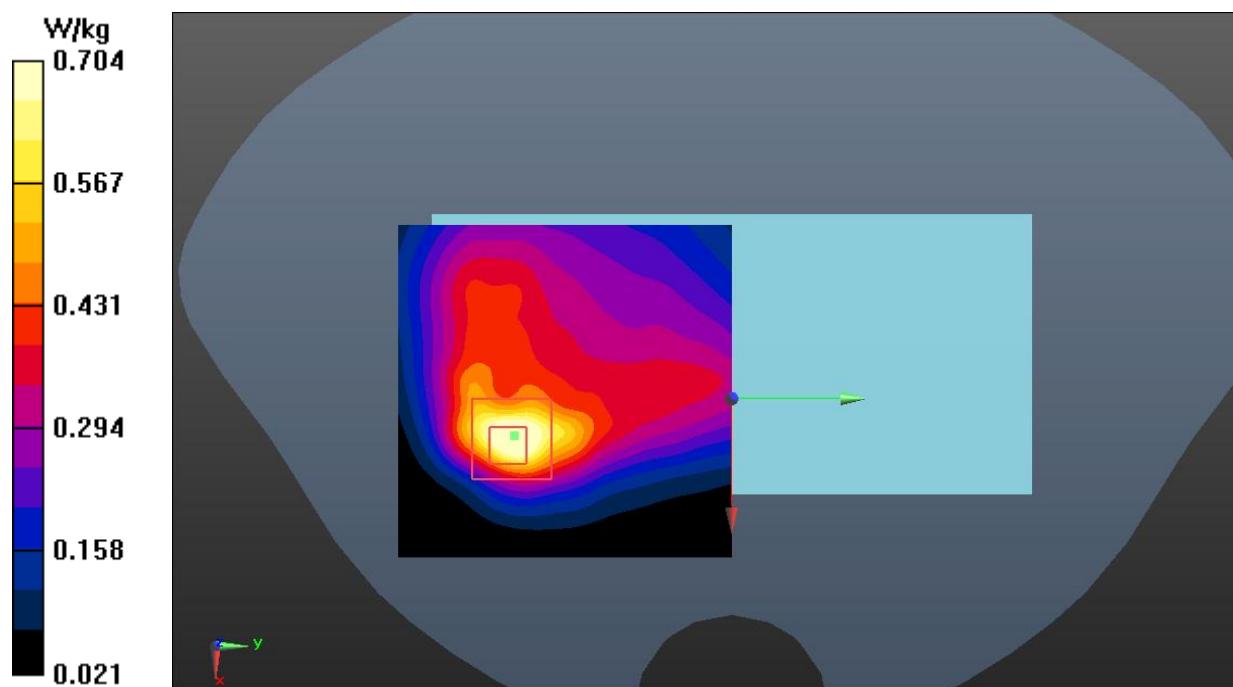
**Rear Side Middle 120@60/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.52 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.943 W/kg

**SAR(1 g) = 0.545 W/kg; SAR(10 g) = 0.293 W/kg**

Maximum value of SAR (measured) = 0.704 W/kg

**Fig.42 NR n25 Body**

**NR n30 Head**

Date: 2025-04-03

Electronics: DAE4 Sn1790

Medium: Head 2300MHz

Medium parameters used:  $f = 2310$  MHz;  $\sigma = 1.662$  S/m;  $\epsilon_r = 39.851$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 2310 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.14, 7.75, 7.59)

**Right Cheek Middle 25@12/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.780 W/kg

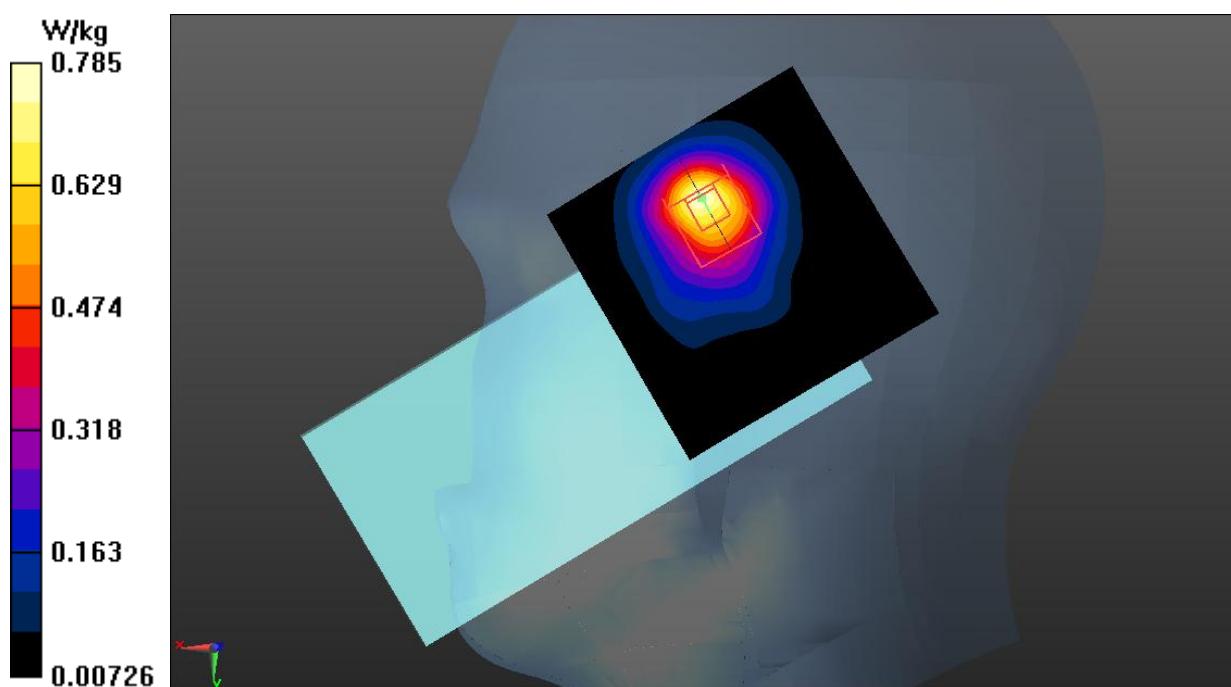
**Right Cheek Middle 25@12/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.528 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.01 W/kg

**SAR(1 g) = 0.561 W/kg; SAR(10 g) = 0.300 W/kg**

Maximum value of SAR (measured) = 0.785 W/kg



**Fig.43 NR n30 Head**

**NR n30 Body**

Date: 2025-04-03

Electronics: DAE4 Sn1790

Medium: Head 2300MHz

Medium parameters used:  $f = 2310$  MHz;  $\sigma = 1.662$  S/m;  $\epsilon_r = 39.851$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 2310 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.14, 7.75, 7.59)

**Rear Side Middle 25@12/Area Scan (91x121x1):** Interpolated grid: dx=1.000 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.731 W/kg

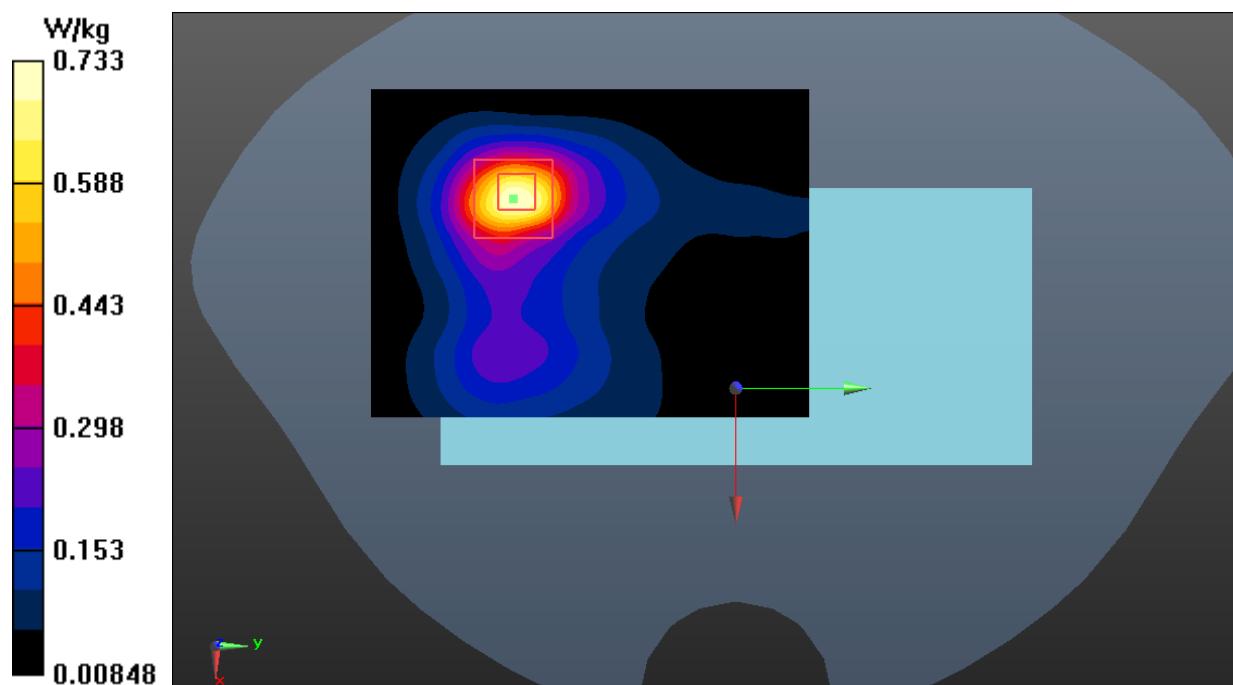
**Rear Side Middle 25@12/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.415 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.983 W/kg

**SAR(1 g) = 0.536 W/kg; SAR(10 g) = 0.271 W/kg**

Maximum value of SAR (measured) = 0.733 W/kg

**Fig.44 NR n30 Body**

**NR n41 Head**

Date: 2025-03-29

Electronics: DAE4 Sn1790

Medium: Head 2550MHz

Medium parameters used (interpolated):  $f = 2592.99$  MHz;  $\sigma = 1.989$  S/m;  $\epsilon_r = 38.053$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 2592.99 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.93, 7.55, 7.39)

**Right Cheek Middle 135@67/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.772 W/kg

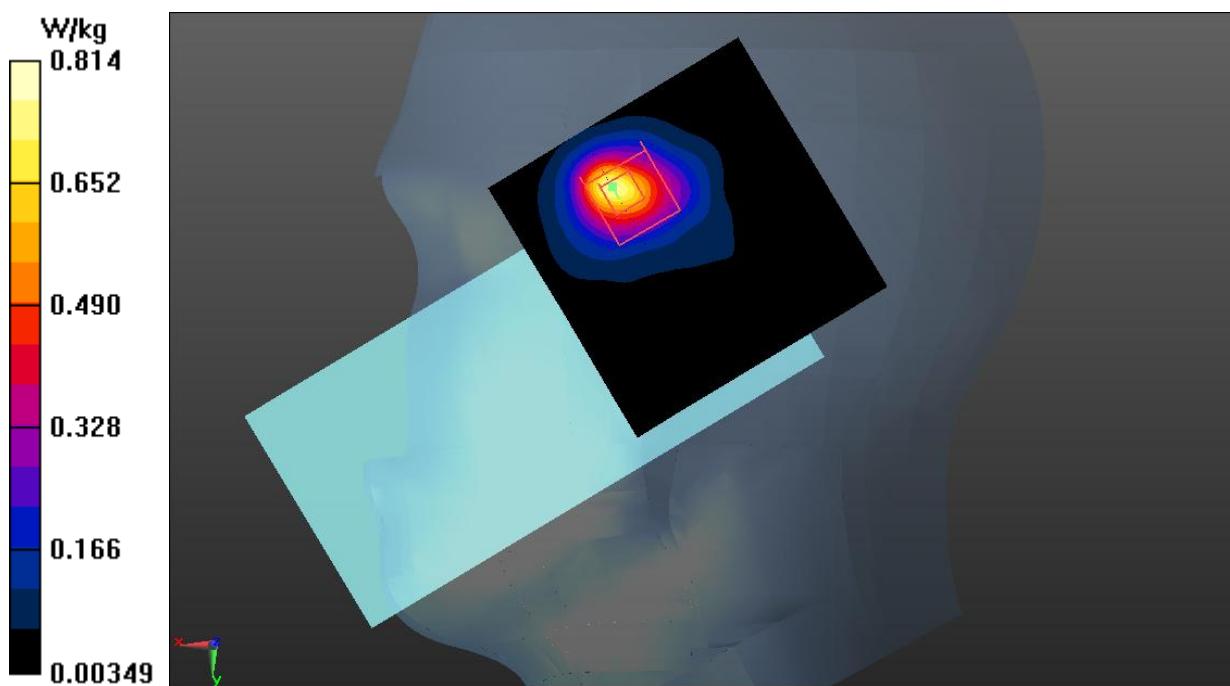
**Right Cheek Middle 135@67/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.486 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.10 W/kg

**SAR(1 g) = 0.498 W/kg; SAR(10 g) = 0.229 W/kg**

Maximum value of SAR (measured) = 0.814 W/kg



**Fig.45 NR n41 Head**

**NR n41 Body**

Date: 2025-03-29

Electronics: DAE4 Sn1790

Medium: Head 2550MHz

Medium parameters used (interpolated):  $f = 2592.99$  MHz;  $\sigma = 1.989$  S/m;  $\epsilon_r = 38.053$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 2592.99 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

**Rear Side Middle 135@67/Area Scan (91x121x1):** Interpolated grid: dx=1.000 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.660 W/kg

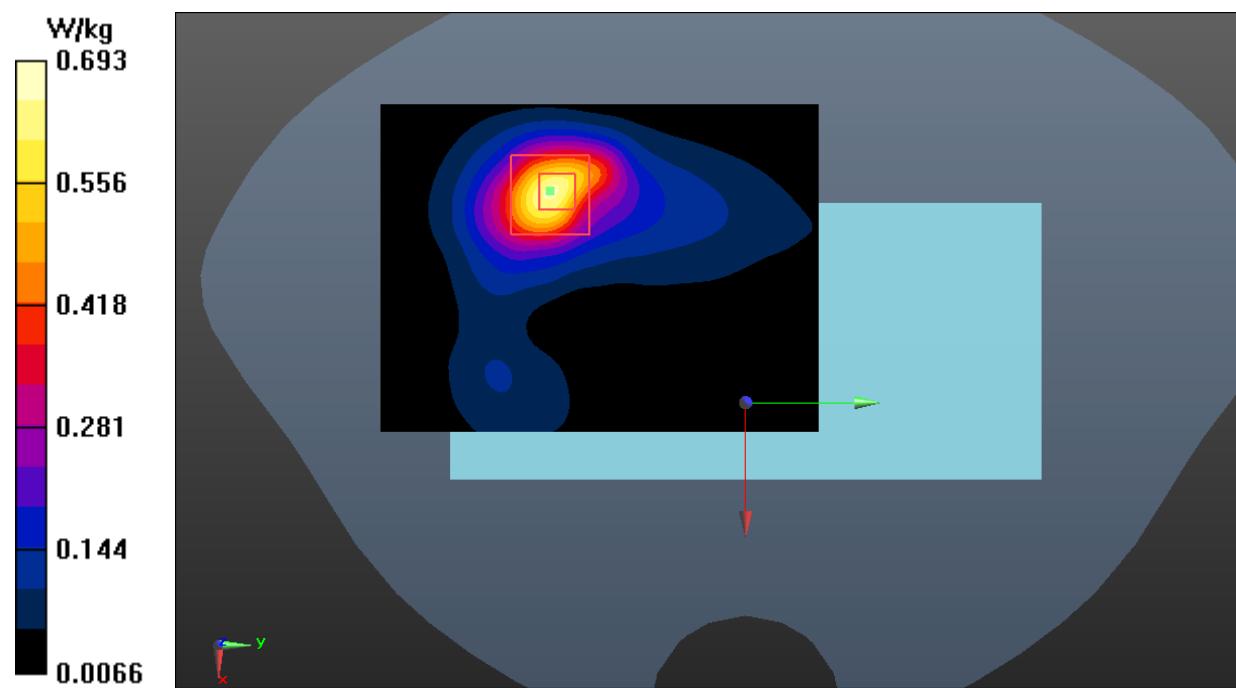
**Rear Side Middle 135@67/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.378 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.971 W/kg

**SAR(1 g) = 0.477 W/kg; SAR(10 g) = 0.229 W/kg**

Maximum value of SAR (measured) = 0.693 W/kg



**Fig.46 NR n41 Body**

**NR n48 Head**

Date: 2025-04-10

Electronics: DAE4 Sn1790

Medium: Head 3700MHz

Medium parameters used (interpolated):  $f = 3624.99$  MHz;  $\sigma = 2.985$  S/m;  $\epsilon_r = 38.01$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 3624.99 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.08, 6.74, 6.60)

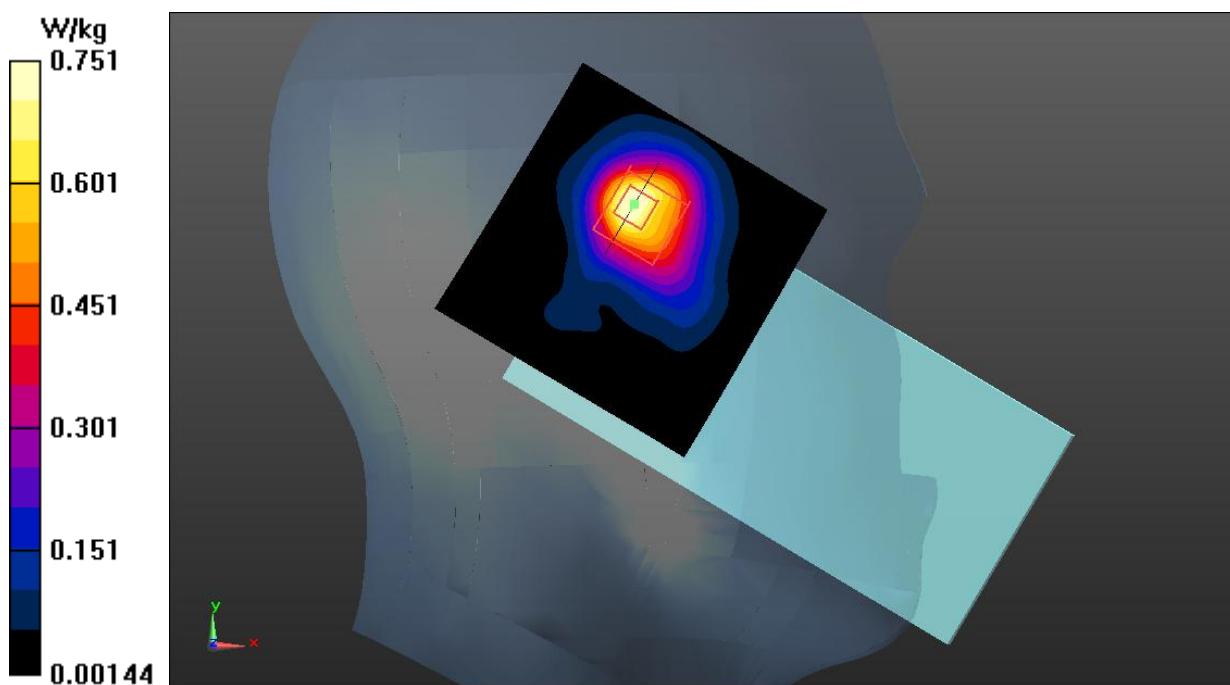
**Left Cheek Middle 135@67/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.803 W/kg**Left Cheek Middle 135@67/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.259 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.06 W/kg

**SAR(1 g) = 0.484 W/kg; SAR(10 g) = 0.220 W/kg**

Maximum value of SAR (measured) = 0.751 W/kg

**Fig.47 NR n48 Head**

**NR n48 Body**

Date: 2025-04-10

Electronics: DAE4 Sn1790

Medium: Head 3700MHz

Medium parameters used (interpolated):  $f = 3624.99$  MHz;  $\sigma = 2.985$  S/m;  $\epsilon_r = 38.01$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 3624.99 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.08, 6.74, 6.60)

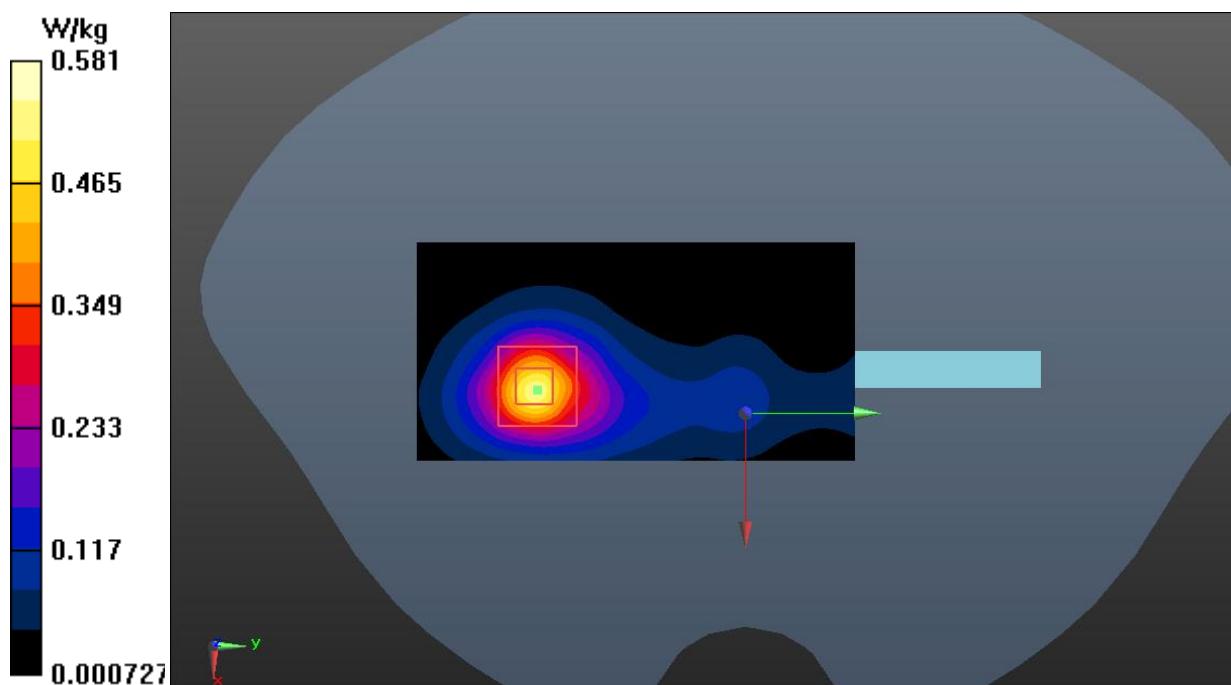
**Right Side Middle 135@67/Area Scan (61x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.530 W/kg**Right Side Middle 135@67/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.886 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.827 W/kg

**SAR(1 g) = 0.355 W/kg; SAR(10 g) = 0.149 W/kg**

Maximum value of SAR (measured) = 0.581 W/kg

**Fig.48 NR n48 Body**

**NR n66 Head**

Date: 2025-04-01

Electronics: DAE4 Sn1790

Medium: Head 1750MHz

Medium parameters used (interpolated):  $f = 1745$  MHz;  $\sigma = 1.384$  S/m;  $\epsilon_r = 39.062$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 1745 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

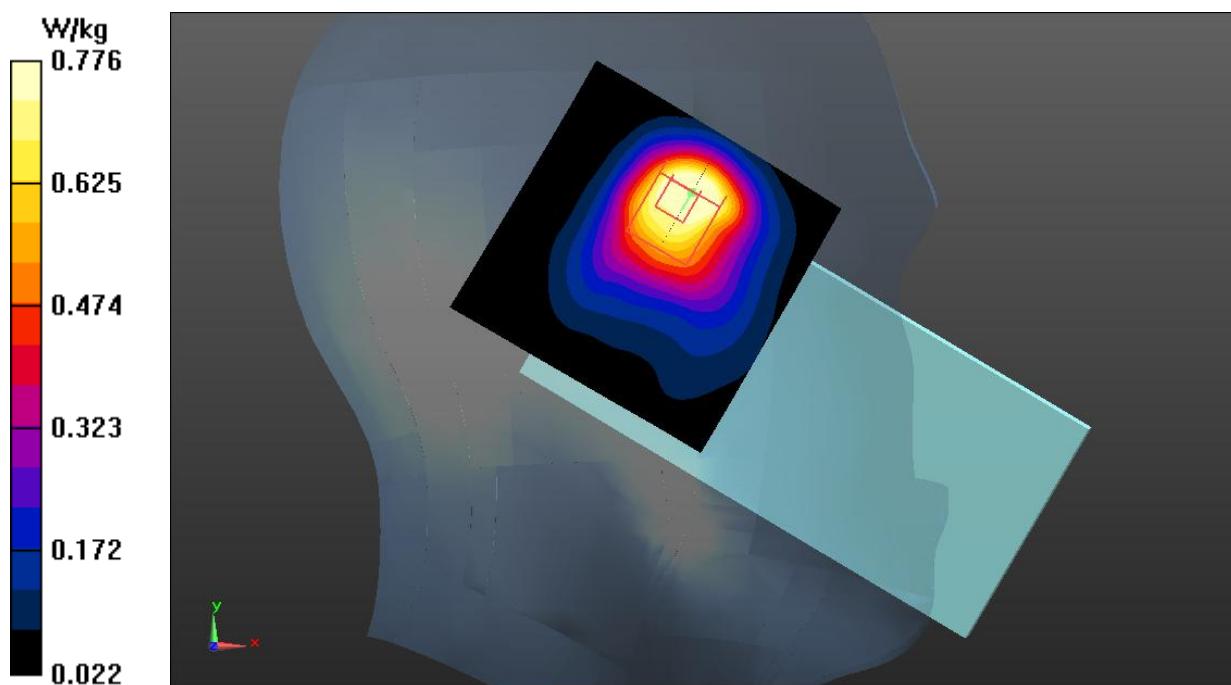
**Left Cheek Middle 108@54/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.968 W/kg**Left Cheek Middle 108@54/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.84 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 1.05 W/kg

**SAR(1 g) = 0.595 W/kg; SAR(10 g) = 0.358 W/kg**

Maximum value of SAR (measured) = 0.776 W/kg

**Fig.49 NR n66 Head**

**NR n66 Body**

Date: 2025-04-01

Electronics: DAE4 Sn1790

Medium: Head 1750MHz

Medium parameters used (interpolated):  $f = 1745$  MHz;  $\sigma = 1.384$  S/m;  $\epsilon_r = 39.062$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 1745 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

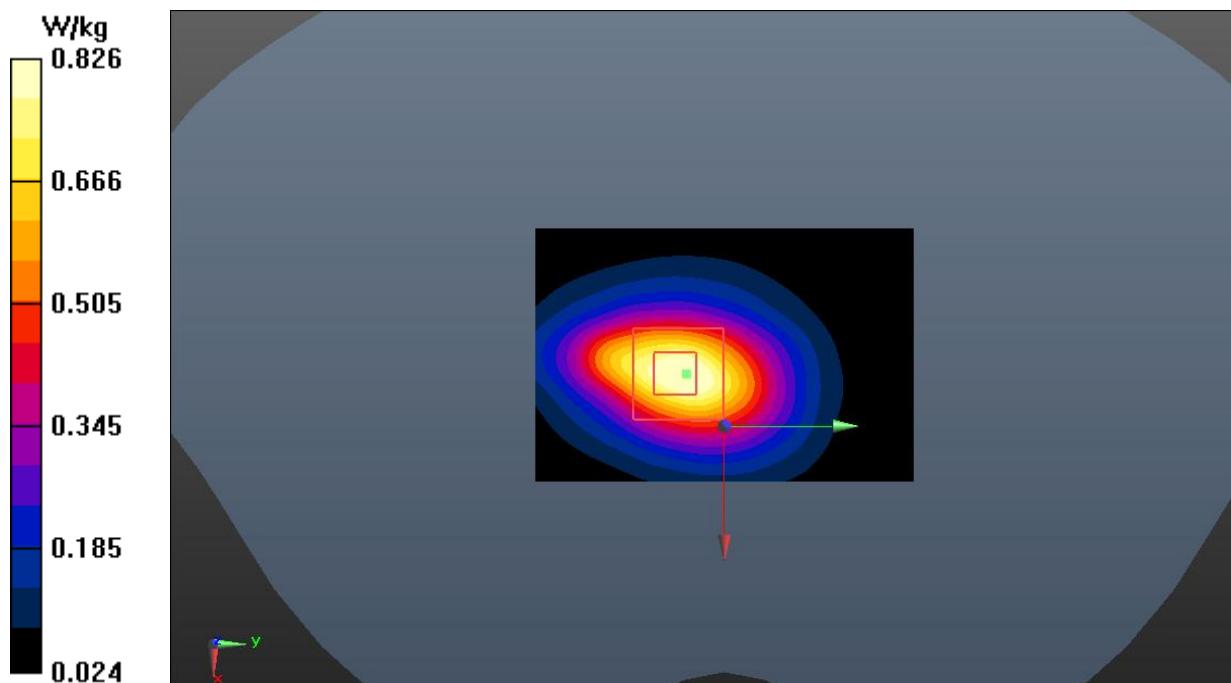
**Bottom Side Middle 108@54/Area Scan (41x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.863 W/kg**Bottom Side Middle 108@54/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.40 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.996 W/kg

**SAR(1 g) = 0.633 W/kg; SAR(10 g) = 0.373 W/kg**

Maximum value of SAR (measured) = 0.826 W/kg

**Fig.50 NR n66 Body**

**NR n70 Head**

Date: 2025-04-01

Electronics: DAE4 Sn1790

Medium: Head 1750MHz

Medium parameters used (interpolated):  $f = 1702.5$  MHz;  $\sigma = 1.346$  S/m;  $\epsilon_r = 39.228$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 1702.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

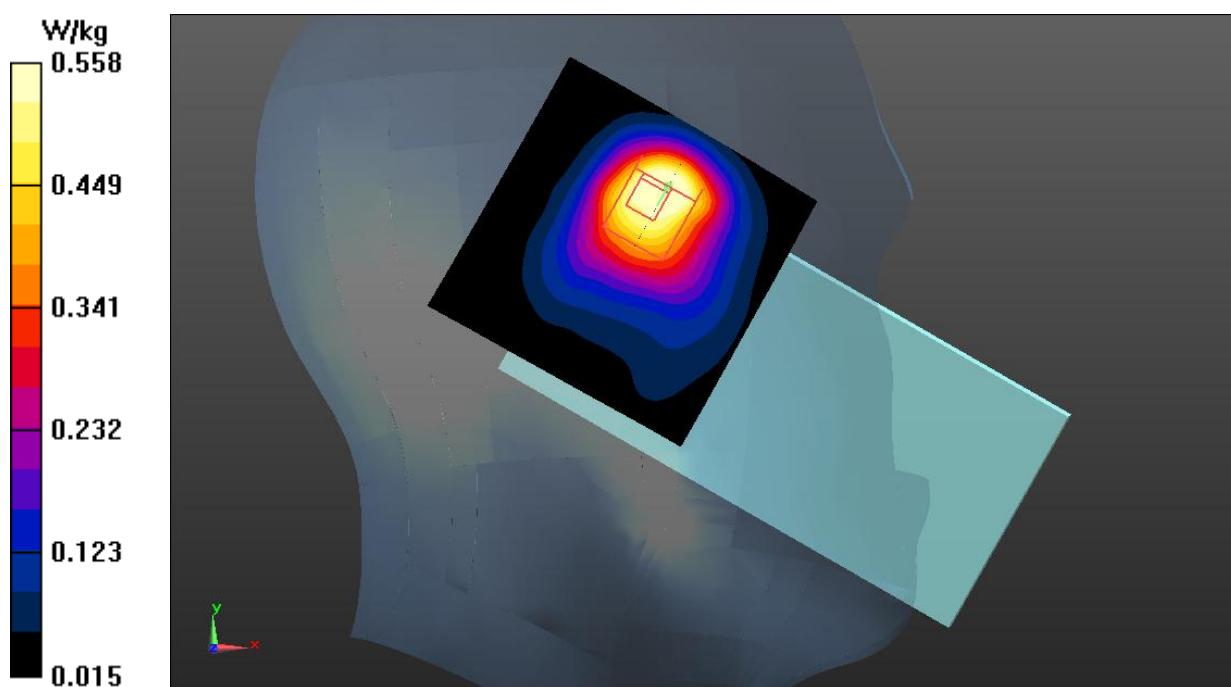
**Left Cheek Middle 36@18/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.648 W/kg**Left Cheek Middle 36@18/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.294 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.756 W/kg

**SAR(1 g) = 0.430 W/kg; SAR(10 g) = 0.258 W/kg**

Maximum value of SAR (measured) = 0.558 W/kg

**Fig.51 NR n70 Head**

**NR n70 Body**

Date: 2025-04-01

Electronics: DAE4 Sn1790

Medium: Head 1750MHz

Medium parameters used (interpolated):  $f = 1702.5$  MHz;  $\sigma = 1.346$  S/m;  $\epsilon_r = 39.228$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 1702.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

**Rear Side Middle 36@18/Area Scan (61x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.512 W/kg

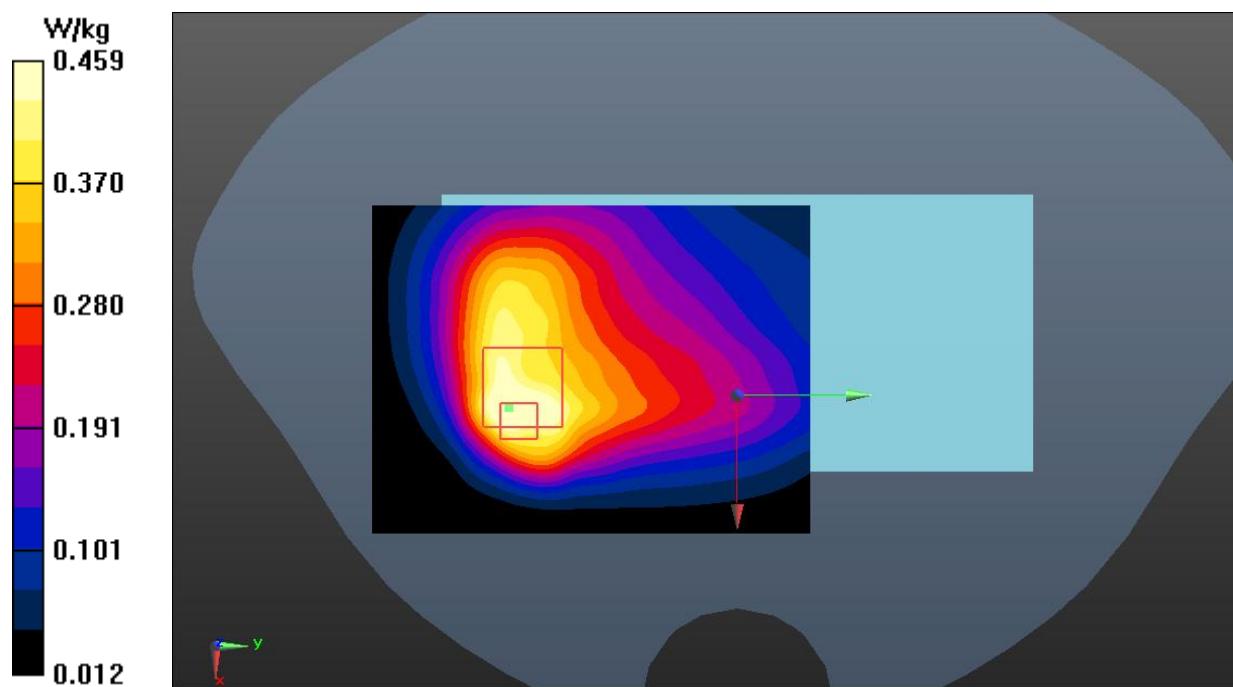
**Rear Side Middle 36@18/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.15 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.616 W/kg

**SAR(1 g) = 0.342 W/kg; SAR(10 g) = 0.209 W/kg**

Maximum value of SAR (measured) = 0.459 W/kg



**Fig.52 NR n70 Body**

**NR n71 Head**

Date: 2025-03-31

Electronics: DAE4 Sn1790

Medium: Head 750MHz

Medium parameters used (extrapolated):  $f = 680.5$  MHz;  $\sigma = 0.872$  S/m;  $\epsilon_r = 42.292$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 680.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

**Right Cheek Middle 50@25/Area Scan (71x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.602 W/kg

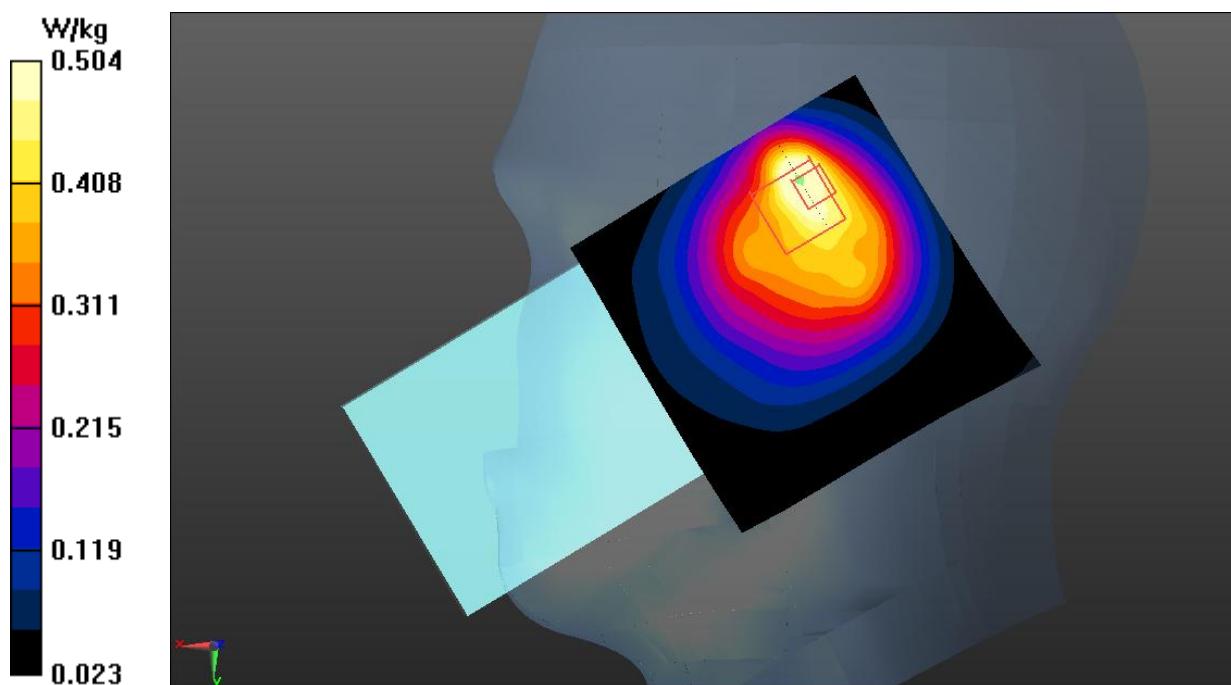
**Right Cheek Middle 50@25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.68 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.739 W/kg

**SAR(1 g) = 0.372 W/kg; SAR(10 g) = 0.235 W/kg**

Maximum value of SAR (measured) = 0.504 W/kg



**Fig.53 NR n71 Head**

**NR n71 Body**

Date: 2025-03-31

Electronics: DAE4 Sn1790

Medium: Head 750MHz

Medium parameters used (extrapolated):  $f = 680.5$  MHz;  $\sigma = 0.872$  S/m;  $\epsilon_r = 42.292$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 680.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

**Left Side Middle 50@25/Area Scan (41x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.328 W/kg

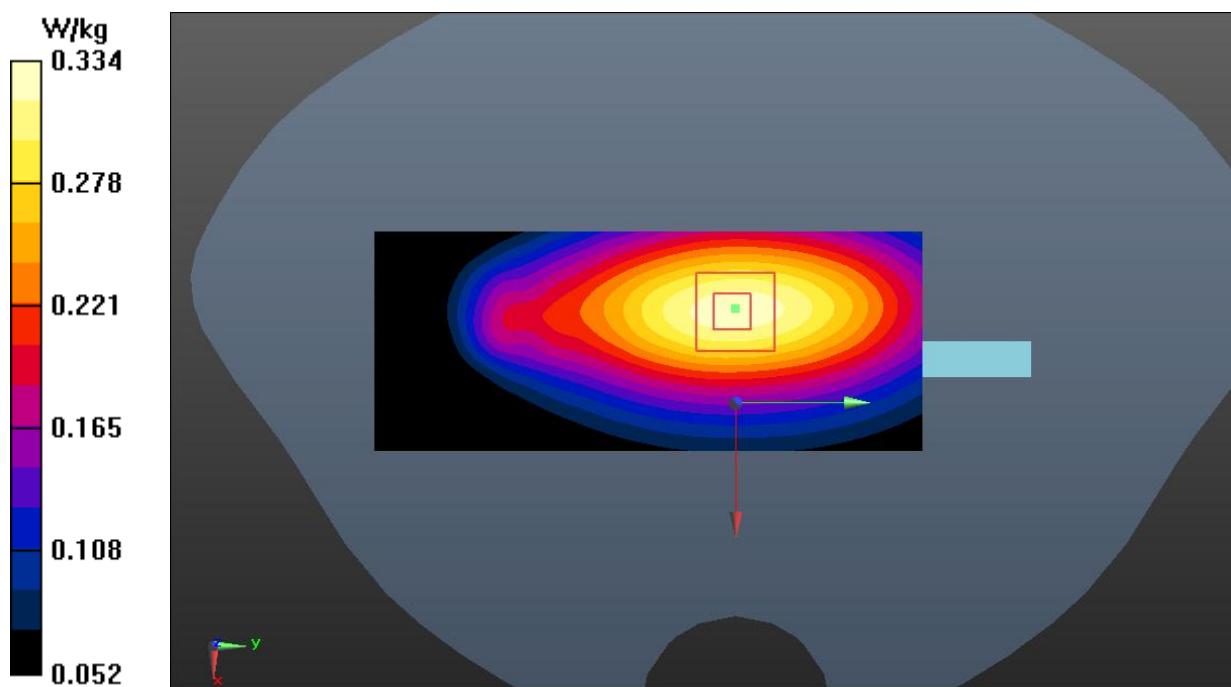
**Left Side Middle 50@25/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.14 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.385 W/kg

**SAR(1 g) = 0.275 W/kg; SAR(10 g) = 0.197 W/kg**

Maximum value of SAR (measured) = 0.334 W/kg



**Fig.54 NR n71 Body**

**NR n77 Part 27Q Head**

Date: 2025-04-02

Electronics: DAE4 Sn1790

Medium: Head 3500MHz

Medium parameters used (interpolated):  $f = 3500.01$  MHz;  $\sigma = 2.967$  S/m;  $\epsilon_r = 37.309$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 3500.01 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.20, 6.85, 6.71)

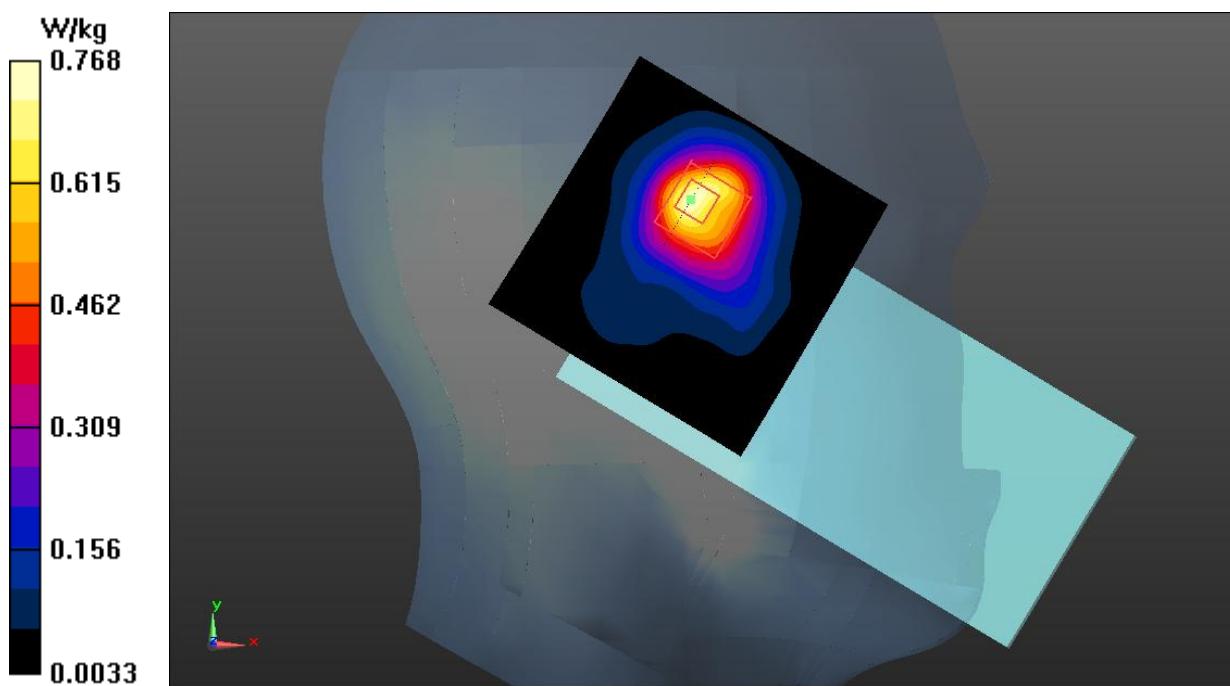
**Left Cheek Middle 135@67/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.754 W/kg**Left Cheek Middle 135@67/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.216 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.10 W/kg

**SAR(1 g) = 0.493 W/kg; SAR(10 g) = 0.230 W/kg**

Maximum value of SAR (measured) = 0.768 W/kg

**Fig.55 NR n77 Head**

**NR n77 Part 27Q Body**

Date: 2025-04-02

Electronics: DAE4 Sn1790

Medium: Head 3500MHz

Medium parameters used (interpolated):  $f = 3500.01$  MHz;  $\sigma = 2.967$  S/m;  $\epsilon_r = 37.309$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 3500.01 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.20, 6.85, 6.71)

**Rear Side Middle 135@67/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.486 W/kg

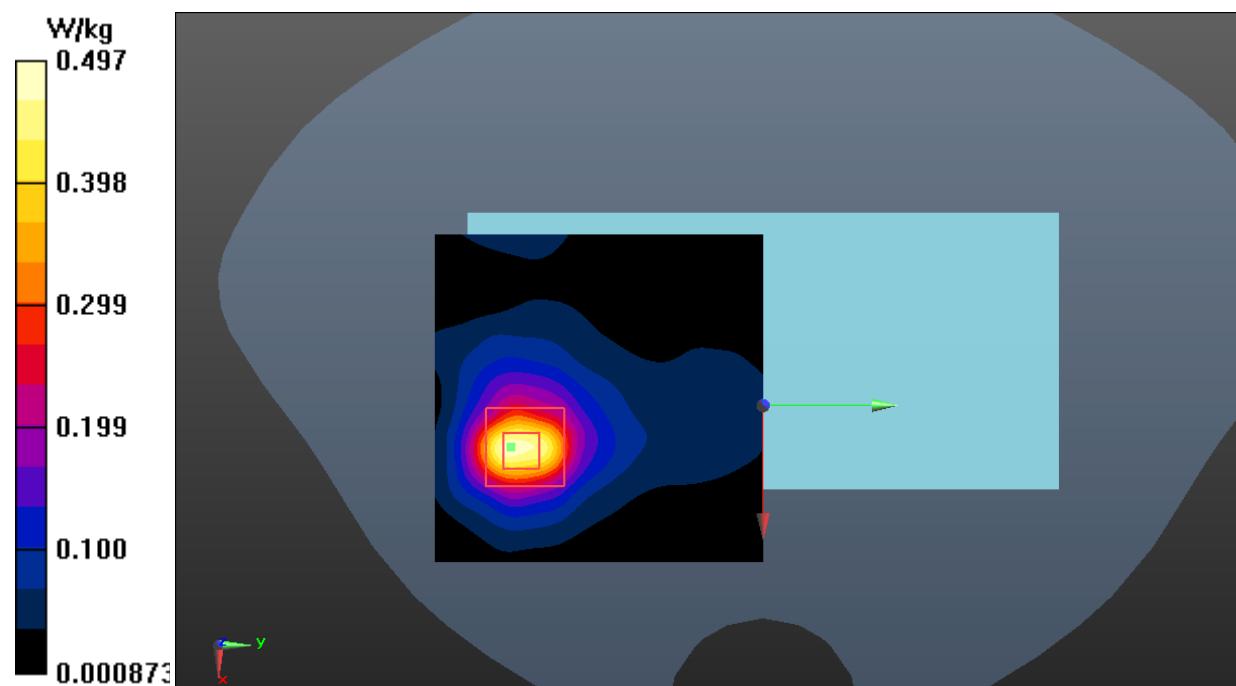
**Rear Side Middle 135@67/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.570 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.714 W/kg

**SAR(1 g) = 0.322 W/kg; SAR(10 g) = 0.140 W/kg**

Maximum value of SAR (measured) = 0.497 W/kg

**Fig.56 NR n77 Body**

**NR n77 Part 270 Head**

Date: 2025-04-02

Electronics: DAE4 Sn1790

Medium: Head 3900MHz

Medium parameters used:  $f = 3840$  MHz;  $\sigma = 3.313$  S/m;  $\epsilon_r = 36.721$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 3840 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (6.96, 6.62, 6.49)

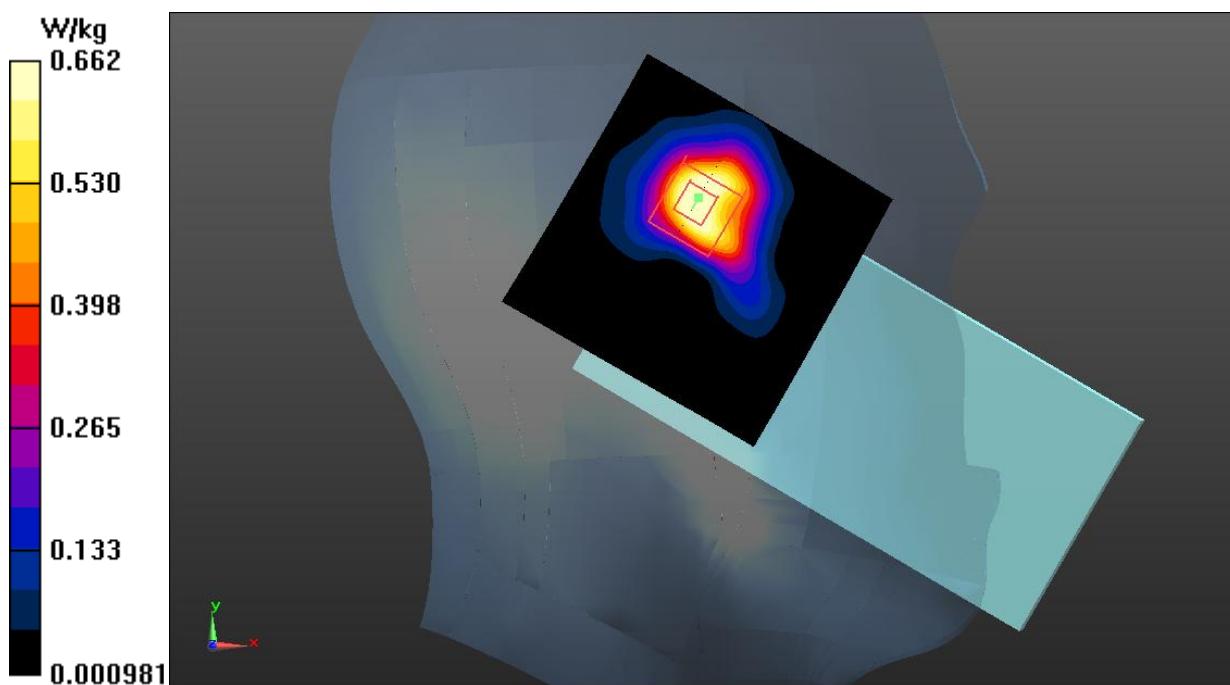
**Left Cheek Middle 135@67/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 0.771 W/kg**Left Cheek Middle 135@67/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.008 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.956 W/kg

**SAR(1 g) = 0.435 W/kg; SAR(10 g) = 0.189 W/kg**

Maximum value of SAR (measured) = 0.662 W/kg

**Fig.57 NR n77 Head**

**NR n77 Part 27O Body**

Date: 2025-04-02

Electronics: DAE4 Sn1790

Medium: Head 3900MHz

Medium parameters used:  $f = 3840$  MHz;  $\sigma = 3.313$  S/m;  $\epsilon_r = 36.721$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, NR (0) Frequency: 3840 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (6.96, 6.62, 6.49)

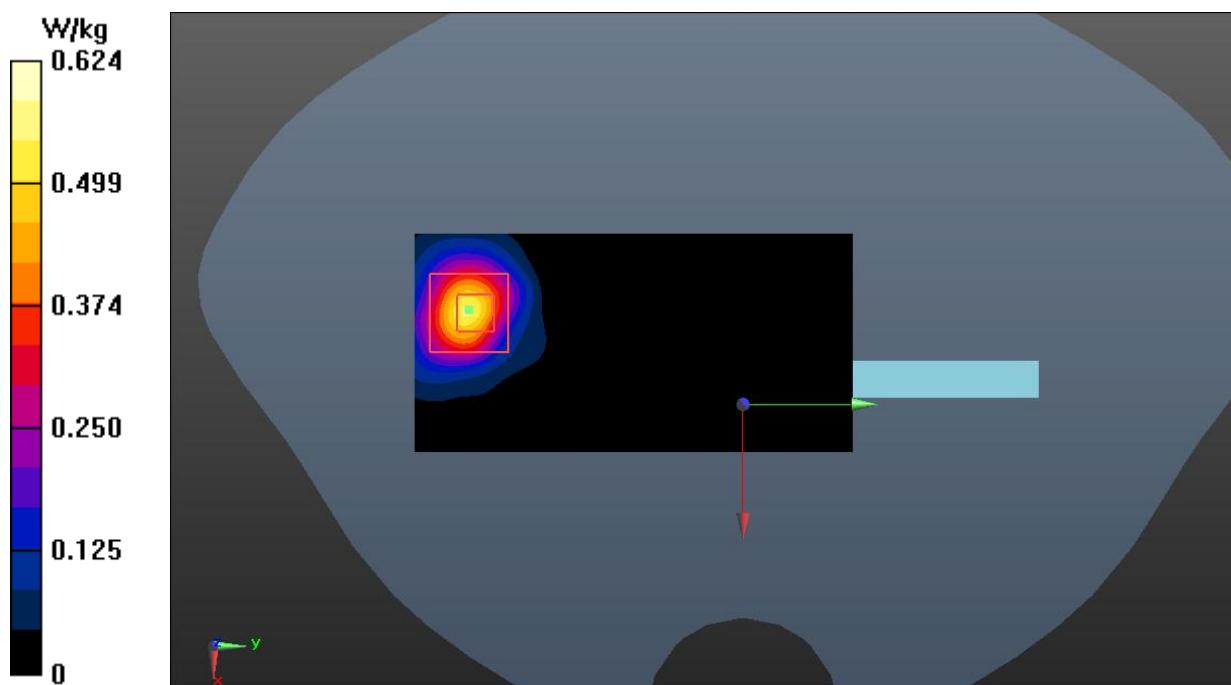
**Right Side Middle 135@67/Area Scan (41x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.551 W/kg**Right Side Middle 135@67/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.686 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.919 W/kg

**SAR(1 g) = 0.373 W/kg; SAR(10 g) = 0.139 W/kg**

Maximum value of SAR (measured) = 0.624 W/kg

**Fig.58 NR n77 Body**

**Bluetooth Head**

Date: 2025-04-11

Electronics: DAE4 Sn1790

Medium: Head 2450MHz

Medium parameters used:  $f = 2402$  MHz;  $\sigma = 1.787$  S/m;  $\epsilon_r = 38.907$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, BT (0) Frequency: 2402 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

**Left Cheek Ch.0/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.104 W/kg

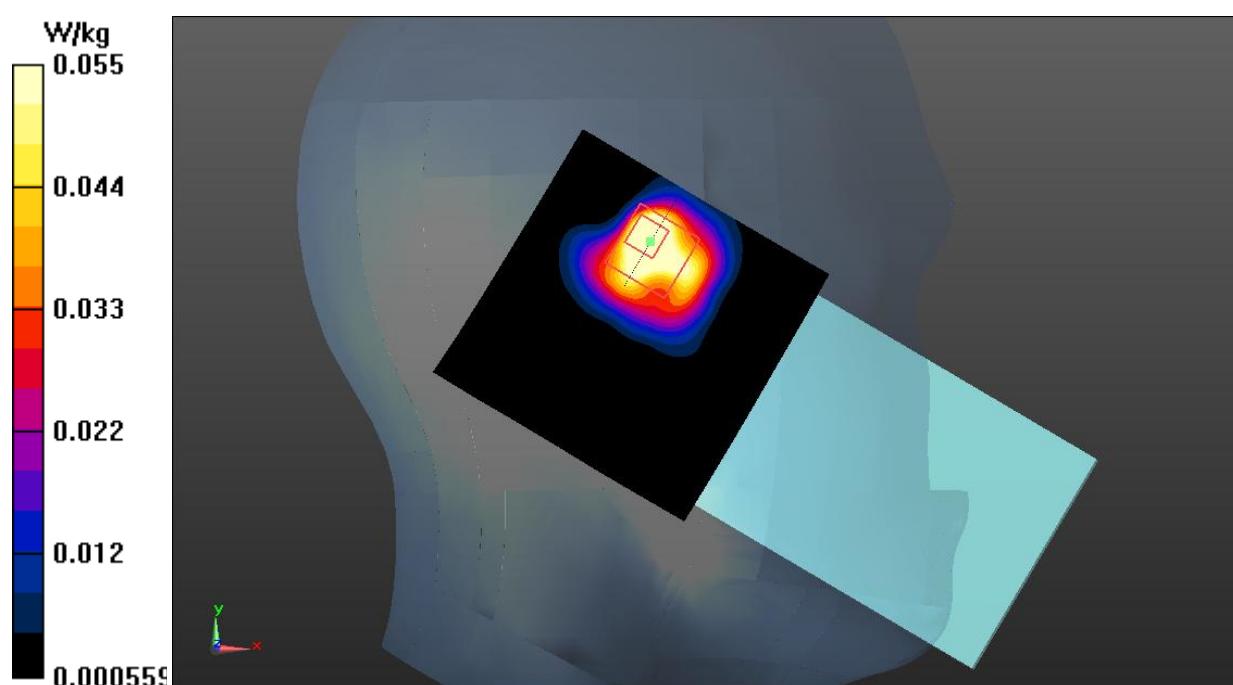
**Left Cheek Ch.0/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.572 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.0830 W/kg

**SAR(1 g) = 0.032 W/kg; SAR(10 g) = 0.020 W/kg**

Maximum value of SAR (measured) = 0.0554 W/kg

**Fig.59 Bluetooth Head**

**Bluetooth Body**

Date: 2025-04-11

Electronics: DAE4 Sn1790

Medium: Head 2450MHz

Medium parameters used:  $f = 2402$  MHz;  $\sigma = 1.787$  S/m;  $\epsilon_r = 38.907$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, BT (0) Frequency: 2402 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

**Rear Side Ch.0/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.0360 W/kg

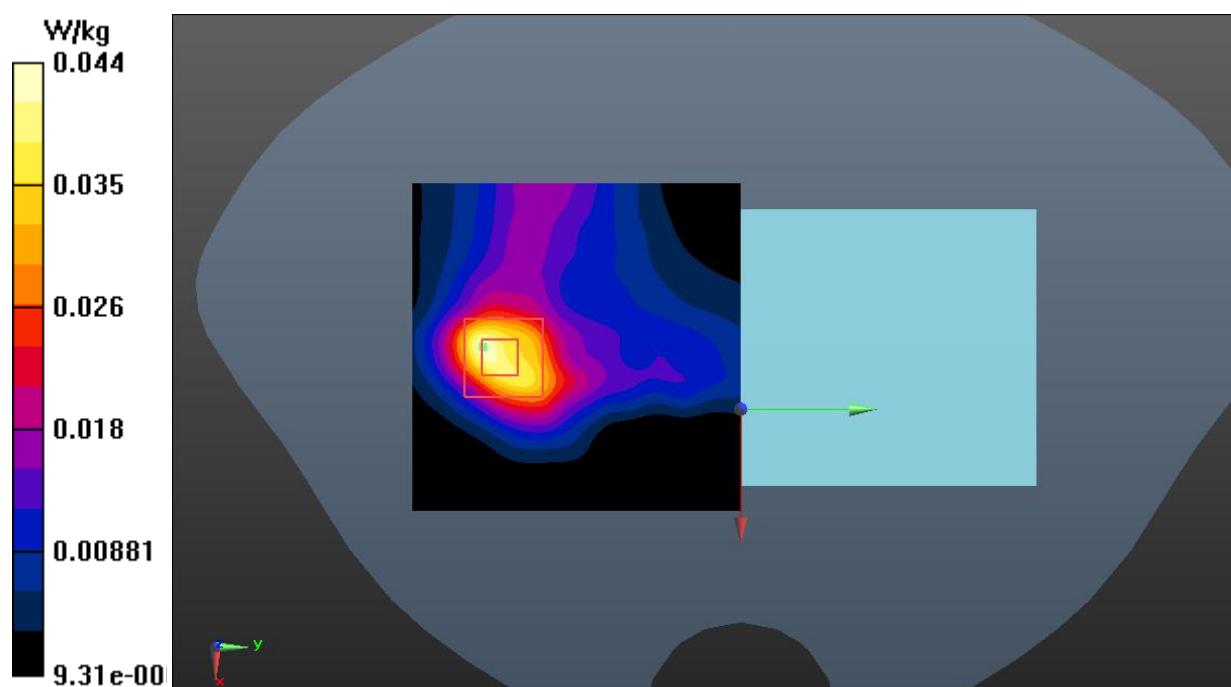
**Rear Side Ch.0/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.318 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.0630 W/kg

**SAR(1 g) = 0.027 W/kg; SAR(10 g) = 0.010 W/kg**

Maximum value of SAR (measured) = 0.0440 W/kg

**Fig.60 Bluetooth Body**

**WLAN 2.4GHz Head**

Date: 2025-04-11

Electronics: DAE4 Sn1790

Medium: Head 2450MHz

Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.858$  S/m;  $\epsilon_r = 38.706$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, WLAN (0) Frequency: 2462 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

**Left Cheek Ch.11/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.670 W/kg

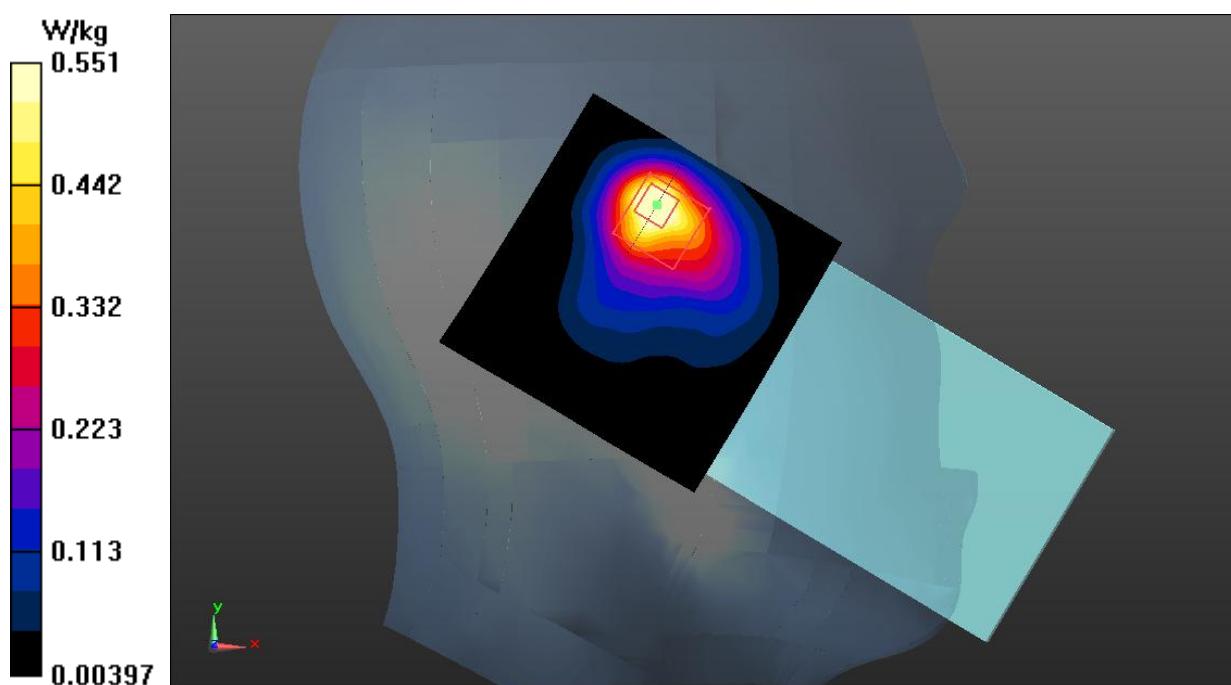
**Left Cheek Ch.11/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.565 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.788 W/kg

**SAR(1 g) = 0.380 W/kg; SAR(10 g) = 0.201 W/kg**

Maximum value of SAR (measured) = 0.551 W/kg

**Fig.61 WLAN 2.4GHz Head**

**WLAN 2.4GHz Body**

Date: 2025-04-11

Electronics: DAE4 Sn1790

Medium: Head 2450MHz

Medium parameters used:  $f = 2462$  MHz;  $\sigma = 1.858$  S/m;  $\epsilon_r = 38.706$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, WLAN (0) Frequency: 2462 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

**Rear Side Ch.11/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.181 W/kg

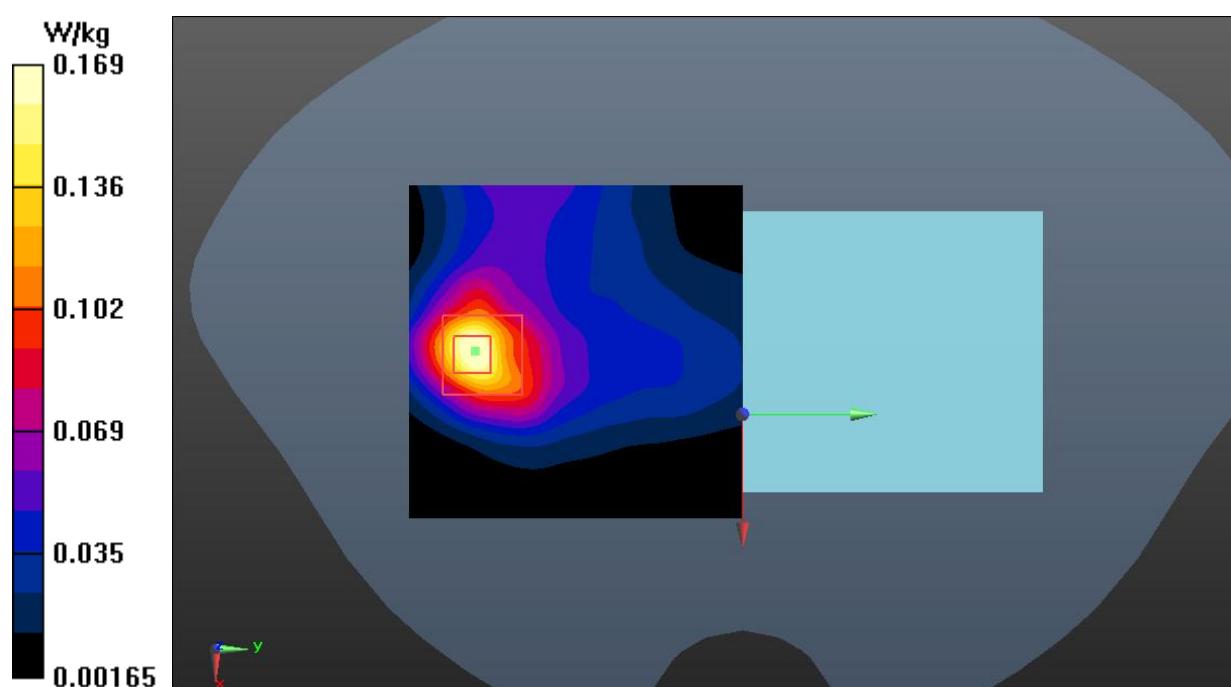
**Rear Side Ch.11/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.453 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.226 W/kg

**SAR(1 g) = 0.112 W/kg; SAR(10 g) = 0.057 W/kg**

Maximum value of SAR (measured) = 0.169 W/kg

**Fig.62 WLAN 2.4GHz Body**

**WLAN 5GHz Head**

Date: 2025-04-13

Electronics: DAE4 Sn1790

Medium: Head 5600MHz

Medium parameters used:  $f = 5500$  MHz;  $\sigma = 5.041$  S/m;  $\epsilon_r = 34.945$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, WLAN 5G (0) Frequency: 5500 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (5.46, 5.19, 5.09)

**Left Tilt Ch.100/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.04 W/kg

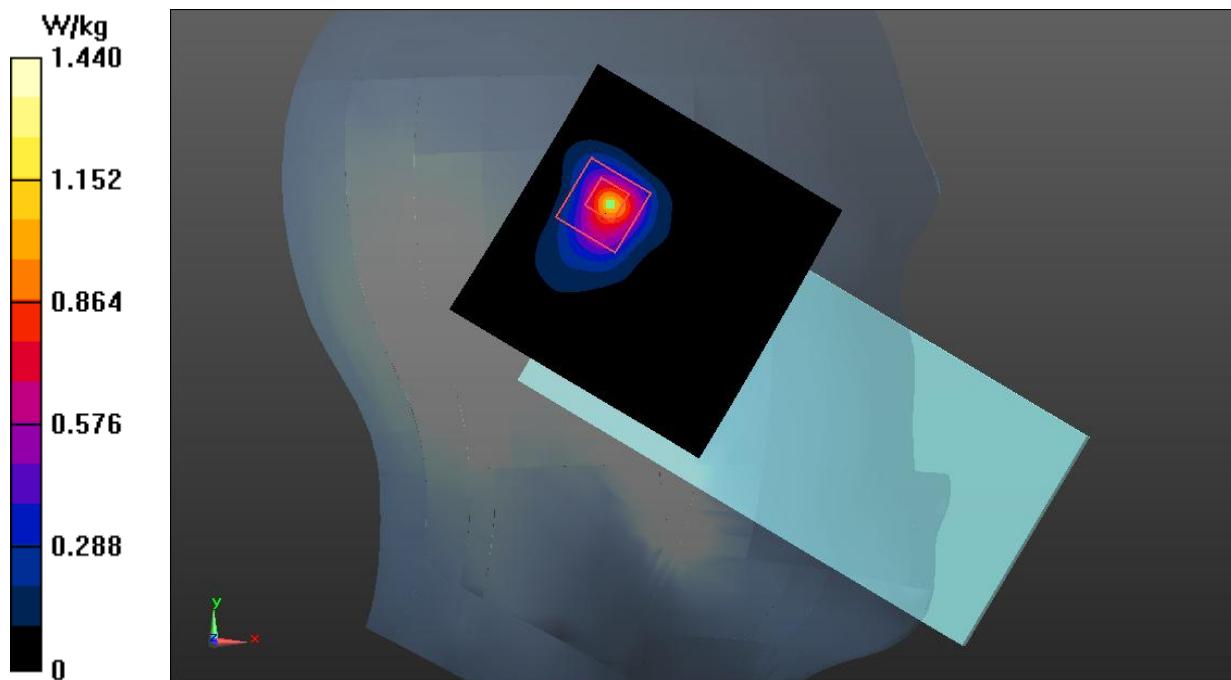
**Left Tilt Ch.100/Zoom Scan (8x8x21)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 4.180 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 2.23 W/kg

**SAR(1 g) = 0.660 W/kg; SAR(10 g) = 0.187 W/kg**

Maximum value of SAR (measured) = 1.44 W/kg

**Fig.63 WLAN 5GHz Head**

**WLAN 5GHz Body**

Date: 2025-04-13

Electronics: DAE4 Sn1790

Medium: Head 5600MHz

Medium parameters used:  $f = 5500$  MHz;  $\sigma = 5.041$  S/m;  $\epsilon_r = 34.945$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, WLAN 5G (0) Frequency: 5500 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (5.46, 5.19, 5.09)

**Rear Side Ch.100/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.893 W/kg

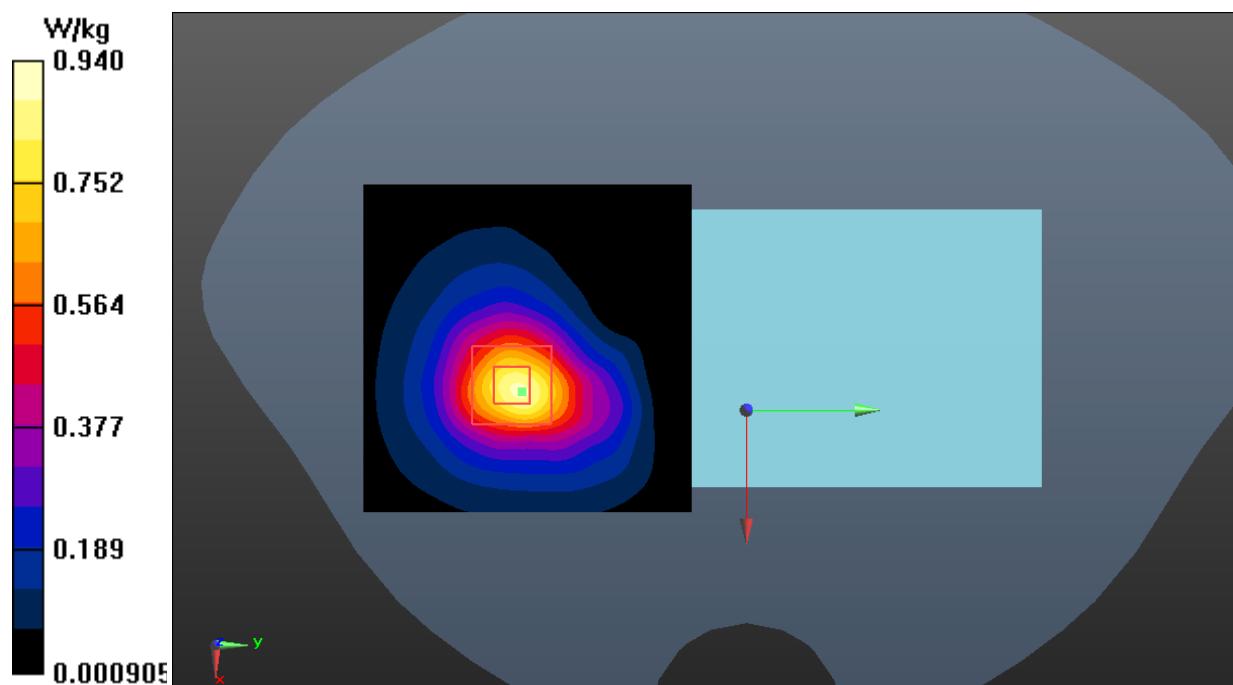
**Rear Side Ch.100/Zoom Scan (8x8x21)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 0.9920 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.71 W/kg

**SAR(1 g) = 0.537 W/kg; SAR(10 g) = 0.212 W/kg**

Maximum value of SAR (measured) = 0.940 W/kg

**Fig.64 WLAN 5GHz Body**

**WLAN 5GHz Extremity**

Date: 2025-04-12

Electronics: DAE4 Sn1790

Medium: Head 5250MHz

Medium parameters used:  $f = 5280$  MHz;  $\sigma = 4.881$  S/m;  $\epsilon_r = 35.147$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: UID 0, WLAN 5G (0) Frequency: 5280 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (6.03, 5.73, 5.62)

**Top Side Ch.56/Area Scan (61x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 10.8 W/kg

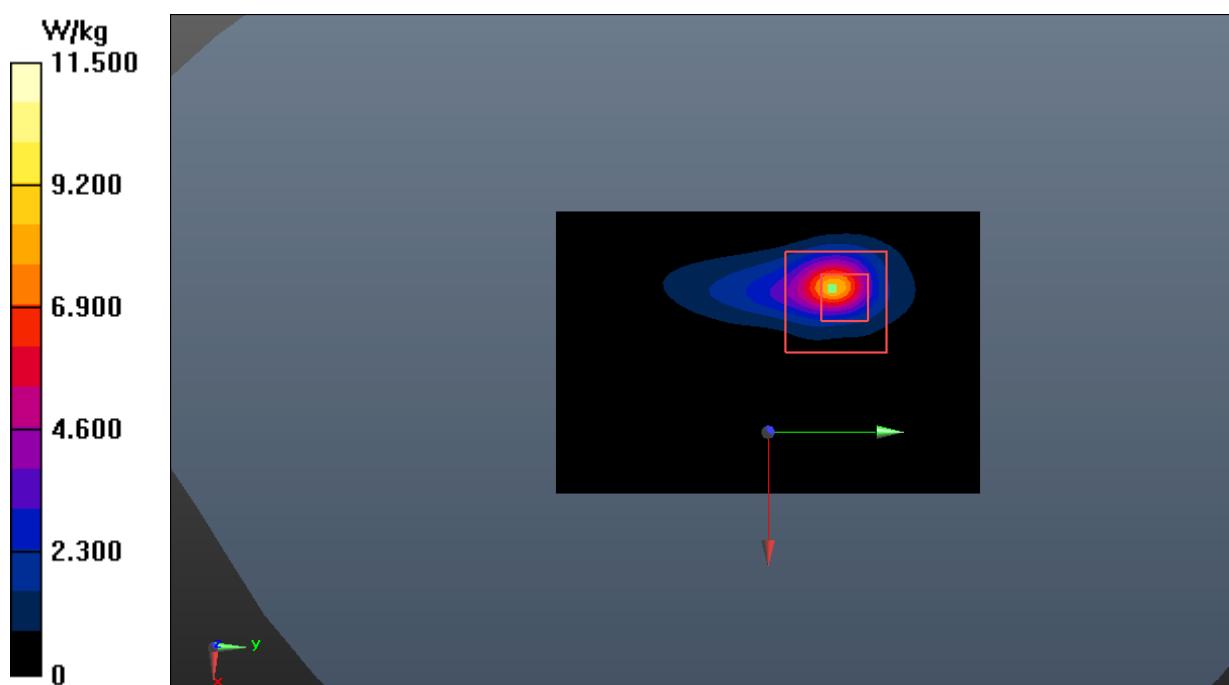
**Top Side Ch.56/Zoom Scan (8x8x21)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.450 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 16.9 W/kg

**SAR(1 g) = 6.69 W/kg; SAR(10 g) = 1.71 W/kg**

Maximum value of SAR (measured) = 11.5 W/kg

**Fig.65 WLAN 5GHz Extremity**

## ANNEX B: System Check Results

### 750MHz

Date: 2025-03-31

Electronics: DAE4 Sn1790

Medium: Head 750MHz

Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.916$  S/m;  $\epsilon_r = 41.458$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 750 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

**System Check/Area Scan (81x161x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 23.49 V/m; Power Drift = 0.05 dB

**SAR(1 g) = 0.430 W/kg; SAR(10 g) = 0.485 W/kg**

Maximum value of SAR (interpolated) = 0.683 W/kg

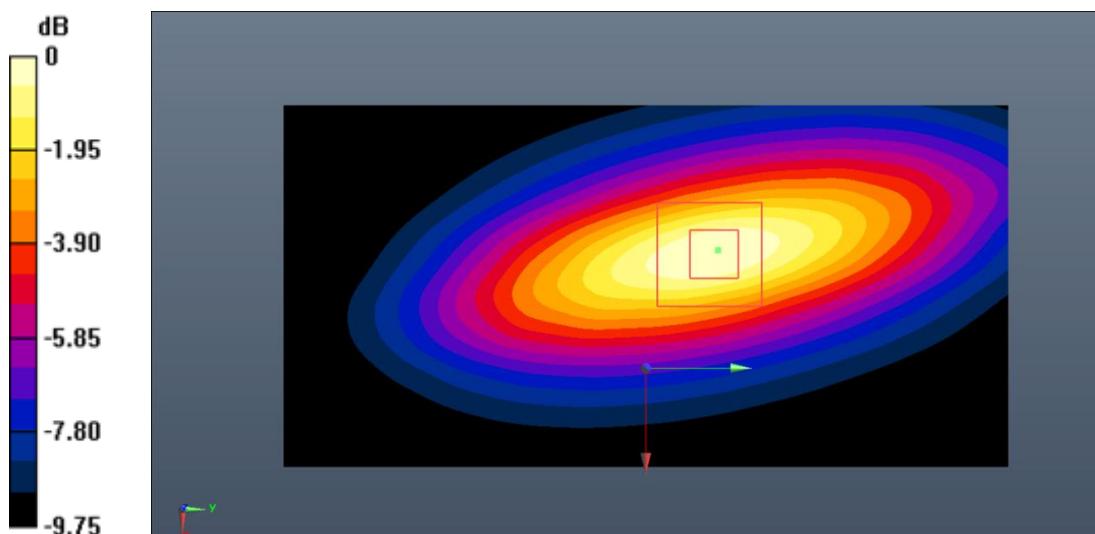
**System Check/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.49 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.825 W/kg

**SAR(1 g) = 0.440 W/kg; SAR(10 g) = 0.289 W/kg**

Maximum value of SAR (measured) = 0.690 W/kg



0 dB = 0.690 W/kg = -1.61 dB W/kg

**Fig.B.1. Validation 750MHz 50mW**

**750MHz**

Date: 2025-04-05

Electronics: DAE4 Sn1790

Medium: Head 750MHz

 Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.882$  S/m;  $\epsilon_r = 42.717$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 750 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (10.40, 9.90, 9.70)

**System Check/Area Scan (81x161x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 22.73 V/m; Power Drift = -0.10 dB

**SAR(1 g) = 0.425 W/kg; SAR(10 g) = 0.281 W/kg**

Maximum value of SAR (interpolated) = 0.675 W/kg

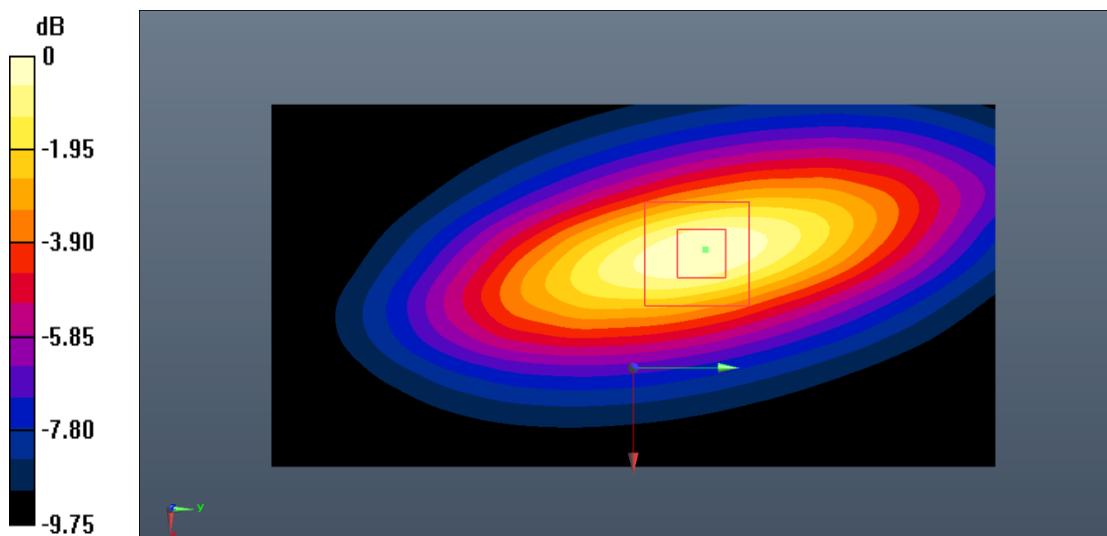
**System Check/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.73 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.784 W/kg

**SAR(1 g) = 0.413 W/kg; SAR(10 g) = 0.276 W/kg**

Maximum value of SAR (measured) = 0.670 W/kg



0 dB = 0.670 W/kg = -1.74 dB W/kg

**Fig.B.2. Validation 750MHz 50mW**

**835MHz**

Date: 2025-03-22

Electronics: DAE4 Sn1790

Medium: Head 900MHz

Medium parameters used (interpolated):  $f = 835$  MHz;  $\sigma = 0.923$  S/m;  $\epsilon_r = 40.811$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

**System Check/Area Scan (91x161x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 28.42 V/m; Power Drift = 0.07 dB

**SAR(1 g) = 0.486 W/kg; SAR(10 g) = 0.328 W/kg**

Maximum value of SAR (interpolated) = 0.845 W/kg

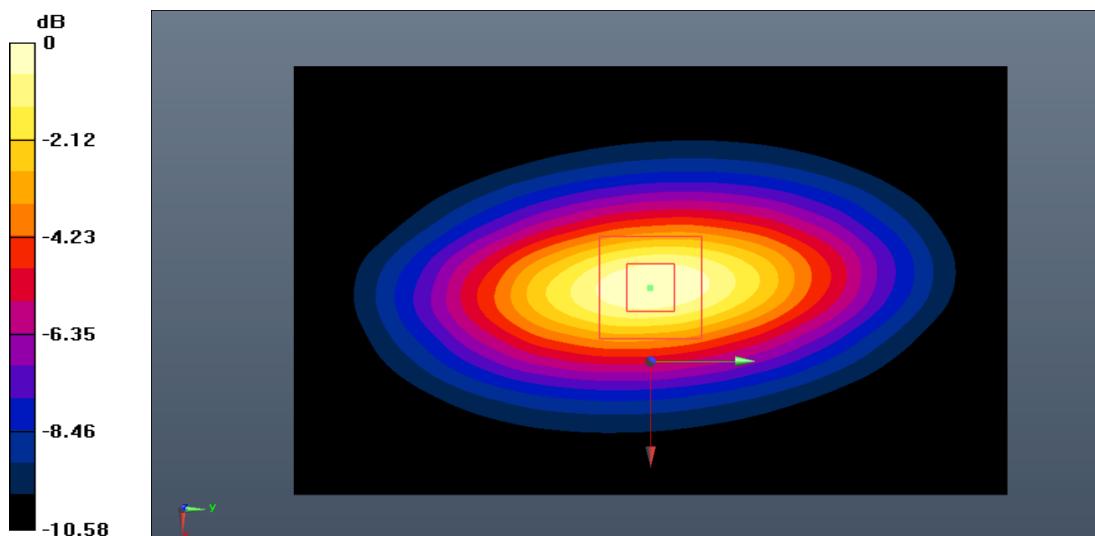
**System Check/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 28.42 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.976 W/kg

**SAR(1 g) = 0.499 W/kg; SAR(10 g) = 0.327 W/kg**

Maximum value of SAR (measured) = 0.851 W/kg



**Fig.B.3. Validation 835MHz 50mW**

**835MHz**

Date: 2025-03-27

Electronics: DAE4 Sn1790

Medium: Head 900MHz

 Medium parameters used (interpolated):  $f = 835$  MHz;  $\sigma = 0.884$  S/m;  $\epsilon_r = 42.124$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

**System Check/Area Scan (91x161x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 27.39 V/m; Power Drift = -0.06 dB

**SAR(1 g) = 0.475 W/kg; SAR(10 g) = 0.323 W/kg**

Maximum value of SAR (interpolated) = 0.814 W/kg

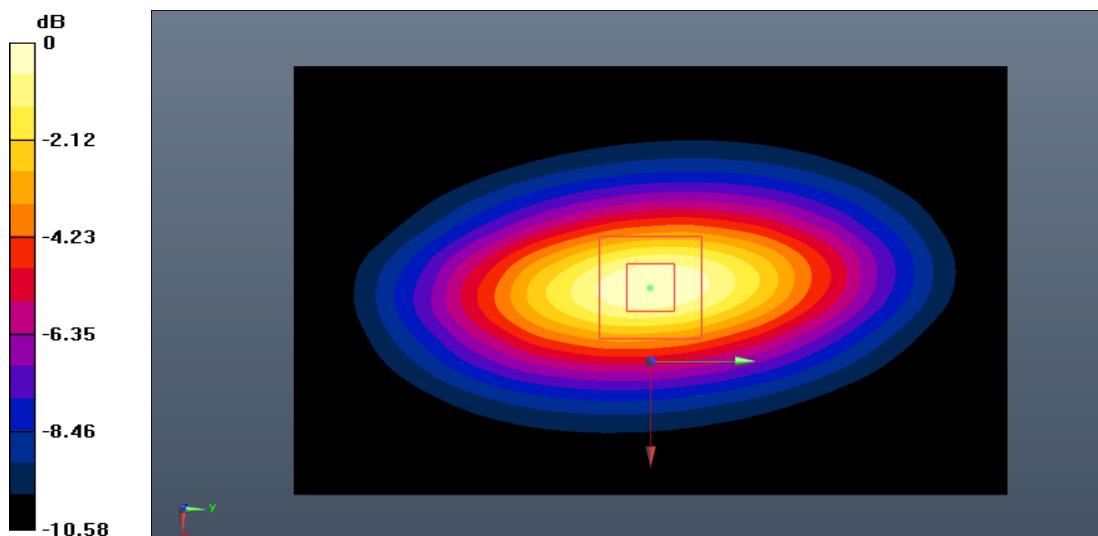
**System Check/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 27.39 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.935 W/kg

**SAR(1 g) = 0.468 W/kg; SAR(10 g) = 0.316 W/kg**

Maximum value of SAR (measured) = 0.808 W/kg



0 dB = 0.808 W/kg = -0.93 dB W/kg

**Fig.B.4. Validation 835MHz 50mW**

**1750MHz**

Date: 2025-03-26

Electronics: DAE4 Sn1790

Medium: Head 1750MHz

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.375$  S/m;  $\epsilon_r = 39.493$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 1750 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

**System Check/Area Scan (81x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 36.28 V/m; Power Drift = 0.14 dB

**SAR(1 g) = 1.81 W/kg; SAR(10 g) = 0.975 W/kg**

Maximum value of SAR (interpolated) = 2.78 W/kg

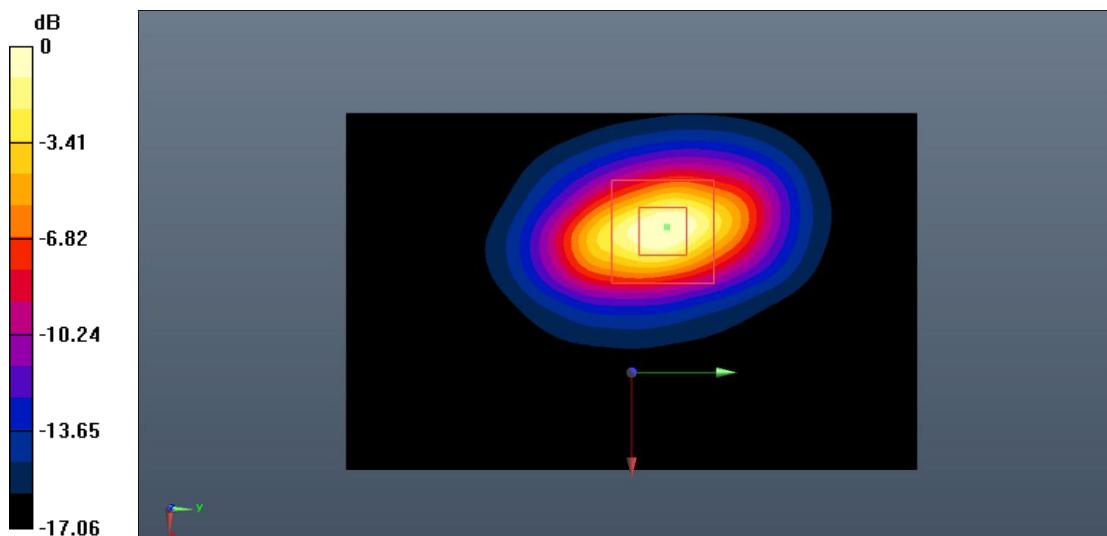
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 36.28 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 4.49 W/kg

**SAR(1 g) = 1.84 W/kg; SAR(10 g) = 0.990 W/kg**

Maximum value of SAR (measured) = 2.84 W/kg



0 dB = 2.84 W/kg = 4.53 dB W/kg

**Fig.B.5. Validation 1750MHz 50mW**

**1750MHz**

Date: 2025-04-01

Electronics: DAE4 Sn1790

Medium: Head 1750MHz

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.388$  S/m;  $\epsilon_r = 39.042$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 1750 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

**System Check/Area Scan (81x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 38.31 V/m; Power Drift = 0.03 dB

**SAR(1 g) = 1.88 W/kg; SAR(10 g) = 0.996 W/kg**

Maximum value of SAR (interpolated) = 2.88 W/kg

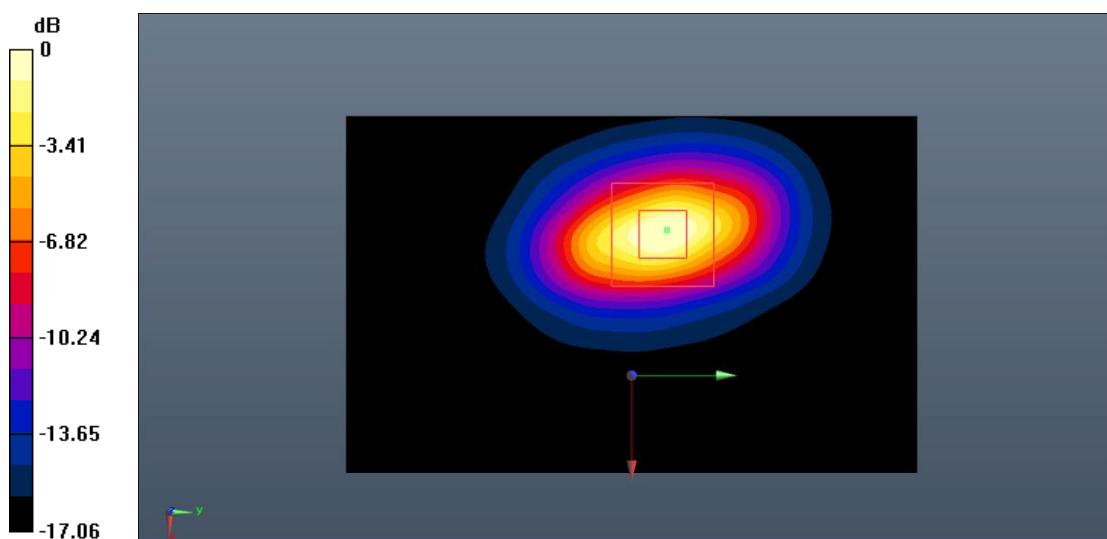
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 38.31 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 4.86 W/kg

**SAR(1 g) = 1.90 W/kg; SAR(10 g) = 1.01 W/kg**

Maximum value of SAR (measured) = 2.93 W/kg

**Fig.B.6. Validation 1750MHz 50mW**

**1900MHz**

Date: 2025-03-24

Electronics: DAE4 Sn1790

Medium: Head 1900MHz

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.418$  S/m;  $\epsilon_r = 39.058$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

**System Check/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 41.86 V/m; Power Drift = 0.11 dB

**SAR(1 g) = 1.98 W/kg; SAR(10 g) = 1.02 W/kg**

Maximum value of SAR (interpolated) = 3.39 W/kg

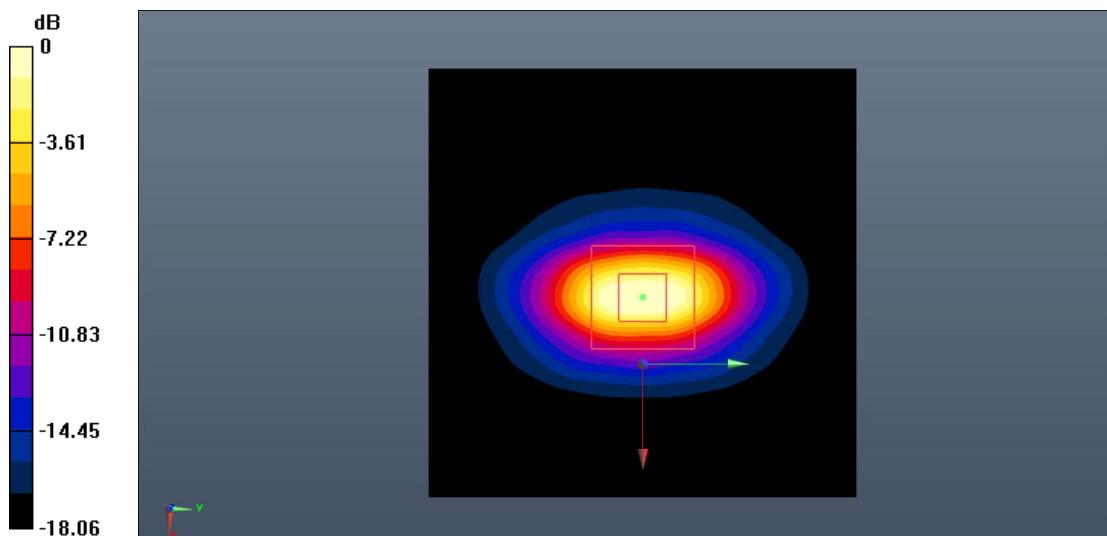
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 41.86 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 5.17 W/kg

**SAR(1 g) = 2.01 W/kg; SAR(10 g) = 1.05 W/kg**

Maximum value of SAR (measured) = 3.44 W/kg



0 dB = 3.44 W/kg = 5.37 dB W/kg

**Fig.B.7. Validation 1900MHz 50mW**

**1900MHz**

Date: 2025-04-09

Electronics: DAE4 Sn1790

Medium: Head 1900MHz

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.435$  S/m;  $\epsilon_r = 39.713$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

**System Check/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 44.53 V/m; Power Drift = 0.08 dB

**SAR(1 g) = 2.01 W/kg; SAR(10 g) = 1.03 W/kg**

Maximum value of SAR (interpolated) = 3.52 W/kg

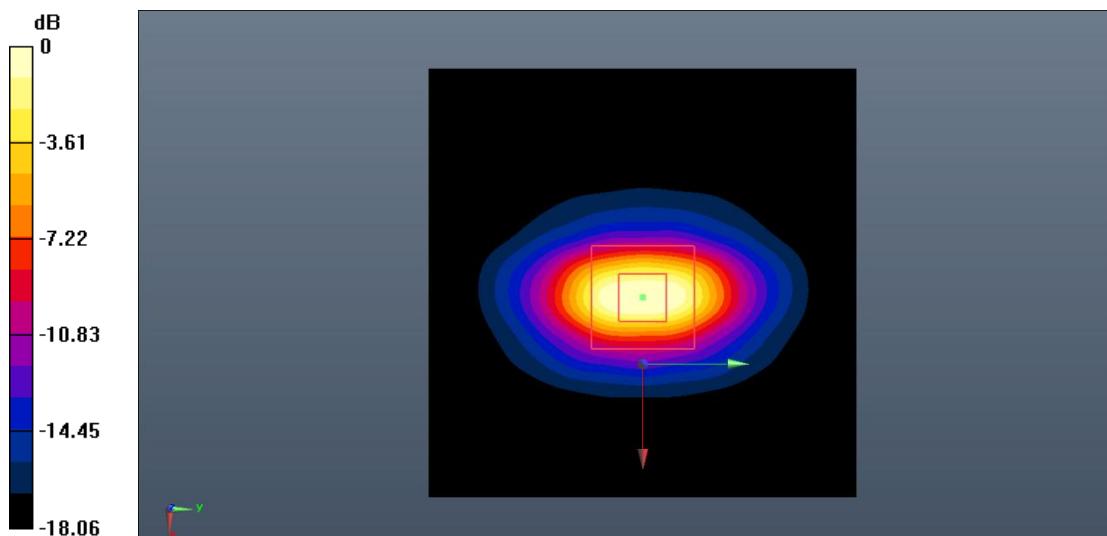
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 44.53 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 5.68 W/kg

**SAR(1 g) = 2.06 W/kg; SAR(10 g) = 1.06 W/kg**

Maximum value of SAR (measured) = 3.58 W/kg



0 dB = 3.58 W/kg = 5.54 dB W/kg

**Fig.B.8. Validation 1900MHz 50mW**

**2300MHz**

Date: 2025-03-30

Electronics: DAE4 Sn1790

Medium: Head 2300MHz

 Medium parameters used:  $f = 2300$  MHz;  $\sigma = 1.689$  S/m;  $\epsilon_r = 38.572$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 2300 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.14, 7.75, 7.59)

**System Check/Area Scan (81x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 50.49 V/m; Power Drift = 0.03 dB

**SAR(1 g) = 2.45 W/kg; SAR(10 g) = 1.19 W/kg**

Maximum value of SAR (interpolated) = 3.35 W/kg

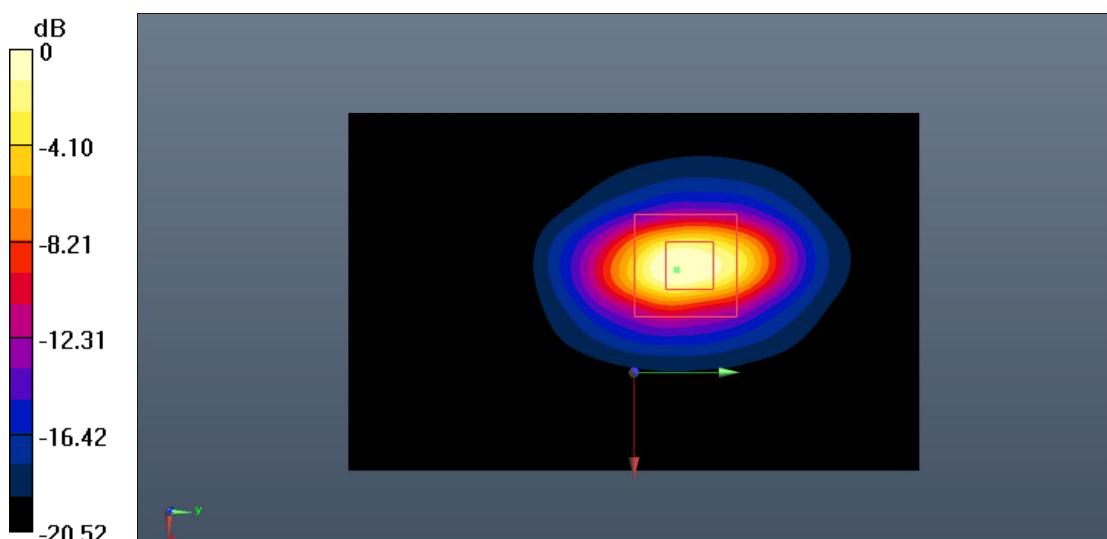
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 50.49 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 5.32 W/kg

**SAR(1 g) = 2.52 W/kg; SAR(10 g) = 1.22 W/kg**

Maximum value of SAR (measured) = 3.39 W/kg


**Fig.B.9. Check 2300MHz 50mW**

**2300MHz**

Date: 2025-04-03

Electronics: DAE4 Sn1790

Medium: Head 2300MHz

Medium parameters used:  $f = 2300$  MHz;  $\sigma = 1.65$  S/m;  $\epsilon_r = 39.884$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 2300 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (8.14, 7.75, 7.59)

**System Check/Area Scan (81x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 49.45 V/m; Power Drift = -0.06 dB

**SAR(1 g) = 2.42 W/kg; SAR(10 g) = 1.20 W/kg**

Maximum value of SAR (interpolated) = 3.31 W/kg

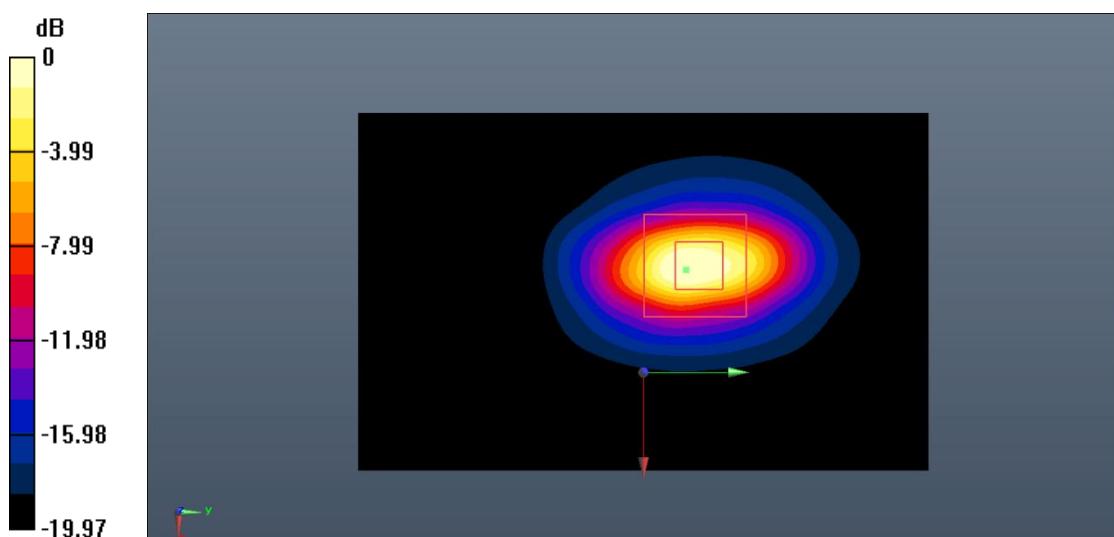
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 49.45 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 5.08 W/kg

**SAR(1 g) = 2.37 W/kg; SAR(10 g) = 1.17 W/kg**

Maximum value of SAR (measured) = 3.26 W/kg



0 dB = 3.26 W/kg = 5.13 dB W/kg

**Fig.B.10. Validation 2300MHz 50mW**

**2450MHz**

Date: 2025-04-11

Electronics: DAE4 Sn1790

Medium: Head 2450MHz

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.844$  S/m;  $\epsilon_r = 38.749$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

**System Check/Area Scan (81x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 50.36 V/m; Power Drift = 0.12 dB

**SAR(1 g) = 2.66 W/kg; SAR(10 g) = 1.24 W/kg**

Maximum value of SAR (interpolated) = 5.31 W/kg

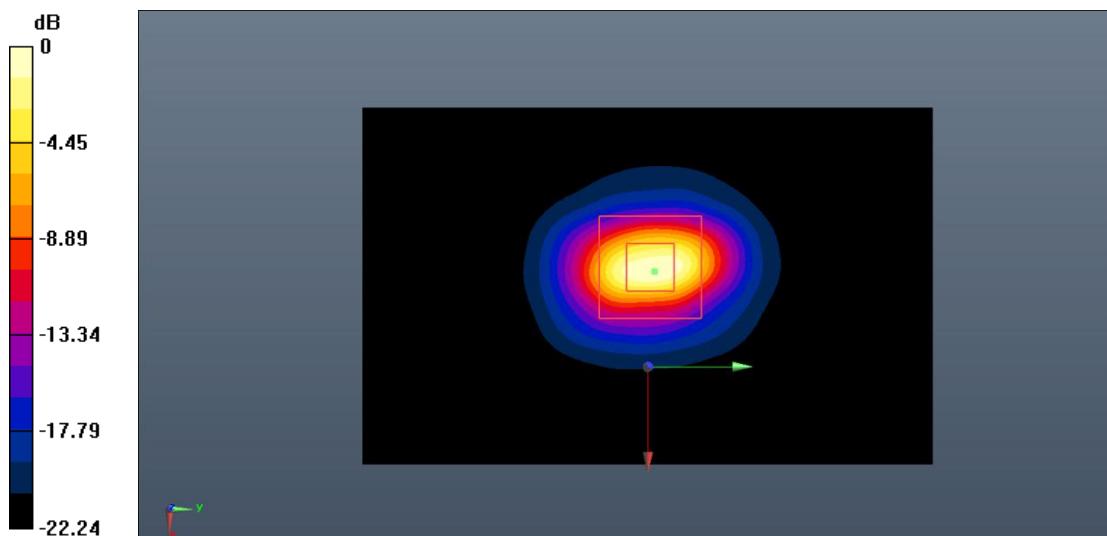
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 50.36 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 7.48 W/kg

**SAR(1 g) = 2.75 W/kg; SAR(10 g) = 1.28 W/kg**

Maximum value of SAR (measured) = 5.36 W/kg



0 dB = 5.36 W/kg = 7.29 dB W/kg

**Fig.B.11. Validation 2450MHz 50mW**

**2550MHz**

Date: 2025-03-25

Electronics: DAE4 Sn1790

Medium: Head 2550MHz

Medium parameters used:  $f = 2550$  MHz;  $\sigma = 1.952$  S/m;  $\epsilon_r = 38.456$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 2550 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

**System Check/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 54.75 V/m; Power Drift = 0.10 dB

**SAR(1 g) = 2.80 W/kg; SAR(10 g) = 1.26 W/kg**

Maximum value of SAR (interpolated) = 6.10 W/kg

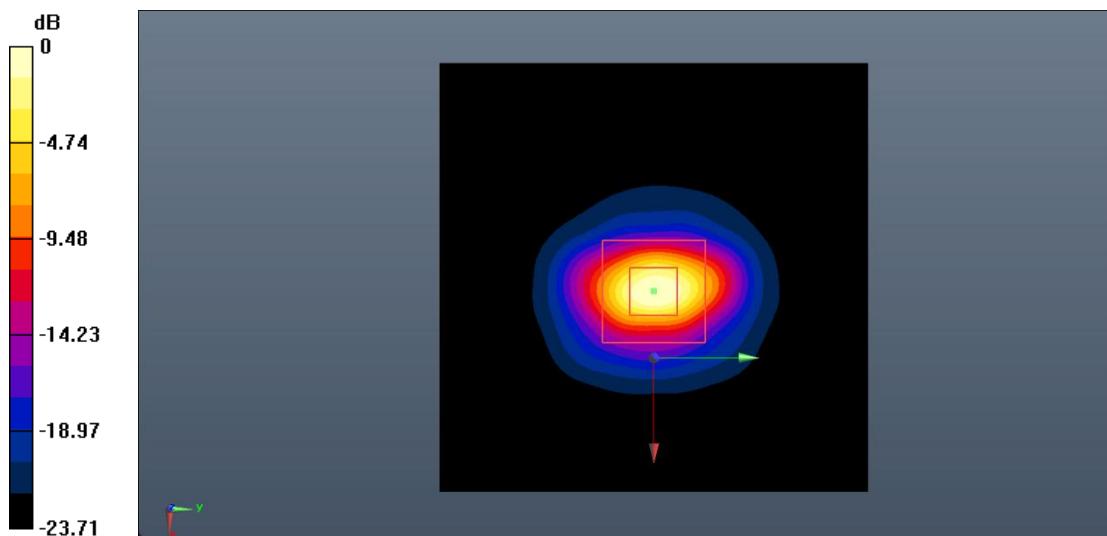
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.75 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 8.39 W/kg

**SAR(1 g) = 2.86 W/kg; SAR(10 g) = 1.29 W/kg**

Maximum value of SAR (measured) = 6.18 W/kg



0 dB = 6.18 W/kg = 7.91 dB W/kg

**Fig.B.12. Validation 2550MHz 50mW**

**2550MHz**

Date: 2025-03-29

Electronics: DAE4 Sn1790

Medium: Head 2550MHz

 Medium parameters used:  $f = 2550$  MHz;  $\sigma = 1.938$  S/m;  $\epsilon_r = 38.195$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 2550 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

**System Check/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 53.12 V/m; Power Drift = 0.01 dB

**SAR(1 g) = 2.72 W/kg; SAR(10 g) = 1.24 W/kg**

Maximum value of SAR (interpolated) = 5.84 W/kg

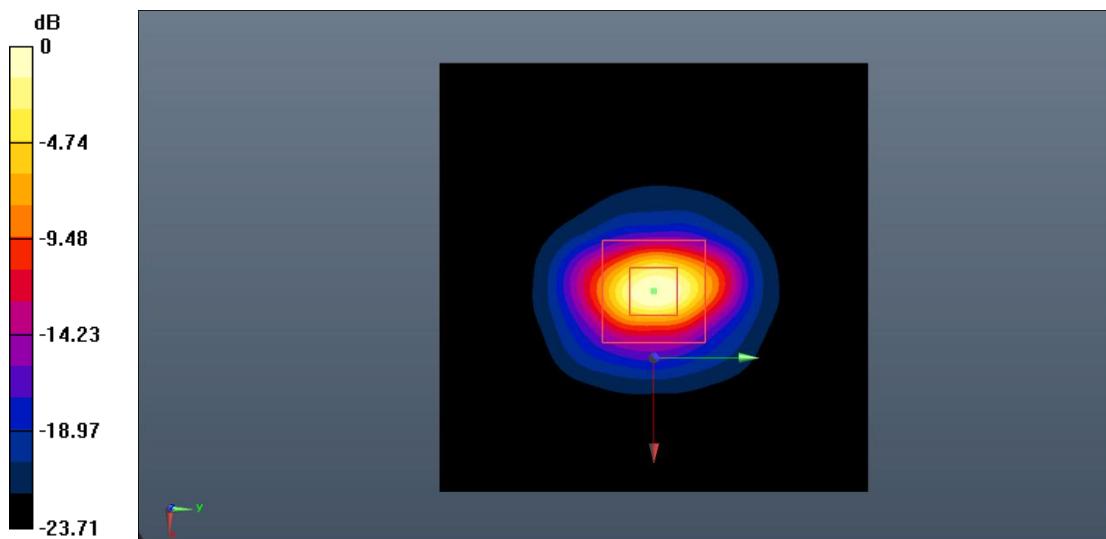
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.12 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 7.98 W/kg

**SAR(1 g) = 2.79 W/kg; SAR(10 g) = 1.26 W/kg**

Maximum value of SAR (measured) = 5.89 W/kg



0 dB = 5.89 W/kg = 7.70 dB W/kg

**Fig.B.13. Validation 2550MHz 50mW**

**2550MHz**

Date: 2025-04-14

Electronics: DAE4 Sn1790

Medium: Head 2550MHz

Medium parameters used:  $f = 2550$  MHz;  $\sigma = 1.945$  S/m;  $\epsilon_r = 37.909$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 2550 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

**System Check/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 53.91 V/m; Power Drift = 0.09 dB

**SAR(1 g) = 2.78 W/kg; SAR(10 g) = 1.24 W/kg**

Maximum value of SAR (interpolated) = 5.93 W/kg

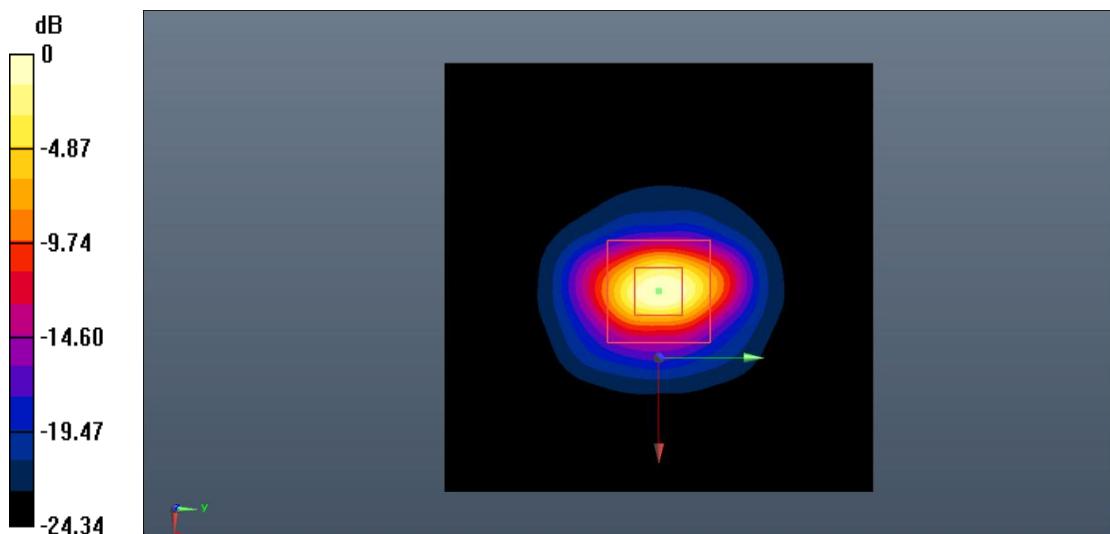
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.91 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 8.08 W/kg

**SAR(1 g) = 2.83 W/kg; SAR(10 g) = 1.27 W/kg**

Maximum value of SAR (measured) = 5.97 W/kg



0 dB = 5.97 W/kg = 7.76 dB W/kg

**Fig.B.14. Validation 2550MHz 50mW**

**3500MHz**

Date: 2025-04-02

Electronics: DAE4 Sn1790

Medium: Head 3500MHz

Medium parameters used:  $f = 3500$  MHz;  $\sigma = 2.967$  S/m;  $\epsilon_r = 37.309$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 3500 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.20, 6.85, 6.71)

**System Check/Area Scan (61x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 33.49 V/m; Power Drift = 0.16 dB

**SAR(1 g) = 3.28 W/kg; SAR(10 g) = 1.26 W/kg**

Maximum value of SAR (interpolated) = 6.26 W/kg

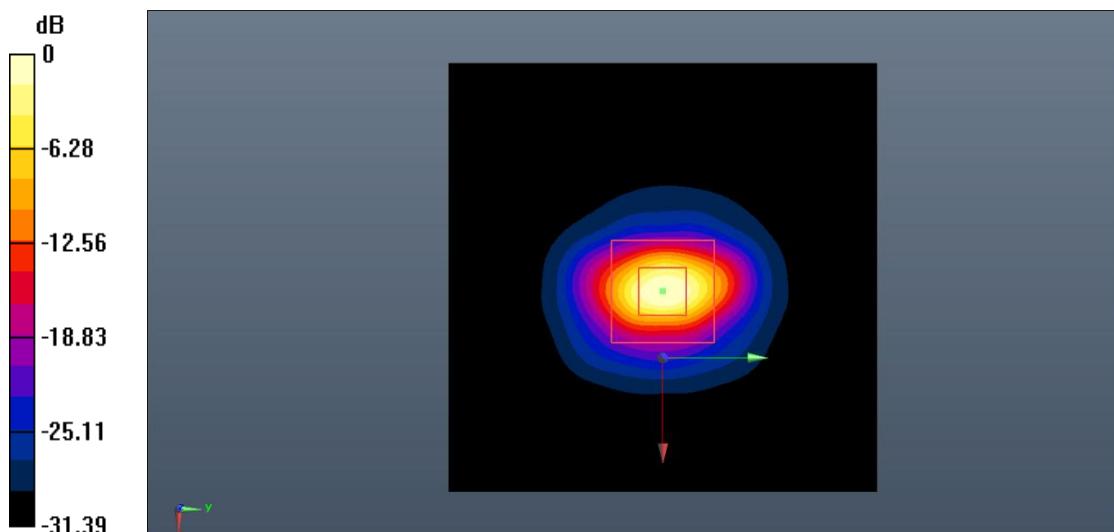
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 33.49 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 9.18 W/kg

**SAR(1 g) = 3.36 W/kg; SAR(10 g) = 1.30 W/kg**

Maximum value of SAR (measured) = 6.30 W/kg



0 dB = 6.30 W/kg = 7.99 dB W/kg

**Fig.B.15. Validation 3500MHz 50mW**

**3500MHz**

Date: 2025-04-10

Electronics: DAE4 Sn1790

Medium: Head 3500MHz

Medium parameters used:  $f = 3500$  MHz;  $\sigma = 2.878$  S/m;  $\epsilon_r = 38.464$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 3500 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.20, 6.85, 6.71)

**System Check/Area Scan (61x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 31.14 V/m; Power Drift = -0.10 dB

**SAR(1 g) = 3.22 W/kg; SAR(10 g) = 1.28 W/kg**

Maximum value of SAR (interpolated) = 6.13 W/kg

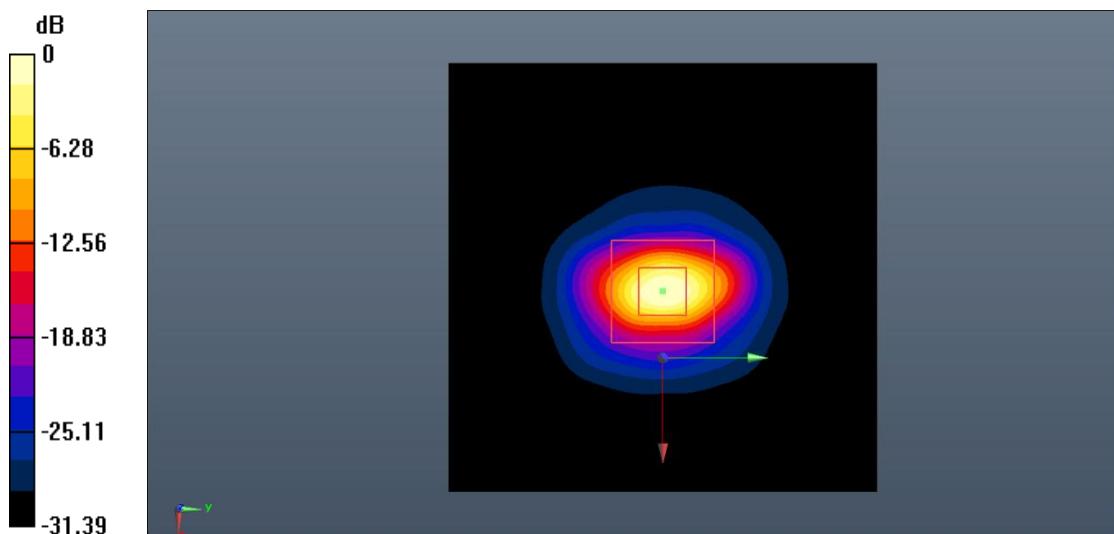
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 31.14 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 8.89 W/kg

**SAR(1 g) = 3.15 W/kg; SAR(10 g) = 1.26 W/kg**

Maximum value of SAR (measured) = 6.08 W/kg



0 dB = 6.08 W/kg = 7.84 dB W/kg

**Fig.B.16. Validation 3500MHz 50mW**

**3700MHz**

Date: 2025-04-02

Electronics: DAE4 Sn1790

Medium: Head 3700MHz

Medium parameters used:  $f = 3700$  MHz;  $\sigma = 3.056$  S/m;  $\epsilon_r = 38.134$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 3700 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.08, 6.74, 6.60)

**System Check/Area Scan (61x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 31.86 V/m; Power Drift = -0.08 dB

**SAR(1 g) = 3.25 W/kg; SAR(10 g) = 1.23 W/kg**

Maximum value of SAR (interpolated) = 6.18 W/kg

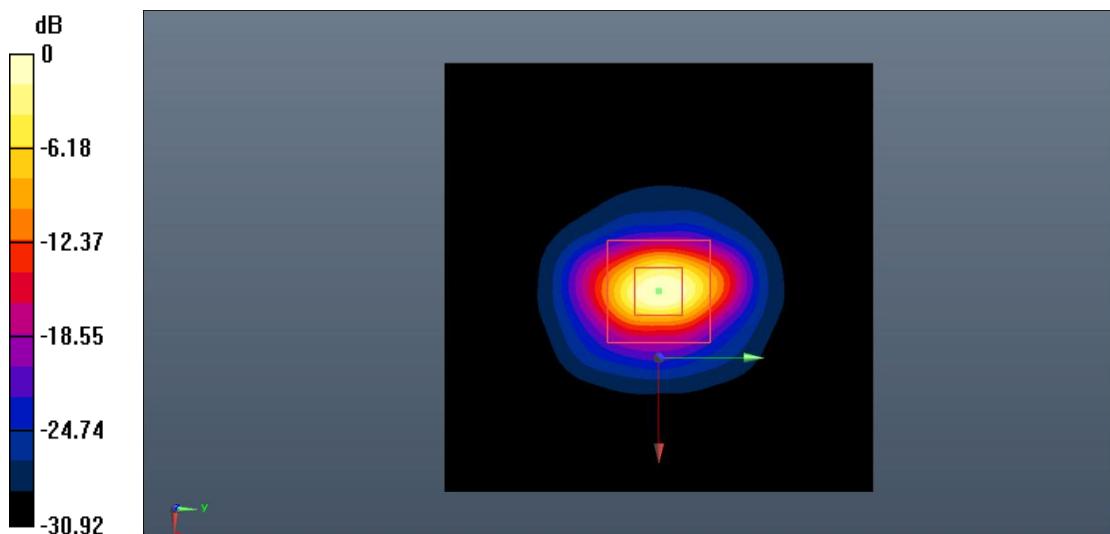
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 31.86 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 8.94 W/kg

**SAR(1 g) = 3.21 W/kg; SAR(10 g) = 1.21 W/kg**

Maximum value of SAR (measured) = 6.13 W/kg



0 dB = 6.13 W/kg = 11.00 dB W/kg

**Fig.B.17. Validation 3700MHz 50mW**

**3700MHz**

Date: 2025-04-10

Electronics: DAE4 Sn1790

Medium: Head 3700MHz

Medium parameters used:  $f = 3700$  MHz;  $\sigma = 3.073$  S/m;  $\epsilon_r = 38.751$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 3700 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (7.08, 6.74, 6.60)

**System Check/Area Scan (61x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 32.45 V/m; Power Drift = -0.12 dB

**SAR(1 g) = 3.30 W/kg; SAR(10 g) = 1.26 W/kg**

Maximum value of SAR (interpolated) = 6.22 W/kg

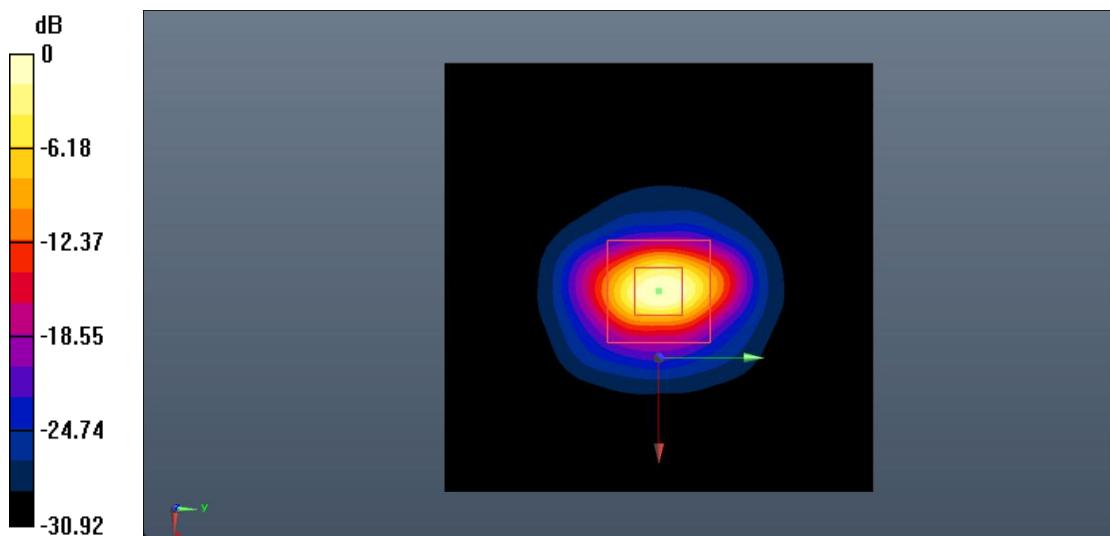
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 32.45 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 9.09 W/kg

**SAR(1 g) = 3.24 W/kg; SAR(10 g) = 1.23 W/kg**

Maximum value of SAR (measured) = 6.17 W/kg



0 dB = 6.17 W/kg = 7.90 dB W/kg

**Fig.B.18. Validation 3700MHz 50mW**

**3900MHz**

Date: 2025-04-02

Electronics: DAE4 Sn1790

Medium: Head 3900MHz

Medium parameters used:  $f = 3900$  MHz;  $\sigma = 3.384$  S/m;  $\epsilon_r = 36.522$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 3900 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (6.96, 6.62, 6.49)

**System Check/Area Scan (61x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 34.58 V/m; Power Drift = -0.14 dB

**SAR(1 g) = 3.50 W/kg; SAR(10 g) = 1.25 W/kg**

Maximum value of SAR (interpolated) = 6.48 W/kg

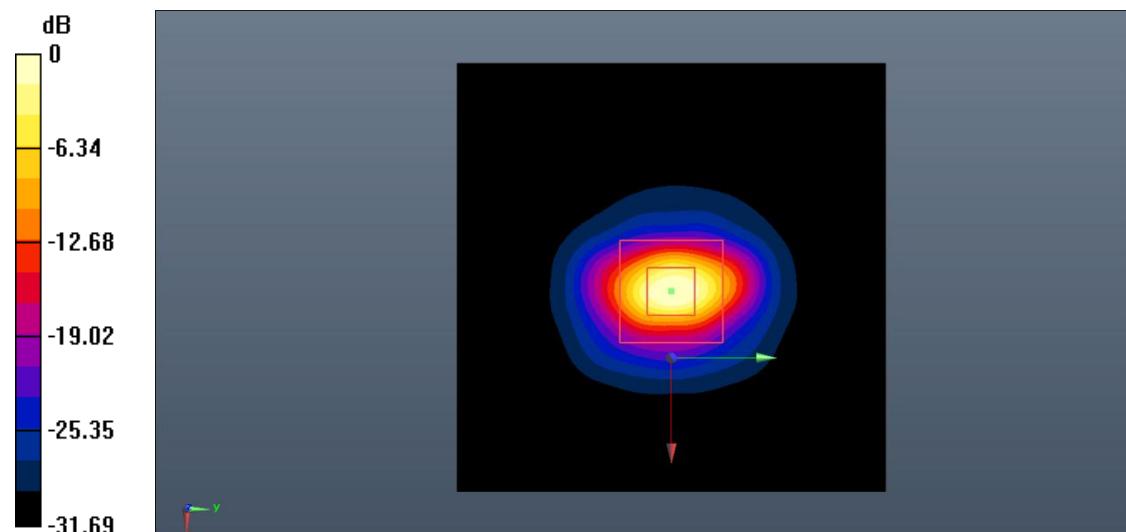
**System Check/Zoom Scan (7x7x7)/Cube0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 34.58 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 9.71 W/kg

**SAR(1 g) = 3.45 W/kg; SAR(10 g) = 1.22 W/kg**

Maximum value of SAR (measured) = 6.44 W/kg



**Fig.B.19. Validation 3900MHz 50mW**

**5250MHz**

Date: 2025-04-12

Electronics: DAE4 Sn1790

Medium: Head 5250MHz

 Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.839$  S/m;  $\epsilon_r = 35.231$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 5250 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (6.03, 5.73, 5.62)

**System Check/Area Scan (61x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 33.26 V/m; Power Drift = 0.07 dB

**SAR(1 g) = 4.08 W/kg; SAR(10 g) = 1.16 W/kg**

Maximum value of SAR (interpolated) = 10.8 W/kg

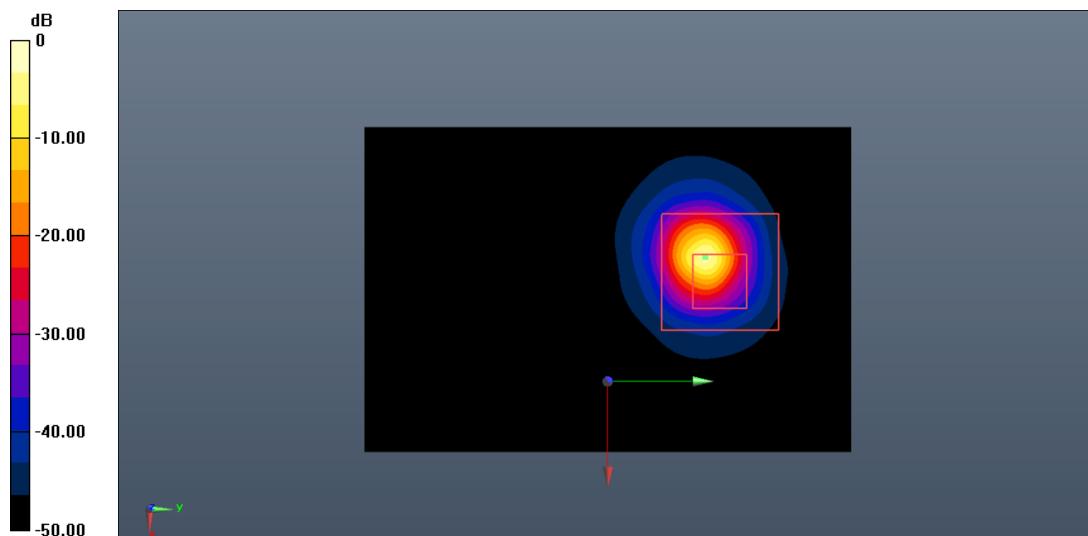
**System Check/Zoom Scan (8x8x21)/Cube0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 33.26 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 17.2 W/kg

**SAR(1 g) = 4.17 W/kg; SAR(10 g) = 1.18 W/kg**

Maximum value of SAR (measured) = 10.9 W/kg


**Fig.B.20. Validation 5250MHz 50mW**

**5600MHz**

Date: 2025-04-13

Electronics: DAE4 Sn1790

Medium: Head 5600MHz

Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.176$  S/m;  $\epsilon_r = 34.676$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 5600 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (5.46, 5.19, 5.09)

**System Check/Area Scan (61x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 34.75 V/m; Power Drift = 0.15 dB

**SAR(1 g) = 4.20 W/kg; SAR(10 g) = 1.16 W/kg**

Maximum value of SAR (interpolated) = 11.0 W/kg

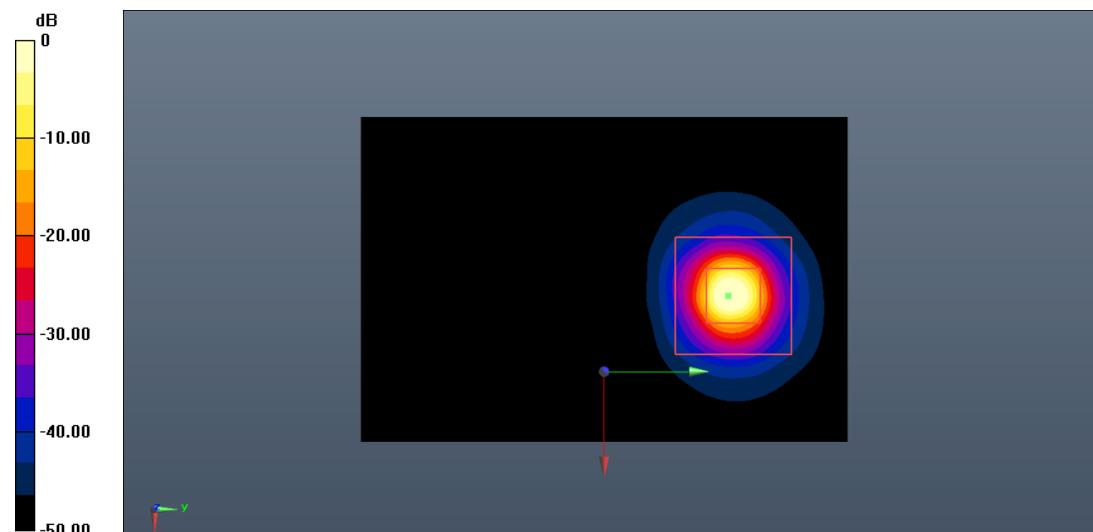
**System Check/Zoom Scan (8x8x21)/Cube0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 34.75 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 17.7 W/kg

**SAR(1 g) = 4.28 W/kg; SAR(10 g) = 1.21 W/kg**

Maximum value of SAR (measured) = 11.2 W/kg



**Fig.B.21. Validation 5600MHz 50mW**

**5750MHz**

Date: 2025-04-13

Electronics: DAE4 Sn1790

Medium: Head 5750MHz

Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.104$  S/m;  $\epsilon_r = 36.018$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Communication System: CW Frequency: 5750 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (5.53, 5.26, 5.15)

**System Check/Area Scan (61x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Reference Value = 31.09 V/m; Power Drift = -0.11 dB

**SAR(1 g) = 3.88 W/kg; SAR(10 g) = 1.10 W/kg**

Maximum value of SAR (interpolated) = 10.1 W/kg

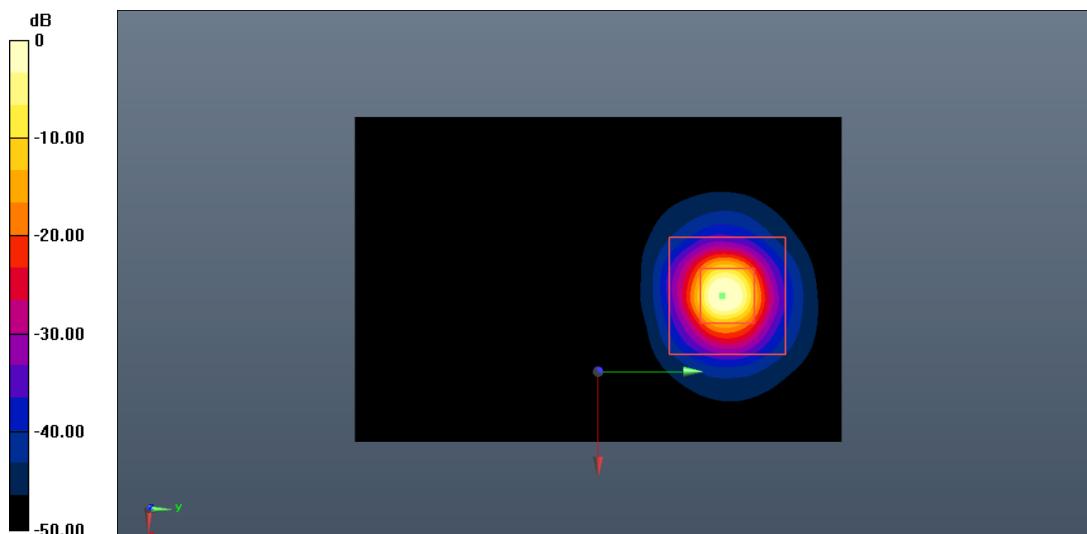
**System Check/Zoom Scan (8x8x21)/Cube0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 31.09 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 14.9 W/kg

**SAR(1 g) = 3.80 W/kg; SAR(10 g) = 1.08 W/kg**

Maximum value of SAR (measured) = 10.0 W/kg



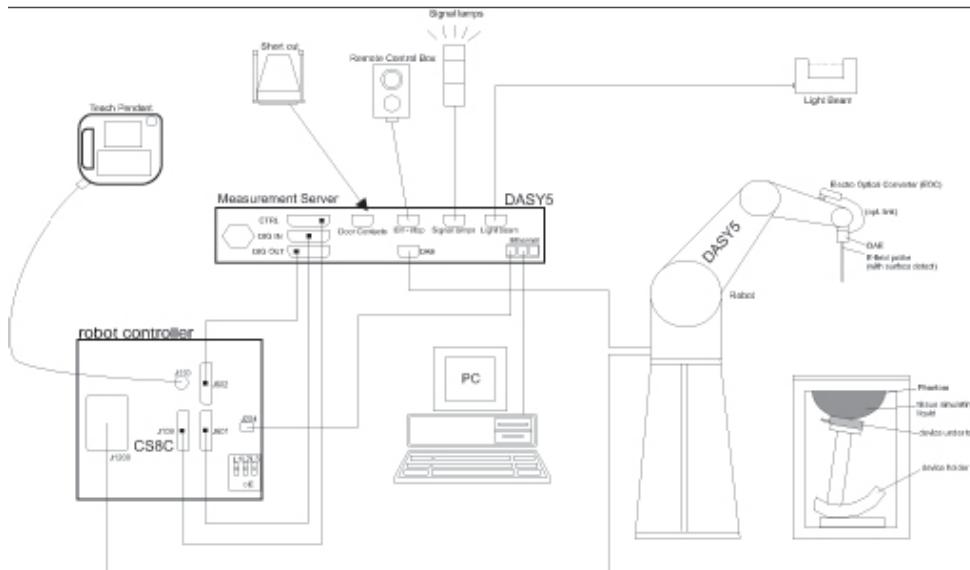
0 dB = 10.0 W/kg = 10.00 dB W/kg

**Fig.B.22. Validation 5750MHz 50mW**

## ANNEX C: SAR Measurement Setup

### C.1. Measurement Set-up

DASY5 system for performing compliance tests is illustrated above graphically. This system consists of the following items:



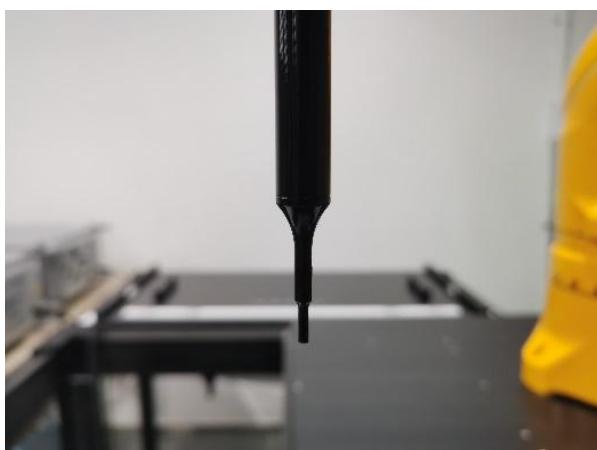
## Picture C.1 SAR Lab Test Measurement Set-up

- A standard high precision 6-axis robot (Stäubli TX=RX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as
- warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

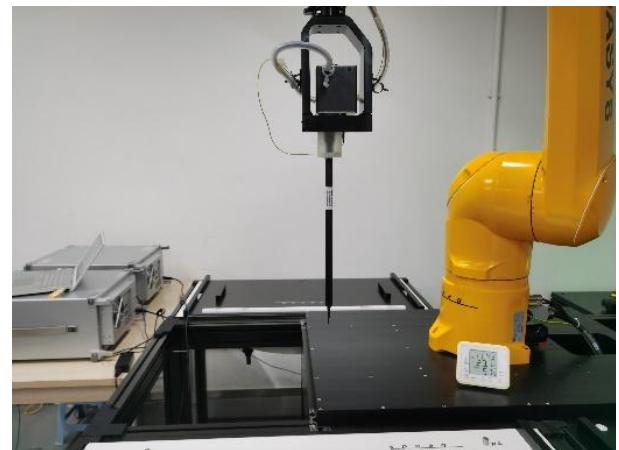
## C.2. DASY E-field Probe System

The SAR measurements were conducted with the dosimetric probe designed in the classical triangular configuration and optimized for dosimetric evaluation. The probe is constructed using the thick film technique; with printed resistive lines on ceramic substrates. The probe is equipped with an optical multifiber line ending at the front of the probe tip. It is connected to the EOC box on the robot arm and provides an automatic detection of the phantom surface. Half of the fibers are connected to a pulsed infrared transmitter, the other half to a synchronized receiver. As the probe approaches the surface, the reflection from the surface produces a coupling from the transmitting to the receiving fibers. This reflection increases first during the approach, reaches maximum and then decreases. If the probe is flatly touching the surface, the coupling is zero. The distance of the coupling maximum to the surface is independent of the surface reflectivity and largely independent of the surface to probe angle. The DASY5 OR DASY8 software reads the reflection during a software approach and looks for the maximum using 2<sup>nd</sup> order curve fitting. The approach is stopped at reaching the maximum.

| Probe Specifications: |   |
|-----------------------|---|
| Model:                | EX3DV4  |
| Frequency Range:      | 10 MHz - 6.0 GHz  |
| Calibration:          | In head simulating tissue at Frequencies from 750 up to 5750 MHz                                |
| Linearity:            | $\pm 0.2$ dB (30 MHz to 6 GHz)  |
| Dynamic Range:        | 10 mW/kg - 100 W/kg   |
| Probe Length:         | 337 mm  |
| Probe Tip Length:     | 20 mm   |
| Body Diameter:        | 12 mm   |
| Tip Diameter:         | 2.5 mm  |
| Tip-Center:           | 1 mm  |
| Application:          | SAR Dosimetry Testing / Compliance tests of mobile phones / Dosimetry in strong gradient fields |



Picture C.2: Near-field Probe



Picture C.3: E-field Probe

### C.3. E-field Probe Calibration

Each E-Probe/Probe Amplifier combination has unique calibration parameters. A TEM cell calibration procedure is conducted to determine the proper amplifier settings to enter in the probe parameters. The amplifier settings are determined for a given frequency by subjecting the probe to a known E-field density (1 mW/cm<sup>2</sup>) using an RF Signal generator, TEM cell, and RF Power Meter.

The free space E-field from amplified probe outputs is determined in a test chamber. This calibration can be performed in a TEM cell if the frequency is below 1 GHz and in a waveguide or other methodologies above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees until the three channels show the maximum reading. The power density readings equates to 1 mW/ cm<sup>2</sup>.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The E-field in the medium correlates with the temperature rise in the dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$SAR = C \frac{\Delta T}{\Delta t}$$

Where:

$\Delta t$  = Exposure time (30 seconds),

C = Heat capacity of tissue (brain or muscle),

$\Delta T$  = Temperature increase due to RF exposure.

$$SAR = \frac{|E|^2 \cdot \sigma}{\rho}$$

Where:

$\sigma$  = Simulated tissue conductivity,

$\rho$  = Tissue density (kg/m<sup>3</sup>).

## C.4. Other Test Equipment

### C.4.1. Data Acquisition Electronics (DAE)

The data acquisition electronics consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.

The mechanical probe mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection.

The input impedance of the DAE is 200 MΩ; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.



**Picture C.4: DAE**

### C.4.2. Robot

The SPEAG DASY system uses the high precision robots (DASY5: RX90L) type from Stäubli SA (France). For the 6-axis controller system, the robot controller version from Stäubli is used. The Stäubli robot series have many features that are important for our application:

- High precision (repeatability 0.02mm)
- High reliability (industrial design)
- Low maintenance costs (virtually maintenance free due to direct drive gears; no belt drives)
- Jerk-free straight movements (brushless synchron motors; no stepper motors)
- Low ELF interference (motor control fields shielded via the closed metallic construction shields)



**Picture C.5: DASY 5**



**Picture C.6: DASY 8**

#### C.4.3. Measurement Server

The Measurement server is based on a PC/104 CPU broad with CPU (DASY5: 400 MHz, Intel Celeron), chipdisk (DASY5:128MB), RAM (DASY5:128MB). The necessary circuits for communication with the DAE electronic box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY I/O broad, which is directly connected to the PC/104 bus of the CPU broad.

The measurement server performs all real-time data evaluation of field measurements and surface detection, controls robot movements and handles safety operation. The PC operating system cannot interfere with these time critical processes. All connections are supervised by a watchdog, and disconnection of any of the cables to the measurement server will automatically disarm the robot and disable all program-controlled robot movements. Furthermore, the measurement server is equipped with an expansion port which is reserved for future applications. Please note that this expansion port does not have a standardized pinout, and therefore only devices provided by SPEAG can be connected. Devices from any other supplier could seriously damage the measurement server.



Picture C.7: Server for DASY 5



Picture C.8: Server for DASY 8

#### C.4.4. Device Holder for Phantom

The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5mm distance, a positioning uncertainty of  $\pm 0.5\text{mm}$  would produce a SAR uncertainty of  $\pm 20\%$ . Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.

The DASY device holder is designed to cope with the different positions given in the standard. It has two scales for device rotation (with respect to the body axis) and device inclination (with respect to the line between the ear reference points). The rotation centers for both scales is the ear reference point (ERP). Thus the device needs no repositioning when changing the angles.

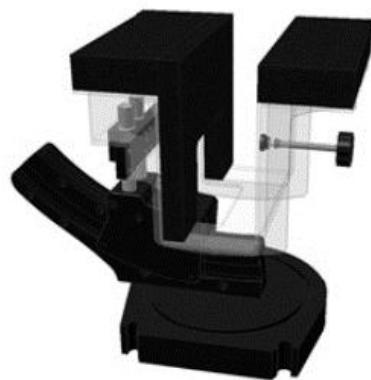
The DASY device holder is constructed of low-loss POM material having the following dielectric parameters: relative permittivity  $\epsilon = 3$  and loss tangent  $\delta = 0.02$ . The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

##### <Laptop Extension Kit>

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the Mounting Device in place of the phone positioner. The extension is fully compatible with the Twin-SAM and ELI phantoms.



**Picture C.9: Device Holder**



**Picture C.10: Laptop Extension Kit**

The SAM Twin Phantom V4.0 is constructed of a fiberglass shell integrated in a table. The shape of the shell is based on data from an anatomical study designed to represent the 90<sup>th</sup> percentile of the population. The phantom enables the dissymmetric evaluation of SAR for both left and right handed handset usage, as well as body-worn usage using the flat phantom region. Reference markings on the Phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points in the robot. The shell phantom has a 2mm shell thickness (except the ear region where shell thickness increases to 6 mm).

Shell Thickness:  $2 \pm 0.2$  mm

Filling Volume: Approx. 25 liters

Dimensions: 810 x 1000 x 500 mm (H x L x W)

Available: Special

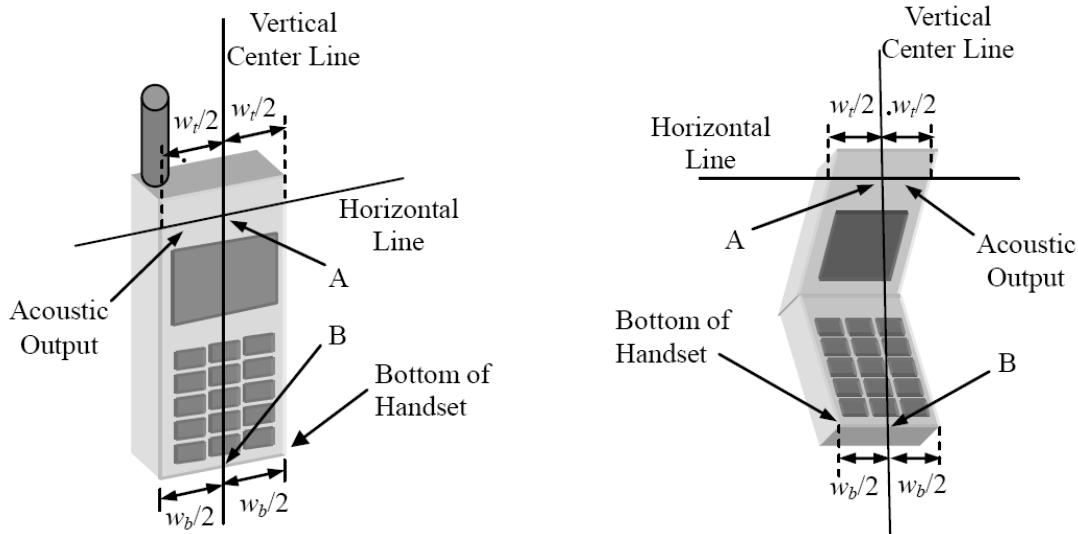


**Picture C.11: SAM Twin Phantom**

## ANNEX D: Position of the wireless device in relation to the phantom

### D.1. General considerations

This standard specifies two handset test positions against the head phantom – the “cheek” position and the “tilt” position.



w<sub>t</sub>

Width of the handset at the level of the acoustic

w<sub>b</sub>

Width of the bottom of the handset

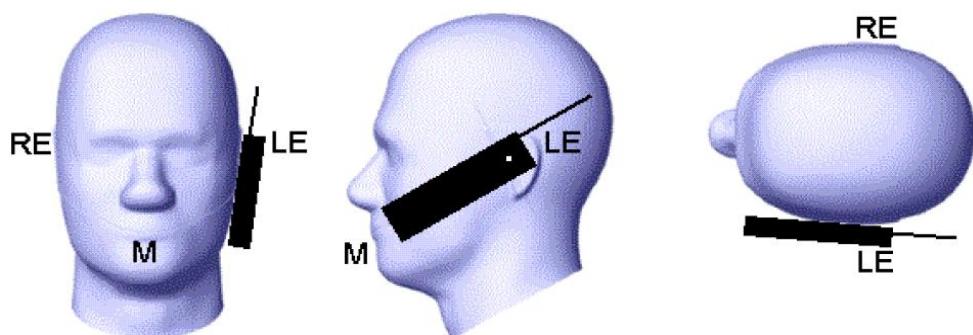
A

Midpoint of the width w<sub>t</sub> of the handset at the level of the acoustic output

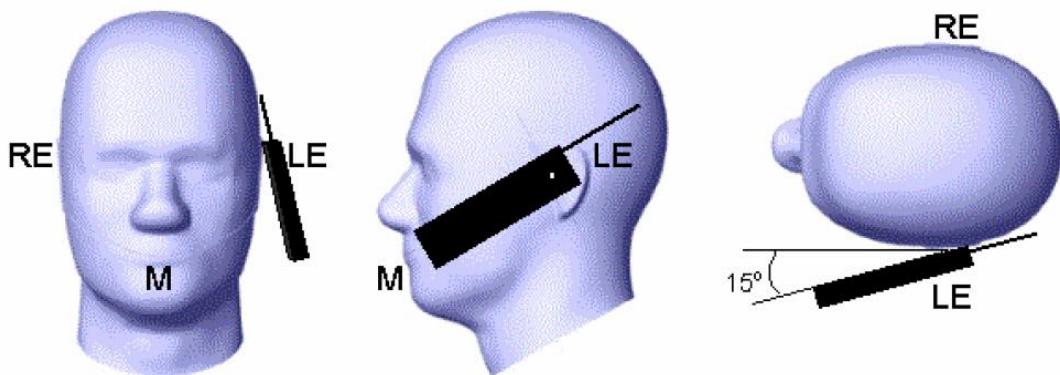
B

Midpoint of the width w<sub>b</sub> of the bottom of the handset

**Picture D.1-a Typical “fixed” case handset      Picture D.1-b Typical “clam-shell” case handset**



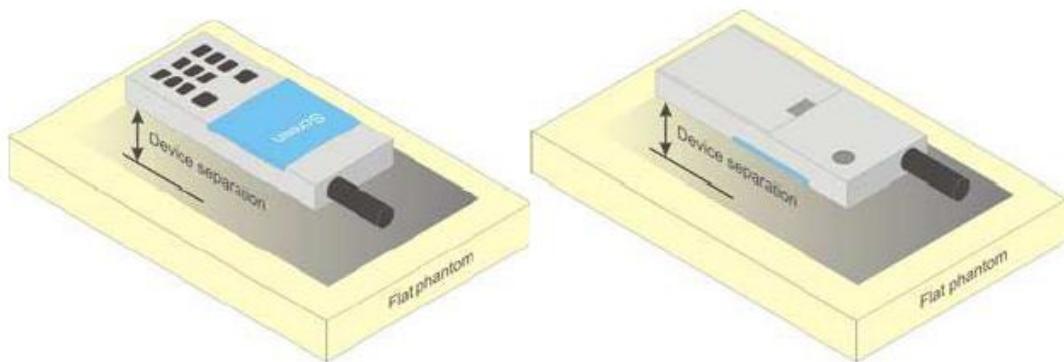
**Picture D.2 Cheek position of the wireless device on the left side of SAM**



Picture D.3 Tilt position of the wireless device on the left side of SAM

## D.2. Body-worn device

A typical example of a body-worn device is a mobile phone, wireless enabled PDA or other battery operated wireless device with the ability to transmit while mounted on a person's body using a carry accessory approved by the wireless device manufacturer.

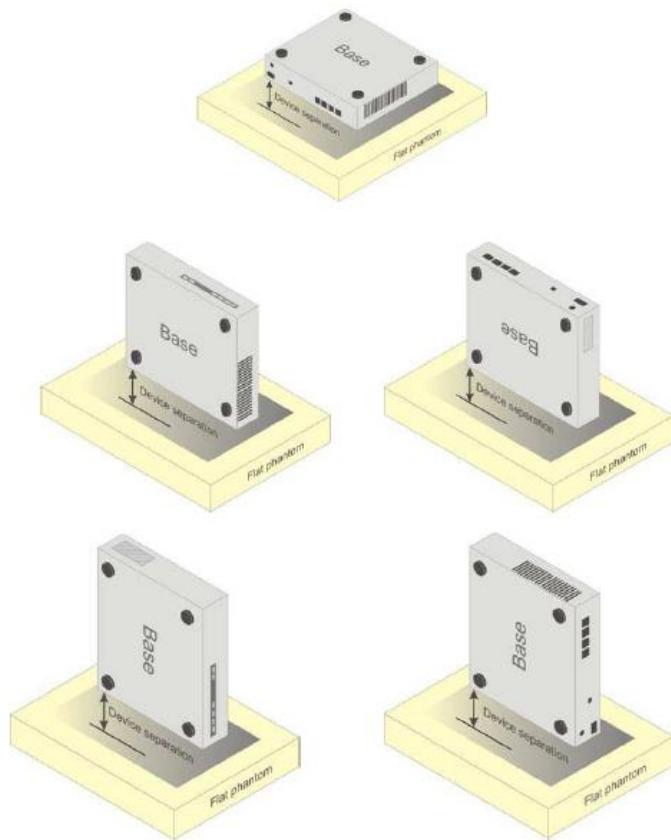


Picture D.4 Test positions for body-worn devices

## D.3. Desktop device

A typical example of a desktop device is a wireless enabled desktop computer placed on a table or desk when used.

The DUT shall be positioned at the distance and in the orientation to the phantom that corresponds to the intended use as specified by the manufacturer in the user instructions. For devices that employ an external antenna with variable positions, tests shall be performed for all antenna positions specified. Picture 8.5 show positions for desktop device SAR tests. If the intended use is not specified, the device shall be tested directly against the flat phantom.



**Picture D.5 Test positions for desktop devices**

#### D.4. DUT Setup Photos



**Picture D.6 Specific Absorption Rate Test Layout**

## ANNEX E: Equivalent Media Recipes

The liquid used for the frequency range of 700-6000 MHz consisted of water, sugar, salt, preventol, glycol monobutyl and Cellulose. The liquid has been previously proven to be suited for worst-case. The Table E.1 shows the detail solution. It's satisfying the latest tissue dielectric parameters requirements proposed by the IEEE 1528 and IEC 62209.

**Table E.1: Composition of the Tissue Equivalent Matter**

| Frequency (MHz)                    | 835                              | 1750                              | 1900                             | 2450                              | 2600                              | 5200                              | 5800                              |
|------------------------------------|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Water                              | 41.45                            | 55.242                            | 55.242                           | 58.79                             | 58.79                             | 65.53                             | 66.10                             |
| Sugar                              | 56.0                             | /                                 | /                                | /                                 | /                                 | /                                 | /                                 |
| Salt                               | 1.45                             | 0.306                             | 0.306                            | 0.06                              | 0.06                              |                                   |                                   |
| Preventol                          | 0.1                              | /                                 | /                                | /                                 | /                                 | 17.24                             | 16.95                             |
| Cellulose                          | 1.0                              | /                                 | /                                | /                                 | /                                 | 17.24                             | 16.95                             |
| Glycol Monobutyl                   | /                                | 44.452                            | 44.452                           | 41.15                             | 41.15                             | /                                 | /                                 |
| Diethylenglycol monohexylether     | /                                | /                                 | /                                | /                                 | /                                 | /                                 | /                                 |
| Triton X-100                       | /                                | /                                 | /                                | /                                 | /                                 | /                                 | /                                 |
| Dielectric Parameters Target Value | $\epsilon=41.5$<br>$\sigma=0.90$ | $\epsilon=40.08$<br>$\sigma=1.37$ | $\epsilon=40.0$<br>$\sigma=1.40$ | $\epsilon=39.20$<br>$\sigma=1.80$ | $\epsilon=39.01$<br>$\sigma=1.96$ | $\epsilon=35.99$<br>$\sigma=4.66$ | $\epsilon=35.30$<br>$\sigma=5.27$ |

**Note: There is a little adjustment respectively for 750, 5300 and 5600, based on the recipe of closest frequency in table E.1**

## ANNEX F: System Validation

The SAR system must be validated against its performance specifications before it is deployed. When SAR probes, system components or software are changed, upgraded or recalibrated, these must be validated with the SAR system(s) that operates with such components.

**Table F.1: System Validation**

| Probe SN. | Liquid name (MHz) | Validation date | Frequency point | CW Validation | Modulation Signal Validation |             |      |
|-----------|-------------------|-----------------|-----------------|---------------|------------------------------|-------------|------|
|           |                   |                 |                 |               | Modulation Type              | Duty Factor | PAR  |
| 7683      | Head 750          | 2024-08-08      | 750MHz          | Pass          | N/A                          | N/A         | N/A  |
| 7683      | Head 835          | 2024-08-08      | 835MHz          | Pass          | GMSK                         | Pass        | N/A  |
| 7683      | Head 1750         | 2024-08-08      | 1750MHz         | Pass          | N/A                          | N/A         | N/A  |
| 7683      | Head 1900         | 2024-08-08      | 1900MHz         | Pass          | GMSK                         | Pass        | N/A  |
| 7683      | Head 2300         | 2024-08-08      | 2300MHz         | Pass          | N/A                          | Pass        | N/A  |
| 7683      | Head 2450         | 2024-08-20      | 2450MHz         | Pass          | OFDM/TDD                     | Pass        | Pass |
| 7683      | Head 2550         | 2024-08-20      | 2550MHz         | Pass          | TDD                          | Pass        | N/A  |
| 7683      | Head 3500         | 2024-08-19      | 3500MHz         | Pass          | TDD                          | Pass        | N/A  |
| 7683      | Head 3700         | 2024-08-19      | 3700MHz         | Pass          | TDD                          | Pass        | N/A  |
| 7683      | Head 3900         | 2024-08-19      | 3900MHz         | Pass          | TDD                          | Pass        | N/A  |
| 7683      | Head 5250         | 2024-08-21      | 5250MHz         | Pass          | OFDM                         | N/A         | Pass |
| 7683      | Head 5600         | 2024-08-21      | 5600MHz         | Pass          | OFDM                         | N/A         | Pass |
| 7683      | Head 5750         | 2024-08-21      | 5750MHz         | Pass          | OFDM                         | N/A         | Pass |

**ANNEX G: DAE Calibration Certificate**

DAE4 - SN:1790 (2024-06-06)



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China  
Tel: +86-10-62304633-2117  
E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>



Client : SAICT

Certificate No: 24J02Z000295

**CALIBRATION CERTIFICATE**

Object DAE4 - SN: 1790

Calibration Procedure(s) FF-Z11-002-01  
Calibration Procedure for the Data Acquisition Electronics (DAEx)

Calibration date: June 06, 2024

This calibration Certificate documents the traceability to national standards, which realize the physical units of measurements(SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature( $22\pm3$ )°C and humidity<70%.

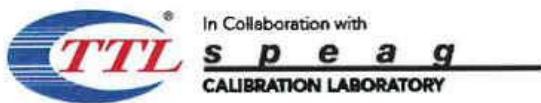
Calibration Equipment used (M&amp;TE critical for calibration)

| Primary Standards      | ID #    | Cal Date(Calibrated by, Certificate No.) | Scheduled Calibration |
|------------------------|---------|--|-----------------------|
| Process Calibrator 753 | 1971018 | 12-Jun-23 (CTTL, No.J23X05436)           | Jun-24                |

|                |                     |                               |               |
|----------------|---------------------|-------------------------------|---------------|
| Calibrated by: | Name<br>Yu Zongying | Function<br>SAR Test Engineer | Signature<br> |
| Reviewed by:   | Lin Jun             | SAR Test Engineer             |               |
| Approved by:   | Qi Dianyuan         | SAR Project Leader            |               |

Issued: June 09, 2024

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Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China  
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E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>

**Glossary:**

|                 |   |
|-----------------|---|
| DAE             | data acquisition electronics  |
| Connector angle | information used in DASY system to align probe sensor X to the robot coordinate system. |

**Methods Applied and Interpretation of Parameters:**

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle:* The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The report provide only calibration results for DAE, it does not contain other performance test results.



Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China

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E-mail: emf@caict.ac.cn <http://www.caict.ac.cn>

#### DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB =  $6.1\mu V$  , full range =  $-100...+300\text{ mV}$

Low Range: 1LSB =  $61\text{nV}$  , full range =  $-1.....+3\text{mV}$

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

| Calibration Factors | X                                 | Y                                 | Z                                 |
|---------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| High Range          | $404.649 \pm 0.15\% (\text{k}=2)$ | $404.367 \pm 0.15\% (\text{k}=2)$ | $404.501 \pm 0.15\% (\text{k}=2)$ |
| Low Range           | $4.00172 \pm 0.7\% (\text{k}=2)$  | $3.99527 \pm 0.7\% (\text{k}=2)$  | $3.98609 \pm 0.7\% (\text{k}=2)$  |

#### Connector Angle

|   |                           |
|---|---------------------------|
| Connector Angle to be used in DASY system | $305.5^\circ \pm 1^\circ$ |
|---|---------------------------|

## ANNEX H: Probe Calibration Certificate

EX3DV4 - SN:7683 (2024-07-03)

**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
**Zeughausstrasse 43, 8004 Zurich, Switzerland**



**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client      **SAICT**  
Shenzhen

Certificate No.      **EX-7683\_Jul24**

### CALIBRATION CERTIFICATE

Object      EX3DV4 - SN:7683

Calibration procedure(s)      QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6,  
QA CAL-25.v8  
Calibration procedure for dosimetric E-field probes

Calibration date      July 03, 2024

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration |
|----------------------------|------------------|-----------------------------------|-----------------------|
| Power meter NRP2           | SN: 104778       | 26-Mar-24 (No. 217-04036/04037)   | Mar-25                |
| Power sensor NRP-Z91       | SN: 103244       | 26-Mar-24 (No. 217-04036)         | Mar-25                |
| OCP DAK-3.5 (weighted)     | SN: 1249         | 05-Oct-23 (OCP-DAK3.5-1249_Oct23) | Oct-24                |
| OCP DAK-12                 | SN: 1016         | 05-Oct-23 (OCP-DAK12-1016_Oct23)  | Oct-24                |
| Reference 20 dB Attenuator | SN: CC2552 (20x) | 26-Mar-24 (No. 217-04046)         | Mar-25                |
| DAE4                       | SN: 660          | 23-Feb-24 (No. DAE4-660_Feb24)    | Feb-25                |
| Reference Probe EX3DV4     | SN: 7349         | 03-Jun-24 (No. EX3-7349_Jun24)    | Jun-25                |

| Secondary Standards     | ID               | Check Date (in house)             | Scheduled Check        |
|-------------------------|------------------|-----------------------------------|------------------------|
| Power meter E4419B      | SN: GB41293874   | 06-Apr-16 (in house check Jun-24) | In house check: Jun-26 |
| Power sensor E4412A     | SN: MY41498087   | 06-Apr-16 (in house check Jun-24) | In house check: Jun-26 |
| Power sensor E4412A     | SN: 000110210    | 06-Apr-16 (in house check Jun-24) | In house check: Jun-26 |
| RF generator HP 8648C   | SN: US3642U01700 | 04-Aug-99 (in house check Jun-24) | In house check: Jun-26 |
| Network Analyzer E8358A | SN: US41080477   | 31-Mar-14 (in house check Oct-22) | In house check: Oct-24 |

| Calibrated by | Name           | Function              | Signature |
|---------------|----------------|-----------------------|-----------|
| Calibrated by | Joanna Lleshaj | Laboratory Technician |           |
| Approved by   | Sven Kühn      | Technical Manager     |           |

Issued: July 03, 2024

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**Calibration Laboratory of**  
Schmid & Partner  
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Zeughausstrasse 43, 8004 Zurich, Switzerland



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**S** Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

### Glossary

|                        |  |
|------------------------|--|
| TSL                    | tissue simulating liquid   |
| NORM $x,y,z$           | sensitivity in free space  |
| ConvF                  | sensitivity in TSL / NORM $x,y,z$  |
| DCP                    | diode compression point  |
| CF                     | crest factor (1/duty_cycle) of the RF signal   |
| A, B, C, D             | modulation dependent linearization parameters  |
| Polarization $\varphi$ | $\varphi$ rotation around probe axis   |
| Polarization $\theta$  | $\theta$ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\theta = 0$ is normal to probe axis |
| Connector Angle        | information used in DASY system to align probe sensor X to the robot coordinate system   |

### Calibration is Performed According to the Following Standards:

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices – Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

### Methods Applied and Interpretation of Parameters:

- $NORM $x,y,z$$ : Assessed for E-field polarization  $\theta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide).  $NORM $x,y,z$$  are only intermediate values, i.e., the uncertainties of  $NORM $x,y,z$  does not affect the  $E^2$ -field uncertainty inside TSL (see below ConvF).$
- $NORM(f)x,y,z = NORM $x,y,z * frequency_response$$  (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- $DCPx,y,z$ : DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal. DCP does not depend on frequency nor media.
- $PAR$ : PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- $Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z$ :  $A, B, C, D$  are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters*: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and Inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to  $NORM $x,y,z * ConvF$  whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.$
- Spherical Isotropy (3D deviation from Isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle*: The angle is assessed using the information gained by determining the  $NORMx$  (no uncertainty required).

EX3DV4 - SN:7683

July 03, 2024

**Parameters of Probe: EX3DV4 - SN:7683**
**Basic Calibration Parameters**

|   | Sensor X | Sensor Y | Sensor Z | Unc (k = 2)  |
|---|----------|----------|----------|--------------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.62     | 0.63     | 0.63     | $\pm 10.1\%$ |
| DCP (mV) <sup>B</sup>                                     | 103.2    | 103.9    | 103.2    | $\pm 4.7\%$  |

**Calibration Results for Modulation Response**

| UID   | Communication System Name   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C     | D<br>dB | VR<br>mV | Max<br>dev. | Max<br>Unc <sup>E</sup><br>k = 2 |
|-------|-----------------------------|---------|------------------------------|-------|---------|----------|-------------|----------------------------------|
| 0     | CW                          | X 0.00  | 0.00                         | 1.00  | 0.00    | 120.4    | $\pm 1.4\%$ | $\pm 4.7\%$                      |
|       |                             | Y 0.00  | 0.00                         | 1.00  |         | 140.6    |             |                                  |
|       |                             | Z 0.00  | 0.00                         | 1.00  |         | 119.4    |             |                                  |
| 10352 | Pulse Waveform (200Hz, 10%) | X 1.52  | 60.67                        | 6.55  | 10.00   | 60.0     | $\pm 2.6\%$ | $\pm 9.6\%$                      |
|       |                             | Y 1.53  | 60.79                        | 6.54  |         | 60.0     |             |                                  |
|       |                             | Z 2.00  | 62.00                        | 7.00  |         | 60.0     |             |                                  |
| 10353 | Pulse Waveform (200Hz, 20%) | X 0.80  | 60.00                        | 5.10  | 6.99    | 80.0     | $\pm 2.3\%$ | $\pm 9.6\%$                      |
|       |                             | Y 10.00 | 72.00                        | 9.00  |         | 80.0     |             |                                  |
|       |                             | Z 0.80  | 60.00                        | 4.99  |         | 80.0     |             |                                  |
| 10354 | Pulse Waveform (200Hz, 40%) | X 0.26  | 143.64                       | 0.03  | 3.98    | 95.0     | $\pm 2.6\%$ | $\pm 9.6\%$                      |
|       |                             | Y 52.00 | 78.00                        | 9.00  |         | 95.0     |             |                                  |
|       |                             | Z 0.19  | 137.24                       | 0.48  |         | 95.0     |             |                                  |
| 10355 | Pulse Waveform (200Hz, 60%) | X 10.14 | 157.74                       | 16.87 | 2.22    | 120.0    | $\pm 1.6\%$ | $\pm 9.6\%$                      |
|       |                             | Y 12.08 | 151.82                       | 9.48  |         | 120.0    |             |                                  |
|       |                             | Z 10.53 | 156.21                       | 19.40 |         | 120.0    |             |                                  |
| 10387 | QPSK Waveform, 1 MHz        | X 0.62  | 63.82                        | 12.61 | 1.00    | 150.0    | $\pm 4.5\%$ | $\pm 9.6\%$                      |
|       |                             | Y 0.70  | 63.58                        | 11.65 |         | 150.0    |             |                                  |
|       |                             | Z 0.58  | 62.17                        | 11.23 |         | 150.0    |             |                                  |
| 10388 | QPSK Waveform, 10 MHz       | X 1.39  | 65.66                        | 14.01 | 0.00    | 150.0    | $\pm 1.4\%$ | $\pm 9.6\%$                      |
|       |                             | Y 1.40  | 64.71                        | 13.34 |         | 150.0    |             |                                  |
|       |                             | Z 1.31  | 64.28                        | 13.14 |         | 150.0    |             |                                  |
| 10396 | 64-QAM Waveform, 100 kHz    | X 1.61  | 63.63                        | 15.52 | 3.01    | 150.0    | $\pm 1.1\%$ | $\pm 9.6\%$                      |
|       |                             | Y 1.73  | 64.50                        | 15.77 |         | 150.0    |             |                                  |
|       |                             | Z 1.59  | 63.24                        | 15.16 |         | 150.0    |             |                                  |
| 10399 | 64-QAM Waveform, 40 MHz     | X 2.86  | 66.09                        | 15.03 | 0.00    | 150.0    | $\pm 1.9\%$ | $\pm 9.6\%$                      |
|       |                             | Y 2.90  | 65.80                        | 14.74 |         | 150.0    |             |                                  |
|       |                             | Z 2.80  | 65.50                        | 14.61 |         | 150.0    |             |                                  |
| 10414 | WLAN CCDF, 64-QAM, 40 MHz   | X 3.85  | 65.69                        | 15.17 | 0.00    | 150.0    | $\pm 3.5\%$ | $\pm 9.6\%$                      |
|       |                             | Y 4.00  | 65.56                        | 15.06 |         | 150.0    |             |                                  |
|       |                             | Z 4.03  | 66.09                        | 15.30 |         | 150.0    |             |                                  |

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Linearization parameter uncertainty for maximum specified field strength.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

EX3DV4 - SN:7683

July 03, 2024

**Parameters of Probe: EX3DV4 - SN:7683****Sensor Model Parameters**

|   | C1<br>fF | C2<br>fF | $\alpha$<br>V <sup>-1</sup> | T1<br>msV <sup>-2</sup> | T2<br>msV <sup>-1</sup> | T3<br>ms | T4<br>V <sup>-2</sup> | T5<br>V <sup>-1</sup> | T6   |
|---|----------|----------|-----------------------------|-------------------------|-------------------------|----------|-----------------------|-----------------------|------|
| x | 10.8     | 77.56    | 33.12                       | 2.58                    | 0.00                    | 4.90     | 0.27                  | 0.00                  | 1.00 |
| y | 13.0     | 94.75    | 33.73                       | 3.67                    | 0.00                    | 4.92     | 0.51                  | 0.00                  | 1.00 |
| z | 11.7     | 84.47    | 33.28                       | 2.66                    | 0.00                    | 4.90     | 0.28                  | 0.00                  | 1.00 |

**Other Probe Parameters**

|   |            |
|---|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle                               | 70.6°      |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Diameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       | 1 mm       |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |

Note: Measurement distance from surface can be increased to 3-4 mm for an Area Scan job.

EX3DV4 - SN:7683

July 03, 2024

**Parameters of Probe: EX3DV4 - SN:7683**
**Calibration Parameter Determined in Head Tissue Simulating Media**

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity <sup>F</sup> (S/m) | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc <sup>H</sup> (k = 2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|--------------------------|
| 13                   | 55.0                               | 0.75                            | 18.80   | 15.39   | 15.39   | 0.00               | 1.25                    | ±13.3%                   |
| 750                  | 41.9                               | 0.89                            | 10.40   | 9.90    | 9.70    | 0.34               | 1.27                    | ±11.0%                   |
| 900                  | 41.5                               | 0.97                            | 9.93    | 9.45    | 9.26    | 0.34               | 1.27                    | ±11.0%                   |
| 1640                 | 40.2                               | 1.31                            | 8.55    | 8.13    | 7.97    | 0.35               | 1.27                    | ±11.0%                   |
| 1750                 | 40.1                               | 1.37                            | 8.60    | 8.19    | 8.02    | 0.35               | 1.27                    | ±11.0%                   |
| 1900                 | 40.0                               | 1.40                            | 8.37    | 7.96    | 7.80    | 0.35               | 1.27                    | ±11.0%                   |
| 2100                 | 39.8                               | 1.49                            | 8.41    | 8.01    | 7.84    | 0.36               | 1.27                    | ±11.0%                   |
| 2300                 | 39.5                               | 1.67                            | 8.14    | 7.75    | 7.59    | 0.36               | 1.27                    | ±11.0%                   |
| 2450                 | 39.2                               | 1.80                            | 7.87    | 7.49    | 7.34    | 0.36               | 1.27                    | ±11.0%                   |
| 2600                 | 39.0                               | 1.96                            | 7.93    | 7.55    | 7.39    | 0.36               | 1.27                    | ±11.0%                   |
| 3300                 | 38.2                               | 2.71                            | 7.14    | 6.80    | 6.66    | 0.37               | 1.27                    | ±13.1%                   |
| 3500                 | 37.9                               | 2.91                            | 7.20    | 6.85    | 6.71    | 0.37               | 1.27                    | ±13.1%                   |
| 3700                 | 37.7                               | 3.12                            | 7.08    | 6.74    | 6.60    | 0.37               | 1.27                    | ±13.1%                   |
| 3900                 | 37.5                               | 3.32                            | 6.96    | 6.62    | 6.49    | 0.38               | 1.27                    | ±13.1%                   |
| 4100                 | 37.2                               | 3.53                            | 6.87    | 6.54    | 6.40    | 0.38               | 1.27                    | ±13.1%                   |
| 4400                 | 36.9                               | 3.84                            | 6.68    | 6.35    | 6.22    | 0.38               | 1.27                    | ±13.1%                   |
| 4600                 | 36.7                               | 4.04                            | 6.74    | 6.41    | 6.28    | 0.38               | 1.27                    | ±13.1%                   |
| 4800                 | 36.4                               | 4.25                            | 6.61    | 6.29    | 6.16    | 0.39               | 1.27                    | ±13.1%                   |
| 4950                 | 36.3                               | 4.40                            | 6.59    | 6.27    | 6.14    | 0.37               | 1.27                    | ±13.1%                   |
| 5250                 | 35.9                               | 4.71                            | 6.03    | 5.73    | 5.62    | 0.34               | 1.27                    | ±13.1%                   |
| 5600                 | 35.5                               | 5.07                            | 5.46    | 5.19    | 5.09    | 0.30               | 1.27                    | ±13.1%                   |
| 5800                 | 35.3                               | 5.27                            | 5.53    | 5.26    | 5.15    | 0.28               | 1.27                    | ±13.1%                   |

<sup>C</sup> Frequency validity above 300 MHz of ±100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ±50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ±10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4–9 MHz, and ConvF assessed at 13 MHz is 9–19 MHz. Above 5 GHz frequency validity can be extended to ±110 MHz.

<sup>F</sup> The probes are calibrated using tissue simulating liquids (TSL) that deviate for  $\epsilon$  and  $\sigma$  by less than ±5% from the target values (typically better than ±3%) and are valid for TSL with deviations of up to ±10% if SAR correction is applied.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz and below ±2% for frequencies between 3–6 GHz at any distance larger than half the probe tip diameter from the boundary.

<sup>H</sup> The stated uncertainty is the total calibration uncertainty (k = 2) of Norm-ConvF. Therefore, the uncertainty stated is equivalent to the uncertainty component with the symbol CF in Table 9 of IEC/IEEE 62209-1528-2020.

EX3DV4 - SN:7683

July 03, 2024

**Parameters of Probe: EX3DV4 - SN:7683****Calibration Parameter Determined in Head Tissue Simulating Media**

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity <sup>F</sup> (S/m) | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc <sup>H</sup> (k = 2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|--------------------------|
| 6500                 | 34.5                               | 6.07                            | 5.99    | 5.70    | 5.58    | 0.20               | 1.27                    | ±18.6%                   |

<sup>C</sup> Frequency validity at 6.5 GHz is –600/+700 MHz, and ±700 MHz at or above 7 GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

<sup>F</sup> The probes are calibrated using tissue simulating liquids (TSL) that deviate for  $\epsilon$  and  $\sigma$  by less than ±10% from the target values (typically better than ±6%) and are valid for TSL with deviations of up to ±10%.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz; below ±2% for frequencies between 3–6 GHz; and below ±4% for frequencies between 6–10 GHz at any distance larger than half the probe tip diameter from the boundary.

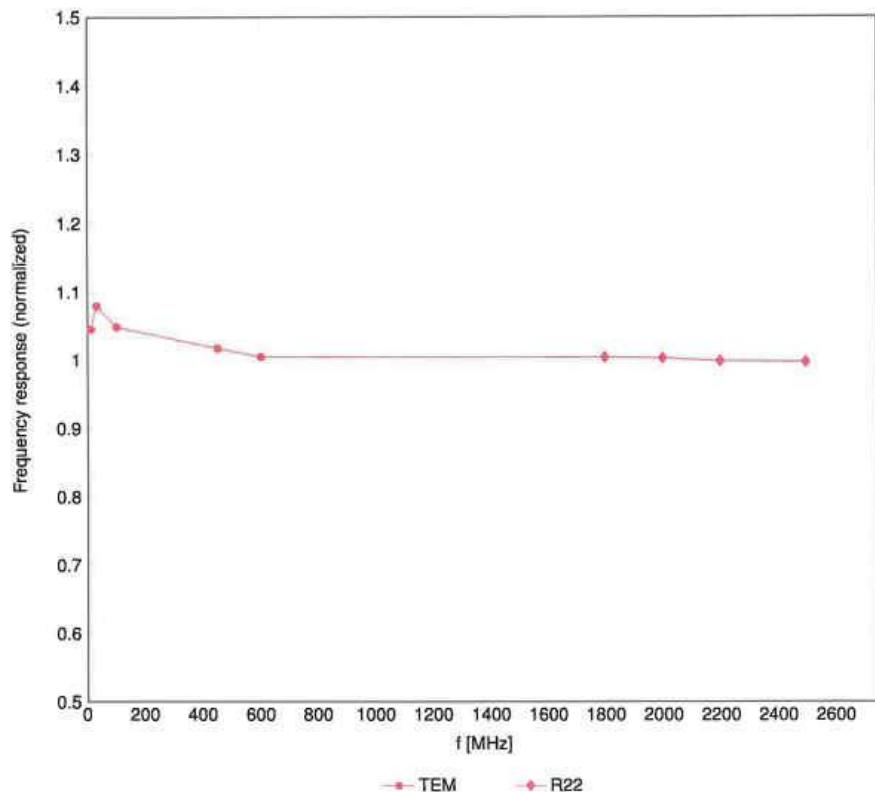
<sup>H</sup> The stated uncertainty is the total calibration uncertainty (k = 2) of Norm-ConvF. Therefore, the uncertainty stated is equivalent to the uncertainty component with the symbol CF in Table 9 of IEC/IEEE 62209-1528-2020.

EX3DV4 - SN:7683

July 03, 2024

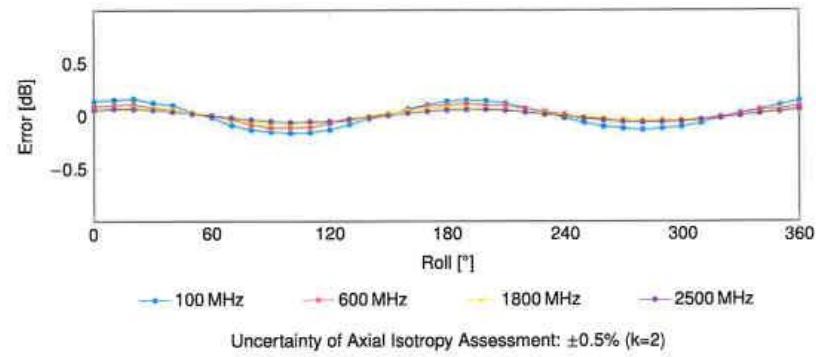
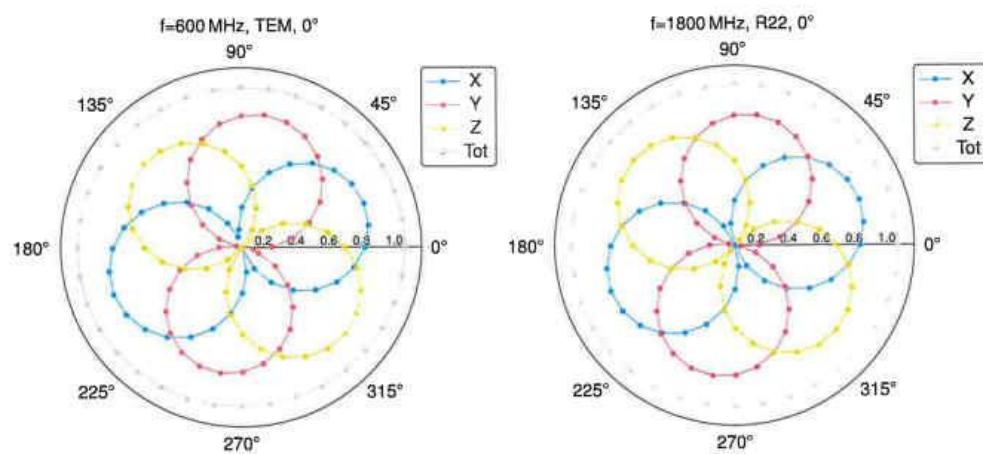
**Frequency Response of E-Field**

(TEM-Cell:ifl110 EXX, Waveguide:R22)

Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

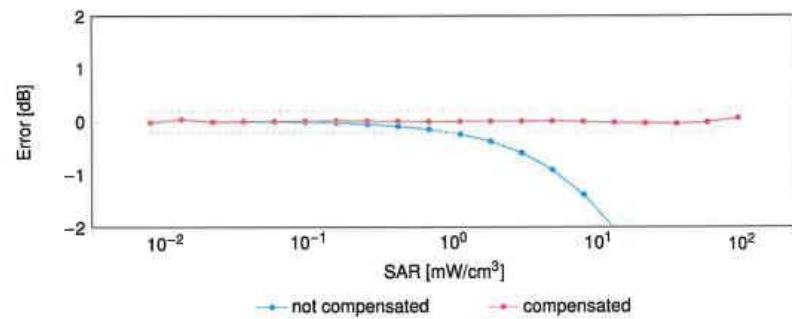
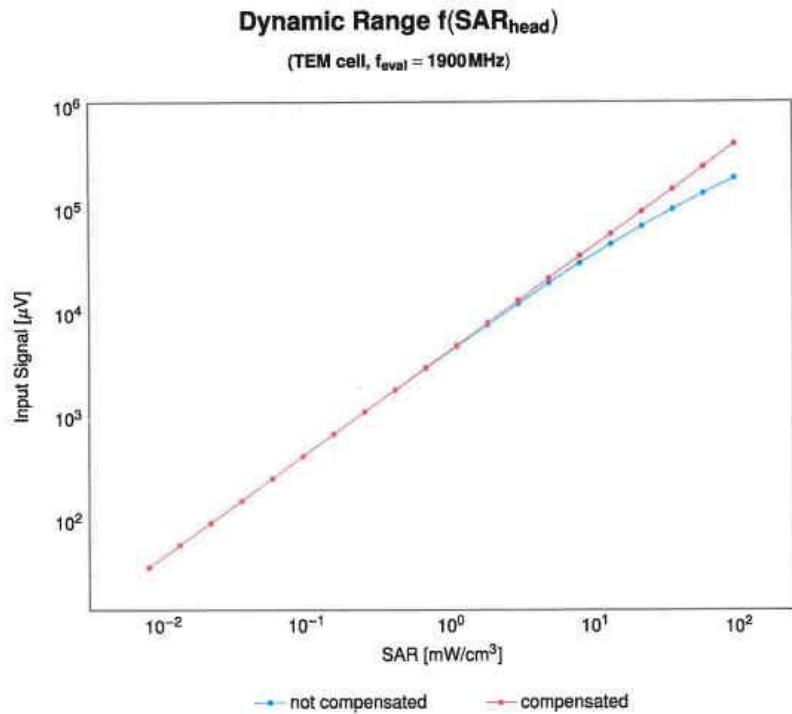
EX3DV4 - SN:7683

July 03, 2024

**Receiving Pattern ( $\phi$ ),  $\theta = 0^\circ$** 


EX3DV4 - SN:7683

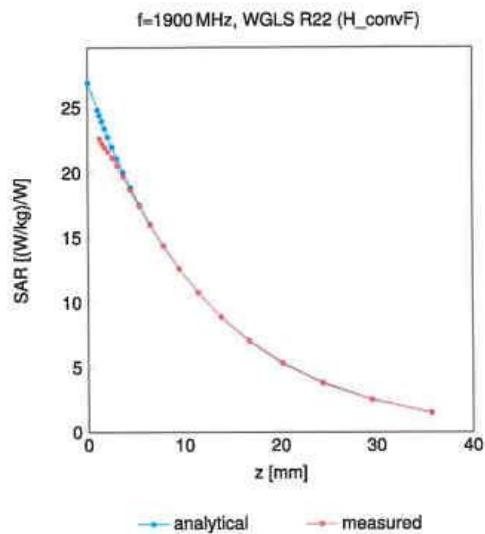
July 03, 2024

Uncertainty of Linearity Assessment:  $\pm 0.6\%$  (k=2)

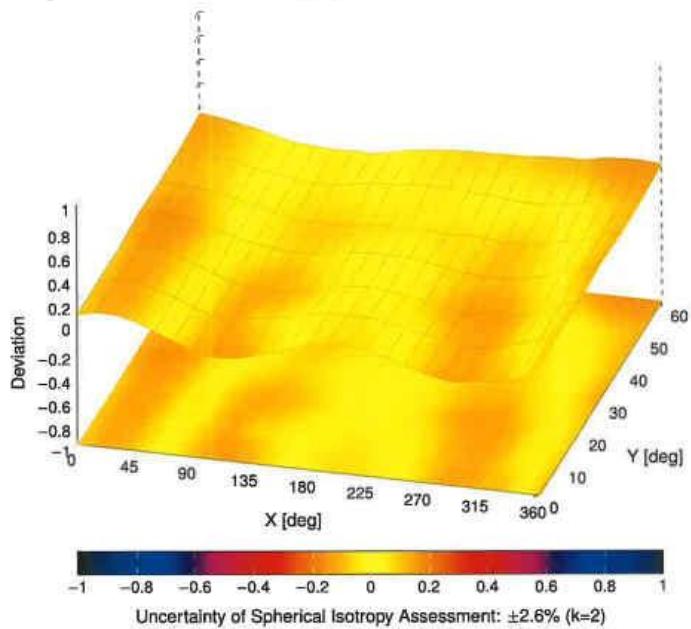
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### Conversion Factor Assessment



### Deviation from Isotropy in Liquid

 Error  $(\phi, \theta)$ ,  $f = 900\text{ MHz}$ 


## Appendix: Modulation Calibration Parameters

| UID   | Rev | Communication System Name                           | Group     | PAR (dB) | Unc <sup>E</sup> k = 2 |
|-------|-----|---|-----------|----------|------------------------|
| 0     |     | CW  | CW        | 0.00     | ±4.7                   |
| 10010 | CAB | SAR Validation (Square, 100 ms, 10 ms)              | Test      | 10.00    | ±9.6                   |
| 10011 | CAC | UMTS-FDD (WCDMA)                                    | WCDMA     | 2.91     | ±9.6                   |
| 10012 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)            | WLAN      | 1.87     | ±9.6                   |
| 10013 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)       | WLAN      | 9.46     | ±9.6                   |
| 10021 | DAC | GSM-FDD (TDMA, GMSK)                                | GSM       | 9.39     | ±9.6                   |
| 10023 | DAC | GPRS-FDD (TDMA, GMSK, TN 0)                         | GSM       | 9.57     | ±9.6                   |
| 10024 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                       | GSM       | 6.56     | ±9.6                   |
| 10025 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                         | GSM       | 12.62    | ±9.6                   |
| 10026 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                       | GSM       | 9.55     | ±9.6                   |
| 10027 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)                     | GSM       | 4.80     | ±9.6                   |
| 10028 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)                   | GSM       | 3.55     | ±9.6                   |
| 10029 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)                     | GSM       | 7.78     | ±9.6                   |
| 10030 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)                 | Bluetooth | 5.30     | ±9.6                   |
| 10031 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)                 | Bluetooth | 1.87     | ±9.6                   |
| 10032 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | Bluetooth | 1.16     | ±9.6                   |
| 10033 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | Bluetooth | 7.74     | ±9.6                   |
| 10034 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | Bluetooth | 4.53     | ±9.6                   |
| 10035 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | Bluetooth | 3.83     | ±9.6                   |
| 10036 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | Bluetooth | 8.01     | ±9.6                   |
| 10037 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | Bluetooth | 4.77     | ±9.6                   |
| 10038 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | Bluetooth | 4.10     | ±9.6                   |
| 10039 | CAB | CDMA2000 (1xRTT, RC1)                               | CDMA2000  | 4.57     | ±9.6                   |
| 10042 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | AMPS      | 7.78     | ±9.6                   |
| 10044 | CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | AMPS      | 0.00     | ±9.6                   |
| 10048 | CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | DECT      | 13.80    | ±9.6                   |
| 10049 | CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | DECT      | 10.79    | ±9.6                   |
| 10056 | CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | TD-SCDMA  | 11.01    | ±9.6                   |
| 10058 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | GSM       | 6.52     | ±9.6                   |
| 10059 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2Mbps)             | WLAN      | 2.12     | ±9.6                   |
| 10060 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5Mbps)           | WLAN      | 2.83     | ±9.6                   |
| 10061 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)           | WLAN      | 3.60     | ±9.6                   |
| 10062 | CAE | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)            | WLAN      | 8.68     | ±9.6                   |
| 10063 | CAE | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)            | WLAN      | 8.63     | ±9.6                   |
| 10064 | CAE | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)           | WLAN      | 9.09     | ±9.6                   |
| 10065 | CAE | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)           | WLAN      | 9.00     | ±9.6                   |
| 10066 | CAE | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)           | WLAN      | 9.38     | ±9.6                   |
| 10067 | CAE | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)           | WLAN      | 10.12    | ±9.6                   |
| 10068 | CAE | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)           | WLAN      | 10.24    | ±9.6                   |
| 10069 | CAE | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)           | WLAN      | 10.56    | ±9.6                   |
| 10071 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)       | WLAN      | 9.83     | ±9.6                   |
| 10072 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)      | WLAN      | 9.62     | ±9.6                   |
| 10073 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)      | WLAN      | 9.94     | ±9.6                   |
| 10074 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)      | WLAN      | 10.30    | ±9.6                   |
| 10075 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)      | WLAN      | 10.77    | ±9.6                   |
| 10076 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)      | WLAN      | 10.94    | ±9.6                   |
| 10077 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)      | WLAN      | 11.00    | ±9.6                   |
| 10081 | CAB | CDMA2000 (1xRTT, RC3)                               | CDMA2000  | 3.97     | ±9.6                   |
| 10082 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | AMPS      | 4.77     | ±9.6                   |
| 10090 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | GSM       | 6.56     | ±9.6                   |
| 10097 | CAC | UMTS-FDD (HSDPA)                                    | WCDMA     | 3.98     | ±9.6                   |
| 10098 | CAC | UMTS-FDD (HSUPA, Subtest 2)                         | WCDMA     | 3.98     | ±9.6                   |
| 10099 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | GSM       | 9.55     | ±9.6                   |
| 10100 | CAF | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | LTE-FDD   | 5.67     | ±9.6                   |
| 10101 | CAF | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | LTE-FDD   | 6.42     | ±9.6                   |
| 10102 | CAF | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | LTE-FDD   | 6.60     | ±9.6                   |
| 10103 | CAH | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | LTE-TDD   | 9.29     | ±9.6                   |
| 10104 | CAH | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | LTE-TDD   | 9.97     | ±9.6                   |
| 10105 | CAH | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | LTE-TDD   | 10.01    | ±9.6                   |
| 10108 | CAH | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | LTE-FDD   | 5.80     | ±9.6                   |
| 10109 | CAH | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)          | LTE-FDD   | 6.43     | ±9.6                   |
| 10110 | CAH | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)             | LTE-FDD   | 5.75     | ±9.6                   |
| 10111 | CAH | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)           | LTE-FDD   | 6.44     | ±9.6                   |

| UID   | Rev | Communication System Name                      | Group   | PAR (dB) | Unc <sup>E</sup> k = 2 |
|-------|-----|--|---------|----------|------------------------|
| 10112 | CAH | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | LTE-FDD | 6.59     | ±9.6                   |
| 10113 | CAH | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | LTE-FDD | 6.62     | ±9.6                   |
| 10114 | CAE | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | WLAN    | 8.10     | ±9.6                   |
| 10115 | CAE | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | WLAN    | 8.46     | ±9.6                   |
| 10116 | CAE | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | WLAN    | 8.15     | ±9.6                   |
| 10117 | CAE | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | WLAN    | 8.07     | ±9.6                   |
| 10118 | CAE | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | WLAN    | 8.59     | ±9.6                   |
| 10119 | CAE | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | WLAN    | 8.13     | ±9.6                   |
| 10140 | CAF | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | LTE-FDD | 6.49     | ±9.6                   |
| 10141 | CAF | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | LTE-FDD | 6.53     | ±9.6                   |
| 10142 | CAF | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | LTE-FDD | 5.73     | ±9.6                   |
| 10143 | CAF | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | LTE-FDD | 6.35     | ±9.6                   |
| 10144 | CAF | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | LTE-FDD | 6.65     | ±9.6                   |
| 10145 | CAG | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | LTE-FDD | 5.76     | ±9.6                   |
| 10146 | CAG | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | LTE-FDD | 6.41     | ±9.6                   |
| 10147 | CAG | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | LTE-FDD | 6.72     | ±9.6                   |
| 10149 | CAF | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-FDD | 6.42     | ±9.6                   |
| 10150 | CAF | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-FDD | 6.60     | ±9.6                   |
| 10151 | CAH | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)        | LTE-TDD | 9.28     | ±9.6                   |
| 10152 | CAH | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-TDD | 9.92     | ±9.6                   |
| 10153 | CAH | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-TDD | 10.05    | ±9.6                   |
| 10154 | CAH | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)        | LTE-FDD | 5.75     | ±9.6                   |
| 10155 | CAH | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)      | LTE-FDD | 6.43     | ±9.6                   |
| 10156 | CAH | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         | LTE-FDD | 5.79     | ±9.6                   |
| 10157 | CAH | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)       | LTE-FDD | 6.49     | ±9.6                   |
| 10158 | CAH | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)      | LTE-FDD | 6.62     | ±9.6                   |
| 10159 | CAH | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)       | LTE-FDD | 6.56     | ±9.6                   |
| 10160 | CAF | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)        | LTE-FDD | 5.82     | ±9.6                   |
| 10161 | CAF | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)      | LTE-FDD | 6.43     | ±9.6                   |
| 10162 | CAF | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)      | LTE-FDD | 6.58     | ±9.6                   |
| 10166 | CAG | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)       | LTE-FDD | 5.46     | ±9.6                   |
| 10167 | CAG | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)     | LTE-FDD | 6.21     | ±9.6                   |
| 10168 | CAG | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)     | LTE-FDD | 6.79     | ±9.6                   |
| 10169 | CAG | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-FDD | 5.73     | ±9.6                   |
| 10170 | CAF | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-FDD | 6.52     | ±9.6                   |
| 10171 | AAF | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-FDD | 6.49     | ±9.6                   |
| 10172 | CAH | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-TDD | 9.21     | ±9.6                   |
| 10173 | CAH | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-TDD | 9.48     | ±9.6                   |
| 10174 | CAH | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-TDD | 10.25    | ±9.6                   |
| 10175 | CAH | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)          | LTE-FDD | 5.72     | ±9.6                   |
| 10176 | CAH | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)        | LTE-FDD | 6.52     | ±9.6                   |
| 10177 | CAJ | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)           | LTE-FDD | 5.73     | ±9.6                   |
| 10178 | CAH | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)         | LTE-FDD | 6.52     | ±9.6                   |
| 10179 | CAH | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)        | LTE-FDD | 6.50     | ±9.6                   |
| 10180 | CAH | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)         | LTE-FDD | 6.50     | ±9.6                   |
| 10181 | CAF | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)          | LTE-FDD | 5.72     | ±9.6                   |
| 10182 | CAF | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)        | LTE-FDD | 6.52     | ±9.6                   |
| 10183 | AAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)        | LTE-FDD | 6.50     | ±9.6                   |
| 10184 | CAF | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)           | LTE-FDD | 5.73     | ±9.6                   |
| 10185 | CAF | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)         | LTE-FDD | 6.51     | ±9.6                   |
| 10186 | AAF | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)         | LTE-FDD | 6.50     | ±9.6                   |
| 10187 | CAG | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)         | LTE-FDD | 5.73     | ±9.6                   |
| 10188 | CAG | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)       | LTE-FDD | 6.52     | ±9.6                   |
| 10189 | AAG | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)       | LTE-FDD | 6.50     | ±9.6                   |
| 10193 | CAE | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)   | WLAN    | 8.09     | ±9.6                   |
| 10194 | CAE | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)  | WLAN    | 8.12     | ±9.6                   |
| 10195 | CAE | IEEE 802.11n (HT Greenfield, 55 Mbps, 64-QAM)  | WLAN    | 8.21     | ±9.6                   |
| 10196 | CAE | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)        | WLAN    | 8.10     | ±9.6                   |
| 10197 | CAE | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)       | WLAN    | 8.13     | ±9.6                   |
| 10198 | CAE | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)       | WLAN    | 8.27     | ±9.6                   |
| 10219 | CAE | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)        | WLAN    | 8.03     | ±9.6                   |
| 10220 | CAE | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)     | WLAN    | 8.13     | ±9.6                   |
| 10221 | CAE | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)     | WLAN    | 8.27     | ±9.6                   |
| 10222 | CAE | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)         | WLAN    | 8.06     | ±9.6                   |
| 10223 | CAE | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)       | WLAN    | 8.48     | ±9.6                   |
| 10224 | CAE | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)      | WLAN    | 8.08     | ±9.6                   |

| UID   | Rev | Communication System Name  | Group    | PAR (dB) | Unc <sup>E</sup> k = 2 |
|-------|-----|--|----------|----------|------------------------|
| 10225 | CAC | UMTS-FDD (HSPA+)   | WCDMA    | 5.97     | ±9.6                   |
| 10226 | CAC | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)                             | LTE-TDD  | 9.49     | ±9.6                   |
| 10227 | CAC | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)                             | LTE-TDD  | 10.26    | ±9.6                   |
| 10228 | CAC | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)                               | LTE-TDD  | 9.22     | ±9.6                   |
| 10229 | CAE | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)                               | LTE-TDD  | 9.48     | ±9.6                   |
| 10230 | CAE | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)                               | LTE-TDD  | 10.25    | ±9.6                   |
| 10231 | CAE | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)                                 | LTE-TDD  | 9.19     | ±9.6                   |
| 10232 | CAH | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)                               | LTE-TDD  | 9.48     | ±9.6                   |
| 10233 | CAH | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)                               | LTE-TDD  | 10.25    | ±9.6                   |
| 10234 | CAH | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)                                 | LTE-TDD  | 9.21     | ±9.6                   |
| 10235 | CAH | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)                              | LTE-TDD  | 9.48     | ±9.6                   |
| 10236 | CAH | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)                              | LTE-TDD  | 10.25    | ±9.6                   |
| 10237 | CAH | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)                                | LTE-TDD  | 9.21     | ±9.6                   |
| 10238 | CAG | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)                              | LTE-TDD  | 9.48     | ±9.6                   |
| 10239 | CAG | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)                              | LTE-TDD  | 10.25    | ±9.6                   |
| 10240 | CAG | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)                                | LTE-TDD  | 9.21     | ±9.6                   |
| 10241 | CAC | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)                           | LTE-TDD  | 9.82     | ±9.6                   |
| 10242 | CAC | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)                           | LTE-TDD  | 9.86     | ±9.6                   |
| 10243 | CAC | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)                             | LTE-TDD  | 9.46     | ±9.6                   |
| 10244 | CAE | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                             | LTE-TDD  | 10.06    | ±9.6                   |
| 10245 | CAE | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                             | LTE-TDD  | 10.06    | ±9.6                   |
| 10246 | CAE | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                               | LTE-TDD  | 9.30     | ±9.6                   |
| 10247 | CAH | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)                             | LTE-TDD  | 9.91     | ±9.6                   |
| 10248 | CAH | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)                             | LTE-TDD  | 10.09    | ±9.6                   |
| 10249 | CAH | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)                               | LTE-TDD  | 9.29     | ±9.6                   |
| 10250 | CAH | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)                            | LTE-TDD  | 9.81     | ±9.6                   |
| 10251 | CAH | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)                            | LTE-TDD  | 10.17    | ±9.6                   |
| 10252 | CAH | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)                              | LTE-TDD  | 9.24     | ±9.6                   |
| 10253 | CAG | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)                            | LTE-TDD  | 9.90     | ±9.6                   |
| 10254 | CAG | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)                            | LTE-TDD  | 10.14    | ±9.6                   |
| 10255 | CAG | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)                              | LTE-TDD  | 9.20     | ±9.6                   |
| 10256 | CAC | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)                          | LTE-TDD  | 9.96     | ±9.6                   |
| 10257 | CAC | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)                          | LTE-TDD  | 10.08    | ±9.6                   |
| 10258 | CAC | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)                            | LTE-TDD  | 9.34     | ±9.6                   |
| 10259 | CAE | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)                            | LTE-TDD  | 9.98     | ±9.6                   |
| 10260 | CAE | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)                            | LTE-TDD  | 9.97     | ±9.6                   |
| 10261 | CAE | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)                              | LTE-TDD  | 9.24     | ±9.6                   |
| 10262 | CAH | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)                            | LTE-TDD  | 9.83     | ±9.6                   |
| 10263 | CAH | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)                            | LTE-TDD  | 10.16    | ±9.6                   |
| 10264 | CAH | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)                              | LTE-TDD  | 9.23     | ±9.6                   |
| 10265 | CAH | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)                           | LTE-TDD  | 9.92     | ±9.6                   |
| 10266 | CAH | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)                           | LTE-TDD  | 10.07    | ±9.6                   |
| 10267 | CAH | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)                             | LTE-TDD  | 9.30     | ±9.6                   |
| 10268 | CAG | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)                           | LTE-TDD  | 10.06    | ±9.6                   |
| 10269 | CAG | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)                           | LTE-TDD  | 10.13    | ±9.6                   |
| 10270 | CAG | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                             | LTE-TDD  | 9.58     | ±9.6                   |
| 10274 | CAC | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                            | WCDMA    | 4.87     | ±9.6                   |
| 10275 | CAC | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                             | WCDMA    | 3.96     | ±9.6                   |
| 10277 | CAA | PHS (QPSK)   | PHS      | 11.81    | ±9.6                   |
| 10278 | CAA | PHS (QPSK, BW 884 MHz, Rolloff 0.5)                                  | PHS      | 11.81    | ±9.6                   |
| 10279 | CAA | PHS (QPSK, BW 884 MHz, Rolloff 0.38)                                 | PHS      | 12.18    | ±9.6                   |
| 10290 | AAB | CDMA2000, RC1, SO55, Full Rate                                       | CDMA2000 | 3.91     | ±9.6                   |
| 10291 | AAB | CDMA2000, RC3, SO55, Full Rate                                       | CDMA2000 | 3.46     | ±9.6                   |
| 10292 | AAB | CDMA2000, RC3, SO32, Full Rate                                       | CDMA2000 | 3.39     | ±9.6                   |
| 10293 | AAB | CDMA2000, RC3, SO3, Full Rate  | CDMA2000 | 3.50     | ±9.6                   |
| 10295 | AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                                | CDMA2000 | 12.49    | ±9.6                   |
| 10297 | AAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                              | LTE-FDD  | 5.81     | ±9.6                   |
| 10298 | AAE | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                               | LTE-FDD  | 5.72     | ±9.6                   |
| 10299 | AAE | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                             | LTE-FDD  | 6.39     | ±9.6                   |
| 10300 | AAE | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                             | LTE-FDD  | 6.60     | ±9.6                   |
| 10301 | AAA | IEEE 802.16e WiMAX (29:18, 5 ms, 10 MHz, QPSK, PUSC)                 | WiMAX    | 12.03    | ±9.6                   |
| 10302 | AAA | IEEE 802.16e WiMAX (29:18, 5 ms, 10 MHz, QPSK, PUSC, 3 CTRL symbols) | WiMAX    | 12.57    | ±9.6                   |
| 10303 | AAA | IEEE 802.16e WiMAX (31:15, 5 ms, 10 MHz, 64QAM, PUSC)                | WiMAX    | 12.52    | ±9.6                   |
| 10304 | AAA | IEEE 802.16e WiMAX (29:18, 5 ms, 10 MHz, 64QAM, PUSC)                | WiMAX    | 11.86    | ±9.6                   |
| 10305 | AAA | IEEE 802.16e WiMAX (31:15, 10 ms, 10 MHz, 64QAM, PUSC, 15 symbols)   | WiMAX    | 15.24    | ±9.6                   |
| 10306 | AAA | IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, 64QAM, PUSC, 18 symbols)   | WiMAX    | 14.67    | ±9.6                   |

| UID   | Rev | Communication System Name   | Group    | PAR (dB) | Unc <sup>n</sup> k = 2 |
|-------|-----|---|----------|----------|------------------------|
| 10307 | AAA | IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, QPSK, PUSC, 18 symbols)               | WiMAX    | 14.49    | ±9.6                   |
| 10308 | AAA | IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, 16QAM, PUSC)                          | WiMAX    | 14.46    | ±9.6                   |
| 10309 | AAA | IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, 16QAM, AMC 2x3, 18 symbols)           | WiMAX    | 14.58    | ±9.6                   |
| 10310 | AAA | IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, QPSK, AMC 2x3, 18 symbols)            | WiMAX    | 14.57    | ±9.6                   |
| 10311 | AAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)  | LTE-FDD  | 6.06     | ±9.6                   |
| 10313 | AAA | IDEN 1:3  | IDEN     | 10.51    | ±9.6                   |
| 10314 | AAA | IDEN 1:6  | IDEN     | 13.48    | ±9.6                   |
| 10315 | AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)                       | WLAN     | 1.71     | ±9.6                   |
| 10316 | AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)                   | WLAN     | 8.36     | ±9.6                   |
| 10317 | AAE | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)                         | WLAN     | 8.36     | ±9.6                   |
| 10352 | AAA | Pulse Waveform (200Hz, 10%)   | Generic  | 10.00    | ±9.6                   |
| 10353 | AAA | Pulse Waveform (200Hz, 20%)   | Generic  | 6.99     | ±9.6                   |
| 10354 | AAA | Pulse Waveform (200Hz, 40%)   | Generic  | 3.98     | ±9.6                   |
| 10355 | AAA | Pulse Waveform (200Hz, 60%)   | Generic  | 2.22     | ±9.6                   |
| 10356 | AAA | Pulse Waveform (200Hz, 80%)   | Generic  | 0.97     | ±9.6                   |
| 10387 | AAA | QPSK Waveform, 1 MHz  | Generic  | 5.10     | ±9.6                   |
| 10388 | AAA | QPSK Waveform, 10 MHz   | Generic  | 5.22     | ±9.6                   |
| 10396 | AAA | 64-QAM Waveform, 100 kHz  | Generic  | 6.27     | ±9.6                   |
| 10399 | AAA | 64-QAM Waveform, 40 MHz   | Generic  | 6.27     | ±9.6                   |
| 10400 | AAF | IEEE 802.11ac WiFi (20 MHz, 64-QAM, 99pc duty cycle)                            | WLAN     | 8.37     | ±9.6                   |
| 10401 | AAF | IEEE 802.11ac WiFi (40 MHz, 64-QAM, 99pc duty cycle)                            | WLAN     | 8.60     | ±9.6                   |
| 10402 | AAF | IEEE 802.11ac WiFi (80 MHz, 64-QAM, 99pc duty cycle)                            | WLAN     | 8.53     | ±9.6                   |
| 10403 | AAB | CDMA2000 (1xEV-DO, Rev. 0)  | CDMA2000 | 3.76     | ±9.6                   |
| 10404 | AAB | CDMA2000 (1xEV-DO, Rev. A)  | CDMA2000 | 3.77     | ±9.6                   |
| 10406 | AAB | CDMA2000, RC3, SO32, SCH0, Full Rate  | CDMA2000 | 5.22     | ±9.6                   |
| 10410 | AAH | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4) | LTE-TDD  | 7.82     | ±9.6                   |
| 10414 | AAA | WLAN CCDF, 64-QAM, 40 MHz   | Generic  | 8.54     | ±9.6                   |
| 10415 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)                       | WLAN     | 1.54     | ±9.6                   |
| 10416 | AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)                   | WLAN     | 8.23     | ±9.6                   |
| 10417 | AAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)                       | WLAN     | 8.23     | ±9.6                   |
| 10418 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)   | WLAN     | 8.14     | ±9.6                   |
| 10419 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)  | WLAN     | 8.19     | ±9.6                   |
| 10422 | AAD | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                    | WLAN     | 8.32     | ±9.6                   |
| 10423 | AAD | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                 | WLAN     | 8.47     | ±9.6                   |
| 10424 | AAD | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                 | WLAN     | 8.40     | ±9.6                   |
| 10425 | AAD | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                     | WLAN     | 8.41     | ±9.6                   |
| 10426 | AAD | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                   | WLAN     | 8.45     | ±9.6                   |
| 10427 | AAD | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                                  | WLAN     | 8.41     | ±9.6                   |
| 10430 | AAE | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)  | LTE-FDD  | 8.28     | ±9.6                   |
| 10431 | AAE | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)   | LTE-FDD  | 8.38     | ±9.6                   |
| 10432 | AAD | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)   | LTE-FDD  | 8.34     | ±9.6                   |
| 10433 | AAD | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)   | LTE-FDD  | 8.34     | ±9.6                   |
| 10434 | AAB | W-CDMA (BS Test Model 1, 64 DPCH)   | WCDMA    | 8.60     | ±9.6                   |
| 10435 | AAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)                  | LTE-TDD  | 7.82     | ±9.6                   |
| 10447 | AAE | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                                  | LTE-FDD  | 7.56     | ±9.6                   |
| 10448 | AAE | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)                                 | LTE-FDD  | 7.53     | ±9.6                   |
| 10449 | AAD | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)                                 | LTE-FDD  | 7.51     | ±9.6                   |
| 10450 | AAD | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                                 | LTE-FDD  | 7.48     | ±9.6                   |
| 10451 | AAB | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                                 | WCDMA    | 7.59     | ±9.6                   |
| 10453 | AAE | Validation (Square, 10 ms, 1 ms)  | Test     | 10.00    | ±9.6                   |
| 10456 | AAD | IEEE 802.11ac WiFi (160 MHz, 64-QAM, 99pc duty cycle)                           | WLAN     | 8.63     | ±9.6                   |
| 10457 | AAB | UMTS-FDD (DC-HSOPA)   | WCDMA    | 6.62     | ±9.6                   |
| 10458 | AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)  | CDMA2000 | 6.55     | ±9.6                   |
| 10459 | AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)  | CDMA2000 | 8.25     | ±9.6                   |
| 10460 | AAB | UMTS-FDD (WCDMA, AMR)   | WCDMA    | 2.39     | ±9.6                   |
| 10461 | AAC | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)                 | LTE-TDD  | 7.82     | ±9.6                   |
| 10462 | AAC | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)               | LTE-TDD  | 8.30     | ±9.6                   |
| 10463 | AAC | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)               | LTE-TDD  | 8.56     | ±9.6                   |
| 10464 | AAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)                   | LTE-TDD  | 7.82     | ±9.6                   |
| 10465 | AAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)                 | LTE-TDD  | 8.32     | ±9.6                   |
| 10466 | AAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)                 | LTE-TDD  | 8.57     | ±9.6                   |
| 10467 | AAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)                   | LTE-TDD  | 7.82     | ±9.6                   |
| 10468 | AAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)                 | LTE-TDD  | 8.32     | ±9.6                   |
| 10469 | AAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)                 | LTE-TDD  | 8.56     | ±9.6                   |
| 10470 | AAG | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)                  | LTE-TDD  | 7.82     | ±9.6                   |
| 10471 | AAG | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)                | LTE-TDD  | 8.32     | ±9.6                   |