

Plot 35 GSM 1900 Right Tilt High

Date: 2023/10/6

Communication System: UID 0, GSM (0); Frequency: 1909.8 MHz; Duty Cycle: 1:8.30042

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.463$ S/m; $\epsilon_r = 37.263$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Tilt High/Area Scan (8x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.773 W/kg

Right Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.33 V/m; Power Drift = 0.02 dB

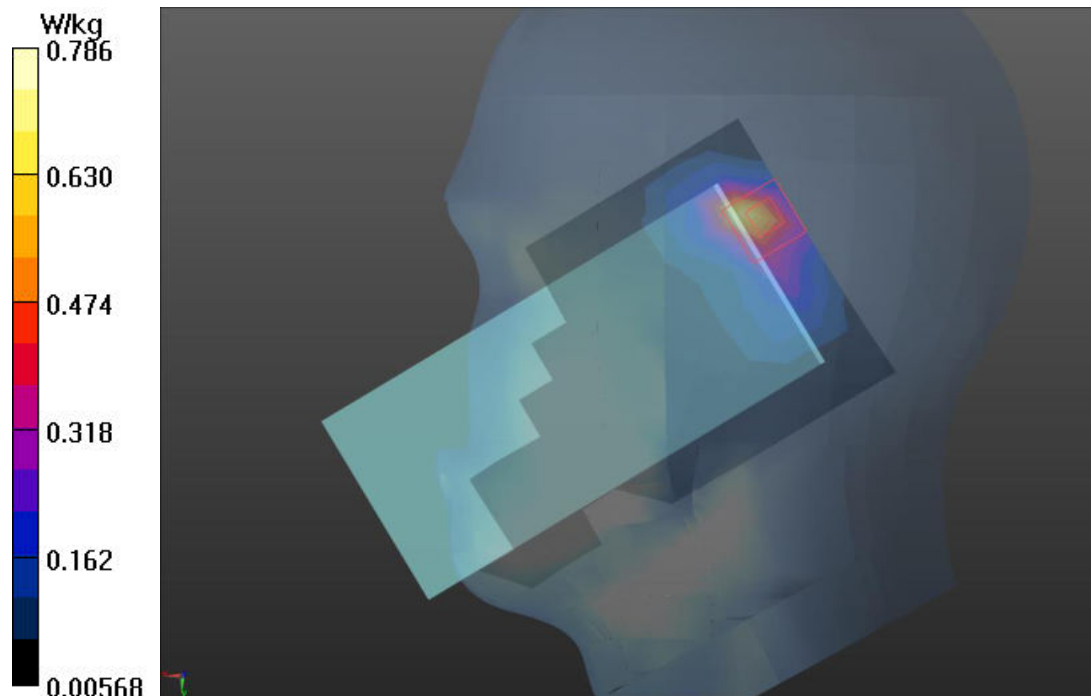
Peak SAR (extrapolated) = 1.41 W/kg

SAR(1 g) = 0.653 W/kg; SAR(10 g) = 0.285 W/kg

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 48.1%

Maximum value of SAR (measured) = 0.786 W/kg



Plot 36 WCDMA Band II Right Tilt High

Date: 2023/10/6

Communication System: UID 0, WCDMA (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1908$ MHz; $\sigma = 1.46$ S/m; $\epsilon_r = 37.234$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Tilt High/Area Scan (8x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.919 W/kg

Right Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.98 V/m; Power Drift = -0.024 dB

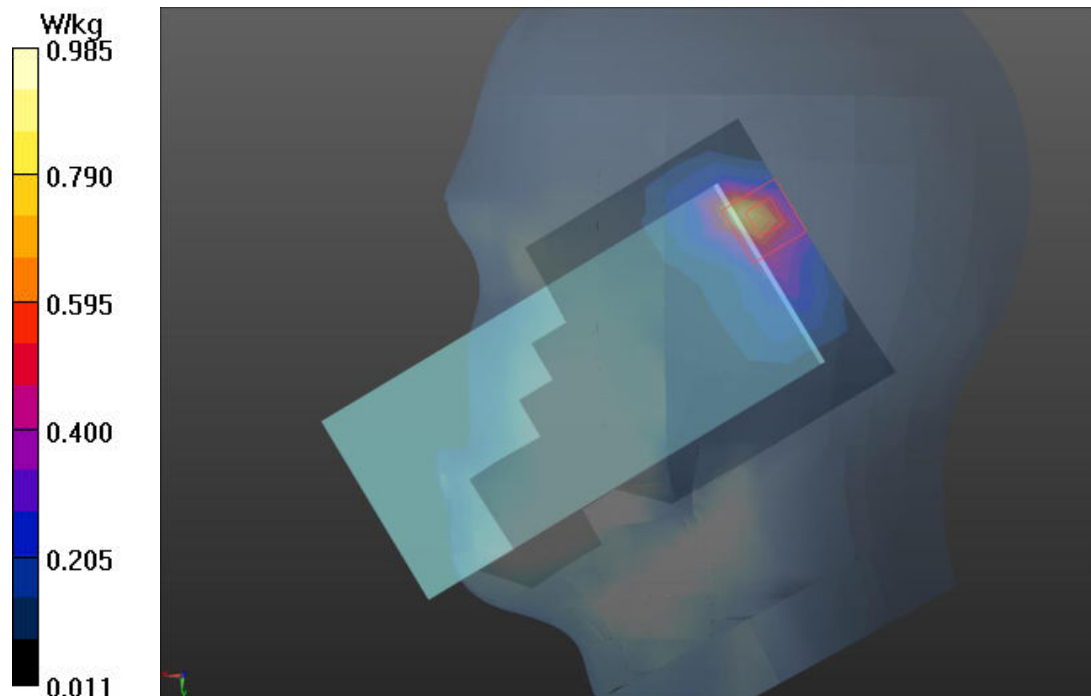
Peak SAR (extrapolated) = 2.34 W/kg

SAR(1 g) = 0.862 W/kg; SAR(10 g) = 0.405 W/kg

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 49.7%

Maximum value of SAR (measured) = 0.985 W/kg



Plot 37 WCDMA Band IV Right Tilt Low

Date: 2023/10/7

Communication System: UID 0, WCDMA (0); Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.312$ S/m; $\epsilon_r = 37.834$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(8.10, 8.10, 8.10); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Tilt Low/Area Scan (8x7x1): Measurement grid: dx=15mm, dy=15mm

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

Right Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.88 V/m; Power Drift = -0.03 dB

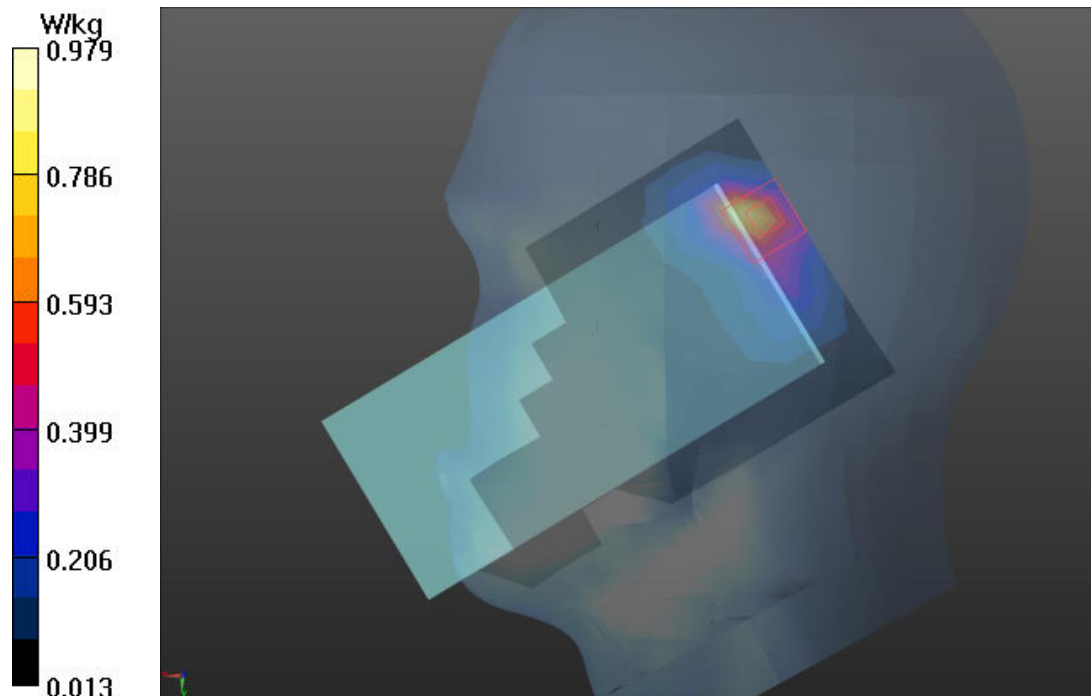
Peak SAR (extrapolated) = 1.75 W/kg

SAR(1 g) = 0.872 W/kg; SAR(10 g) = 0.409 W/kg

Smallest distance from peaks to all points 3 dB below = 9.4 mm

Ratio of SAR at M2 to SAR at M1 = 56.2%

Maximum value of SAR (measured) = 0.979 W/kg



Plot 38 WCDMA Band V Right Cheek Middle

Date: 2023/9/27

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 837$ MHz; $\sigma = 0.939$ S/m; $\epsilon_r = 41.856$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(9.35, 9.35, 9.35); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Cheek Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.721 W/kg

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

Reference Value = 21.58 V/m; Power Drift = 0.03 dB

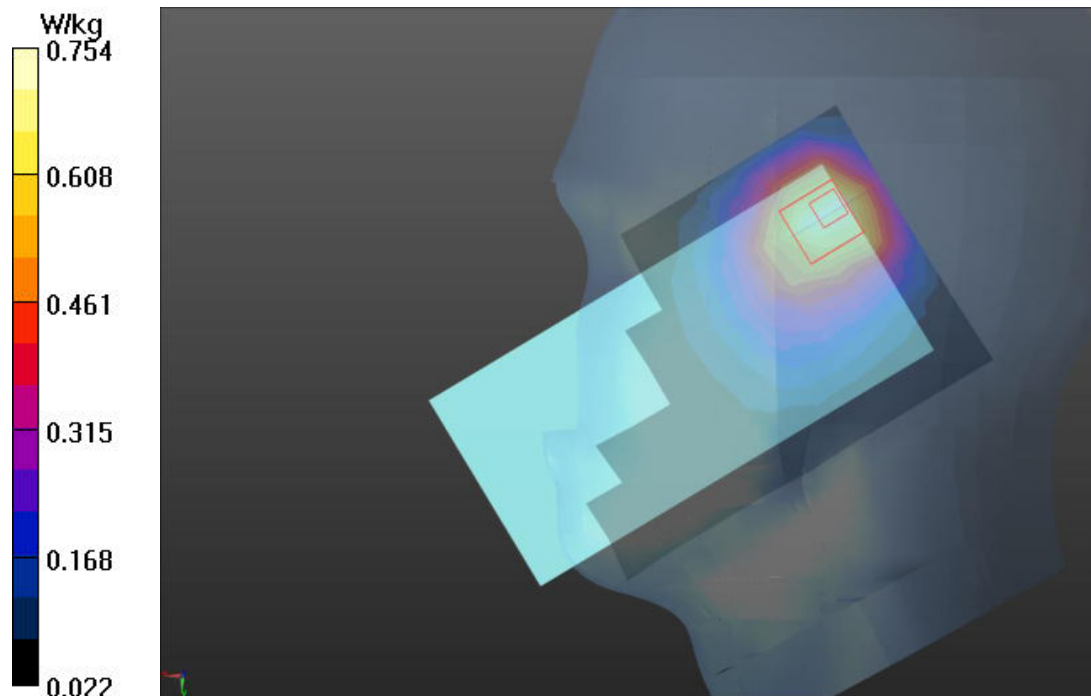
Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.713 W/kg; SAR(10 g) = 0.463 W/kg

Smallest distance from peaks to all points 3 dB below = 15.1 mm

Ratio of SAR at M2 to SAR at M1 = 67.3%

Maximum value of SAR (measured) = 0.754 W/kg



Plot 39 LTE Band 2 1RB Right Tilt Middle

Date: 2023/10/6

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.437$ S/m; $\epsilon_r = 37.208$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Tilt Middle/Area Scan (8x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.912 W/kg

Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.49 V/m; Power Drift = -0.032 dB

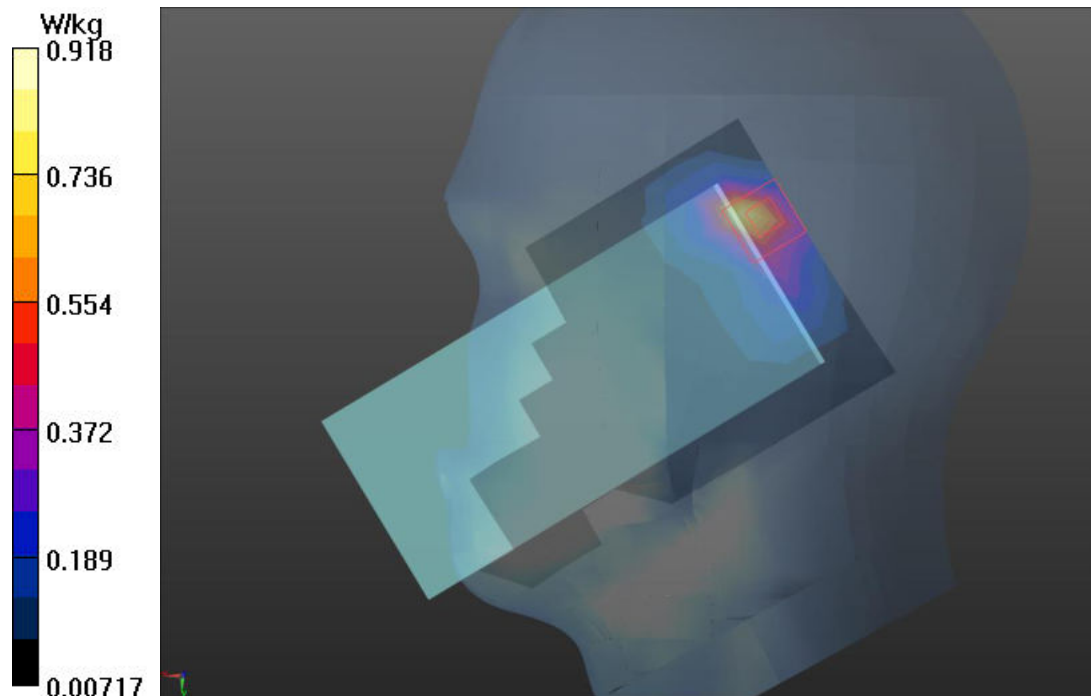
Peak SAR (extrapolated) = 1.66 W/kg

SAR(1 g) = 0.836 W/kg; SAR(10 g) = 0.362 W/kg

Smallest distance from peaks to all points 3 dB below = 8.3 mm

Ratio of SAR at M2 to SAR at M1 = 49.9%

Maximum value of SAR (measured) = 0.918 W/kg



Plot 40 LTE Band 5 1RB Right Cheek Low

Date: 2023/9/27

Communication System: UID 0, LTE (0); Frequency: 829 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 829$ MHz; $\sigma = 0.936$ S/m; $\epsilon_r = 41.882$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(9.35, 9.35, 9.35); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Cheek Low/Area Scan (8x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.684 W/kg

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

Reference Value = 20.81 V/m; Power Drift = -0.056 dB

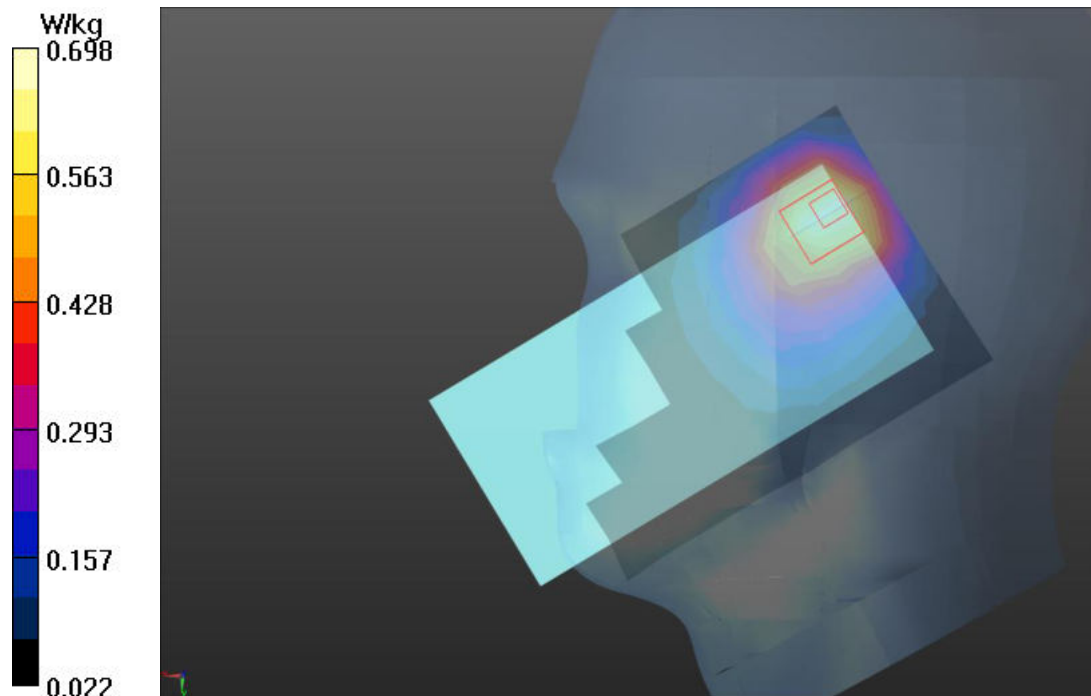
Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.666 W/kg; SAR(10 g) = 0.422 W/kg

Smallest distance from peaks to all points 3 dB below = 13 mm

Ratio of SAR at M2 to SAR at M1 = 67.3%

Maximum value of SAR (measured) = 0.698 W/kg



Plot 41 LTE Band 7 50%RB Right Tilt Middle

Date: 2023/9/29

Communication System: UID 0, LTE (0); Frequency: 2535 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2535$ MHz; $\sigma = 1.924$ S/m; $\epsilon_r = 38.136$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.19, 7.19, 7.19); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Tilt Middle/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.902 W/kg

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

Reference Value = 11.09 V/m; Power Drift = 0.12 dB

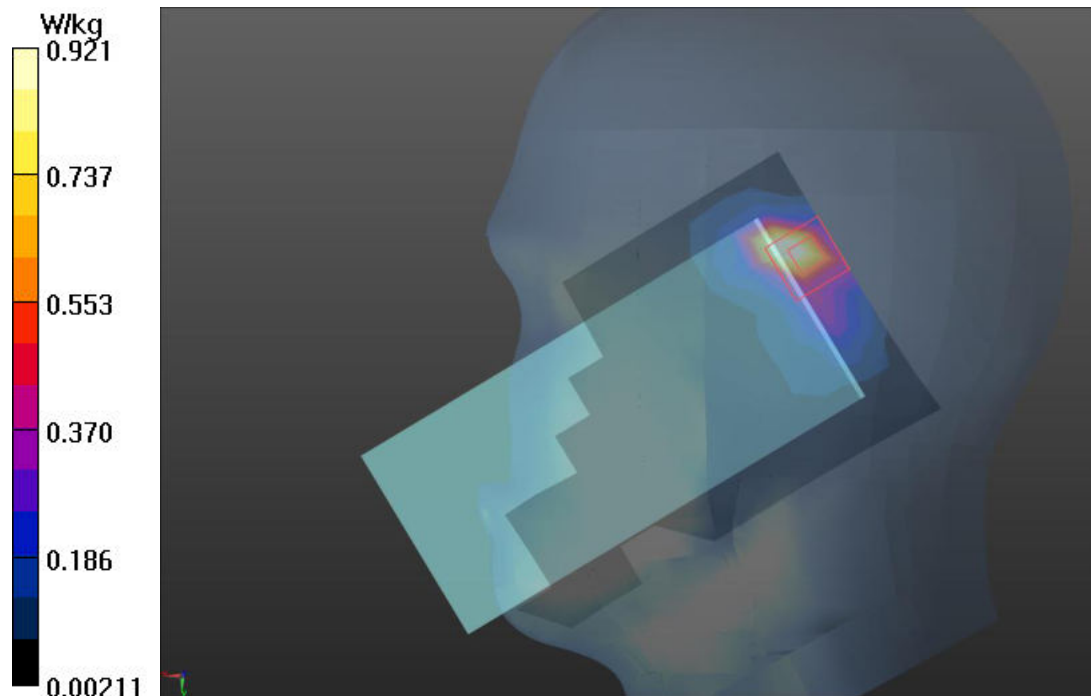
Peak SAR (extrapolated) = 1.64 W/kg

SAR(1 g) = 0.745 W/kg; SAR(10 g) = 0.297 W/kg

Smallest distance from peaks to all points 3 dB below = 9.4 mm

Ratio of SAR at M2 to SAR at M1 = 36.9%

Maximum value of SAR (measured) = 0.921 W/kg



Plot 42 LTE Band 12 1RB Right Cheek Low

Date: 2023/9/28

Communication System: UID 0, LTE (0); Frequency: 704 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 704$ MHz; $\sigma = 0.894$ S/m; $\epsilon_r = 42.223$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 – SN3883; ConvF(9.70, 9.70, 9.70); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Cheek Low/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.492 W/kg

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

Reference Value = 20.00 V/m; Power Drift = 0.02 dB

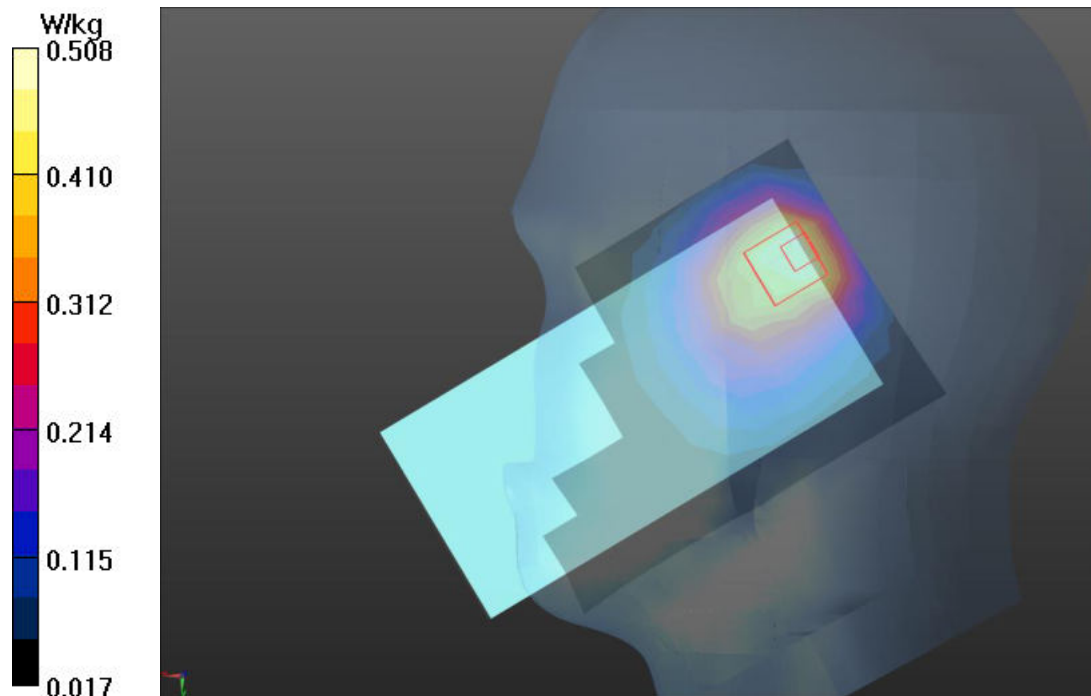
Peak SAR (extrapolated) = 0.826 W/kg

SAR(1 g) = 0.484 W/kg; SAR(10 g) = 0.316 W/kg

Smallest distance from peaks to all points 3 dB below = 14.9 mm

Ratio of SAR at M2 to SAR at M1 = 58.8%

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



Plot 43 LTE Band 13 1RB Right Cheek Middle

Date: 2023/9/28

Communication System: UID 0, LTE (0); Frequency: 782 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.921 \text{ S/m}$; $\epsilon_r = 41.805$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.3°C Liquid Temperature: 21.5°C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 – SN3883; ConvF(9.70, 9.70, 9.70); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Cheek Middle/Area Scan (8x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.408 W/kg

Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.03 V/m ; Power Drift = 0.18 dB

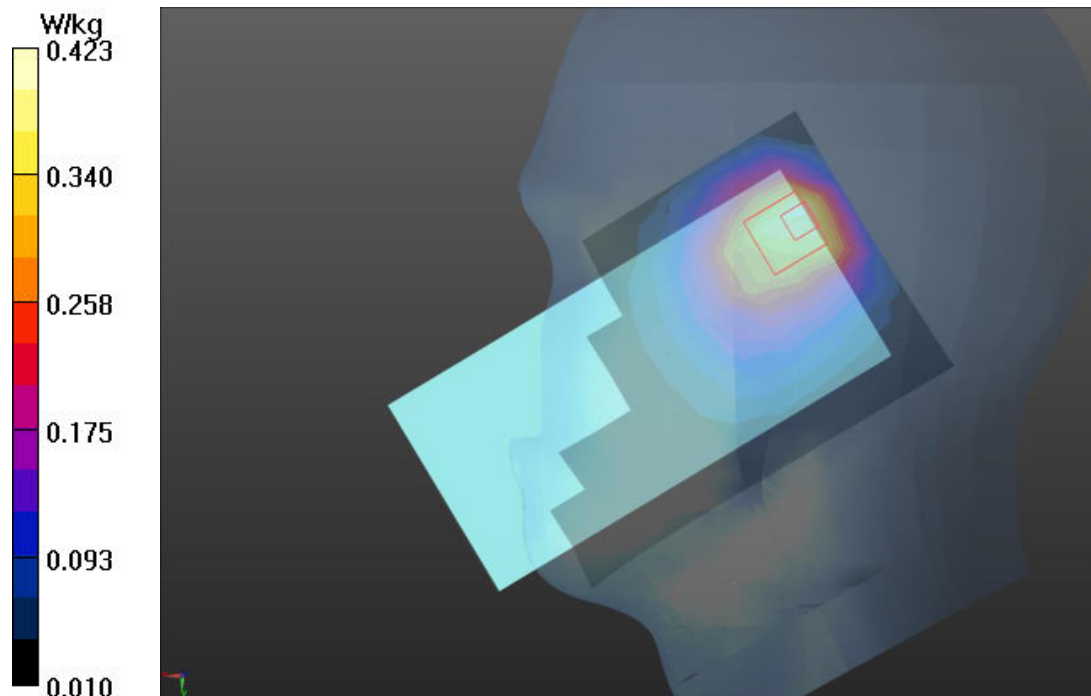
Peak SAR (extrapolated) = 0.725 W/kg

SAR(1 g) = 0.404 W/kg ; SAR(10 g) = 0.256 W/kg

Smallest distance from peaks to all points 3 dB below = 10.1 mm

Ratio of SAR at M2 to SAR at M1 = 65.4%

Maximum value of SAR (measured) = 0.423 W/kg



Plot 44 LTE Band 26 1RB Right Cheek Low

Date: 2023/9/27

Communication System: UID 0, LTE (0); Frequency: 821.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 821.5$ MHz; $\sigma = 0.933$ S/m; $\epsilon_r = 41.904$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(9.35, 9.35, 9.35); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Cheek Low/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.537 W/kg

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

Reference Value = 20.34 V/m; Power Drift = -0.05 dB

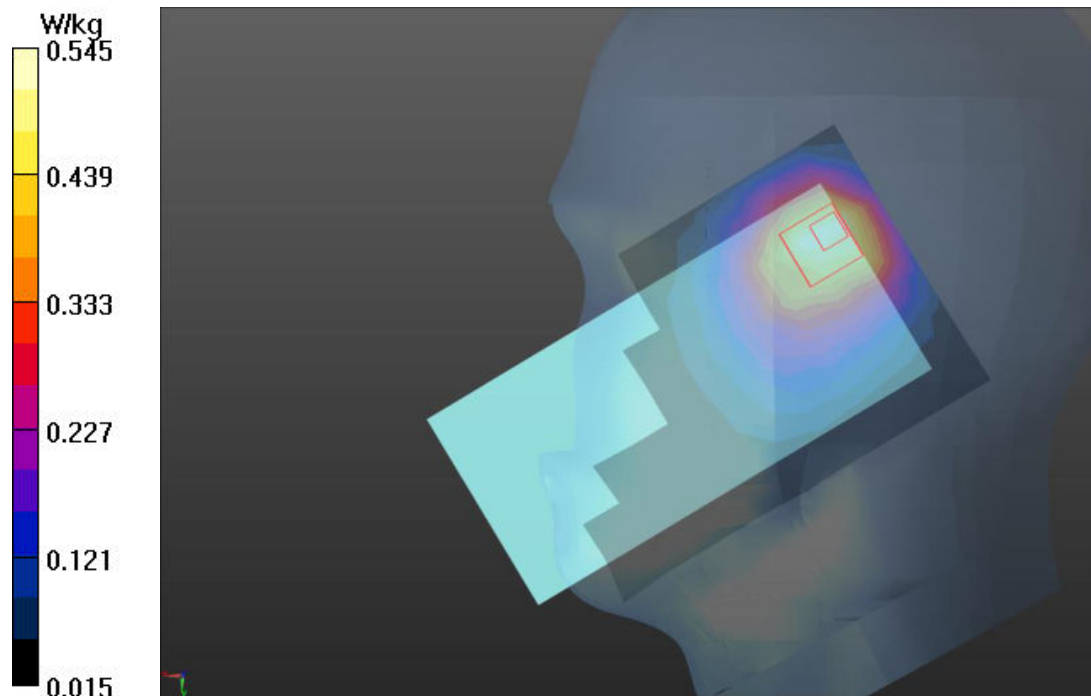
Peak SAR (extrapolated) = 0.846 W/kg

SAR(1 g) = 0.518 W/kg; SAR(10 g) = 0.337 W/kg

Smallest distance from peaks to all points 3 dB below = 15.9 mm

Ratio of SAR at M2 to SAR at M1 = 67.5%

Maximum value of SAR (measured) = 0.545 W/kg



Plot 45 LTE Band 38 1RB Right Tilt Low

Date: 2023/9/29

Communication System: UID 0, LTE (0); Frequency: 2580 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 2580$ MHz; $\sigma = 1.977$ S/m; $\epsilon_r = 37.969$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.19, 7.19, 7.19); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Tilt Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.66 W/kg

Right Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.70 V/m; Power Drift = -0.09 dB

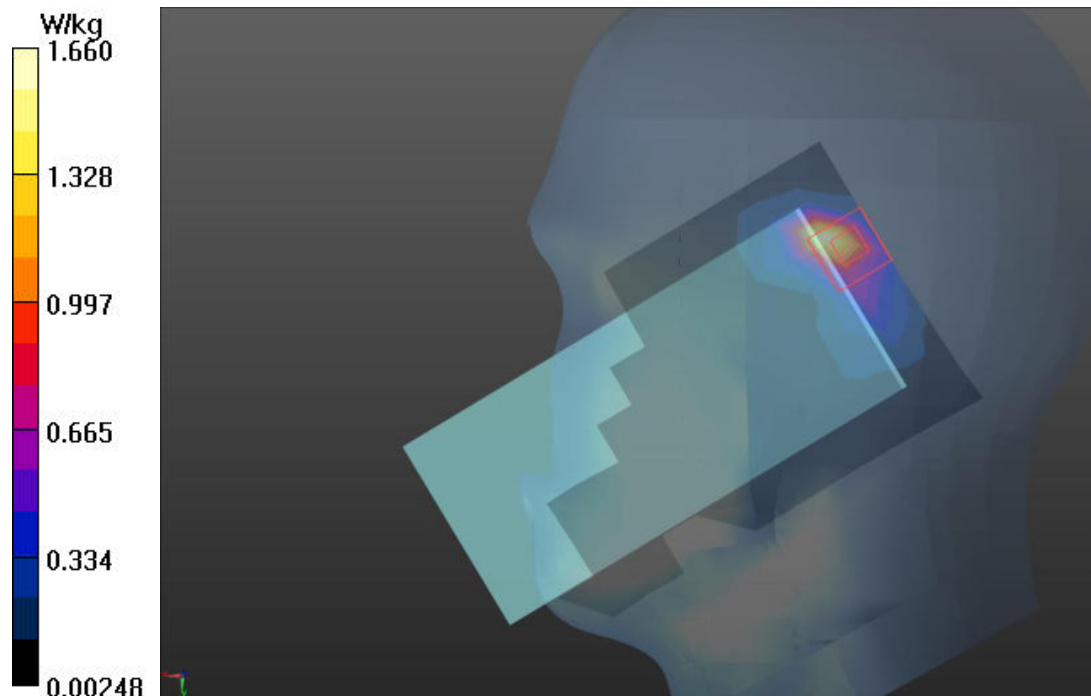
Peak SAR (extrapolated) = 2.28 W/kg

SAR(1 g) = 0.923 W/kg; SAR(10 g) = 0.365 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 38%

Maximum value of SAR (measured) = 1.66 W/kg



Plot 46 LTE Band 41 1RB Right Tilt Low

Date: 2023/9/29

Communication System: UID 0, LTE (0); Frequency: 2549.5 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2549.5$ MHz; $\sigma = 1.942$ S/m; $\epsilon_r = 38.069$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.19, 7.19, 7.19); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Tilt Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.10 W/kg

Right Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.29 V/m; Power Drift = -0.04 dB

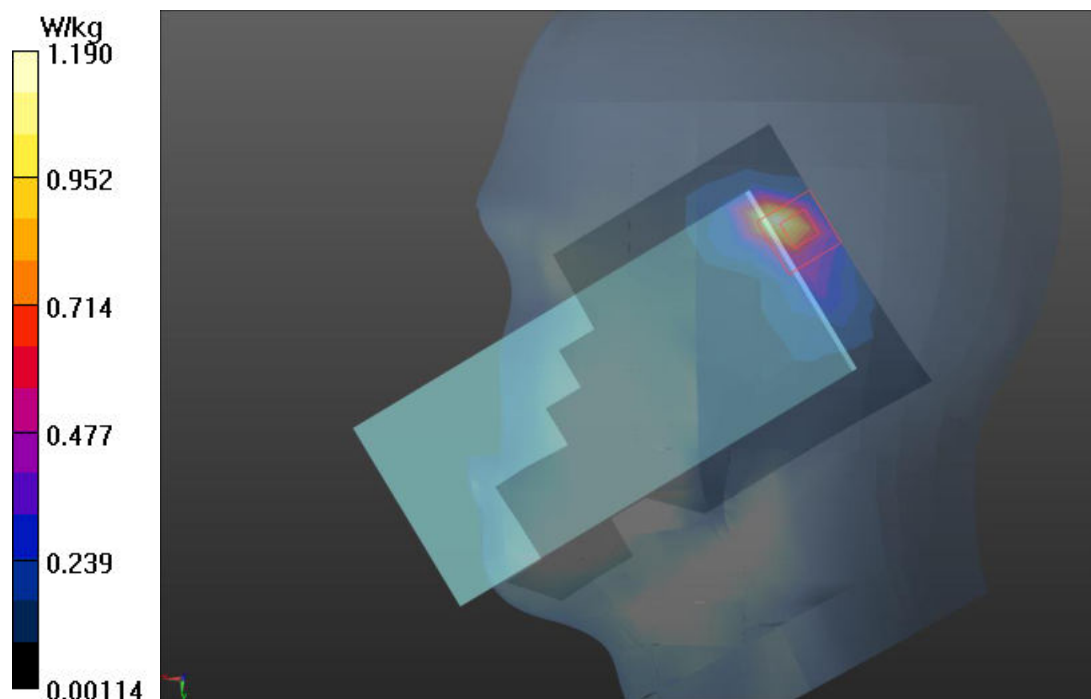
Peak SAR (extrapolated) = 1.62 W/kg

SAR(1 g) = 0.752 W/kg; SAR(10 g) = 0.312 W/kg

Smallest distance from peaks to all points 3 dB below = 8.8 mm

Ratio of SAR at M2 to SAR at M1 = 38.2%

Maximum value of SAR (measured) = 1.19 W/kg



Plot 47 LTE Band 66 50%RB Right Tilt Low

Date: 2023/10/7

Communication System: UID 0, LTE (0); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.294$ S/m; $\epsilon_r = 39.556$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(8.10, 8.10, 8.10); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Tilt Low/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.02 W/kg

Right Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.56 V/m; Power Drift = 0.03 dB

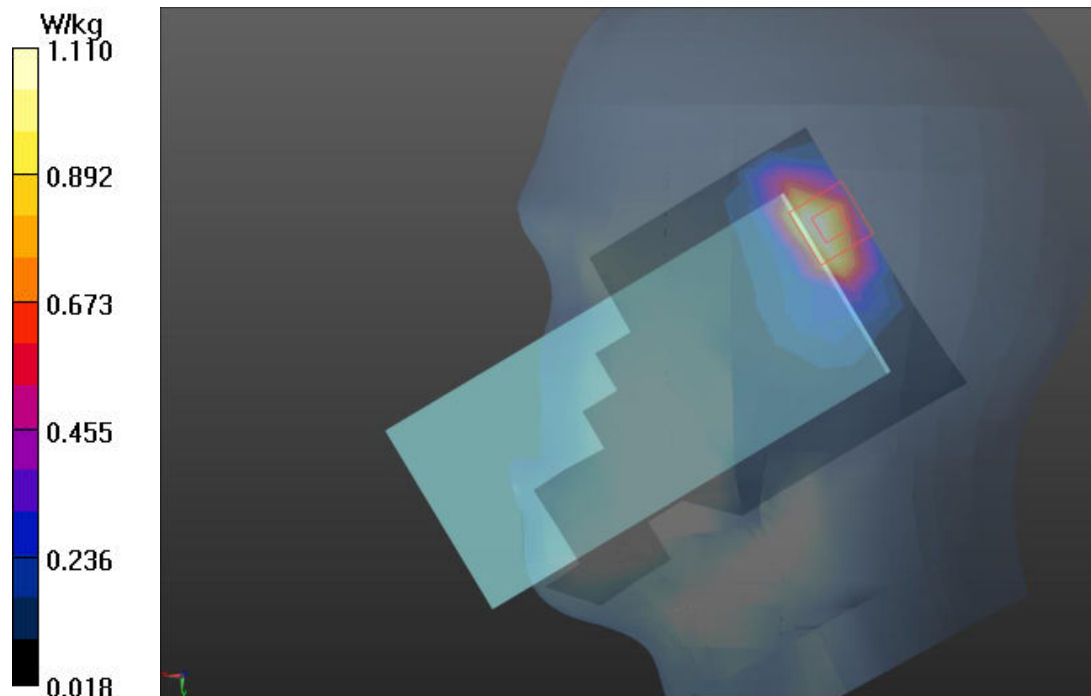
Peak SAR (extrapolated) = 1.96 W/kg

SAR(1 g) = 0.970 W/kg; SAR(10 g) = 0.450 W/kg

Smallest distance from peaks to all points 3 dB below = 8.4 mm

Ratio of SAR at M2 to SAR at M1 = 49.6%

Maximum value of SAR (measured) = 1.11 W/kg



Plot 48 802.11b Left Cheek Middle

Date: 2023/10/18

Communication System: UID 0, 802.11b (0); Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.819$ S/m; $\epsilon_r = 38.476$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.46, 7.46, 7.46); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left Cheek Middle/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.806 W/kg

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

Reference Value = 14.72 V/m; Power Drift = 0.042 dB

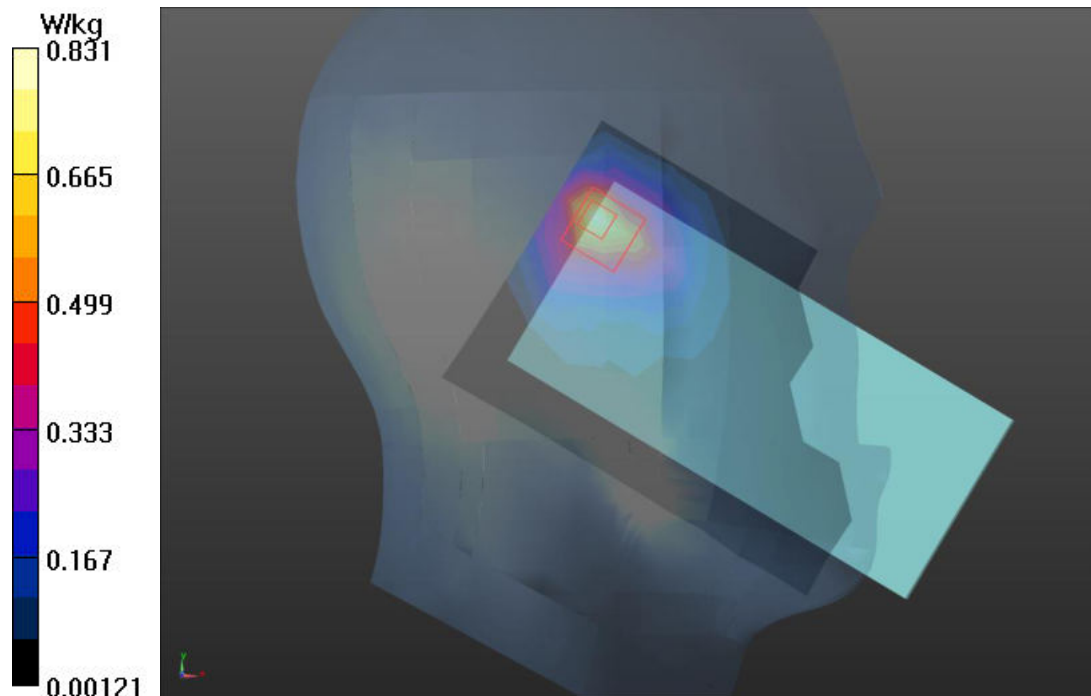
Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.534 W/kg; SAR(10 g) = 0.268 W/kg

Smallest distance from peaks to all points 3 dB below = 8.6 mm

Ratio of SAR at M2 to SAR at M1 = 47.1%

Maximum value of SAR (measured) = 0.831 W/kg



Plot 49 802.11a U-NII-2A Left Tilt Middle

Date: 2024/12/14

Communication System: UID 0, 802.11a (0); Frequency: 5260 MHz; Duty Cycle: 1:1.02

Medium parameters used: $f = 5260$ MHz; $\sigma = 4.765$ S/m; $\epsilon_r = 35.934$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7689; ConvF(5.87, 6.17, 6.27); Calibrated: 2024/6/4

Electronics: DAE4 SN1317; Calibrated: 2024/09/10

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left Tilt Middle/Area Scan (11x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 2.22 W/kg

Left Tilt Middle/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 9.045 V/m; Power Drift = 0.10 dB

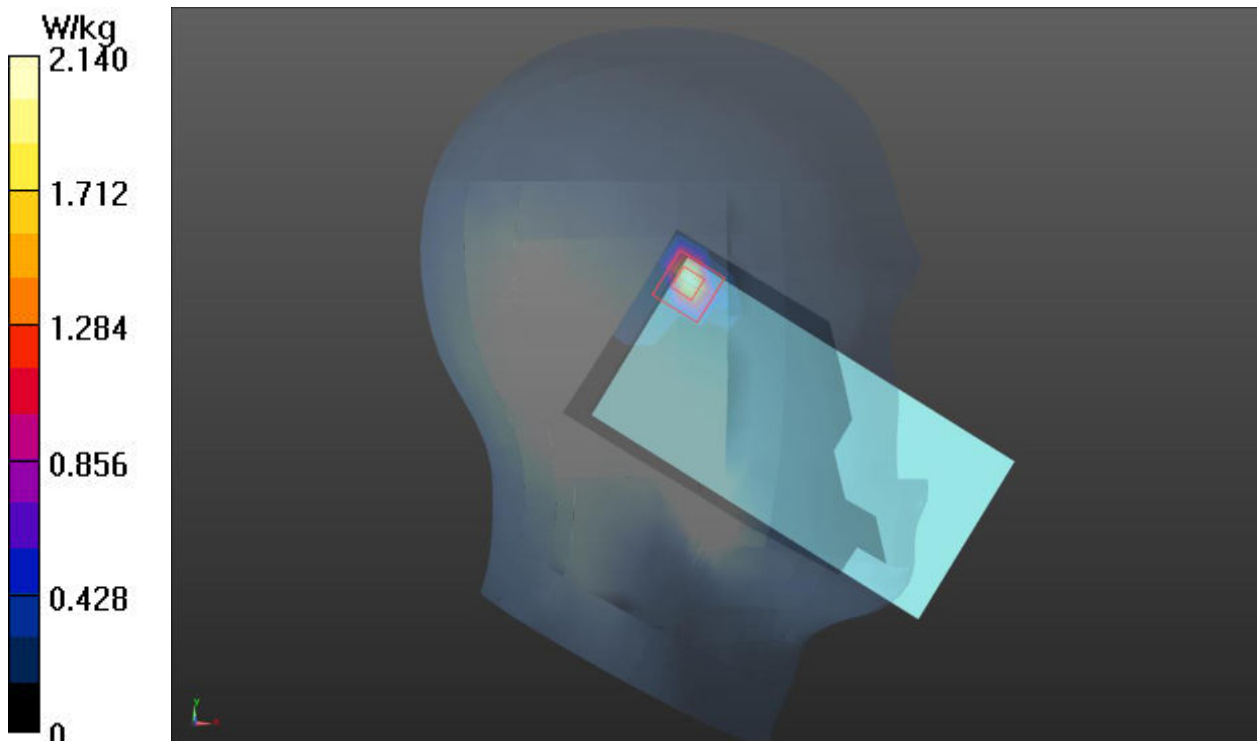
Peak SAR (extrapolated) = 3.78 W/kg

SAR(1 g) = 0.903 W/kg; SAR(10 g) = 0.282 W/kg

Smallest distance from peaks to all points 3 dB below = 14.8 mm

Ratio of SAR at M2 to SAR at M1 = 20.3%

Maximum value of SAR (measured) = 2.14 W/kg



Plot 50 Bluetooth Left Cheek Low

Date: 2023/10/18

Communication System: UID 0, BT (0); Frequency: 2402 MHz; Duty Cycle: 1:1.302

Medium parameters used: $f = 2402$ MHz; $\sigma = 1.777$ S/m; $\epsilon_r = 38.615$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.46, 7.46, 7.46); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left Cheek Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.057 W/kg

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

Reference Value = 4.056 V/m; Power Drift = 0.050 dB

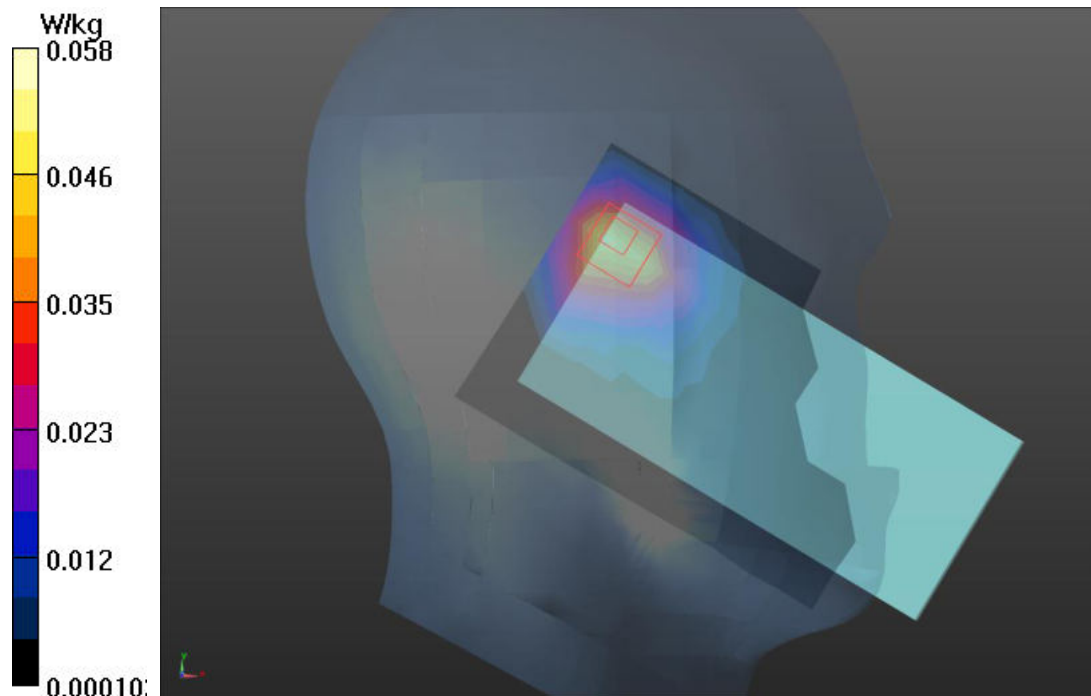
Peak SAR (extrapolated) = 0.118 W/kg

SAR(1 g) = 0.055 W/kg; SAR(10 g) = 0.028 W/kg

Smallest distance from peaks to all points 3 dB below=8.6mm

Ratio of SAR at M2 to SAR at M1 = 49.3%

Maximum value of SAR (measured) = 0.058 W/kg



Plot 51 GSM 850 Front Side Middle (Distance 15mm)

Date: 2023/10/4

Communication System: UID 0, GSM (0); Frequency: 836.6 MHz; Duty Cycle: 1:8.30042

Medium parameters used: $f = 837$ MHz; $\sigma = 0.939$ S/m; $\epsilon_r = 41.856$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(9.35, 9.35, 9.35); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Front Side Middle/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.342 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.95 V/m; Power Drift = 0.050 dB

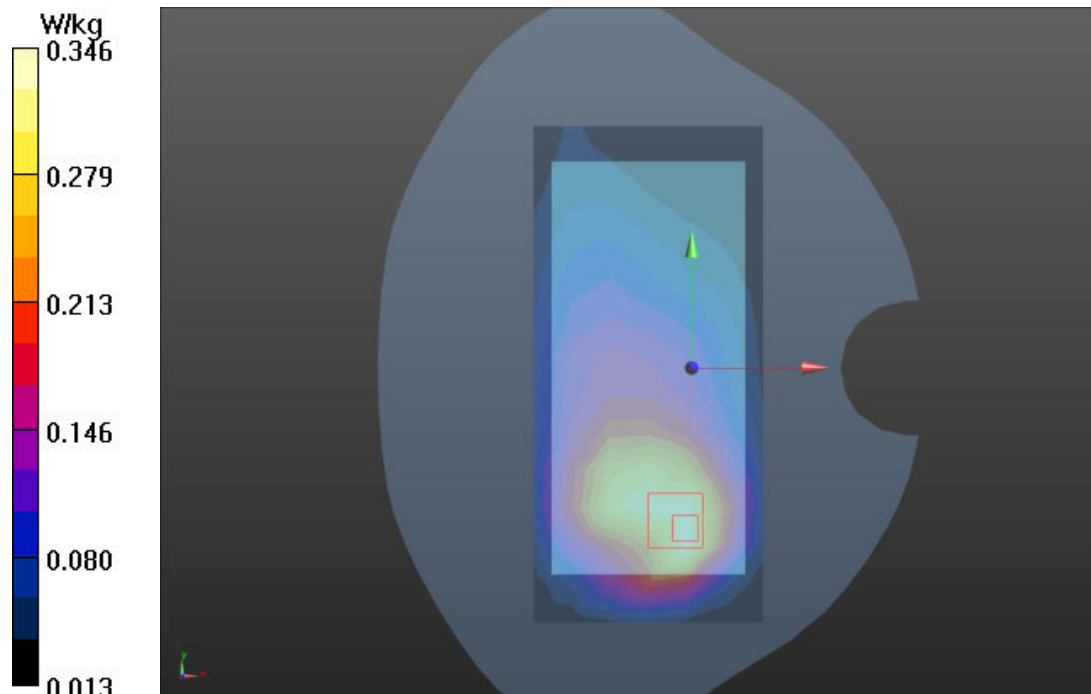
Peak SAR (extrapolated) = 0.538 W/kg

SAR(1 g) = 0.287 W/kg; SAR(10 g) = 0.182 W/kg

Smallest distance from peaks to all points 3 dB below = 19.5 mm

Ratio of SAR at M2 to SAR at M1 = 61.9%

Maximum value of SAR (measured) = 0.346 W/kg



Plot 52 GSM 1900 Front Side Middle (Distance 15mm)

Date: 2023/10/13

Communication System: UID 0, GSM (0); Frequency: 1880 MHz; Duty Cycle: 1:8.30042

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.437$ S/m; $\epsilon_r = 37.208$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Front Side Middle/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.304 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.397 V/m; Power Drift = 0.13 dB

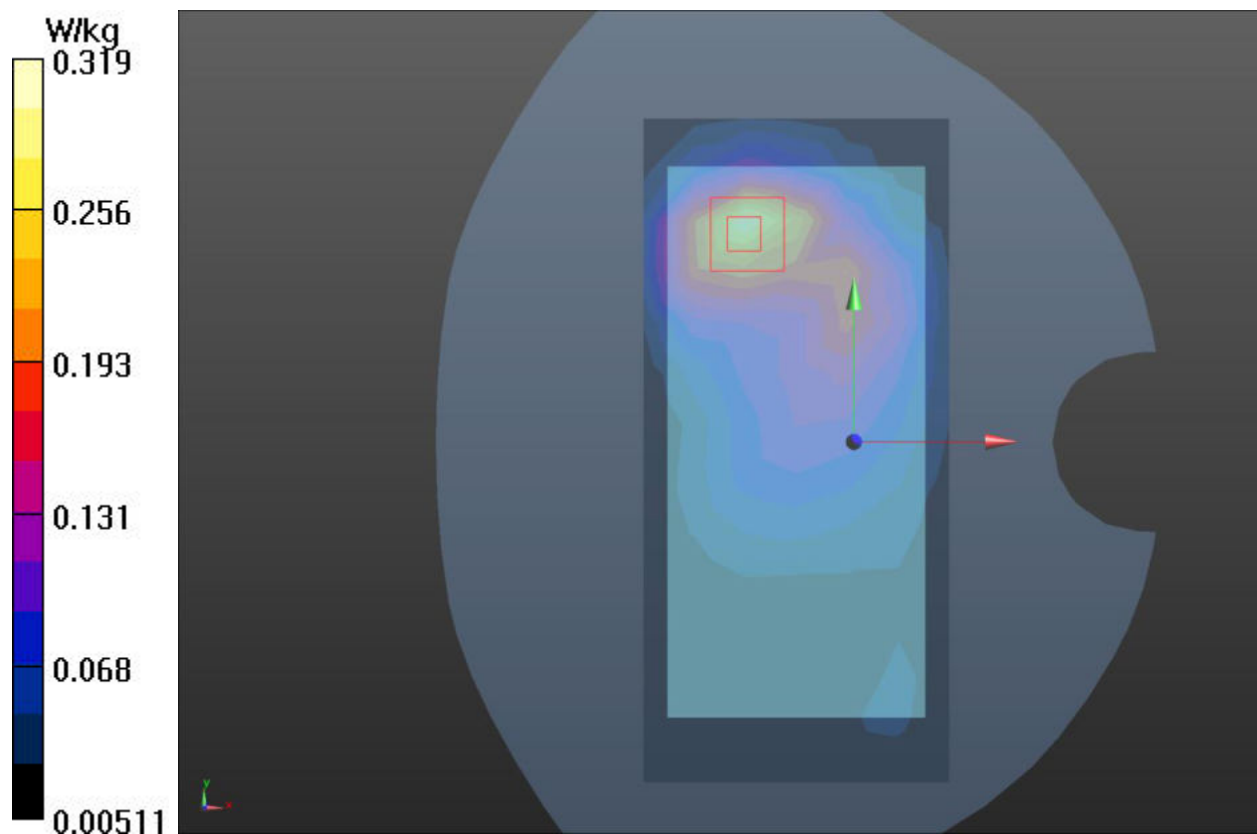
Peak SAR (extrapolated) = 0.512 W/kg

SAR(1 g) = 0.285 W/kg; SAR(10 g) = 0.157 W/kg

Smallest distance from peaks to all points 3 dB below = 11.3 mm

Ratio of SAR at M2 to SAR at M1 = 58.1%

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



Plot 53 WCDMA Band II Front Side Middle (Distance 15mm)

Date: 2023/10/13

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.437$ S/m; $\epsilon_r = 37.208$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Front Side Middle/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.55 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.75 V/m; Power Drift = 0.13 dB

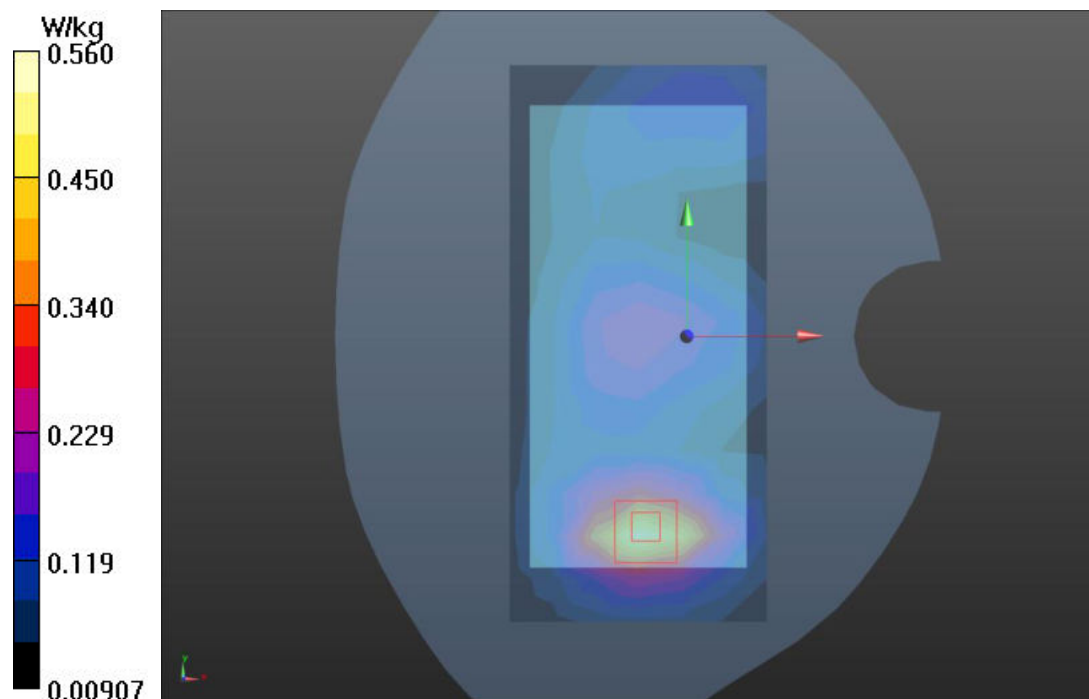
Peak SAR (extrapolated) = 0.837 W/kg

SAR(1 g) = 0.545 W/kg; SAR(10 g) = 0.297 W/kg

Smallest distance from peaks to all points 3 dB below = 12.8 mm

Ratio of SAR at M2 to SAR at M1 = 61.6%

Maximum value of SAR (measured) = 0.56 W/kg



Plot 54 WCDMA Band IV Front Side Middle (Distance 15mm)

Date: 2024/12/12

Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1733$ MHz; $\sigma = 1.329$ S/m; $\epsilon_r = 37.759$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7689; ConvF(8.01, 8.42, 8.56); Calibrated: 2024/6/4

Electronics: DAE4 SN1317; Calibrated: 2024/09/10

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Front Side Middle/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.375 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.12 V/m; Power Drift = 0.023 dB

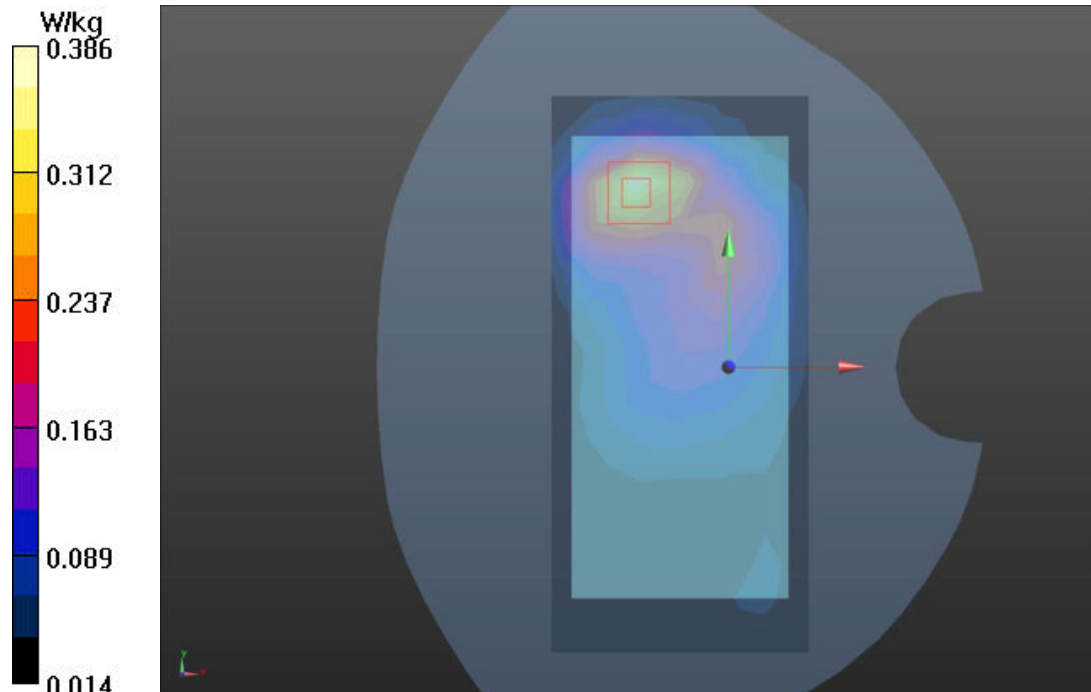
Peak SAR (extrapolated) = 0.552 W/kg

SAR(1 g) = 0.357 W/kg; SAR(10 g) = 0.196 W/kg

Smallest distance from peaks to all points 3 dB below = 14.6 mm

Ratio of SAR at M2 to SAR at M1 = 52.3%

Maximum value of SAR (measured) = 0.386 W/kg



Plot 55 LTE Band 2 1RB Front Side High (Distance 15mm)

Date: 2023/10/13

Communication System: UID 0, LTE (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.422$ S/m; $\epsilon_r = 38.97$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Front Side High/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.767 W/kg

Front Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.401 V/m; Power Drift = -0.026 dB

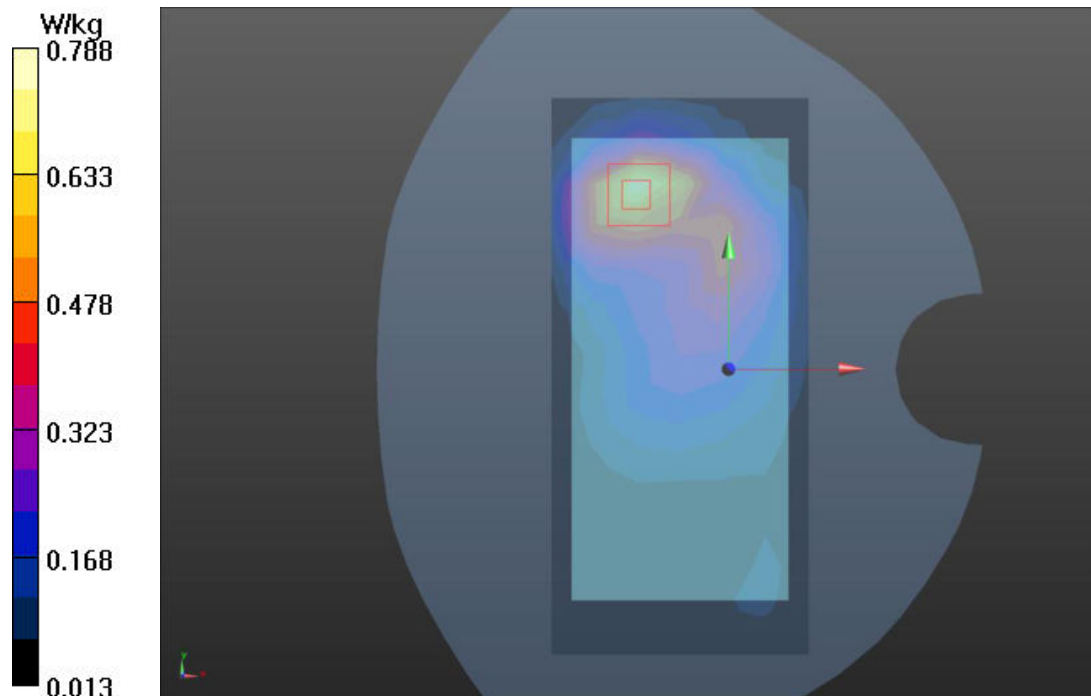
Peak SAR (extrapolated) = 0.910 W/kg

SAR(1 g) = 0.504 W/kg; SAR(10 g) = 0.291 W/kg

Smallest distance from peaks to all points 3 dB below = 11.6 mm

Ratio of SAR at M2 to SAR at M1 = 60.2%

Maximum value of SAR (measured) = 0.788 W/kg



Plot 56 LTE Band 5 1RB Front Side Low (Distance 15mm)

Date: 2023/10/4

Communication System: UID 0, LTE (0); Frequency: 829 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 829$ MHz; $\sigma = 0.936$ S/m; $\epsilon_r = 41.882$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(9.35, 9.35, 9.35); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Front Side Low/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 10.85 V/m; Power Drift = -0.04 dB

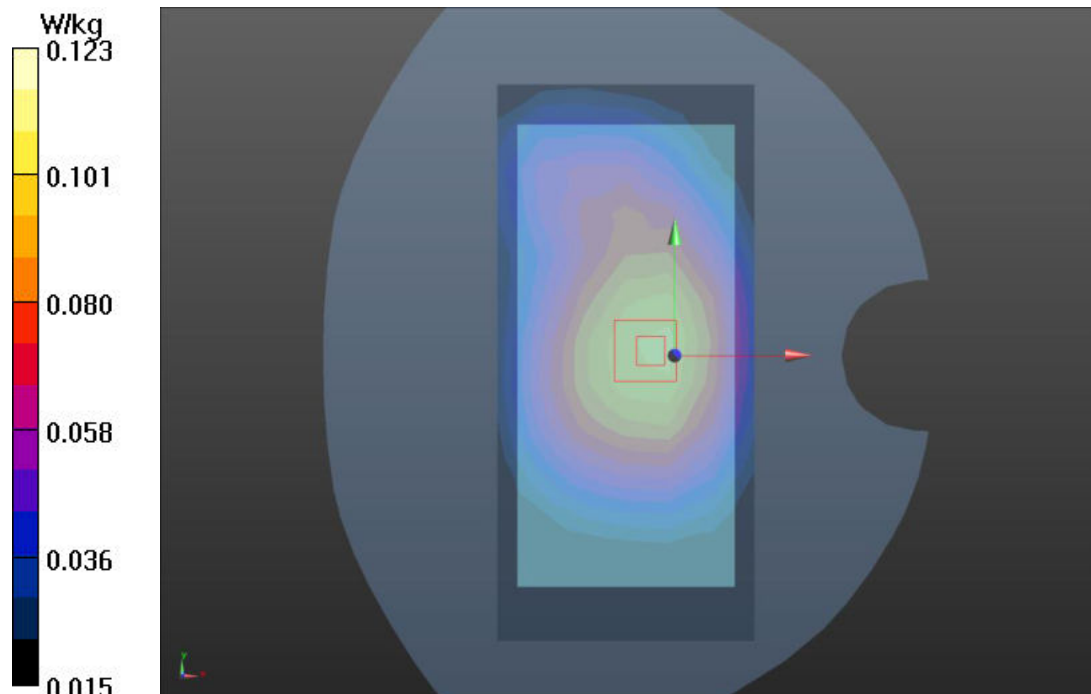
Peak SAR (extrapolated) = 0.220 W/kg

SAR(1 g) = 0.102 W/kg; SAR(10 g) = 0.075 W/kg

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 77.7%

Maximum value of SAR (measured) = 0.123 W/kg



Plot 57 LTE Band 7 1RB Front Side Low (Distance 15mm)

Date: 2024/12/17

Communication System: UID 0, LTE (0); Frequency: 2510 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2510$ MHz; $\sigma = 1.906$ S/m; $\epsilon_r = 38.249$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7689; ConvF(7.39, 7.77, 7.89); Calibrated: 2024/6/4

Electronics: DAE4 SN1317; Calibrated: 2024/09/10

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Front Side Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.999 W/kg

Front Side Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.872 V/m; Power Drift = 0.034 dB

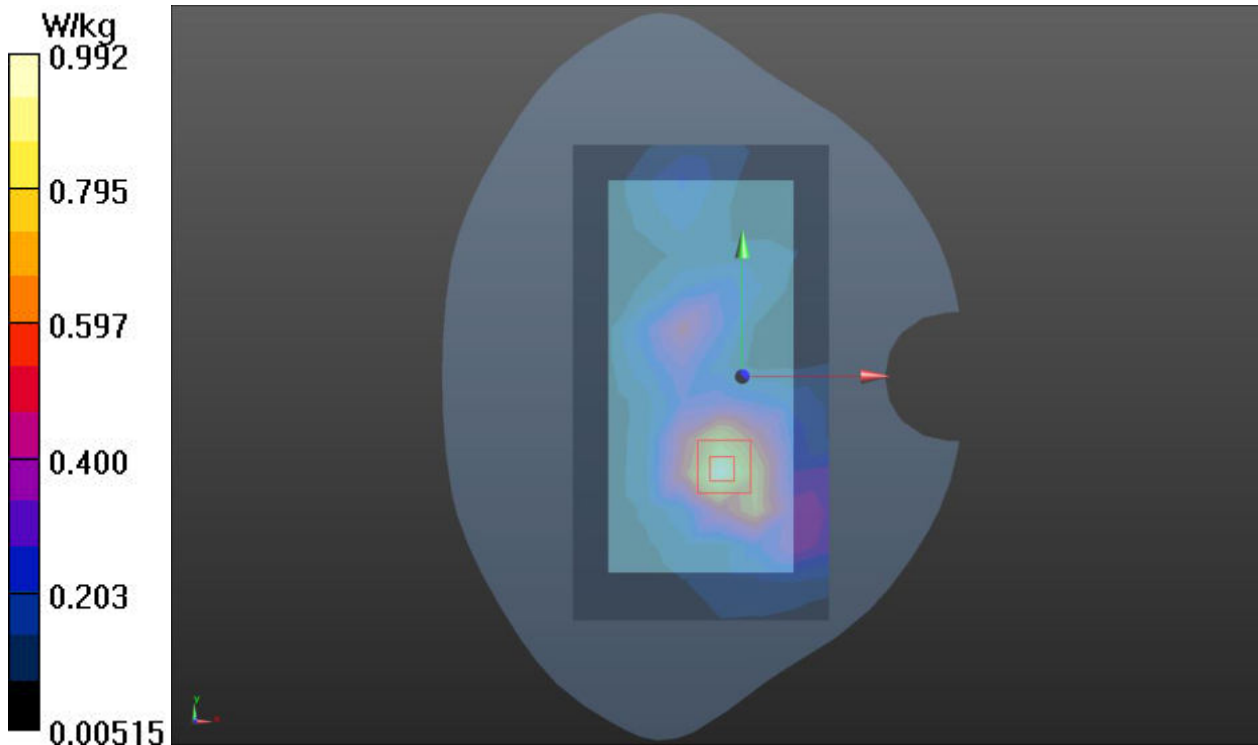
Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.612 W/kg; SAR(10 g) = 0.332 W/kg

Smallest distance from peaks to all points 3 dB below = 12.9 mm

Ratio of SAR at M2 to SAR at M1 = 54.8%

Maximum value of SAR (measured) = 0.992 W/kg



Plot 58 LTE Band 26 1RB Front Side Middle (Distance 15mm)

Date: 2024/12/11

Communication System: UID 0, LTE (0); Frequency: 831.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 831.5$ MHz; $\sigma = 0.946$ S/m; $\epsilon_r = 42.316$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7689; ConvF(9.44, 9.92, 10.09); Calibrated: 2024/6/4

Electronics: DAE4 SN1317; Calibrated: 2024/09/10

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Front Side Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.216 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.67 V/m; Power Drift = -0.04 dB

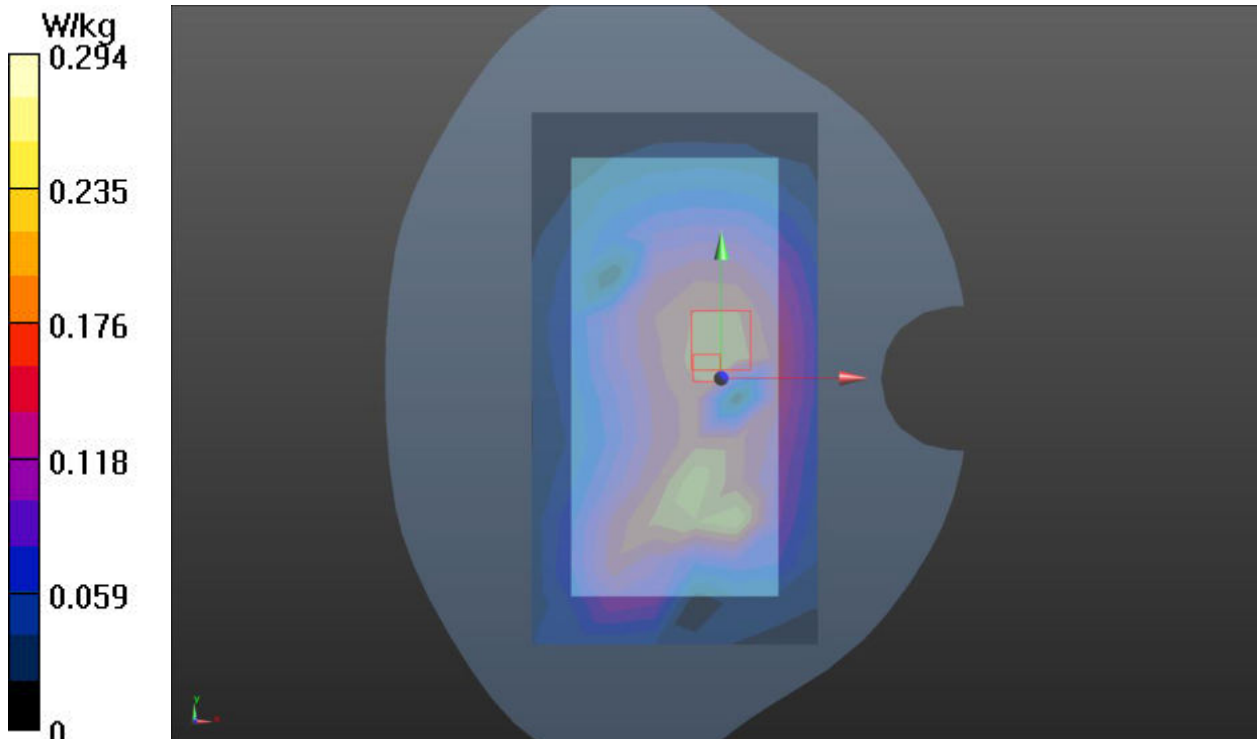
Peak SAR (extrapolated) = 0.450 W/kg

SAR(1 g) = 0.173 W/kg; SAR(10 g) = 0.125 W/kg

Smallest distance from peaks to all points 3 dB below = 13.2 mm

Ratio of SAR at M2 to SAR at M1 = 79%

Maximum value of SAR (measured) = 0.294 W/kg



Plot 59 LTE Band 41 1RB Front Side High (Distance 15mm)

Date: 2024/12/17

Communication System: UID 0, LTE (0); Frequency: 2636.5 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2636.5$ MHz; $\sigma = 2.055$ S/m; $\epsilon_r = 37.772$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7689; ConvF(7.39, 7.77, 7.89); Calibrated: 2024/6/4

Electronics: DAE4 SN1317; Calibrated: 2024/09/10

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Front Side High/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.340 W/kg

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

Reference Value = 5.208 V/m; Power Drift = 0.053 dB

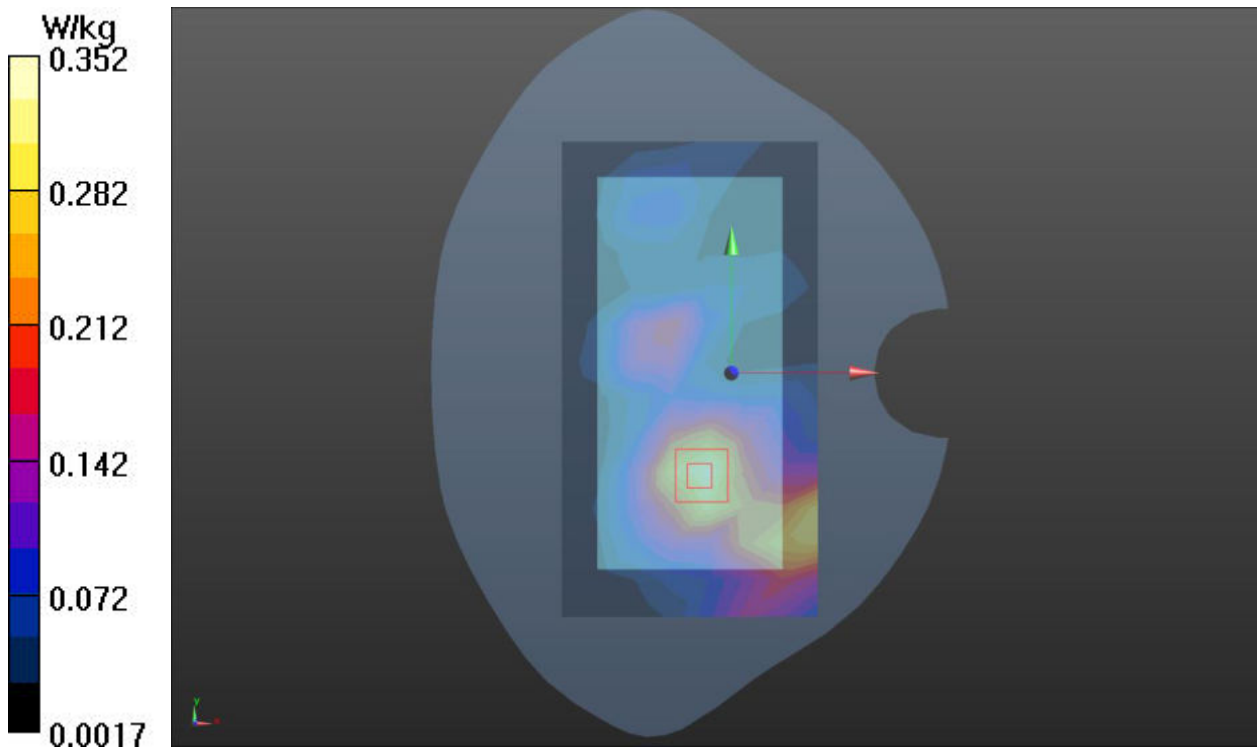
Peak SAR (extrapolated) = 0.430 W/kg

SAR(1 g) = 0.230 W/kg; SAR(10 g) = 0.125 W/kg

Smallest distance from peaks to all points 3 dB below = 20.5 mm

Ratio of SAR at M2 to SAR at M1 = 51.7%

Maximum value of SAR (measured) = 0.352 W/kg



Plot 60 LTE Band 66 1RB Front Side Low (Distance 15mm)

Date: 2023/10/9

Communication System: UID 0, LTE (0); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.294$ S/m; $\epsilon_r = 39.556$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(8.10, 8.10, 8.10); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Front Side Low/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.483 W/kg

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

Reference Value = 9.371 V/m; Power Drift = 0.025 dB

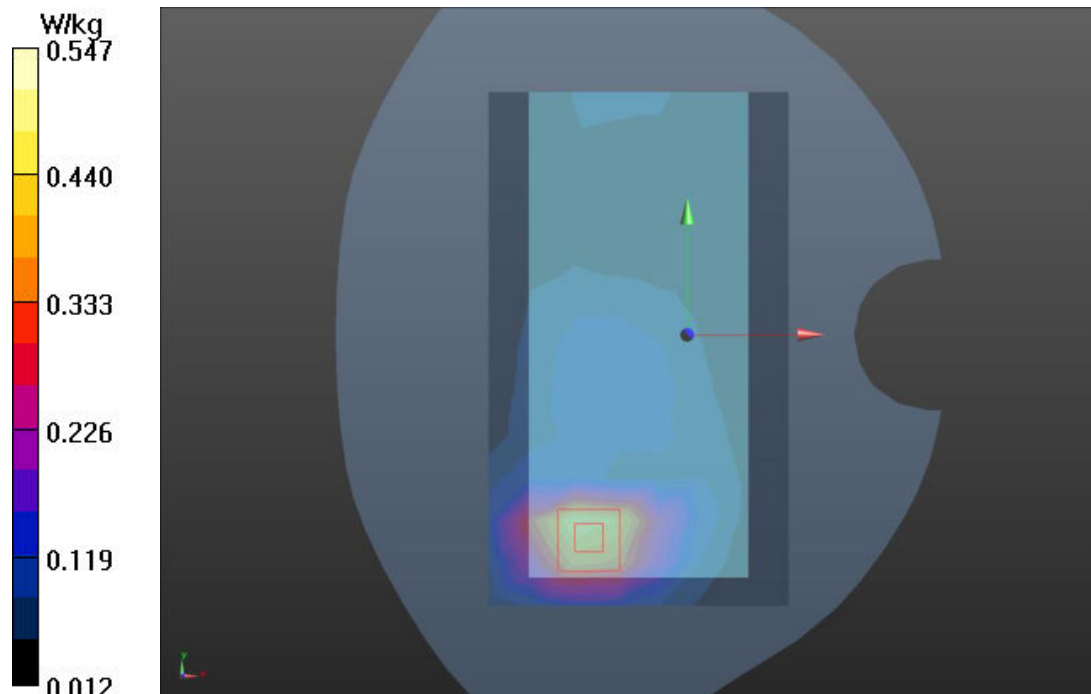
Peak SAR (extrapolated) = 0.626 W/kg

SAR(1 g) = 0.479 W/kg; SAR(10 g) = 0.258 W/kg

Smallest distance from peaks to all points 3 dB below = 12.9 mm

Ratio of SAR at M2 to SAR at M1 = 63.9%

Maximum value of SAR (measured) = 0.547 W/kg



Plot 61 802.11a U-NII-1 Back Side Middle (Distance 15mm)

Date: 2023/10/11

Communication System: UID 0, 802.11a (0); Frequency: 5280 MHz; Duty Cycle: 1:1.027

Medium parameters used: $f = 5280$ MHz; $\sigma = 4.805$ S/m; $\epsilon_r = 36.71$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(5.19, 5.19, 5.19); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (12x11x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.250 W/kg

Back Side Middle/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 1.504 V/m; Power Drift = 0.085 dB

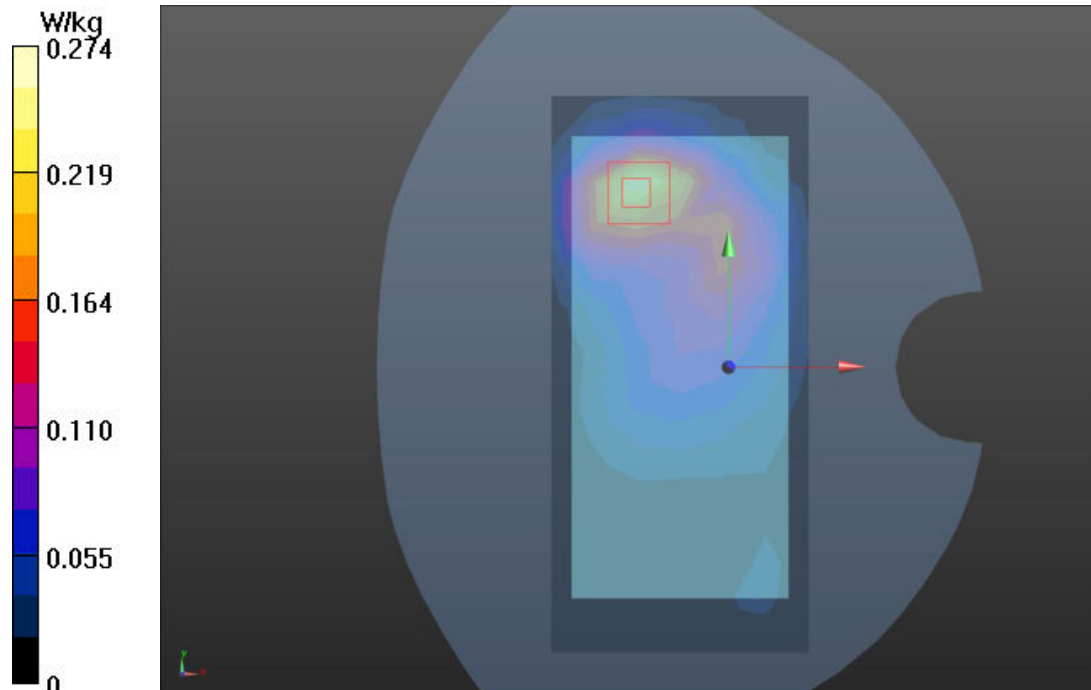
Peak SAR (extrapolated) = 0.456 W/kg

SAR(1 g) = 0.230 W/kg; SAR(10 g) = 0.08 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 40.2%

Maximum value of SAR (measured) = 0.274 W/kg



Plot 62 GSM 850 GPRS (4Txslots) Back Side Middle (Distance 10mm)

Date: 2023/10/5

Communication System: UID 0, GPRS 4TX (0); Frequency: 836.6 MHz; Duty Cycle: 1:2.07491

Medium parameters used: $f = 837$ MHz; $\sigma = 0.939$ S/m; $\epsilon_r = 41.856$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(9.35, 9.35, 9.35); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.324 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.80 V/m; Power Drift = -0.16 dB

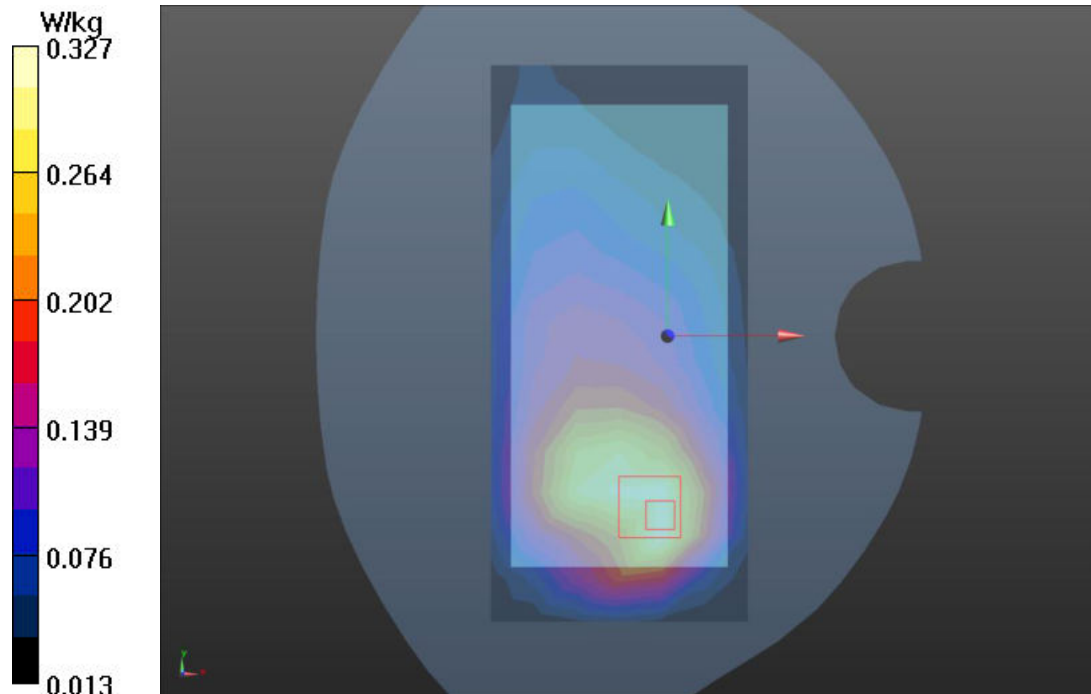
Peak SAR (extrapolated) = 0.495 W/kg

SAR(1 g) = 0.307 W/kg; SAR(10 g) = 0.199 W/kg

Smallest distance from peaks to all points 3 dB below = 20.4 mm

Ratio of SAR at M2 to SAR at M1 = 64.8%

Maximum value of SAR (measured) = 0.327 W/kg



Plot 63 GSM 1900 GPRS (4Txslots) Top Edge Middle (Distance 10mm)

Date: 2023/10/14

Communication System: UID 0, GPRS 4TX (0); Frequency: 1880 MHz; Duty Cycle: 1:2.07491

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.437$ S/m; $\epsilon_r = 37.208$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Middle/Area Scan (4x10x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.590 W/kg

Top Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.16 V/m; Power Drift = 0.13 dB

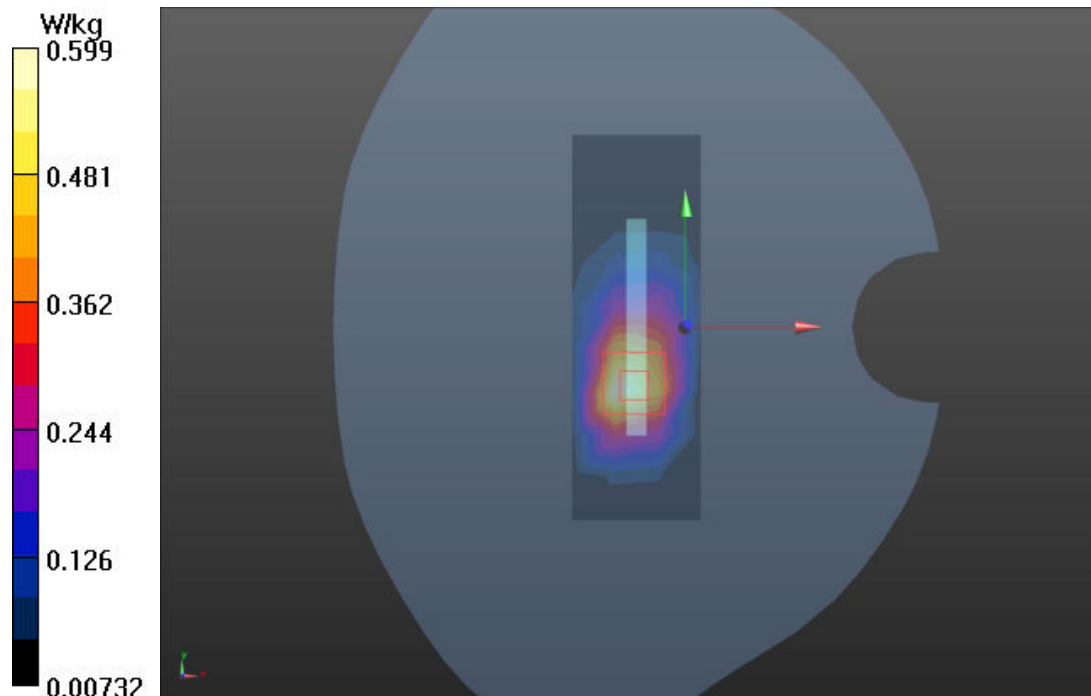
Peak SAR (extrapolated) = 0.938 W/kg

SAR(1 g) = 0.584 W/kg; SAR(10 g) = 0.277 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 55.5%

Maximum value of SAR (measured) = 0.599 W/kg



Plot 64 WCDMA Band II Bottom Edge Middle (Distance 10mm)

Date: 2023/10/14

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.437$ S/m; $\epsilon_r = 37.208$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (4x10x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.892 W/kg

Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.01 V/m; Power Drift = -0.11 dB

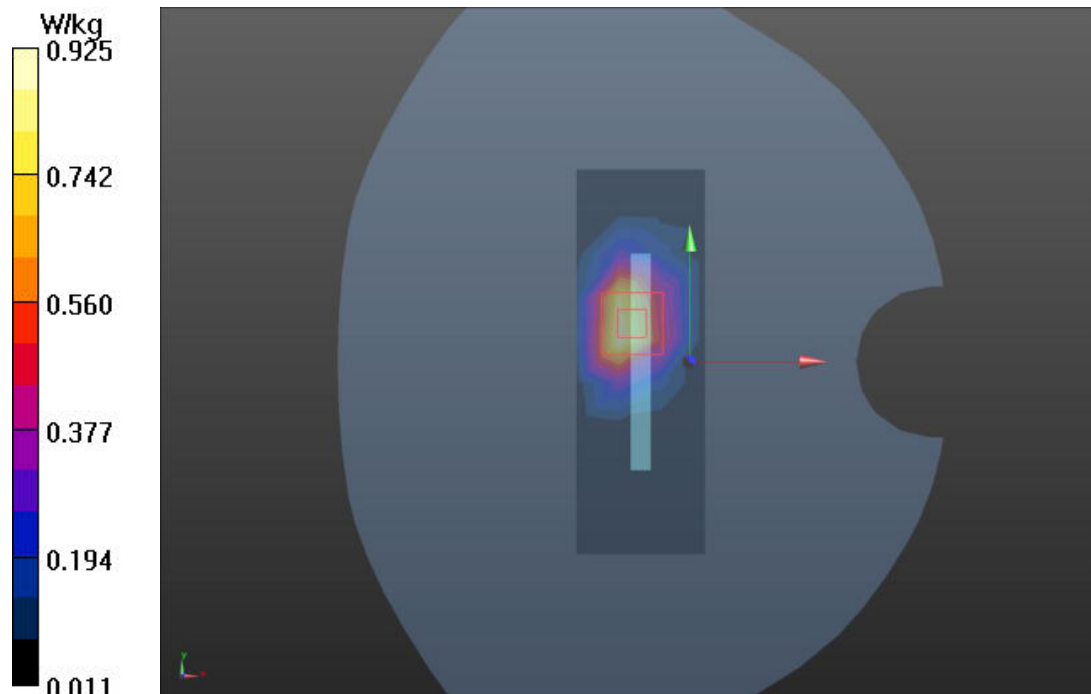
Peak SAR (extrapolated) = 1.83 W/kg

SAR(1 g) = 0.772 W/kg; SAR(10 g) = 0.382 W/kg

Smallest distance from peaks to all points 3 dB below = 10.7 mm

Ratio of SAR at M2 to SAR at M1 = 57.4%

Maximum value of SAR (measured) = 0.925 W/kg



Plot 65 WCDMA Band IV Top Edge Low (Distance 10mm)

Date: 2023/10/12

Communication System: UID 0, WCDMA (0); Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.286$ S/m; $\epsilon_r = 39.529$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(8.10, 8.10, 8.10); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Low/Area Scan (4x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.15 W/kg

Top Edge Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.14 V/m; Power Drift = -0.12 dB

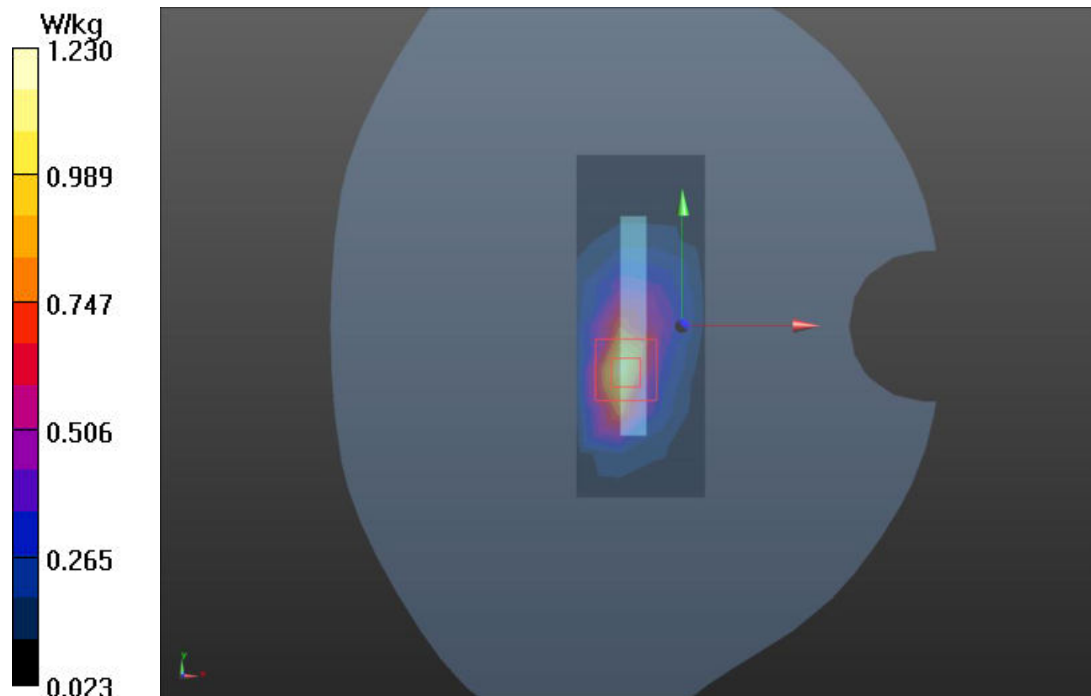
Peak SAR (extrapolated) = 1.50 W/kg

SAR(1 g) = 0.844 W/kg; SAR(10 g) = 0.435 W/kg

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 57.2%

Maximum value of SAR (measured) = 1.23 W/kg



Plot 66 WCDMA Band V Back Side Middle (Distance 10mm)

Date: 2023/10/5

Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 837$ MHz; $\sigma = 0.939$ S/m; $\epsilon_r = 41.856$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(9.35, 9.35, 9.35); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.371 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.01 V/m; Power Drift = 0.12 dB

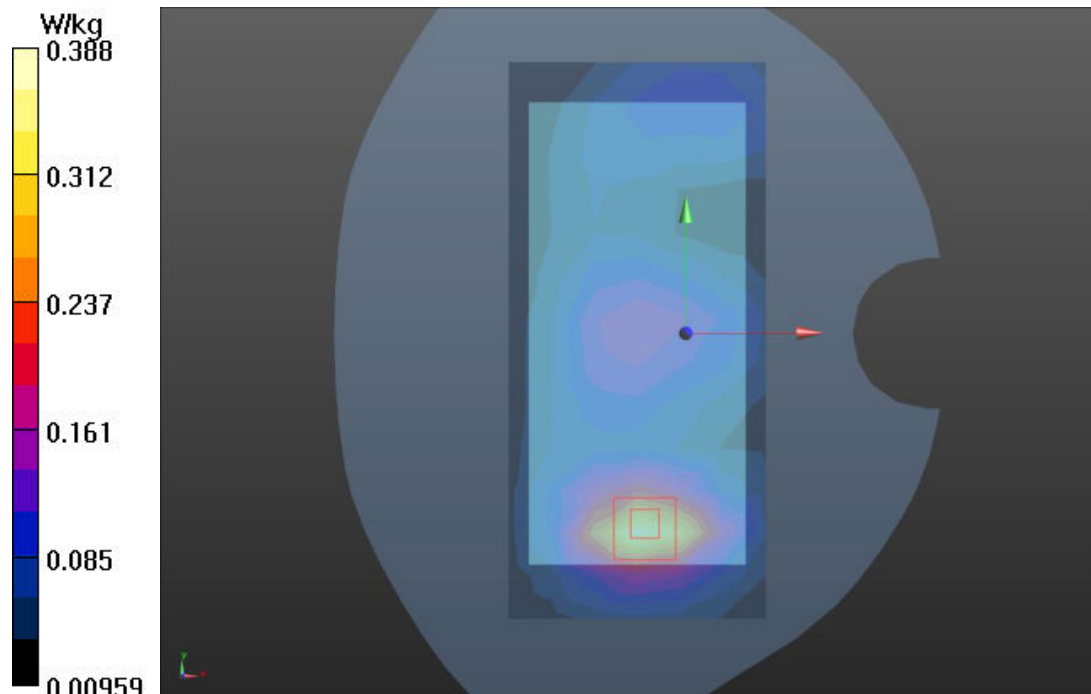
Peak SAR (extrapolated) = 0.459 W/kg

SAR(1 g) = 0.364 W/kg; SAR(10 g) = 0.247 W/kg

Smallest distance from peaks to all points 3 dB below = 16 mm

Ratio of SAR at M2 to SAR at M1 = 69.8%

Maximum value of SAR (measured) = 0.388 W/kg



Plot 67 LTE Band 2 1RB Top Edge Low (Distance 10mm)

Date: 2023/10/14

Communication System: UID 0, LTE (0); Frequency: 1860 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1860$ MHz; $\sigma = 1.422$ S/m; $\epsilon_r = 37.402$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Low/Area Scan (4x10x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.697 W/kg

Top Edge Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.178 V/m; Power Drift = 0.02 dB

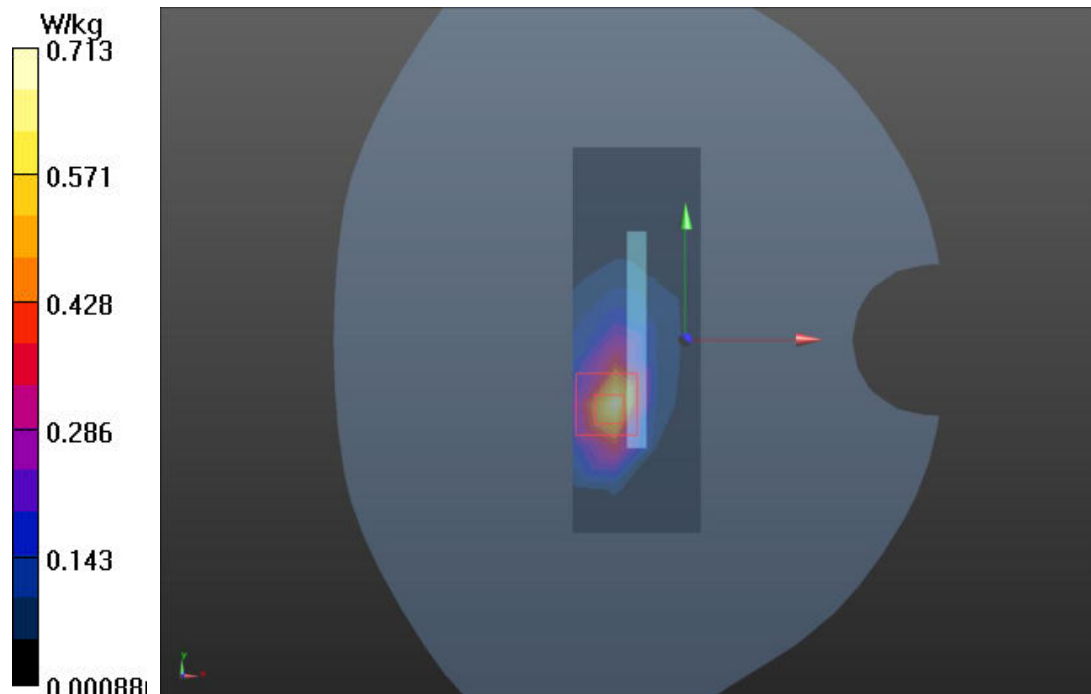
Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.640 W/kg; SAR(10 g) = 0.306 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 54.8%

Maximum value of SAR (measured) = 0.713 W/kg



Plot 68 LTE Band 5 1RB Back Side Low (Distance 10mm)

Date: 2023/10/5

Communication System: UID 0, LTE (0); Frequency: 829 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 829$ MHz; $\sigma = 0.936$ S/m; $\epsilon_r = 41.882$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(9.35, 9.35, 9.35); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Low/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.360 W/kg

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

Reference Value = 15.86 V/m; Power Drift = 0.06 dB

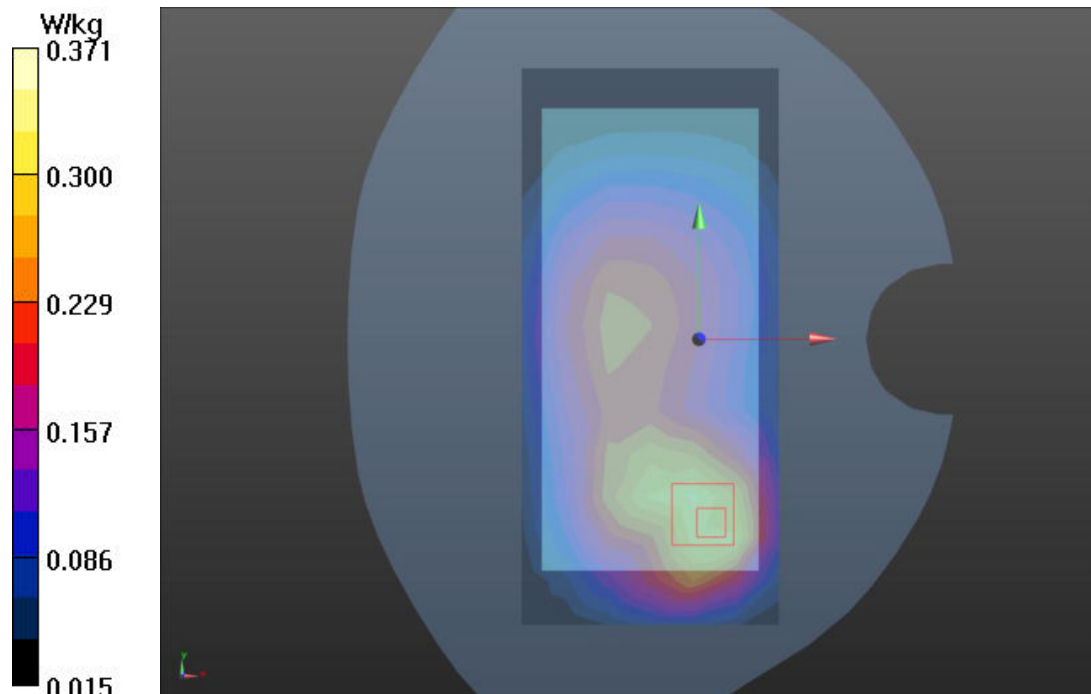
Peak SAR (extrapolated) = 0.492 W/kg

SAR(1 g) = 0.358 W/kg; SAR(10 g) = 0.243 W/kg

Smallest distance from peaks to all points 3 dB below = 18.7 mm

Ratio of SAR at M2 to SAR at M1 = 64.4%

Maximum value of SAR (measured) = 0.371 W/kg



Plot 69 LTE Band 7 50%RB Back Side Middle (Distance 10mm)

Date: 2023/10/2

Communication System: UID 0, LTE (0); Frequency: 2510 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2510$ MHz; $\sigma = 1.91$ S/m; $\epsilon_r = 37.398$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.19, 7.19, 7.19); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Low/Area Scan (5x12x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.900 W/kg

Bottom Edge Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 18.20 V/m; Power Drift = -0.02 dB

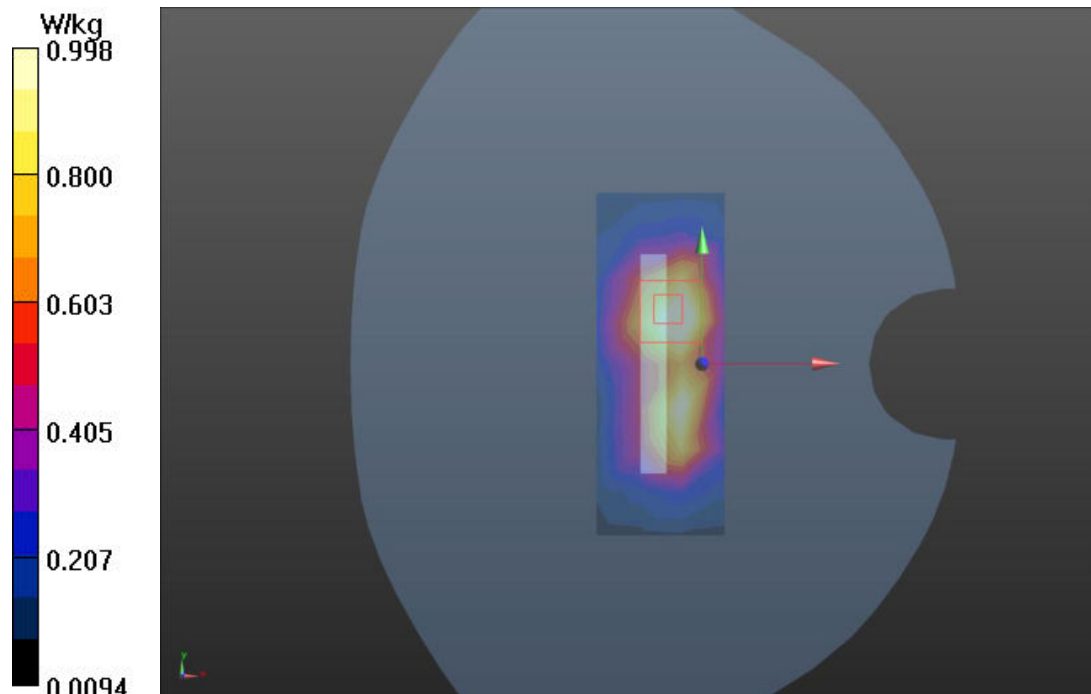
Peak SAR (extrapolated) = 2.37 W/kg

SAR(1 g) = 0.812 W/kg; SAR(10 g) = 0.372 W/kg

Smallest distance from peaks to all points 3 dB below = 12.2 mm

Ratio of SAR at M2 to SAR at M1 = 51.4%

Maximum value of SAR (measured) = 0.998 W/kg



Plot 70 LTE Band 12 1RB Back Side Low (Distance 10mm)

Date: 2023/9/30

Communication System: UID 0, LTE (0); Frequency: 704 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 704 \text{ MHz}$; $\sigma = 0.894 \text{ S/m}$; $\epsilon_r = 42.223$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.3°C Liquid Temperature: 21.5°C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 – SN3883; ConvF(9.70, 9.70, 9.70); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Low/Area Scan (7x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.272 W/kg

Back Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.81 V/m ; Power Drift = -0.04 dB

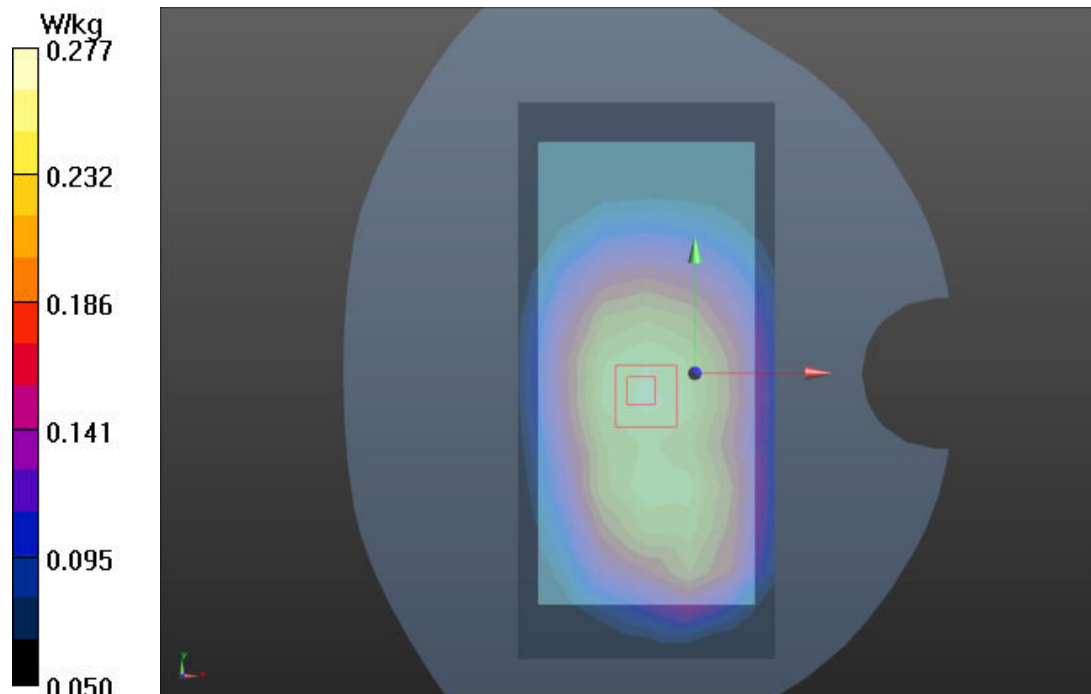
Peak SAR (extrapolated) = 0.287 W/kg

SAR(1 g) = 0.261 W/kg ; SAR(10 g) = 0.183 W/kg

Smallest distance from peaks to all points 3 dB below = 9.5mm

Ratio of SAR at M2 to SAR at M1 = 82%

Maximum value of SAR (measured) = 0.277 W/kg



Plot 71 LTE Band 13 1RB Back Side Middle (Distance 10mm)

Date: 2024/12/11

Communication System: UID 0, LTE (0); Frequency: 782 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.944 \text{ S/m}$; $\epsilon_r = 42.386$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.3°C Liquid Temperature: 21.5°C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7689; ConvF(9.58, 10.07, 10.24); Calibrated: 2024/6/4

Electronics: DAE4 SN1317; Calibrated: 2024/09/10

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (7x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.370 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.18 V/m ; Power Drift = 0.027 dB

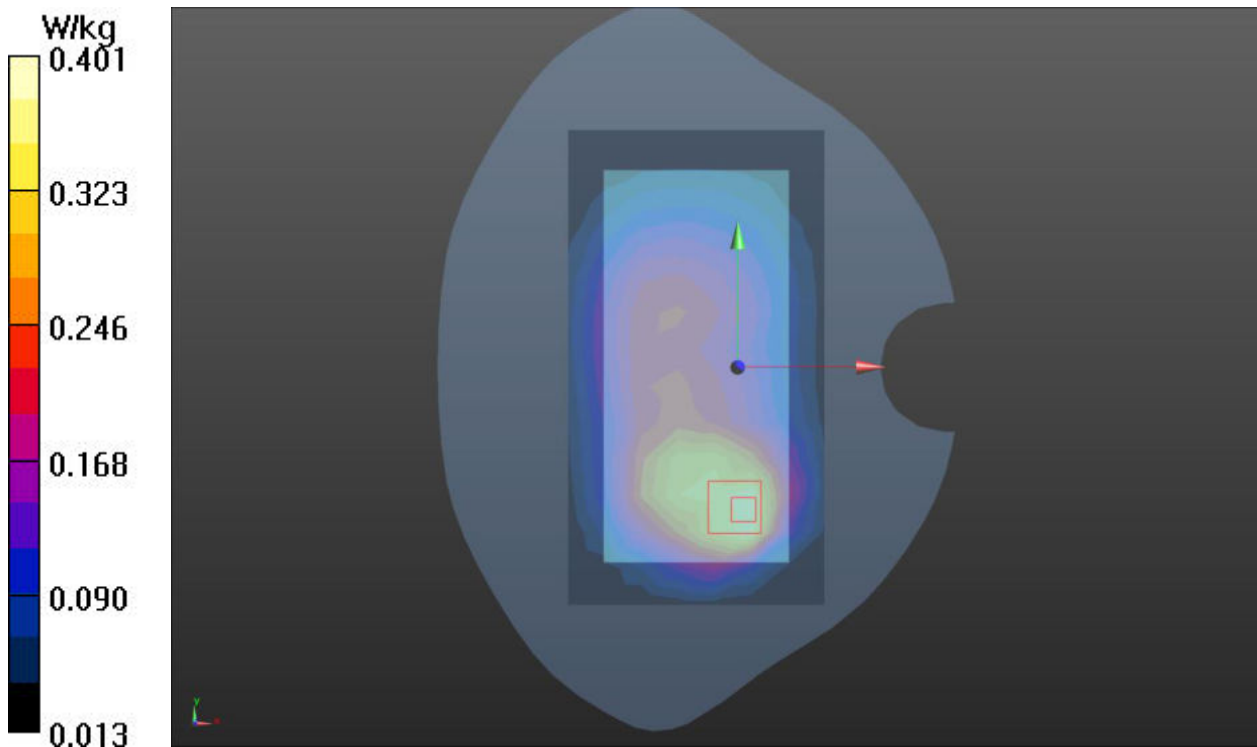
Peak SAR (extrapolated) = 0.479 W/kg

SAR(1 g) = 0.227 W/kg ; SAR(10 g) = 0.157 W/kg

Smallest distance from peaks to all points 3 dB below = 14.3 mm

Ratio of SAR at M2 to SAR at M1 = 55.9%

Maximum value of SAR (measured) = 0.401 W/kg



Plot 72 LTE Band 26 1RB Back Side Low (Distance 10mm)

Date: 2023/10/5

Communication System: UID 0, LTE (0); Frequency: 821.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 821.5$ MHz; $\sigma = 0.933$ S/m; $\epsilon_r = 41.904$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(9.35, 9.35, 9.35); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Low/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.331 W/kg

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

Reference Value = 13.10 V/m; Power Drift = 0.11 dB

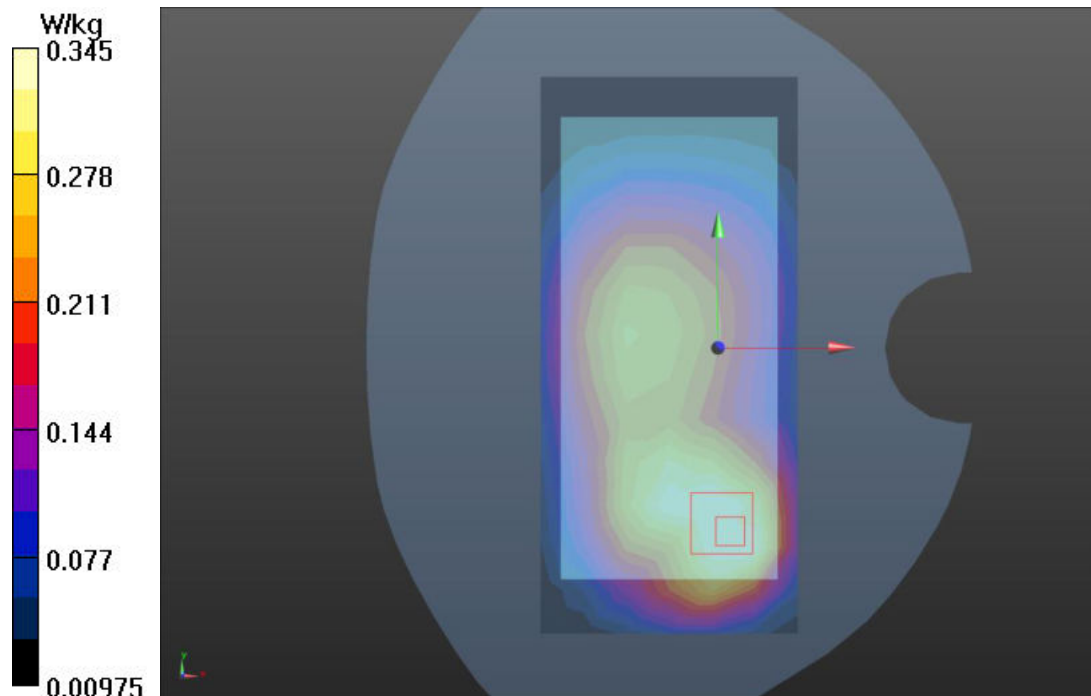
Peak SAR (extrapolated) = 0.616 W/kg

SAR(1 g) = 0.313 W/kg; SAR(10 g) = 0.209 W/kg

Smallest distance from peaks to all points 3 dB below = 19.3 mm

Ratio of SAR at M2 to SAR at M1 = 64.4%

Maximum value of SAR (measured) = 0.345 W/kg



Plot 73 LTE Band 38 50%RB Back Side High (Distance 10mm)

Date: 2023/10/2

Communication System: UID 0, LTE (0); Frequency: 2595 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 2595$ MHz; $\sigma = 1.997$ S/m; $\epsilon_r = 37.9$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.19, 7.19, 7.19); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (5x12x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.621 W/kg

Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.25 V/m; Power Drift = -0.08 dB

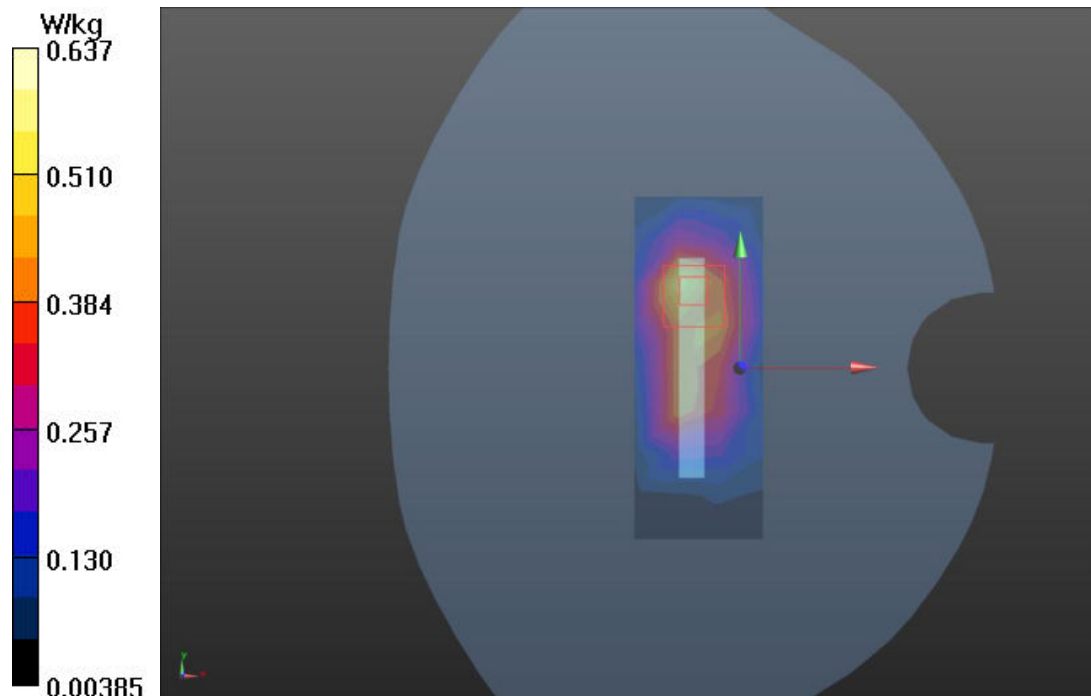
Peak SAR (extrapolated) = 1.11 W/kg

SAR(1 g) = 0.573 W/kg; SAR(10 g) = 0.289 W/kg

Smallest distance from peaks to all points 3 dB below = 12.8 mm

Ratio of SAR at M2 to SAR at M1 = 52.2%

Maximum value of SAR (measured) = 0.637 W/kg



Plot 74 LTE Band 41 1RB Front Side Middle (Distance 10mm)

Date: 2023/10/2

Communication System: UID 0, LTE (0); Frequency: 2549.5 MHz; Duty Cycle: 1:1.58

Medium parameters used (interpolated): $f = 2549.5$ MHz; $\sigma = 1.958$ S/m; $\epsilon_r = 37.264$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.19, 7.19, 7.19); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (5x12x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.769 W/kg

Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.67 V/m; Power Drift = -0.18 dB

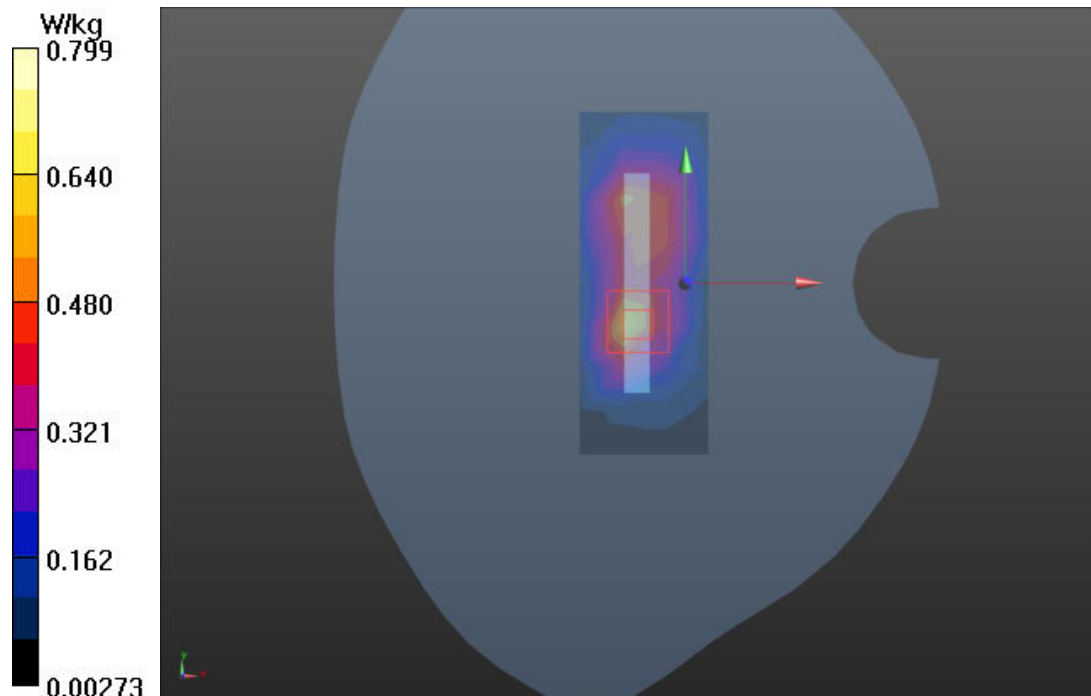
Peak SAR (extrapolated) = 0.943 W/kg

SAR(1 g) = 0.757 W/kg; SAR(10 g) = 0.372 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 48.3%

Maximum value of SAR (measured) = 0.799 W/kg



Plot 75 LTE Band 66 50%RB Back Side Low (Distance 10mm)

Date: 2023/10/12

Communication System: UID 0, LTE (0); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.294$ S/m; $\epsilon_r = 39.556$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(8.10, 8.10, 8.10); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Low/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.990 W/kg

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

Reference Value = 6.825 V/m; Power Drift = -0.01 dB

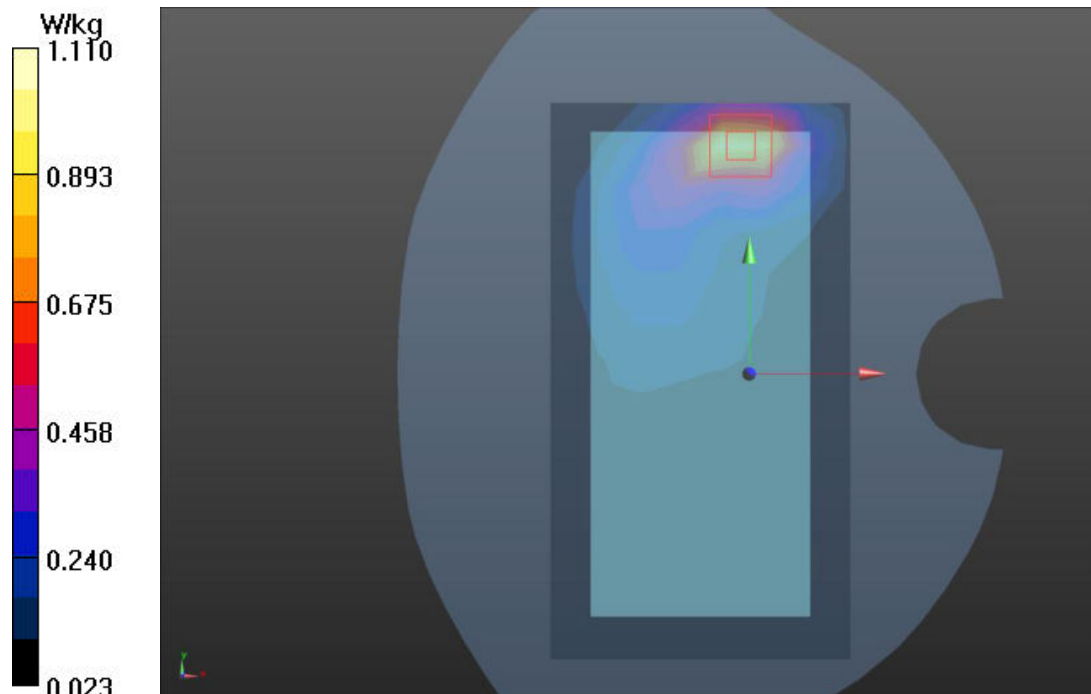
Peak SAR (extrapolated) = 1.71 W/kg

SAR(1 g) = 0.980 W/kg; SAR(10 g) = 0.518 W/kg

Smallest distance from peaks to all points 3 dB below = 11.2 mm

Ratio of SAR at M2 to SAR at M1 = 59.4%

Maximum value of SAR (measured) = 1.11 W/kg



Plot 76 802.11b Top Edge Middle (Distance 10mm)

Date: 2024/12/13

Communication System: UID 0, 802.11b (0); Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.824$ S/m; $\epsilon_r = 38.516$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7689; ConvF(7.62, 8.01, 8.14); Calibrated: 2024/6/4

Electronics: DAE4 SN1317; Calibrated: 2024/09/10

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Middle/Area Scan (5x10x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.355 W/kg

Top Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.70 V/m; Power Drift = -0.12 dB

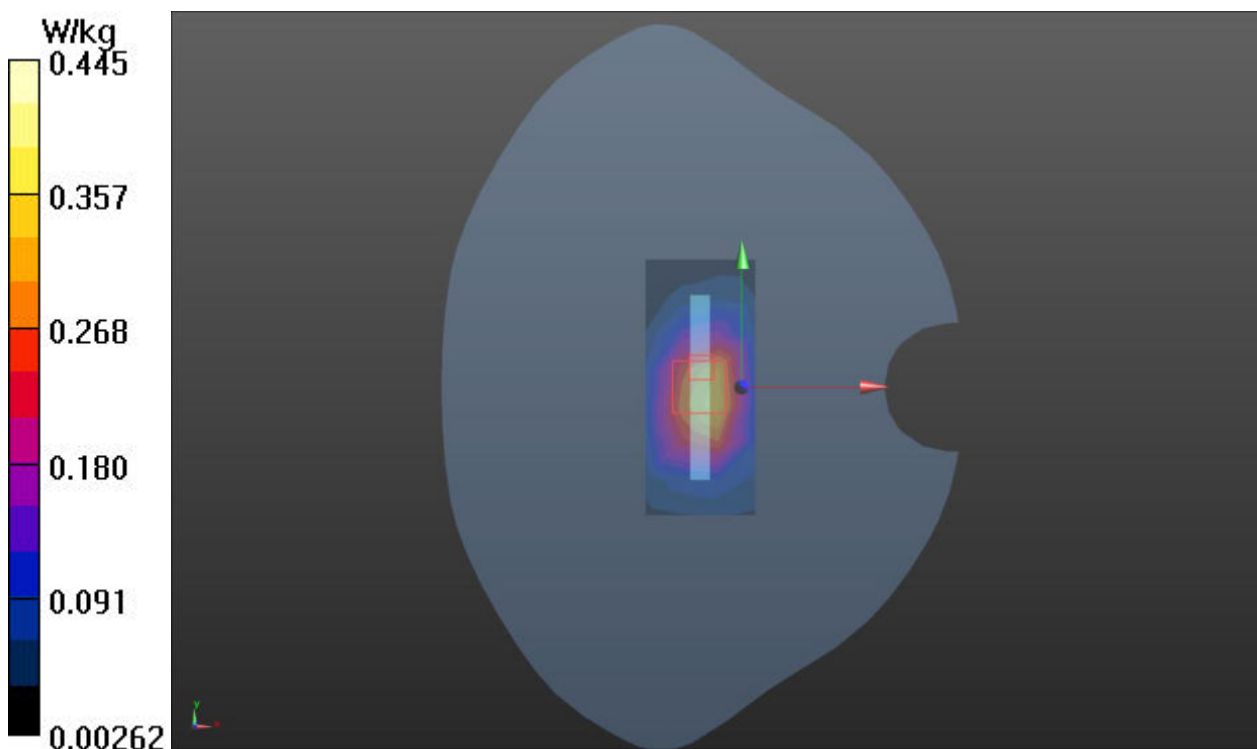
Peak SAR (extrapolated) = 0.555 W/kg

SAR(1 g) = 0.239 W/kg; SAR(10 g) = 0.118 W/kg

Smallest distance from peaks to all points 3 dB below = 14.8 mm

Ratio of SAR at M2 to SAR at M1 = 34%

Maximum value of SAR (measured) = 0.461 W/kg



Plot 77 802.11a U-NII-3 Top Edge High (Distance 10mm)

Date: 2024/12/14

Communication System: UID 0, 802.11a (0); Frequency: 5825 MHz; Duty Cycle: 1:1.02

Medium parameters used: $f = 5825$ MHz; $\sigma = 5.488$ S/m; $\epsilon_r = 34.499$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7689; ConvF(5.31, 5.59, 5.68); Calibrated: 2024/6/4

Electronics: DAE4 SN1317; Calibrated: 2024/09/10

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge High/Area Scan (6x12x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.457 W/kg

Top Edge High/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 9.769 V/m; Power Drift = -0.10 dB

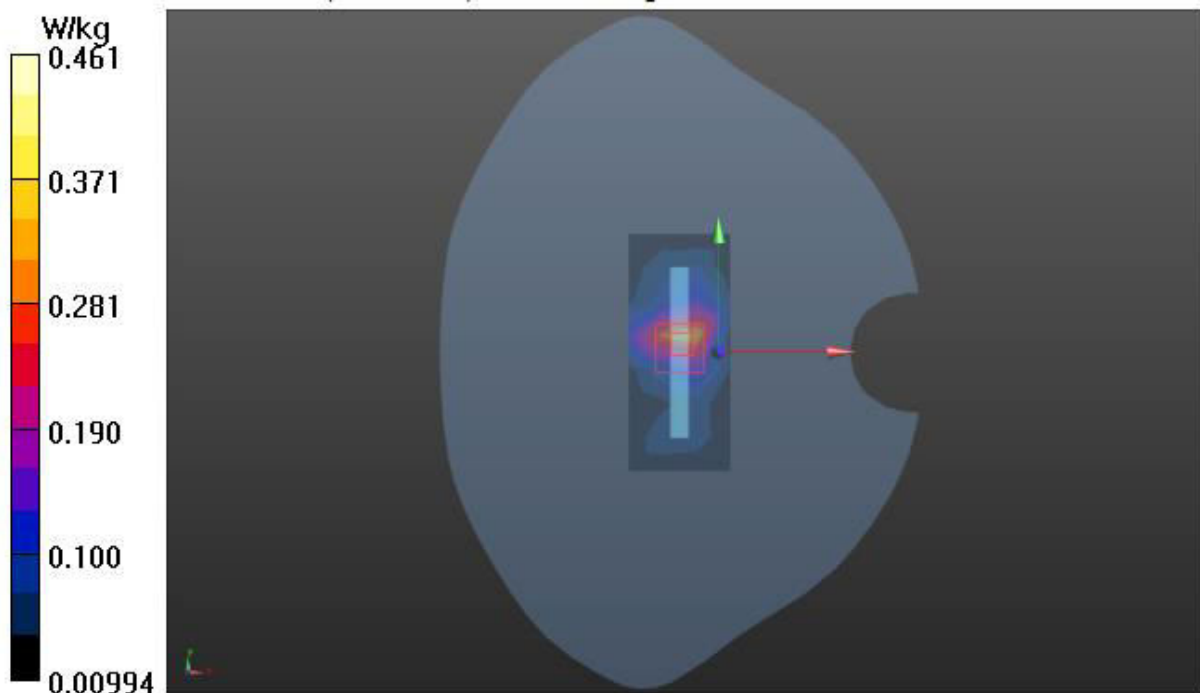
Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.431 W/kg; SAR(10 g) = 0.139 W/kg

Smallest distance from peaks to all points 3 dB below = 14.8 mm

Ratio of SAR at M2 to SAR at M1 = 34%

Maximum value of SAR (measured) = 0.461 W/kg



Plot 78 Bluetooth Top Edge Low (Distance 10mm)

Date: 2023/10/18

Communication System: UID 0, BT (0); Frequency: 2402 MHz; Duty Cycle: 1:1.302

Medium parameters used: $f = 2402$ MHz; $\sigma = 1.777$ S/m; $\epsilon_r = 38.615$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.46, 7.46, 7.46); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Low/Area Scan (5x12x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.024 W/kg

Top Edge Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.8240 V/m; Power Drift = 0.06 dB

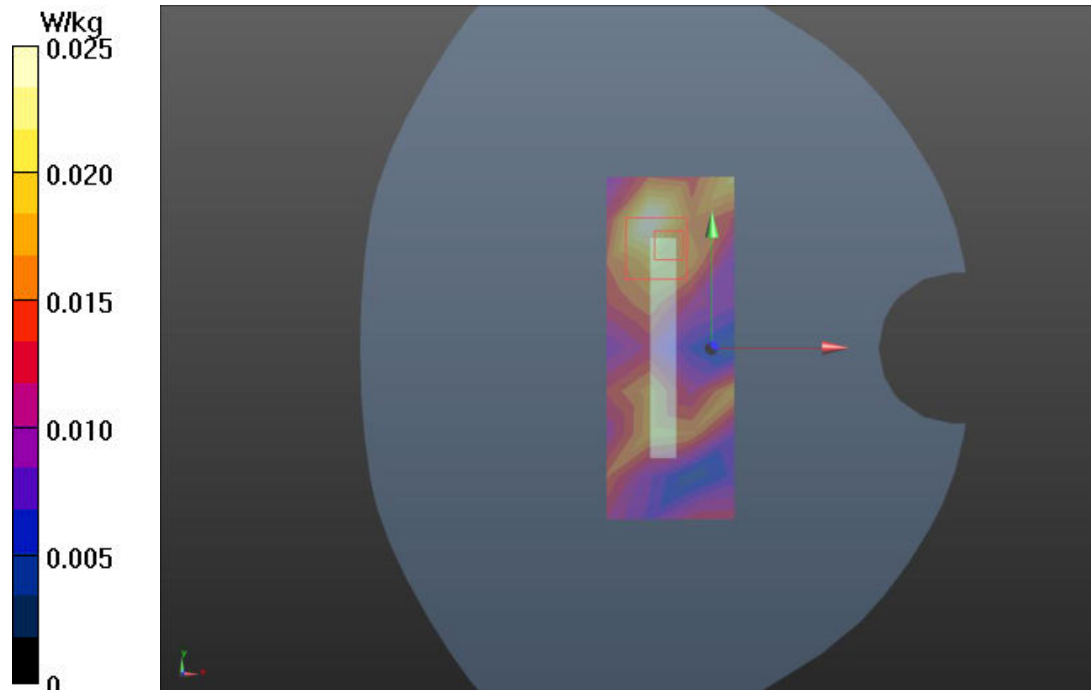
Peak SAR (extrapolated) = 0.069 W/kg

SAR(1 g) = 0.02 W/kg; SAR(10 g) = 0.01 W/kg

Smallest distance from peaks to all points 3 dB below = 9.1mm

Ratio of SAR at M2 to SAR at M1 = 88.6%

Maximum value of SAR (measured) = 0.025 W/kg



Plot 79 GSM 1900 GPRS (4Txslots) Top Edge Middle (Distance 0mm)

Date: 2023/10/16

Communication System: UID 0, GPRS 4TX (0); Frequency: 1880 MHz; Duty Cycle: 1:2.07

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.406$ S/m; $\epsilon_r = 39.087$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Middle/Area Scan (4x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.76 W/kg

Top Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.36 V/m; Power Drift = 0.069 dB

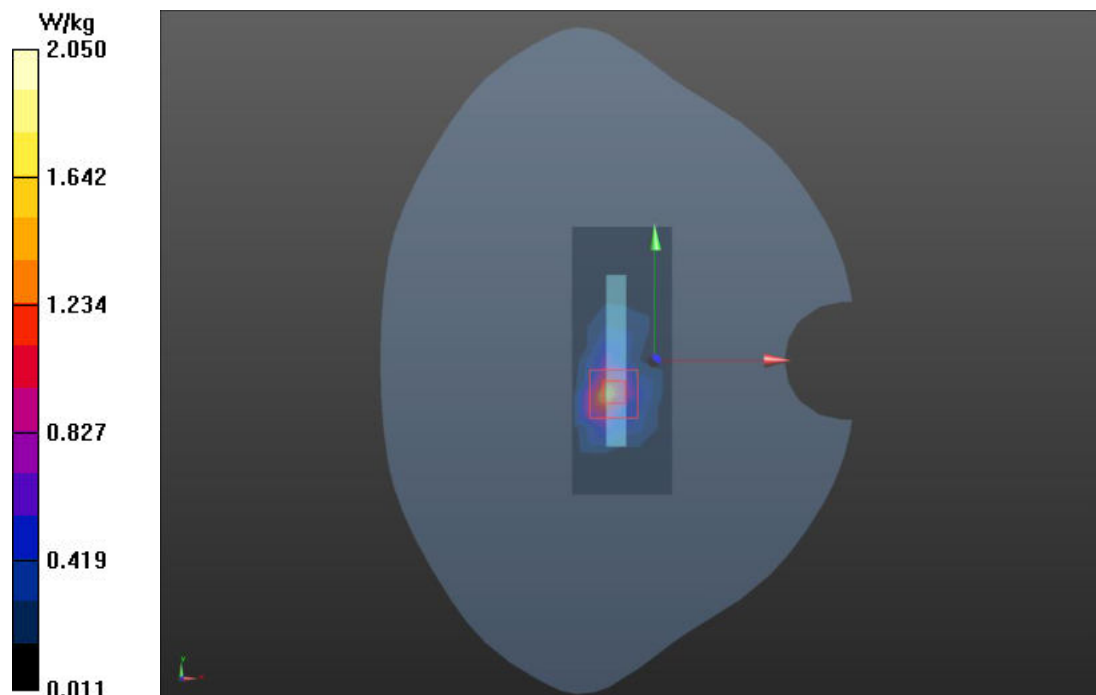
Peak SAR (extrapolated) = 3.98 W/kg

SAR(1 g) = 1.67 W/kg; SAR(10 g) = 0.665 W/kg

Smallest distance from peaks to all points 3 dB below = 9.6 mm

Ratio of SAR at M2 to SAR at M1 = 45%

Maximum value of SAR (measured) = 2.05 W/kg



Plot 80 WCDMA Band II Top Edge Middle (Distance 0mm)

Date: 2023/10/16

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.406$ S/m; $\epsilon_r = 39.087$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Middle/Area Scan (4x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 7.61 W/kg

Top Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 64.12 V/m; Power Drift = -0.06 dB

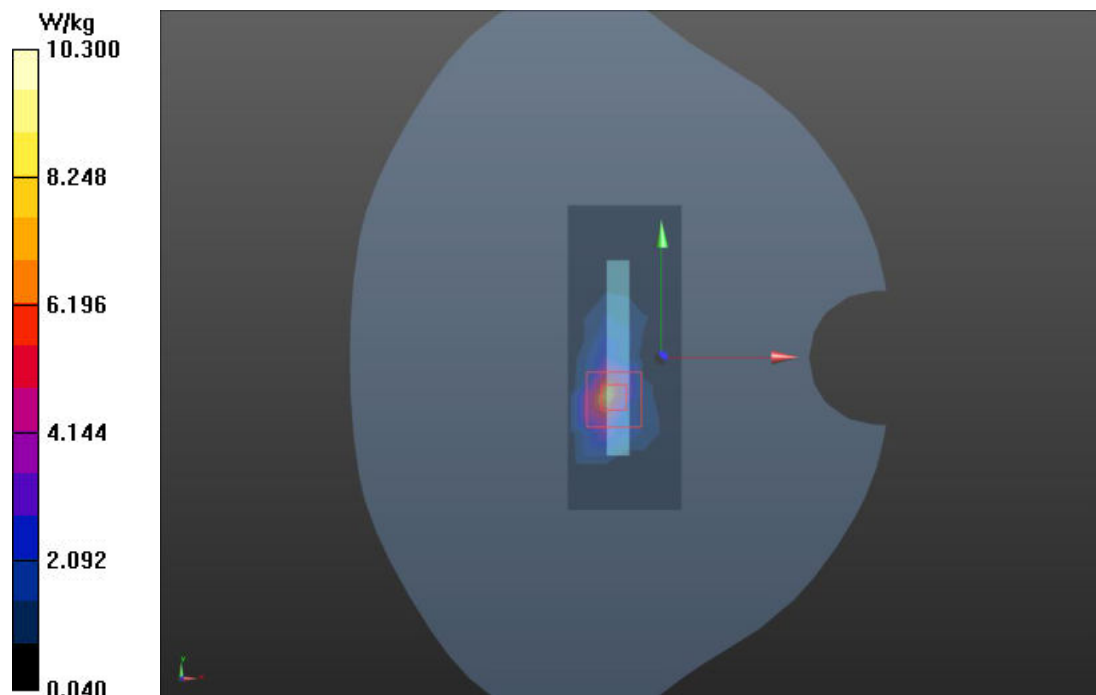
Peak SAR (extrapolated) = 13.4 W/kg

SAR(1 g) = 5.14 W/kg; SAR(10 g) = 1.99 W/kg

Smallest distance from peaks to all points 3 dB below = 9.8 mm

Ratio of SAR at M2 to SAR at M1 = 43.1%

Maximum value of SAR (measured) = 10.3 W/kg



Plot 81 WCDMA Band IV Back Side Middle (Distance 0mm)

Date: 2023/10/17

Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1733$ MHz; $\sigma = 1.301$ S/m; $\epsilon_r = 39.491$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(8.10, 8.10, 8.10); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 5.71 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.981 V/m; Power Drift = -0.40 dB

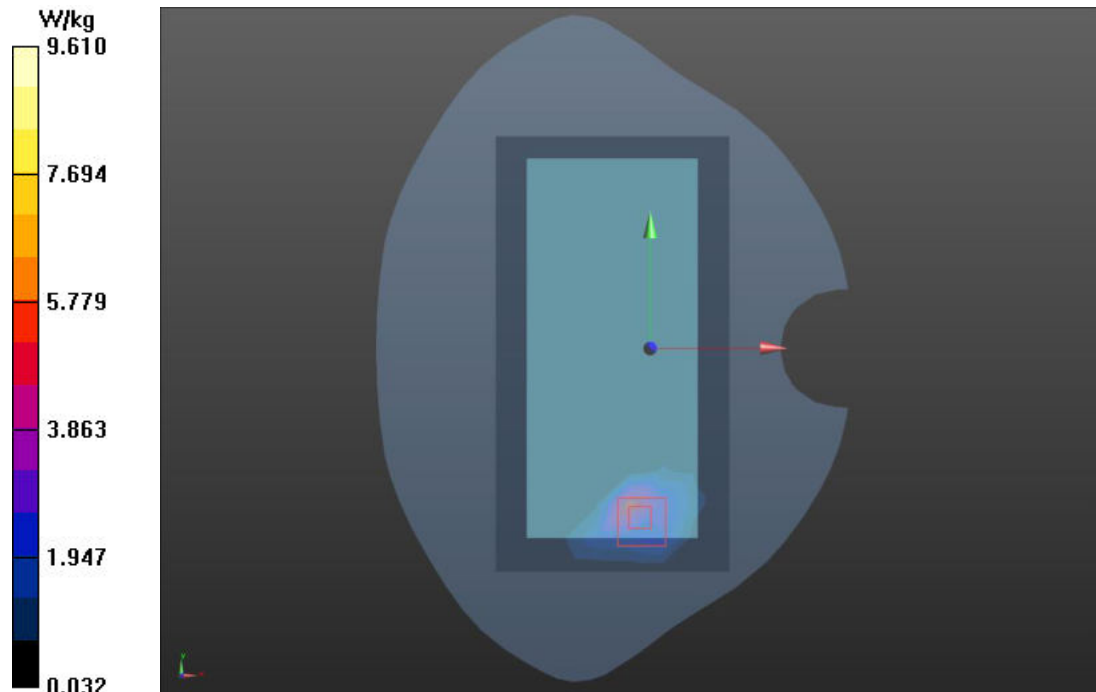
Peak SAR (extrapolated) = 12.7 W/kg

SAR(1 g) = 4.65 W/kg; SAR(10 g) = 1.9 W/kg

Smallest distance from peaks to all points 3 dB below = 9.8 mm

Ratio of SAR at M2 to SAR at M1 = 46.7%

Maximum value of SAR (measured) = 9.61 W/kg



Plot 82 LTE Band 2 100%RB Top Edge High (Distance 0mm)

Date: 2023/10/16

Communication System: UID 0, LTE (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.422$ S/m; $\epsilon_r = 38.97$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge High/Area Scan (4x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 5.88 W/kg

Top Edge High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 46.30 V/m; Power Drift = -0.06 dB

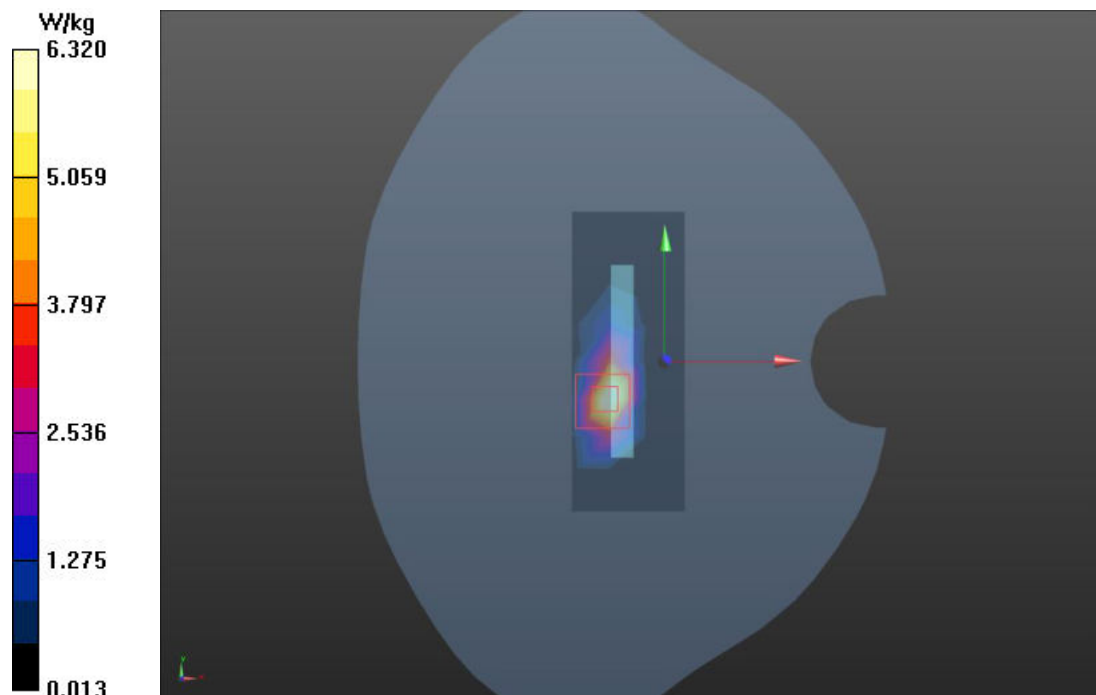
Peak SAR (extrapolated) = 5.49 W/kg

SAR(1 g) = 5.14 W/kg; SAR(10 g) = 1.99 W/kg

Smallest distance from peaks to all points 3 dB below = 10.8 mm

Ratio of SAR at M2 to SAR at M1 = 47%

Maximum value of SAR (measured) = 6.32 W/kg



Plot 83 LTE Band 7 1RB Bottom Edge Middle (Distance 0mm)

Date: 2023/10/10

Communication System: UID 0, LTE (0); Frequency: 2535 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2535$ MHz; $\sigma = 1.924$ S/m; $\epsilon_r = 38.136$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.19, 7.19, 7.19); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (5x12x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 4.58 W/kg

Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 36.08 V/m; Power Drift = -0.045 dB

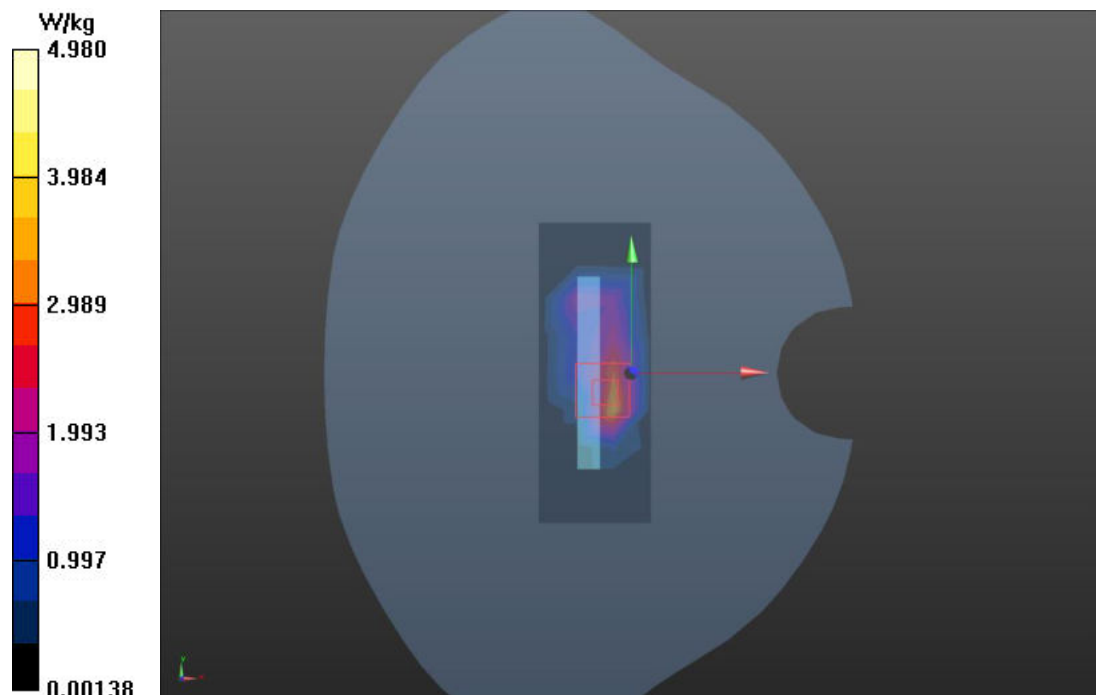
Peak SAR (extrapolated) = 12.4 W/kg

SAR(1 g) = 4.28 W/kg; SAR(10 g) = 1.56 W/kg

Smallest distance from peaks to all points 3 dB below = 9.4 mm

Ratio of SAR at M2 to SAR at M1 = 57%

Maximum value of SAR (measured) = 4.98 W/kg



Plot 84 LTE Band 41 1RB Bottom Edge Low (Distance 0mm)

Date: 2024/12/17

Communication System: UID 0, LTE (0); Frequency: 2506 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 2506$ MHz; $\sigma = 1.895$ S/m; $\epsilon_r = 38.277$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7689; ConvF(7.39, 7.77, 7.89); Calibrated: 2024/6/4

Electronics: DAE4 SN1317; Calibrated: 2024/09/10

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Low/Area Scan (5x12x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 3.36 W/kg

Bottom Edge Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 30.22 V/m; Power Drift = 0.025 dB

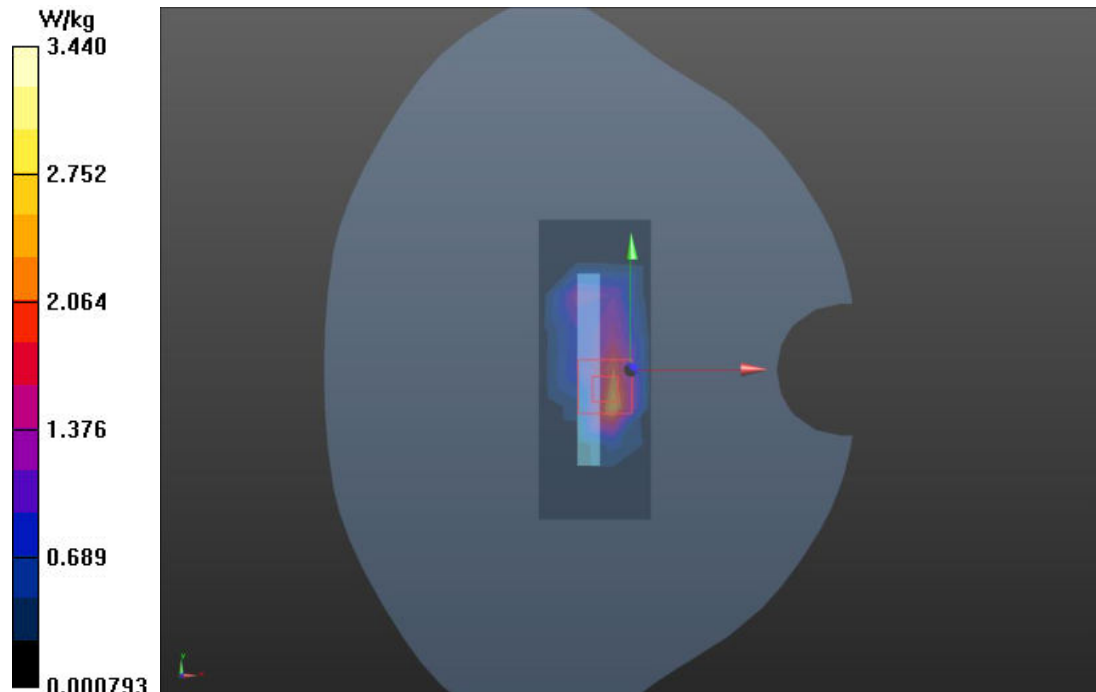
Peak SAR (extrapolated) = 6.18 W/kg

SAR(1 g) = 3.31 W/kg; SAR(10 g) = 1.17 W/kg

Smallest distance from peaks to all points 3 dB below = 11.4 mm

Ratio of SAR at M2 to SAR at M1 = 51.1%

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



Plot 85 LTE Band 66 1RB Top Edge Low (Distance 0mm)

Date: 2023/10/17

Communication System: UID 0, LTE (0); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.294$ S/m; $\epsilon_r = 39.556$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(8.10, 8.10, 8.10); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Low/Area Scan (4x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 5.73 W/kg

Top Edge Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 86.39 V/m; Power Drift = -0.030 dB

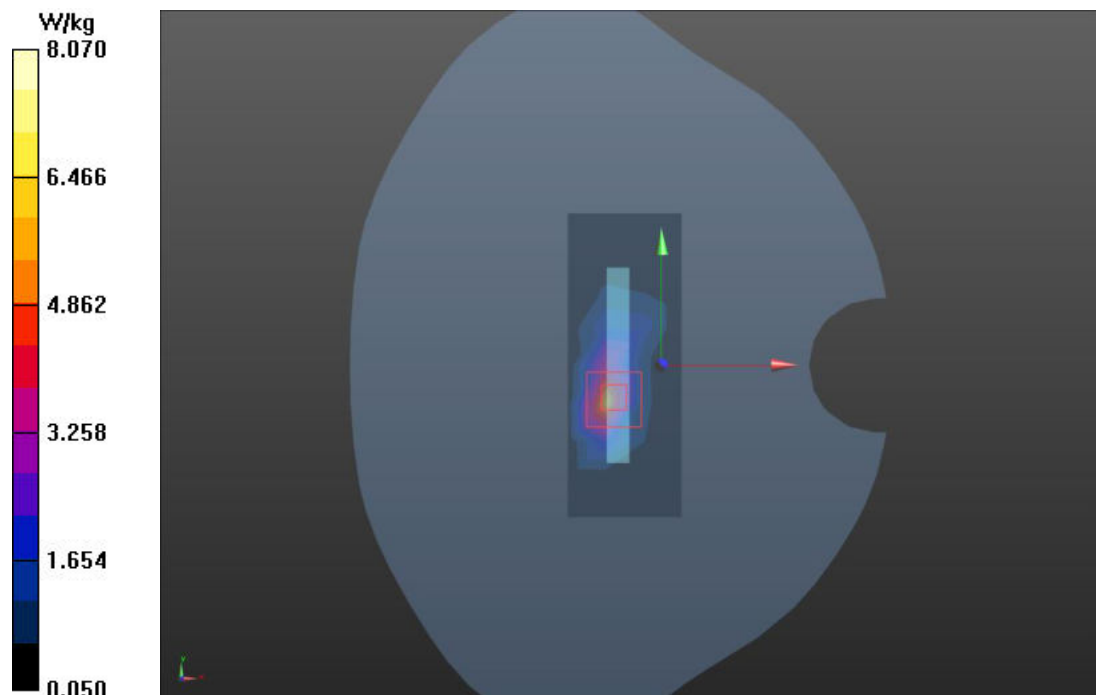
Peak SAR (extrapolated) = 10.9 W/kg

SAR(1 g) = 4.39 W/kg; SAR(10 g) = 1.72 W/kg

Smallest distance from peaks to all points 3 dB below = 11.8 mm

Ratio of SAR at M2 to SAR at M1 = 43.8%

Maximum value of SAR (measured) = 8.07 W/kg



Plot 86 802.11a U-NII-2C Top Edge High (Distance 0mm)

Date: 2024/12/14

Communication System: UID 0, 802.11a (0); Frequency: 5600 MHz; Duty Cycle: 1:1.02

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.201$ S/m; $\epsilon_r = 35.065$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7689; ConvF(5.33, 5.60, 5.70); Calibrated: 2024/6/4

Electronics: DAE4 SN1317; Calibrated: 2024/09/10

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge High/Area Scan (6x12x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 7.81 W/kg

Top Edge High/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 23.81 V/m; Power Drift = 0.154 dB

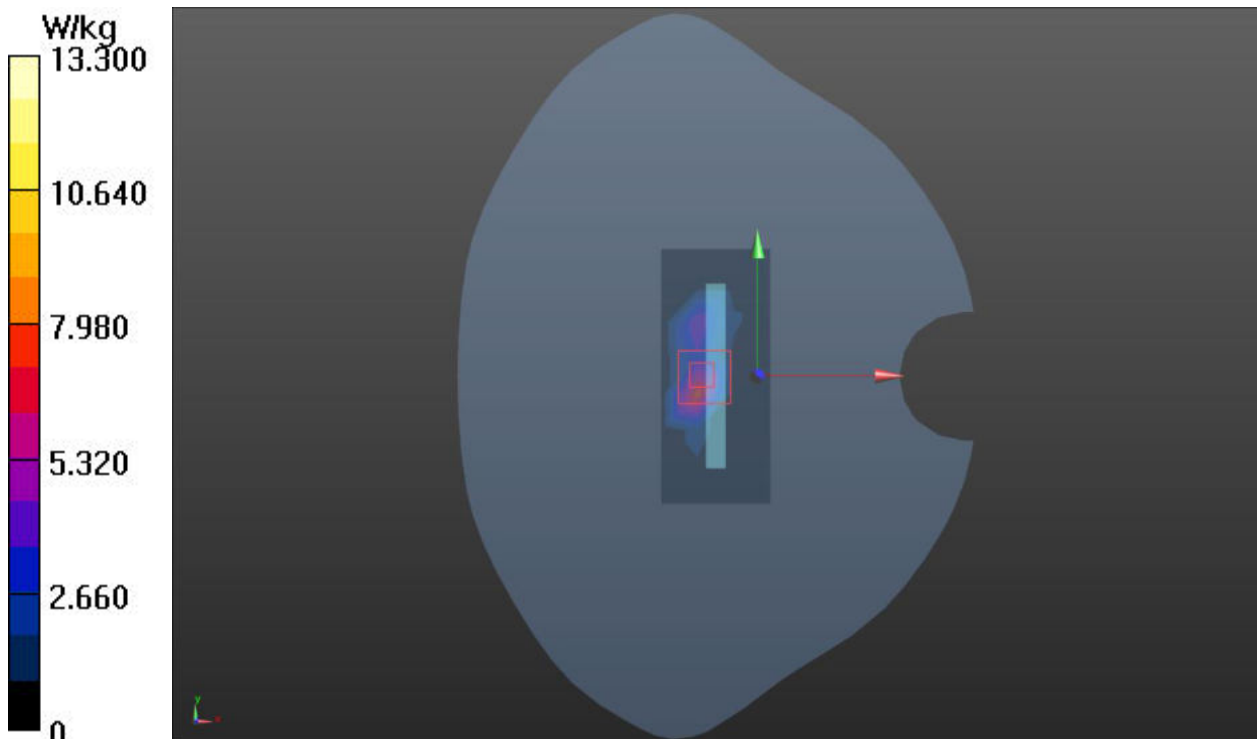
Peak SAR (extrapolated) = 26.9 W/kg

SAR(1 g) = 4.24 W/kg; SAR(10 g) = 0.976 W/kg

Smallest distance from peaks to all points 3 dB below = 13.2 mm

Ratio of SAR at M2 to SAR at M1 = 12.3%

Maximum value of SAR (measured) = 13.3 W/kg



Plot 87 NFC Back Side Low (Distance 0mm)

Date: 2023/10/19

Communication System: UID 0, CW (0); Frequency: 13.56 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 13.56$ MHz; $\sigma = 0.758$ S/m; $\epsilon_r = 56.667$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(15.21, 15.21, 15.21); Calibrated: 2023/7/20

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Low/Area Scan (8x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.130 W/kg

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

Reference Value = 0.9200 V/m; Power Drift = -0.045 dB

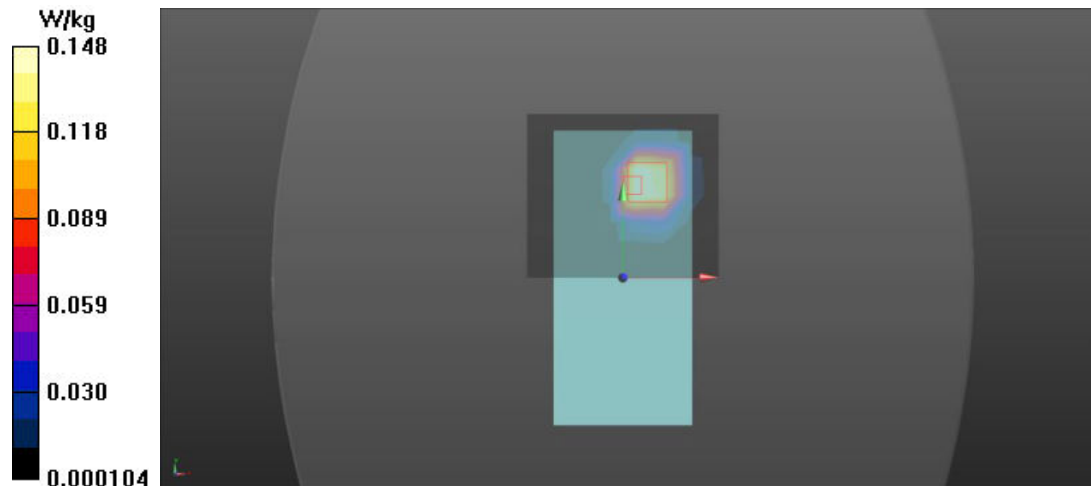
Peak SAR (extrapolated) = 0.263 W/kg

SAR(1 g) = 0.057 W/kg; SAR(10 g) = 0.023 W/kg

Smallest distance from peaks to all points 3 dB below = 8.5 mm

Ratio of SAR at M2 to SAR at M1 = 39.8%

Maximum value of SAR (measured) = 0.148 W/kg



Plot 88 WCDMA Band II Bottom Edge Middle (Distance 17mm)

Date: 2023/10/16

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.406$ S/m; $\epsilon_r = 39.087$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (4x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.982 W/kg

Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 37.21 V/m; Power Drift = -0.150 dB

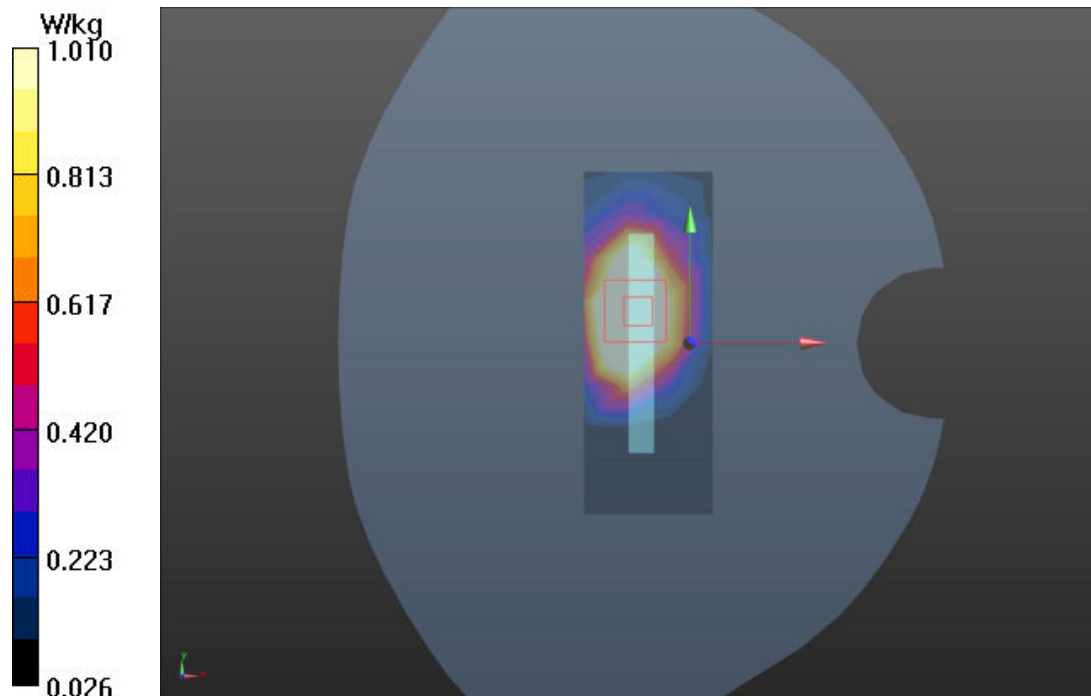
Peak SAR (extrapolated) = 2.03 W/kg

SAR(1 g) = 0.905 W/kg; SAR(10 g) = 0.521 W/kg

Smallest distance from peaks to all points 3 dB below = 11.3 mm

Ratio of SAR at M2 to SAR at M1 = 59.6%

Maximum value of SAR (measured) = 1.01 W/kg



Plot 89 LTE Band 2 50%RB Top Edge High (Distance 17mm)

Date: 2023/10/16

Communication System: UID 0, LTE (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.422$ S/m; $\epsilon_r = 38.97$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.85, 7.85, 7.85); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge High/Area Scan (4x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.02 W/kg

Top Edge High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.75 V/m; Power Drift = 0.09 dB

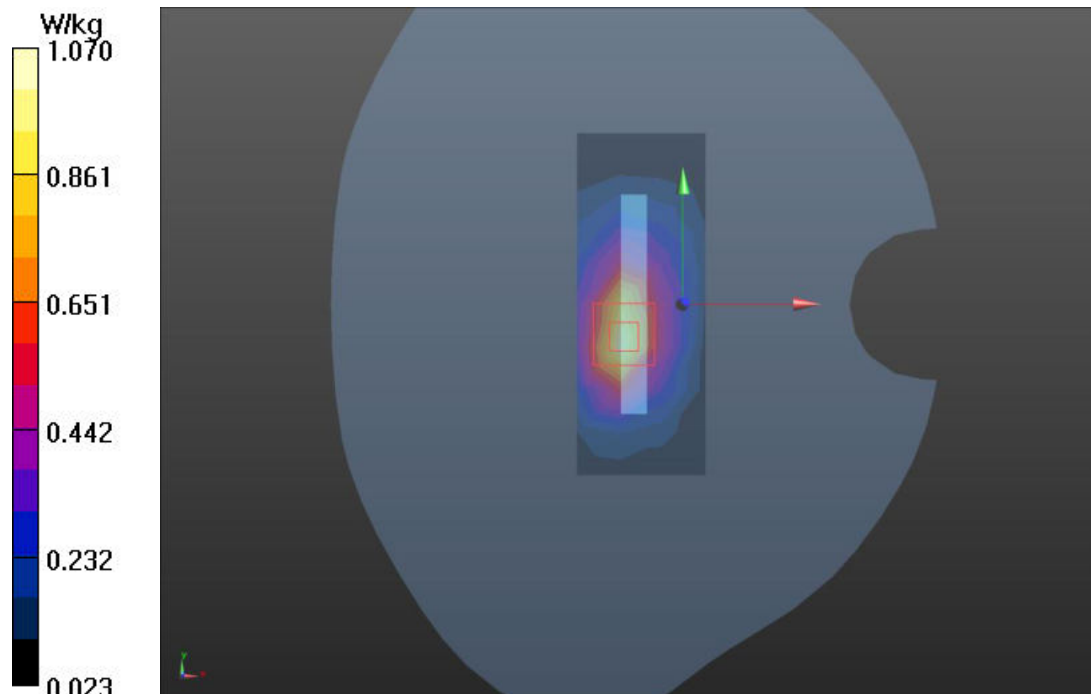
Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 0.959 W/kg; SAR(10 g) = 0.532 W/kg

Smallest distance from peaks to all points 3 dB below = 12.8 mm

Ratio of SAR at M2 to SAR at M1 = 60.5%

Maximum value of SAR (measured) = 1.07 W/kg



Plot 90 LTE Band 7 1RB Front Side Low (Distance 11mm)

Date: 2023/10/10

Communication System: UID 0, LTE (0); Frequency: 2510 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2510$ MHz; $\sigma = 1.9$ S/m; $\epsilon_r = 38.262$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(7.19, 7.19, 7.19); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Front Side Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.888 W/kg

Front Side Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.85 V/m; Power Drift = 0.024 dB

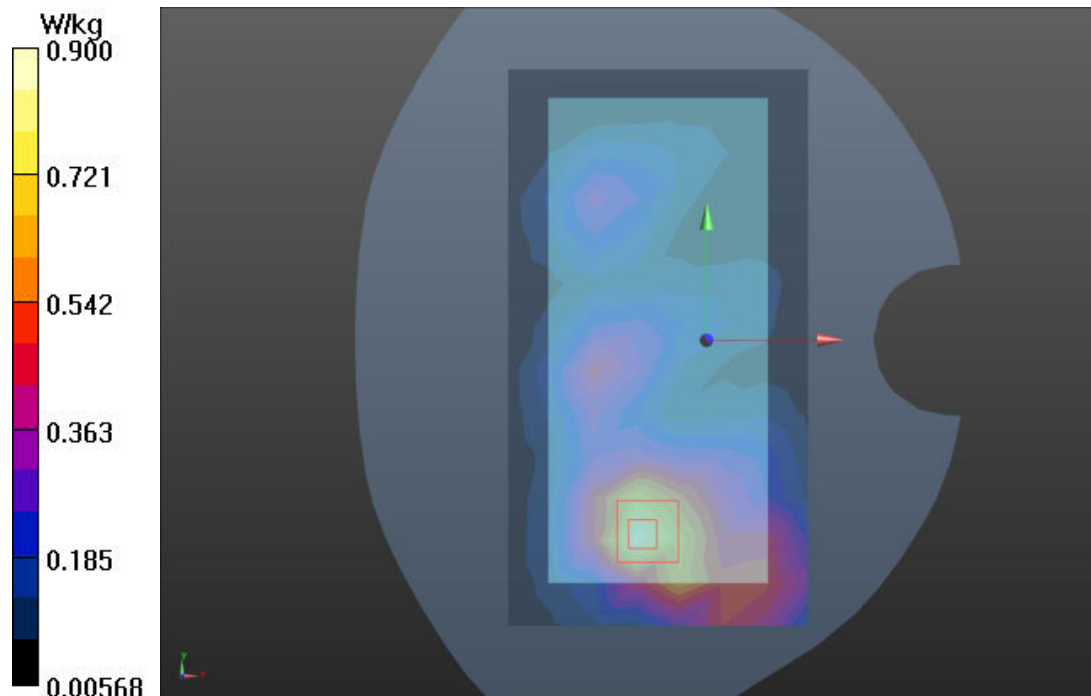
Peak SAR (extrapolated) = 1.54 W/kg

SAR(1 g) = 0.865 W/kg; SAR(10 g) = 0.460 W/kg

Smallest distance from peaks to all points 3 dB below = 15.1 mm

Ratio of SAR at M2 to SAR at M1 = 54.9%

Maximum value of SAR (measured) = 0.900 W/kg



Plot 91 LTE Band 26 1RB Front Side Middle (Distance 11mm)

Date: 2023/10/8

Communication System: UID 0, LTE (0); Frequency: 831.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 831.5$ MHz; $\sigma = 0.937$ S/m; $\epsilon_r = 41.874$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3883; ConvF(9.35, 9.35, 9.35); Calibrated: 2022/12/10

Electronics: DAE4 SN1291; Calibrated: 2023/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Front Side Middle/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.335 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.12 V/m; Power Drift = 0.038 dB

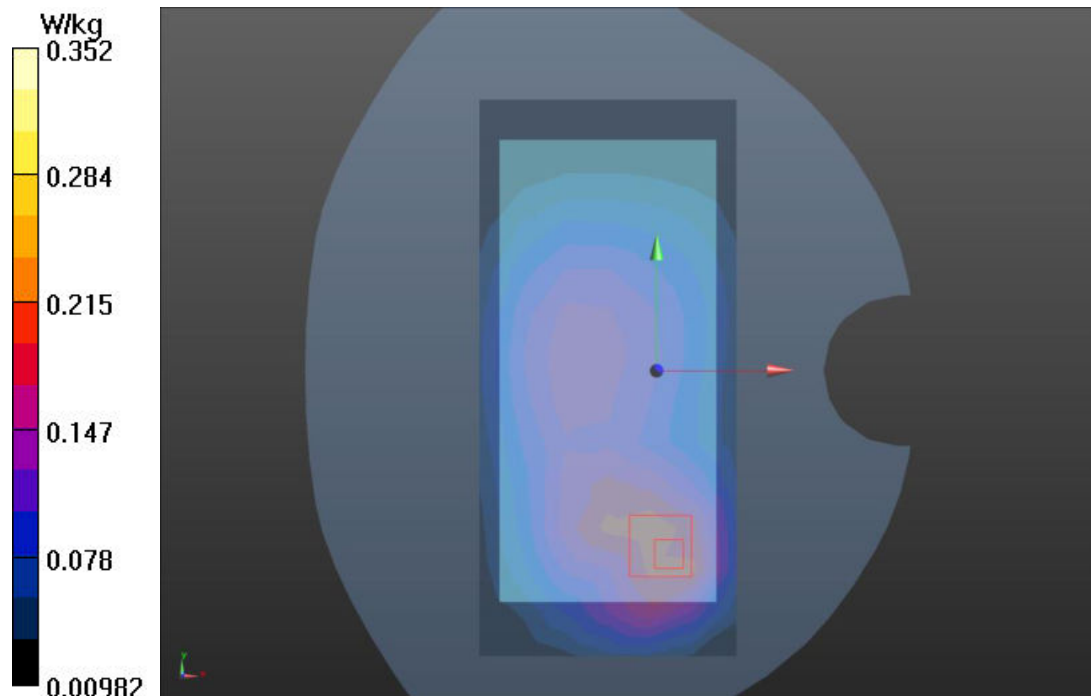
Peak SAR (extrapolated) = 0.619 W/kg

SAR(1 g) = 0.329 W/kg; SAR(10 g) = 0.207 W/kg

Smallest distance from peaks to all points 3 dB below = 19.3 mm

Ratio of SAR at M2 to SAR at M1 = 64.4%

Maximum value of SAR (measured) = 0.352 W/kg



ANNEX D: Probe Calibration Certificate (SN: 3883)



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中国认可
国际互认
校准
CALIBRATION
CNAS L0570

Client **TA(Shanghai)**Certificate No: **Z23-60185****CALIBRATION CERTIFICATE**Object **EX3DV4 - SN : 3883**

Calibration Procedure(s) **FF-Z11-004-02**
Calibration Procedures for Dosimetric E-field Probes

Calibration date: **April 10, 2023**

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(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	101919	14-Jun-22(CTTL, No.J22X04181)	Jun-23
Power sensor NRP-Z91	101547	14-Jun-22(CTTL, No.J22X04181)	Jun-23
Power sensor NRP-Z91	101548	14-Jun-22(CTTL, No.J22X04181)	Jun-23
Reference 10dBAttenuator	18N50W-10dB	19-Jan-23(CTTL, No.J23X00212)	Jan-25
Reference 20dBAttenuator	18N50W-20dB	19-Jan-23(CTTL, No.J23X00211)	Jan-25
Reference Probe EX3DV4	SN 3846	20-May-22(SPEAG, No.EX3-3846_May22)	May-23
DAE4	SN 1555	25-Aug-22(SPEAG, No.DAE4-1555_Aug22)	Aug-23
DAE4	SN 549	24-Jan-23(SPEAG, No.DAE4-549_Jan23)	Jan-24
Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
SignalGenerator MG3700A	6201052605	14-Jun-22(CTTL, No.J22X04182)	Jun-23
Network Analyzer E5071C	MY46110673	10-Jan-23(CTTL, No.J23X00104)	Jan-24

	Name	Function	Signature
Calibrated by:	Yu Zongying	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: April 15, 2023

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



In Collaboration with
s p e a g
CALIBRATION LABORATORY



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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 Φ	Φ rotation around probe axis
Polarization θ	θ rotation around an axis that is in the plane normal to probe axis (at measurement center), i $\theta=0$ 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:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- 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 $\theta=0$ ($f \leq 900\text{MHz}$ in TEM-cell; $f > 1800\text{MHz}$: waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not effect 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.
- DCP_{x,y,z}:** DCP are numerical linearization parameters assessed based on the data of power sweep (no uncertainty required). 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.
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; VR_{x,y,z}:** A,B,C 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 $f \leq 800\text{MHz}$) and inside waveguide using analytical field distributions based on power measurements for $f > 800\text{MHz}$. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty valued 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 $\pm 50\text{MHz}$ to $\pm 100\text{MHz}$.
- 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 NORM_x (no uncertainty required).

Certificate No:Z23-60185

Page 2 of 9



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DASY/EASY – Parameters of Probe: EX3DV4 – SN:3883

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc ($k=2$)
Norm($\mu V/(V/m)^2$) ^A	0.39	0.23	0.40	$\pm 10.0\%$
DCP(mV) ^B	100.1	97.7	99.3	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB $\sqrt{\mu V}$	C	D dB	VR mV	Unc ^E ($k=2$)
0	CW	X	0.0	0.0	1.0	0.00	153.1	$\pm 2.6\%$
		Y	0.0	0.0	1.0		104.6	
		Z	0.0	0.0	1.0		153.3	

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%.

^A The uncertainties of Norm X, Y, Z do not affect the E^2 -field uncertainty inside TSL (see Page 4).

^B Numerical linearization parameter: uncertainty not required.

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



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DASY/EASY – Parameters of Probe: EX3DV4 – SN:3883

Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz] ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unct. (k=2)
750	41.9	0.89	9.70	9.70	9.70	0.20	1.12	±12.7%
835	41.5	0.90	9.35	9.35	9.35	0.12	1.41	±12.7%
1750	40.1	1.37	8.10	8.10	8.10	0.22	1.15	±12.7%
1900	40.0	1.40	7.85	7.85	7.85	0.22	1.15	±12.7%
2100	39.8	1.49	7.92	7.92	7.92	0.24	1.09	±12.7%
2300	39.5	1.67	7.71	7.71	7.71	0.53	0.70	±12.7%
2450	39.2	1.80	7.46	7.46	7.46	0.54	0.70	±12.7%
2600	39.0	1.96	7.19	7.19	7.19	0.42	0.81	±12.7%
3300	38.2	2.71	6.94	6.94	6.94	0.30	0.98	±13.9%
3500	37.9	2.91	6.74	6.74	6.74	0.27	1.06	±13.9%
3700	37.7	3.12	6.58	6.58	6.58	0.26	1.16	±13.9%
3900	37.5	3.32	6.45	6.45	6.45	0.30	1.45	±13.9%
4100	37.2	3.53	6.34	6.34	6.34	0.30	1.40	±13.9%
4400	36.9	3.84	6.15	6.15	6.15	0.30	1.48	±13.9%
4600	36.7	4.04	6.06	6.06	6.06	0.30	1.55	±13.9%
4800	36.4	4.25	6.02	6.02	6.02	0.40	1.38	±13.9%
4950	36.3	4.40	5.80	5.80	5.80	0.40	1.38	±13.9%
5250	35.9	4.71	5.19	5.19	5.19	0.45	1.40	±13.9%
5600	35.5	5.07	4.60	4.60	4.60	0.45	1.40	±13.9%
5750	35.4	5.22	4.71	4.71	4.71	0.45	1.40	±13.9%

^C Frequency validity above 300 MHz of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of 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. Above 5 GHz frequency validity can be extended to ± 110 MHz.

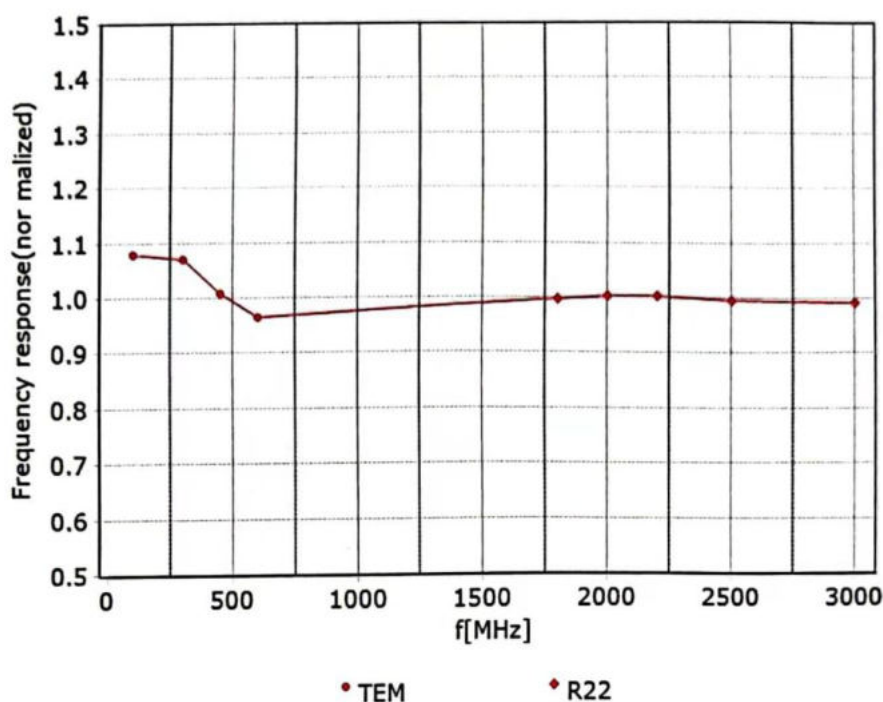
^F At frequency up to 6 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

^G 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 the frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

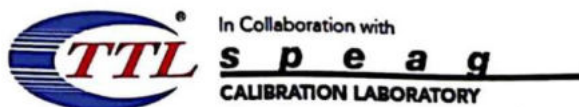


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Frequency Response of E-Field (TEM-Cell: ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field: $\pm 7.4\%$ ($k=2$)

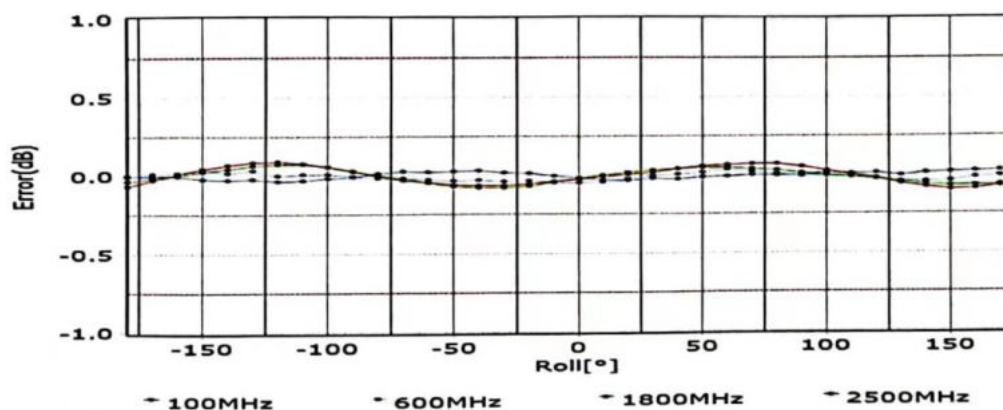
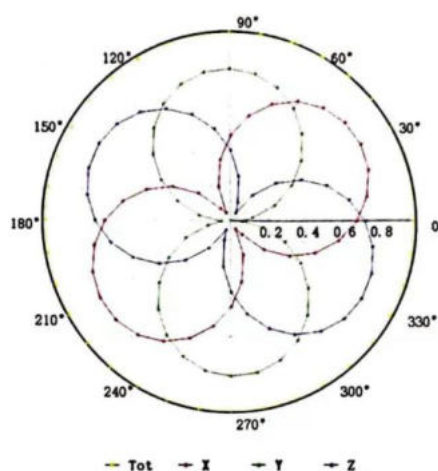
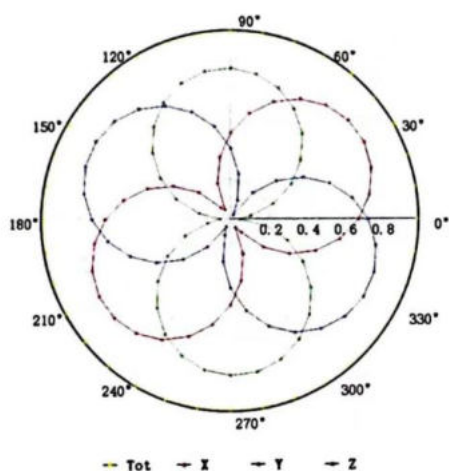


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Receiving Pattern (Φ), $\theta=0^\circ$

f=600 MHz, TEM

f=1800 MHz, R22

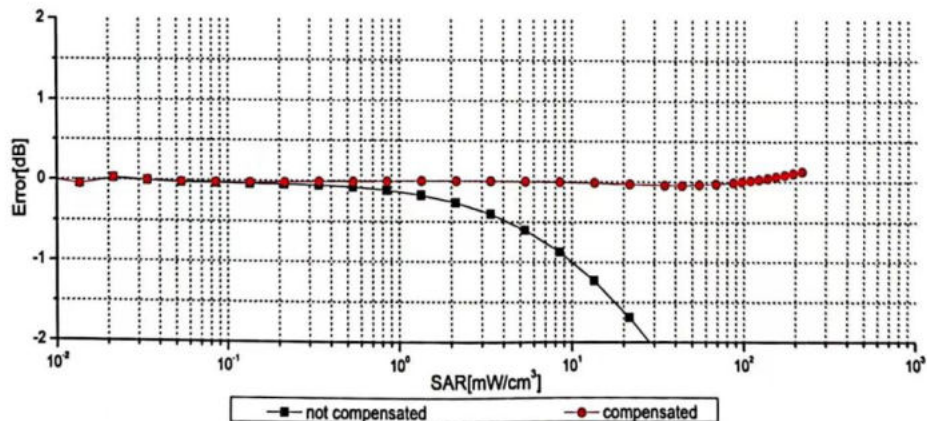
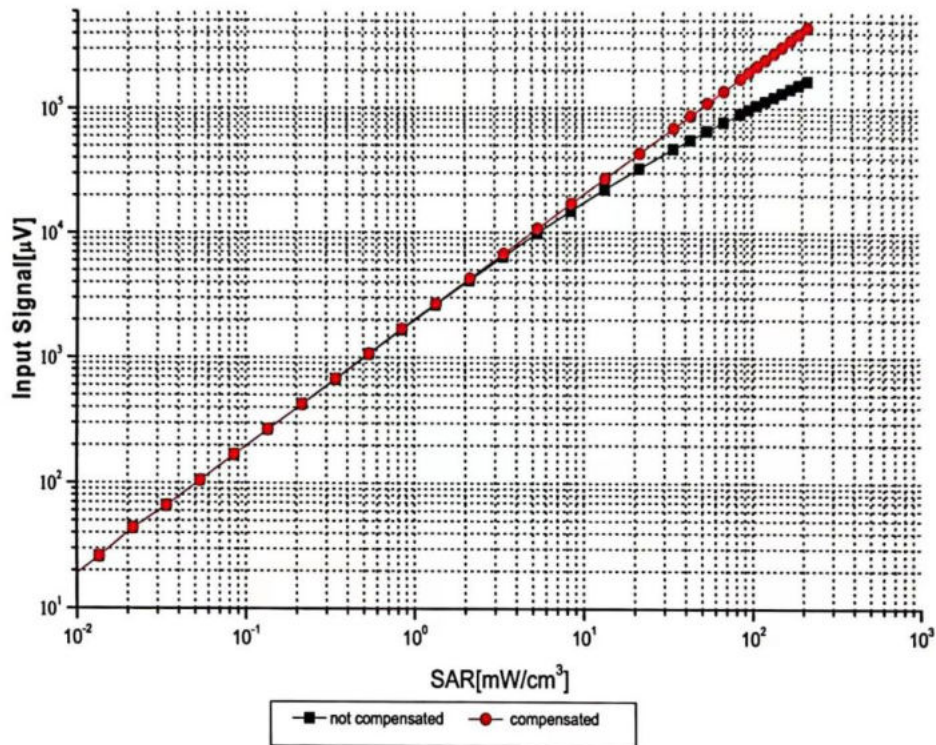


Uncertainty of Axial Isotropy Assessment: $\pm 1.2\%$ ($k=2$)



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Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell, $f = 900 \text{ MHz}$)



Uncertainty of Linearity Assessment: $\pm 0.9\%$ ($k=2$)

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Page 7 of 9



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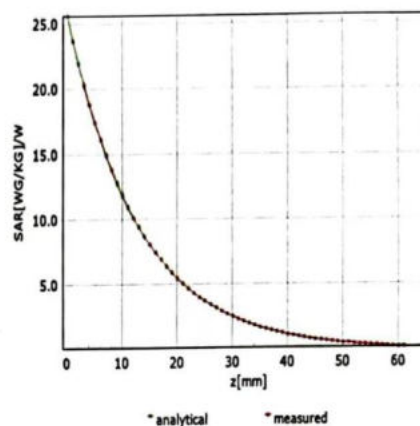
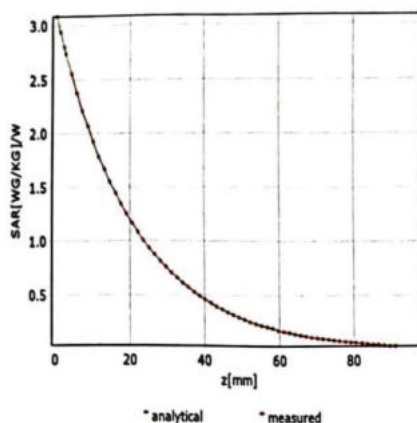


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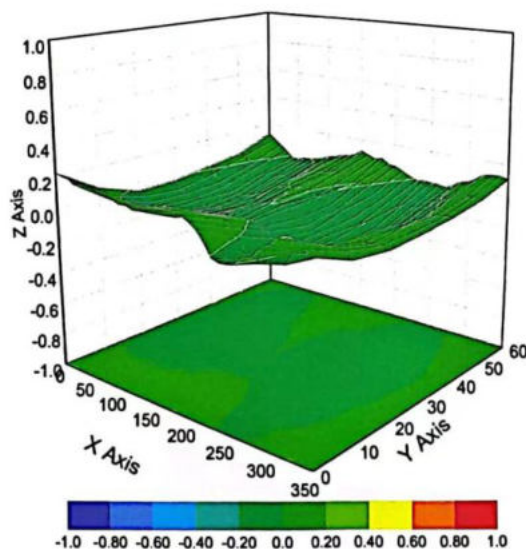
Conversion Factor Assessment

$f=750$ MHz, WGLS R9(H_convF)

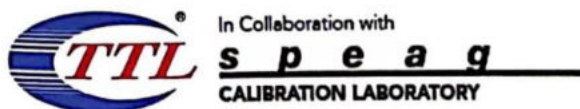
$f=1750$ MHz, WGLS R22(H_convF)



Deviation from Isotropy in Liquid



Uncertainty of Spherical Isotropy Assessment: $\pm 3.2\%$ ($k=2$)



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DASY/EASY – Parameters of Probe: EX3DV4 – SN:3883

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	132.3
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	9mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm

ANNEX E: Probe Calibration Certificate (SN: 3677)

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
TA
Shanghai City

Certificate No. **EX-3677_Jul23**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3677**

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 20, 2023**

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 $(22 \pm 3)^\circ\text{C}$ 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	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
OCP DAK-3.5 (weighted)	SN: 1249	20-Oct-22 (OCP-DAK3.5-1249_Oct22)	Oct-23
OCP DAK-12	SN: 1016	20-Oct-22 (OCP-DAK12-1016_Oct22)	Oct-23
Reference 20 dB Attenuator	SN: CC2552 (20x)	30-Mar-23 (No. 217-03809)	Mar-24
DAE4	SN: 660	16-Mar-23 (No. DAE4-660_Mar23)	Mar-24
Reference Probe ES3DV2	SN: 3013	06-Jan-23 (No. ES3-3013_Jan23)	Jan-24

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

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

Issued: July 20, 2023

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

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

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 φ	φ rotation around probe axis
Polarization θ	θ 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.
- DCP_{x,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
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; D_{x,y,z}; VR_{x,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 ± 50 MHz to ± 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 NORM_x (no uncertainty required).

EX3DV4 - SN:3677

July 20, 2023

Parameters of Probe: EX3DV4 - SN:3677

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k = 2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.40	0.45	0.39	±10.1%
DCP (mV) ^B	101.0	102.0	102.5	±4.7%

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Max Unc ^E k = 2
0	CW	X	0.00	0.00	1.00	0.00	125.6	±1.9%	±4.7%
		Y	0.00	0.00	1.00		121.0		
		Z	0.00	0.00	1.00		122.5		
10352	Pulse Waveform (200Hz, 10%)	X	20.00	89.56	19.55	10.00	60.0	±2.7%	±9.6%
		Y	20.00	88.90	19.41		60.0		
		Z	20.00	87.18	18.16		60.0		
10353	Pulse Waveform (200Hz, 20%)	X	20.00	91.43	19.38	6.99	80.0	±1.5%	±9.6%
		Y	20.00	89.58	18.35		80.0		
		Z	20.00	88.39	17.59		80.0		
10354	Pulse Waveform (200Hz, 40%)	X	20.00	95.46	19.97	3.98	95.0	±1.3%	±9.6%
		Y	20.00	89.26	16.58		95.0		
		Z	20.00	91.18	17.61		95.0		
10355	Pulse Waveform (200Hz, 60%)	X	20.00	99.05	20.33	2.22	120.0	±1.2%	±9.6%
		Y	20.00	83.90	12.80		120.0		
		Z	20.00	93.78	17.60		120.0		
10387	QPSK Waveform, 1 MHz	X	1.51	66.00	14.40	1.00	150.0	±3.5%	±9.6%
		Y	1.29	64.03	13.00		150.0		
		Z	1.42	66.25	14.23		150.0		
10388	QPSK Waveform, 10 MHz	X	2.03	67.08	15.21	0.00	150.0	±1.0%	±9.6%
		Y	1.77	65.25	14.04		150.0		
		Z	1.91	66.70	15.02		150.0		
10396	64-QAM Waveform, 100 kHz	X	2.64	69.26	18.29	3.01	150.0	±1.1%	±9.6%
		Y	2.33	66.49	16.64		150.0		
		Z	2.02	65.39	16.32		150.0		
10399	64-QAM Waveform, 40 MHz	X	3.37	66.69	15.51	0.00	150.0	±2.6%	±9.6%
		Y	3.33	66.54	15.28		150.0		
		Z	3.28	66.50	15.39		150.0		
10414	WLAN CCDF, 64-QAM, 40 MHz	X	4.70	65.49	15.43	0.00	150.0	±4.5%	±9.6%
		Y	4.69	65.54	15.36		150.0		
		Z	4.55	65.38	15.33		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%.

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

^B Linearization parameter uncertainty for maximum specified field strength.

^E 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:3677

July 20, 2023

Parameters of Probe: EX3DV4 - SN:3677

Sensor Model Parameters

	C1 fF	C2 fF	α V^{-1}	T1 $ms V^{-2}$	T2 $ms V^{-1}$	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
x	36.2	270.59	35.62	12.53	0.00	5.08	0.93	0.23	1.01
y	35.7	269.30	35.97	8.51	0.37	5.07	0.00	0.44	1.01
z	30.7	227.00	34.93	10.81	0.00	5.06	0.00	0.25	1.00

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	-66.7°
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:3677

July 20, 2023

Parameters of Probe: EX3DV4 - SN:3677

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k = 2)
13	55.0	0.75	15.21	15.21	15.21	0.00	1.25	±13.3%
750	41.9	0.89	9.03	9.80	9.03	0.45	1.27	±12.0%
835	41.5	0.90	8.66	9.52	8.51	0.43	1.27	±12.0%
1750	40.1	1.37	7.80	8.35	7.88	0.29	1.27	±12.0%
1900	40.0	1.40	7.70	8.25	7.79	0.31	1.27	±12.0%
2000	40.0	1.40	7.55	8.11	7.69	0.32	1.27	±12.0%
2300	39.5	1.67	7.45	8.00	7.60	0.33	1.27	±12.0%
2450	39.2	1.80	7.18	7.67	7.29	0.32	1.27	±12.0%
2600	39.0	1.96	7.10	7.59	7.21	0.32	1.27	±12.0%
3300	38.2	2.71	6.95	7.41	7.04	0.35	1.27	±14.0%
3500	37.9	2.91	6.87	7.33	6.99	0.34	1.27	±14.0%
3700	37.7	3.12	6.80	7.27	6.93	0.33	1.27	±14.0%
3900	37.5	3.32	6.85	7.30	6.98	0.33	1.27	±14.0%
4100	37.2	3.53	6.65	7.07	6.82	0.34	1.27	±14.0%
4400	36.9	3.84	6.55	6.97	6.67	0.34	1.27	±14.0%
4600	36.7	4.04	6.50	6.92	6.63	0.35	1.27	±14.0%
4800	36.4	4.25	6.40	6.81	6.55	0.39	1.27	±14.0%
4950	36.3	4.40	6.00	6.39	6.14	0.44	1.36	±14.0%
5250	35.9	4.71	5.65	5.99	5.81	0.43	1.53	±14.0%
5600	35.5	5.07	4.92	5.23	5.04	0.41	1.75	±14.0%
5750	35.4	5.22	5.14	5.41	5.20	0.39	1.84	±14.0%

^C 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.

^F The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ and σ by less than ±5% from the target values (typically better than ±3%) and are valid for TSL with deviations of up to ±10%. If TSL with deviations from the target of less than ±5% are used, the calibration uncertainties are 11.1% for 0.7 - 3 GHz and 13.1% for 3 - 6 GHz.

^G 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.

EX3DV4 - SN:3677

July 20, 2023

Parameters of Probe: EX3DV4 - SN:3677

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k = 2)
6500	34.5	6.07	5.51	5.85	5.61	0.20	2.00	±18.6%

^C 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.

^F The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ and σ by less than ±10% from the target values (typically better than ±6%) and are valid for TSL with deviations of up to ±10%.

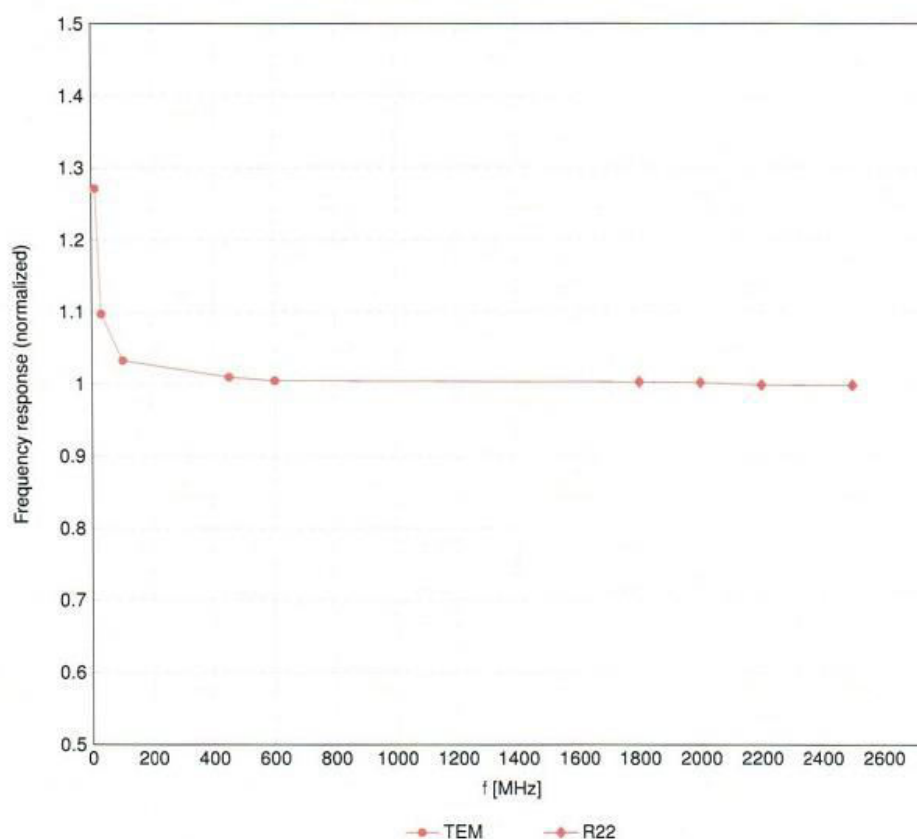
^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz; below ±2% for frequencies between 3–6 GHz; and below ±4% for frequencies between 6–10 GHz at any distance larger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

EX3DV4 - SN:3677

July 20, 2023

Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide:R22)

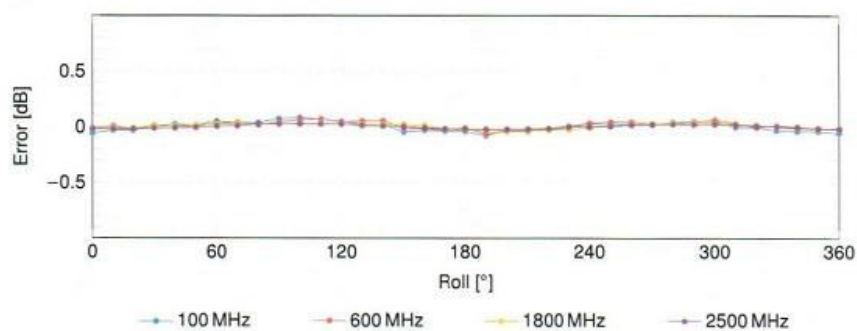
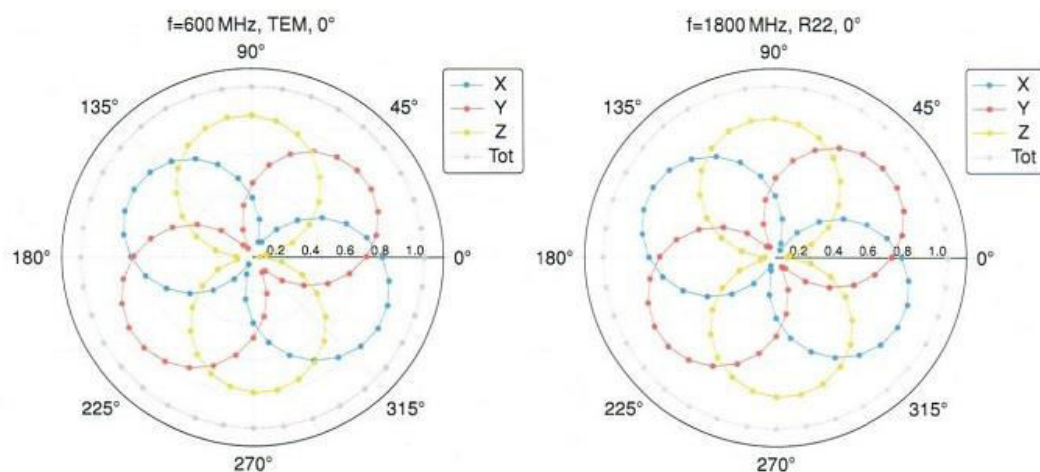


Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

EX3DV4 - SN:3677

July 20, 2023

Receiving Pattern (ϕ), $\vartheta = 0^\circ$



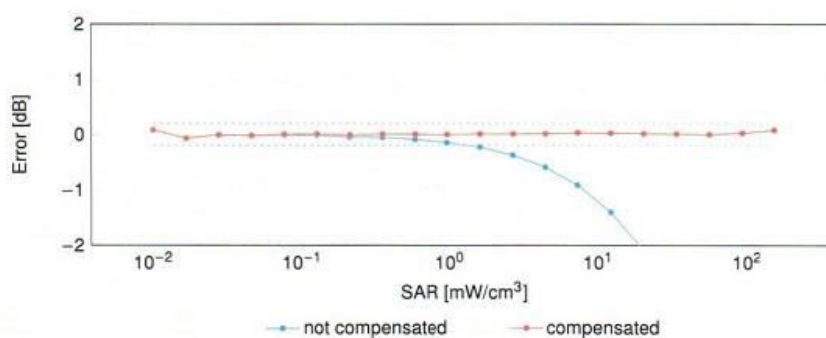
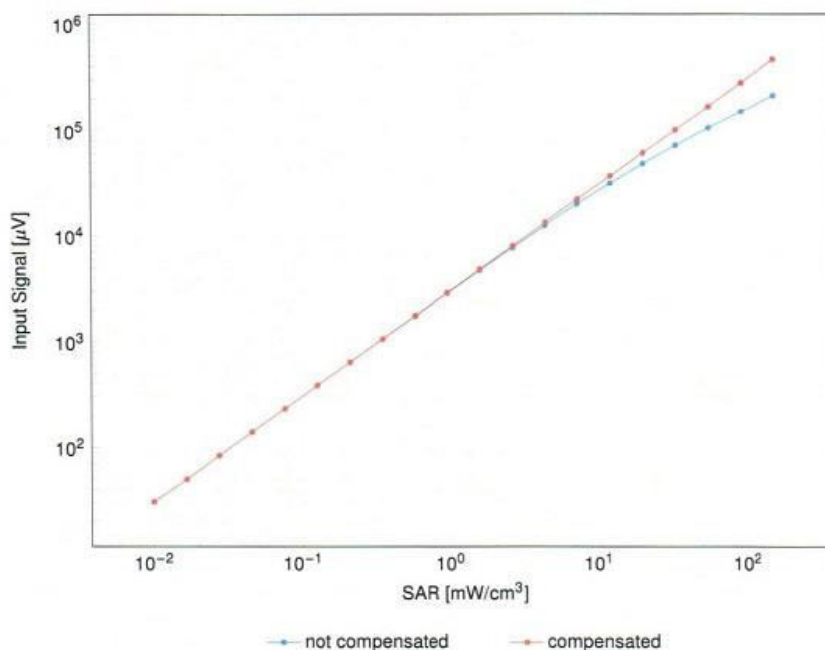
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

EX3DV4 - SN:3677

July 20, 2023

Dynamic Range $f(\text{SAR}_{\text{head}})$

(TEM cell, $f_{\text{eval}} = 1900\text{MHz}$)

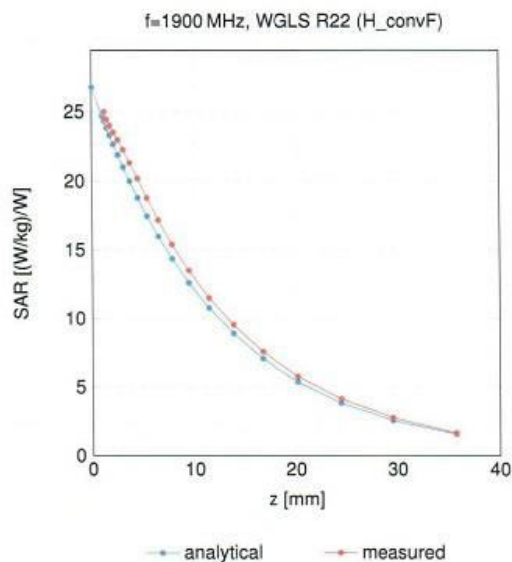


Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

EX3DV4 - SN:3677

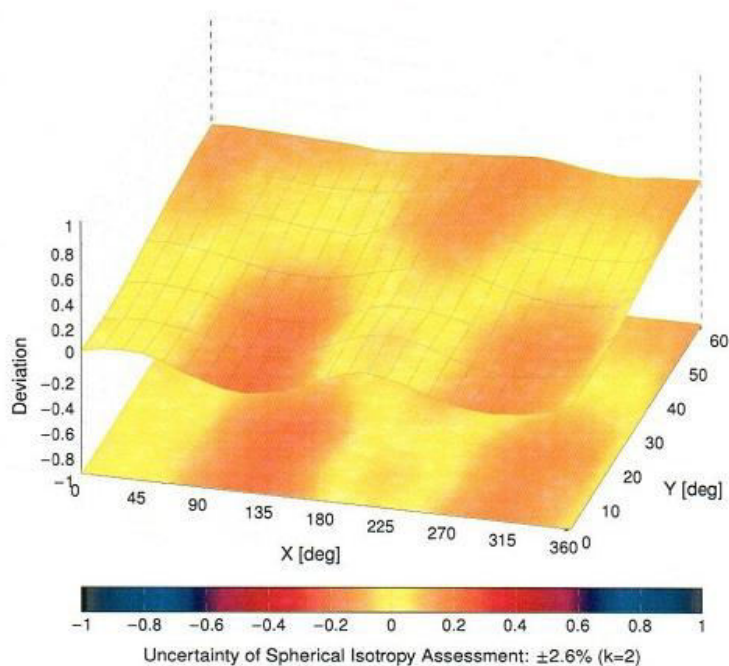
July 20, 2023

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, θ), f = 900 MHz



EX3DV4 - SN:3677

July 20, 2023

Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E 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, 2 Mbps)	WLAN	2.12	±9.6
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	±9.6
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	±9.6
10062	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	±9.6
10063	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	±9.6
10064	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	±9.6
10065	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	±9.6
10066	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	±9.6
10067	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	±9.6
10068	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	±9.6
10069	CAD	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

Certificate No: EX-3677_Jul23

Page 11 of 22