

## ANNEX B: System Check Results

### Plot1 System Performance Check at 750 MHz Head TSL

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3

Date: 4/15/2019

Communication System: CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.88 \text{ S/m}$ ;  $\epsilon_r = 42.3$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.40, 9.40, 9.40); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=15mm, Pin=250mW/Area Scan (41x121x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.29 W/kg

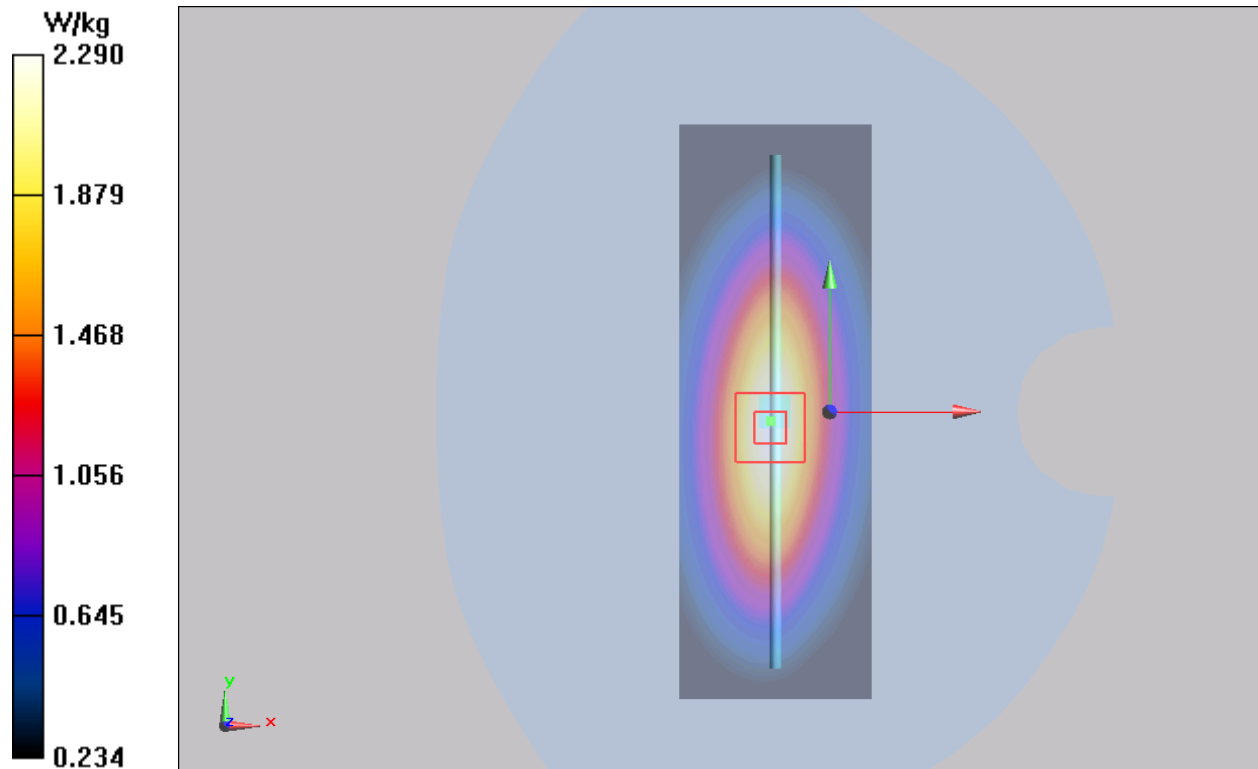
**d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 50.653 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 3.16 W/kg

**SAR(1 g) = 2.13 W/kg; SAR(10 g) = 1.41 W/kg**

Maximum value of SAR (measured) = 2.29 W/kg



## Plot2 System Performance Check at 750 MHz Head TSL

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3

Date: 4/23/2019

Communication System: CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.87$  S/m;  $\epsilon_r = 42.0$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.40, 9.40, 9.40); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=15mm, Pin=250mW/Area Scan (41x121x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.31 W/kg

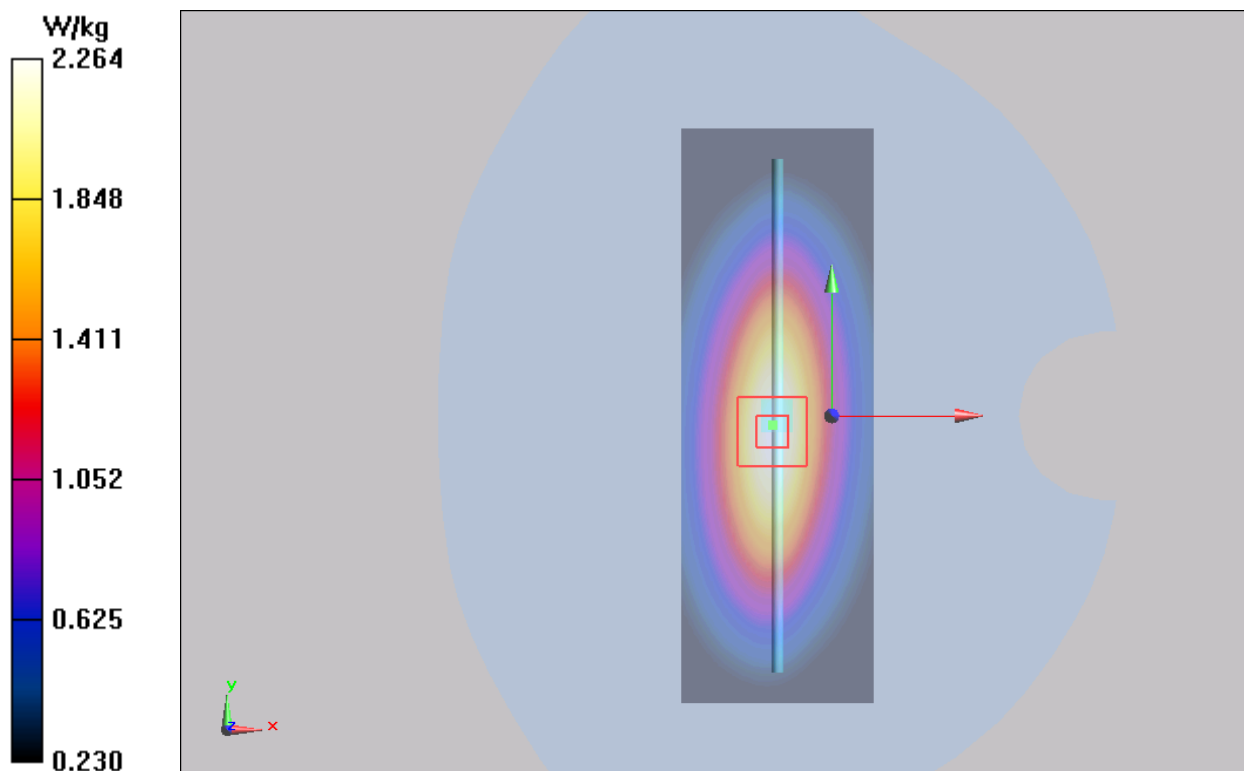
**d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 50.557 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 3.14 W/kg

**SAR(1 g) = 2.10 W/kg; SAR(10 g) = 1.37 W/kg**

Maximum value of SAR (measured) = 2.264 W/kg



**Plot 3 System Performance Check at 750 MHz Body TSL**

**DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3**

Date: 4/15/2019

Communication System: CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.95 \text{ S/m}$ ;  $\epsilon_r = 56.9$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.79, 9.79, 9.79); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=15mm, Pin=250mW/Area Scan (41x121x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.36 W/kg

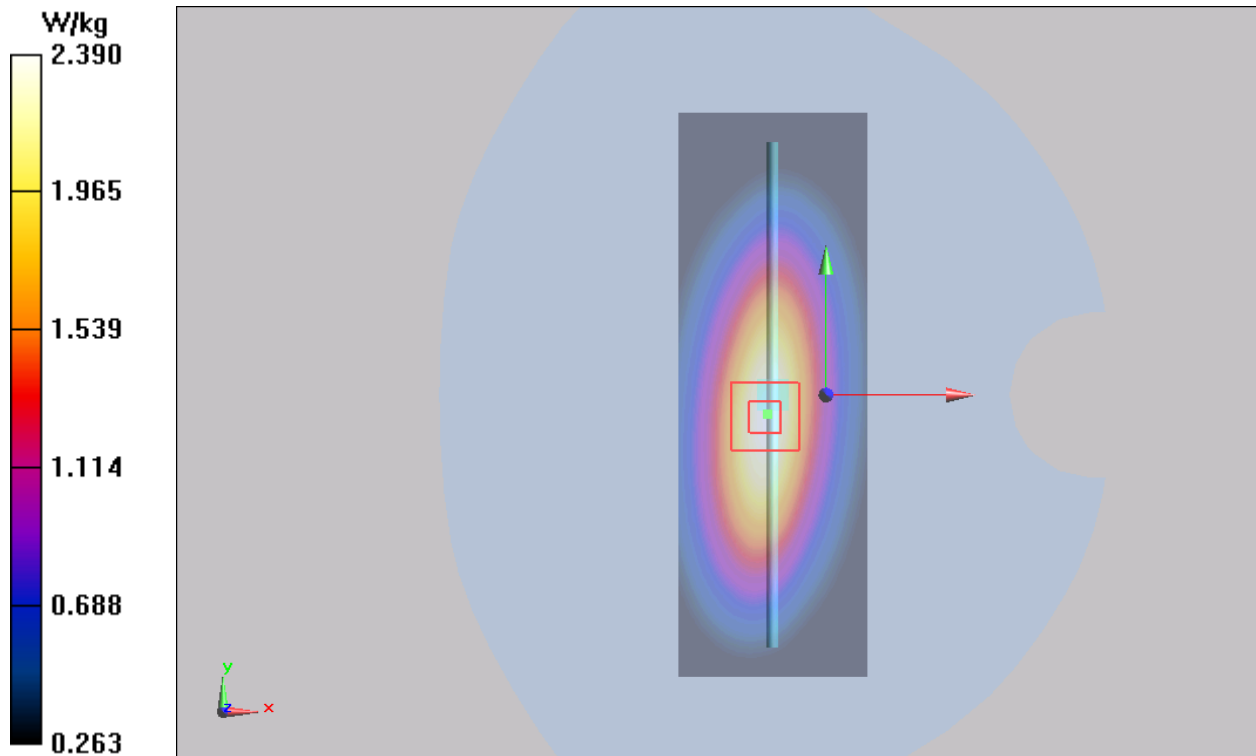
**d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 48.998 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 3.24 W/kg

**SAR(1 g) = 2.22 W/kg; SAR(10 g) = 1.49 W/kg**

Maximum value of SAR (measured) = 2.39 W/kg



**Plot 4 System Performance Check at 750 MHz Body TSL**

**DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3**

Date: 4/23/2019

Communication System: CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.96 \text{ S/m}$ ;  $\epsilon_r = 54.5$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.79, 9.79, 9.79); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=15mm, Pin=250mW/Area Scan (41x121x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.34 W/kg

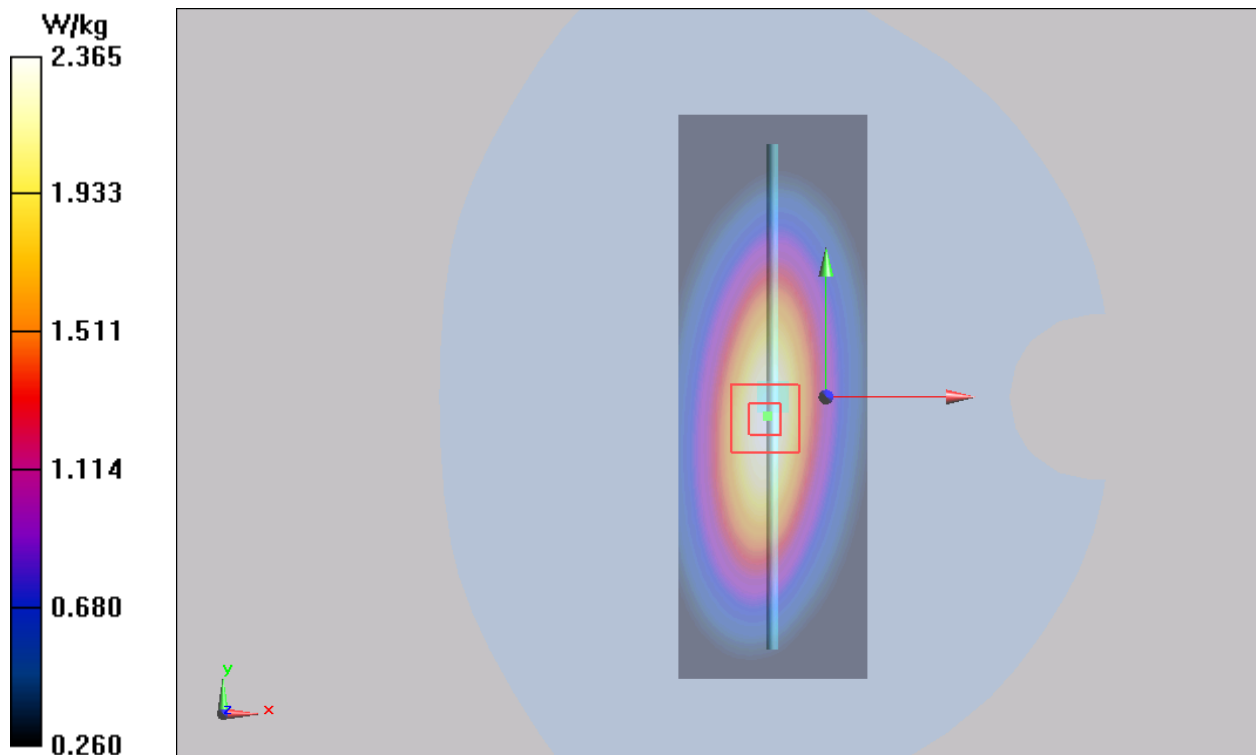
**d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 48.971 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 3.24 W/kg

**SAR(1 g) = 2.17 W/kg; SAR(10 g) = 1.46 W/kg**

Maximum value of SAR (measured) = 2.365 W/kg



**Plot5 System Performance Check at 835 MHz Head TSL**

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2**

Date: 4/20/2019

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

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.88 \text{ S/m}$ ;  $\epsilon_r = 41.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.10, 9.10, 9.10); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=15mm, Pin=250mW/Area Scan (41x121x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.64 mW/g

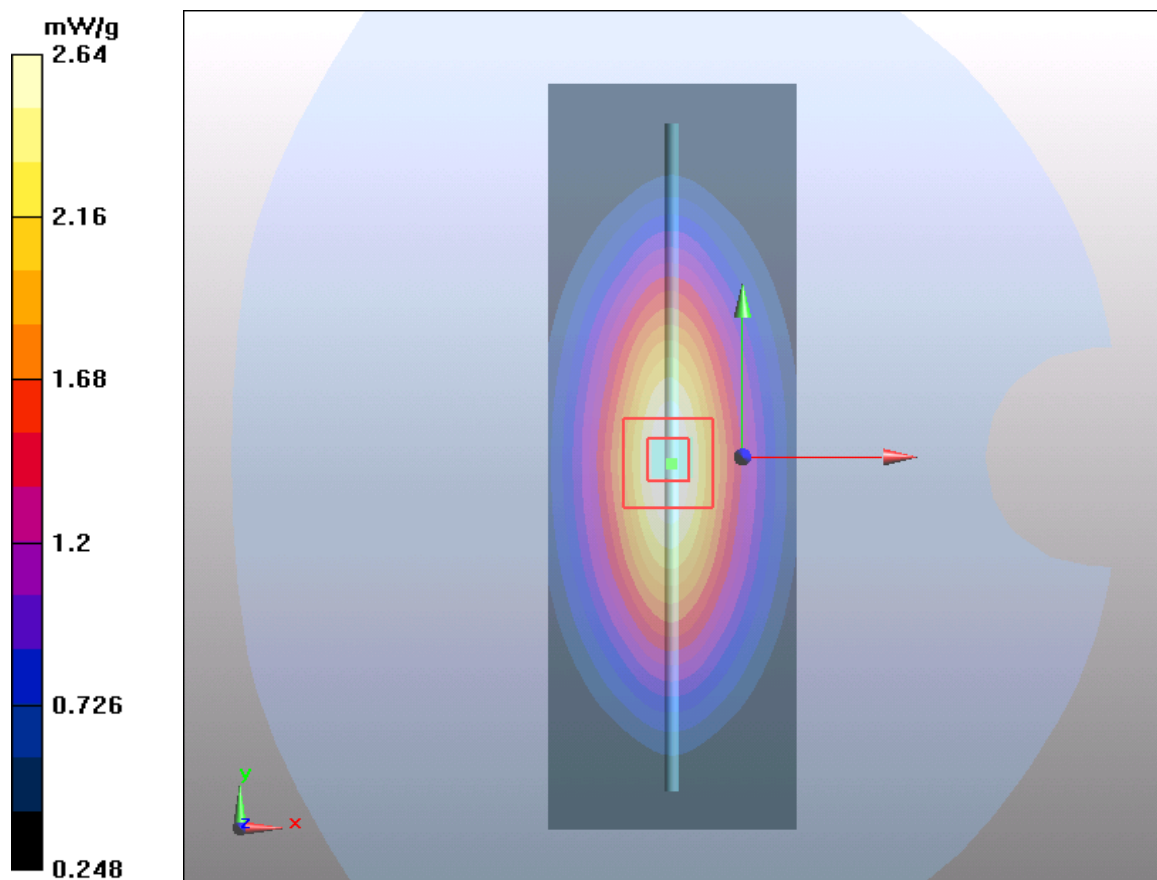
**d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 54.4 V/m; Power Drift = -0.076 dB

Peak SAR (extrapolated) = 3.67 W/kg

**SAR(1 g) = 2.44 mW/g; SAR(10 g) = 1.6 mW/g**

Maximum value of SAR (measured) = 2.64 mW/g



**Plot6 System Performance Check at 835 MHz Head TSL**

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2**

Date: 4/27/2019

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

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.87 \text{ S/m}$ ;  $\epsilon_r = 41.3$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.10, 9.10, 9.10); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=15mm, Pin=250mW/Area Scan (41x121x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.59 mW/g

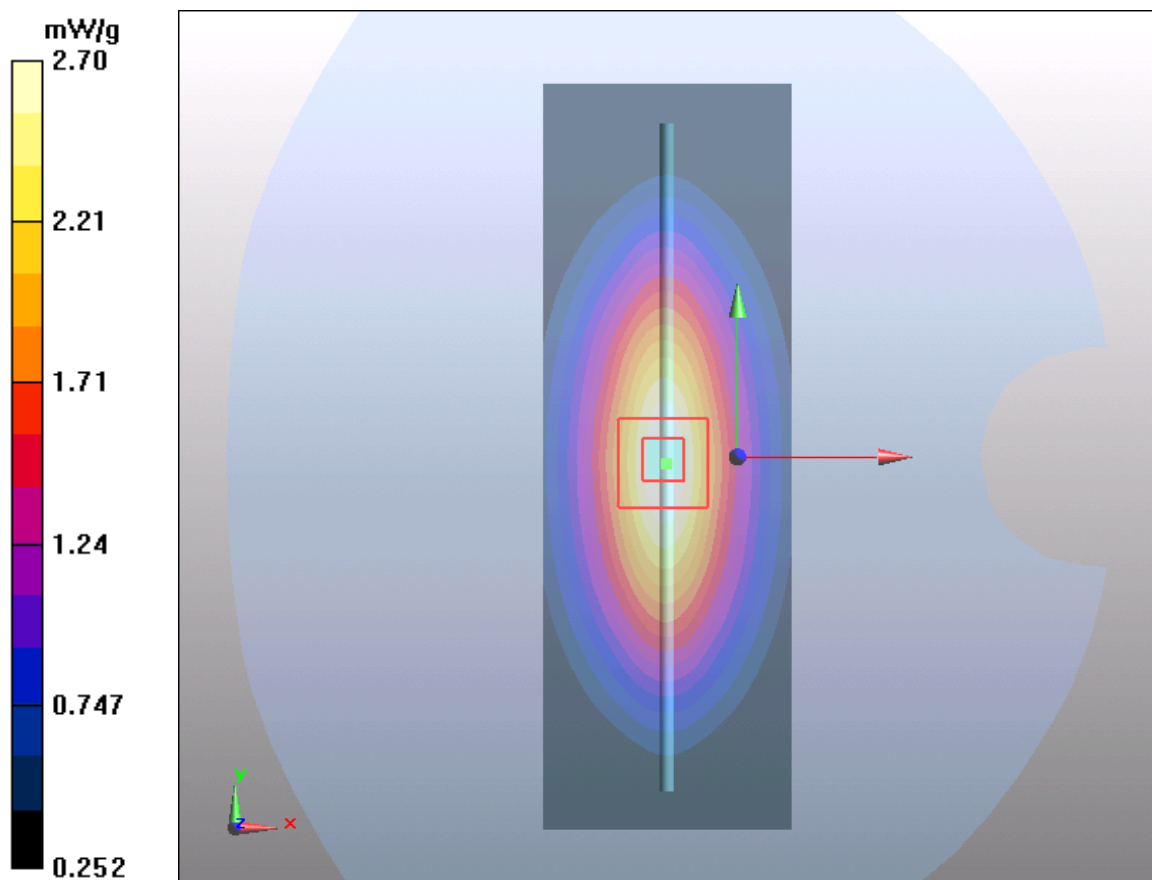
**d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 54.3 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 3.67 W/kg

**SAR(1 g) = 2.46 mW/g; SAR(10 g) = 1.65 mW/g**

Maximum value of SAR (measured) = 2.70 mW/g



**Plot7 System Performance Check at 835 MHz Body TSL**

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2**

Date: 4/21/2019

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

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.96 \text{ S/m}$ ;  $\epsilon_r = 54.2$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=15mm, Pin=250mW/Area Scan (41x121x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.58 mW/g

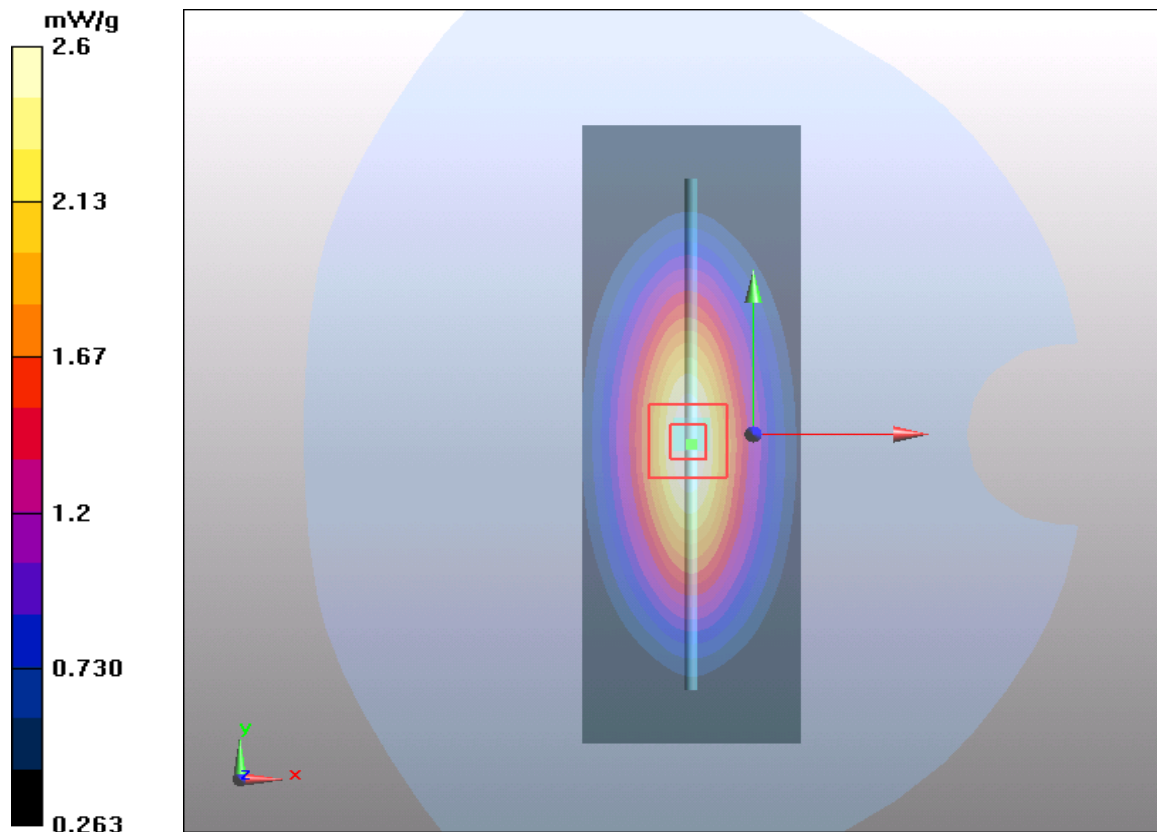
**d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 51.9 V/m; Power Drift = -0.058 dB

Peak SAR (extrapolated) = 3.5 W/kg

**SAR(1 g) = 2.41 mW/g; SAR(10 g) = 1.6 mW/g**

Maximum value of SAR (measured) = 2.6 mW/g



**Plot8 System Performance Check at 835 MHz Body TSL**

**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2**

Date: 4/24/2019

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

Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.95 \text{ S/m}$ ;  $\epsilon_r = 54.6$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=15mm, Pin=250mW/Area Scan (41x121x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.58 mW/g

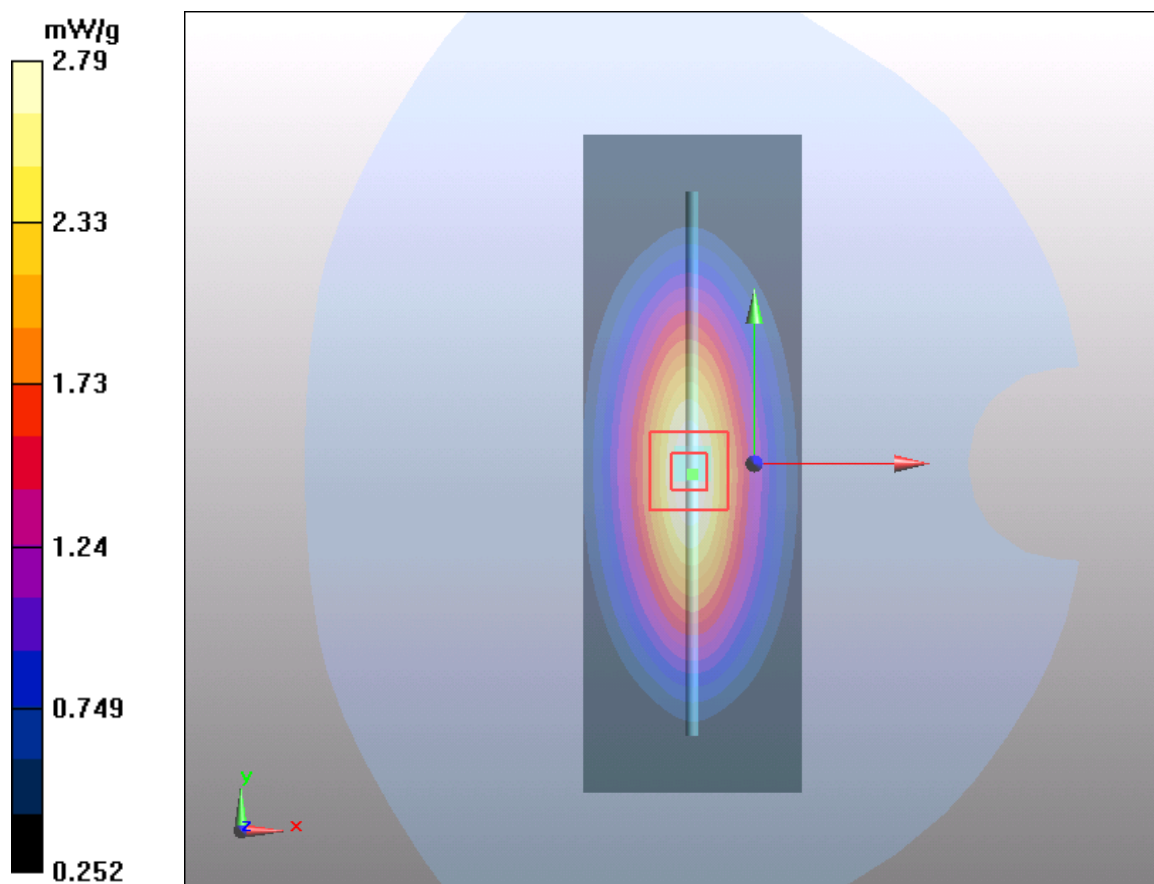
**d=15mm, Pin=250mW/Zoom Scan(5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 51.9 V/m; Power Drift = -0.058 dB

Peak SAR (extrapolated) = 3.5 W/kg

**SAR(1 g) = 2.42 mW/g; SAR(10 g) = 1.63 mW/g**

Maximum value of SAR (measured) = 2.79 mW/g





**Plot9 System Performance Check at 1750 MHz Head TSL**

**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2**

Date: 4/17/2019

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

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.34$  S/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.19, 8.19, 8.19); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 9.78 mW/g

**d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm,

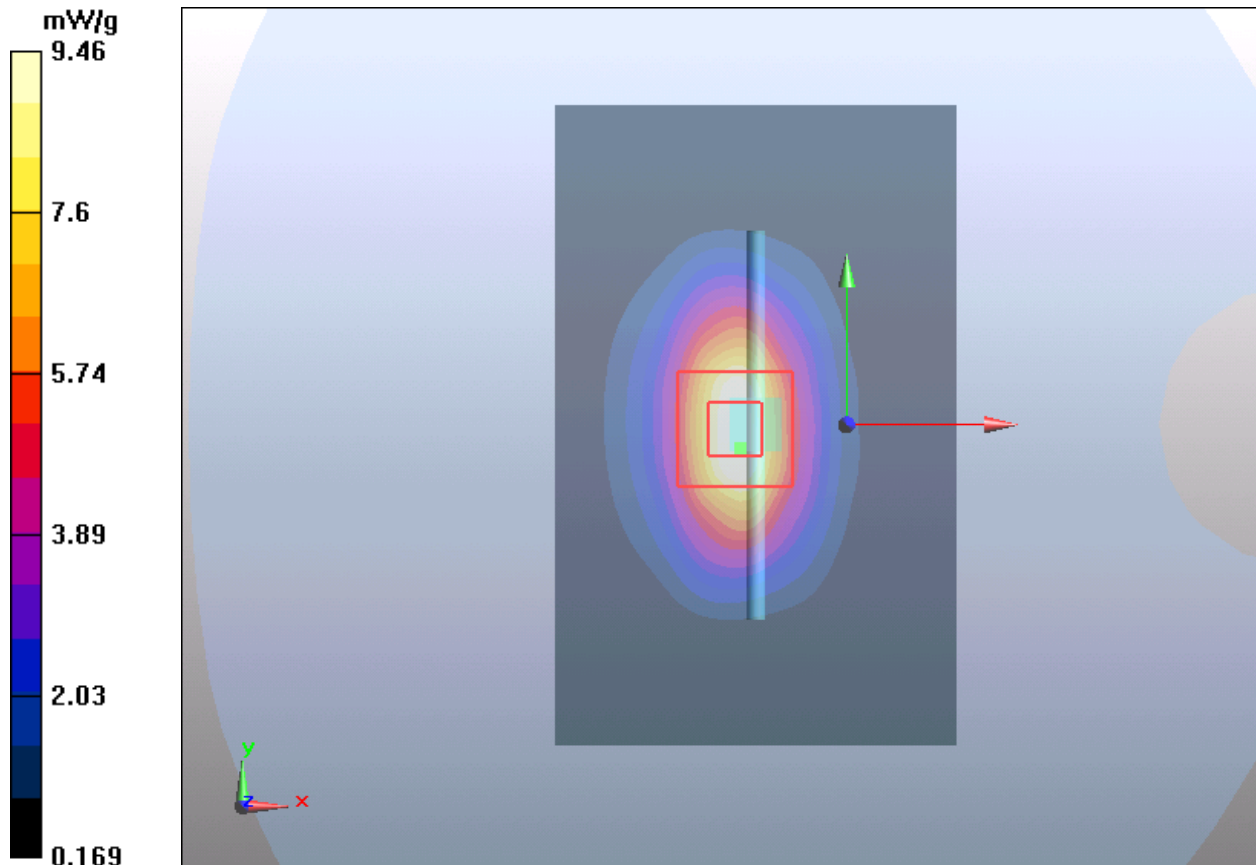
dz=5mm

Reference Value = 80 V/m; Power Drift = 0.075 dB

Peak SAR (extrapolated) = 15.5 W/kg

**SAR(1 g) = 8.95 mW/g; SAR(10 g) = 4.5 mW/g**

Maximum value of SAR (measured) = 9.46 mW/g



**Plot 10 System Performance Check at 1750 MHz Head TSL**

**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2**

Date: 4/22/2019

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

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.34$  S/m;  $\epsilon_r = 40.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.19, 8.19, 8.19); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 9.77 mW/g

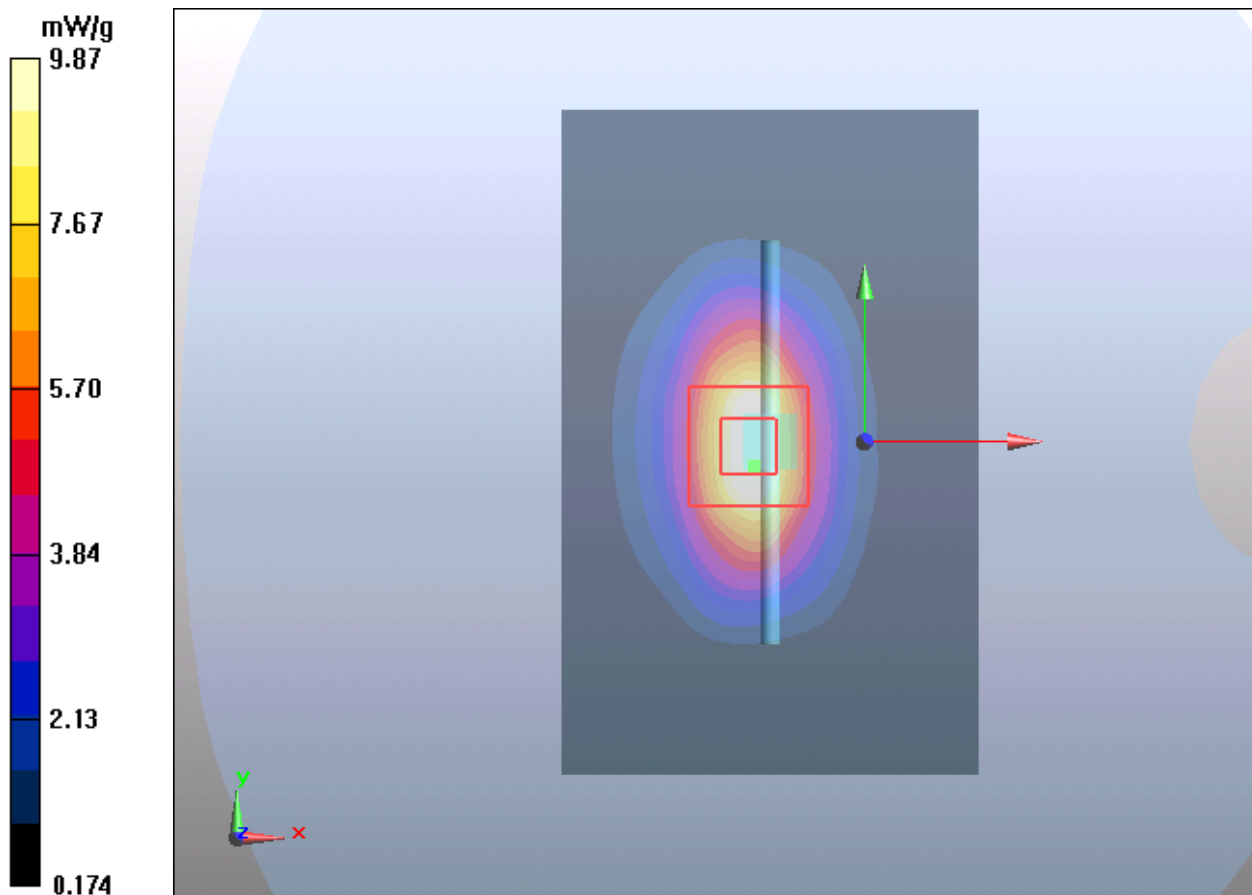
**d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 80 V/m; Power Drift = 0.055 dB

Peak SAR (extrapolated) = 15.51 W/kg

**SAR(1 g) = 9.11 mW/g; SAR(10 g) = 4.77 mW/g**

Maximum value of SAR (measured) = 9.87 mW/g



**Plot11 System Performance Check at 1750 MHz Body TSL**

**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2**

Date: 4/14/2019

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

Medium parameters used:  $f = 1750 \text{ MHz}$ ;  $\sigma = 1.46 \text{ S/m}$ ;  $\epsilon_r = 51.9$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.7 \text{ }^\circ\text{C}$

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.91, 7.91, 7.91); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 10.6 mW/g

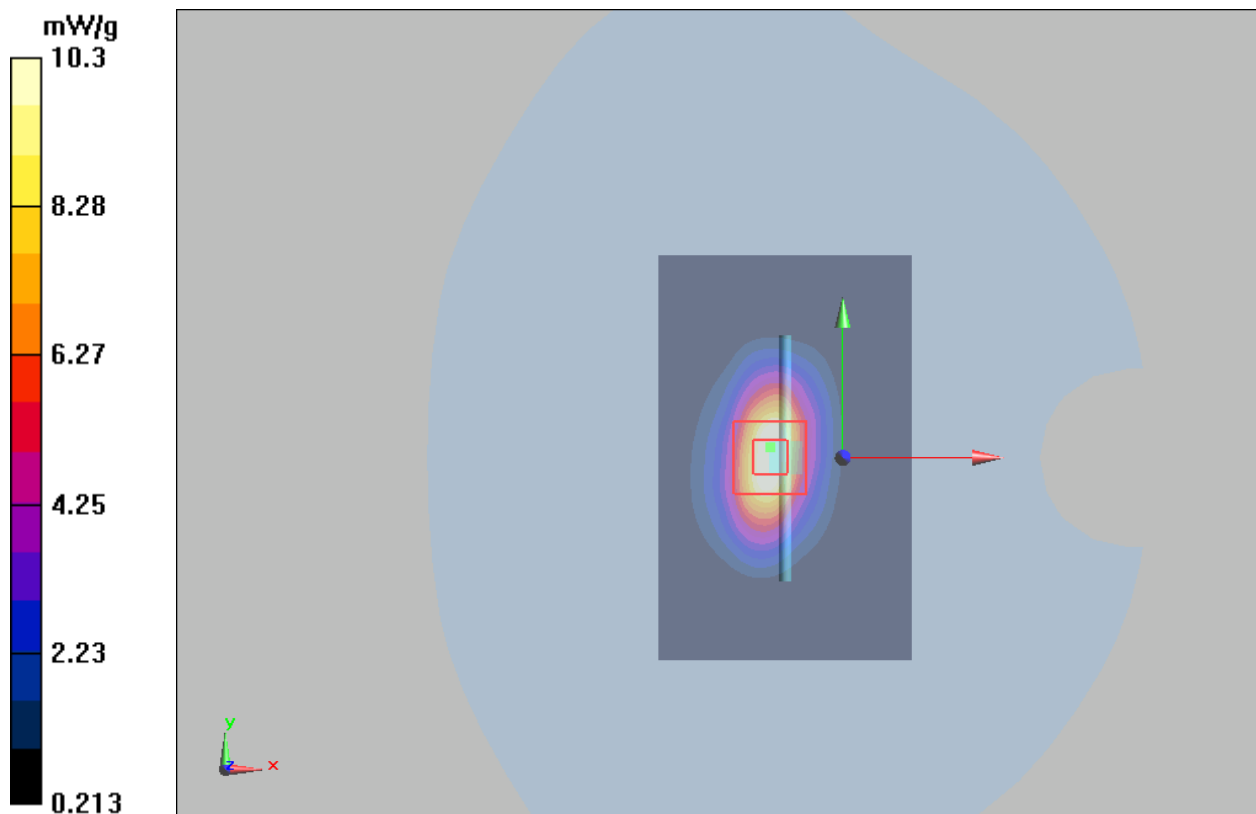
**d=10mm, Pin=250mW/Area Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 77.7 V/m; Power Drift = 0.097 dB

Peak SAR (extrapolated) = 16.8 W/kg

**SAR(1 g) = 9.24 mW/g; SAR(10 g) = 4.9 mW/g**

Maximum value of SAR (measured) = 10.3 mW/g



**Plot12 System Performance Check at 1750 MHz Body TSL**

**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2**

Date: 4/18/2019

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

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.51$  S/m;  $\epsilon_r = 52.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.3 °C      Liquid Temperature: 21.7 °C

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.91, 7.91, 7.91); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (51x81x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 10.65 mW/g

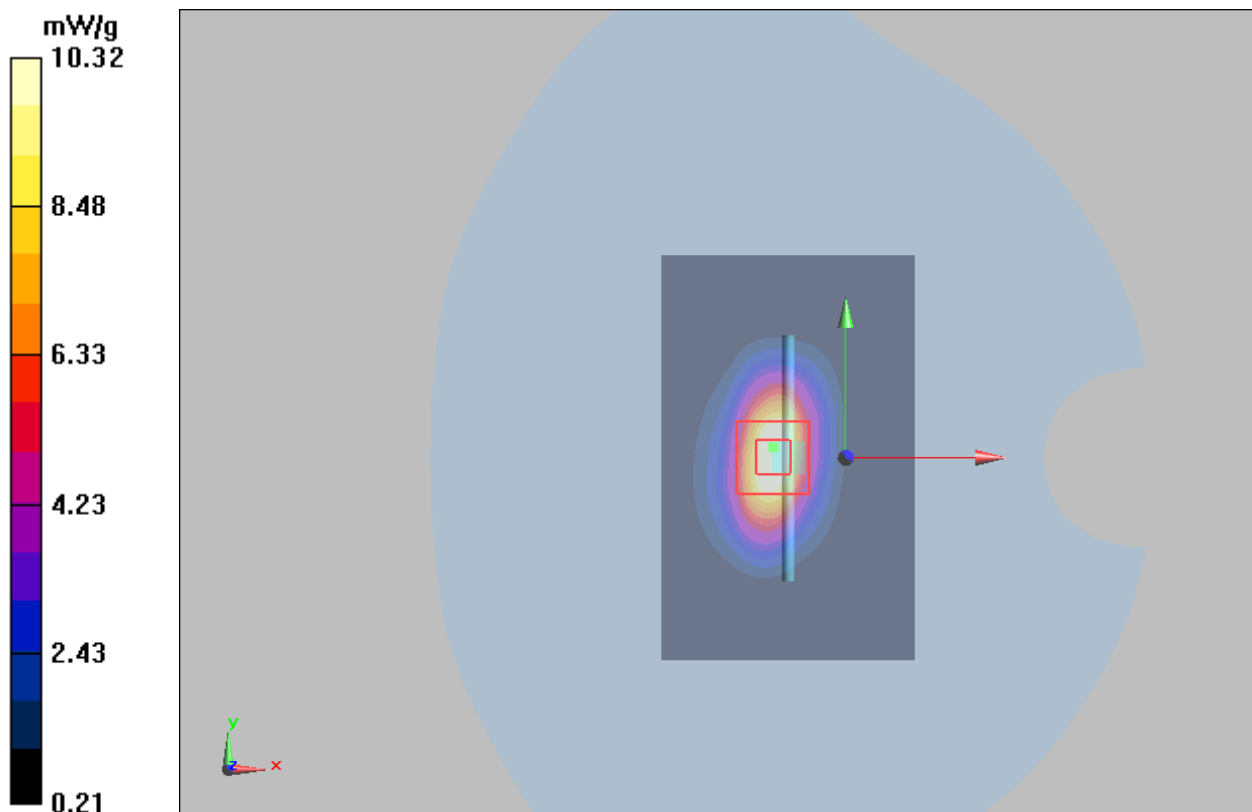
**d=10mm, Pin=250mW/Area Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 77.6 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 16.83 W/kg

**SAR(1 g) = 9.40 mW/g; SAR(10 g) = 5.22 mW/g**

Maximum value of SAR (measured) = 10.32 mW/g



**Plot13 System Performance Check at 1900 MHz Head TSL**

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2**

Date: 4/20/2019

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.41$  S/m;  $\epsilon_r = 40.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.96, 7.96, 7.96); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (41x71x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.3 mW/g

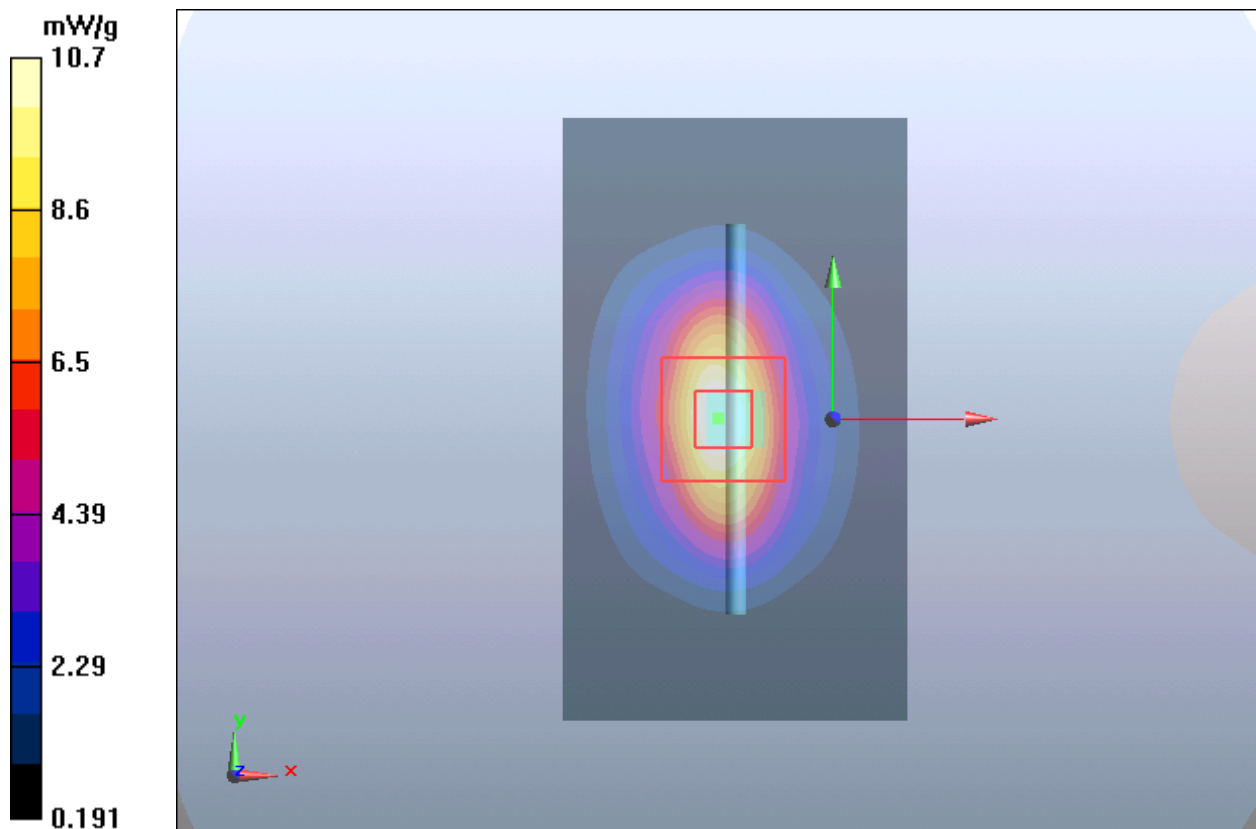
**d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 85.5 V/m; Power Drift = 0.028 dB

Peak SAR (extrapolated) = 17.8 W/kg

**SAR(1 g) = 9.88 mW/g; SAR(10 g) = 4.9 mW/g**

Maximum value of SAR (measured) = 10.7 mW/g



**Plot14 System Performance Check at 1900 MHz Head TSL**

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2**

Date: 4/27/2019

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.43$  S/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.96, 7.96, 7.96); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (41x71x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.23 mW/g

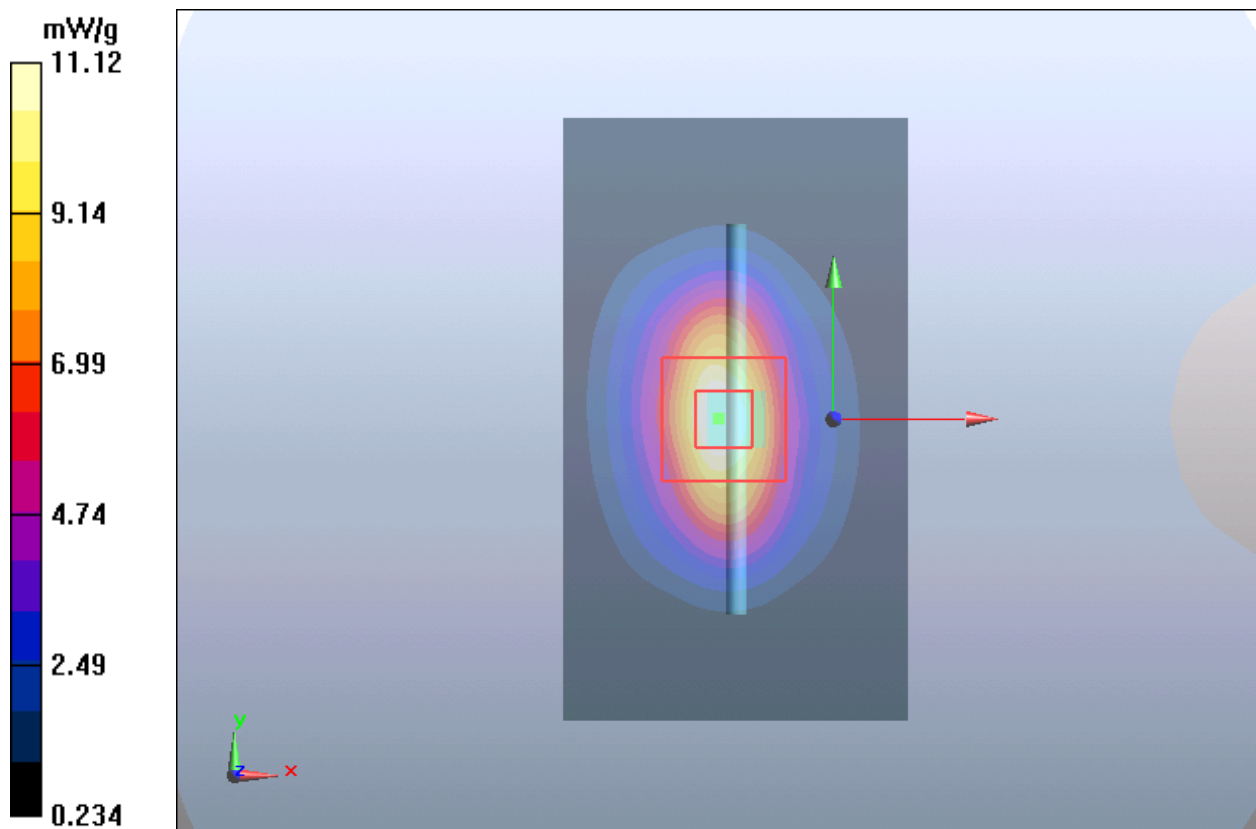
**d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 85.0 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 17.8 W/kg

**SAR(1 g) = 9.85 mW/g; SAR(10 g) = 4.93 mW/g**

Maximum value of SAR (measured) = 11.12 mW/g



**Plot15 System Performance Check at 1900 MHz Body TSL**

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2**

Date: 4/19/2019

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.51$  S/m;  $\epsilon_r = 52.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (41x71x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.2 mW/g

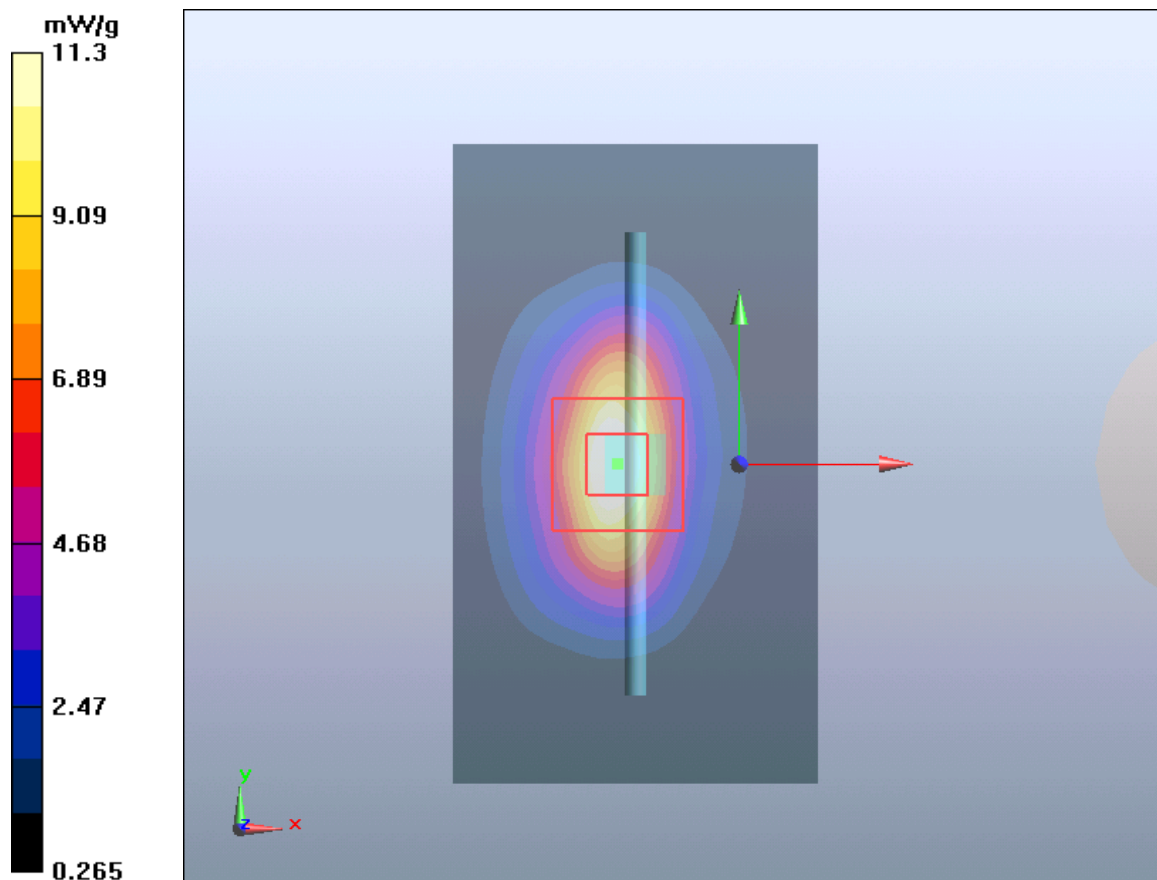
**d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 82.3 V/m; Power Drift = 0.068 dB

Peak SAR (extrapolated) = 17.8 W/kg

**SAR(1 g) = 9.93 mW/g; SAR(10 g) = 5.25 mW/g**

Maximum value of SAR (measured) = 11.3 mW/g



**Plot16 System Performance Check at 1900 MHz Body TSL**

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2**

Date: 4/25/2019

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.51$  S/m;  $\epsilon_r = 52.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (41x71x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.2 mW/g

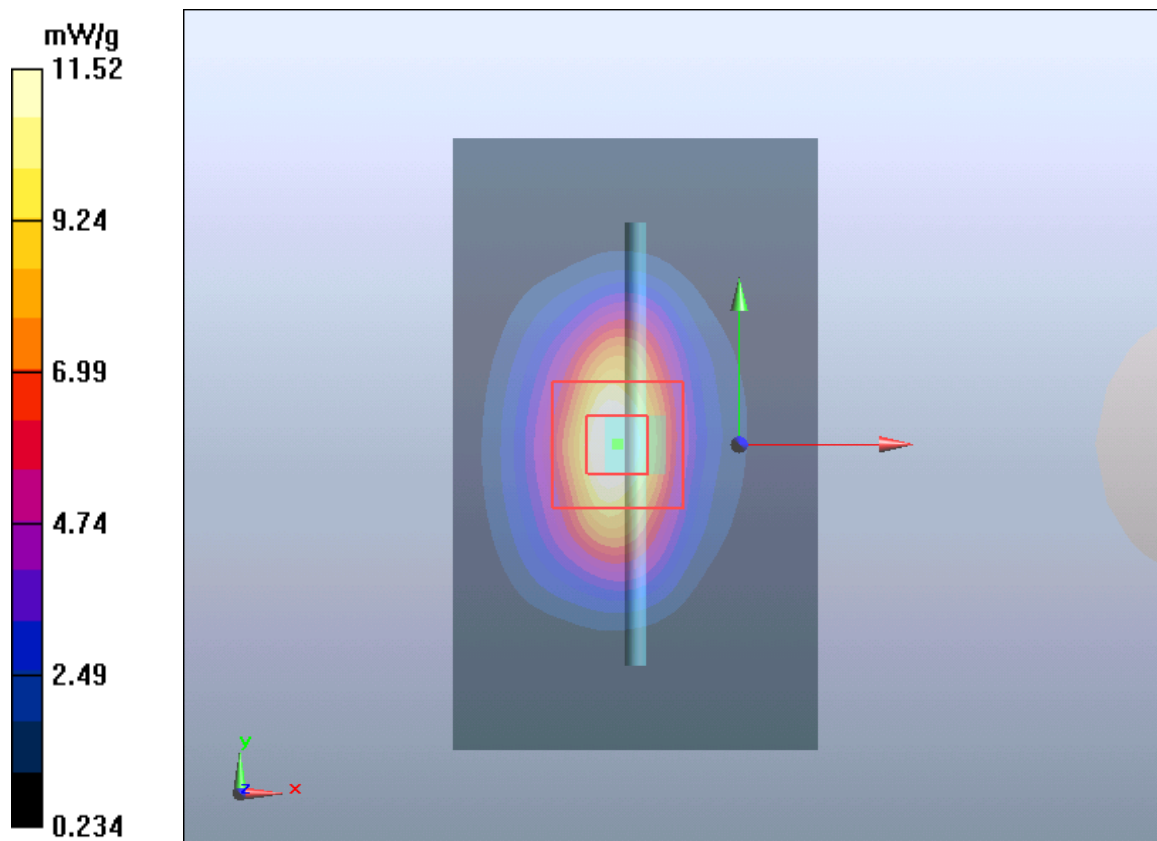
**d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 82.3 V/m; Power Drift = 0.068 dB

Peak SAR (extrapolated) = 17.8 W/kg

**SAR(1 g) = 9.91 mW/g; SAR(10 g) = 5.23 mW/g**

Maximum value of SAR (measured) = 11.52 mW/g





**Plot17 System Performance Check at 2450 MHz Head TSL**

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2**

Date: 4/29/2019

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

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.80$  S/m;  $\epsilon_r = 38.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.57, 7.57, 7.57); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (41x71x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 18 mW/g

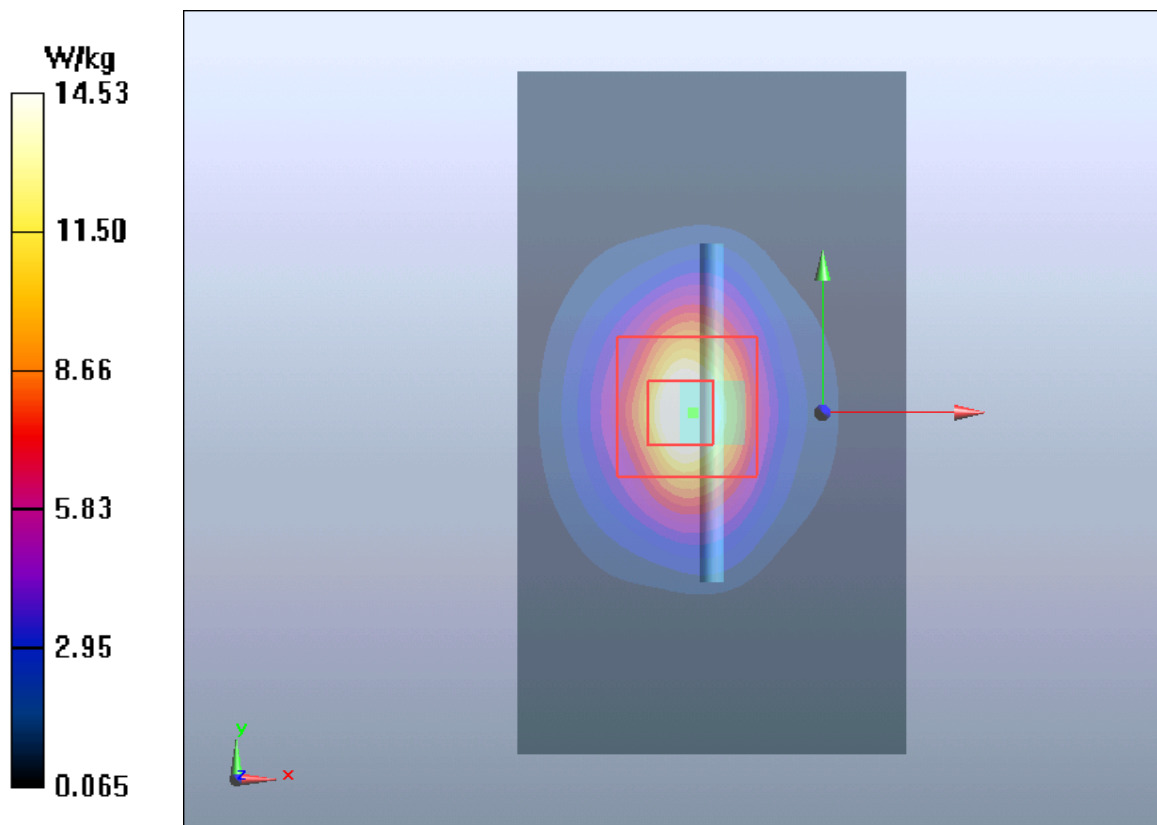
**d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.7 V/m; Power Drift = 0.1 dB

Peak SAR (extrapolated) = 28.9W/kg

**SAR(1 g) = 13.66 mW/g; SAR(10 g) = 6.2 mW/g**

Maximum value of SAR (measured) = 14.53 mW/g



**Plot18 System Performance Check at 2450 MHz Body TSL**

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2**

Date: 4/28/2019

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

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.97$  S/m;  $\epsilon_r = 52.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.53, 7.53, 7.53); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (41x71x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 16.12 mW/g

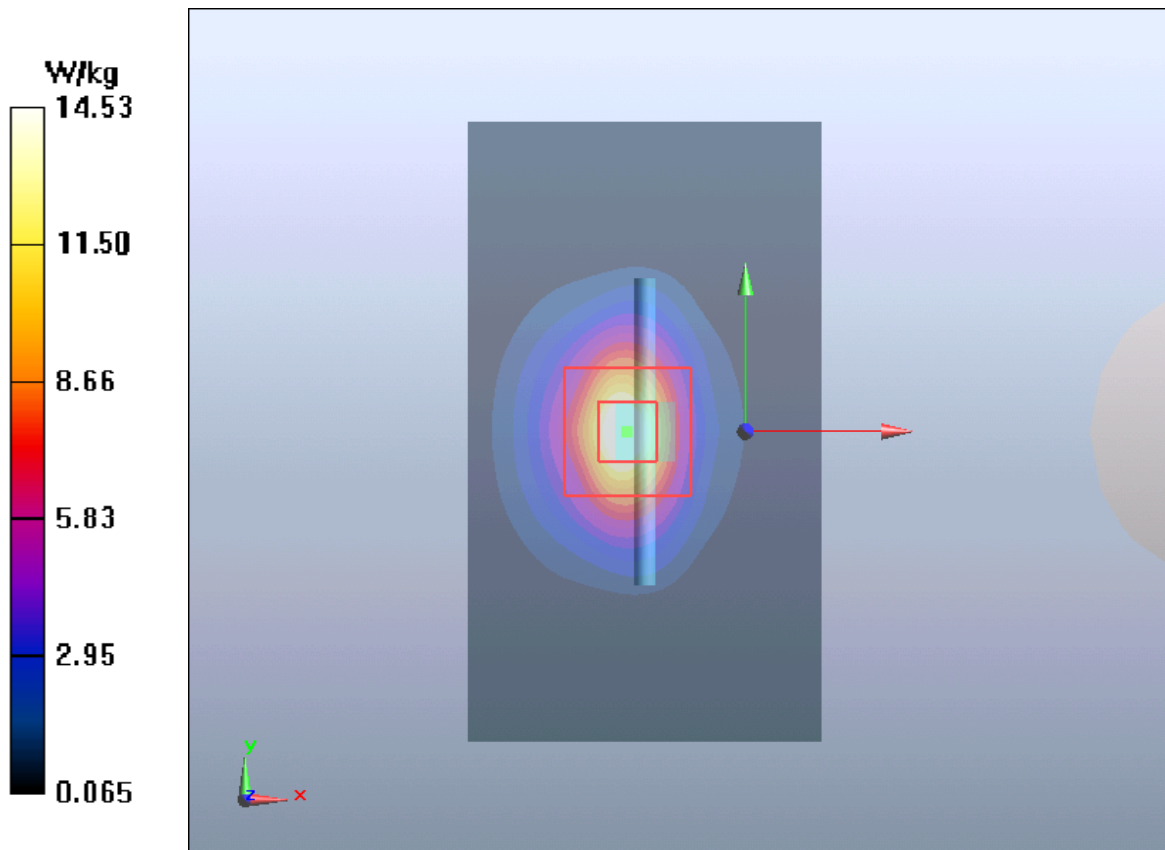
**d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 81.5 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 25.6 W/kg

**SAR(1 g) = 12.52 mW/g; SAR(10 g) = 6.18 mW/g**

Maximum value of SAR (measured) = 14.53 mW/g



**Plot19 System Performance Check at 2450 MHz Body TSL**

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2**

Date: 4/29/2019

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

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.98$  S/m;  $\epsilon_r = 52.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.53, 7.53, 7.53); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (41x71x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 16 mW/g

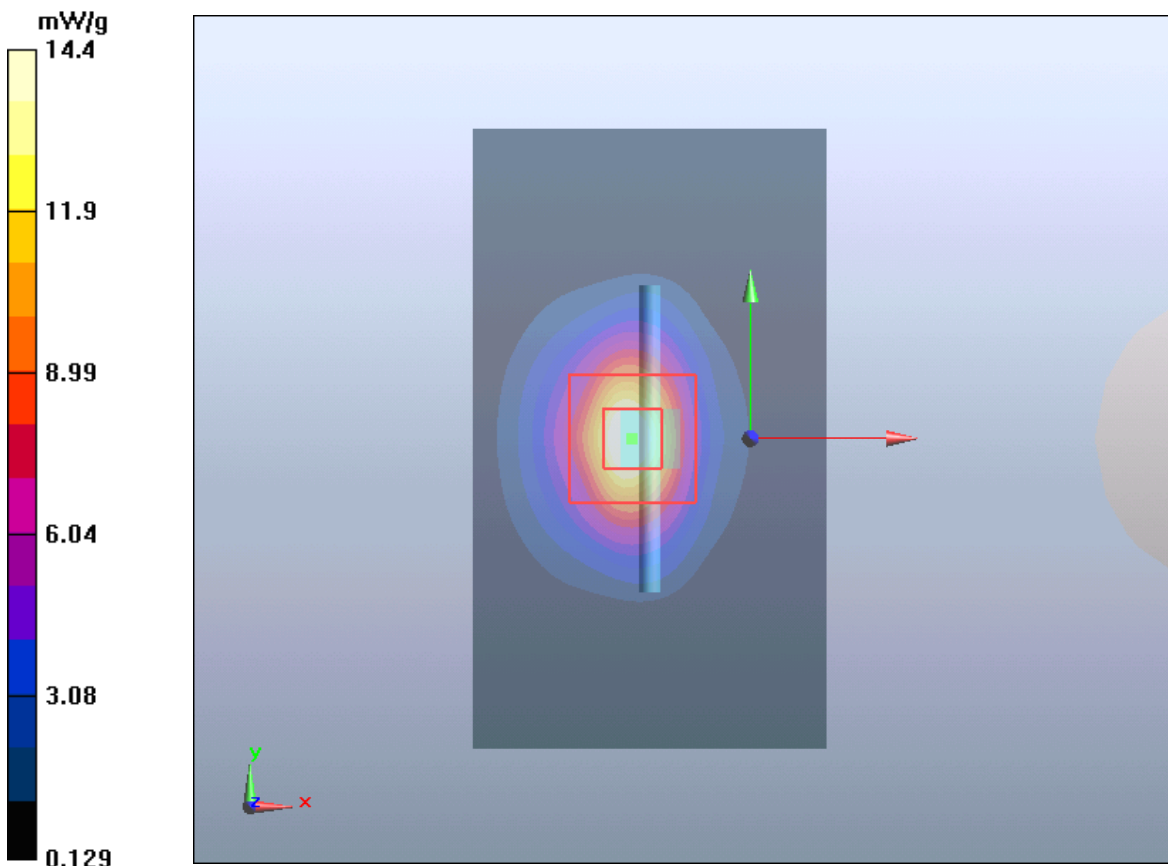
**d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 81.2 V/m; Power Drift = 0.003 dB

Peak SAR (extrapolated) = 25.4 W/kg

**SAR(1 g) = 12.5 mW/g; SAR(10 g) = 6.20 mW/g**

Maximum value of SAR (measured) = 14.4 mW/g



**Plot20 System Performance Check at 2600 MHz Head TSL**

**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2**

Date: 4/16/2019

Communication System: CW; Frequency: 2600 MHz

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.01$  S/m;  $\epsilon_r = 38.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.28, 7.28, 7.28); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (41x71x1):** Measurement grid:dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 17.439 mW/g

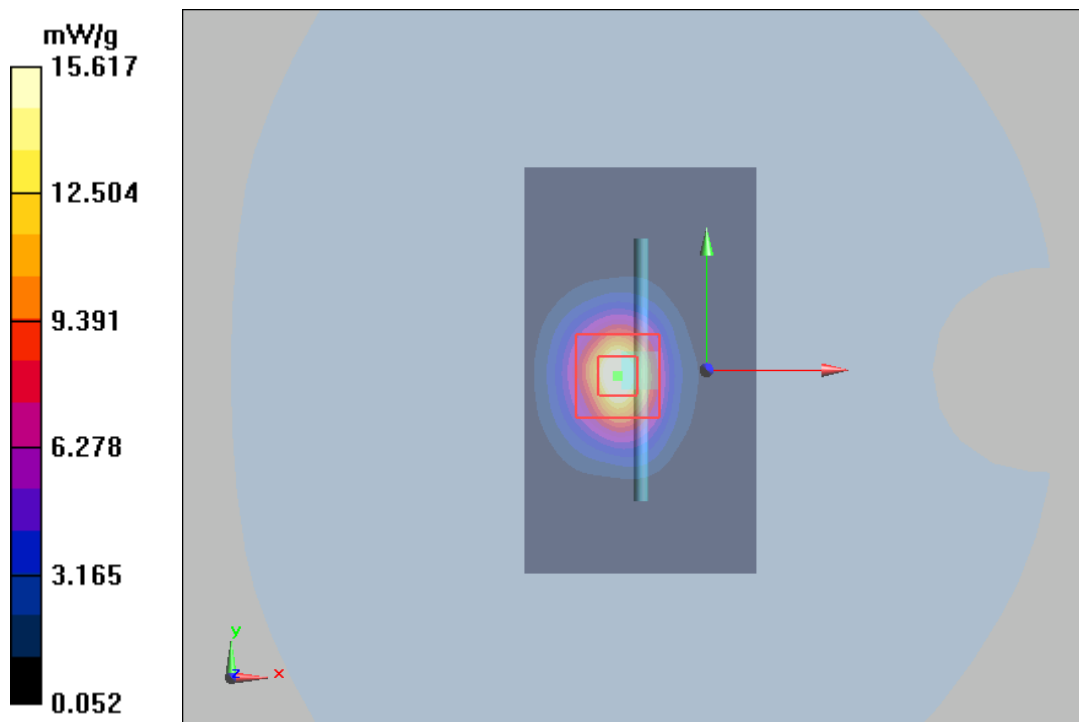
**d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.998 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 31.858 W/kg

**SAR(1 g) = 13.9 mW/g; SAR(10 g) = 6.07 mW/g**

Maximum value of SAR (measured) = 15.617 mW/g



**Plot21 System Performance Check at 2600 MHz Head TSL**

**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2**

Date: 4/17/2019

Communication System: CW; Frequency: 2600 MHz

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.94$ S/m;  $\epsilon_r = 38.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.28, 7.28, 7.28); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (41x71x1):** Measurement grid:dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 17.59 mW/g

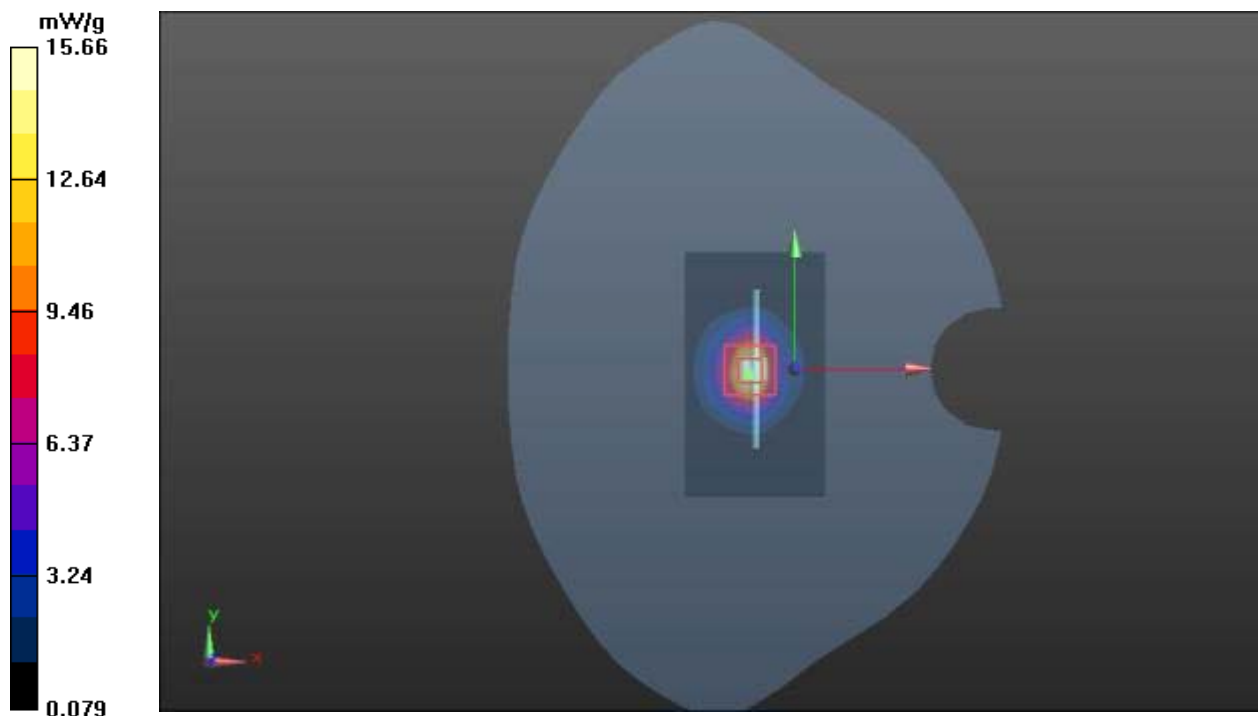
**d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.998 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 31.858 W/kg

**SAR(1 g) = 13.88 mW/g; SAR(10 g) = 6.09 mW/g**

Maximum value of SAR (measured) = 15.66 mW/g



**Plot22 System Performance Check at 2600 MHz Head TSL**

**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2**

Date: 4/18/2019

Communication System: CW; Frequency: 2600 MHz

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.99$ S/m;  $\epsilon_r = 38.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.28, 7.28, 7.28); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW/Area Scan (41x71x1):** Measurement grid:dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 17.32 mW/g

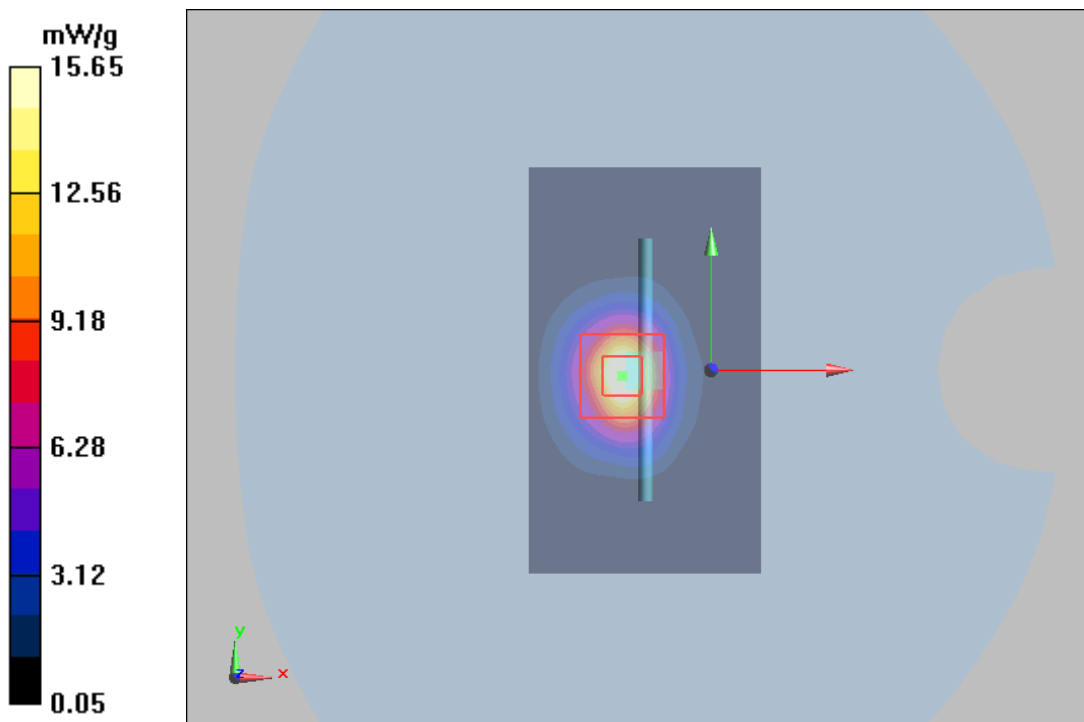
**d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.465 V/m; Power Drift = 0.146 dB

Peak SAR (extrapolated) = 31.85 W/kg

**SAR(1 g) = 13.94 mW/g; SAR(10 g) = 6.11 mW/g**

Maximum value of SAR (measured) = 15.66 mW/g



**Plot23 System Performance Check at 2600 MHz Body TSL**

**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2**

Date: 4/13/2019

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.23$  S/m;  $\epsilon_r = 51.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.16, 7.16, 7.16); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW /Area Scan (41x71x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 17.7 mW/g

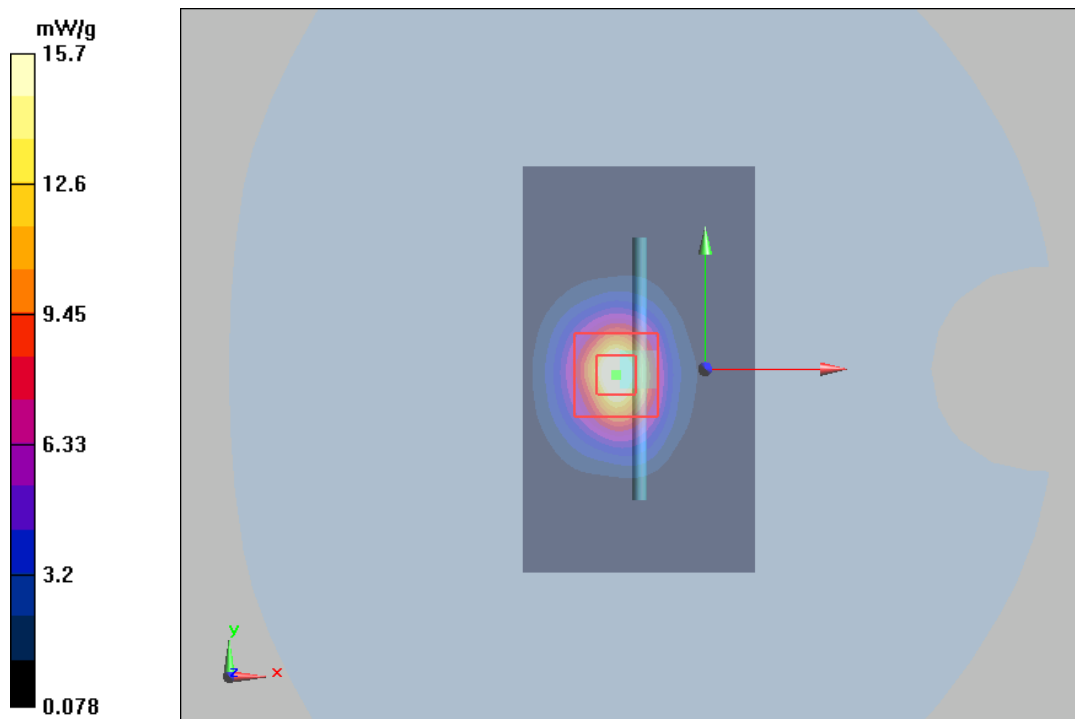
**d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 74 V/m; Power Drift = -0.0027 dB

Peak SAR (extrapolated) = 28.5 W/kg

**SAR(1 g) = 13.5 mW/g; SAR(10 g) = 5.99 mW/g**

Maximum value of SAR (measured) = 15.7 mW/g



**Plot24 System Performance Check at 2600 MHz Body TSL**

**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2**

Date: 4/16/2019

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.21$  S/m;  $\epsilon_r = 51.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.16, 7.16, 7.16); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW /Area Scan (41x71x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 17.67 mW/g

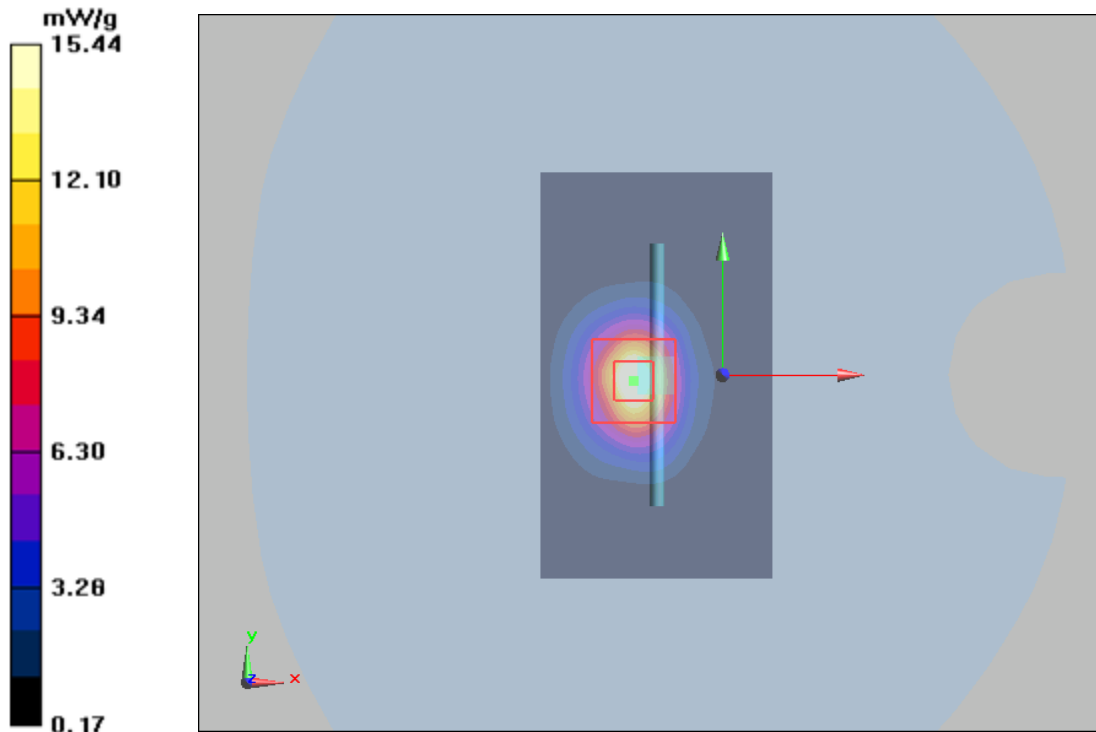
**d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 74 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 28.5 W/kg

**SAR(1 g) = 13.55 mW/g; SAR(10 g) = 5.89 mW/g**

Maximum value of SAR (measured) = 15.44 mW/g





**Plot25 System Performance Check at 2600 MHz Body TSL**

**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2**

Date: 4/25/2019

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.24$  S/m;  $\epsilon_r = 51.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.16, 7.16, 7.16); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW /Area Scan (41x71x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 17.71 mW/g

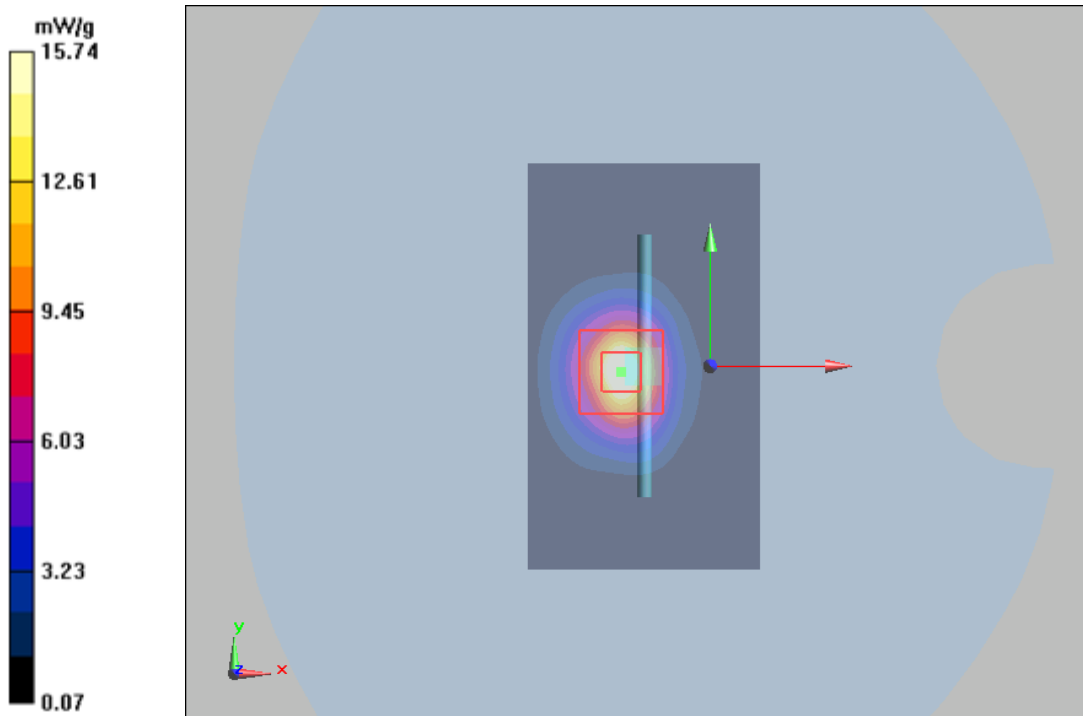
**d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 74.11 V/m; Power Drift = 0.022 dB

Peak SAR (extrapolated) = 28.42 W/kg

**SAR(1 g) = 13.66 mW/g; SAR(10 g) = 6.01 mW/g**

Maximum value of SAR (measured) = 15.74 mW/g



**Plot26 System Performance Check at 2600 MHz Body TSL**

**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2**

Date: 4/26/2019

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.23$  S/m;  $\epsilon_r = 51.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.16, 7.16, 7.16); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=250mW /Area Scan (41x71x1):** Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 17.36 mW/g

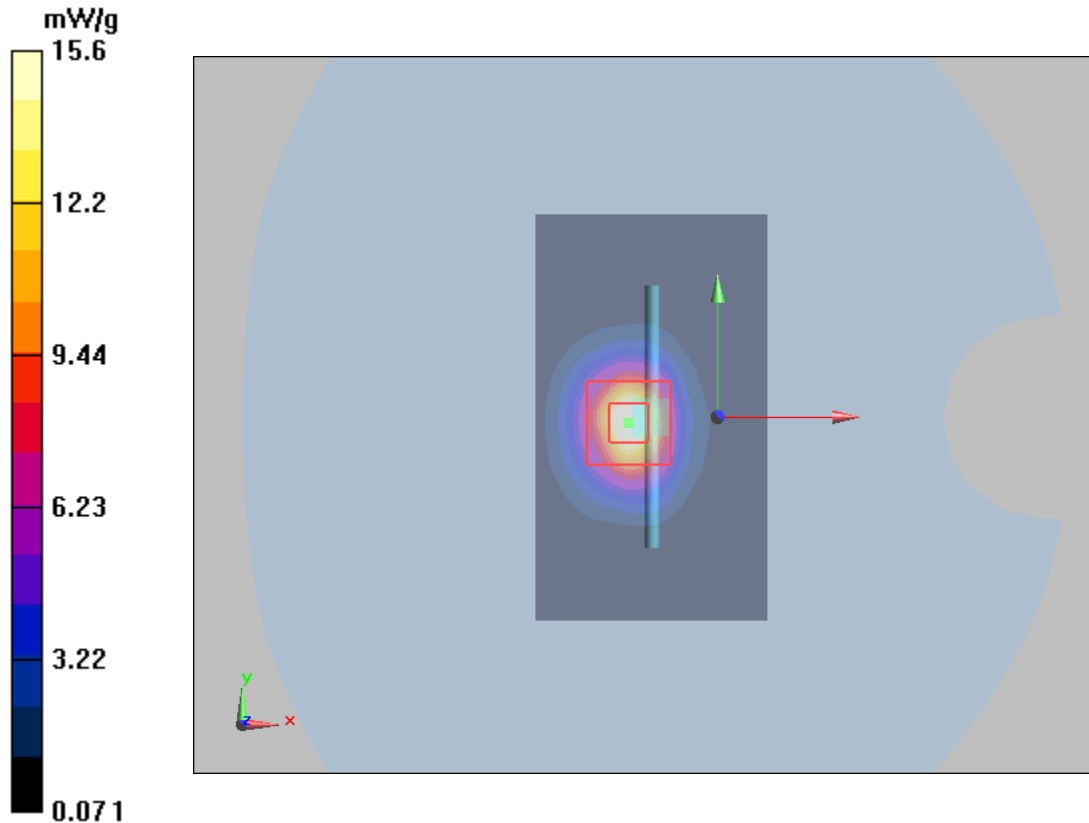
**d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 73.63 V/m; Power Drift = 0.047 dB

Peak SAR (extrapolated) = 28.7 W/kg

**SAR(1 g) = 13.64 mW/g; SAR(10 g) = 5.83 mW/g**

Maximum value of SAR (measured) = 15.6 mW/g



**Plot 27 System Performance Check at 5250 MHz Head TSL**

**DUT: Dipole 5250 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 4/19/2019

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

Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.80$  S/m;  $\epsilon_r = 35.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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(5.60, 5.60, 5.60); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=100mW/Area Scan (61x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 9.14 mW/g

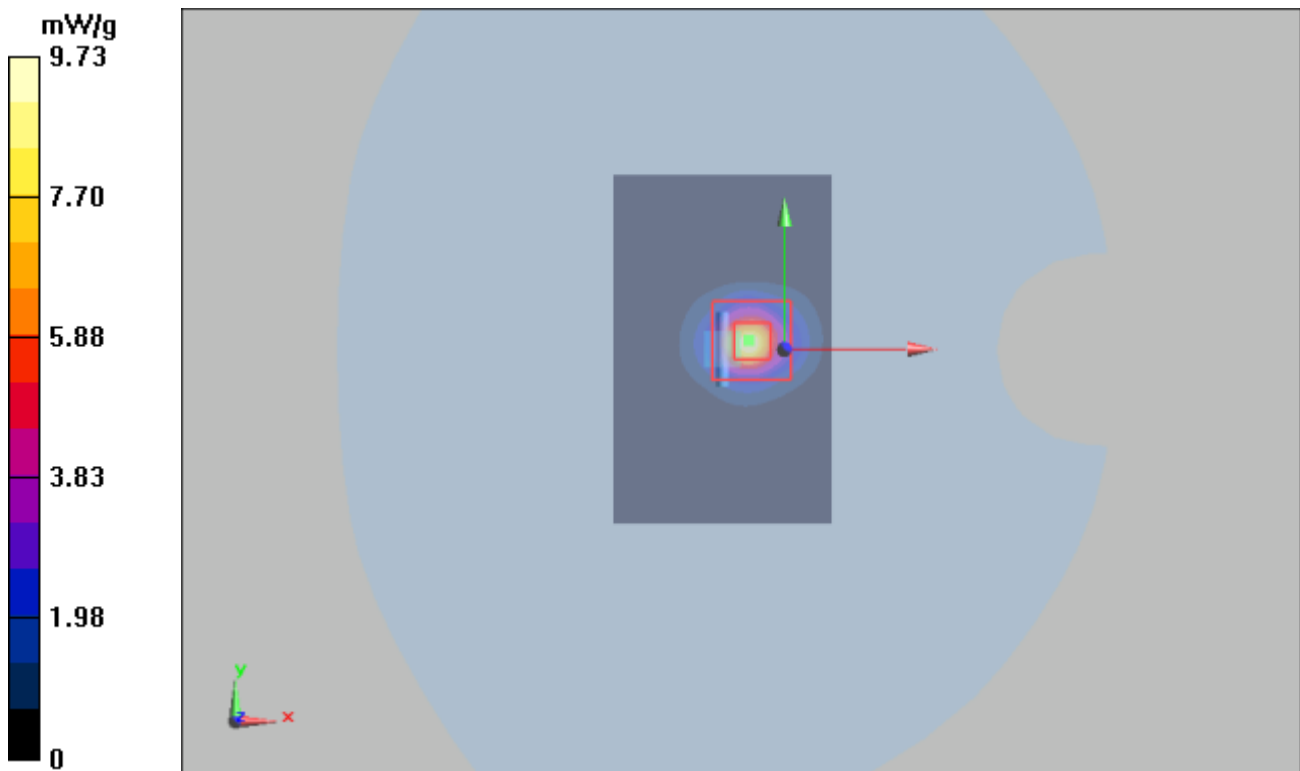
**d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 33.6 V/m; Power Drift = -0.095 dB

Peak SAR (extrapolated) = 52.2 W/kg

**SAR(1 g) = 7.87 mW/g; SAR(10 g) = 2.25 mW/g**

Maximum value of SAR (measured) = 9.73 mW/g



**Plot 28 System Performance Check at 5250 MHz Head TSL**

**DUT: Dipole 5250 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 4/28/2019

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

Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.80$  S/m;  $\epsilon_r = 35.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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(5.60, 5.60, 5.60); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=100mW/Area Scan (61x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 9.22 mW/g

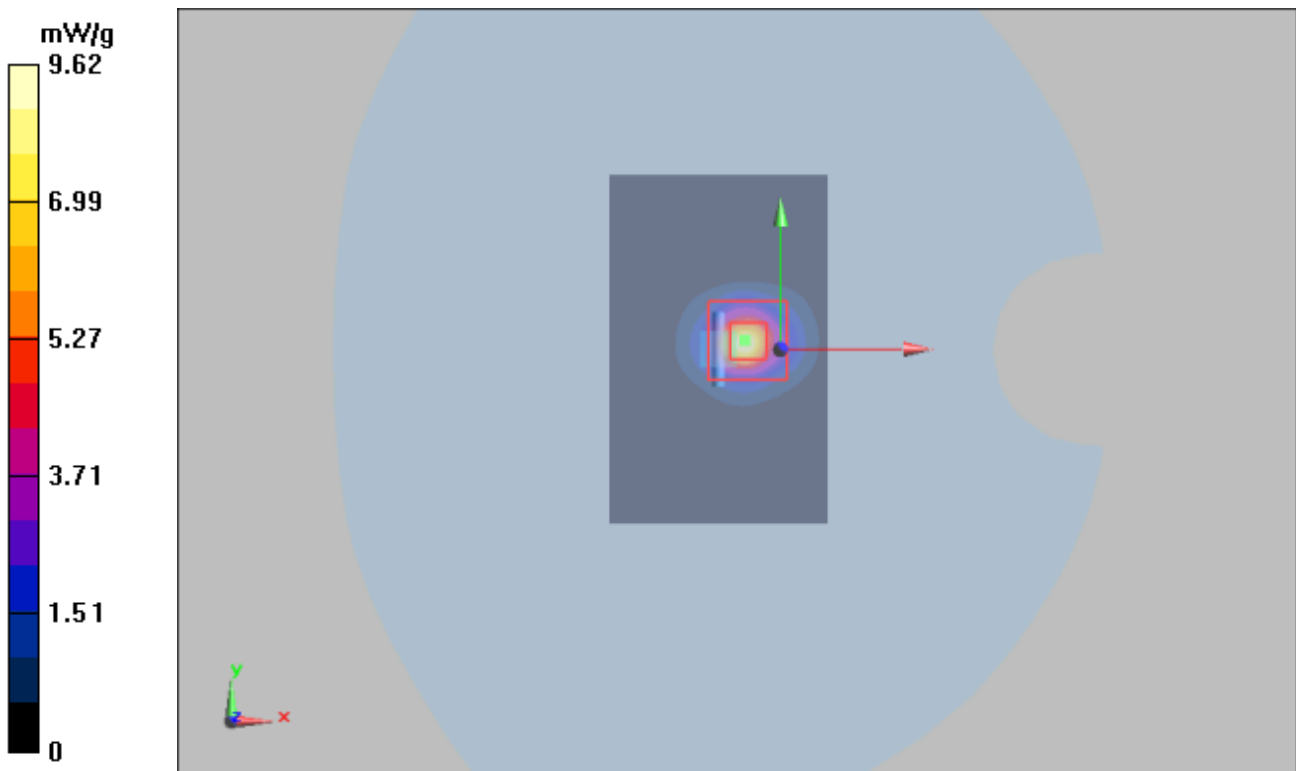
**d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 33.34 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 51.7 W/kg

**SAR(1 g) = 7.85 mW/g; SAR(10 g) = 2.21 mW/g**

Maximum value of SAR (measured) = 9.62 mW/g



**Plot 29 System Performance Check at 5250 MHz Body TSL**

**DUT: Dipole 5250 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 4/30/2019

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

Medium parameters used:  $f = 5250$  MHz;  $\sigma = 5.32$  S/m;  $\epsilon_r = 48.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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(5.04, 5.04, 5.04); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=100mW/Area Scan (61x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 7.69 mW/g

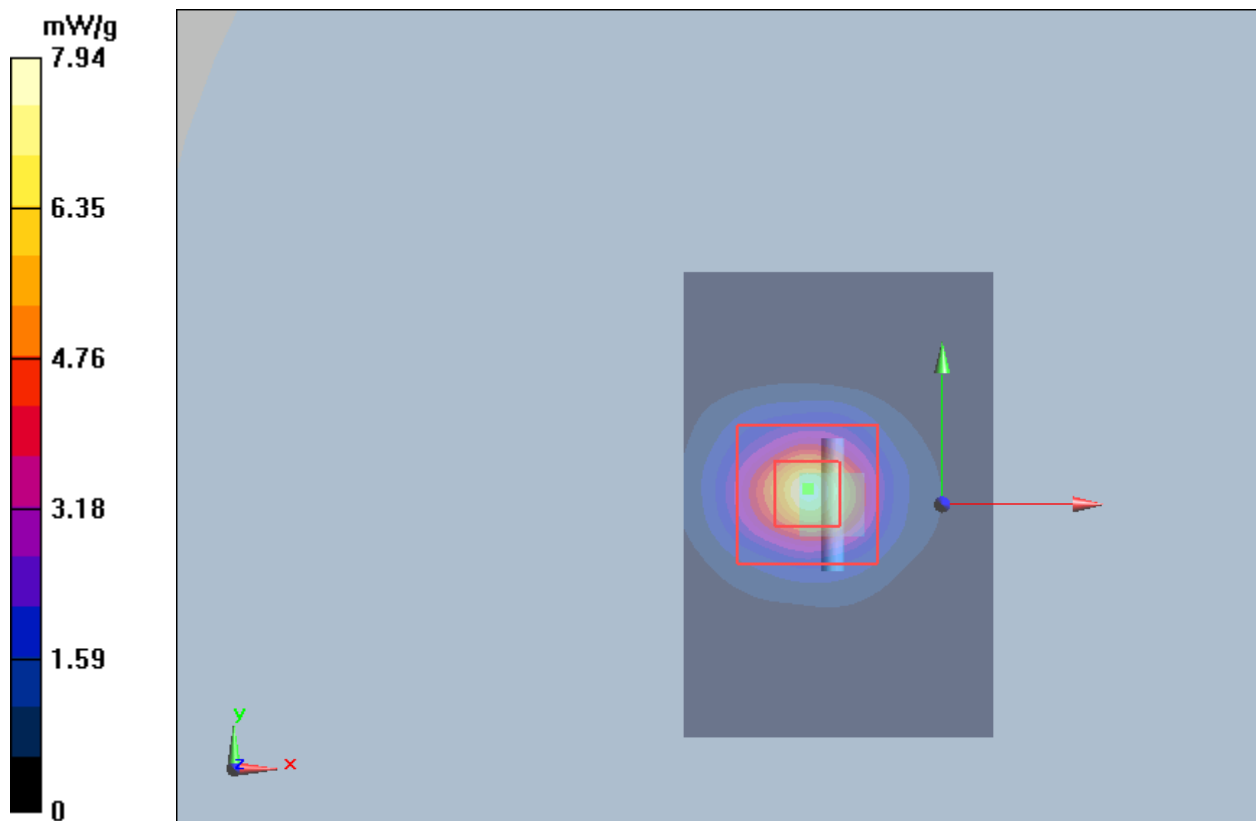
**d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 36.3 V/m; Power Drift = 0.0277 dB

Peak SAR (extrapolated) = 47.7 W/kg

**SAR(1 g) = 7.46 mW/g; SAR(10 g) = 2.26 mW/g**

Maximum value of SAR (measured) = 7.94 mW/g



**Plot 30 System Performance Check at 5250 MHz Body TSL**

**DUT: Dipole 5250 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 5/1/2019

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

Medium parameters used:  $f = 5250$  MHz;  $\sigma = 5.33$  S/m;  $\epsilon_r = 47.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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(5.04, 5.04, 5.04); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=100mW/Area Scan (61x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 7.58 mW/g

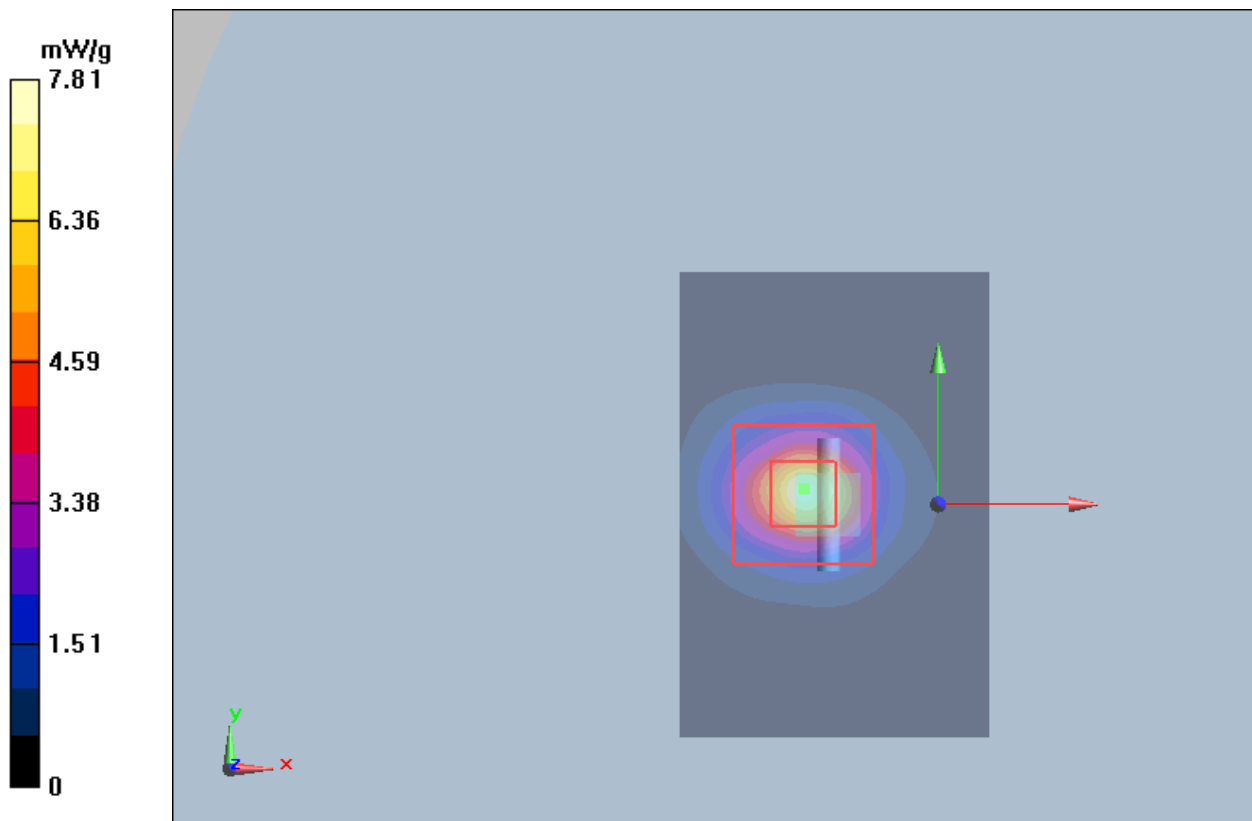
**d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 37.1 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 47.7 W/kg

**SAR(1 g) = 7.44 mW/g; SAR(10 g) = 2.25 mW/g**

Maximum value of SAR (measured) = 7.81 mW/g



**Plot 31 System Performance Check at 5600 MHz Head TSL**

**DUT: Dipole 5600 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 4/22/2019

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

Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.21$  S/m;  $\epsilon_r = 34.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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(4.87, 4.87, 4.87); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=100mW/Area Scan (61x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 8.25 mW/g

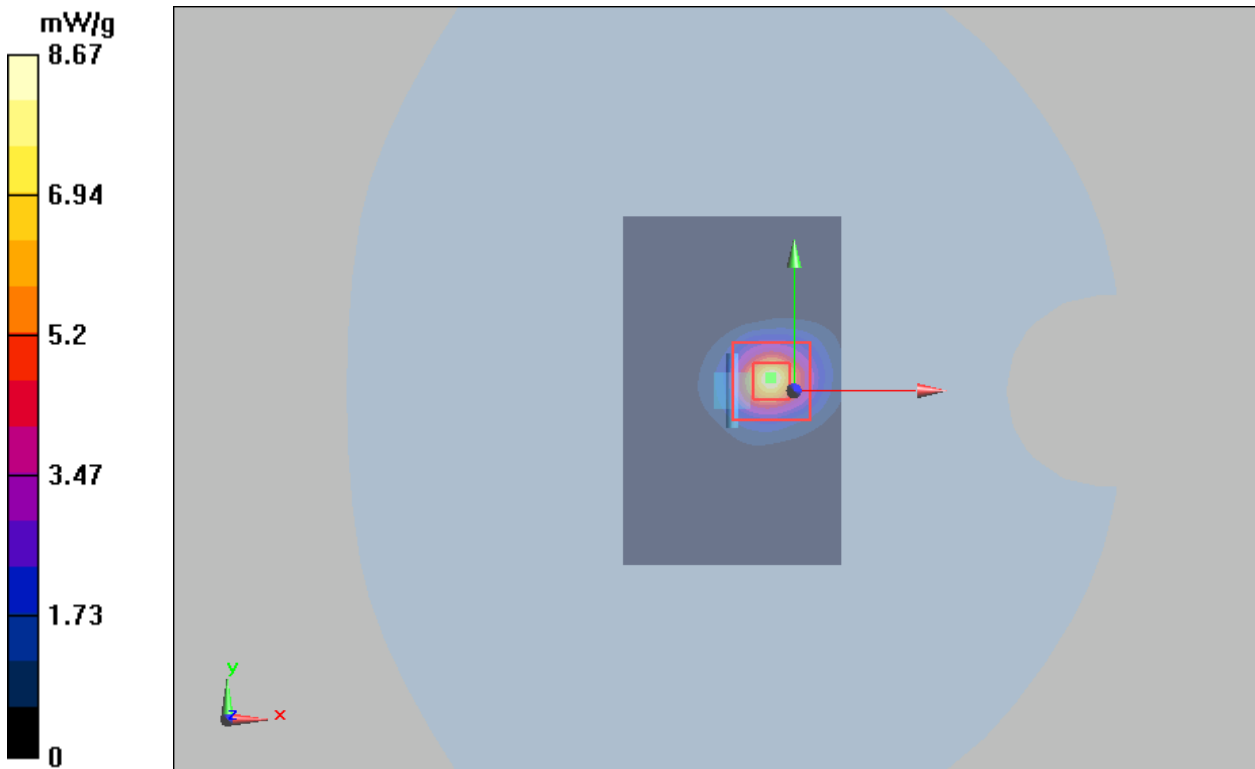
**d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 23.1 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 22.9 W/kg

**SAR(1 g) = 7.67 mW/g; SAR(10 g) = 2.27 mW/g**

Maximum value of SAR (measured) = 8.67 mW/g



**Plot 32 System Performance Check at 5600 MHz Body TSL**

**DUT: Dipole 5600 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 4/30/2019

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

Medium parameters used:  $f = 5600 \text{ MHz}$ ;  $\sigma = 5.78 \text{ S/m}$ ;  $\epsilon_r = 47.9$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(4.27, 4.27, 4.27); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=100mW/Area Scan (61x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 7.84 mW/g

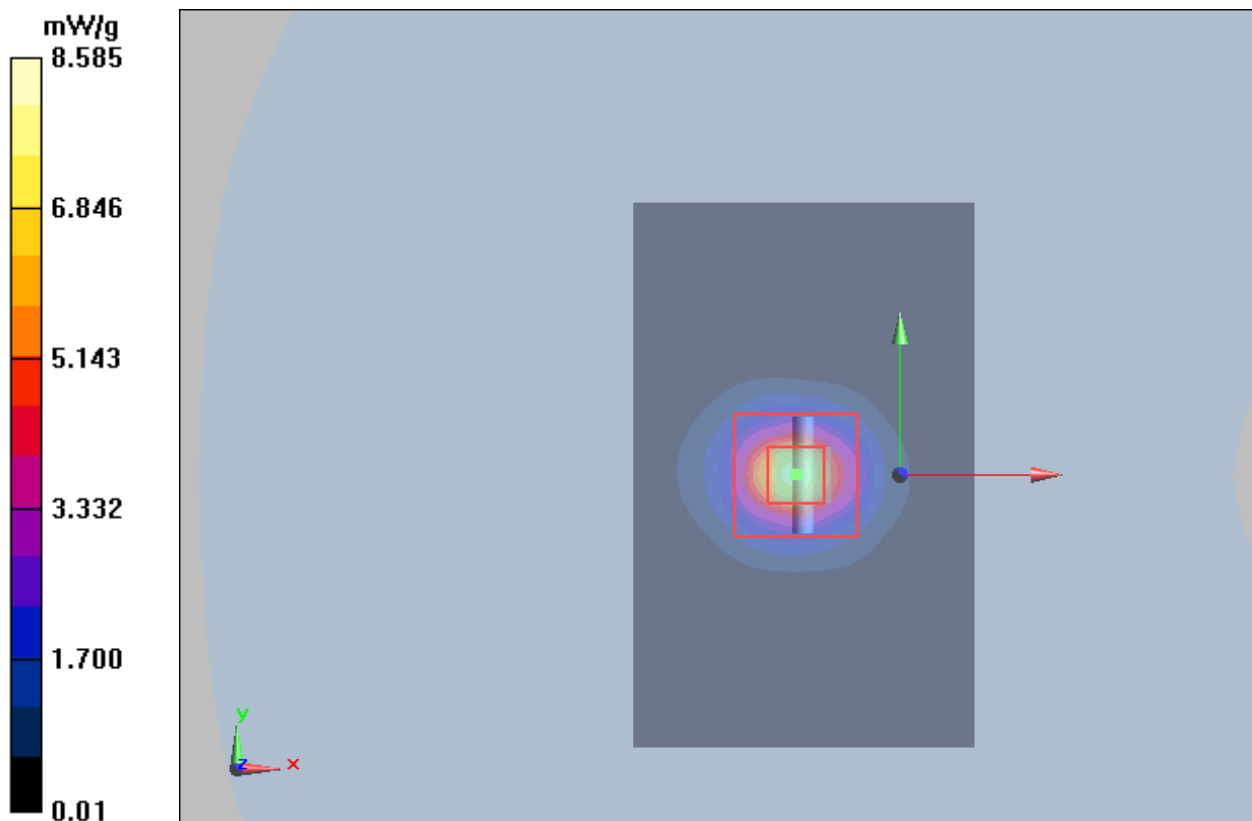
**d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 38 V/m; Power Drift = -0.018 dB

Peak SAR (extrapolated) = 22.6 W/kg

**SAR(1 g) = 8.10 mW/g; SAR(10 g) = 2.11 mW/g**

Maximum value of SAR (measured) = 8.585 mW/g





**Plot 33 System Performance Check at 5600 MHz Body TSL**

**DUT: Dipole 5600 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 5/1/2019

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

Medium parameters used:  $f = 5600 \text{ MHz}$ ;  $\sigma = 5.77 \text{ S/m}$ ;  $\epsilon_r = 48.0$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(4.27, 4.27, 4.27); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=100mW/Area Scan (61x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 7.81 mW/g

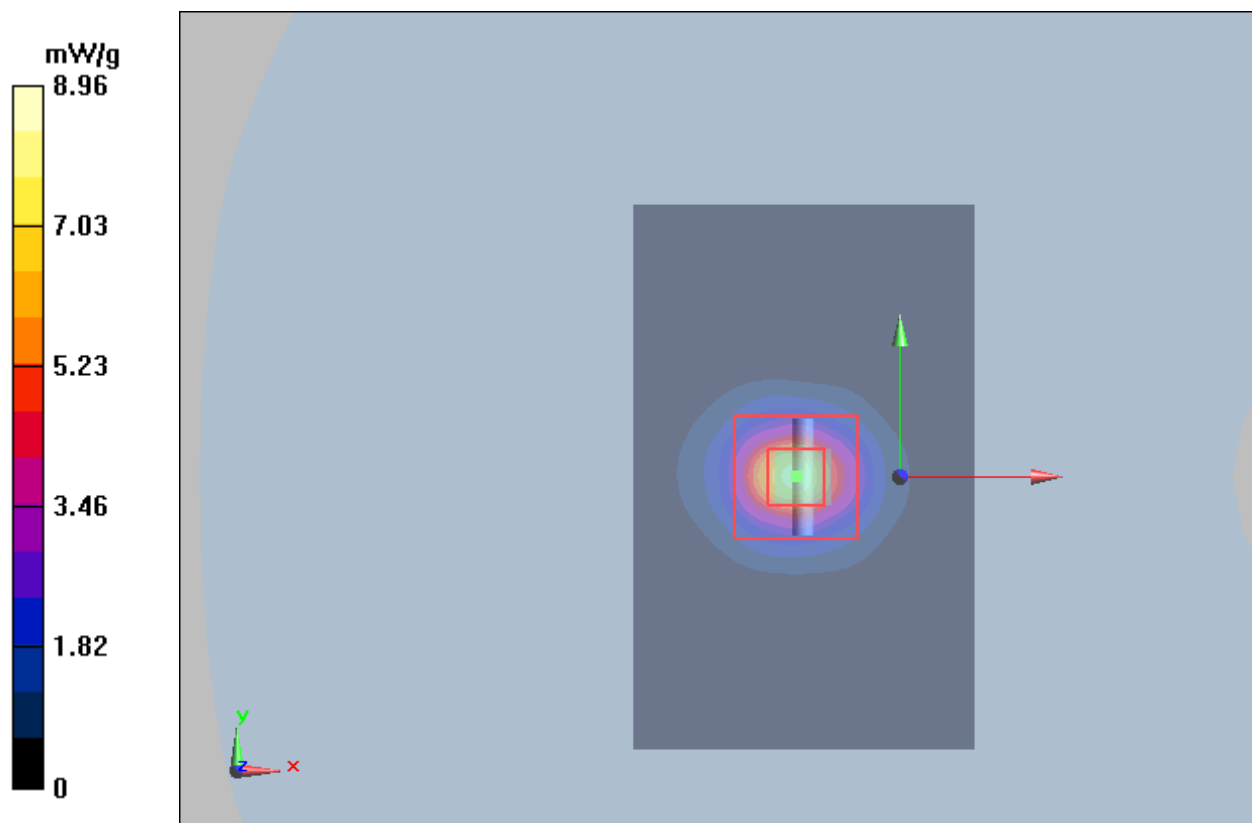
**d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 38.21 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 22.63 W/kg

**SAR(1 g) = 8.13 mW/g; SAR(10 g) = 2.16 mW/g**

Maximum value of SAR (measured) = 8.96 mW/g



**Plot 34 System Performance Check at 5750 MHz Head TSL**

**DUT: Dipole 5750 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 5/2/2019

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

Medium parameters used:  $f = 5750 \text{ MHz}$ ;  $\sigma = 5.21 \text{ S/m}$ ;  $\epsilon_r = 34.9$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(4.99, 4.99, 4.99); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=100mW/Area Scan (61x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 8.31 mW/g

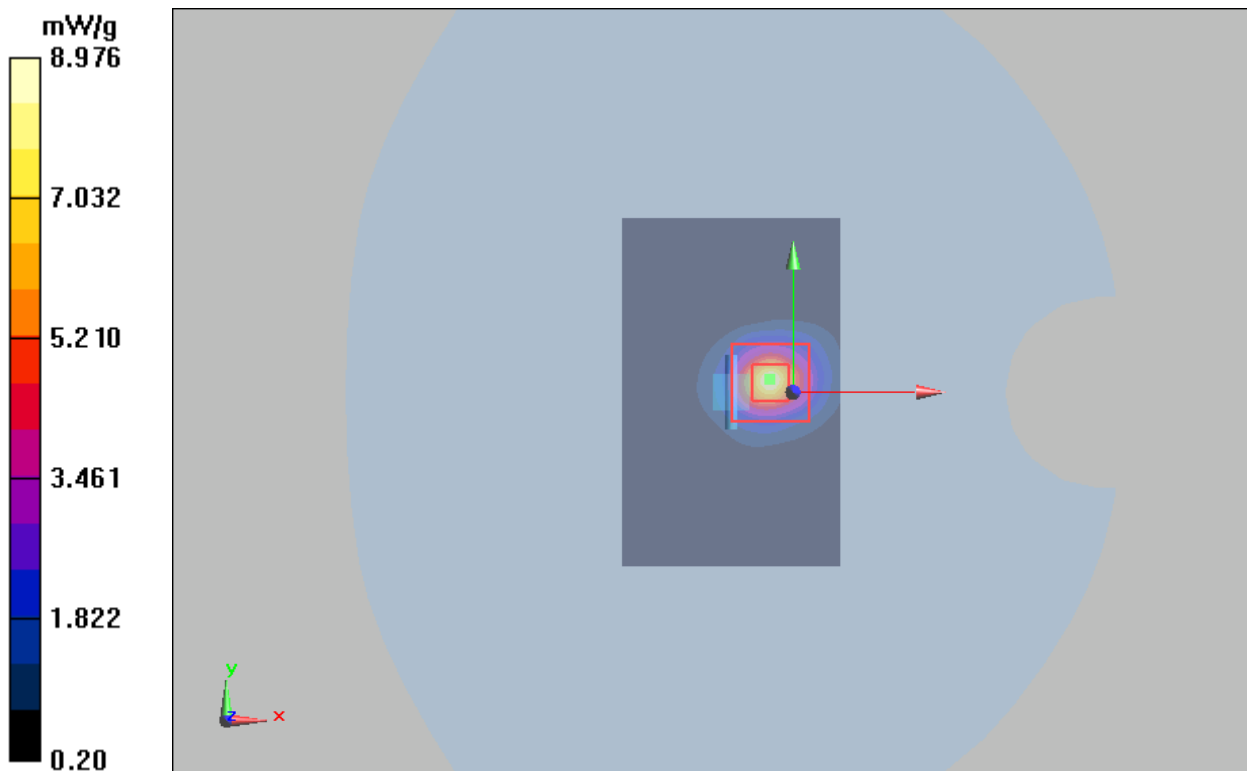
**d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 23.1 V/m; Power Drift = 0.044 dB

Peak SAR (extrapolated) = 23.4 W/kg

**SAR(1 g) = 7.66 mW/g; SAR(10 g) = 2.27 mW/g**

Maximum value of SAR (measured) = 8.976 mW/g



**Plot 35 System Performance Check at 5750 MHz Body TSL**

**DUT: Dipole 5750 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 5/2/2019

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

Medium parameters used:  $f = 5750$  MHz;  $\sigma = 6.14$  S/m;  $\epsilon_r = 47.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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(4.43, 4.43, 4.43); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=100mW/Area Scan (61x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 7.84 mW/g

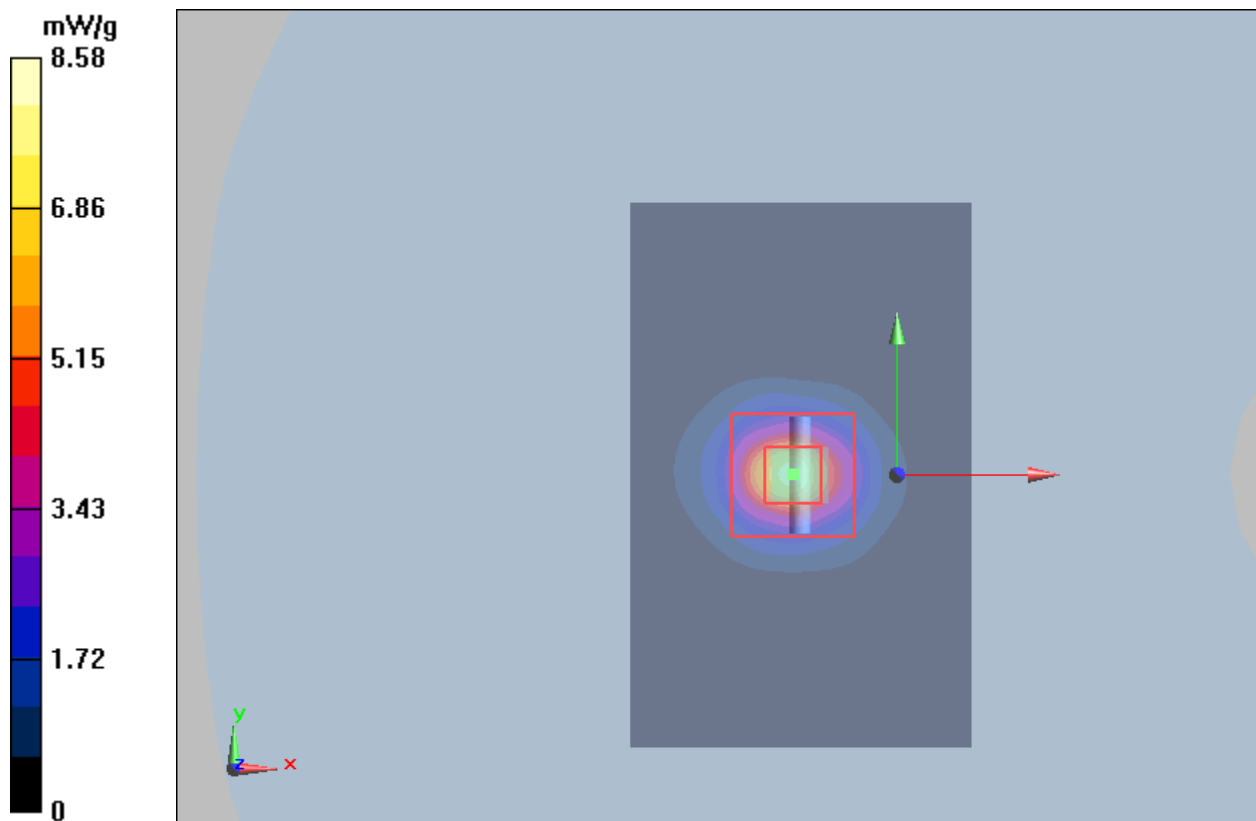
**d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 38 V/m; Power Drift = -0.018 dB

Peak SAR (extrapolated) = 22.6 W/kg

**SAR(1 g) = 7.15 mW/g; SAR(10 g) = 1.99 mW/g**

Maximum value of SAR (measured) = 8.58 mW/g



**Plot 36 System Performance Check at 5750 MHz Body TSL**

**DUT: Dipole 5750 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 5/3/2019

Communication System

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(4.43, 4.43, 4.43); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**d=10mm, Pin=100mW/Area Scan (61x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 7.97 mW/g

**d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm,

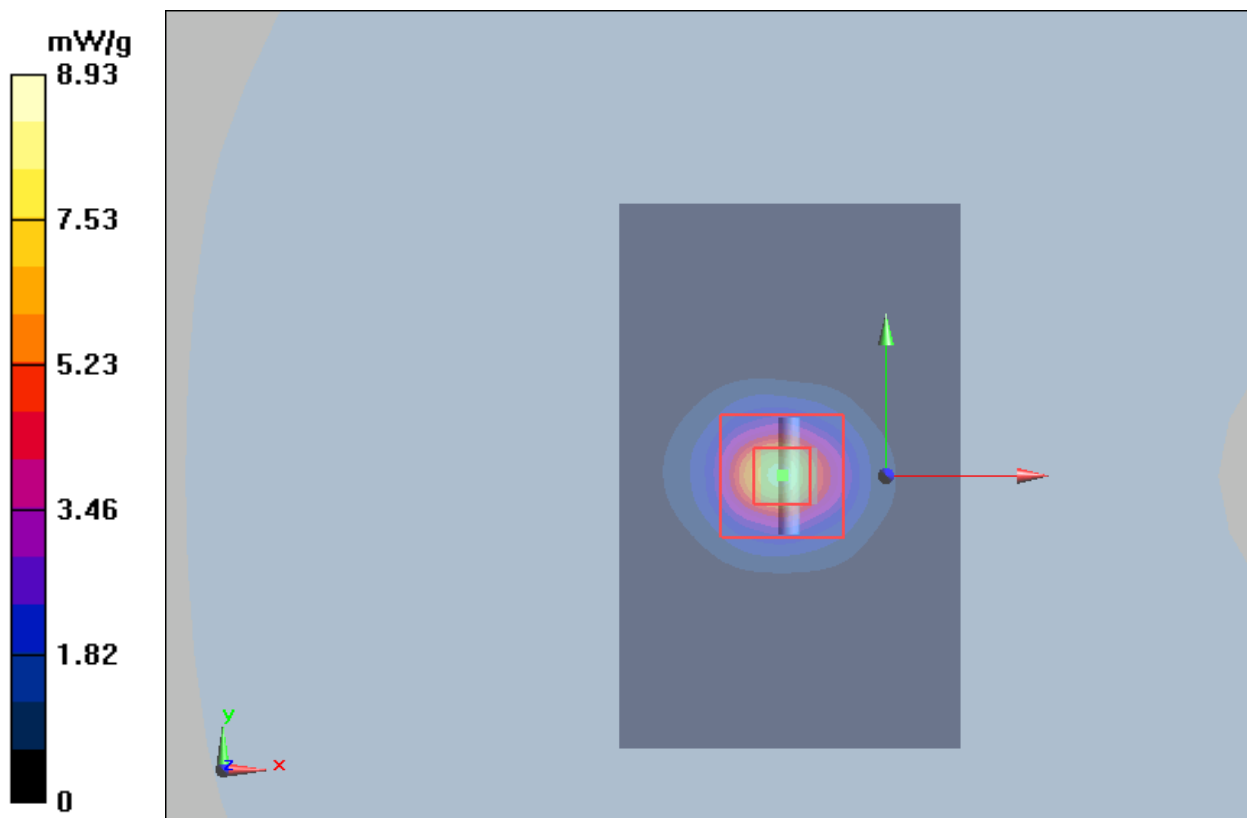
dz=2mm

Reference Value = 38.63 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 22.83 W/kg

**SAR(1 g) = 7.21 mW/g; SAR(10 g) = 1.98 mW/g**

Maximum value of SAR (measured) = 8.93 mW/g



## ANNEX C: Highest Graph Results

### Main-Antenna

#### Plot 37GSM 850 Right Cheek Middle

Date: 4/20/2019

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

Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.916$  S/m;  $\epsilon_r = 41.951$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.10, 9.10, 9.10); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Middle/Area Scan (71x131x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.110 W/kg

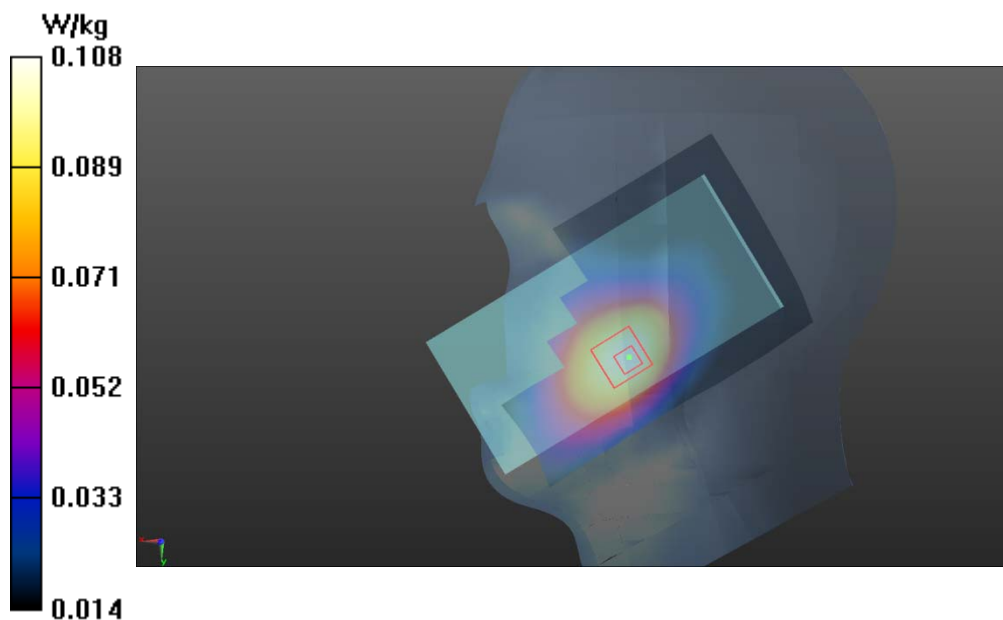
**Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.591 V/m; Power Drift = 0.085 dB

Peak SAR (extrapolated) = 0.131 W/kg

**SAR(1 g) = 0.103 W/kg; SAR(10 g) = 0.079 W/kg**

Maximum value of SAR (measured) = 0.108 W/kg



**Plot 38GSM 850 Back Side Middle (Distance 15mm)**

Date: 4/21/2019

Communication System: UID 0, GSM 850 (0); Frequency: 836.6 MHz; Duty Cycle: 1:8.30042

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.974$  S/m;  $\epsilon_r = 53.795$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.148 W/kg

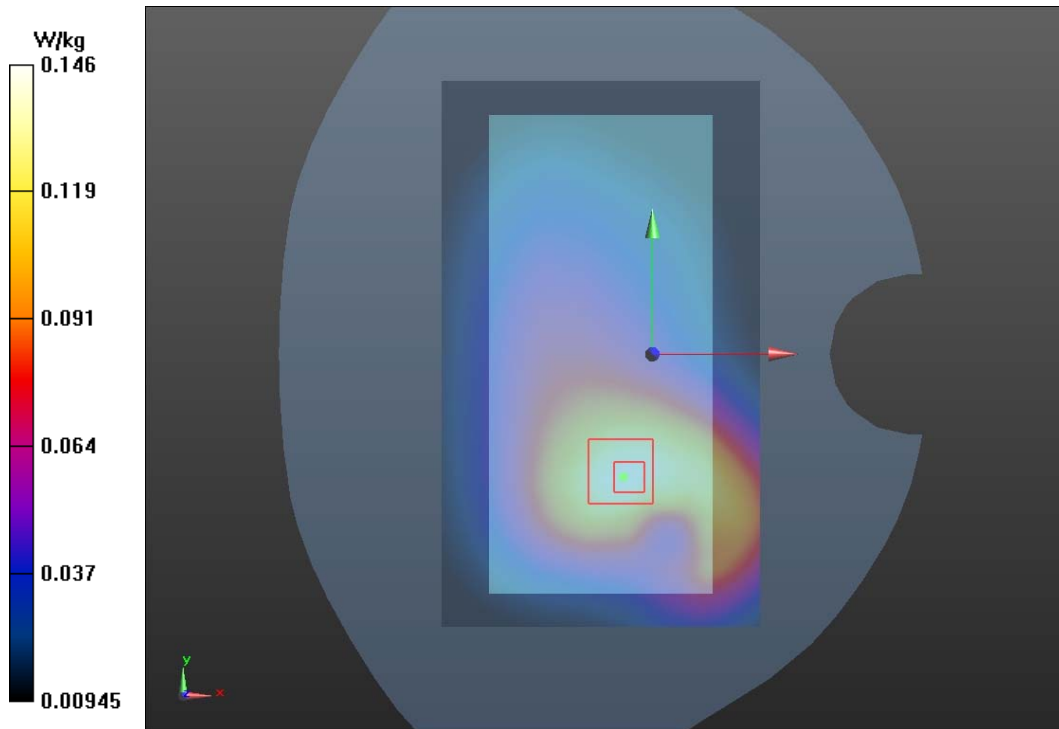
**Back Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.469 V/m; Power Drift = -0.060 dB

Peak SAR (extrapolated) = 0.183 W/kg

**SAR(1 g) = 0.137 W/kg; SAR(10 g) = 0.097 W/kg**

Maximum value of SAR (measured) = 0.146 W/kg



**Plot 39GSM 850 GPRS (2Txslots) Back Side Middle (Distance 10mm)**

Date: 4/21/2019

Communication System: UID 0, GPRS 2TX (0); Frequency: 836.6 MHz; Duty Cycle: 1:4.14954

Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.974$  S/m;  $\epsilon_r = 53.795$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle /Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.196 W/kg

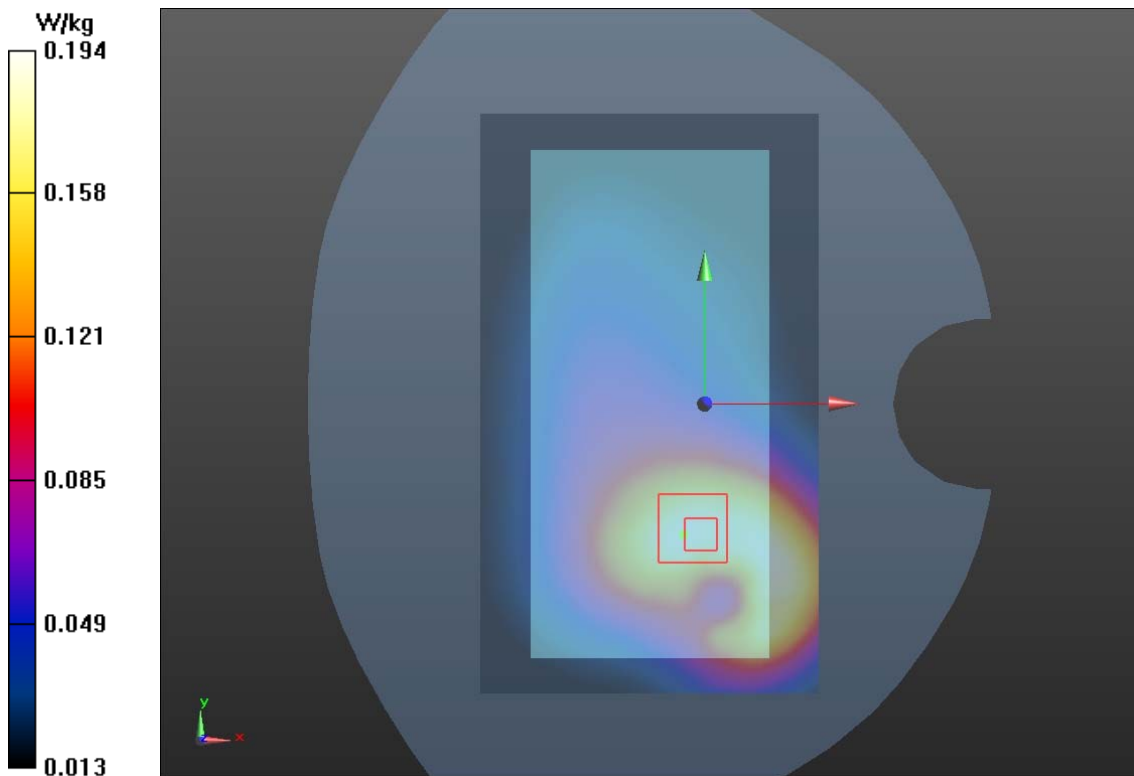
**Back Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.598 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.252 W/kg

**SAR(1 g) = 0.181 W/kg; SAR(10 g) = 0.124 W/kg**

Maximum value of SAR (measured) = 0.194 W/kg



**Plot 40GSM 1900 Right Cheek Middle**

Date: 4/20/2019

Communication System: UID 0, GSM 1900 (0); Frequency: 1880 MHz; Duty Cycle: 1:8.30042

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.393$  S/m;  $\epsilon_r = 38.344$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.96, 7.96, 7.96); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Middle/Area Scan (71x131x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.0756 W/kg

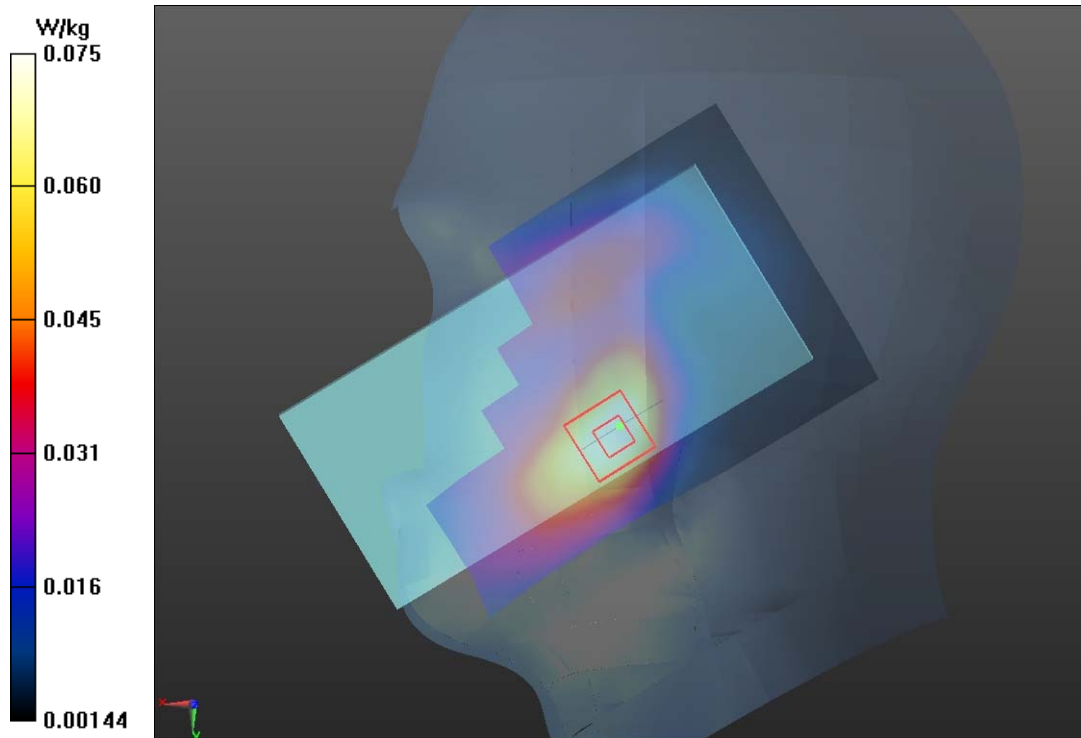
**Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.507 V/m; Power Drift = 0.033 dB

Peak SAR (extrapolated) = 0.108 W/kg

**SAR(1 g) = 0.069 W/kg; SAR(10 g) = 0.043 W/kg**

Maximum value of SAR (measured) = 0.075 W/kg





**Plot 41GSM 1900 Back Side Middle (Distance 15mm)**

Date: 4/19/2019

Communication System: UID 0, GSM 1900 (0); Frequency: 1880 MHz; Duty Cycle: 1:8.30042

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.477$  S/m;  $\epsilon_r = 51.607$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.153 W/kg

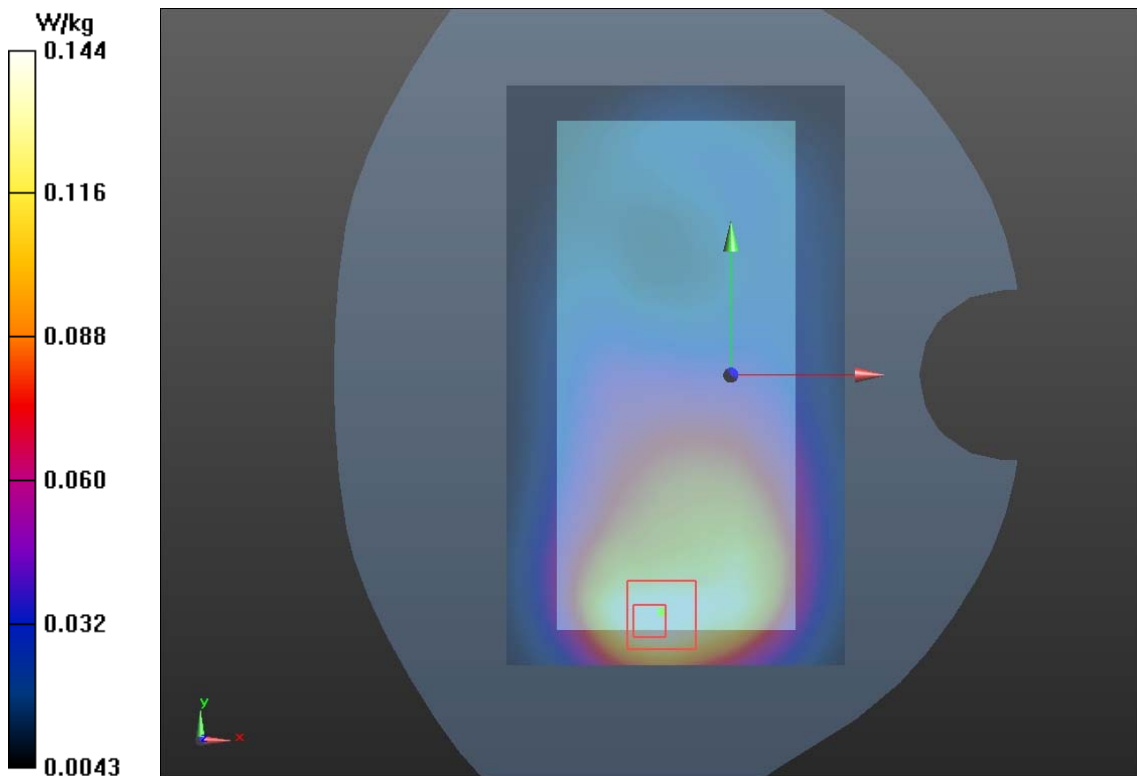
**Back Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.600 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.223 W/kg

**SAR(1 g) = 0.136 W/kg; SAR(10 g) = 0.084 W/kg**

Maximum value of SAR (measured) = 0.144 W/kg



**Plot 42 GSM 1900 GPRS (2Txslots) Bottom Edge Middle (Distance 10mm)**

Date: 4/19/2019

Communication System: UID 0, GPRS 2TX (0); Frequency: 1880 MHz; Duty Cycle: 1:4.14954

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.477$  S/m;  $\epsilon_r = 51.607$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Bottom Edge Middle/Area Scan (51x111x1):** Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 0.378 W/kg

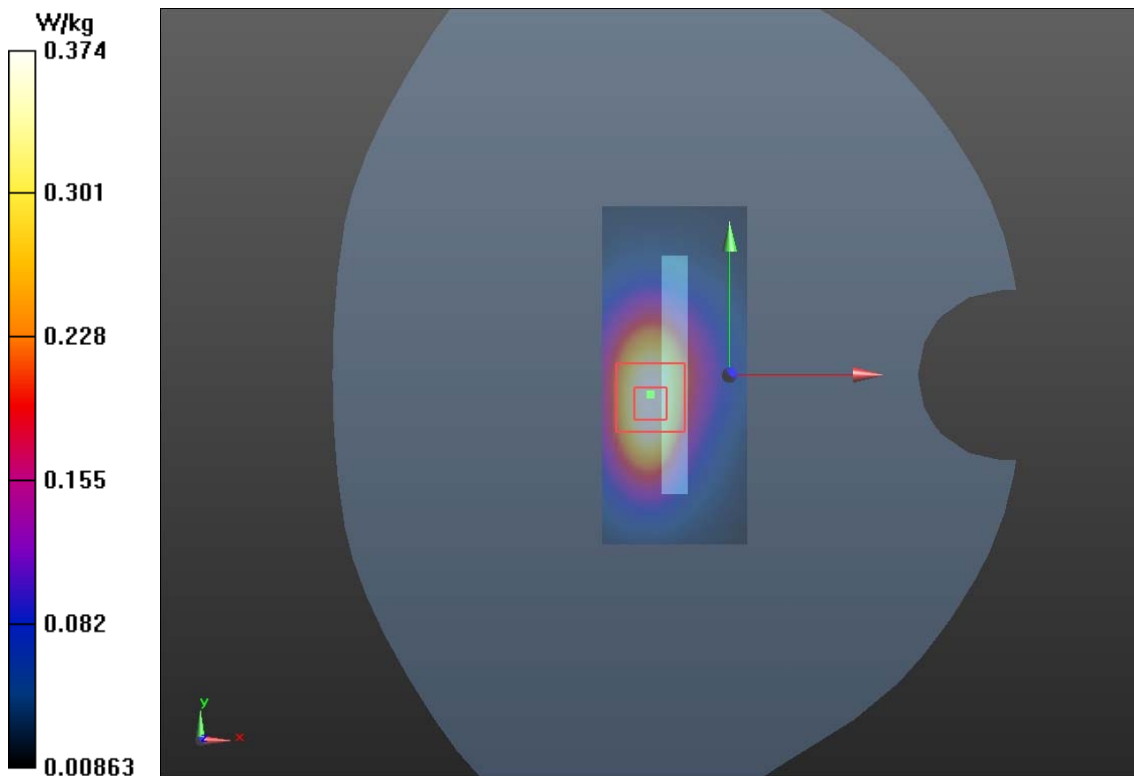
**Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.06 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.572 W/kg

**SAR(1 g) = 0.338 W/kg; SAR(10 g) = 0.191 W/kg**

Maximum value of SAR (measured) = 0.374 W/kg



### Plot 43 UMTS Band II Right Cheek Middle

Date: 4/20/2019

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

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.393$  S/m;  $\epsilon_r = 38.344$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.96, 7.96, 7.96); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Middle/Area Scan (71x131x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.194 W/kg

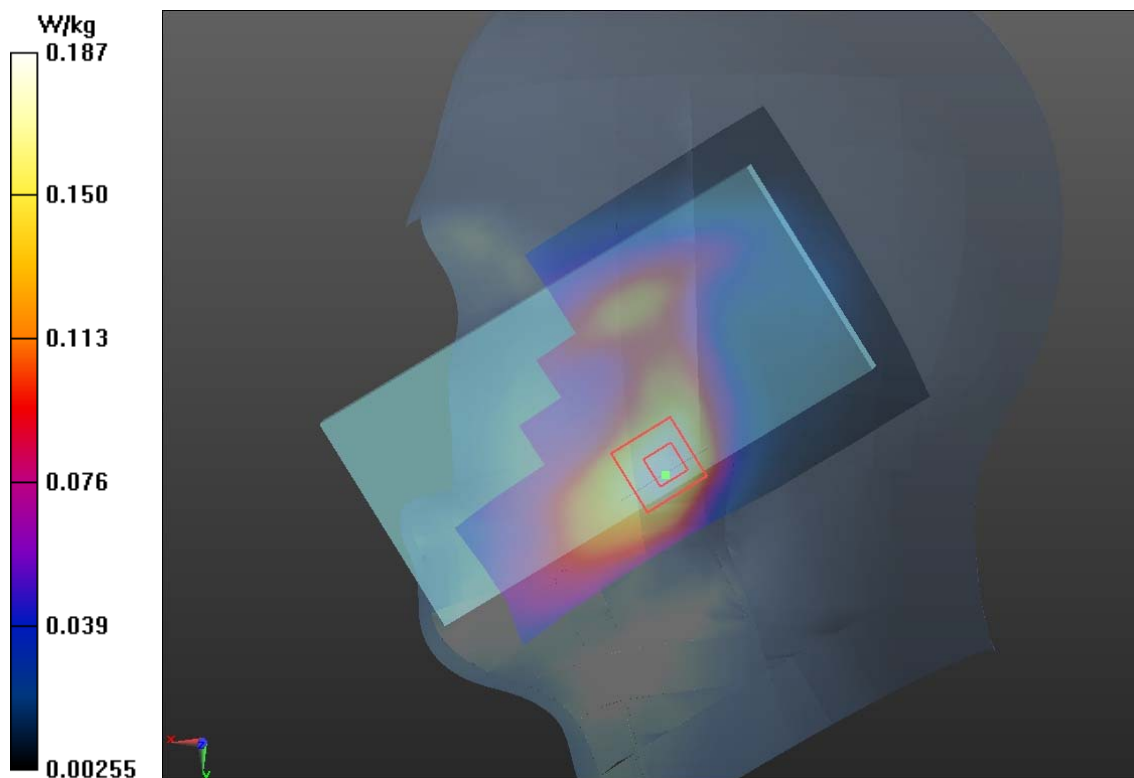
**Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.338 V/m; Power Drift = 0.047 dB

Peak SAR (extrapolated) = 0.262 W/kg

**SAR(1 g) = 0.176 W/kg; SAR(10 g) = 0.111 W/kg**

Maximum value of SAR (measured) = 0.187 W/kg



**Plot 44 UMTS Band II Back Side Middle (Distance 15mm)**

Date: 4/19/2019

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

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.477$  S/m;  $\epsilon_r = 51.607$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.359 W/kg

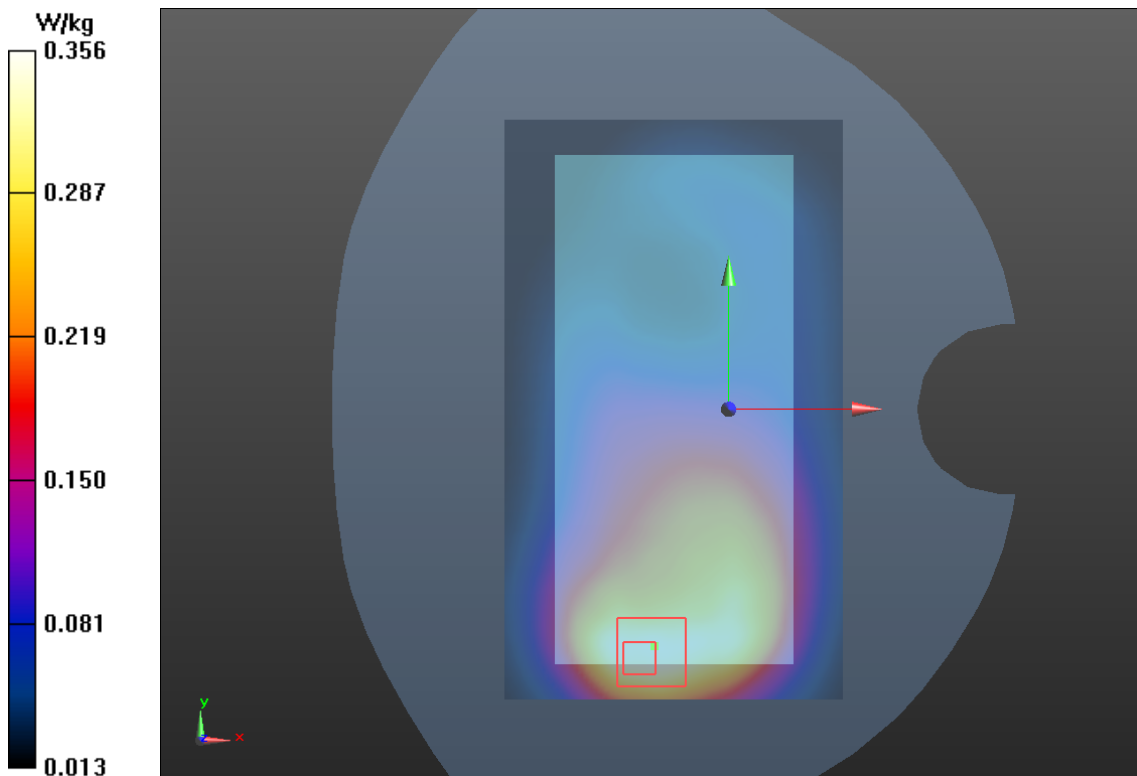
**Back Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.162 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.557 W/kg

**SAR(1 g) = 0.340 W/kg; SAR(10 g) = 0.208 W/kg**

Maximum value of SAR (measured) = 0.356 W/kg



**Plot 45 UMTS Band II Bottom Edge Middle (Distance 10mm)**

Date: 4/19/2019

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

Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.477 \text{ S/m}$ ;  $\epsilon_r = 51.607$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Bottom Edge Middle /Area Scan (51x111x1):** Interpolated grid:  $dx=10 \text{ mm}$ ,  $dy=10 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.455 \text{ W/kg}$

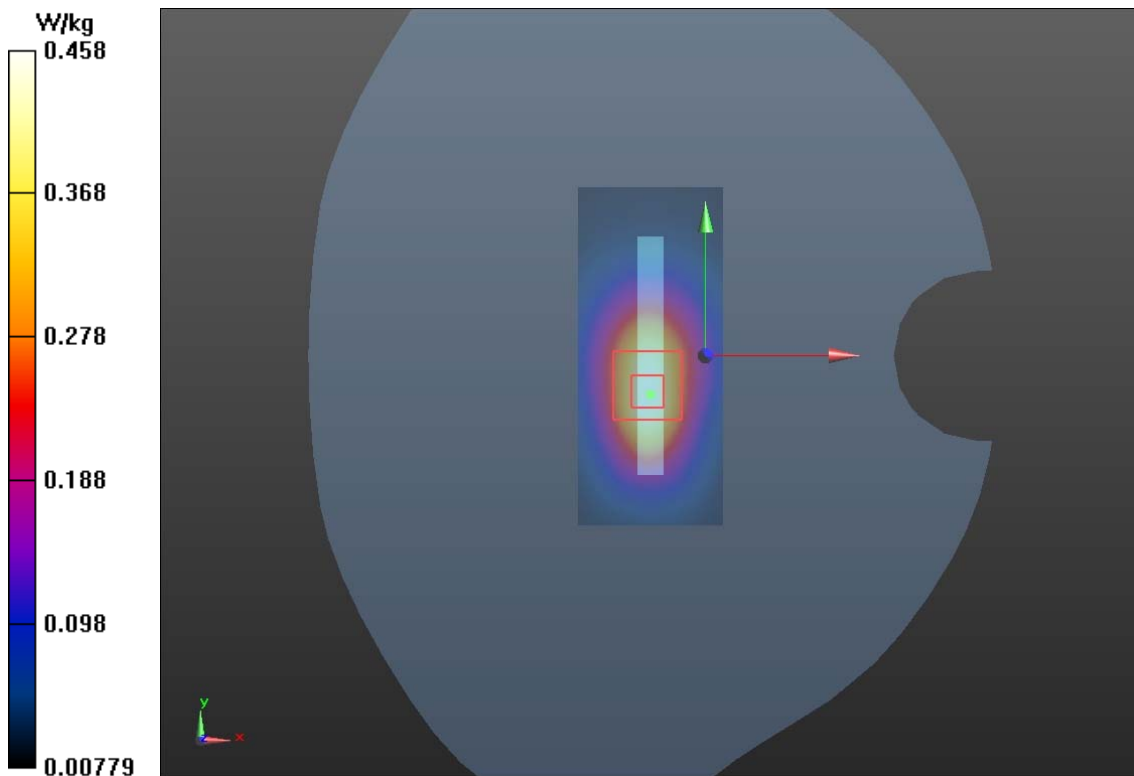
**Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $16.97 \text{ V/m}$ ; Power Drift =  $0.02 \text{ dB}$

Peak SAR (extrapolated) =  $0.708 \text{ W/kg}$

**SAR(1 g) =  $0.412 \text{ W/kg}$ ; SAR(10 g) =  $0.230 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.458 \text{ W/kg}$



**Plot 46 UMTS Band IV Left Cheek Middle**

Date: 4/17/2019

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

Medium parameters used:  $f = 1733 \text{ MHz}$ ;  $\sigma = 1.293 \text{ S/m}$ ;  $\epsilon_r = 38.782$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.19, 8.19, 8.19); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Left Cheek Middle/Area Scan (71x131x1):** Interpolated grid:  $dx=15 \text{ mm}$ ,  $dy=15 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.135 \text{ W/kg}$

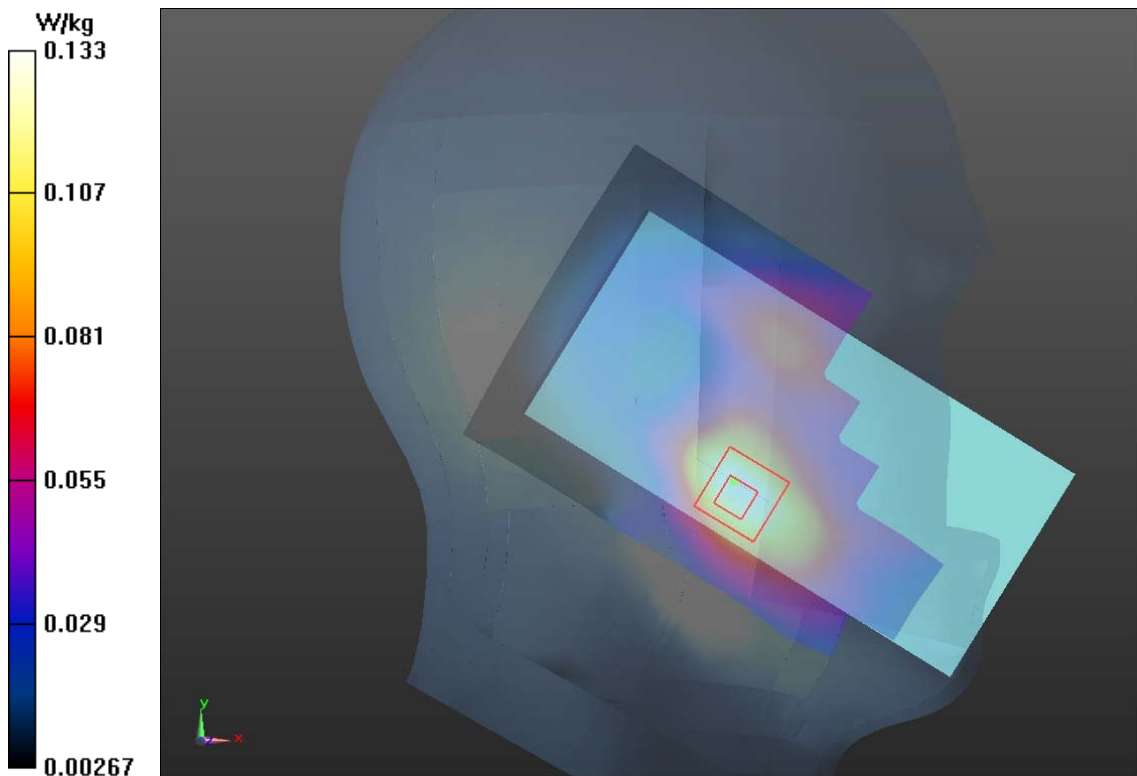
**Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $4.934 \text{ V/m}$ ; Power Drift =  $0.11 \text{ dB}$

Peak SAR (extrapolated) =  $0.197 \text{ W/kg}$

**SAR(1 g) =  $0.129 \text{ W/kg}$ ; SAR(10 g) =  $0.082 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.133 \text{ W/kg}$



**Plot 47 UMTS Band IV Back Side Middle(Distance 15mm)**

Date: 4/18/2019

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

Medium parameters used:  $f = 1733 \text{ MHz}$ ;  $\sigma = 1.421 \text{ S/m}$ ;  $\epsilon_r = 51.484$ ;  $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.91, 7.91, 7.91); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.292 W/kg

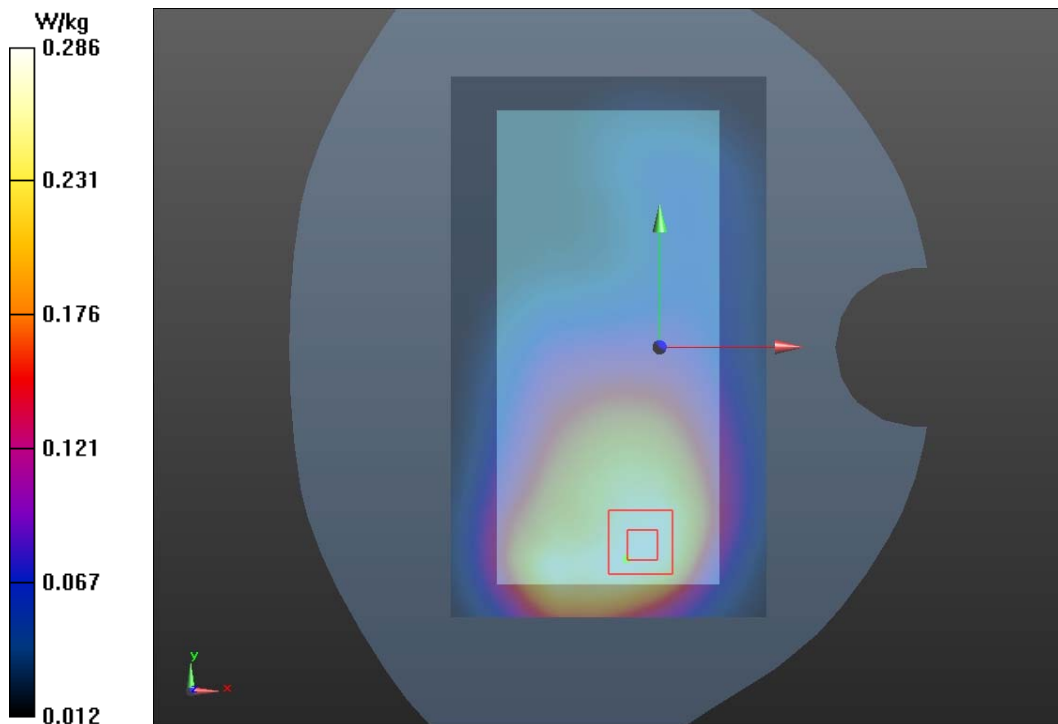
**Back Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.337 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.410 W/kg

**SAR(1 g) = 0.270 W/kg; SAR(10 g) = 0.177 W/kg**

Maximum value of SAR (measured) = 0.286 W/kg



**Plot 48 UMTS Band IV Bottom Edge Middle (Distance 10mm)**

Date: 4/18/2019

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

Medium parameters used:  $f = 1733 \text{ MHz}$ ;  $\sigma = 1.421 \text{ S/m}$ ;  $\epsilon_r = 51.484$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.91, 7.91, 7.91); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Bottom Edge Middle/Area Scan (51x111x1):** Interpolated grid:  $dx=10 \text{ mm}$ ,  $dy=10 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.357 \text{ W/kg}$

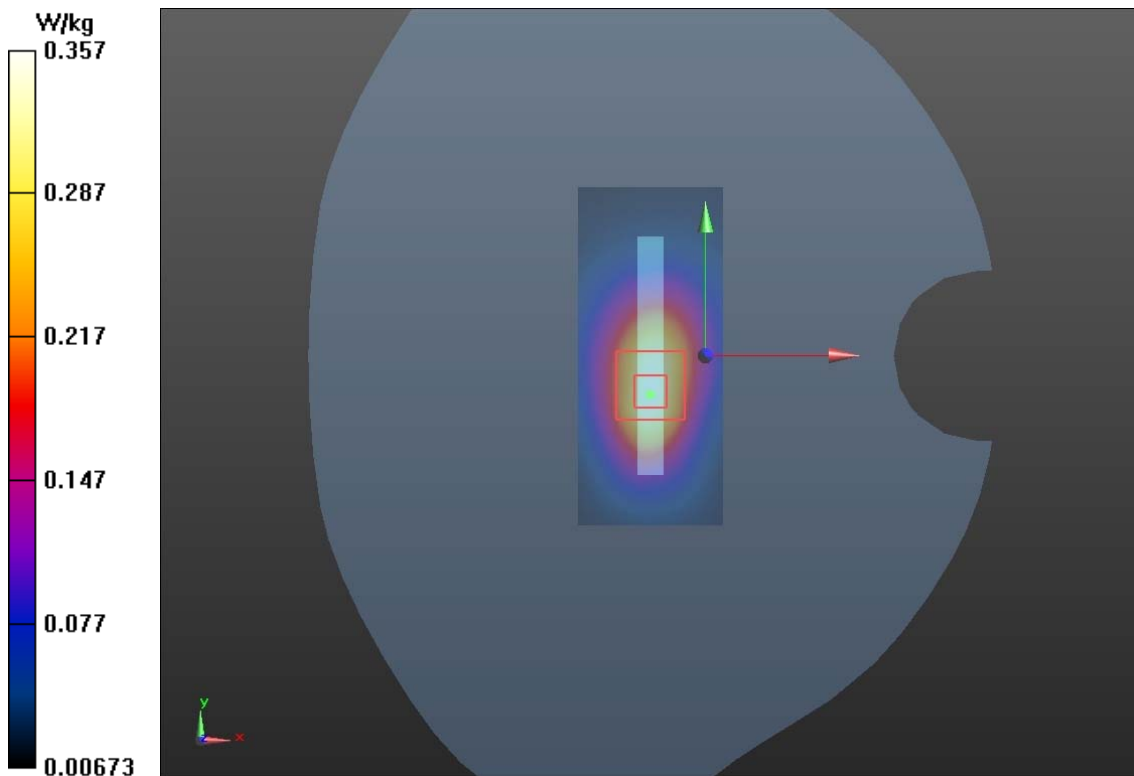
**Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $15.18 \text{ V/m}$ ; Power Drift =  $-0.05 \text{ dB}$

Peak SAR (extrapolated) =  $0.531 \text{ W/kg}$

**SAR(1 g) =  $0.321 \text{ W/kg}$ ; SAR(10 g) =  $0.184 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.357 \text{ W/kg}$





### Plot 49 UMTS Band V Right Cheek Middle

Date: 4/20/2019

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

Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.916$  S/m;  $\epsilon_r = 41.951$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.10, 9.10, 9.10); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Middle/Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.157 W/kg

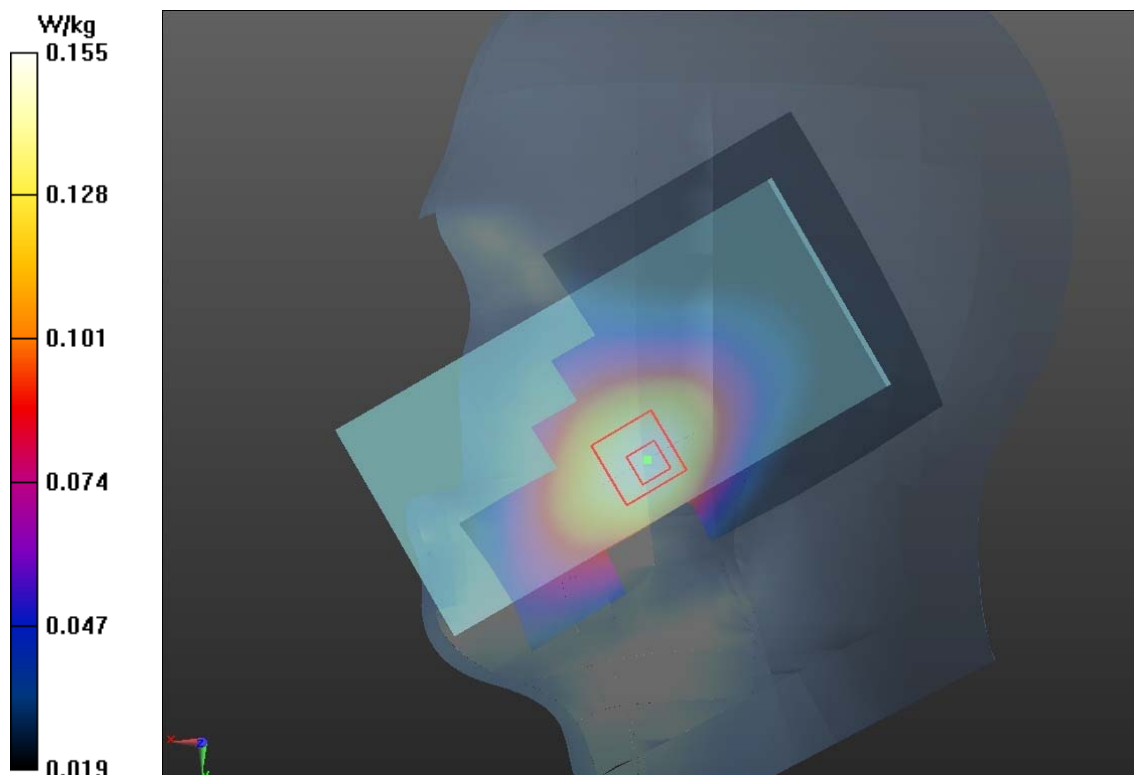
**Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.981 V/m; Power Drift = 0.070 dB

Peak SAR (extrapolated) = 0.186 W/kg

**SAR(1 g) = 0.147 W/kg; SAR(10 g) = 0.112 W/kg**

Maximum value of SAR (measured) = 0.155 W/kg



**Plot 50 UMTS Band V Back Side Middle(Distance 15mm)**

Date: 4/21/2019

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

Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.974$  S/m;  $\epsilon_r = 53.795$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle /Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.215 W/kg

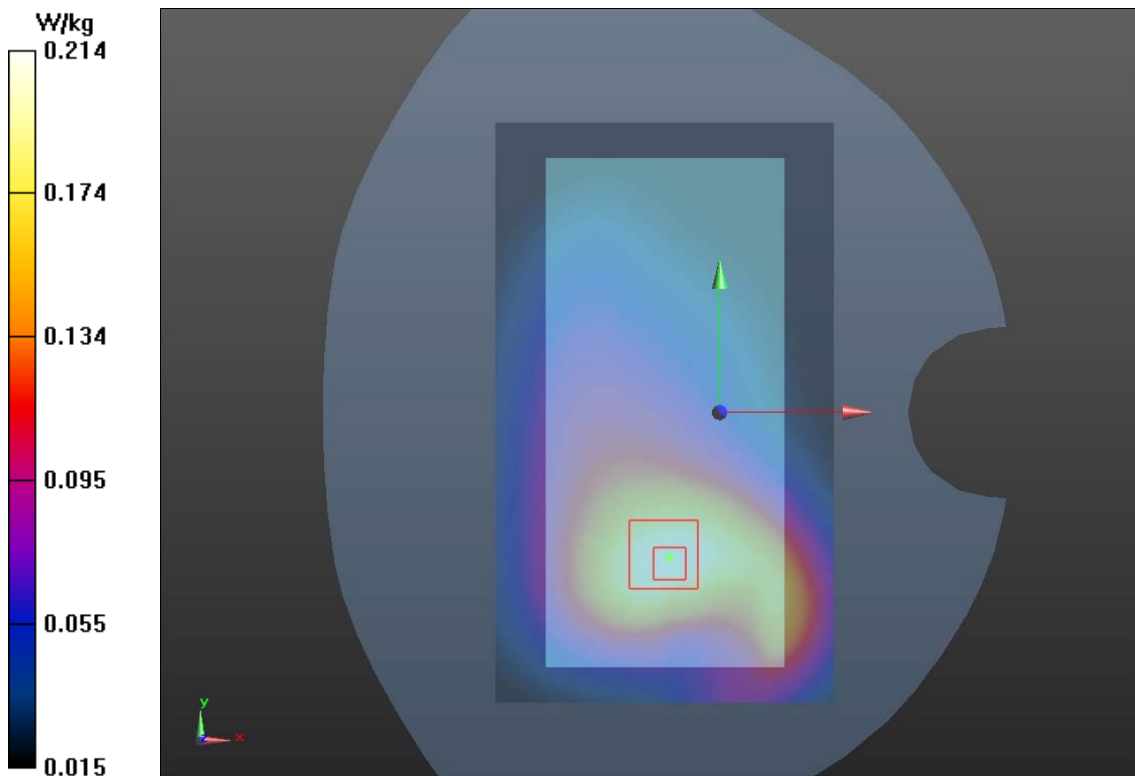
**Back Side Middle /Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.416 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.266 W/kg

**SAR(1 g) = 0.202 W/kg; SAR(10 g) = 0.144 W/kg**

Maximum value of SAR (measured) = 0.214 W/kg



**Plot 51 UMTS Band V Back Side Middle (Distance 10mm)**

Date: 4/21/2019

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

Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.974$  S/m;  $\epsilon_r = 53.795$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle /Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.394 W/kg

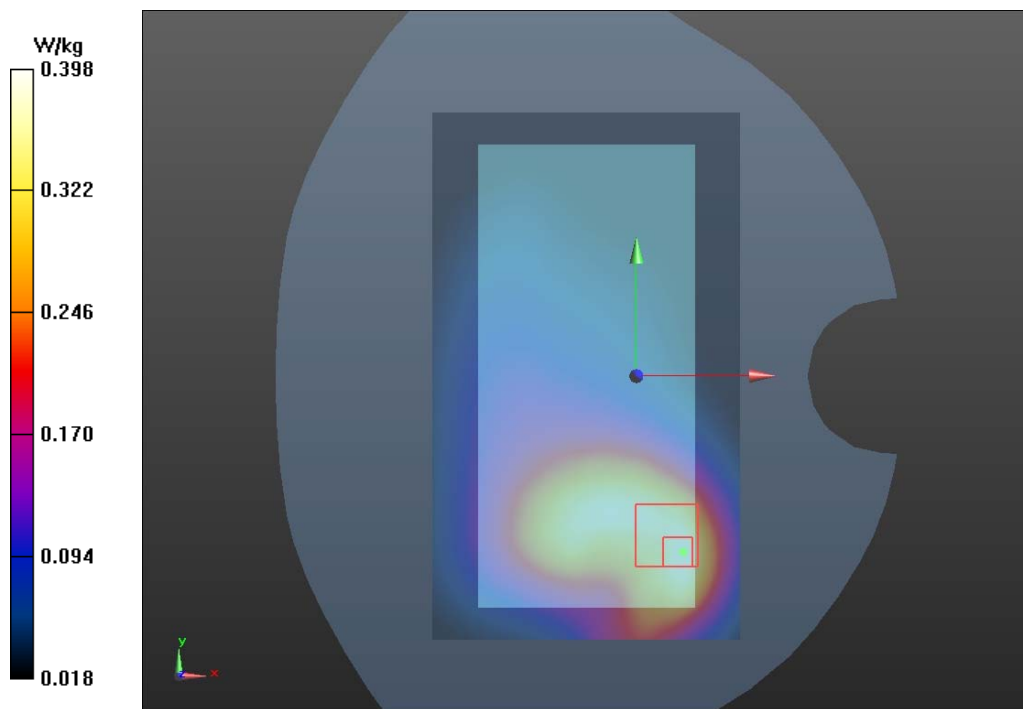
**Back Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.03 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.611 W/kg

**SAR(1 g) = 0.366 W/kg; SAR(10 g) = 0.227 W/kg**

Maximum value of SAR (measured) = 0.398 W/kg



**Plot 52 LTE Band 2 1RB Right Cheek Middle**

Date: 4/20/2019

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

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.393$  S/m;  $\epsilon_r = 38.344$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.96, 7.96, 7.96); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Middle/Area Scan (71x131x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.151 W/kg

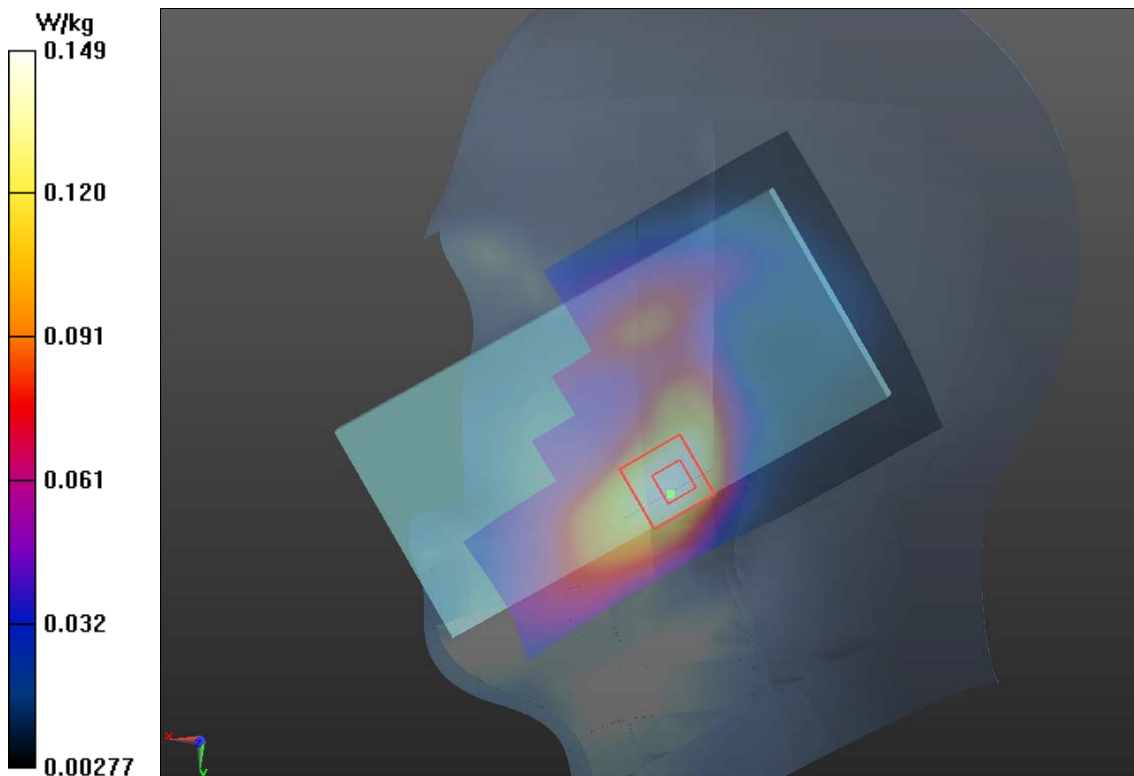
**Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.845 V/m; Power Drift = 0.069 dB

Peak SAR (extrapolated) = 0.211 W/kg

**SAR(1 g) = 0.139 W/kg; SAR(10 g) = 0.088 W/kg**

Maximum value of SAR (measured) = 0.149 W/kg



**Plot 53 LTE Band 2 1RB Back Side Middle (Distance 15mm)**

Date: 4/19/2019

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

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.477$  S/m;  $\epsilon_r = 51.607$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15mm, dy=15mm

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

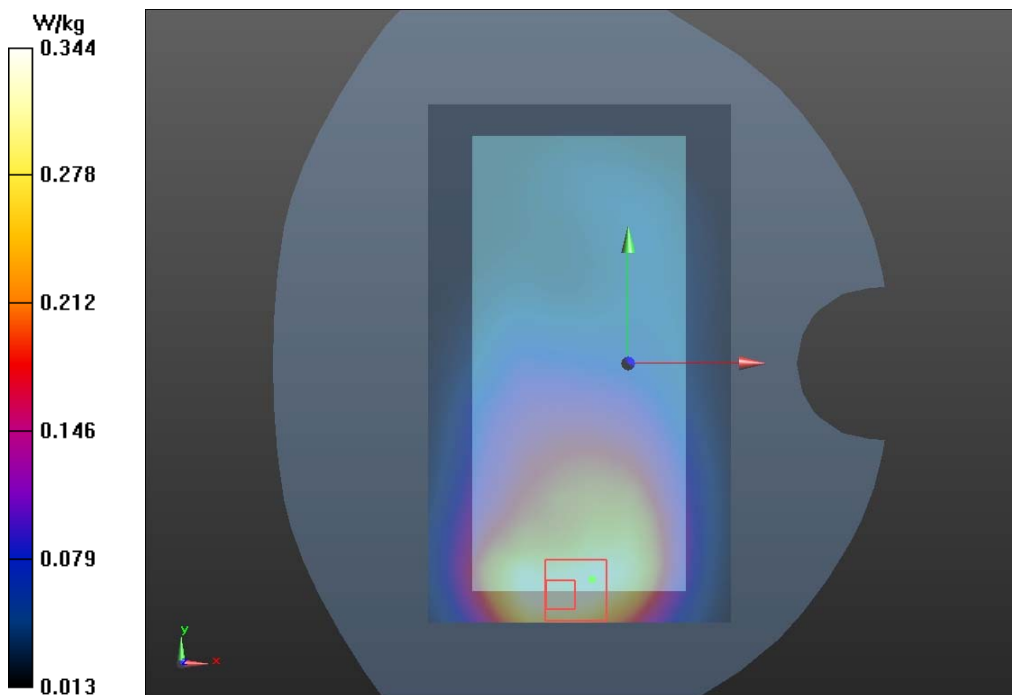
**Back Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.643 V/m; Power Drift = 0.040 dB

Peak SAR (extrapolated) = 0.514 W/kg

**SAR(1 g) = 0.319 W/kg; SAR(10 g) = 0.200 W/kg**

Maximum value of SAR (measured) = 0.344 W/kg



**Plot 54 LTE Band 2 1RB Bottom Edge Middle (Distance 10mm)**

Date: 4/19/2019

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

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.477$  S/m;  $\epsilon_r = 51.607$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Bottom Edge Middle /Area Scan (51x111x1):** Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 0.456 W/kg

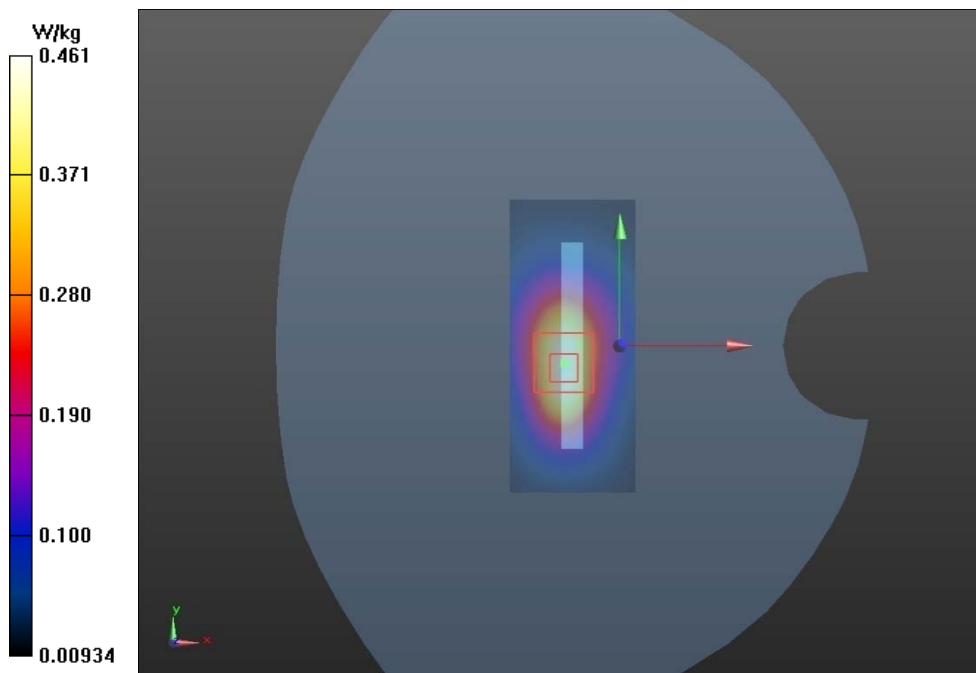
**Bottom Edge Middle /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.19 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.716 W/kg

**SAR(1 g) = 0.415 W/kg; SAR(10 g) = 0.232 W/kg**

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



**Plot 55 LTE Band 4 1RB Left Cheek Low**

Date: 4/17/2019

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

Medium parameters used:  $f = 1720 \text{ MHz}$ ;  $\sigma = 1.284 \text{ S/m}$ ;  $\epsilon_r = 38.855$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.19, 8.19, 8.19); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Left Cheek Low/Area Scan (71x131x1):** Interpolated grid:  $dx=15 \text{ mm}$ ,  $dy=15 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.121 \text{ W/kg}$

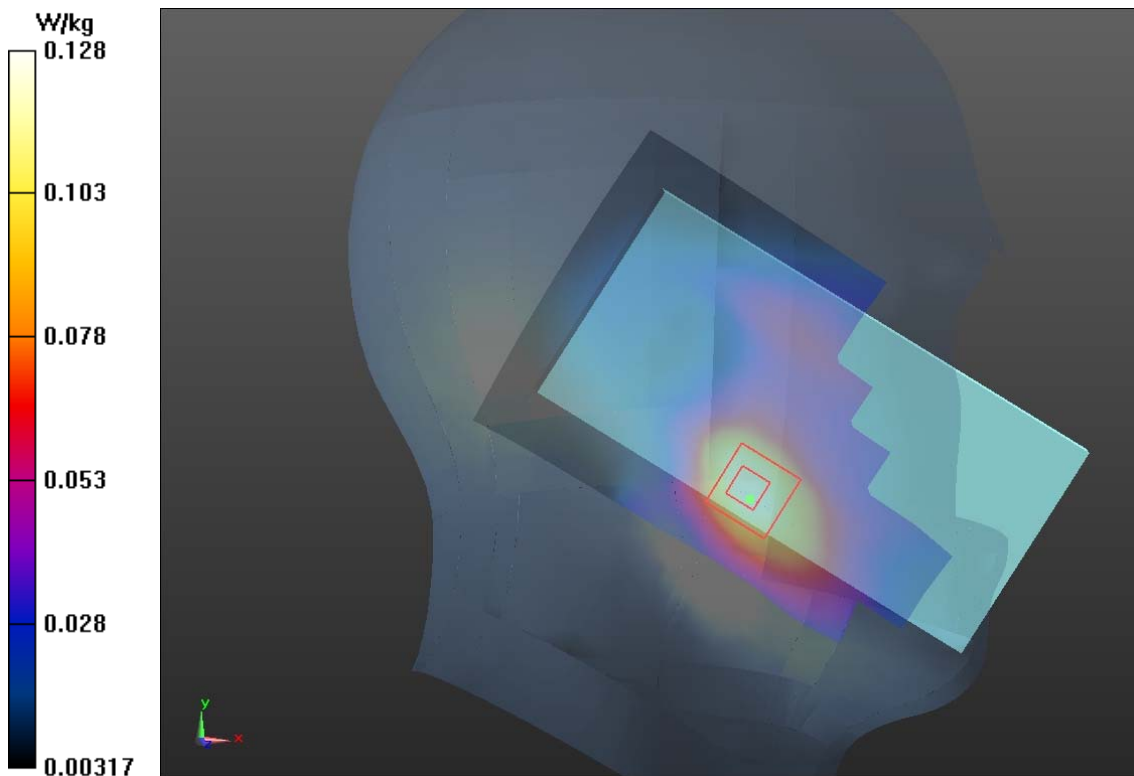
**Left Cheek Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $4.204 \text{ V/m}$ ; Power Drift =  $0.046 \text{ dB}$

Peak SAR (extrapolated) =  $0.176 \text{ W/kg}$

**SAR(1 g) =  $0.119 \text{ W/kg}$ ; SAR(10 g) =  $0.077 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.128 \text{ W/kg}$



**Plot 56 LTE Band 4 1RB Back Side Low (Distance 15mm)**

Date: 4/18/2019

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

Medium parameters used:  $f = 1720 \text{ MHz}$ ;  $\sigma = 1.409 \text{ S/m}$ ;  $\epsilon_r = 51.527$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.19, 8.19, 8.19); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Low/Area Scan (71x121x1):** Interpolated grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (interpolated) =  $0.264 \text{ W/kg}$

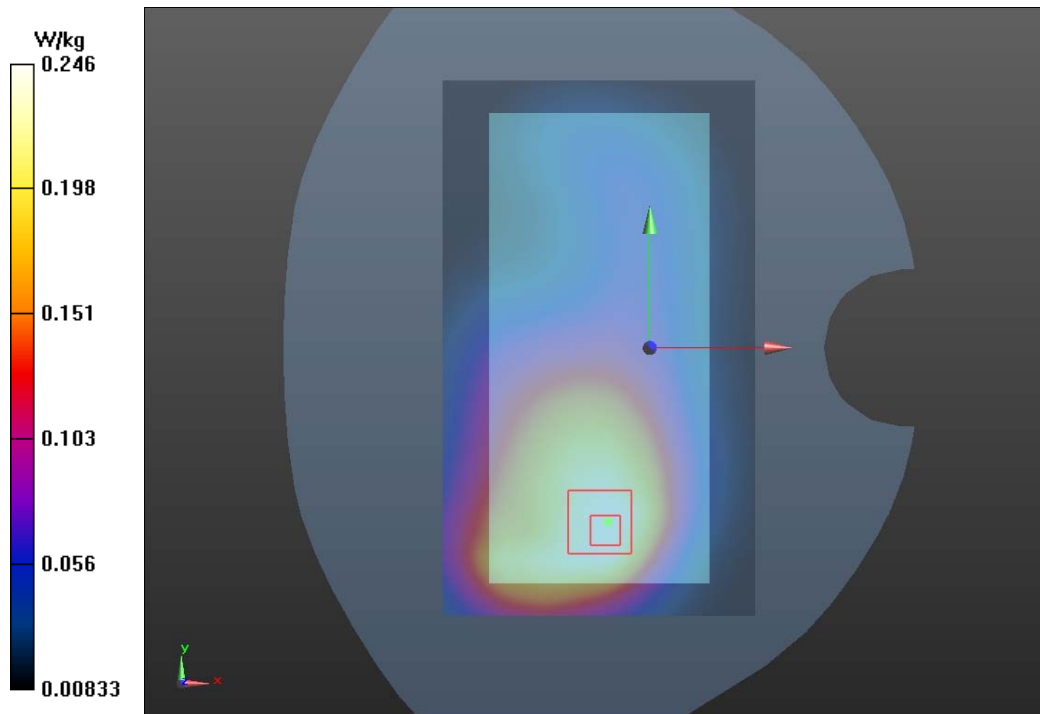
**Back Side Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $8.409 \text{ V/m}$ ; Power Drift =  $0.000 \text{ dB}$

Peak SAR (extrapolated) =  $0.347 \text{ W/kg}$

**SAR(1 g) =  $0.231 \text{ W/kg}$ ; SAR(10 g) =  $0.152 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.246 \text{ W/kg}$





**Plot 57 LTE Band 4 1RB Bottom Edge Middle (Distance 10mm)**

Date: 4/18/2019

Communication System: UID 0, LTE (0); Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 1732.5$  MHz;  $\sigma = 1.439$  S/m;  $\epsilon_r = 53.117$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.19, 8.19, 8.19); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Bottom Edge Middle/Area Scan (51x111x1):** Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 0.426 W/kg

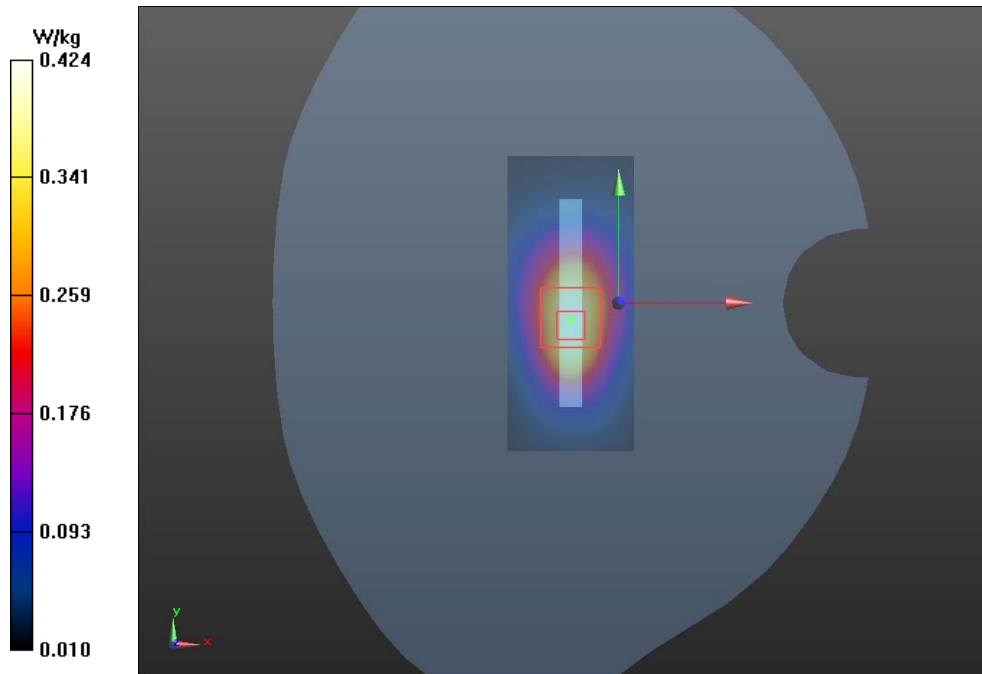
**Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.01 V/m; Power Drift = -0.080 dB

Peak SAR (extrapolated) = 0.634 W/kg

**SAR(1 g) = 0.382 W/kg; SAR(10 g) = 0.219 W/kg**

Maximum value of SAR (measured) = 0.424 W/kg



**Plot 58 LTE Band 5 1RB Right Cheek Middle**

Date: 4/20/2019

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

Medium parameters used (interpolated):  $f = 836.5$  MHz;  $\sigma = 0.916$  S/m;  $\epsilon_r = 41.958$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.10, 9.10, 9.10); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Middle/Area Scan (71x131x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.155 W/kg

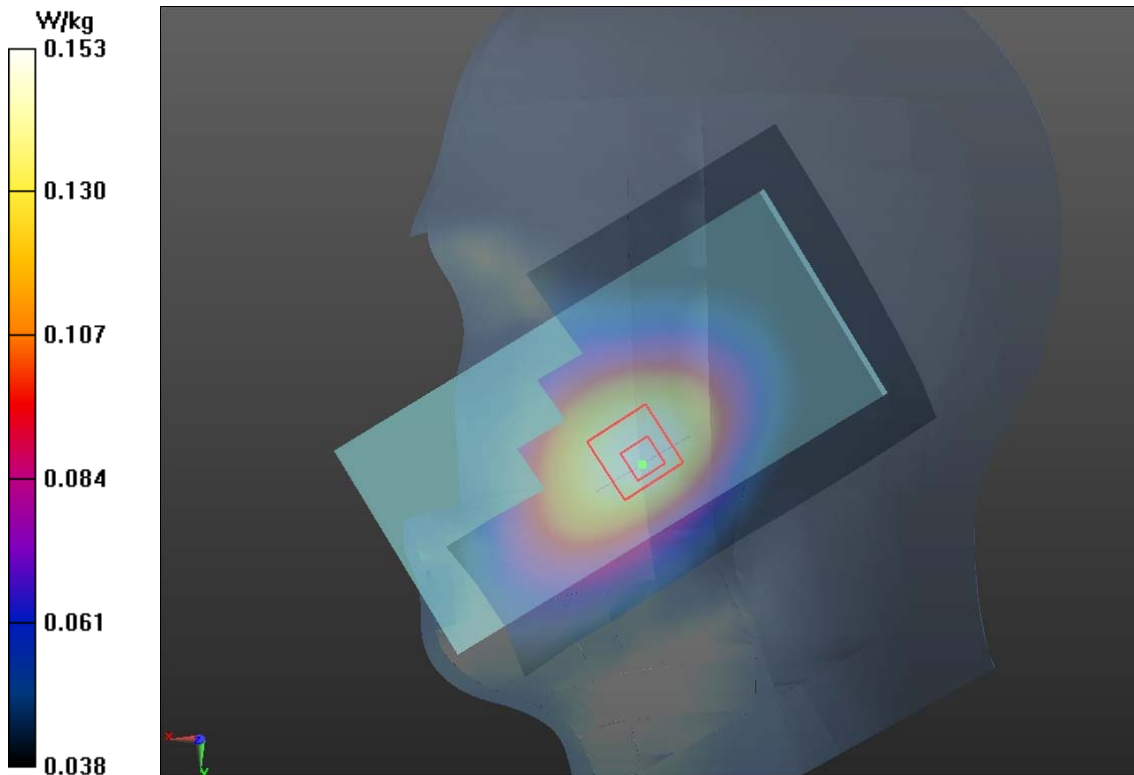
**Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.163 V/m; Power Drift = 0.035 dB

Peak SAR (extrapolated) = 0.181 W/kg

**SAR(1 g) = 0.147 W/kg; SAR(10 g) = 0.117 W/kg**

Maximum value of SAR (measured) = 0.153 W/kg



**Plot 59 LTE Band 5 1RB Back Side Middle(Distance 15mm)**

Date: 4/21/2019

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

Medium parameters used (interpolated):  $f = 836.5$  MHz;  $\sigma = 0.974$  S/m;  $\epsilon_r = 53.797$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.211 W/kg

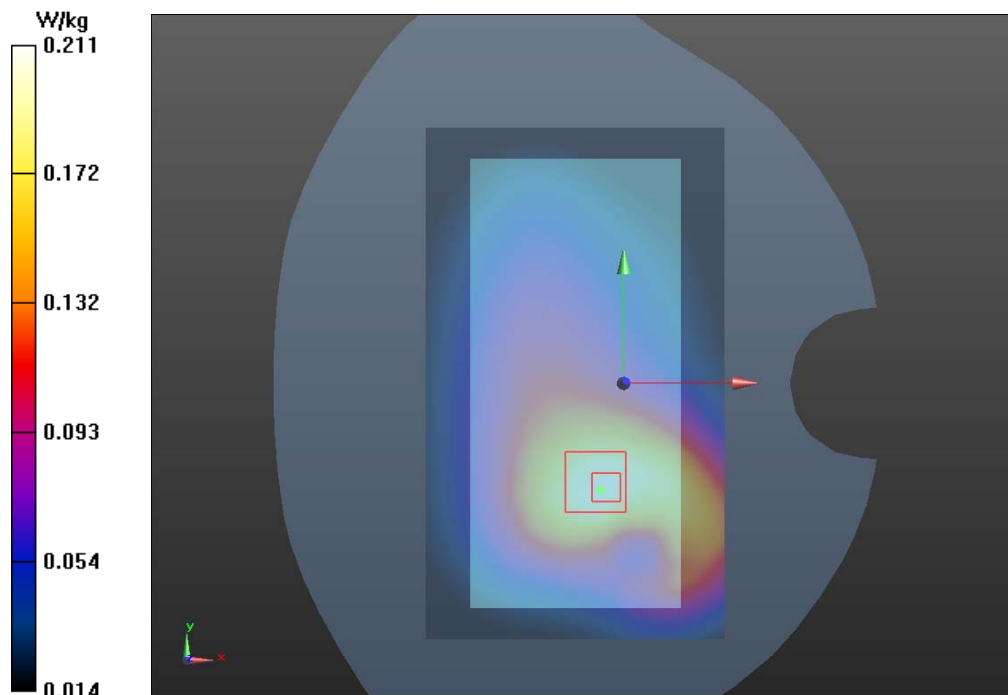
**Back Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.72 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.263 W/kg

**SAR(1 g) = 0.199 W/kg; SAR(10 g) = 0.142 W/kg**

Maximum value of SAR (measured) = 0.211 W/kg



**Plot 60 LTE Band 5 50%RB Back Side Low (Distance 10mm)**

Date: 4/21/2019

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

Medium parameters used:  $f = 829 \text{ MHz}$ ;  $\sigma = 0.967 \text{ S/m}$ ;  $\epsilon_r = 53.861$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Low/Area Scan (71x121x1):** Interpolated grid:  $dx=15 \text{ mm}$ ,  $dy=15 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.314 \text{ W/kg}$

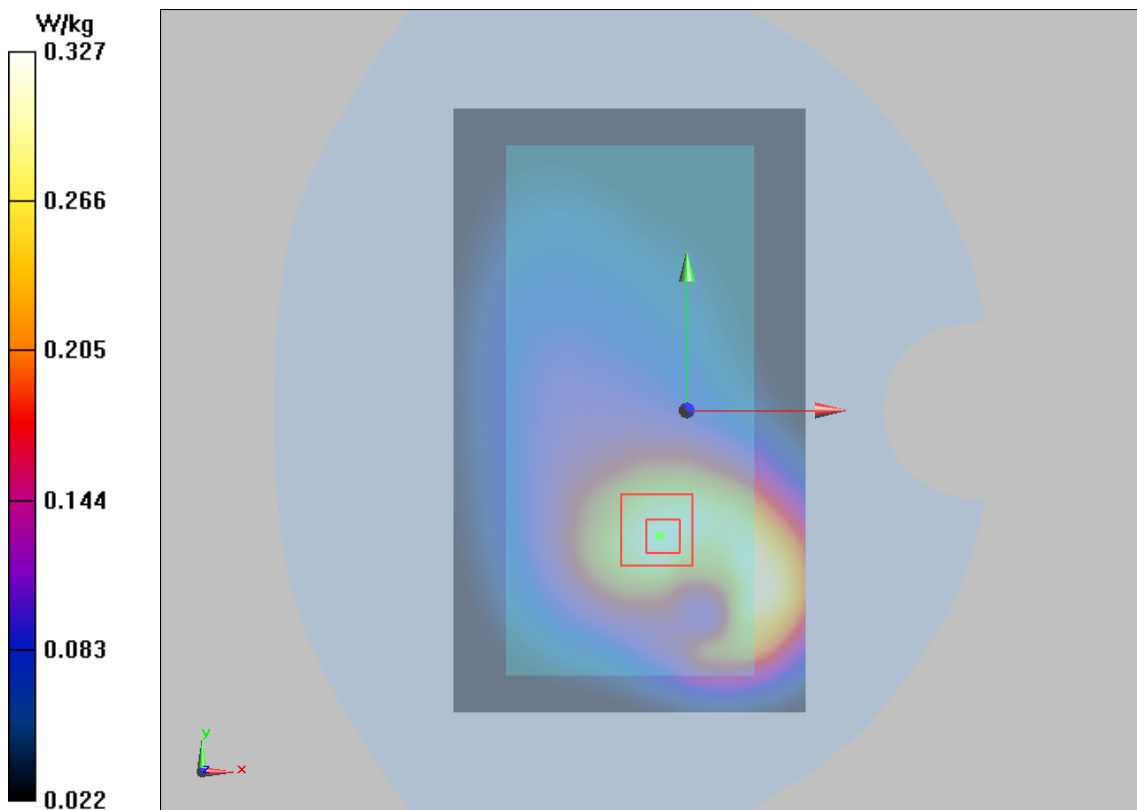
**Back Side Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $11.37 \text{ V/m}$ ; Power Drift =  $0.07 \text{ dB}$

Peak SAR (extrapolated) =  $0.418 \text{ W/kg}$

**SAR(1 g) =  $0.305 \text{ W/kg}$ ; SAR(10 g) =  $0.213 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.327 \text{ W/kg}$



**Plot 61 LTE Band 7 1RB Right Cheek Middle**

Date: 4/16/2019

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

Medium parameters used:  $f = 2535 \text{ MHz}$ ;  $\sigma = 1.948 \text{ S/m}$ ;  $\epsilon_r = 38.395$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.28, 7.28, 7.28); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Middle/Area Scan (91x171x1):** Interpolated grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

Maximum value of SAR (interpolated) =  $0.201 \text{ W/kg}$

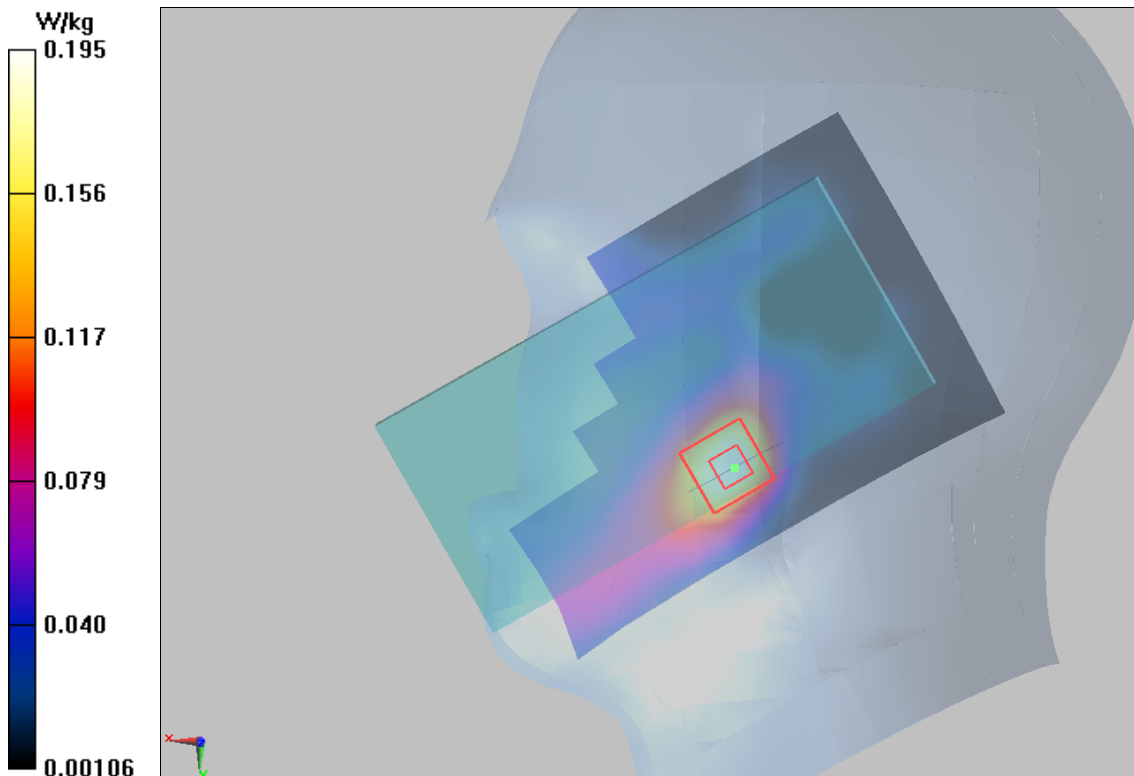
**Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $2.652 \text{ V/m}$ ; Power Drift =  $0.118\text{dB}$

Peak SAR (extrapolated) =  $0.352 \text{ W/kg}$

**SAR(1 g) =  $0.181 \text{ W/kg}$ ; SAR(10 g) =  $0.093 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.195 \text{ W/kg}$



**Plot 62 LTE Band 7 1RB Back Side Middle(Distance 15mm)**

Date: 4/16/2019

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

Medium parameters used:  $f = 2535 \text{ MHz}$ ;  $\sigma = 2.075 \text{ S/m}$ ;  $\epsilon_r = 50.843$ ;  $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.16, 7.16, 7.16); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle/Area Scan(91x171x1):** Interpolated grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.359 W/kg

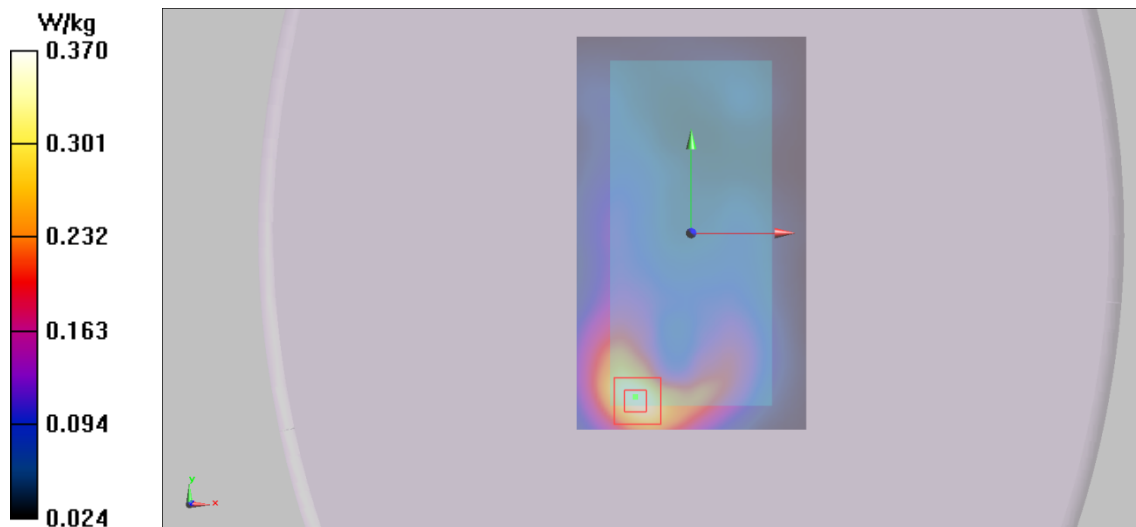
**Back Side Middle/Zoom Scan(7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.941 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 0.674 W/kg

**SAR(1 g) = 0.341 W/kg; SAR(10 g) = 0.185 W/kg**

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



**Plot 63 LTE Band 7 1RB Bottom Edge High (Distance 10mm)**

Date: 4/16/2019

Communication System: UID 0, LTE (0); Frequency: 2560 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2560$  MHz;  $\sigma = 2.105$  S/m;  $\epsilon_r = 50.784$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.16, 7.16, 7.16); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Bottom Edge High/Area Scan(51x111x1):** Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 0.430 W/kg

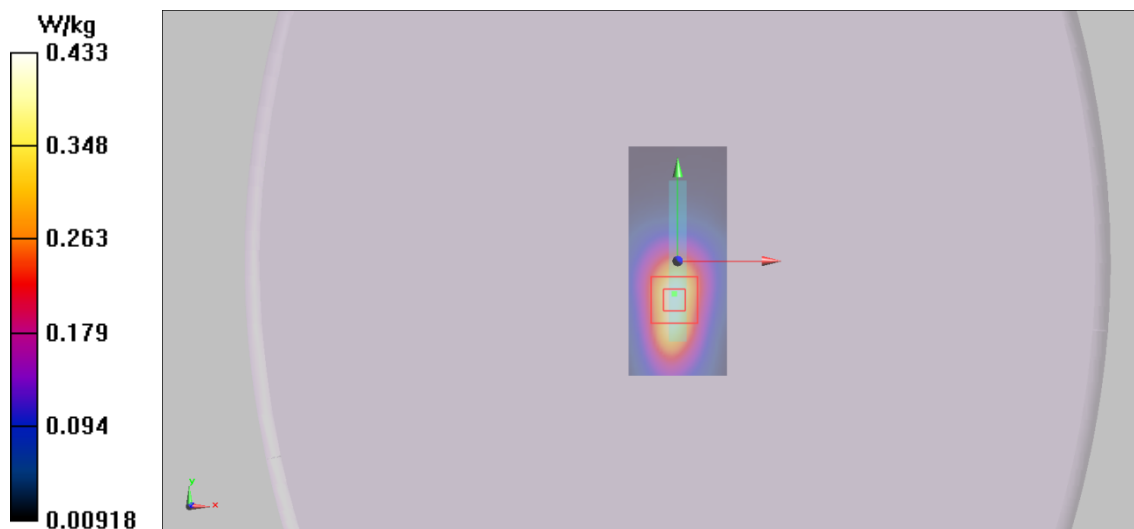
**Bottom Edge High/Zoom Scan(7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.41 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.801 W/kg

**SAR(1 g) = 0.392 W/kg; SAR(10 g) = 0.196 W/kg**

Maximum value of SAR (measured) = 0.433 W/kg



**Plot 64 LTE Band 12 1RB Right Cheek Low**

Date: 4/15/2019

Communication System: UID 0, LTE (0); Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 707.5$  MHz;  $\sigma = 0.867$  S/m;  $\epsilon_r = 43.086$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.40, 9.40, 9.40); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Low/Area Scan (71x131x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.108 W/kg

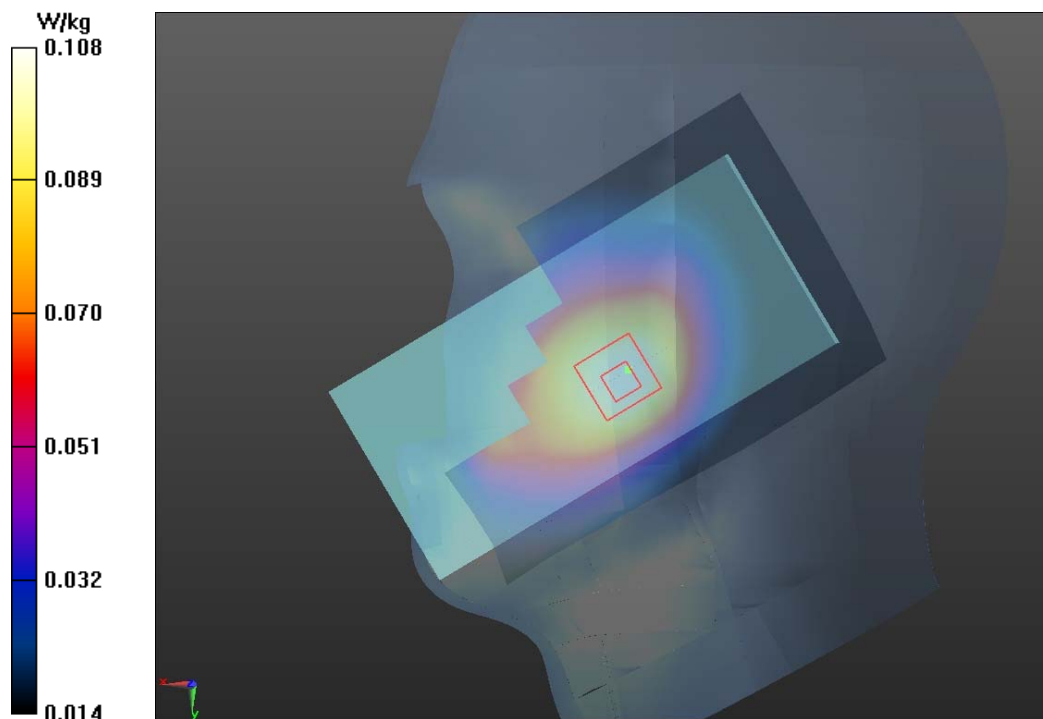
**Right Cheek Low /Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.231 V/m; Power Drift = 0.065 dB

Peak SAR (extrapolated) = 0.133 W/kg

**SAR(1 g) = 0.104 W/kg; SAR(10 g) = 0.079 W/kg**

Maximum value of SAR (measured) = 0.108 W/kg





**Plot 65 LTE Band 12 1RB Back Side Middle (Distance 15mm)**

Date: 4/15/2019

Communication System: UID 0, LTE (0); Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 707.5$  MHz;  $\sigma = 0.929$  S/m;  $\epsilon_r = 57.347$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.79, 9.79, 9.79); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.231 W/kg

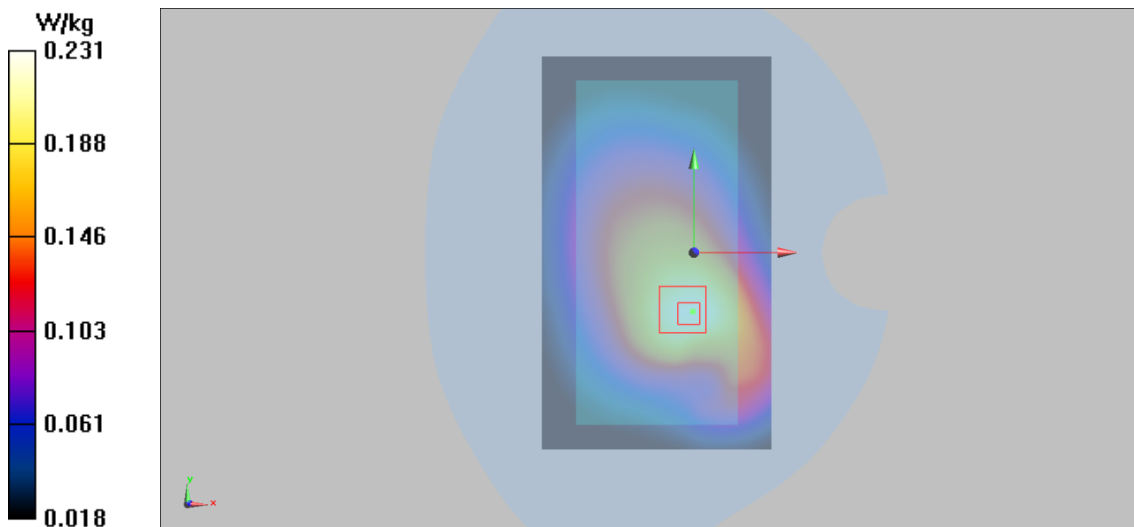
**Back Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.36 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.283 W/kg

**SAR(1 g) = 0.219 W/kg; SAR(10 g) = 0.163 W/kg**

Maximum value of SAR (measured) = 0.231 W/kg



**Plot 66 LTE Band 12 1RB Back Side Middle (Distance 10mm)**

Date: 4/15/2019

Communication System: UID 0, LTE (0); Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 707.5$  MHz;  $\sigma = 0.929$  S/m;  $\epsilon_r = 57.347$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.79, 9.79, 9.79); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle /Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.299 W/kg

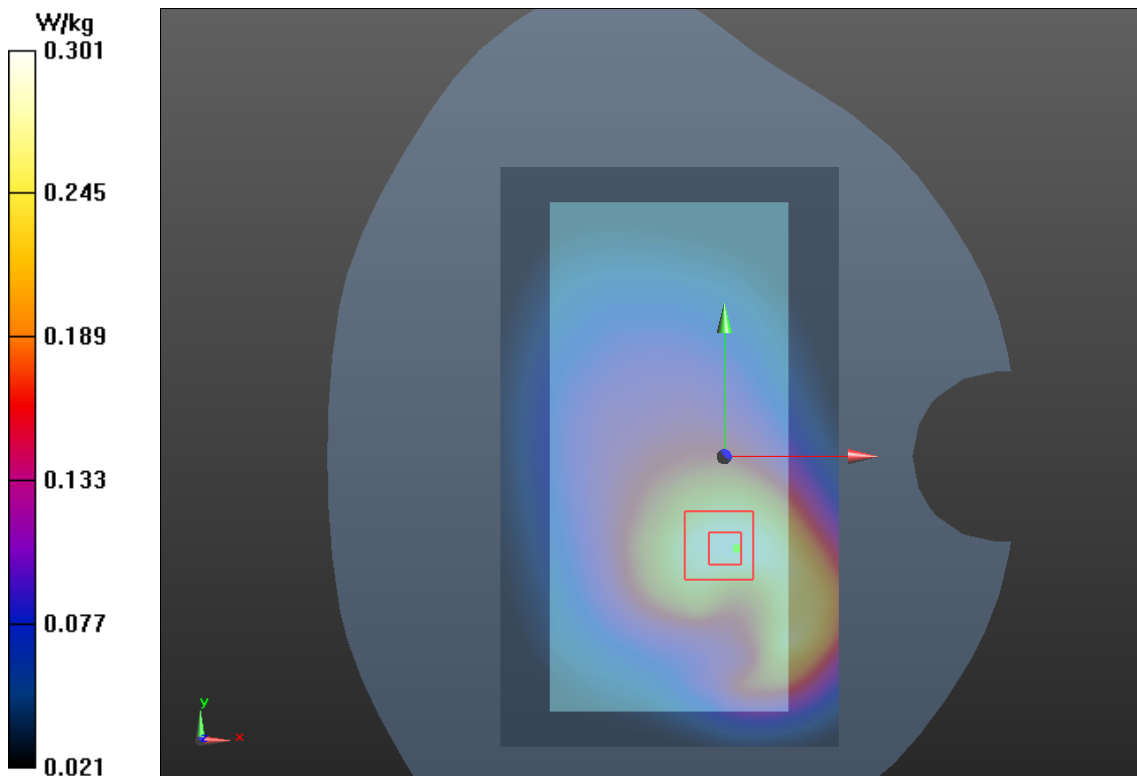
**Back Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.21 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.385 W/kg

**SAR(1 g) = 0.284 W/kg; SAR(10 g) = 0.202 W/kg**

Maximum value of SAR (measured) = 0.301 W/kg



**Plot 67 LTE Band 17 1RB Right Cheek Middle**

Date: 4/15/2019

Communication System: UID 0, LTE (0); Frequency: 710 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 710 \text{ MHz}$ ;  $\sigma = 0.869 \text{ S/m}$ ;  $\epsilon_r = 43.049$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.40, 9.40, 9.40); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Middle /Area Scan (71x131x1):** Interpolated grid:  $dx=15 \text{ mm}$ ,  $dy=15 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.119 \text{ W/kg}$

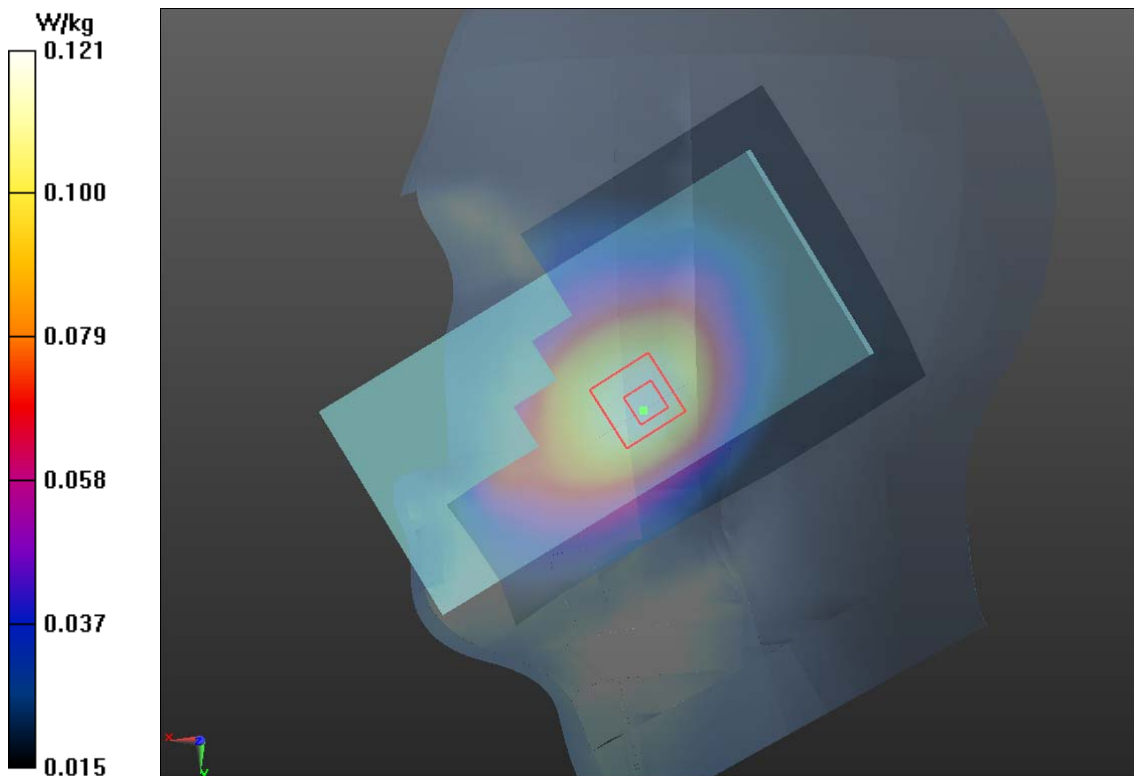
**Right Cheek Middle /Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $3.743 \text{ V/m}$ ; Power Drift =  $0.062 \text{ dB}$

Peak SAR (extrapolated) =  $0.149 \text{ W/kg}$

**SAR(1 g) =  $0.116 \text{ W/kg}$ ; SAR(10 g) =  $0.089 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.121 \text{ W/kg}$



**Plot 68 LTE Band 17 1RB Back Side Middle (Distance 15mm)**

Date: 4/15/2019

Communication System: UID 0, LTE (0); Frequency: 710 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 710 \text{ MHz}$ ;  $\sigma = 0.931 \text{ S/m}$ ;  $\epsilon_r = 57.319$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.79, 9.79, 9.79); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle /Area Scan (71x121x1):** Interpolated grid:  $dx=15 \text{ mm}$ ,  $dy=15 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.182 \text{ W/kg}$

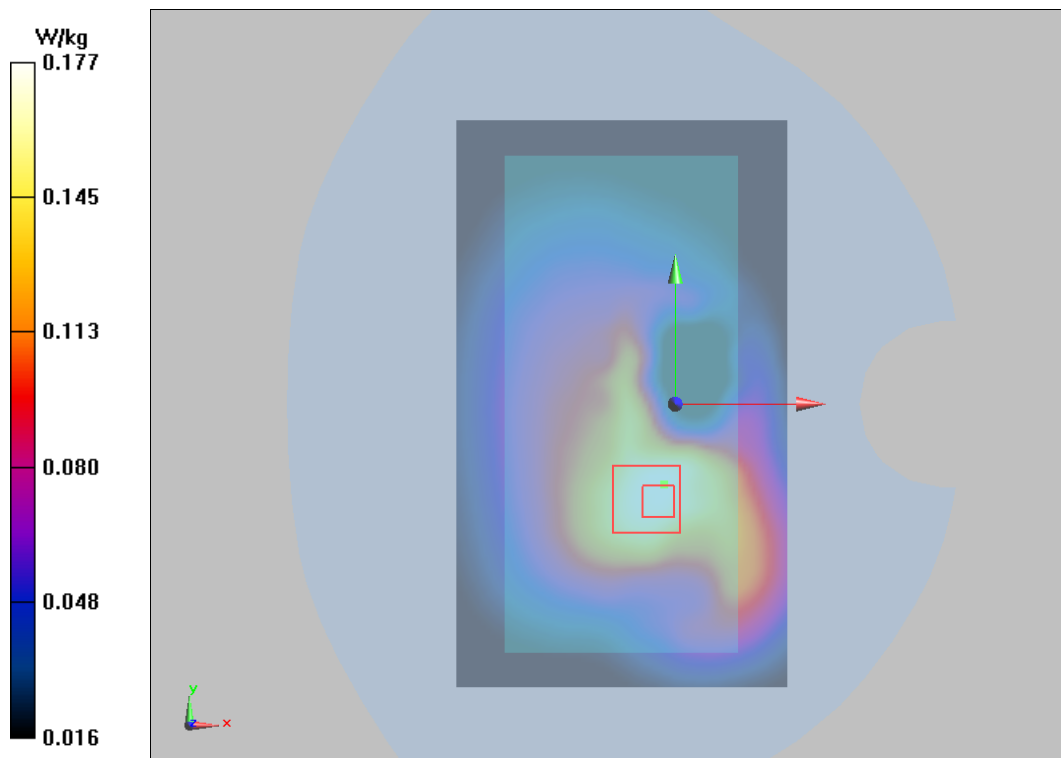
**Back Side Middle /Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $10.73 \text{ V/m}$ ; Power Drift =  $0.01 \text{ dB}$

Peak SAR (extrapolated) =  $0.219 \text{ W/kg}$

**SAR(1 g) =  $0.168 \text{ W/kg}$ ; SAR(10 g) =  $0.123 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.177 \text{ W/kg}$



**Plot 69 LTE Band 17 1RB Back Side Low(Distance 10mm)**

Date: 4/15/2019

Communication System: UID 0, LTE (0); Frequency: 709 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 709 \text{ MHz}$ ;  $\sigma = 0.931 \text{ S/m}$ ;  $\epsilon_r = 57.326$ ;  $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.79, 9.79, 9.79); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Low /Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.243 W/kg

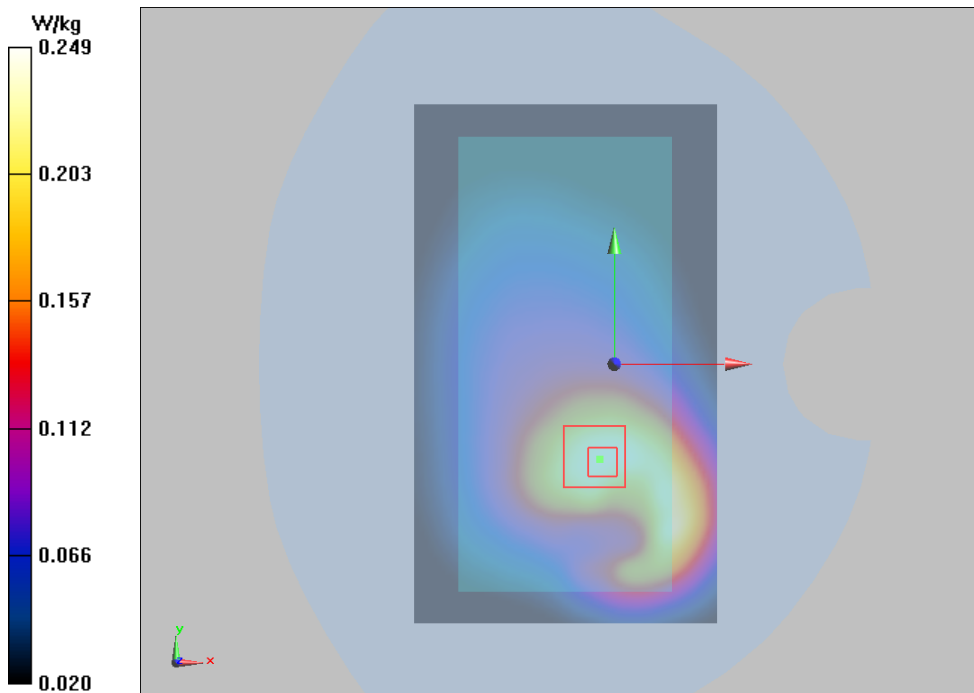
**Back Side Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.02 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.315 W/kg

**SAR(1 g) = 0.234 W/kg; SAR(10 g) = 0.166 W/kg**

Maximum value of SAR (measured) = 0.249 W/kg



**Plot 70 LTE Band 26 1RB Right Cheek Middle**

Date: 4/20/2019

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

Medium parameters used (extrapolated):  $f = 831.5$  MHz;  $\sigma = 0.981$  S/m;  $\epsilon_r = 41.428$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.10, 9.10, 9.10); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Middle /Area Scan (71x131x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.134 W/kg

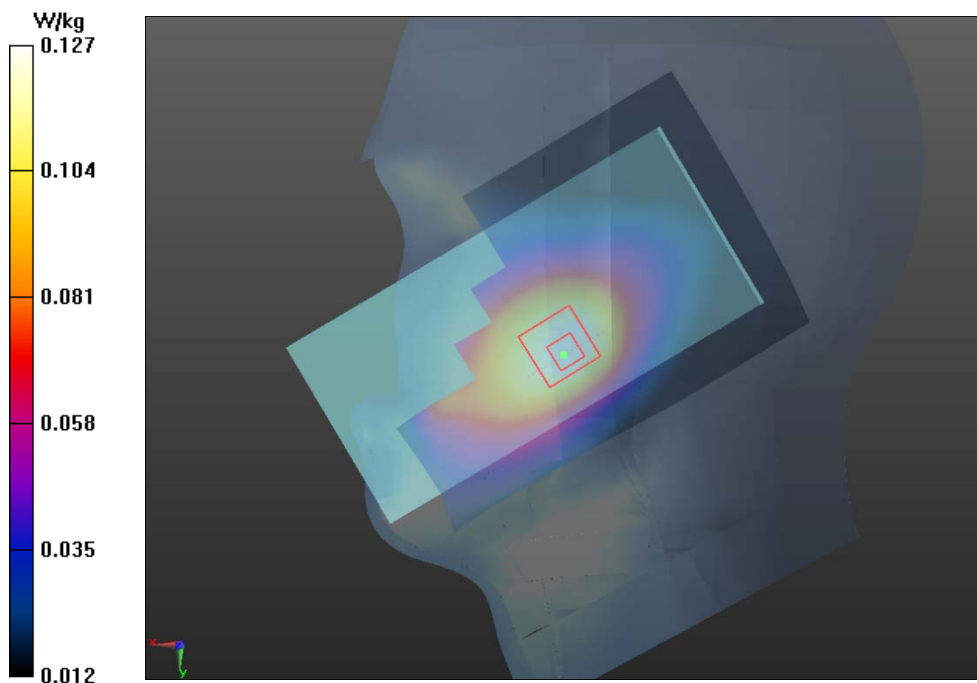
**Right Cheek Middle /Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.795 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 0.159 W/kg

**SAR(1 g) = 0.120 W/kg; SAR(10 g) = 0.088 W/kg**

Maximum value of SAR (measured) = 0.127 W/kg



**Plot 71 LTE Band 26 50%RB Back Side High (Distance 15mm)**

Date: 4/21/2019

Communication System: UID 0, LTE (0); Frequency: 841.5 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 841.5$  MHz;  $\sigma = 0.978$  S/m;  $\epsilon_r = 53.749$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side High/Area Scan (71x61x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.207 W/kg

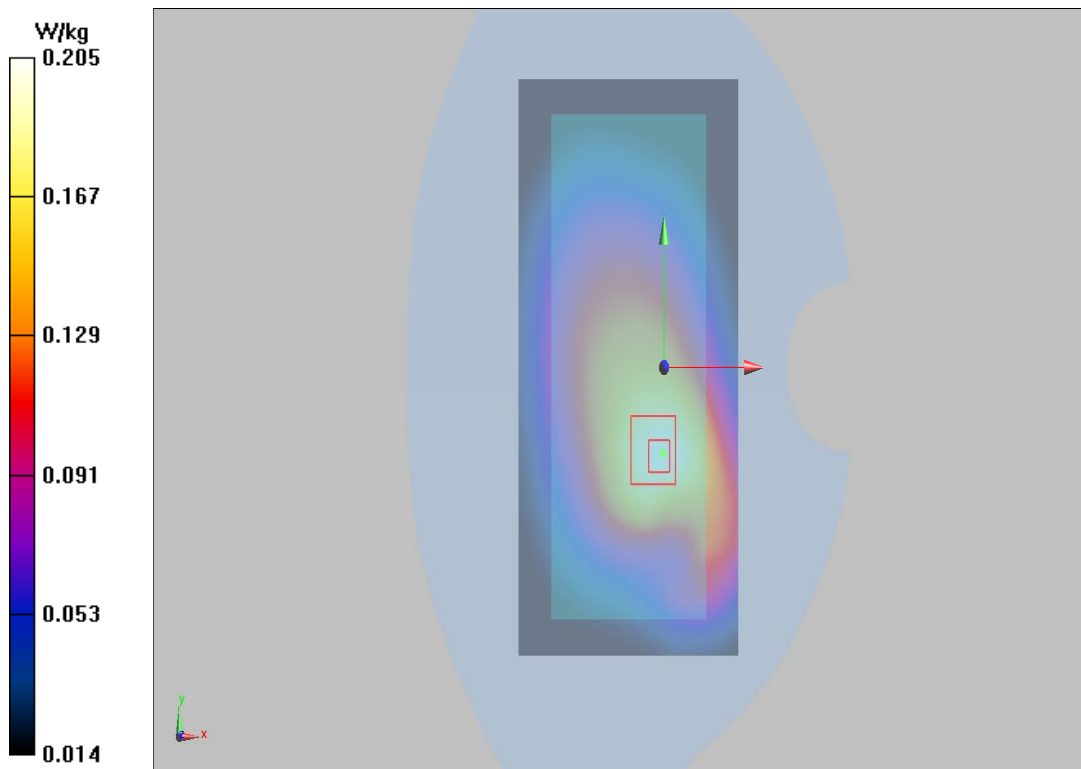
**Back Side High/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.450 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.257 W/kg

**SAR(1 g) = 0.193 W/kg; SAR(10 g) = 0.138 W/kg**

Maximum value of SAR (measured) = 0.205 W/kg



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

Date: 4/21/2019

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

Medium parameters used (interpolated):  $f = 831.5 \text{ MHz}$ ;  $\sigma = 0.969 \text{ S/m}$ ;  $\epsilon_r = 53.84$ ;  $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle/Area Scan (71x61x1):** Interpolated grid: dx=15mm, dy=15mm

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

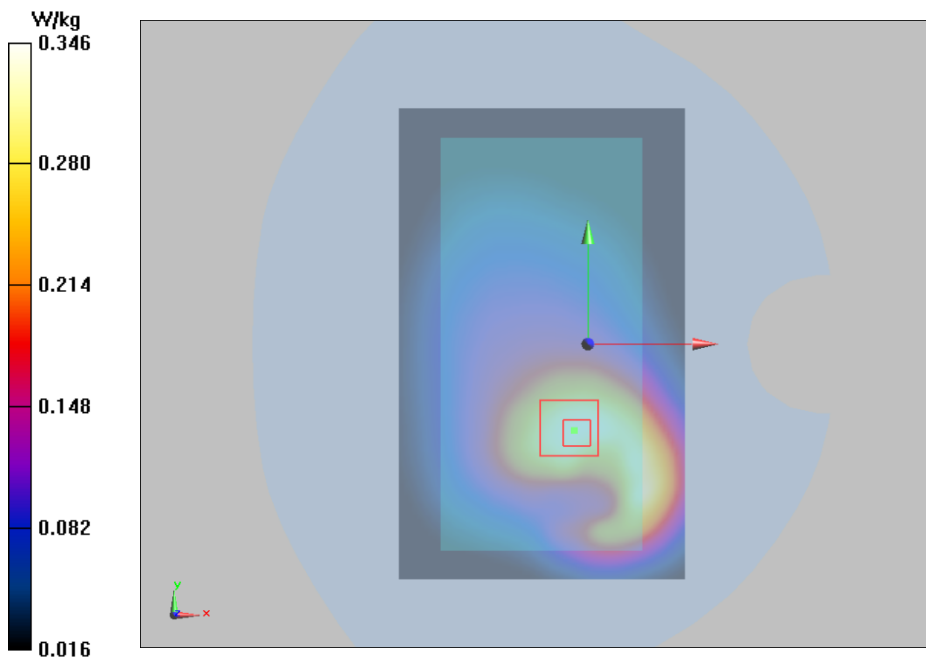
**Back Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.39 V/m; Power Drift = 0.150 dB

Peak SAR (extrapolated) = 0.539 W/kg

**SAR(1 g) = 0.315 W/kg; SAR(10 g) = 0.190 W/kg**

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





**Plot 73 LTE Band 38 1RB Right Cheek Low**

Date: 4/16/2019

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

Medium parameters used:  $f = 2580$  MHz;  $\sigma = 1.996$  S/m;  $\epsilon_r = 38.235$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.28, 7.28, 7.28); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Low/Area Scan(91x171x1):** Interpolated grid: dx=12mm, dy=12mm Maximum value of SAR (interpolated) = 0.067 W/kg

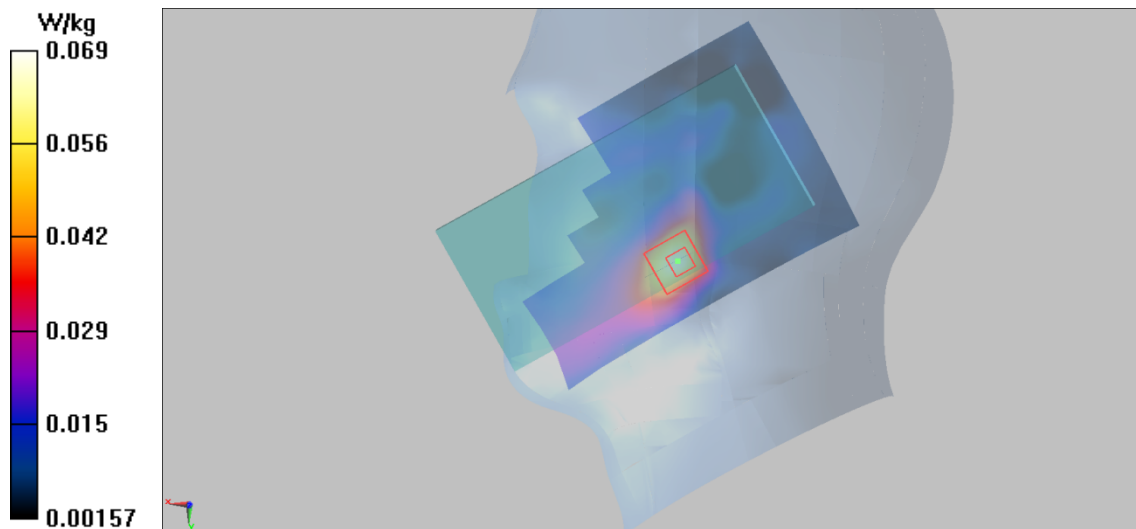
**Right Cheek Low/Zoom Scan(7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.809 V/m; Power Drift = 0.186 dB

Peak SAR (extrapolated) = 0.129 W/kg

**SAR(1 g) = 0.065 W/kg; SAR(10 g) = 0.034 W/kg**

Maximum value of SAR (measured) = 0.069 W/kg



**Plot 74 LTE Band 38 1RB Back Side Low (Distance 15mm)**

Date: 4/13/2019

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

Medium parameters used:  $f = 2580$  MHz;  $\sigma = 2.131$  S/m;  $\epsilon_r = 50.712$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.16, 7.16, 7.16); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Low/Area Scan(91x171x1):** Interpolated grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 0.243 W/kg

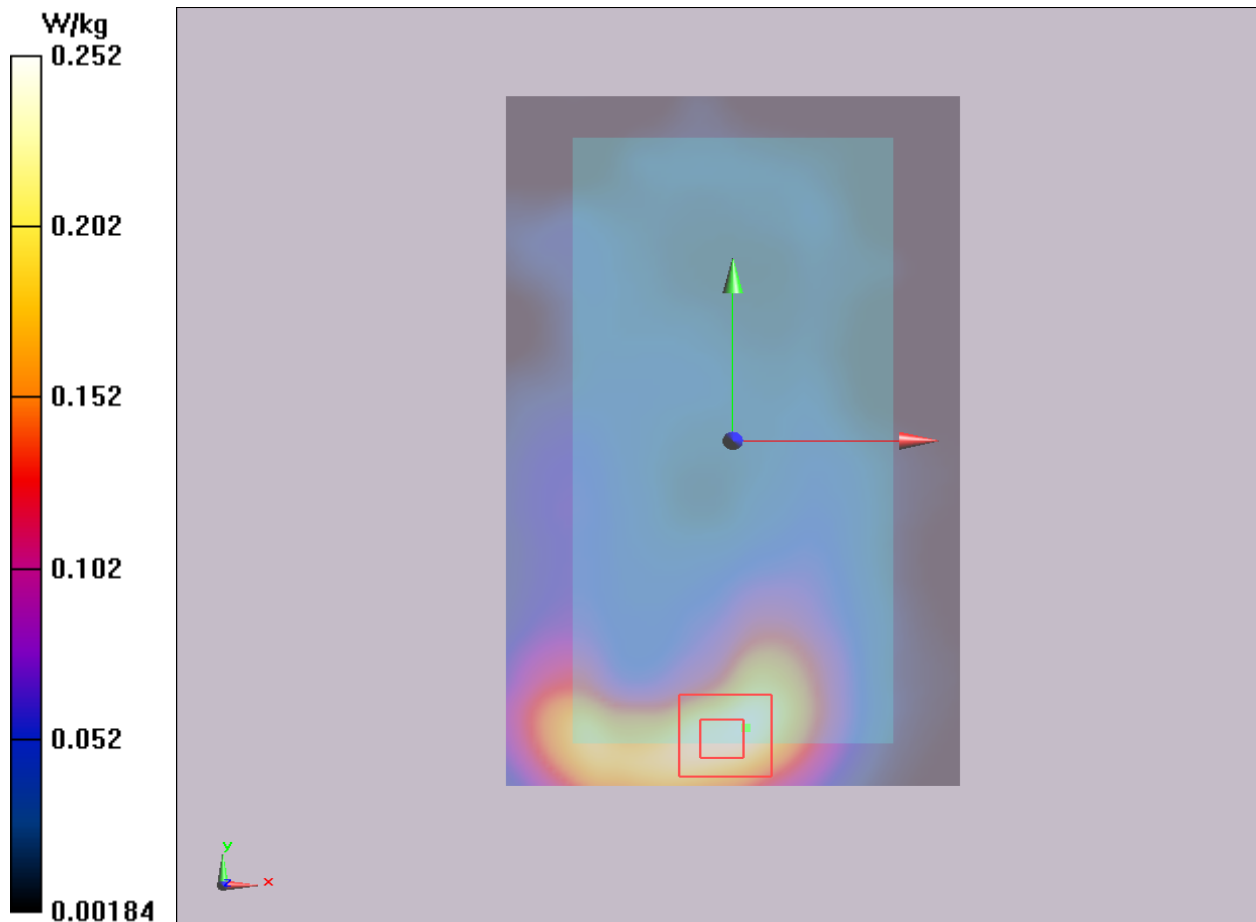
**Back Side Low/Zoom Scan(7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.944 V/m; Power Drift = 0.096 dB

Peak SAR (extrapolated) = 0.290 W/kg

**SAR(1 g) = 0.218 W/kg; SAR(10 g) = 0.095 W/kg**

Maximum value of SAR (measured) = 0.252 W/kg



**Plot 75 LTE Band 38 1RB Bottom Edge High (Distance 10mm)**

Date: 4/13/2019

Communication System: UID 0, LTE (0); Frequency: 2610 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2610$  MHz;  $\sigma = 2.131$  S/m;  $\epsilon_r = 50.712$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.16, 7.16, 7.16); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Bottom Edge High/Area Scan (51x111x1):** Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 0.240 W/kg

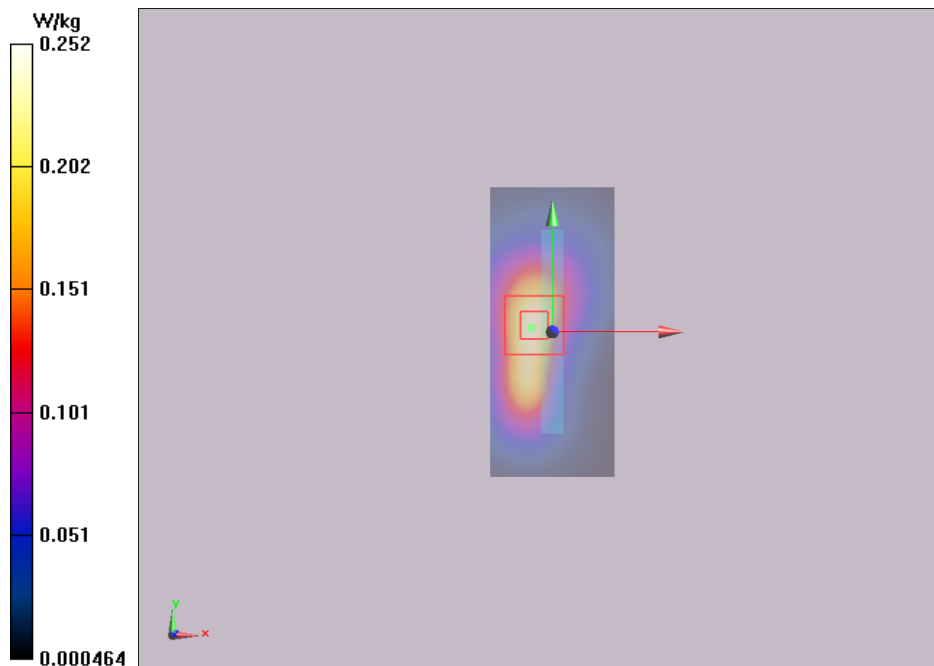
**Bottom Edge High/Zoom Scan(7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.820 V/m; Power Drift = 0.070 dB

Peak SAR (extrapolated) = 0.470 W/kg

**SAR(1 g) = 0.224 W/kg; SAR(10 g) = 0.108 W/kg**

Maximum value of SAR (measured) = 0.252 W/kg



**Plot 76 LTE Band 41 1RB Right Cheek Middle**

Date: 4/16/2019

Communication System: UID 0, LTE (0); Frequency: 2593 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 2593$  MHz;  $\sigma = 2.011$  S/m;  $\epsilon_r = 38.188$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.28, 7.28, 7.28); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Middle/Area Scan(91x171x1):** Interpolated grid: dx=12mm, dy=12mm Maximum value of SAR (interpolated) = 0.071 W/kg

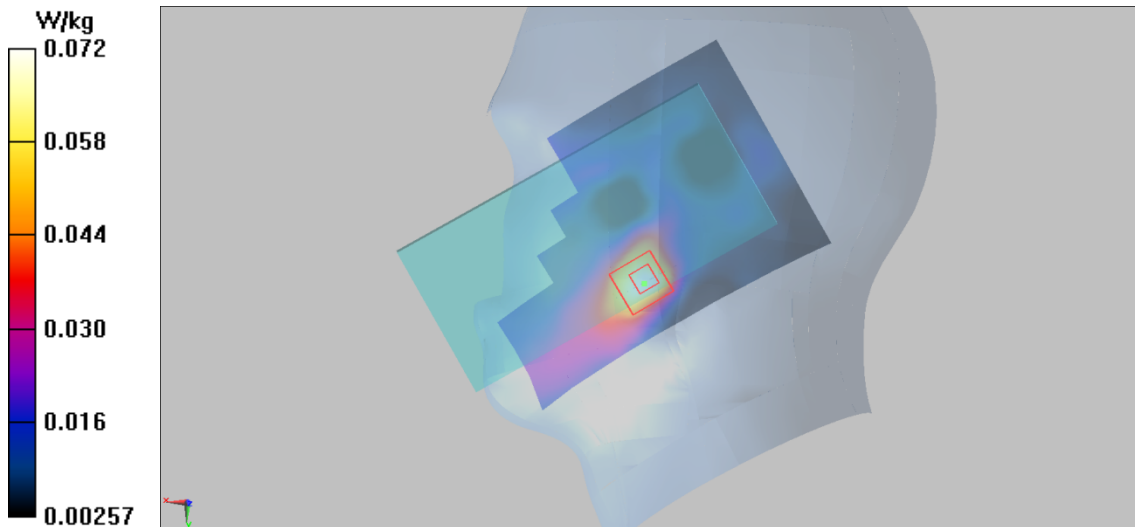
**Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.956 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 0.131 W/kg

**SAR(1 g) = 0.067 W/kg; SAR(10 g) = 0.036 W/kg**

Maximum value of SAR (measured) = 0.072 W/kg



**Plot 77 LTE Band 41 1RB Back Side Middle (Distance 15mm)**

Date: 4/13/2019

Communication System: UID 0, LTE (0); Frequency: 2593 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 2593$  MHz;  $\sigma = 2.148$  S/m;  $\epsilon_r = 50.677$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.16, 7.16, 7.16); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle/Area Scan (91x171x1):** Interpolated grid: dx=12mm, dy=12mm Maximum value of SAR (interpolated) = 0.163 W/kg

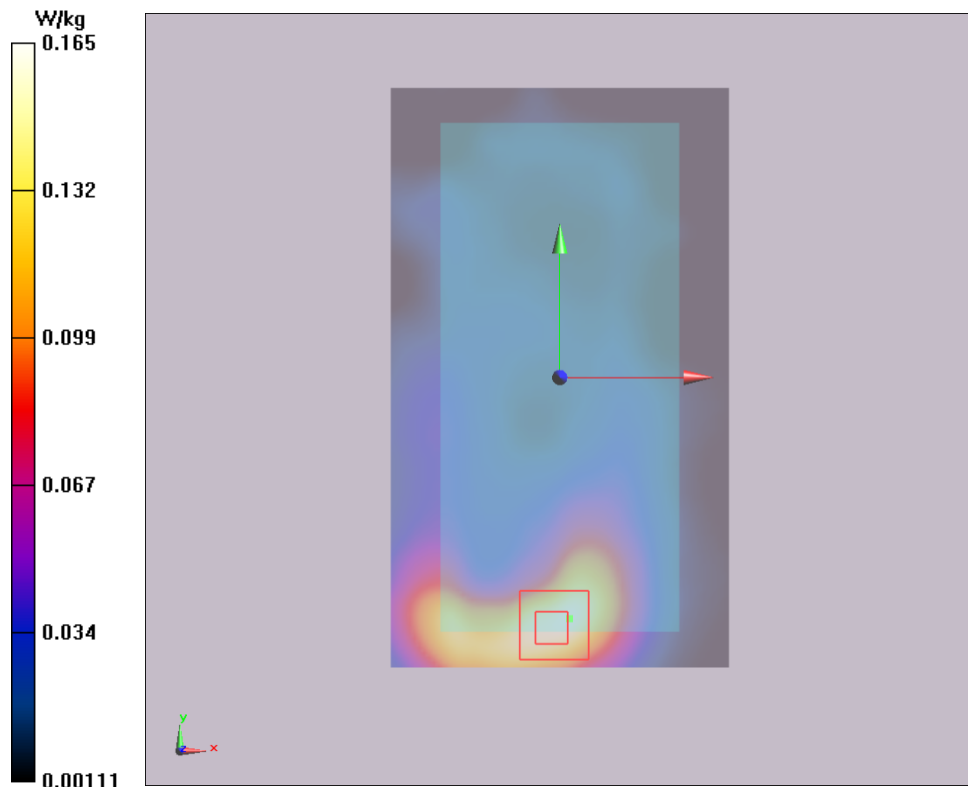
**Back Side Middle/Zoom Scan(7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.774 V/m; Power Drift = 0.084 dB

Peak SAR (extrapolated) = 0.311 W/kg

**SAR(1 g) = 0.156 W/kg; SAR(10 g) = 0.081 W/kg**

Maximum value of SAR (measured) = 0.165 W/kg



**Plot 78 LTE Band 41 1RB Bottom Edge High (Distance 10mm)**

Date: 4/13/2019

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

Medium parameters used (interpolated):  $f = 2636.5$  MHz;  $\sigma = 2.201$  S/m;  $\epsilon_r = 50.553$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.16, 7.16, 7.16); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Bottom Edge High/Area Scan (51x111x1):** Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 0.373 W/kg

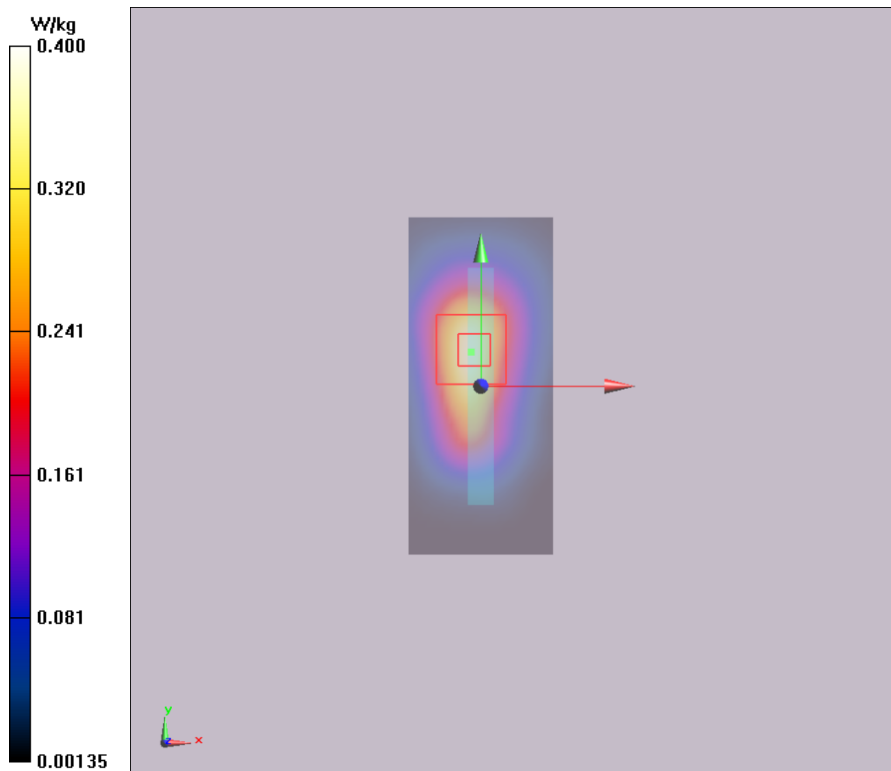
**Bottom Edge High/Zoom Scan(7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.39 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.745 W/kg

**SAR(1 g) = 0.355 W/kg; SAR(10 g) = 0.168 W/kg**

Maximum value of SAR (measured) = 0.400 W/kg



**Plot 79 LTE Band 66 1RB Right Cheek Middle**

Date: 4/17/2019

Communication System: UID 0, LTE (0); Frequency: 1745 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.301$  S/m;  $\epsilon_r = 38.753$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.19, 8.19, 8.19); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Middle/Area Scan (71x131x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.129 W/kg

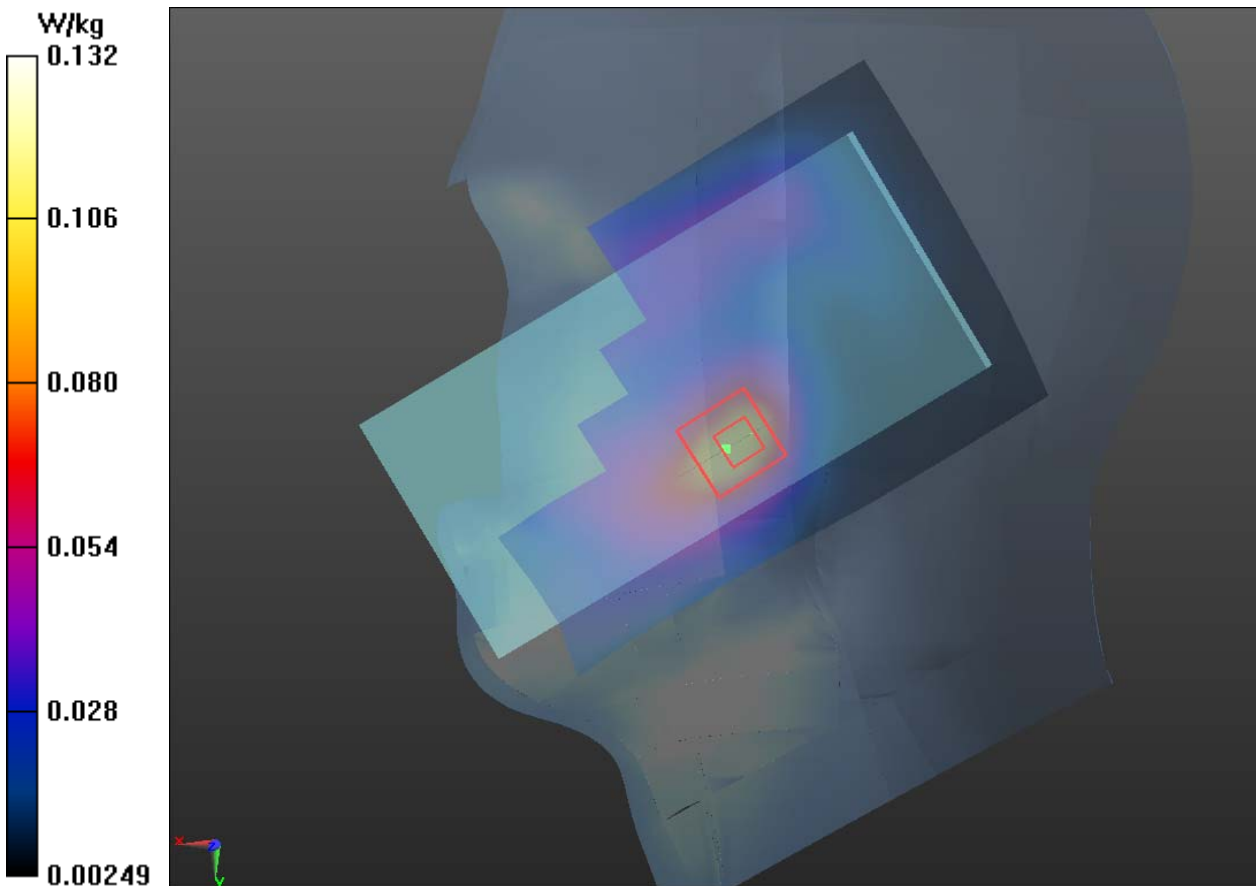
**Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.078 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 0.151 W/kg

**SAR(1 g) = 0.126 W/kg; SAR(10 g) = 0.092 W/kg**

Maximum value of SAR (measured) = 0.132 W/kg



**Plot 80 LTE Band 66 1RB Front Side Middle (Distance 15mm)**

Date: 4/18/2019

Communication System: UID 0, LTE (0); Frequency: 1745 MHz; Duty Cycle: 1:1.58

Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.45$  S/m;  $\epsilon_r = 53.078$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.91, 7.91, 7.91); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Front Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.206 W/kg

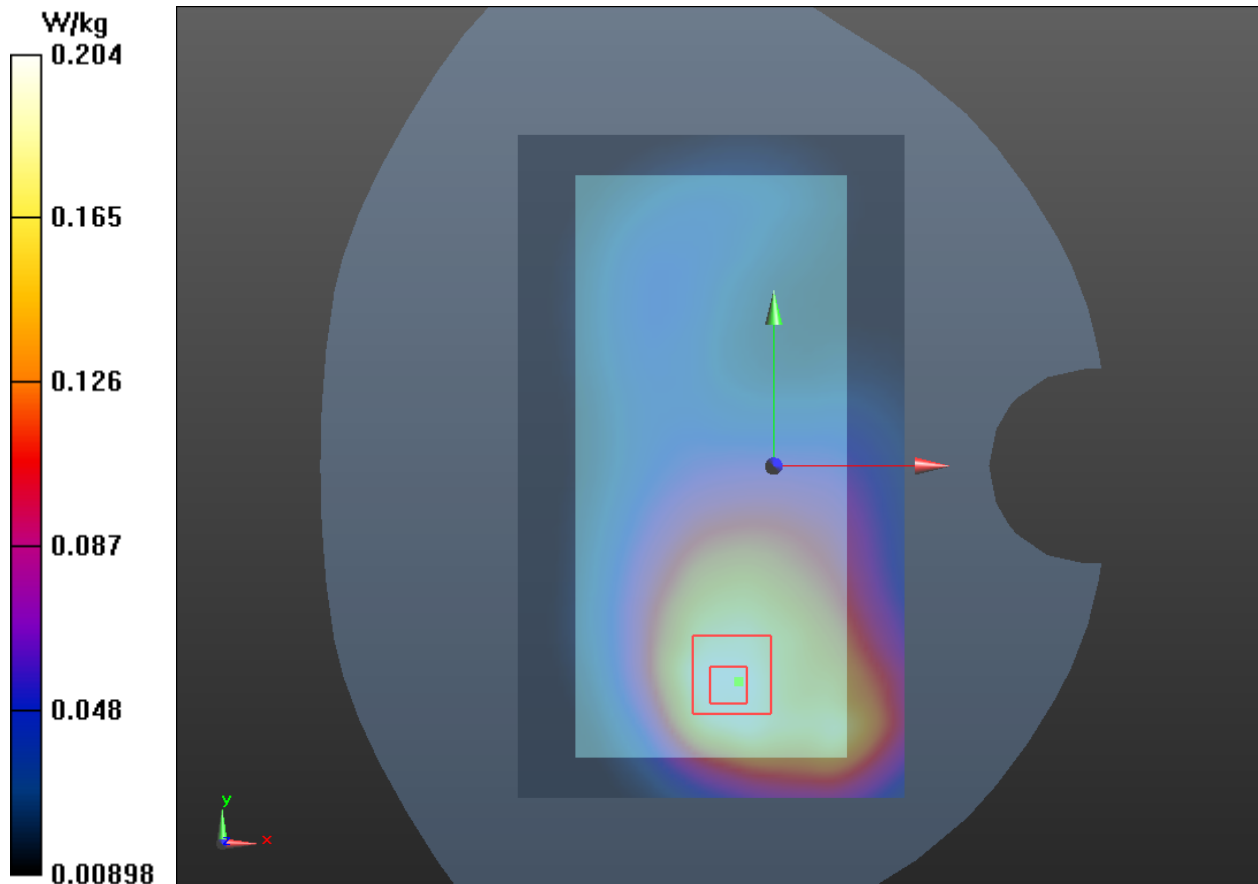
**Front Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.634 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.297 W/kg

**SAR(1 g) = 0.193 W/kg; SAR(10 g) = 0.125 W/kg**

Maximum value of SAR (measured) = 0.204 W/kg





**Plot 81 LTE Band 66 50%RB Bottom Edge Middle (Distance 10mm)**

Date: 4/18/2019

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

Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.45$  S/m;  $\epsilon_r = 53.078$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.91, 7.91, 7.91); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Bottom Edge Middle/Area Scan (51x111x1):** Interpolated grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.353 W/kg

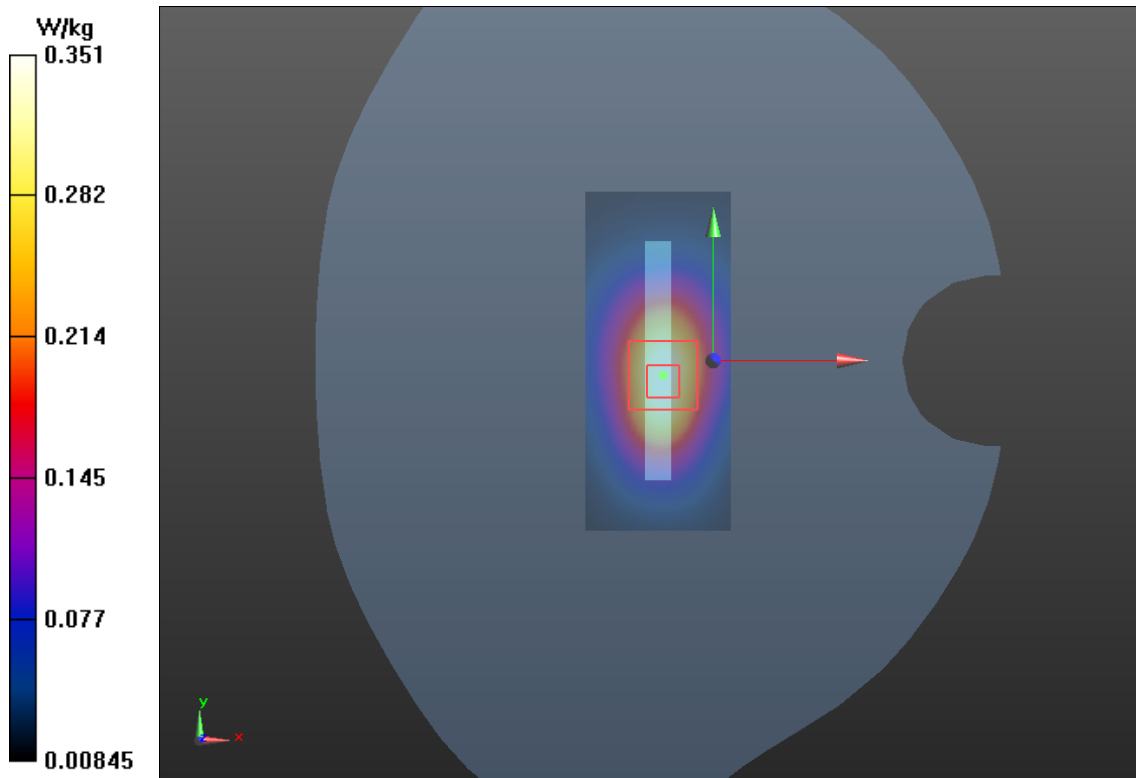
**Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.51 V/m; Power Drift = -0.140 dB

Peak SAR (extrapolated) = 0.526 W/kg

**SAR(1 g) = 0.318 W/kg; SAR(10 g) = 0.184 W/kg**

Maximum value of SAR (measured) = 0.351 W/kg



**Second-Antenna**

**Plot 82 GSM 850 Left Cheek Middle**

Date: 4/27/2019

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

Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.916$  S/m;  $\epsilon_r = 41.951$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.10, 9.10, 9.10); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Left Cheek Middle/Area Scan (71x131x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.885 W/kg

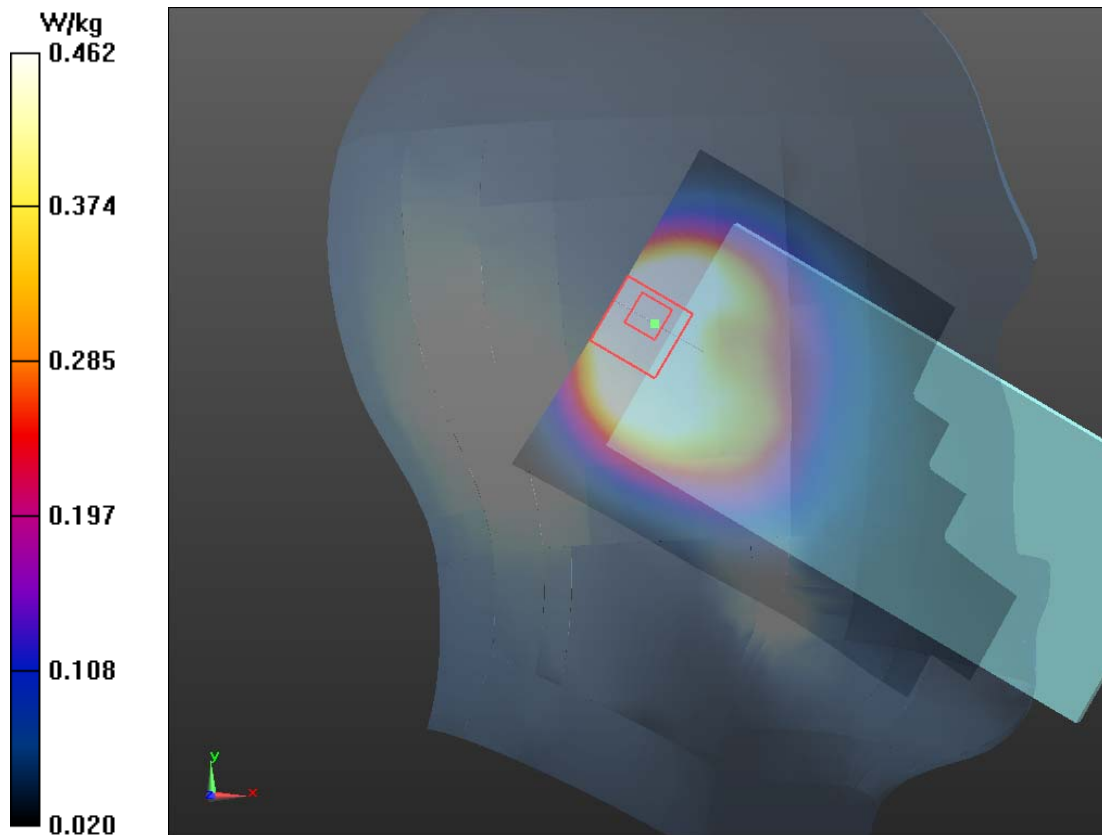
**Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.19 V/m; Power Drift = 0.104 dB

Peak SAR (extrapolated) = 1.83 W/kg

**SAR(1 g) = 0.407 W/kg; SAR(10 g) = 0.211 W/kg**

Maximum value of SAR (measured) = 0.462 W/kg



**Plot 83 GSM 850 Front Side Middle (Distance 15mm)**

Date: 4/24/2019

Communication System: UID 0, GSM 850 (0); Frequency: 836.6 MHz; Duty Cycle: 1:8.30042

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.974$  S/m;  $\epsilon_r = 53.795$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Front Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.141 W/kg

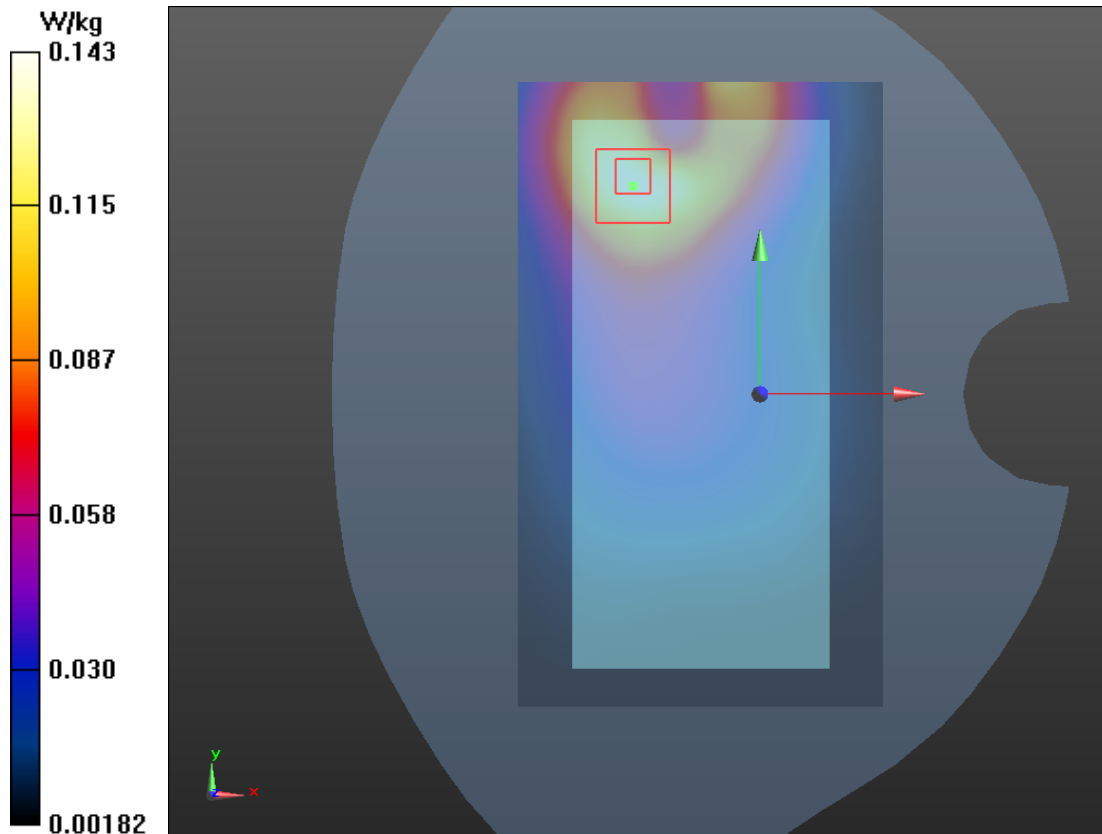
**Front Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.645 V/m; Power Drift = 0.080 dB

Peak SAR (extrapolated) = 0.192 W/kg

**SAR(1 g) = 0.135 W/kg; SAR(10 g) = 0.089 W/kg**

Maximum value of SAR (measured) = 0.143 W/kg



**Plot 84 GSM 850 GPRS (2Txslots) Front Side Middle (Distance 10mm)**

Date: 4/24/2019

Communication System: UID 0, GPRS 2TX (0); Frequency: 836.6 MHz; Duty Cycle: 1:4.14954

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.974$  S/m;  $\epsilon_r = 53.795$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Front Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.292 W/kg

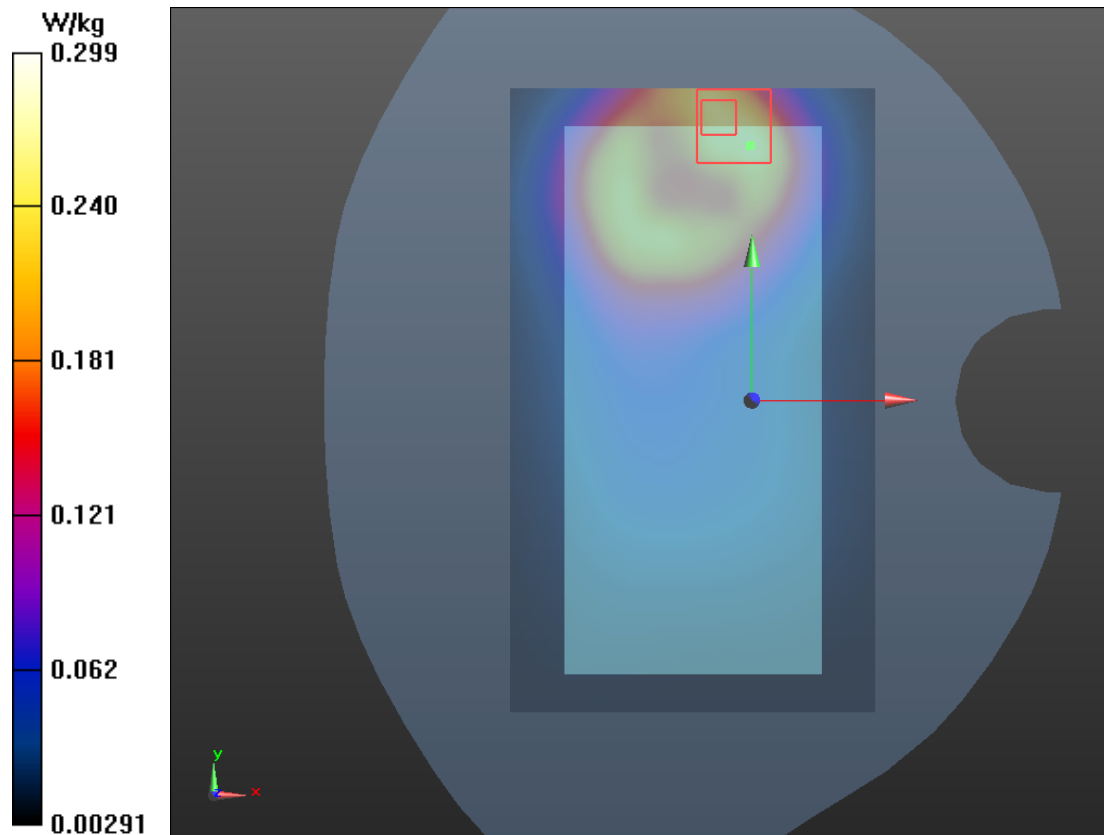
**Front Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.112 V/m; Power Drift = -0.050 dB

Peak SAR (extrapolated) = 0.543 W/kg

**SAR(1 g) = 0.272 W/kg; SAR(10 g) = 0.145 W/kg**

Maximum value of SAR (measured) = 0.299 W/kg



**Plot 85 GSM 1900 Right Tilt Middle**

Date: 4/27/2019

Communication System: UID 0, GSM 1900 (0); Frequency: 1880 MHz; Duty Cycle: 1:8.30042

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.393$  S/m;  $\epsilon_r = 38.344$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.96, 7.96, 7.96); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Tilt Middle/Area Scan (71x131x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.420 W/kg

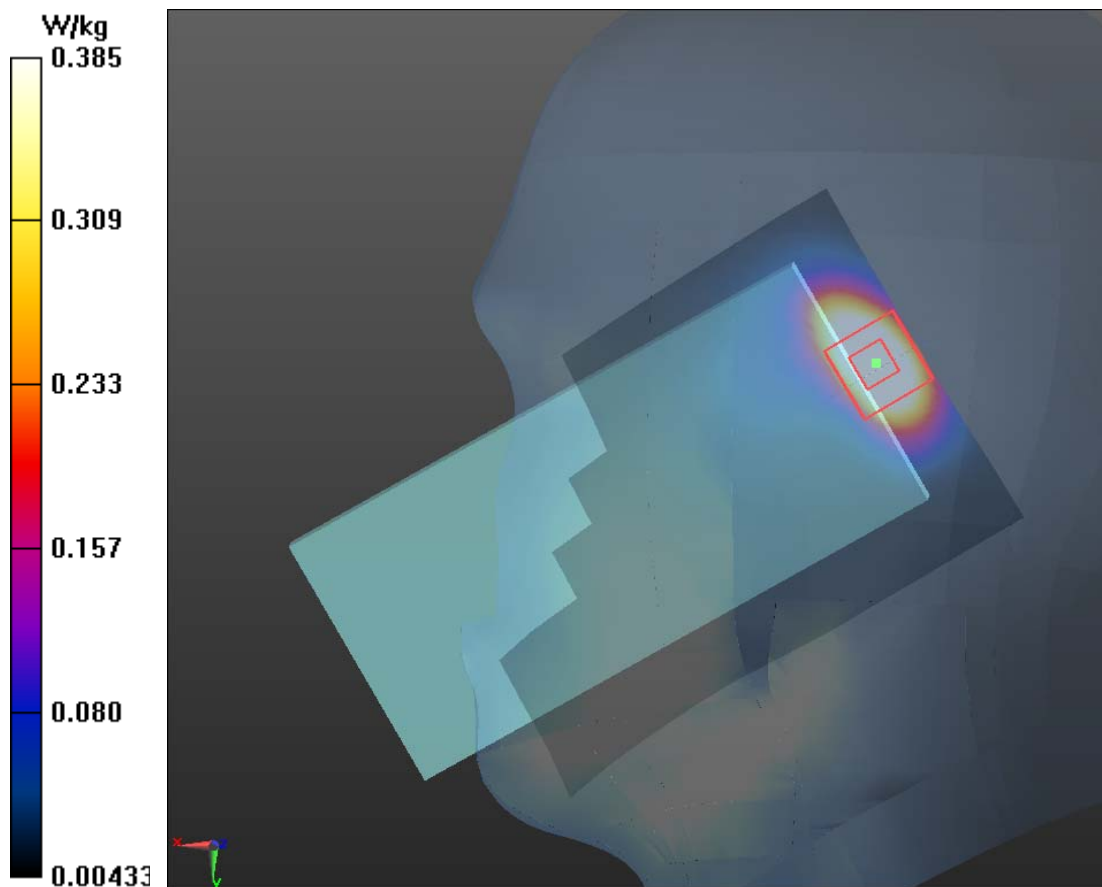
**Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.44 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 1.05 W/kg

**SAR(1 g) = 0.367 W/kg; SAR(10 g) = 0.179 W/kg**

Maximum value of SAR (measured) = 0.385 W/kg



**Plot 86 GSM 1900 Front Side Middle (Distance 15mm)**

Date: 4/25/2019

Communication System: UID 0, GSM 1900 (0); Frequency: 1880 MHz; Duty Cycle: 1:8.30042

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.489$  S/m;  $\epsilon_r = 52.896$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Front Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.0670 W/kg

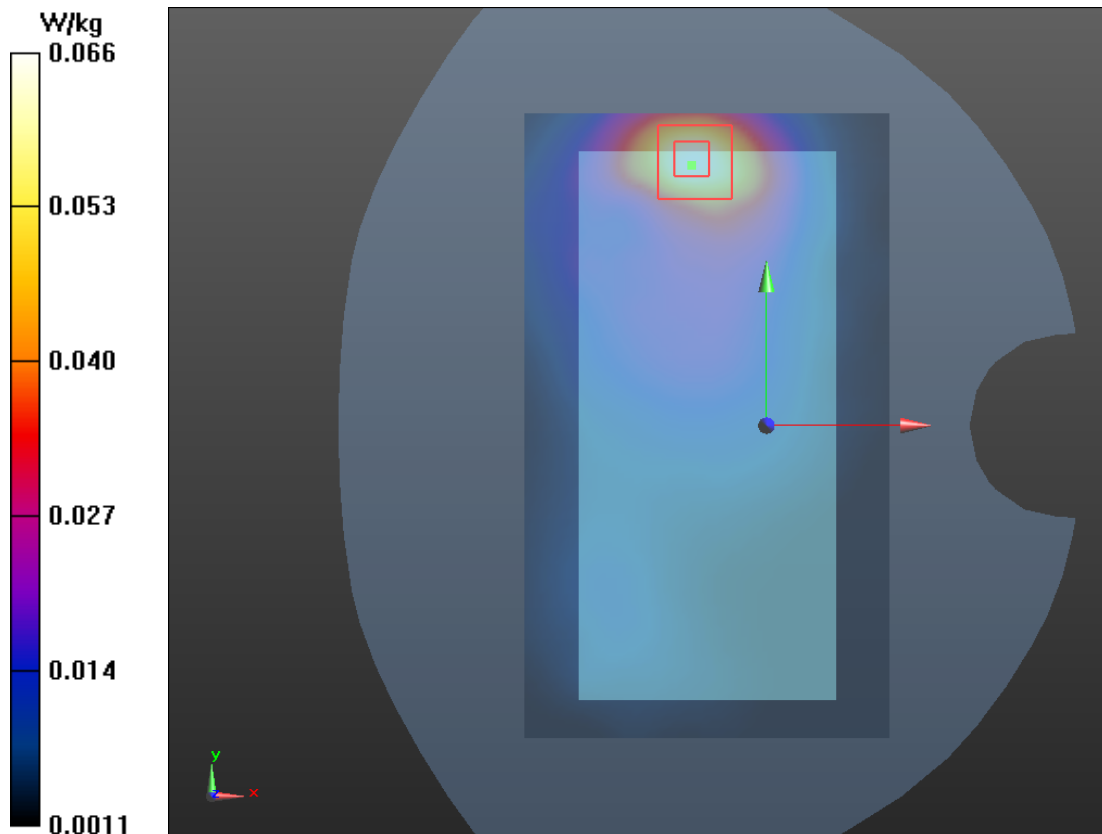
**Front Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.970 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.101 W/kg

**SAR(1 g) = 0.061 W/kg; SAR(10 g) = 0.035 W/kg**

Maximum value of SAR (measured) = 0.0661 W/kg



**Plot 87GSM 1900 GPRS (2Txslots) Top Edge Middle (Distance 10mm)**

Date: 4/25/2019

Communication System: UID 0, GPRS 2TX (0); Frequency: 1880 MHz; Duty Cycle: 1:4.14954

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.489$  S/m;  $\epsilon_r = 52.896$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Top Edge Middle/Area Scan (31x71x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.583 W/kg

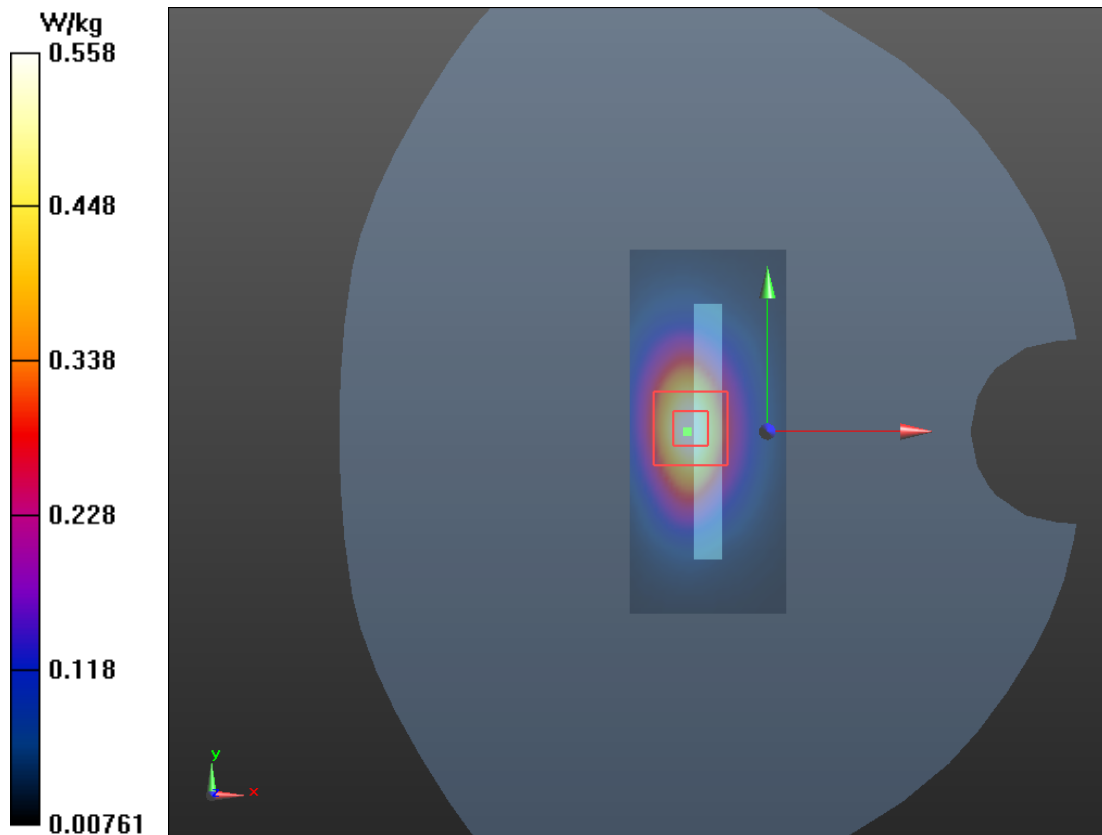
**Top Edge Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.25 V/m; Power Drift = -0.021 dB

Peak SAR (extrapolated) = 0.854 W/kg

**SAR(1 g) = 0.497 W/kg; SAR(10 g) = 0.266 W/kg**

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



**Plot 88 UMTS Band II Left Tilt Middle**

Date: 4/27/2019

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

Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.393 \text{ S/m}$ ;  $\epsilon_r = 38.344$ ;  $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.96, 7.96, 7.96); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Left Tilt Middle/Area Scan (71x131x1):** Interpolated grid: dx=15mm, dy=15mm

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

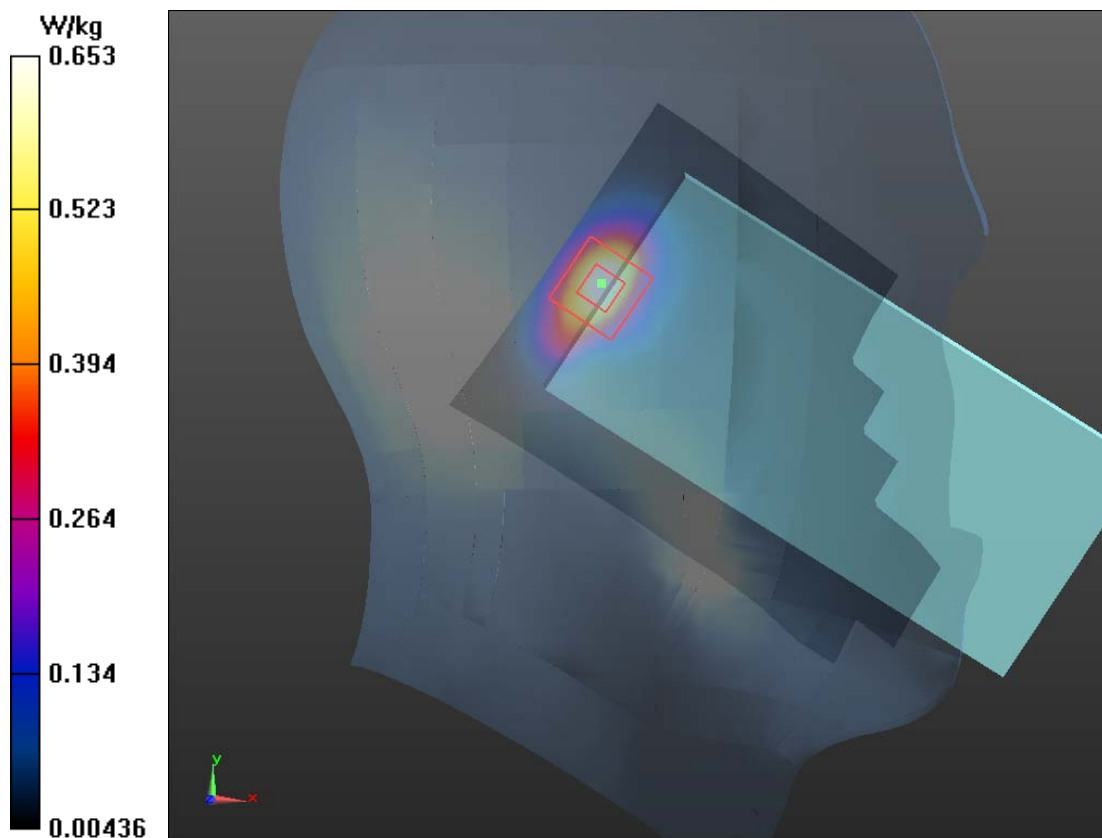
**Left Tilt Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.27 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 1.13 W/kg

**SAR(1 g) = 0.565 W/kg; SAR(10 g) = 0.272 W/kg**

Maximum value of SAR (measured) = 0.653 W/kg





**Plot 89 UMTS Band II Back Side Middle (Distance 15mm)**

Date: 4/25/2019

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

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.489$  S/m;  $\epsilon_r = 52.896$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.309 W/kg

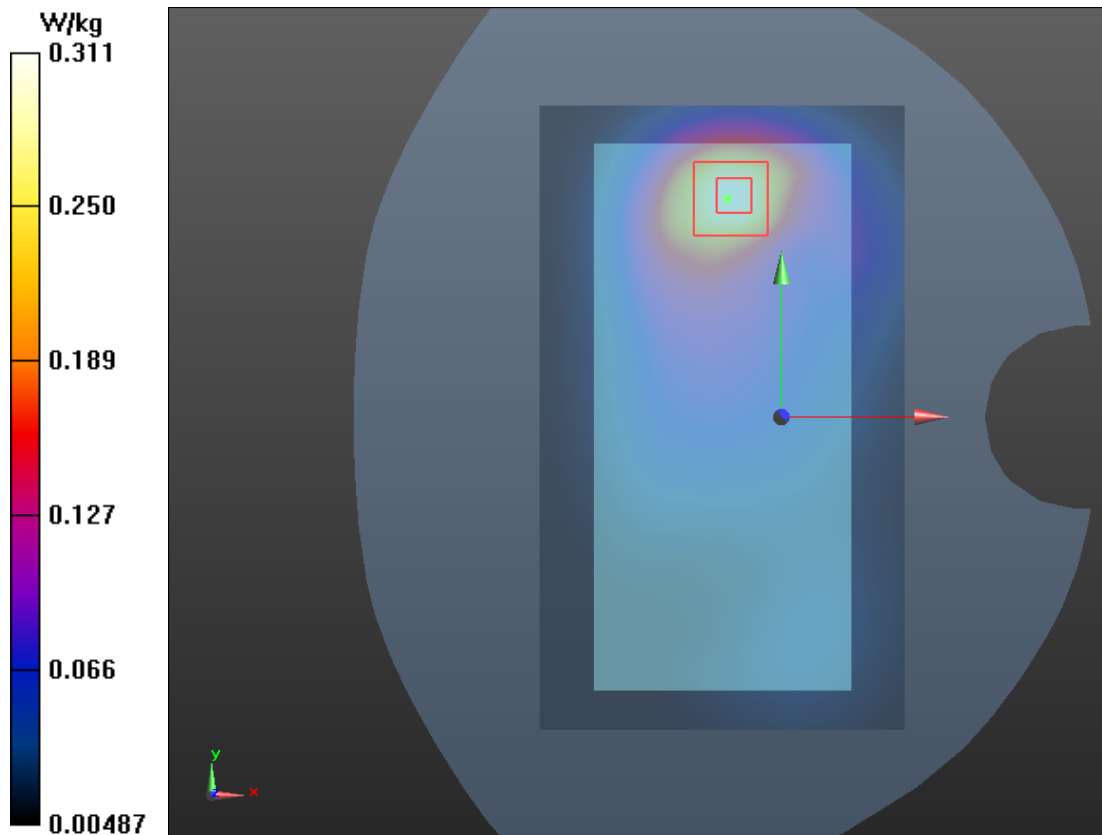
**Back Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.086 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.458 W/kg

**SAR(1 g) = 0.285 W/kg; SAR(10 g) = 0.169 W/kg**

Maximum value of SAR (measured) = 0.311 W/kg

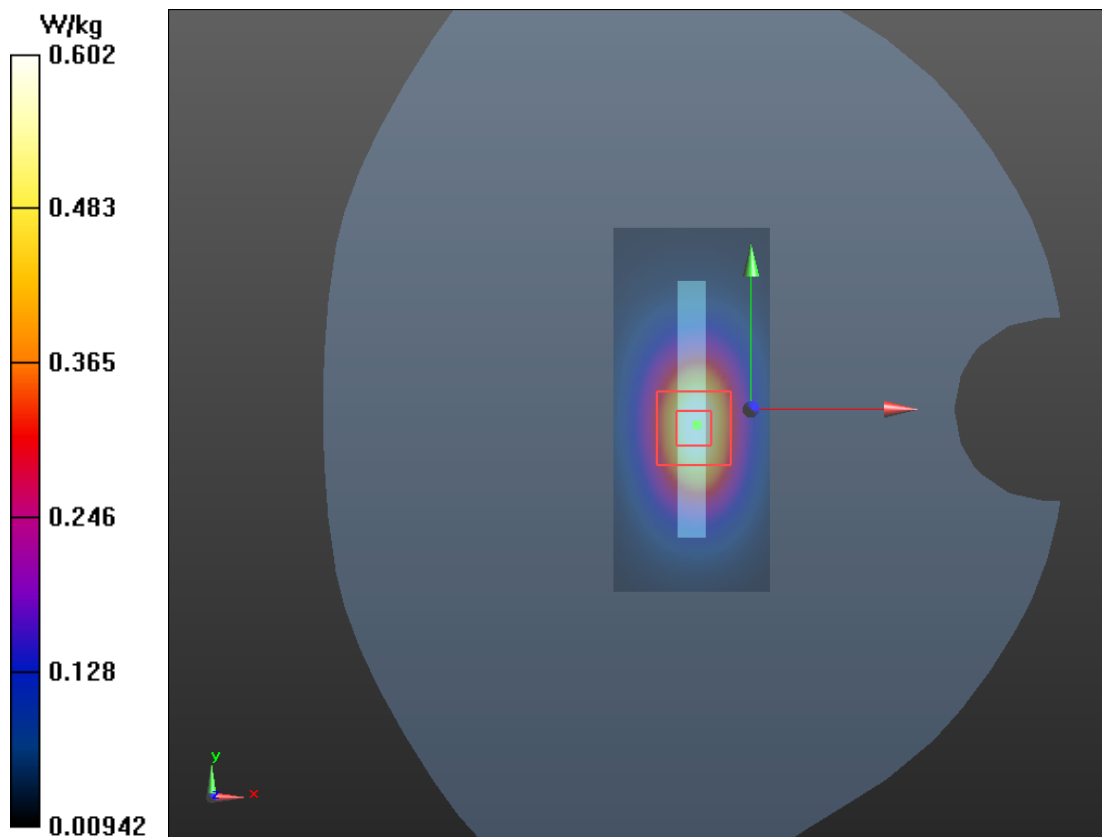


**Plot 90 UMTS Band II Top Edge Middle (Distance 10mm)**

Date: 4/25/2019  
 Communication System: UID 0, WCDMA II (0); Frequency: 1880 MHz; Duty Cycle: 1:1  
 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.489 \text{ S/m}$ ;  $\epsilon_r = 52.896$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$   
 Phantom section: Flat Section  
 DASY5 Configuration:  
 Sensor-Surface: 4mm (Mechanical Surface Detection)  
 Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;  
 Electronics: DAE4 SN1291; Calibrated: 12/4/2018  
 Phantom: SAM1; Type: SAM; Serial: TP-1534  
 Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Top Edge Middle/Area Scan (51x111x1):** Interpolated grid:  $dx=10 \text{ mm}$ ,  $dy=10 \text{ mm}$   
 Maximum value of SAR (interpolated) =  $0.639 \text{ W/kg}$

**Top Edge Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value =  $20.15 \text{ V/m}$ ; Power Drift =  $-0.17 \text{ dB}$   
 Peak SAR (extrapolated) =  $0.929 \text{ W/kg}$   
**SAR(1 g) =  $0.538 \text{ W/kg}$ ; SAR(10 g) =  $0.288 \text{ W/kg}$**   
 Maximum value of SAR (measured) =  $0.602 \text{ W/kg}$



**Plot 91 UMTS Band IV Left Tilt Middle**

Date: 4/22/2019

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

Medium parameters used:  $f = 1733 \text{ MHz}$ ;  $\sigma = 1.293 \text{ S/m}$ ;  $\epsilon_r = 38.782$ ;  $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.19, 8.19, 8.19); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Left Tilt Middle/Area Scan (71x131x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.608 W/kg

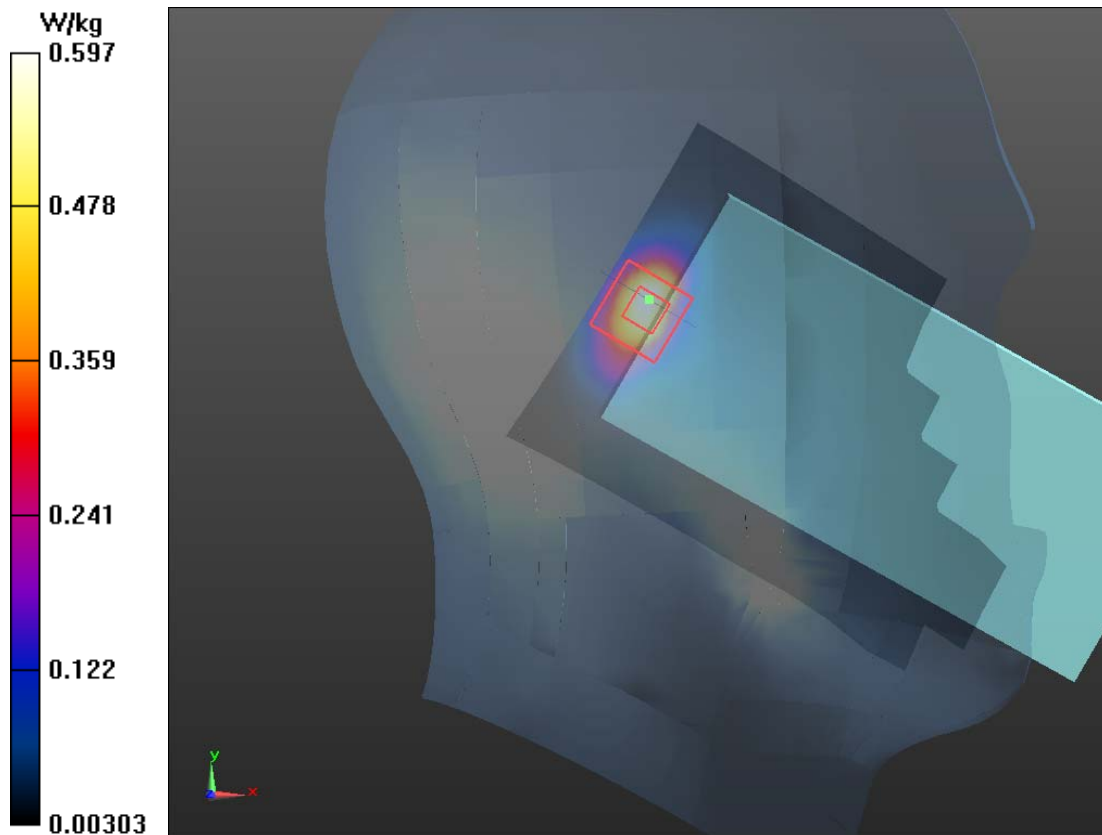
**Left Tilt Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.85 V/m; Power Drift = 0.062 dB

Peak SAR (extrapolated) = 1.07 W/kg

**SAR(1 g) = 0.516 W/kg; SAR(10 g) = 0.238 W/kg**

Maximum value of SAR (measured) = 0.597 W/kg



**Plot 92 UMTS Band IV Front Side Middle (Distance 15mm)**

Date: 4/14/2019

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

Medium parameters used:  $f = 1733$  MHz;  $\sigma = 1.44$  S/m;  $\epsilon_r = 53.115$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.91, 7.91, 7.91); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Front Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.271 W/kg

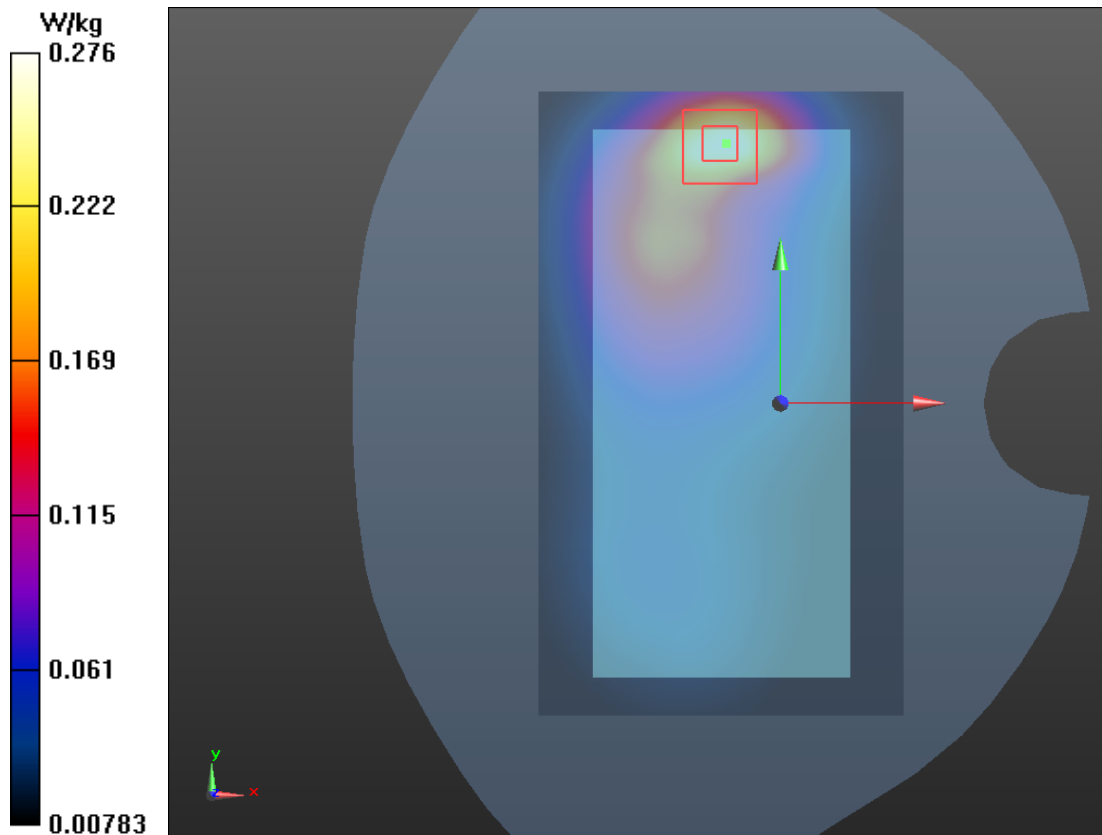
**Front Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.451 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.400 W/kg

**SAR(1 g) = 0.248 W/kg; SAR(10 g) = 0.144 W/kg**

Maximum value of SAR (measured) = 0.276 W/kg



**Plot 93 UMTS Band IV Top Edge Middle (Distance 10mm)**

Date: 4/14/2019

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

Medium parameters used:  $f = 1733$  MHz;  $\sigma = 1.44$  S/m;  $\epsilon_r = 53.115$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.91, 7.91, 7.91); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Top Edge Middle/Area Scan Area Scan (51x111x1):** Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 0.419 W/kg

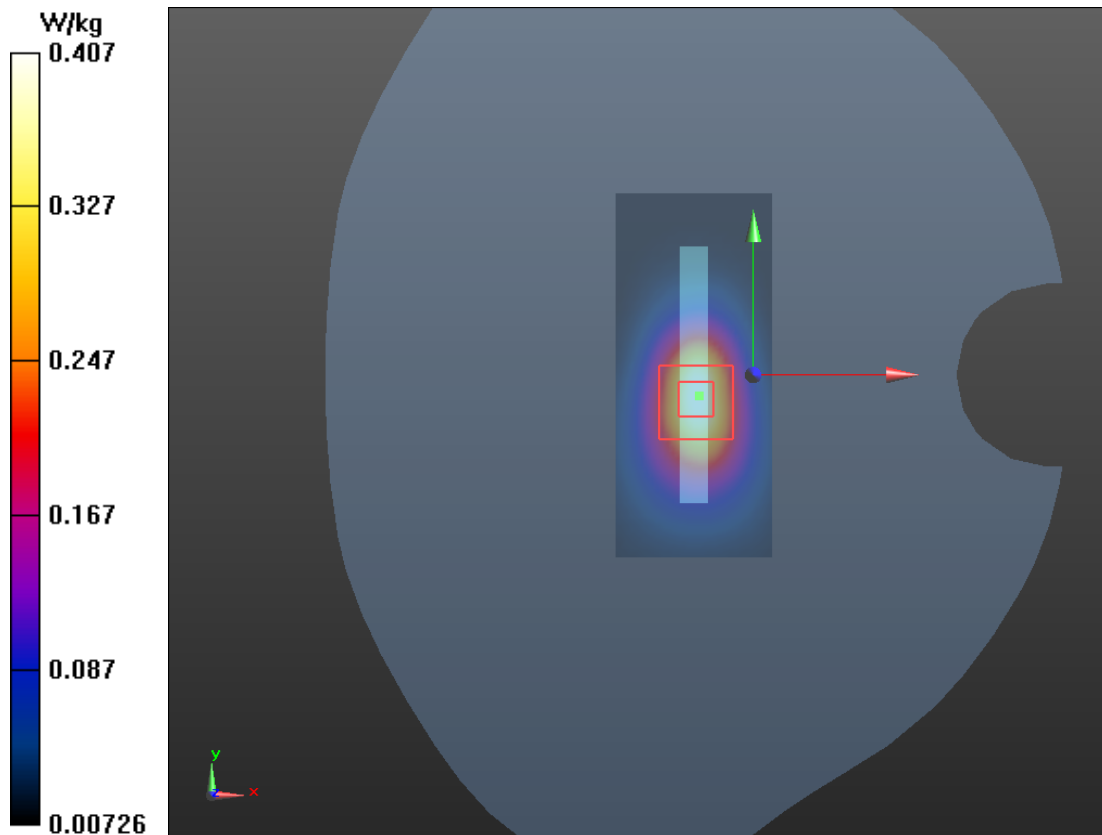
**Top Edge Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.27 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.609 W/kg

**SAR(1 g) = 0.363 W/kg; SAR(10 g) = 0.197 W/kg**

Maximum value of SAR (measured) = 0.407 W/kg



**Plot 94 UMTS Band V Right Tilt Middle**

Date: 4/27/2019

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

Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.916$  S/m;  $\epsilon_r = 41.951$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.10, 9.10, 9.10); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Tilt Middle/Area Scan (71x131x1):** Interpolated grid: dx=15 mm, dy=15 mm

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

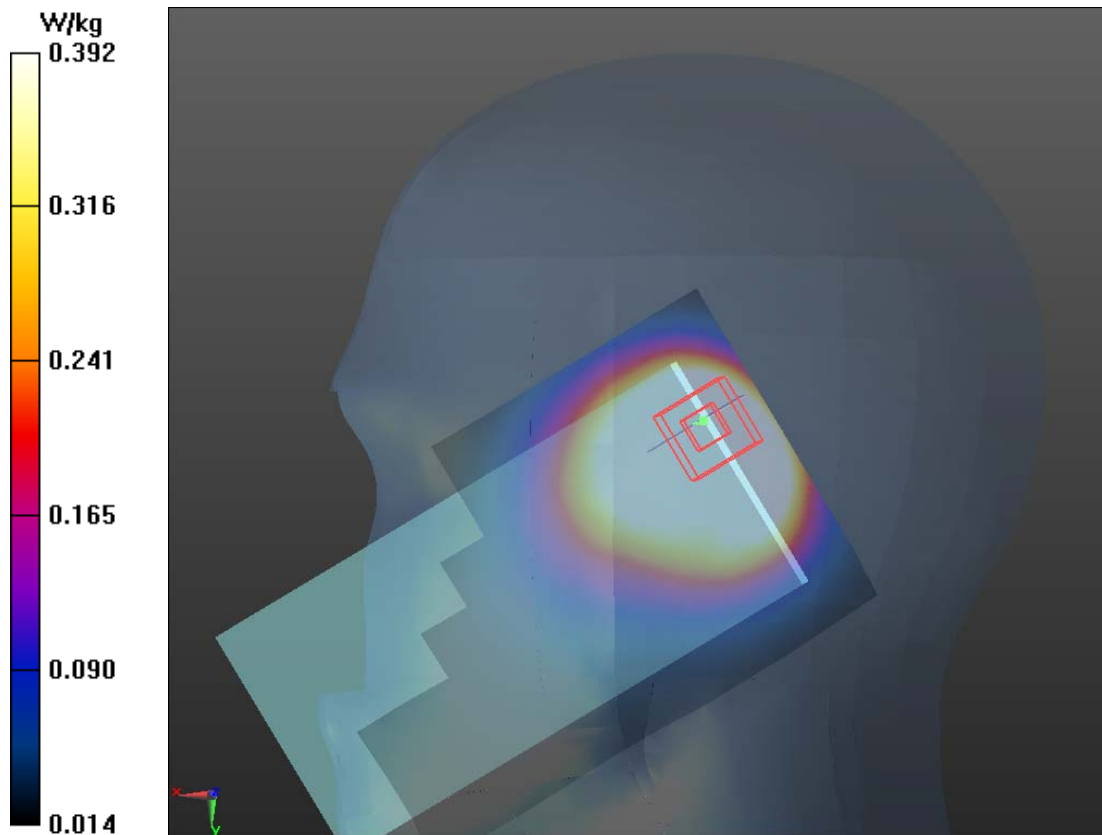
**Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.94 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 1.06 W/kg

**SAR(1 g) = 0.378 W/kg; SAR(10 g) = 0.176 W/kg**

Maximum value of SAR (measured) = 0.392 W/kg



**Plot 95 UMTS Band V Front Side Middle (Distance 15mm)**

Date: 4/24/2019

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

Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.974$  S/m;  $\epsilon_r = 53.795$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Front Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.249 W/kg

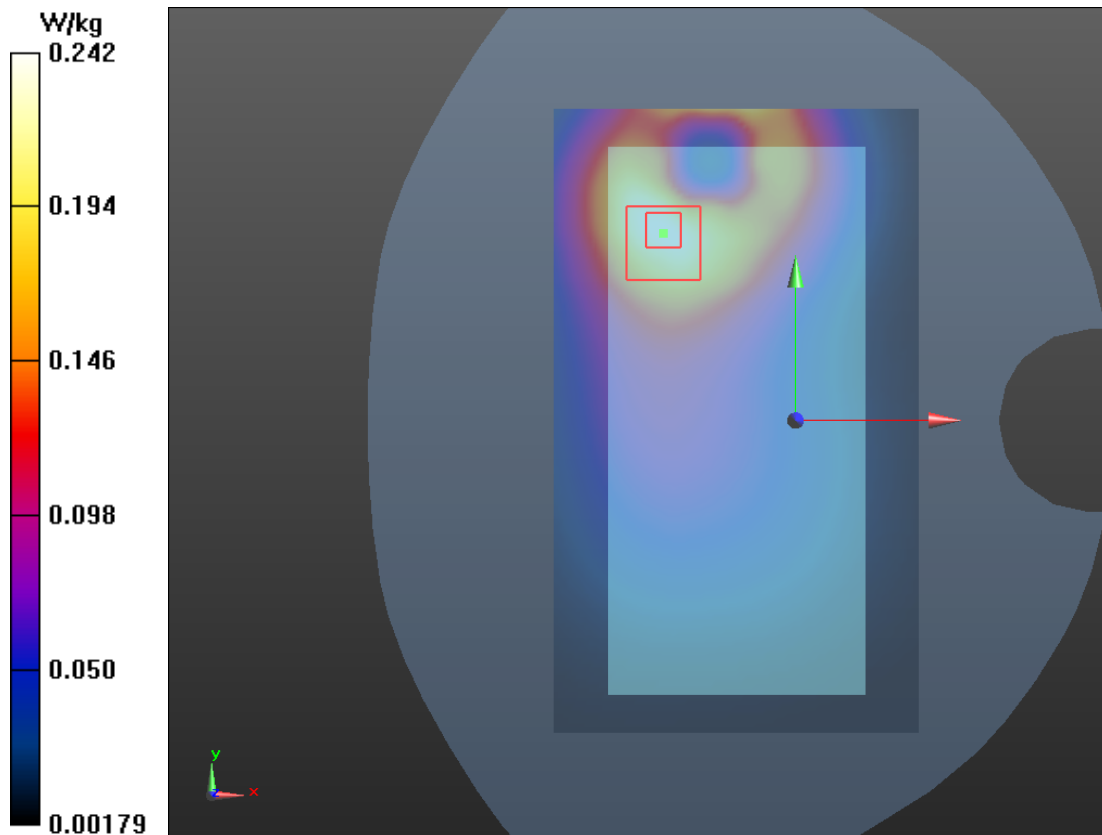
**Front Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.579 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.323 W/kg

**SAR(1 g) = 0.224 W/kg; SAR(10 g) = 0.149 W/kg**

Maximum value of SAR (measured) = 0.242 W/kg



**Plot 96 UMTS Band V Front Side Middle (Distance 10mm)**

Date: 4/24/2019

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

Medium parameters used:  $f = 837$  MHz;  $\sigma = 0.974$  S/m;  $\epsilon_r = 53.795$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Front Side Middle/Area Scan (71x121x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.418 W/kg

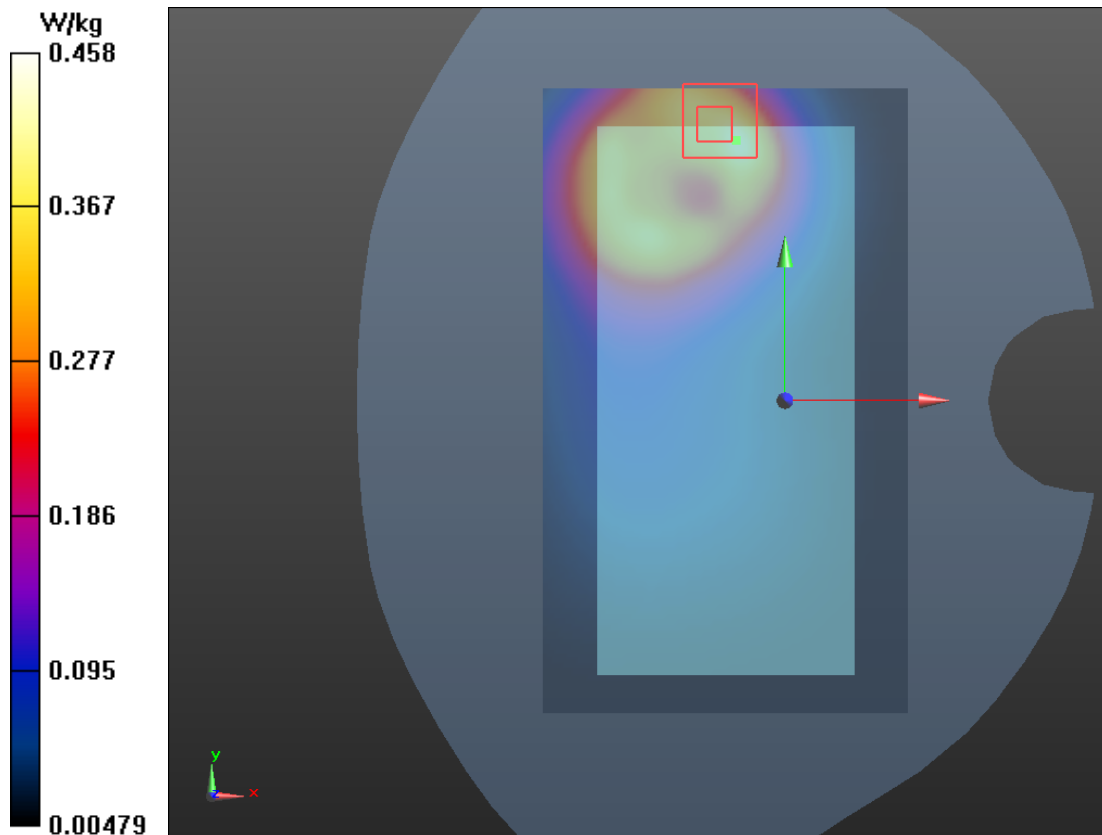
**Front Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.039 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.840 W/kg

**SAR(1 g) = 0.427 W/kg; SAR(10 g) = 0.226 W/kg**

Maximum value of SAR (measured) = 0.458 W/kg





**Plot 97 LTE Band 2 1RB Right Tilt Middle**

Date: 4/27/2019

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

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.393$  S/m;  $\epsilon_r = 38.344$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.96, 7.96, 7.96); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Tilt Middle/Area Scan (71x131x1):** Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.575 W/kg

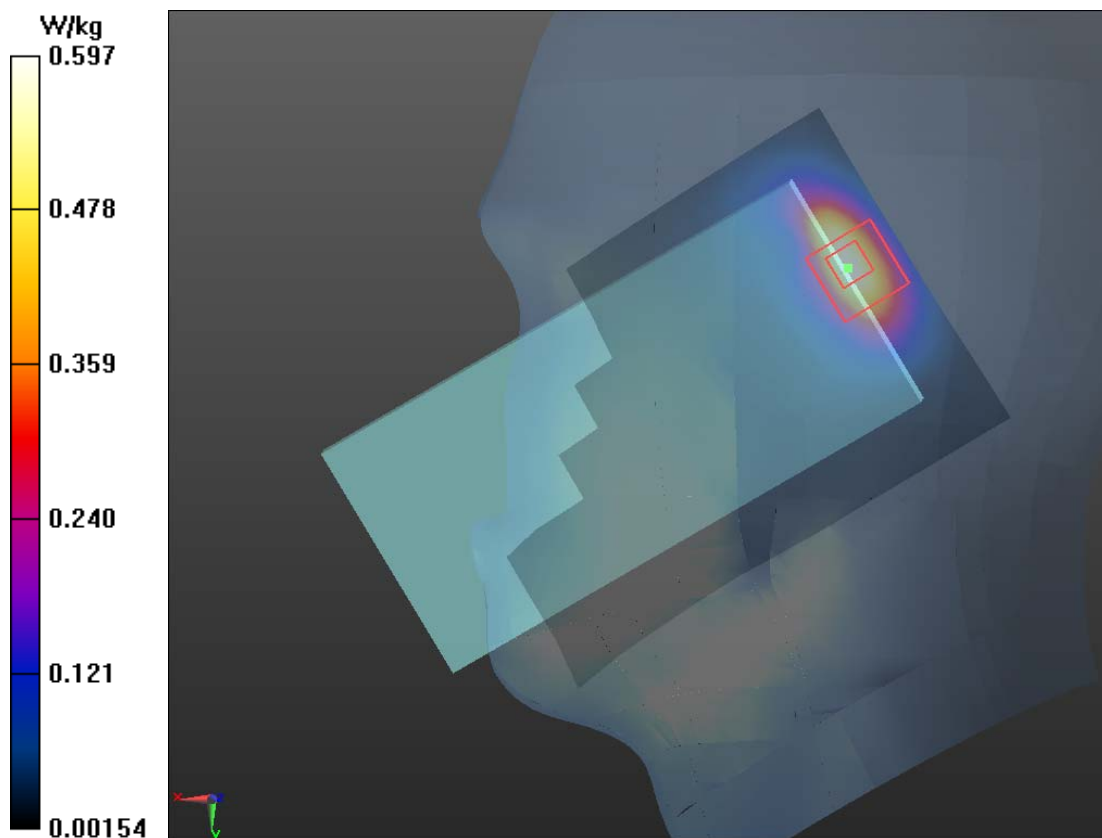
**Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.87 V/m; Power Drift = 0.100 dB

Peak SAR (extrapolated) = 1.03 W/kg

**SAR(1 g) = 0.512 W/kg; SAR(10 g) = 0.245 W/kg**

Maximum value of SAR (measured) = 0.597 W/kg



**Plot 98 LTE Band 2 1RB Back Side High (Distance 15mm)**

Date: 4/25/2019

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

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.493$  S/m;  $\epsilon_r = 51.566$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side High/Area Scan (71x61x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.241 W/kg

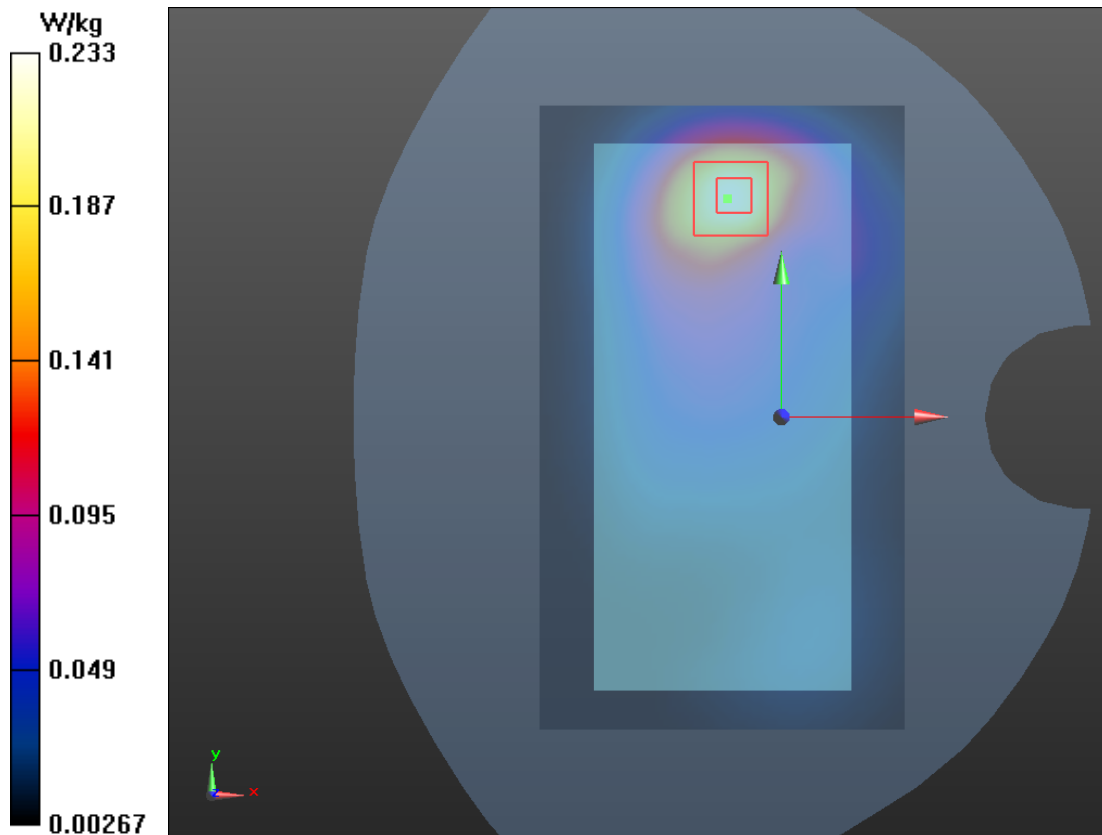
**Back Side High/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.650 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.347 W/kg

**SAR(1 g) = 0.214 W/kg; SAR(10 g) = 0.126 W/kg**

Maximum value of SAR (measured) = 0.233 W/kg



**Plot 99 LTE Band 2 1RB Top Edge Middle (Distance 10mm)**

Date: 4/25/2019

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

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.489$  S/m;  $\epsilon_r = 52.896$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.70, 7.70, 7.70); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Top Edge Middle/Area Scan (51x111x1):** Interpolated grid: dx=10 mm, dy=10 mm

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

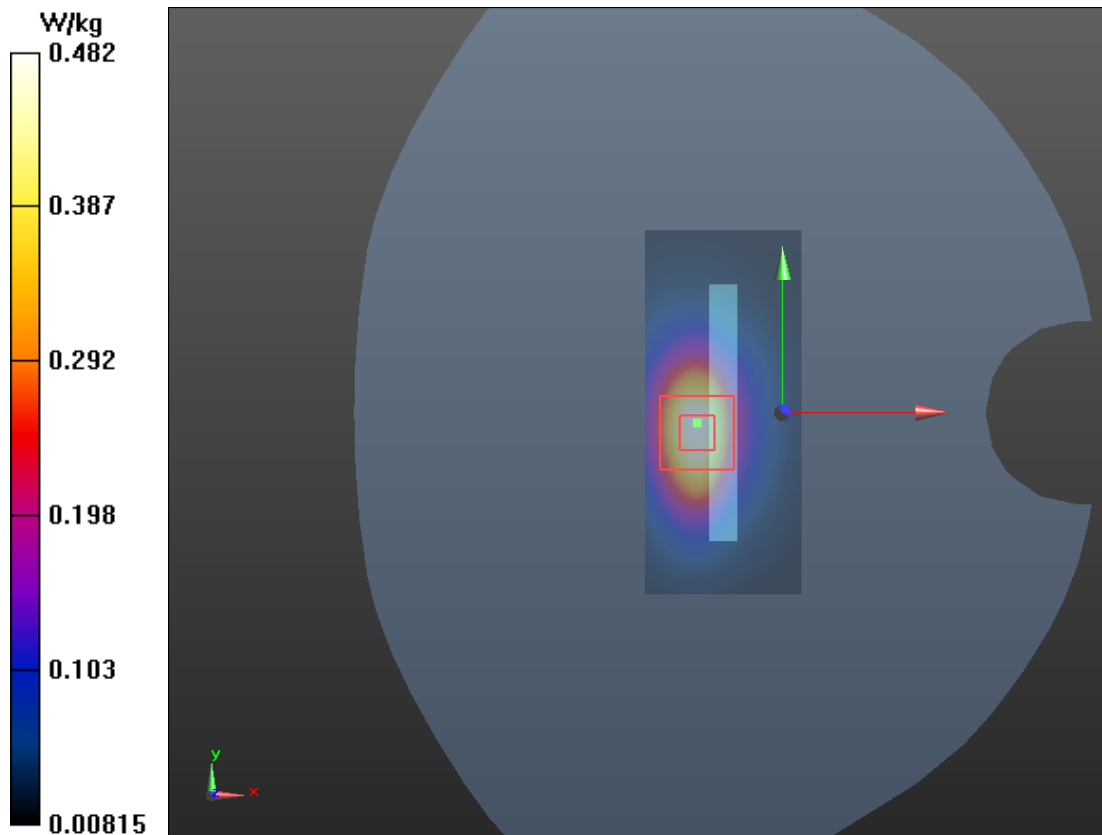
**Top Edge Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.20 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 0.757 W/kg

**SAR(1 g) = 0.433 W/kg; SAR(10 g) = 0.231 W/kg**

Maximum value of SAR (measured) = 0.482 W/kg



**Plot 100 LTE Band 4 50%RB Right Tilt High**

Date: 4/22/2019

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

Medium parameters used: f = 1745 MHz;  $\sigma = 1.301$  S/m;  $\epsilon_r = 38.753$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.19, 8.19, 8.19); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Tilt High/Area Scan (71x131x1):** Interpolated grid: dx=15 mm, dy=15 mm

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

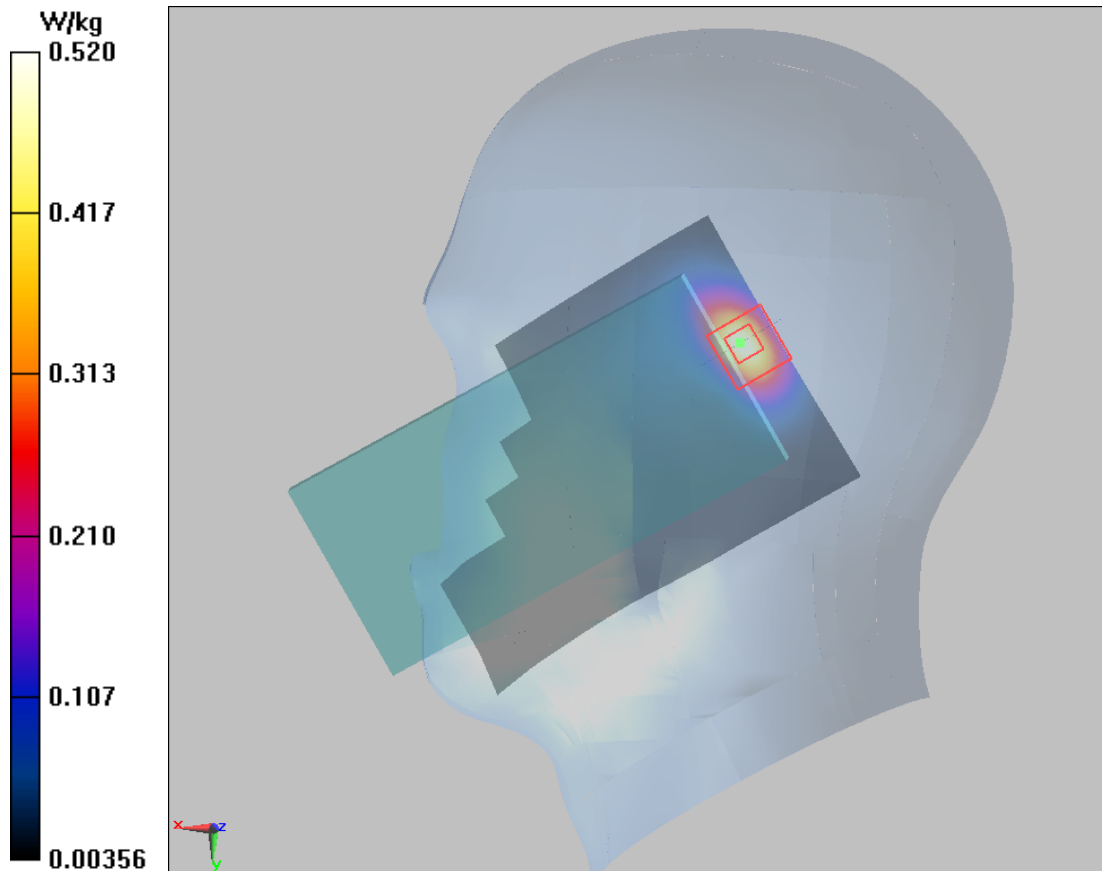
**Right Tilt High/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.54 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 0.859 W/kg

**SAR(1 g) = 0.449 W/kg; SAR(10 g) = 0.217 W/kg**

Maximum value of SAR (measured) = 0.520 W/kg



**Plot 101 LTE Band 4 1RB Front Side Low (Distance 15mm)**

Date: 4/14/2019

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

Medium parameters used:  $f = 1720$  MHz;  $\sigma = 1.431$  S/m;  $\epsilon_r = 53.201$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.91, 7.91, 7.91); Calibrated: 5/29/2018;

DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Front Side Low/Area Scan (71x61x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.177 W/kg

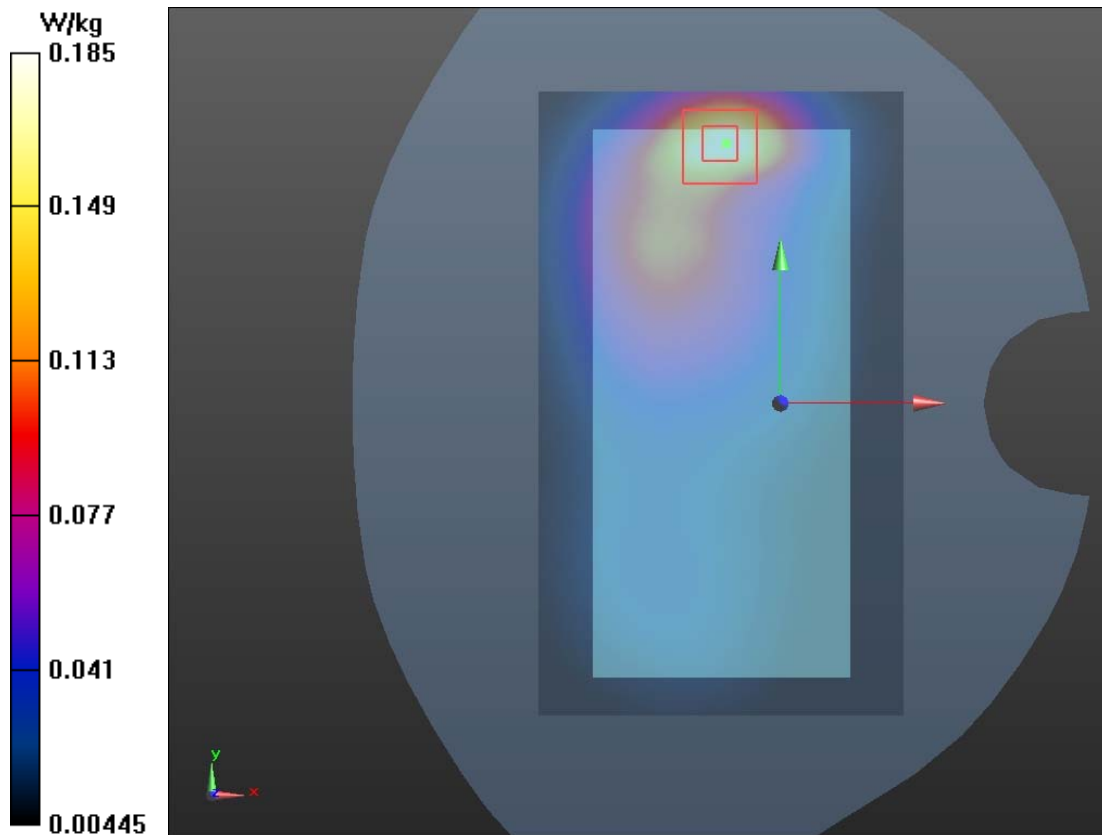
**Front Side Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.517 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 0.272 W/kg

**SAR(1 g) = 0.167 W/kg; SAR(10 g) = 0.097 W/kg**

Maximum value of SAR (measured) = 0.185 W/kg



**Plot 102 LTE Band 41RB Top Edge Low (Distance 10mm)**

Date: 4/14/2019

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

Medium parameters used:  $f = 1720$  MHz;  $\sigma = 1.431$  S/m;  $\epsilon_r = 53.201$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.91, 7.91, 7.91); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Top Edge Low/Area Scan (91x111x1):** Interpolated grid: dx=10 mm, dy=10 mm

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

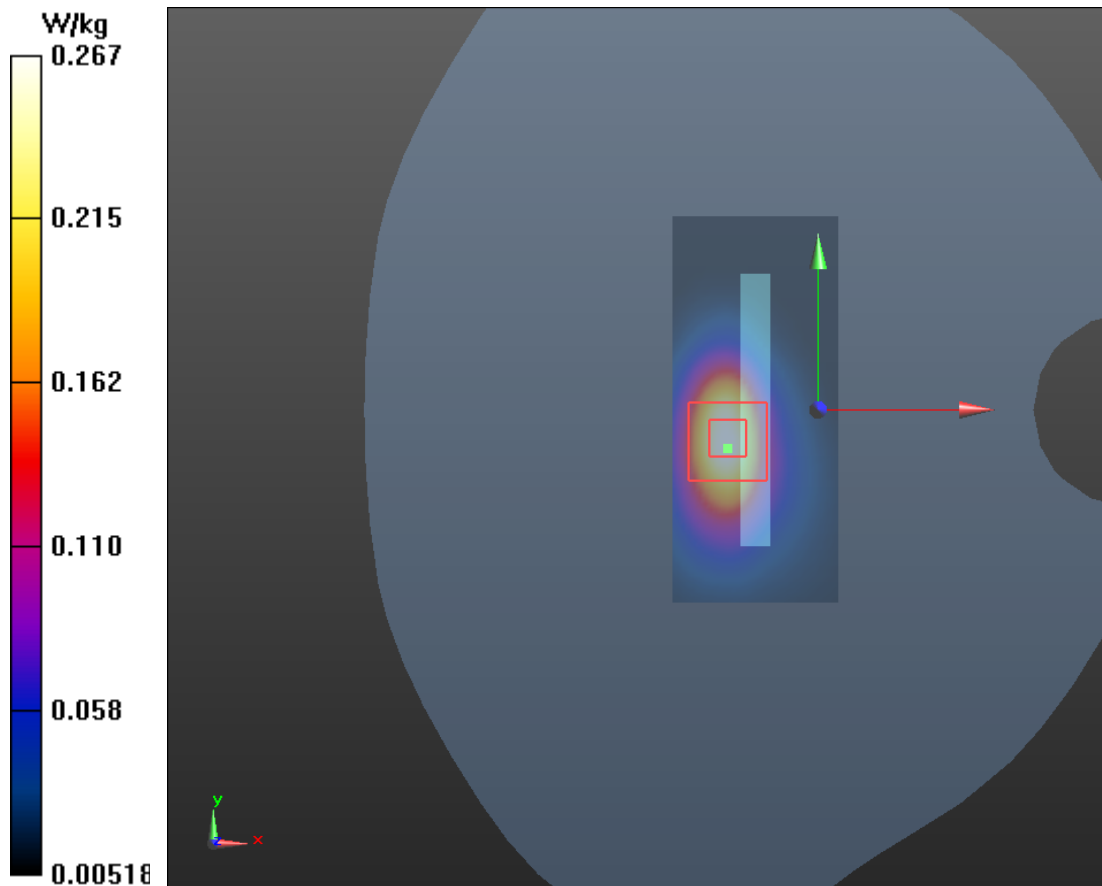
**Top Edge Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.72 V/m; Power Drift = 0.035 dB

Peak SAR (extrapolated) = 0.407 W/kg

**SAR(1 g) = 0.241 W/kg; SAR(10 g) = 0.129 W/kg**

Maximum value of SAR (measured) = 0.267 W/kg



**Plot 103 LTE Band 5 50%RB Left Cheek Low**

Date: 4/27/2019

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

Medium parameters used:  $f = 829$  MHz;  $\sigma = 0.91$  S/m;  $\epsilon_r = 42.138$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.10, 9.10, 9.10); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Left Cheek Low/Area Scan (71x131x1):** Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 0.313 W/kg

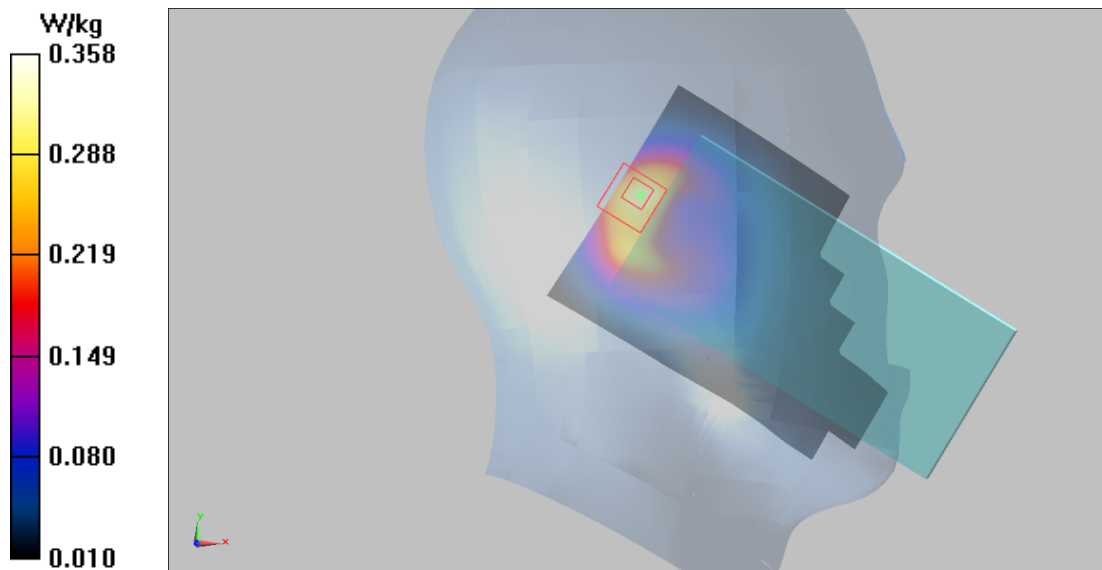
**Left Cheek Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.76 V/m; Power Drift = 0.038 dB

Peak SAR (extrapolated) = 0.713 W/kg

**SAR(1 g) = 0.312 W/kg; SAR(10 g) = 0.156 W/kg**

Maximum value of SAR (measured) = 0.358 W/kg



**Plot 104 LTE Band 5 1RB Back Side High (Distance 15mm)**

Date: 4/24/2019

Communication System: UID 0, LTE (0); Frequency: 844 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 844 \text{ MHz}$ ;  $\sigma = 0.98 \text{ S/m}$ ;  $\epsilon_r = 53.721$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side High/Area Scan (71x121x1):** Interpolated grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (interpolated) =  $0.191 \text{ W/kg}$

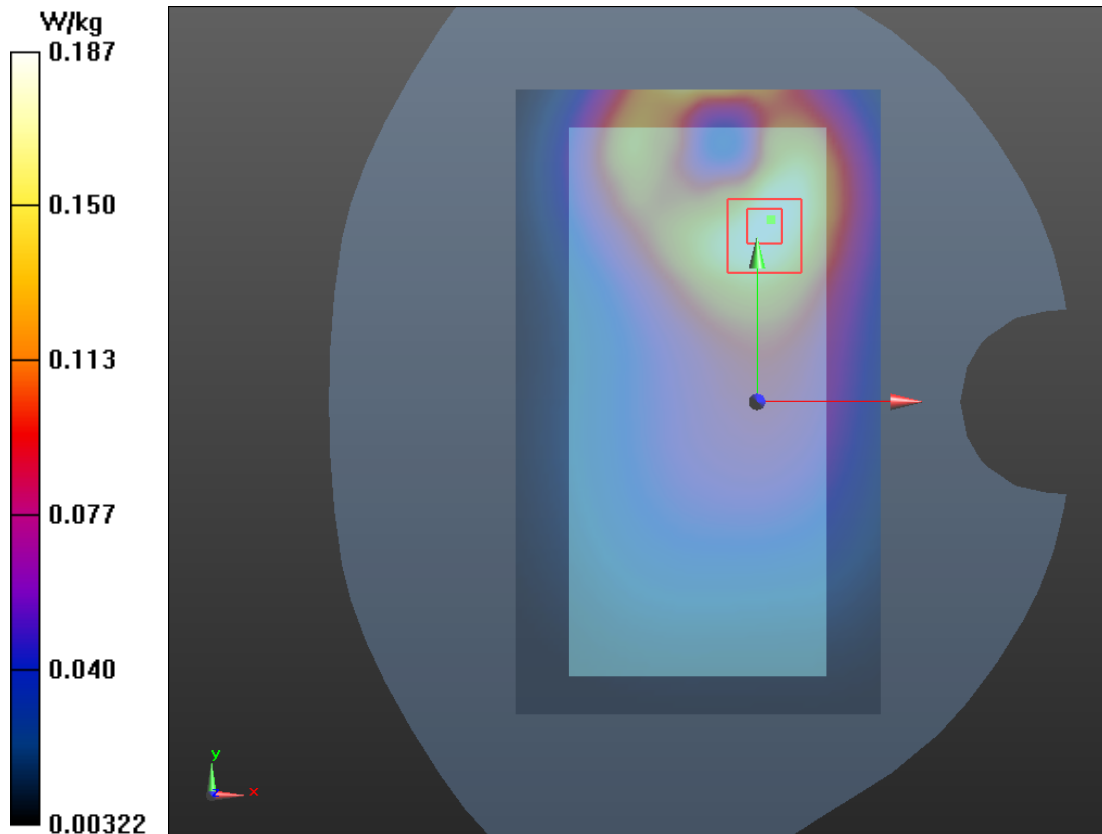
**Back Side High/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $8.627 \text{ V/m}$ ; Power Drift =  $-0.020 \text{ dB}$

Peak SAR (extrapolated) =  $0.245 \text{ W/kg}$

**SAR(1 g) =  $0.175 \text{ W/kg}$ ; SAR(10 g) =  $0.119 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.187 \text{ W/kg}$





**Plot 105 LTE Band 5 50%RB Front Side High (Distance 10mm)**

Date: 4/24/2019

Communication System: UID 0, LTE (0); Frequency: 844 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 844 \text{ MHz}$ ;  $\sigma = 0.98 \text{ S/m}$ ;  $\epsilon_r = 53.721$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.32, 9.32, 9.32); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Front Side High/Area Scan (71x61x1):** Interpolated grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Maximum value of SAR (interpolated) =  $0.345 \text{ W/kg}$

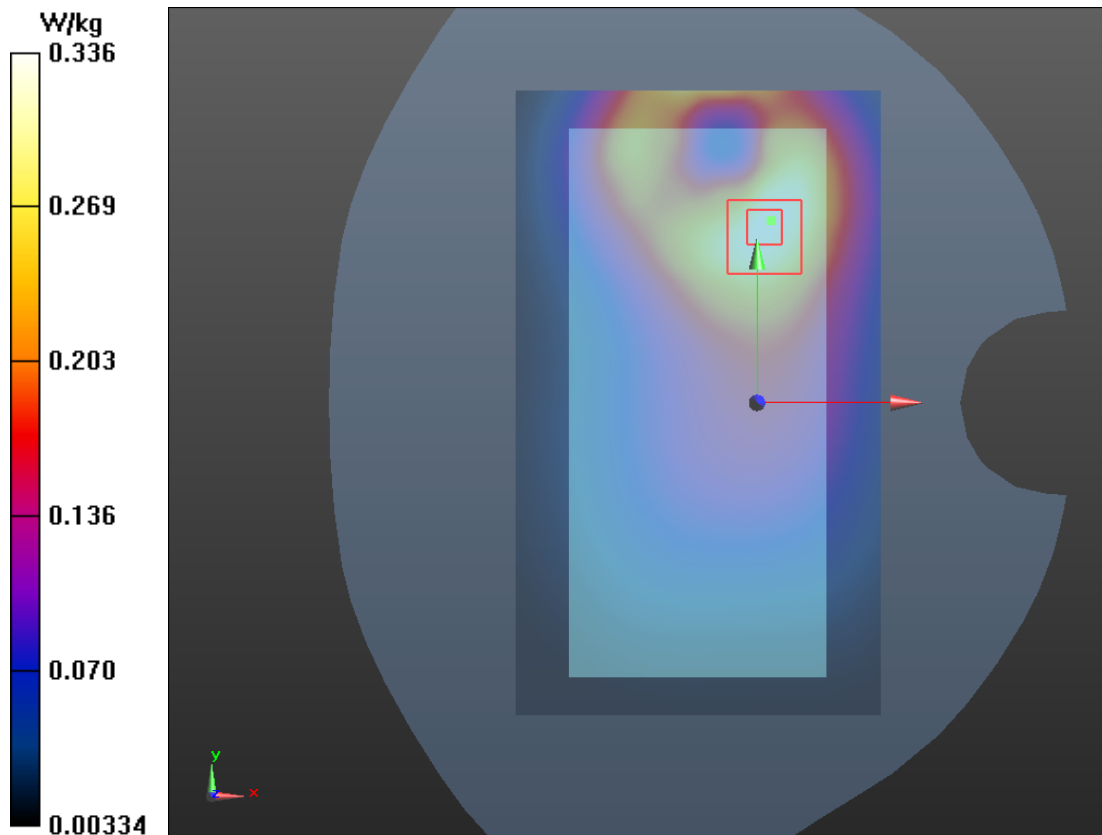
**Front Side High/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $8.267 \text{ V/m}$ ; Power Drift =  $0.120 \text{ dB}$

Peak SAR (extrapolated) =  $0.573 \text{ W/kg}$

**SAR(1 g) =  $0.306 \text{ W/kg}$ ; SAR(10 g) =  $0.166 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.336 \text{ W/kg}$



**Plot 106 LTE Band 7 50%RB Right Tilt Middle**

Date: 4/17/2019

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

Medium parameters used:  $f = 2535$  MHz;  $\sigma = 1.948$  S/m;  $\epsilon_r = 38.395$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.28, 7.28, 7.28); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Tilt Middle/Area Scan (91x171x1):** Interpolated grid: dx=12 mm, dy=12 mm

Maximum value of SAR (interpolated) = 0.578 W/kg

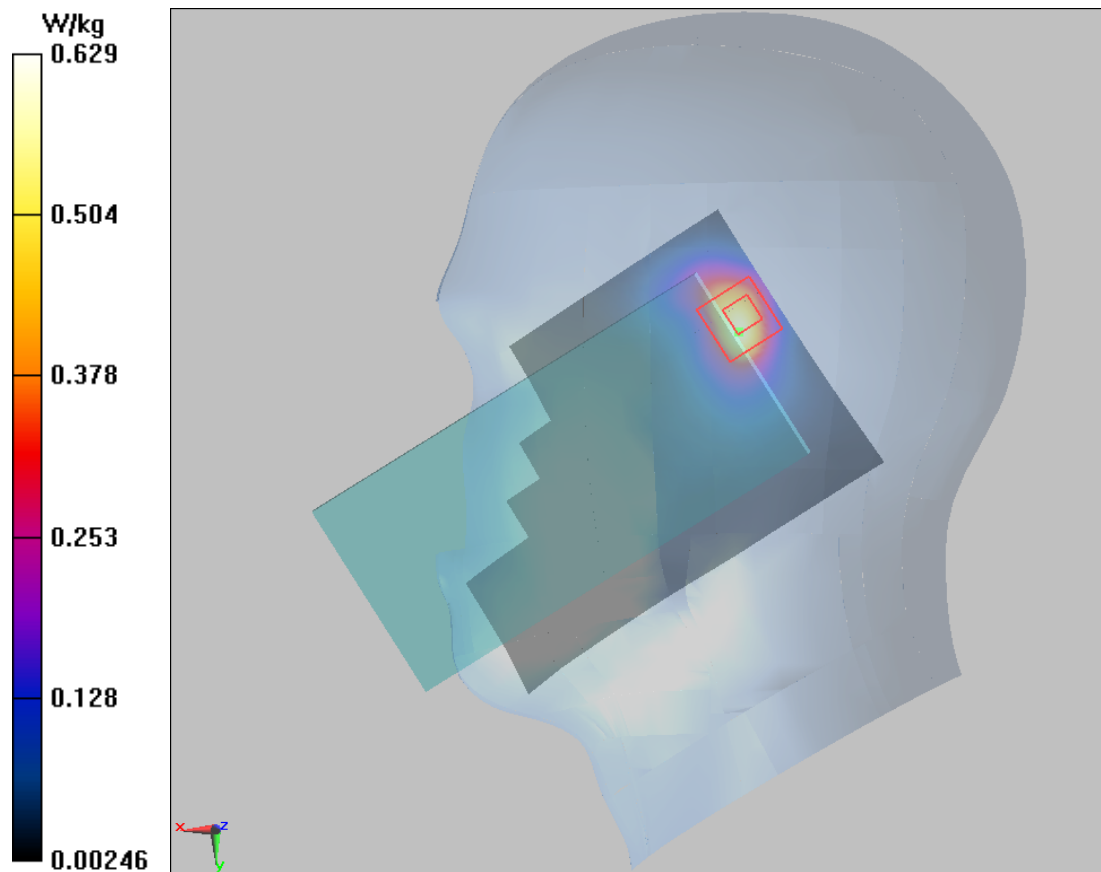
**Right Tilt Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.29 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.59 W/kg

**SAR(1 g) = 0.593 W/kg; SAR(10 g) = 0.241 W/kg**

Maximum value of SAR (measured) = 0.629 W/kg



**Plot 107 LTE Band 7 1RB Back Side Middle (Distance 15mm)**

Date: 4/25/2019

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

Medium parameters used:  $f = 2535 \text{ MHz}$ ;  $\sigma = 2.075 \text{ S/m}$ ;  $\epsilon_r = 50.843$ ;  $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.16, 7.16, 7.16); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle/Area Scan (91x171x1):** Interpolated grid: dx=12 mm, dy=12 mm

Maximum value of SAR (interpolated) = 0.295 W/kg

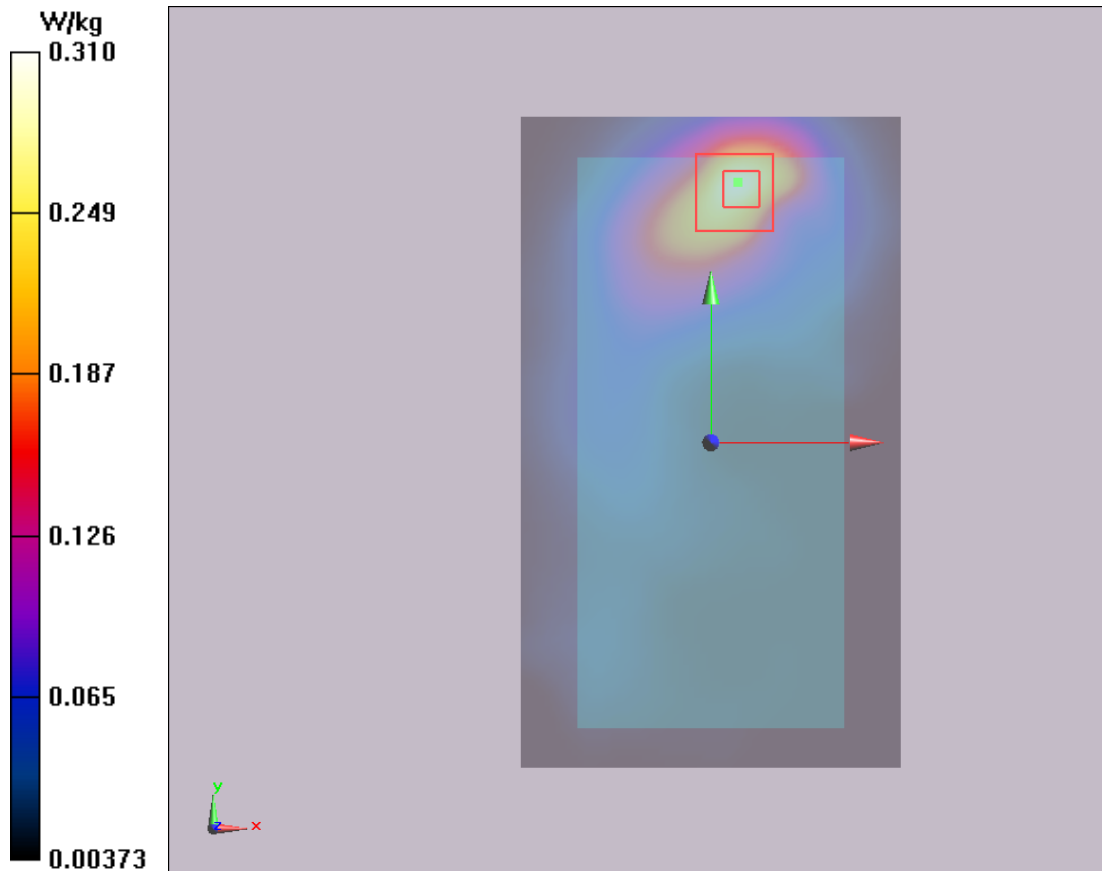
**Back Side Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.128 V/m; Power Drift = 0.021 dB

Peak SAR (extrapolated) = 0.552 W/kg

**SAR(1 g) = 0.280 W/kg; SAR(10 g) = 0.140 W/kg**

Maximum value of SAR (measured) = 0.310 W/kg



**Plot 108 LTE Band 7 1RB Back Side Middle (Distance 10mm)**

Date: 4/25/2019

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

Medium parameters used:  $f = 2535 \text{ MHz}$ ;  $\sigma = 2.075 \text{ S/m}$ ;  $\epsilon_r = 50.843$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.16, 7.16, 7.16); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Back Side Middle/Area Scan (91x171x1):** Interpolated grid:  $dx=12 \text{ mm}$ ,  $dy=12 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.491 \text{ W/kg}$

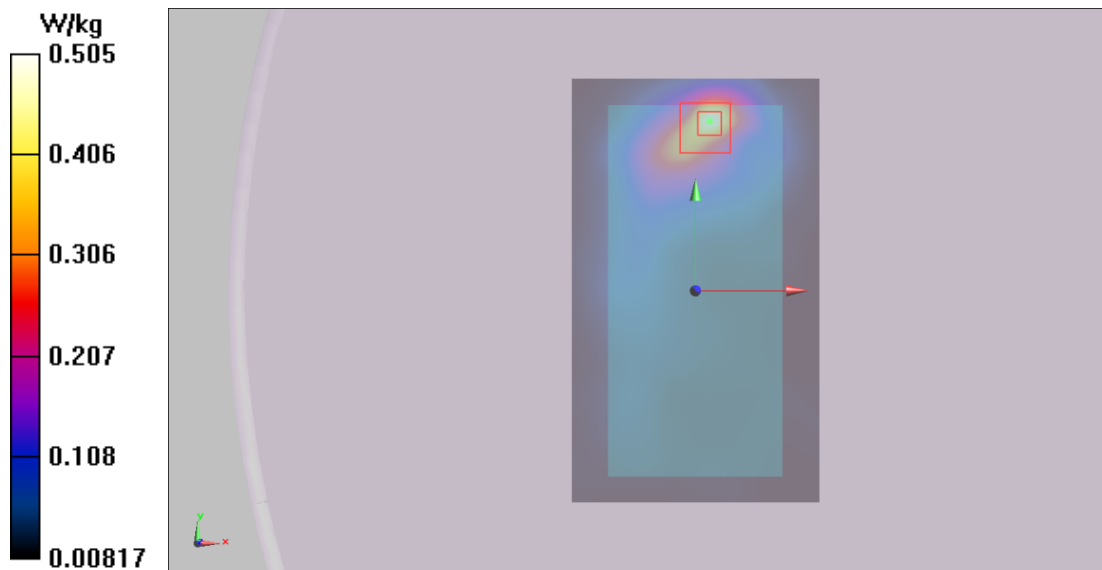
**Back Side Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $3.546 \text{ V/m}$ ; Power Drift =  $-0.028 \text{ dB}$

Peak SAR (extrapolated) =  $0.917 \text{ W/kg}$

**SAR(1 g) =  $0.437 \text{ W/kg}$ ; SAR(10 g) =  $0.204 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.505 \text{ W/kg}$



**Plot 109 LTE Band 12 1RB Right Cheek Low**

Date: 4/23/2019

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

Medium parameters used:  $f = 704 \text{ MHz}$ ;  $\sigma = 0.864 \text{ S/m}$ ;  $\epsilon_r = 43.132$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.3 \text{ }^\circ\text{C}$       Liquid Temperature:  $21.5 \text{ }^\circ\text{C}$

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.40, 9.40, 9.40); Calibrated: 5/29/2018;

Electronics: DAE4 SN1291; Calibrated: 12/4/2018

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

**Right Cheek Low/Area Scan (71x131x1):** Interpolated grid:  $dx=15 \text{ mm}$ ,  $dy=15 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.428 \text{ W/kg}$

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

Reference Value =  $17.63 \text{ V/m}$ ; Power Drift =  $-0.13 \text{ dB}$

Peak SAR (extrapolated) =  $1.00 \text{ W/kg}$

**SAR(1 g) =  $0.411 \text{ W/kg}$ ; SAR(10 g) =  $0.204 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.463 \text{ W/kg}$

