

**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GSM bands; Frequency: 836.6 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.92$  mho/m;  $\epsilon_r = 41.25$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.50, 10.50, 10.50); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Left Cheek/GSM 850 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.373 mW/g

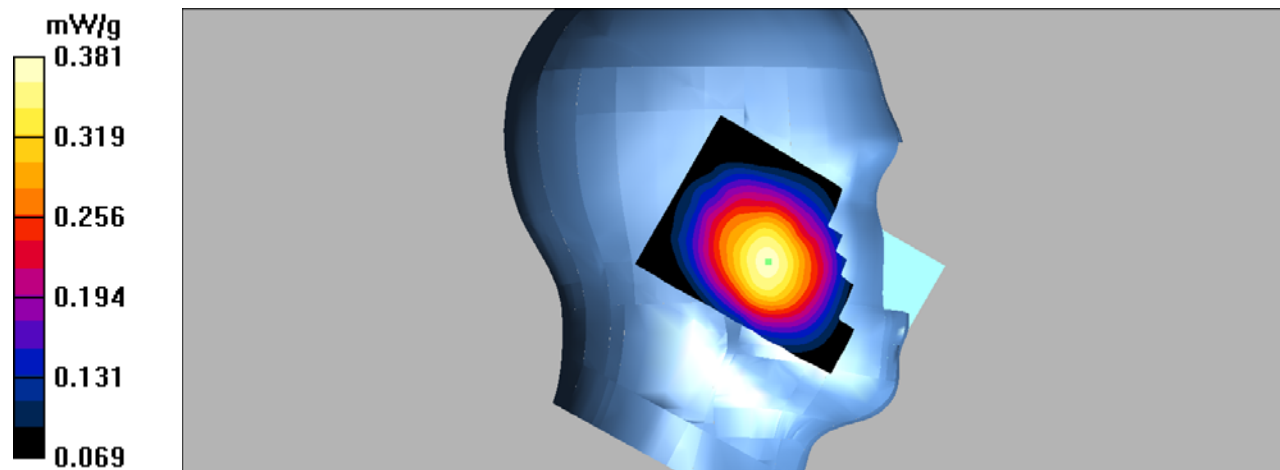
**Left Cheek/GSM 850 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.40 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.430 W/kg

**SAR(1 g) = 0.362 mW/g; SAR(10 g) = 0.282 mW/g**

Maximum value of SAR (measured) = 0.381 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GSM bands; Frequency: 836.6 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.92$  mho/m;  $\epsilon_r = 41.25$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.50, 10.50, 10.50); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Left Tilt/GSM 850 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.246 mW/g

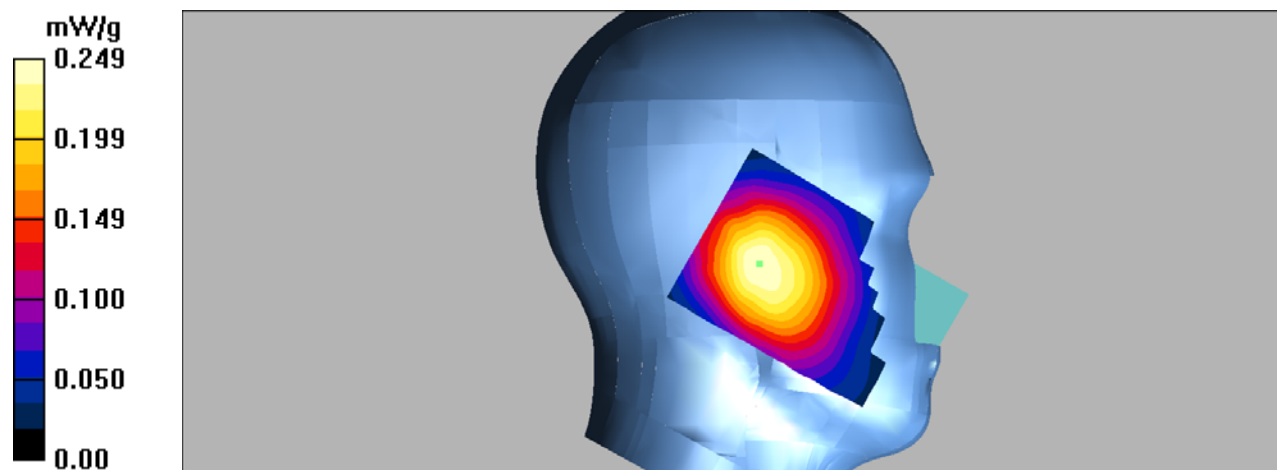
**Left Tilt/GSM 850 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.5 V/m; Power Drift = -0.017 dB

Peak SAR (extrapolated) = 0.278 W/kg

**SAR(1 g) = 0.235 mW/g; SAR(10 g) = 0.186 mW/g**

Maximum value of SAR (measured) = 0.249 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GSM bands; Frequency: 836.6 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.92$  mho/m;  $\epsilon_r = 41.25$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.50, 10.50, 10.50); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Right Cheek/GSM 850 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.373 mW/g

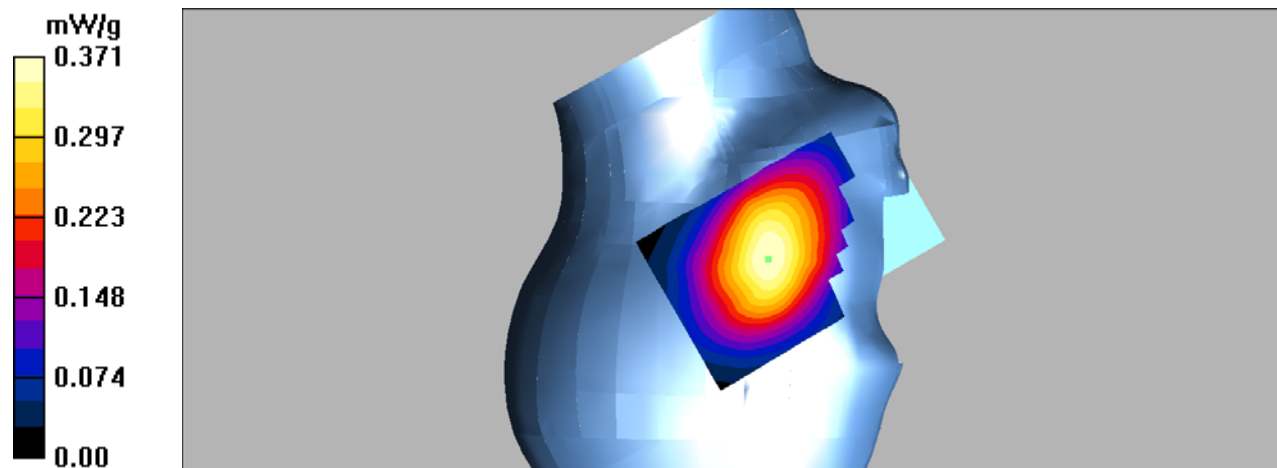
**Right Cheek/GSM 850 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.08 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 0.425 W/kg

**SAR(1 g) = 0.355 mW/g; SAR(10 g) = 0.276 mW/g**

Maximum value of SAR (measured) = 0.371 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GSM bands; Frequency: 836.6 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.92$  mho/m;  $\epsilon_r = 41.25$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.50, 10.50, 10.50); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Right Tilt/GSM 850 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.261 mW/g

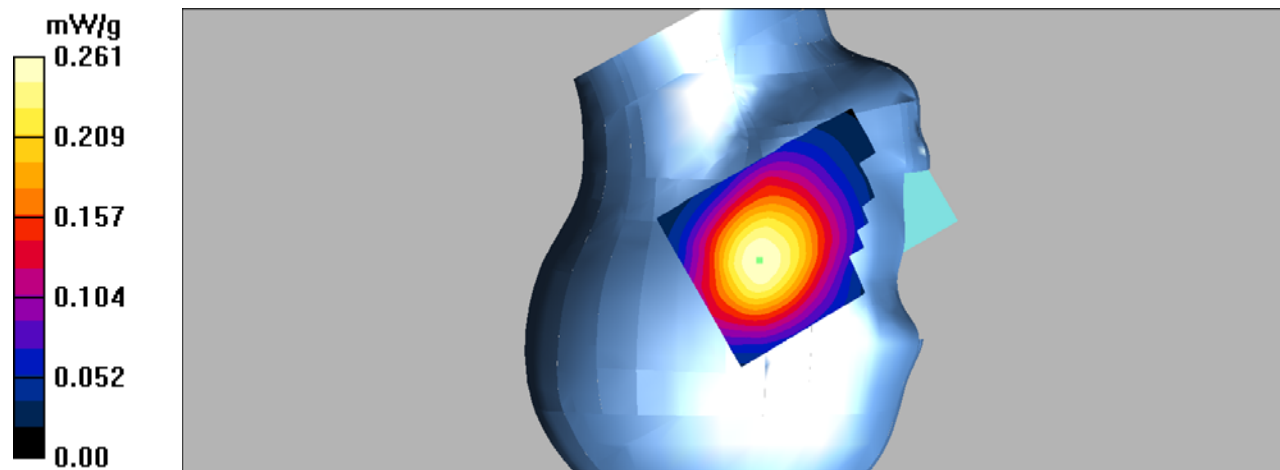
**Right Tilt/GSM 850 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.5 V/m; Power Drift = -0.042 dB

Peak SAR (extrapolated) = 0.289 W/kg

**SAR(1 g) = 0.250 mW/g; SAR(10 g) = 0.197 mW/g**

Maximum value of SAR (measured) = 0.261 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GSM bands; Frequency: 836.6 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 55.41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.54, 10.54, 10.54); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Body-worn/GSM 850 Mid/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.763 mW/g

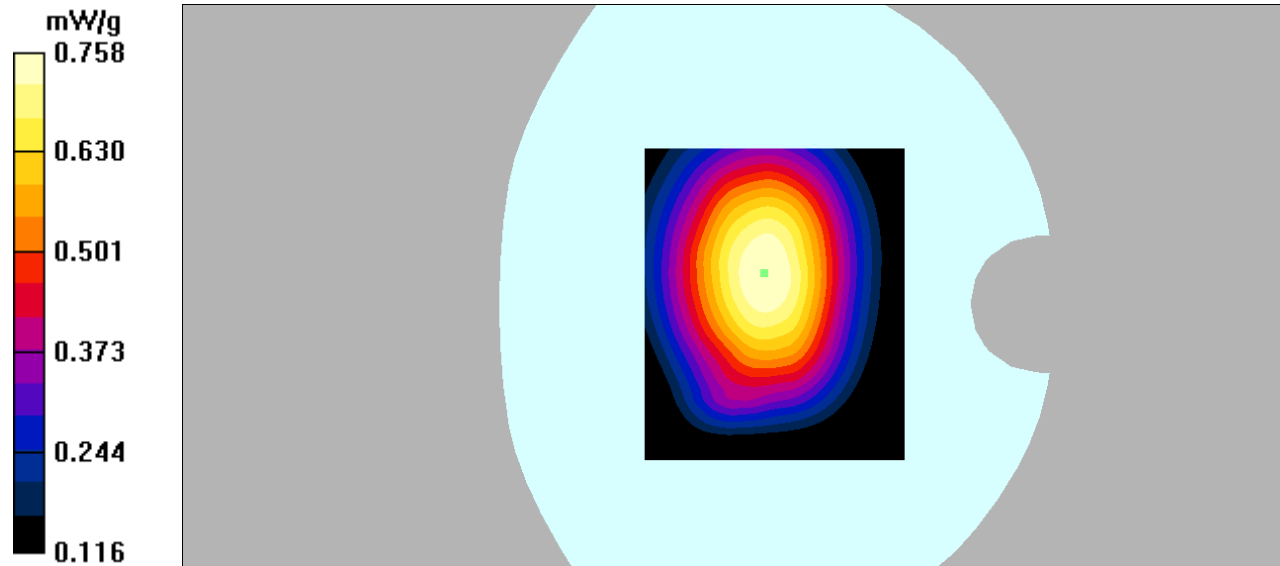
**Body-worn/GSM 850 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 27.6 V/m; Power Drift = -0.013 dB

Peak SAR (extrapolated) = 0.885 W/kg

**SAR(1 g) = 0.725 mW/g; SAR(10 g) = 0.554 mW/g**

Maximum value of SAR (measured) = 0.758 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GPRS bands-4slots; Frequency: 824.2 MHz; Duty Cycle: 1:2

Medium parameters used:  $f = 824.2$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 55.85$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.54, 10.54, 10.54); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Back/GPRS 850 Low/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.22 mW/g

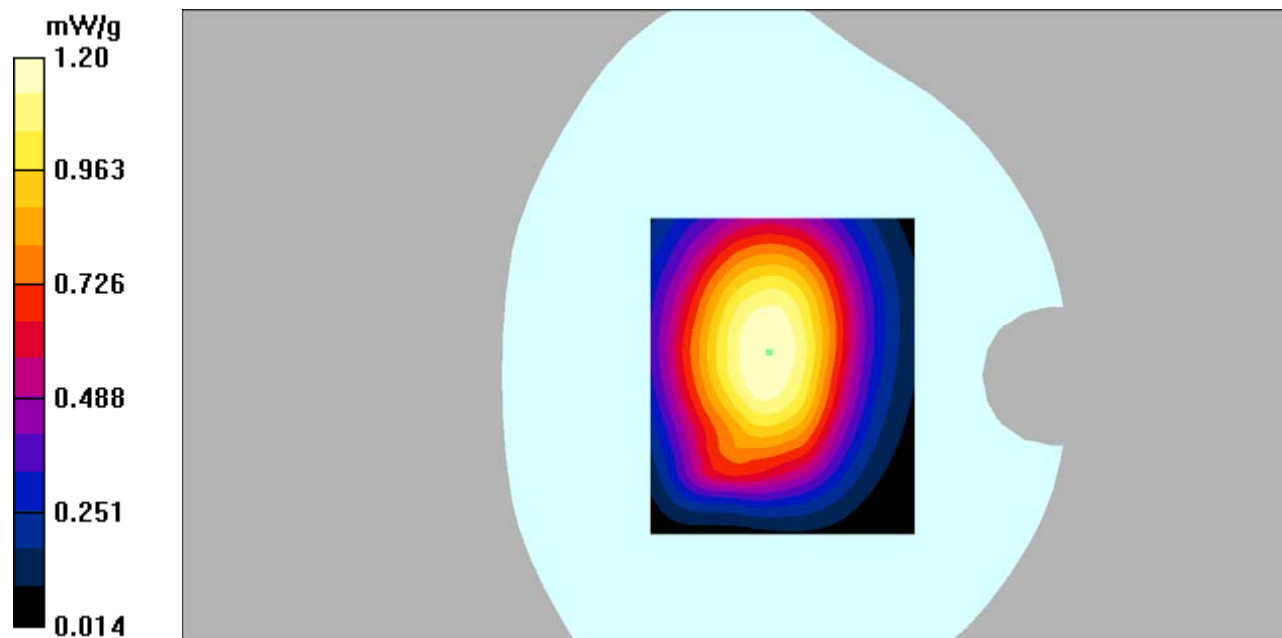
**Hotspot Back/GPRS 850 Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 36.2 V/m; Power Drift = 0.080 dB

Peak SAR (extrapolated) = 1.45 W/kg

**SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.891 mW/g**

Maximum value of SAR (measured) = 1.20 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GPRS bands-4slots; Frequency: 836.6 MHz; Duty Cycle: 1:2

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 55.41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.54, 10.54, 10.54); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Back/GPRS 850 Mid/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.20 mW/g

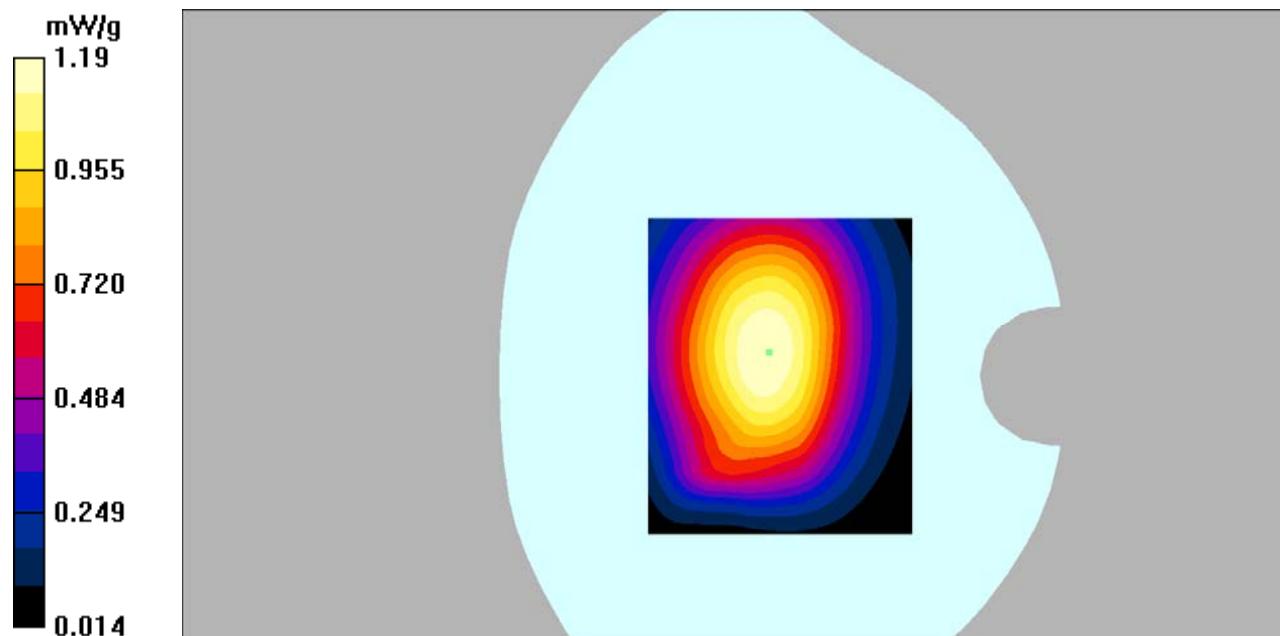
**Hotspot Back/GPRS 850 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 36.1 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.42 W/kg

**SAR(1 g) = 1.14 mW/g; SAR(10 g) = 0.872 mW/g**

Maximum value of SAR (measured) = 1.19 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GPRS bands-4slots; Frequency: 848.8 MHz; Duty Cycle: 1:2

Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.96 \text{ mho/m}$ ;  $\epsilon_r = 55.28$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.54, 10.54, 10.54); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Back/GPRS 850 High/Area Scan (101x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $1.07 \text{ mW/g}$

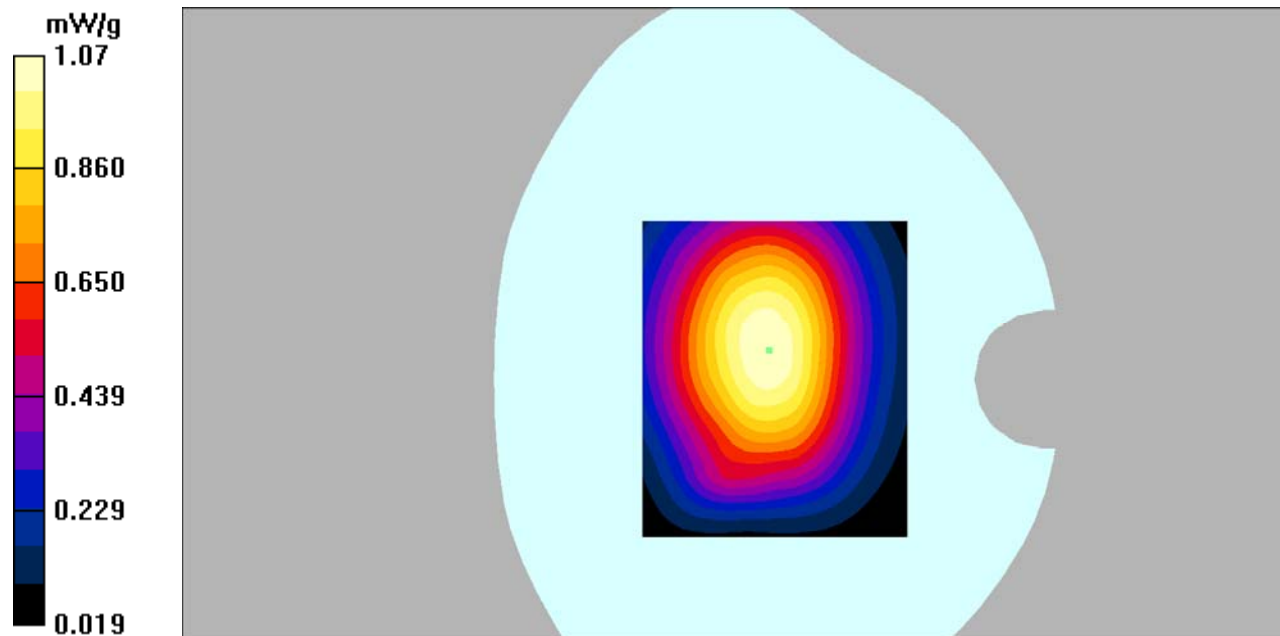
**Hotspot Back/GPRS 850 High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $34.4 \text{ V/m}$ ; Power Drift =  $-0.151 \text{ dB}$

Peak SAR (extrapolated) =  $1.27 \text{ W/kg}$

**SAR(1 g) =  $1.02 \text{ mW/g}$ ; SAR(10 g) =  $0.778 \text{ mW/g}$**

Maximum value of SAR (measured) =  $1.07 \text{ mW/g}$





**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GPRS bands-4slots; Frequency: 836.6 MHz; Duty Cycle: 1:2

Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 55.41$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.54, 10.54, 10.54); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Left/GPRS 850 Mid/Area Scan (91x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.614 \text{ mW/g}$

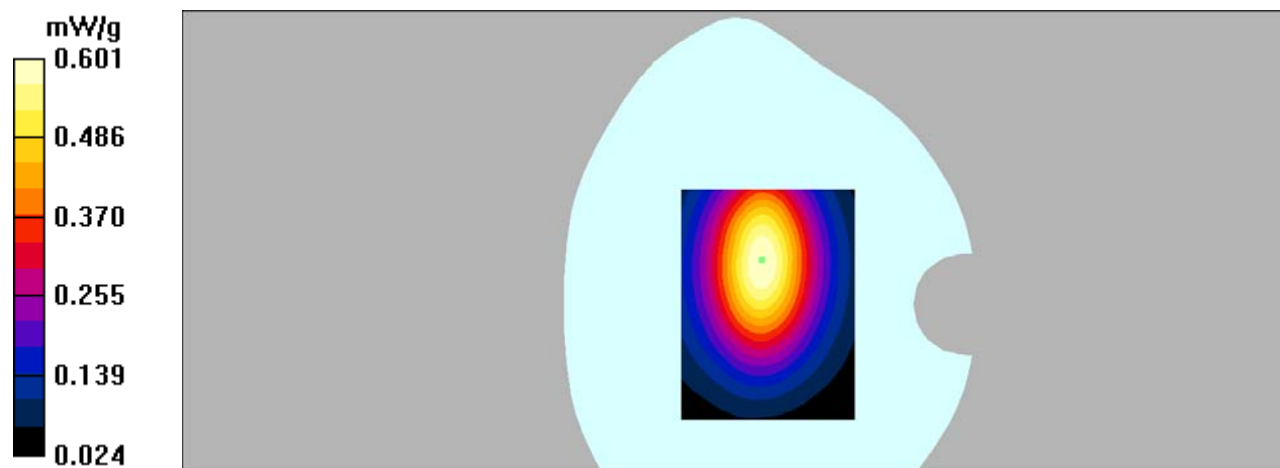
**Hotspot Left/GPRS 850 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $22.9 \text{ V/m}$ ; Power Drift =  $0.01 \text{ dB}$

Peak SAR (extrapolated) =  $0.766 \text{ W/kg}$

**SAR(1 g) =  $0.572 \text{ mW/g}$ ; SAR(10 g) =  $0.407 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.601 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GPRS bands-4slots; Frequency: 836.6 MHz; Duty Cycle: 1:2

Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 55.41$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.54, 10.54, 10.54); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Right/GPRS 850 Mid/Area Scan (91x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.593 \text{ mW/g}$

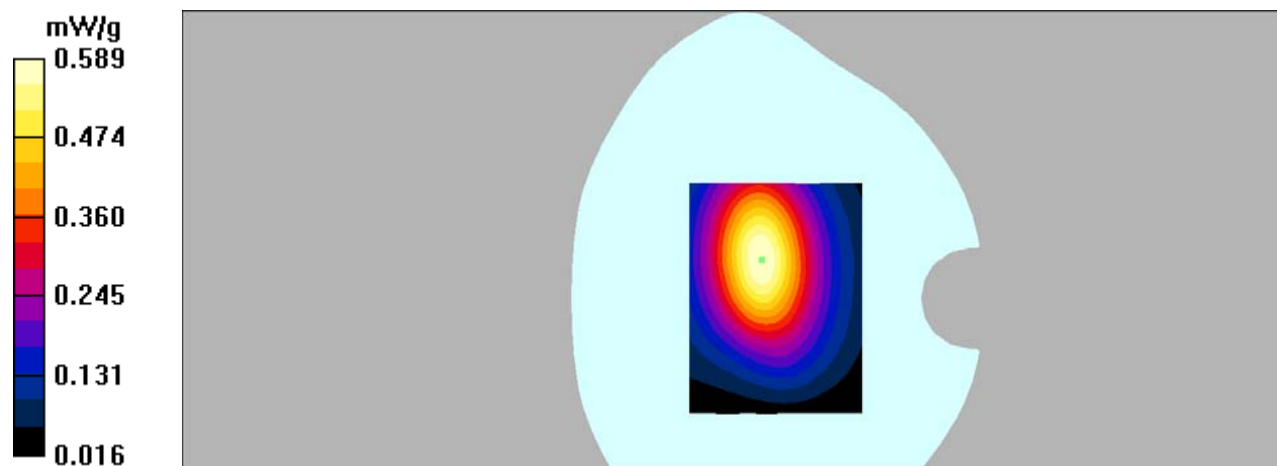
**Hotspot Right/GPRS 850 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $22.0 \text{ V/m}$ ; Power Drift =  $0.064 \text{ dB}$

Peak SAR (extrapolated) =  $0.752 \text{ W/kg}$

**SAR(1 g) =  $0.558 \text{ mW/g}$ ; SAR(10 g) =  $0.393 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.589 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GPRS bands-4slots; Frequency: 836.6 MHz; Duty Cycle: 1:2

Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 55.41$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.54, 10.54, 10.54); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Bottom/GPRS 850 Mid/Area Scan (91x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.165 \text{ mW/g}$

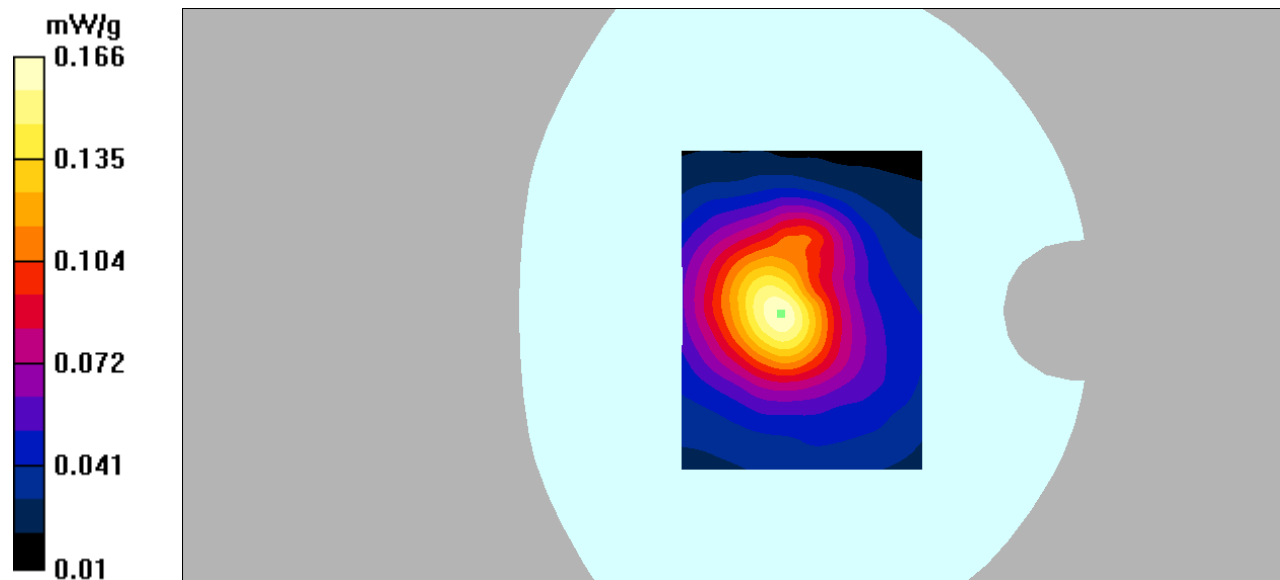
**Hotspot Bottom/GPRS 850 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $12.5 \text{ V/m}$ ; Power Drift =  $0.040 \text{ dB}$

Peak SAR (extrapolated) =  $0.252 \text{ W/kg}$

**SAR(1 g) =  $0.153 \text{ mW/g}$ ; SAR(10 g) =  $0.098 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.166 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GSM bands; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.42 \text{ mho/m}$ ;  $\epsilon_r = 39.57$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.71, 8.71, 8.71); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Left Cheek/GSM 1900 Mid/Area Scan (91x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.269 \text{ mW/g}$

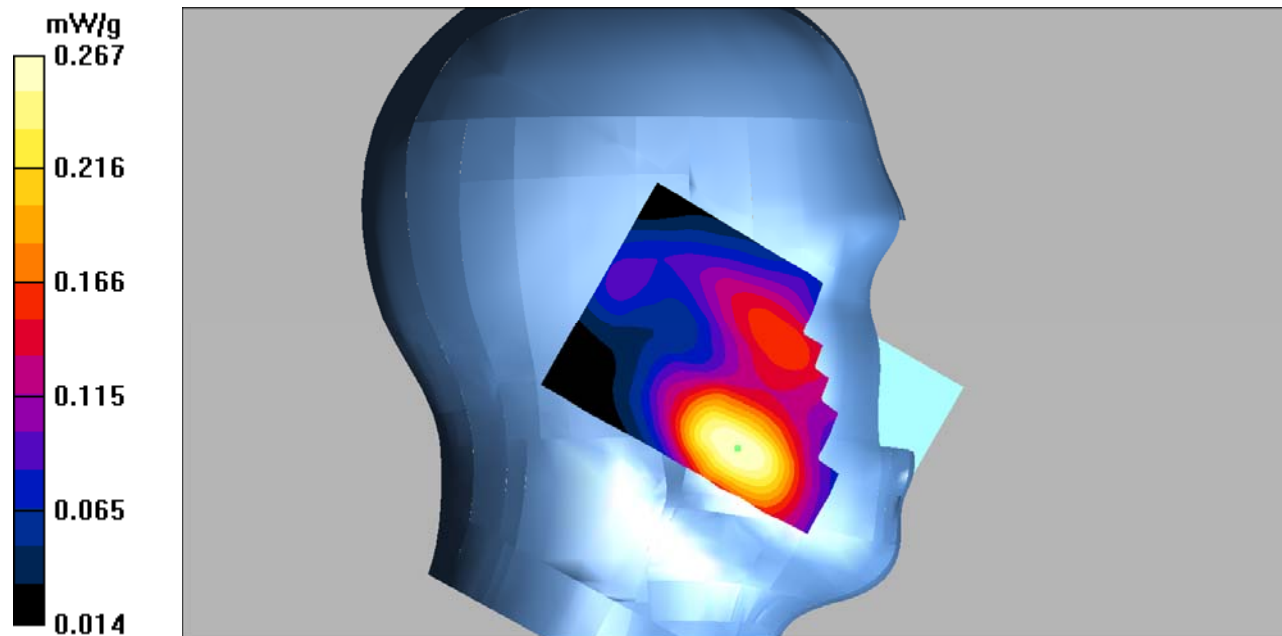
**Left Cheek/GSM 1900 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $7.44 \text{ V/m}$ ; Power Drift =  $-0.045 \text{ dB}$

Peak SAR (extrapolated) =  $0.377 \text{ W/kg}$

**SAR(1 g) =  $0.249 \text{ mW/g}$ ; SAR(10 g) =  $0.157 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.267 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GSM bands; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.42 \text{ mho/m}$ ;  $\epsilon_r = 39.57$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.71, 8.71, 8.71); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Left Tilt/GSM 1900 Mid/Area Scan (91x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.141 \text{ mW/g}$

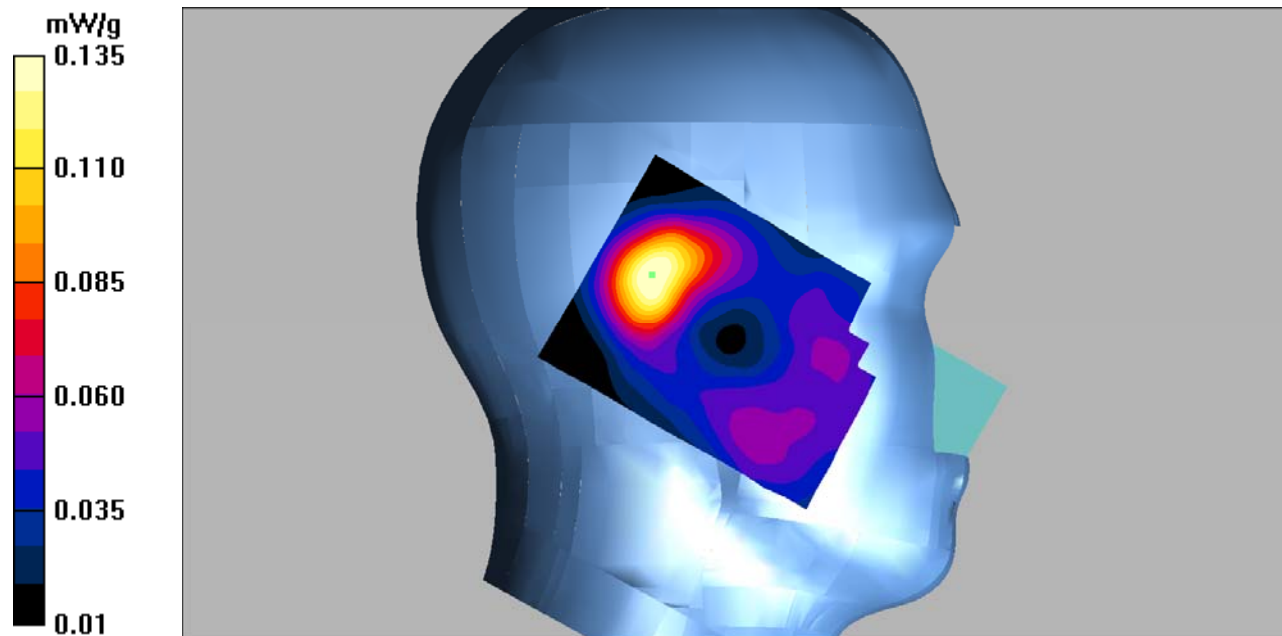
**Left Tilt/GSM 1900 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $9.72 \text{ V/m}$ ; Power Drift =  $-0.01 \text{ dB}$

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

**SAR(1 g) =  $0.124 \text{ mW/g}$ ; SAR(10 g) =  $0.073 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.135 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GSM bands; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.42 \text{ mho/m}$ ;  $\epsilon_r = 39.57$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.71, 8.71, 8.71); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Right Cheek/GSM 1900 Mid/Area Scan (91x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.320 \text{ mW/g}$

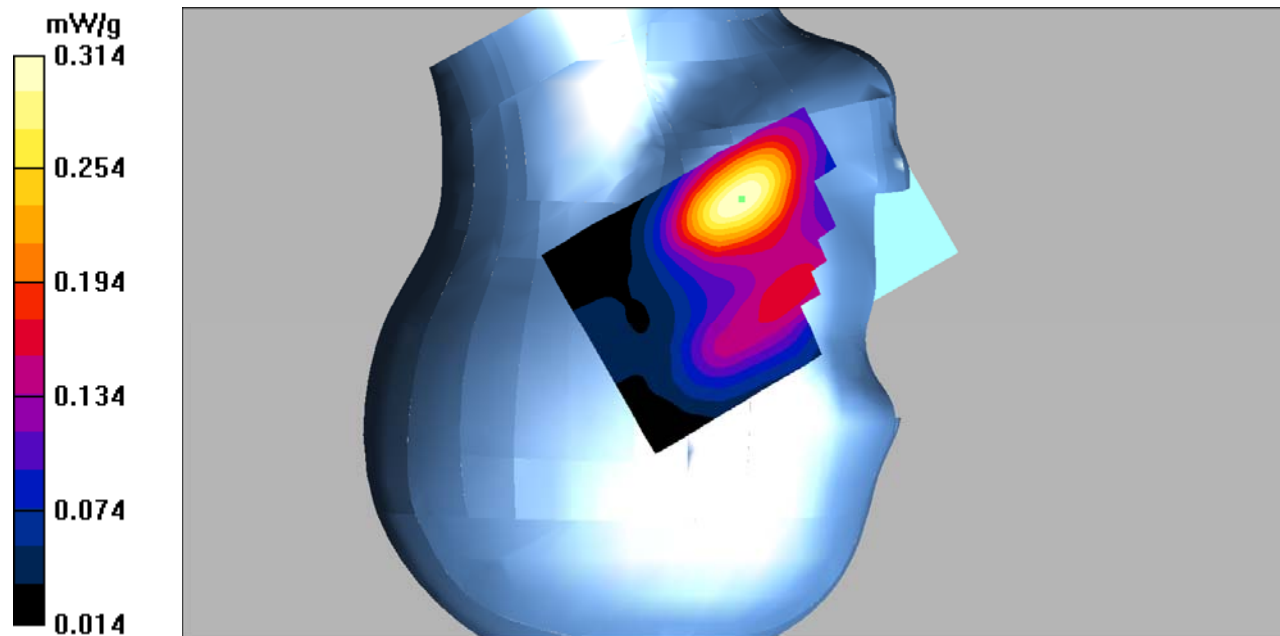
**Right Cheek/GSM 1900 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $5.97 \text{ V/m}$ ; Power Drift =  $0.147 \text{ dB}$

Peak SAR (extrapolated) =  $0.480 \text{ W/kg}$

**SAR(1 g) =  $0.290 \text{ mW/g}$ ; SAR(10 g) =  $0.173 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.314 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GSM bands; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 39.57$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.71, 8.71, 8.71); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Right Tilt/GSM 1900 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.117 mW/g

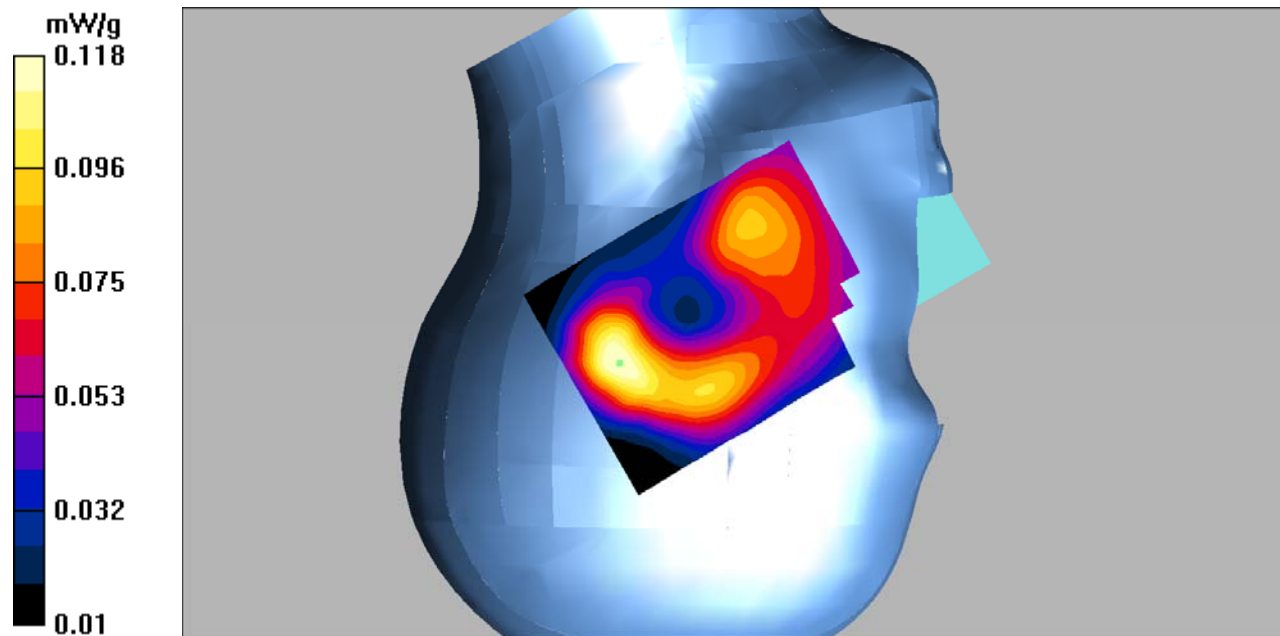
**Right Tilt/GSM 1900 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.48 V/m; Power Drift = -0.098 dB

Peak SAR (extrapolated) = 0.174 W/kg

**SAR(1 g) = 0.105 mW/g; SAR(10 g) = 0.064 mW/g**

Maximum value of SAR (measured) = 0.118 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GSM bands; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 52.64$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.31, 8.31, 8.31); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Body-worn/GSM 1900 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.678 mW/g

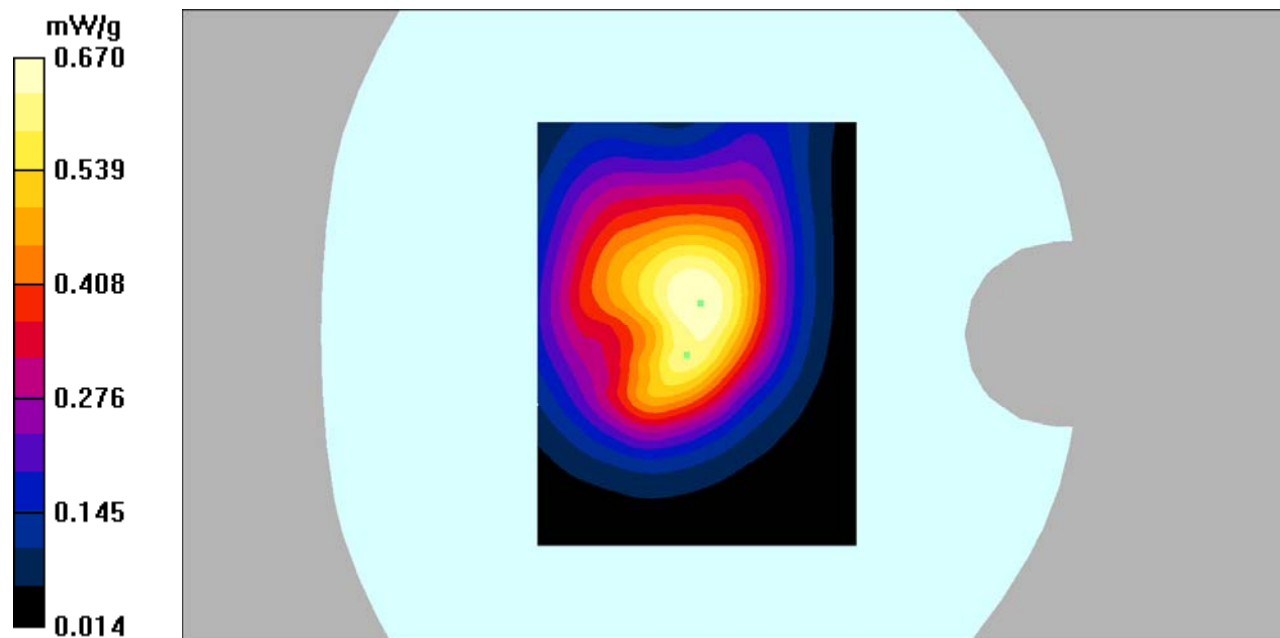
**Body-worn/GSM 1900 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.0 V/m; Power Drift = -0.116 dB

Peak SAR (extrapolated) = 1.10 W/kg

**SAR(1 g) = 0.620 mW/g; SAR(10 g) = 0.356 mW/g**

Maximum value of SAR (measured) = 0.670 mW/g





**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GPRS bands-2slots; Frequency: 1880 MHz; Duty Cycle: 1:4

Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.64$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.31, 8.31, 8.31); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Back/GPRS 1900 Mid/Area Scan (91x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.703 \text{ mW/g}$

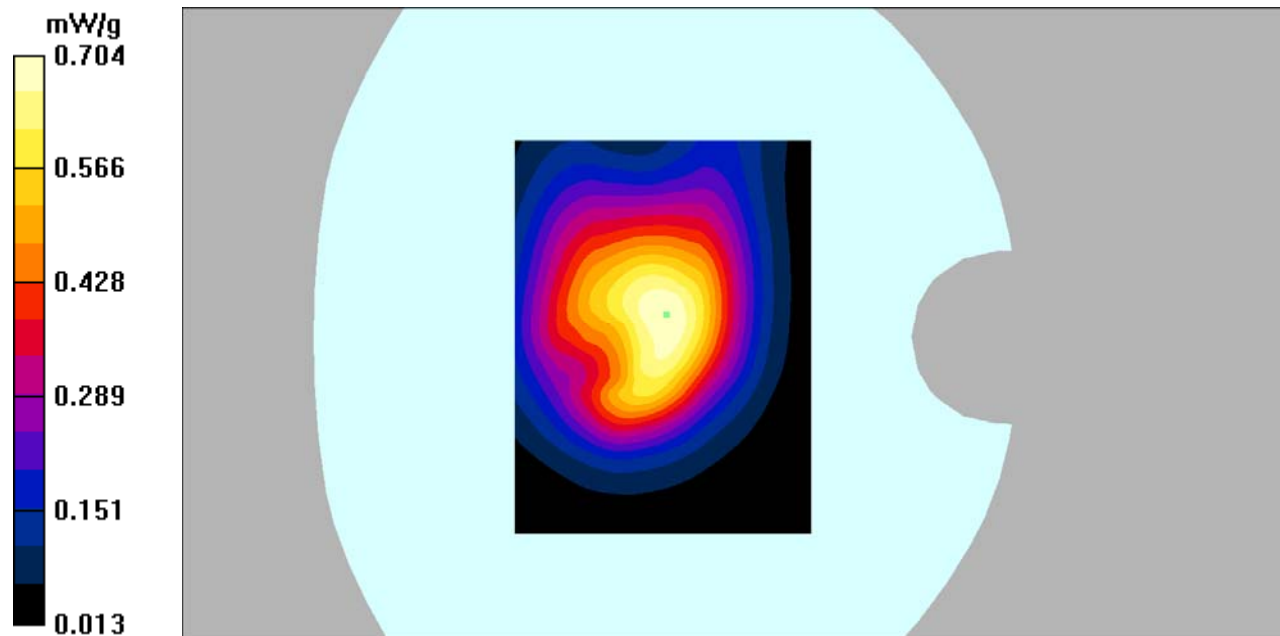
**Hotspot Back/GPRS 1900 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $21.6 \text{ V/m}$ ; Power Drift =  $-0.079 \text{ dB}$

Peak SAR (extrapolated) =  $1.17 \text{ W/kg}$

**SAR(1 g) =  $0.650 \text{ mW/g}$ ; SAR(10 g) =  $0.372 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.704 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GPRS bands-2slots; Frequency: 1880 MHz;Duty Cycle: 1:4

Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.64$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.31, 8.31, 8.31); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Left/GPRS 1900 Mid/Area Scan (101x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.073 \text{ mW/g}$

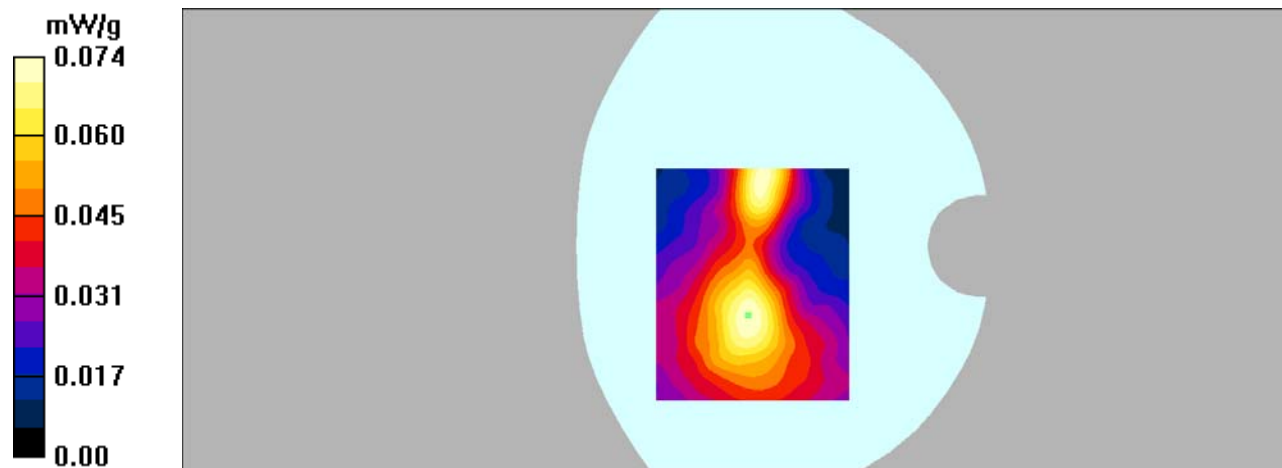
**Hotspot Left/GPRS 1900 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $4.35 \text{ V/m}$ ; Power Drift =  $0.086 \text{ dB}$

Peak SAR (extrapolated) =  $0.114 \text{ W/kg}$

**SAR(1 g) =  $0.069 \text{ mW/g}$ ; SAR(10 g) =  $0.043 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.074 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GPRS bands-2slots; Frequency: 1880 MHz; Duty Cycle: 1:4

Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.64$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.31, 8.31, 8.31); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Right/GPRS 1900 Mid/Area Scan (101x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.135 \text{ mW/g}$

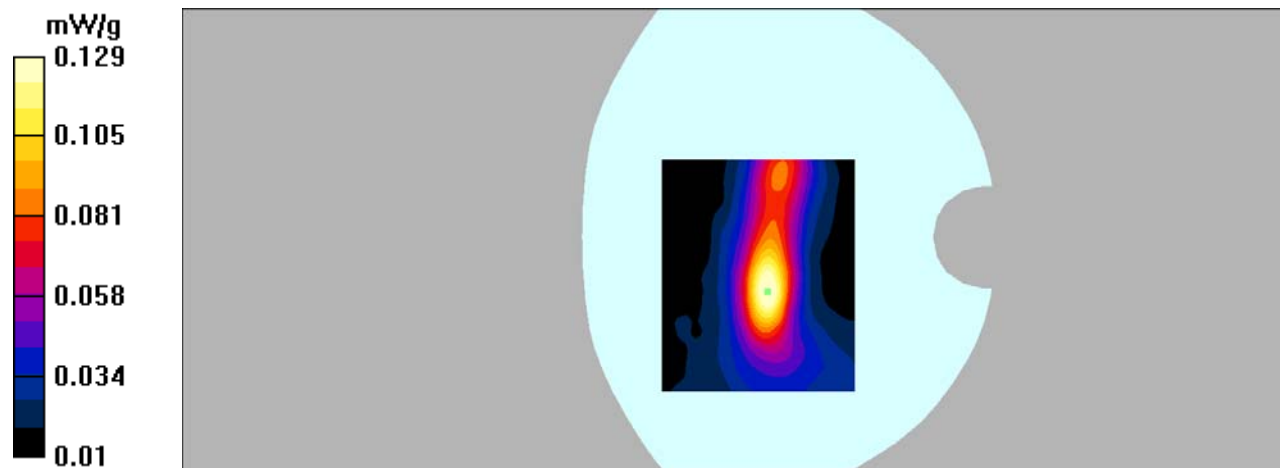
**Hotspot Right/GPRS 1900 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $6.80 \text{ V/m}$ ; Power Drift =  $0.170 \text{ dB}$

Peak SAR (extrapolated) =  $0.206 \text{ W/kg}$

**SAR(1 g) =  $0.118 \text{ mW/g}$ ; SAR(10 g) =  $0.067 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.129 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: GPRS bands-2slots; Frequency: 1880 MHz; Duty Cycle: 1:4

Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.52 \text{ mho/m}$ ;  $\epsilon_r = 52.64$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.31, 8.31, 8.31); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Bottom/GPRS 1900 Mid/Area Scan (81x91x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.645 \text{ mW/g}$

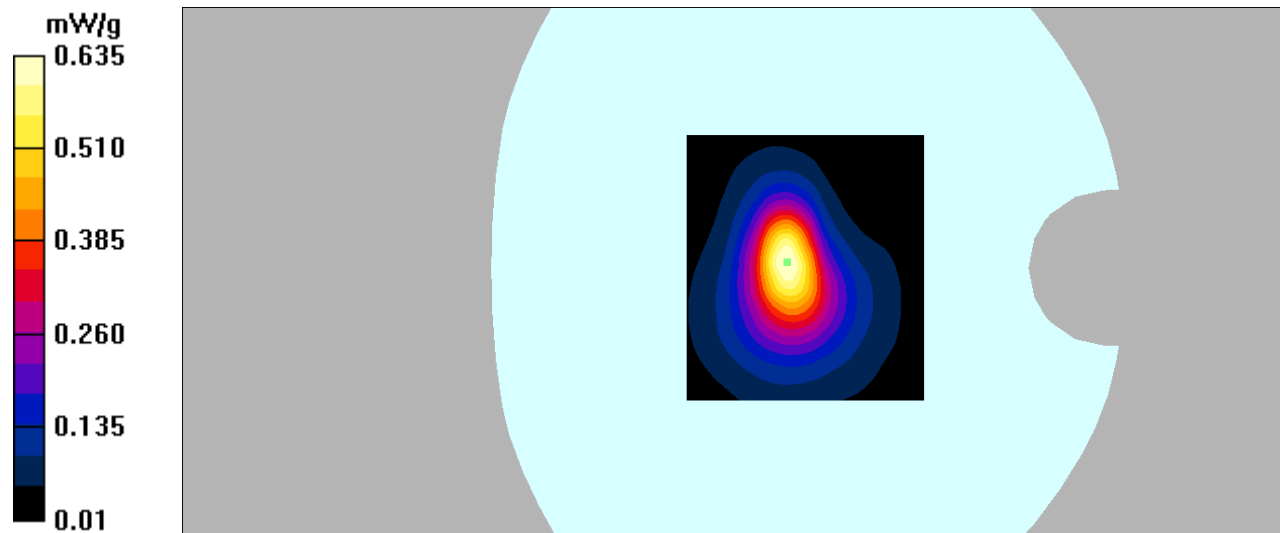
**Hotspot Bottom/GPRS 1900 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $18.7 \text{ V/m}$ ; Power Drift =  $0.038 \text{ dB}$

Peak SAR (extrapolated) =  $1.05 \text{ W/kg}$

**SAR(1 g) =  $0.562 \text{ mW/g}$ ; SAR(10 g) =  $0.287 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.635 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.92$  mho/m;  $\epsilon_r = 41.25$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.50, 10.50, 10.50); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Left Cheek/WCDMA Band 5 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.278 mW/g

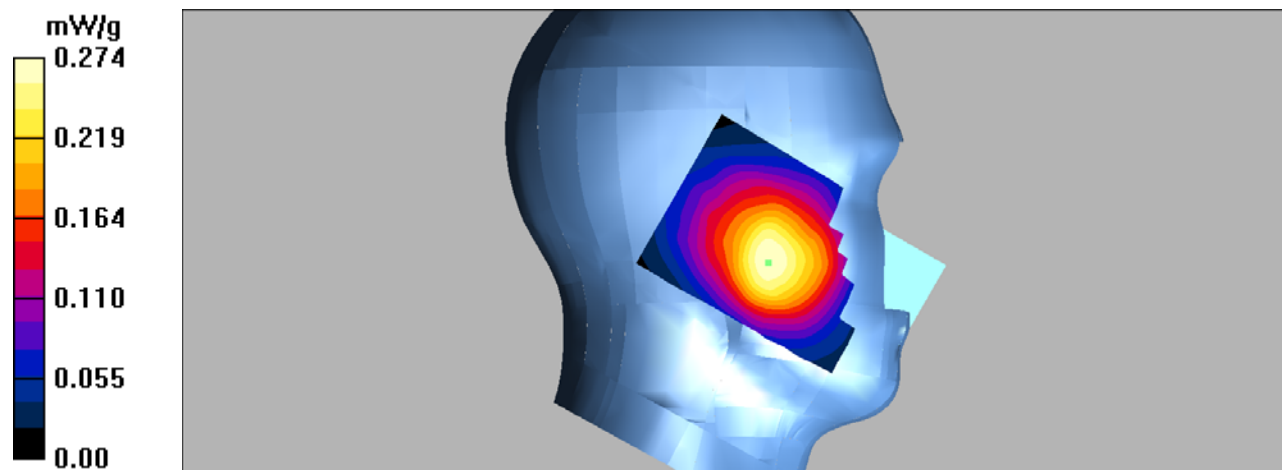
**Left Cheek/WCDMA Band 5 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.44 V/m; Power Drift = -0.065 dB

Peak SAR (extrapolated) = 0.320 W/kg

**SAR(1 g) = 0.263 mW/g; SAR(10 g) = 0.201 mW/g**

Maximum value of SAR (measured) = 0.274 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.92$  mho/m;  $\epsilon_r = 41.25$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.50, 10.50, 10.50); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Left Tilt/WCDMA Band 5 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.170 mW/g

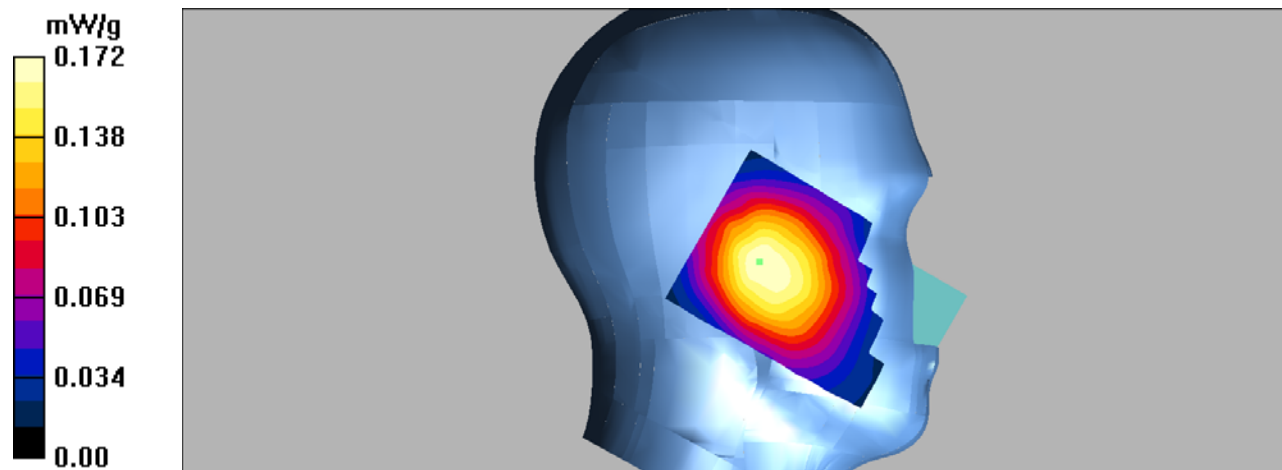
**Left Tilt/WCDMA Band 5 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.13 V/m; Power Drift = 0.109 dB

Peak SAR (extrapolated) = 0.192 W/kg

**SAR(1 g) = 0.164 mW/g; SAR(10 g) = 0.131 mW/g**

Maximum value of SAR (measured) = 0.172 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.92$  mho/m;  $\epsilon_r = 41.25$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.50, 10.50, 10.50); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Right Cheek/WCDMA Band 5 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.236 mW/g

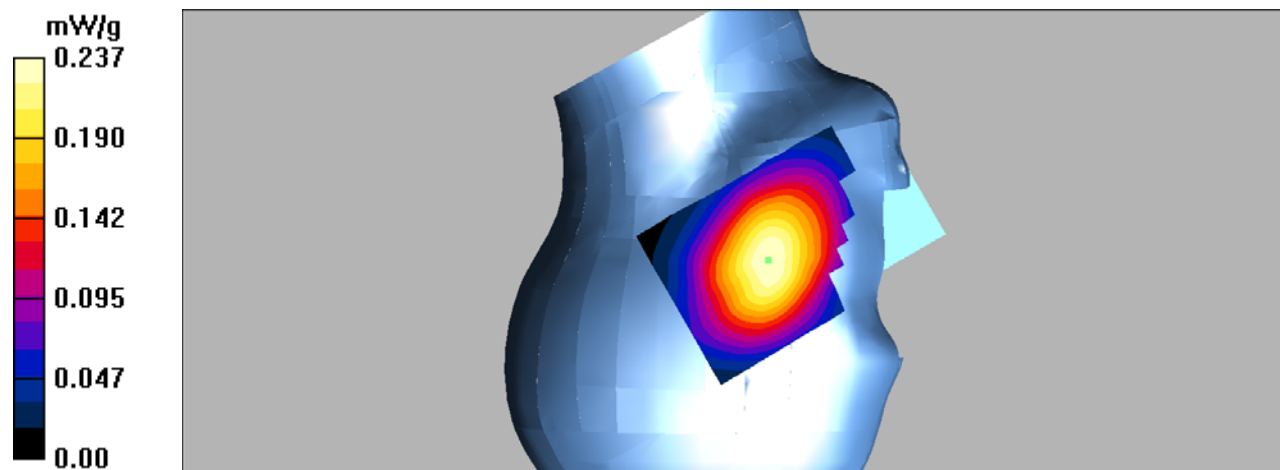
**Right Cheek/WCDMA Band 5 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.70 V/m; Power Drift = 0.117 dB

Peak SAR (extrapolated) = 0.268 W/kg

**SAR(1 g) = 0.226 mW/g; SAR(10 g) = 0.177 mW/g**

Maximum value of SAR (measured) = 0.237 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.92$  mho/m;  $\epsilon_r = 41.25$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.50, 10.50, 10.50); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Right Tilt/WCDMA Band 5 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.088 mW/g

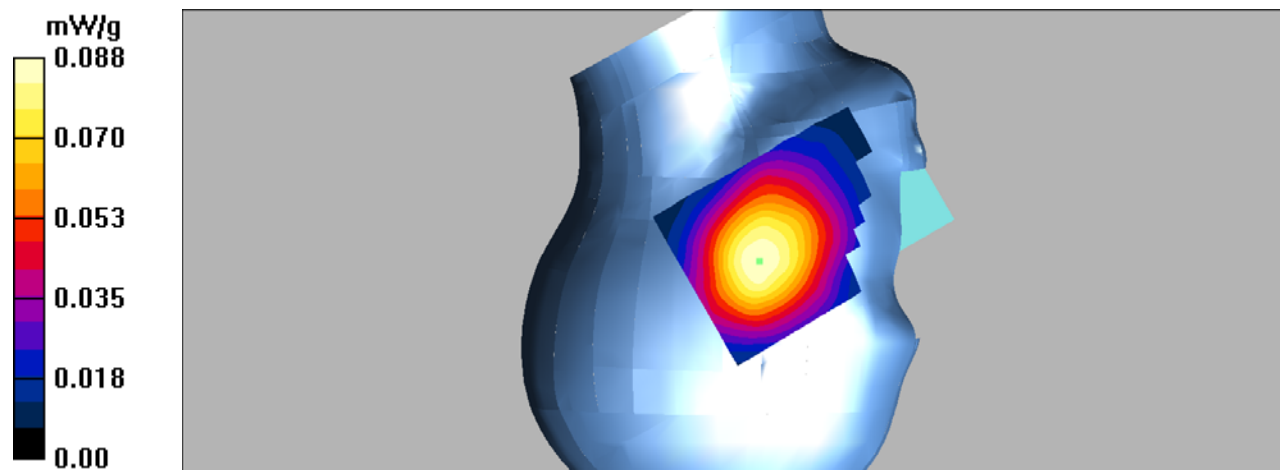
**Right Tilt/WCDMA Band 5 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.25 V/m; Power Drift = 0.198 dB

Peak SAR (extrapolated) = 0.096 W/kg

**SAR(1 g) = 0.084 mW/g; SAR(10 g) = 0.067 mW/g**

Maximum value of SAR (measured) = 0.088 mW/g





**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 826.4$  MHz;  $\sigma = 0.99$  mho/m;  $\epsilon_r = 56$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.54, 10.54, 10.54); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Back/WCDMA Band 5 Low/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.807 mW/g

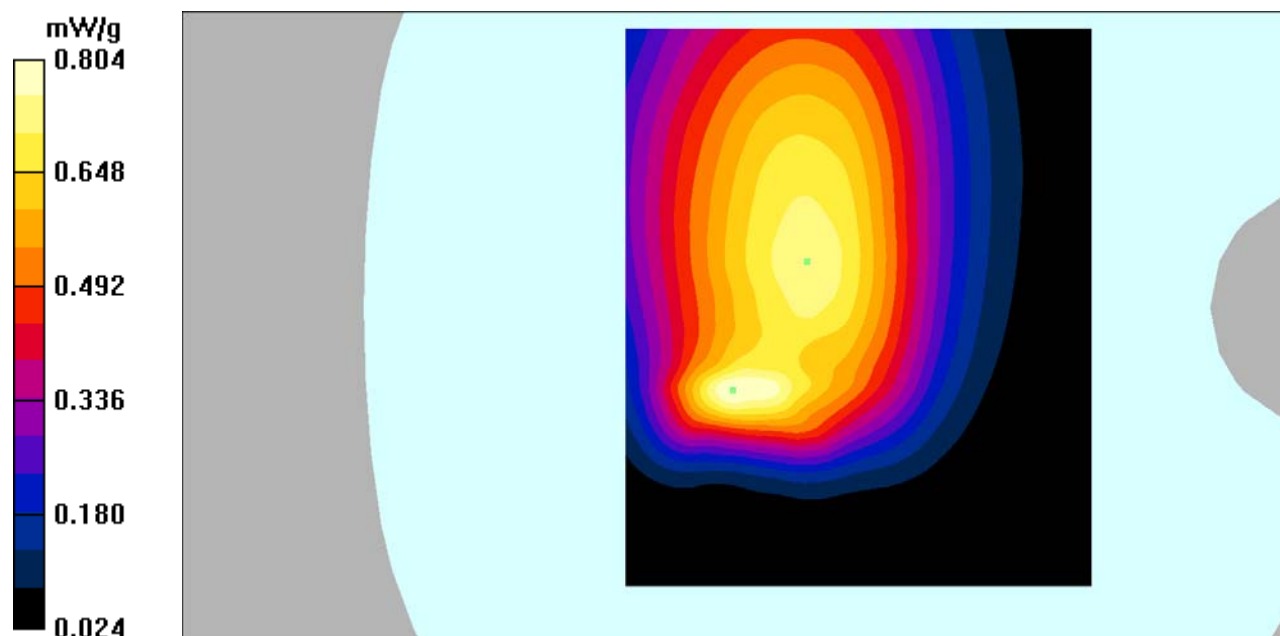
**Hotspot Back/WCDMA Band 5 Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 25.9 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 1.36 W/kg

**SAR(1 g) = 0.717 mW/g; SAR(10 g) = 0.429 mW/g**

Maximum value of SAR (measured) = 0.804 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 55.41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.54, 10.54, 10.54); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Back/WCDMA Band 5 Mid/Area Scan (101x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.861 mW/g

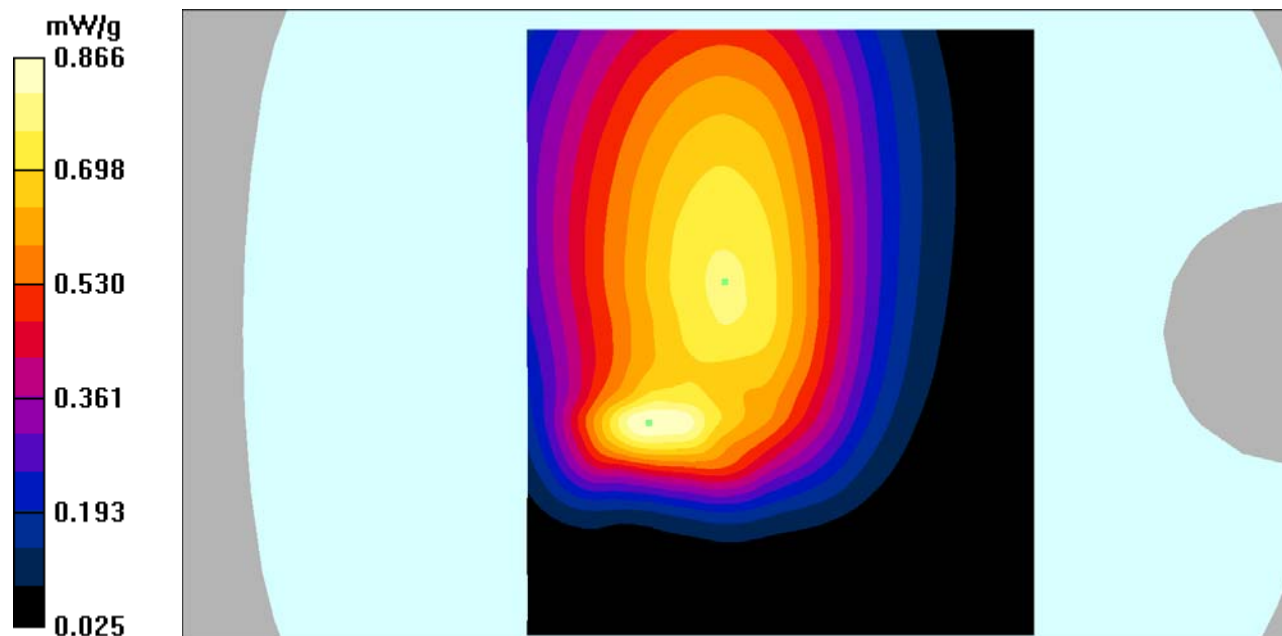
**Hotspot Back/WCDMA Band 5 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.1 V/m; Power Drift = 0.097 dB

Peak SAR (extrapolated) = 1.47 W/kg

**SAR(1 g) = 0.766 mW/g; SAR(10 g) = 0.458 mW/g**

Maximum value of SAR (measured) = 0.866 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 846.6 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 55.44$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.54, 10.54, 10.54); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Back/WCDMA Band 5 High/Area Scan (91x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.899 \text{ mW/g}$

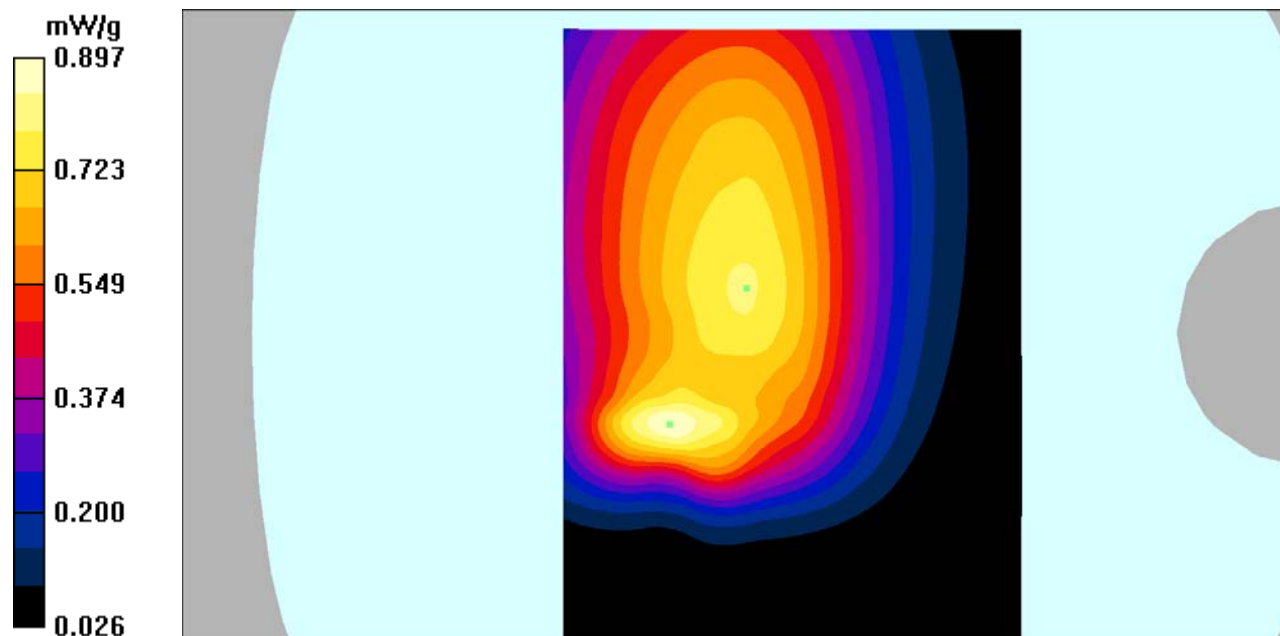
**Hotspot Back/WCDMA Band 5 High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $26.6 \text{ V/m}$ ; Power Drift =  $-0.00 \text{ dB}$

Peak SAR (extrapolated) =  $1.51 \text{ W/kg}$

**SAR(1 g) =  $0.787 \text{ mW/g}$ ; SAR(10 g) =  $0.469 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.897 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 55.41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.54, 10.54, 10.54); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Left/WCDMA Band 5 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.513 mW/g

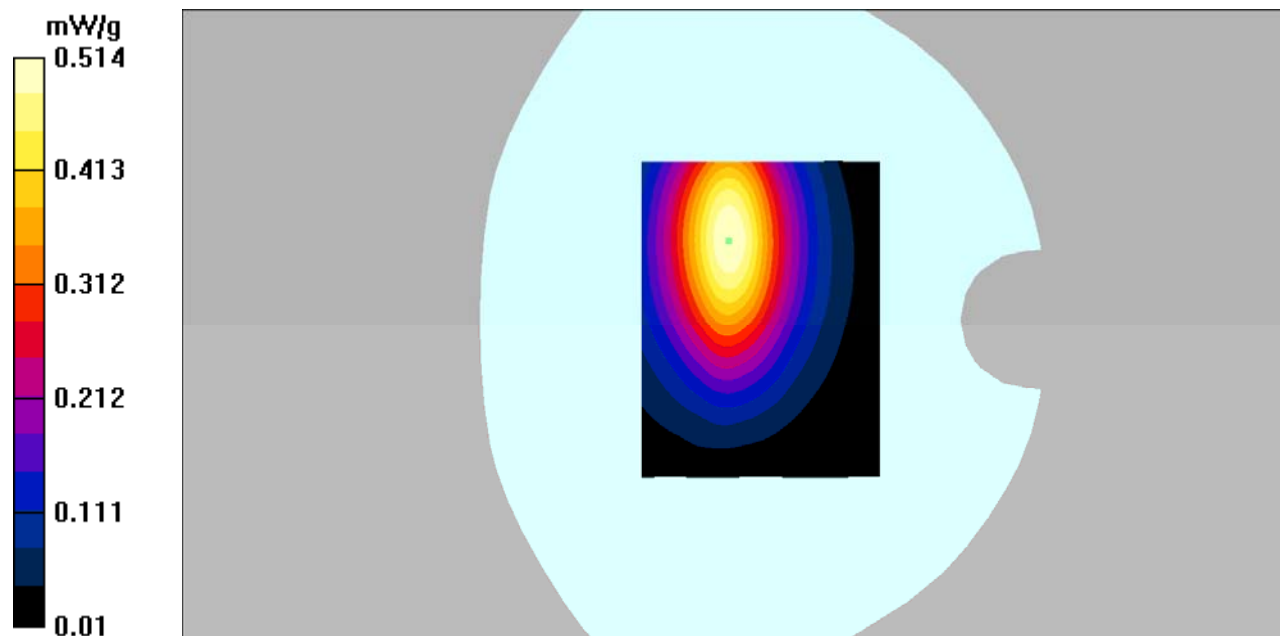
**Hotspot Left/WCDMA Band 5 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.2 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.674 W/kg

**SAR(1 g) = 0.478 mW/g; SAR(10 g) = 0.327 mW/g**

Maximum value of SAR (measured) = 0.514 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.97 \text{ mho/m}$ ;  $\epsilon_r = 55.41$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.54, 10.54, 10.54); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Right/WCDMA Band 5 Mid/Area Scan (91x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.293 mW/g

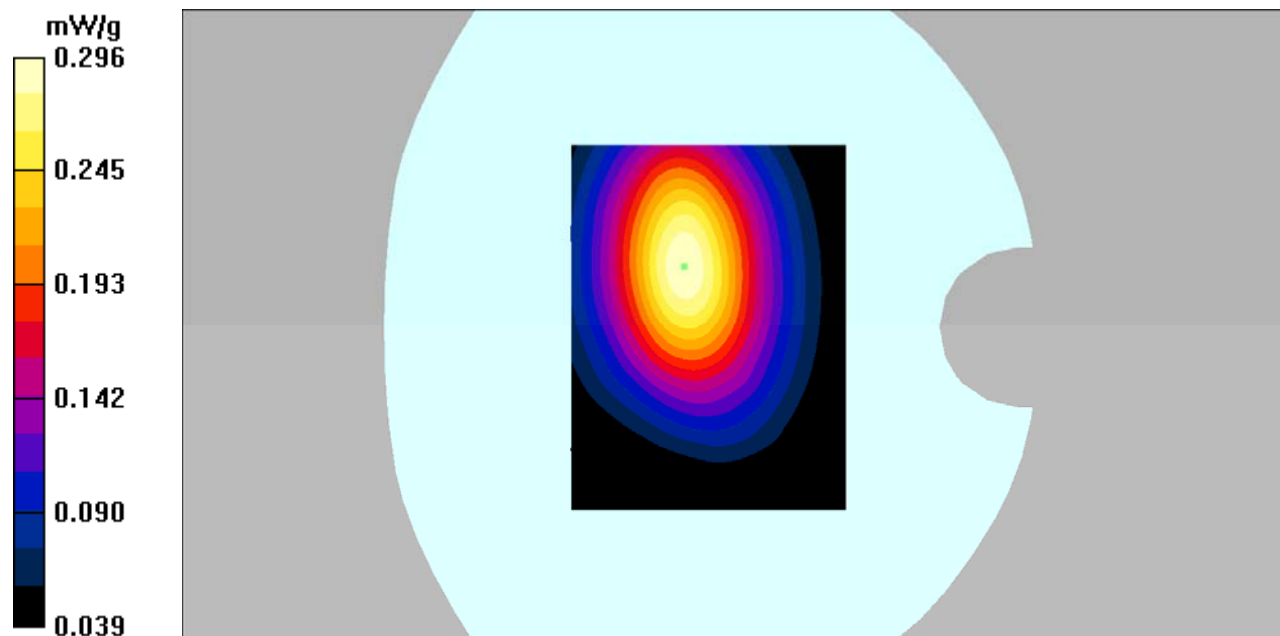
**Hotspot Right/WCDMA Band 5 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 16.3 V/m; Power Drift = 0.038 dB

Peak SAR (extrapolated) = 0.370 W/kg

**SAR(1 g) = 0.276 mW/g; SAR(10 g) = 0.195 mW/g**

Maximum value of SAR (measured) = 0.296 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 55.41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(10.54, 10.54, 10.54); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Bottom/WCDMA Band 5 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.180 mW/g

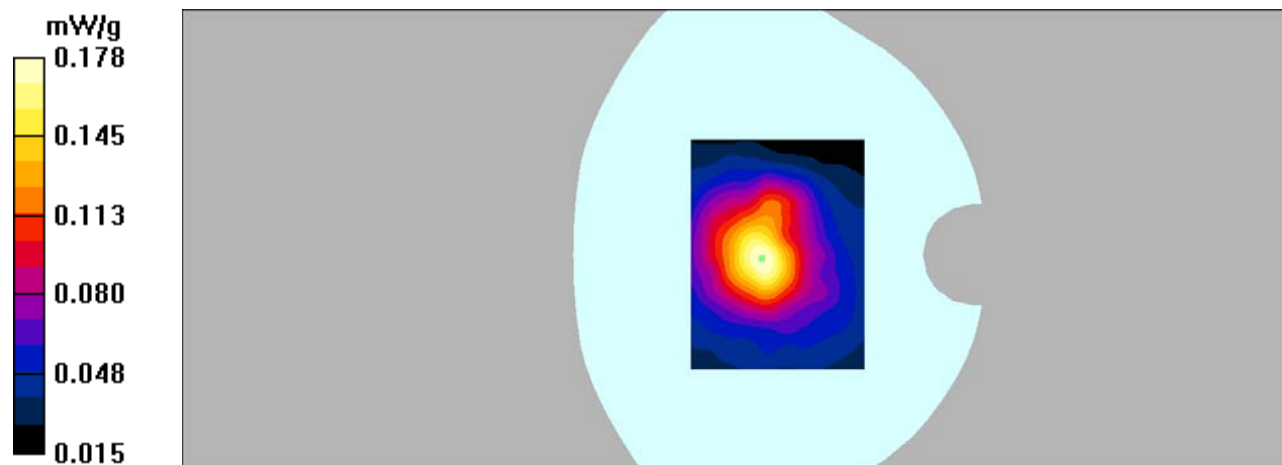
**Hotspot Bottom/WCDMA Band 5 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.98 V/m; Power Drift = 0.078 dB

Peak SAR (extrapolated) = 0.274 W/kg

**SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.109 mW/g**

Maximum value of SAR (measured) = 0.178 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.42 \text{ mho/m}$ ;  $\epsilon_r = 39.57$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.71, 8.71, 8.71); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Left Cheek/WCDMA Band 2 Mid/Area Scan (91x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.449 \text{ mW/g}$

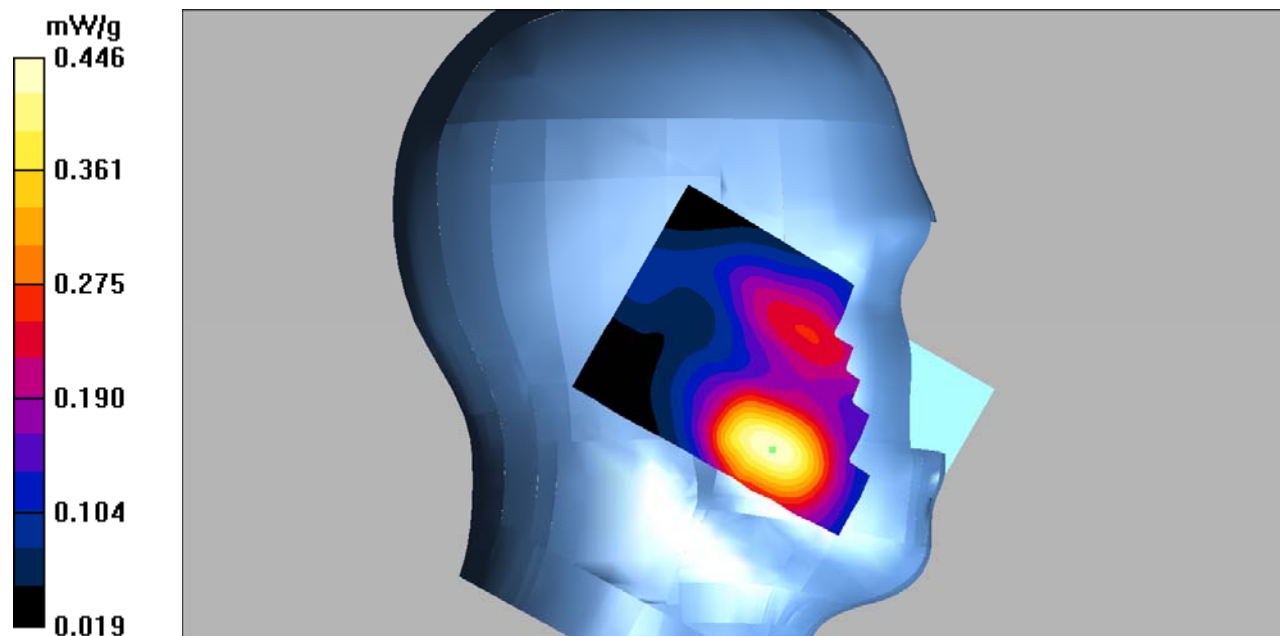
**Left Cheek/WCDMA Band 2 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $7.88 \text{ V/m}$ ; Power Drift =  $0.128 \text{ dB}$

Peak SAR (extrapolated) =  $0.649 \text{ W/kg}$

**SAR(1 g) =  $0.416 \text{ mW/g}$ ; SAR(10 g) =  $0.256 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.446 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 39.57$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.71, 8.71, 8.71); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Left Tilt/WCDMA Band 2 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.183 mW/g

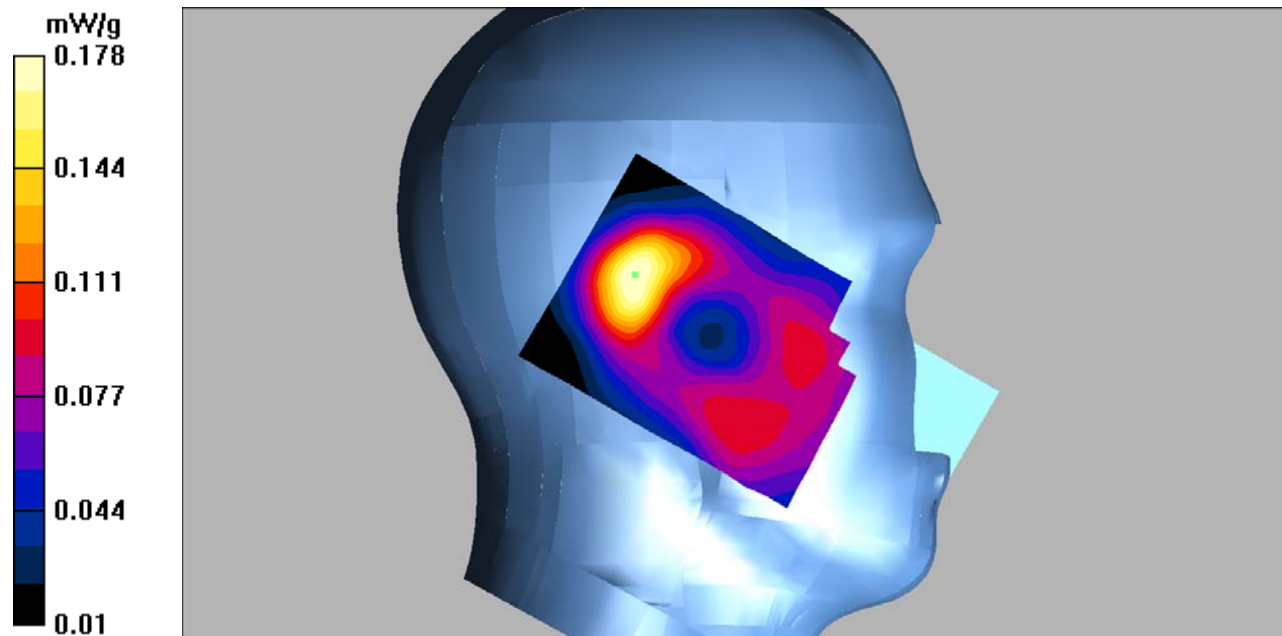
**Left Tilt/WCDMA Band 2 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.2 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.265 W/kg

**SAR(1 g) = 0.164 mW/g; SAR(10 g) = 0.097 mW/g**

Maximum value of SAR (measured) = 0.178 mW/g





**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.42 \text{ mho/m}$ ;  $\epsilon_r = 39.57$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.71, 8.71, 8.71); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Right Cheek/WCDMA Band 2 Mid/Area Scan (91x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.524 mW/g

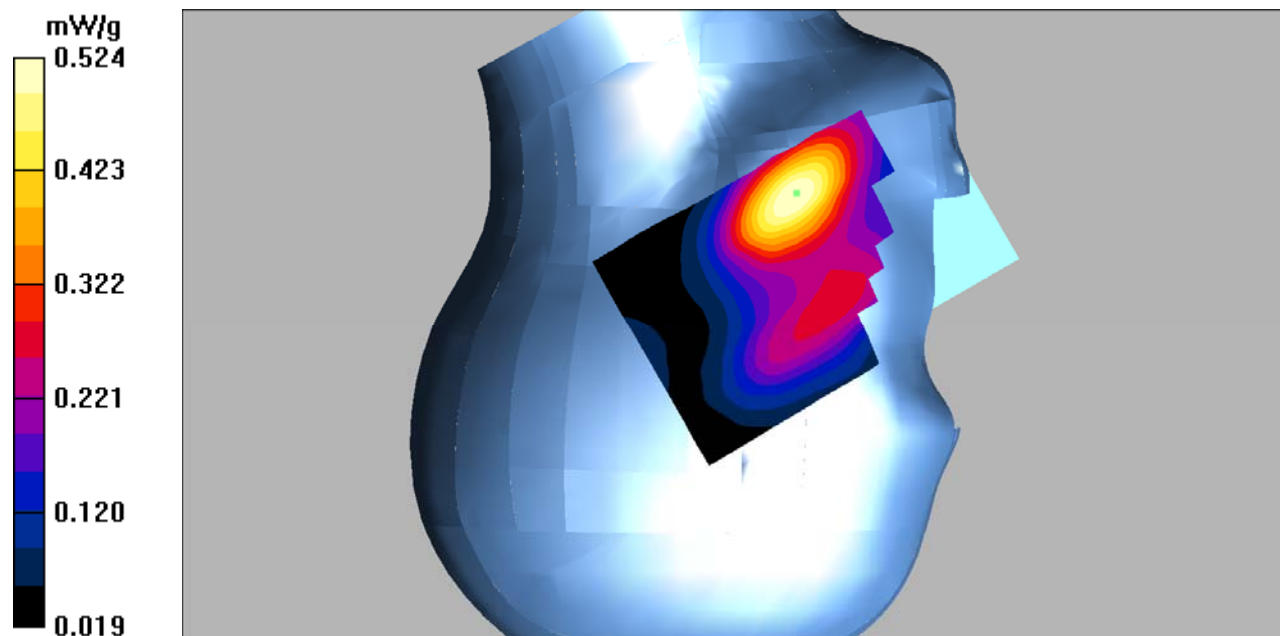
**Right Cheek/WCDMA Band 2 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 7.16 V/m; Power Drift = -0.087 dB

Peak SAR (extrapolated) = 0.787 W/kg

**SAR(1 g) = 0.482 mW/g; SAR(10 g) = 0.286 mW/g**

Maximum value of SAR (measured) = 0.524 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.42 \text{ mho/m}$ ;  $\epsilon_r = 39.57$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.71, 8.71, 8.71); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Right Tilt/WCDMA Band 2 Mid/Area Scan (91x121x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.191 \text{ mW/g}$

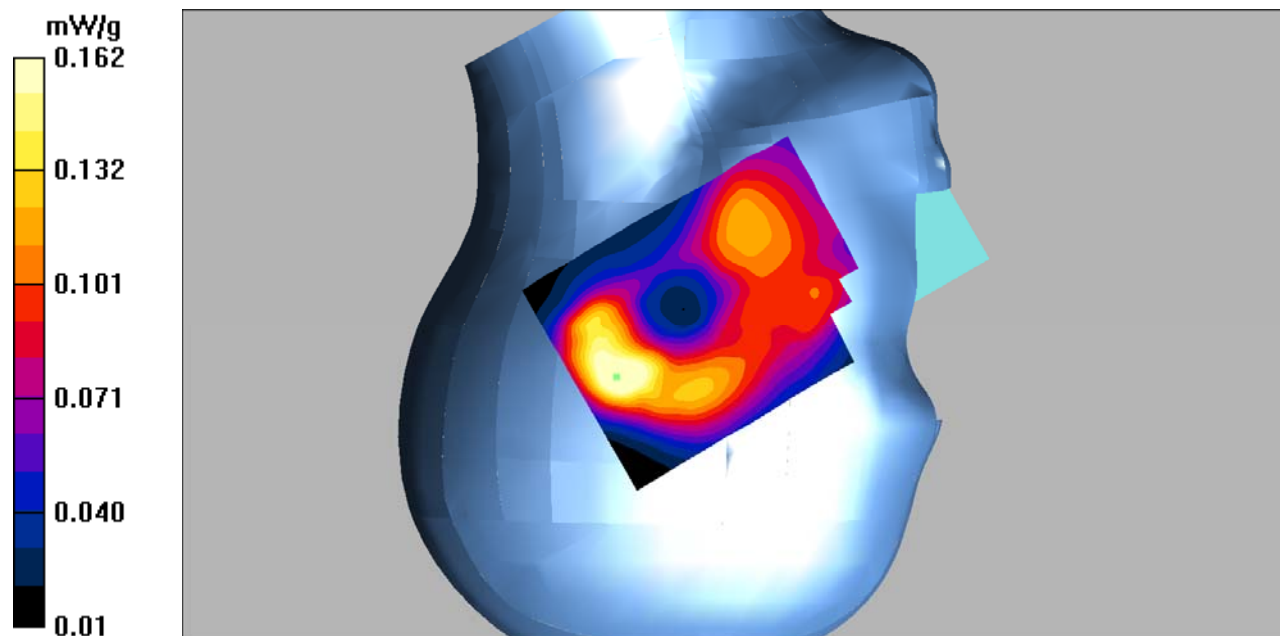
**Right Tilt/WCDMA Band 2 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $9.09 \text{ V/m}$ ; Power Drift =  $-0.126 \text{ dB}$

Peak SAR (extrapolated) =  $0.235 \text{ W/kg}$

**SAR(1 g) =  $0.145 \text{ mW/g}$ ; SAR(10 g) =  $0.088 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.162 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1852.4$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 53.72$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.31, 8.31, 8.31); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Back/WCDMA Band 2 Low/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.26 mW/g

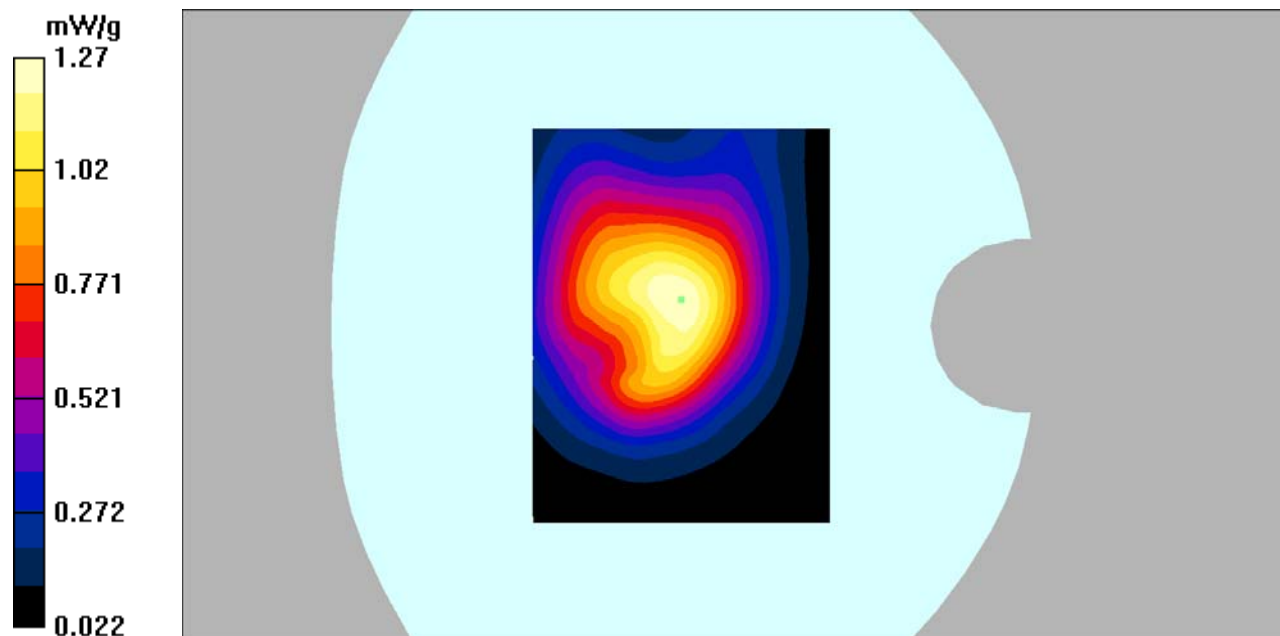
**Hotspot Back/WCDMA Band 2 Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 29.0 V/m; Power Drift = -0.135 dB

Peak SAR (extrapolated) = 2.08 W/kg

**SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.670 mW/g**

Maximum value of SAR (measured) = 1.27 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 52.64$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.31, 8.31, 8.31); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Back/WCDMA Band 2 Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 1.06 mW/g

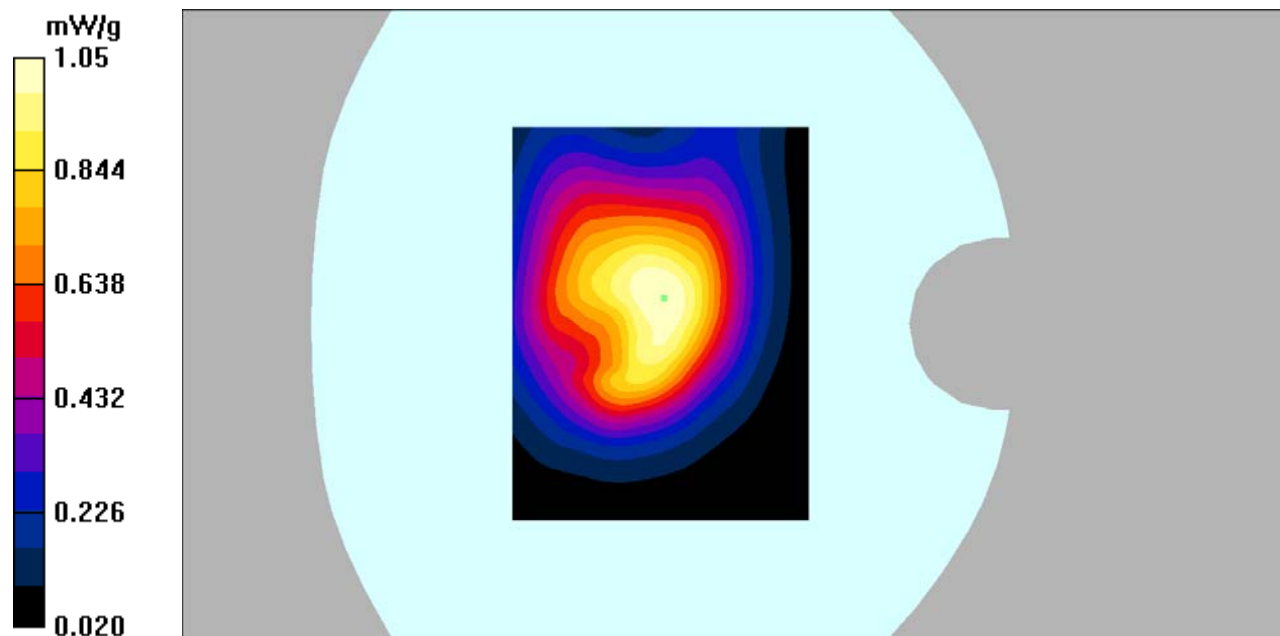
**Hotspot Back/WCDMA Band 2 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 26.1 V/m; Power Drift = 0.036 dB

Peak SAR (extrapolated) = 1.77 W/kg

**SAR(1 g) = 0.981 mW/g; SAR(10 g) = 0.563 mW/g**

Maximum value of SAR (measured) = 1.05 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1907.6$  MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 52.56$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.31, 8.31, 8.31); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Back/WCDMA Band 2 High/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.854 mW/g

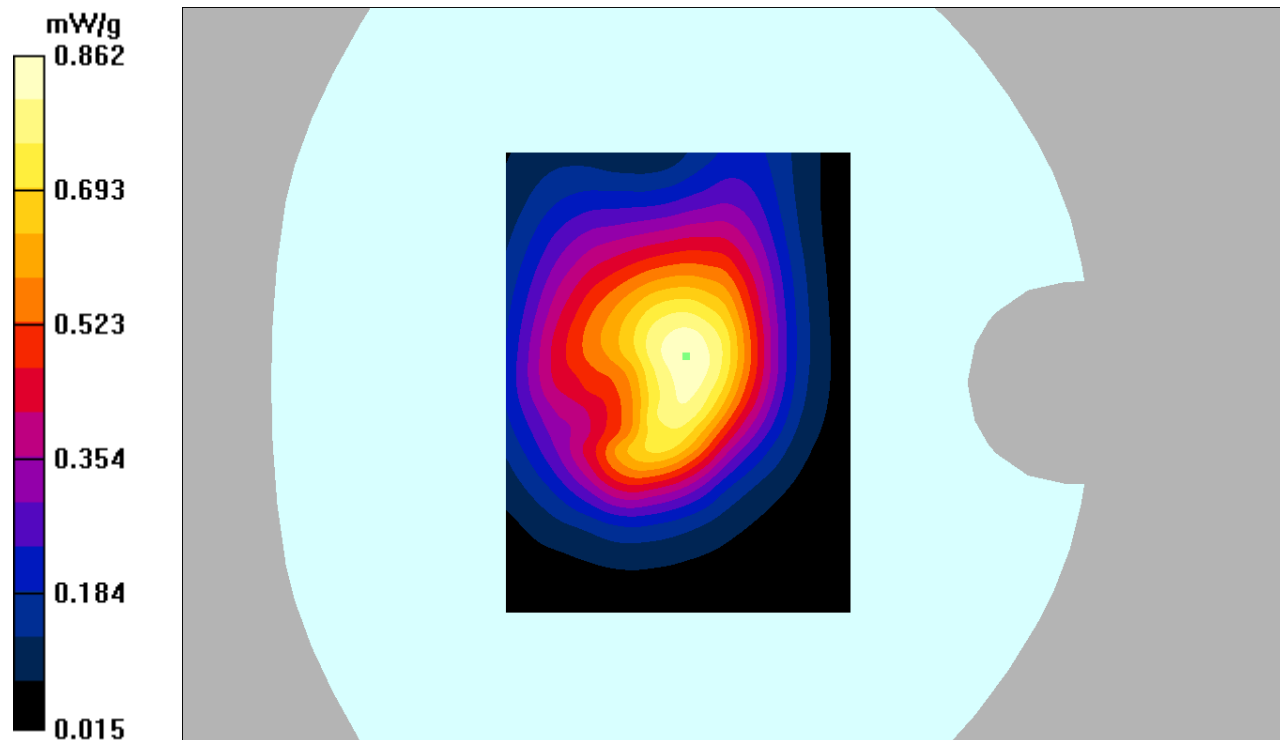
**Hotspot Back/WCDMA Band 2 High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.8 V/m; Power Drift = -0.150 dB

Peak SAR (extrapolated) = 1.43 W/kg

**SAR(1 g) = 0.789 mW/g; SAR(10 g) = 0.446 mW/g**

Maximum value of SAR (measured) = 0.862 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 52.64$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.31, 8.31, 8.31); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Left/WCDMA Band 2 Mid/Area Scan (81x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.144 mW/g

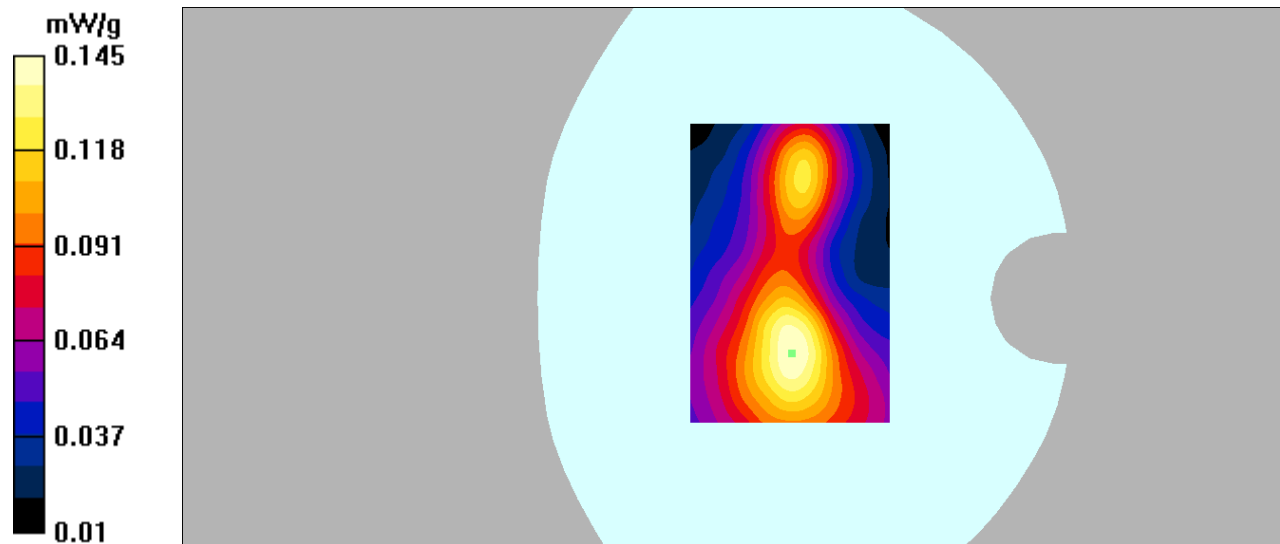
**Hotspot Left/WCDMA Band 2 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.25 V/m; Power Drift = 0.012 dB

Peak SAR (extrapolated) = 0.223 W/kg

**SAR(1 g) = 0.134 mW/g; SAR(10 g) = 0.080 mW/g**

Maximum value of SAR (measured) = 0.145 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 52.64$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.31, 8.31, 8.31); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Right/WCDMA Band 2 Mid/Area Scan (81x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.260 mW/g

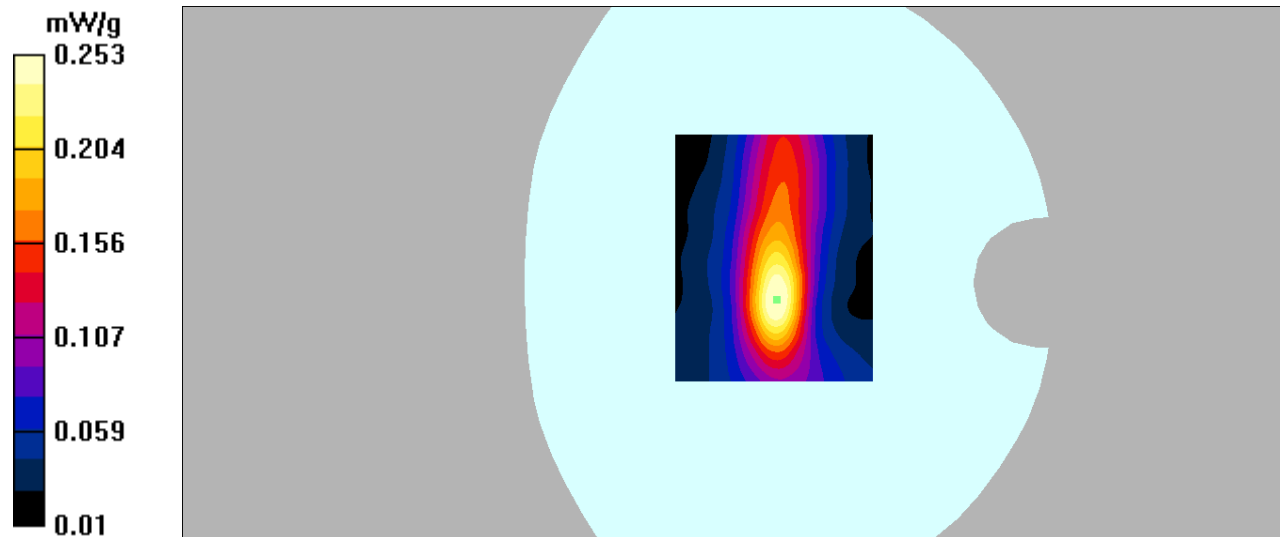
**Hotspot Right/WCDMA Band 2 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.4 V/m; Power Drift = -0.190 dB

Peak SAR (extrapolated) = 0.419 W/kg

**SAR(1 g) = 0.227 mW/g; SAR(10 g) = 0.121 mW/g**

Maximum value of SAR (measured) = 0.253 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1852.4$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 53.72$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.31, 8.31, 8.31); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Bottom/WCDMA Band 2 Low/Area Scan (81x91x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.733 mW/g

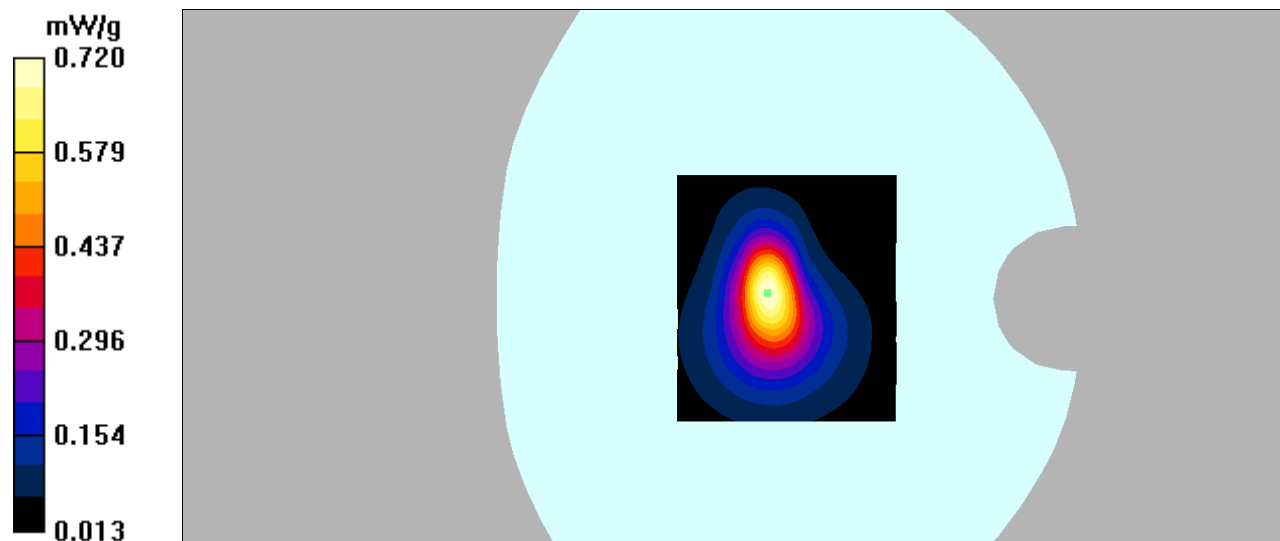
**Hotspot Bottom/WCDMA Band 2 Low/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.7 V/m; Power Drift = 0.051 dB

Peak SAR (extrapolated) = 1.19 W/kg

**SAR(1 g) = 0.632 mW/g; SAR(10 g) = 0.324 mW/g**

Maximum value of SAR (measured) = 0.720 mW/g





**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 52.64$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.31, 8.31, 8.31); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Bottom/WCDMA Band 2 Mid/Area Scan (81x91x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.968 mW/g

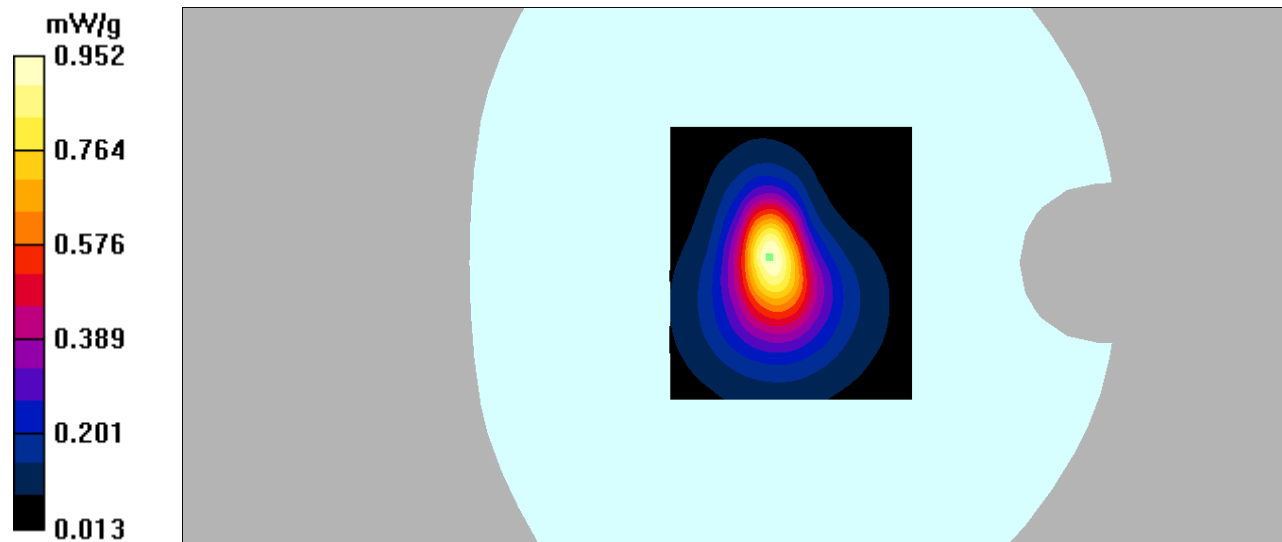
**Hotspot Bottom/WCDMA Band 2 Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.7 V/m; Power Drift = 0.038 dB

Peak SAR (extrapolated) = 1.59 W/kg

**SAR(1 g) = 0.846 mW/g; SAR(10 g) = 0.429 mW/g**

Maximum value of SAR (measured) = 0.952 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: 3G Bands; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1907.6 \text{ MHz}$ ;  $\sigma = 1.51 \text{ mho/m}$ ;  $\epsilon_r = 52.56$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

**DASY4 Configuration:**

- Probe: EX3DV4 – SN7382; ConvF(8.31, 8.31, 8.31); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Hotspot Bottom/WCDMA Band 2 High/Area Scan (81x91x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

Maximum value of SAR (interpolated) =  $0.895 \text{ mW/g}$

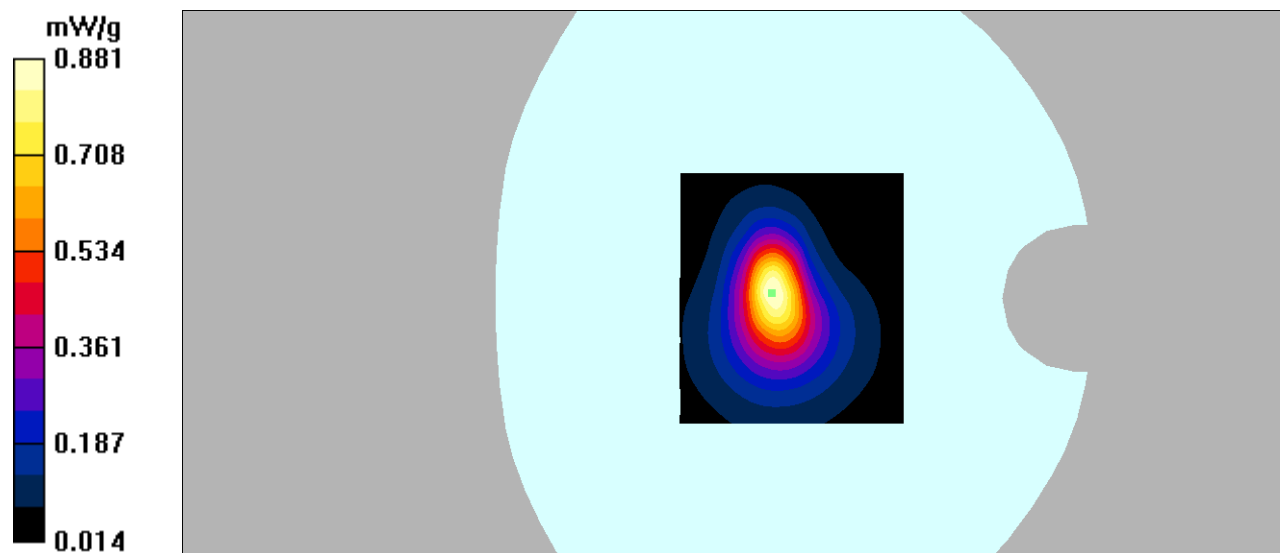
**Hotspot Bottom/WCDMA Band 2 High/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $21.7 \text{ V/m}$ ; Power Drift =  $0.122 \text{ dB}$

Peak SAR (extrapolated) =  $1.49 \text{ W/kg}$

**SAR(1 g) =  $0.780 \text{ mW/g}$ ; SAR(10 g) =  $0.394 \text{ mW/g}$**

Maximum value of SAR (measured) =  $0.881 \text{ mW/g}$



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: Wi-Fi band; Frequency: 2442.0 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2442.0$  MHz;  $\sigma = 1.80$  mho/m;  $\epsilon_r = 39.26$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 – SN7382; ConvF(7.73, 7.73, 7.73); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Left head cheek/Wi-Fi/Mid/Area Scan ((91x121x1)):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.179 mW/g

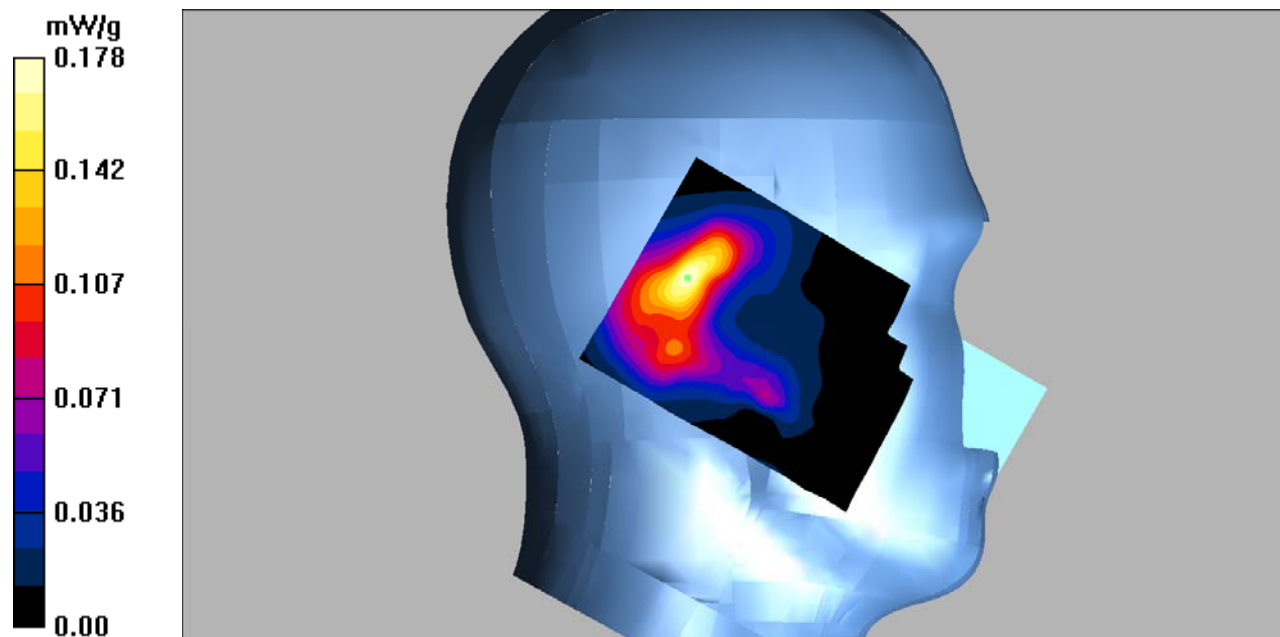
**Left head cheek/Wi-Fi/Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.94 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 0.291 W/kg

**SAR(1 g) = 0.157 mW/g; SAR(10 g) = 0.081 mW/g**

Maximum value of SAR (measured) = 0.178 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: Wi-Fi band; Frequency: 2442.0 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2442.0$  MHz;  $\sigma = 1.80$  mho/m;  $\epsilon_r = 39.26$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 – SN7382; ConvF(7.73, 7.73, 7.73); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Left head tilt/Wi-Fi/Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.171 mW/g

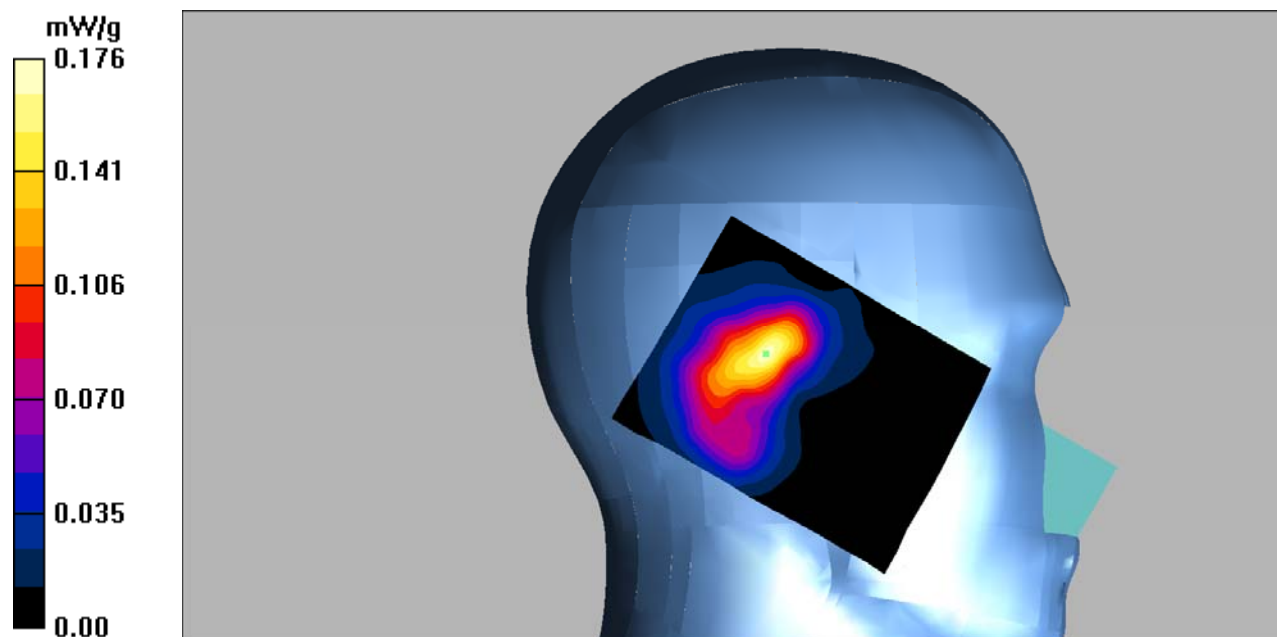
**Left head tilt/Wi-Fi/Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.16 V/m; Power Drift = -0.186 dB

Peak SAR (extrapolated) = 0.281 W/kg

**SAR(1 g) = 0.152 mW/g; SAR(10 g) = 0.082 mW/g**

Maximum value of SAR (measured) = 0.176 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: Wi-Fi band; Frequency: 2442.0 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2442.0$  MHz;  $\sigma = 1.80$  mho/m;  $\epsilon_r = 39.26$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 – SN7382; ConvF(7.73, 7.73, 7.73); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Right head cheek/Wi-Fi/Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.505 mW/g

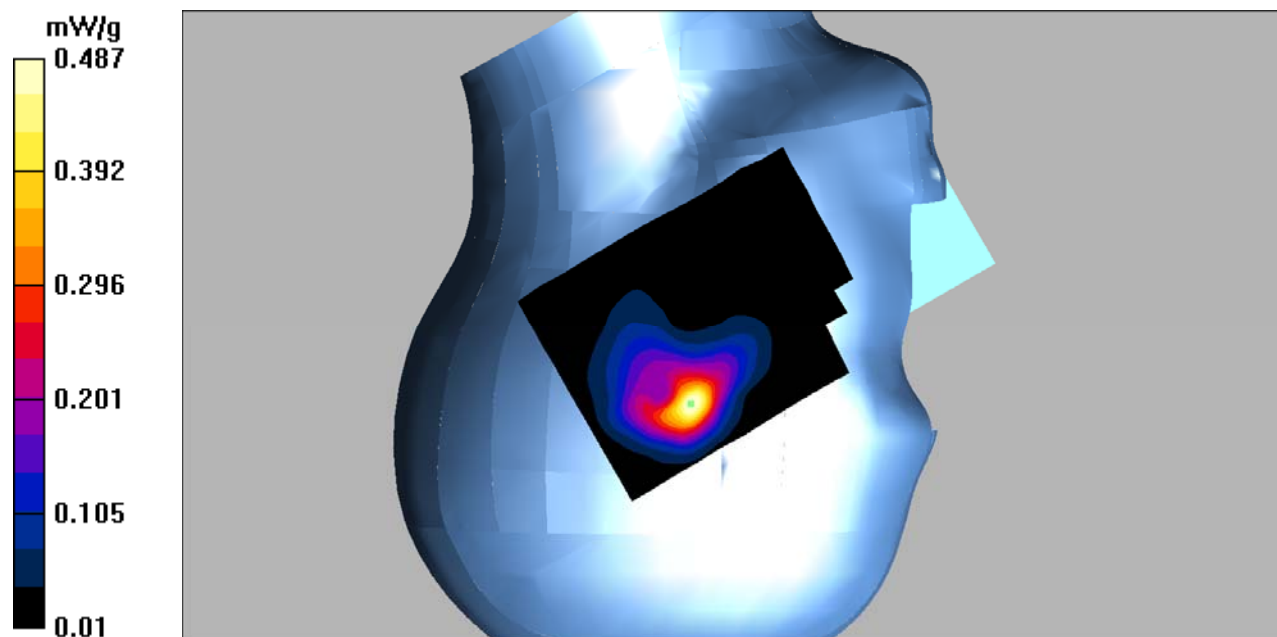
**Right head cheek/Wi-Fi/Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.38 V/m; Power Drift = -0.093 dB

Peak SAR (extrapolated) = 1.08 W/kg

**SAR(1 g) = 0.422 mW/g; SAR(10 g) = 0.174 mW/g**

Maximum value of SAR (measured) = 0.487 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: Wi-Fi band; Frequency: 2442.0 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2442.0$  MHz;  $\sigma = 1.80$  mho/m;  $\epsilon_r = 39.26$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 – SN7382; ConvF(7.73, 7.73, 7.73); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Right head tilt/Wi-Fi/Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.275 mW/g

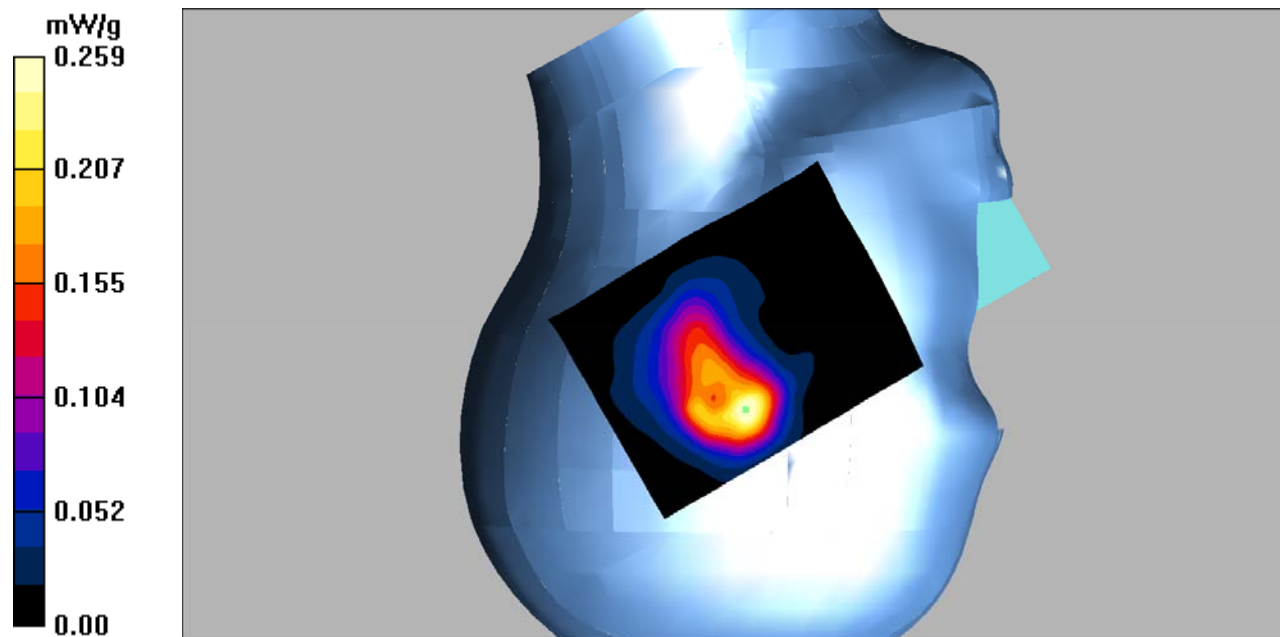
**Right head tilt/Wi-Fi/Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.87 V/m; Power Drift = 0.008 dB

Peak SAR (extrapolated) = 0.557 W/kg

**SAR(1 g) = 0.231 mW/g; SAR(10 g) = 0.110 mW/g**

Maximum value of SAR (measured) = 0.259 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: Wi-Fi band; Frequency: 2442.0 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2442.0$  MHz;  $\sigma = 1.92$  mho/m;  $\epsilon_r = 53.75$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 – SN7382; ConvF(7.88, 7.88, 7.88); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Body-Back/Wi-Fi/Mid/Area Scan (91x101x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.209 mW/g

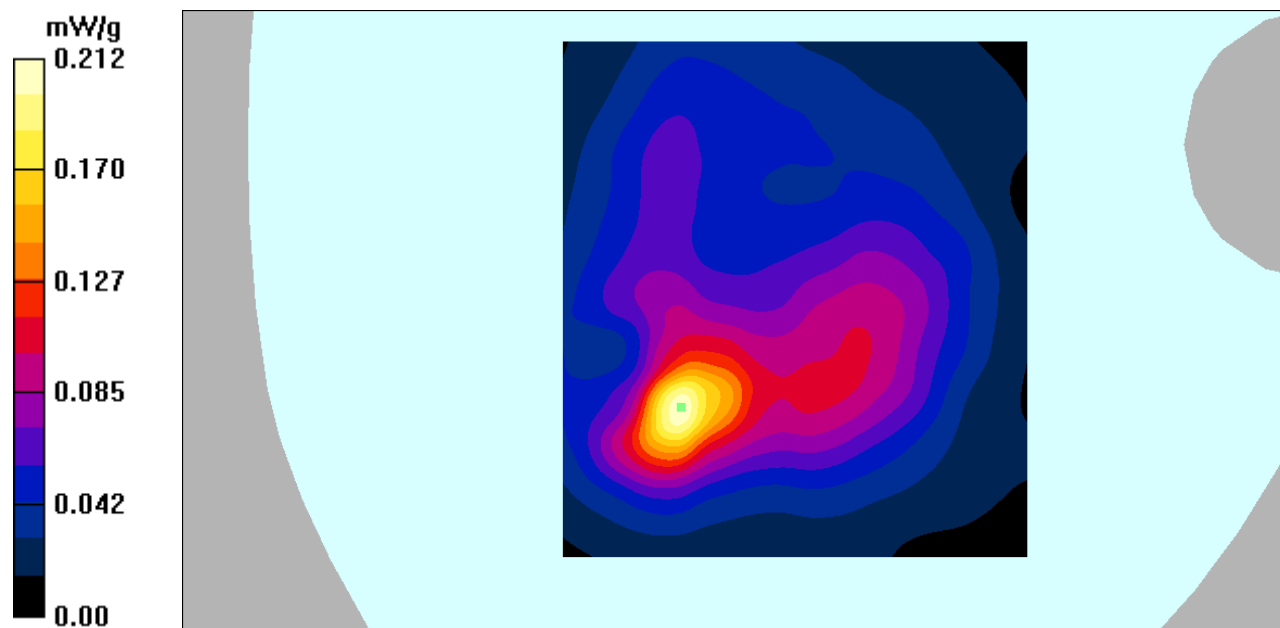
**Body-Back/Wi-Fi/Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.60 V/m; Power Drift = -0.084 dB

Peak SAR (extrapolated) = 0.297 W/kg

**SAR(1 g) = 0.172 mW/g; SAR(10 g) = 0.080 mW/g**

Maximum value of SAR (measured) = 0.212 mW/g



**DUT: 3G Smart phone; Type: TS451A;**

Communication System: Wi-Fi band; Frequency: 2442.0 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2442.0$  MHz;  $\sigma = 1.92$  mho/m;  $\epsilon_r = 53.75$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 – SN7382; ConvF(7.88, 7.88, 7.88); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Body-Left/Wi-Fi/Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.063 mW/g

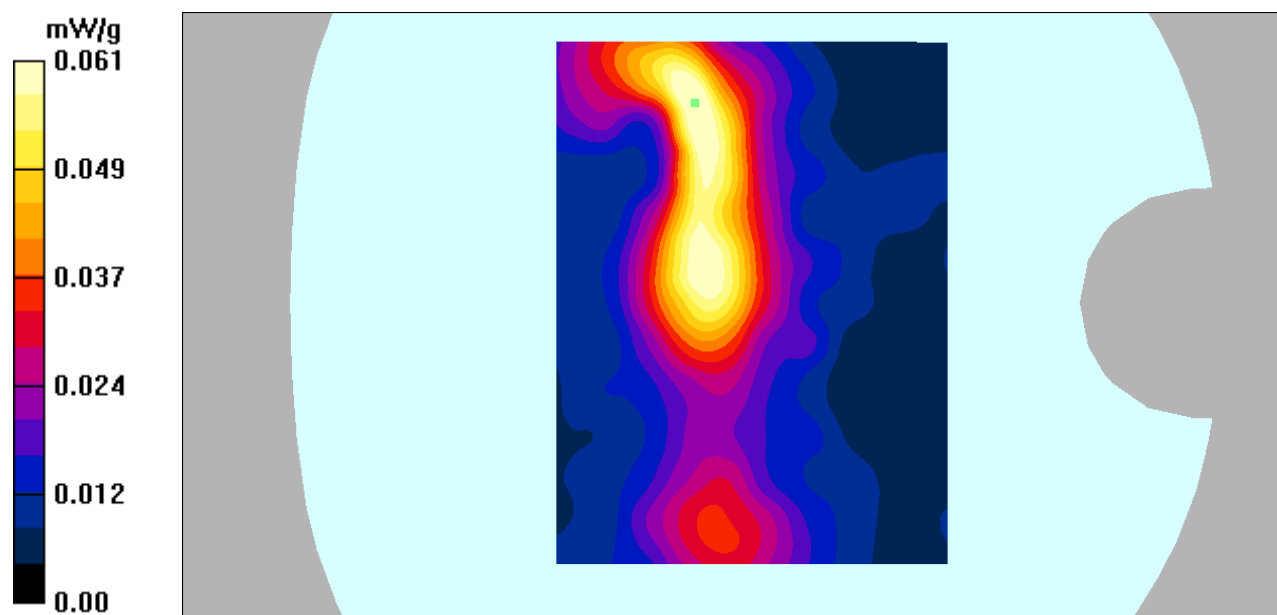
**Body-Left/Wi-Fi/Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.5 V/m; Power Drift = -0.176 dB

Peak SAR (extrapolated) = 0.135 W/kg

**SAR(1 g) = 0.054 mW/g; SAR(10 g) = 0.028 mW/g**

Maximum value of SAR (measured) = 0.061 mW/g





**DUT: 3G Smart phone; Type: TS451A;**

Communication System: Wi-Fi band; Frequency: 2442.0 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 2442.0$  MHz;  $\sigma = 1.92$  mho/m;  $\epsilon_r = 53.75$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 – SN7382; ConvF(7.88, 7.88, 7.88); Calibrated: 26/10/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE – SN772; Calibrated: 25/10/2016
- Phantom: TWIN SAM; Type: Twin SAM V5.0; Serial: 1909
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**Body-Top/Wi-Fi/Mid/Area Scan (91x121x1):** Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.098 mW/g

**Body-Top/Wi-Fi/Mid/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.85 V/m; Power Drift = -0.044 dB

Peak SAR (extrapolated) = 0.147 W/kg

**SAR(1 g) = 0.087 mW/g; SAR(10 g) = 0.052 mW/g**

Maximum value of SAR (measured) = 0.098 mW/g

