#### SAR SYSTEM VALIDATION DATA

**DUT: Dipole 835 MHz; Type: D835V2; S/N: 454** 

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

Medium parameters used: f = 835 MHz;  $\sigma = 0.91$  S/m;  $\varepsilon_r = 41.35$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

### DASY4 Configuration:

- Probe: ET3DV6 - SN1664; ConvF(6.33, 6.33, 6.33); Calibrated: 2016-11-17

- Sensor-Surface: 4mm (Mechanical Surface Detection)

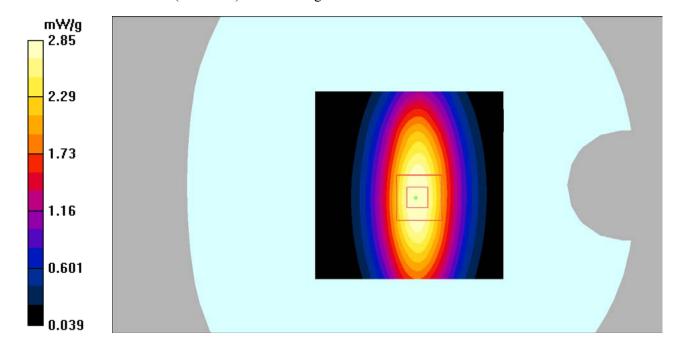
- Electronics: DAE4 Sn527; Calibrated: 2016-10-19

- Phantom: TWIN SAM; Type: QD000P40CC; Serial: TP:1368

- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**835 Head system check /Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 2.99 mW/g

835 Head system check /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 56.8 V/m; Power Drift = -0.053 dB Peak SAR (extrapolated) = 3.79 W/kg SAR(1 g) = 2.32 mW/g; SAR(10 g) = 1.46 mW/g Maximum value of SAR (measured) = 2.85 mW/g



SAR Plots Plot 1#

# **DUT: Dipole 835 MHz; Type: D835V2; S/N: 454**

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

Medium parameters used: f = 835 MHz;  $\sigma = 0.98$  S/m;  $\varepsilon_r = 54.65$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

### DASY4 Configuration:

- Probe: ET3DV6 - SN1664; ConvF(6.41, 6.41, 6.41); Calibrated: 2016-11-17

- Sensor-Surface: 4mm (Mechanical Surface Detection)

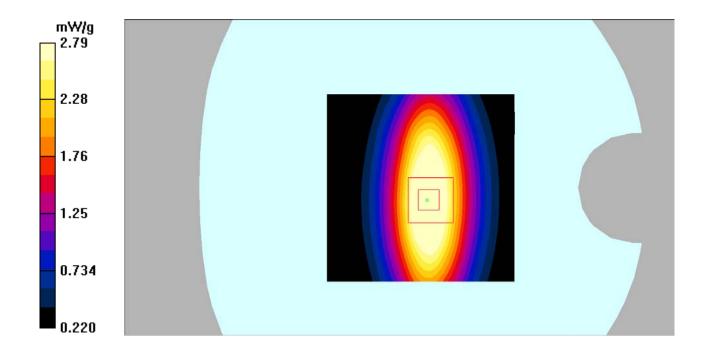
- Electronics: DAE4 Sn527; Calibrated: 2016-10-19

- Phantom: TWIN SAM; Type: QD000P40CC; Serial: TP:1368

- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**835 Body system check /Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 2.92 mW/g

835 Body system check /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 55.7 V/m; Power Drift = -0.073 dB Peak SAR (extrapolated) = 3.68 W/kg SAR(1 g) = 2.36 mW/g; SAR(10 g) = 1.47 mW/g Maximum value of SAR (measured) = 2.79 mW/g



SAR Plots Plot 2#

# DUT: Dipole 1900 MHz; Type: D1900V2; S/N: 5d207

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

Medium parameters used: f = 1900 MHz;  $\sigma = 1.38 \text{ S/m}$ ;  $\varepsilon_r = 40.59$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

### DASY4 Configuration:

- Probe: ET3DV6 - SN1664; ConvF(4.92, 4.92, 4.92); Calibrated: 2016-11-17

- Sensor-Surface: 4mm (Mechanical Surface Detection)

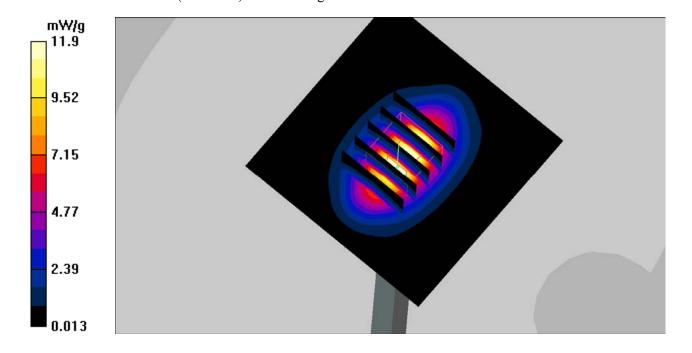
- Electronics: DAE4 Sn527; Calibrated: 2016-10-19

- Phantom: TWIN SAM; Type: QD000P40CC; Serial: TP:1368

- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**1900 head system check/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 13.5 mW/g

1900 head system check/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 98.2 V/m; Power Drift = -0.037 dB Peak SAR (extrapolated) = 17.6 W/kg SAR(1 g) = 10.5 mW/g; SAR(10 g) = 5.65 mW/g Maximum value of SAR (measured) = 11.9 mW/g



SAR Plots Plot 3#

# DUT: Dipole 1900 MHz; Type: D1900V2; S/N: 5d207

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

Medium parameters used: f = 1900 MHz;  $\sigma = 1.52 \text{ S/m}$ ;  $\varepsilon_r = 52.32$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

### DASY4 Configuration:

- Probe: ET3DV6 - SN1664; ConvF(4.32, 4.32, 4.32); Calibrated: 2016-11-17

- Sensor-Surface: 4mm (Mechanical Surface Detection)

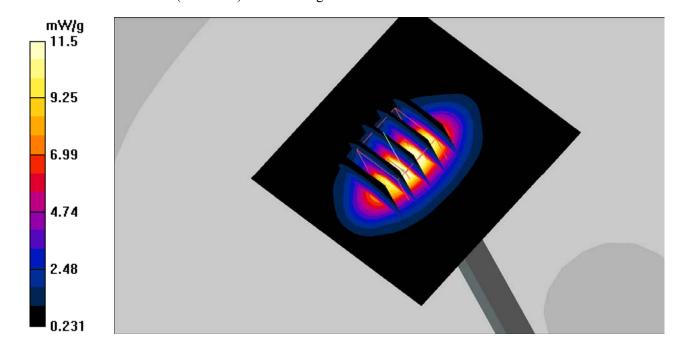
- Electronics: DAE4 Sn527; Calibrated: 2016-10-19

- Phantom: TWIN SAM; Type: QD000P40CC; Serial: TP:1368

- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

**1900 Body system check/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 16.2 mW/g

1900 Body system check/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 103.9 V/m; Power Drift = -0.059 dB Peak SAR (extrapolated) = 17.3 W/kg SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.82 mW/g Maximum value of SAR (measured) = 11.5 mW/g



SAR Plots Plot 4#

#### **SAR** plots:

#### **DUT: Mobile Phone; Type: UNO JR;**

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

Medium parameters used: f = 836.6 MHz;  $\sigma = 0.88 \text{ mho/m}$ ;  $\epsilon r = 41.63$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1664; ConvF(6.33, 6.33, 6.33); Calibrated: 11/17/2016

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn527; Calibrated: 10/19/2016

- Phantom: TWIN SAM; Type: QD000P40CC; Serial: TP:1368

- Postprocessing SW: SEMCAD, V1.8 Build 145

**GSM835-head-Cheek-mid** /**Area Scan (51x141x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.151 mW/g

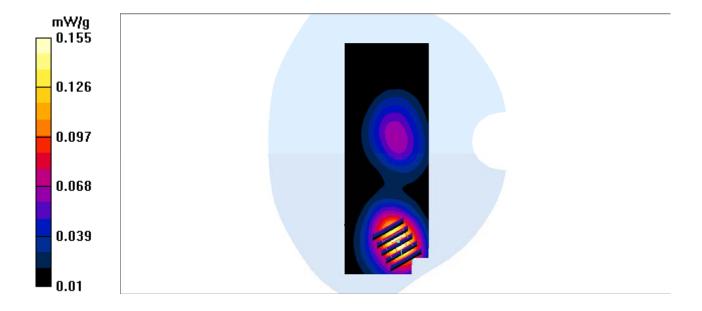
GSM835-head-Cheek-mid /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.47 V/m; Power Drift = -0.190 dB

Peak SAR (extrapolated) = 0.225 W/kg

SAR(1 g) = 0.143 mW/g; SAR(10 g) = 0.089 mW/g

Maximum value of SAR (measured) = 0.155 mW/g



SAR Plots Plot 5#

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

Medium parameters used: f = 836.6 MHz;  $\sigma = 0.98 \text{ mho/m}$ ;  $\epsilon r = 54.32$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section DASY4 Configuration:

- Probe: ET3DV6 - SN1664; ConvF(6.41, 6.41, 6.41); Calibrated: 11/17/2016

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn527; Calibrated: 10/19/2016

- Phantom: TWIN SAM; Type: QD000P40CC; Serial: TP:1368

- Postprocessing SW: SEMCAD, V1.8 Build 145

**GSM850- Body-Worn-Headset-mid/Area Scan (61x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.525 mW/g

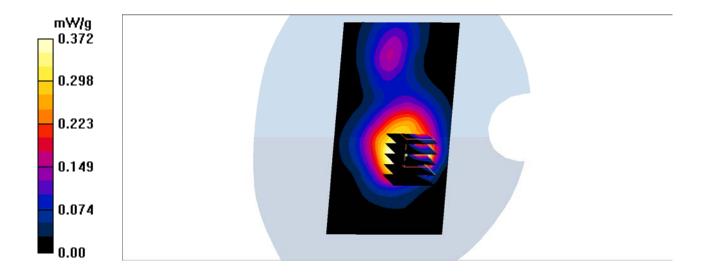
**GSM850- Body-Worn-Headset-mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.6 V/m; Power Drift = -0.012 dB

Peak SAR (extrapolated) = 0.566 W/kg

SAR(1 g) = 0.356 mW/g; SAR(10 g) = 0.112 mW/g

Maximum value of SAR (measured) = 0.372 mW/g



SAR Plots Plot 6#

Communication System: GPRS bands-2slots; Frequency: 824.2 MHz;Duty Cycle: 1:4 Medium parameters used: f = 824.2 MHz;  $\sigma = 0.95$  mho/m;  $\epsilon r = 54.35$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section DASY4 Configuration:

- Probe: ET3DV6 - SN1664; ConvF(6.41, 6.41, 6.41); Calibrated: 11/17/2016

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn527; Calibrated: 10/19/2016

- Phantom: TWIN SAM; Type: QD000P40CC; Serial: TP:1368

- Postprocessing SW: SEMCAD, V1.8 Build 145

**GSM850- Body-Worn-Back -low/Area Scan (61x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.39 mW/g

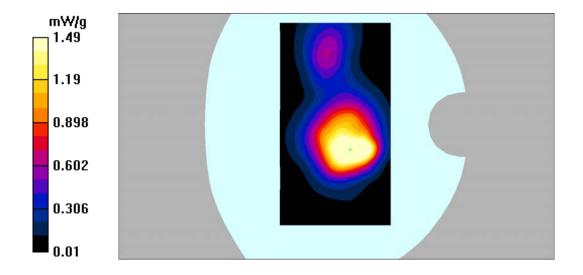
**GSM850- Body-Worn-Back-low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.8 V/m; Power Drift = 0.133 dB

Peak SAR (extrapolated) = 1.63 W/kg

SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.677 mW/g

Maximum value of SAR (measured) = 1.49 mW/g



SAR Plots Plot 7#

Communication System: GPRS bands-2slots; Frequency: 836.6 MHz;Duty Cycle: 1:4 Medium parameters used: f = 836.6 MHz;  $\sigma = 0.98$  mho/m;  $\epsilon r = 54.32$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section DASY4 Configuration:

- Probe: ET3DV6 - SN1664; ConvF(6.41, 6.41, 6.41); Calibrated: 11/17/2016

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn527; Calibrated: 10/19/2016

- Phantom: TWIN SAM; Type: QD000P40CC; Serial: TP:1368

- Postprocessing SW: SEMCAD, V1.8 Build 145

**GSM850- Body-Worn-Back -mid/Area Scan (61x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.35 mW/g

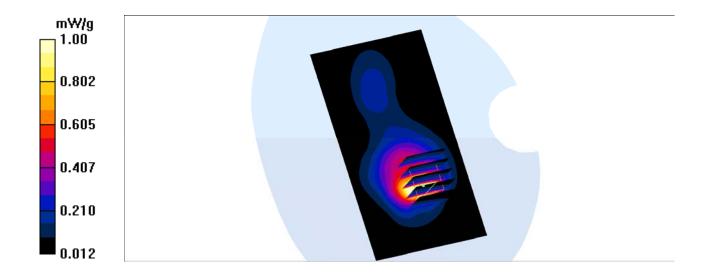
**GSM850- Body-Worn-Back-mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 31.8 V/m; Power Drift = -0.129 dB

Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 0.970 mW/g; SAR(10 g) = 0.466 mW/g

Maximum value of SAR (measured) = 1.00 mW/g



SAR Plots Plot 8#

Communication System: GPRS bands-2slots; Frequency: 848.8 MHz;Duty Cycle: 1:4 Medium parameters used: f = 848.8 MHz;  $\sigma = 0.99$  mho/m;  $\epsilon r = 54.49$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section DASY4 Configuration:

- Probe: ET3DV6 - SN1664; ConvF(6.41, 6.41, 6.41); Calibrated: 11/17/2016

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn527; Calibrated: 10/19/2016

- Phantom: TWIN SAM; Type: QD000P40CC; Serial: TP:1368

- Postprocessing SW: SEMCAD, V1.8 Build 145

**GSM850- Body-Worn-Back -high/Area Scan (61x81x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.17 mW/g

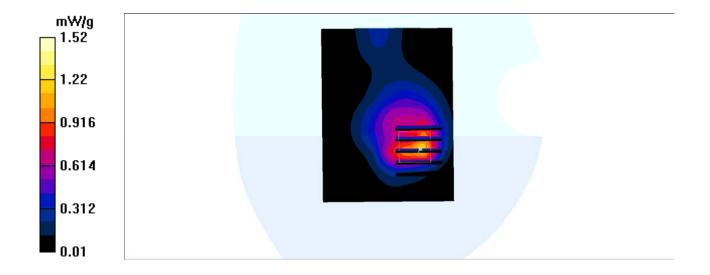
**GSM850- Body-Worn-Back-high/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 33.4 V/m; Power Drift = 0.107 dB

Peak SAR (extrapolated) = 3.34 W/kg

SAR(1 g) = 1.16 mW/g; SAR(10 g) = 0.587 mW/g

Maximum value of SAR (measured) = 1.52 mW/g



SAR Plots Plot 9#

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

Medium parameters used: f = 1880 MHz;  $\sigma = 1.42 \text{ mho/m}$ ;  $\epsilon r = 39.53$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1664; ConvF(4.92, 4.92, 4.92); Calibrated: 11/17/2016

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn527; Calibrated: 10/19/2016

- Phantom: TWIN SAM; Type: QD000P40CC; Serial: TP:1368

- Postprocessing SW: SEMCAD, V1.8 Build 145

# PCS1900-head-Cheek-mid/Area Scan (71x151x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.112 mW/g

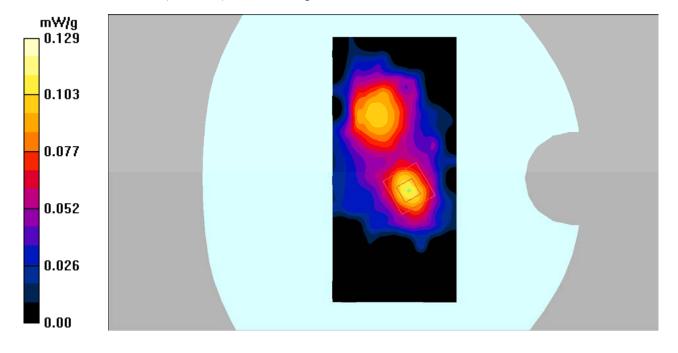
#### PCS1900-head-Cheek-mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.00 V/m; Power Drift = -0.125 dB

Peak SAR (extrapolated) = 0.212 W/kg

#### SAR(1 g) = 0.102 mW/g; SAR(10 g) = 0.055 mW/g

Maximum value of SAR (measured) = 0.129 mW/g



SAR Plots Plot 10#

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

Medium parameters used: f = 1880 MHz;  $\sigma = 1.51 \text{ mho/m}$ ;  $\epsilon r = 51.48$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1664; ConvF(4.32, 4.32, 4.32); Calibrated: 11/17/2016

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn527; Calibrated: 10/19/2016

- Phantom: TWIN SAM; Type: QD000P40CC; Serial: TP:1368

- Postprocessing SW: SEMCAD, V1.8 Build 145

PCS1900- Body-Worn-Headset-mid/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.535 mW/g

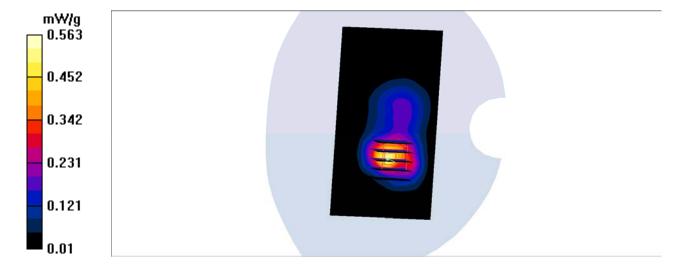
PCS1900- Body-Worn-Headset-mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.5 V/m; Power Drift = -0.008 dB

Peak SAR (extrapolated) = 0.926 W/kg

SAR(1 g) = 0.506 mW/g; SAR(10 g) = 0.269 mW/g

Maximum value of SAR (measured) = 0.563 mW/g



SAR Plots Plot 11#

Communication System: GPRS bands-3slots; Frequency: 1880 MHz; Duty Cycle: 1:2.67 Medium parameters used: f = 1880 MHz;  $\sigma = 1.51$  mho/m;  $\varepsilon r = 51.48$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section DASY4 Configuration:

- Probe: ET3DV6 - SN1664; ConvF(4.32, 4.32, 4.32); Calibrated: 11/17/2016

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn527; Calibrated: 10/19/2016

- Phantom: TWIN SAM; Type: QD000P40CC; Serial: TP:1368

- Postprocessing SW: SEMCAD, V1.8 Build 145

**PCS1900- Body-Worn-Back-mid/Area Scan (61x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.552 mW/g

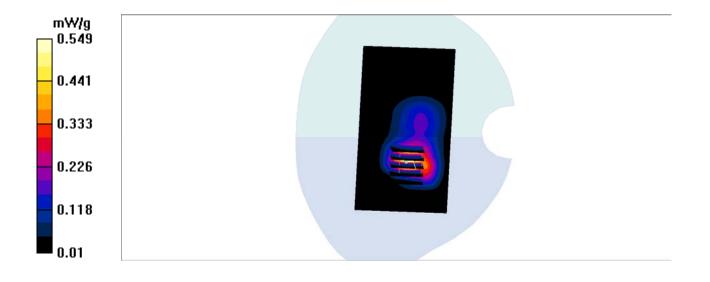
**PCS1900- Body-Worn-Back-mid/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.5 V/m; Power Drift = -0.087 dB

Peak SAR (extrapolated) = 0.908 W/kg

SAR(1 g) = 0.506 mW/g; SAR(10 g) = 0.267 mW/g

Maximum value of SAR (measured) = 0.549 mW/g



SAR Plots Plot 12#