Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015
GSM 850-Right Head Cheek Low CH128
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.903 S/m; ε_r = 41.058; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

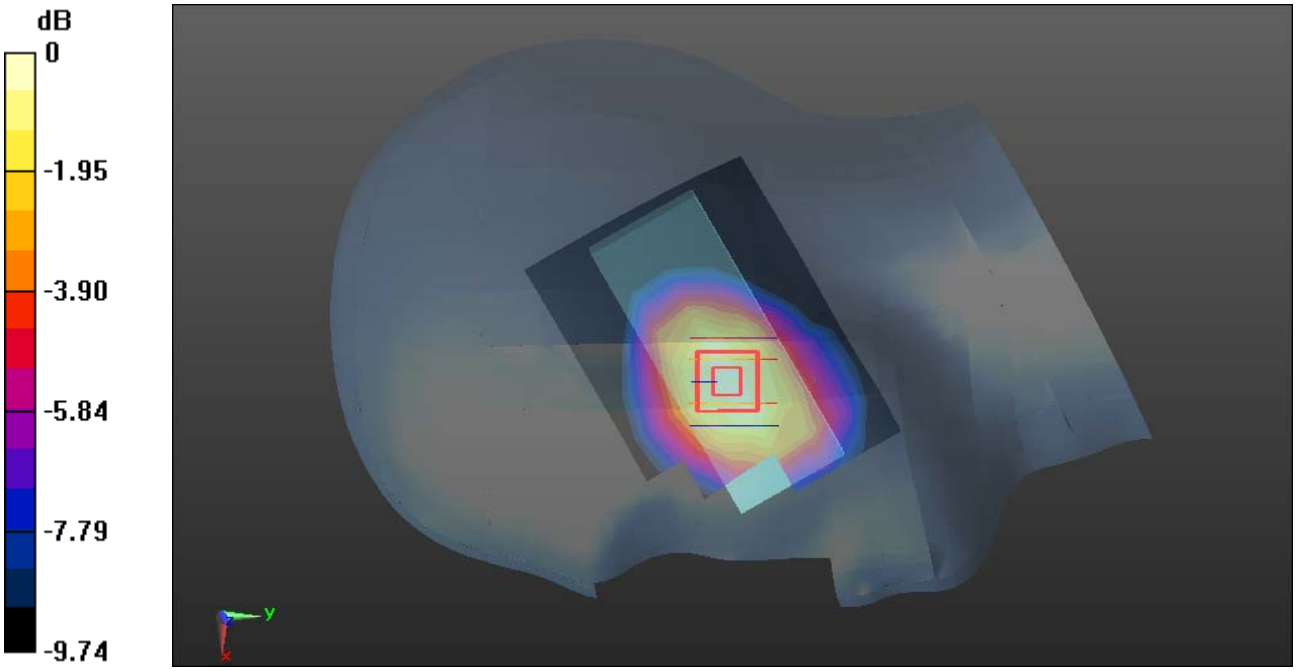
- Probe: EX3DV4 - SN3798; ConvF(9.3, 9.3, 9.3); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

GSM 850/Right Head Cheek Low CH128/Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.156 W/kg

GSM 850/Right Head Cheek Low CH128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.442 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.175 W/kg
SAR(1 g) = 0.135 W/kg; SAR(10 g) = 0.096 W/kg

Info: Interpolated medium parameters used for SAR evaluation.



0 dB = 0.156 W/kg = -8.07 dBW/kg

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015

GSM 850-Right Head Tilted Low CH128
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.903 S/m; ε_r = 41.058; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

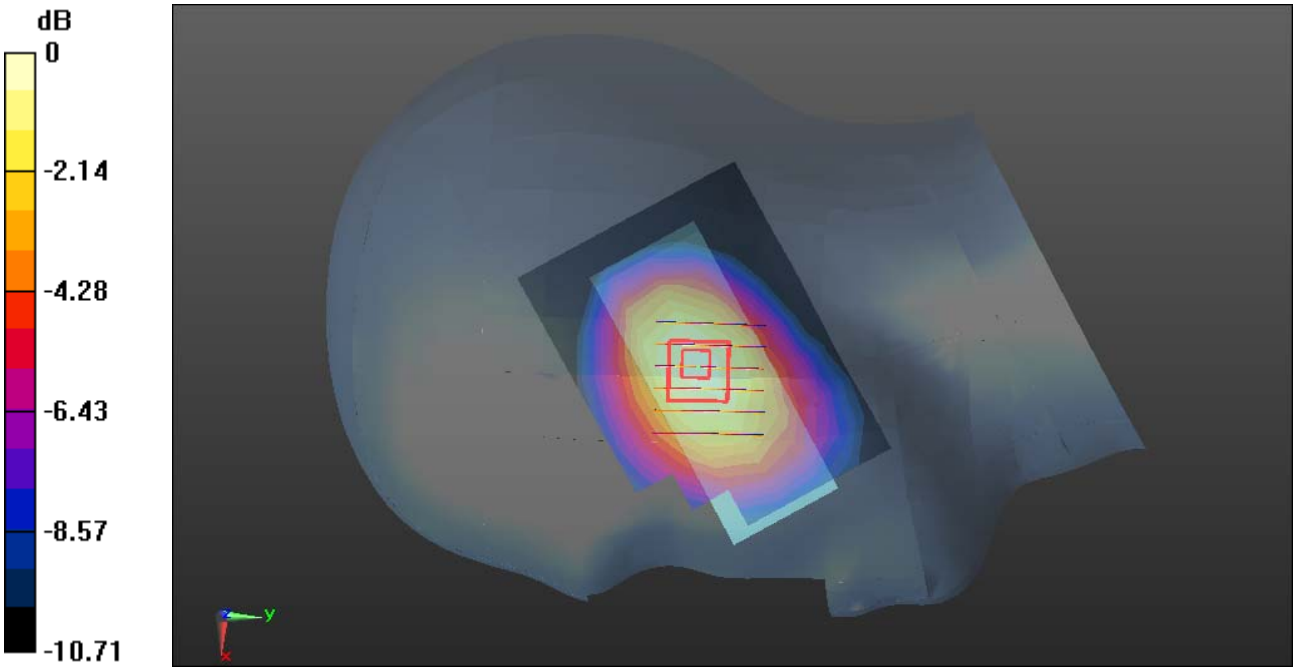
- Probe: EX3DV4 - SN3798; ConvF(9.3, 9.3, 9.3); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

GSM 850/Right Head Tilted Low CH128/Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.0997 W/kg

GSM 850/Right Head Tilted Low CH128/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.779 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.112 W/kg
SAR(1 g) = 0.085 W/kg; SAR(10 g) = 0.061 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.0999 W/kg



0 dB = 0.0999 W/kg = -10.00 dBW/kg

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015

GSM 850-Left Head Cheek Low CH128
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.903 S/m; ε_r = 41.058; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

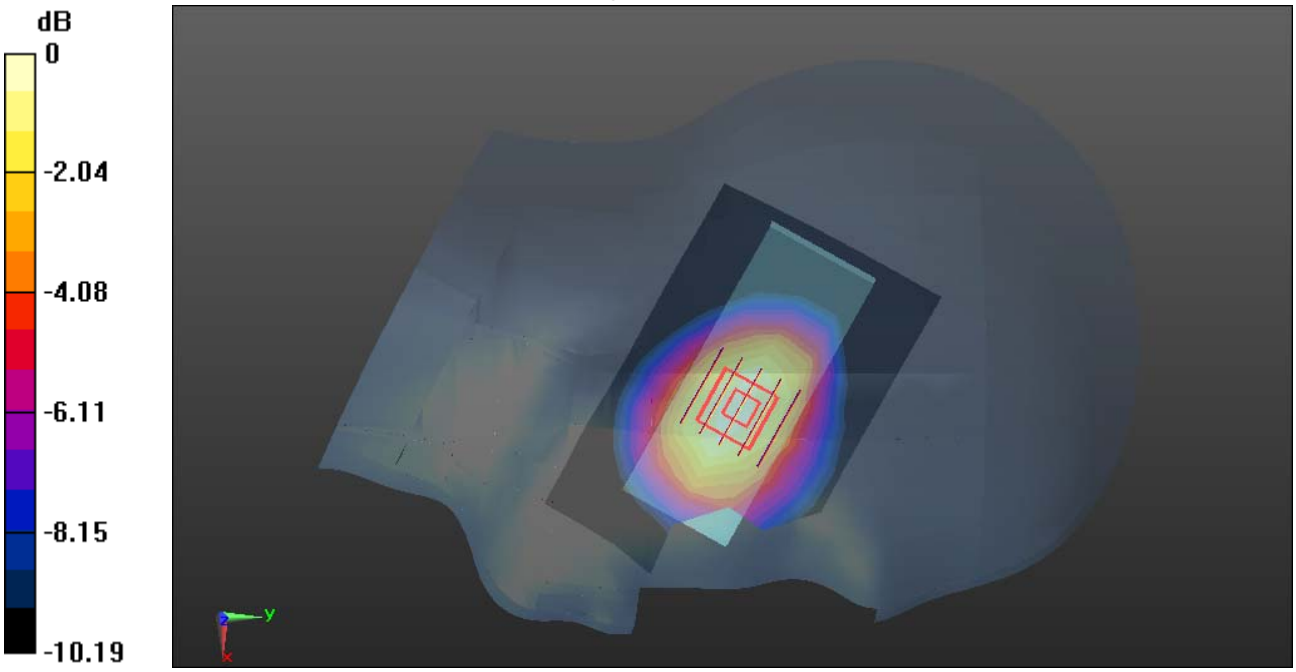
- Probe: EX3DV4 - SN3798; ConvF(9.3, 9.3, 9.3); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

GSM 850/Left Head Cheek Low CH128/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.179 W/kg

GSM 850/Left Head Cheek Low CH128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.003 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.198 W/kg
SAR(1 g) = 0.152 W/kg; SAR(10 g) = 0.107 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.178 W/kg



0 dB = 0.178 W/kg = -7.50 dBW/kg

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015

GSM 850-Left Head Tilted Low CH128
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.903 S/m; ε_r = 41.058; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

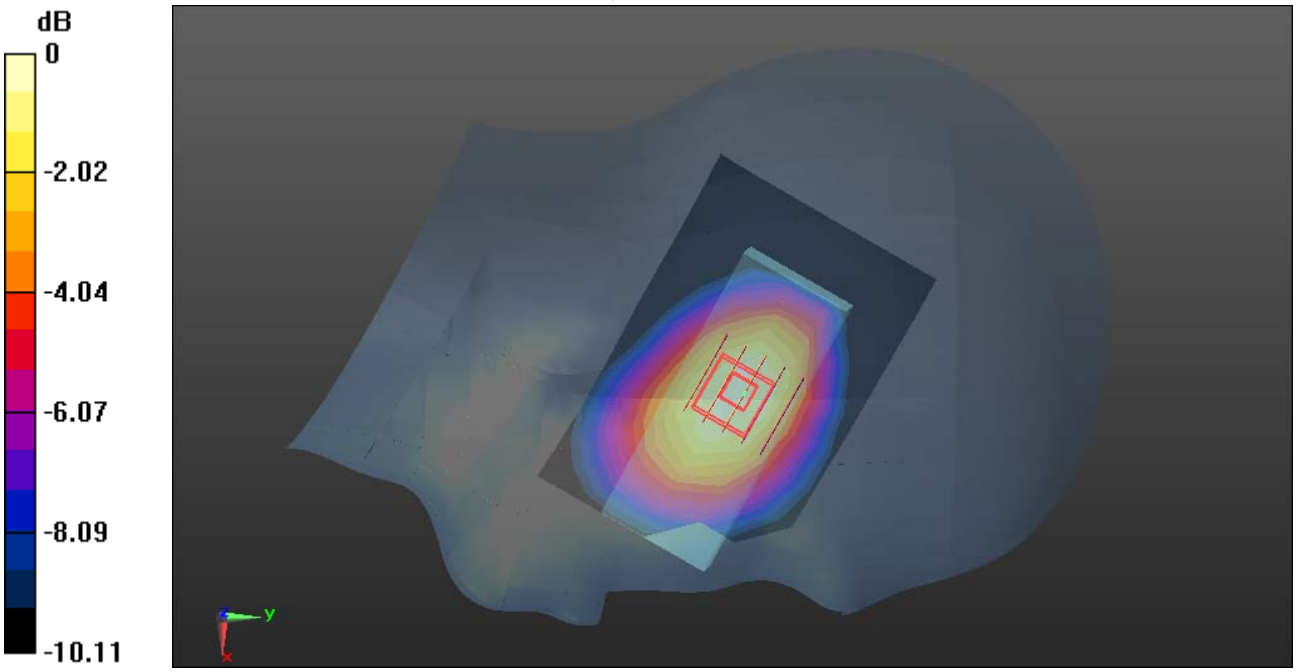
- Probe: EX3DV4 - SN3798; ConvF(9.3, 9.3, 9.3); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

GSM 850/Left Head Tilted Low CH128/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.0977 W/kg

GSM 850/Left Head Tilted Low CH128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.165 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.113 W/kg
SAR(1 g) = 0.086 W/kg; SAR(10 g) = 0.062 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.101 W/kg



0 dB = 0.101 W/kg = -9.96 dBW/kg

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015

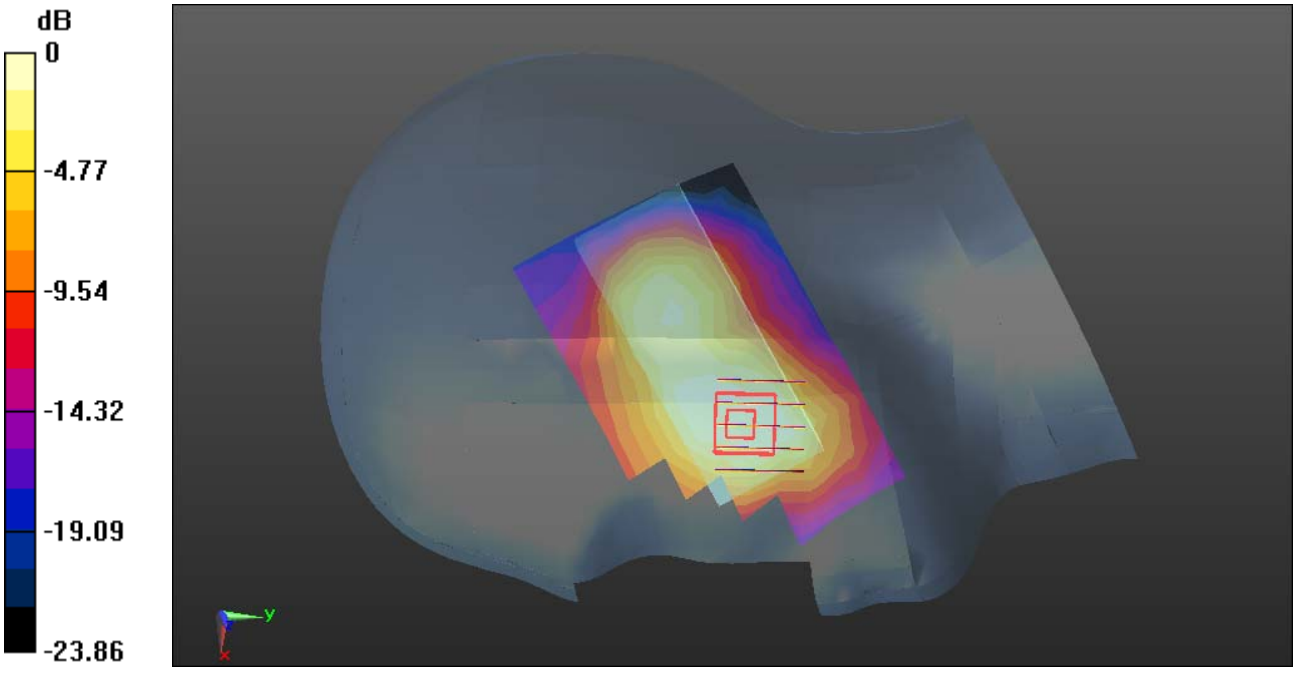
PCS 1900-Right Head Cheek Low CH512
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: PCS1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.386 S/m; ε_r = 40.072; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.75, 7.75, 7.75); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

PCS 1900/Right Head Cheek Low CH512/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.477 W/kg

PCS 1900/Right Head Cheek Low CH512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.799 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.550 W/kg
SAR(1 g) = 0.308 W/kg; SAR(10 g) = 0.171 W/kg

Maximum value of SAR (measured) = 0.424 W/kg



0 dB = 0.424 W/kg = -3.73 dBW/kg

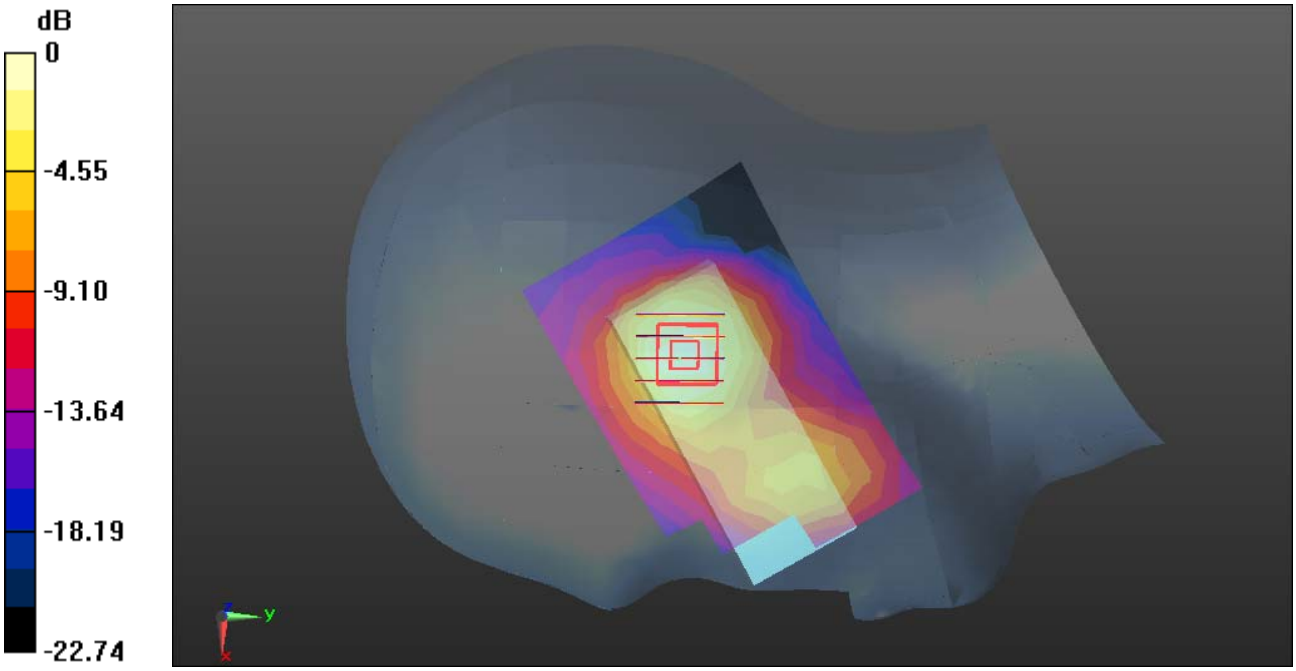
Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015

PCS 1900-Right Head Tilted Low CH512
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: PCS1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.30042
Medium parameters used: f = 1910 MHz; σ = 1.441 S/m; ε_r = 38.892; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.75, 7.75, 7.75); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

PCS 1900/Right Head Tilted Low CH512/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.316 W/kg

PCS 1900/Right Head Tilted Low CH512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.88 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.458 W/kg
SAR(1 g) = 0.252 W/kg; SAR(10 g) = 0.134 W/kg
Maximum value of SAR (measured) = 0.349 W/kg



0 dB = 0.349 W/kg = -4.57 dBW/kg

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015

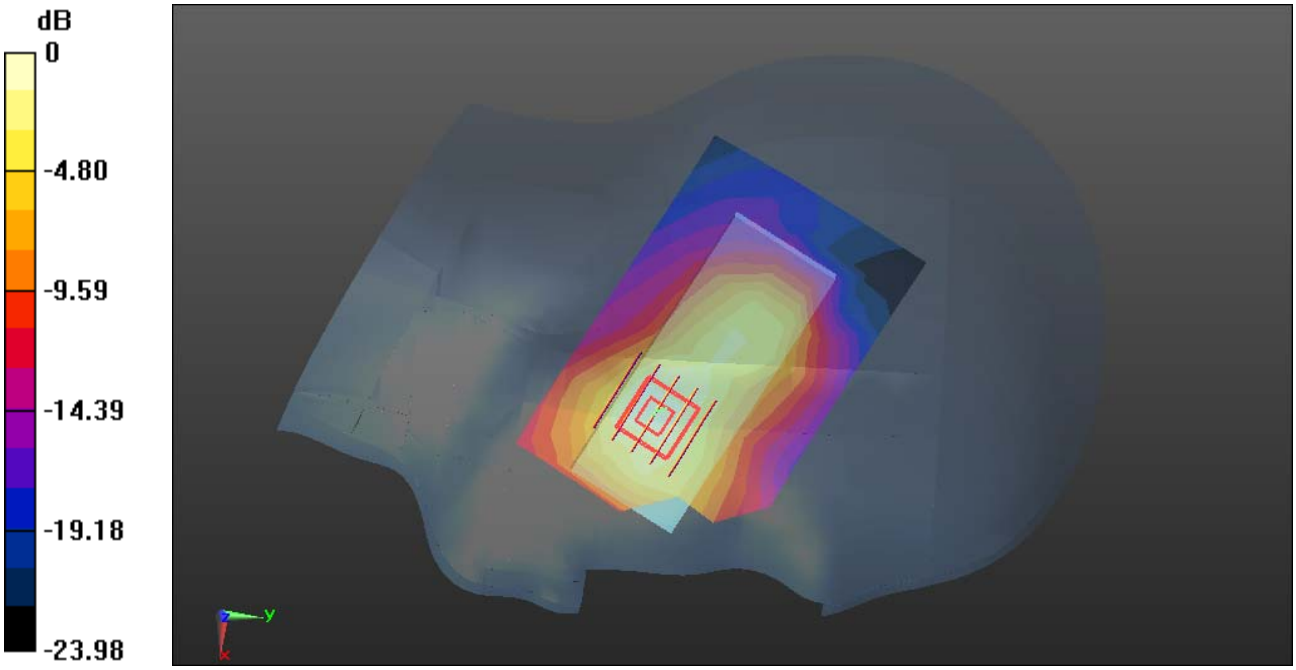
PCS 1900-Left Head Cheek Low CH512
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: PCS1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.386 S/m; ε_r = 40.072; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.75, 7.75, 7.75); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

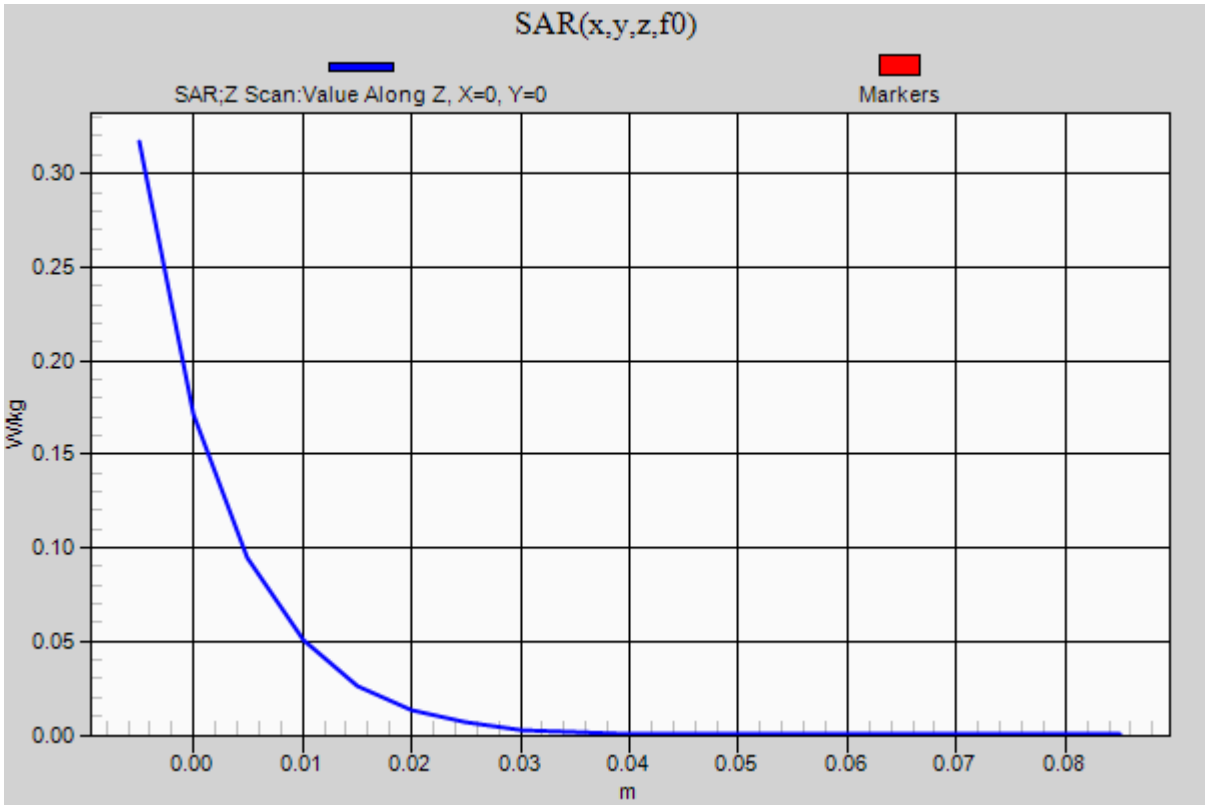
PCS 1900/Left Head Cheek Low CH512/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.473 W/kg

PCS 1900/Left Head Cheek Low CH512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.332 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.742 W/kg
SAR(1 g) = 0.406 W/kg; SAR(10 g) = 0.214 W/kg
Maximum value of SAR (measured) = 0.572 W/kg

PCS 1900/Left Head Cheek Low CH512/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Maximum value of SAR (measured) = 0.317 W/kg



0 dB = 0.572 W/kg = -2.43 dBW/kg

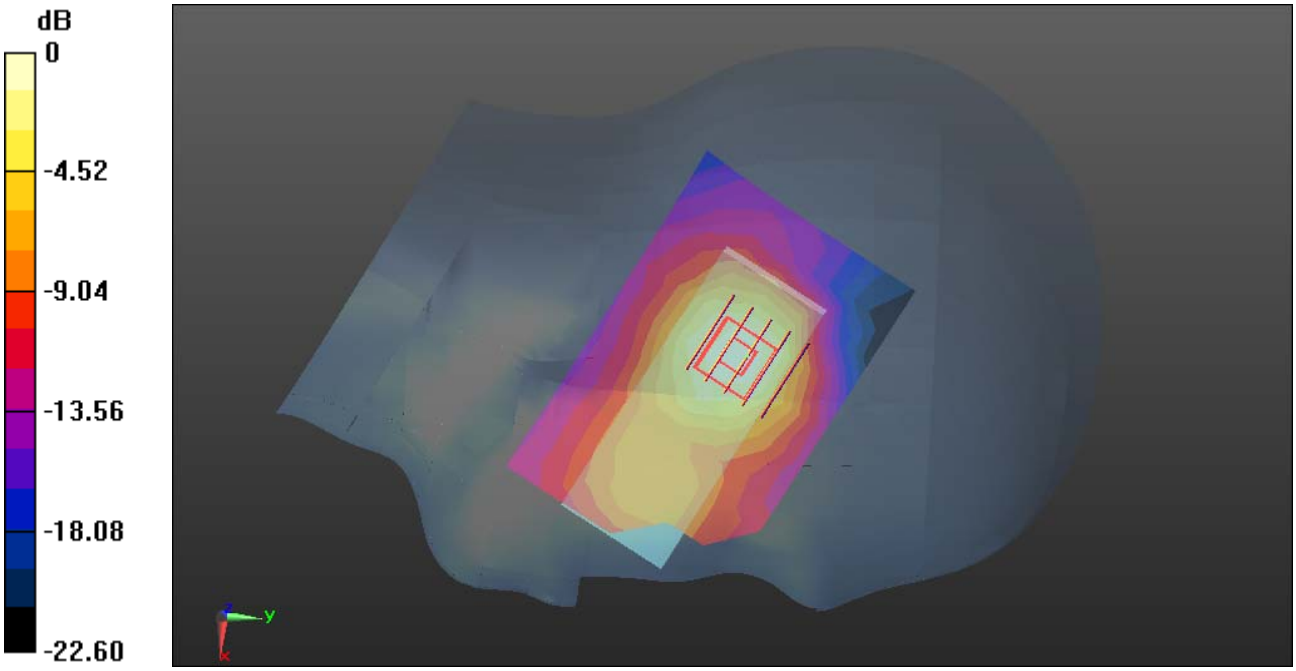

SAR(x,y,z,f0)
SAR;Z Scan:Value Along Z, X=0, Y=0
Markers
W/kg
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
m

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015
PCS 1900-Left Head Tilted Low CH512
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: PCS1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.386 S/m; ε_r = 40.072; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.75, 7.75, 7.75); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

PCS 1900/Left Head Tilted Low CH512/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.254 W/kg

PCS 1900/Left Head Tilted Low CH512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.195 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.357 W/kg
SAR(1 g) = 0.198 W/kg; SAR(10 g) = 0.107 W/kg
Maximum value of SAR (measured) = 0.271 W/kg



0 dB = 0.271 W/kg = -5.67 dBW/kg

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015
GPRS 850-Body Front Low CH128
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM; Communication System Band: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:2.0797
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.967 S/m; ε_r = 53.374; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

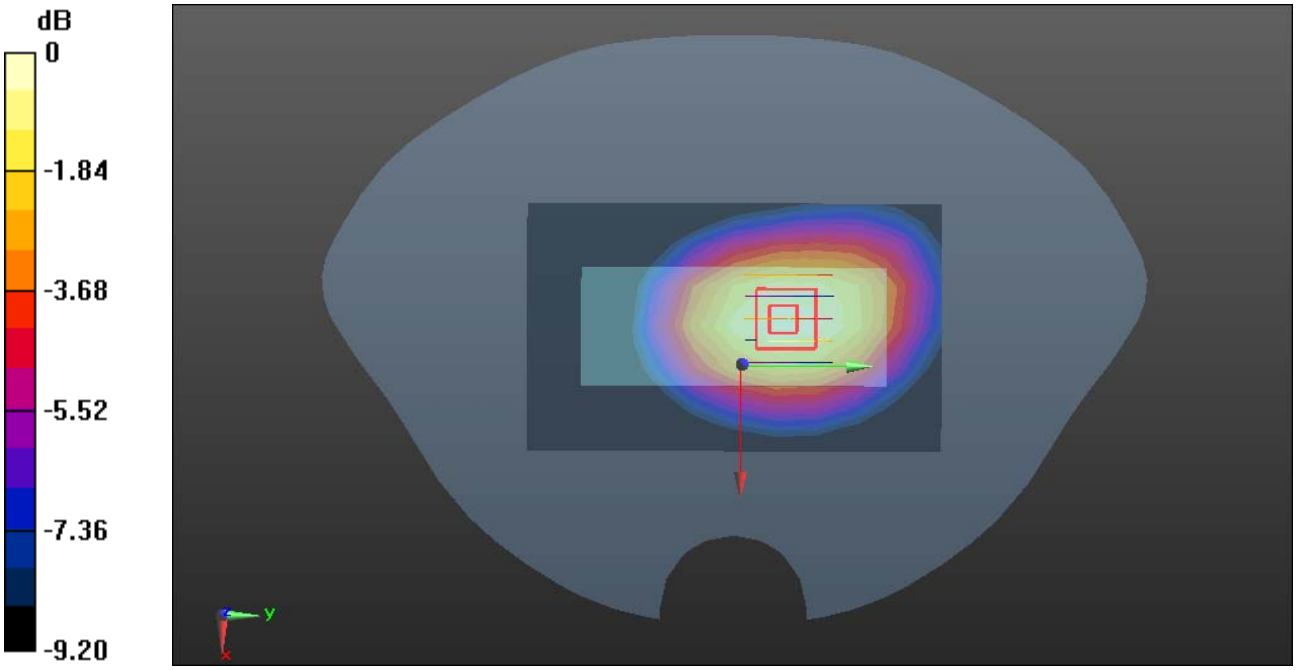
- Probe: EX3DV4 - SN3798; ConvF(9.22, 9.22, 9.22); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

GPRS 850/Body Front Low CH128/Area Scan (11x7x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.0986 W/kg

GPRS 850/Body Front Low CH128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.421 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.114 W/kg
SAR(1 g) = 0.085 W/kg; SAR(10 g) = 0.060 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.101 W/kg



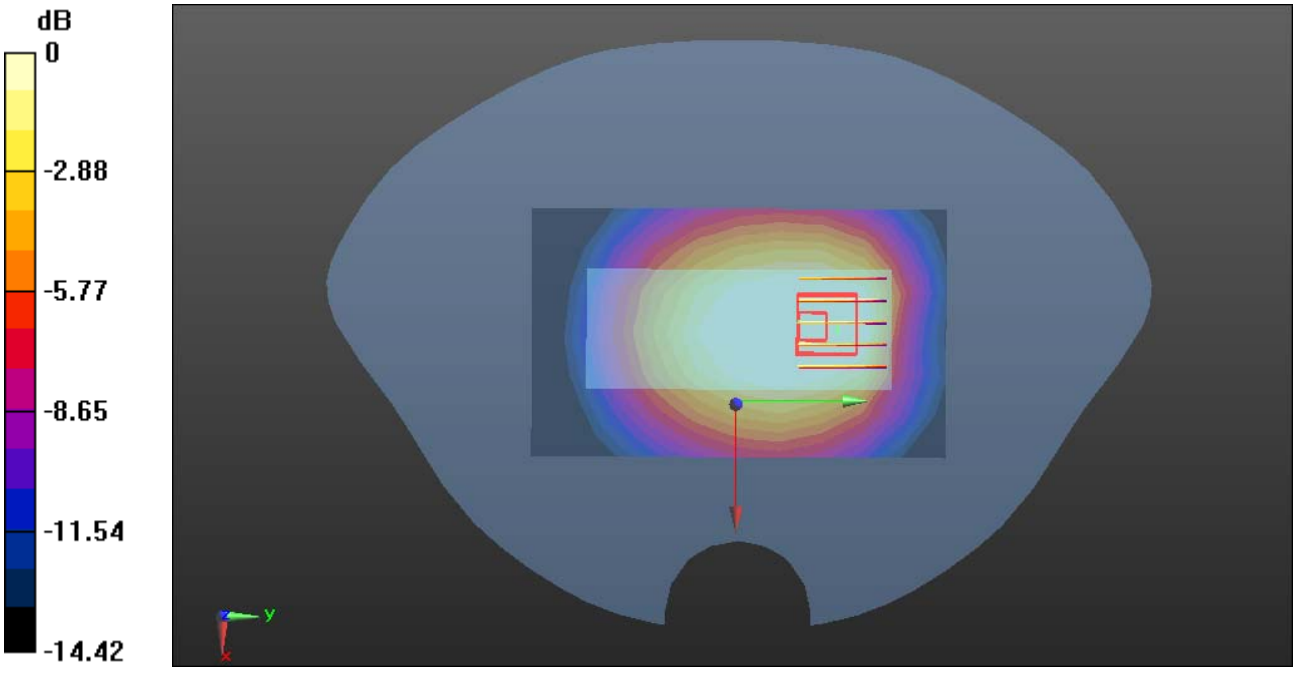
0 dB = 0.101 W/kg = -9.96 dBW/kg

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015
GPRS 850-Body Rear Low CH128
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM; Communication System Band: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:2.0797
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.967 S/m; ε_r = 53.374; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

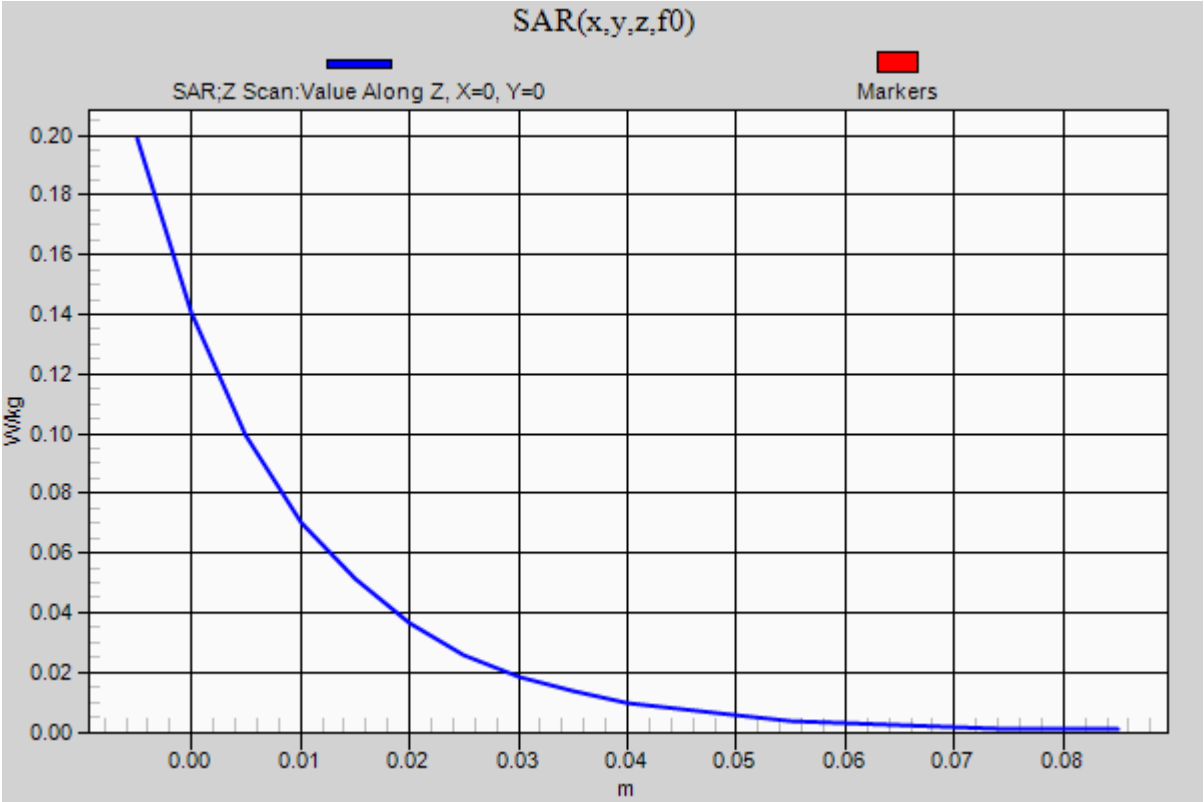
- Probe: EX3DV4 - SN3798; ConvF(9.22, 9.22, 9.22); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection), Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

GPRS 850/Body Rear Low CH128/Area Scan (11x7x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.278 W/kg
GPRS 850/Body Rear Low CH128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.89 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.327 W/kg
SAR(1 g) = 0.236 W/kg; SAR(10 g) = 0.162 W/kg
Info: Interpolated medium parameters used for SAR evaluation.
GPRS 850/Body Rear Low CH128/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.199 W/kg



0 dB = 0.199 W/kg = -7.01 dBW/kg


SAR(x,y,z,f0)
SAR;Z Scan:Value Along Z, X=0, Y=0
Markers
W/kg
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
m

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015
GSM 850-Body Front Low CH128
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.967 S/m; ε_r = 53.374; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

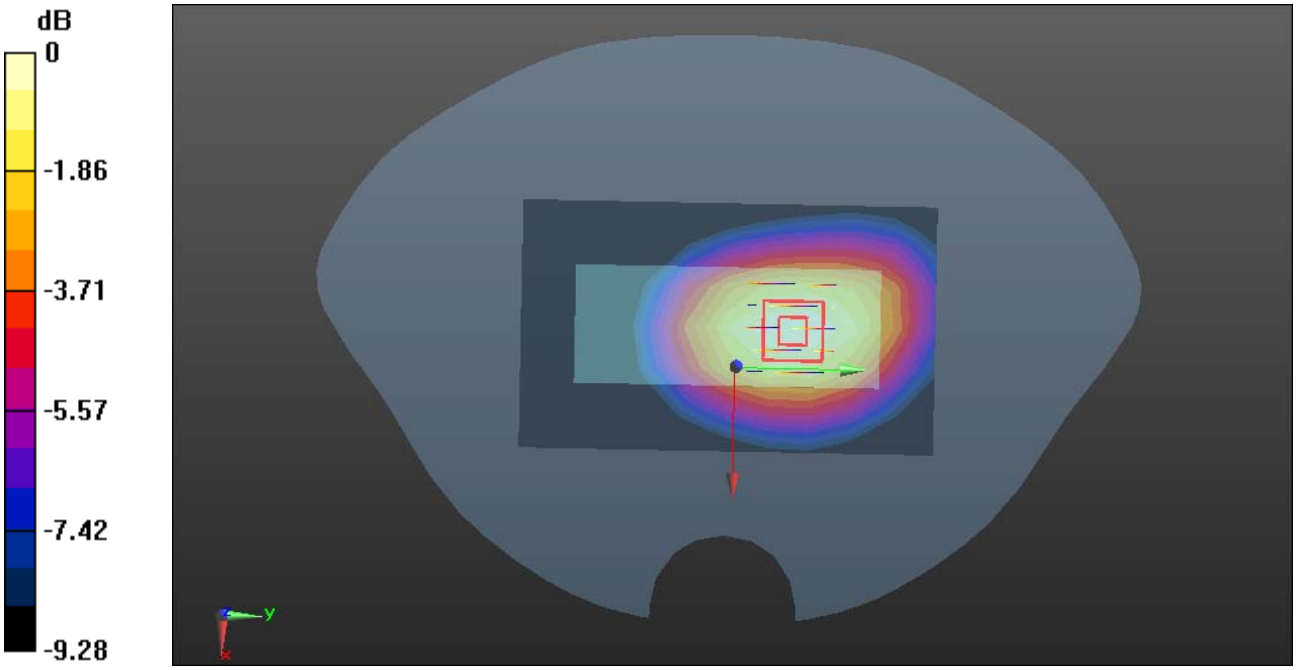
- Probe: EX3DV4 - SN3798; ConvF(9.22, 9.22, 9.22); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

GSM 850/Body Front Low CH128/Area Scan (11x7x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.114 W/kg

GSM 850/Body Front Low CH128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.863 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.129 W/kg
SAR(1 g) = 0.097 W/kg; SAR(10 g) = 0.069 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.115 W/kg



0 dB = 0.115 W/kg = -9.39 dBW/kg

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015
GSM 850-Body Rear Low CH128
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: GSM850; Frequency: 824.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.967 S/m; ε_r = 53.374; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(9.22, 9.22, 9.22); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

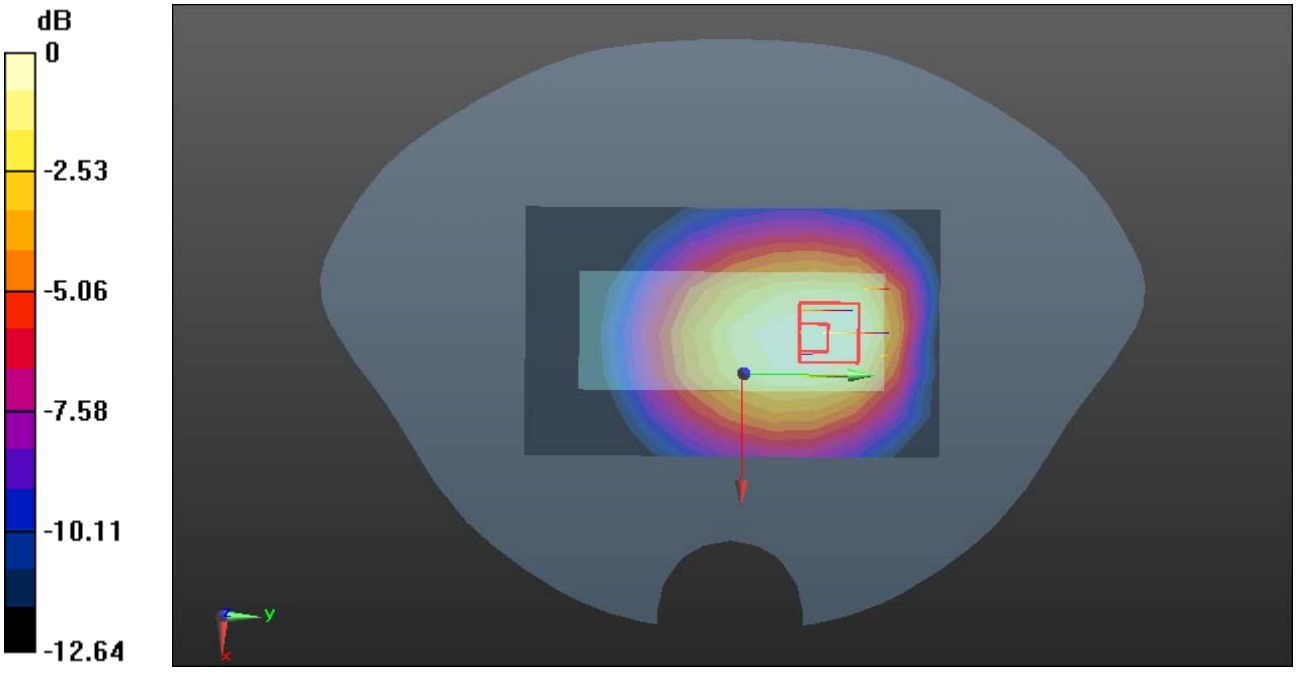
GSM 850/Body Rear Low CH128/Area Scan (11x7x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.317 W/kg

GSM 850/Body Rear Low CH128/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.83 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.367 W/kg
SAR(1 g) = 0.271 W/kg; SAR(10 g) = 0.193 W/kg

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.320 W/kg



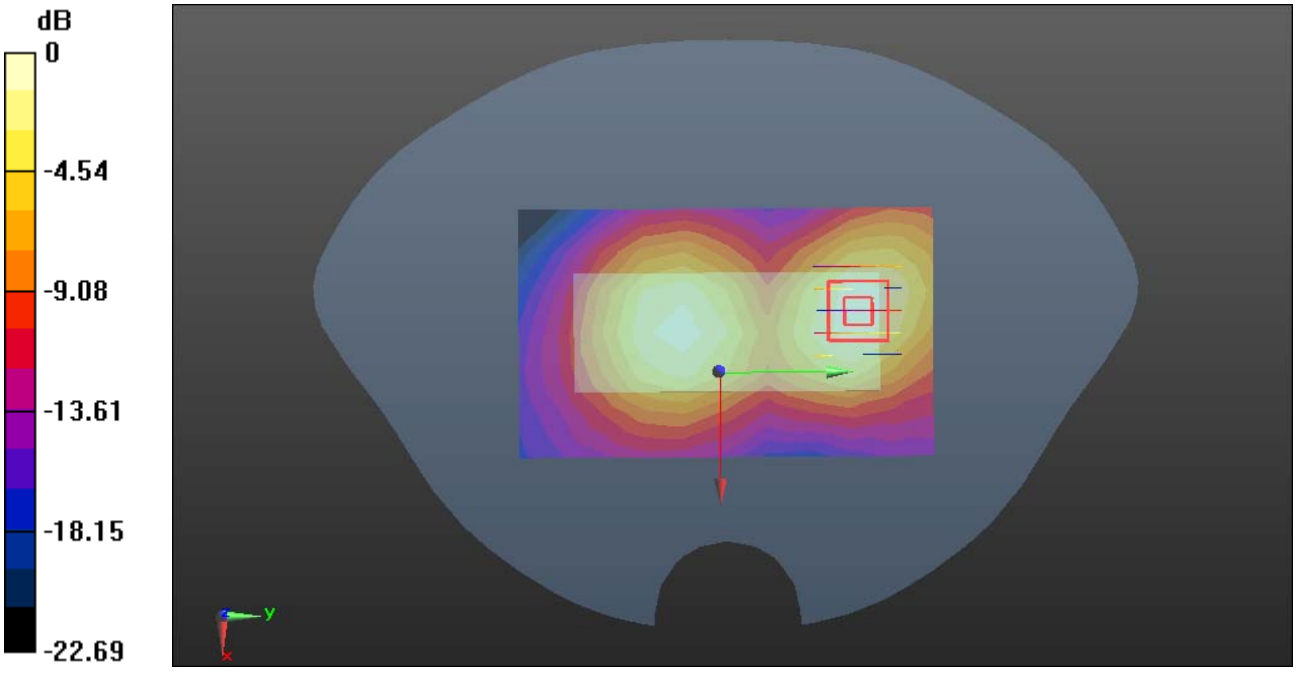
0 dB = 0.320 W/kg = -4.95 dBW/kg

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015
GPRS 1900-Body Front High CH810
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: PCS1900; Frequency: 1909.8 MHz;Duty Cycle: 1:2.0797
Medium parameters used: f = 1910 MHz; σ = 1.58 S/m; ε_r = 54.703; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.09, 7.09, 7.09); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

GPRS 1900/Body Front High CH810/Area Scan (11x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.246 W/kg

GPRS 1900/Body Front High CH810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.22 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.364 W/kg
SAR(1 g) = 0.189 W/kg; SAR(10 g) = 0.099 W/kg
Maximum value of SAR (measured) = 0.273 W/kg



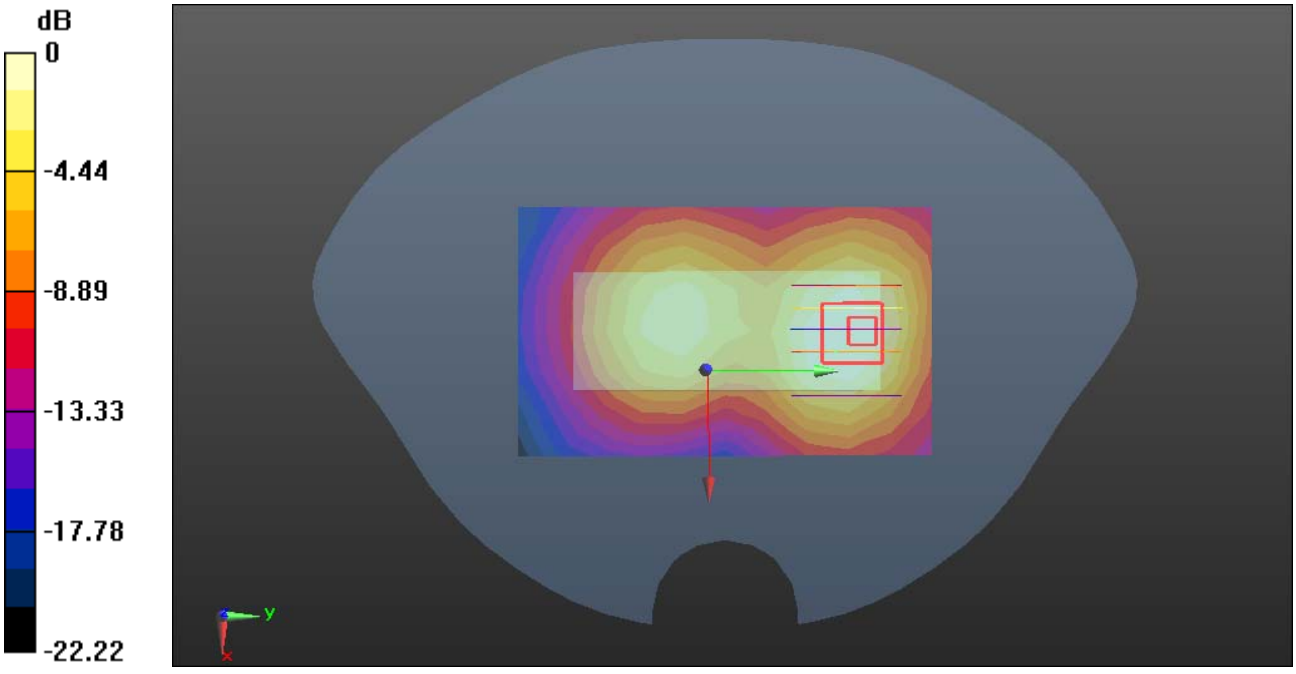
0 dB = 0.273 W/kg = -5.64 dBW/kg

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015
GPRS 1900-Body Rear High CH810
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: PCS1900; Frequency: 1909.8 MHz;Duty Cycle: 1:2.0797
Medium parameters used: f = 1910 MHz; σ = 1.58 S/m; ε_r = 54.703; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

- Probe: EX3DV4 - SN3798; ConvF(7.09, 7.09, 7.09); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

GPRS 1900/Body Rear High CH810/Area Scan (11x7x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.445 W/kg

GPRS 1900/Body Rear High CH810/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.59 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.654 W/kg
SAR(1 g) = 0.339 W/kg; SAR(10 g) = 0.190 W/kg
Maximum value of SAR (measured) = 0.478 W/kg



0 dB = 0.478 W/kg = -3.21 dBW/kg

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015
GSM 1900-Body Front Low CH512
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: PCS1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.552 S/m; ε_r = 54.892; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

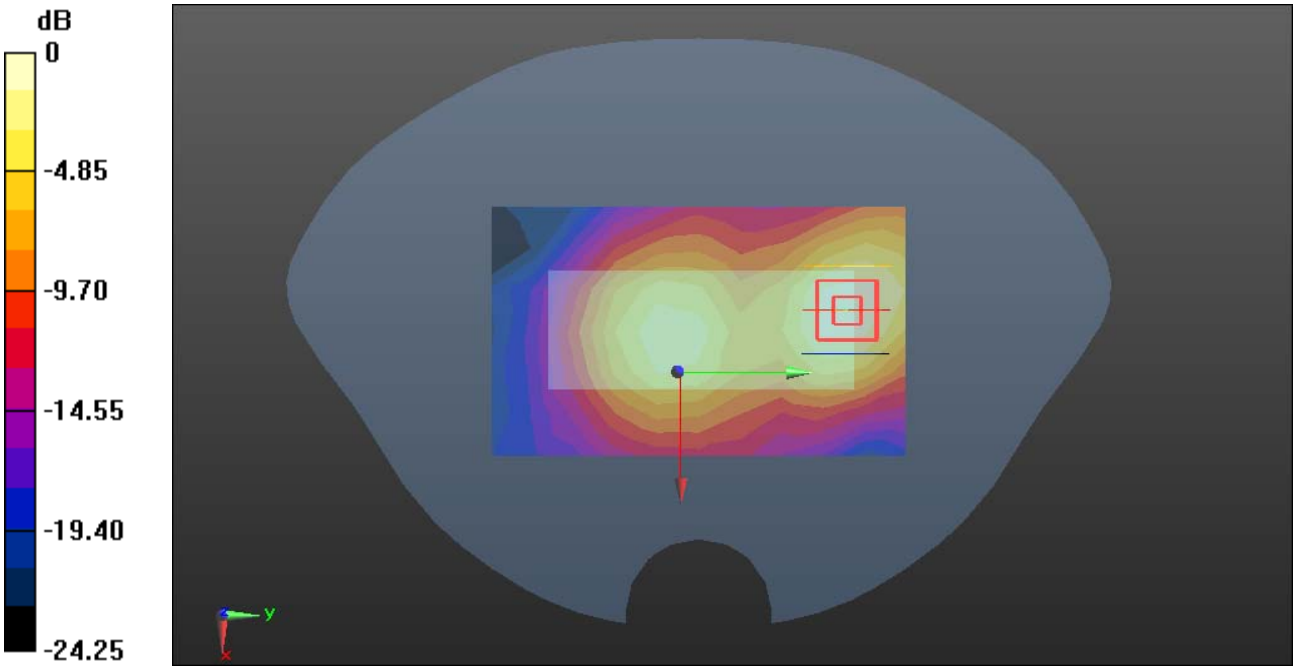
- Probe: EX3DV4 - SN3798; ConvF(7.09, 7.09, 7.09); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

GSM 1900/Body Front Low CH512/Area Scan (11x7x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.137 W/kg

GSM 1900/Body Front Low CH512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.886 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.209 W/kg
SAR(1 g) = 0.110 W/kg; SAR(10 g) = 0.058 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.158 W/kg



0 dB = 0.158 W/kg = -8.01 dBW/kg

Test Laboratory: Compliance Certification Services Inc. Date: 3/17/2015
GSM 1900-Body Rear Low CH512
DUT: ASTRO; Type: CL1839; Serial: 355981035605379
Communication System: UID 0, Generic GSM (0); Communication System Band: PCS1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.30042
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.552 S/m; ε_r = 54.892; ρ = 1000 kg/m^3
Room Ambient Temperature: 22°C; Liquid Temperature: 21.5°C
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY Configuration:

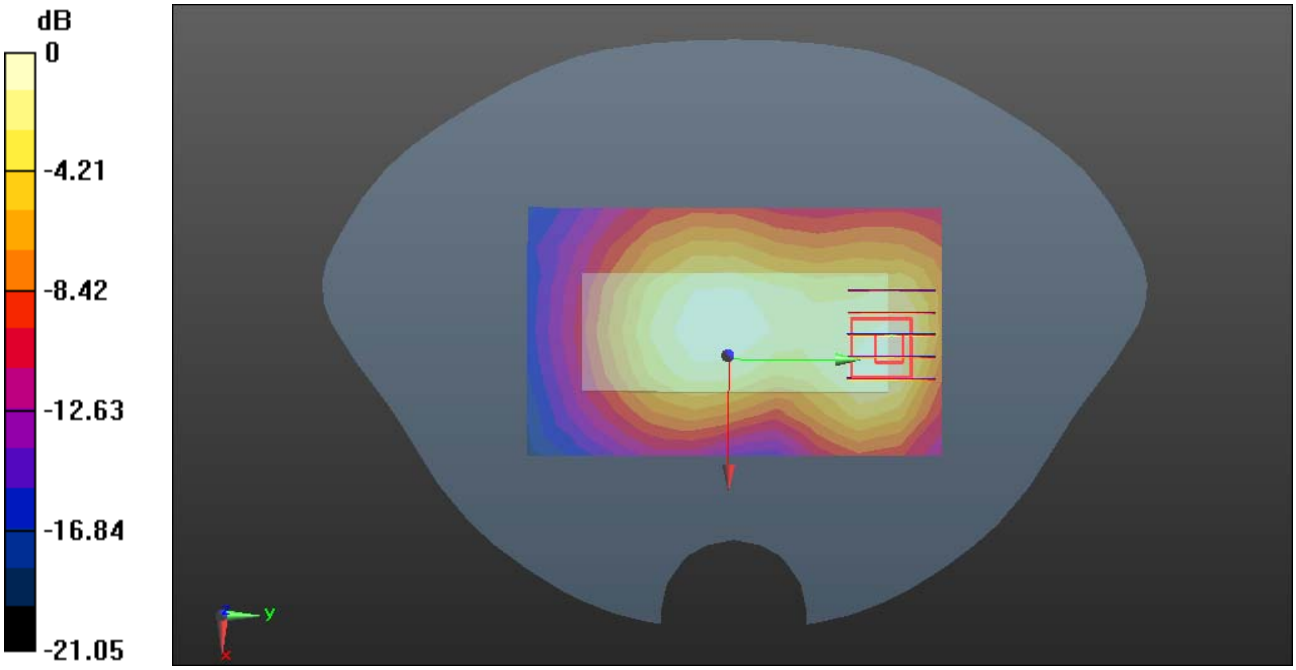
- Probe: EX3DV4 - SN3798; ConvF(7.09, 7.09, 7.09); Calibrated: 7/28/2014;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1245; Calibrated: 7/22/2014
- Phantom: Twin SAM Phantom; Type: QD 000 P40 CD; Serial: 1609
- DASY52 52.8.8(1222);
- SEMCAD X Version 14.6.10 (7331)

GSM 1900/Body Rear Low CH512/Area Scan (11x7x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.263 W/kg

GSM 1900/Body Rear Low CH512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.27 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.362 W/kg
SAR(1 g) = 0.190 W/kg; SAR(10 g) = 0.101 W/kg

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.270 W/kg



0 dB = 0.270 W/kg = -5.69 dBW/kg