

Test Laboratory: Compliance Certification Services (UL CCS)

## GSM1900\_Left Hand Side

DUT: Samsung; Type: NA; Serial: NA

Communication System: PCS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8  
Medium parameters used (interpolated):  $f = 1850.2$  MHz;  $\sigma = 1.39$  mho/m;  $\epsilon_r = 40$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Left Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(7.36, 7.36, 7.36); Calibrated: 12/13/2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: SAM 2 (Twin); Type: SAM 2; Serial: 1050
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch\_L-ch/Area Scan (6x9x1):** Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.25 mW/g

**Touch\_L-ch/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

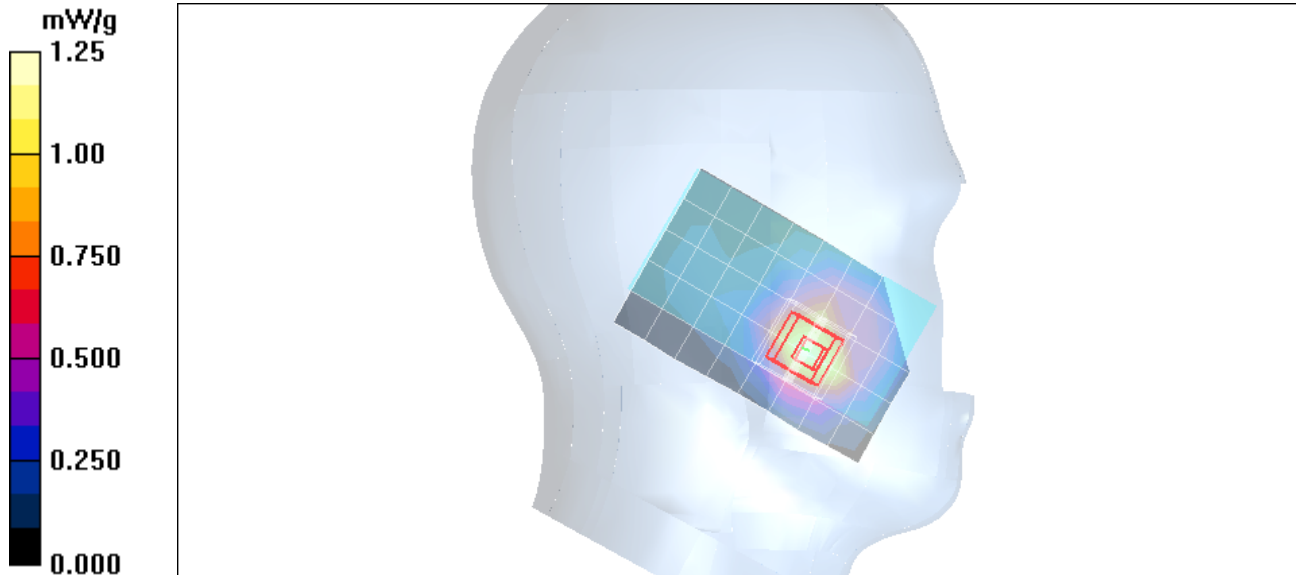
Reference Value = 30.6 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 1.66 W/kg

**SAR(1 g) = 1.13 mW/g; SAR(10 g) = 0.688 mW/g**

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.33 mW/g



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### GSM1900\_Left Hand Side

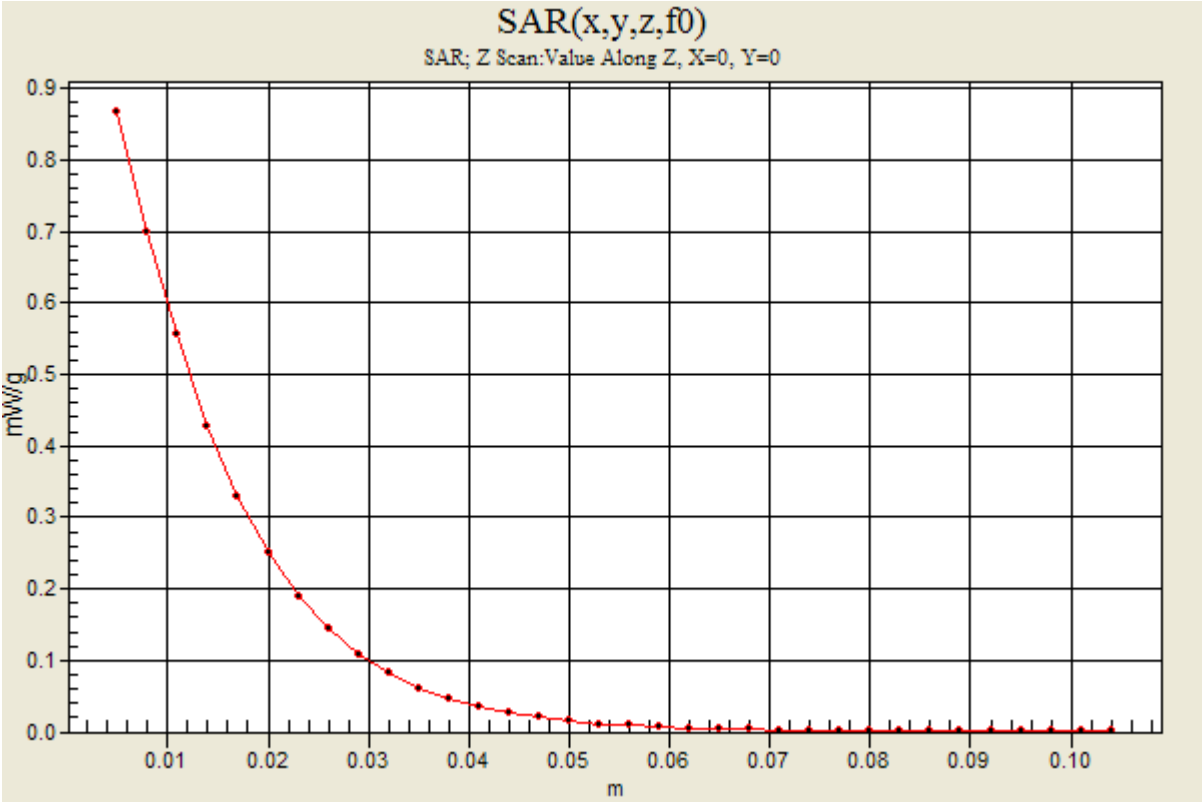
DUT: Samsung; Type: NA; Serial: NA

Communication System: PCS1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8

**Touch\_L-ch/Z Scan (1x1x34):** Measurement grid: dx=20mm, dy=20mm, dz=3mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.867 mW/g



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## GSM1900\_Left Hand Side

DUT: Samsung; Type: NA; Serial: NA

Communication System: PCS1900; Frequency: 1880 MHz; Duty Cycle: 1:8  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 39.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Left Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(7.36, 7.36, 7.36); Calibrated: 12/13/2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: SAM 2 (Twin); Type: SAM 2; Serial: 1050
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch\_M-ch/Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.942 mW/g

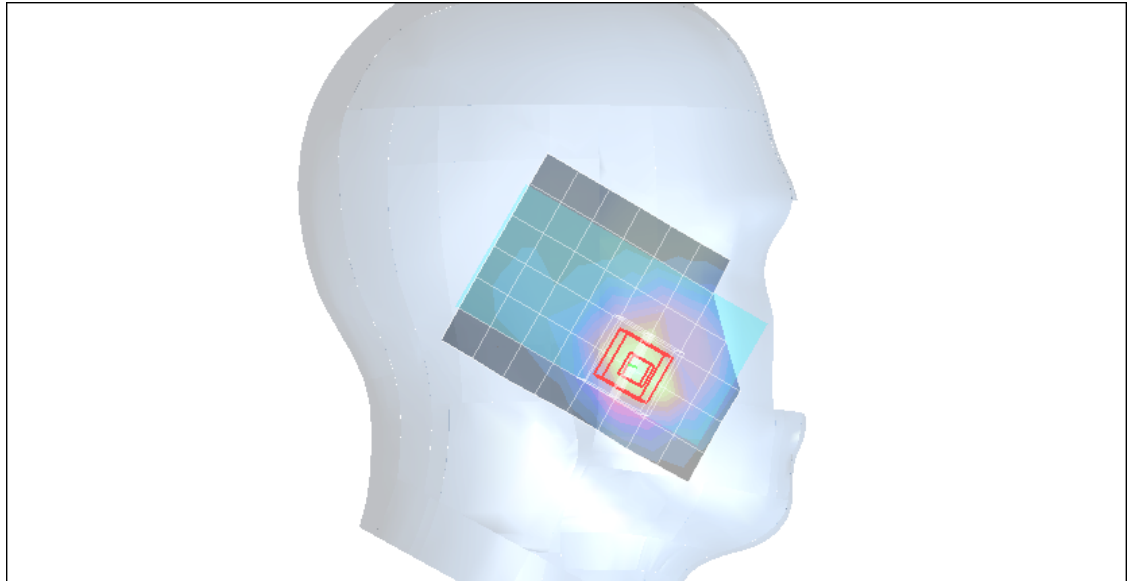
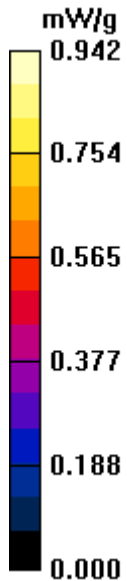
**Touch\_M-ch/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 26.2 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 1.22 W/kg

**SAR(1 g) = 0.840 mW/g; SAR(10 g) = 0.509 mW/g**

Maximum value of SAR (measured) = 0.978 mW/g



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### GSM1900\_Left Hand Side

DUT: Samsung; Type: NA; Serial: NA

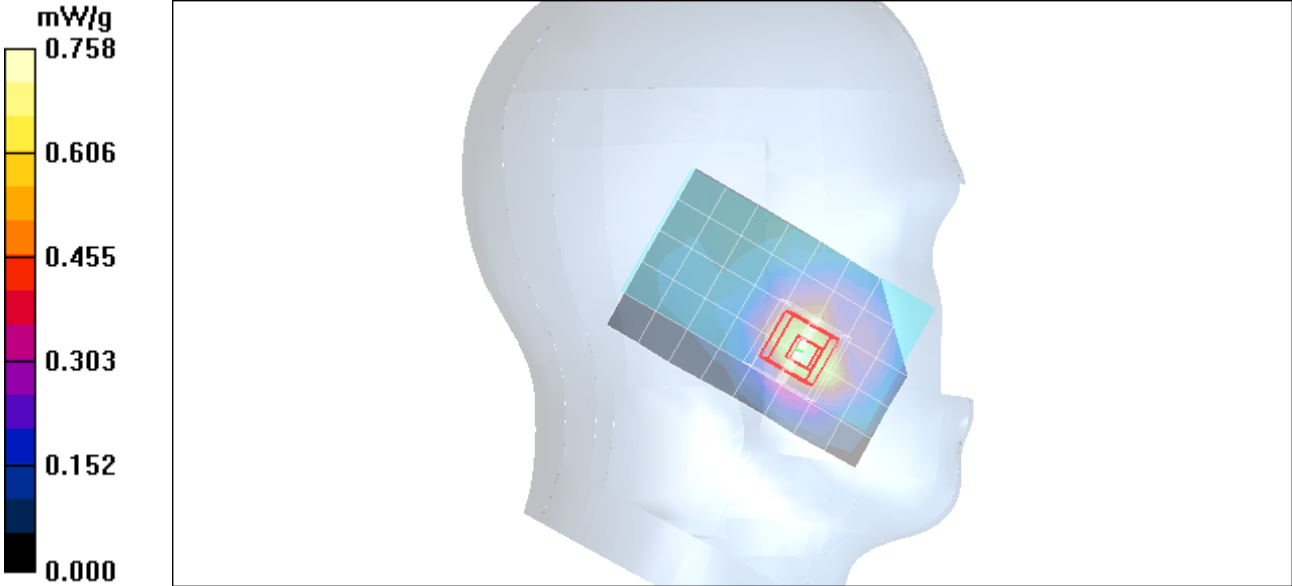
Communication System: PCS1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8  
Medium parameters used:  $f = 1910 \text{ MHz}$ ;  $\sigma = 1.45 \text{ mho/m}$ ;  $\epsilon_r = 39.8$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Left Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

- DASY4 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
  - Probe: EX3DV4 - SN3749; ConvF(7.36, 7.36, 7.36); Calibrated: 12/13/2010
  - Sensor-Surface: 3mm (Mechanical Surface Detection)
  - Electronics: DAE3 Sn427; Calibrated: 7/21/2010
  - Phantom: SAM 2 (Twin); Type: SAM 2; Serial: 1050
  - Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch\_H-ch/Area Scan (6x9x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.758 mW/g

**Touch\_H-ch/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm  
Reference Value = 23.2 V/m; Power Drift = 0.056 dB  
Peak SAR (extrapolated) = 0.990 W/kg  
**SAR(1 g) = 0.675 mW/g; SAR(10 g) = 0.405 mW/g**  
Maximum value of SAR (measured) = 0.793 mW/g



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### GSM1900\_Left Hand Side

DUT: Samsung; Type: NA; Serial: NA

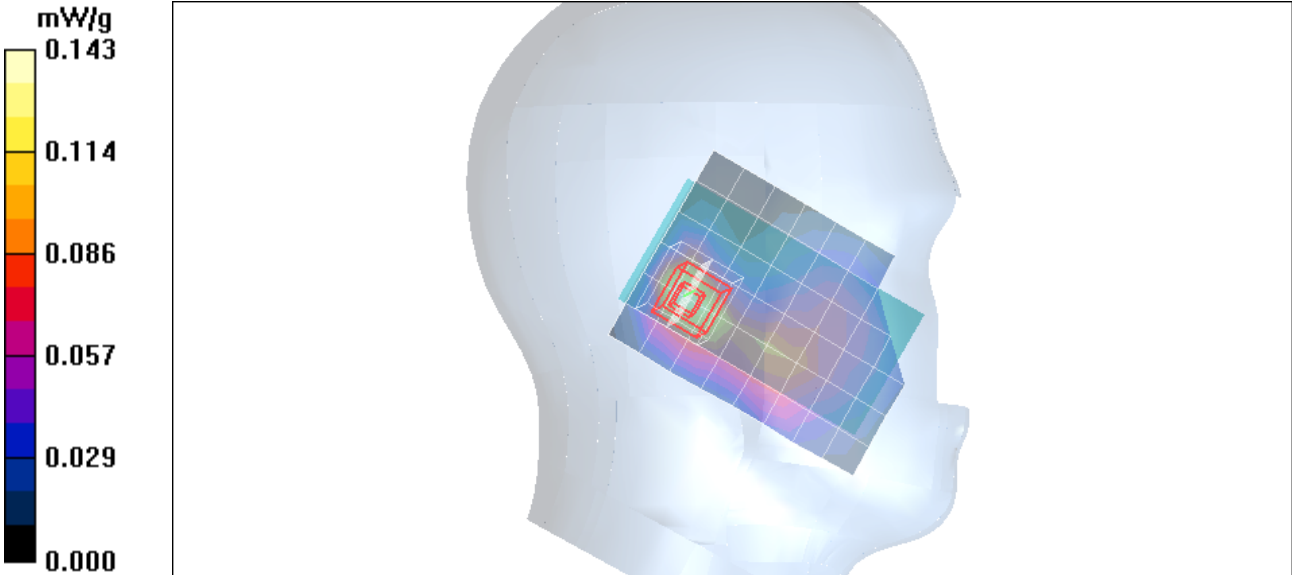
Communication System: PCS1900; Frequency: 1880 MHz; Duty Cycle: 1:8  
Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.42 \text{ mho/m}$ ;  $\epsilon_r = 39.9$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Left Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

- DASY4 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
  - Probe: EX3DV4 - SN3749; ConvF(7.36, 7.36, 7.36); Calibrated: 12/13/2010
  - Sensor-Surface: 3mm (Mechanical Surface Detection)
  - Electronics: DAE3 Sn427; Calibrated: 7/21/2010
  - Phantom: SAM 2 (Twin); Type: SAM 2; Serial: 1050
  - Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Tilt\_M-ch/Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.143 mW/g

**Tilt\_M-ch/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm  
Reference Value = 10.1 V/m; Power Drift = 0.043 dB  
Peak SAR (extrapolated) = 0.220 W/kg  
**SAR(1 g) = 0.133 mW/g; SAR(10 g) = 0.075 mW/g**  
Maximum value of SAR (measured) = 0.165 mW/g



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### GSM1900\_Right Hand Side

DUT: Samsung; Type: NA; Serial: NA

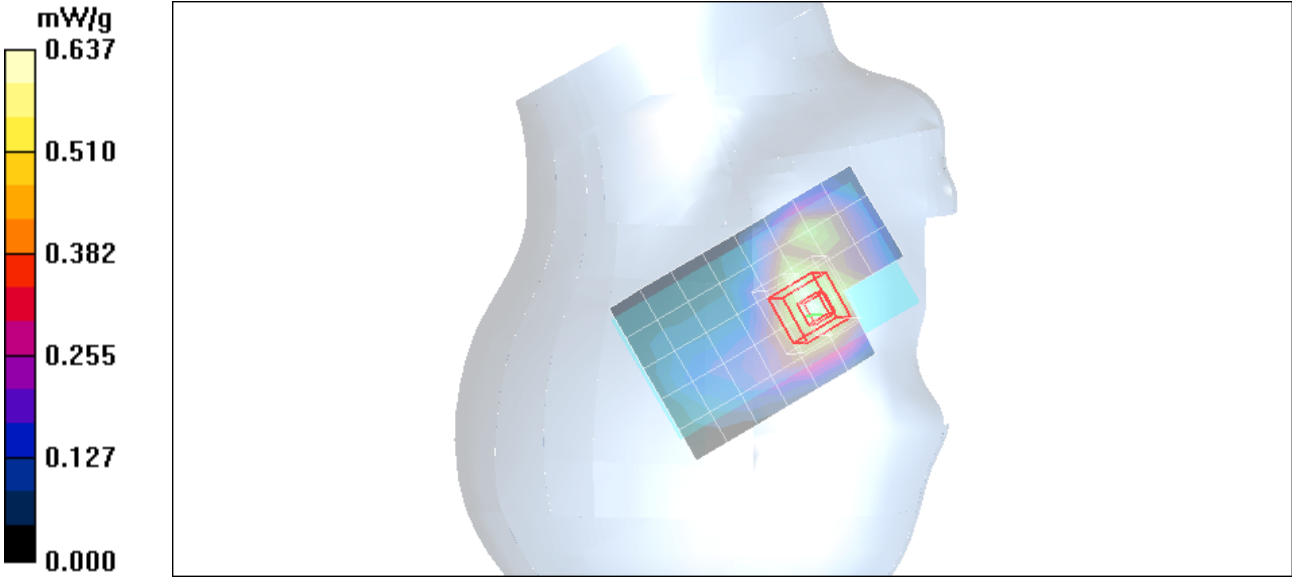
Communication System: PCS1900; Frequency: 1880 MHz; Duty Cycle: 1:8  
Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.42 \text{ mho/m}$ ;  $\epsilon_r = 39.9$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Right Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

- DASY4 Configuration:
- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
  - Probe: EX3DV4 - SN3749; ConvF(7.36, 7.36, 7.36); Calibrated: 12/13/2010
  - Sensor-Surface: 3mm (Mechanical Surface Detection)
  - Electronics: DAE3 Sn427; Calibrated: DAE not calibrated
  - Phantom: SAM 2 (Twin); Type: SAM 2; Serial: 1050
  - Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Touch\_M-ch/Area Scan (6x9x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.637 mW/g

**Touch\_M-ch/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm  
Reference Value = 21.5 V/m; Power Drift = -0.099 dB  
Peak SAR (extrapolated) = 0.817 W/kg  
**SAR(1 g) = 0.563 mW/g; SAR(10 g) = 0.361 mW/g**  
Maximum value of SAR (measured) = 0.645 mW/g



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## GSM1900\_Right Hand Side

DUT: Samsung; Type: NA; Serial: NA

Communication System: PCS1900; Frequency: 1880 MHz; Duty Cycle: 1:8  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 39.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Right Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(7.36, 7.36, 7.36); Calibrated: 12/13/2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: DAE not calibrated
- Phantom: SAM 2 (Twin); Type: SAM 2; Serial: 1050
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Tilt\_M-ch/Area Scan (6x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.220 mW/g

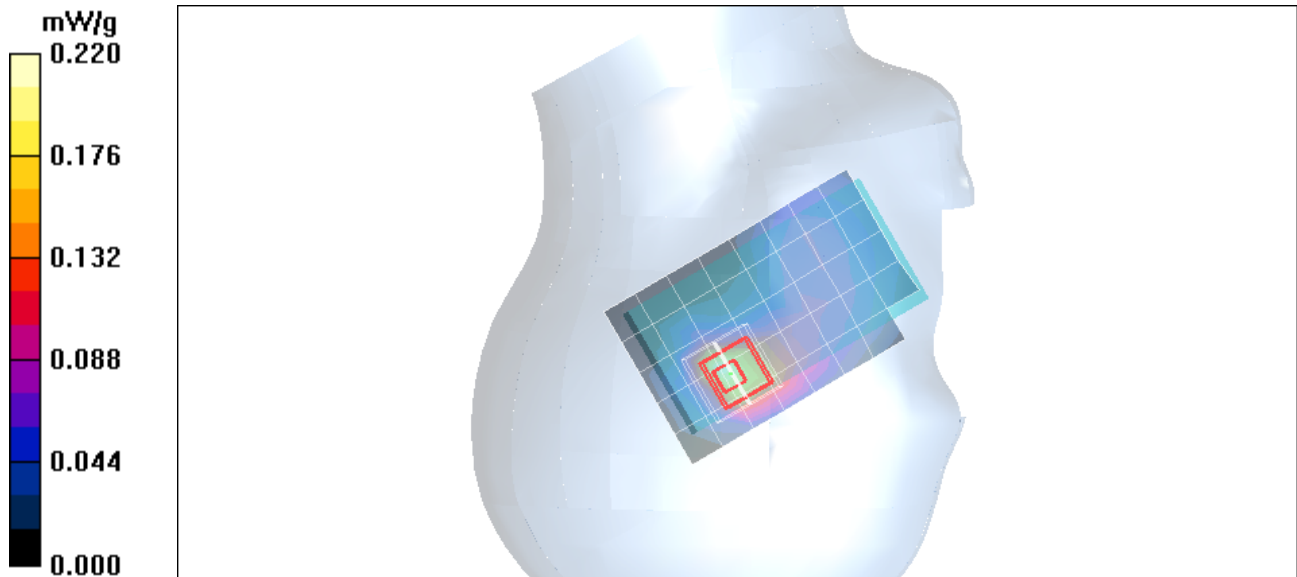
**Tilt\_M-ch/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 12.6 V/m; Power Drift = -0.026 dB

Peak SAR (extrapolated) = 0.333 W/kg

**SAR(1 g) = 0.201 mW/g; SAR(10 g) = 0.112 mW/g**

Maximum value of SAR (measured) = 0.245 mW/g



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## GSM1900\_Body

DUT: Samsung; Type: NA; Serial: NA

Communication System: PCS1900; Frequency: 1880 MHz; Duty Cycle: 1:4  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.47$  mho/m;  $\epsilon_r = 51.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

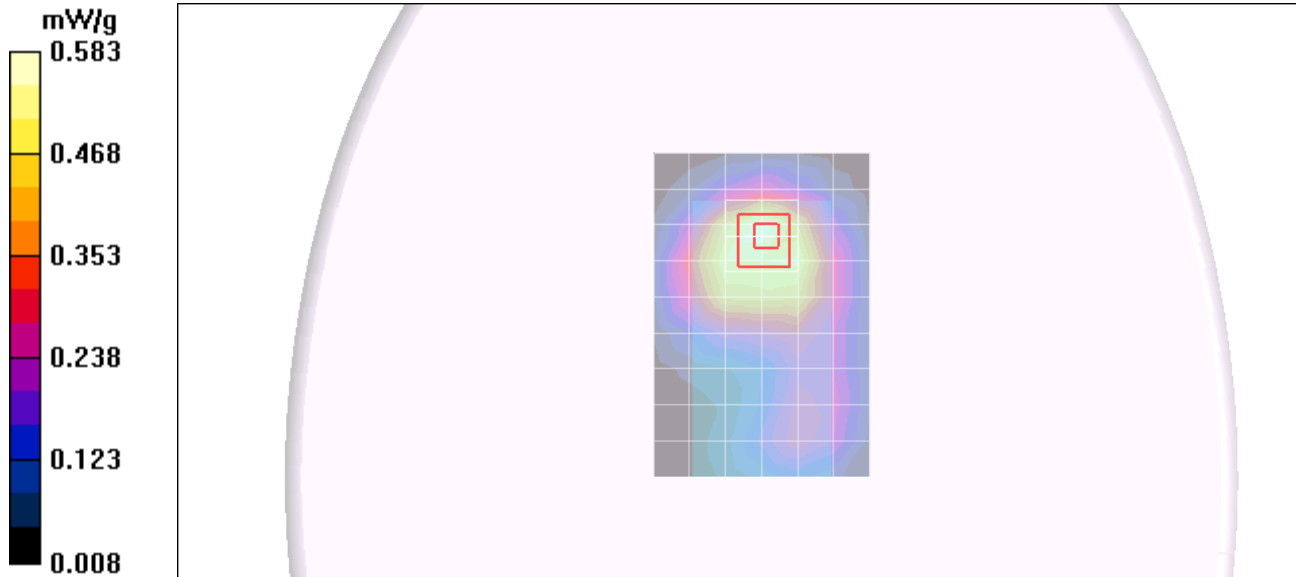
Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(7.33, 7.33, 7.33); Calibrated: 12/13/2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: DAE not calibrated
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Face up\_M-ch/Area Scan (7x10x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.583 mW/g

**Face up\_M-ch/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm  
Reference Value = 8.31 V/m; Power Drift = -0.049 dB  
Peak SAR (extrapolated) = 0.788 W/kg  
**SAR(1 g) = 0.507 mW/g; SAR(10 g) = 0.320 mW/g**  
Maximum value of SAR (measured) = 0.597 mW/g



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## GSM1900\_Body

DUT: Samsung; Type: NA; Serial: NA

Communication System: PCS1900; Frequency: 1880 MHz; Duty Cycle: 1:4  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.47$  mho/m;  $\epsilon_r = 51.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(7.33, 7.33, 7.33); Calibrated: 12/13/2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: DAE not calibrated
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Face down\_M-ch/Area Scan (7x10x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.633 mW/g

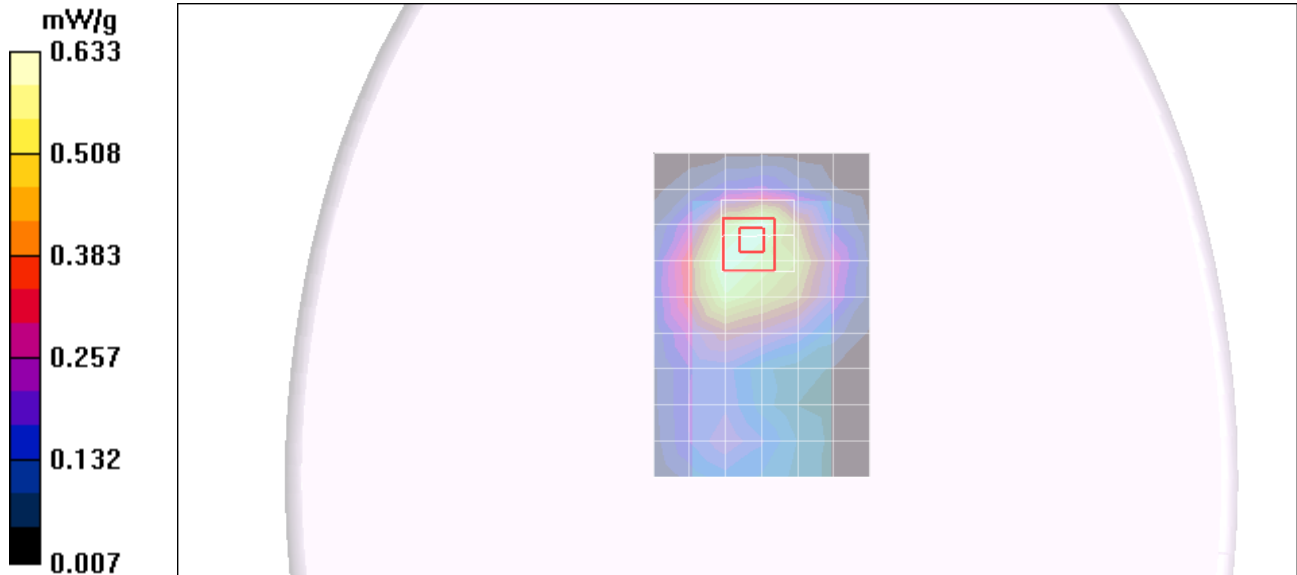
**Face down\_M-ch/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 9.49 V/m; Power Drift = 0.180 dB

Peak SAR (extrapolated) = 0.947 W/kg

**SAR(1 g) = 0.613 mW/g; SAR(10 g) = 0.375 mW/g**

Maximum value of SAR (measured) = 0.721 mW/g



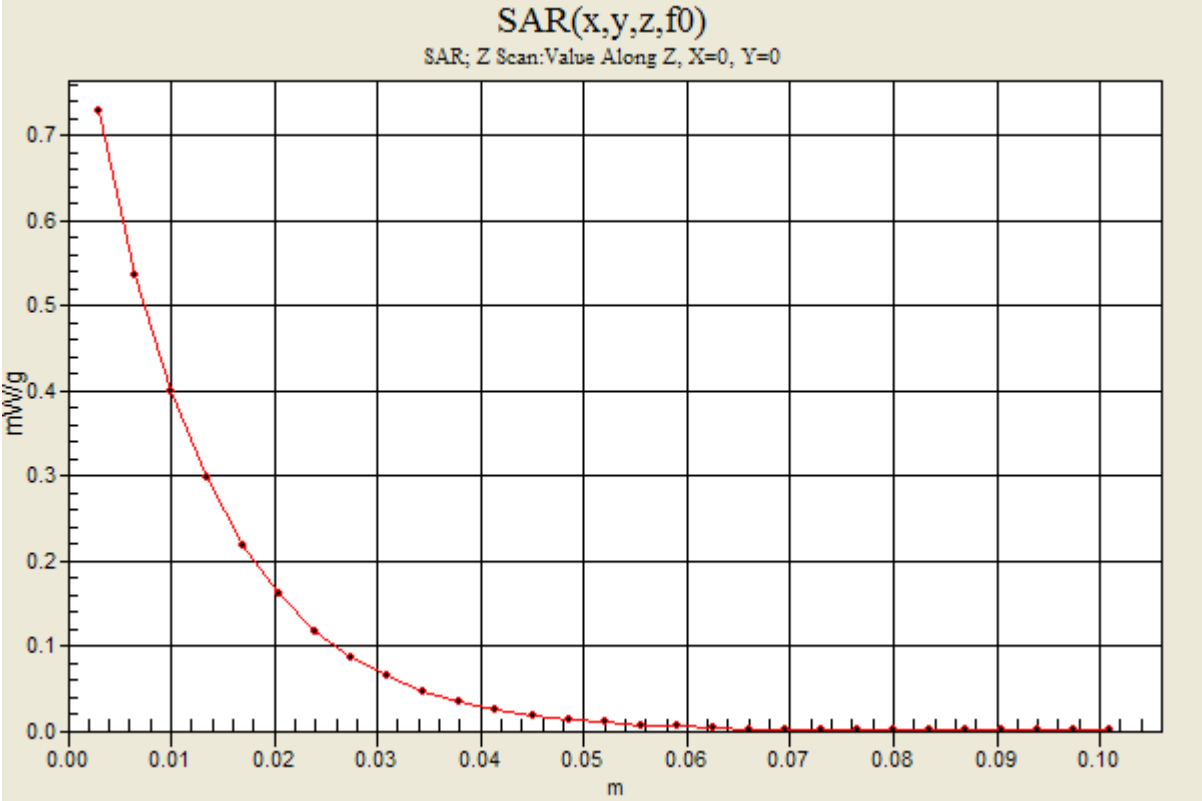
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### GSM1900\_Body

DUT: Samsung; Type: NA; Serial: NA

Communication System: PCS1900; Frequency: 1880 MHz;Duty Cycle: 1:4

**Face down\_M-ch/Z Scan (1x1x29):** Measurement grid: dx=20mm, dy=20mm, dz=3.5mm  
Maximum value of SAR (measured) = 0.729 mW/g



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## GSM1900\_Body

DUT: Samsung; Type: NA; Serial: NA

Communication System: PCS1900; Frequency: 1880 MHz; Duty Cycle: 1:4  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.47$  mho/m;  $\epsilon_r = 51.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(7.33, 7.33, 7.33); Calibrated: 12/13/2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: DAE not calibrated
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Face down\_M-ch w/headset/Area Scan (7x10x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.586 mW/g

**Face down\_M-ch w/headset/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm,

dz=3mm

Reference Value = 8.50 V/m; Power Drift = 0.127 dB

Peak SAR (extrapolated) = 0.856 W/kg

**SAR(1 g) = 0.549 mW/g; SAR(10 g) = 0.330 mW/g**

Maximum value of SAR (measured) = 0.660 mW/g

