

APPENDIX G

Plots of The SAR Measurements

SAMSUNG FCC ID : A3LSGHD510 -- GSM1900 Head SAR

DUT: SGH-D510(Down); Serial: FC-086-C

Program Name: SGH-D510 GSM1900 Right (Slide.Down, Job No. : FC-086)

Procedure Name: Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard

Procedure Notes: Meas.Tissue Temp(celsius)-21.2; Test Date-20/June/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.44 \text{ mho/m}$; $\epsilon_r = 39.9$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:

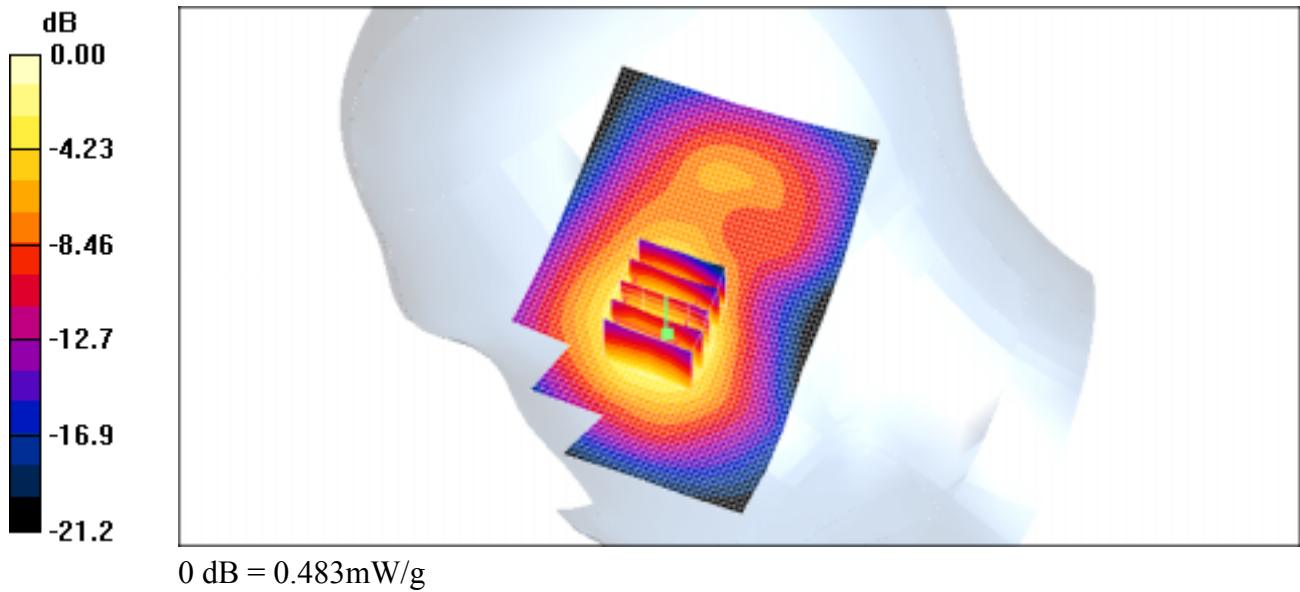
- Probe: EX3DV4 - SN3537; ConvF(8.29, 8.29, 8.29); Calibrated: 2004-12-15
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn468; Calibrated: 2004-12-07
- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1248
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

$dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 7.91 V/m; Power Drift = -0.103 dB
Peak SAR (extrapolated) = 0.633 W/kg
SAR(1 g) = 0.432 mW/g
Maximum value of SAR (measured) = 0.470 mW/g

Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid: $dx=20\text{mm}$,

$dy=20\text{mm}$
Maximum value of SAR (interpolated) = 0.483 mW/g



SAMSUNG FCC ID : A3LSGHD510 -- GSM1900 Head SAR

DUT: SGH-D510(Up); Serial: FC-086-C

Program Name: SGH-D510 GSM1900 Right (Slide.Up, Job No. : FC-086)

Procedure Name: Ear/Tilt, Ch.661, Ant.Intenna, Bat.Standard

Procedure Notes: Meas.Tissue Temp(celsius)-21.2; Test Date-20/June/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.44 \text{ mho/m}$; $\epsilon_r = 39.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3537; ConvF(8.29, 8.29, 8.29); Calibrated: 2004-12-15
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn468; Calibrated: 2004-12-07
- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1248
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Ear/Tilt, Ch.661, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 7.30 V/m; Power Drift = -0.153 dB

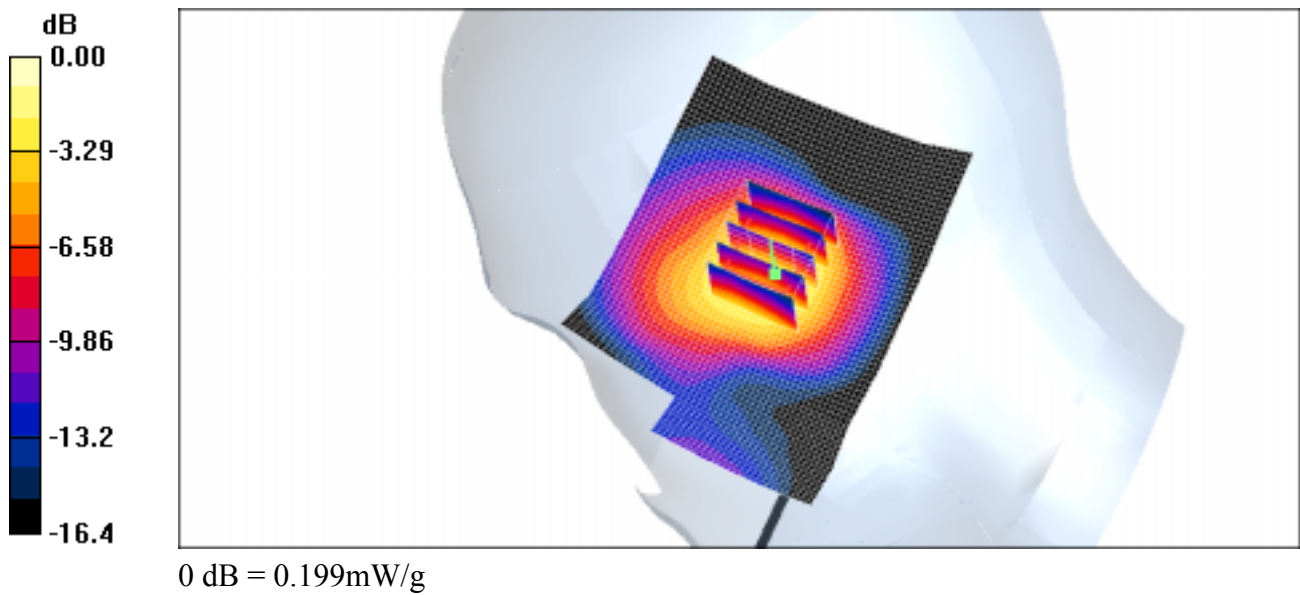
Peak SAR (extrapolated) = 0.259 W/kg

SAR(1 g) = 0.170 mW/g

Maximum value of SAR (measured) = 0.184 mW/g

Ear/Tilt, Ch.661, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.199 mW/g



SAMSUNG FCC ID : A3LSGHD510 -- GSM1900 Head SAR

DUT: SGH-D510(Down); Serial: FC-086-C

Program Name: SGH-D510 GSM1900 Left (Slide.Down, Job No. : FC-086)

Procedure Name: Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard

Procedure Notes: Meas.Tissue Temp(celsius)-21.2; Test Date-20/June/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.38 \text{ mho/m}$; $\epsilon_r = 38.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3537; ConvF(8.29, 8.29, 8.29); Calibrated: 2004-12-15
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn468; Calibrated: 2004-12-07
- Phantom: SAM 835/900 MHz; Type: SAM; Serial: TP-1247
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.682 mW/g

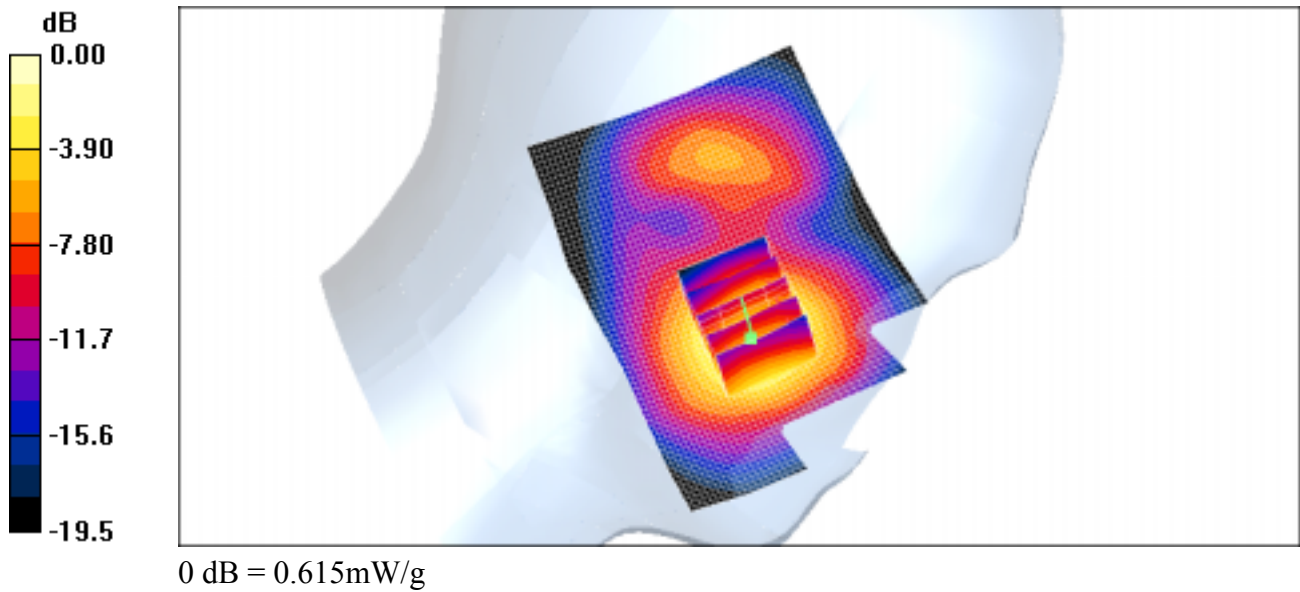
Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.83 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.858 W/kg

SAR(1 g) = 0.574 mW/g

Maximum value of SAR (measured) = 0.615 mW/g



SAMSUNG FCC ID : A3LSGHD510 -- GSM1900 Head SAR

DUT: SGH-D510(Up); Serial: FC-086-C

Program Name: SGH-D510 GSM1900 Left (Slide.Up, Job No. : FC-086)

Procedure Name: Ear/Tilt, Ch.661, Ant.Intenna, Bat.Standard

Procedure Notes: Meas.Tissue Temp(celsius)-21.2; Test Date-20/June/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.38 \text{ mho/m}$; $\epsilon_r = 38.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3537; ConvF(8.29, 8.29, 8.29); Calibrated: 2004-12-15
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn468; Calibrated: 2004-12-07
- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1248
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Ear/Tilt, Ch.661, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.29 V/m; Power Drift = -0.062 dB

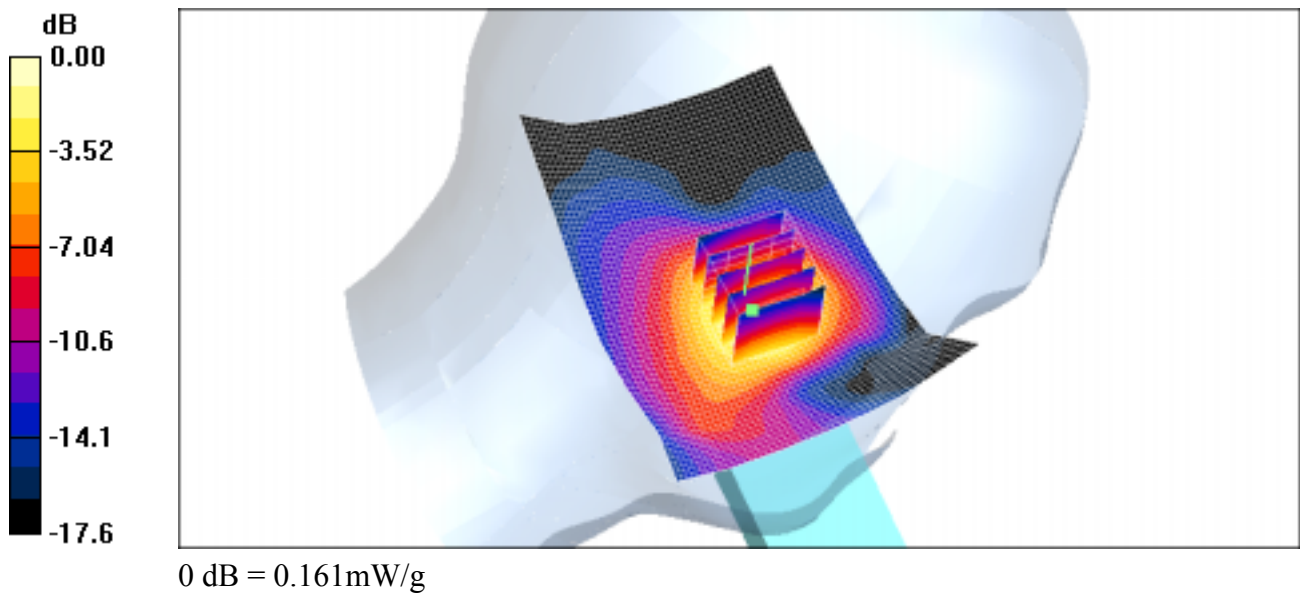
Peak SAR (extrapolated) = 0.221 W/kg

SAR(1 g) = 0.146 mW/g

Maximum value of SAR (measured) = 0.152 mW/g

Ear/Tilt, Ch.661, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.161 mW/g



SAMSUNG FCC ID : A3LSGHD510 -- GSM1900 Head SAR

DUT: SGH-D510(Down); Serial: FC-086-C

Program Name: SGH-D510 GSM1900 Left (Slide.Down, Job No. : FC-086)

Procedure Name: Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard With BT on

Procedure Notes: Meas.Tissue Temp(celsius)-21.2; Test Date-20/June/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.38 \text{ mho/m}$; $\epsilon_r = 38.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3537; ConvF(8.29, 8.29, 8.29); Calibrated: 2004-12-15
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn468; Calibrated: 2004-12-07
- Phantom: SAM 835/900 MHz; Type: SAM; Serial: TP-1247
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard With BT on/Area Scan (51x71x1): Measurement grid:

$dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.625 mW/g

Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard With BT on/Zoom Scan (5x5x7)/Cube 0:

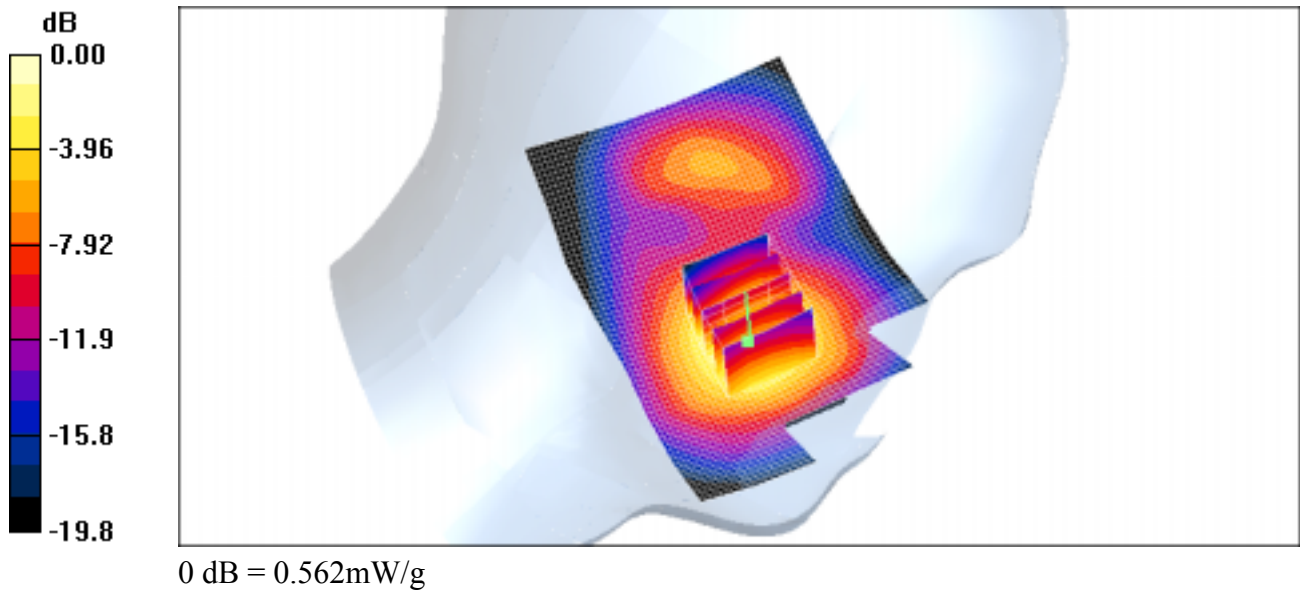
Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.88 V/m; Power Drift = 0.134 dB

Peak SAR (extrapolated) = 0.771 W/kg

SAR(1 g) = 0.523 mW/g

Maximum value of SAR (measured) = 0.562 mW/g



SAMSUNG FCC ID : A3LSGHD510 -- GPRS1900 Body SAR

DUT: SGH-D510(Down); Serial: FC-086-C

Program Name: SGH-D510 GSM1900 Body (Job No. : FC-086)

Procedure Name: Body, Ch.810, Ant.Intenna, Bat.Standard

Procedure Notes: Meas.Tissue Temp(celsius)-21.2; Test Date-20/June/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: Body GPRS ; Frequency: 1909.8 MHz;Duty Cycle: 1:4.15

Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.53 \text{ mho/m}$; $\epsilon_r = 51.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3537; ConvF(7.76, 7.76, 7.76); Calibrated: 2004-12-15
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn468; Calibrated: 2004-12-07
- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1248
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Body, Ch.810, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.07 V/m; Power Drift = -0.01 dB

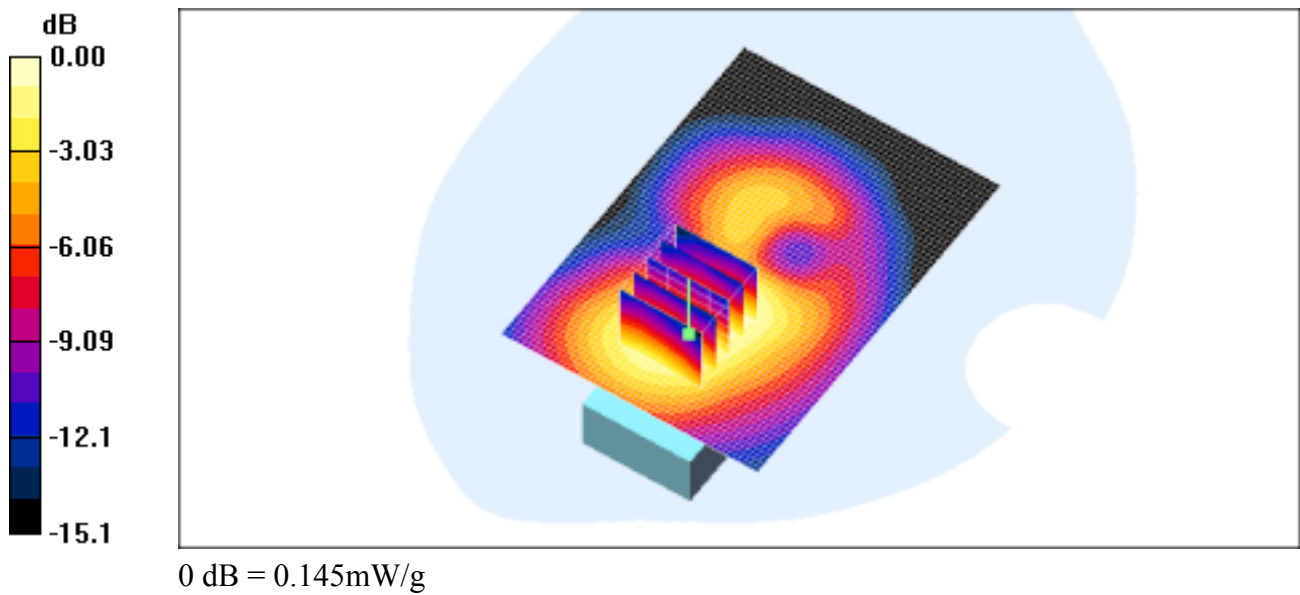
Peak SAR (extrapolated) = 0.189 W/kg

SAR(1 g) = 0.128 mWg

Maximum value of SAR (measured) = 0.139 mW/g

Body, Ch.810, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

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



SAMSUNG FCC ID : A3LSGHD510 -- GPRS1900 Body SAR

DUT: SGH-D510(Down); Serial: FC-086-C

Program Name: SGH-D510 GSM1900 Body (Job No. : FC-086)

Procedure Name: Body, Ch.810, Ant.Intenna, Bat.Standard With BT on

Procedure Notes: Meas.Tissue Temp(celsius)-21.2; Test Date-20/June/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: Body GPRS ; Frequency: 1909.8 MHz;Duty Cycle: 1:4.15

Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.53 \text{ mho/m}$; $\epsilon_r = 51.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3537; ConvF(7.76, 7.76, 7.76); Calibrated: 2004-12-15
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn468; Calibrated: 2004-12-07
- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1248
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Body, Ch.810, Ant.Intenna, Bat.Standard With BT on/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

$dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 5.83 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 0.175 W/kg

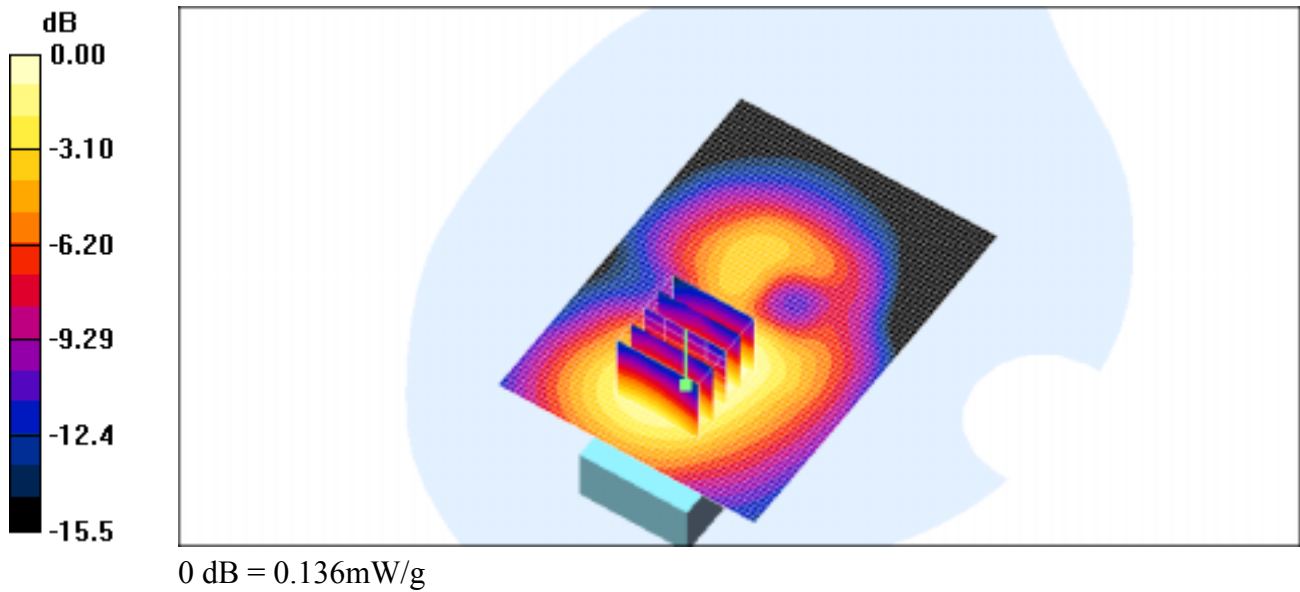
SAR(1 g) = 0.121 mW/g

Maximum value of SAR (measured) = 0.130 mW/g

Body, Ch.810, Ant.Intenna, Bat.Standard With BT on/Area Scan (51x71x1): Measurement grid: $dx=20\text{mm}$,

$dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.136 mW/g



SAMSUNG FCC ID : A3LSGHD510 -- GSM1900 Head SAR

DUT: SGH-D510(Down); Serial: FC-086-C

Program Name: SGH-D510 GSM1900 Left (Slide.Down, Job No. : FC-086)

Procedure Name: Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard

Procedure Notes: Meas.Tissue Temp(celsius)-21.2; Test Date-20/June/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.38 \text{ mho/m}$; $\epsilon_r = 38.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3537; ConvF(8.29, 8.29, 8.29); Calibrated: 2004-12-15
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn468; Calibrated: 2004-12-07
- Phantom: SAM 835/900 MHz; Type: SAM; Serial: TP-1247
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.682 mW/g

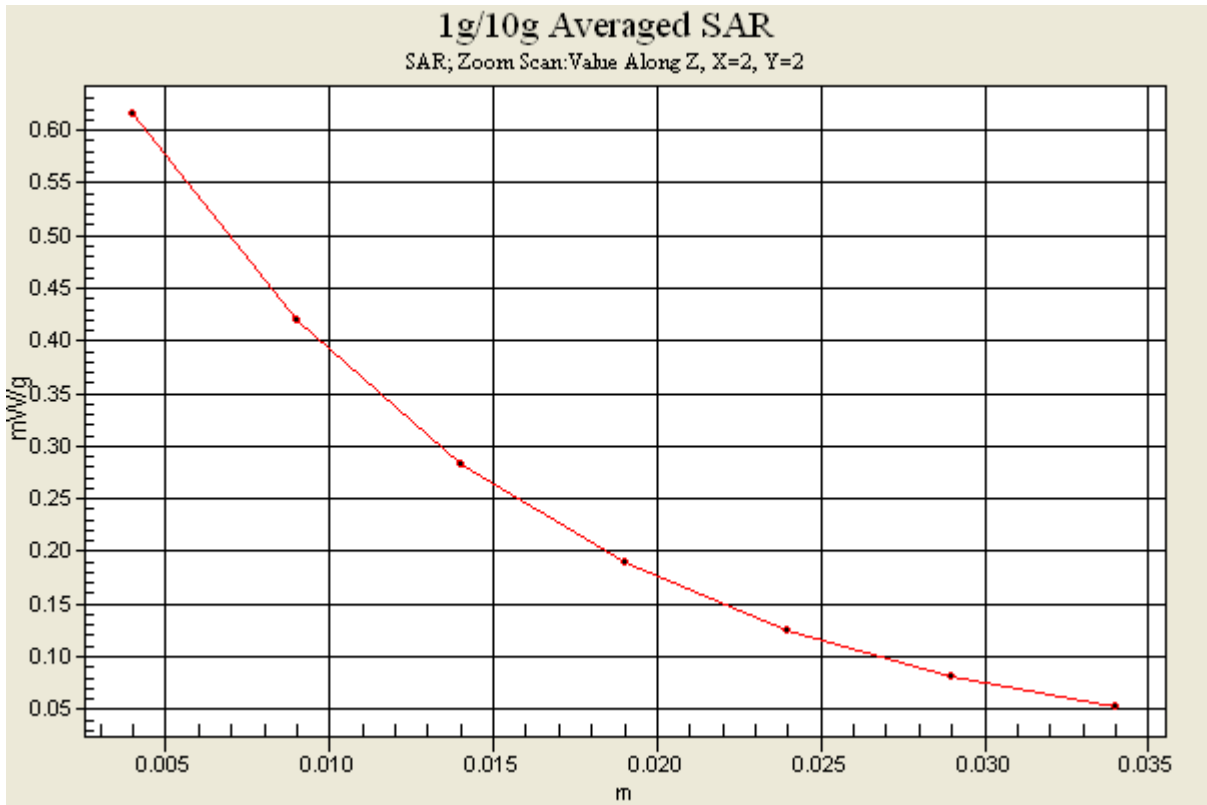
Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.83 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 0.858 W/kg

SAR(1 g) = 0.574 mW/g

Maximum value of SAR (measured) = 0.615 mW/g



SAMSUNG FCC ID : A3LSGHD510 -- GSM1900 Head SAR

DUT: SGH-D510(Down); Serial: FC-086-C

Program Name: SGH-D510 GSM1900 Left (Slide.Down, Job No. : FC-086)

Procedure Name: Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard With BT on

Procedure Notes: Meas.Tissue Temp(celsius)-21.2; Test Date-20/June/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: GSM 1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3

Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.38 \text{ mho/m}$; $\epsilon_r = 38.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3537; ConvF(8.29, 8.29, 8.29); Calibrated: 2004-12-15
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn468; Calibrated: 2004-12-07
- Phantom: SAM 835/900 MHz; Type: SAM; Serial: TP-1247
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard With BT on/Area Scan (51x71x1): Measurement grid:
 $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.625 mW/g

Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard With BT on/Zoom Scan (5x5x7)/Cube 0:

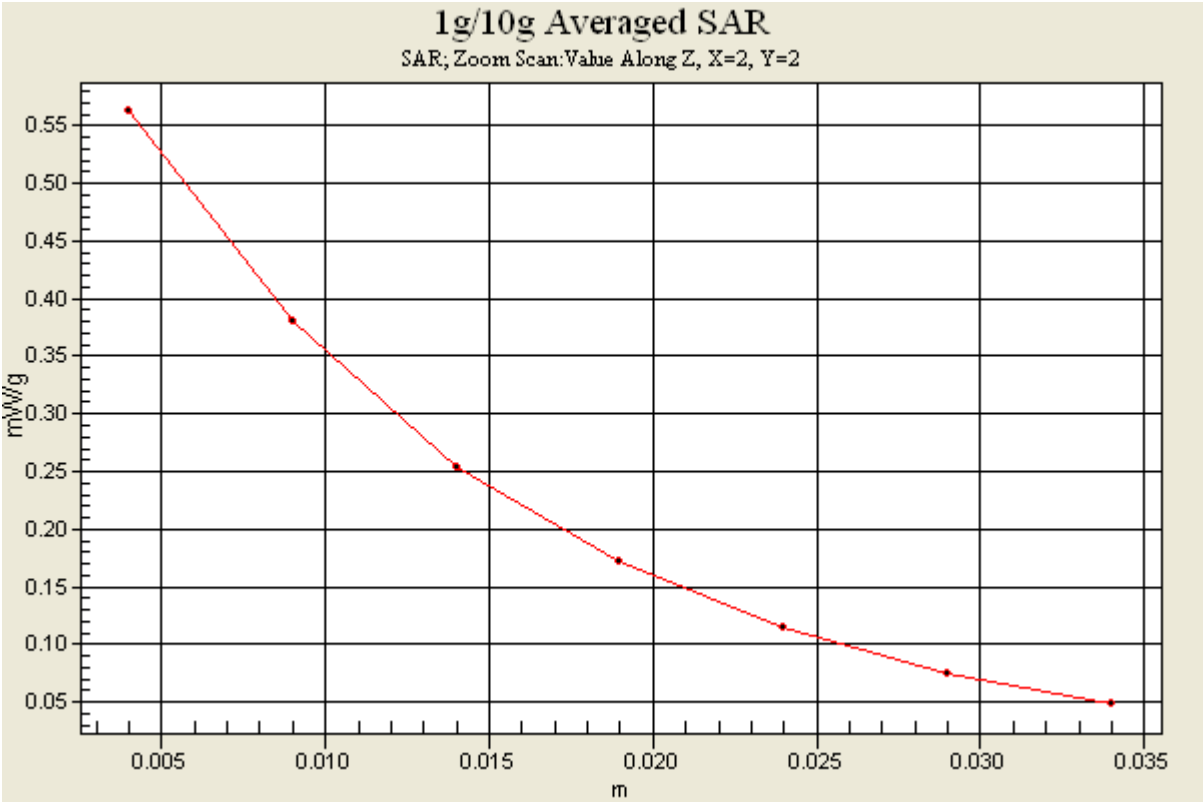
Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.88 V/m; Power Drift = 0.134 dB

Peak SAR (extrapolated) = 0.771 W/kg

SAR(1 g) = 0.523 mW/g

Maximum value of SAR (measured) = 0.562 mW/g



SAMSUNG FCC ID : A3LSGHD510 -- GPRS1900 Body SAR

DUT: SGH-D510(Down); Serial: FC-086-C

Program Name: SGH-D510 GSM1900 Body (Job No. : FC-086)

Procedure Name: Body, Ch.810, Ant.Intenna, Bat.Standard

Procedure Notes: Meas.Tissue Temp(celsius)-21.2; Test Date-20/June/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: Body GPRS ; Frequency: 1909.8 MHz;Duty Cycle: 1:4.15

Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.53 \text{ mho/m}$; $\epsilon_r = 51.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3537; ConvF(7.76, 7.76, 7.76); Calibrated: 2004-12-15
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn468; Calibrated: 2004-12-07
- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1248
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Body, Ch.810, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.07 V/m; Power Drift = -0.01 dB

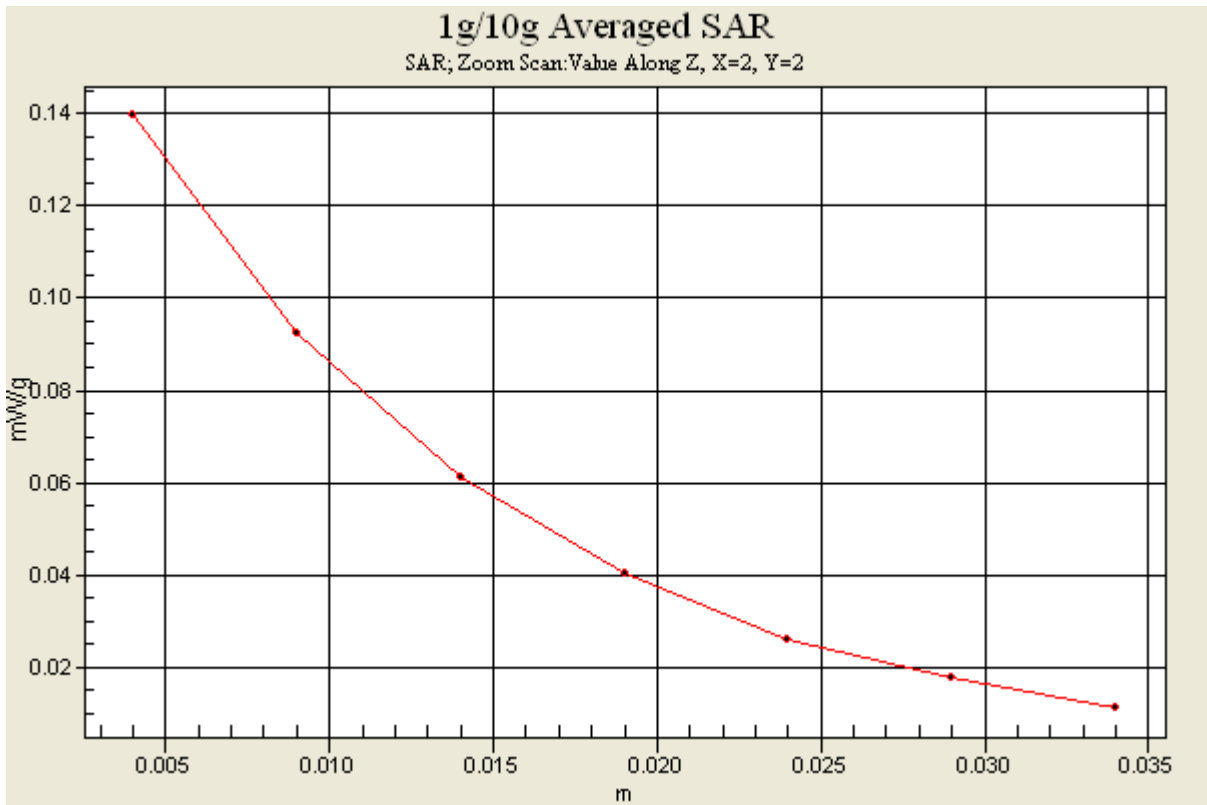
Peak SAR (extrapolated) = 0.189 W/kg

SAR(1 g) = 0.128 mW/g

Maximum value of SAR (measured) = 0.139 mW/g

Body, Ch.810, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid: dx=20mm, dy=20mm

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



SAMSUNG FCC ID : A3LSGHD510 -- GPRS1900 Body SAR

DUT: SGH-D510(Down); Serial: FC-086-C

Program Name: SGH-D510 GSM1900 Body (Job No. : FC-086)

Procedure Name: Body, Ch.810, Ant.Intenna, Bat.Standard With BT on

Procedure Notes: Meas.Tissue Temp(celsius)-21.2; Test Date-20/June/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: Body GPRS ; Frequency: 1909.8 MHz;Duty Cycle: 1:4.15

Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.53 \text{ mho/m}$; $\epsilon_r = 51.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3537; ConvF(7.76, 7.76, 7.76); Calibrated: 2004-12-15
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn468; Calibrated: 2004-12-07
- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1248
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Body, Ch.810, Ant.Intenna, Bat.Standard With BT on/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

$dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 5.83 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 0.175 W/kg

SAR(1 g) = 0.121 mW/g

Maximum value of SAR (measured) = 0.130 mW/g

Body, Ch.810, Ant.Intenna, Bat.Standard With BT on/Area Scan (51x71x1): Measurement grid: $dx=20\text{mm}$,

$dy=20\text{mm}$

Maximum value of SAR (interpolated) = 0.136 mW/g

