

SAMSUNG FCC ID : A3LSGHZ310 -- 1900MHz GSM1900 Head SAR

DUT: SGH-Z310; Serial: FC-137-A

Program Name: SGH-Z310 GSM1900 Right (Job No. : FC-137)

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

Procedure Notes: Meas.Tissue Temp(celsius)-22.3; Test Date-07/Oct/2005 [OET Bulletin 65-Supplement C, July 2001]

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

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3080; ConvF(4.92, 4.92, 4.92); Calibrated: 2005-05-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn670; Calibrated: 2005-04-05
- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

Maximum value of SAR (interpolated) = 0.644 mW/g

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

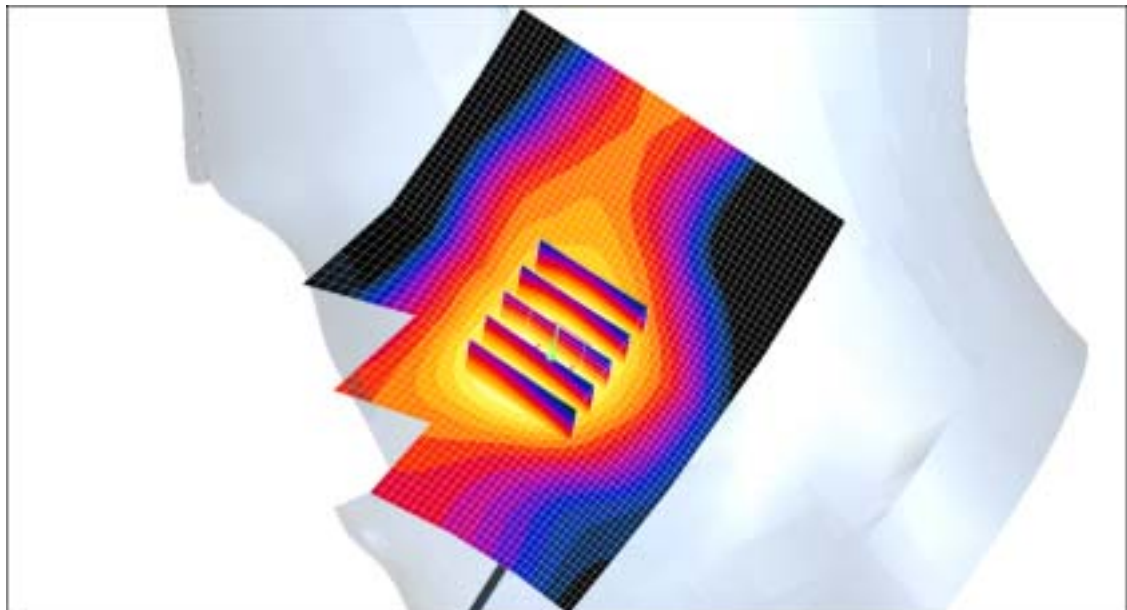
dy=8mm, dz=5mm

Reference Value = 7.87 V/m; Power Drift = -0.185 dB

Peak SAR (extrapolated) = 0.907 W/kg

SAR(1 g) = 0.551 mW/g

Maximum value of SAR (measured) = 0.573 mW/g



0 dB = 0.573mW/g

SAMSUNG FCC ID : A3LSGHZ310 -- 1900MHz GSM1900 Head SAR

DUT: SGH-Z310; Serial: FC-137-A

Program Name: SGH-Z310 GSM1900 Right (Job No. : FC-137)

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

Procedure Notes: Meas.Tissue Temp(celsius)-22.3; Test Date-07/Oct/2005 [OET Bulletin 65-Supplement C, July 2001]

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3080; ConvF(4.92, 4.92, 4.92); Calibrated: 2005-05-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn670; Calibrated: 2005-04-05
- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

Maximum value of SAR (interpolated) = 0.166 mW/g

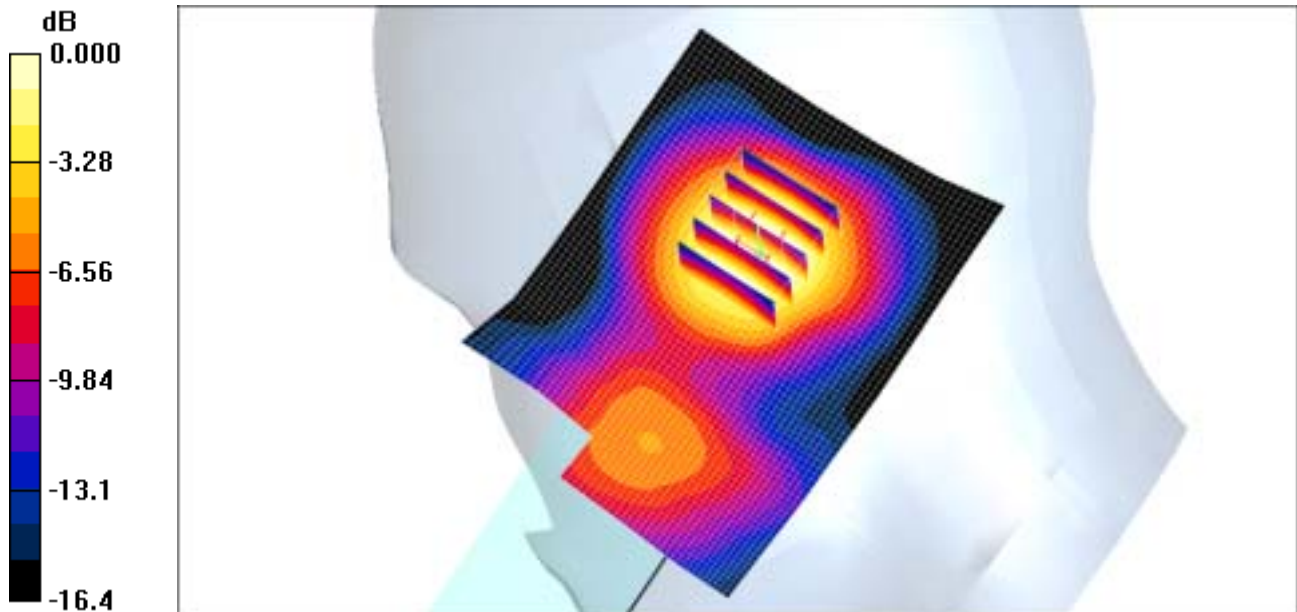
Ear/Tilt, Ch.661, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.87 V/m; Power Drift = -0.055 dB

Peak SAR (extrapolated) = 0.180 W/kg

SAR(1 g) = 0.127 mW/g

Maximum value of SAR (measured) = 0.133 mW/g



0 dB = 0.133mW/g

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Program Name: SGH-Z310 GSM1900 Left (Job No. : FC-137)

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

Procedure Notes: Meas.Tissue Temp(celsius)-22.3; Test Date-07/Oct/2005 [OET Bulletin 65-Supplement C, July 2001]

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

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3080; ConvF(4.92, 4.92, 4.92); Calibrated: 2005-05-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn670; Calibrated: 2005-04-05
- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

Maximum value of SAR (interpolated) = 0.486 mW/g

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

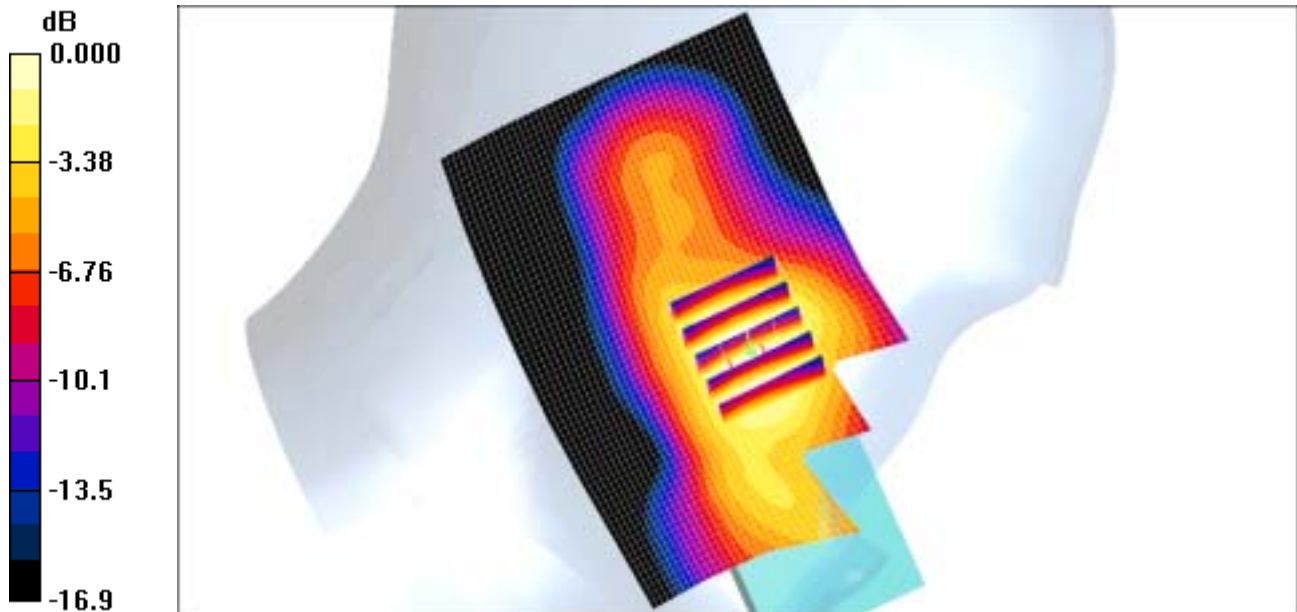
dy=8mm, dz=5mm

Reference Value = 8.18 V/m; Power Drift = -0.130 dB

Peak SAR (extrapolated) = 0.749 W/kg

SAR(1 g) = 0.491 mW/g

Maximum value of SAR (measured) = 0.541 mW/g



0 dB = 0.541mW/g

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Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3080; ConvF(4.92, 4.92, 4.92); Calibrated: 2005-05-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn670; Calibrated: 2005-04-05
- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

Maximum value of SAR (interpolated) = 0.167 mW/g

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

Reference Value = 8.00 V/m; Power Drift = -0.141 dB

Peak SAR (extrapolated) = 0.161 W/kg

SAR(1 g) = 0.113 mW/g

Maximum value of SAR (measured) = 0.120 mW/g



0 dB = 0.120mW/g

SAMSUNG FCC ID : A3LSGHZ310 -- 1900MHz GPRS1900 Body SAR

DUT: SGH-Z310(Body); Serial: FC-137-A

Program Name: SGH-Z310 GSM1900 Body (Job No. : FC-137)

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

Procedure Notes: Meas.Tissue Temp(celsius)-22.0; Test Date-07/Oct/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: GSM1900 GPRS; Frequency: 1909.8 MHz; Duty Cycle: 1:4.15

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 51.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3080; ConvF(4.42, 4.42, 4.42); Calibrated: 2005-05-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn670; Calibrated: 2005-04-05
- Phantom: SAM 835/900 MHz; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

Maximum value of SAR (interpolated) = 0.408 mW/g

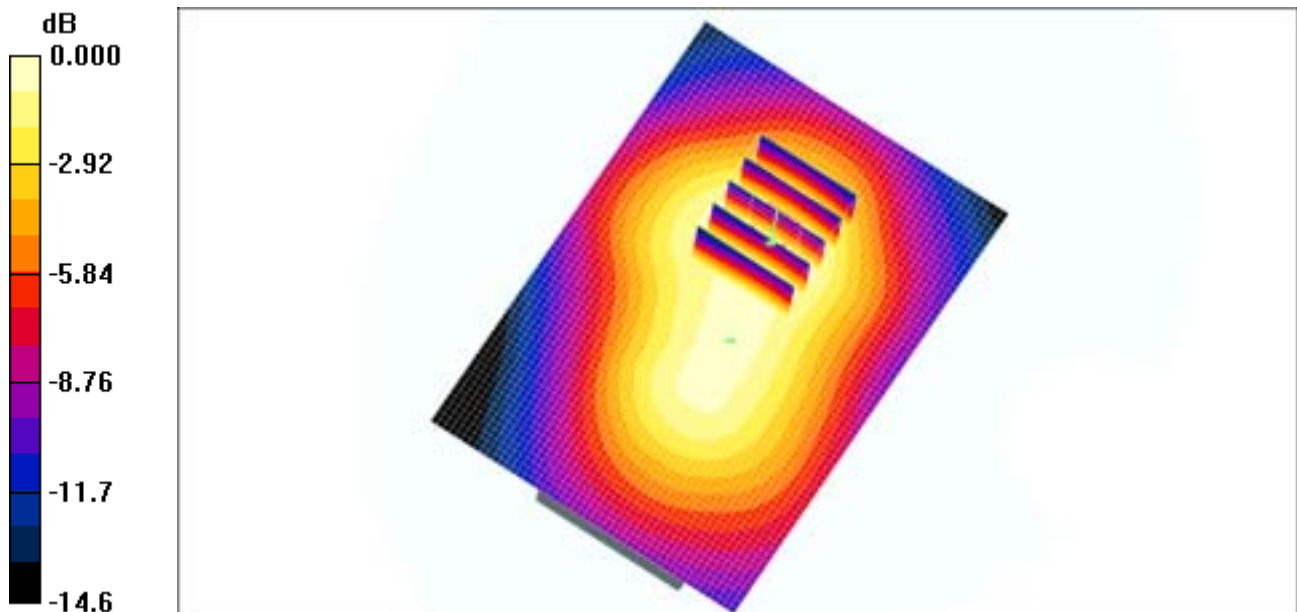
Body, Ch.810, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.0 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 0.499 W/kg

SAR(1 g) = 0.337 mW/g

Maximum value of SAR (measured) = 0.356 mW/g



0 dB = 0.356mW/g

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DUT: SGH-Z310; Serial: FC-137-A

Program Name: SGH-Z310 GSM1900 Right (Job No. : FC-137)

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

Procedure Notes: Meas.Tissue Temp(celsius)-22.3; Test Date-07/Oct/2005 [OET Bulletin 65-Supplement C, July 2001]

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

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3080; ConvF(4.92, 4.92, 4.92); Calibrated: 2005-05-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn670; Calibrated: 2005-04-05
- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

$dx=20$ mm, $dy=20$ mm

Maximum value of SAR (interpolated) = 0.600 mW/g

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

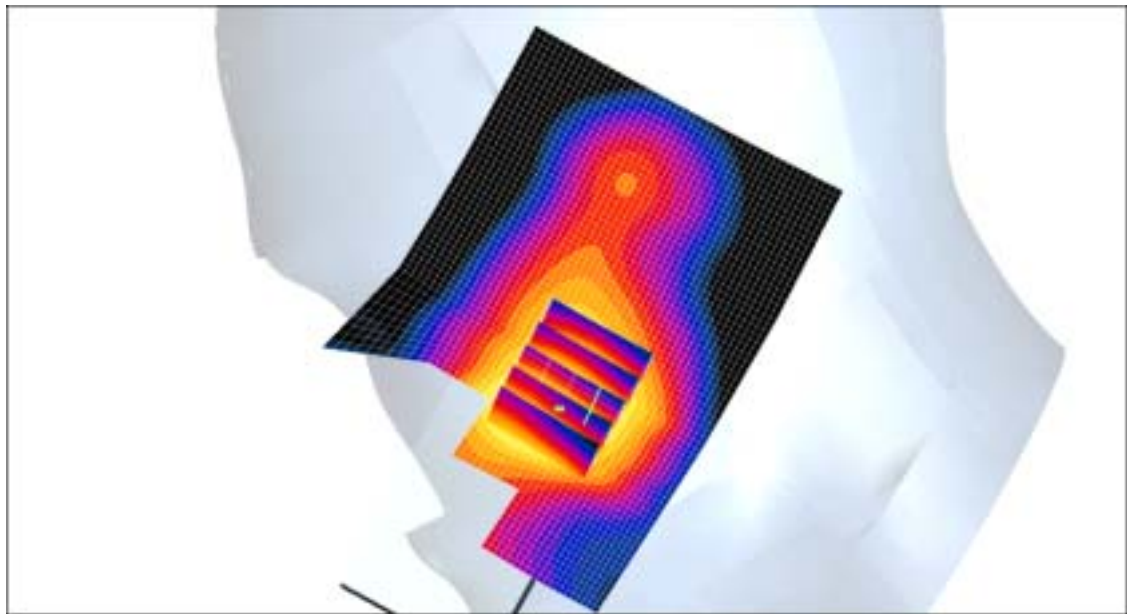
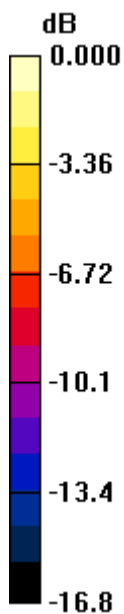
grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 7.05 V/m; Power Drift = -0.083 dB

Peak SAR (extrapolated) = 0.908 W/kg

SAR(1 g) = 0.542 mW/g

Maximum value of SAR (measured) = 0.567 mW/g



0 dB = 0.567mW/g

SAMSUNG FCC ID : A3LSGHZ310 -- 1900MHz GSM1900 Head SAR

DUT: SGH-Z310(Body); Serial: FC-137-A

Program Name: SGH-Z310 GSM1900 Body (Job No. : FC-137)

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

Procedure Notes: Meas.Tissue Temp(celsius)-22.0; Test Date-07/Oct/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: GSM1900 GPRS; Frequency: 1909.8 MHz;Duty Cycle: 1:4.15

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 51.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3080; ConvF(4.42, 4.42, 4.42); Calibrated: 2005-05-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn670; Calibrated: 2005-04-05
- Phantom: SAM 835/900 MHz; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

Maximum value of SAR (interpolated) = 0.403 mW/g

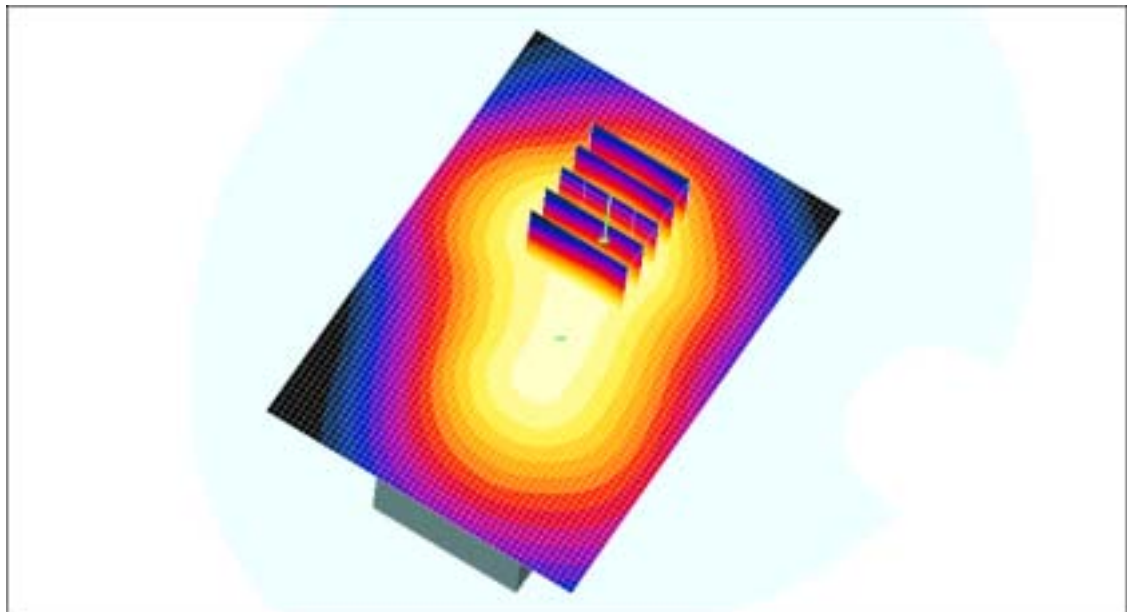
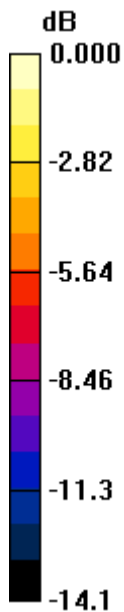
Body, Ch.810, Ant.Intenna, Bat.Standard With BT ON/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.0 V/m; Power Drift = -0.073 dB

Peak SAR (extrapolated) = 0.466 W/kg

SAR(1 g) = 0.333 mW/g

Maximum value of SAR (measured) = 0.355 mW/g



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

Procedure Notes: Meas.Tissue Temp(celsius)-22.3; Test Date-07/Oct/2005 [OET Bulletin 65-Supplement C, July 2001]

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

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3080; ConvF(4.92, 4.92, 4.92); Calibrated: 2005-05-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn670; Calibrated: 2005-04-05
- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

Maximum value of SAR (interpolated) = 0.644 mW/g

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

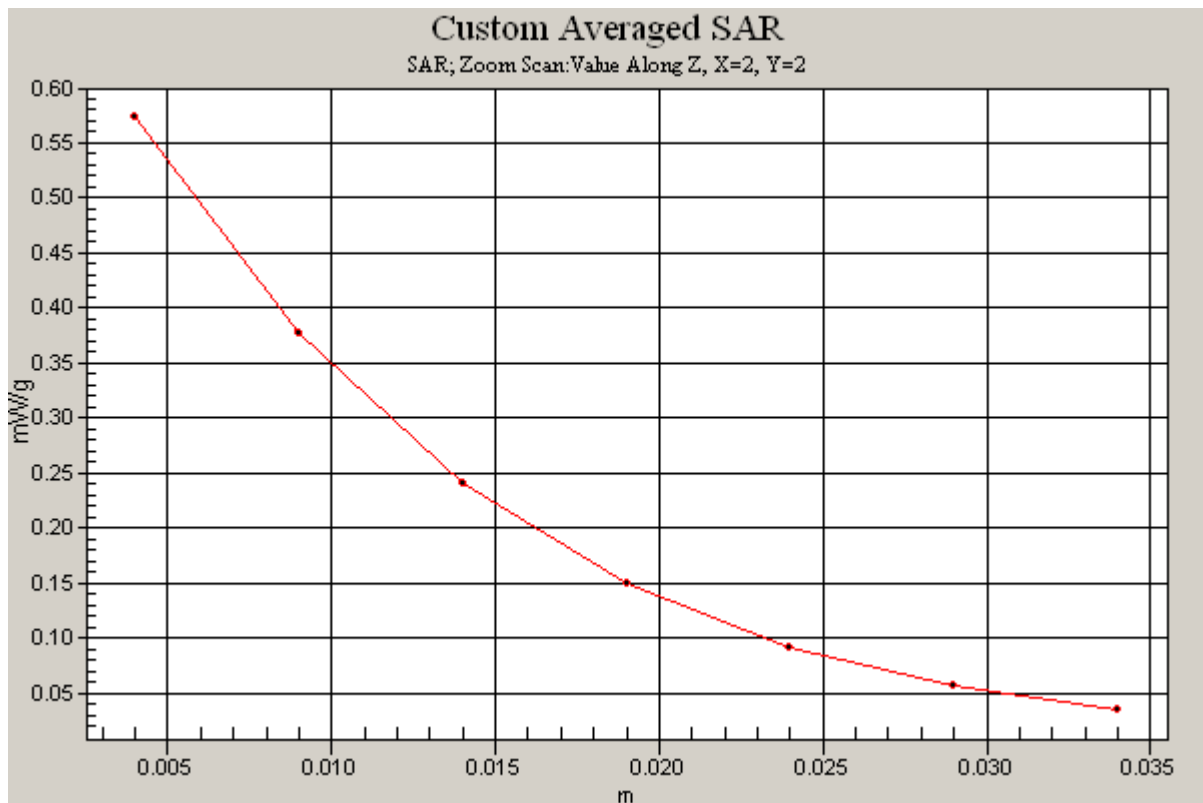
dy=8mm, dz=5mm

Reference Value = 7.87 V/m; Power Drift = -0.185 dB

Peak SAR (extrapolated) = 0.907 W/kg

SAR(1 g) = 0.551 mW/g

Maximum value of SAR (measured) = 0.573 mW/g



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Program Name: SGH-Z310 GSM1900 Right (Job No. : FC-137)

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

Procedure Notes: Meas.Tissue Temp(celsius)-22.3; Test Date-07/Oct/2005 [OET Bulletin 65-Supplement C, July 2001]

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

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

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DASY4 Configuration:

- Probe: ES3DV3 - SN3080; ConvF(4.92, 4.92, 4.92); Calibrated: 2005-05-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
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- Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1143
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Cheek/Touch, Ch.810, Ant.Intenna, Bat.Standard With BT ON/Area Scan (51x71x1): Measurement grid:

$dx=20$ mm, $dy=20$ mm

Maximum value of SAR (interpolated) = 0.600 mW/g

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

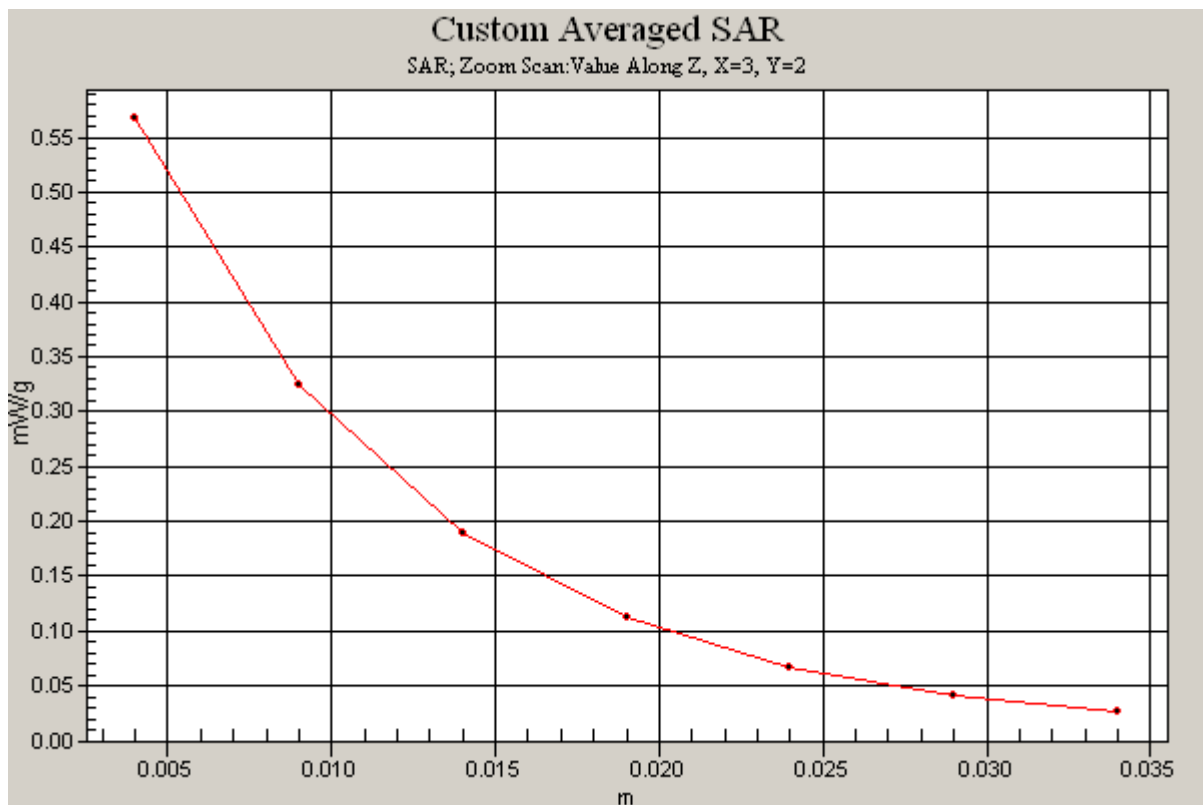
grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 7.05 V/m; Power Drift = -0.083 dB

Peak SAR (extrapolated) = 0.908 W/kg

SAR(1 g) = 0.542 mW/g

Maximum value of SAR (measured) = 0.567 mW/g



SAMSUNG FCC ID : A3LSGHZ310 -- 1900MHz GPRS1900 Body SAR

DUT: SGH-Z310(Body); Serial: FC-137-A

Program Name: SGH-Z310 GSM1900 Body (Job No. : FC-137)

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

Procedure Notes: Meas.Tissue Temp(celsius)-22.0; Test Date-07/Oct/2005 [OET Bulletin 65-Supplement C, July 2001]

Communication System: GSM1900 GPRS; Frequency: 1909.8 MHz; Duty Cycle: 1:4.15

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 51.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3080; ConvF(4.42, 4.42, 4.42); Calibrated: 2005-05-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn670; Calibrated: 2005-04-05
- Phantom: SAM 835/900 MHz; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

Maximum value of SAR (interpolated) = 0.408 mW/g

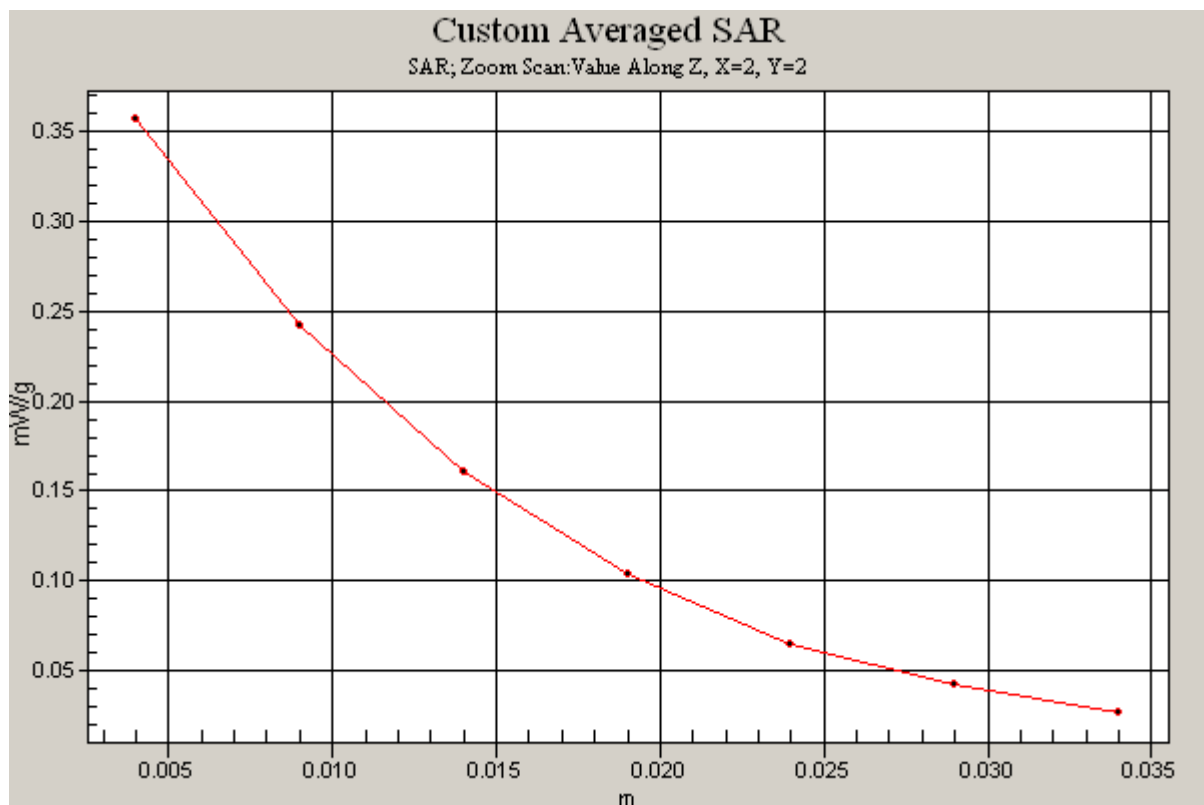
Body, Ch.810, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.0 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 0.499 W/kg

SAR(1 g) = 0.337 mW/g

Maximum value of SAR (measured) = 0.356 mW/g



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Program Name: SGH-Z310 GSM1900 Body (Job No. : FC-137)

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

Procedure Notes: Meas.Tissue Temp(celsius)-22.0; Test Date-07/Oct/2005 [OET Bulletin 65-Supplement C, July 2001]

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Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 51.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3080; ConvF(4.42, 4.42, 4.42); Calibrated: 2005-05-26
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn670; Calibrated: 2005-04-05
- Phantom: SAM 835/900 MHz; Type: SAM; Serial: TP-1141
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Body, Ch.810, Ant.Intenna, Bat.Standard With BT ON/Area Scan (51x71x1): Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.403 mW/g

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

Reference Value = 16.0 V/m; Power Drift = -0.073 dB

Peak SAR (extrapolated) = 0.466 W/kg

SAR(1 g) = 0.333 mW/g

Maximum value of SAR (measured) = 0.355 mW/g

