

SAMSUNG FCC ID : A3LSGHZ220 1900MHz GSM1900 Head SAR

DUT: SGH-Z220; Serial: FC-162-A

Program Name: SGH-Z220 GSM1900 Right (Job No. : FC-162)

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

Procedure Notes: Meas.Ambient Temp(celsius)-22.0; Tissue Temp(celsius)-21.4; Test Date-01/Dec/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; $\sigma = 1.37$ mho/m; $\epsilon_r = 40.4$; $\rho = 1000$ 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 ALL BAND; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

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

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

Reference Value = 3.66 V/m; Power Drift = -0.193 dB

Peak SAR (extrapolated) = 0.558 W/kg

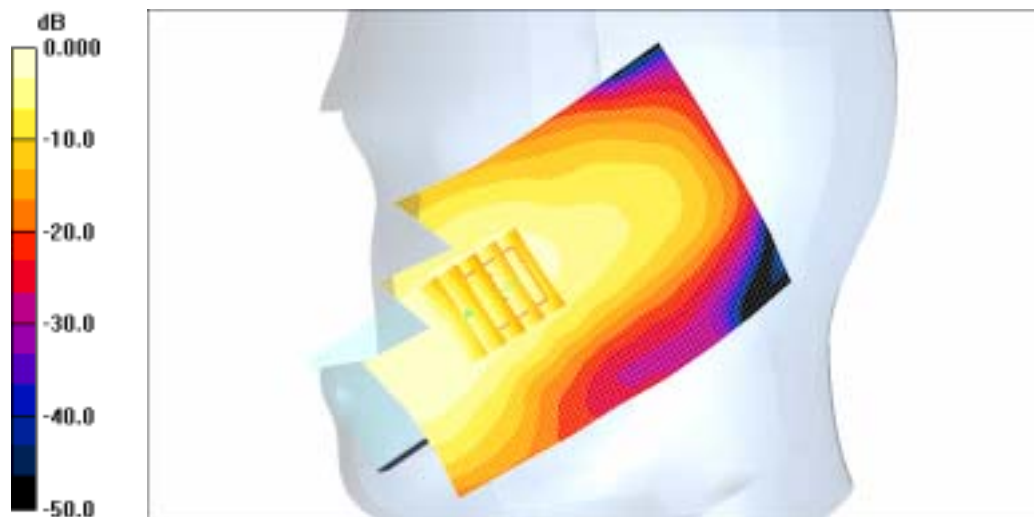
SAR(1 g) = 0.324 mW/g

Maximum value of SAR (measured) = 0.348 mW/g

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

grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.340 mW/g



0 dB = 0.340mW/g

SAMSUNG FCC ID : A3LSGHZ220 1900MHz GSM1900 Head SAR

DUT: SGH-Z220; Serial: FC-162-A

Program Name: SGH-Z220 GSM1900 Right (Job No. : FC-162)

Procedure Name: Tilted, Ch.661, Ant.Intenna, Bat.Standard

Procedure Notes: Meas.Ambient Temp(celsius)-22.0; Tissue Temp(celsius)-21.4; Test Date-01/Dec/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; $\sigma = 1.37$ mho/m; $\epsilon_r = 40.4$; $\rho = 1000$ 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 ALL BAND; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Tilted, Ch.661, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid:

dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.051 mW/g

Tilted, Ch.661, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement

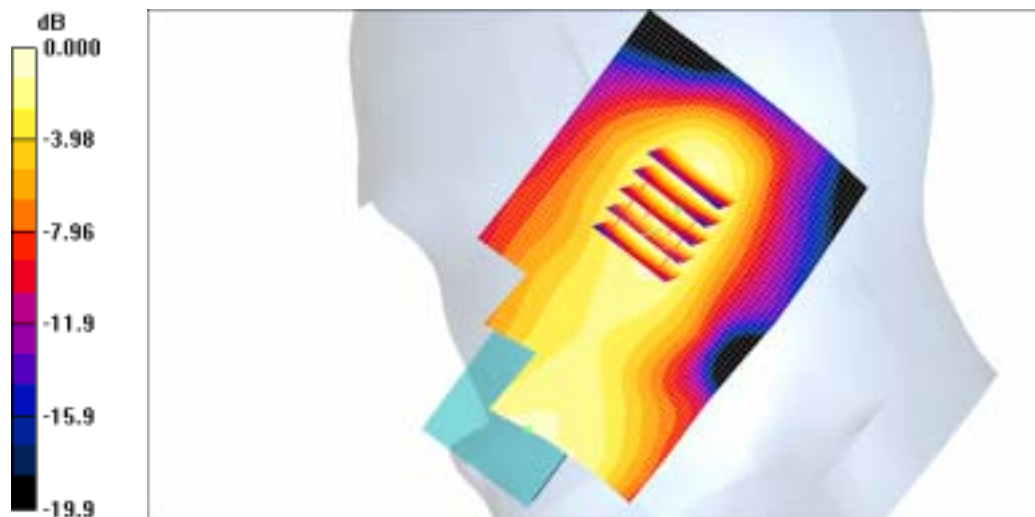
grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.96 V/m; Power Drift = -0.114 dB

Peak SAR (extrapolated) = 0.067 W/kg

SAR(1 g) = 0.044 mW/g

Maximum value of SAR (measured) = 0.047 mW/g



0 dB = 0.047mW/g

SAMSUNG FCC ID : A3LSGHZ220 1900MHz GSM1900 Head SAR

DUT: SGH-Z220; Serial: FC-162-A

Program Name: SGH-Z220 GSM1900 Left (Job No. : FC-162)

Procedure Name: Cheek/Touch, Ch.661, Ant.Intenna, Bat.Standard

Procedure Notes: Meas.Ambient Temp(celsius)-22.0; Tissue Temp(celsius)-21.4; Test Date-01/Dec/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; $\sigma = 1.37$ mho/m; $\epsilon_r = 40.4$; $\rho = 1000$ 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 ALL BAND; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

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

Maximum value of SAR (interpolated) = 0.399 mW/g

Cheek/Touch, Ch.661, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0:

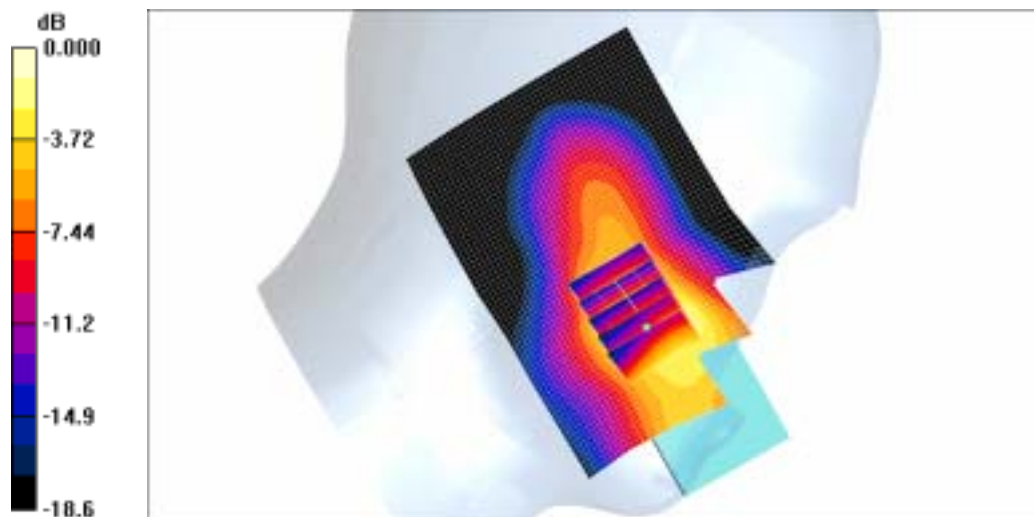
Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.61 V/m; Power Drift = 0.185 dB

Peak SAR (extrapolated) = 0.695 W/kg

SAR(1 g) = 0.376 mW/g

Maximum value of SAR (measured) = 0.402 mW/g



0 dB = 0.402mW/g

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DUT: SGH-Z220; Serial: FC-162-A

Program Name: SGH-Z220 GSM1900 Left (Job No. : FC-162)

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Procedure Notes: Meas.Ambient Temp(celsius)-22.0; Tissue Temp(celsius)-21.4; Test Date-01/Dec/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; $\sigma = 1.37$ mho/m; $\epsilon_r = 40.4$; $\rho = 1000$ 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 ALL BAND; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

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

Reference Value = 3.70 V/m; Power Drift = 0.073 dB

Peak SAR (extrapolated) = 0.088 W/kg

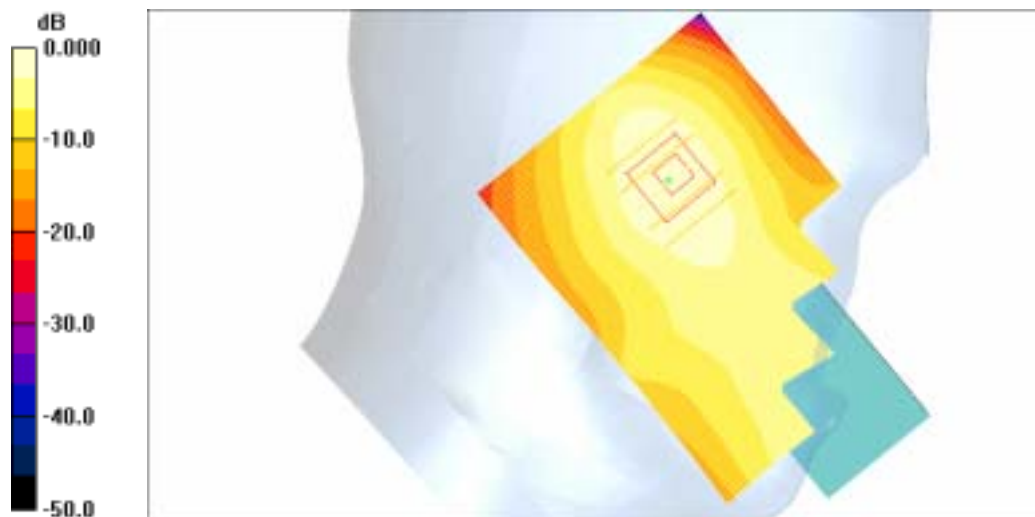
SAR(1 g) = 0.059 mW/g

Maximum value of SAR (measured) = 0.064 mW/g

Tilted, Ch.661, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid:

dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.066 mW/g



0 dB = 0.066mW/g

SAMSUNG FCC ID : A3LSGHZ220 1900MHz GSM1900 Head SAR

DUT: SGH-Z220; Serial: FC-162-A

Program Name: SGH-Z220 GSM1900 Left (Job No. : FC-162)

Procedure Name: Cheek/Touch, Ch.661, Ant.Intenna, Bat.Standard With BT ON

Procedure Notes: Meas.Ambient Temp(celsius)-22.0; Tissue Temp(celsius)-21.4; Test Date-01/Dec/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; $\sigma = 1.37$ mho/m; $\epsilon_r = 40.4$; $\rho = 1000$ 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 ALL BAND; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

Cheek/Touch, Ch.661, Ant.Intenna, Bat.Standard With BT ON/Area Scan (51x71x1):

Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.404 mW/g

Cheek/Touch, Ch.661, Ant.Intenna, Bat.Standard With BT ON/Zoom Scan (5x5x7)/Cube

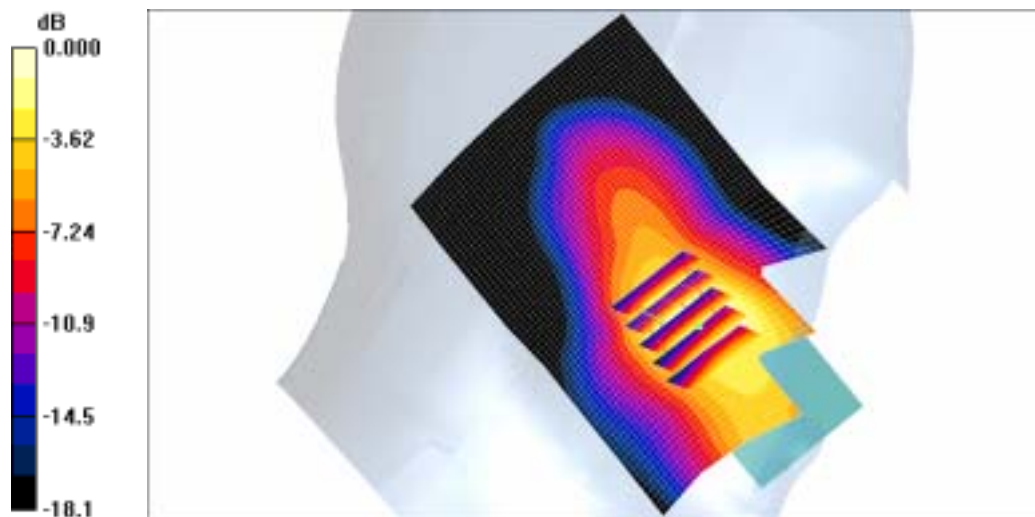
0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.45 V/m; Power Drift = -0.093 dB

Peak SAR (extrapolated) = 0.688 W/kg

SAR(1 g) = 0.381 mW/g

Maximum value of SAR (measured) = 0.400 mW/g



0 dB = 0.400mW/g

SAMSUNG FCC ID : A3LSGHZ220 1900MHz GSM1900 Body SAR

DUT: SGH-Z220(Body); Serial: FC-162-A

Program Name: SGH-Z220 GPRS1900 Body (Job No. : FC-162)

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

Procedure Notes: Meas.Ambient Temp(celsius)-22.0; Tissue Temp(celsius)-21.4; Test Date-01/Dec/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; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ 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 ALL BAND; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

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

dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.43 V/m; Power Drift = -0.185 dB

Peak SAR (extrapolated) = 0.479 W/kg

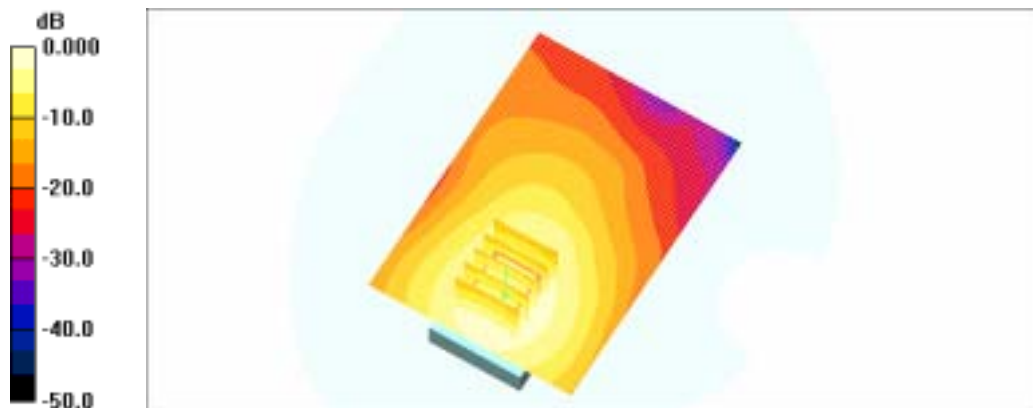
SAR(1 g) = 0.344 mW/g

Maximum value of SAR (measured) = 0.368 mW/g

Body, Ch.810, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid:

dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.393 mW/g



0 dB = 0.393mW/g

SAMSUNG FCC ID : A3LSGHZ220 1900MHz GSM1900 Body SAR

DUT: SGH-Z220(Body); Serial: FC-162-A

Program Name: SGH-Z220 GPRS1900 Body (Job No. : FC-162)

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

Procedure Notes: Meas.Ambient Temp(celsius)-22.0; Tissue Temp(celsius)-21.4; Test Date-01/Dec/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; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ 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 ALL BAND; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

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 = 4.30 V/m; Power Drift = -0.032 dB

Peak SAR (extrapolated) = 0.464 W/kg

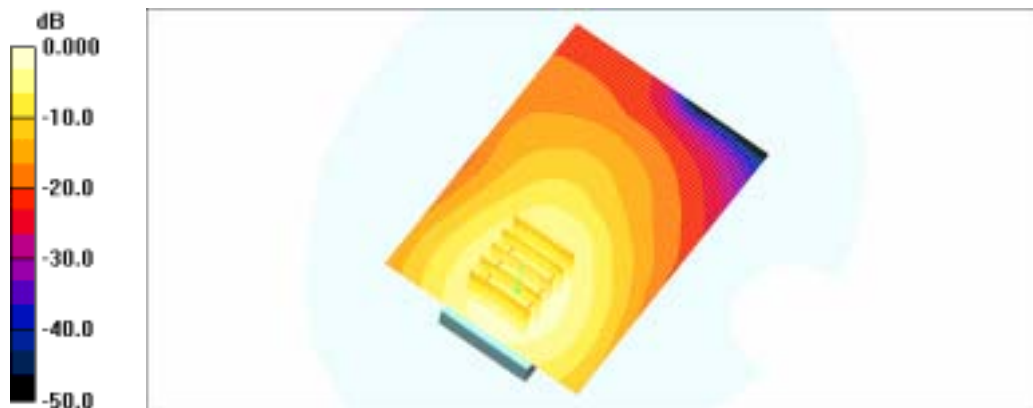
SAR(1 g) = 0.338 mW/g

Maximum value of SAR (measured) = 0.366 mW/g

Body, Ch.810, Ant.Intenna, Bat.Standard With BT ON/Area Scan (51x71x1):

Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.392 mW/g



0 dB = 0.392mW/g

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DUT: SGH-Z220; Serial: FC-162-A

Program Name: SGH-Z220 GSM1900 Left (Job No. : FC-162)

Procedure Name: Cheek/Touch, Ch.661, Ant.Intenna, Bat.Standard

Procedure Notes: Meas.Ambient Temp(celsius)-22.0; Tissue Temp(celsius)-21.4; Test Date-01/Dec/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; $\sigma = 1.37$ mho/m; $\epsilon_r = 40.4$; $\rho = 1000$ 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 ALL BAND; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

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

Maximum value of SAR (interpolated) = 0.399 mW/g

Cheek/Touch, Ch.661, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0:

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

Reference Value = 2.61 V/m; Power Drift = 0.185 dB

Peak SAR (extrapolated) = 0.695 W/kg

SAR(1 g) = 0.376 mW/g

Maximum value of SAR (measured) = 0.402 mW/g



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DUT: SGH-Z220; Serial: FC-162-A

Program Name: SGH-Z220 GSM1900 Left (Job No. : FC-162)

Procedure Name: Cheek/Touch, Ch.661, Ant.Intenna, Bat.Standard With BT ON

Procedure Notes: Meas.Ambient Temp(celsius)-22.0; Tissue Temp(celsius)-21.4; Test Date-01/Dec/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; $\sigma = 1.37$ mho/m; $\epsilon_r = 40.4$; $\rho = 1000$ 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
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Cheek/Touch, Ch.661, Ant.Intenna, Bat.Standard With BT ON/Area Scan (51x71x1):

Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.404 mW/g

Cheek/Touch, Ch.661, Ant.Intenna, Bat.Standard With BT ON/Zoom Scan (5x5x7)/Cube

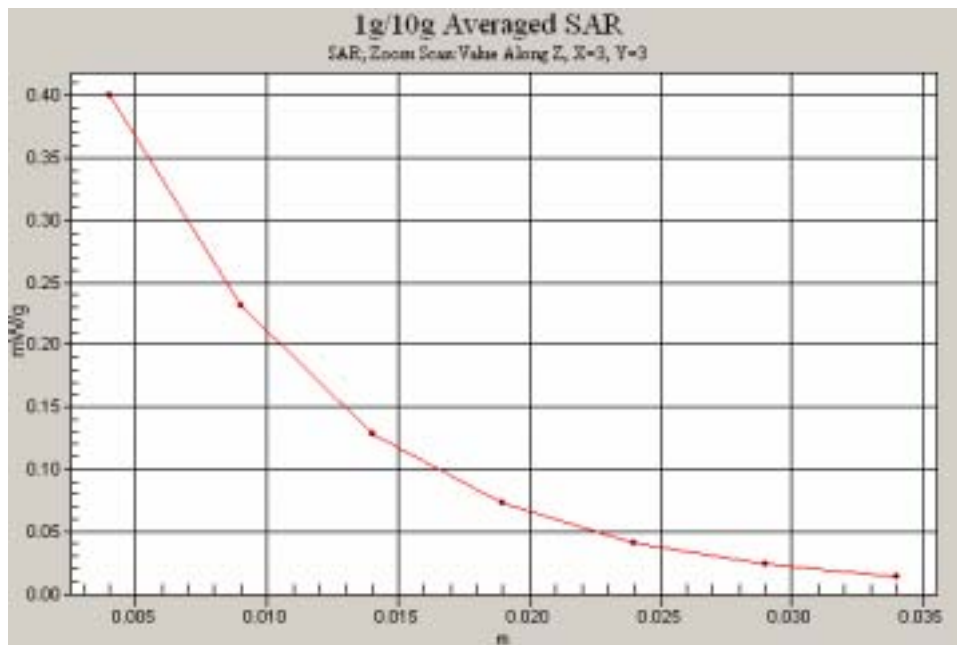
0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.45 V/m; Power Drift = -0.093 dB

Peak SAR (extrapolated) = 0.688 W/kg

SAR(1 g) = 0.381 mW/g

Maximum value of SAR (measured) = 0.400 mW/g



SAMSUNG FCC ID : A3LSGHZ220 1900MHz GSM1900 Body SAR

DUT: SGH-Z220(Body); Serial: FC-162-A

Program Name: SGH-Z220 GPRS1900 Body (Job No. : FC-162)

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

Procedure Notes: Meas.Ambient Temp(celsius)-22.0; Tissue Temp(celsius)-21.4; Test Date-01/Dec/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; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ 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 ALL BAND; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

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

dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.43 V/m; Power Drift = -0.185 dB

Peak SAR (extrapolated) = 0.479 W/kg

SAR(1 g) = 0.344 mW/g

Maximum value of SAR (measured) = 0.368 mW/g

Body, Ch.810, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid:

dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.393 mW/g



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Program Name: SGH-Z220 GPRS1900 Body (Job No. : FC-162)

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

Procedure Notes: Meas.Ambient Temp(celsius)-22.0; Tissue Temp(celsius)-21.4; Test Date-01/Dec/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; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3080; ConvF(4.42, 4.42, 4.42); Calibrated: 2005-05-26
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- Phantom: SAM ALL BAND; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 160

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 = 4.30 V/m; Power Drift = -0.032 dB

Peak SAR (extrapolated) = 0.464 W/kg

SAR(1 g) = 0.338 mW/g

Maximum value of SAR (measured) = 0.366 mW/g

Body, Ch.810, Ant.Intenna, Bat.Standard With BT ON/Area Scan (51x71x1):

Measurement grid: dx=20mm, dy=20mm

Maximum value of SAR (interpolated) = 0.392 mW/g

