

Date/Time: 2005-10-11 09:41:01

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

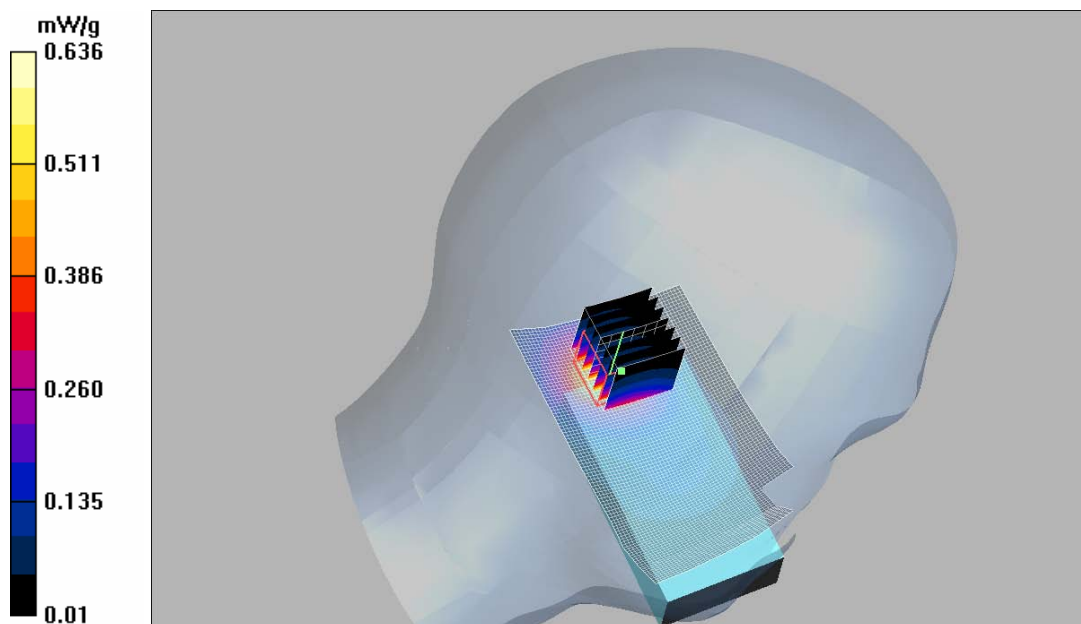
Communication System: WCDMA1900
Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: Head 1900; Medium Notes: Medium Temperature: $t=21.2$ C
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.41$ mho/m; $\epsilon_r = 38.2$; $\rho = 1000$ kg/m³
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1786; Probe Notes: Worst Case Extrapolation.
- ConvF(5.11, 5.11, 5.11); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 17-08-2005
- Phantom: SAM Low Band; Type: QD000P40CB; Serial: TP-1302
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Tilt position - Middle - Slide Closed/Area Scan (51x91x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (interpolated) = 0.649 mW/g

Tilt position - Middle - Slide Closed/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 19.6 V/m; Power Drift = -0.056 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.594 mW/g; SAR(10 g) = 0.331 mW/g
Maximum value of SAR (measured) = 0.636 mW/g



Date/Time: 2005-10-11 11:37:05

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

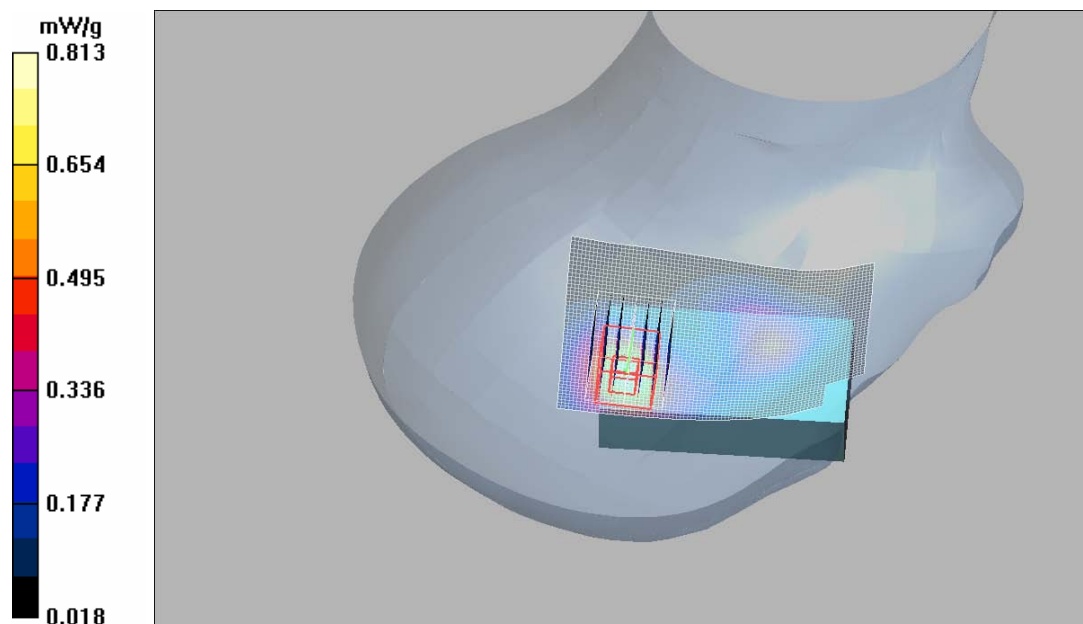
Communication System: WCDMA1900
Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: Head 1900; Medium Notes: Medium Temperature: $t=21.2\text{ C}$
Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.41\text{ mho/m}$; $\epsilon_r = 38.2$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1786; Probe Notes: Worst Case Extrapolation.
- ConvF(5.11, 5.11, 5.11); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 17-08-2005
- Phantom: SAM Low Band; Type: QD000P40CB; Serial: TP-1302
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Cheek position - Middle - Slide Closed/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.786 mW/g

Cheek position - Middle - Slide Closed/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 19.2 V/m ; Power Drift = -0.201 dB
Peak SAR (extrapolated) = 1.45 W/kg
SAR(1 g) = 0.745 mW/g ; SAR(10 g) = 0.406 mW/g
Maximum value of SAR (measured) = 0.813 mW/g



Date/Time: 2005-10-11 13:52:44

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: WCDMA1900
Frequency: 1852.4 MHz; Duty Cycle: 1:1
Medium: Head 1900; Medium Notes: Medium Temperature: $t=21.2\text{ C}$
Medium parameters used (interpolated): $f = 1852.4\text{ MHz}$; $\sigma = 1.38\text{ mho/m}$; $\epsilon_r = 38.3$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1786; Probe Notes: Worst Case Extrapolation.
- ConvF(5.11, 5.11, 5.11); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 17-08-2005
- Phantom: SAM Low Band; Type: QD000P40CB; Serial: TP-1302
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Tilt position - Low - Slide Closed/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.850 mW/g

Tilt position - Low - Slide Closed/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

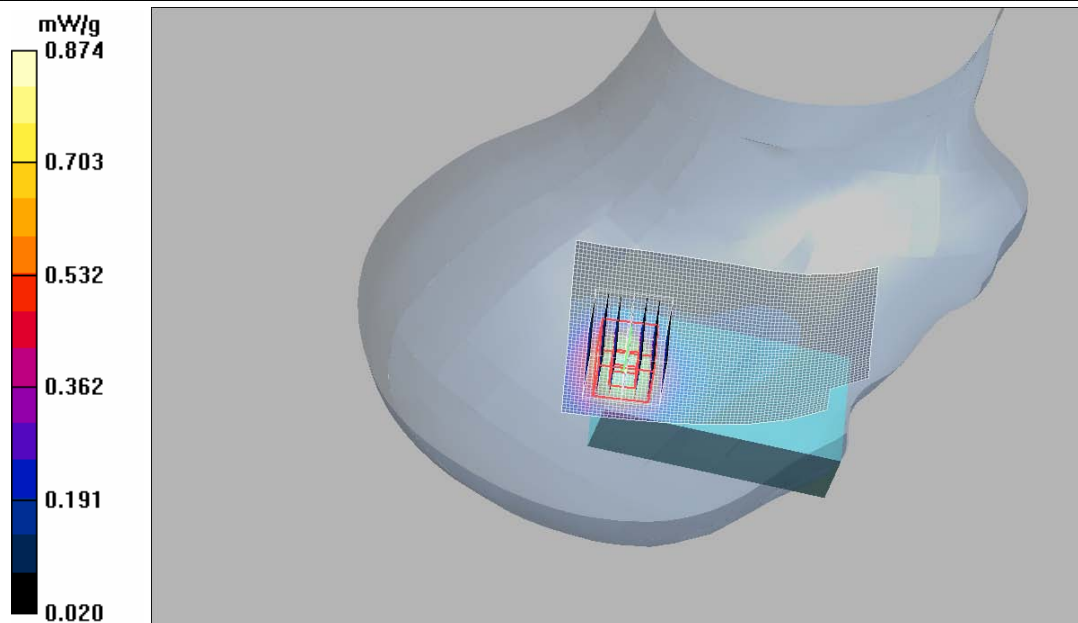
Reference Value = 22.2 V/m ; Power Drift = 0.048 dB

Peak SAR (extrapolated) = 1.52 W/kg

SAR(1 g) = 0.798 mW/g ; SAR(10 g) = 0.436 mW/g

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

Maximum value of SAR (measured) = 0.874 mW/g



Date/Time: 2005-10-11 10:07:37

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

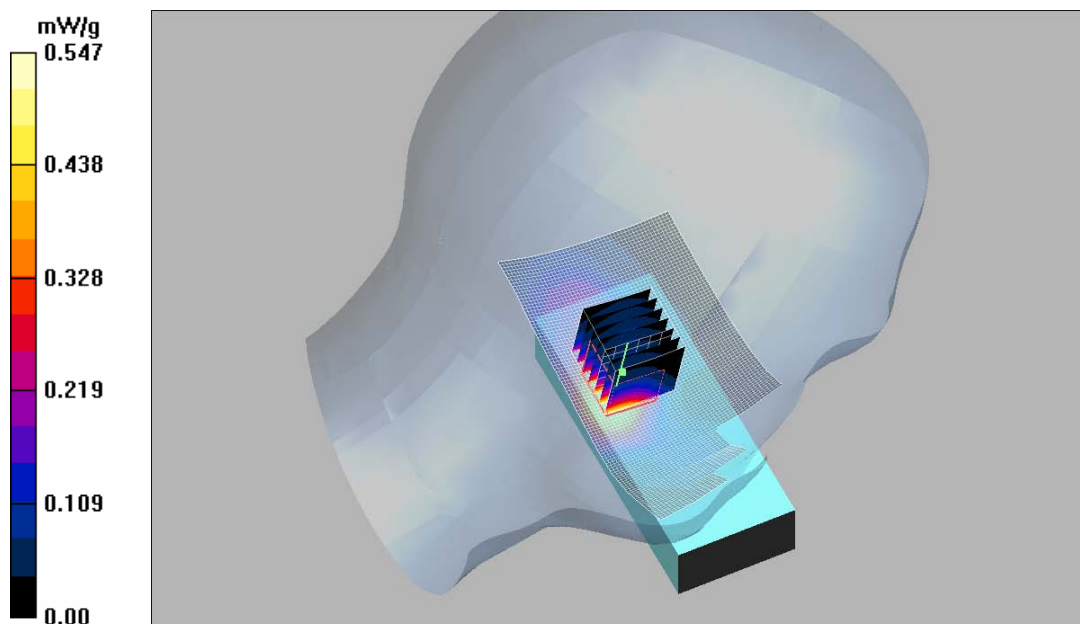
Communication System: WCDMA1900
Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: Head 1900; Medium Notes: Medium Temperature: $t=21.2$ C
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.41$ mho/m; $\epsilon_r = 38.2$; $\rho = 1000$ kg/m³
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1786; Probe Notes: Worst Case Extrapolation.
- ConvF(5.11, 5.11, 5.11); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 17-08-2005
- Phantom: SAM Low Band; Type: QD000P40CB; Serial: TP-1302
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Cheek position - Middle - Slide Open/Area Scan (51x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (interpolated) = 0.558 mW/g

Cheek position - Middle - Slide Open/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm
Reference Value = 10.7 V/m; Power Drift = 0.038 dB
Peak SAR (extrapolated) = 0.870 W/kg
SAR(1 g) = 0.516 mW/g; SAR(10 g) = 0.299 mW/g
Maximum value of SAR (measured) = 0.547 mW/g



Date/Time: 2005-10-11 10:29:11

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

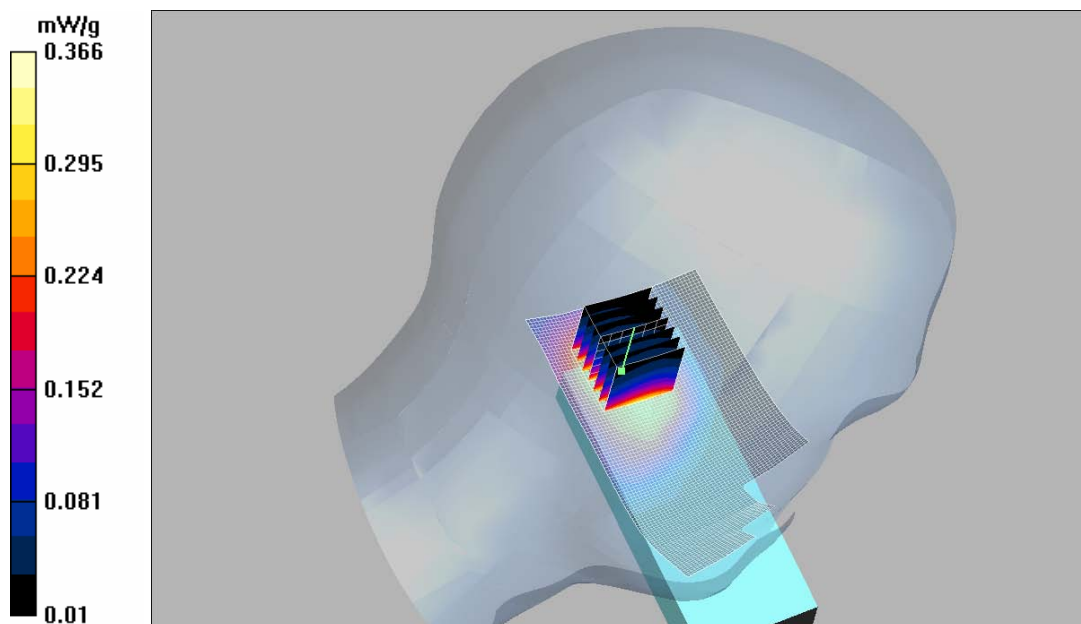
Communication System: WCDMA1900
Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: Head 1900; Medium Notes: Medium Temperature: $t=21.2\text{ }^{\circ}\text{C}$
Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.41\text{ mho/m}$; $\epsilon_r = 38.2$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1786; Probe Notes: Worst Case Extrapolation.
- ConvF(5.11, 5.11, 5.11); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 17-08-2005
- Phantom: SAM Low Band; Type: QD000P40CB; Serial: TP-1302
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Tilt position - Middle - Slide Open/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.377 mW/g

Tilt position - Middle - Slide Open/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 15.2 V/m ; Power Drift = -0.043 dB
Peak SAR (extrapolated) = 0.611 W/kg
SAR(1 g) = 0.344 mW/g ; SAR(10 g) = 0.214 mW/g
Maximum value of SAR (measured) = 0.366 mW/g



Date/Time: 2005-10-11 12:22:40

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

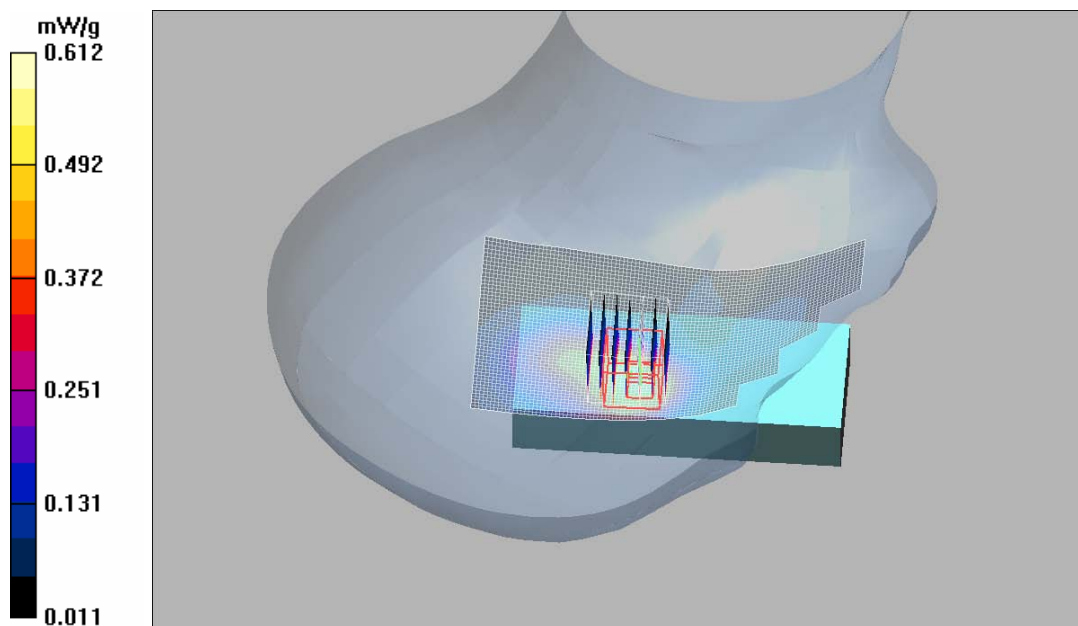
Communication System: WCDMA1900
Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: Head 1900; Medium Notes: Medium Temperature: $t=21.2\text{ C}$
Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.41\text{ mho/m}$; $\epsilon_r = 38.2$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1786; Probe Notes: Worst Case Extrapolation.
- ConvF(5.11, 5.11, 5.11); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 17-08-2005
- Phantom: SAM Low Band; Type: QD000P40CB; Serial: TP-1302
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Cheek position - Middle - Slide Open/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.576 mW/g

Cheek position - Middle - Slide Open/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 13.8 V/m ; Power Drift = 0.018 dB
Peak SAR (extrapolated) = 0.958 W/kg
SAR(1 g) = 0.565 mW/g ; SAR(10 g) = 0.328 mW/g
Maximum value of SAR (measured) = 0.612 mW/g



Date/Time: 2005-10-11 12:44:05

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

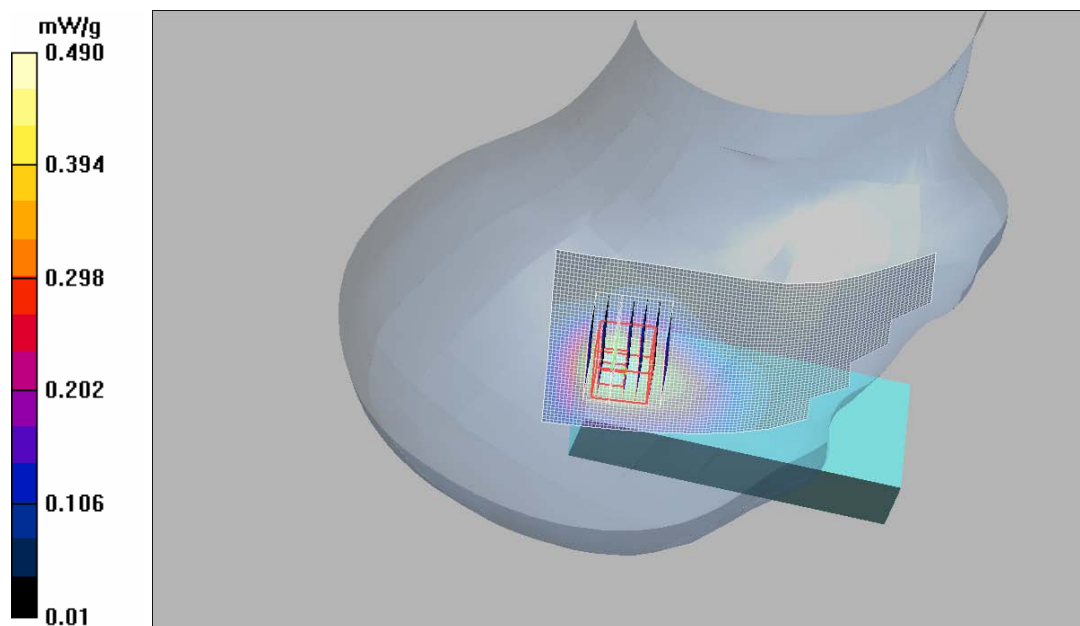
Communication System: WCDMA1900
Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: Head 1900; Medium Notes: Medium Temperature: $t=21.2\text{ C}$
Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.41\text{ mho/m}$; $\epsilon_r = 38.2$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1786; Probe Notes: Worst Case Extrapolation.
- ConvF(5.11, 5.11, 5.11); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 17-08-2005
- Phantom: SAM Low Band; Type: QD000P40CB; Serial: TP-1302
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Tilt position - Middle - Slide Open/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.482 mW/g

Tilt position - Middle - Slide Open/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 18.1 V/m ; Power Drift = -0.019 dB
Peak SAR (extrapolated) = 0.842 W/kg
SAR(1 g) = 0.458 mW/g ; SAR(10 g) = 0.272 mW/g
Maximum value of SAR (measured) = 0.490 mW/g



Date/Time: 2005-10-11 14:49:26

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: WCDMA1900
Frequency: 1852.4 MHz; Duty Cycle: 1:1
Medium: Head 1900; Medium Notes: Medium Temperature: $t=21.2\text{ C}$
Medium parameters used (interpolated): $f = 1852.4\text{ MHz}$; $\sigma = 1.38\text{ mho/m}$; $\epsilon_r = 38.3$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1786; Probe Notes: Worst Case Extrapolation.
- ConvF(5.11, 5.11, 5.11); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn339; Calibrated: 17-08-2005
- Phantom: SAM Low Band; Type: QD000P40CB; Serial: TP-1302
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Tilt position - Low - SD card/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.906 mW/g

Tilt position - Low - SD card/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

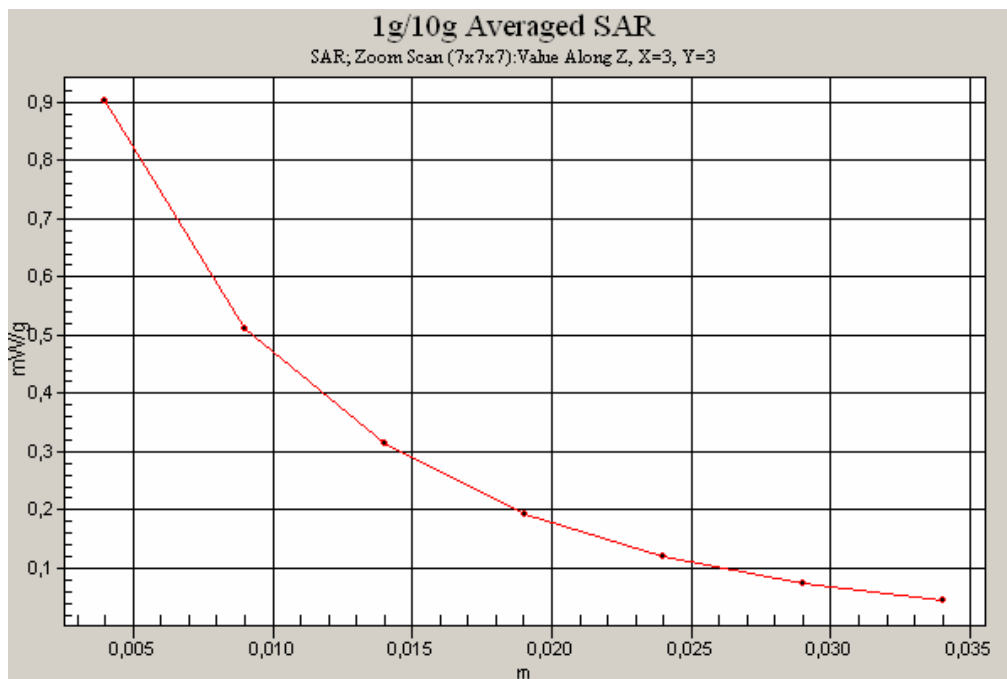
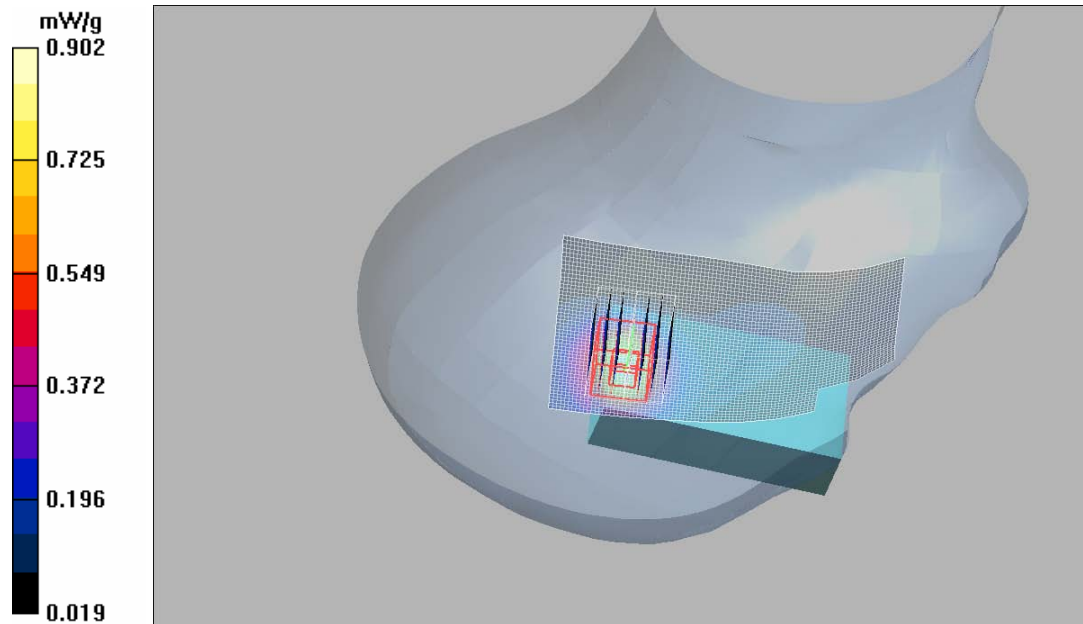
Reference Value = 22.1 V/m ; Power Drift = -0.030 dB

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 0.834 mW/g ; SAR(10 g) = 0.452 mW/g

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

Maximum value of SAR (measured) = 0.902 mW/g



Date/Time: 2005-10-06 20:17:05

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: WLAN
Frequency: 2472 MHz; Duty Cycle: 1:1
Medium: Head 2450; Medium Notes: Medium Temperature: $t=21.4\text{ C}$
Medium parameters used (interpolated): $f = 2472\text{ MHz}$; $\sigma = 1.88\text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.47, 4.47, 4.47); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM High band; Type: Twin Phantom; Serial: TP-1274
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Cheek position - High - Slide closed/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.039 mW/g

Cheek position - High - Slide closed/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

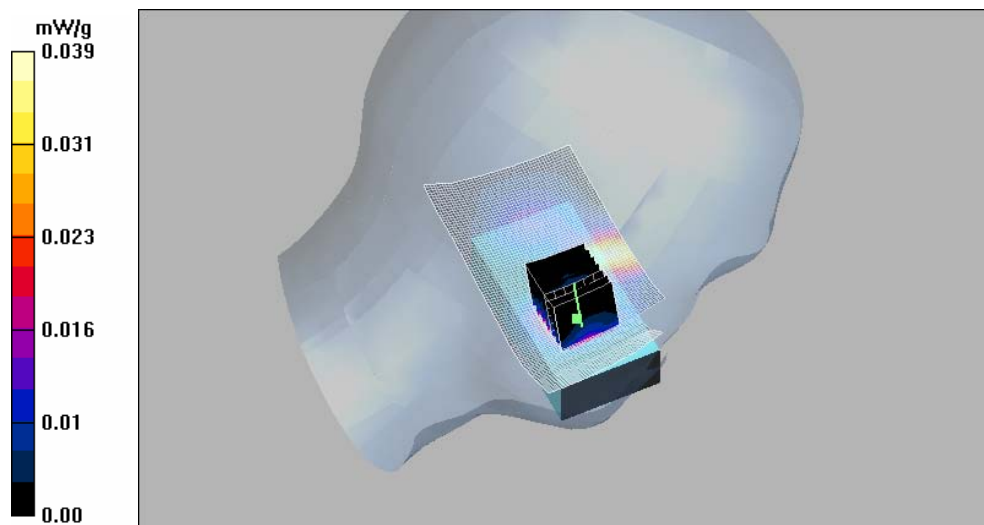
Reference Value = 2.63 V/m ; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.103 W/kg

SAR(1 g) = 0.044 mW/g ; SAR(10 g) = 0.020 mW/g

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

Maximum value of SAR (measured) = 0.050 mW/g



Date/Time: 2005-10-06 16:46:26

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: WLAN
Frequency: 2442 MHz; Duty Cycle: 1:1
Medium: Head 2450; Medium Notes: Medium Temperature: $t=21.4\text{ C}$
Medium parameters used (interpolated): $f = 2442\text{ MHz}$; $\sigma = 1.85\text{ mho/m}$; $\epsilon_r = 40.2$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.47, 4.47, 4.47); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM High band; Type: Twin Phantom; Serial: TP-1274
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Tilt position - Middle - Slide closed/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.022 mW/g

Tilt position - Middle - Slide closed/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

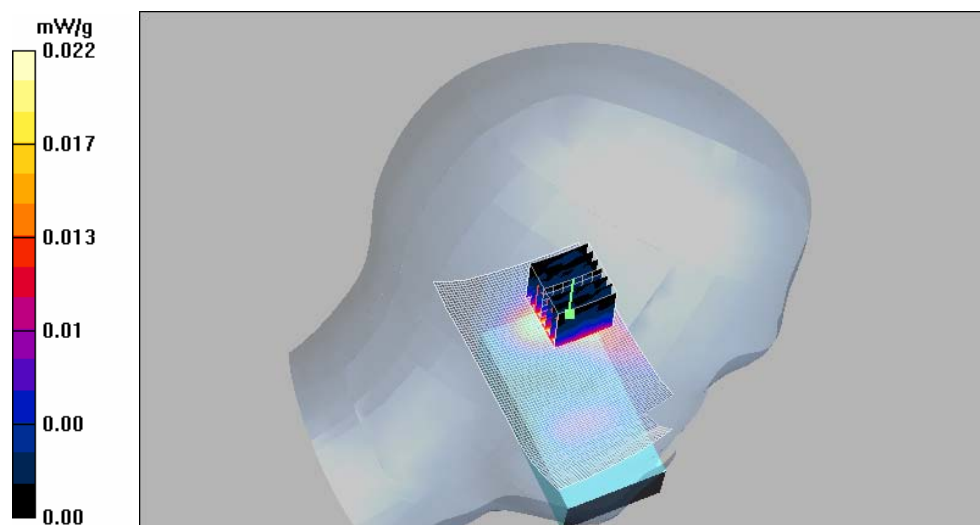
Reference Value = 3.04 V/m ; Power Drift = 0.148 dB

Peak SAR (extrapolated) = 0.045 W/kg

SAR(1 g) = 0.021 mW/g ; SAR(10 g) = 0.011 mW/g

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

Maximum value of SAR (measured) = 0.022 mW/g



Date/Time: 2005-10-06 19:02:28

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: WLAN
Frequency: 2442 MHz; Duty Cycle: 1:1
Medium: Head 2450; Medium Notes: Medium Temperature: $t=21.4$ C
Medium parameters used (interpolated): $f = 2442$ MHz; $\sigma = 1.85$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.47, 4.47, 4.47); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM High band; Type: Twin Phantom; Serial: TP-1274
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Cheek position - Middle - Slide closed/Area Scan (51x81x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

Maximum value of SAR (interpolated) = 0.030 mW/g

Cheek position - Middle - Slide closed/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

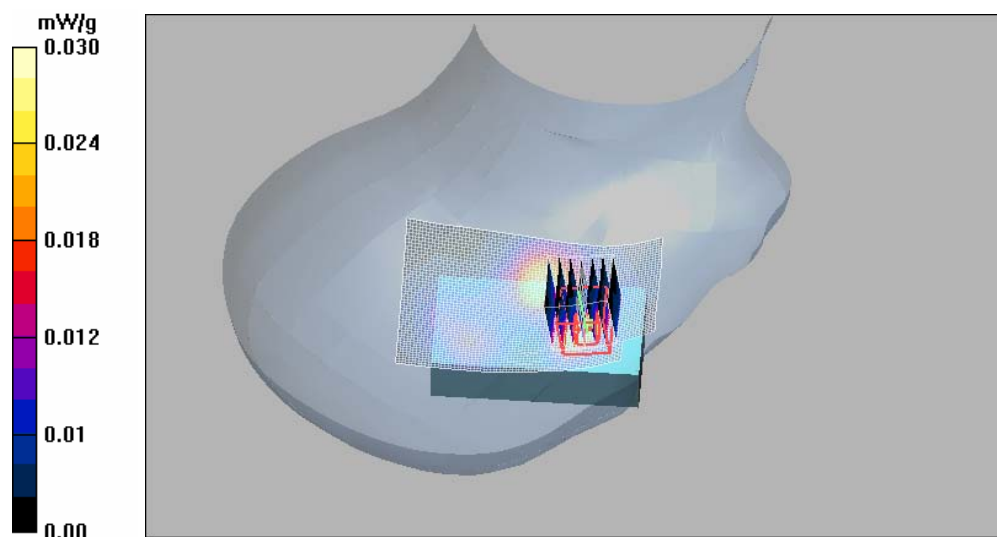
Reference Value = 2.24 V/m; Power Drift = 0.265 dB

Peak SAR (extrapolated) = 0.056 W/kg

SAR(1 g) = 0.026 mW/g; SAR(10 g) = 0.014 mW/g

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

Maximum value of SAR (measured) = 0.028 mW/g



Date/Time: 2005-10-06 19:23:53

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: WLAN
Frequency: 2442 MHz; Duty Cycle: 1:1
Medium: Head 2450; Medium Notes: Medium Temperature: $t=21.4\text{ C}$
Medium parameters used (interpolated): $f = 2442\text{ MHz}$; $\sigma = 1.85\text{ mho/m}$; $\epsilon_r = 40.2$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.47, 4.47, 4.47); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM High band; Type: Twin Phantom; Serial: TP-1274
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Tilt position - Middle - Slide closed/Area Scan (51x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.020 mW/g

Tilt position - Middle - Slide closed/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

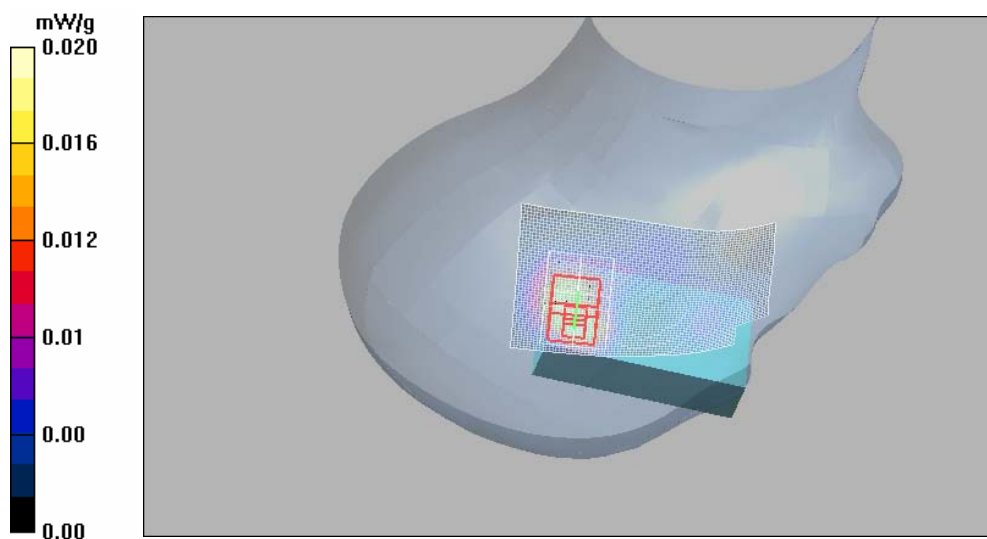
Reference Value = 2.75 V/m ; Power Drift = 0.055 dB

Peak SAR (extrapolated) = 0.036 W/kg

SAR(1 g) = 0.017 mW/g ; SAR(10 g) = 0.00933 mW/g

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

Maximum value of SAR (measured) = 0.018 mW/g



Date/Time: 2005-10-06 17:12:24

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: WLAN
Frequency: 2442 MHz; Duty Cycle: 1:1
Medium: Head 2450; Medium Notes: Medium Temperature: $t=21.4\text{ C}$
Medium parameters used (interpolated): $f = 2442\text{ MHz}$; $\sigma = 1.85\text{ mho/m}$; $\epsilon_r = 40.2$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.47, 4.47, 4.47); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM High band; Type: Twin Phantom; Serial: TP-1274
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Cheek position - Middle - Slide open/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.029 mW/g

Cheek position - Middle - Slide open/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

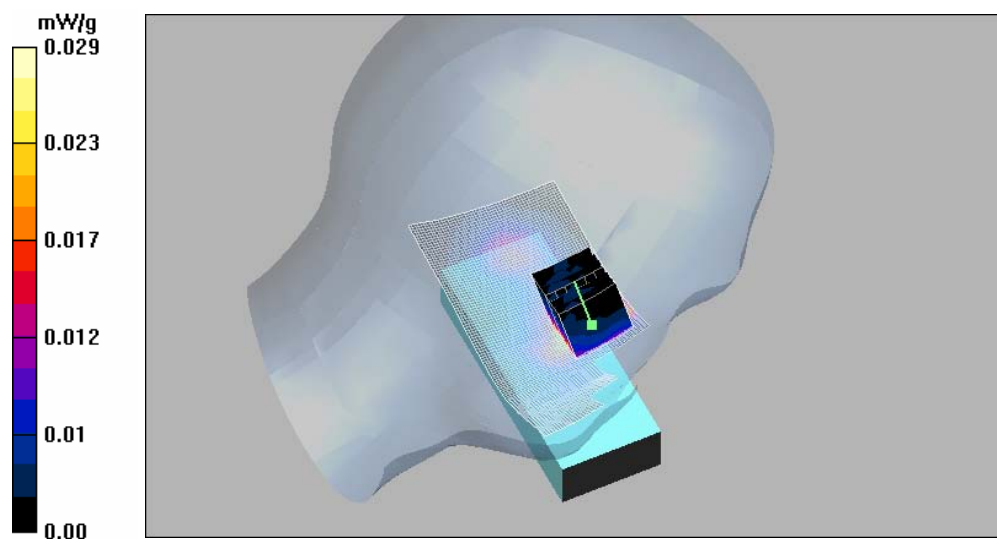
Reference Value = 2.65 V/m ; Power Drift = 0.187 dB

Peak SAR (extrapolated) = 0.058 W/kg

SAR(1 g) = 0.028 mW/g ; SAR(10 g) = 0.015 mW/g

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

Maximum value of SAR (measured) = 0.030 mW/g



Date/Time: 2005-10-06 17:34:57

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: WLAN
Frequency: 2442 MHz; Duty Cycle: 1:1
Medium: Head 2450; Medium Notes: Medium Temperature: $t=21.4$ C
Medium parameters used (interpolated): $f = 2442$ MHz; $\sigma = 1.85$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³
Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.47, 4.47, 4.47); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM High band; Type: Twin Phantom; Serial: TP-1274
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Tilt position - Middle - Slide open/Area Scan (51x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

Maximum value of SAR (interpolated) = 0.030 mW/g

Tilt position - Middle - Slide open/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

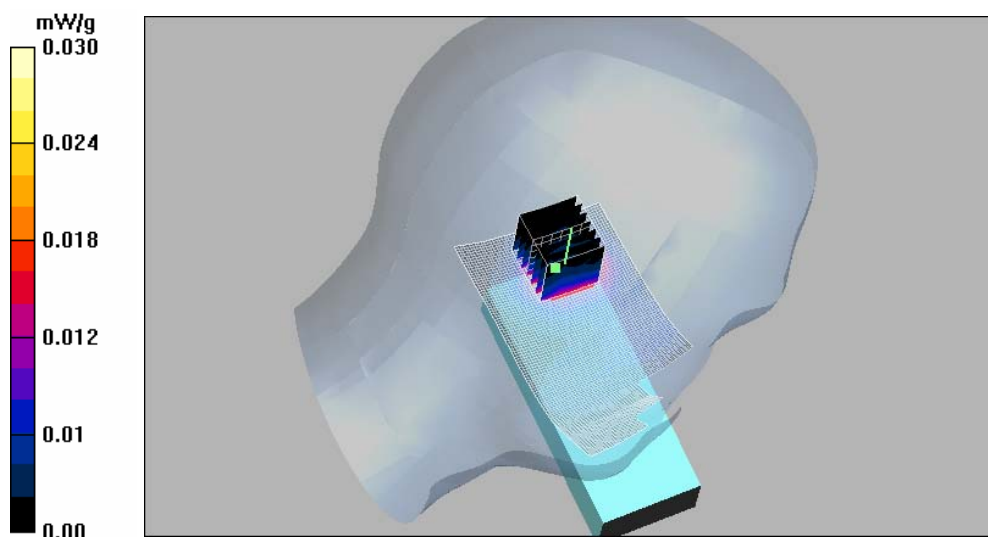
Reference Value = 3.52 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.054 W/kg

SAR(1 g) = 0.026 mW/g; SAR(10 g) = 0.014 mW/g

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

Maximum value of SAR (measured) = 0.027 mW/g



Date/Time: 2005-10-06 21:20:16

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: WLAN
Frequency: 2472 MHz; Duty Cycle: 1:1
Medium: Head 2450; Medium Notes: Medium Temperature: $t=21.4\text{ }^{\circ}\text{C}$
Medium parameters used (interpolated): $f = 2472\text{ MHz}$; $\sigma = 1.88\text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.47, 4.47, 4.47); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM High band; Type: Twin Phantom; Serial: TP-1274
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Cheek position - High - Slide open/Area Scan (81x151x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

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

Maximum value of SAR (interpolated) = 0.052 mW/g

Cheek position - High - Slide open/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

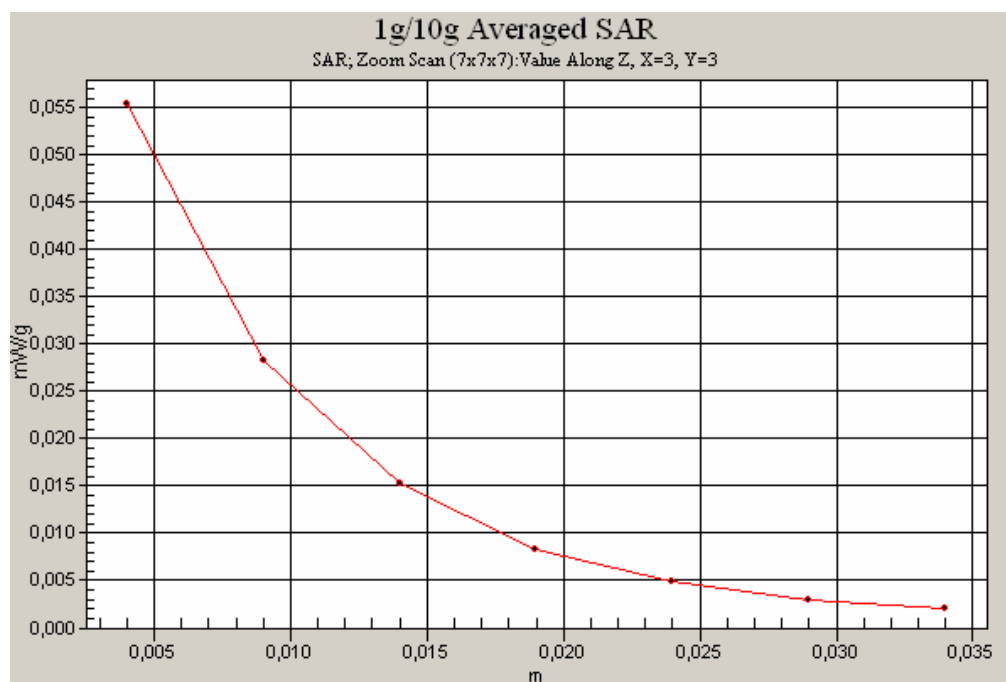
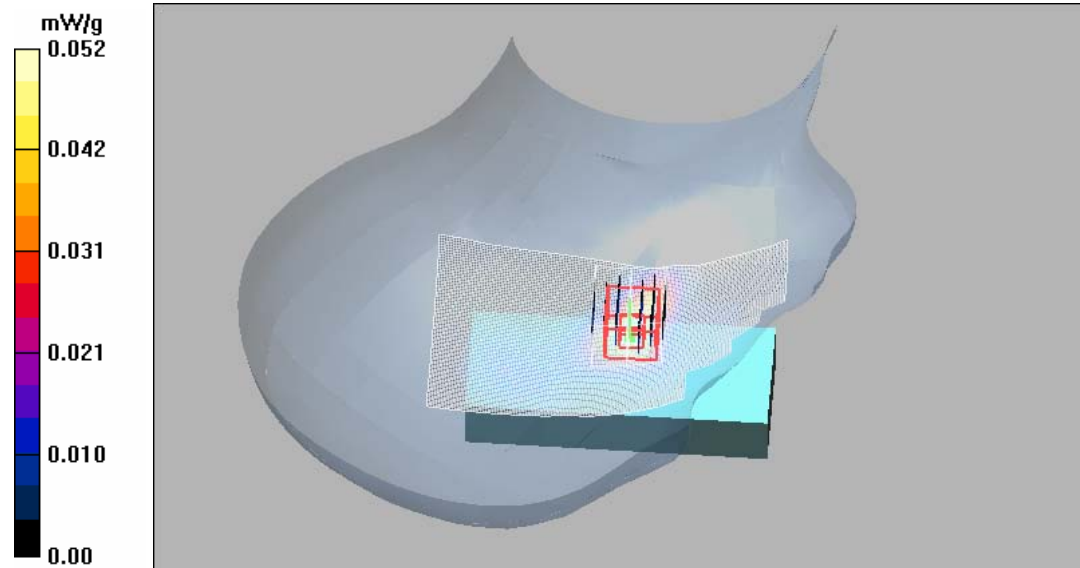
Reference Value = 2.36 V/m ; Power Drift = -0.171 dB

Peak SAR (extrapolated) = 0.112 W/kg

SAR(1 g) = 0.049 mW/g ; SAR(10 g) = 0.025 mW/g

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

Maximum value of SAR (measured) = 0.055 mW/g



Date/Time: 2005-10-06 18:39:05

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: WLAN
Frequency: 2442 MHz; Duty Cycle: 1:1
Medium: Head 2450; Medium Notes: Medium Temperature: $t=21.4\text{ C}$
Medium parameters used (interpolated): $f = 2442\text{ MHz}$; $\sigma = 1.85\text{ mho/m}$; $\epsilon_r = 40.2$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.47, 4.47, 4.47); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM High band; Type: Twin Phantom; Serial: TP-1274
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Tilt position - Middle - Slide open/Area Scan (51x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.023 mW/g

Tilt position - Middle - Slide open/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.43 V/m ; Power Drift = 0.015 dB

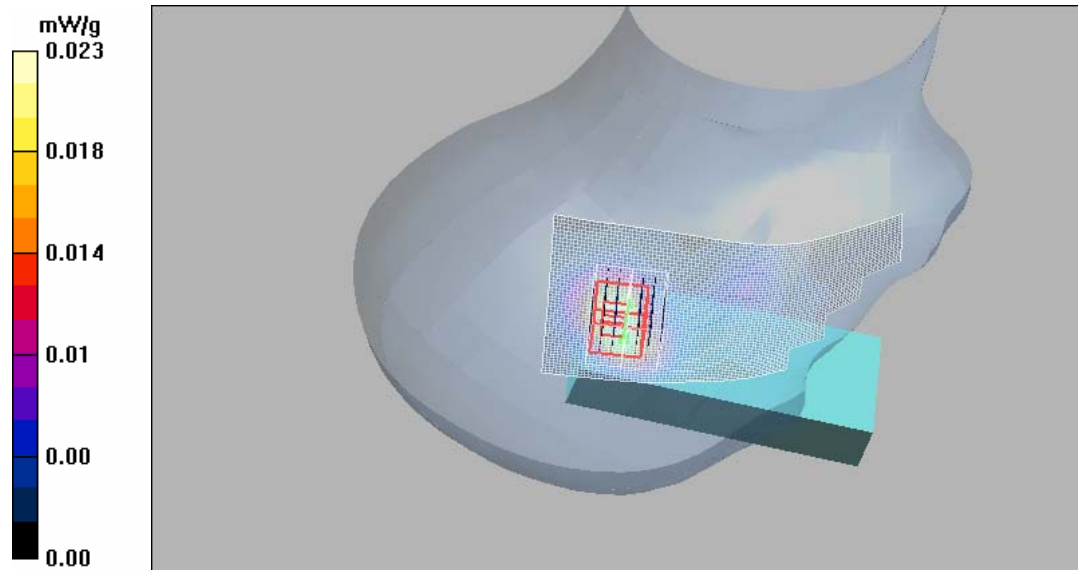
Peak SAR (extrapolated) = 0.042 W/kg

SAR(1 g) = 0.021 mW/g ; SAR(10 g) = 0.012 mW/g

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

Warning: Maximum averaged SAR over 10 g is located on the boundary of the measurement cube. This cube might not incorporate the absolute averaged SAR. Please consider a refinement of the Area Scan measurement.

Maximum value of SAR (measured) = 0.022 mW/g



Date/Time: 2005-11-02 15:37:19

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: 2-slot GPRS850
Frequency: 824.2 MHz; Duty Cycle: 1:4.2
Medium: Body 850; Medium Notes: Medium Temperature: $t = 20.9\text{ }^{\circ}\text{C}$
Medium parameters used (interpolated): $f = 824.2\text{ MHz}$; $\sigma = 0.951\text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(6.26, 6.26, 6.26); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM High band; Type: Twin Phantom; Serial: TP-1274
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Body - Low - No Accessory/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.962 mW/g

Body - Low - No Accessory/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

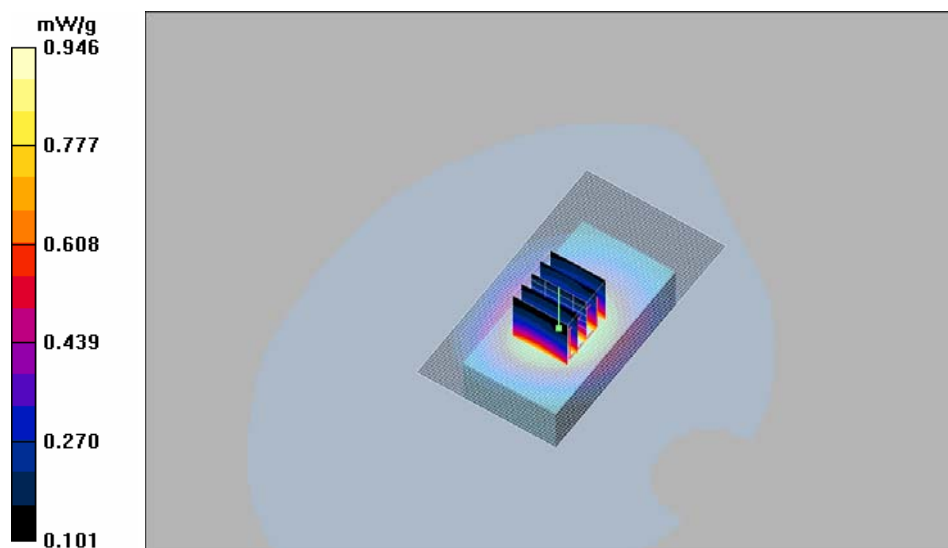
Reference Value = 23.3 V/m ; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.36 W/kg

SAR(1 g) = 0.899 mW/g ; SAR(10 g) = 0.621 mW/g

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

Maximum value of SAR (measured) = 0.946 mW/g



Date/Time: 2005-10-04 19:51:46

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: 3-slot GPRS850
Frequency: 836.6 MHz; Duty Cycle: 1:2.8
Medium: Body 850; Medium Notes: Medium Temperature: $t = 21.3$ C
Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.968$ mho/m; $\epsilon_r = 54.9$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(6.26, 6.26, 6.26); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM High band; Type: Twin Phantom; Serial: TP-1274
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Body - Middle - No Accessory/Area Scan (51x91x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

Maximum value of SAR (interpolated) = 0.987 mW/g

Body - Middle - No Accessory/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

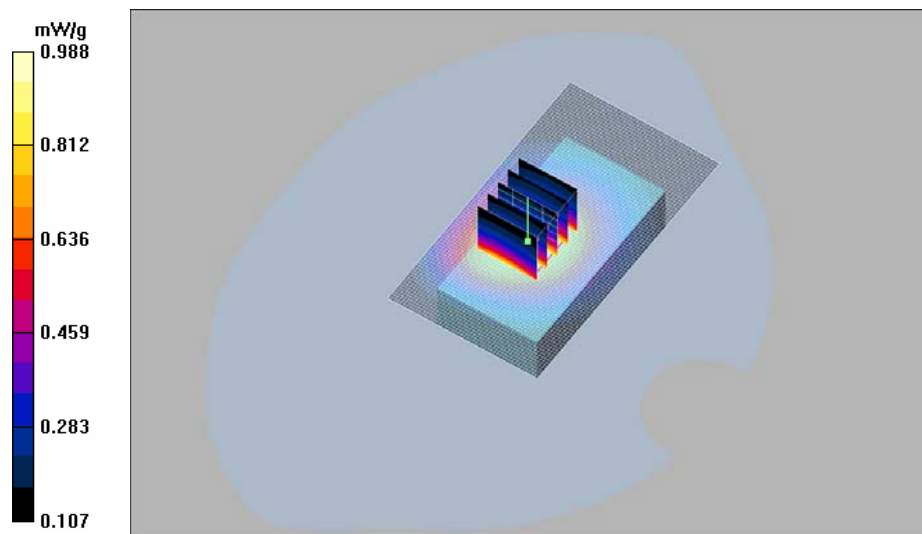
Reference Value = 22.1 V/m; Power Drift = -0.130 dB

Peak SAR (extrapolated) = 1.45 W/kg

SAR(1 g) = 0.936 mW/g; SAR(10 g) = 0.637 mW/g

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

Maximum value of SAR (measured) = 0.988 mW/g



Date/Time: 2005-10-04 21:48:22

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: 3-slot GPRS850
Frequency: 836.6 MHz; Duty Cycle: 1:2.8
Medium: Body 850; Medium Notes: Medium Temperature: $t = 21.3\text{ }^{\circ}\text{C}$
Medium parameters used (interpolated): $f = 836.6\text{ MHz}$; $\sigma = 0.968\text{ mho/m}$; $\epsilon_r = 54.9$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(6.26, 6.26, 6.26); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM High band; Type: Twin Phantom; Serial: TP-1274
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Body - Middle - No Accessory - SD card/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Info: Interpolated medium parameters used for SAR evaluation!

Maximum value of SAR (interpolated) = 1.07 mW/g

Body - Middle - No Accessory - SD card/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

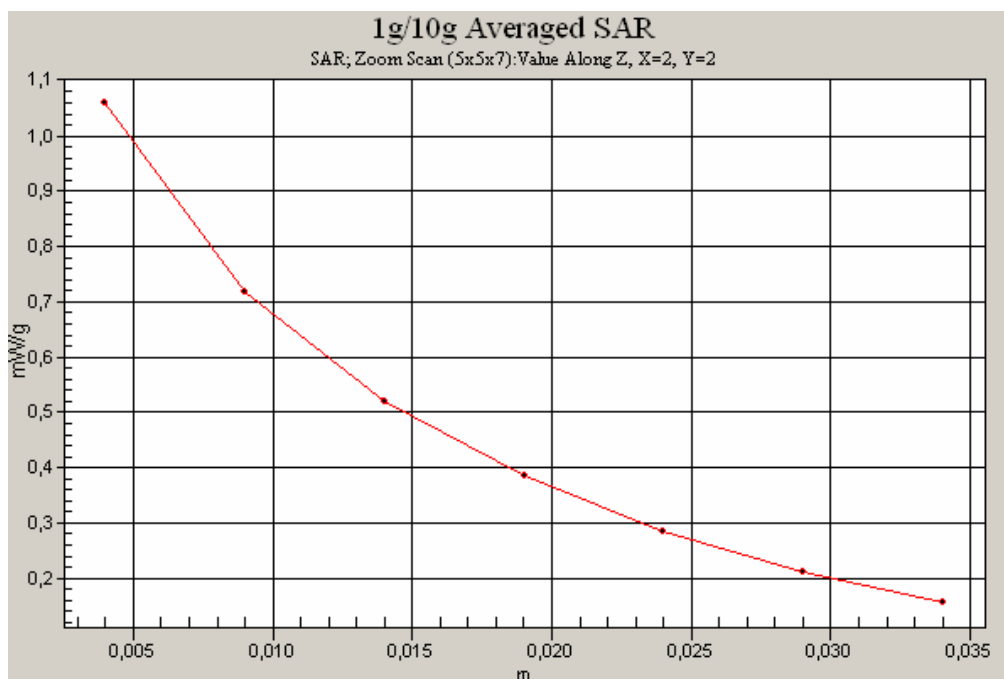
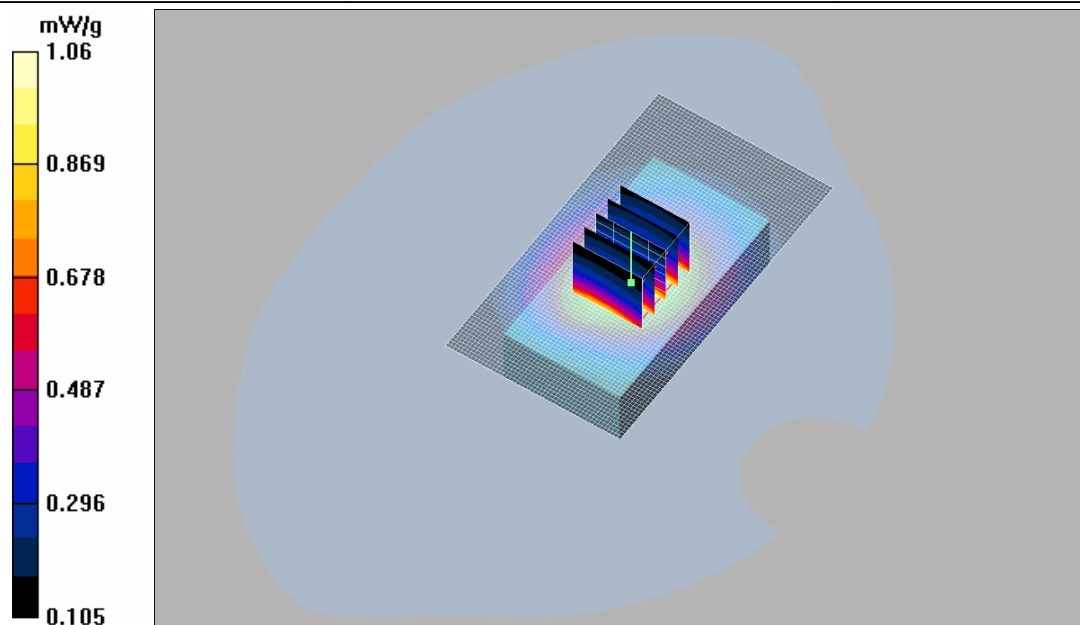
Reference Value = 21.5 V/m ; Power Drift = -0.095 dB

Peak SAR (extrapolated) = 1.57 W/kg

SAR(1 g) = 1 mW/g ; SAR(10 g) = 0.681 mW/g

Info: Interpolated medium parameters used for SAR evaluation!

Maximum value of SAR (measured) = 1.06 mW/g



Date/Time: 2005-10-07 18:12:52

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: 2-slot GPRS1900
Frequency: 1850.2 MHz; Duty Cycle: 1:4.2
Medium: Body 1900; Medium Notes: Medium Temperature: $t=20.9\text{ }^{\circ}\text{C}$
Medium parameters used (interpolated): $f = 1850.2\text{ MHz}$; $\sigma = 1.45\text{ mho/m}$; $\epsilon_r = 53.1$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.44, 4.44, 4.44); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM Body; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Body - Low + HS-23/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.613 mW/g

Body - Low + HS-23/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

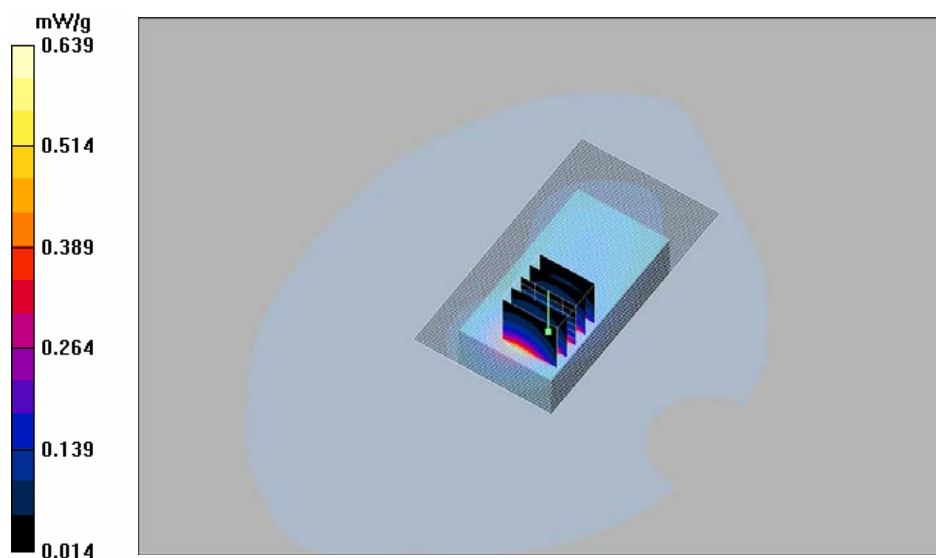
Reference Value = 18.4 V/m ; Power Drift = -0.024 dB

Peak SAR (extrapolated) = 1.18 W/kg

SAR(1 g) = 0.572 mW/g ; SAR(10 g) = 0.314 mW/g

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

Maximum value of SAR (measured) = 0.639 mW/g



Date/Time: 2005-10-07 16:24:48

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: 3-slot GPRS1900
Frequency: 1850.2 MHz; Duty Cycle: 1:2.8
Medium: Body 1900; Medium Notes: Medium Temperature: $t=20.9\text{ C}$
Medium parameters used (interpolated): $f = 1850.2\text{ MHz}$; $\sigma = 1.45\text{ mho/m}$; $\epsilon_r = 53.1$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.44, 4.44, 4.44); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM Body; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Body - Low + HS-23/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.737 mW/g

Body - Low + HS-23/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

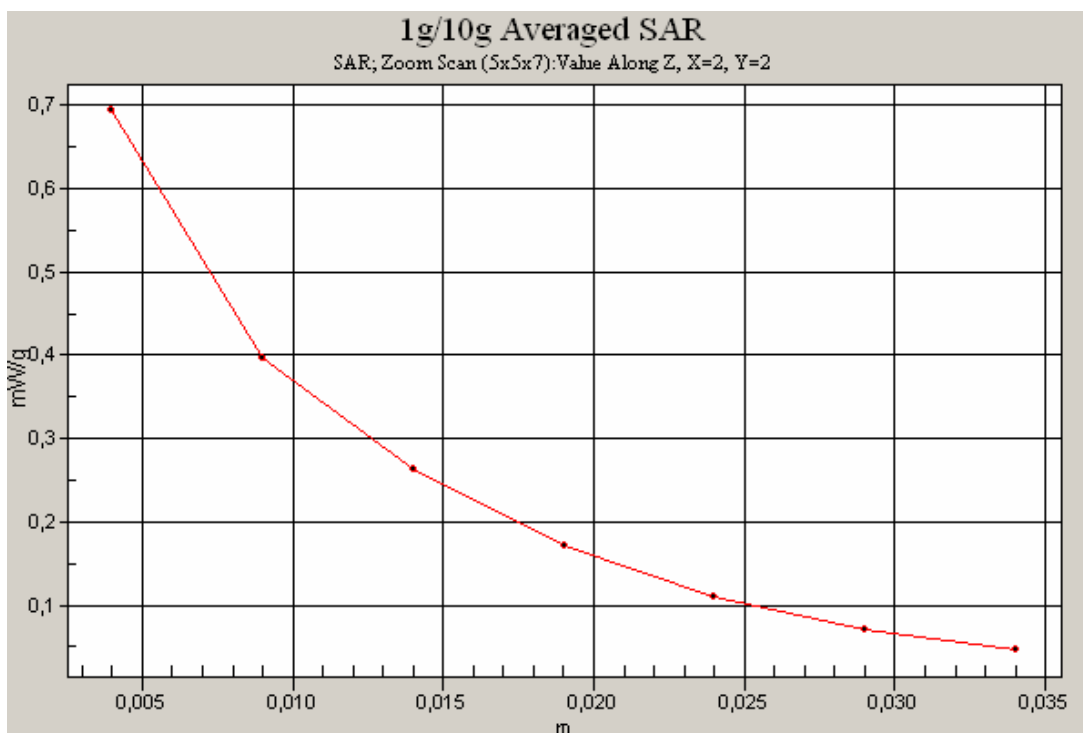
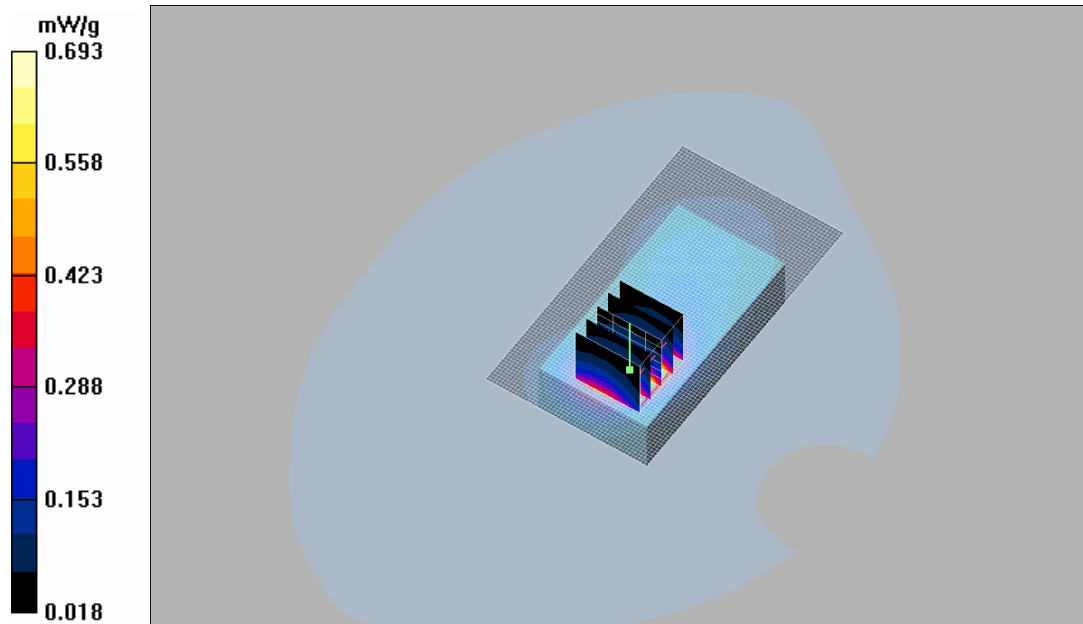
Reference Value = 19.9 V/m ; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.41 W/kg

SAR(1 g) = 0.667 mW/g ; SAR(10 g) = 0.362 mW/g

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

Maximum value of SAR (measured) = 0.693 mW/g



Date/Time: 2005-10-10 10:23:17

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: WCDMA1900
Frequency: 1852.4 MHz; Duty Cycle: 1:1
Medium: Body 1900; Medium Notes: Medium Temperature: $t=20.7\text{ C}$
Medium parameters used (interpolated): $f = 1852.4\text{ MHz}$; $\sigma = 1.45\text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.44, 4.44, 4.44); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM Body; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Body - Low - No Accessory/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.584 mW/g

Body - Low - No Accessory/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

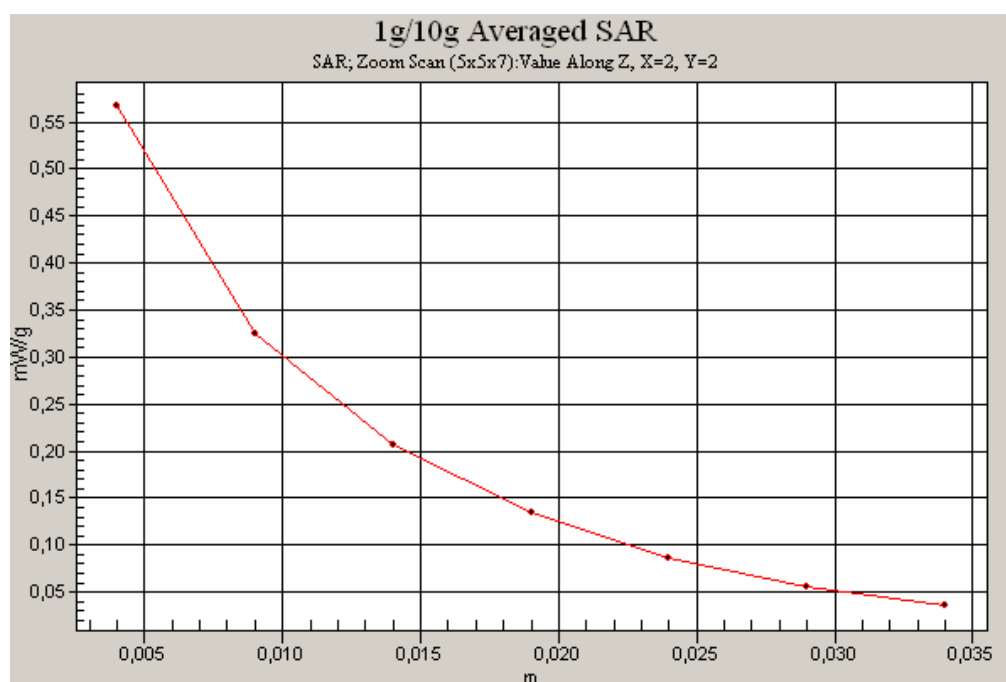
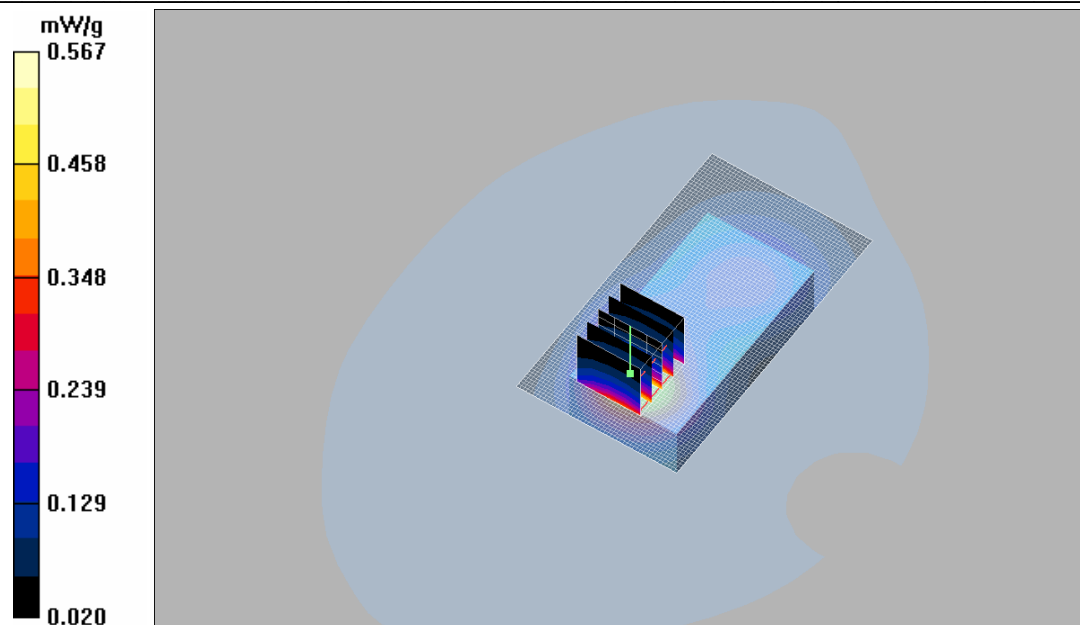
Reference Value = 19.5 V/m ; Power Drift = -0.055 dB

Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.535 mW/g ; SAR(10 g) = 0.310 mW/g

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

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



Date/Time: 2005-10-10 12:32:51

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

Communication System: WCDMA1900
Frequency: 1852.4 MHz; Duty Cycle: 1:1
Medium: Body 1900; Medium Notes: Medium Temperature: $t=20.7\text{ }^{\circ}\text{C}$
Medium parameters used (interpolated): $f = 1852.4\text{ MHz}$; $\sigma = 1.45\text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.44, 4.44, 4.44); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM Body; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 145

Body - Low - BT Active/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (interpolated) = 0.603 mW/g

Body - Low - BT Active/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

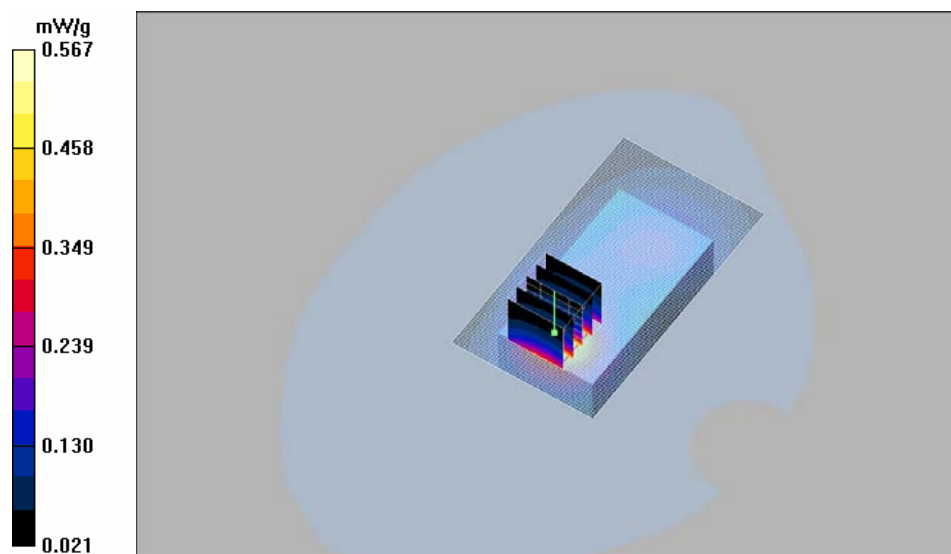
Reference Value = 19.6 V/m ; Power Drift = -0.096 dB

Peak SAR (extrapolated) = 1.09 W/kg

SAR(1 g) = 0.535 mW/g ; SAR(10 g) = 0.308 mW/g

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

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



Date/Time: 2005-10-15 18:48:20

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

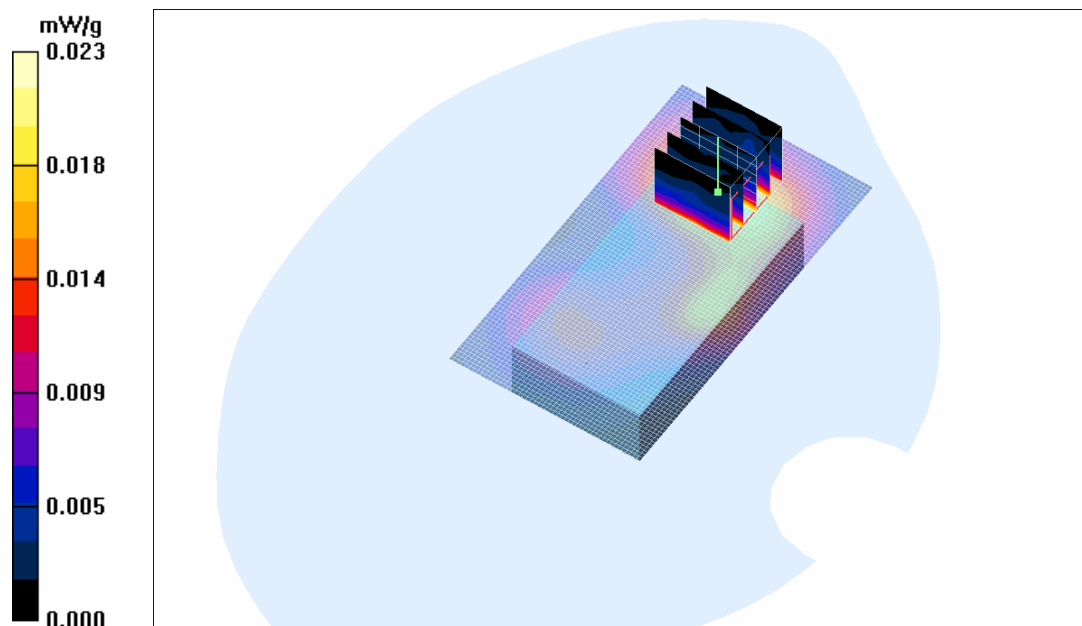
Communication System: WLAN
Frequency: 2472 MHz; Duty Cycle: 1:1
Medium: Body 2450; Medium Notes: Medium Temperature: $t=20.8\text{ }^{\circ}\text{C}$
Medium parameters used: $f = 2472\text{ MHz}$; $\sigma = 2.01\text{ mho/m}$; $\epsilon_r = 51.5$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.12, 4.12, 4.12); Calibrated: 2005-01-21
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 2005-01-24
- Phantom: SAM High band; Type: Twin Phantom; Serial: TP-1274
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Body - High - No Accessory/Area Scan (51x91x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 0.022 mW/g

Body - High - No Accessory/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$
Reference Value = 2.34 V/m; Power Drift = 0.232 dB
Peak SAR (extrapolated) = 0.049 W/kg
SAR(1 g) = 0.021 mW/g; SAR(10 g) = 0.011 mW/g
Maximum value of SAR (measured) = 0.023 mW/g



Date/Time: 2005-10-15 20:54:58

Test Laboratory: TCC Copenhagen
Type: RM-91; Serial: 004400/68/162161/9

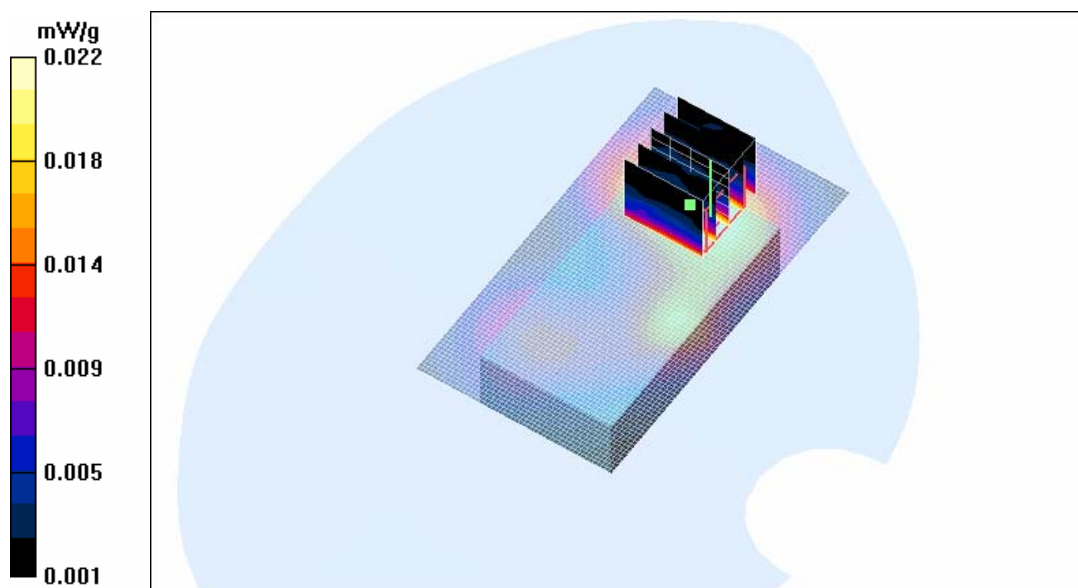
Communication System: WLAN
Frequency: 2472 MHz; Duty Cycle: 1:1
Medium: Body 2450; Medium Notes: Medium Temperature: $t=20.8\text{ }^{\circ}\text{C}$
Medium parameters used: $f = 2472\text{ MHz}$; $\sigma = 2.01\text{ mho/m}$; $\epsilon_r = 51.5$; $\rho = 1000\text{ kg/m}^3$
Phantom section: Flat Section

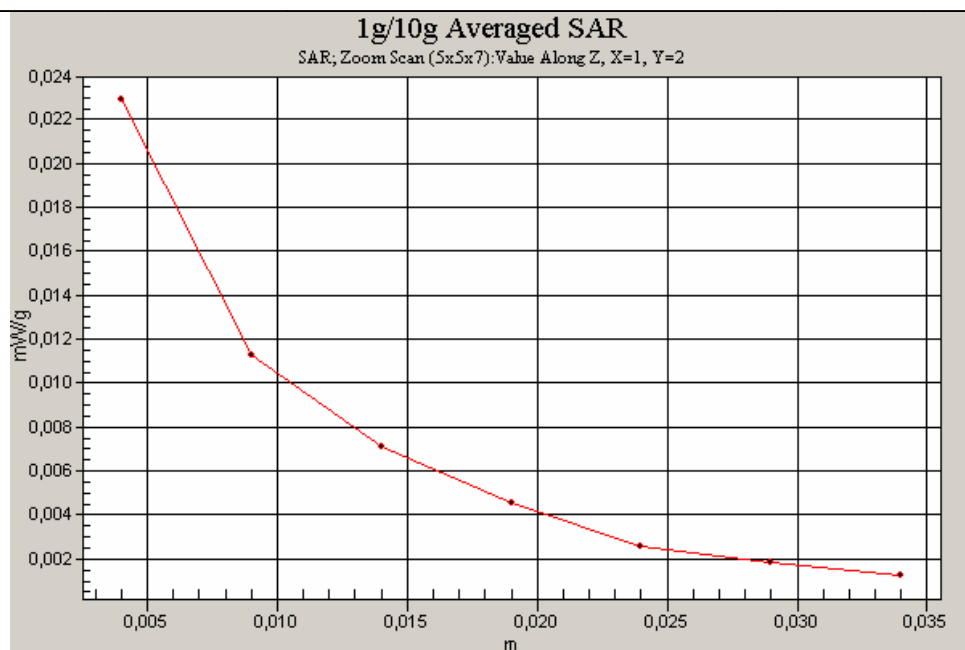
DASY4 Configuration:

- Probe: ET3DV6 - SN1807; Probe Notes: Worst Case Extrapolation
- ConvF(4.12, 4.12, 4.12); Calibrated: 21-01-2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn501; Calibrated: 24-01-2005
- Phantom: SAM High band; Type: Twin Phantom; Serial: TP-1274
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Body - High - No Accessory - SD card/Area Scan (51x91x1): Measurement grid: $dx=15\text{ mm}$, $dy=15\text{ mm}$
Maximum value of SAR (interpolated) = 0.022 mW/g

Body - High - No Accessory - SD card/Zoom Scan (5x5x7) (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{ mm}$, $dy=7.5\text{ mm}$, $dz=5\text{ mm}$
Reference Value = 2.34 V/m ; Power Drift = -0.075 dB
Peak SAR (extrapolated) = 0.051 W/kg
SAR(1 g) = 0.022 mW/g ; SAR(10 g) = 0.013 mW/g
Maximum value of SAR (measured) = 0.023 mW/g





APPENDIX C: RELEVANT PAGES FROM PROBE CALIBRATION REPORT(S)

See the following pages.

18976

**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Federal Office of Metrology and Accreditation
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Nokia DK**

Certificate No: **ET3-1786_Jan05**

CALIBRATION CERTIFICATE

Object **ET3DV6 - SN:1786**

Calibration procedure(s) **QA CAL-01.v5
Calibration procedure for dosimetric E-field probes**

Calibration date: **January 21, 2005**

Condition of the calibrated item **In Tolerance**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	5-May-04 (METAS, No. 251-00388)	May-05
Power sensor E4412A	MY41495277	5-May-04 (METAS, No. 251-00388)	May-05
Reference 3 dB Attenuator	SN: S5054 (3c)	10-Aug-04 (METAS, No. 251-00403)	Aug-05
Reference 20 dB Attenuator	SN: S5086 (20b)	3-May-04 (METAS, No. 251-00389)	May-05
Reference 30 dB Attenuator	SN: S5129 (30b)	10-Aug-04 (METAS, No. 251-00404)	Aug-05
Reference Probe ES3DV2	SN: 3013	7-Jan-05 (SPEAG, No. ES3-3013_Jan05)	Jan-06
DAE4	SN: 617	29-Sep-04 (SPEAG, No. DAE4-617_Sep04)	Sep-05
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092180	18-Sep-02 (SPEAG, in house check Oct-03)	In house check: Oct 05
RF generator HP 8648C	US3642U01700	4-Aug-99 (SPEAG, in house check Dec-03)	In house check: Dec-05
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Nov-04)	In house check: Nov 05

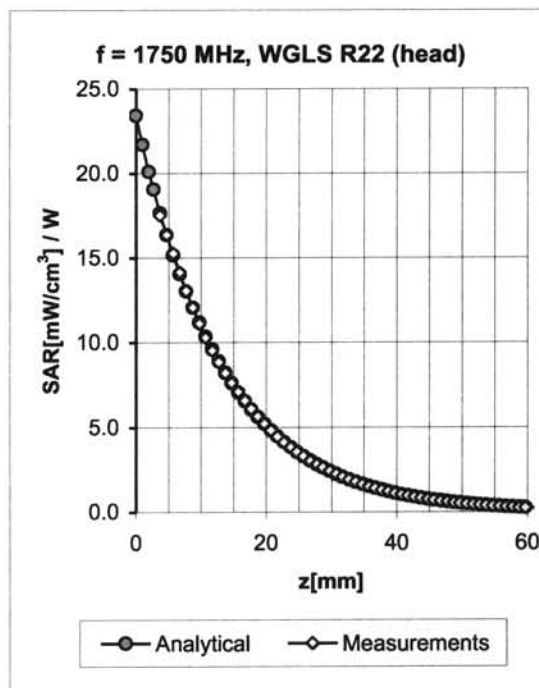
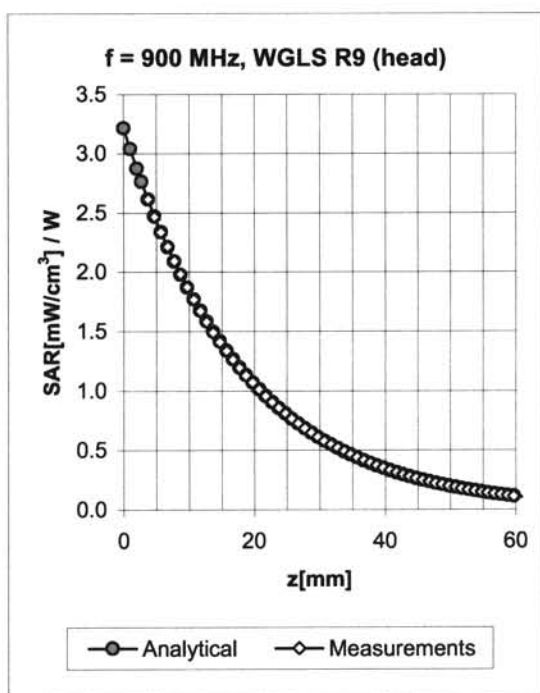
	Name	Function	Signature
Calibrated by:	Nico Vetterli	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: January 21, 2005

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

28/1-05
HL

Conversion Factor Assessment



f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
835	± 50 / ± 100	Head	41.5 ± 5%	0.90 ± 5%	0.67	1.74	6.56 ± 11.0% (k=2)
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.59	1.86	6.36 ± 11.0% (k=2)
1750	± 50 / ± 100	Head	40.1 ± 5%	1.37 ± 5%	0.62	2.23	5.29 ± 11.0% (k=2)
1900	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.59	2.40	5.11 ± 11.0% (k=2)
1950	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.57	2.59	4.74 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.71	2.10	4.55 ± 11.8% (k=2)
835	± 50 / ± 100	Body	55.2 ± 5%	0.97 ± 5%	0.59	1.91	6.38 ± 11.0% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.47	2.19	6.06 ± 11.0% (k=2)
1750	± 50 / ± 100	Body	53.4 ± 5%	1.49 ± 5%	0.57	2.68	4.68 ± 11.0% (k=2)
1900	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.57	2.82	4.52 ± 11.0% (k=2)
1950	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.62	2.45	4.41 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.72	2.03	4.20 ± 11.8% (k=2)

^c The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

19227

**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Federal Office of Metrology and Accreditation
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Nokia DK**

Certificate No: **ET3-1807_Jan05**

CALIBRATION CERTIFICATE

Object **ET3DV6 - SN:1807**

Calibration procedure(s) **QA CAL-01.v5
Calibration procedure for dosimetric E-field probes**

Calibration date: **January 21, 2005**

Condition of the calibrated item **In Tolerance**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	5-May-04 (METAS, No. 251-00388)	May-05
Power sensor E4412A	MY41495277	5-May-04 (METAS, No. 251-00388)	May-05
Reference 3 dB Attenuator	SN: S5054 (3c)	10-Aug-04 (METAS, No. 251-00403)	Aug-05
Reference 20 dB Attenuator	SN: S5086 (20b)	3-May-04 (METAS, No. 251-00389)	May-05
Reference 30 dB Attenuator	SN: S5129 (30b)	10-Aug-04 (METAS, No. 251-00404)	Aug-05
Reference Probe ES3DV2	SN: 3013	7-Jan-05 (SPEAG, No. ES3-3013_Jan05)	Jan-06
DAE4	SN: 617	29-Sep-04 (SPEAG, No. DAE4-617_Sep04)	Sep-05

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092180	18-Sep-02 (SPEAG, in house check Oct-03)	In house check: Oct 05
RF generator HP 8648C	US3642U01700	4-Aug-99 (SPEAG, in house check Dec-03)	In house check: Dec-05
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Nov-04)	In house check: Nov 05

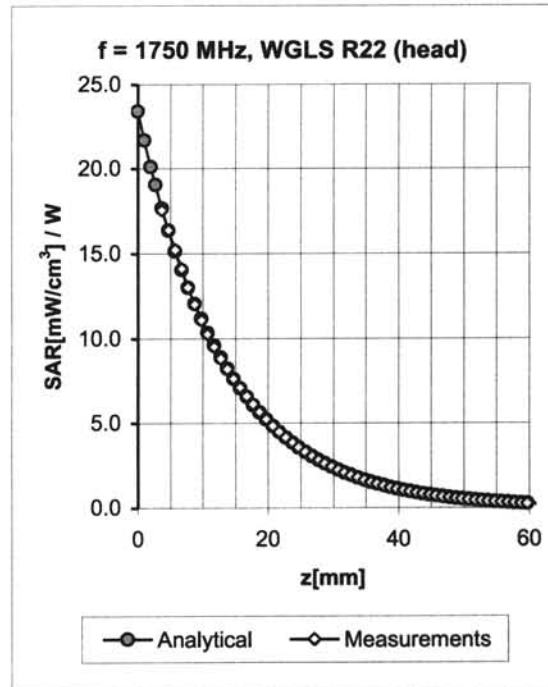
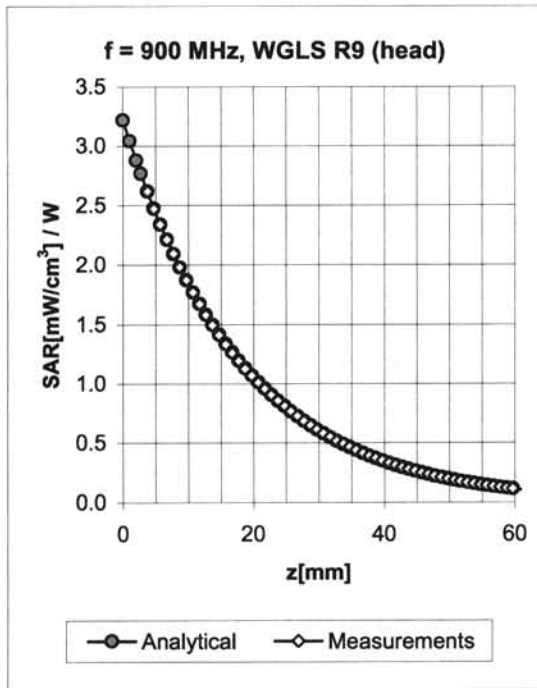
	Name	Function	Signature
Calibrated by:	Nico Vetterli	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: January 21, 2005

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

28/1-05
JK

Conversion Factor Assessment



f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
835	± 50 / ± 100	Head	41.5 ± 5%	0.90 ± 5%	0.68	1.75	6.46 ± 11.0% (k=2)
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.64	1.81	6.25 ± 11.0% (k=2)
1750	± 50 / ± 100	Head	40.1 ± 5%	1.37 ± 5%	0.56	2.34	5.19 ± 11.0% (k=2)
1900	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.51	2.58	5.04 ± 11.0% (k=2)
1950	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.53	2.68	4.70 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.62	2.29	4.47 ± 11.8% (k=2)
835	± 50 / ± 100	Body	55.2 ± 5%	0.97 ± 5%	0.50	2.07	6.26 ± 11.0% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.49	2.15	5.97 ± 11.0% (k=2)
1750	± 50 / ± 100	Body	53.4 ± 5%	1.49 ± 5%	0.50	2.86	4.59 ± 11.0% (k=2)
1900	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.51	2.94	4.44 ± 11.0% (k=2)
1950	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.55	2.63	4.35 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.63	2.18	4.12 ± 11.8% (k=2)

^c The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

APPENDIX D: RELEVANT PAGES FROM DIPOLE VALIDATION KIT REPORT(S)

See the following pages.

18308

**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland



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S Swiss Calibration Service

Accredited by the Swiss Federal Office of Metrology and Accreditation
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Nokia DK 2**

Certificate No: **D835V2-476_Jan05**

CALIBRATION CERTIFICATE

Object **D835V2 - SN: 476**

Calibration procedure(s) **QA CAL-05.v6
Calibration procedure for dipole validation kits**

Calibration date: **January 18, 2005**

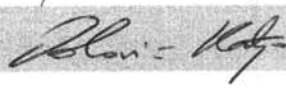
Condition of the calibrated item **In Tolerance**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature $(22 \pm 3)^{\circ}\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM E442	GB37480704	12-Oct-04 (METAS, No. 251-00412)	Oct-05
Power sensor HP 8481A	US37292783	12-Oct-04 (METAS, No. 251-00412)	Oct-05
Reference 20 dB Attenuator	SN: 5086 (20g)	10-Aug-04 (METAS, No 251-00402)	Aug-05
Reference 10 dB Attenuator	SN: 5047.2 (10r)	10-Aug-04 (METAS, No 251-00402)	Aug-05
Reference Probe ET3DV6	SN 1507	26-Oct-04 (SPEAG, No. ET3-1507_Oct04)	Oct-05
DAE4	SN 601	07-Jan-05 (SPEAG, No. DAE4-601_Jan05)	Jan-06
DAE4	SN 907	03-May-04 (SPEAG, No. DAE4-907_May04)	May-05
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (SPEAG, in house check Oct-03)	In house check: Oct-05
RF generator R&S SML-03	100698	27-Mar-02 (SPEAG, in house check Dec-03)	In house check: Dec-05
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (SPEAG, in house check Nov-04)	In house check: Nov-05

	Name	Function	Signature
Calibrated by:	Judith Müller	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: January 19, 2005

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

18/1-05
DL

DASY4 Validation Report for Head TSL

Date/Time: 01/18/05 14:32:56

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN476

Communication System: CW-835; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL 900 MHz;

Medium parameters used: $f = 835$ MHz; $\sigma = 0.91$ mho/m; $\epsilon_r = 42$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(6.24, 6.24, 6.24); Calibrated: 26.10.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 07.01.2005
- Phantom: Flat Phantom half size; Type: QD000P49AA; Serial: SN:1001;
- Measurement SW: DASY4, V4.4 Build 11; Postprocessing SW: SEMCAD, V1.8 Build 133

Pin = 250 mW; d = 15 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.47 mW/g

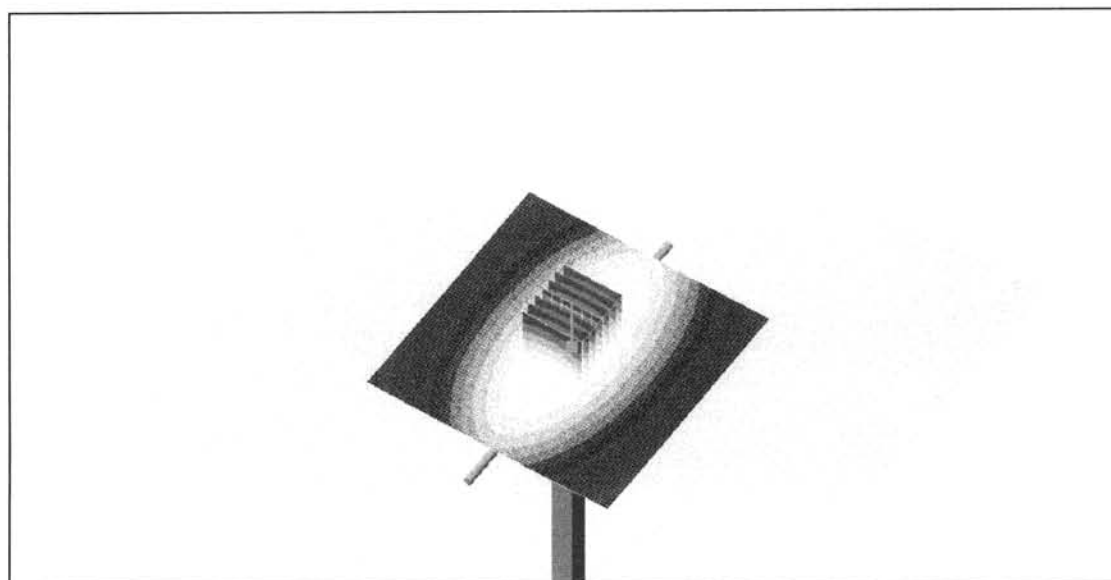
Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54 V/m; Power Drift = 0.0 dB

Peak SAR (extrapolated) = 3.32 W/kg

SAR(1 g) = 2.27 mW/g; SAR(10 g) = 1.49 mW/g

Maximum value of SAR (measured) = 2.46 mW/g



0 dB = 2.46mW/g

DASY4 Validation Report for Body TSL

Date/Time: 01/11/05 10:36:02

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN476

Communication System: CW-835; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL 900 MHz;

Medium parameters used: $f = 835$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 54.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(5.98, 5.98, 5.98); Calibrated: 26.10.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn907; Calibrated: 03.05.2004
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001;
- Measurement SW: DASY4, V4.4 Build 10; Postprocessing SW: SEMCAD, V1.8 Build 133

Pin = 250 mW; d = 15 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.68 mW/g

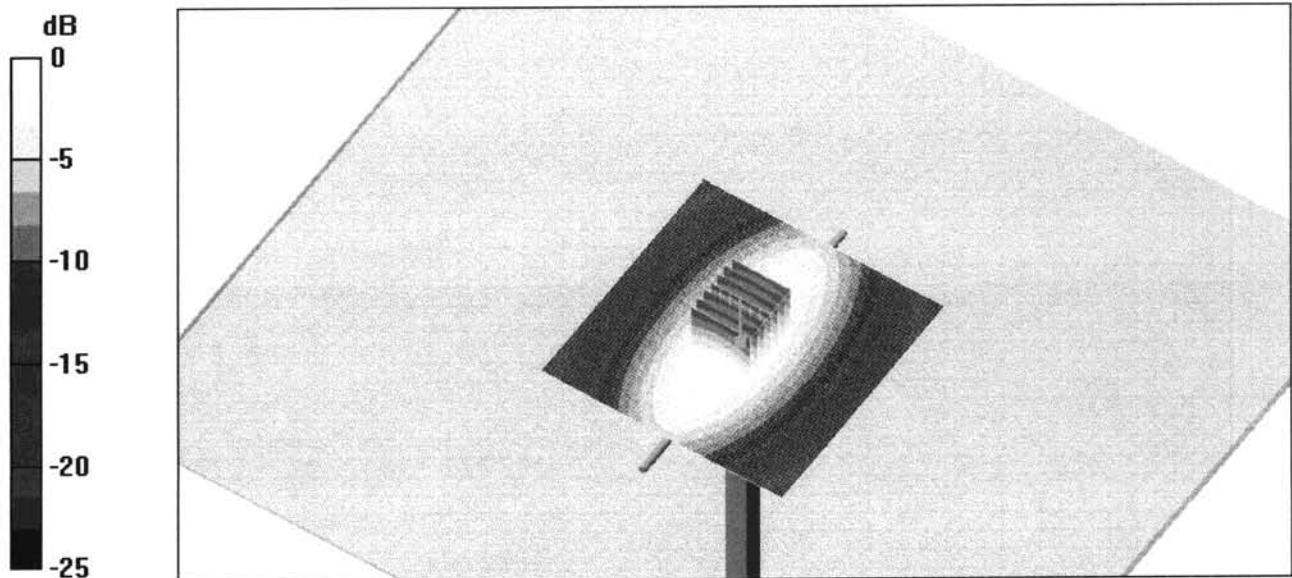
Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.7 V/m; Power Drift = 0.0 dB

Peak SAR (extrapolated) = 3.56 W/kg

SAR(1 g) = 2.47 mW/g; SAR(10 g) = 1.62 mW/g

Maximum value of SAR (measured) = 2.67 mW/g



0 dB = 2.67mW/g

Client

Nokia Salo TCC

CALIBRATION CERTIFICATE

Object(s) **D1900V2 - SN:5d013**

Calibration procedure(s) **QA CAL-05.v2
Calibration procedure for dipole validation kits**

Calibration date: **July 13, 2004**

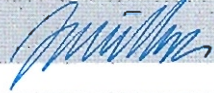
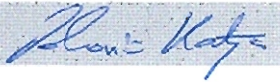
Condition of the calibrated item **In Tolerance (according to the specific calibration document)**

This calibration statement documents traceability of M&TE used in the calibration procedures and conformity of the procedures with the ISO/IEC 17025 international standard.

All calibrations have been conducted in the closed laboratory facility: environment temperature 22 +/- 2 degrees Celsius and humidity < 75%.

Calibration Equipment used (M&TE critical for calibration)

Model Type	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM E442	GB37480704	6-Nov-03 (METAS, No. 252-0254)	Nov-04
Power sensor HP 8481A	US37292783	6-Nov-03 (METAS, No. 252-0254)	Nov-04
Power sensor HP 8481A	MY41092317	18-Oct-02 (Agilent, No. 20021018)	Oct-04
RF generator R&S SML-03	100698	27-Mar-2002 (R&S, No. 20-92389)	In house check: Mar-05
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Nov-03)	In house check: Oct 05

	Name	Function	Signature
Calibrated by:	Judith Mueller	Technician	
Approved by:	Katja Pokovic	Laboratory Director	

Date issued: July 15, 2004

This calibration certificate is issued as an intermediate solution until the accreditation process (based on ISO/IEC 17025 International Standard) for Calibration Laboratory of Schmid & Partner Engineering AG is completed.

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN5d013

Communication System: CW-1900; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL 1900 MHz;

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(4.96, 4.96, 4.96); Calibrated: 1/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn903; Calibrated: 2/19/2004
- Phantom: Flat Phantom quarter size; Type: QD000P50AA; Serial: SN:1002;
- Measurement SW: DASY4, V4.3 Build 8; Postprocessing SW: SEMCAD, V1.8 Build 117

Pin = 250 mW; d = 10 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 11.4 mW/g

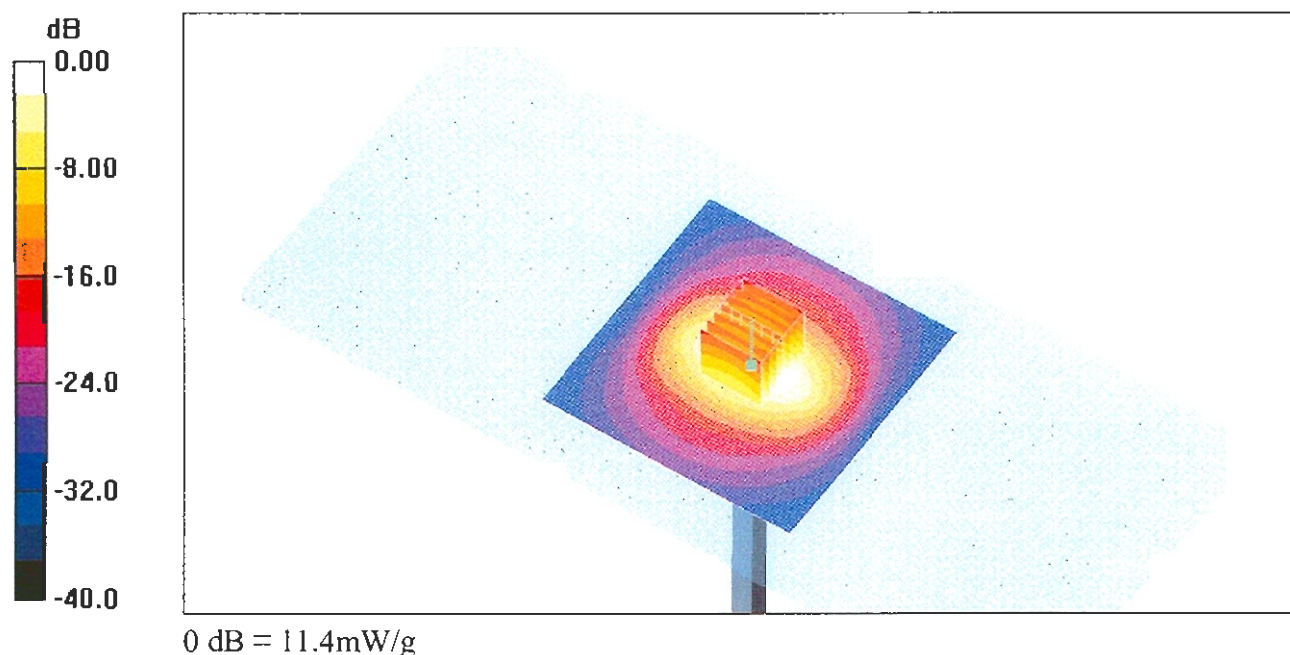
Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 93.6 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 17.9 W/kg

SAR(1 g) = 10 mW/g; SAR(10 g) = 5.24 mW/g

Maximum value of SAR (measured) = 11.4 mW/g



Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN5d013

Communication System: CW-1900; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: Muscle 1900 MHz;

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.58$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(4.57, 4.57, 4.57); Calibrated: 1/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn903; Calibrated: 2/19/2004
- Phantom: SAM with CRP - TP1006; Type: SAM 4.0; Serial: TP:1006;
- Measurement SW: DASY4, V4.3 Build 8; Postprocessing SW: SEMCAD, V1.8 Build 117

Pin = 250 mW; d = 10 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 12.0 mW/g

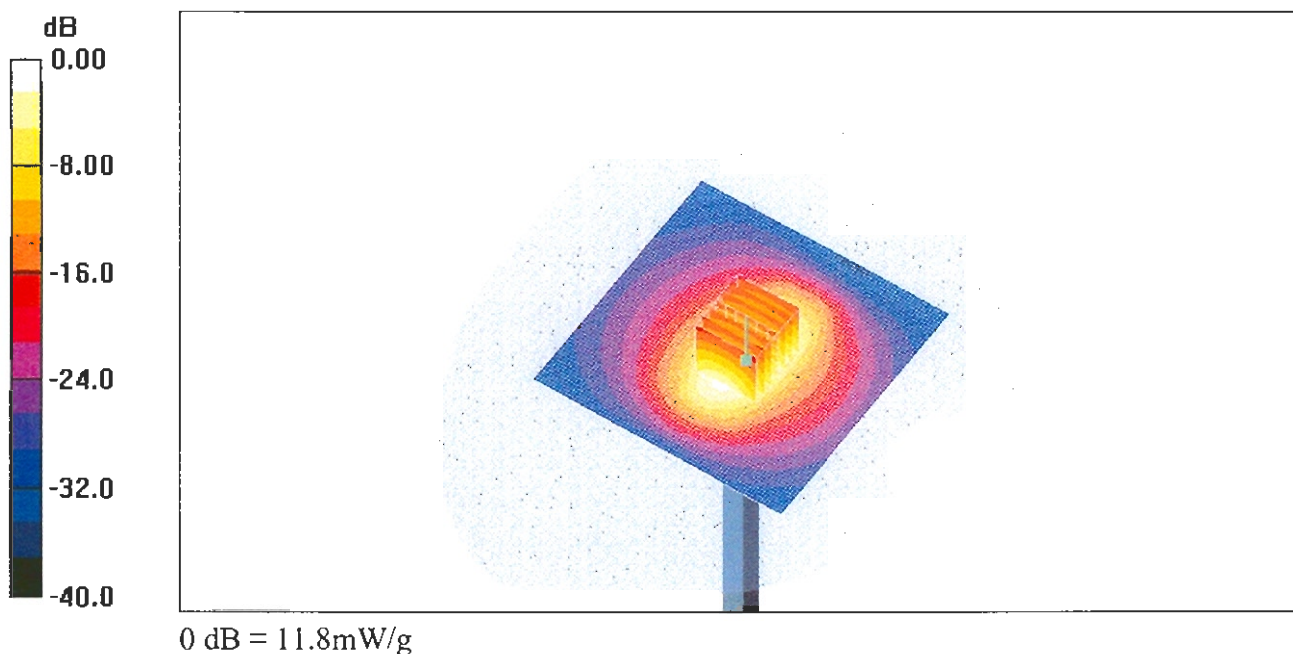
Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 82.5 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 18.9 W/kg

SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.41 mW/g

Maximum value of SAR (measured) = 11.8 mW/g



Client Nokia DK

CALIBRATION CERTIFICATE

Object(s) D2450V2 - SN:750

Calibration procedure(s) QA CAL-05.v2
Calibration procedure for dipole validation kits

Calibration date: June 7, 2004

Condition of the calibrated item In Tolerance (according to the specific calibration document)

This calibration statement documents traceability of M&TE used in the calibration procedures and conformity of the procedures with the ISO/IEC 17025 international standard.

All calibrations have been conducted in the closed laboratory facility: environment temperature 22 +/- 2 degrees Celsius and humidity < 75%.

Calibration Equipment used (M&TE critical for calibration)

Model Type	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM E442	GB37480704	6-Nov-03 (METAS, No. 252-0254)	Nov-04
Power sensor HP 8481A	US37292783	6-Nov-03 (METAS, No. 252-0254)	Nov-04
Power sensor HP 8481A	MY41092317	18-Oct-02 (Agilent, No. 20021018)	Oct-04
RF generator R&S SML-03	100698	27-Mar-2002 (R&S, No. 20-92389)	In house check: Mar-05
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Nov-03)	In house check: Oct 05

	Name	Function	Signature
Calibrated by:	Judith Mueller	Technician	
Approved by:	Katja Pokovic	Laboratory Director	

Date issued: June 14, 2004

This calibration certificate is issued as an intermediate solution until the accreditation process (based on ISO/IEC 17025 International Standard) for Calibration Laboratory of Schmid & Partner Engineering AG is completed.

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN750

Communication System: CW-2450; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL 2450 MHz;

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ES3DV2 - SN3025; ConvF(4.55, 4.55, 4.55); Calibrated: 9/29/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn411; Calibrated: 11/6/2003
- Phantom: SAM with CRP - TP1006; Type: SAM 4.0; Serial: TP:1006;
- Measurement SW: DASY4, V4.2 Build 54; Postprocessing SW: SEMCAD, V1.8 Build 112

Pin = 250 mW; d = 10 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 88.8 V/m; Power Drift = 0.0 dB

Maximum value of SAR (interpolated) = 15.3 mW/g

Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 88.8 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 15.3 mW/g

Peak SAR (extrapolated) = 29.5 W/kg

SAR(1 g) = 13.5 mW/g; SAR(10 g) = 6.15 mW/g

