APPENDIX A: SYSTEM CHECKING SCANS

Plot #1

Date/Time: 2014-03-25 08:12:37

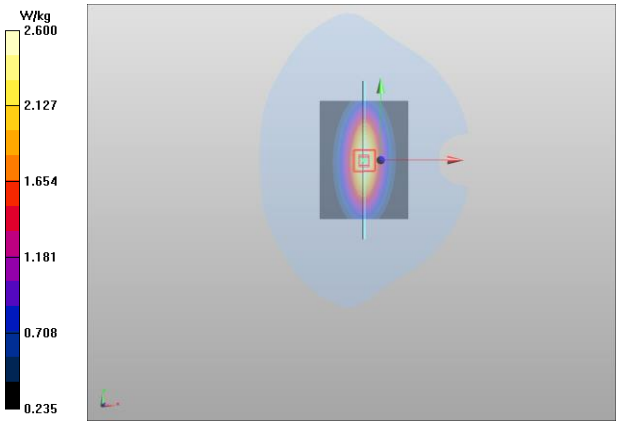
Test Laboratory: TCC Nokia
Type: D835V2; Serial: D835V2 - SN:480

Communication System: CW835
Frequency: 835 MHz; Duty Cycle: 1:1
Medium: HSL835; Medium Notes: t= 22.1 C
Medium parameters used: f = 835 MHz; σ = 0.901 S/m; ε_r = 40.673; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:
- Probe: ES3DV3 - SN3194
- ConvF(6.12, 6.12, 6.12); Calibrated: 2013-11-14;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2013-11-19
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.10 (7164)

d=15mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 56.049 V/m
Fast SAR: SAR(1 g) = 2.28 W/kg
Fast SAR(10 g) = 1.54 W/kg
Maximum value of SAR (interpolated) = 2.61 W/kg

d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 56.049 V/m
Peak SAR (extrapolated) = 3.27 W/kg
SAR(1 g) = 2.23 W/kg
SAR(10 g) = 1.46 W/kg
Power Drift = -0.11 dB
Maximum value of SAR (measured) = 2.60 W/kg



Plot #2

Date/Time: 2014-07-04 07:42:47

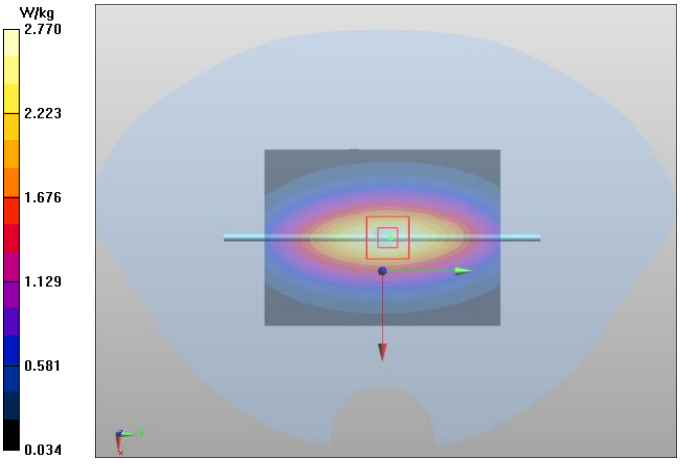
Test Laboratory: TCC Microsoft
Type: D835V2; Serial: D835V2 - SN:462

Communication System: CW835
Frequency: 835 MHz; Duty Cycle: 1:1
Medium: HSL835; Medium Notes: t= 22.2 C
Medium parameters used: f = 835 MHz; σ = 0.908 S/m; ε_r = 40.727; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:
- Probe: ES3DV3 - SN3194
- ConvF(6.12, 6.12, 6.12); Calibrated: 2013-11-14;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2013-11-19
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1596
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 53.884 V/m
Fast SAR: SAR(1 g) = 2.41 W/kg
Fast SAR(10 g) = 1.62 W/kg
Maximum value of SAR (interpolated) = 2.77 W/kg

d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 53.884 V/m
Peak SAR (extrapolated) = 3.50 W/kg
SAR(1 g) = 2.36 W/kg
SAR(10 g) = 1.53 W/kg
Power Drift = -0.03 dB
Maximum value of SAR (measured) = 2.77 W/kg



Plot #3

Date/Time: 2014-03-28 06:24:06

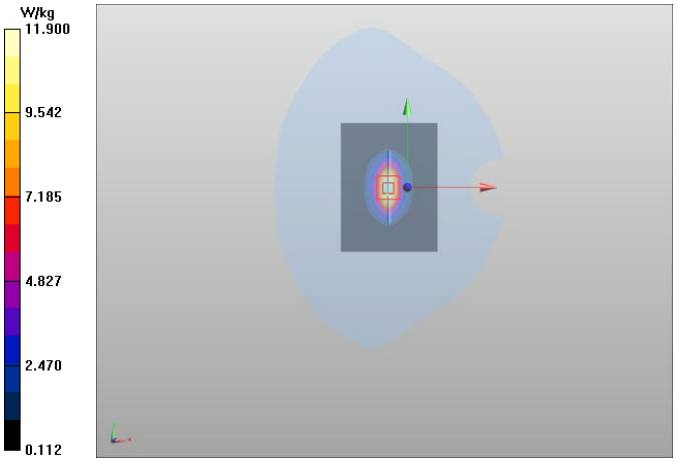
Test Laboratory: TCC Nokia
Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900
Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: HSL1900; Medium Notes: t= 21.7 C
Medium parameters used: f = 1900 MHz; σ = 1.409 S/m; ε_r = 39.312; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:
- Probe: ES3DV3 - SN3131
- ConvF(4.98, 4.98, 4.98); Calibrated: 2013-06-18;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn793; Calibrated: 2013-06-10
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.10 (7164)

d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 95.790 V/m
Fast SAR: SAR(1 g) = 9.69 W/kg
Fast SAR(10 g) = 5 W/kg
Maximum value of SAR (interpolated) = 12.3 W/kg

d=10mm, Pin=250mW/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 95.790 V/m
Peak SAR (extrapolated) = 17.1 W/kg
SAR(1 g) = 9.52 W/kg
SAR(10 g) = 4.99 W/kg
Power Drift = 0.04 dB
Maximum value of SAR (measured) = 11.9 W/kg



Plot #4

Date/Time: 2014-07-07 08:47:20

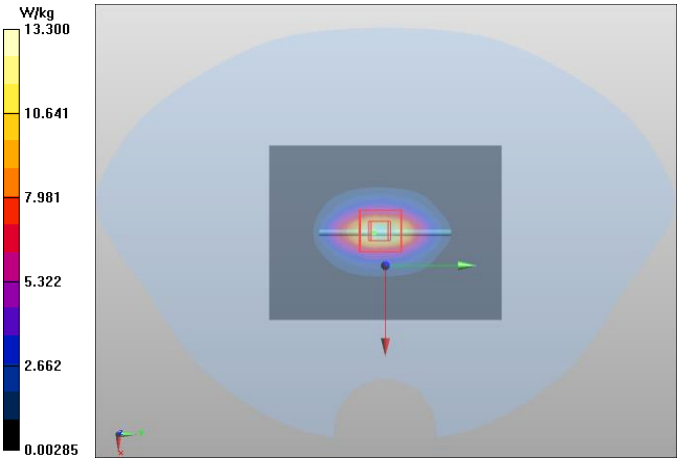
Test Laboratory: TCC Microsoft
Type: D1900V2; Serial: D1900V2 - SN:5d030

Communication System: CW1900
Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: HSL1900; Medium Notes: t= 21,2 C
Medium parameters used: f = 1900 MHz; σ = 1.457 S/m; ε_r = 38.52; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:
- Probe: ES3DV3 - SN3165
- ConvF(4.89, 4.89, 4.89); Calibrated: 2014-05-08;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2014-05-12
- Phantom: SAM 2; Type: SAM; Serial: TP-1175
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 88.627 V/m
Fast SAR: SAR(1 g) = 10.2 W/kg
Fast SAR(10 g) = 5.19 W/kg
Maximum value of SAR (interpolated) = 13.3 W/kg

d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 88.627 V/m
Peak SAR (extrapolated) = 18.7 W/kg
SAR(1 g) = 9.93 W/kg
SAR(10 g) = 5.1 W/kg
Power Drift = -0.03 dB
Maximum value of SAR (measured) = 12.5 W/kg



Plot #5

Date/Time: 2014-03-27 10:29:30

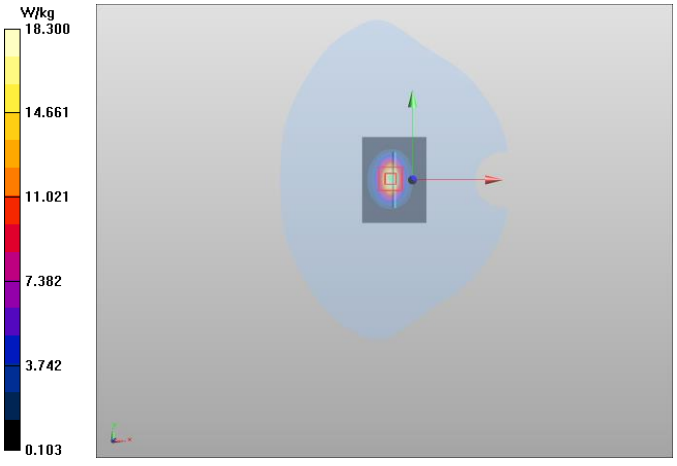
Test Laboratory: TCC Nokia
Type: D2450V2; Serial: D2450V2 - SN:749

Communication System: CW2450
Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: HSL 2450 - 2600; Medium Notes: t= 20.8 C
Medium parameters used: f = 2450 MHz; σ = 1.814 S/m; ε_r = 38.087; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(7.39, 7.39, 7.39); Calibrated: 2013-12-10;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1302; Calibrated: 2013-11-08
- Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.10 (7164)

d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 96.266 V/m
Fast SAR: SAR(1 g) = 13.9 W/kg
Fast SAR(10 g) = 6.13 W/kg
Maximum value of SAR (interpolated) = 18.7 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 96.266 V/m
Peak SAR (extrapolated) = 29.3 W/kg
SAR(1 g) = 13.8 W/kg
SAR(10 g) = 6.34 W/kg
Power Drift = 0.06 dB
Maximum value of SAR (measured) = 18.3 W/kg



Plot #6

Date/Time: 2014-03-25 08:48:32

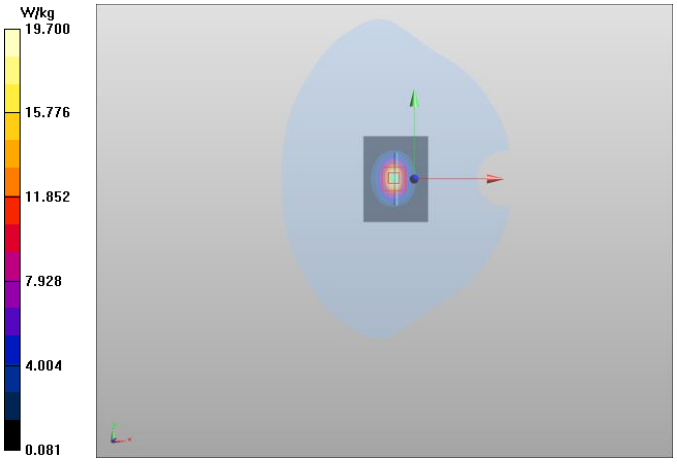
Test Laboratory: TCC Nokia
Type: D2600V2; Serial: D2600V2 - SN:1056

Communication System: CW2600
Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: HSL 2450 - 2600; Medium Notes: t= 21,3 C
Medium parameters used: f = 2600 MHz; σ = 1.983 S/m; ε_r = 38.299; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(7.33, 7.33, 7.33); Calibrated: 2013-12-10;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1302; Calibrated: 2013-11-08
- Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.10 (7164)

d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 99.261 V/m
Fast SAR: SAR(1 g) = 15 W/kg
Fast SAR(10 g) = 6.68 W/kg
Maximum value of SAR (interpolated) = 20.1 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 99.261 V/m
Peak SAR (extrapolated) = 32.0 W/kg
SAR(1 g) = 14.6 W/kg
SAR(10 g) = 6.45 W/kg
Power Drift = -0.05 dB
Maximum value of SAR (measured) = 19.7 W/kg



Plot #7

Date/Time: 2014-03-27 06:28:15

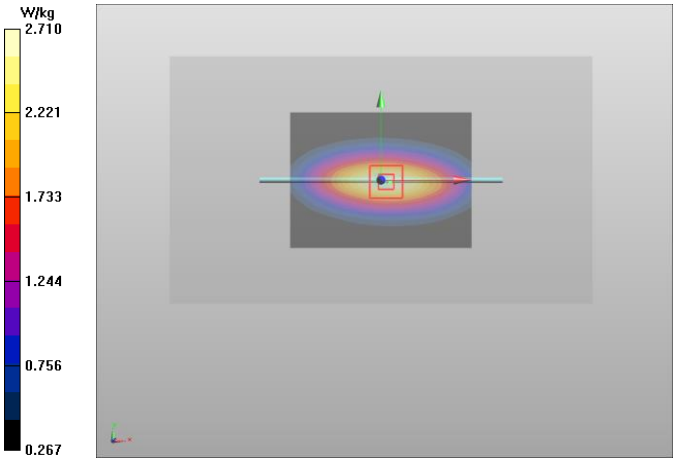
Test Laboratory: TCC Nokia
Type: D835V2; Serial: D835V2 - SN:480

Communication System: CW835
Frequency: 835 MHz; Duty Cycle: 1:1
Medium: BSL835; Medium Notes: t= 21.6 C
Medium parameters used: f = 835 MHz; σ = 0.977 S/m; ε_r = 54.057; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: ES3DV3 - SN3194
- ConvF(6.05, 6.05, 6.05); Calibrated: 2013-11-14;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2013-11-19
- Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.10 (7164)

d=15mm, Pin=250mW/Area Scan (81x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 54.401 V/m
Fast SAR: SAR(1 g) = 2.36 W/kg
Fast SAR(10 g) = 1.58 W/kg
Maximum value of SAR (interpolated) = 2.72 W/kg

d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 54.401 V/m
Peak SAR (extrapolated) = 3.36 W/kg
SAR(1 g) = 2.33 W/kg
SAR(10 g) = 1.55 W/kg
Power Drift = -0.04 dB
Maximum value of SAR (measured) = 2.71 W/kg



Plot #8

Date/Time: 2014-07-09 09:35:30

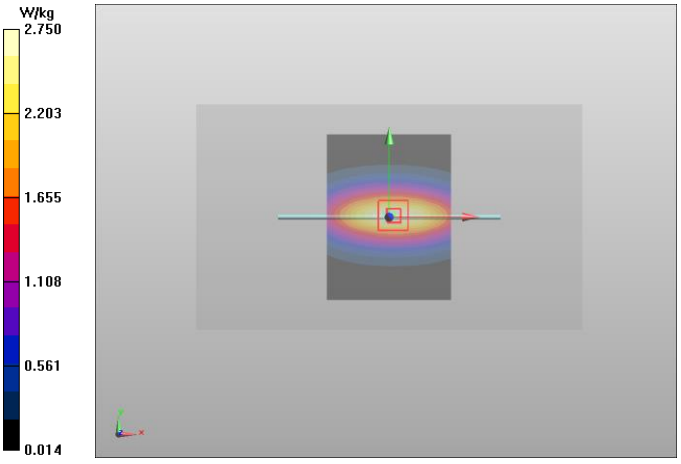
Test Laboratory: TCC Microsoft
Type: D835V2; Serial: D835V2 - SN:462

Communication System: CW835
Frequency: 835 MHz; Duty Cycle: 1:1
Medium: BSL835; Medium Notes: t= 22.0 C
Medium parameters used: f = 835 MHz; σ = 0.982 S/m; ε_r = 53.81; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: ES3DV3 - SN3194
- ConvF(6.05, 6.05, 6.05); Calibrated: 2013-11-14;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2013-11-19
- Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA; Serial: TP-1123/3
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 51.665 V/m
Fast SAR: SAR(1 g) = 2.39 W/kg
Fast SAR(10 g) = 1.6 W/kg
Maximum value of SAR (interpolated) = 2.75 W/kg

d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 51.665 V/m
Peak SAR (extrapolated) = 3.46 W/kg
SAR(1 g) = 2.38 W/kg
SAR(10 g) = 1.57 W/kg
Power Drift = -0.00 dB
Maximum value of SAR (measured) = 2.78 W/kg



Plot #9

Date/Time: 2014-03-31 06:17:42

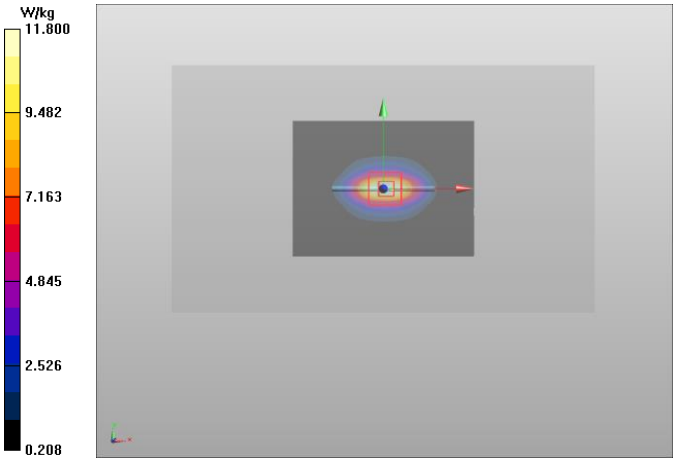
Test Laboratory: TCC Nokia
Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900
Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: BSL1900; Medium Notes: t= 20.9 C
Medium parameters used: f = 1900 MHz; σ = 1.529 S/m; ε_r = 51.628; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: ES3DV3 - SN3131
- ConvF(4.62, 4.62, 4.62); Calibrated: 2013-06-18;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn793; Calibrated: 2013-06-10
- Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.10 (7164)

d=10mm, Pin=250mW/Area Scan (81x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 85.163 V/m
Fast SAR: SAR(1 g) = 9.41 W/kg
Fast SAR(10 g) = 4.73 W/kg
Maximum value of SAR (interpolated) = 12.2 W/kg

d=10mm, Pin=250mW/Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 85.163 V/m
Peak SAR (extrapolated) = 16.1 W/kg
SAR(1 g) = 9.5 W/kg
SAR(10 g) = 5.04 W/kg
Power Drift = 0.07 dB
Maximum value of SAR (measured) = 11.8 W/kg



Plot #10

Date/Time: 2014-07-03 12:14:01

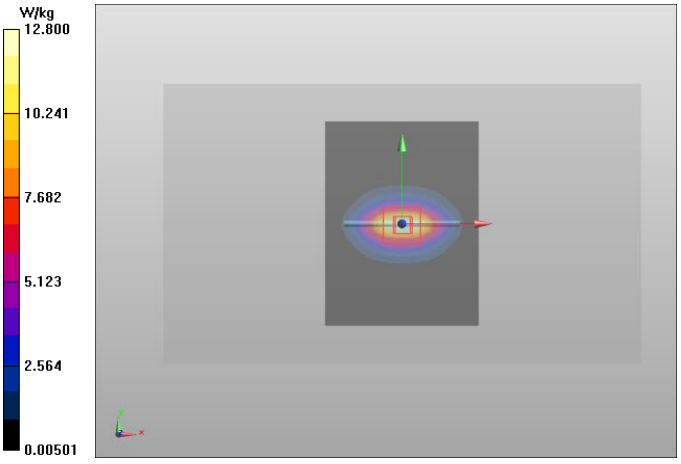
Test Laboratory: TCC Microsoft
Type: D1900V2; Serial: D1900V2 - SN:5d030

Communication System: CW1900
Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: BSL1900; Medium Notes: t= 21,0 C
Medium parameters used: f = 1900 MHz; σ = 1.543 S/m; ε_r = 52.117; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3834
- ConvF(7.15, 7.15, 7.15); Calibrated: 2014-05-08;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1355; Calibrated: 2014-05-13
- Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA; Serial: TP-1124/2 (1800MHz), TP-1123/2 (1900MHz)
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 86.372 V/m
Fast SAR: SAR(1 g) = 10.1 W/kg
Fast SAR(10 g) = 5.04 W/kg
Maximum value of SAR (interpolated) = 12.8 W/kg

d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 86.372 V/m
Peak SAR (extrapolated) = 18.3 W/kg
SAR(1 g) = 10.2 W/kg
SAR(10 g) = 5.32 W/kg
Power Drift = 0.02 dB
Maximum value of SAR (measured) = 12.9 W/kg



Plot #11

Date/Time: 2014-03-31 06:09:26

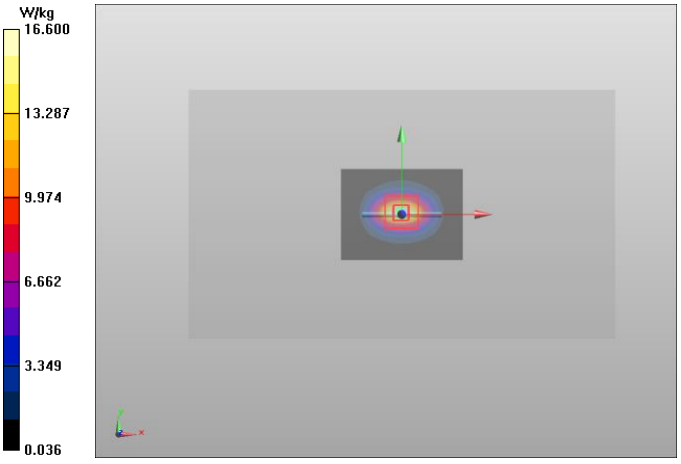
Test Laboratory: TCC Nokia
Type: D2450V2; Serial: D2450V2 - SN:749

Communication System: CW2450
Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: BSL 2450 - 2600; Medium Notes: t= 21.2 C
Medium parameters used: f = 2450 MHz; σ = 1.943 S/m; ε_r = 51.649; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(7.44, 7.44, 7.44); Calibrated: 2013-12-10;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1302; Calibrated: 2013-11-08
- Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA; Serial:
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (81x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 85.014 V/m
Fast SAR: SAR(1 g) = 12.4 W/kg
Fast SAR(10 g) = 5.37 W/kg
Maximum value of SAR (interpolated) = 16.6 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 85.014 V/m
Peak SAR (extrapolated) = 25.3 W/kg
SAR(1 g) = 12.4 W/kg
SAR(10 g) = 5.84 W/kg
Power Drift = -0.02 dB
Maximum value of SAR (measured) = 16.3 W/kg



Plot #12

Date/Time: 2014-04-01 06:21:26

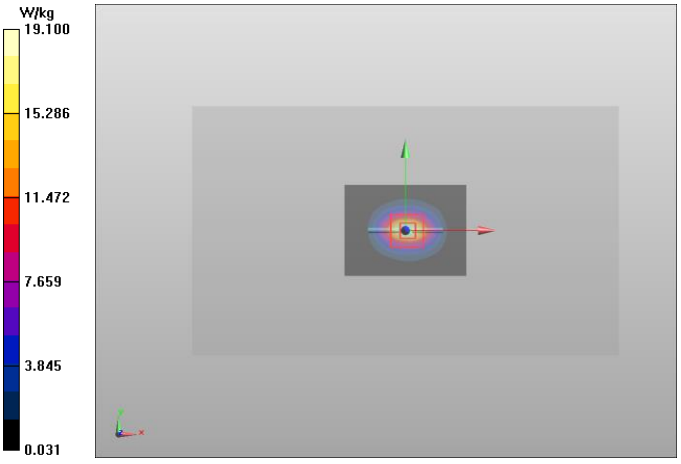
Test Laboratory: TCC Nokia
Type: D2600V2; Serial: D2600V2 - SN:1056

Communication System: CW2600
Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: BSL 2450 - 2600; Medium Notes: t= 21.1 C
Medium parameters used: f = 2600 MHz; σ = 2.134 S/m; ε_r = 50.81; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(7.14, 7.14, 7.14); Calibrated: 2013-12-10;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1302; Calibrated: 2013-11-08
- Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA; Serial:
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (81x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 93.791 V/m
Fast SAR: SAR(1 g) = 14.2 W/kg
Fast SAR(10 g) = 6.22 W/kg
Maximum value of SAR (interpolated) = 19.1 W/kg

d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 93.791 V/m
Peak SAR (extrapolated) = 29.9 W/kg
SAR(1 g) = 14 W/kg
SAR(10 g) = 6.23 W/kg
Power Drift = -0.01 dB
Maximum value of SAR (measured) = 18.7 W/kg



APPENDIX B: MEASUREMENT SCANS

Plot #1

Date/Time: 2014-03-25 10:46:03

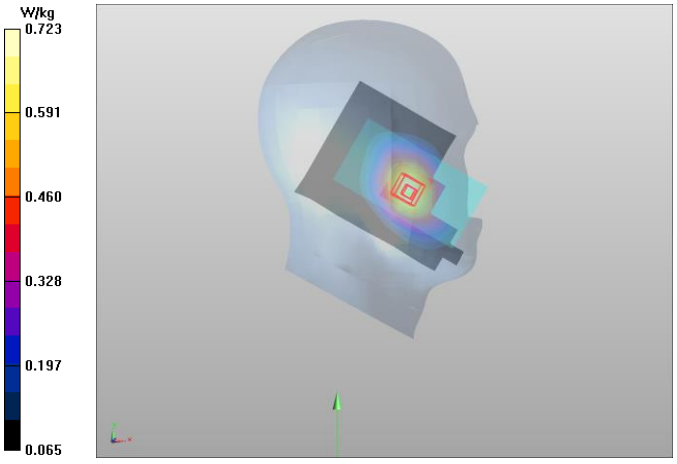
Test Laboratory: TCC Nokia
Type: RM-974; Serial: 004402/47/800076/7

Communication System: 2-slot GPRS850
Frequency: 824.2 MHz; Duty Cycle: 1:4.19952
Medium: HSL835; Medium Notes: t= 22.1 C
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.893 S/m; ε_r = 40.746; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY Configuration:
- Probe: ES3DV3 - SN3194
- ConvF(6.12, 6.12, 6.12); Calibrated: 2013-11-14;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2013-11-19
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.10 (7164)

2-slot GPRS850 - Left/Cheek - Low - Antenna 2/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 15.784 V/m
Fast SAR: SAR(1 g) = 0.628 W/kg
Fast SAR(10 g) = 0.439 W/kg
Maximum value of SAR (interpolated) = 0.712 W/kg

2-slot GPRS850 - Left/Cheek - Low - Antenna 2/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 15.784 V/m
Peak SAR (extrapolated) = 0.822 W/kg
SAR(1 g) = 0.653 W/kg
SAR(10 g) = 0.496 W/kg
Power Drift = 0.04 dB
Maximum value of SAR (measured) = 0.723 W/kg



Plot #2

Date/Time: 2014-03-25 13:23:37

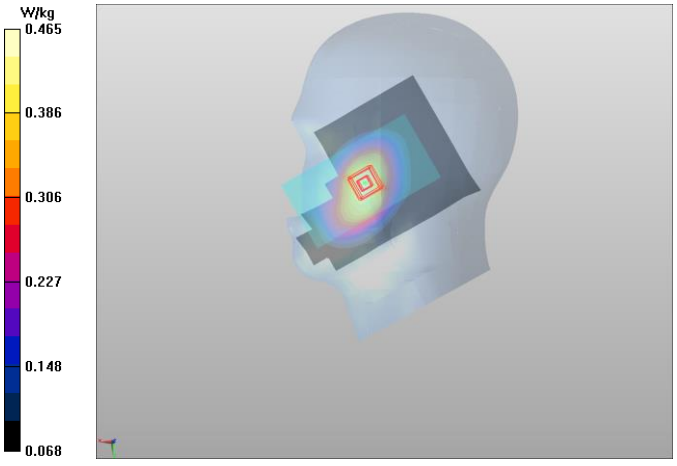
Test Laboratory: TCC Nokia
Type: RM-974; Serial: 004402/47/800076/7

Communication System: WCDMA850 (Band 5)
Frequency: 846.6 MHz; Duty Cycle: 1:1
Medium: HSL835; Medium Notes: t= 22.1 C
Medium parameters used: f = 847 MHz; σ = 0.909 S/m; ε_r = 40.595; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY Configuration:
- Probe: ES3DV3 - SN3194
- ConvF(6.12, 6.12, 6.12); Calibrated: 2013-11-14;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2013-11-19
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.10 (7164)

WCDMA850 (Band 5) - Right/Cheek - High - Antenna 1/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 22.769 V/m
Fast SAR: SAR(1 g) = 0.407 W/kg
Fast SAR(10 g) = 0.285 W/kg
Maximum value of SAR (interpolated) = 0.462 W/kg

WCDMA850 (Band 5) - Right/Cheek - High - Antenna 1/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 22.769 V/m
Peak SAR (extrapolated) = 0.524 W/kg
SAR(1 g) = 0.423 W/kg
SAR(10 g) = 0.324 W/kg
Power Drift = 0.11 dB
Maximum value of SAR (measured) = 0.465 W/kg



Plot #3

Date/Time: 2014-03-28 09:23:39

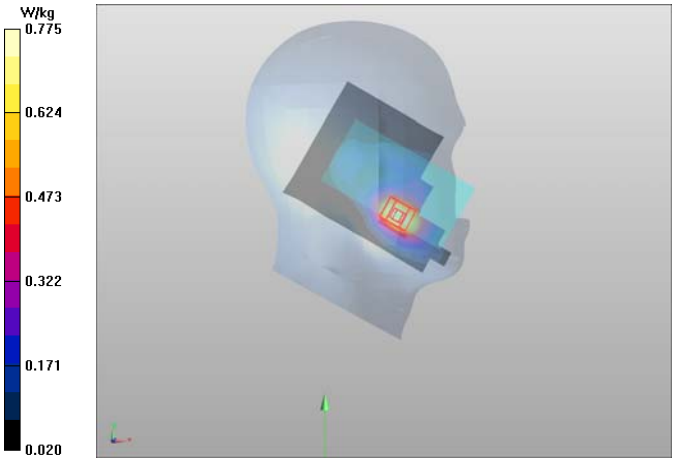
Test Laboratory: TCC Nokia
Type: RM-974; Serial: 004402/47/800075/9

Communication System: 2-slot GPRS1900
Frequency: 1850.2 MHz; Duty Cycle: 1:4.19952
Medium: HSL1900; Medium Notes: t= 21.7 C
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.355 S/m; ε_r = 39.478; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY Configuration:
- Probe: ES3DV3 - SN3131
- ConvF(4.98, 4.98, 4.98); Calibrated: 2013-06-18;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn793; Calibrated: 2013-06-10
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.10 (7164)

2-slot GPRS1900 - Left/Cheek - Low - Antenna 1 - Cover CC-3085/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 23.523 V/m
Fast SAR: SAR(1 g) = 0.673 W/kg
Fast SAR(10 g) = 0.387 W/kg
Maximum value of SAR (interpolated) = 0.836 W/kg

2-slot GPRS1900 - Left/Cheek - Low - Antenna 1 - Cover CC-3085/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 23.468 V/m
Peak SAR (extrapolated) = 0.986 W/kg
SAR(1 g) = 0.670 W/kg
SAR(10 g) = 0.426 W/kg
Power Drift = 0.01 dB
Maximum value of SAR (measured) = 0.775 W/kg



Plot #4

Date/Time: 2014-07-07 10:42:55

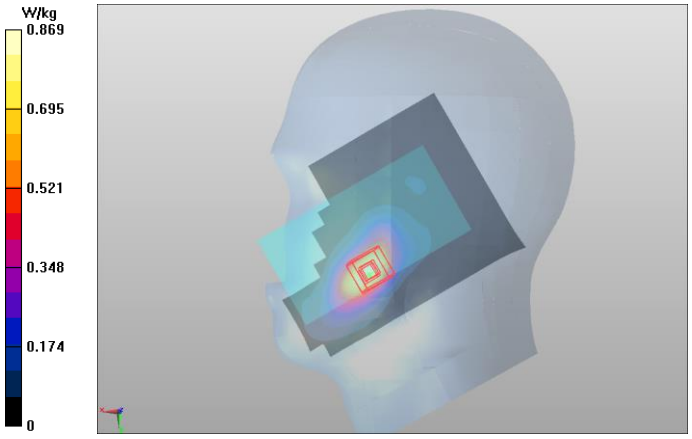
Test Laboratory: TCC Microsoft
Type: RM-974; Serial: 004402/47/876262/2

Communication System: LTE2500 (Band 7)
Frequency: 2560 MHz; Duty Cycle: 1:1
Medium: HSL2600; Medium Notes: t= 21.1 C
Medium parameters used: f = 2560 MHz; σ = 1.949 S/m; ε_r = 39.065; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(7.33, 7.33, 7.33); Calibrated: 2013-12-10;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1302; Calibrated: 2013-11-08
- Phantom: #4 SAM, SAR4 ; Type: QD000P40CD; Serial: TP-1691
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

LTE2500 (Band 7) - Right/Cheek - High - QPSK - 20MHz - 1RB - 100% offset - Antenna 1/Area Scan (121x181x1):
Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 19.852 V/m
Fast SAR: SAR(1 g) = 0.671 W/kg
Fast SAR(10 g) = 0.346 W/kg
Maximum value of SAR (interpolated) = 0.869 W/kg

LTE2500 (Band 7) - Right/Cheek - High - QPSK - 20MHz - 1RB - 100% offset - Antenna 1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.684 V/m
Peak SAR (extrapolated) = 1.29 W/kg
SAR(1 g) = 0.680 W/kg
SAR(10 g) = 0.353 W/kg
Power Drift = 0.07 dB
Maximum value of SAR (measured) = 0.759 W/kg



Plot #5

Date/Time: 2014-03-28 09:06:08

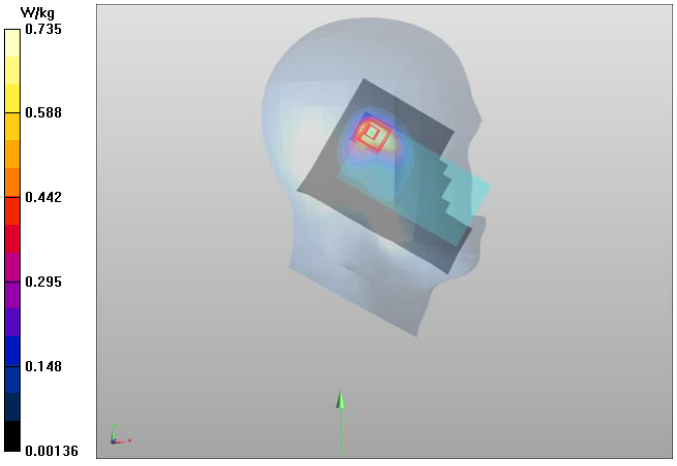
Test Laboratory: TCC Nokia
Type: RM-974; Serial: 004402/47/800253/2

Communication System: WLAN2450
Frequency: 2462 MHz; Duty Cycle: 1:1
Medium: HSL 2450 - 2600; Medium Notes: t= 21.7 C
Medium parameters used: f = 2462 MHz; σ = 1.838 S/m; ε_r = 38.601; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(7.39, 7.39, 7.39); Calibrated: 2013-12-10;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1302; Calibrated: 2013-11-08
- Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.10 (7164)

WLAN2450 b-mode - Left/Cheek - Channel 11 - QPSK 1 Mbps - Cover CC-3085/Area Scan (121x181x1):
Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 22.022 V/m
Fast SAR: SAR(1 g) = 0.690 W/kg
Fast SAR(10 g) = 0.318 W/kg
Maximum value of SAR (interpolated) = 0.948 W/kg

WLAN2450 b-mode - Left/Cheek - Channel 11 - QPSK 1 Mbps - Cover CC-3085/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.316 V/m
Peak SAR (extrapolated) = 1.44 W/kg
SAR(1 g) = 0.656 W/kg
SAR(10 g) = 0.316 W/kg
Power Drift = 0.06 dB
Maximum value of SAR (measured) = 0.735 W/kg



Plot #6

Date/Time: 2014-07-09 11:22:58

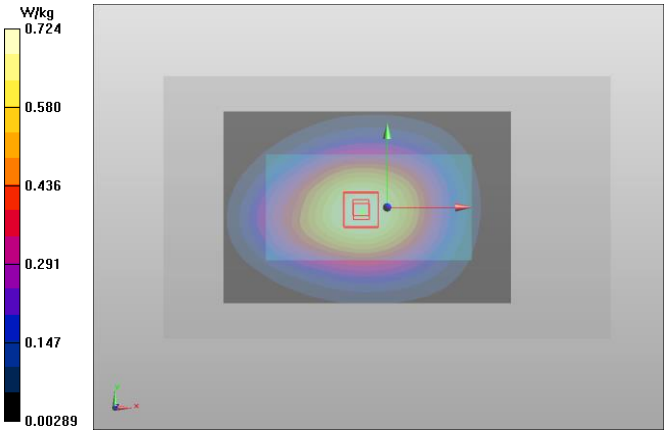
Test Laboratory: TCC Microsoft
Type: RM-974; Serial: 004402/47/876167/3

Communication System: 2-slot GPRS850
Frequency: 848.8 MHz; Duty Cycle: 1:4.19952
Medium: BSL835; Medium Notes: t= 22.0 C
Medium parameters used: f = 849 MHz; σ = 0.991 S/m; ε_r = 53.695; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: ES3DV3 - SN3194
- ConvF(6.05, 6.05, 6.05); Calibrated: 2013-11-14;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2013-11-19
- Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA; Serial: TP-1123/3
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.9 (7117)

2-slot GPRS850/Body - High - Spacer 15mm - No Headset - Back Facing Phantom - Antenna 2/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 28.002 V/m
Fast SAR: SAR(1 g) = 0.643 W/kg
Fast SAR(10 g) = 0.459 W/kg
Maximum value of SAR (interpolated) = 0.724 W/kg

2-slot GPRS850/Body - High - Spacer 15mm - No Headset - Back Facing Phantom - Antenna 2/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 28.011 V/m
Peak SAR (extrapolated) = 0.830 W/kg
SAR(1 g) = 0.664 W/kg
SAR(10 g) = 0.504 W/kg
Power Drift = 0.07 dB
Maximum value of SAR (measured) = 0.726 W/kg



Plot #7

Date/Time: 2014-03-27 10:50:15

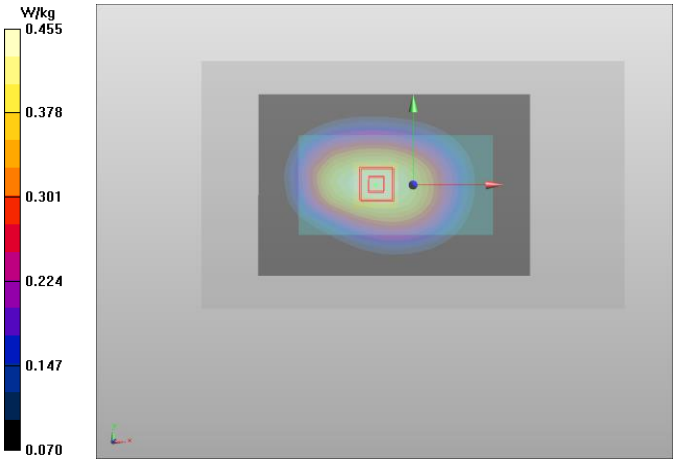
Test Laboratory: TCC Nokia
Type: RM-974; Serial: 004402/47/800076/7

Communication System: WCDMA850 (Band 5)
Frequency: 846.6 MHz; Duty Cycle: 1:1
Medium: BSL835; Medium Notes: t= 21.6 C
Medium parameters used: f = 847 MHz; σ = 0.985 S/m; ε_r = 53.981; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: ES3DV3 - SN3194
- ConvF(6.05, 6.05, 6.05); Calibrated: 2013-11-14;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2013-11-19
- Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.10 (7164)

WCDMA850 (Band 5)/Body - High - Spacer 15mm - No Headset - Back Facing Phantom - Antenna 1/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 22.351 V/m
Fast SAR: SAR(1 g) = 0.406 W/kg
Fast SAR(10 g) = 0.291 W/kg
Maximum value of SAR (interpolated) = 0.456 W/kg

WCDMA850 (Band 5)/Body - High - Spacer 15mm - No Headset - Back Facing Phantom - Antenna 1/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 22.351 V/m
Peak SAR (extrapolated) = 0.515 W/kg
SAR(1 g) = 0.414 W/kg
SAR(10 g) = 0.315 W/kg
Power Drift = -0.07 dB
Maximum value of SAR (measured) = 0.455 W/kg



Plot #8

Date/Time: 2014-07-04 09:04:12

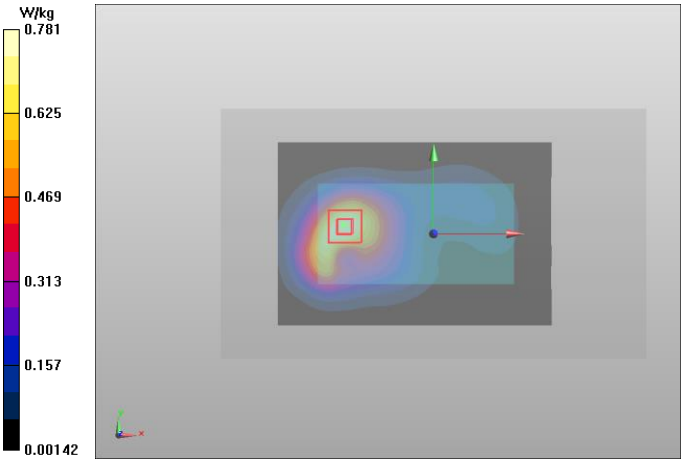
Test Laboratory: TCC Microsoft
Type: RM-974; Serial: 004402/47/876161/6

Communication System: 2-slot GPRS1900
Frequency: 1850.2 MHz; Duty Cycle: 1:4.19952
Medium: BSL1900; Medium Notes: t= 21,0 C
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.494 S/m; ε_r = 52.266; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3834
- ConvF(7.15, 7.15, 7.15); Calibrated: 2014-05-08;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1355; Calibrated: 2014-05-13
- Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA; Serial: TP-1124/2 (1800MHz), TP-1123/2 (1900MHz)
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

2-slot GPRS1900/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom - Antenna 1 - Cover CC-3085/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 22.344 V/m
Fast SAR: SAR(1 g) = 0.650 W/kg
Fast SAR(10 g) = 0.392 W/kg
Maximum value of SAR (interpolated) = 0.781 W/kg

2-slot GPRS1900/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom - Antenna 1 - Cover CC-3085/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 22.326 V/m
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.683 W/kg
SAR(10 g) = 0.425 W/kg
Power Drift = 0.04 dB
Maximum value of SAR (measured) = 0.809 W/kg



Plot #9

Date/Time: 2014-07-08 13:14:04

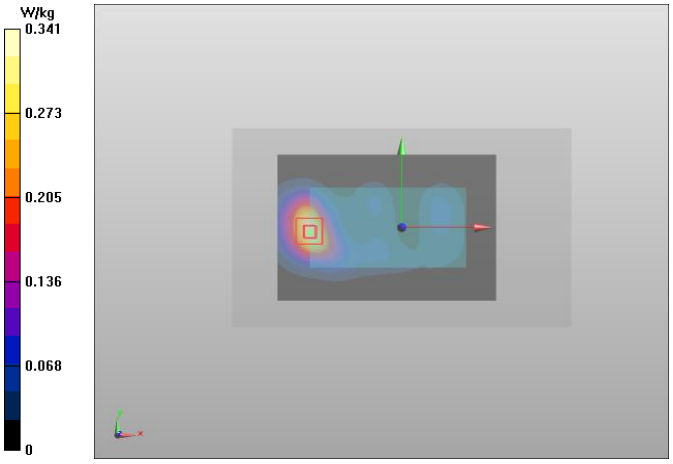
Test Laboratory: TCC Microsoft
Type: RM-974; Serial: 004402/47/876262/2

Communication System: LTE2500 (Band 7)
Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: BSL2600; Medium Notes: t= 20.9 C
Medium parameters used: f = 2510 MHz; σ = 2.033 S/m; ε_r = 51.339; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(7.14, 7.14, 7.14); Calibrated: 2013-12-10;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1302; Calibrated: 2013-11-08
- Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA; Serial: TP-1123/1 (750 MHz), TP-1124/1 (2450 MHz)
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

LTE2500 (Band 7)/Body - Low - QPSK - 20MHz - 1RB - 100% offset - Spacer 15mm - No Headset - Display Facing Phantom - Antenna 2/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 12.487 V/m
Fast SAR: SAR(1 g) = 0.272 W/kg
Fast SAR(10 g) = 0.146 W/kg
Maximum value of SAR (interpolated) = 0.341 W/kg

LTE2500 (Band 7)/Body - Low - QPSK - 20MHz - 1RB - 100% offset - Spacer 15mm - No Headset - Display Facing Phantom - Antenna 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.262 V/m
Peak SAR (extrapolated) = 0.498 W/kg
SAR(1 g) = 0.270 W/kg
SAR(10 g) = 0.146 W/kg
Power Drift = 0.09 dB
Maximum value of SAR (measured) = 0.339 W/kg



Plot #10

Date/Time: 2014-03-28 19:24:57

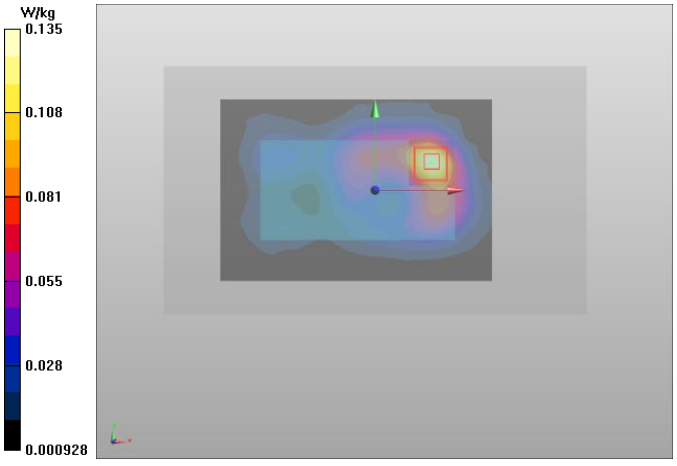
Test Laboratory: TCC Nokia
Type: RM-974; Serial: 004402/47/800253/2

Communication System: WLAN2450
Frequency: 2462 MHz; Duty Cycle: 1:1
Medium: BSL 2450 - 2600; Medium Notes: t= 21.2 C
Medium parameters used: f = 2462 MHz; σ = 1.961 S/m; ε_r = 51.068; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(7.44, 7.44, 7.44); Calibrated: 2013-12-10;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1302; Calibrated: 2013-11-08
- Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.10 (7164)

WLAN2450 b-mode/Body - Channel 11 - BPSK 1 Mbps - Spacer 15mm - No Headset - Back Facing Phantom - Cover CC-3085/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 8.249 V/m
Fast SAR: SAR(1 g) = 0.104 W/kg
Fast SAR(10 g) = 0.052 W/kg
Maximum value of SAR (interpolated) = 0.135 W/kg

WLAN2450 b-mode/Body - Channel 11 - BPSK 1 Mbps - Spacer 15mm - No Headset - Back Facing Phantom - Cover CC-3085/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.249 V/m
Peak SAR (extrapolated) = 0.203 W/kg
SAR(1 g) = 0.108 W/kg
SAR(10 g) = 0.057 W/kg
Power Drift = 0.02 dB
Maximum value of SAR (measured) = 0.135 W/kg



Plot #11

Date/Time: 2014-03-27 16:06:03

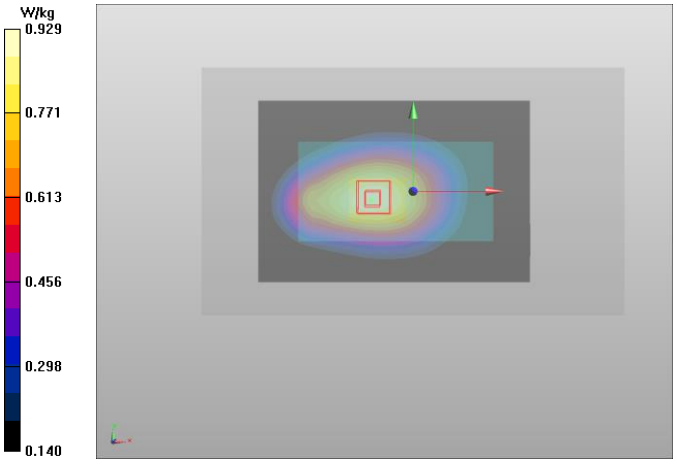
Test Laboratory: TCC Nokia
Type: RM-974; Serial: 004402/47/800076/7

Communication System: 2-slot GPRS850
Frequency: 824.2 MHz; Duty Cycle: 1:4.19952
Medium: BSL835; Medium Notes: t= 21.6 C
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.971 S/m; ε_r = 54.132; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: ES3DV3 - SN3194
- ConvF(6.05, 6.05, 6.05); Calibrated: 2013-11-14;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2013-11-19
- Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.10 (7164)

2-slot GPRS850/Body - Low - Spacer 10mm - No Headset - Back Facing Phantom - Antenna 2 - Cover CC-3085 - Repeated/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 31.895 V/m
Fast SAR: SAR(1 g) = 0.820 W/kg
Fast SAR(10 g) = 0.587 W/kg
Maximum value of SAR (interpolated) = 0.919 W/kg

2-slot GPRS850/Body - Low - Spacer 10mm - No Headset - Back Facing Phantom - Antenna 2 - Cover CC-3085 - Repeated/Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 31.895 V/m
Peak SAR (extrapolated) = 1.05 W/kg
SAR(1 g) = 0.847 W/kg
SAR(10 g) = 0.642 W/kg
Power Drift = 0.01 dB
Maximum value of SAR (measured) = 0.929 W/kg



Plot #12

Date/Time: 2014-03-27 13:59:22

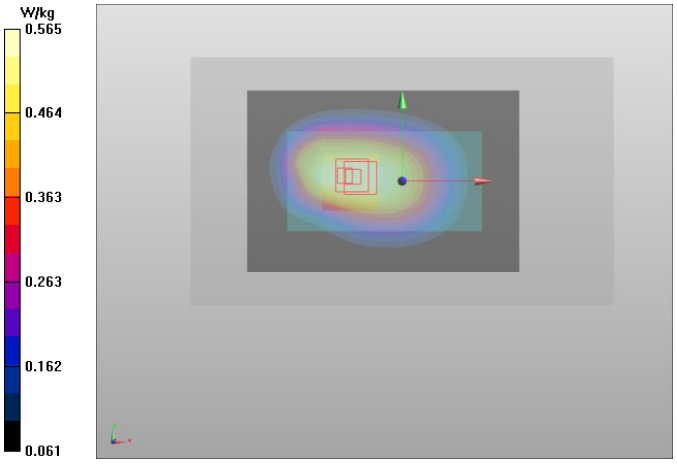
Test Laboratory: TCC Nokia
Type: RM-974; Serial: 004402/47/800076/7

Communication System: WCDMA850 (Band 5)
Frequency: 846.6 MHz; Duty Cycle: 1:1
Medium: BSL835; Medium Notes: t= 21.6 C
Medium parameters used: f = 847 MHz; σ = 0.985 S/m; ε_r = 53.981; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: ES3DV3 - SN3194
- ConvF(6.05, 6.05, 6.05); Calibrated: 2013-11-14;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2013-11-19
- Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.10 (7164)

WCDMA850 (Band 5)/Body - High - Spacer 10mm - No Headset - Back Facing Phantom - Antenna 1/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 24.919 V/m
Fast SAR: SAR(1 g) = 0.514 W/kg
Fast SAR(10 g) = 0.365 W/kg
Maximum value of SAR (interpolated) = 0.581 W/kg

WCDMA850 (Band 5)/Body - High - Spacer 10mm - No Headset - Back Facing Phantom - Antenna 1/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 24.919 V/m
Peak SAR (extrapolated) = 0.648 W/kg
SAR(1 g) = 0.515 W/kg
SAR(10 g) = 0.390 W/kg
Power Drift = 0.07 dB
Maximum value of SAR (measured) = 0.565 W/kg



Plot #13

Date/Time: 2014-03-31 10:41:06

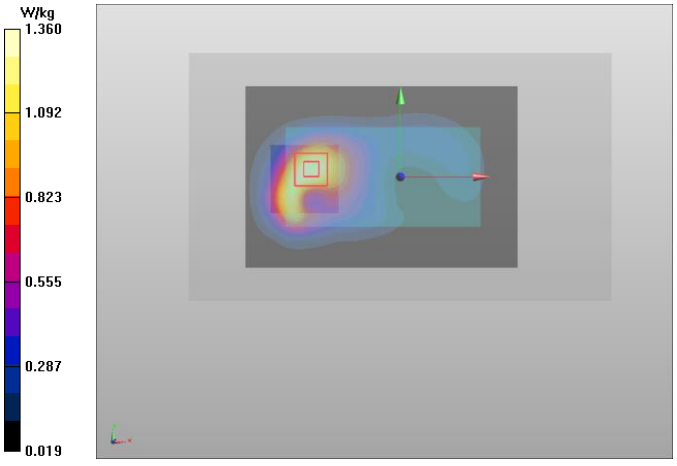
Test Laboratory: TCC Nokia
Type: RM-974; Serial: 004402/47/800075/9

Communication System: 2-slot GPRS1900
Frequency: 1880 MHz; Duty Cycle: 1:4.19952
Medium: BSL1900; Medium Notes: t= 20.9 C
Medium parameters used: f = 1880 MHz; σ = 1.507 S/m; ε_r = 51.662; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: ES3DV3 - SN3131
- ConvF(4.62, 4.62, 4.62); Calibrated: 2013-06-18;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn793; Calibrated: 2013-06-10
- Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.10 (7164)

2-slot GPRR1900/Body - Middle - Spacer 10mm - No Headset - Display Facing Phantom - Antenna 1 - Cover CC-3085/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 30.312 V/m
Fast SAR: SAR(1 g) = 1.13 W/kg
Fast SAR(10 g) = 0.674 W/kg
Maximum value of SAR (interpolated) = 1.38 W/kg

2-slot GPRR1900/Body - Middle - Spacer 10mm - No Headset - Display Facing Phantom - Antenna 1 - Cover CC-3085/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 30.312 V/m
Peak SAR (extrapolated) = 1.75 W/kg
SAR(1 g) = 1.15 W/kg
SAR(10 g) = 0.709 W/kg
Power Drift = -0.08 dB
Maximum value of SAR (measured) = 1.36 W/kg



Plot #14

Date/Time: 2014-07-09 12:18:41

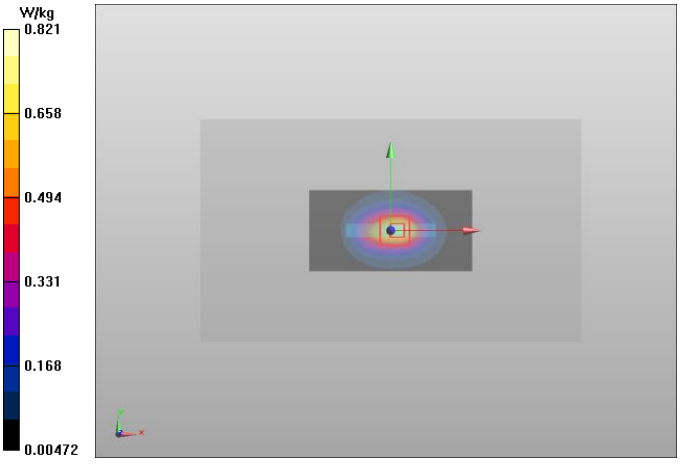
Test Laboratory: TCC Microsoft
Type: RM-977; Serial: 004402/47/876262/2

Communication System: LTE2500 (Band 7)
Frequency: 2535 MHz; Duty Cycle: 1:1
Medium: BSL2600; Medium Notes: t= 20.9 C
Medium parameters used: f = 2535 MHz; σ = 2.064 S/m; ε_r = 51.045; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(7.14, 7.14, 7.14); Calibrated: 2013-12-10;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1302; Calibrated: 2013-11-08
- Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA; Serial: TP-1123/1 (750 MHz), TP-1124/1 (2450 MHz)
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

LTE2500 (Band 7)/Body - Middle - QPSK - 20MHz - 1RB - 100% offset - Spacer 10mm - No Headset - Bottom Edge Facing Phantom - Antenna 2/Area Scan (61x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 18.547 V/m
Fast SAR: SAR(1 g) = 0.629 W/kg
Fast SAR(10 g) = 0.312 W/kg
Maximum value of SAR (interpolated) = 0.821 W/kg

LTE2500 (Band 7)/Body - Middle - QPSK - 20MHz - 1RB - 100% offset - Spacer 10mm - No Headset - Bottom Edge Facing Phantom - Antenna 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.690 V/m
Peak SAR (extrapolated) = 1.24 W/kg
SAR(1 g) = 0.646 W/kg
SAR(10 g) = 0.331 W/kg
Power Drift = -0.11 dB
Maximum value of SAR (measured) = 0.824 W/kg



Plot #15

Date/Time: 2014-03-31 07:21:14

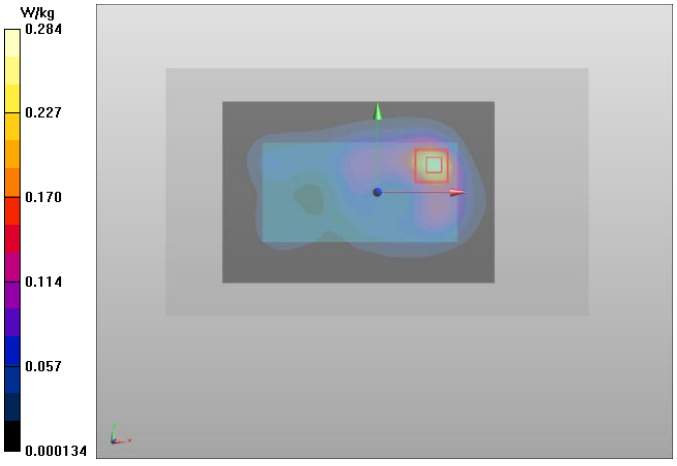
Test Laboratory: TCC Nokia
Type: RM-974; Serial: 004402/47/800253/2

Communication System: WLAN2450
Frequency: 2462 MHz; Duty Cycle: 1:1
Medium: BSL 2450 - 2600; Medium Notes: t= 21.2 C
Medium parameters used: f = 2462 MHz; σ = 1.957 S/m; ε_r = 51.627; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(7.44, 7.44, 7.44); Calibrated: 2013-12-10;
- Sensor-Surface: 3mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1302; Calibrated: 2013-11-08
- Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA; S
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.10 (7164)

WLAN2450 b-mode/Body - Channel 11 - BPSK 1 Mbps - Spacer 10mm - No Headset - Back Facing Phantom/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 11.992 V/m
Fast SAR: SAR(1 g) = 0.215 W/kg
Fast SAR(10 g) = 0.100 W/kg
Maximum value of SAR (interpolated) = 0.290 W/kg

WLAN2450 b-mode/Body - Channel 11 - BPSK 1 Mbps - Spacer 10mm - No Headset - Back Facing Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.992 V/m
Peak SAR (extrapolated) = 0.442 W/kg
SAR(1 g) = 0.221 W/kg
SAR(10 g) = 0.108 W/kg
Power Drift = 0.02 dB
Maximum value of SAR (measured) = 0.284 W/kg



APPENDIX C: DIELECTRIC PARAMETERS OF THE TISSUE SIMULANTS

Head tissue simulant dielectric parameters used in the measurements:

f (MHz)	Date	Dielectric Parameters					
		Ch 4132 826.4 MHz		Ch 4175 835.0 MHz		Ch 4233 846.6 MHz	
		ε_r	σ [S/m]	ε_r	σ [S/m]	ε_r	σ [S/m]
835	2014-03-25	40.7	0.89	40.7	0.90	40.6	0.91
	2014-07-04	40.8	0.90	40.7	0.91	40.6	0.91
f (MHz)	Date	Dielectric Parameters					
		Ch 128 824.2 MHz		Ch 190 836.6 MHz		Ch 251 848.8 MHz	
		ε_r	σ [S/m]	ε_r	σ [S/m]	ε_r	σ [S/m]
836	2014-03-25	40.7	0.89	40.7	0.90	40.6	0.91
	2014-07-04	40.8	0.90	40.7	0.91	40.6	0.92
f (MHz)	Date	Dielectric Parameters					
		Ch 512 1850.2 MHz		Ch 661 1880.0 MHz		Ch 810 1909.8 MHz	
		ε_r	σ [S/m]	ε_r	σ [S/m]	ε_r	σ [S/m]
1880	2014-03-28	39.5	1.35	39.4	1.38	39.3	1.42
	2014-07-07	38.7	1.40	38.6	1.43	38.5	1.46
f (MHz)	Date	Dielectric Parameters					
		Ch 1 2412.0 MHz		Ch 6 2437.0 MHz		Ch 11 2462.0 MHz	
		ε_r	σ [S/m]	ε_r	σ [S/m]	ε_r	σ [S/m]
2437	2014-03-27	38.2	1.77	38.1	1.80	38.1	1.83
	2014-03-28	38.8	1.77	38.7	1.80	38.6	1.84
f (MHz)	Date	Dielectric Parameters					
		Ch 20850 2510.0 MHz		Ch 21100 2535.0 MHz		Ch 21350 2560.0 MHz	
		ε_r	σ [S/m]	ε_r	σ [S/m]	ε_r	σ [S/m]
2535	2014-03-25	38.6	1.88	38.6	1.91	38.5	1.94
	2014-07-03	39.0	1.89	38.9	1.92	38.8	1.95
	2014-07-07	39.3	1.89	39.2	1.91	39.1	1.95

Body tissue simulant dielectric parameters used in the measurements:

f (MHz)	Date	Dielectric Parameters					
		Ch 4132 826.4 MHz		Ch 4175 835.0 MHz		Ch 4233 846.6 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
835	2014-03-27	54.1	0.97	54.1	0.98	54.0	0.98
	2014-07-09	53.9	0.98	53.8	0.98	53.7	0.99
f (MHz)	Date	Dielectric Parameters					
		Ch 128 824.2 MHz		Ch 190 836.6 MHz		Ch 251 848.8 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
836	2014-03-27	54.1	0.97	54.1	0.98	54.0	0.98
	2014-07-09	53.9	0.97	53.8	0.98	53.7	0.99
f (MHz)	Date	Dielectric Parameters					
		Ch 512 1850.2 MHz		Ch 661 1880.0 MHz		Ch 810 1909.8 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
1880	2014-03-31	51.7	1.47	51.7	1.51	51.6	1.54
	2014-07-03	52.3	1.49	52.2	1.52	52.1	1.55
f (MHz)	Date	Dielectric Parameters					
		Ch 1 2412.0 MHz		Ch 6 2437.0 MHz		Ch 11 2462.0 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
2437	2014-03-28	51.2	1.89	51.1	1.93	51.1	1.96
	2014-03-31	51.8	1.89	51.7	1.92	51.6	1.95
f (MHz)	Date	Dielectric Parameters					
		Ch 20850 2510.0 MHz		Ch 21100 2535.0 MHz		Ch 21350 2560.0 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
2535	2014-03-31	51.5	2.01	51.4	2.04	51.3	2.07
	2014-04-01	51.1	2.02	51.0	2.05	50.9	2.09
	2014-07-08	51.3	2.03	51.3	2.06	51.2	2.09
	2014-07-09	51.2	2.03	51.0	2.06	50.9	2.10
	2014-07-21	51.0	2.02	51.0	2.05	50.9	2.08

APPENDIX D: CONDUCTED AVERAGE POWER MEASUREMENTS FOR WCDMA AND HSUPA

Type: RM-974; Serial: 004402/47/800076/7, HW: 2010, SW: 01061.00014.14112.00000

D.1. WCDMA850 (Band 5) Test results

Average power

Ch / *f*(MHz)	P [dBm]
4132	23.5
4175	23.5
4233	23.5

D.2. HSUPA850 Test results

Average power

Ch / *f* (MHz)	P [dBm]				
	Subtest mode 1	Subtest mode 2	Subtest mode 3	Subtest mode 4	Subtest mode 5
4132	22.4	21.6	21.5	22.2	22.6
4175	22.0	21.0	20.6	22.1	22.5
4233	21.9	21.6	21.3	22.0	22.6

Note: In HSUPA operation, the output power is reduced relative to the tuning target power for WCDMA. This device runs a single HSUPA power control routine: MPR, and additional 1dB reduction to ensure PA linearity. As a result, the MPR for each of the Subtest modes is as follows:

Maximum Power Reduction (MPR)				
Subtest mode 1	Subtest mode 2	Subtest mode 3	Subtest mode 4	Subtest mode 5
0.0dB	2.0dB	1.0dB	2.0dB	0.0dB

APPENDIX E: RELEVANT PAGES FROM PROBE CALIBRATION REPORTS

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

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Swiss Calibration Service

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Accreditation No.: SCS 108

Client Nokia Salo TCC

Certificate No: ES3-3131_Jun13

CALIBRATION CERTIFICATE

Object: ES3DV3 - SN:3131

Calibration procedure(s): QA CAL-01.v8, QA CAL-23.v4, QA CAL-25.v4
Calibration procedure for dosimetric E-field probes

Calibration date: June 18, 2013

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 (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	04-Apr-13 (No. 217-01733)	Apr-14
Power sensor E4412A	MY41498087	04-Apr-13 (No. 217-01733)	Apr-14
Reference 3 dB Attenuator	SN: S5054 (3c)	04-Apr-13 (No. 217-01737)	Apr-14
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-13 (No. 217-01735)	Apr-14
Reference 30 dB Attenuator	SN: S5129 (30b)	04-Apr-13 (No. 217-01738)	Apr-14
Reference Probe ES3DV2	SN: 3013	28-Dec-12 (No. ES3-3013_Dec12)	Dec-13
DAE4	SN: 660	31-Jan-13 (No. DAE4-660_Jan13)	Jan-14
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-13)	In house check: Apr-15
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-12)	In house check: Oct-13

	Name	Function	Signature
Calibrated by:	Israe El-Naouq	Laboratory Technician	Israe El-Naouq
Approved by:	Katja Pokovic	Technical Manager	

Issued: June 18, 2013

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3131

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
750	41.9	0.89	6.23	6.23	6.23	0.31	1.83	± 12.0 %
835	41.5	0.90	5.96	5.96	5.96	0.26	1.99	± 12.0 %
1750	40.1	1.37	5.17	5.17	5.17	0.49	1.47	± 12.0 %
1900	40.0	1.40	4.98	4.98	4.98	0.67	1.27	± 12.0 %
2450	39.2	1.80	4.33	4.33	4.33	0.80	1.14	± 12.0 %
2600	39.0	1.96	4.21	4.21	4.21	0.80	1.09	± 12.0 %

[C] Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3131

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
750	55.5	0.96	6.10	6.10	6.10	0.30	1.90	± 12.0 %
835	55.2	0.97	6.03	6.03	6.03	0.39	1.68	± 12.0 %
1750	53.4	1.49	4.87	4.87	4.87	0.31	2.53	± 12.0 %
1900	53.3	1.52	4.62	4.62	4.62	0.28	2.70	± 12.0 %
2450	52.7	1.95	4.27	4.27	4.27	0.68	1.20	± 12.0 %
2600	52.5	2.16	4.17	4.17	4.17	0.50	1.10	± 12.0 %

[C] Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

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Accreditation No.: **SCS 108**

Client **Nokia Salo TCC**

Certificate No: **ES3-3165_May14**

CALIBRATION CERTIFICATE

Object ES3DV3 - SN:3165

Calibration procedure(s) QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v6
Calibration procedure for dosimetric E-field probes

Calibration date: May 8, 2014

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 (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	03-Apr-14 (No. 217-01911)	Jan-15
Power sensor E4412A	MY41498087	03-Apr-14 (No. 217-01911)	Jan-15
Reference 3 dB Attenuator	SN: S5054 (3c)	03-Apr-14 (No. 217-01915)	Jan-15
Reference 20 dB Attenuator	SN: S5277 (20x)	03-Apr-14 (No. 217-01919)	Jan-15
Reference 30 dB Attenuator	SN: S5129 (30b)	03-Apr-14 (No. 217-01920)	Jan-15
Reference Probe ES3DV2	SN: 3013	30-Dec-13 (No. ES3-3013_Dec13)	Dec-14
DAE4	SN: 660	13-Dec-13 (No. DAE4-660_Dec13)	Dec-14
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-13)	In house check: Apr-16
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-13)	In house check: Oct-14

	Name	Function	Signature
Calibrated by:	Israe El-Naouq	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: May 12, 2014

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3165

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unct. (k=2)
835	41.5	0.90	6.02	6.02	6.02	0.25	2.13	± 12.0 %
1750	40.1	1.37	5.09	5.09	5.09	0.36	1.71	± 12.0 %
1900	40.0	1.40	4.89	4.89	4.89	0.60	1.30	± 12.0 %

[C] Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.
[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3165

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unct. (k=2)
835	55.2	0.97	6.01	6.01	6.01	0.70	1.23	± 12.0 %
1750	53.4	1.49	4.83	4.83	4.83	0.51	1.54	± 12.0 %
1900	53.3	1.52	4.65	4.65	4.65	0.47	1.65	± 12.0 %

[C] Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.
[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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Accreditation No.: SCS 108

Client **Nokia Salo TCC**

Certificate No: **ES3-3194_Nov13**

CALIBRATION CERTIFICATE

Object ES3DV3 - SN:3194

Calibration procedure(s) QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v6
Calibration procedure for dosimetric E-field probes

Calibration date: November 14, 2013

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 (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	04-Apr-13 (No. 217-01733)	Apr-14
Power sensor E4412A	MY41498087	04-Apr-13 (No. 217-01733)	Apr-14
Reference 3 dB Attenuator	SN: S5054 (3c)	04-Apr-13 (No. 217-01737)	Apr-14
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-13 (No. 217-01735)	Apr-14
Reference 30 dB Attenuator	SN: S5129 (30b)	04-Apr-13 (No. 217-01738)	Apr-14
Reference Probe ES3DV2	SN: 3013	28-Dec-12 (No. ES3-3013_Dec12)	Dec-13
DAE4	SN: 660	4-Sep-13 (No. DAE4-660_Sep13)	Sep-14
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-13)	In house check: Apr-15
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-13)	In house check: Oct-14

	Name	Function	Signature
Calibrated by:	Israe El-Naouq	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: November 15, 2013

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3194

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unct. (k=2)
835	41.5	0.90	6.12	6.12	6.12	0.28	2.07	± 12.0 %

[C] Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.
[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3194

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unct. (k=2)
835	55.2	0.97	6.05	6.05	6.05	0.69	1.30	± 12.0 %

[C] Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.
[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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Accreditation No.: **SCS 108**

Client **Nokia Salo TCC**

Certificate No: **EX3-3834_May14**

CALIBRATION CERTIFICATE

Object EX3DV4 - SN:3834

Calibration procedure(s) QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v6
Calibration procedure for dosimetric E-field probes

Calibration date: May 8, 2014

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 (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	03-Apr-14 (No. 217-01911)	Jan-15
Power sensor E4412A	MY41498087	03-Apr-14 (No. 217-01911)	Jan-15
Reference 3 dB Attenuator	SN: S5054 (3c)	03-Apr-14 (No. 217-01915)	Jan-15
Reference 20 dB Attenuator	SN: S5277 (20x)	03-Apr-14 (No. 217-01919)	Jan-15
Reference 30 dB Attenuator	SN: S5129 (30b)	03-Apr-14 (No. 217-01920)	Jan-15
Reference Probe ES3DV2	SN: 3013	30-Dec-13 (No. ES3-3013_Dec13)	Dec-14
DAE4	SN: 660	13-Dec-13 (No. DAE4-660_Dec13)	Dec-14
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-13)	In house check: Apr-16
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-13)	In house check: Oct-14

	Name	Function	Signature
Calibrated by:	Israe El-Naouq	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: May 12, 2014

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3834

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unct. (k=2)
1750	40.1	1.37	7.62	7.62	7.62	0.80	0.59	± 12.0 %
1900	40.0	1.40	7.33	7.33	7.33	0.63	0.66	± 12.0 %

[C] Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.
[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3834

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unct. (k=2)
1750	53.4	1.49	7.35	7.35	7.35	0.77	0.63	± 12.0 %
1900	53.3	1.52	7.15	7.15	7.15	0.45	0.81	± 12.0 %

[C] Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.
[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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Accreditation No.: SCS 108

Client **Nokia Salo TCC**

Certificate No: EX3-3960_Dec13

CALIBRATION CERTIFICATE

Object: EX3DV4 - SN:3960

Calibration procedure(s): QA CAL-01.v9, QA CAL-14.v4, QA CAL-23.v5, QA CAL-25.v6
Calibration procedure for dosimetric E-field probes

Calibration date: December 10, 2013

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 (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	04-Apr-13 (No. 217-01733)	Apr-14
Power sensor E4412A	MY41498087	04-Apr-13 (No. 217-01733)	Apr-14
Reference 3 dB Attenuator	SN: S5054 (3c)	04-Apr-13 (No. 217-01737)	Apr-14
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-13 (No. 217-01735)	Apr-14
Reference 30 dB Attenuator	SN: S5129 (30b)	04-Apr-13 (No. 217-01738)	Apr-14
Reference Probe ES3DV2	SN: 3013	28-Dec-12 (No. ES3-3013_Dec12)	Dec-13
DAE4	SN: 660	4-Sep-13 (No. DAE4-660_Sep13)	Sep-14
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-13)	In house check: Apr-15
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-13)	In house check: Oct-14

	Name	Function	Signature
Calibrated by:	Claudio Leubler	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: December 11, 2013

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3960

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unct. (k=2)
750	41.9	0.89	10.78	10.78	10.78	0.47	0.86	± 12.0 %
835	41.5	0.90	10.45	10.45	10.45	0.41	0.86	± 12.0 %
1750	40.1	1.37	8.49	8.49	8.49	0.57	0.67	± 12.0 %
1900	40.0	1.40	8.23	8.23	8.23	0.62	0.64	± 12.0 %
2450	39.2	1.80	7.39	7.39	7.39	0.38	0.83	± 12.0 %
2600	39.0	1.96	7.33	7.33	7.33	0.39	0.84	± 12.0 %
5200	36.0	4.66	5.27	5.27	5.27	0.35	1.80	± 13.1 %
5300	35.9	4.76	5.07	5.07	5.07	0.35	1.80	± 13.1 %
5500	35.6	4.96	4.99	4.99	4.99	0.35	1.80	± 13.1 %
5600	35.5	5.07	4.80	4.80	4.80	0.35	1.80	± 13.1 %
5800	35.3	5.27	4.80	4.80	4.80	0.40	1.80	± 13.1 %

[C] Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3960

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unct. (k=2)
750	55.5	0.96	10.24	10.24	10.24	0.43	0.86	± 12.0 %
835	55.2	0.97	10.08	10.08	10.08	0.34	1.00	± 12.0 %
1750	53.4	1.49	8.33	8.33	8.33	0.52	0.72	± 12.0 %
1900	53.3	1.52	7.88	7.88	7.88	0.62	0.64	± 12.0 %
2450	52.7	1.95	7.44	7.44	7.44	0.62	0.50	± 12.0 %
2600	52.5	2.16	7.14	7.14	7.14	0.59	0.50	± 12.0 %
5200	49.0	5.30	4.60	4.60	4.60	0.45	1.90	± 13.1 %
5300	48.9	5.42	4.33	4.33	4.33	0.50	1.90	± 13.1 %
5500	48.6	5.65	4.12	4.12	4.12	0.50	1.90	± 13.1 %
5600	48.5	5.77	3.97	3.97	3.97	0.50	1.90	± 13.1 %
5800	48.2	6.00	4.14	4.14	4.14	0.55	1.90	± 13.1 %

[C] Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.
[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.