APPENDIX A: SYSTEM CHECKING SCANS

Plot #1

Date/Time: 2014-08-06 08:52:48

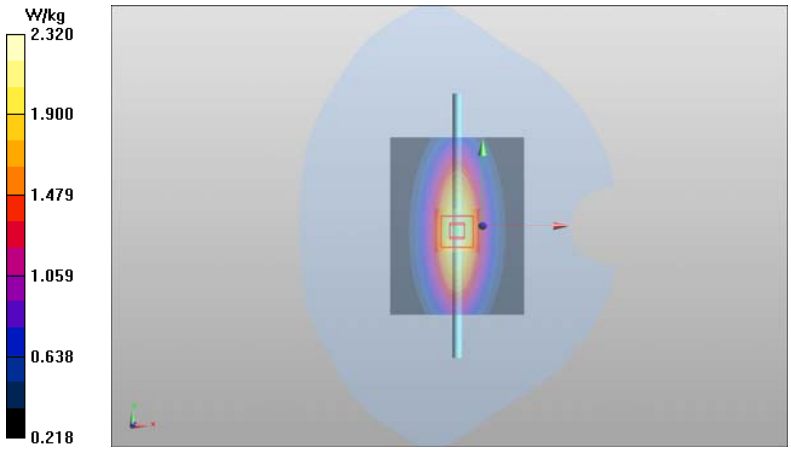
Test Laboratory: TCC Microsoft
Type: D750V3; Serial: D750V3 - SN:1075

Communication System: CW750
Frequency: 750 MHz; Duty Cycle: 1:1
Medium: HSL750; Medium Notes: t= 21 C
Medium parameters used: f = 750 MHz; σ = 0.893 S/m; ε_r = 40.565; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(10.78, 10.78, 10.78); Calibrated: 2013-12-10;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1302; Calibrated: 2013-11-08
- Phantom: #1 SAM, SAR4; Type: SAM; Serial: TP-1018
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

Configuration (below 1Ghz)/d=15mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 49.068 V/m
Fast SAR: SAR(1 g) = 2.03 W/kg
Fast SAR(10 g) = 1.38 W/kg
Maximum value of SAR (interpolated) = 2.32 W/kg

Configuration (below 1Ghz)/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 49.068 V/m
Peak SAR (extrapolated) = 2.96 W/kg
SAR(1 g) = 1.99 W/kg
SAR(10 g) = 1.31 W/kg
Power Drift = -0.02 dB
Maximum value of SAR (measured) = 2.32 W/kg



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Plot #2

Date/Time: 2014-08-06 13:26:39

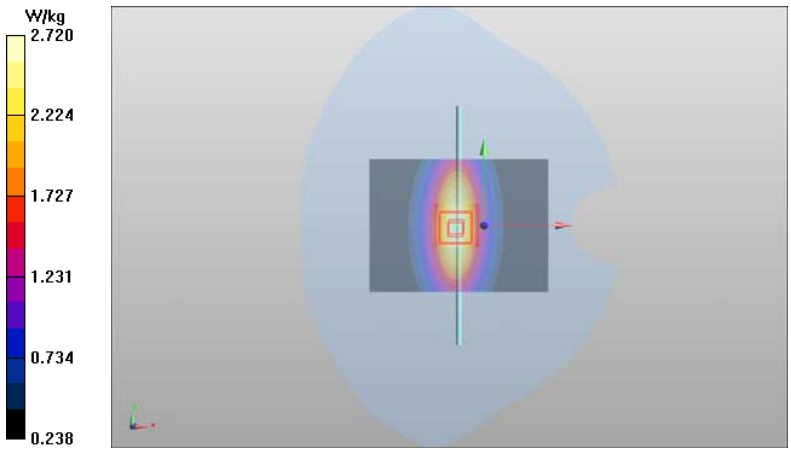
Test Laboratory: TCC Nokia
Type: D835V2; Serial: D835V2 - SN:462

Communication System: CW835
Frequency: 835 MHz; Duty Cycle: 1:1
Medium: HSL835; Medium Notes: t= 22.5 C
Medium parameters used: f = 835 MHz; σ = 0.908 S/m; ε_r = 40.259; 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 (6); SEMCAD X Version 14.6.9 (7117)

Configuration 835 MHz/d=15mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 52.576 V/m
Fast SAR: SAR(1 g) = 2.36 W/kg
Fast SAR(10 g) = 1.59 W/kg
Maximum value of SAR (interpolated) = 2.70 W/kg

Configuration 835 MHz/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 52.576 V/m
Peak SAR (extrapolated) = 3.46 W/kg
SAR(1 g) = 2.33 W/kg
SAR(10 g) = 1.52 W/kg
Power Drift = 0.07 dB
Maximum value of SAR (measured) = 2.72 W/kg



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Plot #3

Date/Time: 2014-07-31 13:48:51

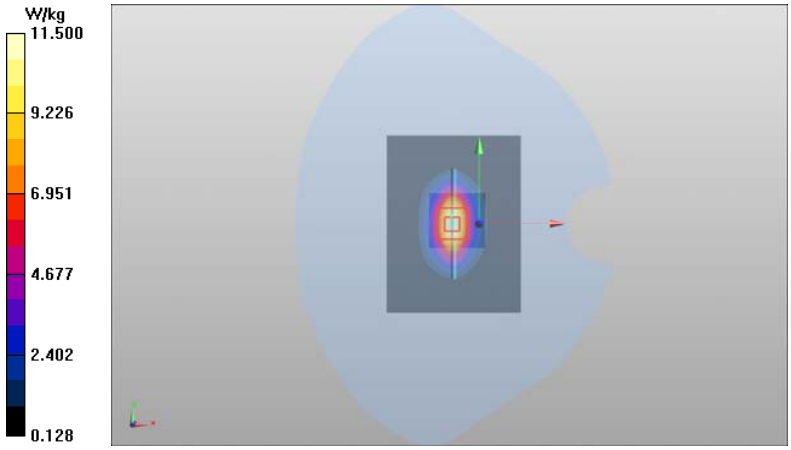
Test Laboratory: TCC Microsoft
Type: D1750V2; Serial: D1750V2 - SN:1083

Communication System: CW1750
Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: HSL1800; Medium Notes: t= 20.7 C
Medium parameters used: f = 1750 MHz; σ = 1.329 S/m; ε_r = 38.268; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:
- Probe: EX3DV4 - SN3834
- ConvF(7.62, 7.62, 7.62); Calibrated: 2014-05-08;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1355; Calibrated: 2014-05-13
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1692
- 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 = 86.653 V/m
Fast SAR: SAR(1 g) = 9.27 W/kg
Fast SAR(10 g) = 4.96 W/kg
Maximum value of SAR (interpolated) = 11.5 W/kg

d=10mm, Pin=250mW/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 86.653 V/m
Peak SAR (extrapolated) = 16.5 W/kg
SAR(1 g) = 9.05 W/kg
SAR(10 g) = 4.78 W/kg
Power Drift = 0.10 dB
Maximum value of SAR (measured) = 11.5 W/kg



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Plot #4

Date/Time: 2014-07-31 08:37:31

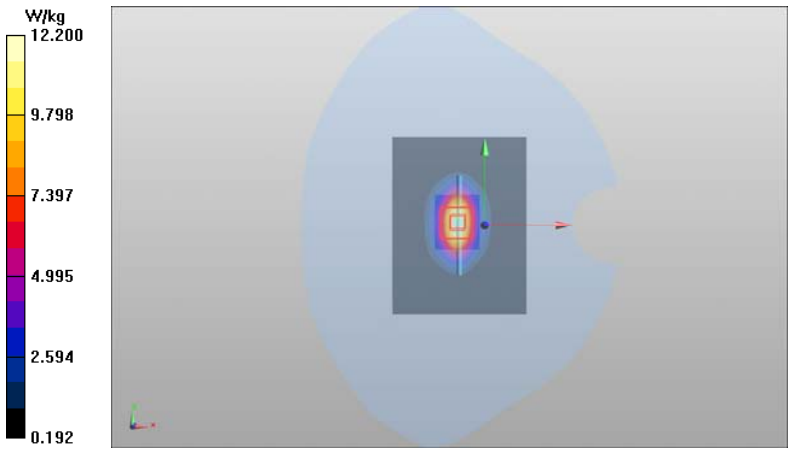
Test Laboratory: TCC Microsoft
Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900
Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: HSL1900; Medium Notes: t= 21.7c
Medium parameters used: f = 1900 MHz; σ = 1.373 S/m; ε_r = 39.047; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:
- Probe: EX3DV4 - SN3834
- ConvF(7.33, 7.33, 7.33); Calibrated: 2014-05-08;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1355; Calibrated: 2014-05-13
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- 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 = 88.301 V/m
Fast SAR: SAR(1 g) = 9.92 W/kg
Fast SAR(10 g) = 5.1 W/kg
Maximum value of SAR (interpolated) = 12.7 W/kg

d=10mm, Pin=250mW/Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 88.301 V/m
Peak SAR (extrapolated) = 18.0 W/kg
SAR(1 g) = 9.74 W/kg
SAR(10 g) = 5.08 W/kg
Power Drift = 0.03 dB
Maximum value of SAR (measured) = 12.2 W/kg



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Plot #5

Date/Time: 2014-07-25 09:51:17

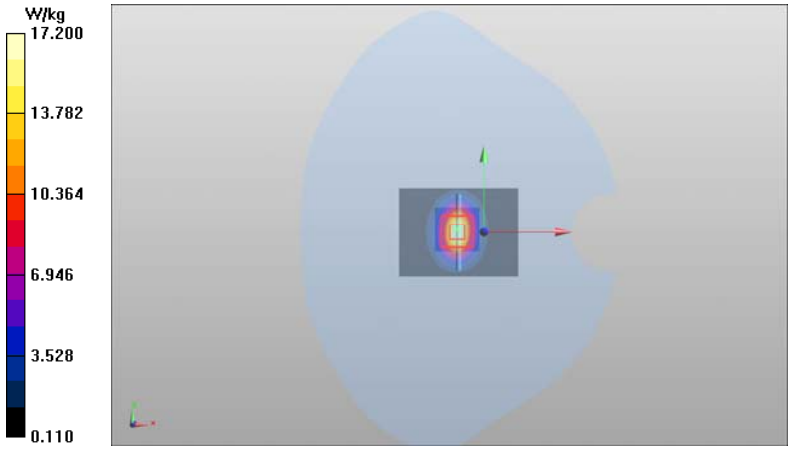
Test Laboratory: TCC Nokia
Type: D2450V2; Serial: D2450V2 - SN:749

Communication System: CW2450
Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: HSL2450; Medium Notes: t= 21.0 C
Medium parameters used: f = 2450 MHz; σ = 1.75 S/m; ε_r = 38.256; 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; Serial: TP-1691
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.9 (7117)

Configuration (2450 GHz)/d=10mm, Pin=250mW/Area Scan (81x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 92.847 V/m
Fast SAR: SAR(1 g) = 13.2 W/kg
Fast SAR(10 g) = 6.11 W/kg
Maximum value of SAR (interpolated) = 17.3 W/kg

Configuration (2450 GHz)/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 92.847 V/m
Peak SAR (extrapolated) = 27.2 W/kg
SAR(1 g) = 13 W/kg
SAR(10 g) = 5.99 W/kg
Power Drift = -0.02 dB
Maximum value of SAR (measured) = 17.2 W/kg



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Plot #6

Date/Time: 2014-08-05 10:12:42

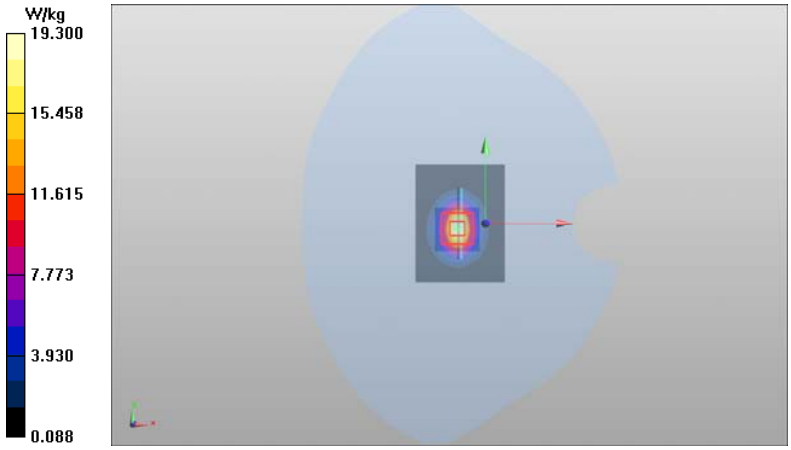
Test Laboratory: TCC Microsoft
Type: D2600V2; Serial: D2600V2 - SN:1056

Communication System: CW2600
Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: HSL2600; Medium Notes: t= 21.2 C
Medium parameters used: f = 2600 MHz; σ = 1.959 S/m; ε_r = 38.651; 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; Serial: TP-1691
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

Configuration (2600MHz)/d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 89.562 V/m
Fast SAR: SAR(1 g) = 14.7 W/kg
Fast SAR(10 g) = 6.53 W/kg
Maximum value of SAR (interpolated) = 19.9 W/kg

Configuration (2600MHz)/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 89.562 V/m
Peak SAR (extrapolated) = 31.2 W/kg
SAR(1 g) = 14.3 W/kg
SAR(10 g) = 6.35 W/kg
Power Drift = 0.01 dB
Maximum value of SAR (measured) = 19.3 W/kg



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Plot #7

Date/Time: 2014-07-30 08:40:53

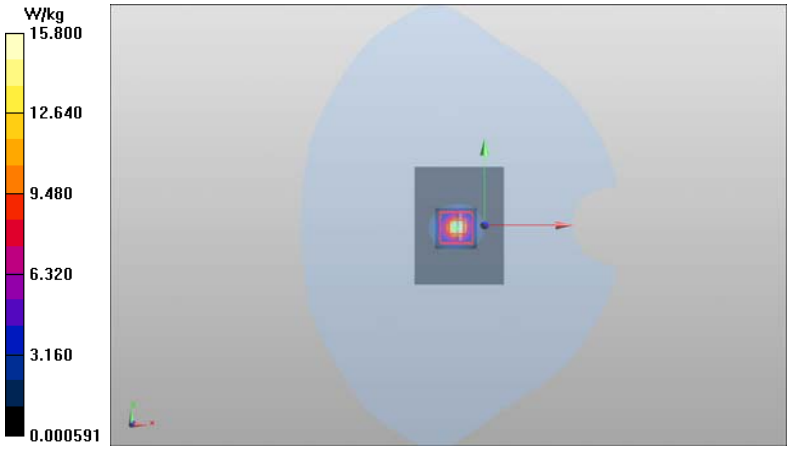
Test Laboratory: TCC Microsoft
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1032

Communication System: CW5600
Frequency: 5600 MHz; Duty Cycle: 1:1
Medium: HSL5000; Medium Notes: t= 22.2 C
Medium parameters used: f = 5600 MHz; σ = 4.951 S/m; ε_r = 35.554; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:
- Probe: EX3DV4 - SN3892
- ConvF(4.66, 4.66, 4.66); Calibrated: 2013-11-15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2013-11-11
- Phantom: SAM2; Type: SAM; Serial: TP-1570
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW 5600/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 60.841 V/m
Fast SAR: SAR(1 g) = 7.57 W/kg
Fast SAR(10 g) = 2.04 W/kg
Maximum value of SAR (interpolated) = 17.2 W/kg

d=10mm, Pin=100mW 5600/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 60.841 V/m
Peak SAR (extrapolated) = 35.2 W/kg
SAR(1 g) = 7.95 W/kg
SAR(10 g) = 2.2 W/kg
Power Drift = 0.09 dB
Maximum value of SAR (measured) = 15.8 W/kg



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Plot #8

Date/Time: 2014-07-31 09:42:45

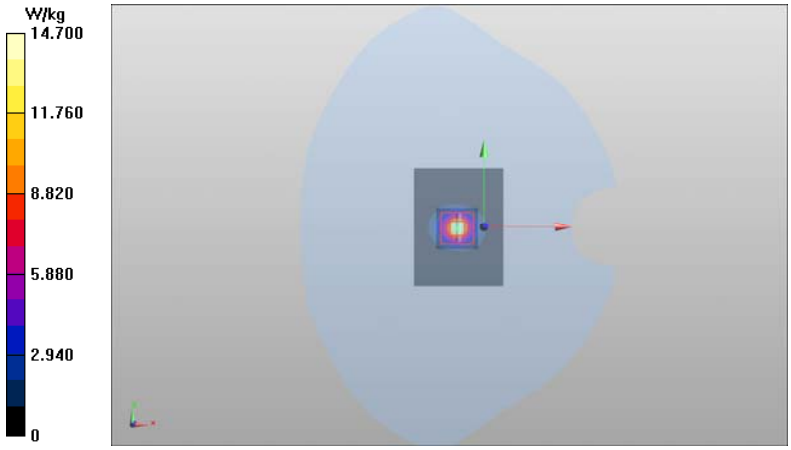
Test Laboratory: TCC Microsoft
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1032

Communication System: CW5800
Frequency: 5800 MHz; Duty Cycle: 1:1
Medium: HSL5000; Medium Notes: t= 22.2 C
Medium parameters used: f = 5800 MHz; σ = 5.09 S/m; ε_r = 34.791; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY Configuration:
- Probe: EX3DV4 - SN3892
- ConvF(4.6, 4.6, 4.6); Calibrated: 2013-11-15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2013-11-11
- Phantom: SAM2; Type: SAM; Serial: TP-1570
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW 5800/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 59.502 V/m
Fast SAR: SAR(1 g) = 6.93 W/kg
Fast SAR(10 g) = 1.86 W/kg
Maximum value of SAR (interpolated) = 16.0 W/kg

d=10mm, Pin=100mW 5800/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 59.502 V/m
Peak SAR (extrapolated) = 34.2 W/kg
SAR(1 g) = 7.52 W/kg
SAR(10 g) = 2.09 W/kg
Power Drift = 0.09 dB
Maximum value of SAR (measured) = 14.7 W/kg



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Plot #9

Date/Time: 2014-08-06 18:04:53

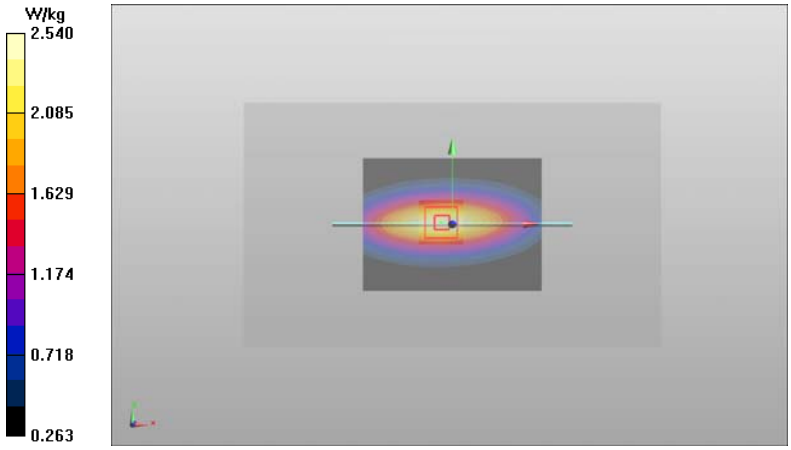
Test Laboratory: TCC Microsoft
Type: D750V3; Serial: D750V3 - SN:1075

Communication System:
Frequency: 750 MHz; Duty Cycle: 1:1
Medium: BSL750; Medium Notes: t= 20.8 C
Medium parameters used: f = 750 MHz; σ = 0.992 S/m; ε_r = 54.271; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(10.24, 10.24, 10.24); 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)

d=15mm, Pin=250mW/Area Scan (81x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 48.259 V/m
Fast SAR: SAR(1 g) = 2.22 W/kg
Fast SAR(10 g) = 1.51 W/kg
Maximum value of SAR (interpolated) = 2.54 W/kg

d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 48.259 V/m
Peak SAR (extrapolated) = 3.21 W/kg
SAR(1 g) = 2.18 W/kg
SAR(10 g) = 1.45 W/kg
Power Drift = -0.00 dB
Maximum value of SAR (measured) = 2.54 W/kg



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Plot #10

Date/Time: 2014-08-08 17:42:25

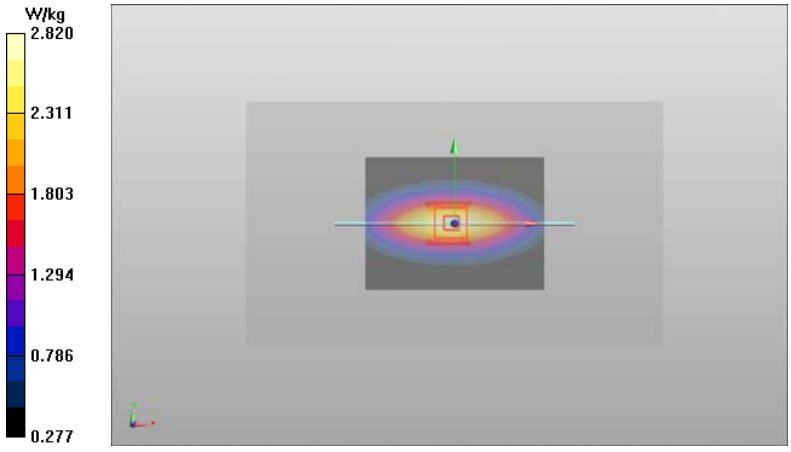
Test Laboratory: TCC Microsoft
Type: D835V2; Serial: D835V2 - SN:462

Communication System: CW835
Frequency: 835 MHz; Duty Cycle: 1:1
Medium: BSL835; Medium Notes: t= 22.4 C
Medium parameters used: f = 835 MHz; σ = 0.985 S/m; ε_r = 53.504; 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 (8); SEMCAD X Version 14.6.9 (7117)

Configuration 835 MHz/d=15mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 52.308 V/m
Fast SAR: SAR(1 g) = 2.47 W/kg
Fast SAR(10 g) = 1.65 W/kg
Maximum value of SAR (interpolated) = 2.84 W/kg

Configuration 835 MHz/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 52.308 V/m
Peak SAR (extrapolated) = 3.53 W/kg
SAR(1 g) = 2.43 W/kg
SAR(10 g) = 1.6 W/kg
Power Drift = -0.01 dB
Maximum value of SAR (measured) = 2.82 W/kg



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Plot #11

Date/Time: 2014-08-01 08:18:26

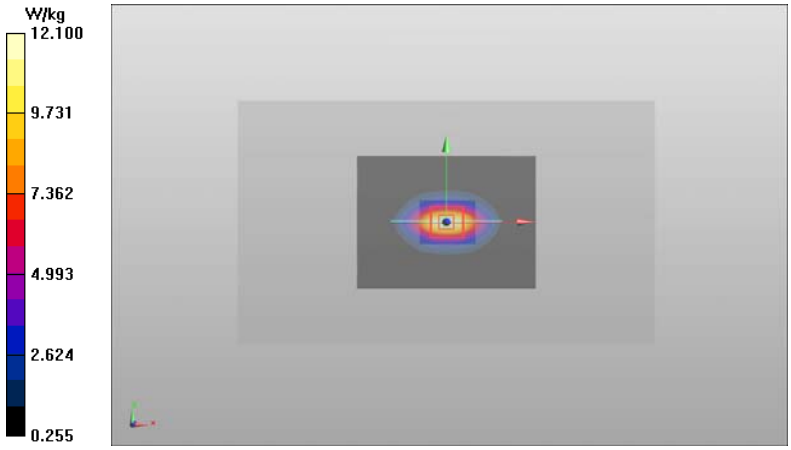
Test Laboratory: TCC Microsoft
Type: D1750V2; Serial: D1750V2 - SN:1083

Communication System: CW1750
Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: BSL1800; Medium Notes: t= 21.2 C
Medium parameters used: f = 1750 MHz; σ = 1.45 S/m; ε_r = 52.075; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3834
- ConvF(7.35, 7.35, 7.35); 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 (8); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (81x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 86.167 V/m
Fast SAR: SAR(1 g) = 9.75 W/kg
Fast SAR(10 g) = 5.07 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 = 86.167 V/m
Peak SAR (extrapolated) = 17.2 W/kg
SAR(1 g) = 9.69 W/kg
SAR(10 g) = 5.18 W/kg
Power Drift = 0.09 dB
Maximum value of SAR (measured) = 12.1 W/kg



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Plot #12

Date/Time: 2014-07-29 08:17:08

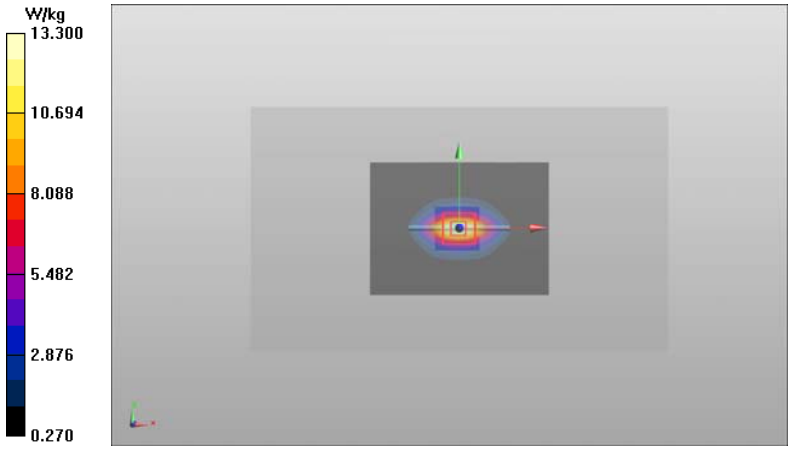
Test Laboratory: TCC Microsoft
Type: D1900V2; Serial: D1900V2 - SN:5d030

Communication System: CW1900
Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: BSL1900; Medium Notes: t= 21.2 C
Medium parameters used: f = 1900 MHz; σ = 1.526 S/m; ε_r = 52.978; 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 (8); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (81x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 87.777 V/m
Fast SAR: SAR(1 g) = 10.5 W/kg
Fast SAR(10 g) = 5.23 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 = 87.777 V/m
Peak SAR (extrapolated) = 18.9 W/kg
SAR(1 g) = 10.5 W/kg
SAR(10 g) = 5.47 W/kg
Power Drift = 0.05 dB
Maximum value of SAR (measured) = 13.3 W/kg



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Plot #13

Date/Time: 2014-07-29 09:21:18

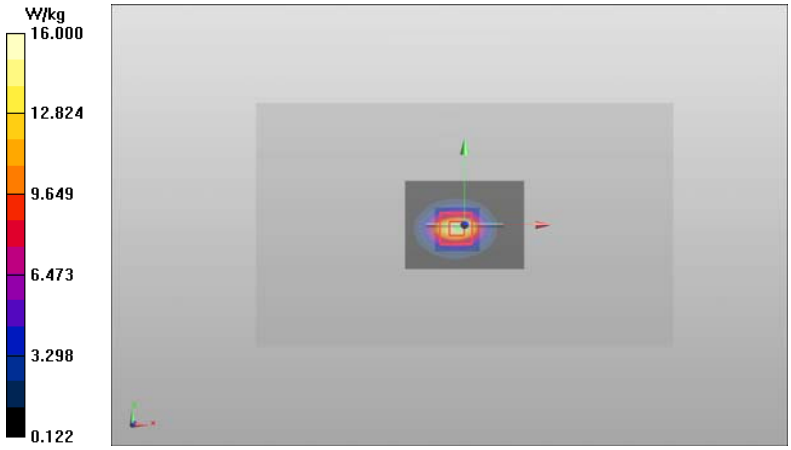
Test Laboratory: TCC Microsoft
Type: D2450V2; Serial: D2450V2 - SN:749

Communication System: CW2450
Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: BSL2450; Medium Notes: t= 21.0 C
Medium parameters used: f = 2450 MHz; σ = 1.916 S/m; ε_r = 51.009; 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: TP-1123/1 (750 MHz), TP-1124/1 (2450 MHz)
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

Configuration (2450 GHz)/d=10mm, Pin=250mW/Area Scan (81x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 80.464 V/m
Fast SAR: SAR(1 g) = 12.3 W/kg
Fast SAR(10 g) = 5.63 W/kg
Maximum value of SAR (interpolated) = 16.7 W/kg

Configuration (2450 GHz)/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 80.464 V/m
Peak SAR (extrapolated) = 24.7 W/kg
SAR(1 g) = 12.2 W/kg
SAR(10 g) = 5.68 W/kg
Power Drift = 0.06 dB
Maximum value of SAR (measured) = 16.0 W/kg



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Plot #14

Date/Time: 2014-08-01 08:17:30

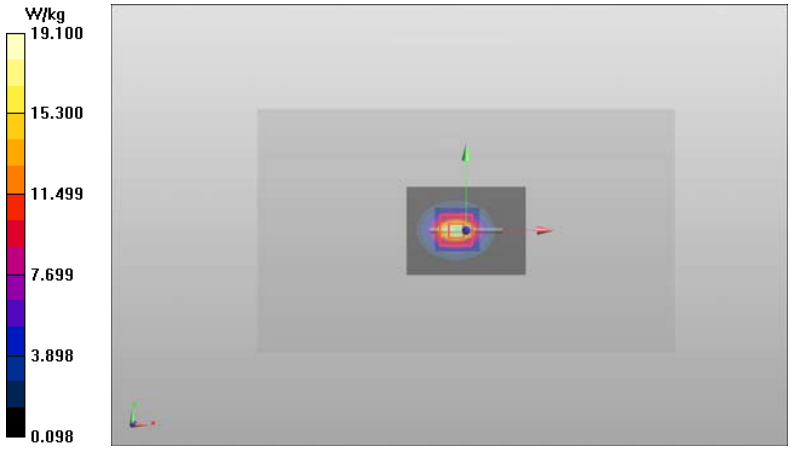
Test Laboratory: TCC Microsoft
Type: D2600V2; Serial: D2600V2 - SN:1056

Communication System: CW2600
Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: BSL2600; Medium Notes: t= 21 C
Medium parameters used: f = 2600 MHz; σ = 2.112 S/m; ε_r = 50.731; 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)

Configuration (2600 GHz)/d=10mm, Pin=250mW/Area Scan (81x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 82.363 V/m
Fast SAR: SAR(1 g) = 14.5 W/kg
Fast SAR(10 g) = 6.34 W/kg
Maximum value of SAR (interpolated) = 19.9 W/kg

Configuration (2600 GHz)/d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 82.363 V/m
Peak SAR (extrapolated) = 30.3 W/kg
SAR(1 g) = 14.3 W/kg
SAR(10 g) = 6.41 W/kg
Power Drift = 0.03 dB
Maximum value of SAR (measured) = 19.1 W/kg



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Plot #15

Date/Time: 2014-07-31 17:13:37

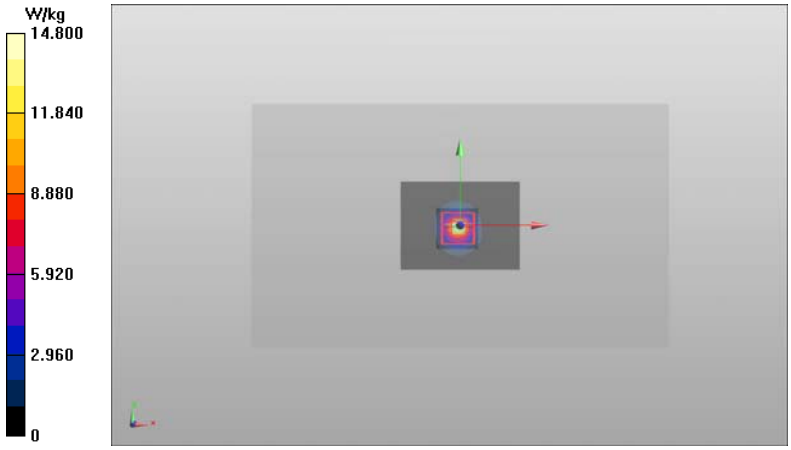
Test Laboratory: TCC Microsoft
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1032

Communication System: CW5200
Frequency: 5200 MHz; Duty Cycle: 1:1
Medium: BSL 5000; Medium Notes: t= 21.8 C
Medium parameters used: f = 5200 MHz; σ = 5.332 S/m; ε_r = 47.695; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3892
- ConvF(4.34, 4.34, 4.34); Calibrated: 2013-11-15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2013-11-11
- Phantom: 1. Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: TP-1124/3
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW 5200/Area Scan (81x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 57.648 V/m
Fast SAR: SAR(1 g) = 6.91 W/kg
Fast SAR(10 g) = 1.92 W/kg
Maximum value of SAR (interpolated) = 15.3 W/kg

d=10mm, Pin=100mW 5200/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 57.648 V/m
Peak SAR (extrapolated) = 30.9 W/kg
SAR(1 g) = 7.52 W/kg
SAR(10 g) = 2.1 W/kg
Power Drift = -0.03 dB
Maximum value of SAR (measured) = 14.8 W/kg



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Plot #16

Date/Time: 2014-08-01 13:48:47

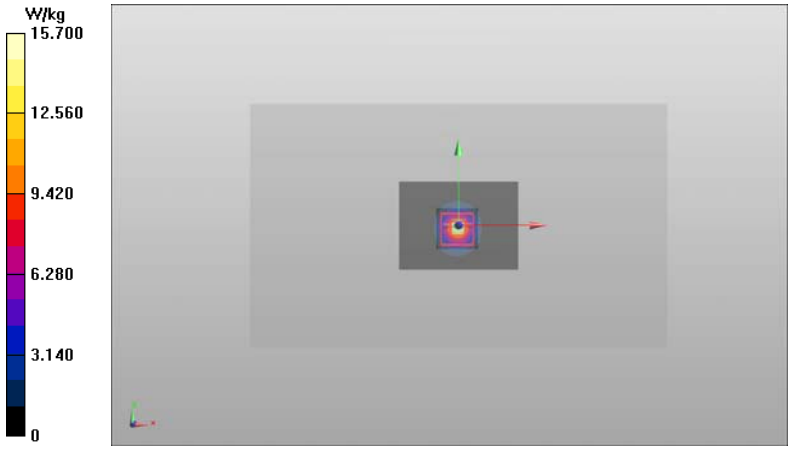
Test Laboratory: TCC Microsoft
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1032

Communication System: CW5600
Frequency: 5600 MHz; Duty Cycle: 1:1
Medium: BSL5000; Medium Notes: t= 21.8 C
Medium parameters used: f = 5600 MHz; σ = 5.839 S/m; ε_r = 46.965; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3892
- ConvF(4, 4, 4); Calibrated: 2013-11-15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2013-11-11
- Phantom: 1. Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: TP-1124/3
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW 5600/Area Scan (81x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 56.264 V/m
Fast SAR: SAR(1 g) = 7.26 W/kg
Fast SAR(10 g) = 2 W/kg
Maximum value of SAR (interpolated) = 16.5 W/kg

d=10mm, Pin=100mW 5600/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 56.264 V/m
Peak SAR (extrapolated) = 35.7 W/kg
SAR(1 g) = 8.01 W/kg
SAR(10 g) = 2.23 W/kg
Power Drift = -0.03 dB
Maximum value of SAR (measured) = 15.7 W/kg



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Plot #17

Date/Time: 2014-07-31 13:52:39

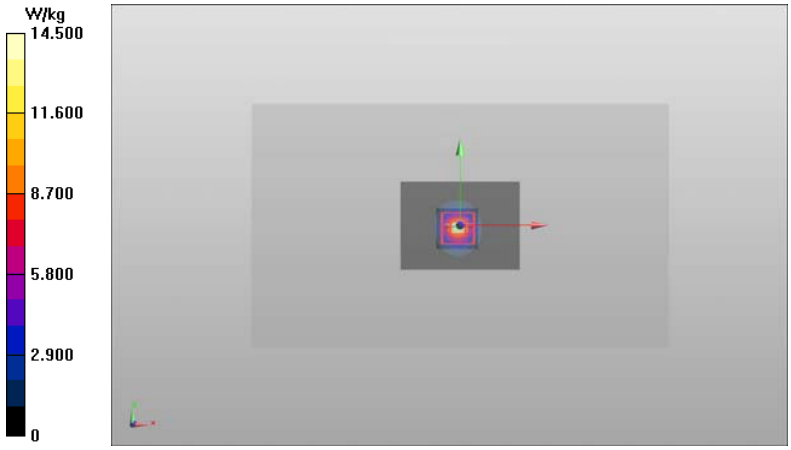
Test Laboratory: TCC Microsoft
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1032

Communication System: CW5800
Frequency: 5800 MHz; Duty Cycle: 1:1
Medium: BSL 5000; Medium Notes: t= 21.8 C
Medium parameters used: f = 5800 MHz; σ = 6.12 S/m; ε_r = 46.728; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3892
- ConvF(4.02, 4.02, 4.02); Calibrated: 2013-11-15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2013-11-11
- Phantom: 1. Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: TP-1124/3
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW 5800/Area Scan (81x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 53.922 V/m
Fast SAR: SAR(1 g) = 6.57 W/kg
Fast SAR(10 g) = 1.8 W/kg
Maximum value of SAR (interpolated) = 15.1 W/kg

d=10mm, Pin=100mW 5800/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 53.922 V/m
Peak SAR (extrapolated) = 32.1 W/kg
SAR(1 g) = 7.23 W/kg
SAR(10 g) = 1.99 W/kg
Power Drift = 0.15 dB
Maximum value of SAR (measured) = 14.5 W/kg



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APPENDIX B: MEASUREMENT SCANS

Plot #1

Date/Time: 2014-08-06 10:39:32

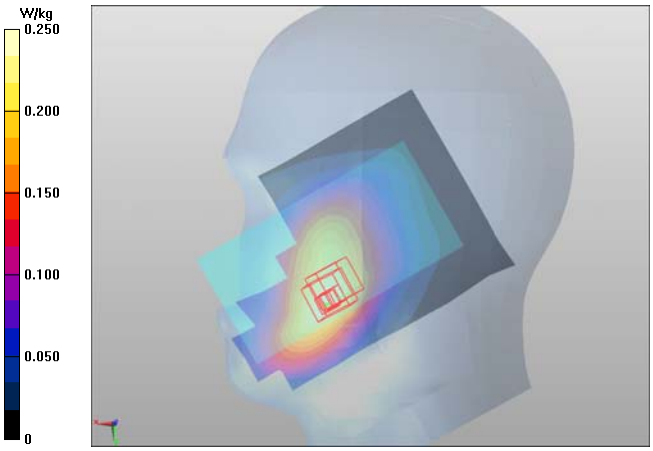
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815356/6

Communication System: LTE700 (Band 17)
Frequency: 711 MHz; Duty Cycle: 1:1
Medium: HSL750; Medium Notes: t= 21 C
Medium parameters used: f = 711 MHz; σ = 0.867 S/m; ε_r = 40.864; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(10.78, 10.78, 10.78); Calibrated: 2013-12-10;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1302; Calibrated: 2013-11-08
- Phantom: #1 SAM, SAR4; Type: SAM; Serial: TP-1018
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

LTE700 (Band 17) - Right/Cheek - High - QPSK - 10 MHz - 1RB - 100% offset/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 16.286 V/m
Fast SAR: SAR(1 g) = 0.218 W/kg
Fast SAR(10 g) = 0.154 W/kg
Maximum value of SAR (interpolated) = 0.250 W/kg

LTE700 (Band 17) - Right/Cheek - High - QPSK - 10 MHz - 1RB - 100% offset/Zoom Scan (6x6x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 15.963 V/m
Peak SAR (extrapolated) = 0.281 W/kg
SAR(1 g) = 0.219 W/kg
SAR(10 g) = 0.166 W/kg
Power Drift = 0.01 dB
Maximum value of SAR (measured) = 0.241 W/kg



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Plot #2

Date/Time: 2014-08-03 09:54:18

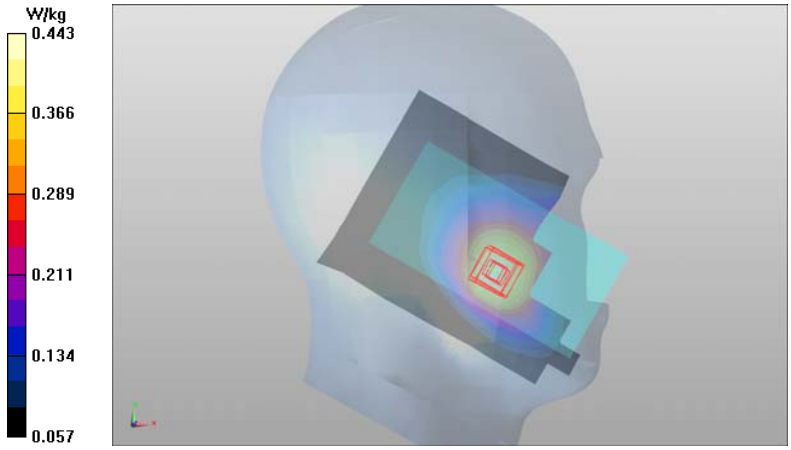
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815344/2

Communication System: 2-slot GPRS850
Frequency: 836.4 MHz; Duty Cycle: 1:4.19952
Medium: HSL835; Medium Notes: t= 22.2 C
Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.904 S/m; ε_r = 40.06; 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)
- 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)

2-slot GPRS850 - Left/Cheek - Scenario 2 - Sub 2 - Middle/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 21.506 V/m
Fast SAR: SAR(1 g) = 0.377 W/kg
Fast SAR(10 g) = 0.263 W/kg
Maximum value of SAR (interpolated) = 0.430 W/kg

2-slot GPRS850 - Left/Cheek - Scenario 2 - Sub 2 - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 22.366 V/m
Peak SAR (extrapolated) = 0.497 W/kg
SAR(1 g) = 0.407 W/kg
SAR(10 g) = 0.317 W/kg
Power Drift = -0.05 dB
Maximum value of SAR (measured) = 0.443 W/kg



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Plot #3

Date/Time: 2014-08-03 12:13:37

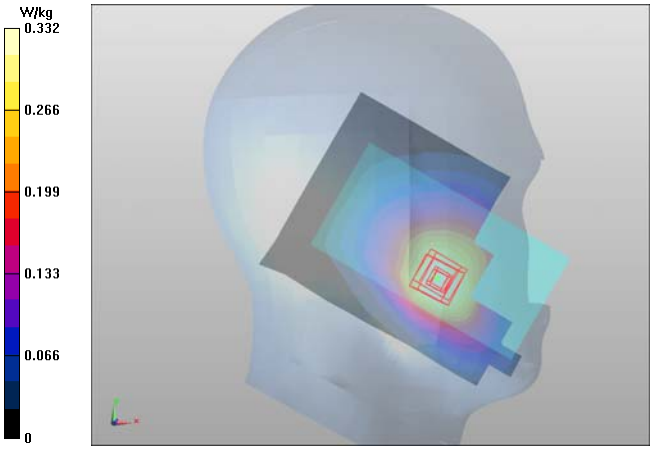
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815344/2

Communication System: WCDMA850 (Band 5)
Frequency: 843.8 MHz; Duty Cycle: 1:1
Medium: HSL835; Medium Notes: t= 22.2 C
Medium parameters used: f = 844 MHz; σ = 0.909 S/m; ε_r = 40.016; 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)
- 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)

WCDMA850 (Band 5) - Left/Cheek - Scenario 2 - Sub 3 - High/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 19.304 V/m
Fast SAR: SAR(1 g) = 0.294 W/kg
Fast SAR(10 g) = 0.208 W/kg
Maximum value of SAR (interpolated) = 0.332 W/kg

WCDMA850 (Band 5) - Left/Cheek - Scenario 2 - Sub 3 - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 19.304 V/m
Peak SAR (extrapolated) = 0.381 W/kg
SAR(1 g) = 0.310 W/kg
SAR(10 g) = 0.240 W/kg
Power Drift = 0.02 dB
Maximum value of SAR (measured) = 0.338 W/kg



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Plot #4

Date/Time: 2014-08-04 10:13:42

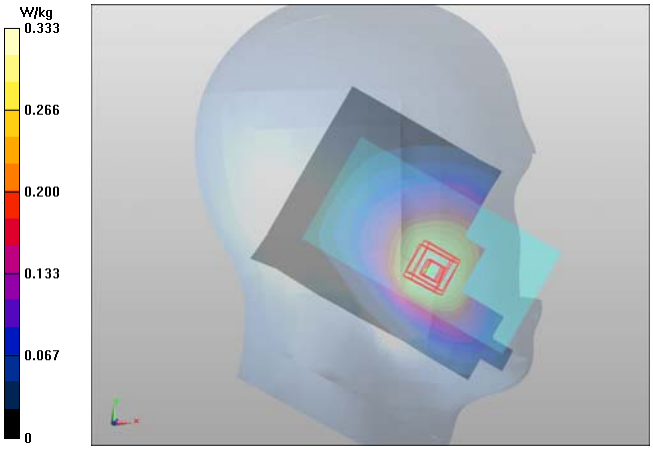
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815344/2

Communication System: LTE850 (Band 5)
Frequency: 829 MHz; Duty Cycle: 1:1
Medium: HSL835; Medium Notes: t= 22.7 C
Medium parameters used: f = 829 MHz; σ = 0.908 S/m; ε_r = 40.676; 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-1596
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

LTE850 (Band 5) - Left/Cheek - Low - QPSK - 10MHz - 1%RB - 0% offset/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 19.397 V/m
Fast SAR: SAR(1 g) = 0.295 W/kg
Fast SAR(10 g) = 0.207 W/kg
Maximum value of SAR (interpolated) = 0.333 W/kg

LTE850 (Band 5) - Left/Cheek - Low - QPSK - 10MHz - 1%RB - 0% offset/Zoom Scan (6x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 19.495 V/m
Peak SAR (extrapolated) = 0.370 W/kg
SAR(1 g) = 0.303 W/kg
SAR(10 g) = 0.237 W/kg
Power Drift = 0.03 dB
Maximum value of SAR (measured) = 0.327 W/kg



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Plot #5

Date/Time: 2014-07-31 16:01:31

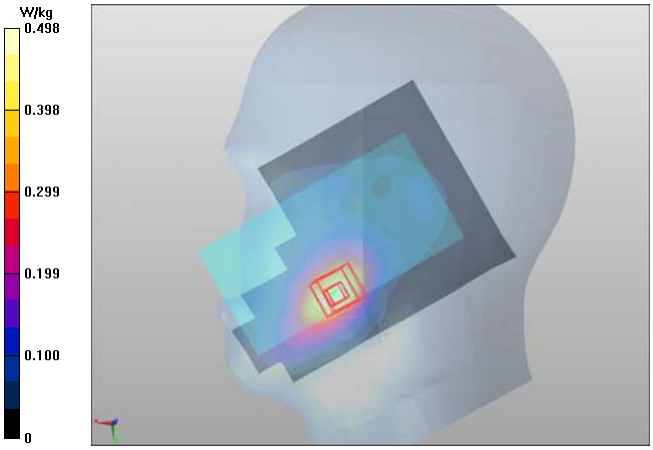
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815349/1

Communication System: LTE1700/2100 (Band 4)
Frequency: 1720 MHz; Duty Cycle: 1:1
Medium: HSL1800; Medium Notes: t= 20.7 C
Medium parameters used: f = 1720 MHz; σ = 1.302 S/m; ε_r = 38.388; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY Configuration:
- Probe: EX3DV4 - SN3834
- ConvF(7.62, 7.62, 7.62); Calibrated: 2014-05-08;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1355; Calibrated: 2014-05-13
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1692
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

LTE1700_2100 (Band 4) - Right/Cheek - Low - QPSK - 20MHz - 1RB - 0% offset/Area Scan (81x121x1):
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 15.267 V/m
Fast SAR: SAR(1 g) = 0.402 W/kg
Fast SAR(10 g) = 0.233 W/kg
Maximum value of SAR (interpolated) = 0.498 W/kg

LTE1700_2100 (Band 4) - Right/Cheek - Low - QPSK - 20MHz - 1RB - 0% offset/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 15.517 V/m
Peak SAR (extrapolated) = 0.626 W/kg
SAR(1 g) = 0.410 W/kg
SAR(10 g) = 0.255 W/kg
Power Drift = 0.06 dB
Maximum value of SAR (measured) = 0.477 W/kg



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Plot #6

Date/Time: 2014-07-30 11:45:18

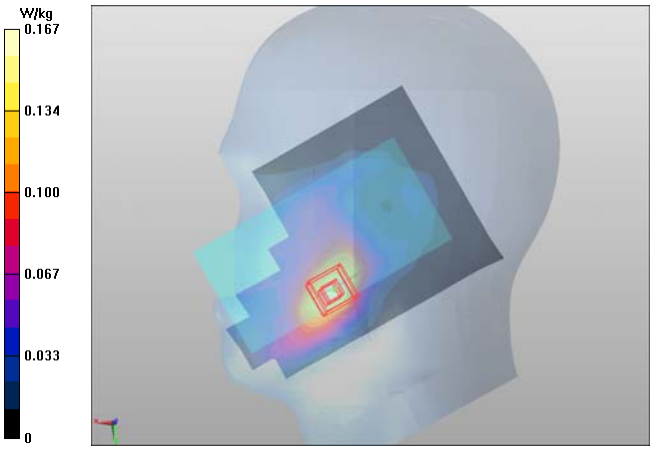
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815349/1

Communication System: 3-slot GPRS1900
Frequency: 1850.2 MHz; Duty Cycle: 1:2.80027
Medium: HSL1900; Medium Notes: t= 22.1 C
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.329 S/m; ε_r = 39.346; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY Configuration:
- Probe: EX3DV4 - SN3834
- ConvF(7.33, 7.33, 7.33); 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 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

3-slot GPRS1900 - Right/Cheek - Low/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 10.722 V/m
Fast SAR: SAR(1 g) = 0.135 W/kg
Fast SAR(10 g) = 0.079 W/kg
Maximum value of SAR (interpolated) = 0.167 W/kg

3-slot GPRS1900 - Right/Cheek - Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 10.870 V/m
Peak SAR (extrapolated) = 0.204 W/kg
SAR(1 g) = 0.137 W/kg
SAR(10 g) = 0.089 W/kg
Power Drift = -0.00 dB
Maximum value of SAR (measured) = 0.157 W/kg



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Plot #7

Date/Time: 2014-07-30 13:59:49

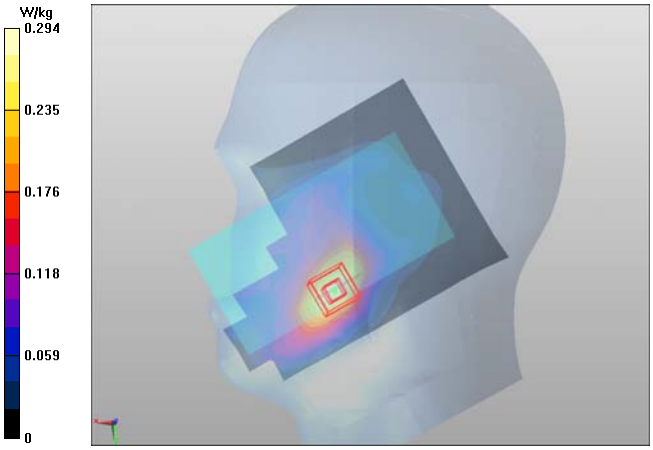
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815349/1

Communication System: WCDMA1900 (Band 2)
Frequency: 1852.4 MHz; Duty Cycle: 1:1
Medium: HSL1900; Medium Notes: t= 22.1 C
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.331 S/m; ε_r = 39.339; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY Configuration:
- Probe: EX3DV4 - SN3834
- ConvF(7.33, 7.33, 7.33); 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 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

WCDMA1900 (Band 2) - Right/Cheek - Low/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 14.104 V/m
Fast SAR: SAR(1 g) = 0.239 W/kg
Fast SAR(10 g) = 0.139 W/kg
Maximum value of SAR (interpolated) = 0.294 W/kg

WCDMA1900 (Band 2) - Right/Cheek - Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 14.127 V/m
Peak SAR (extrapolated) = 0.347 W/kg
SAR(1 g) = 0.235 W/kg
SAR(10 g) = 0.152 W/kg
Power Drift = 0.07 dB
Maximum value of SAR (measured) = 0.274 W/kg



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Plot #8

Date/Time: 2014-07-29 18:04:39

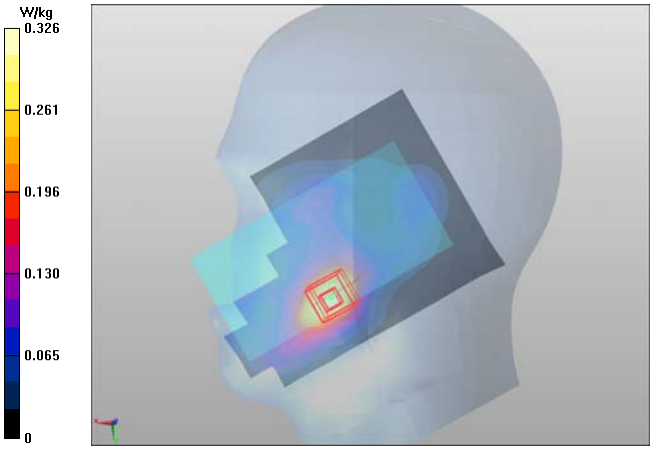
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815349/1

Communication System: LTE1900 (Band 2)
Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: HSL1900; Medium Notes: t= 22.1 C
Medium parameters used: f = 1900 MHz; σ = 1.377 S/m; ε_r = 39.193; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY Configuration:
- Probe: EX3DV4 - SN3834
- ConvF(7.33, 7.33, 7.33); Calibrated: 2014-05-08;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1355; Calibrated: 2014-05-13
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

LTE1900 (Band 2) - Right/Cheek - High - QPSK - 20MHz - 1RB - 100% offset/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 11.588 V/m
Fast SAR: SAR(1 g) = 0.260 W/kg
Fast SAR(10 g) = 0.147 W/kg
Maximum value of SAR (interpolated) = 0.326 W/kg

LTE1900 (Band 2) - Right/Cheek - High - QPSK - 20MHz - 1RB - 100% offset/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 10.833 V/m
Peak SAR (extrapolated) = 0.349 W/kg
SAR(1 g) = 0.227 W/kg
SAR(10 g) = 0.141 W/kg
Power Drift = 0.05 dB
Maximum value of SAR (measured) = 0.267 W/kg



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Plot #9

Date/Time: 2014-08-04 12:46:32

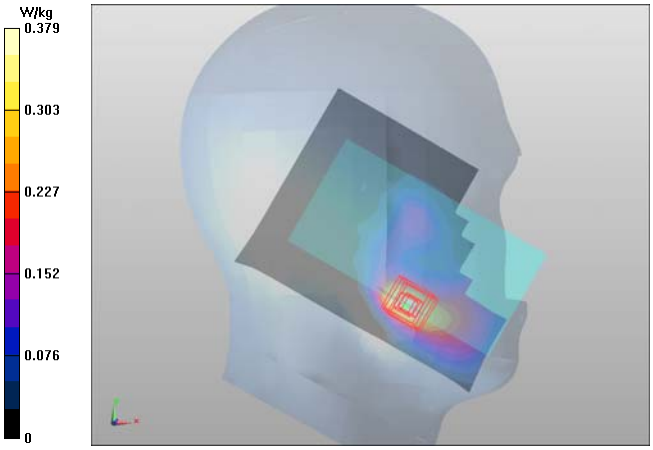
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815356/6

Communication System: LTE2500 (Band 7)
Frequency: 2511.7 MHz; Duty Cycle: 1:1
Medium: HSL2600; Medium Notes: t= 21 C
Medium parameters used: f = 2512 MHz; σ = 1.87 S/m; ε_r = 37.998; ρ = 1000 kg/m^3
Phantom section: Left 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; Serial: TP-1691
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

LTE2500 (Band 7) - Left/Cheek - Sub 1- Scenario 1 - QPSK - 20MHz - 1RB - 0% offset/Area Scan (121x181x1):
Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 9.884 V/m
Fast SAR: SAR(1 g) = 0.295 W/kg
Fast SAR(10 g) = 0.151 W/kg
Maximum value of SAR (interpolated) = 0.379 W/kg

LTE2500 (Band 7) - Left/Cheek - Sub 1- Scenario 1 - QPSK - 20MHz - 1RB - 0% offset/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.982 V/m
Peak SAR (extrapolated) = 0.535 W/kg
SAR(1 g) = 0.294 W/kg
SAR(10 g) = 0.157 W/kg
Power Drift = -0.00 dB
Maximum value of SAR (measured) = 0.362 W/kg



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Plot #10

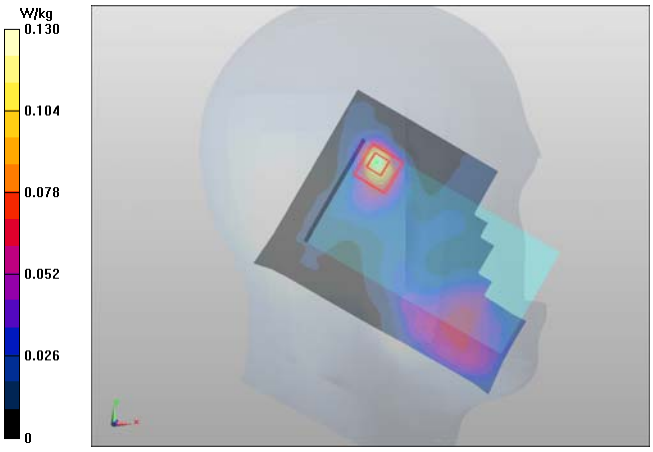
Date/Time: 2014-08-04 13:22:38

Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815356/6

Communication System: LTE2500 (Band 7)
Frequency: 2511.7 MHz; Duty Cycle: 1:1
Medium: HSL2600; Medium Notes: t= 21 C
Medium parameters used: f = 2512 MHz; σ = 1.87 S/m; ε_r = 37.998; ρ = 1000 kg/m^3
Phantom section: Left 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))
- 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) - Left/Tilt - Sub 1- Scenario 2 - QPSK - 20MHz - 1RB - 0% offset/Area Scan (121x181x1):
Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 4.648 V/m
Fast SAR: SAR(1 g) = 0.093 W/kg
Fast
AR(10 g) = 0.043 W/kg
Maximum value of SAR (interpolated) = 0.130 W/kg



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Plot #11

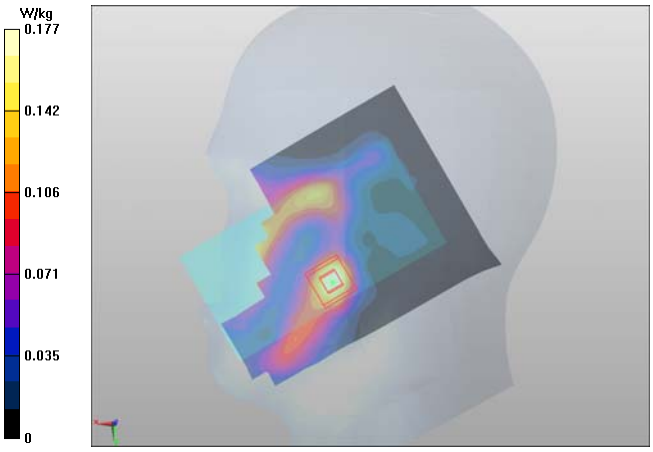
Date/Time: 2014-08-04 13:48:24

Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815356/6

Communication System: LTE2500 (Band 7)
Frequency: 2511.7 MHz; Duty Cycle: 1:1
Medium: HSL2600; Medium Notes: t= 21 C
Medium parameters used: f = 2512 MHz; σ = 1.87 S/m; ε_r = 37.998; 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)
- 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 - Sub 1 - Scenario 2 - QPSK - 20MHz - 1RB - 0% offset/Area Scan (121x181x1):
Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 6.811 V/m
Fast SAR: SAR(1 g) = 0.137 W/kg
Fast
AR(10 g) = 0.069 W/kg
Maximum value of SAR (interpolated) = 0.177 W/kg



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Plot #12

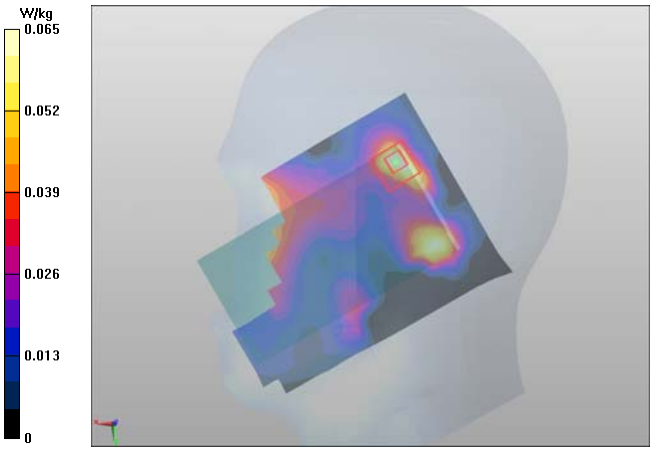
Date/Time: 2014-08-04 14:42:47

Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815356/6

Communication System: LTE2500 (Band 7)
Frequency: 2511.7 MHz; Duty Cycle: 1:1
Medium: HSL2600; Medium Notes: t= 21 C
Medium parameters used: f = 2512 MHz; σ = 1.87 S/m; ε_r = 37.998; 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))
- 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/Tilt - Sub 1 - Scenario 1 - QPSK - 20MHz - 1RB - 0% offset/Area Scan (121x181x1):
Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 5.117 V/m
Fast SAR: SAR(1 g) = 0.048 W/kg
Fast
AR(10 g) = 0.024 W/kg
Maximum value of SAR (interpolated) = 0.0647 W/kg



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Plot #13

Date/Time: 2014-07-28 10:21:54

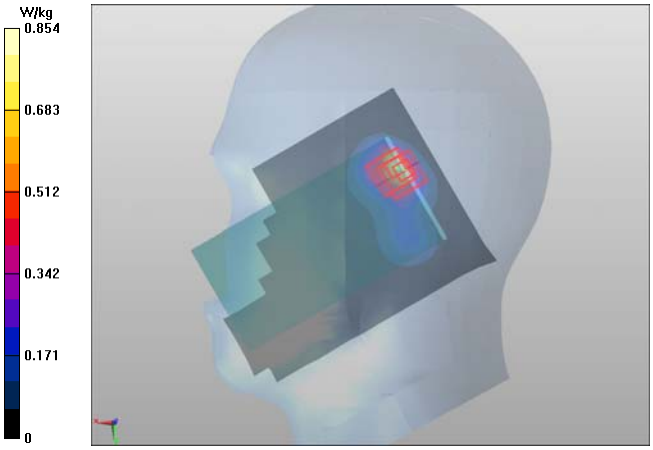
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815308/7

Communication System: WLAN2450
Frequency: 2437 MHz; Duty Cycle: 1:1
Medium: HSL2450; Medium Notes: t= 21.1 C
Medium parameters used: f = 2437 MHz; σ = 1.78 S/m; ε_r = 38.907; ρ = 1000 kg/m^3
Phantom section: Right 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; Serial: TP-1691
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

WLAN2450 b-mode - Right/Tilt - Channel 6 - QPSK 5,5 Mbps/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 14.565 V/m
Fast SAR: SAR(1 g) = 0.545 W/kg
Fast SAR(10 g) = 0.248 W/kg
Maximum value of SAR (interpolated) = 0.854 W/kg

WLAN2450 b-mode - Right/Tilt - Channel 6 - QPSK 5,5 Mbps/Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.117 V/m
Peak SAR (extrapolated) = 1.20 W/kg
SAR(1 g) = 0.538 W/kg
SAR(10 g) = 0.235 W/kg
Power Drift = 0.16 dB
Maximum value of SAR (measured) = 0.745 W/kg



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Plot #14

Date/Time: 2014-07-30 11:46:36

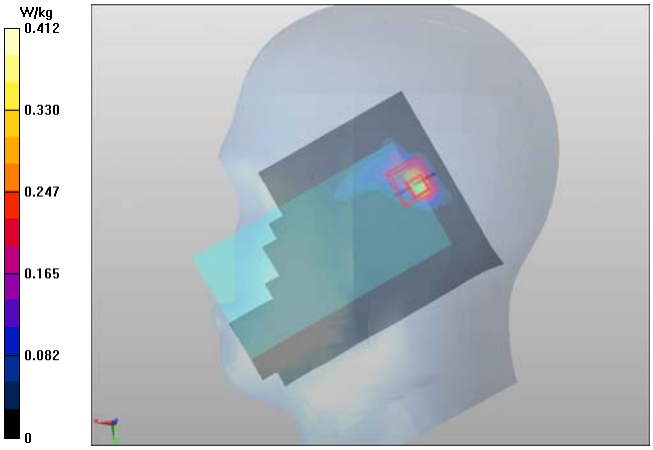
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815319/4

Communication System: WLAN5000
Frequency: 5680 MHz; Duty Cycle: 1:1
Medium: HSL5000; Medium Notes: t= 22.2 C
Medium parameters used: f = 5680 MHz; σ = 5.032 S/m; ε_r = 35.45; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY Configuration:
- Probe: EX3DV4 - SN3892
- ConvF(4.66, 4.66, 4.66); Calibrated: 2013-11-15;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2013-11-11
- Phantom: SAM2; Type: SAM; Serial: TP-1570
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

WLAN5000 a-mode - Right/Cheek - Channel 136 - BPSK 6 Mbps/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.412 W/kg

WLAN5000 a-mode - Right/Cheek - Channel 136 - BPSK 6 Mbps/Zoom Scan (9x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 8.881 V/m
Peak SAR (extrapolated) = 0.771 W/kg
SAR(1 g) = 0.174 W/kg
SAR(10 g) = 0.048 W/kg
Power Drift = 0.20 dB
Maximum value of SAR (measured) = 0.414 W/kg



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Plot #15

Date/Time: 2014-08-06 20:09:51

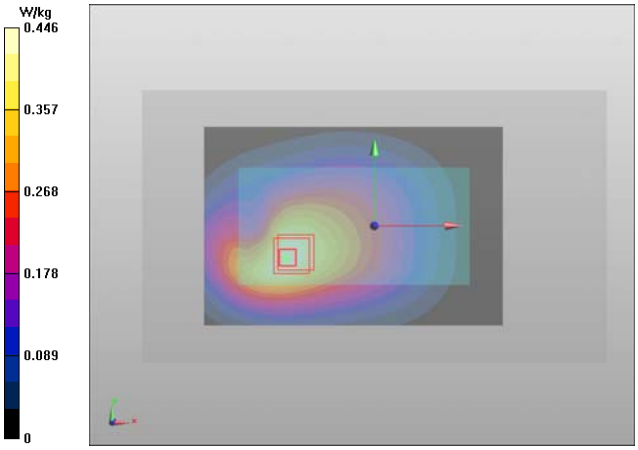
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815356/6

Communication System: LTE700 (Band 17)
Frequency: 711 MHz; Duty Cycle: 1:1
Medium: BSL750; Medium Notes: t= 20.8 C
Medium parameters used: f = 711 MHz; σ = 0.968 S/m; ε_r = 54.472; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(10.24, 10.24, 10.24); 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)

LTE 700 (Band 17)/Body - High - QPSK - 10MHz - 1RB - 100% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 15.766 V/m
Fast SAR: SAR(1 g) = 0.394 W/kg
Fast SAR(10 g) = 0.280 W/kg
Maximum value of SAR (interpolated) = 0.446 W/kg

LTE 700 (Band 17)/Body - High - QPSK - 10MHz - 1RB - 100% offset - Spacer 15mm - No Headset - Display Facing Phantom/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 15.784 V/m
Peak SAR (extrapolated) = 0.541 W/kg
SAR(1 g) = 0.402 W/kg
SAR(10 g) = 0.293 W/kg
Power Drift = 0.08 dB
Maximum value of SAR (measured) = 0.451 W/kg



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Plot #16

Date/Time: 2014-07-30 11:57:47

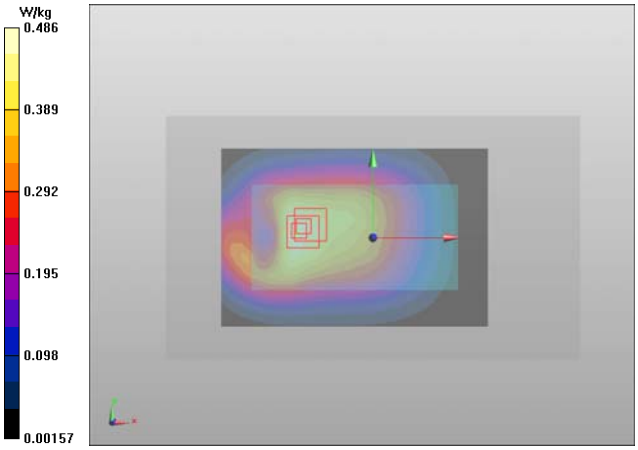
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815344/2

Communication System: 2-slot GPRS850
Frequency: 836.4 MHz; Duty Cycle: 1:4.19952
Medium: BSL835; Medium Notes: t= 21.8 C
Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.977 S/m; ε_r = 53.362; 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 (8); SEMCAD X Version 14.6.9 (7117)

2-slot GPRS850/Body - Scenario 0 - Sub2 - Spacer 15mm - No Headset - Display Facing phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 22.527 V/m
Fast SAR: SAR(1 g) = 0.420 W/kg
Fast SAR(10 g) = 0.298 W/kg
Maximum value of SAR (interpolated) = 0.486 W/kg

2-slot GPRS850/Body - Scenario 0 - Sub2 - Spacer 15mm - No Headset - Display Facing phantom/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 23.005 V/m
Peak SAR (extrapolated) = 0.559 W/kg
SAR(1 g) = 0.442 W/kg
SAR(10 g) = 0.336 W/kg
Power Drift = -0.06 dB
Maximum value of SAR (measured) = 0.484 W/kg



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Plot #17

Date/Time: 2014-08-03 15:12:32

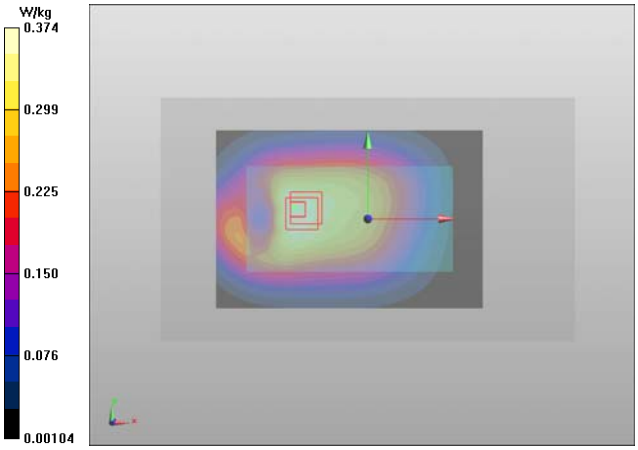
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815344/2

Communication System: WCDMA850 (Band 5)
Frequency: 843.8 MHz; Duty Cycle: 1:1
Medium: BSL835; Medium Notes: t= 22.3 C
Medium parameters used: f = 844 MHz; σ = 0.983 S/m; ε_r = 53.123; 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 (8); SEMCAD X Version 14.6.9 (7117)

WCDMAS850 (Band 5)/Body - Scenario 0 - Sub 3 - Spacer 15mm - No Headset - Display facing phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 20.350 V/m
Fast SAR: SAR(1 g) = 0.327 W/kg
Fast SAR(10 g) = 0.235 W/kg
Maximum value of SAR (interpolated) = 0.374 W/kg

WCDMAS850 (Band 5)/Body - Scenario 0 - Sub 3 - Spacer 15mm - No Headset - Display facing phantom/Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 19.828 V/m
Peak SAR (extrapolated) = 0.428 W/kg
SAR(1 g) = 0.338 W/kg
SAR(10 g) = 0.254 W/kg
Power Drift = 0.08 dB
Maximum value of SAR (measured) = 0.372 W/kg



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Plot #18

Date/Time: 2014-08-04 15:41:09

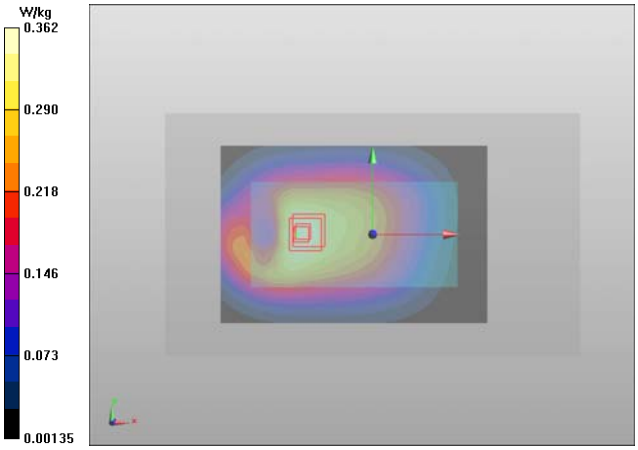
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815344/2

Communication System: LTE850 (Band 5)
Frequency: 829 MHz; Duty Cycle: 1:1
Medium: BSL835; Medium Notes: t= 22.3 C
Medium parameters used: f = 829 MHz; σ = 0.972 S/m; ε_r = 53.711; 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-1124/2 (1800MHz), TP-1123/2 (1900MHz)
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

LTE850 (Band 5)/Body - Low - QPSK - 10MHz - 1RB - 0% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 19.815 V/m
Fast SAR: SAR(1 g) = 0.316 W/kg
Fast SAR(10 g) = 0.227 W/kg
Maximum value of SAR (interpolated) = 0.362 W/kg

LTE850 (Band 5)/Body - Low - QPSK - 10MHz - 1RB - 0% offset - Spacer 15mm - No Headset - Display Facing Phantom/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 19.809 V/m
Peak SAR (extrapolated) = 0.416 W/kg
SAR(1 g) = 0.325 W/kg
SAR(10 g) = 0.245 W/kg
Power Drift = 0.01 dB
Maximum value of SAR (measured) = 0.356 W/kg



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Plot #19

Date/Time: 2014-08-01 10:29:29

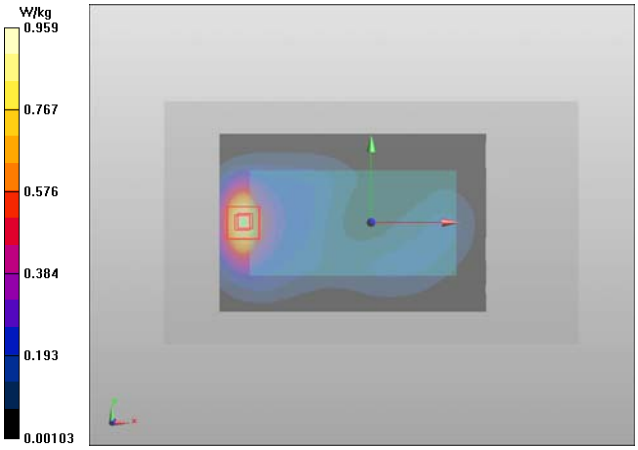
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815349/1

Communication System: LTE1700/2100 (Band 4)
Frequency: 1745 MHz; Duty Cycle: 1:1
Medium: BSL1800; Medium Notes: t= 21.2 C
Medium parameters used: f = 1745 MHz; σ = 1.446 S/m; ε_r = 52.088; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3834
- ConvF(7.35, 7.35, 7.35); 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)

LTE 1700_2100 (Band 4)/Body - High - QPSK - 20MHz - 1RB - 0% offset - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 25.033 V/m
Fast SAR: SAR(1 g) = 0.776 W/kg
Fast SAR(10 g) = 0.439 W/kg
Maximum value of SAR (interpolated) = 0.959 W/kg

LTE 1700_2100 (Band 4)/Body - High - QPSK - 20MHz - 1RB - 0% offset - Spacer 15mm - WH-208 - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 24.989 V/m
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.805 W/kg
SAR(10 g) = 0.480 W/kg
Power Drift = 0.02 dB
Maximum value of SAR (measured) = 0.967 W/kg



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Plot #20

Date/Time: 2014-07-28 12:43:05

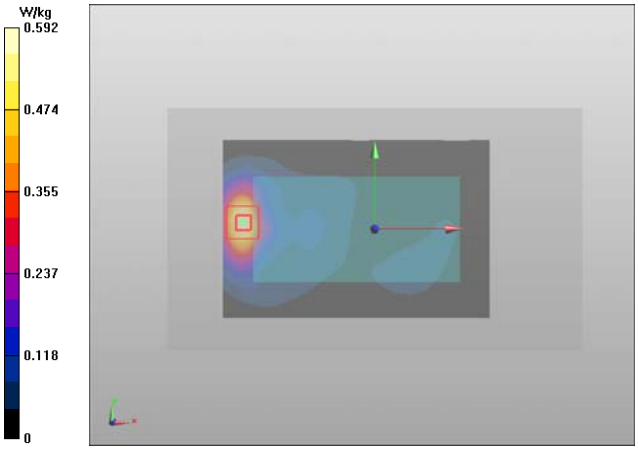
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815349/1

Communication System: 3-slot GPRS1900
Frequency: 1909.8 MHz; Duty Cycle: 1:2.80027
Medium: BSL1900; Medium Notes: t= 21.3 C
Medium parameters used: f = 1910 MHz; σ = 1.538 S/m; ε_r = 53.171; 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: 4mm (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)

3-slot GRPS1900/Body - High - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (81x121x1):
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 19.105 V/m
Fast SAR: SAR(1 g) = 0.473 W/kg
Fast SAR(10 g) = 0.258 W/kg
Maximum value of SAR (interpolated) = 0.592 W/kg

3-slot GRPS1900/Body - High - Spacer 15mm - WH-208 - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 19.194 V/m
Peak SAR (extrapolated) = 0.792 W/kg
SAR(1 g) = 0.488 W/kg
SAR(10 g) = 0.279 W/kg
Power Drift = -0.02 dB
Maximum value of SAR (measured) = 0.541 W/kg



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Plot #21

Date/Time: 2014-07-28 16:07:10

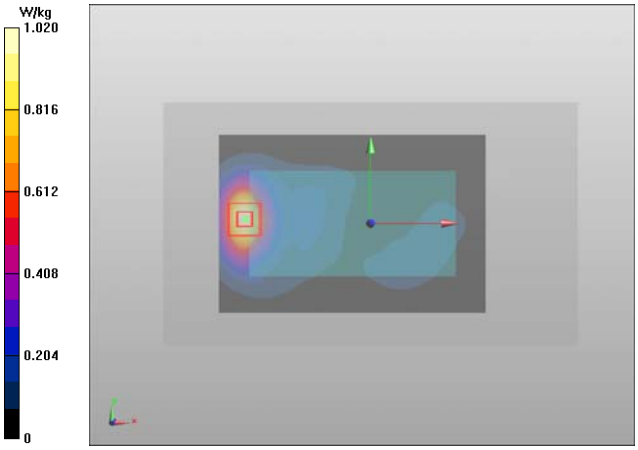
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815349/1

Communication System: WCDMA1900 (Band 2)
Frequency: 1852.4 MHz; Duty Cycle: 1:1
Medium: BSL1900; Medium Notes: t= 21.3 C
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.484 S/m; ε_r = 53.279; 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: 4mm (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)

WCDMA1900 (Band 2)/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom - Repeated/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 25.220 V/m
Fast SAR: SAR(1 g) = 0.824 W/kg
Fast SAR(10 g) = 0.458 W/kg
Maximum value of SAR (interpolated) = 1.02 W/kg

WCDMA1900 (Band 2)/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom - Repeated/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 25.220 V/m
Peak SAR (extrapolated) = 1.42 W/kg
SAR(1 g) = 0.883 W/kg
SAR(10 g) = 0.511 W/kg
Power Drift = 0.06 dB
Maximum value of SAR (measured) = 0.979 W/kg



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Plot #22

Date/Time: 2014-07-29 16:30:17

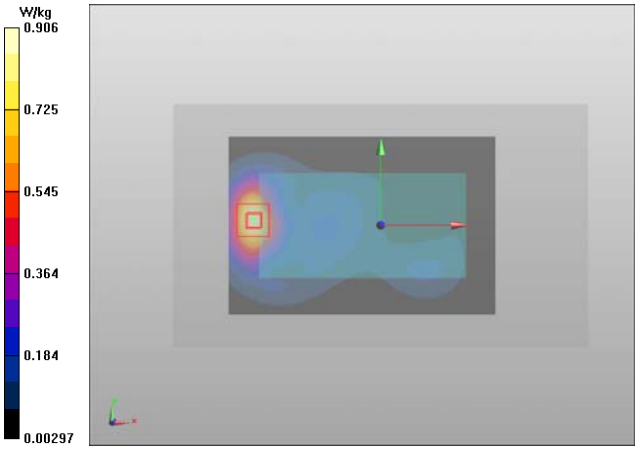
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815349/1

Communication System: LTE1900 (Band 2)
Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: BSL1900; Medium Notes: t= 21.2 C
Medium parameters used: f = 1900 MHz; σ = 1.526 S/m; ε_r = 52.978; 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)

LTE 1900 (Band 2)/Body - High - QPSK - 20MHz - 1RB - 100% offset - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 23.578 V/m
Fast SAR: SAR(1 g) = 0.730 W/kg
Fast SAR(10 g) = 0.402 W/kg
Maximum value of SAR (interpolated) = 0.906 W/kg

LTE 1900 (Band 2)/Body - High - QPSK - 20MHz - 1RB - 100% offset - Spacer 15mm - WH-208 - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 23.585 V/m
Peak SAR (extrapolated) = 1.24 W/kg
SAR(1 g) = 0.766 W/kg
SAR(10 g) = 0.441 W/kg
Power Drift = 0.02 dB
Maximum value of SAR (measured) = 0.928 W/kg



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Plot #23

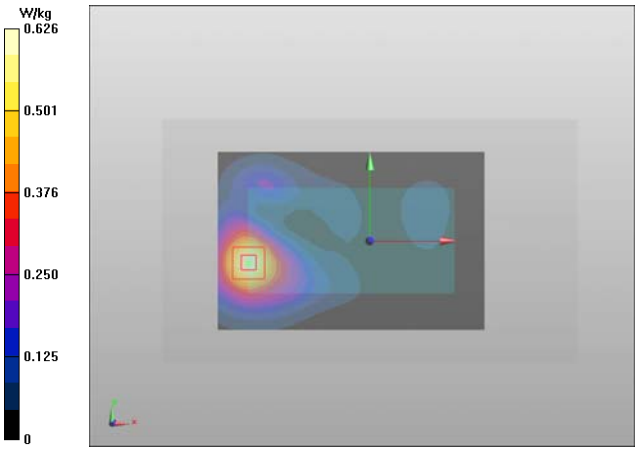
Date/Time: 2014-07-31 17:11:46

Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815356/6

Communication System: LTE2500 (Band 7)
Frequency: 2511.7 MHz; Duty Cycle: 1:1
Medium: BSL2600; Medium Notes: t= 21.2 C
Medium parameters used: f = 2512 MHz; σ = 2.013 S/m; ε_r = 50.572; 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 - Sub 1 - Scenario 1 - QPSK - 20MHz - 1RB - 0% offset - Spacer 15mm - No Headset - Back Facing Phantom/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 17.061 V/m
Fast SAR: SAR(1 g) = 0.503 W/kg
Fast
AR(10 g) = 0.276 W/kg
Maximum value of SAR (interpolated) = 0.626 W/kg



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Plot #24

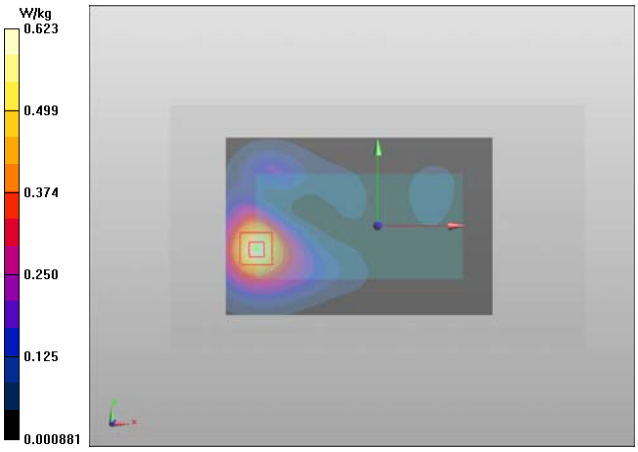
Date/Time: 2014-07-31 17:47:56

Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815356/6

Communication System: LTE2500 (Band 7)
Frequency: 2511.7 MHz; Duty Cycle: 1:1
Medium: BSL2600; Medium Notes: t= 21.2 C
Medium parameters used: f = 2512 MHz; σ = 2.013 S/m; ε_r = 50.572; 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))
- 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 - Sub 1 - Scenario 1 - QPSK - 20MHz - 1RB - 0% offset - Spacer 15mm - WH-208 - Back Facing Phantom/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 17.450 V/m
Fast SAR: SAR(1 g) = 0.501 W/kg
Fast
AR(10 g) = 0.274 W/kg
Maximum value of SAR (interpolated) = 0.623 W/kg



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Plot #25

Date/Time: 2014-07-31 18:18:23

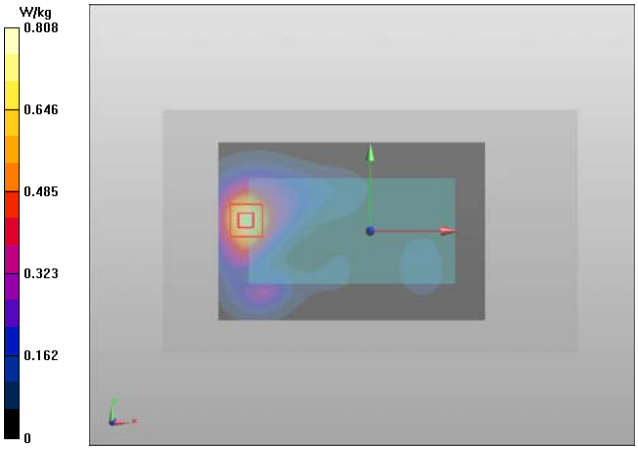
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815356/6

Communication System: LTE2500 (Band 7)
Frequency: 2511.7 MHz; Duty Cycle: 1:1
Medium: BSL2600; Medium Notes: t= 21.2 C
Medium parameters used: f = 2512 MHz; σ = 2.013 S/m; ε_r = 50.572; 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 - Sub 1 - Scenario 1 - QPSK - 20MHz - 1RB - 0% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 14.879 V/m
Fast SAR: SAR(1 g) = 0.643 W/kg
Fast SAR(10 g) = 0.341 W/kg
Maximum value of SAR (interpolated) = 0.808 W/kg

LTE2500 (Band 7)/Body - Sub 1 - Scenario 1 - QPSK - 20MHz - 1RB - 0% offset - Spacer 15mm - No Headset - Display Facing Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.970 V/m
Peak SAR (extrapolated) = 1.17 W/kg
SAR(1 g) = 0.642 W/kg
SAR(10 g) = 0.348 W/kg
Power Drift = -0.03 dB
Maximum value of SAR (measured) = 0.799 W/kg



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Plot #26

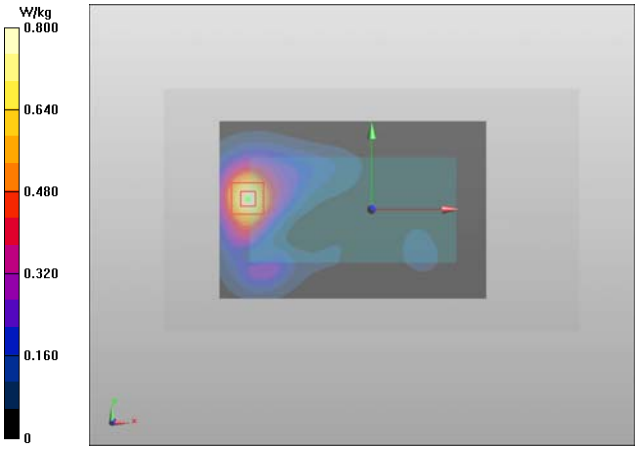
Date/Time: 2014-07-31 19:02:23

Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815356/6

Communication System: LTE2500 (Band 7)
Frequency: 2511.7 MHz; Duty Cycle: 1:1
Medium: BSL2600; Medium Notes: t= 21.2 C
Medium parameters used: f = 2512 MHz; σ = 2.013 S/m; ε_r = 50.572; 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))
- 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 - Sub 1 - Scenario 1 - QPSK - 20MHz - 1RB - 0% offset - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 15.043 V/m
Fast SAR: SAR(1 g) = 0.636 W/kg
Fast SAR(10 g) = 0.337 W/kg
Maximum value of SAR (interpolated) = 0.800 W/kg



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Plot #27

Date/Time: 2014-07-29 10:56:34

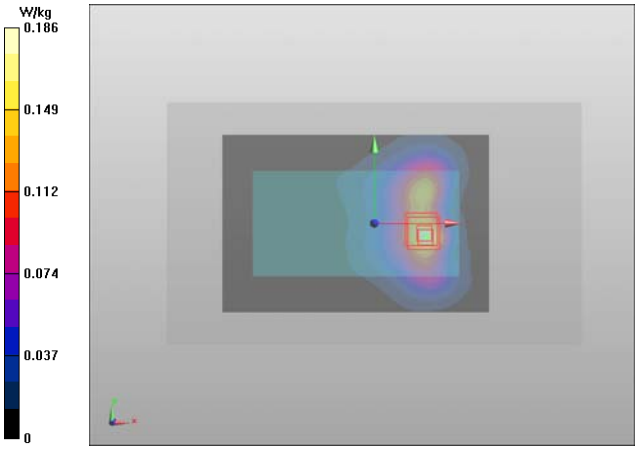
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815308/7

Communication System: WLAN2450
Frequency: 2412 MHz; Duty Cycle: 1:1
Medium: BSL2450; Medium Notes: t= 21.0 C
Medium parameters used: f = 2412 MHz; σ = 1.871 S/m; ε_r = 51.094; 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: TP-1123/1 (750 MHz), TP-1124/1 (2450 MHz)
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

WLAN2450 b-mode/Body - Channel 1 - BPSK 1 Mbps - Spacer 15mm - No Headset - Back Facing Phantom/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 9.326 V/m
Fast SAR: SAR(1 g) = 0.139 W/kg
Fast SAR(10 g) = 0.068 W/kg
Maximum value of SAR (interpolated) = 0.186 W/kg

WLAN2450 b-mode/Body - Channel 1 - BPSK 1 Mbps - Spacer 15mm - No Headset - Back Facing Phantom/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.115 V/m
Peak SAR (extrapolated) = 0.229 W/kg
SAR(1 g) = 0.123 W/kg
SAR(10 g) = 0.069 W/kg
Power Drift = 0.04 dB
Maximum value of SAR (measured) = 0.151 W/kg



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Plot #28

Date/Time: 2014-07-31 14:33:58

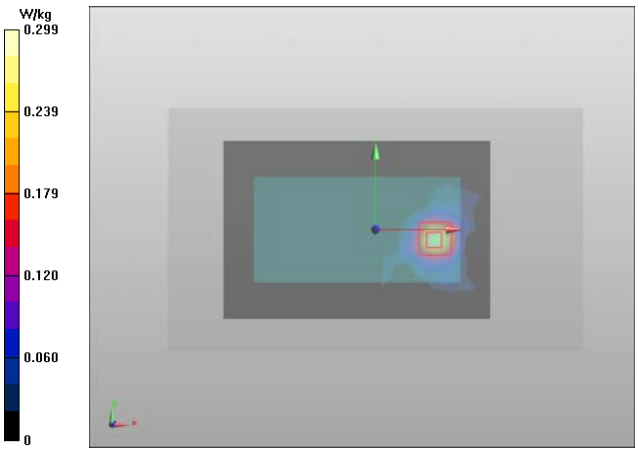
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815319/4

Communication System: WLAN5000
Frequency: 5825 MHz; Duty Cycle: 1:1
Medium: BSL 5000; Medium Notes: t= 21.8 C
Medium parameters used: f = 5825 MHz; σ = 6.155 S/m; ε_r = 46.675; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3892
- ConvF(4.02, 4.02, 4.02); Calibrated: 2013-11-15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2013-11-11
- Phantom: 1. Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: TP-1124/3
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

WLAN5000 a-mode/Body - Channel 165 - BPSK 6 Mbps - Spacer 15mm - No Headset - Back Facing Phantom/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.299 W/kg

WLAN5000 a-mode/Body - Channel 165 - BPSK 6 Mbps - Spacer 15mm - No Headset - Back Facing Phantom/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 5.519 V/m
Peak SAR (extrapolated) = 0.605 W/kg
SAR(1 g) = 0.154 W/kg
SAR(10 g) = 0.053 W/kg
Power Drift = -0.05 dB
Maximum value of SAR (measured) = 0.294 W/kg



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Plot #29

Date/Time: 2014-08-07 10:01:16

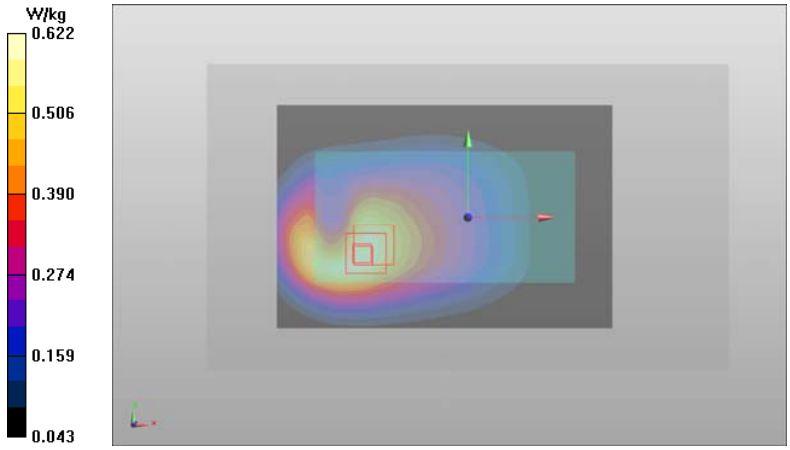
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815356/6

Communication System: LTE700 (Band 17)
Frequency: 711 MHz; Duty Cycle: 1:1
Medium: BSL750; Medium Notes: t= 20.8 C
Medium parameters used: f = 711 MHz; σ = 0.968 S/m; ε_r = 54.472; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3960
- ConvF(10.24, 10.24, 10.24); 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)

LTE700 (Band 17) /Body - High - QPSK - 10MHz - 1RB - 100% offset - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 25.334 V/m
Fast SAR: SAR(1 g) = 0.551 W/kg
Fast SAR(10 g) = 0.385 W/kg
Maximum value of SAR (interpolated) = 0.626 W/kg

LTE700 (Band 17) /Body - High - QPSK - 10MHz - 1RB - 100% offset - Spacer 10mm - No Headset - Display Facing Phantom/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 25.334 V/m
Peak SAR (extrapolated) = 0.804 W/kg
SAR(1 g) = 0.546 W/kg
SAR(10 g) = 0.380 W/kg
Power Drift = -0.02 dB
Maximum value of SAR (measured) = 0.622 W/kg



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Plot #30

Date/Time: 2014-08-06 09:51:57

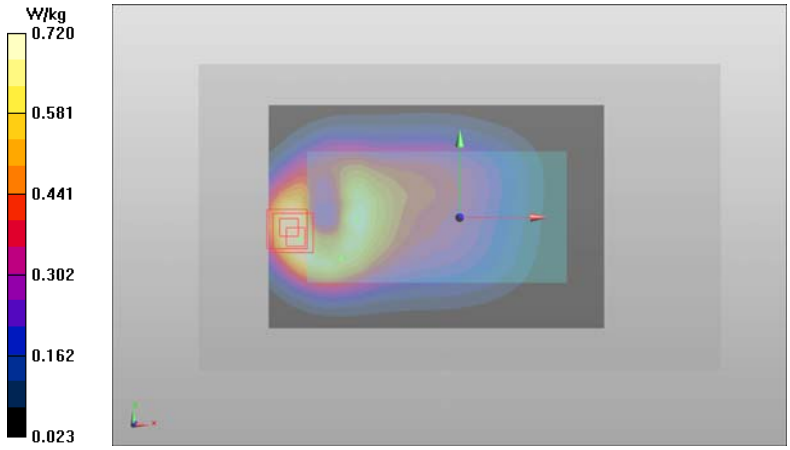
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815344/2

Communication System: 2-slot GPRS850
Frequency: 836.4 MHz; Duty Cycle: 1:4.19952
Medium: BSL835; Medium Notes: t= 22.3 C
Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.977 S/m; ε_r = 53.631; 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: 4mm (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 (8); SEMCAD X Version 14.6.9 (7117)

2-slot GPRS850 (Band 5)/Body - Scenario 0 - Sub 2 - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 29.090 V/m
Fast SAR: SAR(1 g) = 0.667 W/kg
Fast SAR(10 g) = 0.431 W/kg
Maximum value of SAR (interpolated) = 0.797 W/kg

2-slot GPRS850 (Band 5)/Body - Scenario 0 - Sub 2 - Spacer 10mm - No Headset - Display Facing Phantom/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 29.090 V/m
Peak SAR (extrapolated) = 1.18 W/kg
SAR(1 g) = 0.669 W/kg
SAR(10 g) = 0.377 W/kg
Power Drift = 0.10 dB
Maximum value of SAR (measured) = 0.720 W/kg



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Plot #31

Date/Time: 2014-07-31 15:26:18

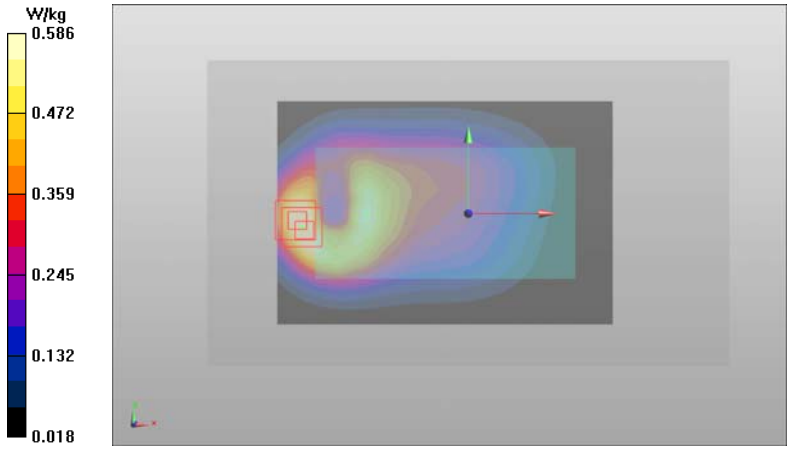
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815344/2

Communication System: WCDMA850 (Band 5)
Frequency: 836 MHz; Duty Cycle: 1:1
Medium: BSL835; Medium Notes: t= 21.8 C
Medium parameters used: f = 836 MHz; σ = 0.98 S/m; ε_r = 53.338; 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: 4mm (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 (8); SEMCAD X Version 14.6.9 (7117)

WCDMA850 (Band 5)/Body - Scenario 0 - Sub 2 - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 24.481 V/m
Fast SAR: SAR(1 g) = 0.530 W/kg
Fast SAR(10 g) = 0.346 W/kg
Maximum value of SAR (interpolated) = 0.631 W/kg

WCDMA850 (Band 5)/Body - Scenario 0 - Sub 2 - Spacer 10mm - No Headset - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 24.703 V/m
Peak SAR (extrapolated) = 0.931 W/kg
SAR(1 g) = 0.540 W/kg
SAR(10 g) = 0.303 W/kg
Power Drift = 0.00 dB
Maximum value of SAR (measured) = 0.586 W/kg



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Plot #32

Date/Time: 2014-08-05 15:20:50

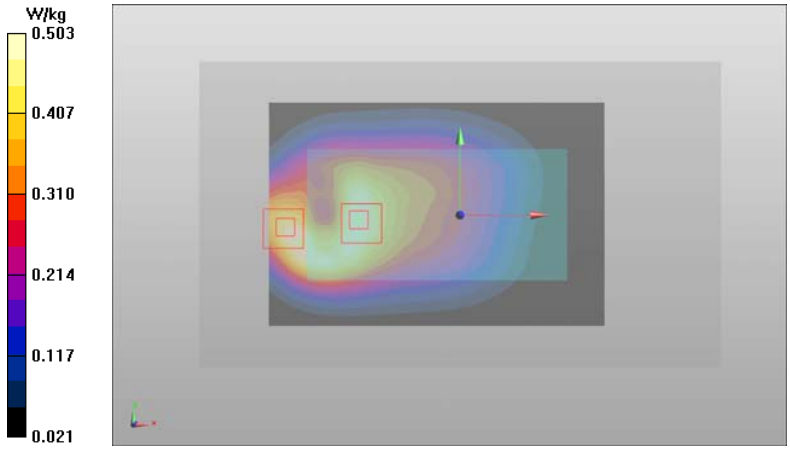
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815344/2

Communication System: LTE850 (Band 5)
Frequency: 829 MHz; Duty Cycle: 1:1
Medium: BSL835; Medium Notes: t= 22.3 C
Medium parameters used: f = 829 MHz; σ = 0.972 S/m; ε_r = 53.659; 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), Sensor-Surface: 4mm (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 (8); SEMCAD X Version 14.6.9 (7117)

LTE 850 (Band 5)/Body - Low - QPSK - 10MHz - 1Rb - 0% offset - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 23.523 V/m
Fast SAR: SAR(1 g) = 0.452 W/kg
Fast SAR(10 g) = 0.312 W/kg
Maximum value of SAR (interpolated) = 0.528 W/kg

LTE 850 (Band 5)/Body - Low - QPSK - 10MHz - 1Rb - 0% offset - Spacer 10mm - No Headset - Display Facing Phantom/Zoom Scan 2 (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 23.523 V/m
Peak SAR (extrapolated) = 0.766 W/kg
SAR(1 g) = 0.457 W/kg
SAR(10 g) = 0.264 W/kg
Power Drift = 0.02 dB
Maximum value of SAR (measured) = 0.503 W/kg



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Plot #33

Date/Time: 2014-08-01 13:47:41

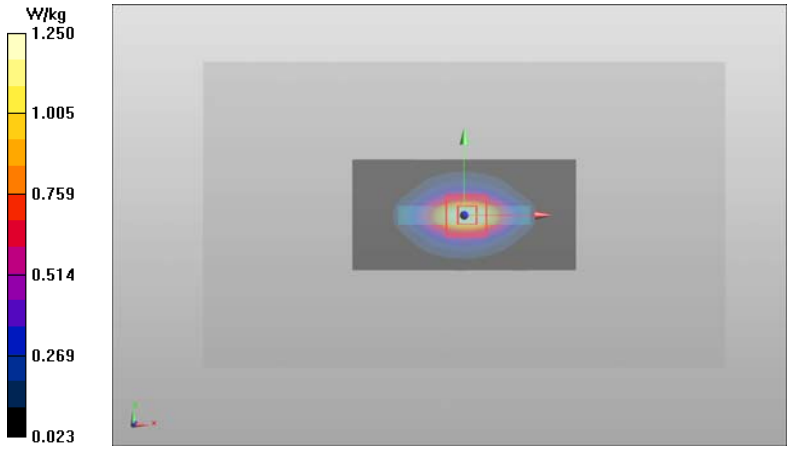
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815312/9

Communication System: LTE1700/2100 (Band 4)
Frequency: 1745 MHz; Duty Cycle: 1:1
Medium: BSL1800; Medium Notes: t= 21.2 C
Medium parameters used: f = 1745 MHz; σ = 1.446 S/m; ε_r = 52.088; ρ = 1000 kg/m^3
Phantom section: Center Section

DASY Configuration:
- Probe: EX3DV4 - SN3834
- ConvF(7.35, 7.35, 7.35); 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)

LTE 1700_2100 (Band 4)/Body - High - QPSK - 20MHz - 1RB - 0% offset - Spacer 10mm - No Headset - Bottom Edge Facing Phantom/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 30.108 V/m
Fast SAR: SAR(1 g) = 1.01 W/kg
Fast SAR(10 g) = 0.515 W/kg
Maximum value of SAR (interpolated) = 1.28 W/kg

LTE 1700_2100 (Band 4)/Body - High - QPSK - 20MHz - 1RB - 0% offset - Spacer 10mm - No Headset - Bottom Edge Facing Phantom/Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 30.115 V/m
Peak SAR (extrapolated) = 1.71 W/kg
SAR(1 g) = 1.02 W/kg
SAR(10 g) = 0.558 W/kg
Power Drift = -0.01 dB
Maximum value of SAR (measured) = 1.25 W/kg



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Plot #34

Date/Time: 2014-08-02 11:12:59

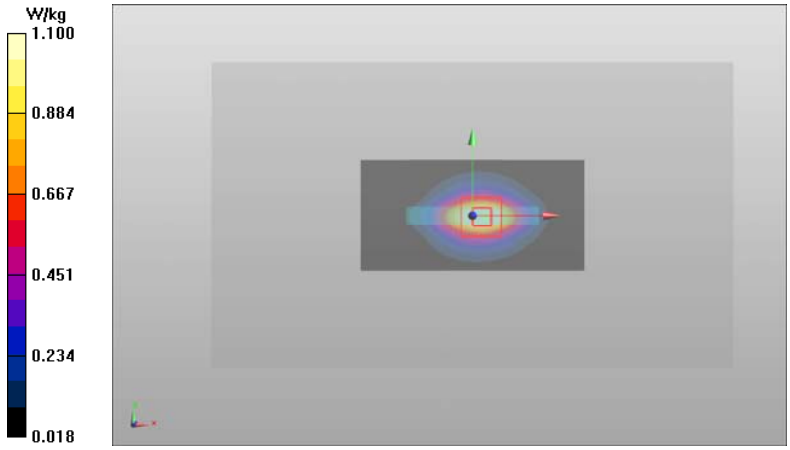
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815312/9

Communication System: 1-slot GPRS1900
Frequency: 1909.8 MHz; Duty Cycle: 1:8.30042
Medium: BSL1900; Medium Notes: t= 21.0 C
Medium parameters used: f = 1910 MHz; σ = 1.544 S/m; ε_r = 52.759; 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: 4mm (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)

1-slot GPRS1900/Body - High - Spacer 10mm - No Headset - Bottom Edge Facing Phantom - Repeated/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 28.668 V/m
Fast SAR: SAR(1 g) = 0.988 W/kg
Fast SAR(10 g) = 0.489 W/kg
Maximum value of SAR (interpolated) = 1.31 W/kg

1-slot GPRS1900/Body - High - Spacer 10mm - No Headset - Bottom Edge Facing Phantom - Repeated/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 28.668 V/m
Peak SAR (extrapolated) = 1.69 W/kg
SAR(1 g) = 0.993 W/kg
SAR(10 g) = 0.533 W/kg
Power Drift = -0.04 dB
Maximum value of SAR (measured) = 1.10 W/kg



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Plot #35

Date/Time: 2014-08-02 10:26:14

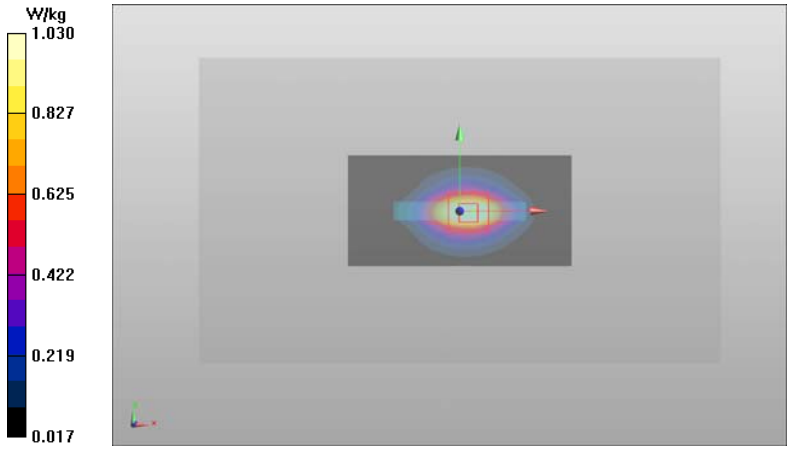
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815312/9

Communication System: WCDMA1900 (Band 2)
Frequency: 1907.6 MHz; Duty Cycle: 1:1
Medium: BSL1900; Medium Notes: t= 21.0 C
Medium parameters used: f = 1908 MHz; σ = 1.542 S/m; ε_r = 52.763; 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), Sensor-Surface: 4mm (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)

WCDMA1900 (Band 2)/Body - High - Spacer 10mm - No Headset - Bottom Edge Facing Phantom/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 27.563 V/m
Fast SAR: SAR(1 g) = 0.915 W/kg
Fast SAR(10 g) = 0.454 W/kg
Maximum value of SAR (interpolated) = 1.21 W/kg

WCDMA1900 (Band 2)/Body - High - Spacer 10mm - No Headset - Bottom Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 27.563 V/m
Peak SAR (extrapolated) = 1.59 W/kg
SAR(1 g) = 0.930 W/kg
SAR(10 g) = 0.496 W/kg
Power Drift = -0.02 dB
Maximum value of SAR (measured) = 1.03 W/kg



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Plot #36

Date/Time: 2014-08-02 09:51:01

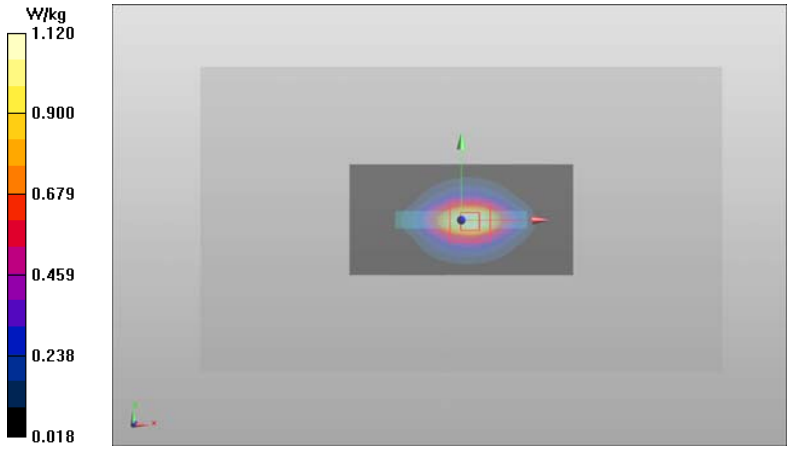
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815312/9

Communication System: LTE1900 (Band 2)
Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: BSL1900; Medium Notes: t= 21.0 C
Medium parameters used: f = 1900 MHz; σ = 1.533 S/m; ε_r = 52.788; 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 (8); SEMCAD X Version 14.6.9 (7117)

LTE 1900 (Band 2)/Body - High - QPSK - 20MHz - 1RB - 100% offset - Spacer 10mm - No Headset - Bottom Edge Facing Phantom/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 27.434 V/m
Fast SAR: SAR(1 g) = 0.897 W/kg
Fast SAR(10 g) = 0.445 W/kg
Maximum value of SAR (interpolated) = 1.19 W/kg

LTE 1900 (Band 2)/Body - High - QPSK - 20MHz - 1RB - 100% offset - Spacer 10mm - No Headset - Bottom Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 27.434 V/m
Peak SAR (extrapolated) = 1.54 W/kg
SAR(1 g) = 0.910 W/kg
SAR(10 g) = 0.486 W/kg
Power Drift = -0.03 dB
Maximum value of SAR (measured) = 1.12 W/kg



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Plot #37

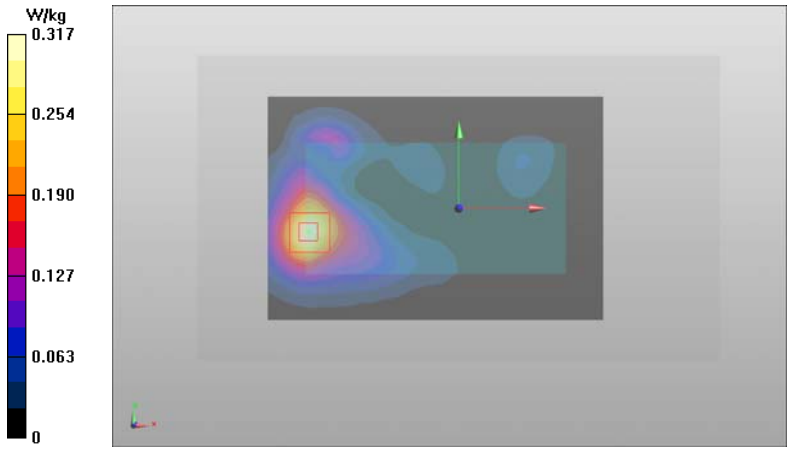
Date/Time: 2014-08-01 09:19:28

Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815312/9

Communication System: LTE2500 (Band 7)
Frequency: 2511.7 MHz; Duty Cycle: 1:1
Medium: BSL2600; Medium Notes: t= 21 C
Medium parameters used: f = 2512 MHz; σ = 2.009 S/m; ε_r = 50.991; 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 - Sub 1 - Scenario 1 - QPSK - 20MHz - 1RB - 100% offset - Spacer 10mm - No Headset - Back Facing Phantom/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 11.769 V/m
Fast SAR: SAR(1 g) = 0.251 W/kg
Fast
AR(10 g) = 0.133 W/kg
Maximum value of SAR (interpolated) = 0.317 W/kg



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Plot #38

Date/Time: 2014-08-04 09:05:48

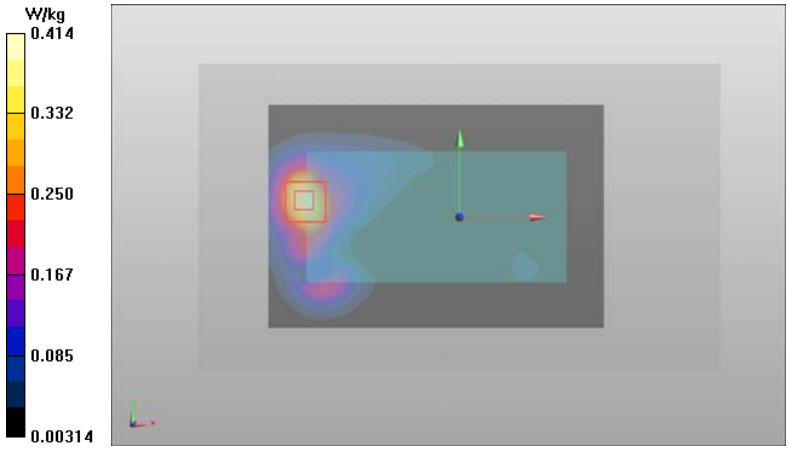
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815312/9

Communication System: LTE2500 (Band 7)
Frequency: 2511.7 MHz; Duty Cycle: 1:1
Medium: BSL2600; Medium Notes: t= 20.9 C
Medium parameters used: f = 2512 MHz; σ = 2.017 S/m; ε_r = 50.831; 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 - Sub 1 - Scenario 2 - QPSK - 20MHz - 1RB - 100% offset - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 13.862 V/m
Fast SAR: SAR(1 g) = 0.324 W/kg
Fast SAR(10 g) = 0.164 W/kg
Maximum value of SAR (interpolated) = 0.416 W/kg

LTE2500 (Band 7)/Body - Sub 1 - Scenario 2 - QPSK - 20MHz - 1RB - 100% offset - Spacer 10mm - No Headset - Display Facing Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.830 V/m
Peak SAR (extrapolated) = 0.613 W/kg
SAR(1 g) = 0.330 W/kg
SAR(10 g) = 0.172 W/kg
Power Drift = 0.04 dB
Maximum value of SAR (measured) = 0.414 W/kg



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Plot #39

Date/Time: 2014-08-01 11:59:40

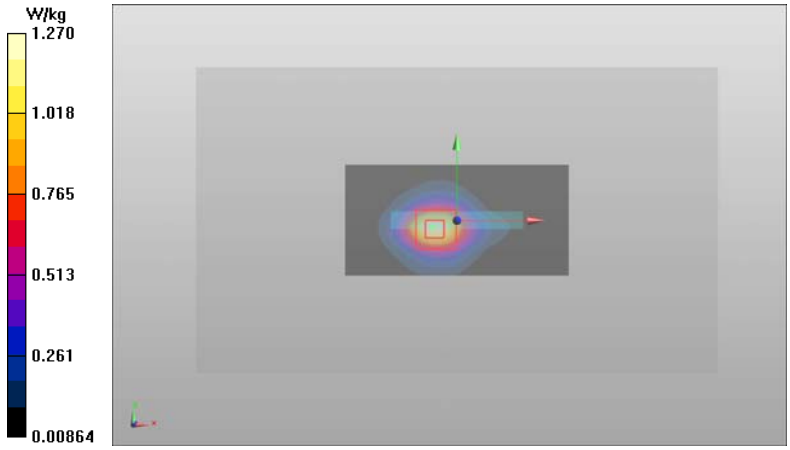
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815312/9

Communication System: LTE2500 (Band 7)
Frequency: 2511.7 MHz; Duty Cycle: 1:1
Medium: BSL2600; Medium Notes: t= 21 C
Medium parameters used: f = 2512 MHz; σ = 2.009 S/m; ε_r = 50.991; 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 - Sub 1 - Scenario 0 - QPSK - 20MHz - 1RB - 100% offset - Spacer 10mm - No Headset - Bottom Edge Facing Phantom/Area Scan (61x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 19.669 V/m
Fast SAR: SAR(1 g) = 0.987 W/kg
Fast SAR(10 g) = 0.471 W/kg
Maximum value of SAR (interpolated) = 1.29 W/kg

LTE2500 (Band 7)/Body - Sub 1 - Scenario 0 - QPSK - 20MHz - 1RB - 100% offset - Spacer 10mm - No Headset - Bottom Edge Facing Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.752 V/m
Peak SAR (extrapolated) = 1.90 W/kg
SAR(1 g) = 0.985 W/kg
SAR(10 g) = 0.481 W/kg
Power Drift = 0.07 dB
Maximum value of SAR (measured) = 1.27 W/kg



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Plot #40

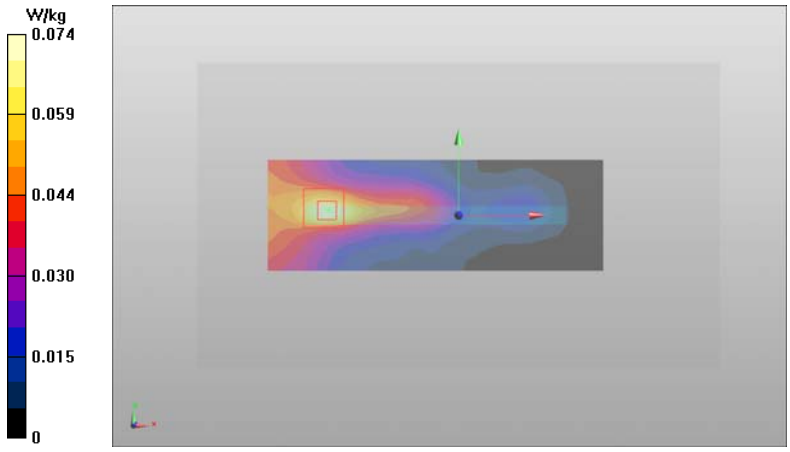
Date/Time: 2014-08-01 10:02:24

Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815312/9

Communication System: LTE2500 (Band 7)
Frequency: 2511.7 MHz; Duty Cycle: 1:1
Medium: BSL2600; Medium Notes: t= 21 C
Medium parameters used: f = 2512 MHz; σ = 2.009 S/m; ε_r = 50.991; 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 - Sub 1 - Scenario 1 - QPSK - 20MHz - 1RB - 100% offset - Spacer 10mm - No Headset - Left Edge Facing Phantom/Area Scan (61x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 5.931 V/m
Fast SAR: SAR(1 g) = 0.057 W/kg
Fast
AR(10 g) = 0.030 W/kg
Maximum value of SAR (interpolated) = 0.0739 W/kg



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Plot #41

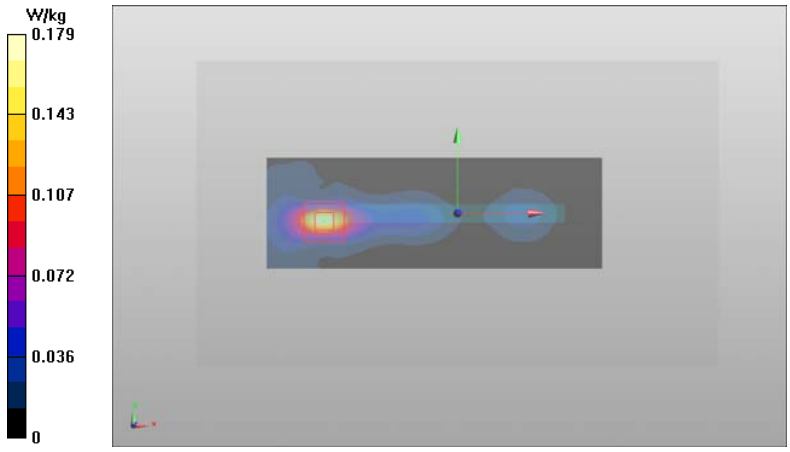
Date/Time: 2014-08-01 10:27:18

Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815312/9

Communication System: LTE2500 (Band 7)
Frequency: 2535 MHz; Duty Cycle: 1:1
Medium: BSL2600; Medium Notes: t= 21 C
Medium parameters used: f = 2535 MHz; σ = 2.036 S/m; ε_r = 50.918; 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 - Sub 2 - Scenario 2 - QPSK - 20MHz - 1RB - 100% offset - Spacer 10mm - No Headset - Right Edge Facing Phantom/Area Scan (61x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 8.277 V/m
Fast SAR: SAR(1 g) = 0.122 W/kg
Fast
AR(10 g) = 0.051 W/kg
Maximum value of SAR (interpolated) = 0.179 W/kg



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Plot #42

Date/Time: 2014-08-07 11:31:03

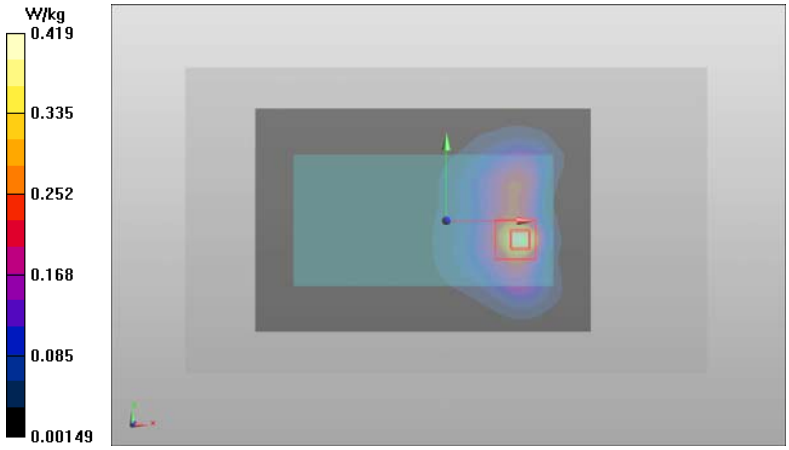
Test Laboratory: TCC Microsoft
Type: RM-985; Serial: 004402/47/815308/7

Communication System: WLAN2450
Frequency: 2417 MHz; Duty Cycle: 1:1
Medium: BSL2450; Medium Notes: t= 21.4 C
Medium parameters used: f = 2417 MHz; σ = 1.901 S/m; ε_r = 51.559; 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: TP-1123/1 (750 MHz), TP-1124/1 (2450 MHz)
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.9 (7117)

WLAN2450 b-mode/Body - Channel 2 - QPSK 5.5 Mbps - Spacer 10mm - No Headset - Back Facing Phantom/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 11.969 V/m
Fast SAR: SAR(1 g) = 0.306 W/kg
Fast SAR(10 g) = 0.139 W/kg
Maximum value of SAR (interpolated) = 0.411 W/kg

WLAN2450 b-mode/Body - Channel 2 - QPSK 5.5 Mbps - Spacer 10mm - No Headset - Back Facing Phantom/Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.969 V/m
Peak SAR (extrapolated) = 0.665 W/kg
SAR(1 g) = 0.317 W/kg
SAR(10 g) = 0.151 W/kg
Power Drift = 0.01 dB
Maximum value of SAR (measured) = 0.419 W/kg



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APPENDIX C: DIELECTRIC PARAMETERS OF THE TISSUE SIMULANTS

Head tissue simulant dielectric parameters used in the measurements:

LTE17 f (MHz)	Date	Dielectric Parameters					
		Ch 23780 709.0 MHz		Ch 23790 710.0 MHz		Ch 23800 711.0 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
710	2014-08-06	40.9	0.86	40.9	0.87	40.9	0.87
WCDMA5 f (MHz)	**Date**	**Dielectric Parameters**					
		Ch 4147 829.4 MHz		**Ch 4183 836.6 MHz**		**Ch 4219 843.8 MHz**	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
837	2014-08-02	40.1	0.90	40.1	0.90	40.0	0.91
	2014-08-06	40.3	0.90	40.3	0.91	40.2	0.91
GPRS850 f (MHz)	**Date**	**Dielectric Parameters**					
		Ch 148 828.2 MHz		**Ch 189 836.4 MHz**		**Ch 231 844.8 MHz**	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
836	2014-08-02	40.1	0.90	40.1	0.90	40.0	0.91
	2014-08-06	40.3	0.90	40.2	0.91	40.2	0.92
LTE5 f (MHz)	**Date**	**Dielectric Parameters**					
		Ch 20450 829.0 MHz		**Ch 20525 836.5 MHz**		**Ch 20600 844.0 MHz**	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
837	2014-08-04	40.7	0.91	40.6	0.91	40.6	0.92
	2014-08-06	40.3	0.90	40.2	0.91	40.2	0.91
LTE4 f (MHz)	**Date**	**Dielectric Parameters**					
		Ch 20050 1720.0 MHz		**Ch 20175 1732.5 MHz**		**Ch 20300 1745.0 MHz**	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
1732	2014-07-31	38.4	1.30	38.3	1.31	38.3	1.32

(Head tissue simulant table continues)

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(Head tissue simulant table continues)

GPRS1900 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]
1900	2014-07-29	39.3	1.33	39.3	1.36	39.2	1.38
WCDMA2 f (MHz)	Date	Dielectric Parameters					
		Ch 9262 1852.4 MHz		Ch 9400 1880.0 MHz		Ch 9538 1907.6 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
1900	2014-07-29	39.3	1.33	39.3	1.36	39.2	1.38
LTE2 f (MHz)	Date	Dielectric Parameters					
		Ch 18700 1860.0 MHz		Ch 18900 1880.0 MHz		Ch 19100 1900.0 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
1900	2014-07-29	39.3	1.34	39.3	1.36	39.2	1.38
	2014-07-31	39.2	1.33	39.1	1.35	39.0	1.37
WLAN2450 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	2014-07-25	38.4	1.71	38.3	1.73	38.2	1.76
	2014-07-28	39.0	1.75	38.9	1.78	38.8	1.80
LTE7 f (MHz)	Date	Dielectric Parameters					
		Ch 20867 2511.7 MHz		Ch 21100 2535.0 MHz		Ch 21333 2558.3 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
2535	2014-08-04	38.0	1.87	38.0	1.89	37.9	1.92
	2014-08-05	38.9	1.86	38.9	1.89	38.8	1.92

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Head tissue simulant dielectric parameters used in the measurements 5200 – 5825 MHz:

f (MHz)	Date	Dielectric Parameters					
		Ch 104 5520.0 MHz		Ch 124 5620.0 MHz		Ch 136 5680.0 MHz	
		ε_r	σ [S/m]	ε_r	σ [S/m]	ε_r	σ [S/m]
5520 5620	2014-07-30	35.7	4.86	35.5	4.96	35.5	5.03
f (MHz)	Date	Dielectric Parameters					
		Ch 151 5760.0 MHz		Ch 153 5765.0 MHz			
		ε_r	σ [S/m]	ε_r	σ [S/m]		
5760	2014-07-31	34.8	5.05	34.8	5.05		

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Body tissue simulant dielectric parameters used in the measurements:

LTE17 f (MHz)	Date	Dielectric Parameters					
		Ch 23780 709.0 MHz		Ch 23790 710.0 MHz		Ch 23800 711.0 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
710	2014-08-06	53.5	0.97	53.5	0.97	53.5	0.97
WCDMA5 f (MHz)	Date	Dielectric Parameters					
		Ch 4147 829.4 MHz		Ch 4183 836.6 MHz		Ch 4219 843.8 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
837	2014-07-31	53.4	0.98	53.3	0.98	53.3	0.99
	2014-08-03	53.1	0.97	53.1	0.98	53.1	0.98
	2014-08-05	53.7	0.97	53.6	0.97	53.6	0.98
GPRS850 f (MHz)	Date	Dielectric Parameters					
		Ch 148 828.2 MHz		Ch 189 836.4 MHz		Ch 231 844.8 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
836	2014-07-30	53.4	0.97	53.4	0.98	53.3	0.98
	2014-07-31	53.4	0.98	53.3	0.98	53.3	0.99
	2014-08-05	53.7	0.97	53.6	0.98	53.6	0.98
	2014-09-17	54.2	0.97	54.2	0.98	54.1	0.98
LTE5 f (MHz)	Date	Dielectric Parameters					
		Ch 20450 829.0 MHz		Ch 20525 836.5 MHz		Ch 20600 844.0 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
837	2014-08-04	53.7	0.97	53.7	0.98	53.7	0.98
	2014-08-05	53.7	0.97	53.6	0.98	53.6	0.98
	2014-08-08	53.5	0.98	53.5	0.98	53.5	0.99
LTE4 f (MHz)	Date	Dielectric Parameters					
		Ch 20050 1720.0 MHz		Ch 20175 1732.5 MHz		Ch 20300 1745.0 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
1732	2014-08-01	52.2	1.42	52.1	1.43	52.1	1.44
	2014-08-05	52.3	1.43	52.2	1.44	52.2	1.46

(Body tissue simulant table continues)

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(Body tissue simulant table continues)

GPRS1900 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]
1900	2014-07-28	51.6	1.46	51.5	1.49	51.5	1.52
	2014-08-02	52.9	1.49	52.8	1.51	52.8	1.54

WCDMA2 f (MHz)	Date	Dielectric Parameters					
		Ch 9262 1852.4 MHz		Ch 9400 1880.0 MHz		Ch 9538 1907.6 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
1900	2014-07-28	53.3	1.48	53.2	1.51	53.2	1.53
	2014-08-02	52.9	1.49	52.8	1.51	52.8	1.54

LTE2 f (MHz)	Date	Dielectric Parameters					
		Ch 18700 1860.0 MHz		Ch 18900 1880.0 MHz		Ch 19100 1900.0 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
1900	2014-07-29	53.1	1.49	53.0	1.50	53.0	1.52
	2014-08-02	52.9	1.49	52.8	1.51	52.8	1.53

WLAN 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	2014-07-29	51.1	1.87	51.0	1.90	51.0	1.93
	2014-08-07	51.6	1.89	51.5	1.92	51.4	1.95

LTE7 f (MHz)	Date	Dielectric Parameters					
		Ch 20867 2511.7 MHz		Ch 21100 2535.0 MHz		Ch 21333 2558.3 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
2535	2014-07-31	50.6	2.01	50.5	2.04	50.4	2.07
	2014-08-01	51.0	2.01	50.9	2.03	50.8	2.06
	2014-08-04	50.8	2.02	50.8	2.04	50.7	2.07

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Body tissue simulant dielectric parameters used in the measurements 5200 – 5825 MHz:

f (MHz)	Date	Dielectric Parameters					
		Ch 40 5200.0 MHz		Ch 44 5210.0 MHz			
		εr	σ [S/m]	εr	σ [S/m]		
5210	2014-07-31	47.7	5.32	47.7	5.34		

f (MHz)	Date	Dielectric Parameters					
		Ch 104 5520.0 MHz		Ch 124 5620.0 MHz		Ch 136 5680.0 MHz	
		εr	σ [S/m]	εr	σ [S/m]	εr	σ [S/m]
5520 5620	2014-08-01	47.1	5.73	46.9	5.86	46.9	5.94

f (MHz)	Date	Dielectric Parameters					
		Ch 151 5760.0 MHz		Ch 153 5765.0 MHz			
		εr	σ [S/m]	εr	σ [S/m]		
5760	2014-07-31	46.8	6.07	46.8	6.07		

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APPENDIX D: CONDUCTED AVERAGE POWER MEASUREMENTS FOR WCDMA AND HSUPA

D.1. WCDMA850 (Band 5) Test results

Type: RM-985; Serial: 004402/47/815344/2, HW: 0200, SW: 02030.00000.14271.24000

Average power

Ch / *f*(MHz)	P [dBm]
4147	23.1
4183	23.0
4219	23.1

D.2. HSUPA850 (Band 5) Test results

Average power

Ch / *f* (MHz)	P [dBm]				
	Subtest mode 1	Subtest mode 2	Subtest mode 3	Subtest mode 4	Subtest mode 5
4147	22.1	21.2	20.7	21.7	22.2
4183	21.5	21.1	20.2	21.7	22.0
4219	21.5	21.2	20.6	21.6	22.1

Note: In HSUPA operation, the output power is reduced relative to the tuning target power for WCDMA. This device runs MPR power control routines for HSUPA. 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
1.5dB	2.0dB	1.0dB	2.0dB	0.0dB

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D.3. WCDMA1900 (Band 2) Test results

Type: RM-985; Serial: 004402/47/815349/1, HW: 0200, SW: 02030.00000.14271.24000

Average power

Ch / *f*(MHz)	P [dBm]
9262	23.2
9400	23.3
9538	23.4

D.4. HSUPA1900 Test results

Average power

Ch / *f* (MHz)	P [dBm]				
	Subtest mode 1	Subtest mode 2	Subtest mode 3	Subtest mode 4	Subtest mode 5
9262	21.5	21.2	21.0	21.7	22.2
9400	21.6	21.5	21.0	21.9	22.3
9538	22.3	21.1	21.2	21.8	22.4

Note: In HSUPA operation, the output power is reduced relative to the tuning target power for WCDMA. This device runs MPR power control routines for HSUPA. 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
1.5dB	2.0dB	1.0dB	2.0dB	0.0dB

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APPENDIX E: RELEVANT PAGES FROM PROBE CALIBRATION REPORTS

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Zeughausstrasse 43, 8004 Zurich, Switzerland

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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	Israe El-Naouq
Approved by:	Katja Pokovic	Technical Manager	

Issued: November 15, 2013

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

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	Israe El-Naouq
Approved by:	Katja Pokovic	Technical Manager	

Issued: May 12, 2014

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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: **EX3-3892_Nov13**

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:3892
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:	November 15, 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: November 16, 2013

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

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3892

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	10.15	10.15	10.15	0.80	0.61	± 12.0 %
835	41.5	0.90	9.75	9.75	9.75	0.37	0.88	± 12.0 %
1750	40.1	1.37	8.43	8.43	8.43	0.49	0.82	± 12.0 %
1900	40.0	1.40	8.18	8.18	8.18	0.48	0.84	± 12.0 %
2450	39.2	1.80	7.40	7.40	7.40	0.43	0.87	± 12.0 %
2600	39.0	1.96	7.23	7.23	7.23	0.39	0.95	± 12.0 %
5200	36.0	4.66	5.29	5.29	5.29	0.35	1.80	± 13.1 %
5300	35.9	4.76	4.96	4.96	4.96	0.35	1.80	± 13.1 %
5500	35.6	4.96	4.84	4.84	4.84	0.35	1.80	± 13.1 %
5600	35.5	5.07	4.66	4.66	4.66	0.35	1.80	± 13.1 %
5800	35.3	5.27	4.60	4.60	4.60	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:3892

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	9.74	9.74	9.74	0.32	0.99	± 12.0 %
835	55.2	0.97	9.65	9.65	9.65	0.45	0.87	± 12.0 %
1750	53.4	1.49	7.86	7.86	7.86	0.39	0.87	± 12.0 %
1900	53.3	1.52	7.69	7.69	7.69	0.42	0.84	± 12.0 %
2450	52.7	1.95	7.27	7.27	7.27	0.75	0.56	± 12.0 %
2600	52.5	2.16	7.13	7.13	7.13	0.70	0.50	± 12.0 %
5200	49.0	5.30	4.34	4.34	4.34	0.45	1.90	± 13.1 %
5300	48.9	5.42	4.15	4.15	4.15	0.45	1.90	± 13.1 %
5500	48.6	5.65	4.12	4.12	4.12	0.45	1.90	± 13.1 %
5600	48.5	5.77	4.00	4.00	4.00	0.40	1.90	± 13.1 %
5800	48.2	6.00	4.02	4.02	4.02	0.50	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.
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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

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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.
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