

APPENDIX B.2: SVLTE MODE MEASUREMENT SCANS

B.2.1 Head measurement scans for SVLTE mode

Plot #73

Date/Time: 2013-01-11 05:19:11

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750 (Band 13)**

Frequency: 782 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: T=22.0C

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.909 \text{ S/m}$; $\epsilon_r = 40.11$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(6.5, 6.5, 6.5); Calibrated: 2012-02-13;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE 750 (Band 13) - Right/Cheek - Middle -QPSK - 10MHz - 1RB - 0 offset/Area Scan (81x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$**

Maximum value of SAR (interpolated) = 0.290 W/kg

LTE 750 (Band 13) - Right/Cheek - Middle -QPSK - 10MHz - 1RB - 0 offset /Zoom Scan (5x5x7)/Cube 0:**

Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 7.582 V/m

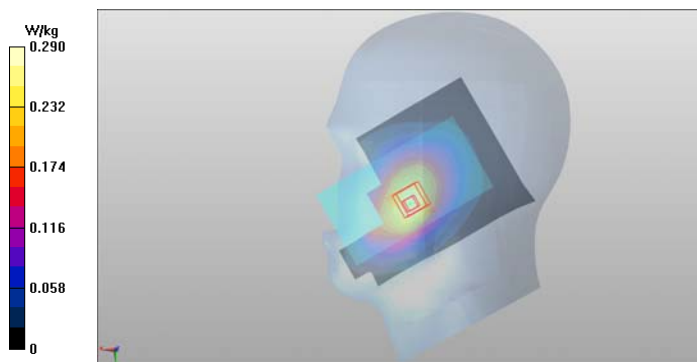
Peak SAR (extrapolated) = 0.328 W/kg

SAR(1 g) = 0.262 W/kg

SAR(10 g) = 0.195 W/kg

Power Drift = -0.09 dB

Maximum value of SAR (measured) = 0.275 W/kg



Plot #74

Date/Time: 2013-01-05 23:35:16

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800**

Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: HSL900; Medium Notes: T = 21.9 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.879$ mho/m; $\epsilon_r = 40.85$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.6 (6824)

CDMA800 - Right/Cheek - Middle/Area Scan (81x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.265 W/kg

CDMA800 - Right/Cheek - Middle /Zoom Scan (6x6x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.309 V/m

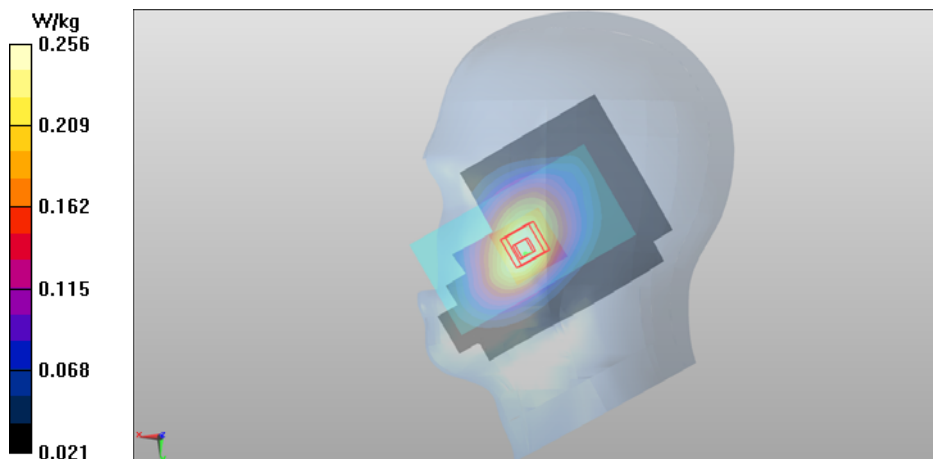
Peak SAR (extrapolated) = 0.308 mW/g

SAR(1 g) = 0.245 mW/g

SAR(10 g) = 0.185 mW/g

Power Drift = 0.04 dB

Maximum value of SAR (measured) = 0.256 W/kg



Plot #75

Date/Time: 2013-02-07 17:58:50

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100 (Band 4)**

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium Notes: T=20.6C

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.351$ S/m; $\epsilon_r = 39.299$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE1700/2100 (Band 4) - Right/Cheek- Middle - QPSK - 20MHz - 50%RB - 100% offset/Area Scan (81x121x1):**

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.430 W/kg

LTE1700/2100 (Band 4) - Right/Cheek- Middle - QPSK - 20MHz - 50%RB - 100% offset/Zoom Scan**

(5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.091 V/m

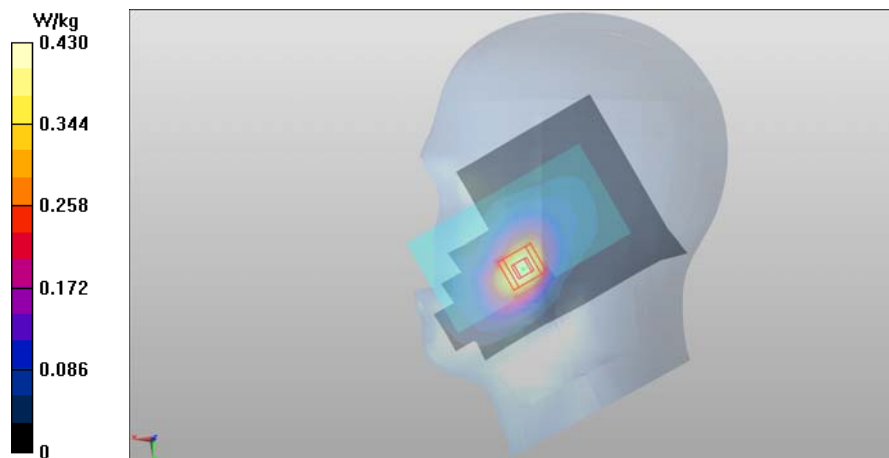
Peak SAR (extrapolated) = 0.571 W/kg

SAR(1 g) = 0.384 W/kg

SAR(10 g) = 0.241 W/kg

Power Drift = -0.17 dB

Maximum value of SAR (measured) = 0.415 W/kg



Plot #76

Date/Time: 2012-12-27 01:19:06

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900**

Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: 22.5C

Medium parameters used: $f = 1909$ MHz; $\sigma = 1.455$ mho/m; $\epsilon_r = 39.561$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.6 (6824)

CDMA1900 - Left/Cheek - High/Area Scan (81x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.587 W/kg

CDMA1900 - Left/Cheek - High/Zoom Scan (6x6x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 5.722 V/m

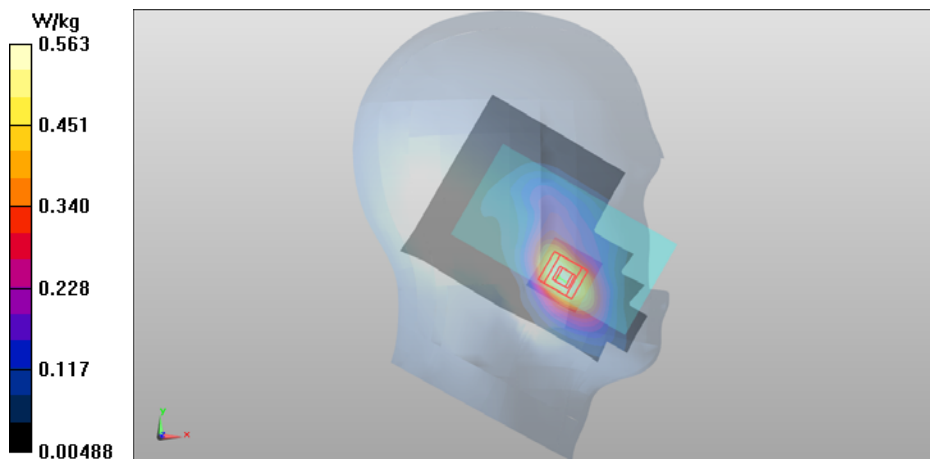
Peak SAR (extrapolated) = 0.799 mW/g

SAR(1 g) = 0.522 mW/g

SAR(10 g) = 0.328 mW/g

Power Drift = 0.13 dB

Maximum value of SAR (measured) = 0.563 W/kg



Plot #77 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 12:53:31

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750 (Band 13)

Frequency: 782 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: T=21.7C

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.915 \text{ S/m}$; $\epsilon_r = 41.049$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn604; Calibrated: 2012-07-31
- Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE750 (Band 13) - Left/Cheek - Middle - QPSK - 10MHz - 50%RB - 100% offset/Volume Scan (24x34x12):

Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$

Reference Value = 13.689 V/m

Peak SAR (extrapolated) = 1.08 W/kg

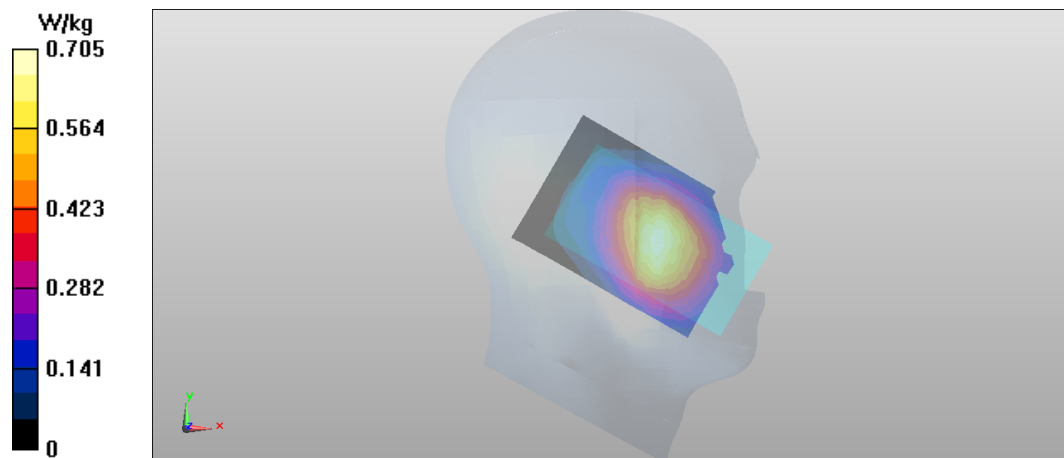
SAR(1 g) = 0.570 W/kg

SAR(10 g) = 0.413 W/kg

Power Drift = 0.04 dB

Total Absorbed Power = 0.0503 W

Maximum value of SAR (measured) = 0.705 W/kg



Plot #78 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-14 14:31:40

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750 (Band 13)

Frequency: 782 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: T=21.8C

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.909 \text{ S/m}$; $\epsilon_r = 41.576$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE750 (Band 13) - Left/Tilt - Middle - QPSK - 10MHz - 50%RB - 100% offset/Volume Scan (24x34x12):

Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$

Reference Value = 16.306 V/m

Peak SAR (extrapolated) = 0.527 W/kg

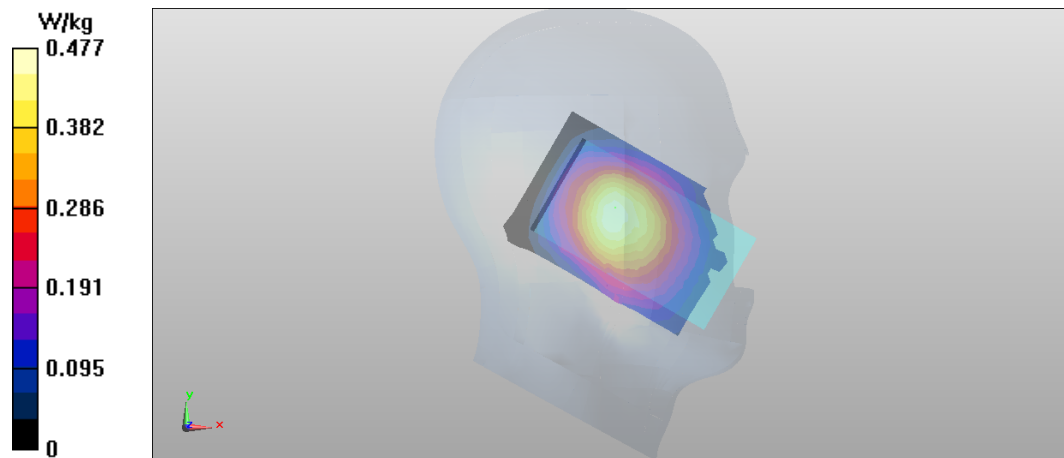
SAR(1 g) = 0.413 W/kg

SAR(10 g) = 0.317 W/kg

Power Drift = 0.17 dB

Total Absorbed Power = 0.0397 W

Maximum value of SAR (measured) = 0.477 W/kg



Plot #79 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-15 06:30:44

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750 (Band 13)

Frequency: 782 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: T=21.8

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.909 \text{ S/m}$; $\epsilon_r = 41.576$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE750 (Band 13) - Right/Cheek - Middle - QPSK - 10MHz - 50%RB - 100% offset/Volume Scan (24x34x12):

Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$

Reference Value = 10.938 V/m

Peak SAR (extrapolated) = 0.751 W/kg

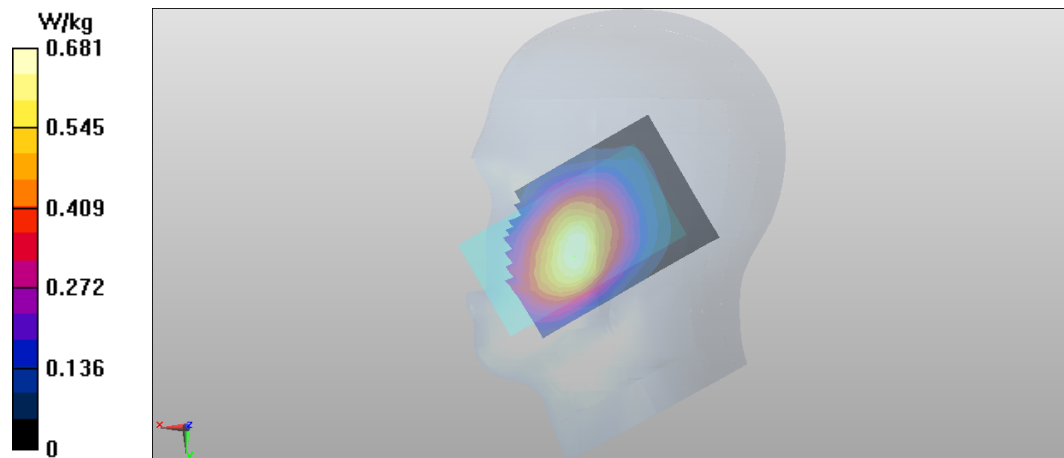
SAR(1 g) = 0.592 W/kg

SAR(10 g) = 0.447 W/kg

Power Drift = -0.03 dB

Total Absorbed Power = 0.0511 W

Maximum value of SAR (measured) = 0.681 W/kg



Plot #80 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-17 07:19:41

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750 (Band 13)

Frequency: 782 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: T=22.2C

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.932 \text{ S/m}$; $\epsilon_r = 41.631$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE750 (Band 13) - Left/Cheek - Middle - QPSK - 10MHz - 1RB - 0% offset/Volume Scan (24x34x12):**

Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$

Reference Value = 6.697 V/m

Peak SAR (extrapolated) = 0.303 W/kg

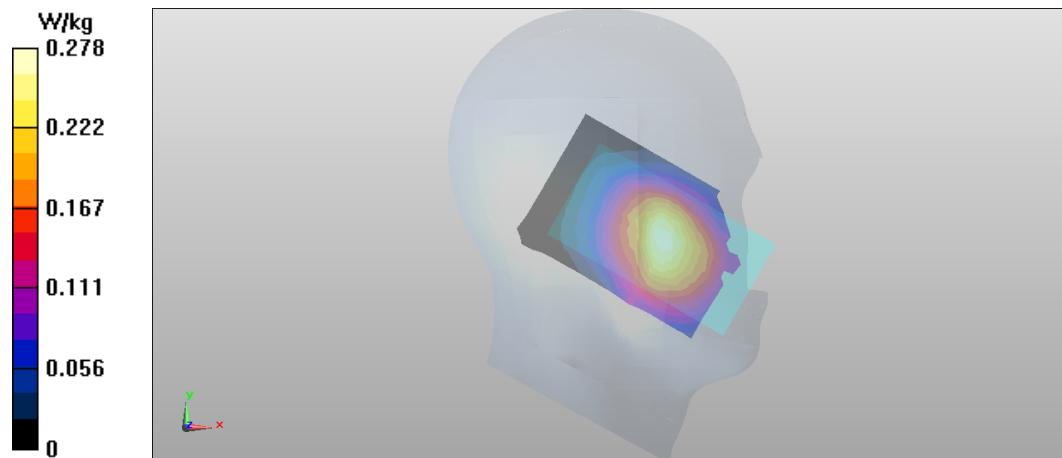
SAR(1 g) = 0.237 W/kg

SAR(10 g) = 0.179 W/kg

Power Drift = -0.10 dB

Total Absorbed Power = 0.0229 W

Maximum value of SAR (measured) = 0.278 W/kg



Plot #81 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-18 07:50:51

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750 (Band 13)

Frequency: 782 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: T=21.7C

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.922 \text{ S/m}$; $\epsilon_r = 40.924$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE750 (Band 13) - Right/Cheek - Middle - QPSK - 10MHz - 1RB - 0% offset/Volume Scan (24x34x12):**

Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$

Reference Value = 6.874 V/m

Peak SAR (extrapolated) = 0.326 W/kg

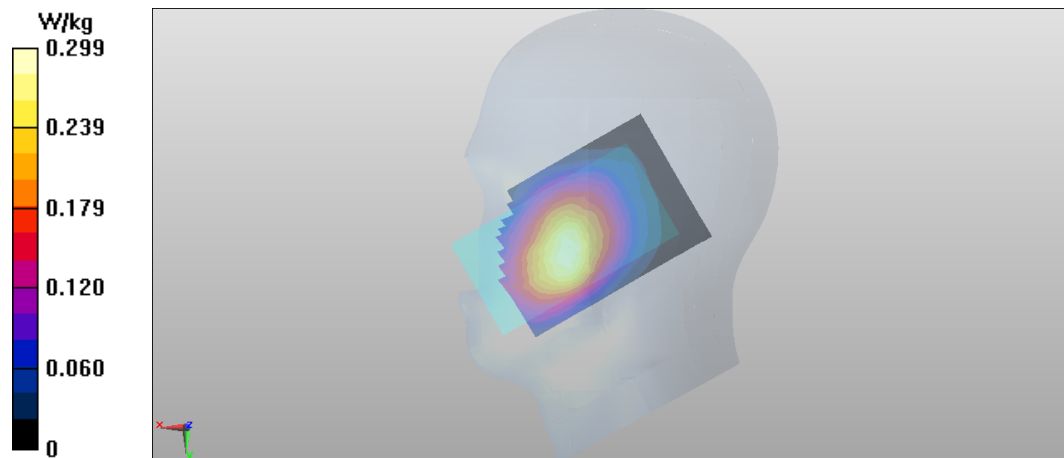
SAR(1 g) = 0.257 W/kg

SAR(10 g) = 0.195 W/kg

Power Drift = 0.50 dB

Total Absorbed Power = 0.0221 W

Maximum value of SAR (measured) = 0.299 W/kg



Plot #82 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-17 13:55:25

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750 (Band 13)

Frequency: 782 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: T=22.2C

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.932 \text{ S/m}$; $\epsilon_r = 41.631$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE750 (Band 13) - Left/Tilt - Middle - QPSK - 10MHz - 1RB - 100% offset/Volume Scan (24x34x12):**

Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$

Reference Value = 11.232 V/m

Peak SAR (extrapolated) = 0.348 W/kg

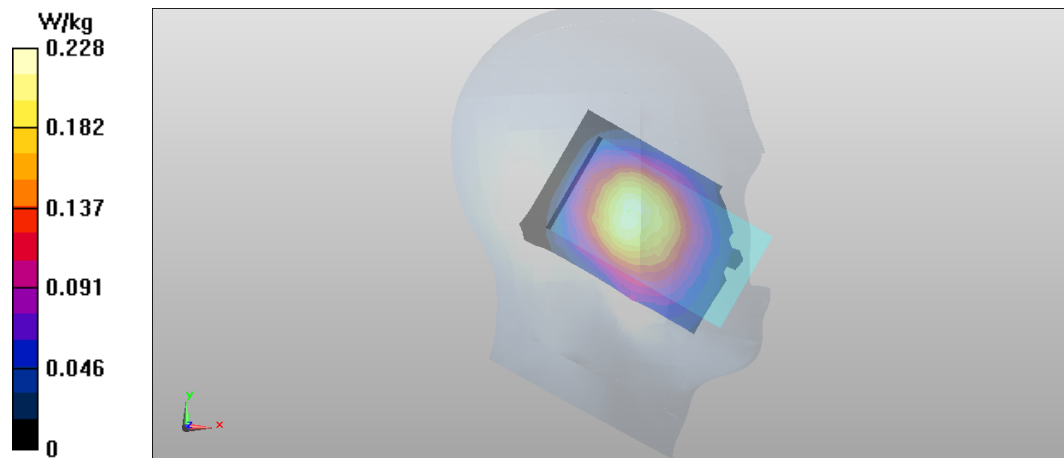
SAR(1 g) = 0.196 W/kg

SAR(10 g) = 0.150 W/kg

Power Drift = 0.12 dB

Total Absorbed Power = 0.0180 W

Maximum value of SAR (measured) = 0.228 W/kg



Plot #83 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-23 06:45:55

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800

Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: HSL900; Medium Notes: T=22.1C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 42.244$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA800 - Left/Cheek - Middle/Volume Scan (24x34x12): Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 15.915 V/m

Peak SAR (extrapolated) = 1.39 W/kg

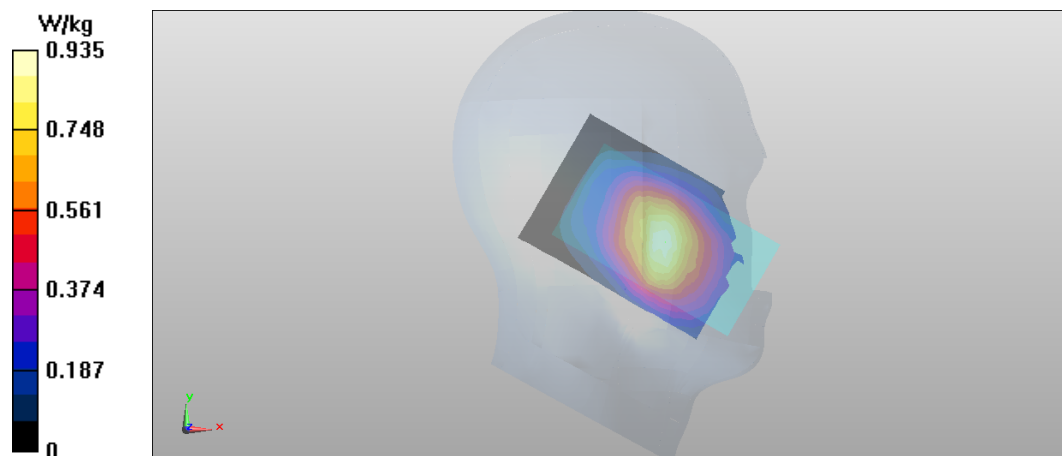
SAR(1 g) = 0.763 W/kg

SAR(10 g) = 0.563 W/kg

Power Drift = -0.23 dB

Total Absorbed Power = 0.0633 W

Maximum value of SAR (measured) = 0.935 W/kg



Plot #84 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-24 07:18:31

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800

Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: HSL900; Medium Notes: T=22.1 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.888$ S/m; $\epsilon_r = 42.032$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA800 - Left/Tilt - Middle/Volume Scan (24x34x12): Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 24.927 V/m

Peak SAR (extrapolated) = 2.25 W/kg

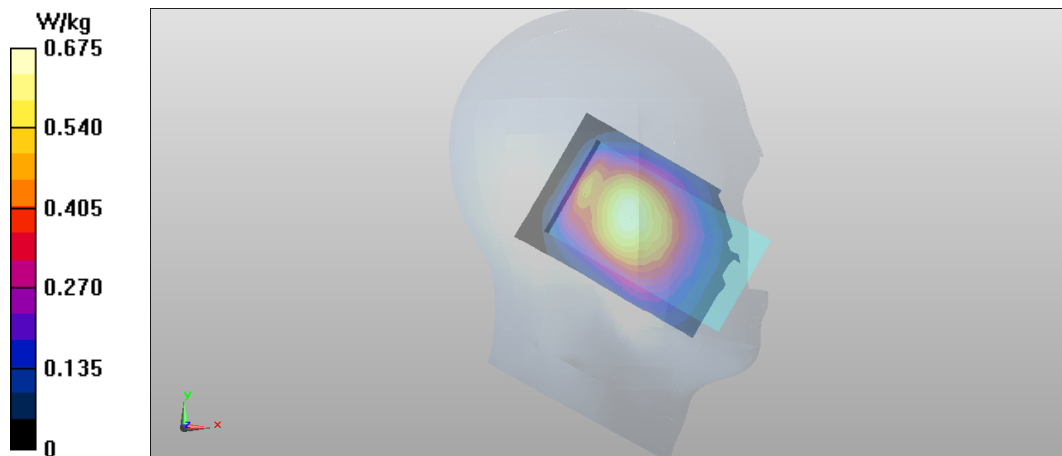
SAR(1 g) = 0.565 W/kg

SAR(10 g) = 0.419 W/kg

Power Drift = -0.04 dB

Total Absorbed Power = 0.0461 W

Maximum value of SAR (measured) = 0.675 W/kg



Plot #85 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-24 19:49:26

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800

Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: HSL900; Medium Notes: T=22.1 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.888$ S/m; $\epsilon_r = 42.032$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA800 - Right/Cheek - Middle/Volume Scan (24x34x12): Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 15.503 V/m

Peak SAR (extrapolated) = 1.62 W/kg

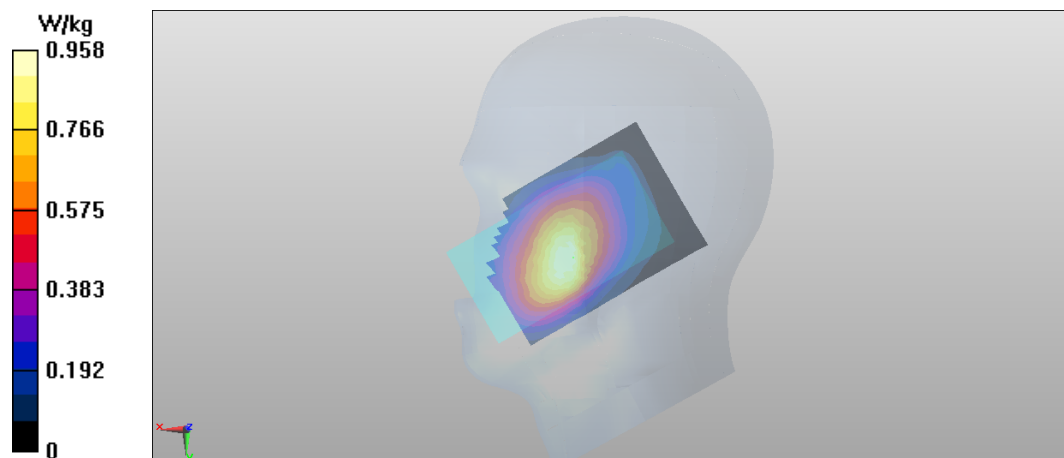
SAR(1 g) = 0.782 W/kg

SAR(10 g) = 0.570 W/kg

Power Drift = 0.11 dB

Total Absorbed Power = 0.0636 W

Maximum value of SAR (measured) = 0.958 W/kg



Plot #86 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-16 18:06:45

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800

Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: HSL900; Medium Notes: T=21.6 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 42.911$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn604; Calibrated: 2012-07-31
- Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA800 - Left/Cheek - Middle/Volume Scan (24x34x12):** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 9.082 V/m

Peak SAR (extrapolated) = 0.550 W/kg

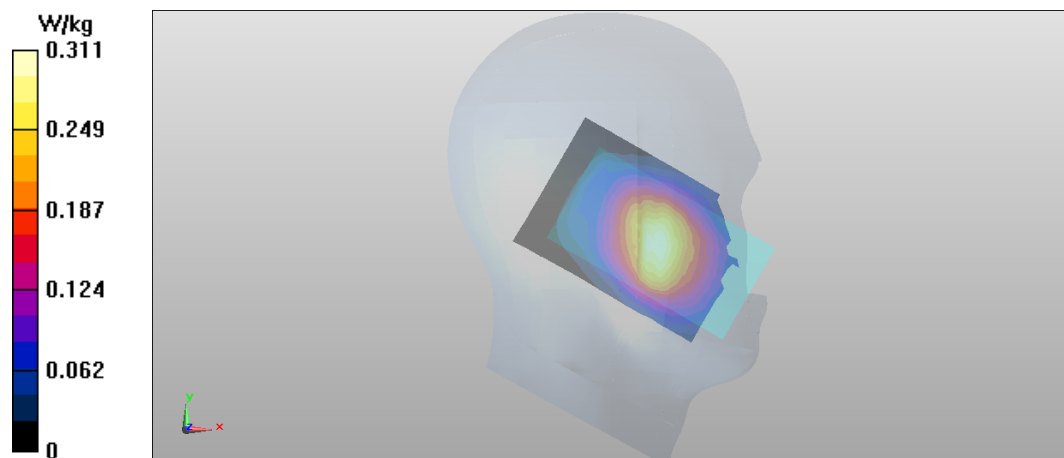
SAR(1 g) = 0.251 W/kg

SAR(10 g) = 0.182 W/kg

Power Drift = 0.06 dB

Total Absorbed Power = 0.0199 W

Maximum value of SAR (measured) = 0.311 W/kg



Plot #87 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-25 08:39:00

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800

Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: HSL900; Medium Notes: T=21.5 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.904$ S/m; $\epsilon_r = 42.06$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA800 - Left/Tilt - Middle/Volume Scan (24x34x12):** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 13.267 V/m

Peak SAR (extrapolated) = 0.795 W/kg

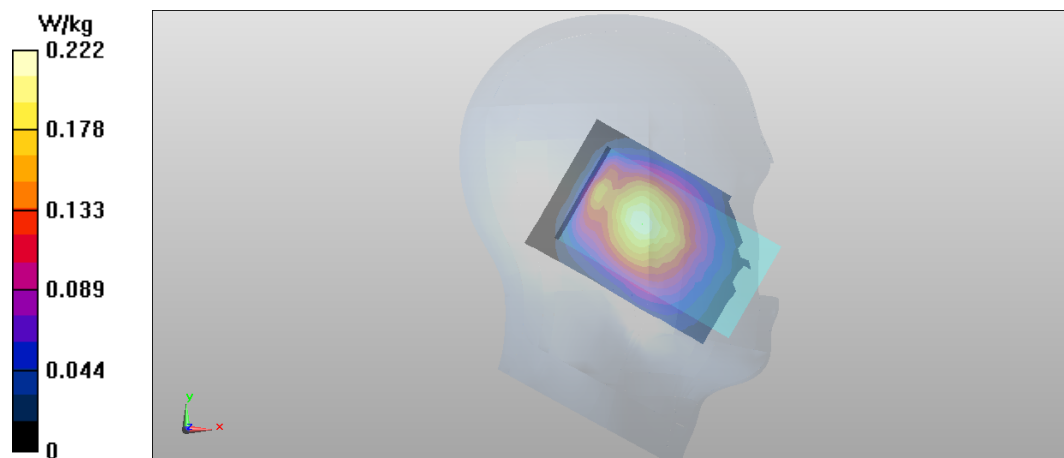
SAR(1 g) = 0.187 W/kg

SAR(10 g) = 0.136 W/kg

Power Drift = -0.07 dB

Total Absorbed Power = 0.0147 W

Maximum value of SAR (measured) = 0.222 W/kg



Plot #88 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-29 23:37:00

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800

Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: HSL900; Medium Notes: T= 22.3 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.896$ S/m; $\epsilon_r = 42.19$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA800 - Right/Cheek - Middle/Volume Scan (24x34x12):** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 7.925 V/m

Peak SAR (extrapolated) = 0.513 W/kg

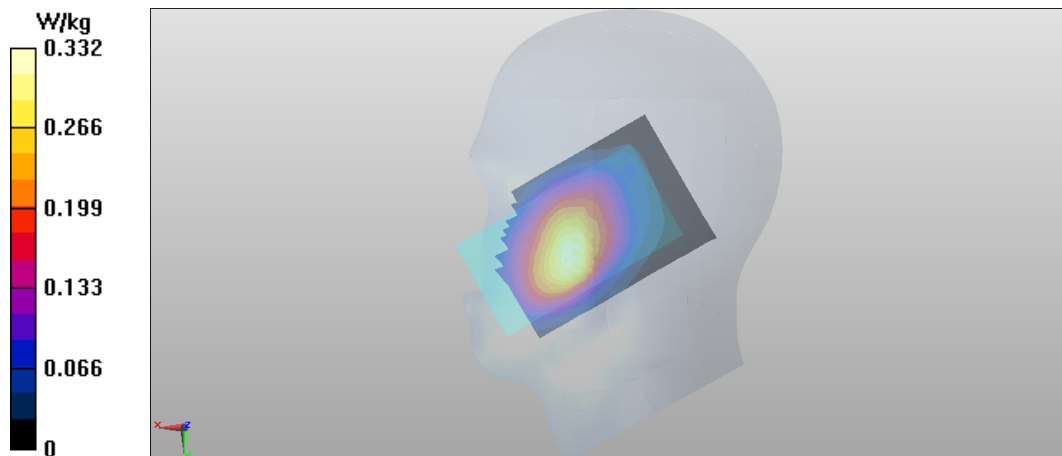
SAR(1 g) = 0.266 W/kg

SAR(10 g) = 0.193 W/kg

Power Drift = 0.46 dB

Total Absorbed Power = 0.0206 W

Maximum value of SAR (measured) = 0.332 W/kg



Plot #89 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-18 02:16:53

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4)

Frequency: 1720 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium Notes: T=21.4C

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.312$ S/m; $\epsilon_r = 39.026$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE1700/2100 (Band 4) - Right/Cheek - Low - QPSK - 20MHz - 1 RB - 0% offset/Volume Scan (24x34x12):

Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 9.857 V/m

Peak SAR (extrapolated) = 1.46 W/kg

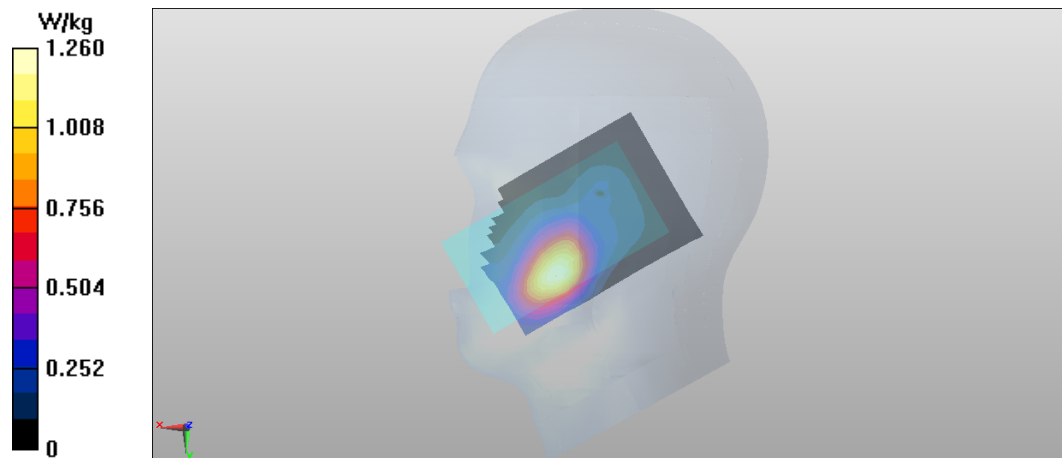
SAR(1 g) = 1.01 W/kg

SAR(10 g) = 0.641 W/kg

Power Drift = -0.48 dB

Total Absorbed Power = 0.0394 W

Maximum value of SAR (measured) = 1.26 W/kg



Plot #90 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 08:04:24

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4)

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium Notes: T=21.8

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.334$ S/m; $\epsilon_r = 39.129$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE1700/2100 (Band 4) - Left/Cheek - Middle - QPSK - 20MHz - 50%RB - 0% offset/Volume Scan (24x34x12):

Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 6.053 V/m

Peak SAR (extrapolated) = 0.719 W/kg

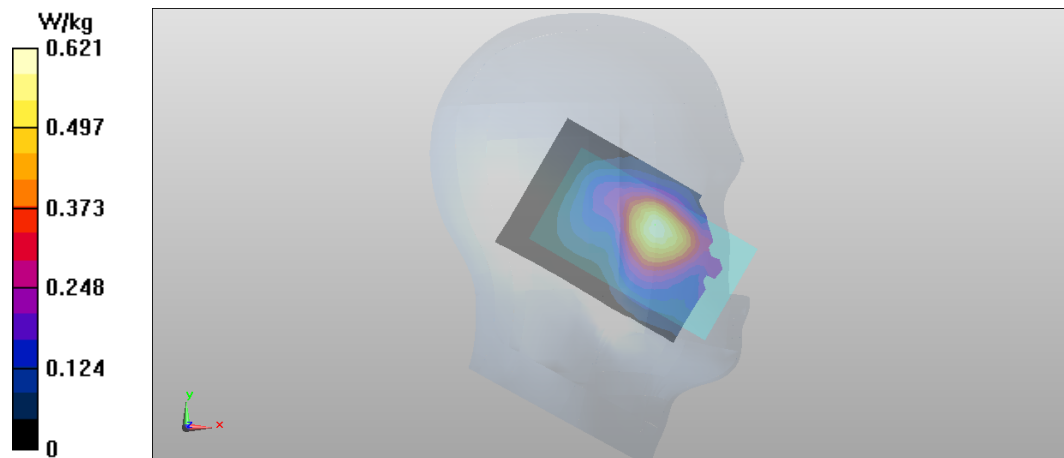
SAR(1 g) = 0.496 W/kg

SAR(10 g) = 0.325 W/kg

Power Drift = 0.45 dB

Total Absorbed Power = 0.0323 W

Maximum value of SAR (measured) = 0.621 W/kg



Plot #91 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-17 21:22:27

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4)

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium Notes: T=22.0C

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.326$ S/m; $\epsilon_r = 38.685$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE1700/2100 (Band 4) - Left/Tilt - Middle - QPSK - 20MHz - 50% RB - 0% offset/Volume Scan (24x34x12):

Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 13.392 V/m

Peak SAR (extrapolated) = 0.431 W/kg

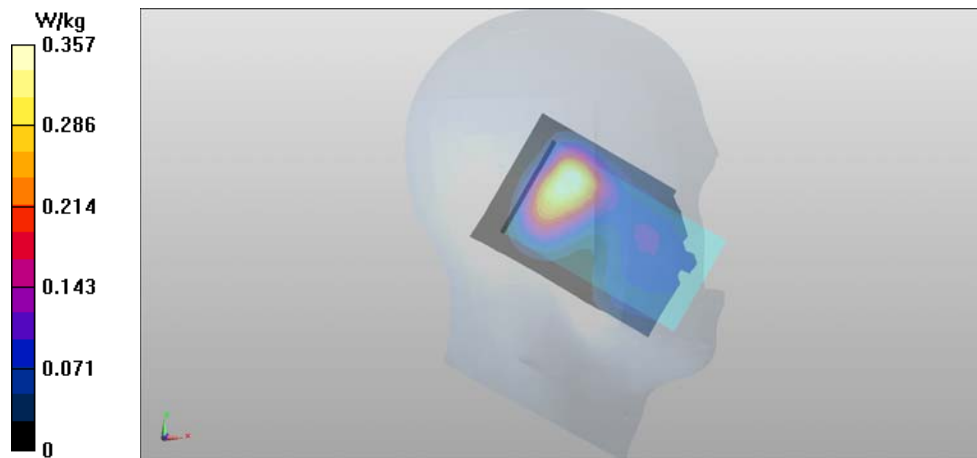
SAR(1 g) = 0.288 W/kg

SAR(10 g) = 0.184 W/kg

Power Drift = 0.44 dB

Total Absorbed Power = 0.0161 W

Maximum value of SAR (measured) = 0.357 W/kg



Plot #92 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-19 02:08:20

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100 (Band 4)

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium Notes: T20.5C

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.343$ S/m; $\epsilon_r = 38.613$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE1700/2100 (Band 4) - Left/Cheek - Middle - QPSK - 20MHz - 1 RB - 0% offset/Volume Scan (24x34x12):**

Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 5.476 V/m

Peak SAR (extrapolated) = 0.505 W/kg

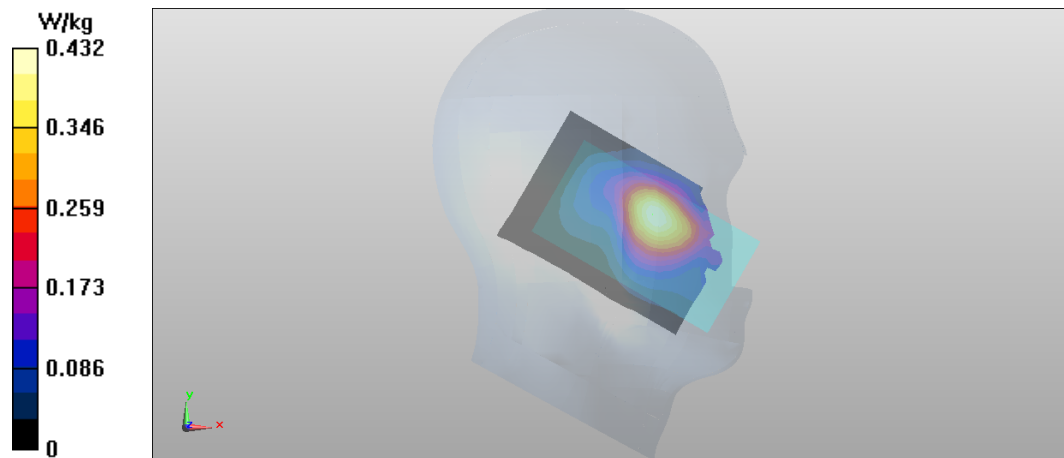
SAR(1 g) = 0.347 W/kg

SAR(10 g) = 0.227 W/kg

Power Drift = 0.44 dB

Total Absorbed Power = 0.0201 W

Maximum value of SAR (measured) = 0.432 W/kg



Plot #93 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 15:16:17

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100 (Band 4)

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium Notes: T=21.8

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.334$ S/m; $\epsilon_r = 39.129$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE1700/2100 (Band 4) - Left/Tilt - Middle - QPSK - 20MHz - 50%RB - 0% offset/Volume Scan (24x34x12):**

Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 9.486 V/m

Peak SAR (extrapolated) = 0.184 W/kg

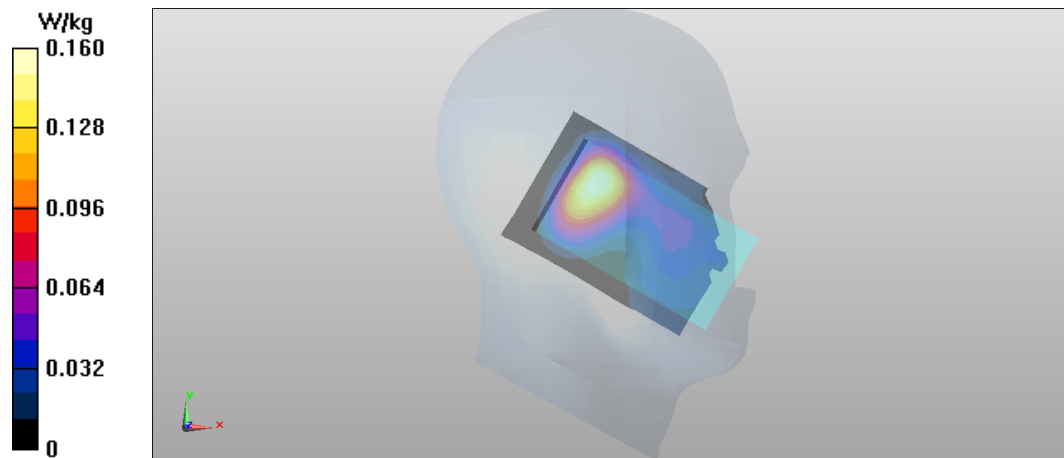
SAR(1 g) = 0.129 W/kg

SAR(10 g) = 0.083 W/kg

Power Drift = -0.01 dB

Total Absorbed Power = 0.00698 W

Maximum value of SAR (measured) = 0.160 W/kg



Plot #94 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 21:57:42

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100 (Band 4)**

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium Notes: T=21.8

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.334$ S/m; $\epsilon_r = 39.129$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE1700/2100 (Band 4) - Right/Cheek - Middle - QPSK - 20MHz - 50%RB - 100% offset/Volume Scan (24x34x12):** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 5.131 V/m

Peak SAR (extrapolated) = 0.528 W/kg

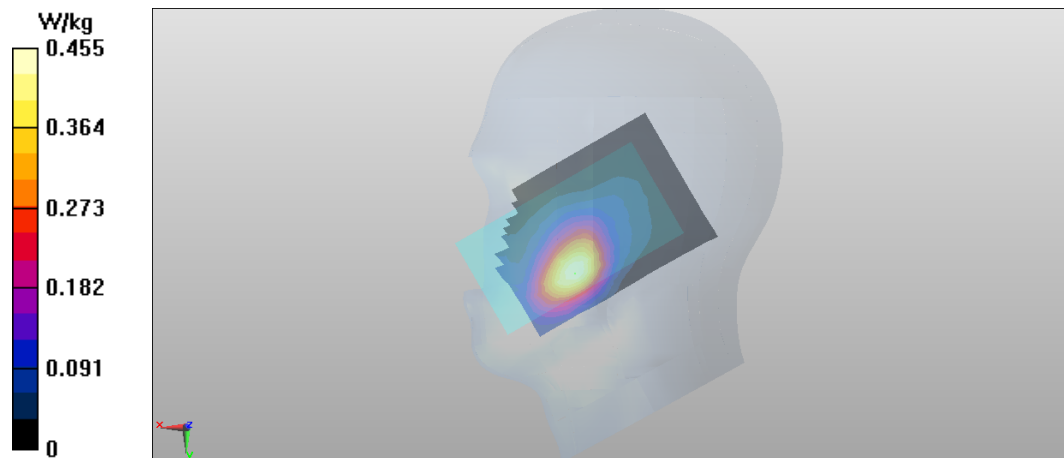
SAR(1 g) = 0.367 W/kg

SAR(10 g) = 0.235 W/kg

Power Drift = 0.25 dB

Total Absorbed Power = 0.0144 W

Maximum value of SAR (measured) = 0.455 W/kg



Plot #95 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-17 11:03:38

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900

Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: T= 21.1 C

Medium parameters used: $f = 1909$ MHz; $\sigma = 1.401$ S/m; $\epsilon_r = 38.96$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA1900 - Left/Cheek - High/Volume Scan (24x34x12): Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 11.006 V/m

Peak SAR (extrapolated) = 2.07 W/kg

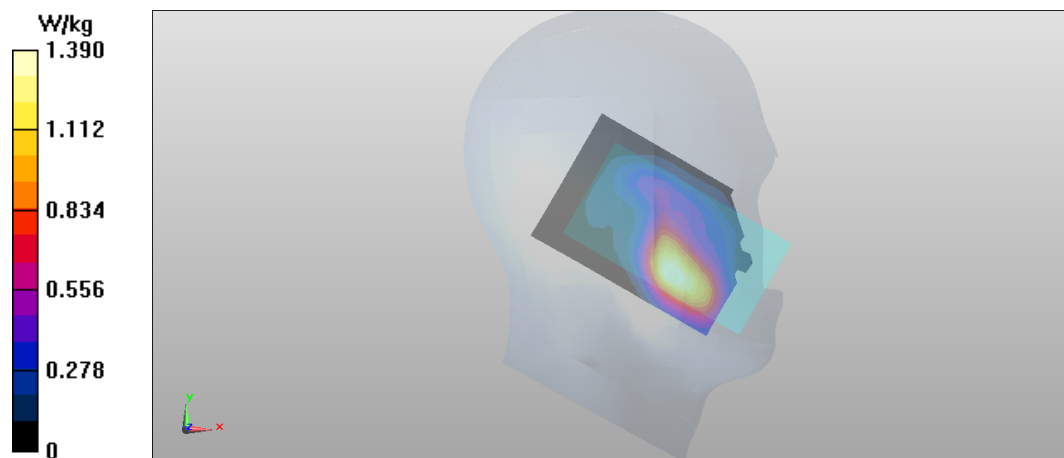
SAR(1 g) = 1.07 W/kg

SAR(10 g) = 0.666 W/kg

Power Drift = -0.12 dB

Total Absorbed Power = 0.0506 W

Maximum value of SAR (measured) = 1.39 W/kg



Plot #96 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-28 08:26:01

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: T21.9C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.402$ S/m; $\epsilon_r = 39.845$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA1900 - Left/Tilt - Middle/Volume Scan (24x34x12): Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 15.625 V/m

Peak SAR (extrapolated) = 0.654 W/kg

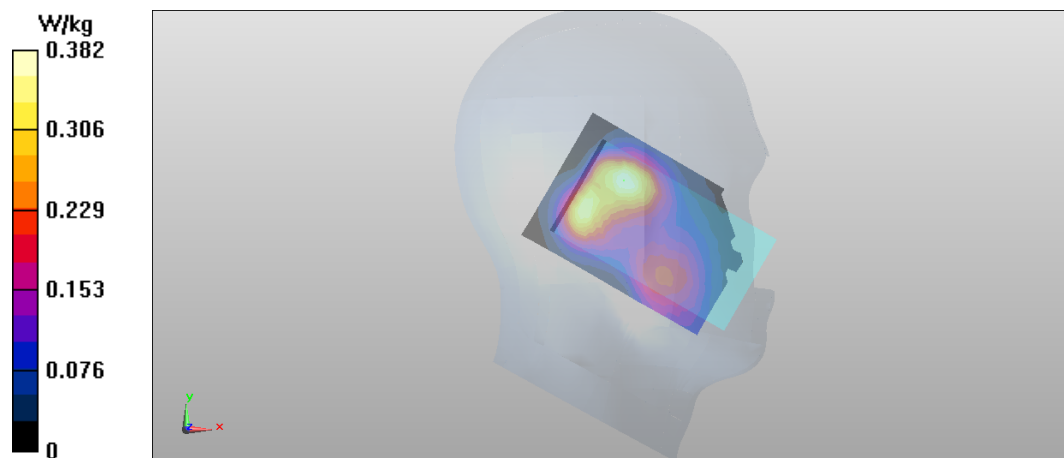
SAR(1 g) = 0.297 W/kg

SAR(10 g) = 0.185 W/kg

Power Drift = 0.16 dB

Total Absorbed Power = 0.0200 W

Maximum value of SAR (measured) = 0.382 W/kg



Plot #97 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-18 21:45:23

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: T= 21.1 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.427$ S/m; $\epsilon_r = 38.859$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA1900 - Right/Cheek - Middle/Volume Scan (24x34x12): Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 9.868 V/m

Peak SAR (extrapolated) = 0.733 W/kg

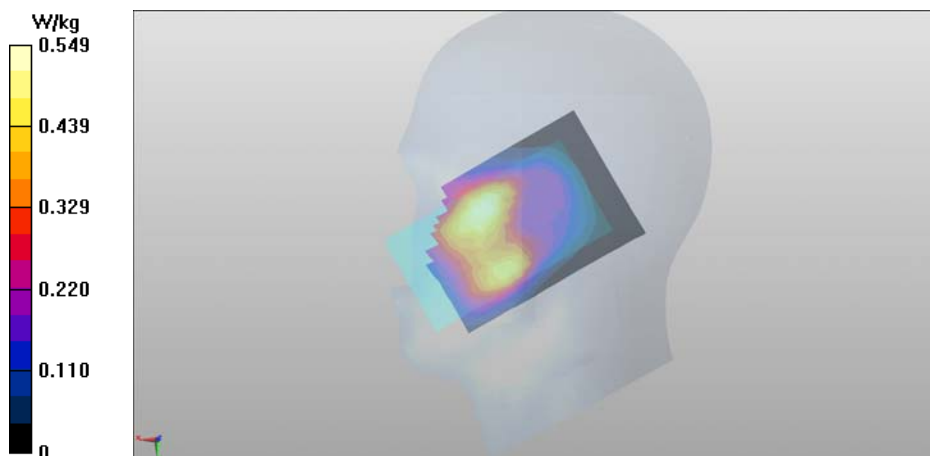
SAR(1 g) = 0.431 W/kg

SAR(10 g) = 0.276 W/kg

Power Drift = 0.32 dB

Total Absorbed Power = 0.0361 W

Maximum value of SAR (measured) = 0.549 W/kg



Plot #98 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-17 19:46:16

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900

Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: T= 21.1 C

Medium parameters used: $f = 1909$ MHz; $\sigma = 1.401$ S/m; $\epsilon_r = 38.96$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA1900 - Left/Cheek - High/Volume Scan (24x34x12):** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 7.556 V/m

Peak SAR (extrapolated) = 0.994 W/kg

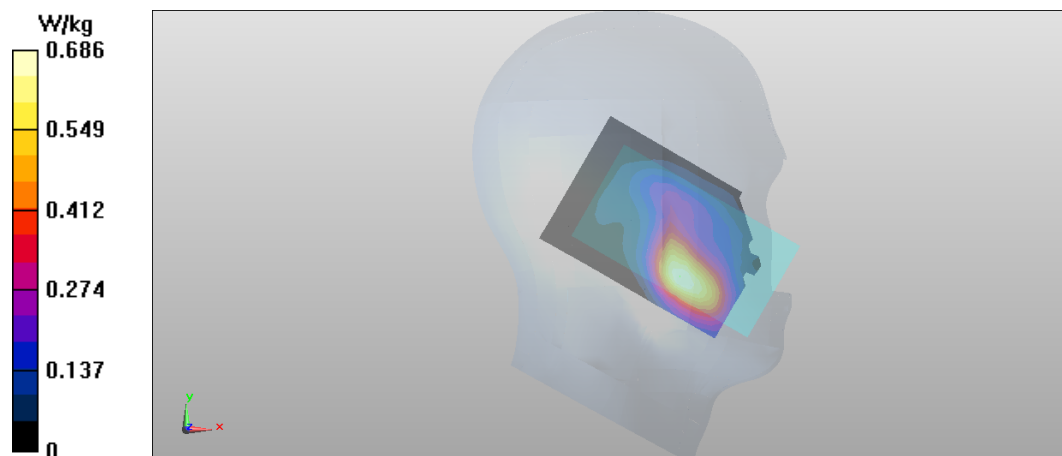
SAR(1 g) = 0.531 W/kg

SAR(10 g) = 0.327 W/kg

Power Drift = -0.07 dB

Total Absorbed Power = 0.0242 W

Maximum value of SAR (measured) = 0.686 W/kg



Plot #99 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-28 15:40:08

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: T= 21.9 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.402$ S/m; $\epsilon_r = 39.845$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA1900 - Left/Tilt - Middle/Volume Scan (24x34x12):** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 11.583 V/m

Peak SAR (extrapolated) = 0.439 W/kg

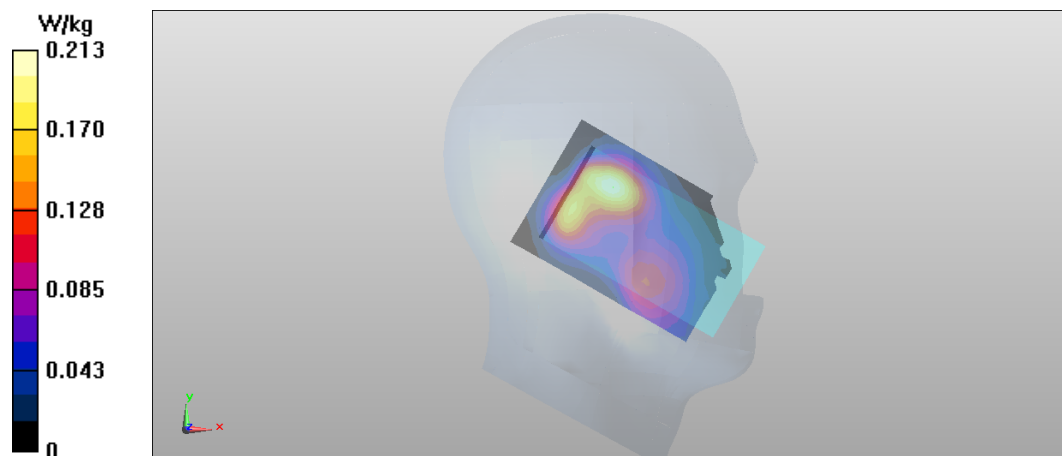
SAR(1 g) = 0.165 W/kg

SAR(10 g) = 0.101 W/kg

Power Drift = 0.03 dB

Total Absorbed Power = 0.0100 W

Maximum value of SAR (measured) = 0.213 W/kg



Plot #100 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-29 07:18:37

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: T= 21.9 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ S/m; $\epsilon_r = 39.914$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3112
- ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA1900 - Right/Cheek - Middle/Volume Scan (24x34x12):** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 7.924 V/m

Peak SAR (extrapolated) = 0.443 W/kg

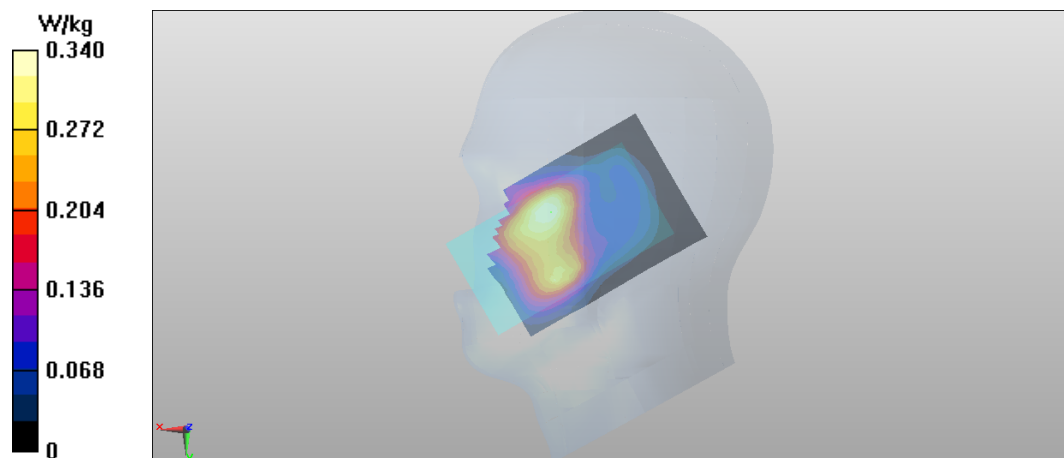
SAR(1 g) = 0.272 W/kg

SAR(10 g) = 0.177 W/kg

Power Drift = 0.25 dB

Total Absorbed Power = 0.0201 W

Maximum value of SAR (measured) = 0.340 W/kg



Plot #101 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-05 07:02:24

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: $t = 20.4$ C

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2012-08-21
- Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.8 (7028)

WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan (24x34x12): Measurement grid:

$dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 16.568 V/m

Peak SAR (extrapolated) = 1.97 W/kg

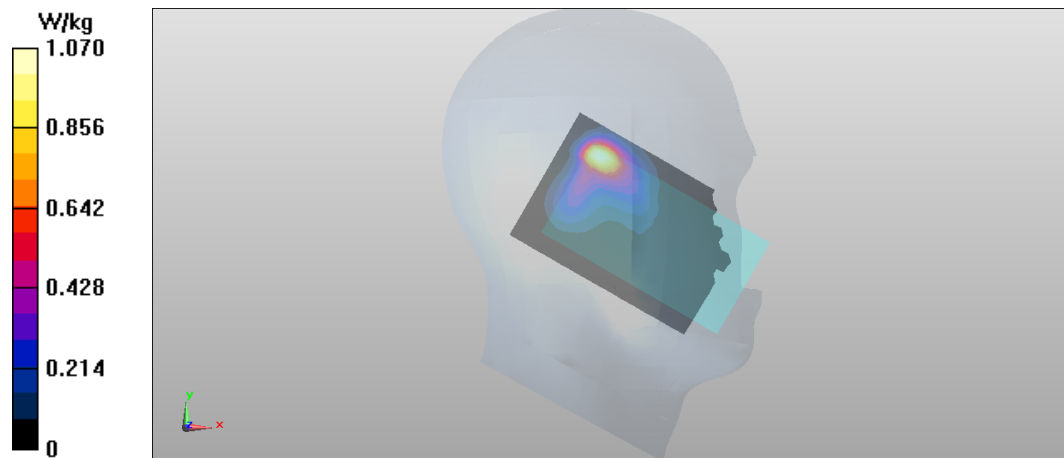
SAR(1 g) = 0.683 W/kg

SAR(10 g) = 0.298 W/kg

Power Drift = -0.06

Total Absorbed Power = 0.0122 W

Maximum value of SAR (measured) = 1.07 W/kg



Plot #102 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-06 06:00:12

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: $t = 20.4$ C

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2012-08-21
- Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.8 (7028)

WLAN2450 b-mode - Right/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan (24x34x12): Measurement grid:

$dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 18.184 V/m

Peak SAR (extrapolated) = 0.782 W/kg

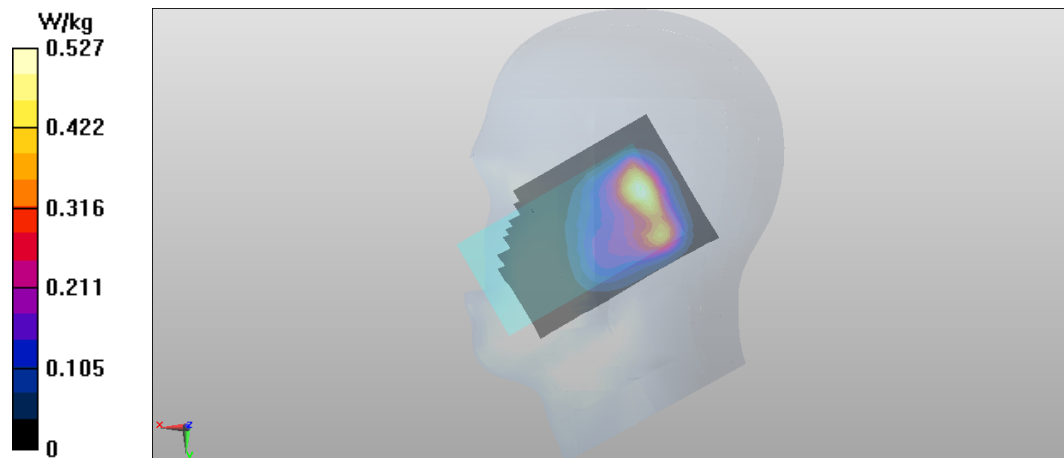
SAR(1 g) = 0.369 W/kg

SAR(10 g) = 0.191 W/kg

Power Drift = -0.01 dB

Total Absorbed Power = 0.0109 W

Maximum value of SAR (measured) = 0.527 W/kg



Plot #103- EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 09:28:06

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode

Frequency: 5805 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: t= 20.1 C

Medium parameters used: f = 5805 MHz; σ = 5.151 S/m; ϵ_r = 34.739; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3835
- ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1316; Calibrated: 2012-02-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.8 (7028)

WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan (24x34x12): Measurement grid:

dx=4mm, dy=4mm, dz=2mm

Reference Value = 6.642 V/m

Peak SAR (extrapolated) = 2.91 W/kg

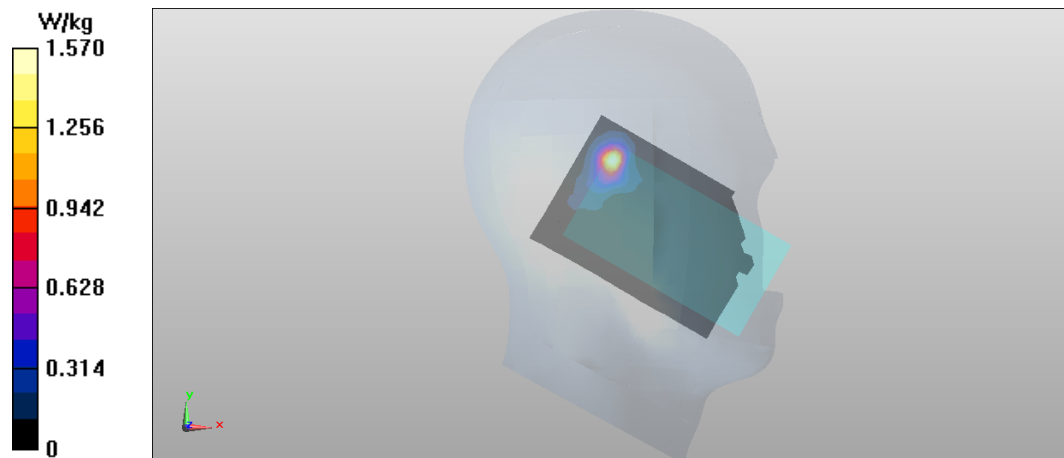
SAR(1 g) = 0.743 W/kg

SAR(10 g) = 0.197 W/kg

Power Drift = 0.14 dB

Total Absorbed Power = 0.00390 W

Maximum value of SAR (measured) = 1.57 W/kg



Plot #104 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 17:59:58

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode

Frequency: 5805 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: t= 20.1 C

Medium parameters used: f = 5805 MHz; σ = 5.151 S/m; ϵ_r = 34.739; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3835
- ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1316; Calibrated: 2012-02-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.8 (7028)

WLAN5000 a-mode - Left/Tilt - Channel 161 - OFDM 6 Mbps/Volume Scan (24x34x12): Measurement grid:

dx=4mm, dy=4mm, dz=2mm

Reference Value = 7.253 V/m

Peak SAR (extrapolated) = 3.23 W/kg

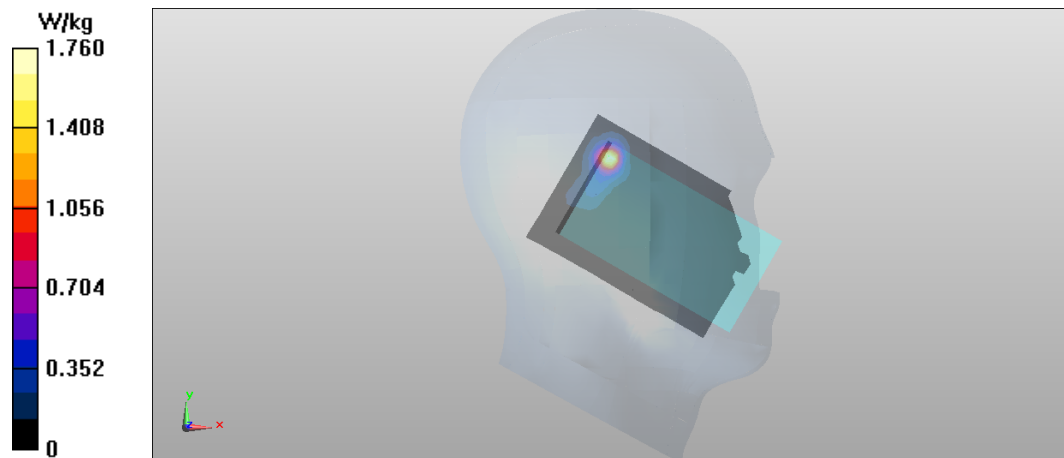
SAR(1 g) = 0.793 W/kg

SAR(10 g) = 0.197 W/kg

Power Drift = 0.02 dB

Total Absorbed Power = 0.00357 W

Maximum value of SAR (measured) = 1.76 W/kg



Plot #105 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 13:48:12

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode

Frequency: 5805 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: t= 20.1 C

Medium parameters used: f = 5805 MHz; $\sigma = 5.103$ S/m; $\epsilon_r = 34.611$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3835
- ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1316; Calibrated: 2012-02-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.8 (7028)

WLAN5000 a-mode - Right/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan (24x34x12): Measurement grid:

dx=4mm, dy=4mm, dz=2mm

Reference Value = 3.975 V/m

Peak SAR (extrapolated) = 1.58 W/kg

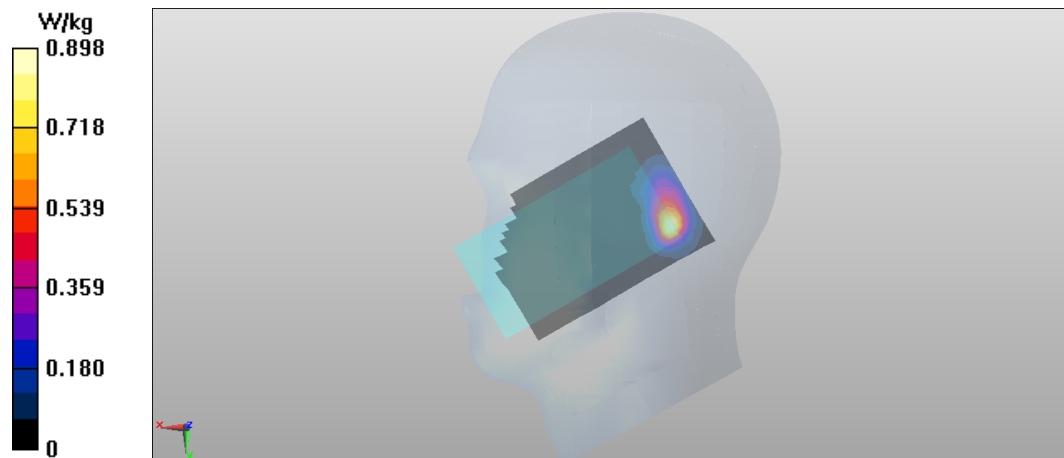
SAR(1 g) = 0.473 W/kg

SAR(10 g) = 0.158 W/kg

Power Drift = -0.48 dB

Total Absorbed Power = 0.00377 W

Maximum value of SAR (measured) = 0.898 W/kg



Plot #106

Date/Time: 2013-02-07 10:26:27

DASY Configuration for LTE 750 (Band 13) Right/Cheek - Middle -QPSK - 10MHz - 50%RB - 100% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: Not Specified; Serial: 354106/05/000822/3

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.916 \text{ S/m}$; $\epsilon_r = 42.907$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.5, 6.5, 6.5); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-05 23:35:16

DASY Configuration for CDMA800 - Right/Cheek - Middle/Area Scan:**

Test Laboratory: The name of your organization

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837 \text{ MHz}$; $\sigma = 0.879 \text{ S/m}$; $\epsilon_r = 40.85$; $\rho = 1000 \text{ kg/m}^3$

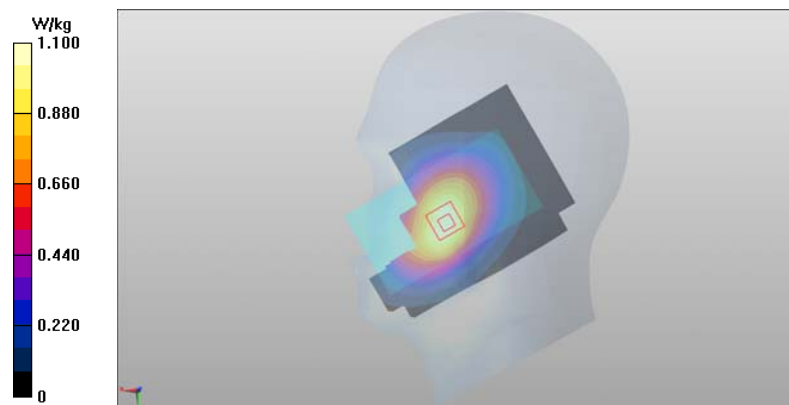
Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.724 W/kg

Maximum value of SAR (interpolated) = 1.10 W/kg

Note: LTE750 result was scaled up by factor 1.30 and CDMA800** result by factor 1.12 before combining.



Plot #107

Date/Time: 2013-02-07 09:13:45

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle -QPSK - 10MHz - 50%RB - 100% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE13; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.916$ S/m; $\epsilon_r = 42.907$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.5, 6.5, 6.5); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-12-27 01:19:06

DASY Configuration for CDMA1900 - Left/Cheek - High/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.455$ S/m; $\epsilon_r = 39.561$; $\rho = 1000$ kg/m³

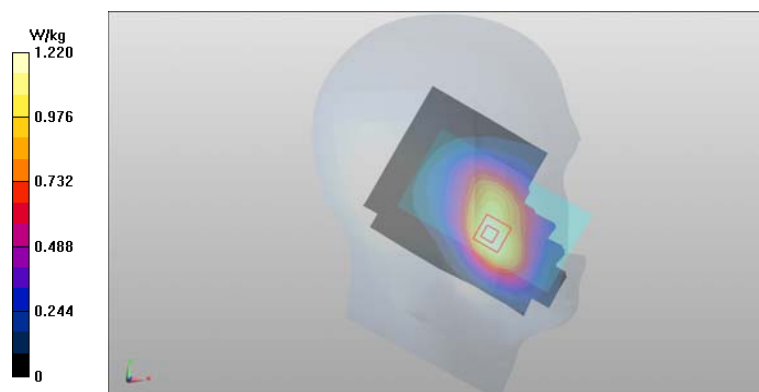
Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.747 W/kg

Maximum value of SAR (interpolated) = 1.22 W/kg

Note: LTE750 result was scaled up by factor 1.30 and CDMA1900** result by factor 1.12 before combining.



Plot #108

Date/Time: 2013-01-11 05:19:11

DASY Configuration for LTE 750 (Band 13) - Right/Cheek - Middle -QPSK - 10MHz - 1RB - 0 offset/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE13; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.909 \text{ S/m}$; $\epsilon_r = 40.11$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.5, 6.5, 6.5); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-12-22 14:26:15

DASY Configuration for CDMA800 - Right/Cheek - Middle/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL835 Medium parameters used: $f = 837 \text{ MHz}$; $\sigma = 0.891 \text{ S/m}$; $\epsilon_r = 40.709$; $\rho = 1000 \text{ kg/m}^3$

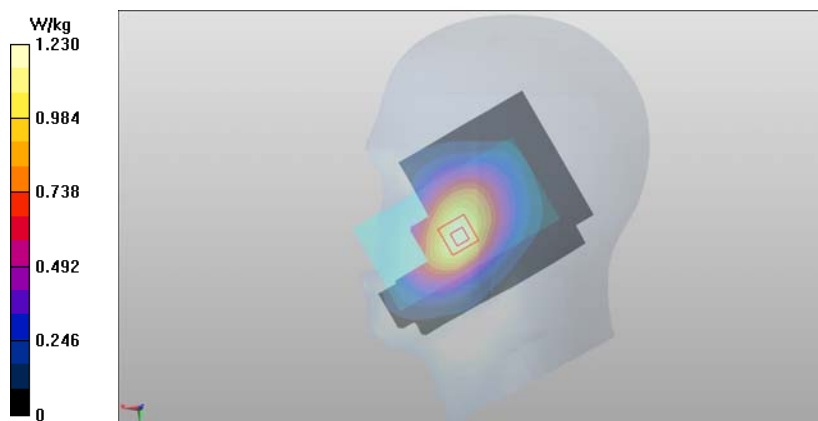
Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.792 W/kg

Maximum value of SAR (interpolated) = 1.23 W/kg

Note: LTE750** result was scaled up by factor 1.12 and CDMA800 result by factor 1.12 before combining.



Plot #109

Date/Time: 2013-01-11 00:13:36

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle -QPSK - 10MHz - 1RB - 0 offset/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE13; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.909 \text{ S/m}$; $\epsilon_r = 40.11$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.5, 6.5, 6.5); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-04 02:13:05

DASY Configuration for CDMA1900- Left/Cheek - High/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909 \text{ MHz}$; $\sigma = 1.412 \text{ S/m}$; $\epsilon_r = 39.63$; $\rho = 1000 \text{ kg/m}^3$

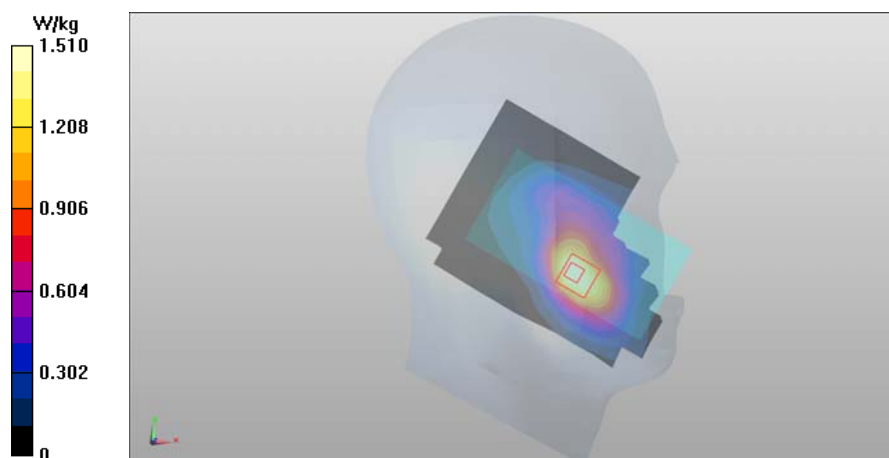
Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.38 W/kg; SAR(10 g) = 0.837 W/kg

Maximum value of SAR (interpolated) = 1.51 W/kg

Note: LTE750** result was scaled up by factor 1.12 and CDMA1900 result by factor 1.12 before combining.



Plot #110

Date/Time: 2013-01-14 22:11:19

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - Low -QPSK - 20MHz - 1RB - 0% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE4; Frequency: 1720 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1720$ MHz; $\sigma = 1.288$ mho/m; $\epsilon_r = 39.827$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM1 12/03/2012; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-05 23:35:16

DASY Configuration for CDMA800 - Right/Cheek - Middle/Area Scan:**

Test Laboratory: The name of your organization

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.879$ mho/m; $\epsilon_r = 40.85$; $\rho = 1000$ kg/m³

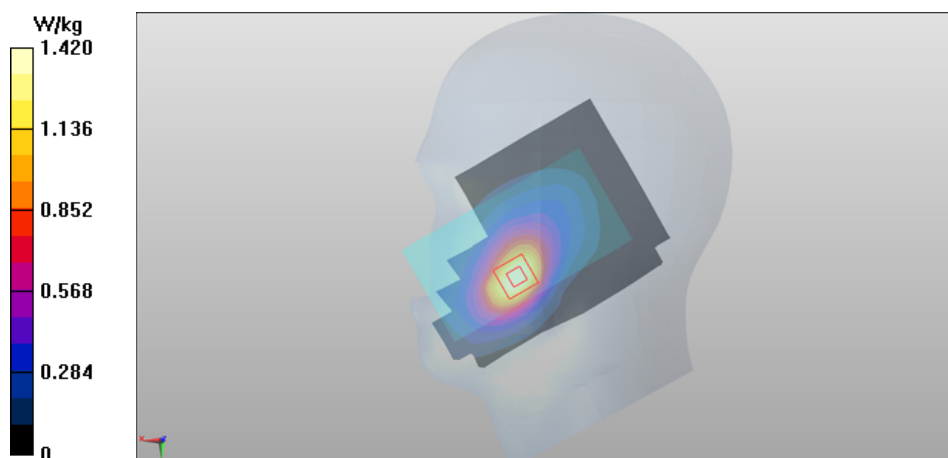
Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.31 mW/g; SAR(10 g) = 0.807 mW/g

Maximum value of SAR (interpolated) = 1.42 W/kg

Note: LTE1700/2100 result was scaled up by factor 1.12 and CDMA800** result by factor 1.12 before combining.



Plot #111

Date/Time: 2013-01-14 22:11:19

DASY Configuration for LTE1700/2100 (band 4) - Right/Cheek - Low -QPSK - 20MHz - 1RB - 0% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE4; Frequency: 1720 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1720$ MHz; $\sigma = 1.288$ mho/m; $\epsilon_r = 39.827$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM1 12/03/2012; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-12-27 00:06:05

DASY Configuration for CDMA1900 - Right/Cheek - Middle/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.424$ mho/m; $\epsilon_r = 39.686$; $\rho = 1000$ kg/m³

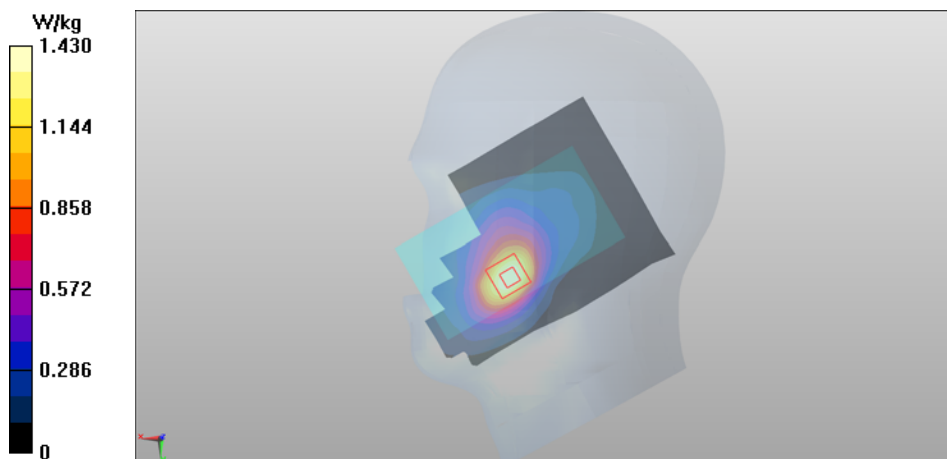
Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.32 mW/g; SAR(10 g) = 0.793 mW/g

Maximum value of SAR (interpolated) = 1.43 W/kg

Note: LTE1700/2100 result was scaled up by factor 1.12 and CDMA1900** result by factor 1.12 before combining.



Plot #112

Date/Time: 2013-02-07 17:58:50

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek- Middle - QPSK - 20MHz - 50%RB - 100% offset/Area Scan:**

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100; Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.351$ S/m; $\epsilon_r = 39.299$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-12-22 14:26:15

DASY Configuration for CDMA800 - Right/Cheek - Middle/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL835 Medium parameters used: $f = 837$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 40.709$; $\rho = 1000$ kg/m³

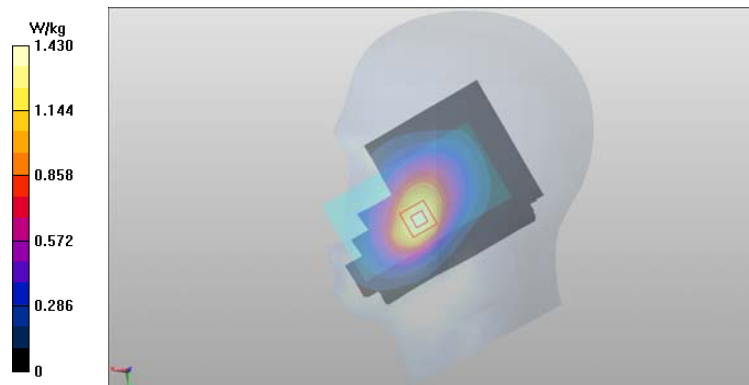
Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.32 W/kg; SAR(10 g) = 0.862 W/kg

Maximum value of SAR (interpolated) = 1.43 W/kg

Note: LTE1700/2100 (Band 4)** result was scaled up by factor 1.36 and CDMA800 result by factor 1.12 before combining.



Plot #113

Date/Time: 2013-01-04 15:51:40

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle -QPSK - 20MHz - 1RB - 0% offset/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100; Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.324$ mho/m; $\epsilon_r = 40.235$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM1 12/03/2012; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-04 02:13:05

DASY Configuration for CDMA1900 - Left/Cheek - High/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.412$ mho/m; $\epsilon_r = 39.63$; $\rho = 1000$ kg/m³

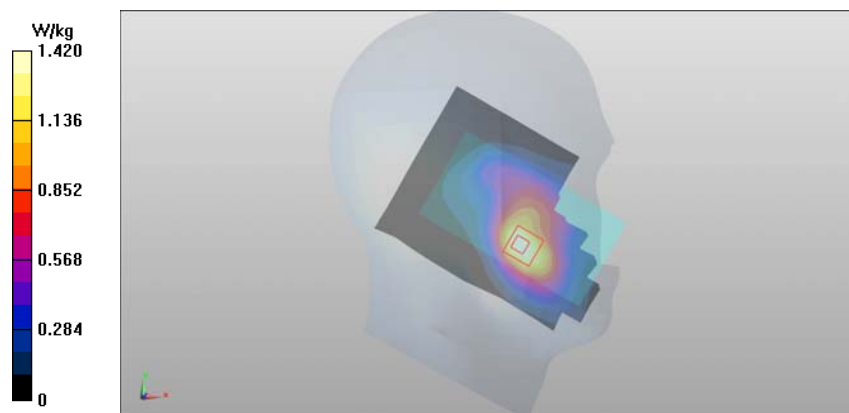
Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.29 mW/g; SAR(10 g) = 0.770 mW/g

Maximum value of SAR (interpolated) = 1.42 W/kg

Note: LTE1700/2100 (Band 4)** result was scaled up by factor 1.12 and CDMA1900 result by factor 1.12 before combining.



Plot #114

Date/Time: 2013-02-07 09:13:45

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle -QPSK - 10MHz - 50%RB - 100% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.916 \text{ S/m}$; $\epsilon_r = 42.907$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.5, 6.5, 6.5); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-05 22:52:34

DASY Configuration for CDMA800 - Left/Cheek - Middle/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837 \text{ MHz}$; $\sigma = 0.879 \text{ S/m}$; $\epsilon_r = 40.85$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-31 11:41:46

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.759 \text{ S/m}$; $\epsilon_r = 37.769$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

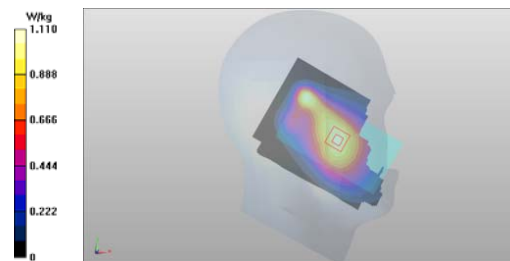
Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 1 W/kg; SAR(10 g) = 0.679 W/kg

Maximum value of SAR (interpolated) = 1.11 W/kg

Note: LTE750 result was scaled up by factor 1.30, CDMA800** result by factor 1.12 and WLAN2450 result by factor 1.42 before combining.



Plot #115

Date/Time: 2013-02-07 09:13:45

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle -QPSK - 10MHz - 50%RB - 100% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.916 \text{ S/m}$; $\epsilon_r = 42.907$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.5, 6.5, 6.5); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-12-27 01:19:06

DASY Configuration for CDMA1900 - Left/Cheek - High/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909 \text{ MHz}$; $\sigma = 1.455 \text{ S/m}$; $\epsilon_r = 39.561$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-31 11:41:46

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.759 \text{ S/m}$; $\epsilon_r = 37.769$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

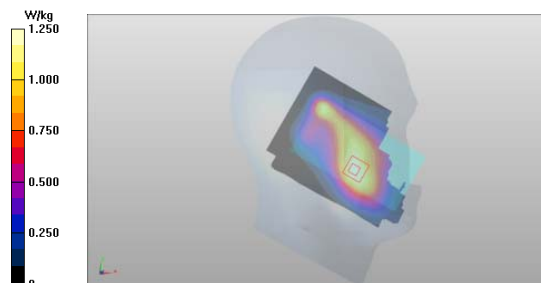
Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.762 W/kg

Maximum value of SAR (interpolated) = 1.25 W/kg

Note: LTE750 result was scaled up by factor 1.30, CDMA1900** result by factor 1.12 and WLAN2450 result by factor 1.42 before combining.



Plot #116

Date/Time: 2013-01-11 00:13:36

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle -QPSK - 10MHz - 1RB - 0% offset/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.909$ S/m; $\epsilon_r = 40.11$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.5, 6.5, 6.5); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-12-22 13:48:27

DASY Configuration for CDMA800 - Left/Cheek - Middle/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL835 Medium parameters used: $f = 837$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 40.709$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-31 11:41:46

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.759$ S/m; $\epsilon_r = 37.769$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

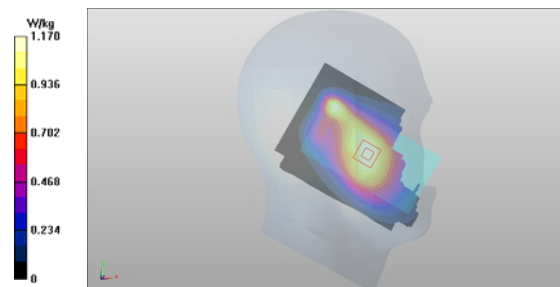
Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.765 W/kg

Maximum value of SAR (interpolated) = 1.17 W/kg

Note: LTE750** result was scaled up by factor 1.12, CDMA800 result by factor 1.12 and WLAN2450 result by factor 1.42 before combining.



Plot #117

Date/Time: 2013-01-11 00:13:36

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle -QPSK - 10MHz - 1RB - 0 offset/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.909$ S/m; $\epsilon_r = 40.11$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.5, 6.5, 6.5); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-04 02:13:05

DASY Configuration for CDMA1900 - Left /Cheek - High/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.412$ S/m; $\epsilon_r = 39.63$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-31 11:41:46

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.759$ S/m; $\epsilon_r = 37.769$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

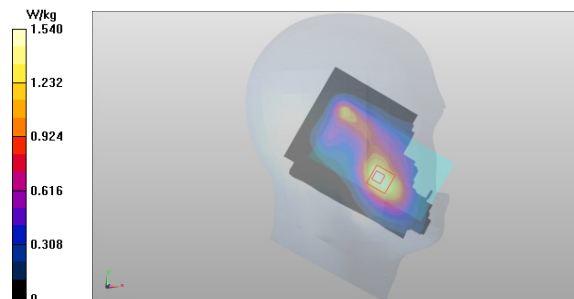
Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 1.41 W/kg; SAR(10 g) = 0.846 W/kg

Maximum value of SAR (interpolated) = 1.54 W/kg

Note: LTE750** result was scaled up by factor 1.12, CDMA1900 result by factor 1.12 and WLAN2450 result by factor 1.42 before combining.



Plot #118

Date/Time: 2013-02-06 20:02:36

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle - QPSK - 20MHz - 50%RB - 0% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LT1700/21004; Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.362$ S/m; $\epsilon_r = 39.205$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-05 22:52:34

DASY Configuration for CDMA800 - Left/Cheek - Middle/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.879$ S/m; $\epsilon_r = 40.85$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-31 11:41:46

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.759$ S/m; $\epsilon_r = 37.769$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

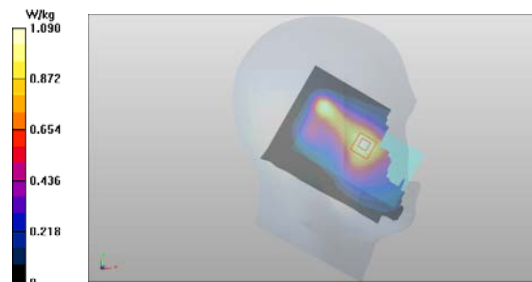
Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 0.985 W/kg; SAR(10 g) = 0.620 W/kg

Maximum value of SAR (interpolated) = 1.09 W/kg

Note: LTE1700/2100 result was scaled up by factor 1.40, CDMA800** result by factor 1.12 and WLAN2450 result by factor 1.42 before combining.



Plot #119

Date/Time: 2013-02-06 20:02:36

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle - QPSK - 20MHz - 50%RB - 0% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LT1700/21004; Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.362$ S/m; $\epsilon_r = 39.205$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-12-27 01:19:06

DASY Configuration for CDMA1900 - Left/Cheek - High/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.455$ S/m; $\epsilon_r = 39.561$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-31 11:41:46

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.759$ S/m; $\epsilon_r = 37.769$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

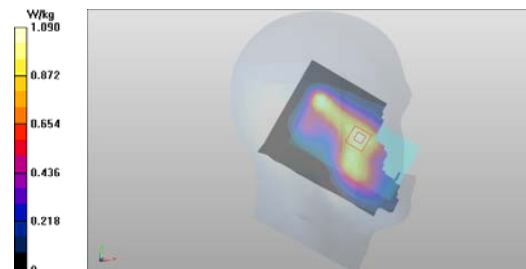
Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 0.959 W/kg; SAR(10 g) = 0.593 W/kg

Maximum value of SAR (interpolated) = 1.09 W/kg

Note: LTE1700/2100 result was scaled up by factor 1.40, CDMA1900** result by factor 1.12 and WLAN2450 result by factor 1.42 before combining.



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Plot #120

Date/Time: 2013-01-04 15:51:40

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle -QPSK - 20MHz - 1RB - 0% offset/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100; Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.324$ mho/m; $\epsilon_r = 40.235$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM1 12/03/2012; Type: QD000P40CC; Serial: TP:1279

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-12-22 13:48:27

DASY Configuration for CDMA800 - Left/Cheek - Middle/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL835 Medium parameters used: $f = 837$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 40.709$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-31 11:41:46

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.759$ S/m; $\epsilon_r = 37.769$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

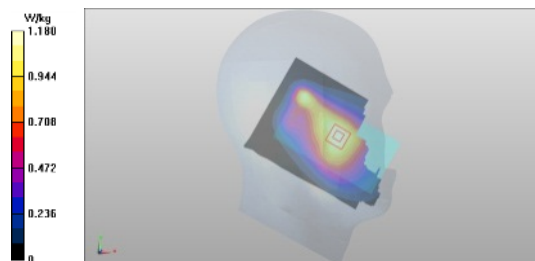
Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.752 W/kg

Maximum value of SAR (interpolated) = 1.18 W/kg

Note: LTE1700/2100** result was scaled up by factor 1.12, CDMA800 result by factor 1.12 and WLAN2450 result by factor 1.42 before combining.



Plot #121

Date/Time: 2013-01-04 15:51:40

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle -QPSK - 20MHz - 1RB - 0% offset/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100; Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.324$ mho/m; $\epsilon_r = 40.235$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM1 12/03/2012; Type: QD000P40CC; Serial: TP:1279

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-04 02:13:05

DASY Configuration for CDMA1900 - Left /Cheek - High/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.412$ S/m; $\epsilon_r = 39.63$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-31 11:41:46

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.759$ S/m; $\epsilon_r = 37.769$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

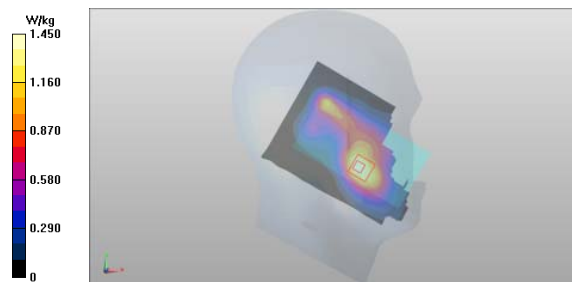
Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 1.32 W/kg; SAR(10 g) = 0.782 W/kg

Maximum value of SAR (interpolated) = 1.45 W/kg

Note: LTE1700/2100** result was scaled up by factor 1.12, CDMA1900 result by factor 1.12 and WLAN2450 result by factor 1.42 before combining.



Plot #122

Date/Time: 2013-02-07 09:13:45

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle -QPSK - 10MHz - 50%RB - 100% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.916 \text{ S/m}$; $\epsilon_r = 42.907$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.5, 6.5, 6.5); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-05 22:52:34

DASY Configuration for CDMA800 - Left/Cheek - Middle/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837 \text{ MHz}$; $\sigma = 0.879 \text{ S/m}$; $\epsilon_r = 40.85$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-04 17:50:37

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805 \text{ MHz}$; $\sigma = 5.238 \text{ S/m}$; $\epsilon_r = 33.56$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

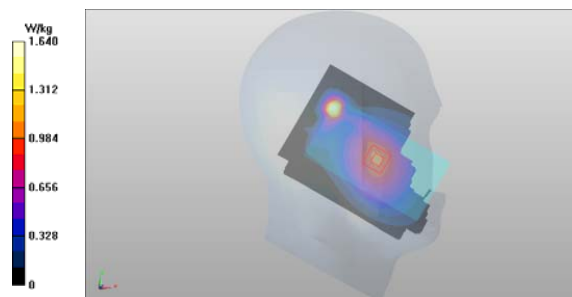
Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 0.953 W/kg; SAR(10 g) = 0.672 W/kg

Maximum value of SAR (interpolated) = 1.64 W/kg

Note: LTE750 result was scaled up by factor 1.30, CDMA800** result by factor 1.12 and WLAN5000 result by factor 1.28 before combining.



Plot #123

Date/Time: 2013-02-07 09:13:45

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle -QPSK - 10MHz - 50%RB - 100% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.916 \text{ S/m}$; $\epsilon_r = 42.907$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.5, 6.5, 6.5); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-12-27 01:19:06

DASY Configuration for CDMA1900 - Left/Cheek - High/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909 \text{ MHz}$; $\sigma = 1.455 \text{ S/m}$; $\epsilon_r = 39.561$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-04 17:50:37

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805 \text{ MHz}$; $\sigma = 5.238 \text{ S/m}$; $\epsilon_r = 33.56$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

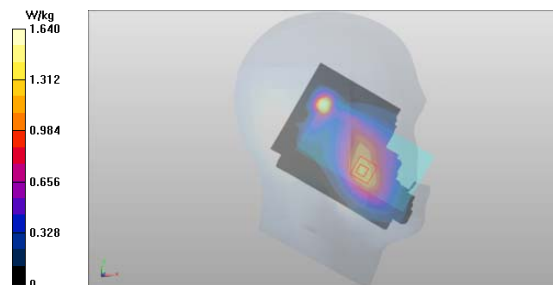
Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.746 W/kg

Maximum value of SAR (interpolated) = 1.25 W/kg

Note: LTE750 result was scaled up by factor 1.30, CDMA1900** result by factor 1.12 and WLAN5000 result by factor 1.28 before combining.



Plot #123

Date/Time: 2013-01-11 00:13:36

DASY Configuration for LTE 750 (Band 13) - Left/Cheek - Middle -QPSK - 10MHz - 1RB - 0% offset/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.909 \text{ S/m}$; $\epsilon_r = 40.11$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.5, 6.5, 6.5); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-12-22 13:48:27

DASY Configuration for CDMA800 - Left/Cheek - Middle/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL835 Medium parameters used: $f = 837 \text{ MHz}$; $\sigma = 0.891 \text{ S/m}$; $\epsilon_r = 40.709$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-04 17:50:37

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805 \text{ MHz}$; $\sigma = 5.238 \text{ S/m}$; $\epsilon_r = 33.56$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

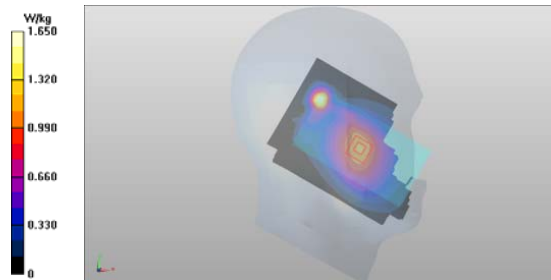
Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.739 W/kg

Maximum value of SAR (interpolated) = 1.65 W/kg

Note: LTE750** result was scaled up by factor 1.12, CDMA800 result by factor 1.12 and WLAN5000 result by factor 1.28 before combining.



Plot #125

Date/Time: 2013-01-11 00:13:36

DASY Configuration for LTE 750 (Band 13) - Left/Cheek - Middle -QPSK - 10MHz - 1RB - 0 offset/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.909 \text{ S/m}$; $\epsilon_r = 40.11$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.5, 6.5, 6.5); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-04 02:13:05

DASY Configuration for CDMA1900 - Left /Cheek - High/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909 \text{ MHz}$; $\sigma = 1.412 \text{ S/m}$; $\epsilon_r = 39.63$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-04 17:50:37

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805 \text{ MHz}$; $\sigma = 5.238 \text{ S/m}$; $\epsilon_r = 33.56$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

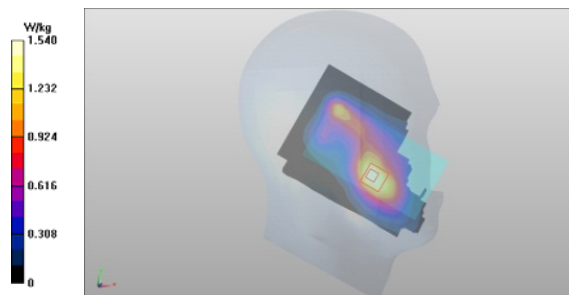
Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 1.38 W/kg; SAR(10 g) = 0.834 W/kg

Maximum value of SAR (interpolated) = 1.63 W/kg

Note: LTE750** result was scaled up by factor 1.12, CDMA1900 result by factor 1.12 and WLAN5000 result by factor 1.28 before combining.



Plot #126

Date/Time: 2013-01-14 22:11:19

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - Low -QPSK - 20MHz - 1RB - 0% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100; Frequency: 1720 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1720$ MHz; $\sigma = 1.288$ S/m; $\epsilon_r = 39.827$; $\rho = 1000$ kg/m³ Phantom section:

Right Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM1 12/03/2012; Type: QD000P40CC; Serial: TP:1279

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-05 23:35:16

DASY Configuration for CDMA800 - Right/Cheek - Middle/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.879$ S/m; $\epsilon_r = 40.85$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-05 08:45:53

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 161 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.238$ S/m; $\epsilon_r = 33.56$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

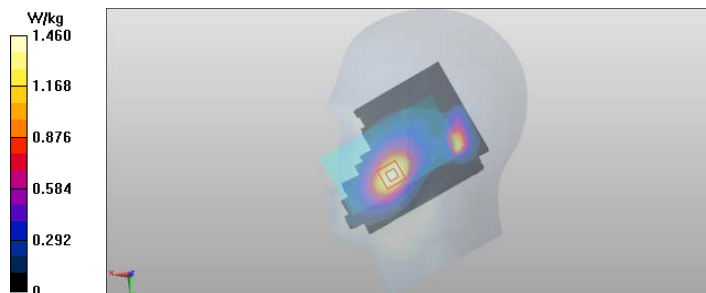
Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 1.33 W/kg; SAR(10 g) = 0.811 W/kg

Maximum value of SAR (interpolated) = 1.46 W/kg

Note: LTE1700/2100 result was scaled up by factor 1.12, CDMA800** result by factor 1.12 and WLAN5000 result by factor 1.28 before combining.



Plot #127

Date/Time: 2013-02-06 20:02:36

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle - QPSK - 20MHz - 50%RB - 0% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LT1700/21004; Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.362$ S/m; $\epsilon_r = 39.205$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-12-27 01:19:06

DASY Configuration for CDMA1900 - Left/Cheek - High/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.455$ S/m; $\epsilon_r = 39.561$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-04 17:50:37

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.238$ S/m; $\epsilon_r = 33.56$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

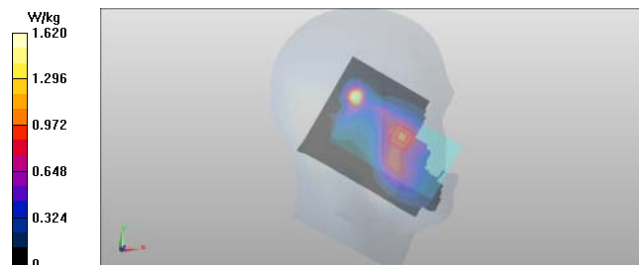
Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 0.935 W/kg; SAR(10 g) = 0.576 W/kg

Maximum value of SAR (interpolated) = 1.62 W/kg

Note: LTE1700/2100 result was scaled up by factor 1.40, CDM1900** result by factor 1.12 and WLAN5000 result by factor 1.28 before combining.



Plot #128

Date/Time: 2013-01-04 15:51:40

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle -QPSK - 20MHz - 1RB - 0% offset/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100; Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.324$ mho/m; $\epsilon_r = 40.235$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM1 12/03/2012; Type: QD000P40CC; Serial: TP:1279

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-12-22 13:48:27

DASY Configuration for CDMA800 - Left/Cheek - Middle/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL835 Medium parameters used: $f = 837$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 40.709$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-04 17:50:37

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.238$ S/m; $\epsilon_r = 33.56$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

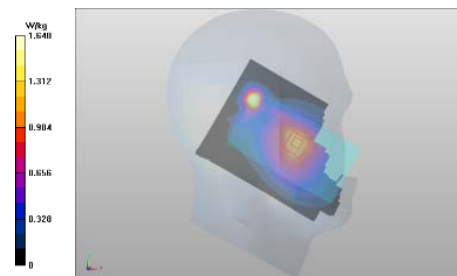
Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.729 W/kg

Maximum value of SAR (interpolated) = 1.64 W/kg

Note: LTE1700/2100** result was scaled up by factor 1.12, CDMA800 result by factor 1.12 and WLAN5000 result by factor 1.28 before combining.



Plot #129

Date/Time: 2013-01-04 15:51:40

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle -QPSK - 20MHz - 1RB - 0% offset/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100; Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.324$ mho/m; $\epsilon_r = 40.235$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM1 12/03/2012; Type: QD000P40CC; Serial: TP:1279

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-04 02:13:05

DASY Configuration for CDMA1900 - Left /Cheek - High/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.412$ S/m; $\epsilon_r = 39.63$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-04 17:50:37

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.238$ S/m; $\epsilon_r = 33.56$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

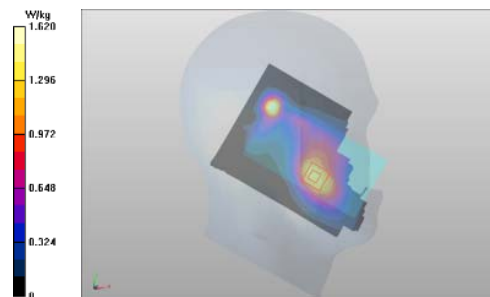
Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 1.29 W/kg; SAR(10 g) = 0.767 W/kg

Maximum value of SAR (interpolated) = 1.62 W/kg

Note: LTE1700/2100** result was scaled up by factor 1.12, CDMA1900 result by factor 1.12 and WLAN5000 result by factor 1.28 before combining.



Plot #130 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-05 07:02:24

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Date/Time: 2013-02-13 12:53:31

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle - QPSK - 10MHz - 50%RB - 100% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.915$ S/m; $\epsilon_r = 41.049$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn604; Calibrated: 2012-07-31

Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-16 18:06:45

DASY Configuration for CDMA800** - Left/Cheek - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 42.911$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn604; Calibrated: 2012-07-31

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

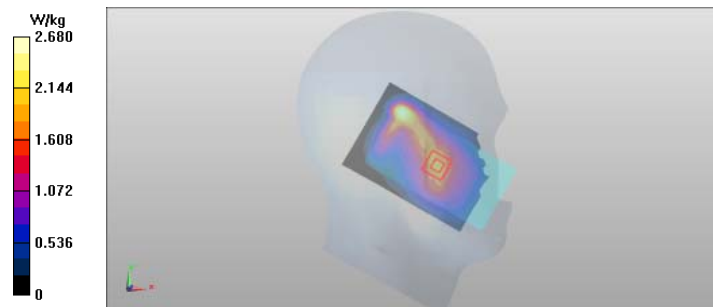
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.769 W/kg

Maximum value of SAR (interpolated) = 2.68 W/kg

WLAN2450 b-mode was scaled with factor 1.42, LTE750 (Band 13) with factor 1.30, CDMA800** with factor 1.12, before combining in SEMCAD SW



Plot #131 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-05 07:02:24

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Date/Time: 2013-02-13 12:53:31

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle - QPSK - 10MHz - 50%RB - 100% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.915$ S/m; $\epsilon_r = 41.049$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn604; Calibrated: 2012-07-31

Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-17 19:46:16

DASY Configuration for CDMA1900 - Left/Cheek - High/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.401$ S/m; $\epsilon_r = 38.96$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

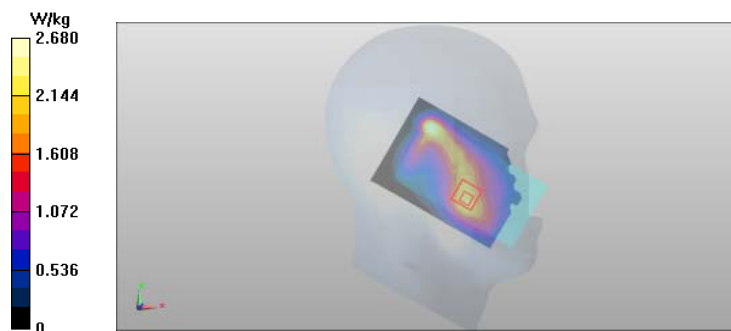
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.855 W/kg

Maximum value of SAR (interpolated) = 2.68 W/kg

WLAN2450 b-mode was scaled with factor 1.42, LTE750 (Band 13) with factor 1.30, CDMA800** with factor 1.12, before combining in SEMCAD SW



Plot #132 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-05 07:02:24

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Date/Time: 2013-02-17 07:19:41

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle - QPSK - 10MHz - 1RB - 0% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.932$ S/m; $\epsilon_r = 41.631$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-23 06:45:55

DASY Configuration for CDMA800 - Left/Cheek - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 42.244$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

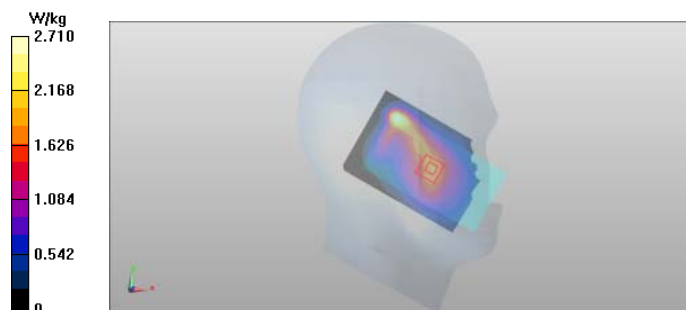
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.866 W/kg

Maximum value of SAR (interpolated) = 2.71 W/kg

WLAN2450 b-mode was scaled with factor 1.42, LTE750 (Band 13)** with factor 1.12, CDMA800 with factor 1.12, before combining in SEMCAD SW



Plot #133 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-06 06:00:12

DASY Configuration for WLAN2450 b-mode - Right/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Date/Time: 2013-02-18 07:50:51

DASY Configuration for LTE750 (Band 13) - Right/Cheek - Middle - QPSK - 10MHz - 1RB - 0% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.922$ S/m; $\epsilon_r = 40.924$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-24 19:49:26

DASY Configuration for CDMA800 - Right/Cheek - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.888$ S/m; $\epsilon_r = 42.032$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.23 W/kg; SAR(10 g) = 0.904 W/kg

Maximum value of SAR (interpolated) = 2.17 W/kg

WLAN2450 b-mode was scaled with factor 1.42, LTE750 (Band 13)** with factor 1.12, CDMA800 with factor 1.12, before combining in SEMCAD SW



Plot #134 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-05 07:02:24

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Date/Time: 2013-02-17 07:19:41

DASY Configuration for LTE750 (Band 13)** - Left/Cheek - Middle - QPSK - 10MHz - 1RB - 0% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.932$ S/m; $\epsilon_r = 41.631$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP1182

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-17 11:03:38

DASY Configuration for CDMA1900 - Left/Cheek - High/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.401$ S/m; $\epsilon_r = 38.96$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

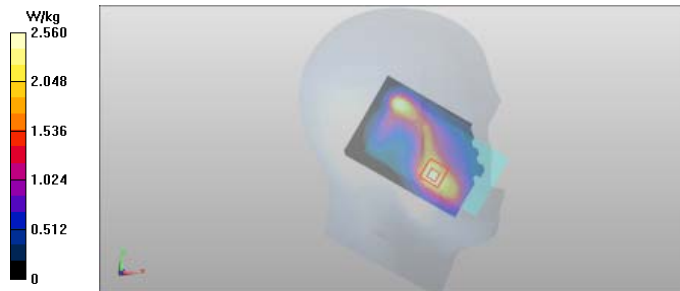
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.44 W/kg; SAR(10 g) = 0.927 W/kg

Maximum value of SAR (interpolated) = 2.56 W/kg

WLAN2450 b-mode was scaled with factor 1.42, LTE750 (Band 13)** with factor 1.12, CDMA1900 with factor 1.12, before combining in SEMCAD SW



Plot #135 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 09:28:06

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-13 12:53:31

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle - QPSK - 10MHz - 50%RB - 100% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.915$ S/m; $\epsilon_r = 41.049$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn604; Calibrated: 2012-07-31

Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-16 18:06:45

DASY Configuration for CDMA800 - Left/Cheek - Middle/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 42.911$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn604; Calibrated: 2012-07-31

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

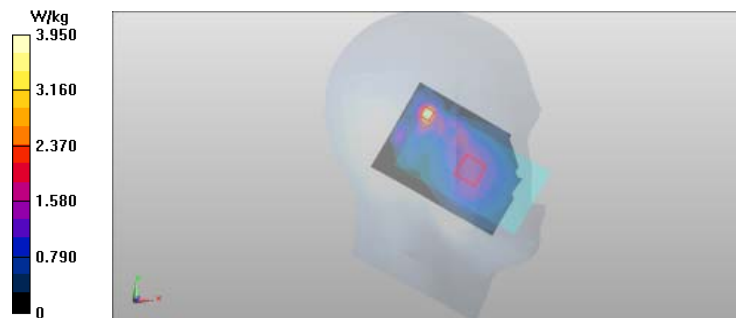
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.732 W/kg

Maximum value of SAR (interpolated) = 3.95 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE750 (Band 13) with factor 1.30, CDMA800** with factor 1.12, before combining in SEMCAD SW



Plot #136 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 17:59:58

DASY Configuration for WLAN5000 a-mode - Left/Tilt - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-14 14:31:40

DASY Configuration for LTE750 (Band 13) - Left/Tilt - Middle - QPSK - 10MHz - 50%RB - 100% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.909$ S/m; $\epsilon_r = 41.576$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-25 08:39:00

DASY Configuration for CDMA800 - Left/Tilt - Middle/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.904$ S/m; $\epsilon_r = 42.06$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

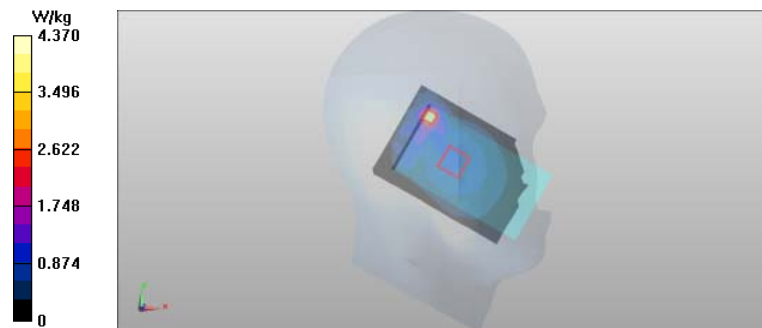
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.23 W/kg; SAR(10 g) = 0.565 W/kg

Maximum value of SAR (interpolated) = 4.37 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE750 (Band 13) with factor 1.30, CDMA800** with factor 1.12, before combining in SEMCAD SW



Plot #137 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 13:48:12

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.103$ S/m; $\epsilon_r = 34.611$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-15 06:30:44

DASY Configuration for LTE750 (Band 13) - Right/Cheek - Middle - QPSK - 10MHz - 50%RB - 100% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.909$ S/m; $\epsilon_r = 41.576$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-29 23:37:00

DASY Configuration for CDMA800 - Right/Cheek - Middle/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.896$ S/m; $\epsilon_r = 42.19$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.803 W/kg

Maximum value of SAR (interpolated) = 2.03 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE750 (Band 13) with factor 1.30, CDMA800** with factor 1.12, before combining in SEMCAD SW



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Plot #138 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 09:28:06

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-13 12:53:31

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle - QPSK - 10MHz - 50%RB - 100% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.915$ S/m; $\epsilon_r = 41.049$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn604; Calibrated: 2012-07-31

Phantom: SAM3 11-19-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-17 19:46:16

DASY Configuration for CDMA1900** - Left/Cheek - High/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.401$ S/m; $\epsilon_r = 38.96$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

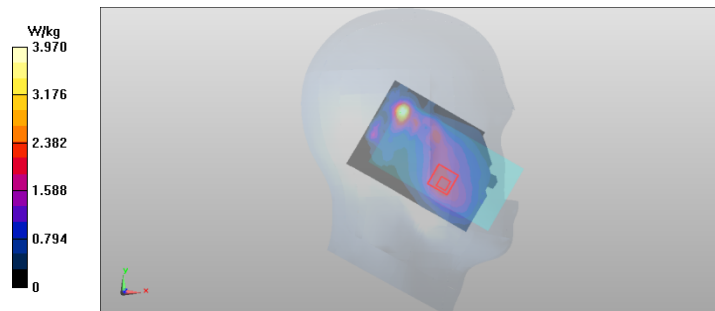
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.2 W/kg; SAR(10 g) = 0.832 W/kg

Maximum value of SAR (interpolated) = 3.97 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE750 (Band 13) with factor 1.30, CDMA1900** with factor 1.12, before combining in SEMCAD SW



Plot #139 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 17:59:58

DASY Configuration for WLAN5000 a-mode - Left/Tilt - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-14 14:31:40

DASY Configuration for LTE750 (Band 13) - Left/Tilt - Middle - QPSK - 10MHz - 50%RB - 100% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.909$ S/m; $\epsilon_r = 41.576$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-28 15:40:08

DASY Configuration for CDMA1900** - Left/Tilt - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.402$ S/m; $\epsilon_r = 39.845$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

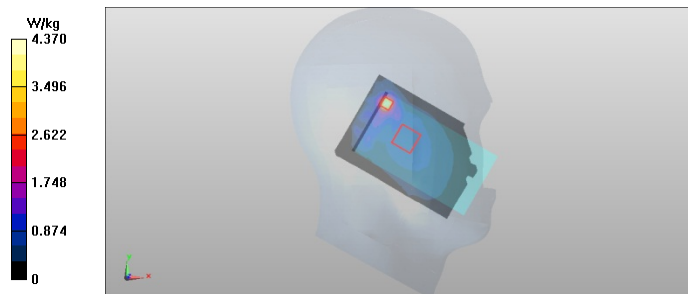
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.26 W/kg; SAR(10 g) = 0.473 W/kg

Maximum value of SAR (interpolated) = 4.37 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE750 (Band 13) with factor 1.30, CDMA1900** with factor 1.12, before combining in SEMCAD SW



Plot #140 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 13:48:12

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.103$ S/m; $\epsilon_r = 34.611$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-15 06:30:44

DASY Configuration for LTE750 (Band 13) - Right/Cheek - Middle - QPSK - 10MHz - 50%RB - 100% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.909$ S/m; $\epsilon_r = 41.576$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-29 07:18:37

DASY Configuration for CDMA1900** - Right/Cheek - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ S/m; $\epsilon_r = 39.914$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

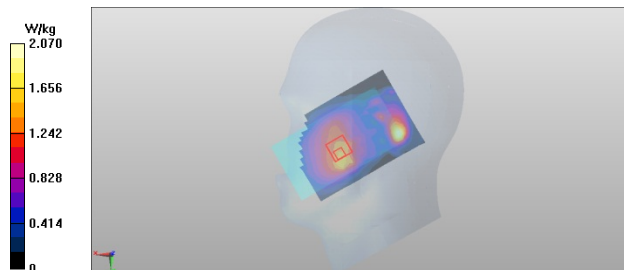
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1 W/kg; SAR(10 g) = 0.746 W/kg

Maximum value of SAR (interpolated) = 2.07 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE750 (Band 13) with factor 1.30, CDMA1900** with factor 1.12, before combining in SEMCAD SW



Plot #141 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 09:28:06

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-17 07:19:41

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle - QPSK - 10MHz - 1RB - 0% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.932$ S/m; $\epsilon_r = 41.631$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-23 06:45:55

DASY Configuration for CDMA800 - Left/Cheek - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 42.244$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

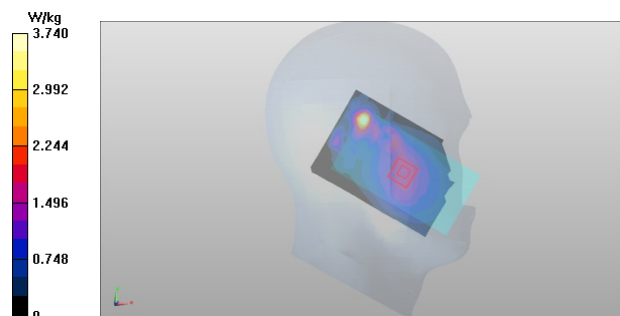
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.822 W/kg

Maximum value of SAR (interpolated) = 3.74 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE750 (Band 13)** with factor 1.12, CDMA800 with factor 1.12, before combining in SEMCAD SW



Plot #142 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 17:59:58

DASY Configuration for WLAN5000 a-mode - Left/Tilt - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-17 13:55:25

DASY Configuration for LTE750 (Band 13) - Left/Tilt - Middle - QPSK - 10MHz - 1RB - 100% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.932$ S/m; $\epsilon_r = 41.631$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-24 07:18:31

DASY Configuration for CDMA800 - Left/Tilt - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.888$ S/m; $\epsilon_r = 42.032$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

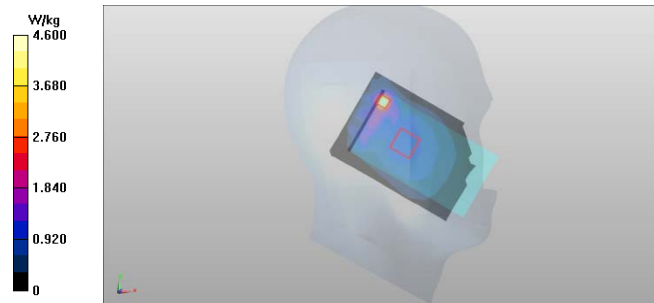
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.28 W/kg; SAR(10 g) = 0.631 W/kg

Maximum value of SAR (interpolated) = 4.60 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE750 (Band 13)** with factor 1.12, CDMA800 with factor 1.12, before combining in SEMCAD SW



Plot #143 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 13:48:12

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.103$ S/m; $\epsilon_r = 34.611$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-18 07:50:51

DASY Configuration for LTE750 (Band 13) - Right/Cheek - Middle - QPSK - 10MHz - 1RB - 0% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.922$ S/m; $\epsilon_r = 40.924$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-24 19:49:26

DASY Configuration for CDMA800 - Right/Cheek - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.888$ S/m; $\epsilon_r = 42.032$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

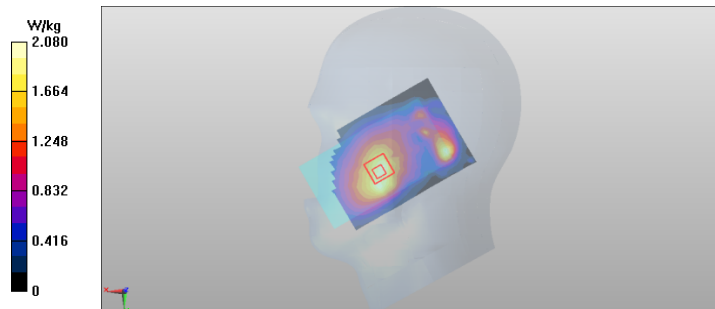
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.864 W/kg

Maximum value of SAR (interpolated) = 2.08 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE750 (Band 13)** with factor 1.12, CDMA800 with factor 1.12, before combining in SEMCAD SW



Plot #144 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 09:28:06

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-17 07:19:41

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle - QPSK - 10MHz - 1RB - 0% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.932$ S/m; $\epsilon_r = 41.631$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-17 11:03:38

DASY Configuration for CDMA1900 - Left/Cheek - High/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.401$ S/m; $\epsilon_r = 38.96$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

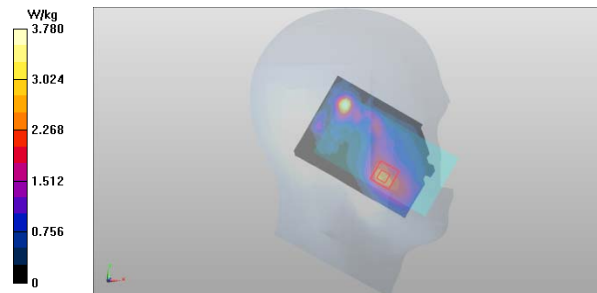
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.43 W/kg; SAR(10 g) = 0.924 W/kg

Maximum value of SAR (interpolated) = 3.78 W/kg

WLAN5000 b-mode was scaled with factor 1.28, LTE750 (Band 13)** with factor 1.12, CDMA1900 with factor 1.12, before combining in SEMCAD SW



Plot #145 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 17:59:58

DASY Configuration for WLAN5000 a-mode - Left/Tilt - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-17 13:55:25

DASY Configuration for LTE750 (Band 13) - Left/Tilt - Middle - QPSK - 10MHz - 1RB - 100% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.932$ S/m; $\epsilon_r = 41.631$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(9.58, 9.58, 9.58); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 2 11/01/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-28 08:26:01

DASY Configuration for CDMA1900 - Left/Tilt - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.402$ S/m; $\epsilon_r = 39.845$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

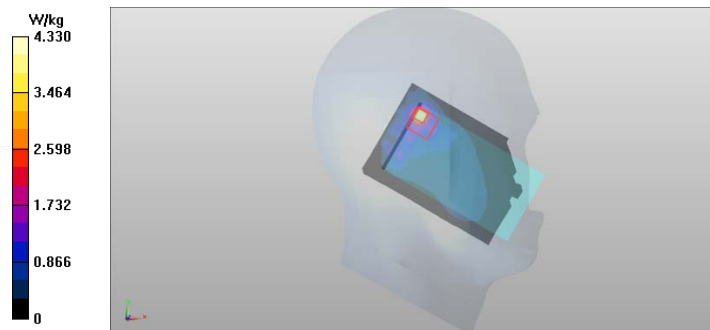
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.21 W/kg; SAR(10 g) = 0.411 W/kg

Maximum value of SAR (interpolated) = 4.33 W/kg

WLAN5000 b-mode was scaled with factor 1.28, LTE750 (Band 13)** with factor 1.12, CDMA1900 with factor 1.12, before combining in SEMCAD SW



Plot #146 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-05 07:02:24

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Date/Time: 2013-02-13 08:04:24

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle - QPSK - 20MHz - 50%RB - 0% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.334$ S/m; $\epsilon_r = 39.129$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-16 18:06:45

DASY Configuration for CDMA800 - Left/Cheek - Middle/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 42.911$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn604; Calibrated: 2012-07-31

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

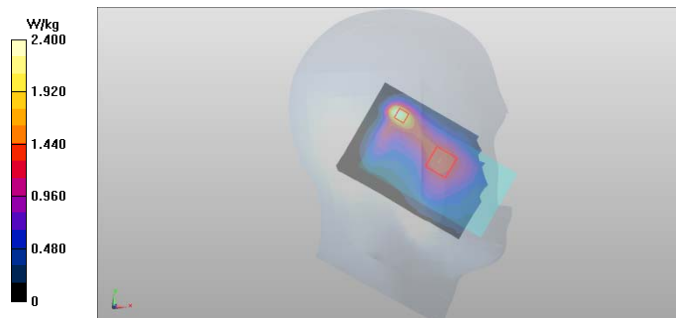
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 0.992 W/kg; SAR(10 g) = 0.661 W/kg

Maximum value of SAR (interpolated) = 2.40 W/kg

WLAN2450 b-mode was scaled with factor 1.42, LTE1700/2100 (Band 4) with factor 1.40, CDMA800** with factor 1.12, before combining in SEMCAD SW



Plot #147 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-06 06:00:12

DASY Configuration for WLAN2450 b-mode - Right/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Date/Time: 2013-01-18 02:16:53

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - Low - QPSK - 20MHz - 1 RB - 0% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4); Frequency: 1720 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1720$ MHz; $\sigma = 1.312$ S/m; $\epsilon_r = 39.026$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-29 23:37:00

DASY Configuration for CDMA800 - Right/Cheek - Middle/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.896$ S/m; $\epsilon_r = 42.19$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

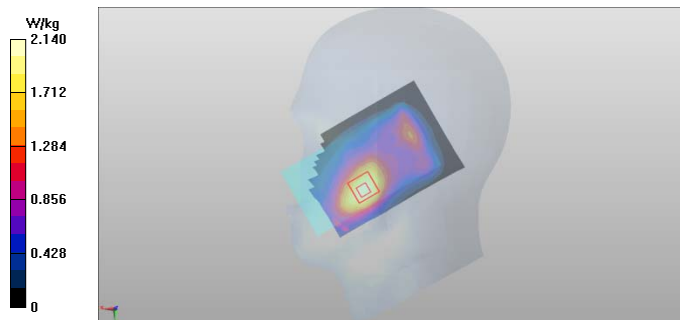
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.43 W/kg; SAR(10 g) = 0.936 W/kg

Maximum value of SAR (interpolated) = 2.14 W/kg

WLAN2450 b-mode was scaled with factor 1.42, LTE1700/2100 (Band 4) with factor 1.12, CDMA800** with factor 1.12, before combining in SEMCAD SW



Plot #148 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-05 07:02:24

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Date/Time: 2013-01-18 02:16:53

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - Low - QPSK - 20MHz - 1 RB - 0% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4); Frequency: 1720 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1720$ MHz; $\sigma = 1.312$ S/m; $\epsilon_r = 39.026$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-17 19:46:16

DASY Configuration for CDMA1900 - Left/Cheek - High/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.401$ S/m; $\epsilon_r = 38.96$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

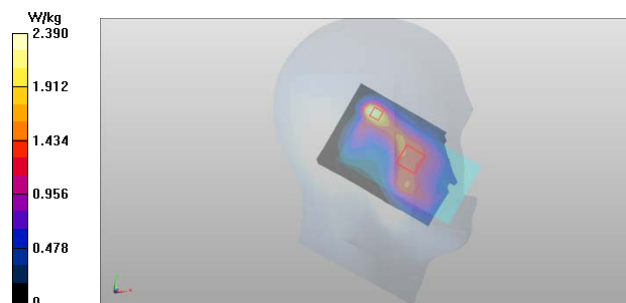
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 0.997 W/kg; SAR(10 g) = 0.652 W/kg

Maximum value of SAR (interpolated) = 2.39 W/kg

WLAN2450 b-mode was scaled with factor 1.42, LTE1700/2100 (Band 4) with factor 1.40, CDMA1900** with factor 1.12, before combining in SEMCAD SW



Plot #149 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-06 06:00:12

DASY Configuration for WLAN2450 b-mode - Right/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Date/Time: 2013-01-18 02:16:53

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - Low - QPSK - 20MHz - 1 RB - 0% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4); Frequency: 1720 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1720$ MHz; $\sigma = 1.312$ S/m; $\epsilon_r = 39.026$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-29 07:18:37

DASY Configuration for CDMA1900 - Right/Cheek - Middle/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ S/m; $\epsilon_r = 39.914$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

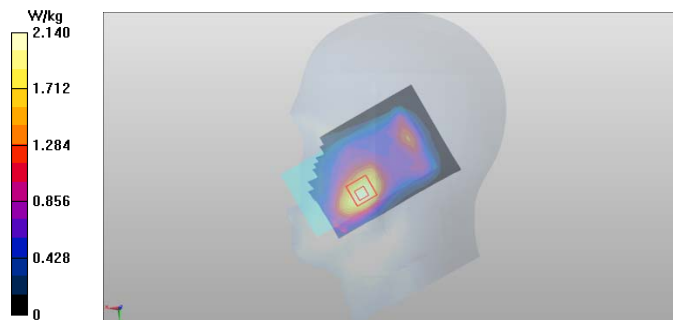
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.42 W/kg; SAR(10 g) = 0.908 W/kg

Maximum value of SAR (interpolated) = 2.14 W/kg

WLAN2450 b-mode was scaled with factor 1.40, LTE1700/2100 (Band 4) with factor 1.12, CDMA1900** with factor 1.12, before combining in SEMCAD SW



Plot #150 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-05 07:02:24

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #4 SAM, SAR4 ; Type: QD00P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Date/Time: 2013-01-19 02:08:20

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle - QPSK - 20MHz - 1 RB - 0% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.343$ S/m; $\epsilon_r = 38.613$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD00P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-23 06:45:55

DASY Configuration for CDMA800 - Left/Cheek - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 42.244$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

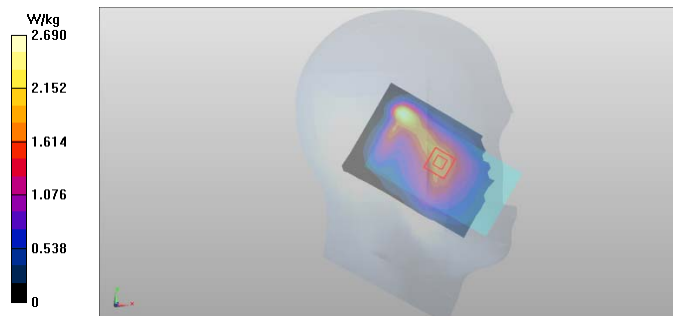
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.857 W/kg

Maximum value of SAR (interpolated) = 2.69 W/kg

WLAN2450 b-mode was scaled with factor 1.42, LTE1700/2100 (Band 4)** with factor 1.12, CDMA800 with factor 1.12, before combining in SEMCAD SW



Plot #151 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-06 06:00:12

DASY Configuration for WLAN2450 b-mode - Right/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Date/Time: 2013-02-13 21:57:42

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - Middle - QPSK - 20MHz - 50%RB - 100% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.334$ S/m; $\epsilon_r = 39.129$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-24 19:49:26

DASY Configuration for CDMA800 - Right/Cheek - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.888$ S/m; $\epsilon_r = 42.032$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

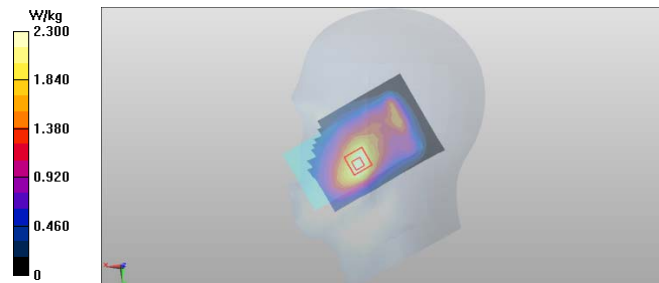
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.37 W/kg; SAR(10 g) = 0.956 W/kg

Maximum value of SAR (interpolated) = 2.30 W/kg

WLAN2450 b-mode was scaled with factor 1.42, LTE1700/2100 (Band 4)** with factor 1.36, CDMA800 with factor 1.12, before combining in SEMCAD SW



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Plot #152 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-05 07:02:24

DASY Configuration for WLAN2450 b-mode - Left/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.811$ S/m; $\epsilon_r = 38.74$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3131; ConvF(4.34, 4.34, 4.34); Calibrated: 2012-08-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #4 SAM, SAR4 ; Type: QD000P40CD;

Measurement SW: DASY52, Version 52.8 (2)

Date/Time: 2013-01-19 02:08:20

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle - QPSK - 20MHz - 1 RB - 0% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.343$ S/m; $\epsilon_r = 38.613$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-17 11:03:38

DASY Configuration for CDMA1900 - Left/Cheek - High/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.401$ S/m; $\epsilon_r = 38.96$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

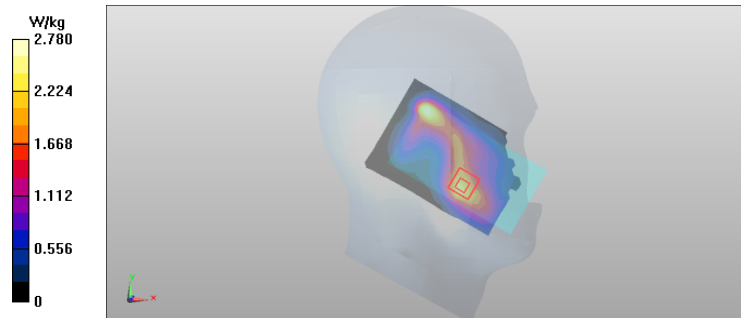
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.3 W/kg; SAR(10 g) = 0.830 W/kg

Maximum value of SAR (interpolated) = 2.78 W/kg

WLAN2450 b-mode was scaled with factor 1.42 LTE1700/2100 (Band 4)** with factor 1.12, CDMA1900 with factor 1.12, before combining in SEMCAD SW



Plot #153 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 09:28:06

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-13 08:04:24

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle - QPSK - 20MHz - 50%RB - 0% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.334$ S/m; $\epsilon_r = 39.129$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-16 18:06:45

DASY Configuration for CDMA800 - Left/Cheek - Middle/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 42.911$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn604; Calibrated: 2012-07-31

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

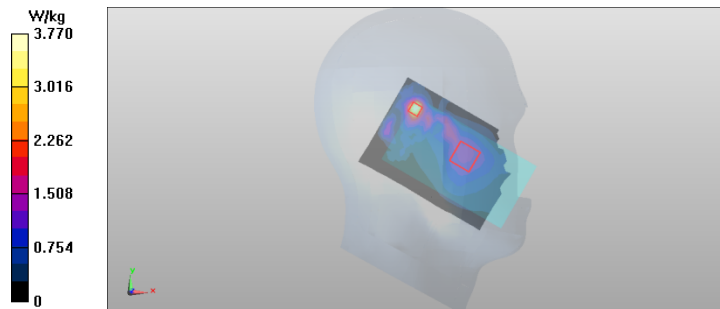
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.632 W/kg

Maximum value of SAR (interpolated) = 3.77 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE1700/2100 (Band 4) with factor 1.40, CDMA800** with factor 1.12, before combining in SEMCAD SW



Plot #154 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 17:59:58

DASY Configuration for WLAN5000 a-mode - Left/Tilt - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-17 21:22:27

DASY Configuration for LTE1700/2100 (Band 4) - Left/Tilt - Middle - QPSK - 20MHz - 50% RB - 0% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.326$ S/m; $\epsilon_r = 38.685$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-25 08:39:00

DASY Configuration for CDMA800 - Left/Tilt - Middle/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.904$ S/m; $\epsilon_r = 42.06$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

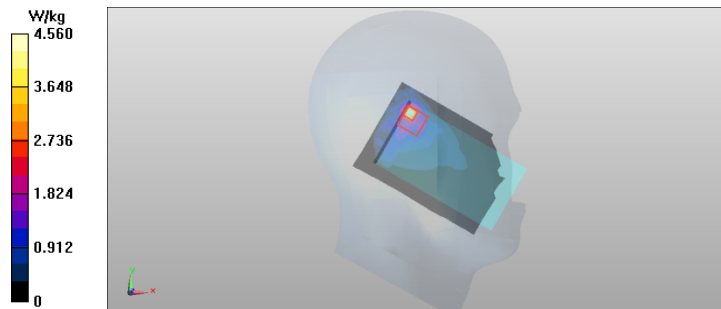
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.3 W/kg; SAR(10 g) = 0.458 W/kg

Maximum value of SAR (interpolated) = 4.56 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE1700/2100 (Band 4) with factor 1.40, CDMA800** with factor 1.12, before combining in SEMCAD SW



Plot #155 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 13:48:12

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.103$ S/m; $\epsilon_r = 34.611$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-01-18 02:16:53

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - Low - QPSK - 20MHz - 1 RB - 0% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4); Frequency: 1720 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1720$ MHz; $\sigma = 1.312$ S/m; $\epsilon_r = 39.026$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-29 23:37:00

DASY Configuration for CDMA800 - Right/Cheek - Middle/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.896$ S/m; $\epsilon_r = 42.19$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

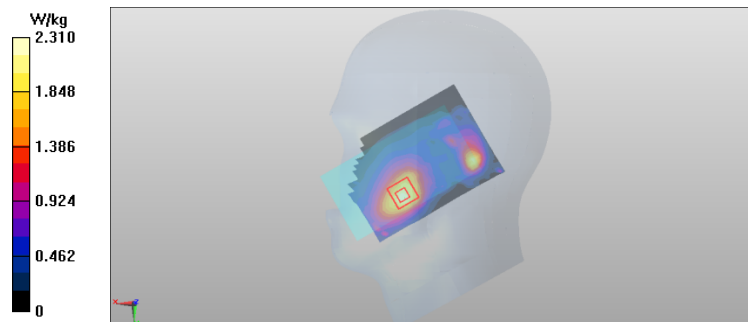
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.4 W/kg; SAR(10 g) = 0.908 W/kg

Maximum value of SAR (interpolated) = 2.31 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE1700/2100 (Band 4) with factor 1.12, CDMA800** with factor 1.12, before combining in SEMCAD SW



Plot #156 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 09:28:06

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-13 08:04:24

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle - QPSK - 20MHz - 50%RB - 0% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.334$ S/m; $\epsilon_r = 39.129$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-17 19:46:16

DASY Configuration for CDMA1900 - Left/Cheek - High/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.401$ S/m; $\epsilon_r = 38.96$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

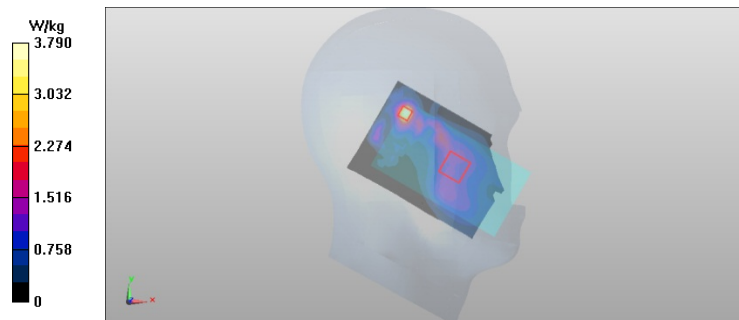
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.622 W/kg

Maximum value of SAR (interpolated) = 3.79 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE1700/2100 (Band 4) with factor 1.40, CDMA1900** with factor 1.12, before combining in SEMCAD SW



Plot #157 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 17:59:58

DASY Configuration for WLAN5000 a-mode - Left/Tilt - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-17 21:22:27

DASY Configuration for LTE1700/2100 (Band 4) - Left/Tilt - Middle - QPSK - 20MHz - 50% RB - 0% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.326$ S/m; $\epsilon_r = 38.685$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-28 15:40:08

DASY Configuration for CDMA1900 - Left/Tilt - Middle/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.402$ S/m; $\epsilon_r = 39.845$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

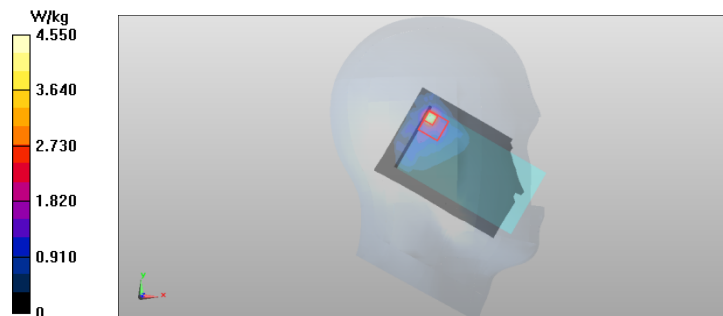
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.32 W/kg; SAR(10 g) = 0.484 W/kg

Maximum value of SAR (interpolated) = 4.55 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE1700/2100 (Band 4) with factor 1.40, CDMA1900** with factor 1.12, before combining in SEMCAD SW



Plot #158 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 13:48:12

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.103$ S/m; $\epsilon_r = 34.611$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-01-18 02:16:53

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - Low - QPSK - 20MHz - 1 RB - 0% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4); Frequency: 1720 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1720$ MHz; $\sigma = 1.312$ S/m; $\epsilon_r = 39.026$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-29 07:18:37

DASY Configuration for CDMA1900 - Right/Cheek - Middle/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ S/m; $\epsilon_r = 39.914$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

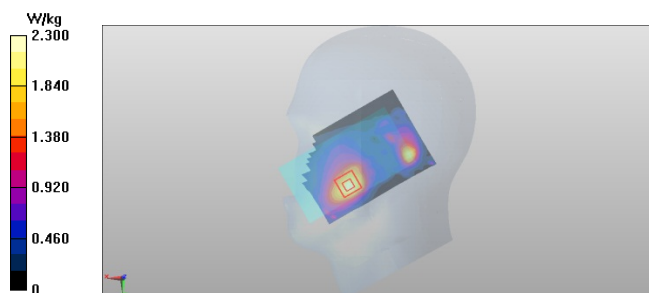
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.4 W/kg; SAR(10 g) = 0.884 W/kg

Maximum value of SAR (interpolated) = 2.30 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE1700/2100 (Band 4) with factor 1.12, CDMA1900** with factor 1.12, before combining in SEMCAD SW



Plot #159 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 09:28:06

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-01-19 02:08:20

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle - QPSK - 20MHz - 1 RB - 0% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.343$ S/m; $\epsilon_r = 38.613$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-23 06:45:55

DASY Configuration for CDMA800 - Left/Cheek - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 42.244$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

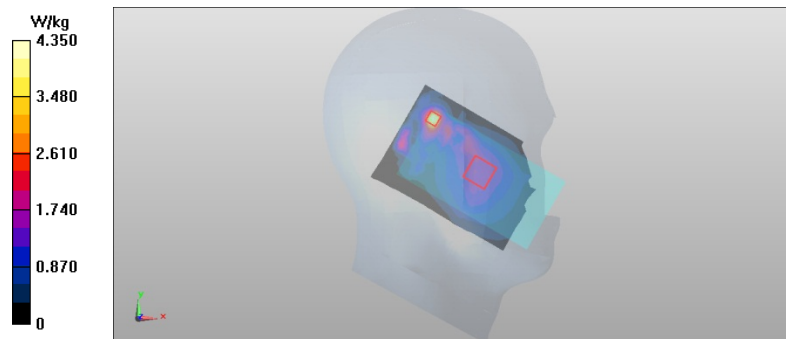
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.813 W/kg

Maximum value of SAR (interpolated) = 4.35 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE1700/2100 (Band 4)** with factor 1.12, CDMA800 with factor 1.12, before combining in SEMCAD SW



Plot #160 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 17:59:58

DASY Configuration for WLAN5000 a-mode - Left/Tilt - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-13 15:16:17

DASY Configuration for LTE1700/2100 (Band 4) - Left/Tilt - Middle - QPSK - 20MHz - 50%RB - 0% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.334$ S/m; $\epsilon_r = 39.129$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-24 07:18:31

DASY Configuration for CDMA800 - Left/Tilt - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.888$ S/m; $\epsilon_r = 42.032$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

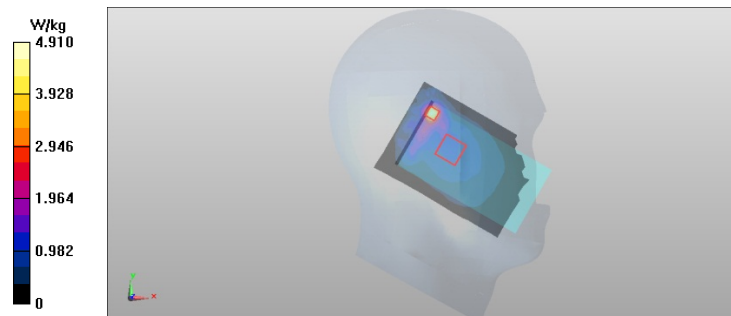
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.36 W/kg; SAR(10 g) = 0.527 W/kg

Maximum value of SAR (interpolated) = 4.91 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE1700/2100 (Band 4)** with factor 1.36, CDMA800 with factor 1.12, before combining in SEMCAD SW



Plot #161 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 13:48:12

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.103$ S/m; $\epsilon_r = 34.611$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-13 21:57:42

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - Middle - QPSK - 20MHz - 50%RB - 100% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.334$ S/m; $\epsilon_r = 39.129$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-24 19:49:26

DASY Configuration for CDMA800 - Right/Cheek - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.888$ S/m; $\epsilon_r = 42.032$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(6.27, 6.27, 6.27); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 2 11/29/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

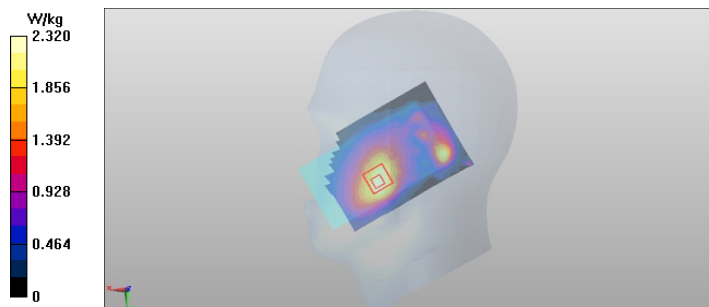
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.33 W/kg; SAR(10 g) = 0.918 W/kg

Maximum value of SAR (interpolated) = 2.32 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE1700/2100 (Band 4)** with factor 1.36, CDMA800 with factor 1.12, before combining in SEMCAD SW



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Plot #162 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 09:28:06

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-01-19 02:08:20

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - Middle - QPSK - 20MHz - 1 RB - 0% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.343$ S/m; $\epsilon_r = 38.613$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-17 11:03:38

DASY Configuration for CDMA1900 - Left/Cheek - High/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1908.75 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1909$ MHz; $\sigma = 1.401$ S/m; $\epsilon_r = 38.96$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

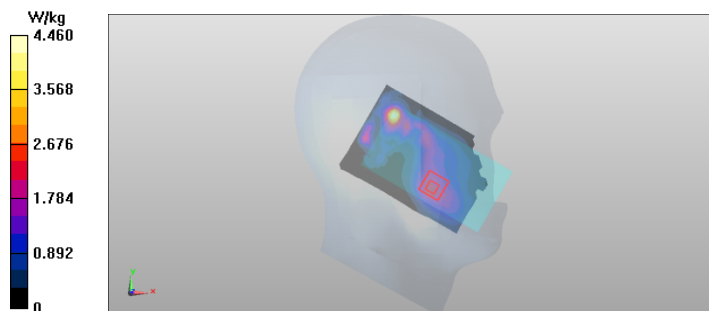
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.27 W/kg; SAR(10 g) = 0.811 W/kg

Maximum value of SAR (interpolated) = 4.46 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE1700/2100 (Band 4)** with factor 1.12, CDMA1900 with factor 1.12, before combining in SEMCAD SW



Plot #163 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-12 17:59:58

DASY Configuration for WLAN5000 a-mode - Left/Tilt - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.151$ S/m; $\epsilon_r = 34.739$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-13 15:16:17

DASY Configuration for LTE1700/2100 (Band 4) - Left/Tilt - Middle - QPSK - 20MHz - 50%RB - 0% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.334$ S/m; $\epsilon_r = 39.129$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-28 08:26:01

DASY Configuration for CDMA1900 - Left/Tilt - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.402$ S/m; $\epsilon_r = 39.845$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

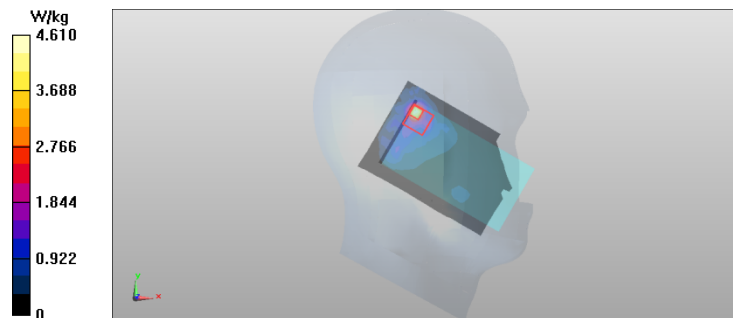
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.3 W/kg; SAR(10 g) = 0.441 W/kg

Maximum value of SAR (interpolated) = 4.61 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE1700/2100 (Band 4)** with factor 1.36, CDMA1900 with factor 1.12, before combining in SEMCAD SW



Plot #164 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 13:48:12

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 161 - OFDM 6 Mbps/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 5.103$ S/m; $\epsilon_r = 34.611$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3835; ConvF(4.07, 4.07, 4.07); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-02-13 21:57:42

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - Middle - QPSK - 20MHz - 50%RB - 100% offset/Volume Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100 (Band 4); Frequency: 1732.5 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.334$ S/m; $\epsilon_r = 39.129$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-18 21:45:23

DASY Configuration for CDMA1900 - Right/Cheek - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.427$ S/m; $\epsilon_r = 38.859$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3112; ConvF(5.35, 5.35, 5.35); Calibrated: 2012-02-13;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 2012-08-15

Phantom: SAM 4 03-12-2012; Type: QD000P40CD; Serial: TP1630

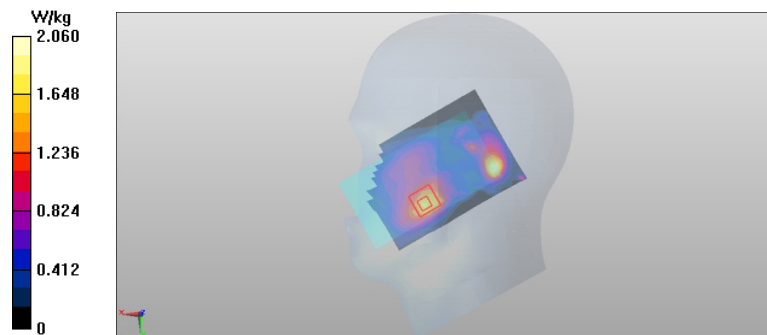
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 0.944 W/kg; SAR(10 g) = 0.597 W/kg

Maximum value of SAR (interpolated) = 2.06 W/kg

WLAN5000 a-mode was scaled with factor 1.28, LTE1700/2100 (Band 4)** with factor 1.36, CDMA1900 with factor 1.12, before combining in SEMCAD SW



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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B.2.2 Body-worn measurement scans for SVLTE mode

Plot #165

Date/Time: 2013-01-10 09:20:08

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE13

Frequency: 782 MHz; Duty Cycle: 1:1

Medium: MSL750; Medium Notes: T=21.3C

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 55.825$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(9.31, 9.31, 9.31); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.6 (6824)

LTE13/Body - Middle - QPSK - 10MHz - 1% RB - 0% offset - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (81x121x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.260 W/kg

LTE13/Body - Middle - QPSK - 10MHz - 1% RB - 0% offset - Spacer 15mm - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.756 V/m

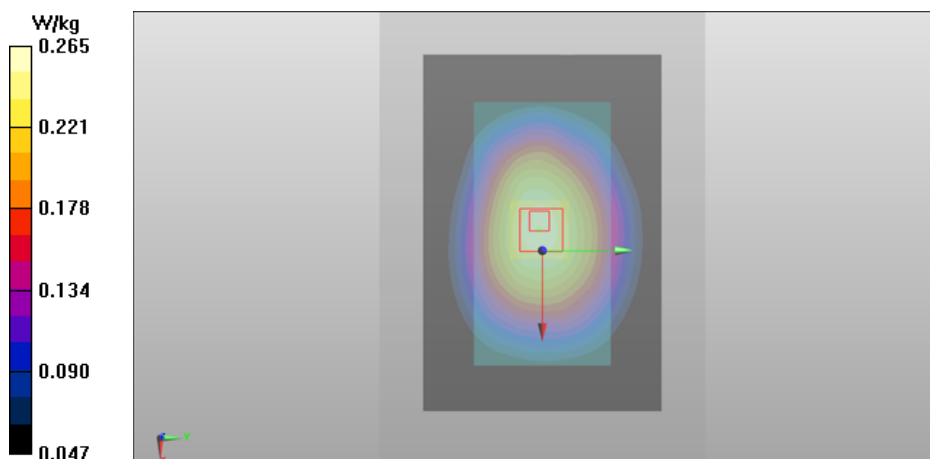
Peak SAR (extrapolated) = 0.319 mW/g

SAR(1 g) = 0.250 mW/g

SAR(10 g) = 0.192 mW/g

Power Drift = -0.13 dB

Maximum value of SAR (measured) = 0.265 W/kg



Plot #166

Date/Time: 2013-01-16 10:57:21

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800

Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes: T = 21.4 C

Medium parameters used: $f = 825$ MHz; $\sigma = 0.989$ mho/m; $\epsilon_r = 55.563$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.6 (6824)

CDMA800/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (81x121x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.260 W/kg

CDMA800/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.086 V/m

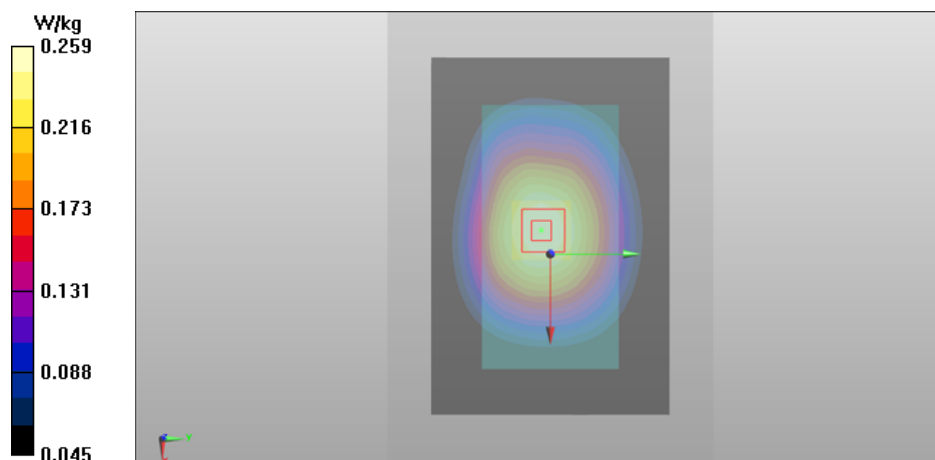
Peak SAR (extrapolated) = 0.311 mW/g

SAR(1 g) = 0.247 mW/g

SAR(10 g) = 0.189 mW/g

Power Drift = 0.05 dB

Maximum value of SAR (measured) = 0.259 W/kg



Plot #167

Date/Time: 2013-02-11 07:49:22

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE4

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: MSL1750; Medium Notes: T=22.3C

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.457$ S/m; $\epsilon_r = 51.682$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE4/Body - High - QPSK - 20MHz - 50%RB - 100% offset - Spacer 15mm - No Accessory - Back Facing

Phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.365 W/kg

LTE4/Body - High - QPSK - 20MHz - 50%RB - 100% offset - Spacer 15mm - No Accessory - Back Facing

Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.665 V/m

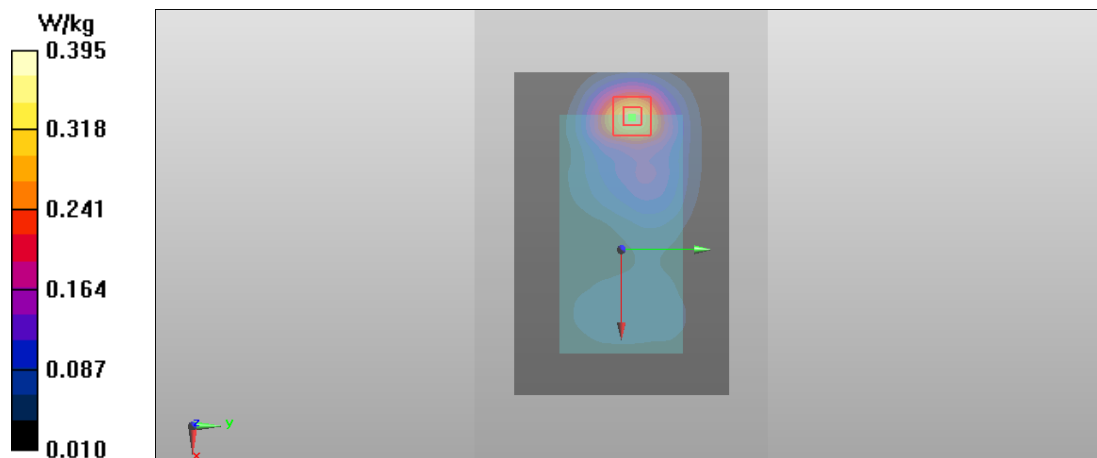
Peak SAR (extrapolated) = 0.567 W/kg

SAR(1 g) = 0.341 W/kg

SAR(10 g) = 0.195 W/kg

Power Drift = 0.00 dB

Maximum value of SAR (measured) = 0.395 W/kg



Plot #168

Date/Time: 2013-01-08 23:41:44

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900

Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T=21.6C

Medium parameters used (interpolated): $f = 1851.25$ MHz; $\sigma = 1.466$ mho/m; $\epsilon_r = 51.706$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.6 (6824)

CDMA1900/Body - Low - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan (81x121x1): Interpolated
grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.315 W/kg

CDMA1900/Body - Low - Spacer 15mm - WH-902 - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.874 V/m

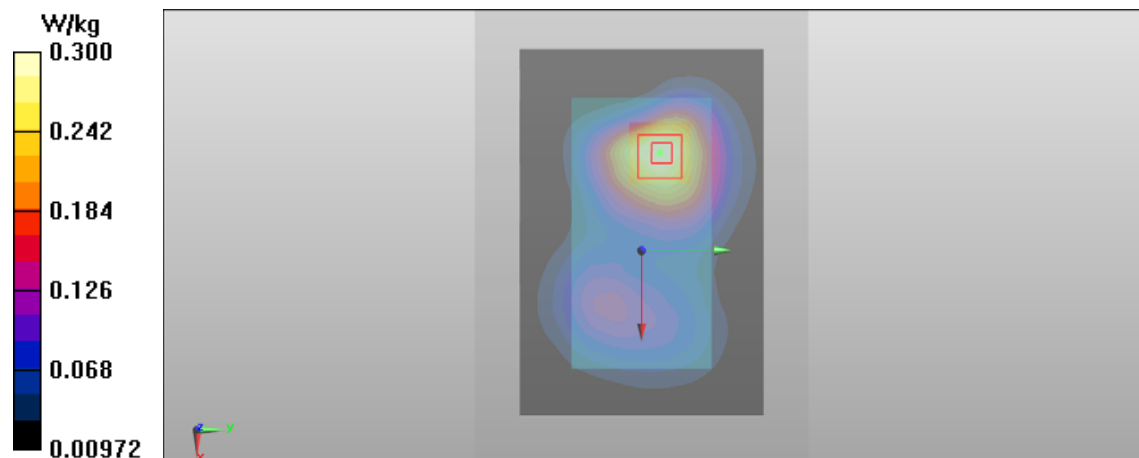
Peak SAR (extrapolated) = 0.408 mW/g

SAR(1 g) = 0.279 mW/g

SAR(10 g) = 0.182 mW/g

Power Drift = 0.08 dB

Maximum value of SAR (measured) = 0.300 W/kg



Plot #169 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-29 06:09:16

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4)

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: MSL1750; Medium Notes: T=21.5C 1/28/2013 10:29:43 PM

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.464$ S/m; $\epsilon_r = 51.371$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - No Accessory - Back Facing Phantom/Volume Scan (19x43x12): Measurement grid: dx=4mm, dy=4mm, dz=2mm

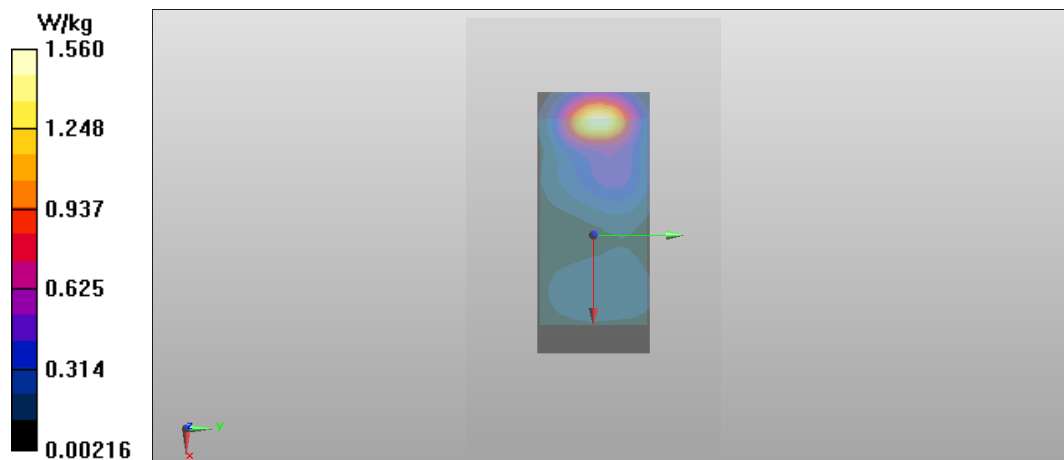
Reference Value = 7.743 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.80 W/kg

SAR(1 g) = 1.2 W/kg; SAR(10 g) = 0.700 W/kg

Total Absorbed Power = 0.0415 W

Maximum value of SAR (measured) = 1.56 W/kg



Plot #170 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-29 20:23:15

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4)

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: MSL1750; Medium Notes: T=20.8C

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.477$ S/m; $\epsilon_r = 51.985$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - WH-902 - Back Facing Phantom/Volume Scan (19x43x12): Measurement grid: dx=4mm, dy=4mm, dz=2mm

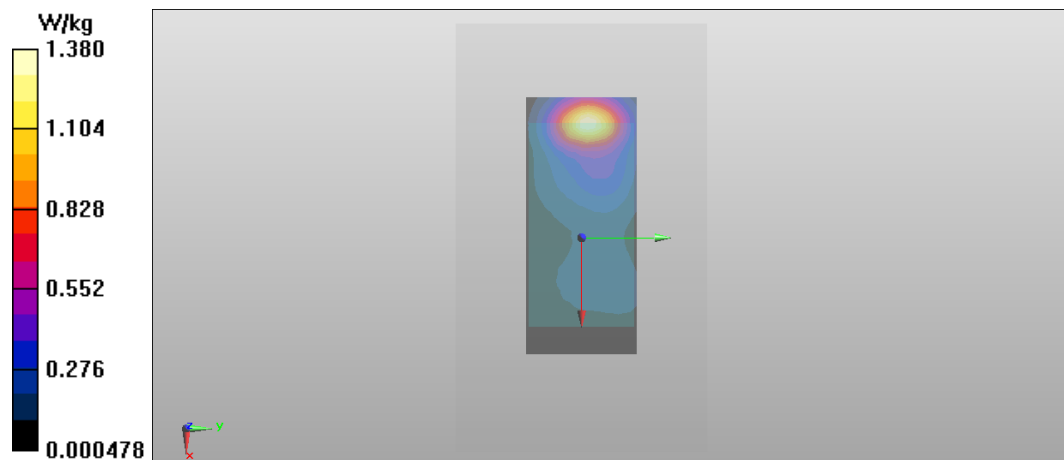
Reference Value = 8.851 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.58 W/kg

SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.625 W/kg

Total Absorbed Power = 0.0356 W

Maximum value of SAR (measured) = 1.38 W/kg



Plot #171 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-31 11:11:23

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T=22.2C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.476$ S/m; $\epsilon_r = 51.287$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 20kii12-07-26
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA1900/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Volume Scan (19x43x12):

Measurement grid: dx=4mm, dy=4mm, dz=2mm

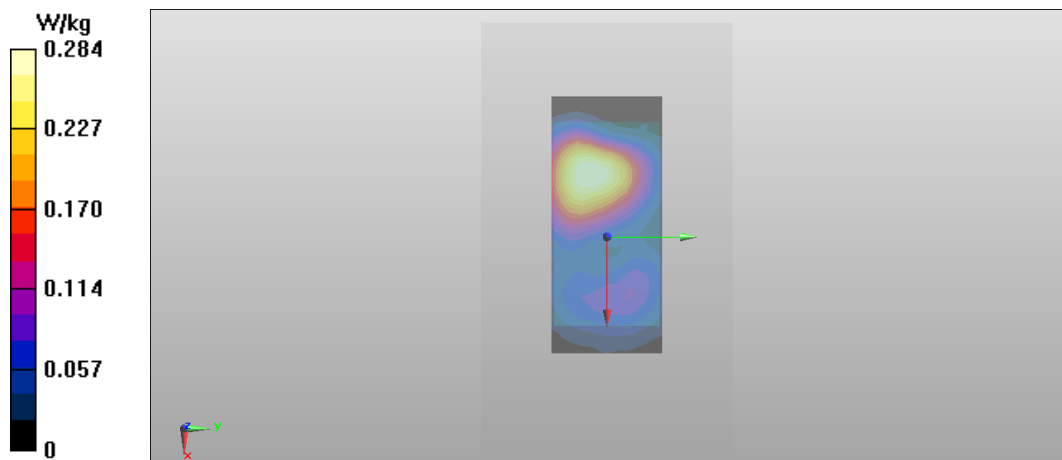
Reference Value = 6.167 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.324 W/kg

SAR(1 g) = 0.227 W/kg; SAR(10 g) = 0.148 W/kg

Total Absorbed Power = 0.0126 W

Maximum value of SAR (measured) = 0.284 W/kg



Plot #172 - EXPANDED VOLUME SCAN

Date/Time: 2013-01-31 17:56:28

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T=22.2C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.476$ S/m; $\epsilon_r = 51.287$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.8 (7028)

CDMA1900/Body - Middle - Spacer 15mm -WH-902 - Back Facing Phantom/Volume Scan (19x43x12):

Measurement grid: dx=4mm, dy=4mm, dz=2mm

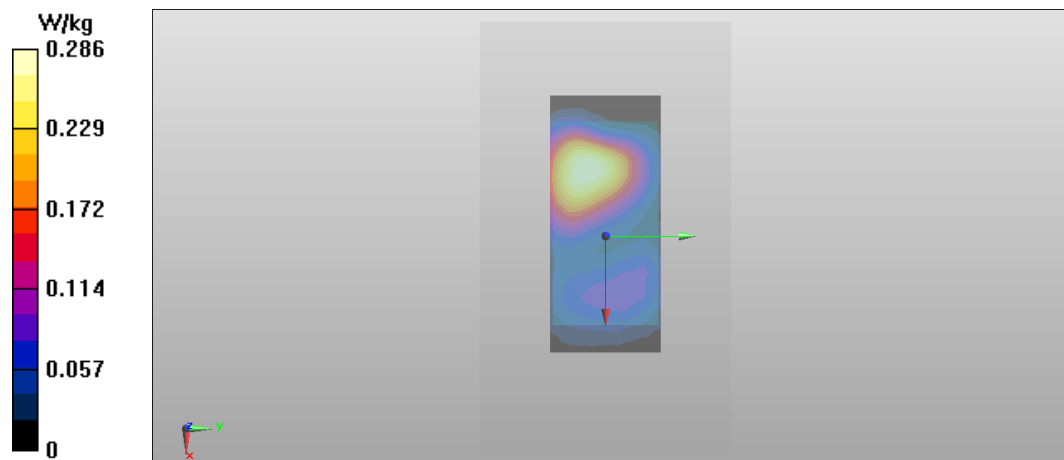
Reference Value = 5.959 V/m; Power Drift = -0.30 dB

Peak SAR (extrapolated) = 0.328 W/kg

SAR(1 g) = 0.228 W/kg; SAR(10 g) = 0.148 W/kg

Total Absorbed Power = 0.0124 W

Maximum value of SAR (measured) = 0.286 W/kg



Plot #173 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-08 07:00:32

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: t= 20.8 C

Medium parameters used: f = 2437 MHz; $\sigma = 1.959$ S/m; $\epsilon_r = 50.647$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(4.11, 4.11, 4.11); Calibrated: 2012-08-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2012-08-21
- Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.8 (7028)

WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 15mm - No Accessory - Back Facing

Phantom/Volume Scan (19x43x12): Measurement grid: dx=4mm, dy=4mm, dz=2mm

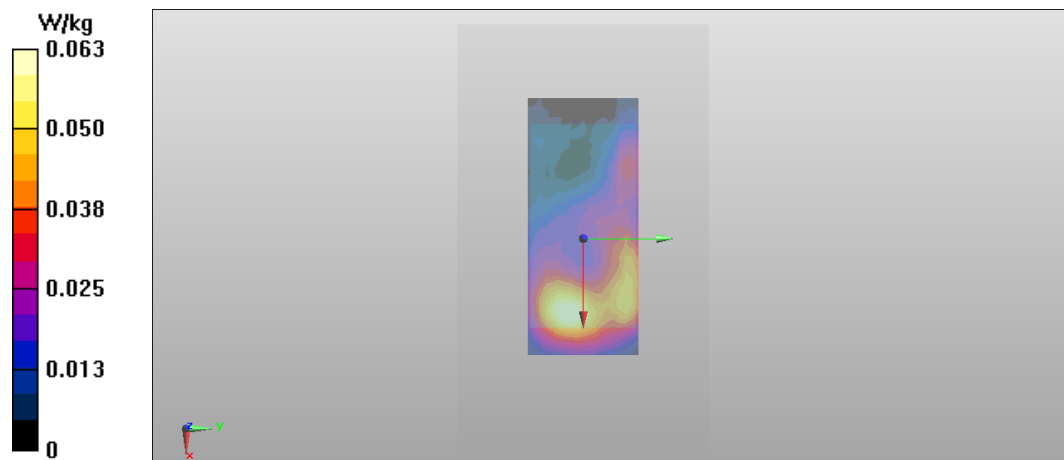
Reference Value = 5.787 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.0860 W/kg

SAR(1 g) = 0.045 W/kg; SAR(10 g) = 0.025 W/kg

Total Absorbed Power = 0.00241 W

Maximum value of SAR (measured) = 0.0628 W/kg



Plot #174 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 21:37:20

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000819/9

Communication System: WLAN5000 a-mode

Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: t= 20.5 C

Medium parameters used: f = 5600 MHz; $\sigma = 5.989$ S/m; $\epsilon_r = 46.892$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3835
- ConvF(3.34, 3.34, 3.34); Calibrated: 2012-02-07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1316; Calibrated: 2012-02-15
- Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.8 (7028)

WLAN5000 a-mode/Body - Channel 120 - OFDM 6 Mbps - Spacer 15mm - No Accessory - Back Facing

Phantom/Volume Scan (19x43x12): Measurement grid: dx=4mm, dy=4mm, dz=2mm

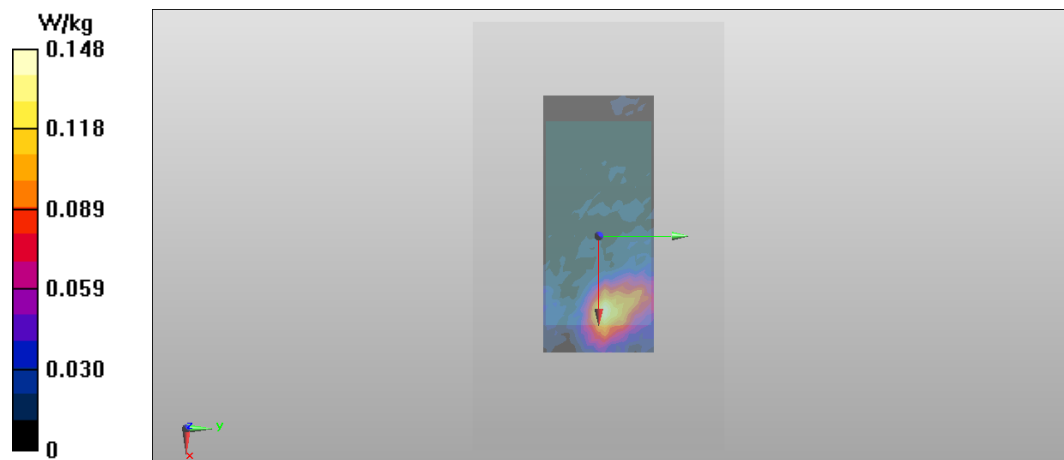
Reference Value = 4.572 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 0.633 W/kg

SAR(1 g) = 0.073 W/kg; SAR(10 g) = 0.027 W/kg

Total Absorbed Power = 0.000906 W

Maximum value of SAR (measured) = 0.148 W/kg



Plot #175 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-14 17:09:35

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000819/9

Communication System: WLAN5000 a-mode

Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: t= 20.5 C

Medium parameters used: f = 5600 MHz; σ = 5.989 S/m; ϵ_r = 46.892; ρ = 1000 kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3835
- ConvF(3.34, 3.34, 3.34); Calibrated: 2012-02-07;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1316; Calibrated: 2012-02-15
- Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.8 (7028)

WLAN5000 a-mode/Body - Channel 120 - OFDM 6 Mbps - Spacer 15mm - WH-902 - Back Facing

Phantom/Volume Scan (19x43x12): Measurement grid: dx=4mm, dy=4mm, dz=2mm

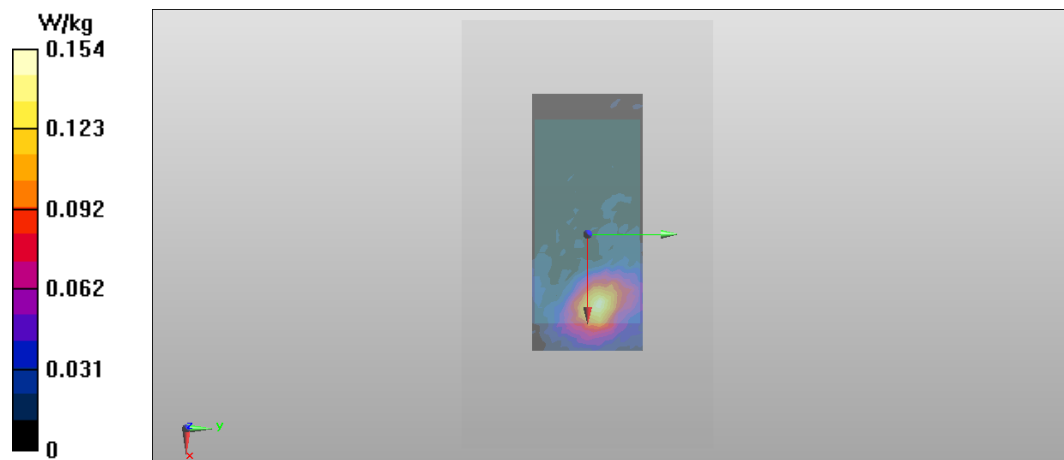
Reference Value = 4.247 V/m; Power Drift = -0.44 dB

Peak SAR (extrapolated) = 0.615 W/kg

SAR(1 g) = 0.069 W/kg; SAR(10 g) = 0.026 W/kg

Total Absorbed Power = 0.000911 W

Maximum value of SAR (measured) = 0.154 W/kg



Plot #176

Date/Time: 2012-12-27 15:01:33

DASY Configuration for LTE750 (Band 13)/ Body - Middle - Spacer 15mm - No Accessory - Display Facing

Phantom QPSK-10MHz - 1%RB - 0%offset/Area Scan:

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE13; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.965$ mho/m; $\epsilon_r = 54.681$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.31, 9.31, 9.31); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-16 10:57:21

DASY Configuration for CDMA800/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:**

Test Laboratory: Nokia

Type: RM-860; Serial: 354106050008207

Communication System: CDMA800; Frequency: 824.7 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used: $f = 825$ MHz; $\sigma = 0.989$ mho/m; $\epsilon_r = 55.563$; $\rho = 1000$ kg/m³

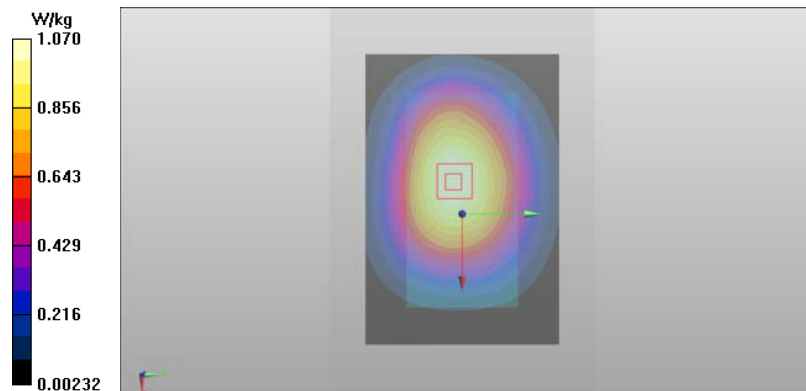
Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.732 mW/g

Maximum value of SAR (interpolated) = 1.07 W/kg

Note: LTE750 result was scaled up by factor 1.12 and CDMA800** result by factor 1.12 before combining.



Plot #177

Date/Time: 2012-12-27 15:01:33

DASY Configuration for LTE750 (Band 13)/ Body - Middle - Spacer 15mm - No Accessory - Display Facing

Phantom QPSK-10MHz - 1%RB - 0%offset/Area Scan:

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE13; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.965 \text{ mho/m}$; $\epsilon_r = 54.681$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.31, 9.31, 9.31); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-08 23:29:01

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - No Accessory - Display Facing**

Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.493 \text{ mho/m}$; $\epsilon_r = 51.616$; $\rho = 1000 \text{ kg/m}^3$

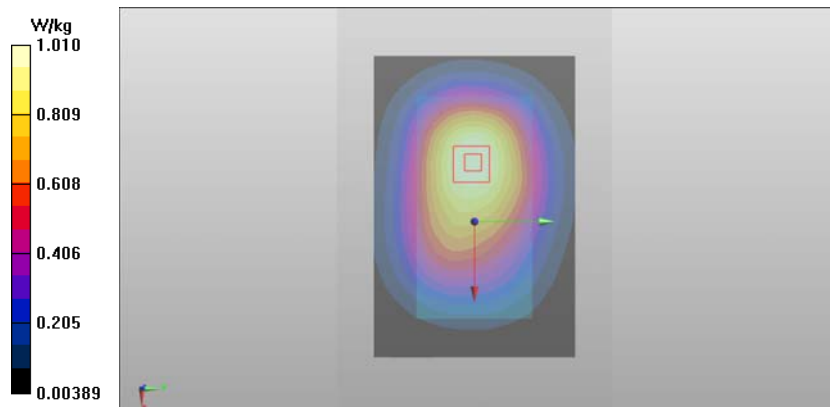
Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.953 mW/g; SAR(10 g) = 0.667 mW/g

Maximum value of SAR (interpolated) = 1.01 W/kg

Note: LTE750 result was scaled up by factor 1.12 and CDMA1900** result by factor 1.12 before combining.



Plot #178

Date/Time: 2013-01-10 09:07:03

DASY Configuration for LTE750 (Band 13)/ Body - Middle - QPSK - 10MHz - 1% RB - 100% offset - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:**

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE13; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 55.825$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.31, 9.31, 9.31); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-16 12:08:18

DASY Configuration for CDMA800/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 824.7 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used: $f = 825 \text{ MHz}$; $\sigma = 0.989 \text{ mho/m}$; $\epsilon_r = 55.563$; $\rho = 1000 \text{ kg/m}^3$

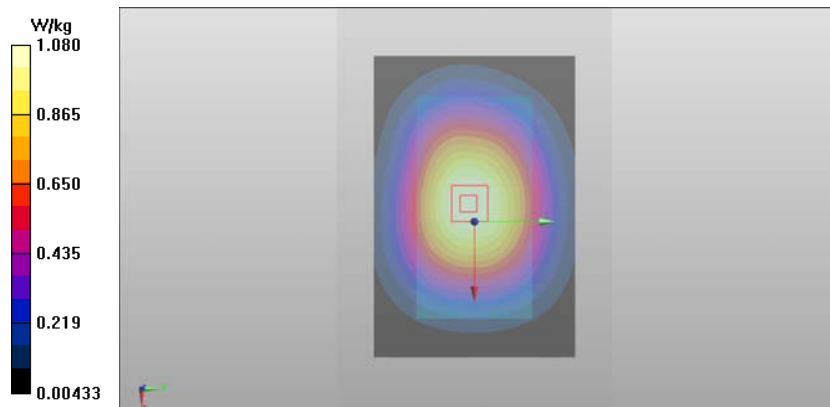
Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.744 mW/g

Maximum value of SAR (interpolated) = 1.08 W/kg

Note: LTE750** result was scaled up by factor 1.12 and CDMA800 result by factor 1.12 before combining.



Plot #179

Date/Time: 2013-01-10 09:20:08

DASY Configuration for LTE750 (Band 13)/ Body - Middle - QPSK - 10MHz - 1% RB - 0% offset - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:**

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE13; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 55.825$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.31, 9.31, 9.31); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-04 14:30:49

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.534 \text{ mho/m}$; $\epsilon_r = 51.963$; $\rho = 1000 \text{ kg/m}^3$

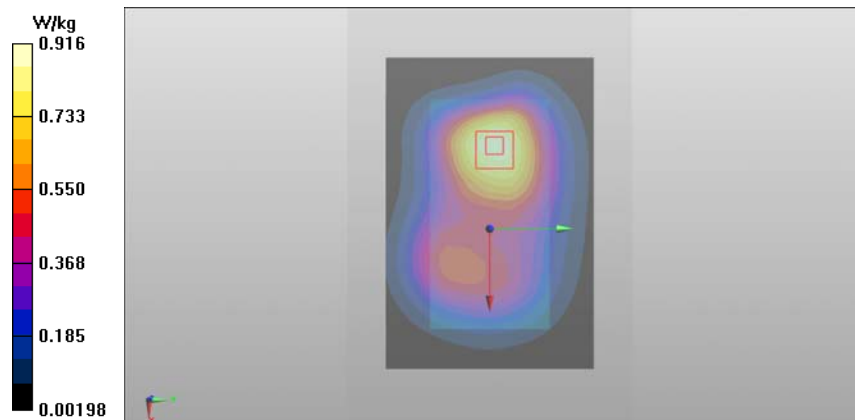
Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.848 mW/g; SAR(10 g) = 0.542 mW/g

Maximum value of SAR (interpolated) = 0.916 W/kg

Note: LTE750** result was scaled up by factor 1.12 and CDMA1900 result by factor 1.12 before combining.



Plot #180

Date/Time: 2013-01-10 14:47:02

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1%RB - 50% offset - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE4; Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.463$ mho/m; $\epsilon_r = 51.413$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-16 10:00:50

DASY Configuration for CDMA800/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:**

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.995$ mho/m; $\epsilon_r = 55.468$; $\rho = 1000$ kg/m³

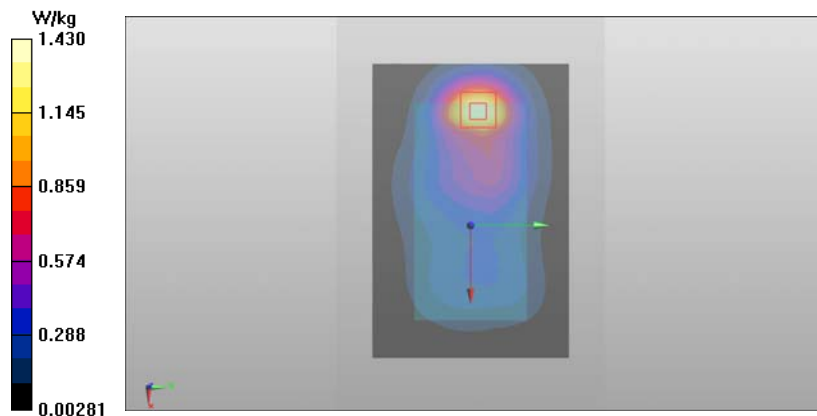
Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.3 mW/g; SAR(10 g) = 0.752 mW/g

Maximum value of SAR (interpolated) = 1.43 W/kg

Note: LTE1700/2100 result was scaled up by factor 1.12 and CDMA800** result by factor 1.12 before combining.



Plot #181

Date/Time: 2013-01-10 14:47:02

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1%RB - 50% offset - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100; Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.463$ mho/m; $\epsilon_r = 51.413$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-08 22:43:58

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:**

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.493$ mho/m; $\epsilon_r = 51.616$; $\rho = 1000$ kg/m³

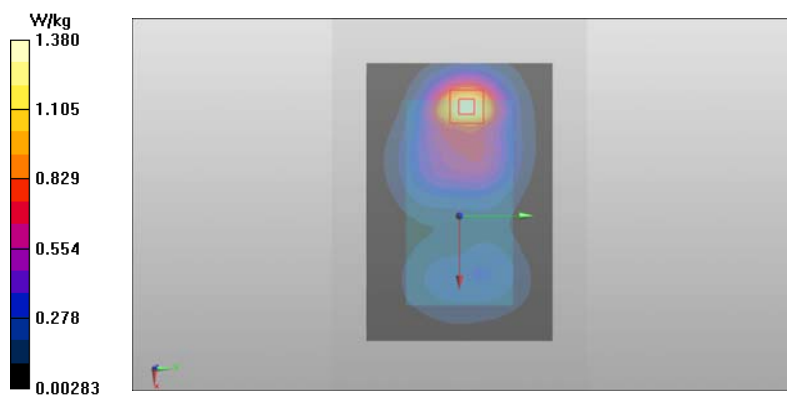
Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.25 mW/g; SAR(10 g) = 0.717 mW/g

Maximum value of SAR (interpolated) = 1.38 W/kg

Note: LTE1700/2100 result was scaled up by factor 1.12 and CDMA1900** result by factor 1.12 before combining.



Plot #182

Date/Time: 2013-02-11 11:27:00

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 50%RB - 0% offset - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:**

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE4; Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.457$ S/m; $\epsilon_r = 51.682$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-16 12:08:18

DASY Configuration for CDMA800/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 824.7 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used: $f = 825$ MHz; $\sigma = 0.989$ S/m; $\epsilon_r = 55.563$; $\rho = 1000$ kg/m³

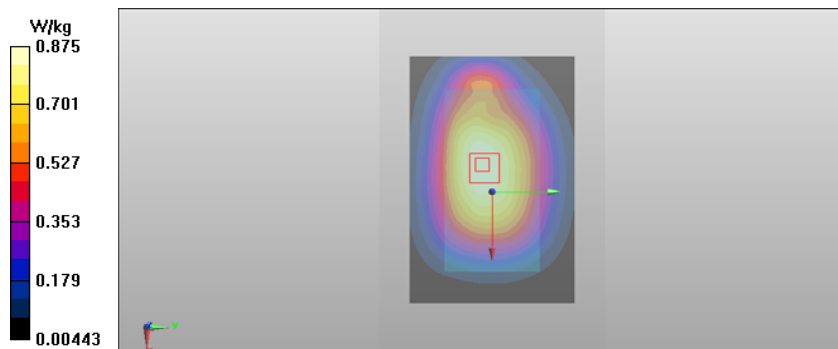
Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.829 W/kg; SAR(10 g) = 0.592 W/kg

Maximum value of SAR (interpolated) = 0.875 W/kg

Note: LTE1700/2100** result was scaled up by factor 1.35 and CDMA800 result by factor 1.12 before combining.



Plot #183

Date/Time: 2013-02-11 11:41:04

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 50%RB - 0% offset - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:**

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE4; Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.457$ S/m; $\epsilon_r = 51.682$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-04 14:42:51

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.534$ S/m; $\epsilon_r = 51.963$; $\rho = 1000$ kg/m³

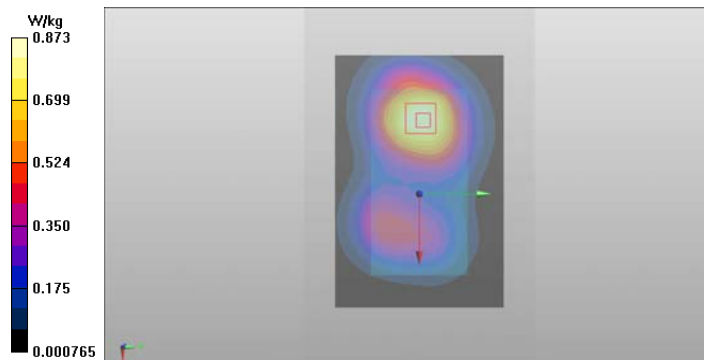
Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.809 W/kg; SAR(10 g) = 0.507 W/kg

Maximum value of SAR (interpolated) = 0.873 W/kg

Note: LTE1700/2100** result was scaled up by factor 1.35 and CDMA1900 result by factor 1.12 before combining.



Plot #184

Date/Time: 2012-12-27 15:01:33

DASY Configuration for LTE750 (Band 13)/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom QPSK-10MHz - 1%RB - 0%offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.965$ S/m; $\epsilon_r = 54.681$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.31, 9.31, 9.31); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-16 10:57:21

DASY Configuration for CDMA800/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 824.7 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used: $f = 825$ MHz; $\sigma = 0.989$ S/m; $\epsilon_r = 55.563$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-04 03:26:57

DASY Configuration for WLAN2450 b-mode/Body - Channel 11 - DSSS 1 Mbps - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.988$ S/m; $\epsilon_r = 51.18$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3131; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

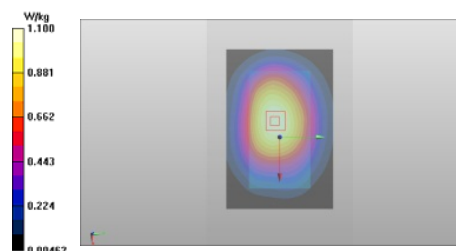
Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA; Serial: Not Specified

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.749 W/kg

Maximum value of SAR (interpolated) = 1.10 W/kg

Note: LTE750 result was scaled up by factor 1.12, CDMA800** result by factor 1.12 and WLAN2450 by factor 1.26 before combining.



Plot #185

SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Date/Time: 2012-12-27 15:01:33

DASY Configuration for LTE750 (Band 13)/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom QPSK-10MHz - 1%RB - 0%offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.965$ S/m; $\epsilon_r = 54.681$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.31, 9.31, 9.31); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-08 23:29:01

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.493$ S/m; $\epsilon_r = 51.616$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-04 03:26:57

DASY Configuration for WLAN2450 b-mode/Body - Channel 11 - DSSS 1 Mbps - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.988$ S/m; $\epsilon_r = 51.18$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3131; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA; Serial: Not Specified

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 0.967 W/kg; SAR(10 g) = 0.676 W/kg

Maximum value of SAR (interpolated) = 1.02 W/kg

Note: LTE750 result was scaled up by factor 1.12, CDMA1900** result by factor 1.12 and WLAN2450 by factor 1.26 before combining.



Plot #186

SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

Copyright © 2013 TCC Nokia

Date/Time: 2013-01-10 09:20:08

DASY Configuration for LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1% RB - 0% offset - Spacer 15mm - No**

Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.825$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.31, 9.31, 9.31); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-16 12:08:18

DASY Configuration for CDMA800/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 824.7 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used: $f = 825$ MHz; $\sigma = 0.989$ S/m; $\epsilon_r = 55.563$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-04 03:26:57

DASY Configuration for WLAN2450 b-mode/Body - Channel 11 - DSSS 1 Mbps - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.988$ S/m; $\epsilon_r = 51.18$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3131; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA; Serial: Not Specified

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.765 W/kg

Maximum value of SAR (interpolated) = 1.12 W/kg

Note: LTE750** result was scaled up by factor 1.12, CDMA800 result by factor 1.12 and WLAN2450 by factor 1.26 before combining.



Plot #187

Date/Time: 2013-01-10 09:20:08

DASY Configuration for LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1% RB - 0% offset - Spacer 15mm - No**

Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.96 \text{ S/m}$; $\epsilon_r = 55.825$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.31, 9.31, 9.31); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-04 14:30:49

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.534 \text{ S/m}$; $\epsilon_r = 51.963$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-04 03:26:57

DASY Configuration for WLAN2450 b-mode/Body - Channel 11 - DSSS 1 Mbps - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.988 \text{ S/m}$; $\epsilon_r = 51.18$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: ES3DV3 - SN3131; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA; Serial: Not Specified

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 0.859 W/kg; SAR(10 g) = 0.549 W/kg

Maximum value of SAR (interpolated) = 1.12 W/kg

Note: LTE750** result was scaled up by factor 1.12, CDMA1900 result by factor 1.12 and WLAN2450 by factor 1.26 before combining.



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Plot #188

Date/Time: 2013-01-10 14:47:02

DASY Configuration for LTE1700/2100 (Band 4)//Body - High - QPSK - 20MHz - 1%RB - 50% offset - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100; Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.463$ S/m; $\epsilon_r = 51.413$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-16 10:00:50

DASY Configuration for CDMA800/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.995$ S/m; $\epsilon_r = 55.468$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-03 21:14:01

DASY Configuration for WLAN2450 b-mode/Body - Channel 11 - DSSS 1 Mbps - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.958$ S/m; $\epsilon_r = 51.291$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3131; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

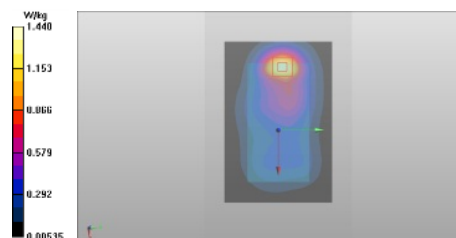
Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA; Serial: Not Specified

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 1.31 W/kg; SAR(10 g) = 0.756 W/kg

Maximum value of SAR (interpolated) = 1.44 W/kg

Note: LTE1700/2100 result was scaled up by factor 1.12, CDMA800** result by factor 1.12 and WLAN2450 by factor 1.42 before combining.



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Plot #189

Date/Time: 2013-01-10 14:47:02

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1%RB - 50% offset - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100; Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.463$ S/m; $\epsilon_r = 51.413$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-08 22:43:58

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.493$ S/m; $\epsilon_r = 51.616$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-03 21:14:01

DASY Configuration for WLAN2450 b-mode/Body - Channel 11 - DSSS 1 Mbps - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.958$ S/m; $\epsilon_r = 51.291$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3131; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

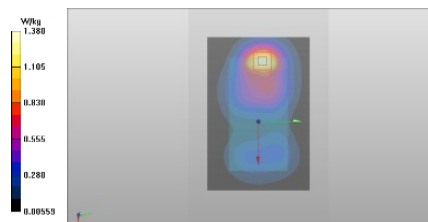
Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA; Serial: Not Specified

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 1.26 W/kg; SAR(10 g) = 0.721 W/kg

Maximum value of SAR (interpolated) = 1.38 W/kg

Note: LTE1700/2100 result was scaled up by factor 1.12, CDMA1900** result by factor 1.12 and WLAN2450 by factor 1.42 before combining.



Plot #190

Date/Time: 2013-02-11 11:27:00

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 50%RB - 0% offset - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100; Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.457$ S/m; $\epsilon_r = 51.682$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-16 12:08:18

DASY Configuration for CDMA800/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 824.7 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used: $f = 825$ MHz; $\sigma = 0.989$ S/m; $\epsilon_r = 55.563$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-04 03:26:57

DASY Configuration for WLAN2450 b-mode/Body - Channel 11 - DSSS 1 Mbps - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.988$ S/m; $\epsilon_r = 51.18$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3131; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA; Serial: Not Specified

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 0.859 W/kg; SAR(10 g) = 0.611 W/kg

Maximum value of SAR (interpolated) = 0.906 W/kg

Note: LTE1700/2100** result was scaled up by factor 1.35, CDMA800 result by factor 1.12 and WLAN2450 by factor 1.26 before combining.



Plot #191

Date/Time: 2013-02-11 11:41:04

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 50%RB - 0% offset - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100; Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.457$ S/m; $\epsilon_r = 51.682$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-04 14:42:51

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.534$ S/m; $\epsilon_r = 51.963$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-03 23:24:59

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.958$ S/m; $\epsilon_r = 51.291$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3131; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-08-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA; Serial: Not Specified

Measurement SW: DASY52, Version 52.8 (2)

Fast SAR of Combined Scans: SAR(1 g) = 0.820 W/kg; SAR(10 g) = 0.514 W/kg

Maximum value of SAR (interpolated) = 0.882 W/kg

Note: LTE1700/2100** result was scaled up by factor 1.35, CDMA1900 result by factor 1.12 and WLAN2450 by factor 1.42 before combining.



Plot #192

Date/Time: 2012-12-27 15:01:33

DASY Configuration for LTE750 (Band 13)/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom QPSK-10MHz - 1%RB - 0%offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.965$ S/m; $\epsilon_r = 54.681$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.31, 9.31, 9.31); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-16 10:57:21

DASY Configuration for CDMA800/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 824.7 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used: $f = 825$ MHz; $\sigma = 0.989$ S/m; $\epsilon_r = 55.563$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-08 14:23:43

DASY Configuration for WLAN5000 a-mode/Body - Channel 161 - OFDM 6Mbps - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 6.253$ S/m; $\epsilon_r = 46.064$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3835; ConvF(3.7, 3.7, 3.7); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.733 W/kg

Maximum value of SAR (interpolated) = 1.07 W/kg

Note: LTE750 result was scaled up by factor 1.12, CDMA800** result by factor 1.12 and WLAN5000 by factor 1.28 before combining.



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Plot #193

Date/Time: 2012-12-27 15:01:33

DASY Configuration for LTE750 (Band 13)/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom QPSK-10MHz - 1%RB - 0%offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000822/3

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.965$ S/m; $\epsilon_r = 54.681$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.31, 9.31, 9.31); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-08 23:29:01

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.493$ S/m; $\epsilon_r = 51.616$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-08 14:23:43

DASY Configuration for WLAN5000 a-mode/Body - Channel 161 - OFDM 6Mbps - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 6.253$ S/m; $\epsilon_r = 46.064$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3835; ConvF(3.7, 3.7, 3.7); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 0.956 W/kg; SAR(10 g) = 0.668 W/kg

Maximum value of SAR (interpolated) = 1.01 W/kg

Note: LTE750 result was scaled up by factor 1.12, CDMA1900** result by factor 1.12 and WLAN5000 by factor 1.28 before combining.



Plot #194

Date/Time: 2013-01-10 09:20:08

DASY Configuration for LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1% RB - 0% offset - Spacer 15mm - No**

Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.825$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.31, 9.31, 9.31); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-16 12:08:18

DASY Configuration for CDMA800/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 824.7 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used: $f = 825$ MHz; $\sigma = 0.989$ S/m; $\epsilon_r = 55.563$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-08 14:23:43

DASY Configuration for WLAN5000 a-mode/Body - Channel 161 - OFDM 6Mbps - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 6.253$ S/m; $\epsilon_r = 46.064$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3835; ConvF(3.7, 3.7, 3.7); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.746 W/kg

Maximum value of SAR (interpolated) = 1.09 W/kg

Note: LTE750** result was scaled up by factor 1.12, CDMA800 result by factor 1.12 and WLAN5000 by factor 1.28 before combining.



Plot #195

Date/Time: 2013-01-10 09:20:08

DASY Configuration for LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1% RB - 0% offset - Spacer 15mm - No**

Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE750; Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.825$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.31, 9.31, 9.31); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-04 14:30:49

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.534$ S/m; $\epsilon_r = 51.963$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-08 14:23:43

DASY Configuration for WLAN5000 a-mode/Body - Channel 161 - OFDM 6Mbps - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000737/1

Communication System: WLAN5000 a-mode; Frequency: 5805 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5805$ MHz; $\sigma = 6.253$ S/m; $\epsilon_r = 46.064$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3835; ConvF(3.7, 3.7, 3.7); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 0.856 W/kg; SAR(10 g) = 0.547 W/kg

Maximum value of SAR (interpolated) = 0.921 W/kg

Note: LTE750** result was scaled up by factor 1.12, CDMA1900 result by factor 1.12 and WLAN5000 by factor 1.28 before combining.



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Plot #196

Date/Time: 2013-01-10 14:47:02

DASY Configuration for LTE1700/2100 (Band 4)//Body - High - QPSK - 20MHz - 1%RB - 50% offset - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100; Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.463$ S/m; $\epsilon_r = 51.413$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-16 10:00:50

DASY Configuration for CDMA800/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.995$ S/m; $\epsilon_r = 55.468$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-08 05:54:38

DASY Configuration for WLAN5000 a-mode/Body - Channel 120 - OFDM 6Mbps - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000819/9

Communication System: WLAN5000 a-mode; Frequency: 5600 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.965$ S/m; $\epsilon_r = 46.42$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3835; ConvF(3.34, 3.34, 3.34); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 1.32 W/kg; SAR(10 g) = 0.763 W/kg

Maximum value of SAR (interpolated) = 1.48 W/kg

Note: LTE1700/2100 result was scaled up by factor 1.12, CDMA800** result by factor 1.12 and WLAN5000 by factor 1.34 before combining.



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Plot #197

Date/Time: 2013-01-10 14:47:02

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1%RB - 50% offset - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100; Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.463$ S/m; $\epsilon_r = 51.413$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-08 22:43:58

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:**

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.493$ S/m; $\epsilon_r = 51.616$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-08 05:54:38

DASY Configuration for WLAN5000 a-mode/Body - Channel 120 - OFDM 6Mbps - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000819/9

Communication System: WLAN5000 a-mode; Frequency: 5600 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.965$ S/m; $\epsilon_r = 46.42$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3835; ConvF(3.34, 3.34, 3.34); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 1.27 W/kg; SAR(10 g) = 0.728 W/kg

Maximum value of SAR (interpolated) = 1.43 W/kg

Note: LTE1700/2100 result was scaled up by factor 1.12, CDMA1900** result by factor 1.12 and WLAN5000 by factor 1.34 before combining.



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Plot #198

Date/Time: 2013-02-11 07:49:22

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 50%RB - 100% offset - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100; Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.457$ S/m; $\epsilon_r = 51.682$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-12-21 22:15:01

DASY Configuration for CDMA800/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000836/3

Communication System: CDMA800; Frequency: 836.52 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.975$ S/m; $\epsilon_r = 55.29$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(9.14, 9.14, 9.14); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-08 05:54:38

DASY Configuration for WLAN5000 a-mode/Body - Channel 120 - OFDM 6Mbps - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000819/9

Communication System: WLAN5000 a-mode; Frequency: 5600 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.965$ S/m; $\epsilon_r = 46.42$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3835; ConvF(3.34, 3.34, 3.34); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

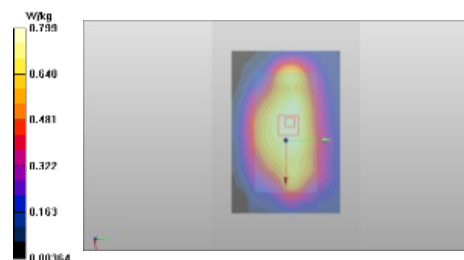
Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 0.722 W/kg; SAR(10 g) = 0.503 W/kg

Maximum value of SAR (interpolated) = 0.799 W/kg

Note: LTE1700/2100** result was scaled up by factor 1.36, CDMA800 result by factor 1.12 and WLAN5000 by factor 1.34 before combining.



Plot #199

Date/Time: 2013-02-11 07:49:22

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 50%RB - 100% offset - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:**

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: LTE1700/2100; Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.457$ S/m; $\epsilon_r = 51.682$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-04 13:49:35

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000899/1

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.534$ S/m; $\epsilon_r = 51.963$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-02-08 05:54:38

DASY Configuration for WLAN5000 a-mode/Body - Channel 120 - OFDM 6Mbps - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

DUT: Type: RM-860; Serial: 354106/05/000819/9

Communication System: WLAN5000 a-mode; Frequency: 5600 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.965$ S/m; $\epsilon_r = 46.42$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3835; ConvF(3.34, 3.34, 3.34); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA; Serial: xxxx

Measurement SW: DASY52, Version 52.8 (0)

Fast SAR of Combined Scans: SAR(1 g) = 0.643 W/kg; SAR(10 g) = 0.394 W/kg

Maximum value of SAR (interpolated) = 0.726 W/kg

Note: LTE1700/2100** result was scaled up by factor 1.36, CDMA1900 result by factor 1.12 and WLAN5000 by factor 1.34 before combining.



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Plot #200 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-08 07:00:32

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 15mm - No Accessory - Back Facing Phantom/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000891/8

Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.959$ S/m; $\epsilon_r = 50.647$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3131; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-08-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn728; Calibrated: 2012-08-21

Phantom: #2 Triple, SAR4; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (2)

Date/Time: 2013-01-29 06:09:16

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - No Accessory - Back Facing Phantom/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.464$ S/m; $\epsilon_r = 51.371$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-31 11:11:23

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.476$ S/m; $\epsilon_r = 51.287$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

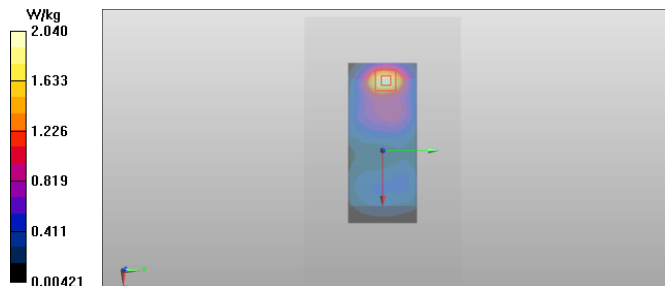
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.37 W/kg; SAR(10 g) = 0.808 W/kg

Maximum value of SAR (interpolated) = 2.04 W/kg

WLAN2450 b-mode was scaled with factor 1.42, LTE1700/2100 (Band 4) with factor 1.12, CDMA1900** with factor 1.12, before combining in SEMCAD SW



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Plot #201 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-13 21:37:20

DASY Configuration for WLAN5000 a-mode/Body - Channel 120 - OFDM 6 Mbps - Spacer 15mm - No Accessory - Back Facing Phantom/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000819/9

Communication System: WLAN5000 a-mode; Frequency: 5600 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL5000 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.989$ S/m; $\epsilon_r = 46.892$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3835; ConvF(3.34, 3.34, 3.34); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-01-29 06:09:16

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - No Accessory - Back Facing Phantom/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.464$ S/m; $\epsilon_r = 51.371$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-31 11:11:23

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.476$ S/m; $\epsilon_r = 51.287$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

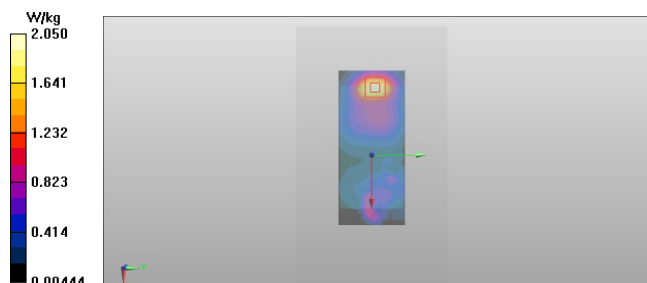
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.38 W/kg; SAR(10 g) = 0.811 W/kg

Maximum value of SAR (interpolated) = 2.05 W/kg

WLAN5000 a-mode was scaled with factor 1.34, LTE1700/2100 (Band 4) with factor 1.12, CDMA1900** with factor 1.12, before combining in SEMCAD SW



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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Plot #202 - EXPANDED VOLUME SCAN

Date/Time: 2013-02-14 17:09:35

DASY Configuration for WLAN5000 a-mode/Body - Channel 120 - OFDM 6 Mbps - Spacer 15mm - WH-902 - Back Facing Phantom/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000819/9

Communication System: WLAN5000 a-mode; Frequency: 5600 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL5000 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.989$ S/m; $\epsilon_r = 46.892$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3835; ConvF(3.34, 3.34, 3.34); Calibrated: 2012-02-07;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1316; Calibrated: 2012-02-15

Phantom: SAM 3 Triple Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (0)

Date/Time: 2013-01-29 20:23:15

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - WH-902 - Back Facing Phantom/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000818/1

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.477$ S/m; $\epsilon_r = 51.985$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.75, 7.75, 7.75); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-01-31 11:11:23

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm -WH-902 - Back Facing Phantom/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000820/7

Communication System: CDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.476$ S/m; $\epsilon_r = 51.287$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3852; ConvF(7.24, 7.24, 7.24); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2012-07-26

Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA;

Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.23 W/kg; SAR(10 g) = 0.730 W/kg

Maximum value of SAR (interpolated) = 1.79 W/kg

WLAN5000 a-mode was scaled with factor 1.34, LTE1700/2100 (Band 4) with factor 1.12, CDMA1900** with factor 1.12, before combining in SEMCAD SW



SAR Report

Appendix B.2 for FCC_RM-860_01

Applicant: Nokia Corporation

Type: RM-860

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APPENDIX C: DIELECTRIC PARAMETERS OF THE TISSUE SIMULANTS

Head tissue simulant dielectric parameters used in the measurements:

f (MHz)	Date	Dielectric Parameters					
		-		Ch 23230 782.0 MHz		-	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
782	2012-12-17	-	-	40.8	0.92	-	-
	2012-12-18	-	-	40.7	0.92	-	-
	2013-01-10	-	-	40.1	0.91	-	-
	2013-02-06	-	-	42.6	0.90	-	-
	2013-02-07	-	-	42.9	0.92	-	-
	2012-02-13	-	-	41.0	0.92	-	-
	2012-02-14	-	-	41.6	0.91	-	-
	2012-02-17	-	-	41.6	0.93	-	-
	2012-02-18	-	-	40.9	0.92	-	-
f (MHz)	Date	Dielectric Parameters					
		Ch 4132 826.4 MHz		Ch 4175 835.0 MHz		Ch 4233 846.6 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
835	2012-12-21	40.8	0.88	40.7	0.89	40.6	0.90
f (MHz)	Date	Dielectric Parameters					
		Ch 1013 824.7 MHz		Ch 384 836.5 MHz		Ch 777 848.3 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
836	2012-12-20	40.9	0.88	40.8	0.89	40.7	0.90
	2012-12-21	40.8	0.88	40.7	0.89	40.6	0.90
	2012-12-27	41.8	0.90	41.7	0.90	41.7	0.91
	2013-01-05	40.9	0.87	40.9	0.88	40.8	0.89
	2013-01-06	41.7	0.89	41.6	0.90	41.5	0.91
	2013-01-11	41.8	0.90	41.7	0.91	41.6	0.91
	2013-01-23	42.3	0.91	42.2	0.91	42.1	0.92
	2013-01-24	42.1	0.88	42.0	0.89	42.0	0.90
	2013-01-25	42.2	0.90	42.1	0.90	42.0	0.91
	2013-01-29	42.3	0.89	42.2	0.90	42.1	0.90
	2013-02-16	43.0	0.91	42.9	0.91	42.8	0.92

f (MHz)	Date	Dielectric Parameters					
		Ch 128 824.2 MHz		Ch 190 836.6 MHz		Ch 251 848.8 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
836	2012-12-20	40.9	0.88	40.9	0.89	40.7	0.90
	2012-12-27	41.8	0.90	41.7	0.90	41.6	0.91
f (MHz)	Date	Dielectric Parameters					
		Ch 20050 1720.0 MHz		Ch 20175 1732.5 MHz		Ch 20300 1745.0 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1732	2012-12-21	38.8	1.30	38.7	1.31	38.7	1.32
	2012-12-22	39.9	1.29	39.8	1.31	39.8	1.32
	2012-12-23	39.8	1.29	39.7	1.30	39.6	1.31
	2012-12-29	39.9	1.30	39.9	1.32	39.8	1.33
	2013-01-03	40.4	1.31	40.2	1.32	40.2	1.35
	2013-01-04	40.5	1.31	40.4	1.32	40.4	1.33
	2013-01-07	39.3	1.31	39.3	1.33	39.2	1.34
	2013-01-14	39.8	1.29	39.8	1.30	39.7	1.31
	2013-01-17	39.0	1.31	39.0	1.32	38.9	1.34
	2013-01-18	38.7	1.33	38.6	1.34	38.6	1.36
	2013-02-06	39.2	1.35	39.2	1.36	39.2	1.37
	2013-02-07	39.4	1.34	39.3	1.35	39.3	1.36
	2013-02-08	39.5	1.30	39.4	1.31	39.3	1.32
	2013-02-10	38.8	1.30	38.8	1.31	38.7	1.33
	2013-02-13	39.2	1.32	39.1	1.33	39.1	1.35
	2013-02-17	38.7	1.32	38.7	1.33	38.6	1.34
f (MHz)	Date	Dielectric Parameters					
		Ch 25 1851.25 MHz		Ch 600 1880.0 MHz		Ch 1175 1908.75 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1880	2012-12-26	39.7	1.40	39.7	1.42	39.6	1.46
	2013-01-	39.9	1.36	39.8	1.39	39.6	1.41
	2013-01-17	39.2	1.36	39.1	1.38	39.0	1.40
	2013-01-18	38.9	1.41	38.9	1.43	38.7	1.45
	2013-01-28	39.9	1.37	39.8	1.40	39.7	1.43
	2013-01-29	40.0	1.35	39.9	1.38	39.8	1.41

f (MHz)	Date	Dielectric Parameters					
		Ch 512 1850.2 MHz		Ch 661 1880.0 MHz		Ch 810 1909.8 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1880	2013-01-10	39.5	1.37	39.3	1.40	39.2	1.43
	2013-01-11	39.3	1.36	39.2	1.39	39.0	1.42
	2013-02-19	39.3	1.38	39.2	1.40	39.1	1.43
f (MHz)	Date	Dielectric Parameters					
		Ch 9262 1852.4 MHz		Ch 9400 1880.0 MHz		Ch 9538 1907.6 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1880	2013-01-09	38.7	1.34	38.6	1.37	38.4	1.39
	2013-01-10	39.5	1.37	39.3	1.40	39.2	1.42
f (MHz)	Date	Dielectric Parameters					
		Ch 1 2412.0 MHz		Ch 6 2437.0 MHz		Ch 11 2462.0 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
2437	2013-01-31	37.9	1.73	37.8	1.76	37.7	1.79
	2013-02-01	37.7	1.74	37.6	1.77	37.5	1.80
	2013-02-05	38.8	1.78	38.7	1.81	38.6	1.84

Head tissue simulant dielectric parameters used in the measurements 5180 – 5805 MHz:

f (MHz)	Date	Dielectric Parameters									
		Ch 40 5200.0 MHz		5210.0 MHz		Ch 44 5240.0 MHz		-		-	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5210	2013-02-03	35.2	4.54	35.2	4.54	35.1	4.57	-	-	-	-
	2013-02-05	35.4	4.54	35.4	4.54	35.4	4.58	-	-	-	-
f (MHz)	Date	Dielectric Parameters									
		Ch 56 5280.0 MHz		5290.0 MHz		Ch 60 5320.0 MHz		-		-	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5290	2013-02-03	35.1	4.61	35.0	4.62	35.0	4.66	-	-	-	-
	2013-02-05	35.3	4.61	35.3	4.62	35.2	4.66	-	-	-	-
f (MHz)	Date	Dielectric Parameters									
		Ch 100 5500.0 MHz		5520.0 MHz		Ch 120 5600.0 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]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5520	2013-02-04	34.1	4.90	34.0	4.92	33.9	5.02	33.9	5.02	33.8	5.10
	2013-02-05	35.0	4.83	35.0	4.85	34.9	4.95	34.8	4.95	34.7	5.03
f (MHz)	Date	Dielectric Parameters									
		Ch 149 5745.0 MHz		5760.0 MHz		Ch 157 5785.0 MHz		Ch 161 5805.0 MHz		-	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5760	2013-02-04	33.7	5.17	33.6	5.18	33.6	5.21	33.6	5.24	-	-
	2013-02-05	34.7	5.09	34.6	5.10	34.6	5.13	34.6	5.17	-	-
	2013-02-12	34.8	5.09	34.8	5.10	34.8	5.13	34.7	5.15	-	-
	2013-02-13	34.7	5.04	34.7	5.06	34.7	5.08	34.6	5.10	-	-

Body tissue simulant dielectric parameters used in the measurements:

f (MHz)	Date	Dielectric Parameters					
		-		Ch 23230 782.0 MHz		-	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
782	2012-12-26	-	-	54.0	0.96	-	-
	2012-12-27	-	-	54.7	0.97	-	-
	2012-12-28	-	-	53.9	0.97	-	-
	2013-01-09	-	-	55.6	0.96	-	-
	2013-01-10	-	-	55.8	0.96	-	-
	2013-02-11	-	-	55.5	0.96	-	-
	2013-02-12	-	-	54.7	0.96	-	-
f (MHz)	Date	Dielectric Parameters					
		Ch 4132 826.4 MHz		Ch 4175 835.0 MHz		Ch 4233 846.6 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
835	2012-12-18	55.6	0.97	55.5	0.98	55.5	0.99
	2012-12-21	55.3	0.97	55.3	0.97	55.3	0.98
f (MHz)	Date	Dielectric Parameters					
		Ch 1013 824.7 MHz		Ch 384 836.5 MHz		Ch 777 848.3 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
836	2012-12-21	55.4	0.97	55.3	0.98	55.2	0.98
	2013-01-16	55.6	0.99	55.5	0.99	55.4	1.00
f (MHz)	Date	Dielectric Parameters					
		Ch 128 824.2 MHz		Ch 190 836.6 MHz		Ch 251 848.8 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
836	2012-12-26	53.9	0.99	53.8	1.00	53.8	1.00
	2012-12-27	54.6	1.00	54.5	1.00	54.4	1.01

f (MHz)	Date	Dielectric Parameters					
		Ch 20050 1720.0 MHz		Ch 20175 1732.5 MHz		Ch 20300 1745.0 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1732	2013-01-07	51.2	1.42	51.2	1.43	51.2	1.45
	2013-01-09	52.0	1.44	51.9	1.45	51.9	1.46
	2013-01-10	51.5	1.44	51.5	1.45	51.4	1.46
	2013-01-11	52.4	1.41	52.3	1.42	52.3	1.43
	2013-01-14	51.5	1.43	51.5	1.45	51.4	1.46
	2013-01-15	51.3	1.42	51.2	1.43	51.2	1.45
	2013-01-16	51.2	1.42	51.2	1.43	51.2	1.44
	2013-01-24	51.5	1.44	51.4	1.46	51.4	1.47
	2013-01-28	51.5	1.44	51.4	1.45	51.4	1.46
	2013-01-29	52.1	1.45	52.0	1.46	52.0	1.48
	2013-02-11	51.8	1.43	51.7	1.44	51.7	1.46
	2013-02-12	51.1	1.44	51.0	1.45	51.0	1.47
f (MHz)	Date	Dielectric Parameters					
		Ch 25 1851.25 MHz		Ch 600 1880.0 MHz		Ch 1175 1908.75 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1880	2012-12-21	51.3	1.49	51.3	1.52	51.1	1.54
	2012-12-28	52.0	1.51	52.0	1.54	51.9	1.57
	2013-01-04	52.1	1.50	52.0	1.53	51.9	1.56
	2013-01-08	51.7	1.47	51.6	1.49	51.5	1.53
	2013-01-31	51.4	1.44	51.3	1.48	51.2	1.51
f (MHz)	Date	Dielectric Parameters					
		Ch 512 1850.2 MHz		Ch 661 1880.0 MHz		Ch 810 1909.8 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1880	2012-12-21	51.3	1.48	51.3	1.52	51.1	1.54
	2013-01-14	52.2	1.49	52.1	1.52	52.0	1.55
	2013-01-18	51.5	1.47	51.5	1.48	51.4	1.50
	2013-01-21	51.0	1.54	51.0	1.56	50.8	1.59
	2013-02-19	51.7	1.48	51.6	1.52	51.5	1.55
	2013-02-19	51.3	1.49	51.2	1.52	51.1	1.55
f (MHz)	Date	Dielectric Parameters					
		Ch 9262 1852.4 MHz		Ch 9400 1880.0 MHz		Ch 9538 1907.6 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]

1880	2012-12-19	51.9	1.48	51.8	1.53	51.7	1.58
	2012-12-20	51.2	1.48	51.1	1.51	51.0	1.55
	2013-01-15	51.8	1.48	51.8	1.51	51.7	1.54
f (MHz)	Date	Dielectric Parameters					
		Ch 1 2412.0 MHz		Ch 6 2437.0 MHz		Ch 11 2462.0 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
2437	2013-02-03	51.4	1.93	51.3	1.96	51.2	1.99
	2013-02-08	50.7	1.93	50.6	1.96	50.6	1.99

Body tissue simulant dielectric parameters used in the measurements 5180 – 5805 MHz:

f (MHz)	Date	Dielectric Parameters									
		Ch 40 5200.0 MHz		5210.0 MHz		Ch 44 5240.0 MHz		-		-	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5210	2013-02-06	47.6	5.46	47.6	5.47	47.5	5.51	-	-	-	-
f (MHz)	Date	Dielectric Parameters									
		Ch 56 5280.0 MHz		5290.0 MHz		Ch 60 5320.0 MHz		-		-	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5290	2013-02-06	47.4	5.56	47.4	5.57	47.4	5.62	-	-	-	-
f (MHz)	Date	Dielectric Parameters									
		Ch 100 5500.0 MHz		5520.0 MHz		Ch 120 5600.0 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]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5520	2013-02-07	46.6	5.82	46.5	5.84	46.4	5.97	46.4	5.98	46.3	6.08
	2013-02-13 (14)	47.1	5.85	47.0	5.88	46.9	5.99	46.8	6.01	46.8	6.10
f (MHz)	Date	Dielectric Parameters									
		Ch 149 5745.0 MHz		5760.0 MHz		Ch 157 5785.0 MHz		Ch 161 5805.0 MHz		-	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5760	2013-02-07	46.2	6.16	46.1	6.18	46.1	6.22	46.1	6.25	-	-
	2013-02-08	46.3	6.18	46.2	6.20	46.2	6.24	46.1	6.28	-	-

APPENDIX D: CONDUCTED AVERAGE POWER MEASUREMENTS FOR WCDMA AND HSUPA

Test Laboratory: TCC Nokia

Type: RM-860; Serial: 354106/05/000821/5, HW: 0103, SW: 1532.5701.9200.10205.56

D.1. WCDMA850 Test results

Average power

Ch / f(MHz)	P [dBm]
4132 / 826.4	23.45
4175 / 835.0	23.31
4233 / 846.6	23.35

D.2. HSUPA850 Test results

Average power

Ch / f(MHz)	P [dBm]				
	Subtest mode 1	Subtest mode 2	Subtest mode 3	Subtest mode 4	Subtest mode 5
4132 / 826.4	22.68	21.75	21.73	22.13	23.45
4175 / 835.0	22.43	21.75	21.92	22.02	23.23
4233 / 846.6	22.43	21.48	21.68	21.78	23.18

Note: In HSUPA operation, the output power is reduced relative to the tuning target power for WCDMA. This device runs two separate HSUPA power control routines: MPR and E-TFC MPR. In each Subtest mode, the routine with the higher power reduction dominates. As a result, the MPR for each of the Subtest modes is as follows:

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

D.3. WCDMA1900 Test results

Average power

Ch / f(MHz)	P [dBm]
9262 / 1852.4	20.91
9400 / 1880.0	20.84
9538 / 1907.6	20.82

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 / 1852.4	20.86	18.88	19.90	19.76	20.91
9400 / 1880.0	20.26	19.16	19.36	18.75	20.78
9538 / 1907.6	19.28	18.90	19.20	19.49	20.21

Note: In HSUPA operation, the output power is reduced relative to the tuning target power for WCDMA. This device runs two separate HSUPA power control routines: MPR and E-TFC MPR. In each Subtest mode, the routine with the higher power reduction dominates. As a result, the MPR for each of the Subtest modes is as follows:

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

APPENDIX E: RELEVANT PAGES FROM PROBE CALIBRATION REPORTS



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 108**

The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates

Client **Nokia Salo TCC**

Certificate No: **ES3-3194_Aug12**

CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3194**

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

Calibration date: **August 27, 2012**

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	29-Mar-12 (No. 217-01508)	Apr-13
Power sensor E4412A	MY41498087	29-Mar-12 (No. 217-01508)	Apr-13
Reference 3 dB Attenuator	SN: S5054 (3c)	27-Mar-12 (No. 217-01531)	Apr-13
Reference 20 dB Attenuator	SN: S5086 (20b)	27-Mar-12 (No. 217-01529)	Apr-13
Reference 30 dB Attenuator	SN: S5129 (30b)	27-Mar-12 (No. 217-01532)	Apr-13
Reference Probe ES3DV2	SN: 3013	29-Dec-11 (No. ES3-3013_Dec11)	Dec-12
DAE4	SN: 660	20-Jun-12 (No. DAE4-660_Jun12)	Jun-13
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-11)	In house check: Apr-13
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-11)	In house check: Oct-12

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	
Issued: August 27, 2012			
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	Depth (mm)	Unct. (k=2)
750	41.9	0.89	6.35	6.35	6.35	0.29	2.00	± 12.0 %
835	41.5	0.90	6.09	6.09	6.09	0.38	1.54	± 12.0 %
1750	40.1	1.37	5.17	5.17	5.17	0.45	1.52	± 12.0 %
1900	40.0	1.40	4.97	4.97	4.97	0.80	1.16	± 12.0 %
2450	39.2	1.80	4.37	4.37	4.37	0.70	1.40	± 12.0 %
2600	39.0	1.96	4.27	4.27	4.27	0.80	1.29	± 12.0 %

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

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

DASY/EASY - Parameters of Probe: ES3DV3 - SN: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	Depth (mm)	Unct. (k=2)
750	55.5	0.96	6.18	6.18	6.18	0.43	1.60	± 12.0 %
835	55.2	0.97	6.03	6.03	6.03	0.28	2.04	± 12.0 %
1750	53.4	1.49	4.83	4.83	4.83	0.73	1.33	± 12.0 %
1900	53.3	1.52	4.62	4.62	4.62	0.76	1.31	± 12.0 %
2450	52.7	1.95	4.20	4.20	4.20	0.73	1.08	± 12.0 %
2600	52.5	2.16	4.07	4.07	4.07	0.66	0.98	± 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.



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 108**

The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates

Client **Nokia Salo TCC**

Certificate No: **ES3-3131_Aug12**

CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3131**

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

Calibration date: **August 27, 2012**

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	29-Mar-12 (No. 217-01508)	Apr-13
Power sensor E4412A	MY41498087	29-Mar-12 (No. 217-01508)	Apr-13
Reference 3 dB Attenuator	SN: S5054 (3c)	27-Mar-12 (No. 217-01531)	Apr-13
Reference 20 dB Attenuator	SN: S5086 (20b)	27-Mar-12 (No. 217-01529)	Apr-13
Reference 30 dB Attenuator	SN: S5129 (30b)	27-Mar-12 (No. 217-01532)	Apr-13
Reference Probe ES3DV2	SN: 3013	29-Dec-11 (No. ES3-3013_Dec11)	Dec-12
DAE4	SN: 660	20-Jun-12 (No. DAE4-660_Jun12)	Jun-13
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-11)	In house check: Apr-13
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-11)	In house check: Oct-12

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	
Issued: August 28, 2012			
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			

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

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
750	41.9	0.89	6.20	6.20	6.20	0.25	2.11	± 12.0 %
835	41.5	0.90	5.96	5.96	5.96	0.26	2.04	± 12.0 %
1750	40.1	1.37	5.09	5.09	5.09	0.76	1.16	± 12.0 %
1900	40.0	1.40	4.92	4.92	4.92	0.61	1.32	± 12.0 %
2450	39.2	1.80	4.34	4.34	4.34	0.65	1.35	± 12.0 %
2600	39.0	1.96	4.15	4.15	4.15	0.79	1.28	± 12.0 %

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

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

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

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
750	55.5	0.96	5.99	5.99	5.99	0.34	1.76	± 12.0 %
835	55.2	0.97	5.95	5.95	5.95	0.45	1.53	± 12.0 %
1750	53.4	1.49	4.74	4.74	4.74	0.80	1.19	± 12.0 %
1900	53.3	1.52	4.51	4.51	4.51	0.56	1.49	± 12.0 %
2450	52.7	1.95	4.11	4.11	4.11	0.64	0.99	± 12.0 %
2600	52.5	2.16	3.94	3.94	3.94	0.61	0.94	± 12.0 %

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

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



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Client **Nokia Salo TCC**

Certificate No: **EX3-3835_Feb12**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3835**

Calibration procedure(s) **QA CAL-01.v8, QA CAL-14.v3, QA CAL-23.v4, QA CAL-25.v4**
Calibration procedure for dosimetric E-field probes

Calibration date: **February 7, 2012**

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	31-Mar-11 (No. 217-01372)	Apr-12
Power sensor E4412A	MY41498087	31-Mar-11 (No. 217-01372)	Apr-12
Reference 3 dB Attenuator	SN: S5054 (3c)	29-Mar-11 (No. 217-01369)	Apr-12
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-11 (No. 217-01367)	Apr-12
Reference 30 dB Attenuator	SN: S5129 (30b)	29-Mar-11 (No. 217-01370)	Apr-12
Reference Probe ES3DV2	SN: 3013	29-Dec-11 (No. ES3-3013_Dec11)	Dec-12
DAE4	SN: 654	3-May-11 (No. DAE4-654_May11)	May-12
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-11)	In house check: Apr-13
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-11)	In house check: Oct-12

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	
Issued: February 7, 2012			
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3835

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
750	41.9	0.89	8.96	8.96	8.96	0.40	0.87	± 12.0 %
835	41.5	0.90	8.61	8.61	8.61	0.42	0.85	± 12.0 %
900	41.5	0.97	8.50	8.50	8.50	0.28	1.11	± 12.0 %
1750	40.1	1.37	7.83	7.83	7.83	0.60	0.66	± 12.0 %
1900	40.0	1.40	7.55	7.55	7.55	0.71	0.62	± 12.0 %
2450	39.2	1.80	6.73	6.73	6.73	0.44	0.80	± 12.0 %
2600	39.0	1.96	6.49	6.49	6.49	0.28	1.15	± 12.0 %
5200	36.0	4.66	4.67	4.67	4.67	0.45	1.80	± 13.1 %
5300	35.9	4.76	4.60	4.60	4.60	0.40	1.80	± 13.1 %
5500	35.6	4.96	4.29	4.29	4.29	0.45	1.80	± 13.1 %
5600	35.5	5.07	4.22	4.22	4.22	0.40	1.80	± 13.1 %
5800	35.3	5.27	4.07	4.07	4.07	0.50	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.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3835

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
750	55.5	0.96	8.78	8.78	8.78	0.26	1.17	± 12.0 %
835	55.2	0.97	8.68	8.68	8.68	0.23	1.29	± 12.0 %
900	55.0	1.05	8.48	8.48	8.48	0.23	1.34	± 12.0 %
1750	53.4	1.49	7.28	7.28	7.28	0.56	0.79	± 12.0 %
1900	53.3	1.52	6.96	6.96	6.96	0.41	0.87	± 12.0 %
2450	52.7	1.95	6.57	6.57	6.57	0.80	0.50	± 12.0 %
2600	52.5	2.16	6.46	6.46	6.46	0.80	0.50	± 12.0 %
5200	49.0	5.30	3.96	3.96	3.96	0.55	1.90	± 13.1 %
5300	48.9	5.42	3.86	3.86	3.86	0.50	1.90	± 13.1 %
5500	48.6	5.65	3.54	3.54	3.54	0.58	1.90	± 13.1 %
5600	48.5	5.77	3.34	3.34	3.34	0.60	1.90	± 13.1 %
5800	48.2	6.00	3.70	3.70	3.70	0.60	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.



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 108**

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 Multilateral Agreement for the recognition of calibration certificates

Client **Nokia Salo TCC**

Certificate No: **EX3-3892_Nov12**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3892**

Calibration procedure(s) **QA CAL-01.v8, QA CAL-14.v3, QA CAL-23.v4, QA CAL-25.v4**
 Calibration procedure for dosimetric E-field probes

Calibration date: **November 21, 2012**

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	29-Mar-12 (No. 217-01508)	Apr-13
Power sensor E4412A	MY41498087	29-Mar-12 (No. 217-01508)	Apr-13
Reference 3 dB Attenuator	SN: S5054 (3c)	27-Mar-12 (No. 217-01531)	Apr-13
Reference 20 dB Attenuator	SN: S5086 (20b)	27-Mar-12 (No. 217-01529)	Apr-13
Reference 30 dB Attenuator	SN: S5129 (30b)	27-Mar-12 (No. 217-01532)	Apr-13
Reference Probe ES3DV2	SN: 3013	29-Dec-11 (No. ES3-3013_Dec11)	Dec-12
DAE4	SN: 660	20-Jun-12 (No. DAE4-660_Jun12)	Jun-13
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-11)	In house check: Apr-13
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-12)	In house check: Oct-13

Calibrated by:	Name Claudio Leubler	Function Laboratory Technician	Signature
Approved by:	Katja Pokovic	Technical Manager	
Issued: November 22, 2012			
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	Depth (mm)	Unct. (k=2)
750	41.9	0.89	10.29	10.29	10.29	0.35	0.87	± 12.0 %
835	41.5	0.90	9.75	9.75	9.75	0.15	1.46	± 12.0 %
1750	40.1	1.37	9.08	9.08	9.08	0.32	0.98	± 12.0 %
1900	40.0	1.40	8.79	8.79	8.79	0.75	0.63	± 12.0 %
2450	39.2	1.80	7.85	7.85	7.85	0.33	1.00	± 12.0 %
2600	39.0	1.96	7.55	7.55	7.55	0.48	0.82	± 12.0 %
5200	36.0	4.66	5.18	5.18	5.18	0.38	1.80	± 13.1 %
5300	35.9	4.76	4.86	4.86	4.86	0.38	1.80	± 13.1 %
5500	35.6	4.96	4.69	4.69	4.69	0.39	1.80	± 13.1 %
5600	35.5	5.07	4.45	4.45	4.45	0.39	1.80	± 13.1 %
5800	35.3	5.27	4.72	4.72	4.72	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.

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	Depth (mm)	Unct. (k=2)
750	55.5	0.96	9.94	9.94	9.94	0.23	1.24	± 12.0 %
835	55.2	0.97	9.73	9.73	9.73	0.30	1.03	± 12.0 %
1750	53.4	1.49	8.00	8.00	8.00	0.24	1.09	± 12.0 %
1900	53.3	1.52	7.61	7.61	7.61	0.42	0.81	± 12.0 %
2450	52.7	1.95	7.35	7.35	7.35	0.73	0.58	± 12.0 %
2600	52.5	2.16	7.12	7.12	7.12	0.80	0.50	± 12.0 %
5200	49.0	5.30	4.36	4.36	4.36	0.51	1.90	± 13.1 %
5300	48.9	5.42	4.23	4.23	4.23	0.45	1.90	± 13.1 %
5500	48.6	5.65	3.98	3.98	3.98	0.49	1.90	± 13.1 %
5600	48.5	5.77	4.04	4.04	4.04	0.38	1.90	± 13.1 %
5800	48.2	6.00	4.10	4.10	4.10	0.48	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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Calibration Laboratory of
Schmid & Partner
Engineering AG
 Zeughausstrasse 43, 8004 Zurich, Switzerland



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

Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 108**

The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates

Client **Nokia SD**

Certificate No: **ES3-3112_Feb12**

CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3112**

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

Calibration date: **February 13, 2012**

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	31-Mar-11 (No. 217-01372)	Apr-12
Power sensor E4412A	MY41498087	31-Mar-11 (No. 217-01372)	Apr-12
Reference 3 dB Attenuator	SN: S5054 (3c)	29-Mar-11 (No. 217-01369)	Apr-12
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-11 (No. 217-01367)	Apr-12
Reference 30 dB Attenuator	SN: S5129 (30b)	29-Mar-11 (No. 217-01370)	Apr-12
Reference Probe ES3DV2	SN: 3013	29-Dec-11 (No. ES3-3013_Dec11)	Dec-12
DAE4	SN: 654	3-May-11 (No. DAE4-654_May11)	May-12
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-11)	In house check: Apr-13
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-11)	In house check: Oct-12

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

Issued: February 14, 2012

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

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3112

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^c	Relative Permittivity ^f	Conductivity (S/m) ^f	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
750	41.9	0.89	6.50	6.50	6.50	0.29	1.91	± 12.0 %
835	41.5	0.90	6.27	6.27	6.27	0.36	1.61	± 12.0 %
1810	40.0	1.40	5.35	5.35	5.35	0.60	1.39	± 12.0 %
1950	40.0	1.40	5.12	5.12	5.12	0.61	1.37	± 12.0 %
2450	39.2	1.80	4.54	4.54	4.54	0.80	1.22	± 12.0 %

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

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

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3112

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
750	55.5	0.96	6.39	6.39	6.39	0.38	1.64	± 12.0 %
835	55.2	0.97	6.28	6.28	6.28	0.45	1.50	± 12.0 %
1810	53.3	1.52	5.36	5.36	5.36	0.48	1.81	± 12.0 %
1950	53.3	1.52	5.23	5.23	5.23	0.60	1.50	± 12.0 %
2450	52.7	1.95	4.60	4.60	4.60	0.72	1.23	± 12.0 %

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

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



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 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Nokia SD**

Certificate No: **EX3-3852_Mar12**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3852**

Calibration procedure(s) **QA CAL-01.v8, QA CAL-14.v3, QA CAL-23.v4, QA CAL-25.v4**
Calibration procedure for dosimetric E-field probes

Calibration date: **March 27, 2012**

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	31-Mar-11 (No. 217-01372)	Apr-12
Power sensor E4412A	MY41498087	31-Mar-11 (No. 217-01372)	Apr-12
Reference 3 dB Attenuator	SN: S5054 (3c)	29-Mar-11 (No. 217-01369)	Apr-12
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-11 (No. 217-01367)	Apr-12
Reference 30 dB Attenuator	SN: S5129 (30b)	29-Mar-11 (No. 217-01370)	Apr-12
Reference Probe ES3DV2	SN: 3013	29-Dec-11 (No. ES3-3013_Dec11)	Dec-12
DAE4	SN: 654	3-May-11 (No. DAE4-654_May11)	May-12
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-11)	in house check: Apr-13
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-11)	in house check: Oct-12

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	
Issued: March 29, 2012			
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3852

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
750	41.9	0.89	9.58	9.58	9.58	0.22	1.35	± 12.0 %
835	41.5	0.90	9.36	9.36	9.36	0.24	1.10	± 12.0 %
1750	40.1	1.37	7.95	7.95	7.95	0.60	0.66	± 12.0 %
1900	40.0	1.40	7.80	7.80	7.80	0.50	0.72	± 12.0 %
2450	39.2	1.80	7.06	7.06	7.06	0.20	1.23	± 12.0 %
2600	39.0	1.96	6.82	6.82	6.82	0.39	0.89	± 12.0 %
5200	36.0	4.66	4.86	4.86	4.86	0.40	1.80	± 13.1 %
5300	35.9	4.76	4.65	4.65	4.65	0.40	1.80	± 13.1 %
5500	35.6	4.96	4.56	4.56	4.56	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.21	4.21	4.21	0.50	1.80	± 13.1 %
5800	35.3	5.27	4.20	4.20	4.20	0.50	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.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3852

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
750	55.5	0.96	9.31	9.31	9.31	0.31	1.01	± 12.0 %
835	55.2	0.97	9.14	9.14	9.14	0.46	0.83	± 12.0 %
1750	53.4	1.49	7.75	7.75	7.75	0.43	0.97	± 12.0 %
1900	53.3	1.52	7.24	7.24	7.24	0.40	0.95	± 12.0 %
2450	52.7	1.95	6.83	6.83	6.83	0.80	0.60	± 12.0 %
2600	52.5	2.16	6.66	6.66	6.66	0.80	0.58	± 12.0 %
5200	49.0	5.30	4.10	4.10	4.10	0.55	1.90	± 13.1 %
5300	48.9	5.42	4.22	4.22	4.22	0.50	1.90	± 13.1 %
5500	48.6	5.65	3.83	3.83	3.83	0.50	1.90	± 13.1 %
5600	48.5	5.77	3.47	3.47	3.47	0.60	1.90	± 13.1 %
5800	48.2	6.00	3.86	3.86	3.86	0.60	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 SD**

Certificate No: **ES3-3275_Jan13**

CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3275**

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

Calibration date: **January 22, 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 $(22 \pm 3)^\circ\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	29-Mar-12 (No. 217-01508)	Apr-13
Power sensor E4412A	MY41498087	29-Mar-12 (No. 217-01508)	Apr-13
Reference 3 dB Attenuator	SN: S5054 (3c)	27-Mar-12 (No. 217-01531)	Apr-13
Reference 20 dB Attenuator	SN: S5086 (20b)	27-Mar-12 (No. 217-01529)	Apr-13
Reference 30 dB Attenuator	SN: S5129 (30b)	27-Mar-12 (No. 217-01532)	Apr-13
Reference Probe ES3DV2	SN: 3013	28-Dec-12 (No. ES3-3013_Dec12)	Dec-13
DAE4	SN: 660	20-Jun-12 (No. DAE4-660_Jun12)	Jun-13
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-11)	In house check: Apr-13
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-12)	In house check: Oct-13

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	
Issued: January 28, 2013			
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3275

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
750	41.9	0.89	6.50	6.50	6.50	0.53	1.47	± 12.0 %
835	41.5	0.90	6.22	6.22	6.22	0.34	1.74	± 12.0 %
1750	40.1	1.37	5.27	5.27	5.27	0.80	1.11	± 12.0 %
1900	40.0	1.40	5.03	5.03	5.03	0.70	1.27	± 12.0 %
2450	39.2	1.80	4.43	4.43	4.43	0.74	1.28	± 12.0 %

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

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

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3275

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Uct. (k=2)
750	55.5	0.96	6.16	6.16	6.16	0.80	1.20	± 12.0 %
835	55.2	0.97	6.04	6.04	6.04	0.60	1.38	± 12.0 %
1750	53.4	1.49	4.96	4.96	4.96	0.65	1.43	± 12.0 %
1900	53.3	1.52	4.71	4.71	4.71	0.68	1.37	± 12.0 %
2450	52.7	1.95	4.28	4.28	4.28	0.74	1.15	± 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.

APPENDIX F: RELEVANT PAGES FROM DIPOLE VALIDATION KIT REPORTS