

SAR Compliance Test Report

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Testing has been carried out in accordance with:	47CFR §2.1093 Radiofrequency Radiation Exposure Evaluation: Portable Devices FCC OET Bulletin 65 (Edition 97-01), Supplement C (Edition 01-01) Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields RSS-102 Evaluation Procedure for Mobile and Portable Radio Transmitters with Respect to Health Canada's Safety Code 6 for Exposure of Humans to Radio Frequency Fields IEEE 1528 - 2003 IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Technique		
Documentation:	The documentation of the testing performed on the tested devices is archived for 15 years at TCC Nokia.		
Test results:	The tested device complies with the requirements in respect of all parameters subject to the test. The test results and statements relate only to the items tested. The test report shall not be reproduced except in full, without written approval of the laboratory.		

Date and signatures:

For the contents:

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1. SUMMARY OF SAR TEST REPORT

1.1 Test Details

Period of test	2011-10-18 to 2012-02-25
SN, HW and SW numbers of tested device	SN: 004402/13/683090/2, HW: 0150, SW: WK39, DUT: 16014 SN: 004402/13/683123/1, HW: 0150, SW: WK39, DUT: 16016 SN: 004402/13/683080/3, HW: 0150, SW: WK39, DUT: 16030 SN: 004402/13/683118/1, HW: 0150, SW: WK39, DUT: 16038 SN: 004402/13/683075/3, HW: 0150, SW: WK39, DUT: 16039 SN: 004402/13/683071/2, HW: 0150, SW: WK39, DUT: 16033 SN: 004402/13/683100/9, HW: 0150, SW: WK39, DUT: 16045 SN: 004402/13/683109/0, HW: 0150, SW: WK39, DUT: 16040
Batteries used in testing	-
Headsets used in testing	WH-208, DUT: 15942
Other accessories used in testing	-
State of sample	Prototype unit
Notes	-

1.2 Maximum Results

The maximum measured SAR values for Head configuration and Body Worn configuration are given in section 1.2.1 and 1.2.2 respectively. The device conforms to the requirements of the standard(s) when the maximum measured SAR value is less than or equal to the limit.

1.2.1 Head Configuration

Mode	Ch / f (MHz)	Conducted power	Position	Measured SAR value (1g avg)	Scaled* SAR value (1g avg)	SAR limit (1g avg)	Result
LTE700	23790 / 710.0	23.49 dBm	Right, Cheek	0.543 W/kg	0.61 W/kg	1.6 W/kg	PASSED
2-slot GPRS850	128 / 824.2	31.00 dBm	Right, Cheek	1.04 W/kg	1.16 W/kg	1.6 W/kg	PASSED
WCDMA850	4175 / 835.0	23.39 dBm	Right, Cheek	0.602 W/kg	0.67 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100	1513 / 1752.6	23.23 dBm	Left, Cheek	1.27 W/kg	1.42 W/kg	1.6 W/kg	PASSED
LTE1700/2100	20300 / 1745.0	22.31 dBm	Left, Cheek	1.02 W/kg	1.14 W/kg	1.6 W/kg	PASSED
2-slot GPRS1900	810 / 1909.8	28.70 dBm	Left, Cheek	1.08 W/kg	1.21 W/kg	1.6 W/kg	PASSED
WCDMA1900	9400 / 1880.0	23.20 dBm	Left, Cheek	1.28 W/kg	1.43 W/kg	1.6 W/kg	PASSED
WLAN2450	6 / 2437.0	16.46 dBm	Left, Cheek	1.00 W/kg	1.12 W/kg	1.6 W/kg	PASSED
LTE700 + WLAN2450	-	-	Left, Cheek	1.04 W/kg	1.16 W/kg	1.6 W/kg	PASSED
2-slot GPRS850 + WLAN2450	-	-	Right, Cheek	1.11 W/kg	1.24 W/kg	1.6 W/kg	PASSED
WCDMA850 + WLAN2450	-	-	Left, Cheek	1.04 W/kg	1.16 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100 + WLAN2450	-	-	Left, Cheek	1.35 W/kg	1.51 W/kg	1.6 W/kg	PASSED
LTE1700/2100 + WLAN2450	-	-	Left, Cheek	1.12 W/kg	1.25 W/kg	1.6 W/kg	PASSED
2-slot GPRS1900 + WLAN2450	-	-	Left, Cheek	1.18 W/kg	1.32 W/kg	1.6 W/kg	PASSED
WCDMA1900 + WLAN2450	-	-	Left, Cheek	1.31 W/kg	1.47 W/kg	1.6 W/kg	PASSED

1.2.2 Body Worn Configuration

Mode	Ch / f (MHz)	Conducted power	Separation distance	Measured SAR value (1g avg)	Scaled* SAR value (1g avg)	SAR limit (1g avg)	Result
LTE700	23780 / 709.0	23.44 dBm	1.5 cm	0.659 W/kg	0.74 W/kg	1.6 W/kg	PASSED
2-slot GPRS850	190 / 836.6	30.90 dBm	1.5 cm	1.16 W/kg	1.30 W/kg	1.6 W/kg	PASSED
WCDMA850	4175 / 835.0	23.39 dBm	1.5 cm	0.589 W/kg	0.66 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100	1513 / 1752.6	23.23 dBm	1.5 cm	0.723 W/kg	0.81 W/kg	1.6 W/kg	PASSED
LTE 1700/2100	20300 / 1745.0	22.31 dBm	1.5 cm	0.613 W/kg	0.69 W/kg	1.6 W/kg	PASSED
2-slot GPRS1900	661 / 1880.0	28.60 dBm	1.5 cm	0.597 W/kg	0.67 W/kg	1.6 W/kg	PASSED
WCDMA1900	9262 / 1852.4	23.10 dBm	1.5 cm	0.746 W/kg	0.84 W/kg	1.6 W/kg	PASSED
WLAN2450	11 / 2462.0	17.15 dBm	1.5 cm	0.147 W/kg	0.16 W/kg	1.6 W/kg	PASSED
LTE700 + WLAN2450	-	-	1.5 cm	0.672 W/kg	0.75 W/kg	1.6 W/kg	PASSED
2-slot GPRS850 + WLAN2450	-	-	1.5 cm	1.16 W/kg	1.30 W/kg	1.6 W/kg	PASSED
WCDMA850 + WLAN2450	-	-	1.5 cm	0.619 W/kg	0.69 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100 + WLAN2450	-	-	1.5 cm	0.733 W/kg	0.82 W/kg	1.6 W/kg	PASSED
LTE 1700/2100 + WLAN2450	-	-	1.5 cm	0.615 W/kg	0.69 W/kg	1.6 W/kg	PASSED
2-slot GPRS1900 + WLAN2450	-	-	1.5 cm	0.612 W/kg	0.69 W/kg	1.6 W/kg	PASSED
WCDMA1900 + WLAN2450	-	-	1.5 cm	0.759 W/kg	0.85 W/kg	1.6 W/kg	PASSED

* SAR values are scaled up by 12% to cover measurement drift. As a consequence of this upwards correction of the SAR values, the contribution of measurement drift to the overall measurement uncertainty (Section 6) is reduced to zero.

1.2.3 Summary SAR data

		FCC-defined SAR values for the Grants of Equipment Authorization
Maximum Cellular/AWS/PCS Head SAR value		1.43 W/kg
Maximum WLAN Head SAR value		1.12 W/kg
{Max + Max} Simultaneous Head SAR value	2.55 W/kg**	
Maximum Cellular/AWS/PCS Body SAR value		1.30 W/kg
Maximum WLAN Body SAR value		0.16 W/kg
{Max + Max} Simultaneous Body SAR value	1.46 W/kg	
Maximum Product Specific (Wireless Router) SAR value		1.59 W/kg
Maximum Simultaneous SAR value		1.59 W/kg

**The {Max + Max} Simultaneous Head SAR value > 1.6W/kg. However, for this combination of transmitters (WCDMA1900+WLAN2450), the "Antenna Pair SAR to Separation Ratio" is 0.29 (see Section 7 for details) and hence, according to KDB648474 D01 SAR Handsets Multi Xmitter and Ant, v01r05, Simultaneous Transmission Procedures are not required.

1.2.4 Maximum Drift

Maximum drift covered by 12% scaling up of the SAR values	Maximum drift during measurements
0.5dB	0.48dB

1.2.5 Measurement Uncertainty

Expanded Uncertainty (k=2) 95%	± 25.8%
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2. DESCRIPTION OF THE DEVICE UNDER TEST

Device category	Portable
Exposure environment	General population / uncontrolled

Modes of Operation	Bands	Modulation Mode	Duty Cycle	Transmitter Frequency Range (MHz)
GSM	850 1900	GMSK	1/8	824 – 849 1850 – 1910
GPRS	850 1900	GMSK	1/8 to 2/8	824 – 849 1850 – 1910
EGPRS	850 1900	GMSK / 8PSK	1/8 to 2/8	824 – 849 1850 – 1910
WCDMA	850 (Band V) 1700/2100 (Band IV) 1900 (Band II)		1	826 – 847 1712 – 1753 1852 – 1908
HSUPA	850 (Band V) 1700/2100 (Band IV) 1900 (Band II)		1	826 – 847 1712 – 1753 1852 – 1908
LTE	700 (Band 17) 1700/2100 (Band 4)	QPSK 16QAM	1	704 – 716 1710 - 1755
BT	2450	GFSK	1	2402 – 2480
WLAN b-mode	2450	Up to 11Mbps QPSK	1	2412 – 2462
WLAN g-mode	2450	Up to 54Mbps 64QAM	1	2412 – 2462
WLAN n-mode 20MHz	2450	Up to 72.2Mbps 64QAM	1	2412 – 2462

Outside of USA and Canada, the transmitter of the device is capable of operating also in GSM/GPRS/EGPRS900, GSM/GPRS/EGPRS1800 and WCDMA2100 bands which are not part of this filing.

This device has Voice over IP capability for use at the ear. Therefore, SAR for multi slot GPRS mode was evaluated against the head profile of the phantom.

This is a WCDMA HSUPA device, but SAR tests for HSUPA mode have not been performed as no HSUPA Sub-test mode has an average power > 0.25dB above the basic WCDMA 12.2kbps RMC mode. Appendix C of this report gives a summary of the measured WCDMA and HSUPA average powers; a detailed report of these WCDMA and HSUPA conducted power tests is submitted separately.

This is an LTE Category 3 device; it contains two LTE bands, namely LTE bands 17 and 4. In LTE band 17 i.e. LTE700, the device possesses Channel Bandwidths of 10MHz and 5MHz; in LTE band 4 i.e. LTE1700/2100 Channel Bandwidths of 20MHz, 15MHz, 10MHz, 5MHz, 3MHz and 1.4MHz are available.

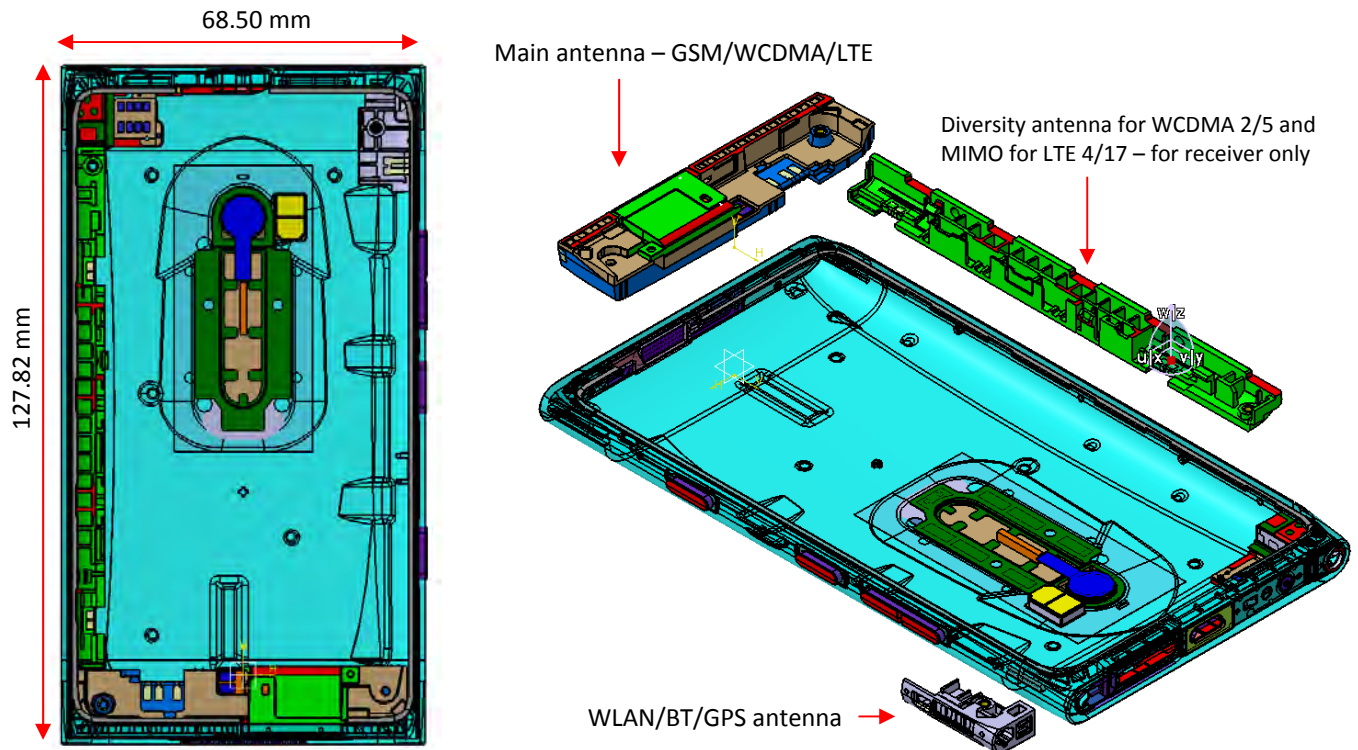
This is a BT Class 1 device; as its power tuning target is 6dBm (4mW), SAR testing was deemed unnecessary.

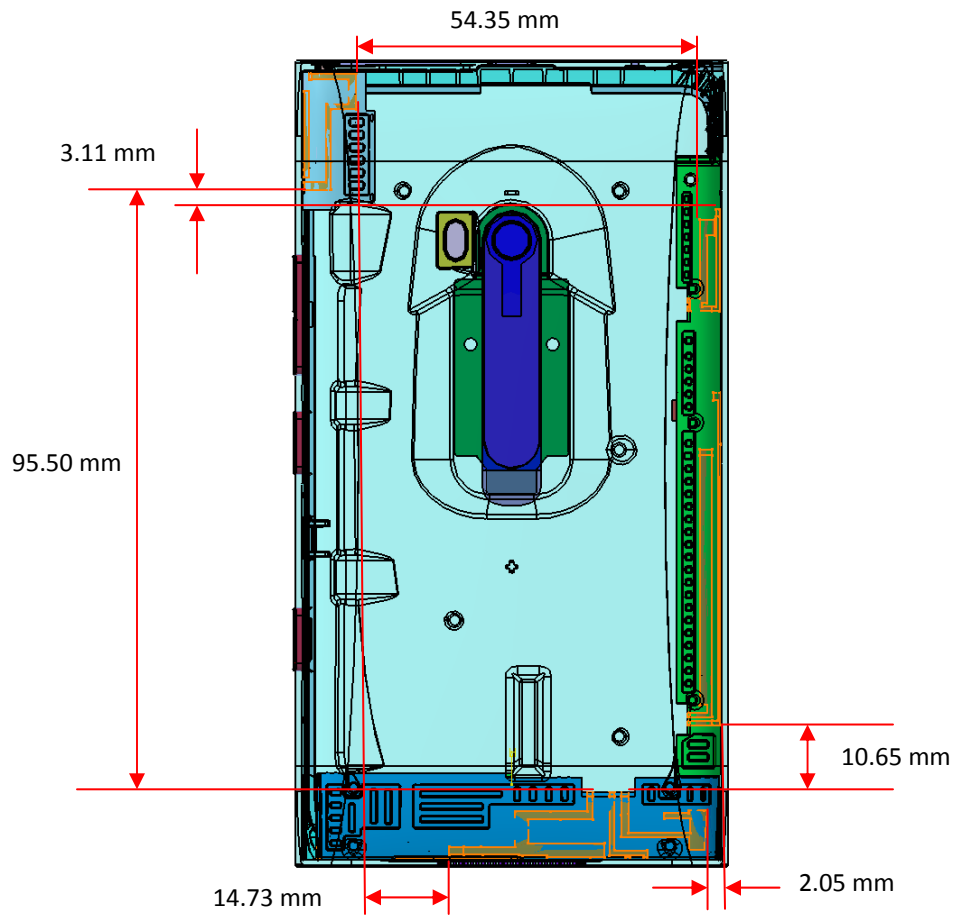
This device uses a single antenna for transmission of all the cellular, AWS and PCS bands; a separate single antenna is used for transmission of WLAN and BT. Simultaneous transmission of any singular cellular, AWS and PCS band is possible with either WLAN or BT in Head and Body-worn. This device does not feature any diversity antenna functionality when transmitting.

This device has Wireless Router “Hotspot” mode capability. In Wireless Router mode, power reduction is made in all bands apart from LTE700, WCDMA850, GSM/GPRS/EGPRS1900 and WLAN bands. A table detailing these power reductions is given in Appendix G. Simultaneous transmission of any singular cellular, AWS and PCS band is possible with either WLAN or BT in Wireless Router mode.

2.1 Description of the Antenna

The device has internal antennas for cellular/AWS/PCS and WLAN/BT use. The cellular/AWS/PCS antenna is located at the bottom underneath the back cover. The WLAN/BT antenna is located at the top underneath the back cover. The device dimensions, antenna locations and antenna interdistances are illustrated below.





3. TEST CONDITIONS

3.1 Temperature and Humidity

Ambient temperature (°C):	19.8 – 23.6
Ambient humidity (RH %):	30 - 60

3.2 Test Signal, Frequencies and Output Power

The device was put into operation by using a call tester except for testing WLAN2450 where control software was used. Communication between the device and the call tester was established by air link.

The device output power was set to maximum power level for all tests; a fully charged battery was used for every test sequence.

LTE bands have been tested according to the guidance given in KDB941225 D05 SAR for LTE Devices v01. MPR values as stipulated in Table 6.2.3_1 of 3GPP TS 36.101 (presented below) have been incorporated into the device; these MPR values are dependent on the modulation, Channel Bandwidth and Resource Block allocations as shown:

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3

Modulation	Channel bandwidth / Transmission bandwidth (RB)						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

No additional MPR settings have been incorporated into the design of the device and therefore no A-MPR settings have been active during its testing.

The transmission mode of the device in all WCDMA tests was configured to 12.2kbps RMC with all TPC bits set as “1”.

In all operating bands the measurements were performed on lowest, middle and highest channels.

The radiated output power of the device was measured by a separate test laboratory on the same unit(s) as used for SAR testing. The results are given in the EMC report supporting this application.

The transmission mode of the device in all WLAN b-mode tests was DSSS QPSK 1Mbps. This mode has the highest time-averaged output power of all the WLAN b, g and n modulation modes in this device as illustrated in table below.

Modulation mode	Measured averaged powers				
	Ch 1	Ch 2	Ch 6	Ch 10	Ch 11
b-mode WLAN DSSS 1 Mbps	16.73dBm	n/m	16.46dBm	n/m	17.15dBm
b-mode WLAN DSSS 2 Mbps	15.87dBm	n/m	16.09dBm	n/m	16.55dBm
b-mode WLAN DSSS 5.5 Mbps	15.52dBm	n/m	15.63dBm	n/m	16.25dBm
b-mode WLAN DSSS 11 Mbps	15.24dBm	n/m	15.45dBm	n/m	15.83dBm
g-mode WLAN OFDM 6 Mbps	10.93dBm	15.55dBm	16.00dBm	15.94dBm	11.62dBm
g-mode WLAN OFDM 9 Mbps	10.76dBm	15.42dBm	15.54dBm	15.82dBm	11.48dBm
g-mode WLAN OFDM 12 Mbps	10.55dBm	15.23dBm	15.51dBm	15.70dBm	11.24dBm
g-mode WLAN OFDM 18 Mbps	10.21dBm	14.90dBm	15.16dBm	15.25dBm	10.73dBm
g-mode WLAN OFDM 24 Mbps	9.60dBm	14.38dBm	14.62dBm	14.80dBm	10.35dBm
g-mode WLAN OFDM 36 Mbps	9.16dBm	13.86dBm	14.00dBm	14.26dBm	9.68dBm
g-mode WLAN OFDM 48 Mbps	8.68dBm	13.22dBm	13.51dBm	13.80dBm	9.25dBm
g-mode WLAN OFDM 54 Mbps	8.29dBm	13.05dBm	13.26dBm	13.57dBm	8.78dBm
n-mode MCS 0: OFDM 6.5 / 7.25 Mbps	10.89dBm	12.71dBm	12.97dBm	13.17dBm	11.12dBm
n-mode MCS 1: OFDM 13.0 / 14.4 Mbps	10.55dBm	12.16dBm	12.29dBm	12.62dBm	10.80dBm
n-mode MCS 2: OFDM 19.5 / 21.7 Mbps	10.48dBm	12.22dBm	12.42dBm	12.59dBm	11.19dBm
n-mode MCS 3: OFDM 26.0 / 28.9 Mbps	9.51dBm	11.29dBm	11.52dBm	11.82dBm	10.15dBm
n-mode MCS 4: OFDM 39.0 / 43.3 Mbps	8.90dBm	10.73dBm	10.91dBm	11.13dBm	9.60dBm
n-mode MCS 5: OFDM 52.0 / 57.8 Mbps	8.41dBm	10.18dBm	10.52dBm	10.73dBm	8.94dBm
n-mode MCS 6: OFDM 58.5 / 65.0 Mbps	8.05dBm	9.94dBm	10.25dBm	10.47dBm	8.64dBm
n-mode MCS 7: OFDM 65.0 / 72.2 Mbps	8.02dBm	9.82dBm	10.14dBm	10.11dBm	8.56dBm

3.3 Test Cases and Test Minimisation

WLAN testing has been restricted to b-mode DSSS 1Mbps as a) this mode has the highest time-averaged output power and b) no g- or n-mode powers exceeded this mode by > 0.25dB.

For Head SAR testing: minimal test reductions have been carried. In the GSM/GPRS/EGPRS bands, full testing has been carried out in 1-slot GSM and 2-slot GPRS modes but only the maximum SAR test configuration has been measured in each EGPRS band as the power levels are at least 3dB below those for GSM/GPRS.

For Body-worn SAR testing at 15mm, testing of the GSM/GPRS/EGPRS modes was reduced to measurement of the maximum modes identified during HEAD SAR testing. This approach was fully justified as the device possesses an internal antenna and is of monobloc construction i.e. it does not possess a retractable antenna, it has no flip and it has no slides of any description. As a result, there are no alternative device and exposure configurations available, so the maximum SAR modes identified during Head SAR testing are directly transferable to Body-worn SAR testing at 15mm.

For Wireless Router SAR testing, the maximum power mode identified during Head SAR testing in GSM/GPRS/EGPRS1900 band was used but, as a result of the 1dB power reduction introduced into the 2-slot GPRS850 mode, a checking measurement was performed in 1-slot GSM850 mode to confirm that the 2-slot configuration remained the mode with the highest average power/highest SAR in this band.

4. DESCRIPTION OF THE TEST EQUIPMENT

4.1 Measurement System and Components

The measurements were performed using an automated near-field scanning system, DASY4, manufactured by Schmid & Partner Engineering AG (SPEAG) in Switzerland. The SAR extrapolation algorithm used in all measurements was the 'advanced extrapolation' algorithm.

The following table lists calibration dates of SPEAG components:

Test Equipment	Serial Number	Calibration date	Calibration expiry
DAE 4	555	2011-02	2012-02
DAE 4	538	2011-09	2012-09
DAE 4	1309	2012-01	2013-01
DAE 4	793	2011-09	2012-09
DAE 4	728	2011-05	2012-05
DAE 4	1213	2011-02	2012-02
E-field Probe ES3DV3	3131	2011-09	2012-09
E-field Probe ES3DV3	3194	2011-09	2012-09
E-field Probe ES3DV3	3165	2011-02	2012-02
E-field Probe EX3DV4	3790	2011-05	2012-05
Dipole Validation Kit, D750V2	1034	2011-07	2013-07
Dipole Validation Kit, D835V2	462	2011-09	2013-09
Dipole Validation Kit, D1800V2	256	2009-10	2011-10
Dipole Validation Kit, D1800V2	2d065	2011-09	2013-09
Dipole Validation Kit, D1900V2	5d013	2010-03	2012-03
Dipole Validation Kit, D2450V2	729	2011-09	2013-09
DASY4 software	Version 4.7	-	-
DASY5 software	Version 52.6.1.408	-	-

Additional test equipment used in testing:

Test Equipment	Model	Serial Number	Calibration date	Calibration expiry
Signal Generator	SML03	101265	12 months	2012-08
Amplifier	5S1G4M3	302338	-	-
Power Meter	NRVS	838624/032	12 months	2012-08
Power Sensor	NRV-Z32	100069	12 months	2012-08
Call Tester	CMU 200	101111	-	-
Call Tester	CMU 200	104983	-	-
Anritsu	MT8820C	6200883095	-	-
Vector Network Analyzer	8753E	US38432928	12 months	2012-08
Dielectric Probe Kit	85070B	US33020420	-	-
Signal Generator	E4436B	US39260114	12 months	2012-08
Amplifier	5S1G4	25583	-	-
Power Meter	NRVS	849305/028	12 months	2012-08
Power Sensor	NRV-Z32	100067	12 months	2012-08

4.1.1 Isotropic E-field Probe Type ES3DV3

Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., butyl diglycol)
Calibration	Calibration certificate in Appendix D
Frequency	10 MHz to 4 GHz (dosimetry); Linearity: ± 0.2 dB (30 MHz to 4 GHz)
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.3 dB in HSL (rotation normal to probe axis)
Dynamic Range	5 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB
Dimensions	Overall length: 330 mm Tip length: 20 mm Body diameter: 12 mm Tip diameter: 3.9 mm
Application	Distance from probe tip to dipole centers: 2.0 mm General dosimetry up to 4 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms

4.1.2 Isotropic E-field Probe Type EX3DV4

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	Calibration certificate in Appendix D
Frequency	10 MHz to >6 GHz (dosimetry); Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 μ W/g to > 100 mW/g, Linearity: ± 0.2 dB
Dimensions	Overall length: 330 mm Tip length: 10 mm Body diameter: 12 mm Tip diameter: 2.5 mm
Application	Distance from probe tip to dipole centers: 1.0 mm General dosimetry up to 6 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms

4.2 Phantoms

The phantom used for all tests i.e. for both system checks and device testing, was the twin-headed "SAM Phantom", manufactured by SPEAG. The phantom conforms to the requirements of IEEE 1528 - 2003.

System checking was performed using the flat section, whilst Head SAR tests used the left and right head profile sections. Body SAR testing also used the flat section between the head profiles.

The SPEAG device holder (see Section 5.1) was used to position the device in all tests whilst a tripod was used to position the validation dipoles against the flat section of phantom.

4.3 Tissue Simulants

Recommended values for the dielectric parameters of the tissue simulants are given in IEEE 1528 - 2003 and FCC Supplement C to OET Bulletin 65. All tests were carried out using simulants whose dielectric parameters were within $\pm 5\%$ of the recommended values. All tests were carried out within 24 hours of measuring the dielectric parameters.

The depth of the tissue simulant was at least 15.0 cm measured from the ear reference point during system checking and device measurements.

4.3.1 Tissue Simulant Recipes

The following recipe(s) were used for Head and Body tissue simulant(s):

700MHz band

Ingredient	Head (% by weight)	Body (% by weight)
Deionised Water	52.13	69.23
Tween 20	46.59	29.56
Salt	1.28	1.21

800MHz band

Ingredient	Head (% by weight)	Body (% by weight)
Deionised Water	51.50	69.25
Tween 20	47.35	30.00
Salt	1.15	0.75

1800MHz band

Ingredient	Head (% by weight)	Body (% by weight)
Deionised Water	54.0	70.20
Tween 20	45.6	29.37
Salt	0.4	0.43

1900MHz band

Ingredient	Head (% by weight)	Body (% by weight)
Deionised Water	54.50	70.25
Tween 20	45.23	29.41
Salt	0.27	0.34

2450MHz band

Ingredient	Head (% by weight)	Body (% by weight)
Deionised Water	56.0	70.20
Tween 20	44.0	29.62
Salt	-	0.18

4.3.2 System Checking

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulants were measured every day using the dielectric probe kit and the network analyser. A system check measurement was made following the determination of the dielectric parameters of the simulant, using the dipole validation kit. A power level of 250 mW was supplied to the dipole antenna, which was placed under the flat section of the twin SAM phantom. The system checking results (dielectric parameters and SAR values) are given in the table below.

System checking, head tissue simulant

f [MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters		Temp [°C]
			ϵ_r	σ [S/m]	
750	Reference result	2.12	41.7	0.91	
	$\pm 10\%$ window	1.91 -2.33			
	IEEE1528 / IEC62209-1 Standard target		41.9	0.89	
	2011-11-02	2.09	42.5	0.91	21.0
	2011-11-03	2.12	42.4	0.91	21.0
	2011-11-04	2.10	42.1	0.91	21.0
	2012-02-02	2.08	41.2	0.89	21.0
	2012-02-03	2.06	40.8	0.89	21.0
	2012-02-09	2.05	40.7	0.88	21.0
835	Reference result	2.33	41.1	0.89	
	$\pm 10\%$ window	2.10 – 2.56			
	IEEE1528 / IEC62209-1 Standard target		41.5	0.90	
	2011-10-18	2.43	41.1	0.89	21.0
	2011-10-19	2.46	41.2	0.90	21.0
	2012-02-06	2.40	40.3	0.89	21.0
	2012-02-09	2.39	39.9	0.89	21.0
1800	Reference result	9.90	40.0	1.40	
	$\pm 10\%$ window	8.91 – 10.89			
	IEEE1528 / IEC62209-1 Standard target		40.0	1.40	
	2011-10-18	10.3	38.5	1.39	21.0
1800	Reference result	9.43	39.7	1.37	
	$\pm 10\%$ window	8.49 – 10.37			
	IEEE1528 / IEC62209-1 Standard target		40.0	1.40	
	2011-11-08	9.98	38.4	1.41	21.0
	2011-11-09	10.2	38.0	1.37	21.0
	2011-11-10	10.3	37.9	1.40	21.0
	2012-02-02	10.0	38.7	1.38	21.0
	2012-02-03	10.3	38.2	1.37	21.0
	2012-02-06	10.0	38.1	1.37	21.0

1900	Reference result	10.2	41.2	1.45	
	± 10% window	9.2 – 11.2			
	IEEE1528 / IEC62209-1 Standard target		40.0	1.40	
	2011-10-17	10.7	39.9	1.43	21.0
	2011-10-18	10.6	39.5	1.39	21.0
	2011-10-19	10.7	39.6	1.40	21.0
	2011-10-21	10.9	39.5	1.38	21.0
	2011-10-25	10.5	39.5	1.38	21.0
	2012-02-06	9.79	39.9	1.38	21.0
2450	Reference result	13.9	38.3	1.85	
	± 10% window	12.5 – 15.3			
	IEEE1528 / IEC62209-1 Standard target		39.2	1.80	
	2012-02-07	13.8	37.8	1.82	21.0
	2012-02-09	14.6	37.6	1.80	21.0

System checking, body tissue simulant

f [MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters		Temp [°C]
			ϵ_r	σ [S/m]	
750	Reference result	2.20	55.2	0.96	
	± 10% window	1.98 – 2.42			
	FCC Supplement C / RSS-102 Standard target		55.5	0.96	
	2011-11-04	2.25	55.7	0.98	21.0
	2012-02-25	2.18	55.7	0.99	21.0
835	Reference result	2.45	53.5	1.00	
	± 10% window	2.20 – 2.70			
	FCC Supplement C / RSS-102 Standard target		55.2	0.97	
	2011-10-20	2.59	53.6	1.02	21.0
	2011-10-24	2.36	53.4	0.99	21.0
	2011-10-27	2.54	52.9	0.99	21.0
	2011-11-01	2.49	52.8	0.99	21.0
	2011-11-02	2.50	53.5	0.99	21.0
1800	Reference result	9.86	54.3	1.52	
	± 10% window	8.87 – 10.85			
	FCC Supplement C / RSS-102 Standard target		53.3	1.52	
	2011-10-31	10.0	51.7	1.54	21.0
	2011-11-09	9.82	51.7	1.49	21.0
	2011-11-10	10.1	51.6	1.53	21.0
	2011-11-11	10.1	51.9	1.51	21.0
	2012-02-25	9.46	51.7	1.48	21.0
1900	Reference result	10.4	55.0	1.58	
	± 10% window	9.4 – 11.4			
	FCC Supplement C / RSS-102 Standard target		53.3	1.52	
	2011-10-25	11.1	52.6	1.52	21.0
	2011-10-26	11.0	52.8	1.55	21.0
	2011-10-28	10.6	52.3	1.51	21.0
	2011-10-31	10.8	52.6	1.54	21.0

2450	Reference result	13.3	51.7	2.04	
	$\pm 10\%$ window	12.0 – 14.6			
	FCC Supplement C / RSS-102 Standard target		52.7	1.95	
	2012-02-08	13.5	50.5	1.98	21.0

Plots of the system checking scans are given in Appendix A.

4.3.3 Tissue Simulants used in the Measurements

Head tissue simulant measurements

f [MHz]	Description	Dielectric Parameters		Temp [°C]
		ϵ_r	σ [S/m]	
710	Recommended value	42.1	0.89	
	$\pm 5\%$ window	40.0 – 44.2	0.85 – 0.93	
	2011-11-02	42.9	0.88	21.0
	2011-11-03	42.6	0.88	21.0
	2011-11-04	42.3	0.88	21.0
	2012-02-02	41.5	0.87	21.0
	2012-02-03	41.0	0.86	21.0
	2012-02-09	41.0	0.86	21.0
835	Recommended value	41.5	0.90	
	$\pm 5\%$ window	39.4 – 43.6	0.86 – 0.95	
	2011-10-19	41.2	0.90	21.0
836	Recommended value	41.5	0.90	
	$\pm 5\%$ window	39.4 – 43.6	0.86 – 0.95	
	2011-10-18	41.1	0.90	21.0
	2011-10-19	41.2	0.90	21.0
	2012-02-06	40.3	0.89	21.0
	2012-02-09	39.9	0.89	21.0
1732	Recommended value	40.1	1.36	
	$\pm 5\%$ window	38.1 – 42.1	1.29 – 1.43	
	2010-10-18	38.8	1.33	21.0
	2011-11-08	38.7	1.33	21.0
	2011-11-09	38.3	1.31	21.0
	2011-11-10	38.2	1.34	21.0
	2012-02-02	39.0	1.30	21.0
	2012-02-03	38.3	1.30	21.0
	2012-02-06	38.4	1.32	21.0

1880	Recommended value	40.0	1.40	
	± 5% window	38.0 – 42.0	1.33 – 1.47	
	2011-10-17	39.9	1.41	21.0
	2011-10-18	39.6	1.38	21.0
	2011-10-19	39.7	1.38	21.0
	2011-10-25	39.6	1.36	21.0
	2012-02-06	39.9	1.36	21.0
2437	Recommended value	39.2	1.79	
	± 5% window	37.3 – 41.2	1.70 – 1.88	
	2012-02-07	37.9	1.80	21.0
	2012-02-09	37.7	1.78	21.0

Body tissue simulant measurements

f [MHz]	Description	Dielectric Parameters		Temp [°C]
		ϵ_r	σ [S/m]	
710	Recommended value	55.7	0.96	
	± 5% window	52.9 – 58.5	0.91 – 1.01	
	2011-11-04	55.9	0.95	21.0
	2012-02-25	55.9	0.97	21.0
835	Recommended value	55.2	0.97	
	± 5% window	52.4 – 58.0	0.92 – 1.02	
	2011-10-20	53.6	1.02	21.0
	2011-10-27	52.9	0.99	21.0
836	Recommended value	55.2	0.97	
	± 5% window	52.4 – 58.0	0.92 – 1.02	
	2011-10-24	53.4	0.99	21.0
	2011-11-01	52.8	0.99	21.0
	2011-11-02	53.4	0.99	21.0
1732	Recommended value	53.5	1.48	
	± 5% window	50.8 – 56.2	1.40 – 1.55	
	2011-10-18	51.6	1.44	21.0
	2011-10-31	51.9	1.49	21.0
	2011-11-09	51.8	1.43	21.0
	2011-11-10	52.0	1.46	21.0
	2011-11-11	52.2	1.44	21.0
	2012-02-25	52.0	1.41	21.0
1880	Recommended value	53.3	1.52	
	± 5% window	50.6 – 56.0	1.44 – 1.60	
	2011-10-19	53.2	1.53	21.0
	2011-10-21	52.6	1.50	21.0
	2011-10-25	52.7	1.50	21.0
	2011-10-26	52.9	1.53	21.0
	2011-10-28	52.3	1.50	21.0
	2011-10-31	52.7	1.52	21.0
2437	Recommended value	52.7	1.94	
	± 5% window	50.1 – 55.3	1.85 – 2.04	
	2012-02-08	50.5	1.97	21.0

5. DESCRIPTION OF THE TEST PROCEDURE

5.1 Device Holder

The device was placed in the device holder (illustrated below) that is supplied by SPEAG as an integral part of the Dasy system.



Device holder supplied by SPEAG

A Nokia designed spacer (illustrated below) was used to position the device within the SPEAG holder. The spacer positions the device so that the holder has minimal effect on the test results but still holds the device securely. The spacer was removed before the tests.



Nokia spacer

5.2 Test Positions

5.2.1 Against Phantom Head

Measurements were made in “cheek” and “tilt” positions on both the left hand and right hand sides of the phantom.

The positions used in the measurements were according to IEEE 1528 - 2003 "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques".

5.2.2 Body Worn Configuration

The device was placed in the SPEAG holder using the Nokia spacer and placed below the flat section of the phantom. The distance between the device and the phantom was kept at the separation distance indicated in Section 1.2.2 using a separate flat spacer that was removed before the start of the measurements. The device was oriented with both sides facing the phantom to find the highest results.

Nokia body-worn accessories are commonly available for the separation distance used in this testing.

5.3 Scan Procedures

First, area scans were used for determination of the field distribution. Next, a zoom scan, a minimum of 5x5x7 points covering a volume of at least 30x30x30mm, was performed around the highest E-field value to determine the averaged SAR value. Drift was determined by measuring the same point at the start of the area scan and again at the end of the zoom scan.

5.4 SAR Averaging Methods

The maximum SAR value was averaged over a cube of tissue using interpolation and extrapolation.

The interpolation, extrapolation and maximum search routines within Dasy4 are all based on the modified Quadratic Shepard's method (Robert J. Renka, "Multivariate Interpolation Of Large Sets Of Scattered Data", University of North Texas ACM Transactions on Mathematical Software, vol. 14, no. 2, June 1988, pp. 139-148).

The interpolation scheme combines a least-square fitted function method with a weighted average method. A trivariate 3-D / bivariate 2-D quadratic function is computed for each measurement point and fitted to neighbouring points by a least-square method. For the zoom scan, inverse distance weighting is incorporated to fit distant points more accurately. The interpolating function is finally calculated as a weighted average of the quadratics.

In the zoom scan, the interpolation function is used to extrapolate the Peak SAR from the deepest measurement points to the inner surface of the phantom.

6. MEASUREMENT UNCERTAINTY

Table 6.1 – Measurement uncertainty evaluation

Uncertainty Component	Section in IEEE 1528	Tol. (%)	Prob Dist	Div	C_i	$C_i \cdot U_i$ (%)	V_i
Measurement System							
Probe Calibration	E2.1	±5.9	N	1	1	±5.9	∞
Axial Isotropy	E2.2	±4.7	R	√3	$(1-c_p)^{1/2}$	±1.9	∞
Hemispherical Isotropy	E2.2	±9.6	R	√3	$(c_p)^{1/2}$	±3.9	∞
Boundary Effect	E2.3	±1.0	R	√3	1	±0.6	∞
Linearity	E2.4	±4.7	R	√3	1	±2.7	∞
System Detection Limits	E2.5	±1.0	R	√3	1	±0.6	∞
Readout Electronics	E2.6	±1.0	N	1	1	±1.0	∞
Response Time	E2.7	±0.8	R	√3	1	±0.5	∞
Integration Time	E2.8	±2.6	R	√3	1	±1.5	∞
RF Ambient Conditions - Noise	E6.1	±3.0	R	√3	1	±1.7	∞
RF Ambient Conditions - Reflections	E6.1	±3.0	R	√3	1	±1.7	∞
Probe Positioner Mechanical Tolerance	E6.2	±0.4	R	√3	1	±0.2	∞
Probe Positioning with respect to Phantom Shell	E6.3	±2.9	R	√3	1	±1.7	∞
Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	E5	±3.9	R	√3	1	±2.3	∞
Test sample Related							
Test Sample Positioning	E4.2	±6.0	N	1	1	±6.0	11
Device Holder Uncertainty	E4.1	±5.0	N	1	1	±5.0	7
Output Power Variation - SAR drift measurement	6.6.3	±0.0	R	√3	1	±0.0	∞
Phantom and Tissue Parameters							
Phantom Uncertainty (shape and thickness tolerances)	E3.1	±4.0	R	√3	1	±2.3	∞
Conductivity Target - tolerance	E3.2	±5.0	R	√3	0.64	±1.8	∞
Conductivity - measurement uncertainty	E3.3	±5.5	N	1	0.64	±3.5	5
Permittivity Target - tolerance	E3.2	±5.0	R	√3	0.6	±1.7	∞
Permittivity - measurement uncertainty	E3.3	±2.9	N	1	0.6	±1.7	5
Combined Standard Uncertainty			RSS			±12.9	116
Coverage Factor for 95%			k=2				
Expanded Uncertainty						±25.8	

7. RESULTS

The measured Head SAR values for the test device are tabulated below:

LTE700 Band Head SAR results

Option used	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz
QPSK	Conducted Average Power		22.47 dBm	22.50 dBm	22.33 dBm
10MHz Ch BW 50% RB 50% offset	Left	Cheek	0.387	0.432	0.362
		Tilt	-	0.222	-
	Right	Cheek	-	0.361	-
		Tilt	-	0.219	-
QPSK	Conducted Average Power		23.44 dBm	23.49 dBm	23.40 dBm
10MHz Ch BW 1 RB 50% offset	Left	Cheek	-	0.532	-
		Tilt	-	0.361	-
	Right	Cheek	0.505	0.543	0.516
		Tilt	-	0.355	-
QPSK	Conducted Average Power		21.88 dBm	21.82 dBm	21.70 dBm
10MHz Ch BW 1 RB 100% offset	Left	Cheek	-	0.304	-
		Tilt	-	0.159	-
	Right	Cheek	-	0.321	-
		Tilt	-	0.194	-
QPSK	Conducted Average Power		21.72 dBm	22.06 dBm	22.17 dBm
10MHz Ch BW 1 RB 0% offset	Left	Cheek	-	0.383	-
		Tilt	-	0.198	-
	Right	Cheek	-	0.351	-
		Tilt	-	0.207	-

(LTE700 Table continues)

(LTE700 Table continues)

16QAM	Conducted Average Power		21.45 dBm	21.44 dBm	21.30 dBm
10MHz Ch BW 50% RB 50% offset	Left	Cheek	-	0.311	-
		Tilt	-	0.178	-
	Right	Cheek	-	0.283	-
		Tilt	-	0.160	-
16QAM	Conducted Average Power		23.17 dBm	22.75 dBm	22.57 dBm
10MHz Ch BW 1 RB 50% offset	Left	Cheek	0.465	0.461	-
		Tilt	-	0.243	-
	Right	Cheek	-	0.453	-
		Tilt	-	0.214	-
16QAM	Conducted Average Power		21.30 dBm	20.89 dBm	21.12 dBm
10MHz Ch BW 1 RB 100% offset	Left	Cheek	0.303	0.281	-
		Tilt	-	0.138	-
	Right	Cheek	-	0.295	-
		Tilt	-	0.151	-
16QAM	Conducted Average Power		20.92 dBm	21.45 dBm	21.41 dBm
10MHz Ch BW 1 RB 0% offset	Left	Cheek	-	0.335	-
		Tilt	-	0.197	-
	Right	Cheek	-	0.342	-
		Tilt	-	0.163	-

5MHz Channel Bandwidth has a maximum time-averaged output power < 0.5dB above the maximum time-averaged output power in 10MHz Channel Bandwidth. Therefore, according to KDB 941225 D05 SAR for LTE Devices v01, no SAR testing was required for the 5MHz Channel Bandwidth as no SAR value for 10MHz Channel Bandwidth exceeded 1.45W/kg.

850MHz Head SAR results

Mode	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz
GSM	Maximum Output Power		32.64 dBm	32.66 dBm	32.93 dBm
	Left	Cheek	-	0.677	-
		Tilt	-	0.426	-
	Right	Cheek	-	0.700	-
		Tilt	-	0.469	-
2-slot GPRS	Maximum Output Power		31.00 dBm	30.90 dBm	30.70 dBm
	Left	Cheek	0.963	0.840	0.708
		Tilt	-	0.625	-
	Right	Cheek	1.04	0.978	0.747
		Tilt	-	0.631	-
2-slot 8PSK EGPRS	Maximum Output Power		26.70 dBm	26.50 dBm	26.40 dBm
	Left	Cheek	-	-	-
		Tilt	-	-	-
	Right	Cheek	0.407	-	-
		Tilt	-	-	-
Mode	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz
WCDMA	Maximum Output Power		23.15 dBm	23.39 dBm	23.39 dBm
	Left	Cheek	-	0.552	-
		Tilt	-	0.372	-
	Right	Cheek	0.446	0.602	0.321
		Tilt	-	0.388	-

1700/2100MHz Head SAR results

Mode	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 1312 1712.4 MHz	Ch 1412 1732.4 MHz	Ch 1513 1752.6 MHz
WCDMA	Maximum Output Power		23.03 dBm	23.17 dBm	23.23 dBm
	Left	Cheek	1.06	1.22	1.27
		Tilt	-	0.394	-
	Right	Cheek	-	0.459	-
		Tilt	-	0.524	-

LTE1700/2100 Head SAR results

Option used	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 20050 1720.0 MHz	Ch 20175 1732.5 MHz	Ch 20300 1745.0 MHz
QPSK	Conducted Average Power		21.44 dBm	21.56 dBm	21.46 dBm
20MHz Ch BW 50% RB 50% offset	Left	Cheek	0.794	0.833	0.854
		Tilt	-	0.274	-
	Right	Cheek	-	0.336	-
		Tilt	-	0.333	-
QPSK	Conducted Average Power		22.39 dBm	22.61 dBm	22.31 dBm
20MHz Ch BW 1 RB 50% offset	Left	Cheek	0.977	1.01	1.02
		Tilt	-	0.334	-
	Right	Cheek	-	0.429	-
		Tilt	-	0.385	-
QPSK	Conducted Average Power		22.48 dBm	22.29 dBm	22.50 dBm
20MHz Ch BW 1 RB 100% offset	Left	Cheek	1.01	0.983	0.982
		Tilt	-	0.314	-
	Right	Cheek	-	0.419	-
		Tilt	-	0.404	-
QPSK	Conducted Average Power		22.24 dBm	22.42 dBm	22.42 dBm
20MHz Ch BW 1 RB 0% offset	Left	Cheek	0.910	0.970	1.02
		Tilt	-	0.320	-
	Right	Cheek	-	0.382	-
		Tilt	-	0.380	-

(LTE1700/2100 Table continues)

(LTE1700/2100 Table continues)

16QAM	Conducted Average Power		20.48 dBm	20.57 dBm	20.36 dBm
20MHz Ch BW 50% RB 50% offset	Left	Cheek	-	0.616	-
		Tilt	-	0.213	-
	Right	Cheek	-	0.267	-
		Tilt	-	0.264	-
16QAM	Conducted Average Power		21.69 dBm	21.44 dBm	21.88 dBm
20MHz Ch BW 1 RB 50% offset	Left	Cheek	0.821	0.813	0.794
		Tilt	-	0.287	-
	Right	Cheek	-	0.352	-
		Tilt	-	0.349	-
16QAM	Conducted Average Power		21.71 dBm	21.34 dBm	21.46 dBm
20MHz Ch BW 1 RB 100% offset	Left	Cheek	0.832	0.786	0.881
		Tilt	-	0.263	-
	Right	Cheek	-	0.357	-
		Tilt	-	0.340	-
16QAM	Conducted Average Power		21.53 dBm	21.63 dBm	21.82 dBm
20MHz Ch BW 1 RB 0% offset	Left	Cheek	0.776	0.787	0.850
		Tilt	-	0.273	-
	Right	Cheek	-	0.319	-
		Tilt	-	0.315	-

Each of the available smaller Channel Bandwidths (1.4, 3.0, 5.0, 10.0 and 15.0MHz) has a maximum time-averaged output power < 0.5dB above the maximum time-averaged output power in 20MHz Channel Bandwidth. Therefore, according to KDB 941225 D05 SAR for LTE Devices v01, no SAR testing was required in any of the smaller Channel Bandwidths as no SAR value for 10MHz Channel Bandwidth exceeded 1.45W/kg.

1900MHz Head SAR results

Mode	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 512 1850.2 MHz	Ch 661 1880.0 MHz	Ch 810 1909.8 MHz
GSM	Maximum Output Power		29.68 dBm	29.42 dBm	29.75 dBm
	Left	Cheek	-	0.651	-
		Tilt	-	0.608	-
	Right	Cheek	-	0.320	-
		Tilt	-	0.237	-
2-slot GPRS	Maximum Output Power		28.60 dBm	28.60 dBm	28.70 dBm
	Left	Cheek	0.686	0.940	1.08
		Tilt	-	0.429	-
	Right	Cheek	-	0.588	-
		Tilt	-	0.417	-
2-slot 8PSK EGPRS	Maximum Output Power		25.50 dBm	25.60 dBm	25.70 dBm
	Left	Cheek	-	-	0.501
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
Mode	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 9262 1852.4 MHz	Ch 9400 1880.0 MHz	Ch 9538 1907.6 MHz
WCDMA	Maximum Output Power		23.10 dBm	23.20 dBm	23.10 dBm
	Left	Cheek	1.26	1.28	1.25
		Tilt	-	0.565	-
	Right	Cheek	-	0.683	-
		Tilt	-	0.515	-

2450MHz Head SAR results

Mode	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz
WLAN b-mode	Conducted Average Power		16.73 dBm	16.46 dBm	17.15 dBm
DSSS 1Mbps	Left	Cheek	0.527	1.00	0.610
		Tilt	0.458	0.881	0.544
	Right	Cheek	-	0.677	-
		Tilt	0.360	0.820	0.557

The measured Body SAR values for the test device are tabulated below:

LTE700 Band Body SAR results

Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz
QPSK		Conducted Average Power	22.47 dBm	22.50 dBm	22.33 dBm
10MHz Ch BW 50% RB 50% offset	Display facing phantom	Without headset	-	-	-
		Headset WH-208	-	-	-
	Back facing phantom	Without headset	-	0.511	-
		Headset WH-208	-	-	-
QPSK		Conducted Average Power	23.44 dBm	23.49 dBm	23.40 dBm
10MHz Ch BW 1RB 50% offset	Display facing phantom	Without headset	-	0.534	-
		Headset WH-208	-	0.401	-
	Back facing phantom	Without headset	0.659	0.571	0.658
		Headset WH-208	-	0.451	-
QPSK		Conducted Average Power	21.88 dBm	21.82 dBm	21.70 dBm
10MHz Ch BW 1RB 100% offset	Display facing phantom	Without headset	-	-	-
		Headset WH-208	-	-	-
	Back facing phantom	Without headset	-	0.388	-
		Headset WH-208	-	-	-
QPSK		Conducted Average Power	21.72 dBm	22.06 dBm	22.17 dBm
10MHz Ch BW 1RB 0% offset	Display facing phantom	Without headset	-	-	-
		Headset WH-208	-	-	-
	Back facing phantom	Without headset	-	0.513	-
		Headset WH-208	-	-	-

850MHz Body SAR results

Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz
2-slot GPRS		Maximum Output Power	31.00 dBm	30.90 dBm	30.70 dBm
	Display facing phantom	Without headset	0.986	0.929	0.977
		Headset WH-208	-	0.713	-
	Back facing phantom	Without headset	1.09	1.16	0.699
		Headset WH-208	0.932	0.855	0.891
Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz
WCDMA		Maximum Output Power	23.15 dBm	23.39 dBm	23.39 dBm
	Display facing phantom	Without headset	-	0.571	-
		Headset WH-208	-	0.450	-
	Back facing phantom	Without headset	0.523	0.589	0.381
		Headset WH-208	-	0.537	-

1700/2100MHz Body SAR results

Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 1312 1712.4 MHz	Ch 1412 1732.4 MHz	Ch 1513 1752.6 MHz
WCDMA		Maximum Output Power	23.03 dBm	23.17 dBm	23.23 dBm
	Display facing phantom	Without headset	0.568	0.660	0.723
		Headset WH-208	-	0.634	-
	Back facing phantom	Without headset	-	0.633	-
		Headset WH-208	-	0.616	-

LTE1700/2100 Body SAR results

Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 20050 1720.0 MHz	Ch 20175 1732.5 MHz	Ch 20300 1745.0 MHz
QPSK		Conducted Average Power	21.44 dBm	21.56 dBm	21.46 dBm
20MHz Ch BW 50% RB 50% offset	Display facing phantom	Without headset	-	-	-
		Headset WH-208	-	-	-
	Back facing phantom	Without headset	-	0.415	-
		Headset WH-208	-	-	-
QPSK		Conducted Average Power	22.39 dBm	22.61 dBm	22.31 dBm
20MHz Ch BW 1 RB 50% offset	Display facing phantom	Without headset	0.572	0.607	0.613
		Headset WH-208	-	0.537	-
	Back facing phantom	Without headset	-	0.569	-
		Headset WH-208	-	0.561	-
QPSK		Conducted Average Power	22.48 dBm	22.29 dBm	22.50 dBm
20MHz Ch BW 1 RB 100% offset	Display facing phantom	Without headset	-	-	-
		Headset WH-208	-	-	-
	Back facing phantom	Without headset	-	0.516	-
		Headset WH-208	-	-	-
QPSK		Conducted Average Power	22.24 dBm	22.42 dBm	22.42 dBm
20MHz Ch BW 1 RB 0% offset	Display facing phantom	Without headset	-	-	-
		Headset WH-208	-	0.513	-
	Back facing phantom	Without headset	-	-	-
		Headset WH-208	-	-	-

1900MHz Body SAR results

Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 512 1850.2 MHz	Ch 661 1880.0 MHz	Ch 810 1909.8 MHz
2-slot GPRS		Maximum Output Power	28.60 dBm	28.60 dBm	28.70 dBm
	Display facing phantom	Without headset	-	0.527	-
		Headset WH-208	0.586	0.597	0.484
	Back facing phantom	Without headset	-	0.535	-
		Headset WH-208	-	0.524	-
Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 9262 1852.4 MHz	Ch 9400 1880.0 MHz	Ch 9538 1907.6 MHz
WCDMA		Maximum Output Power	23.10 dBm	23.20 dBm	23.10 dBm
	Display facing phantom	Without headset	0.746	0.706	0.545
		Headset WH-208	-	0.695	-
	Back facing phantom	Without headset	-	0.585	-
		Headset WH-208	-	0.613	-

2450MHz Body SAR results

Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz
WLAN b-mode		Conducted Average Power	16.73 dBm	16.46 dBm	17.15 dBm
DSSS 1Mbps	Display facing phantom	Without headset	0.101	0.141	0.147
		Headset WH-208	-	0.105	-
	Back facing Phantom	Without headset	-	0.138	-
		Headset WH-208	-	0.140	-

**Simultaneous transmissions: Combined SAR results –
Individual band Max results**

Test configuration	Max. 1g SAR results							
	WLAN	LTE700	2-slot GPRS 850	WCDMA 850	WCDMA 1700/2100	LTE 1700/2100	2-slot GPRS 1900	WCDMA 1900
Head: Left, Cheek	1.00	0.532	0.963	0.552	1.27	1.02	1.08	1.28
Head: Left, Tilt	0.881	0.361	0.625	0.372	0.394	0.334	0.429	0.565
Head: Right, Cheek	0.677	0.543	1.04	0.602	0.454	0.429	0.588	0.683
Head: Right, Tilt	0.820	0.355	0.631	0.388	0.524	0.385	0.417	0.515
Body: Display facing phantom, Without Headset	0.147	0.534	0.986	0.571	0.723	0.613	0.527	0.746
Body: Display facing phantom, Headset WH-208	0.105	0.401	0.713	0.450	0.634	0.537	0.597	0.695
Body: Back facing phantom, Without Headset	0.138	0.659	1.16	0.589	0.633	0.569	0.535	0.585
Body: Back facing phantom, Headset WH-208	0.140	0.451	0.932	0.537	0.616	0.561	0.524	0.613

**Simultaneous transmissions: Combined SAR results –
Max + Max combined results**

Test configuration	Max. 1g SAR results						
	LTE700 + WLAN	2-slot GPRS850 + WLAN	WCDMA 850 + WLAN	WCDMA 1700/2100 + WLAN	LTE 1700/2100 + WLAN	2-slot GPRS1900 + WLAN	WCDMA 1900 + WLAN
Head: Left, Cheek	1.532	1.963	1.552	2.270	2.020	2.080	2.280
Head: Left, Tilt	1.242	1.506	1.253	1.275	1.215	1.310	1.446
Head: Right, Cheek	1.220	1.717	1.279	1.131	1.106	1.265	1.360
Head: Right, Tilt	1.175	1.451	1.208	1.344	1.205	1.237	1.335
Body: Display facing phantom, Without Headset	0.681	1.133	0.718	0.870	0.760	0.674	0.893
Body: Display facing phantom, Headset WH-208	0.506	0.818	0.555	0.739	0.642	0.702	0.800
Body: Back facing phantom, Without Headset	0.797	1.298	0.727	0.771	0.707	0.673	0.723
Body: Back facing phantom, Headset WH-208	0.591	1.072	0.677	0.756	0.701	0.664	0.753

In the table above, the largest 2-slot GPRS850 + WLAN, WCDMA1700/2100 + WLAN, LTE1700/2100 + WLAN, 2-slot GPRS1900 + WLAN and WCDMA1900 + WLAN Max + Max Left Cheek Head SAR values, and 2-slot GPRS850 + WLAN Right Cheek Head SAR value are > 1.6.

For the Left Cheek 2-slot GPRS850 + WLAN case, the x, y coordinates (cm) of the locations of the SAR hot spots are WLAN: (3.60, 32.90); 2-slot GPRS850: (6.49, 26.05). Hence the separation distance is: 7.296cm. The “Antenna Pair SAR to Peak Location Separation Ratio” is $1.963 / 7.43 = 0.26$ i.e. < 0.3. Therefore, according to KDB648474 D01 SAR Handsets Multi Xmitter and Ant, v01r05, Simultaneous Transmission Procedures are not required.

For the Left Cheek WCDMA1700/2100 + WLAN case, the x, y coordinates (cm) of the locations of the SAR hot spots are WLAN: (3.60, 32.90); WCDMA1700/2100: (6.48, 25.36). Hence the separation distance is: 8.07cm. The “Antenna Pair SAR to Peak Location Separation Ratio” is $2.270 / 8.07 = 0.28$ i.e. < 0.3. Therefore, according to KDB648474 D01 SAR Handsets Multi Xmitter and Ant, v01r05, Simultaneous Transmission Procedures are not required.

For the the Left Cheek LTE1700/2100 + WLAN case, the x, y coordinates (cm) of the locations of the SAR hot spots are WLAN: (3.60, 32.90); LTE1700/2100: (6.74, 25.38). Hence the separation distance is: 8.15cm. The “Antenna Pair SAR to Peak Location Separation Ratio” is $2.020 / 8.15 =$

0.25 i.e. < 0.3 . Therefore, according to KDB648474 D01 SAR Handsets Multi Xmitter and Ant, v01r05, Simultaneous Transmission Procedures are not required.

For the Left Cheek 2-slot GPRS1900 + WLAN case, the x, y coordinates (cm) of the locations of the SAR hot spots are WLAN: (3.60, 32.90); 2-slot GPRS1900: (6.41, 25.22). Hence the separation distance is: 8.15cm. The “Antenna Pair SAR to Peak Location Separation Ratio” is $2.08 / 8.15 = 0.26$ i.e. < 0.3 . Therefore, according to KDB648474 D01 SAR Handsets Multi Xmitter and Ant, v01r05, Simultaneous Transmission Procedures are not required.

For the Left Cheek WCDMA1900 + WLAN case, the x, y coordinates (cm) of the locations of the SAR hot spots are WLAN: (3.60, 32.90); WCDMA1900: (6.36, 25.43). Hence the separation distance is: 7.96cm. The “Antenna Pair SAR to Peak Location Separation Ratio” is $2.280 / 7.8 = 0.29$ i.e. < 0.3 . Therefore, according to KDB648474 D01 SAR Handsets Multi Xmitter and Ant, v01r05, Simultaneous Transmission Procedures are not required.

For the Right Cheek 2-slot GPRS850 + WLAN case, the x, y coordinates (cm) of the locations of the SAR hot spots are WLAN: (2.68, 30.98); 2-slot GPRS850: (6.62, 27.45). Hence the separation distance is: 5.29cm. The “Antenna Pair SAR to Peak Location Separation Ratio” is $1.717 / 5.29 = 0.32$ i.e. > 0.3 . Therefore, according to KDB648474 D01 SAR Handsets Multi Xmitter and Ant, v01r05, Simultaneous Transmission Procedures are required. Expanded zoom SAR scans fully including the Right Cheek SAR distributions of both 2-slot GPRS850 and WLAN2450 were performed. The resulting combined SAR value was 1.11 mW/g; this value is reported in the following table. Note that, due to the extensive time period required for the expanded plots, it was necessary to scale up both plots by their respective SAR Drifts before combining.

The following table gives a more accurate assessment of the SAR values for simultaneous transmission. These values have been calculated using the SPEAG Combined Multiband algorithm, which is based on area scans. It a) converts the 2D area scans into 3D volume scans by assuming frequency-dependent decay characteristics for the E-field, b) sums the SAR values for WLAN2450 and the cellular bands point-by-point and c) calculates the combined average SAR values.

**Simultaneous transmissions: Combined SAR results –
SPEAG Combined Multiband algorithm results**

Test configuration	Max. 1g SAR results						
	LTE700 + WLAN	2-slot GPRS850 + WLAN	WCDMA 850 + WLAN	WCDMA 1700/2100 + WLAN	LTE 1700/2100 + WLAN	2-slot GPRS1900 + WLAN	WCDMA 1900 + WLAN
Head: Left, Cheek	1.04	1.09	1.04	1.35	1.12	1.18	1.31
Head: Left, Tilt	-	-	-	-	-	-	-
Head: Right, Cheek	-	1.11	-	-	-	-	-
Head: Right, Tilt	-	-	-	-	-	-	-
Body: Display facing phantom, Without Headset	-	-	-	0.733	0.615	-	0.759
Body: Display facing phantom, Headset WH-208	-	-	-	-	-	0.612	-
Body: Back facing phantom, Without Headset	0.672	1.09	0.619	-	-	-	-
Body: Back facing phantom, Headset WH-208	-	-	-	-	-	-	-

Some of the Combined SAR values in the above table are less than the maximum SAR values for the contributing cellular band. This is due to a) minimal overlap of the SAR distributions of the cellular band with WLAN2450 and b) uncertainties associated with the different methods of calculation. In these cases, the maximum SAR values given for the combined Modes in the Summary table in Section 1.2 are those for the individual cellular band.

Plots of the Measurement scans are given in Appendix B.

APPENDIX A: SYSTEM CHECKING SCANS

Date/Time: 2011-11-02 11:09:30, Date/Time: 2011-11-02 11:15:18

Test Laboratory: TCC Nokia

Type: D750V3; Serial: D750V3 - SN:1034

Communication System: CW750

Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.6 C

Medium parameters used: f = 750 MHz; σ = 0.909 mho/m; ϵ_r = 42.5; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.21 mW/g

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

Reference Value = 49.8 V/m

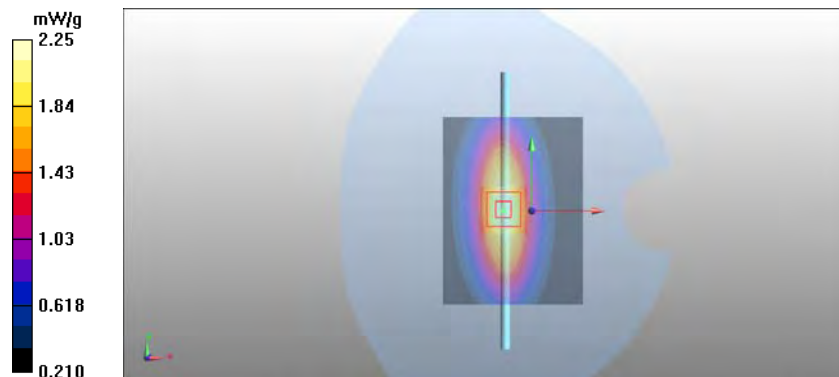
Peak SAR (extrapolated) = 3.14 W/kg

SAR(1 g) = 2.09 mW/g

SAR(10 g) = 1.37 mW/g

Power Drift = 0.013 dB

Maximum value of SAR (measured) = 2.25 mW/g



Date/Time: 2011-11-03 06:58:33, Date/Time: 2011-11-03 07:04:21

Test Laboratory: TCC Nokia

Type: D750V3; Serial: D750V3 - SN:1034

Communication System: CW750

Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.9 C

Medium parameters used: f = 750 MHz; $\sigma = 0.912$ mho/m; $\epsilon_r = 42.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.26 mW/g

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

Reference Value = 50.1 V/m

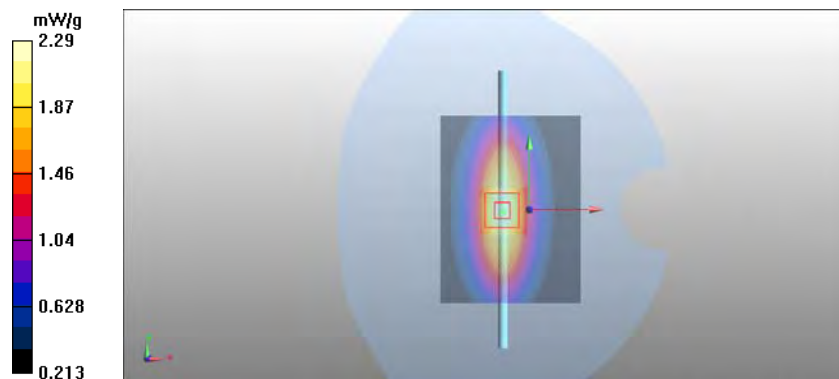
Peak SAR (extrapolated) = 3.2 W/kg

SAR(1 g) = 2.12 mW/g

SAR(10 g) = 1.39 mW/g

Power Drift = -0.011 dB

Maximum value of SAR (measured) = 2.29 mW/g



Date/Time: 2011-11-04 06:25:57, Date/Time: 2011-11-04 06:31:46

Test Laboratory: TCC Nokia

Type: D750V3; Serial: D750V3 - SN:1034

Communication System: CW750

Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.2 C

Medium parameters used: f = 750 MHz; $\sigma = 0.907$ mho/m; $\epsilon_r = 42.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.23 mW/g

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

Reference Value = 50 V/m

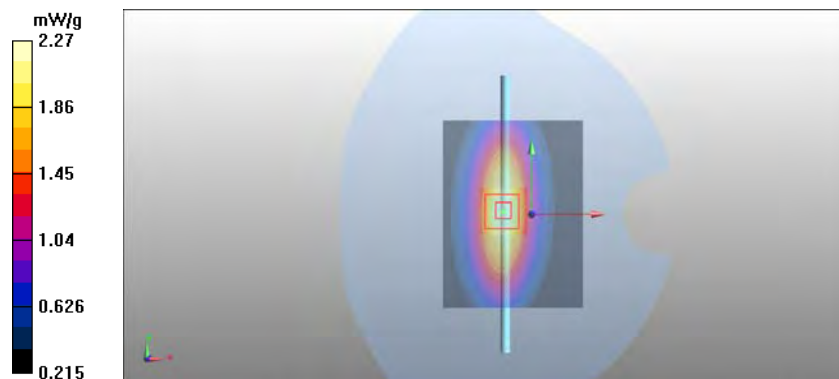
Peak SAR (extrapolated) = 3.17 W/kg

SAR(1 g) = 2.1 mW/g

SAR(10 g) = 1.37 mW/g

Power Drift = 0.015 dB

Maximum value of SAR (measured) = 2.27 mW/g



Date/Time: 2012-02-02 10:59:32, Date/Time: 2012-02-02 11:05:17

Test Laboratory: TCC Nokia

Type: D750V3; Serial: D750V3 - SN:1034

Communication System: CW750

Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 750 MHz; $\sigma = 0.893$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.19 mW/g

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

Reference Value = 50 V/m

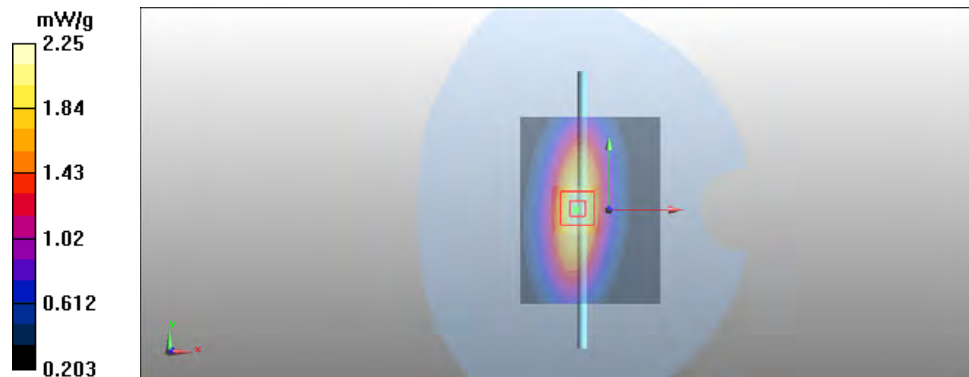
Peak SAR (extrapolated) = 3.16 W/kg

SAR(1 g) = 2.08 mW/g

SAR(10 g) = 1.36 mW/g

Power Drift = -0.072 dB

Maximum value of SAR (measured) = 2.25 mW/g



Date/Time: 2012-02-03 08:18:17, Date/Time: 2012-02-03 08:24:02

Test Laboratory: TCC Nokia

Type: D750V3; Serial: D750V3 - SN:1034

Communication System: CW750

Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 750 MHz; $\sigma = 0.889$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.19 mW/g

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

Reference Value = 49.9 V/m

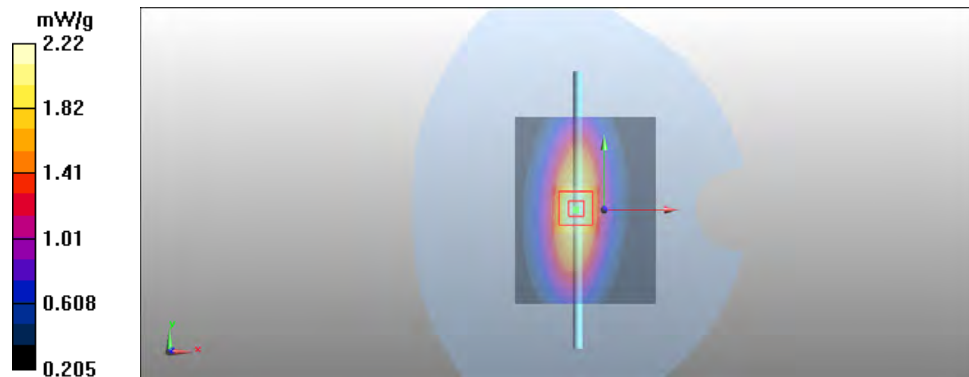
Peak SAR (extrapolated) = 3.1 W/kg

SAR(1 g) = 2.06 mW/g

SAR(10 g) = 1.35 mW/g

Power Drift = 0.018 dB

Maximum value of SAR (measured) = 2.22 mW/g



Date/Time: 2012-02-09 08:04:10, Date/Time: 2012-02-09 08:10:09

Test Laboratory: TCC Nokia

Type: D750V3; Serial: D750V3 - SN:1034

Communication System: CW750

Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.9 C

Medium parameters used: f = 750 MHz; σ = 0.881 mho/m; ϵ_r = 40.7; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.17 mW/g

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

Reference Value = 49.4 V/m

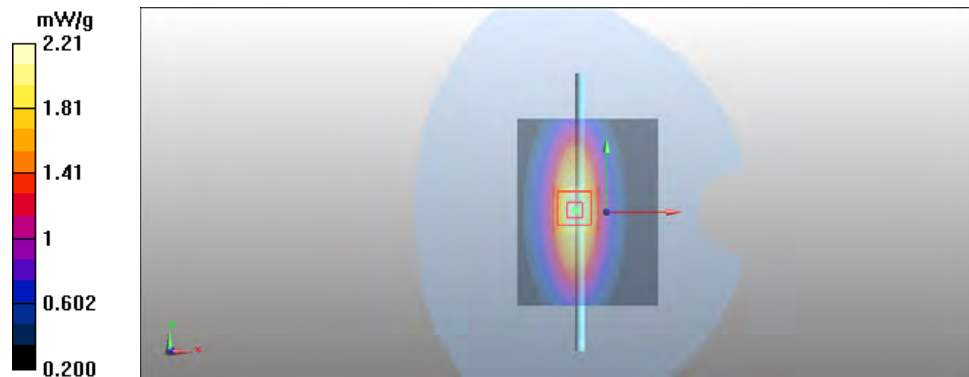
Peak SAR (extrapolated) = 3.12 W/kg

SAR(1 g) = 2.05 mW/g

SAR(10 g) = 1.34 mW/g

Power Drift = 0.023 dB

Maximum value of SAR (measured) = 2.21 mW/g



Date/Time: 2011-10-18 05:59:35, Date/Time: 2011-10-18 06:05:26

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:462

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL850; Medium Notes: t= 20.4 C

Medium parameters used: f = 835 MHz; σ = 0.893 mho/m; ϵ_r = 41.1; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.61 mW/g

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

Reference Value = 54.5 V/m

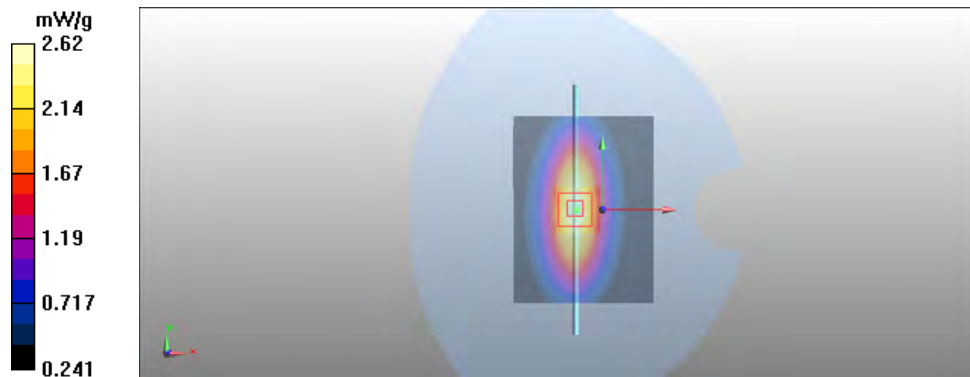
Peak SAR (extrapolated) = 3.65 W/kg

SAR(1 g) = 2.43 mW/g

SAR(10 g) = 1.59 mW/g

Power Drift = 0.056 dB

Maximum value of SAR (measured) = 2.62 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

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Date/Time: 2011-10-19 07:38:06, Date/Time: 2011-10-19 07:43:58

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:462

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL850; Medium Notes: t= 20.1 C

Medium parameters used: f = 835 MHz; σ = 0.896 mho/m; ϵ_r = 41.2; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.62 mW/g

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

Reference Value = 55.1 V/m

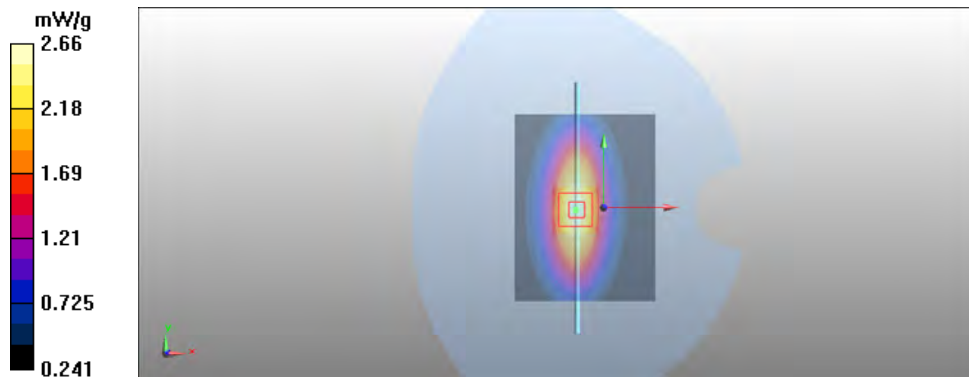
Peak SAR (extrapolated) = 3.7 W/kg

SAR(1 g) = 2.46 mW/g

SAR(10 g) = 1.61 mW/g

Power Drift = -0.070 dB

Maximum value of SAR (measured) = 2.66 mW/g



Date/Time: 2012-02-06 19:06:47, Date/Time: 2012-02-06 19:12:04

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:462

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL900; Medium Notes: t= 21 C

Medium parameters used: f = 835 MHz; σ = 0.891 mho/m; ϵ_r = 40.3; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(5.88, 5.88, 5.88); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2011-05-09
- Phantom: SAM2; Type: SAM; Serial: TP-1570
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.56 mW/g

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

Reference Value = 55 V/m

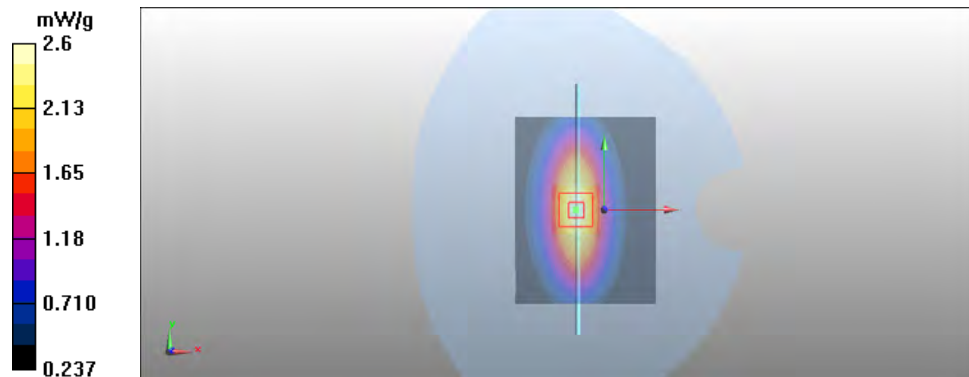
Peak SAR (extrapolated) = 3.5 W/kg

SAR(1 g) = 2.4 mW/g

SAR(10 g) = 1.57 mW/g

Power Drift = 0.00649 dB

Maximum value of SAR (measured) = 2.6 mW/g



Date/Time: 2012-02-09 11:09:51, Date/Time: 2012-02-09 11:15:07

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:462

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL850; Medium Notes: t= 21 C

Medium parameters used: f = 835 MHz; $\sigma = 0.887$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(5.88, 5.88, 5.88); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2011-05-09
- Phantom: SAM2; Type: SAM; Serial: TP-1570
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.54 mW/g

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

Reference Value = 55 V/m

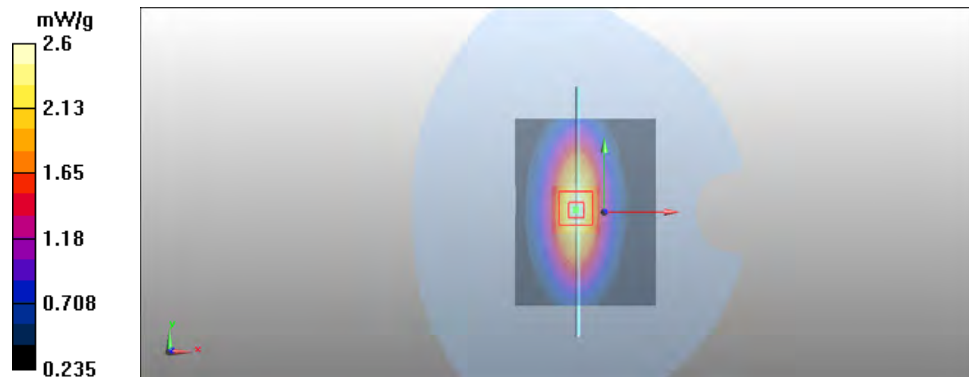
Peak SAR (extrapolated) = 3.5 W/kg

SAR(1 g) = 2.39 mW/g

SAR(10 g) = 1.56 mW/g

Power Drift = 0.00225 dB

Maximum value of SAR (measured) = 2.6 mW/g



Date/Time: 2011-10-18 12:04:09, Date/Time: 2011-10-18 12:10:13

Test Laboratory: TCC Nokia

Type: D1800V2; Serial: D1800V2 - SN:256

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.0 C

Medium parameters used: f = 1800 MHz; σ = 1.39 mho/m; ϵ_r = 38.5; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 89.9 V/m

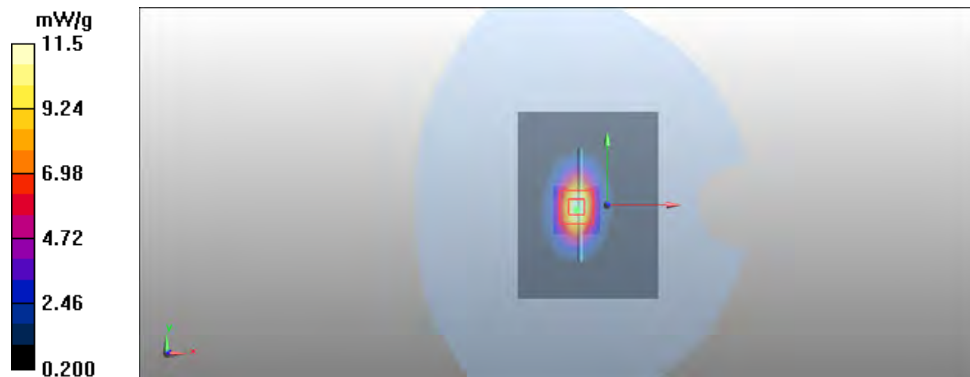
Peak SAR (extrapolated) = 19.3 W/kg

SAR(1 g) = 10.3 mW/g

SAR(10 g) = 5.29 mW/g

Power Drift = 0.162 dB

Maximum value of SAR (measured) = 11.5 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

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Date/Time: 2011-11-08 09:25:39, Date/Time: 2011-11-08 09:31:57

Test Laboratory: TCC Nokia

Type: D1800V2; Serial: D1800V2 - SN:2d065

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.8 C

Medium parameters used: f = 1800 MHz; σ = 1.41 mho/m; ϵ_r = 38.4; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.6 mW/g

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

Reference Value = 90.6 V/m

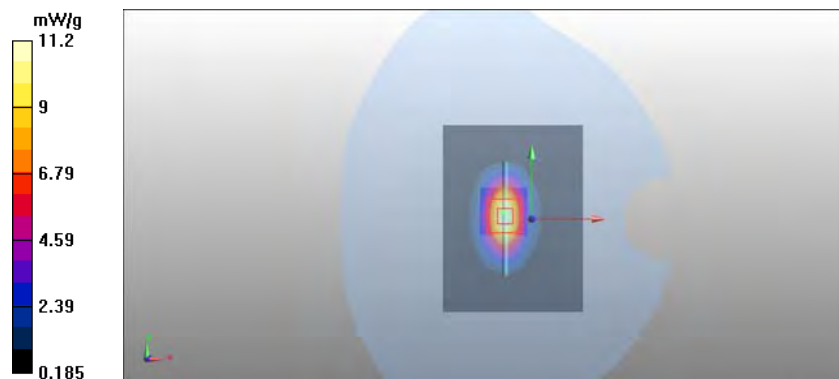
Peak SAR (extrapolated) = 18.8 W/kg

SAR(1 g) = 9.98 mW/g

SAR(10 g) = 5.15 mW/g

Power Drift = 0.066 dB

Maximum value of SAR (measured) = 11.2 mW/g



Date/Time: 2011-11-09 06:25:19, Date/Time: 2011-11-09 06:31:50

Test Laboratory: TCC Nokia

Type: D1800V2; Serial: D1800V2 - SN:2d065

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.7 C

Medium parameters used: f = 1800 MHz; σ = 1.37 mho/m; ϵ_r = 38; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.9 mW/g

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

Reference Value = 91.9 V/m

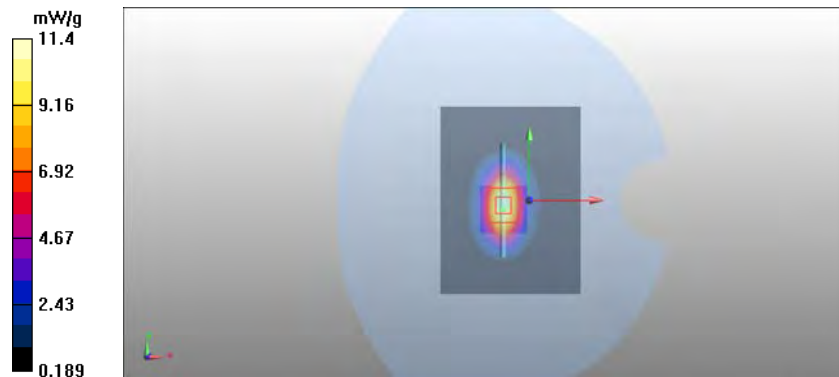
Peak SAR (extrapolated) = 19.2 W/kg

SAR(1 g) = 10.2 mW/g

SAR(10 g) = 5.24 mW/g

Power Drift = 0.101 dB

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



Date/Time: 2011-11-10 08:52:52, Date/Time: 2011-11-10 08:59:19

Test Laboratory: TCC Nokia

Type: D1800V2; Serial: D1800V2 - SN:2d065

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.8 C

Medium parameters used: f = 1800 MHz; σ = 1.4 mho/m; ϵ_r = 37.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.1 mW/g

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

Reference Value = 90.4 V/m

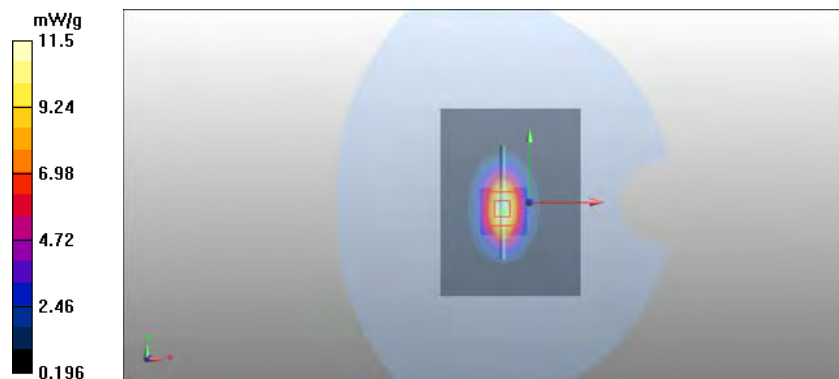
Peak SAR (extrapolated) = 19.4 W/kg

SAR(1 g) = 10.3 mW/g

SAR(10 g) = 5.31 mW/g

Power Drift = 0.055 dB

Maximum value of SAR (measured) = 11.5 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

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Date/Time: 2012-02-02 09:44:38, Date/Time: 2012-02-02 09:49:02

Test Laboratory: TCC Nokia

Type: D1800V2; Serial: D1800V2 - SN:2d065

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used: f = 1800 MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASYS2, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW 2/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.1 mW/g

Configuration/d=15mm, Pin=250mW 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 89.5 V/m

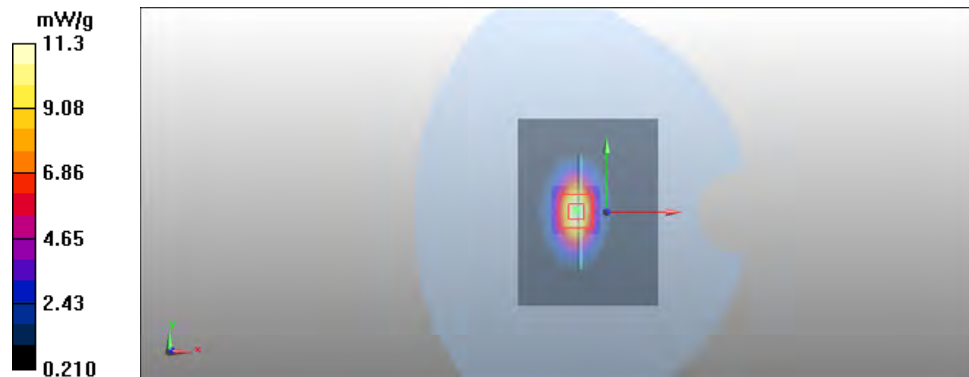
Peak SAR (extrapolated) = 18.8 W/kg

SAR(1 g) = 10 mW/g

SAR(10 g) = 5.17 mW/g

Power Drift = 0.060 dB

Maximum value of SAR (measured) = 11.3 mW/g



Date/Time: 2012-02-03 08:39:33, Date/Time: 2012-02-03 08:43:57

Test Laboratory: TCC Nokia

Type: D1800V2; Serial: D1800V2 - SN:2d065

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used: f = 1800 MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 38.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 76.4 V/m

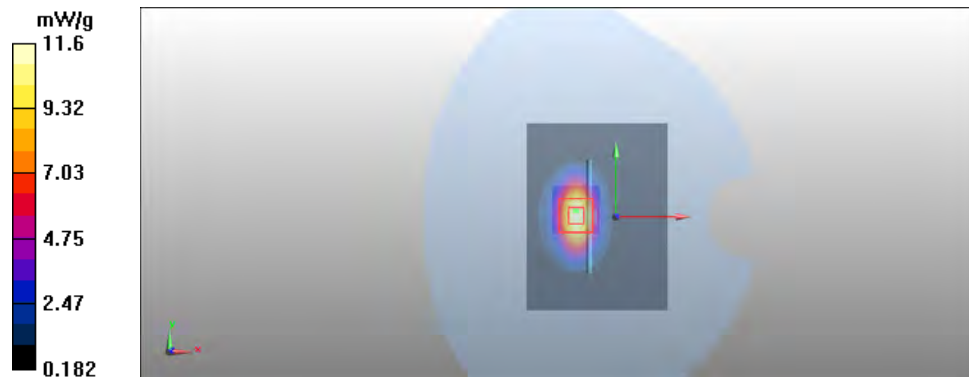
Peak SAR (extrapolated) = 19.3 W/kg

SAR(1 g) = 10.3 mW/g

SAR(10 g) = 5.34 mW/g

Power Drift = 0.066 dB

Maximum value of SAR (measured) = 11.6 mW/g



Date/Time: 2012-02-06 08:31:51, Date/Time: 2012-02-06 08:36:15

Test Laboratory: TCC Nokia

Type: D1800V2; Serial: D1800V2 - SN:2d065

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used: f = 1800 MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASYS2, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.6 mW/g

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

Reference Value = 76.4 V/m

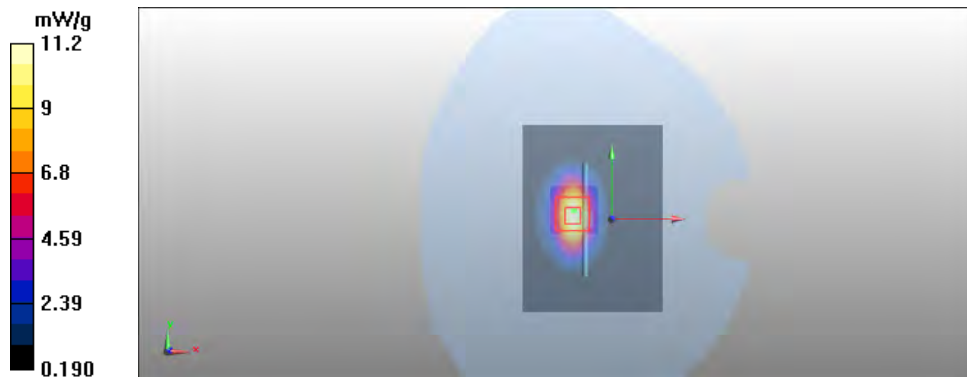
Peak SAR (extrapolated) = 18.9 W/kg

SAR(1 g) = 10 mW/g

SAR(10 g) = 5.18 mW/g

Power Drift = 0.074 dB

Maximum value of SAR (measured) = 11.2 mW/g



Date/Time: 2011-10-17 08:47:51, Date/Time: 2011-10-17 08:53:59

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: t= 21.0 C

Medium parameters used: f = 1900 MHz; σ = 1.43 mho/m; ϵ_r = 39.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.9 mW/g

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

Reference Value = 89.1 V/m

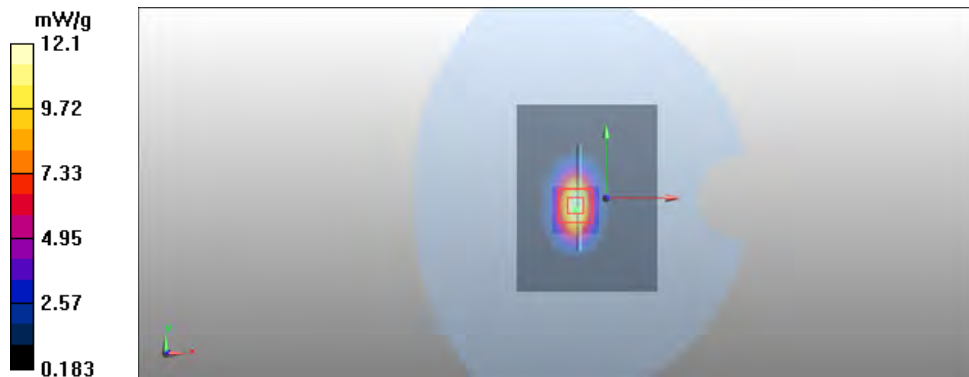
Peak SAR (extrapolated) = 20.6 W/kg

SAR(1 g) = 10.7 mW/g

SAR(10 g) = 5.46 mW/g

Power Drift = 0.025 dB

Maximum value of SAR (measured) = 12.1 mW/g



Date/Time: 2011-10-18 07:54:14, Date/Time: 2011-10-18 08:00:26

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: t= 28.0 C

Medium parameters used: f = 1900 MHz; σ = 1.39 mho/m; ϵ_r = 39.5; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.4 mW/g

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

Reference Value = 91.1 V/m

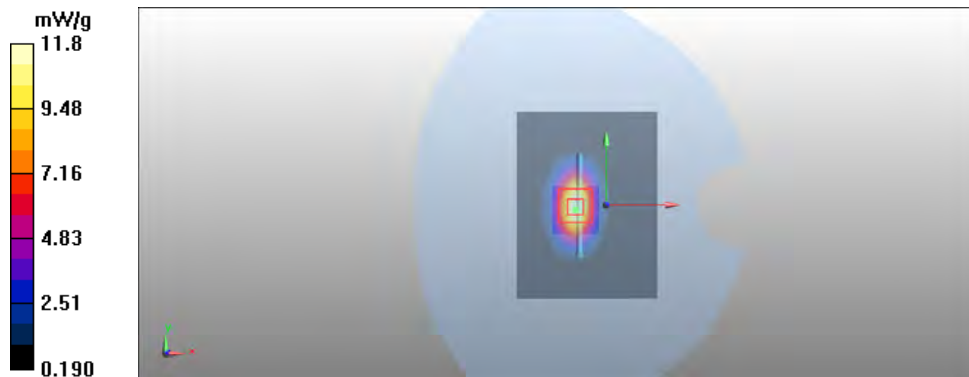
Peak SAR (extrapolated) = 20.1 W/kg

SAR(1 g) = 10.6 mW/g

SAR(10 g) = 5.44 mW/g

Power Drift = 0.104 dB

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



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

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Date/Time: 2011-10-19 09:45:28, Date/Time: 2011-10-19 09:51:33

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: t= 21.0 C

Medium parameters used: f = 1900 MHz; $\sigma = 1.4$ mho/m; $\epsilon_r = 39.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.3 mW/g

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

Reference Value = 91 V/m

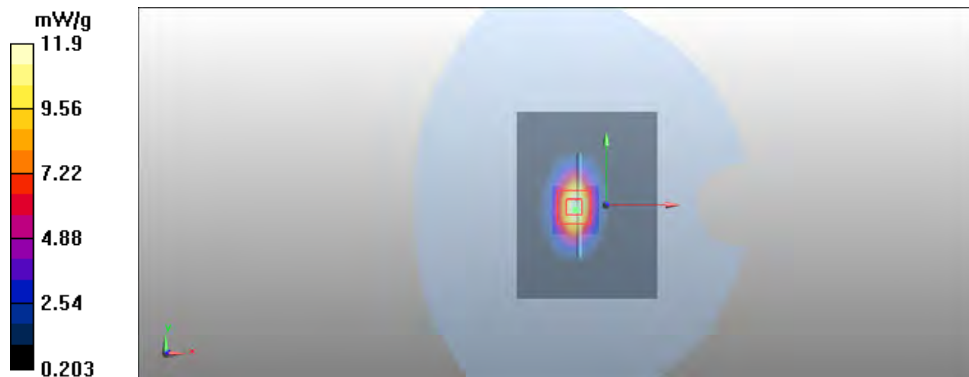
Peak SAR (extrapolated) = 20.3 W/kg

SAR(1 g) = 10.7 mW/g

SAR(10 g) = 5.49 mW/g

Power Drift = 0.119 dB

Maximum value of SAR (measured) = 11.9 mW/g



Date/Time: 2011-10-21 09:18:30, Date/Time: 2011-10-21 09:26:22

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: t= 21.0 C

Medium parameters used: f = 1900 MHz; σ = 1.38 mho/m; ϵ_r = 39.5; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 13.1 mW/g

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

Reference Value = 91.2 V/m

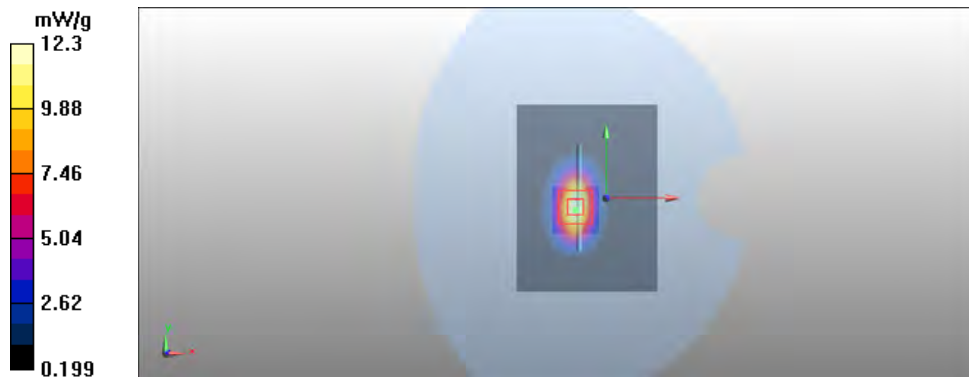
Peak SAR (extrapolated) = 21 W/kg

SAR(1 g) = 10.9 mW/g

SAR(10 g) = 5.56 mW/g

Power Drift = -0.047 dB

Maximum value of SAR (measured) = 12.3 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

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Date/Time: 2011-10-25 07:18:16, Date/Time: 2011-10-25 07:24:17

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: $t = 21.0$ C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.8 mW/g

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

Reference Value = 87.6 V/m

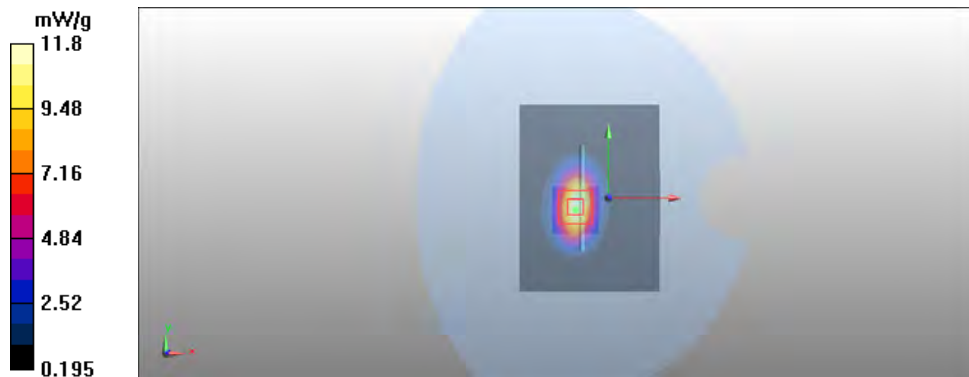
Peak SAR (extrapolated) = 20.1 W/kg

SAR(1 g) = 10.5 mW/g

SAR(10 g) = 5.41 mW/g

Power Drift = 0.068 dB

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



Date/Time: 2012-02-06 09:00:12, Date/Time: 2012-02-06 09:06:53

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: t= 20.9 C

Medium parameters used: f = 1900 MHz; σ = 1.38 mho/m; ϵ_r = 39.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3194
- ConvF(5.1, 5.1, 5.1); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 11.7 mW/g

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

Reference Value = 85.2 V/m

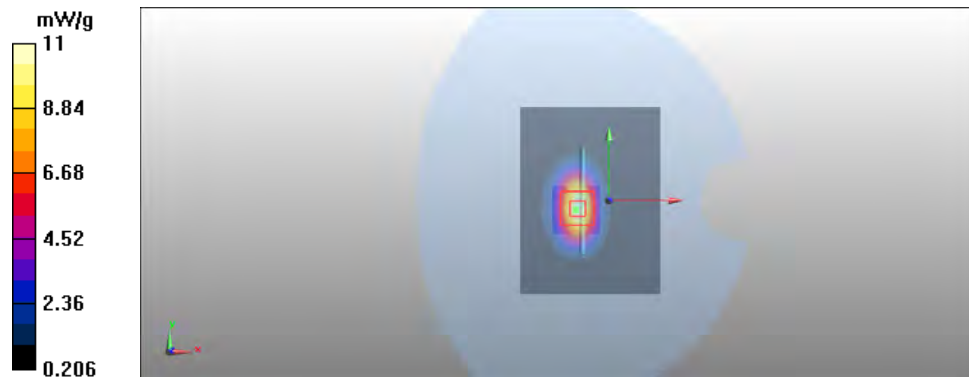
Peak SAR (extrapolated) = 18.1 W/kg

SAR(1 g) = 9.79 mW/g

SAR(10 g) = 5.12 mW/g

Power Drift = 0.226 dB

Maximum value of SAR (measured) = 11 mW/g



Date/Time: 2012-02-07 15:37:19, Date/Time: 2012-02-07 15:43:19

Test Laboratory: TCC Nokia

Type: D2450V2; Serial: D2450V2 - SN:729

Communication System: CW2450

Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: $t = 20.7\text{ C}$

Medium parameters used: $f = 2450\text{ MHz}$; $\sigma = 1.82\text{ mho/m}$; $\epsilon_r = 37.8$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.67, 6.67, 6.67); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 16.3 mW/g

Configuration/d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 89.7 V/m

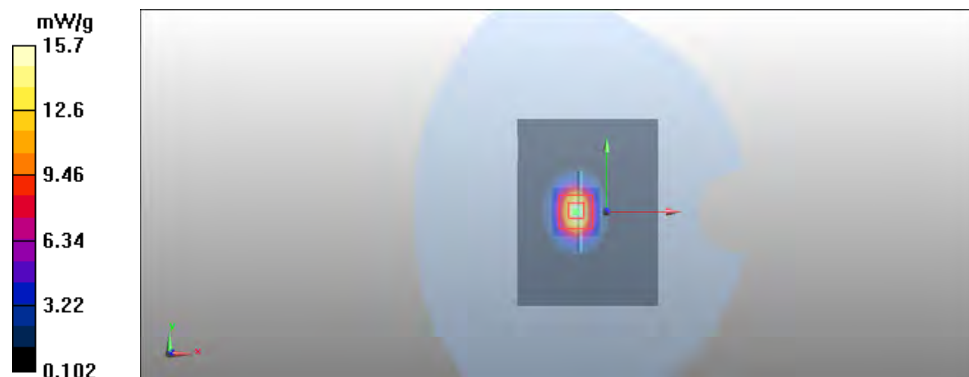
Peak SAR (extrapolated) = 29.1 W/kg

SAR(1 g) = 13.8 mW/g

SAR(10 g) = 6.35 mW/g

Power Drift = 0.075 dB

Maximum value of SAR (measured) = 15.7 mW/g



Date/Time: 2012-02-09 13:27:14, Date/Time: 2012-02-09 13:33:04

Test Laboratory: TCC Nokia

Type: D2450V2; Serial: D2450V2 - SN:729

Communication System: CW2450

Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: t= 20.9 C

Medium parameters used: f = 2450 MHz; $\sigma = 1.8$ mho/m; $\epsilon_r = 37.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.67, 6.67, 6.67); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 18.2 mW/g

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

Reference Value = 92.3 V/m

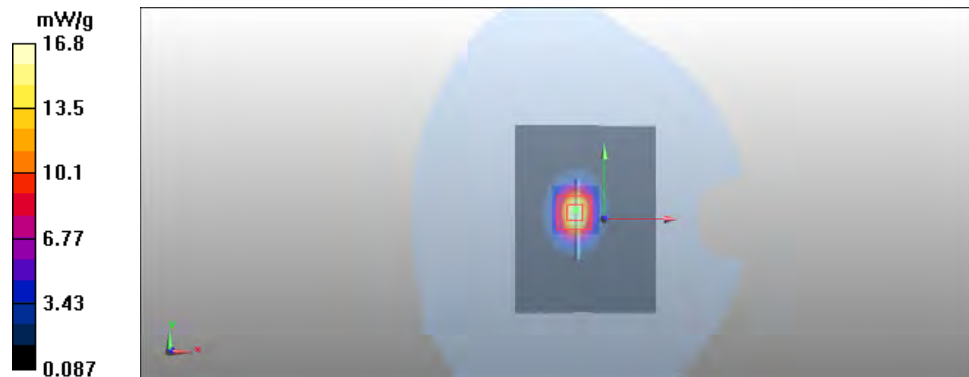
Peak SAR (extrapolated) = 31.5 W/kg

SAR(1 g) = 14.6 mW/g

SAR(10 g) = 6.65 mW/g

Power Drift = 0.049 dB

Maximum value of SAR (measured) = 16.8 mW/g



Date/Time: 2011-11-04 14:34:36, Date/Time: 2011-11-04 14:40:21

Test Laboratory: TCC Nokia

Type: D750V3; Serial: D750V3 - SN:1034

Communication System: CW750

Frequency: 750 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t=19.7 C

Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.975 \text{ mho/m}$; $\epsilon_r = 55.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.41 mW/g

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

Reference Value = 49.9 V/m

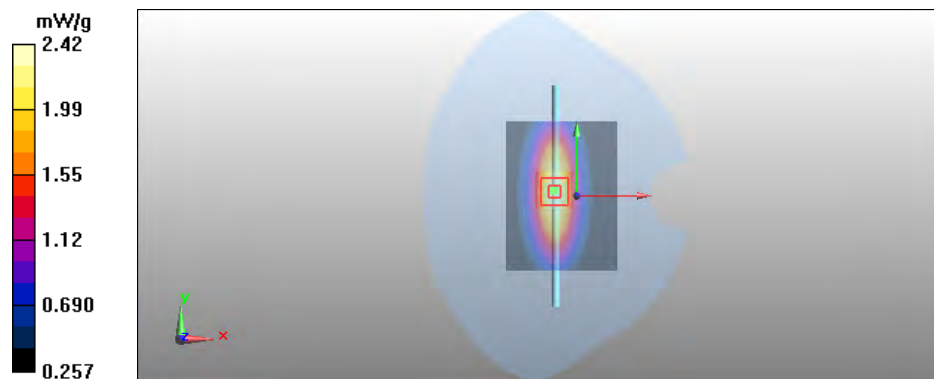
Peak SAR (extrapolated) = 3.33 W/kg

SAR(1 g) = 2.25 mW/g

SAR(10 g) = 1.5 mW/g

Power Drift = -0.00878 dB

Maximum value of SAR (measured) = 2.42 mW/g



Date/Time: 2012-02-25 09:47:08, Date/Time: 2012-02-25 09:53:04

Test Laboratory: TCC Nokia

Type: D750V3; Serial: D750V3 - SN:1034

Communication System: CW750

Frequency: 750 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: $t = 21.0$ C

Medium parameters used: $f = 750$ MHz; $\sigma = 0.988$ mho/m; $\epsilon_r = 55.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(5.97, 5.97, 5.97); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2011-05-09
- Phantom: SAM1; Type: SAM; Serial: TP-1126
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.31 mW/g

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

Reference Value = 49.1 V/m

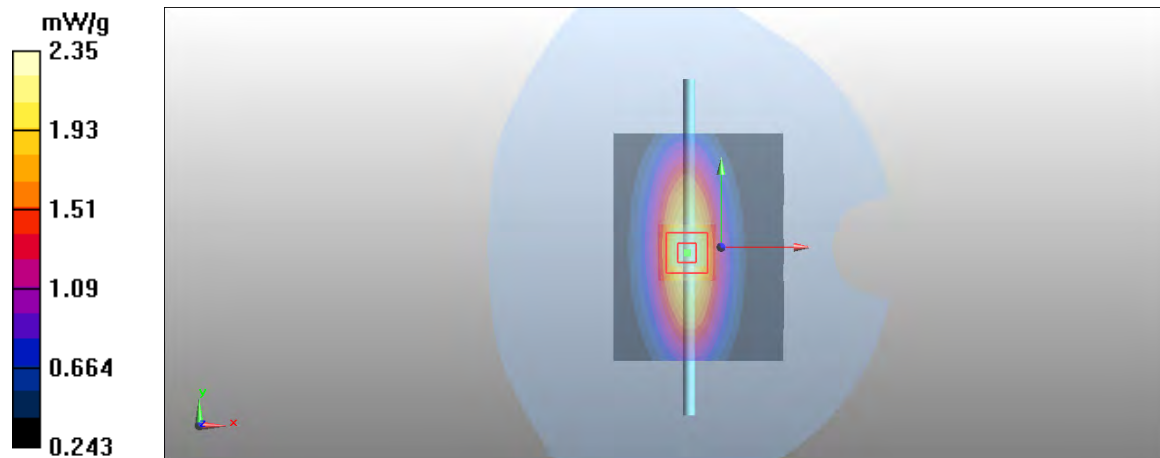
Peak SAR (extrapolated) = 3.27 W/kg

SAR(1 g) = 2.18 mW/g

SAR(10 g) = 1.44 mW/g

Power Drift = 0.00498 dB

Maximum value of SAR (measured) = 2.35 mW/g



Date/Time: 2011-10-20 14:07:31, Date/Time: 2011-10-20 14:13:19

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:462

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: t= 21.0 C

Medium parameters used: f = 835 MHz; σ = 1.02 mho/m; ϵ_r = 53.6; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.78 mW/g

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

Reference Value = 52 V/m

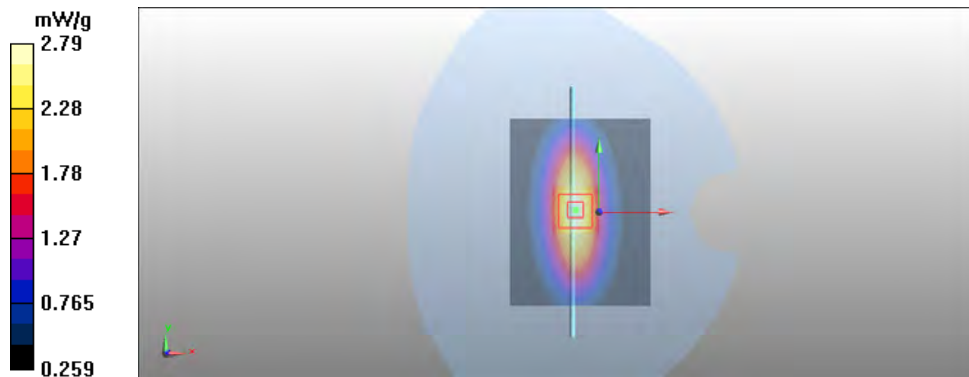
Peak SAR (extrapolated) = 3.9 W/kg

SAR(1 g) = 2.59 mW/g

SAR(10 g) = 1.69 mW/g

Power Drift = 0.025 dB

Maximum value of SAR (measured) = 2.79 mW/g



Date/Time: 2011-10-24 14:23:46, Date/Time: 2011-10-24 14:29:37

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:462

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: t= 20.7 C

Medium parameters used: f = 835 MHz; σ = 0.994 mho/m; ϵ_r = 53.4; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.54 mW/g

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

Reference Value = 50.6 V/m

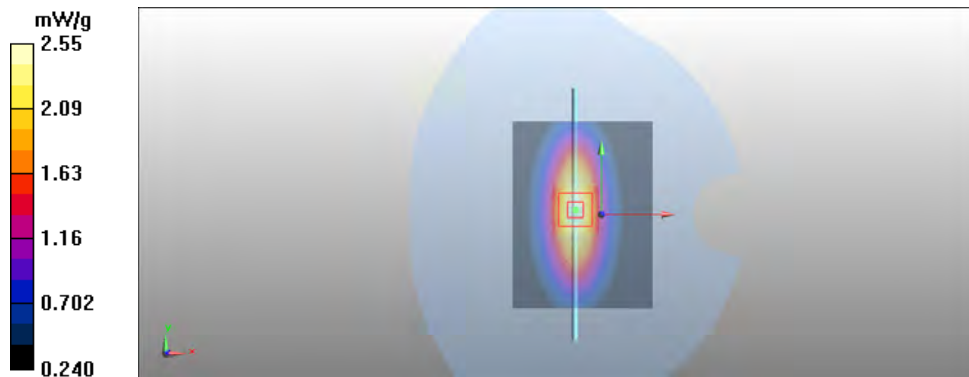
Peak SAR (extrapolated) = 3.55 W/kg

SAR(1 g) = 2.36 mW/g

SAR(10 g) = 1.55 mW/g

Power Drift = 0.016 dB

Maximum value of SAR (measured) = 2.55 mW/g



Date/Time: 2011-10-27 06:45:32, Date/Time: 2011-10-27 06:51:22

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:462

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: t= 21.0 C

Medium parameters used: f = 835 MHz; σ = 0.987 mho/m; ϵ_r = 52.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.7 mW/g

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

Reference Value = 52.2 V/m

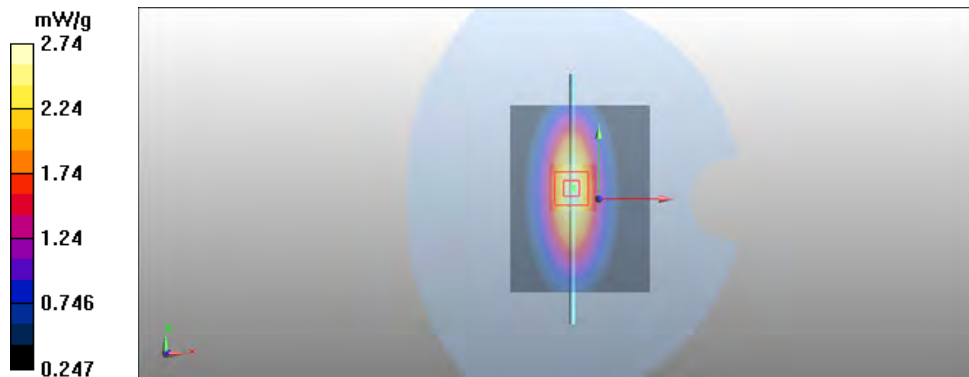
Peak SAR (extrapolated) = 3.83 W/kg

SAR(1 g) = 2.54 mW/g

SAR(10 g) = 1.66 mW/g

Power Drift = 0.054 dB

Maximum value of SAR (measured) = 2.74 mW/g



Date/Time: 2011-11-01 07:13:24, Date/Time: 2011-11-01 07:19:13

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:462

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: t= 20.9 C

Medium parameters used: f = 835 MHz; σ = 0.989 mho/m; ϵ_r = 52.8; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.66 mW/g

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

Reference Value = 51.9 V/m

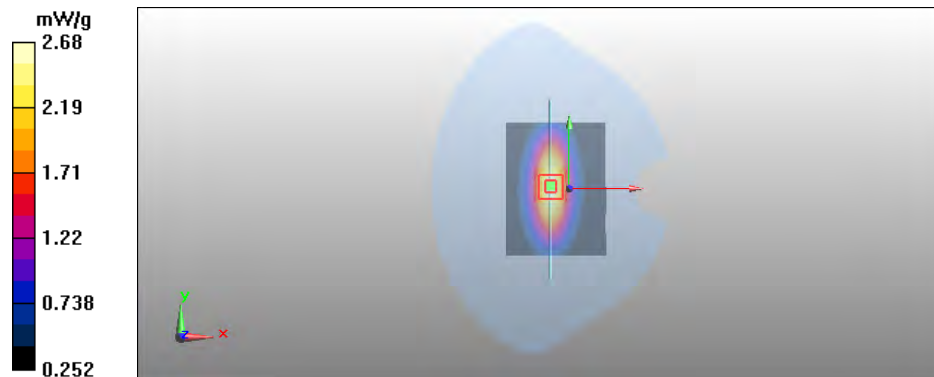
Peak SAR (extrapolated) = 3.73 W/kg

SAR(1 g) = 2.49 mW/g

SAR(10 g) = 1.63 mW/g

Power Drift = 0.044 dB

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



Date/Time: 2011-11-02 05:54:46, Date/Time: 2011-11-02 06:00:33

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:462

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: t= 20.8 C

Medium parameters used: f = 835 MHz; σ = 0.988 mho/m; ϵ_r = 53.5; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 52.1 V/m

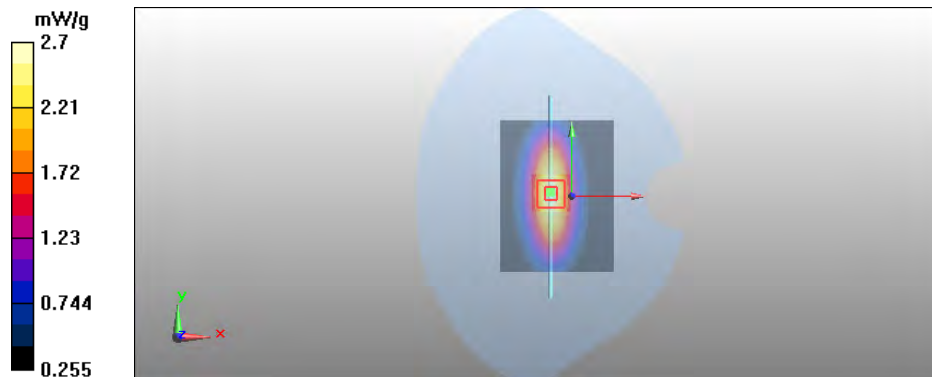
Peak SAR (extrapolated) = 3.77 W/kg

SAR(1 g) = 2.5 mW/g

SAR(10 g) = 1.64 mW/g

Power Drift = 0.011 dB

Maximum value of SAR (measured) = 2.7 mW/g



Date/Time: 2011-10-31 09:02:31, Date/Time: 2011-10-31 09:08:46

Test Laboratory: TCC Nokia

Type: D1800V2; Serial: D1800V2 - SN:2d065

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.1 C

Medium parameters used: f = 1800 MHz; σ = 1.54 mho/m; ϵ_r = 51.7; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.2 mW/g

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

Reference Value = 87.9 V/m

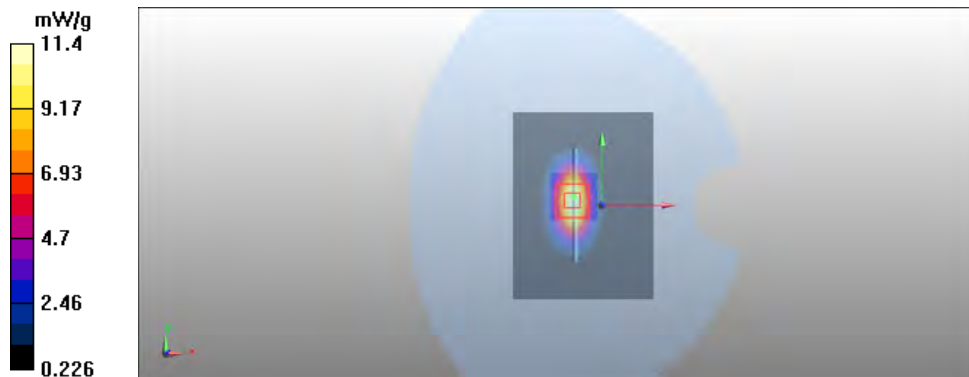
Peak SAR (extrapolated) = 17.6 W/kg

SAR(1 g) = 10 mW/g

SAR(10 g) = 5.24 mW/g

Power Drift = 0.044 dB

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



Date/Time: 2011-11-09 07:06:51, Date/Time: 2011-11-09 07:13:17

Test Laboratory: TCC Nokia

Type: D1800V2; Serial: D1800V2 - SN:2d065

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7\text{ }^{\circ}\text{C}$

Medium parameters used: $f = 1800\text{ MHz}$; $\sigma = 1.49\text{ mho/m}$; $\epsilon_r = 51.7$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 11.5 mW/g

Configuration/d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 89.2 V/m

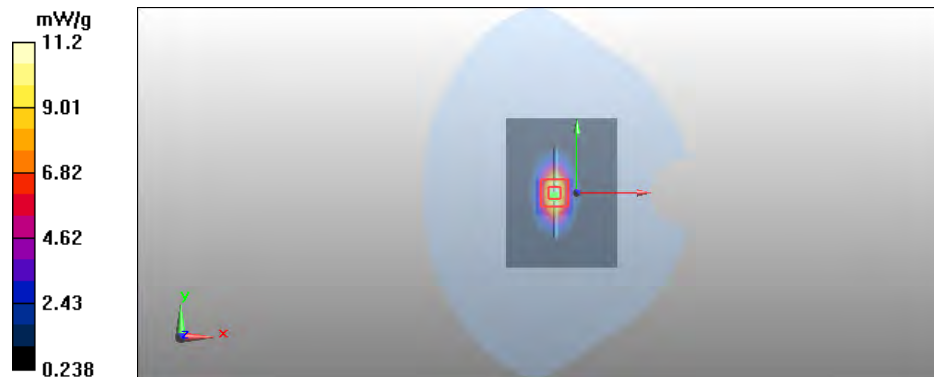
Peak SAR (extrapolated) = 17.2 W/kg

SAR(1 g) = 9.82 mW/g

SAR(10 g) = 5.16 mW/g

Power Drift = 0.104 dB

Maximum value of SAR (measured) = 11.2 mW/g



Date/Time: 2011-11-10 09:30:03, Date/Time: 2011-11-10 09:40:03

Test Laboratory: TCC Nokia

Type: D1800V2; Serial: D1800V2 - SN:2d065

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.7 C

Medium parameters used: f = 1800 MHz; σ = 1.53 mho/m; ϵ_r = 51.6; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.2 mW/g

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

Reference Value = 87.6 V/m

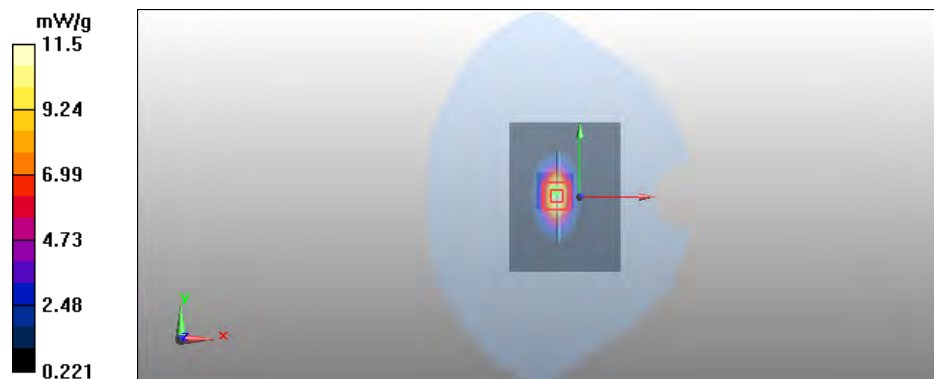
Peak SAR (extrapolated) = 17.7 W/kg

SAR(1 g) = 10.1 mW/g

SAR(10 g) = 5.34 mW/g

Power Drift = 0.191 dB

Maximum value of SAR (measured) = 11.5 mW/g



Date/Time: 2011-11-11 08:15:28, Date/Time: 2011-11-11 08:21:46

Test Laboratory: TCC Nokia

Type: D1800V2; Serial: D1800V2 - SN:2d065

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.8 C

Medium parameters used: f = 1800 MHz; σ = 1.51 mho/m; ϵ_r = 51.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 17.02.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 22.02.2011
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.3 mW/g

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

Reference Value = 86.9 V/m

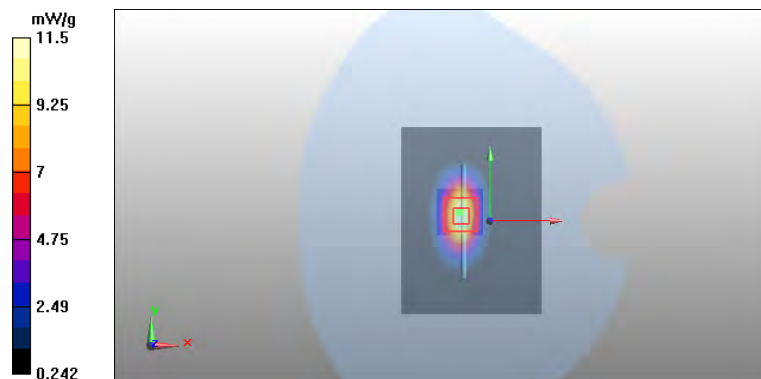
Peak SAR (extrapolated) = 17.6 W/kg

SAR(1 g) = 10.1 mW/g

SAR(10 g) = 5.32 mW/g

Power Drift = 0.232 dB

Maximum value of SAR (measured) = 11.5 mW/g



Date/Time: 2012-02-25 9:08:53

Test Laboratory: TCC Nokia

Type: D1800V2; Serial: D1800V2 - SN:2d065

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.8 C

Medium parameters used: f = 1800 MHz; σ = 1.476 mho/m; ϵ_r = 51.726; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3194
- ConvF(4.76, 4.76, 4.76); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #2 CRP ; Type: QD000P40CD; Serial:
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of Total (interpolated) = 101.4 mW/g m

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

Reference Value = 80.435 V/m

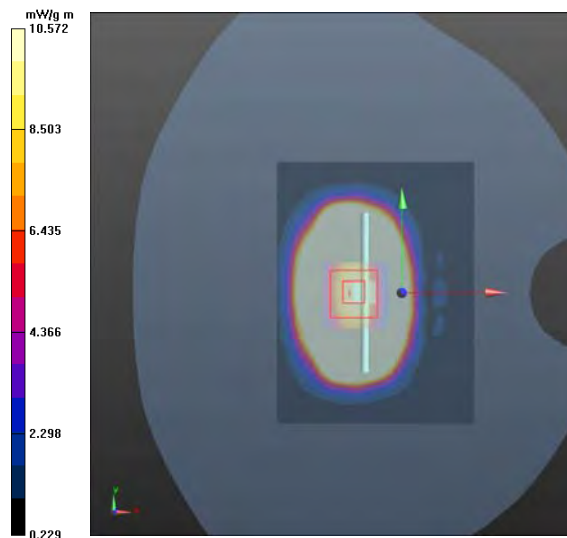
Peak SAR (extrapolated) = 16.8970

SAR(1 g) = 9.46 mW/g

SAR(10 g) = 4.99 mW/g

Power Drift = -0.13 dB

Maximum value of SAR (measured) = 10.572 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

Copyright © 2012 TCC Nokia

Date/Time: 2011-10-25 11:53:39, Date/Time: 2011-10-25 11:59:44

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: $t = 21.0$ C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 52.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 13.8 mW/g

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

Reference Value = 88 V/m

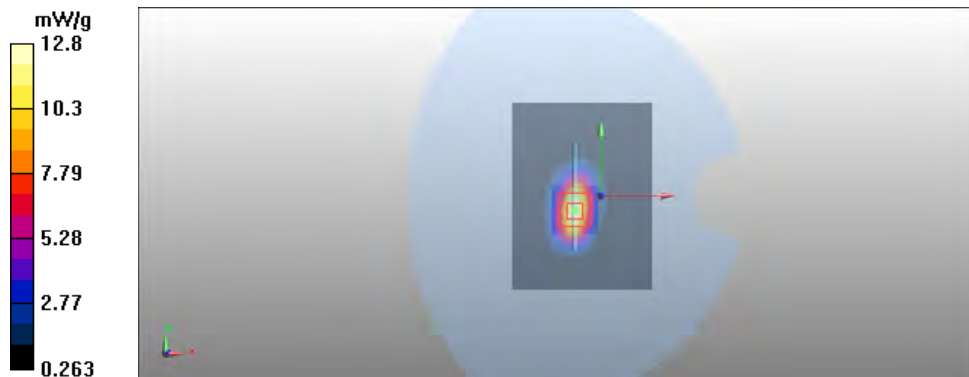
Peak SAR (extrapolated) = 20 W/kg

SAR(1 g) = 11.1 mW/g

SAR(10 g) = 5.74 mW/g

Power Drift = -0.143 dB

Maximum value of SAR (measured) = 12.8 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

Copyright © 2012 TCC Nokia

Date/Time: 2011-10-26 07:13:14, Date/Time: 2011-10-26 07:19:13

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: $t = 21.0$ C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 52.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 13.7 mW/g

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

Reference Value = 88.8 V/m

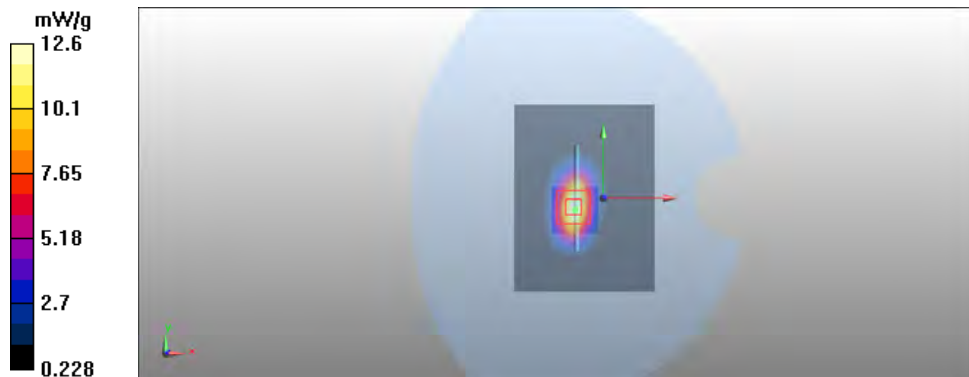
Peak SAR (extrapolated) = 19.9 W/kg

SAR(1 g) = 11 mW/g

SAR(10 g) = 5.71 mW/g

Power Drift = 0.140 dB

Maximum value of SAR (measured) = 12.6 mW/g



Date/Time: 2011-10-28 08:18:17, Date/Time: 2011-10-28 08:24:22

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: $t = 21.0$ C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.9 mW/g

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

Reference Value = 90.8 V/m

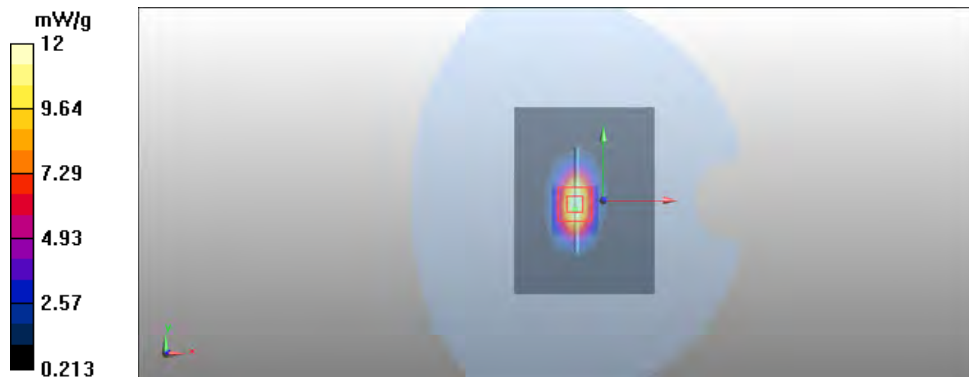
Peak SAR (extrapolated) = 18.8 W/kg

SAR(1 g) = 10.6 mW/g

SAR(10 g) = 5.53 mW/g

Power Drift = 0.102 dB

Maximum value of SAR (measured) = 12 mW/g



Date/Time: 2011-10-31 20:11:13, Date/Time: 2011-10-31 20:17:34

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d013

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: t= 20.5 C

Medium parameters used: f = 1900 MHz; σ = 1.54 mho/m; ϵ_r = 52.6; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.4 mW/g

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

Reference Value = 91.2 V/m

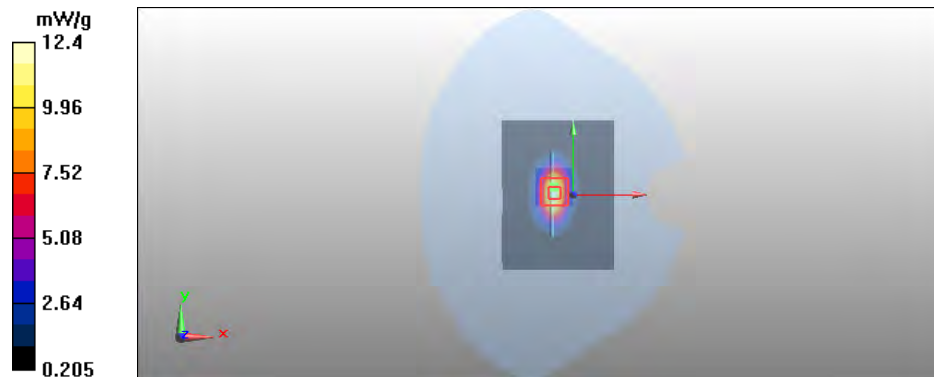
Peak SAR (extrapolated) = 19.3 W/kg

SAR(1 g) = 10.8 mW/g

SAR(10 g) = 5.62 mW/g

Power Drift = -0.0074 dB

Maximum value of SAR (measured) = 12.4 mW/g



Date/Time: 2012-02-08 06:32:36, Date/Time: 2012-02-08 06:38:27

Test Laboratory: TCC Nokia

Type: D2450V2; Serial: D2450V2 - SN:729

Communication System: CW2450

Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 20.8\text{ }^{\circ}\text{C}$

Medium parameters used: $f = 2450\text{ MHz}$; $\sigma = 1.98\text{ mho/m}$; $\epsilon_r = 50.5$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

Configuration/d=15mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: $dx=15\text{ mm}$, $dy=15\text{ mm}$

Maximum value of SAR (interpolated) = 15.5 mW/g

Configuration/d=15mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{ mm}$, $dy=5\text{ mm}$, $dz=5\text{ mm}$

Reference Value = 87.9 V/m

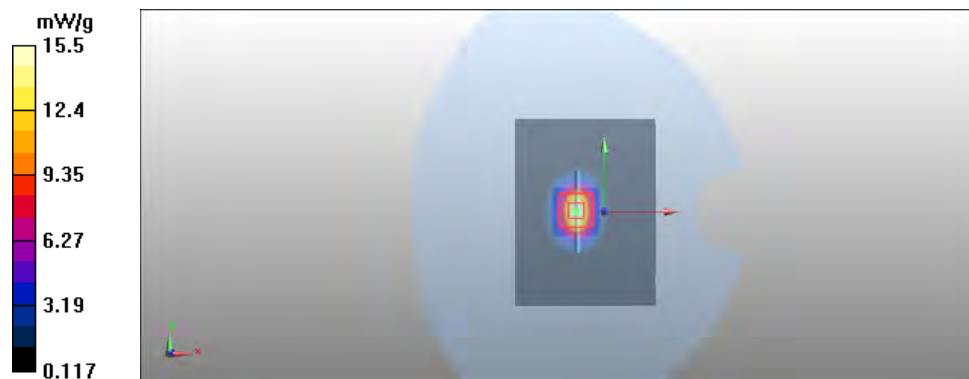
Peak SAR (extrapolated) = 27.3 W/kg

SAR(1 g) = 13.5 mW/g

SAR(10 g) = 6.24 mW/g

Power Drift = 0.057 dB

Maximum value of SAR (measured) = 15.5 mW/g



APPENDIX B: MEASUREMENT SCANS

Date/Time: 2011-11-02 13:42:57, Date/Time: 2011-11-02 13:58:58

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.6 C

Medium parameters used: f = 710 MHz; σ = 0.884 mho/m; ϵ_r = 42.9; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - Middle - QPSK - 10MHz - 50% RB - 50% offset /Area Scan (71x111x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.473 mW/g

LTE - Left/Cheek - Middle - QPSK - 10MHz - 50% RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.46 V/m

Peak SAR (extrapolated) = 0.571 W/kg

SAR(1 g) = 0.432 mW/g

SAR(10 g) = 0.313 mW/g

Power Drift = 0.129 dB

Maximum value of SAR (measured) = 0.451 mW/g



Date/Time: 2012-02-02 14:59:04, Date/Time: 2012-02-02 15:03:31

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.868$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - QPSK - 10MHz - 50% RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.237 mW/g

LTE - Left/Tilt - Middle - QPSK - 10MHz - 50% RB - 50% offset/Zoom Scan (5x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.9 V/m

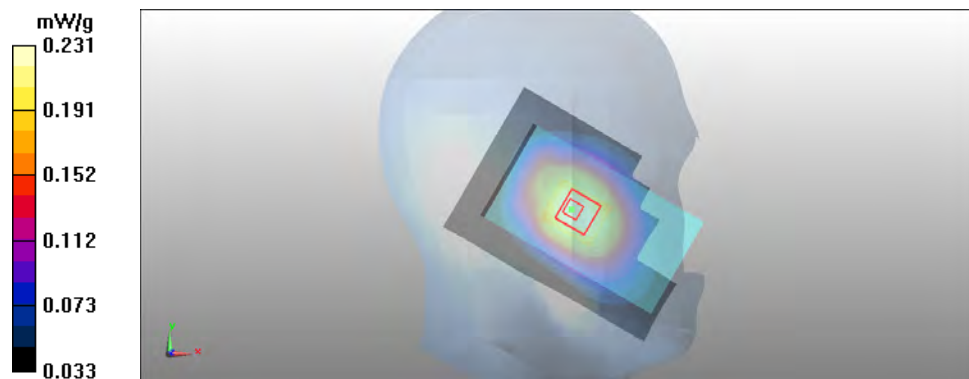
Peak SAR (extrapolated) = 0.269 W/kg

SAR(1 g) = 0.222 mW/g

SAR(10 g) = 0.174 mW/g

Power Drift = -0.020 dB

Maximum value of SAR (measured) = 0.231 mW/g



Date/Time: 2012-02-03 10:23:31, Date/Time: 2012-02-03 10:28:29

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - QPSK - 10MHz - 50% RB - 50% offset/Area Scan (71x111x1): Measurement grid:
dx=15mm, dy=15mm

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

LTE - Right/Cheek - Middle - QPSK - 10MHz - 50% RB - 50% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.97 V/m

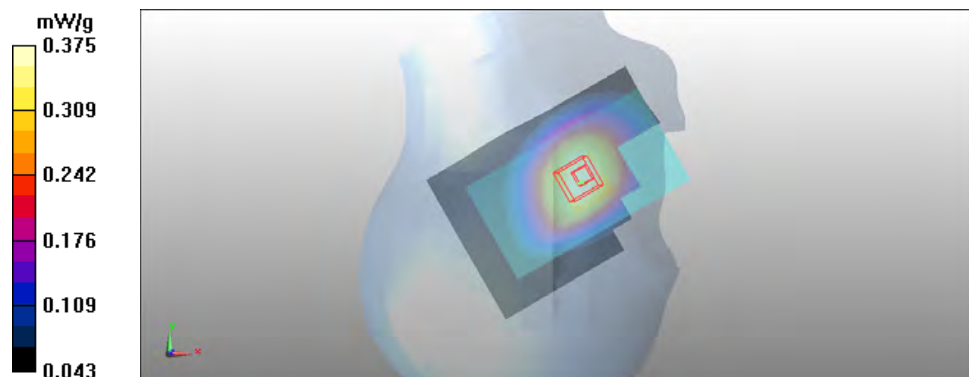
Peak SAR (extrapolated) = 0.436 W/kg

SAR(1 g) = 0.361 mW/g

SAR(10 g) = 0.282 mW/g

Power Drift = 0.233 dB

Maximum value of SAR (measured) = 0.375 mW/g



Date/Time: 2012-02-03 11:34:56, Date/Time: 2012-02-03 11:41:41

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - QPSK - 10MHz - 50% RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.247 mW/g

LTE - Right/Tilt - Middle - QPSK - 10MHz - 50% RB - 50% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.3 V/m

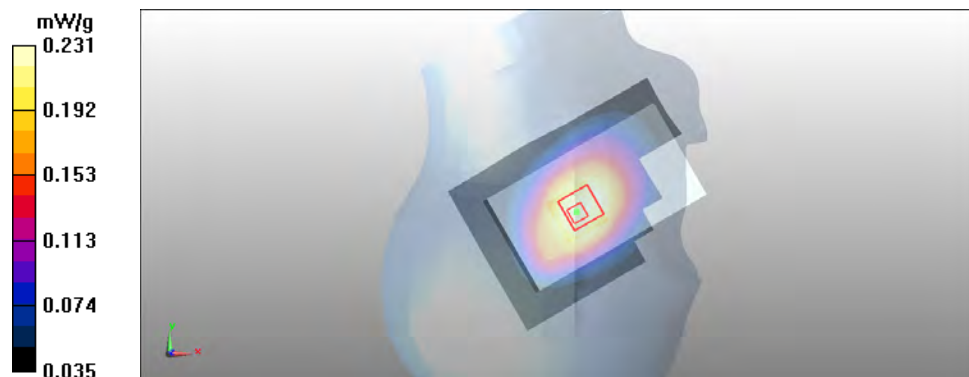
Peak SAR (extrapolated) = 0.264 W/kg

SAR(1 g) = 0.219 mW/g

SAR(10 g) = 0.173 mW/g

Power Drift = 0.116 dB

Maximum value of SAR (measured) = 0.231 mW/g



Date/Time: 2011-11-02 14:10:28, Date/Time: 2011-11-02 14:14:56

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.6 C

Medium parameters used: f = 710 MHz; $\sigma = 0.884$ mho/m; $\epsilon_r = 42.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset /Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.590 mW/g

LTE - Left/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.2 V/m

Peak SAR (extrapolated) = 0.708 W/kg

SAR(1 g) = 0.532 mW/g

SAR(10 g) = 0.390 mW/g

Power Drift = 0.329 dB

Maximum value of SAR (measured) = 0.555 mW/g



Date/Time: 2011-11-03 13:28:16, Date/Time: 2011-11-03 13:32:43

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.9 C

Medium parameters used: f = 710 MHz; $\sigma = 0.884$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - QPSK - 10MHz - 1 RB - 50% offset /Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.377 mW/g

LTE - Left/Tilt - Middle - QPSK - 10MHz - 1 RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.9 V/m

Peak SAR (extrapolated) = 0.441 W/kg

SAR(1 g) = 0.361 mW/g

SAR(10 g) = 0.282 mW/g

Power Drift = 0.122 dB

Maximum value of SAR (measured) = 0.378 mW/g



Date/Time: 2011-11-03 13:51:03, Date/Time: 2011-11-03 13:59:39

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.9 C

Medium parameters used: f = 710 MHz; $\sigma = 0.884$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset /Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.573 mW/g

LTE - Right/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.13 V/m

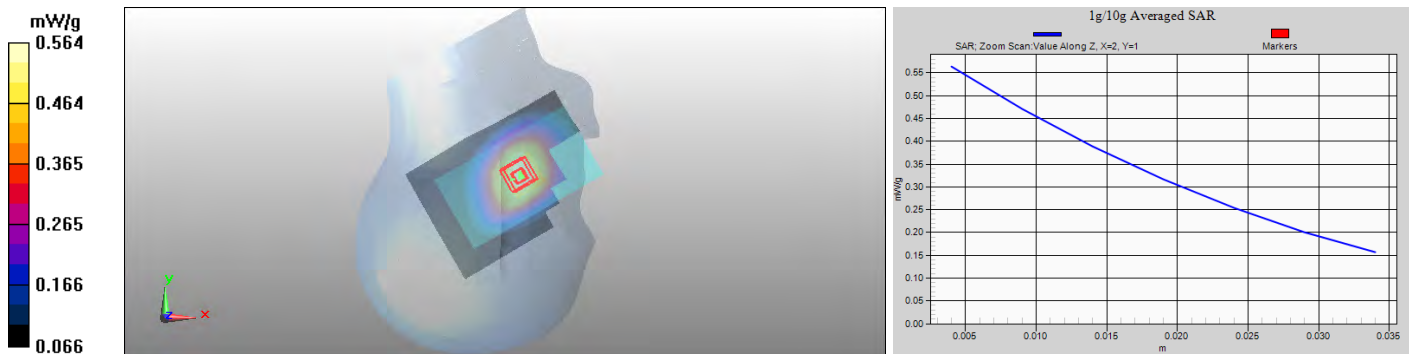
Peak SAR (extrapolated) = 0.651 W/kg

SAR(1 g) = 0.543 mW/g

SAR(10 g) = 0.423 mW/g

Power Drift = 0.097 dB

Maximum value of SAR (measured) = 0.564 mW/g



Date/Time: 2011-11-03 14:08:23, Date/Time: 2011-11-03 14:13:20

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.9 C

Medium parameters used: f = 710 MHz; $\sigma = 0.884$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - QPSK - 10MHz - 1 RB - 50% offset /Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.372 mW/g

LTE - Right/Tilt - Middle - QPSK - 10MHz - 1 RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.6 V/m

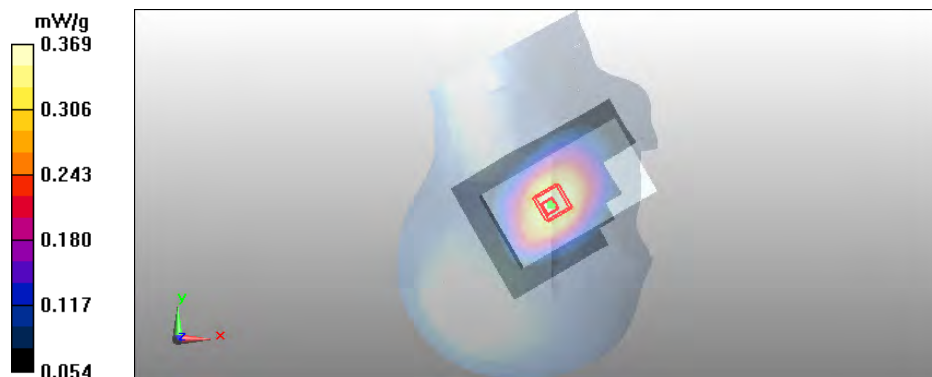
Peak SAR (extrapolated) = 0.436 W/kg

SAR(1 g) = 0.355 mW/g

SAR(10 g) = 0.276 mW/g

Power Drift = 0.188 dB

Maximum value of SAR (measured) = 0.369 mW/g



Date/Time: 2011-11-03 08:12:26, Date/Time: 2011-11-03 08:20:30

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.9 C

Medium parameters used: f = 710 MHz; $\sigma = 0.884$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - Middle - QPSK - 10MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.328 mW/g

LTE - Left/Cheek - Middle - QPSK - 10MHz - 1 RB - 100% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 5.67 V/m

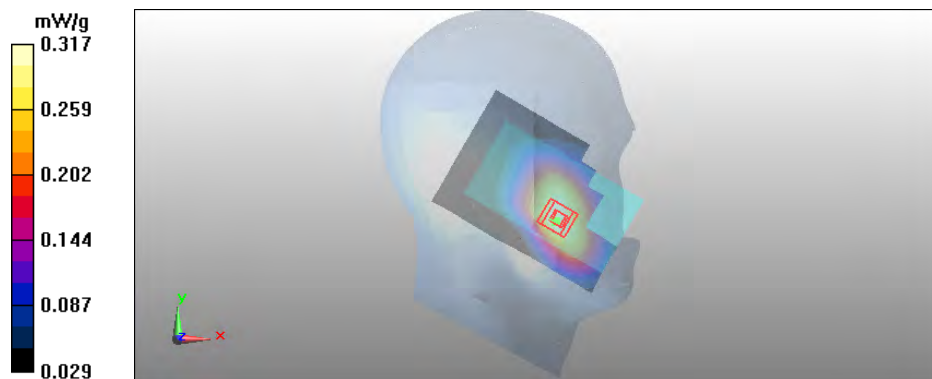
Peak SAR (extrapolated) = 0.391 W/kg

SAR(1 g) = 0.304 mW/g

SAR(10 g) = 0.229 mW/g

Power Drift = 0.045 dB

Maximum value of SAR (measured) = 0.317 mW/g



Date/Time: 2012-02-02 12:40:55, Date/Time: 2012-02-02 12:49:02

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.868$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - QPSK - 10MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.168 mW/g

LTE - Left/Tilt - Middle - QPSK - 10MHz - 1 RB - 100% offset/Zoom Scan (5x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.33 V/m

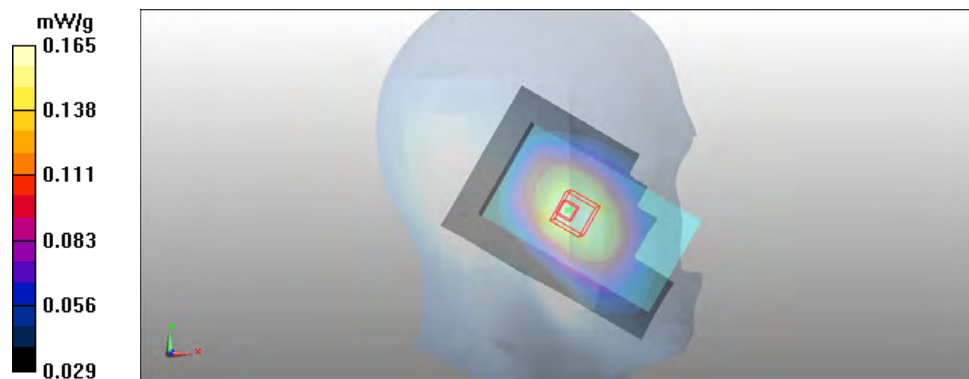
Peak SAR (extrapolated) = 0.192 W/kg

SAR(1 g) = 0.159 mW/g

SAR(10 g) = 0.126 mW/g

Power Drift = 0.146 dB

Maximum value of SAR (measured) = 0.165 mW/g



Date/Time: 2012-02-03 10:37:23, Date/Time: 2012-02-03 10:42:20

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - QPSK - 10MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.341 mW/g

LTE - Right/Cheek - Middle - QPSK - 10MHz - 1 RB - 100% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.38 V/m

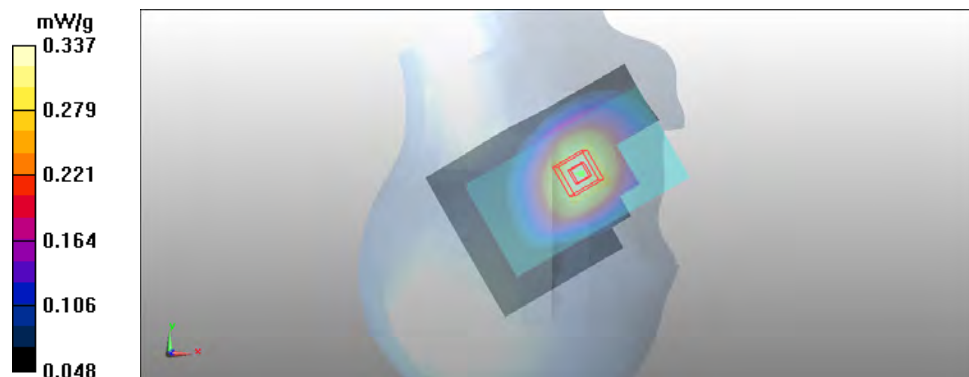
Peak SAR (extrapolated) = 0.383 W/kg

SAR(1 g) = 0.321 mW/g

SAR(10 g) = 0.252 mW/g

Power Drift = 0.090 dB

Maximum value of SAR (measured) = 0.337 mW/g



Date/Time: 2012-02-03 11:19:55, Date/Time: 2012-02-03 11:24:58

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - QPSK - 10MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.204 mW/g

LTE - Right/Tilt - Middle - QPSK - 10MHz - 1 RB - 100% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.35 V/m

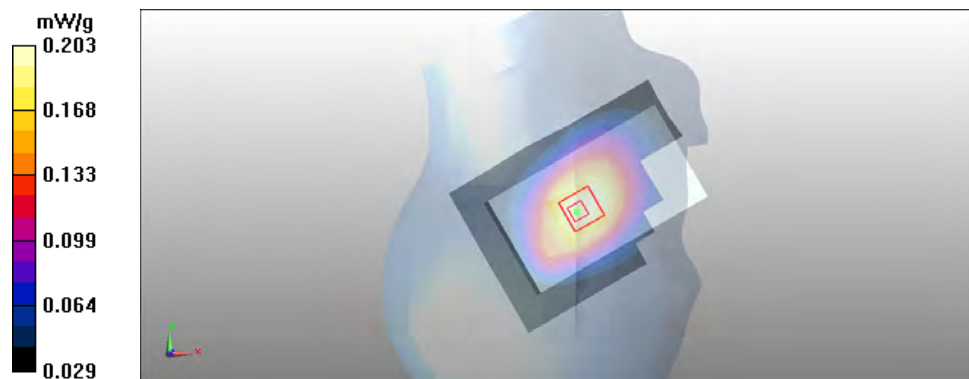
Peak SAR (extrapolated) = 0.229 W/kg

SAR(1 g) = 0.194 mW/g

SAR(10 g) = 0.153 mW/g

Power Drift = 0.177 dB

Maximum value of SAR (measured) = 0.203 mW/g



Date/Time: 2011-11-03 08:41:10, Date/Time: 2011-11-03 08:45:39

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.9 C

Medium parameters used: f = 710 MHz; $\sigma = 0.884$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - Middle - QPSK - 10MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.409 mW/g

LTE - Left/Cheek - Middle - QPSK - 10MHz - 1 RB - 0% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.46 V/m

Peak SAR (extrapolated) = 0.514 W/kg

SAR(1 g) = 0.383 mW/g

SAR(10 g) = 0.280 mW/g

Power Drift = 0.217 dB

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



Date/Time: 2012-02-02 13:03:09, Date/Time: 2012-02-02 13:07:48

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.868$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - QPSK - 10MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.205 mW/g

LTE - Left/Tilt - Middle - QPSK - 10MHz - 1 RB - 0% offset/Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.6 V/m

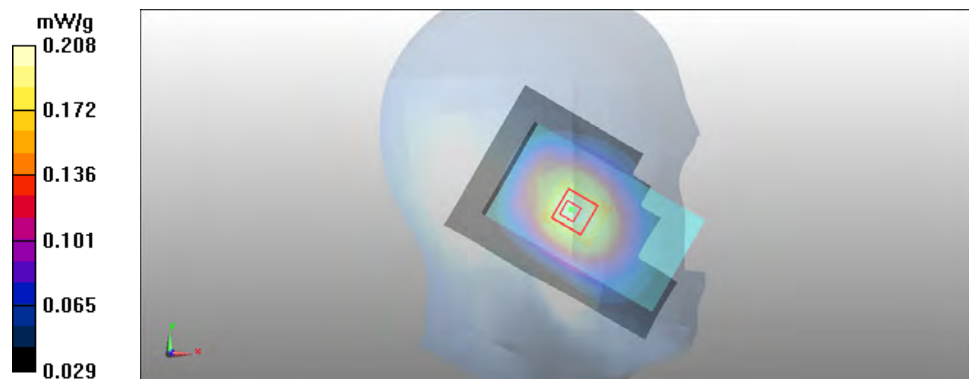
Peak SAR (extrapolated) = 0.245 W/kg

SAR(1 g) = 0.198 mW/g

SAR(10 g) = 0.153 mW/g

Power Drift = 0.023 dB

Maximum value of SAR (measured) = 0.208 mW/g



Date/Time: 2012-02-03 10:50:42, Date/Time: 2012-02-03 10:55:39

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - QPSK - 10MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.375 mW/g

LTE - Right/Cheek - Middle - QPSK - 10MHz - 1 RB - 0% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.76 V/m

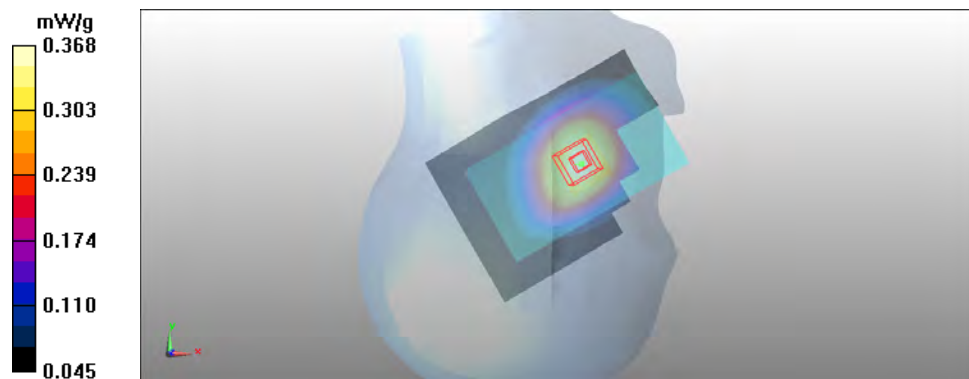
Peak SAR (extrapolated) = 0.422 W/kg

SAR(1 g) = 0.351 mW/g

SAR(10 g) = 0.272 mW/g

Power Drift = 0.167 dB

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



Date/Time: 2012-02-03 11:06:11, Date/Time: 2012-02-03 11:11:09

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - QPSK - 10MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.221 mW/g

LTE - Right/Tilt - Middle - QPSK - 10MHz - 1 RB - 0% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10 V/m

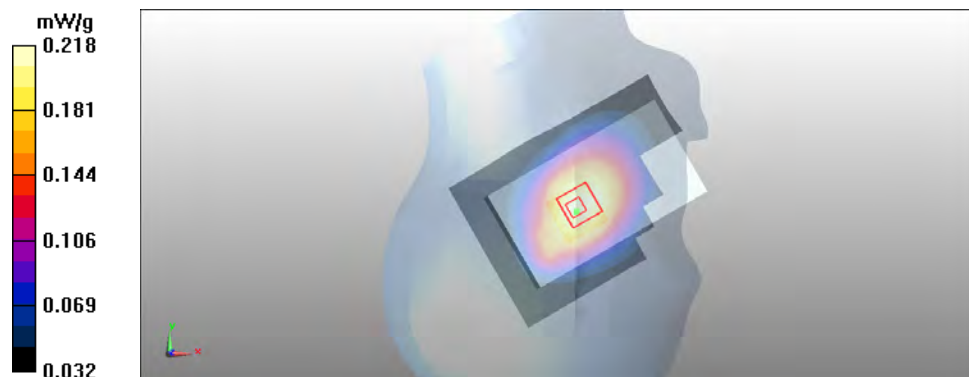
Peak SAR (extrapolated) = 0.251 W/kg

SAR(1 g) = 0.207 mW/g

SAR(10 g) = 0.162 mW/g

Power Drift = 0.171 dB

Maximum value of SAR (measured) = 0.218 mW/g



Date/Time: 2011-11-03 08:56:35, Date/Time: 2011-11-03 09:01:02

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.9 C

Medium parameters used: f = 710 MHz; $\sigma = 0.884$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - Middle - 16QAM - 10MHz - 50% RB - 50% offset /Area Scan (71x111x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.342 mW/g

LTE - Left/Cheek - Middle - 16QAM - 10MHz - 50% RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 5.5 V/m

Peak SAR (extrapolated) = 0.417 W/kg

SAR(1 g) = 0.311 mW/g

SAR(10 g) = 0.229 mW/g

Power Drift = 0.434 dB

Maximum value of SAR (measured) = 0.329 mW/g



Date/Time: 2012-02-02 15:15:22, Date/Time: 2012-02-02 15:19:51

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.868$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE- Left/Tilt - Middle - 16QAM - 10MHz - 50% RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.192 mW/g

LTE- Left/Tilt - Middle - 16QAM - 10MHz - 50% RB - 50% offset/Zoom Scan (5x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.67 V/m

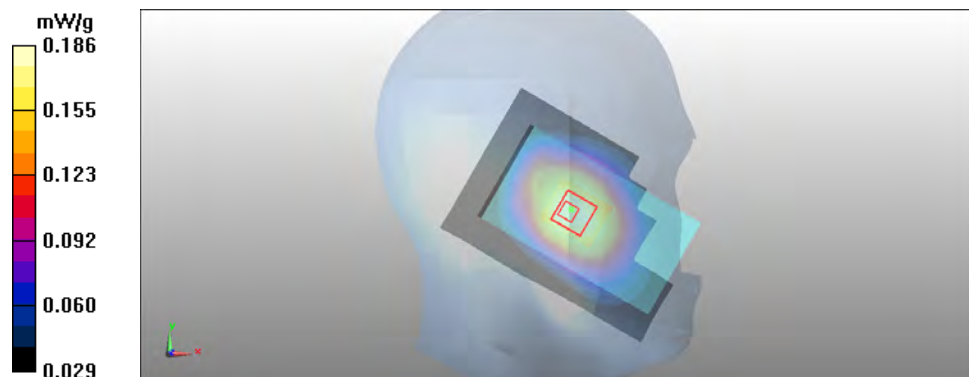
Peak SAR (extrapolated) = 0.217 W/kg

SAR(1 g) = 0.178 mW/g

SAR(10 g) = 0.140 mW/g

Power Drift = 0.156 dB

Maximum value of SAR (measured) = 0.186 mW/g



Date/Time: 2012-02-03 09:26:25, Date/Time: 2012-02-03 09:34:59

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - 16QAM - 10MHz - 50% RB - 50% offset/Area Scan (71x111x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.305 mW/g

LTE - Right/Cheek - Middle - 16QAM - 10MHz - 50% RB - 50% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.13 V/m

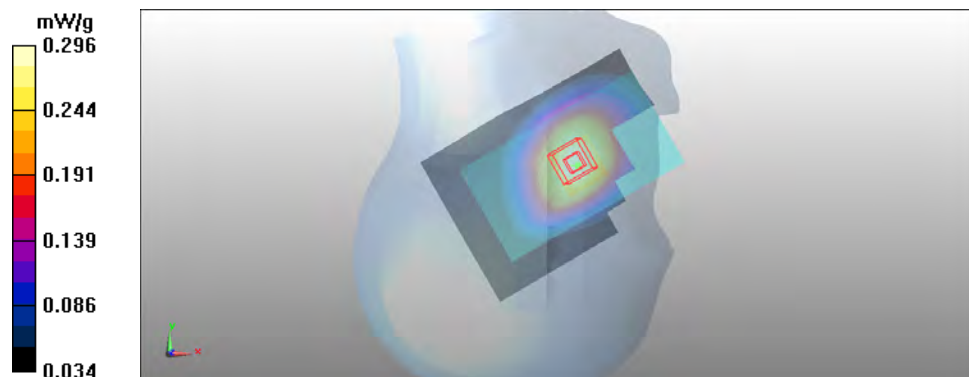
Peak SAR (extrapolated) = 0.336 W/kg

SAR(1 g) = 0.283 mW/g

SAR(10 g) = 0.222 mW/g

Power Drift = 0.013 dB

Maximum value of SAR (measured) = 0.296 mW/g



Date/Time: 2012-02-03 13:28:40, Date/Time: 2012-02-03 13:33:37

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - 16QAM - 10MHz - 50% RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.176 mW/g

LTE - Right/Tilt - Middle - 16QAM - 10MHz - 50% RB - 50% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.14 V/m

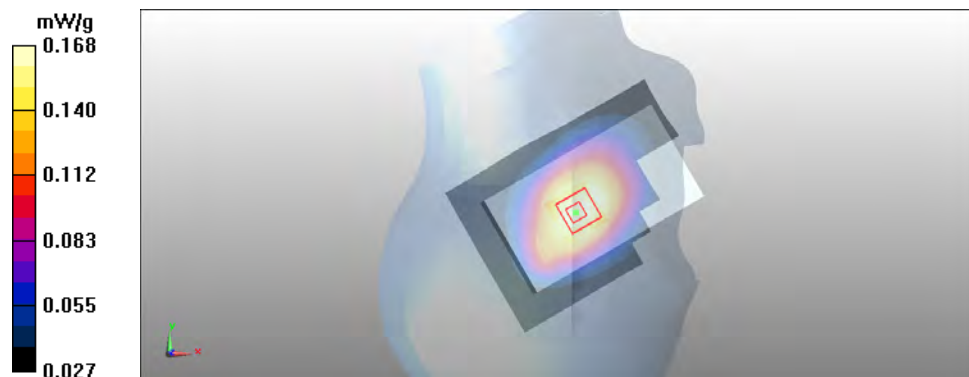
Peak SAR (extrapolated) = 0.189 W/kg

SAR(1 g) = 0.160 mW/g

SAR(10 g) = 0.126 mW/g

Power Drift = -0.244 dB

Maximum value of SAR (measured) = 0.168 mW/g



Date/Time: 2011-11-03 11:13:11, Date/Time: 2011-11-03 11:17:39

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 709 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.9 C

Medium parameters used: f = 709 MHz; $\sigma = 0.886$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - Low - 16QAM - 10MHz - 1 RB - 50% offset /Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.511 mW/g

LTE - Left/Cheek - Low - 16QAM - 10MHz - 1 RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.48 V/m

Peak SAR (extrapolated) = 0.618 W/kg

SAR(1 g) = 0.465 mW/g

SAR(10 g) = 0.339 mW/g

Power Drift = -0.423 dB

Maximum value of SAR (measured) = 0.489 mW/g



Date/Time: 2012-02-02 15:31:28, Date/Time: 2012-02-02 15:35:56

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.868$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - 16QAM - 10MHz - 1 RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.255 mW/g

LTE - Left/Tilt - Middle - 16QAM - 10MHz - 1 RB - 50% offset/Zoom Scan (5x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.4 V/m

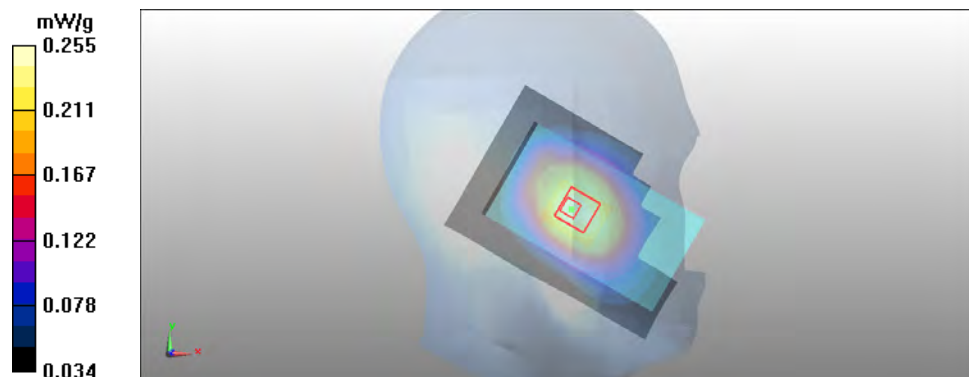
Peak SAR (extrapolated) = 0.297 W/kg

SAR(1 g) = 0.243 mW/g

SAR(10 g) = 0.190 mW/g

Power Drift = 0.020 dB

Maximum value of SAR (measured) = 0.255 mW/g



Date/Time: 2012-02-02 20:34:17, Date/Time: 2012-02-02 20:42:52

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.868$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - 16QAM - 10MHz - 1 RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.474 mW/g

LTE - Right/Cheek - Middle - 16QAM - 10MHz - 1 RB - 50% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.62 V/m

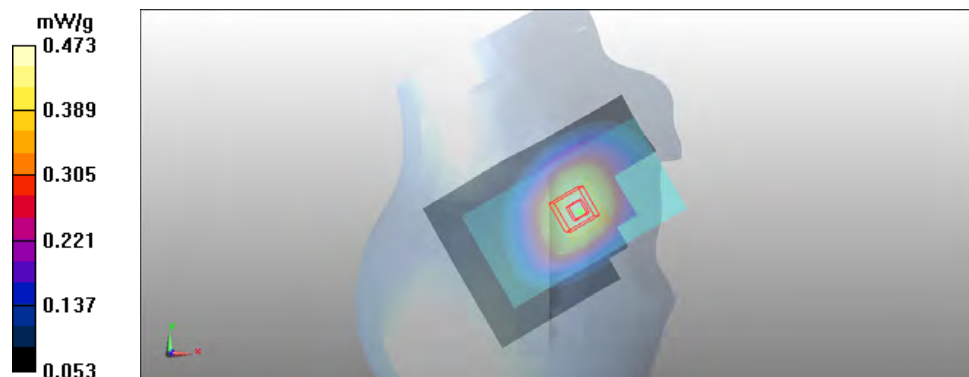
Peak SAR (extrapolated) = 0.541 W/kg

SAR(1 g) = 0.453 mW/g

SAR(10 g) = 0.354 mW/g

Power Drift = 0.348 dB

Maximum value of SAR (measured) = 0.473 mW/g



Date/Time: 2012-02-03 13:53:59, Date/Time: 2012-02-03 13:58:57

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - 16QAM - 10MHz - 1 RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.233 mW/g

LTE - Right/Tilt - Middle - 16QAM - 10MHz - 1 RB - 50% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.2 V/m

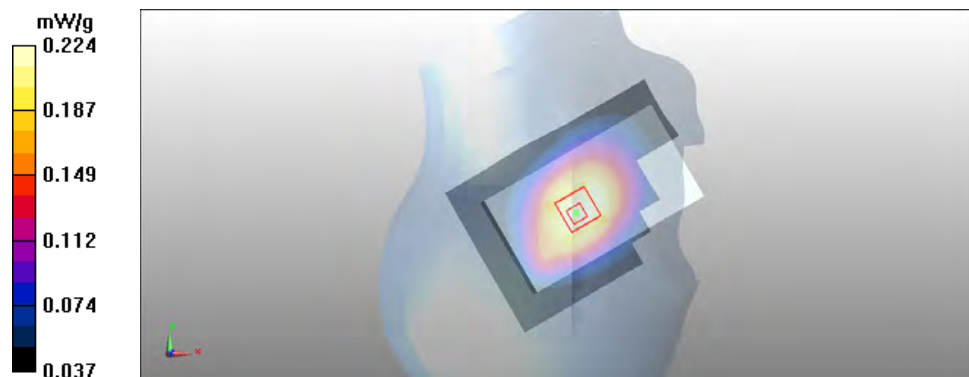
Peak SAR (extrapolated) = 0.254 W/kg

SAR(1 g) = 0.214 mW/g

SAR(10 g) = 0.169 mW/g

Power Drift = 0.164 dB

Maximum value of SAR (measured) = 0.224 mW/g



Date/Time: 2011-11-03 11:27:40, Date/Time: 2011-11-03 11:32:09

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 709 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.9 C

Medium parameters used: f = 709 MHz; $\sigma = 0.886$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - Low - 16QAM - 10MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.329 mW/g

LTE - Left/Cheek - Low - 16QAM - 10MHz - 1 RB - 100% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 5.38 V/m

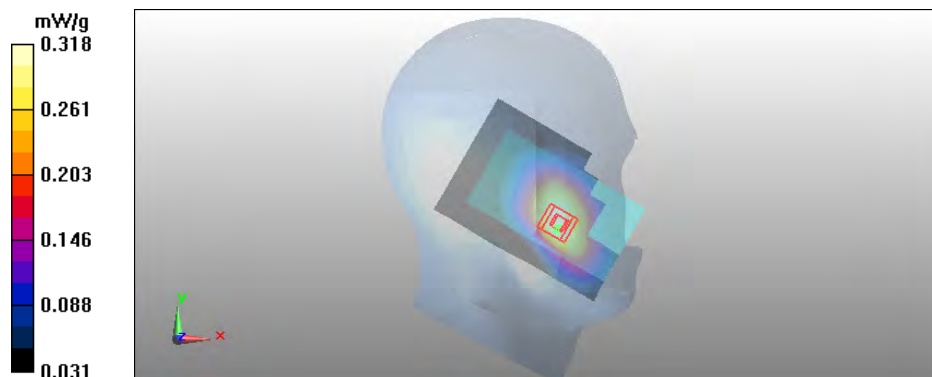
Peak SAR (extrapolated) = 0.399 W/kg

SAR(1 g) = 0.303 mW/g

SAR(10 g) = 0.227 mW/g

Power Drift = 0.055 dB

Maximum value of SAR (measured) = 0.318 mW/g



Date/Time: 2012-02-02 15:45:46, Date/Time: 2012-02-02 15:50:14

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.868$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - 16QAM - 10MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.148 mW/g

LTE17 - Left/Tilt - Middle - 16QAM - 10MHz - 1 RB - 100% offset/Zoom Scan (5x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.41 V/m

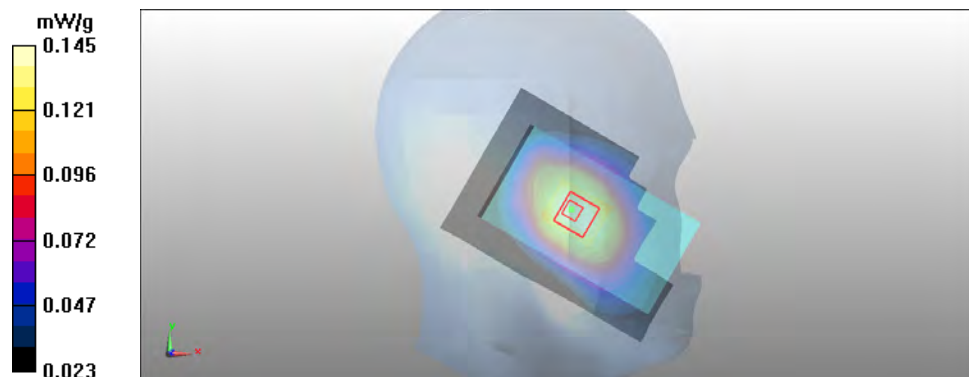
Peak SAR (extrapolated) = 0.165 W/kg

SAR(1 g) = 0.138 mW/g

SAR(10 g) = 0.110 mW/g

Power Drift = 0.160 dB

Maximum value of SAR (measured) = 0.145 mW/g



Date/Time: 2012-02-02 20:15:06, Date/Time: 2012-02-02 20:23:40

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.868$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - 16QAM - 10MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.312 mW/g

LTE - Right/Cheek - Middle - 16QAM - 10MHz - 1 RB - 100% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.17 V/m

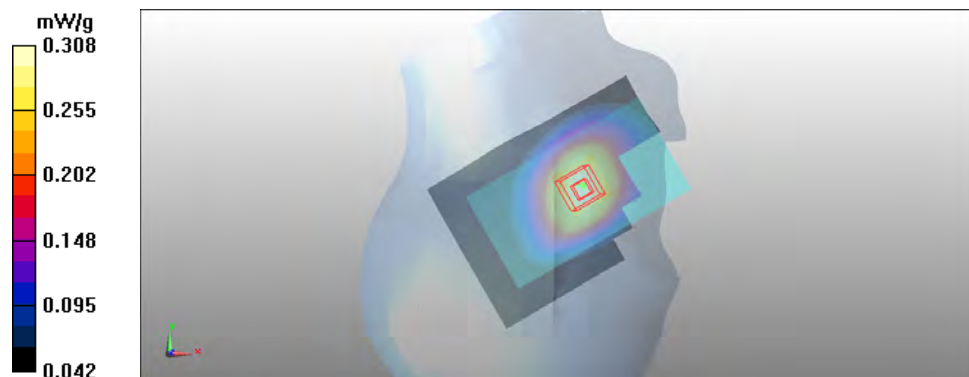
Peak SAR (extrapolated) = 0.349 W/kg

SAR(1 g) = 0.295 mW/g

SAR(10 g) = 0.231 mW/g

Power Drift = -0.0052 dB

Maximum value of SAR (measured) = 0.308 mW/g



Date/Time: 2012-02-03 13:41:34, Date/Time: 2012-02-03 13:46:31

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - 16QAM - 10MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.158 mW/g

LTE - Right/Tilt - Middle - 16QAM - 10MHz - 1 RB - 100% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.37 V/m

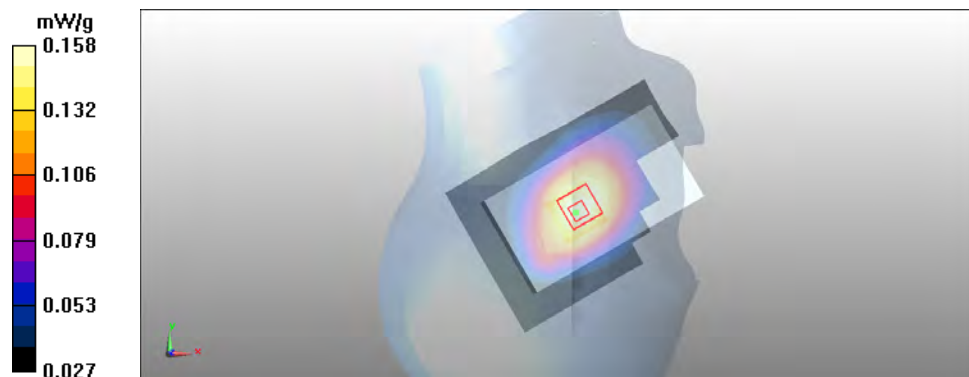
Peak SAR (extrapolated) = 0.178 W/kg

SAR(1 g) = 0.151 mW/g

SAR(10 g) = 0.119 mW/g

Power Drift = 0.121 dB

Maximum value of SAR (measured) = 0.158 mW/g



Date/Time: 2011-11-03 11:43:00, Date/Time: 2011-11-03 11:47:28

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.9 C

Medium parameters used: f = 710 MHz; $\sigma = 0.884$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - Middle - 16QAM - 10MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.359 mW/g

LTE - Left/Cheek - Middle - 16QAM - 10MHz - 1 RB - 0% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.07 V/m

Peak SAR (extrapolated) = 0.443 W/kg

SAR(1 g) = 0.335 mW/g

SAR(10 g) = 0.245 mW/g

Power Drift = 0.059 dB

Maximum value of SAR (measured) = 0.350 mW/g



Date/Time: 2012-02-09 14:06:39, Date/Time: 2012-02-09 14:14:59

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20.9 C

Medium parameters used: f = 710 MHz; $\sigma = 0.858$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - 16QAM - 10MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.214 mW/g

LTE - Left/Tilt - Middle - 16QAM - 10MHz - 1 RB - 0% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.4 V/m

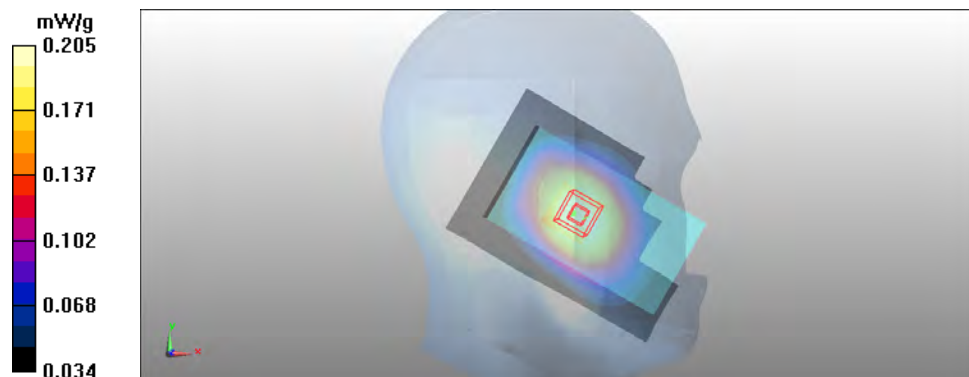
Peak SAR (extrapolated) = 0.237 W/kg

SAR(1 g) = 0.197 mW/g

SAR(10 g) = 0.154 mW/g

Power Drift = -0.384 dB

Maximum value of SAR (measured) = 0.205 mW/g



Date/Time: 2012-02-02 18:20:47, Date/Time: 2012-02-02 18:29:22

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.868$ mho/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - 16QAM - 10MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.359 mW/g

LTE - Right/Cheek - Middle - 16QAM - 10MHz - 1 RB - 0% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.47 V/m

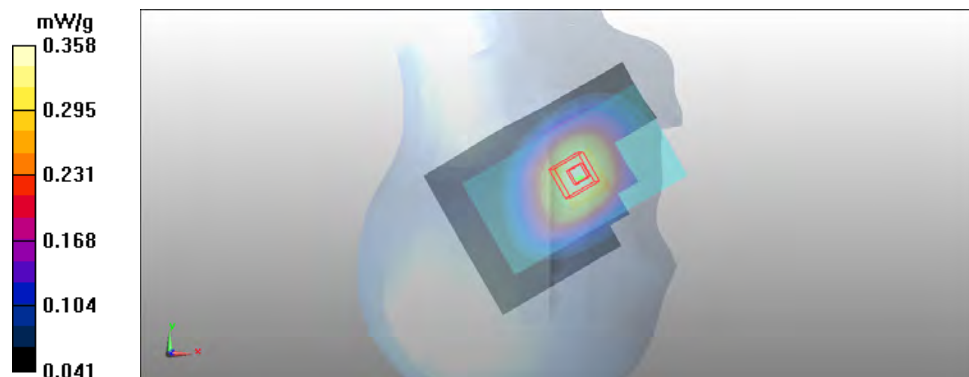
Peak SAR (extrapolated) = 0.420 W/kg

SAR(1 g) = 0.342 mW/g

SAR(10 g) = 0.263 mW/g

Power Drift = 0.181 dB

Maximum value of SAR (measured) = 0.358 mW/g



Date/Time: 2012-02-03 14:06:26, Date/Time: 2012-02-03 14:11:22

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: t= 20 C

Medium parameters used: f = 710 MHz; $\sigma = 0.864$ mho/m; $\epsilon_r = 41$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - 16QAM - 10MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.170 mW/g

LTE - Right/Tilt - Middle - 16QAM - 10MHz - 1 RB - 0% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.9 V/m

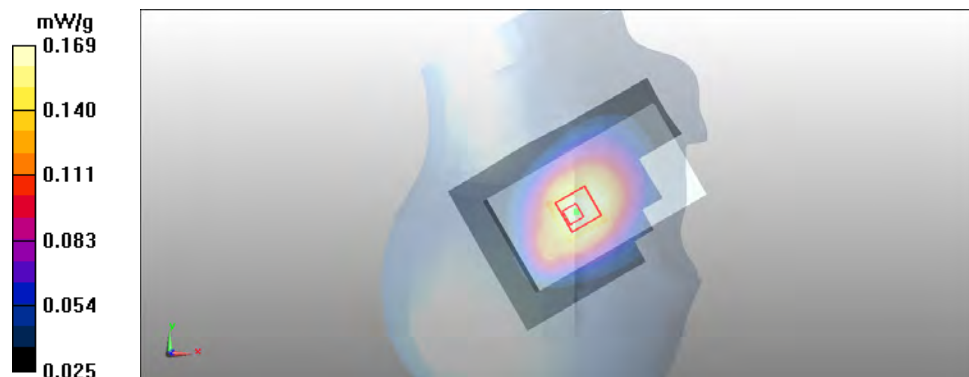
Peak SAR (extrapolated) = 0.200 W/kg

SAR(1 g) = 0.163 mW/g

SAR(10 g) = 0.127 mW/g

Power Drift = 0.239 dB

Maximum value of SAR (measured) = 0.169 mW/g



Date/Time: 2011-10-18 07:06:51, Date/Time: 2011-10-18 07:15:05

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.30042

Medium: HSL850; Medium Notes: t= 20.4 C

Medium parameters used: f = 837 MHz; σ = 0.895 mho/m; ϵ_r = 41.1; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

GSM - Left/Cheek - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.719 mW/g

GSM - Left/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.99 V/m

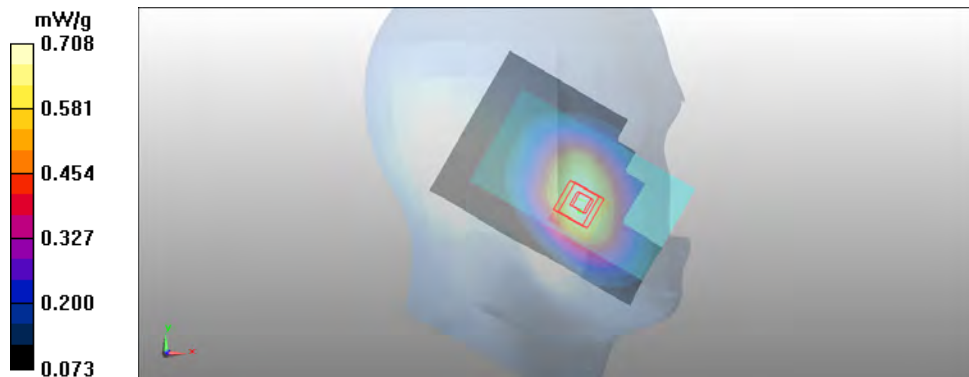
Peak SAR (extrapolated) = 0.872 W/kg

SAR(1 g) = 0.677 mW/g

SAR(10 g) = 0.502 mW/g

Power Drift = -0.297 dB

Maximum value of SAR (measured) = 0.708 mW/g



Date/Time: 2012-02-06 20:08:03, Date/Time: 2012-02-06 20:14:58

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: HSL850; Medium Notes: t= 20.5 C

Medium parameters used: f = 837 MHz; σ = 0.892 mho/m; ϵ_r = 40.3; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(5.88, 5.88, 5.88); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2011-05-09
- Phantom: SAM2; Type: SAM; Serial: TP-1570
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

GSM - Left/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.459 mW/g

GSM - Left/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.5 V/m

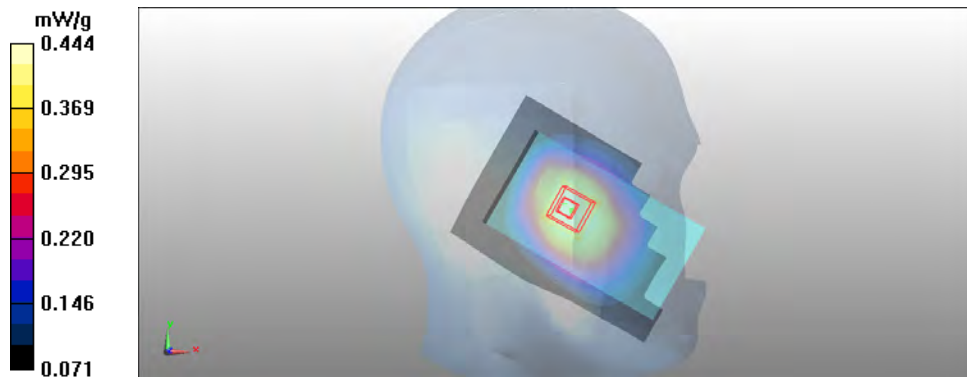
Peak SAR (extrapolated) = 0.513 W/kg

SAR(1 g) = 0.426 mW/g

SAR(10 g) = 0.328 mW/g

Power Drift = 0.354 dB

Maximum value of SAR (measured) = 0.444 mW/g



Date/Time: 2012-02-06 20:34:54, Date/Time: 2012-02-06 20:42:14

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: HSL850; Medium Notes: t= 20.5 C

Medium parameters used: f = 837 MHz; $\sigma = 0.892$ mho/m; $\epsilon_r = 40.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(5.88, 5.88, 5.88); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2011-05-09
- Phantom: SAM2; Type: SAM; Serial: TP-1570
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

GSM - Right/Cheek - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.730 mW/g

GSM - Right/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11 V/m

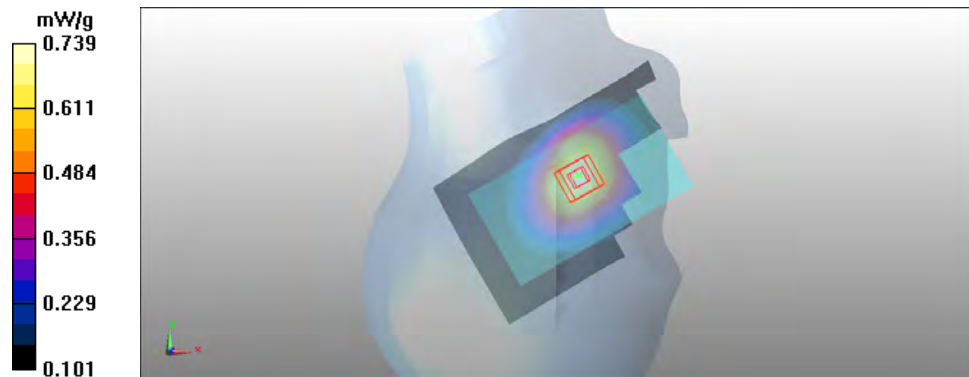
Peak SAR (extrapolated) = 0.851 W/kg

SAR(1 g) = 0.700 mW/g

SAR(10 g) = 0.527 mW/g

Power Drift = -0.136 dB

Maximum value of SAR (measured) = 0.739 mW/g



Date/Time: 2012-02-06 20:49:29, Date/Time: 2012-02-06 20:54:08

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: HSL850; Medium Notes: t= 20.5 C

Medium parameters used: f = 837 MHz; σ = 0.892 mho/m; ϵ_r = 40.3; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(5.88, 5.88, 5.88); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2011-05-09
- Phantom: SAM2; Type: SAM; Serial: TP-1570
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

GSM - Right/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.493 mW/g

GSM - Right/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.8 V/m

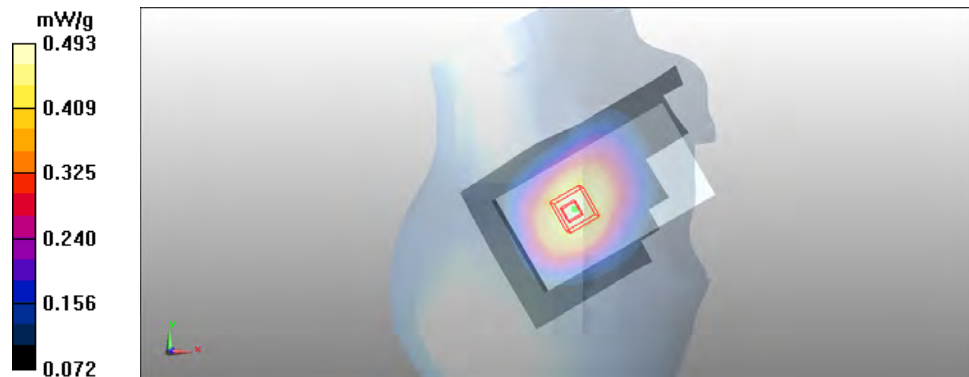
Peak SAR (extrapolated) = 0.578 W/kg

SAR(1 g) = 0.469 mW/g

SAR(10 g) = 0.355 mW/g

Power Drift = -0.100 dB

Maximum value of SAR (measured) = 0.493 mW/g



Date/Time: 2011-10-18 07:52:31, Date/Time: 2011-10-18 08:05:33

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS850

Frequency: 824.2 MHz; Duty Cycle: 1:4.19952

Medium: HSL850; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.886 mho/m; ϵ_r = 41.2; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Left/Cheek - Low/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.03 mW/g

2-slot GPRS - Left/Cheek - Low/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.3 V/m

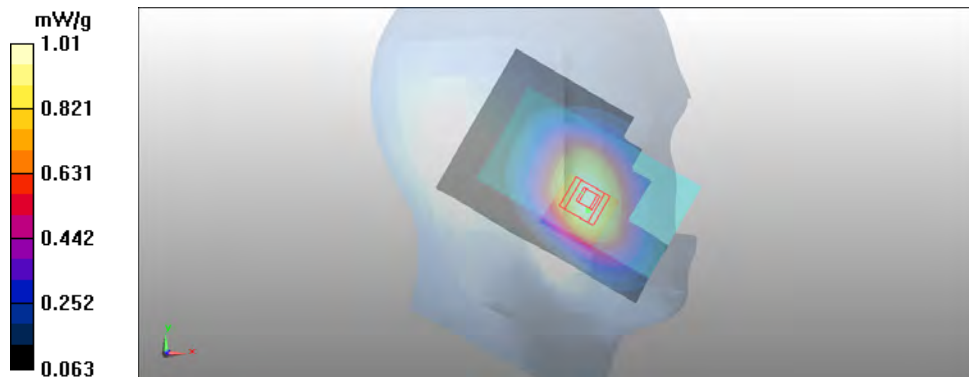
Peak SAR (extrapolated) = 1.24 W/kg

SAR(1 g) = 0.963 mW/g

SAR(10 g) = 0.717 mW/g

Power Drift = -0.028 dB

Maximum value of SAR (measured) = 1.01 mW/g



Date/Time: 2011-10-18 11:18:27, Date/Time: 2011-10-18 11:22:55

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: HSL850; Medium Notes: t= 20.4 C

Medium parameters used: f = 837 MHz; σ = 0.895 mho/m; ϵ_r = 41.1; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Left/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.667 mW/g

2-slot GPRS - Left/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.3 V/m

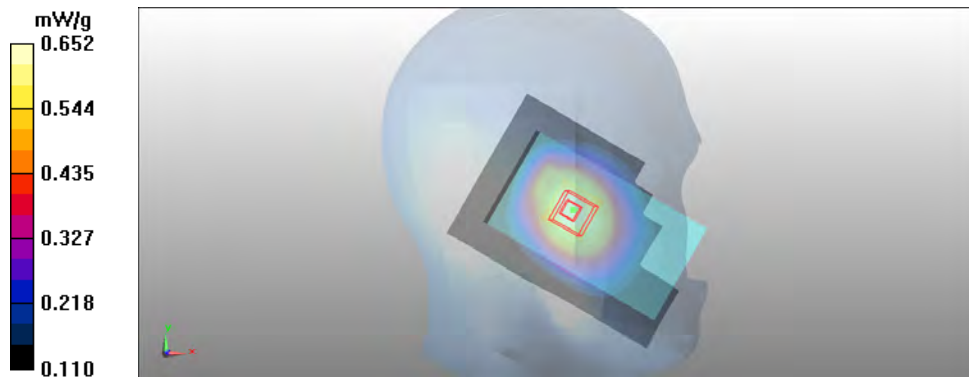
Peak SAR (extrapolated) = 0.745 W/kg

SAR(1 g) = 0.625 mW/g

SAR(10 g) = 0.486 mW/g

Power Drift = -0.063 dB

Maximum value of SAR (measured) = 0.652 mW/g



Date/Time: 2011-10-18 12:03:02, Date/Time: 2011-10-18 12:08:01

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS850

Frequency: 824.2 MHz; Duty Cycle: 1:4.19952

Medium: HSL850; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 824.2 MHz; $\sigma = 0.886$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Right/Cheek - Low/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.08 mW/g

2-slot GPRS - Right/Cheek - Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12 V/m

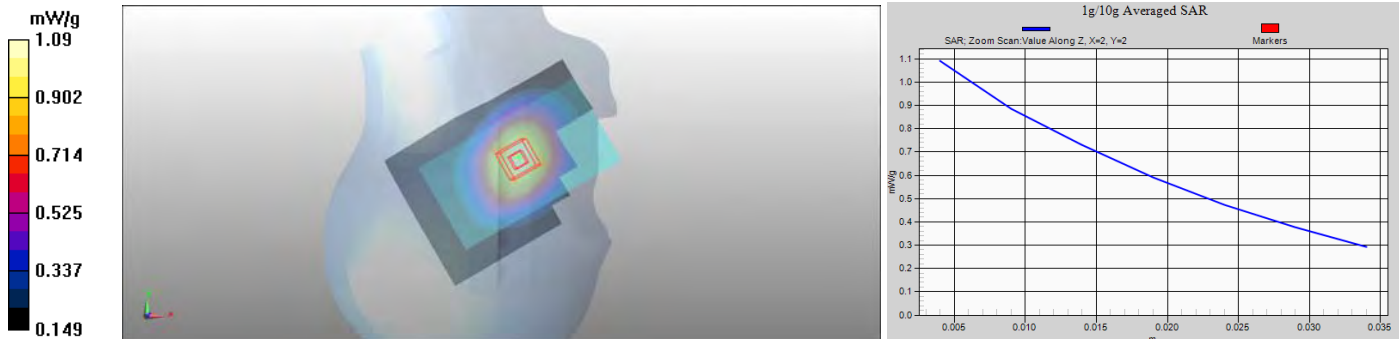
Peak SAR (extrapolated) = 1.29 W/kg

SAR(1 g) = 1.04 mW/g

SAR(10 g) = 0.802 mW/g

Power Drift = 0.040 dB

Maximum value of SAR (measured) = 1.09 mW/g



Date/Time: 2012-02-09 14:55:31

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS850 EXPANDED VOLUME SCAN

Frequency: 824.2 MHz; Duty Cycle: 1:4.2

Medium: HSL850; Medium Notes: t= 21 C

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.88 mho/m; ϵ_r = 40; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(5.88, 5.88, 5.88); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2011-05-09
- Phantom: SAM2; Type: SAM; Serial: TP-1570
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Right/Cheek - Low/Volume Scan (15x21x7): Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.3 V/m

Peak SAR (extrapolated) = 1.27 W/kg

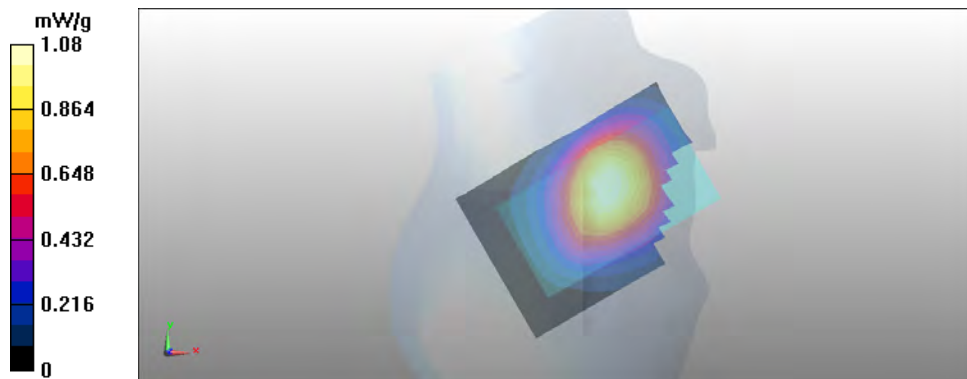
SAR(1 g) = 1.04 mW/g

SAR(10 g) = 0.801 mW/g

Power Drift = 0.211 dB

Total Absorbed Power = 0.115973 W

Maximum value of SAR (measured) = 1.08 mW/g



Date/Time: 2011-10-18 12:32:48, Date/Time: 2011-10-18 12:37:46

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: HSL850; Medium Notes: t= 20.4 C

Medium parameters used: f = 837 MHz; σ = 0.895 mho/m; ϵ_r = 41.1; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Right/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.621 mW/g

2-slot GPRS - Right/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.9 V/m

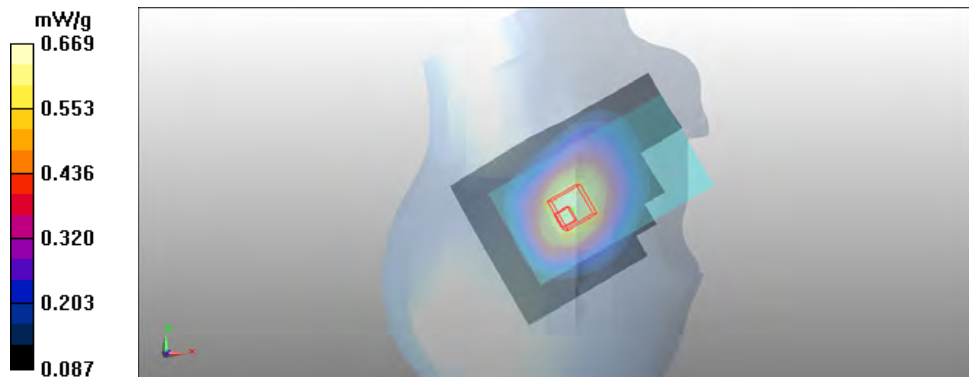
Peak SAR (extrapolated) = 0.791 W/kg

SAR(1 g) = 0.631 mW/g

SAR(10 g) = 0.495 mW/g

Power Drift = 0.441 dB

Maximum value of SAR (measured) = 0.669 mW/g



Date/Time: 2011-10-19 16:47:56, Date/Time: 2011-10-19 16:56:33

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot 8PSK EGPRS850

Frequency: 824.2 MHz; Duty Cycle: 1:4.19952

Medium: HSL850; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 824.2 MHz; $\sigma = 0.888$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot 8PSK EGPRS - Right/Cheek - Low/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.453 mW/g

2-slot 8PSK EGPRS - Right/Cheek - Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.78 V/m

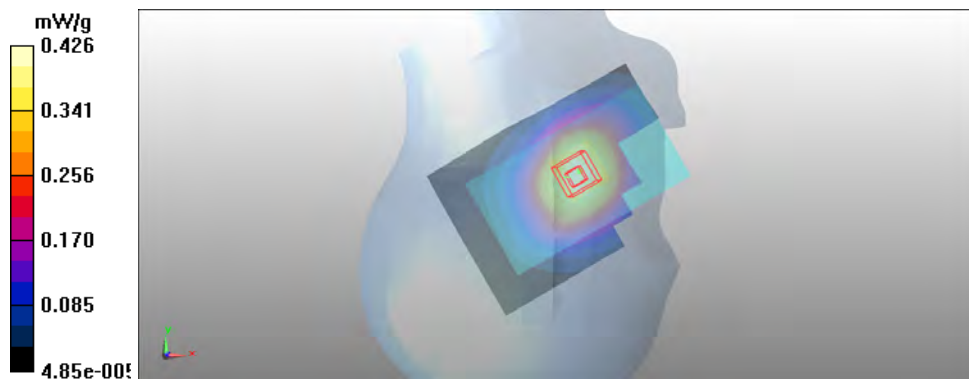
Peak SAR (extrapolated) = 0.480 W/kg

SAR(1 g) = 0.407 mW/g

SAR(10 g) = 0.314 mW/g

Power Drift = -0.348 dB

Maximum value of SAR (measured) = 0.426 mW/g



Date/Time: 2011-10-19 18:14:48, Date/Time: 2011-10-19 18:22:55

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL850; Medium Notes: t= 20.1 C

Medium parameters used: f = 835 MHz; $\sigma = 0.896$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Left/Cheek - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.593 mW/g

WCDMA - Left/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.58 V/m

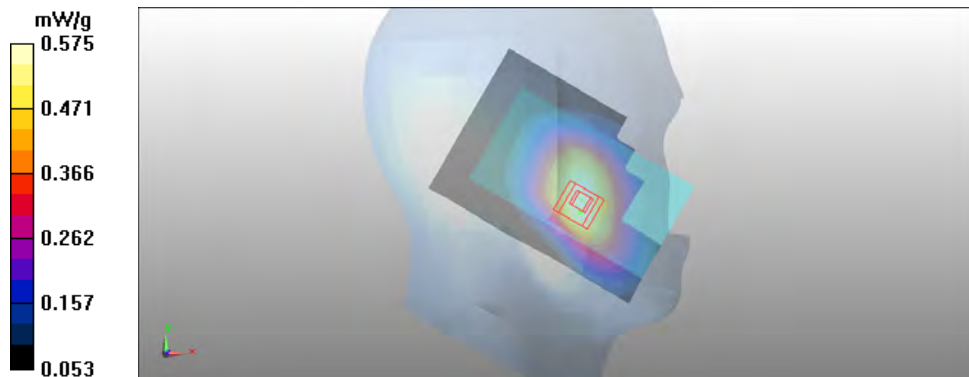
Peak SAR (extrapolated) = 0.703 W/kg

SAR(1 g) = 0.552 mW/g

SAR(10 g) = 0.410 mW/g

Power Drift = -0.237 dB

Maximum value of SAR (measured) = 0.575 mW/g



Date/Time: 2011-10-19 18:38:18, Date/Time: 2011-10-19 18:42:46

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL850; Medium Notes: t= 20.1 C

Medium parameters used: f = 835 MHz; $\sigma = 0.896$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Left/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.387 mW/g

WCDMA - Left/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.1 V/m

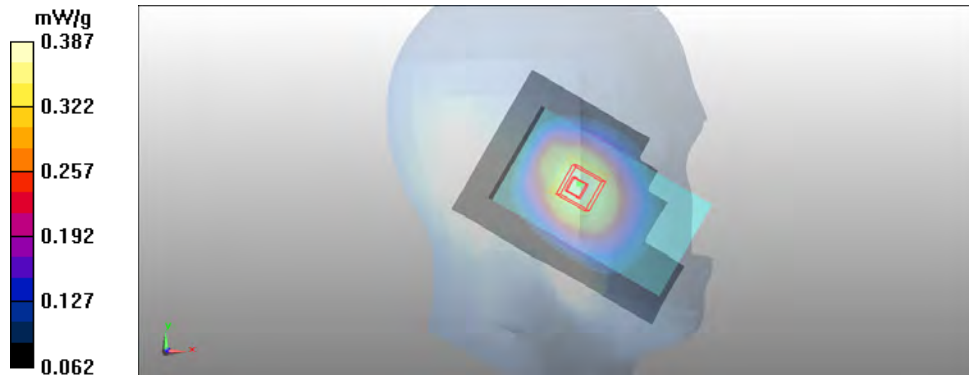
Peak SAR (extrapolated) = 0.456 W/kg

SAR(1 g) = 0.372 mW/g

SAR(10 g) = 0.288 mW/g

Power Drift = -0.158 dB

Maximum value of SAR (measured) = 0.387 mW/g



Date/Time: 2011-10-19 17:37:03, Date/Time: 2011-10-19 17:45:39

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL850; Medium Notes: t= 20.1 C

Medium parameters used: f = 835 MHz; $\sigma = 0.896$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Right/Cheek - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.630 mW/g

WCDMA - Right/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.8 V/m

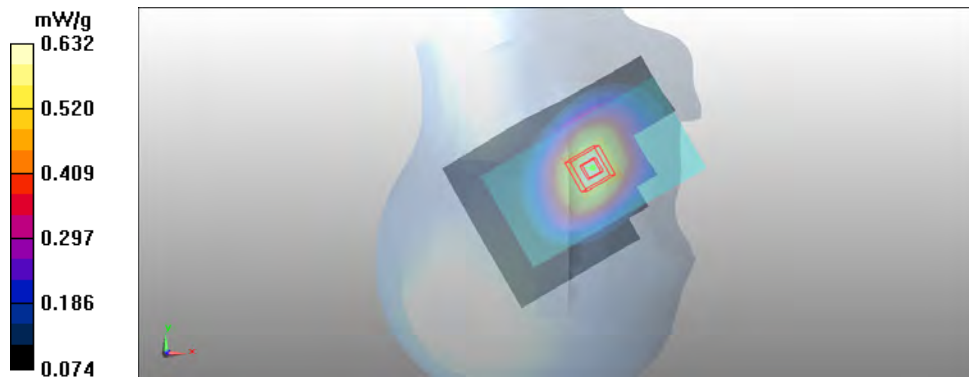
Peak SAR (extrapolated) = 0.718 W/kg

SAR(1 g) = 0.602 mW/g

SAR(10 g) = 0.465 mW/g

Power Drift = -0.274 dB

Maximum value of SAR (measured) = 0.632 mW/g



Date/Time: 2011-10-19 17:56:18, Date/Time: 2011-10-19 18:01:16

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL850; Medium Notes: t= 20.1 C

Medium parameters used: f = 835 MHz; $\sigma = 0.896$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Right/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.411 mW/g

WCDMA - Right/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.2 V/m

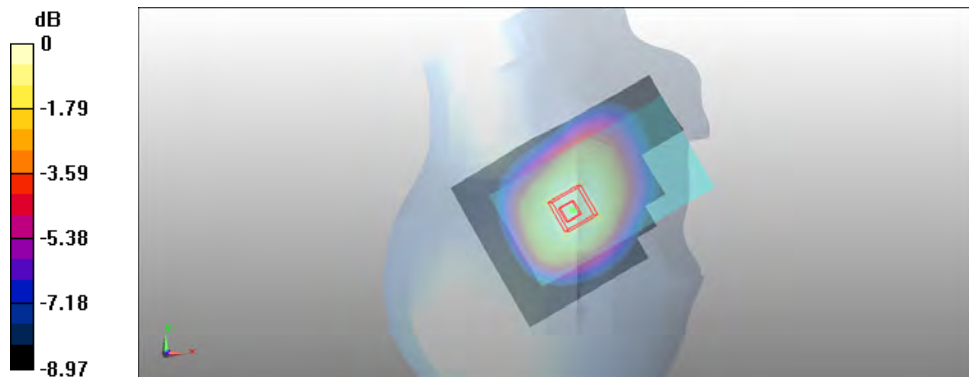
Peak SAR (extrapolated) = 0.483 W/kg

SAR(1 g) = 0.388 mW/g

SAR(10 g) = 0.299 mW/g

Power Drift = 0.023 dB

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



Date/Time: 2011-10-18 13:23:58, Date/Time: 2011-10-18 13:29:43

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1700/2100

Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.0 C

Medium parameters used: f = 1753 MHz; σ = 1.35 mho/m; ϵ_r = 38.7; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165

- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17

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

- Electronics: DAE4 Sn555; Calibrated: 2011-02-22

- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018

- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Left/Cheek - High/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.44 mW/g

WCDMA - Left/Cheek - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.5 V/m

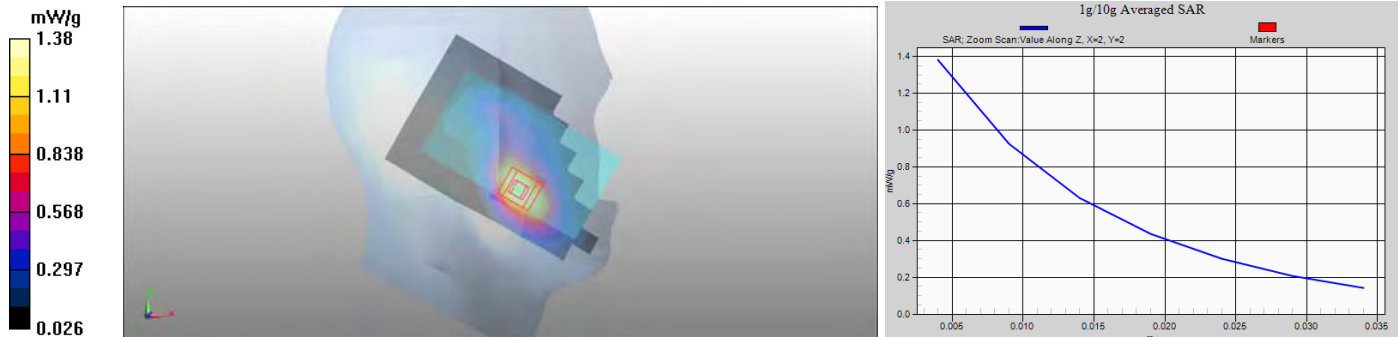
Peak SAR (extrapolated) = 1.95 W/kg

SAR(1 g) = 1.27 mW/g

SAR(10 g) = 0.806 mW/g

Power Drift = 0.036 dB

Maximum value of SAR (measured) = 1.38 mW/g



Date/Time: 2011-10-18 13:44:20, Date/Time: 2011-10-18 13:49:44

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.0 C

Medium parameters used (interpolated): f = 1732.4 MHz; $\sigma = 1.33$ mho/m; $\epsilon_r = 38.8$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Left/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.485 mW/g

WCDMA - Left/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18 V/m

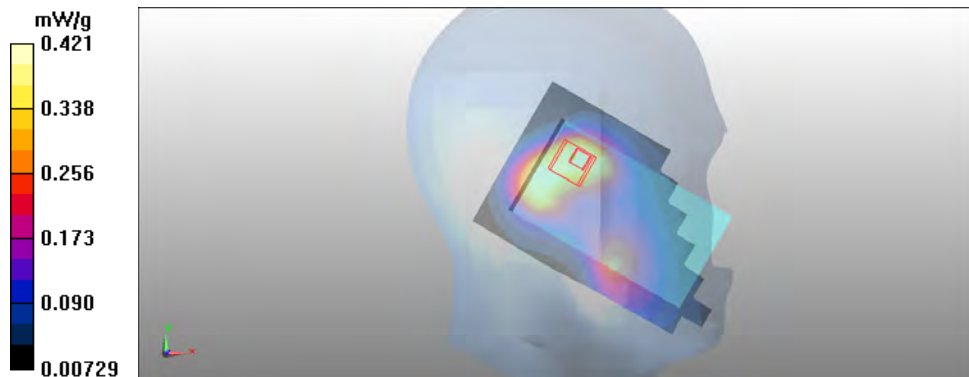
Peak SAR (extrapolated) = 0.580 W/kg

SAR(1 g) = 0.394 mW/g

SAR(10 g) = 0.258 mW/g

Power Drift = -0.031 dB

Maximum value of SAR (measured) = 0.421 mW/g



Date/Time: 2011-10-18 15:36:15, Date/Time: 2011-10-18 15:45:26

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.0 C

Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.33 mho/m; ϵ_r = 38.8; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Right/Cheek - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.507 mW/g

WCDMA - Right/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.2 V/m

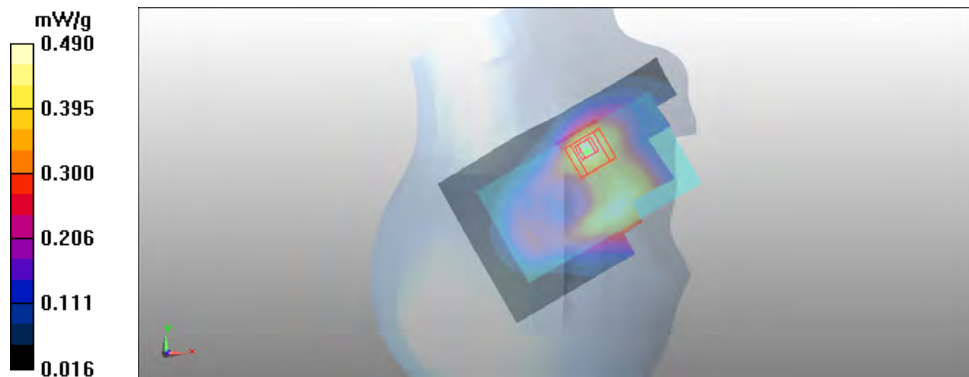
Peak SAR (extrapolated) = 0.714 W/kg

SAR(1 g) = 0.459 mW/g

SAR(10 g) = 0.296 mW/g

Power Drift = -0.026 dB

Maximum value of SAR (measured) = 0.490 mW/g



Date/Time: 2011-10-18 16:09:02, Date/Time: 2011-10-18 16:18:15

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.0 C

Medium parameters used (interpolated): f = 1732.4 MHz; $\sigma = 1.33$ mho/m; $\epsilon_r = 38.8$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Right/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.602 mW/g

WCDMA - Right/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 19.4 V/m

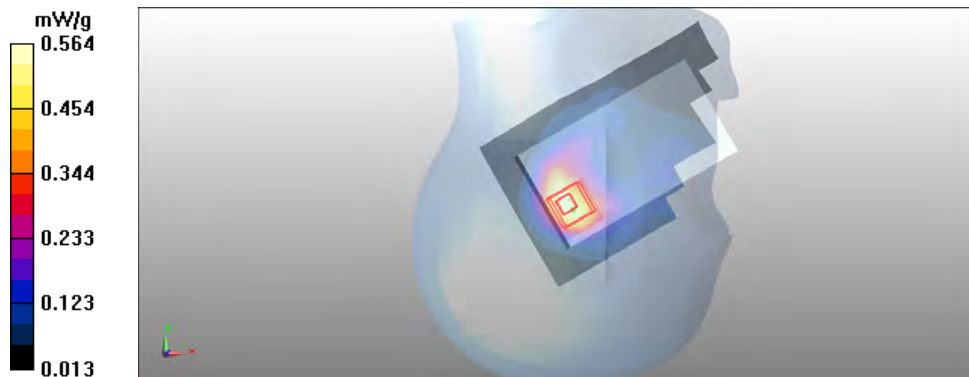
Peak SAR (extrapolated) = 0.822 W/kg

SAR(1 g) = 0.524 mW/g

SAR(10 g) = 0.316 mW/g

Power Drift = -0.121 dB

Maximum value of SAR (measured) = 0.564 mW/g



Date/Time: 2011-11-08 13:20:43, Date/Time: 2011-11-08 13:26:05

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.8 C

Medium parameters used: f = 1745 MHz; $\sigma = 1.35$ mho/m; $\epsilon_r = 38.7$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - High - QPSK - 20MHz - 50% RB - 50% offset /Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

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

LTE - Left/Cheek - High - QPSK - 20MHz - 50% RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.19 V/m

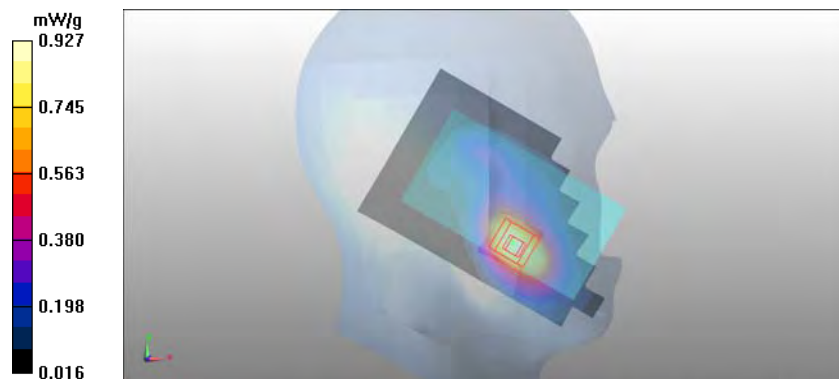
Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 0.854 mW/g

SAR(10 g) = 0.540 mW/g

Power Drift = -0.083 dB

Maximum value of SAR (measured) = 0.927 mW/g



Date/Time: 2012-02-02 10:17:19, Date/Time: 2012-02-02 10:26:11

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - QPSK - 20MHz - 50% RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.306 mW/g

LTE - Left/Tilt - Middle - QPSK - 20MHz - 50% RB - 50% offset/Zoom Scan (6x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.1 V/m

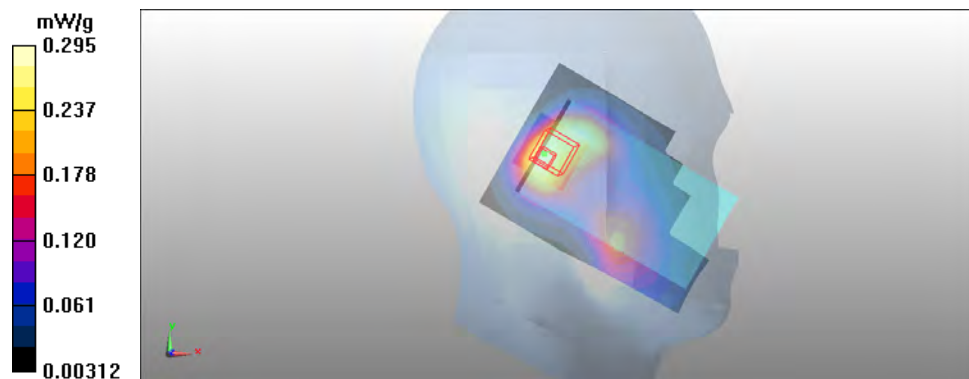
Peak SAR (extrapolated) = 0.423 W/kg

SAR(1 g) = 0.274 mW/g

SAR(10 g) = 0.174 mW/g

Power Drift = -0.011 dB

Maximum value of SAR (measured) = 0.295 mW/g



Date/Time: 2012-02-02 14:47:14, Date/Time: 2012-02-02 14:55:56

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.3 mho/m; ϵ_r = 39; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - QPSK - 20MHz - 50% RB - 50% offset/Area Scan (71x111x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.355 mW/g

LTE - Right/Cheek - Middle - QPSK - 20MHz - 50% RB - 50% offset/Zoom Scan (6x7x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.56 V/m

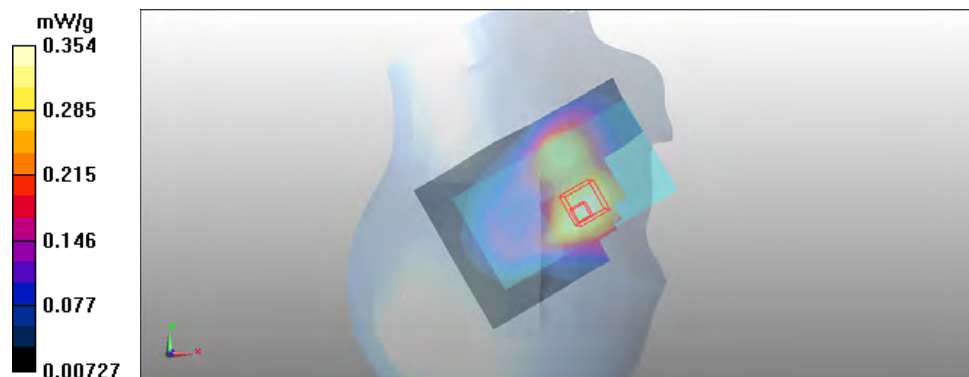
Peak SAR (extrapolated) = 0.503 W/kg

SAR(1 g) = 0.336 mW/g

SAR(10 g) = 0.228 mW/g

Power Drift = -0.080 dB

Maximum value of SAR (measured) = 0.354 mW/g



Date/Time: 2012-02-03 09:43:09, Date/Time: 2012-02-03 09:51:51

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASYS2, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - QPSK - 20MHz - 50% RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.354 mW/g

LTE - Right/Tilt - Middle - QPSK - 20MHz - 50% RB - 50% offset/Zoom Scan (6x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.3 V/m

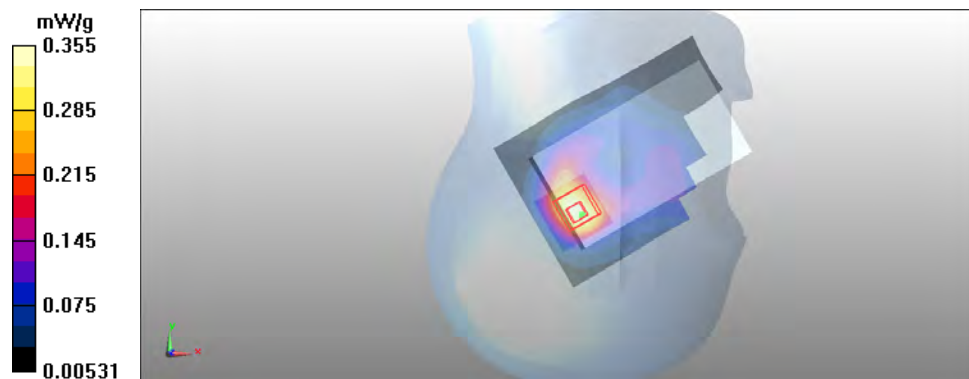
Peak SAR (extrapolated) = 0.536 W/kg

SAR(1 g) = 0.333 mW/g

SAR(10 g) = 0.198 mW/g

Power Drift = 0.109 dB

Maximum value of SAR (measured) = 0.355 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

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Date/Time: 2011-11-10 14:29:36, Date/Time: 2011-11-10 14:35:02

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.8 C

Medium parameters used: f = 1745 MHz; $\sigma = 1.35$ mho/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - High - QPSK - 20MHz - 1 RB - 50% offset /Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.12 mW/g

LTE - Left/Cheek - High - QPSK - 20MHz - 1 RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.06 V/m

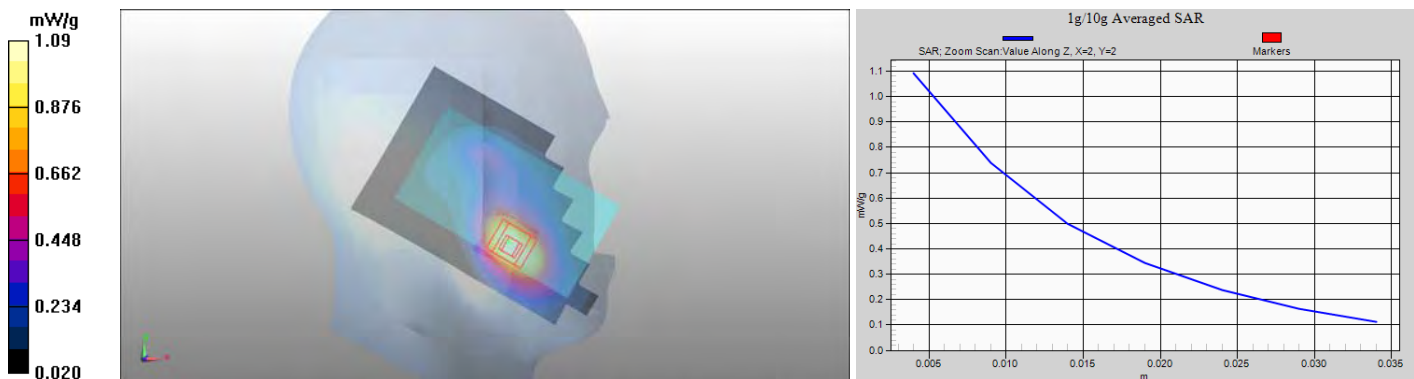
Peak SAR (extrapolated) = 1.57 W/kg

SAR(1 g) = 1.02 mW/g

SAR(10 g) = 0.642 mW/g

Power Drift = 0.018 dB

Maximum value of SAR (measured) = 1.09 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

Copyright © 2012 TCC Nokia

Date/Time: 2011-11-09 20:57:48, Date/Time: 2011-11-09 21:03:10

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.8 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.31$ mho/m; $\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - QPSK - 20MHz - 1 RB - 50% offset /Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.424 mW/g

LTE - Left/Tilt - Middle - QPSK - 20MHz - 1 RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.4 V/m

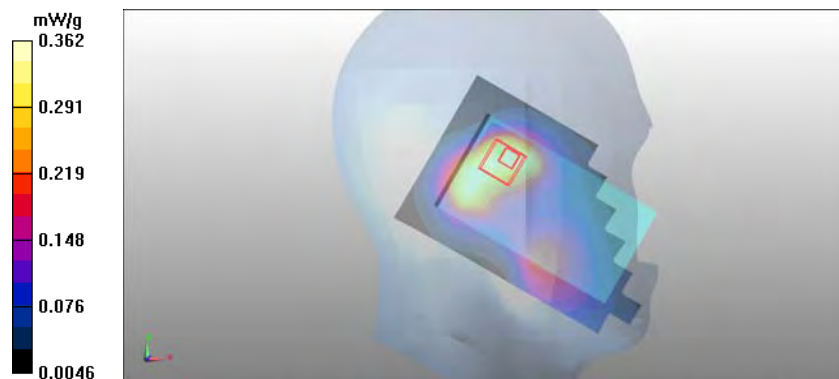
Peak SAR (extrapolated) = 0.485 W/kg

SAR(1 g) = 0.334 mW/g

SAR(10 g) = 0.224 mW/g

Power Drift = -0.246 dB

Maximum value of SAR (measured) = 0.362 mW/g



Date/Time: 2011-11-09 21:31:13, Date/Time: 2011-11-09 21:43:40

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.8 C

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.31 mho/m; ϵ_r = 38.3; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - QPSK - 20MHz -1RB - 50% offset /Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.465 mW/g

LTE - Right/Cheek - Middle - QPSK - 20MHz -1RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.25 V/m

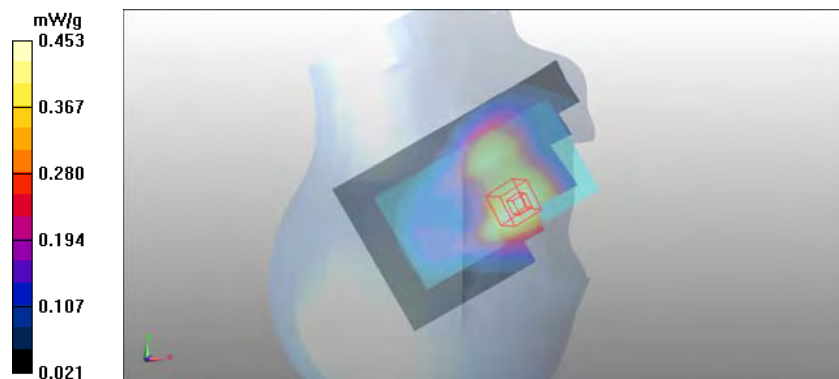
Peak SAR (extrapolated) = 0.616 W/kg

SAR(1 g) = 0.429 mW/g

SAR(10 g) = 0.298 mW/g

Power Drift = -0.225 dB

Maximum value of SAR (measured) = 0.453 mW/g



Date/Time: 2011-11-09 21:54:00, Date/Time: 2011-11-09 21:59:59

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.8 C

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.31 mho/m; ϵ_r = 38.3; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - QPSK - 20MHz - 1RB - 50% offset /Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.457 mW/g

LTE - Right/Tilt - Middle - QPSK - 20MHz - 1RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.2 V/m

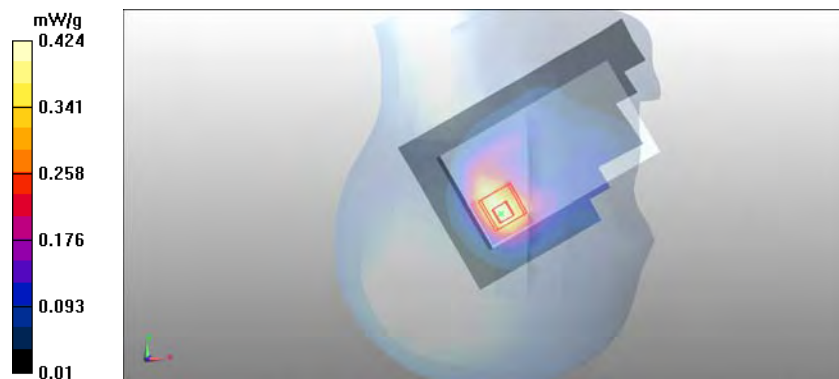
Peak SAR (extrapolated) = 0.590 W/kg

SAR(1 g) = 0.385 mW/g

SAR(10 g) = 0.235 mW/g

Power Drift = -0.088 dB

Maximum value of SAR (measured) = 0.424 mW/g



Date/Time: 2012-02-06 09:15:49, Date/Time: 2012-02-06 09:24:41

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1720 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used: f = 1720 MHz; σ = 1.31 mho/m; ϵ_r = 38.4; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASYS2, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - Low - QPSK - 20MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.12 mW/g

LTE - Left/Cheek - Low - QPSK - 20MHz - 1 RB - 100% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.4 V/m

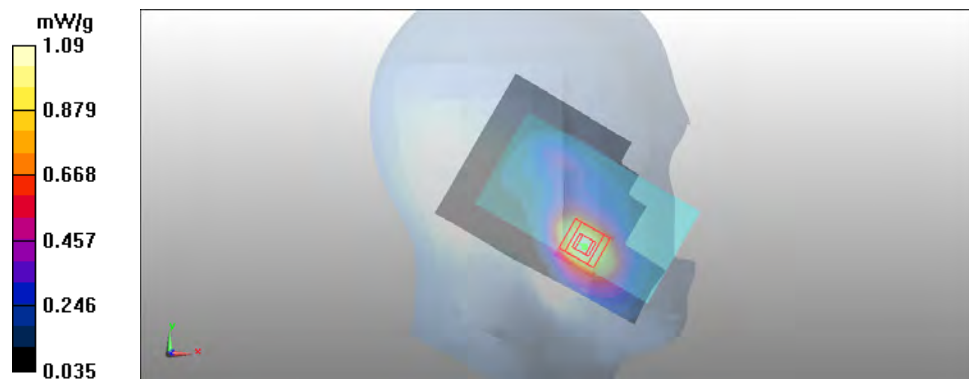
Peak SAR (extrapolated) = 1.53 W/kg

SAR(1 g) = 1.01 mW/g

SAR(10 g) = 0.643 mW/g

Power Drift = -0.032 dB

Maximum value of SAR (measured) = 1.09 mW/g



Date/Time: 2012-02-02 11:26:16, Date/Time: 2012-02-02 11:32:14

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASYS2, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - QPSK - 20MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.346 mW/g

LTE - Left/Tilt - Middle - QPSK - 20MHz - 1 RB - 100% offset/Zoom Scan (7x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.9 V/m

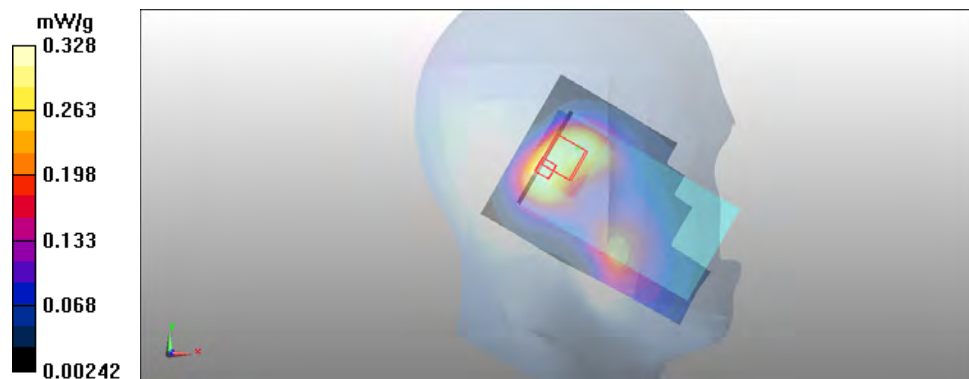
Peak SAR (extrapolated) = 0.484 W/kg

SAR(1 g) = 0.314 mW/g

SAR(10 g) = 0.200 mW/g

Power Drift = 0.091 dB

Maximum value of SAR (measured) = 0.328 mW/g



Date/Time: 2012-02-02 15:09:53, Date/Time: 2012-02-02 15:15:41

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASYS2, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - QPSK - 20MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.444 mW/g

LTE - Right/Cheek - Middle - QPSK - 20MHz - 1 RB - 100% offset/Zoom Scan (6x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.5 V/m

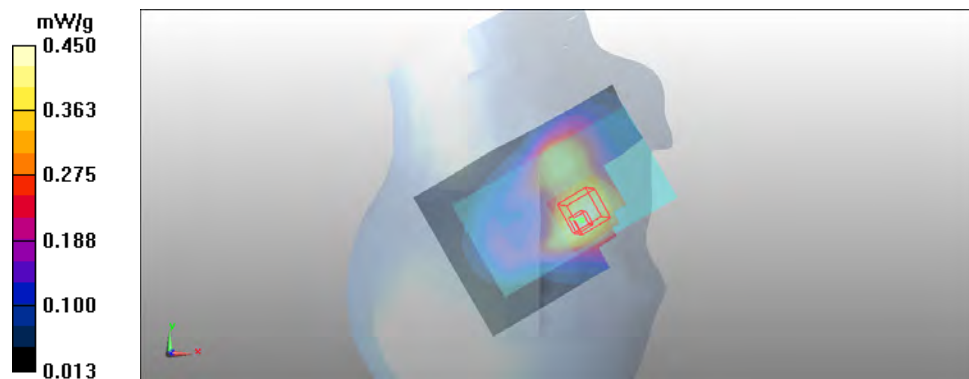
Peak SAR (extrapolated) = 0.627 W/kg

SAR(1 g) = 0.419 mW/g

SAR(10 g) = 0.283 mW/g

Power Drift = 0.098 dB

Maximum value of SAR (measured) = 0.450 mW/g



Date/Time: 2012-02-03 10:04:19, Date/Time: 2012-02-03 10:10:07

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASYS2, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - QPSK - 20MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.438 mW/g

LTE - Right/Tilt - Middle - QPSK - 20MHz - 1 RB - 100% offset/Zoom Scan (6x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.2 V/m

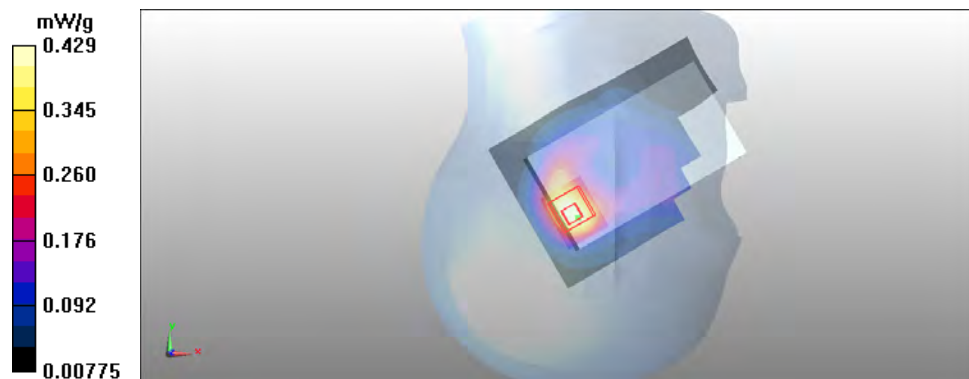
Peak SAR (extrapolated) = 0.660 W/kg

SAR(1 g) = 0.404 mW/g

SAR(10 g) = 0.241 mW/g

Power Drift = -0.00468 dB

Maximum value of SAR (measured) = 0.429 mW/g



Date/Time: 2012-02-06 09:51:50, Date/Time: 2012-02-06 09:57:47

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: $t = 20.4\text{ C}$

Medium parameters used: $f = 1745\text{ MHz}$; $\sigma = 1.33\text{ mho/m}$; $\epsilon_r = 38.3$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - High - QPSK - 20MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.15 mW/g

LTE - Left/Cheek - High - QPSK - 20MHz - 1 RB - 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 = 10.3 V/m

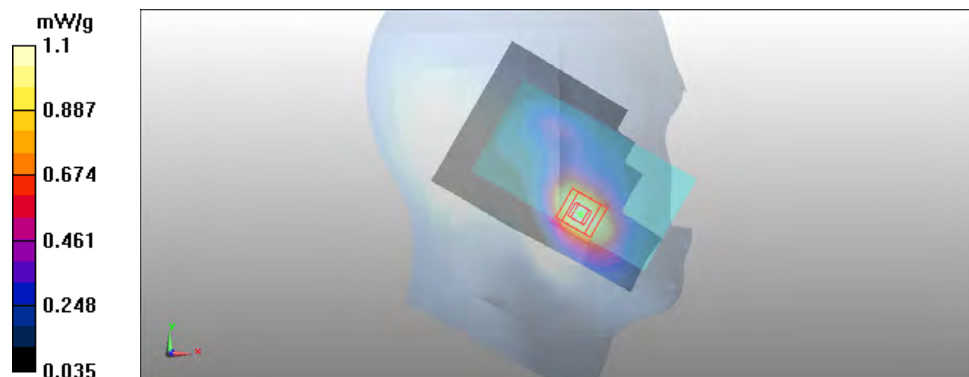
Peak SAR (extrapolated) = 1.57 W/kg

SAR(1 g) = 1.02 mW/g

SAR(10 g) = 0.653 mW/g

Power Drift = -0.042 dB

Maximum value of SAR (measured) = 1.1 mW/g



Date/Time: 2012-02-02 11:46:55, Date/Time: 2012-02-02 11:52:53

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASYS2, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - QPSK - 20MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.352 mW/g

LTE - Left/Tilt - Middle - QPSK - 20MHz - 1 RB - 0% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.1 V/m

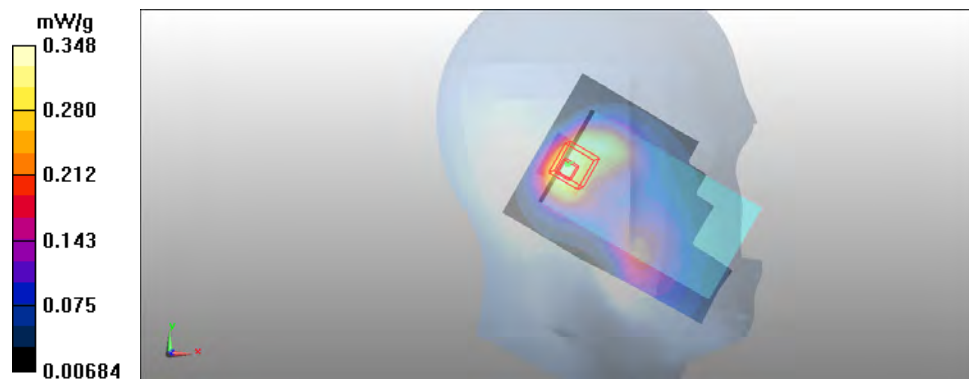
Peak SAR (extrapolated) = 0.491 W/kg

SAR(1 g) = 0.320 mW/g

SAR(10 g) = 0.200 mW/g

Power Drift = -0.00686 dB

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



Date/Time: 2012-02-02 17:25:24, Date/Time: 2012-02-02 17:31:12

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - QPSK - 20MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.405 mW/g

LTE - Right/Cheek - Middle - QPSK - 20MHz - 1 RB - 0% offset/Zoom Scan (6x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.94 V/m

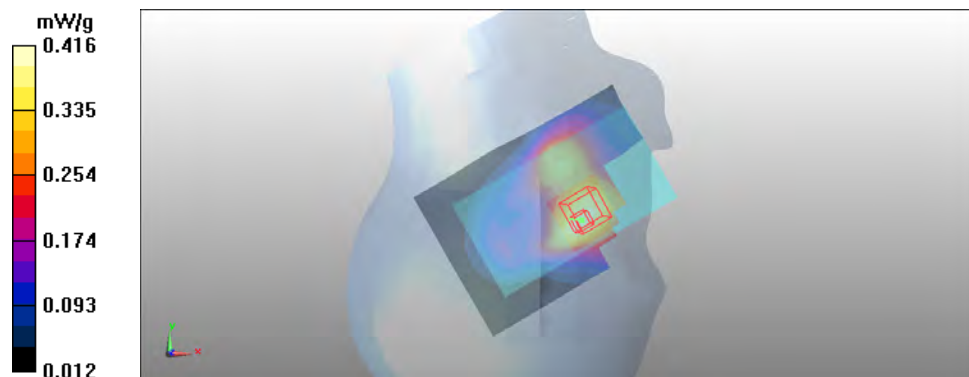
Peak SAR (extrapolated) = 0.567 W/kg

SAR(1 g) = 0.382 mW/g

SAR(10 g) = 0.259 mW/g

Power Drift = -0.078 dB

Maximum value of SAR (measured) = 0.416 mW/g



Date/Time: 2012-02-03 11:32:45, Date/Time: 2012-02-03 11:42:29

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - QPSK - 20MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.401 mW/g

LTE - Right/Tilt - Middle - QPSK - 20MHz - 1 RB - 0% offset/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.6 V/m

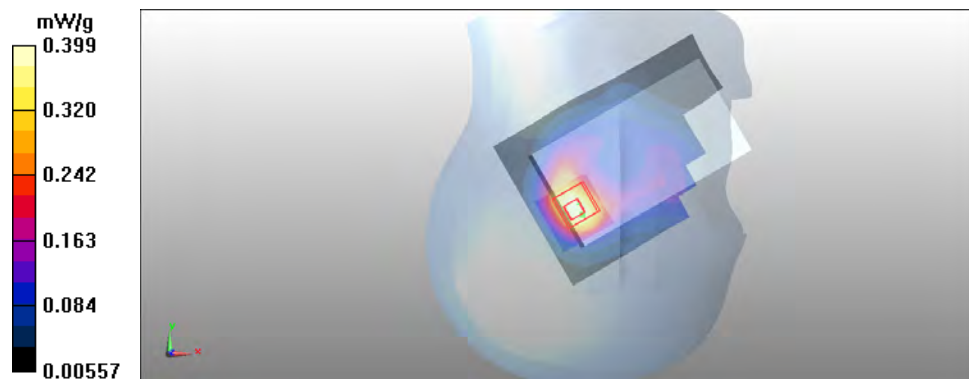
Peak SAR (extrapolated) = 0.621 W/kg

SAR(1 g) = 0.380 mW/g

SAR(10 g) = 0.226 mW/g

Power Drift = -0.034 dB

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



Date/Time: 2011-11-09 13:10:07, Date/Time: 2011-11-09 13:19:13

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.8 C

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.31 mho/m; ϵ_r = 38.3; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - Middle - 16QAM - 20MHz - 50% RB - 50% offset /Area Scan (71x111x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.694 mW/g

LTE - Left/Cheek - Middle - 16QAM - 20MHz - 50% RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.15 V/m

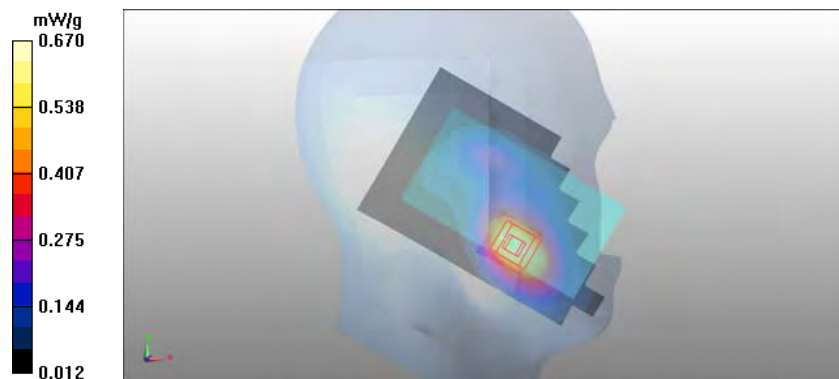
Peak SAR (extrapolated) = 0.957 W/kg

SAR(1 g) = 0.616 mW/g

SAR(10 g) = 0.389 mW/g

Power Drift = -0.469 dB

Maximum value of SAR (measured) = 0.670 mW/g



Date/Time: 2012-02-02 12:02:43, Date/Time: 2012-02-02 12:08:43

Test Laboratory: TCCNokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASYS2, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - 16QAM - 20MHz - 50% RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.237 mW/g

LTE - Left/Tilt - Middle - 16QAM - 20MHz - 50% RB - 50% offset/Zoom Scan (6x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.3 V/m

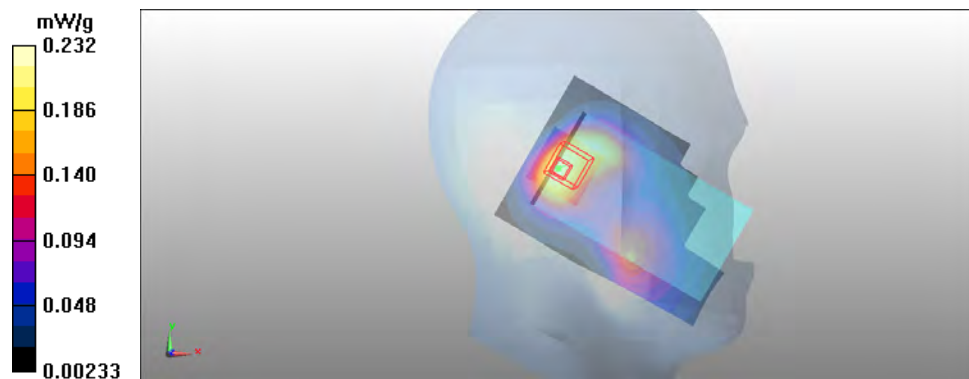
Peak SAR (extrapolated) = 0.335 W/kg

SAR(1 g) = 0.213 mW/g

SAR(10 g) = 0.134 mW/g

Power Drift = -0.054 dB

Maximum value of SAR (measured) = 0.232 mW/g



Date/Time: 2012-02-02 17:46:06, Date/Time: 2012-02-02 17:51:54

Test Laboratory: TCCNokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.3 mho/m; ϵ_r = 39; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - 16QAM - 20MHz -50% RB - 50% offset/Area Scan (71x111x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.284 mW/g

LTE - Right/Cheek - Middle - 16QAM - 20MHz -50% RB - 50% offset/Zoom Scan (6x6x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.38 V/m

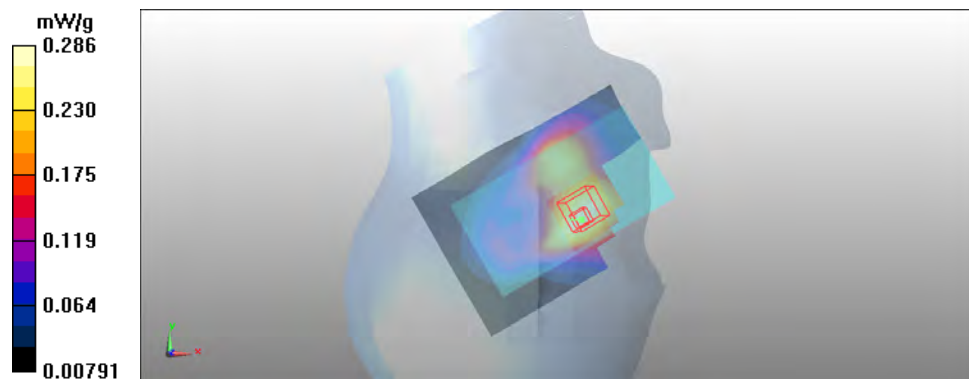
Peak SAR (extrapolated) = 0.394 W/kg

SAR(1 g) = 0.267 mW/g

SAR(10 g) = 0.181 mW/g

Power Drift = 0.118 dB

Maximum value of SAR (measured) = 0.286 mW/g



Date/Time: 2012-02-03 11:55:51, Date/Time: 2012-02-03 12:01:39

Test Laboratory: TCCNokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.3 mho/m; ϵ_r = 38.3; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASYS2, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - 16QAM - 20MHz - 50% RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.285 mW/g

LTE - Right/Tilt - Middle - 16QAM - 20MHz - 50% RB - 50% offset/Zoom Scan (6x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.7 V/m

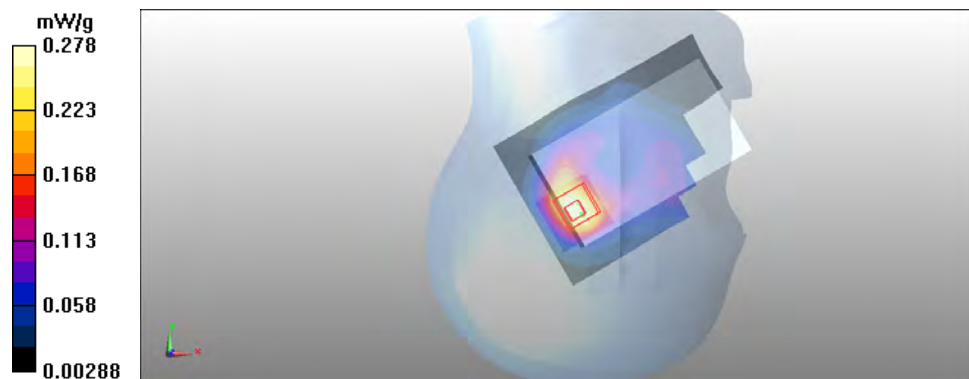
Peak SAR (extrapolated) = 0.433 W/kg

SAR(1 g) = 0.264 mW/g

SAR(10 g) = 0.157 mW/g

Power Drift = -0.021 dB

Maximum value of SAR (measured) = 0.278 mW/g



Date/Time: 2012-02-06 14:33:16, Date/Time: 2012-02-06 14:39:14

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1720 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used: f = 1720 MHz; σ = 1.31 mho/m; ϵ_r = 38.4; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - Low - 16QAM - 20MHz - 1 RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.928 mW/g

LTE - Left/Cheek - Low - 16QAM - 20MHz - 1 RB - 50% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.2 V/m

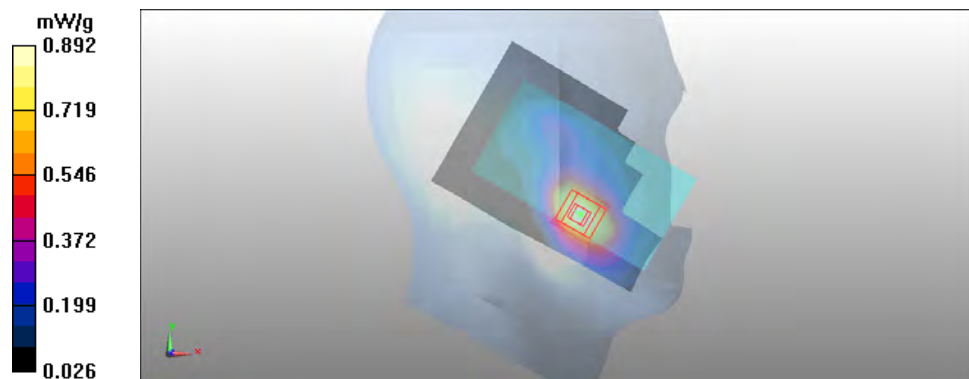
Peak SAR (extrapolated) = 1.26 W/kg

SAR(1 g) = 0.821 mW/g

SAR(10 g) = 0.519 mW/g

Power Drift = -0.082 dB

Maximum value of SAR (measured) = 0.892 mW/g



Date/Time: 2012-02-03 09:17:26, Date/Time: 2012-02-03 09:26:18

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.3 mho/m; ϵ_r = 38.3; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - 16QAM - 20MHz - 1 RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.333 mW/g

LTE - Left/Tilt - Middle - 16QAM - 20MHz - 1 RB - 50% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.1 V/m

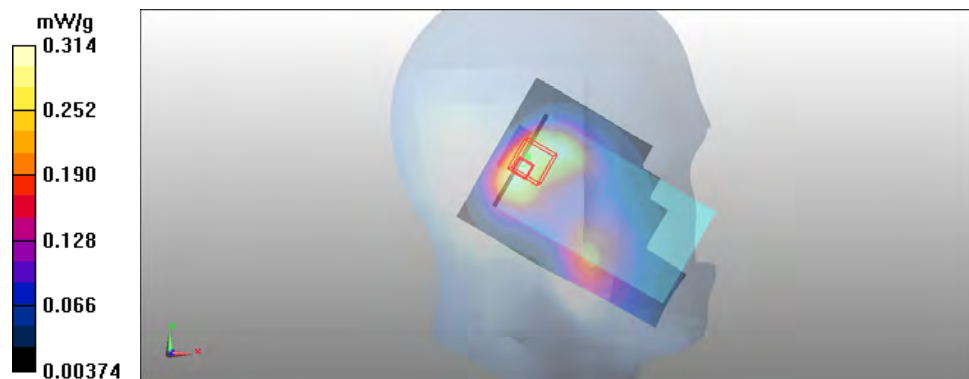
Peak SAR (extrapolated) = 0.444 W/kg

SAR(1 g) = 0.287 mW/g

SAR(10 g) = 0.184 mW/g

Power Drift = 0.139 dB

Maximum value of SAR (measured) = 0.314 mW/g



Date/Time: 2012-02-02 18:04:30, Date/Time: 2012-02-02 18:10:18

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165

- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17

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

- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11

- Phantom: SAM #1 CRP; Type: SAM; Serial:

- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - 16QAM - 20MHz -1 RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.372 mW/g

LTE - Right/Cheek - Middle - 16QAM - 20MHz -1 RB - 50% offset/Zoom Scan (6x7x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.68 V/m

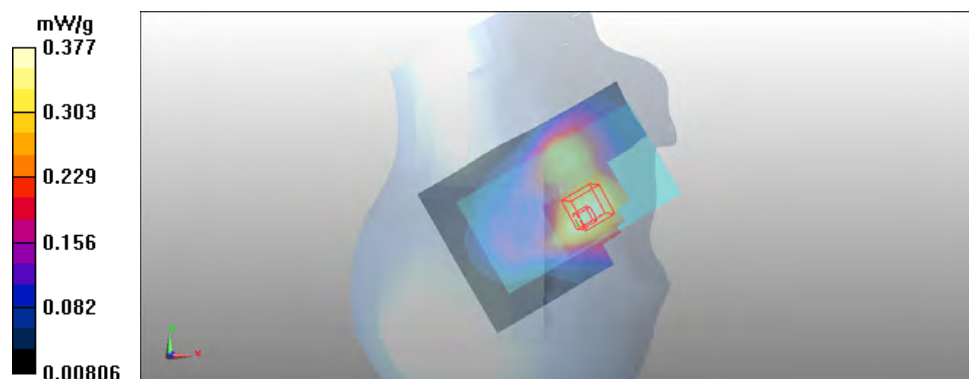
Peak SAR (extrapolated) = 0.538 W/kg

SAR(1 g) = 0.352 mW/g

SAR(10 g) = 0.238 mW/g

Power Drift = 0.00517 dB

Maximum value of SAR (measured) = 0.377 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

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Date/Time: 2012-02-03 14:19:36, Date/Time: 2012-02-03 14:25:23

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165

- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17

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

- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11

- Phantom: SAM #1 CRP; Type: SAM; Serial:

- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - 16QAM - 20MHz - 1 RB - 50% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.370 mW/g

LTE - Right/Tilt - Middle - 16QAM - 20MHz - 1 RB - 50% offset/Zoom Scan (6x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.1 V/m

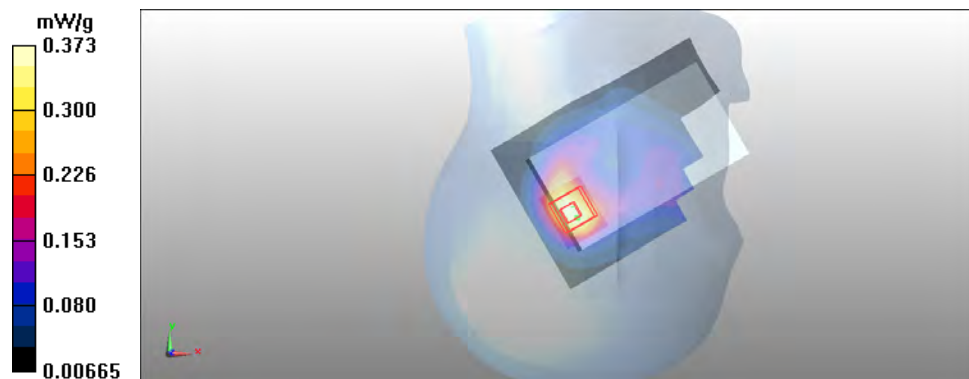
Peak SAR (extrapolated) = 0.569 W/kg

SAR(1 g) = 0.349 mW/g

SAR(10 g) = 0.207 mW/g

Power Drift = -0.164 dB

Maximum value of SAR (measured) = 0.373 mW/g



Date/Time: 2012-02-06 10:09:50, Date/Time: 2012-02-06 10:15:47

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used: f = 1745 MHz; σ = 1.33 mho/m; ϵ_r = 38.3; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - High - 16QAM - 20MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.989 mW/g

LTE - Left/Cheek - High - 16QAM - 20MHz - 1 RB - 100% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.76 V/m

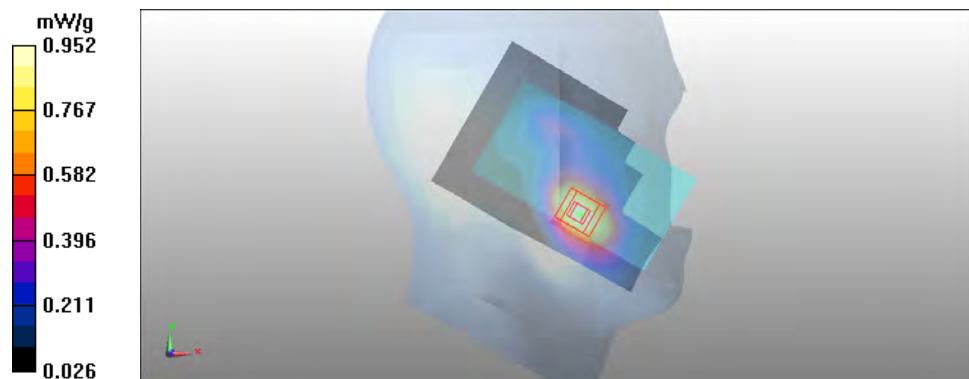
Peak SAR (extrapolated) = 1.37 W/kg

SAR(1 g) = 0.881 mW/g

SAR(10 g) = 0.557 mW/g

Power Drift = 0.025 dB

Maximum value of SAR (measured) = 0.952 mW/g



Date/Time: 2012-02-02 14:00:02, Date/Time: 2012-02-02 14:06:01

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.3 mho/m; ϵ_r = 39; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASYS2, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - 16QAM - 20MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.312 mW/g

LTE - Left/Tilt - Middle - 16QAM - 20MHz - 1 RB - 100% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.1 V/m

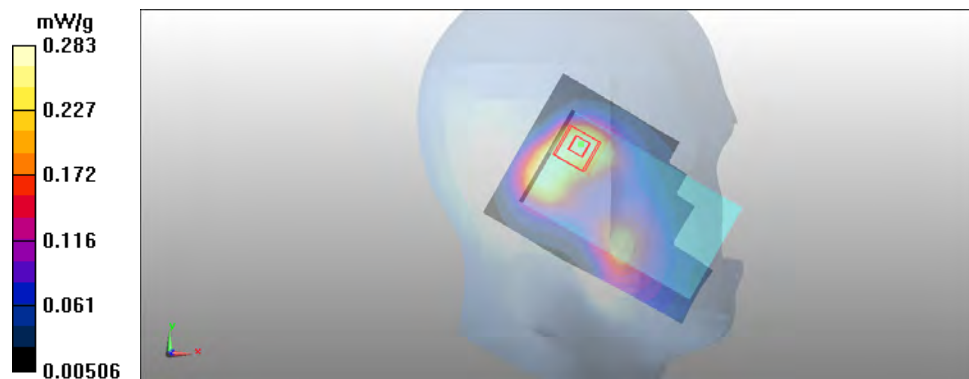
Peak SAR (extrapolated) = 0.389 W/kg

SAR(1 g) = 0.263 mW/g

SAR(10 g) = 0.173 mW/g

Power Drift = -0.00912 dB

Maximum value of SAR (measured) = 0.283 mW/g



Date/Time: 2012-02-02 20:34:02, Date/Time: 2012-02-02 20:39:50

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165

- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17

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

- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11

- Phantom: SAM #1 CRP; Type: SAM; Serial:

- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - 16QAM - 20MHz -1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.397 mW/g

LTE - Right/Cheek - Middle - 16QAM - 20MHz -1 RB - 100% offset/Zoom Scan (6x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.81 V/m

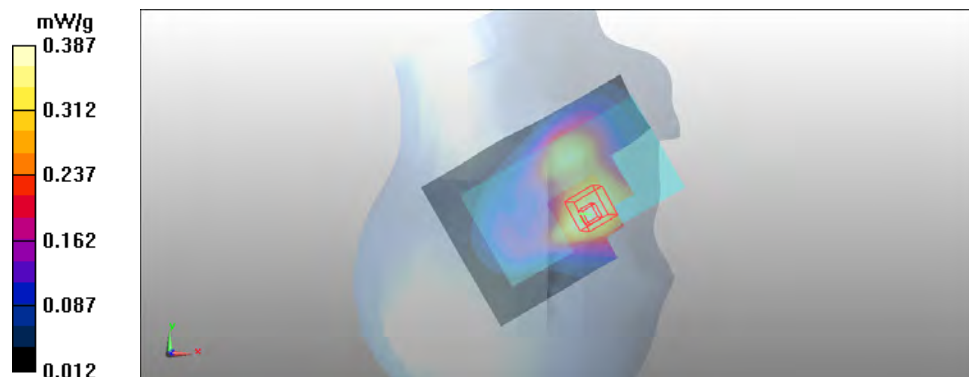
Peak SAR (extrapolated) = 0.547 W/kg

SAR(1 g) = 0.357 mW/g

SAR(10 g) = 0.235 mW/g

Power Drift = 0.073 dB

Maximum value of SAR (measured) = 0.387 mW/g



Date/Time: 2012-02-03 12:13:56, Date/Time: 2012-02-03 12:19:42

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.3 mho/m; ϵ_r = 38.3; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASYS2, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - 16QAM - 20MHz - 1 RB - 100% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.370 mW/g

LTE - Right/Tilt - Middle - 16QAM - 20MHz - 1 RB - 100% offset/Zoom Scan (6x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.7 V/m

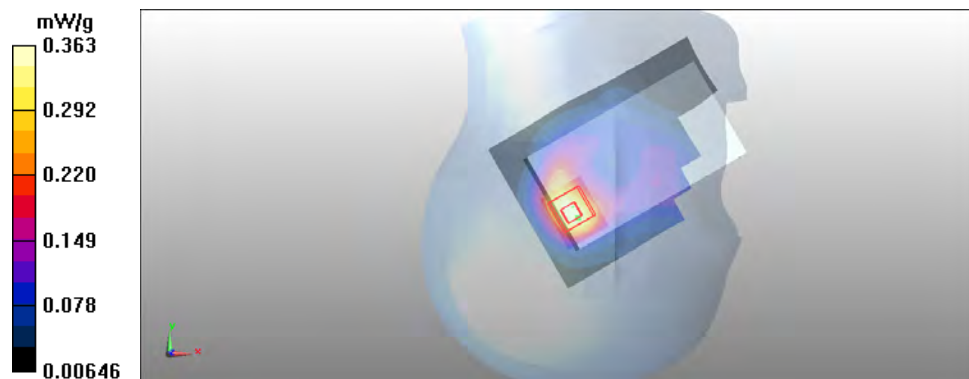
Peak SAR (extrapolated) = 0.553 W/kg

SAR(1 g) = 0.340 mW/g

SAR(10 g) = 0.203 mW/g

Power Drift = 0.023 dB

Maximum value of SAR (measured) = 0.363 mW/g



Date/Time: 2011-11-09 18:00:38, Date/Time: 2011-11-09 18:06:49

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.8 C

Medium parameters used: f = 1745 MHz; σ = 1.32 mho/m; ϵ_r = 38.2; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 4; Type: Twin SAM 040 CA; Serial: TP-1018
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Left/Cheek - High - 16QAM - 20MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.950 mW/g

LTE - Left/Cheek - High - 16QAM - 20MHz - 1 RB - 0% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.74 V/m

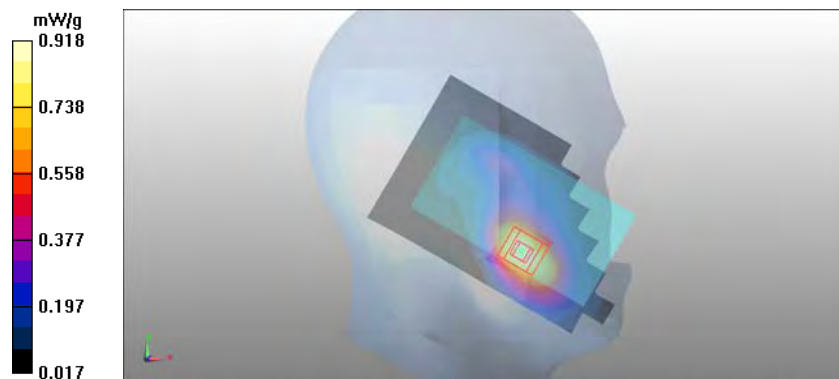
Peak SAR (extrapolated) = 1.3 W/kg

SAR(1 g) = 0.850 mW/g

SAR(10 g) = 0.543 mW/g

Power Drift = -0.146 dB

Maximum value of SAR (measured) = 0.918 mW/g



Date/Time: 2012-02-02 14:23:12, Date/Time: 2012-02-02 14:29:10

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Left/Tilt - Middle - 16QAM - 20MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.299 mW/g

LTE - Left/Tilt - Middle - 16QAM - 20MHz - 1 RB - 0% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.8 V/m

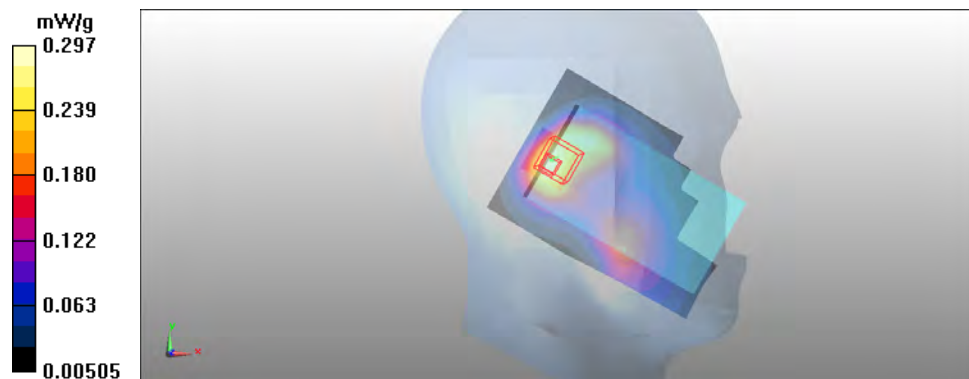
Peak SAR (extrapolated) = 0.422 W/kg

SAR(1 g) = 0.273 mW/g

SAR(10 g) = 0.171 mW/g

Power Drift = -0.00334 dB

Maximum value of SAR (measured) = 0.297 mW/g



Date/Time: 2012-02-02 20:52:20, Date/Time: 2012-02-02 20:58:08

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASY52, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Cheek - Middle - 16QAM - 20MHz -1 RB - 0% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.347 mW/g

LTE - Right/Cheek - Middle - 16QAM - 20MHz -1 RB - 0% offset/Zoom Scan (6x7x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.05 V/m

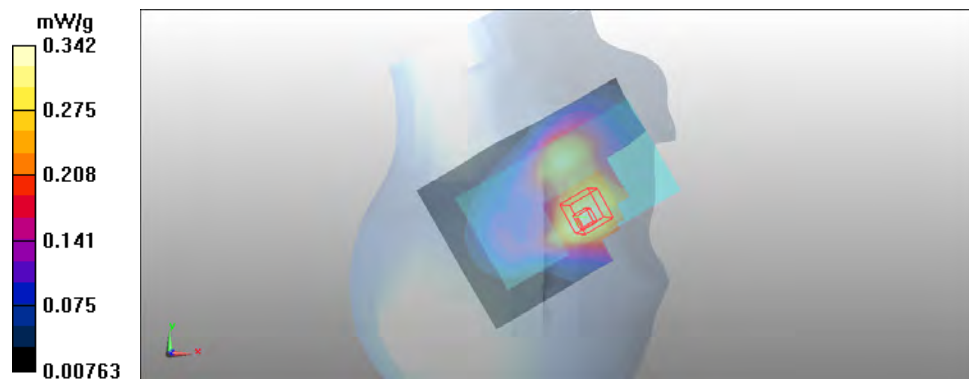
Peak SAR (extrapolated) = 0.487 W/kg

SAR(1 g) = 0.319 mW/g

SAR(10 g) = 0.213 mW/g

Power Drift = -0.083 dB

Maximum value of SAR (measured) = 0.342 mW/g



Date/Time: 2012-02-03 14:01:37, Date/Time: 2012-02-03 14:07:25

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: t= 20.4 C

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.3 mho/m; ϵ_r = 38.3; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.19, 5.19, 5.19); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #1 CRP; Type: SAM; Serial:
- Measurement SW: DASYS2, V52.8 Build 0; SEMCAD X Version 14.0 Build 61

LTE - Right/Tilt - Middle - 16QAM - 20MHz - 1 RB - 0% offset/Area Scan (71x111x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.334 mW/g

LTE - Right/Tilt - Middle - 16QAM - 20MHz - 1 RB - 0% offset/Zoom Scan (6x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.1 V/m

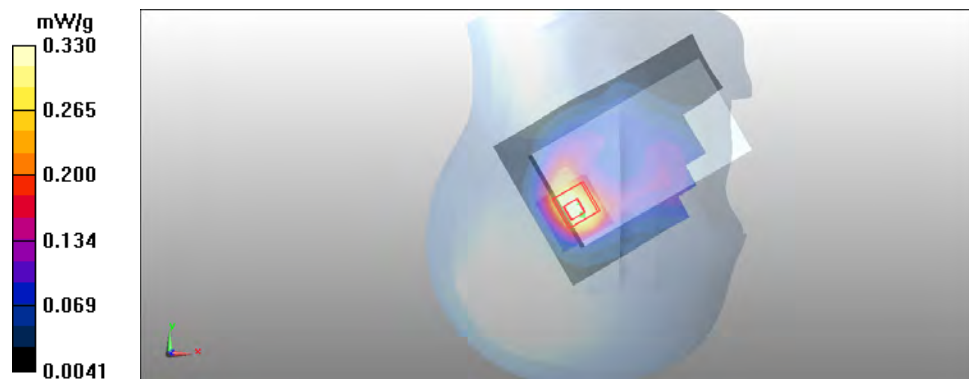
Peak SAR (extrapolated) = 0.505 W/kg

SAR(1 g) = 0.315 mW/g

SAR(10 g) = 0.188 mW/g

Power Drift = 0.022 dB

Maximum value of SAR (measured) = 0.330 mW/g



Date/Time: 2011-10-17 15:26:47, Date/Time: 2011-10-17 15:35:27

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: GSM1900

Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: HSL1900; Medium Notes: t= 21.0 C

Medium parameters used: f = 1880 MHz; σ = 1.41 mho/m; ϵ_r = 39.9; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

GSM - Left/Cheek - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.725 mW/g

GSM - Left/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.66 V/m

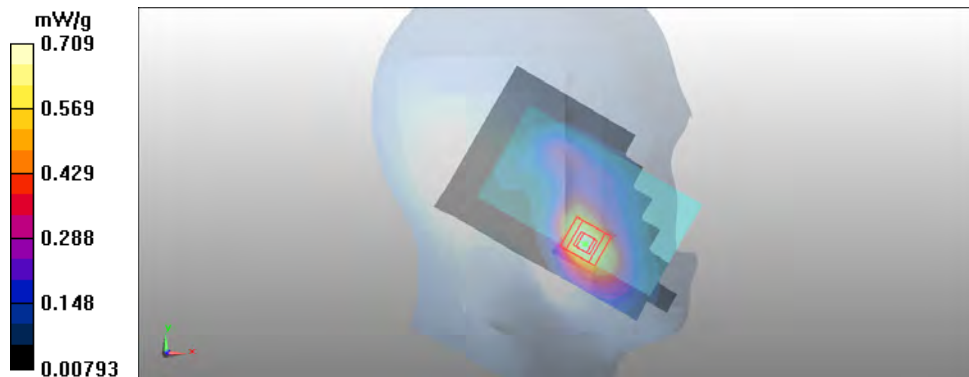
Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.651 mW/g

SAR(10 g) = 0.410 mW/g

Power Drift = -0.139 dB

Maximum value of SAR (measured) = 0.709 mW/g



Date/Time: 2012-02-06 18:14:22, Date/Time: 2012-02-06 18:30:33

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: GSM1900

Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: HSL1900; Medium Notes: $t = 20.5$ C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3194
- ConvF(5.1, 5.1, 5.1); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn793; Calibrated: 2011-09-16
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.0 Build 61

GSM - Left/Tilt - Middle/Area Scan (71x111x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.683 mW/g

GSM - Left/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 7.68 V/m

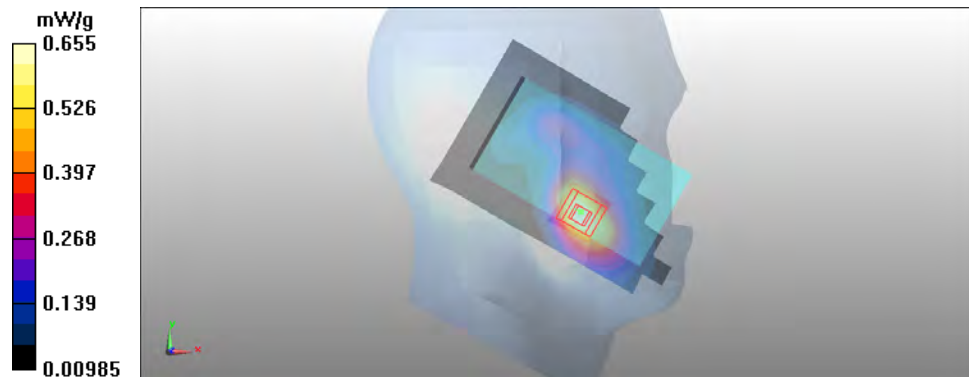
Peak SAR (extrapolated) = 0.915 W/kg

SAR(1 g) = 0.608 mW/g

SAR(10 g) = 0.385 mW/g

Power Drift = -0.012 dB

Maximum value of SAR (measured) = 0.655 mW/g



Date/Time: 2012-02-06 18:45:27, Date/Time: 2012-02-06 18:54:30

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: GSM1900

Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: HSL1900; Medium Notes: t= 20.6 C

Medium parameters used: f = 1880 MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3194
- ConvF(5.1, 5.1, 5.1); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn793; Calibrated: 2011-09-16
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.0 Build 61

GSM - Right/Cheek - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.351 mW/g

GSM - Right/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.3 V/m

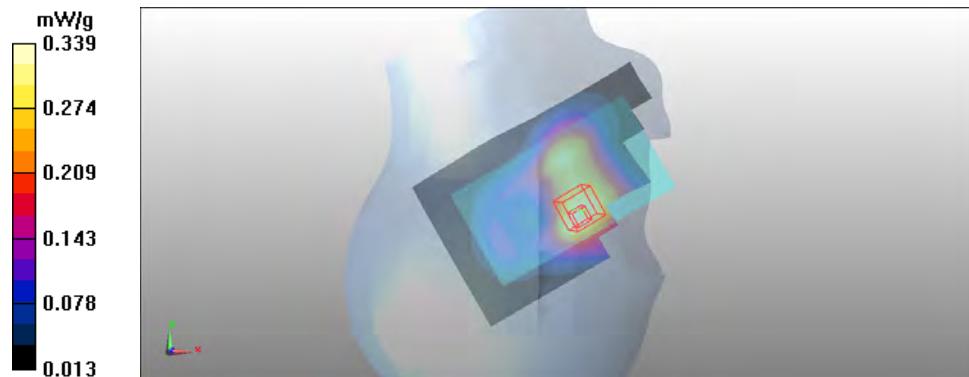
Peak SAR (extrapolated) = 0.472 W/kg

SAR(1 g) = 0.320 mW/g

SAR(10 g) = 0.215 mW/g

Power Drift = 0.087 dB

Maximum value of SAR (measured) = 0.339 mW/g



Date/Time: 2012-02-06 19:03:10, Date/Time: 2012-02-06 19:08:46

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: GSM1900

Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: HSL1900; Medium Notes: t= 20.6 C

Medium parameters used: f = 1880 MHz; $\sigma = 1.36$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3194
- ConvF(5.1, 5.1, 5.1); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn793; Calibrated: 2011-09-16
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 80; SEMCAD X Version 14.0 Build 61

GSM - Right/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.277 mW/g

GSM - Right/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13 V/m

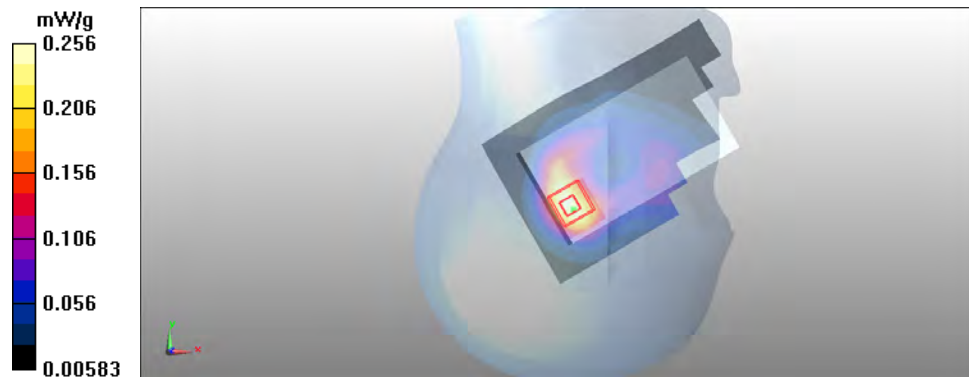
Peak SAR (extrapolated) = 0.370 W/kg

SAR(1 g) = 0.237 mW/g

SAR(10 g) = 0.143 mW/g

Power Drift = -0.184 dB

Maximum value of SAR (measured) = 0.256 mW/g



Date/Time: 2011-10-20 07:43:51, Date/Time: 2011-10-20 07:58:21

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1909.8 MHz; Duty Cycle: 1:4.2

Medium: HSL1900; Medium Notes: t= 21.0 C

Medium parameters used: f = 1910 MHz; $\sigma = 1.4$ mho/m; $\epsilon_r = 39.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Left/Cheek - High/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.2 mW/g

2-slot GPRS - Left/Cheek - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.7 V/m

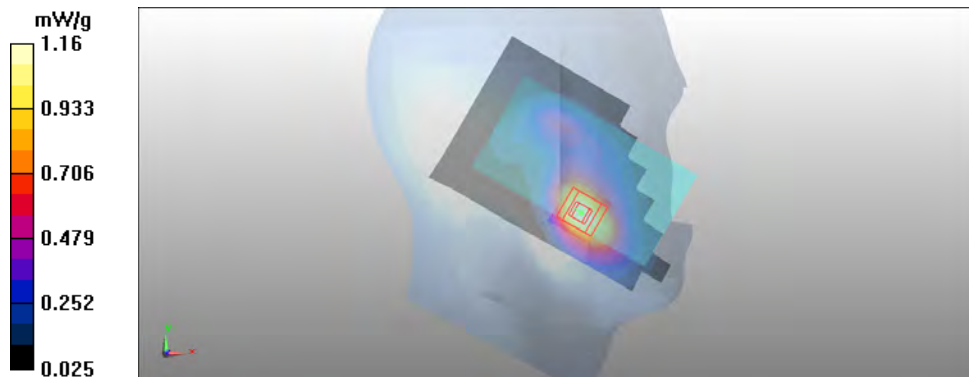
Peak SAR (extrapolated) = 1.64 W/kg

SAR(1 g) = 1.08 mW/g

SAR(10 g) = 0.691 mW/g

Power Drift = -0.034 dB

Maximum value of SAR (measured) = 1.16 mW/g



Date/Time: 2011-10-19 20:22:50, Date/Time: 2011-10-19 20:32:15

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.2

Medium: HSL1900; Medium Notes: $t = 21.0$ C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Left/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.543 mW/g

2-slot GPRS - Left/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.9 V/m

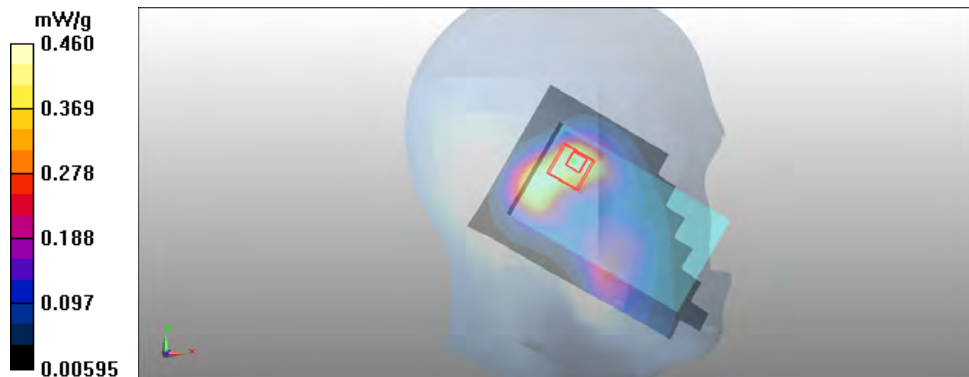
Peak SAR (extrapolated) = 0.672 W/kg

SAR(1 g) = 0.429 mW/g

SAR(10 g) = 0.273 mW/g

Power Drift = 0.279 dB

Maximum value of SAR (measured) = 0.460 mW/g



Date/Time: 2011-10-19 20:56:27, Date/Time: 2011-10-19 21:09:45, Date/Time: 2011-10-19 21:16:50

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.2

Medium: HSL1900; Medium Notes: t= 21.0 C

Medium parameters used: f = 1880 MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Right/Cheek - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.646 mW/g

2-slot GPRS - Right/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.4 V/m

Peak SAR (extrapolated) = 0.905 W/kg

SAR(1 g) = 0.588 mW/g

SAR(10 g) = 0.376 mW/g

Power Drift = -0.053 dB

Maximum value of SAR (measured) = 0.622 mW/g

2-slot GPRS - Right/Cheek - Middle/Zoom Scan 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.4 V/m

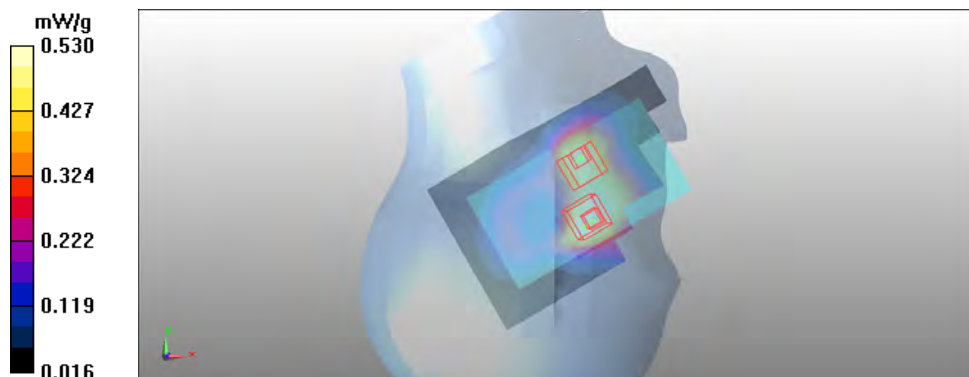
Peak SAR (extrapolated) = 0.735 W/kg

SAR(1 g) = 0.496 mW/g

SAR(10 g) = 0.338 mW/g

Power Drift = -0.053 dB

Maximum value of SAR (measured) = 0.530 mW/g



Date/Time: 2011-10-19 21:32:33, Date/Time: 2011-10-19 21:54:55

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.2

Medium: HSL1900; Medium Notes: t= 21.0 C

Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ϵ_r = 39.7; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Right/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.527 mW/g

2-slot GPRS - Right/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.4 V/m

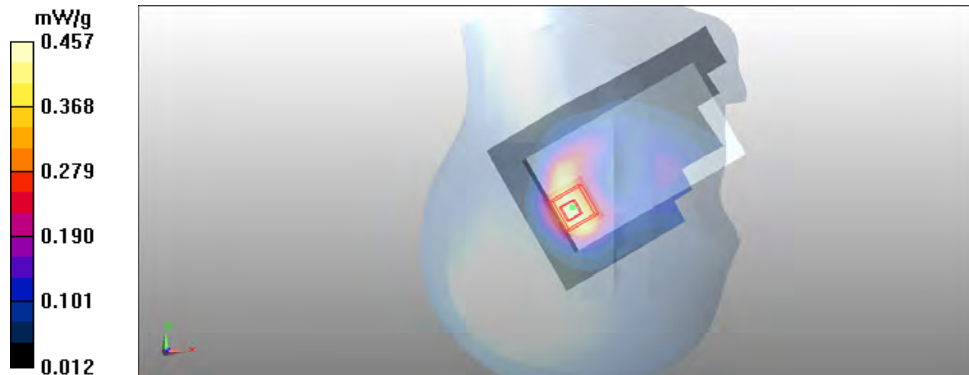
Peak SAR (extrapolated) = 0.671 W/kg

SAR(1 g) = 0.417 mW/g

SAR(10 g) = 0.247 mW/g

Power Drift = 0.403 dB

Maximum value of SAR (measured) = 0.457 mW/g



Date/Time: 2011-10-25 17:44:13, Date/Time: 2011-10-25 17:52:08

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot 8PSK EGPRS1900

Frequency: 1909.8 MHz; Duty Cycle: 1:4.2

Medium: HSL1900; Medium Notes: $t = 21.0$ C

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.39$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2-slot 8PSK EGPRS - Left/Cheek - High/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.551 mW/g

2-slot 8PSK EGPRS - Left/Cheek - High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.35 V/m

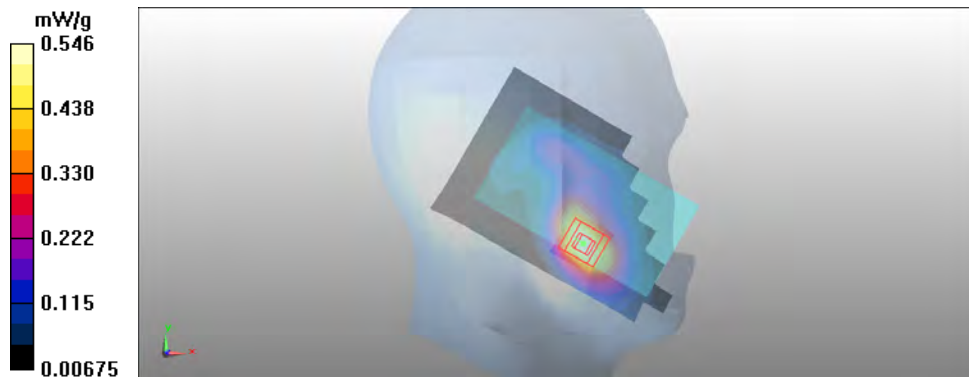
Peak SAR (extrapolated) = 0.802 W/kg

SAR(1 g) = 0.501 mW/g

SAR(10 g) = 0.315 mW/g

Power Drift = 0.460 dB

Maximum value of SAR (measured) = 0.546 mW/g



Date/Time: 2011-10-17 14:16:22, Date/Time: 2011-10-17 14:24:59

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: t= 21.0 C

Medium parameters used: f = 1880 MHz; $\sigma = 1.41$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Left/Cheek - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.38 mW/g

WCDMA - Left/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.9 V/m

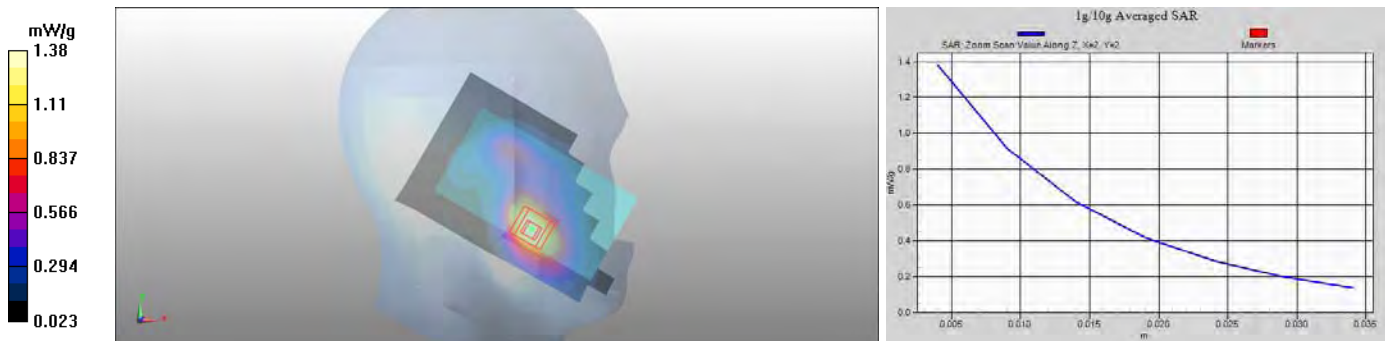
Peak SAR (extrapolated) = 2.04 W/kg

SAR(1 g) = 1.28 mW/g

SAR(10 g) = 0.791 mW/g

Power Drift = -0.028 dB

Maximum value of SAR (measured) = 1.38 mW/g



Date/Time: 2011-10-18 08:44:27, Date/Time: 2011-10-18 08:53:05

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: t= 28.0 C

Medium parameters used: f = 1880 MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Left/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.694 mW/g

WCDMA - Left/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.1 V/m

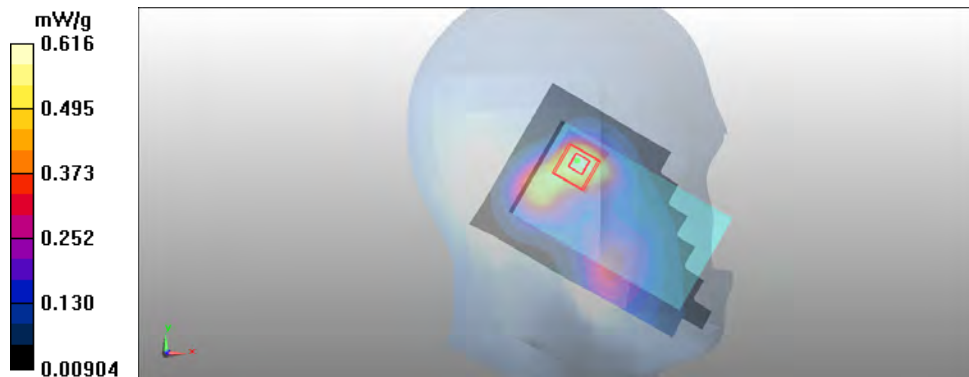
Peak SAR (extrapolated) = 0.887 W/kg

SAR(1 g) = 0.565 mW/g

SAR(10 g) = 0.349 mW/g

Power Drift = -0.054 dB

Maximum value of SAR (measured) = 0.616 mW/g



Date/Time: 2011-10-18 09:45:15, Date/Time: 2011-10-18 09:55:26, Date/Time: 2011-10-18 10:03:11

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: t= 28.0 C

Medium parameters used: f = 1880 MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Right/Cheek - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.779 mW/g

WCDMA - Right/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14 V/m

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.683 mW/g

SAR(10 g) = 0.456 mW/g

Power Drift = -0.055 dB

Maximum value of SAR (measured) = 0.734 mW/g

WCDMA - Right/Cheek - Middle/Zoom Scan 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14 V/m

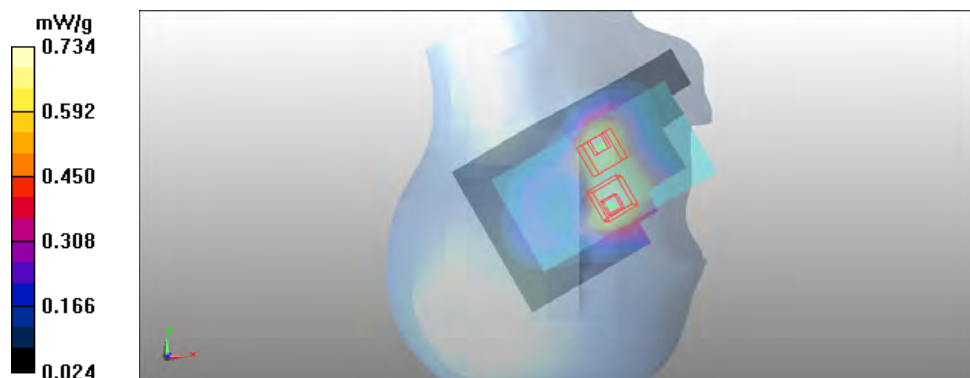
Peak SAR (extrapolated) = 0.955 W/kg

SAR(1 g) = 0.645 mW/g

SAR(10 g) = 0.431 mW/g

Power Drift = -0.055 dB

Maximum value of SAR (measured) = 0.683 mW/g



Date/Time: 2011-10-18 09:17:27, Date/Time: 2011-10-18 09:28:14

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: t= 28.0 C

Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ϵ_r = 39.6; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(5.03, 5.03, 5.03); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Right/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.551 mW/g

WCDMA - Right/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 20.3 V/m

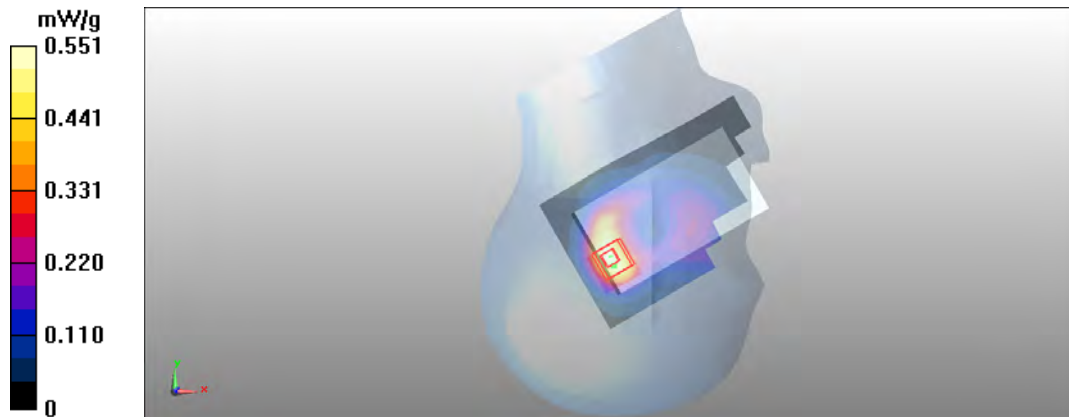
Peak SAR (extrapolated) = 0.828 W/kg

SAR(1 g) = 0.515 mW/g

SAR(10 g) = 0.310 mW/g

Power Drift = -0.111 dB

Maximum value of SAR (measured) = 0.561 mW/g



Date/Time: 2012-02-07 16:33:14, Date/Time: 2012-02-07 16:41:28

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: t= 20.7 C

Medium parameters used: f = 2437 MHz; $\sigma = 1.8$ mho/m; $\epsilon_r = 37.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.67, 6.67, 6.67); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode - Left/Cheek - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.17 mW/g

WLAN b-mode - Left/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.7 V/m

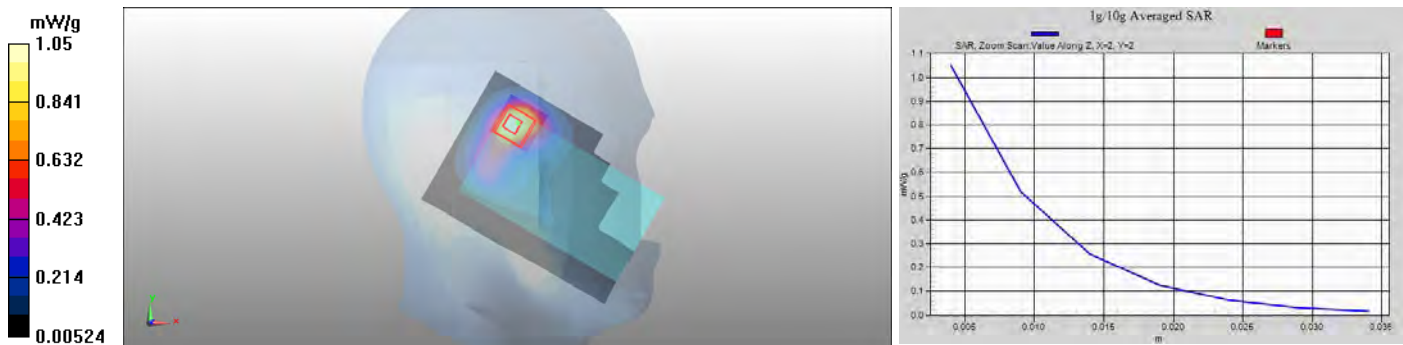
Peak SAR (extrapolated) = 2.06 W/kg

SAR(1 g) = 1 mW/g

SAR(10 g) = 0.493 mW/g

Power Drift = -0.013 dB

Maximum value of SAR (measured) = 1.05 mW/g



Date/Time: 2012-02-07 16:52:21, Date/Time: 2012-02-07 16:56:54

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: $t = 20.7\text{ C}$

Medium parameters used: $f = 2437\text{ MHz}$; $\sigma = 1.8\text{ mho/m}$; $\epsilon_r = 37.9$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.67, 6.67, 6.67); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode - Left/Tilt - Middle/Area Scan (71x111x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.999 mW/g

WLAN b-mode - Left/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17 V/m

Peak SAR (extrapolated) = 1.85 W/kg

SAR(1 g) = 0.881 mW/g

SAR(10 g) = 0.420 mW/g

Power Drift = 0.333 dB

Maximum value of SAR (measured) = 0.980 mW/g



Date/Time: 2012-02-07 17:06:29, Date/Time: 2012-02-07 17:15:06

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: $t = 20.7\text{ C}$

Medium parameters used: $f = 2437\text{ MHz}$; $\sigma = 1.8\text{ mho/m}$; $\epsilon_r = 37.9$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.67, 6.67, 6.67); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode - Right/Cheek - Middle/Area Scan (71x111x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.807 mW/g

WLAN b-mode - Right/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.2 V/m

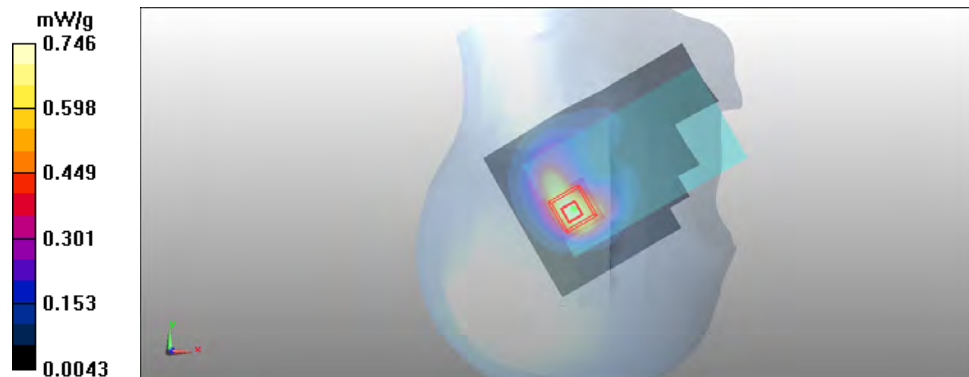
Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.677 mW/g

SAR(10 g) = 0.367 mW/g

Power Drift = 0.023 dB

Maximum value of SAR (measured) = 0.746 mW/g



Date/Time: 2012-02-09 14:40:21

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps EXPANDED VOLUME SCAN

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: t= 20.9 C

Medium parameters used: f = 2437 MHz; $\sigma = 1.78$ mho/m; $\epsilon_r = 37.7$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.67, 6.67, 6.67); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode - Right/Cheek - Middle/Volume Scan (15x21x7): Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17 V/m

Peak SAR (extrapolated) = 0.900 W/kg

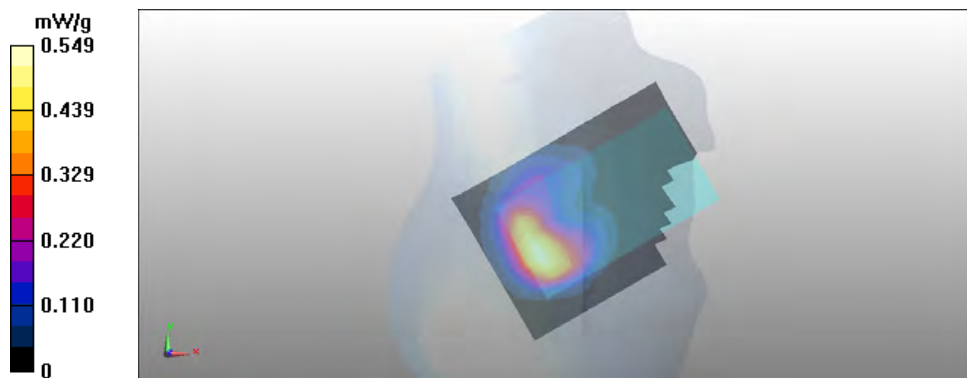
SAR(1 g) = 0.498 mW/g

SAR(10 g) = 0.276 mW/g

Power Drift = -0.033 dB

Total Absorbed Power = 0.0163975 W

Maximum value of SAR (measured) = 0.549 mW/g



Date/Time: 2012-02-07 17:22:06, Date/Time: 2012-02-07 17:27:02

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: t= 20.7 C

Medium parameters used: f = 2437 MHz; $\sigma = 1.8$ mho/m; $\epsilon_r = 37.9$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.67, 6.67, 6.67); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode - Right/Tilt - Middle/Area Scan (71x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.933 mW/g

WLAN b-mode - Right/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 19.6 V/m

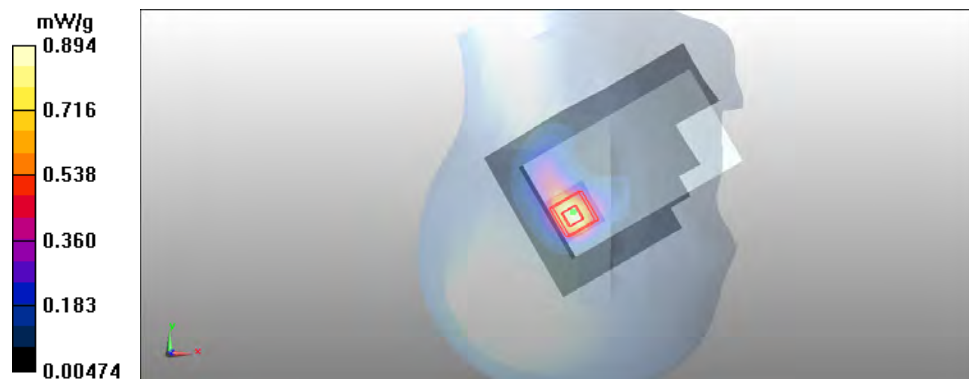
Peak SAR (extrapolated) = 1.55 W/kg

SAR(1 g) = 0.820 mW/g

SAR(10 g) = 0.411 mW/g

Power Drift = -0.344 dB

Maximum value of SAR (measured) = 0.894 mW/g



Date/Time: 2012-02-25 13:11:22, Date/Time: 2012-02-25 13:19:06

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t= 20.7 C

Medium parameters used: f = 710 MHz; $\sigma = 0.966$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(5.97, 5.97, 5.97); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2011-05-09
- Phantom: SAM1; Type: SAM; Serial: TP-1126
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE/Body - Middle - No Accessory - Back Facing Phantom - QPSK - 10MHz - 50% RB - 50% offset/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.546 mW/g

LTE/Body - Middle - No Accessory - Back Facing Phantom - QPSK - 10MHz - 50% RB - 50% offset/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7 V/m

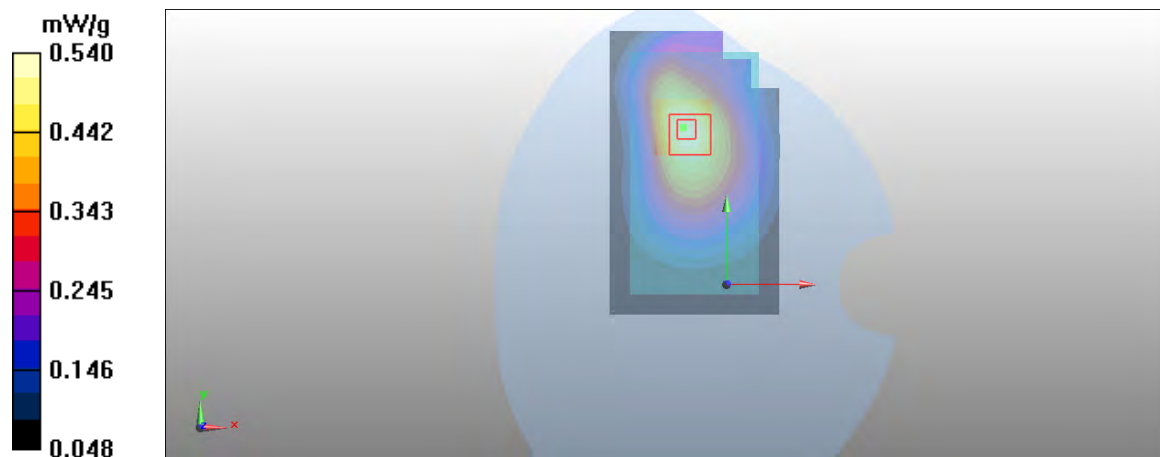
Peak SAR (extrapolated) = 0.672 W/kg

SAR(1 g) = 0.511 mW/g

SAR(10 g) = 0.372 mW/g

Power Drift = 0.095 dB

Maximum value of SAR (measured) = 0.540 mW/g



Date/Time: 2011-11-04 10:35:04, Date/Time: 2011-11-04 10:41:54

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t= 20.2 C

Medium parameters used: f = 710 MHz; σ = 0.952 mho/m; ϵ_r = 55.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - No Accessory - Display Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.559 mW/g

LTE - Body - Middle - No Accessory - Display Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.52 V/m

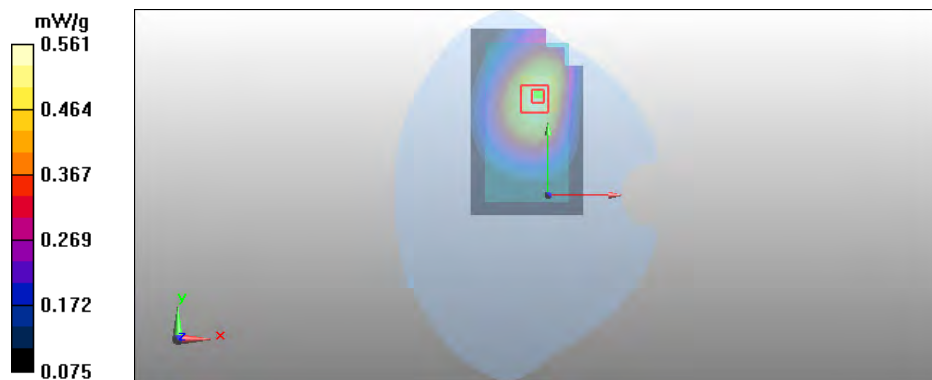
Peak SAR (extrapolated) = 0.678 W/kg

SAR(1 g) = 0.534 mW/g

SAR(10 g) = 0.402 mW/g

Power Drift = 0.118 dB

Maximum value of SAR (measured) = 0.561 mW/g



Date/Time: 2011-11-04 10:49:36, Date/Time: 2011-11-04 10:53:12

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t= 20.2 C

Medium parameters used: f = 710 MHz; $\sigma = 0.952$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - WH-208 - Display Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Area Scan

(61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.432 mW/g

LTE - Body - Middle - WH-208 - Display Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Zoom Scan

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

Reference Value = 6.49 V/m

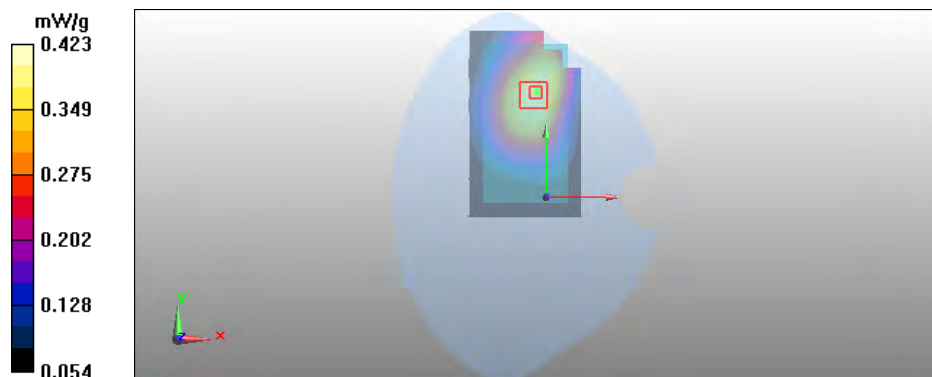
Peak SAR (extrapolated) = 0.516 W/kg

SAR(1 g) = 0.401 mW/g

SAR(10 g) = 0.301 mW/g

Power Drift = -0.017 dB

Maximum value of SAR (measured) = 0.423 mW/g



Date/Time: 2011-11-04 13:22:07, Date/Time: 2011-11-04 13:29:57

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 709 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t= 20.2 C

Medium parameters used: f = 709 MHz; $\sigma = 0.954$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Body - Low - No Accessory - Back Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Area Scan

(61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.695 mW/g

LTE - Body - Low - No Accessory - Back Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Zoom Scan

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

Reference Value = 8.1 V/m

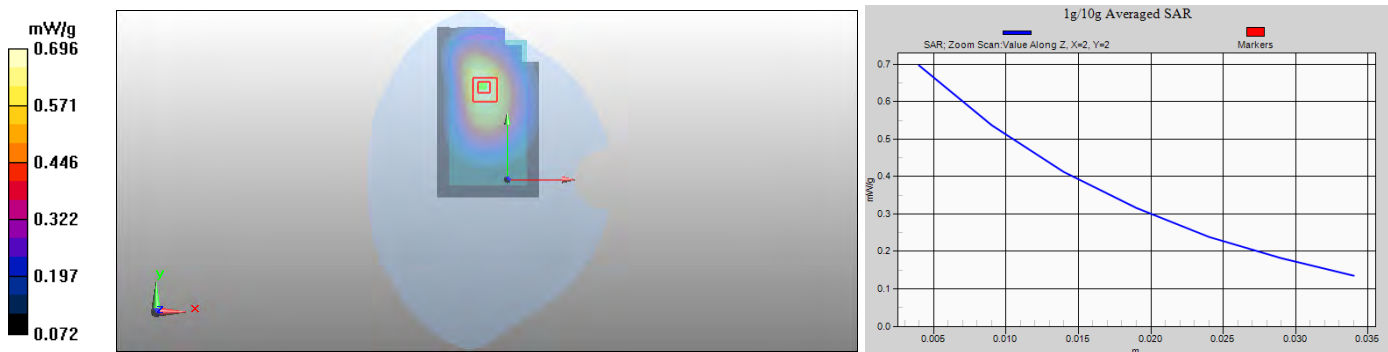
Peak SAR (extrapolated) = 0.850 W/kg

SAR(1 g) = 0.659 mW/g

SAR(10 g) = 0.487 mW/g

Power Drift = -0.087 dB

Maximum value of SAR (measured) = 0.696 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

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Date/Time: 2011-11-04 11:22:15, Date/Time: 2011-11-04 11:29:07

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t= 20.2 C

Medium parameters used: f = 710 MHz; $\sigma = 0.952$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - WH-208 - Back Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Area Scan (61x101x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.486 mW/g

LTE - Body - Middle - WH-208 - Back Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Zoom Scan

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

Reference Value = 6.07 V/m

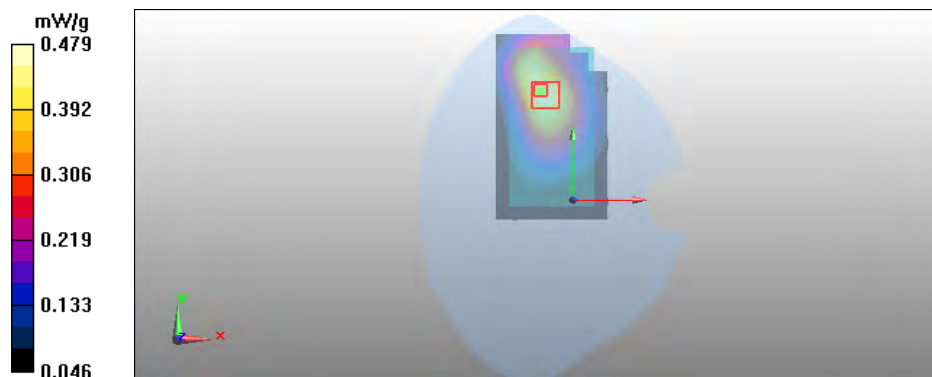
Peak SAR (extrapolated) = 0.604 W/kg

SAR(1 g) = 0.451 mW/g

SAR(10 g) = 0.330 mW/g

Power Drift = 0.023 dB

Maximum value of SAR (measured) = 0.479 mW/g



Date/Time: 2012-02-25 12:43:15, Date/Time: 2012-02-25 12:46:51

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t= 20.7 C

Medium parameters used: f = 710 MHz; $\sigma = 0.966$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(5.97, 5.97, 5.97); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2011-05-09
- Phantom: SAM1; Type: SAM; Serial: TP-1126
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE/Body - Middle - No Accessory - Back Facing Phantom - QPSK - 10MHz - 1 RB - 100% offset /Area Scan

(61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.426 mW/g

LTE/Body - Middle - No Accessory - Back Facing Phantom - QPSK - 10MHz - 1 RB - 100% offset /Zoom Scan

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

Reference Value = 6.16 V/m

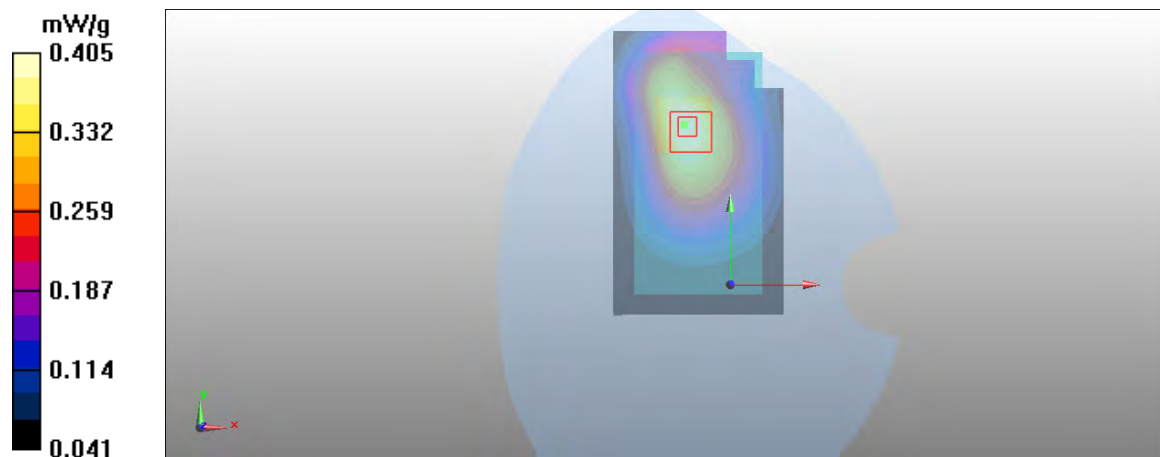
Peak SAR (extrapolated) = 0.507 W/kg

SAR(1 g) = 0.388 mW/g

SAR(10 g) = 0.286 mW/g

Power Drift = -0.297 dB

Maximum value of SAR (measured) = 0.405 mW/g



Date/Time: 2012-02-25 11:31:52, Date/Time: 2012-02-25 11:35:29

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t= 20.7 C

Medium parameters used: f = 710 MHz; $\sigma = 0.966$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(5.97, 5.97, 5.97); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2011-05-09
- Phantom: SAM1; Type: SAM; Serial: TP-1126
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE/Body - Middle - No Accessory offset - Back Facing Phantom - QPSK - 10MHz - 1 RB - 0% offset/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.559 mW/g

LTE/Body - Middle - No Accessory offset - Back Facing Phantom - QPSK - 10MHz - 1 RB - 0% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.34 V/m

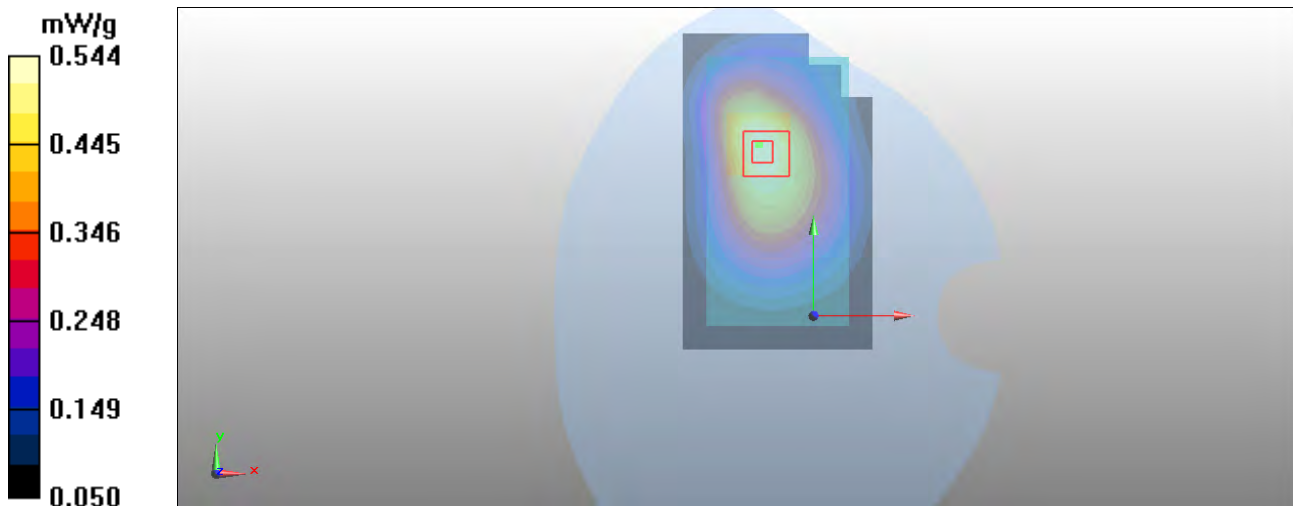
Peak SAR (extrapolated) = 0.684 W/kg

SAR(1 g) = 0.513 mW/g

SAR(10 g) = 0.376 mW/g

Power Drift = 0.156 dB

Maximum value of SAR (measured) = 0.544 mW/g



Date/Time: 2011-10-24 17:22:57, Date/Time: 2011-10-24 17:26:32

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS850

Frequency: 824.2 MHz; Duty Cycle: 1:4.19952

Medium: BSL850; Medium Notes: t= 20.7 C

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.985 mho/m; ϵ_r = 53.5; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Low - No Accessory - Display Facing Phantom/Area Scan (61x101x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.04 mW/g

2-slot GPRS - Body - Low - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.8 V/m

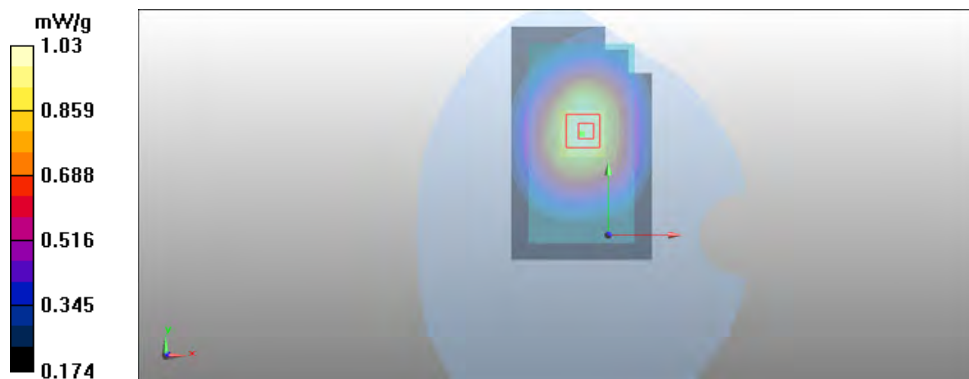
Peak SAR (extrapolated) = 1.25 W/kg

SAR(1 g) = 0.986 mW/g

SAR(10 g) = 0.753 mW/g

Power Drift = 0.448 dB

Maximum value of SAR (measured) = 1.03 mW/g



Date/Time: 2011-10-24 17:55:10, Date/Time: 2011-10-24 17:58:44

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: BSL850; Medium Notes: t= 20.7 C

Medium parameters used: f = 837 MHz; σ = 0.993 mho/m; ϵ_r = 53.4; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Middle - WH-208 - Display Facing Phantom/Area Scan (61x101x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.756 mW/g

2-slot GPRS - Body - Middle - WH-208 - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.1 V/m

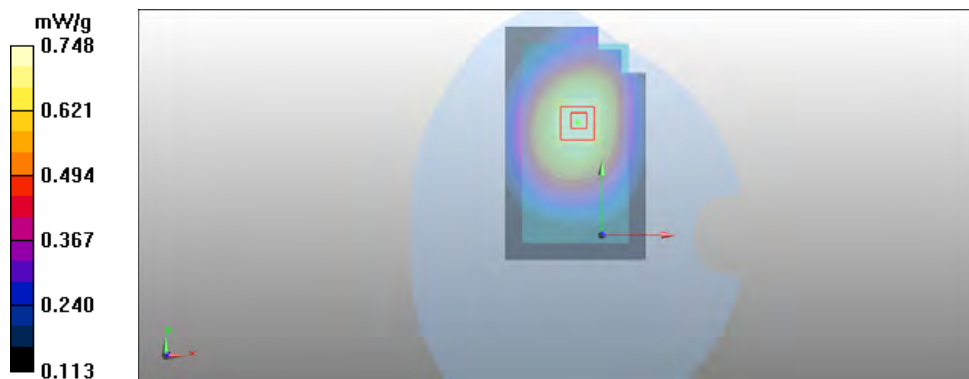
Peak SAR (extrapolated) = 0.900 W/kg

SAR(1 g) = 0.713 mW/g

SAR(10 g) = 0.542 mW/g

Power Drift = -0.0064 dB

Maximum value of SAR (measured) = 0.748 mW/g



Date/Time: 2011-10-24 20:14:19, Date/Time: 2011-10-24 20:17:53

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: BSL850; Medium Notes: t= 20.7 C

Medium parameters used: f = 837 MHz; σ = 0.993 mho/m; ϵ_r = 53.4; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Middle - No Accessory - Back Facing Phantom/Area Scan (61x101x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.14 mW/g

2-slot GPRS - Body - Middle - No Accessory - Back Facing Phantom/Zoom Scan (6x6x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.8 V/m

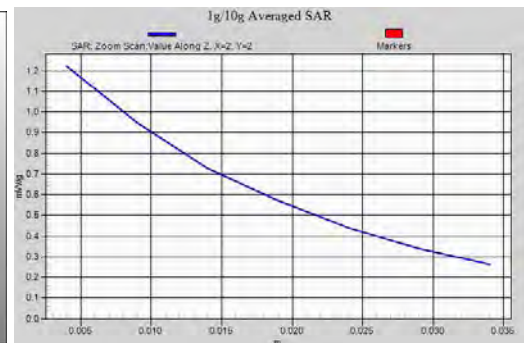
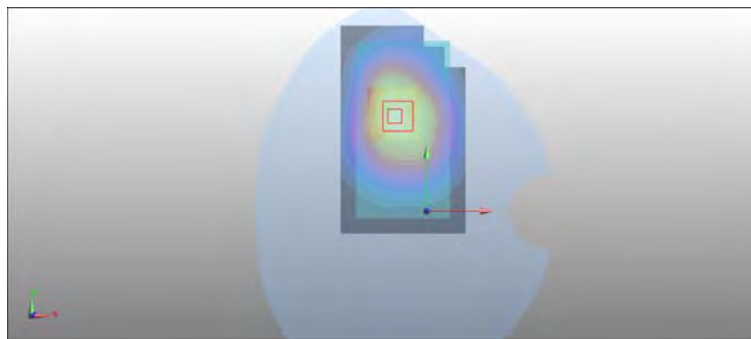
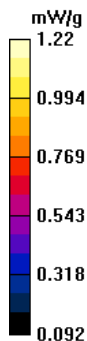
Peak SAR (extrapolated) = 1.55 W/kg

SAR(1 g) = 1.16 mW/g

SAR(10 g) = 0.846 mW/g

Power Drift = 0.398 dB

Maximum value of SAR (measured) = 1.22 mW/g



Date/Time: 2011-10-24 19:46:10, Date/Time: 2011-10-24 19:49:44

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS850

Frequency: 824.2 MHz; Duty Cycle: 1:4.19952

Medium: BSL850; Medium Notes: t= 20.7 C

Medium parameters used (interpolated): f = 824.2 MHz; $\sigma = 0.985$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Low - WH-208 - Back Facing Phantom/Area Scan (61x101x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.891 mW/g

2-slot GPRS - Body - Low - WH-208 - Back Facing Phantom/Zoom Scan (6x6x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.9 V/m

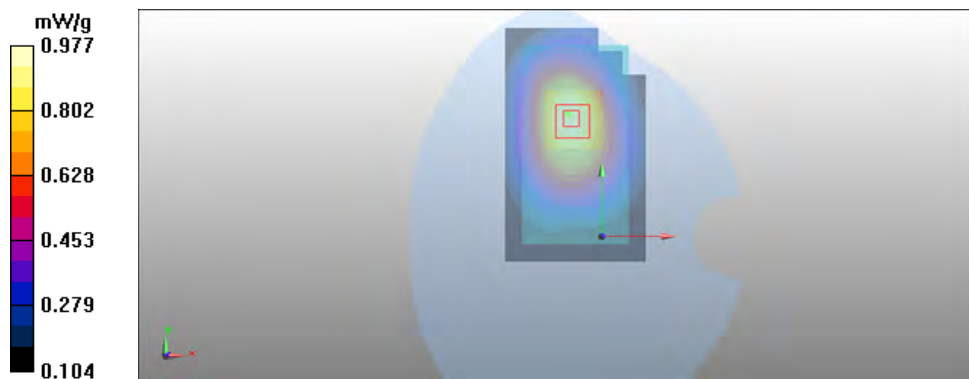
Peak SAR (extrapolated) = 1.2 W/kg

SAR(1 g) = 0.932 mW/g

SAR(10 g) = 0.702 mW/g

Power Drift = 0.354 dB

Maximum value of SAR (measured) = 0.977 mW/g



Date/Time: 2011-10-20 15:00:49, Date/Time: 2011-10-20 15:07:43

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: t= 21.0 C

Medium parameters used: f = 835 MHz; $\sigma = 1.02$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - No Accessory - Display Facing Phantom/Area Scan (61x101x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.597 mW/g

WCDMA - Body - Middle - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement

grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.1 V/m

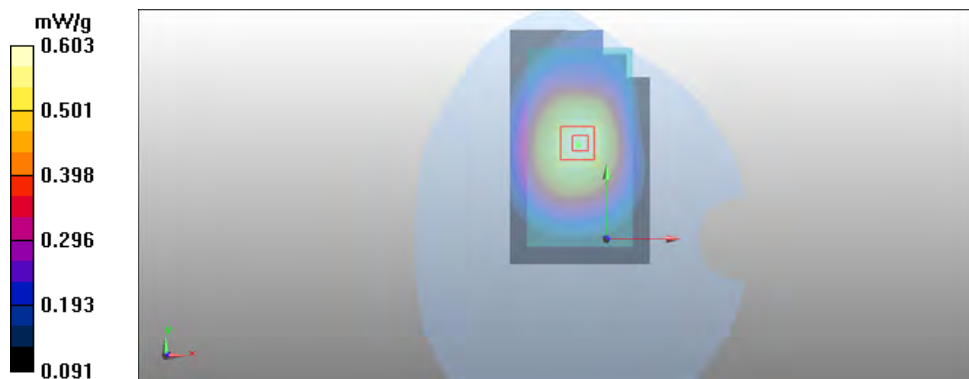
Peak SAR (extrapolated) = 0.726 W/kg

SAR(1 g) = 0.571 mW/g

SAR(10 g) = 0.433 mW/g

Power Drift = -0.057 dB

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



Date/Time: 2011-10-20 15:17:29, Date/Time: 2011-10-20 15:21:04

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: t= 21.0 C

Medium parameters used: f = 835 MHz; $\sigma = 1.02$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - WH-208 - Display Facing Phantom/Area Scan (61x101x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.470 mW/g

WCDMA - Body - Middle - WH-208 - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.21 V/m

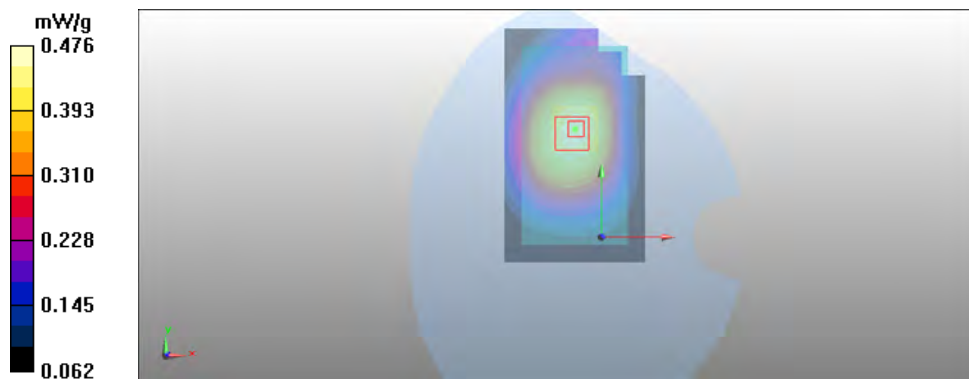
Peak SAR (extrapolated) = 0.572 W/kg

SAR(1 g) = 0.450 mW/g

SAR(10 g) = 0.340 mW/g

Power Drift = -0.00131 dB

Maximum value of SAR (measured) = 0.476 mW/g



Date/Time: 2011-10-20 15:37:33, Date/Time: 2011-10-20 15:41:06

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: t= 21.0 C

Medium parameters used: f = 835 MHz; $\sigma = 1.02$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - No Accessory - Back Facing Phantom/Area Scan (61x101x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.621 mW/g

WCDMA - Body - Middle - No Accessory - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.81 V/m

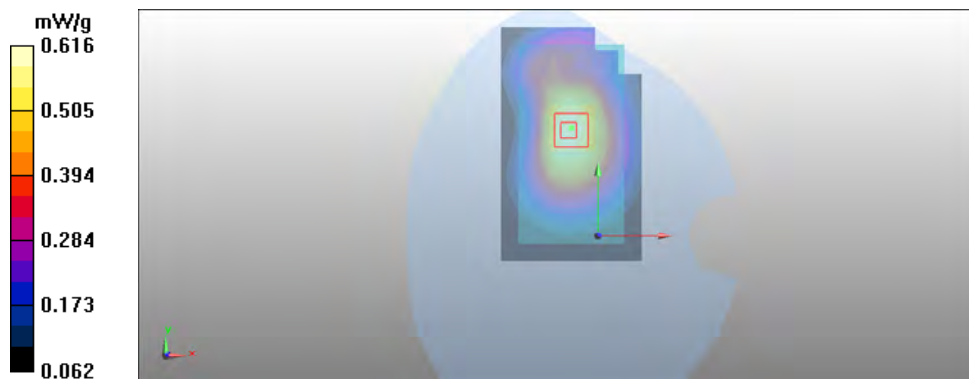
Peak SAR (extrapolated) = 0.747 W/kg

SAR(1 g) = 0.589 mW/g

SAR(10 g) = 0.440 mW/g

Power Drift = 0.00929 dB

Maximum value of SAR (measured) = 0.616 mW/g



Date/Time: 2011-10-20 15:55:15, Date/Time: 2011-10-20 15:58:52

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: t= 21.0 C

Medium parameters used: f = 835 MHz; $\sigma = 1.02$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - WH-208 - Back Facing Phantom/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.575 mW/g

WCDMA - Body - Middle - WH-208 - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.77 V/m

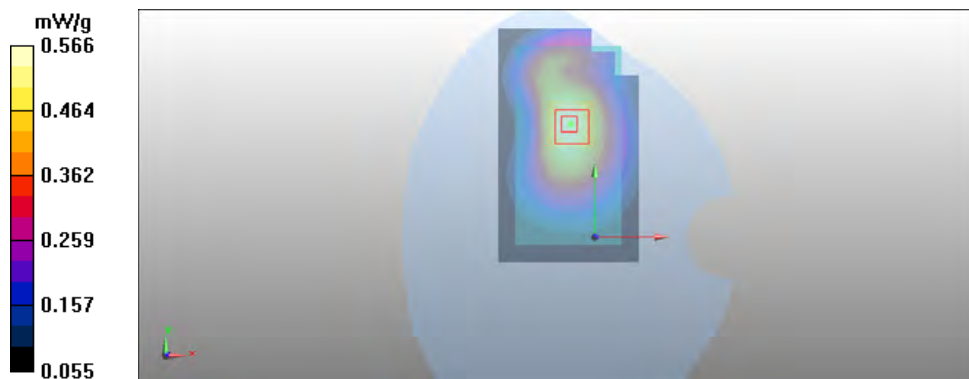
Peak SAR (extrapolated) = 0.690 W/kg

SAR(1 g) = 0.537 mW/g

SAR(10 g) = 0.397 mW/g

Power Drift = -0.072 dB

Maximum value of SAR (measured) = 0.566 mW/g



Date/Time: 2011-10-19 07:29:21, Date/Time: 2011-10-19 07:33:22

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1700/2100

Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.5 C

Medium parameters used: f = 1753 MHz; σ = 1.46 mho/m; ϵ_r = 51.5; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165

- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17

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

- Electronics: DAE4 Sn555; Calibrated: 2011-02-22

- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179

- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - High - No Accessory - Display Facing Phantom/Area Scan (61x101x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.789 mW/g

WCDMA - Body - High - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.3 V/m

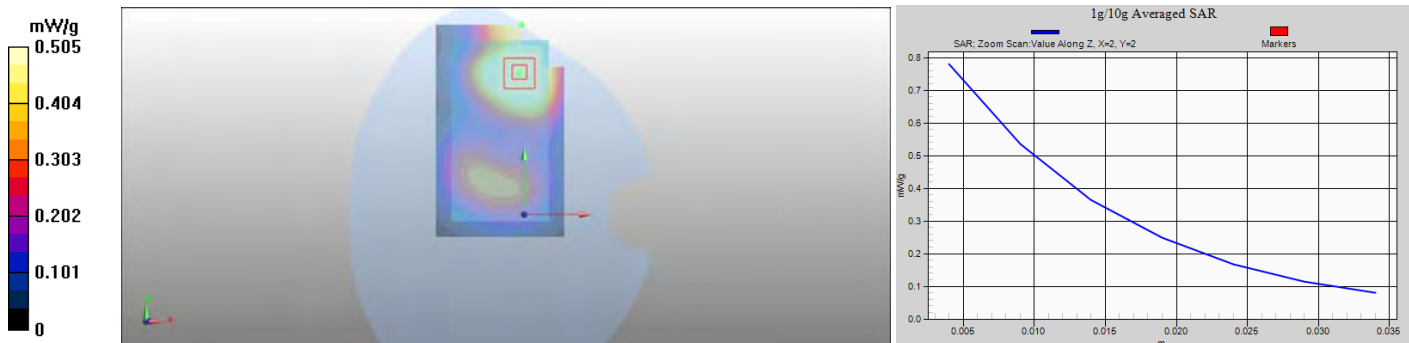
Peak SAR (extrapolated) = 1.04 W/kg

SAR(1 g) = 0.723 mW/g

SAR(10 g) = 0.472 mW/g

Power Drift = -0.046 dB

Maximum value of SAR (measured) = 0.780 mW/g



Date/Time: 2011-10-18 19:41:20, Date/Time: 2011-10-18 19:45:21, Date/Time: 2011-10-18 19:55:22

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.5 C

Medium parameters used (interpolated): f = 1732.4 MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 51.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - WH-208 - Display Facing Phantom/Area Scan (61x101x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.692 mW/g

WCDMA - Body - Middle - WH-208 - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.7 V/m

Peak SAR (extrapolated) = 0.903 W/kg

SAR(1 g) = 0.634 mW/g

SAR(10 g) = 0.419 mW/g

Power Drift = -0.038 dB

Maximum value of SAR (measured) = 0.687 mW/g

Body - Middle - WH-208 - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm

Reference Value = 10.7 V/m

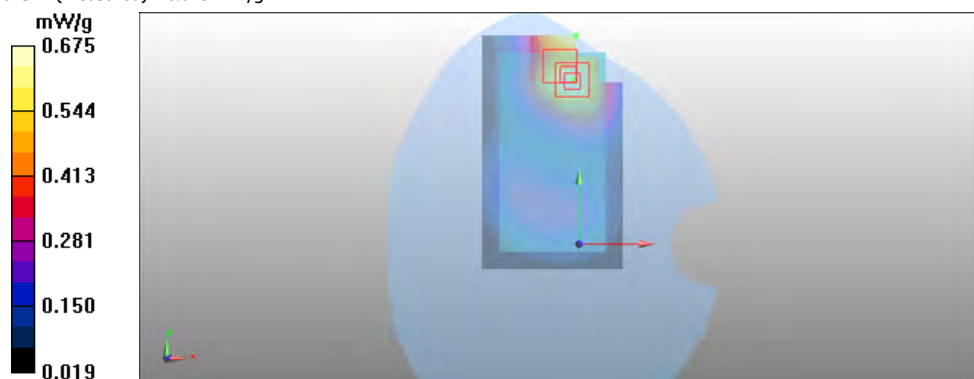
Peak SAR (extrapolated) = 0.911 W/kg

SAR(1 g) = 0.616 mW/g

SAR(10 g) = 0.368 mW/g

Power Drift = -0.038 dB

Maximum value of SAR (measured) = 0.675 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

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Date/Time: 2011-10-19 06:30:32, Date/Time: 2011-10-19 06:47:50

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.5 C

Medium parameters used (interpolated): f = 1732.4 MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 51.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - No Accessory - Back Facing Phantom/Area Scan (61x101x1): Measurement grid:

dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.696 mW/g

WCDMA - Body - Middle - No Accessory - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.5 V/m

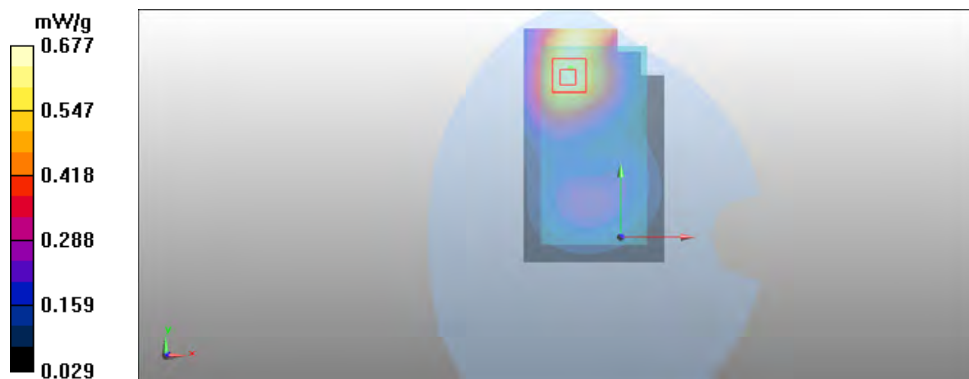
Peak SAR (extrapolated) = 0.924 W/kg

SAR(1 g) = 0.633 mW/g

SAR(10 g) = 0.422 mW/g

Power Drift = -0.019 dB

Maximum value of SAR (measured) = 0.677 mW/g



Date/Time: 2011-10-19 06:55:43, Date/Time: 2011-10-19 06:59:44

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.5 C

Medium parameters used (interpolated): f = 1732.4 MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 51.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - WH-208 - Back Facing Phantom/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.649 mW/g

WCDMA - Body - Middle - WH-208 - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.25 V/m

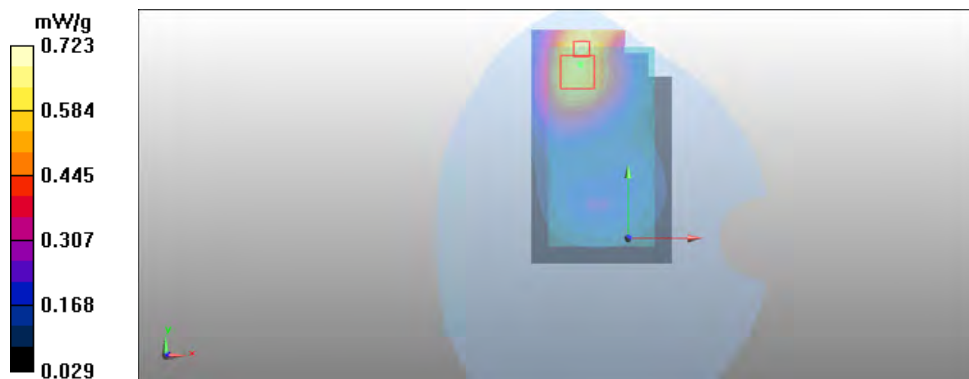
Peak SAR (extrapolated) = 1.04 W/kg

SAR(1 g) = 0.616 mW/g

SAR(10 g) = 0.395 mW/g

Power Drift = 0.066 dB

Maximum value of SAR (measured) = 0.723 mW/g



Date/Time: 2012-02-25 10:36:49

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.8$ C

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.412$ mho/m; $\epsilon_r = 52.002$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3194
- ConvF(4.76, 4.76, 4.76); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; 2012-01-11
- Phantom: SAM #2 CRP ; Type: QD000P40CD; Serial:
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

LTE/Body - Middle - No Accessory - Back Facing Phantom - QPSK - 20MHz - 50% RB - 50% offset /Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.463 mW/g

LTE/Body - Middle - No Accessory - Back Facing Phantom - QPSK - 20MHz - 50% RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 8.740 V/m

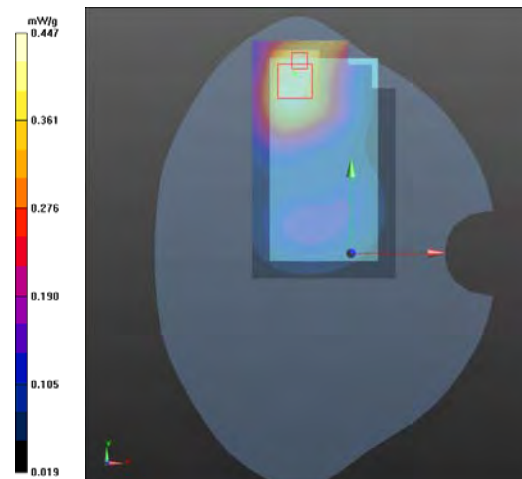
Peak SAR (extrapolated) = 0.7000

SAR(1 g) = 0.415 mW/g

SAR(10 g) = 0.268 mW/g

Power Drift = -0.01 dB

Maximum value of SAR (measured) = 0.447 mW/g



Date/Time: 2011-11-11 09:24:51, Date/Time: 2011-11-11 09:28:56

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.8 C

Medium parameters used: f = 1745 MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165

- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17

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

- Electronics: DAE4 Sn555; Calibrated: 2011-02-22

- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179

- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - High - No Accessory - QPSK - 20MHz - 1 RB - 50% offset - Display Facing Phantom /Area Scan

(61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.664 mW/g

LTE - Body - High - No Accessory - QPSK - 20MHz - 1 RB - 50% offset - Display Facing Phantom /Zoom Scan

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

Reference Value = 10.3 V/m

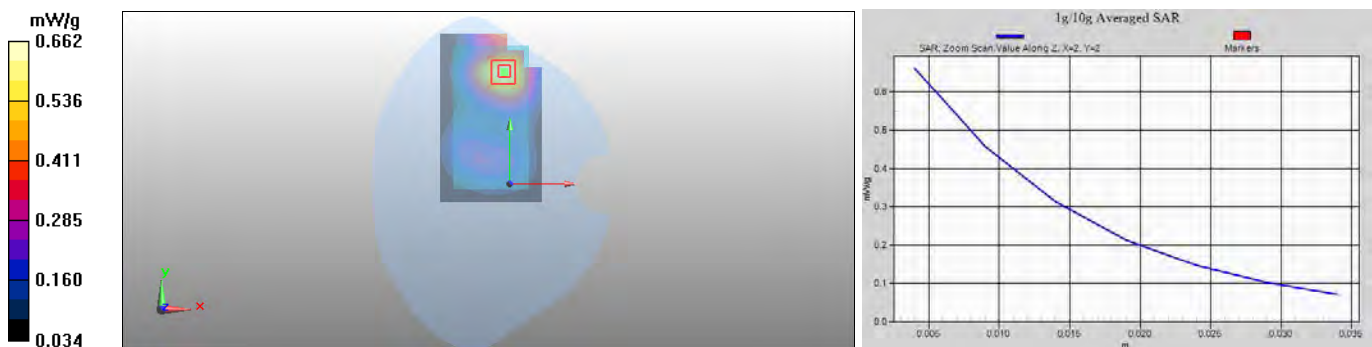
Peak SAR (extrapolated) = 0.881 W/kg

SAR(1 g) = 0.613 mW/g

SAR(10 g) = 0.400 mW/g

Power Drift = -0.045 dB

Maximum value of SAR (measured) = 0.662 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

Copyright © 2012 TCC Nokia

Date/Time: 2011-11-10 19:20:22, Date/Time: 2011-11-10 19:24:22

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7$ C

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - WH-208 - QPSK - 20MHz - 1 RB - 50% offset - Display Facing Phantom/Area Scan

(61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.596 mW/g

LTE - Body - Middle - WH-208 - QPSK - 20MHz - 1 RB - 50% offset - Display Facing Phantom /Zoom Scan

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

Reference Value = 10.1 V/m

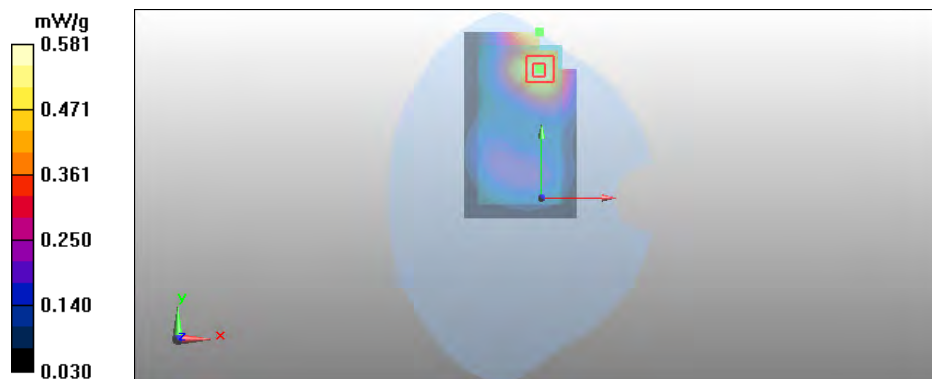
Peak SAR (extrapolated) = 0.773 W/kg

SAR(1 g) = 0.537 mW/g

SAR(10 g) = 0.355 mW/g

Power Drift = -0.058 dB

Maximum value of SAR (measured) = 0.581 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

Copyright © 2012 TCC Nokia

Date/Time: 2011-11-10 20:06:53, Date/Time: 2011-11-10 20:18:45

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7\text{ C}$

Medium parameters used (interpolated): $f = 1732.5\text{ MHz}$; $\sigma = 1.46\text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - No Accessory - QPSK - 20MHz - 1 RB - 50% offset - Back Facing Phantom/Area Scan

(61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.616 mW/g

LTE - Body - Middle - No Accessory - QPSK - 20MHz - 1 RB - 50% offset - Back 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 = 9.13 V/m

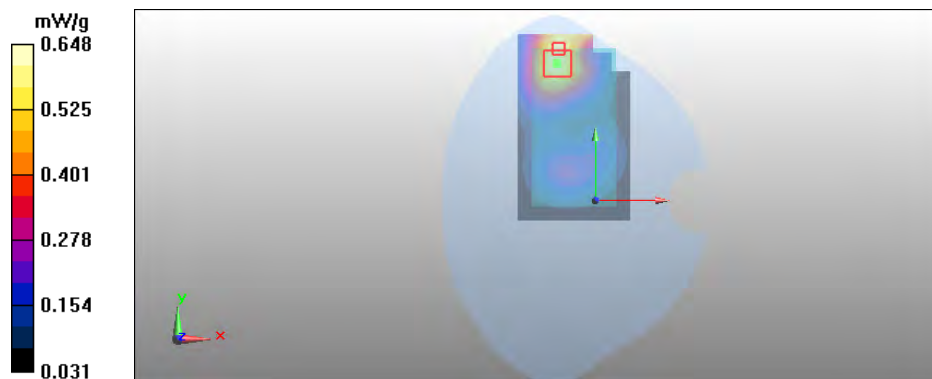
Peak SAR (extrapolated) = 0.935 W/kg

SAR(1 g) = 0.569 mW/g

SAR(10 g) = 0.378 mW/g

Power Drift = 0.131 dB

Maximum value of SAR (measured) = 0.648 mW/g



Date/Time: 2011-11-10 19:36:00, Date/Time: 2011-11-10 19:49:46

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7$ C

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - WH-208 - QPSK - 20MHz - 1 RB - 50% offset - Back Facing Phantom/Area Scan (61x101x1):

Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.581 mW/g

LTE - Body - Middle - WH-208 - QPSK - 20MHz - 1 RB - 50% offset - Back Facing Phantom /Zoom Scan

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

Reference Value = 8.17 V/m

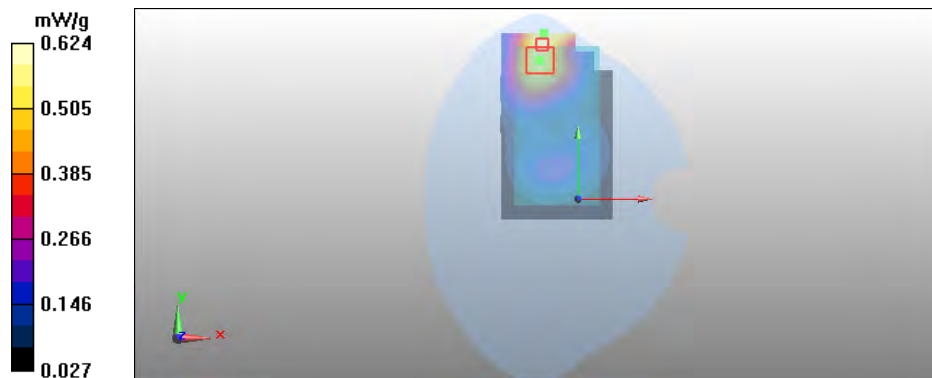
Peak SAR (extrapolated) = 0.952 W/kg

SAR(1 g) = 0.561 mW/g

SAR(10 g) = 0.353 mW/g

Power Drift = 0.071 dB

Maximum value of SAR (measured) = 0.624 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

Copyright © 2012 TCC Nokia

Date/Time: 2012-02-25 11:16:16

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.8 C

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.412 mho/m; ϵ_r = 52.002; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3194
- ConvF(4.76, 4.76, 4.76); Calibrated:2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated 2012-01-11
- Phantom: SAM #2 CRP ; Type: QD000P40CD; Serial:
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

LTE/Body - Middle - No Accessory - Back Facing Phantom - QPSK - 20MHz - 1 RB - 100% offset /Area Scan

(61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.573 mW/g

LTE/Body - Middle - No Accessory - Back Facing Phantom - QPSK - 20MHz - 1 RB - 100% offset /Zoom Scan

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

Reference Value = 9.679 V/m

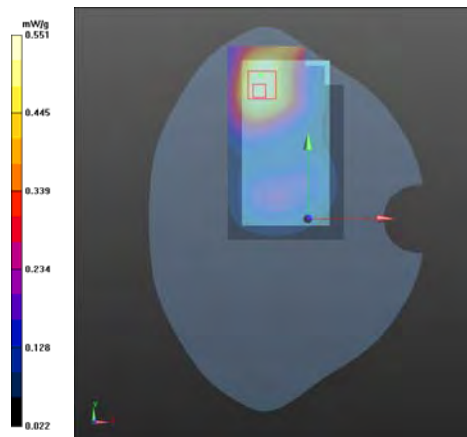
Peak SAR (extrapolated) = 0.8290

SAR(1 g) = 0.516 mW/g

SAR(10 g) = 0.337 mW/g

Power Drift = 0.04 dB

Maximum value of SAR (measured) = 0.551 mW/g



Date/Time: 2012-02-25 11:02:10

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.8$ C

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.412$ mho/m; $\epsilon_r = 52.002$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3194
- ConvF(4.76, 4.76, 4.76); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1309; Calibrated: 2012-01-11
- Phantom: SAM #2 CRP ; Type: QD000P40CD; Serial:
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.4 (4989)

LTE/Body - Middle - No Accessory - Back Facing Phantom - QPSK - 20MHz - 1 RB - 0% offset /Area Scan

(61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.554 mW/g

LTE/Body - Middle - No Accessory - Back Facing Phantom - QPSK - 20MHz - 1 RB - 0% offset /Zoom Scan

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

Reference Value = 9.298 V/m

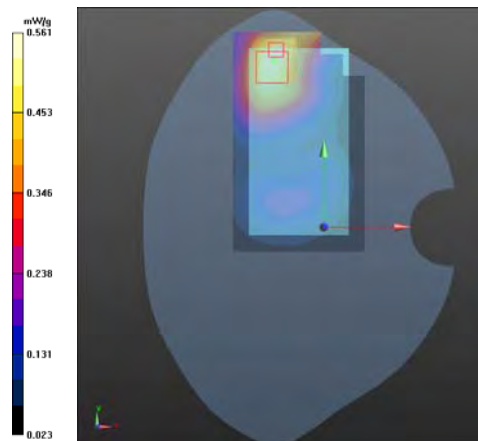
Peak SAR (extrapolated) = 0.8790

SAR(1 g) = 0.513 mW/g

SAR(10 g) = 0.318 mW/g

Power Drift = 0.05 dB

Maximum value of SAR (measured) = 0.561 mW/g



Date/Time: 2011-10-21 12:29:25, Date/Time: 2011-10-21 12:42:34

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.2

Medium: BSL1900; Medium Notes: $t = 21.0\text{ }^{\circ}\text{C}$

Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.5\text{ mho/m}$; $\epsilon_r = 52.6$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2- slot GPRS - Body - Middle - No Accessory - Display Facing Phantom/Area Scan (61x101x1): Measurement grid:
 $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.512 mW/g

2- slot GPRS - Body - Middle - 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 = 11.9 V/m

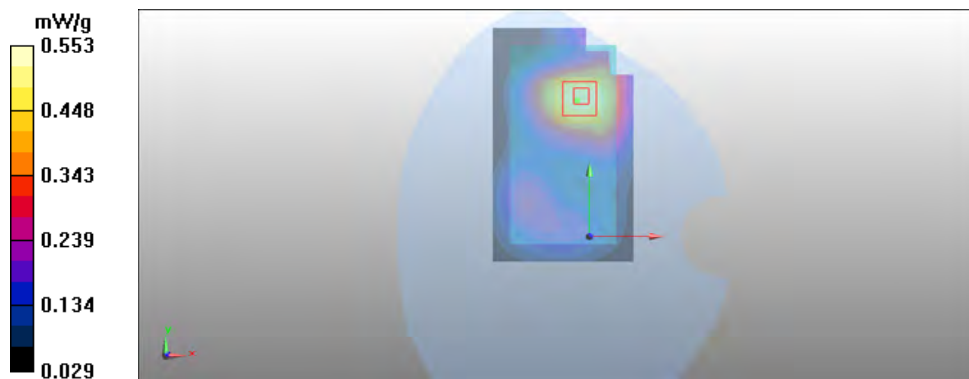
Peak SAR (extrapolated) = 0.767 W/kg

SAR(1 g) = 0.527 mW/g

SAR(10 g) = 0.350 mW/g

Power Drift = 0.224 dB

Maximum value of SAR (measured) = 0.553 mW/g



Date/Time: 2011-10-21 13:05:28, Date/Time: 2011-10-21 13:10:35

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.2

Medium: BSL1900; Medium Notes: $t = 21.0\text{ }^{\circ}\text{C}$

Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.5\text{ mho/m}$; $\epsilon_r = 52.6$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2- slot GPRS - Body - Middle - WH-208 - Display Facing Phantom/Area Scan (61x101x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.651 mW/g

2- slot GPRS - Body - Middle - WH-208 - 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 = 12 V/m

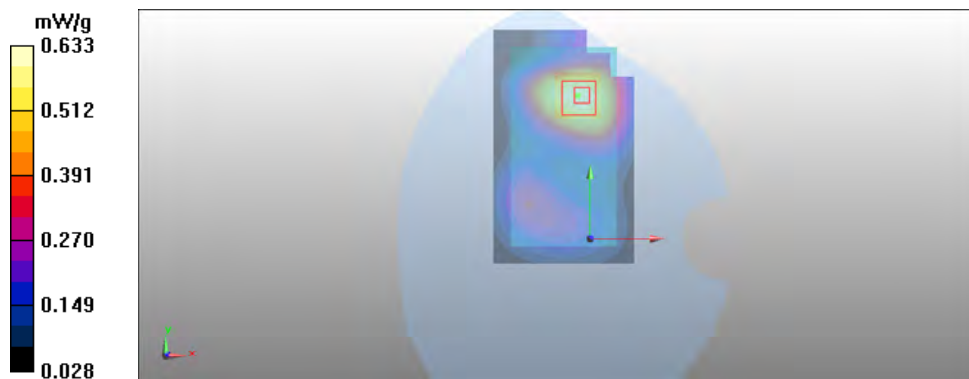
Peak SAR (extrapolated) = 0.874 W/kg

SAR(1 g) = 0.597 mW/g

SAR(10 g) = 0.394 mW/g

Power Drift = 0.275 dB

Maximum value of SAR (measured) = 0.633 mW/g



Date/Time: 2011-10-21 13:35:47, Date/Time: 2011-10-21 13:42:19

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.2

Medium: BSL1900; Medium Notes: $t = 21.0$ C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 52.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2- slot GPRS - Body - Middle - No Accessories - Back Facing Phantom/Area Scan (61x101x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.579 mW/g

2- slot GPRS - Body - Middle - No Accessories - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.4 V/m

Peak SAR (extrapolated) = 0.773 W/kg

SAR(1 g) = 0.535 mW/g

SAR(10 g) = 0.355 mW/g

Power Drift = -0.00486 dB

Maximum value of SAR (measured) = 0.569 mW/g



Date/Time: 2011-10-21 13:22:05, Date/Time: 2011-10-21 13:26:57

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.2

Medium: BSL1900; Medium Notes: $t = 21.0\text{ }^{\circ}\text{C}$

Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.5\text{ mho/m}$; $\epsilon_r = 52.6$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2- slot GPRS - Body - Middle - WH-208 - Back Facing Phantom/Area Scan (61x101x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.571 mW/g

2- slot GPRS - Body - Middle - WH-208 - Back 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 = 10.5 V/m

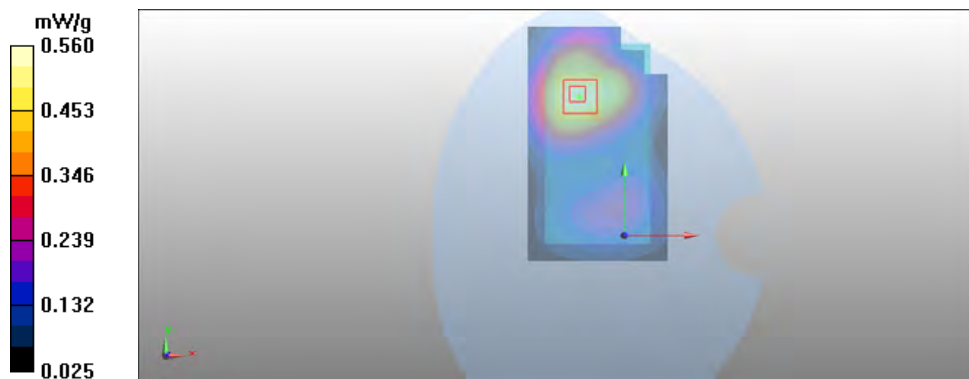
Peak SAR (extrapolated) = 0.766 W/kg

SAR(1 g) = 0.524 mW/g

SAR(10 g) = 0.348 mW/g

Power Drift = 0.349 dB

Maximum value of SAR (measured) = 0.560 mW/g



Date/Time: 2011-10-19 15:49:13, Date/Time: 2011-10-19 15:56:20

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1900

Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: $t = 21.0$ C

Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 53.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Low - No Accessory - Display Facing Phantom/Area Scan (61x101x1): Measurement grid:

$dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.812 mW/g

WCDMA - Body - Low - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

$dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 15.1 V/m

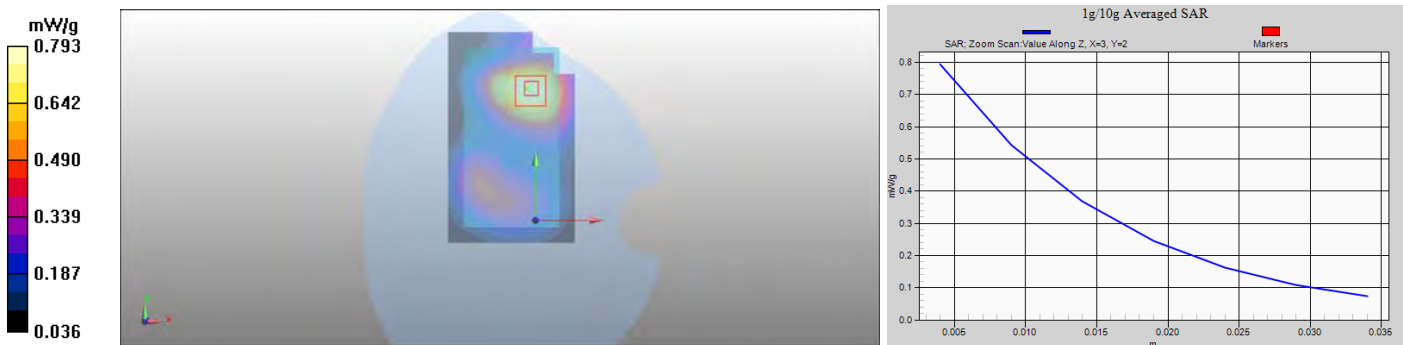
Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.746 mW/g

SAR(10 g) = 0.493 mW/g

Power Drift = -0.038 dB

Maximum value of SAR (measured) = 0.793 mW/g



Date/Time: 2011-10-19 12:42:36, Date/Time: 2011-10-19 12:46:38

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: $t = 21.0\text{ C}$

Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.53\text{ mho/m}$; $\epsilon_r = 53.2$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA -Body - Middle - WH-208 - Display Facing Phantom/Area Scan (61x101x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.729 mW/g

WCDMA -Body - Middle - WH-208 - 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 = 14.3 V/m

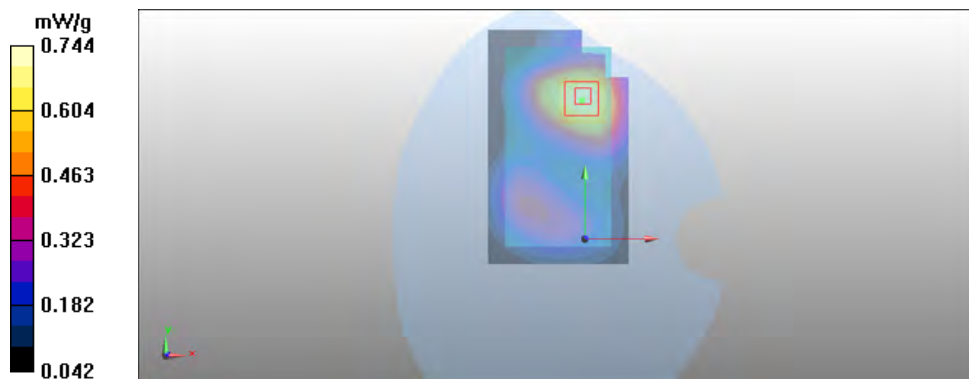
Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.695 mW/g

SAR(10 g) = 0.456 mW/g

Power Drift = 0.098 dB

Maximum value of SAR (measured) = 0.744 mW/g



Date/Time: 2011-10-19 15:32:28, Date/Time: 2011-10-19 15:36:29

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: $t = 21.0\text{ C}$

Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.53\text{ mho/m}$; $\epsilon_r = 53.2$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - No Accessory - Back Facing Phantom/Area Scan (61x101x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.632 mW/g

WCDMA - Body - Middle - No Accessory - Back 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 = 12.3 V/m

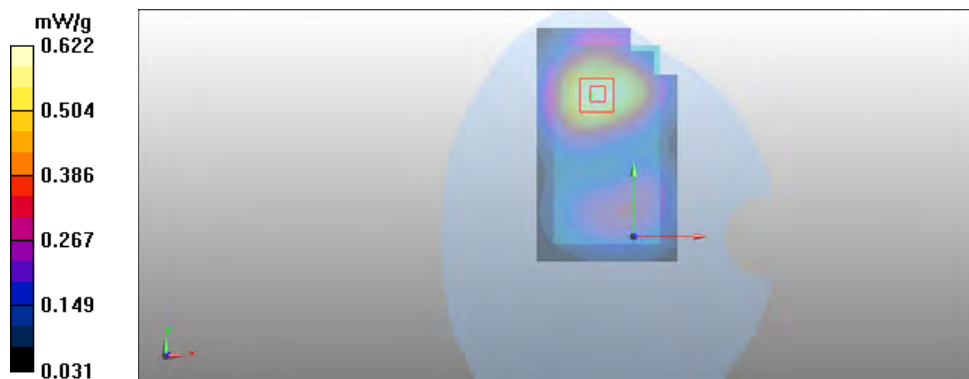
Peak SAR (extrapolated) = 0.847 W/kg

SAR(1 g) = 0.585 mW/g

SAR(10 g) = 0.388 mW/g

Power Drift = 0.046 dB

Maximum value of SAR (measured) = 0.622 mW/g



Date/Time: 2011-10-19 12:57:46, Date/Time: 2011-10-19 13:02:03

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: $t = 21.0$ C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.53$ mho/m; $\epsilon_r = 53.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - WH-208 - Back Facing Phantom/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.666 mW/g

WCDMA - Body - Middle - WH-208 - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

$dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 13.5 V/m

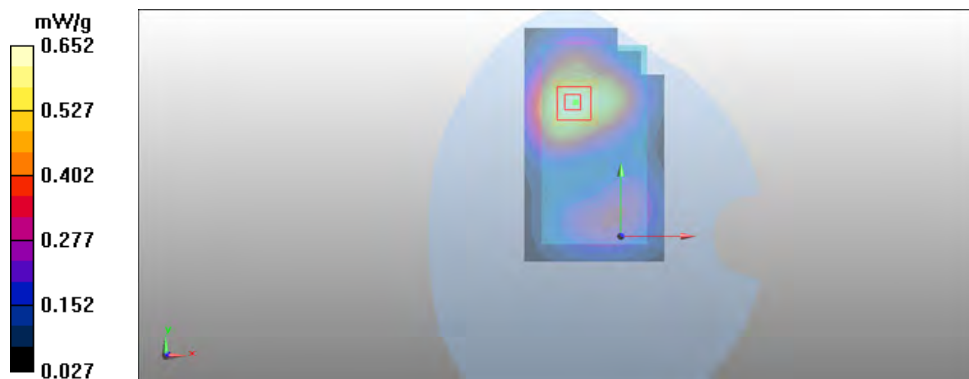
Peak SAR (extrapolated) = 0.884 W/kg

SAR(1 g) = 0.613 mW/g

SAR(10 g) = 0.408 mW/g

Power Drift = -0.033 dB

Maximum value of SAR (measured) = 0.652 mW/g



Date/Time: 2012-02-08 18:10:28, Date/Time: 2012-02-08 18:14:00

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: t= 20.8 C

Medium parameters used: f = 2462 MHz; $\sigma = 1.99$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode/Body - High - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (61x101x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.162 mW/g

WLAN b-mode/Body - High - Spacer 15mm - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.26 V/m

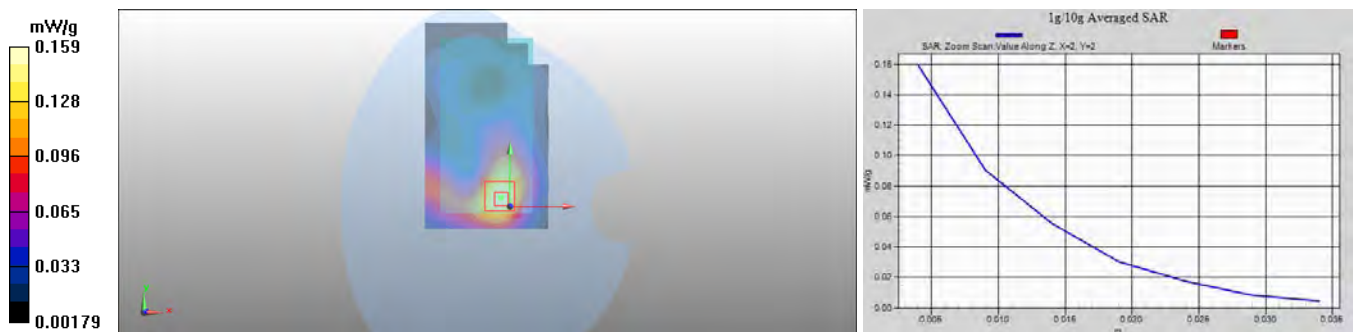
Peak SAR (extrapolated) = 0.263 W/kg

SAR(1 g) = 0.147 mW/g

SAR(10 g) = 0.084 mW/g

Power Drift = 0.372 dB

Maximum value of SAR (measured) = 0.159 mW/g



Date/Time: 2012-02-08 15:59:52, Date/Time: 2012-02-08 16:06:41

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 20.8$ C

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (61x101x1):

Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.115 mW/g

WLAN b-mode/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 6.82 V/m

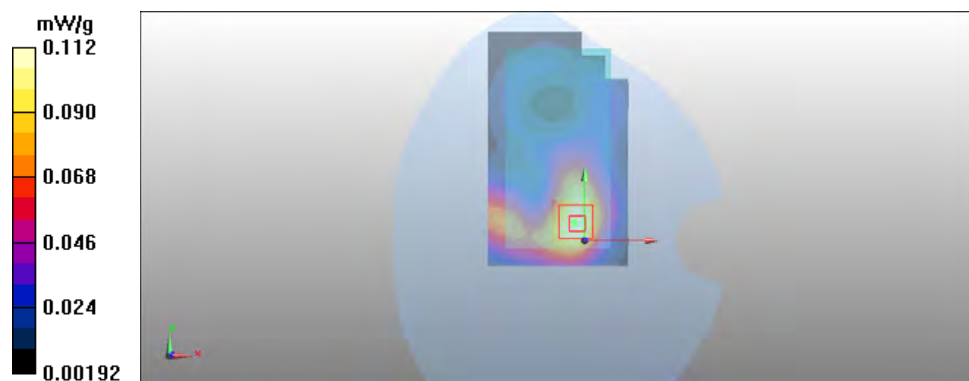
Peak SAR (extrapolated) = 0.173 W/kg

SAR(1 g) = 0.105 mW/g

SAR(10 g) = 0.062 mW/g

Power Drift = -0.106 dB

Maximum value of SAR (measured) = 0.112 mW/g



Date/Time: 2012-02-08 16:30:04, Date/Time: 2012-02-08 16:33:37

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 20.8\text{ C}$

Medium parameters used: $f = 2437\text{ MHz}$; $\sigma = 1.97\text{ mho/m}$; $\epsilon_r = 50.5$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan (61x101x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.149 mW/g

WLAN b-mode/Body - Middle - Spacer 15mm - No Accessory - Back 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 = 7.36 V/m

Peak SAR (extrapolated) = 0.249 W/kg

SAR(1 g) = 0.138 mW/g

SAR(10 g) = 0.077 mW/g

Power Drift = -0.063 dB

Maximum value of SAR (measured) = 0.151 mW/g



Date/Time: 2012-02-08 16:19:04, Date/Time: 2012-02-08 16:22:38

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 20.8$ C

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode/Body - Middle - Spacer 15mm - WH-208 - Back Facing Phantom/Area Scan (61x101x1):

Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.159 mW/g

WLAN b-mode/Body - Middle - Spacer 15mm - WH-208 - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 6.44 V/m

Peak SAR (extrapolated) = 0.277 W/kg

SAR(1 g) = 0.140 mW/g

SAR(10 g) = 0.071 mW/g

Power Drift = 0.233 dB

Maximum value of SAR (measured) = 0.158 mW/g



Date/Time: 2011-11-02 14:10:28, Date/Time: 2012-02-07 16:33:14

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2, Serial: 004402/13/683080/3

Communication System: LTE700, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 710 MHz, Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL750, Medium: HSL2450; Medium Notes: $t = 20.6$ C, Medium Notes: $t = 20.7$ C

Medium parameters used: $f = 710$ MHz; $\sigma = 0.884$ mho/m; $\epsilon_r = 42.9$; $\rho = 1000$ kg/m³, Medium parameters used:
 $f = 2437$ MHz; $\sigma = 1.8$ mho/m; $\epsilon_r = 37.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74), ConvF(6.67, 6.67, 6.67); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213, Electronics: DAE4 Sn538; Calibrated: 2011-02-14, Calibrated: 2011-09-15
- Phantom: SAM 3, Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

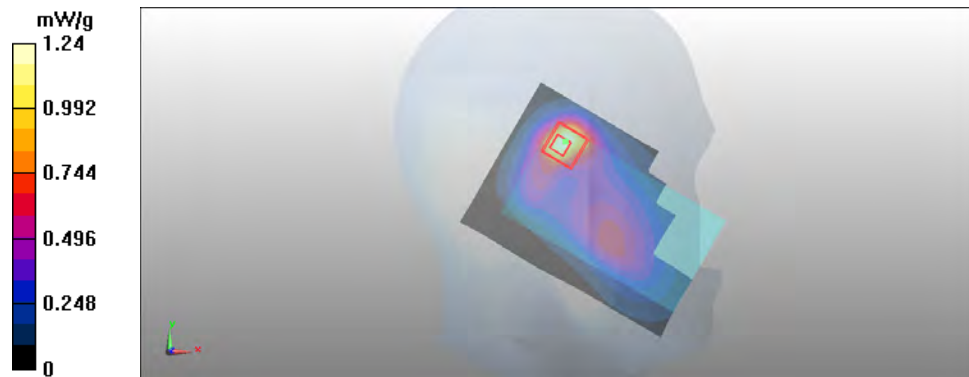
LTE - Left/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

WLAN b-mode - Left/Cheek - Middle/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.04 mW/g

SAR(10 g) = 0.517 mW/g

Maximum value of SAR (measured) = 1.24 mW/g



Date/Time: 2011-10-18 07:52:31, Date/Time: 2012-02-07 16:33:14

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2, Serial: 004402/13/683080/3

Communication System: 2-slot GPRS850, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 824.2 MHz, Frequency: 2437 MHz; Duty Cycle: 1:4.19952, Duty Cycle: 1:1

Medium: HSL850, Medium: HSL2450; Medium Notes: t= 20.4 C, Medium Notes: t= 20.7 C

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.886 mho/m; ϵ_r = 41.2; ρ = 1000 kg/m³, Medium parameters used: f = 2437 MHz; σ = 1.8 mho/m; ϵ_r = 37.9; ρ = 1000 kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74), ConvF(6.67, 6.67, 6.67); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213, Electronics: DAE4 Sn538; Calibrated: 2011-02-14, Calibrated: 2011-09-15
- Phantom: SAM 3, Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

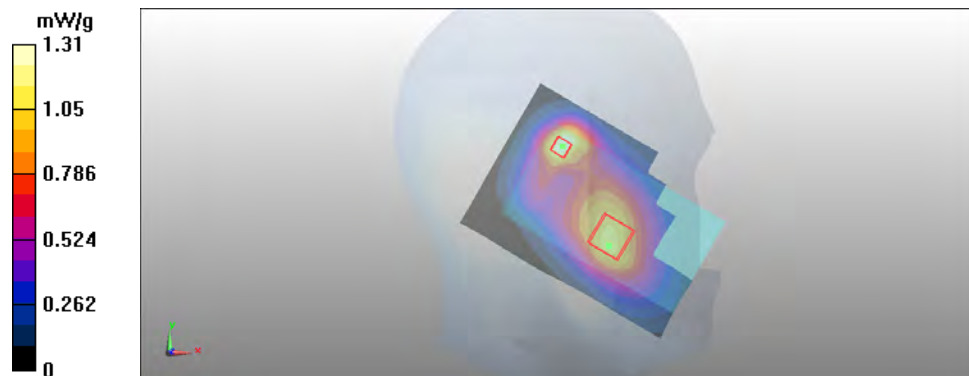
2-slot - Left/Cheek - Low/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

WLAN b-mode - Left/Cheek - Middle/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.09 mW/g

SAR(10 g) = 0.701 mW/g

Maximum value of SAR (measured) = 1.31 mW/g



Date/Time: 2012-02-09 14:55:31, Date/Time: 2012-02-09 14:40:21

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2, Serial: 004402/13/683080/3

Communication System: 2-slot GPRS850, Communication System: WLAN2450 b-mode 1Mbps

EXPANDED VOLUME SCAN

Frequency: 824.2 MHz; Frequency: 2437 MHz; Duty Cycle: 1:4.2, Duty Cycle: 1:1

Medium: HSL850, Medium: HSL2450; Medium Notes: t= 21 C, Medium Notes: t= 20.9 C

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.88 mho/m; ϵ_r = 40; ρ = 1000 kg/m³, Medium parameters used: f = 2437 MHz; σ = 1.78 mho/m; ϵ_r = 37.7; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3131, Probe: EX3DV4 - SN3790
- ConvF(5.88, 5.88, 5.88); ConvF(6.67, 6.67, 6.67); Calibrated: 2011-09-14; Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Electronics: DAE4 Sn538; Calibrated: 2011-05-09; Calibrated: 2011-09-15
- Phantom: SAM2; Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1570; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

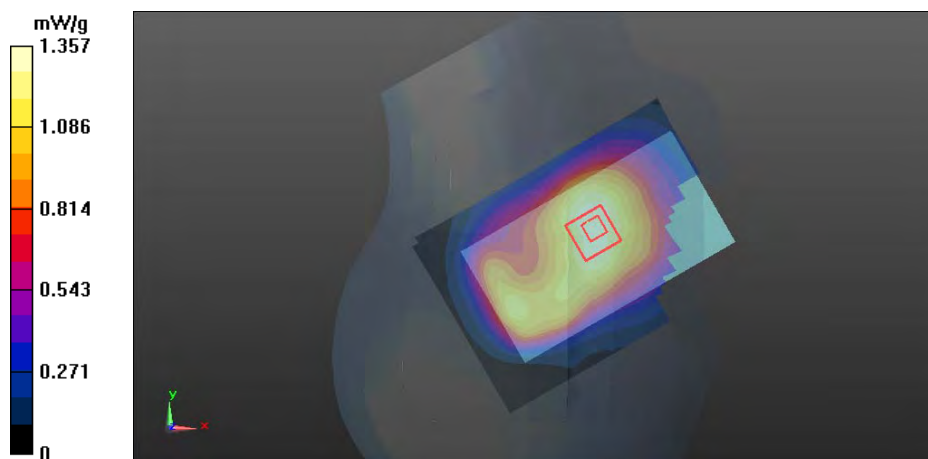
2-slot GPRS - Right/Cheek - Low/Volume Scan (15x21x7): Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

WLAN b-mode - Right/Cheek - Middle/Volume Scan (15x21x7): Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Multi Band Result:

SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.863 mW/g

Maximum value of SAR (interpolated) = 1.357 mW/g



Date/Time: 2011-10-19 18:14:48, Date/Time: 2012-02-07 16:33:14

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1, Serial: 004402/13/683080/3

Communication System: WCDMA850, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 835 MHz, Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL850, Medium: HSL2450; Medium Notes: t= 20.1 C, Medium Notes: t= 20.7 C

Medium parameters used: f = 835 MHz; $\sigma = 0.896$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³, Medium parameters used:
f = 2437 MHz; $\sigma = 1.8$ mho/m; $\epsilon_r = 37.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.74, 8.74, 8.74), ConvF(6.67, 6.67, 6.67); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213, Electronics: DAE4 Sn538; Calibrated: 2011-02-14, Calibrated: 2011-09-15
- Phantom: SAM 3, Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

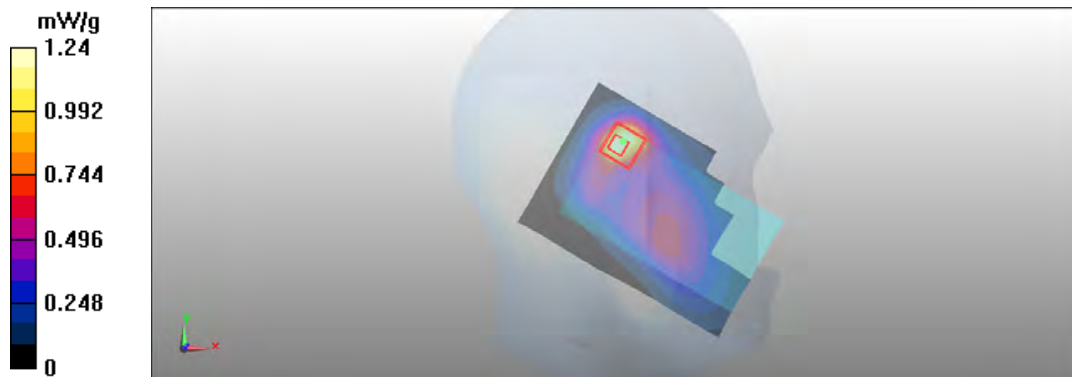
WCDMA - Left/Cheek - Middle/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

WLAN b-mode - Left/Cheek - Middle/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.04 mW/g

SAR(10 g) = 0.518 mW/g

Maximum value of SAR (measured) = 1.24 mW/g



Date/Time: 2011-10-18 13:23:58, Date/Time: 2012-02-07 16:33:14

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1, Serial: 004402/13/683080/3

Communication System: WCDMA1700/2100, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 1752.6 MHz, Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL1800, Medium: HSL2450; Medium Notes: $t = 20.0$ C, Medium Notes: $t = 20.7$ C

Medium parameters used: $f = 1753$ MHz; $\sigma = 1.35$ mho/m; $\epsilon_r = 38.7$; $\rho = 1000$ kg/m³, Medium parameters used:
 $f = 2437$ MHz; $\sigma = 1.8$ mho/m; $\epsilon_r = 37.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165, Probe: EX3DV4 - SN3790
- ConvF(5.19, 5.19, 5.19), ConvF(6.67, 6.67, 6.67); Calibrated: 2011-02-17, Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555, Electronics: DAE4 Sn538; Calibrated: 2011-02-22, Calibrated: 2011-09-15
- Phantom: SAM 4, Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1018, Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55, Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

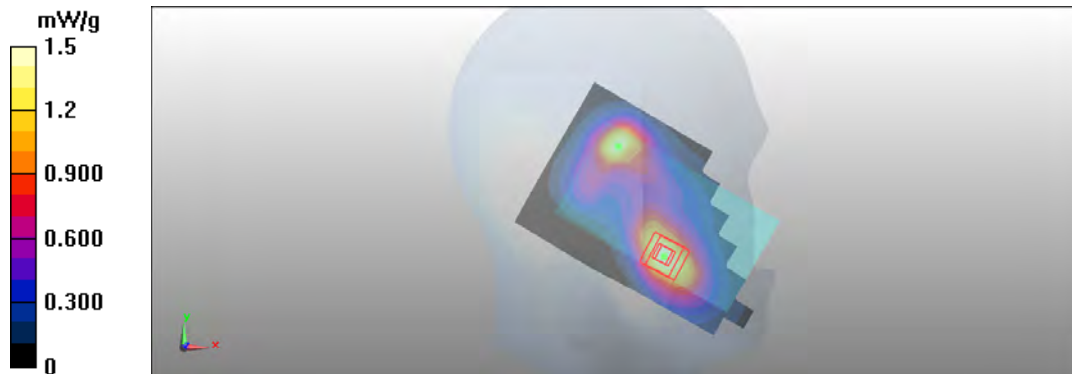
WCDMA - Left/Cheek - High/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

WLAN b-mode - Left/Cheek - Middle/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.35 mW/g

SAR(10 g) = 0.788 mW/g

Maximum value of SAR (measured) = 1.5 mW/g



Date/Time: 2011-11-10 14:29:36, Date/Time: 2012-02-07 16:33:14

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9, Serial: 004402/13/683080/3

Communication System: LTE4, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 1745 MHz; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL1800, Medium: HSL2450; Medium Notes: $t = 20.8$ C, Medium Notes: $t = 20.7$ C

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.35$ mho/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³, Medium parameters used:
 $f = 2437$ MHz; $\sigma = 1.8$ mho/m; $\epsilon_r = 37.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165, Probe: EX3DV4 - SN3790
- ConvF(5.19, 5.19, 5.19), ConvF(6.67, 6.67, 6.67); Calibrated: 2011-02-17, Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555, Electronics: DAE4 Sn538; Calibrated: 2011-02-22, Calibrated: 2011-09-15
- Phantom: SAM 4, Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1018, Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55, Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

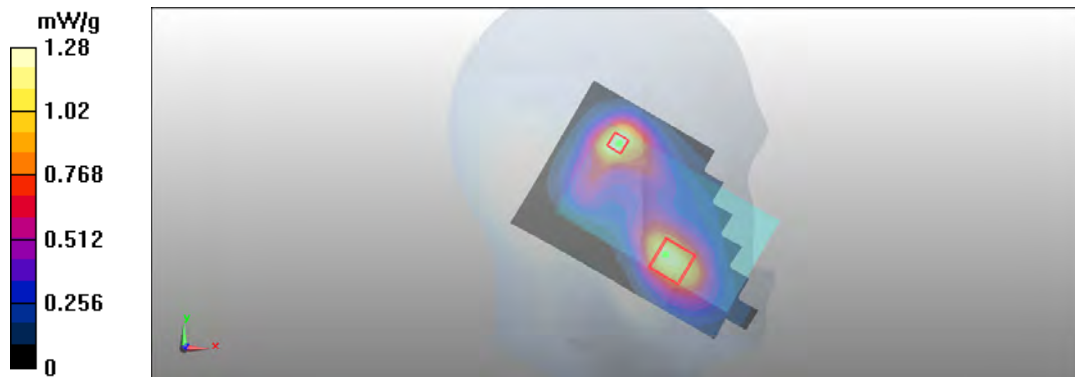
LTE4 - Left/Cheek - High - QPSK - 20MHz - 1 RB – 50% offset/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

WLAN b-mode - Left/Cheek - Middle/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.12 mW/g

SAR(10 g) = 0.632 mW/g

Maximum value of SAR (measured) = 1.28 mW/g



Date/Time: 2011-10-20 07:43:51, Date/Time: 2012-02-07 16:33:14

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2, Serial: 004402/13/683080/3

Communication System: 2-slot GPRS1900, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 1909.8 MHz, Frequency: 2437 MHz; Duty Cycle: 1:4.2, Duty Cycle: 1:1

Medium: HSL1900, Medium: HSL2450; Medium Notes: $t = 21.0$ C, Medium Notes: $t = 20.7$ C

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.4$ mho/m; $\epsilon_r = 39.6$; $\rho = 1000$ kg/m³, Medium parameters used:
 $f = 2437$ MHz; $\sigma = 1.8$ mho/m; $\epsilon_r = 37.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165, Probe: EX3DV4 - SN3790
- ConvF(5.03, 5.03, 5.03), ConvF(6.67, 6.67, 6.67); Calibrated: 2011-02-17, Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555, Electronics: DAE4 Sn538; Calibrated: 2011-02-22, Calibrated: 2011-09-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449, Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55, Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

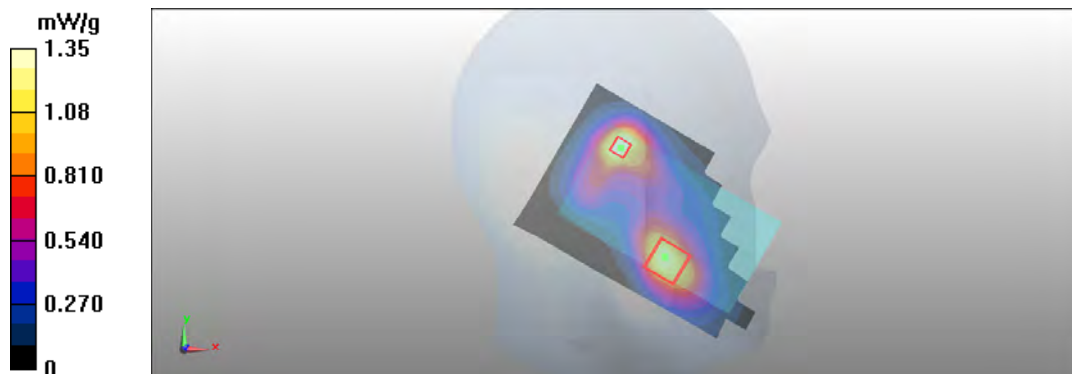
2-slot GPRS - Left/Cheek - High/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

WLAN b-mode - Left/Cheek - Middle/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.18 mW/g

SAR(10 g) = 0.649 mW/g

Maximum value of SAR (measured) = 1.35 mW/g



Date/Time: 2011-10-17 14:16:22, Date/Time: 2012-02-07 16:33:14

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1, Serial: 004402/13/683080/3

Communication System: WCDMA1900, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 1880 MHz, Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL1900, Medium: HSL2450; Medium Notes: $t = 21.0$ C, Medium Notes: $t = 20.7$ C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.41$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³, Medium parameters used:
 $f = 2437$ MHz; $\sigma = 1.8$ mho/m; $\epsilon_r = 37.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3165, Probe: EX3DV4 - SN3790
- ConvF(5.03, 5.03, 5.03), ConvF(6.67, 6.67, 6.67); Calibrated: 2011-02-17, Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555, Electronics: DAE4 Sn538; Calibrated: 2011-02-22, Calibrated: 2011-09-15
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1449, Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55, Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

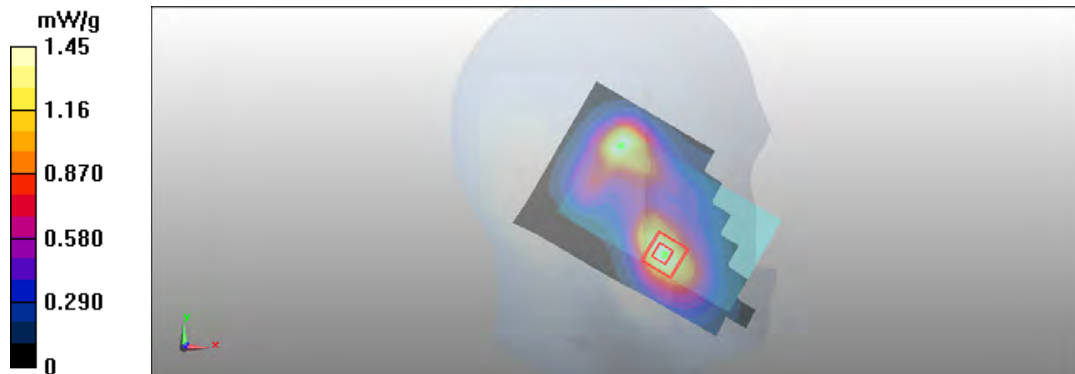
WCDMA - Left/Cheek - Middle/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

WLAN b-mode - Left/Cheek - Middle/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.31 mW/g

SAR(10 g) = 0.748 mW/g

Maximum value of SAR (measured) = 1.45 mW/g



Date/Time: 2011-11-04 13:22:07, Date/Time: 2012-02-08 16:30:04

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2, Serial: 004402/13/683080/3

Communication System: LTE700, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 709 MHz, Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL750, Medium: BSL2450; Medium Notes: $t = 20.2$ C, Medium Notes: $t = 20.8$ C

Medium parameters used: $f = 709$ MHz; $\sigma = 0.954$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³, Medium parameters used:
 $f = 2437$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn1213, Electronics: DAE4 Sn538; Calibrated: 2011-02-14, Calibrated: 2011-09-15
- Phantom: SAM 1, Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

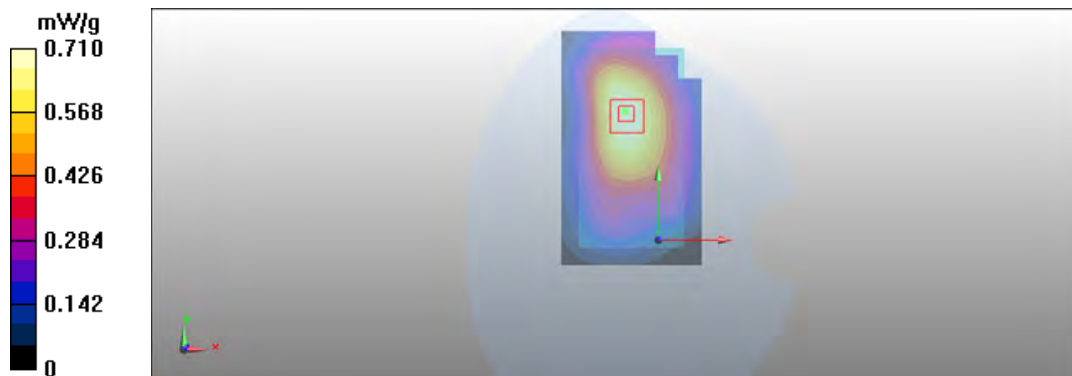
LTE/Body - Low - Spacer 15mm - No Accessory - Back Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

WLAN b-mode/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan (7x11x1):
Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.672 mW/g

SAR(10 g) = 0.478 mW/g

Maximum value of SAR (measured) = 0.710 mW/g



Date/Time: 2011-10-24 20:14:19, Date/Time: 2012-02-08 16:30:04

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2, Serial: 004402/13/683080/3

Communication System: 2-slot GPRS850, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 836.6 MHz, Frequency: 2437 MHz; Duty Cycle: 1:4.19952, Duty Cycle: 1:1

Medium: BSL850, Medium: BSL2450; Medium Notes: $t = 20.7$ C, Medium Notes: $t = 20.8$ C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.993$ mho/m; $\epsilon_r = 53.4$; $\rho = 1000$ kg/m³, Medium parameters used:
 $f = 2437$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn1213, Electronics: DAE4 Sn538; Calibrated: 2011-02-14, Calibrated: 2011-09-15
- Phantom: SAM 1, Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan (7x11x1):

Measurement grid: $dx=15$ mm, $dy=15$ mm

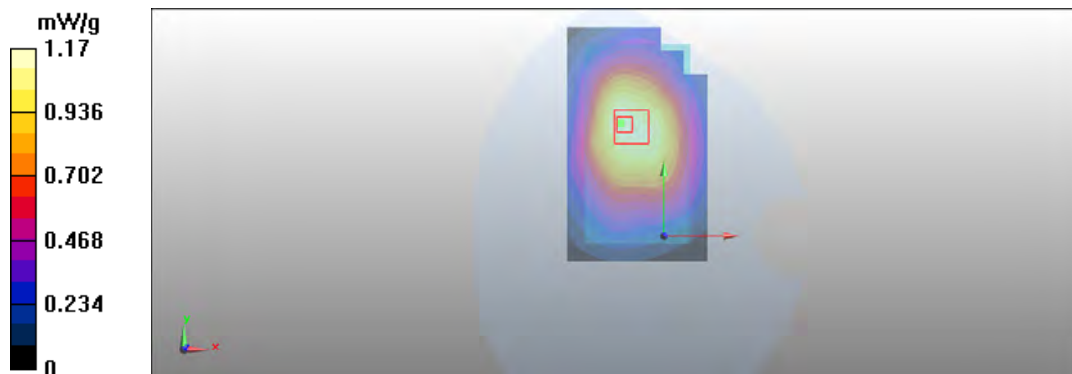
WLAN b-mode/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan (7x11x1):

Measurement grid: $dx=15$ mm, $dy=15$ mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.09 mW/g

SAR(10 g) = 0.775 mW/g

Maximum value of SAR (measured) = 1.17 mW/g



Date/Time: 2011-10-20 15:37:33, Date/Time: 2012-02-08 16:30:04

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1, Serial: 004402/13/683080/3

Communication System: WCDMA850, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 835 MHz, Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL850, Medium: BSL2450; Medium Notes: t= 21.0 C, Medium Notes: t= 20.8 C

Medium parameters used: f = 835 MHz; $\sigma = 1.02$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³, Medium parameters used:
f = 2437 MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn1213, Electronics: DAE4 Sn538; Calibrated: 2011-02-14, Calibrated: 2011-09-15
- Phantom: SAM 1, Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA/Body - Middle - Spacer 15mm - No accessory - Back Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

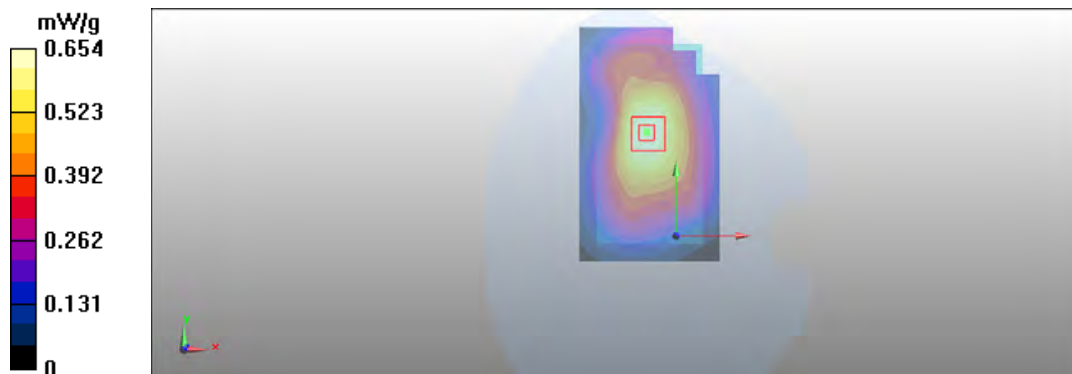
WLAN b-mode/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.619 mW/g

SAR(10 g) = 0.434 mW/g

Maximum value of SAR (measured) = 0.654 mW/g



Date/Time: 2011-10-19 07:29:21, Date/Time: 2012-02-08 18:10:28

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1, Serial: 004402/13/683080/3

Communication System: WCDMA1700/2100, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 1752.6 MHz, Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: BSL1800, Medium: BSL2450; Medium Notes: t= 20.5 C, Medium Notes: t= 20.8 C

Medium parameters used: f = 1753 MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 51.5$; $\rho = 1000$ kg/m³, Medium parameters used:
f = 2462 MHz; $\sigma = 1.99$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165, Probe: EX3DV4 - SN3790
- ConvF(4.91, 4.91, 4.91), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-02-17, Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn555, Electronics: DAE4 Sn538; Calibrated: 2011-02-22, Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55, Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA/Body - High - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

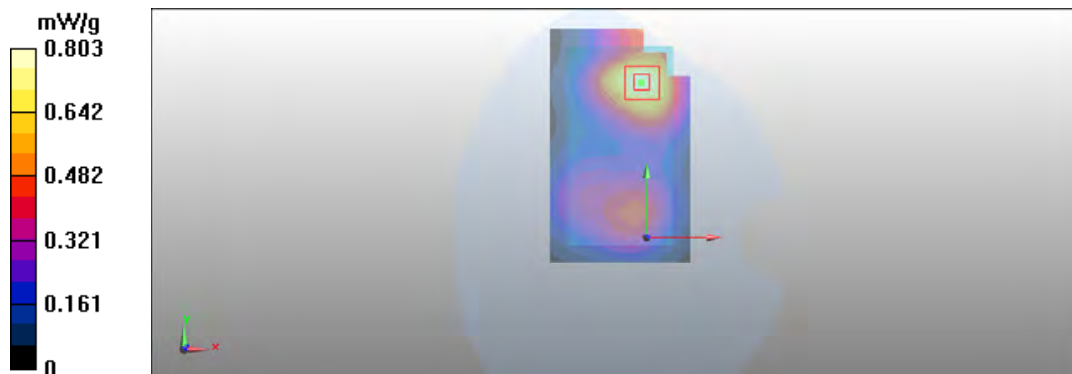
WLAN b-mode/Body - High - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.733 mW/g

SAR(10 g) = 0.450 mW/g

Maximum value of SAR (measured) = 0.803 mW/g



Date/Time: 2011-11-11 09:24:51, Date/Time: 2012-02-08 18:10:28

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683100/9, Serial: 004402/13/683080/3

Communication System: LTE1700/2100, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 1745 MHz; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: BSL1800, Medium: BSL2450; Medium Notes: t= 20.8 C

Medium parameters used: f = 1745 MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³, Medium parameters used:
f = 2462 MHz; $\sigma = 1.99$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165, Probe: EX3DV4 - SN3790
- ConvF(4.91, 4.91, 4.91), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-02-17, Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn555, Electronics: DAE4 Sn538; Calibrated: 2011-02-22, Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55, Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE/Body - High - Spacer 15mm - No Accessory - QPSK - 20MHz - 1 RB - 50% offset - Display Facing

Phantom/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

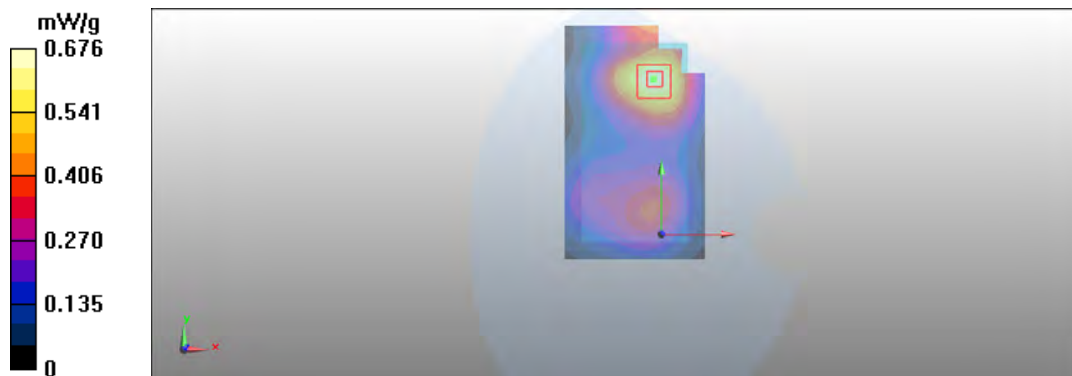
WLAN b-mode/Body - High - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.615 mW/g

SAR(10 g) = 0.378 mW/g

Maximum value of SAR (measured) = 0.676 mW/g



Date/Time: 2011-10-21 13:05:28, Date/Time: 2012-02-08 15:59:52

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2, Serial: 004402/13/683080/3

Communication System: 2-slot GPRS1900, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 1880 MHz, Frequency: 2437 MHz; Duty Cycle: 1:4.2, Duty Cycle: 1:1

Medium: BSL1900, Medium: BSL2450; Medium Notes: t= 21.0 C, Medium Notes: t= 20.8 C

Medium parameters used: f = 1880 MHz; $\sigma = 1.5 \text{ mho/m}$; $\epsilon_r = 52.6$; $\rho = 1000 \text{ kg/m}^3$, Medium parameters used:
f = 2437 MHz; $\sigma = 1.97 \text{ mho/m}$; $\epsilon_r = 50.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165, Probe: EX3DV4 - SN3790
- ConvF(4.61, 4.61, 4.61), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-02-17, Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555, Electronics: DAE4 Sn538; Calibrated: 2011-02-22, Calibrated: 2011-09-15
- Phantom: SAM 2, Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP - 1177, Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55, Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2- slot GPRS/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

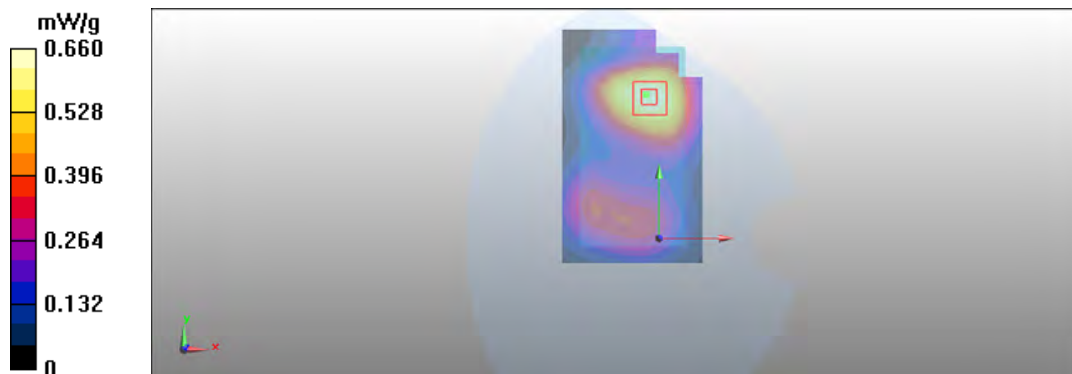
WLAN b-mode/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.612 mW/g

SAR(10 g) = 0.377 mW/g

Maximum value of SAR (measured) = 0.660 mW/g



Date/Time: 2011-10-19 15:49:13, Date/Time: 2012-02-08 18:10:28

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1, Serial: 004402/13/683080/3

Communication System: WCDMA1900, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 1852.4 MHz, Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: BSL1900, Medium: BSL2450; Medium Notes: t= 21.0 C, Medium Notes: t= 20.8 C

Medium parameters used (interpolated): f = 1852.4 MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 53.4$; $\rho = 1000$ kg/m³, Medium parameters used: f = 2462 MHz; $\sigma = 1.99$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165, Probe: EX3DV4 - SN3790
- ConvF(4.61, 4.61, 4.61), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-02-17, Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn555, Electronics: DAE4 Sn538; Calibrated: 2011-02-22, Calibrated: 2011-09-15
- Phantom: SAM 2, Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP - 1177, Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55, Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

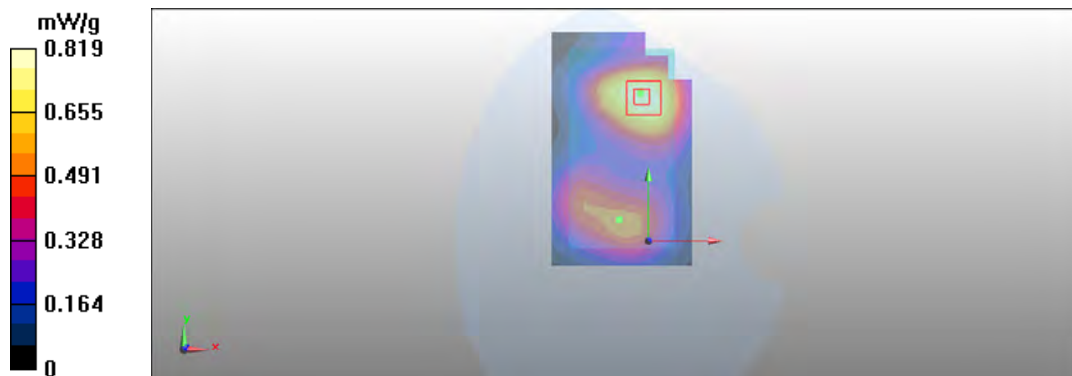
WCDMA/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

WLAN b-mode/Body - High - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.759 mW/g

SAR(10 g) = 0.470 mW/g

Maximum value of SAR (measured) = 0.819 mW/g



APPENDIX C: CONDUCTED AVERAGE POWER MEASUREMENTS FOR WCDMA AND HSUPA

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683467/2, HW: 0150, SW: 2130.0000.8070.11390

C.1. WCDMA850 Test results

Average power

Ch / f (MHz)	P [dBm]
4133	22.56
4175	22.73
4232	22.75

C.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
4133	21.46	20.61	21.43	20.91	21.37
4175	21.81	21.00	21.29	20.94	22.01
4232	21.16	20.38	21.26	20.76	21.98

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
1.5dB	2.0dB	1.0dB	2.0dB	0.0dB

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683421/9, HW: 0150, SW: 2130.0000.8070.11390

C.3. WCDMA1700/2100 Test results

Average power

Ch / f (MHz)	P [dBm]
1313	22.03
1450	22.32
1512	22.27

C.4. HSUPA1700/2100 Test results

Average power

Ch / f (MHz)	P [dBm]				
	Subtest mode 1	Subtest mode 2	Subtest mode 3	Subtest mode 4	Subtest mode 5
1313	21.33	20.52	21.33	20.56	22.19
1450	21.54	20.70	21.50	20.75	22.36
1512	21.78	20.84	21.15	20.81	22.35

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
1.5dB	2.0dB	1.0dB	2.0dB	0.0dB

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683467/2, HW: 0150, SW: 2130.0000.8070.11390

C.5. WCDMA1900 Test results

Average power

Ch / f (MHz)	P [dBm]
9263	22.14
9400	22.38
9537	22.32

C.6. 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
9263	21.34	20.44	21.14	20.72	21.11
9400	21.62	20.62	21.24	21.51	21.78
9537	21.32	20.97	21.07	21.23	22.04

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
1.5dB	2.0dB	1.0dB	2.0dB	0.0dB

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



Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Nokia Salo TCC**

Certificate No: **ES3-3131_Sep11**

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: **September 14, 2011**

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-10 (No. ES3-3013_Dec10)	Dec-11
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 Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-10)	In house check: Oct-11

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: September 15, 2011

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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	6.10	6.10	6.10	0.80	1.00	± 12.0 %
835	41.5	0.90	5.88	5.88	5.88	0.80	1.31	± 12.0 %
1750	40.1	1.37	5.14	5.14	5.14	0.80	1.25	± 12.0 %
1900	40.0	1.40	4.92	4.92	4.92	0.80	1.25	± 12.0 %
2450	39.2	1.80	4.32	4.32	4.32	0.79	1.25	± 12.0 %
2600	39.0	1.96	4.21	4.21	4.21	0.76	1.30	± 12.0 %

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

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

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	5.97	5.97	5.97	0.80	1.00	± 12.0 %
835	55.2	0.97	5.92	5.92	5.92	0.80	1.34	± 12.0 %
1750	53.4	1.49	4.64	4.64	4.64	0.80	1.35	± 12.0 %
1900	53.3	1.52	4.44	4.44	4.44	0.80	1.28	± 12.0 %
2450	52.7	1.95	4.07	4.07	4.07	0.80	1.17	± 12.0 %
2600	52.5	2.16	3.97	3.97	3.97	0.80	1.00	± 12.0 %

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

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



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Accreditation No.: **SCS 108**

Client **Nokia Salo TCC**

Certificate No: **ES3-3194_Sep11**

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: **September 14, 2011**

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-10 (No. ES3-3013_Dec10)	Dec-11
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 Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-10)	In house check: Oct-11

Calibrated by:	Name Jeton Kastrati	Function Laboratory Technician	Signature
Approved by:	Name Katja Pokovic	Function Technical Manager	Signature

Issued: September 15, 2011

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	6.27	6.27	6.27	0.80	1.00	± 12.0 %
835	41.5	0.90	6.05	6.05	6.05	0.80	1.00	± 12.0 %
1750	40.1	1.37	5.29	5.29	5.29	0.80	1.27	± 12.0 %
1900	40.0	1.40	5.10	5.10	5.10	0.80	1.27	± 12.0 %
2450	39.2	1.80	4.43	4.43	4.43	0.80	1.29	± 12.0 %
2600	39.0	1.96	4.33	4.33	4.33	0.77	1.36	± 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	6.15	6.15	6.15	0.80	1.00	± 12.0 %
835	55.2	0.97	6.08	6.08	6.08	0.80	1.00	± 12.0 %
1750	53.4	1.49	4.76	4.76	4.76	0.80	1.32	± 12.0 %
1900	53.3	1.52	4.59	4.59	4.59	0.80	1.33	± 12.0 %
2450	52.7	1.95	4.19	4.19	4.19	0.80	1.00	± 12.0 %
2600	52.5	2.16	4.08	4.08	4.08	0.80	1.25	± 12.0 %

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

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



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Accreditation No.: SCS 108

Client **Nokia Salo TCC** Certificate No: **ES3-3165_Feb11**

CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3165**

Calibration procedure(s) **QA CAL-01.v7, QA CAL-23.v4, QA CAL-25.v3
Calibration procedure for dosimetric E-field probes**

Calibration date: **February 17, 2011**

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	01-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41495277	01-Apr-10 (No. 217-01136)	Apr-11
Power sensor E4412A	MY41498087	01-Apr-10 (No. 217-01136)	Apr-11
Reference 3 dB Attenuator	SN: S5054 (3c)	30-Mar-10 (No. 217-01159)	Mar-11
Reference 20 dB Attenuator	SN: S5086 (20b)	30-Mar-10 (No. 217-01161)	Mar-11
Reference 30 dB Attenuator	SN: S5129 (30b)	30-Mar-10 (No. 217-01160)	Mar-11
Reference Probe ES3DV2	SN: 3013	29-Dec-10 (No. ES3-3013_Dec10)	Dec-11
DAE4	SN: 654	23-Apr-10 (No. DAE4-654_Apr10)	Apr-11
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-10)	In house check: Oct-11

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: February 22, 2011

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

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unci. (k=2)
835	41.5	0.90	6.09	6.09	6.09	0.43	1.44	± 12.0 %
1750	40.1	1.37	5.19	5.19	5.19	0.35	1.84	± 12.0 %
1900	40.0	1.40	5.03	5.03	5.03	0.64	1.34	± 12.0 %
2450	39.2	1.80	4.44	4.44	4.44	0.79	1.13	± 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:3165

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
835	55.2	0.97	6.04	6.04	6.04	0.50	1.43	± 12.0 %
1750	53.4	1.49	4.91	4.91	4.91	0.36	2.50	± 12.0 %
1900	53.3	1.52	4.61	4.61	4.61	0.34	2.38	± 12.0 %
2450	52.7	1.95	4.18	4.18	4.18	0.79	0.83	± 12.0 %

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

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



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Accreditation No.: SCS 108

Client Nokia Salo TCC

Certificate No: EX3-3790_May11

CALIBRATION CERTIFICATE

Object EX3DV4 - SN:3790

Calibration procedure(s) QA CAL-01.v7, QA CAL-23.v4, QA CAL-25.v3
Calibration procedure for dosimetric E-field probes

Calibration date: May 24, 2011

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-10 (No. ES3-3013_Dec10)	Dec-11
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 Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-10)	In house check: Oct-11

Calibrated by:	Name Jeton Kastrati	Function Laboratory Technician	Signature
Approved by:	Name Katja Pokovic	Function Technical Manager	Signature

Issued: May 27, 2011

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

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3790

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	8.74	8.74	8.74	0.80	0.72	± 12.0 %
835	41.5	0.90	8.49	8.49	8.49	0.80	0.69	± 12.0 %
1750	40.1	1.37	7.49	7.49	7.49	0.80	0.59	± 12.0 %
1900	40.0	1.40	7.25	7.25	7.25	0.80	0.59	± 12.0 %
2450	39.2	1.80	6.67	6.67	6.67	0.75	0.59	± 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: EX3DV4- SN:3790

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	8.57	8.57	8.57	0.80	0.74	± 12.0 %
835	55.2	0.97	8.39	8.39	8.39	0.80	0.75	± 12.0 %
1750	53.4	1.49	7.72	7.72	7.72	0.80	0.72	± 12.0 %
1900	53.3	1.52	7.32	7.32	7.32	0.80	0.71	± 12.0 %
2450	52.7	1.95	6.85	6.85	6.85	0.80	0.58	± 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 E: RELEVANT PAGES FROM DIPOLE VALIDATION KIT REPORT(S)



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Accreditation No.: SCS 108

Client Nokia Salo TCC

Certificate No: D750V3-1034_Jul11

CALIBRATION CERTIFICATE

Object D750V3 - SN:1034

Calibration procedure(s) QA CAL-05.v8
Calibration procedure for dipole validation kits above 700 MHz

Calibration date: July 07, 2011

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 EPM-442A	GB37480704	06-Oct-10 (No. 217-01266)	Oct-11
Power sensor HP 8481A	US37292783	06-Oct-10 (No. 217-01266)	Oct-11
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-11 (No. 217-01367)	Apr-12
Type-N mismatch combination	SN: 5047.2 / 06327	29-Mar-11 (No. 217-01371)	Apr-12
Reference Probe ES3DV3	SN: 3205	29-Apr-11 (No. ES3-3205_Apr11)	Apr-12
DAE4	SN: 601	04-Jul-11 (No. DAE4-601_Jul11)	Jul-12
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-09)	In house check: Oct-11
RF generator R&S SMT-06	100005	04-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-10)	In house check: Oct-11

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

Issued: July 11, 2011

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Test Laboratory: SPEAG, Zurich, Switzerland

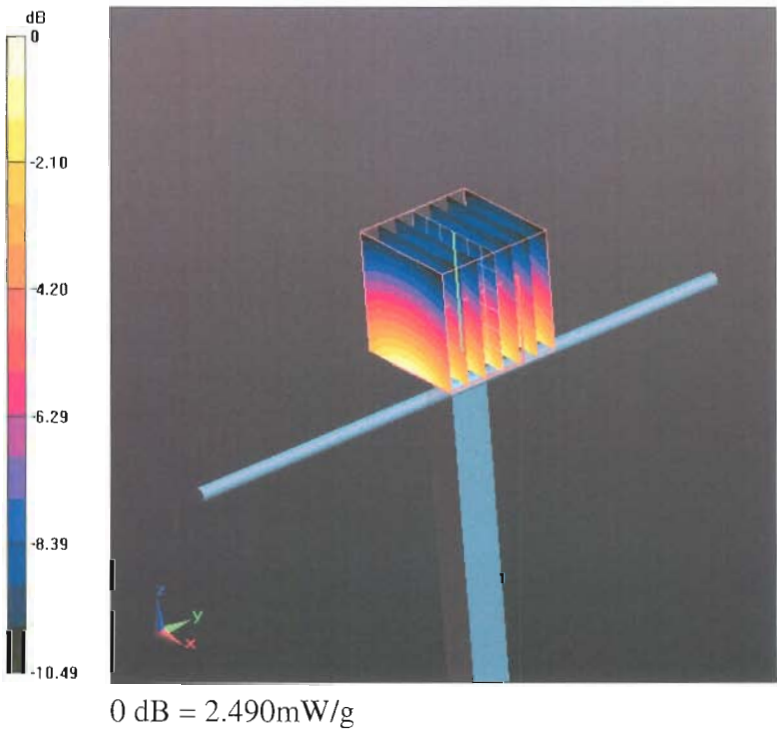
DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1034

Communication System: CW; Frequency: 750 MHz
Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.91 \text{ mho/m}$; $\epsilon_r = 41.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.33, 6.33, 6.33); Calibrated: 29.04.2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.6.2(482); SEMCAD X 14.4.5(3634)

Dipole Calibration for Head Tissue/Pin=250mW; dip=15mm; dist=3.0mm/Zoom Scan
(7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 53.065 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.205 W/kg
SAR(1 g) = 2.12 mW/g; SAR(10 g) = 1.39 mW/g
Maximum value of SAR (measured) = 2.487 mW/g



Test Laboratory: SPEAG, Zurich, Switzerland

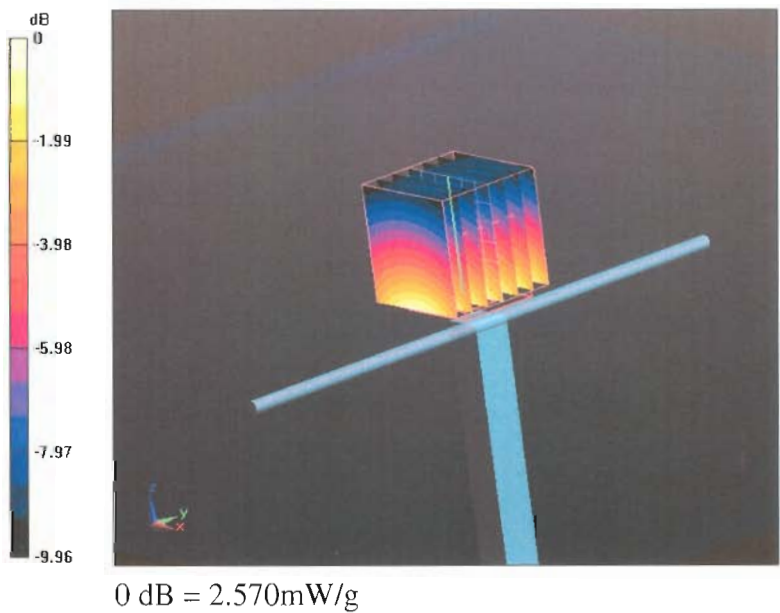
DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1034

Communication System: CW; Frequency: 750 MHz
Medium parameters used: $f = 750 \text{ MHz}$; $\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 55.2$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.12, 6.12, 6.12); Calibrated: 29.04.2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.6.2(482); SEMCAD X 14.4.5(3634)

Dipole Calibration for Body Tissue/Pin=250mW; dip=15mm; dist=3.0mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 51.234 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 3.265 W/kg
SAR(1 g) = 2.2 mW/g; SAR(10 g) = 1.45 mW/g
Maximum value of SAR (measured) = 2.566 mW/g





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Accreditation No.: SCS 108

Client **Nokia Salo TCC** Certificate No: **D835V2-462_Sep11**

CALIBRATION CERTIFICATE

Object	D835V2 - SN: 462		
Calibration procedure(s)	QA CAL-05.v8 Calibration procedure for dipole validation kits above 700 MHz		
Calibration date:	September 13, 2011		
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 EPM-442A	GB37480704	06-Oct-10 (No. 217-01266)	Oct-11
Power sensor HP 8481A	US37292783	06-Oct-10 (No. 217-01266)	Oct-11
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-11 (No. 217-01367)	Apr-12
Type-N mismatch combination	SN: 5047.2 / 06327	29-Mar-11 (No. 217-01371)	Apr-12
Reference Probe ES3DV3	SN: 3205	29-Apr-11 (No. ES3-3205_Apr11)	Apr-12
DAE4	SN: 601	04-Jul-11 (No. DAE4-601_Jul11)	Jul-12
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-09)	In house check: Oct-11
RF generator R&S SMT-06	100005	04-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-10)	In house check: Oct-11
Calibrated by:	Name Dimce Iliev	Function Laboratory Technician	Signature
Approved by:	Katja Pokovic	Technical Manager	
			Issued: September 13, 2011
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 462

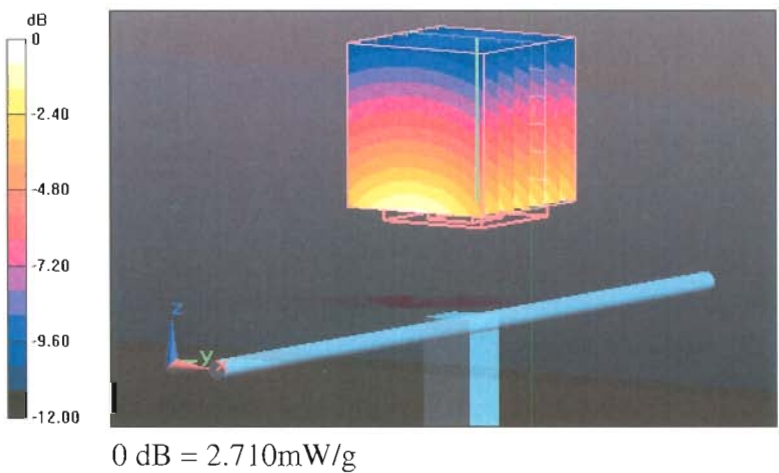
Communication System: CW; Frequency: 835 MHz
Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 41.1$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.07, 6.07, 6.07); Calibrated: 29.04.2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.6.2(482); SEMCAD X 14.4.5(3634)

Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 56.987 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.423 W/kg
SAR(1 g) = 2.33 mW/g; SAR(10 g) = 1.52 mW/g
Maximum value of SAR (measured) = 2.708 mW/g



Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 462

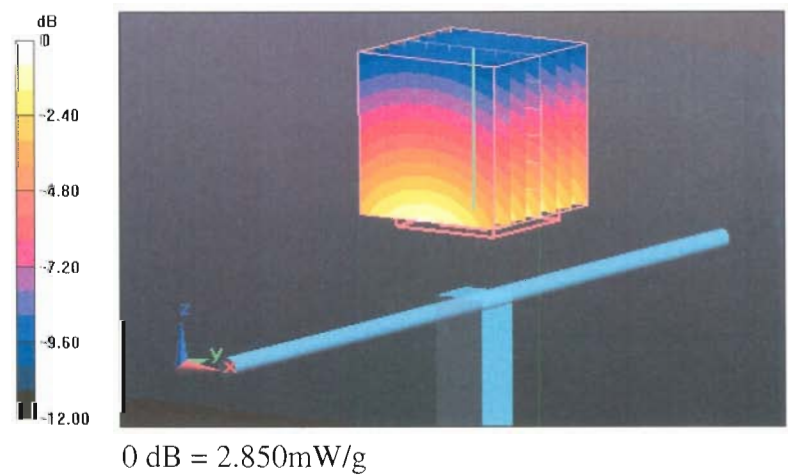
Communication System: CW; Frequency: 835 MHz
Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 53.5$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.02, 6.02, 6.02); Calibrated: 29.04.2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.6.2(482); SEMCAD X 14.4.5(3634)

Dipole Calibration for Body Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 55.464 V/m; Power Drift = 0.0033 dB
Peak SAR (extrapolated) = 3.540 W/kg
SAR(1 g) = 2.45 mW/g; SAR(10 g) = 1.61 mW/g
Maximum value of SAR (measured) = 2.851 mW/g





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: **D1800V2-256_Oct09**

CALIBRATION CERTIFICATE

Object **D1800V2 - SN: 256**

Calibration procedure(s) **QA CAL-05.v7**
Calibration procedure for dipole validation kits

Calibration date: **October 20, 2009**

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 EPM-442A	GB37480704	06-Oct-09 (No. 217-01086)	Oct-10
Power sensor HP 8481A	US37292783	06-Oct-09 (No. 217-01086)	Oct-10
Reference 20 dB Attenuator	SN: 5086 (20g)	31-Mar-09 (No. 217-01025)	Mar-10
Type-N mismatch combination	SN: 5047.2 / 06327	31-Mar-09 (No. 217-01029)	Mar-10
Reference Probe ES3DV3	SN: 3205	26-Jun-09 (No. ES3-3205_Jun09)	Jun-10
DAE4	SN: 601	07-Mar-09 (No. DAE4-601_Mar09)	Mar-10

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-09)	In house check: Oct-11
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-09)	In house check: Oct-10

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	

Approved by:	Katja Pokovic	Technical Manager
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Issued: October 21, 2009

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

DASY5 Validation Report for Head TSL

Date/Time: 20.10.2009 10:26:59

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:256

Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: HSL U11 BB

Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.4 \text{ mho/m}$; $\epsilon_r = 40$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(5.25, 5.25, 5.25); Calibrated: 26.06.2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 07.03.2009
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- Measurement SW: DASY5, V5.2 Build 157; SEMCAD X Version 14.0 Build 57

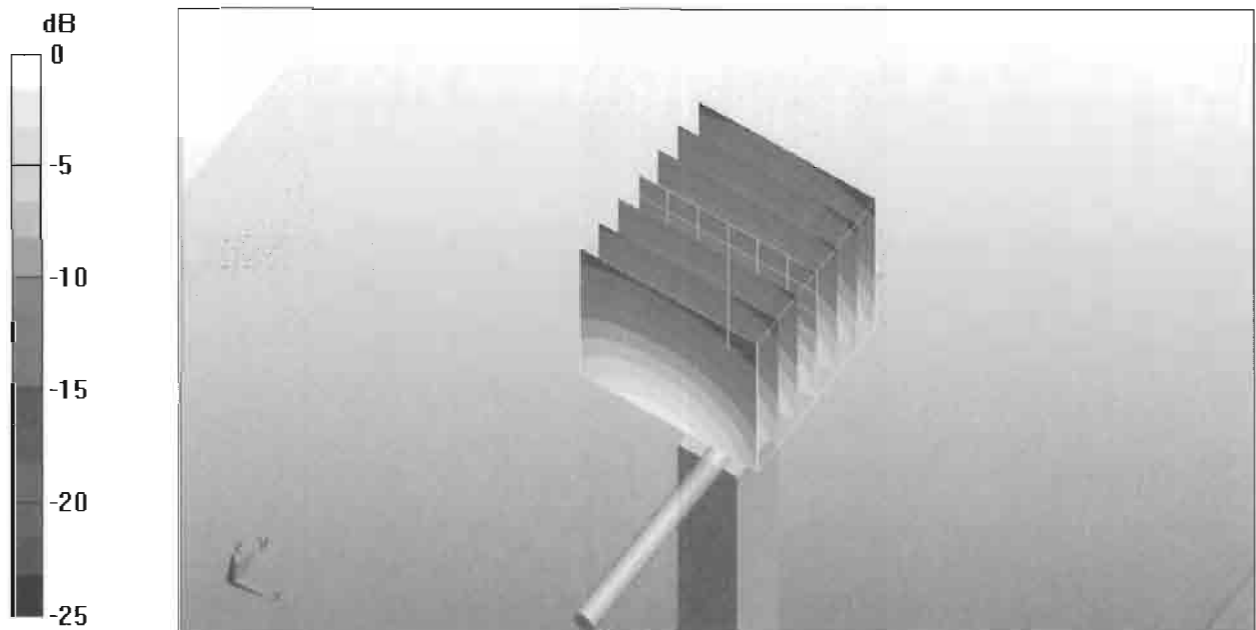
Pin=250 mW /d=10mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 97.2 V/m; Power Drift = 0.025 dB

Peak SAR (extrapolated) = 17.9 W/kg

SAR(1 g) = 9.9 mW/g; SAR(10 g) = 5.21 mW/g

Maximum value of SAR (measured) = 12.4 mW/g



0 dB = 12.4mW/g

DASY5 Validation Report for Body

Date/Time: 20.10.2009 14:52:33

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:256

Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: MSL U10 BB

Medium parameters used: $f = 1800$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.8, 4.8, 4.8); Calibrated: 26.06.2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 07.03.2009
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- Measurement SW: DASY5, V5.2 Build 157; SEMCAD X Version 14.0 Build 57

Pin250 mW /d=10mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7)/Cube 0: Measurement

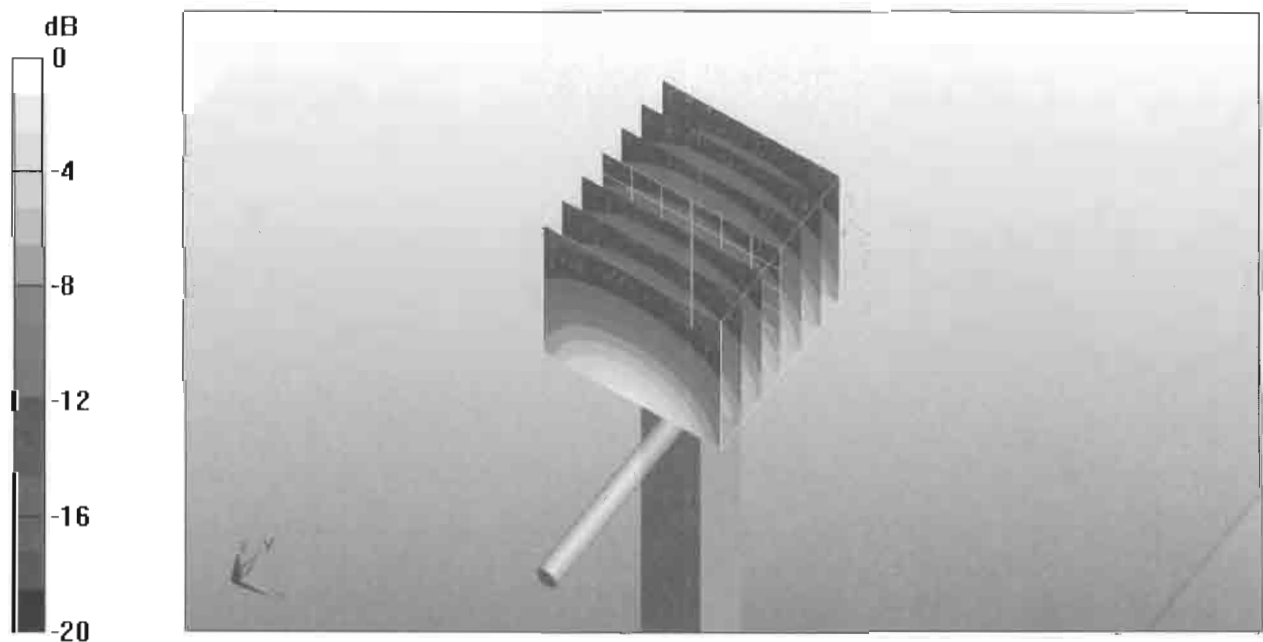
grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 94.2 V/m; Power Drift = 0.020 dB

Peak SAR (extrapolated) = 16.8 W/kg

SAR(1 g) = 9.61 mW/g; SAR(10 g) = 5.07 mW/g

Maximum value of SAR (measured) = 12.2 mW/g



0 dB = 12.2mW/g



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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Client Nokia Salo TCC

Certificate No: D1800V2-2d065_Sep11

CALIBRATION CERTIFICATE

Object D1800V2 - SN: 2d065

Calibration procedure(s) QA CAL-05.v8
Calibration procedure for dipole validation kits above 700 MHz

Calibration date: September 15, 2011

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 EPM-442A	GB37480704	06-Oct-10 (No. 217-01266)	Oct-11
Power sensor HP 8481A	US37292783	06-Oct-10 (No. 217-01266)	Oct-11
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-11 (No. 217-01367)	Apr-12
Type-N mismatch combination	SN: 5047.2 / 06327	29-Mar-11 (No. 217-01371)	Apr-12
Reference Probe ES3DV3	SN: 3205	29-Apr-11 (No. ES3-3205_Apr11)	Apr-12
DAE4	SN: 601	04-Jul-11 (No. DAE4-601_Jul11)	Jul-12
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-09)	In house check: Oct-11
RF generator R&S SMT-06	100005	04-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-10)	In house check: Oct-11

Calibrated by: Dimce Iliev Laboratory Technician

Approved by: Katja Pokovic Technical Manager

Issued: September 15, 2011

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Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN: 2d065

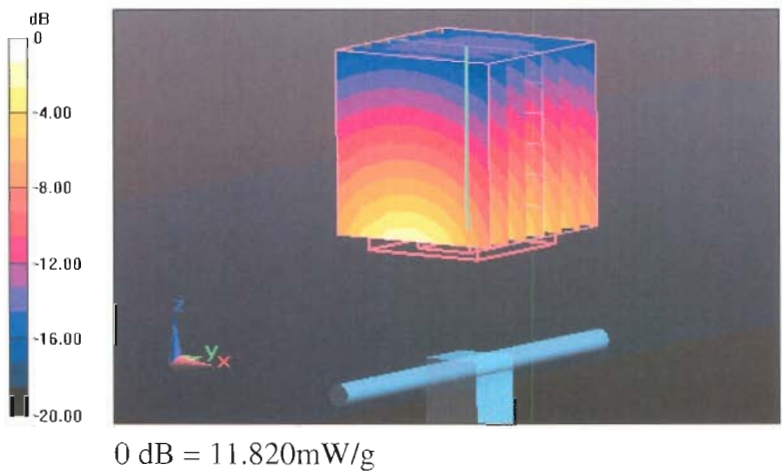
Communication System: CW; Frequency: 1800 MHz
Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.37 \text{ mho/m}$; $\epsilon_r = 39.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(5.07, 5.07, 5.07); Calibrated: 29.04.2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.6.2(482); SEMCAD X 14.4.5(3634)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 96.966 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 16.764 W/kg
SAR(1 g) = 9.43 mW/g; SAR(10 g) = 4.98 mW/g
Maximum value of SAR (measured) = 11.819 mW/g



Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN: 2d065

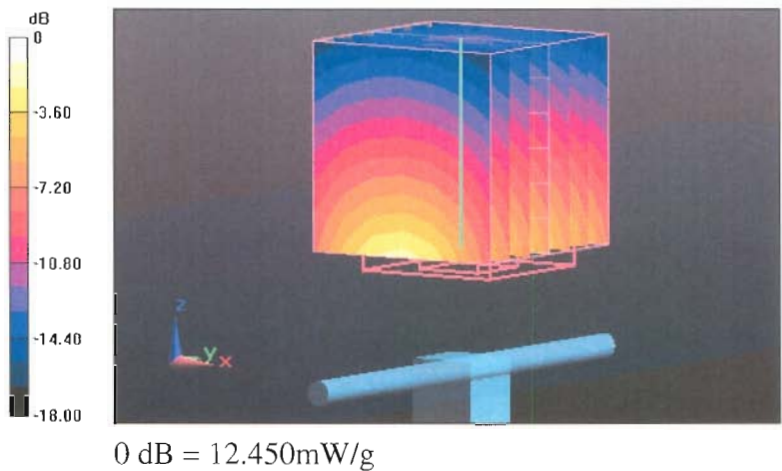
Communication System: CW; Frequency: 1800 MHz
Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.52 \text{ mho/m}$; $\epsilon_r = 54.3$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.74, 4.74, 4.74); Calibrated: 29.04.2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- DASY52 52.6.2(482); SEMCAD X 14.4.5(3634)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 94.166 V/m; Power Drift = -0.004 dB
Peak SAR (extrapolated) = 17.264 W/kg
SAR(1 g) = 9.86 mW/g; SAR(10 g) = 5.25 mW/g
Maximum value of SAR (measured) = 12.449 mW/g





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Accreditation No.: **SCS 108**

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Client **Nokia Salo TCC**

Certificate No: **D1900V2-5d013_Mar10**

CALIBRATION CERTIFICATE

Object **D1900V2 - SN: 5d013**

Calibration procedure(s) **QA CAL-05.v7
 Calibration procedure for dipole validation kits**

Calibration date: **March 23, 2010**

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 EPM-442A	GB37480704	06-Oct-09 (No. 217-01086)	Oct-10
Power sensor HP 8481A	US37292783	06-Oct-09 (No. 217-01086)	Oct-10
Reference 20 dB Attenuator	SN: 5086 (20g)	31-Mar-09 (No. 217-01025)	Mar-10
Type-N mismatch combination	SN: 5047.2 / 06327	31-Mar-09 (No. 217-01029)	Mar-10
Reference Probe ES3DV3	SN: 3205	26-Jun-09 (No. ES3-3205_Jun09)	Jun-10
DAE4	SN: 601	02-Mar-10 (No. DAE4-601_Mar10)	Mar-11
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-09)	In house check: Oct-11
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-09)	In house check: Oct-10

Calibrated by: **Dinco Iliev** Name: **Dinco Iliev** Function: **Laboratory Technician** Signature: *[Signature]*

Approved by: **Katja Pokovic** Name: **Katja Pokovic** Function: **Technical Manager** Signature: *[Signature]*

Issued: March 23, 2010

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

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	51.7 Ω + 6.5 j Ω
Return Loss	- 23.7 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	47.7 Ω + 7.0 j Ω
Return Loss	- 22.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.195 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	April 30, 2002

DASY5 Validation Report for Head TSL

Date/Time: 23.03.2010 10:16:39

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d013

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

Medium: HSL U11 BB

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(5.09, 5.09, 5.09); Calibrated: 26.06.2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 02.03.2010
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- Measurement SW: DASY5, V5.2 Build 157; SEMCAD X Version 14.0 Build 57

Pin=250 mW /d=10mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7) /Cube 0: Measurement

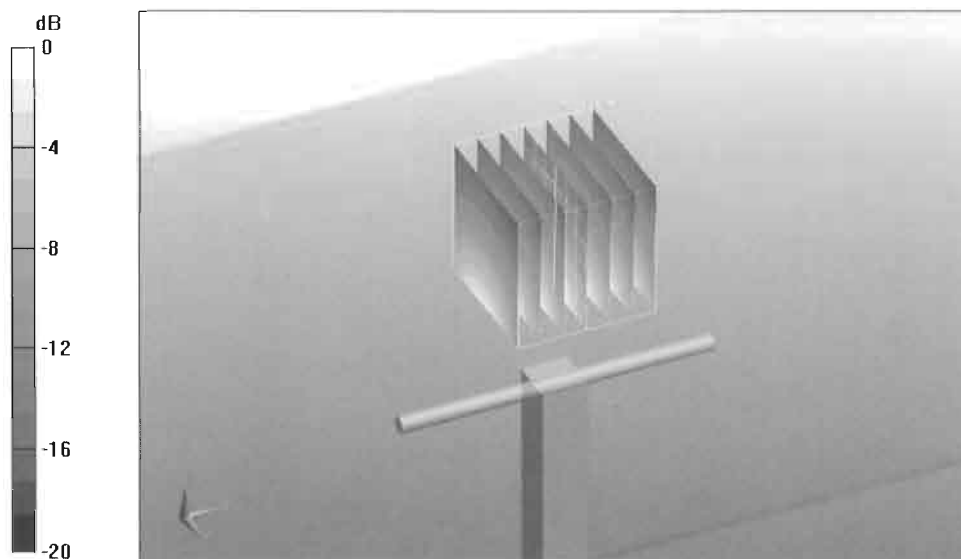
grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 96.4 V/m; Power Drift = 0.028 dB

Peak SAR (extrapolated) = 18.5 W/kg

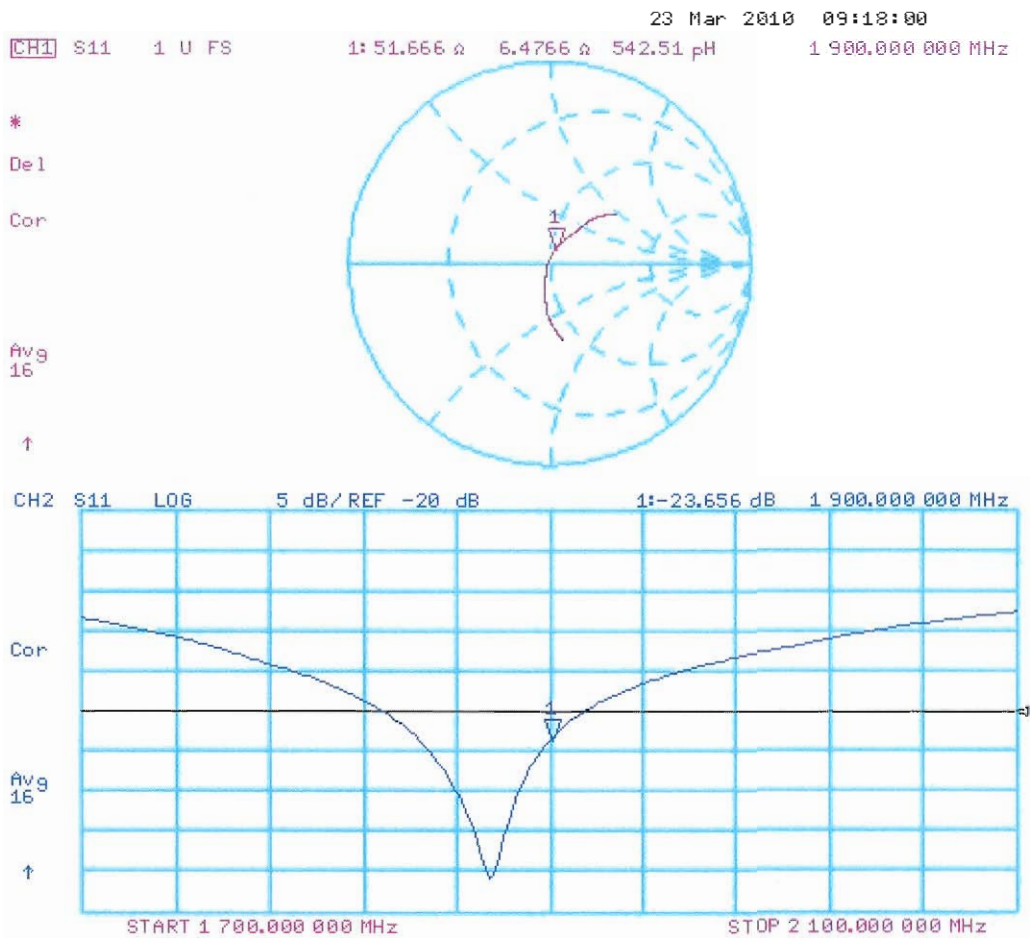
SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.32 mW/g

Maximum value of SAR (measured) = 12.6 mW/g



0 dB = 12.6mW/g

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body

Date/Time: 23.03.2010 13:12:18

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d013

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

Medium: MSL U11 BB

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.58$ mho/m; $\epsilon_r = 55$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.59, 4.59, 4.59); Calibrated: 26.06.2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 02.03.2010
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- Measurement SW: DASY5, V5.2 Build 157; SEMCAD X Version 14.0 Build 57

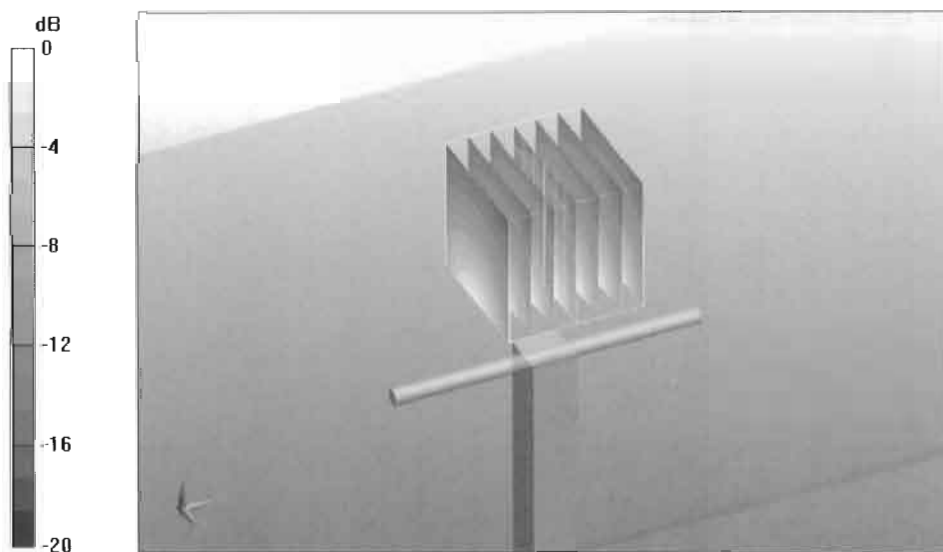
Pin250 mW /d=10mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7) /Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 94.9 V/m; Power Drift = 0.00956 dB

Peak SAR (extrapolated) = 17.5 W/kg

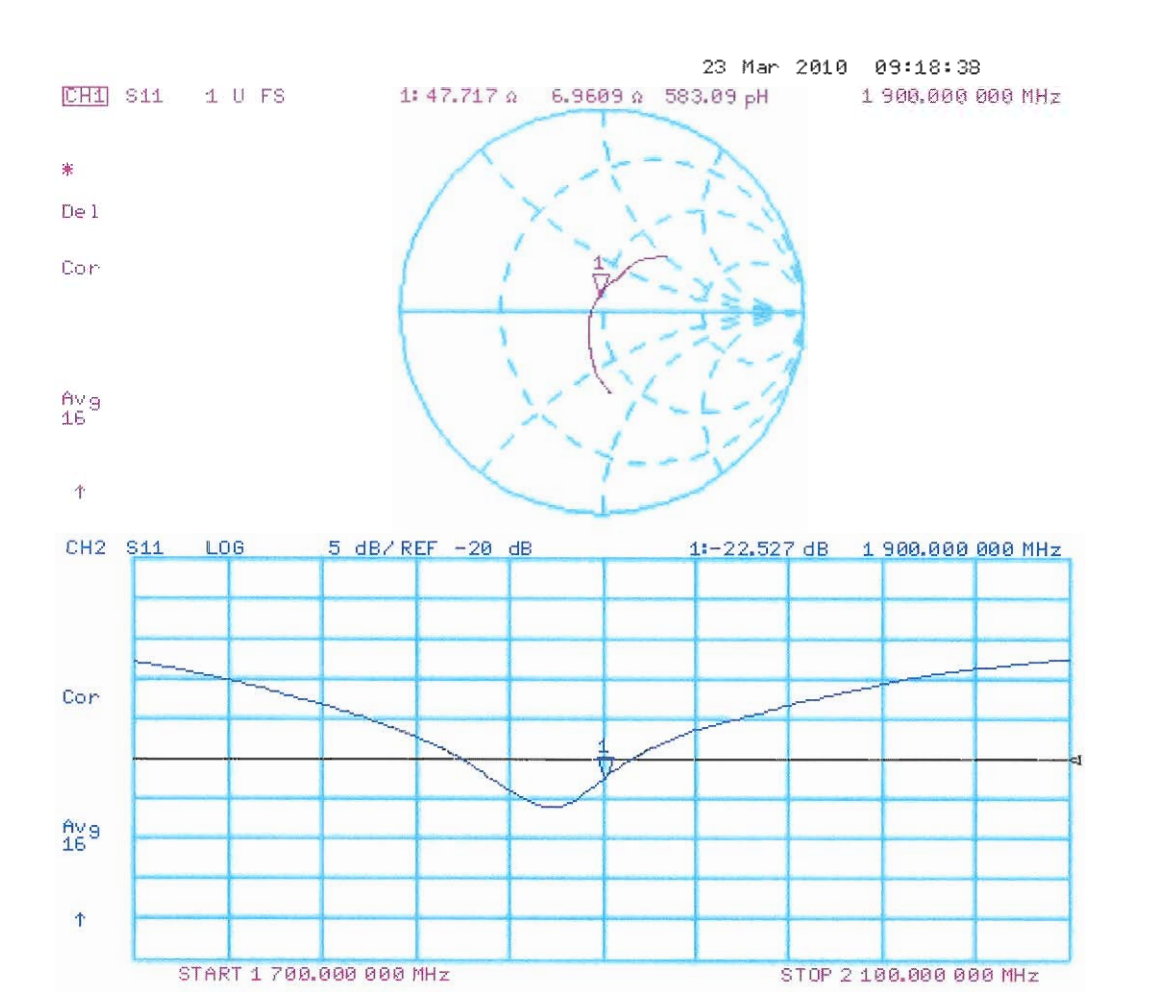
SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.58 mW/g

Maximum value of SAR (measured) = 12.7 mW/g



0 dB = 12.7mW/g

Impedance Measurement Plot for Body TSL



Dipole D1900V2 – SN: 5d013 Antenna Parameters

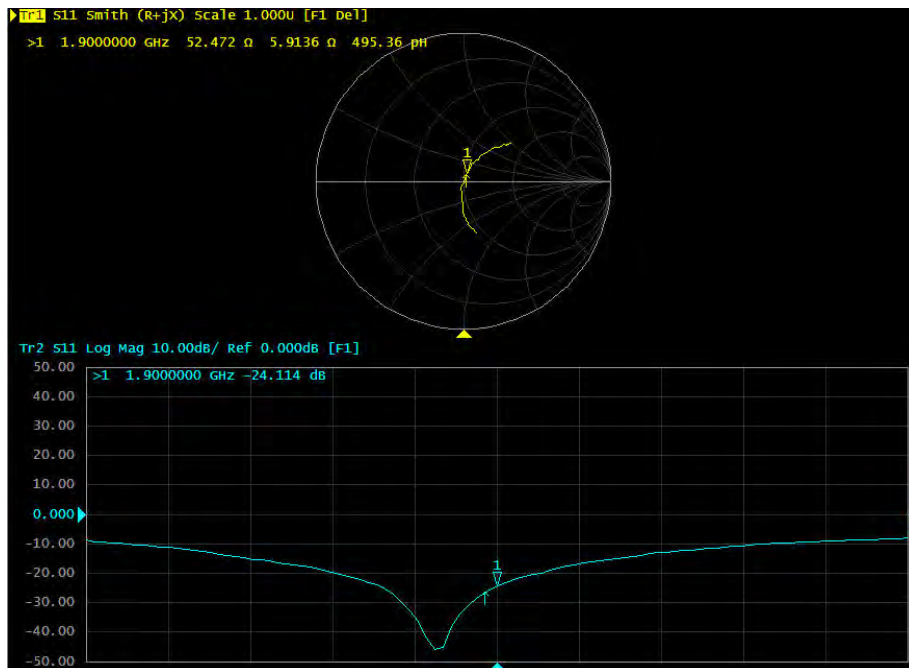
Antenna Parameters with Head TSL

	Calibration certificate	Annual measurement 2012-02-27
Impedance, transformed to feed point	51.7 Ω + 6.5 j Ω	52.5 Ω + 5.9 j Ω
Return loss	-23.7 dB	-24.1 dB

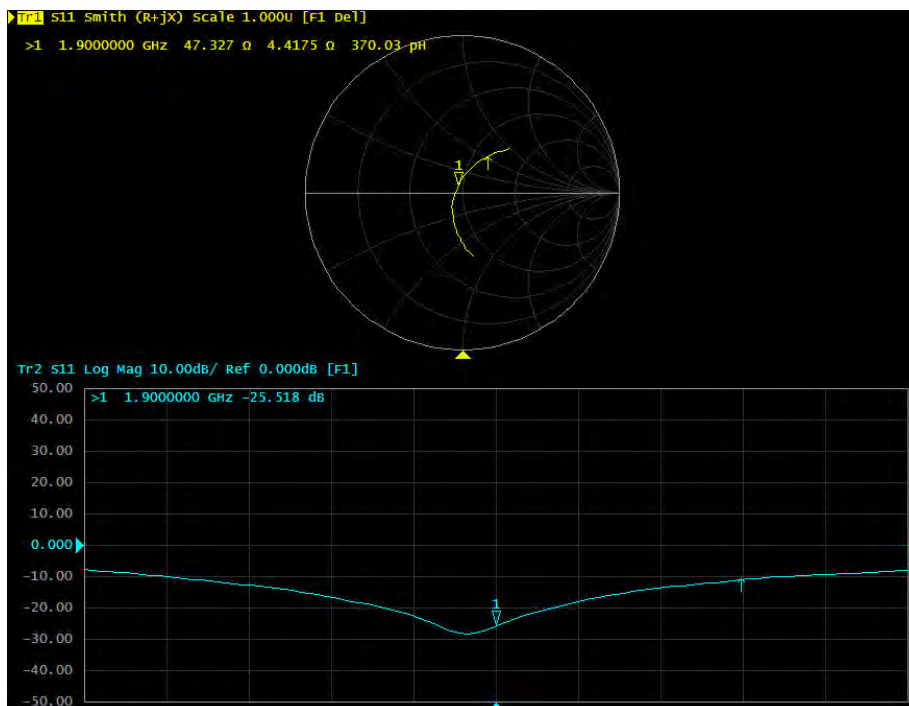
Antenna Parameters with Body TSL

	Calibration certificate	Annual measurement 2012-02-27
Impedance, transformed to feed point	47.7 Ω + 7.0 j Ω	47.3 Ω + 4.4 j Ω
Return loss	-22.5 dB	-25.5 dB

Impedance Measurement Plot for Head TSL 1900



Impedance Measurement Plot for Body TSL 1900





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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Client **Nokia Salo TCC** Certificate No: **D2450V2-729_Sep11**

CALIBRATION CERTIFICATE

Object **D2450V2 - SN: 729**

Calibration procedure(s) **QA CAL-05.v8
Calibration procedure for dipole validation kits above 700 MHz**

Calibration date: **September 13, 2011**

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 EPM-442A	GB37480704	06-Oct-10 (No. 217-01266)	Oct-11
Power sensor HP 8481A	US37292783	06-Oct-10 (No. 217-01266)	Oct-11
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-11 (No. 217-01367)	Apr-12
Type-N mismatch combination	SN: 5047.2 / 06327	29-Mar-11 (No. 217-01371)	Apr-12
Reference Probe ES3DV3	SN: 3205	29-Apr-11 (No. ES3-3205_Apr11)	Apr-12
DAE4	SN: 601	04-Jul-11 (No. DAE4-601_Jul11)	Jul-12
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-09)	In house check: Oct-11
RF generator R&S SMT-06	100005	04-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-10)	In house check: Oct-11

	Name	Function	Signature
Calibrated by:	Dimce Iliev	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: September 13, 2011

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

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 729

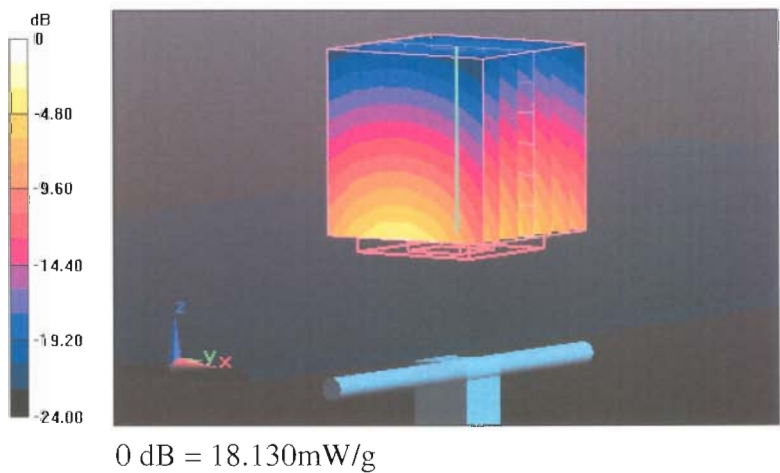
Communication System: CW; Frequency: 2450 MHz
Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.85 \text{ mho/m}$; $\epsilon_r = 38.3$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.45, 4.45, 4.45); Calibrated: 29.04.2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.6.2(482); SEMCAD X 14.4.5(3634)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 102.5 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 28.852 W/kg
SAR(1 g) = 13.9 mW/g; SAR(10 g) = 6.45 mW/g
Maximum value of SAR (measured) = 18.134 mW/g



Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 729

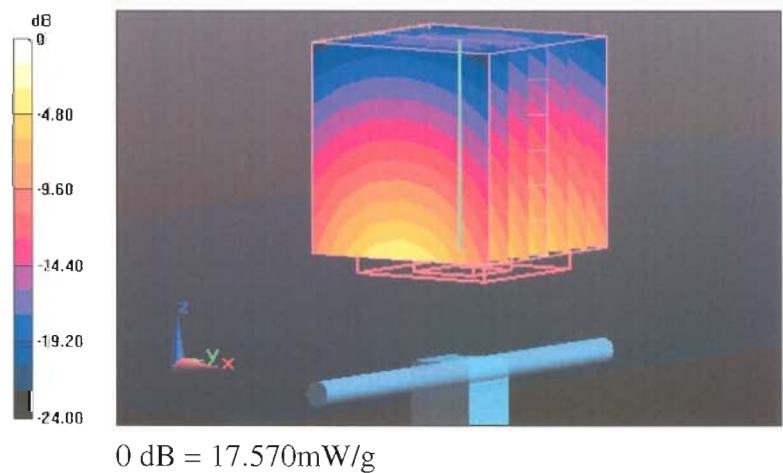
Communication System: CW; Frequency: 2450 MHz
Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 2.04 \text{ mho/m}$; $\epsilon_r = 51.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.26, 4.26, 4.26); Calibrated: 29.04.2011
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.07.2011
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- DASY52 52.6.2(482); SEMCAD X 14.4.5(3634)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 96.035 V/m; Power Drift = -0.0016 dB
Peak SAR (extrapolated) = 27.393 W/kg
SAR(1 g) = 13.3 mW/g; SAR(10 g) = 6.18 mW/g
Maximum value of SAR (measured) = 17.569 mW/g



APPENDIX F: DIELECTRIC PARAMETERS OF THE TISSUE SIMULANTS

Head tissue simulant dielectric parameters used in the measurements:

f (MHz)	Date	Dielectric Parameters					
		Ch 23780 709.0 MHz		Ch 23790 710.0 MHz		Ch 23800 711.0 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
710	2011-11-02	42.9	0.88	42.9	0.88	42.8	0.88
	2011-11-03	42.6	0.89	42.6	0.88	42.6	0.89
	2011-11-04	42.3	0.88	42.3	0.88	42.3	0.88
	2012-02-02	41.5	0.87	41.5	0.87	41.5	0.87
	2012-02-03	41.1	0.86	41.0	0.86	41.0	0.86
	2012-02-09	41.0	0.86	41.0	0.86	41.0	0.86
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	2011-10-19	41.3	0.89	41.2	0.90	41.1	0.90
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	2011-10-18	41.2	0.89	41.1	0.90	41.0	0.90
	2011-10-19	41.3	0.89	41.2	0.90	41.1	0.90
	2012-02-06	40.4	0.88	40.3	0.89	40.2	0.90
	2012-02-09	40.0	0.88	39.9	0.89	39.8	0.90
f (MHz)	Date	Dielectric Parameters					
		Ch 1312 1712.4 MHz		Ch 1412 1732.4 MHz		Ch 1513 1752.6 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1732	2011-10-18	38.9	1.31	38.8	1.33	38.7	1.35
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	2011-11-08	38.8	1.32	38.7	1.33	38.7	1.35
	2011-11-09	38.4	1.30	38.3	1.31	38.2	1.32
	2011-11-10	38.3	1.32	38.2	1.34	38.1	1.35
	2012-02-02	39.0	1.29	39.0	1.30	38.9	1.32
	2012-02-03	38.4	1.29	38.3	1.30	38.3	1.31
	2012-02-06	38.4	1.31	38.4	1.32	38.3	1.33

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	2011-10-17	40.1	1.39	39.9	1.41	39.8	1.44
	2011-10-19	39.8	1.36	39.7	1.38	39.6	1.40
	2011-10-25	39.6	1.34	39.6	1.36	39.5	1.39
	2012-02-06	39.9	1.33	39.9	1.36	39.9	1.39
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	2011-10-17	40.1	1.39	39.9	1.41	39.8	1.44
	2011-10-18	39.6	1.35	39.6	1.38	39.5	1.40
	2011-10-19	39.8	1.36	39.7	1.38	39.6	1.40
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]
2442	2012-02-07	38.0	1.79	37.9	1.80	37.8	1.83
	2012-02-09	37.8	1.76	37.7	1.78	37.6	1.81

Body tissue simulant dielectric parameters used in the measurements:

f (MHz)	Date	Dielectric Parameters					
		Ch 23780 709.0 MHz		Ch 23790 710.0 MHz		Ch 23800 711.0 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
710	2011-11-04	55.9	0.95	55.9	0.95	55.9	0.95
	2012-02-25	55.9	0.97	55.9	0.97	55.9	0.97
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	2011-10-20	53.7	1.01	53.6	1.02	53.6	1.03
	2011-10-27	53.0	0.98	52.9	0.99	52.9	0.99
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	2011-10-24	53.5	0.99	53.4	0.99	53.4	1.00
	2011-11-01	52.9	0.98	52.8	0.99	52.7	1.00
	2011-11-02	53.5	0.98	53.4	0.99	53.4	1.00
f (MHz)	Date	Dielectric Parameters					
		Ch 1312 1712.4 MHz		Ch 1412 1732.4 MHz		Ch 1513 1752.6 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1732	2011-10-18	51.7	1.42	51.6	1.44	51.5	1.46
	2011-10-31	52.0	1.47	51.9	1.48	51.8	1.51
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	2011-11-09	51.8	1.42	51.8	1.43	51.8	1.45
	2011-11-10	52.1	1.45	52.0	1.46	52.0	1.48
	2011-11-11	52.3	1.43	52.2	1.44	52.1	1.46
	2012-02-25	52.1	1.40	52.0	1.41	52.0	1.42

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	2011-10-21	52.6	1.48	52.6	1.50	52.5	1.52
	2011-10-25	52.7	1.47	52.7	1.50	52.6	1.53
	2011-10-26	52.9	1.50	52.9	1.53	52.8	1.56
	2011-10-28	52.3	1.47	52.3	1.50	52.3	1.52
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	2011-10-19	53.4	1.50	53.2	1.53	53.1	1.55
	2011-10-31	52.8	1.50	52.7	1.52	52.5	1.55
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	2012-02-08	50.6	1.94	50.5	1.97	50.5	1.99

APPENDIX G: WIRELESS ROUTER MODE EVALUATION

Power reductions in Wireless Router mode

Band	Power reduction in WR mode	Target tuning power in WR mode		
LTE700	0dB	23.0dBm		
GSM/GPRS	1dB in 2-slot mode	GSM: 32.5dBm	2-slot GPRS: 30.0dBm	
WCDMA850	0dB	23.0dBm		
WCDMA1700/2100	4dB	19.0dBm		
LTE1700/2100	3.5dB	19.0dBm		
GSM1900	0dB	GSM: 29.5dBm	2-slot GPRS: 28.5dBm	
WCDMA1900	1dB	22.0dBm		
WLAN2450 b-mode	0dB	Ch 1: 18.0dBm	Ch 6: 18.0dBm	Ch 11: 18.0dBm
WLAN2450 g-mode	0dB	Ch 1: 13.0dBm	Ch 6: 18.0dBm	Ch 11: 13.0dBm
WLAN2450 n-mode	0dB	Ch 1: 13.0dBm	Ch 6: 15.0dBm	Ch 11: 13.0dBm

G.1 Body SAR assessment of Wireless Router mode at 10.0mm separation distance

LTE700 Band Body SAR results

Option used	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz
QPSK	Conducted Power	22.47 dBm	22.50 dBm	22.33 dBm
10MHz Ch BW 50% RB 50% offset	Display facing phantom	-	-	-
	Back facing phantom	-	0.745	-
	Top edge facing phantom	-	-	-
	Bottom edge facing phantom	-	-	-
	Left edge facing phantom	-	-	-
	Right edge facing phantom	-	-	-
QPSK	Conducted Power	23.44 dBm	23.49 dBm	23.40 dBm
10MHz Ch BW 1 RB 50% offset	Display facing phantom	-	0.653	-
	Back facing phantom	0.848	0.839	0.849
	Top edge facing phantom	-	0.029	-
	Bottom edge facing phantom	-	0.163	-
	Left edge facing phantom	-	0.317	-
	Right edge facing phantom	-	0.505	-

QPSK	Conducted Power	21.88 dBm	21.82 dBm	21.70 dBm
10MHz Ch BW 1 RB 100% offset	Display facing phantom	-	-	-
	Back facing phantom	-	0.511	-
	Top edge facing phantom	-	-	-
	Bottom edge facing phantom	-	-	-
	Left edge facing phantom	-	-	-
	Right edge facing phantom	-	-	-
QPSK	Conducted Power	21.72 dBm	22.06 dBm	22.17 dBm
10MHz Ch BW 1 RB 0% offset	Display facing phantom	-	-	-
	Back facing phantom	-	0.644	-
	Top edge facing phantom	-	-	-
	Bottom edge facing phantom	-	-	-
	Left edge facing phantom	-	-	-
	Right edge facing phantom	-	-	-

850MHz Body SAR results

Option used	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz
GSM	Maximum Output Power	32.48 dBm	32.57 dBm	32.48 dBm
	Display facing phantom	-	0.816	-
	Back facing phantom	-	-	-
	Top edge facing phantom	-	-	-
	Bottom edge facing phantom	-	-	-
	Left edge facing phantom	-	-	-
	Right edge facing phantom	-	-	-
2-slot GPRS	Maximum Output Power	29.95 dBm	30.05 dBm	29.90 dBm
	Display facing phantom	0.904	0.864	0.838
	Back facing phantom	1.10	1.03	1.04
	Top edge facing phantom	-	0.045	-
	Bottom edge facing phantom	-	0.203	-
	Left edge facing phantom	-	0.398	-
	Right edge facing phantom	-	0.690	-
Option used	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz
WCDMA	Maximum Output Power	23.15 dBm	23.39 dBm	23.39 dBm
	Display facing phantom	-	0.676	-
	Back facing phantom	0.625	0.729	0.566
	Top edge facing phantom	-	0.041	-
	Bottom edge facing phantom	-	0.213	-
	Left edge facing phantom	-	0.199	-
	Right edge facing phantom	-	0.576	-

1700/2100MHz Body SAR results

Option used	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 1312 1712.4 MHz	Ch 1412 1732.4 MHz	Ch 1513 1752.6 MHz
WCDMA	Maximum Output Power	19.22 dBm	19.11 dBm	19.19 dBm
	Display facing phantom	-	0.498	-
	Back facing phantom	-	0.559	-
	Top edge facing phantom	-	0.091	-
	Bottom edge facing phantom	1.09	0.997	0.914
	Left edge facing phantom	-	0.307	-
	Right edge facing phantom	-	0.077	-

LTE1700/2100 Body SAR results

Option used	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 20050 1720.0 MHz	Ch 20175 1732.5 MHz	Ch 20300 1745.0 MHz
QPSK	Conducted Power	18.18 dBm	18.22 dBm	18.24 dBm
20MHz ch BW 50% RB 50% offset	Display facing phantom	-	0.426	-
	Back facing phantom	-	-	-
	Top edge facing phantom	-	-	-
	Bottom edge facing phantom	-	-	-
	Left edge facing phantom	-	-	-
	Right edge facing phantom	-	-	-
QPSK	Conducted Power	19.06 dBm	19.04 dBm	19.19 dBm
20MHz ch BW 1 RB 50% offset	Display facing phantom	-	0.436	0.452
	Back facing phantom	-	-	-
	Top edge facing phantom	-	-	-
	Bottom edge facing phantom	-	-	-
	Left edge facing phantom	-	-	-
	Right edge facing phantom	-	-	-
QPSK	Conducted Power	19.11 dBm	19.12 dBm	19.33 dBm
20MHz ch BW 1 RB 100% offset	Display facing phantom	-	0.430	0.451
	Back facing phantom	-	-	-
	Top edge facing phantom	-	-	-
	Bottom edge facing phantom	-	-	-
	Left edge facing phantom	-	-	-
	Right edge facing phantom	-	-	-

(LTE1700/2100 Table continues)

(LTE1700/2100 Table continues)

QPSK	Conducted Power	19.44 dBm	18.99 dBm	19.09 dBm
20MHz ch BW 1 RB 0% offset	Display facing phantom	0.597	0.517	-
	Back facing phantom	-	0.608	-
	Top edge facing phantom	-	0.098	-
	Bottom edge facing phantom	1.27	1.15	1.19
	Left edge facing phantom	-	0.361	-
	Right edge facing phantom	-	0.067	-
16QAM	Conducted Power	17.21 dBm	17.08 dBm	17.15 dBm
20MHz ch BW 50% RB 50% offset	Display facing phantom	-	0.283	-
	Back facing phantom	-	-	-
	Top edge facing phantom	-	-	-
	Bottom edge facing phantom	-	-	-
	Left edge facing phantom	-	-	-
	Right edge facing phantom	-	-	-
16QAM	Conducted Power	18.39 dBm	18.47 dBm	18.19 dBm
20MHz ch BW 1 RB 50% offset	Display facing phantom	-	0.420	-
	Back facing phantom	-	-	-
	Top edge facing phantom	-	-	-
	Bottom edge facing phantom	-	-	-
	Left edge facing phantom	-	-	-
	Right edge facing phantom	-	-	-
16QAM	Conducted Power	18.31 dBm	18.48 dBm	18.21 dBm
20MHz ch BW 1 RB 100% offset	Display facing phantom	-	0.357	-
	Back facing phantom	-	-	-
	Top edge facing phantom	-	-	-
	Bottom edge facing phantom	-	-	-
	Left edge facing phantom	-	-	-
	Right edge facing phantom	-	-	-

(LTE1700/2100 Table continues)

(LTE1700/2100 Table continues)

16QAM	Conducted Power	18.74 dBm	18.03 dBm	18.58 dBm
20MHz ch BW 1 RB 0% offset	Display facing phantom	0.449	0.339	-
	Back facing phantom	-	-	-
	Top edge facing phantom	-	-	-
	Bottom edge facing phantom	-	-	-
	Left edge facing phantom	-	-	-
	Right edge facing phantom	-	-	-

1900MHz Body SAR results

Option used	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 512 1850.2 MHz	Ch 661 1880.0 MHz	Ch 810 1909.8 MHz
GSM	Maximum Output Power	29.68 dBm	29.42 dBm	29.75 dBm
	Display facing phantom	-	0.513	-
	Back facing phantom	-	-	-
	Top edge facing phantom	-	-	-
	Bottom edge facing phantom	-	-	-
	Left edge facing phantom	-	-	-
	Right edge facing phantom	-	-	-
2-slot GPRS	Maximum Output Power	28.60 dBm	28.60 dBm	28.70 dBm
	Display facing phantom	-	0.777	-
	Back facing phantom	0.945	0.898	0.758
	Top edge facing phantom	-	0.191	-
	Bottom edge facing phantom	1.33	0.988	0.903
	Left edge facing phantom	-	0.668	-
	Right edge facing phantom	-	0.141	-
Option used	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 9262 1852.4 MHz	Ch 9400 1880.0 MHz	Ch 9538 1907.6 MHz
WCDMA	Maximum Output Power	21.95 dBm	22.21 dBm	22.37 dBm
	Display facing phantom	0.915	0.886	0.787
	Back facing phantom	1.10	1.04	1.15
	Top edge facing phantom	-	0.178	-
	Bottom edge facing phantom	1.27	1.10	0.886
	Left edge facing phantom	-	0.169	-
	Right edge facing phantom	-	0.777	-

2450MHz Body SAR results

Option used	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz
WLAN b-mode	Conducted Average Power	16.73 dBm	16.46 dBm	17.15 dBm
	Display facing phantom	-	0.208	-
	Back facing phantom	-	0.264	-
	Top edge facing phantom	0.171	0.316	0.332
	Bottom edge facing phantom	-	0.014	-
	Left edge facing phantom	-	0.042	-
	Right edge facing phantom	-	0.241	-

Simultaneous transmissions: Combined SAR results – Individual band Max results

Test configuration	Max. 1g SAR results							
	WLAN	LTE700	2-slot GPRS850	WCDMA 850	WCDMA 1700/2100	LTE 1700/2100	2-slot GPRS1900	WCDMA 1900
Display facing phantom	0.208	0.653	0.904	0.676	0.498	0.597	0.777	0.915
Back facing phantom	0.264	0.849	1.10	0.729	0.559	0.608	0.945	1.15
Top edge facing phantom	0.332	0.029	0.045	0.041	0.091	0.098	0.191	0.178
Bottom edge facing phantom	0.015	0.163	0.203	0.213	1.09	1.27	1.33	1.27
Left edge facing phantom	0.042	0.317	0.040	0.199	0.307	0.067	0.668	0.169
Right edge facing phantom	0.241	0.505	0.690	0.576	0.077	0.361	0.141	0.777

Simultaneous transmissions: Combined SAR results – Max + Max combined results

Test configuration	Max. 1g SAR results						
	LTE700 + WLAN	2-slot GPRS850 + WLAN	WCDMA 850 + WLAN	WCDMA 1700/2100 + WLAN	LTE 1700/2100 + WLAN	2-slot GPRS1900 + WLAN	WCDMA 1900 + WLAN
Display facing phantom	0.861	1.112	0.884	0.706	0.805	0.985	1.123
Back facing phantom	1.113	1.364	0.993	0.823	0.872	1.209	1.414
Top edge facing phantom	0.361	0.377	0.373	0.423	0.430	0.523	0.510
Bottom edge facing phantom	0.178	0.218	0.228	1.105	1.285	1.345	1.285
Left edge facing phantom	0.359	0.082	0.241	0.349	0.109	0.710	0.211
Right edge facing phantom	0.746	0.931	0.817	0.318	0.602	0.382	1.018

The following table gives a more accurate assessment of the SAR values for simultaneous transmission. These values have been calculated using the SPEAG Combined Multiband algorithm, which is based on area scans. It a) converts the 2D area scans into 3D volume scans by assuming frequency-dependent decay characteristics for the E-field, b) sums the SAR values for WLAN2450 and the cellular bands point-by-point and c) calculates the combined average SAR values.

**Simultaneous transmissions: Combined SAR results –
SPEAG Combined Multiband algorithm results**

Test configuration	Max. 1g SAR results						
	LTE700 + WLAN	2-slot GPRS850 + WLAN	WCDMA 850 + WLAN	WCDMA 1700/2100 + WLAN	LTE 1700/2100 + WLAN	2-slot GPRS1900 + WLAN	WCDMA 1900 + WLAN
Display facing phantom	-	-	-	-	-	-	-
Back facing phantom	0.866	1.06	0.773	-	-	-	1.17
Top edge facing phantom	-	-	-	-	-	-	-
Bottom edge facing phantom	-	-	-	1.16	1.36	1.42	-
Left edge facing phantom	-	-	-	-	-	-	-
Right edge facing phantom	-	-	-	-	-	-	-

Note: Simultaneous Transmission Procedures as described in KDB648474 are not required for this product. The Combined SAR data given in the tables above has been voluntarily calculated.

G.2 Summary of Maximum Results for Wireless Router mode at 10.0mm

Mode	Ch / f (MHz)	Conducted power	Separation distance	Measured SAR value (1g avg)	Scaled* SAR value (1g avg)	SAR limit (1g avg)	Result
LTE700	23800 / 711.0	23.40 dBm	10.0 mm	0.849 W/kg	0.95 W/kg	1.6 W/kg	PASSED
2-slot GPRS850	128 / 824.2	29.95 dBm	10.0 mm	1.10 W/kg	1.23 W/kg	1.6 W/kg	PASSED
WCDMA850	4175 / 835.0	23.39 dBm	10.0 mm	0.729 W/kg	0.82 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100	1312 / 1712.4	19.22 dBm	10.0 mm	1.09 W/kg	1.22 W/kg	1.6 W/kg	PASSED
LTE1700/2100	20050 / 1720.0	19.44 dBm	10.0 mm	1.27 W/kg	1.42 W/kg	1.6 W/kg	PASSED
2-slot GPRS1900	512 / 1850.2	28.60 dBm	10.0 mm	1.33 W/kg	1.49 W/kg	1.6 W/kg	PASSED
WCDMA1900	9262 / 1852.4	21.95 dBm	10.0 mm	1.27 W/kg	1.42 W/kg	1.6 W/kg	PASSED
WLAN2450	11 / 2462.0	17.15 dBm	10.0 mm	0.332 W/kg	0.37 W/kg	1.6 W/kg	PASSED
LTE700 + WLAN2450	-	-	10.0 mm	0.866 W/kg	0.97 W/kg	1.6 W/kg	PASSED
2-slot GPRS850 + WLAN2450	-	-	10.0 mm	1.10 W/kg	1.23 W/kg	1.6 W/kg	PASSED
WCDMA850 + WLAN2450	-	-	10.0 mm	0.773 W/kg	0.87 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100 + WLAN2450	-	-	10.0 mm	1.16 W/kg	1.30 W/kg	1.6 W/kg	PASSED
LTE1700/2100 + WLAN2450	-	-	10.0 mm	1.36 W/kg	1.52 W/kg	1.6 W/kg	PASSED
2-slot GPRS1900 + WLAN2450	-	-	10.0 mm	1.42 W/kg	1.59 W/kg	1.6 W/kg	PASSED
WCDMA1900 + WLAN2450	-	-	10.0 mm	1.27 W/kg	1.42 W/kg	1.6 W/kg	PASSED

* SAR values are scaled up by 12% to cover measurement drift. As a consequence of this upwards correction of the SAR values, the contribution of measurement drift to the overall measurement uncertainty (Section 6) is reduced to zero.

G.3 SAR plots corresponding to the Wireless Router mode results given above

Date/Time: 2012-02-25 11:06:35, Date/Time: 2012-02-25 11:10:18

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: $t = 20.7\text{ C}$

Medium parameters used: $f = 710\text{ MHz}$; $\sigma = 0.966\text{ mho/m}$; $\epsilon_r = 55.9$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(5.97, 5.97, 5.97); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2011-05-09
- Phantom: SAM1; Type: SAM; Serial: TP-1126
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE/Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom - QPSK - 10MHz - 50% RB - 50% offset/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.810 mW/g

LTE/Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom - QPSK - 10MHz - 50% RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.62 V/m

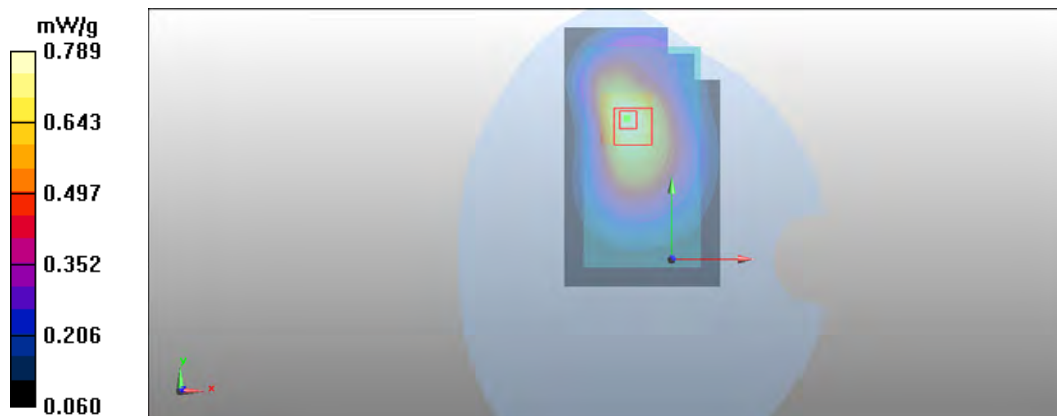
Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.745 mW/g

SAR(10 g) = 0.538 mW/g

Power Drift = 0.143 dB

Maximum value of SAR (measured) = 0.789 mW/g



Date/Time: 2011-11-04 15:06:40, Date/Time: 2011-11-04 15:13:27

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t=19.7 C

Medium parameters used: f = 710 MHz; σ = 0.952 mho/m; ϵ_r = 55.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset
/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.692 mW/g

LTE - Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset
/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.67 V/m

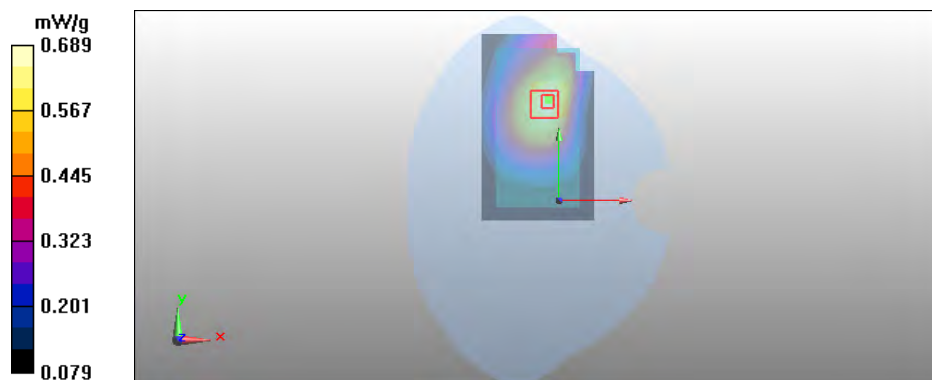
Peak SAR (extrapolated) = 0.827 W/kg

SAR(1 g) = 0.653 mW/g

SAR(10 g) = 0.494 mW/g

Power Drift = -0.133 dB

Maximum value of SAR (measured) = 0.689 mW/g



Date/Time: 2011-11-04 16:03:33, Date/Time: 2011-11-04 16:07:06

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 711 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t=19.7 C

Medium parameters used: $f = 711$ MHz; $\sigma = 0.952$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Body - High - Spacer 10mm - No Accessory - Back Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset

/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.908 mW/g

LTE - Body - High - Spacer 10mm - No Accessory - Back Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset

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

Reference Value = 8.23 V/m

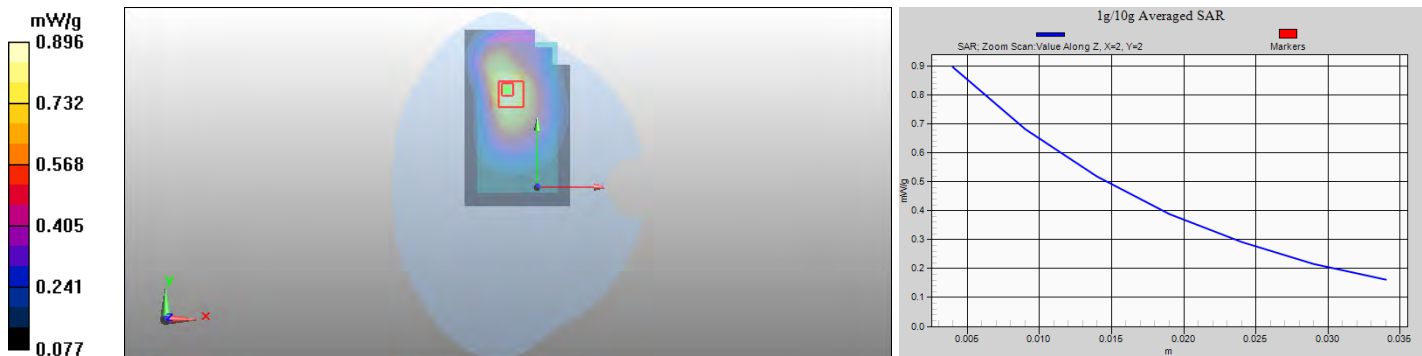
Peak SAR (extrapolated) = 1.12 W/kg

SAR(1 g) = 0.849 mW/g

SAR(10 g) = 0.624 mW/g

Power Drift = 0.149 dB

Maximum value of SAR (measured) = 0.896 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

Copyright © 2012 TCC Nokia

Date/Time: 2011-11-04 17:42:48, Date/Time: 2011-11-04 17:45:25

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t=19.7 C

Medium parameters used: f = 710 MHz; $\sigma = 0.952$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - Spacer 10mm - No accessory - Top Edge Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.031 mW/g

LTE - Body - Middle - Spacer 10mm - No accessory - Top Edge Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 4.43 V/m

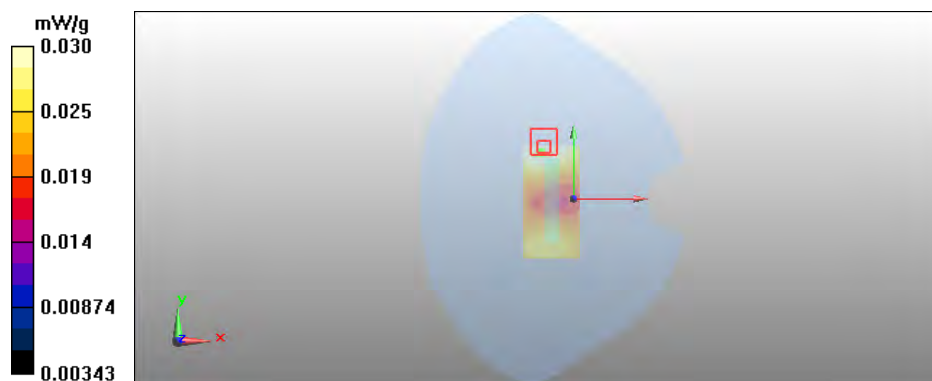
Peak SAR (extrapolated) = 0.038 W/kg

SAR(1 g) = 0.029 mW/g

SAR(10 g) = 0.022 mW/g

Power Drift = 0.056 dB

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



Date/Time: 2011-11-04 18:05:36, Date/Time: 2011-11-04 18:07:01

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t=19.7 C

Medium parameters used: f = 710 MHz; $\sigma = 0.952$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.188 mW/g

LTE - Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.5 V/m

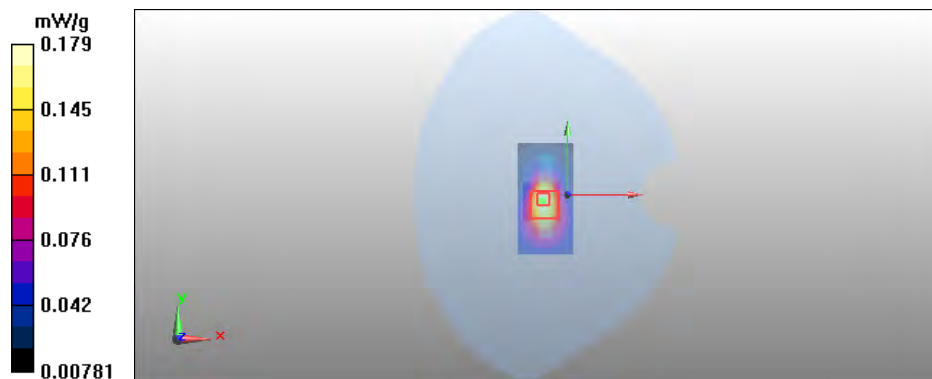
Peak SAR (extrapolated) = 0.285 W/kg

SAR(1 g) = 0.163 mW/g

SAR(10 g) = 0.095 mW/g

Power Drift = 0.054 dB

Maximum value of SAR (measured) = 0.179 mW/g



Date/Time: 2011-11-04 18:28:51, Date/Time: 2011-11-04 18:33:08

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t=19.7 C

Medium parameters used: f = 710 MHz; $\sigma = 0.952$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Area Scan (31x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.343 mW/g

LTE - Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.17 V/m

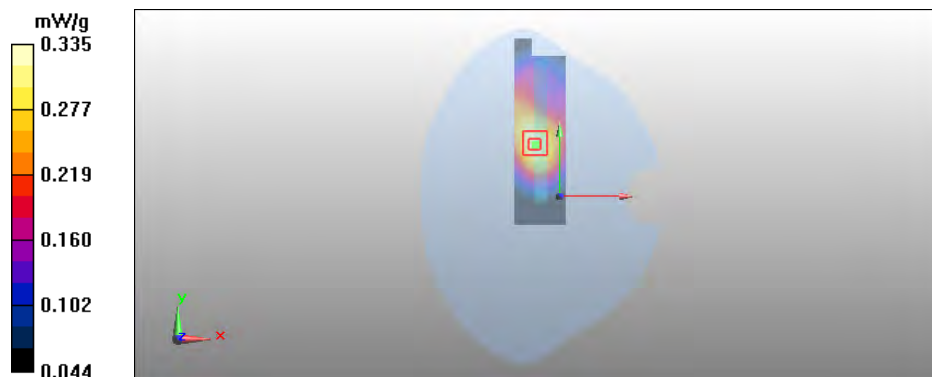
Peak SAR (extrapolated) = 0.425 W/kg

SAR(1 g) = 0.317 mW/g

SAR(10 g) = 0.229 mW/g

Power Drift = -0.045 dB

Maximum value of SAR (measured) = 0.335 mW/g



Date/Time: 2011-11-04 18:44:26, Date/Time: 2011-11-04 18:46:41

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: t=19.7 C

Medium parameters used: f = 710 MHz; $\sigma = 0.952$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Area Scan (31x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.525 mW/g

LTE - Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.92 V/m

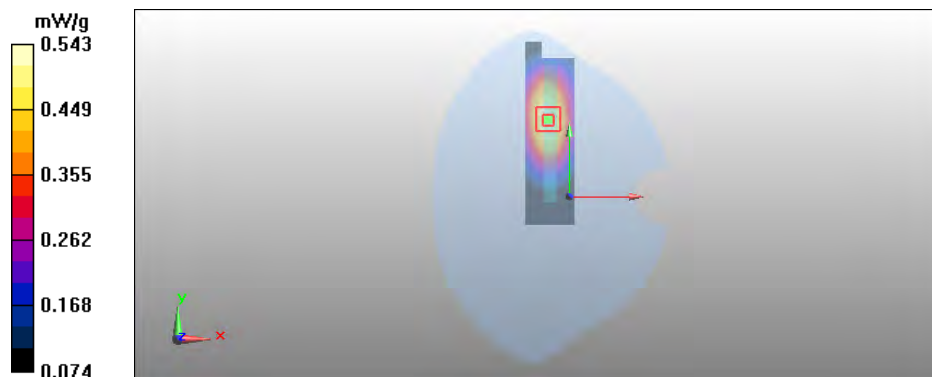
Peak SAR (extrapolated) = 0.710 W/kg

SAR(1 g) = 0.505 mW/g

SAR(10 g) = 0.354 mW/g

Power Drift = 0.046 dB

Maximum value of SAR (measured) = 0.543 mW/g



Date/Time: 2012-02-25 12:55:15, Date/Time: 2012-02-25 12:59:31

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: $t = 20.7\text{ C}$

Medium parameters used: $f = 710\text{ MHz}$; $\sigma = 0.966\text{ mho/m}$; $\epsilon_r = 55.9$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(5.97, 5.97, 5.97); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2011-05-09
- Phantom: SAM1; Type: SAM; Serial: TP-1126
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE/Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom - QPSK - 10MHz - 1 RB - 100% offset
/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.564 mW/g

LTE/Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom - QPSK - 10MHz - 1 RB - 100% offset
/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 5.69 V/m

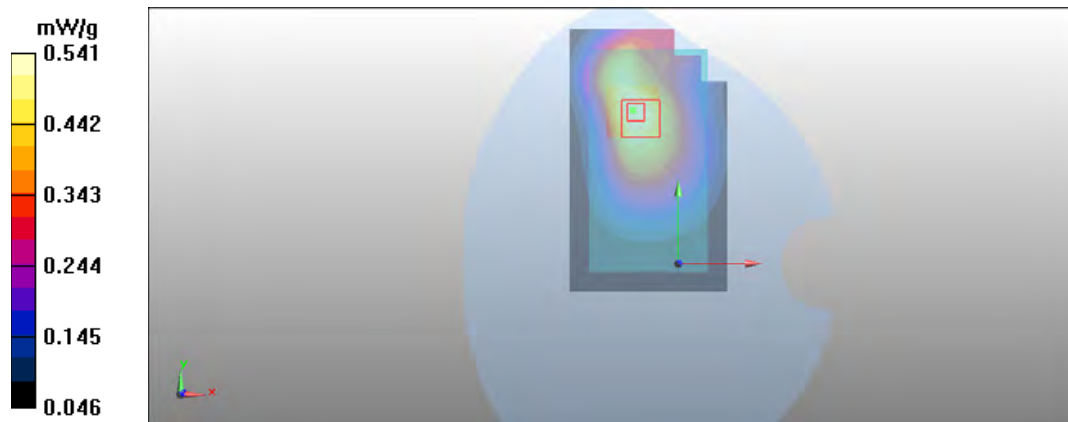
Peak SAR (extrapolated) = 0.683 W/kg

SAR(1 g) = 0.511 mW/g

SAR(10 g) = 0.372 mW/g

Power Drift = -0.171 dB

Maximum value of SAR (measured) = 0.541 mW/g



Date/Time: 2012-02-25 11:20:25, Date/Time: 2012-02-25 11:24:00

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2

Communication System: LTE700

Frequency: 710 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: $t = 20.7\text{ C}$

Medium parameters used: $f = 710\text{ MHz}$; $\sigma = 0.966\text{ mho/m}$; $\epsilon_r = 55.9$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3131
- ConvF(5.97, 5.97, 5.97); Calibrated: 2011-09-14
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn728; Calibrated: 2011-05-09
- Phantom: SAM1; Type: SAM; Serial: TP-1126
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE/Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom - QPSK - 10MHz - 1 RB - 0% offset

/Area Scan (61x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.706 mW/g

LTE/Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom - QPSK - 10MHz - 1 RB - 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 = 8.14 V/m

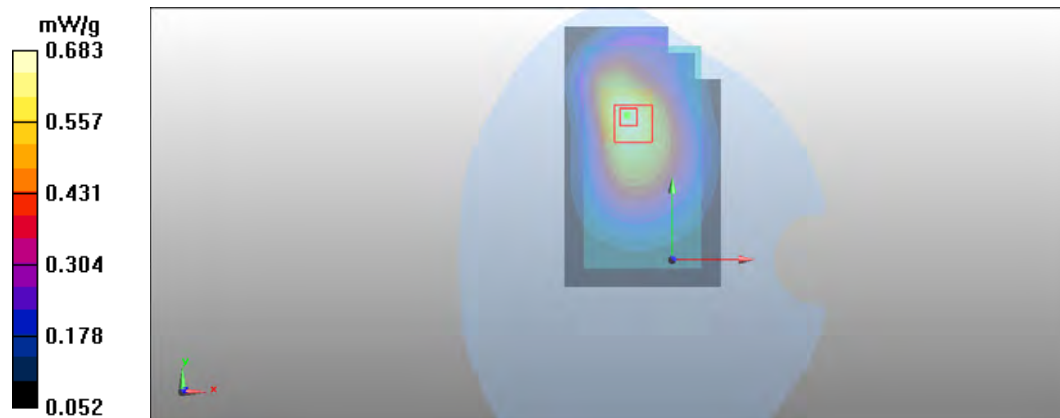
Peak SAR (extrapolated) = 0.882 W/kg

SAR(1 g) = 0.644 mW/g

SAR(10 g) = 0.467 mW/g

Power Drift = 0.108 dB

Maximum value of SAR (measured) = 0.683 mW/g



Date/Time: 2011-11-01 08:02:15, Date/Time: 2011-11-01 08:09:13

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683118/1

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.30042

Medium: BSL850; Medium Notes: t= 20.9 C

Medium parameters used: f = 837 MHz; σ = 0.99 mho/m; ϵ_r = 52.8; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

GSM - Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Area Scan (61x101x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.853 mW/g

GSM - Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.8 V/m

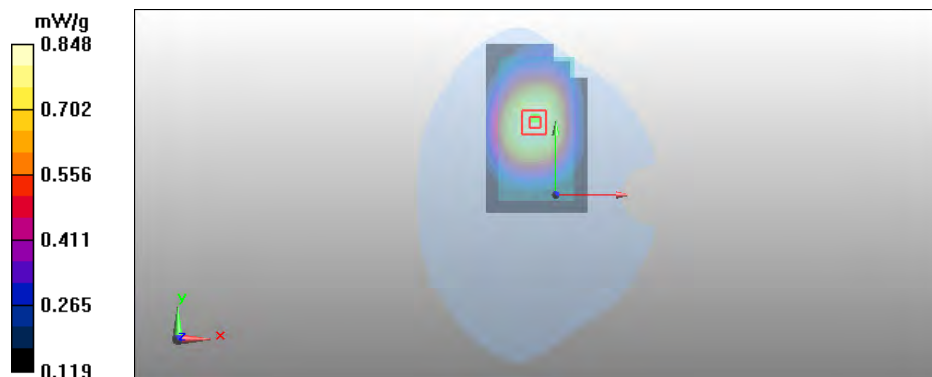
Peak SAR (extrapolated) = 1.01 W/kg

SAR(1 g) = 0.816 mW/g

SAR(10 g) = 0.630 mW/g

Power Drift = -0.071 dB

Maximum value of SAR (measured) = 0.848 mW/g



Date/Time: 2011-11-01 09:11:19, Date/Time: 2011-11-01 09:14:53

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683118/1

Communication System: 2-slot GPRS850

Frequency: 824.2 MHz; Duty Cycle: 1:4.19952

Medium: BSL850; Medium Notes: t= 20.9 C

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.982 mho/m; ϵ_r = 52.8; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Low - Spacer 10mm - No Accessory - Display Facing Phantom/Area Scan (61x101x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.863 mW/g

2-slot GPRS - Body - Low - Spacer 10mm - No Accessory - Display Facing Phantom/Zoom Scan (6x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.2 V/m

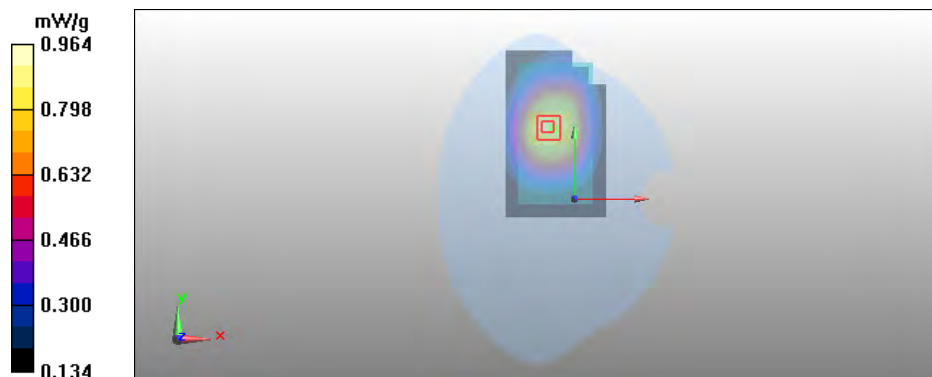
Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.904 mW/g

SAR(10 g) = 0.667 mW/g

Power Drift = 0.340 dB

Maximum value of SAR (measured) = 0.964 mW/g



Date/Time: 2011-11-01 10:47:26, Date/Time: 2011-11-01 10:51:00

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683118/1

Communication System: 2-slot GPRS850

Frequency: 824.2 MHz; Duty Cycle: 1:4.19952

Medium: BSL850; Medium Notes: t= 20.9 C

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.982 mho/m; ϵ_r = 52.8; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Low - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan (61x101x1):

Measurement grid: dx=15mm, dy=15mm

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

2-slot GPRS - Body - Low - Spacer 10mm - No Accessory - Back Facing Phantom/Zoom Scan (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.3 V/m

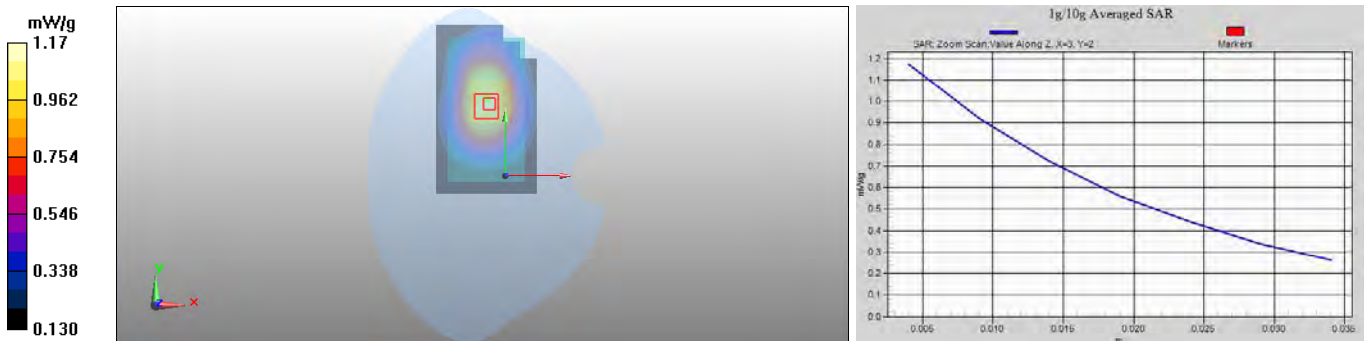
Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 1.1 mW/g

SAR(10 g) = 0.814 mW/g

Power Drift = 0.492 dB

Maximum value of SAR (measured) = 1.17 mW/g



Date/Time: 2011-11-02 06:35:07, Date/Time: 2011-11-02 06:36:31

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683118/1

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: BSL850; Medium Notes: t= 20.8 C

Medium parameters used: f = 837 MHz; σ = 0.987 mho/m; ϵ_r = 53.4; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Area Scan (31x61x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.048 mW/g

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 4.73 V/m

Peak SAR (extrapolated) = 0.060 W/kg

SAR(1 g) = 0.045 mW/g

SAR(10 g) = 0.033 mW/g

Power Drift = -0.257 dB

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



Date/Time: 2011-11-02 06:25:23, Date/Time: 2011-11-02 06:28:05

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683118/1

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: BSL850; Medium Notes: t= 20.8 C

Medium parameters used: f = 837 MHz; σ = 0.987 mho/m; ϵ_r = 53.4; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (31x61x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.234 mW/g

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Zoom Scan

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

Reference Value = 14.9 V/m

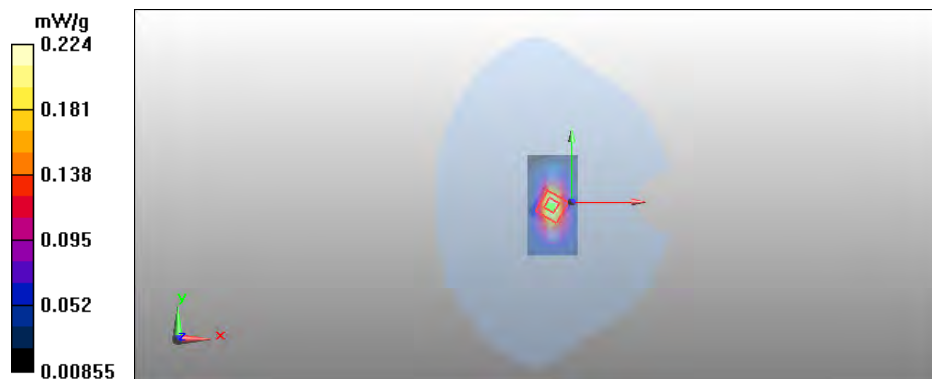
Peak SAR (extrapolated) = 0.367 W/kg

SAR(1 g) = 0.203 mW/g

SAR(10 g) = 0.111 mW/g

Power Drift = 0.227 dB

Maximum value of SAR (measured) = 0.224 mW/g



Date/Time: 2011-11-02 07:03:50, Date/Time: 2011-11-02 07:08:09

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683118/1

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: BSL850; Medium Notes: t= 20.8 C

Medium parameters used: f = 837 MHz; σ = 0.987 mho/m; ϵ_r = 53.4; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Area Scan (31x111x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.425 mW/g

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.3 V/m

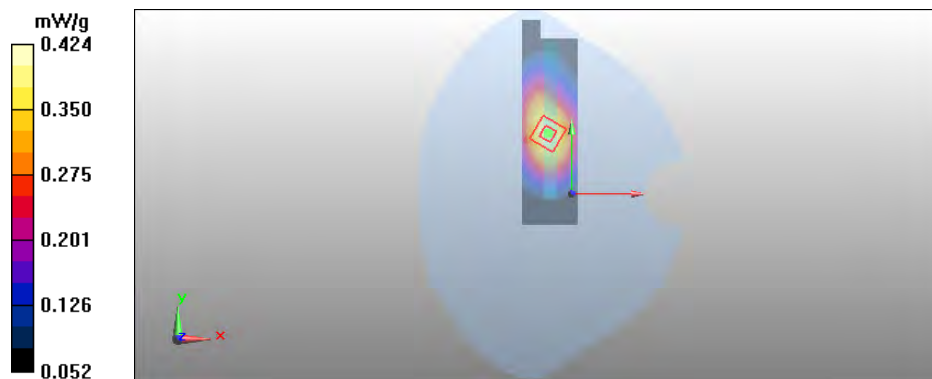
Peak SAR (extrapolated) = 0.559 W/kg

SAR(1 g) = 0.398 mW/g

SAR(10 g) = 0.278 mW/g

Power Drift = -0.050 dB

Maximum value of SAR (measured) = 0.424 mW/g



Date/Time: 2011-11-02 06:51:41, Date/Time: 2011-11-02 06:55:59

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683118/1

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: BSL850; Medium Notes: t= 20.8 C

Medium parameters used: f = 837 MHz; σ = 0.987 mho/m; ϵ_r = 53.4; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Area Scan (31x111x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.733 mW/g

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Zoom Scan

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

Reference Value = 12 V/m

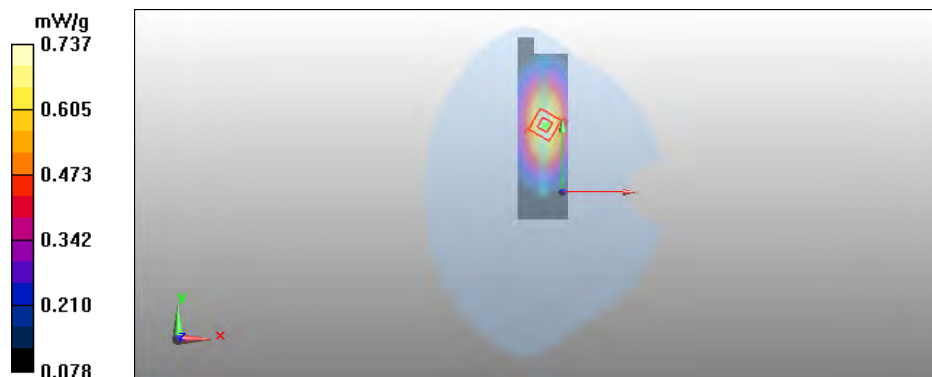
Peak SAR (extrapolated) = 0.991 W/kg

SAR(1 g) = 0.690 mW/g

SAR(10 g) = 0.475 mW/g

Power Drift = -0.105 dB

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



Date/Time: 2011-10-27 07:27:45, Date/Time: 2011-10-27 07:34:43

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: t= 21.0 C

Medium parameters used: f = 835 MHz; $\sigma = 0.987$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Area Scan (61x101x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.709 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Zoom Scan (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.6 V/m

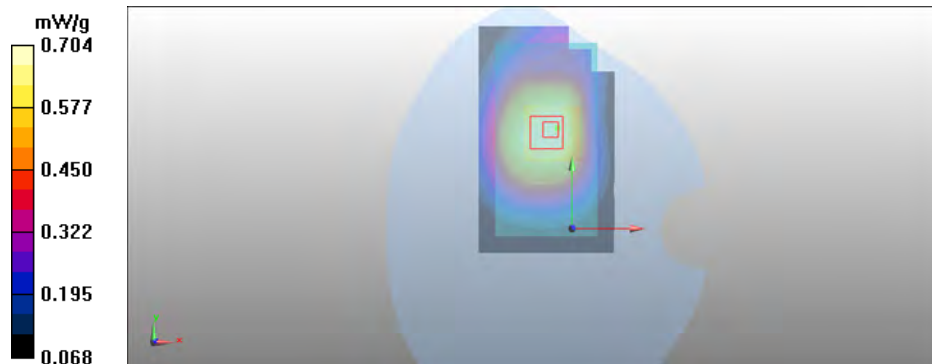
Peak SAR (extrapolated) = 0.840 W/kg

SAR(1 g) = 0.676 mW/g

SAR(10 g) = 0.520 mW/g

Power Drift = -0.115 dB

Maximum value of SAR (measured) = 0.704 mW/g



Date/Time: 2011-10-27 08:16:07, Date/Time: 2011-10-27 08:19:40, Date/Time: 2011-10-27 08:27:56

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: t= 21.0 C

Medium parameters used: f = 835 MHz; σ = 0.987 mho/m; ϵ_r = 52.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan (61x101x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.785 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom/Zoom Scan (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.38 V/m

Peak SAR (extrapolated) = 0.929 W/kg

SAR(1 g) = 0.729 mW/g

SAR(10 g) = 0.545 mW/g

Power Drift = 0.055 dB

Maximum value of SAR (measured) = 0.763 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom/Zoom Scan 2 (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.38 V/m

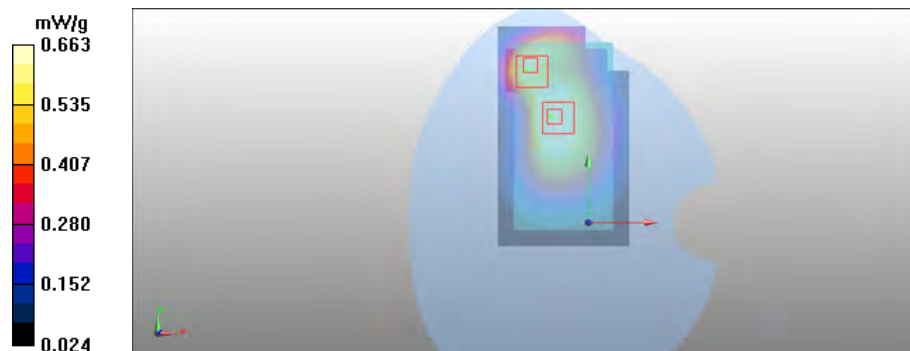
Peak SAR (extrapolated) = 0.954 W/kg

SAR(1 g) = 0.591 mW/g

SAR(10 g) = 0.379 mW/g

Power Drift = 0.055 dB

Maximum value of SAR (measured) = 0.663 mW/g



Date/Time: 2011-10-27 10:48:19, Date/Time: 2011-10-27 10:49:43

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: $t = 21.0$ C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.987$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Area Scan (31x61x1):

Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.041 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 4.17 V/m

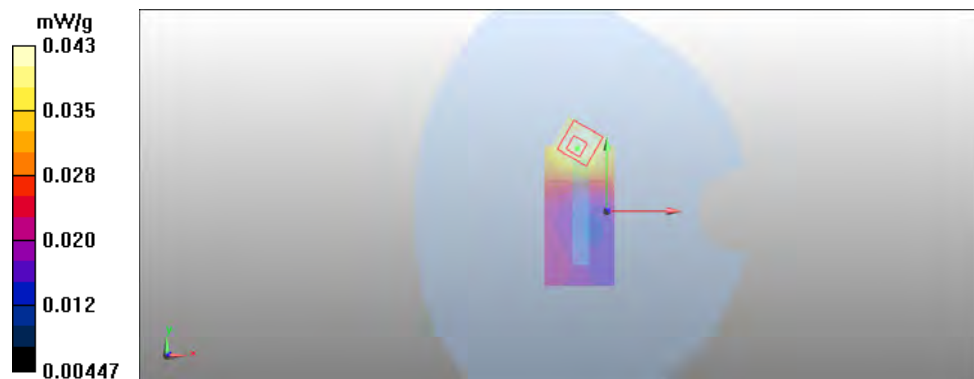
Peak SAR (extrapolated) = 0.054 W/kg

SAR(1 g) = 0.041 mW/g

SAR(10 g) = 0.030 mW/g

Power Drift = 0.140 dB

Maximum value of SAR (measured) = 0.043 mW/g



Date/Time: 2011-10-27 10:32:08, Date/Time: 2011-10-27 10:34:46

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: t= 21.0 C

Medium parameters used: f = 835 MHz; σ = 0.987 mho/m; ϵ_r = 52.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (31x61x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.246 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.3 V/m

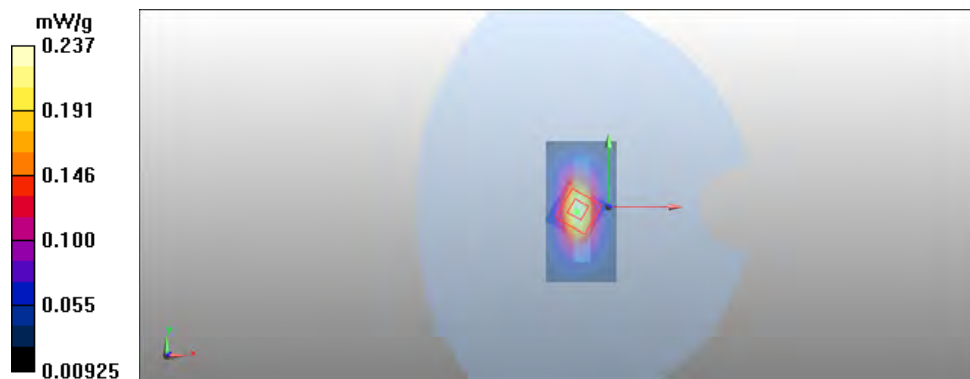
Peak SAR (extrapolated) = 0.388 W/kg

SAR(1 g) = 0.213 mW/g

SAR(10 g) = 0.117 mW/g

Power Drift = -0.024 dB

Maximum value of SAR (measured) = 0.237 mW/g



Date/Time: 2011-10-27 11:19:49, Date/Time: 2011-10-27 11:24:07

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: $t = 21.0$ C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.987$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Area Scan (31x111x1):

Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.211 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 7.19 V/m

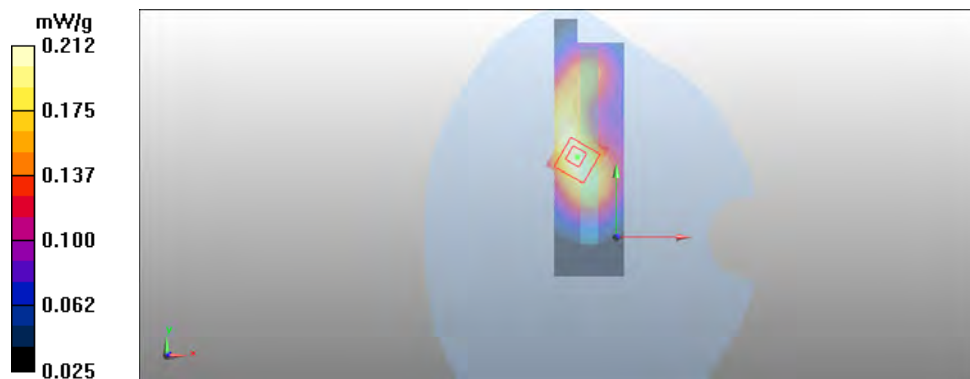
Peak SAR (extrapolated) = 0.283 W/kg

SAR(1 g) = 0.199 mW/g

SAR(10 g) = 0.140 mW/g

Power Drift = -0.069 dB

Maximum value of SAR (measured) = 0.212 mW/g



Date/Time: 2011-10-27 11:34:16, Date/Time: 2011-10-27 11:36:32

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL850; Medium Notes: t= 21.0 C

Medium parameters used: f = 835 MHz; $\sigma = 0.987$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1213; Calibrated: 2011-02-14
- Phantom: SAM 1; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Area Scan (31x111x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.612 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.8 V/m

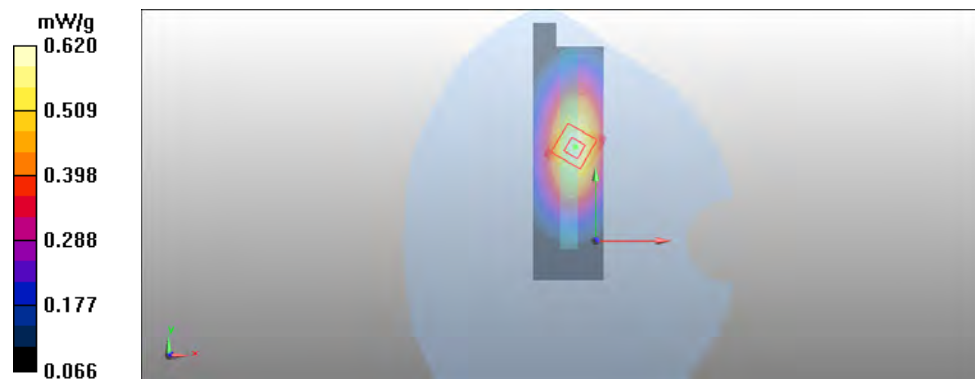
Peak SAR (extrapolated) = 0.818 W/kg

SAR(1 g) = 0.576 mW/g

SAR(10 g) = 0.397 mW/g

Power Drift = 0.076 dB

Maximum value of SAR (measured) = 0.620 mW/g



Date/Time: 2011-10-31 14:45:45, Date/Time: 2011-10-31 14:53:13

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.1 C

Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.49 mho/m; ϵ_r = 51.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Area Scan (61x101x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.547 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.52 V/m

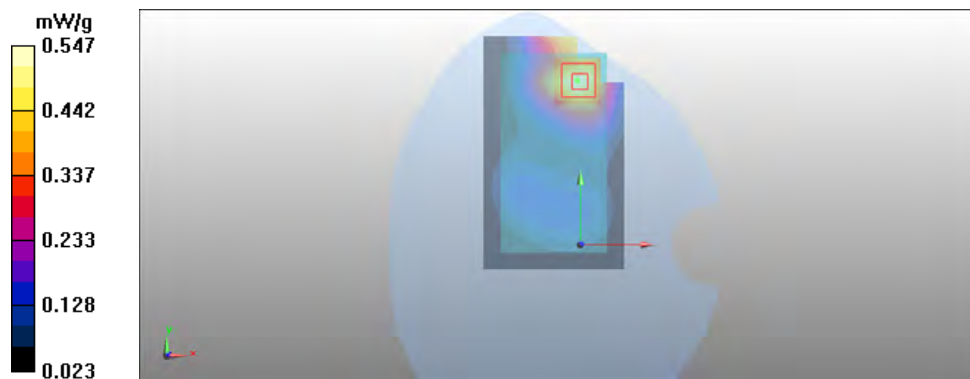
Peak SAR (extrapolated) = 0.699 W/kg

SAR(1 g) = 0.498 mW/g

SAR(10 g) = 0.321 mW/g

Power Drift = 0.043 dB

Maximum value of SAR (measured) = 0.547 mW/g



Date/Time: 2011-10-31 15:01:23, Date/Time: 2011-10-31 15:05:40

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.1$ C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan (61x101x1):

Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.593 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 6.35 V/m

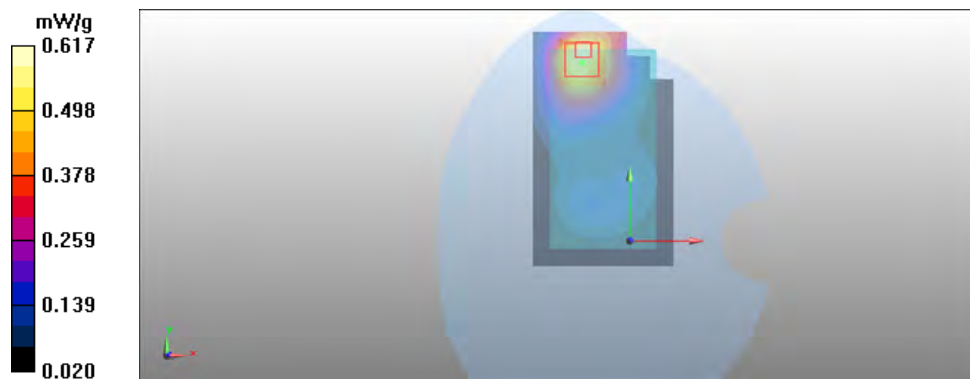
Peak SAR (extrapolated) = 0.895 W/kg

SAR(1 g) = 0.559 mW/g

SAR(10 g) = 0.338 mW/g

Power Drift = 0.092 dB

Maximum value of SAR (measured) = 0.617 mW/g



Date/Time: 2011-10-31 15:35:52, Date/Time: 2011-10-31 15:38:47

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.1 C

Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.49 mho/m; ϵ_r = 51.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA- Body - Middle - Spacer 10mm - No Accessory - Top Facing Phantom/Area Scan (31x61x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.103 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Top Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.82 V/m

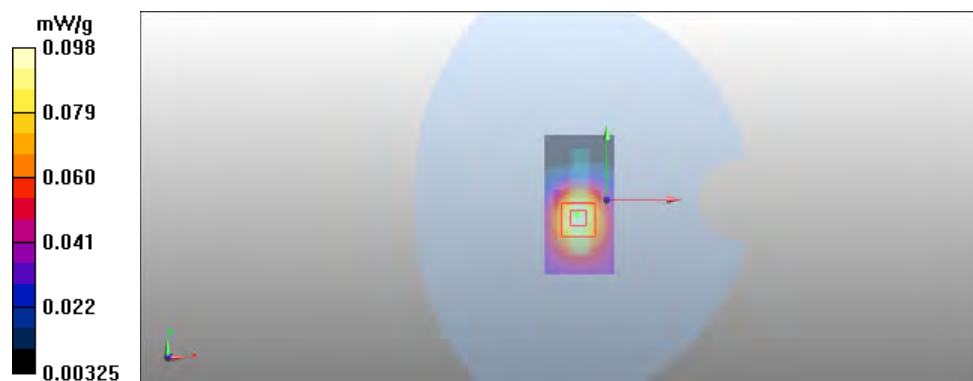
Peak SAR (extrapolated) = 0.136 W/kg

SAR(1 g) = 0.091 mW/g

SAR(10 g) = 0.057 mW/g

Power Drift = -0.062 dB

Maximum value of SAR (measured) = 0.098 mW/g



Date/Time: 2011-10-31 15:52:21, Date/Time: 2011-10-31 15:55:15

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3

Communication System: WCDMA1700/2100

Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.1 C

Medium parameters used (interpolated): f = 1712.4 MHz; σ = 1.47 mho/m; ϵ_r = 52; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Low - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (31x61x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.32 mW/g

WCDMA - Body - Low - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 29.7 V/m

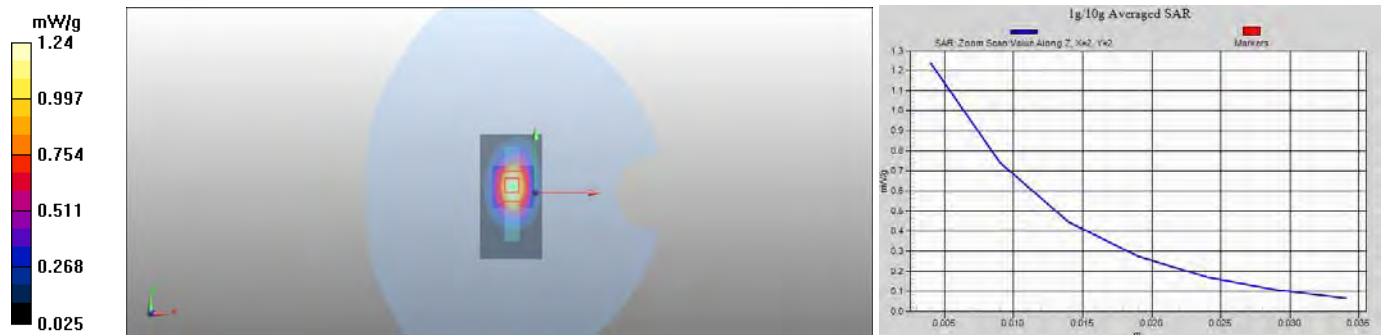
Peak SAR (extrapolated) = 1.87 W/kg

SAR(1 g) = 1.09 mW/g

SAR(10 g) = 0.568 mW/g

Power Drift = -0.050 dB

Maximum value of SAR (measured) = 1.24 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

Copyright © 2012 TCC Nokia

Date/Time: 2011-10-31 18:59:56, Date/Time: 2011-10-31 19:02:29

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 19.5 C

Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.49 mho/m; ϵ_r = 51.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Area Scan (31x101x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.350 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.68 V/m

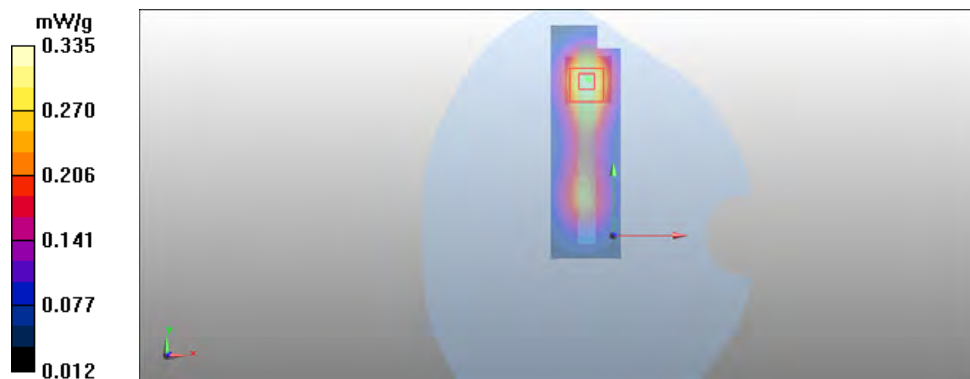
Peak SAR (extrapolated) = 0.466 W/kg

SAR(1 g) = 0.307 mW/g

SAR(10 g) = 0.188 mW/g

Power Drift = 0.00654 dB

Maximum value of SAR (measured) = 0.335 mW/g



Date/Time: 2011-10-31 18:45:00, Date/Time: 2011-10-31 18:49:23

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 19.5 C

Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.49 mho/m; ϵ_r = 51.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Area Scan (31x101x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.087 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 1.3 V/m

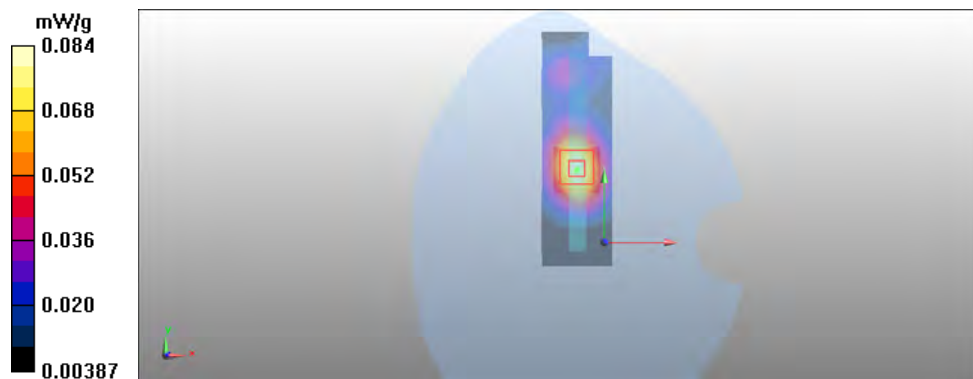
Peak SAR (extrapolated) = 0.117 W/kg

SAR(1 g) = 0.077 mW/g

SAR(10 g) = 0.047 mW/g

Power Drift = 0.414 dB

Maximum value of SAR (measured) = 0.084 mW/g



Date/Time: 2011-11-09 09:58:01, Date/Time: 2011-11-09 10:23:07

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7$ C

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 51.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - Spacer 10mm - No Accessory - QPSK - 20MHz - 50% RB - 50% offset - Display Facing

Phantom/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.417 mW/g

LTE - Body - Middle - Spacer 10mm - No Accessory - QPSK - 20MHz - 50% RB - 50% offset - Display Facing

Phantom /Zoom Scan 3 (5x5x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 7.16 V/m

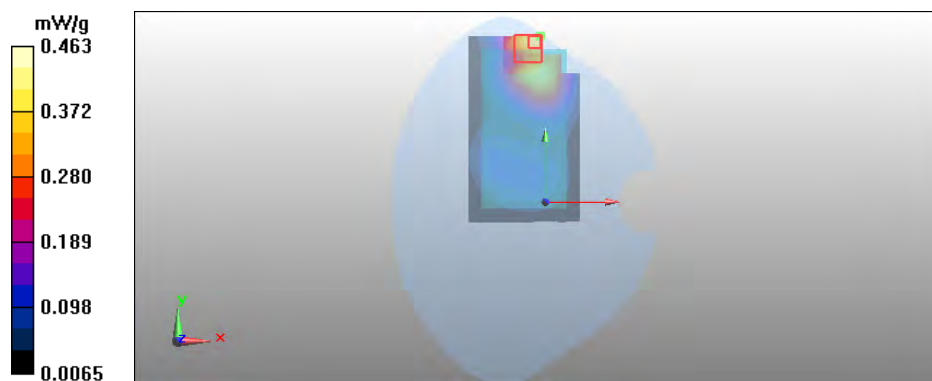
Peak SAR (extrapolated) = 0.673 W/kg

SAR(1 g) = 0.426 mW/g

SAR(10 g) = 0.232 mW/g

Power Drift = 0.065 dB

Maximum value of SAR (measured) = 0.463 mW/g



Date/Time: 2011-11-09 20:16:24, Date/Time: 2011-11-09 20:20:27

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0

Communication System: LTE1700/2100

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7$ C

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 51.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - High - Spacer 10mm - No Accessory - QPSK - 20MHz - 1 RB - 50% offset - Display Facing

Phantom/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.489 mW/g

LTE - Body - High - Spacer 10mm - No Accessory - QPSK - 20MHz - 1 RB - 50% offset - Display Facing Phantom

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

Reference Value = 7.6 V/m

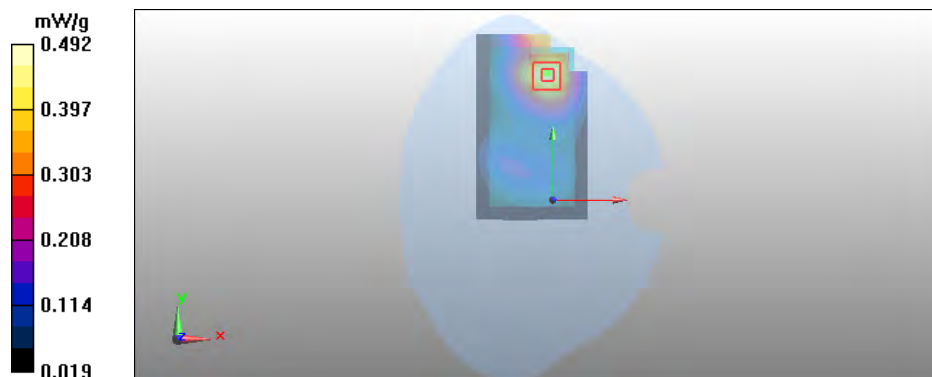
Peak SAR (extrapolated) = 0.643 W/kg

SAR(1 g) = 0.452 mW/g

SAR(10 g) = 0.291 mW/g

Power Drift = 0.048 dB

Maximum value of SAR (measured) = 0.492 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

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Date/Time: 2011-11-09 19:58:42, Date/Time: 2011-11-09 20:04:23

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0

Communication System: LTE1700/2100

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7$ C

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 51.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - High - Spacer 10mm - No Accessory - QPSK - 20MHz - 1 RB - 100% offset - Display Facing Phantom
/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.487 mW/g

LTE - Body - High - Spacer 10mm - No Accessory - QPSK - 20MHz - 1 RB - 100% offset - Display Facing Phantom
/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 7.83 V/m

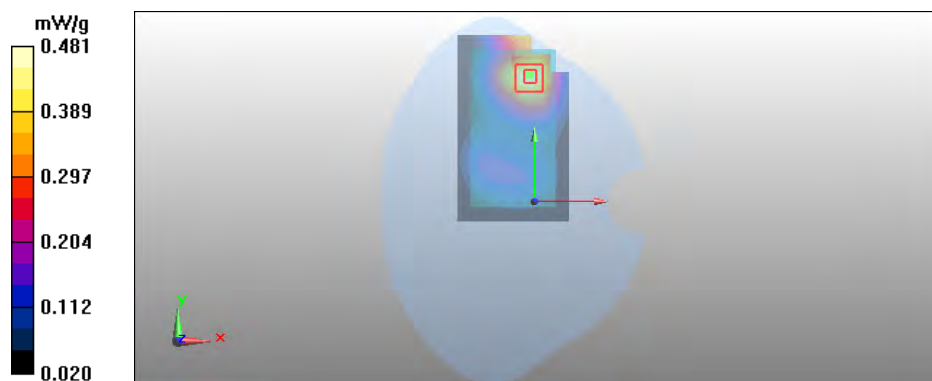
Peak SAR (extrapolated) = 0.640 W/kg

SAR(1 g) = 0.451 mW/g

SAR(10 g) = 0.292 mW/g

Power Drift = 0.0068 dB

Maximum value of SAR (measured) = 0.481 mW/g



Date/Time: 2011-11-09 19:14:05, Date/Time: 2011-11-09 19:22:46

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0

Communication System: LTE1700/2100

Frequency: 1720 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7$ C

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 51.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Low - Spacer 10mm - No Accessory - QPSK - 20MHz - 1 RB - 0% offset - Display Facing Phantom
/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.589 mW/g

LTE - Body - Low - Spacer 10mm - No Accessory - QPSK - 20MHz - 1 RB - 0% offset - Display Facing Phantom
/Zoom Scan 3 (5x5x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 6.85 V/m

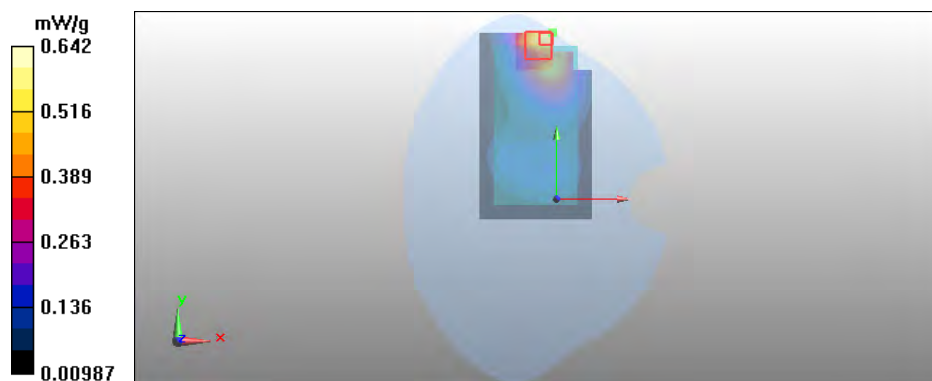
Peak SAR (extrapolated) = 0.955 W/kg

SAR(1 g) = 0.597 mW/g

SAR(10 g) = 0.308 mW/g

Power Drift = 0.053 dB

Maximum value of SAR (measured) = 0.642 mW/g



Date/Time: 2011-11-10 10:13:01, Date/Time: 2011-11-10 10:20:42

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.7 C

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.46 mho/m; ϵ_r = 52; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - Spacer 10mm - No Accessory - QPSK - 20MHz - 1 RB - 0% offset - Back Facing Phantom/

Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.534 mW/g

LTE - Body - Middle - Spacer 10mm - No Accessory - QPSK - 20MHz - 1 RB - 0% offset - Back Facing Phantom

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

Reference Value = 5.3 V/m

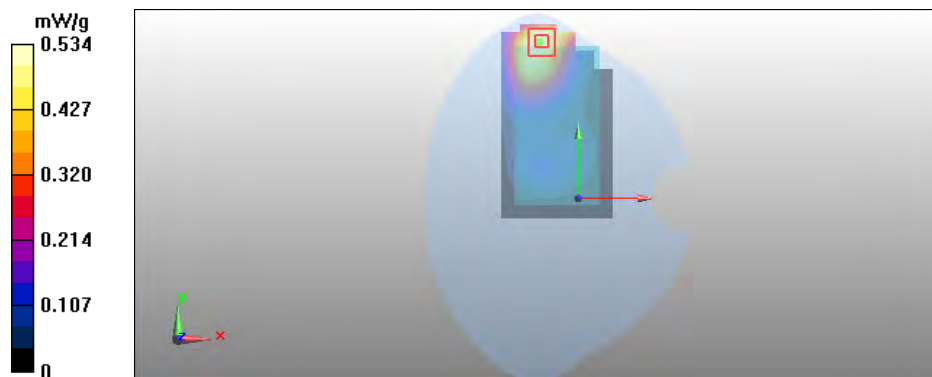
Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.608 mW/g

SAR(10 g) = 0.338 mW/g

Power Drift = -0.056 dB

Maximum value of SAR (measured) = 0.666 mW/g



Date/Time: 2011-11-10 11:05:37, Date/Time: 2011-11-10 11:07:13

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7$ C

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165

- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17

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

- Electronics: DAE4 Sn555; Calibrated: 2011-02-22

- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179

- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - Spacer 10mm - No Accessory - QPSK - 20MHz - 1 RB - 0% offset - Top Edge Facing

Phantom/Area Scan (31x61x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.111 mW/g

LTE - Body - Middle - Spacer 10mm - No Accessory - QPSK - 20MHz - 1 RB - 0% offset - Top Edge Facing

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

Reference Value = 7.87 V/m

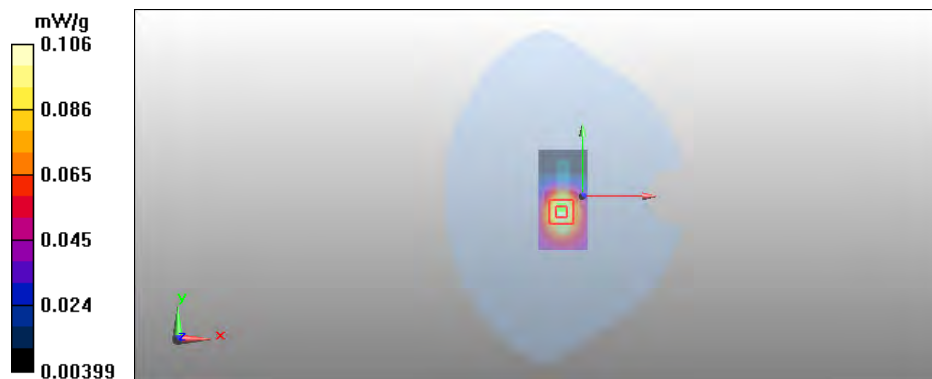
Peak SAR (extrapolated) = 0.148 W/kg

SAR(1 g) = 0.098 mW/g

SAR(10 g) = 0.061 mW/g

Power Drift = -0.058 dB

Maximum value of SAR (measured) = 0.106 mW/g



Date/Time: 2011-11-10 16:25:27, Date/Time: 2011-11-10 16:27:05

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0

Communication System: LTE1700/2100

Frequency: 1720 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: t= 20.7 C

Medium parameters used: f = 1720 MHz; σ = 1.45 mho/m; ϵ_r = 52.1; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165

- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17

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

- Electronics: DAE4 Sn555; Calibrated: 2011-02-22

- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179

- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Low - Spacer 10mm - No Accessory - QPSK - 20MHz - 1 RB - 0% offset - Bottom Edge Facing

Phantom/Area Scan (31x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.58 mW/g

LTE - Body - Low - Spacer 10mm - No Accessory - QPSK - 20MHz - 1 RB - 0% offset - Bottom Edge Facing

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

Reference Value = 31.3 V/m

Peak SAR (extrapolated) = 2.22 W/kg

SAR(1 g) = 1.27 mW/g

SAR(10 g) = 0.658 mW/g

Power Drift = -0.050 dB

Maximum value of SAR (measured) = 1.43 mW/g



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

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Date/Time: 2011-11-10 16:08:44, Date/Time: 2011-11-10 16:11:12

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7\text{ C}$

Medium parameters used (interpolated): $f = 1732.5\text{ MHz}$; $\sigma = 1.46\text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165

- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17

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

- Electronics: DAE4 Sn555; Calibrated: 2011-02-22

- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179

- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - No Accessory - QPSK- 20MHz - 1 RB - 0% offset - Left Edge Facing Phantom/Area Scan

(31x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

LTE - Body - Middle - No Accessory - QPSK- 20MHz - 1 RB - 0% offset - Left Edge 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 = 8.74 V/m

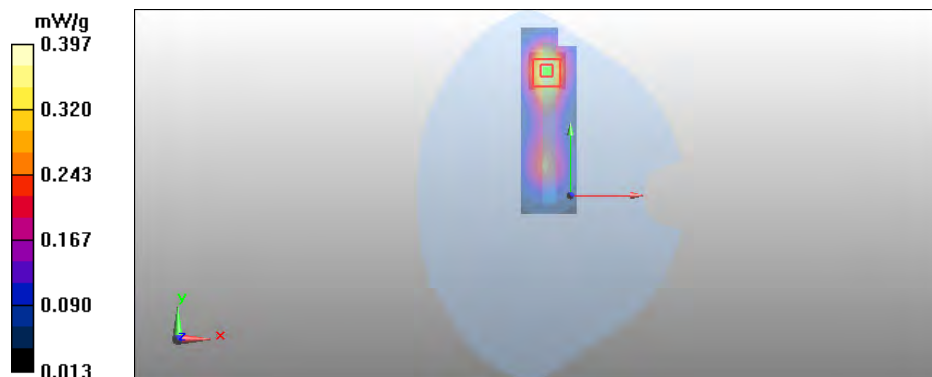
Peak SAR (extrapolated) = 0.547 W/kg

SAR(1 g) = 0.361 mW/g

SAR(10 g) = 0.220 mW/g

Power Drift = 0.00944 dB

Maximum value of SAR (measured) = 0.397 mW/g



Date/Time: 2011-11-10 15:47:25, Date/Time: 2011-11-10 16:00:21

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7\text{ C}$

Medium parameters used (interpolated): $f = 1732.5\text{ MHz}$; $\sigma = 1.46\text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - No Accessory - QPSK - 20MHz - 1 RB - 0% offset - Right Edge Facing Phantom/Area Scan (31x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.074 mW/g

LTE - Body - Middle - No Accessory - QPSK - 20MHz - 1 RB - 0% offset - Right Edge 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 = 0.740 V/m

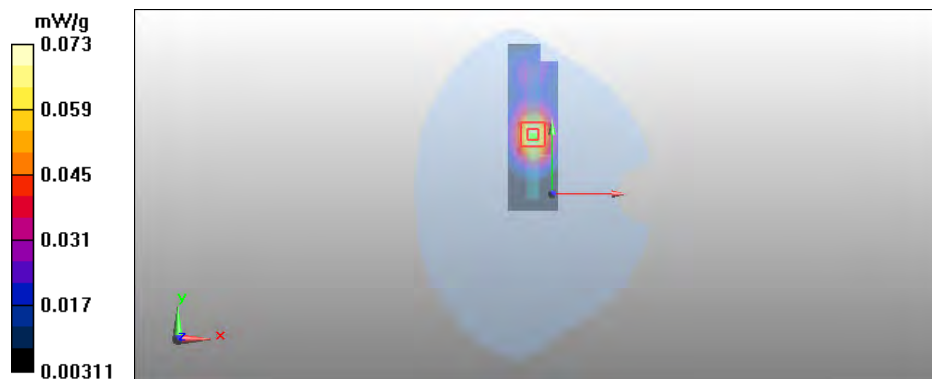
Peak SAR (extrapolated) = 0.100 W/kg

SAR(1 g) = 0.067 mW/g

SAR(10 g) = 0.041 mW/g

Power Drift = -4.35 dB

Maximum value of SAR (measured) = 0.073 mW/g



Date/Time: 2011-11-09 12:36:06, Date/Time: 2011-11-09 12:40:06

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7$ C

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 51.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - Spacer 10mm - No Accessory - 16QAM - 20MHz - 50% RB - 50% offset - Display Facing Phantom/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.305 mW/g

LTE - Body - Middle - Spacer 10mm - No Accessory - 16QAM - 20MHz - 50% RB - 50% offset - Display Facing Phantom /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.4 V/m

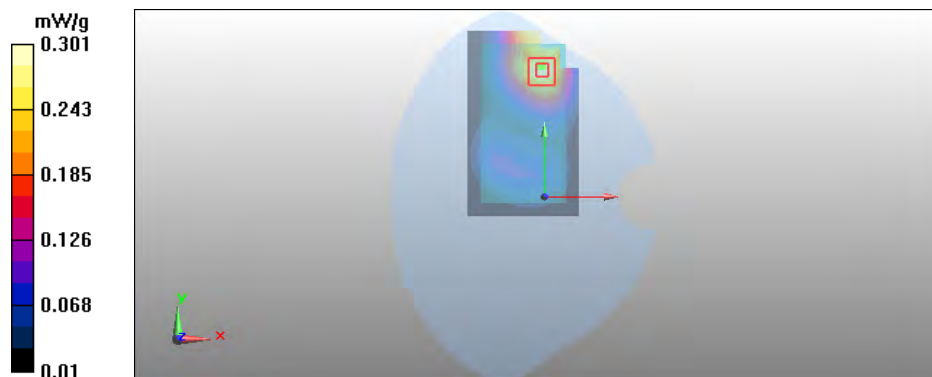
Peak SAR (extrapolated) = 0.423 W/kg

SAR(1 g) = 0.283 mW/g

SAR(10 g) = 0.183 mW/g

Power Drift = 0.087 dB

Maximum value of SAR (measured) = 0.301 mW/g



Date/Time: 2011-11-09 16:30:36, Date/Time: 2011-11-09 16:34:39

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7$ C

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 51.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165

- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17

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

- Electronics: DAE4 Sn555; Calibrated: 2011-02-22

- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179

- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - Spacer 10mm - No Accessory - 16QAM - 20MHz - 1 RB - 50% offset - Display Facing

Phantom /Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.461 mW/g

LTE - Body - Middle - Spacer 10mm - No Accessory - 16QAM - 20MHz - 1 RB - 50% offset - Display Facing

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

Reference Value = 6.79 V/m

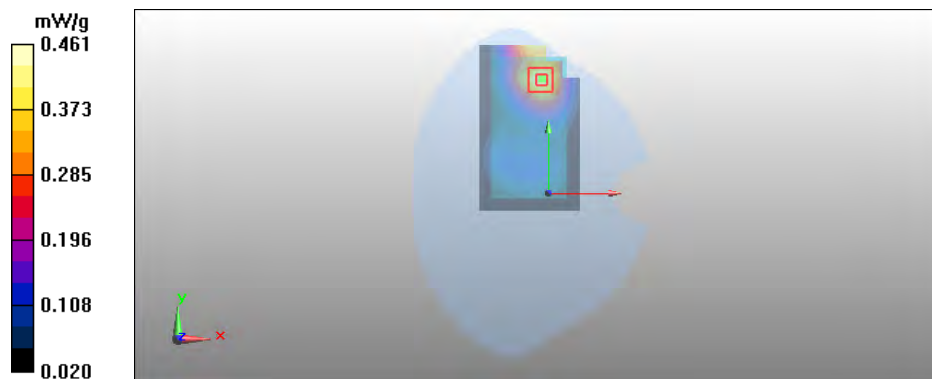
Peak SAR (extrapolated) = 0.590 W/kg

SAR(1 g) = 0.420 mW/g

SAR(10 g) = 0.269 mW/g

Power Drift = 0.417 dB

Maximum value of SAR (measured) = 0.461 mW/g



Date/Time: 2011-11-09 16:46:49, Date/Time: 2011-11-09 16:50:50

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0

Communication System: LTE1700/2100

Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7$ C

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 51.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165

- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17

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

- Electronics: DAE4 Sn555; Calibrated: 2011-02-22

- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179

- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Middle - Spacer 10mm - No Accessory - 16QAM - 20MHz - 1 RB - 100% offset - Display Facing Phantom /Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.395 mW/g

LTE - Body - Middle - Spacer 10mm - No Accessory - 16QAM - 20MHz - 1 RB - 100% offset - Display Facing Phantom /Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 6.52 V/m

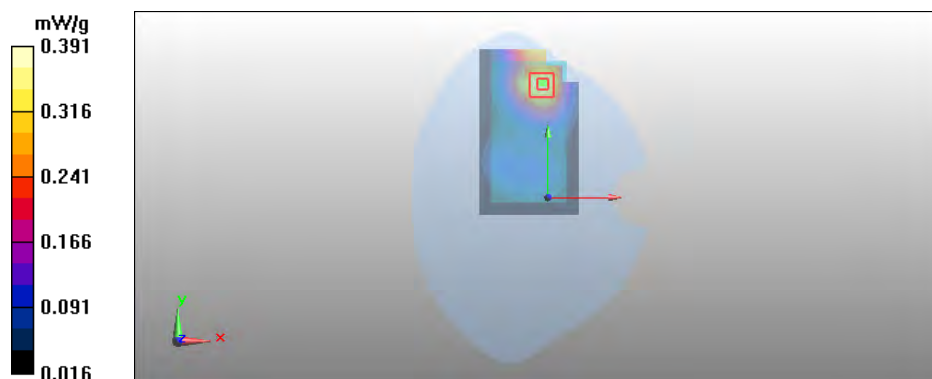
Peak SAR (extrapolated) = 0.505 W/kg

SAR(1 g) = 0.357 mW/g

SAR(10 g) = 0.228 mW/g

Power Drift = 0.050 dB

Maximum value of SAR (measured) = 0.391 mW/g



Date/Time: 2011-11-09 19:34:13, Date/Time: 2011-11-09 19:42:26

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0

Communication System: LTE1700/2100

Frequency: 1720 MHz; Duty Cycle: 1:1

Medium: BSL1800; Medium Notes: $t = 20.7$ C

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 51.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.91, 4.91, 4.91); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

LTE - Body - Low - Spacer 10mm - No Accessory - 16QAM - 20MHz - 1 RB - 0% offset - Display Facing Phantom
/Area Scan (61x101x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.445 mW/g

LTE - Body - Low - Spacer 10mm - No Accessory - 16QAM - 20MHz - 1 RB - 0% offset - Display Facing Phantom
/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 5.88 V/m

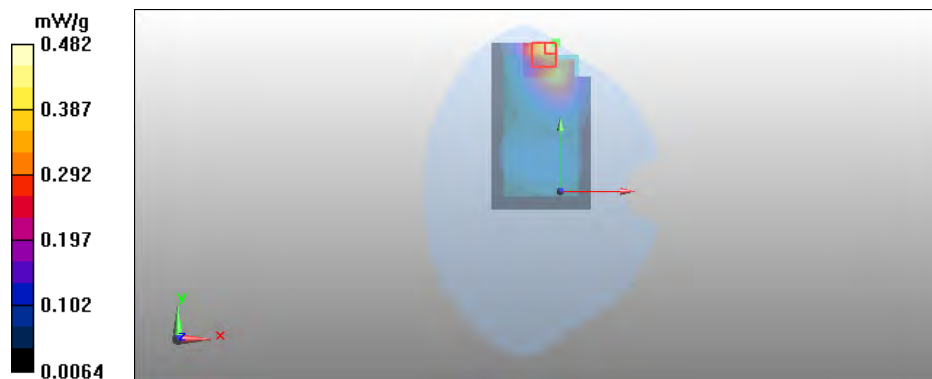
Peak SAR (extrapolated) = 0.719 W/kg

SAR(1 g) = 0.449 mW/g

SAR(10 g) = 0.230 mW/g

Power Drift = 0.067 dB

Maximum value of SAR (measured) = 0.482 mW/g



Date/Time: 2011-10-25 12:40:26, Date/Time: 2011-10-25 12:47:40

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: GSM1900

Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: BSL1900; Medium Notes: $t = 21.0$ C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

GSM - Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Area Scan (61x101x1):

Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.553 mW/g

GSM - Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 11.3 V/m

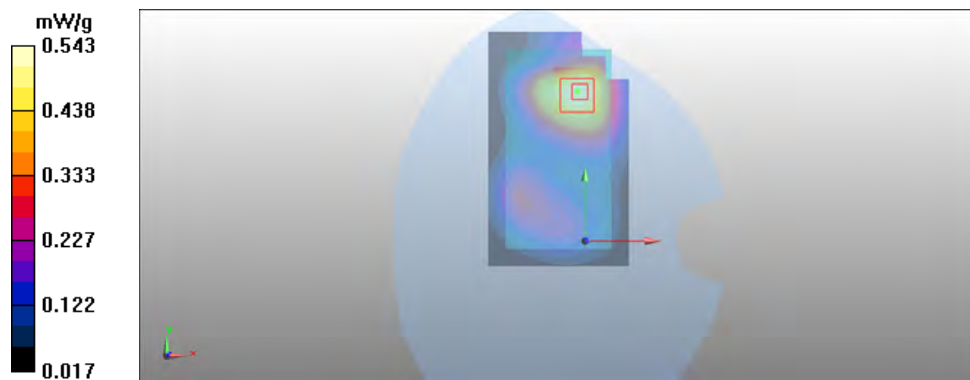
Peak SAR (extrapolated) = 0.753 W/kg

SAR(1 g) = 0.513 mW/g

SAR(10 g) = 0.337 mW/g

Power Drift = -0.086 dB

Maximum value of SAR (measured) = 0.543 mW/g



Date/Time: 2011-10-25 18:36:54, Date/Time: 2011-10-25 18:42:06

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.2

Medium: BSL1900; Medium Notes: $t = 21.0\text{ }^{\circ}\text{C}$

Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.5\text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Area Scan (61x101x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.828 mW/g

2-slot GPRS - Body - Middle - Spacer 10mm - 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 = 14 V/m

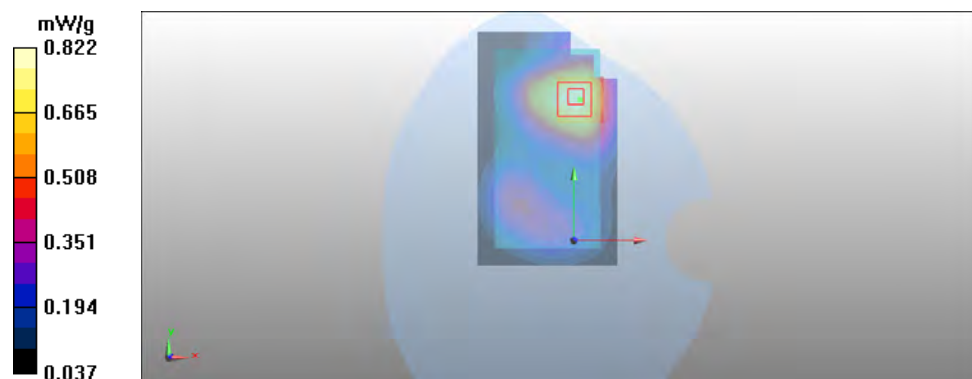
Peak SAR (extrapolated) = 1.14 W/kg

SAR(1 g) = 0.777 mW/g

SAR(10 g) = 0.511 mW/g

Power Drift = 0.284 dB

Maximum value of SAR (measured) = 0.822 mW/g



Date/Time: 2011-10-25 19:13:17, Date/Time: 2011-10-25 19:18:10

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1850.2 MHz; Duty Cycle: 1:4.2

Medium: BSL1900; Medium Notes: $t = 21.0$ C

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Low - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan (61x101x1):

Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 1.05 mW/g

2-slot GPRS - Body - Low - Spacer 10mm - No Accessory - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 11.3 V/m

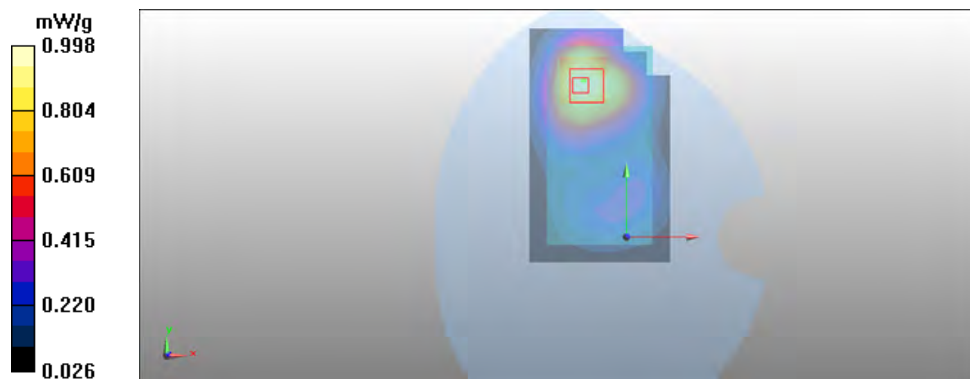
Peak SAR (extrapolated) = 1.4 W/kg

SAR(1 g) = 0.945 mW/g

SAR(10 g) = 0.616 mW/g

Power Drift = 0.183 dB

Maximum value of SAR (measured) = 0.998 mW/g



Date/Time: 2011-10-26 08:41:25, Date/Time: 2011-10-26 08:44:51

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.2

Medium: BSL1900; Medium Notes: $t = 21\text{ C}$

Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.53\text{ mho/m}$; $\epsilon_r = 52.9$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Area Scan (31x61x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.224 mW/g

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Top Edge 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 = 10.6 V/m

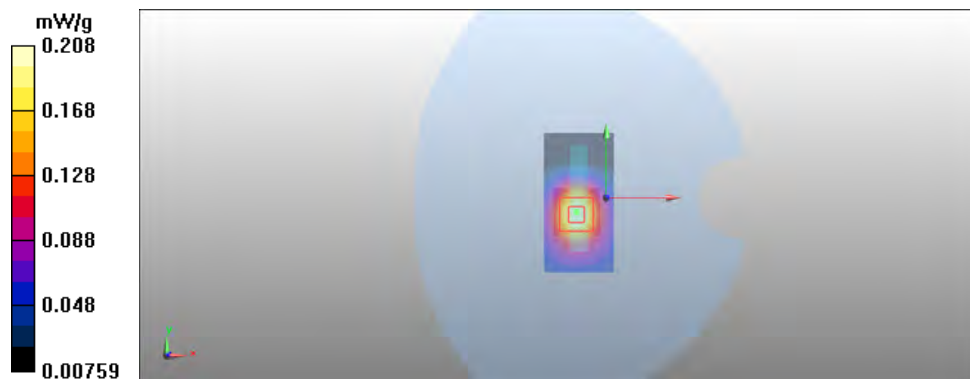
Peak SAR (extrapolated) = 0.301 W/kg

SAR(1 g) = 0.191 mW/g

SAR(10 g) = 0.114 mW/g

Power Drift = 0.365 dB

Maximum value of SAR (measured) = 0.208 mW/g



Date/Time: 2011-10-26 09:00:00, Date/Time: 2011-10-26 09:04:57

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1850.2 MHz; Duty Cycle: 1:4.2

Medium: BSL1900; Medium Notes: t= 21 C

Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.5 mho/m; ϵ_r = 52.9; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Low - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (31x61x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.75 mW/g

2-slot GPRS - Body - Low - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Zoom Scan

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

Reference Value = 30.7 V/m

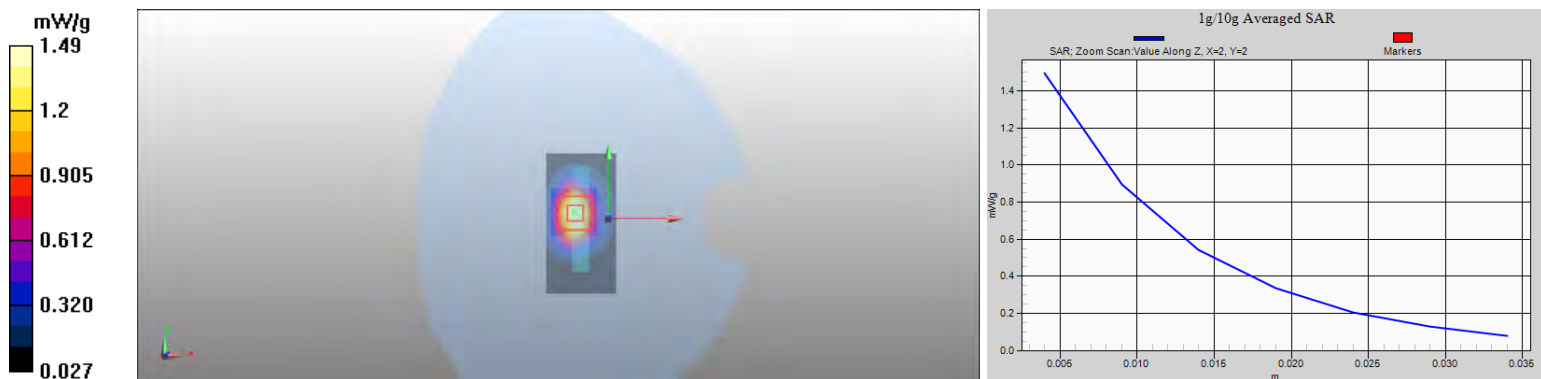
Peak SAR (extrapolated) = 2.29 W/kg

SAR(1 g) = 1.33 mW/g

SAR(10 g) = 0.708 mW/g

Power Drift = -0.109 dB

Maximum value of SAR (measured) = 1.49 mW/g



Date/Time: 2011-10-28 18:04:59, Date/Time: 2011-10-28 18:22:34

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.2

Medium: BSL1900; Medium Notes: $t = 21.0\text{ }^{\circ}\text{C}$

Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.5\text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Left edge Facing Phantom/Area Scan (31x111x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.26 mW/g

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Left edge 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 = 10.7 V/m

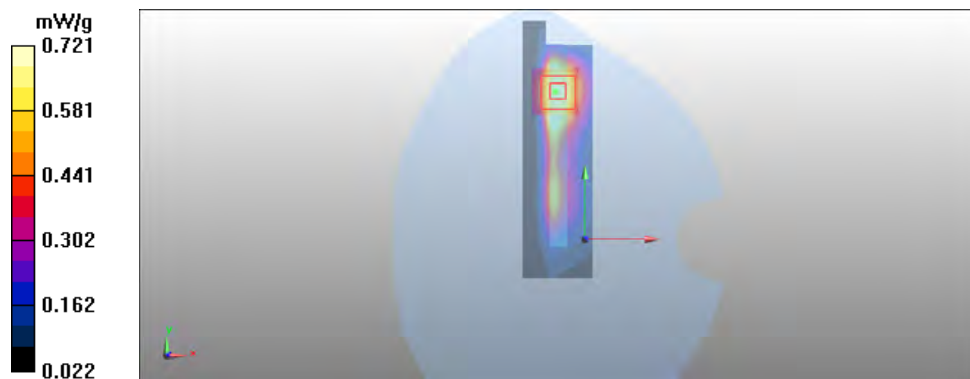
Peak SAR (extrapolated) = 1.04 W/kg

SAR(1 g) = 0.668 mW/g

SAR(10 g) = 0.402 mW/g

Power Drift = 0.229 dB

Maximum value of SAR (measured) = 0.721 mW/g



Date/Time: 2011-10-28 18:31:21, Date/Time: 2011-10-28 18:34:49

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.2

Medium: BSL1900; Medium Notes: $t = 21.0\text{ }^{\circ}\text{C}$

Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.5\text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Right edge Facing Phantom/Area Scan (31x111x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.158 mW/g

2-slot GPRS - Body - Middle - Spacer 10mm - No Accessory - Right edge 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 = 4.8 V/m

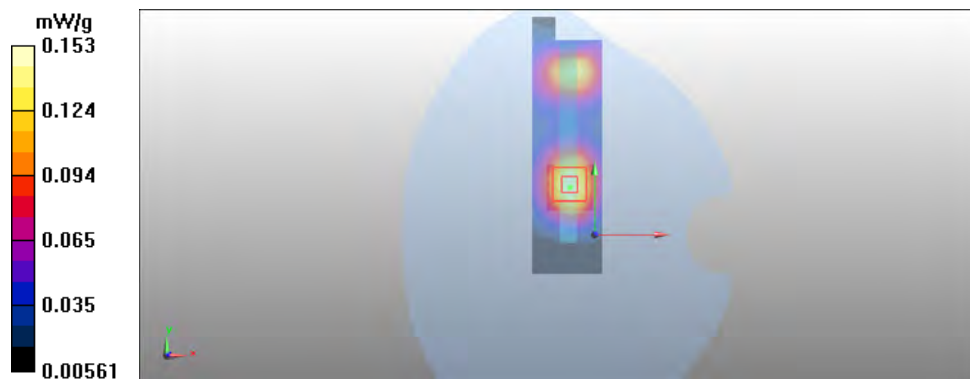
Peak SAR (extrapolated) = 0.218 W/kg

SAR(1 g) = 0.141 mW/g

SAR(10 g) = 0.086 mW/g

Power Drift = -0.016 dB

Maximum value of SAR (measured) = 0.153 mW/g



Date/Time: 2011-10-31 21:26:21, Date/Time: 2011-10-31 21:30:28

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3

Communication System: WCDMA1900

Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: $t = 20.5\text{ C}$

Medium parameters used (interpolated): $f = 1852.4\text{ MHz}$; $\sigma = 1.5\text{ mho/m}$; $\epsilon_r = 52.8$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Low - Spacer 10mm - No Accessory - Display Facing Phantom/Area Scan (61x101x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.998 mW/g

WCDMA - Body - Low - Spacer 10mm - 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 = 11.8 V/m

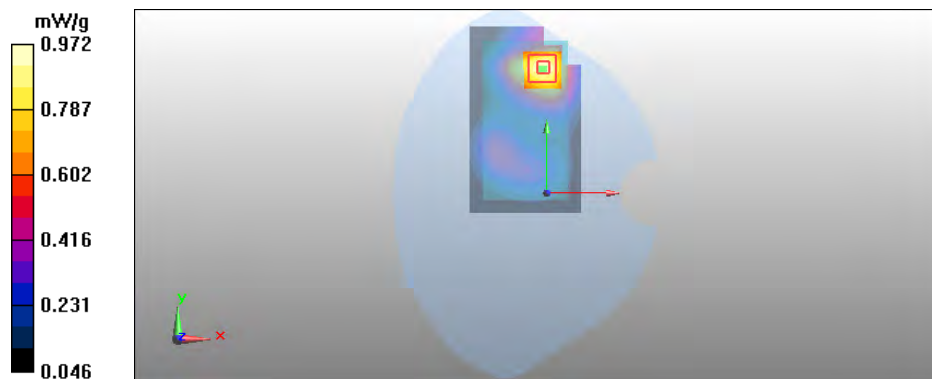
Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 0.915 mW/g

SAR(10 g) = 0.602 mW/g

Power Drift = -0.066 dB

Maximum value of SAR (measured) = 0.972 mW/g



Date/Time: 2011-11-01 13:48:36, Date/Time: 2011-11-01 13:56:06

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3

Communication System: WCDMA1900

Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: t= 20.5 C

Medium parameters used: f = 1908 MHz; σ = 1.55 mho/m; ϵ_r = 52.5; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - High - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan (61x101x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.24 mW/g

WCDMA - Body - High - Spacer 10mm - No Accessory - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.9 V/m

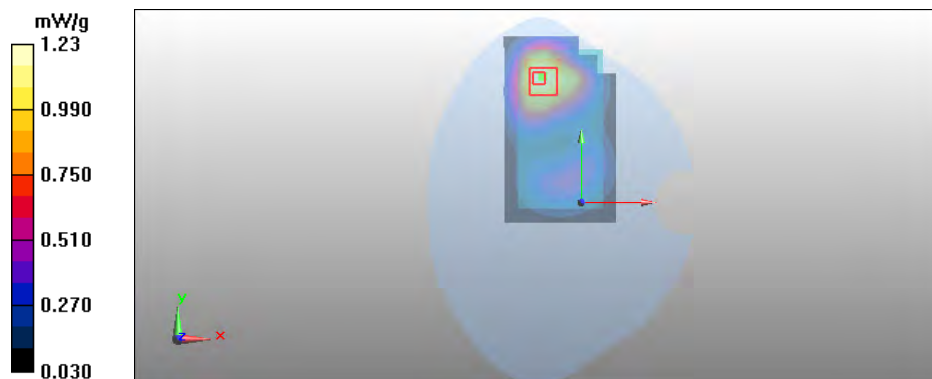
Peak SAR (extrapolated) = 1.72 W/kg

SAR(1 g) = 1.15 mW/g

SAR(10 g) = 0.737 mW/g

Power Drift = 0.040 dB

Maximum value of SAR (measured) = 1.23 mW/g



Date/Time: 2011-11-01 08:37:27, Date/Time: 2011-11-01 08:40:21

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: $t = 20.5\text{ C}$

Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.52\text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Area Scan (31x61x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.208 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Top Edge 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 = 10.8 V/m

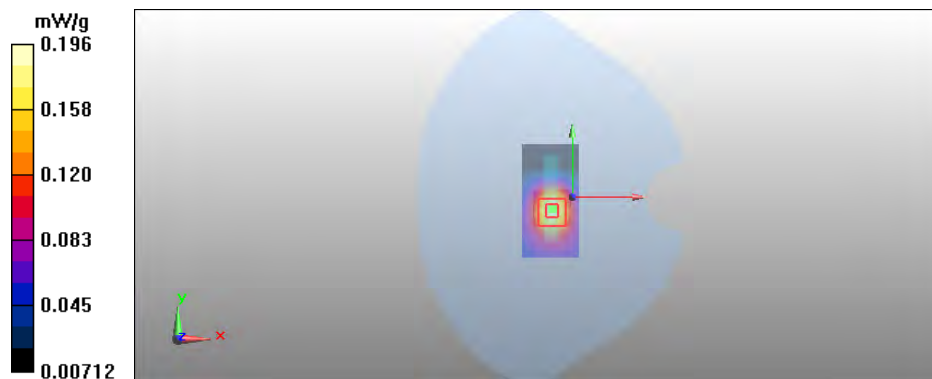
Peak SAR (extrapolated) = 0.278 W/kg

SAR(1 g) = 0.178 mW/g

SAR(10 g) = 0.108 mW/g

Power Drift = -0.035 dB

Maximum value of SAR (measured) = 0.196 mW/g



Date/Time: 2011-11-01 09:05:53, Date/Time: 2011-11-01 09:07:33

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3

Communication System: WCDMA1900

Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: $t = 20.5$ C

Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 52.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Low - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (31x61x1):

Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 1.77 mW/g

WCDMA - Body - Low - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 30.8 V/m

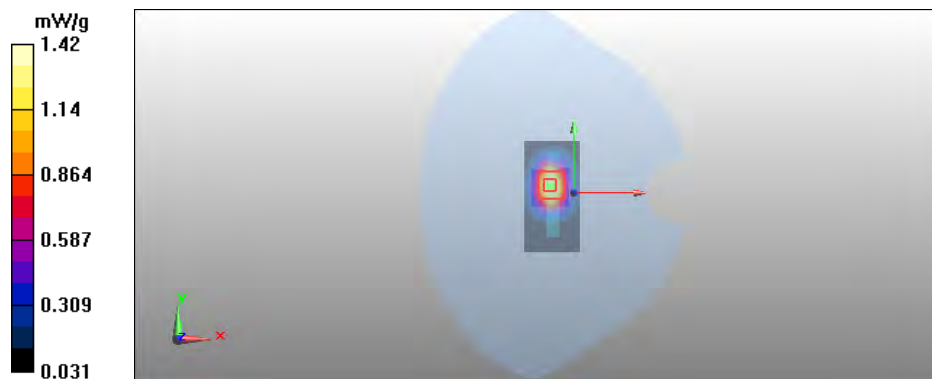
Peak SAR (extrapolated) = 2.19 W/kg

SAR(1 g) = 1.27 mW/g

SAR(10 g) = 0.681 mW/g

Power Drift = -0.019 dB

Maximum value of SAR (measured) = 1.42 mW/g



Date/Time: 2011-11-01 12:10:54, Date/Time: 2011-11-01 13:25:55

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: $t = 20.5\text{ C}$

Medium parameters used: $f = 1880\text{ MHz}$; $\sigma = 1.52\text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Area Scan (31x101x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.859 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Zoom Scan 3 (5x5x7)/Cube

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

Reference Value = 12.6 V/m

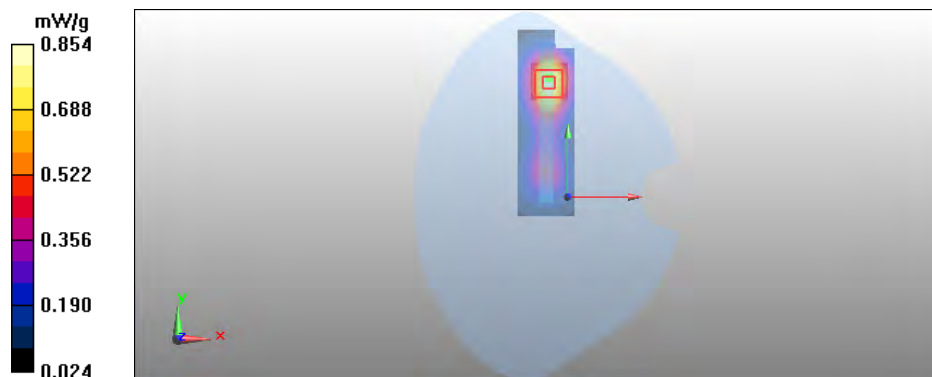
Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.777 mW/g

SAR(10 g) = 0.468 mW/g

Power Drift = -0.015 dB

Maximum value of SAR (measured) = 0.854 mW/g



Date/Time: 2011-11-01 11:51:14, Date/Time: 2011-11-01 11:55:39

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: BSL1900; Medium Notes: t= 20.5 C

Medium parameters used: f = 1880 MHz; σ = 1.52 mho/m; ϵ_r = 52.7; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165
- ConvF(4.61, 4.61, 4.61); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555; Calibrated: 2011-02-22
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY4, V4.7 Build 55; SEMCAD X Version 14.0 Build 61

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Area Scan (31x101x1):

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.188 mW/g

WCDMA - Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 5.31 V/m

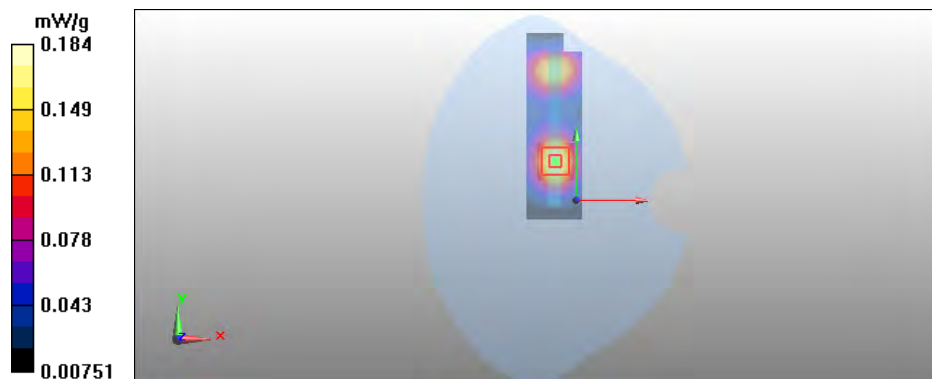
Peak SAR (extrapolated) = 0.269 W/kg

SAR(1 g) = 0.169 mW/g

SAR(10 g) = 0.102 mW/g

Power Drift = 0.166 dB

Maximum value of SAR (measured) = 0.184 mW/g



Date/Time: 2012-02-08 19:43:35, Date/Time: 2012-02-08 19:50:26

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 20.8\text{ }^{\circ}\text{C}$

Medium parameters used: $f = 2437\text{ MHz}$; $\sigma = 1.97\text{ mho/m}$; $\epsilon_r = 50.5$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode/Body - Middle - Spacer 10mm - No accessory - Display Facing Phantom/Area Scan (61x101x1):

Measurement grid: $dx=15\text{ mm}$, $dy=15\text{ mm}$

Maximum value of SAR (interpolated) = 0.236 mW/g

WLAN b-mode/Body - Middle - Spacer 10mm - No accessory - Display Facing Phantom/Zoom Scan (5x6x7)/Cube

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

Reference Value = 9.35 V/m

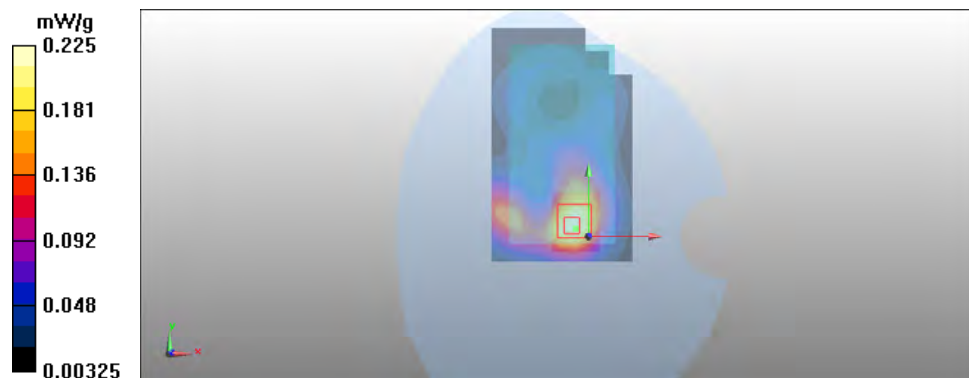
Peak SAR (extrapolated) = 0.365 W/kg

SAR(1 g) = 0.208 mW/g

SAR(10 g) = 0.119 mW/g

Power Drift = 0.300 dB

Maximum value of SAR (measured) = 0.225 mW/g



Date/Time: 2012-02-08 20:00:39, Date/Time: 2012-02-08 20:04:15

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 20.8$ C

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode/Body - Middle - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan (61x101x1):

Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.324 mW/g

WLAN b-mode/Body - Middle - Spacer 10mm - No accessory - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 9.59 V/m

Peak SAR (extrapolated) = 0.571 W/kg

SAR(1 g) = 0.264 mW/g

SAR(10 g) = 0.123 mW/g

Power Drift = 0.423 dB

Maximum value of SAR (measured) = 0.309 mW/g



Date/Time: 2012-02-08 22:10:50, Date/Time: 2012-02-08 22:12:14

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 20.8\text{ }^{\circ}\text{C}$

Medium parameters used: $f = 2462\text{ MHz}$; $\sigma = 1.99\text{ mho/m}$; $\epsilon_r = 50.5$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode/Body - High - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Area Scan (31x61x1):

Measurement grid: $dx=15\text{ mm}$, $dy=15\text{ mm}$

Maximum value of SAR (interpolated) = 0.379 mW/g

WLAN b-mode/Body - High - Spacer 10mm - No Accessory - Top Edge 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 = 12.3 V/m

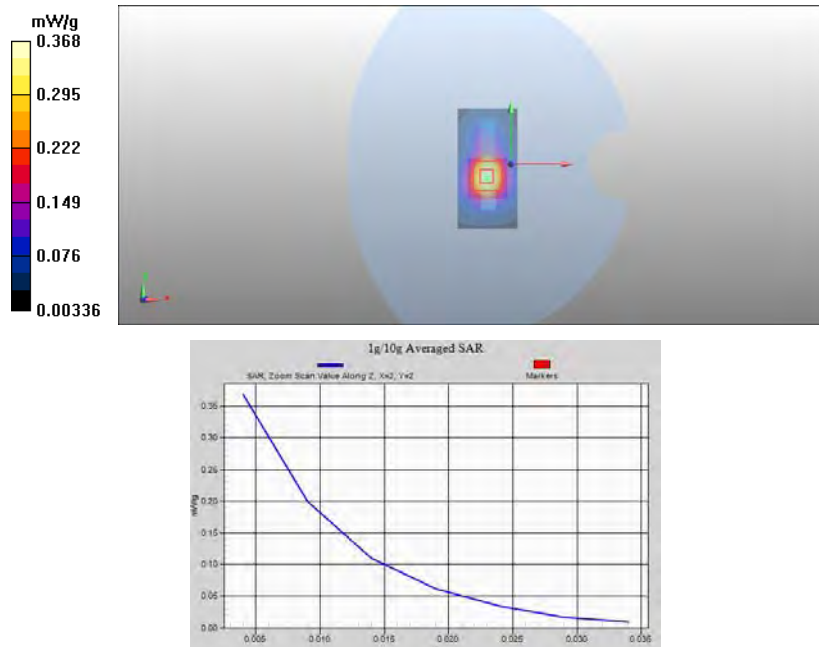
Peak SAR (extrapolated) = 0.610 W/kg

SAR(1 g) = 0.332 mW/g

SAR(10 g) = 0.173 mW/g

Power Drift = 0.152 dB

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



SAR Report

FCC_RM-808_01

Applicant: Nokia Corporation

Type: RM-808

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Date/Time: 2012-02-08 21:32:56, Date/Time: 2012-02-08 21:35:34

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 20.8\text{ C}$

Medium parameters used: $f = 2437\text{ MHz}$; $\sigma = 1.97\text{ mho/m}$; $\epsilon_r = 50.5$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode/Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan

(31x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.015 mW/g

WLAN b-mode/Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Zoom Scan

(7x6x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.32 V/m

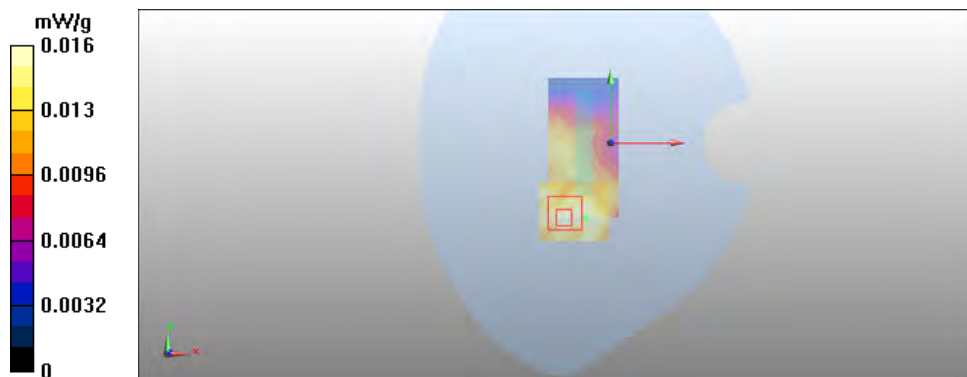
Peak SAR (extrapolated) = 0.030 W/kg

SAR(1 g) = 0.014 mW/g

SAR(10 g) = 0.00861 mW/g

Power Drift = 0.050 dB

Maximum value of SAR (measured) = 0.016 mW/g



Date/Time: 2012-02-08 20:17:34, Date/Time: 2012-02-08 20:21:49

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 20.8$ C

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode/Body - Middle - Spacer 10mm - No Accessory - Left edge Facing Phantom/Area Scan (31x111x1):

Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 0.043 mW/g

WLAN b-mode/Body - Middle - Spacer 10mm - No Accessory - Left edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm

Reference Value = 4.38 V/m

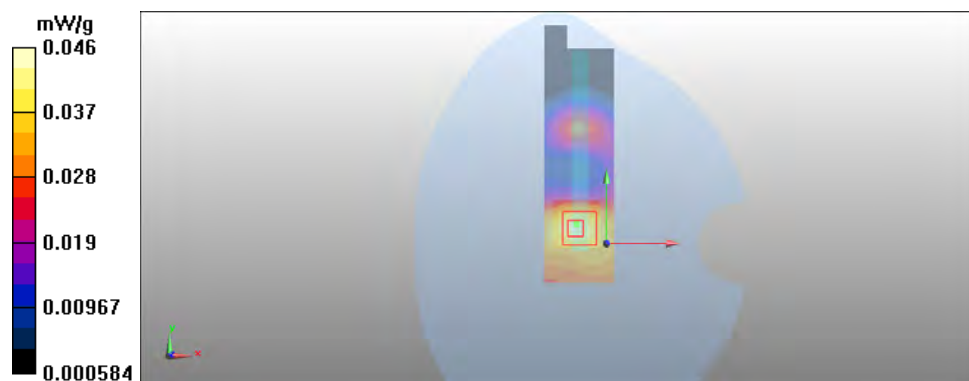
Peak SAR (extrapolated) = 0.074 W/kg

SAR(1 g) = 0.042 mW/g

SAR(10 g) = 0.024 mW/g

Power Drift = -0.083 dB

Maximum value of SAR (measured) = 0.046 mW/g



Date/Time: 2012-02-08 20:30:44, Date/Time: 2012-02-08 20:32:59

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683080/3

Communication System: WLAN2450 b-mode 1Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 20.8\text{ C}$

Medium parameters used: $f = 2437\text{ MHz}$; $\sigma = 1.97\text{ mho/m}$; $\epsilon_r = 50.5$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn538; Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASYS2, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WLAN b-mode/Body - Middle - Spacer 10mm - No Accessory - Right edge Facing Phantom/Area Scan

(31x111x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.288 mW/g

WLAN b-mode/Body - Middle - Spacer 10mm - No Accessory - Right edge 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 = 5.52 V/m

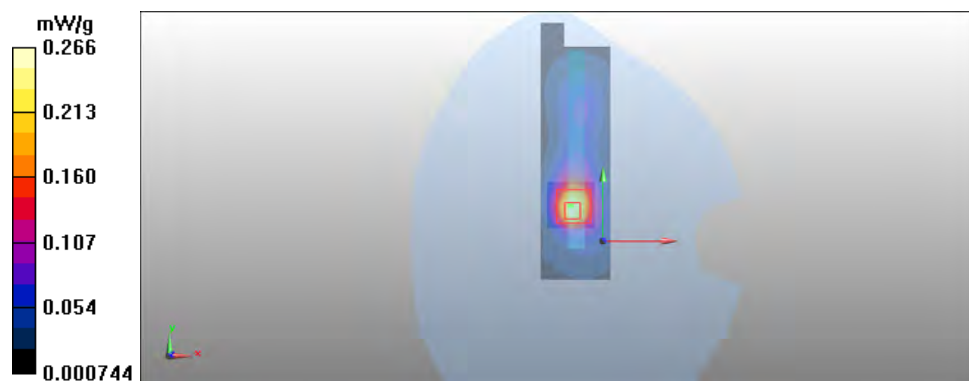
Peak SAR (extrapolated) = 0.495 W/kg

SAR(1 g) = 0.241 mW/g

SAR(10 g) = 0.115 mW/g

Power Drift = 0.200 dB

Maximum value of SAR (measured) = 0.266 mW/g



Date/Time: 2011-11-04 16:03:33, Date/Time: 2012-02-08 20:00:39

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683071/2, Serial: 004402/13/683080/3

Communication System: LTE700, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 711 MHz, Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL750, Medium: BSL2450; Medium Notes: $t=19.7$ C, Medium Notes: $t=20.8$ C

Medium parameters used: $f = 711$ MHz; $\sigma = 0.952$ mho/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³, Medium parameters used:
 $f = 2437$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn1213, Electronics: DAE4 Sn538; Calibrated: 2011-02-14, Calibrated: 2011-09-15
- Phantom: SAM 1, Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

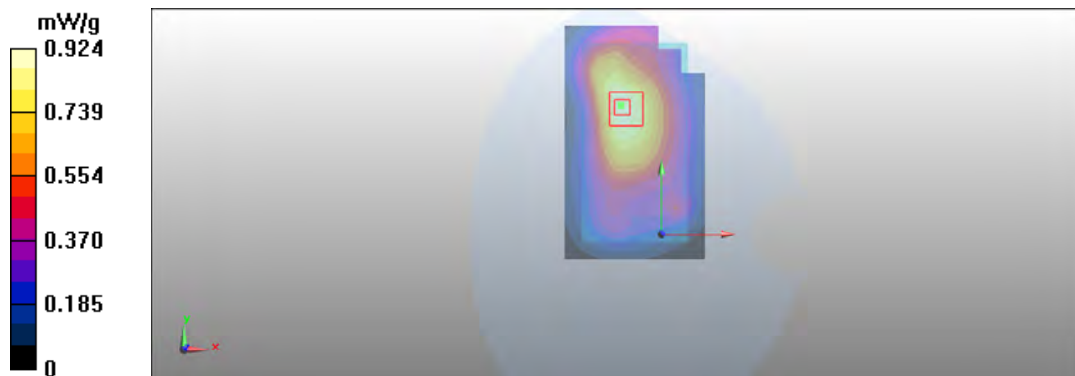
LTE/Body - High - Spacer 10mm - No accessory - Back Facing Phantom - QPSK - 10MHz - 1 RB - 50% offset/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

WLAN b-mode/Body - Middle - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan (7x11x1):
Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.866 mW/g

SAR(10 g) = 0.607 mW/g

Maximum value of SAR (measured) = 0.924 mW/g



Date/Time: 2011-11-01 10:47:26, Date/Time: 2012-02-08 20:00:39

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683118/1, Serial: 004402/13/683080/3

Communication System: 2-slot GPRS850, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 824.2 MHz, Frequency: 2437 MHz; Duty Cycle: 1:4.19952, Duty Cycle: 1:1

Medium: BSL850, Medium: BSL2450; Medium Notes: t= 20.9 C, Medium Notes: t= 20.8 C

Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.982 mho/m; ϵ_r = 52.8; ρ = 1000 kg/m³, Medium parameters used: f = 2437 MHz; σ = 1.97 mho/m; ϵ_r = 50.5; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn1213, Electronics: DAE4 Sn538; Calibrated: 2011-02-14, Calibrated: 2011-09-15
- Phantom: SAM 1, Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS/Body - Low - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

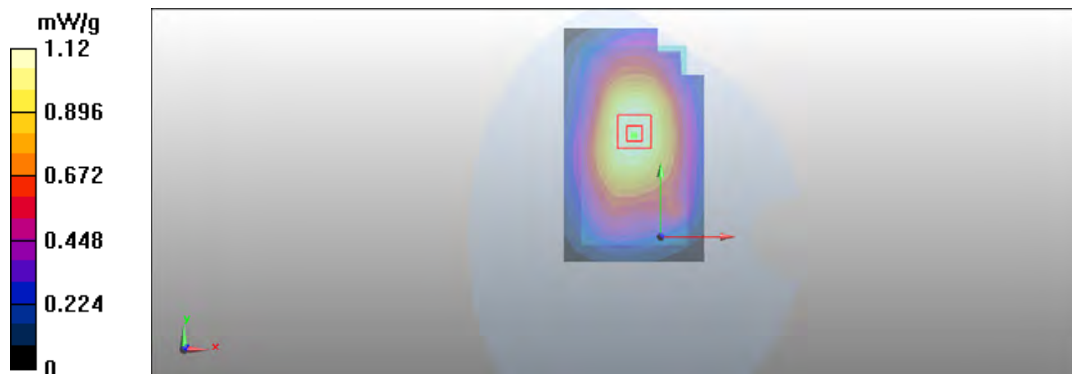
WLAN b-mode/Body - Middle - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.06 mW/g

SAR(10 g) = 0.753 mW/g

Maximum value of SAR (measured) = 1.12 mW/g



Date/Time: 2011-10-27 08:16:07, Date/Time: 2012-02-08 20:00:39

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683123/1, Serial: 004402/13/683080/3

Communication System: WCDMA850, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 835 MHz, Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL850, Medium: BSL2450; Medium Notes: t= 21.0 C, Medium Notes: t= 20.8 C

Medium parameters used: f = 835 MHz; $\sigma = 0.987$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³, Medium parameters used: f = 2437 MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3790
- ConvF(8.57, 8.57, 8.57), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn1213, Electronics: DAE4 Sn538; Calibrated: 2011-02-14, Calibrated: 2011-09-15
- Phantom: SAM 1, Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

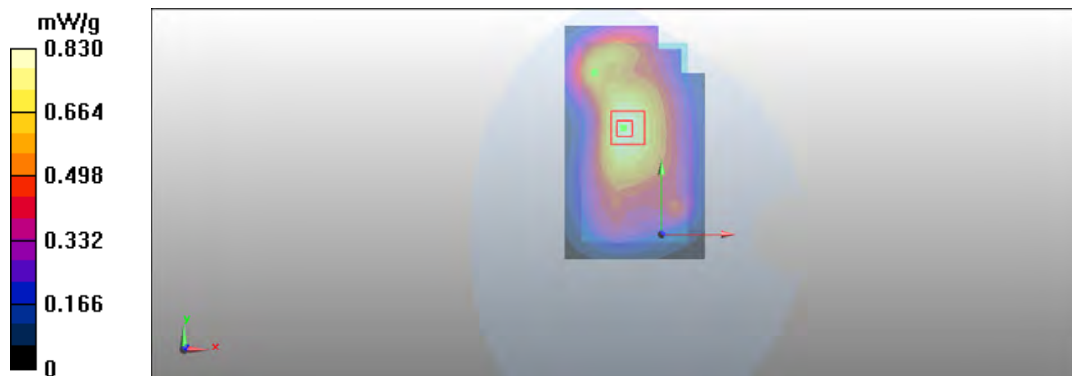
WCDMA/Body - Middle - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

WLAN b-mode/Body - Middle - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.773 mW/g

SAR(10 g) = 0.537 mW/g

Maximum value of SAR (measured) = 0.830 mW/g



Date/Time: 2011-10-31 15:52:21, Date/Time: 2012-02-08 21:32:56

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3, Serial: 004402/13/683080/3

Communication System: WCDMA1700/2100, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 1712.4 MHz, Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL1800, Medium: BSL2450; Medium Notes: t= 20.1 C, Medium Notes: t= 20.8 C

Medium parameters used (interpolated): f = 1712.4 MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³, Medium parameters used: f = 2437 MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165, Probe: EX3DV4 - SN3790
- ConvF(4.91, 4.91, 4.91), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-02-17, Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555, Electronics: DAE4 Sn538; Calibrated: 2011-02-22, Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55, Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA/ Body - Low - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (4x7x1):

Measurement grid: dx=15mm, dy=15mm

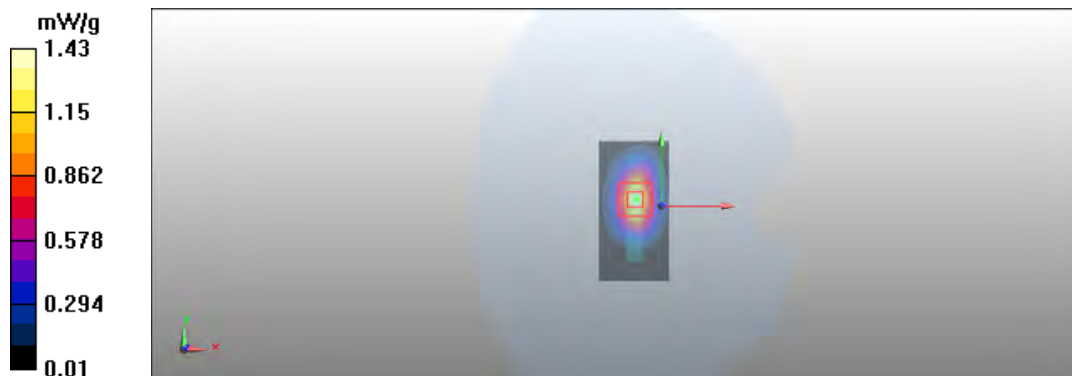
WLAN b-mode/Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (4x7x1):

Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.16 mW/g

SAR(10 g) = 0.596 mW/g

Maximum value of SAR (measured) = 1.43 mW/g



Date/Time: 2011-11-10 16:25:27, Date/Time: 2012-02-08 21:32:56

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683109/0, Serial: 004402/13/683080/3

Communication System: LTE1700/2100, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 1720 MHz; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL1800, Medium: BSL2450; Medium Notes: t= 20.7 C, Medium Notes: t= 20.8 C

Medium parameters used: f = 1720 MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³, Medium parameters used:
f = 2437 MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165, Probe: EX3DV4 - SN3790
- ConvF(4.91, 4.91, 4.91), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-02-17, Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555, Electronics: DAE4 Sn538; Calibrated: 2011-02-22, Calibrated: 2011-09-15
- Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55, Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

LTE/Body - Low - Spacer 10mm - No Accessory - QPSK - 20MHz - 1 RB - 0% offset - Bottom Edge Facing

Phantom/Area Scan (4x7x1): Measurement grid: dx=15mm, dy=15mm

WLAN b-mode/Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (4x7x1):

Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.36 mW/g

SAR(10 g) = 0.691 mW/g

Maximum value of SAR (measured) = 1.7 mW/g



Date/Time: 2011-10-26 09:00:00, Date/Time: 2012-02-08 21:32:56

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683090/2, Serial: 004402/13/683080/3

Communication System: 2-slot GPRS1900, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 1850.2 MHz, Frequency: 2437 MHz; Duty Cycle: 1:4.2, Duty Cycle: 1:1

Medium: BSL1900, Medium: BSL2450; Medium Notes: t= 21 C, Medium Notes: t= 20.8 C

Medium parameters used (interpolated): f = 1850.2 MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³, Medium parameters used: f = 2437 MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165, Probe: EX3DV4 - SN3790
- ConvF(4.61, 4.61, 4.61), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-02-17, Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn555, Electronics: DAE4 Sn538; Calibrated: 2011-02-22, Calibrated: 2011-09-15
- Phantom: SAM 2, Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP - 1177, Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55, Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

2-slot GPRS/Body - Low - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (4x7x1):

Measurement grid: dx=15mm, dy=15mm

WLAN b-mode/Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (4x7x1):

Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.42 mW/g

SAR(10 g) = 0.722 mW/g

Maximum value of SAR (measured) = 1.75 mW/g



Date/Time: 2011-11-01 13:48:36, Date/Time: 2012-02-08 20:00:39

Test Laboratory: TCC Nokia

Type: RM-808; Serial: 004402/13/683075/3, Serial: 004402/13/683080/3

Communication System: WCDMA1900, Communication System: WLAN2450 b-mode 1Mbps

Frequency: 1907.6 MHz, Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL1900, Medium: BSL2450; Medium Notes: t= 20.5 C, Medium Notes: t= 20.8 C

Medium parameters used: f = 1908 MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 52.5$; $\rho = 1000$ kg/m³, Medium parameters used: f = 2437 MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3165, Probe: EX3DV4 - SN3790
- ConvF(4.61, 4.61, 4.61), ConvF(6.85, 6.85, 6.85); Calibrated: 2011-02-17, Calibrated: 2011-05-24
- Sensor-Surface: 4mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn555, Electronics: DAE4 Sn538; Calibrated: 2011-02-22, Calibrated: 2011-09-15
- Phantom: SAM 2, Phantom: SAM 3; Type: Twin SAM 040 CA; Serial: TP - 1177, Serial: TP-1179
- Measurement SW: DASY4, V4.7 Build 55, Measurement SW: DASY52, V52.6 Build 2; SEMCAD X Version 14.0 Build 61

WCDMA/Body WR - High - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

WLAN b-mode/Body - Middle - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.17 mW/g

SAR(10 g) = 0.721 mW/g

Maximum value of SAR (measured) = 1.26 mW/g

