

SAR Compliance Test Report

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Testing has been carried out in accordance with:	<p>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</p> <p>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</p> <p>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</p>		
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	2011-09-13 to 2011-10-05
SN, HW and SW numbers of tested device	SN: 004402/13/651118/9, HW: 0111, SW: 1600.2201.7720.11350, DUT: 23484
Batteries used in testing	BP-3L Sony, DUT: 23460, 23563, 23474, 23475 BP-3L LG, DUT: 23470, 23471
Headsets used in testing	WH-208, DUT: 23448
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
4-slot GPRS850	128 / 824.2	27.0 dBm	Left, Cheek	0.819 W/kg	0.92 W/kg	1.6 W/kg	PASSED
WCDMA850	4175 / 835.0	23.5 dBm	Left, Cheek	0.686 W/kg	0.77 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100	1412 / 1732.4	24.0 dBm	Left, Cheek	0.595 W/kg	0.67 W/kg	1.6 W/kg	PASSED
4-slot GPRS1900	810 / 1909.8	26.0 dBm	Left, Cheek	0.738 W/kg	0.83 W/kg	1.6 W/kg	PASSED
WCDMA1900	9538 / 1907.6	24.0 dBm	Left, Cheek	1.02 W/kg	1.14 W/kg	1.6 W/kg	PASSED
WLAN2450**	11 / 2462.0	18.0 dBm	Left, Cheek	0.301 W/kg	0.34 W/kg	1.6 W/kg	PASSED
4-slot GPRS850 + WLAN2450	-	-	Left, Cheek	0.819 W/kg	0.92 W/kg	1.6 W/kg	PASSED
WCDMA850 + WLAN2450	-	-	Left, Cheek	0.687 W/kg	0.77 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100 + WLAN2450	-	-	Left, Cheek	0.595 W/kg	0.67 W/kg	1.6 W/kg	PASSED
4-slot GPRS1900 + WLAN2450	-	-	Left, Cheek	0.747 W/kg	0.84 W/kg	1.6 W/kg	PASSED
WCDMA1900 + WLAN2450	-	-	Left, Cheek	1.03 W/kg	1.15 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
4-slot GPRS850	128 / 824.2	27.0 dBm	2.2 cm	0.769 W/kg	0.86 W/kg	1.6 W/kg	PASSED
WCDMA850	4175 / 835.0	23.5 dBm	2.2 cm	0.725 W/kg	0.81 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100	1513 / 1752.6	24.0 dBm	2.2 cm	1.04 W/kg	1.16 W/kg	1.6 W/kg	PASSED
4-slot GPRS1900	661 / 1880.0	26.0 dBm	2.2 cm	0.917 W/kg	1.03 W/kg	1.6 W/kg	PASSED
WCDMA1900	9538 / 1907.6	24.0 dBm	2.2 cm	0.864 W/kg	0.97 W/kg	1.6 W/kg	PASSED
WLAN2450**	1 / 2412.0	18.0 dBm	2.2 cm	0.063 W/kg	0.07 W/kg	1.6 W/kg	PASSED
4-slot GPRS850 + WLAN2450	-	-	2.2 cm	0.816 W/kg	0.91 W/kg	1.6 W/kg	PASSED
WCDMA850 + WLAN2450	-	-	2.2 cm	0.768 W/kg	0.86 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100 + WLAN2450	-	-	2.2 cm	1.05 W/kg	1.18 W/kg	1.6 W/kg	PASSED
4-slot GPRS1900 + WLAN2450	-	-	2.2 cm	0.932 W/kg	1.04 W/kg	1.6 W/kg	PASSED
WCDMA1900 + WLAN2450	-	-	2.2 cm	0.869 W/kg	0.97 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.

**SAR data taken from FCC_RM-803_01 for RM-803 / FCC ID: QMNRM-803 / IC: 661X-RM803.

1.2.3 Maximum Drift

Maximum drift covered by 12% scaling up of the SAR values	Maximum drift during measurements
0.5dB	0.50 dB

1.2.4 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 4/8	824 – 849 1850 – 1910
EGPRS	850 1900	GMSK / 8PSK	1/8 to 4/8	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
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/Dual Transfer Mode capability for use at the ear. Therefore, SAR for multi slot GPRS mode was evaluated against the head profile of the phantom. Dual Transfer Mode is a feature that utilises the multi-slot GPRS capability in this device; it allows simultaneous transmission of voice and data during the same call, using the same transmitter and antenna.

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 a BT Class 1 device; as its power tuning target is 6.1 dBm (4.07 mW), SAR testing was deemed unnecessary.

2.1 Description of the Antenna

The device has internal antennas for both cellular and WLAN use. The cellular antenna is located at the bottom underneath the back cover. The WLAN antenna is located at the top underneath the back cover.

3. TEST CONDITIONS

3.1 Temperature and Humidity

Ambient temperature (°C):	20.5 - 22.5
Ambient humidity (RH %):	35 - 55

3.2 Test Signal, Frequencies and Output Power

The device was put into operation by using a call tester. 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.

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.

Some of the SAR results given in this report are taken from the earlier report FCC_RM-803_01 for RM-803 / FCC ID: QMNRM-803 / IC: 661X-RM803. The only differences between RM-809 and RM-803 are a) in the power tuning targets in the GSM/GPRS/EGPRS bands and b) WCDMA900 functionality in RM-803 has been replaced by WCDMA850 and WCDMA1700/2100 functionality in RM-809.

3.3 Test Cases and Test Minimisation

The tested device examined in this report may not incorporate all of the features described in the text that follows, but its SAR evaluation will have been subjected to the same considerations and test logic described below.

Whilst it's possible to identify the maximum SAR test cases from inspection of the conducted power levels given in the Results tables (Section 7), different modes in the same band and multi-slot transmit GSM/GPRS modes can create some difficulties. Therefore the sequence of the SAR tests made in evaluating this device has used test logic that is based on measured SAR values. Comparison of measured SAR values in this way, can also allow some test minimization (i.e. test elimination) to be made.

For example, when SAR testing multi-slot GSM/GPRS/EGPRS modes, it is an inefficient use of test resources to fully SAR test every test configuration in each of the different modes as these modes have a fixed power relationship between them that is the same, irrespective of the test configuration. In the case of multi-slot GSM/GPRS modes, a single comparative SAR test - using the same test channel and test configuration - is made in each of the n-slot modes; the mode with the highest measured SAR value is then subjected to full SAR testing in all test configurations. These comparative SAR tests (same frequency, same test configuration) are regarded as extremely accurate as they are relative tests in which the tested device changes neither its frequency nor its position between tests. For different modes that operate in the same band and use the same antenna e.g. GSM/GPRS850 and WCDMA850, full SAR testing is carried out in the GSM/GPRS850 mode but WCDMA850 testing is limited to 3 channel testing in the maximum SAR test configuration for GSM/GPRS850.

Multi-slot SAR testing against the Head is always performed whenever such a device offers Push to Talk over cellular with the internal earpiece active, Dual Transfer Mode (i.e. the ability to transmit voice and data simultaneously using the same transmitter) or has WLAN (which enables a Voice over IP call to take place whilst the device can simultaneously transmit data on a cellular band). Whenever a device has an intended multi-slot use against the head, it is also Head SAR tested in EGPRS mode. It should be noted that EGPRS transmit modes can have either GMSK or 8PSK modulation but, when tested, only 8PSK EGPRS will appear explicitly in the results tables, as GMSK EGPRS mode has identical time-averaged power to the reported GPRS mode.

Devices that have flips or slides are fully SAR tested in all device configurations consistent with their intended usage. For example, flip phones that can receive a call in closed mode are SAR tested against the head in both open and closed configurations. Similarly, slide phones are fully SAR tested in all slide configurations in which calls are intended to be made or received.

In the results tables in Section 7, the maximum SAR value for the 'basic' tests (i.e. left cheek, left tilt, right cheek and right tilt in Head SAR testing; with and without headset with the back &/or display side facing the flat phantom in Body SAR testing) is bolded for each band. In some cases, after full testing of the basic SAR test configurations has been completed, additional checking SAR tests are made. These checking tests are always based on the bolded result from the 'basic' testing. When the SAR value of a checking test exceeds the maximum value from the basic tests, it is also bolded and used as the basis for any further checking tests that might be needed.

Checking tests are largely voluntary and can cover optional batteries, different camera slide positions, optional covers, etc. In the case of optional batteries, if the construction of the optional battery is significantly different to the battery used in the full testing e.g. if the outer can is floating electrically rather than grounded, then the maximum SAR test configuration in each band is tested with the optional battery in 3 channels. For camera slides, if the slide material is metal, then checking tests in 3 channels are again run for the maximum SAR test configuration in each band. For plastic camera slides, SAR checking is only carried out in the channel that provided the maximum SAR value for the original. Optional front and back covers are tested if their shape differs significantly from the original or if their metallic content varies by more than 15% from the original; in the former case, the testing depends on the extent of the physical differences, whereas in the latter case, 3 channel SAR testing is performed in every band in the max SAR test configuration.

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 interval	Calibration expiry
DAE4	339	12 months	2012-02
E-field Probe ES3DV3	3116	12 months	2012-02
Dipole Validation Kit, D835V2	4d042	24 months	2012-07
Dipole Validation Kit, D1800V2	2d075	24 months	2012-02
Dipole Validation Kit, D1900V2	5d063	24 months	2012-02
DASY4 software	Version 4.7	-	-

Additional test equipment used in testing:

Test Equipment	Model	Serial Number	Calibration interval	Calibration expiry
Signal Generator	SME06	848650/011	36 months	2012-02
Signal Generator	SME06	829445/008	36 months	2012-02
Signal Generator	SMIQ03	826046/034	36 months	2012-08
Amplifier	ZHL-42W	E012903	-	-
Amplifier	AR-5S1G4	306024	-	-
Amplifier	ZHL-4240W	E060204/1	-	-
Power Meter	NRP	100808	24 months	2012-04
Power Meter	NRP	101293	24 months	2012-08
Power Meter	NRVD	833696/030	24 months	2013-03
Power Sensor	NRP-Z51	100410	24 months	2012-04
Power Sensor	NRP-Z51	100830	24 months	2012-08
Power Sensor	NRV-Z51	100184	24 months	2013-03
Call Tester	CMU200	105900	-	-
Call Tester	CMU200	110735	-	-
Call Tester	CMU200	831593	-	-
Vector Network Analyzer	AT8753ES	MY40001091	12 months	2012-08
Dielectric Probe Kit	HP85070B	US33020403	-	-

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

4.2 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):

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

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]	
835	Reference result	2.38	42.1	0.90	
	± 10% window	2.14 - 2.62			
	2011-09-13	2.39	40.6	0.90	22.5
	2011-09-26	2.48	40.1	0.91	22.5
1800	Reference result	9.50	39.4	1.37	
	± 10% window	8.55 - 10.45			
	2011-09-19	9.45	38.7	1.38	22.5
	2011-09-20	9.70	38.4	1.42	22.2
1900	Reference result	9.98	39.2	1.42	
	± 10% window	8.98 - 10.98			
	2011-09-21	10.5	38.4	1.49	22.3
	2011-09-22	10.4	38.1	1.47	22.5
	2011-09-23	10.5	38.0	1.48	22.5
	2011-09-28	10.5	38.1	1.46	22.5
2011-10-05	10.6	38.0	1.47	22.3	

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]	
835	Recommended value	41.5	0.90	
	± 5% window	39.4 – 43.6	0.86 – 0.95	
	2011-09-26	40.1	0.91	22.5
836	Recommended value	41.5	0.90	
	± 5% window	39.4 – 43.6	0.86 – 0.95	
	2011-09-13	40.6	0.90	22.5
1732	Recommended value	40.1	1.36	
	± 5% window	38.1 – 42.1	1.29 – 1.43	
	2011-09-19	39.0	1.31	22.5
	2011-09-20	38.7	1.35	22.2
1880	Recommended value	40.0	1.40	
	± 5% window	38.0 – 42.0	1.33 – 1.47	
	2011-09-21	38.5	1.47	22.3
	2011-09-22	38.2	1.45	22.5
	2011-10-05	38.1	1.45	22.3

Body tissue simulant measurements

f [MHz]	Description	Dielectric Parameters		Temp [°C]
		ϵ_r	σ [S/m]	
835	Recommended value	55.2	0.97	
	± 5% window	52.4 – 58.0	0.92 – 1.02	
	2011-09-26	53.3	0.99	22.5
836	Recommended value	55.2	0.97	
	± 5% window	52.4 – 58.0	0.92 – 1.02	
	2011-09-13	53.5	0.98	22.5
1732	Recommended value	53.5	1.48	
	± 5% window	50.8 – 56.2	1.40 – 1.55	
	2011-09-20	51.1	1.48	22.0
	2011-10-05	51.0	1.42	22.3
1880	Recommended value	53.3	1.52	
	± 5% window	50.6 – 56.0	1.44 – 1.60	
	2011-09-28	50.8	1.56	22.5

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:

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	Conducted Power		-	31.7 dBm	-
BP-3L Sony	Left	Cheek	-	0.440	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
2-slot GPRS	Conducted Power		-	30.0 dBm	-
BP-3L Sony	Left	Cheek	-	0.588	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
3-slot GPRS	Conducted Power		-	28.0 dBm	-
BP-3L Sony	Left	Cheek	-	0.585	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
4-slot GPRS	Conducted Power		27.0 dBm	27.0 dBm	27.0 dBm
BP-3L Sony	Left	Cheek	0.819	0.636	0.535
		Tilt	-	0.514	-
	Right	Cheek	-	0.562	-
		Tilt	-	0.537	-
4-slot 8PSK EGPRS	Conducted Power		24.0 dBm	-	-
BP-3L Sony	Left	Cheek	0.318	-	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-

(850MHz Table continues)

(850MHz Table continues)

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	Conducted Power		23.5 dBm	23.5 dBm	23.5 dBm
BP-3L Sony	Left	Cheek	0.671	0.686	0.599
		Tilt	-	0.464	-
	Right	Cheek	-	0.649	-
		Tilt	-	0.486	-
4-slot GPRS BP-3L LG	Left Cheek		0.793	0.657	0.523

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	Conducted Power		24.0 dBm	24.0 dBm	24.0 dBm
BP-3L Sony	Left	Cheek	0.536	0.576	0.575
		Tilt	-	0.109	-
	Right	Cheek	-	0.346	-
		Tilt	-	0.092	-
WCDMA BP-3L LG	Left Cheek		0.554	0.595	0.579

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	Conducted Power		-	30.0 dBm	-
BP-3L Sony	Left	Cheek	-	0.346	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
2-slot GPRS	Conducted Power		-	29.0 dBm	-
BP-3L Sony	Left	Cheek	-	0.531	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
3-slot GPRS	Conducted Power		-	27.0 dBm	-
BP-3L Sony	Left	Cheek	-	0.525	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
4-slot GPRS	Conducted Power		26.0 dBm	26.0 dBm	26.0 dBm
BP-3L Sony	Left	Cheek	0.461	0.614	0.738
		Tilt	-	0.168	-
	Right	Cheek	-	0.546	-
		Tilt	-	0.202	-
4-slot 8PSK EGPRS	Conducted Power		-	-	23.0 dBm
BP-3L Sony	Left	Cheek	-	-	0.313
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-

(1900MHz Table continues)

(1900MHz Table continues)

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	Conducted Power		24.0 dBm	24.0 dBm	24.0 dBm
BP-3L Sony	Left	Cheek	0.734	0.705	0.945
		Tilt	-	0.221	-
	Right	Cheek	-	0.598	-
		Tilt	-	0.231	-
WCDMA BP-3L LG	Left Cheek		0.721	0.744	1.02

2450MHz Head SAR results**

Mode	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 1 2412.0 MHz	Ch 7 2442.0 MHz	Ch 11 2462.0 MHz
WLAN b-mode	Conducted Power		18.0 dBm	18.0 dBm	18.0 dBm
BP-3L Sony	Left	Cheek	0.282	0.120	0.301
		Tilt	-	0.092	-
	Right	Cheek	-	0.104	-
		Tilt	-	0.099	-
WLAN n-mode 20MHz	Conducted Power		13.0 dBm	15.0 dBm	13.0 dBm
BP-3L Sony	Left	Cheek	0.083	0.083	0.086
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
WLAN b-mode BP-3L LG	Left Cheek		0.255	0.132	0.268

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

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
4-slot GPRS		Conducted Power	27.0 dBm	27.0 dBm	27.0 dBm
BP-3L Sony	Display facing phantom	Without headset	-	0.564	-
		Headset WH-208	-	0.360	-
	Back facing phantom	Without headset	0.769	0.716	0.644
		Headset WH-208	-	0.478	-
Mode	Device orientation	Test configuration	Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz
WCDMA		Conducted Power	23.5 dBm	23.5 dBm	23.5 dBm
BP-3L Sony	Display facing phantom	Without headset	-	0.599	-
		Headset WH-208	-	0.387	-
	Back facing phantom	Without headset	0.592	0.725	0.635
		Headset WH-208	-	0.481	-
4-slot GPRS BP-3L LG	Back facing phantom	Without headset	0.766	0.687	0.658

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			Conducted Power		
			24.0 dBm	24.0 dBm	24.0 dBm
BP-3L Sony	Display facing phantom	Without headset	-	0.378	-
		Headset WH-208	-	0.335	-
	Back facing phantom	Without headset	1.04	1.02	1.04
		Headset WH-208	1.04	1.03	1.03
WCDMA BP-3L LG	Back facing phantom	Without headset	1.04	1.03	1.04

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
4-slot GPRS			Conducted Power		
			26.0 dBm	26.0 dBm	26.0 dBm
BP-3L Sony	Display facing phantom	Without headset	-	0.303	-
		Headset WH-208	-	0.331	-
	Back facing phantom	Without headset	0.550	0.917	0.646
		Headset WH-208	0.736	0.914	0.862
Mode	Device orientation	Test configuration	Ch 9262 1852.4 MHz	Ch 9400 1880.0 MHz	Ch 9538 1907.6 MHz
WCDMA			Conducted Power		
			24.0 dBm	24.0 dBm	24.0 dBm
BP-3L Sony	Display facing phantom	Without headset	-	0.335	-
		Headset WH-208	-	0.331	-
	Back facing phantom	Without headset	-	0.766	-
		Headset WH-208	0.853	0.770	0.864
4-slot GPRS BP-3L LG	Back facing phantom	Without headset	0.595	0.665	0.665

2450MHz Body SAR results**

Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 1 2412.0 MHz	Ch 7 2442.0 MHz	Ch 11 2462.0 MHz
WLAN b-mode		Conducted Power	18.0 dBm	18.0 dBm	18.0 dBm
BP-3L Sony	Display facing phantom	Without headset	-	0.023	-
		Headset WH-208	-	0.026	-
	Back facing Phantom	Without headset	-	0.056	-
		Headset WH-208	0.063	0.063	0.053
WLAN n-mode 20MHz		Conducted Power	13.0 dBm	15.0 dBm	13.0 dBm
BP-3L Sony	Display facing phantom	Without headset	-	-	-
		Headset WH-208	-	-	-
	Back facing phantom	Without headset	-	-	-
		Headset WH-208	0.030	0.031	0.030
WLAN b-mode BP-3L LG	Back facing phantom	Without headset	0.036	0.037	0.037

Simultaneous transmissions: Combined SAR results – Individual band Max results

Test configuration	Max. 1g SAR results					
	WLAN**	4-slot GPRS850	WCDMA 850	WCDMA 1700/2100	4-slot GPRS1900	WCDMA 1900
Head: Left, Cheek	0.301	0.819	0.686	0.595	0.738	1.02
Head: Left, Tilt	0.092	0.514	0.464	0.109	0.168	0.221
Head: Right, Cheek	0.104	0.562	0.649	0.346	0.546	0.598
Head: Right, Tilt	0.099	0.605	0.486	0.092	0.202	0.231
Body: Display facing phantom, Without Headset	0.023	0.564	0.599	0.378	0.303	0.335
Body: Display facing phantom, Headset WH-208	0.026	0.360	0.387	0.335	0.331	0.331
Body: Back facing phantom, Without Headset	0.056	0.769	0.725	1.04	0.917	0.766
Body: Back facing phantom, Headset WH-208	0.063	0.478	0.481	1.04	0.914	0.864

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

Test configuration	Max. 1g SAR results				
	4-slot GPRS850 + WLAN	WCDMA850 + WLAN	WCDMA 1700/2100 + WLAN	4-slot GPRS1900 + WLAN	WCDMA1900 + WLAN
Head: Left, Cheek	1.120	0.987	0.896	1.039	1.321
Head: Left, Tilt	0.606	0.556	0.201	0.260	0.313
Head: Right, Cheek	0.666	0.753	0.450	0.650	0.702
Head: Right, Tilt	0.704	0.585	0.191	0.301	0.330
Body: Display facing phantom, Without Headset	0.587	0.622	0.401	0.326	0.358
Body: Display facing phantom, Headset WH-208	0.386	0.413	0.361	0.357	0.357
Body: Back facing phantom, Without Headset	0.825	0.781	1.096	0.973	0.822
Body: Back facing phantom, Headset WH-208	0.541	0.544	1.103	0.977	0.927

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				
	4-slot GPRS850 + WLAN	WCDMA850 + WLAN	WCDMA 1700/2100 + WLAN	4-slot GPRS1900 + WLAN	WCDMA1900 + WLAN
Head: Left, Cheek	0.763	0.687	0.452	0.747	1.03
Head: Left, Tilt	-	-	-	-	-
Head: Right, Cheek	-	-	-	-	-
Head: Right, Tilt	-	-	-	-	-
Body: Display facing phantom, Without Headset	-	-	-	-	-
Body: Display facing phantom, Headset WH-208	-	-	-	-	-
Body: Back facing phantom, Without Headset	0.816	0.768	-	-	-
Body: Back facing phantom, Headset WH-208	-	-	1.05	0.932	0.869

**SAR data taken from FCC_RM-803_01 for RM-803 / FCC ID: QMNRM-803 / IC: 661X-RM803.

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.

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.

Plots of the Measurement scans are given in Appendix B.

APPENDIX A: SYSTEM CHECKING SCANS

See the following pages

Date/Time: 2011-09-13 09:26:20

Test Laboratory: TCC Nokia
Type: **D835V2**; Serial: **4d042**

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

d=15mm, Pin=250mW/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 2.59 mW/g

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

Reference Value = 54.6 V/m

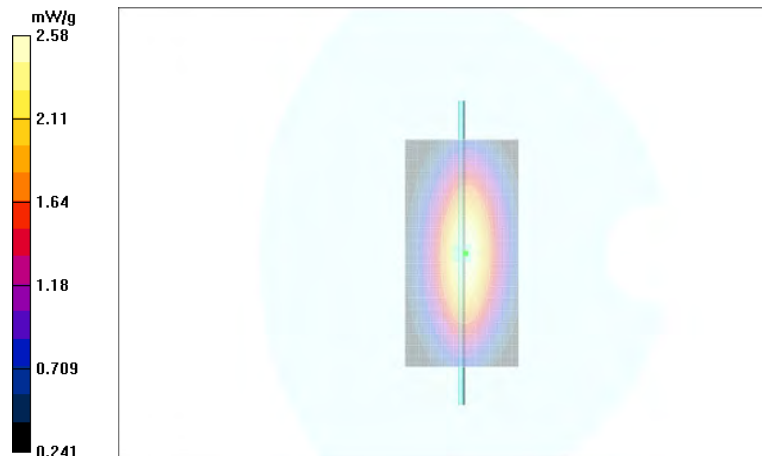
Peak SAR (extrapolated) = 3.53 W/kg

SAR(1 g) = 2.39 mW/g

SAR(10 g) = 1.56 mW/g

Power Drift = -0.070 dB

Maximum value of SAR (measured) = 2.58 mW/g



Date/Time: 2011-09-26 09:17:04

Test Laboratory: TCC Nokia
Type: **D835V2**; Serial: **4d042**

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.906$ mho/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

d=15mm, Pin=250mW/Area Scan (61x121x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 2.69 mW/g

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

Reference Value = 55.4 V/m

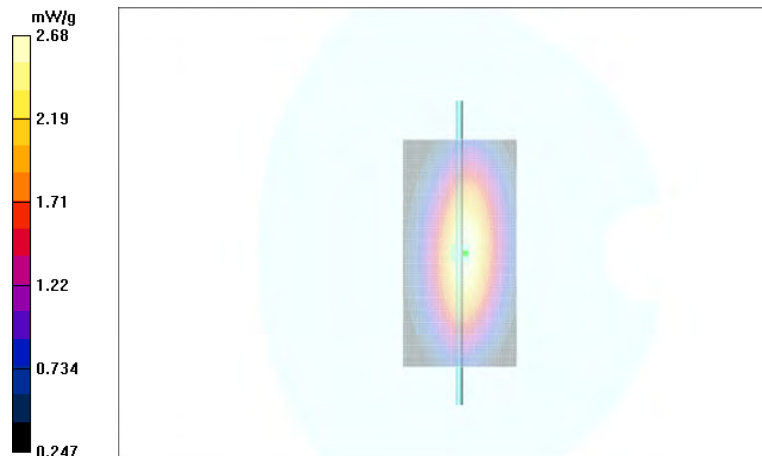
Peak SAR (extrapolated) = 3.69 W/kg

SAR(1 g) = 2.48 mW/g

SAR(10 g) = 1.62 mW/g

Power Drift = -0.172 dB

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



Date/Time: 2011-09-19 09:18:48

Test Laboratory: TCC Nokia
Type: **D1800V2**; Serial: **2d075**

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: Head 1800; Medium Notes: Medium Temperature: 22.5 C

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

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.29, 5.29, 5.29); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

d=10mm, Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 10.8 mW/g

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

Reference Value = 85.1 V/m

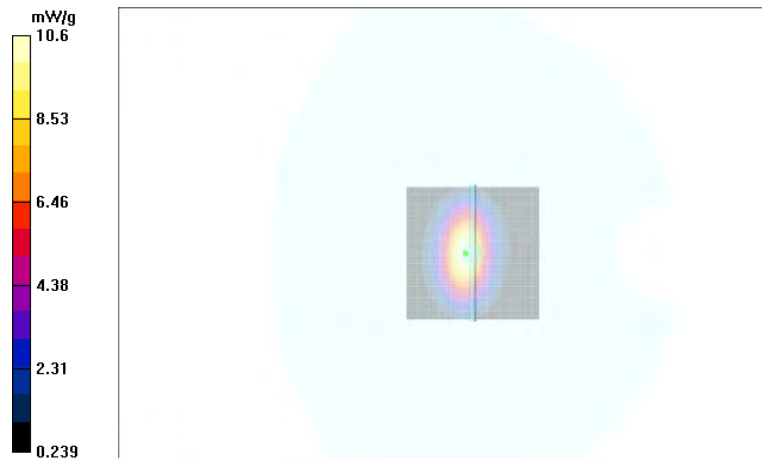
Peak SAR (extrapolated) = 17.2 W/kg

SAR(1 g) = 9.45 mW/g

SAR(10 g) = 5 mW/g

Power Drift = -0.011 dB

Maximum value of SAR (measured) = 10.6 mW/g



Date/Time: 2011-09-20 09:28:11

Test Laboratory: TCC Nokia
Type: **D1800V2**; Serial: **2d075**

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: Head 1800; Medium Notes: Medium Temperature: 22.2 C

Medium parameters used: $f = 1800$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.29, 5.29, 5.29); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

d=10mm, Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 11.0 mW/g

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

Reference Value = 84.0 V/m

Peak SAR (extrapolated) = 17.8 W/kg

SAR(1 g) = 9.7 mW/g

SAR(10 g) = 5.09 mW/g

Power Drift = -0.015 dB

Maximum value of SAR (measured) = 11.0 mW/g



Date/Time: 2011-10-05 09:36:33

Test Laboratory: TCC Nokia
Type: **D1800V2**; Serial: **2d075**

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: Head 1800; Medium Notes: Medium Temperature: 22.3 C

Medium parameters used: $f = 1800$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.29, 5.29, 5.29); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

d=10mm, Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 10.8 mW/g

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

Reference Value = 86.5 V/m

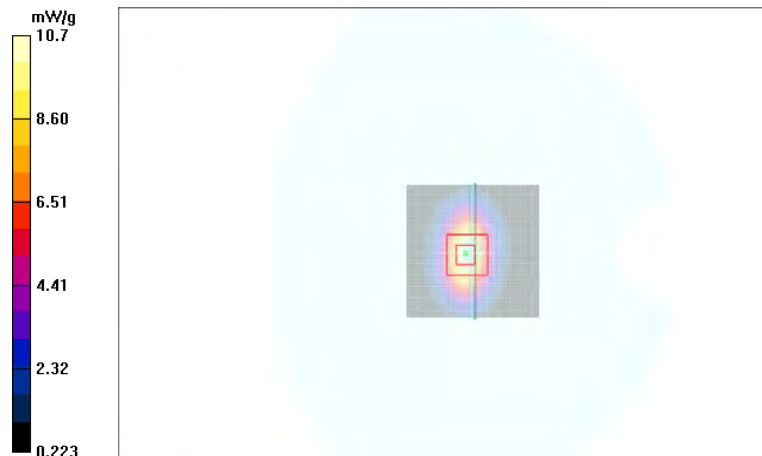
Peak SAR (extrapolated) = 17.6 W/kg

SAR(1 g) = 9.56 mW/g

SAR(10 g) = 5.01 mW/g

Power Drift = -0.001 dB

Maximum value of SAR (measured) = 10.7 mW/g



Date/Time: 2011-09-21 09:02:35

Test Laboratory: TCC Nokia
Type: **D1900V2**; Serial: **5d063**

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 22.3 C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

d=10mm, Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 87.5 V/m

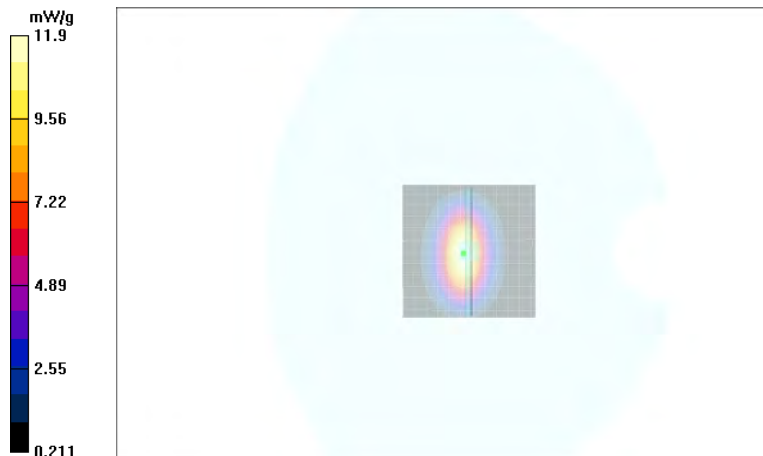
Peak SAR (extrapolated) = 19.6 W/kg

SAR(1 g) = 10.5 mW/g

SAR(10 g) = 5.43 mW/g

Power Drift = 0.011 dB

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



Date/Time: 2011-09-22 09:26:34

Test Laboratory: TCC Nokia
Type: **D1900V2**; Serial: **5d063**

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

d=10mm, Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 86.1 V/m

Peak SAR (extrapolated) = 19.3 W/kg

SAR(1 g) = 10.4 mW/g

SAR(10 g) = 5.4 mW/g

Power Drift = 0.098 dB

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



Date/Time: 2011-09-23 08:31:22

Test Laboratory: TCC Nokia
Type: **D1900V2**; Serial: **5d063**

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 38$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

d=10mm, Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 86.7 V/m

Peak SAR (extrapolated) = 19.8 W/kg

SAR(1 g) = 10.5 mW/g

SAR(10 g) = 5.43 mW/g

Power Drift = 0.020 dB

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



Date/Time: 2011-09-28 10:48:54

Test Laboratory: TCC Nokia
Type: **D1900V2**; Serial: **5d063**

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

d=10mm, Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 12.0 mW/g

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

Reference Value = 88.9 V/m

Peak SAR (extrapolated) = 19.7 W/kg

SAR(1 g) = 10.5 mW/g

SAR(10 g) = 5.43 mW/g

Power Drift = -0.020 dB

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



Date/Time: 2011-10-05 14:33:35

Test Laboratory: TCC Nokia
Type: **D1900V2**; Serial: **5d063**

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 22.3 C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 38$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

d=10mm, Pin=250mW/Area Scan (71x71x1): Measurement grid: dx=10mm, dy=10mm

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

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

Reference Value = 90.9 V/m

Peak SAR (extrapolated) = 19.9 W/kg

SAR(1 g) = 10.6 mW/g

SAR(10 g) = 5.46 mW/g

Power Drift = -0.014 dB

Maximum value of SAR (measured) = 12.0 mW/g



APPENDIX B: MEASUREMENT SCANS

See the following pages

Date/Time: 2011-09-13 10:39:33

Test Laboratory: TCC Nokia
Type: **RM-809**; Serial: **004402/13/651118/9**

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.901$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek – Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.456 mW/g

Cheek - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.92 V/m

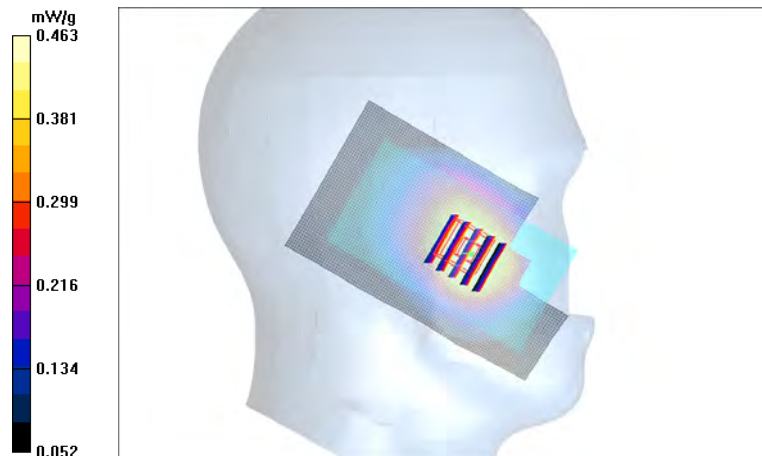
Peak SAR (extrapolated) = 0.556 W/kg

SAR(1 g) = 0.440 mW/g

SAR(10 g) = 0.330 mW/g

Power Drift = 0.126 dB

Maximum value of SAR (measured) = 0.463 mW/g



Date/Time: 2011-09-13 11:18:43

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.2

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.901$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.604 mW/g

Cheek - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.2 V/m

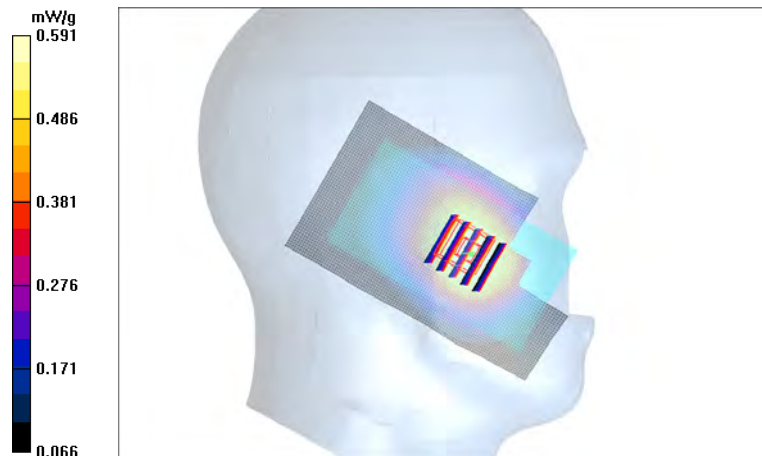
Peak SAR (extrapolated) = 0.690 W/kg

SAR(1 g) = 0.558 mW/g

SAR(10 g) = 0.418 mW/g

Power Drift = 0.035 dB

Maximum value of SAR (measured) = 0.591 mW/g



Date/Time: 2011-09-13 11:34:25

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 3-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:2.8

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.901$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.629 mW/g

Cheek - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.9 V/m

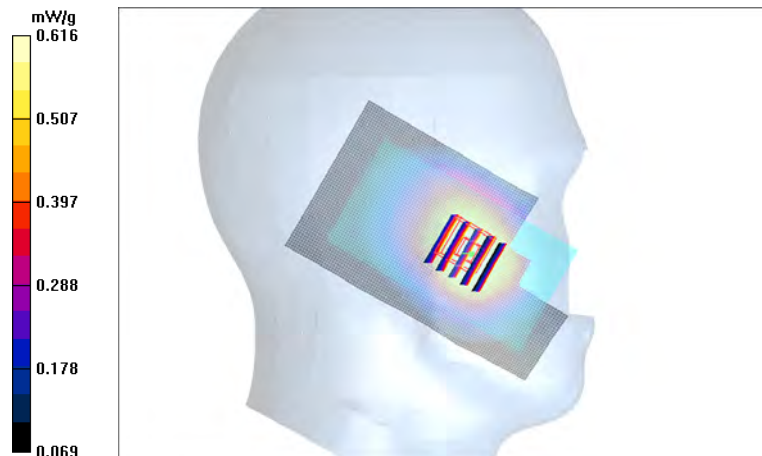
Peak SAR (extrapolated) = 0.731 W/kg

SAR(1 g) = 0.585 mW/g

SAR(10 g) = 0.438 mW/g

Power Drift = -0.281 dB

Maximum value of SAR (measured) = 0.616 mW/g



Date/Time: 2011-09-13 12:58:20

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS850

Frequency: 824.2 MHz; Duty Cycle: 1:2.08

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.7$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Low - BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.802 mW/g

Cheek - Low - BP-3L Sony/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.5 V/m

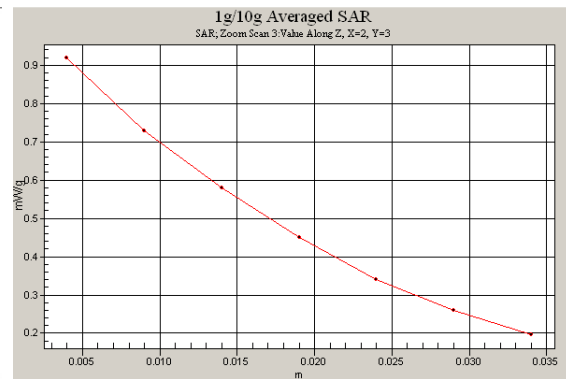
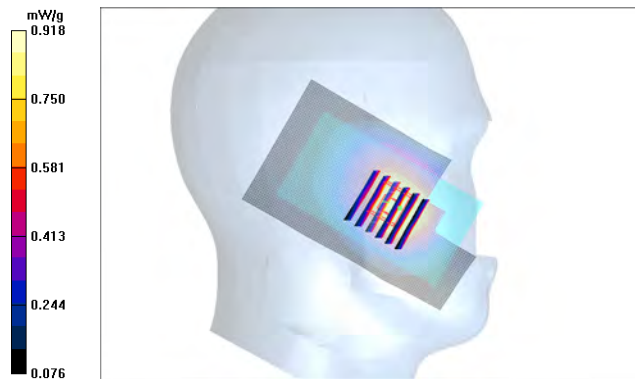
Peak SAR (extrapolated) = 1.04 W/kg

SAR(1 g) = 0.819 mW/g

SAR(10 g) = 0.591 mW/g

Power Drift = -0.136 dB

Maximum value of SAR (measured) = 0.918 mW/g



Date/Time: 2011-09-13 12:08:55

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:2.08

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.901$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt - Middle - BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.558 mW/g

Tilt - Middle - BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.2 V/m

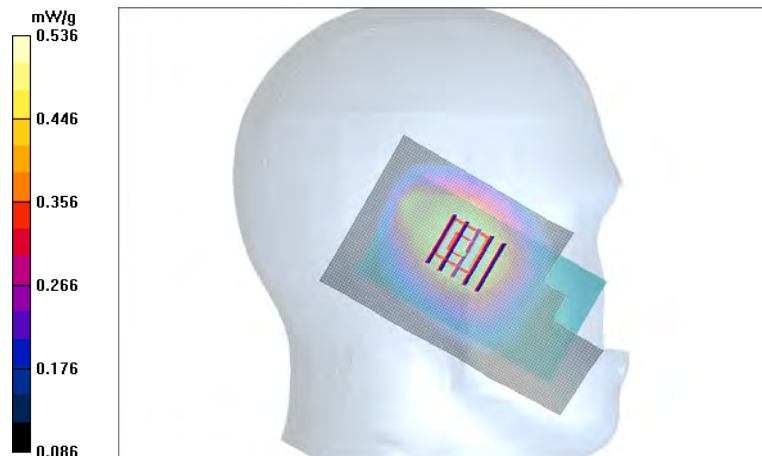
Peak SAR (extrapolated) = 0.647 W/kg

SAR(1 g) = 0.514 mW/g

SAR(10 g) = 0.390 mW/g

Power Drift = 0.421 dB

Maximum value of SAR (measured) = 0.536 mW/g



Date/Time: 2011-09-13 12:25:09

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:2.08

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.901$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

Cheek - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.2 V/m

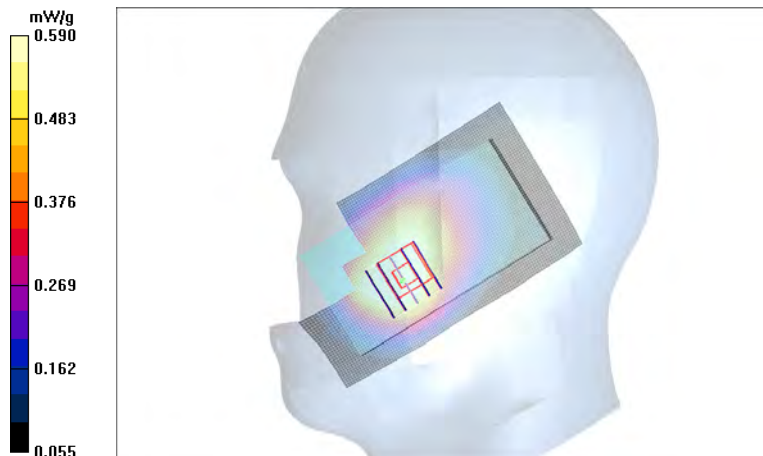
Peak SAR (extrapolated) = 0.752 W/kg

SAR(1 g) = 0.562 mW/g

SAR(10 g) = 0.411 mW/g

Power Drift = 0.037 dB

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



Date/Time: 2011-09-13 12:43:17

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:2.08

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.901$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt - Middle/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.491 mW/g

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

Reference Value = 18.8 V/m

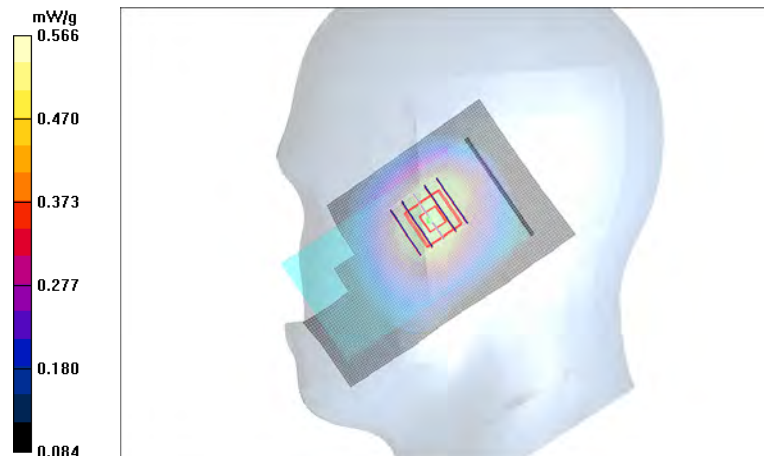
Peak SAR (extrapolated) = 0.674 W/kg

SAR(1 g) = 0.537 mW/g

SAR(10 g) = 0.404 mW/g

Power Drift = 0.456 dB

Maximum value of SAR (measured) = 0.566 mW/g



Date/Time: 2011-09-13 14:36:01

Test Laboratory: TCC Nokia

Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot 8PSK EGPRS850

Frequency: 824.2 MHz; Duty Cycle: 1:2.08

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.7$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Low – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

Cheek - Low – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.0 V/m

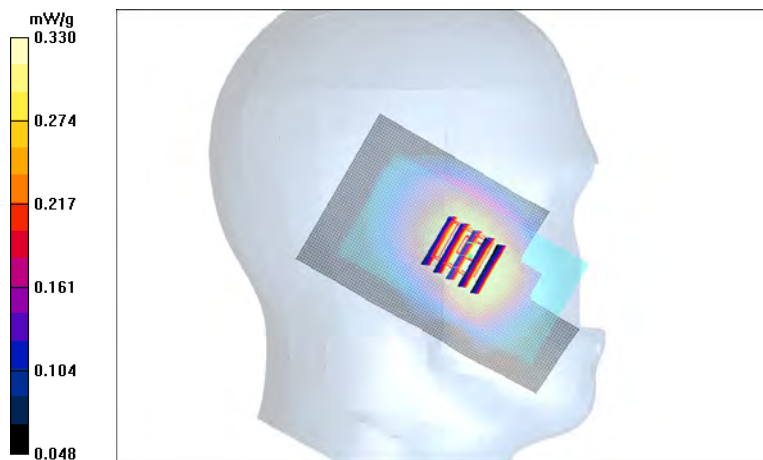
Peak SAR (extrapolated) = 0.383 W/kg

SAR(1 g) = 0.318 mW/g

SAR(10 g) = 0.246 mW/g

Power Drift = 0.367 dB

Maximum value of SAR (measured) = 0.330 mW/g



Date/Time: 2011-09-26 10:04:59

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.906$ mho/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.723 mW/g

Cheek - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.0 V/m

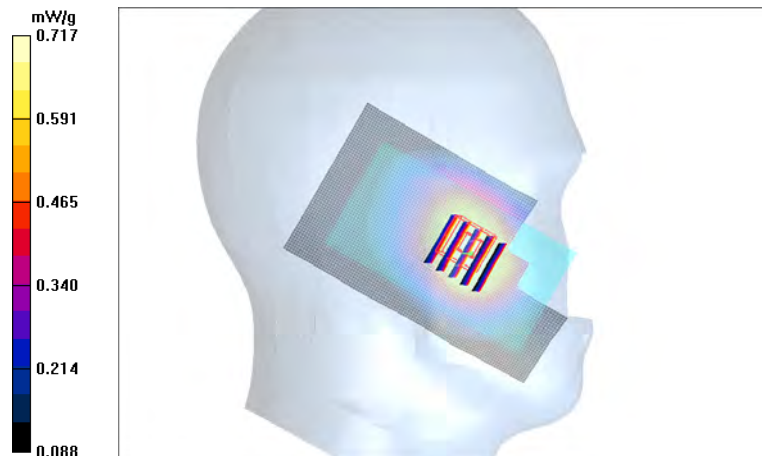
Peak SAR (extrapolated) = 0.843 W/kg

SAR(1 g) = 0.686 mW/g

SAR(10 g) = 0.516 mW/g

Power Drift = -0.091 dB

Maximum value of SAR (measured) = 0.717 mW/g



Date/Time: 2011-09-26 10:35:05

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.906$ mho/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.486 mW/g

Tilt - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.8 V/m

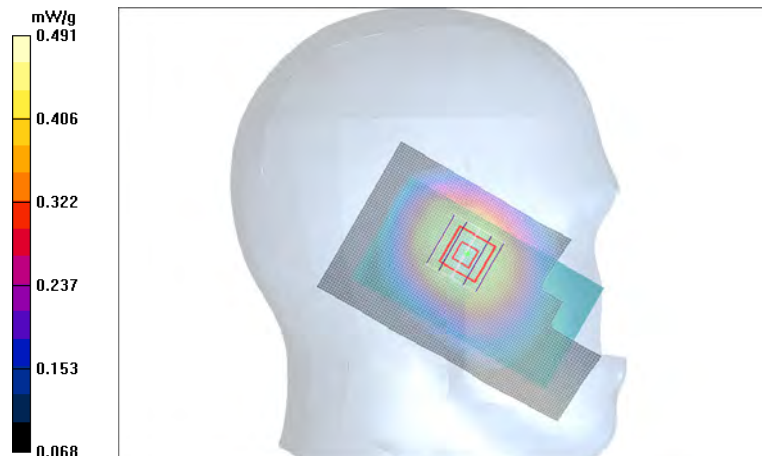
Peak SAR (extrapolated) = 0.581 W/kg

SAR(1 g) = 0.464 mW/g

SAR(10 g) = 0.352 mW/g

Power Drift = -0.011 dB

Maximum value of SAR (measured) = 0.491 mW/g



Date/Time: 2011-09-26 10:49:14

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.906$ mho/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.679 mW/g

Cheek - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.0 V/m

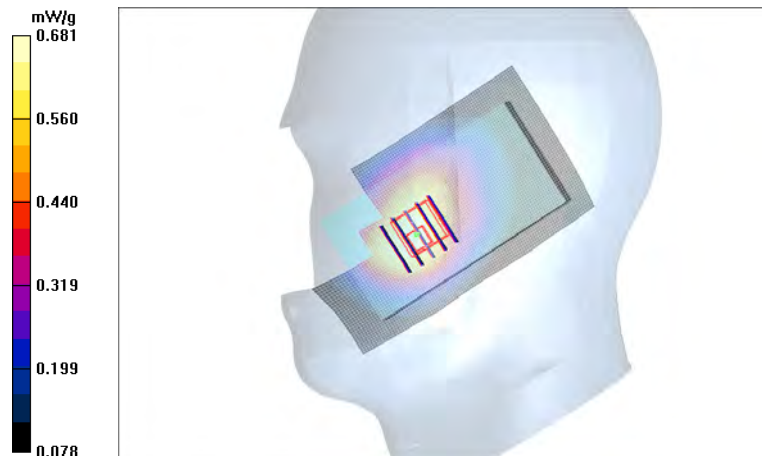
Peak SAR (extrapolated) = 0.842 W/kg

SAR(1 g) = 0.649 mW/g

SAR(10 g) = 0.475 mW/g

Power Drift = 0.148 dB

Maximum value of SAR (measured) = 0.681 mW/g



Date/Time: 2011-09-26 11:49:11

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.906$ mho/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.503 mW/g

Tilt - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.6 V/m

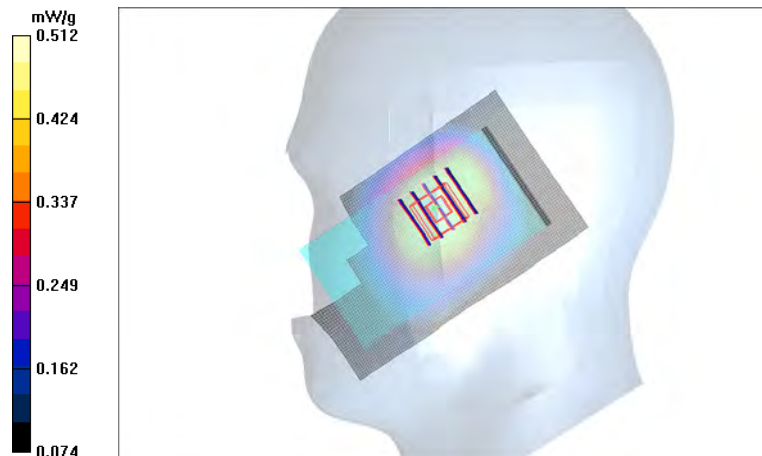
Peak SAR (extrapolated) = 0.608 W/kg

SAR(1 g) = 0.486 mW/g

SAR(10 g) = 0.368 mW/g

Power Drift = 0.036 dB

Maximum value of SAR (measured) = 0.512 mW/g



Date/Time: 2011-09-13 16:22:10

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS850

Frequency: 824.2 MHz; Duty Cycle: 1:2.08

Medium: Head 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.7$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(6.01, 6.01, 6.01); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 3; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Low - BP-3L LG/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.880 mW/g

Cheek - Low - BP-3L LG/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.0 V/m

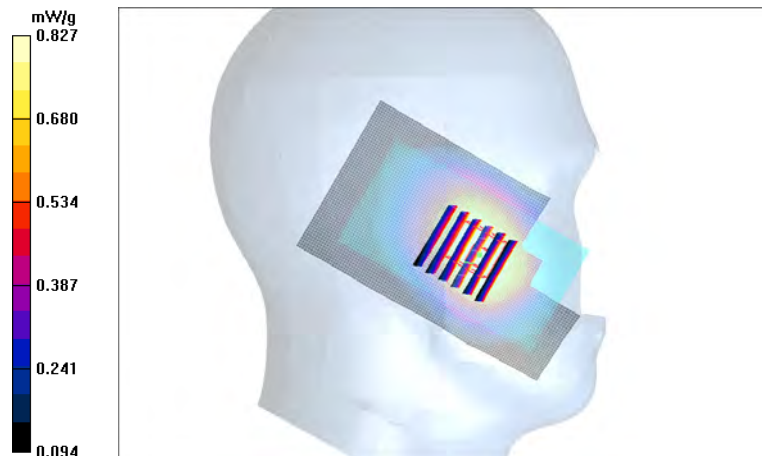
Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.793 mW/g

SAR(10 g) = 0.593 mW/g

Power Drift = 0.141 dB

Maximum value of SAR (measured) = 0.827 mW/g



Date/Time: 2011-09-19 13:04:12

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: Head 1800; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.31$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.29, 5.29, 5.29); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.497 mW/g

Cheek - Middle – BP-3L Sony/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.98 V/m

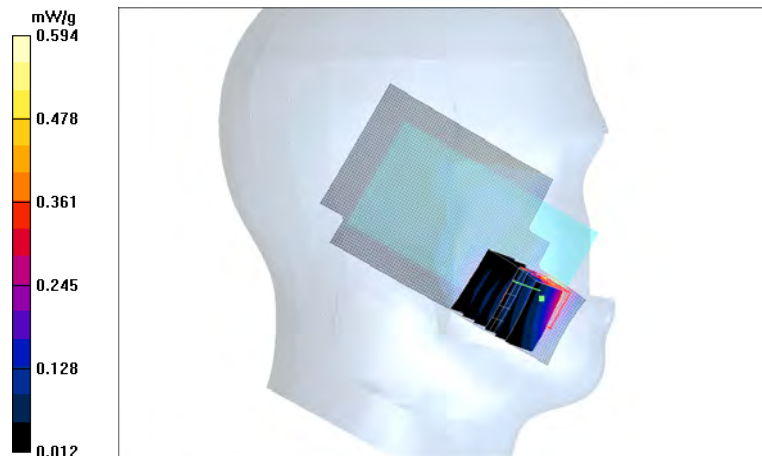
Peak SAR (extrapolated) = 1.00 W/kg

SAR(1 g) = 0.576 mW/g

SAR(10 g) = 0.316 mW/g

Power Drift = 0.052 dB

Maximum value of SAR (measured) = 0.594 mW/g



Date/Time: 2011-09-19 13:27:08

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: Head 1800; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.31$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.29, 5.29, 5.29); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.133 mW/g

Tilt - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.37 V/m

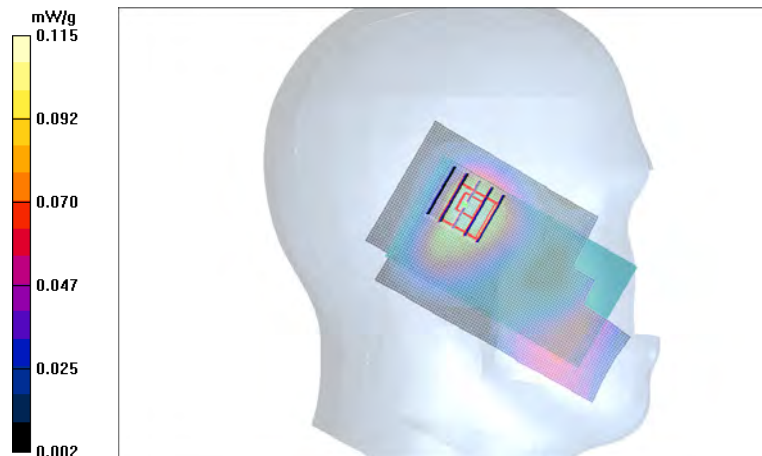
Peak SAR (extrapolated) = 0.158 W/kg

SAR(1 g) = 0.109 mW/g

SAR(10 g) = 0.070 mW/g

Power Drift = -0.170 dB

Maximum value of SAR (measured) = 0.115 mW/g



Date/Time: 2011-09-19 12:02:05

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: Head 1800; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.31$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.29, 5.29, 5.29); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.354 mW/g

Cheek - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.06 V/m

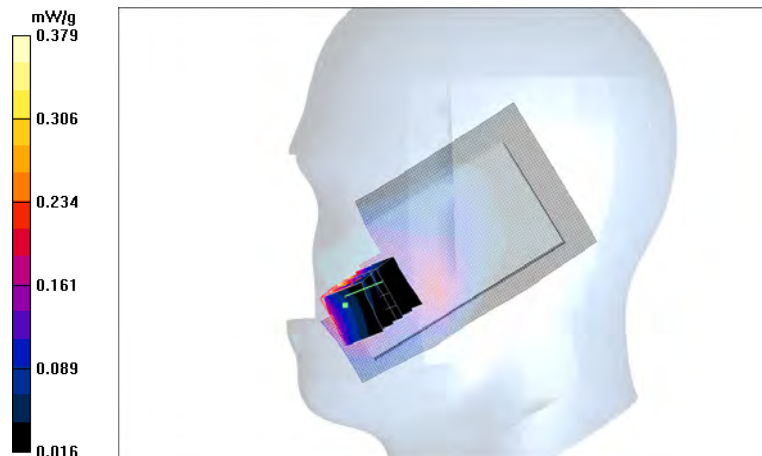
Peak SAR (extrapolated) = 0.534 W/kg

SAR(1 g) = 0.346 mW/g

SAR(10 g) = 0.186 mW/g

Power Drift = 0.281 dB

Maximum value of SAR (measured) = 0.379 mW/g



Date/Time: 2011-09-19 12:41:19

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: Head 1800; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.31$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.29, 5.29, 5.29); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.111 mW/g

Tilt - Middle – BP-3L Sony/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.82 V/m

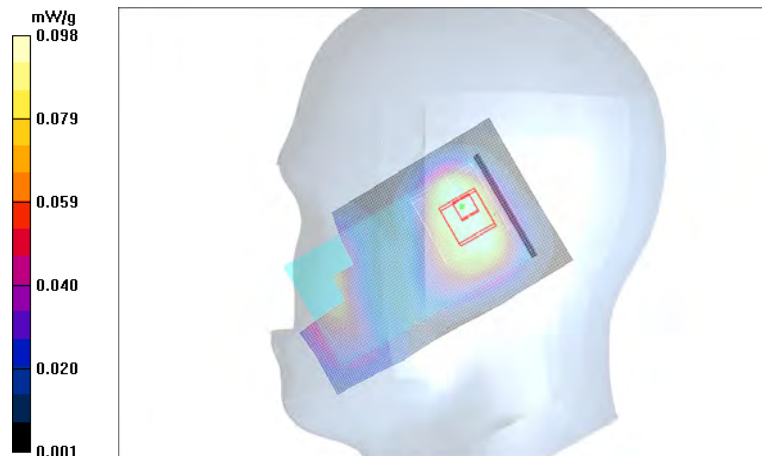
Peak SAR (extrapolated) = 0.127 W/kg

SAR(1 g) = 0.092 mW/g

SAR(10 g) = 0.064 mW/g

Power Drift = 0.157 dB

Maximum value of SAR (measured) = 0.098 mW/g



Date/Time: 2011-09-20 11:40:58

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: Head 1800; Medium Notes: Medium Temperature: 22.2 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.35$ mho/m; $\epsilon_r = 38.7$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.29, 5.29, 5.29); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle - BP-3L LG/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.501 mW/g

Cheek - Middle - BP-3L LG/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 4.45 V/m

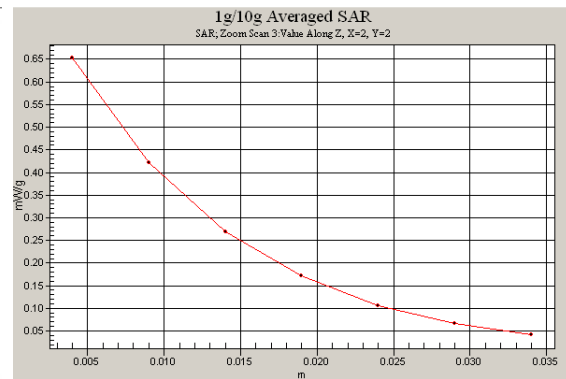
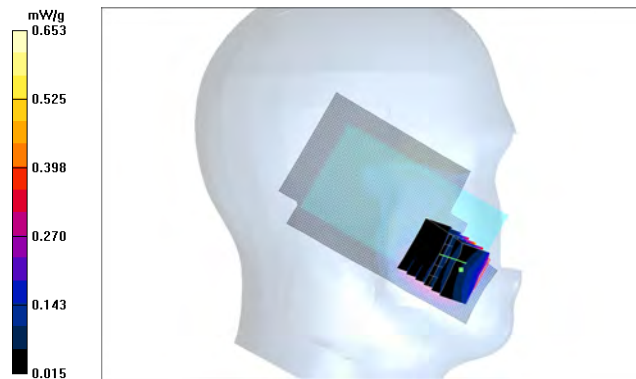
Peak SAR (extrapolated) = 0.985 W/kg

SAR(1 g) = 0.595 mW/g

SAR(10 g) = 0.336 mW/g

Power Drift = -0.091 dB

Maximum value of SAR (measured) = 0.653 mW/g



Date/Time: 2011-09-21 09:40:27

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: GSM 1900

Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1900; Medium Notes: Medium Temperature: 22.3 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.389 mW/g

Cheek - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.33 V/m

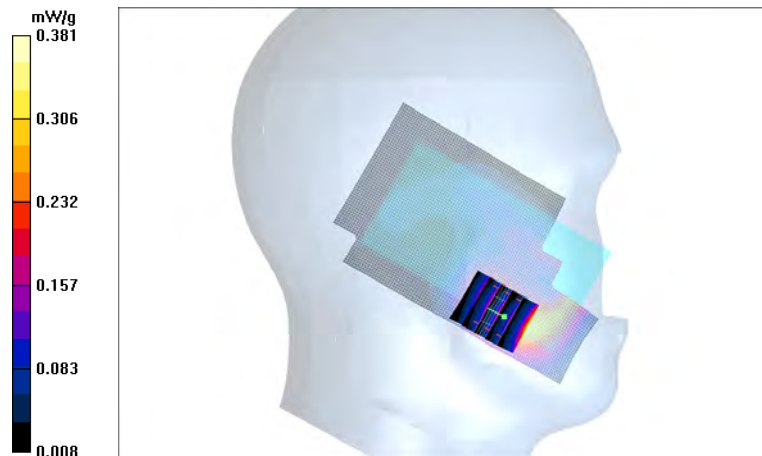
Peak SAR (extrapolated) = 0.547 W/kg

SAR(1 g) = 0.346 mW/g

SAR(10 g) = 0.203 mW/g

Power Drift = -0.160 dB

Maximum value of SAR (measured) = 0.381 mW/g



Date/Time: 2011-09-21 09:56:36

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.2

Medium: Head 1900; Medium Notes: Medium Temperature: 22.3 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.601 mW/g

Cheek - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.93 V/m

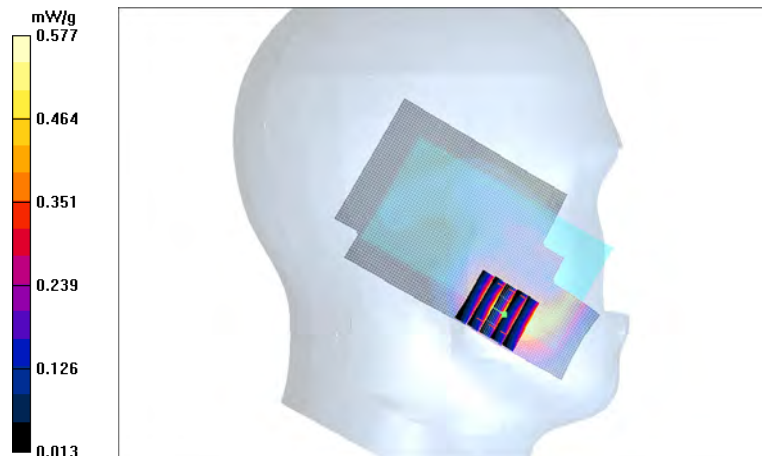
Peak SAR (extrapolated) = 0.846 W/kg

SAR(1 g) = 0.531 mW/g

SAR(10 g) = 0.311 mW/g

Power Drift = -0.291 dB

Maximum value of SAR (measured) = 0.577 mW/g



Date/Time: 2011-09-21 10:12:45

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 3-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.8

Medium: Head 1900; Medium Notes: Medium Temperature: 22.3 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.591 mW/g

Cheek - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.86 V/m

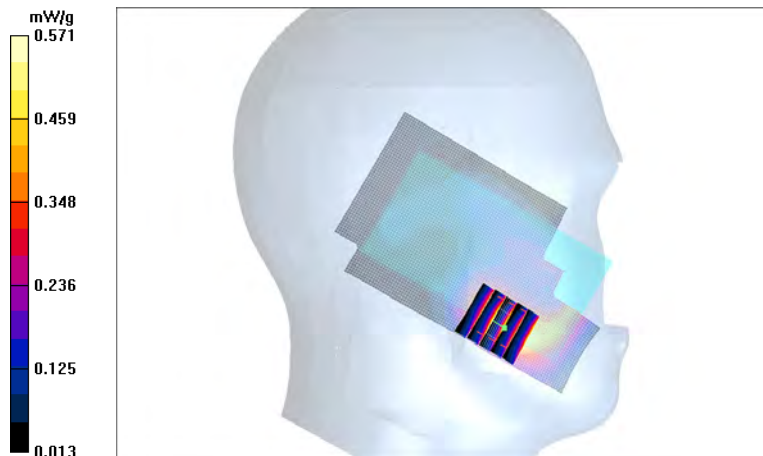
Peak SAR (extrapolated) = 0.837 W/kg

SAR(1 g) = 0.525 mW/g

SAR(10 g) = 0.307 mW/g

Power Drift = 0.258 dB

Maximum value of SAR (measured) = 0.571 mW/g



Date/Time: 2011-09-21 13:05:30

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS1900

Frequency: 1909.8 MHz; Duty Cycle: 1:2.08

Medium: Head 1900; Medium Notes: Medium Temperature: 22.3 C

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - High – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.840 mW/g

Cheek - High – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.46 V/m

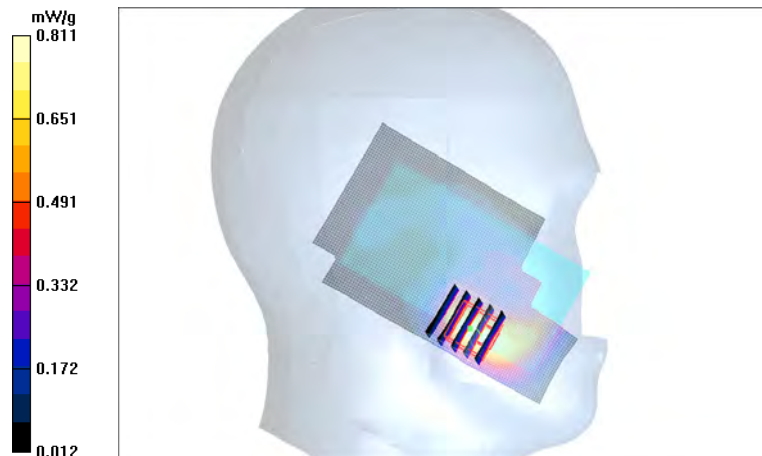
Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.738 mW/g

SAR(10 g) = 0.424 mW/g

Power Drift = -0.148 dB

Maximum value of SAR (measured) = 0.811 mW/g



Date/Time: 2011-09-21 11:24:24

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.08

Medium: Head 1900; Medium Notes: Medium Temperature: 22.3 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.193 mW/g

Tilt - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.5 V/m

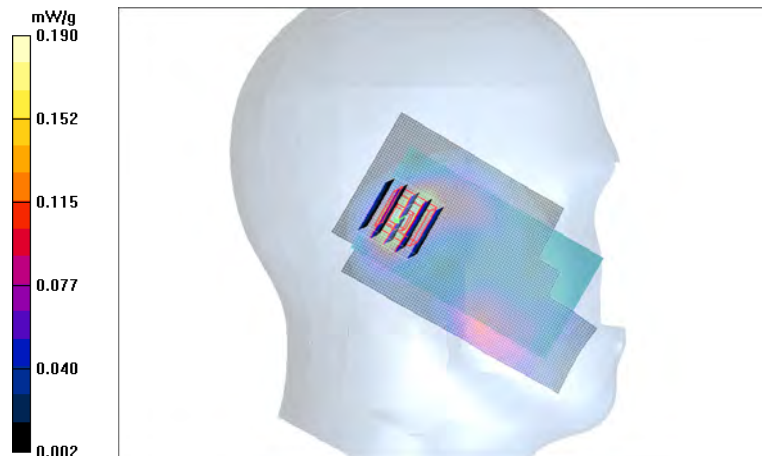
Peak SAR (extrapolated) = 0.280 W/kg

SAR(1 g) = 0.168 mW/g

SAR(10 g) = 0.094 mW/g

Power Drift = 0.272 dB

Maximum value of SAR (measured) = 0.190 mW/g



Date/Time: 2011-09-21 11:56:45

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.08

Medium: Head 1900; Medium Notes: Medium Temperature: 22.3 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.501 mW/g

Cheek - Middle – BP-3L Sony/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.85 V/m

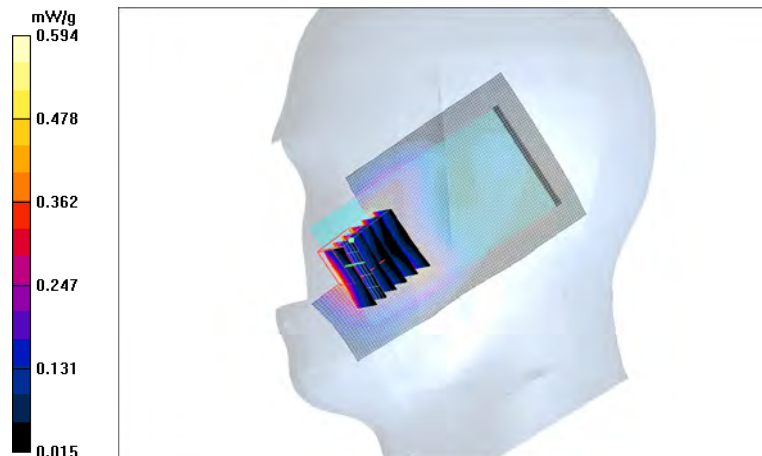
Peak SAR (extrapolated) = 0.855 W/kg

SAR(1 g) = 0.546 mW/g

SAR(10 g) = 0.313 mW/g

Power Drift = -0.101 dB

Maximum value of SAR (measured) = 0.594 mW/g



Date/Time: 2011-09-21 12:20:50

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.08

Medium: Head 1900; Medium Notes: Medium Temperature: 22.3 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.47$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

Tilt - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.7 V/m

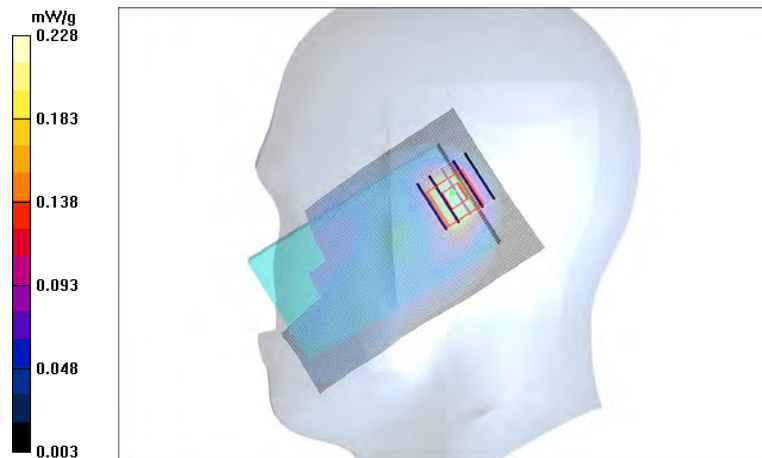
Peak SAR (extrapolated) = 0.336 W/kg

SAR(1 g) = 0.202 mW/g

SAR(10 g) = 0.111 mW/g

Power Drift = -0.163 dB

Maximum value of SAR (measured) = 0.228 mW/g



Date/Time: 2011-09-21 13:54:17

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot 8PSK EGPRS1900

Frequency: 1909.8 MHz; Duty Cycle: 1:2.08

Medium: Head 1900; Medium Notes: Medium Temperature: 22.3 C

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.360 mW/g

Cheek - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.76 V/m

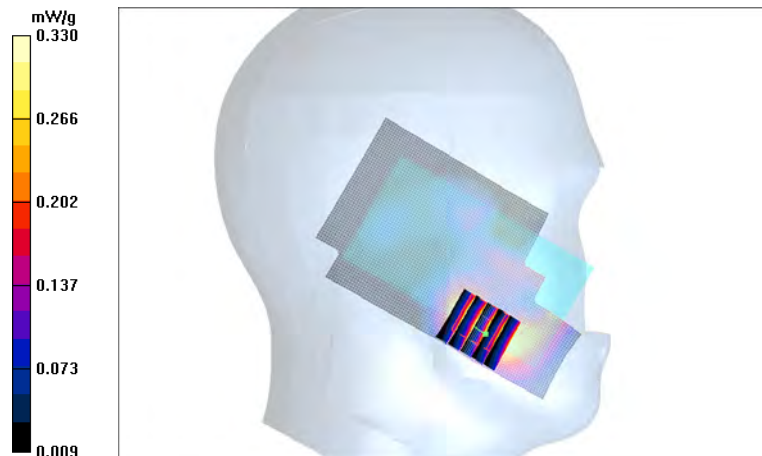
Peak SAR (extrapolated) = 0.488 W/kg

SAR(1 g) = 0.313 mW/g

SAR(10 g) = 0.186 mW/g

Power Drift = -0.004 dB

Maximum value of SAR (measured) = 0.330 mW/g



Date/Time: 2011-09-22 13:41:05

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1900

Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1908$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 38.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - High – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

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

Cheek - High – BP-3L Sony/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.5 V/m

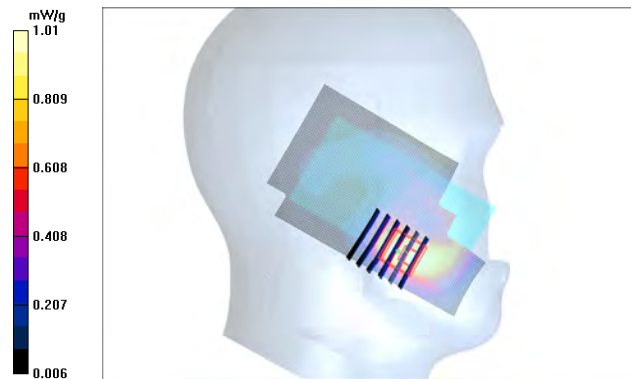
Peak SAR (extrapolated) = 1.52 W/kg

SAR(1 g) = 0.945 mW/g

SAR(10 g) = 0.549 mW/g

Power Drift = -0.138 dB

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



Date/Time: 2011-09-22 10:53:06

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 38.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.240 mW/g

Tilt - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.9 V/m

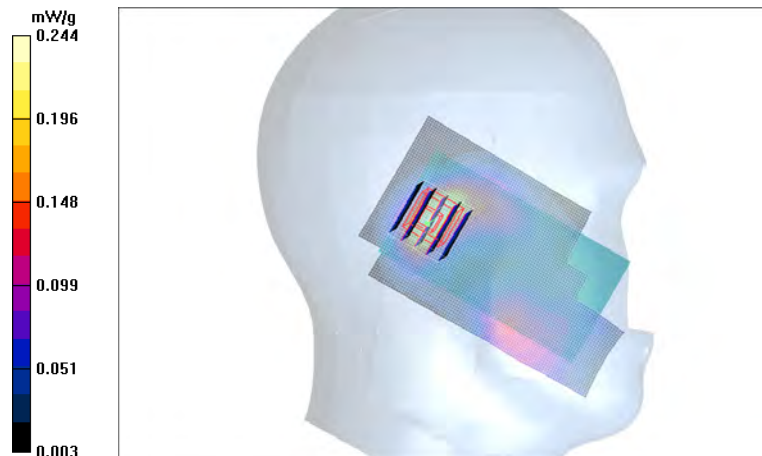
Peak SAR (extrapolated) = 0.365 W/kg

SAR(1 g) = 0.221 mW/g

SAR(10 g) = 0.123 mW/g

Power Drift = -0.187 dB

Maximum value of SAR (measured) = 0.244 mW/g



Date/Time: 2011-09-22 11:31:25

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 38.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.576 mW/g

Cheek - Middle – BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.69 V/m

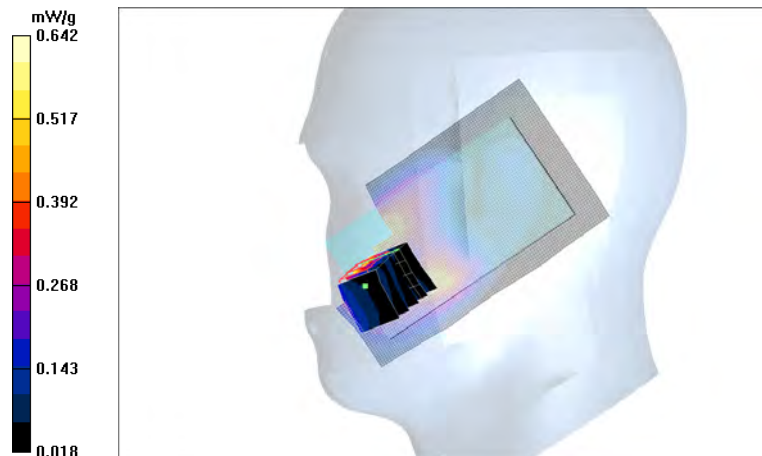
Peak SAR (extrapolated) = 0.937 W/kg

SAR(1 g) = 0.598 mW/g

SAR(10 g) = 0.333 mW/g

Power Drift = -0.122 dB

Maximum value of SAR (measured) = 0.642 mW/g



Date/Time: 2011-09-22 12:19:18

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Head 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ mho/m; $\epsilon_r = 38.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt - Middle – BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.260 mW/g

Tilt - Middle – BP-3L Sony/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.1 V/m

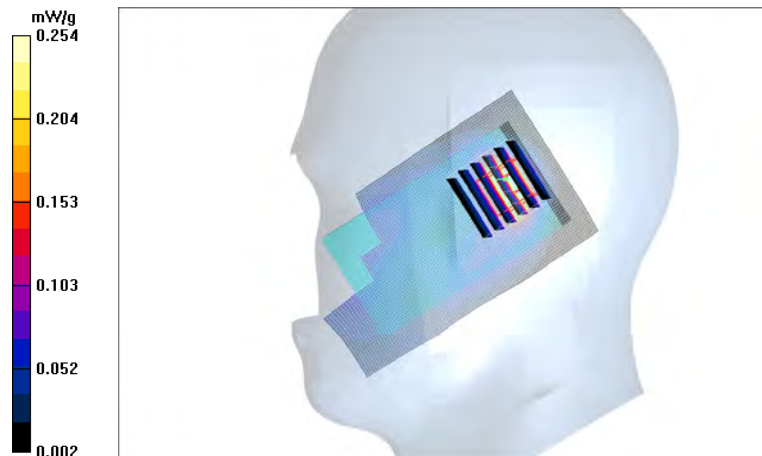
Peak SAR (extrapolated) = 0.378 W/kg

SAR(1 g) = 0.231 mW/g

SAR(10 g) = 0.128 mW/g

Power Drift = 0.065 dB

Maximum value of SAR (measured) = 0.254 mW/g



Date/Time: 2011-10-05 15:22:06

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1900

Frequency: 1907.6 MHz; Duty Cycle: 1:1
Medium: Head 1900; Medium Notes: Medium Temperature: 22.3 C
Medium parameters used: $f = 1908$ MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 38$; $\rho = 1000$ kg/m³
Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.08, 5.08, 5.08); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 4.5; Type: Twin Phantom; Serial: TP-1215
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek - High - BP-3L LG/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.18 mW/g

Cheek - High - BP-3L LG/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

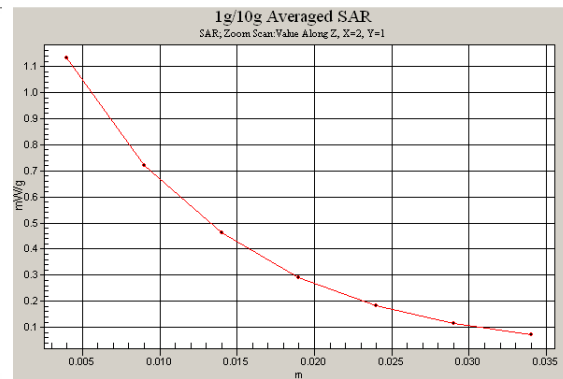
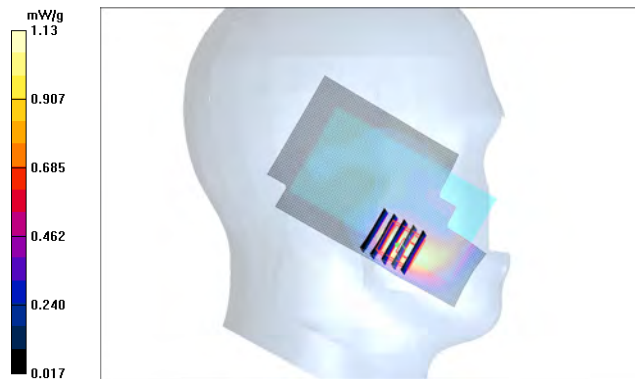
Reference Value = 9.56 V/m
Peak SAR (extrapolated) = 1.62 W/kg

SAR(1 g) = 1.02 mW/g

SAR(10 g) = 0.578 mW/g

Power Drift = -0.053 dB

Maximum value of SAR (measured) = 1.13 mW/g



Date/Time: 2011-09-14 14:45:30

Test Laboratory: TCC Nokia
Type: RM-803; Serial: 004402/13/635631/2

Communication System: WLAN2450 b-mode

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used: f = 2462 MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.37, 6.37, 6.37); Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn860; Calibrated: 2010-10-25
- Phantom: SAM5; Type: SAM; Serial: TP - 1178
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek position - High - BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.363 mW/g

Cheek position - High - BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.04 V/m

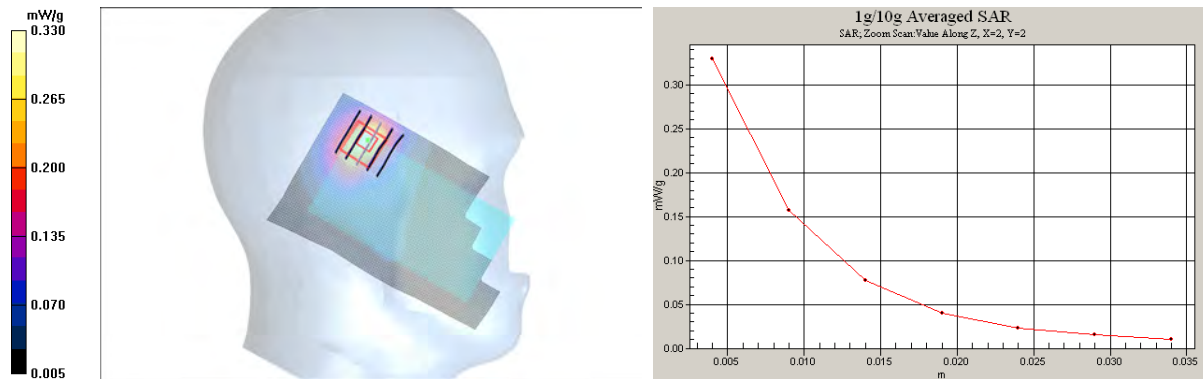
Peak SAR (extrapolated) = 0.667 W/kg

SAR(1 g) = 0.301 mW/g

SAR(10 g) = 0.151 mW/g

Power Drift = 0.167 dB

Maximum value of SAR (measured) = 0.330 mW/g



Date/Time: 2011-09-14 12:15:02

Test Laboratory: TCC Nokia
Type: RM-803; Serial: 004402/13/635631/2

Communication System: WLAN2450 b-mode

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used: f = 2442 MHz; $\sigma = 1.79$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.37, 6.37, 6.37); Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn860; Calibrated: 2010-10-25
- Phantom: SAM5; Type: SAM; Serial: TP - 1178
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt position - Middle - BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.091 mW/g

Tilt position - Middle - BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.53 V/m

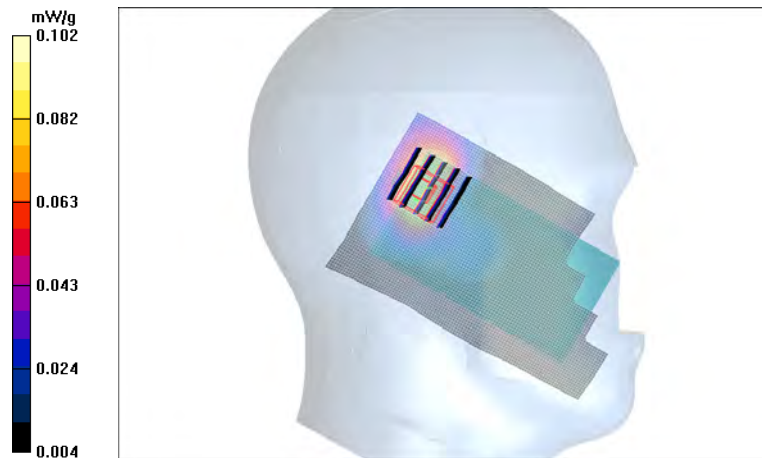
Peak SAR (extrapolated) = 0.186 W/kg

SAR(1 g) = 0.092 mW/g

SAR(10 g) = 0.049 mW/g

Power Drift = 0.473 dB

Maximum value of SAR (measured) = 0.102 mW/g



Date/Time: 2011-09-14 13:21:05

Test Laboratory: TCC Nokia
Type: RM-803; Serial: 004402/13/635631/2

Communication System: WLAN2450 b-mode

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used: f = 2442 MHz; $\sigma = 1.79$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.37, 6.37, 6.37); Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn860; Calibrated: 2010-10-25
- Phantom: SAM5; Type: SAM; Serial: TP - 1178
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek position - Middle - BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.110 mW/g

Cheek position - Middle - BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.64 V/m

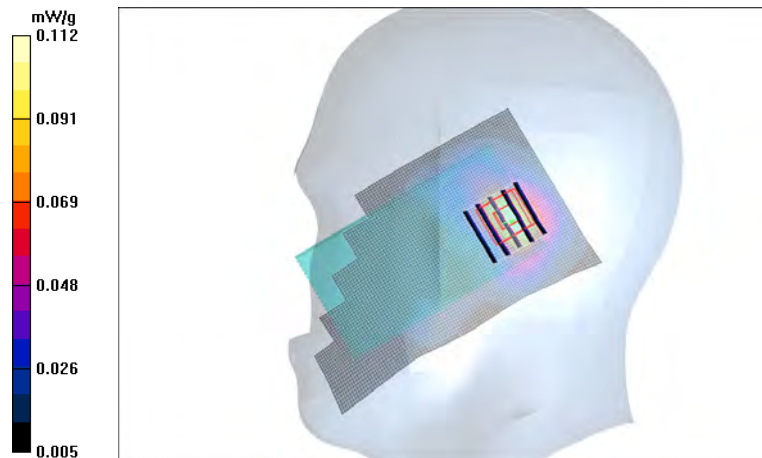
Peak SAR (extrapolated) = 0.207 W/kg

SAR(1 g) = 0.104 mW/g

SAR(10 g) = 0.055 mW/g

Power Drift = 0.284 dB

Maximum value of SAR (measured) = 0.112 mW/g



Date/Time: 2011-09-14 13:37:39

Test Laboratory: TCC Nokia
Type: RM-803; Serial: 004402/13/635631/2

Communication System: WLAN2450 b-mode

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used: f = 2442 MHz; $\sigma = 1.79$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.37, 6.37, 6.37); Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn860; Calibrated: 2010-10-25
- Phantom: SAM5; Type: SAM; Serial: TP - 1178
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt position - Middle - BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.117 mW/g

Tilt position - Middle - BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.80 V/m

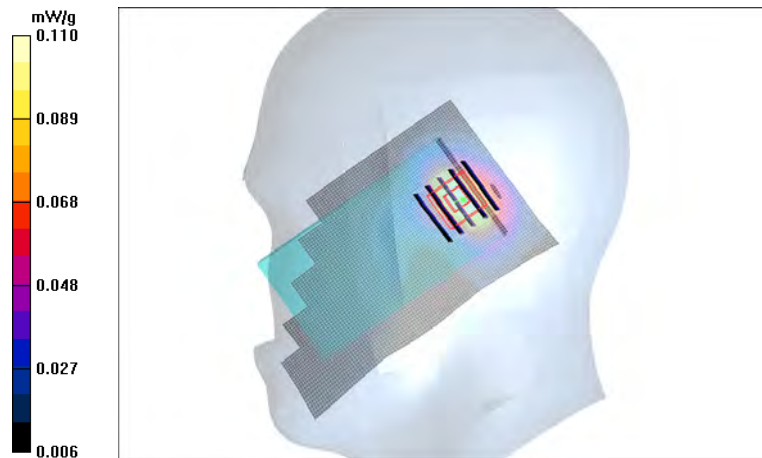
Peak SAR (extrapolated) = 0.196 W/kg

SAR(1 g) = 0.099 mW/g

SAR(10 g) = 0.052 mW/g

Power Drift = 0.342 dB

Maximum value of SAR (measured) = 0.110 mW/g



Date/Time: 2011-09-14 16:52:45

Test Laboratory: TCC Nokia
Type: RM-803; Serial: 004402/13/635631/2

Communication System: WLAN2450 n-mode

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used: f = 2462 MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.37, 6.37, 6.37); Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn860; Calibrated: 2010-10-25
- Phantom: SAM5; Type: SAM; Serial: TP - 1178
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek position - High - BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.103 mW/g

Cheek position - High - BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 4.92 V/m

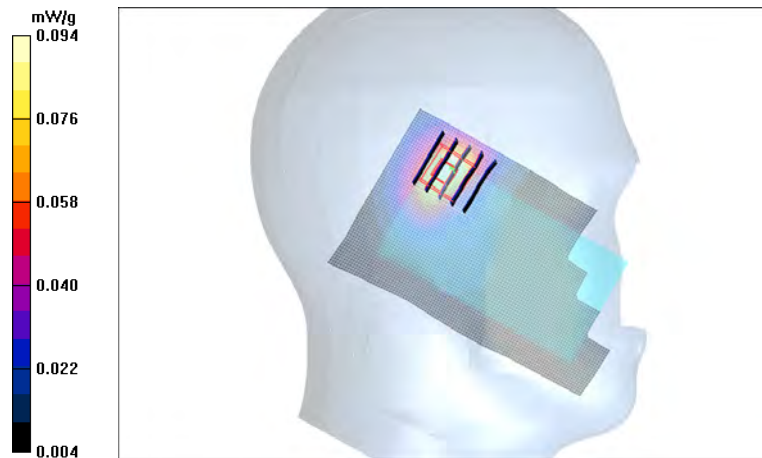
Peak SAR (extrapolated) = 0.198 W/kg

SAR(1 g) = 0.086 mW/g

SAR(10 g) = 0.044 mW/g

Power Drift = 0.496 dB

Maximum value of SAR (measured) = 0.094 mW/g



Date/Time: 2011-09-14 15:45:20

Test Laboratory: TCC Nokia
Type: RM-803; Serial: 004402/13/635631/2

Communication System: WLAN2450 b-mode

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: Head 2450; Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used: f = 2462 MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.37, 6.37, 6.37); Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn860; Calibrated: 2010-10-25
- Phantom: SAM5; Type: SAM; Serial: TP - 1178
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek position - High - BP-3L LG/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.324 mW/g

Cheek position - High - BP-3L LG/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.61 V/m

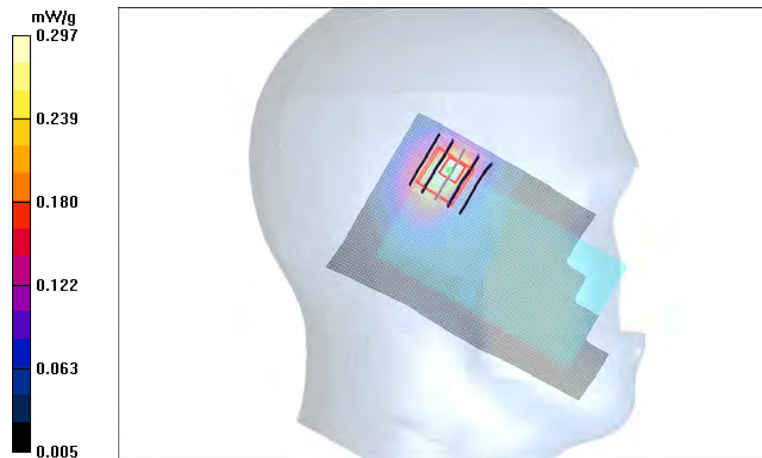
Peak SAR (extrapolated) = 0.608 W/kg

SAR(1 g) = 0.268 mW/g

SAR(10 g) = 0.133 mW/g

Power Drift = 0.068 dB

Maximum value of SAR (measured) = 0.297 mW/g



Date/Time: 2011-09-13 17:59:32

Test Laboratory: TCC Nokia

Type: **RM-809**; Serial: **004402/13/651118/9**

Communication System: 4-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:2.08

Medium: Body 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.983$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.96, 5.96, 5.96); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 2; Type: Twin Phantom; Serial: TP-1037
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - No Accessory - BP-3L Sony - Display Facing Phantom/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.605 mW/g

Body - Middle - No Accessory - BP-3L Sony - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.2 V/m

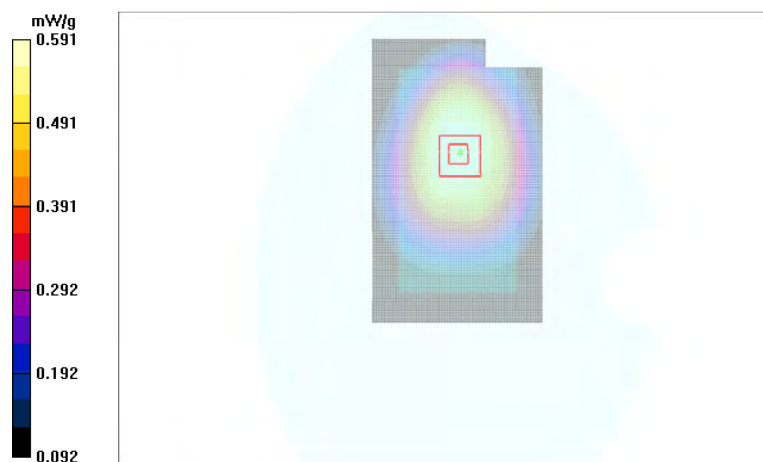
Peak SAR (extrapolated) = 0.703 W/kg

SAR(1 g) = 0.564 mW/g

SAR(10 g) = 0.429 mW/g

Power Drift = -0.467 dB

Maximum value of SAR (measured) = 0.591 mW/g



Date/Time: 2011-09-13 18:15:14

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:2.08

Medium: Body 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.983$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.96, 5.96, 5.96); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 2; Type: Twin Phantom; Serial: TP-1037
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - WH-208 - BP-3L Sony - Display Facing Phantom/Area Scan (61x101x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.397 mW/g

Body - Middle - WH-208 - BP-3L Sony - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.90 V/m

Peak SAR (extrapolated) = 0.517 W/kg

SAR(1 g) = 0.360 mW/g

SAR(10 g) = 0.258 mW/g

Power Drift = 0.011 dB

Maximum value of SAR (measured) = 0.384 mW/g



Date/Time: 2011-09-13 18:40:20

Test Laboratory: TCC Nokia
Type: **RM-809**; Serial: **004402/13/651118/9**

Communication System: 4-slot GPRS850

Frequency: 824.2 MHz; Duty Cycle: 1:2.08

Medium: Body 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.972$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.96, 5.96, 5.96); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 2; Type: Twin Phantom; Serial: TP-1037
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Low - No Accessory - BP-3L Sony - Back Facing Phantom/Area Scan (61x101x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.825 mW/g

Body - Low - No Accessory - BP-3L Sony - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.3 V/m

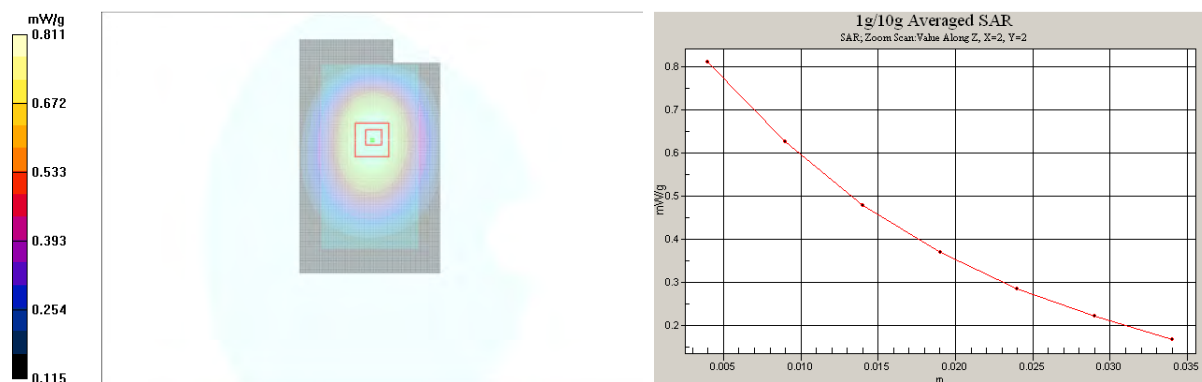
Peak SAR (extrapolated) = 0.974 W/kg

SAR(1 g) = 0.769 mW/g

SAR(10 g) = 0.572 mW/g

Power Drift = -0.080 dB

Maximum value of SAR (measured) = 0.811 mW/g



Date/Time: 2011-09-13 19:02:44

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:2.08

Medium: Body 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.983$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.96, 5.96, 5.96); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 2; Type: Twin Phantom; Serial: TP-1037
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - WH-208 - BP-3L Sony - Back Facing Phantom/Area Scan (61x101x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.508 mW/g

Body - Middle - WH-208 - BP-3L Sony - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.76 V/m

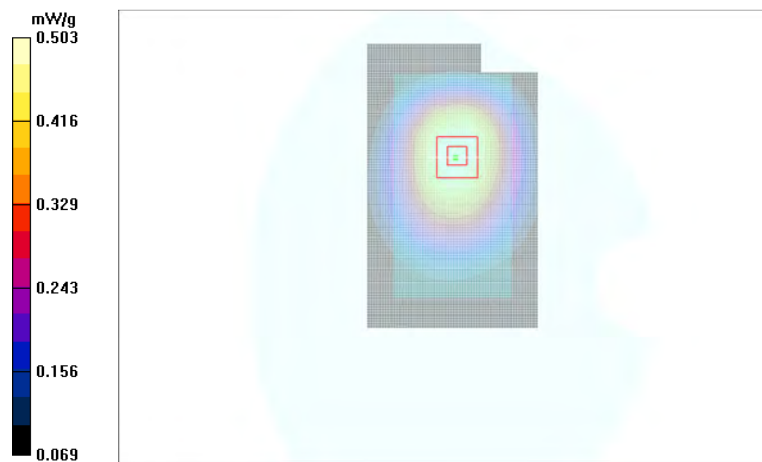
Peak SAR (extrapolated) = 0.640 W/kg

SAR(1 g) = 0.478 mW/g

SAR(10 g) = 0.352 mW/g

Power Drift = 0.025 dB

Maximum value of SAR (measured) = 0.503 mW/g



Date/Time: 2011-09-26 14:01:29

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Body 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.992$ mho/m; $\epsilon_r = 53.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.96, 5.96, 5.96); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 2; Type: Twin Phantom; Serial: TP-1037
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - No Accessory - BP-3L Sony - Display Facing Phantom/Area Scan (61x111x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.636 mW/g

Body - Middle - No Accessory - BP-3L Sony - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.4 V/m

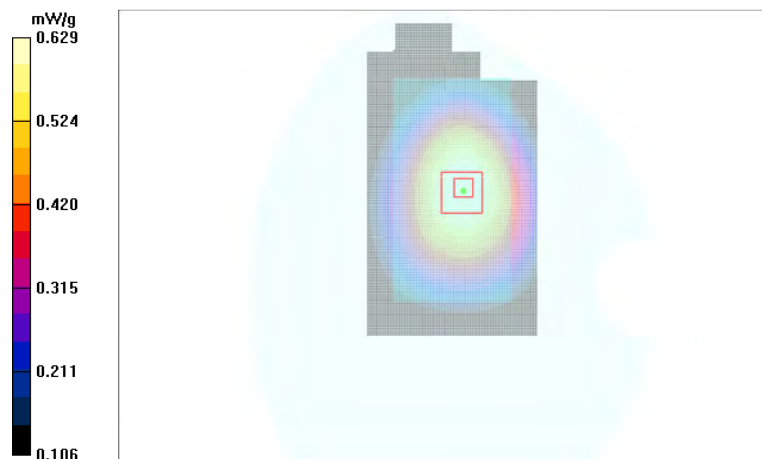
Peak SAR (extrapolated) = 0.775 W/kg

SAR(1 g) = 0.599 mW/g

SAR(10 g) = 0.453 mW/g

Power Drift = -0.066 dB

Maximum value of SAR (measured) = 0.629 mW/g



Date/Time: 2011-09-26 14:16:34

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Body 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.992$ mho/m; $\epsilon_r = 53.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.96, 5.96, 5.96); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 2; Type: Twin Phantom; Serial: TP-1037
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - WH-208 - BP-3L Sony - Display Facing Phantom/Area Scan (61x111x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.414 mW/g

Body - Middle - WH-208 - BP-3L Sony - Display Facing Phantom/Zoom Scan (6x6x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.9 V/m

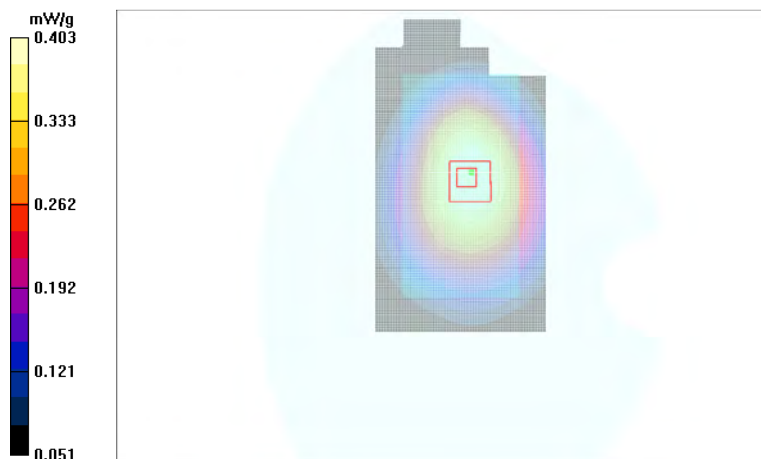
Peak SAR (extrapolated) = 0.507 W/kg

SAR(1 g) = 0.387 mW/g

SAR(10 g) = 0.291 mW/g

Power Drift = 0.129 dB

Maximum value of SAR (measured) = 0.403 mW/g



Date/Time: 2011-09-26 14:40:55

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Body 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.992$ mho/m; $\epsilon_r = 53.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.96, 5.96, 5.96); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 2; Type: Twin Phantom; Serial: TP-1037
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - No Accessory - BP-3L Sony - Back Facing Phantom/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.767 mW/g

Body - Middle - No Accessory - BP-3L Sony - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.7 V/m

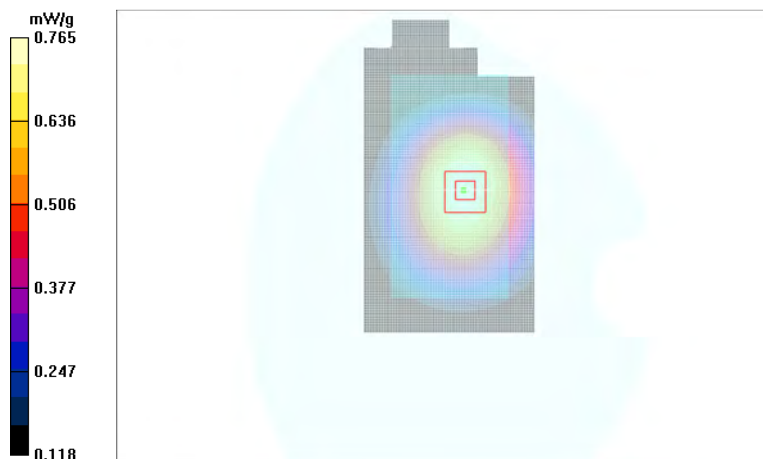
Peak SAR (extrapolated) = 0.931 W/kg

SAR(1 g) = 0.725 mW/g

SAR(10 g) = 0.541 mW/g

Power Drift = -0.064 dB

Maximum value of SAR (measured) = 0.765 mW/g



Date/Time: 2011-09-26 14:52:30

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Body 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.992$ mho/m; $\epsilon_r = 53.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.96, 5.96, 5.96); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 2; Type: Twin Phantom; Serial: TP-1037
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - WH-208 - BP-3L Sony - Back Facing Phantom/Area Scan (61x111x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.510 mW/g

Body - Middle - WH-208 - BP-3L Sony - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.7 V/m

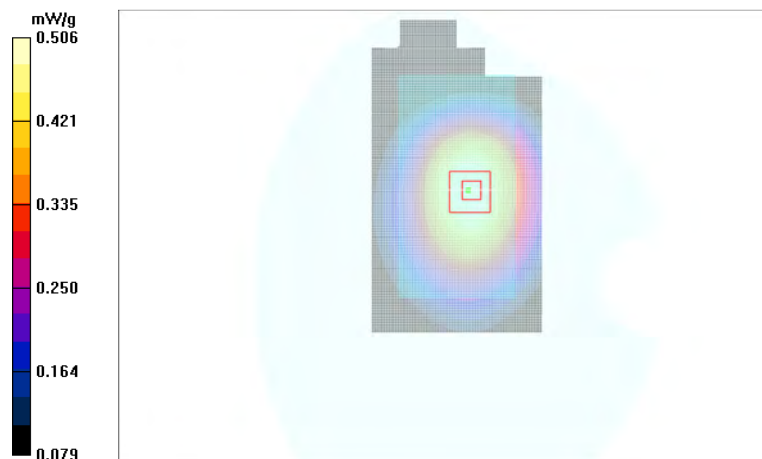
Peak SAR (extrapolated) = 0.617 W/kg

SAR(1 g) = 0.481 mW/g

SAR(10 g) = 0.359 mW/g

Power Drift = 0.038 dB

Maximum value of SAR (measured) = 0.506 mW/g



Date/Time: 2011-09-13 19:39:21

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS850

Frequency: 824.2 MHz; Duty Cycle: 1:2.08

Medium: Body 850; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.972$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(5.96, 5.96, 5.96); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 2; Type: Twin Phantom; Serial: TP-1037
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Low - No Accessory - BP-3L LG - Back Facing Phantom/Area Scan (61x101x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.820 mW/g

Body - Low - No Accessory - BP-3L LG - Back Facing Phantom/Zoom Scan (6x6x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.0 V/m

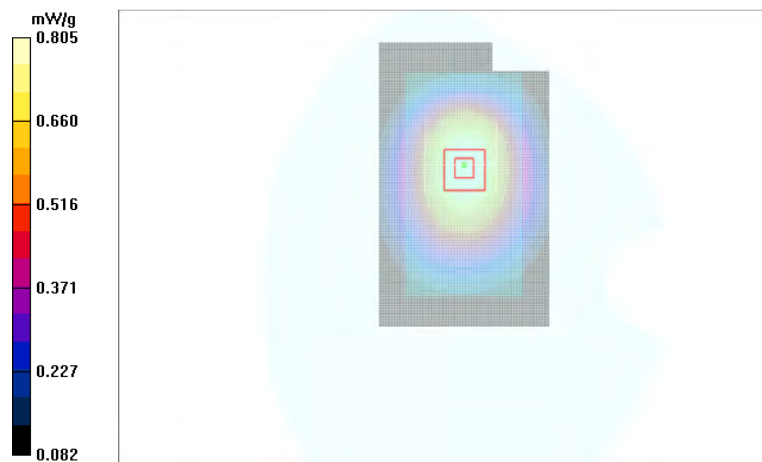
Peak SAR (extrapolated) = 0.985 W/kg

SAR(1 g) = 0.766 mW/g

SAR(10 g) = 0.568 mW/g

Power Drift = 0.043 dB

Maximum value of SAR (measured) = 0.805 mW/g



Date/Time: 2011-10-05 13:30:57

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

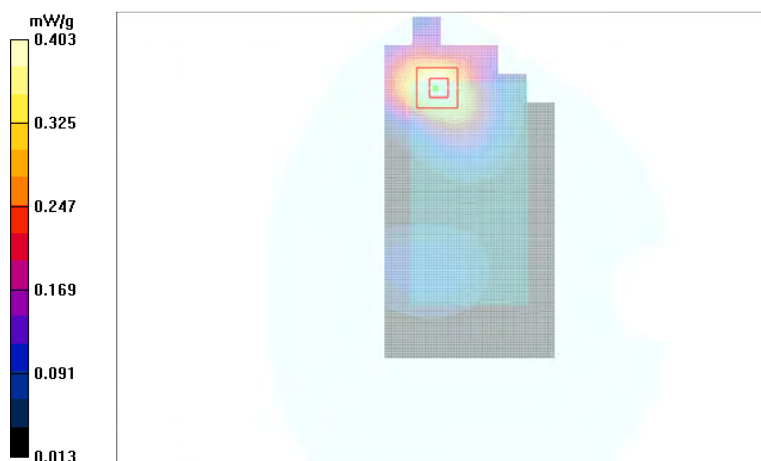
Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium: Body 1800; Medium Notes: Medium Temperature: 22.3 C
Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

- DASY4 Configuration:
- Probe: ES3DV3 - SN3116; Probe Notes:
 - ConvF(4.93, 4.93, 4.93); Calibrated: 2011-02-17
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn339; Calibrated: 2011-02-18
 - Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
 - Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - No Accessory - BP-3L Sony - Display Facing Phantom/Area Scan (61x121x1): Measurement grid:
dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.415 mW/g

Body - Middle - No Accessory - BP-3L Sony - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 6.32 V/m
Peak SAR (extrapolated) = 0.560 W/kg
SAR(1 g) = 0.378 mW/g
SAR(10 g) = 0.242 mW/g
Power Drift = 0.091 dB
Maximum value of SAR (measured) = 0.403 mW/g



Date/Time: 2011-10-05 13:49:09

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: Body 1800; Medium Notes: Medium Temperature: 22.3 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.93, 4.93, 4.93); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - WH-208 - BP-3L Sony - Display Facing Phantom/Area Scan (61x121x1): Measurement grid:
dx=15mm, dy=15mm

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

Body - Middle - WH-208 - BP-3L Sony - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 5.42 V/m

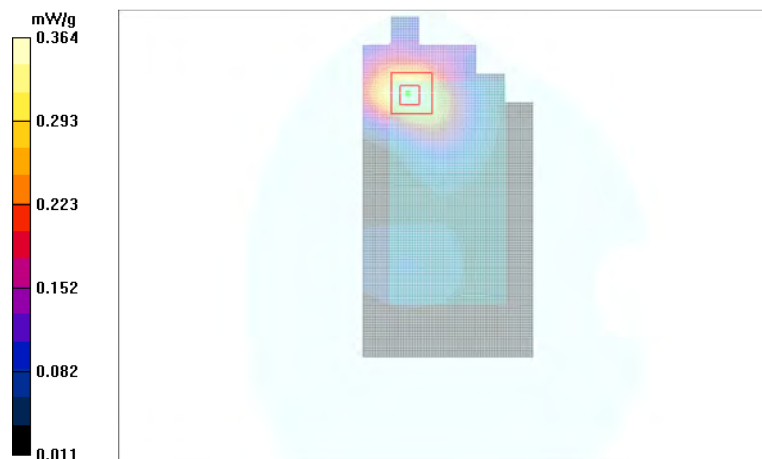
Peak SAR (extrapolated) = 0.508 W/kg

SAR(1 g) = 0.335 mW/g

SAR(10 g) = 0.212 mW/g

Power Drift = -0.026 dB

Maximum value of SAR (measured) = 0.364 mW/g



Date/Time: 2011-10-05 14:13:10

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

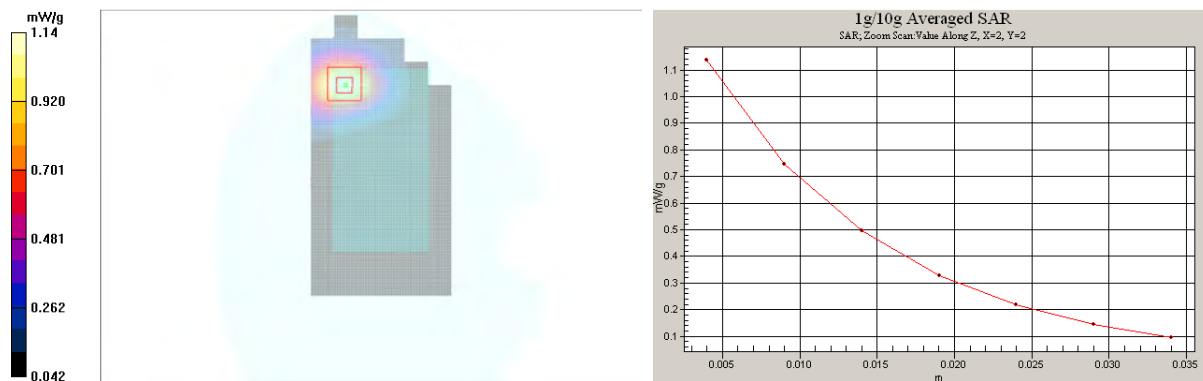
Communication System: WCDMA1700/2100

Frequency: 1752.6 MHz; Duty Cycle: 1:1
Medium: Body 1800; Medium Notes: Medium Temperature: 22.3 C
Medium parameters used: $f = 1753$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.93, 4.93, 4.93); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - High - No Accessory - BP-3L Sony - Back Facing Phantom/Area Scan (61x121x1): Measurement grid:
dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.18 mW/g

Body - High - No Accessory - BP-3L Sony - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 6.76 V/m
Peak SAR (extrapolated) = 1.59 W/kg
SAR(1 g) = 1.04 mW/g
SAR(10 g) = 0.634 mW/g
Power Drift = 0.046 dB
Maximum value of SAR (measured) = 1.14 mW/g



Date/Time: 2011-09-20 14:19:52

Test Laboratory: TCC Nokia

Type: **RM-809**; Serial: **004402/13/651118/9**

Communication System: WCDMA1700/2100

Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: Body 1800; Medium Notes: Medium Temperature: 22.2 C

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 51.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.93, 4.93, 4.93); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Low - WH-208 - BP-3L Sony - Back Facing Phantom/Area Scan (61x101x1): Measurement grid:

$dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 1.15 mW/g

Body - Low - WH-208 - BP-3L Sony - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

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

Reference Value = 5.17 V/m

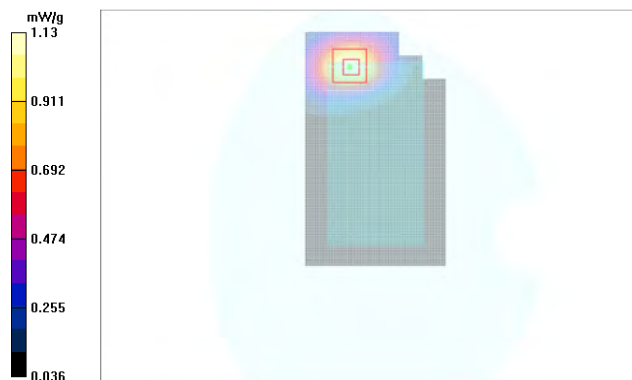
Peak SAR (extrapolated) = 1.60 W/kg

SAR(1 g) = 1.04 mW/g

SAR(10 g) = 0.630 mW/g

Power Drift = 0.081 dB

Maximum value of SAR (measured) = 1.13 mW/g



Date/Time: 2011-09-20 15:09:05

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1700/2100

Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: Body 1800; Medium Notes: Medium Temperature: 22.2 C

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 51.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.93, 4.93, 4.93); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Low – No Accessory - BP-3L LG - Back Facing Phantom/Area Scan (61x101x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.17 mW/g

Body - Low – No Accessory - BP-3L LG - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 4.82 V/m

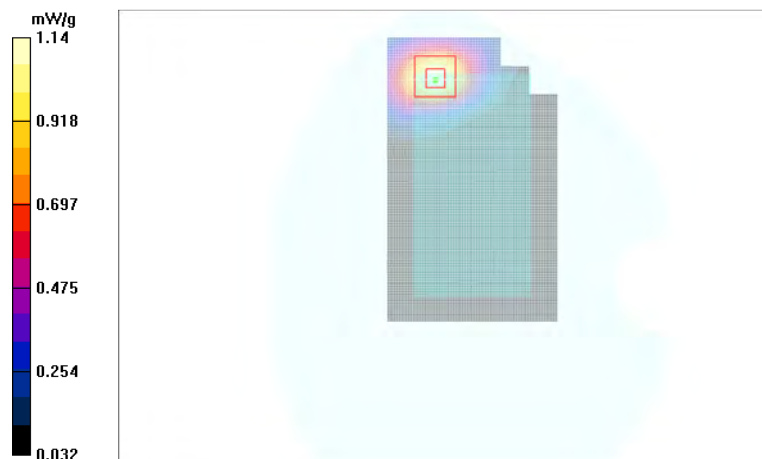
Peak SAR (extrapolated) = 1.60 W/kg

SAR(1 g) = 1.04 mW/g

SAR(10 g) = 0.627 mW/g

Power Drift = 0.013 dB

Maximum value of SAR (measured) = 1.14 mW/g



Date/Time: 2011-09-28 11:58:19

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.08

Medium: Body 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 50.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.68, 4.68, 4.68); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - No Accessory - BP-3L Sony - Display Facing Phantom/Area Scan (61x121x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.332 mW/g

Body - Middle - No Accessory - BP-3L Sony - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.53 V/m

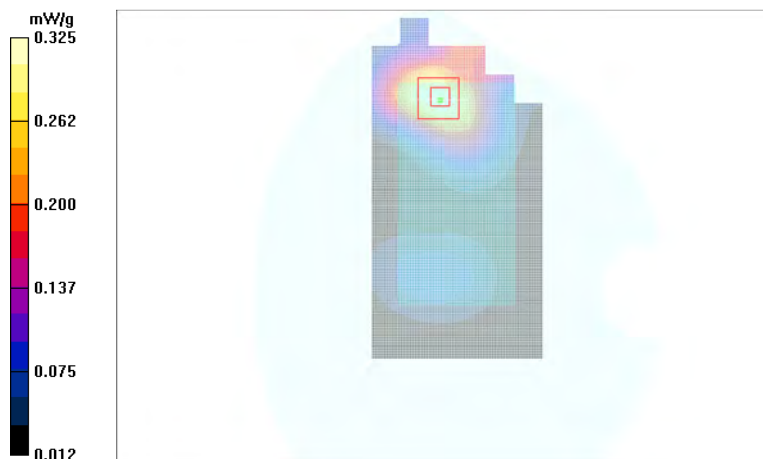
Peak SAR (extrapolated) = 0.449 W/kg

SAR(1 g) = 0.303 mW/g

SAR(10 g) = 0.190 mW/g

Power Drift = -0.347 dB

Maximum value of SAR (measured) = 0.325 mW/g



Date/Time: 2011-09-28 12:16:52

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.08

Medium: Body 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 50.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.68, 4.68, 4.68); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - WH-208 - BP-3L Sony - Display Facing Phantom/Area Scan (61x121x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.309 mW/g

Body - Middle - WH-208 - BP-3L Sony - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 4.91 V/m

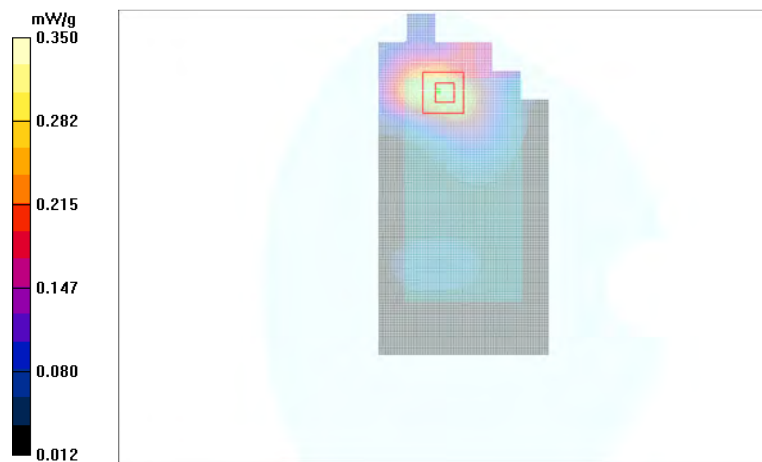
Peak SAR (extrapolated) = 0.495 W/kg

SAR(1 g) = 0.331 mW/g

SAR(10 g) = 0.207 mW/g

Power Drift = 0.444 dB

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



Date/Time: 2011-09-28 12:30:21

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.08
Medium: Body 1900; Medium Notes: Medium Temperature: 22.5 C
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 50.8$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

- DASY4 Configuration:
- Probe: ES3DV3 - SN3116; Probe Notes:
 - ConvF(4.68, 4.68, 4.68); Calibrated: 2011-02-17
 - Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn339; Calibrated: 2011-02-18
 - Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
 - Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - No Accessory - BP-3L Sony - Back Facing Phantom/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 1.06 mW/g

Body - Middle - No Accessory - BP-3L Sony - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

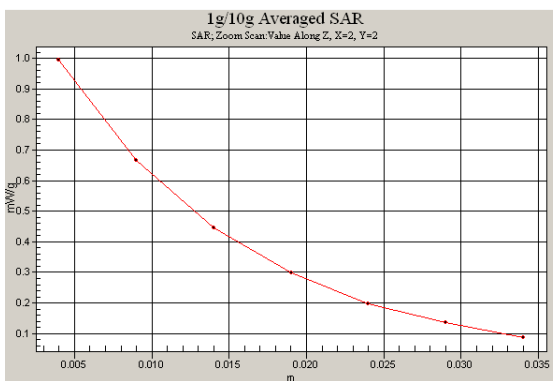
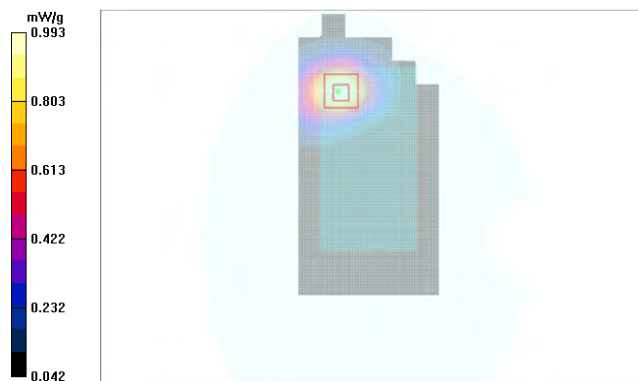
Reference Value = 6.42 V/m
Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.917 mW/g

SAR(10 g) = 0.565 mW/g

Power Drift = 0.433 dB

Maximum value of SAR (measured) = 0.993 mW/g



Date/Time: 2011-09-28 12:42:02

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.08

Medium: Body 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 50.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.68, 4.68, 4.68); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - WH-208 - BP-3L Sony - Back Facing Phantom/Area Scan (61x121x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.04 mW/g

Body - Middle - WH-208 - BP-3L Sony - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 5.25 V/m

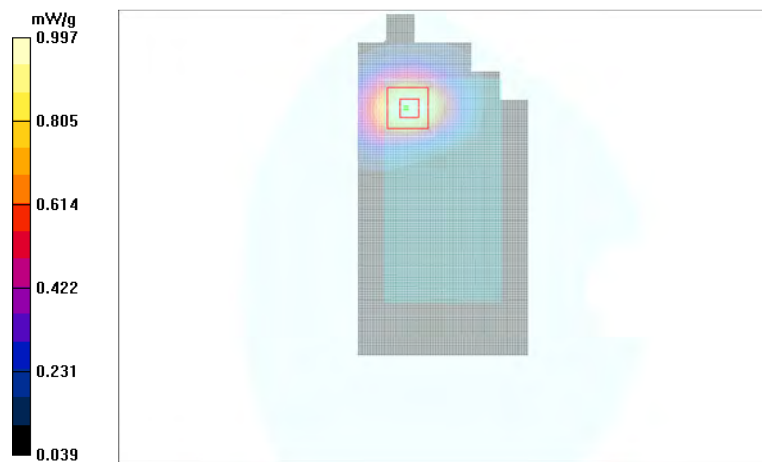
Peak SAR (extrapolated) = 1.39 W/kg

SAR(1 g) = 0.914 mW/g

SAR(10 g) = 0.558 mW/g

Power Drift = 0.455 dB

Maximum value of SAR (measured) = 0.997 mW/g



Date/Time: 2011-09-28 14:58:27

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Body 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 50.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.68, 4.68, 4.68); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - No Accessory - BP-3L Sony - Display Facing Phantom/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.365 mW/g

Body - Middle - No Accessory - BP-3L Sony - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.37 V/m

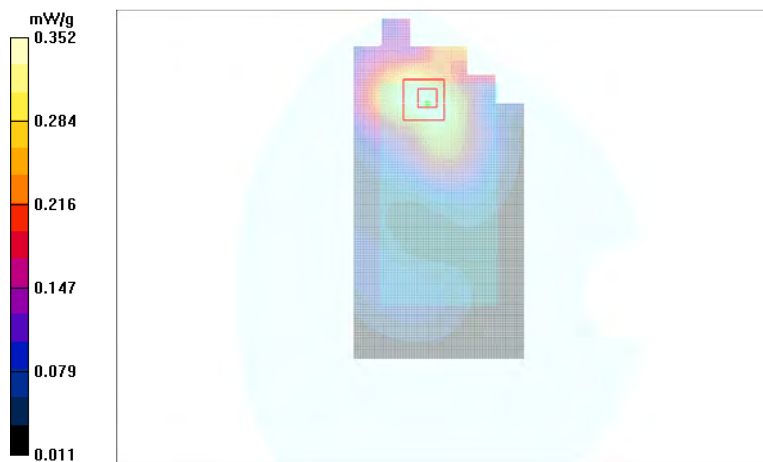
Peak SAR (extrapolated) = 0.507 W/kg

SAR(1 g) = 0.335 mW/g

SAR(10 g) = 0.211 mW/g

Power Drift = -0.069 dB

Maximum value of SAR (measured) = 0.352 mW/g



Date/Time: 2011-09-28 15:13:27

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Body 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 50.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.68, 4.68, 4.68); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - WH-208 - BP-3L Sony - Display Facing Phantom/Area Scan (61x121x1): Measurement grid:
dx=15mm, dy=15mm

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

Body - Middle - WH-208 - BP-3L Sony - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 5.87 V/m

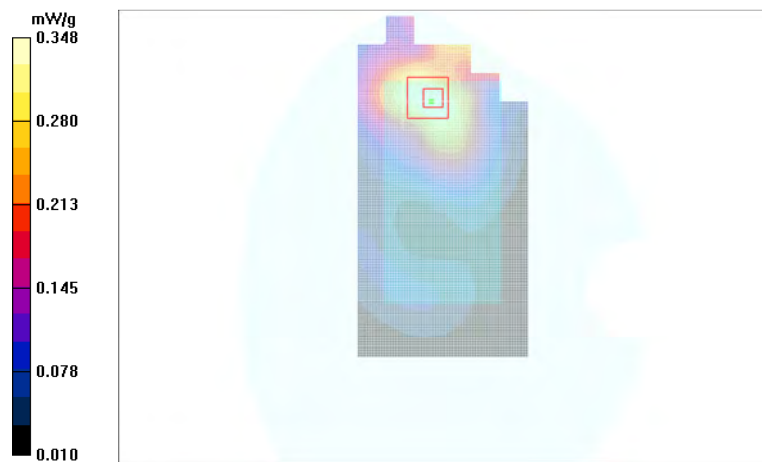
Peak SAR (extrapolated) = 0.500 W/kg

SAR(1 g) = 0.331 mW/g

SAR(10 g) = 0.209 mW/g

Power Drift = 0.118 dB

Maximum value of SAR (measured) = 0.348 mW/g



Date/Time: 2011-09-28 15:25:08

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Body 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 50.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.68, 4.68, 4.68); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - No Accessory - BP-3L Sony - Back Facing Phantom/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.856 mW/g

Body - Middle - No Accessory - BP-3L Sony - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.57 V/m

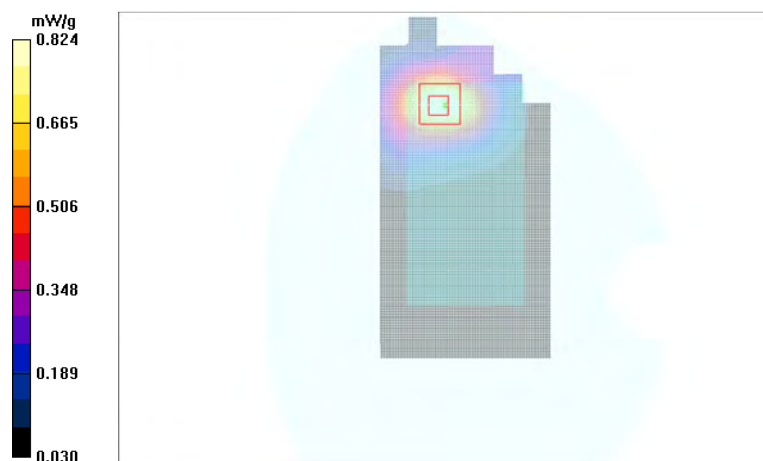
Peak SAR (extrapolated) = 1.18 W/kg

SAR(1 g) = 0.766 mW/g

SAR(10 g) = 0.470 mW/g

Power Drift = 0.028 dB

Maximum value of SAR (measured) = 0.824 mW/g



Date/Time: 2011-09-28 17:46:59

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: WCDMA1900

Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium: Body 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1908$ MHz; $\sigma = 1.59$ mho/m; $\epsilon_r = 50.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.68, 4.68, 4.68); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - High - WH-208 - BP-3L sony - Back Facing Phantom/Area Scan (61x121x1): Measurement grid:
dx=15mm, dy=15mm

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

Body - High - WH-208 - BP-3L sony - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.29 V/m

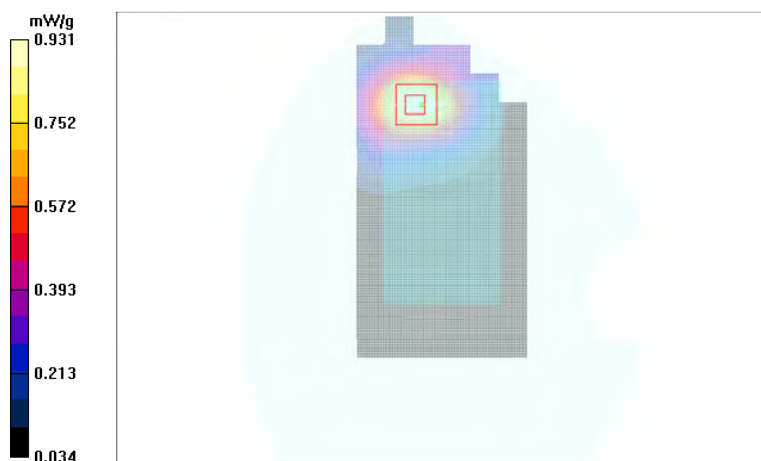
Peak SAR (extrapolated) = 1.36 W/kg

SAR(1 g) = 0.864 mW/g

SAR(10 g) = 0.531 mW/g

Power Drift = -0.014 dB

Maximum value of SAR (measured) = 0.931 mW/g



Date/Time: 2011-09-28 14:27:16

Test Laboratory: TCC Nokia
Type: RM-809; Serial: 004402/13/651118/9

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.08

Medium: Body 1900; Medium Notes: Medium Temperature: 22.5 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 50.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116; Probe Notes:
- ConvF(4.68, 4.68, 4.68); Calibrated: 2011-02-17
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn339; Calibrated: 2011-02-18
- Phantom: SAM 5; Type: Twin Phantom; Serial: TP-1302
- Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - No Accessory - BP-3L LG - Back Facing Phantom/Area Scan (61x121x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.766 mW/g

Body - Middle - No Accessory - BP-3L LG - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 5.77 V/m

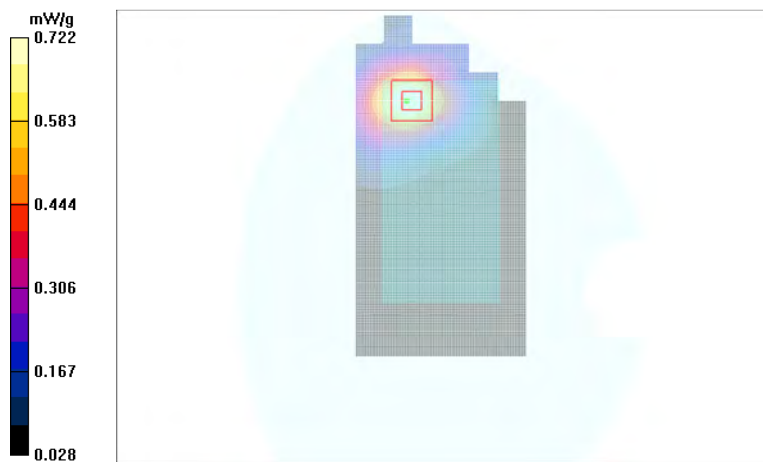
Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.665 mW/g

SAR(10 g) = 0.411 mW/g

Power Drift = 0.499 dB

Maximum value of SAR (measured) = 0.722 mW/g



Date/Time: 2011-09-15 11:05:37

Test Laboratory: TCC Nokia
Type: RM-803; Serial: 004402/13/635631/2

Communication System: WLAN2450 b-mode

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Body 2450; Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used: f = 2442 MHz; $\sigma = 1.89$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.45, 6.45, 6.45); Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn860; Calibrated: 2010-10-25
- Phantom: SAM6; Type: SAM; Serial: TP - 1426
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - No Accessory - Display Facing Phantom - BP-3L Sony/Area Scan (61x101x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.024 mW/g

Body - Middle - No Accessory - Display Facing Phantom - BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.03 V/m

Peak SAR (extrapolated) = 0.040 W/kg

SAR(1 g) = 0.023 mW/g

SAR(10 g) = 0.015 mW/g

Power Drift = 0.347 dB

Maximum value of SAR (measured) = 0.025 mW/g



Date/Time: 2011-09-15 11:26:26

Test Laboratory: TCC Nokia
Type: RM-803; Serial: 004402/13/635631/2

Communication System: WLAN2450 b-mode

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Body 2450; Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used: f = 2442 MHz; $\sigma = 1.89$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.45, 6.45, 6.45); Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn860; Calibrated: 2010-10-25
- Phantom: SAM6; Type: SAM; Serial: TP - 1426
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - WH-208 - Display Facing Phantom - BP-3L Sony/Area Scan (61x101x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.031 mW/g

Body - Middle - WH-208 - Display Facing Phantom - BP-3L Sony/Zoom Scan 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.08 V/m

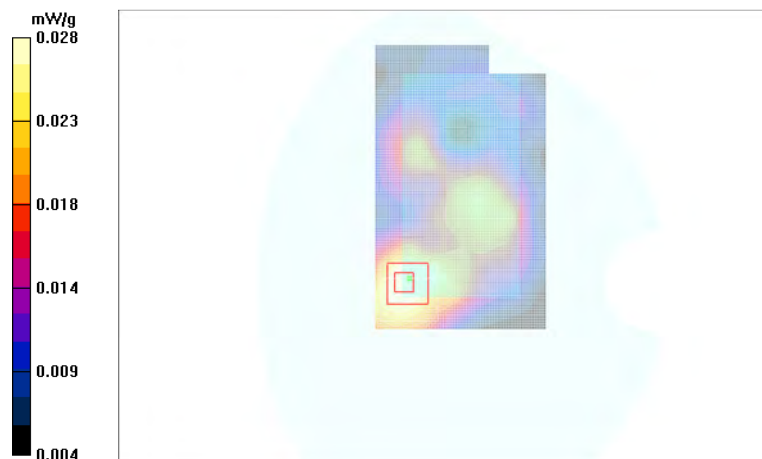
Peak SAR (extrapolated) = 0.053 W/kg

SAR(1 g) = 0.026 mW/g

SAR(10 g) = 0.017 mW/g

Power Drift = 0.224 dB

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



Date/Time: 2011-09-15 11:50:56

Test Laboratory: TCC Nokia
Type: RM-803; Serial: 004402/13/635631/2

Communication System: WLAN2450 b-mode

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Body 2450; Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used: f = 2442 MHz; $\sigma = 1.89$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.45, 6.45, 6.45); Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn860; Calibrated: 2010-10-25
- Phantom: SAM6; Type: SAM; Serial: TP - 1426
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - No Accessory - Back Facing Phantom - BP-3L Sony/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.065 mW/g

Body - Middle - No Accessory - Back Facing Phantom - BP-3L Sony/Zoom Scan 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 5.21 V/m

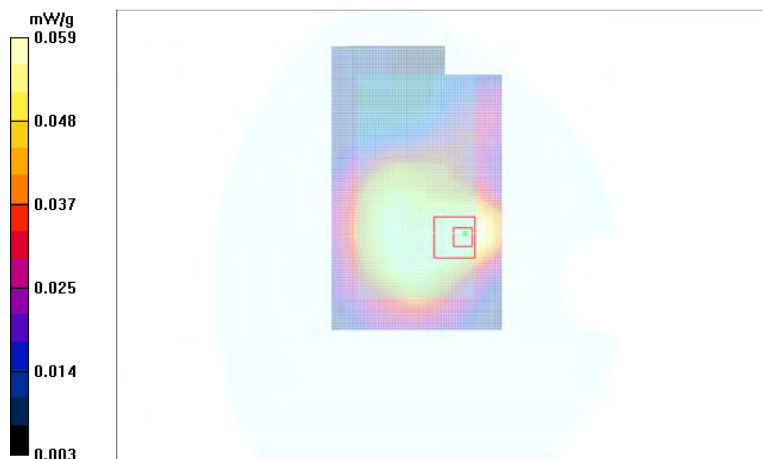
Peak SAR (extrapolated) = 0.097 W/kg

SAR(1 g) = 0.056 mW/g

SAR(10 g) = 0.034 mW/g

Power Drift = -0.050 dB

Maximum value of SAR (measured) = 0.059 mW/g



Date/Time: 2011-09-15 12:44:36

Test Laboratory: TCC Nokia
Type: RM-803; Serial: 004402/13/635631/2

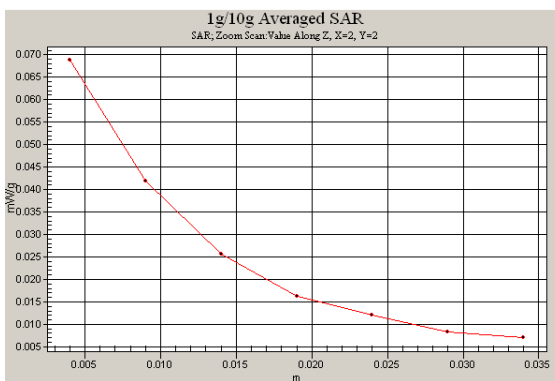
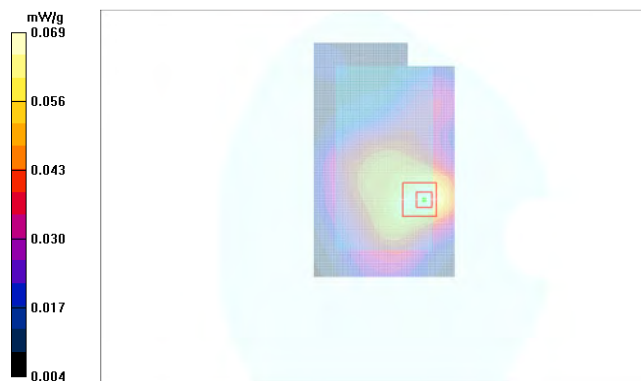
Communication System: WLAN2450 b-mode

Frequency: 2412 MHz; Duty Cycle: 1:1
Medium: Body 2450; Medium Notes: Medium Temperature: t=21.9 C
Medium parameters used: f = 2412 MHz; $\sigma = 1.84$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.45, 6.45, 6.45); Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn860; Calibrated: 2010-10-25
- Phantom: SAM6; Type: SAM; Serial: TP - 1426
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Low - WH-208 - Back Facing Phantom - BP-3L Sony/Area Scan (61x101x1): Measurement grid:
dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.072 mW/g

Body - Low - WH-208 - Back Facing Phantom - BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 4.81 V/m
Peak SAR (extrapolated) = 0.101 W/kg
SAR(1 g) = 0.063 mW/g
SAR(10 g) = 0.038 mW/g
Power Drift = 0.058 dB
Maximum value of SAR (measured) = 0.069 mW/g



Date/Time: 2011-09-15 15:08:44

Test Laboratory: TCC Nokia
Type: RM-803; Serial: 004402/13/635631/2

Communication System: WLAN2450 n-mode

Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Body 2450; Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used: f = 2442 MHz; $\sigma = 1.89$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.45, 6.45, 6.45); Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn860; Calibrated: 2010-10-25
- Phantom: SAM6; Type: SAM; Serial: TP - 1426
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - Middle - WH-208 - Back Facing Phantom - BP-3L Sony/Area Scan (61x101x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.034 mW/g

Body - Middle - WH-208 - Back Facing Phantom - BP-3L Sony/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.25 V/m

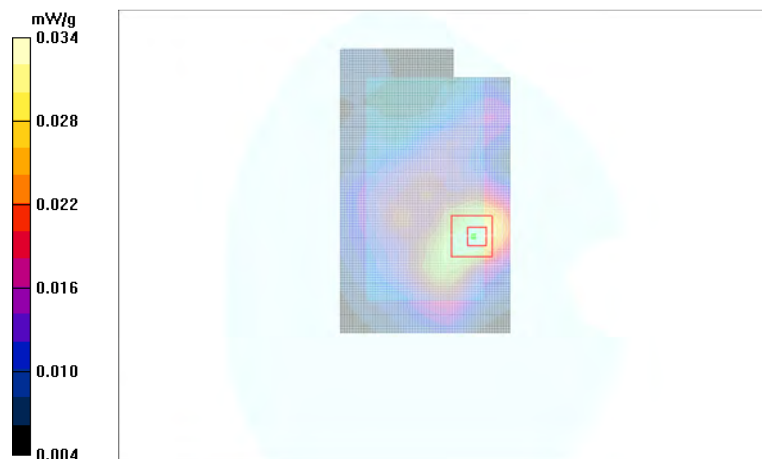
Peak SAR (extrapolated) = 0.065 W/kg

SAR(1 g) = 0.031 mW/g

SAR(10 g) = 0.019 mW/g

Power Drift = 0.471 dB

Maximum value of SAR (measured) = 0.034 mW/g



Date/Time: 2011-09-15 14:31:05

Test Laboratory: TCC Nokia
Type: RM-803; Serial: 004402/13/635631/2

Communication System: WLAN2450 b-mode

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: Body 2450; Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used: f = 2462 MHz; $\sigma = 1.93$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.45, 6.45, 6.45); Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn860; Calibrated: 2010-10-25
- Phantom: SAM6; Type: SAM; Serial: TP - 1426
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body - High(US) - WH-208 - Back Facing Phantom - BP-3L LG/Area Scan (61x101x1): Measurement grid:
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.041 mW/g

Body - High(US) - WH-208 - Back Facing Phantom - BP-3L LG/Zoom Scan (5x5x7)/Cube 0: Measurement grid:
dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.73 V/m

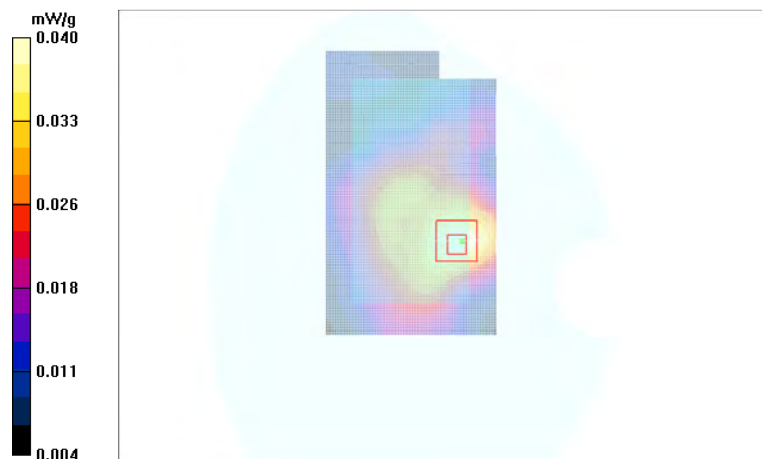
Peak SAR (extrapolated) = 0.059 W/kg

SAR(1 g) = 0.037 mW/g

SAR(10 g) = 0.023 mW/g

Power Drift = 0.234 dB

Maximum value of SAR (measured) = 0.040 mW/g



Date/Time: 2011-09-13 12:58:20, Date/Time: 2011-09-14 14:45:30

Test Laboratory: TCC Nokia

Type: RM-809, Type: RM-803; Serial: 004402/13/651118/9, Serial: 004402/13/635631/2

Communication System: 4-slot GPRS850, Communication System: WLAN2450 b-mode

Frequency: 824.2 MHz, Frequency: 2462 MHz; Duty Cycle: 1:2.08, Duty Cycle: 1:1

Medium: Head 850, Medium: Head 2450; Medium Notes: Medium Temperature: 22.5 C, Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.7$; $\rho = 1000$ kg/m³, Medium parameters used: $f = 2462$ MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116, Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.01, 6.01, 6.01), ConvF(6.37, 6.37, 6.37); Calibrated: 2011-02-17, Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn339, Electronics: DAE4 Sn860; Calibrated: 2011-02-18, Calibrated: 2010-10-25
- Phantom: SAM 3, Phantom: SAM5; Type: Twin Phantom, Type: SAM; Serial: TP-1302, Serial: TP - 1178
- ; SEMCAD X Version 14.0 Build 61

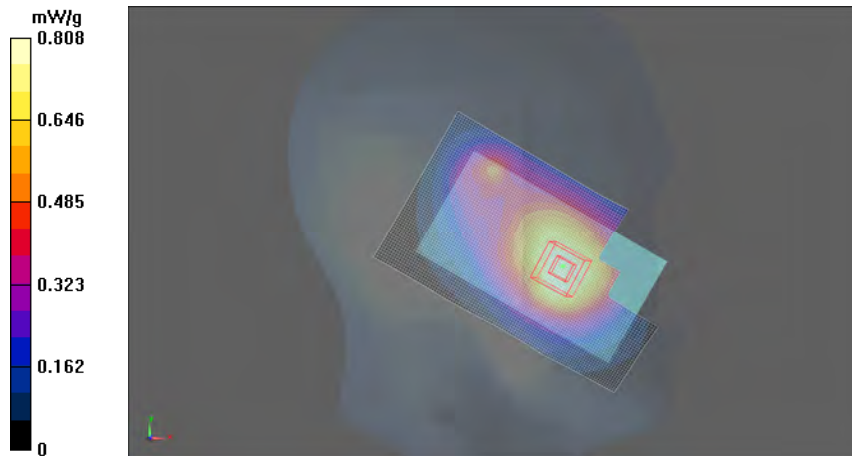
Configuration/Cheek - Low - BP-3L Sony/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Configuration/Cheek - High - BP-3L Sony/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.763 mW/g

SAR(10 g) = 0.536 mW/g

Maximum value of SAR (measured) = 0.808 mW/g



Date/Time: 2011-09-26 10:04:59, Date/Time: 2011-09-14 14:45:30

Test Laboratory: TCC Nokia

Type: RM-809, Type: RM-803; Serial: 004402/13/651118/9, Serial: 004402/13/635631/2

Communication System: WCDMA850, Communication System: WLAN2450 b-mode

Frequency: 835 MHz, Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: Head 850, Medium: Head 2450; Medium Notes: Medium Temperature: 22.5 C, Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used: f = 835 MHz; $\sigma = 0.906$ mho/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³, Medium parameters used: f = 2462 MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116, Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(6.01, 6.01, 6.01), ConvF(6.37, 6.37, 6.37); Calibrated: 2011-02-17, Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection), Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn339, Electronics: DAE4 Sn860; Calibrated: 2011-02-18, Calibrated: 2010-10-25
- Phantom: SAM 3, Phantom: SAM5; Type: Twin Phantom, Type: SAM; Serial: TP-1302, Serial: TP - 1178
- ; SEMCAD X Version 14.0 Build 61

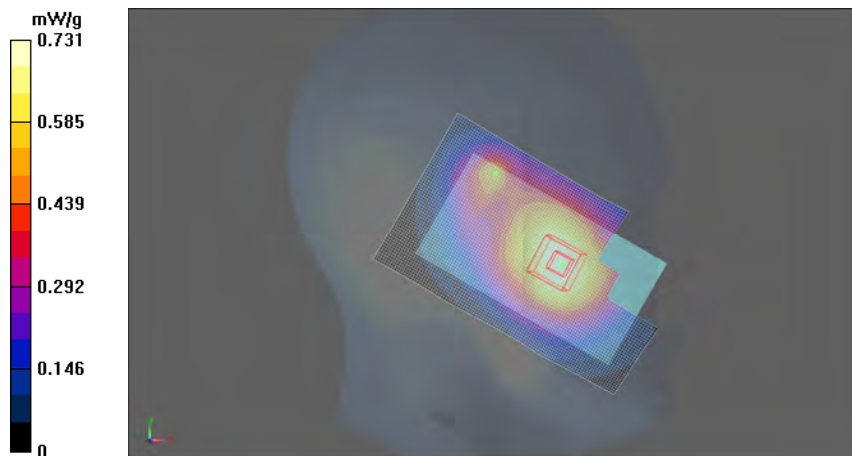
Configuration/Cheek – Middle – BP-3L Sony/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Configuration/Cheek – High - BP-3L Sony/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.687 mW/g

SAR(10 g) = 0.480 mW/g

Maximum value of SAR (measured) = 0.731 mW/g



Date/Time: 2011-09-20 11:40:58, Date/Time: 2011-09-14 14:45:30

Test Laboratory: TCC Nokia

Type: RM-809, Type: RM-803; Serial: 004402/13/651118/9, Serial: 004402/13/635631/2

Communication System: WCDMA1700/2100, Communication System: WLAN2450 b-mode

Frequency: 1732.4 MHz, Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: Head 1800, Medium: Head 2450; Medium Notes: Medium Temperature: 22.2 C, Medium Notes:

Medium Temperature: t=21.9 C

Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.35 mho/m; ϵ_r = 38.7; ρ = 1000 kg/m³, Medium parameters used: f = 2462 MHz; σ = 1.82 mho/m; ϵ_r = 39.5; ρ = 1000 kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116, Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(5.29, 5.29, 5.29), ConvF(6.37, 6.37, 6.37); Calibrated: 2011-02-17, Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn339, Electronics: DAE4 Sn860; Calibrated: 2011-02-18, Calibrated: 2010-10-25
- Phantom: SAM 4.5, Phantom: SAM5; Type: Twin Phantom, Type: SAM; Serial: TP-1215, Serial: TP - 1178
- ; SEMCAD X Version 14.0 Build 61

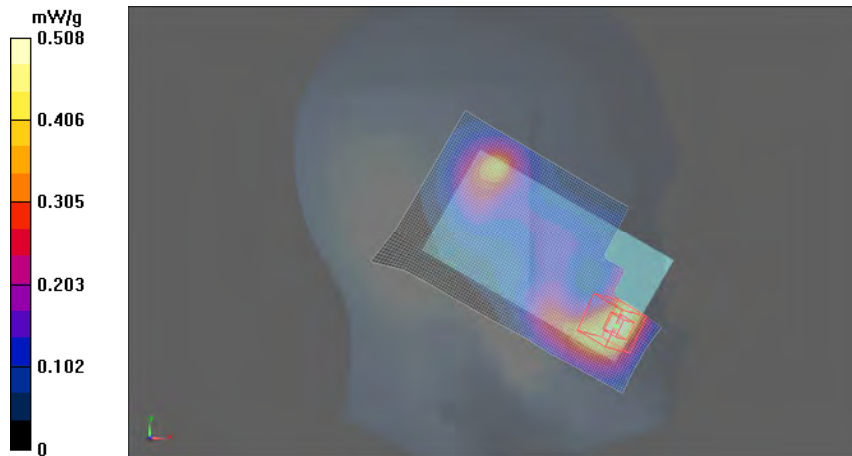
Configuration/Cheek - Middle - BP-3L LG/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Configuration/Cheek - High - BP-3L Sony/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.452 mW/g

SAR(10 g) = 0.263 mW/g

Maximum value of SAR (measured) = 0.508 mW/g



Date/Time: 2011-09-21 13:05:30, Date/Time: 2011-09-14 14:45:30

Test Laboratory: TCC Nokia

Type: RM-809, Type: RM-803; Serial: 004402/13/651118/9, Serial: 004402/13/635631/2

Communication System: 4-slot GPRS1900, Communication System: WLAN2450 b-mode

Frequency: 1909.8 MHz, Frequency: 2462 MHz; Duty Cycle: 1:2.08, Duty Cycle: 1:1

Medium: Head 1900, Medium: Head 2450; Medium Notes: Medium Temperature: 22.3 C, Medium Notes:

Medium Temperature: t=21.9 C

Medium parameters used: f = 1910 MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³, Medium parameters used:
f = 2462 MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116, Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(5.08, 5.08, 5.08), ConvF(6.37, 6.37, 6.37); Calibrated: 2011-02-17, Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn339, Electronics: DAE4 Sn860; Calibrated: 2011-02-18, Calibrated: 2010-10-25
- Phantom: SAM 4.5, Phantom: SAM5; Type: Twin Phantom, Type: SAM; Serial: TP-1215, Serial: TP - 1178
- ; SEMCAD X Version 14.0 Build 61

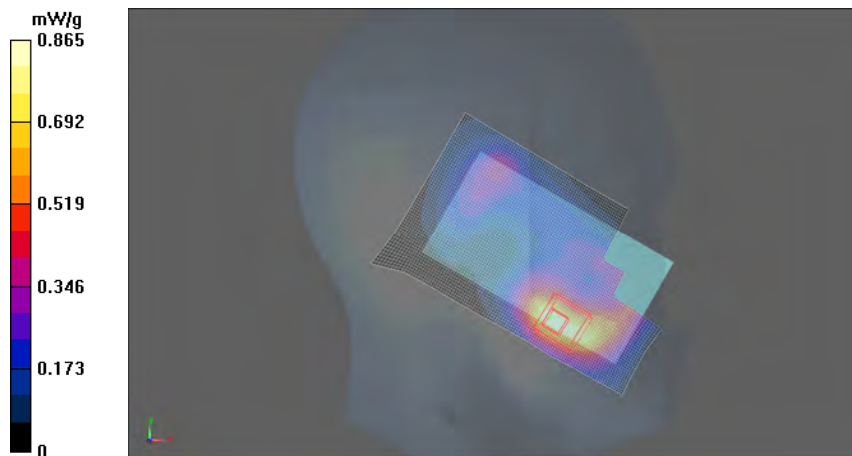
Configuration/Cheek – High – BP-3L Sony/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Configuration/Cheek - High - BP-3L Sony/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.747 mW/g

SAR(10 g) = 0.414 mW/g

Maximum value of SAR (measured) = 0.865 mW/g



Date/Time: 2011-10-05 15:22:06, Date/Time: 2011-09-14 14:45:30

Test Laboratory: TCC Nokia

Type: RM-809, Type: RM-803; Serial: 004402/13/651118/9, Serial: 004402/13/635631/2

Communication System: WCDMA1900, Communication System: WLAN2450 b-mode

Frequency: 1907.6 MHz, Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: Head 1900, Medium: Head 2450; Medium Notes: Medium Temperature: 22.3 C, Medium Notes:

Medium Temperature: t=21.9 C

Medium parameters used: f = 1908 MHz; $\sigma = 1.48$ mho/m; $\epsilon_r = 38$; $\rho = 1000$ kg/m³, Medium parameters used: f = 2462 MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116, Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(5.08, 5.08, 5.08), ConvF(6.37, 6.37, 6.37); Calibrated: 2011-02-17, Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn339, Electronics: DAE4 Sn860; Calibrated: 2011-02-18, Calibrated: 2010-10-25
- Phantom: SAM 4.5, Phantom: SAM5; Type: Twin Phantom, Type: SAM; Serial: TP-1215, Serial: TP - 1178
- ; SEMCAD X Version 14.0 Build 61

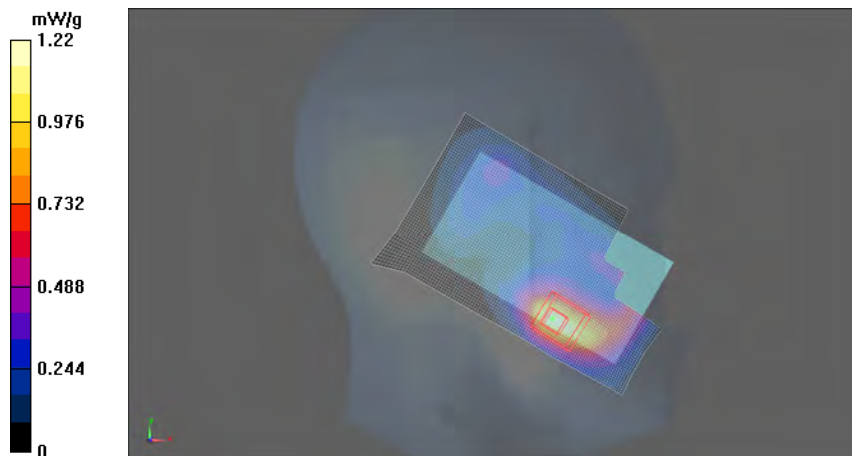
Configuration/Cheek - High - BP-3L LG/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Configuration/Cheek - High - BP-3L Sony/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.03 mW/g

SAR(10 g) = 0.561 mW/g

Maximum value of SAR (measured) = 1.22 mW/g



Date/Time: 2011-09-13 18:40:20, Date/Time: 2011-09-15 11:50:56

Test Laboratory: TCC Nokia

Type: RM-809, Type: RM-803; Serial: 004402/13/651118/9, Serial: 004402/13/635631/2

Communication System: 4-slot GPRS850, Communication System: WLAN2450 b-mode

Frequency: 824.2 MHz, Frequency: 2442 MHz; Duty Cycle: 1:2.08, Duty Cycle: 1:1

Medium: Body 850, Medium: Body 2450; Medium Notes: Medium Temperature: 22.5 C, Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used (interpolated): $f = 824.2$ MHz; $\sigma = 0.972$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³, Medium parameters used: $f = 2442$ MHz; $\sigma = 1.89$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116, Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(5.96, 5.96, 5.96), ConvF(6.45, 6.45, 6.45); Calibrated: 2011-02-17, Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn339, Electronics: DAE4 Sn860; Calibrated: 2011-02-18, Calibrated: 2010-10-25
- Phantom: SAM 2, Phantom: SAM6; Type: Twin Phantom, Type: SAM; Serial: TP-1037, Serial: TP - 1426
- ; SEMCAD X Version 14.0 Build 61

Configuration/Body - Low - No Accessory - BP-3L Sony - Back Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

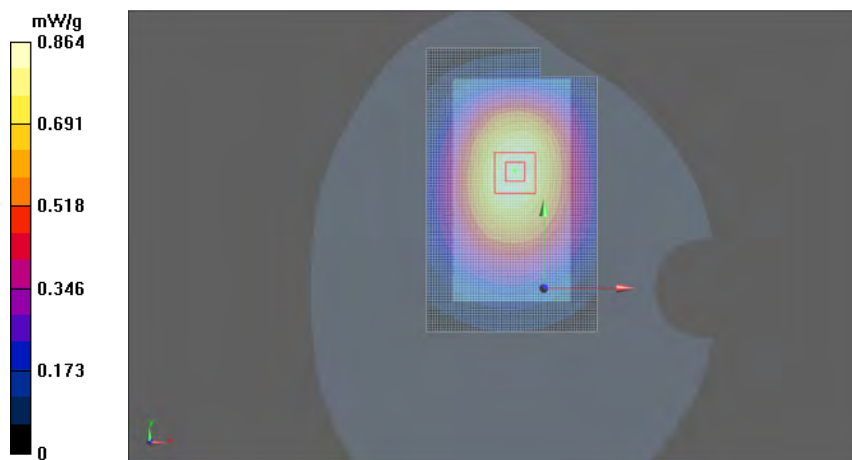
Configuration/Body - Middle - No Accessory - BP-3L Sony - Back Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.816 mW/g

SAR(10 g) = 0.574 mW/g

Maximum value of SAR (measured) = 0.864 mW/g



Date/Time: 2011-09-26 14:40:55, Date/Time: 2011-09-15 11:50:56

Test Laboratory: TCC Nokia

Type: RM-809, Type: RM-803; Serial: 004402/13/651118/9, Serial: 004402/13/635631/2

Communication System: WCDMA850, Communication System: WLAN2450 b-mode

Frequency: 835 MHz, Frequency: 2442 MHz; Duty Cycle: 1:1

Medium: Body 850, Medium: Body 2450; Medium Notes: Medium Temperature: 22.5 C, Medium Notes: Medium Temperature: t=21.9 C

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.992 \text{ mho/m}$; $\epsilon_r = 53.3$; $\rho = 1000 \text{ kg/m}^3$, Medium parameters used: $f = 2442 \text{ MHz}$; $\sigma = 1.89 \text{ mho/m}$; $\epsilon_r = 52.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 - SN3116, Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(5.96, 5.96, 5.96), ConvF(6.45, 6.45, 6.45); Calibrated: 2011-02-17, Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn339, Electronics: DAE4 Sn860; Calibrated: 2011-02-18, Calibrated: 2010-10-25
- Phantom: SAM 2, Phantom: SAM6; Type: Twin Phantom, Type: SAM; Serial: TP-1037, Serial: TP - 1426
- ; SEMCAD X Version 14.0 Build 61

Configuration/Body - Middle - No Accessory – BP-3L Sony - Back Facing Phantom/Area Scan (7x12x1):

Measurement grid: dx=15mm, dy=15mm

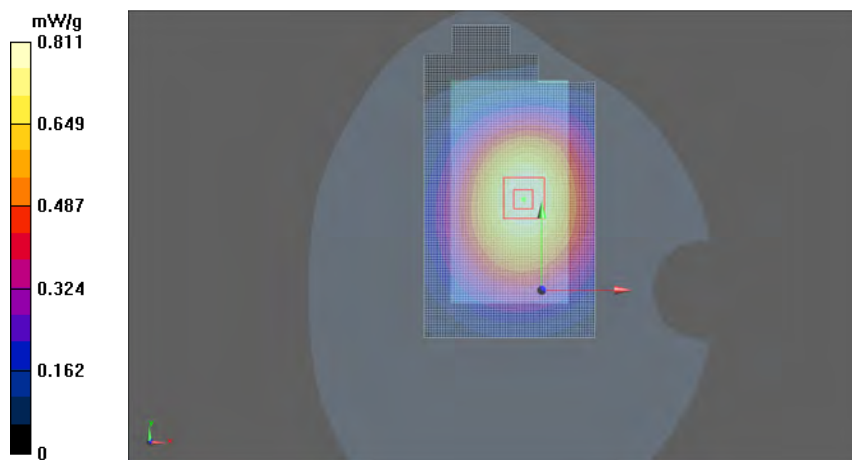
Configuration/Body - Middle - No Accessory – BP-3L Sony - Back Facing Phantom/Area Scan (7x11x1):

Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.768 mW/g

SAR(10 g) = 0.542 mW/g

Maximum value of SAR (measured) = 0.811 mW/g



Date/Time: 2011-09-20 14:19:52, Date/Time: 2011-09-15 12:44:36

Test Laboratory: TCC Nokia

Type: RM-809, Type: RM-803; Serial: 004402/13/651118/9, Serial: 004402/13/635631/2

Communication System: WCDMA1700/2100, Communication System: WLAN2450 b-mode

Frequency: 1712.4 MHz, Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: Body 1800, Medium: Body 2450; Medium Notes: Medium Temperature: 22.2 C, Medium Notes:

Medium Temperature: t=21.9 C

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 51.1$; $\rho = 1000$ kg/m³, Medium parameters used: $f = 2412$ MHz; $\sigma = 1.84$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

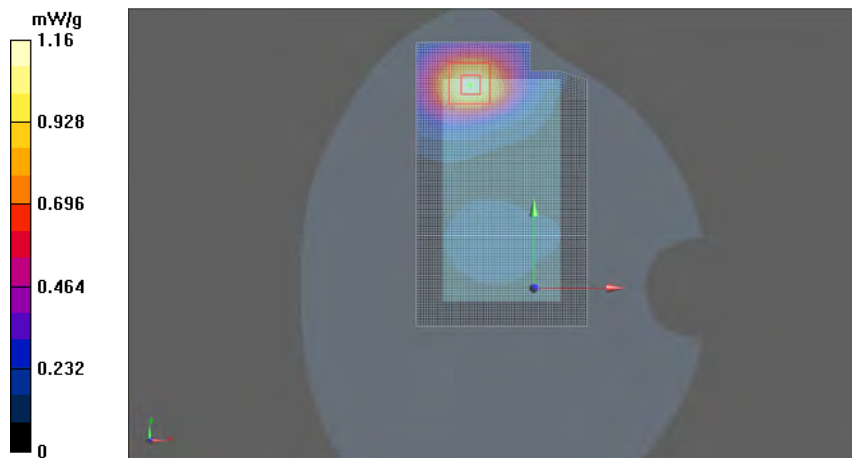
- Probe: ES3DV3 - SN3116, Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(4.93, 4.93, 4.93), ConvF(6.45, 6.45, 6.45); Calibrated: 2011-02-17, Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn339, Electronics: DAE4 Sn860; Calibrated: 2011-02-18, Calibrated: 2010-10-25
- Phantom: SAM 5, Phantom: SAM6; Type: Twin Phantom, Type: SAM; Serial: TP-1302, Serial: TP - 1426
- ; SEMCAD X Version 14.0 Build 61

Configuration/Body - Low - WH-208 – BP-3L Sony - Back Facing Phantom/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Configuration/Body - Low - WH-208 – BP-3L Sony - Back Facing Phantom/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 1.05 mW/g
SAR(10 g) = 0.610 mW/g

Maximum value of SAR (measured) = 1.16 mW/g



Date/Time: 2011-09-28 12:42:02, Date/Time: 2011-09-15 12:44:36

Test Laboratory: TCC Nokia

Type: RM-809, Type: RM-803; Serial: 004402/13/651118/9, Serial: 004402/13/635631/2

Communication System: 4-slot GPRS1900, Communication System: WLAN2450 b-mode

Frequency: 1880 MHz, Frequency: 2412 MHz; Duty Cycle: 1:2.08, Duty Cycle: 1:1

Medium: Body 1900, Medium: Body 2450; Medium Notes: Medium Temperature: 22.5 C, Medium Notes:

Medium Temperature: t=21.9 C

Medium parameters used: f = 1880 MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 50.8$; $\rho = 1000$ kg/m³, Medium parameters used:
f = 2412 MHz; $\sigma = 1.84$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

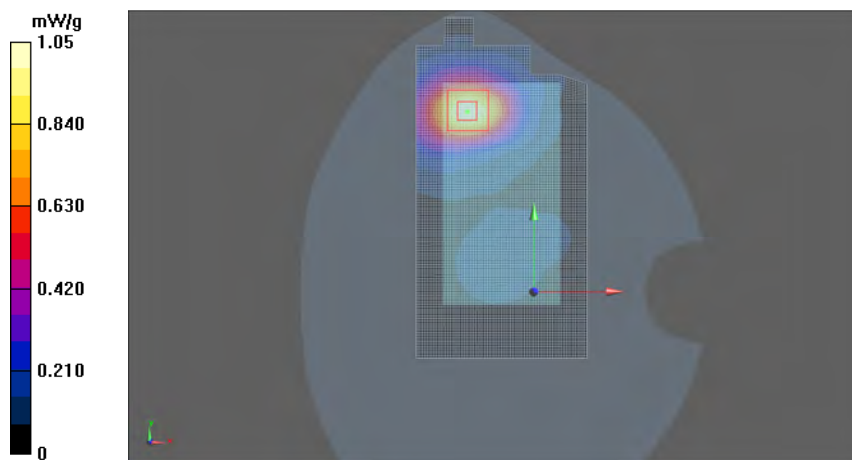
- Probe: ES3DV3 - SN3116, Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(4.68, 4.68, 4.68), ConvF(6.45, 6.45, 6.45); Calibrated: 2011-02-17, Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn339, Electronics: DAE4 Sn860; Calibrated: 2011-02-18, Calibrated: 2010-10-25
- Phantom: SAM 5, Phantom: SAM6; Type: Twin Phantom, Type: SAM; Serial: TP-1302, Serial: TP - 1426
- ; SEMCAD X Version 14.0 Build 61

Configuration/Body - Middle - WH-208 – BP-3L Sony - Back Facing Phantom/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

Configuration/Body - Low - WH-208 – BP-3L Sony - Back Facing Phantom/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.932 mW/g
SAR(10 g) = 0.530 mW/g

Maximum value of SAR (measured) = 1.05 mW/g



Date/Time: 2011-09-28 17:46:59, Date/Time: 2011-09-15 12:44:36

Test Laboratory: TCC Nokia

Type: RM-809, Type: RM-803; Serial: 004402/13/651118/9, Serial: 004402/13/635631/2

Communication System: WCDMA1900, Communication System: WLAN2450 b-mode

Frequency: 1907.6 MHz, Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: Body 1900, Medium: Body 2450; Medium Notes: Medium Temperature: 22.5 C, Medium Notes:

Medium Temperature: t=21.9 C

Medium parameters used: f = 1908 MHz; $\sigma = 1.59$ mho/m; $\epsilon_r = 50.7$; $\rho = 1000$ kg/m³, Medium parameters used:
f = 2412 MHz; $\sigma = 1.84$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

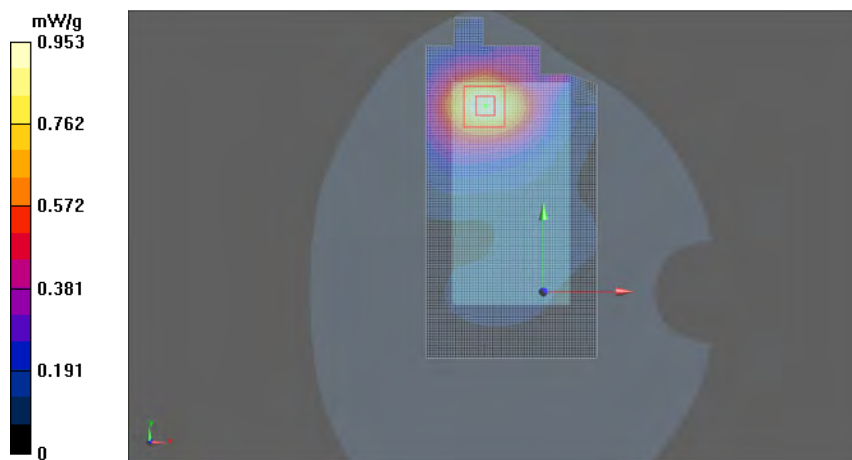
- Probe: ES3DV3 - SN3116, Probe: EX3DV4 - SN3574; Probe Notes:
- ConvF(4.68, 4.68, 4.68), ConvF(6.45, 6.45, 6.45); Calibrated: 2011-02-17, Calibrated: 2010-10-19
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE4 Sn339, Electronics: DAE4 Sn860; Calibrated: 2011-02-18, Calibrated: 2010-10-25
- Phantom: SAM 5, Phantom: SAM6; Type: Twin Phantom, Type: SAM; Serial: TP-1302, Serial: TP - 1426
- ; SEMCAD X Version 14.0 Build 61

Configuration/Body - High - WH-208 - BP-3L Sony - Back Facing Phantom/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

Configuration/Body - Low - WH-208 - BP-3L Sony - Back Facing Phantom/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Motorola Fast SAR of Combined Scans: SAR(1 g) = 0.869 mW/g
SAR(10 g) = 0.504 mW/g

Maximum value of SAR (measured) = 0.953 mW/g



APPENDIX C: CONDUCTED AVERAGE POWER MEASUREMENTS FOR WCDMA AND HSUPA

Test Laboratory: TCC Nokia

Type: RM-809; Serial: 004402/13/651130/4, HW: 0111, SW: 1600.2201.7720.11350

C.1. WCDMA 850 Test results

Average power

Ch / f (MHz)	P [dBm]
4133	23.07
4175	23.16
4232	23.07

C.2. HSUPA 850 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	21.44	21.70	21.72	21.80	21.72
4175	21.52	21.87	21.70	21.99	21.95
4232	20.62	21.36	21.34	21.33	21.39

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. In addition, to ensure linearity of the PA output, a further 0.5dB power reduction is implemented in Subtest mode 3 and a 1.5dB power reduction is implemented in Subtest mode 5. As a result, the overall 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
1.5 dB	2.0 dB	1.5 dB	2.0 dB	1.5 dB

Test Laboratory: TCC Nokia

Type: RM-809; Serial: 004402/13/651130/4, HW: 0111, SW: 1600.2201.7720.11350

C.3. WCDMA 1700/2100 Test results

Average power

Ch / f (MHz)	P [dBm]
1313	23.38
1450	23.53
1512	23.29

C.4. HSUPA 1700/2100 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	21.58	21.95	21.85	22.08	22.07
1450	21.68	22.27	22.29	22.36	22.43
1512	21.70	21.16	22.03	21.99	22.14

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. In addition, to ensure linearity of the PA output, a further 0.2dB power reduction is implemented in Subtest mode 3 and a 1.5dB power reduction is implemented in Subtest mode 5. As a result, the overall 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
1.5 dB	2.0 dB	1.2 dB	2.0 dB	1.5 dB

Test Laboratory: TCC Nokia

Type: RM-809; Serial: 004402/13/651130/4, HW: 0111, SW: 1600.2201.7720.11350

C.5. WCDMA1900 Test results

Average power

Ch	P [dBm]
9263	23.59
9400	23.20
9537	23.29

C.6. HSUPA1900 Test results

Average power

Ch	P [dBm]				
	Subtest mode 1	Subtest mode 2	Subtest mode 3	Subtest mode 4	Subtest mode 5
9263	21.42	21.89	21.89	21.96	21.95
9400	21.25	21.57	21.57	21.62	21.58
9537	21.91	21.83	21.75	21.80	21.90

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. In addition, to ensure linearity of the PA output, a further 0.5dB power reduction is implemented in Subtest mode 3 and a 1.5dB power reduction is implemented in Subtest mode 5. As a result, the overall 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
1.5 dB	2.0 dB	1.5 dB	2.0 dB	1.5 dB

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

See the following pages



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 Denmark A/S**

Certificate No: **ES3-3116_Feb11**

CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3116**

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:3116

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)
835	41.5	0.90	6.01	6.01	6.01	0.99	1.14	± 12.0 %
1750	40.1	1.37	5.29	5.29	5.29	0.96	1.17	± 12.0 %
1900	40.0	1.40	5.08	5.08	5.08	0.88	1.21	± 12.0 %
2450	39.2	1.80	4.50	4.50	4.50	0.78	1.31	± 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:3116

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	5.96	5.96	5.96	0.99	1.13	± 12.0 %
1750	53.4	1.49	4.93	4.93	4.93	0.99	1.23	± 12.0 %
1900	53.3	1.52	4.68	4.68	4.68	0.89	1.29	± 12.0 %
2450	52.7	1.95	4.29	4.29	4.29	0.99	1.03	± 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)

See the following pages



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 Denmark A/S**

Certificate No: **D835V2-4d042_Jul10**

CALIBRATION CERTIFICATE

Object **D835V2 - SN: 4d042**

Calibration procedure(s) **QA CAL-05.v7
Calibration procedure for dipole validation kits**

Calibration date: **July 20, 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)	30-Mar-10 (No. 217-01158)	Mar-11
Type-N mismatch combination	SN: 5047.2 / 06327	30-Mar-10 (No. 217-01162)	Mar-11
Reference Probe ES3DV3	SN: 3205	30-Apr-10 (No. ES3-3205_Apr10)	Apr-11
DAE4	SN: 601	10-Jun-10 (No. DAE4-601_Jun10)	Jun-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:	Name	Function	Signature
	Dimce Iliev	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: July 20, 2010

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

DASY5 Validation Report for Head TSL

Date/Time: 12.07.2010 10:35:49

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d042

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

Medium: HSL900

Medium parameters used: $f = 835$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 42.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.03, 6.03, 6.03); Calibrated: 30.04.2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 10.06.2010
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- Measurement SW: DASY52, V52.2 Build 0, Version 52.2.0 (163)
- Postprocessing SW: SEMCAD X, V14.2 Build 2, Version 14.2.2 (1685)

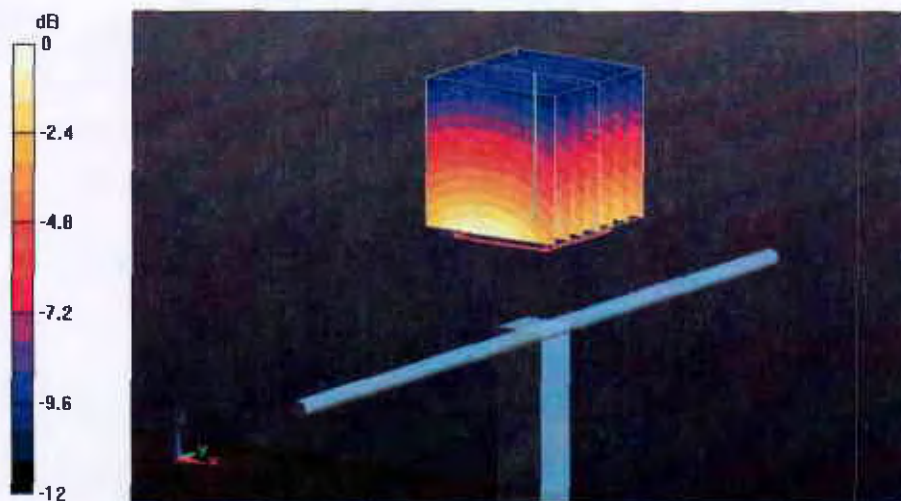
Pin=250 mW /d=15mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7) /Cube 0: Measurement
grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57 V/m; Power Drift = 0.025 dB

Peak SAR (extrapolated) = 3.56 W/kg

SAR(1 g) = 2.38 mW/g; SAR(10 g) = 1.55 mW/g

Maximum value of SAR (measured) = 2.76 mW/g



0 dB = 2.76mW/g

DASY5 Validation Report for Body

Date/Time: 20.07.2010 11:38:55

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d042

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

Medium: MSL900

Medium parameters used: $f = 835$ MHz; $\sigma = 1.01$ 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(5.86, 5.86, 5.86); Calibrated: 30.04.2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 10.06.2010
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- Measurement SW: DASY52, V52.2 Build 0, Version 52.2.0 (163)
- Postprocessing SW: SEMCAD X, V14.2 Build 2, Version 14.2.2 (1685)

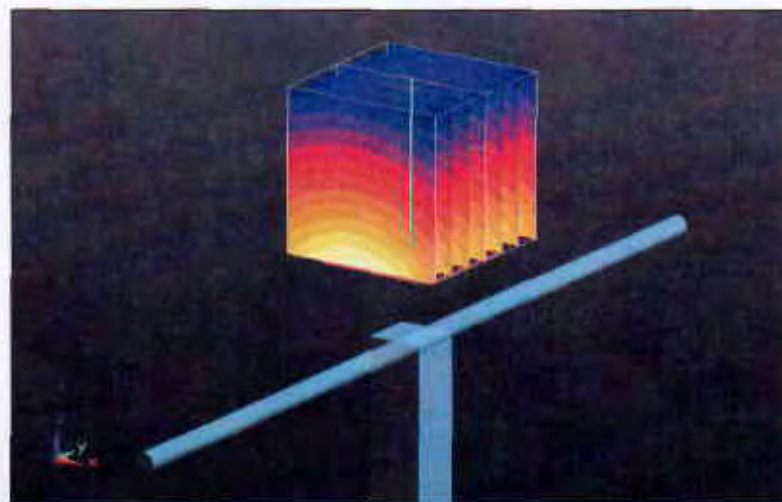
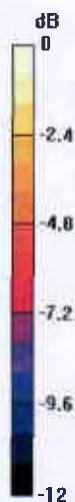
Pin=250 mW /d=15mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7) Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.1 V/m; Power Drift = 0.014 dB

Peak SAR (extrapolated) = 3.78 W/kg

SAR(1 g) = 2.56 mW/g; SAR(10 g) = 1.68 mW/g

Maximum value of SAR (measured) = 2.97 mW/g



0 dB = 2.97mW/g



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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Nokia Denmark A/S**

Certificate No: **D1800V2_2d075_Feb10**

CALIBRATION CERTIFICATE

Object **D1800V2 - SN: 2d075**

Calibration procedure(s) **QA CAL-05.v7
Calibration procedure for dipole validation kits**

Calibration date: **February 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	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

Calibrated by: **Jeton Kastrati** (Name) / **Laboratory Technician** (Function)

Approved by: **Katja Pokovic** (Name) / **Technical Manager** (Function)

Signature

Issued: February 23, 2010

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

DASY5 Validation Report for Head TSL

Date/Time: 23.02.2010 11:16:34

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:2d075

Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: HSL U11 BB

Medium parameters used: $f = 1800$ MHz; $\sigma = 1.37$ mho/m; $\epsilon_r = 39.4$; $\rho = 1000$ kg/m³

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

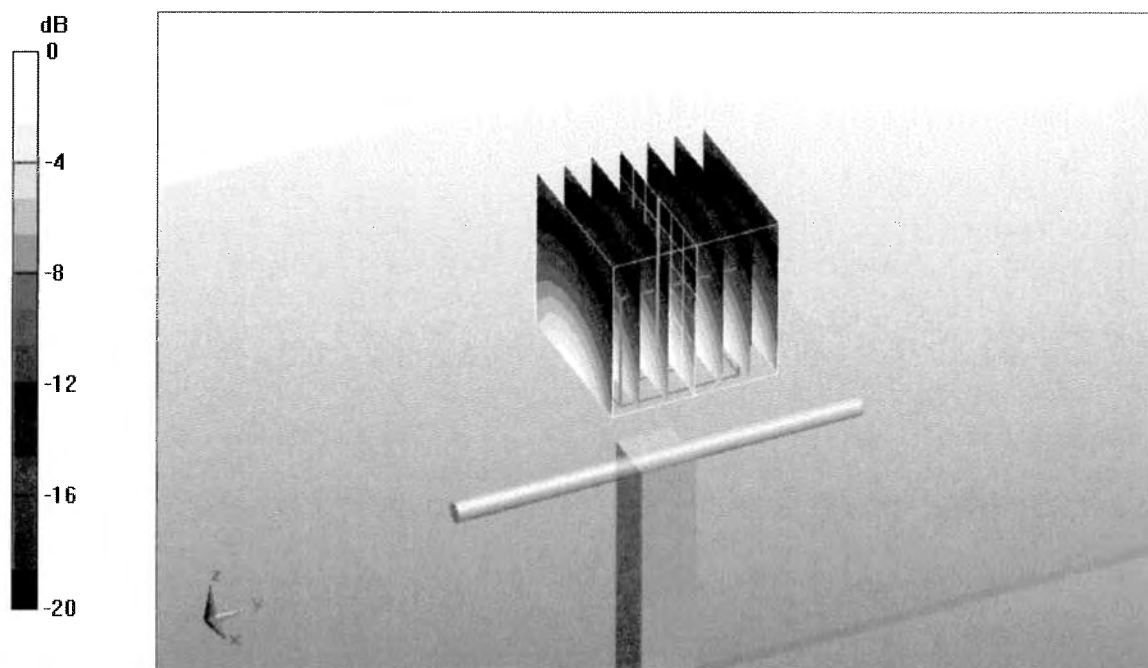
Pin=250 mW /d=10mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 96.3 V/m; Power Drift = 0.050 dB

Peak SAR (extrapolated) = 17.2 W/kg

SAR(1 g) = 9.5 mW/g; SAR(10 g) = 5.01 mW/g

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



0 dB = 11.9mW/g

DASY5 Validation Report for Body

Date/Time: 16.02.2010 10:42:30

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:2d075

Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: MSL U10 BB

Medium parameters used: $f = 1800$ MHz; $\sigma = 1.49$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ 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

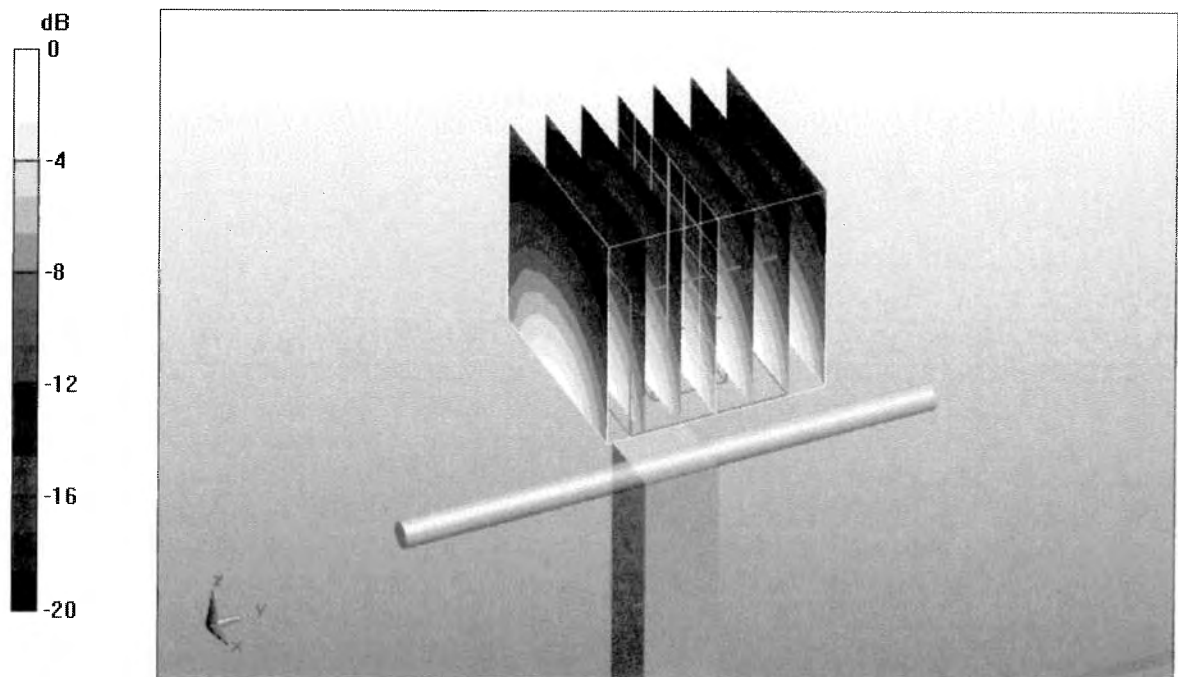
Pin250 mW /d=10mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7)/Cube 0: Measurement
grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 94.5 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 16.7 W/kg

SAR(1 g) = 9.55 mW/g; SAR(10 g) = 5.07 mW/g

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



0 dB = 12.1mW/g



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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Nokia Denmark A/S**

Certificate No: **D1900V2-5d063_Feb10**

CALIBRATION CERTIFICATE

Object **D1900V2 - SN: 5d063**

Calibration procedure(s) **QA CAL-05.v7**
Calibration procedure for dipole validation kits

Calibration date: **February 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	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

Calibrated by: **Jeton Kastrati** Name: **Jeton Kastrati** Function: **Laboratory Technician**

Approved by: **Katja Pokovic** Name: **Katja Pokovic** Function: **Technical Manager**

Signature

Issued: February 25, 2010

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

DASY5 Validation Report for Head TSL

Date/Time: 23.02.2010 13:21:31

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d063

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

Medium: HSL U11 BB

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.42$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ 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: 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

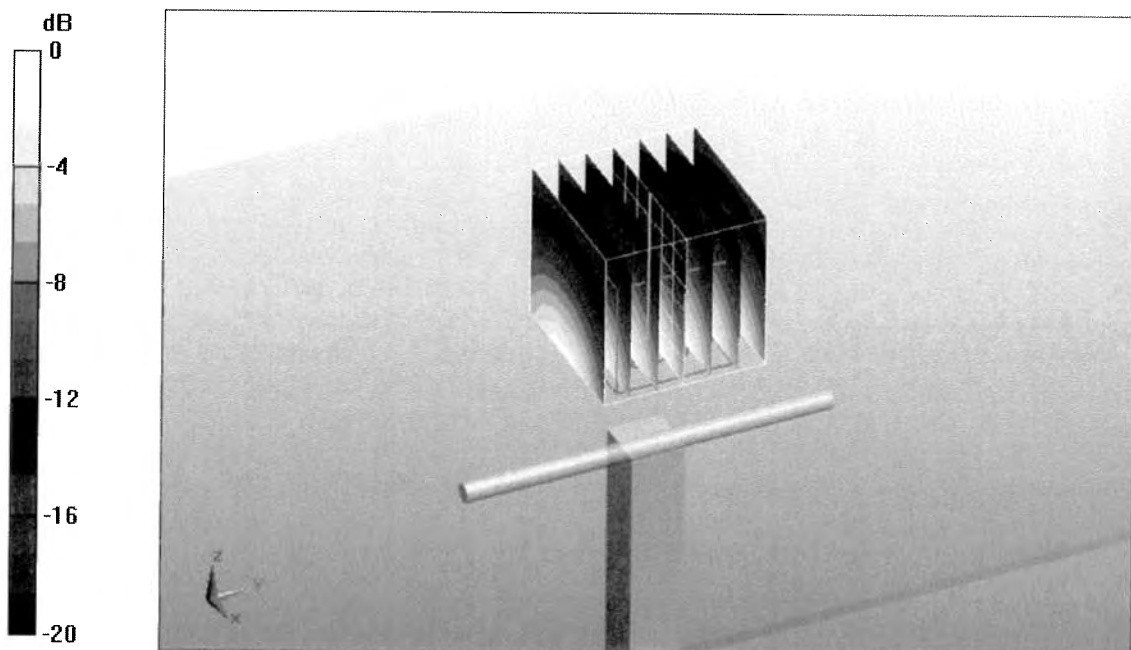
Pin=250 mW /d=10mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 97.1 V/m; Power Drift = 0.041 dB

Peak SAR (extrapolated) = 18.3 W/kg

SAR(1 g) = 9.98 mW/g; SAR(10 g) = 5.2 mW/g

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



0 dB = 12.4mW/g

DASY5 Validation Report for Body

Date/Time: 16.02.2010 13:00:42

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d063

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

Medium: MSL U10 BB

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ 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: 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

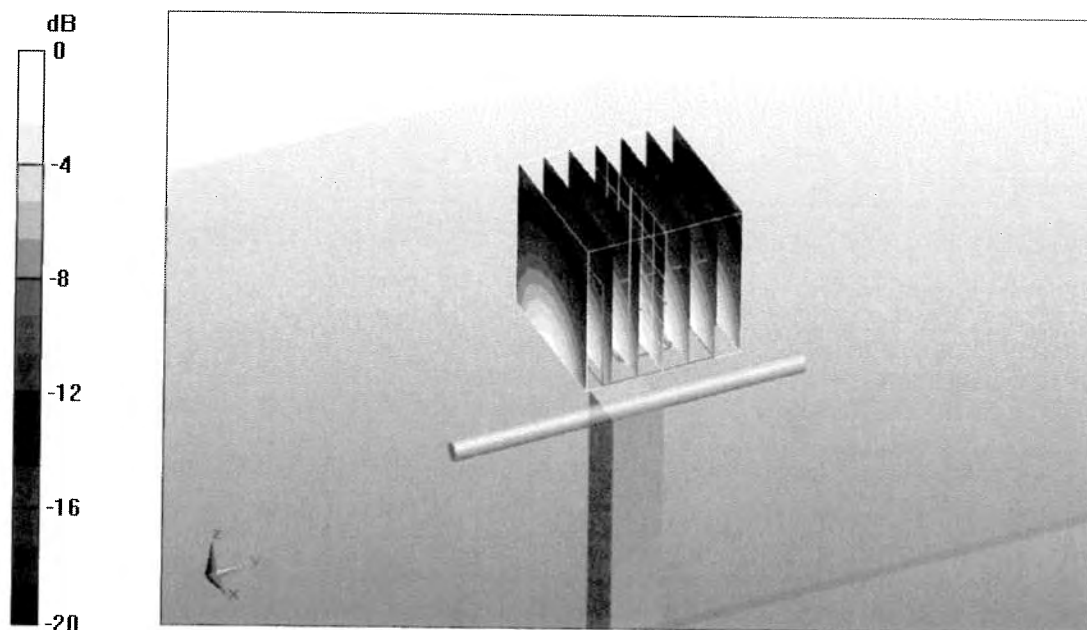
Pin250 mW /d=10mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 96.1 V/m; Power Drift = 0.078 dB

Peak SAR (extrapolated) = 16.7 W/kg

SAR(1 g) = 10.1 mW/g; SAR(10 g) = 5.31 mW/g

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



0 dB = 12.8mW/g