

SAR Compliance Test Report

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

1.1 Test Details

Period of test	2012-08-28 to 2012-09-27
SN, HW and SW numbers of tested device	SN: 004402/47/109925/3, HW: 0205, SW: 1530.0035.8516.9754.12312, DUT: 30650 SN: 004402/47/109944/4, HW: 0205, SW: 1530.0035.8516.9754.12312, DUT: 30662 SN: 004402/47/109947/7, HW: 0205, SW: 1530.0035.8516.9754.12312, DUT: 30663 SN: 004402/47/109927/9, HW: 0205, SW: 1530.0035.8516.9754.12312, DUT: 30665
Batteries used in testing	BP-4W, DUT: 30601, 30602, 30603, 30607, 30609, 30610, 30668, 30670, 30671, 30699
Headsets used in testing	WH-208, DUT: 30672, 30673
Other accessories used in testing	Wireless Charging Back Cover CC-3063, DUT: 30661, 30665
State of sample	Prototype unit
Notes	-

1.2 Maximum Results

The maximum measured SAR values for Head, Body Worn and Wireless router (“Hotspot”) configurations are given in sections 1.2.1, 1.2.2 and 1.2.3 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
2-slot GPRS850	251 / 848.8	30.9 dBm	Left, Cheek	0.516 W/kg	0.58 W/kg	1.6 W/kg	PASSED
WCDMA850	4233 / 846.6	23.4 dBm	Left, Cheek	0.513 W/kg	0.57 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100	1513 / 1752.6	23.2 dBm	Left, Cheek	1.16 W/kg	1.30 W/kg	1.6 W/kg	PASSED
4-slot GPRS1900	512 / 1850.2	26.3 dBm	Left, Cheek	0.933 W/kg	1.04 W/kg	1.6 W/kg	PASSED
WCDMA1900	9262 / 1852.4	22.5 dBm	Left, Cheek	1.10 W/kg	1.23 W/kg	1.6 W/kg	PASSED
WLAN2450	11 / 2462.0	17.55 dBm	Right, Cheek	0.554 W/kg	0.62 W/kg	1.6 W/kg	PASSED
WLAN5000	64 / 5320.0	11.31 dBm	Right, Cheek	0.182 W/kg	0.20 W/kg	1.6 W/kg	PASSED
2-slot GPRS850 + WLAN2450	-	-	Right, Cheek	0.592 W/kg	0.66 W/kg	1.6 W/kg	PASSED
WCDMA850 + WLAN2450	-	-	Right, Cheek	0.581 W/kg	0.65 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100 + WLAN2450	-	-	Left, Cheek	1.16 W/kg	1.30 W/kg	1.6 W/kg	PASSED
4-slot GPRS1900 + WLAN2450	-	-	Left, Cheek	0.933 W/kg	1.04 W/kg	1.6 W/kg	PASSED
WCDMA1900 + WLAN2450	-	-	Right, Cheek	1.10 W/kg	1.23 W/kg	1.6 W/kg	PASSED
2-slot GPRS850 + WLAN5000	-	-	Left, Cheek	0.516 W/kg	0.58 W/kg	1.6 W/kg	PASSED
WCDMA850 + WLAN5000	-	-	Left, Cheek	0.513 W/kg	0.57 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100 + WLAN5000	-	-	Left, Cheek	1.16 W/kg	1.30 W/kg	1.6 W/kg	PASSED
4-slot GPRS1900 + WLAN5000	-	-	Left, Cheek	0.933 W/kg	1.04 W/kg	1.6 W/kg	PASSED
WCDMA1900 + WLAN5000	-	-	Left, Cheek	1.10 W/kg	1.23 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
2-slot GPRS850	251 / 848.8	30.9 dBm	1.5 cm	0.639 W/kg	0.72 W/kg	1.6 W/kg	PASSED
WCDMA850	4132 / 826.4	23.5 dBm	1.5 cm	0.534 W/kg	0.60 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100	1513 / 1752.6	23.2 dBm	1.5 cm	0.641 W/kg	0.72 W/kg	1.6 W/kg	PASSED
4-slot GPRS1900	512 / 1850.2	26.3 dBm	1.5 cm	0.582 W/kg	0.65 W/kg	1.6 W/kg	PASSED
WCDMA1900	9400 / 1880.0	22.5 dBm	1.5 cm	0.755 W/kg	0.85 W/kg	1.6 W/kg	PASSED
WLAN2450	11 / 2462.0	17.55 dBm	1.5 cm	0.219 W/kg	0.25 W/kg	1.6 W/kg	PASSED
WLAN5000	157 / 5785.0	11.47 dBm	1.5 cm	0.143 W/kg	0.16 W/kg	1.6 W/kg	PASSED
2-slot GPRS850 + WLAN2450	-	-	1.5 cm	0.639 W/kg	0.72 W/kg	1.6 W/kg	PASSED
WCDMA850 + WLAN2450	-	-	1.5 cm	0.568 W/kg	0.64 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100 + WLAN2450	-	-	1.5 cm	0.652 W/kg	0.73 W/kg	1.6 W/kg	PASSED
4-slot GPRS1900 + WLAN2450	-	-	1.5 cm	0.582 W/kg	0.65 W/kg	1.6 W/kg	PASSED
WCDMA1900 + WLAN2450	-	-	1.5 cm	0.759 W/kg	0.85 W/kg	1.6 W/kg	PASSED
2-slot GPRS850 + WLAN5000	-	-	1.5 cm	0.639 W/kg	0.72 W/kg	1.6 W/kg	PASSED
WCDMA850 + WLAN5000	-	-	1.5 cm	0.548 W/kg	0.61 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100 + WLAN5000	-	-	1.5 cm	0.653 W/kg	0.73 W/kg	1.6 W/kg	PASSED
4-slot GPRS1900 + WLAN5000	-	-	1.5 cm	0.588 W/kg	0.66 W/kg	1.6 W/kg	PASSED
WCDMA1900 + WLAN5000	-	-	1.5 cm	0.755 W/kg	0.85 W/kg	1.6 W/kg	PASSED

1.2.3 Wireless Router Configuration

Summary of Maximum Results for Wireless Router mode at 10.0mm

Mode	Ch / f(MHz)	Conducted power	Separation distance	Measured SAR value (1g avg)	Scaled* SAR value (1g avg)	SAR limit (1g avg)	Result
2-slot GPRS850	251 / 848.8	30.9 dBm	10.0 mm	0.797 W/kg	0.89 W/kg	1.6 W/kg	PASSED
WCDMA850	4132 / 826.4	23.5dBm	10.0 mm	0.680 W/kg	0.76 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100	1513 / 1752.6	22.7 dBm	10.0 mm	0.980 W/kg	1.10 W/kg	1.6 W/kg	PASSED
4-slot GPRS1900	512 / 1850.2	25.9 dBm	10.0 mm	0.896 W/kg	1.00 W/kg	1.6 W/kg	PASSED
WCDMA1900	9400 / 1880.0	22.5 dBm	10.0 mm	1.04 W/kg	1.16 W/kg	1.6 W/kg	PASSED
WLAN2450	11 / 2462.0	17.55 dBm	10.0 mm	0.453 W/kg	0.51 W/kg	1.6 W/kg	PASSED
2-slot GPRS850 + WLAN2450	-	-	10.0 mm	0.852 W/kg	0.95 W/kg	1.6 W/kg	PASSED
WCDMA850 + WLAN2450	-	-	10.0 mm	0.731 W/kg	0.82 W/kg	1.6 W/kg	PASSED
WCDMA1700/2100 + WLAN2450	-	-	10.0 mm	0.980 W/kg	1.10 W/kg	1.6 W/kg	PASSED
4-slot GPRS1900 + WLAN2450	-	-	10.0 mm	0.896 W/kg	1.00 W/kg	1.6 W/kg	PASSED
WCDMA1900 + WLAN2450	-	-	10.0 mm	1.04 W/kg	1.16 W/kg	1.6 W/kg	PASSED

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

1.2.4 Summary SAR data

	FCC-defined SAR values for the Grants of Equipment Authorization		
	PCE	DTS	NII
Maximum Head SAR values	1.30 W/kg	0.62 W/kg	0.20 W/Kg
{Max + Max} Simultaneous Head SAR value	1.53 W/kg [†]		
Maximum Body SAR values	0.85 W/kg	0.25 W/kg	0.16 W/Kg
{Max + Max} Simultaneous Body SAR value	0.94 W/kg ^{††}		
Maximum Product Specific (Wireless Router) SAR values	1.16 W/kg	0.51 W/kg	N/A
{Max + Max} Simultaneous Product Specific SAR value	1.45 W/kg ^{†††}		
Maximum Simultaneous SAR value Head SAR: WCDMA1700/2100 + WLAN2450	1.53 W/kg		

Note:

PCE contains the highest results between all cellular modes (cellular, AWS and PCS bands)

DTS contains the highest results between WLAN 2.4GHz + RLAN 5725-5850MHz

NII contains the highest results between RLAN 5150-5250, 5250-5350 and 5470-5725

[†] From Section 7: The highest {max + max} Head SAR value is 1.369 (1.16 for WCDMA1700/2100, 0.209 for WLAN2450) which, scaled up by 12% gives 1.53 W/kg.

^{††} From Section 7: The highest {max + max} Body SAR value is 0.841 (0.639 for 2-slot GPRS850, 0.202 for WLAN2450) which, scaled up by 12% gives 0.94 W/kg.

^{†††} From Section 7: The highest {max + max} WR Body SAR value is 1.292 (0.839 for WCDMA1900, 0.453 for WLAN2450) which, scaled up by 12% gives 1.45 W/kg.

1.2.5 Maximum Drift

Maximum drift covered by 12% scaling up of the SAR values	Maximum drift during measurements
0.5dB	0.49dB

1.2.6 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
WLAN a-mode 20MHz	5000	Up to 54Mbps 64QAM	1	5150 – 5825
WLAN n-mode 20MHz	5000	Up to 72.2Mbps 64QAM	1	5150 – 5825

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 6dBm (4mW), SAR testing was deemed unnecessary.

This device uses a single antenna for transmission of all the cellular, AWS and PCS bands; a separate single antenna is used for transmission of WLAN and BT. Simultaneous transmission of any singular cellular, AWS and PCS band is possible with either WLAN or BT in Head and Body-worn use.

Simultaneous transmission capabilities in Head and Body-worn use		
	WLAN2450	WLAN5000
GSM/GPRS/EGPRS850	✓	✓
WCDMA850	✓	✓
WCDMA1700/2100	✓	✓
GSM/GPRS/EGPRS1900	✓	✓
WCDMA1900	✓	✓

This device has Wireless Router “Hotspot” mode capability. Simultaneous transmission of any singular cellular, AWS and PCS band is possible with WLAN2450 or BT in Wireless Router mode.

Simultaneous transmission capabilities in Wireless Router use		
	WLAN2450	WLAN5000
GSM/GPRS/EGPRS850	✓	x
WCDMA850	✓	x
WCDMA1700/2100	✓	x
GSM/GPRS/EGPRS1900	✓	x
WCDMA1900	✓	x

2.1 Power reductions in Wireless Router configurations

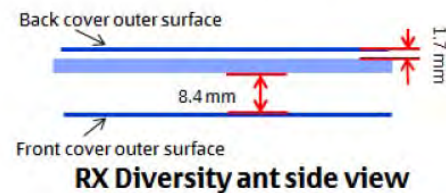
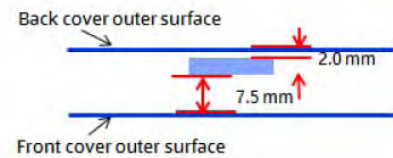
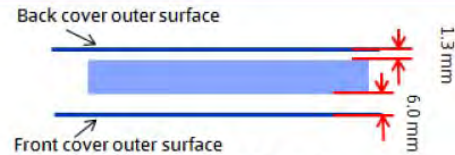
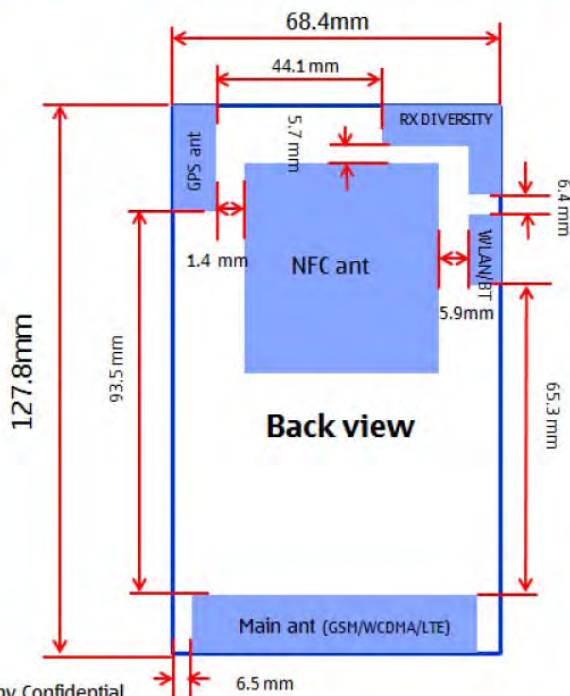
Band	Power reduction in WR mode	Target tuning power in WR mode		
GSM/GPRS850	0 dB	1-slot GPRS: 32.5 Bm	2-slot GPRS: 31.0 dBm 3-slot GPRS: 29.0 dBm 4-slot GPRS: 28.0 dBm	
WCDMA850	0 dB	23.5 dBm		
GSM/GPRS900	0 dB	1-slot GPRS: 29.5 dBm	2-slot GPRS: 29.0 dBm 3-slot GPRS: 27.0 dBm 4-slot GPRS: 26.0 dBm	
WCDMA1700/2100	1 dB	22.5 dBm		
WCDMA1900	1 dB	22 dBm		
WLAN2450 b-mode (DSSS 1 Mbps)	0dB	Ch 1: 17 dBm	Ch 6: 17 dBm	Ch 11: 17 dBm
WLAN2450 g-mode (OFDM 6 Mbps)	0dB	Ch 1: 16 dBm	Ch 6: 16 dBm	Ch 11: 16 dBm
WLAN2450 n-mode (MCS 0 – OFDM 6.5 Mbps)	0dB	Ch 1: 15 dBm	Ch 6: 15 dBm	Ch 11: 15 dBm

Note: Wireless Router mode with WLAN5000 is not supported.

2.2 Description of the Antenna

The device has an internal antenna for cellular, AWS, PCS use and a separate internal antenna for 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. The device dimensions, antenna locations and antenna interdistances are illustrated below.

RM-878 antenna drawings back/side view



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3. TEST CONDITIONS

3.1 Temperature and Humidity

Ambient temperature (°C):	19.1 – 22.7
Ambient humidity (RH %):	40 - 63

3.2 Test Signal, Frequencies and Output Power

The device was put into operation by using a call tester except for testing WLAN2450/WLAN5000 where control software was used. Communication between the device and the call tester was established by air link.

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

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

This device was tested in all the available multi-slot GMSK GPRS modes; Dual Transfer Mode was not specifically tested as the average power in multi-slot GMSK GPRS mode is always greater than, or equal to, the average power in Dual Transfer Mode in Nokia devices.

The transmission mode of the device in all WCDMA tests was configured to 12.2kbps RMC with all TPC bits set as “1”. All WCDMA testing has been carried out in accordance with FCC KDB 941225: SAR Measurement Procedures for 3G Devices.

The standard transmission mode of the device in all WLAN b-mode tests was DSSS QPSK 1 Mbps; DSSS QPSK 5.5 Mbps was additionally used for checking. The standard transmission mode of the device in all WLAN a-mode tests was OFDM 6 Mbps (OFDM 24 Mbps was used for checking), and in WLAN5000 n-mode tests was MCS 0, OFDM 6.5/7.25 Mbps (MCS 1, OFDM 13.0/14.4 Mbps was used for checking). The standard transmission modes used have maximum time-averaged output powers within 0.25dB of the highest time-averaged output power of all the WLAN a, b, g and n modulation modes in this device as illustrated by the tables in Appendix I. All WLAN testing has been carried out in accordance with FCC KDB 248227: SAR Measurement Procedures for 802.11 a/b/g Transmitters.

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 DASY near-field scanning system manufactured by Schmid & Partner Engineering AG (SPEAG) in Switzerland. The SAR extrapolation algorithm used in all measurements was the 'advanced extrapolation' algorithm.

The following table lists calibration dates of SPEAG components:

Test Equipment	Serial Number	Calibration date	Calibration expiry
DAE 4	701	2012-08	2013-08
DAE 4	1301	2011-10	2012-10
E-field Probe ET3DV6R	1399	2012-02	2013-02
E-field Probe EX3DV4	3852	2012-03	2013-02
Dipole Validation Kit, D835V2	487	2012-02	2014-02
Dipole Validation Kit, D1800V2	2d063	2011-07	2013-07
Dipole Validation Kit, D1900V2	5d099	2011-09	2013-09
Dipole Validation Kit, D1900V2	534	2012-09	2014-09
Dipole Validation Kit, D2450V2	758	2010-11	2012-11
Dipole Validation Kit, D5GHzV2	1123	2012-05	2014-05
DASY5 software	Version 52.8	-	-

Additional test equipment used in testing:

Test Equipment	Model	Serial Number	Calibration date	Calibration expiry
Signal Generator	E8257C	MY43350540	2011-05	2013-05
Signal generator	E8247C	MY43321016	2012-07	2014-07
Signal generator	N5181B	MY51350034	2012-07	2013-07
Amplifier	KM0822	991253	-	-
Amplifier	5S1G4	0330638	-	-
Amplifier	4.8 – 6GHz 1w	HD29078	-	-
Power Meter	E4419B	GB40202156	2012-08	2013-08
Power Meter	E4419B	GB3920697	2012-08	2013-08
Power Meter	EPM441A	GB37170673	2012-05	2013-05
Power Sensor	8482H	2704A04612	2012-07	2013-07
Power Sensor	8482H	3318A06406	2012-08	2013-08
Power Sensor	E4412A	US38484674	2012-07	2013-07
Power Sensor	E9301A	US39211864	2012-07	2013-07
Power Sensor	8481H	MY41090586	2011-09	2012-09
Call Tester	CMW500	5000-0032/2012	2012-01	2013-01
Call Tester	E5515C	GB42452440	2010-12	2012-12
Call Tester	E5515C	GB42230195	2011-04	2013-04
Network Analyzer	HP8753E	US38161692	2012-03	2014-03
Network Analyzer	E8357A	US42070515	2012-04	2013-04
Spectrum Analyzer	E4404B	MY41440516	2012-05	2013-05
Dielectric Probe Kit	HP 8120-6192	01148176	-	-
Dielectric Probe Kit	DAK-3.5	1064	-	-

4.1.1 Isotropic E-field Probe Type ET3DV6

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., butyl diglycol)
Calibration	Calibration certificate in Appendix E
Frequency	10 MHz to 3 GHz (dosimetry); Linearity: ± 0.2 dB (30 MHz to 3 GHz)
Optical Surface Detection	± 0.2 mm repeatability in air and clear liquids over diffuse reflecting surfaces
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.4 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: 16 mm Body diameter: 12 mm Tip diameter: 6.8 mm Distance from probe tip to dipole centers: 2.7 mm
Application	General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms

4.1.2 Isotropic E-field Probe Type EX3DV4

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

4.2 Phantoms

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

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

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

4.3 Tissue Simulants

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

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

4.3.1 Tissue Simulant Recipes

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

800-900MHz band

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

1800MHz band

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

1900MHz band

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

2450MHz band

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

5000MHz band †

Ingredient	Head (% by weight)
Water	50-65
Oil	10-30
Emulsifiers, Esters, Inhibitors	8-25
Sodium salt	0-1.5

† Recipe is proprietary to SPEAG. The proportions of the constituents have not been disclosed.

5000MHz band

Ingredient	Body (% by weight)
Water	74.0
Oil PEZG40	26.0

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	2.31	41.0	0.89	
	± 10% window	2.08 – 2.54			
	IEEE1528 / IEC62209 Standard targets		41.5	0.90	
	2012-08-31	2.42	41.6	0.91	22.4
	2012-09-17	2.36	39.9	0.87	22.0
	2012-09-19	2.16	40.1	0.86	21.2
	2012-09-20	2.44	41.0	0.88	21.6
	2012-09-26	2.21	41.3	0.89	21.7
1800	Reference result	9.52	39.2	1.37	
	± 10% window	8.57 – 10.47			
	IEEE1528 / IEC62209 Standard targets		40.0	1.40	
	2012-09-05	9.7	37.8	1.39	21.0

(System Head check table continues)

(Head system check table continues)

f [MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters		Temp [°C]
			ϵ_r	σ [S/m]	
1900	Reference result	10.1	39.6	1.43	
	± 10% window	9.1 – 11.1			
	IEEE1528 / IEC62209 Standard targets		40.0	1.40	
	2012-08-28	9.22	39.2	1.40	22.3
	2012-08-31	10.0	37.9	1.48	20.6
2450	Reference result	13.0	38.8	1.72	
	± 10% window	11.7 – 14.3			
	IEEE1528 / IEC62209 Standard targets		39.2	1.80	
	2012-09-14	13.2	38.2	1.80	21.1
5200	Reference result	8.07	35.7	4.59	
	± 10% window	7.26 – 8.88			
	IEEE1528 / IEC62209 Standard targets				
	2012-09-11	7.41	35.6	4.52	20.8
	2012-09-19	7.94	35.9	4.55	20.4
5500	Reference result	8.59	35.2	4.89	
	± 10% window	7.73 – 9.45			
	IEEE1528 / IEC62209 Standard targets				
	2012-09-10	8.00	35.6	4.94	21.6
5800	Reference result	8.04	34.8	5.19	
	± 10% window	7.24 – 8.84			
	IEEE1528 / IEC62209 Standard targets				
	2012-09-10	7.95	35.1	5.35	21.6
	2012-09-11	7.91	34.7	5.33	20.8

System checking, body tissue simulant

f [MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters		Temp [°C]
			ϵ_r	σ [S/m]	
835	Reference result	2.44	55.7	1.01	
	± 10% window	2.20 – 2.68			
	IEEE1528 / IEC62209 Standard targets		55.2	0.97	
	2012-09-10	2.43	54.2	0.97	21.0
	2012-09-12	2.42	54.8	0.98	21.0
	2012-09-20	2.42	54.6	0.97	21.7
	2012-09-27	2.59	54.2	0.96	21.4
1800	Reference result	9.69	52.2	1.50	
	± 10% window	8.72 – 10.66			
	IEEE1528 / IEC62209 Standard targets		53.3	1.52	
	2012-09-11	8.81	51.0	1.48	21.8
1900	Reference result	10.6	54.2	1.59	
	± 10% window	9.5 – 11.7			
	IEEE1528 / IEC62209 Standard targets		53.3	1.52	
	2012-09-04	9.69	51.6	1.57	21.0
	2012-09-05	9.63	51.8	1.57	21.7
	2012-09-12	9.57	51.7	1.55	21.6
	2012-09-14	9.58	51.5	1.54	21.8
1900	Reference result	10.1	52.5	1.54	
	± 10% window	9.1 – 11.1			
	IEEE1528 / IEC62209 Standard targets		53.3	1.52	
	2012-09-24	9.99	51.1	1.60	21.0
2450	Reference result	12.6	52.3	1.92	
	± 10% window	11.3 – 13.9			
	IEEE1528 / IEC62209 Standard targets		52.7	1.95	
	2012-09-13	13.4	52.0	1.96	21.0

(Body system check table continues)

(Body system check table continues)

f [MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters		Temp [°C]
			ϵ_r	σ [S/m]	
5200	Reference result	7.32	48.7	5.44	
	± 10% window	6.59 – 8.05			
	FCC OET65 Supplement C targets		49.0	5.30	
	2012-09-15	7.28	47.9	5.25	21.6
5500	Reference result	7.93	48.1	5.83	
	± 10% window	7.14 – 8.72			
	FCC OET65 Supplement C targets		48.6	5.65	
	2012-09-17	7.52	48.2	5.73	21.8
5800	Reference result	7.25	47.6	6.25	
	± 10% window	6.52 – 7.98			
	FCC OET65 Supplement C targets		48.2	6.00	
	2012-09-17	6.56	47.5	6.27	21.8

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	
	$\pm 5\%$ window	39.4 – 43.6	0.86 – 0.95	
	2012-09-20	41.0	0.88	21.6
836	Recommended value	41.5	0.90	
	$\pm 5\%$ window	39.4 – 43.6	0.86 – 0.95	
	2012-08-31	41.6	0.91	22.4
	2012-09-17	39.9	0.87	22.4
	2012-09-19	40.1	0.86	21.2
	2012-09-26	41.3	0.89	21.7
1732	Recommended value	40.1	1.36	
	$\pm 5\%$ window	38.1 – 42.1	1.29 – 1.43	
	2012-09-05	38.1	1.32	19.8
1880	Recommended value	40.0	1.40	
	$\pm 5\%$ window	38.0 – 42.0	1.33 – 1.47	
	2012-08-28	39.3	1.39	22.3
	2012-08-31	38.0	1.46	20.6
2437	Recommended value	39.2	1.79	
	$\pm 5\%$ window	37.3 – 41.2	1.70 – 1.88	
	2012-09-14	38.2	1.79	21.1

(Head tissue simulant Table continues)

(Head tissue simulant Table continues)

f [MHz]	Description	Dielectric Parameters		Temp [°C]
		ϵ_r	σ [S/m]	
5210	Recommended value	36.1	4.67	
	$\pm 5\%$ window	34.3 – 37.9	4.44 – 4.90	
	2012-09-11	35.6	4.54	20.4
	2012-09-19	35.9	4.57	20.8
5290	Recommended value	36.0	4.75	
	$\pm 5\%$ window	34.2 – 37.8	4.51 – 4.99	
	2012-09-19	35.8	4.66	20.4
5600	Recommended value	35.6	5.07	
	$\pm 5\%$ window	33.8 – 37.4	4.82 – 5.32	
	2012-09-10	35.4	5.06	21.6
5785	Recommended value	35.4	5.25	
	$\pm 5\%$ window	33.6 – 37.2	4.99 – 5.51	
	2012-09-10	35.2	5.33	21.6
	2012-09-11	34.7	5.31	20.8

Body tissue simulant measurements

f [MHz]	Description	Dielectric Parameters		Temp [°C]
		ϵ_r	σ [S/m]	
835	Recommended value	55.2	0.97	
	$\pm 5\%$ window	52.4 – 58.0	0.92 – 1.02	
	2912-09-10	54.2	0.97	21.0
	2012-09-20	54.6	0.97	21.7
836	Recommended value	55.2	0.97	
	$\pm 5\%$ window	52.4 – 58.0	0.92 – 1.02	
	2012-09-12	54.8	0.98	21.0
	2012-09-27	54.2	0.96	21.4
1732	Recommended value	53.5	1.48	
	$\pm 5\%$ window	50.8 – 56.2	1.40 – 1.55	
	2012-09-11	51.3	1.41	21.8
1880	Recommended value	53.3	1.52	
	$\pm 5\%$ window	50.6 – 56.0	1.44 – 1.60	
	2012-09-04	51.7	1.55	21.0
	2012-09-05	51.8	1.55	21.7
	2012-09-12	51.7	1.52	21.6
	2012-09-14	51.6	1.51	21.8
	2012-09-24	51.2	1.58	21.0
2437	Recommended value	52.7	1.94	
	$\pm 5\%$ window	50.1 – 55.3	1.85 – 2.04	
	2012-09-13	52.0	1.94	21.0

(Body tissue simulant table continues)

(Body tissue simulant table continues)

f [MHz]	Description	Dielectric Parameters		Temp [°C]
		ϵ_r	σ [S/m]	
5210	Recommended value	49.0	5.31	21.6
	$\pm 5\%$ window	46.6 – 51.5	5.04 – 5.58	
	2012-09-15	47.9	5.27	
5290	Recommended value	48.9	5.40	21.6
	$\pm 5\%$ window	46.4 – 51.3	5.13 – 5.67	
	2012-09-15	47.7	5.42	
5600	Recommended value	4.85	5.77	21.8
	$\pm 5\%$ window	46.0 – 50.9	5.48 – 6.06	
	2012-09-17	48.0	5.90	
5785	Recommended value	48.2	5.98	21.8
	$\pm 5\%$ window	45.8 – 50.6	5.68 – 6.28	
	2012-09-17	47.6	6.24	

Dielectric parameter data for the band edges is given in Appendix C.

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 the 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.

5.2.3 Wireless Router Configuration

The device was placed in the SPEAG holder using the Nokia spacer and positioned 10.0mm away from the flat phantom. The spacer was removed before the start of the measurements.

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

7.1 The measured Head SAR values for the test device

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		-	32.6 dBm	-
	Left	Cheek	-	0.410	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
2-slot GPRS	Conducted Power		30.8 dBm	31.2 dBm	30.9 dBm
	Left	Cheek	0.426	0.485	0.515
		Tilt	-	0.338	-
	Right	Cheek	-	0.381	-
		Tilt	-	0.348	-
3-slot GPRS	Conducted Power		-	28.8 dBm	-
	Left	Cheek	-	0.382	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
4-slot GPRS	Conducted Power		-	28.0 dBm	-
	Left	Cheek	-	0.394	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
2-slot 8PSK EGPRS	Conducted Power		-	-	26.8 dBm
	Left	Cheek	-	-	0.211
		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	23.2 dBm	23.4 dBm
	Left	Cheek	0.475	0.397	0.513
		Tilt	-	0.292	-
	Right	Cheek	-	0.319	-
		Tilt	-	0.294	-
2-slot GPRS Back cover CC-3063	Left Cheek		0.407	0.463	0.516

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		23.2 dBm	23.1 dBm	23.2 dBm
	Left	Cheek	1.00	0.949	1.16
		Tilt	-	0.220	-
	Right	Cheek	-	0.694	-
		Tilt	-	0.390	-
WCDMA Back cover CC-3063	Left Cheek		1.01	0.944	1.16

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		-	29.7 dBm	-
	Left	Cheek	-	0.485	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
2-slot GPRS	Conducted Power		-	29.1 dBm	-
	Left	Cheek	-	0.773	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
3-slot GPRS	Conducted Power		-	27.2 dBm	-
	Left	Cheek	-	0.749	-
		Tilt	-	-	-
	Right	Cheek	-	-	-
		Tilt	-	-	-
4-slot GPRS	Conducted Power		26.3 dBm	26.4 dBm	26.4 dBm
	Left	Cheek	0.933	0.806	0.836
		Tilt	-	0.276	-
	Right	Cheek	-	0.497	-
		Tilt	-	0.437	-
4-slot 8PSK EGPRS	Conducted Power		23.8 dBm	-	-
	Left	Cheek	0.558	-	-
		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		22.5 dBm	22.5 dBm	22.3 dBm
	Left	Cheek	1.10	1.07	0.944
		Tilt	-	0.406	-
	Right	Cheek	0.735	0.787	0.623
		Tilt	-	0.615	-
WCDMA Back cover CC-3063	Left Cheek		1.03	0.995	0.892

2450MHz Head SAR results

Mode	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz
WLAN b-mode	Conducted Power		17.49 dBm	17.66 dBm	17.55 dBm
DSSS 1 Mbps	Left	Cheek	-	0.209	-
		Tilt	-	0.101	-
	Right	Cheek	0.497	0.534	0.554
		Tilt	-	0.150	-
WLAN b-mode	Conducted Power		18.09 dBm	-	-
DSSS 5.5 Mbps	Left	Cheek	-	-	-
		Tilt	-	-	-
	Right	Cheek	0.498	-	-
		Tilt	-	-	-
WLAN b-mode DSSS 1 Mbps Back cover CC-3063	Right Cheek		0.439	0.526	0.519

**5000MHz Head SAR results
5150–5250 MHz and 5250–5350 MHz**

Mode	Test configuration		SAR, averaged over 1g (W/kg)				
			Ch 36 5180.0 MHz	Ch 40 5200.0 MHz	Ch 48 5240.0 MHz	Ch 52 5260.0 MHz	Ch 64 5320.0 MHz
WLAN a-mode	Conducted Average Power		-	10.96 dBm	11.36 dBm	11.62 dBm	11.31 dBm
OFDM 6 Mbps	Left	Cheek	-	0.047	0.040	0.030	0.049
		Tilt	-	0.021	-	-	0.024
	Right	Cheek	-	0.171	-	-	0.182
		Tilt	-	0.027	-	-	0.034
WLAN n-mode	Conducted Average Power		11.39 dBm	-	-	-	11.76 dBm
MCS 1: OFDM 13.0/14.4 Mbps	Left	Cheek	-	-	-	-	-
		Tilt	-	-	-	-	-
	Right	Cheek	0.180	-	-	-	0.173
		Tilt	-	-	-	-	-
WLAN n-mode: MCS 1: OFDM 13.0/14.4 Mbps Back cover CC-3063	Right Cheek		0.167	-	-	-	
WLAN a-mode: OFDM 6 Mbps Back cover CC-3063	Right Cheek		-	-	-	-	0.167

**5000MHz Head SAR results
5470–5725 MHz**

Mode	Test configuration		Ch 100 5500.0 MHz	Ch 112 5560.0 MHz	Ch 128 5640.0 MHz	Ch 140 5700.0 MHz
WLAN a-mode	Conducted Average Power		11.45 dBm	11.35 dBm	11.65 dBm	11.53 dBm
OFDM 6 Mbps	Left	Cheek	0.057	0.056	0.051	0.036
		Tilt	0.023	-	-	-
	Right	Cheek	0.166	-	-	-
		Tilt	0.031	-	-	-
WLAN a-mode	Conducted Average Power		11.83 dBm	-	-	-
OFDM 24 Mbps	Left	Cheek	-	-	-	-
		Tilt	-	-	-	-
	Right	Cheek	0.151	-	-	-
		Tilt	-	-	-	-
WLAN a-mode OFDM 6 Mbps Back cover CC-3063	Right Cheek		0.154	-	-	-

**5000MHz Head SAR results
5725–5850 MHz**

Mode	Test configuration		SAR, averaged over 1g (W/kg)		
			Ch 149 5745.0 MHz	Ch 157 5785.0 MHz	Ch 165 5825.0 MHz
WLAN a-mode	Conducted Average Power		11.47 dBm	11.47 dBm	11.50 dBm
OFDM 6 Mbps	Left	Cheek	0.043	0.045	0.042
		Tilt	-	0.046	-
	Right	Cheek	-	0.148	-
		Tilt	-	0.018	-
WLAN n-mode	Conducted Average Power		-	11.73 dBm	-
MCS 0: OFDM 6.5/7.25 Mbps	Left	Cheek	-	-	-
		Tilt	-	-	-
	Right	Cheek	-	0.151	-
		Tilt	-	-	-
WLAN n-mode MCS 0: OFDM 6.5/7.25 Mbps Back cover CC-3063	Right Cheek		-	0.134	-

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

Test configuration	Max. 1g SAR results						
	WLAN 2450	WLAN 5000	2-slot GPRS 850	WCDMA 850	WCDMA 1700/2100	4-slot GPRS 1900	WCDMA 1900
Head: Left, Cheek	0.209	0.057	0.516	0.513	1.16	0.933	1.10
Head: Left, Tilt	0.101	0.046	0.338	0.292	0.220	0.276	0.406
Head: Right, Cheek	0.554	0.182	0.381	0.319	0.694	0.497	0.787
Head: Right, Tilt	0.150	0.034	0.348	0.294	0.390	0.437	0.615

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

Test configuration	Max. 1g SAR results				
	2-slot GPRS850 + WLAN2450	WCDMA 850 + WLAN2450	WCDMA 1700/2100 + WLAN2450	4-slot GPRS1900 + WLAN2450	WCDMA 1900 + WLAN2450
Head: Left, Cheek	0.725	0.722	1.369	1.142	1.309
Head: Left, Tilt	0.439	0.393	0.321	0.377	0.507
Head: Right, Cheek	0.935	0.873	1.248	1.051	1.341
Head: Right, Tilt	0.498	0.444	0.540	0.587	0.765
Test configuration	2-slot GPRS850 + WLAN5000	WCDMA 850 + WLAN5000	WCDMA 1700/2100 + WLAN5000	4-slot GPRS1900 + WLAN5000	WCDMA 1900 + WLAN5000
Head: Left, Cheek	0.573	0.570	1.217	0.990	1.157
Head: Left, Tilt	0.384	0.338	0.266	0.322	0.452
Head: Right, Cheek	0.563	0.501	0.876	0.679	0.969
Head: Right, Tilt	0.382	0.328	0.424	0.471	0.649

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 or WLAN5000 and the cellular bands point-by-point and c) calculates the combined average SAR values.

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

Test configuration	Max. 1g SAR results				
	2-slot GPRS850 + WLAN2450	WCDMA 850 + WLAN2450	WCDMA 1700/2100 + WLAN2450	4-slot GPRS1900 + WLAN2450	WCDMA 1900 + WLAN2450
Head: Left, Cheek	-	-	1.14	0.931	-
Head: Left, Tilt	-	-	-	-	-
Head: Right, Cheek	0.592	0.581	-	-	0.811
Head: Right, Tilt	-	-	-	-	-
Test configuration	2-slot GPRS850 + WLAN5000	WCDMA 850 + WLAN5000	WCDMA 1700/2100 + WLAN5000	4-slot GPRS1900 + WLAN5000	WCDMA 1900 + WLAN5000
Head: Left, Cheek	0.488	0.493	1.10	0.897	1.00
Head: Left, Tilt	-	-	-	-	-
Head: Right, Cheek	-	-	-	-	-
Head: Right, Tilt	-	-	-	-	-

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 or WLAN5000 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.

7.2 The measured Body SAR values for the test device

850MHz Body SAR results

Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz
2-slot GPRS		Conducted Power	30.8 dBm	31.2 dBm	30.9 dBm
	Back facing phantom	Without headset	0.564	0.583	0.639
		Headset WH-208	-	0.406	-
	Display facing phantom	Without headset	-	0.253	-
		Headset WH-208	-	0.293	-
Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz
WCDMA		Conducted Power	23.5 dBm	23.2 dBm	23.4 dBm
	Back facing phantom	Without headset	0.534	0.473	0.528
		Headset WH-208	-	0.309	-
	Display facing phantom	Without headset	-	0.352	-
		Headset WH-208	-	0.200	-
2-slot GPRS CC-3063	Back facing phantom	Without headset	0.418	0.424	0.447

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	23.2 dBm	23.1 dBm	23.2 dBm
	Back facing phantom	Without headset	-	0.445	-
		Headset WH-208	-	0.450	-
	Display facing phantom	Without headset	-	0.570	-
		Headset WH-208	0.597	0.587	0.641
WCDMA Back cover CC-3063	Back facing phantom	Without headset	0.600	0.528	0.633

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	26.3 dBm	26.4 dBm	26.4 dBm
	Back facing phantom	Without headset	-	0.423	-
		Headset WH-208	-	0.425	-
	Display facing phantom	Without headset	0.582	0.559	0.483
		Headset WH-208	-	0.554	-
Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 9262 1852.4 MHz	Ch 9400 1880.0 MHz	Ch 9538 1907.6 MHz
WCDMA		Conducted Power	22.5 dBm	22.5 dBm	22.3 dBm
	Back facing phantom	Without headset	-	0.527	-
		Headset WH-208	-	0.513	-
	Display facing phantom	Without headset	-	0.746	-
		Headset WH-208	0.726	0.755	0.592
WCDMA Back cover CC-3063	Display facing phantom	Headset WH-208	0.659	0.677	0.537

2450MHz Body SAR results

Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz
WLAN b-mode		Conducted Power	17.49 dBm	17.66 dBm	17.55 dBm
DSSS 1 Mbps	Back facing phantom	Without headset	-	0.202	-
		Headset WH-208	0.200	0.214	0.219
	Display facing phantom	Without headset	-	0.052	-
		Headset WH-208	-	0.058	-
WLAN b-mode		Conducted Power	18.09 dBm	-	-
DSSS 5.5 Mbps	Back facing phantom	Without headset	-	-	-
		Headset WH-208	0.201	-	-
	Display facing phantom	Without headset	-	-	-
		Headset WH-208	-	-	-
WLAN b-mode DSSS 1 Mbps Back cover CC-3063	Back facing phantom	Headset WH-208	0.160	0.184	0.194

5000MHz Body SAR results 5150–5250 MHz and 5250–5350 MHz

Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)				
			Ch 36 5180.0 MHz	Ch 40 5200.0 MHz	Ch 48 5240.0 MHz	Ch 52 5260.0 MHz	Ch 64 5320.0 MHz
WLAN a-mode		Conducted Average Power	-	10.96 dBm	11.36 dBm	11.62 dBm	11.31 dBm
OFDM 6 Mbps	Back facing phantom	Without headset	-	0.080	0.075	0.087	0.094
		Headset WH-208	-	0.076	-	-	0.103
	Display facing phantom	Without headset	-	0.023	-	-	0.024
		Headset WH-208	-	0.020	-	-	0.025
WLAN n-mode		Conducted Average Power	11.39 dBm	-	-	-	11.76 dBm
MCS 1: OFDM 13.0/14.4 Mbps	Back facing phantom	Without headset	-	-	-	-	-
		Headset WH-208	0.082	-	-	-	0.103
	Display facing phantom	Without headset	-	-	-	-	-
		Headset WH-208	-	-	-	-	-
WLAN a-mode: OFDM 6 Mbps Back cover CC-3063	Back facing phantom, Headset WH-208		-	0.070	-	-	0.085

**5000MHz Body SAR results
5470–5725 MHz**

Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)			
			Ch 100 5500.0 MHz	Ch 112 5560.0 MHz	Ch 128 5640.0 MHz	Ch 140 5700.0 MHz
WLAN a-mode	Conducted	Average Power	11.45 dBm	11.35 dBm	11.65 dBm	11.53 dBm
OFDM 6 Mbps	Back facing phantom	Without headset	0.121	0.121	0.142	0.113
		Headset WH-208	-	-	0.139	-
	Display facing phantom	Without headset	-	-	0.014	-
		Headset WH-208	-	-	0.011	-
WLAN a-mode	Conducted	Average Power	12.27 dBm	- dBm	- dBm	- dBm
OFDM 24 Mbps	Back facing phantom	Without headset	0.114	-	-	-
		Headset WH-208	-	-	-	-
	Display facing phantom	Without headset	-	-	-	-
		Headset WH-208	-	-	-	-
WLAN a-mode OFDM 6 Mbps Back cover CC-3063	Back facing phantom	Without headset	-	-	0.124	-

**5000MHz Body SAR results
5725–5850 MHz**

Mode	Device orientation	Test configuration	SAR, averaged over 1g (W/kg)		
			Ch 149 5745.0 MHz	Ch 157 5785.0 MHz	Ch 165 5825.0 MHz
WLAN a-mode	Conducted Average Power		11.47 dBm	11.47 dBm	11.50 dBm
OFDM 6 Mbps	Back facing phantom	Without headset	0.117	0.136	0.111
		Headset WH-208	-	0.124	-
	Display facing phantom	Without headset	-	0.003	-
		Headset WH-208	-	0.012	-
WLAN n-mode	Conducted Average Power		-	11.73 dBm	-
MCS 0: OFDM 6.5/7.25 Mbps	Back facing phantom	Without headset	-	0.143	-
		Headset WH-208	-	-	-
	Display facing phantom	Without headset	-	-	-
		Headset WH-208	-	-	-
WLAN n-mode MCS 0: OFDM 6.5/7.25 Mbps Back cover CC-3063	Back facing phantom	Without headset	-	0.132	-

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

Test configuration	Max. 1g SAR results						
	WLAN 2450	WLAN 5000	2-slot GPRS 850	WCDMA 850	WCDMA 1700/2100	4-slot GPRS 1900	WCDMA 1900
Body: Back facing phantom, Without Headset	0.202	0.143	0.639	0.534	0.445	0.423	0.527
Body: Back facing phantom, Headset WH-208	0.219	0.139	0.406	0.309	0.450	0.425	0.513
Body: Display facing phantom, Without Headset	0.052	0.024	0.253	0.353	0.570	0.582	0.746
Body: Display facing phantom, Headset WH-208	0.058	0.025	0.293	0.200	0.641	0.554	0.755

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

Test configuration	Max. 1g SAR results				
	2-slot GPRS850 + WLAN2450	WCDMA 850 + WLAN2450	WCDMA 1700/2100 + WLAN2450	4-slot GPRS1900 + WLAN2450	WCDMA 1900 + WLAN2450
Body: Back facing phantom, Without Headset	0.841	0.736	0.647	0.625	0.729
Body: Back facing phantom, Headset WH-208	0.625	0.528	0.669	0.644	0.732
Body: Display facing phantom, Without Headset	0.305	0.404	0.622	0.634	0.798
Body: Display facing phantom, Headset WH-208	0.351	0.258	0.699	0.612	0.813
Test configuration	2-slot GPRS850 + WLAN5000	WCDMA 850 + WLAN5000	WCDMA 1700/2100 + WLAN5000	4-slot GPRS1900 + WLAN5000	WCDMA 1900 + WLAN5000
Body: Back facing phantom, Without Headset	0.782	0.677	0.588	0.566	0.670
Body: Back facing phantom, Headset WH-208	0.545	0.448	0.589	0.564	0.652
Body: Display facing phantom, Without Headset	0.277	0.376	0.594	0.606	0.770
Body: Display facing phantom, Headset WH-208	0.318	0.225	0.666	0.579	0.780

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 body SAR results –
SPEAG Combined Multiband algorithm results**

Test configuration	Max. 1g SAR results				
	2-slot GPRS850 + WLAN2450	WCDMA 850 + WLAN2450	WCDMA 1700/2100 + WLAN2450	4-slot GPRS1900 + WLAN2450	WCDMA 1900 + WLAN2450
Body: Back facing phantom, Without Headset	0.626	0.568	-	-	-
Body: Back facing phantom, Headset WH-208	-	-	-	0.437	-
Body: Display facing phantom, Without Headset	-	-	-	-	-
Body: Display facing phantom, Headset WH-208	-	-	0.652	-	0.759
Test configuration	2-slot GPRS850 + WLAN5000	WCDMA 850 + WLAN5000	WCDMA 1700/2100 + WLAN5000	4-slot GPRS1900 + WLAN5000	WCDMA 1900 + WLAN5000
Body: Back facing phantom, Without Headset	0.606	0.548	-	-	-
Body: Back facing phantom, Headset WH-208	-	-	-	-	-
Body: Display facing phantom, Without Headset	-	-	-	0.588	-
Body: Display facing phantom, Headset WH-208	-	-	0.653	-	0.755

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 or WLAN5000 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.

7.3 Body SAR assessment of Wireless Router mode at 10.0mm separation distance

850MHz Body SAR results

Mode	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz
2-slot GPRS	Conducted Power	30.8 dBm	31.2 dBm	30.9 dBm
	Back facing phantom	0.734	0.762	0.797
	Display facing phantom	-	0.459	-
	Top edge facing phantom	-	0.022	-
	Bottom edge facing phantom	-	0.117	-
	Left edge facing phantom	-	0.457	-
	Right edge facing phantom	-	0.308	-
Option used	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz
WCDMA	Conducted Power	23.5 dBm	23.1 dBm	23.3 dBm
	Back facing phantom	0.680	0.609	0.649
	Display facing phantom	-	0.405	-
	Top edge facing phantom	-	0.019	-
	Bottom edge facing phantom	-	0.111	-
	Left edge facing phantom	-	0.455	-
	Right edge facing phantom	-	0.269	-
2-slot GPRS Back cover CC-3063	Back facing phantom	0.496	0.518	0.538

1700/2100MHz Body SAR results

Option used	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 1312 1712.4 MHz	Ch 1412 1732.4 MHz	Ch 1513 1752.6 MHz
WCDMA	Conducted Power	22.7 dBm	22.5 dBm	22.7 dBm
	Back facing phantom	-	0.772	-
	Display facing phantom	0.938	0.814	0.977
	Top edge facing phantom	-	0.038	-
	Bottom edge facing phantom	-	0.608	-
	Left edge facing phantom	-	0.155	-
	Right edge facing phantom	-	0.269	-
WCDMA Back cover CC-3063	Display facing phantom	0.895	0.798	0.980

1900MHz Body SAR results

Option used	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 512 1850.2 MHz	Ch 661 1880.0 MHz	Ch 810 1909.8 MHz
4-slot GPRS	Conducted Power	25.9 dBm	25.9 dBm	25.8 dBm
	Back facing phantom	-	0.690	-
	Display facing phantom	0.896	0.869	0.756
	Top edge facing phantom	-	0.034	-
	Bottom edge facing phantom	0.743	0.791	0.769
	Left edge facing phantom	-	0.225	-
	Right edge facing phantom	-	0.275	-
Option used	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 9262 1852.4 MHz	Ch 9400 1880.0 MHz	Ch 9538 1907.6 MHz
WCDMA	Conducted Power	22.2 dBm	22.5 dBm	22.0 dBm
	Back facing phantom	0.839	0.829	0.647
	Display facing phantom	0.979	1.04	0.763
	Top edge facing phantom	-	0.049	-
	Bottom edge facing phantom	0.818	0.942	0.769
	Left edge facing phantom	-	0.278	-
	Right edge facing phantom	-	0.339	-
WCDMA Back cover CC-3063	Display facing phantom	0.924	0.999	0.723

2450MHz Body SAR results

Option used	Device orientation	SAR, averaged over 1g (W/kg)		
		Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz
WLAN b-mode	Conducted Power	17.49 dBm	17.66 dBm	17.55 dBm
DSSS 1 Mbps	Back facing phantom	0.358	0.424	0.453
	Display facing phantom	-	0.102	-
	Top edge facing phantom	-	0.030	-
	Bottom edge facing phantom	-	0.008	-
	Left edge facing phantom	-	0.333	-
	Right edge facing phantom	-	0.014	-
WLAN b-mode	Conducted Power	18.09 dBm	-	-
DSSS 5.5 Mbps	Back facing phantom	0.380	-	-
	Display facing phantom	-	-	-
	Top edge facing phantom	-	-	-
	Bottom edge facing phantom	-	-	-
	Left edge facing phantom	-	-	-
	Right edge facing phantom	-	-	-
WLAN b-mode DSSS 1 Mbps Back cover CC-3063	Back facing phantom	0.286	0.306	0.356

Simultaneous transmissions: Combined SAR results – Individual band Max results

Test configuration	Max. 1g SAR results					
	WLAN 2450	2-slot GPRS850	WCDMA 850	WCDMA 1700/2100	4-slot GPRS1900	WCDMA 1900
Back facing phantom	0.453	0.797	0.680	0.772	0.690	0.839
Display facing phantom	0.102	0.459	0.405	0.980	0.896	1.04
Top edge facing phantom	0.030	0.022	0.019	0.038	0.034	0.049
Bottom edge facing phantom	0.008	0.117	0.111	0.608	0.791	0.942
Left edge facing phantom	0.333	0.457	0.455	0.155	0.225	0.278
Right edge facing phantom	0.014	0.308	0.269	0.269	0.275	0.339

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

Test configuration	Max. 1g SAR results				
	2-slot GPRS850 + WLAN 2450	WCDMA 850 + WLAN 2450	WCDMA 1700/2100 + WLAN 2450	4-slot GPRS1900 + WLAN 2450	WCDMA 1900 + WLAN 2450
Back facing phantom	1.250	1.133	1.225	1.143	1.292
Display facing phantom	0.561	0.507	1.082	0.998	1.142
Top edge facing phantom	0.052	0.049	0.068	0.064	0.079
Bottom edge facing phantom	0.125	0.119	0.616	0.799	0.950
Left edge facing phantom	0.790	0.788	0.488	0.558	0.611
Right edge facing phantom	0.322	0.283	0.283	0.289	0.353

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				
	2-slot GPRS850 + WLAN 2450	WCDMA 850 + WLAN 2450	WCDMA 1700/2100 + WLAN 2450	4-slot GPRS1900 + WLAN 2450	WCDMA 1900 + WLAN 2450
Back facing phantom	0.852	0.731	0.821	0.763	0.884
Display facing phantom	-	-	-	-	-
Top edge facing phantom	-	-	-	-	-
Bottom edge facing phantom	-	-	-	-	-
Left edge facing phantom	-	-	-	-	-
Right edge facing phantom	-	-	-	-	-

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.3

APPENDIX A: SYSTEM CHECKING SCANS

1.1 System checking scans for Head measurements

Date/Time: 2012-08-31 14:59:43

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:487

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL900; Medium Notes: T=22.4c

Medium parameters used: $f = 835$ MHz; $\sigma = 0.908$ mho/m; $\epsilon_r = 41.644$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

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

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

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

Reference Value = 55.649 V/m

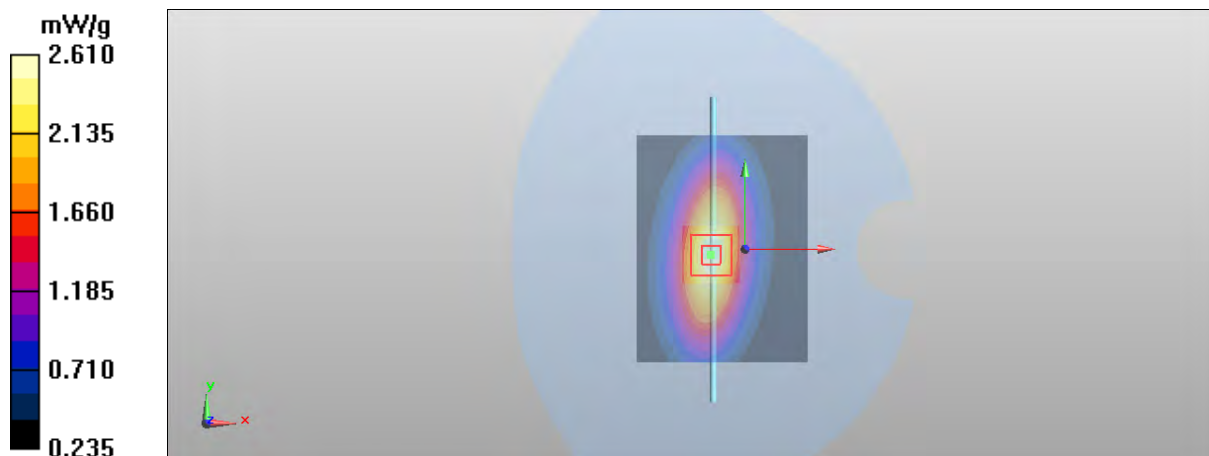
Peak SAR (extrapolated) = 3.595 mW/g

SAR(1 g) = 2.42 mW/g

SAR(10 g) = 1.58 mW/g

Power Drift = 0.03 dB

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



Date/Time: 2012-09-17 08:14:39

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:487

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL900; Medium Notes: T = 22.0 C

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.867 \text{ mho/m}$; $\epsilon_r = 39.908$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

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

Maximum value of SAR (interpolated) = 2.51 mW/g

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

Reference Value = 56.030 V/m

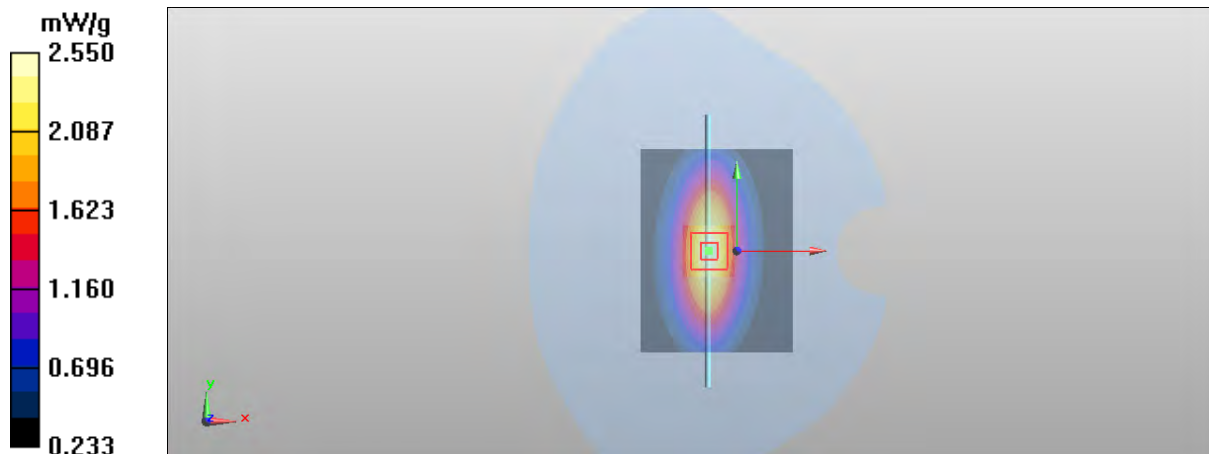
Peak SAR (extrapolated) = 3.501 mW/g

SAR(1 g) = 2.36 mW/g

SAR(10 g) = 1.54 mW/g

Power Drift = 0.06 dB

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



Date/Time: 2012-09-19 10:59:12

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:487

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL800; Medium Notes: T = 21.2 C

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.856 \text{ mho/m}$; $\epsilon_r = 40.123$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

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

Maximum value of SAR (interpolated) = 2.32 mW/g

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

Reference Value = 54.143 V/m

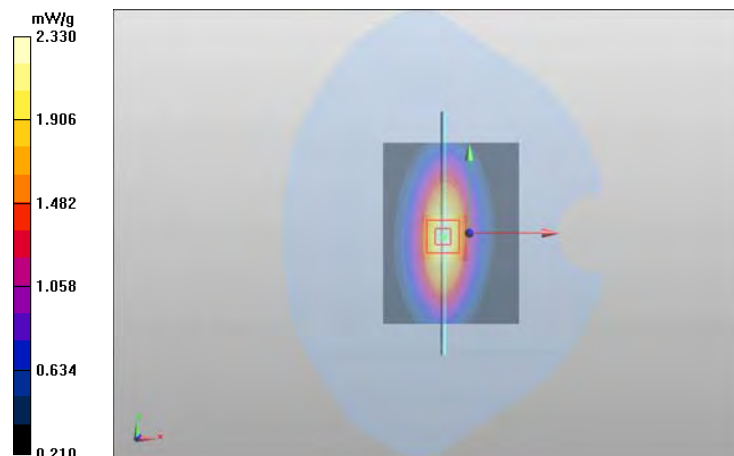
Peak SAR (extrapolated) = 3.197 mW/g

SAR(1 g) = 2.16 mW/g

SAR(10 g) = 1.42 mW/g

Power Drift = 0.03 dB

Maximum value of SAR (measured) = 2.33 mW/g



Date/Time: 2012-09-20 12:19:45

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:487

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL800; Medium Notes: T = 21.6 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.878$ mho/m; $\epsilon_r = 40.97$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

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

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

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

Reference Value = 57.050 V/m

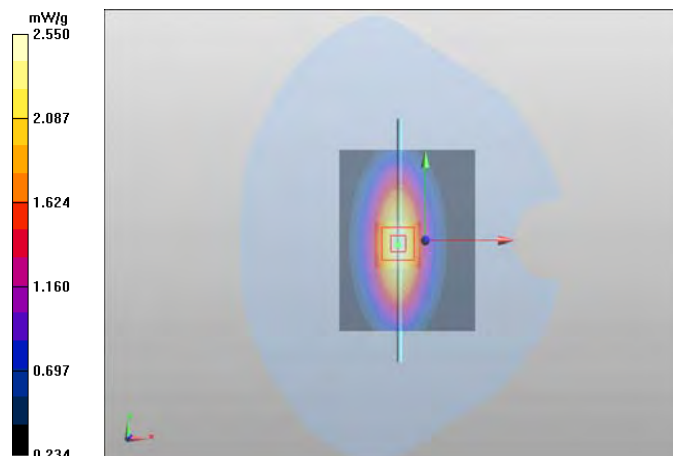
Peak SAR (extrapolated) = 3.511 mW/g

SAR(1 g) = 2.44 mW/g

SAR(10 g) = 1.6 mW/g

Power Drift = -0.03 dB

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



Date/Time: 2012-09-26 13:23:49

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:487

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL900; Medium Notes: T = 21.7 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.887$ mho/m; $\epsilon_r = 41.342$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

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

Maximum value of SAR (interpolated) = 2.37 mW/g

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

Reference Value = 54.108 V/m

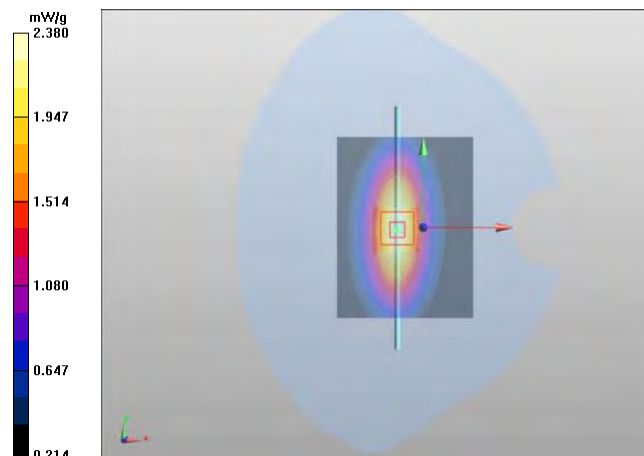
Peak SAR (extrapolated) = 3.279 mW/g

SAR(1 g) = 2.21 mW/g

SAR(10 g) = 1.44 mW/g

Power Drift = -0.04 dB

Maximum value of SAR (measured) = 2.38 mW/g



Date/Time: 2012-09-05 22:02:43

Test Laboratory: Nokia

Type: D1800V2; Serial: D1800V2 - SN2d063

Communication System: CW1800

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: T=19.8 C

Medium parameters used: $f = 1800$ MHz; $\sigma = 1.386$ mho/m; $\epsilon_r = 37.802$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.8, 7.8, 7.8); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

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

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

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

Reference Value = 87.622 V/m

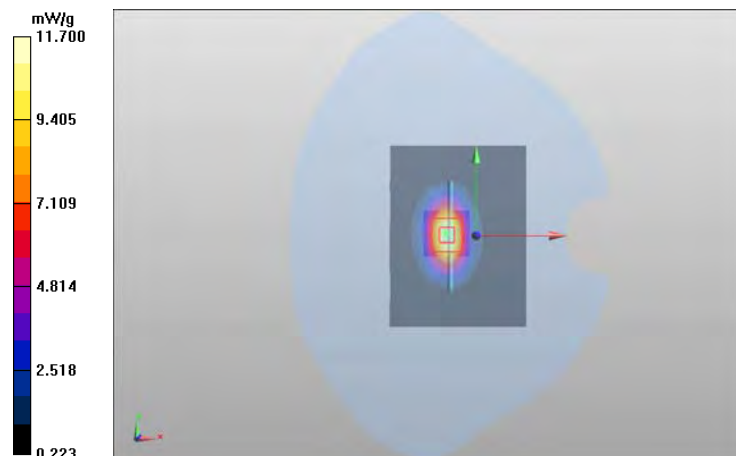
Peak SAR (extrapolated) = 19.602 mW/g

SAR(1 g) = 9.7 mW/g

SAR(10 g) = 5.06 mW/g

Power Drift = 0.03 dB

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



Date/Time: 2012-08-28 21:25:01

Test Laboratory: TCC Nokia
Type: D1900V2; Serial: D1900V2 - SN:5d099

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: T=22.3C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.404$ mho/m; $\epsilon_r = 39.19$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.92, 4.92, 4.92); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=250 mW, dist=4.0mm/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

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

d=10mm, Pin=250 mW, dist=4.0mm/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 90.708 V/m

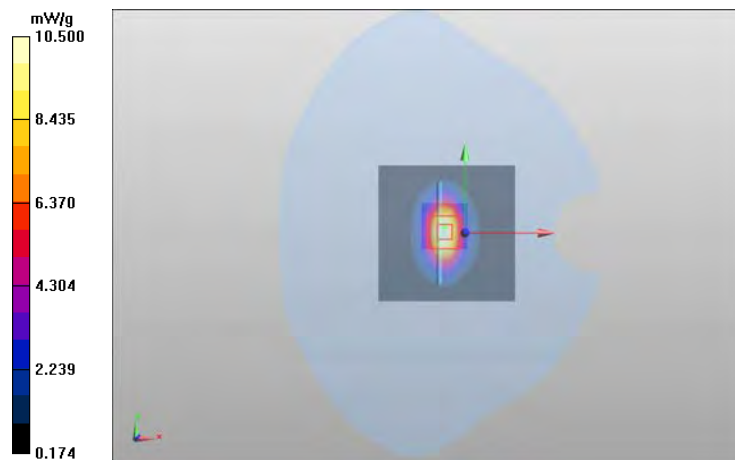
Peak SAR (extrapolated) = 15.411 mW/g

SAR(1 g) = 9.22 mW/g

SAR(10 g) = 4.9 mW/g

Power Drift = -0.17 dB

Maximum value of SAR (measured) = 10.5 mW/g



Date/Time: 2012-08-31 09:23:10

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d099

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: T=20.6

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.476$ mho/m; $\epsilon_r = 37.917$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.8, 7.8, 7.8); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 86.117 V/m

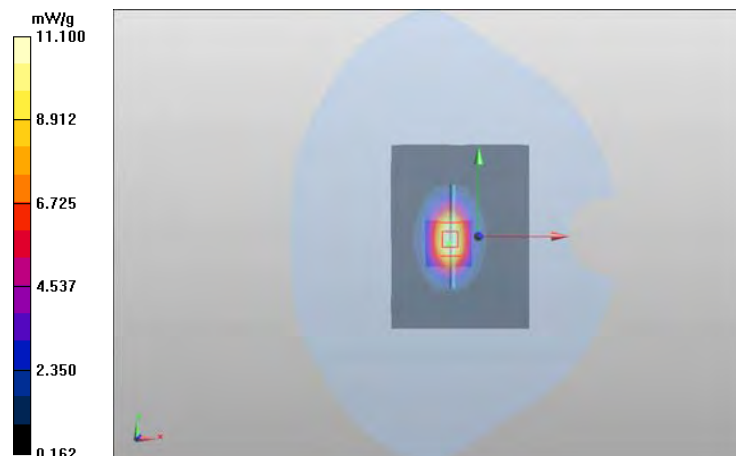
Peak SAR (extrapolated) = 19.005 mW/g

SAR(1 g) = 10 mW/g

SAR(10 g) = 5.17 mW/g

Power Drift = 0.09 dB

Maximum value of SAR (measured) = 11.1 mW/g



Date/Time: 2012-09-14 07:10:17

Test Laboratory: Nokia

Type: D2450V2; Serial: D2450V2 - SN:758

Communication System: CW2450

Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: t= 21.1 C

Medium parameters used: f = 2450 MHz; $\sigma = 1.8$ mho/m; $\epsilon_r = 38.15$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.06, 7.06, 7.06); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 15.4 mW/g

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

Reference Value = 108.3 V/m

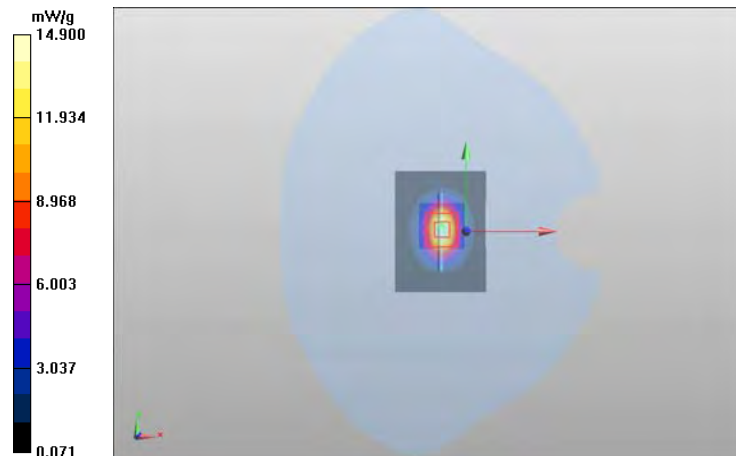
Peak SAR (extrapolated) = 28.093 mW/g

SAR(1 g) = 13.2 mW/g

SAR(10 g) = 6.04 mW/g

Power Drift = -0.18 dB

Maximum value of SAR (measured) = 14.9 mW/g



Date/Time: 2012-09-11 19:41:12

Test Laboratory: Nokia
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1123

Communication System: CW5200

Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: t= 20.8 C

Medium parameters used: f = 5200 MHz; σ = 4.524 mho/m; ϵ_r = 35.573; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.86, 4.86, 4.86); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=100mW/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 15.6 mW/g

d=10mm, Pin=100mW/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 59.815 V/m

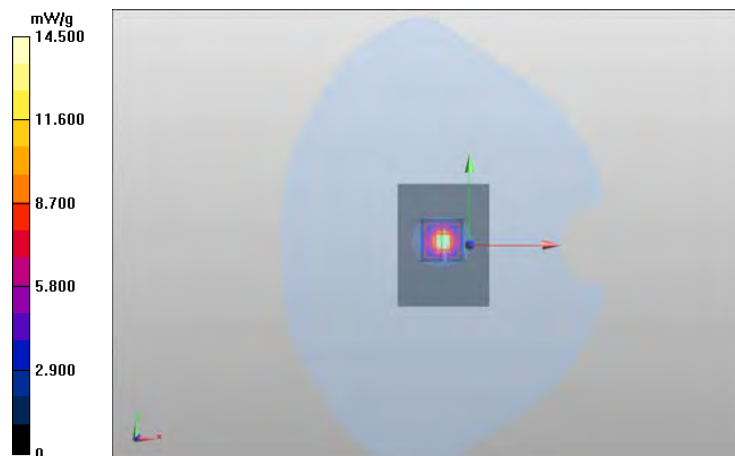
Peak SAR (extrapolated) = 28.867 mW/g

SAR(1 g) = 7.41 mW/g

SAR(10 g) = 2.13 mW/g

Power Drift = 0.04 dB

Maximum value of SAR (measured) = 14.5 mW/g



Date/Time: 2012-09-19 07:47:52

Test Laboratory: Nokia

Type: D5GHzV2; Serial: D5GHzV2 - SN: 1123

Communication System: CW5200

Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: t= 20.4 C

Medium parameters used: f = 5200 MHz; σ = 4.552 mho/m; ϵ_r = 35.889; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.86, 4.86, 4.86); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=100mW/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 16.4 mW/g

d=10mm, Pin=100mW/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 63.572 V/m

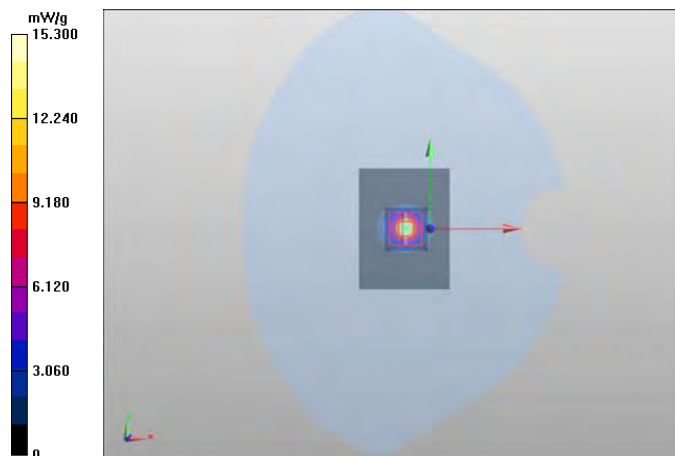
Peak SAR (extrapolated) = 31.232 mW/g

SAR(1 g) = 7.94 mW/g

SAR(10 g) = 2.26 mW/g

Power Drift = -0.10 dB

Maximum value of SAR (measured) = 15.3 mW/g



Date/Time: 2012-09-10 08:51:20

Test Laboratory: Nokia
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1123

Communication System: CW5500

Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: $t = 21.6$ C

Medium parameters used: $f = 5500$ MHz; $\sigma = 4.936$ mho/m; $\epsilon_r = 35.64$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.56, 4.56, 4.56); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=100mW/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 16.7 mW/g

d=10mm, Pin=100mW/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 61.138 V/m

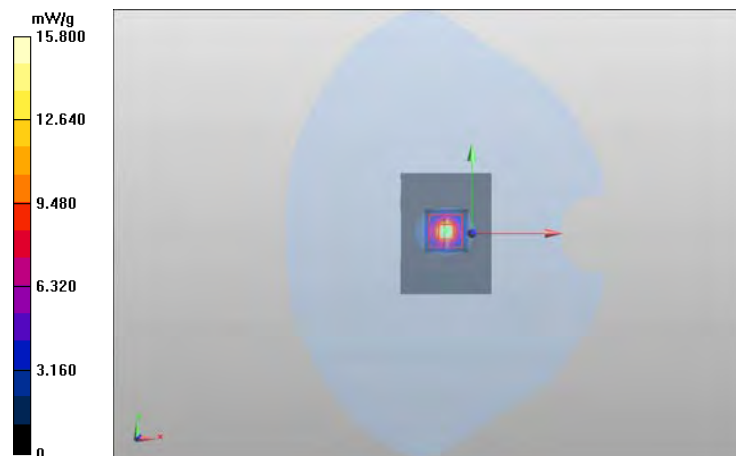
Peak SAR (extrapolated) = 33.727 mW/g

SAR(1 g) = 8 mW/g

SAR(10 g) = 2.26 mW/g

Power Drift = 0.08 dB

Maximum value of SAR (measured) = 15.8 mW/g



Date/Time: 2012-09-10 09:30:42

Test Laboratory: Nokia
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1123

Communication System: CW5800

Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: $t = 21.6$ C

Medium parameters used: $f = 5800$ MHz; $\sigma = 5.353$ mho/m; $\epsilon_r = 35.146$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.2, 4.2, 4.2); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=100mW/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 16.7 mW/g

d=10mm, Pin=100mW/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 60.161 V/m

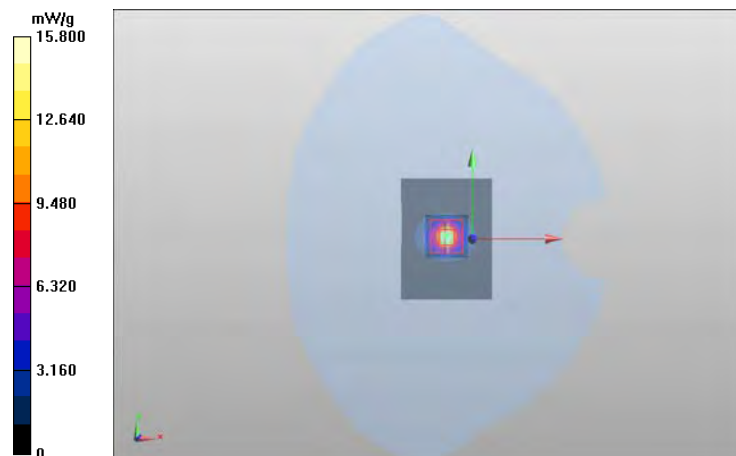
Peak SAR (extrapolated) = 33.120 mW/g

SAR(1 g) = 7.95 mW/g

SAR(10 g) = 2.25 mW/g

Power Drift = 0.04 dB

Maximum value of SAR (measured) = 15.8 mW/g



Date/Time: 2012-09-11 09:23:45

Test Laboratory: Nokia

Type: D5GHzV2; Serial: D5GHzV2 - SN: 1123

Communication System: CW5800

Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: t= 20.8 C

Medium parameters used: f = 5800 MHz; σ = 5.333 mho/m; ϵ_r = 34.665; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.2, 4.2, 4.2); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=100mW/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 16.1 mW/g

d=10mm, Pin=100mW/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 59.546 V/m

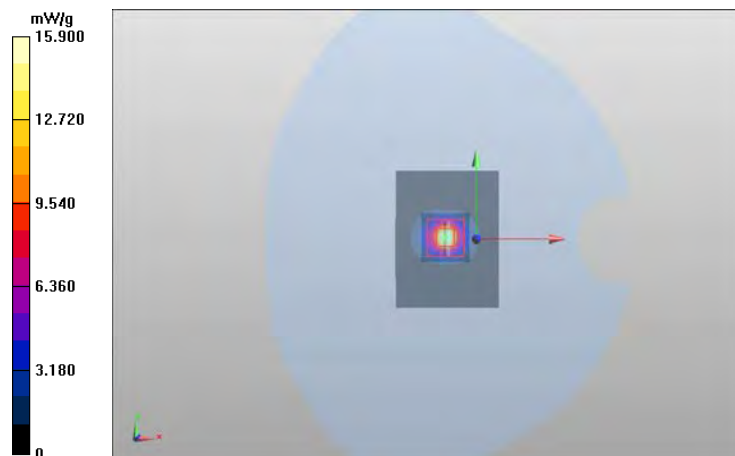
Peak SAR (extrapolated) = 33.472 mW/g

SAR(1 g) = 7.91 mW/g

SAR(10 g) = 2.24 mW/g

Power Drift = 0.13 dB

Maximum value of SAR (measured) = 15.9 mW/g



1.2 System checking scans for Body-worn and Wireless Router measurements

Date/Time: 2012-09-10 08:22:36

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:487

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes:

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.969 \text{ mho/m}$; $\epsilon_r = 54.179$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

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

Maximum value of SAR (interpolated) = 2.63 mW/g

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

Reference Value = 52.702 V/m

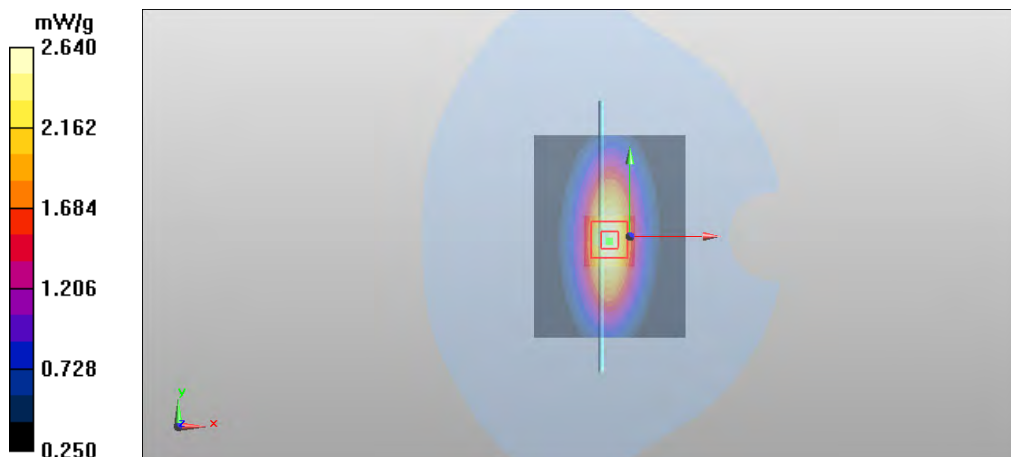
Peak SAR (extrapolated) = 3.519 mW/g

SAR(1 g) = 2.43 mW/g

SAR(10 g) = 1.59 mW/g

Power Drift = -0.04 dB

Maximum value of SAR (measured) = 2.64 mW/g



Date/Time: 2012-09-12 09:45:03

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:487

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes: T = 21.0 C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.978$ mho/m; $\epsilon_r = 54.792$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

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

Maximum value of SAR (interpolated) = 2.60 mW/g

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

Reference Value = 40.852 V/m

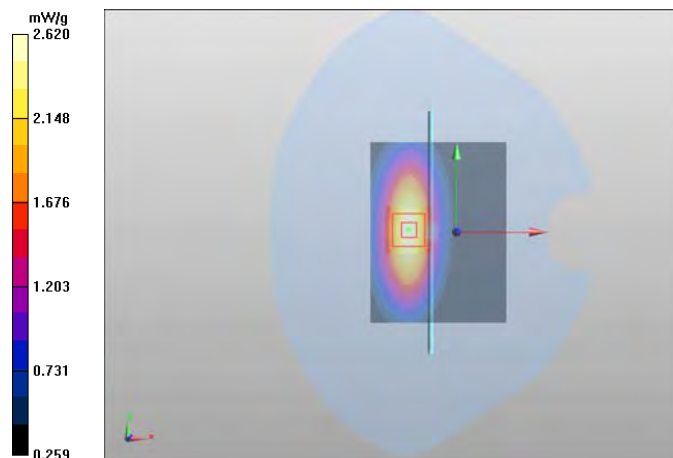
Peak SAR (extrapolated) = 3.470 mW/g

SAR(1 g) = 2.42 mW/g

SAR(10 g) = 1.59 mW/g

Power Drift = 0.09 dB

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



Date/Time: 2012-09-20 19:33:38

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:487

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes: T=21.7C

Medium parameters used: $f = 835$ MHz; $\sigma = 0.973$ mho/m; $\epsilon_r = 54.602$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

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

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

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

Reference Value = 53.729 V/m

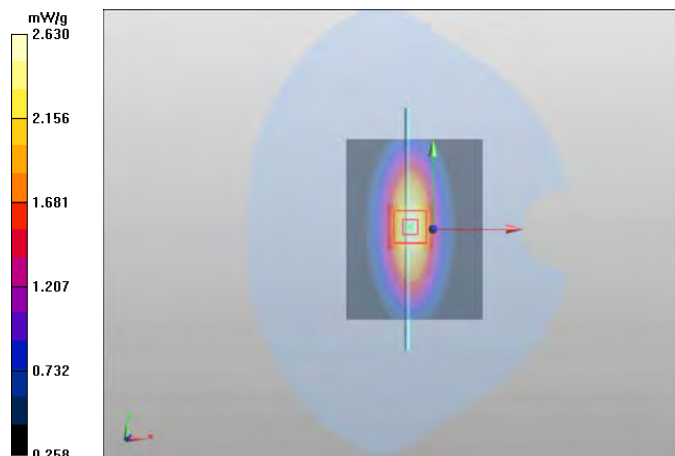
Peak SAR (extrapolated) = 3.483 mW/g

SAR(1 g) = 2.42 mW/g

SAR(10 g) = 1.6 mW/g

Power Drift = 0.01 dB

Maximum value of SAR (measured) = 2.63 mW/g



Date/Time: 2012-09-27 10:33:47

Test Laboratory: TCC Nokia

Type: D835V2; Serial: D835V2 - SN:487

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes: T = 21.4 C

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.963 \text{ mho/m}$; $\epsilon_r = 54.183$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

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

Maximum value of SAR (interpolated) = 2.81 mW/g

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

Reference Value = 55.543 V/m

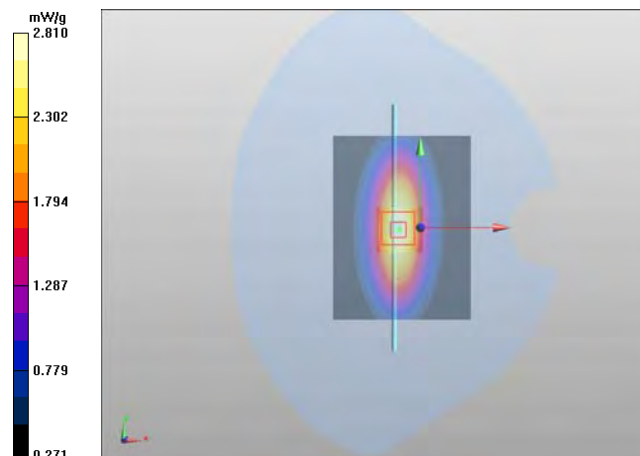
Peak SAR (extrapolated) = 3.720 mW/g

SAR(1 g) = 2.59 mW/g

SAR(10 g) = 1.71 mW/g

Power Drift = 0.01 dB

Maximum value of SAR (measured) = 2.81 mW/g



Date/Time: 2012-09-11 08:21:07

Test Laboratory: TCC Nokia

Type: D1800V2; Serial: D1800V2 - SN:2d063

Communication System: CW1800

Frequency: 1800 MHz; Duty Cycle: 1:1

Medium: MSL1800; Medium Notes: T = 21.8 C

Medium parameters used: $f = 1800$ MHz; $\sigma = 1.478$ mho/m; $\epsilon_r = 51.044$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3; Type: QD00P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 89.600 V/m

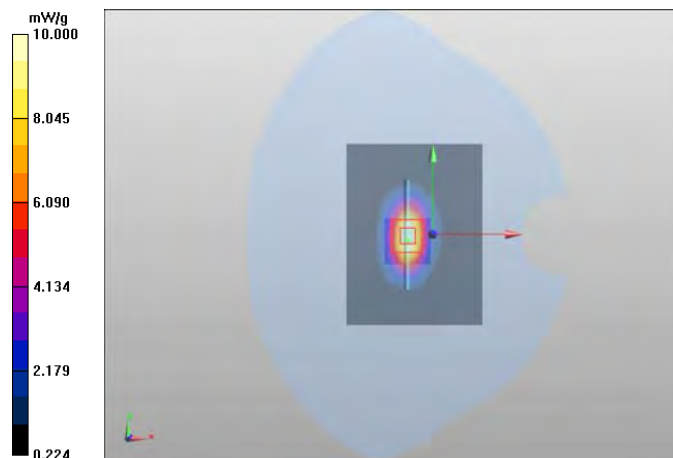
Peak SAR (extrapolated) = 13.985 mW/g

SAR(1 g) = 8.81 mW/g

SAR(10 g) = 4.81 mW/g

Power Drift = 0.00 dB

Maximum value of SAR (measured) = 10.0 mW/g



Date/Time: 2012-09-04 09:03:07

Test Laboratory: TCC Nokia
Type: D1900V2; Serial: D1900V2 - SN5d099

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes:

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.569$ mho/m; $\epsilon_r = 51.635$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=250mW 2/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

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

d=10mm, Pin=250mW 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 90.809 V/m

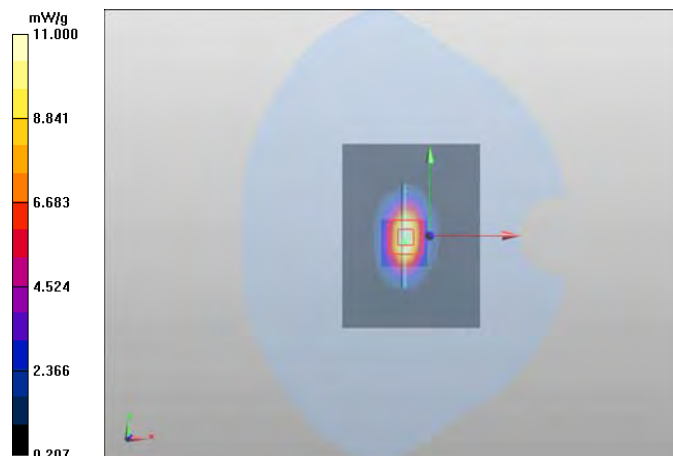
Peak SAR (extrapolated) = 15.843 mW/g

SAR(1 g) = 9.69 mW/g

SAR(10 g) = 5.21 mW/g

Power Drift = -0.02 dB

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



Date/Time: 2012-09-05 08:12:35

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d099

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes:

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.568$ mho/m; $\epsilon_r = 51.755$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 90.838 V/m

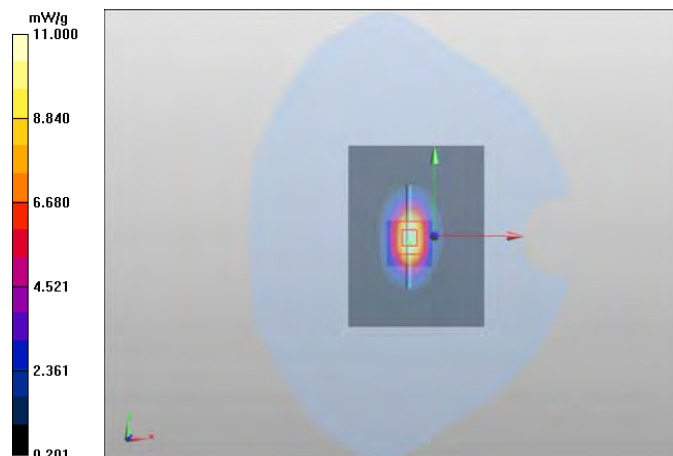
Peak SAR (extrapolated) = 15.711 mW/g

SAR(1 g) = 9.63 mW/g

SAR(10 g) = 5.17 mW/g

Power Drift = 0.01 dB

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



Date/Time: 2012-09-12 23:51:37

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d099

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T=21.6C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.546$ mho/m; $\epsilon_r = 51.656$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 91.000 V/m

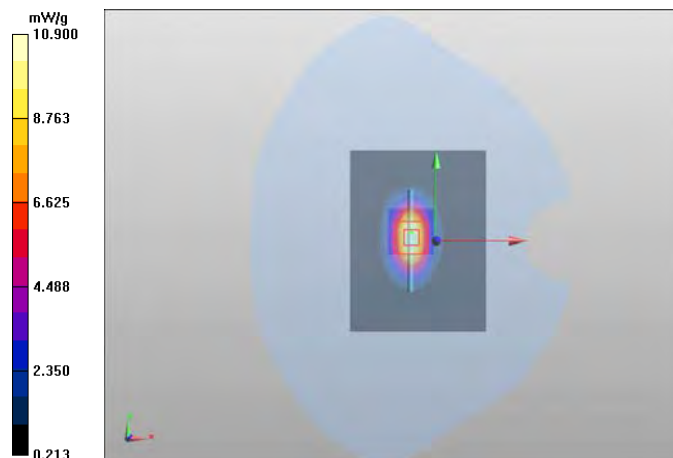
Peak SAR (extrapolated) = 15.592 mW/g

SAR(1 g) = 9.57 mW/g

SAR(10 g) = 5.15 mW/g

Power Drift = -0.02 dB

Maximum value of SAR (measured) = 10.9 mW/g



Date/Time: 2012-09-14 10:41:01

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:5d099

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T =21.8 C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.535$ mho/m; $\epsilon_r = 51.537$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 91.251 V/m

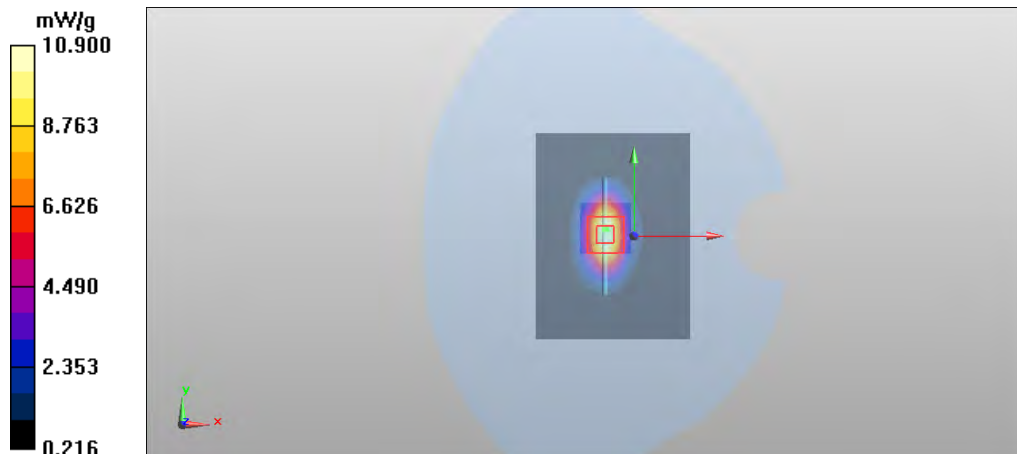
Peak SAR (extrapolated) = 15.498 mW/g

SAR(1 g) = 9.58 mW/g

SAR(10 g) = 5.17 mW/g

Power Drift = 0.01 dB

Maximum value of SAR (measured) = 10.9 mW/g



Date/Time: 2012-09-24 10:37:15

Test Laboratory: TCC Nokia

Type: D1900V2; Serial: D1900V2 - SN:534

Communication System: CW1900

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes:

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.599$ mho/m; $\epsilon_r = 51.12$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 4 15-09-2012; Type: QD000P40CD; Serial: TP1630
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 92.057 V/m

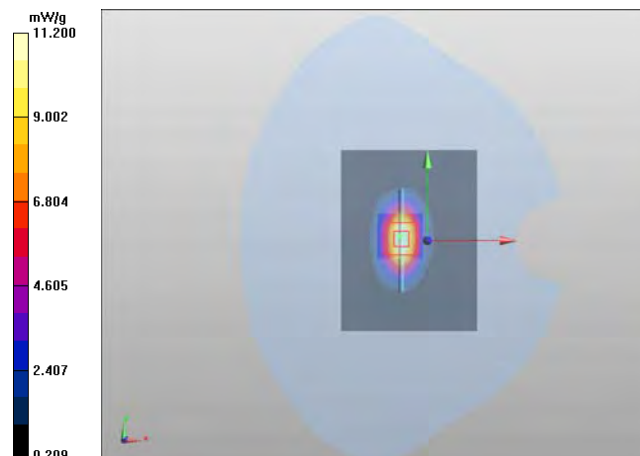
Peak SAR (extrapolated) = 16.474 mW/g

SAR(1 g) = 9.99 mW/g

SAR(10 g) = 5.34 mW/g

Power Drift = -0.04 dB

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



Date/Time: 2012-09-13 08:20:50

Test Laboratory: Nokia

Type: D2450V2; Serial: D2450V2 - SN:758

Communication System: CW2450

Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 21\text{ C}$

Medium parameters used: $f = 2450\text{ MHz}$; $\sigma = 1.958\text{ mho/m}$; $\epsilon_r = 51.954$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=10mm, Pin=250mW/Area Scan (61x81x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

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

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

Reference Value = 103.8 V/m

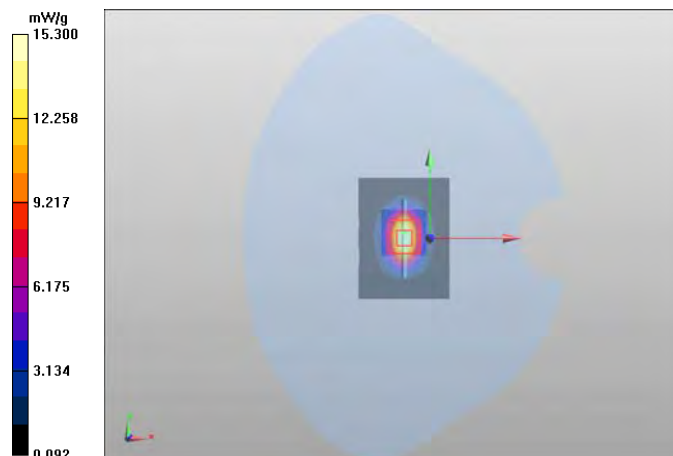
Peak SAR (extrapolated) = 27.002 mW/g

SAR(1 g) = 13.4 mW/g

SAR(10 g) = 6.22 mW/g

Power Drift = -0.01 dB

Maximum value of SAR (measured) = 15.3 mW/g



Date/Time: 2012-09-15 19:54:10

Test Laboratory: Nokia

Type: D5GHzV2; Serial: D5GHzV2 - SN: 1123

Communication System: CW5200

Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: t= 21.6 C

Medium parameters used: f = 5200 MHz; σ = 5.248 mho/m; ϵ_r = 47.928; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.1, 4.1, 4.1); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=15mm, Pin=100mW/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 15.3 mW/g

d=15mm, Pin=100mW/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 58.467 V/m

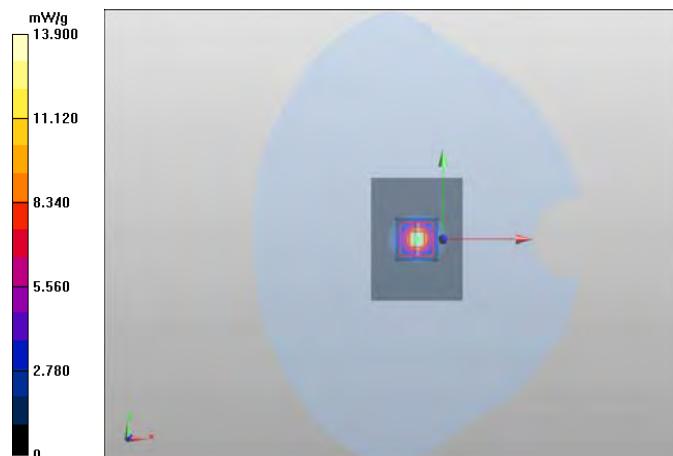
Peak SAR (extrapolated) = 27.816 mW/g

SAR(1 g) = 7.28 mW/g

SAR(10 g) = 2.05 mW/g

Power Drift = 0.10 dB

Maximum value of SAR (measured) = 13.9 mW/g



Date/Time: 2012-09-17 06:48:46

Test Laboratory: Nokia

Type: D5GHzV2; Serial: D5GHzV2 - SN: 1123

Communication System: CW5500

Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: $t = 21.8$ C

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.726$ mho/m; $\epsilon_r = 48.153$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(3.83, 3.83, 3.83); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=15mm, Pin=100mW/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

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

d=15mm, Pin=100mW/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 56.866 V/m

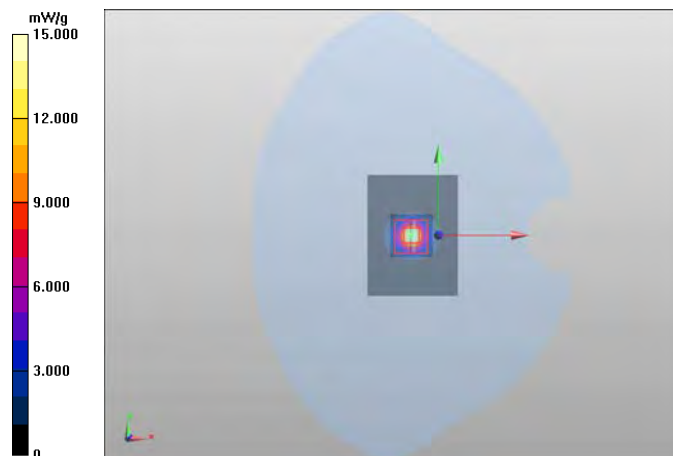
Peak SAR (extrapolated) = 32.952 mW/g

SAR(1 g) = 7.52 mW/g

SAR(10 g) = 2.08 mW/g

Power Drift = 0.07 dB

Maximum value of SAR (measured) = 15.0 mW/g



Date/Time: 2012-09-17 08:52:07

Test Laboratory: Nokia

Type: D5GHzV2; Serial: D5GHzV2 - SN: 1123

Communication System: CW5800

Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: $t = 21.8$ C

Medium parameters used: $f = 5800$ MHz; $\sigma = 6.265$ mho/m; $\epsilon_r = 47.542$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(3.86, 3.86, 3.86); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

d=15mm, Pin=100mW/Area Scan (61x81x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 14.1 mW/g

d=15mm, Pin=100mW/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 53.186 V/m

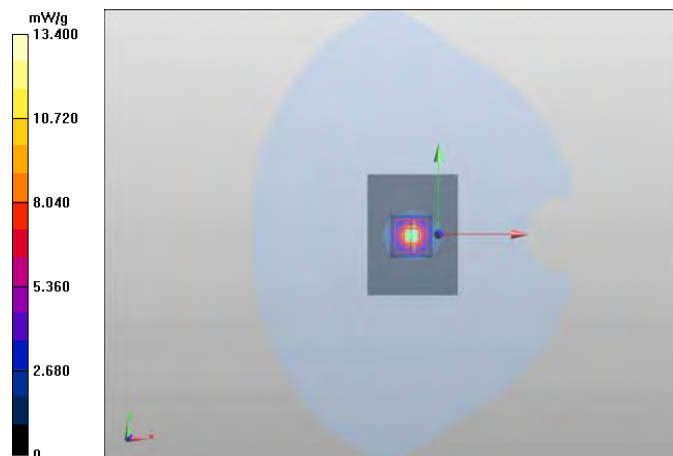
Peak SAR (extrapolated) = 29.050 mW/g

SAR(1 g) = 6.56 mW/g

SAR(10 g) = 1.83 mW/g

Power Drift = 0.09 dB

Maximum value of SAR (measured) = 13.4 mW/g



APPENDIX B.1: HEAD MEASUREMENT SCANS

Date/Time: 2012-08-31 19:55:36

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: GSM850

Frequency: 836.6 MHz; Duty Cycle: 1:8.30042

Medium: HSL900; Medium Notes: T=22.4c

Medium parameters used: $f = 837$ MHz; $\sigma = 0.908$ mho/m; $\epsilon_r = 41.569$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

GSM - Left/Cheek - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.430 mW/g

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

Reference Value = 8.289 V/m

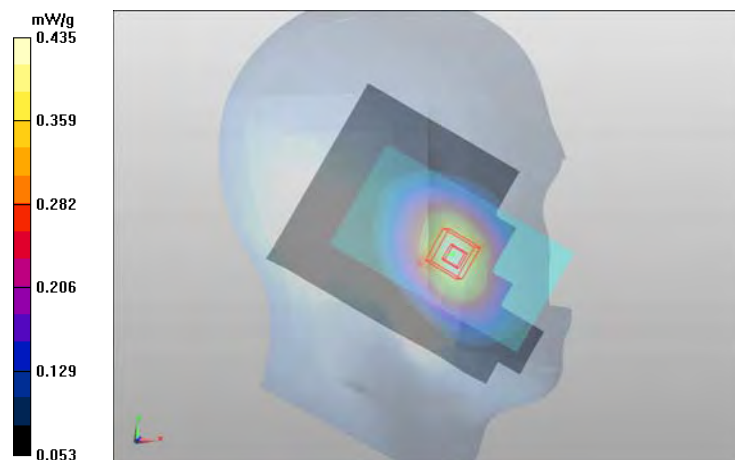
Peak SAR (extrapolated) = 0.521 mW/g

SAR(1 g) = 0.410 mW/g

SAR(10 g) = 0.305 mW/g

Power Drift = -0.25 dB

Maximum value of SAR (measured) = 0.435 mW/g



Date/Time: 2012-08-31 21:33:56

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 848.8 MHz; Duty Cycle: 1:4.19952

Medium: HSL900; Medium Notes: T=22.4c

Medium parameters used: $f = 849$ MHz; $\sigma = 0.917$ mho/m; $\epsilon_r = 41.508$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

2-slot GPRS - Left/Cheek - High/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.552 mW/g

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

Reference Value = 9.211 V/m

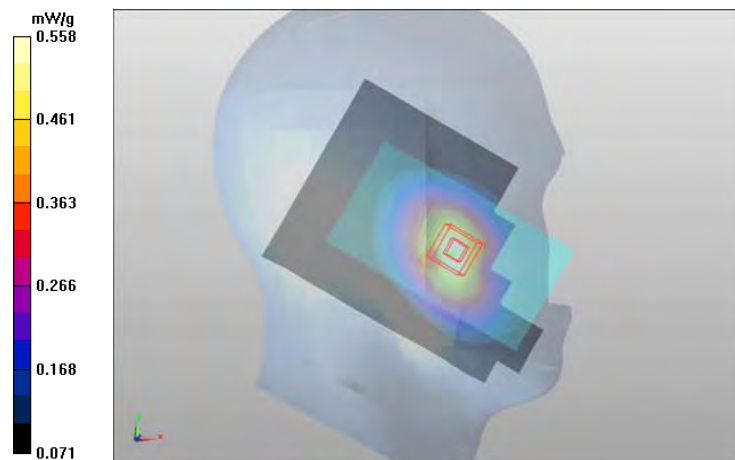
Peak SAR (extrapolated) = 0.638 mW/g

SAR(1 g) = 0.515 mW/g

SAR(10 g) = 0.379 mW/g

Power Drift = -0.11 dB

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



Date/Time: 2012-08-31 21:53:05

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: HSL900; Medium Notes: T=22.4c

Medium parameters used: $f = 837$ MHz; $\sigma = 0.908$ mho/m; $\epsilon_r = 41.569$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

2-slot GPRS - Left/Tilt - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.347 mW/g

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

Reference Value = 13.695 V/m

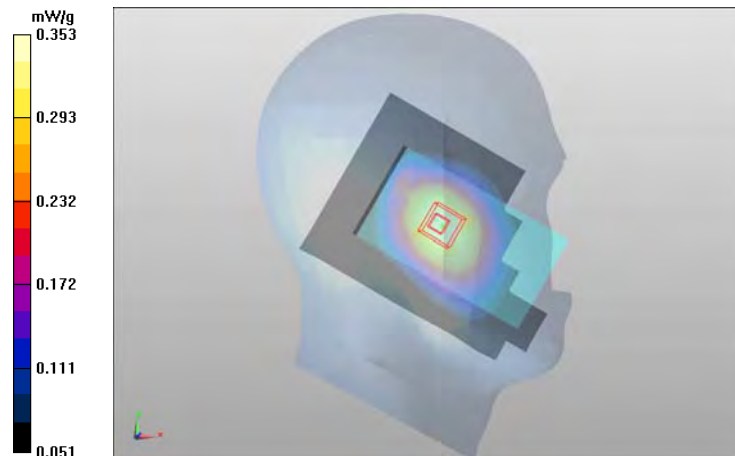
Peak SAR (extrapolated) = 0.415 mW/g

SAR(1 g) = 0.338 mW/g

SAR(10 g) = 0.258 mW/g

Power Drift = -0.04 dB

Maximum value of SAR (measured) = 0.353 mW/g



Date/Time: 2012-08-31 22:15:06

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: HSL900; Medium Notes: T=22.4c

Medium parameters used: $f = 837$ MHz; $\sigma = 0.908$ mho/m; $\epsilon_r = 41.569$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

2-slot GPRS - Right/Cheek - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.395 mW/g

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

Reference Value = 8.292 V/m

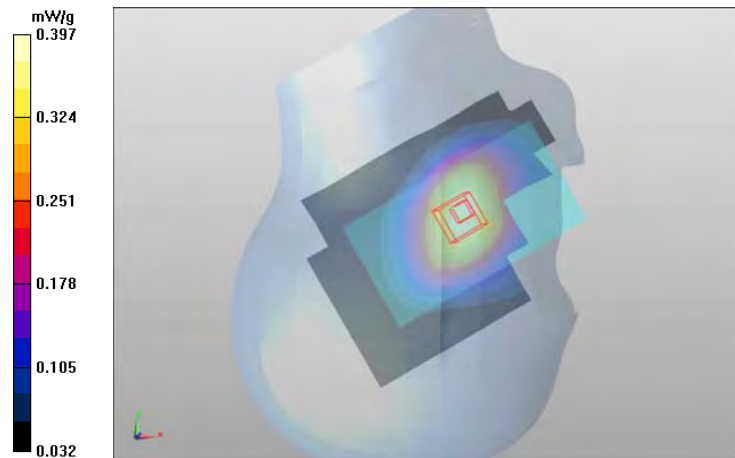
Peak SAR (extrapolated) = 0.475 mW/g

SAR(1 g) = 0.381 mW/g

SAR(10 g) = 0.289 mW/g

Power Drift = -0.14 dB

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



Date/Time: 2012-09-17 13:42:54

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: HSL900; Medium Notes: T = 22.0 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.87$ mho/m; $\epsilon_r = 39.869$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

2-slot GPRS - Right/Tilt - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.461 mW/g

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

Reference Value = 15.861 V/m

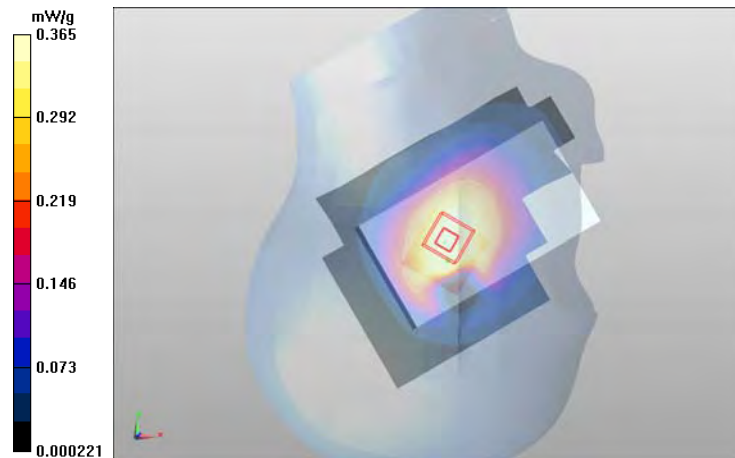
Peak SAR (extrapolated) = 0.437 mW/g

SAR(1 g) = 0.348 mW/g

SAR(10 g) = 0.258 mW/g

Power Drift = -0.38 dB

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



Date/Time: 2012-09-26 14:46:15

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 3-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:2.80027

Medium: HSL900; Medium Notes: T = 21.7 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.887$ mho/m; $\epsilon_r = 41.349$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399

- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;

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

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

- Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

3-slot GPRS/Left/Cheek - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 7.084 V/m

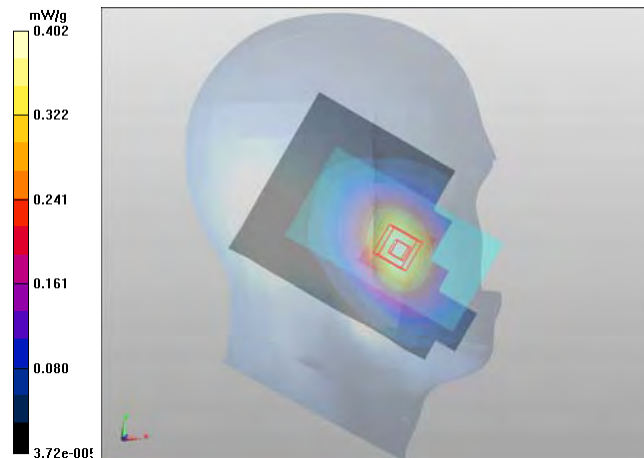
Peak SAR (extrapolated) = 0.494 mW/g

SAR(1 g) = 0.382 mW/g

SAR(10 g) = 0.281 mW/g

Power Drift = -0.13 dB

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



Date/Time: 2012-09-26 15:18:36

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 4-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:2.09991

Medium: HSL900; Medium Notes: T = 21.7 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.887$ mho/m; $\epsilon_r = 41.349$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

4-slot GPRS/Left/Cheek - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 7.250 V/m

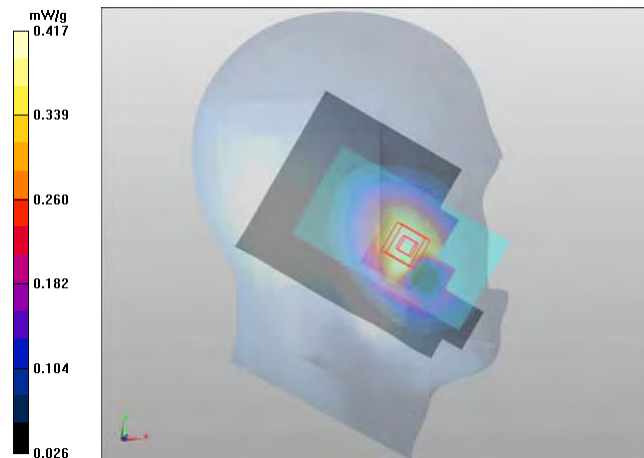
Peak SAR (extrapolated) = 0.507 mW/g

SAR(1 g) = 0.394 mW/g

SAR(10 g) = 0.292 mW/g

Power Drift = -0.35 dB

Maximum value of SAR (measured) = 0.417 mW/g



Date/Time: 2012-09-19 12:15:03

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot 8PSK EGPRS850

Frequency: 848.8 MHz; Duty Cycle: 1:4.19952

Medium: HSL800; Medium Notes: T = 21.2 C

Medium parameters used: $f = 849$ MHz; $\sigma = 0.865$ mho/m; $\epsilon_r = 40.026$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

2-slot 8PSK EGPRS - Left/Cheek - High/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.230 mW/g

2-slot 8PSK EGPRS - Left/Cheek - High/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 5.590 V/m

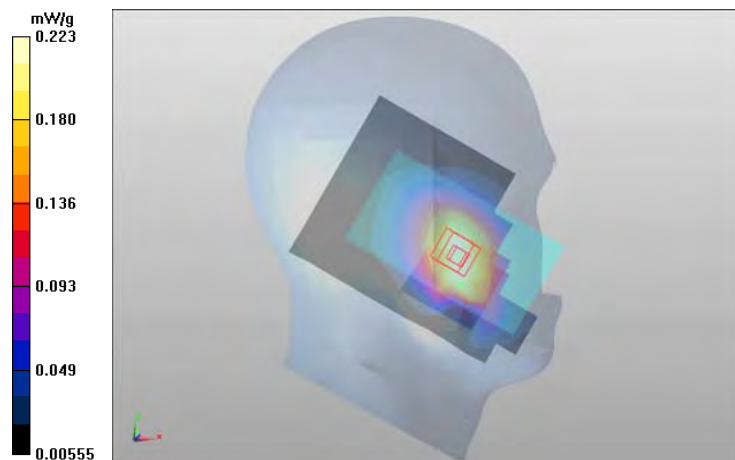
Peak SAR (extrapolated) = 0.301 mW/g

SAR(1 g) = 0.211 mW/g

SAR(10 g) = 0.156 mW/g

Power Drift = 0.03 dB

Maximum value of SAR (measured) = 0.223 mW/g



Date/Time: 2012-09-20 15:18:38

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: WCDMA850

Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: HSL800; Medium Notes: T = 21.6 C

Medium parameters used: $f = 847$ MHz; $\sigma = 0.887$ mho/m; $\epsilon_r = 40.888$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA850 - Left/Cheek - High/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.533 mW/g

WCDMA850 - Left/Cheek - High/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.240 V/m

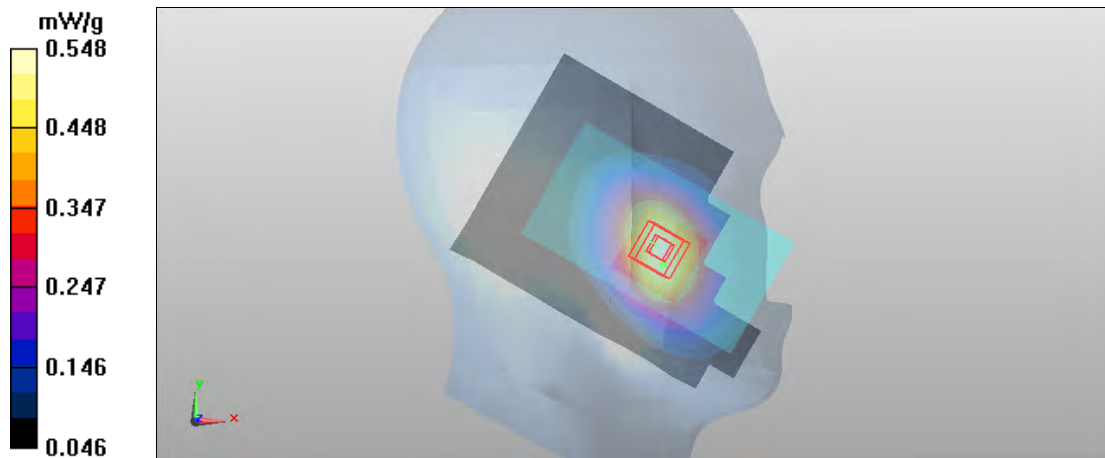
Peak SAR (extrapolated) = 0.657 mW/g

SAR(1 g) = 0.513 mW/g

SAR(10 g) = 0.379 mW/g

Power Drift = 0.10 dB

Maximum value of SAR (measured) = 0.548 mW/g



Date/Time: 2012-09-20 15:47:00

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL800; Medium Notes: T = 21.6 C

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.878 \text{ mho/m}$; $\epsilon_r = 40.974$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA850 - Left/Tilt - Middle/Area Scan (81x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.299 mW/g

WCDMA850 - Left/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.537 V/m

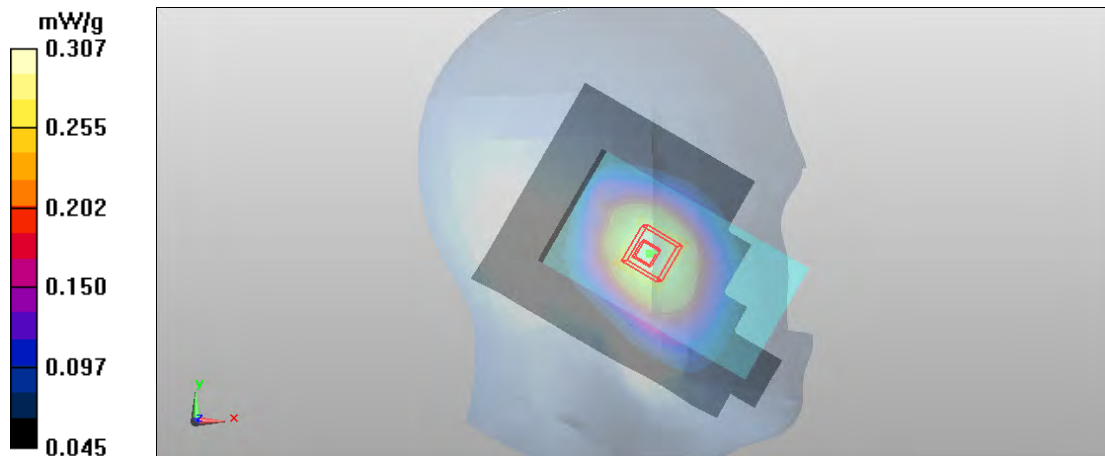
Peak SAR (extrapolated) = 0.357 mW/g

SAR(1 g) = 0.292 mW/g

SAR(10 g) = 0.223 mW/g

Power Drift = -0.06 dB

Maximum value of SAR (measured) = 0.307 mW/g



Date/Time: 2012-09-20 17:18:24

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL800; Medium Notes: T = 21.6 C

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.878 \text{ mho/m}$; $\epsilon_r = 40.974$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA850 - Right/Cheek - Middle/Area Scan (81x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.336 mW/g

WCDMA850 - Right/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 7.298 V/m

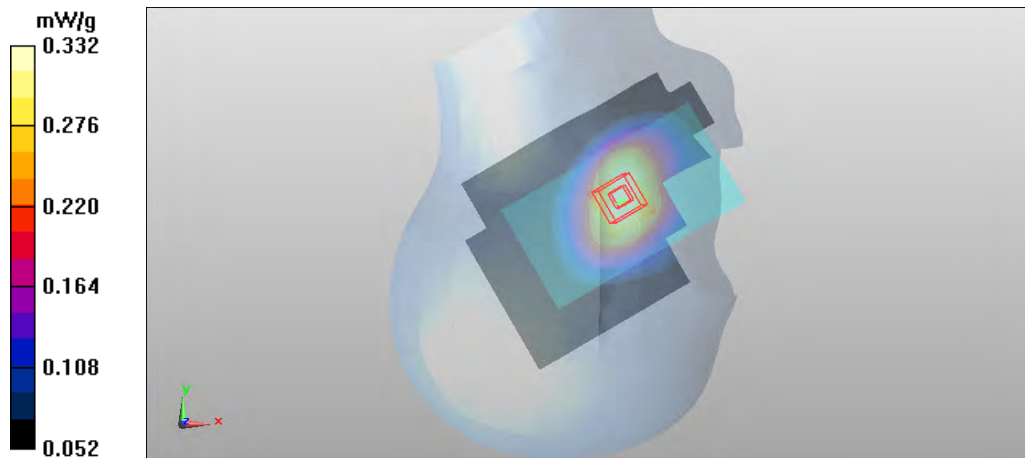
Peak SAR (extrapolated) = 0.400 mW/g

SAR(1 g) = 0.319 mW/g

SAR(10 g) = 0.241 mW/g

Power Drift = -0.01 dB

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



Date/Time: 2012-09-20 17:36:57

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL800; Medium Notes: T = 21.6 C

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.878 \text{ mho/m}$; $\epsilon_r = 40.974$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA850 - Right/Tilt - Middle/Area Scan (81x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.313 mW/g

WCDMA850 - Right/Tilt - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.542 V/m

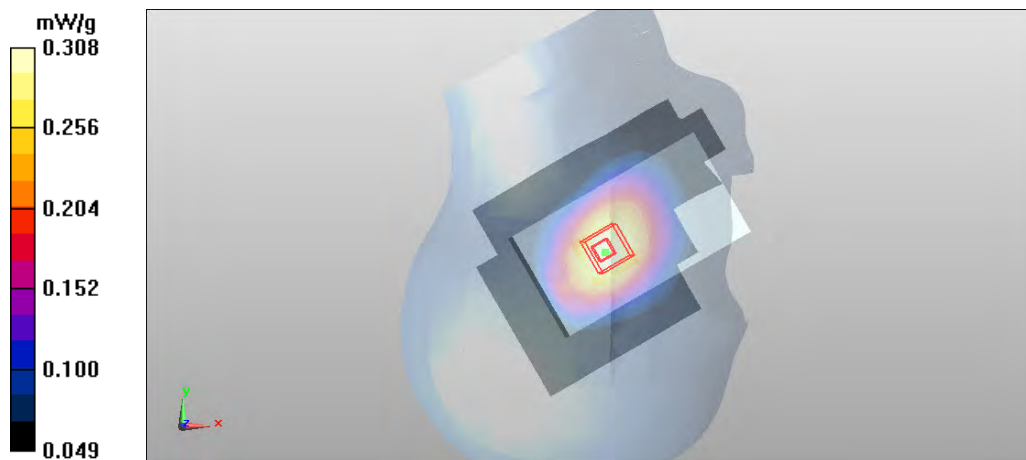
Peak SAR (extrapolated) = 0.356 mW/g

SAR(1 g) = 0.294 mW/g

SAR(10 g) = 0.225 mW/g

Power Drift = -0.18 dB

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



Date/Time: 2012-08-31 23:42:22

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 848.8 MHz; Duty Cycle: 1:4.19952

Medium: HSL900; Medium Notes: T=22.4c

Medium parameters used: $f = 849$ MHz; $\sigma = 0.917$ mho/m; $\epsilon_r = 41.508$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.82, 5.82); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

2-slot GPRS - Left/Cheek - High - CC-3063/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.524 mW/g

2-slot GPRS - Left/Cheek - High - CC-3063/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.186 V/m

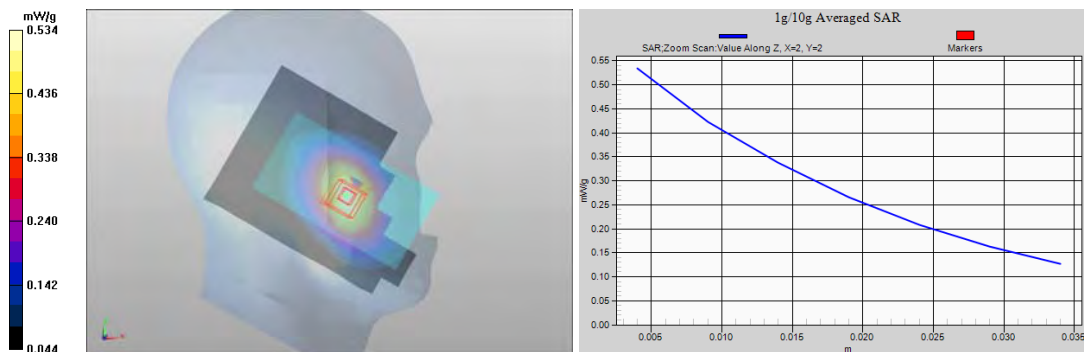
Peak SAR (extrapolated) = 0.660 mW/g

SAR(1 g) = 0.516 mW/g

SAR(10 g) = 0.374 mW/g

Power Drift = -0.15 dB

Maximum value of SAR (measured) = 0.534 mW/g



SAR Report

Appendix B.1 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

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Date/Time: 2012-09-05 23:26:40

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100

Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: T=19.8C

Medium parameters used: $f = 1753$ MHz; $\sigma = 1.342$ mho/m; $\epsilon_r = 37.981$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA - Left/Cheek - High/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.27 mW/g

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

Reference Value = 8.298 V/m

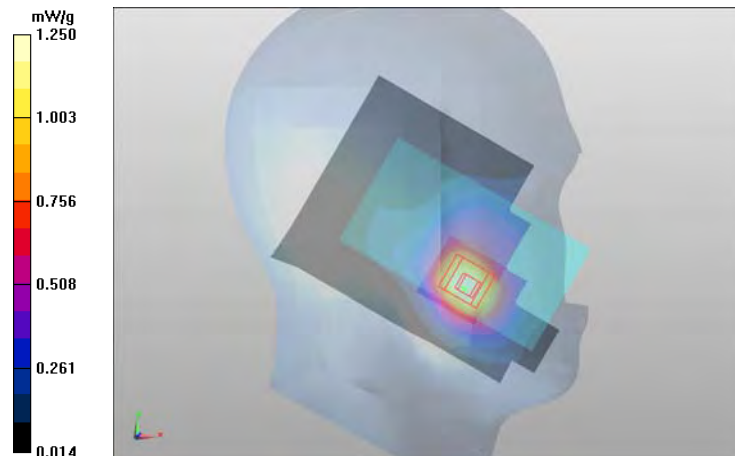
Peak SAR (extrapolated) = 1.693 mW/g

SAR(1 g) = 1.16 mW/g

SAR(10 g) = 0.732 mW/g

Power Drift = 0.12 dB

Maximum value of SAR (measured) = 1.25 mW/g



Date/Time: 2012-09-06 00:06:53

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: T=19.8C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.322$ mho/m; $\epsilon_r = 38.073$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA - Left/Left/Tilt - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.262 mW/g

WCDMA - Left/Left/Tilt - Middle/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.322 V/m

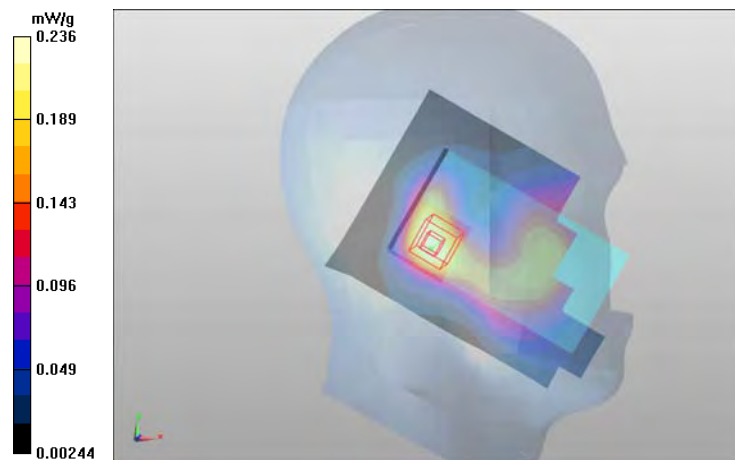
Peak SAR (extrapolated) = 0.328 mW/g

SAR(1 g) = 0.220 mW/g

SAR(10 g) = 0.139 mW/g

Power Drift = 0.25 dB

Maximum value of SAR (measured) = 0.236 mW/g



Date/Time: 2012-09-06 11:13:37

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: T = 19.8 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.322$ mho/m; $\epsilon_r = 38.073$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA - Right/Cheek - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.775 mW/g

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

Reference Value = 7.504 V/m

Peak SAR (extrapolated) = 1.063 mW/g

SAR(1 g) = 0.694 mW/g

SAR(10 g) = 0.452 mW/g

Power Drift = 0.12 dB

Maximum value of SAR (measured) = 0.741 mW/g

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

Reference Value = 7.504 V/m

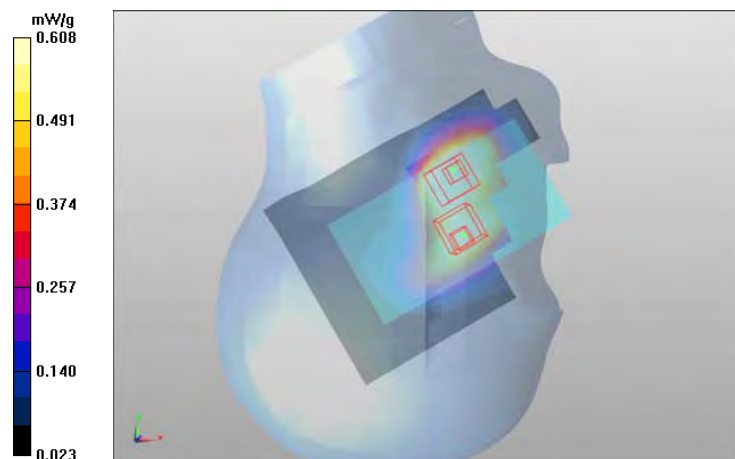
Peak SAR (extrapolated) = 0.823 mW/g

SAR(1 g) = 0.574 mW/g

SAR(10 g) = 0.403 mW/g

Power Drift = 0.12 dB

Maximum value of SAR (measured) = 0.608 mW/g



Date/Time: 2012-09-06 11:40:34

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: T = 19.8 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.322$ mho/m; $\epsilon_r = 38.073$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA - Right/Tilt - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.461 mW/g

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

Reference Value = 12.810 V/m

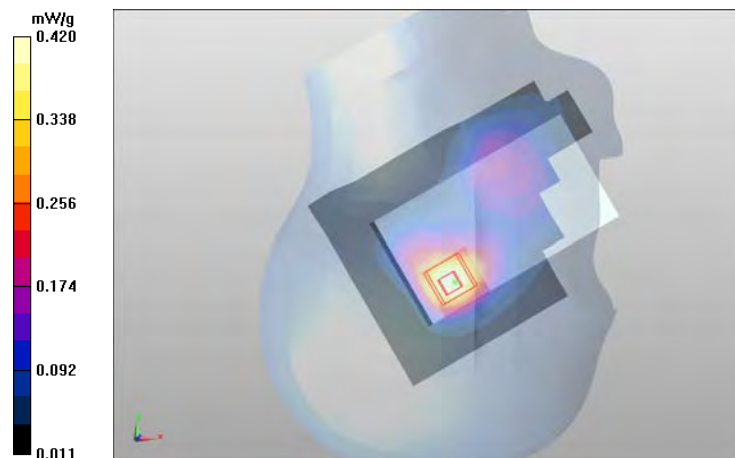
Peak SAR (extrapolated) = 0.593 mW/g

SAR(1 g) = 0.390 mW/g

SAR(10 g) = 0.242 mW/g

Power Drift = 0.16 dB

Maximum value of SAR (measured) = 0.420 mW/g



Date/Time: 2012-09-06 10:12:11

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100

Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: T = 19.8 C

Medium parameters used: $f = 1753$ MHz; $\sigma = 1.342$ mho/m; $\epsilon_r = 37.981$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA - Left/Cheek - High - CC-3063/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.31 mW/g

WCDMA - Left/Cheek - High - CC-3063/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.881 V/m

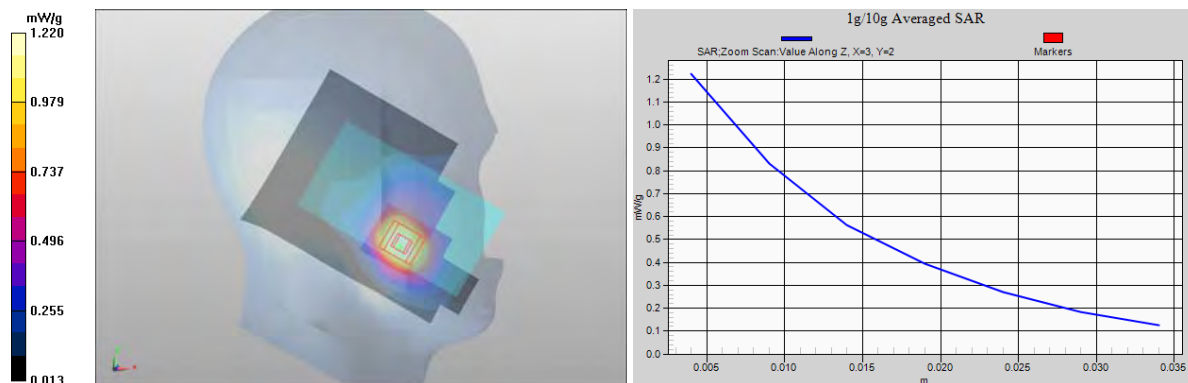
Peak SAR (extrapolated) = 1.702 mW/g

SAR(1 g) = 1.16 mW/g

SAR(10 g) = 0.740 mW/g

Power Drift = 0.28 dB

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



Date/Time: 2012-08-28 22:11:50

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: GSM1900

Frequency: 1880 MHz; Duty Cycle: 1:8.30042

Medium: HSL1900; Medium Notes: T=22.3C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.385$ mho/m; $\epsilon_r = 39.267$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.92, 4.92, 4.92); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

GSM - Left/Cheek - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.554 mW/g

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

Reference Value = 5.745 V/m

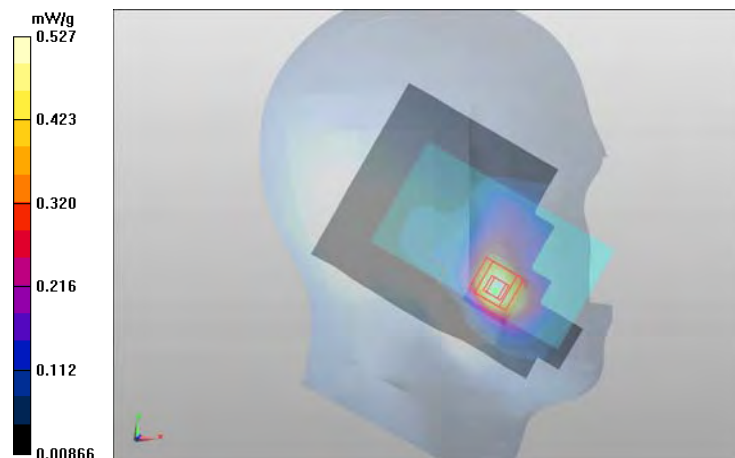
Peak SAR (extrapolated) = 0.686 mW/g

SAR(1 g) = 0.485 mW/g

SAR(10 g) = 0.307 mW/g

Power Drift = 0.17 dB

Maximum value of SAR (measured) = 0.527 mW/g



Date/Time: 2012-08-28 22:50:13

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 2-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:4.19952

Medium: HSL1900; Medium Notes: T=22.3C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.385$ mho/m; $\epsilon_r = 39.267$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.92, 4.92, 4.92); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

2-slot GPRS - Left/Cheek - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.876 mW/g

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

Reference Value = 7.584 V/m

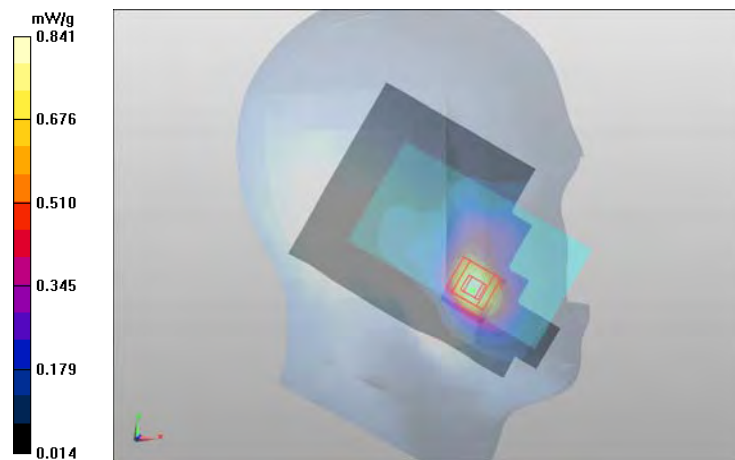
Peak SAR (extrapolated) = 1.100 mW/g

SAR(1 g) = 0.773 mW/g

SAR(10 g) = 0.485 mW/g

Power Drift = -0.12 dB

Maximum value of SAR (measured) = 0.841 mW/g



Date/Time: 2012-08-28 23:18:18

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 3-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.80027

Medium: HSL1900; Medium Notes: T=22.3C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.385$ mho/m; $\epsilon_r = 39.267$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.92, 4.92, 4.92); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

3-slot GPRS - Left/Cheek - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.776 mW/g

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

Reference Value = 7.353 V/m

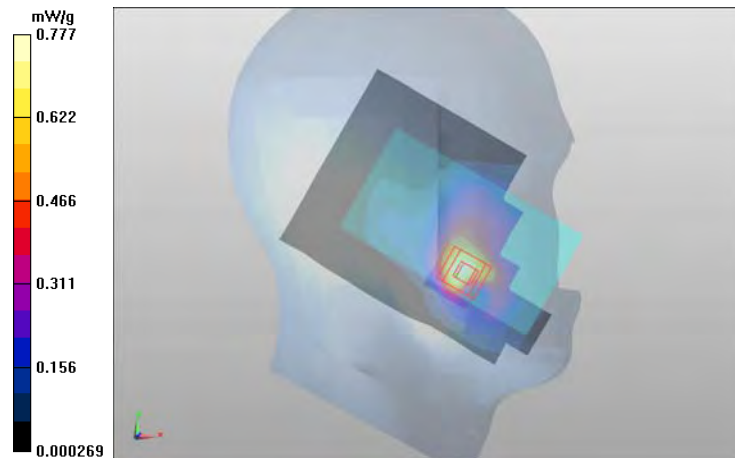
Peak SAR (extrapolated) = 1.425 mW/g

SAR(1 g) = 0.749 mW/g

SAR(10 g) = 0.467 mW/g

Power Drift = -0.06 dB

Maximum value of SAR (measured) = 0.777 mW/g



Date/Time: 2012-08-29 12:31:58

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 4-slot GPRS1900

Frequency: 1850.2 MHz; Duty Cycle: 1:2.09991

Medium: HSL1900; Medium Notes: 22.3

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.358$ mho/m; $\epsilon_r = 39.372$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.92, 4.92, 4.92); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

4-slot GPRS - Left/Cheek - Low/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.20 mW/g

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

Reference Value = 7.861 V/m

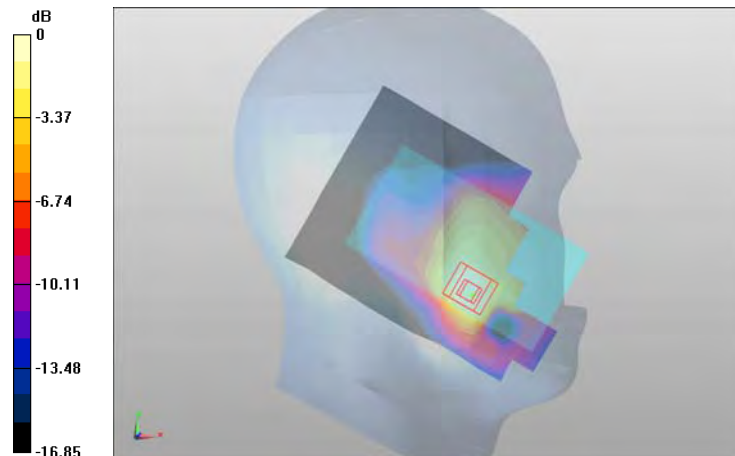
Peak SAR (extrapolated) = 1.295 mW/g

SAR(1 g) = 0.933 mW/g

SAR(10 g) = 0.589 mW/g

Power Drift = -0.04 dB

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



Date/Time: 2012-08-29 00:19:36

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.09991

Medium: HSL1900; Medium Notes: T=22.3C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.385$ mho/m; $\epsilon_r = 39.267$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.92, 4.92, 4.92); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

4-slot GPRS Left/Tilt - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.326 mW/g

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

Reference Value = 13.153 V/m

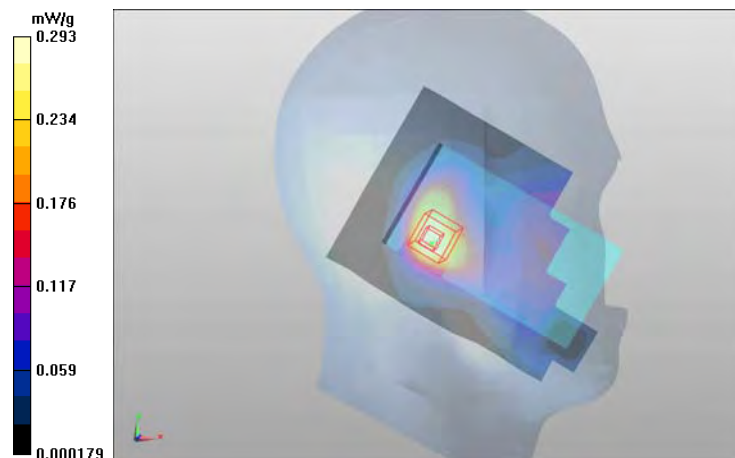
Peak SAR (extrapolated) = 0.387 mW/g

SAR(1 g) = 0.276 mW/g

SAR(10 g) = 0.177 mW/g

Power Drift = -0.05 dB

Maximum value of SAR (measured) = 0.293 mW/g



Date/Time: 2012-08-29 09:59:20

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.09991

Medium: HSL1900; Medium Notes: 22.3

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.385$ mho/m; $\epsilon_r = 39.267$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.92, 4.92, 4.92); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

4-slot GPRS - Right/Cheek - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.630 mW/g

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

Reference Value = 7.488 V/m

Peak SAR (extrapolated) = 0.721 mW/g

SAR(1 g) = 0.497 mW/g

SAR(10 g) = 0.334 mW/g

Power Drift = -0.22 dB

Maximum value of SAR (measured) = 0.557 mW/g

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

Reference Value = 7.488 V/m

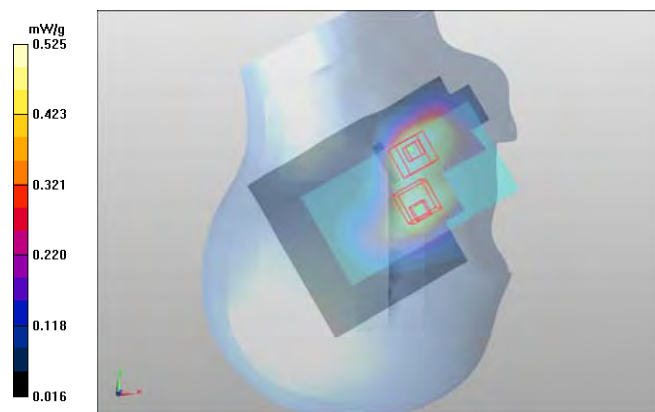
Peak SAR (extrapolated) = 0.658 mW/g

SAR(1 g) = 0.466 mW/g

SAR(10 g) = 0.319 mW/g

Power Drift = -0.22 dB

Maximum value of SAR (measured) = 0.525 mW/g



SAR Report

Appendix B.1 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

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Date/Time: 2012-08-29 10:30:25

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.09991

Medium: HSL1900; Medium Notes: 22.3

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.385$ mho/m; $\epsilon_r = 39.267$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.92, 4.92, 4.92); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

4-slot GPRS Right/Tilt - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.513 mW/g

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

Reference Value = 13.234 V/m

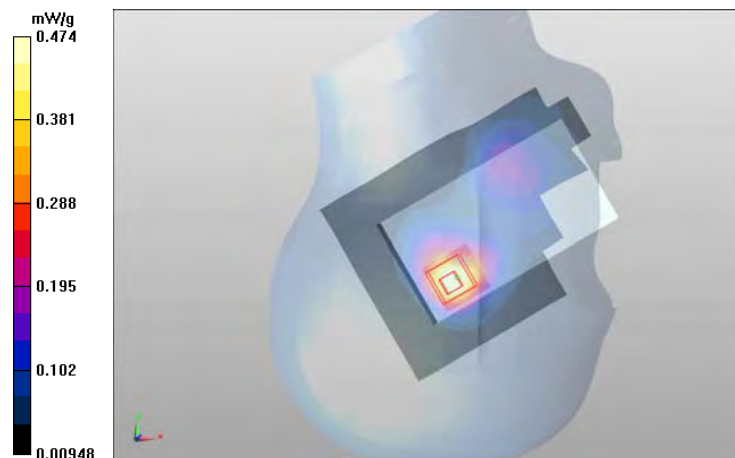
Peak SAR (extrapolated) = 0.633 mW/g

SAR(1 g) = 0.437 mW/g

SAR(10 g) = 0.258 mW/g

Power Drift = -0.01 dB

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



Date/Time: 2012-08-29 13:44:16

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 4-slot 8PSK EGPRS1900

Frequency: 1850.2 MHz; Duty Cycle: 1:2.09991

Medium: HSL1900; Medium Notes: 22.3

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.358$ mho/m; $\epsilon_r = 39.372$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.92, 4.92, 4.92); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

4-slot 8PSK EGPRS - Left/Cheek - Low/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.614 mW/g

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

Reference Value = 5.917 V/m

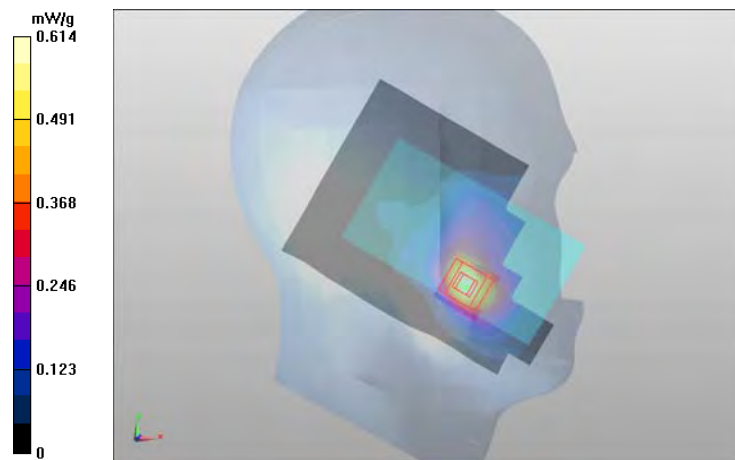
Peak SAR (extrapolated) = 0.975 mW/g

SAR(1 g) = 0.558 mW/g

SAR(10 g) = 0.323 mW/g

Power Drift = 0.04 dB

Maximum value of SAR (measured) = 0.582 mW/g



Date/Time: 2012-08-31 12:25:10

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900

Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: T=20.6

Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.427$ mho/m; $\epsilon_r = 38.115$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.8, 7.8, 7.8); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA - Left/Cheek - Low/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.16 mW/g

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

Reference Value = 10.128 V/m

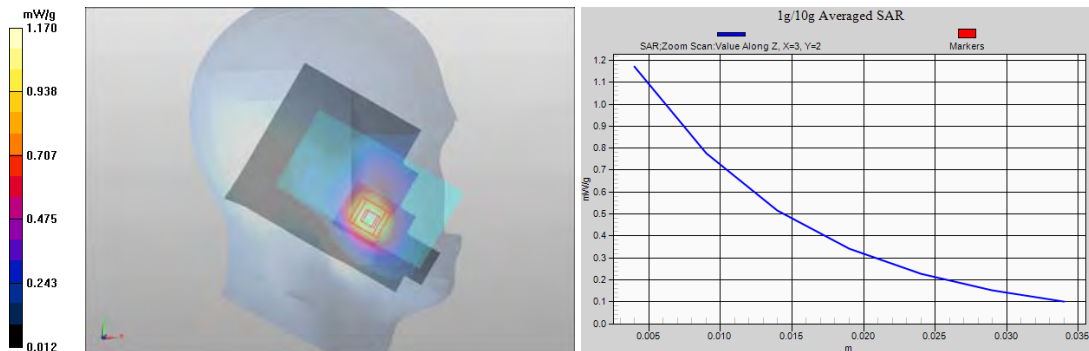
Peak SAR (extrapolated) = 1.657 mW/g

SAR(1 g) = 1.1 mW/g

SAR(10 g) = 0.684 mW/g

Power Drift = -0.11 dB

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



Date/Time: 2012-08-31 11:42:22

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: T=20.6

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.456$ mho/m; $\epsilon_r = 37.995$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.8, 7.8, 7.8); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA - Left/Tilt - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.452 mW/g

WCDMA - Left/Tilt - Middle/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.111 V/m

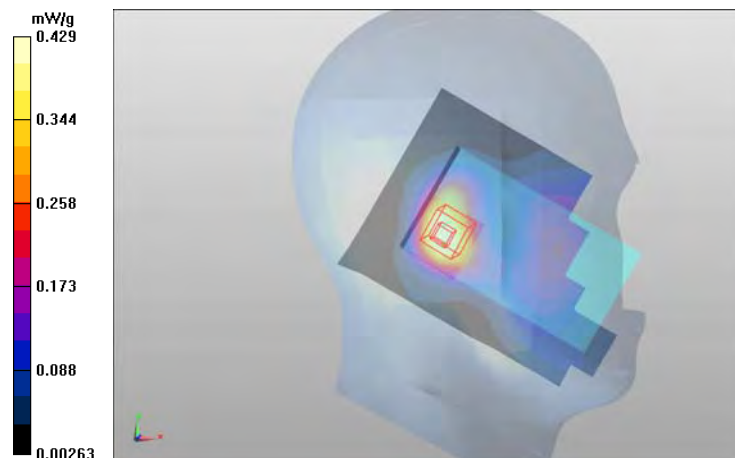
Peak SAR (extrapolated) = 0.627 mW/g

SAR(1 g) = 0.406 mW/g

SAR(10 g) = 0.248 mW/g

Power Drift = -0.04 dB

Maximum value of SAR (measured) = 0.429 mW/g



Date/Time: 2012-08-31 14:12:33

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: T=20.6

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.456$ mho/m; $\epsilon_r = 37.995$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.8, 7.8, 7.8); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA - Right/Cheek - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.901 mW/g

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

Reference Value = 8.364 V/m

Peak SAR (extrapolated) = 1.244 mW/g

SAR(1 g) = 0.787 mW/g

SAR(10 g) = 0.502 mW/g

Power Drift = 0.42 dB

Maximum value of SAR (measured) = 0.853 mW/g

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

Reference Value = 8.364 V/m

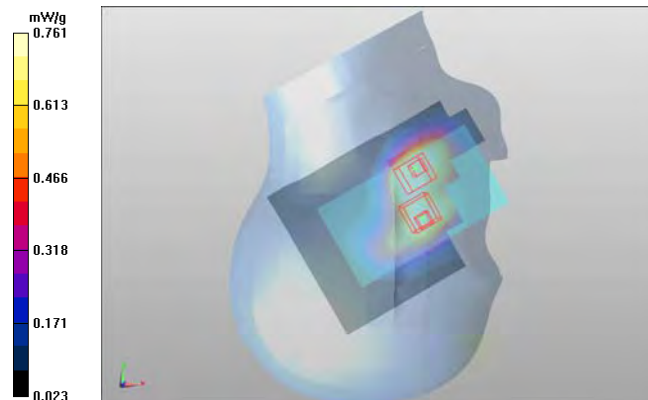
Peak SAR (extrapolated) = 1.084 mW/g

SAR(1 g) = 0.719 mW/g

SAR(10 g) = 0.478 mW/g

Power Drift = 0.42 dB

Maximum value of SAR (measured) = 0.761 mW/g



Date/Time: 2012-08-31 14:46:13

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: T=20.6

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.456$ mho/m; $\epsilon_r = 37.995$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.8, 7.8, 7.8); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA - Right/Tilt - Middle/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.712 mW/g

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

Reference Value = 15.475 V/m

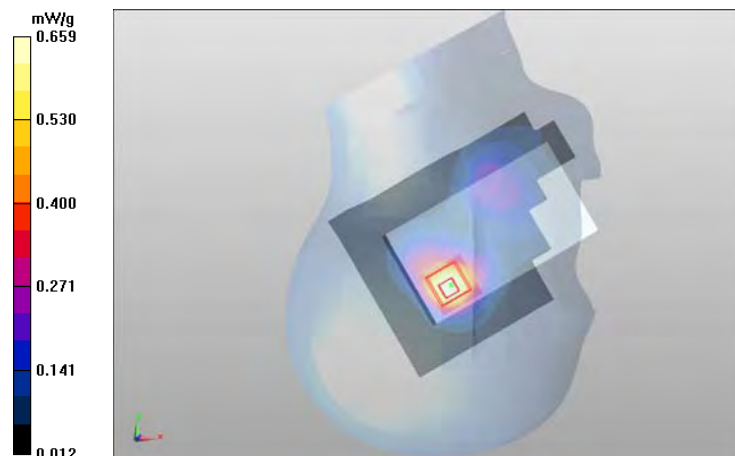
Peak SAR (extrapolated) = 0.968 mW/g

SAR(1 g) = 0.615 mW/g

SAR(10 g) = 0.364 mW/g

Power Drift = 0.15 dB

Maximum value of SAR (measured) = 0.659 mW/g



Date/Time: 2012-08-31 15:26:51

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900

Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: HSL1800; Medium Notes: T=20.6

Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.427$ mho/m; $\epsilon_r = 38.115$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.8, 7.8, 7.8); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA - Left/Cheek - Low - CC-3063/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.11 mW/g

WCDMA - Left/Cheek - Low - CC-3063/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.804 V/m

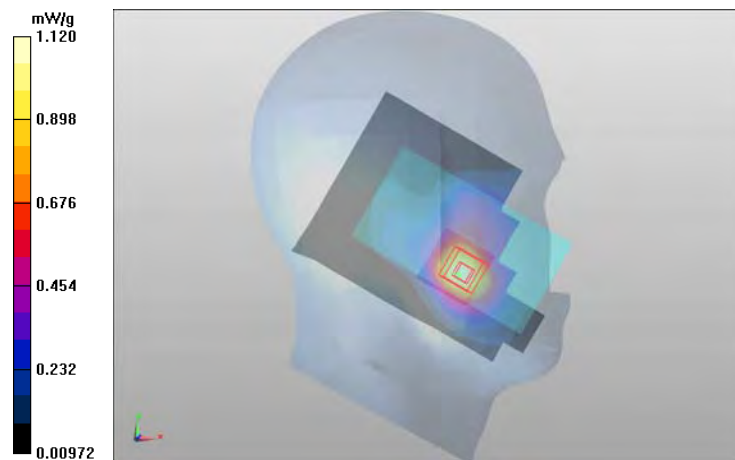
Peak SAR (extrapolated) = 1.584 mW/g

SAR(1 g) = 1.03 mW/g

SAR(10 g) = 0.634 mW/g

Power Drift = 0.02 dB

Maximum value of SAR (measured) = 1.12 mW/g



Date/Time: 2012-09-14 07:52:56

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: $t = 21.1$ C

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.785$ mho/m; $\epsilon_r = 38.176$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.06, 7.06, 7.06); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Left/Cheek - Middle/Area Scan (121x181x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.256 mW/g

WLAN - Left/Cheek - Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.737 V/m

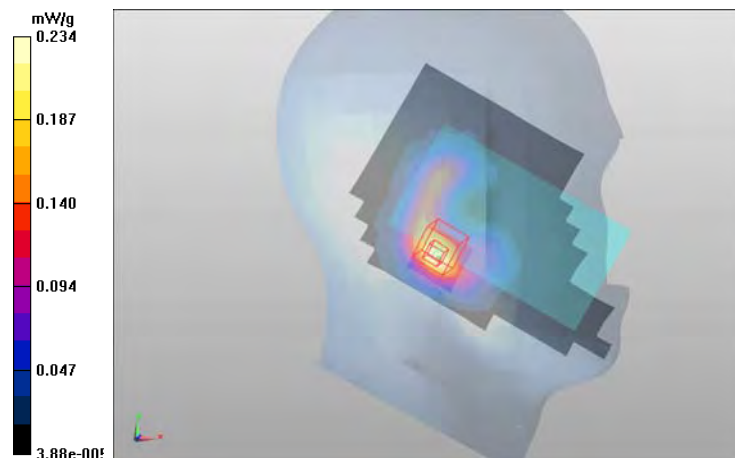
Peak SAR (extrapolated) = 0.469 mW/g

SAR(1 g) = 0.209 mW/g

SAR(10 g) = 0.098 mW/g

Power Drift = 0.41 dB

Maximum value of SAR (measured) = 0.234 mW/g



Date/Time: 2012-09-14 08:29:30

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: $t = 21.1$ C

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.785$ mho/m; $\epsilon_r = 38.176$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.06, 7.06, 7.06); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN b-mode - Left/Tilt - Middle/Area Scan (121x181x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.121 mW/g

WLAN b-mode - Left/Tilt - Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.594 V/m

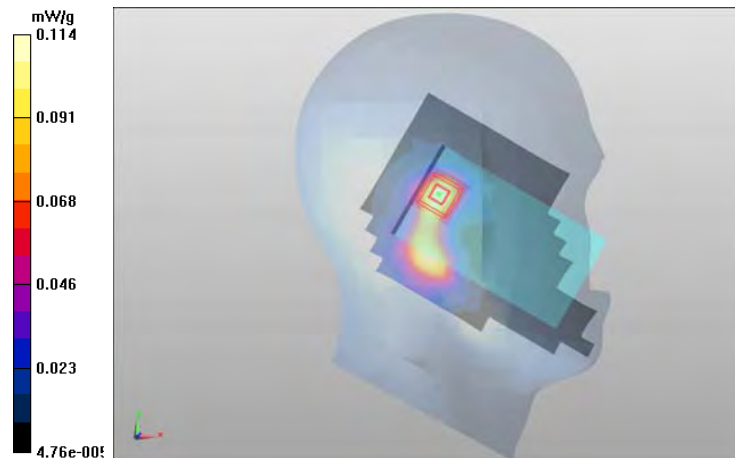
Peak SAR (extrapolated) = 0.201 mW/g

SAR(1 g) = 0.101 mW/g

SAR(10 g) = 0.050 mW/g

Power Drift = -0.00 dB

Maximum value of SAR (measured) = 0.114 mW/g



Date/Time: 2012-09-14 12:50:23

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: t= 21.1 C

Medium parameters used: f = 2462 MHz; $\sigma = 1.813$ mho/m; $\epsilon_r = 38.131$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.06, 7.06, 7.06); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Right/Cheek - High/Area Scan (121x181x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.618 mW/g

WLAN - Right/Cheek - High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.287 V/m

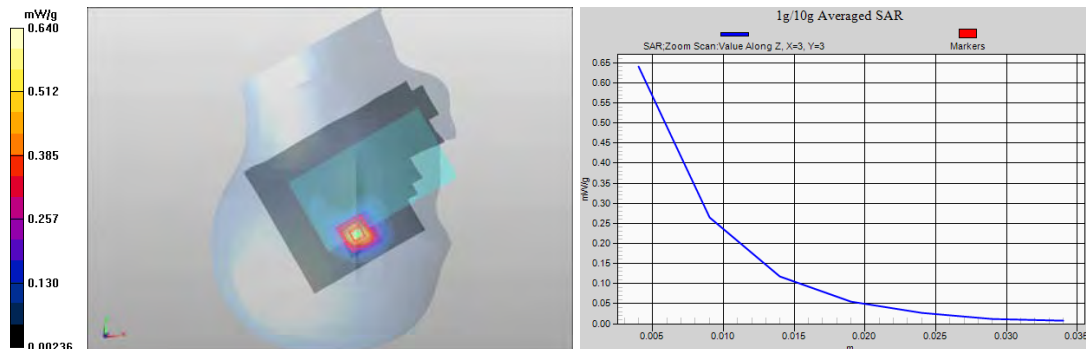
Peak SAR (extrapolated) = 1.429 mW/g

SAR(1 g) = 0.554 mW/g

SAR(10 g) = 0.236 mW/g

Power Drift = 0.13 dB

Maximum value of SAR (measured) = 0.640 mW/g



Date/Time: 2012-09-14 09:36:51

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: t= 21.1 C

Medium parameters used: f = 2437 MHz; σ = 1.785 mho/m; ϵ_r = 38.176; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.06, 7.06, 7.06); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Right/Tilt - Middle/Area Scan (121x181x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.175 mW/g

WLAN - Right/Tilt - Middle/Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.665 V/m

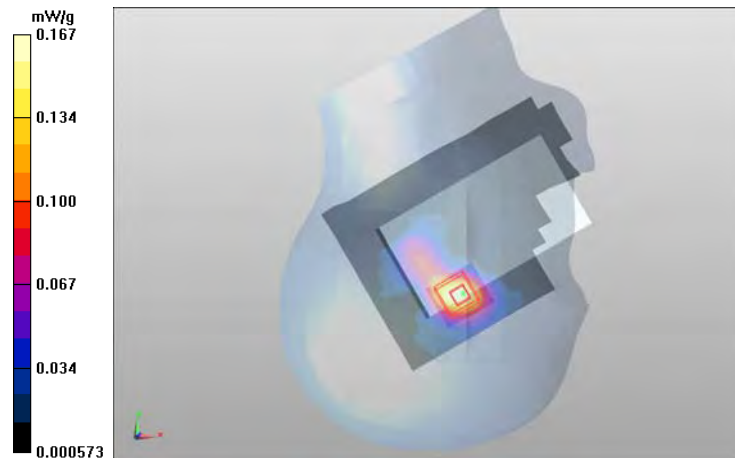
Peak SAR (extrapolated) = 0.300 mW/g

SAR(1 g) = 0.150 mW/g

SAR(10 g) = 0.077 mW/g

Power Drift = 0.21 dB

Maximum value of SAR (measured) = 0.167 mW/g



Date/Time: 2012-09-14 14:43:46

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode b-mode DSSS 5.5 Mbps

Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: t= 21.1 C

Medium parameters used: f = 2412 MHz; $\sigma = 1.759$ mho/m; $\epsilon_r = 38.213$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.06, 7.06, 7.06); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Right/Cheek - Low /Area Scan (121x181x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.553 mW/g

WLAN - Right/Cheek - Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.333 V/m

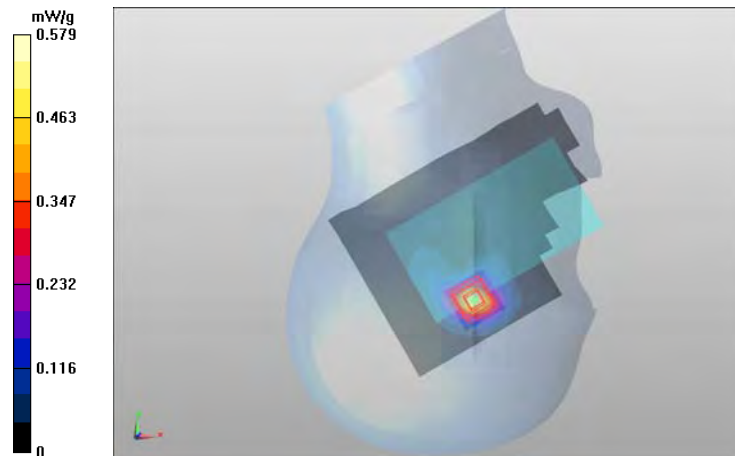
Peak SAR (extrapolated) = 1.233 mW/g

SAR(1 g) = 0.498 mW/g

SAR(10 g) = 0.216 mW/g

Power Drift = 0.14 dB

Maximum value of SAR (measured) = 0.579 mW/g



Date/Time: 2012-09-14 10:35:37

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: $t = 21.1$ C

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.785$ mho/m; $\epsilon_r = 38.176$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(7.06, 7.06, 7.06); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Right/Cheek - Middle - CC-3063/Area Scan (121x181x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.579 mW/g

WLAN - Right/Cheek - Middle - CC-3063/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.483 V/m

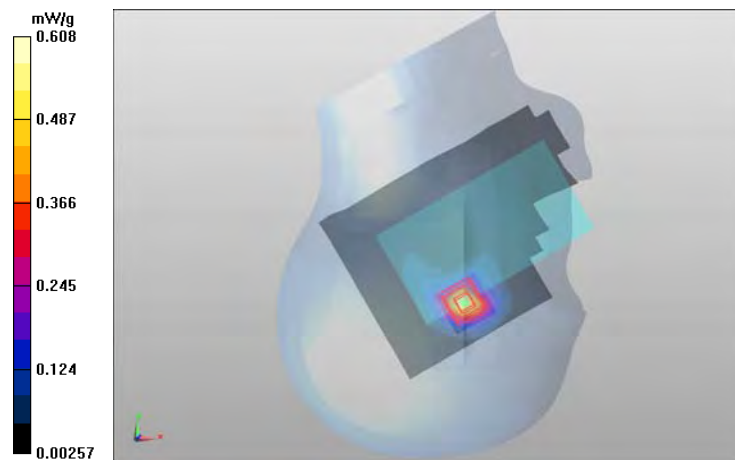
Peak SAR (extrapolated) = 1.366 mW/g

SAR(1 g) = 0.526 mW/g

SAR(10 g) = 0.221 mW/g

Power Drift = 0.04 dB

Maximum value of SAR (measured) = 0.608 mW/g



Date/Time: 2012-09-10 10:25:50

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps

Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: $t = 21.6$ C

Medium parameters used: $f = 5500$ MHz; $\sigma = 4.936$ mho/m; $\epsilon_r = 35.64$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.56, 4.56, 4.56); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Left/Cheek - Channel 100/Area Scan (121x181x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 0.180 mW/g

WLAN - Left/Cheek - Channel 100/Zoom Scan (9x10x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 4.937 V/m

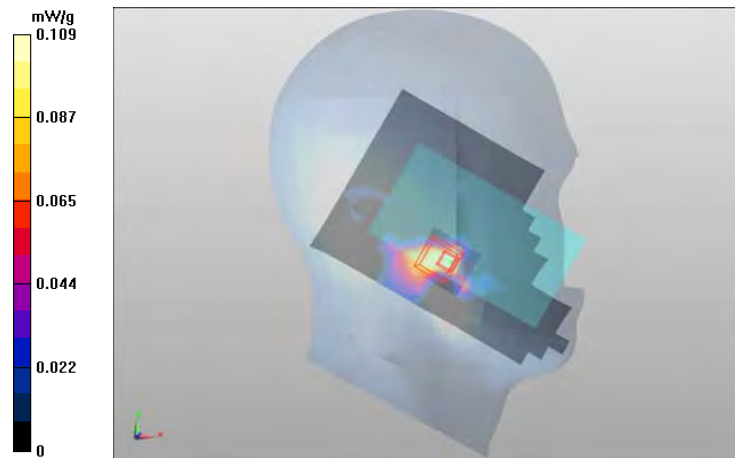
Peak SAR (extrapolated) = 0.224 mW/g

SAR(1 g) = 0.057 mW/g

SAR(10 g) = 0.021 mW/g

Power Drift = 0.33 dB

Maximum value of SAR (measured) = 0.109 mW/g



Date/Time: 2012-09-11 15:05:39

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps

Frequency: 5785 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: $t = 20.8$ C

Medium parameters used: $f = 5785$ MHz; $\sigma = 5.313$ mho/m; $\epsilon_r = 34.693$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.2, 4.2, 4.2); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Left/Tilt - Channel 157/Area Scan (121x181x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.127 mW/g

WLAN - Left/Tilt - Channel 157/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 4.046 V/m

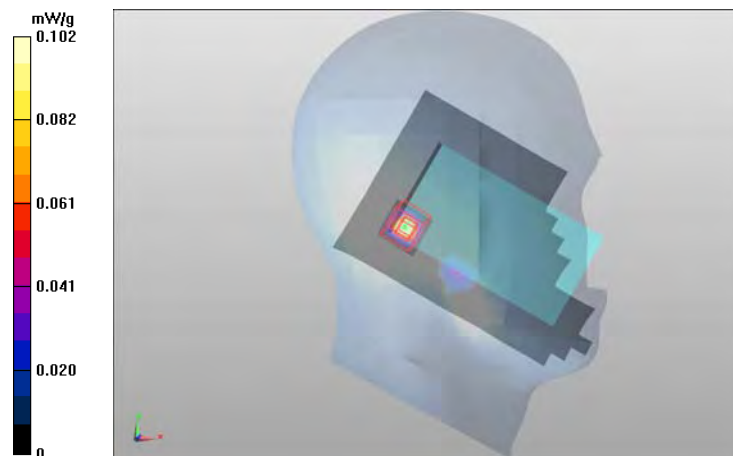
Peak SAR (extrapolated) = 0.213 mW/g

SAR(1 g) = 0.046 mW/g

SAR(10 g) = 0.011 mW/g

Power Drift = 0.48 dB

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



Date/Time: 2012-09-20 01:07:39

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps

Frequency: 5320 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: $t = 20.4$ C

Medium parameters used: $f = 5320$ MHz; $\sigma = 4.704$ mho/m; $\epsilon_r = 35.721$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.65, 4.65, 4.65); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Right/Cheek - Channel 64/Area Scan (121x181x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 0.371 mW/g

WLAN - Right/Cheek - Channel 64/Zoom Scan (9x9x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 9.441 V/m

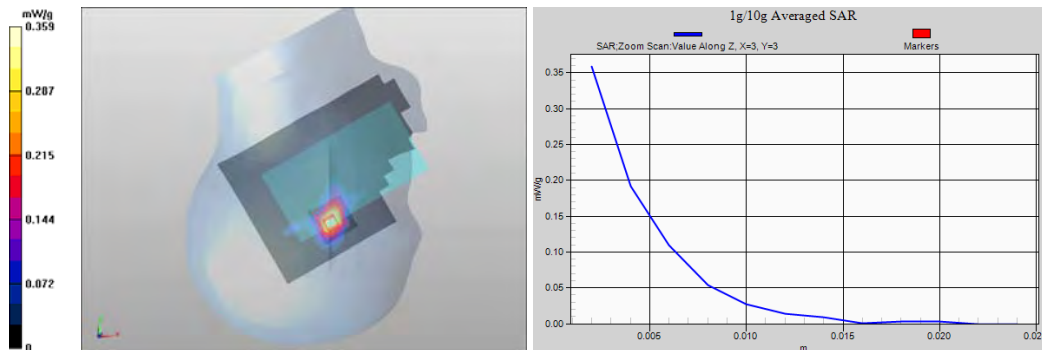
Peak SAR (extrapolated) = 0.673 mW/g

SAR(1 g) = 0.182 mW/g

SAR(10 g) = 0.058 mW/g

Power Drift = -0.06 dB

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



Date/Time: 2012-09-20 01:56:09

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps

Frequency: 5320 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: $t = 20.4\text{ C}$

Medium parameters used: $f = 5320\text{ MHz}$; $\sigma = 4.704\text{ mho/m}$; $\epsilon_r = 35.721$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.65, 4.65, 4.65); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Right/Tilt - Channel 64/Area Scan (121x181x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.132 mW/g

WLAN - Right/Tilt - Channel 64/Zoom Scan (9x9x12)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$

Reference Value = 4.441 V/m

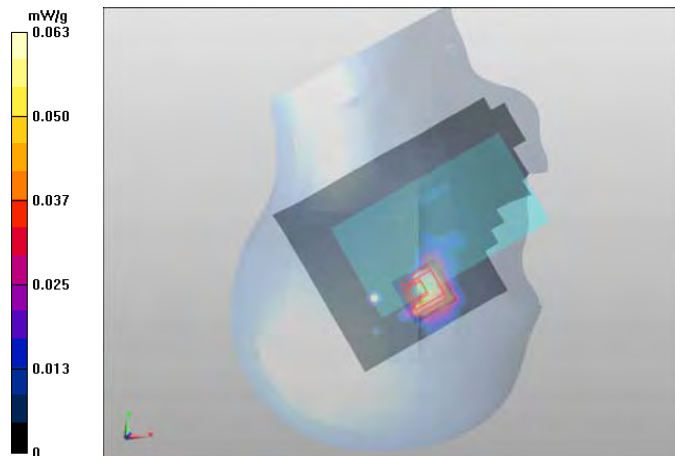
Peak SAR (extrapolated) = 0.403 mW/g

SAR(1 g) = 0.034 mW/g

SAR(10 g) = 0.011 mW/g

Power Drift = 0.43 dB

Maximum value of SAR (measured) = 0.0625 mW/g



Date/Time: 2012-09-19 22:02:04

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 n-mode MCS1: OFDM 13.0/14.4

Frequency: 5180 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: t= 20.4 C

Medium parameters used: f = 5180 MHz; σ = 4.526 mho/m; ϵ_r = 35.914; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.86, 4.86, 4.86); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Right/Cheek - Channel 36 /Area Scan (121x181x1): Measurement grid: dx=10mm, dy=10mm

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

WLAN - Right/Cheek - Channel 36 /Zoom Scan (8x9x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 9.264 V/m

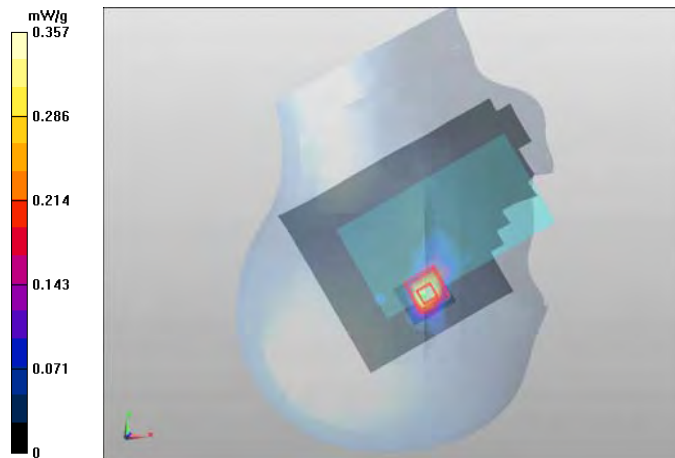
Peak SAR (extrapolated) = 0.646 mW/g

SAR(1 g) = 0.180 mW/g

SAR(10 g) = 0.058 mW/g

Power Drift = 0.01 dB

Maximum value of SAR (measured) = 0.357 mW/g



Date/Time: 2012-09-10 21:25:52

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 24 Mbps

Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: $t = 21.6$ C

Medium parameters used: $f = 5500$ MHz; $\sigma = 4.936$ mho/m; $\epsilon_r = 35.64$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.56, 4.56, 4.56); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Right/Cheek - Channel 100/Area Scan (121x181x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

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

WLAN - Right/Cheek - Channel 100 /Zoom Scan (9x9x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 6.993 V/m

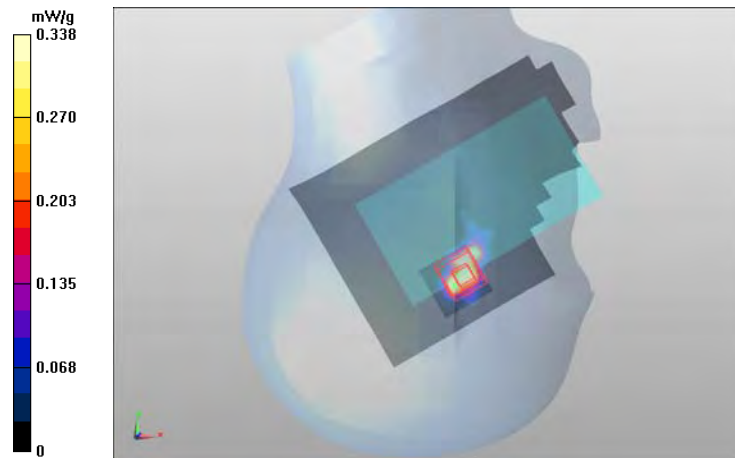
Peak SAR (extrapolated) = 0.583 mW/g

SAR(1 g) = 0.151 mW/g

SAR(10 g) = 0.046 mW/g

Power Drift = 0.36 dB

Maximum value of SAR (measured) = 0.338 mW/g



Date/Time: 2012-09-11 18:08:24

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 n mode MCS0: OFDM 6.5/7.25 Mbps

Frequency: 5785 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: t= 20.8 C

Medium parameters used: f = 5785 MHz; σ = 5.313 mho/m; ϵ_r = 34.693; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.2, 4.2, 4.2); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Right/Cheek - Channel 157 /Area Scan (121x181x1): Measurement grid: dx=10mm, dy=10mm

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

WLAN - Right/Cheek - Channel 157 /Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 6.848 V/m

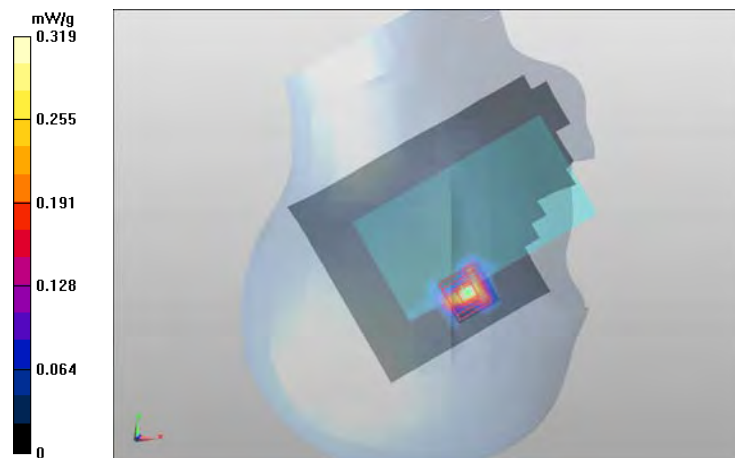
Peak SAR (extrapolated) = 0.602 mW/g

SAR(1 g) = 0.151 mW/g

SAR(10 g) = 0.041 mW/g

Power Drift = 0.21 dB

Maximum value of SAR (measured) = 0.319 mW/g



Date/Time: 2012-09-11 21:45:21

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 n-mode MCS1: OFDM 13.0/14.4 Mbps

Frequency: 5180 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: t= 20.8 C

Medium parameters used: f = 5180 MHz; σ = 4.501 mho/m; ϵ_r = 35.59; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.86, 4.86, 4.86); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Right/Cheek - Channel 36 – CC-3063 /Area Scan (121x181x1): Measurement grid: dx=10mm, dy=10mm

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

WLAN - Right/Cheek - Channel 36 – CC-3063/Zoom Scan (9x9x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 9.143 V/m

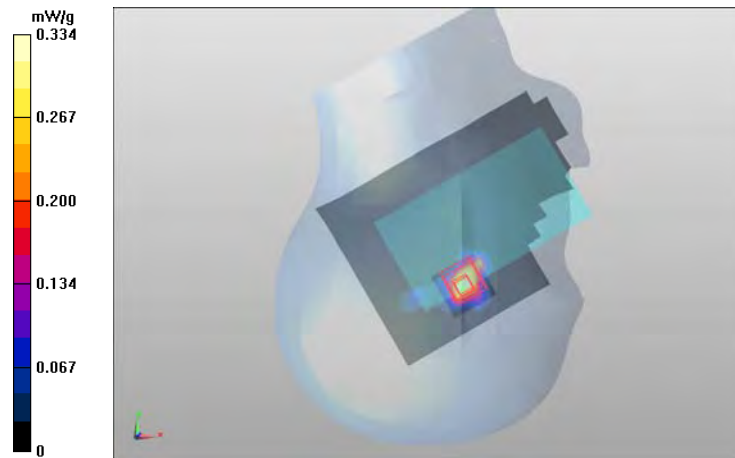
Peak SAR (extrapolated) = 0.600 mW/g

SAR(1 g) = 0.167 mW/g

SAR(10 g) = 0.054 mW/g

Power Drift = -0.03 dB

Maximum value of SAR (measured) = 0.334 mW/g



Date/Time: 2012-09-20 03:37:28

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps

Frequency: 5320 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: $t = 20.4\text{ C}$

Medium parameters used: $f = 5320\text{ MHz}$; $\sigma = 4.704\text{ mho/m}$; $\epsilon_r = 35.721$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.65, 4.65, 4.65); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Right/Cheek - Channel 64 - CC3063/Area Scan (121x181x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.351 mW/g

WLAN - Right/Cheek - Channel 64 - CC3063/Zoom Scan (9x9x12)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$

Reference Value = 8.468 V/m

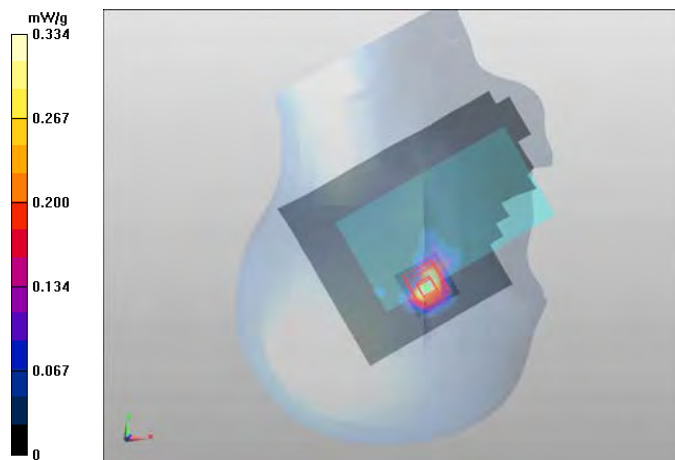
Peak SAR (extrapolated) = 0.631 mW/g

SAR(1 g) = 0.167 mW/g

SAR(10 g) = 0.052 mW/g

Power Drift = -0.05 dB

Maximum value of SAR (measured) = 0.334 mW/g



Date/Time: 2012-09-10 22:42:55

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 24 Mbps

Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: $t = 21.6$ C

Medium parameters used: $f = 5500$ MHz; $\sigma = 4.936$ mho/m; $\epsilon_r = 35.64$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.56, 4.56, 4.56); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Right/Cheek - Channel 100 - CC-3063/Area Scan (121x181x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.664 mW/g

WLAN - Right/Cheek - Channel 100 - CC-3063/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 7.285 V/m

Peak SAR (extrapolated) = 0.580 mW/g

SAR(1 g) = 0.154 mW/g

SAR(10 g) = 0.047 mW/g

Power Drift = 0.01 dB

Maximum value of SAR (measured) = 0.326 mW/g

WLAN - Right/Cheek - Channel 100 - CC-3063/Zoom Scan 2 (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 7.285 V/m

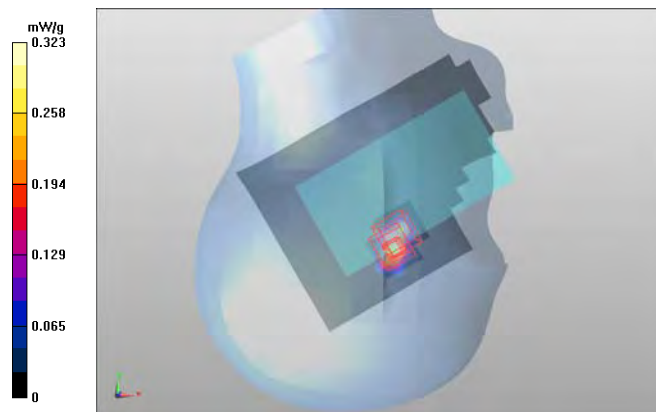
Peak SAR (extrapolated) = 0.571 mW/g

SAR(1 g) = 0.141 mW/g

SAR(10 g) = 0.031 mW/g

Power Drift = 0.01 dB

Maximum value of SAR (measured) = 0.323 mW/g



Date/Time: 2012-09-11 18:51:50

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 n-mode MCS 0: OFDM 6.5/7.25 Mbps

Frequency: 5785 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: t= 20.8 C

Medium parameters used: f = 5785 MHz; σ = 5.313 mho/m; ϵ_r = 34.693; ρ = 1000 kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.2, 4.2, 4.2); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN - Right/Cheek - Channel 157 - CC-3063 /Area Scan (121x181x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.281 mW/g

WLAN - Right/Cheek - Channel 157 - CC-3063 /Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 6.118 V/m

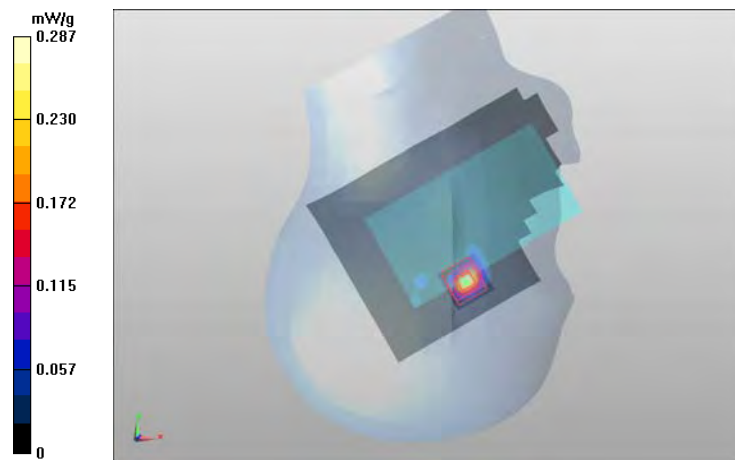
Peak SAR (extrapolated) = 0.543 mW/g

SAR(1 g) = 0.134 mW/g

SAR(10 g) = 0.037 mW/g

Power Drift = 0.28 dB

Maximum value of SAR (measured) = 0.287 mW/g



Date/Time: 2012-08-31 22:15:06

DASY Configuration 2-slot GPRS - Right/Cheek - Middle/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850; Frequency: 836.6 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: HSL900 Medium parameters used: $f = 837$ MHz; $\sigma = 0.908$ mho/m; $\epsilon_r = 41.569$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ET3DV6R - SN1399; ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;

Sensor-Surface: 4mm (Mechanical Surface Detection)

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

Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-14 12:50:23

DASY Configuration for WLAN - Right/Cheek - High /Area Scan:

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1Mbps; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.813$ mho/m; $\epsilon_r = 38.131$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(7.06, 7.06, 7.06); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

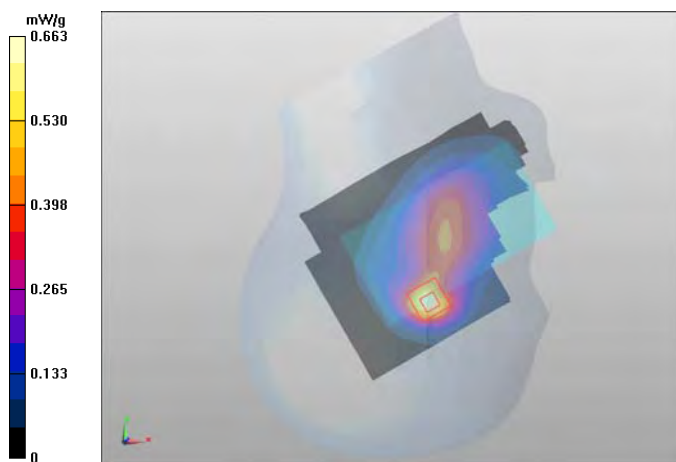
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27

Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.592 mW/g; SAR(10 g) = 0.298 mW/g

Maximum value of SAR (interpolated) = 0.663 mW/g



Date/Time: 2012-09-20 17:18:24

DASY Configuration for WCDMA850 - Right/Cheek - Middle/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: WCDMA850; Frequency: 835 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL800 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.878 \text{ mho/m}$; $\epsilon_r = 40.974$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Probe: ET3DV6R - SN1399; ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;

Sensor-Surface: 4mm (Mechanical Surface Detection)

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

Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-14 12:50:23

DASY Configuration for WLAN - Right/Cheek - High/Area Scan:

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1Mbps; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.813 \text{ mho/m}$; $\epsilon_r = 38.131$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(7.06, 7.06, 7.06); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

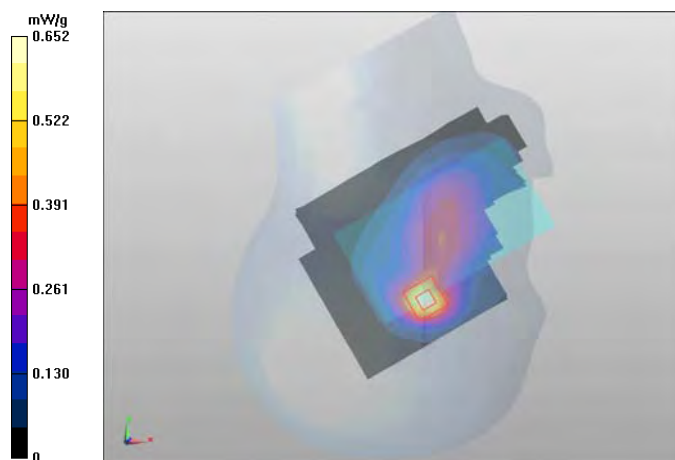
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27

Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.581 mW/g; SAR(10 g) = 0.288 mW/g

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



Date/Time: 2012-09-05 23:26:40

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

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100; Frequency: 1752.6 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1800 Medium parameters used: $f = 1753$ MHz; $\sigma = 1.342$ mho/m; $\epsilon_r = 37.981$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 3; Type: QD000P40CB; Serial: TP:1399
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-14 07:52:56

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

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

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

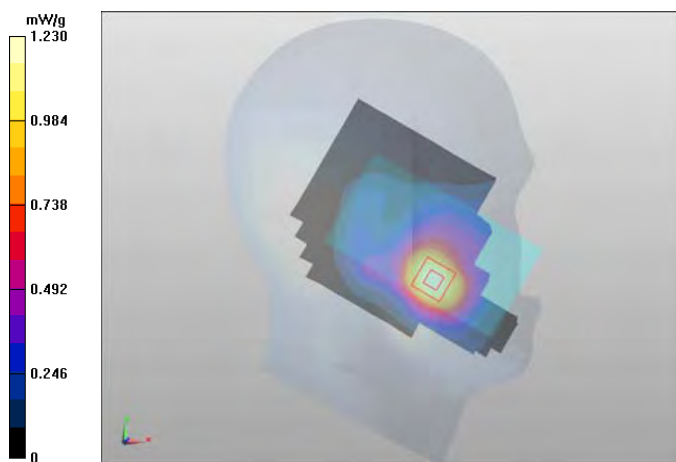
Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.785$ mho/m; $\epsilon_r = 38.176$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.06, 7.06, 7.06); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.14 mW/g; SAR(10 g) = 0.691 mW/g

Maximum value of SAR (interpolated) = 1.23 mW/g



Date/Time: 2012-08-29 12:31:58

DASY Configuration for 4-slot GPRS Left/Cheek - Low/Area Scan:

Test Laboratory: The name of your organization

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 4-slot GPRS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2.09991; PMF: 1.44911

Medium: HSL1900 Medium parameters used (interpolated): $f = 1850.2 \text{ MHz}$; $\sigma = 1.358 \text{ mho/m}$; $\epsilon_r = 39.372$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ET3DV6R - SN1399; ConvF(4.92, 4.92, 4.92); Calibrated: 2012-02-10;

Sensor-Surface: 4mm (Mechanical Surface Detection)

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

Phantom: SAM1; Type: QD000P40CC; Serial: TP:1279

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-14 07:52:56

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

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

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

Medium: HSL2450 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.785 \text{ mho/m}$; $\epsilon_r = 38.176$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.06, 7.06, 7.06); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

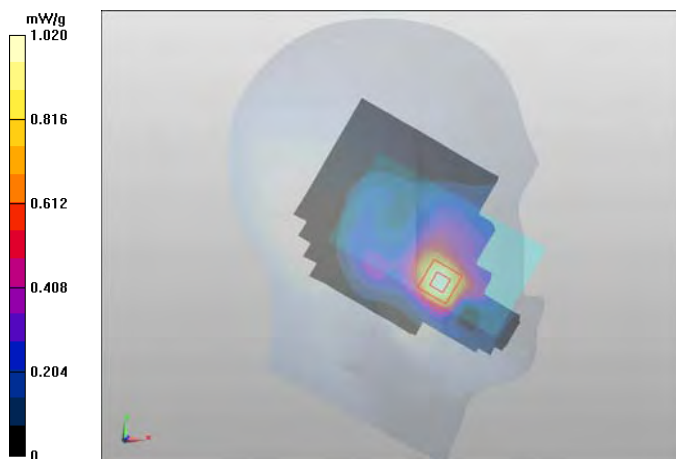
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27

Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.931 mW/g; SAR(10 g) = 0.539 mW/g

Maximum value of SAR (interpolated) = 1.02 mW/g



Date/Time: 2012-08-31 14:12:33

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

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1800 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.456$ mho/m; $\epsilon_r = 37.995$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(7.8, 7.8, 7.8); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1301; Calibrated: 2011-10-27

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

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-14 12:50:23

DASY Configuration for WLAN - Right/Cheek - High/Area Scan:

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.813$ mho/m; $\epsilon_r = 38.131$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3852; ConvF(7.06, 7.06, 7.06); Calibrated: 2012-03-27;

Sensor-Surface: 4mm (Mechanical Surface Detection)

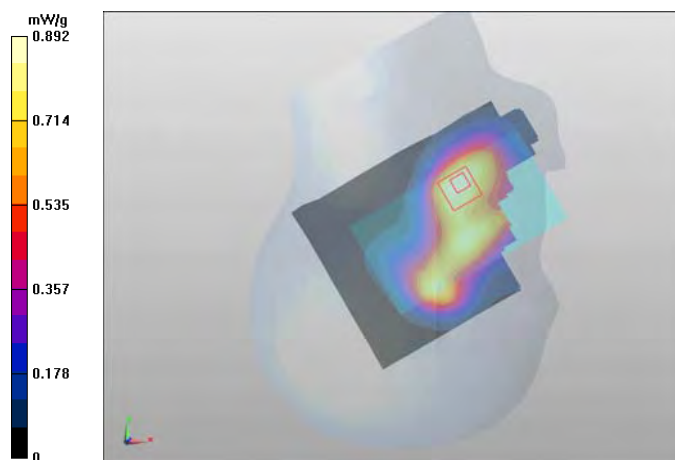
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27

Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.811 mW/g; SAR(10 g) = 0.495 mW/g

Maximum value of SAR (interpolated) = 0.892 mW/g



Date/Time: 2012-08-31 23:42:22

DASY Configuration for GPRS - Left/Cheek – High – CC-3063/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850; Frequency: 848.8 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: HSL900 Medium parameters used: $f = 849$ MHz; $\sigma = 0.917$ mho/m; $\epsilon_r = 41.508$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ET3DV6R - SN1399; ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM 2; Type: Twin SAM 040 CA; Serial: TP - 1177
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-10 10:25:50

DASY Configuration for WLAN - Left/Cheek - Channel 100/Area Scan:

Test Laboratory: The name of your organization

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

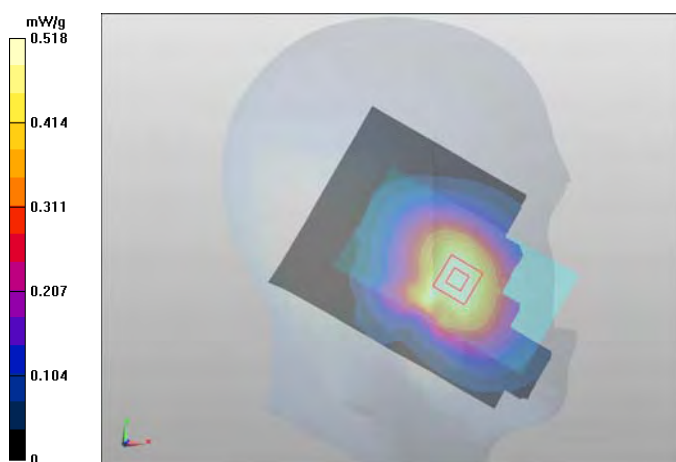
Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.936$ mho/m; $\epsilon_r = 35.64$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-03-27;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.488 mW/g; SAR(10 g) = 0.343 mW/g

Maximum value of SAR (interpolated) = 0.518 mW/g



Date/Time: 2012-09-20 15:18:38

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

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: WCDMA850; Frequency: 846.6 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL800 Medium parameters used: $f = 847$ MHz; $\sigma = 0.887$ mho/m; $\epsilon_r = 40.888$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ET3DV6R - SN1399; ConvF(5.82, 5.82, 5.82); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM 2 9/8/2012; Type: Twin SAM 040 CA; Serial: TP - 1177
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-10 10:25:50

DASY Configuration for WLAN - Left/Cheek - Channel 100/Area Scan:

Test Laboratory: The name of your organization

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

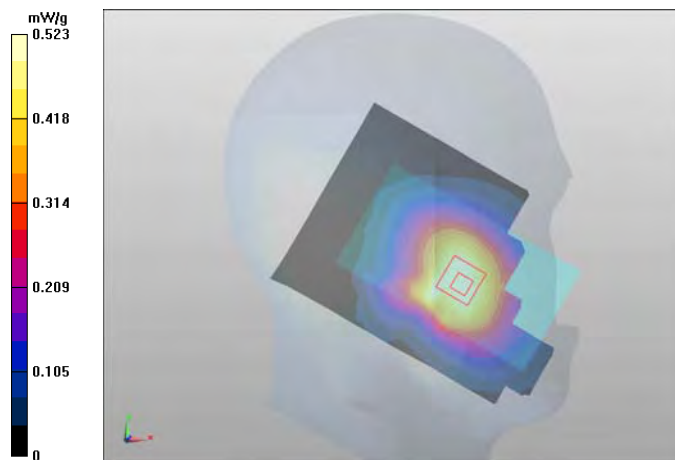
Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.936$ mho/m; $\epsilon_r = 35.64$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-03-27;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.493 mW/g; SAR(10 g) = 0.348 mW/g

Maximum value of SAR (interpolated) = 0.523 mW/g



Date/Time: 2012-09-05 23:26:40

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

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100; Frequency: 1752.6 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1800 Medium parameters used: $f = 1753$ MHz; $\sigma = 1.342$ mho/m; $\epsilon_r = 37.981$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.95, 7.95, 7.95); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 3; Type: QD000P40CB; Serial: TP:1399
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-10 10:25:50

DASY Configuration for WLAN - Left/Cheek - Channel 100/Area Scan:

Test Laboratory: The name of your organization

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

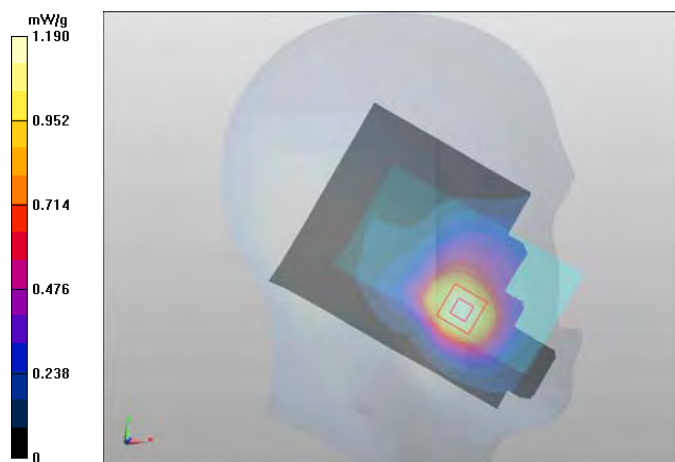
Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.936$ mho/m; $\epsilon_r = 35.64$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-03-27;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.1 mW/g; SAR(10 g) = 0.670 mW/g

Maximum value of SAR (interpolated) = 1.19 mW/g



Date/Time: 2012-08-29 12:31:58

DASY Configuration for 4-slot GPRS Left/Cheek - Low/Area Scan:

Test Laboratory: The name of your organization

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 4-slot GPRS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2.09991; PMF: 1.44911

Medium: HSL1900 Medium parameters used (interpolated): $f = 1850.2 \text{ MHz}$; $\sigma = 1.358 \text{ mho/m}$; $\epsilon_r = 39.372$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: ET3DV6R - SN1399; ConvF(4.92, 4.92, 4.92); Calibrated: 2012-02-10;

Sensor-Surface: 4mm (Mechanical Surface Detection)

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

Phantom: SAM1; Type: QD000P40CC; Serial: TP:1279

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-10 10:25:50

DASY Configuration for WLAN - Left/Cheek - Channel 100/Area Scan:

Test Laboratory: The name of your organization

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500 \text{ MHz}$; $\sigma = 4.936 \text{ mho/m}$; $\epsilon_r = 35.64$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-03-27;

Sensor-Surface: 2mm (Mechanical Surface Detection)

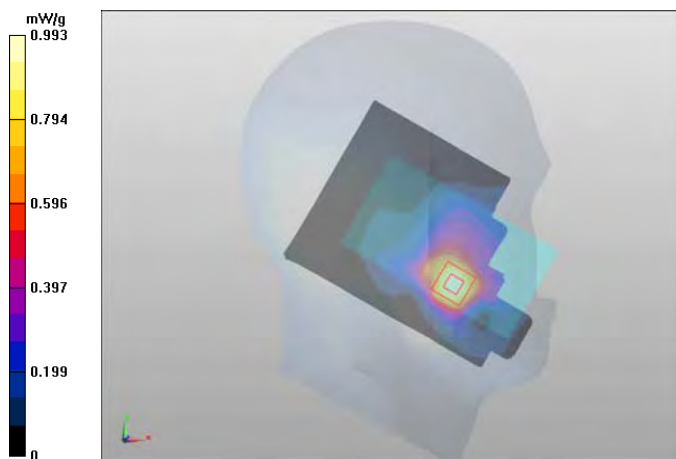
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27

Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.897 mW/g; SAR(10 g) = 0.519 mW/g

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



Date/Time: 2012-08-31 12:25:10

DASY Configuration for WCDMA - Left/Cheek - Low/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900; Frequency: 1852.4 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1800 Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.427$ mho/m; $\epsilon_r = 38.115$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(7.8, 7.8, 7.8); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 3; Type: QD000P40CB; Serial: TP:1399
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-10 10:25:50

DASY Configuration for WLAN - Left/Cheek - Channel 100/Area Scan:

Test Laboratory: The name of your organization

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

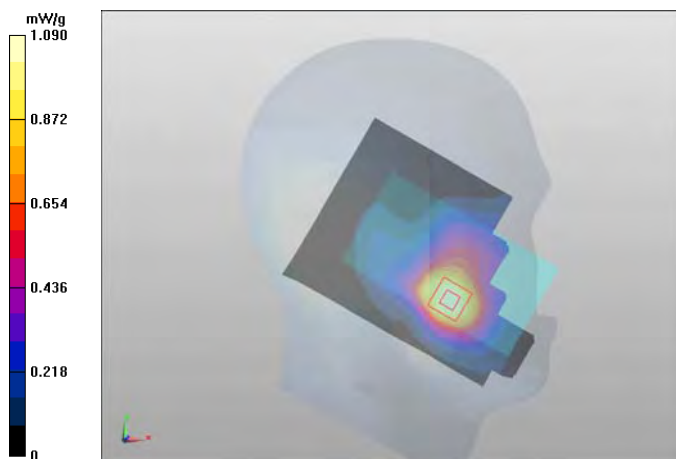
Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.936$ mho/m; $\epsilon_r = 35.64$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3852; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-03-27;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 1 05-09-2012; Type: QD000P40CA; Serial: TP:1183
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.000 mW/g; SAR(10 g) = 0.600 mW/g

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



APPENDIX B.2: BODY-WORN MEASUREMENT SCANS

Date/Time: 2012-09-12 12:20:36

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 848.8 MHz; Duty Cycle: 1:4.19952

Medium: MSL900; Medium Notes: T = 21.0 C

Medium parameters used: $f = 849$ MHz; $\sigma = 0.986$ mho/m; $\epsilon_r = 54.771$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

GPRS/Body - High - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.635 mW/g

GPRS/Body - High - Spacer 15mm - No Accessory - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 25.656 V/m

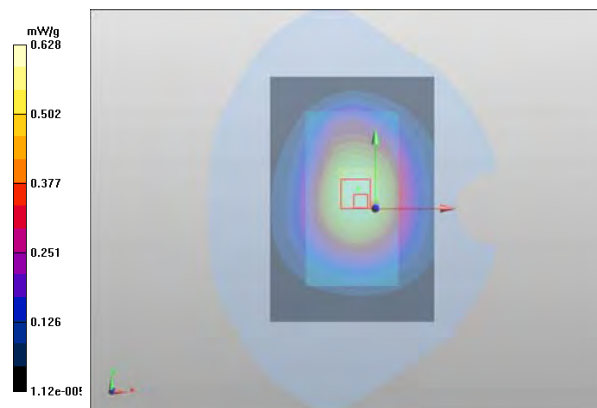
Peak SAR (extrapolated) = 0.878 mW/g

SAR(1 g) = 0.639 mW/g

SAR(10 g) = 0.458 mW/g

Power Drift = -0.05 dB

Maximum value of SAR (measured) = 0.628 mW/g



Date/Time: 2012-09-12 11:32:05

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: MSL900; Medium Notes: T = 21.0 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.979$ mho/m; $\epsilon_r = 54.779$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

GPRS850/Body - Middle - Spacer 15mm - WH-208 - Back Facing Phantom/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.436 mW/g

GPRS850/Body - Middle - Spacer 15mm - WH-208 - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 20.645 V/m

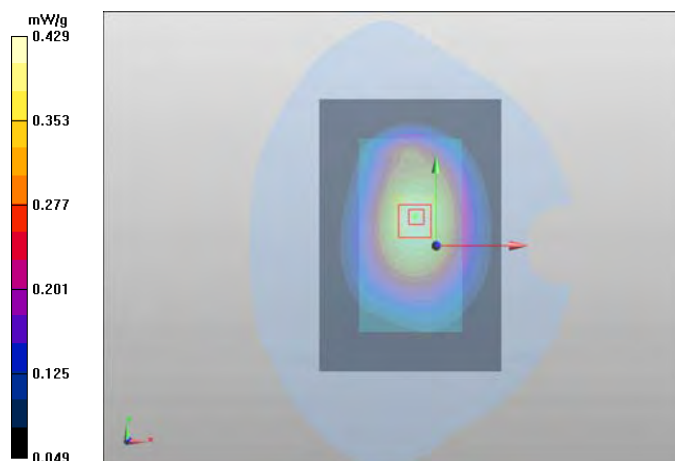
Peak SAR (extrapolated) = 0.506 mW/g

SAR(1 g) = 0.406 mW/g

SAR(10 g) = 0.304 mW/g

Power Drift = -0.09 dB

Maximum value of SAR (measured) = 0.429 mW/g



Date/Time: 2012-09-12 10:47:54

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: MSL900; Medium Notes: T = 21.0 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.979$ mho/m; $\epsilon_r = 54.779$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

GPRS/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (81x121x1):

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

Maximum value of SAR (interpolated) = 0.275 mW/g

GPRS/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.736 V/m

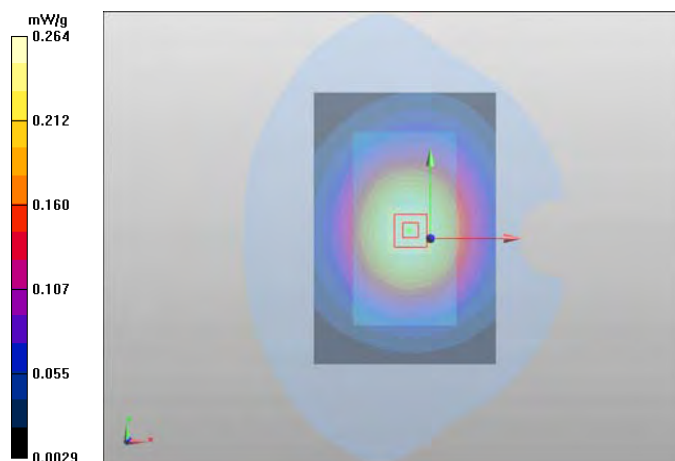
Peak SAR (extrapolated) = 0.318 mW/g

SAR(1 g) = 0.253 mW/g

SAR(10 g) = 0.191 mW/g

Power Drift = -0.38 dB

Maximum value of SAR (measured) = 0.264 mW/g



Date/Time: 2012-09-12 12:40:39

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: MSL900; Medium Notes: T = 21.0 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.979$ mho/m; $\epsilon_r = 54.779$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

GPRS/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

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

GPRS/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.086 V/m

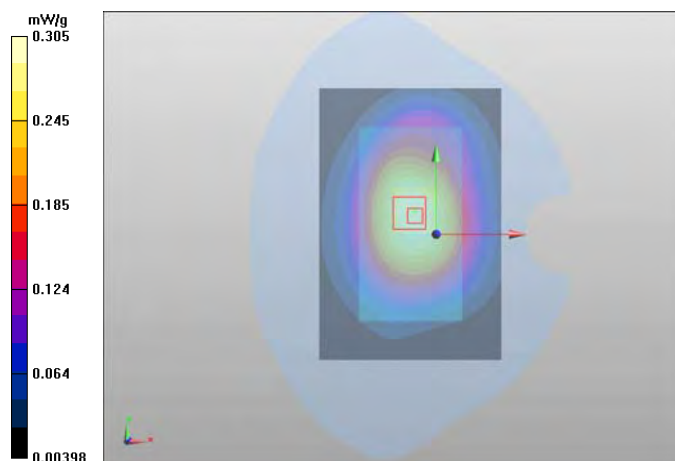
Peak SAR (extrapolated) = 0.363 mW/g

SAR(1 g) = 0.293 mW/g

SAR(10 g) = 0.216 mW/g

Power Drift = -0.05 dB

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



SAR Report

Appendix B.2 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

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Date/Time: 2012-09-20 20:43:15

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: WCDMA850

Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes:

Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.967$ mho/m; $\epsilon_r = 54.657$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Low - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

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

WCDMA/Body - Low - Spacer 15mm - No Accessory - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 24.222 V/m

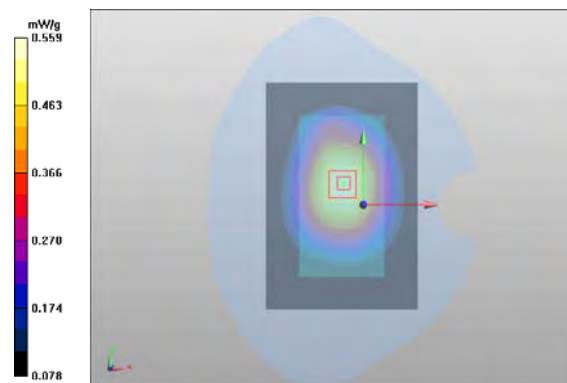
Peak SAR (extrapolated) = 0.656 mW/g

SAR(1 g) = 0.534 mW/g

SAR(10 g) = 0.404 mW/g

Power Drift = 0.01 dB

Maximum value of SAR (measured) = 0.559 mW/g



Date/Time: 2012-09-20 21:22:12

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes:

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.973 \text{ mho/m}$; $\epsilon_r = 54.602$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 15mm - WH-208 - Back Facing Phantom/Area Scan (81x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

WCDMA/Body - Middle - Spacer 15mm - WH-208 - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

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

Reference Value = 17.622 V/m

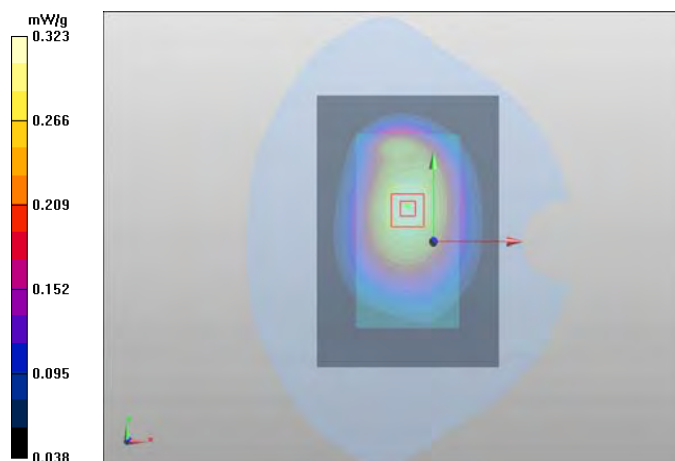
Peak SAR (extrapolated) = 0.384 mW/g

SAR(1 g) = 0.309 mW/g

SAR(10 g) = 0.233 mW/g

Power Drift = -0.04 dB

Maximum value of SAR (measured) = 0.323 mW/g



SAR Report

Appendix B.2 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

Copyright © 2012 TCC Nokia

Date/Time: 2012-09-20 21:50:45

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes:

Medium parameters used: $f = 835$ MHz; $\sigma = 0.973$ mho/m; $\epsilon_r = 54.602$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (81x121x1):

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

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

WCDMA/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 20.097 V/m

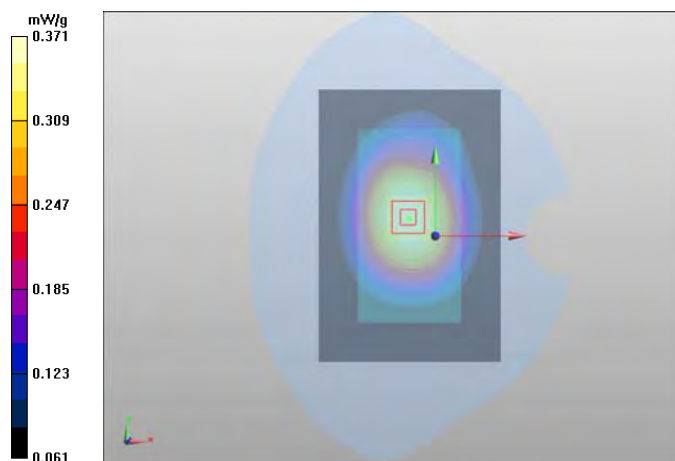
Peak SAR (extrapolated) = 0.430 mW/g

SAR(1 g) = 0.352 mW/g

SAR(10 g) = 0.268 mW/g

Power Drift = -0.15 dB

Maximum value of SAR (measured) = 0.371 mW/g



Date/Time: 2012-09-20 22:05:46

Test Laboratory: TCC Nokia
Type: RM-878; Serial: 004402/47/109944/4

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes:

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.973 \text{ mho/m}$; $\epsilon_r = 54.602$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (81x121x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.210 mW/g

WCDMA/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

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

Reference Value = 14.366 V/m

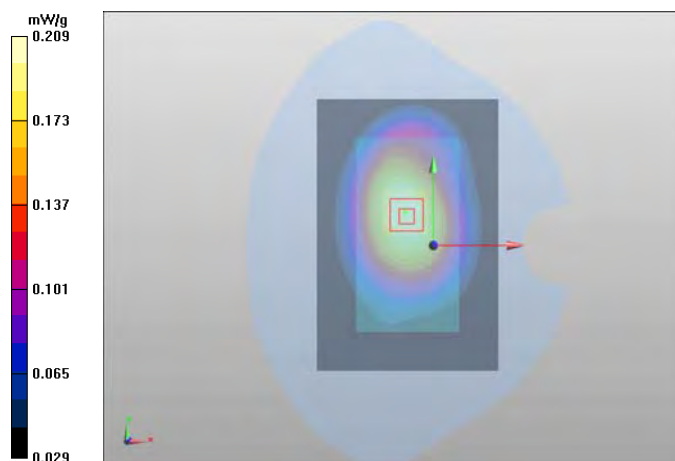
Peak SAR (extrapolated) = 0.248 mW/g

SAR(1 g) = 0.200 mW/g

SAR(10 g) = 0.152 mW/g

Power Drift = -0.04 dB

Maximum value of SAR (measured) = 0.209 mW/g



Date/Time: 2012-09-12 14:14:13

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 848.8 MHz; Duty Cycle: 1:4.19952

Medium: MSL900; Medium Notes: T = 21.0 C

Medium parameters used: $f = 849$ MHz; $\sigma = 0.986$ mho/m; $\epsilon_r = 54.771$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

GPRS/Body - High - Spacer 15mm - No Accessory - Back Facing Phantom - CC-3063 /Area Scan (81x121x1):

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

Maximum value of SAR (interpolated) = 0.476 mW/g

GPRS/Body - High - Spacer 15mm - No Accessory - Back Facing Phantom - CC-3063 /Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 22.799 V/m

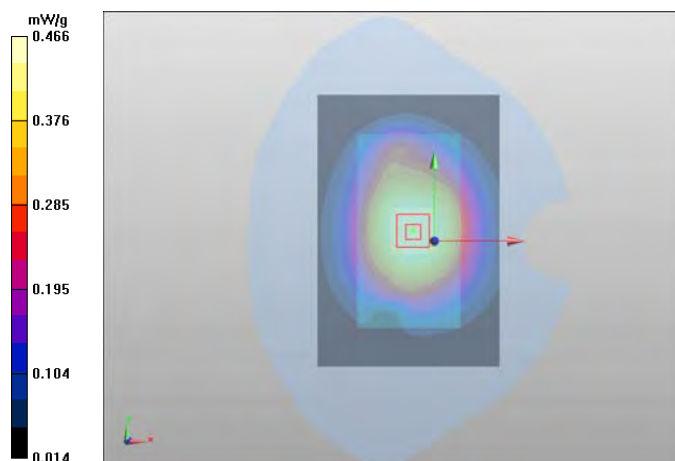
Peak SAR (extrapolated) = 0.549 mW/g

SAR(1 g) = 0.447 mW/g

SAR(10 g) = 0.345 mW/g

Power Drift = -0.08 dB

Maximum value of SAR (measured) = 0.466 mW/g



SAR Report

Appendix B.2 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

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Date/Time: 2012-09-11 20:14:42

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: MSL1800; Medium Notes: T = 21.8 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.411$ mho/m; $\epsilon_r = 51.266$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399

- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;

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

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

- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729

- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan (81x121x1):

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

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

WCDMA/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom /Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.957 V/m

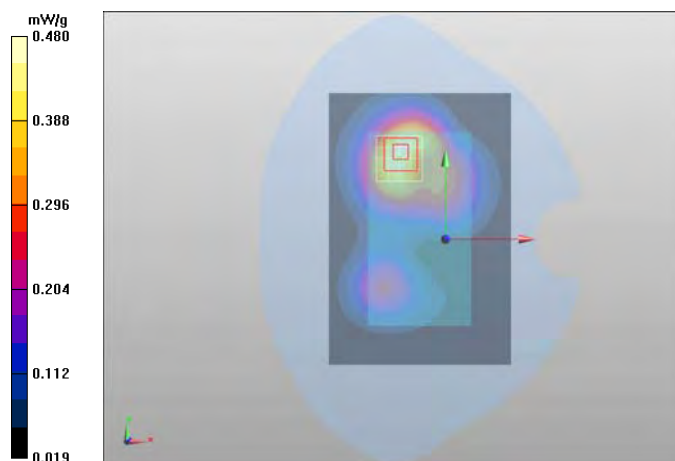
Peak SAR (extrapolated) = 0.646 mW/g

SAR(1 g) = 0.445 mW/g

SAR(10 g) = 0.282 mW/g

Power Drift = 0.00 dB

Maximum value of SAR (measured) = 0.480 mW/g



Date/Time: 2012-09-11 20:31:12

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: MSL1800; Medium Notes: T = 21.8 C

Medium parameters used (interpolated): f = 1732.4 MHz; σ = 1.411 mho/m; ϵ_r = 51.266; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399

- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;

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

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

- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729

- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA /Body - Middle - Spacer 15mm - WH-208 - Back Facing Phantom/Area Scan 2 (81x121x1): Measurement
grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.492 mW/g

WCDMA /Body - Middle - Spacer 15mm - WH-208 - Back Facing Phantom /Zoom Scan (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.145 V/m

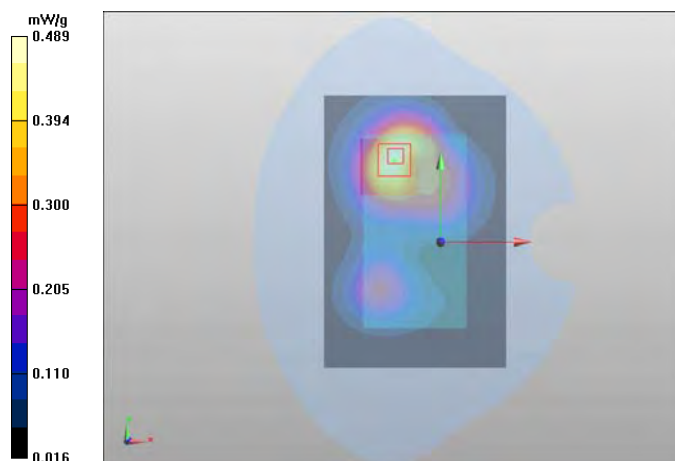
Peak SAR (extrapolated) = 0.657 mW/g

SAR(1 g) = 0.450 mW/g

SAR(10 g) = 0.287 mW/g

Power Drift = -0.10 dB

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



Date/Time: 2012-09-11 20:55:58

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: MSL1800; Medium Notes: T = 21.8 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.411$ mho/m; $\epsilon_r = 51.266$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399

- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;

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

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

- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729

- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (81x121x1):

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

Maximum value of SAR (interpolated) = 0.627 mW/g

WCDMA/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom /Zoom Scan (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.112 V/m

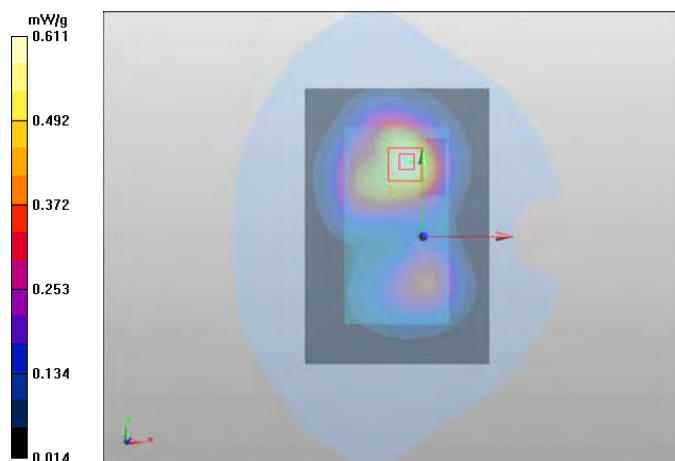
Peak SAR (extrapolated) = 0.839 mW/g

SAR(1 g) = 0.570 mW/g

SAR(10 g) = 0.366 mW/g

Power Drift = -0.16 dB

Maximum value of SAR (measured) = 0.611 mW/g



SAR Report

Appendix B.2 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

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Date/Time: 2012-09-11 21:54:21

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100

Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: MSL1800; Medium Notes: T = 21.8 C

Medium parameters used: $f = 1753$ MHz; $\sigma = 1.431$ mho/m; $\epsilon_r = 51.192$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - High - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.699 mW/g

WCDMA/Body - High - Spacer 15mm - WH-208 - Display Facing Phantom /Zoom Scan (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.238 V/m

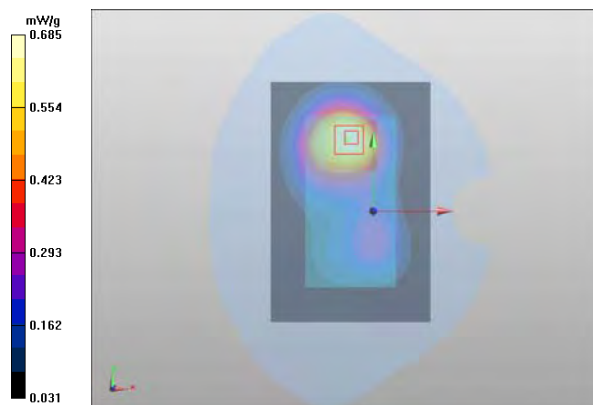
Peak SAR (extrapolated) = 0.890 mW/g

SAR(1 g) = 0.641 mW/g

SAR(10 g) = 0.424 mW/g

Power Drift = -0.04 dB

Maximum value of SAR (measured) = 0.685 mW/g



Date/Time: 2012-09-11 19:39:42

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100

Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: MSL1800; Medium Notes: T = 21.8 C

Medium parameters used: $f = 1753$ MHz; $\sigma = 1.431$ mho/m; $\epsilon_r = 51.192$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399

- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;

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

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

- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729

- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - High - Spacer 15mm - WH-208 - Display Facing Phantom - CC-3063 /Area Scan (81x121x1):

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

Maximum value of SAR (interpolated) = 0.687 mW/g

WCDMA/Body - High - Spacer 15mm - WH-208 - Display Facing Phantom - CC-3063 /Zoom Scan (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.108 V/m

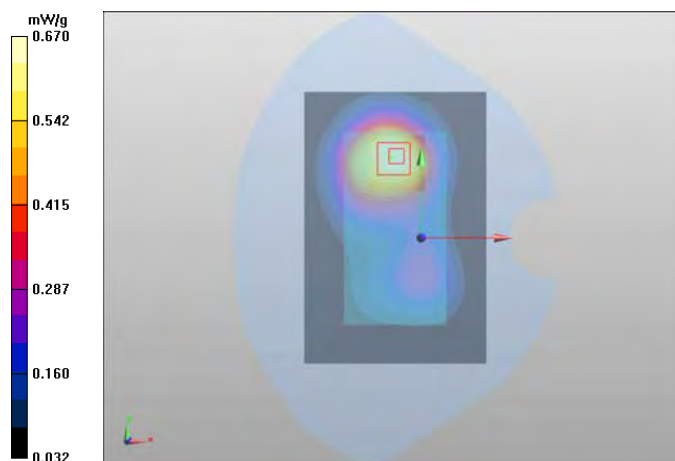
Peak SAR (extrapolated) = 0.877 mW/g

SAR(1 g) = 0.633 mW/g

SAR(10 g) = 0.422 mW/g

Power Drift = -0.06 dB

Maximum value of SAR (measured) = 0.670 mW/g



SAR Report

Appendix B.2 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

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Date/Time: 2012-09-13 16:15:47

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.09991

Medium: MSL1900; Medium Notes: T =21.6 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.524$ mho/m; $\epsilon_r = 51.724$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

GPRS/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.445 mW/g

GPRS/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom /Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.596 V/m

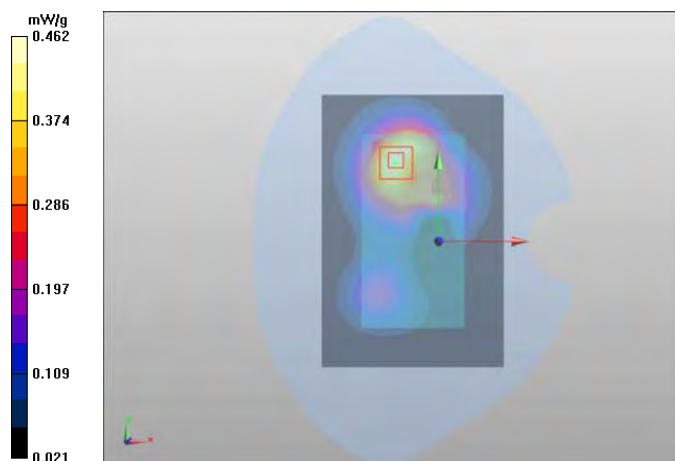
Peak SAR (extrapolated) = 0.593 mW/g

SAR(1 g) = 0.423 mW/g

SAR(10 g) = 0.271 mW/g

Power Drift = 0.03 dB

Maximum value of SAR (measured) = 0.462 mW/g



SAR Report

Appendix B.2 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

Copyright © 2012 TCC Nokia

Date/Time: 2012-09-13 16:31:12

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.09991

Medium: MSL1900; Medium Notes: T =21.6 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.524$ mho/m; $\epsilon_r = 51.724$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

GPRS/Body - Middle - Spacer 15mm - WH-208 - Back Facing Phantom/Area Scan (81x121x1): Measurement
grid: dx=15mm, dy=15mm

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

GPRS/Body - Middle - Spacer 15mm - WH-208 - Back Facing Phantom /Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.770 V/m

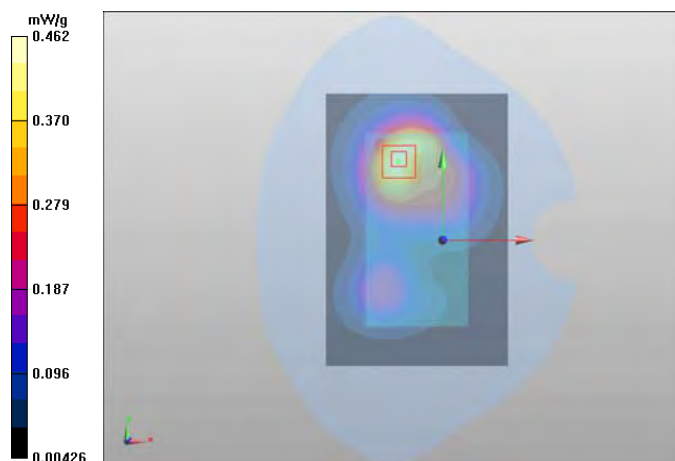
Peak SAR (extrapolated) = 0.615 mW/g

SAR(1 g) = 0.425 mW/g

SAR(10 g) = 0.272 mW/g

Power Drift = -0.11 dB

Maximum value of SAR (measured) = 0.462 mW/g



SAR Report

Appendix B.2 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

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Date/Time: 2012-09-13 17:09:37

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 4-slot GPRS1900

Frequency: 1850.2 MHz; Duty Cycle: 1:2.09991

Medium: MSL1900; Medium Notes: T =21.6 C

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.494$ mho/m; $\epsilon_r = 51.823$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

GPRS/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.635 mW/g

GPRS/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom /Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.452 V/m

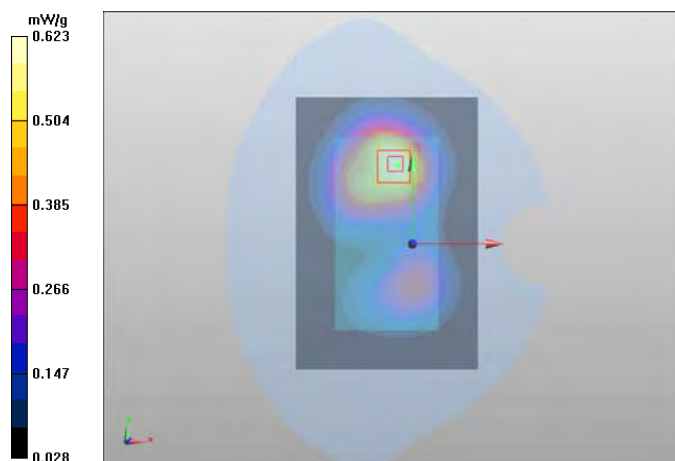
Peak SAR (extrapolated) = 0.832 mW/g

SAR(1 g) = 0.582 mW/g

SAR(10 g) = 0.380 mW/g

Power Drift = -0.15 dB

Maximum value of SAR (measured) = 0.623 mW/g



SAR Report

Appendix B.2 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

Copyright © 2012 TCC Nokia

Date/Time: 2012-09-13 15:50:57

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.09991

Medium: MSL1900; Medium Notes: T =21.6 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.524$ mho/m; $\epsilon_r = 51.724$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

GPRS/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.596 mW/g

GPRS/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom /Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.724 V/m

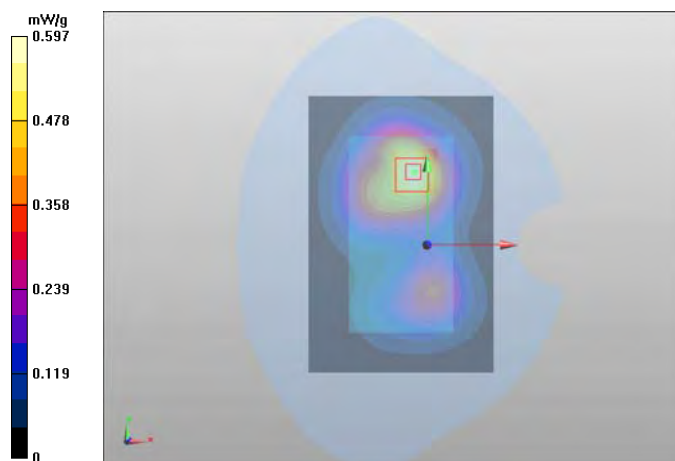
Peak SAR (extrapolated) = 0.813 mW/g

SAR(1 g) = 0.554 mW/g

SAR(10 g) = 0.359 mW/g

Power Drift = -0.10 dB

Maximum value of SAR (measured) = 0.597 mW/g



Date/Time: 2012-09-04 23:03:47

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: 21.0

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.551$ mho/m; $\epsilon_r = 51.705$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3; Type: QD00P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan (81x121x1):

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

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

WCDMA/Body - Middle - Spacer 15mm - No Accessory - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.602 V/m

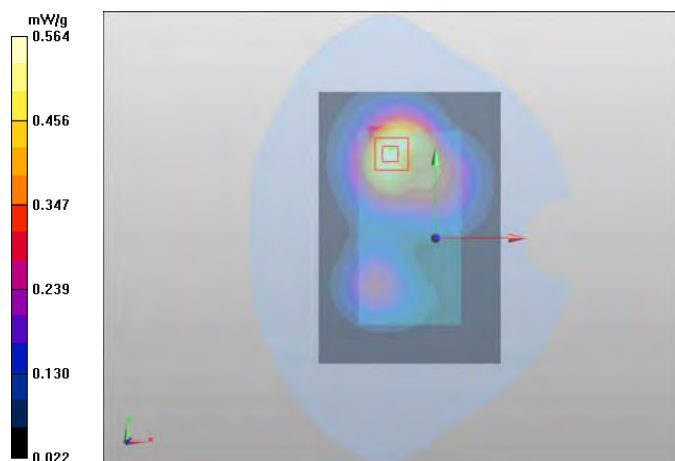
Peak SAR (extrapolated) = 0.754 mW/g

SAR(1 g) = 0.527 mW/g

SAR(10 g) = 0.338 mW/g

Power Drift = -0.22 dB

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



Date/Time: 2012-09-04 23:24:12

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: 21.0

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.551$ mho/m; $\epsilon_r = 51.705$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 15mm - WH-208 - Back Facing Phantom/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.556 mW/g

WCDMA/Body - Middle - Spacer 15mm - WH-208 - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.535 V/m

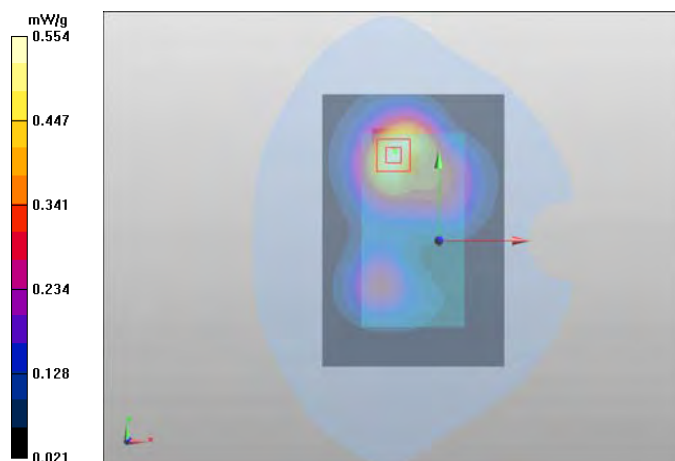
Peak SAR (extrapolated) = 0.741 mW/g

SAR(1 g) = 0.513 mW/g

SAR(10 g) = 0.332 mW/g

Power Drift = 0.05 dB

Maximum value of SAR (measured) = 0.554 mW/g



Date/Time: 2012-09-04 23:46:39

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: 21.0

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.551$ mho/m; $\epsilon_r = 51.705$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3; Type: QD00P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (81x121x1):

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

Maximum value of SAR (interpolated) = 0.799 mW/g

WCDMA/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.694 V/m

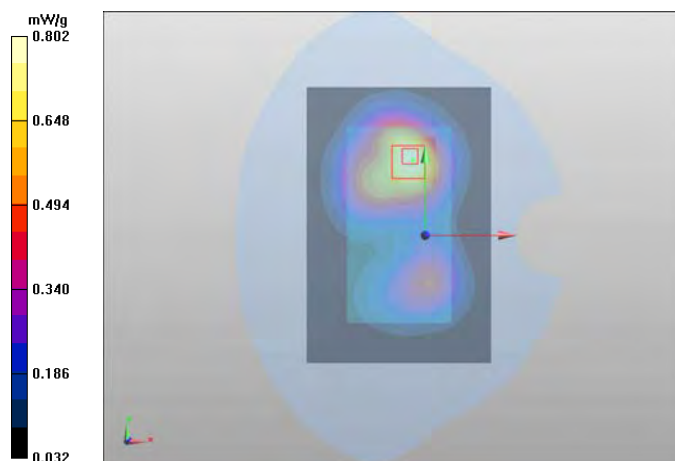
Peak SAR (extrapolated) = 1.095 mW/g

SAR(1 g) = 0.746 mW/g

SAR(10 g) = 0.481 mW/g

Power Drift = 0.11 dB

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



Date/Time: 2012-09-05 00:03:23

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: 21.0

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.551$ mho/m; $\epsilon_r = 51.705$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3; Type: QD00P40CD; Serial: TP: 1729
- Measurement SW: DASYS2, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.822 mW/g

WCDMA/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.130 V/m

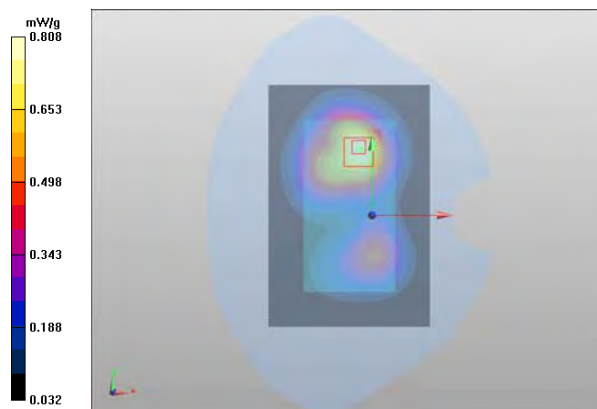
Peak SAR (extrapolated) = 1.100 mW/g

SAR(1 g) = 0.755 mW/g

SAR(10 g) = 0.489 mW/g

Power Drift = -0.22 dB

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



SAR Report

Appendix B.2 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

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Date/Time: 2012-09-05 12:17:23

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T = 21.7 C

Medium parameters used: f = 1880 MHz; σ = 1.549 mho/m; ϵ_r = 51.826; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom – CC-3063 /Area Scan (81x121x1):

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

Maximum value of SAR (interpolated) = 0.746 mW/g

WCDMA/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom – CC-3063 /Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.235 V/m

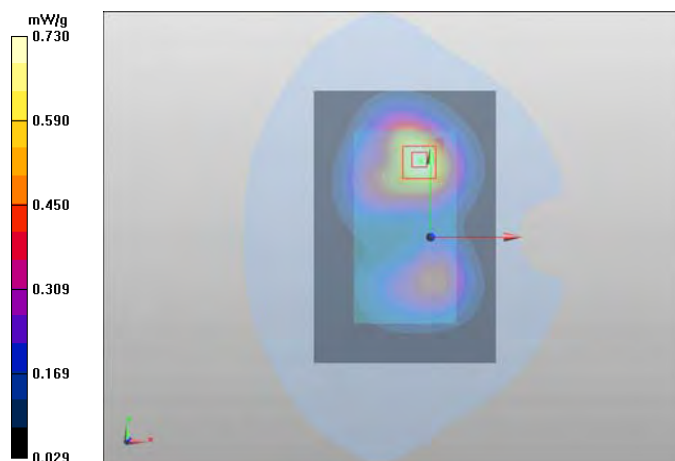
Peak SAR (extrapolated) = 1.001 mW/g

SAR(1 g) = 0.677 mW/g

SAR(10 g) = 0.434 mW/g

Power Drift = -0.09 dB

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



Date/Time: 2012-09-13 09:58:25

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 21\text{ C}$

Medium parameters used: $f = 2437\text{ MHz}$; $\sigma = 1.942\text{ mho/m}$; $\epsilon_r = 51.976$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - Middle - Spacer 15mm - No accessory - Back Facing Phantom/Area Scan (121x181x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.229 mW/g

WLAN/Body - Middle - Spacer 15mm - No accessory - Back Facing Phantom /Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 3.391 V/m

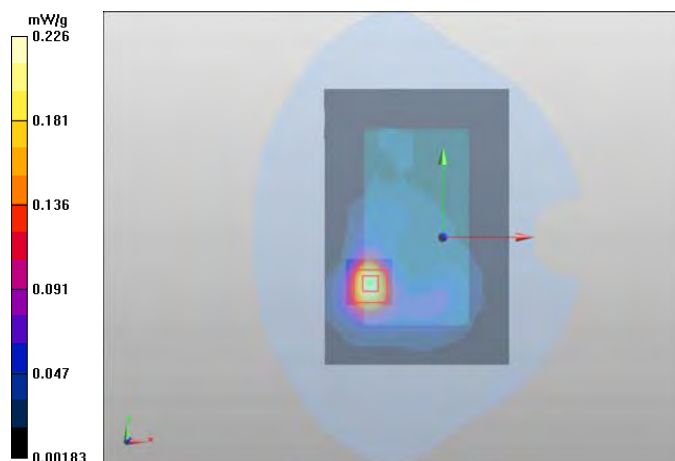
Peak SAR (extrapolated) = 0.370 mW/g

SAR(1 g) = 0.202 mW/g

SAR(10 g) = 0.105 mW/g

Power Drift = 0.05 dB

Maximum value of SAR (measured) = 0.226 mW/g



SAR Report

Appendix B.2 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

Copyright © 2012 TCC Nokia

Date/Time: 2012-09-13 14:17:59

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 21\text{ C}$

Medium parameters used: $f = 2462\text{ MHz}$; $\sigma = 1.972\text{ mho/m}$; $\epsilon_r = 51.938$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - High - Spacer 15mm - WH-208 - Back Facing Phantom /Area Scan (121x181x1): Measurement

grid: $dx=10\text{mm}$, $dy=10\text{mm}$

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

WLAN/Body - High - Spacer 15mm - WH-208 - Back Facing Phantom /Zoom Scan (7x8x7)/Cube 0: Measurement

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

Reference Value = 11.072 V/m

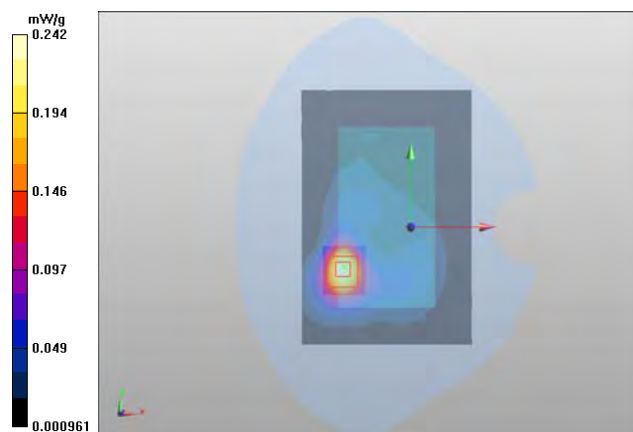
Peak SAR (extrapolated) = 0.400 mW/g

SAR(1 g) = 0.219 mW/g

SAR(10 g) = 0.113 mW/g

Power Drift = 0.02 dB

Maximum value of SAR (measured) = 0.242 mW/g



Date/Time: 2012-09-13 11:07:40

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 21\text{ C}$

Medium parameters used: $f = 2437\text{ MHz}$; $\sigma = 1.942\text{ mho/m}$; $\epsilon_r = 51.976$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (121x181x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.0595 mW/g

WLAN/Body - Middle - Spacer 15mm - No Accessory - Display Facing Phantom/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 1.427 V/m

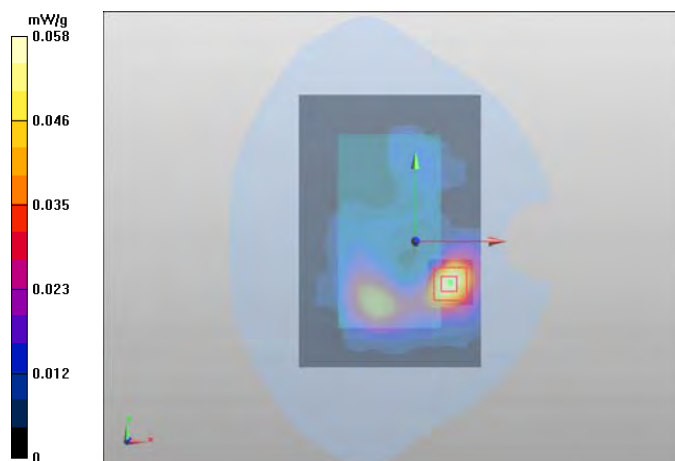
Peak SAR (extrapolated) = 0.092 mW/g

SAR(1 g) = 0.052 mW/g

SAR(10 g) = 0.027 mW/g

Power Drift = -0.04 dB

Maximum value of SAR (measured) = 0.0575 mW/g



Date/Time: 2012-09-13 11:40:26

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 21\text{ C}$

Medium parameters used: $f = 2437\text{ MHz}$; $\sigma = 1.942\text{ mho/m}$; $\epsilon_r = 51.976$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (121x181x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.0679 mW/g

WLAN/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 5.747 V/m

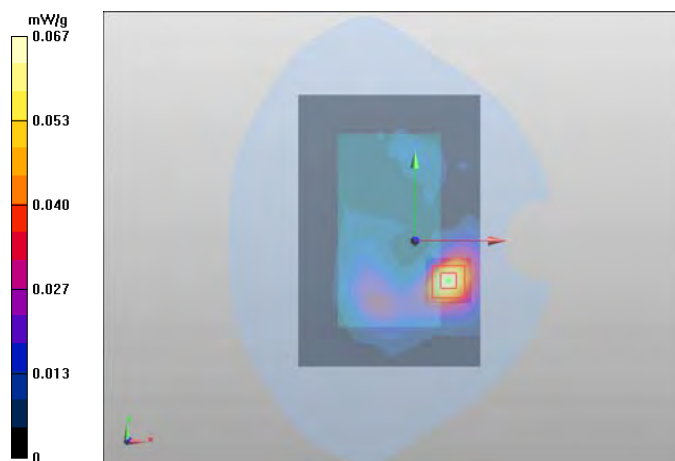
Peak SAR (extrapolated) = 0.106 mW/g

SAR(1 g) = 0.058 mW/g

SAR(10 g) = 0.030 mW/g

Power Drift = 0.11 dB

Maximum value of SAR (measured) = 0.0667 mW/g



Date/Time: 2012-09-13 15:25:09

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 5.5 Mbps

Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 21\text{ C}$

Medium parameters used: $f = 2412\text{ MHz}$; $\sigma = 1.913\text{ mho/m}$; $\epsilon_r = 52.008$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - Low - Spacer 15mm - WH-208 - Back Facing Phantom/Area Scan (121x181x1): Measurement grid:
 $dx=10\text{mm}$, $dy=10\text{mm}$

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

WLAN/Body - Low - Spacer 15mm - WH-208 - Back Facing Phantom /Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.857 V/m

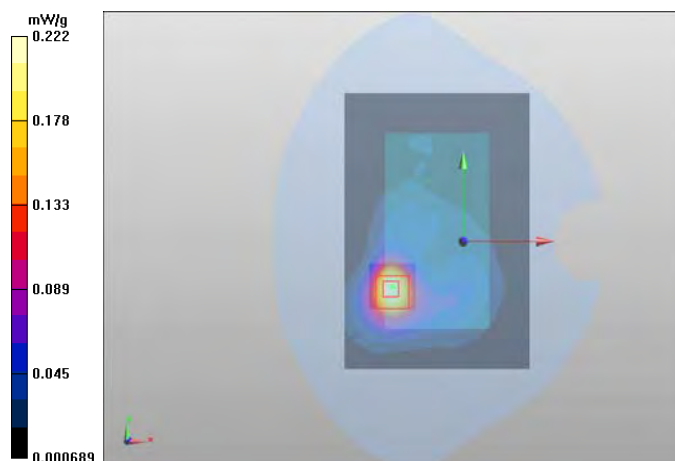
Peak SAR (extrapolated) = 0.366 mW/g

SAR(1 g) = 0.201 mW/g

SAR(10 g) = 0.106 mW/g

Power Drift = -0.06 dB

Maximum value of SAR (measured) = 0.222 mW/g



Date/Time: 2012-09-13 14:45:48

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 21\text{ C}$

Medium parameters used: $f = 2462\text{ MHz}$; $\sigma = 1.972\text{ mho/m}$; $\epsilon_r = 51.938$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - High - Spacer 15mm - WH-208 - Back Facing Phantom - CC-3063/Area Scan (121x181x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

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

WLAN/Body - High - Spacer 15mm - WH-208 - Back Facing Phantom - CC-3063/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 10.523 V/m

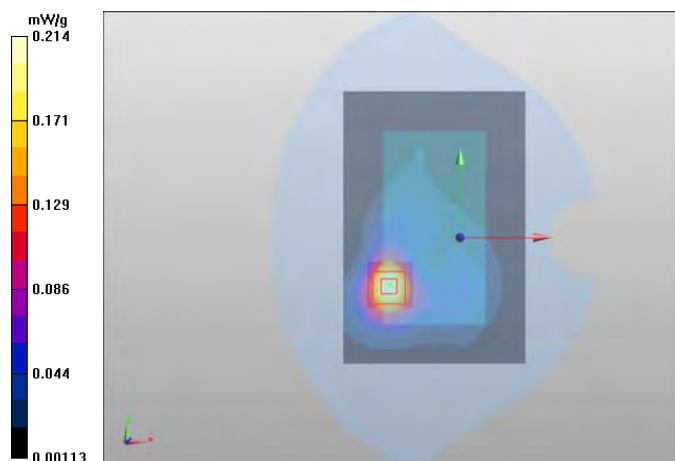
Peak SAR (extrapolated) = 0.348 mW/g

SAR(1 g) = 0.194 mW/g

SAR(10 g) = 0.102 mW/g

Power Drift = 0.06 dB

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



Date/Time: 2012-09-17 12:18:11

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps

Frequency: 5640 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: $t = 21.8$ C

Medium parameters used: $f = 5640$ MHz; $\sigma = 5.971$ mho/m; $\epsilon_r = 47.859$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(3.47, 3.47, 3.47); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - Channel 128 - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan (121x181x1):

Measurement grid: $dx=10$ mm, $dy=10$ mm

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

WLAN/Body - Channel 128 - Spacer 15mm - No Accessory - Back Facing Phantom/Zoom Scan (8x8x12)/Cube 0:

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

Reference Value = 7.574 V/m

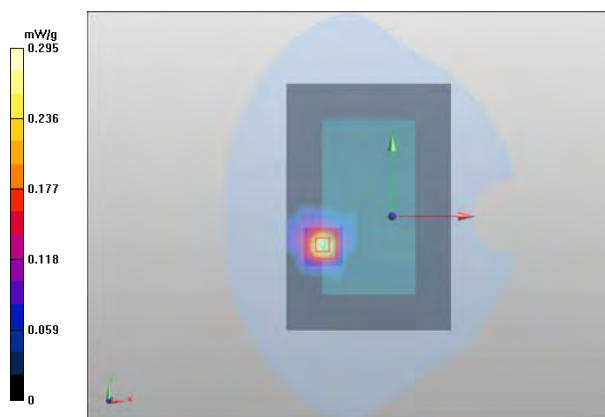
Peak SAR (extrapolated) = 0.543 mW/g

SAR(1 g) = 0.142 mW/g

SAR(10 g) = 0.049 mW/g

Power Drift = 0.37 dB

Maximum value of SAR (measured) = 0.295 mW/g



Date/Time: 2012-09-17 16:08:51

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps

Frequency: 5640 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: $t = 21.8$ C

Medium parameters used: $f = 5640$ MHz; $\sigma = 5.971$ mho/m; $\epsilon_r = 47.859$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(3.47, 3.47, 3.47); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN /Body - Channel 128 - Spacer 15mm – WH-208 - Back Facing Phantom/Area Scan (121x181x1):

Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 0.333 mW/g

WLAN /Body - Channel 128 - Spacer 15mm – WH-208 - Back Facing Phantom /Zoom Scan (8x8x12)/Cube 0:

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

Reference Value = 7.585 V/m

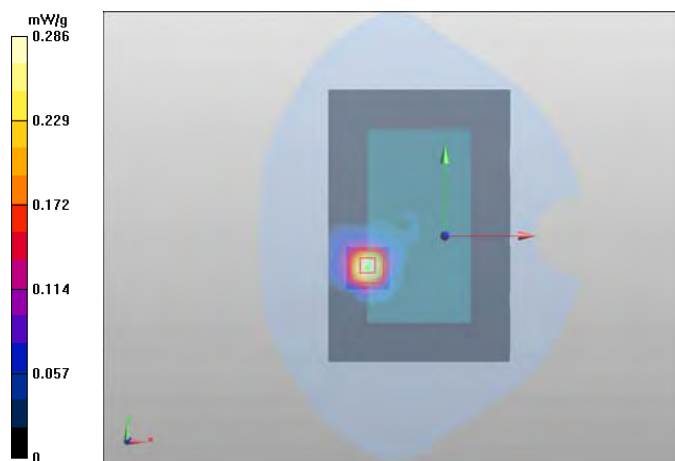
Peak SAR (extrapolated) = 0.520 mW/g

SAR(1 g) = 0.139 mW/g

SAR(10 g) = 0.047 mW/g

Power Drift = 0.39 dB

Maximum value of SAR (measured) = 0.286 mW/g



Date/Time: 2012-09-16 12:00:27

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps

Frequency: 5320 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: $t = 21.6$ C

Medium parameters used: $f = 5320$ MHz; $\sigma = 5.46$ mho/m; $\epsilon_r = 47.679$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.22, 4.22, 4.22); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN /Body - Channel 64 - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan (121x181x1):

Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 0.0525 mW/g

WLAN /Body - Channel 64 - Spacer 15mm - No Accessory - Display Facing Phantom /Zoom Scan

(10x11x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 3.194 V/m

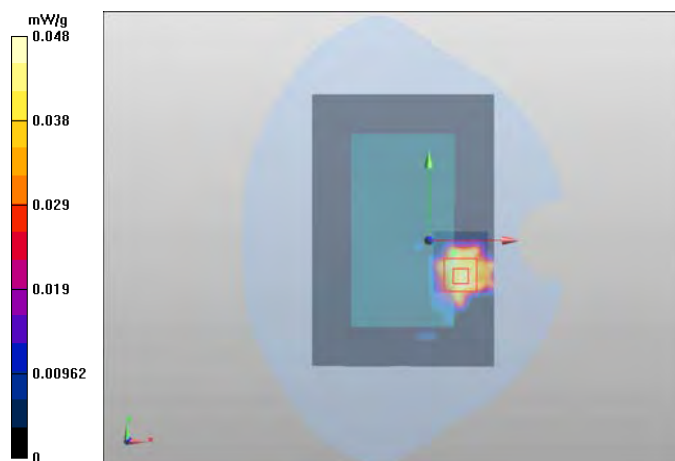
Peak SAR (extrapolated) = 0.165 mW/g

SAR(1 g) = 0.024 mW/g

SAR(10 g) = 0.0092 mW/g

Power Drift = 0.41 dB

Maximum value of SAR (measured) = 0.0481 mW/g



Date/Time: 2012-09-16 13:00:27

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps

Frequency: 5320 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: $t = 21.6$ C

Medium parameters used: $f = 5320$ MHz; $\sigma = 5.46$ mho/m; $\epsilon_r = 47.679$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.22, 4.22, 4.22); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN a-mode/Body - Channel 64 - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan (121x181x1):

Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 0.0503 mW/g

WLAN a-mode/Body - Channel 64 - Spacer 15mm - WH-208 - Display Facing Phantom/Zoom Scan

(9x9x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 3.450 V/m

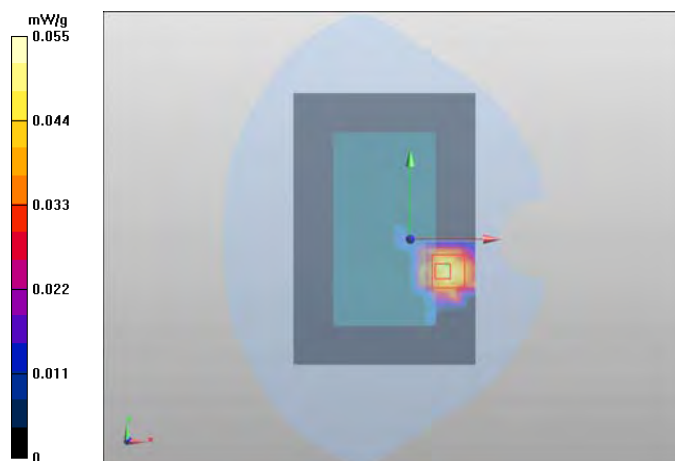
Peak SAR (extrapolated) = 0.193 mW/g

SAR(1 g) = 0.025 mW/g

SAR(10 g) = 0.00937 mW/g

Power Drift = -0.14 dB

Maximum value of SAR (measured) = 0.0551 mW/g



Date/Time: 2012-09-16 13:48:25

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 n-mode MCS 1: OFDM 13.0/14.4 Mbps

Frequency: 5320 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: $t = 21.6$ C

Medium parameters used: $f = 5320$ MHz; $\sigma = 5.46$ mho/m; $\epsilon_r = 47.679$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.22, 4.22, 4.22); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN /Body - Channel 64 - Spacer 15mm - WH-208 - Back Facing Phantom /Area Scan (121x181x1):

Measurement grid: $dx=10$ mm, $dy=10$ mm

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

WLAN /Body - Channel 64 - Spacer 15mm - WH-208 - Back Facing Phantom /Zoom Scan (8x8x12)/Cube 0:

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

Reference Value = 6.807 V/m

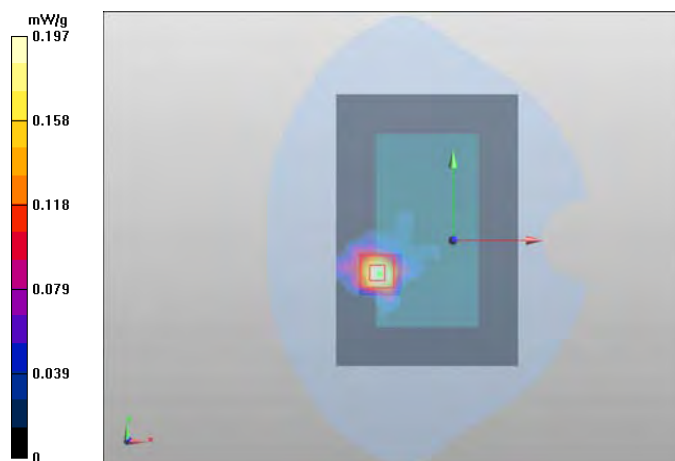
Peak SAR (extrapolated) = 0.352 mW/g

SAR(1 g) = 0.103 mW/g

SAR(10 g) = 0.036 mW/g

Power Drift = 0.13 dB

Maximum value of SAR (measured) = 0.197 mW/g



Date/Time: 2012-09-17 16:59:06

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode 24Mbps

Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: $t = 21.8$ C

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.726$ mho/m; $\epsilon_r = 48.153$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(3.83, 3.83, 3.83); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.5 (6469)

WLAN /Body - Channel 100 - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan (121x181x1):

Measurement grid: $dx=10$ mm, $dy=10$ mm

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

WLAN /Body - Channel 100 - Spacer 15mm - No Accessory - Back Facing Phantom /Zoom Scan (8x8x12)/Cube 0:

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

Reference Value = 6.709 V/m

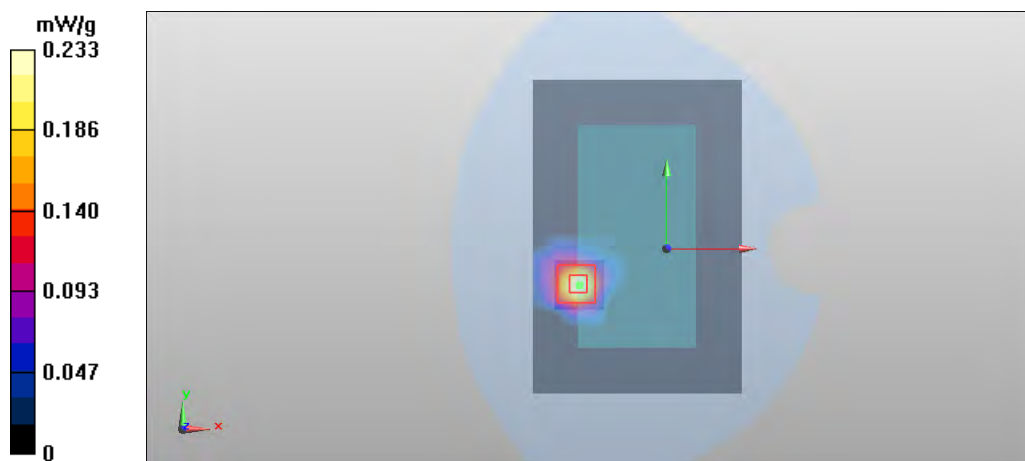
Peak SAR (extrapolated) = 0.418 mW/g

SAR(1 g) = 0.114 mW/g

SAR(10 g) = 0.038 mW/g

Power Drift = 0.48 dB

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



Date/Time: 2012-09-17 23:04:42

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 n-mode MSC0: OFDM 6.5/7.25 Mbps

Frequency: 5785 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: $t = 21.8$ C

Medium parameters used: $f = 5785$ MHz; $\sigma = 6.239$ mho/m; $\epsilon_r = 47.568$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852

- ConvF(3.86, 3.86, 3.86); Calibrated: 2012-03-27;

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

- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27

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

- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - Channel 157 - Spacer 15mm - No Accessory - Back Facing Phantom /Area Scan (121x181x1):

Measurement grid: $dx=10$ mm, $dy=10$ mm

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

WLAN/Body - Channel 157 - Spacer 15mm - No Accessory - Back Facing Phantom /Zoom Scan (8x8x12)/Cube 0:

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

Reference Value = 6.823 V/m

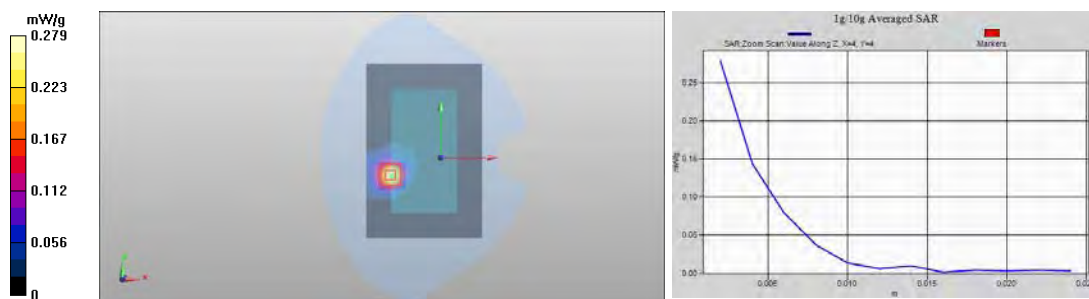
Peak SAR (extrapolated) = 0.583 mW/g

SAR(1 g) = 0.143 mW/g

SAR(10 g) = 0.049 mW/g

Power Drift = 0.36 dB

Maximum value of SAR (measured) = 0.279 mW/g



Date/Time: 2012-09-16 14:33:02

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6Mbps

Frequency: 5320 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: $t = 21.6$ C

Medium parameters used: $f = 5320$ MHz; $\sigma = 5.46$ mho/m; $\epsilon_r = 47.679$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(4.22, 4.22, 4.22); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN /Body - Channel 64 - Spacer 15mm - WH-208 - Back Facing Phantom - CC-3063/Area Scan (121x181x1):

Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 0.198 mW/g

WLAN /Body - Channel 64 - Spacer 15mm - WH-208 - Back Facing Phantom - CC-3063/Zoom Scan

(8x8x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 6.279 V/m

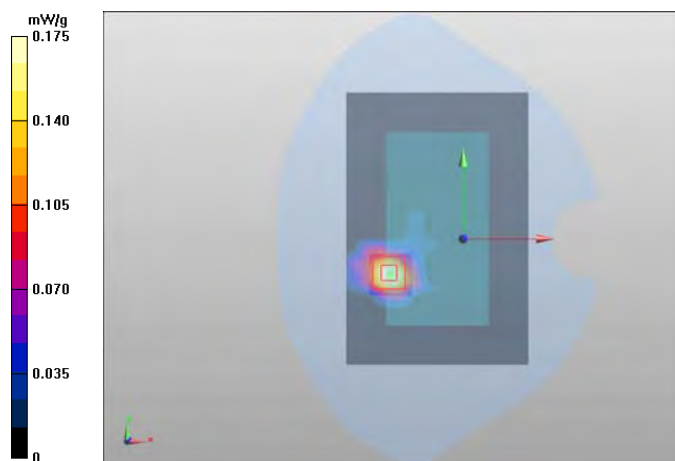
Peak SAR (extrapolated) = 0.702 mW/g

SAR(1 g) = 0.085 mW/g

SAR(10 g) = 0.029 mW/g

Power Drift = 0.19 dB

Maximum value of SAR (measured) = 0.175 mW/g



Date/Time: 2012-09-17 17:40:17

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6Mbps

Frequency: 5640 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: $t = 21.8$ C

Medium parameters used: $f = 5640$ MHz; $\sigma = 5.971$ mho/m; $\epsilon_r = 47.859$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(3.47, 3.47, 3.47); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN /Body - Channel 128 - Spacer 15mm - No Accessory - Back Facing Phantom - CC-3063/Area Scan (121x181x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 0.304 mW/g

WLAN /Body - Channel 128 - Spacer 15mm - No Accessory - Back Facing Phantom - CC-3063/Zoom Scan (8x8x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 7.226 V/m

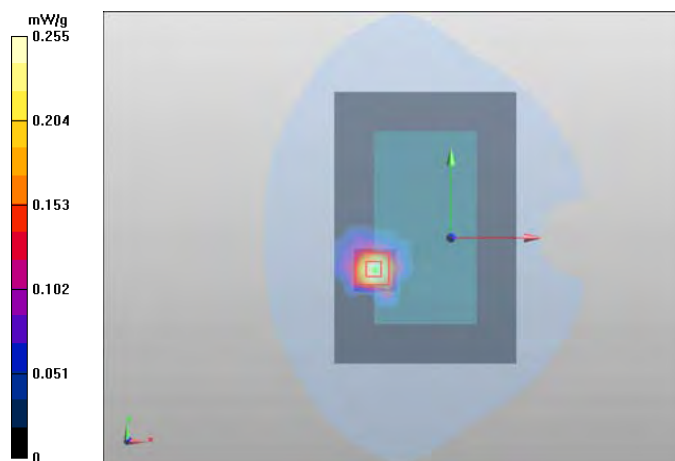
Peak SAR (extrapolated) = 0.498 mW/g

SAR(1 g) = 0.124 mW/g

SAR(10 g) = 0.042 mW/g

Power Drift = 0.30 dB

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



Date/Time: 2012-09-17 23:43:36

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 n-mode MCS 0: 6.5/7.25 Mbps

Frequency: 5785 MHz; Duty Cycle: 1:1

Medium: BSL5000; Medium Notes: $t = 21.8$ C

Medium parameters used: $f = 5785$ MHz; $\sigma = 6.239$ mho/m; $\epsilon_r = 47.568$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(3.86, 3.86, 3.86); Calibrated: 2012-03-27;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN /Body - Channel 157 - Spacer 15mm - No Accessory - Back Facing Phantom - CC-3063/Area Scan (121x181x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (interpolated) = 0.293 mW/g

WLAN /Body - Channel 157 - Spacer 15mm - No Accessory - Back Facing Phantom - CC-3063/Zoom Scan (8x8x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 6.839 V/m

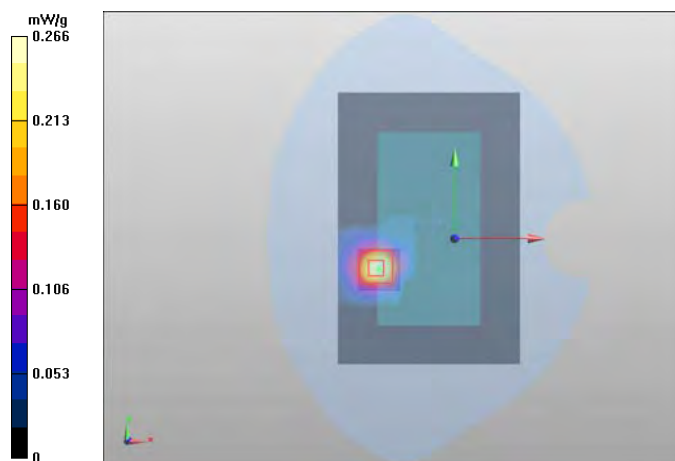
Peak SAR (extrapolated) = 0.555 mW/g

SAR(1 g) = 0.132 mW/g

SAR(10 g) = 0.046 mW/g

Power Drift = 0.32 dB

Maximum value of SAR (measured) = 0.266 mW/g



Date/Time: 2012-09-12 12:20:36

DASY Configuration for GPRS/Body - High - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850; Frequency: 848.8 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: MSL900 Medium parameters used: $f = 849$ MHz; $\sigma = 0.986$ mho/m; $\epsilon_r = 54.771$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-13 09:58:25

DASY Configuration for WLAN/Body - Middle - Spacer 15mm - No accessory - Back Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

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

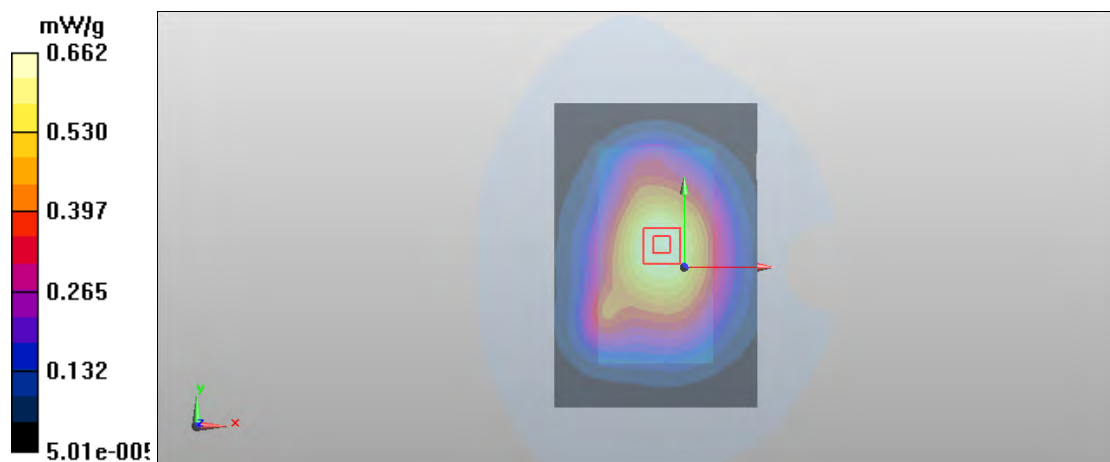
Medium: BSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.942$ mho/m; $\epsilon_r = 51.976$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.626 mW/g; SAR(10 g) = 0.443 mW/g

Maximum value of SAR (interpolated) = 0.662 mW/g



Date/Time: 2012-09-20 20:43:15

DASY Configuration for WCDMA/Body - Low - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: WCDMA850; Frequency: 826.4 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.967$ mho/m; $\epsilon_r = 54.657$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-13 09:58:25

DASY Configuration for WLAN/Body - Middle - Spacer 15mm - No accessory - Back Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

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

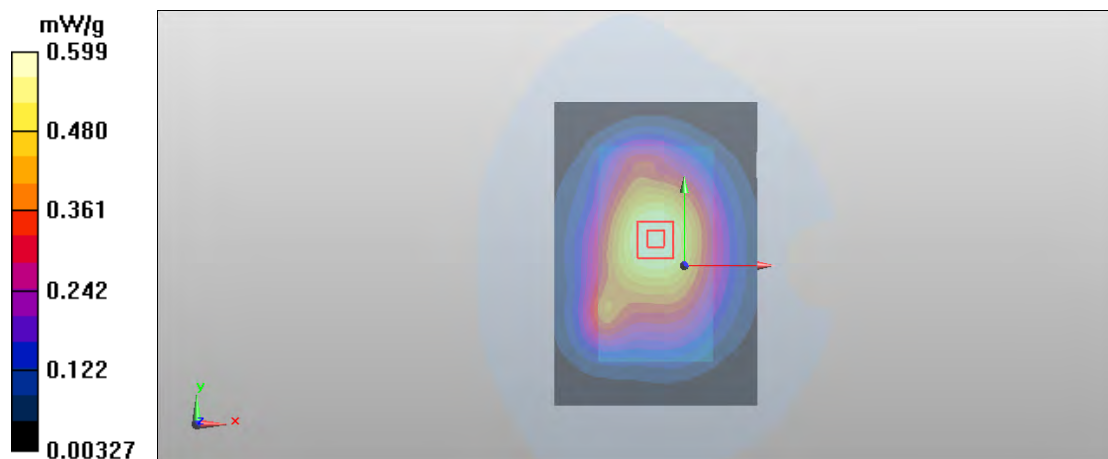
Medium: BSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.942$ mho/m; $\epsilon_r = 51.976$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.568 mW/g; SAR(10 g) = 0.402 mW/g

Maximum value of SAR (interpolated) = 0.599 mW/g



Date/Time: 2012-09-11 21:54:21

DASY Configuration for WCDMA/Body - High - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100; Frequency: 1752.6 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1800 Medium parameters used: $f = 1753$ MHz; $\sigma = 1.431$ mho/m; $\epsilon_r = 51.192$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-13 11:40:26

DASY Configuration for WLAN b-mode/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

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

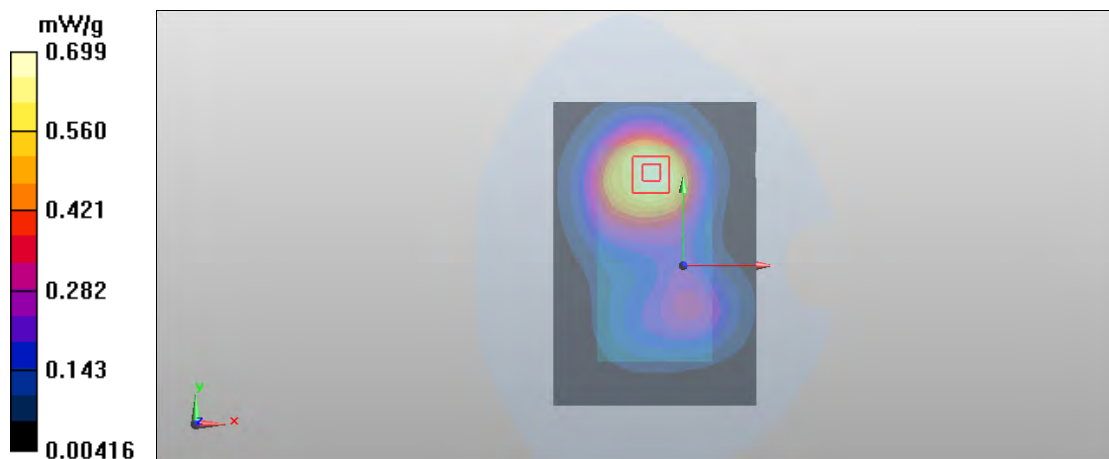
Medium: BSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.942$ mho/m; $\epsilon_r = 51.976$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.652 mW/g; SAR(10 g) = 0.411 mW/g

Maximum value of SAR (interpolated) = 0.699 mW/g



Date/Time: 2012-09-13 16:31:12

DASY Configuration for GPRS/Body - Middle - Spacer 15mm - WH-208 - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 4-slot GPRS1900; Frequency: 1880 MHz; Duty Cycle: 1:2.09991; PMF: 1.44911

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.524$ mho/m; $\epsilon_r = 51.724$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-13 14:17:59

DASY Configuration for WLAN b-mode/Body - High - Spacer 15mm - WH-208 - Back Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

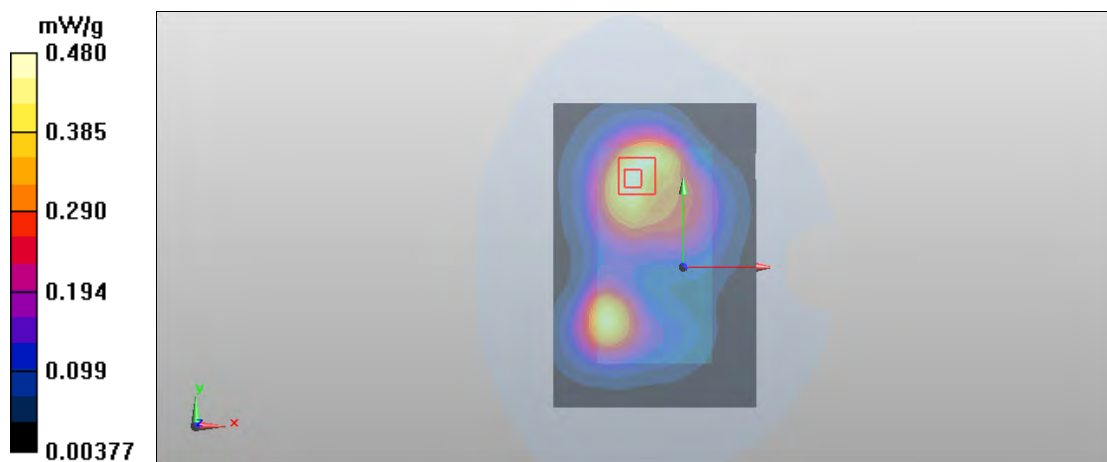
Medium: BSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.972$ mho/m; $\epsilon_r = 51.938$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.437 mW/g; SAR(10 g) = 0.261 mW/g

Maximum value of SAR (interpolated) = 0.480 mW/g



Date/Time: 2012-09-05 00:03:23

DASY Configuration for WCDMA/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.551$ mho/m; $\epsilon_r = 51.705$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM3; Type: QD000P40CD; Serial: TP: 1729
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-13 11:40:26

DASY Configuration for WLAN/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

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

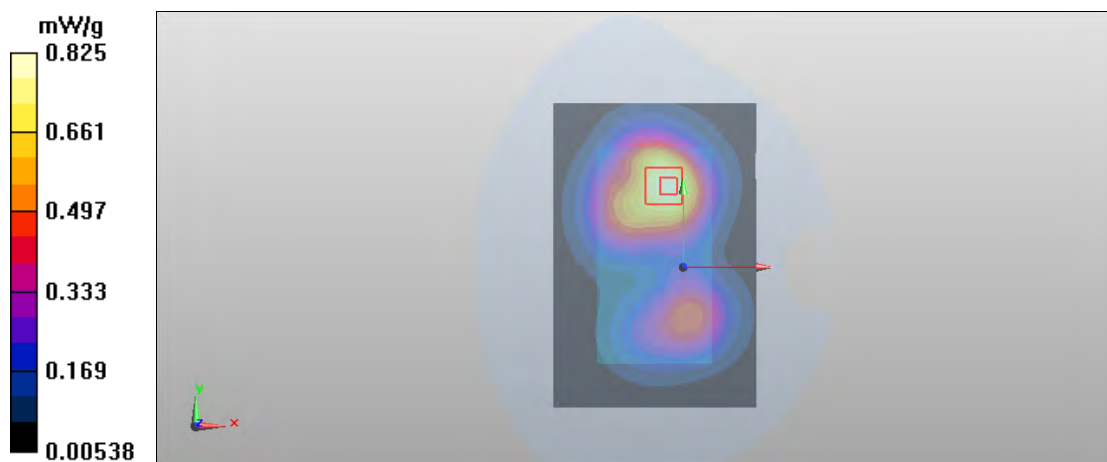
Medium: BSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.942$ mho/m; $\epsilon_r = 51.976$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.759 mW/g; SAR(10 g) = 0.463 mW/g

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



Date/Time: 2012-09-12 12:20:36

DASY Configuration for GPRS/Body - High - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850; Frequency: 848.8 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: MSL900 Medium parameters used: $f = 849$ MHz; $\sigma = 0.986$ mho/m; $\epsilon_r = 54.771$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-17 23:04:42

DASY Configuration for WLAN/Body - Channel 157 - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 n-mode MCS 0: OFDM 6.5/7.25 Mbps; Frequency: 5785 MHz; Duty Cycle: 1:1; PMF: 1

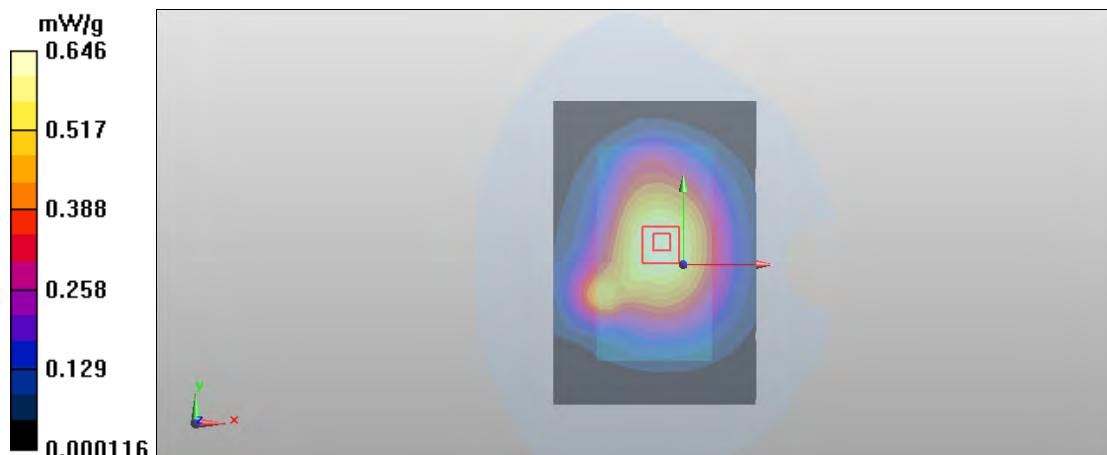
Medium: BSL5000 Medium parameters used: $f = 5785$ MHz; $\sigma = 6.239$ mho/m; $\epsilon_r = 47.568$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(3.86, 3.86, 3.86); Calibrated: 2012-03-27;
Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.606 mW/g; SAR(10 g) = 0.430 mW/g

Maximum value of SAR (interpolated) = 0.646 mW/g



Date/Time: 2012-09-20 20:43:15

DASY Configuration for WCDMA/Body - Low - Spacer 15mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: WCDMA850; Frequency: 826.4 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.967$ mho/m; $\epsilon_r = 54.657$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-17 23:04:42

DASY Configuration for WLAN/Body - Channel 157 - Spacer 15mm - No Accessory - Back Facing Phantom /Area Scan:

Test Laboratory: The name of your organization

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 n-mode MCS 0: OFDM 6.5/7.25 Mbps; Frequency: 5785 MHz; Duty Cycle: 1:1; PMF: 1

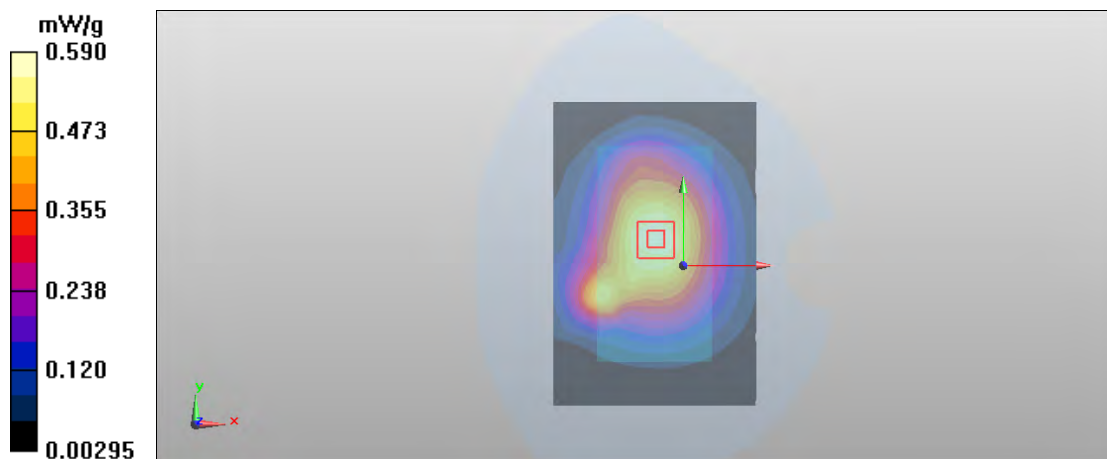
Medium: BSL5000 Medium parameters used: $f = 5785$ MHz; $\sigma = 6.239$ mho/m; $\epsilon_r = 47.568$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(3.86, 3.86, 3.86); Calibrated: 2012-03-27;
Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.548 mW/g; SAR(10 g) = 0.389 mW/g

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



Date/Time: 2012-09-11 21:54:21

DASY Configuration for WCDMA/Body - High - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1700/2100; Frequency: 1752.6 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1800 Medium parameters used: $f = 1753$ MHz; $\sigma = 1.431$ mho/m; $\epsilon_r = 51.192$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-16 13:00:27

DASY Configuration for WLAN a-mode/Body - Channel 64 - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan:

Test Laboratory: The name of your organization

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps; Frequency: 5320 MHz; Duty Cycle: 1:1; PMF: 1

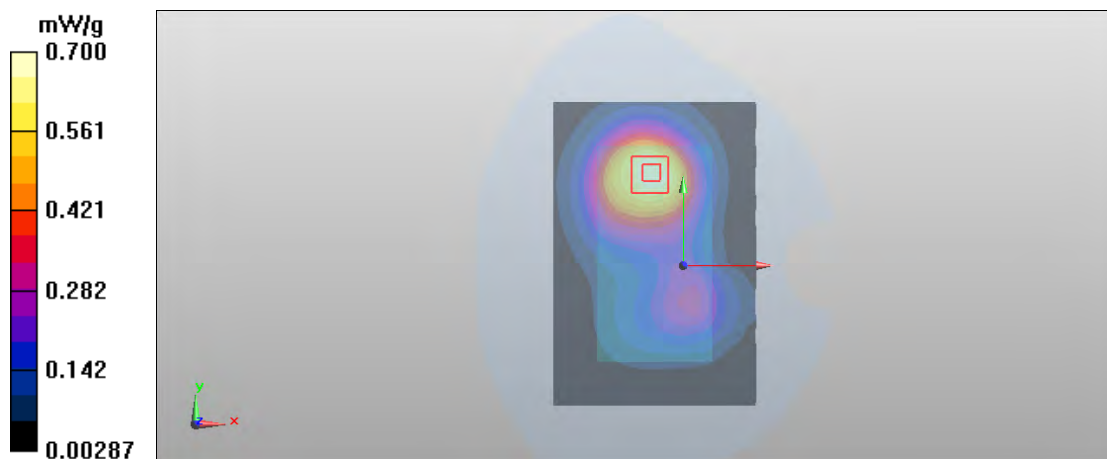
Medium: BSL5000 Medium parameters used: $f = 5320$ MHz; $\sigma = 5.46$ mho/m; $\epsilon_r = 47.679$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(4.22, 4.22, 4.22); Calibrated: 2012-03-27;
Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.653 mW/g; SAR(10 g) = 0.411 mW/g

Maximum value of SAR (interpolated) = 0.700 mW/g



Date/Time: 2012-09-13 17:09:37

DASY Configuration for GPRS/Body - Low - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: 4-slot GPRS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2.09991; PMF: 1.44911

Medium: MSL1900 Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.494$ mho/m; $\epsilon_r = 51.823$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;

Sensor-Surface: 4mm (Mechanical Surface Detection)

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

Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-16 12:00:27

DASY Configuration for WLAN/Body - Channel 64 - Spacer 15mm - No Accessory - Display Facing Phantom/Area Scan:

Test Laboratory: The name of your organization

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps; Frequency: 5320 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL5000 Medium parameters used: $f = 5320$ MHz; $\sigma = 5.46$ mho/m; $\epsilon_r = 47.679$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(4.22, 4.22, 4.22); Calibrated: 2012-03-27;

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

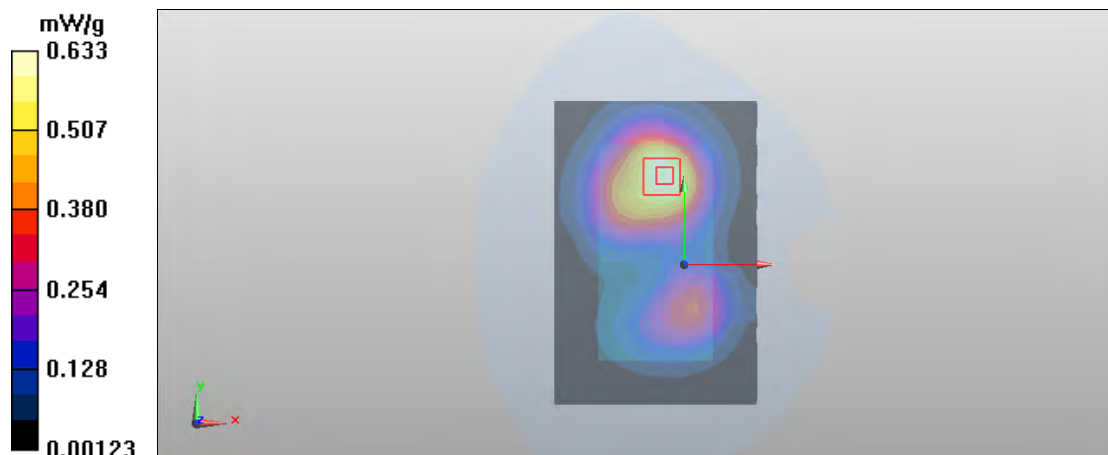
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27

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

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.588 mW/g; SAR(10 g) = 0.364 mW/g

Maximum value of SAR (interpolated) = 0.633 mW/g



Date/Time: 2012-09-05 00:03:23

DASY Configuration for WCDMA/Body - Middle - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109947/7

Communication System: WCDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.551$ mho/m; $\epsilon_r = 51.705$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM3; Type: QD000P40CD; Serial: TP: 1729
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-16 13:00:27

DASY Configuration for WLAN/Body - Channel 64 - Spacer 15mm - WH-208 - Display Facing Phantom/Area Scan:

Test Laboratory: The name of your organization

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN5000 a-mode OFDM 6 Mbps; Frequency: 5320 MHz; Duty Cycle: 1:1; PMF: 1

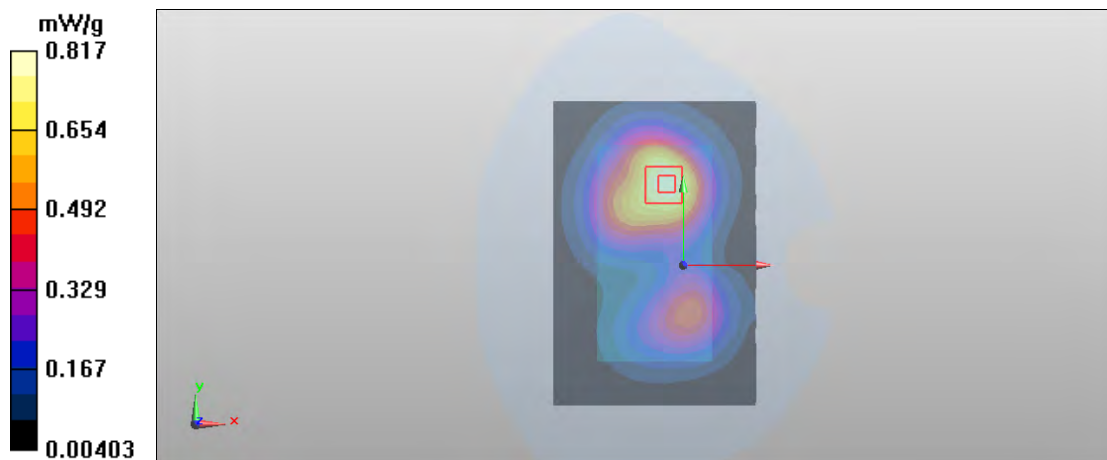
Medium: BSL5000 Medium parameters used: $f = 5320$ MHz; $\sigma = 5.46$ mho/m; $\epsilon_r = 47.679$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(4.22, 4.22, 4.22); Calibrated: 2012-03-27;
Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 3 06.09.2012; Type: QD000P40CB; Serial: TP:1399
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.755 mW/g; SAR(10 g) = 0.462 mW/g

Maximum value of SAR (interpolated) = 0.817 mW/g



APPENDIX B.3: WIRELESS ROUTER MEASUREMENT SCANS

Date/Time: 2012-09-27 14:05:59

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 848.8 MHz; Duty Cycle: 1:4.19952

Medium: MSL900; Medium Notes: T = 21.4 C

Medium parameters used: $f = 849$ MHz; $\sigma = 0.972$ mho/m; $\epsilon_r = 54.114$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

2-slot GPRS/Body - High - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan (81x121x1):

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

Maximum value of SAR (interpolated) = 0.850 mW/g

2-slot GPRS/Body - High - Spacer 10mm - No Accessory - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 29.363 V/m

Peak SAR (extrapolated) = 0.967 mW/g

SAR(1 g) = 0.797 mW/g

SAR(10 g) = 0.608 mW/g

Power Drift = -0.00 dB

Maximum value of SAR (measured) = 0.833 mW/g

2-slot GPRS/Body - High - Spacer 10mm - No Accessory - Back Facing Phantom/Zoom Scan 2 (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 29.363 V/m

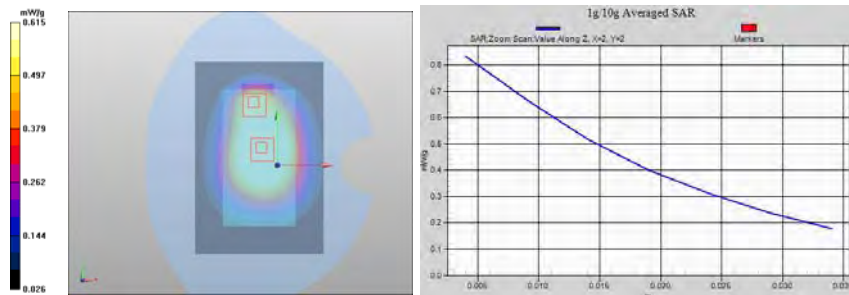
Peak SAR (extrapolated) = 0.940 mW/g

SAR(1 g) = 0.569 mW/g

SAR(10 g) = 0.366 mW/g

Power Drift = -0.00 dB

Maximum value of SAR (measured) = 0.615 mW/g



Date/Time: 2012-09-27 12:53:27

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: MSL900; Medium Notes: T = 21.4 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.963$ mho/m; $\epsilon_r = 54.151$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

2-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Area Scan 2 (81x121x1):

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

Maximum value of SAR (interpolated) = 0.495 mW/g

2-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 23.341 V/m

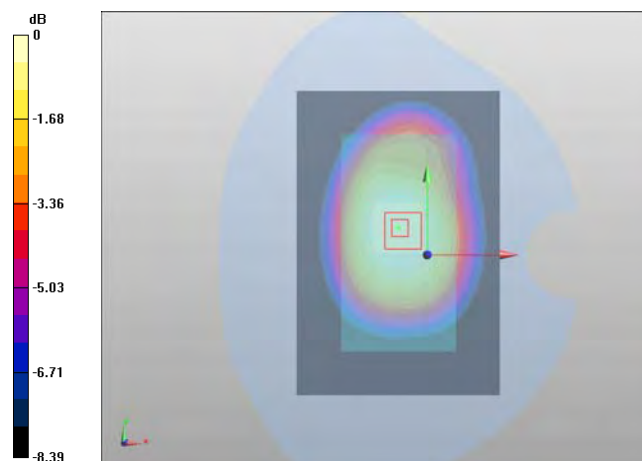
Peak SAR (extrapolated) = 0.544 mW/g

SAR(1 g) = 0.459 mW/g

SAR(10 g) = 0.348 mW/g

Power Drift = -0.27 dB

Maximum value of SAR (measured) = 0.481 mW/g



Date/Time: 2012-09-27 15:37:11

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: MSL900; Medium Notes: T = 21.4 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.963$ mho/m; $\epsilon_r = 54.151$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

2-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Area Scan (41x81x1):

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

Maximum value of SAR (interpolated) = 0.0228 mW/g

2-slot GPRS /Body - Middle - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.649 V/m

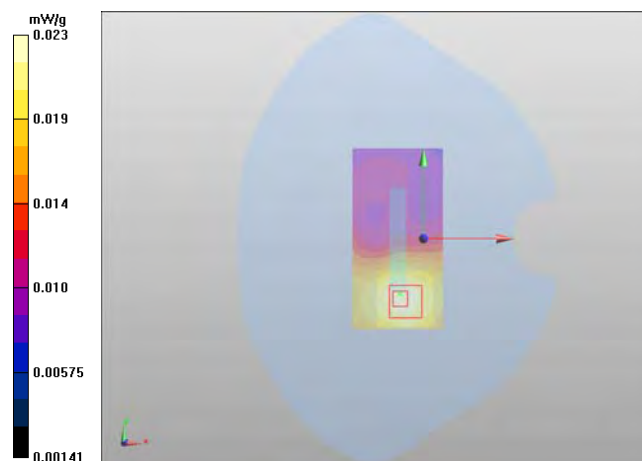
Peak SAR (extrapolated) = 0.029 mW/g

SAR(1 g) = 0.022 mW/g

SAR(10 g) = 0.016 mW/g

Power Drift = -0.07 dB

Maximum value of SAR (measured) = 0.0231 mW/g



Date/Time: 2012-09-27 15:59:00

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: MSL900; Medium Notes: T = 21.4 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.963$ mho/m; $\epsilon_r = 54.151$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

2-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan 2 (41x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.132 mW/g

2-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.335 V/m

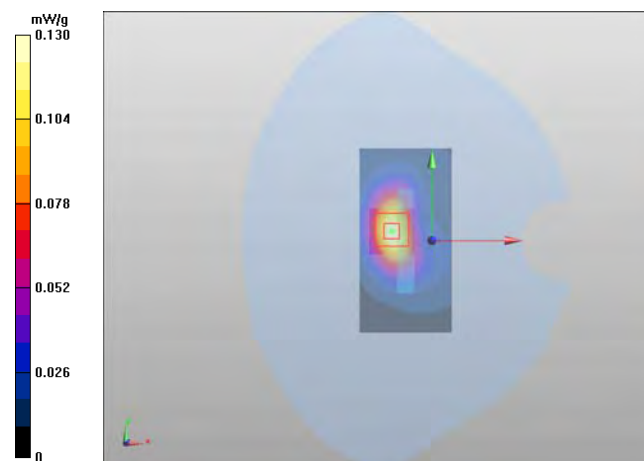
Peak SAR (extrapolated) = 0.191 mW/g

SAR(1 g) = 0.117 mW/g

SAR(10 g) = 0.069 mW/g

Power Drift = 0.03 dB

Maximum value of SAR (measured) = 0.130 mW/g



Date/Time: 2012-09-27 15:12:37

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: MSL900; Medium Notes: T = 21.4 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.963$ mho/m; $\epsilon_r = 54.151$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

2-slot GPRS /Body - Middle - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Area Scan

(41x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.495 mW/g

2-slot GPRS /Body - Middle - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Zoom Scan

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

Reference Value = 23.434 V/m

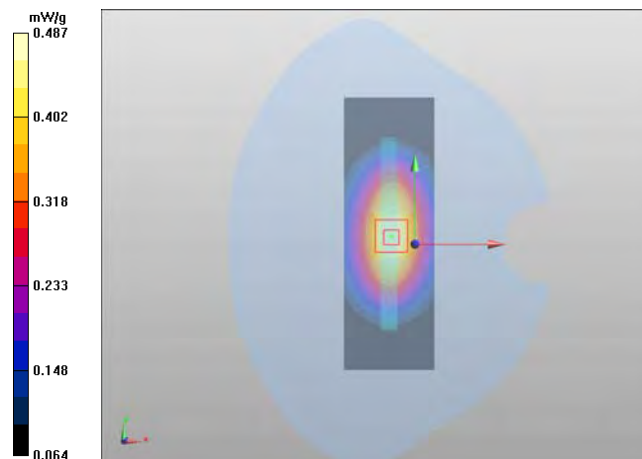
Peak SAR (extrapolated) = 0.603 mW/g

SAR(1 g) = 0.457 mW/g

SAR(10 g) = 0.323 mW/g

Power Drift = 0.02 dB

Maximum value of SAR (measured) = 0.487 mW/g



Date/Time: 2012-09-27 14:50:56

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850

Frequency: 836.6 MHz; Duty Cycle: 1:4.19952

Medium: MSL900; Medium Notes: T = 21.4 C

Medium parameters used: $f = 837$ MHz; $\sigma = 0.963$ mho/m; $\epsilon_r = 54.151$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

**2-slot GPRS /Body - Middle - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Area Scan
(41x121x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.343 mW/g

**2-slot GPRS /Body - Middle - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Zoom Scan
(6x6x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 19.490 V/m

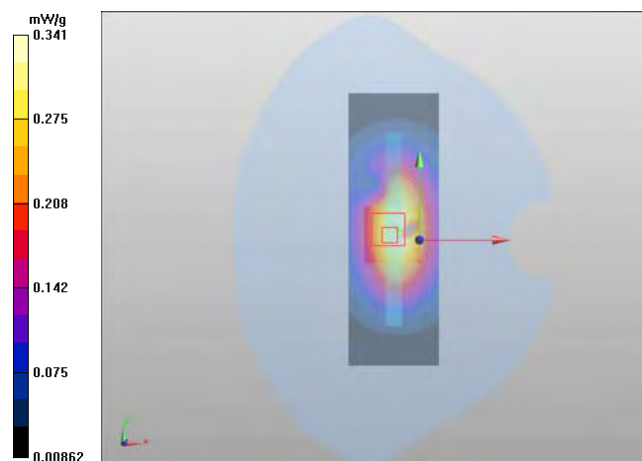
Peak SAR (extrapolated) = 0.450 mW/g

SAR(1 g) = 0.308 mW/g

SAR(10 g) = 0.203 mW/g

Power Drift = -0.11 dB

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



Date/Time: 2012-09-10 12:02:26

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: WCDMA850

Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes:

Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.962$ mho/m; $\epsilon_r = 54.194$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Low - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

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

WCDMA/Body - Low - Spacer 10mm - No Accessory - Back Facing Phantom /Zoom Scan (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 26.889 V/m

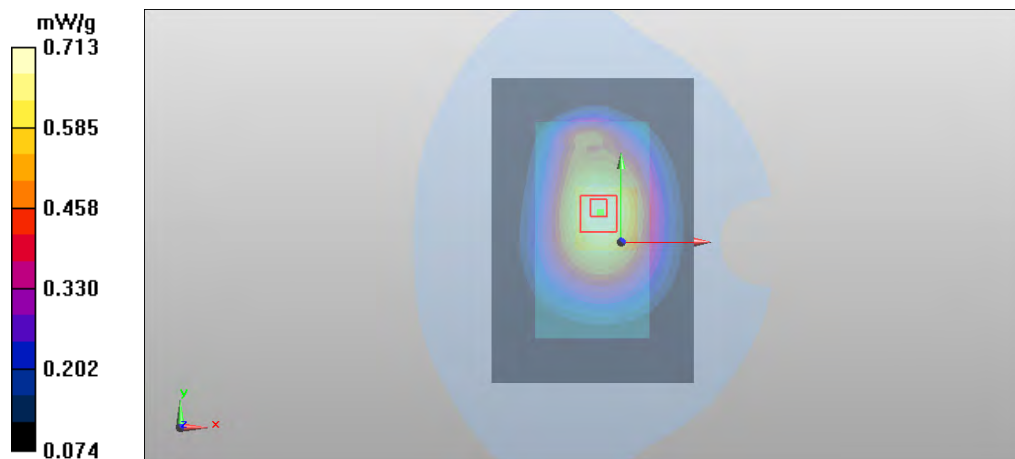
Peak SAR (extrapolated) = 0.840 mW/g

SAR(1 g) = 0.680 mW/g

SAR(10 g) = 0.517 mW/g

Power Drift = 0.03 dB

Maximum value of SAR (measured) = 0.713 mW/g



Date/Time: 2012-09-10 11:06:22

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes:

Medium parameters used: $f = 835$ MHz; $\sigma = 0.969$ mho/m; $\epsilon_r = 54.179$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom /Area Scan (81x121x1):

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

Maximum value of SAR (interpolated) = 0.430 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom /Zoom Scan (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 21.274 V/m

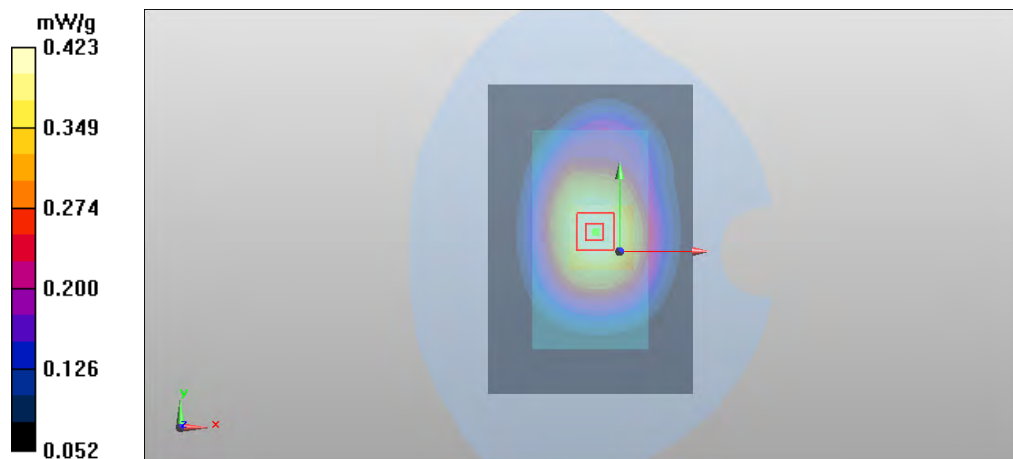
Peak SAR (extrapolated) = 0.496 mW/g

SAR(1 g) = 0.405 mW/g

SAR(10 g) = 0.310 mW/g

Power Drift = -0.02 dB

Maximum value of SAR (measured) = 0.423 mW/g



Date/Time: 2012-09-10 17:34:08

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes:

Medium parameters used: $f = 835$ MHz; $\sigma = 0.969$ mho/m; $\epsilon_r = 54.179$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory -Top Edge Facing Phantom/Area Scan (41x81x1):

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

Maximum value of SAR (interpolated) = 0.0194 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory -Top Edge Facing Phantom /Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.286 V/m

Peak SAR (extrapolated) = 0.025 mW/g

SAR(1 g) = 0.019 mW/g

SAR(10 g) = 0.014 mW/g

Power Drift = -0.11 dB

Maximum value of SAR (measured) = 0.0198 mW/g



Date/Time: 2012-09-10 17:51:01

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes:

Medium parameters used: $f = 835$ MHz; $\sigma = 0.969$ mho/m; $\epsilon_r = 54.179$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory -Bottom Edge Facing Phantom/Area Scan (41x81x1):

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

Maximum value of SAR (interpolated) = 0.126 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory -Bottom Edge Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.024 V/m

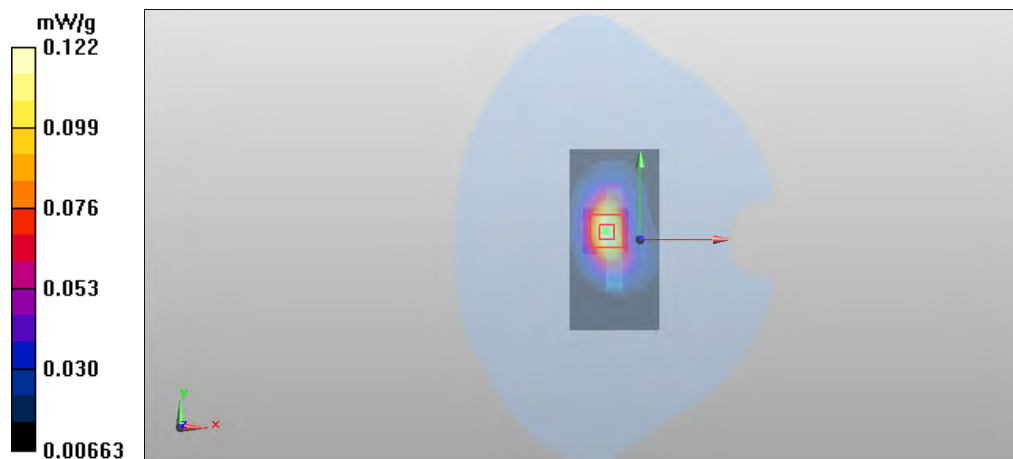
Peak SAR (extrapolated) = 0.179 mW/g

SAR(1 g) = 0.111 mW/g

SAR(10 g) = 0.065 mW/g

Power Drift = 0.04 dB

Maximum value of SAR (measured) = 0.122 mW/g



Date/Time: 2012-09-10 18:15:42

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes:

Medium parameters used: $f = 835$ MHz; $\sigma = 0.969$ mho/m; $\epsilon_r = 54.179$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Area Scan (41x121x1):

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

Maximum value of SAR (interpolated) = 0.481 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 23.334 V/m

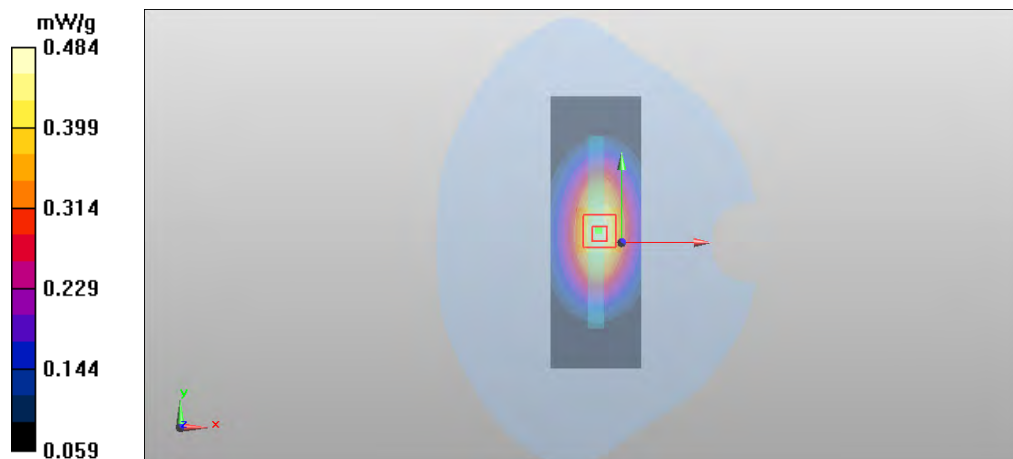
Peak SAR (extrapolated) = 0.611 mW/g

SAR(1 g) = 0.455 mW/g

SAR(10 g) = 0.320 mW/g

Power Drift = -0.07 dB

Maximum value of SAR (measured) = 0.484 mW/g



Date/Time: 2012-09-10 18:36:16

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: WCDMA850

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900; Medium Notes:

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.969 \text{ mho/m}$; $\epsilon_r = 54.179$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Area Scan (41x121x1):

Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.289 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

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

Reference Value = 17.915 V/m

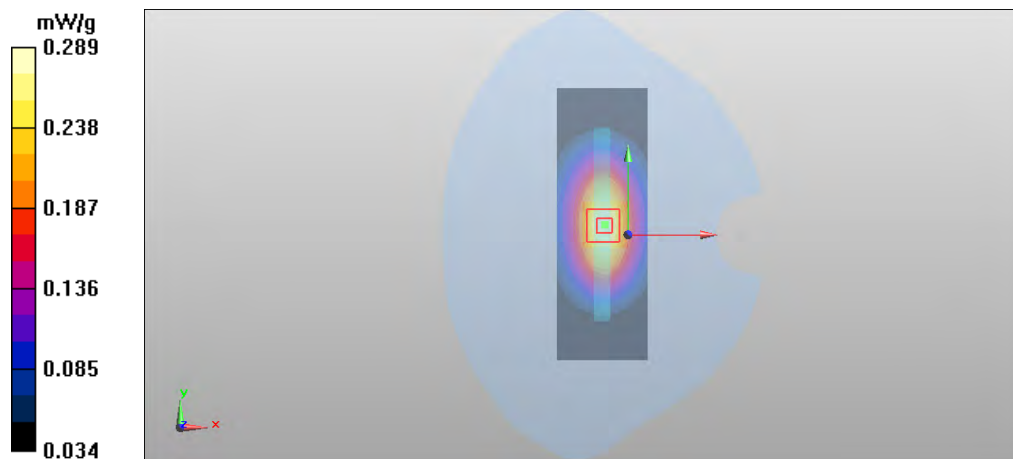
Peak SAR (extrapolated) = 0.366 mW/g

SAR(1 g) = 0.269 mW/g

SAR(10 g) = 0.187 mW/g

Power Drift = 0.05 dB

Maximum value of SAR (measured) = 0.289 mW/g



Date/Time: 2012-09-11 09:35:20

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: MSL1800; Medium Notes:

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.411$ mho/m; $\epsilon_r = 51.266$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan (81x121x1):

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

Maximum value of SAR (interpolated) = 0.900 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom/Zoom Scan (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.634 V/m

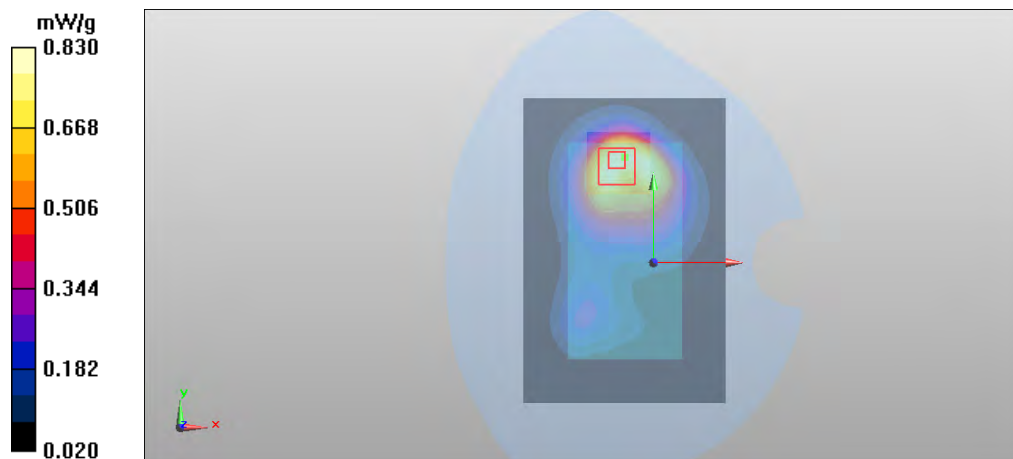
Peak SAR (extrapolated) = 1.217 mW/g

SAR(1 g) = 0.772 mW/g

SAR(10 g) = 0.501 mW/g

Power Drift = -0.01 dB

Maximum value of SAR (measured) = 0.830 mW/g



SAR Report

Appendix B.3 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

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Date/Time: 2012-09-11 11:31:08

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: WCDMA1700/2100

Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: MSL1800; Medium Notes:

Medium parameters used: $f = 1753$ MHz; $\sigma = 1.431$ mho/m; $\epsilon_r = 51.192$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - High - Spacer 10mm - No Accessory - Display Facing Phantom/Area Scan (81x121x1):

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

Maximum value of SAR (interpolated) = 1.06 mW/g

WCDMA/Body - High - Spacer 10mm - No Accessory - Display Facing Phantom/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.849 V/m

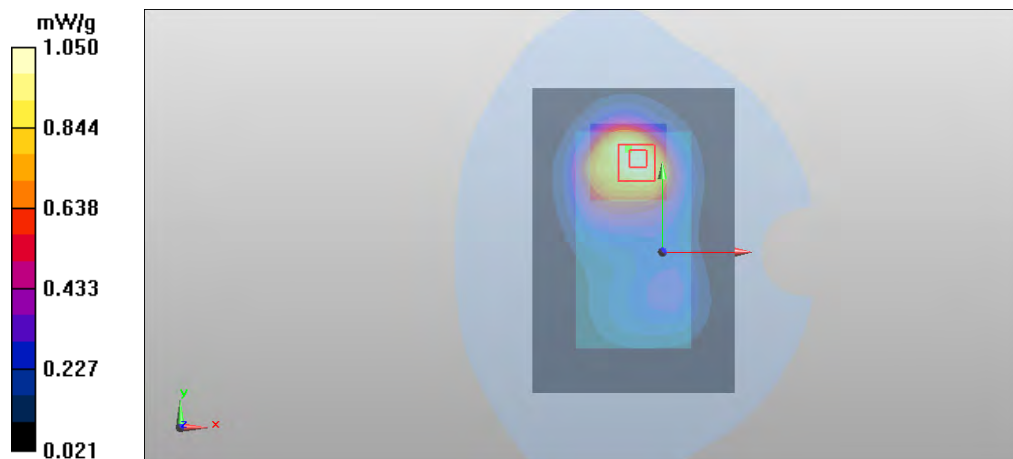
Peak SAR (extrapolated) = 1.384 mW/g

SAR(1 g) = 0.977 mW/g

SAR(10 g) = 0.633 mW/g

Power Drift = -0.12 dB

Maximum value of SAR (measured) = 1.05 mW/g



Date/Time: 2012-09-11 14:06:21

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: MSL1800; Medium Notes: T = 21.8 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.411$ mho/m; $\epsilon_r = 51.266$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Area Scan (41x81x1):

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

Maximum value of SAR (interpolated) = 0.0421 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 5.302 V/m

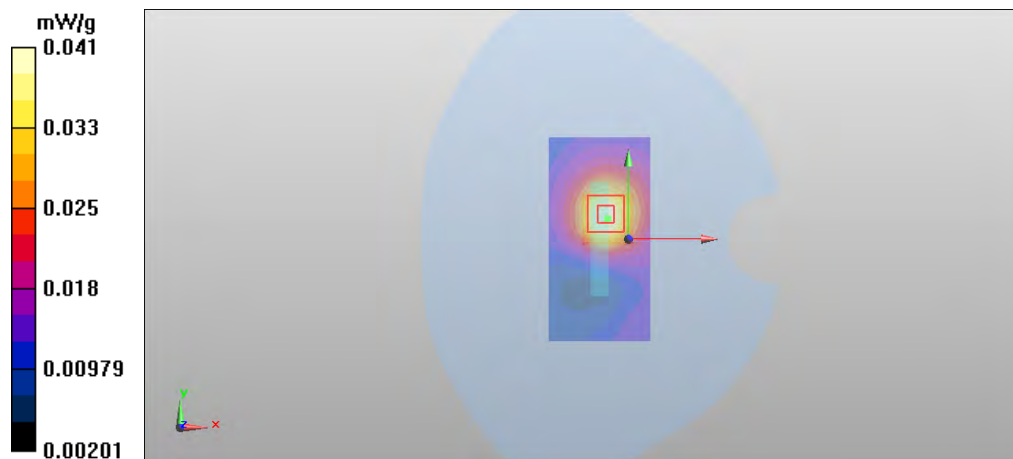
Peak SAR (extrapolated) = 0.053 mW/g

SAR(1 g) = 0.038 mW/g

SAR(10 g) = 0.025 mW/g

Power Drift = -0.12 dB

Maximum value of SAR (measured) = 0.0409 mW/g



Date/Time: 2012-09-11 14:50:33

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: MSL1800; Medium Notes: T = 21.8 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.411$ mho/m; $\epsilon_r = 51.266$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (41x81x1):

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

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

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 23.841 V/m

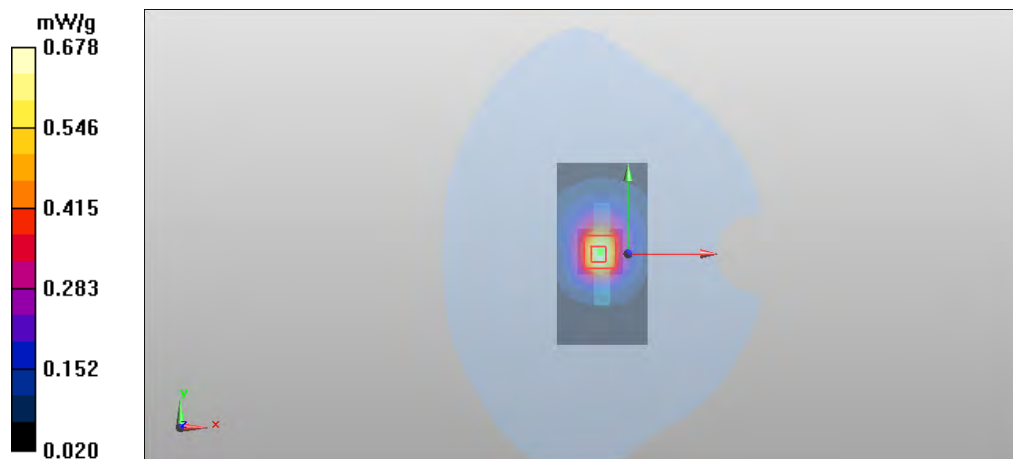
Peak SAR (extrapolated) = 0.901 mW/g

SAR(1 g) = 0.608 mW/g

SAR(10 g) = 0.355 mW/g

Power Drift = -0.02 dB

Maximum value of SAR (measured) = 0.678 mW/g



Date/Time: 2012-09-11 12:08:48

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: MSL1800; Medium Notes: T = 21.8 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.411$ mho/m; $\epsilon_r = 51.266$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Area Scan (41x121x1):

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

Maximum value of SAR (interpolated) = 0.179 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.599 V/m

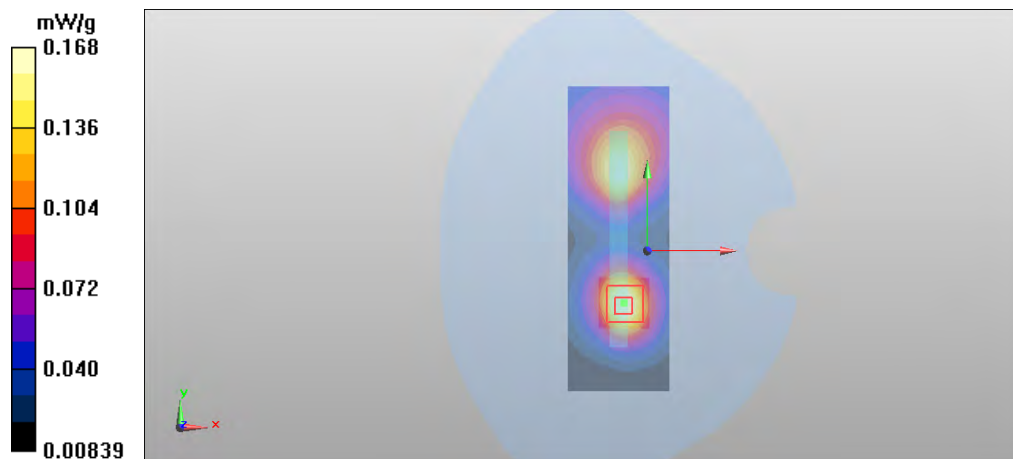
Peak SAR (extrapolated) = 0.218 mW/g

SAR(1 g) = 0.155 mW/g

SAR(10 g) = 0.098 mW/g

Power Drift = 0.11 dB

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



Date/Time: 2012-09-11 13:32:22

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: WCDMA1700/2100

Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: MSL1800; Medium Notes: T = 21.8 C

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.411$ mho/m; $\epsilon_r = 51.266$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Area Scan (41x121x1):

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

Maximum value of SAR (interpolated) = 0.313 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.129 V/m

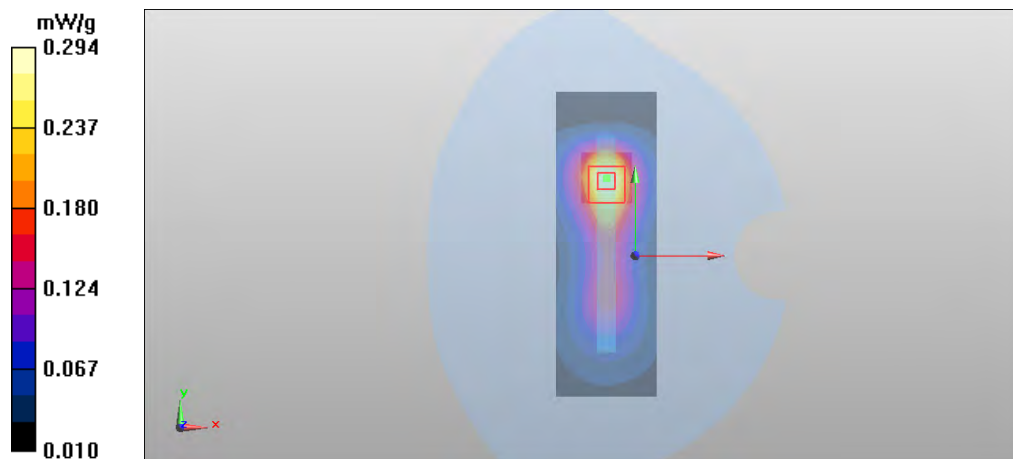
Peak SAR (extrapolated) = 0.393 mW/g

SAR(1 g) = 0.269 mW/g

SAR(10 g) = 0.168 mW/g

Power Drift = -0.05 dB

Maximum value of SAR (measured) = 0.294 mW/g



Date/Time: 2012-09-11 16:49:37

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: WCDMA1700/2100

Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: MSL1800; Medium Notes: T = 21.8 C

Medium parameters used: $f = 1753$ MHz; $\sigma = 1.431$ mho/m; $\epsilon_r = 51.192$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399

- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;

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

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

- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729

- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - High - Spacer 10mm - No Accessory - Display Facing Phantom – CC-3063/Area Scan (81x121x1):

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

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

WCDMA/Body - High - Spacer 10mm - No Accessory - Display Facing Phantom – CC-3063/Zoom Scan

(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.779 V/m

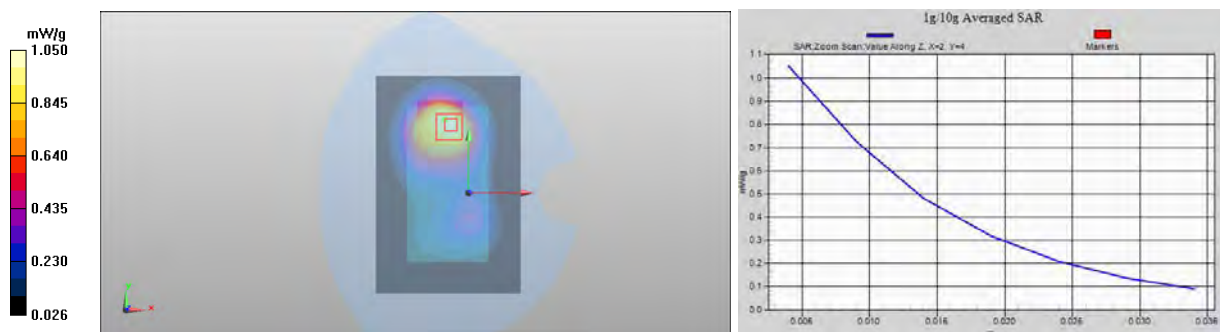
Peak SAR (extrapolated) = 1.395 mW/g

SAR(1 g) = 0.980 mW/g

SAR(10 g) = 0.633 mW/g

Power Drift = -0.04 dB

Maximum value of SAR (measured) = 1.05 mW/g



SAR Report

Appendix B.3 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

Copyright © 2012 TCC Nokia

Date/Time: 2012-09-13 19:43:26

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.09991

Medium: MSL1900; Medium Notes: T =21.6 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.524$ mho/m; $\epsilon_r = 51.724$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

4-slot GPRS/Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan 2 (81x121x1):

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

Maximum value of SAR (interpolated) = 0.822 mW/g

4-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.069 V/m

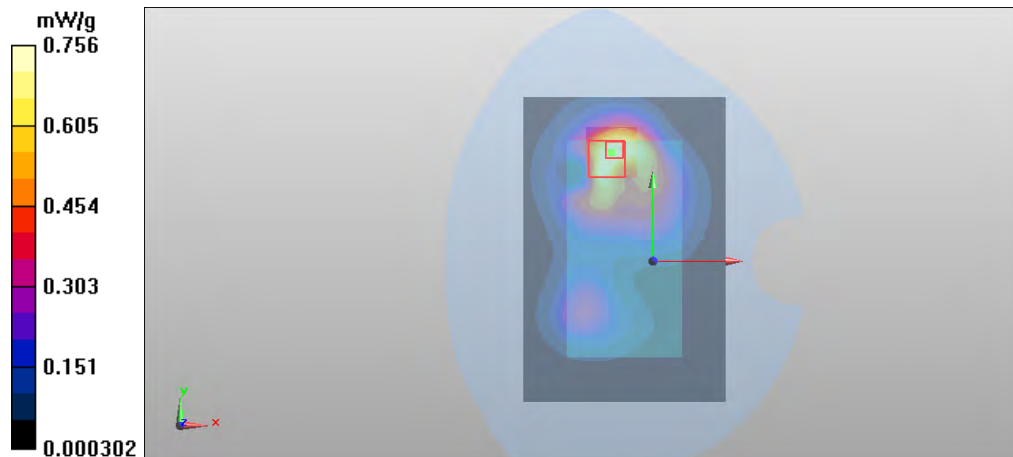
Peak SAR (extrapolated) = 1.081 mW/g

SAR(1 g) = 0.690 mW/g

SAR(10 g) = 0.427 mW/g

Power Drift = -0.26 dB

Maximum value of SAR (measured) = 0.756 mW/g



Date/Time: 2012-09-13 20:35:33

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: 4-slot GPRS1900

Frequency: 1850.2 MHz; Duty Cycle: 1:2.09991

Medium: MSL1900; Medium Notes: T =21.6 C

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.494$ mho/m; $\epsilon_r = 51.823$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

4-slot GPRS /Body - Low - Spacer 10mm - No Accessory - Display Facing Phantom/Area Scan (81x121x1):

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

Maximum value of SAR (interpolated) = 0.961 mW/g

4-slot GPRS /Body - Low - Spacer 10mm - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.921 V/m

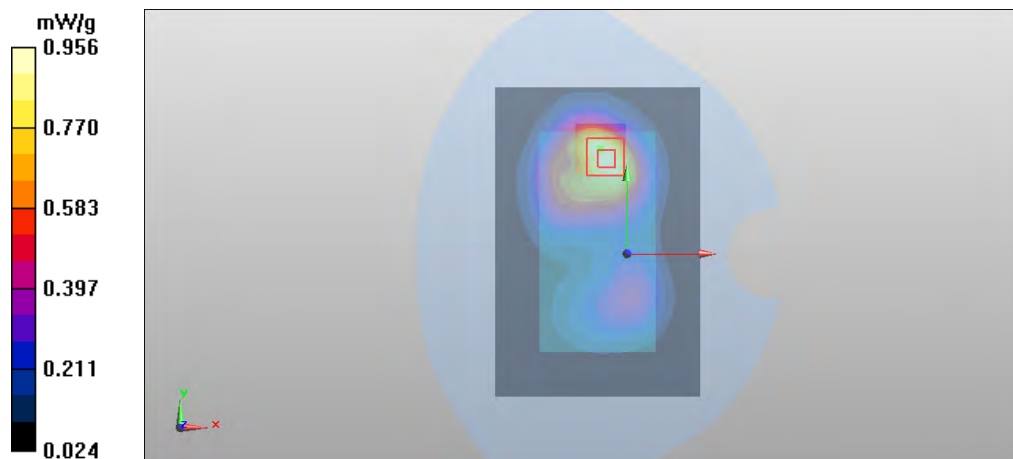
Peak SAR (extrapolated) = 1.331 mW/g

SAR(1 g) = 0.896 mW/g

SAR(10 g) = 0.557 mW/g

Power Drift = -0.10 dB

Maximum value of SAR (measured) = 0.956 mW/g



Date/Time: 2012-09-13 21:42:37

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.09991

Medium: MSL1900; Medium Notes: T =21.6 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.524$ mho/m; $\epsilon_r = 51.724$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

4-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Area Scan (41x81x1):

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

Maximum value of SAR (interpolated) = 0.0374 mW/g

4-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 5.009 V/m

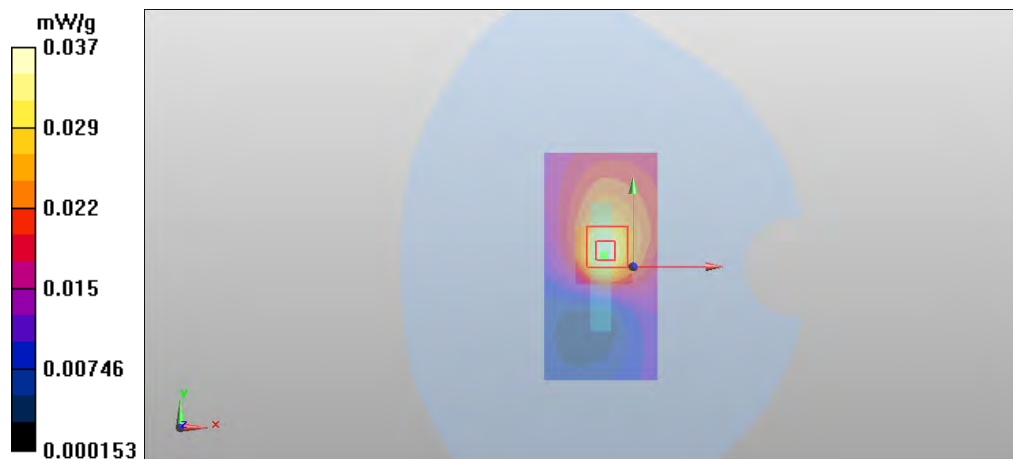
Peak SAR (extrapolated) = 0.052 mW/g

SAR(1 g) = 0.034 mW/g

SAR(10 g) = 0.022 mW/g

Power Drift = 0.01 dB

Maximum value of SAR (measured) = 0.0367 mW/g



Date/Time: 2012-09-13 22:10:22

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.09991

Medium: MSL1900; Medium Notes: T =21.6 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.524$ mho/m; $\epsilon_r = 51.724$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

4-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (41x81x1):

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

Maximum value of SAR (interpolated) = 0.905 mW/g

4-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Zoom Scan

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

Reference Value = 26.461 V/m

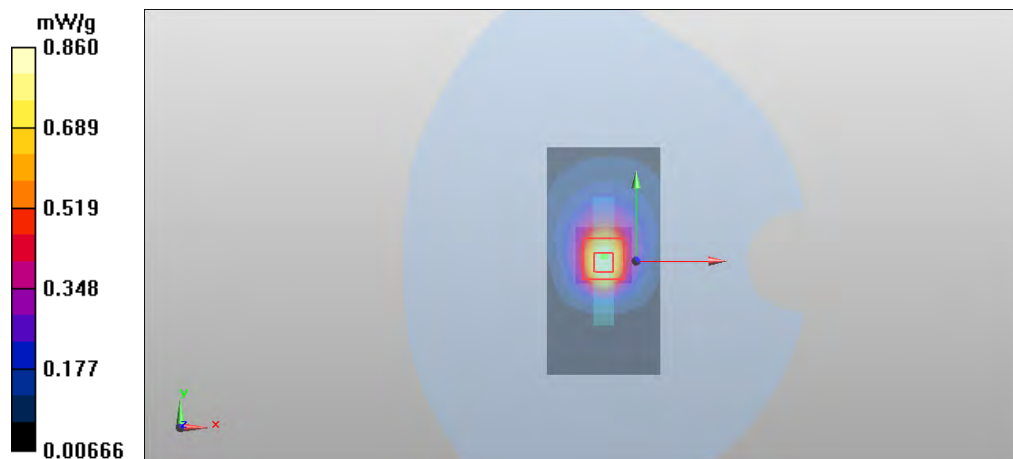
Peak SAR (extrapolated) = 1.311 mW/g

SAR(1 g) = 0.791 mW/g

SAR(10 g) = 0.437 mW/g

Power Drift = -0.15 dB

Maximum value of SAR (measured) = 0.860 mW/g



Date/Time: 2012-09-13 23:10:31

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.09991

Medium: MSL1900; Medium Notes: T =21.6 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.524$ mho/m; $\epsilon_r = 51.724$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

4-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Area Scan (41x121x1):

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

Maximum value of SAR (interpolated) = 0.251 mW/g

4-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.618 V/m

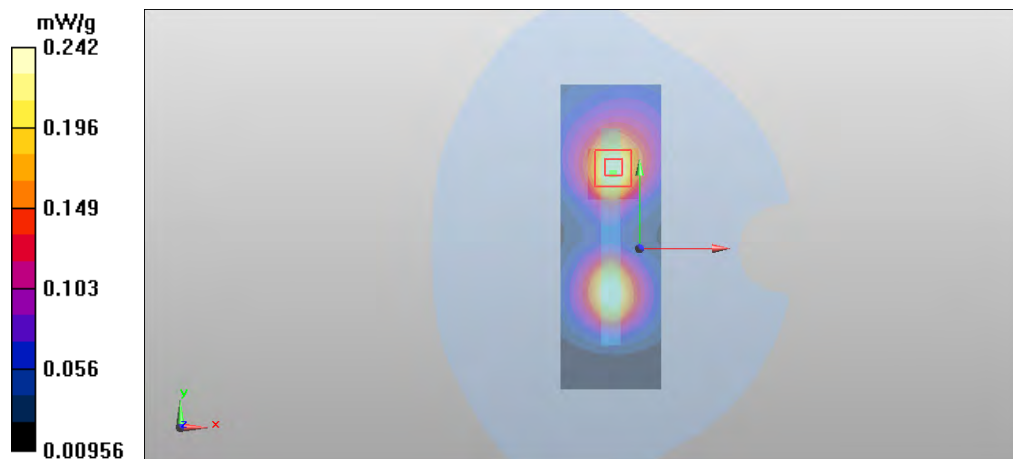
Peak SAR (extrapolated) = 0.332 mW/g

SAR(1 g) = 0.225 mW/g

SAR(10 g) = 0.140 mW/g

Power Drift = -0.00 dB

Maximum value of SAR (measured) = 0.242 mW/g



Date/Time: 2012-09-13 23:28:19

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: 4-slot GPRS1900

Frequency: 1880 MHz; Duty Cycle: 1:2.09991

Medium: MSL1900; Medium Notes: T =21.6 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.524$ mho/m; $\epsilon_r = 51.724$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

4-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Area Scan (41x121x1):

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

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

4-slot GPRS /Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Zoom Scan

(6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.070 V/m

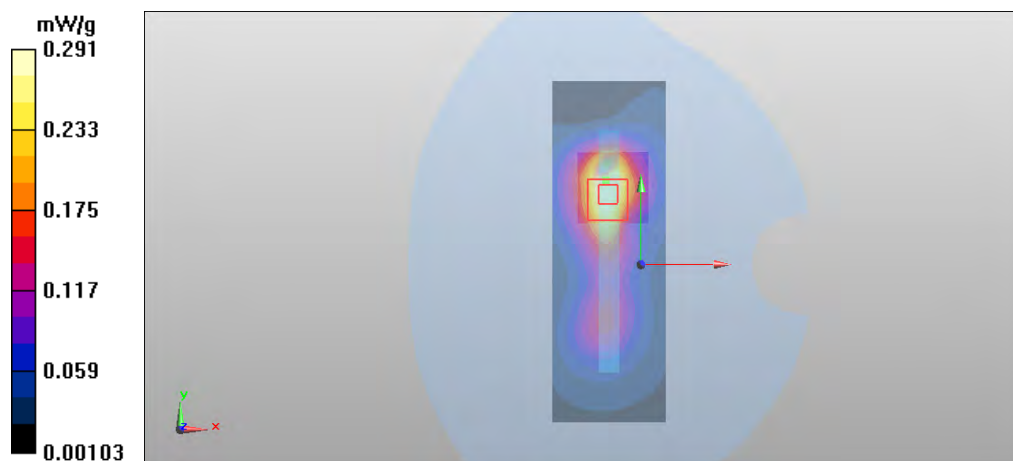
Peak SAR (extrapolated) = 0.435 mW/g

SAR(1 g) = 0.275 mW/g

SAR(10 g) = 0.166 mW/g

Power Drift = -0.00 dB

Maximum value of SAR (measured) = 0.291 mW/g



SAR Report

Appendix B.3 for FCC_RM-878_01

Applicant: Nokia Corporation

Type: RM-878

Copyright © 2012 TCC Nokia

Date/Time: 2012-09-24 11:45:53

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: WCDMA1900

Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes:

Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.553$ mho/m; $\epsilon_r = 51.287$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM 4 15-09-2012; Type: QD000P40CD; Serial: TP1630
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA1900/Body - Low - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan (81x121x1):

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

Maximum value of SAR (interpolated) = 0.974 mW/g

WCDMA1900/Body - Low - Spacer 10mm - No Accessory - Back Facing Phantom/Zoom Scan (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.399 V/m

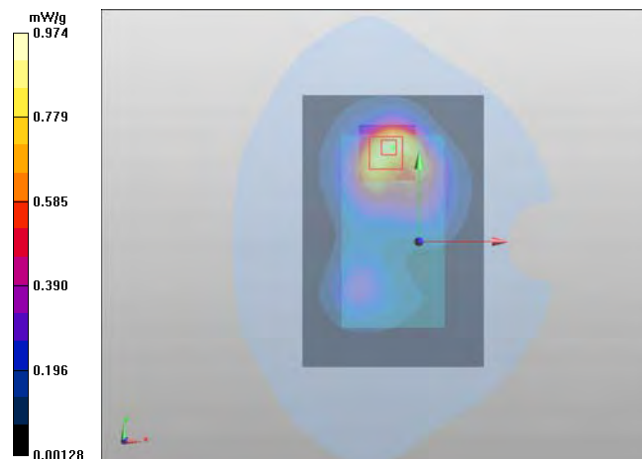
Peak SAR (extrapolated) = 1.301 mW/g

SAR(1 g) = 0.839 mW/g

SAR(10 g) = 0.518 mW/g

Power Drift = -0.06 dB

Maximum value of SAR (measured) = 0.913 mW/g



Date/Time: 2012-09-14 14:06:19

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T =21.8 C

Medium parameters used: f = 1880 MHz; σ = 1.51 mho/m; ϵ_r = 51.562; ρ = 1000 kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Area Scan (81x121x1):

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

Maximum value of SAR (interpolated) = 1.11 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.509 V/m

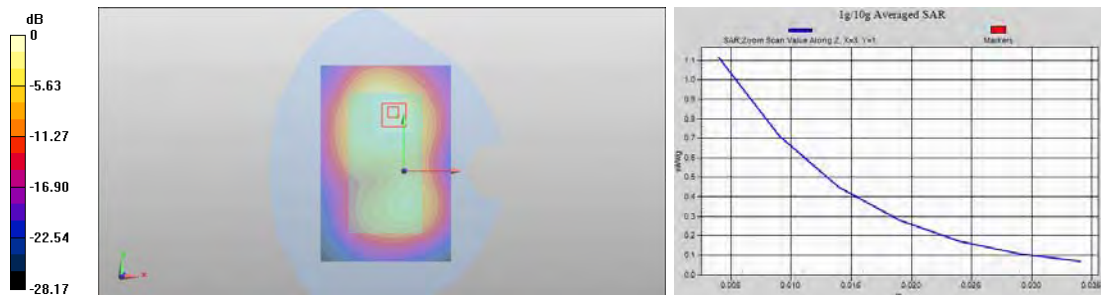
Peak SAR (extrapolated) = 1.564 mW/g

SAR(1 g) = 1.04 mW/g

SAR(10 g) = 0.643 mW/g

Power Drift = 0.14 dB

Maximum value of SAR (measured) = 1.11 mW/g



Date/Time: 2012-09-14 16:49:26

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T =21.8 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 51.562$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Area Scan (41x81x1):

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

Maximum value of SAR (interpolated) = 0.0549 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.179 V/m

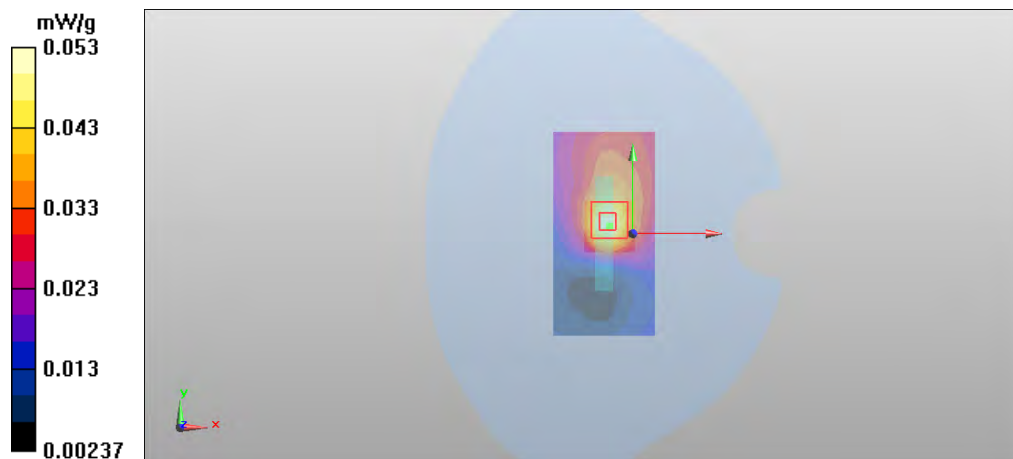
Peak SAR (extrapolated) = 0.072 mW/g

SAR(1 g) = 0.049 mW/g

SAR(10 g) = 0.031 mW/g

Power Drift = 0.08 dB

Maximum value of SAR (measured) = 0.0534 mW/g



Date/Time: 2012-09-14 17:02:31

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T =21.8 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 51.562$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (41x81x1):

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

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

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 28.510 V/m

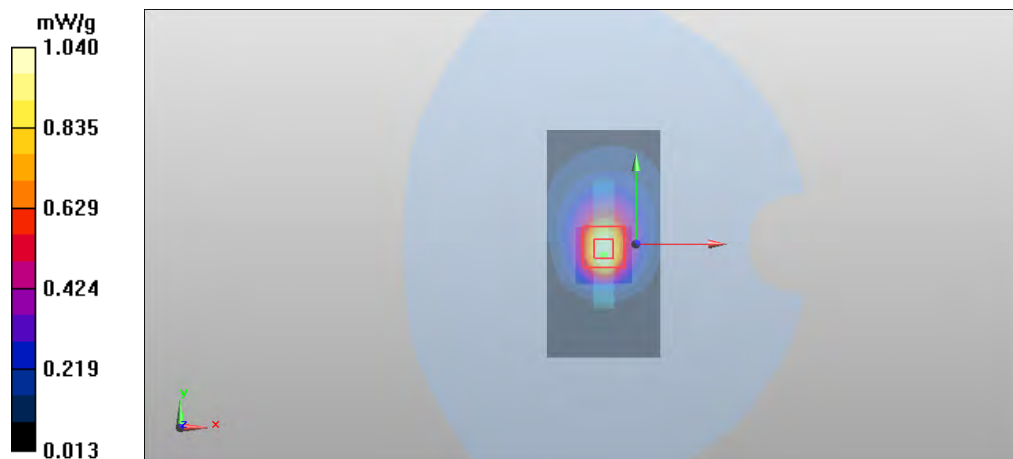
Peak SAR (extrapolated) = 1.555 mW/g

SAR(1 g) = 0.942 mW/g

SAR(10 g) = 0.521 mW/g

Power Drift = 0.02 dB

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



Date/Time: 2012-09-14 15:39:13

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T =21.8 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 51.562$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Area Scan (41x121x1):

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

Maximum value of SAR (interpolated) = 0.306 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.079 V/m

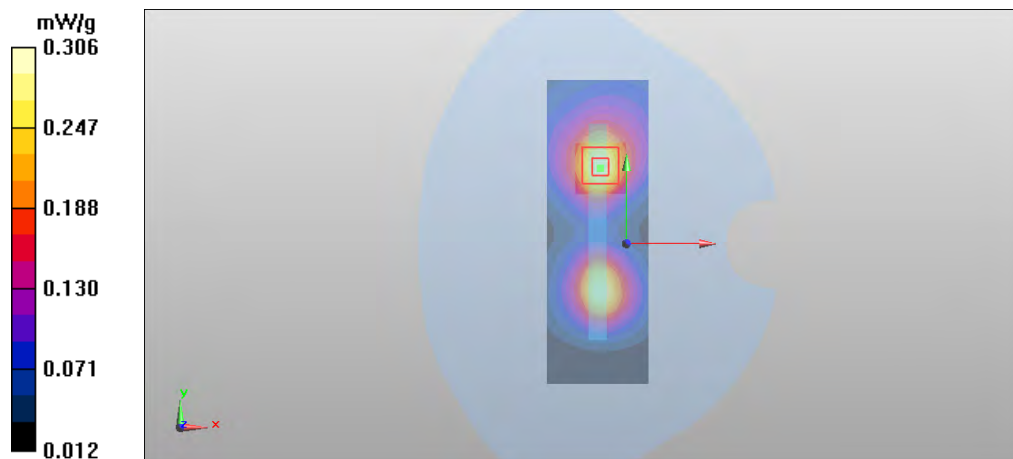
Peak SAR (extrapolated) = 0.417 mW/g

SAR(1 g) = 0.278 mW/g

SAR(10 g) = 0.173 mW/g

Power Drift = 0.09 dB

Maximum value of SAR (measured) = 0.306 mW/g



Date/Time: 2012-09-14 15:58:56

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 00440247109925/3

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T =21.8 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 51.562$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Area Scan (41x121x1):

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

Maximum value of SAR (interpolated) = 0.382 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Zoom Scan (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.504 V/m

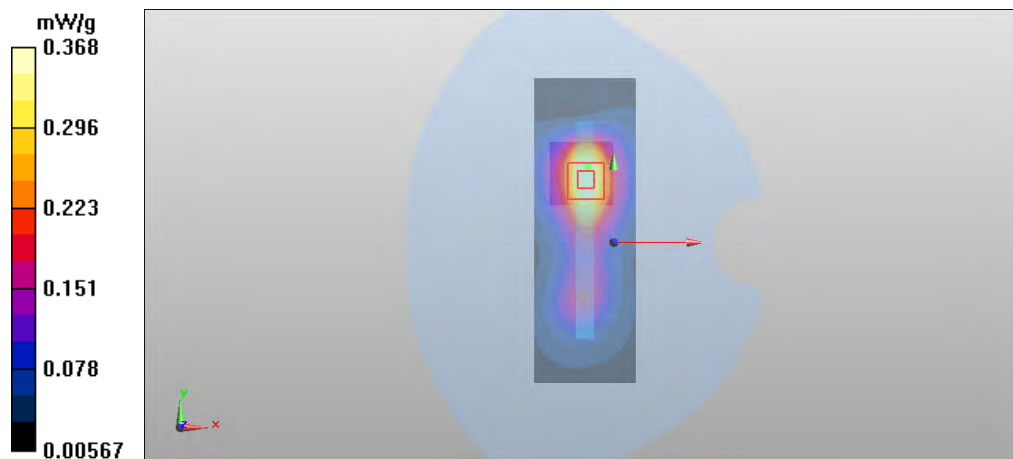
Peak SAR (extrapolated) = 0.523 mW/g

SAR(1 g) = 0.339 mW/g

SAR(10 g) = 0.210 mW/g

Power Drift = -0.14 dB

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



Date/Time: 2012-09-14 12:48:08

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: WCDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T =21.8 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 51.562$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ET3DV6R - SN1399
- ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn701; Calibrated: 2012-08-15
- Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom - CC-3063/Area Scan

(81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.10 mW/g

WCDMA/Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom - CC-3063/Zoom Scan

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

Reference Value = 11.926 V/m

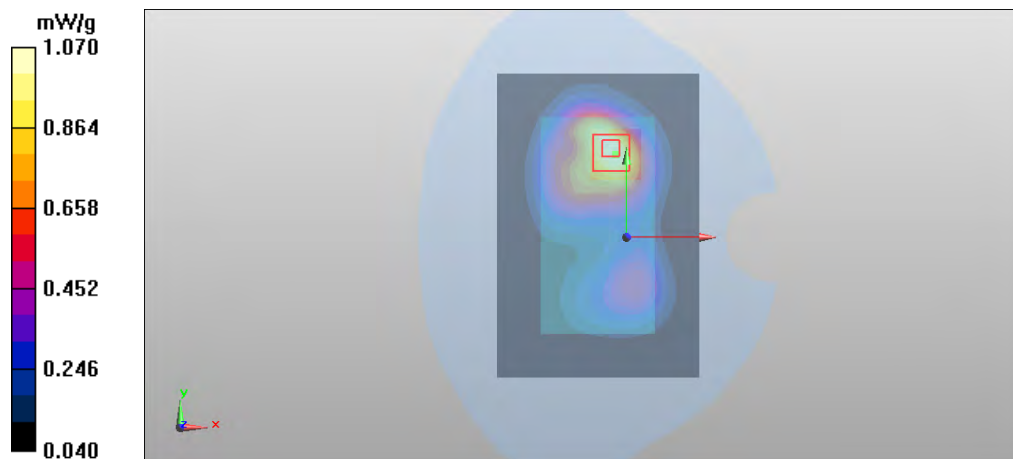
Peak SAR (extrapolated) = 1.475 mW/g

SAR(1 g) = 0.999 mW/g

SAR(10 g) = 0.630 mW/g

Power Drift = -0.15 dB

Maximum value of SAR (measured) = 1.07 mW/g



Date/Time: 2012-09-13 21:16:40

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 21\text{ C}$

Medium parameters used: $f = 2462\text{ MHz}$; $\sigma = 1.972\text{ mho/m}$; $\epsilon_r = 51.938$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN /Body - High - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan (121x181x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.545 mW/g

WLAN /Body - High - Spacer 10mm - No accessory - Back Facing Phantom/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 4.496 V/m

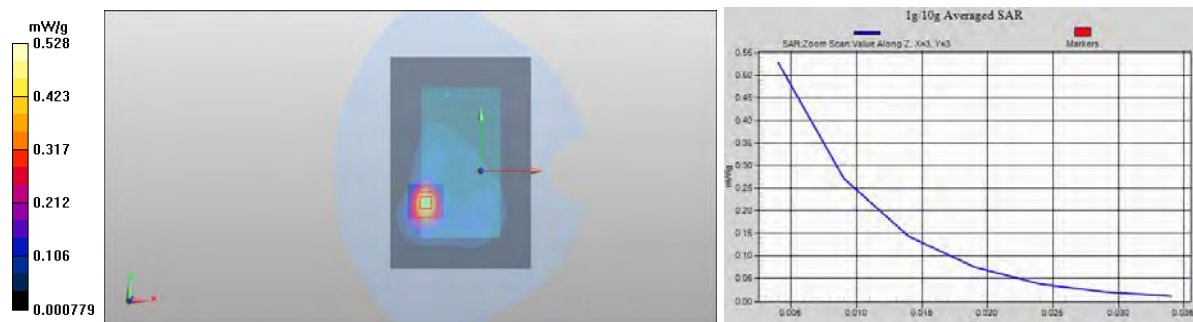
Peak SAR (extrapolated) = 0.922 mW/g

SAR(1 g) = 0.453 mW/g

SAR(10 g) = 0.212 mW/g

Power Drift = 0.18 dB

Maximum value of SAR (measured) = 0.528 mW/g



Date/Time: 2012-09-13 17:15:53

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: t= 21 C

Medium parameters used: f = 2437 MHz; $\sigma = 1.942$ mho/m; $\epsilon_r = 51.976$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Area Scan (121x181x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.121 mW/g

WLAN/Body - Middle - Spacer 10mm - No Accessory - Display Facing Phantom/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.093 V/m

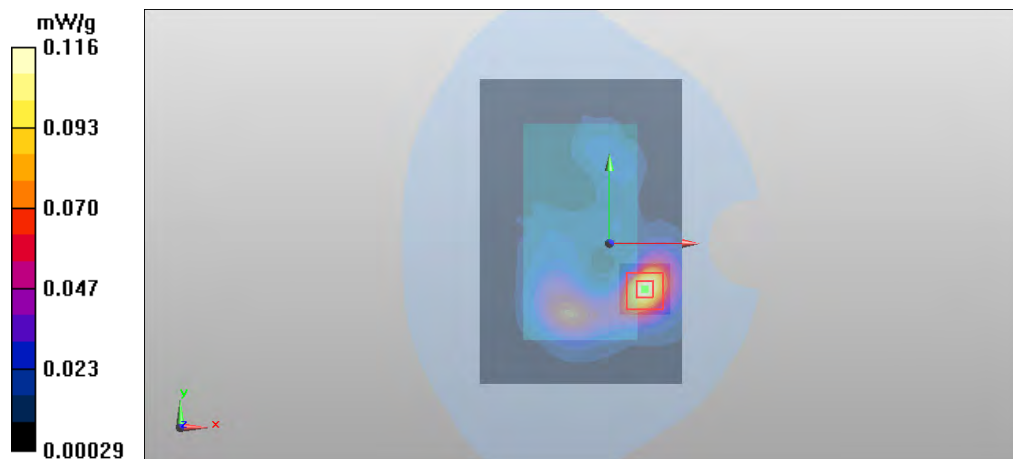
Peak SAR (extrapolated) = 0.196 mW/g

SAR(1 g) = 0.102 mW/g

SAR(10 g) = 0.050 mW/g

Power Drift = -0.15 dB

Maximum value of SAR (measured) = 0.116 mW/g



Date/Time: 2012-09-13 20:05:05

Test Laboratory: Nokia

Type: RM-878; Serial: 00440247109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 21\text{ C}$

Medium parameters used: $f = 2437\text{ MHz}$; $\sigma = 1.942\text{ mho/m}$; $\epsilon_r = 51.976$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Area Scan (61x121x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.0509 mW/g

WLAN/Body - Middle - Spacer 10mm - No Accessory - Top Edge Facing Phantom/Zoom Scan (8x9x7)/Cube 0:

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

Reference Value = 4.017 V/m

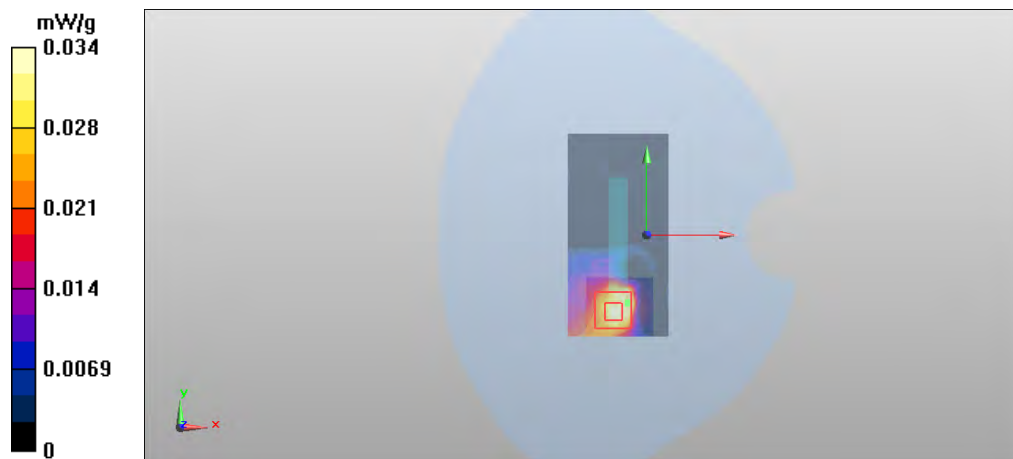
Peak SAR (extrapolated) = 0.055 mW/g

SAR(1 g) = 0.030 mW/g

SAR(10 g) = 0.016 mW/g

Power Drift = 0.29 dB

Maximum value of SAR (measured) = 0.0345 mW/g



Date/Time: 2012-09-13 20:44:01

Test Laboratory: Nokia

Type: RM-878; Serial: 00440247109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: t= 21 C

Medium parameters used: f = 2437 MHz; $\sigma = 1.942$ mho/m; $\epsilon_r = 51.976$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Area Scan (61x121x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.0111 mW/g

WLAN/Body - Middle - Spacer 10mm - No Accessory - Bottom Edge Facing Phantom/Zoom Scan (8x8x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.098 V/m

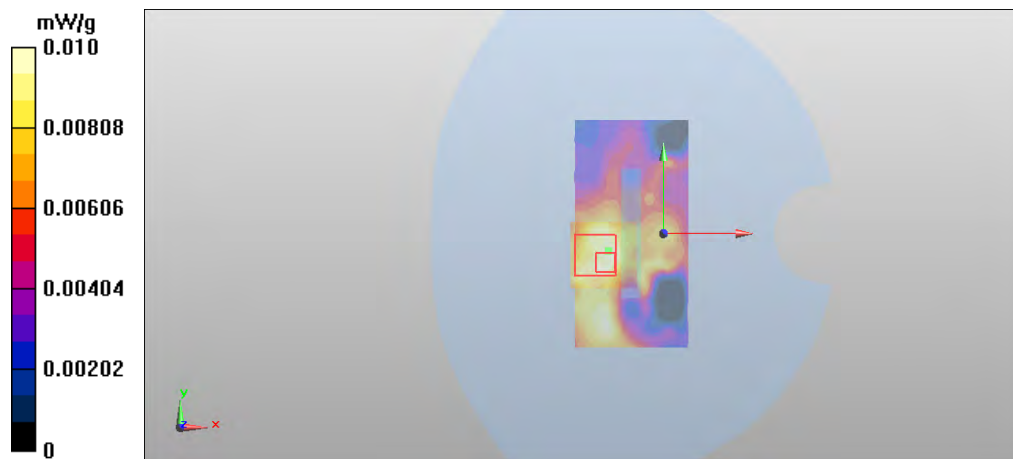
Peak SAR (extrapolated) = 0.018 mW/g

SAR(1 g) = 0.00839 mW/g

SAR(10 g) = 0.00475 mW/g

Power Drift = 0.04 dB

Maximum value of SAR (measured) = 0.0101 mW/g



Date/Time: 2012-09-13 18:04:00

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: t= 21 C

Medium parameters used: f = 2437 MHz; $\sigma = 1.942$ mho/m; $\epsilon_r = 51.976$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASYS2, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Area Scan (61x181x1):

Measurement grid: dx=10mm, dy=10mm

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

WLAN/Body - Middle - Spacer 10mm - No Accessory - Left Edge Facing Phantom/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.209 V/m

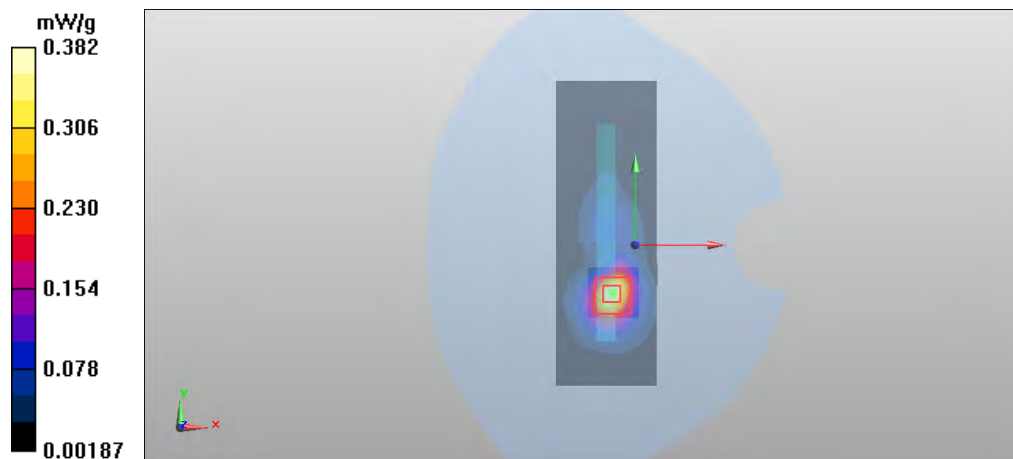
Peak SAR (extrapolated) = 0.636 mW/g

SAR(1 g) = 0.333 mW/g

SAR(10 g) = 0.162 mW/g

Power Drift = 0.18 dB

Maximum value of SAR (measured) = 0.382 mW/g



Date/Time: 2012-09-13 18:38:55

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 21\text{ C}$

Medium parameters used: $f = 2437\text{ MHz}$; $\sigma = 1.942\text{ mho/m}$; $\epsilon_r = 51.976$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Area Scan (61x181x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.0160 mW/g

WLAN/Body - Middle - Spacer 10mm - No Accessory - Right Edge Facing Phantom/Zoom Scan (8x8x7)/Cube 0:

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

Reference Value = 1.510 V/m

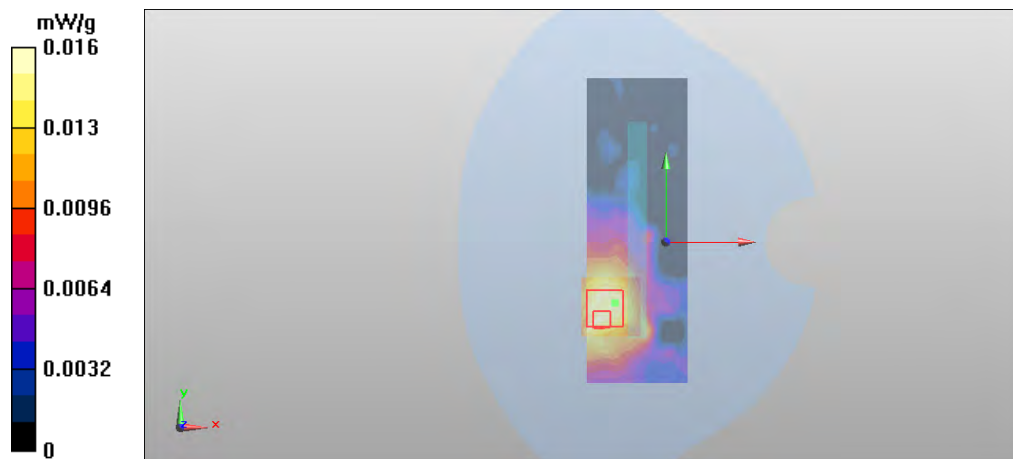
Peak SAR (extrapolated) = 0.033 mW/g

SAR(1 g) = 0.014 mW/g

SAR(10 g) = 0.00825 mW/g

Power Drift = 0.44 dB

Maximum value of SAR (measured) = 0.0160 mW/g



Date/Time: 2012-09-13 23:07:12

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 5.5 Mbps

Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: t= 21 C

Medium parameters used: f = 2412 MHz; $\sigma = 1.913$ mho/m; $\epsilon_r = 52.008$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - Low - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan (121x181x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 0.458 mW/g

WLAN/Body - Low - Spacer 10mm - No accessory - Back Facing Phantom /Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.674 V/m

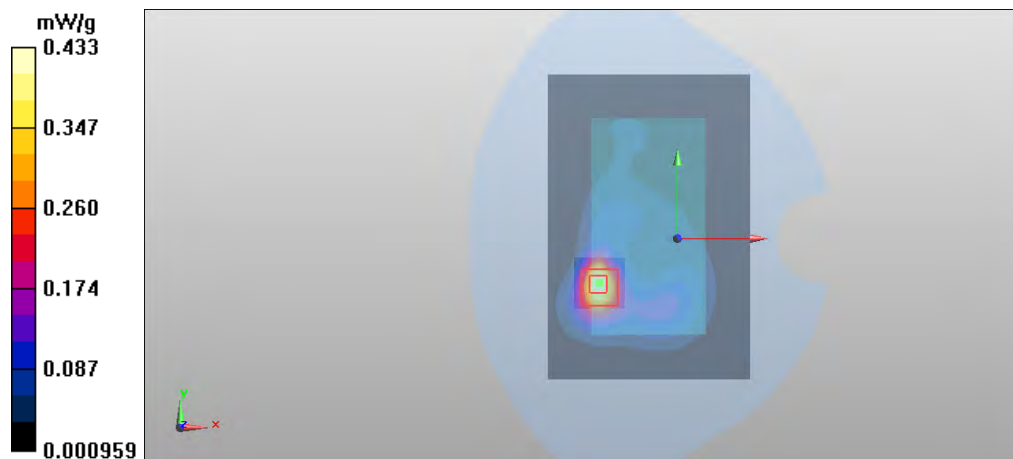
Peak SAR (extrapolated) = 0.746 mW/g

SAR(1 g) = 0.380 mW/g

SAR(10 g) = 0.183 mW/g

Power Drift = 0.34 dB

Maximum value of SAR (measured) = 0.433 mW/g



Date/Time: 2012-09-13 21:43:08

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: BSL2450; Medium Notes: $t = 21\text{ C}$

Medium parameters used: $f = 2462\text{ MHz}$; $\sigma = 1.972\text{ mho/m}$; $\epsilon_r = 51.938$; $\rho = 1000\text{ kg/m}^3$

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3852
- ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
- Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

WLAN/Body - High - Spacer 10mm - No accessory - Back Facing Phantom - CC-3063/Area Scan (121x181x1):

Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (interpolated) = 0.424 mW/g

WLAN/Body - High - Spacer 10mm - No accessory - Back Facing Phantom - CC-3063/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 4.335 V/m

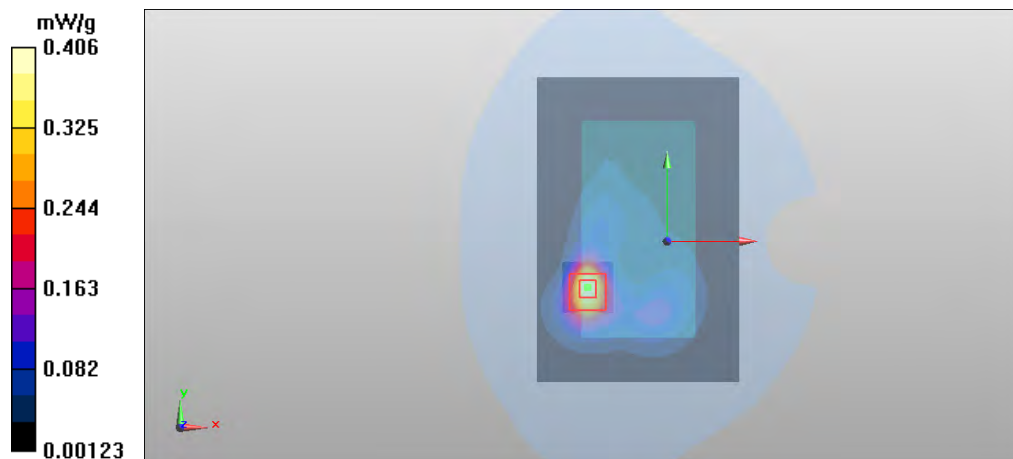
Peak SAR (extrapolated) = 0.693 mW/g

SAR(1 g) = 0.356 mW/g

SAR(10 g) = 0.173 mW/g

Power Drift = 0.18 dB

Maximum value of SAR (measured) = 0.406 mW/g



Date/Time: 2012-09-27 14:05:59

DASY Configuration for 2-Slot GPRS850/Body - High - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109944/4

Communication System: 2-slot GPRS850; Frequency: 848.8 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: MSL900 Medium parameters used: $f = 849$ MHz; $\sigma = 0.972$ mho/m; $\epsilon_r = 54.114$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM1 9/15/2012; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-13 21:16:40

DASY Configuration for WLAN/Body - High - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

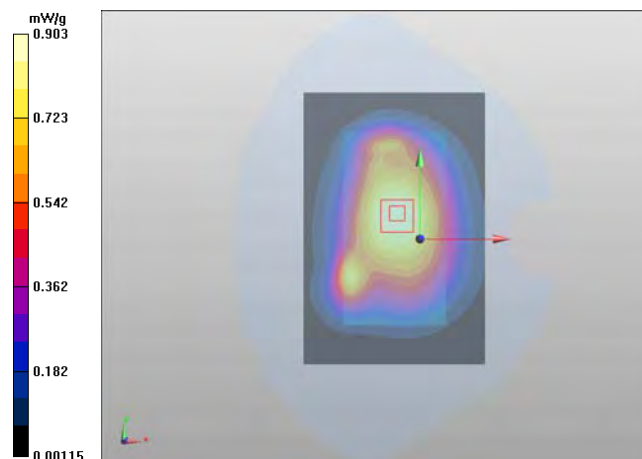
Medium: BSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.972$ mho/m; $\epsilon_r = 51.938$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.852 mW/g; SAR(10 g) = 0.599 mW/g

Maximum value of SAR (interpolated) = 0.903 mW/g



Date/Time: 2012-09-10 12:02:26

DASY Configuration for WCDMA850 Back/Body - Low - Spacer 10mm - No Accessory - Display Facing

Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: WCDMA850; Frequency: 826.4 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL900 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.962$ mho/m; $\epsilon_r = 54.194$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(5.83, 5.83, 5.83); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM1 9/8/2012; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-13 21:16:40

DASY Configuration for WLAN b-mode/Body - High - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

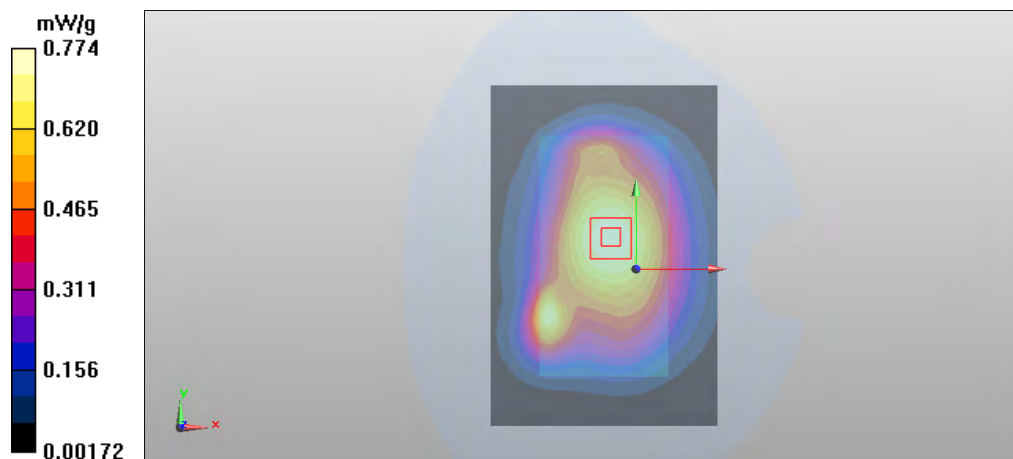
Medium: BSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.972$ mho/m; $\epsilon_r = 51.938$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.731 mW/g; SAR(10 g) = 0.513 mW/g

Maximum value of SAR (interpolated) = 0.774 mW/g



Date/Time: 2012-09-11 09:35:20

DASY Configuration for WCDMA/Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: WCDMA1700/2100; Frequency: 1732.4 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1800 Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.411$ mho/m; $\epsilon_r = 51.266$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;

Sensor-Surface: 4mm (Mechanical Surface Detection)

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

Phantom: SAM3; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-13 21:16:40

DASY Configuration for WLAN/Body - High - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.972$ mho/m; $\epsilon_r = 51.938$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;

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

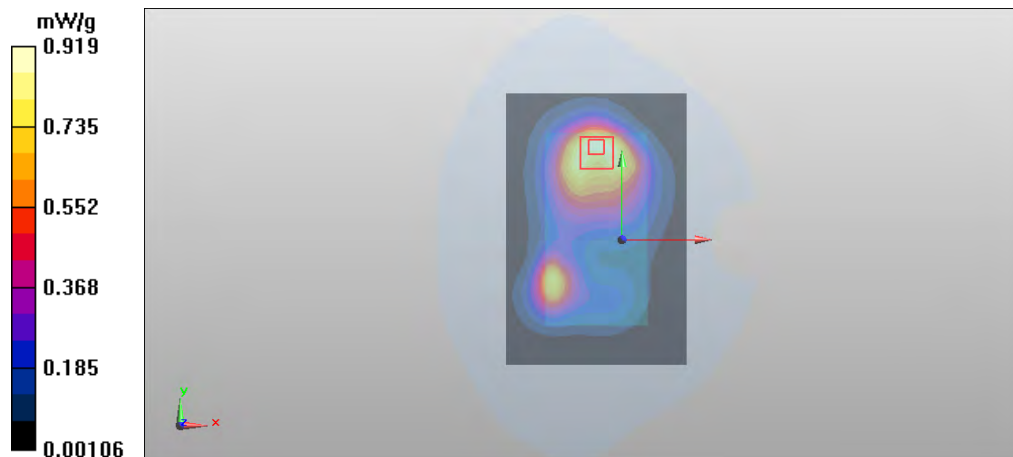
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27

Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.821 mW/g; SAR(10 g) = 0.509 mW/g

Maximum value of SAR (interpolated) = 0.919 mW/g



Date/Time: 2012-09-13 19:43:26

DASY Configuration for 4-slot GPRS/Body - Middle - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: 4-slot GPRS1900; Frequency: 1880 MHz; Duty Cycle: 1:2.09991; PMF: 1.44911

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.524$ mho/m; $\epsilon_r = 51.724$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;

Sensor-Surface: 4mm (Mechanical Surface Detection)

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

Phantom: SAM3 11-09-2012; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-13 21:16:40

DASY Configuration for WLAN/Body - High - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.972$ mho/m; $\epsilon_r = 51.938$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;

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

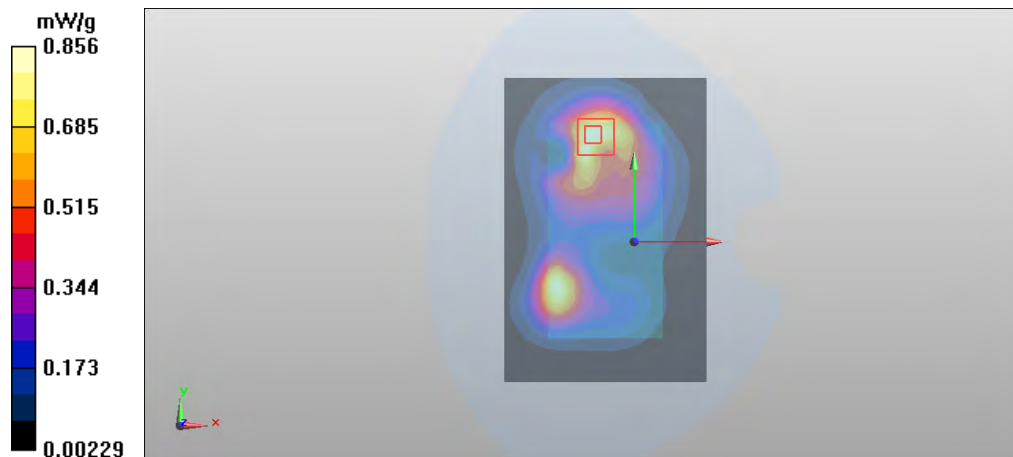
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27

Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.763 mW/g; SAR(10 g) = 0.436 mW/g

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



Date/Time: 2012-09-24 11:45:53

DASY Configuration for WCDMA/Body - Low - Spacer 10mm - No Accessory - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109925/3

Communication System: WCDMA1900; Frequency: 1852.4 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.553$ mho/m; $\epsilon_r = 51.287$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: ET3DV6R - SN1399; ConvF(4.47, 4.47, 4.47); Calibrated: 2012-02-10;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn701; Calibrated: 2012-08-15
Phantom: SAM 4 15-09-2012; Type: QD000P40CD; Serial: TP1630
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2012-09-13 21:16:40

DASY Configuration for WLAN/Body - High - Spacer 10mm - No accessory - Back Facing Phantom/Area Scan:

Test Laboratory: Nokia

Type: RM-878; Serial: 004402/47/109927/9

Communication System: WLAN2450 b-mode DSSS 1 Mbps; Frequency: 2462 MHz; Duty Cycle: 1:1; PMF: 1

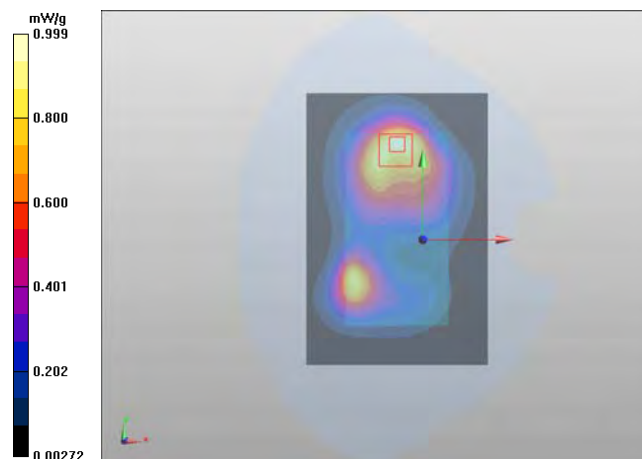
Medium: BSL2450 Medium parameters used: $f = 2462$ MHz; $\sigma = 1.972$ mho/m; $\epsilon_r = 51.938$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Probe: EX3DV4 - SN3852; ConvF(6.83, 6.83, 6.83); Calibrated: 2012-03-27;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2011-10-27
Phantom: SAM 2 9/12/2012; Type: QD000P40CA; Serial: TP:1182
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.884 mW/g; SAR(10 g) = 0.521 mW/g

Maximum value of SAR (interpolated) = 0.999 mW/g



APPENDIX C: DIELECTRIC PARAMETERS OF THE TISSUE SIMULANTS

Head tissue simulant dielectric parameters used in the measurements:

f (MHz)	Date	Dielectric Parameters					
		Ch 4132 826.4 MHz		Ch 4175 835.0 MHz		Ch 4233 846.6 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
835	2012-09-20	41.0	0.87	41.0	0.88	40.9	0.89
f (MHz)	Date	Ch 128 824.2 MHz		Ch 190 836.6 MHz		Ch 251 848.8 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
836	2012-08-31	41.7	0.90	41.6	0.91	41.5	0.92
	2012-09-17	40.0	0.86	39.9	0.87	39.8	0.88
	2012-09-19	40.2	0.85	40.1	0.86	40.0	0.87
	2012-09-26	41.4	0.88	41.3	0.89	41.2	0.90
f (MHz)	Date	Ch 1312 1712.4 MHz		Ch 1412 1732.4 MHz		Ch 1513 1752.6 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1732	2012-09-05	38.2	1.30	38.1	1.32	38.0	1.34
f (MHz)	Date	Ch 512 1850.2 MHz		Ch 661 1880.0 MHz		Ch 810 1909.8 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1880	2012-08-28	39.4	1.36	39.3	1.39	39.1	1.42
f (MHz)	Date	Ch 9262 1852.4 MHz		Ch 9400 1880.0 MHz		Ch 9538 1907.6 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1880	2012-08-31	38.1	1.43	38.0	1.46	37.9	1.48
f (MHz)	Date	Ch 1 2412.0 MHz		Ch 6 2437.0 MHz		Ch 11 2462.0 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
2437	2012-09-14	38.2	1.76	38.2	1.79	38.1	1.81

Head tissue simulant dielectric parameters used in the measurements 5180 – 5805 MHz:

f (MHz)	Date	Dielectric Parameters							
		Ch 36 5180.0 MHz		Ch 40 5200.0 MHz		5210.0 MHz		Ch 48 5240.0 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5210	2012-09-11	35.6	4.50	35.6	4.52	35.6	4.54	35.5	4.57
	2012-09-19	35.9	4.53	35.9	4.55	35.9	4.57	35.8	4.60
f (MHz)	Date	Dielectric Parameters							
		Ch 52 5260.0 MHz		5290.0 MHz		Ch 64 5320.0 MHz		-	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5290	2012-09-19	35.8	4.63	35.8	4.66	35.7	4.70	-	-
f (MHz)	Date	Dielectric Parameters							
		Ch 100 5500.0 MHz		Ch 112 5560.0 MHz		Ch 128 5640.0 MHz		Ch 140 5700.0 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5600	2012-09-10	35.6	4.94	35.5	5.01	35.4	5.11	35.3	5.22
f (MHz)	Date	Dielectric Parameters							
		Ch 149 5745.0 MHz		Ch 157 5785.0 MHz		Ch 165 5825.0 MHz		-	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5785	2012-09-10	35.2	5.28	35.2	5.33	35.1	5.38	-	-
	2012-09-11	34.8	5.25	34.7	5.31	34.6	5.36	-	-

Body tissue simulant dielectric parameters used in the measurements:

f (MHz)	Date	Dielectric Parameters					
		Ch 4132 826.4 MHz		Ch 4175 835.0 MHz		Ch 4233 846.6 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
835	2912-09-10	54.2	0.96	54.2	0.97	54.2	0.98
	2012-09-20	54.7	0.97	54.6	0.97	54.6	0.98
f (MHz)	Date	Ch 128 824.2 MHz		Ch 190 836.6 MHz		Ch 251 848.8 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
836	2012-09-12	54.9	0.97	54.8	0.98	54.8	0.99
	2012-09-27	54.2	0.96	54.2	0.96	54.1	0.97
f (MHz)	Date	Ch 1312 1712.4 MHz		Ch 1412 1732.4 MHz		Ch 1513 1752.6 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1732	2012-09-11	51.4	1.39	51.3	1.41	51.2	1.43
f (MHz)	Date	Ch 512 1850.2 MHz		Ch 661 1880.0 MHz		Ch 810 1909.8 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1880	2012-09-12	51.8	1.49	51.7	1.52	51.6	1.56
f (MHz)	Date	Ch 9262 1852.4 MHz		Ch 9400 1880.0 MHz		Ch 9538 1907.6 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
1880	2012-09-04	51.8	1.52	51.7	1.55	51.6	1.58
	2012-09-05	51.9	1.52	51.8	1.55	51.7	1.57
	2012-09-14	51.7	1.48	51.6	1.51	51.5	1.54
	2012-09-24	51.3	1.55	51.2	1.58	51.1	1.61
f (MHz)	Date	Ch 1 2412.0 MHz		Ch 6 2437.0 MHz		Ch 11 2462.0 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
2437	2012-09-13	52.0	1.91	52.0	1.94	51.9	1.97

Body tissue simulant dielectric parameters used in the measurements 5180 – 5805 MHz:

f (MHz)	Date	Dielectric Parameters							
		Ch 36 5180.0 MHz		Ch 40 5200.0 MHz		5210 MHz		Ch 48 5240.0 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5210	2012-09-15	48.0	5.21	47.9	5.25	47.9	5.27	47.8	5.34
f (MHz)	Date	Dielectric Parameters							
		Ch 52 5260.0 MHz		5290.0 MHz		Ch 64 5320.0 MHz		-	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5290	2012-09-15	47.8	5.37	47.7	5.42	47.7	5.46	-	-
f (MHz)	Date	Dielectric Parameters							
		Ch 100 5500.0 MHz		Ch 112 5560.0 MHz		Ch 128 5640.0 MHz		Ch 140 5700.0 MHz	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5600	2012-09-17	48.2	5.73	48.0	5.83	47.9	5.97	47.7	6.09
f (MHz)	Date	Dielectric Parameters							
		Ch 149 5745.0 MHz		Ch 157 5785.0 MHz		Ch 165 5825.0 MHz		-	
		ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]	ϵ_r	σ [S/m]
5785	2012-09-17	47.6	6.17	47.6	6.24	47.5	6.31	-	-

APPENDIX D: CONDUCTED AVERAGE POWER MEASUREMENTS FOR WCDMA AND HSUPA

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109942/8, HW: 0205, SW: 1530.0035.8516.9754.12312

D.1. WCDMA850 Test results

Average power

Ch / f(MHz)	P [dBm]
4132 / 826.4	23.0
4175 / 835.0	23.2
4233 / 846.6	23.1

D.2. HSUPA850 Test results

Average power

Ch / f(MHz)	P [dBm]				
	Subtest mode 1	Subtest mode 2	Subtest mode 3	Subtest mode 4	Subtest mode 5
4132 / 826.4	21.9	19.3	20.9	20.9	21.9
4175 / 835.0	21.7	19.4	21.2	21.3	22.4
4233 / 846.6	21.7	19.2	21.2	21.2	22.3

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

Maximum Power Reduction (MPR)				
Subtest mode 1	Subtest mode 2	Subtest mode 3	Subtest mode 4	Subtest mode 5
1.0 dB	3.0 dB	2.0 dB	3.0 dB	1.0 dB

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109942/8, HW: 0205, SW: 1530.0035.8516.9754.12312

D.3. WCDMA1700/2100 Test results

Average power

Ch / f(MHz)	P [dBm]
1312 / 1712.4	23.5
1412 / 1732.4	23.4
1513 / 1752.6	23.5

D.4. HSUPA1700/2100 Test results

Average power

Ch / f(MHz)	P [dBm]				
	Subtest mode 1	Subtest mode 2	Subtest mode 3	Subtest mode 4	Subtest mode 5
1312 / 1712.4	22.2	19.4	21.3	22.1	22.6
1412 / 1732.4	22.3	19.5	21.4	21.4	22.5
1513 / 1752.6	22.6	19.8	21.6	22.3	22.7

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

Maximum Power Reduction (MPR)				
Subtest mode 1	Subtest mode 2	Subtest mode 3	Subtest mode 4	Subtest mode 5
1.0 dB	3.0 dB	2.0 dB	3.0 dB	1.0 dB

Test Laboratory: TCC Nokia

Type: RM-878; Serial: 004402/47/109942/8, HW: 0205, SW: 1530.0035.8516.9754.12312

D.5. WCDMA1900 Test results

Average power

Ch / f(MHz)	P [dBm]
9262 / 1852.4	23.0
9400 / 1880.0	23.2
9538 / 1907.6	23.1

D.6. HSUPA1900 Test results

Average power

Ch / f(MHz)	P [dBm]				
	Subtest mode 1	Subtest mode 2	Subtest mode 3	Subtest mode 4	Subtest mode 5
9262 / 1852.4	21.9	19.3	20.9	20.9	21.9
9400 / 1880.0	21.7	19.4	21.2	21.3	22.4
9538 / 1907.6	21.7	19.2	21.2	21.2	22.3

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

Maximum Power Reduction (MPR)				
Subtest mode 1	Subtest mode 2	Subtest mode 3	Subtest mode 4	Subtest mode 5
1.0 dB	3.0 dB	2.0 dB	3.0 dB	1.0 dB