

SAR Compliance Test Report

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Tested device:	RM-927		
FCC ID:	QMND	IC:	661X-D
Supplement reports:	SAR_Photo_RM-927_01		
Testing has been carried out in accordance with:	47CFR §2.1093 Radiofrequency Radiation Exposure Evaluation: Portable Devices RSS-102 Evaluation Procedure for Mobile and Portable Radio Transmitters with Respect to Health Canada's Safety Code 6 for Exposure of Humans to Radio Frequency Fields IEEE 1528 - 2003 IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Technique		
Documentation:	The documentation of the testing performed on the tested devices is archived for 15 years at TCC Nokia.		
Test results:	The tested device complies with the requirements in respect of all parameters subject to the test. The test results and statements relate only to the items tested. The test report shall not be reproduced except in full, without written approval of the laboratory.		

Date and signatures:

For the contents:

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1. SUMMARY OF SAR TEST REPORT

1.1 Test Details

Period of test	2013-07-29 to 2013-08-20
SN, HW and SW numbers of tested device	SN: 355906/05/001238/3, HW: 0160, SW: 1028.0305.1329.10136, DUT: 31329 SN: 355906/05/001258/1, HW: 0160, SW: 1028.0305.1329.10136, DUT: 31330 SN: 355906/05/001243/3, HW: 0160, SW: 1028.0305.1329.10136, DUT: 31328 SN: 355906/05/001261/5, HW: 0160, SW: 1028.0305.1329.10136, DUT: 31332 SN: 355906/05/001344/9, HW: 0160, SW: 1028.0305.1329.10136, DUT: 31333 SN: 355906/05/001240/9, HW: 0160, SW: 1028.0305.1329.10136, DUT: 31335 SN: 355906/05/001239/1, HW: 0160, SW: 1028.0305.1329.10136, DUT: 31334
Batteries used in testing	-
Headsets used in testing	WH-902; DUT: 31331,31324,31325
Other accessories used in testing	-
State of sample	Prototype unit
Notes	-

1.2 Maximum Results

The maximum measured SAR values for Head configuration and Body Worn configuration and Wireless Router (“Hotspot”) and Simultaneous Voice LTE (SVLTE) Configuration are given in section 1.2.1, 1.2.2, 1.2.3 and 1.2.4 respectively. The device conforms to the requirements of the standards 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)	Reported* SAR value (1g avg)	SAR limit (1g avg)	Result	Plot #
LTE750	23230 / 782.0	24.26 dBm	Right, Cheek	0.723 W/kg	0.74 W/kg	1.6 W/kg	PASSED	1
CDMA800	777.0 / 848.3	24.72 dBm	Left, Cheek	0.673 W/kg	0.69 W/kg	1.6 W/kg	PASSED	82
2-slot GPRS850	251 / 848.8	30.66 dBm	Left, Cheek	0.656 W/kg	0.69 W/kg	1.6 W/kg	PASSED	3
WCDMA850	4233 / 846.6	23.23 dBm	Left, Cheek	0.474 W/kg	0.49 W/kg	1.6 W/kg	PASSED	4
LTE1700/2100	20300 / 1745.0	23.75 dBm	Right, Cheek	0.955 W/kg	0.98 W/kg	1.6 W/kg	PASSED	85
CDMA1900	600 / 1880.0	24.30 dBm	Left, Cheek	1.11 W/kg	1.12 W/kg	1.6 W/kg	PASSED	86
2-slot GPRS1900	512 / 1850.2	27.52 dBm	Right, Cheek	0.611 W/kg	0.66 W/kg	1.6 W/kg	PASSED	7
WCDMA1900	9262 / 1852.4	23.27 dBm	Right, Cheek	0.909 W/kg	0.93 W/kg	1.6 W/kg	PASSED	8
WLAN2450	11 / 2462.0	17.78 dBm	Left, Tilt	0.669 W/kg	0.79 W/kg	1.6 W/kg	PASSED	9
WLAN5000	100 / 5500.0	12.90 dBm	Left, Cheek	0.280 W/kg	0.32 W/kg	1.6 W/kg	PASSED	10
LTE750 + WLAN2450	-	-	Right, Cheek	0.723 W/kg	0.74 W/kg	1.6 W/kg	PASSED	1
CDMA800 + WLAN2450	-	-	Left, Cheek	0.669 W/kg	0.79 W/kg	1.6 W/kg	PASSED	9
2-slot GPRS850 + WLAN2450	-	-	Left, Cheek	0.669 W/kg	0.79 W/kg	1.6 W/kg	PASSED	9
WCDMA850 + WLAN2450	-	-	Left, Cheek	0.669 W/kg	0.79 W/kg	1.6 W/kg	PASSED	9
LTE1700/2100 + WLAN2450	-	-	Right, Cheek	0.955 W/kg	0.98 W/kg	1.6 W/kg	PASSED	85
CDMA1900 + WLAN2450	-	-	Left, Cheek	1.11 W/kg	1.12 W/kg	1.6 W/kg	PASSED	86
2-slot GPRS1900 + WLAN2450	-	-	Right, Cheek	0.669 W/kg	0.79 W/kg	1.6 W/kg	PASSED	9
WCDMA1900 + WLAN2450	-	-	Right, Cheek	0.909 W/kg	0.93 W/kg	1.6 W/kg	PASSED	8
LTE750 + WLAN5000	-	-	Right, Cheek	0.723 W/kg	0.74 W/kg	1.6 W/kg	PASSED	1
CDMA800 + WLAN5000	-	-	Left, Cheek	0.673 W/kg	0.69 W/kg	1.6 W/kg	PASSED	82
2-slot GPRS850 + WLAN5000	-	-	Left, Cheek	0.656 W/kg	0.69 W/kg	1.6 W/kg	PASSED	3

(Table continues)

(Table continues)

WCDMA850 + WLAN5000	-	-	Left, Cheek	0.474 W/kg	0.49 W/kg	1.6 W/kg	PASSED	4
LTE1700/2100 + WLAN5000	-	-	Right, Cheek	0.955 W/kg	0.98 W/kg	1.6 W/kg	PASSED	85
CDMA1900 + WLAN5000	-	-	Left, Cheek	1.11 W/kg	1.12 W/kg	1.6 W/kg	PASSED	86
2-slot GPRS1900 + WLAN5000	-	-	Right, Cheek	0.611 W/kg	0.66 W/kg	1.6 W/kg	PASSED	7
WCDMA1900 + WLAN5000	-	-	Right, Cheek	0.909 W/kg	0.93 W/kg	1.6 W/kg	PASSED	8

1.2.2 Body Worn Configuration

Mode	Ch / f(MHz)	Conducted power	Separation distance	Measured SAR value (1g avg)	Reported* SAR value (1g avg)	SAR limit (1g avg)	Result	Plot #
LTE750	23230 / 782	24.26 dBm	1.5 cm	0.343 W/kg	0.35 W/kg	1.6 W/kg	PASSED	27
CDMA800	777 / 848.3	24.72 dBm	1.5 cm	0.684 W/kg	0.71 W/kg	1.6 W/kg	PASSED	28
2-slot GPRS850	251 / 848.8	30.66 dBm	1.5 cm	0.612 W/kg	0.64 W/kg	1.6 W/kg	PASSED	29
WCDMA850	4233 / 846.6	23.23 dBm	1.5 cm	0.496 W/kg	0.51 W/kg	1.6 W/kg	PASSED	30
LTE1700/2100	20300 / 1745	23.75 dBm	1.5 cm	0.547 W/kg	0.56 W/kg	1.6 W/kg	PASSED	31
CDMA1900	25 / 1851.25	24.31 dBm	1.5 cm	1.03 W/kg	1.04 W/kg	1.6 W/kg	PASSED	32
2-slot GPRS1900	512 / 1850.2	27.52 dBm	1.5 cm	0.381 W/kg	0.41 W/kg	1.6 W/kg	PASSED	33
WCDMA1900	9262 / 1852.4	23.27 dBm	1.5 cm	0.603 W/kg	0.61 W/kg	1.6 W/kg	PASSED	34
WLAN2450	1 / 2412	18.03 dBm	1.5 cm	0.080 W/kg	0.09 W/kg	1.6 W/kg	PASSED	35
WLAN5000	60 / 5300	12.91 dBm	1.5 cm	0.067 W/kg	0.08 W/kg	1.6 W/kg	PASSED	36
LTE750 + WLAN2450	-	-	1.5 cm	0.344 W/kg	0.37 W/kg	1.6 W/kg	PASSED	37
CDMA800 + WLAN2450	-	-	1.5 cm	0.687 W/kg	0.71 W/kg	1.6 W/kg	PASSED	38
2-slot GPRS850 + WLAN2450	-	-	1.5 cm	0.619 W/kg	0.65 W/kg	1.6 W/kg	PASSED	39
WCDMA850 + WLAN2450	-	-	1.5 cm	0.502 W/kg	0.52 W/kg	1.6 W/kg	PASSED	40
LTE1700/2100 + WLAN2450	-	-	1.5 cm	0.543 W/kg	0.56 W/kg	1.6 W/kg	PASSED	41

(Table continues)

(Table continues)

CDMA1900 + WLAN2450	-	-	1.5 cm	1.03 W/kg	1.04 W/kg	1.6 W/kg	PASSED	32
2-slot GPRS1900 + WLAN2450	-	-	1.5 cm	0.381 W/kg	0.41 W/kg	1.6 W/kg	PASSED	43
WCDMA1900 + WLAN2450	-	-	1.5 cm	0.609 W/kg	0.62 W/kg	1.6 W/kg	PASSED	44
LTE750 + WLAN5000	-	-	1.5 cm	0.343 W/kg	0.35 W/kg	1.6 W/kg	PASSED	27
CDMA800 + WLAN5000	-	-	1.5 cm	0.701 W/kg	0.73 W/kg	1.6 W/kg	PASSED	46
2-slot GPRS850 + WLAN5000	-	-	1.5 cm	0.632 W/kg	0.66 W/kg	1.6 W/kg	PASSED	47
WCDMA850 + WLAN5000	-	-	1.5 cm	0.516 W/kg	0.53 W/kg	1.6 W/kg	PASSED	48
LTE1700/2100 + WLAN5000	-	-	1.5 cm	0.547 W/kg	0.56 W/kg	1.6 W/kg	PASSED	31
CDMA1900 + WLAN5000	-	-	1.5 cm	1.03 W/kg	1.04 W/kg	1.6 W/kg	PASSED	32
2-slot GPRS1900 + WLAN5000	-	-	1.5 cm	0.382 W/kg	0.41 W/kg	1.6 W/kg	PASSED	51
WCDMA1900 + WLAN5000	-	-	1.5 cm	0.602 W/kg	0.62 W/kg	1.6 W/kg	PASSED	52

1.2.3 Wireless Router Configuration

Mode	Ch / f(MHz)	Conducted power	Separation distance	Measured SAR value (1g avg)	Reported* SAR value (1g avg)	SAR limit (1g avg)	Result	Plot #
LTE750	23230 / 782	24.26 dBm	1.0 cm	0.598 W/kg	0.61 W/kg	1.6 W/kg	PASSED	53
CDMA800	777 / 848.3	24.72 dBm	1.0 cm	0.921 W/kg	0.95 W/kg	1.6 W/kg	PASSED	54
2-slot GPRS850	251 / 848.8	30.66 dBm	1.0 cm	0.961 W/kg	1.00 W/kg	1.6 W/kg	PASSED	55
WCDMA850	4233 / 846.6	23.23 dBm	1.0 cm	0.667 W/kg	0.69 W/kg	1.6 W/kg	PASSED	56
LTE1700/2100	20300 / 1745	23.75 dBm	1.0 cm	1.08 W/kg	1.11 W/kg	1.6 W/kg	PASSED	57
CDMA1900	600 / 1880	21.18 dBm	1.0 cm	0.939 W/kg	0.98 W/kg	1.6 W/kg	PASSED	58
2-slot GPRS1900	512 / 1850.2	27.52 dBm	1.0 cm	0.803 W/kg	0.87 W/kg	1.6 W/kg	PASSED	59
WCDMA1900	9262 / 1852.4	21.32 dBm	1.0 cm	0.657 W/kg	0.66 W/kg	1.6 W/kg	PASSED	60
WLAN2450	11 / 2462	17.78 dBm	1.0 cm	0.132 W/kg	0.16 W/kg	1.6 W/kg	PASSED	61

(Table continues)

(Table continues)

LTE750 + WLAN2450	-	-	1.0 cm	0.604 W/kg	0.62 W/kg	1.6 W/kg	PASSED	62
CDMA800 + WLAN2450	-	-	1.0 cm	0.919 W/kg	0.95 W/kg	1.6 W/kg	PASSED	63
2-slot GPRS850 + WLAN2450	-	-	1.0 cm	0.971 W/kg	1.01 W/kg	1.6 W/kg	PASSED	64
WCDMA850 + WLAN2450	-	-	1.0 cm	0.667 W/kg	0.69 W/kg	1.6 W/kg	PASSED	56
LTE1700/2100 + WLAN2450	-	-	1.0 cm	1.08 W/kg	1.11 W/kg	1.6 W/kg	PASSED	57
CDMA1900 + WLAN2450	-	-	1.0 cm	0.939 W/kg	0.98 W/kg	1.6 W/kg	PASSED	58
2-slot GPRS1900 + WLAN2450	-	-	1.0 cm	0.803 W/kg	0.87 W/kg	1.6 W/kg	PASSED	59
WCDMA1900 + WLAN2450	-	-	1.0 cm	0.657 W/kg	0.66 W/kg	1.6 W/kg	PASSED	60

1.2.4 Simultaneous Voice LTE (SVLTE) Configuration

Head Configuration

Mode	Ch / f(MHz)	Conducted power	Position	Measured SAR value (1g avg)	Reported* SAR value (1g avg)	SAR limit (1g avg)	Result	Plot #
LTE750 + CDMA800	-	-	Right, Cheek	0.886 W/kg	0.89 W/kg	1.6 W/kg	PASSED	70
LTE750 + CDMA1900	-	-	Left, Cheek	1.11 W/kg	1.12 W/kg	1.6 W/kg	PASSED	71
LTE1700/2100 + CDMA800	-	-	Right, Cheek	0.955 W/kg	0.98 W/kg	1.6 W/kg	PASSED	85
LTE1700/2100 + CDMA1900	-	-	Left, Cheek	1.14 W/kg	1.15 W/kg	1.6 W/kg	PASSED	73
LTE750 + CDMA800 + WLAN2450	-	-	Left, Cheek	0.889 W/kg	0.90 W/kg	1.6 W/kg	PASSED	74
LTE750 + CDMA1900 + WLAN2450	-	-	Left, Cheek	1.12 W/kg	1.13 W/kg	1.6 W/kg	PASSED	75
LTE1700/2100 + CDMA800 + WLAN2450	-	-	Right, Cheek	0.998 W/kg	1.02W/kg	1.6 W/kg	PASSED	91
LTE1700/2100 + CDMA1900 + WLAN2450	-	-	Left, Cheek	1.23 W/kg	1.25 W/kg	1.6 W/kg	PASSED	92
LTE750 + CDMA800 + WLAN5000	-	-	Right, Cheek	0.896 W/kg	0.91 W/kg	1.6 W/kg	PASSED	78
LTE750 + CDMA1900 + WLAN5000	-	-	Left, Cheek	1.11 W/kg	1.12 W/kg	1.6 W/kg	PASSED	71
LTE1700/2100 + CDMA800 + WLAN5000	-	-	Right, Cheek	0.955 W/kg	0.98 W/kg	1.6 W/kg	PASSED	85
LTE1700/2100 + CDMA1900 + WLAN5000	-	-	Left, Cheek	1.23 W/kg	1.24 W/kg	1.6 W/kg	PASSED	93

Body Worn Configuration

Mode	Ch / f(MHz)	Conducted power	Separation distance	Measured SAR value (1g avg)	Reported* SAR value (1g avg)	SAR limit (1g avg)	Result	Plot #
LTE750 + CDMA800	-	-	1.5 cm	0.923 W/kg	0.96 W/kg	1.6 W/kg	PASSED	94
LTE750 + CDMA1900	-	-	1.5 cm	1.03 W/kg	1.04 W/kg	1.6 W/kg	PASSED	32
LTE1700/2100 + CDMA800	-	-	1.5 cm	0.839 W/kg	0.86 W/kg	1.6 W/kg	PASSED	96
LTE1700/2100 + CDMA1900	-	-	1.5 cm	1.06 W/kg	1.07 W/kg	1.6 W/kg	PASSED	97
LTE750 + CDMA800 + WLAN2450	-	-	1.5 cm	0.929 W/kg	0.97 W/kg	1.6 W/kg	PASSED	98
LTE750 + CDMA1900 + WLAN2450	-	-	1.5 cm	1.03 W/kg	1.04 W/kg	1.6 W/kg	PASSED	32
LTE1700/2100 + CDMA800 + WLAN2450	-	-	1.5 cm	0.845 W/kg	0.87 W/kg	1.6 W/kg	PASSED	100
LTE1700/2100 + CDMA1900 + WLAN2450	-	-	1.5 cm	1.07 W/kg	1.08 W/kg	1.6 W/kg	PASSED	101
LTE750 + CDMA800 + WLAN5000	-	-	1.5 cm	0.947 W/kg	0.98 W/kg	1.6 W/kg	PASSED	102
LTE750 + CDMA1900 + WLAN5000	-	-	1.5 cm	1.03 W/kg	1.04 W/kg	1.6 W/kg	PASSED	32
LTE1700/2100 + CDMA800 + WLAN5000	-	-	1.5 cm	0.858 W/kg	0.89 W/kg	1.6 W/kg	PASSED	104
LTE1700/2100 + CDMA1900 + WLAN5000	-	-	1.5 cm	1.06 W/kg	1.07 W/kg	1.6 W/kg	PASSED	97

* Reported SAR values are scaled to, or measured at, upper limit of power tuning tolerance.

1.2.5 Summary SAR data

	FCC-defined SAR values for the Grants of Equipment Authorization		
	PCE	DTS	NII
Maximum Head SAR values	1.12 W/kg	0.79 W/kg	0.32 W/Kg
{Max + Max + Max} Simultaneous Head SAR value	1.53 W/kg †		
Maximum Body SAR values	1.04 W/kg	0.09 W/kg	0.08 W/Kg
{Max + Max} Simultaneous Body SAR value	1.58 W/kg ††		
Maximum Product Specific (Wireless Router) SAR values	1.11 W/kg	0.16 W/kg	N/A
{Max + Max} Simultaneous Product Specific SAR value	1.21 W/kg †††		
Maximum Simultaneous SAR value	1.58 W/kg		
Body SAR: LTE1700/2100+CDMA1900			

PCE contains the highest results between all cellular modes (cellular 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 7.1 and 7.4.1:

The highest {Max + Max + Max} Simultaneous Head SAR value is 2.02W/kg i.e. > 1.6W/kg for LTE750 + CDMA1900 + WLAN2450 Left Cheek test configuration. As described in KDB447498 D01 v05 the Antenna Pair SAR to Peak Separation Ratio = 0.03, hence Simultaneous Transmission Procedures are not required (see Section 7.1.1 Simultaneous Transmission SAR Test Exclusion Considerations for Head Measurements).

The second highest {Max + Max + Max} Simultaneous Head SAR value is 2.01W/kg i.e. > 1.6W/kg for LTE1700/2100 + CDMA1900 + WLAN2450 Left Cheek test configuration. As described in KDB447498 D01 v05 the Antenna Pair SAR to Peak Separation Ratio > 0.04, expanded zoom scans as described in KDB865664 were performed. The resulting combined SAR value was 1.25W/kg (see Section 7.4.1.1 Simultaneous Transmission SAR Test Exclusion Considerations for Head Measurements).

The third highest {Max + Max + Max} Simultaneous Head SAR value is 1.73W/kg i.e. > 1.6W/kg for LTE750 + CDMA1900 + WLAN5000 Left Cheek test configuration. As described in KDB447498 D01 v05 the Antenna Pair SAR to Peak Separation Ratio = 0.03, hence Simultaneous Transmission Procedures are not required (see Section 7.4.1.1 Simultaneous Transmission SAR Test Exclusion Considerations for Head Measurements).

The fourth highest {Max + Max + Max} Simultaneous Head SAR value is 1.73W/kg i.e. > 1.6W/kg for LTE1700/2100 + CDMA1900 + WLAN5000 Left Cheek test configuration. As described in KDB447498 D01 v05 the Antenna Pair SAR to Peak Separation Ratio > 0.04, expanded zoom scans as described in KDB865664 were performed. The resulting combined SAR value was 1.24W/kg (see Section 7.4.1.1 Simultaneous Transmission SAR Test Exclusion Considerations for Head Measurements).

The fifth highest {Max + Max} Simultaneous Head SAR value is 1.69W/kg i.e. > 1.6W/kg for CDMA1900 + WLAN2450 Left Cheek test configuration. As described in KDB447498 D01 v05 the Antenna Pair SAR to Peak Separation Ratio = 0.02, hence Simultaneous Transmission Procedures are not required (see Section 7.1.1 Simultaneous Transmission SAR Test Exclusion Considerations for Head Measurements).

The sixth highest {Max + Max + Max} Simultaneous Head SAR value is 1.66W/kg i.e. > 1.6W/kg for LTE1700/2100 + CDMA800 + WLAN2450 Right Cheek test configuration. As described in KDB447498 D01 v05 the Antenna Pair SAR to Peak Separation Ratio > 0.04, expanded zoom scans as described in KDB865664 were performed. The resulting combined SAR value was 1.02W/kg (see Section 7.4.1.1 Simultaneous Transmission SAR Test Exclusion Considerations for Head Measurements).

The seventh highest {Max + Max + Max} Simultaneous Head SAR value is 1.61W/kg i.e. > 1.6W/kg for LTE750 + CDMA800 + WLAN2450 Left Cheek test configuration. As described in KDB447498 D01 v05 the Antenna Pair SAR to Peak Separation Ratio = 0.01, hence Simultaneous Transmission Procedures are not required (see Section 7.4.1.1 Simultaneous Transmission SAR Test Exclusion Considerations for Head Measurements).

The eighth highest {Max + Max + Max} Simultaneous Head SAR value is 1.60W/kg i.e. > 1.6W/kg for LTE1700/2100 + CDMA800 + WLAN2450 Left Cheek test configuration. As described in KDB447498 D01 v05 the Antenna Pair SAR to Peak Separation Ratio > 0.04, expanded zoom scans as described in KDB865664 were performed. The resulting combined SAR value was 0.939 W/kg (see Section 7.4.1.1 Simultaneous Transmission SAR Test Exclusion Considerations for Head Measurements).

The ninth highest {Max + Max + Max} Simultaneous Head SAR value is 1.60W/kg i.e. > 1.6W/kg for LTE1700/2100 + CDMA1900 + WLAN2450 Right Cheek test configuration. As described in KDB447498 D01 v05 the Antenna Pair SAR to Peak Separation Ratio = 0.02, hence Simultaneous Transmission Procedures are not required (see Section 7.4.1.1 Simultaneous Transmission SAR Test Exclusion Considerations for Head Measurements).

Consequently {Max + Max + Max} Simultaneous Head SAR quoted here is 1.53W/kg for LTE750 + CDMA800 + WLAN2450 Right Cheek.

†† From Section 7.2 and 7.4.2:

The highest {Max + Max + Max} Simultaneous Head SAR value is 1.67W/kg i.e. > 1.6W/kg for LTE1700/2100 + CDMA1900 + WLAN2450 Display facing phantom, Headset WH-902 test configuration. As described in KDB447498 D01 v05 the Antenna Pair SAR to Peak Separation Ratio = 0.04, hence Simultaneous Transmission Procedures are not required (see Section 7.4.2.1 Simultaneous Transmission SAR Test Exclusion Considerations for Head Measurements).

The highest {Max + Max + Max} Simultaneous Head SAR value is 1.60W/kg i.e. > 1.6W/kg for LTE1700/2100 + CDMA1900 + WLAN2450 Display facing phantom, without headset test configuration. As described in KDB447498 D01 v05 the Antenna Pair SAR to Peak Separation Ratio = 0.04, hence Simultaneous Transmission Procedures are not required (see Section 7.4.2.1 Simultaneous Transmission SAR Test Exclusion Considerations for Head Measurements).

The highest {Max + Max + Max} Simultaneous Head SAR value is 1.60W/kg i.e. > 1.6W/kg for LTE1700/2100 + CDMA1900 + WLAN5000 Display facing phantom, without headset test configuration. As described in KDB447498 D01 v05 the Antenna Pair SAR to Peak Separation Ratio = 0.04, hence Simultaneous Transmission Procedures are not required (see Section 7.4.2.1 Simultaneous Transmission SAR Test Exclusion Considerations for Head Measurements).

The highest {Max + Max} Simultaneous Body-worn SAR value is 1.58W/kg for LTE1700/2100+CDMA1900.

††† From Section 7.3

The highest {Max + Max} Simultaneous Wireless Router SAR value is 1.21W/kg for LTE1700/2100+WLAN2450.

1.2.6 Maximum Drift

Maximum drift covered by 12% scaling up of the SAR values	Maximum drift during measurements
0.2dB	0.20dB

1.2.7 Measurement Uncertainty

Expanded Uncertainty (k=2) 95%	± 27.8%
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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)	Power Tuning Target (dBm)				Upper Limit of Power Tuning Tolerance (dBm)			
					1-slot	2-slot	3-slot	4-slot	1-slot	2-slot	3-slot	4-slot
GSM / GPRS	850	GMSK	1/8 to 4/8	824 – 849	32	30.5	28	27	32.35	30.85	28.35	27.35
	1900			1850 – 1910	29.5	27.5	25	24	29.85	27.85	25.35	24.35
EGPRS	850	GMSK / 8PSK	1/8 to 4/8	824 – 849	26	26	24	23	26.35	26.35	24.35	23.35
	1900			1850 – 1910	25	25	23	22	25.35	25.35	23.35	22.35
CDMA	800		1	824 – 849	24.5				24.85			
	1900		1	1850 – 1910	24				24.35			
WCDMA	850 (Band V)		1	826 – 847	23				23.35			
	1900 (Band II)		1	1852 – 1908	23				23.35			
HSUPA	850 (Band V)		1	826 – 847	See Appendix D for details							
	1900 (Band II)		1	1852 – 1908								
LTE	750	QPSK / 16QAM		777 – 787	24				24.35			
	1700/2100			1710 – 1755	23.5				23.85			
BT	2450	GFSK	1	2402 – 2480	7.5				9.0			
					Ch 1 - 11				Ch 1 - 11			
WLAN b-mode** 20MHz	2450	DSSS	1	2412 – 2472	17				18.5			
WLAN g-mode** 20MHz	2450	OFDM	1	2412 – 2472	16				17.5			
WLAN n-mode** 20MHz	2450	OFDM	1	2412 – 2462 2412 – 2472	14				15.5			
					Ch 36 - 165				Ch 36 - 165			
WLAN a-mode** 20MHz	5000	OFDM	1	5150 – 5825	12				13.5			
WLAN n-mode** 20MHz	5000	OFDM	1	5150 – 5825	12				13.5			

(Table continues)

(Table continues)

					Ch 38-163	Ch 38-163
WLAN n-mode** 40MHz	5000	OFDM	1	5180 – 5825	10	11.5
					Ch 42-155	Ch 42-155
WLAN ac-mode** 80MHz	5000	OFDM	1	5180 – 5805	10	11.5

**Maximum tuning targets are presented above. See full details in Appendix K.

This is a 1 x RTT Ev-Do Rev0 device.

Outside of USA and Canada, the transmitter of the device is capable of operating also in GSM/GPRS/EGPRS900, GSM/GPRS/EGPRS1800, WCDMA900 (Band 8) and WCDMA2100 (Band 1) 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 device is Class B DTM device. Multislot DTM capability is multislot class 11 as defined in 3GPP TS 45.002, Annex B. The maximum number of timeslots for voice and data transmission are 1 and 2, respectively. See Chapter 3.2 for test reduction of GSM/GPRS multislot vs. DTM mode.

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 D of this report gives a summary of the measured WCDMA and HSUPA average powers; a detailed report of these WCDMA and HSUPA conducted power tests is submitted separately.

This is an LTE Category 4 device; it contains two LTE bands, namely LTE750 (band 13) and LTE1700/2100 (band 4). In LTE750 (Band 13), the device possesses Channel Bandwidths of 10MHz and 5MHz; in LTE1700/2100 (Band 4) Channel Bandwidths of 20MHz, 15MHz, 10MHz and 5MHz are available.

This is a BT Class 1 device; as its upper limit of power tuning tolerance is 9.0dBm (7.94mW), SAR testing was deemed unnecessary since $(7.94\text{mW}/5\text{mm}) \cdot \sqrt{2.48\text{GHz}} < 3.0$ (KDB447498 D01 General RF Exposure Guidelines v05 Section 4.3.1 Standalone SAR test exclusion considerations). Since WLAN2450 and BT use same frequency and antenna, WLAN2450 power is 8dB higher, and they can not transmit simultaneously, the WLAN2450+cellular bands combined SAR results can be regarded as conservative estimation of BT+cellular combined

SARs. As WLAN2450+cellular combined SAR result are below limit, also BT+cellular combined SAR can be deemed to comply without further analysis and estimations required in KDB 447498 for simultaneous transmission exclusion.

This device has SVLTE mode capability.

This device uses a single antenna for transmission of CDMA800, WCDMA850, CDMA1900 and GSM/GPRS/EGPRS850; a separate single antenna is used for transmission of LTE750 (band 13), LTE1700/2100 (band 4), GSM/GPRS/EGPRS1900 and WCDMA1900 (band 2) ;third separate single antenna is used for WLAN. Simultaneous transmission of any singular cellular and PCS band is possible with WLAN in Head and Body-worn use according to the table below. In SVLTE mode simultaneous transmission of LTE is also possible only with CDMA bands.

Simultaneous transmission capabilities in Head and Body-worn use		
	WLAN2450	WLAN5000
LTE750	✓	✓
CDMA800	✓	✓
GSM/GPRS/EGPRS850	✓	✓
WCDMA850	✓	✓
LTE1700/2100	✓	✓
CDMA1900	✓	✓
GSM/GPRS/EGPRS1900	✓	✓
WCDMA1900	✓	✓
SVLTE: LTE750 + CDMA800	✓	✓
SVLTE: LTE750 + CDMA1900	✓	✓
SVLTE: LTE1700/2100 + CDMA800	✓	✓
SVLTE: LTE1700/2100 + CDMA1900	✓	✓

This device has Wireless Router "Hotspot" mode capability. Simultaneous transmission of any cellular, AWS and PCS band is possible with WLAN2450 in Wireless Router mode. Wireless Router mode capability is not available with WLAN5000.

Simultaneous transmission capabilities in Wireless Router use		
	WLAN2450	WLAN5000
LTE750	✓	-
CDMA800	✓	-
GSM/GPRS/EGPRS850	✓	-
WCDMA850	✓	-
LTE1700/2100	✓	-
CDMA1900	✓	-
GSM/GPRS/EGPRS1900	✓	-
WCDMA1900	✓	-

2.1 Power reductions in Wireless Router and SVLTE configurations

The following table details the power reductions active in Wireless Router mode:

Band	Power reduction in WR mode	Target tuning power in WR mode	
LTE750	0 dB	24.0 dBm	
CDMA800	0 dB	24.5 dBm	
GPRS/EGPRS850	0 dB	1-slot GPRS: 32.0 dBm 2-slot GPRS: 30.5 dBm 3-slot GPRS: 28.0 dBm 4-slot GPRS: 27.0 dBm	1-slot EGPRS: 26.0 dBm 2-slot EGPRS: 26.0 dBm 3-slot EGPRS: 24.0 dBm 4-slot EGPRS: 23.0 dBm
WCDMA850	0 dB	23.0 dBm	
LTE1700/2100	0 dB	23.5 dBm	
CDMA 1xRTT and 1xEVDO 1900	3.0 dB	21.0 dBm	
GPRS/EGPRS1900	0 dB	1-slot GPRS: 29.5 dBm 2-slot GPRS: 27.5 dBm 3-slot GPRS: 25.0 dBm 4-slot GPRS: 24.0 dBm	1-slot EGPRS: 25.0 dBm 2-slot EGPRS: 25.0 dBm 3-slot EGPRS: 23.0 dBm 4-slot EGPRS: 22.0 dBm
WCDMA1900	2.0 dB	21.0 dBm	
SVLTE: LTE750 + CDMA800	‡	‡	
SVLTE: LTE750 + CDMA1900	‡	‡	
SVLTE: LTE1700/2100 + CDMA800	‡	‡	
SVLTE: LTE1700/2100 + CDMA1900	‡	‡	
WLAN2450 b-mode (DSSS 1 Mbps)	0 dB	17.0 dBm	
WLAN2450 g-mode (OFDM 6 Mbps)	0 dB	16.0 dBm	
WLAN2450 n-mode (MCS 0 – OFDM 6.5 Mbps)	0 dB	14.0 dBm	

‡ Wireless Router ‘Hotspot’ mode use is not restricted during Voice calls; hence SAR compliance has been addressed for the simultaneous Voice and Hotspot data configurations in Head and Body-worn accessory use conditions (KDB 941225 D06 Hot Spot SAR v01)

There is no power reduction in SVLTE mode.

2.2 Description of the Antenna

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

Picture of antenna dimensions and antenna interdistances can be found from Exhibit07e_RM927_Antenna_Description document.

3. TEST CONDITIONS

3.1 Temperature and Humidity

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

3.2 Test Signal, Frequencies and Output Power

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

This device was tested in all the available multi-slot GMSK GPRS modes (this is a multi-slot class 12 device); 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.

In all operating bands the measurements were performed on lowest, middle and highest channels. except for testing LTE750 band for which, fully in accordance with KDB941225 D05 SAR for LTE Devices v02, only the maximum Channel Bandwidth of 10MHz was tested; as the available bandwidth (777-787MHz) exactly matched the 10MHz Channel Bandwidth all LTE750 testing was carried out on the middle channel (Channel 23230, 782.0MHz). WLAN5000 test channels were selected according to procedures in KDB 248227.

The conducted output power of the device was measured by a separate test laboratory on the same units as used for SAR testing. The results are given in Appendices G-K of this report.

The standard transmission mode of the device in all WLAN b-mode tests was DSSS QPSK 1Mbps. The standard transmission mode of the device in all WLAN a-mode tests was OFDM 6 Mbps; WLAN a-mode OFDM 12Mbps, a-mode OFDM 54Mbps and ac-mode OFDM 234 Mbps was additionally 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, n and ac modulation modes in this device as illustrated by the tables in Appendix

K. All WLAN testing has been carried out in accordance with FCC KDB 248227: SAR Measurement Procedures for 802.11 a/b/g Transmitters.

LTE band has been tested according to the guidance given in KDB941225 D05 SAR for LTE Devices v02r02 DR07-41372. MPR values as stipulated in Table 6.2.3 of 3GPP TS 36.101 (presented below) have been incorporated into the device; these MPR values are dependent on the modulation, Channel Bandwidth and Resource Block allocations as shown:

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

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

Although A-MPR will be supported by the final production device, for all the reported testing A-MPR was deactivated in the test samples.

Here is a summary list of the KDB documents used in the reported testing:

- KDB941225 D05 SAR for LTE Devices v02r02 DR07-41372
- KDB 941225 D01 SAR Measurement Procedures for 3G Devices
- KDB 248227: SAR Measurement Procedures for 802.11 a/b/g Transmitters
- KDB 648474 D04 Handset SAR v01r01
- KDB 941225 D06 v01 Hot Spot SAR
- KDB 447498 D01 General RF Exposure Guidance v05r01
- KDB 690783 D01 SAR Listings on Grants
- KDB 865664 D01 SAR Measurement 100MHz to 6GHz v01r01
- KDB 865664 D02 SAR reporting v01r01

3.3 Test Cases and Test Minimisation

This chapter is informative only and explaining some of the basic test reduction principles and should be ignored for FCC certification. Procedures laid out in KDBs mentioned in previous Chapter are fully followed.

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
DAE4	756	2013-02	2014-02
DAE4	1301	2013-02	2014-02
DAE4	1332	2013-03	2014-03
E-field Probe ES3DV3	3275	2013-01	2014-01
E-field Probe ES3DV3	3276	2013-03	2014-03
E-field Probe EX3DV4	3817	2013-01	2014-01
Dipole Validation Kit, D750V3	1057	2012-05	2014-05
Dipole Validation Kit, D835V2	4d040	2012-09	2014-09
Dipole Validation Kit, D1750V2	1081	2012-12	2014-12
Dipole Validation Kit, D1900V2	5d099	2013-01	2015-01
Dipole Validation Kit, D2450V2	800	2012-09	2014-09
Dipole Validation Kit, D5GHzV2	1042	2012-11	2014-11
DASY5 software	Version 52.8.1.838	-	-
DASY5 software	Version 52.8.5.1059	-	-

Additional test equipment used in testing:

Test Equipment	Model	Serial Number	Calibration date	Calibration expiry
Signal Generator	E8247C	MY43321016	2012-07	2014-07
Signal Generator	N5181B	MY51350034	2013-06	2015-06
Signal Generator	E8257C	MY43350540	2013-06	2015-06
Amplifier	KM0822-8R	991253	-	-
Amplifier	ZYE-8G+	N811401219	-	-
Amplifier	KM0822-8R	981441	-	-
Power Meter	E4419B	GB3920697	2013-07	2014-07
Power Meter	E4419B	GB40202156	2013-07	2014-07
Power Meter	E4417A	GB41291021	2013-04	2014-04
Power Sensor	8482H	3318A06406	2013-07	2014-07
Power Sensor	E4412A	US38484674	2013-07	2014-07
Power Sensor	8481H	MY41090586	2013-07	2014-07
Power Sensor	E9301A	US39211864	2013-07	2014-07
Power Sensor	E9325A	US40420196	2013-04	2014-04
Power Sensor	E9325A	US40420191	2013-04	2014-04
Call Tester	CMU 200	100925	2013-01	2014-01
Call Tester	E5515C	GB42230195	2013-04	2015-04
Call Tester	CMU 200	100304	2013-01	2014-01
Call Tester	E5515C	GB42230129	2013-01	2015-01
Call Tester	CMW500	108406-tm	2013-05	2014-05
Call Tester	CMU 200	114271	2012-10	2013-10
Call Tester	E5515C	GB42432440	2013-02	2015-02
Call Tester	CMW500	136294-CF	2013-04	2014-04
Network Analyzer	ENA E5071C	MY46315958	2013-07	2015-07
Dielectric Probe Kit	DAK-3.5	1064	2013-10	2015-10

4.1.1 Isotropic E-field Probe Type ES3DV3

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

4.1.2 Isotropic E-field Probe Type EX3DV4

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	Calibration certificate in Appendix 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
Application	Distance from probe tip to dipole centers: 1.0 mm General dosimetry up to 6 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms

4.2 Phantoms

The phantom used for all Head SAR tests i.e. for both system checks and device testing, was the twin-headed "SAM Phantom", manufactured by SPEAG; the SAM phantom conforms to the requirements of IEEE 1528-2003. The phantom used for all Body SAR tests i.e. for both system checks and device testing, was a flat phantom also manufactured by SPEAG; this phantom conform to the requirements of FCC published RF Exposure KDB Procedures.

The phantom used for all Body SAR tests i.e. for both system checks and device testing, was a "Flat Phantom ELI"/"Triple Flat Phantom", also manufactured by SPEAG; this phantom conform to the requirements of FCC published RF Exposure KDB Procedures.

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 Published RF Exposure KDB Procedures. 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 for all system check and device tests, measured from the ear reference point in the case of the SAM phantom and from the inner surface of the flat phantom.

4.3.1 Tissue Simulant Recipes

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

700MHz band		
Ingredient	Head (% by weight)	Body (% by weight)
Deionised Water	52.13	69.23
Tween 20	46.59	29.56
Salt	1.28	1.21

800MHz band

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

1800MHz band

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

1900MHz band

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

2450MHz band

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

5000MHz band †

Ingredient	Head (% by weight)	Body (% by weight)
Water	50-65	60-80
Oil	10-30	-
Emulsifiers, Esters, Inhibitors	8-25	20-40
Sodium salt	0-1.5	0-1.5

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

4.4 System validation and System checking

4.4.1 System validation status

Probe Calibration Point f / MHz	Test System	DASY SW	Dipole Type / SN	Probe Type / SN	Calibrated signal type(s)	DAE unit Type / SN	Validation done	
							Head tissue simulant	Body tissue simulant
750	TCC San Diego / SAR-2	V52.8	D750MHzV2/ 1057	ES3DV4 / 3275	CW	DAE4 / 756	2013-03	2013-03
835	TCC San Diego / SAR-2	V52.8	D835MHzV2/ 4d040	ES3DV4 / 3275	CW	DAE4 / 756	2013-04	2013-02
1750	TCC San Diego / SAR-4	V52.8	D1750MHzV2/ 1081	ES3DV4 / 3276	CW	DAE4 / 1332	2013-04	2013-04
1900	TCC San Diego / SAR-4	V52.8	D1900MHzV2/ 5d099	ES3DV4 / 3276	CW	DAE4 / 1332	2013-04	2013-04
2450	TCC San Diego / SAR-3	V52.8	D2450MHzV2/ 800	EX3DV4 / 3817	CW	DAE4 / 1301	2013-04	2013-04
5200	TCC San Diego / SAR-3	V52.8	D5GHzV2 / 1042	EX3DV4 / 3817	CW/OFDM	DAE4 / 1301	2013-04	2013-04
5300	TCC San Diego / SAR-3	V52.8	D5GHzV2 / 1042	EX3DV4 / 3817	CW/OFDM	DAE4 / 1301	2013-04	2013-04
5500	TCC San Diego / SAR-3	V52.8	D5GHzV2 / 1042	EX3DV4 / 3817	CW/OFDM	DAE4 / 1301	2013-04	2013-04
5600	TCC San Diego / SAR-3	V52.8	D5GHzV2 / 1042	EX3DV4 / 3817	CW/OFDM	DAE4 / 1301	2013-04	2013-04
5800	TCC San Diego / SAR-3	V52.8	D5GHzV2 / 1042	EX3DV4 / 3817	CW/OFDM	DAE4 / 1301	2013-04	2013-04

4.4.2 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 (except in the case of the 5000MHz dipole for which 100mW was supplied), which was placed under the flat section of the twin SAM phantom for head system checking, and under the flat phantom for body system checking. The system checking results (dielectric parameters and SAR values) are given in the table below.

System checking, head tissue simulant

f [MHz]	Description	SAR 1g [W/kg]	Estimated SAR 1g [W/kg]	Estimated SAR 1g Deviation	Dielectric Parameters		SAR 1g Deviation from target	Dielectric Parameters Deviation from target		Temp [°C]	Plot #
				dSAR [%]	ϵ_r	σ [S/m]	dSAR [%]	d ϵ_r [%]	d σ [%]		
	Tolerances			±3%			±10 %	±5 %	±5 %		
750	IEEE1528 / IEC62209				41.9	0.89					
	Reference result SN:1057	2.16	-		42.3	0.92	TCC San Diego/SAR-2 ES3DV4 SN:3275 Head 750MHz				
	2013-08-04	1.98	1.96	-1.01	41.1	0.91	-8.33	-2.84	-1.09	21.5	1
835	IEEE1528 / IEC62209				41.5	0.90					
	Reference result SN:4d040	2.38	-		41.0	0.90	TCC San Diego/SAR-2 ES3DV4 SN:3275 Head 835MHz				
	2013-07-29	2.34	2.32	-0.85	41.4	0.89	-1.68	0.98	-1.11	21.5	-
	2013-08-09	2.38	2.36	-0.84	41.0	0.90	0.00	0.00	0.00	21.5	-
	2013-08-19	2.30	2.26	-1.74	41.1	0.89	-3.36	0.24	-1.11	21.5	2

(Table continues)

(Table continues)

f [MHz]	Description	SAR 1g [W/kg]	Estimated SAR 1g [W/kg]	Estimated SAR 1g Deviation	Dielectric Parameters		SAR 1g Deviation from target	Dielectric Parameters Deviation from target		Temp [°C]	Plot #
				dSAR [%]	ϵ_r	σ [S/m]	dSAR [%]	d ϵ_r [%]	d σ [%]		
1750	IEEE1528 / IEC62209				40.1	1.37					
	Reference result SN:1081	9.04	-		39.3	1.34	TCC San Diego/SAR-4 ES3DV4 SN:3276 Head 1750MHz				
	2013-08-03	8.55	8.59	0.47	39.3	1.36	-5.42	0.00	1.49	21.5	3
	2013-08-09	8.67	8.68	0.12	39.3	1.37	-4.09	0.00	2.24	21.5	-
1900	IEEE1528 / IEC62209				40.0	1.40					
	Reference result SN:5d099	10.1	-		39.4	1.38	TCC San Diego/SAR-4 ES3DV4 SN:3276 Head 19000MHz				
	2013-07-31	9.73	9.83	1.03	39.3	1.41	-3.66	-0.25	2.17	21.5	-
	2013-08-03	9.75	9.83	0.82	38.9	1.41	-3.47	-1.27	2.17	21.5	-
	2013-08-12	9.66	9.79	1.35	39.0	1.41	-4.36	-1.02	2.17	21.5	4
2450	IEEE1528 / IEC62209				39.2	1.80					
	Reference result SN:800	13.4	-		39.9	1.84	TCC San Diego/SAR -3 EX3DV4 SN:3817Head 2450MHz				
	2013-08-05	14.20	14.30	0.70	38.3	1.83	5.97	-4.01	-0.54	21.5	5
	2013-08-07	14.10	14.10	0.00	38.0	1.82	5.22	-4.76	-1.09	21.5	-
	2013-08-19	13.70	14.00	2.19	38.7	1.81	2.24	-3.01	-1.63	21.5	-
5200	IEEE1528 / IEC62209*				36.0	4.66					
	Reference result SN:1042	7.85	-		34.8	4.53	TCC San Diego/SAR -3 EX3DV4 SN:3817 Head 5200MHz				
	2013-08-01	7.68	7.08	-7.81	35.4	4.47	-2.17	1.72	-1.32	21.5	6

(Table continues)

(Table continues)

f [MHz]	Description	SAR 1g [W/kg]	Estimated SAR 1g [W/kg]	Estimated SAR 1g Deviation	Dielectric Parameters		SAR 1g Deviation from target	Dielectric Parameters Deviation from target		Temp [°C]	Plot #
				dSAR [%]	ϵ_r	σ [S/m]	dSAR [%]	d ϵ_r [%]	d σ [%]		
5300	IEEE1528 / IEC62209*				35.9	4.76					
	Reference result SN:1042	8.15	-		34.7	4.63	TCC San Diego/SAR -3 EX3DV4 SN:3817 Head 5300MHz				
	2013-08-02	7.37	6.85	-7.06	35.3	4.56	-9.57	1.73	-1.51	21.5	7
5500	IEEE1528 / IEC62209*				35.6	4.96					
	Reference result SN:1042	8.40	-		34.4	4.83	TCC San Diego/SAR -3 EX3DV4 SN:3817 Head 5500MHz				
	2013-08-03	7.65	7.11	-7.06	34.7	4.76	-8.93	0.87	-1.45	21.5	-
	2013-08-10	7.57	7.06	-6.74	34.6	4.73	-9.88	0.58	-2.07	21.5	8
	2013-08-20	7.71	6.88	-10.77	34.8	4.77	-8.21	1.16	-1.24	21.5	-
5600	IEEE1528 / IEC62209*				35.5	5.07					
	Reference result SN:1042	8.32	-		34.2	4.93	TCC San Diego/SAR -3 EX3DV4 SN:3817 Head 5600MHz				
	2013-08-03	8.23	7.62	-7.41	34.6	4.86	-1.08	1.17	-1.42	21.5	9
5800	IEEE1528 / IEC62209*				35.3	5.27					
	Reference result SN:1042	7.82	-		34.0	5.15	TCC San Diego/SAR -3 EX3DV4 SN:3817 Head 5800MHz				
	2013-08-04	7.44	6.98	-6.18	34.3	5.08	-4.86	0.88	-1.36	21.5	10
	2013-08-06	7.60	6.98	-8.16	34.2	5.05	-2.81	0.59	-1.94	21.5	-

* Dielectric parameter data taken from IEC62209-2.

System checking, body tissue simulant

f [MHz]	Description	SAR 1g [W/kg]	Estimated SAR 1g [W/kg]	Estimated SAR 1g Deviation	Dielectric Parameters		SAR 1g Deviation from target	Dielectric Parameters Deviation from target		Temp [°C]	Plot #
				dSAR [%]	ϵ_r	σ [S/m]	dSAR [%]	d ϵ_r [%]	d σ [%]		
	Tolerances			±3%			±10 %	±5 %	±5 %		
750	IEEE1528 / IEC62209				55.5	0.96					
	Reference result SN:1057	2.21	-		55.6	0.96	TCC San Diego/SAR-2 ES3DV4 SN:3275 Body 750MHz				
	2013-08-06	2.18	2.19	0.46	54.9	0.96	-1.36	-1.26	0.00	21.5	11
835	IEEE1528 / IEC62209				55.2	0.97					
	Reference result SN:4d040	2.45	-		53.3	1.00	TCC San Diego/SAR-2 ES3DV4 SN:3275 Body 835MHz				
	2013-08-01	2.43	2.43	0.00	54.5	0.99	-0.82	2.25	-1.00	21.5	-
	2013-08-05	2.39	2.39	0.00	53.5	0.96	-2.45	0.38	-4.00	21.5	12
	2013-08-09	2.45	2.43	-0.82	53.8	0.98	0.00	0.94	-2.00	21.5	-
1750	IEEE1528 / IEC62209				53.4	1.49					
	Reference result SN:1081	9.31	-		51.8	1.47	TCC San Diego/SAR-4 ES3DV4 SN:3276 Body 1750MHz				
	2013-08-05	9.38	9.40	0.21	52.3	1.45	0.75	0.97	-1.36	21.5	-
	2013-08-06	9.44	9.46	0.21	52.1	1.45	1.40	0.58	-1.36	21.5	13
1900	IEEE1528 / IEC62209				53.3	1.52					
	Reference result SN:5d099	10.3	-		52.2	1.52	TCC San Diego/SAR-4 ES3DV4 SN:3276 Body 1750MHz				
	2013-08-01	9.76	9.73	-0.31	52.6	1.49	-5.24	0.77	-1.97	21.5	-
	2013-08-02	9.65	9.62	-0.31	52.3	1.48	-6.31	0.19	-2.63	21.5	-
	2013-08-03	9.57	9.53	-0.42	52.2	1.49	-7.09	0.00	-1.97	21.5	14

(Table continues)

(Table continues)

f [MHz]	Description	SAR 1g [W/kg]	Estimated SAR 1g [W/kg]	Estimated SAR 1g Deviation	Dielectric Parameters		SAR 1g Deviation from target	Dielectric Parameters Deviation from target		Temp [°C]	Plot #
				dSAR [%]	ϵ_r	σ [S/m]	dSAR [%]	d ϵ_r [%]	d σ [%]		
2450	IEEE1528 / IEC62209				52.7	1.95					
	Reference result SN:800	13.0	-		51.0	2.01	TCC San Diego /SAR-3 EX3DV4 SN:3817 Body 2450MHz				
	2013-08-06	13.20	13.40	1.52	50.7	1.91	1.54	-0.59	-4.98	21.5	15
5200	FCC Published RF Exposure KDB Procedures				49.0	5.30					
	Reference result SN:1042	7.36	-		46.8	5.35	TCC San Diego/SAR-3 EX3DV4 SN:3817 Body 5200MHz				
	2013-08-07	7.11	6.63	-6.75	48.7	5.42	-3.40	4.06	1.31	21.5	16
5300	FCC Published RF Exposure KDB Procedures				48.9	5.42					
	Reference result SN:1042	7.54	-		46.7	5.47	TCC San Diego/SAR-3 EX3DV4 SN:3817 Body 5300MHz				
	2013-08-07	7.47	6.99	-6.43	48.4	5.51	-0.93	3.64	0.73	21.5	-
	2013-08-10	7.86	7.30	-7.12	48.1	5.54	4.24	3.00	1.28	21.5	17
5500	FCC Published RF Exposure KDB Procedures				48.6	5.65					
	Reference result SN:1042	7.94	-		46.3	5.73	TCC San Diego/SAR-3 EX3DV4 SN:3817 Body 5500MHz				
	2013-08-08	8.12	7.54	-7.14	47.9	5.81	2.27	3.46	1.40	21.5	18
5600	FCC Published RF Exposure KDB Procedures				48.5	5.77					
	Reference result SN:1042	8.04	-		46.2	5.86	TCC San Diego/SAR-3 EX3DV4 SN:3817 Body 5600MHz				
	2013-08-08	8.03	7.52	-6.35	47.8	5.95	-0.12	3.46	1.54	21.5	19
5800	FCC Published RF Exposure KDB Procedures				48.2	6.00					
	Reference result SN:1042	7.46	-		45.9	6.13	TCC San Diego/SAR-3 EX3DV4 SN:3817 Body 5800MHz				
	2013-08-09	7.11	6.67	-6.19	47.0	6.24	-4.69	2.40	1.79	21.5	20

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

4.5 Tissue Simulants used in the Measurements

Head tissue simulant measurements

f [MHz]	Description	Dielectric Parameters		Dielectric Parameters Deviation from recommended value		Temp [°C]
		ϵ_r	σ [S/m]	$d\epsilon_r$ [%]	$d\sigma$ [%]	
	Tolerances			±5 %	±5 %	
782	Recommended value	41.9	0.92			
	2013-08-04	40.9	0.93	-2.39	1.09	21.5
835	Recommended value	41.5	0.90			
	2013-08-19	41.1	0.89	-0.96	-1.11	21.5
836	Recommended value	41.5	0.90			
	2013-07-29	41.4	0.89	-0.24	-1.11	21.5
	2013-08-09	41.0	0.90	-1.20	0.00	21.5
	2013-08-19	41.1	0.89	-0.96	-1.11	21.5
1732	Recommended value	40.1	1.36			
	2013-08-03	39.4	1.34	-1.75	-1.47	21.5
	2013-08-09	39.4	1.36	-1.75	0.00	21.5
1880	Recommended value	40.0	1.40			
	2013-07-31	39.4	1.39	-1.50	-0.71	21.5
	2013-08-03	39.0	1.39	-2.50	-0.71	21.5
	2013-08-12	39.1	1.39	-2.25	-0.71	21.5
2347	Recommended value	39.2	1.79			
	2013-08-05	38.4	1.82	-2.04	1.68	21.5
	2013-08-07	38.1	1.81	-2.81	1.12	21.5
	2013-08-19	38.7	1.80	-1.28	0.56	21.5
5210	Recommended value	36.0	4.67			
	2013-08-01	35.4	4.48	-1.67	-4.07	21.5
5290	Recommended value	35.9	4.75			
	2013-08-02	35.3	4.55	-1.67	-4.21	21.5
5520	Recommended value	35.6	4.99			
	2013-08-03	34.7	4.78	-2.53	-4.21	21.5
	2013-08-10	34.6	4.75	-2.81	-4.81	21.5
	2013-08-20	34.8	4.79	-2.25	-4.01	21.5

(Table continues)

(Table continues)

f [MHz]	Description	Dielectric Parameters		Dielectric Parameters Deviation from recommended value		Temp [°C]
		ϵ_r	σ [S/m]	$d\epsilon_r$ [%]	$d\sigma$ [%]	
5620	Recommended value	35.5	5.09			
	2013-08-03	34.6	4.89	-2.54	-3.93	21.5
5760	Recommended value	35.3	5.23			
	2013-08-04	34.4	5.03	-2.55	-3.82	21.5
	2013-08-06	34.3	5.01	-2.83	-4.21	21.5

Body tissue simulant measurements

f [MHz]	Description	Dielectric Parameters		Dielectric Parameters Deviation from Recommended value		Temp [°C]
		ϵ_r	σ [S/m]	$d\epsilon_r$ [%]	$d\sigma$ [%]	
	Tolerances			±5 %	±5 %	
782	Recommended value	55.4	0.97			
	2013-08-06	54.7	0.97	-1.26	-2.02	21.5
835	Recommended value	55.2	0.97			
	2013-08-01	54.5	0.99	-1.27	2.06	21.5
836	Recommended value	55.2	0.97			
	2013-08-01	54.5	0.99	-1.27	2.06	21.5
	2013-08-05	53.5	0.96	-3.08	-1.03	21.5
	2013-08-09	53.8	0.98	-2.54	1.03	21.5
1732	Recommended value	53.5	1.48			
	2013-08-05	52.3	1.43	-2.24	-3.38	21.5
	2013-08-06	52.2	1.43	-2.43	-3.38	21.5
1880	Recommended value	53.3	1.52			
	2013-08-01	52.7	1.47	-1.13	-3.29	21.5
	2013-08-02	52.4	1.46	-1.69	-3.95	21.5
	2013-08-03	52.2	1.47	-2.06	-3.29	21.5
2437	Recommended value	52.7	1.94			
	2013-08-06	50.7	1.90	-3.80	-2.06	21.5

(Table continues)

(Table continues)

f [MHz]	Description	Dielectric Parameters		Dielectric Parameters Deviation from Recommended value		Temp
		ϵ_r	σ [S/m]	$d\epsilon_r$ [%]	$d\sigma$ [%]	[°C]
5210	Recommended value	49.0	5.31			
	2013-08-07	48.7	5.43	-0.61	2.26	21.5
5290	Recommended value	48.9	5.40			
	2013-08-07	48.4	5.50	-1.02	1.85	21.5
	2013-08-10	48.1	5.52	-1.64	2.22	21.5
5520	Recommended value	48.6	5.67			
	2013-08-08	47.9	5.84	-1.44	3.00	21.5
5620	Recommended value	4.84	5.79			
	2013-08-08	47.7	5.98	-1.45	3.28	21.5
5760	Recommended value	48.3	5.95			
	2013-08-09	47.1	6.18	-2.48	3.87	21.5

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 Section 1.2.2 using a separate flat spacer that was removed before the start of the measurements.

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 and, in sequence, the back, display and each of the 4 edges was positioned 10.0mm away from the flat phantom. The spacer was removed before the start of the measurements.

5.3 Scan Procedures

Fast SAR procedure is described in KDB 447498 D01 General RF Exposure Guidance v05r01. First, area scans were used for determination of the 1-g SAR estimation (Fast SAR) for all SAR measurements. Next, a zoom scan, a minimum of 5x5x7 points covering a volume of at least 30x30x30mm, was performed only for the highest Fast SAR among all the test positions / channels if 1-g Fast SAR <0.8 W/kg or for all test positions / channels if 1-g Fast SAR \geq 1.2 W/kg. If 1-g Fast SAR is >0.8 W/kg but <1.2 W/kg, zoom scan is required for highest Fast SAR channel measured for that position and additional zoom scan is required for highest Fast SAR among other positions / channels which 1-g Fast SAR <0.8 W/kg. Zoom scan for all channels in the same position is required also if 1-g Fast SAR and 1-g Full SAR are not within 0.100 W/kg. 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	±6.55	N	1	1	±6.55	∞
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	±5.0	R	√3	1	±2.9	∞
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			±13.5	116
Coverage Factor for 95%			k=2				
Expanded Uncertainty						±27.1	

Table 6.2 – Measurement uncertainty evaluation for Fast SAR

Relative DASYS Uncertainty Budget for Fast SAR Tests According to IEEE 1528/2011 and IEC 62209-1/2011 (0.3-6 GHz range)						
Uncertainty Component	Tol. (%)	Prob Dist.	Div.	C_i	$C_i \cdot U_i$ (%)	V_i
Measurement System						
Probe Calibration	±6.55	N	1	0		
Axial Isotropy	±4.7	R	√3	0.7	±1.9	∞
Hemispherical Isotropy	±9.6	R	√3	0.7	±3.9	∞
Boundary Effect	±2.0	R	√3	1	±1.2	∞
Linearity	±4.7	R	√3	1	±2.7	∞
System Detection Limits	±1.0	R	√3	1	±0.6	∞
Modulation Response	±2.4	R	√3	1	±1.4	∞
Readout Electronics	±0.3	N	1	0		
Response Time	±0.8	R	√3	0		
Integration Time	±2.6	R	√3	1	±1.5	∞
RF Ambient Conditions - Noise	±3.0	R	√3	1	±1.7	∞
RF Ambient Conditions - Reflections	±3.0	R	√3	0		
Probe Positioner Mechanical Tolerance	±0.8	R	√3	1	±0.5	∞
Probe Positioning with respect to Phantom Shell	±6.7	R	√3	1	±3.9	∞
Spatial x-y Resolution	±10.0	R	√3	1	±5.8	∞
Fast SAR z Approximation	±14.0	R	√3	1	±8.1	∞
Test sample Related						
Test Sample Positioning	±2.9	N	1	1	±2.9	145
Device Holder Uncertainty	±3.6	N	1	1	±3.6	5
Output Power Variation - SAR drift measurement	±5.0	R	√3	1	±2.9	∞
Power Scaling	±0	R	√3	0		
Phantom and Setup						
Phantom Uncertainty (shape and thickness tolerances)	±6.6	R	√3	1	±3.8	∞
SAR correction	±1.9	R	√3	0		
Conductivity - measurement uncertainty	±2.5	R	√3	0		
Permittivity - measurement uncertainty	±2.5	R	√3	0		
Temperature - Conductivity	±3.4	R	√3	0		
Temperature - Permittivity	±0.4	R	√3	0		
Combined Standard Uncertainty						
		RSS			±13.9	748
Coverage Factor for 95%						
		k=2				
Expanded Uncertainty						
					±27.8	

7. RESULTS

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

LTE750 (Band 13) Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #	
			-	Ch 23230 782.0 MHz	-	-	Ch 23230 782.0 MHz	-			
10MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]		24.35			Scaling factor*					
	Conducted Power [dBm]		-	24.06	-	-	0.99	-	dB		
	Time-averaged Power [dBm]		-	24.06	-	-	1.07	-	Lin		
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02								
10MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		24.35			Scaling factor*					
	Conducted Power [dBm]		-	24.26	-	-	0.09	-	dB		
	Time-averaged Power [dBm]		-	24.26	-	-	1.02	-	Lin		
	Left Cheek	Estimated SAR	-	0.324	-	-	0.331	-	-	-	
		Full SAR	-	-	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	0.109	-	-	0.111	-	-	-	
		Full SAR	-	-	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	0.657	-	-	0.671	-	0.07	1	
		Full SAR	-	0.723	-	-	0.738	-	-	-	
Right Tilt	Estimated SAR	-	0.126	-	-	0.129	-	-	-		
	Full SAR	-	-	-	-	-	-	-	-		
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		24.35			Scaling factor*					
	Conducted Power [dBm]		-	24.02	-	-	0.33	-	dB		
	Time-averaged Power [dBm]		-	24.02	-	-	1.08	-	Lin		
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02								
10MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*					
	Conducted Power [dBm]		-	23.06	-	-	0.29	-	dB		
	Time-averaged Power [dBm]		-	23.06	-	-	1.07	-	Lin		
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02								

(Table continues)

(Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			-	Ch 23230 782.0 MHz	-	-	Ch 23230 782.0 MHz	-		
10MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*				
	Conducted Power [dBm]		-	23.15	-	-	0.20	-	dB	
	Time-averaged Power [dBm]		-	23.15	-	-	1.05	-	Lin	
	Left Cheek	Estimated SAR	-	0.258	-	-	0.270	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Left Tilt	Estimated SAR	-	0.081	-	-	0.085	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Right Cheek	Estimated SAR	-	0.528	-	-	0.553	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
Right Tilt	Estimated SAR	-	0.099	-	-	0.104	-	-	-	
	Full SAR	-	-	-	-	-	-	-	-	
10MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*				
	Conducted Power [dBm]		-	23.13	-	-	0.22	-	dB	
	Time-averaged Power [dBm]		-	23.13	-	-	1.05	-	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*				
	Conducted Power [dBm]		-	23.09	-	-	0.26	-	dB	
	Time-averaged Power [dBm]		-	23.09	-	-	1.06	-	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

CDMA800 Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 1013 824.7 MHz	Ch 384 836.5 MHz	Ch 777 848.3 MHz	Ch 1013 824.7 MHz	Ch 384 836.5 MHz	Ch 777 848.3 MHz		
RC3/ S055	Tuning Target + Tolerance [dBm]		24.85			Scaling factor*				
	Conducted Power [dBm]		24.72	24.85	24.72	0.13	0.00	0.13	dB	
	Time-averaged Power [dBm]		24.72	24.85	24.72	1.03	1.00	1.03	Lin	
	Left Cheek	Estimated SAR	0.534	0.601	0.596	0.550	0.601	0.614	0.05	2
		Full SAR	-	-	0.648	-	-	0.668		
	Left Tilt	Estimated SAR	-	0.255	-	-	0.255	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
Right Cheek	Estimated SAR	-	0.469	-	-	0.469	-	-	-	
	Full SAR	-	-	-	-	-	-	-	-	
Right Tilt	Estimated SAR	-	0.219	-	-	0.219	-	-	-	
	Full SAR	-	-	-	-	-	-	-	-	

850MHz Band Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz	Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz		
GSM	Tuning Target + Tolerance [dBm]		32.35			Scaling factor*				
	Conducted Power [dBm]		32.18	32.20	32.30	0.17	0.15	0.05	dB	
	Time-averaged power [dBm]		23.15	23.17	23.27	1.04	1.04	1.01	Lin	
	Left Cheek	Estimated SAR	-	0.470	-	-	0.487	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
2-slot GPRS	Tuning Target + Tolerance [dBm]		30.85			Scaling factor*				
	Conducted Power [dBm]		30.72	30.78	30.66	0.13	0.07	0.19	dB	
	Time-averaged power [dBm]		24.70	24.76	24.64	1.03	1.02	1.04	Lin	
	Left Cheek	Estimated SAR	0.490	0.529	0.588	0.505	0.538	0.614	0.07	3
		Full SAR	-	-	0.656	-	-	0.685		
	Left Tilt	Estimated SAR	-	0.207	-	-	0.210	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Right Cheek	Estimated SAR	-	0.412	-	-	0.419	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Right Tilt	Estimated SAR	-	0.188	-	-	0.191	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
3-slot GPRS	Tuning Target + Tolerance [dBm]		28.35			Scaling factor*				
	Conducted Power [dBm]		28.18	28.30	28.15	0.17	0.05	0.20	dB	
	Time-averaged power [dBm]		23.92	24.04	23.89	1.04	1.01	1.05	Lin	
	Left Cheek	Estimated SAR	-	0.436	-	-	0.441	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
4-slot GPRS	Tuning Target + Tolerance [dBm]		27.35			Scaling factor*				
	Conducted Power [dBm]		27.10	27.23	27.12	0.25	0.12	0.23	dB	
	Time-averaged power [dBm]		24.09	24.22	24.11	1.06	1.03	1.05	Lin	
	Left Cheek	Estimated SAR	-	0.439	-	-	0.451	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
2-slot 8PSK EGPRS	Tuning Target + Tolerance [dBm]		26.35			Scaling factor*				
	Conducted Power [dBm]		26.30	26.30	26.01	0.05	0.05	0.34	dB	
	Time-averaged power [dBm]		23.29	23.29	23.00	1.01	1.01	1.08	Lin	
	Left Cheek	Estimated SAR	-	-	0.222	-	-	0.240	-	-
Full SAR		-	-	-	-	-	-	-	-	

(Table continues)

(Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz	Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz		
WCDMA	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*				
	Conducted Power [dBm]		23.04	23.16	23.23	0.31	0.19	0.12	dB	
	Time-averaged power [dBm]		23.04	23.16	23.23	1.07	1.04	1.03	Lin	
	Left Cheek	Estimated SAR	0.389	0.387	0.460	0.418	0.404	0.473	0.01	4
		Full SAR	-	-	0.474	-	-	0.487		
	Left Tilt	Estimated SAR	-	0.185	-	-	0.193	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	-	0.313	-	-	0.327	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Tilt	Estimated SAR	-	0.144	-	-	0.150	-	-	-
		Full SAR	-	-	-	-	-	-		

LTE1700/2100 (Band 4) Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 20050 1720.0 MHz	Ch 23175 1732.5 MHz	Ch 20300 1745.0 MHz	Ch 20050 1720.0 MHz	Ch 23175 1732.5 MHz	Ch 20300 1745.0 MHz		
20MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*				
	Conducted Power [dBm]		23.64	23.60	23.61	0.21	0.25	0.24	dB	
	Time-averaged Power [dBm]		23.64	23.60	23.61	1.05	1.06	1.06	Lin	
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02										
20MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*				
	Conducted Power [dBm]		23.73	23.70	23.75	0.12	0.15	0.10	dB	
	Time-averaged Power [dBm]		23.73	23.70	23.75	1.03	1.04	1.02	Lin	
	Left Cheek	Estimated SAR	-	-	0.306	-	-	0.313	0.01	-
		Full SAR	-	-	0.315	-	-	0.322		
	Left Tilt	Estimated SAR	-	-	0.112	-	-	0.115	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	0.738	0.761	0.803	0.759	0.788	0.822	0.04	5
		Full SAR	-	-	0.841	-	-	0.861		
	Right Tilt	Estimated SAR	-	-	0.129	-	-	0.132	-	-
		Full SAR	-	-	-	-	-	-		
Repeated SAR, Right Cheek	Estimated SAR	-	-	-	-	-	-	-	-	
	Full SAR	-	-	0.795	-	-	0.814			
20MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*				
	Conducted Power [dBm]		23.53	23.62	23.61	0.32	0.23	0.24	dB	
	Time-averaged Power [dBm]		23.53	23.62	23.61	1.08	1.05	1.06	Lin	
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02										
20MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*				
	Conducted Power [dBm]		22.55	22.49	22.50	0.30	0.36	0.35	dB	
	Time-averaged Power [dBm]		22.55	22.49	22.50	1.07	1.09	1.08	Lin	
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02										

(Table continues)

(Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 20050 1720.0 MHz	Ch 23175 1732.5 MHz	Ch 20300 1745.0 MHz	Ch 20050 1720.0 MHz	Ch 23175 1732.5 MHz	Ch 20300 1745.0 MHz		
20MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*				
	Conducted Power [dBm]		22.54	22.48	22.58	0.31	0.37	0.27	dB	
	Time-averaged Power [dBm]		22.54	22.48	22.58	1.07	1.09	1.06	Lin	
	Left Cheek	Estimated SAR	-	-	0.226	-	-	0.240	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Left Tilt	Estimated SAR	-	-	0.091	-	-	0.096	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Right Cheek	Estimated SAR	-	-	0.588	-	-	0.626	-	-
Full SAR		-	-	-	-	-	-	-	-	
Right Tilt	Estimated SAR	-	-	0.101	-	-	0.107	-	-	
	Full SAR	-	-	-	-	-	-	-	-	
20MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*				
	Conducted Power [dBm]		22.52	22.55	22.55	0.33	0.30	0.30	dB	
	Time-averaged Power [dBm]		22.52	22.55	22.55	1.08	1.07	1.07	Lin	
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02										
20MHz Ch BW 100%	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*				
	Conducted Power [dBm]		22.54	22.54	22.53	0.31	0.31	0.32	dB	
	Time-averaged Power [dBm]		22.54	22.54	22.53	1.07	1.07	1.08	Lin	
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Right Cheek	Estimated SAR	-	0.584	-	-	0.627	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
Right Tilt	Estimated SAR	-	-	-	-	-	-	-	-	
	Full SAR	-	-	-	-	-	-	-	-	

CDMA1900 Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 25 1851.25 MHz	Ch 600 1880.0 MHz	Ch 1175 1908.75 MHz	Ch 25 1851.25 MHz	Ch 600 1880.0 MHz	Ch 1175 1908.75 MHz		
RC3/ S055	Tuning Target + Tolerance [dBm]		24.35			Scaling factor*				
	Conducted Power [dBm]		24.31	24.30	24.32	0.04	0.05	0.03	dB	
	Time-averaged power [dBm]		24.31	24.30	24.32	1.01	1.01	1.01	Lin	
	Left Cheek	Estimated SAR	1.01	1.06	0.848	1.02	1.07	0.854	0.01	6
		Full SAR	-	1.07	-	-	1.08	-		
	Left Tilt	Estimated SAR	-	0.196	-	-	0.198	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	-	0.402	-	-	0.407	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Tilt	Estimated SAR	-	0.160	-	-	0.162	-	-	-
		Full SAR	-	-	-	-	-	-		
	Repeated SAR, Left Cheek	Estimated SAR	-	-	-	-	-	-	-	-
Full SAR		-	1.03	-	-	1.04	-			

1900MHz Band Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 512 1850.2 MHz	Ch 661 1880.0 MHz	Ch 810 1909.8 MHz	Ch 512 1850.2 MHz	Ch 661 1880.0 MHz	Ch 810 1909.8 MHz		
GSM	Tuning Target + Tolerance [dBm]		29.85			Scaling factor*				
	Conducted Power [dBm]		29.84	29.84	29.68	0.01	0.01	0.17	dB	
	Time-averaged power [dBm]		20.81	20.81	20.65	1.00	1.00	1.04	Lin	
	Left Cheek	Estimated SAR	-	0.196	-	-	0.196	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
2-slot GPRS	Tuning Target + Tolerance [dBm]		27.85			Scaling factor*				
	Conducted Power [dBm]		27.52	27.55	27.59	0.33	0.30	0.26	dB	
	Time-averaged power [dBm]		21.50	21.53	21.57	1.08	1.07	1.06	Lin	
	Left Cheek	Estimated SAR	-	0.204	-	-	0.219	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Left Tilt	Estimated SAR	-	0.105	-	-	0.113	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Right Cheek	Estimated SAR	0.556	0.493	0.389	0.600	0.528	0.413	0.05	7
		Full SAR	0.611	-	-	0.659	-	-	-	-
	Right Tilt	Estimated SAR	-	0.092	-	-	0.099	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
3-slot GPRS	Tuning Target + Tolerance [dBm]		25.35			Scaling factor*				
	Conducted Power [dBm]		25.02	25.06	25.11	0.33	0.29	0.24	dB	
	Time-averaged power [dBm]		20.76	20.80	20.85	1.08	1.07	1.06	Lin	
	Left Cheek	Estimated SAR	-	0.166	-	-	0.177	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
4-slot GPRS	Tuning Target + Tolerance [dBm]		24.35			Scaling factor*				
	Conducted Power [dBm]		24.04	24.16	24.20	0.31	0.19	0.15	dB	
	Time-averaged power [dBm]		21.03	21.15	21.19	1.07	1.04	1.04	Lin	
	Left Cheek	Estimated SAR	-	0.174	-	-	0.182	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
2-slot 8PSK EGPRS	Tuning Target + Tolerance [dBm]		25.35			Scaling factor*				
	Conducted Power [dBm]		25.07	25.06	25.08	0.28	0.29	0.27	dB	
	Time-averaged power [dBm]		22.06	22.05	22.07	1.07	1.07	1.06	Lin	
	Right Cheek	Estimated SAR	0.286	-	-	0.305	-	-	-	-
		Full SAR	-	-	-	-	-	-	-	-

(Table continues)

(Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 9262 1852.4 MHz	Ch 9400 1880.0 MHz	Ch 9538 1907.6 MHz	Ch 9262 1852.4 MHz	Ch 9400 1880.0 MHz	Ch 9538 1907.6 MHz		
WCDMA	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*				
	Conducted Power [dBm]		23.27	23.20	23.22	0.08	0.15	0.13	dB	
	Time-averaged power [dBm]		23.27	23.20	23.22	1.02	1.04	1.03	Lin	
	Left Cheek	Estimated SAR	-	0.290	-	-	0.300	-	0.02	-
		Full SAR	-	0.305	-	-	0.316	-		
	Left Tilt	Estimated SAR	-	0.176	-	-	0.182	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	0.816	0.787	0.672	0.831	0.815	0.692	0.09	8
		Full SAR	0.909	-	-	0.926	-	-		
	Right Tilt	Estimated SAR	-	0.141	-	-	0.146	-	-	-
		Full SAR	-	-	-	-	-	-		
Repeated SAR, Right Cheek	Estimated SAR	-	-	-	-	-	-	-	-	
	Full SAR	0.895	-	-	0.912	-	-			

2450MHz Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 1	Ch 6	Ch 11	Ch 1	Ch 6	Ch 11		
			2412.0 MHz	2437.0 MHz	2462.0 MHz	2412.0 MHz	2437.0 MHz	2462.0 MHz		
WLAN b-mode DSSS 1Mbps	Tuning Target + Tolerance [dBm]		18.50			Scaling factor*				
	Conducted Power [dBm]		18.03	17.92	17.78	0.47	0.58	0.72	dB	
	Time-averaged power [dBm]		18.03	17.92	17.78	1.11	1.14	1.18	Lin	
	Left Cheek	Estimated SAR	-	0.534	-	-	0.610	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Left Tilt	Estimated SAR	0.655	0.609	0.644	0.730	0.696	0.760	0.03	9
		Full SAR	0.681	-	0.669	0.759	-	0.790		
	Right Cheek	Estimated SAR	-	0.286	-	-	0.327	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Right Tilt	Estimated SAR	-	0.329	-	-	0.376	-	-	-
		Full SAR	-	-	-	-	-	-	-	-

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

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 36	Ch 44	Ch 56	Ch 60	Ch 36	Ch 44	Ch 56	Ch 60		
			5180.0 MHz	5220.0 MHz	5280.0 MHz	5300.0 MHz	5180.0 MHz	5220.0 MHz	5280.0 MHz	5300.0 MHz		
WLAN a-mode OFDM 6 Mbps	Tuning Target + Tolerance [dBm]		13.50				Scaling factor*					
	Conducted Power [dBm]		12.96	12.79	12.82	12.91	0.54	0.71	0.68	0.59	dB	
	Time-averaged power [dBm]		12.96	12.79	12.82	12.91	1.13	1.18	1.17	1.15	Lin	
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	-	-	-
		Full SAR	0.067	0.047	0.078	0.104	0.076	0.055	0.091	0.119	-	-
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-	-	-	-
		Full SAR	0.021	-	-	0.091	0.024	-	-	0.104	-	-
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-	-	-	-
		Full SAR	0.009	-	-	0.043	0.010	-	-	0.049	-	-
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-	-	-	-
		Full SAR	0.009	-	-	0.048	0.010	-	-	0.055	-	-

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

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 100	Ch 116	Ch 120	Ch 136	Ch 100	Ch 116	Ch 120	Ch 136		
			5500.0 MHz	5580.0 MHz	5600.0 MHz	5680.0 MHz	5500.0 MHz	5580.0 MHz	5600.0 MHz	5680.0 MHz		
WLAN a-mode OFDM 6 Mbps	Tuning Target + Tolerance [dBm]		13.5				Scaling factor*					
	Conducted Power [dBm]		12.90	12.88	12.85	12.92	0.60	0.62	0.65	0.58	dB	
	Time-averaged power [dBm]		12.90	12.88	12.85	12.92	1.15	1.15	1.16	1.14	Lin	
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	-	-	10
		Full SAR	0.280	0.223	0.192	0.131	0.321	0.257	0.223	0.150		
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-	-	-	-
		Full SAR	0.243	-	-	-	0.279	-	-	-		
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-	-	-	-
		Full SAR	0.100	-	-	-	0.114	-	-	-		
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-	-	-	-
Full SAR		0.099	-	-	-	0.114	-	-	-			
Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 106	-	-	-	Ch 106	-	-	-		
			5530.0 MHz	-	-	-	5320.0 MHz	-	-	-		
WLAN ac-mode OFDM 234 Mbps	Tuning Target + Tolerance [dBm]		11.5				Scaling factor*					
	Conducted Power [dBm]		9.79	-	-	-	1.71	-	-	-	dB	
	Time-averaged power [dBm]		9.79	-	-	-	1.48	-	-	-	Lin	
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	-	-	-
		Full SAR	0.025	-	-	-	0.037	-	-	-		

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

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 153 5765.0 MHz	Ch 157 5785.0 MHz	Ch 161 5805.0 MHz	Ch 153 5765.0 MHz	Ch 157 5785.0 MHz	Ch 161 5805.0 MHz		
WLAN a-mode OFDM 6 Mbps	Tuning Target + Tolerance [dBm]		13.5			Scaling factor*				
	Conducted Power [dBm]		12.70	12.80	12.79	0.80	0.70	0.71	dB	
	Time-averaged power [dBm]		12.70	12.80	12.79	1.20	1.17	1.18	Lin	
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	-
		Full SAR	0.018	0.009	0.009	0.022	0.010	0.011	-	-
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-	-
		Full SAR	0.015	-	-	0.018	-	-	-	-
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-	-
		Full SAR	0.008	-	-	0.010	-	-	-	-
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-	-
Full SAR		0.012	-	-	0.014	-	-	-	-	
Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 149 5745.0 MHz	-	-	Ch 149 5745.0 MHz	-	-		
WLAN a-mode OFDM 54 Mbps	Tuning Target + Tolerance [dBm]		13.5			Scaling factor*				
	Conducted Power [dBm]		13.03	-	-	-	-	-	dB	
	Time-averaged power [dBm]		13.03	-	-	-	-	-	Lin	
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	-
		Full SAR	0.084	-	-	0.093	-	-	-	-

(Table continues)

(Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			-	-	Ch 165 5825.0 MHz	-	-	Ch 165 5825.0 MHz		
WLAN a-mode QPSK 12 Mbps	Tuning Target + Tolerance [dBm]		13.5			Scaling factor*				
	Conducted Power [dBm]		-	-	13.17	-	-	0.33	dB	
	Time-averaged power [dBm]		-	-	13.17	-	-	1.08	Lin	
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	-
		Full SAR	-	-	0.058	-	-	0.062	-	-

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

Test configuration	*Reported Max. 1g SAR results									
	WLAN 2450	WLAN 5000	LTE 750	CDMA 800	2-slot GPRS 850	WCDMA 850	LTE 1700/2100	CDMA 1900	2-slot GPRS 1900	WCDMA 1900
Head: Left, Cheek	0.610	0.321	0.331	0.668	0.685	0.487	0.322	1.08	0.219	0.316
Head: Left, Tilt	0.790	0.279	0.111	0.255	0.210	0.193	0.115	0.198	0.113	0.182
Head: Right, Cheek	0.327	0.114	0.738	0.469	0.419	0.327	0.861	0.407	0.659	0.926
Head: Right, Tilt	0.376	0.114	0.129	0.219	0.191	0.150	0.132	0.162	0.099	0.146

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

Test configuration	*Reported Max. 1g SAR results							
	LTE750 +WLAN 2450	CDMA800 +WLAN 2450	2-slot GPRS850 +WLAN 2450	WCDMA 850 +WLAN 2450	LTE 1700/2100 +WLAN 2450	CDMA1900 + WLAN 2450	2-slot GPRS 1900 +WLAN 2450	WCDMA 1900 +WLAN 2450
Head: Left, Cheek	0.941	1.28	1.30	1.10	0.932	1.69	0.829	0.926
Head: Left, Tilt	0.901	1.05	1.00	0.983	0.905	0.988	0.903	0.972
Head: Right, Cheek	1.07	0.796	0.746	0.654	1.19	0.734	0.986	1.25
Head: Right, Tilt	0.505	0.595	0.567	0.526	0.508	0.538	0.475	0.522
Test configuration	LTE750 +WLAN 5000	CDMA800 +WLAN 5000	2-slot GPRS850 +WLAN 5000	WCDMA 850 +WLAN 5000	LTE 1700/2100 +WLAN 5000	CDMA1900 + WLAN 5000	2-slot GPRS 1900 +WLAN 5000	WCDMA 1900 +WLAN 5000
Head: Left, Cheek	0.652	0.989	1.01	0.808	0.643	1.40	0.540	0.637
Head: Left, Tilt	0.390	0.534	0.489	0.472	0.394	0.477	0.392	0.461
Head: Right, Cheek	0.852	0.583	0.533	0.441	0.975	0.521	0.773	1.04
Head: Right, Tilt	0.243	0.333	0.305	0.264	0.246	0.276	0.213	0.260

Simultaneous Transmission SAR Test Exclusion Procedures for Head Measurements

Simultaneous transmissions SAR test exclusion procedures as described in KDB 447498 D01 v05.

Following table gives antenna pair SAR to peak location separation ratios for the transmitter combinations for which the sum of simultaneously transmitting 1g SAR was above limit (See “Max+Max Combined results” table in previous section).

Antenna Pair SAR to Peak Location Separation Ratio

Left Cheek	CDMA1900, Left Cheek	WLAN 2450, Left Cheek	-	-	-	-
X [mm]	61.9	13.8	-	-	-	-
Y [mm]	238.6	321.3	-	-	-	-
Z [mm]	-170.9	-170.5	-	-	-	-
DISTANCE [mm]	95.7		-		-	
MAX + MAX (Reported SAR)	1.69		-		-	
SAR to peak location separation ratio	0.02		-		-	

All simultaneous transmitter configurations where all antenna pairs' SPLSR is equal to or below 0.04 are excluded from expanded zoom scan testing.

7.1.1 Area scan based combined Head SAR data

The Combined SAR data given in the tables below has been voluntarily calculated and should be ignored for FCC certification.

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	*Reported Max. 1g SAR results							
	LTE750 +WLAN 2450	CDMA800 +WLAN 2450	2-slot GPRS850 +WLAN 2450	WCDMA 850 +WLAN 2450	LTE 1700/ 2100 +WLAN 2450	CDMA 1900 +WLAN 2450	2-slot GPRS 1900 +WLAN 2450	WCDMA 1900 +WLAN 2450
Head: Left, Cheek	-	0.678	0.627	0.631	-	1.04	-	-
Head: Left, Tilt	-	-	-	-	-	-	-	-
Head: Right, Cheek	0.663	-	-	-	0.821	-	0.578	0.810
Head: Right, Tilt	-	-	-	-	-	-	-	-
Test configuration	LTE750 +WLAN 5000	CDMA800 +WLAN 5000	2-slot GPRS850 +WLAN 5000	WCDMA 850 +WLAN 5000	LTE 1700/ 2100 +WLAN 5000	CDMA 1900 +WLAN 5000	2-slot GPRS 1900 +WLAN 5000	WCDMA 1900 +WLAN 5000
Head: Left, Cheek	-	0.609	0.606	0.467	-	1.02	-	-
Head: Left, Tilt	-	-	-	-	-	-	-	-
Head: Right, Cheek	0.661	-	-	-	0.816	-	0.565	0.788
Head: Right, Tilt	-	-	-	-	-	-	-	-

Plots #: 11-26

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 are tabulated below

LTE750 (Band 13) Body SAR results

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				-	Ch 23230 782.0 MHz	-	-	Ch 23230 782.0 MHz	-		
10MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]		24.35			Scaling factor*					
	Conducted Power [dBm]		-	24.06	-	-	0.29	-	dB		
	Time-averaged power [dBm]		-	24.06	-	-	1.07	-	Lin		
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02											
10MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		24.35			Scaling factor*					
	Conducted Power [dBm]		-	24.26	-	-	0.29	-	dB		
	Time-averaged power [dBm]		-	24.26	-	-	1.07	-	Lin		
	Back facing phantom	Without headset	Estimated SAR	-	0.305	-	-	0.311	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Headset WH-902	Without headset	Estimated SAR	-	0.277	-	-	0.283	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Without headset	Estimated SAR	-	0.337	-	-	0.344	-	0.01	27
			Full SAR	-	0.343	-	-	0.350	-	-	-
Headset WH-902	Without headset	Estimated SAR	-	0.303	-	-	0.309	-	-	-	
		Full SAR	-	-	-	-	-	-	-	-	
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02											
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		24.35			Scaling factor*					
	Conducted Power [dBm]		-	24.02	-	-	0.33	-	dB		
	Time-averaged power [dBm]		-	24.02	-	-	1.08	-	Lin		
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02											
10MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*					
	Conducted Power [dBm]		-	23.06	-	-	0.29	-	dB		
	Time-averaged power [dBm]		-	23.06	-	-	1.07	-	Lin		
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02											

(Table continues)

(Table continues)

10MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*					
	Conducted Power [dBm]		-	23.15	-	-	0.20	-	dB		
	Time-averaged power [dBm]		-	23.15	-	-	1.05	-	Lin		
	Back facing phantom	Without headset	Estimated SAR	-	0.237	-	-	0.248	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Headset WH-902	Without headset	Estimated SAR	-	0.225	-	-	0.236	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Without headset	Estimated SAR	-	0.261	-	-	0.273	-	-	-
Full SAR			-	-	-	-	-	-	-	-	
Headset WH-902	Without headset	Estimated SAR	-	0.238	-	-	0.249	-	-	-	
		Full SAR	-	-	-	-	-	-	-	-	
10MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*					
	Conducted Power [dBm]		-	23.13	-	-	0.22	-	dB		
	Time-averaged power [dBm]		-	23.13	-	-	1.05	-	Lin		
		No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02									
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*					
	Conducted Power [dBm]		-	23.09	-	-	0.26	-	dB		
	Time-averaged power [dBm]		-	23.09	-	-	1.06	-	Lin		
		No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02									

CDMA800 Body SAR results

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 1013 824.7 MHz	Ch 384 836.5 MHz	Ch 777 848.3 MHz	Ch 1013 824.7 MHz	Ch 384 836.5 MHz	Ch 777 848.3 MHz		
RC3/ S055	Tuning Target + Tolerance [dBm]			24.85			Scaling factor*				
	Conducted Power [dBm]			24.72	24.85	24.72	0.13	0.00	0.13	dB	
	Time-averaged power [dBm]			24.72	24.85	24.72	1.03	1.00	1.03	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	0.554	-	-	0.554	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
		Headset WH-902	Estimated SAR	-	0.462	-	-	0.462	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Without headset	Estimated SAR	0.592	0.649	0.680	0.610	0.649	0.701	0.00	28
			Full SAR	-	-	0.684	-	-	0.705		
		Headset WH-902	Estimated SAR	-	0.582	-	-	0.582	-	-	-
Full SAR			-	-	-	-	-	-	-	-	

850MHz Band Body SAR results

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz	Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz		
2-slot GPRS	Tuning Target + Tolerance [dBm]			30.85			Scaling factor*				
	Conducted Power [dBm]			30.72	30.78	30.66	0.13	0.07	0.19	dB	
	Time-averaged power [dBm]			24.70	24.76	24.64	1.03	1.02	1.04	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	0.496	-	-	0.504	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
		Headset WH-902	Estimated SAR	-	0.438	-	-	0.445	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Without headset	Estimated SAR	0.525	0.578	0.612	0.541	0.587	0.639	0.00	29
			Full SAR	-	-	0.612	-	-	0.639		
		Headset WH-902	Estimated SAR	-	0.498	-	-	0.506	-	-	-
Full SAR			-	-	-	-	-	-	-	-	
Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz	Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz		
WCDMA	Tuning Target + Tolerance [dBm]			23.35			Scaling factor*				
	Conducted Power [dBm]			23.04	23.16	23.23	0.31	0.19	0.12	dB	
	Time-averaged power [dBm]			23.04	23.16	23.23	1.07	1.04	1.03	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	0.391	-	-	0.408	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
		Headset WH-902	Estimated SAR	-	0.344	-	-	0.359	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Without headset	Estimated SAR	0.408	0.437	0.497	0.438	0.457	0.511	0.00	30
			Full SAR	-	-	0.496	-	-	0.510		
		Headset WH-902	Estimated SAR	-	0.389	-	-	0.406	-	-	-
Full SAR			-	-	-	-	-	-	-	-	

LTE1700/2100 (Band 4) Body SAR results

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 20050	Ch 23175	Ch 20300	Ch 20050	Ch 23175	Ch 20300		
				1720.0 MHz	1732.5 MHz	1745.0 MHz	1720.0 MHz	1732.5 MHz	1745.0 MHz		
10MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*					
	Conducted Power [dBm]		23.64	23.60	23.61	0.21	0.25	0.24	dB		
	Time-averaged power [dBm]		23.64	23.60	23.61	1.05	1.06	1.06	Lin		
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02											
10MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*					
	Conducted Power [dBm]		23.73	23.70	23.75	0.12	0.15	0.10	dB		
	Time-averaged power [dBm]		23.73	23.70	23.75	1.03	1.04	1.02	Lin		
	Back facing phantom	Without headset	Estimated SAR	-	-	0.392	-	-	0.401	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Headset WH-902	Without headset	Estimated SAR	-	-	0.403	-	-	0.412	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Without headset	Estimated SAR	-	-	0.503	-	-	0.515	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Headset WH-902	Headset WH-902	Estimated SAR	0.478	0.497	0.535	0.491	0.514	0.547	0.01	31
Full SAR			-	-	0.547	-	-	0.560	-	-	
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02											
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*					
	Conducted Power [dBm]		23.53	23.62	23.61	0.32	0.23	0.24	dB		
	Time-averaged power [dBm]		23.53	23.62	23.61	1.08	1.05	1.06	Lin		
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02											
10MHz Ch BW 50%RB 0% offset	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*					
	Conducted Power [dBm]		22.55	22.49	22.50	0.30	0.36	0.35	dB		
	Time-averaged power [dBm]		22.55	22.49	22.50	1.07	1.09	1.08	Lin		
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02											

(Table continues)

(Table continues)

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 20050 1720.0 MHz	Ch 23175 1732.5 MHz	Ch 20300 1745.0 MHz	Ch 20050 1720.0 MHz	Ch 23175 1732.5 MHz	Ch 20300 1745.0 MHz		
10MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]			22.85			Scaling factor*				
	Conducted Power [dBm]			22.54	22.48	22.58	0.31	0.37	0.27	dB	
	Time-averaged power [dBm]			22.54	22.48	22.58	1.07	1.09	1.06	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	-	0.286	-	-	0.304	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Headset WH-902	Headset	Estimated SAR	-	-	0.304	-	-	0.323	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Without headset	Estimated SAR	-	-	0.378	-	-	0.402	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Headset WH-902	Headset	Estimated SAR	-	-	0.400	-	-	0.426	-	-
Full SAR			-	-	-	-	-	-	-	-	
10MHz Ch BW 50%RB 100% offset	Tuning Target + Tolerance [dBm]			22.85			Scaling factor*				
	Conducted Power [dBm]			22.52	22.55	22.55	0.33	0.30	0.30	dB	
	Time-averaged power [dBm]			22.52	22.55	22.55	1.08	1.07	1.07	Lin	
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02											
10MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]			22.85			Scaling factor*				
	Conducted Power [dBm]			22.54	22.54	22.53	0.31	0.31	0.32	dB	
	Time-averaged power [dBm]			22.54	22.54	22.53	1.07	1.07	1.08	Lin	
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02											

CDMA1900 Body SAR results

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 25	Ch 600	Ch 1175	Ch 25	Ch 600	Ch 1175		
				1851.25 MHz	1880.0 MHz	1908.75 MHz	1851.25 MHz	1880.0 MHz	1908.75 MHz		
RC3/S055	Tuning Target + Tolerance [dBm]			24.35			Scaling factor*				
	Conducted Power [dBm]			24.31	24.30	24.32	0.04	0.05	0.03	dB	
	Time-averaged power [dBm]			24.31	24.30	24.32	1.01	1.01	1.01	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	0.691	-	-	0.699	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
		Headset WH-902	Estimated SAR	-	0.690	-	-	0.698	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Without headset	Estimated SAR	0.943	0.930	0.785	0.952	0.941	0.790	0.08	-
			Full SAR	1.02	-	-	1.03	-	-	-	-
		Headset WH-902	Estimated SAR	0.945	0.955	0.786	0.954	0.966	0.791	0.06	-
			Full SAR	-	1.01	-	-	1.02	-	-	-
	Display facing phantom, Without headset		Estimated SAR	-	-	-	-	-	-	-	-
			Full SAR	1.03	-	-	1.04	-	-	-	32

1900MHz Band Body SAR results

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 512	Ch 661	Ch 810	Ch 512	Ch 661	Ch 810		
				1850.2 MHz	1880.0 MHz	1909.8 MHz	1850.2 MHz	1880.0 MHz	1909.8 MHz		
2-slot GPRS	Tuning Target + Tolerance [dBm]		27.85			Scaling factor*					
	Conducted Power [dBm]		27.52	27.55	27.59	0.33	0.30	0.26	dB		
	Time-averaged power [dBm]		21.50	21.53	21.57	1.08	1.07	1.06	Lin		
	Back facing phantom	Without headset	Estimated SAR	-	0.267	-	-	0.286	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
		Headset WH-902	Estimated SAR	-	0.266	-	-	0.285	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Without headset	Estimated SAR	0.373	0.330	0.266	0.402	0.354	0.282	0.01	33
			Full SAR	0.381	-	-	0.411	-	-		
		Headset WH-902	Estimated SAR	-	0.329	-	-	0.353	-	-	-
Full SAR			-	-	-	-	-	-	-	-	
Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 9262	Ch 9400	Ch 9538	Ch 9262	Ch 9400	Ch 9538		
				1852.4 MHz	1880.0 MHz	1907.6 MHz	1852.4 MHz	1880.0 MHz	1907.6 MHz		
WCDMA	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*					
	Conducted Power [dBm]		23.27	23.20	23.22	0.08	0.15	0.13	dB		
	Time-averaged power [dBm]		23.27	23.20	23.22	1.02	1.04	1.03	Lin		
	Back facing phantom	Without headset	Estimated SAR	-	0.401	-	-	0.415	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
		Headset WH-902	Estimated SAR	-	0.398	-	-	0.412	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Without headset	Estimated SAR	0.599	0.533	0.485	0.610	0.552	0.500	0.00	34
			Full SAR	0.603	-	-	0.614	-	-		
		Headset WH-902	Estimated SAR	-	0.521	-	-	0.539	-	-	-
Full SAR			-	-	-	-	-	-	-	-	

2450MHz Body SAR results

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz	Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz		
WLAN b- mode DSSS 1 Mbps	Tuning Target + Tolerance [dBm]		18.5			Scaling factor*					
	Conducted Power [dBm]		18.03	17.92	17.78	0.47	0.58	0.72	dB		
	Time-averaged power [dBm]		18.03	17.92	17.78	1.11	1.14	1.18	Lin		
	Back facing phantom	Without headset	Estimated SAR	-	0.032	-	-	0.036	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
		Headset WH-902	Estimated SAR	-	0.051	-	-	0.059	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Without headset	Estimated SAR	-	0.046	-	-	0.053	-	-	-
			Full SAR	-	-	-	-	-	-	-	-
		Headset WH-902	Estimated SAR	0.079	0.078	0.071	0.088	0.089	0.084	0.00	35
Full SAR			0.080	-	-	0.089	-	-			

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

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 36 5180.0 MHz	Ch 44 5220.0 MHz	Ch 56 5280.0 MHz	Ch 60 5300.0 MHz	Ch 36 5180.0 MHz	Ch 44 5220.0 MHz	Ch 56 5280.0 MHz	Ch 60 5300.0 MHz		
WLAN a-mode OFDM 6 Mbps	Tuning Target + Tolerance [dBm]			13.50				Scaling factor*					
	Conducted Power [dBm]			12.96	12.79	12.82	12.91	0.54	0.71	0.68	0.59	dB	
	Time-averaged power [dBm]			12.96	12.79	12.82	12.91	1.13	1.18	1.17	1.15	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	-	-	36
			Full SAR	0.014	0.030	0.055	0.067	0.016	0.035	0.064	0.077	-	-
	Headset WH-902	Without headset	Estimated SAR	-	-	-	-	-	-	-	-	-	-
			Full SAR	-	0.027	-	0.065	-	0.032	-	0.075	-	-
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	-	-	-
			Full SAR	-	0.009	-	0.017	-	0.011	-	0.019	-	-
	Headset WH-902	Without headset	Estimated SAR	-	-	-	-	-	-	-	-	-	-
Full SAR			-	0.009	-	0.018	-	0.011	-	0.021	-	-	
Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				-	-	-	Ch 58 5290.0 MHz	-	-	-	Ch 58 5290.0 MHz		
WLAN ac-mode OFDM 234 Mbps	Tuning Target + Tolerance [dBm]			11.5				Scaling factor*					
	Conducted Power [dBm]			-	-	-	9.97	-	-	-	1.53	dB	
	Time-averaged power [dBm]			-	-	-	9.97	-	-	-	1.42	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	-	-	0.033	-	-	-	0.047	-	-

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

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 100 5500.0 MHz	Ch 116 5580.0 MHz	Ch 120 5600.0 MHz	Ch 136 5680.0 MHz	Ch 100 5500.0 MHz	Ch 116 5580.0 MHz	Ch 120 5600.0 MHz	Ch 136 5680.0 MHz		
WLAN a-mode OFDM 6 Mbps	Tuning Target + Tolerance [dBm]			13.50				Scaling factor*					
	Conducted Power [dBm]			12.90	12.88	12.85	12.92	0.60	0.62	0.65	0.58	dB	
	Time-averaged power [dBm]			12.90	12.88	12.85	12.92	1.15	1.15	1.16	1.14	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	-	-	-
			Full SAR	0.063	0.044	0.034	0.045	0.072	0.050	0.039	0.051		
	Headset WH-902	Headset WH-902	Estimated SAR	-	-	-	-	-	-	-	-	-	-
			Full SAR	0.063	-	-	-	0.072	-	-	-		
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	-	-	-
			Full SAR	0.025	-	-	-	0.028	-	-	-		
		Headset WH-902	Headset WH-902	Estimated SAR	-	-	-	-	-	-	-	-	-
Full SAR				0.008	-	-	-	0.010	-	-	-		

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

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 153 5765.0 MHz	Ch 157 5785.0 MHz	Ch 161 5805.0 MHz	Ch 153 5765.0 MHz	Ch 157 5785.0 MHz	Ch 161 5805.0 MHz		
WLAN a-mode DSSS 6 Mbps	Tuning Target + Tolerance [dBm]			13.50			Scaling factor*				
	Conducted Power [dBm]			12.70	12.80	12.79	0.80	0.70	0.71	dB	
	Time-averaged power [dBm]			12.70	12.80	12.79	1.20	1.17	1.18	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	-
			Full SAR	0.025	0.029	0.019	0.030	0.034	0.022	-	-
	Headset WH-902	Without headset	Estimated SAR	-	-	-	-	-	-	-	-
			Full SAR	-	0.022	-	-	0.025	-	-	-
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	-
			Full SAR	-	0.016	-	-	0.018	-	-	-
	Headset WH-902	Without headset	Estimated SAR	-	-	-	-	-	-	-	-
Full SAR			-	0.010	-	-	0.012	-	-	-	
Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 149 5745.0 MHz	-	-	Ch 149 5745.0 MHz	-	-		
WLAN a-mode 64QAM 54 Mbps	Tuning Target + Tolerance [dBm]			13.50			Scaling factor*				
	Conducted Power [dBm]			13.03	-	-	-	-	-	dB	
	Time-averaged power [dBm]			13.03	-	-	-	-	-	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	-
			Full SAR	0.026	-	-	0.029	-	-	-	-

(Table continues)

(Table continues)

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				-	-	Ch 165 5825.0 MHz	-	-	Ch 165 5825.0 MHz		
WLAN a-mode QPSK 12 Mbps	Tuning Target + Tolerance [dBm]			13.50			Scaling factor*				
	Conducted Power [dBm]			-	-	13.17	-	-	0.33	dB	
	Time-averaged power [dBm]			-	-	13.17	-	-	1.08	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	-
Full SAR			-	-	0.030	-	-	0.032	-	-	

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

Test configuration	*Reported Max. 1g SAR results									
	WLAN 2450	WLAN 5000	LTE 750	CDMA 800	2-slot GPRS 850	WCDMA 850	LTE 1700/2100	CDMA 1900	2-slot GPRS 1900	WCDMA 1900
Body: Back facing phantom, Without Headset	0.036	0.077	0.311	0.554	0.504	0.408	0.401	0.699	0.286	0.415
Body: Back facing phantom, Headset WH902	0.059	0.075	0.283	0.462	0.445	0.359	0.412	0.698	0.285	0.412
Body: Display facing phantom, Without Headset	0.053	0.028	0.350	0.705	0.639	0.510	0.515	1.04	0.411	0.614
Body: Display facing phantom, Headset WH902	0.089	0.021	0.309	0.582	0.506	0.406	0.560	1.022	0.353	0.539

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

Test configuration	*Reported Max. 1g SAR results							
	LTE750 +WLAN 2450	CDMA800 +WLAN 2450	2-slot GPRS850 +WLAN 2450	WCDMA 850 +WLAN 2450	LTE 1700/ 2100 +WLAN 2450	CDMA1900 + WLAN 2450	2-slot GPRS 1900 +WLAN 2450	WCDMA 1900 +WLAN 2450
Body: Back facing phantom, Without Headset	0.347	0.590	0.540	0.444	0.437	0.735	0.322	0.451
Body: Back facing phantom, Headset WH-902	0.342	0.521	0.504	0.418	0.471	0.757	0.344	0.471
Body: Display facing phantom, Without Headset	0.403	0.758	0.692	0.563	0.568	1.09	0.464	0.667
Body: Display facing phantom, Headset WH-902	0.398	0.671	0.595	0.495	0.649	1.11	0.442	0.628
Test configuration	LTE750 +WLAN 5000	CDMA800 +WLAN 5000	2-slot GPRS850 +WLAN 5000	WCDMA 850 +WLAN 5000	LTE 1700/ 2100 +WLAN 5000	CDMA1900 + WLAN 5000	2-slot GPRS 1900 +WLAN 5000	WCDMA 1900 +WLAN 5000
Body: Back facing phantom, Without Headset	0.388	0.631	0.581	0.485	0.478	0.776	0.363	0.492
Body: Back facing phantom, Headset WH-902	0.358	0.537	0.520	0.434	0.487	0.773	0.360	0.487
Body: Display facing phantom, Without Headset	0.378	0.733	0.667	0.538	0.543	1.07	0.439	0.642
Body: Display facing phantom, Headset WH-902	0.330	0.603	0.527	0.427	0.581	1.04	0.374	0.560

Note: Simultaneous Transmission Procedures as described in KDB447498 are not required for body SAR of this product.

7.2.1 Area scan based combined Body SAR data

The Combined SAR data given in the tables below has been voluntarily calculated and should be ignored for FCC certification.

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 or WLAN2450 or WLAN5000 and the cellular bands point-by-point and c) calculates the ombined average SAR values.

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

Test configuration	*Reported Max. 1g SAR results							
	LTE750 +WLAN 2450	CDMA800 +WLAN 2450	2-slot GPRS850 +WLAN 2450	WCDMA 850 +WLAN 2450	LTE 1700/ 2100 +WLAN 2450	CDMA1900 + WLAN 2450	2-slot GPRS 1900 +WLAN 2450	WCDMA 1900 +WLAN 2450
Body: Back facing phantom, Without Headset	-	-	-	-	-	-	-	-
Body: Back facing phantom, Headset WH-902	-	-	-	-	-	-	-	-
Body: Display facing phantom, Without Headset	0.369	0.709	0.645	0.518	-	0.960	0.412	0.622
Body: Display facing phantom, Headset WH-902	-	-	-	-	0.555	-	-	-

(Table continues)

(Table continues)

Test configuration	LTE750 +WLAN 5000	CDMA800 +WLAN 5000	2-slot GPRS850 +WLAN 5000	WCDMA 850 +WLAN 5000	LTE 1700/ 2100 +WLAN 5000	CDMA1900 + WLAN 5000	2-slot GPRS 1900 +WLAN 5000	WCDMA 1900 +WLAN 5000
Body: Back facing phantom, Without Headset	0.328	-	-	-	-	-	-	-
Body: Back facing phantom, Headset WH-902	-	-	-	-	-	-	-	-
Body: Display facing phantom, Without Headset	-	0.725	0.660	0.534	-	0.948	0.414	0.616
Body: Display facing phantom, Headset WH-902	-	-	-	-	0.536	-	-	-

Plot #:37-52

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

LTE750 (Band 13) Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #	
			-	Ch 23230	-	-	Ch 23230	-			
			-	782.0 MHz	-	-	782.0 MHz	-			
10MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]		24.35			Scaling factor*					
	Conducted Power [dBm]		-	24.06	-	-	0.29	-	dB		
	Time-averaged power [dBm]		-	24.06	-	-	1.07	-	Lin		
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02											
10MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		24.35			Scaling factor*					
	Conducted Power [dBm]		-	24.26	-	-	0.09	-	dB		
	Time-averaged power [dBm]		-	24.26	-	-	1.02	-	Lin		
	Back facing phantom	Estimated SAR		-	0.467	-	-	0.477	-	-	-
		Full SAR		-	-	-	-	-	-	-	-
	Display facing phantom	Estimated SAR		-	0.503	-	-	0.514	-	-	-
		Full SAR		-	-	-	-	-	-	-	-
	Top edge facing phantom	Estimated SAR		-	0.011	-	-	0.011	-	-	-
		Full SAR		-	-	-	-	-	-	-	-
	Bottom edge facing phantom	Estimated SAR		-	0.214	-	-	0.218	-	-	-
		Full SAR		-	-	-	-	-	-	-	-
	Left edge facing phantom	Estimated SAR		-	0.194	-	-	0.198	-	-	-
		Full SAR		-	-	-	-	-	-	-	-
Right edge facing phantom	Estimated SAR		-	0.591	-	-	0.603	-	0.01	-	
	Full SAR		-	0.598	-	-	0.611	-	0.01	53	
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		24.35			Scaling factor*					
	Conducted Power [dBm]		-	24.02	-	-	0.33	-	dB		
	Time-averaged power [dBm]		-	24.02	-	-	1.08	-	Lin		
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02											

(Table continues)

(Table continues)

10MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		-	23.06	-	-	0.29	-	dB
	Time-averaged power [dBm]		-	23.06	-	-	1.07	-	Lin
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02									
10MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		-	23.15	-	-	0.20	-	dB
	Time-averaged power [dBm]		-	23.15	-	-	1.05	-	Lin
	Back facing phantom	Estimated SAR	-	0.365	-	-	0.382	-	-
		Full SAR	-	-	-	-	-	-	-
	Display facing phantom	Estimated SAR	-	0.396	-	-	0.415	-	-
		Full SAR	-	-	-	-	-	-	-
	Top edge facing phantom	Estimated SAR	-	0.010	-	-	0.011	-	-
		Full SAR	-	-	-	-	-	-	-
	Bottom edge facing phantom	Estimated SAR	-	0.175	-	-	0.183	-	-
		Full SAR	-	-	-	-	-	-	-
	Left edge facing phantom	Estimated SAR	-	0.139	-	-	0.146	-	-
		Full SAR	-	-	-	-	-	-	-
Right edge facing phantom	Estimated SAR	-	0.498	-	-	0.521	-	-	
	Full SAR	-	-	-	-	-	-	-	
10MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]			23.13			0.22		dB
	Time-averaged power [dBm]			23.13			1.05		Lin
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02									
10MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]			23.09			0.26		dB
	Time-averaged power [dBm]			23.09			1.06		Lin
No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02									

CDMA800 Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 1013 824.7 MHz	Ch 384 836.5 MHz	Ch 777 848.3 MHz	Ch 1013 824.7 MHz	Ch 384 836.5 MHz	Ch 777 848.3 MHz		
RC3/ S055	Tuning Target + Tolerance [dBm]		24.85			Scaling factor*				
	Conducted Power [dBm]		24.72	24.85	24.72	0.13	0.00	0.13	dB	
	Time-averaged power [dBm]		24.72	24.85	24.72	1.03	1.00	1.03	Lin	
	Back facing phantom	Estimated SAR	-	0.764	-	-	0.764	-	-	-
		Full SAR	-	0.774	-	-	0.774	-	-	-
	Display facing phantom	Estimated SAR	0.808	0.897	0.908	0.833	0.897	0.936	0.01	54
		Full SAR	-	-	0.921	-	-	0.949		
	Top edge facing phantom	Estimated SAR	-	0.027	-	-	0.027	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Bottom edge facing phantom	Estimated SAR	-	0.208	-	-	0.208	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Left edge facing phantom	Estimated SAR	-	0.651	-	-	0.651	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
Right edge facing phantom	Estimated SAR	-	0.253	-	-	0.253	-	-	-	
	Full SAR	-	-	-	-	-	-	-	-	
Repeated SAR, Display facing phantom	Estimated SAR	-	-	-	-	-	-	-	-	
	Full SAR	-	-	0.912	-	-	0.940	-	-	

850MHz Wireless Router SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz	Ch 128 824.2 MHz	Ch 190 836.6 MHz	Ch 251 848.8 MHz		
GSM	Tuning Target + Tolerance [dBm]		32.35			Scaling factor*				
	Conducted Power [dBm]		32.18	32.20	32.30	0.17	0.15	0.05	dB	
	Time-averaged power [dBm]		23.15	23.17	23.27	1.04	1.04	1.01	Lin	
	Back facing phantom	Estimated SAR	-	0.543	-	-	0.562	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
2-slot GPRS	Tuning Target + Tolerance [dBm]		30.85			Scaling factor*				
	Conducted Power [dBm]		30.72	30.78	30.66	0.13	0.07	0.19	dB	
	Time-averaged power [dBm]		24.70	24.76	24.64	1.03	1.02	1.04	Lin	
	Back facing phantom	Estimated SAR	-	0.676	-	-	0.687	-	0.01	-
		Full SAR	-	0.690	-	-	0.701	-	-	-
	Display facing phantom	Estimated SAR	0.753	0.820	0.959	0.776	0.833	1.00	0.00	55
		Full SAR	-	-	0.961	-	-	1.00	-	-
	Top edge facing phantom	Estimated SAR	-	0.025	-	-	0.025	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Bottom edge facing phantom	Estimated SAR	-	0.198	-	-	0.201	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Left edge facing phantom	Estimated SAR	-	0.510	-	-	0.518	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Right edge facing phantom	Estimated SAR	-	0.237	-	-	0.241	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
Repeated SAR, Display facing phantom	Estimated SAR	-	-	-	-	-	-	-	-	
	Full SAR	-	-	0.848	-	-	0.886	-	-	
3-slot GPRS	Tuning Target + Tolerance [dBm]		28.35			Scaling factor*				
	Conducted Power [dBm]		28.18	28.30	28.15	0.17	0.05	0.20	dB	
	Time-averaged power [dBm]		23.92	24.04	23.89	1.04	1.01	1.05	Lin	
	Back facing phantom	Estimated SAR	-	0.585	-	-	0.592	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
4-slot GPRS	Tuning Target + Tolerance [dBm]		27.35			Scaling factor*				
	Conducted Power [dBm]		27.10	27.23	27.12	0.25	0.12	0.23	dB	
	Time-averaged power [dBm]		24.09	24.22	24.11	1.06	1.03	1.05	Lin	
	Back facing phantom	Estimated SAR	-	0.595	-	-	0.612	-	-	-
Full SAR		-	-	-	-	-	-	-	-	

(Table continues)

(Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz	Ch 4132 826.4 MHz	Ch 4175 835.0 MHz	Ch 4233 846.6 MHz		
WCDMA	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*				
	Conducted Power [dBm]		23.04	23.16	23.23	0.31	0.19	0.12	dB	
	Time-averaged power [dBm]		23.04	23.16	23.23	1.07	1.04	1.03	Lin	
	Back facing phantom	Estimated SAR	-	0.537	-	-	0.561	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Estimated SAR	0.549	0.622	0.637	0.590	0.650	0.655	0.03	56
		Full SAR	-	-	0.667	-	-	0.686		
	Top edge facing phantom	Estimated SAR	-	0.015	-	-	0.015	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Bottom edge facing phantom	Estimated SAR	-	0.152	-	-	0.159	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Left edge facing phantom	Estimated SAR	-	0.411	-	-	0.429	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Right edge facing phantom	Estimated SAR	-	0.143	-	-	0.149	-	-	-
Full SAR		-	-	-	-	-	-	-	-	

LTE1700/2100 (Band 4) Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #	
			Ch 20050	Ch 23175	Ch 20300	Ch 20050	Ch 23175	Ch 20300			
			1720.0 MHz	1732.5 MHz	1745.0 MHz	1720.0 MHz	1732.5 MHz	1745.0 MHz			
10MHz Ch BW 1RB 0 % offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*					
	Conducted Power [dBm]		23.64	23.60	23.61	0.21	0.25	0.24	dB		
	Time-averaged power [dBm]		23.64	23.60	23.61	1.05	1.06	1.06	Lin		
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02								
10MHz Ch BW 1RB 50 % offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*					
	Conducted Power [dBm]		23.73	23.70	23.75	0.12	0.15	0.10	dB		
	Time-averaged power [dBm]		23.73	23.70	23.75	1.03	1.04	1.02	Lin		
	Back facing phantom	Estimated SAR		-	-	0.716	-	-	0.733	-	-
		Full SAR		-	-	-	-	-	-	-	-
	Display facing phantom	Estimated SAR		0.923	0.947	0.995	0.949	0.980	1.02	0.08	-
		Full SAR		-	-	1.07	-	-	1.10	-	-
	Top edge facing phantom	Estimated SAR		-	-	0.016	-	-	0.016	-	-
		Full SAR		-	-	-	-	-	-	-	-
	Bottom edge facing phantom	Estimated SAR		0.995	0.967	0.981	1.02	1.00	1.00	0.07	-
		Full SAR		1.06	-	-	1.09	-	-	-	-
	Left edge facing phantom	Estimated SAR		-	-	0.232	-	-	0.237	-	-
		Full SAR		-	-	-	-	-	-	-	-
	Right edge facing phantom	Estimated SAR		-	-	0.699	-	-	0.715	-	-
		Full SAR		-	-	-	-	-	-	-	-
Repeated SAR, Display facing phantom	Estimated SAR		-	-	-	-	-	-	-	57	
	Full SAR		-	-	1.08	-	-	1.11	-	-	
10MHz Ch BW 1RB 100 % offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*					
	Conducted Power [dBm]		23.53	23.62	23.61	0.32	0.23	0.24	dB		
	Time-averaged power [dBm]		23.53	23.62	23.61	1.08	1.05	1.06	Lin		
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02								

(Table continues)

(Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 20050	Ch 23175	Ch 20300	Ch 20050	Ch 23175	Ch 20300		
			1720.0 MHz	1732.5 MHz	1745.0 MHz	1720.0 MHz	1732.5 MHz	1745.0 MHz		
10MHz Ch BW 50% RB 0 % offset	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*				
	Conducted Power [dBm]		22.55	22.49	22.50	0.30	0.36	0.35	dB	
	Time-averaged power [dBm]		22.55	22.49	22.50	1.07	1.09	1.08	Lin	
	Display facing phantom	Estimated SAR	0.712	-	-	0.763	-	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
10MHz Ch BW 50% RB 50 % offset	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*				
	Conducted Power [dBm]		22.54	22.48	22.58	0.31	0.37	0.27	dB	
	Time-averaged power [dBm]		22.54	22.48	22.58	1.07	1.09	1.06	Lin	
	Back facing phantom	Estimated SAR	-	-	0.542	-	-	0.577	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Estimated SAR	-	-	0.755	-	-	0.803	0.05	-
		Full SAR	-	-	0.800	-	-	0.851		
	Top edge facing phantom	Estimated SAR	-	-	0.012	-	-	0.013	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Bottom edge facing phantom	Estimated SAR	-	-	0.728	-	-	0.775	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Left edge facing phantom	Estimated SAR	-	-	0.170	-	-	0.181	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Right edge facing phantom	Estimated SAR	-	-	0.559	-	-	0.595	-	-
Full SAR		-	-	-	-	-	-	-	-	
10MHz Ch BW 50% RB 100 % offset	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*				
	Conducted Power [dBm]		22.52	22.55	22.55	0.33	0.30	0.30	dB	
	Time-averaged power [dBm]		22.52	22.55	22.55	1.08	1.07	1.07	Lin	
	Display facing phantom	Estimated SAR	-	0.735	-	-	0.788	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
10MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*				
	Conducted Power [dBm]		22.54	22.54	22.53	0.31	0.31	0.32	dB	
	Time-averaged power [dBm]		22.54	22.54	22.53	1.07	1.07	1.08	Lin	
	Display facing phantom	Estimated SAR	0.754	0.772	0.779	0.810	0.829	0.839	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Bottom edge facing phantom	Estimated SAR	0.763	0.746	0.738	0.819	0.801	0.794	-	-
Full SAR		-	-	-	-	-	-	-	-	

CDMA1900 Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 25	Ch 600	Ch 1175	Ch 25	Ch 600	Ch 1175		
			1851.25 MHz	1880.0 MHz	1908.75 MHz	1851.25 MHz	1880.0 MHz	1908.75 MHz		
RC3/ S055	Tuning Target + Tolerance [dBm]		21.35			Scaling factor*				
	Conducted Power [dBm]		21.15	21.18	21.12	0.20	0.17	0.23	dB	
	Time-averaged power [dBm]		21.15	21.18	21.12	1.05	1.04	1.05	Lin	
	Back facing phantom	Estimated SAR	-	0.591	-	-	0.615	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Estimated SAR	0.799	0.796	0.738	0.837	0.828	0.777	0.10	-
		Full SAR	0.894	-	-	0.936	-	-		
	Top edge facing phantom	Estimated SAR	-	0.011	-	-	0.012	-	-	-
		Full SAR	-	-	-	-	-	-		
	Bottom edge facing phantom	Estimated SAR	0.810	0.850	0.592	0.848	0.884	0.624	0.09	-
		Full SAR	-	0.935	-	-	0.972	-		
	Left edge facing phantom	Estimated SAR	-	0.379	-	-	0.394	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Estimated SAR	-	0.133	-	-	0.138	-	-	-
		Full SAR	-	-	-	-	-	-		
Repeated SAR, Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-	58	
	Full SAR	-	0.939	-	-	0.976	-			

1900MHz Band Wireless Router SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 512	Ch 661	Ch 810	Ch 512	Ch 661	Ch 810		
			1850.2 MHz	1880.0 MHz	1909.8 MHz	1850.2 MHz	1880.0 MHz	1909.8 MHz		
GSM	Tuning Target + Tolerance [dBm]		29.85			Scaling factor*				
	Conducted Power [dBm]		29.84	29.84	29.68	0.01	0.01	0.17	dB	
	Time-averaged power [dBm]		20.81	20.81	20.65	1.00	1.00	1.04	Lin	
	Back facing phantom	Estimated SAR	-	0.470	-	-	0.471	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
2-slot GPRS	Tuning Target + Tolerance [dBm]		27.85			Scaling factor*				
	Conducted Power [dBm]		27.52	27.55	27.59	0.33	0.30	0.26	dB	
	Time-averaged power [dBm]		21.50	21.53	21.57	1.08	1.07	1.06	Lin	
	Back facing phantom	Estimated SAR	-	0.483	-	-	0.518	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Estimated SAR	0.744	0.625	0.533	0.803	0.670	0.566	0.06	-
		Full SAR	0.802	-	-	0.865	-	-	-	-
	Top edge facing phantom	Estimated SAR	-	0.017	-	-	0.018	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Bottom edge facing phantom	Estimated SAR	-	0.623	-	-	0.668	-	0.07	-
		Full SAR	-	0.694	-	-	0.744	-	-	-
	Left edge facing phantom	Estimated SAR	-	0.142	-	-	0.152	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Right edge facing phantom	Estimated SAR	-	0.269	-	-	0.288	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
Repeated SAR, Display facing phantom	Estimated SAR	-	-	-	-	-	-	-	-	
	Full SAR	0.803	-	-	0.866	-	-	-	59	
3-slot GPRS	Tuning Target + Tolerance [dBm]		25.35			Scaling factor*				
	Conducted Power [dBm]		25.02	25.06	25.11	0.33	0.29	0.24	dB	
	Time-averaged power [dBm]		20.76	20.80	20.85	1.08	1.07	1.06	Lin	
	Back facing phantom	Estimated SAR	-	0.377	-	-	0.403	-	-	-
Full SAR		-	-	-	-	-	-	-	-	
4-slot GPRS	Tuning Target + Tolerance [dBm]		24.55			Scaling factor*				
	Conducted Power [dBm]		24.04	24.16	24.20	0.31	0.19	0.15	dB	
	Time-averaged power [dBm]		21.03	21.15	21.19	1.07	1.04	1.04	Lin	
	Back facing phantom	Estimated SAR	-	0.296	-	-	0.309	-	-	-
Full SAR		-	-	-	-	-	-	-	-	

(Table continues)

(Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 9262 1852.4 MHz	Ch 9400 1880.0 MHz	Ch 9538 1907.6 MHz	Ch 9262 1852.4 MHz	Ch 9400 1880.0 MHz	Ch 9538 1907.6 MHz		
WCDMA	Tuning Target + Tolerance [dBm]		21.35			Scaling factor*				
	Conducted Power [dBm]		21.32	21.31	21.12	0.03	0.04	0.23	dB	
	Time-averaged power [dBm]		21.32	21.31	21.12	1.01	1.01	1.05	Lin	
	Back facing phantom	Estimated SAR	-	0.489	-	-	0.494	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Estimated SAR	-	0.589	-	-	0.594	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Top edge facing phantom	Estimated SAR	-	0.015	-	-	0.015	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Bottom edge facing phantom	Estimated SAR	0.622	0.596	0.497	0.626	0.602	0.524	0.04	60
		Full SAR	0.657	-	-	0.662	-	-		
	Left edge facing phantom	Estimated SAR	-	0.155	-	-	0.156	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Right edge facing phantom	Estimated SAR	-	0.294	-	-	0.297	-	-	-
Full SAR		-	-	-	-	-	-	-	-	

2450MHz Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz	Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz		
WLAN b-mode DSSS 1 Mbps	Tuning Target + Tolerance [dBm]		18.50			Scaling factor*				
	Conducted Power [dBm]		18.03	17.92	17.78	0.47	0.58	0.72	dB	
	Time-averaged power [dBm]		18.03	17.92	17.78	1.11	1.14	1.18	Lin	
	Back facing phantom	Estimated SAR	-	0.078	-	-	0.089	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Display facing phantom	Estimated SAR	-	0.102	-	-	0.117	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Top edge facing phantom	Estimated SAR	0.120	0.129	0.129	0.134	0.147	0.152	-	61
		Full SAR	-	-	0.132	-	-	0.156	-	
	Bottom edge facing phantom	Estimated SAR	-	0.0044	-	-	0.0050	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Left edge facing phantom	Estimated SAR	-	0.014	-	-	0.016	-	-	-
		Full SAR	-	-	-	-	-	-	-	-
	Right edge facing phantom	Estimated SAR	-	0.025	-	-	0.028	-	-	-
Full SAR		-	-	-	-	-	-	-	-	

Simultaneous transmissions: Combined SAR results – Individual band Max results

Test configuration	*Reported Max. 1g SAR results								
	WLAN 2450	LTE 750	CDMA 800	2-slot GPRS 850	WCDMA 850	LTE 1700/2100	CDMA 1900	2-slot GPRS 1900	WCDMA 1900
Back facing phantom	0.089	0.477	0.774	0.701	0.561	0.733	0.615	0.518	0.494
Display facing phantom	0.117	0.514	0.949	1.00	0.686	1.10	0.936	0.866	0.594
Top edge facing phantom	0.156	0.011	0.027	0.025	0.015	0.016	0.012	0.018	0.015
Bottom edge facing phantom	0.005	0.218	0.208	0.201	0.159	1.11	0.976	0.744	0.662
Left edge facing phantom	0.016	0.198	0.651	0.518	0.429	0.237	0.394	0.152	0.156
Right edge facing phantom	0.028	0.611	0.253	0.241	0.149	0.715	0.138	0.288	0.297

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

Test configuration	*Reported Max. 1g SAR results							
	LTE750 +WLAN 2450	CDMA800 +WLAN 2450	2-slot GPRS850 +WLAN 2450	WCDMA 850 +WLAN 2450	LTE 1700/2100 +WLAN 2450	CDMA1900 +WLAN 2450	2-slot GPRS 1900 +WLAN 2450	WCDMA 1900 +WLAN 2450
Back facing phantom	0.566	0.863	0.790	0.650	0.822	0.704	0.607	0.583
Display facing phantom	0.631	1.07	1.12	0.803	1.21	1.05	0.983	0.711
Top edge facing phantom	0.167	0.183	0.181	0.171	0.172	0.168	0.174	0.171
Bottom edge facing phantom	0.223	0.213	0.206	0.164	1.11	0.981	0.749	0.667
Left edge facing phantom	0.214	0.667	0.534	0.445	0.253	0.410	0.168	0.172
Right edge facing phantom	0.639	0.281	0.269	0.177	0.743	0.166	0.316	0.325

Note: Simultaneous Transmission Procedures as described in KDB648474 are not required for Wireless Router (Hotspot) SAR of this product.

7.3.1 Area scan based combined Body SAR data of Wireless Router mode

The Combined SAR data given in the tables below has been voluntarily calculated and should be ignored for FCC certification.

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	*Reported Max. 1g SAR results							
	LTE750 +WLAN 2450	CDMA800 +WLAN 2450	2-slot GPRS850 +WLAN 2450	WCDMA 850 +WLAN 2450	LTE 1700/ 2100 +WLAN 2450	CDMA1900 + WLAN 2450	2-slot GPRS 1900 +WLAN 2450	WCDMA 1900 +WLAN 2450
Back facing phantom	-	-	-	-	-	-	-	-
Display facing phantom	-	0.948	1.01	0.664	1.03	0.855	0.770	0.608
Top edge facing phantom	-	-	-	-	-	-	-	-
Bottom edge facing phantom	-	-	-	-	-	-	-	-
Left edge facing phantom	-	-	-	-	-	-	-	-
Right edge facing phantom	0.618	-	-	-	-	-	-	-

Plot #:62-69

Plots of the Measurement scans are given in Appendix B.1.

7.4 Head and Body SAR assessment of SVLTE mode

7.4.1 Head SAR results of SVLTE mode

Simultaneous transmissions: Combined Head SAR results – Individual band Max results for SVLTE

Test configuration	*Reported Max. 1g SAR results					
	WLAN 2450	WLAN 5000	LTE 750	CDMA 800	LTE 1700/2100	CDMA 1900
Head: Left, Cheek	0.610	0.321	0.331	0.668	0.322	1.082
Head: Left, Tilt	0.790	0.279	0.111	0.255	0.115	0.198
Head: Right, Cheek	0.327	0.114	0.738	0.469	0.861	0.407
Head: Right, Tilt	0.376	0.114	0.129	0.219	0.132	0.162

Simultaneous transmissions: Combined Head SAR results – Max + Max combined results for SVLTE mode

Test configuration	Max.Reported* 1g SAR results			
	LTE750 + CDMA800	LTE750 + CDMA1900	LTE1700/2100 + CDMA800	LTE1700/2100 + CDMA1900
Head: Left, Cheek	0.999	1.41	0.990	1.40
Head: Left, Tilt	0.366	0.309	0.370	0.313
Head: Right, Cheek	1.21	1.15	1.33	1.27
Head: Right, Tilt	0.348	0.291	0.351	0.294
Test configuration	LTE750 + CDMA800 + WLAN2450	LTE750 + CDMA1900 + WLAN2450	LTE1700/2100 + CDMA800 + WLAN2450	LTE1700/2100 + CDMA1900 + WLAN2450
Head: Left, Cheek	1.61	2.02	1.60	2.01
Head: Left, Tilt	1.16	1.10	1.16	1.10
Head: Right, Cheek	1.53	1.47	1.66	1.60
Head: Right, Tilt	0.724	0.667	0.727	0.670
Test configuration	LTE750 + CDMA800 + WLAN5000	LTE750 + CDMA1900 + WLAN5000	LTE1700/2100 + CDMA800 + WLAN5000	LTE1700/2100 + CDMA1900 + WLAN5000
Head: Left, Cheek	1.32	1.73	1.31	1.73
Head: Left, Tilt	0.645	0.588	0.649	0.592
Head: Right, Cheek	1.32	1.26	1.44	1.38
Head: Right, Tilt	0.462	0.405	0.465	0.408

Simultaneous Transmission SAR Test Exclusion Procedures for SVLTE Head Measurements

Simultaneous transmission SAR tests exclusion procedures as described in KDB 447498 D01 v05.

Following table gives antenna pair SAR to peak location separation ratios for the transmitter combinations for which the sum of simultaneously transmitting 1g SAR was above limit (See “Max+Max Combined results” table in previous section).

Antenna Pair SAR to Peak Location Separation Ratio

LTE750 + CDMA800 + WLAN2450	LTE750, Left Cheek	CDMA800, Left Cheek	LTE750, Left Cheek	WLAN 2450, Left Cheek	CDMA800, Left Cheek	WLAN 2450, Left Cheek
X [mm]	82.9	65.5	82.9	13.8	65.5	13.8
Y [mm]	298.9	233.1	298.9	321.3	233.1	321.3
Z [mm]	-170.2	-168.7	-170.2	-170.5	-168.7	-170.5
DISTANCE [mm]	68.1		72.64		102.27	
MAX + MAX (Reported SAR)	1.00		0.94		1.28	
SAR to peak location separation ratio	0.01		0.01		0.01	
LTE750 + CDMA1900 + WLAN2450	LTE750, Left Cheek	CDMA1900, Left Cheek	LTE750, Left Cheek	WLAN 2450, Left Cheek	CDMA1900, Left Cheek	WLAN 2450, Left Cheek
X [mm]	82.9	61.6	82.9	13.8	61.6	13.8
Y [mm]	298.9	238.6	298.9	321.3	238.6	321.3
Z [mm]	-170.2	-170.9	-170.2	-170.5	-170.9	-170.5
DISTANCE [mm]	63.9		72.6		95.5	
MAX + MAX (Reported SAR)	1.410		0.94		1.69	
SAR to peak location separation ratio	0.03		0.01		0.02	

(Table continues)

(Table continues)

LTE1700/2100 + CDMA800 + WLAN2450	LTE 1700/2100, Left Cheek	CDMA800, Left Cheek	LTE 1700/2100, Left Cheek	WLAN 2450, Left Cheek	CDMA800, Left Cheek	WLAN 2450, Left Cheek
X [mm]	84.4	65.5	84.4	13.8	65.5	13.8
Y [mm]	242.2	233.1	242.2	321.3	233.1	321.3
Z [mm]	-163.8	-168.7	-163.8	-170.5	-168.7	-170.5
DISTANCE [mm]	21.5		106.2		102.3	
MAX + MAX (Reported SAR)	0.990		0.93		1.28	
SAR to peak location separation ratio	0.05		0.01		0.01	
LTE1700/2100 + CDMA800 + WLAN2450	LTE 1700/2100, Right Cheek	CDMA800, Right Cheek	LTE 1700/2100, Right Cheek	WLAN 2450, Right Cheek	CDMA800, Right Cheek	WLAN 2450, Right Cheek
X [mm]	54.9	79.0	54.9	4.7	79.0	4.7
Y [mm]	-241.2	-263.1	-241.2	-303.6	-263.1	-303.6
Z [mm]	-171.4	-169.4	-171.4	-168.8	-169.4	-168.8
DISTANCE [mm]	32.6		80.1		84.6	
MAX + MAX (Reported SAR)	1.33		1.19		0.80	
SAR to peak location separation ratio	0.05		0.02		0.01	
LTE1700/2100 + CDMA1900 + WLAN2450	LTE 1700/2100, Left Cheek	CDMA1900, Left Cheek	LTE 1700/2100, Left Cheek	WLAN 2450, Left Cheek	CDMA1900, Left Cheek	WLAN 2450, Left Cheek
X [mm]	84.4	61.9	84.4	13.8	61.9	13.8
Y [mm]	242.2	238.6	242.2	321.3	238.6	321.3
Z [mm]	-163.8	-170.9	-163.8	-170.5	-170.9	-170.5
DISTANCE [mm]	23.8		106.2		95.7	
MAX + MAX (Reported SAR)	1.40		0.93		1.69	
SAR to peak location separation ratio	0.07		0.01		0.02	

(Table continues)

(Table continues)

LTE1700/2100 + CDMA1900 + WLAN2450	LTE 1700/2100, Right Cheek	CDMA1900, Right Cheek	LTE 1700/2100, Right Cheek	WLAN 2450, Right Cheek	CDMA1900, Right Cheek	WLAN 2450, Right Cheek
X [mm]	54.9	73.2	54.9	4.7	73.2	4.7
Y [mm]	-241.2	-306.2	-241.2	-303.6	-306.2	-303.6
Z [mm]	-171.4	-171.9	-171.4	-168.8	-171.9	-168.8
DISTANCE [mm]	67.5		80.1		68.6	
MAX + MAX (Reported SAR)	1.27		1.188		0.73	
SAR to peak location separation ratio	0.02		0.02		0.01	
LTE750 + CDMA1900 + WLAN5000	LTE750, Left Cheek	CDMA1900, Left Cheek	LTE750, Left Cheek	WLAN 5000, Left Cheek	CDMA1900, Left Cheek	WLAN 5000, Left Cheek
X [mm]	82.9	61.9	82.9	28.6	61.9	28.6
Y [mm]	298.9	238.6	298.9	325.4	238.6	325.4
Z [mm]	-170.2	-170.9	-170.2	-173.4	-170.9	-173.4
DISTANCE [mm]	63.8		60.5		93.0	
MAX + MAX (Reported SAR)	1.41		0.65		1.40	
SAR to peak location separation ratio	0.03		0.01		0.02	
LTE1700/2100 + CDMA1900 + WLAN5000	LTE 1700/2100, Left Cheek	CDMA1900, Left Cheek	LTE 1700/2100, Left Cheek	WLAN 5000, Left Cheek	CDMA1900, Left Cheek	WLAN 5000, Left Cheek
X [mm]	84.4	61.9	84.4	28.6	61.9	28.6
Y [mm]	242.2	238.6	242.2	325.4	238.6	325.4
Z [mm]	-163.8	-170.9	-163.8	-173.4	-170.9	-173.4
DISTANCE [mm]	23.8		100.6		93.0	
MAX + MAX (Reported SAR)	1.400		0.64		1.40	
SAR to peak location separation ratio	0.07		0.01		0.02	

All simultaneous transmitter configurations where all antenna pairs' SPLSR is equal to or below 0.04 are excluded from expanded zoom scan testing.

For all transmitters where SPLSR is >0.04, the following tables give individual and combined expanded zoom scan results.

CDMA800 Head SAR Expanded Volume Scan results for SVLTE

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 1013 824.7 MHz	Ch 384 836.5 MHz	Ch 777 848.3 MHz	Ch 1013 824.7 MHz	Ch 384 836.5 MHz	Ch 777 848.3 MHz		
RC3/ S055	Tuning Target + Tolerance [dBm]		24.85			Scaling factor*				
	Conducted Power [dBm]		24.72	24.85	24.72	0.13	0.00	0.13	dB	
	Time-averaged Power [dBm]		24.72	24.85	24.72	1.03	1.00	1.03	Lin	
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	82
		Full SAR	-	-	0.673	-	-	0.693	-	
Right Cheek	Estimated SAR	-	-	-	-	-	-	-	83	
	Full SAR	-	0.450	-	-	0.450	-	-		

LTE1700/2100 (Band 4) Head SAR Expanded Volume Scan results for SVLTE

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 20050 1720.0 MHz	Ch 23175 1732.5 MHz	Ch 20300 1745.0 MHz	Ch 20050 1720.0 MHz	Ch 23175 1732.5 MHz	Ch 20300 1745.0 MHz		
20MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*				
	Conducted Power [dBm]		23.73	23.70	23.75	0.12	0.15	0.10	dB	
	Time-averaged Power [dBm]		23.73	23.70	23.75	1.03	1.04	1.02	Lin	
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	84
		Full SAR	-	-	0.440	-	-	0.450	-	
Right Cheek	Estimated SAR	-	-	-	-	-	-	-	85	
	Full SAR	-	-	0.955	-	-	0.977	-		

CDMA1900 Head SAR Expanded Volume Scan results for SVLTE

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 25 1851.25 MHz	Ch 600 1880.0 MHz	Ch 1175 1908.75 MHz	Ch 25 1851.25 MHz	Ch 600 1880.0 MHz	Ch 1175 1908.75 MHz		
RC3/ S055	Tuning Target + Tolerance [dBm]		24.35			Scaling factor*				
	Conducted Power [dBm]		24.31	24.30	24.32	0.04	0.05	0.03	dB	
	Time-averaged power [dBm]		24.31	24.30	24.32	1.01	1.01	1.01	Lin	
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	86
Full SAR		-	1.11	-	-	1.12	-	-		

2450MHz Head SAR Expanded Volume Scan results for SVLTE

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 1	Ch 6	Ch 11	Ch 1	Ch 6	Ch 11		
			2412.0 MHz	2437.0 MHz	2462.0 MHz	2412.0 MHz	2437.0 MHz	2462.0 MHz		
WLAN b-mode DSSS 1Mbps	Tuning Target + Tolerance [dBm]		18.50			Scaling factor*				
	Conducted Power [dBm]		18.03	17.92	17.78	0.47	0.58	0.72	dB	
	Time-averaged power [dBm]		18.03	17.92	17.78	1.11	1.14	1.18	Lin	
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	87
		Full SAR	-	0.526	-	-	0.601	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-	88
Full SAR		-	0.305	-	-	0.349	-	-		

**5000MHz Head SAR Expanded Volume Scan results for SVLTE
5470-5725 MHz**

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 100	Ch 116	Ch 120	Ch 136	Ch 100	Ch 116	Ch 120	Ch 136		
			5500.0 MHz	5580.0 MHz	5600.0 MHz	5680.0 MHz	5500.0 MHz	5580.0 MHz	5600.0 MHz	5680.0 MHz		
WLAN a-mode OFDM 6 Mbps	Tuning Target + Tolerance [dBm]		13.5				Scaling factor*					
	Conducted Power [dBm]		12.90	12.88	12.85	12.92	0.60	0.62	0.65	0.58	dB	
	Time-averaged power [dBm]		12.90	12.88	12.85	12.92	1.15	1.15	1.16	1.14	Lin	
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	-	-	89
		Full SAR	0.063	-	-	-	0.072	-	-	-	-	

**Simultaneous transmissions: Combined Head SAR results –
SPEAG Combined Expanded Zoom scans results for SVLTE mode**

Test configuration	Max. Reported* 1g SAR results			
	LTE1700/2100 + CDMA800 + WLAN2450	LTE1700/2100 + CDMA800 + WLAN2450	LTE1700/2100 + CDMA1900 + WLAN2450	LTE1700/2100 + CDMA1900 + WLAN5000
Head: Left, Cheek	0.939	-	1.25	1.24
Head: Left, Tilt	-	-	-	-
Head: Right, Cheek	-	1.02	-	-
Head: Right, Tilt	-	-	-	-

Plots # 90-93

Highest result within individual zoom scan or individual expanded zoom scan results is given in Section 1.2 for each transmitter. Highest result within contributing individual zoom scan, individual expanded zoom scan, Speag combined algorithm or combined expanded zoom scan results are given in Section for each simultaneous transmitter combination.

Note:

* Reported SAR values are scaled to, or measured at, upper limit of power tuning tolerance.

7.4.1.1 Area scan based combined Head SAR data of SVLTE mode

The Combined SAR data given in the tables below has been voluntarily calculated and should be ignored for FCC certification.

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 for SVLTE mode**

Test configuration	Max. 10g SAR results			
	LTE750 + CDMA800	LTE750 + CDMA1900	LTE1700/2100 + CDMA800	LTE1700/2100 + CDMA1900
Head: Left, Cheek	-	1.12	-	1.15
Head: Left, Tilt	-	-	-	-
Head: Right, Cheek	0.894	-	0.846	-
Head: Right, Tilt	-	-	-	-
Test configuration	LTE750 + CDMA800 + WLAN2450	LTE750 + CDMA1900 + WLAN2450	LTE1700/2100 + CDMA800 + WLAN2450	LTE1700/2100 + CDMA1900 + WLAN2450
Head: Left, Cheek	0.899	1.13	-	1.16
Head: Left, Tilt	-	-	-	-
Head: Right, Cheek	-	-	0.851	-
Head: Right, Tilt	-	-	-	-
Test configuration	LTE750 + CDMA800 + WLAN5000	LTE750 + CDMA1900 + WLAN5000	LTE1700/2100 + CDMA800 + WLAN5000	LTE1700/2100 + CDMA1900 + WLAN5000
Head: Left, Cheek	-	1.11	-	1.15
Head: Left, Tilt	-	-	-	-
Head: Right, Cheek	0.905	-	0.846	-
Head: Right, Tilt	-	-	-	-

Plots #70 - 81

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.

7.4.2 Body SAR results of SVLTE mode

Simultaneous transmissions: Combined Body SAR results – Individual band Max results for SVLTE

Test configuration	*Reported Max. 1g SAR results					
	WLAN 2450	WLAN 5000	LTE 750	CDMA 800	LTE 1700/2100	CDMA 1900
Body: Back facing phantom, Without Headset	0.036	0.077	0.311	0.554	0.401	0.699
Body: Back facing phantom, Headset WH902	0.059	0.075	0.283	0.462	0.412	0.698
Body: Display facing phantom, Without Headset	0.053	0.028	0.350	0.705	0.515	1.04
Body: Display facing phantom, Headset WH902	0.089	0.021	0.309	0.582	0.560	1.02

**Simultaneous transmissions: Combined Body SAR results –
Max + Max combined results for SVLTE mode**

Test configuration	Max. Reported* 1g SAR results			
	LTE750 + CDMA800	LTE750 + CDMA1900	LTE1700/2100 + CDMA800	LTE1700/2100 + CDMA1900
Body: Back facing phantom, Without Headset	0.865	1.01	0.955	1.10
Body: Back facing phantom, Headset WH-902	0.745	0.981	0.874	1.11
Body: Display facing phantom, Without Headset	1.06	1.38	1.22	1.54
Body: Display facing phantom, Headset WH-902	0.891	1.33	1.14	1.58
Test configuration	LTE750 + CDMA800 + WLAN2450	LTE750 + CDMA1900 + WLAN2450	LTE1700/2100 + CDMA800 + WLAN2450	LTE1700/2100 + CDMA1900 + WLAN2450
Body: Back facing phantom, Without Headset	0.901	1.05	0.991	1.14
Body: Back facing phantom, Headset WH-902	0.804	1.04	0.933	1.17
Body: Display facing phantom, Without Headset	1.11	1.43	1.27	1.60
Body: Display facing phantom, Headset WH-902	0.980	1.42	1.23	1.67
Test configuration	LTE750 + CDMA800 + WLAN5000	LTE750 + CDMA1900 + WLAN5000	LTE1700/2100 + CDMA800 + WLAN5000	LTE1700/2100 + CDMA1900 + WLAN5000
Body: Back facing phantom, Without Headset	0.942	0.789	1.03	1.18
Body: Back facing phantom, Headset WH-902	0.820	0.770	0.949	1.19
Body: Display facing phantom, Without Headset	1.08	0.893	1.25	1.58
Body: Display facing phantom, Headset WH-902	0.912	0.890	1.16	1.60

Expanded Volume Scans for Body SAR SVLTE mode

Simultaneous transmission SAR tests exclusion procedures as described in KDB 447498 D01 v05.

Following table gives antenna pair SAR to peak location separation ratios for the transmitter combinations for which the sum of simultaneously transmitting 1g SAR was above limit (See “Max+Max Combined results” table in previous section).

Antenna Pair SAR to Peak Separation Ratio

LTE1700/2100 + CDMA1900 + WLAN2450	LTE 1700/2100, Display facing phantom, without Headset	CDMA1900, Display facing phantom, without Headset	LTE 1700/2100, Display facing phantom, without Headset	WLAN 2450, Display facing phantom, without Headset	CDMA1900, Display facing phantom, without Headset	WLAN 2450, Display facing phantom, without Headset
X [mm]	-83.0	-86.0	-83.0	55.5	-86.0	55.5
Y [mm]	-27.0	25.5	-27.0	-8.0	25.5	-8.0
Z [mm]	-171.5	-171.5	-171.5	-170.0	-171.5	-170.0
DISTANCE [mm]	52.6		139.8		145.5	
MAX + MAX (Reported SAR)	1.54		0.57		1.08	
SAR to peak location separation ratio	0.04		0.00		0.01	
LTE1700/2100 + CDMA1900 + WLAN2450	LTE 1700/2100, Display facing phantom, headset WH- 902	CDMA1900, Display facing phantom, headset WH- 902	LTE 1700/2100, Display facing phantom, headset WH- 902	WLAN 2450, Display facing phantom, headset WH- 902	CDMA1900, Display facing phantom, headset WH- 902	WLAN 2450, Display facing phantom, headset WH- 902
X [mm]	-83.0	-84.5	-83.0	55.6	-85.5	55.6
Y [mm]	-27.0	25.5	-27.0	-12.0	25.5	-12.0
Z [mm]	-171.5	-171.5	-171.5	-169.9	-171.5	-169.9
DISTANCE [mm]	52.5		139.4		146.0	
MAX + MAX (Reported SAR)	1.58		0.65		1.11	
SAR to peak location separation ratio	0.04		0.00		0.01	

(Table continues)

(Table continues)

LTE1700/2100 + CDMA1900 + WLAN5000	LTE 1700/2100, Display facing phantom, headset WH- 902	CDMA1900, Display facing phantom, headset WH- 902	LTE 1700/2100, Display facing phantom, headset WH- 902	WLAN 5000, Display facing phantom, headset WH- 902	CDMA1900, Display facing phantom, headset WH- 902	WLAN 5000, Display facing phantom, headset WH- 902
X [mm]	-83.0	-84.5	-83.0	55.6	-85.5	55.6
Y [mm]	-27.0	25.5	-27.0	-12.0	25.5	-12.0
Z [mm]	-171.5	-171.5	-171.5	-169.9	-171.5	-169.9
DISTANCE [mm]	52.5		139.4		146.0	
MAX + MAX (Reported SAR)	1.58		0.581		1.04	
SAR to peak location separation ratio	0.04		0.00		0.01	

All simultaneous transmitter configurations where all antenna pairs' SPLSR is equal to or below 0.04 are excluded from expanded zoom scan testing.

7.4.2.1 Area scan based combined Body SAR data of SVLTE mode

The Combined SAR data given in the tables below has been voluntarily calculated and should be ignored for FCC certification.

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 Body SAR results –
SPEAG Combined Multiband algorithm results for SVLTE mode**

Test configuration	Max. Reported* 1g SAR results			
	LTE750 + CDMA800	LTE750 + CDMA1900	LTE1700/2100 + CDMA800	LTE1700/2100 + CDMA1900
Body: Back facing phantom, Without Headset	-	-	-	-
Body: Back facing phantom, Headset WH-902	-	-	-	-
Body: Display facing phantom, Without Headset	0.961	0.974	0.862	-
Body: Display facing phantom, Headset WH-902	-	-	-	1.07
Test configuration	LTE750 + CDMA800 + WLAN2450	LTE750 + CDMA1900 + WLAN2450	LTE1700/2100 + CDMA800 + WLAN2450	LTE1700/2100 + CDMA1900 + WLAN2450
Body: Back facing phantom, Without Headset	-	-	-	-
Body: Back facing phantom, Headset WH-902	-	-	-	-
Body: Display facing phantom, Without Headset	0.968	0.981	0.869	-
Body: Display facing phantom, Headset WH-902	-	-	-	1.08

(Table continues)

(Table continues)

Test configuration	LTE750 + CDMA800 + WLAN5000	LTE750 + CDMA1900 + WLAN5000	LTE1700/2100 + CDMA800 + WLAN5000	LTE1700/2100 + CDMA1900 + WLAN5000
Body: Back facing phantom, Without Headset	-	-	-	-
Body: Back facing phantom, Headset WH-902	-	-	-	-
Body: Display facing phantom, Without Headset	0.975	0.970	0.885	-
Body: Display facing phantom, Headset WH-902	-	-	-	1.05

Plots #94-105

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.

Plots of the SVLTE scans are given in Appendix B.2.

APPENDIX A: SYSTEM CHECKING SCANS

Plot #1

Date/Time: 2013-08-04 12:00:20 PM

Test Laboratory: TCC Nokia

Type: D750V3; Serial: D750V3 - SN:1057

Communication System: CW750

Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: T = 21.5 c

Medium parameters used: f = 750 MHz; $\sigma = 0.912$ S/m; $\epsilon_r = 41.125$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: SAM3 06-28-2013; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=15mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.11 W/kg

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

Reference Value = 49.181 V/m

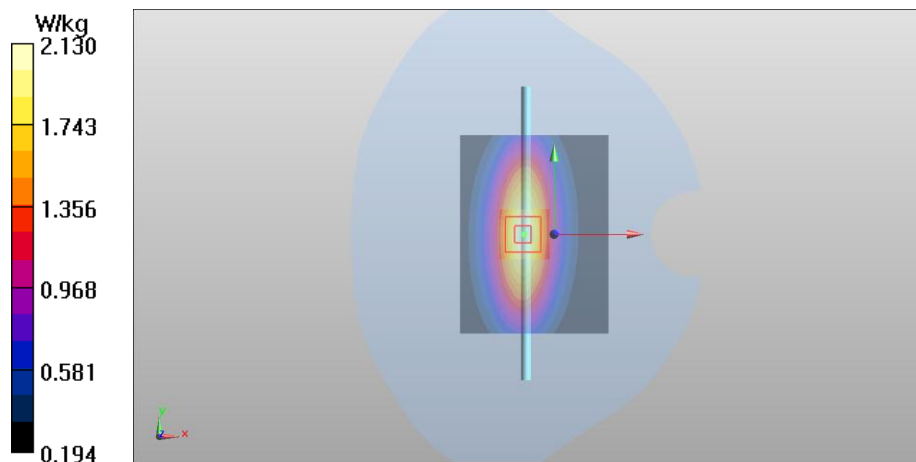
Peak SAR (extrapolated) = 2.91 W/kg

SAR(1 g) = 1.98 W/kg

SAR(10 g) = 1.3 W/kg

Power Drift = -0.00 dB

Maximum value of SAR (measured) = 2.13 W/kg



Plot #2

Date/Time: 2013-08-19 9:26:29 AM

Test Laboratory: TCC Nokia
Type: D835V2; Serial: D835V2 - SN 4d040

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1
Medium: HSL800-900 2013-08-19; Medium Notes: T = 21.5 c
Medium parameters used: f = 835 MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 41.104$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY Configuration:
- Probe: ES3DV3 - SN3275
- ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

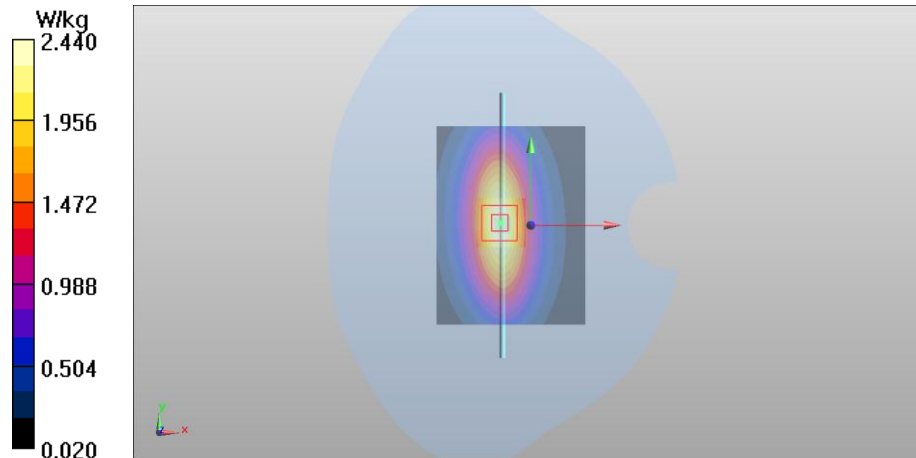
d=15mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.44 W/kg

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

Reference Value = 53.206 V/m
Peak SAR (extrapolated) = 3.35 W/kg

SAR(1 g) = 2.3 W/kg
SAR(10 g) = 1.51 W/kg
Power Drift = 0.07 dB

Maximum value of SAR (measured) = 2.48 W/kg



Plot #3

Date/Time: 2013-08-03 7:16:25 PM

Test Laboratory: TCC Nokia
Type: **D1750V2**; Serial: **D1750V2 - SN:1081**

Communication System: CW1750

Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium Notes: T=21.5 C

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.357$ S/m; $\epsilon_r = 39.334$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 9.78 W/kg

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

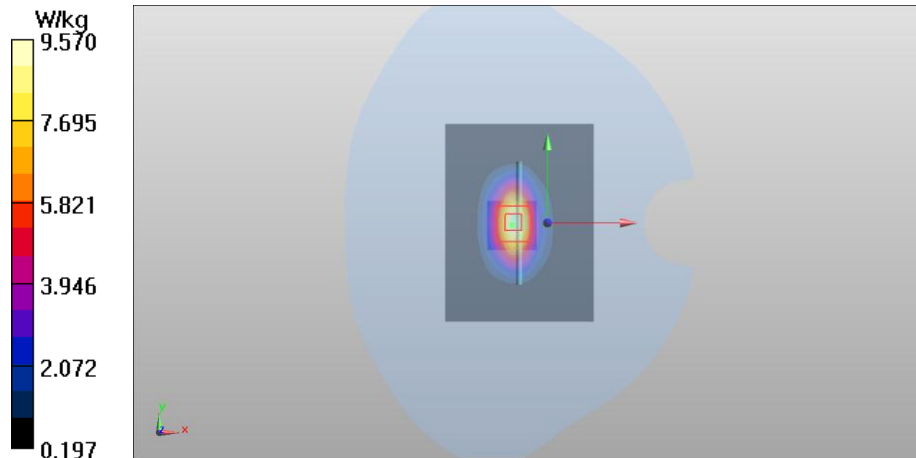
Reference Value = 83.140 V/m
Peak SAR (extrapolated) = 15.6 W/kg

SAR(1 g) = 8.55 W/kg

SAR(10 g) = 4.52 W/kg

Power Drift = 0.03 dB

Maximum value of SAR (measured) = 9.57 W/kg



Plot #4

Date/Time: 2013-08-12 8:09:44 AM

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=21.5 C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.412$ S/m; $\epsilon_r = 39.033$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 11.6 W/kg

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

Reference Value = 88.292 V/m

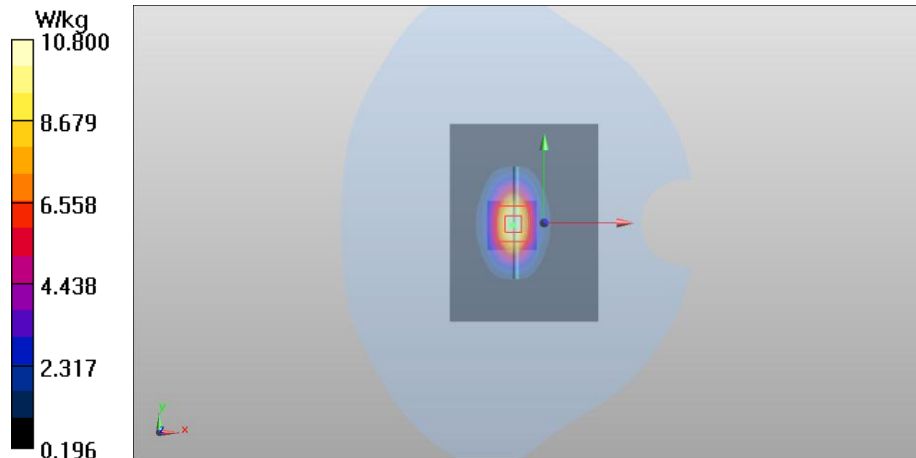
Peak SAR (extrapolated) = 18.1 W/kg

SAR(1 g) = 9.66 W/kg

SAR(10 g) = 5.03 W/kg

Power Drift = -0.01 dB

Maximum value of SAR (measured) = 10.8 W/kg



Plot #5

Date/Time: 2013-08-05 11:53:17 AM

Test Laboratory: TCC Nokia
Type: D2450V2; Serial: D2450V2 - SN:800

Communication System: CW2450

Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: T=21.5

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.833$ S/m; $\epsilon_r = 38.305$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: SAM3 2013/06/28 ; Type: QD000P40CD; Serial: TP:1736
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 16.5 W/kg

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

Reference Value = 106.2 V/m

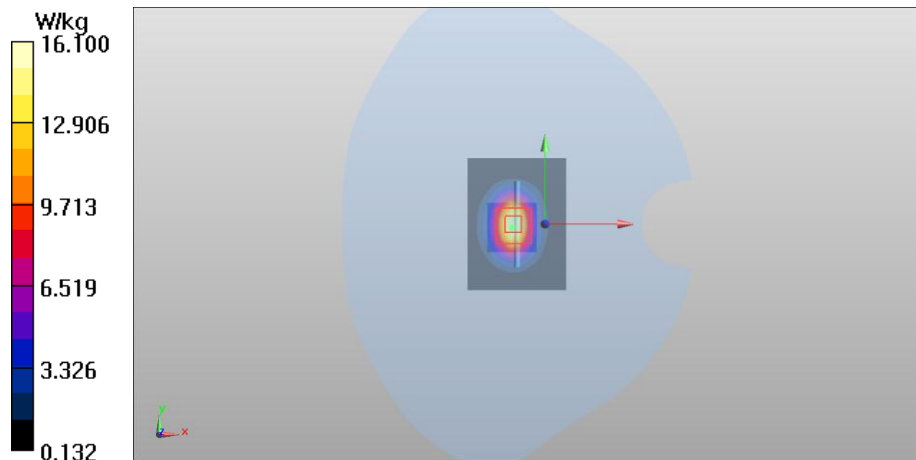
Peak SAR (extrapolated) = 29.3 W/kg

SAR(1 g) = 14.2 W/kg

SAR(10 g) = 6.65 W/kg

Power Drift = 0.01 dB

Maximum value of SAR (measured) = 16.1 W/kg



Plot #6

Date/Time: 2013-08-01 6:27:41 AM

Test Laboratory: TCC Nokia
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1042

Communication System: CW5000-6000

Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: Head5000; Medium Notes: T=21.5

Medium parameters used: $f = 5200$ MHz; $\sigma = 4.479$ S/m; $\epsilon_r = 35.391$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(5.14, 5.14, 5.14); Calibrated: 2013-01-23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 15.4 W/kg

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

Reference Value = 62.135 V/m

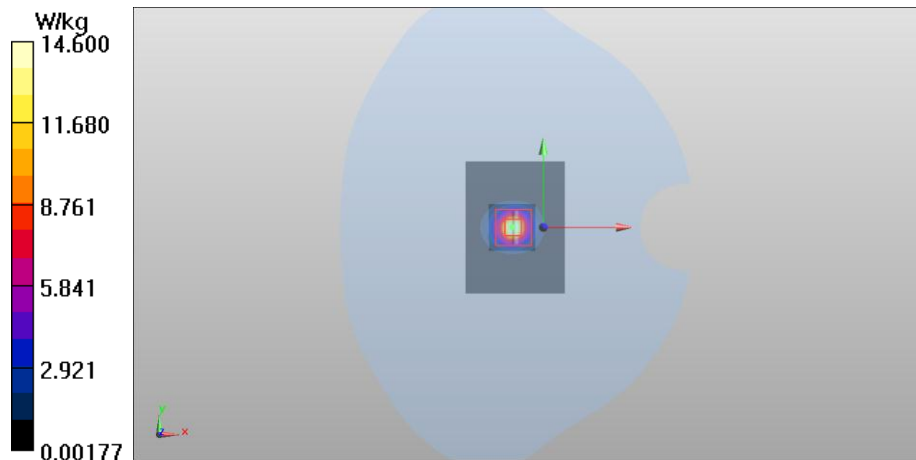
Peak SAR (extrapolated) = 29.7 W/kg

SAR(1 g) = 7.68 W/kg

SAR(10 g) = 2.24 W/kg

Power Drift = 0.00 dB

Maximum value of SAR (measured) = 14.6 W/kg



Plot #7

Date/Time: 2013-08-02 7:25:17 AM

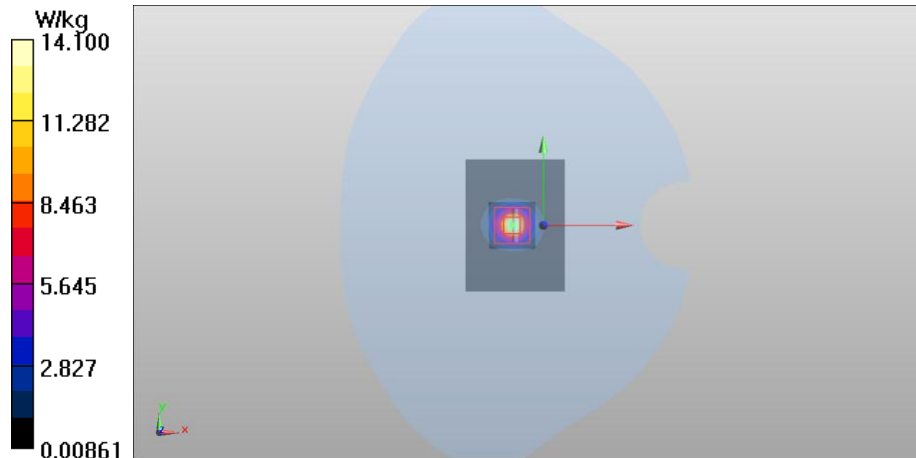
Test Laboratory: TCC Nokia
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1042

Communication System: CW5000-6000
Frequency: 5300 MHz; Duty Cycle: 1:1
Medium: HSL5000; Medium Notes: T=21.5
Medium parameters used: $f = 5300$ MHz; $\sigma = 4.566$ S/m; $\epsilon_r = 35.314$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

- DASY Configuration:
- Probe: EX3DV4 - SN3817
 - ConvF(4.94, 4.94, 4.94); Calibrated: 2013-01-23;
 - Sensor-Surface: 2mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
 - Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
 - Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 15.0 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 60.839 V/m
Peak SAR (extrapolated) = 28.6 W/kg
SAR(1 g) = 7.37 W/kg
SAR(10 g) = 2.14 W/kg
Power Drift = -0.00 dB
Maximum value of SAR (measured) = 14.1 W/kg



Plot #8

Date/Time: 2013-08-10 12:49:32 PM

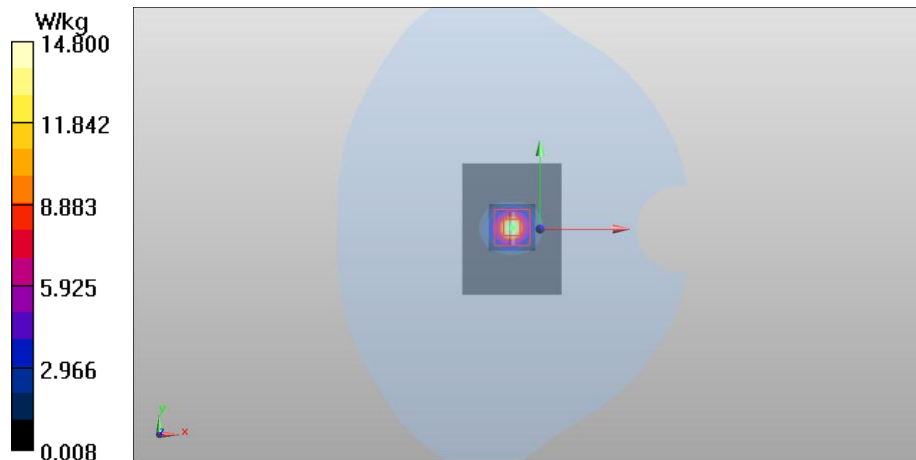
Test Laboratory: TCC Nokia
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1042

Communication System: CW5000-6000
Frequency: 5500 MHz; Duty Cycle: 1:1
Medium: HSL5000; Medium Notes: T=21.5
Medium parameters used: $f = 5500$ MHz; $\sigma = 4.736$ S/m; $\epsilon_r = 34.581$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY Configuration:
- Probe: EX3DV4 - SN3817
- ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 15.8 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 61.845 V/m
Peak SAR (extrapolated) = 30.4 W/kg
SAR(1 g) = 7.57 W/kg
SAR(10 g) = 2.2 W/kg
Power Drift = -0.10 dB
Maximum value of SAR (measured) = 14.8 W/kg



Plot #9

Date/Time: 2013-08-03 9:28:03 AM

Test Laboratory: TCC Nokia
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1042

Communication System: CW5000-6000

Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: T=21.5

Medium parameters used: $f = 5600$ MHz; $\sigma = 4.869$ S/m; $\epsilon_r = 34.598$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(4.45, 4.45, 4.45); Calibrated: 2013-01-23;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW 2/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 17.1 W/kg

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

Reference Value = 64.302 V/m

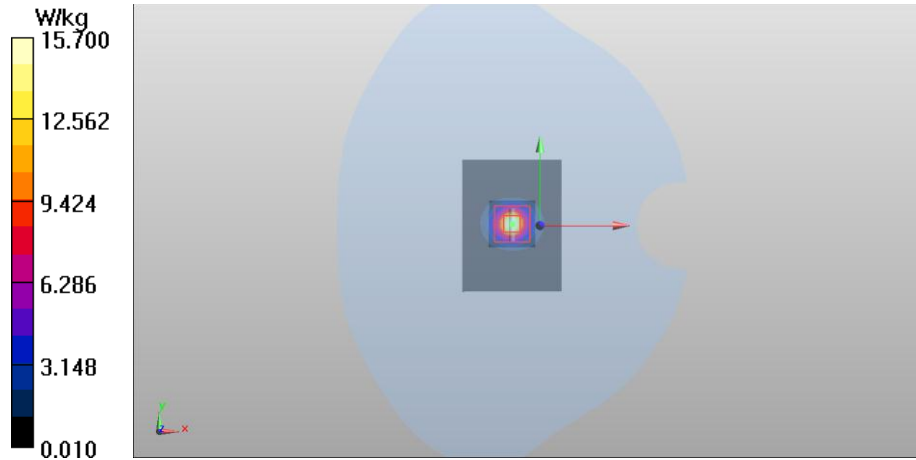
Peak SAR (extrapolated) = 33.6 W/kg

SAR(1 g) = 8.23 W/kg

SAR(10 g) = 2.36 W/kg

Power Drift = -0.10 dB

Maximum value of SAR (measured) = 15.7 W/kg



Plot #10

Date/Time: 2013-08-04 12:00:06 PM

Test Laboratory: TCC Nokia

Type: D5GHzV2; Serial: D5GHzV2 - SN: 1042

Communication System: CW5000-6000

Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: T=21.5

Medium parameters used: $f = 5800$ MHz; $\sigma = 5.082$ S/m; $\epsilon_r = 34.301$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(4.53, 4.53, 4.53); Calibrated: 2013-01-23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 15.7 W/kg

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

Reference Value = 60.929 V/m

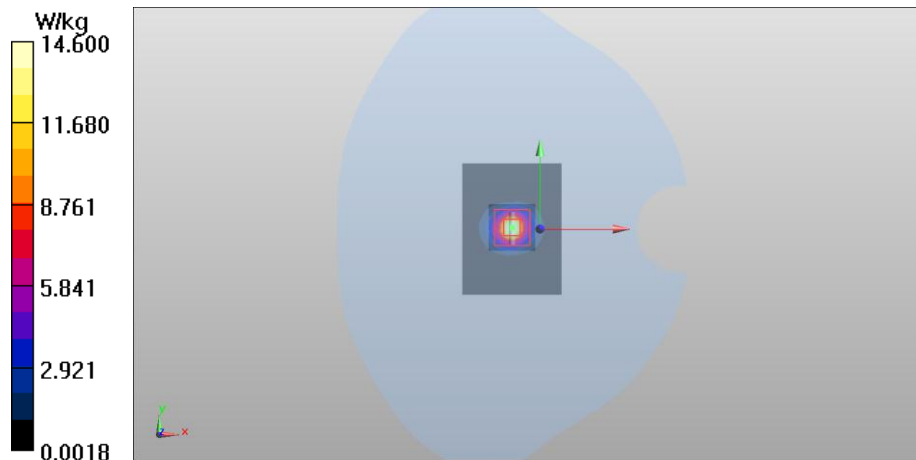
Peak SAR (extrapolated) = 30.8 W/kg

SAR(1 g) = 7.44 W/kg

SAR(10 g) = 2.17 W/kg

Power Drift = -0.11 dB

Maximum value of SAR (measured) = 14.6 W/kg



Plot #11

Date/Time: 2013-08-06 9:02:41 AM

Test Laboratory: TCC Nokia
Type: D750V3; Serial: D750V3 - SN:1057

Communication System: CW750

Frequency: 750 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: T21.5

Medium parameters used: $f = 750$ MHz; $\sigma = 0.957$ S/m; $\epsilon_r = 54.912$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.16, 6.16, 6.16); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=15mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.35 W/kg

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

Reference Value = 49.427 V/m

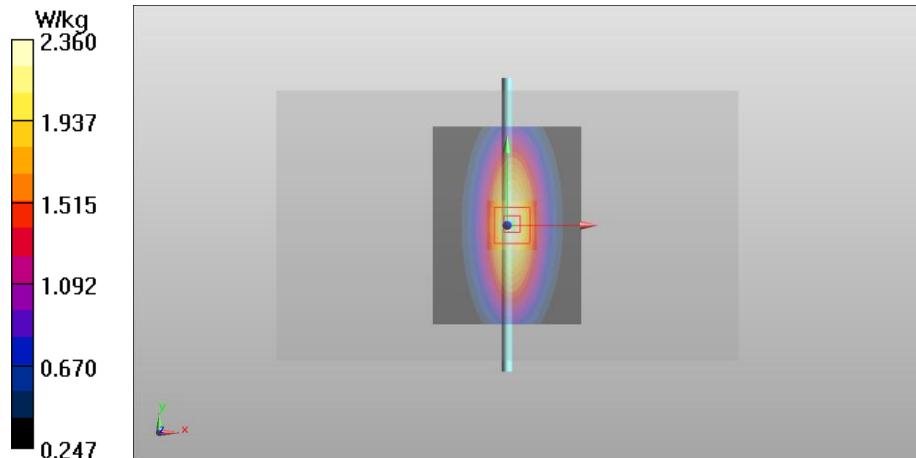
Peak SAR (extrapolated) = 3.19 W/kg

SAR(1 g) = 2.18 W/kg

SAR(10 g) = 1.45 W/kg

Power Drift = 0.04 dB

Maximum value of SAR (measured) = 2.36 W/kg



Plot #12

Date/Time: 2013-08-05 8:17:39 AM

Test Laboratory: TCC Nokia
Type: D835V2; Serial: D835V2 - SN:4d040

Communication System: CW835

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: BSL835; Medium Notes: T21.5

Medium parameters used: $f = 835$ MHz; $\sigma = 0.961$ S/m; $\epsilon_r = 53.535$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=15mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.58 W/kg

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

Reference Value = 50.790 V/m

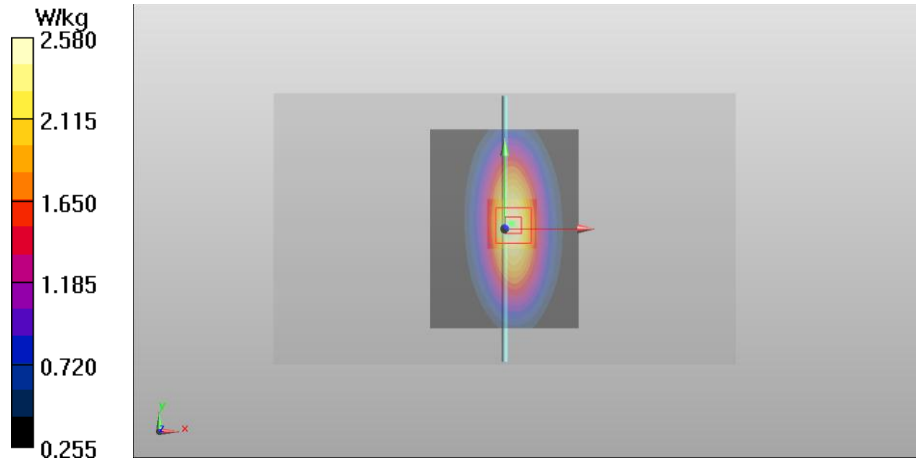
Peak SAR (extrapolated) = 3.48 W/kg

SAR(1 g) = 2.39 W/kg

SAR(10 g) = 1.58 W/kg

Power Drift = -0.02 dB

Maximum value of SAR (measured) = 2.58 W/kg



Plot #13

Date/Time: 2013-08-06 9:27:54 AM

Test Laboratory: TCC Nokia
Type: **D1750V2**; Serial: **D1750V2 - SN:1081**

Communication System: CW1750

Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: MSL1750; Medium Notes: T=21.5 C

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.453$ S/m; $\epsilon_r = 52.147$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(4.91, 4.91, 4.91); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: TF Phantom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 11.2 W/kg

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

Reference Value = 87.564 V/m

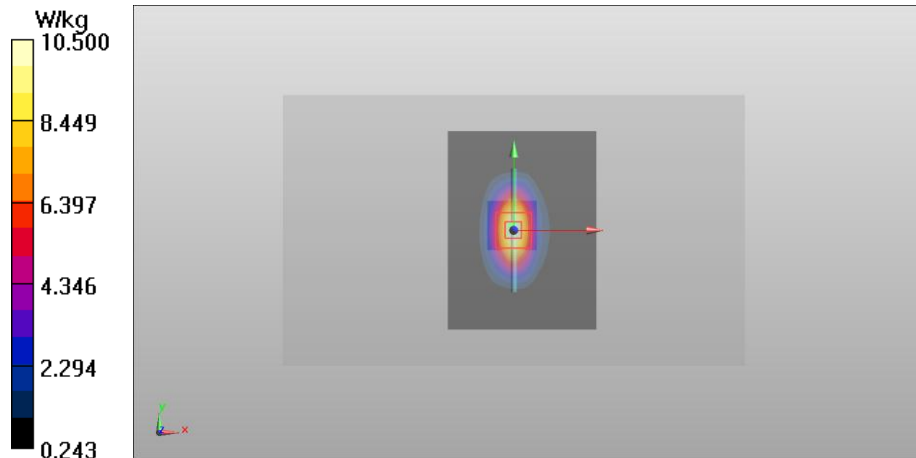
Peak SAR (extrapolated) = 16.6 W/kg

SAR(1 g) = 9.44 W/kg

SAR(10 g) = 5.08 W/kg

Power Drift = -0.00 dB

Maximum value of SAR (measured) = 10.5 W/kg



Plot #14

Date/Time: 2013-08-03 9:01:18 AM

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=21.5 C

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.488$ S/m; $\epsilon_r = 52.167$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 11.3 W/kg

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

Reference Value = 86.428 V/m

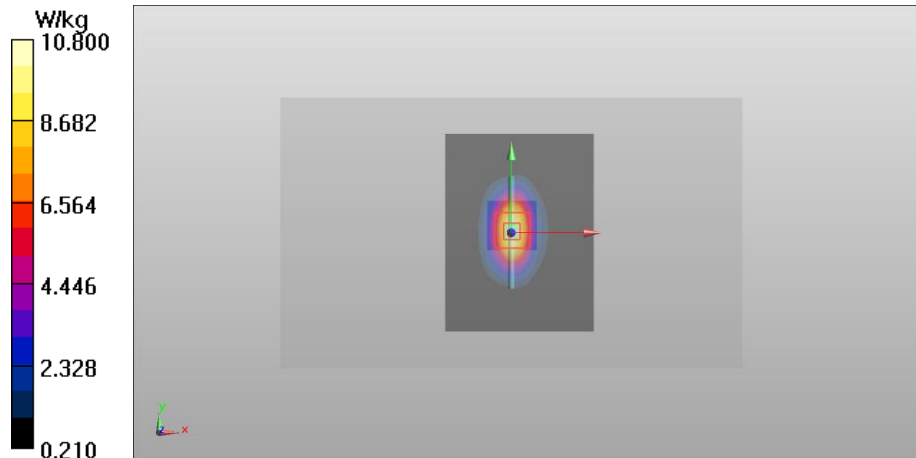
Peak SAR (extrapolated) = 17.1 W/kg

SAR(1 g) = 9.57 W/kg

SAR(10 g) = 5.06 W/kg

Power Drift = 0.02 dB

Maximum value of SAR (measured) = 10.8 W/kg



Plot #15

Date/Time: 2013-08-06 8:55:38 AM

Test Laboratory: TCC Nokia
Type: D2450V2; Serial: D2450V2 - SN:800

Communication System: CW2450

Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: MSL2450; Medium Notes: T=21.5

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.916$ S/m; $\epsilon_r = 50.7$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=250mW/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 15.4 W/kg

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

Reference Value = 101.2 V/m

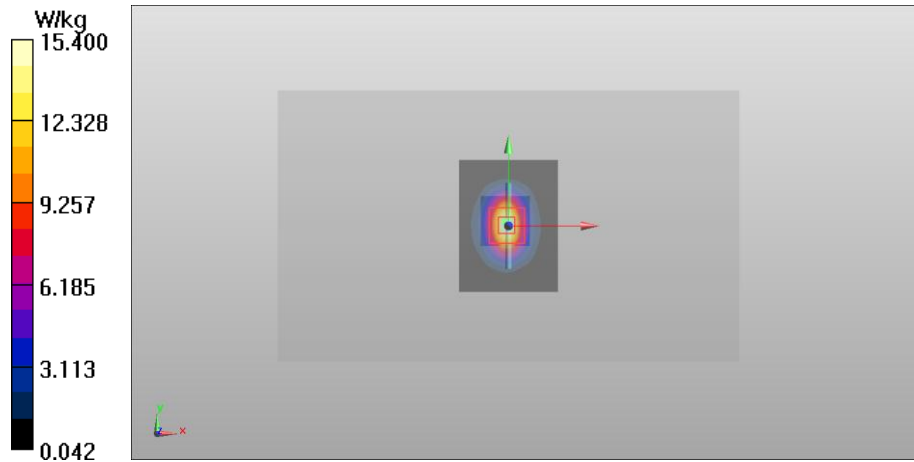
Peak SAR (extrapolated) = 25.9 W/kg

SAR(1 g) = 13.2 W/kg

SAR(10 g) = 6.33 W/kg

Power Drift = -0.06 dB

Maximum value of SAR (measured) = 15.1 W/kg



Plot #16

Date/Time: 2013-08-07 10:50:30 AM

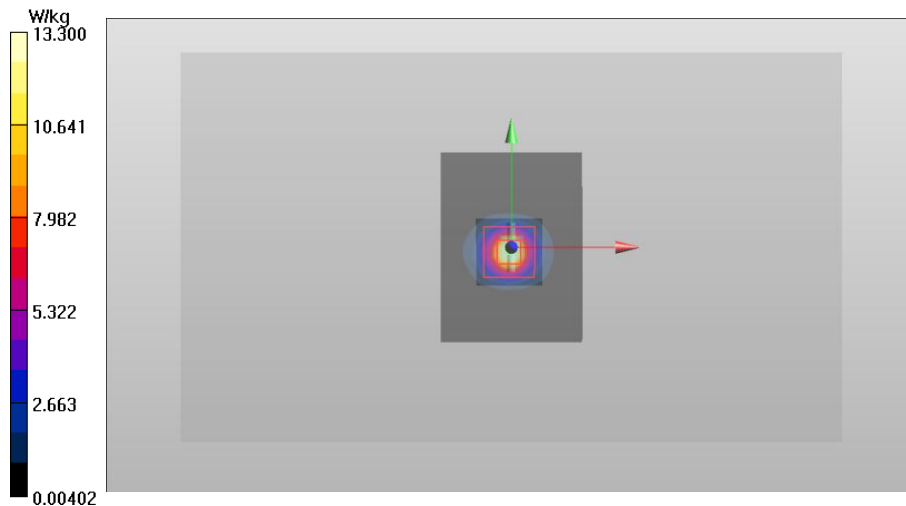
Test Laboratory: TCC Nokia
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1042

Communication System: CW5000-6000
Frequency: 5200 MHz; Duty Cycle: 1:1
Medium: MSL5000; Medium Notes: T=21.5
Medium parameters used: $f = 5200$ MHz; $\sigma = 5.428$ S/m; $\epsilon_r = 48.719$; $\rho = 1000$ kg/m³
Phantom section: Center Section

- DASY Configuration:
- Probe: EX3DV4 - SN3817
 - ConvF(4.54, 4.54, 4.54); Calibrated: 2013-01-23;
 - Sensor-Surface: 2mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
 - Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
 - Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 14.7 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 55.487 V/m
Peak SAR (extrapolated) = 26.6 W/kg
SAR(1 g) = 7.11 W/kg
SAR(10 g) = 2.04 W/kg
Power Drift = -0.11 dB
Maximum value of SAR (measured) = 13.3 W/kg



Plot #17

Date/Time: 2013-08-10 7:30:59 AM

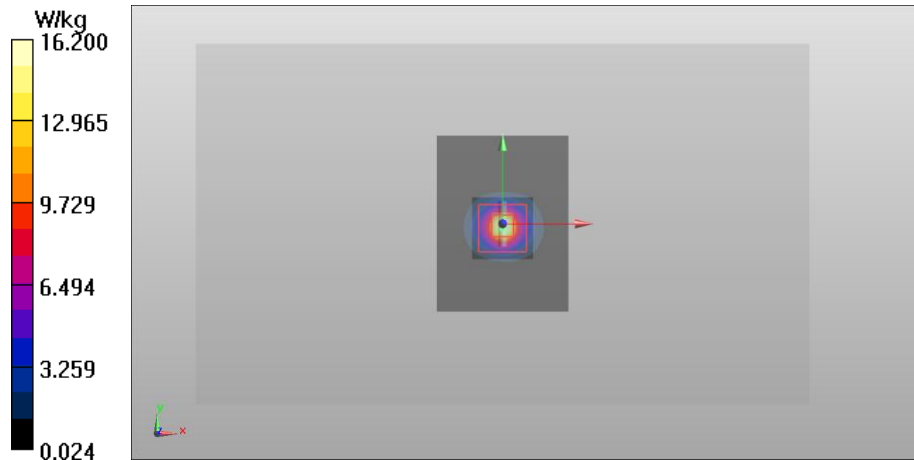
Test Laboratory: TCC Nokia
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1042

Communication System: CW5000-6000
Frequency: 5300 MHz; Duty Cycle: 1:1
Medium: MSL5000; Medium Notes: T=21.5
Medium parameters used: $f = 5300$ MHz; $\sigma = 5.546$ S/m; $\epsilon_r = 48.055$; $\rho = 1000$ kg/m³
Phantom section: Center Section

- DASY Configuration:
- Probe: EX3DV4 - SN3817
 - ConvF(4.34, 4.34, 4.34); Calibrated: 2013-01-23;
 - Sensor-Surface: 2mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
 - Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
 - Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 16.2 W/kg

d=10mm, Pin=100mW/Zoom Scan (8x8x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 58.433 V/m
Peak SAR (extrapolated) = 29.5 W/kg
SAR(1 g) = 7.86 W/kg
SAR(10 g) = 2.26 W/kg
Power Drift = -0.07 dB
Maximum value of SAR (measured) = 15.2 W/kg



Plot #18

Date/Time: 2013-08-08 2:17:21 PM

Test Laboratory: TCC Nokia
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1042

Communication System: CW5000-6000

Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: MSL5000; Medium Notes: T=21.5

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.817$ S/m; $\epsilon_r = 47.932$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(4.07, 4.07, 4.07); Calibrated: 2013-01-23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 17.0 W/kg

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

Reference Value = 57.582 V/m

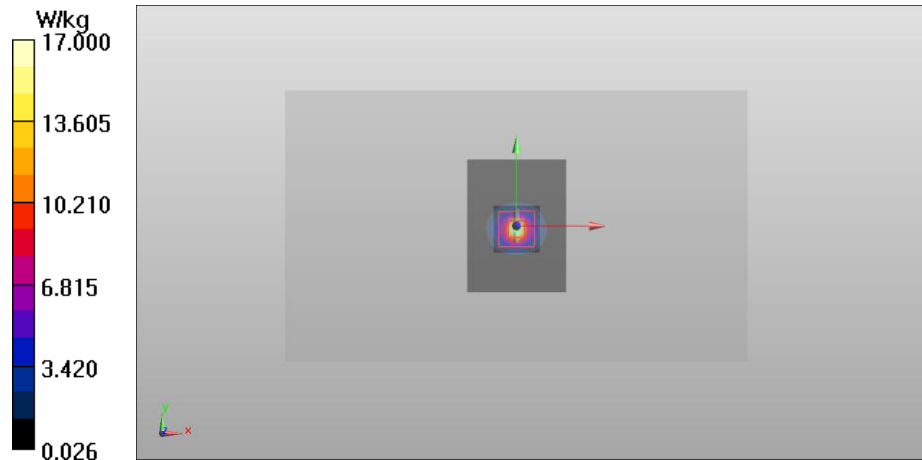
Peak SAR (extrapolated) = 32.5 W/kg

SAR(1 g) = 8.12 W/kg

SAR(10 g) = 2.3 W/kg

Power Drift = -0.04 dB

Maximum value of SAR (measured) = 15.5 W/kg



Plot #19

Date/Time: 2013-08-08 2:49:54 PM

Test Laboratory: TCC Nokia
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1042

Communication System: CW5000-6000

Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: MSL5000; Medium Notes: T=21.5

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.958$ S/m; $\epsilon_r = 47.769$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(3.79, 3.79, 3.79); Calibrated: 2013-01-23;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW 2/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 17.0 W/kg

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

Reference Value = 59.959 V/m

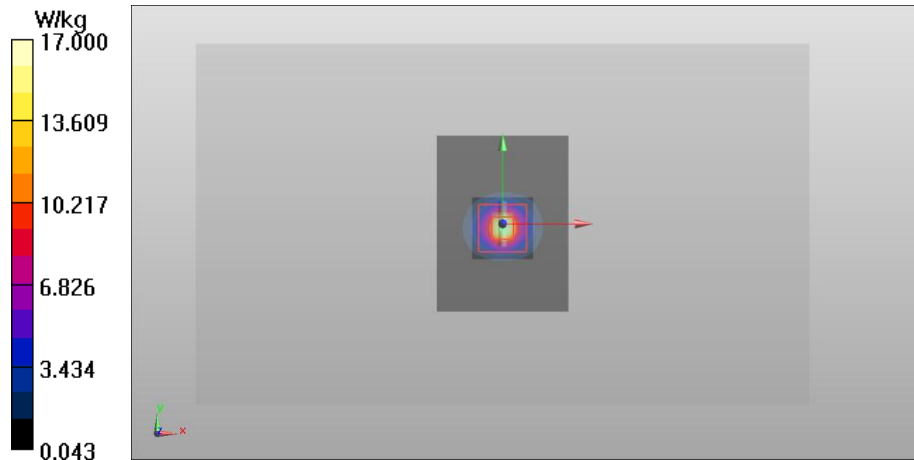
Peak SAR (extrapolated) = 31.6 W/kg

SAR(1 g) = 8.03 W/kg

SAR(10 g) = 2.29 W/kg

Power Drift = -0.13 dB

Maximum value of SAR (measured) = 15.7 W/kg



Plot #20

Date/Time: 2013-08-09 10:37:35 AM

Test Laboratory: TCC Nokia
Type: D5GHzV2; Serial: D5GHzV2 - SN: 1042

Communication System: CW5000-6000

Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: MSL5000; Medium Notes: T=21.5

Medium parameters used: $f = 5800$ MHz; $\sigma = 6.247$ S/m; $\epsilon_r = 47.014$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(4.25, 4.25, 4.25); Calibrated: 2013-01-23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

d=10mm, Pin=100mW/Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 15.3 W/kg

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

Reference Value = 53.939 V/m

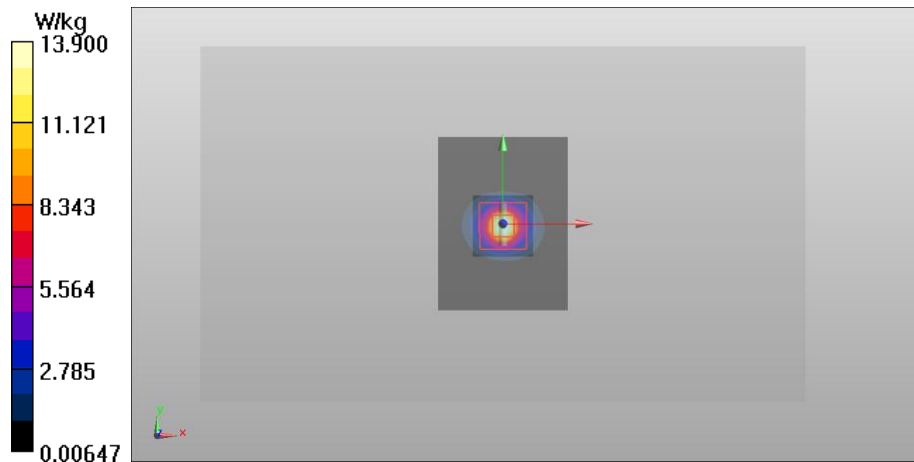
Peak SAR (extrapolated) = 29.3 W/kg

SAR(1 g) = 7.11 W/kg

SAR(10 g) = 2.02 W/kg

Power Drift = -0.12 dB

Maximum value of SAR (measured) = 13.9 W/kg



APPENDIX B.1: HEAD, BODY AND WIRELESS ROUTER MEASUREMENT SCANS

Plot #1

Date/Time: 2013-08-04 1:48:51 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: LTE750 (BAND 13)

Frequency: 782 MHz; Duty Cycle: 1:1

Medium: HSL750; Medium Notes: T = 21.5 c

Medium parameters used: f = 782 MHz; $\sigma = 0.933$ mho/m; $\epsilon_r = 40.868$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: SAM3 06-28-2013; Type: QD000P40CD; Serial: TP: 1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

LTE750 (Band 13) - Right/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset/Area Scan (81x121x1):

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

Fast SAR: SAR(1g) = 0.657 W/kg; SAR(10g) = 0.443 W/kg

Maximum value of SAR (interpolated) = 0.720 mW/g

LTE750 (Band 13) - Right/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset/Zoom Scan (6x6x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 24.438 V/m

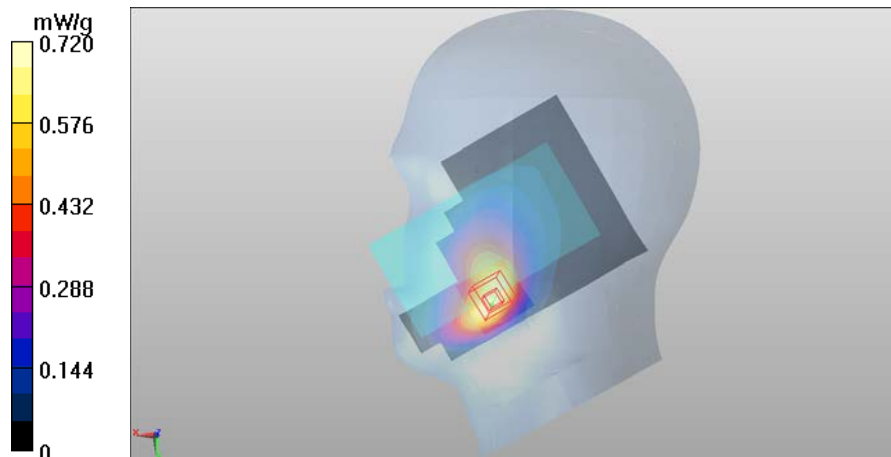
Peak SAR (extrapolated) = 1.343 mW/g

SAR(1 g) = 0.723 mW/g

SAR(10 g) = 0.416 mW/g

Power Drift = 0.04 dB

Maximum value of SAR (measured) = 0.806 mW/g



Plot #2

Date/Time: 2013-08-19 12:14:19 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800

Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: HSL800-900 2013-08-19; Medium Notes: T = 21.5 c

Medium parameters used (interpolated): f = 848.31 MHz; $\sigma = 0.898$ S/m; $\epsilon_r = 41.02$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: E53DV3 - SN3275
- ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

CDMA800 - Left/Cheek - High/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Fast SAR: SAR(1g) = 0.596 W/kg; SAR(10g) = 0.414 W/kg

Maximum value of SAR (interpolated) = 0.640 W/kg

CDMA800 - Left/Cheek - High/Zoom Scan (8x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 27.124 V/m

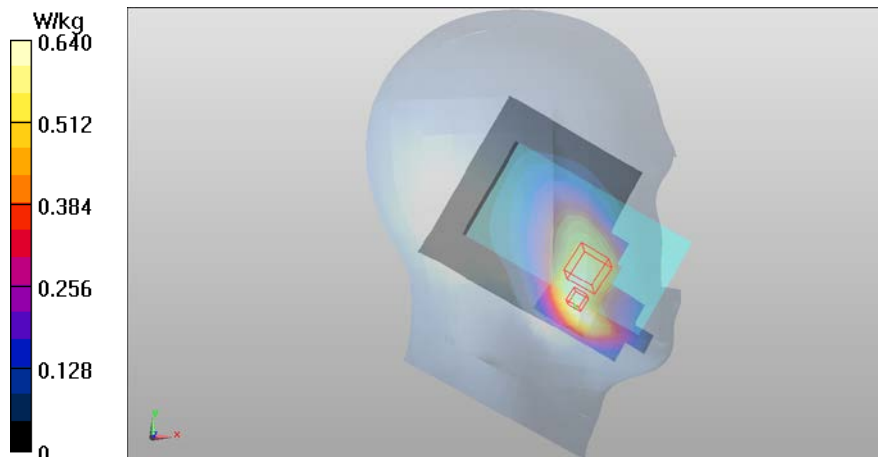
Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.648 W/kg

SAR(10 g) = 0.444 W/kg

Power Drift = -0.06 dB

Maximum value of SAR (measured) = 0.695 W/kg



Plot #3

Date/Time: 2013-07-29 7:30:41 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: 2-slot GPRS850

Frequency: 848.8 MHz; Duty Cycle: 1:4.19952

Medium: HSL800-900 2013-07-29; Medium Notes: T = 21.5 c

Medium parameters used: f = 849 MHz; $\sigma = 0.902$ S/m; $\epsilon_r = 41.273$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

2-slot GPRS850 - Left/Cheek - High/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Fast SAR: SAR(1g) = 0.588 W/kg; SAR(10g) = 0.401 W/kg

Maximum value of SAR (interpolated) = 0.639 W/kg

2-slot GPRS850 - Left/Cheek - High/Zoom Scan (7x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 27.310 V/m

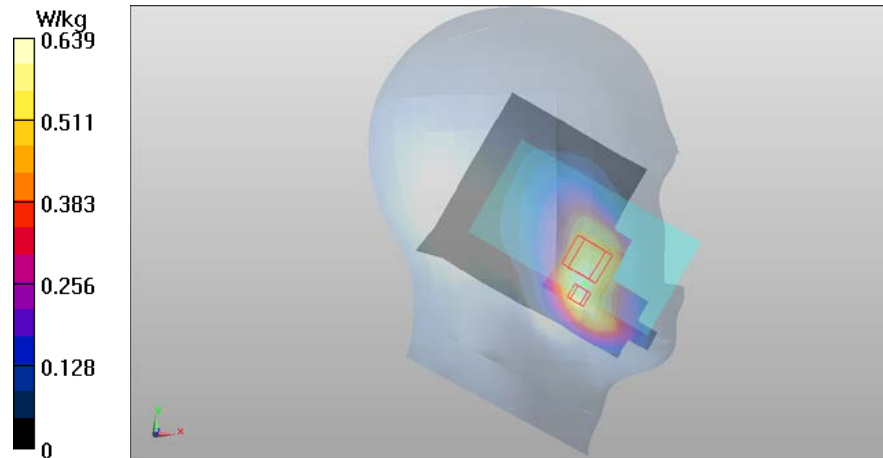
Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.656 W/kg

SAR(10 g) = 0.433 W/kg

Power Drift = -0.02 dB

Maximum value of SAR (measured) = 0.722 W/kg



Plot #4

Date/Time: 2013-08-19 2:19:20 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: WCDMA850

Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: HSL800-900 2013-08-19; Medium Notes: T = 21.5 c

Medium parameters used: f = 847 MHz; $\sigma = 0.897$ S/m; $\epsilon_r = 41.03$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

WCDMA850 (Band 5) - Left/Cheek - High/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Fast SAR: SAR(1g) = 0.460 W/kg; SAR(10g) = 0.318W/kg
Maximum value of SAR (interpolated) = 0.495 W/kg

WCDMA850 (Band 5) - Left/Cheek - High/Zoom Scan (9x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

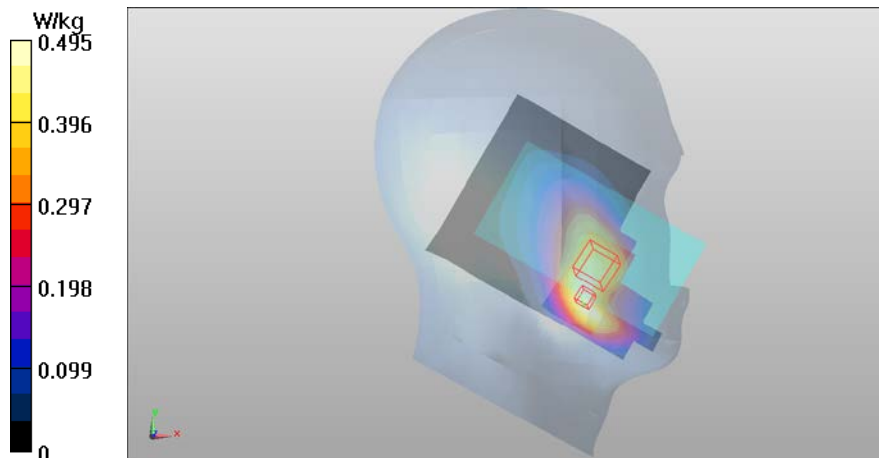
Reference Value = 23.132 V/m
Peak SAR (extrapolated) = 0.780 W/kg

SAR(1 g) = 0.474 W/kg

SAR(10 g) = 0.330 W/kg

Power Drift = 0.06 dB

Maximum value of SAR (measured) = 0.504 W/kg



Plot #5

Date/Time: 2013-08-04 8:40:44 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4)

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium Notes: T=21.5 C

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.353$ S/m; $\epsilon_r = 39.344$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

LTE1700/2100 (Band 4) - Right/Cheek - High - QPSK - 20MHz - 1RB - 50% offset/Area Scan (121x181x1):

Interpolated grid: dx=1.000 mm, dy=1.000 mm

Fast SAR: SAR(1g) = 0.803 W/kg; SAR(10g) = 0.412 W/kg

Maximum value of SAR (interpolated) = 0.947 W/kg

LTE1700/2100 (Band 4) - Right/Cheek - High - QPSK - 20MHz - 1RB - 50% offset/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 26.840 V/m

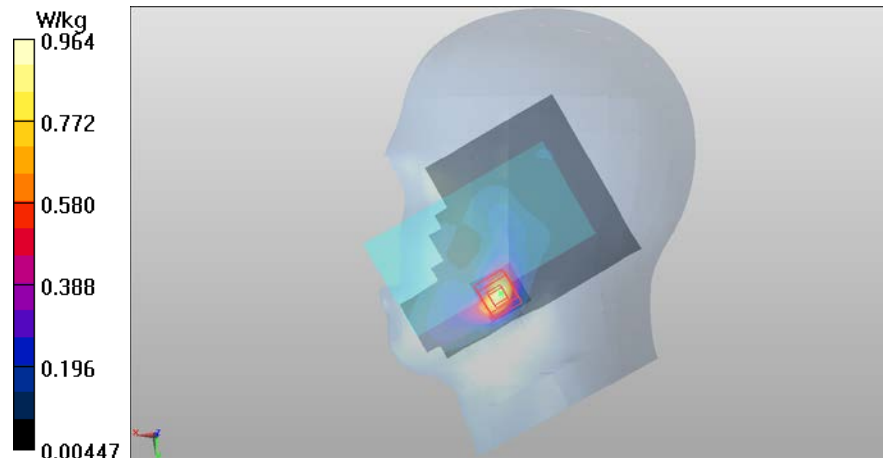
Peak SAR (extrapolated) = 1.53 W/kg

SAR(1 g) = 0.841 W/kg

SAR(10 g) = 0.426 W/kg

Power Drift = -0.05 dB

Maximum value of SAR (measured) = 0.964 W/kg



Plot #6

Date/Time: 2013-08-03 2:38:03 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

Communication System: CDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: T=21.5 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 39.023$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.10 (7164)

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

Fast SAR: SAR(1g) = 1.06 W/kg; SAR(10g) = 0.576 W/kg

Maximum value of SAR (interpolated) = 1.19 W/kg

CDMA1900 - Left/Cheek - Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.342 V/m

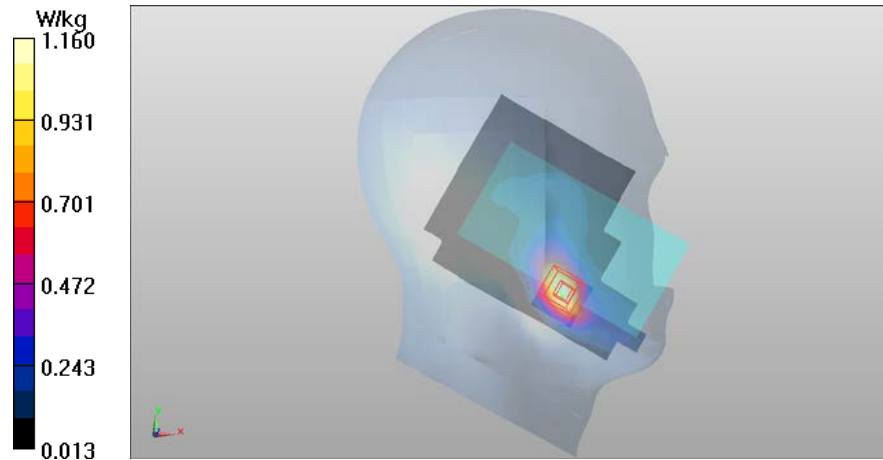
Peak SAR (extrapolated) = 1.85 W/kg

SAR(1 g) = 1.07 W/kg

SAR(10 g) = 0.585 W/kg

Power Drift = 0.13 dB

Maximum value of SAR (measured) = 1.16 W/kg



Plot #7

Date/Time: 2013-07-31 12:17:26 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: 2-slot GPRS1900

Frequency: 1850.2 MHz; Duty Cycle: 1:4.19952

Medium: HSL1900; Medium Notes: T=21.5 C

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.358$ S/m; $\epsilon_r = 39.575$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

2 - slot GPRS1900 - Right/Cheek - Low/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 4.320 V/m

Fast SAR: SAR(1 g) = 0.556 W/kg; Fast SAR(10 g) = 0.295 W/kg

Maximum value of SAR (interpolated) = 0.645 W/kg

2 - slot GPRS1900 - Right/Cheek - Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.151 V/m

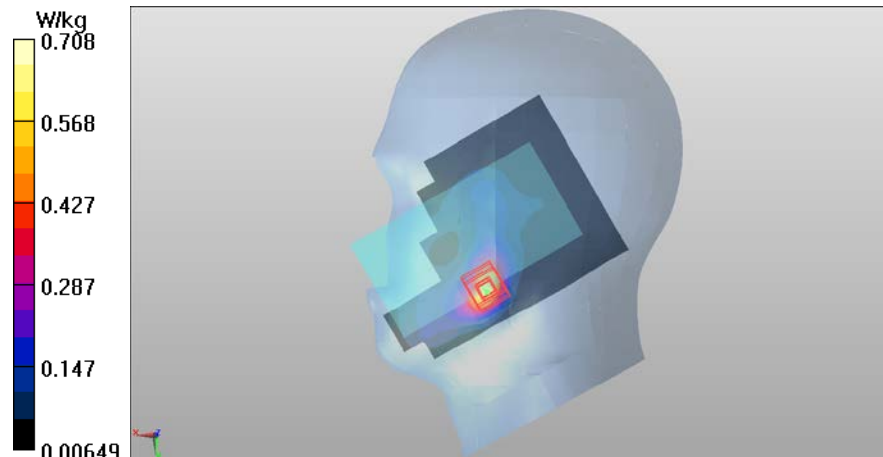
Peak SAR (extrapolated) = 1.12 W/kg

SAR(1 g) = 0.611 W/kg

SAR(10 g) = 0.313 W/kg

Power Drift = 0.13 dB

Maximum value of SAR (measured) = 0.708 W/kg



Plot #8

Date/Time: 2013-07-31 8:51:54 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: WCDMA1900 (Band 2)

Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: HSL1900; Medium Notes: T=21.5 C

Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.36$ S/m; $\epsilon_r = 39.565$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

WCDMA1900 (Band 2) - Right/Cheek - Low/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Fast SAR: SAR(1g) = 0.816 W/kg; SAR(10g) = 0.436 W/kg
Maximum value of SAR (interpolated) = 0.940 W/kg

WCDMA1900 (Band 2) - Right/Cheek - Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

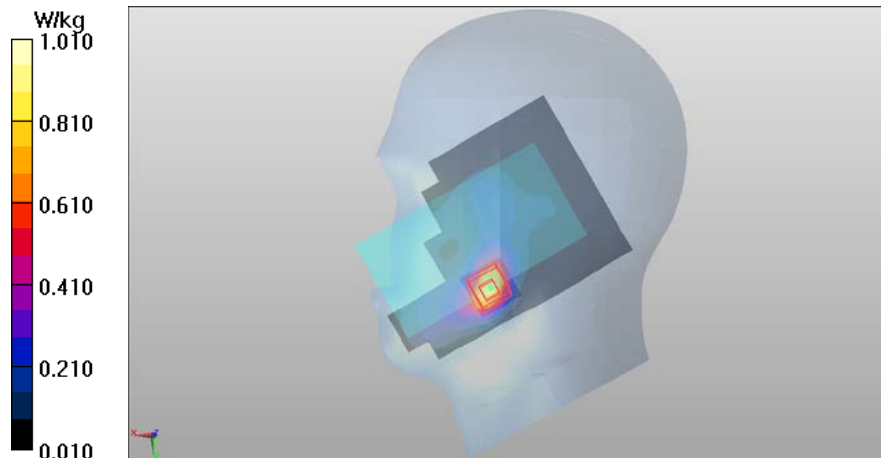
Reference Value = 7.675 V/m
Peak SAR (extrapolated) = 1.63 W/kg

SAR(1 g) = 0.909 W/kg

SAR(10 g) = 0.481 W/kg

Power Drift = 0.18 dB

Maximum value of SAR (measured) = 1.01 W/kg



Plot #9

Date/Time: 2013-08-07 4:00:11 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

Communication System: WLAN2450 b-mode

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: T=21.5

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.84$ S/m; $\epsilon_r = 37.969$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

WLAN2450 b-mode - Left/Tilt - Channel 11 - DSSS 1 Mbps/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Fast SAR: SAR(1g) = 0.644 W/kg; SAR(10g) = 0.247 W/kg
Maximum value of SAR (interpolated) = 0.845 W/kg

WLAN2450 b-mode - Left/Tilt - Channel 11 - DSSS 1 Mbps/Zoom Scan (7x7x7)/Cube 0: Measurement grid:

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

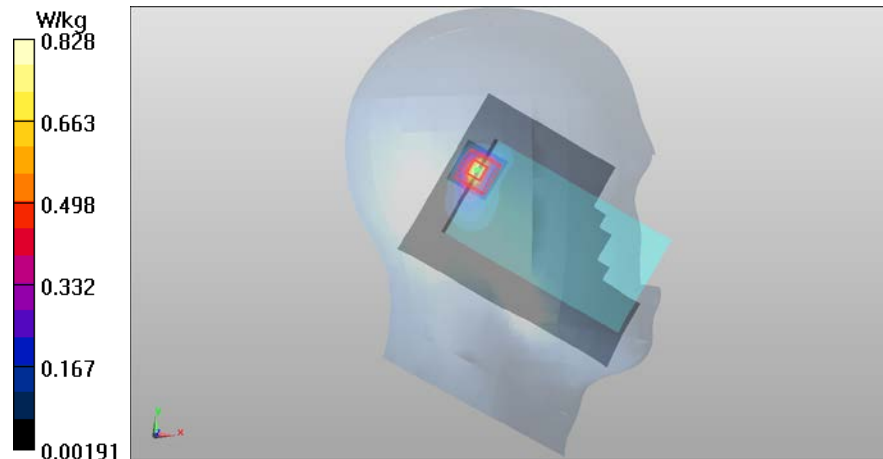
Reference Value = 21.221 V/m
Peak SAR (extrapolated) = 1.84 W/kg

SAR(1 g) = 0.669 W/kg

SAR(10 g) = 0.247 W/kg

Power Drift = 0.00 dB

Maximum value of SAR (measured) = 0.828 W/kg



Plot #10

Date/Time: 2013-08-03 10:05:25 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode

Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: T=21.5

Medium parameters used: $f = 5500$ MHz; $\sigma = 4.764$ S/m; $\epsilon_r = 34.741$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

WLAN5000 a-mode - Left/Cheek - Channel 100 - OFDM 6 Mbps/Area Scan (121x181x1): Interpolated grid:

dx=1.000 mm, dy=1.000 mm

Fast SAR: SAR(1g) = 0.229 W/kg; SAR(10g) = 0.0653 W/kg

Maximum value of SAR (interpolated) = 0.577 W/kg

WLAN5000 a-mode - Left/Cheek - Channel 100 - OFDM 6 Mbps/Zoom Scan (9x9x12)/Cube 0: Measurement grid:

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

Reference Value = 10.097 V/m

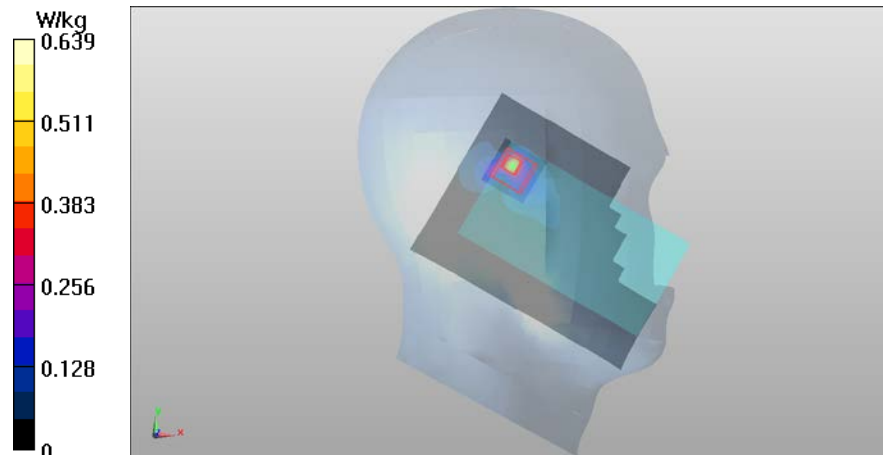
Peak SAR (extrapolated) = 1.46 W/kg

SAR(1 g) = 0.280 W/kg

SAR(10 g) = 0.079 W/kg

Power Drift = 0.13 dB

Maximum value of SAR (measured) = 0.639 W/kg



Plot #11

Date/Time: 2013-08-04 1:48:51 PM

DASY Configuration for LTE750 (Band 13) - Right/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset 2/Area Scan:
Test Laboratory: TCC Nokia
Type: RM-927; Serial: 355906/05/001238/3
Communication System: LTE750 (BAND 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1
Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.933$ S/m; $\epsilon_r = 40.868$; $\rho = 1000$ kg/m³
Phantom section: Right Section

Probe: ES3DV3 - SN3275; ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: SAM3 06-28-2013; Type: QD000P40CD; Serial: TP: 1729
Measurement SW: DASY52, Version 52.8 (1)

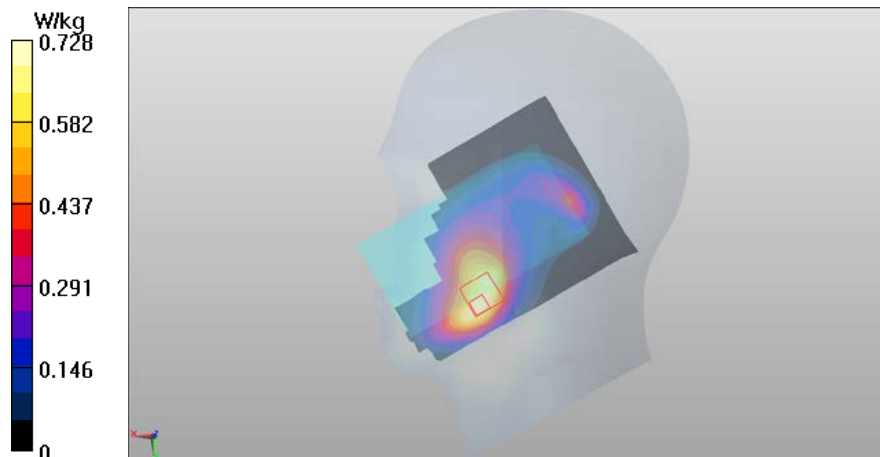
Date/Time: 2013-08-05 3:04:42 PM

DASY Configuration for WLAN2450 b-mode - Right/Cheek - Channel 6 - DSSS 1 Mbps/Area Scan:
Test Laboratory: TCC Nokia
Type: RM-927; Serial: 355906/05/001240/9
Communication System: WLAN2450 b-mode; Frequency: 2437 MHz; Duty Cycle: 1:1; PMF: 1
Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.821$ S/m; $\epsilon_r = 38.353$; $\rho = 1000$ kg/m³
Phantom section: Right Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736
Measurement SW: DASY52, Version 52.8 (6)

Fast SAR of Combined Scans: SAR(1 g) = 0.663 W/kg; SAR(10 g) = 0.448 W/kg
Maximum value of SAR (interpolated) = 0.728 W/kg

WLAN2450 b-mode was scaled with factor 1.14, LTE750 (Band 13) with factor 1.02, before combining in SEMCAD SW.



Plot #12

Date/Time: 2013-08-19 12:14:19 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800; Frequency: 848.31 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL800-900 2013-08-19 Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.898$ S/m; $\epsilon_r = 41.02$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-05 1:36:13 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.821$ S/m; $\epsilon_r = 38.353$; $\rho = 1000$ kg/m³

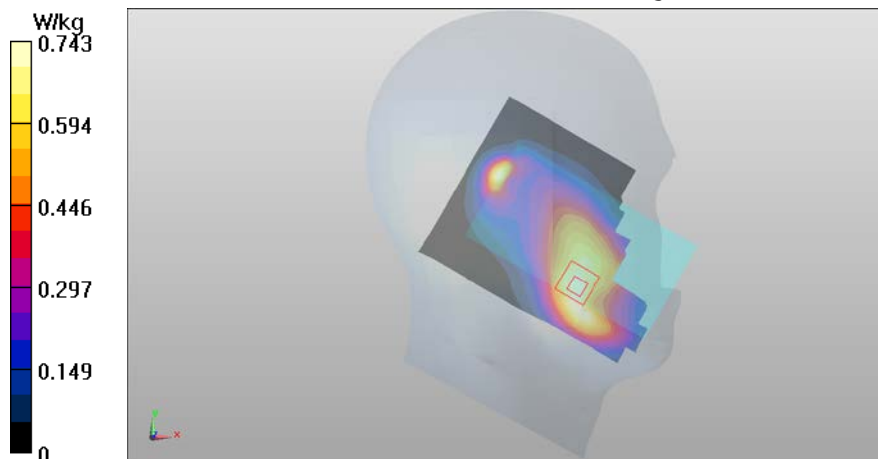
Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736
Measurement SW: DASY52, Version 52.8 (6)

Fast SAR of Combined Scans: SAR(1 g) = 0.678 W/kg; SAR(10 g) = 0.469 W/kg

Maximum value of SAR (interpolated) = 0.743 W/kg

WLAN2450 b-mode was scaled with factor 1.14, CDMA800 with factor 1.03, before combining in SEMCAD SW.



Plot #13

Date/Time: 2013-07-29 7:30:41 PM

DASY Configuration for 2-slot GPRS850 - Left/Cheek - High/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: 2-slot GPRS850; Frequency: 848.8 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: HSL800-900 2013-07-29 Medium parameters used: $f = 849$ MHz; $\sigma = 0.902$ S/m; $\epsilon_r = 41.273$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-05 1:36:13 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.821$ S/m; $\epsilon_r = 38.353$; $\rho = 1000$ kg/m³

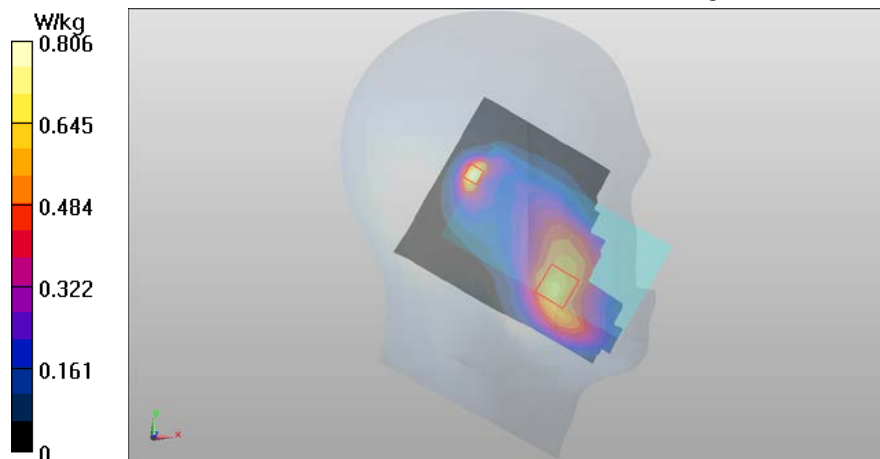
Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736
Measurement SW: DASY52, Version 52.8 (6)

Fast SAR of Combined Scans: SAR(1 g) = 0.627 W/kg; SAR(10 g) = 0.414 W/kg

Maximum value of SAR (interpolated) = 0.806 W/kg

WLAN2450 b-mode was scaled with factor 1.14, 2-slot GPRS850 with factor 1.04, before combining in SEMCAD SW.



Plot #14

Date/Time: 2013-08-19 2:19:20 PM

DASY Configuration for WCDMA850 (Band 5) - Left/Cheek - High/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: WCDMA850; Frequency: 846.6 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL800-900 2013-08-19 Medium parameters used: $f = 847$ MHz; $\sigma = 0.897$ S/m; $\epsilon_r = 41.03$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-05 1:36:13 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.821$ S/m; $\epsilon_r = 38.353$; $\rho = 1000$ kg/m³

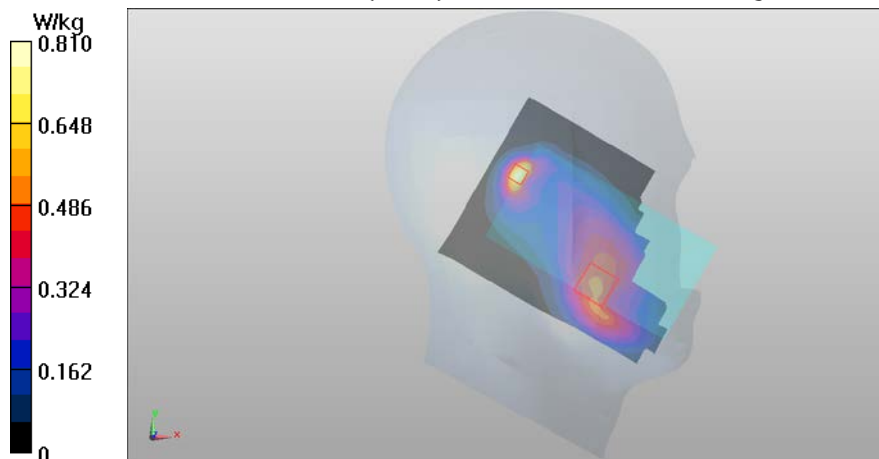
Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736
Measurement SW: DASY52, Version 52.8 (6)

Fast SAR of Combined Scans: SAR(1 g) = 0.631 W/kg; SAR(10 g) = 0.326 W/kg

Maximum value of SAR (interpolated) = 0.810 W/kg

WLAN2450 b-mode was scaled with factor 1.14, WCDMA850 (Band 5) with factor 1.03, before combining in SEMCAD SW.



Plot #15

Date/Time: 2013-08-04 8:40:44 AM

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - High - QPSK - 20MHz - 1RB - 50% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.353$ S/m; $\epsilon_r = 39.344$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3276; ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-05 3:04:42 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.821$ S/m; $\epsilon_r = 38.353$; $\rho = 1000$ kg/m³

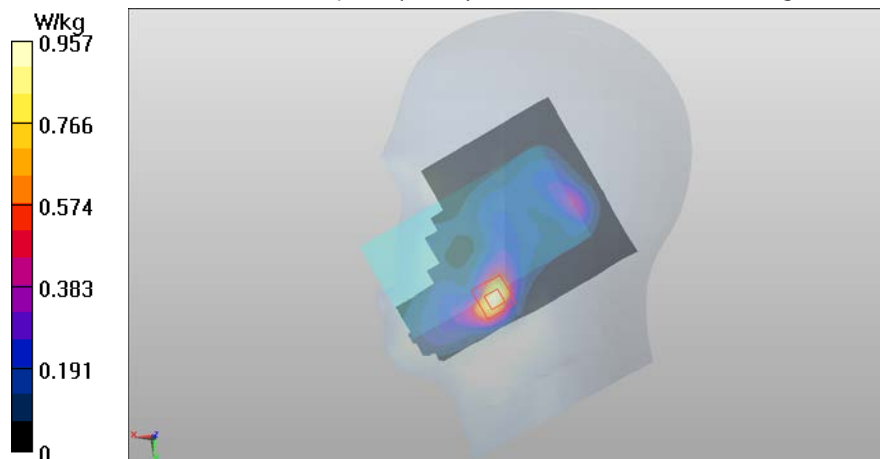
Phantom section: Right Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736
Measurement SW: DASY52, Version 52.8 (6)

Fast SAR of Combined Scans: SAR(1 g) = 0.821 W/kg; SAR(10 g) = 0.419 W/kg

Maximum value of SAR (interpolated) = 0.957 W/kg

WLAN2450 b-mode was scaled with factor 1.14, LTE1700/2100 (Band 4) with factor 1.02, before combining in SEMCAD SW.



Plot #16

Date/Time: 2013-08-03 2:38:03 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

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

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 39.023$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630
Measurement SW: DASY52, Version 52.8 (5)

Date/Time: 2013-08-05 1:36:13 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.821$ S/m; $\epsilon_r = 38.353$; $\rho = 1000$ kg/m³

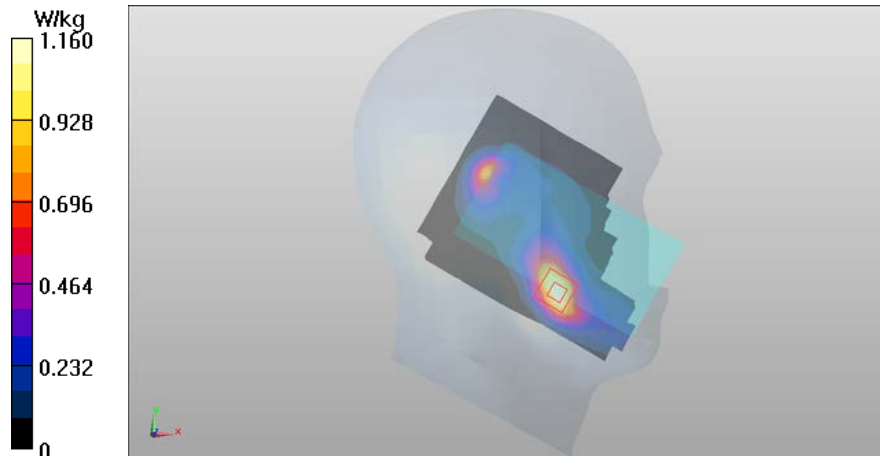
Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736
Measurement SW: DASY52, Version 52.8 (6)

Fast SAR of Combined Scans: SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.568 W/kg

Maximum value of SAR (interpolated) = 1.16 W/kg

WLAN2450 b-mode was scaled with factor 1.14, CDMA1900 with factor 1.01, before combining in SEMCAD SW.



Plot #17

Date/Time: 2013-07-31 12:17:26 PM

DASY Configuration for 2 - slot GPRS1900 - Right/Cheek - Low/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: 2-slot GPRS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: HSL1900 Medium parameters used (interpolated): $f = 1850.2 \text{ MHz}$; $\sigma = 1.358 \text{ S/m}$; $\epsilon_r = 39.575$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-05 3:04:42 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: HSL2450 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.821 \text{ S/m}$; $\epsilon_r = 38.353$; $\rho = 1000 \text{ kg/m}^3$

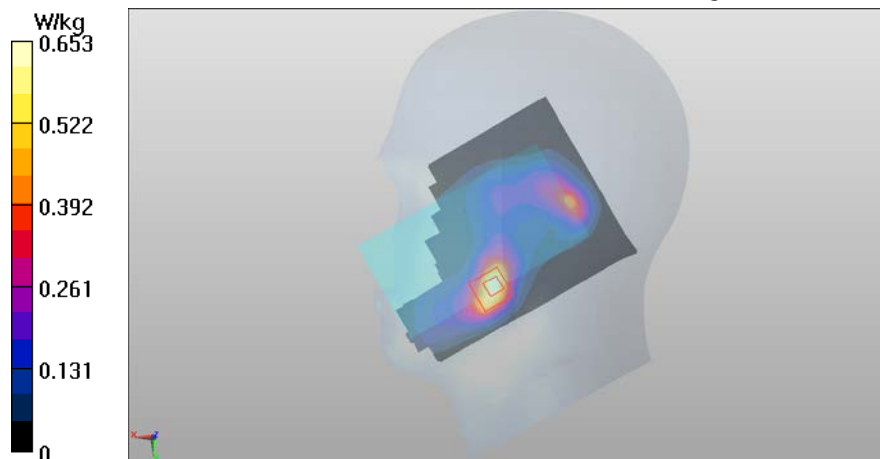
Phantom section: Right Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736
Measurement SW: DASY52, Version 52.8 (6)

Fast SAR of Combined Scans: SAR(1 g) = 0.578 W/kg; SAR(10 g) = 0.309 W/kg

Maximum value of SAR (interpolated) = 0.653 W/kg

WLAN2450 b-mode was scaled with factor 1.14, 2-slotGPRS1900 with factor 1.08 before combining in SEMCAD SW.



Plot #18

Date/Time: 2013-07-31 8:51:54 AM

DASY Configuration for WCDMA1900 (Band 2) - Right/Cheek - Low/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: WCDMA1900 (Band 2); Frequency: 1852.4 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.36$ S/m; $\epsilon_r = 39.565$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-05 3:04:42 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.821$ S/m; $\epsilon_r = 38.353$; $\rho = 1000$ kg/m³

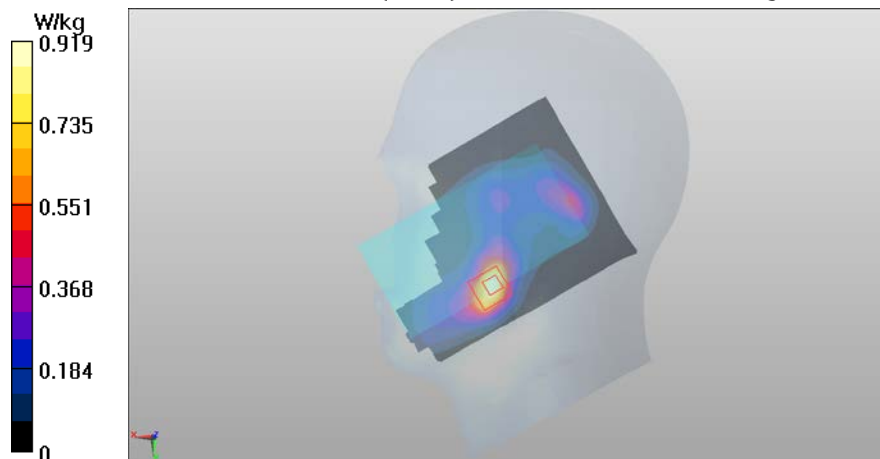
Phantom section: Right Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736
Measurement SW: DASY52, Version 52.8 (6)

Fast SAR of Combined Scans: SAR(1 g) = 0.810 W/kg; SAR(10 g) = 0.433 W/kg

Maximum value of SAR (interpolated) = 0.919 W/kg

WLAN2450 b-mode was scaled with factor 1.14, WCDMA1900 (Band 2) with factor 1.02, before combining in SEMCAD SW.



Plot #19

Date/Time: 2013-08-04 1:48:51 PM

DASY Configuration for LTE750 (Band 13) - Right/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset 2/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.933 \text{ S/m}$; $\epsilon_r = 40.868$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Probe: ES3DV3 - SN3275; ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: SAM3 06-28-2013; Type: QD000P40CD; Serial: TP: 1729
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 5:29:56 PM

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 100 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500 \text{ MHz}$; $\sigma = 4.764 \text{ S/m}$; $\epsilon_r = 34.741$; $\rho = 1000 \text{ kg/m}^3$

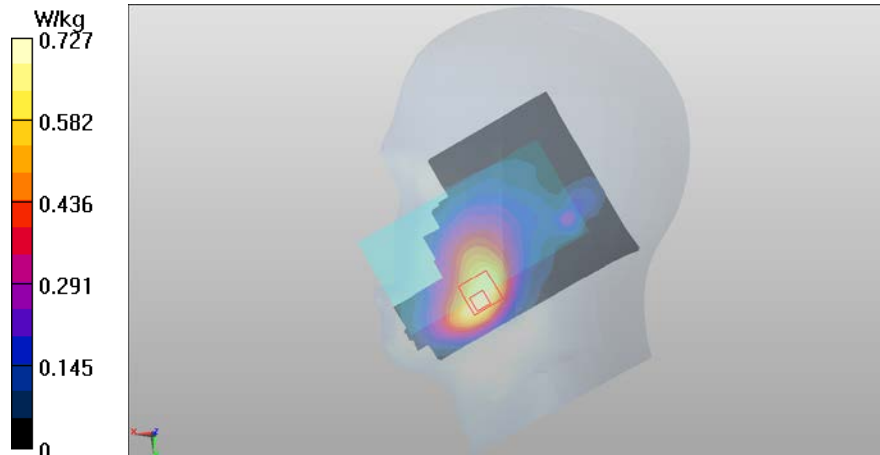
Phantom section: Right Section

Probe: EX3DV4 - SN3817; ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.661 W/kg; SAR(10 g) = 0.449 W/kg

Maximum value of SAR (interpolated) = 0.727 W/kg

WLAN5000 a-mode was scaled with factor 1.15, LTE750 (Band 13) with factor 1.02, before combining in SEMCAD SW.



Plot #20

Date/Time: 2013-08-19 12:14:19 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800; Frequency: 848.31 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL800-900 2013-08-19 Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.898$ S/m; $\epsilon_r = 41.02$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 10:05:25 AM

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 100 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.764$ S/m; $\epsilon_r = 34.741$; $\rho = 1000$ kg/m³

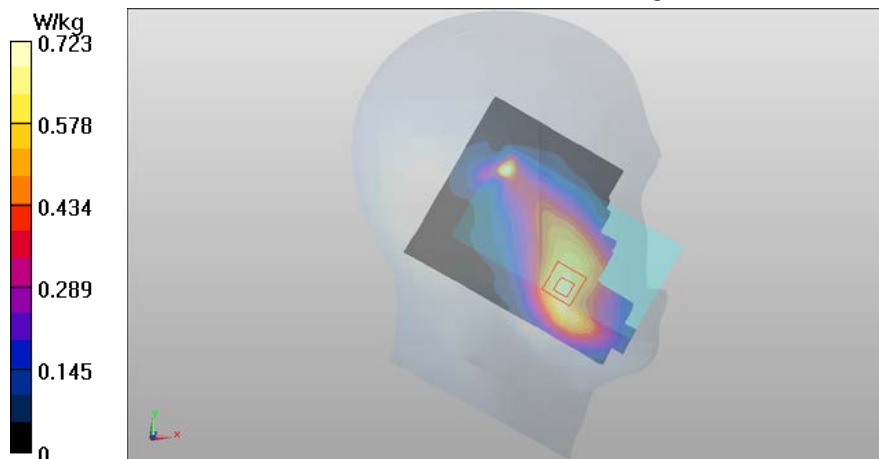
Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.609 W/kg; SAR(10 g) = 0.424 W/kg

Maximum value of SAR (interpolated) = 0.723 W/kg

WLAN5000 a-mode was scaled with factor 1.15, CDMA800 with factor 1.03, before combining in SEMCAD SW.



Plot #21

Date/Time: 2013-07-29 7:30:41 PM

DASY Configuration for 2-slot GPRS850 - Left/Cheek - High/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: 2-slot GPRS850; Frequency: 848.8 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: HSL800-900 2013-07-29 Medium parameters used: $f = 849$ MHz; $\sigma = 0.902$ S/m; $\epsilon_r = 41.273$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 10:05:25 AM

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 100 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.764$ S/m; $\epsilon_r = 34.741$; $\rho = 1000$ kg/m³

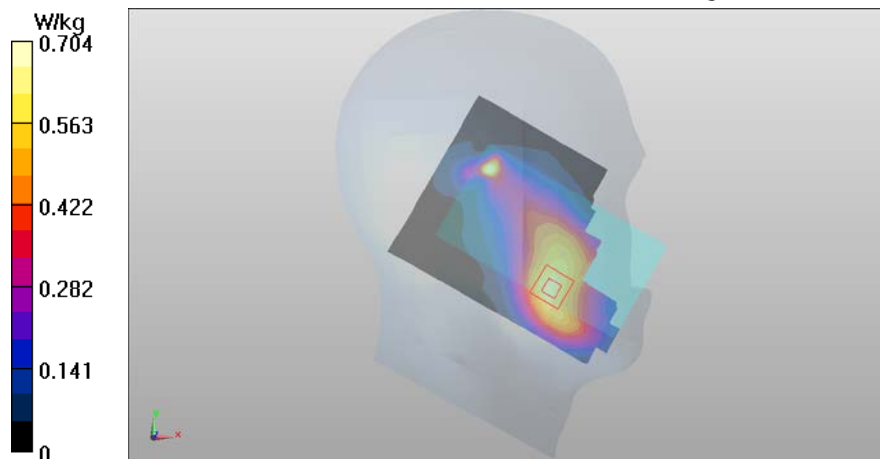
Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.606 W/kg; SAR(10 g) = 0.414 W/kg

Maximum value of SAR (interpolated) = 0.704 W/kg

WLAN5000 a-mode was scaled with factor 1.15, 2-slot GPRS850 with factor 1.04, before combining in SEMCAD SW.



Plot #22

Date/Time: 2013-08-19 2:19:20 PM

DASY Configuration for WCDMA850 (Band 5) - Left/Cheek - High/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: WCDMA850; Frequency: 846.6 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL800-900 2013-08-19 Medium parameters used: $f = 847$ MHz; $\sigma = 0.897$ S/m; $\epsilon_r = 41.03$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 10:05:25 AM

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 100 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.764$ S/m; $\epsilon_r = 34.741$; $\rho = 1000$ kg/m³

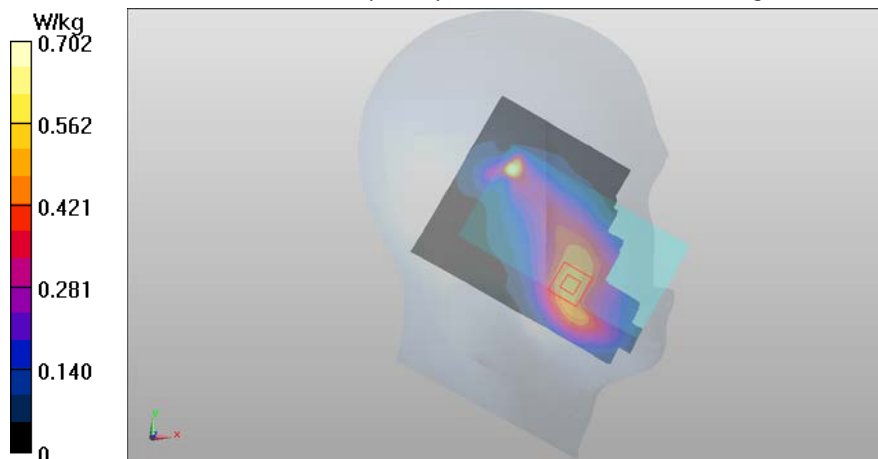
Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.467 W/kg; SAR(10 g) = 0.325 W/kg

Maximum value of SAR (interpolated) = 0.702 W/kg

WLAN5000 a-mode was scaled with factor 1.15, WCDMA850 (Band 5) with factor 1.03, before combining in SEMCAD SW.



Plot #23

Date/Time: 2013-08-04 8:40:44 AM

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - High - QPSK - 20MHz - 1RB - 50% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.353$ S/m; $\epsilon_r = 39.344$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3276; ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 5:29:56 PM

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 100 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.764$ S/m; $\epsilon_r = 34.741$; $\rho = 1000$ kg/m³

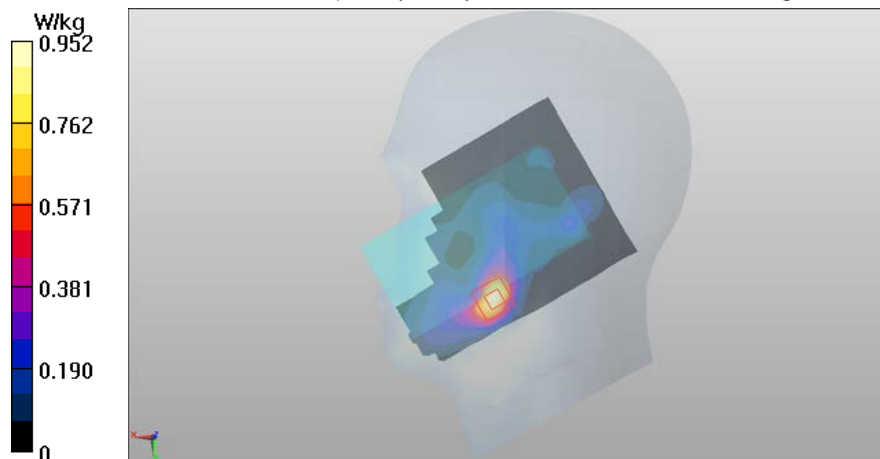
Phantom section: Right Section

Probe: EX3DV4 - SN3817; ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.816 W/kg; SAR(10 g) = 0.417 W/kg

Maximum value of SAR (interpolated) = 0.952 W/kg

WLAN5000 a-mode was scaled with factor 1.15, LTE1700/2100 (Band 4) with factor 1.03, before combining in SEMCAD SW.



Plot #24

Date/Time: 2013-08-03 2:38:03 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

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

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 39.023$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630
Measurement SW: DASY52, Version 52.8 (5)

Date/Time: 2013-08-03 10:05:25 AM

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 100 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.764$ S/m; $\epsilon_r = 34.741$; $\rho = 1000$ kg/m³

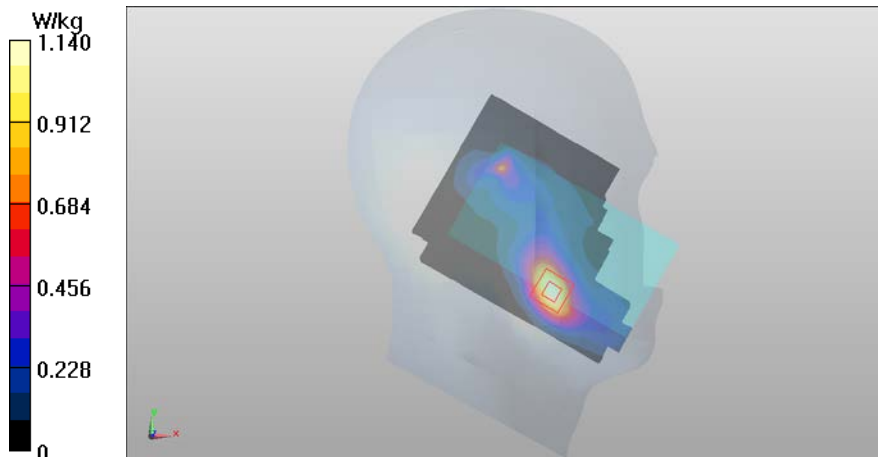
Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.556 W/kg

Maximum value of SAR (interpolated) = 1.14 W/kg

WLAN5000 a-mode was scaled with factor 1.15, CDMA1900 with factor 1.01, before combining in SEMCAD SW.



Plot #25

Date/Time: 2013-07-31 12:17:26 PM

DASY Configuration for 2 - slot GPRS1900 - Right/Cheek - Low/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: 2-slot GPRS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: HSL1900 Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.358$ S/m; $\epsilon_r = 39.575$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 5:29:56 PM

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 100 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.764$ S/m; $\epsilon_r = 34.741$; $\rho = 1000$ kg/m³

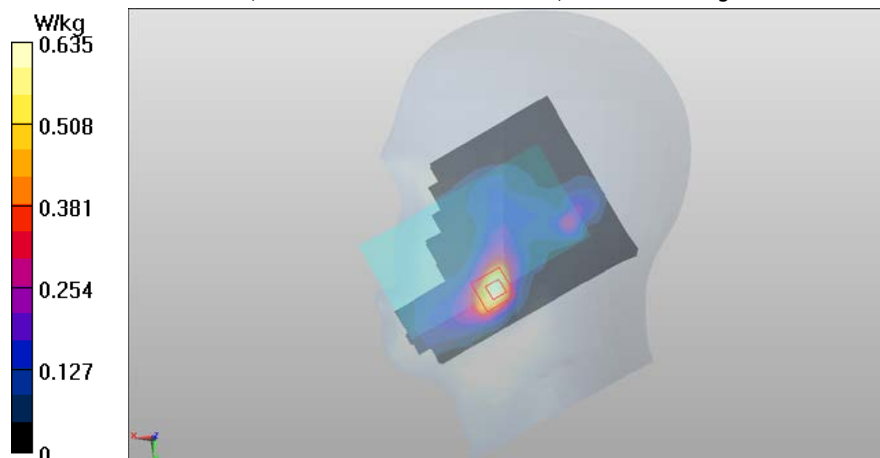
Phantom section: Right Section

Probe: EX3DV4 - SN3817; ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.565 W/kg; SAR(10 g) = 0.305 W/kg

Maximum value of SAR (interpolated) = 0.635 W/kg

WLAN5000 a-mode was scaled with factor 1.15, 2-slot GPRS1900 with factor 1.08, before combining in SEMCAD SW.



Plot #26

Date/Time: 2013-07-31 8:51:54 AM

DASY Configuration for WCDMA1900 (Band 2) - Right/Cheek - Low/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: WCDMA1900 (Band 2); Frequency: 1852.4 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1900 Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.36$ S/m; $\epsilon_r = 39.565$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 5:29:56 PM

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 100 - OFDM 6 Mbps/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.764$ S/m; $\epsilon_r = 34.741$; $\rho = 1000$ kg/m³

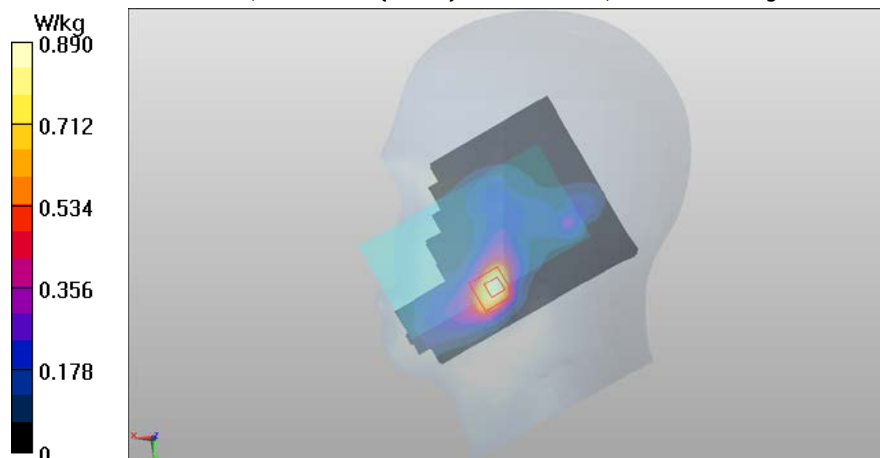
Phantom section: Right Section

Probe: EX3DV4 - SN3817; ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.788 W/kg; SAR(10 g) = 0.428 W/kg

Maximum value of SAR (interpolated) = 0.890 W/kg

WLAN5000 a-mode was scaled with factor 1.15, WCDMA1900 (Band 2) with factor 1.02, before combining in SEMCAD SW.



Plot #27

Date/Time: 2013-08-06 10:13:27 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: LTE750 (Band 13)

Frequency: 782 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: T21.5

Medium parameters used: $f = 782$ MHz; $\sigma = 0.975$ S/m; $\epsilon_r = 54.713$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.16, 6.16, 6.16); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1RB - 50% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Fast SAR: SAR(1g) = 0.337 W/kg; SAR(10g) = 0.240 W/kg
Maximum value of SAR (interpolated) = 0.358 W/kg

LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1RB - 50% offset - Spacer 15mm - No Headset - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

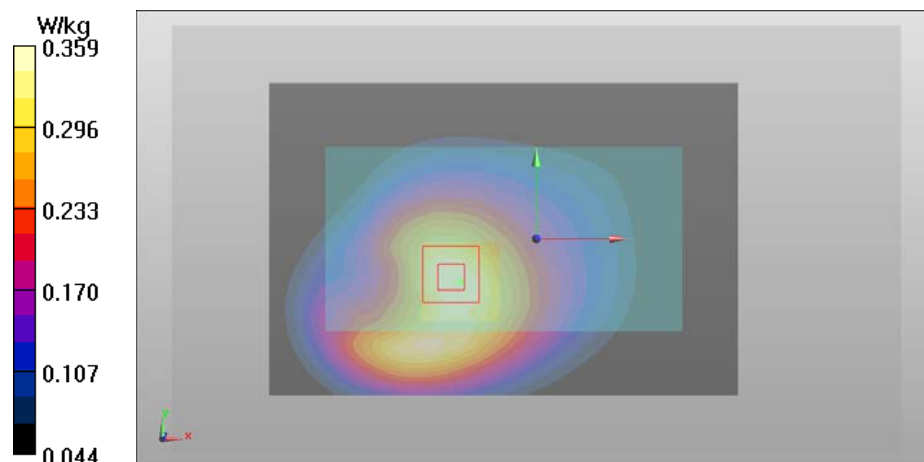
Reference Value = 13.871 V/m
Peak SAR (extrapolated) = 0.444 W/kg

SAR(1 g) = 0.343 W/kg

SAR(10 g) = 0.256 W/kg

Power Drift = 0.01 dB

Maximum value of SAR (measured) = 0.359 W/kg



Plot #28

Date/Time: 2013-08-05 9:42:21 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800

Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: BSL835; Medium Notes: T21.5

Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.495$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: E53DV3 - SN3275
- ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

CDMA800/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan (81x121x1):

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

Fast SAR: SAR(1g) = 0.680 W/kg; SAR(10g) = 0.477 W/kg

Maximum value of SAR (interpolated) = 0.725 W/kg

CDMA800/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 22.149 V/m

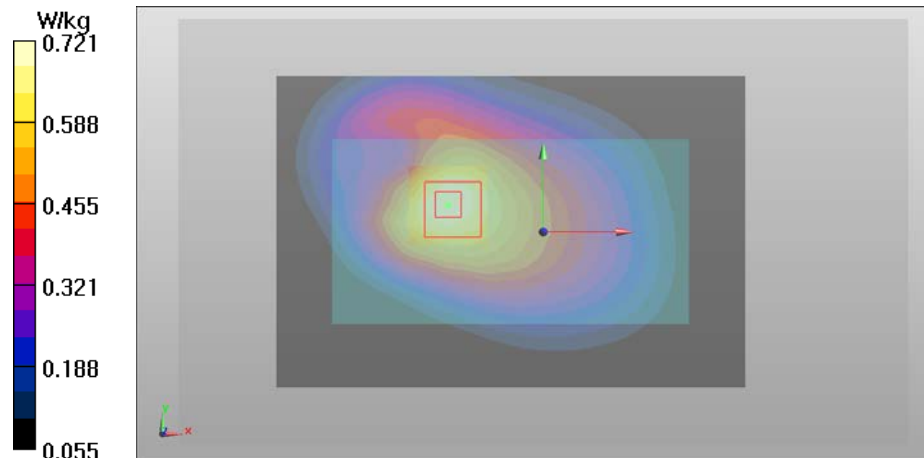
Peak SAR (extrapolated) = 0.840 W/kg

SAR(1 g) = 0.684 W/kg

SAR(10 g) = 0.516 W/kg

Power Drift = 0.01 dB

Maximum value of SAR (measured) = 0.721 W/kg



Plot #29

Date/Time: 2013-08-05 9:16:23 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: 2-slot GPRS850

Frequency: 848.8 MHz; Duty Cycle: 1:4.19952

Medium: BSL835; Medium Notes: T21.5

Medium parameters used: $f = 849$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.493$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

2-slot GPRS850/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan (81x121x1):

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

Fast SAR: SAR(1g) = 0.612 W/kg; SAR(10g) = 0.428 W/kg

Maximum value of SAR (interpolated) = 0.654 W/kg

2-slot GPRS850/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 20.406 V/m

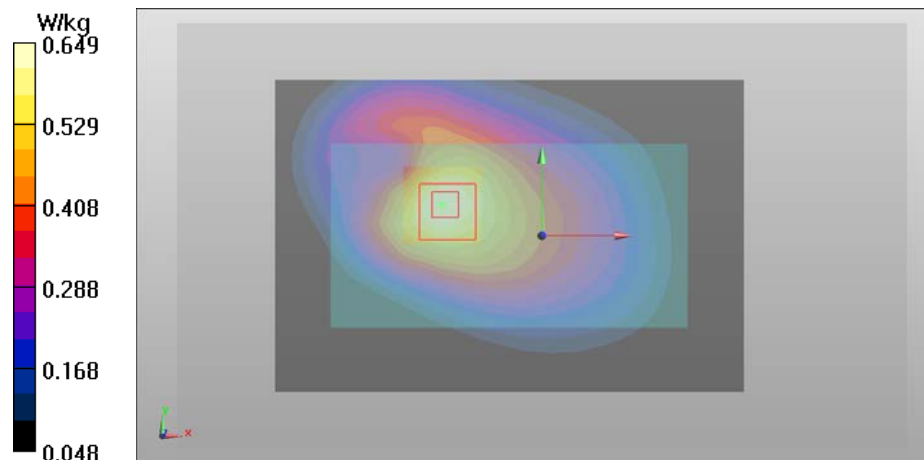
Peak SAR (extrapolated) = 0.757 W/kg

SAR(1 g) = 0.612 W/kg

SAR(10 g) = 0.463 W/kg

Power Drift = 0.03 dB

Maximum value of SAR (measured) = 0.649 W/kg



Plot #30

Date/Time: 2013-08-01 10:47:29 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: WCDMA850

Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: BSL835; Medium Notes: T21.5

Medium parameters used: $f = 847$ MHz; $\sigma = 0.995$ S/m; $\epsilon_r = 54.483$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

WCDMA850 (Band 5)/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan (81x121x1):

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

Fast SAR: SAR(1g) = 0.497 W/kg; SAR(10g) = 0.348 W/kg

Maximum value of SAR (interpolated) = 0.530 W/kg

WCDMA850 (Band 5)/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.598 V/m

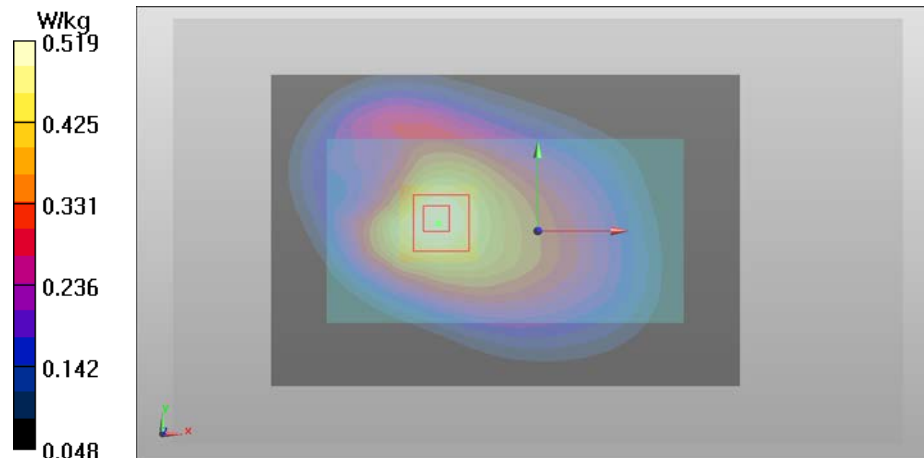
Peak SAR (extrapolated) = 0.609 W/kg

SAR(1 g) = 0.496 W/kg

SAR(10 g) = 0.375 W/kg

Power Drift = 0.03 dB

Maximum value of SAR (measured) = 0.519 W/kg



Plot #31

Date/Time: 2013-08-05 9:11:56 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4)

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: MSL1750; Medium Notes: T=21.5 C

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.448$ S/m; $\epsilon_r = 52.299$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(4.91, 4.91, 4.91); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: TF Phampton 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.9 (7117)

LTE1700/2100 (Band 4) /Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Fast SAR: SAR(1g) = 0.535 W/kg; SAR(10g) = 0.310 W/kg
Maximum value of SAR (interpolated) = 0.605 W/kg

LTE1700/2100 (Band 4) /Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - WH-902 - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

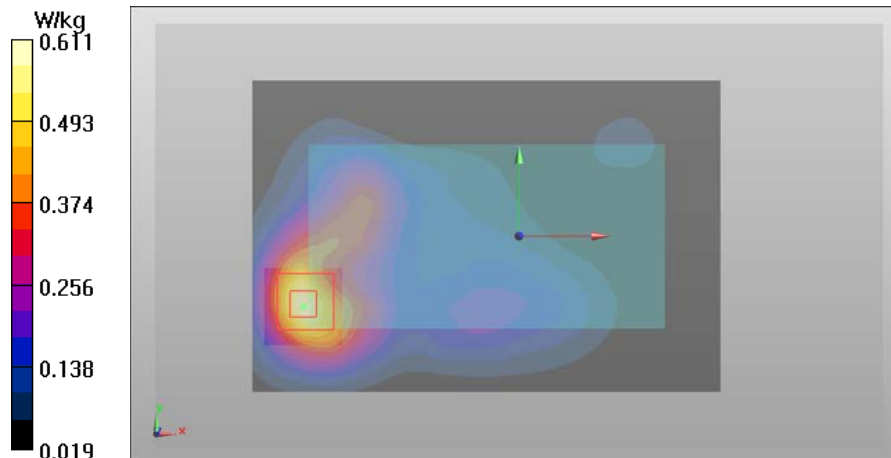
Reference Value = 21.132 V/m
Peak SAR (extrapolated) = 0.883 W/kg

SAR(1 g) = 0.547 W/kg

SAR(10 g) = 0.322 W/kg

Power Drift = -0.02 dB

Maximum value of SAR (measured) = 0.611 W/kg



Plot #32

Date/Time: 2013-08-03 11:36:35 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

Communication System: CDMA1900

Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T=21.5 C

Medium parameters used (interpolated): $f = 1851.25$ MHz; $\sigma = 1.437$ S/m; $\epsilon_r = 52.38$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: TF Phantom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.9 (7117)

CDMA1900/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom - Repeated/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Fast SAR: SAR(1g) = 0.940 W/kg; SAR(10g) = 0.512 W/kg
Maximum value of SAR (interpolated) = 1.08 W/kg

CDMA1900/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom - Repeated/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

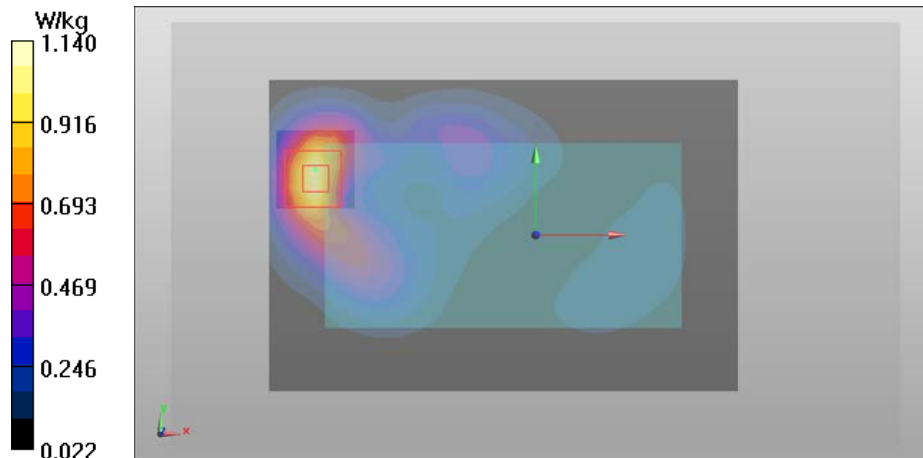
Reference Value = 28.041 V/m
Peak SAR (extrapolated) = 1.76 W/kg

SAR(1 g) = 1.03 W/kg

SAR(10 g) = 0.562 W/kg

Power Drift = 0.15 dB

Maximum value of SAR (measured) = 1.14 W/kg



Plot #33

Date/Time: 2013-08-01 3:14:52 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: 2-slot GPRS1900

Frequency: 1850.2 MHz; Duty Cycle: 1:4.19952

Medium: MSL1900; Medium Notes: T=21.5 C

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.438$ S/m; $\epsilon_r = 52.801$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: TF Phampton 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.9 (7117)

2-slot GPRS1900/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan (81x121x1):

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

Fast SAR: SAR(1g) = 0.373 W/kg; SAR(10g) = 0.220 W/kg

Maximum value of SAR (interpolated) = 0.424 W/kg

2-slot GPRS1900/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom/Zoom Scan (6x6x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.498 V/m

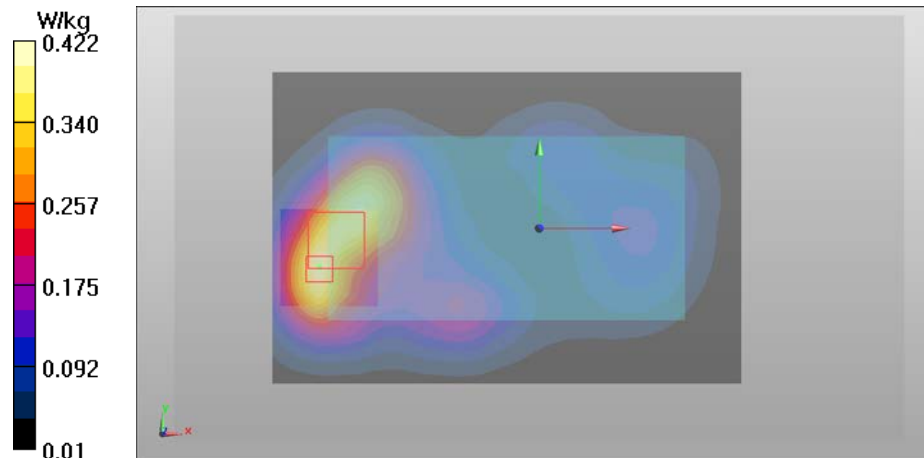
Peak SAR (extrapolated) = 0.604 W/kg

SAR(1 g) = 0.381 W/kg

SAR(10 g) = 0.232 W/kg

Power Drift = -0.06 dB

Maximum value of SAR (measured) = 0.422 W/kg



Plot #34

Date/Time: 2013-08-02 4:39:51 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: WCDMA1900 (Band 2)

Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T=21.5 C

Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.436$ S/m; $\epsilon_r = 52.532$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.9 (7117)

WCDMA1900 (Band 2)/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Fast SAR: SAR(1g) = 0.599 W/kg; SAR(10g) = 0.350 W/kg
Maximum value of SAR (interpolated) = 0.678 W/kg

WCDMA1900 (Band 2)/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

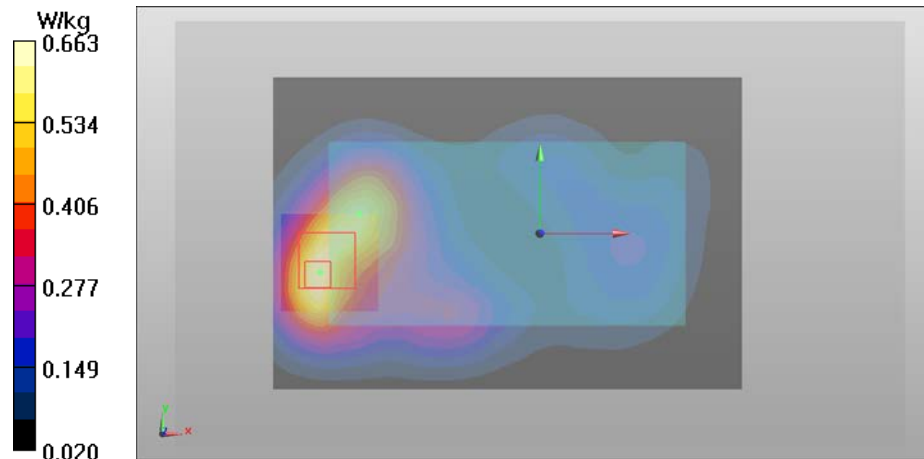
Reference Value = 8.245 V/m
Peak SAR (extrapolated) = 0.944 W/kg

SAR(1 g) = 0.603 W/kg

SAR(10 g) = 0.373 W/kg

Power Drift = -0.12 dB

Maximum value of SAR (measured) = 0.663 W/kg



Plot #35

Date/Time: 2013-08-06 10:44:56 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

Communication System: WLAN2450 b-mode

Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: MSL2450; Medium Notes: T=21.5

Medium parameters used: $f = 2412$ MHz; $\sigma = 1.879$ S/m; $\epsilon_r = 50.815$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

WLAN2450 b-mode/Body - Channel 1 - DSSS 1 Mbps - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Fast SAR: SAR(1g) = 0.0794 W/kg; SAR(10g) = 0.0407 W/kg
Maximum value of SAR (interpolated) = 0.0886 W/kg

WLAN2450 b-mode/Body - Channel 1 - DSSS 1 Mbps - Spacer 15mm - WH-902 - Display Facing Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

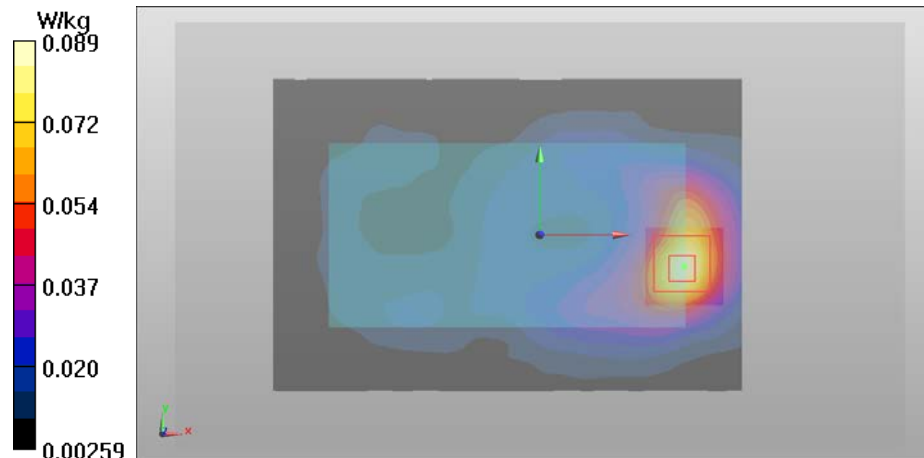
Reference Value = 6.844 V/m
Peak SAR (extrapolated) = 0.137 W/kg

SAR(1 g) = 0.080 W/kg

SAR(10 g) = 0.044 W/kg

Power Drift = 0.11 dB

Maximum value of SAR (measured) = 0.0888 W/kg



Plot #36

Date/Time: 2013-08-07 6:51:24 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode

Frequency: 5300 MHz; Duty Cycle: 1:1

Medium: MSL5000; Medium Notes: T=21.5

Medium parameters used: $f = 5300$ MHz; $\sigma = 5.519$ S/m; $\epsilon_r = 48.418$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(4.34, 4.34, 4.34); Calibrated: 2013-01-23;
- Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.9 (7117)

WLAN5000 a-mode/Body - Channel 60 - OFDM 6 Mbps - Spacer 15mm - No Headset - Back Facing

Phantom/Area Scan (121x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Fast SAR: SAR(1g) = 0.0721 W/kg; SAR(10g) = 0.0279 W/kg

Maximum value of SAR (interpolated) = 0.133 W/kg

WLAN5000 a-mode/Body - Channel 60 - OFDM 6 Mbps - Spacer 15mm - No Headset - Back Facing

Phantom/Zoom Scan (9x9x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 5.303 V/m

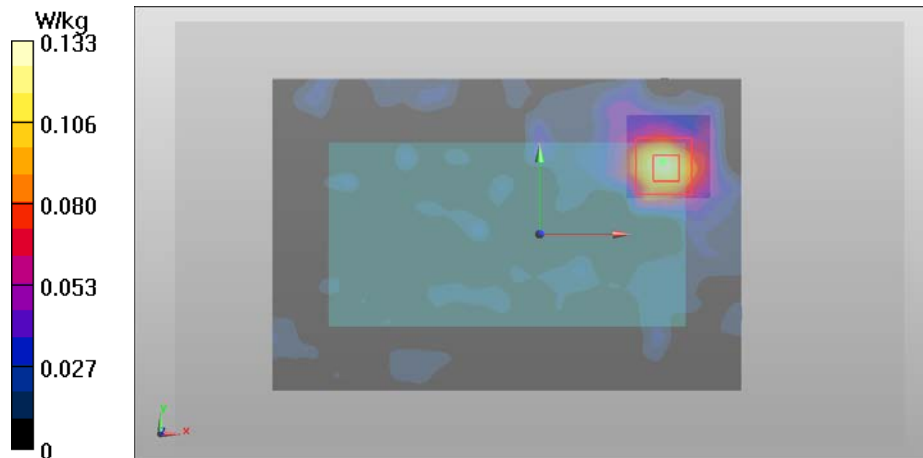
Peak SAR (extrapolated) = 0.217 W/kg

SAR(1 g) = 0.067 W/kg

SAR(10 g) = 0.026 W/kg

Power Drift = -0.01 dB

Maximum value of SAR (measured) = 0.133 W/kg



Plot #37

Date/Time: 2013-08-06 10:13:27 AM

DASY Configuration for LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1RB - 50% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.975$ S/m; $\epsilon_r = 54.713$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.16, 6.16, 6.16); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-06 10:20:19 AM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

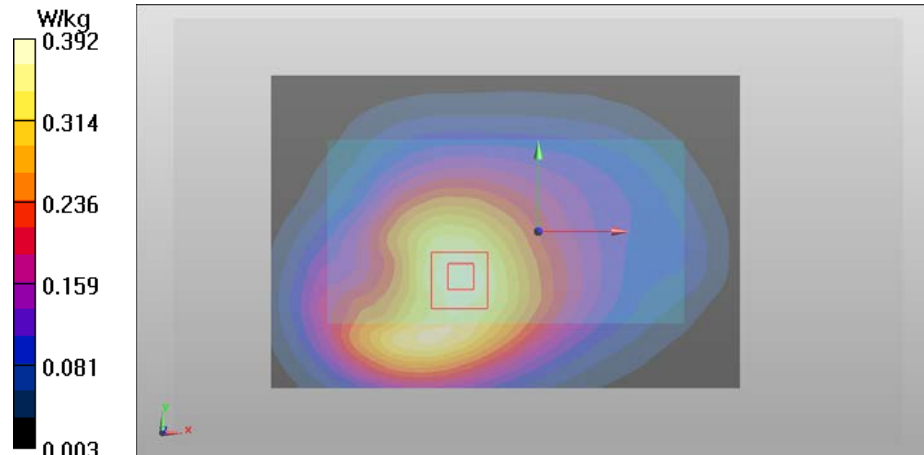
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.369 W/kg; SAR(10 g) = 0.261 W/kg

Maximum value of SAR (interpolated) = 0.392 W/kg

WLAN2450 b-mode was scaled with factor 1.14, LTE750 (Band 13) with factor 1.07, before combining in SEMCAD SW.



Plot #38

Date/Time: 2013-08-05 9:42:21 AM

DASY Configuration for CDMA800/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800; Frequency: 848.31 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL835 Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.495$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-06 10:20:19 AM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

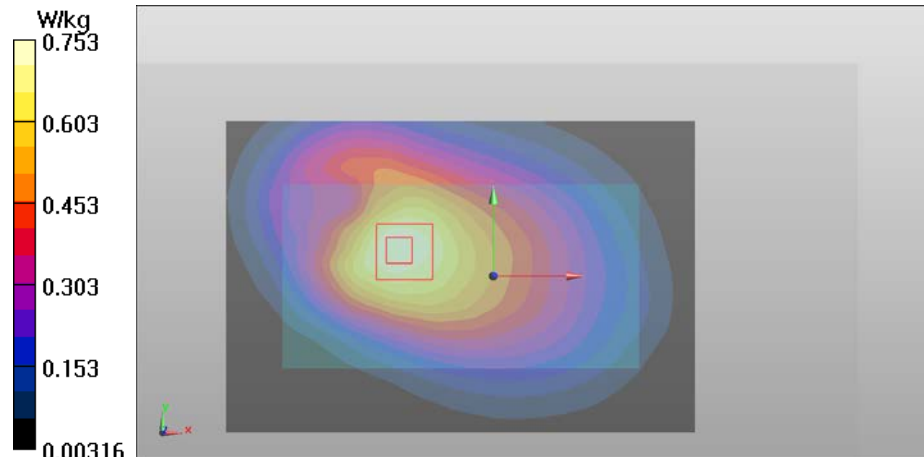
Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.709 W/kg; SAR(10 g) = 0.496 W/kg
Maximum value of SAR (interpolated) = 0.753 W/kg

WLAN2450 b-mode was scaled with factor 1.14, CDMA800 with factor 1.03, before combining in SEMCAD SW.



Plot #39

Date/Time: 2013-08-05 9:16:23 PM

DASY Configuration for 2-slot GPRS850/Body - High - Spacer 15mm - No Headset - Display Facing

Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: 2-slot GPRS850; Frequency: 848.8 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: BSL835 Medium parameters used: $f = 849$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.493$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-06 10:20:19 AM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

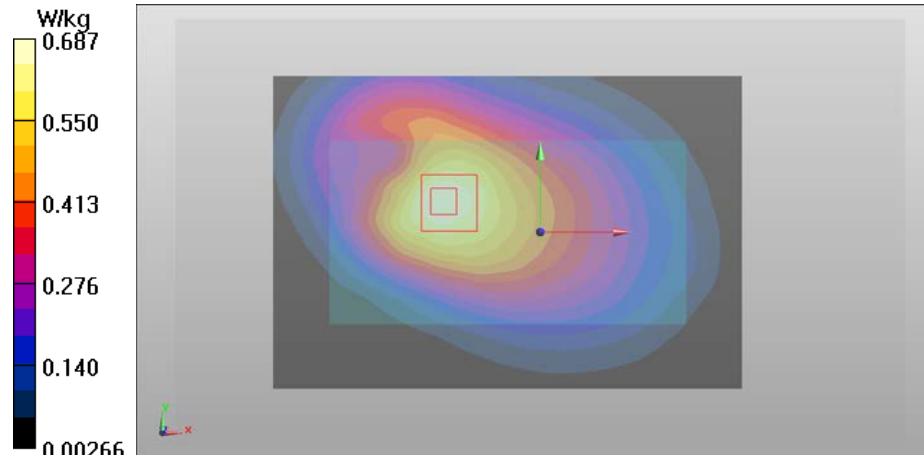
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.645 W/kg; SAR(10 g) = 0.450 W/kg

Maximum value of SAR (interpolated) = 0.687 W/kg

WLAN2450 b-mode was scaled with factor 1.14, 2-slot GPRS850 with factor 1.04, before combining in SEMCAD SW.



Plot #40

Date/Time: 2013-08-01 10:47:29 AM

DASY Configuration for WCDMA850 (Band 5)/Body - High - Spacer 15mm - No Headset - Display Facing

Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: WCDMA850; Frequency: 846.6 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL835 Medium parameters used: $f = 847$ MHz; $\sigma = 0.995$ S/m; $\epsilon_r = 54.483$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-06 10:20:19 AM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 15mm - No Headset -

Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

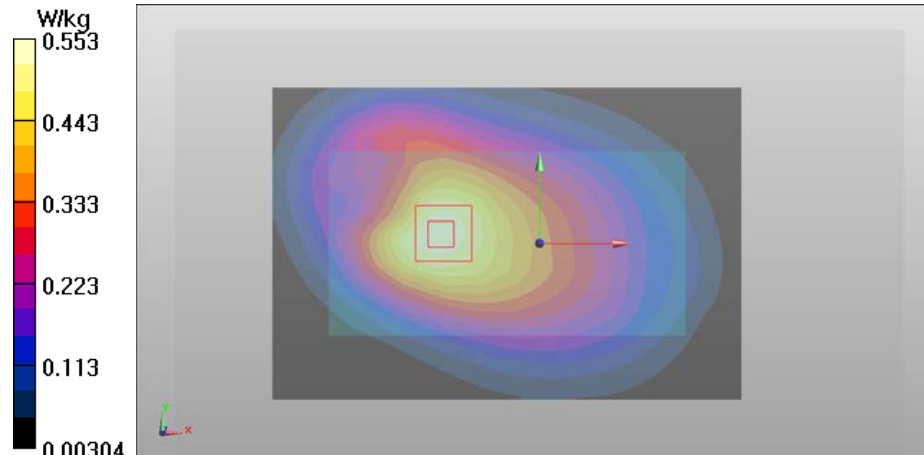
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.518 W/kg; SAR(10 g) = 0.362 W/kg

Maximum value of SAR (interpolated) = 0.553 W/kg

WLAN2450 b-mode was scaled with factor 1.14, WCDMA850 (Band 5) with factor 1.03, before combining in SEMCAD SW.



Plot #41

Date/Time: 2013-08-05 9:11:56 AM

DASY Configuration for LTE1700/2100 (Band 4) /Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.448$ S/m; $\epsilon_r = 52.299$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.91, 4.91, 4.91); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-06 10:44:56 AM

DASY Configuration for WLAN2450 b-mode/Body - Channel 1 - DSSS 1 Mbps - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

Communication System: WLAN2450 b-mode; Frequency: 2412 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.879$ S/m; $\epsilon_r = 50.815$; $\rho = 1000$ kg/m³

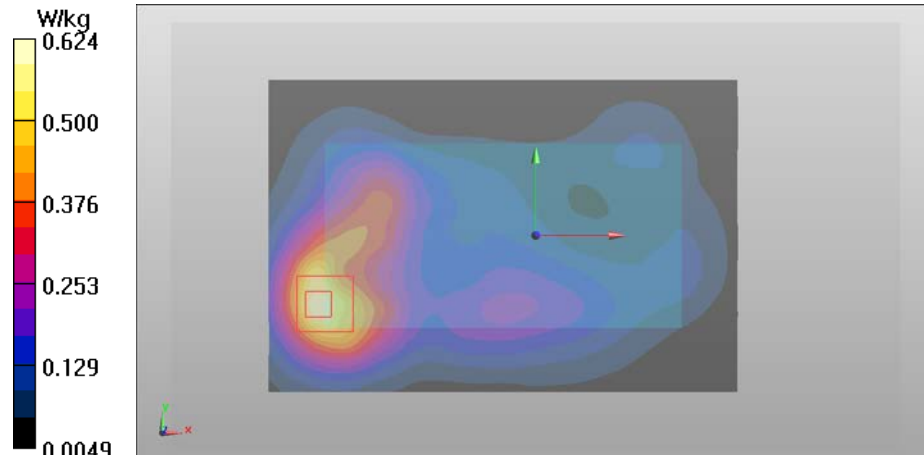
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.555 W/kg; SAR(10 g) = 0.321 W/kg

Maximum value of SAR (interpolated) = 0.624 W/kg

WLAN2450 b-mode was scaled with factor 1.11, LTE1700/2100 (Band 4) with factor 1.02, before combining in SEMCAD SW.



Plot #42

Date/Time: 2013-08-03 11:36:35 AM

DASY Configuration for CDMA1900/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom - Repeated/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

Communication System: CDMA1900; Frequency: 1851.25 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used (interpolated): $f = 1851.25$ MHz; $\sigma = 1.437$ S/m; $\epsilon_r = 52.38$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: E53DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (5)

Date/Time: 2013-08-06 10:20:19 AM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

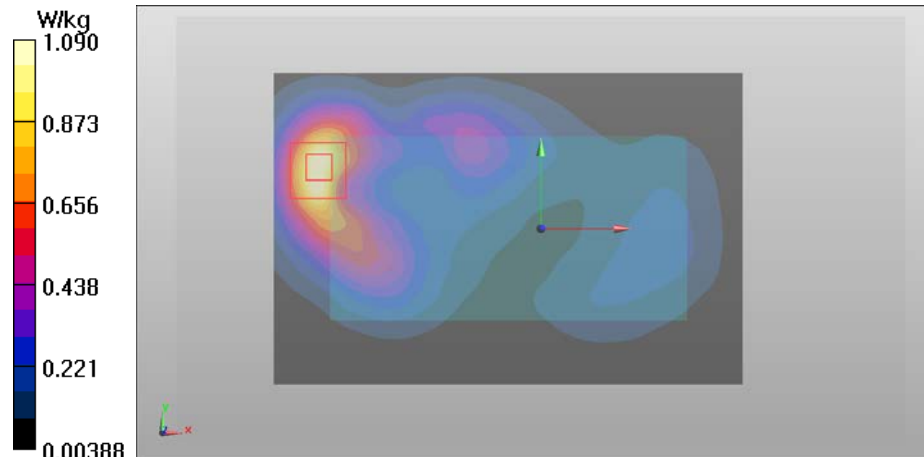
Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.960 W/kg; SAR(10 g) = 0.521 W/kg
Maximum value of SAR (interpolated) = 1.09 W/kg

WLAN2450 b-mode was scaled with factor 1.14, CDMA1900 with factor 1.01, before combining in SEMCAD SW.



Plot #43

Date/Time: 2013-08-01 3:14:52 PM

DASY Configuration for 2-slot GPRS1900/Body - Low - Spacer 15mm - No Headset - Display Facing

Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: 2-slot GPRS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: MSL1900 Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.438$ S/m; $\epsilon_r = 52.801$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-06 10:20:19 AM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

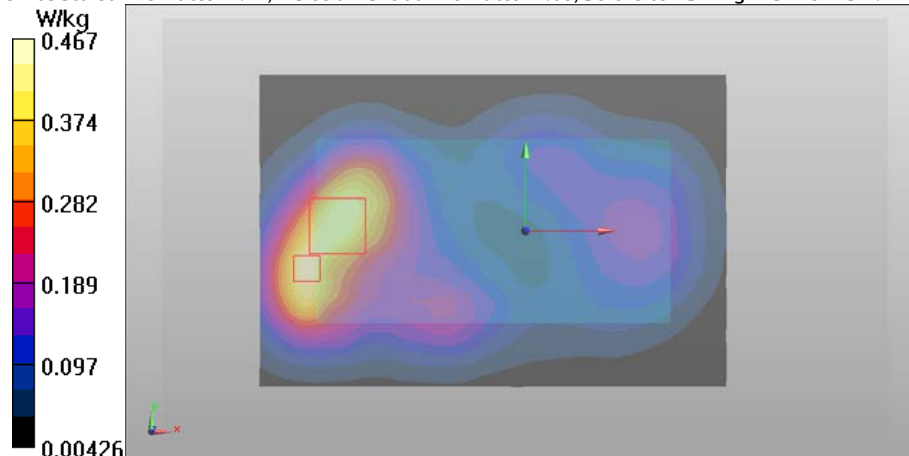
Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.412 W/kg; SAR(10 g) = 0.242 W/kg
Maximum value of SAR (interpolated) = 0.467 W/kg

WLAN2450 b-mode was scaled with factor 1.14, 2-slot GPRS1900 with factor 1.08, before combining in SEMCAD SW.



Plot #44

Date/Time: 2013-08-02 4:39:51 PM

DASY Configuration for WCDMA1900 (Band 2)/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: WCDMA1900 (Band 2); Frequency: 1852.4 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.436$ S/m; $\epsilon_r = 52.532$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-06 10:20:19 AM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

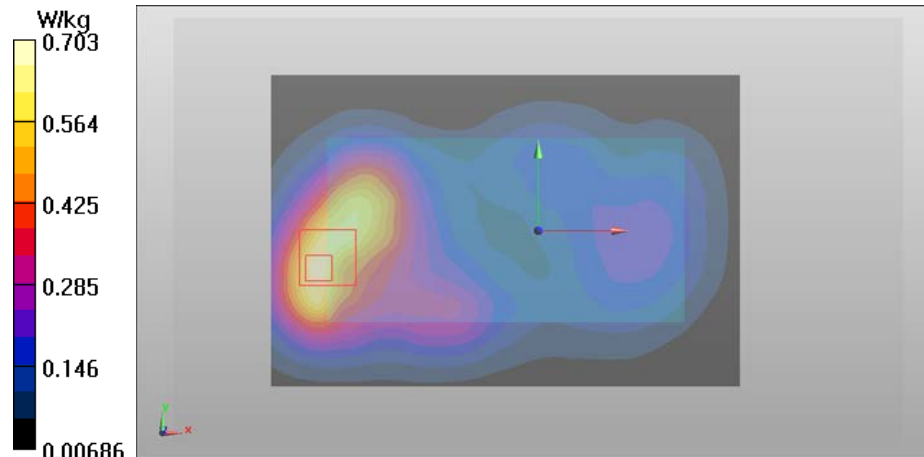
Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.622 W/kg; SAR(10 g) = 0.361 W/kg
Maximum value of SAR (interpolated) = 0.703 W/kg

WLAN2450 b-mode was scaled with factor 1.14, WCDMA1900 (Band 2) with factor 1.02, before combining in SEMCAD SW.



Plot #45

Date/Time: 2013-08-06 9:48:06 AM

DASY Configuration for LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1RB - 50% offset - Spacer 15mm - No Headset - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.975$ S/m; $\epsilon_r = 54.713$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.16, 6.16, 6.16); Calibrated: 2013-01-22;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-07 6:51:24 PM

DASY Configuration for WLAN5000 a-mode/Body - Channel 60 - OFDM 6 Mbps - Spacer 15mm - No Headset - Back Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5300 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5300$ MHz; $\sigma = 5.519$ S/m; $\epsilon_r = 48.418$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(4.34, 4.34, 4.34); Calibrated: 2013-01-23;

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

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

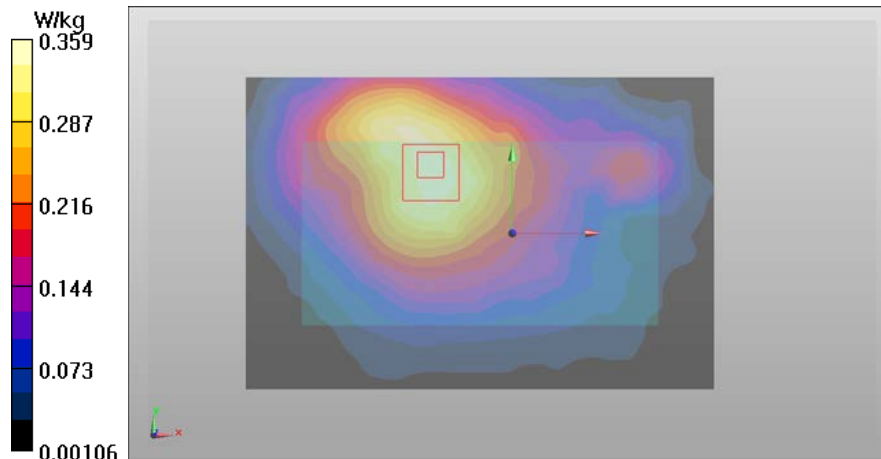
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.328 W/kg; SAR(10 g) = 0.236 W/kg

Maximum value of SAR (interpolated) = 0.359 W/kg

WLAN5000 a-mode was scaled with factor 1.15, LTE750 (Band 13) with factor 1.07, before combining in SEMCAD SW.



Plot #46

Date/Time: 2013-08-05 9:42:21 AM

DASY Configuration for CDMA800/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800; Frequency: 848.31 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL835 Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.495$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-09 8:12:01 AM

DASY Configuration for WLAN5000 a-mode/Body - Channel 100 - OFDM 6 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

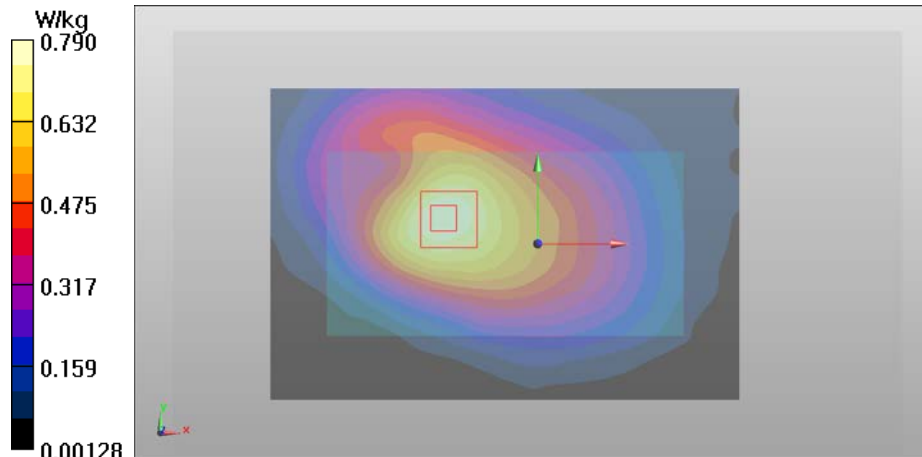
Medium: MSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 5.817$ S/m; $\epsilon_r = 47.932$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(4.07, 4.07, 4.07); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.725 W/kg; SAR(10 g) = 0.502 W/kg
Maximum value of SAR (interpolated) = 0.790 W/kg

WLAN5000 a-mode was scaled with factor 1.15, CDMA800 with factor 1.03, before combining in SEMCAD SW.



Plot #47

Date/Time: 2013-08-05 9:16:23 PM

DASY Configuration for 2-slot GPRS850/Body - High - Spacer 15mm - No Headset - Display Facing

Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: 2-slot GPRS850; Frequency: 848.8 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: BSL835 Medium parameters used: $f = 849$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.493$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-09 8:12:01 AM

DASY Configuration for WLAN5000 a-mode/Body - Channel 100 - OFDM 6 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 5.817$ S/m; $\epsilon_r = 47.932$; $\rho = 1000$ kg/m³

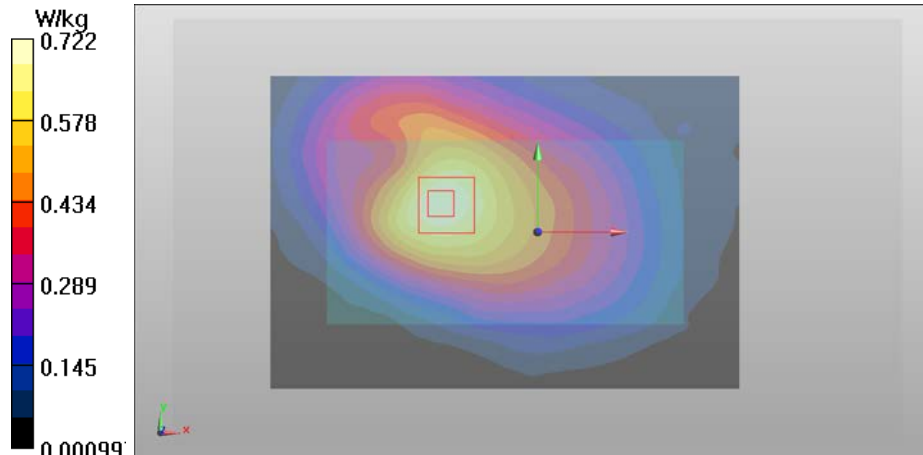
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(4.07, 4.07, 4.07); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.660 W/kg; SAR(10 g) = 0.456 W/kg

Maximum value of SAR (interpolated) = 0.722 W/kg

WLAN5000 a-mode was scaled with factor 1.15, 2-slot GPRS850 with factor 1.04, before combining in SEMCAD SW.



Plot #48

Date/Time: 2013-08-01 10:47:29 AM

DASY Configuration for WCDMA850 (Band 5)/Body - High - Spacer 15mm - No Headset - Display Facing

Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: WCDMA850; Frequency: 846.6 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL835 Medium parameters used: $f = 847$ MHz; $\sigma = 0.995$ S/m; $\epsilon_r = 54.483$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-09 8:12:01 AM

DASY Configuration for WLAN5000 a-mode/Body - Channel 100 - OFDM 6 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 5.817$ S/m; $\epsilon_r = 47.932$; $\rho = 1000$ kg/m³

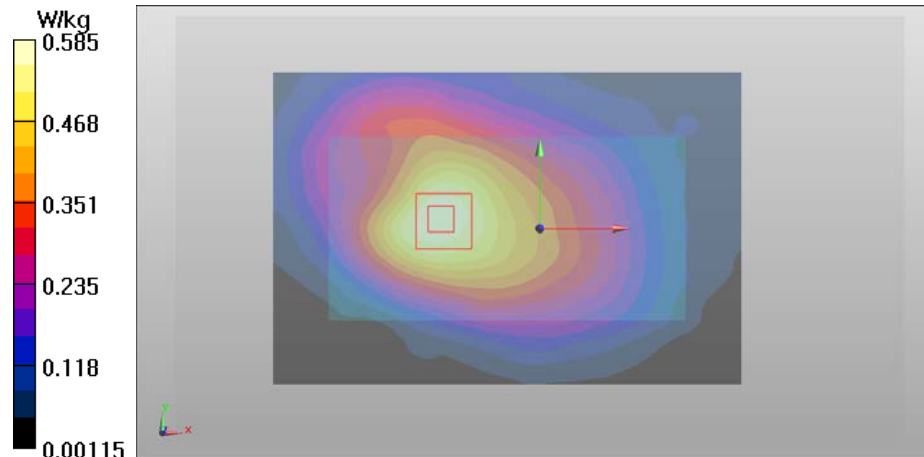
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(4.07, 4.07, 4.07); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.534 W/kg; SAR(10 g) = 0.370 W/kg

Maximum value of SAR (interpolated) = 0.585 W/kg

WLAN5000 a-mode was scaled with factor 1.15, WCDMA1900 (Band 2) with factor 1.02, before combining in SEMCAD SW.



Plot #49

Date/Time: 2013-08-05 9:11:56 AM

DASY Configuration for LTE1700/2100 (Band 4) /Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.448$ S/m; $\epsilon_r = 52.299$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.91, 4.91, 4.91); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-08 12:22:27 PM

DASY Configuration for WLAN5000 a-mode/Body - Channel 60 - OFDM 6 Mbps - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5300 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5300$ MHz; $\sigma = 5.519$ S/m; $\epsilon_r = 48.418$; $\rho = 1000$ kg/m³

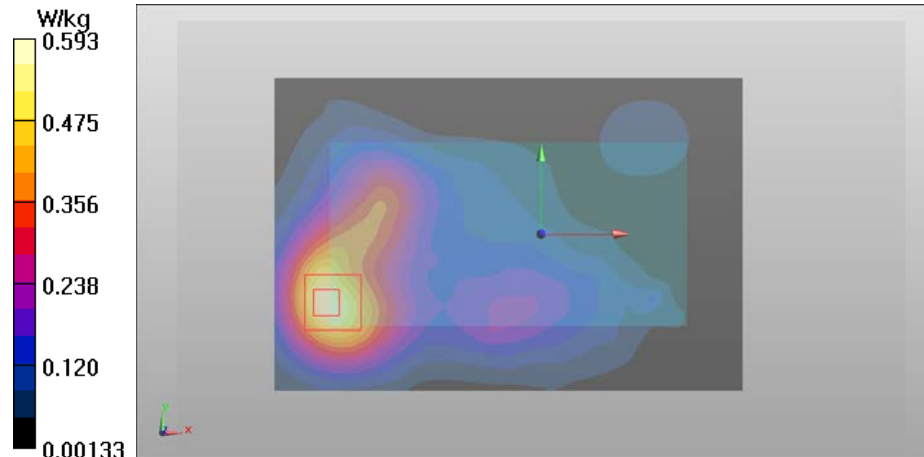
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(4.34, 4.34, 4.34); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.536 W/kg; SAR(10 g) = 0.317 W/kg

Maximum value of SAR (interpolated) = 0.593 W/kg

WLAN5000 a-mode was scaled with factor 1.15, LTE1700/2100 (Band 4) with factor 1.02, before combining in SEMCAD SW.



Plot #50

Date/Time: 2013-08-03 11:36:35 AM

DASY Configuration for CDMA1900/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom - Repeated/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

Communication System: CDMA1900; Frequency: 1851.25 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used (interpolated): $f = 1851.25$ MHz; $\sigma = 1.437$ S/m; $\epsilon_r = 52.38$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (5)

Date/Time: 2013-08-09 8:12:01 AM

DASY Configuration for WLAN5000 a-mode/Body - Channel 100 - OFDM 6 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

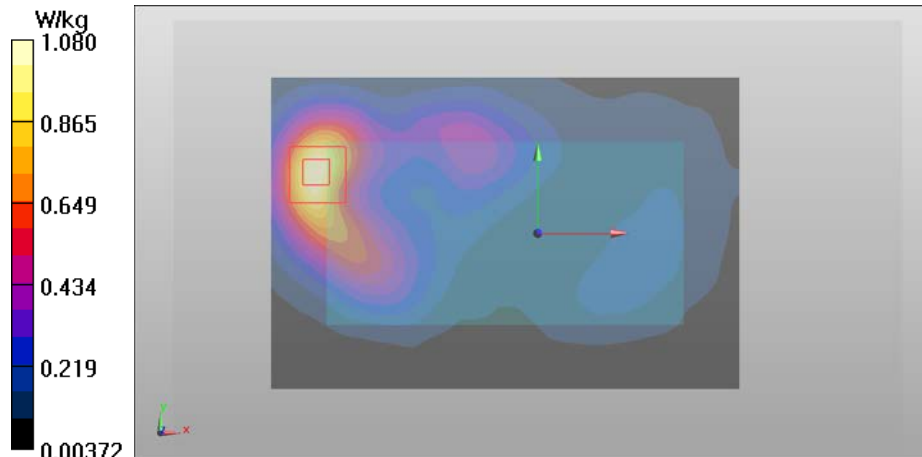
Medium: MSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 5.817$ S/m; $\epsilon_r = 47.932$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(4.07, 4.07, 4.07); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.948 W/kg; SAR(10 g) = 0.520 W/kg
Maximum value of SAR (interpolated) = 1.08 W/kg

WLAN5000 a-mode was scaled with factor 1.15, CDMA1900 with factor 1.01, before combining in SEMCAD SW.



Plot #51

Date/Time: 2013-08-01 3:14:52 PM

DASY Configuration for 2-slot GPRS1900/Body - Low - Spacer 15mm - No Headset - Display Facing

Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: 2-slot GPRS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: MSL1900 Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.438$ S/m; $\epsilon_r = 52.801$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phamptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-09 8:12:01 AM

DASY Configuration for WLAN5000 a-mode/Body - Channel 100 - OFDM 6 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 5.817$ S/m; $\epsilon_r = 47.932$; $\rho = 1000$ kg/m³

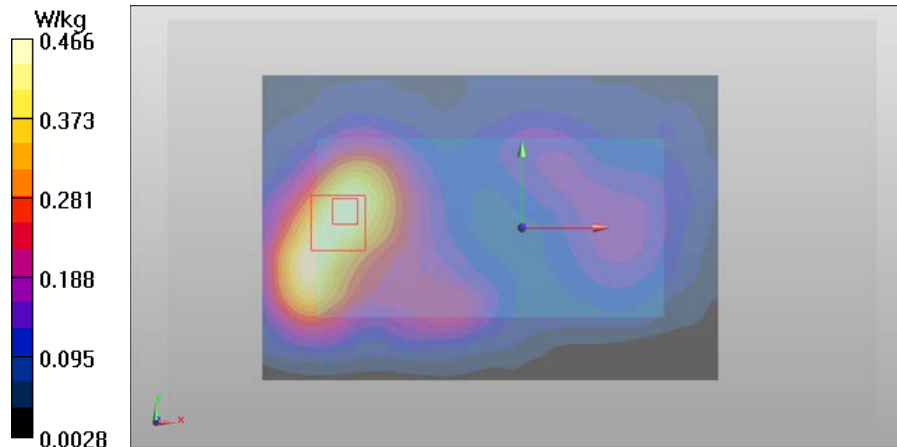
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(4.07, 4.07, 4.07); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.414 W/kg; SAR(10 g) = 0.249 W/kg

Maximum value of SAR (interpolated) = 0.466 W/kg

WLAN5000 a-mode was scaled with factor 1.15, 2-slot GPRS1900 with factor 1.02, before combining in SEMCAD SW.



Plot #52

Date/Time: 2013-08-02 4:39:51 PM

DASY Configuration for WCDMA1900 (Band 2)/Body - Low - Spacer 15mm - No Headset - Display Facing

Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: WCDMA1900 (Band 2); Frequency: 1852.4 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.436$ S/m; $\epsilon_r = 52.532$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-09 8:12:01 AM

DASY Configuration for WLAN5000 a-mode/Body - Channel 100 - OFDM 6 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

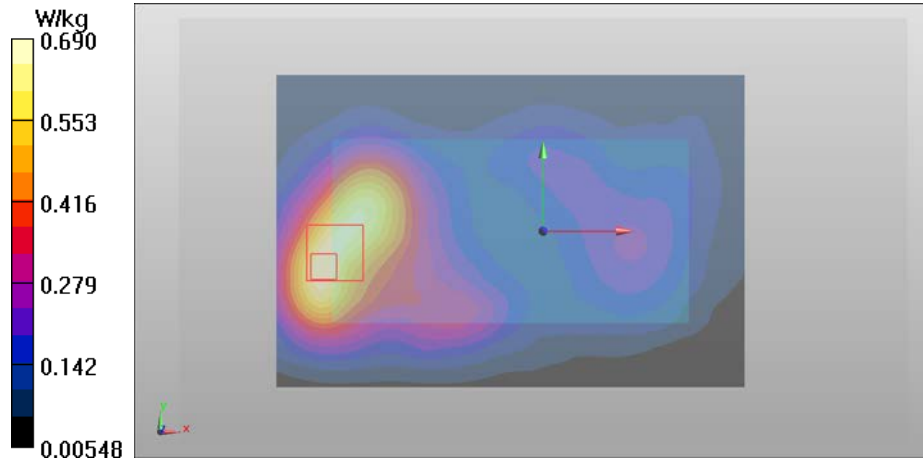
Medium: MSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 5.817$ S/m; $\epsilon_r = 47.932$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(4.07, 4.07, 4.07); Calibrated: 2013-01-23;
Sensor-Surface: 2mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.616 W/kg; SAR(10 g) = 0.367 W/kg
Maximum value of SAR (interpolated) = 0.690 W/kg

WLAN5000 a-mode was scaled with factor 1.15, WCDMA1900 (Band 2) with factor 1.02, before combining in SEMCAD SW.



Plot #53

Date/Time: 2013-08-06 1:56:07 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: LTE750 (Band 13)

Frequency: 782 MHz; Duty Cycle: 1:1

Medium: BSL750; Medium Notes: T21.5

Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.975 \text{ S/m}$; $\epsilon_r = 54.713$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.16, 6.16, 6.16); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

LTE750 (Band 13) 3/Body - Middle - QPSK - 10MHz - 1RB - 50% offset - Spacer 10mm - No Headset - Right Edge Facing Phantom/Area Scan (41x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Fast SAR: SAR(1g) = 0.591 W/kg; SAR(10g) = 0.365 W/kg
Maximum value of SA1R (interpolated) = 0.657 W/kg

LTE750 (Band 13) 3/Body - Middle - QPSK - 10MHz - 1RB - 50% offset - Spacer 10mm - No Headset - Right Edge Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

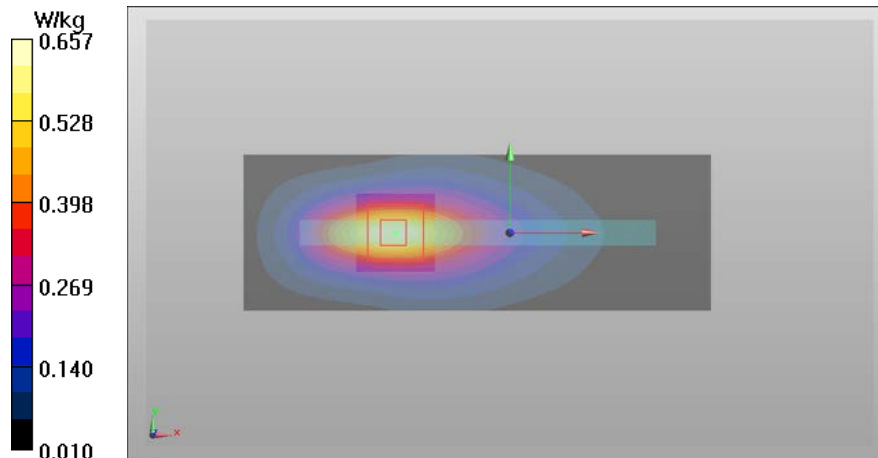
Reference Value = 14.963 V/m
Peak SAR (extrapolated) = 1.01 W/kg

SAR(1 g) = 0.598 W/kg

SAR(10 g) = 0.347 W/kg

Power Drift = -0.00 dB

Maximum value of SAR (measured) = 0.662 W/kg



Plot #54

Date/Time: 2013-08-05 10:59:55 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800

Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: BSL835; Medium Notes: T21.5

Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.495$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

CDMA800/Body - High - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan (81x121x1):

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

Fast SAR: SAR(1g) = 0.908 W/kg; SAR(10g) = 0.623 W/kg

Maximum value of SAR (interpolated) = 0.981 W/kg

CDMA800/Body - High - Spacer 10mm - No Headset - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 22.499 V/m

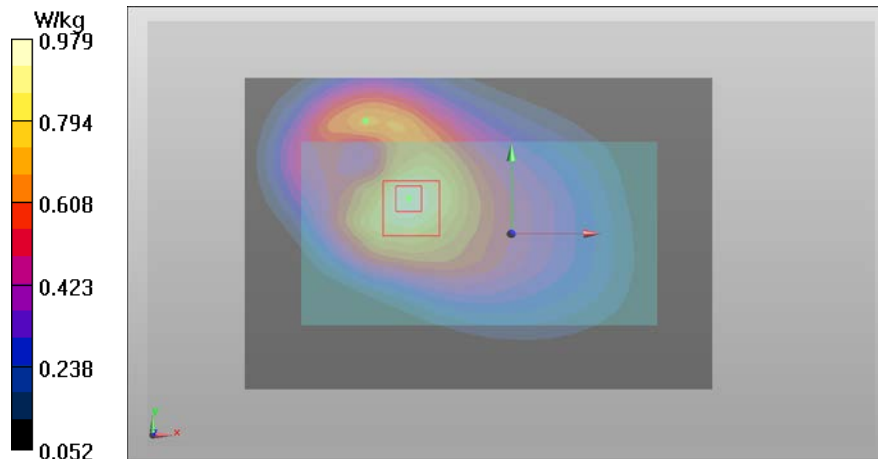
Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.921 W/kg

SAR(10 g) = 0.682 W/kg

Power Drift = -0.00 dB

Maximum value of SAR (measured) = 0.979 W/kg



Plot #55

Date/Time: 2013-08-05 5:43:55 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: 2-slot GPRS850

Frequency: 848.8 MHz; Duty Cycle: 1:4.19952

Medium: BSL835; Medium Notes: T21.5

Medium parameters used: $f = 849$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.493$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

2-slot GPRR850/Body - High - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan (81x121x1):

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

Fast SAR: SAR(1g) = 0.959 W/kg; SAR(10g) = 0.653 W/kg

Maximum value of SAR (interpolated) = 1.04 W/kg

2-slot GPRR850/Body - High - Spacer 10mm - No Headset - Display Facing Phantom/Zoom Scan (6x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 21.920 V/m

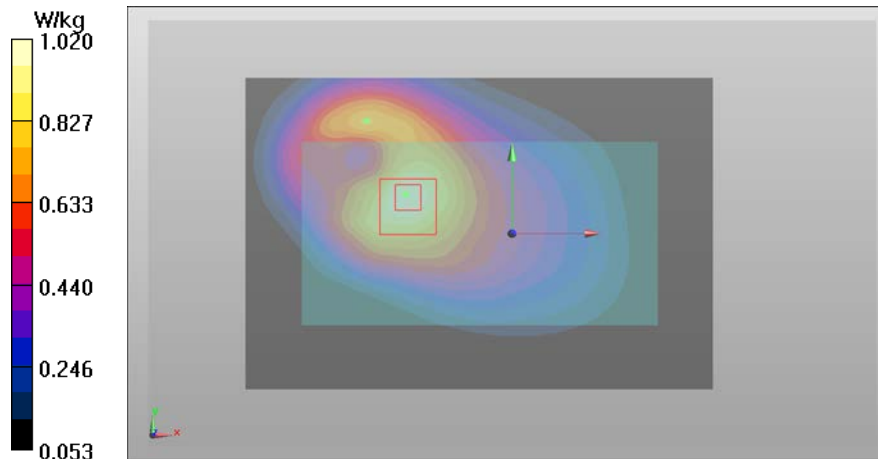
Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.961 W/kg

SAR(10 g) = 0.710 W/kg

Power Drift = -0.03 dB

Maximum value of SAR (measured) = 1.02 W/kg



Plot #56

Date/Time: 2013-08-01 12:44:04 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: WCDMA850

Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium: BSL835; Medium Notes: T21.5

Medium parameters used: $f = 847$ MHz; $\sigma = 0.995$ S/m; $\epsilon_r = 54.483$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

WCDMA850 (Band 5)/Body - High - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan (81x121x1):

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

Fast SAR: SAR(1g) = 0.637 W/kg; SAR(10g) = 0.452 W/kg

Maximum value of SAR (interpolated) = 0.679 W/kg

WCDMA850 (Band 5)/Body - High - Spacer 10mm - No Headset - Display Facing Phantom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 19.298 V/m

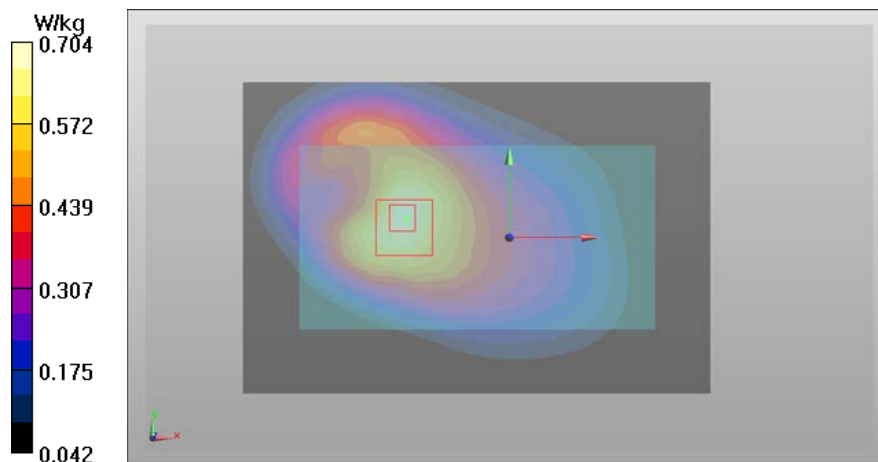
Peak SAR (extrapolated) = 0.832 W/kg

SAR(1 g) = 0.667 W/kg

SAR(10 g) = 0.497 W/kg

Power Drift = -0.01 dB

Maximum value of SAR (measured) = 0.704 W/kg



Plot #57

Date/Time: 2013-08-06 11:37:54 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4)

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: MSL1750; Medium Notes: T=21.5 C

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.448$ S/m; $\epsilon_r = 52.167$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(4.91, 4.91, 4.91); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.10 (7164)

LTE1700/2100 (Band 4) /Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 10mm - No Headset - Display Facing Phantom - Repeated/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Fast SAR: SAR(1g) = 0.995 W/kg; SAR(10g) = 0.559 W/kg
Maximum value of SAR (interpolated) = 1.16 W/kg

LTE1700/2100 (Band 4) /Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 10mm - No Headset - Display Facing Phantom - Repeated/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

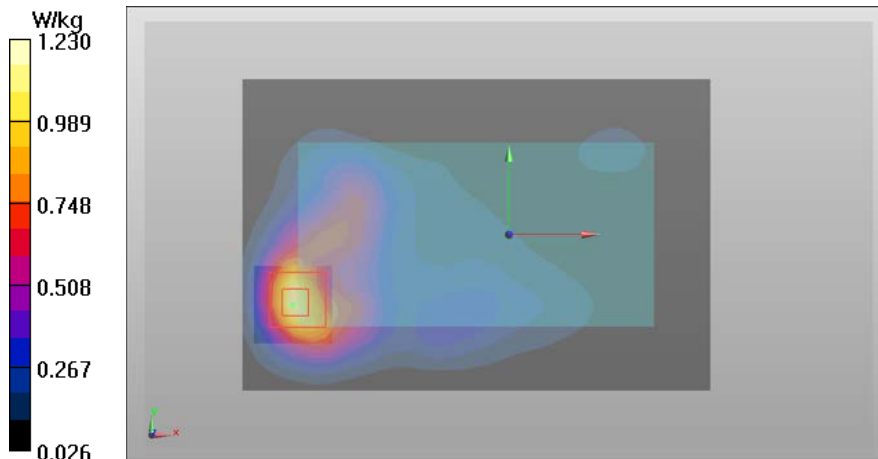
Reference Value = 30.047 V/m
Peak SAR (extrapolated) = 1.85 W/kg

SAR(1 g) = 1.08 W/kg

SAR(10 g) = 0.593 W/kg

Power Drift = 0.01 dB

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



Plot #58

Date/Time: 2013-08-03 1:03:05 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001239/1

Communication System: CDMA1900

Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T=21.5 C

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.467$ S/m; $\epsilon_r = 52.243$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

CDMA1900 2/Body - Middle - Spacer 10mm - No Headset - Bottom Edge Facing Phantom - Repeated/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Fast SAR: SAR(1g) = 0.853 W/kg; SAR(10g) = 0.412 W/kg
Maximum value of SAR (interpolated) = 1.04 W/kg

CDMA1900 2/Body - Middle - Spacer 10mm - No Headset - Bottom Edge Facing Phantom - Repeated/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

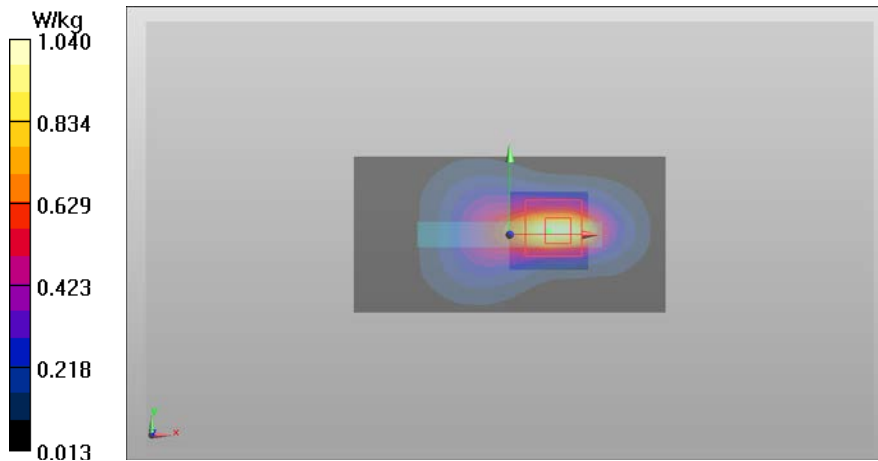
Reference Value = 26.978 V/m
Peak SAR (extrapolated) = 1.76 W/kg

SAR(1 g) = 0.939 W/kg

SAR(10 g) = 0.465 W/kg

Power Drift = -0.01 dB

Maximum value of SAR (measured) = 1.06 W/kg



Plot #59

Date/Time: 2013-08-01 7:55:47 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

Communication System: 2-slot GPRS1900

Frequency: 1850.2 MHz; Duty Cycle: 1:4.19952

Medium: MSL1900; Medium Notes: T=21.5 C

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.438$ S/m; $\epsilon_r = 52.801$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
- Phantom: TF Phantom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.10 (7164)

2-slot GPRR1900/Body - Low - Spacer 10mm - No Headset - Display Facing Phantom REPEATED SAR/Area Scan (81x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Fast SAR: SAR(1g) = 0.755 W/kg; SAR(10g) = 0.408 W/kg
Maximum value of SAR (interpolated) = 0.885 W/kg

2-slot GPRR1900/Body - Low - Spacer 10mm - No Headset - Display Facing Phantom REPEATED SAR/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

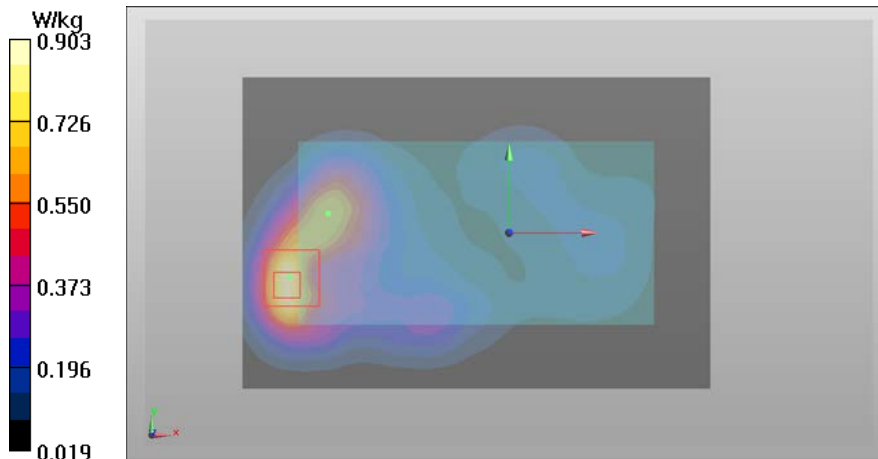
Reference Value = 25.219 V/m
Peak SAR (extrapolated) = 1.36 W/kg

SAR(1 g) = 0.803 W/kg

SAR(10 g) = 0.440 W/kg

Power Drift = 0.09 dB

Maximum value of SAR (measured) = 0.903 W/kg



Plot #60

Date/Time: 2013-08-02 9:16:08 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001239/1

Communication System: WCDMA1900 (Band 2)

Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: MSL1900; Medium Notes: T=21.5 C

Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.436$ S/m; $\epsilon_r = 52.532$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used)), Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: TF Phantom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
- Measurement SW: DASY52, Version 52.8 (6); SEMCAD X Version 14.6.10 (7164)

WCDMA1900/Body - Low - Spacer 10mm - No Headset - Bottom Edge Facing Phantom/Area Scan (41x81x1):

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

Fast SAR: SAR(1g) = 0.622 W/kg; SAR(10g) = 0.312 W/kg

Maximum value of SAR (interpolated) = 0.759 W/kg

WCDMA1900/Body - Low - Spacer 10mm - No Headset - Bottom Edge Facing Phantom/Zoom Scan (5x5x7)/Cube

0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 22.457 V/m

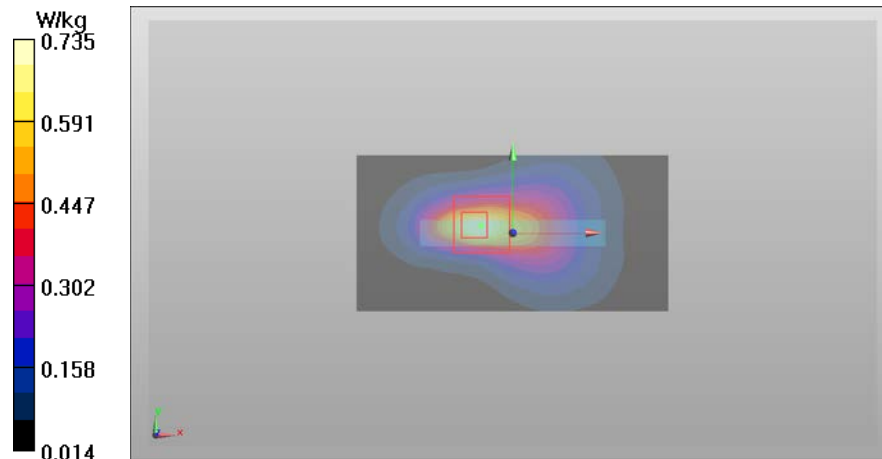
Peak SAR (extrapolated) = 1.19 W/kg

SAR(1 g) = 0.657 W/kg

SAR(10 g) = 0.338 W/kg

Power Drift = 0.12 dB

Maximum value of SAR (measured) = 0.735 W/kg



Plot #61

Date/Time: 2013-08-06 5:20:07 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 3559060012409

Communication System: WLAN2450 b-mode

Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: MSL2450; Medium Notes: T=21.5

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.93$ S/m; $\epsilon_r = 50.663$; $\rho = 1000$ kg/m³

Phantom section: Center Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

WLAN2450 b-mode/Body - Channel 11 - DSSS 1 Mbps - Spacer 10mm - No Headset - Top Edge Facing Phantom /Area Scan (61x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Fast SAR: SAR(1g) = 0.129 W/kg; SAR(10g) = 0.0592 W/kg
Maximum value of SAR (interpolated) = 0.154 W/kg

WLAN2450 b-mode/Body - Channel 11 - DSSS 1 Mbps - Spacer 10mm - No Headset - Top Edge Facing Phantom /Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

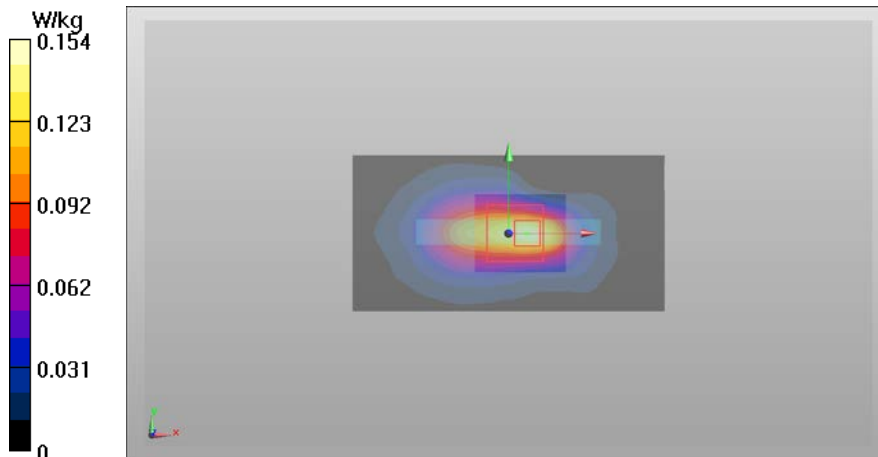
Reference Value = 8.386 V/m
Peak SAR (extrapolated) = 0.244 W/kg

SAR(1 g) = 0.132 W/kg

SAR(10 g) = 0.067 W/kg

Power Drift = 0.05 dB

Maximum value of SAR (measured) = 0.151 W/kg



Plot #62

Date/Time: 2013-08-06 1:56:07 PM

DASY Configuration for LTE750 (Band 13) /Body - Middle - QPSK - 10MHz - 1RB - 50% offset - Spacer 10mm - No Headset - Right Edge Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.975 \text{ S/m}$; $\epsilon_r = 54.713$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.16, 6.16, 6.16); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASYS2, Version 52.8 (1)

Date/Time: 2013-08-06 1:36:13 PM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 10mm - No Headset - Right Edge Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 3559060012409

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

Medium: MSL2450 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.904 \text{ S/m}$; $\epsilon_r = 50.742$; $\rho = 1000 \text{ kg/m}^3$

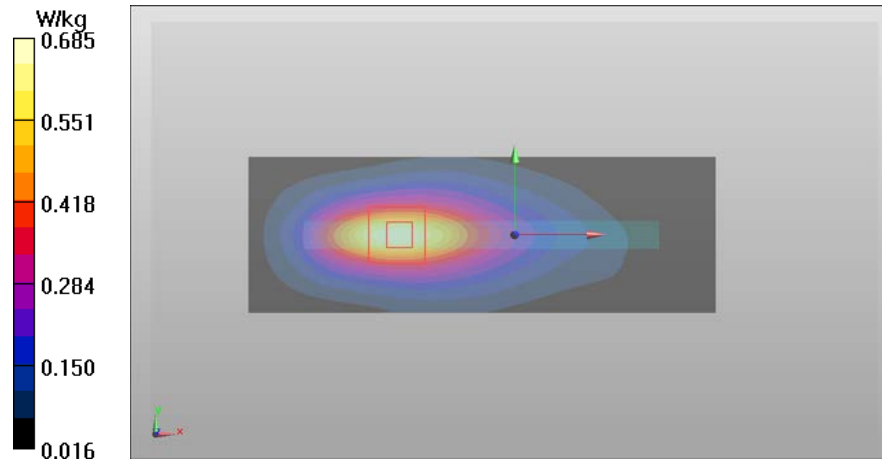
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASYS2, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.618 W/kg; SAR(10 g) = 0.380 W/kg

Maximum value of SAR (interpolated) = 0.685 W/kg

WLAN2450 b-mode was scaled with factor 1.14, LTE750 (Band 13) with factor 1.02, before combining in SEMCAD SW.



Plot #63

Date/Time: 2013-08-05 10:59:55 AM

DASY Configuration for CDMA800/Body - High - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800; Frequency: 848.31 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL835 Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.495$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-06 1:04:54 PM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

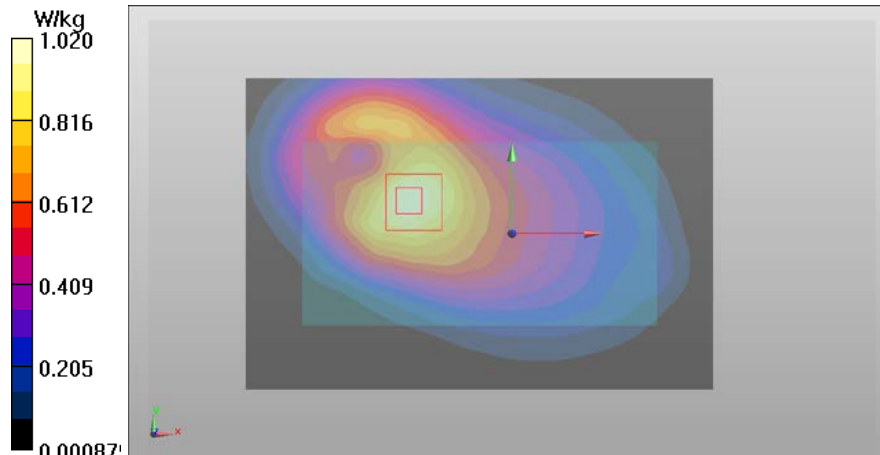
Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.948 W/kg; SAR(10 g) = 0.647 W/kg
Maximum value of SAR (interpolated) = 1.02 W/kg

WLAN2450 b-mode was scaled with factor 1.14, CDMA800 with factor 1.03, before combining in SEMCAD SW.



Plot #64

Date/Time: 2013-08-05 5:43:55 PM

DASY Configuration for 2-slot GPRS850/Body - High - Spacer 10mm - No Headset - Display Facing

Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: 2-slot GPRS850; Frequency: 848.8 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: BSL835 Medium parameters used: $f = 849$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.493$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-06 1:04:54 PM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 10mm - No Headset -

Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

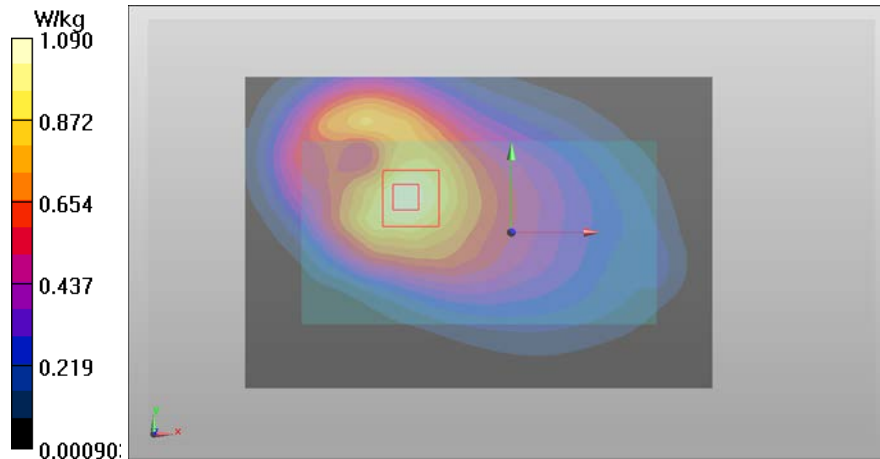
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.684 W/kg

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

WLAN2450 b-mode was scaled with factor 1.14, 2-slot GPRS850 with factor 1.04, before combining in SEMCAD SW.



Plot #65

Date/Time: 2013-08-01 12:44:04 PM

DASY Configuration for WCDMA850 (Band 5)/Body - High - Spacer 10mm - No Headset - Display Facing

Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: WCDMA850; Frequency: 846.6 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL835 Medium parameters used: $f = 847$ MHz; $\sigma = 0.995$ S/m; $\epsilon_r = 54.483$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASYS2, Version 52.8 (1)

Date/Time: 2013-08-06 1:04:54 PM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 10mm - No Headset -

Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

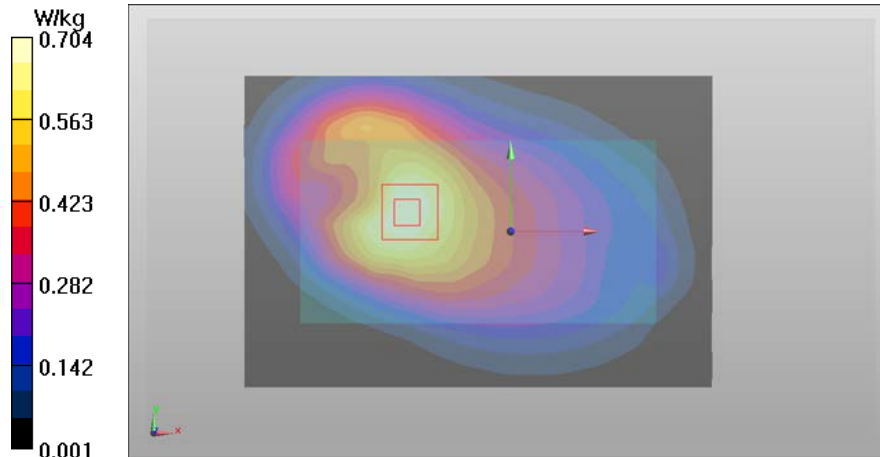
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASYS2, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.664 W/kg; SAR(10 g) = 0.463 W/kg

Maximum value of SAR (interpolated) = 0.704 W/kg

WLAN2450 b-mode was scaled with factor 1.14, WCDMA850 (Band 5) with factor 1.03, before combining in SEMCAD SW.



Plot #66

Date/Time: 2013-08-06 11:37:54 AM

DASY Configuration for LTE1700/2100 (Band 4) /Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 10mm - No Headset - Display Facing Phantom - Repeated/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.448$ S/m; $\epsilon_r = 52.167$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.91, 4.91, 4.91); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-06 1:04:54 PM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

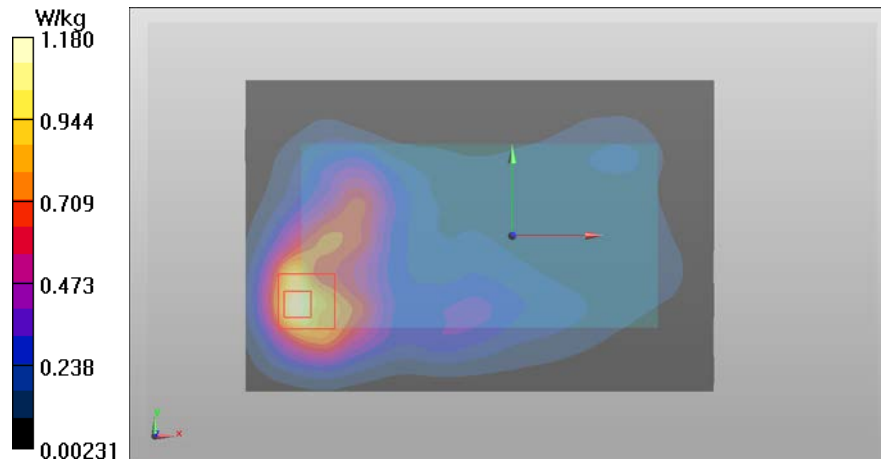
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.575 W/kg

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

WLAN2450 b-mode was scaled with factor 1.14, LTE1700/2100 (Band 4) with factor 1.02, before combining in SEMCAD SW.



Plot #67

Date/Time: 2013-08-03 1:16:53 PM

DASY Configuration for CDMA1900/Body - Low - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001239/1

Communication System: CDMA1900; Frequency: 1851.25 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used (interpolated): $f = 1851.25$ MHz; $\sigma = 1.437$ S/m; $\epsilon_r = 52.38$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (7)

Date/Time: 2013-08-06 1:04:54 PM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

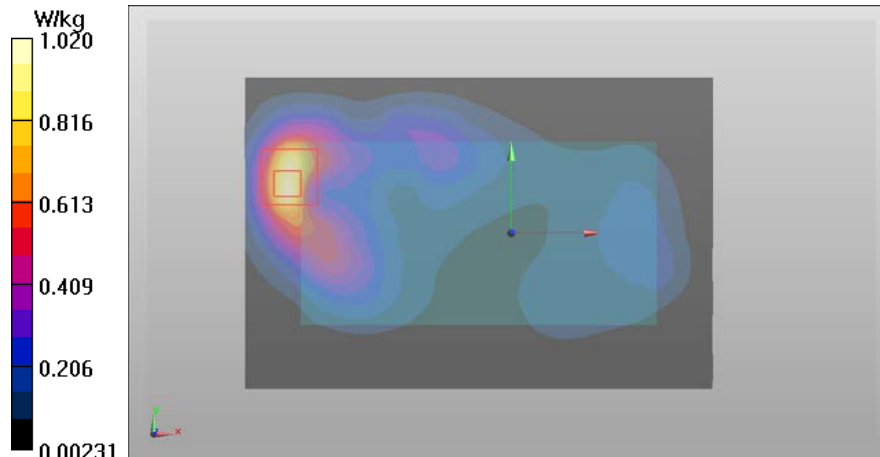
Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.855 W/kg; SAR(10 g) = 0.442 W/kg
Maximum value of SAR (interpolated) = 1.02 W/kg

WLAN2450 b-mode was scaled with factor 1.14, CDMA1900 with factor 1.05, before combining in SEMCAD SW.



Plot #68

Date/Time: 2013-08-01 7:55:47 PM

DASY Configuration for 2-slot GPRS1900/Body - Low - Spacer 10mm - No Headset - Display Facing Phantom

REPEATED SAR/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

Communication System: 2-slot GPRS1900; Frequency: 1850.2 MHz; Duty Cycle: 1:4.19952; PMF: 2.04927

Medium: MSL1900 Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.438$ S/m; $\epsilon_r = 52.801$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-06 1:04:54 PM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 10mm - No Headset -

Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

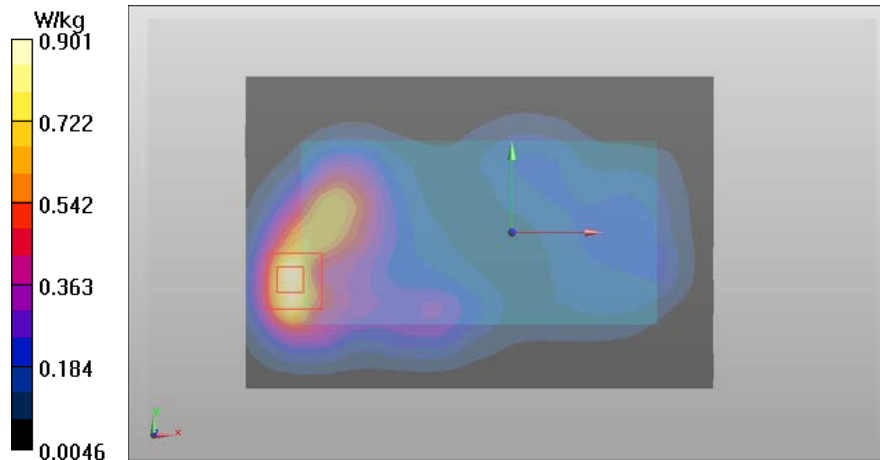
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.770 W/kg; SAR(10 g) = 0.413 W/kg

Maximum value of SAR (interpolated) = 0.901 W/kg

WLAN2450 b-mode was scaled with factor 1.14, 2-slot GPRS1900 with factor 1.08, before combining in SEMCAD SW.



Plot #69

Date/Time: 2013-08-02 8:06:38 PM

DASY Configuration for WCDMA1900/Body - Middle - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001239/1

Communication System: WCDMA1900 (Band 2); Frequency: 1880 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.466$ S/m; $\epsilon_r = 52.397$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-06 1:04:54 PM

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 10mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

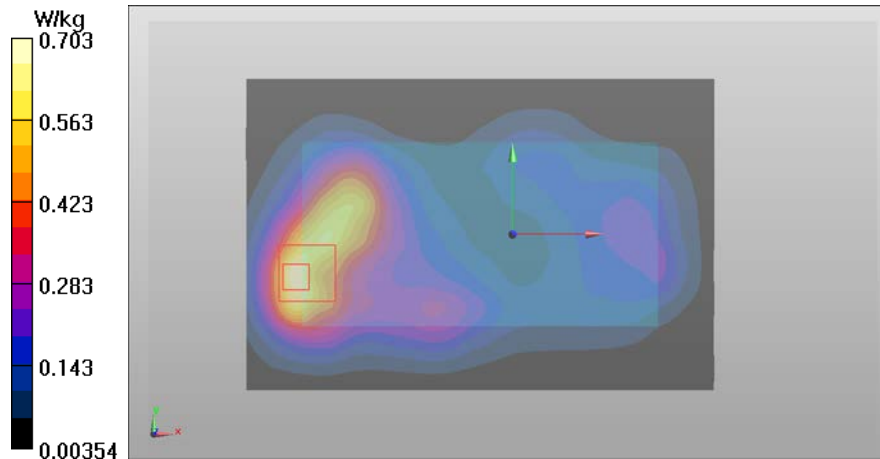
Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.608 W/kg; SAR(10 g) = 0.344 W/kg

Maximum value of SAR (interpolated) = 0.703 W/kg

WLAN2450 b-mode was scaled with factor 1.14, WCDMA1900 (Band 2) with factor 1.01, before combining in SEMCAD SW.



APPENDIX B.2: SVLTE MODE MEASUREMENT SCANS

Plot #70

Date/Time: 2013-08-04 1:48:51 PM

DASY Configuration for LTE750 (Band 13) - Right/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset 2/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

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

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.933$ S/m; $\epsilon_r = 40.868$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3275; ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: SAM3 06-28-2013; Type: QD000P40CD; Serial: TP: 1729
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-19 11:11:30 AM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

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

Medium: HSL800-900 2013-08-19 Medium parameters used: $f = 837$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 41.093$; $\rho = 1000$ kg/m³

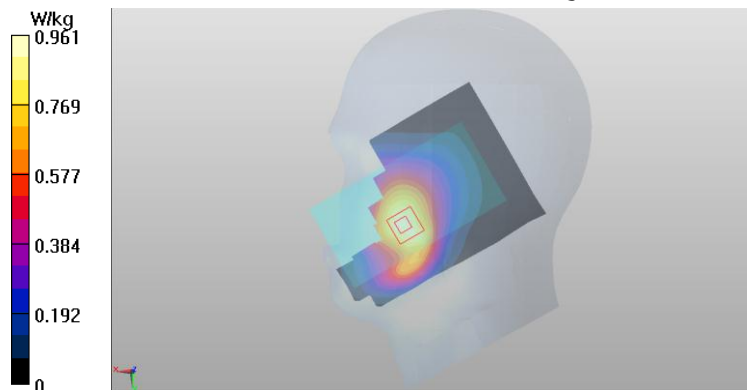
Phantom section: Right Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.894 W/kg; SAR(10 g) = 0.622 W/kg

Maximum value of SAR (interpolated) = 0.961 W/kg

LTE750 (Band13) was scaled with factor 1.02, CDMA800 with factor 1.00, before combining in SEMCAD SW.



Plot #71

Date/Time: 2013-08-04 12:54:45 PM

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset 2/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

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

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.933$ S/m; $\epsilon_r = 40.868$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: SAM3 06-28-2013; Type: QD000P40CD; Serial: TP: 1729
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 2:38:03 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

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

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 39.023$; $\rho = 1000$ kg/m³

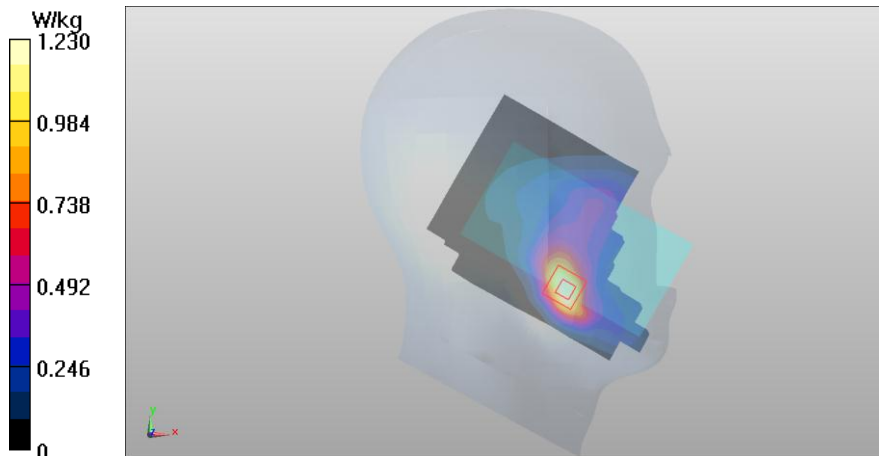
Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630
Measurement SW: DASY52, Version 52.8 (5)

Fast SAR of Combined Scans: SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.634 W/kg

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

LTE750 (Band13) was scaled with factor 1.02, CDMA1900 with factor 1.01, before combining in SEMCAD SW.



Plot #72

Date/Time: 2013-08-04 8:40:44 AM

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - High - QPSK - 20MHz - 1RB - 50% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.353$ S/m; $\epsilon_r = 39.344$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3276; ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-19 11:11:30 AM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

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

Medium: HSL800-900 2013-08-19 Medium parameters used: $f = 837$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 41.093$; $\rho = 1000$ kg/m³

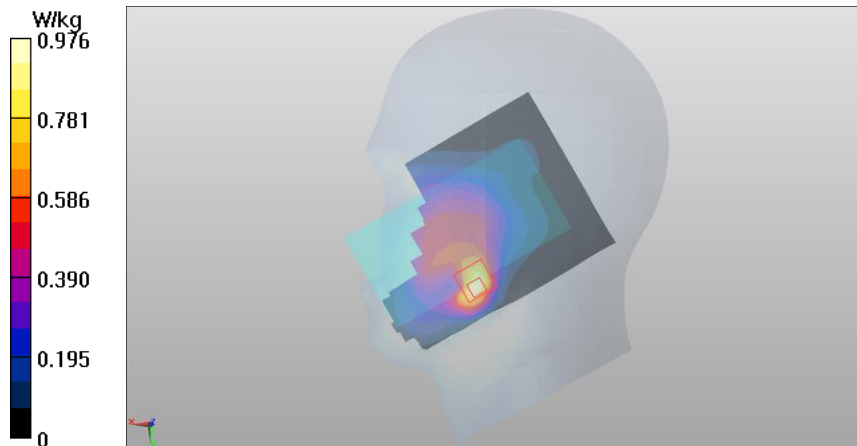
Phantom section: Right Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.846 W/kg; SAR(10 g) = 0.467 W/kg

Maximum value of SAR (interpolated) = 0.976 W/kg

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA800 with factor 1.00, before combining in SEMCAD SW.



Plot #73

Date/Time: 2013-08-03 8:30:24 PM

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - High - QPSK - 20MHz - 1RB - 50% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.353$ S/m; $\epsilon_r = 39.344$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 2:38:03 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

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

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 39.023$; $\rho = 1000$ kg/m³

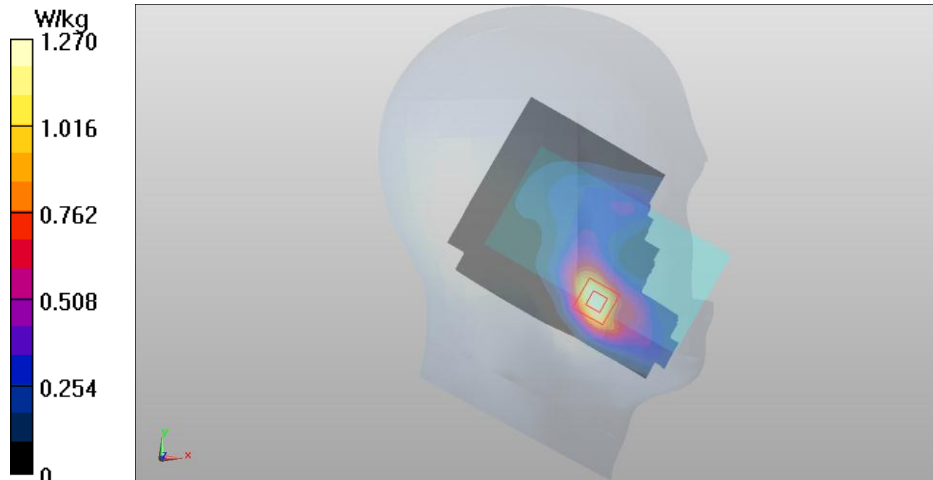
Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630
Measurement SW: DASY52, Version 52.8 (5)

Fast SAR of Combined Scans: SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.648 W/kg

Maximum value of SAR (interpolated) = 1.27 W/kg

LTE717002100 (Band4) was scaled with factor 1.02, CDMA1900 with factor 1.01, before combining in SEMCAD SW.



Plot #74

Date/Time: 2013-08-04 1:48:51 PM

DASY Configuration for LTE750 (Band 13) - Right/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset 2/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

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

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.933$ S/m; $\epsilon_r = 40.868$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3275; ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;

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

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: SAM3 06-28-2013; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-19 11:11:30 AM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

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

Medium: HSL800-900 2013-08-19 Medium parameters used: $f = 837$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 41.093$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279

Measurement SW: DASY52, Version 52.8 (1)

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

Date/Time: 2013-08-05 3:04:42 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.821$ S/m; $\epsilon_r = 38.353$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

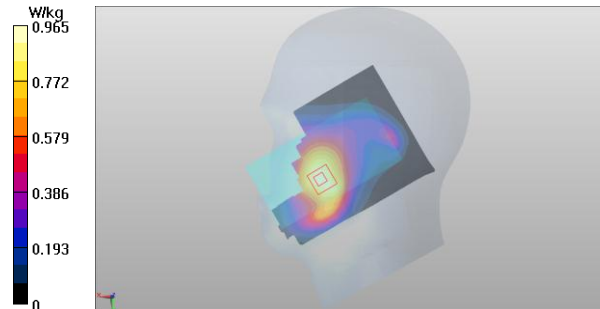
Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736

Measurement SW: DASY52, Version 52.8 (6)

Fast SAR of Combined Scans: SAR(1 g) = 0.899 W/kg; SAR(10 g) = 0.626 W/kg

Maximum value of SAR (interpolated) = 0.965 W/kg

LTE750 (Band13) was scaled with factor 1.02, CDMA800 with factor 1.00, WLAN2450 b-mode with factor 1.14, before combining in SEMCAD SW.



Plot #75

Date/Time: 2013-08-04 12:54:45 PM

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset 2/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

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

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.933$ S/m; $\epsilon_r = 40.868$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;

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

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: SAM3 06-28-2013; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 2:38:03 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

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

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 39.023$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630

Measurement SW: DASY52, Version 52.8 (5)

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

Date/Time: 2013-08-05 1:36:13 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/0/001240/9

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

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.821$ S/m; $\epsilon_r = 38.353$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

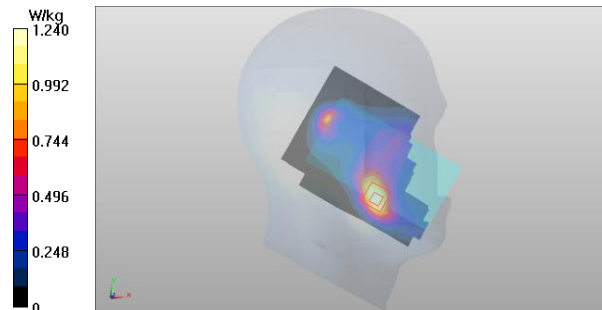
Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736

Measurement SW: DASY52, Version 52.8 (6)

Fast SAR of Combined Scans: SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.635 W/kg

Maximum value of SAR (interpolated) = 1.24 W/kg

LTE750 (Band13) was scaled with factor 1.02, CDMA1900 with factor 1.01, WLAN2450 b-mode with factor 1.14, before combining in SEMCAD SW.



Plot #76

Date/Time: 2013-08-04 8:40:44 AM

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - High - QPSK - 20MHz - 1RB - 50% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.353$ S/m; $\epsilon_r = 39.344$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3276; ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;

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

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-19 11:11:30 AM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

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

Medium: HSL800-900 2013-08-19 Medium parameters used: $f = 837$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 41.093$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279

Measurement SW: DASY52, Version 52.8 (1)

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

Date/Time: 2013-08-05 3:04:42 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.821$ S/m; $\epsilon_r = 38.353$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

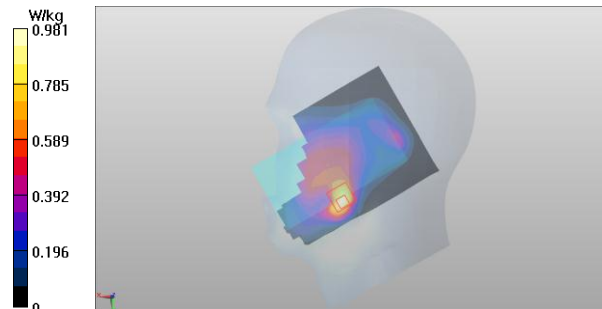
Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736

Measurement SW: DASY52, Version 52.8 (6)

Fast SAR of Combined Scans: SAR(1 g) = 0.851 W/kg; SAR(10 g) = 0.471 W/kg

Maximum value of SAR (interpolated) = 0.981 W/kg

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA800 with factor 1.00, WLAN2450 b-mode with factor 1.14, before combining in SEMCAD SW.



SAR Report

Appendix B.2 for FCC_RM-927_01

Applicant: Nokia Corporation

Type: RM-927

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Plot #77

Date/Time: 2013-08-03 8:30:24 PM

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - High - QPSK - 20MHz - 1RB - 50% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.353$ S/m; $\epsilon_r = 39.344$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;

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

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 2:38:03 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

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

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 39.023$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630

Measurement SW: DASY52, Version 52.8 (5)

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

Date/Time: 2013-08-05 1:36:13 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.821$ S/m; $\epsilon_r = 38.353$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

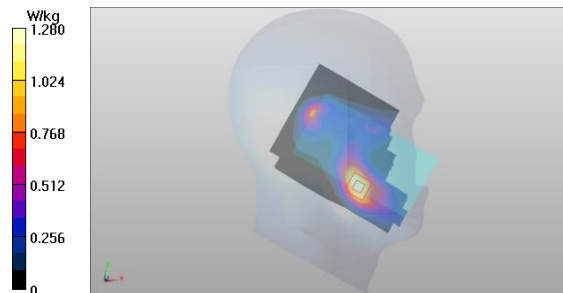
Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736

Measurement SW: DASY52, Version 52.8 (6)

Fast SAR of Combined Scans: SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.650 W/kg

Maximum value of SAR (interpolated) = 1.28 W/kg

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA1900 with factor 1.01, WLAN2450 b-mode with factor 1.14 , before combining in SEMCAD SW.



Plot #78

Date/Time: 2013-08-04 1:48:51 PM

DASY Configuration for LTE750 (Band 13) - Right/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset 2/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

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

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.933$ S/m; $\epsilon_r = 40.868$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3275; ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;

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

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: SAM3 06-28-2013; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-19 11:11:30 AM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906050012581

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

Medium: HSL800-900 2013-08-19 Medium parameters used: $f = 837$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 41.093$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279

Measurement SW: DASY52, Version 52.8 (1)

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 100 - OFDM 6 Mbps/Area Scan:

Date/Time: 2013-08-03 5:29:56 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 35590/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.764$ S/m; $\epsilon_r = 34.741$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3817; ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

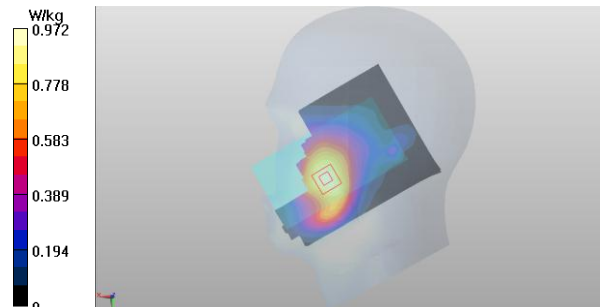
Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.905 W/kg; SAR(10 g) = 0.629 W/kg

Maximum value of SAR (interpolated) = 0.972 W/kg

LTE750 (Band13) was scaled with factor 1.02, CDMA800 with factor 1.00, WLAN5000 a-mode with factor1.15, before combining in SEMCAD SW.



Plot #79

Date/Time: 2013-08-04 12:54:45 PM

DASY Configuration for LTE750 (Band 13) - Left/Cheek - Middle - QPSK - 10MHz - 1 RB - 50% offset 2/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

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

Medium: HSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.933$ S/m; $\epsilon_r = 40.868$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.5, 6.5, 6.5); Calibrated: 2013-01-22;

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

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: SAM3 06-28-2013; Type: QD000P40CD; Serial: TP: 1729

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 2:38:03 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/0012615

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

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 39.023$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630

Measurement SW: DASY52, Version 52.8 (5)

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 100 - OFDM 6 Mbps/Area Scan:

Date/Time: 2013-08-03 10:05:25 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.764$ S/m; $\epsilon_r = 34.741$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

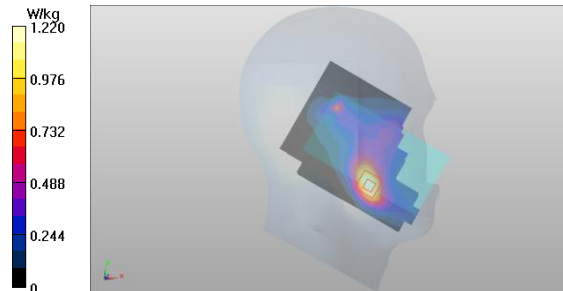
Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.623 W/kg

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

LTE750 (Band13) was scaled with factor 1.02, CDMA1900 with factor 1.01, WLAN5000 a-mode with factor 1.15, before combining in SEMCAD SW.



Plot #80

Date/Time: 2013-08-04 8:40:44 AM

DASY Configuration for LTE1700/2100 (Band 4) - Right/Cheek - High - QPSK - 20MHz - 1RB - 50% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.353$ S/m; $\epsilon_r = 39.344$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3276; ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;

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

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-19 11:11:30 AM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

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

Medium: HSL800-900 2013-08-19 Medium parameters used: $f = 837$ MHz; $\sigma = 0.891$ S/m; $\epsilon_r = 41.093$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279

Measurement SW: DASY52, Version 52.8 (1)

DASY Configuration for WLAN5000 a-mode - Right/Cheek - Channel 100 - OFDM 6 Mbps/Area Scan:

Date/Time: 2013-08-03 5:29:56 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.764$ S/m; $\epsilon_r = 34.741$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3817; ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

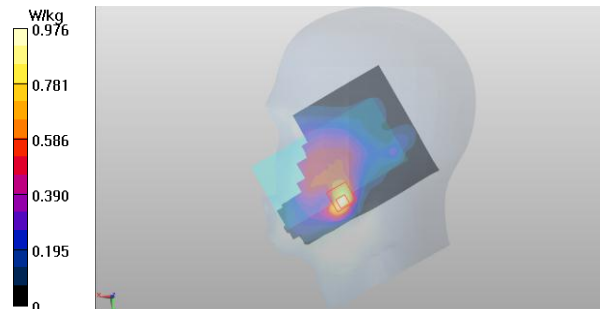
Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.846 W/kg; SAR(10 g) = 0.467 W/kg

Maximum value of SAR (interpolated) = 0.976 W/kg

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA800 with factor 1.00, WLAN5000 a-mode with factor 1.15, before combining in SEMCAD SW.



SAR Report

Appendix B.2 for FCC_RM-927_01

Applicant: Nokia Corporation

Type: RM-927

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Plot #81

Date/Time: 2013-08-03 8:30:24 PM

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - High - QPSK - 20MHz - 1RB - 50% offset/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.353$ S/m; $\epsilon_r = 39.344$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;

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

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 2:38:03 PM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

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

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.394$ S/m; $\epsilon_r = 39.023$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630

Measurement SW: DASY52, Version 52.8 (5)

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 100 - OFDM 6 Mbps/Area Scan:

Date/Time: 2013-08-03 10:05:25 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.764$ S/m; $\epsilon_r = 34.741$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

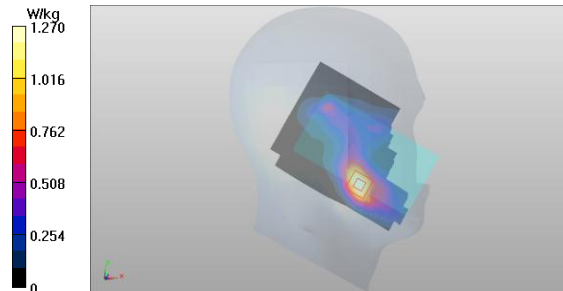
Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.649 W/kg

Maximum value of SAR (interpolated) = 1.27 W/kg

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA1900 with factor 1.01, WLAN5000 a-mode with factor 1.15, before combining in SEMCAD SW.



Plot #82

Date/Time: 2013-08-19 7:07:18 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800

Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: HSL800-900 2013-08-19; Medium Notes: T = 21.5 c

Medium parameters used (interpolated): f = 848.31 MHz; $\sigma = 0.898$ S/m; $\epsilon_r = 41.02$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

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

Reference Value = 8.081 V/m

Peak SAR (extrapolated) = 1.42 W/kg

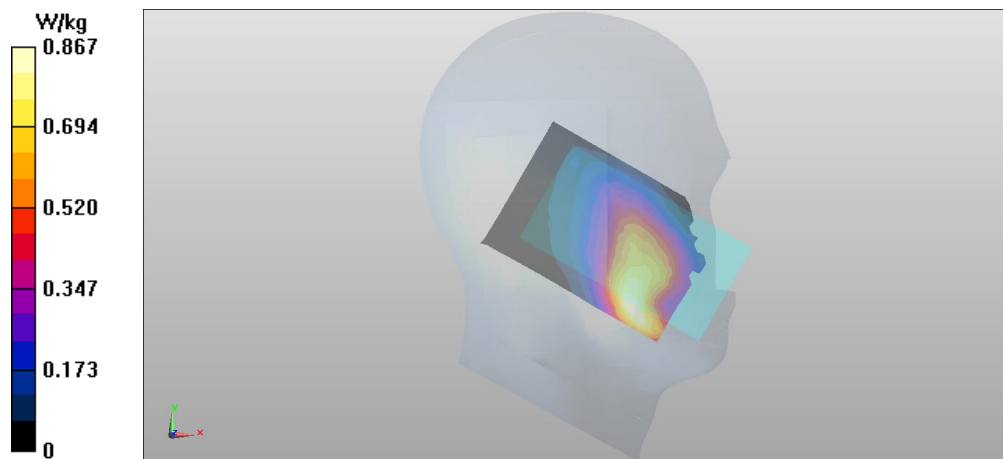
SAR(1 g) = 0.673 W/kg

SAR(10 g) = 0.461 W/kg

Power Drift = -0.01 dB

Total Absorbed Power = 0.0485 W

Maximum value of SAR (measured) = 0.867 W/kg



Plot #83

Date/Time: 2013-08-09 8:17:41 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800

Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: HSL800-900 2013-08-09; Medium Notes: T = 21.5 c

Medium parameters used: f = 837 MHz; $\sigma = 0.899$ S/m; $\epsilon_r = 41.028$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3275
- ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn756; Calibrated: 2013-02-07
- Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

CDMA800 - Right/Cheek - Middle/Volume Scan (20x29x7): Measurement grid: dx=5mm, dy=5mm, dz=5mm

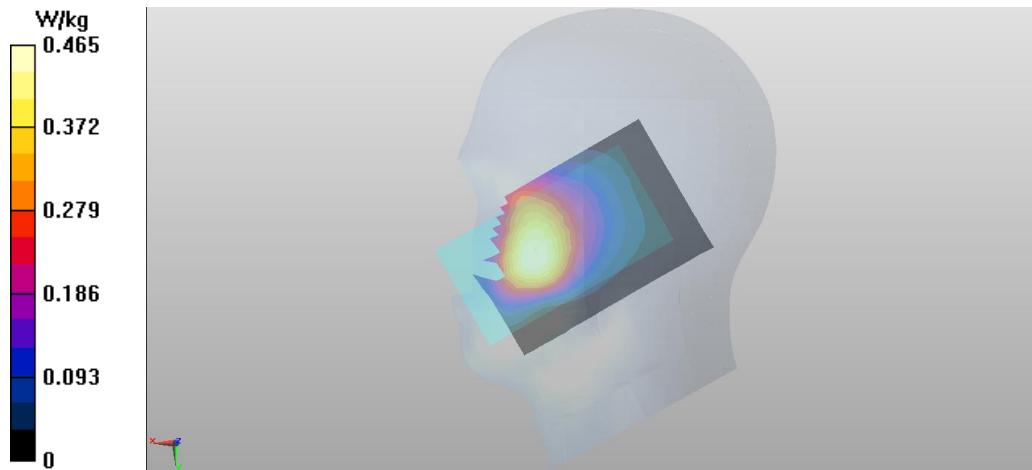
Reference Value = 6.865 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.515 W/kg

SAR(1 g) = 0.450 W/kg; SAR(10 g) = 0.356 W/kg

Total Absorbed Power = 0.0453 W

Maximum value of SAR (measured) = 0.465 W/kg



Plot #84

Date/Time: 2013-08-09 3:04:08 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4)

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium Notes: T=21.5 C

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.372$ S/m; $\epsilon_r = 39.311$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.10 (7164)

LTE1750 (Band 4) - Left/Cheek - High - QPSK - 20MHz - 1 RB - 50% offset/Volume Scan (24x34x12):

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

Reference Value = 4.151 V/m

Peak SAR (extrapolated) = 0.791 W/kg

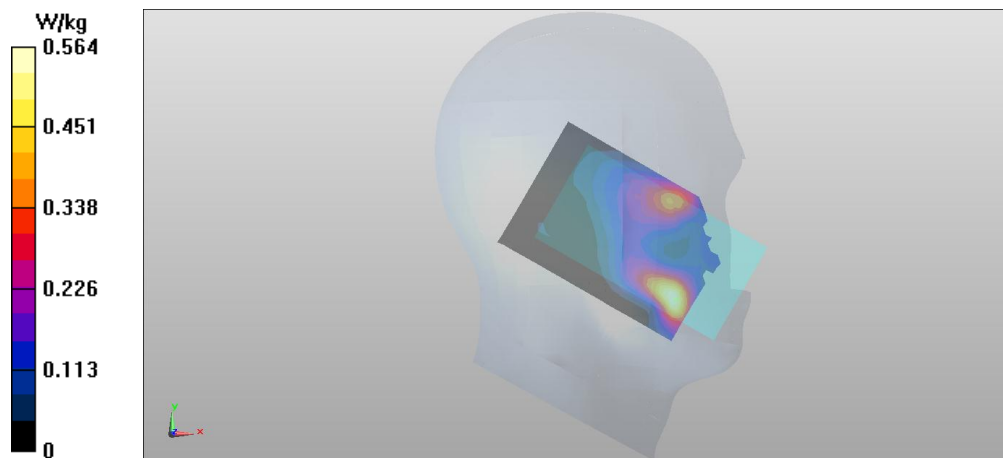
SAR(1 g) = 0.440 W/kg

SAR(10 g) = 0.240 W/kg

Power Drift = -0.17 dB

Total Absorbed Power = 0.0227 W

Maximum value of SAR (measured) = 0.564 W/kg



Plot #85

Date/Time: 2013-08-09 9:25:25 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4)

Frequency: 1745 MHz; Duty Cycle: 1:1

Medium: HSL1750; Medium Notes: T=21.5 C

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.372$ S/m; $\epsilon_r = 39.311$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: ES3DV3 - SN3276
- ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
- Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735
- Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.10 (7164)

LTE1750 (band 4) - Right/Cheek - High - QPSK - 20MHz - 1RB - 50% offset/Volume Scan (20x29x7):

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.923 V/m

Peak SAR (extrapolated) = 1.78 W/kg

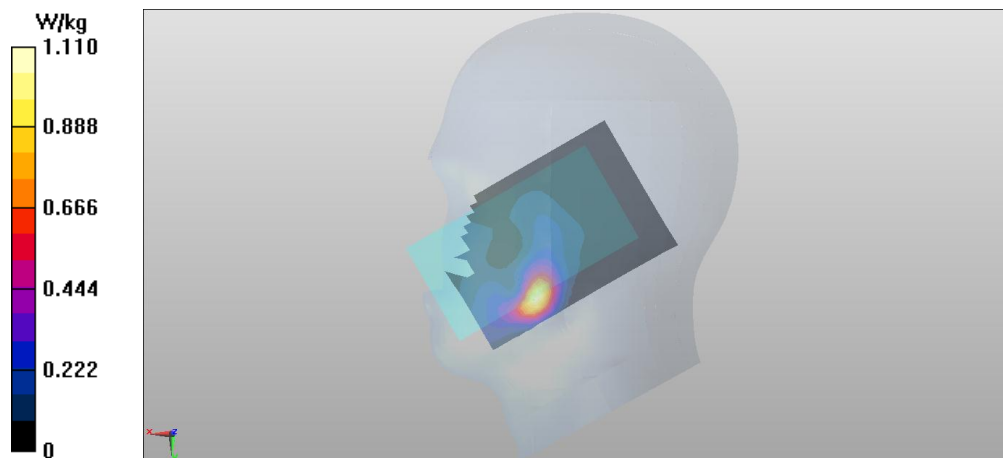
SAR(1 g) = 0.955 W/kg

SAR(10 g) = 0.480 W/kg

Power Drift = 0.01 dB

Total Absorbed Power = 0.0290 W

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



Plot #86

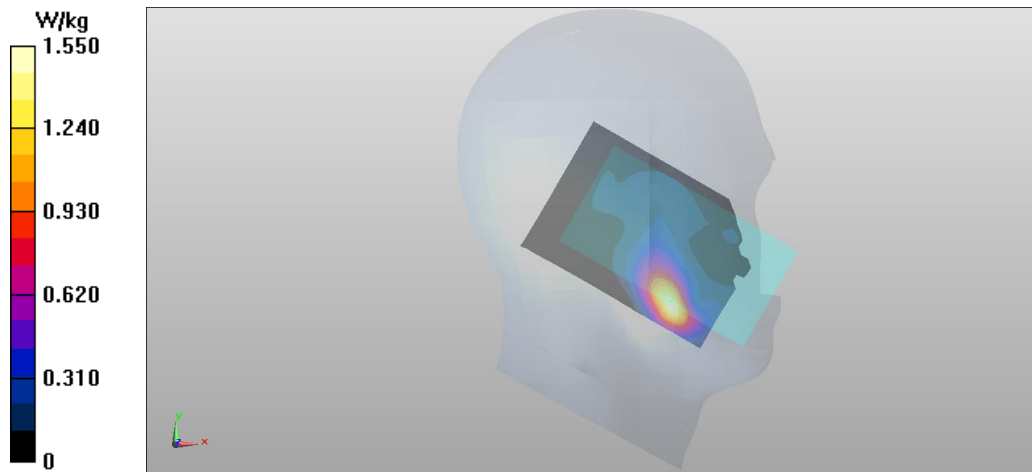
Date/Time: 2013-08-12 9:33:16 AM

Test Laboratory: TCC Nokia
Type: RM-927; Serial: 355906/05/001261/5

Communication System: CDMA1900
Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: HSL1900; Medium Notes: T=21.5 C
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.393$ S/m; $\epsilon_r = 39.118$; $\rho = 1000$ kg/m³
Phantom section: Left Section

- DASY Configuration:
- Probe: ES3DV3 - SN3276
 - ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;
 - Sensor-Surface: 2mm (Mechanical Surface Detection)
 - Electronics: DAE4 Sn1332; Calibrated: 2012-07-26
 - Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630
 - Measurement SW: DASY52, Version 52.8 (5); SEMCAD X Version 14.6.10 (7164)

CDMA1900 - Left/Cheek - Middle/Volume Scan (24x34x12): Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 9.892 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 2.06 W/kg
SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.600 W/kg
Total Absorbed Power = 0.0323 W
Maximum value of SAR (measured) = 1.55 W/kg



Plot #87

Date/Time: 2013-08-19 1:52:44 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

Communication System: WLAN2450 b-mode

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: T=21.5

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.804$ S/m; $\epsilon_r = 38.685$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

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

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

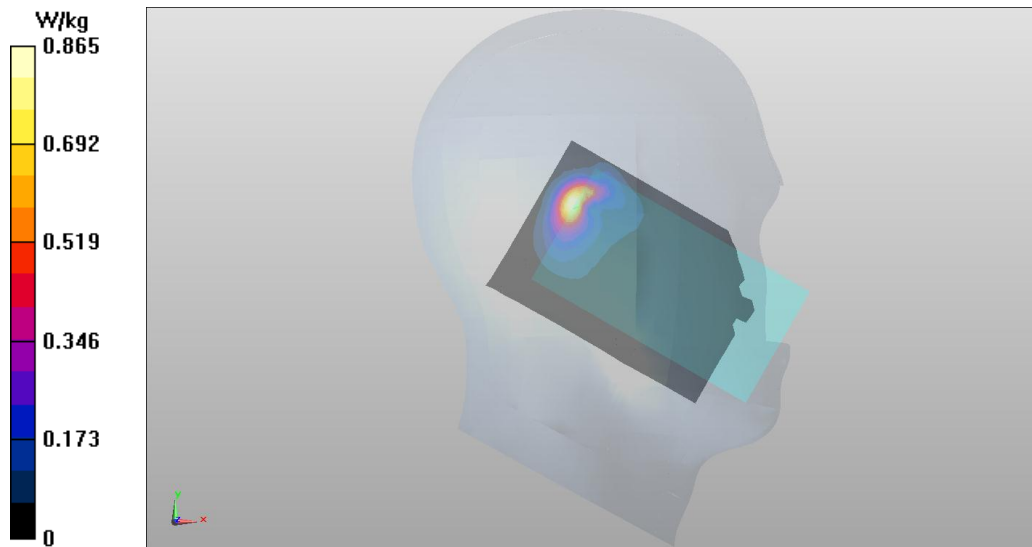
Reference Value = 13.985 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.29 W/kg

SAR(1 g) = 0.526 W/kg; SAR(10 g) = 0.206 W/kg

Total Absorbed Power = 0.00672 W

Maximum value of SAR (measured) = 0.865 W/kg



Plot #88

Date/Time: 2013-08-19 11:26:56 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

Communication System: WLAN2450 b-mode

Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: HSL2450; Medium Notes: T=21.5

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.804$ S/m; $\epsilon_r = 38.685$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

WLAN2450 b-mode - Right/Cheek - Channel 6 - DSSS 1 Mbps/Volume Scan (20x29x7): Measurement grid:

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

Reference Value = 11.364 V/m

Peak SAR (extrapolated) = 0.665 W/kg

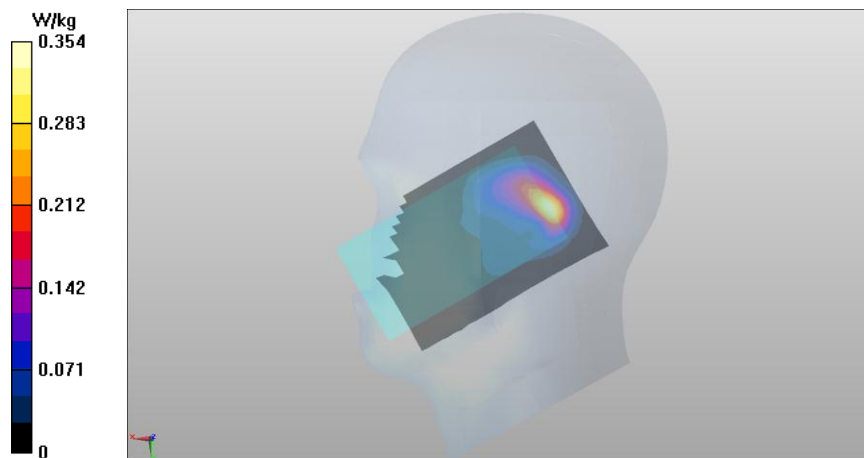
SAR(1 g) = 0.305 W/kg

SAR(10 g) = 0.136 W/kg

Power Drift = -0.19 dB

Total Absorbed Power = 0.00706 W

Maximum value of SAR (measured) = 0.354 W/kg



Plot #89

Date/Time: 2013-08-20 3:43:54 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode

Frequency: 5500 MHz; Duty Cycle: 1:1

Medium: HSL5000; Medium Notes: T=21.5

Medium parameters used: $f = 5500$ MHz; $\sigma = 4.772$ S/m; $\epsilon_r = 34.792$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY Configuration:

- Probe: EX3DV4 - SN3817
- ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1301; Calibrated: 2013-02-06
- Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.10 (7164)

WLAN5000 a-mode - Left/Cheek - Channel 100 - OFDM 6 Mbps/Volume Scan (24x34x12): Measurement grid:

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

Reference Value = 0.783 V/m

Peak SAR (extrapolated) = 0.416 W/kg

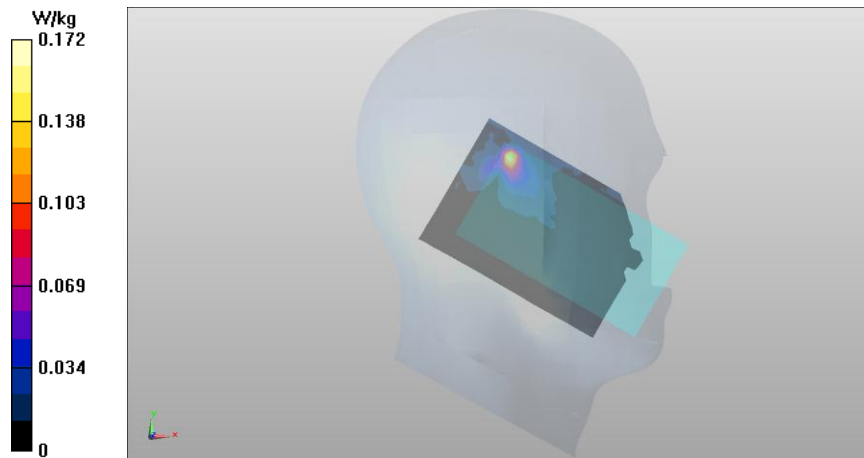
SAR(1 g) = 0.063 W/kg

SAR(10 g) = 0.015 W/kg

Power Drift = -0.04 dB

Total Absorbed Power = 0.000310 W

Maximum value of SAR (measured) = 0.172 W/kg



Plot #90

Date/Time: 2013-08-09 3:04:08 PM

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - High - QPSK - 20MHz - 1 RB - 50% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.372$ S/m; $\epsilon_r = 39.311$; $\rho = 1000$ kg/m³

Phantom section: Left Section

robe: ES3DV3 - SN3276; ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;

Sensor-Surface: 2mm (Mechanical Surface Detection)

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

Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735

Measurement SW: DASY52, Version 52.8 (5)

Date/Time: 2013-08-19 7:07:18 PM

DASY Configuration for CDMA800 - Left/Cheek - Middle 2/Volume Scan 2:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800; Frequency: 848.31 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL800-900 2013-08-19 Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.898$ S/m; $\epsilon_r = 41.02$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279

Measurement SW: DASY52, Version 52.8 (1)

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

Date/Time: 2013-08-19 1:52:44 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.804$ S/m; $\epsilon_r = 38.685$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736

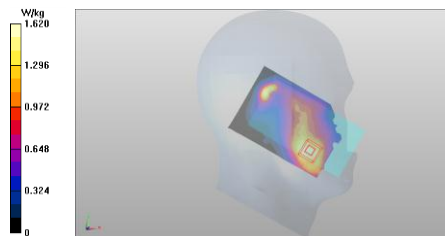
Measurement SW: DASY52, Version 52.8 (7)

Multi Band Result:

SAR(1 g) = 0.939 W/kg; SAR(10 g) = 0.633 W/kg

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

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA800 with factor 1.00, WLAN2450 b-mode with factor 1.14, before combining in SEMCAD SW.



Plot #91

Date/Time: 2013-08-09 9:25:25 AM

DASY Configuration for LTE1700/2100 (band 4) - Right/Cheek - High - QPSK - 20MHz - 1RB - 50% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.372$ S/m; $\epsilon_r = 39.311$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3276; ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;

Sensor-Surface: 4mm (Mechanical Surface Detection)

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

Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735

Measurement SW: DASY52, Version 52.8 (5)

Date/Time: 2013-08-09 8:17:41 AM

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

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System:

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

Medium: HSL800-900 2013-08-09 Medium parameters used: $f = 837$ MHz; $\sigma = 0.899$ S/m; $\epsilon_r = 41.028$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: ES3DV3 - SN3275; ConvF(6.22, 6.22, 6.22); Calibrated: 2013-01-22;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: SAM1 06-28-2013; Type: QD000P40CC; Serial: TP:1279

Measurement SW: DASY52, Version 52.8 (1)

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

Date/Time: 2013-08-19 11:26:56 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/

Communication System:

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

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.804$ S/m; $\epsilon_r = 38.685$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736

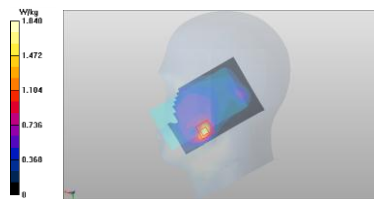
Measurement SW: DASY52, Version 52.8 (7)

Multi Band Result:

SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.546 W/kg

Maximum value of SAR (interpolated) = 1.84 W/kg

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA800 with factor 1.00, WLAN2450 b-mode with factor 1.14, before combining in SEMCAD SW.



SAR Report

Appendix B.2 for FCC_RM-927_01

Applicant: Nokia Corporation

Type: RM-927

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Plot #92

Date/Time: 2013-08-09 3:04:08 PM

DASY Configuration for LTE1700/2100(Band 4) - Left/Cheek - High - QPSK - 20MHz - 1 RB - 50% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.372$ S/m; $\epsilon_r = 39.311$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;

Sensor-Surface: 2mm (Mechanical Surface Detection)

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

Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735

Measurement SW: DASY52, Version 52.8 (5)

Date/Time: 2013-08-12 9:33:16 AM

DASY Configuration for CDMA1900 - Left/Cheek - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

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

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.393$ S/m; $\epsilon_r = 39.118$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;

Sensor-Surface: 2mm (Mechanical Surface Detection)

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

Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630

Measurement SW: DASY52, Version 52.8 (5)

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

Date/Time: 2013-08-19 1:52:44 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: HSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.804$ S/m; $\epsilon_r = 38.685$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(7.09, 7.09, 7.09); Calibrated: 2013-01-23;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

Phantom: SAM4 2013/08/05; Type: QD000P40CD; Serial: TP:1736

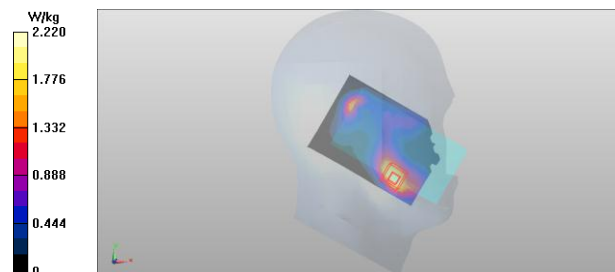
Measurement SW: DASY52, Version 52.8 (7)

Multi Band Result:

SAR(1 g) = 1.25 W/kg; SAR(10 g) = 0.724 W/kg

Maximum value of SAR (interpolated) = 2.22 W/kg

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA1900 with factor 1.01, WLAN2450 b-mode with factor 1.14, before combining in SEMCAD SW.



Plot #93

Date/Time: 2013-08-09 3:04:08 PM

DASY Configuration for LTE1700/2100 (Band 4) - Left/Cheek - High - QPSK - 20MHz - 1 RB - 50% offset/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.372$ S/m; $\epsilon_r = 39.311$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.51, 5.51, 5.51); Calibrated: 2013-03-15;

Sensor-Surface: 2mm (Mechanical Surface Detection)

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

Phantom: SAM1 04/25/2013; Type: QD000P40CD; Serial: TP: 1735

Measurement SW: DASY52, Version 52.8 (5)

Date/Time: 2013-08-12 9:33:16 AM

DASY Configuration for CDMA1900 - Left/Cheek - Middle/Volume Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

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

Medium: HSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.393$ S/m; $\epsilon_r = 39.118$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: ES3DV3 - SN3276; ConvF(5.21, 5.21, 5.21); Calibrated: 2013-03-15;

Sensor-Surface: 2mm (Mechanical Surface Detection)

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

Phantom: SAM3 06/28/2013; Type: QD000P40CD; Serial: TP: 1630

Measurement SW: DASY52, Version 52.8 (5)

DASY Configuration for WLAN5000 a-mode - Left/Cheek - Channel 100 - OFDM 6 Mbps/Volume Scan:

Date/Time: 2013-08-20 3:43:54 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: HSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 4.772$ S/m; $\epsilon_r = 34.792$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Probe: EX3DV4 - SN3817; ConvF(4.84, 4.84, 4.84); Calibrated: 2013-01-23;

Sensor-Surface: 2mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

Phantom: SAM 1 2013-06-28; Type: SM 000 T01 DA; Serial: TP:1729

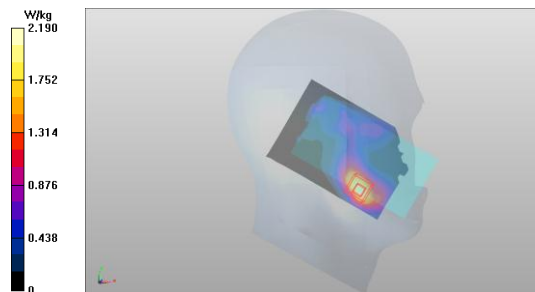
Measurement SW: DASY52, Version 52.8 (1)

Multi Band Result:

SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.722 W/kg

Maximum value of SAR (interpolated) = 2.19 W/kg

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA1900 with factor 1.01, WLAN5000 a-mode with factor 1.15, before combining in SEMCAD SW



Plot #94

Date/Time: 2013-08-06 10:13:27 AM

DASY Configuration for LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1RB - 50% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.975 \text{ S/m}$; $\epsilon_r = 54.713$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.16, 6.16, 6.16); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-05 9:42:21 AM

DASY Configuration for CDMA800/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800; Frequency: 848.31 MHz; Duty Cycle: 1:1; PMF: 1

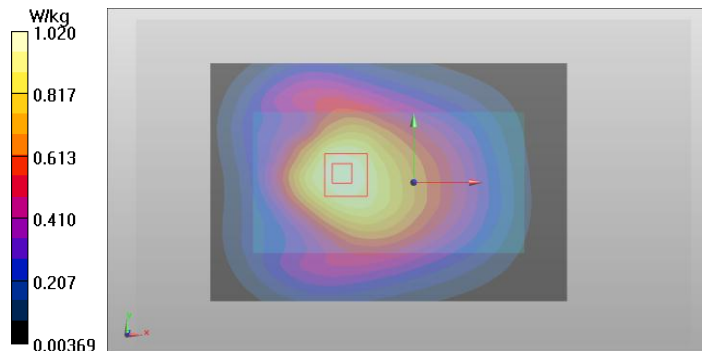
Medium: BSL835 Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.968 \text{ S/m}$; $\epsilon_r = 53.495$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.961 W/kg; SAR(10 g) = 0.682 W/kg
Maximum value of SAR (interpolated) = 1.02 W/kg

LTE750 (Band13) was scaled with factor 1.02, CDMA800 with factor 1.03, before combining in SEMCAD SW.



Plot #95

Date/Time: 2013-08-06 10:13:27 AM

DASY Configuration for LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1RB - 50% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.975 \text{ S/m}$; $\epsilon_r = 54.713$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.16, 6.16, 6.16); Calibrated: 2013-01-22;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn756; Calibrated: 2013-02-07
Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
Measurement SW: DASYS2, Version 52.8 (1)

Date/Time: 2013-08-03 11:36:35 AM

DASY Configuration for CDMA1900/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom - Repeated/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

Communication System: CDMA1900; Frequency: 1851.25 MHz; Duty Cycle: 1:1; PMF: 1

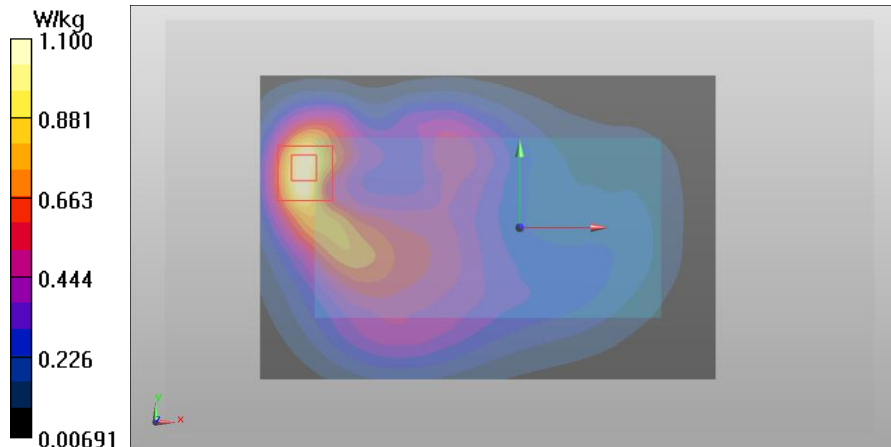
Medium: MSL1900 Medium parameters used (interpolated): $f = 1851.25 \text{ MHz}$; $\sigma = 1.437 \text{ S/m}$; $\epsilon_r = 52.38$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASYS2, Version 52.8 (5)

Fast SAR of Combined Scans: SAR(1 g) = 0.974 W/kg; SAR(10 g) = 0.536 W/kg
Maximum value of SAR (interpolated) = 1.10 W/kg

LTE750 (Band13) was scaled with factor 1.02, CDMA1900 with factor 1.01, before combining in SEMCAD SW.



Plot #96

Date/Time: 2013-08-05 8:53:39 AM

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.448$ S/m; $\epsilon_r = 52.299$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.91, 4.91, 4.91); Calibrated: 2013-03-15;
 Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
 Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
 Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
 Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-05 9:42:21 AM

DASY Configuration for CDMA800/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800; Frequency: 848.31 MHz; Duty Cycle: 1:1; PMF: 1

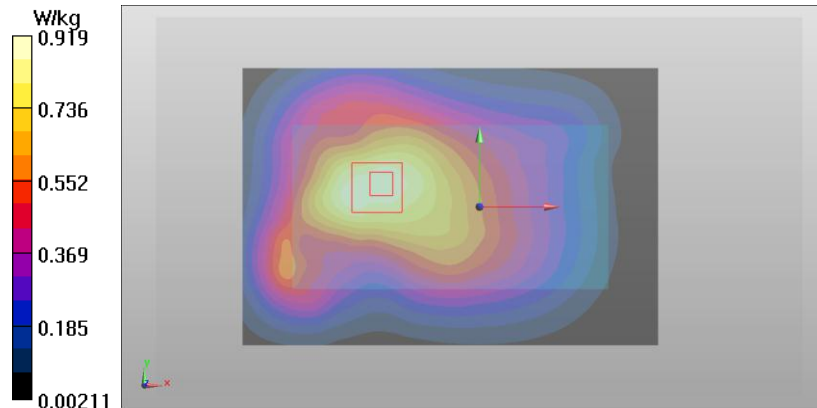
Medium: BSL835 Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.495$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;
 Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
 Electronics: DAE4 Sn756; Calibrated: 2013-02-07
 Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2
 Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.862 W/kg; SAR(10 g) = 0.596 W/kg
 Maximum value of SAR (interpolated) = 0.919 W/kg

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA800 with factor 1.03, before combining in SEMCAD SW.



Plot #97

Date/Time: 2013-08-05 9:11:56 AM

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.448$ S/m; $\epsilon_r = 52.299$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.91, 4.91, 4.91); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-03 10:35:57 AM

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

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

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.467$ S/m; $\epsilon_r = 52.243$; $\rho = 1000$ kg/m³

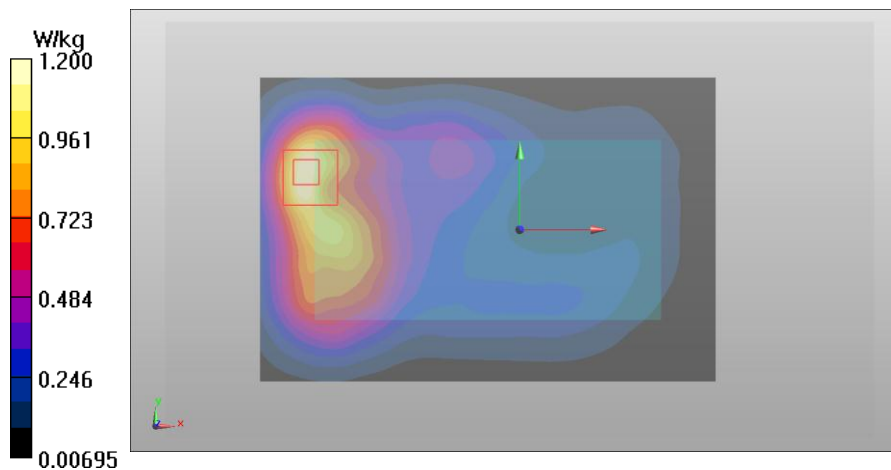
Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;
Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE4 Sn1332; Calibrated: 2013-03-08
Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013
Measurement SW: DASY52, Version 52.8 (5)

Fast SAR of Combined Scans: SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.611 W/kg

Maximum value of SAR (interpolated) = 1.20 W/kg

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA1900 with factor 1.01, before combining in SEMCAD SW.



Plot #98

Date/Time: 2013-08-06 10:13:27 AM

DASY Configuration for LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1RB - 50% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.975$ S/m; $\epsilon_r = 54.713$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.16, 6.16, 6.16); Calibrated: 2013-01-22;

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

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-05 9:42:21 AM

DASY Configuration for CDMA800/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800; Frequency: 848.31 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL835 Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.495$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;

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

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2

Measurement SW: DASY52, Version 52.8 (1)

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Date/Time: 2013-08-06 10:20:19 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;

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

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

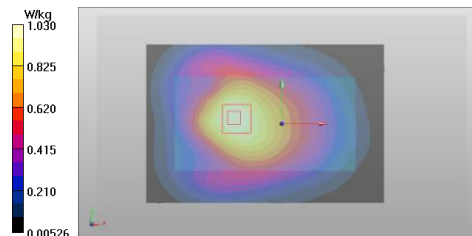
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.968 W/kg; SAR(10 g) = 0.687 W/kg

Maximum value of SAR (interpolated) = 1.03 W/kg

LTE750 (Band13) was scaled with factor 1.07, CDMA800 with factor 1.03, WLAN2450 b-mode with factor 1.14 before combining in SEMCAD SW.



SAR Report

Appendix B.2 for FCC_RM-927_01

Applicant: Nokia Corporation

Type: RM-927

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Plot #99

Date/Time: 2013-08-06 10:13:27 AM

DASY Configuration for LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1RB - 50% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.975 \text{ S/m}$; $\epsilon_r = 54.713$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.16, 6.16, 6.16); Calibrated: 2013-01-22;

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

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 11:36:35 AM

DASY Configuration for CDMA1900/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom - Repeated/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

Communication System: CDMA1900; Frequency: 1851.25 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used (interpolated): $f = 1851.25 \text{ MHz}$; $\sigma = 1.437 \text{ S/m}$; $\epsilon_r = 52.38$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;

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

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: TF Phamptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013

Measurement SW: DASY52, Version 52.8 (5)

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Date/Time: 2013-08-06 10:20:19 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: MSL2450 Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.904 \text{ S/m}$; $\epsilon_r = 50.742$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;

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

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

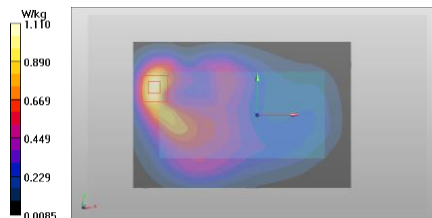
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.981 W/kg; SAR(10 g) = 0.540 W/kg

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

LTE750 (Band13) was scaled with factor 1.02, CDMA1900 with factor 1.01, WLAN2450 b-mode with factor 1.14 before combining in SEMCAD SW.



SAR Report

Appendix B.2 for FCC_RM-927_01

Applicant: Nokia Corporation

Type: RM-927

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Plot #100

Date/Time: 2013-08-05 8:53:39 AM

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.448$ S/m; $\epsilon_r = 52.299$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.91, 4.91, 4.91); Calibrated: 2013-03-15;

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

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: TF Phamptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013

Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-05 9:42:21 AM

DASY Configuration for CDMA800/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800; Frequency: 848.31 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL835 Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.495$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;

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

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2

Measurement SW: DASY52, Version 52.8 (1)

DASY Configuration for WLAN2450 b-mode/Body - Channel 6 - DSSS 1 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Date/Time: 2013-08-06 10:20:19 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

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

Medium: MSL2450 Medium parameters used: $f = 2437$ MHz; $\sigma = 1.904$ S/m; $\epsilon_r = 50.742$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;

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

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

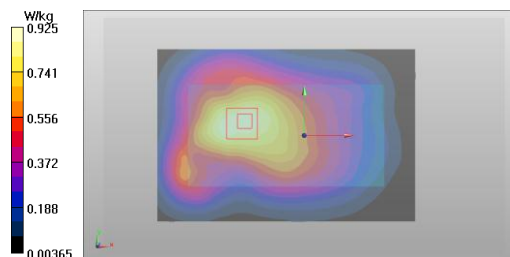
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.869 W/kg; SAR(10 g) = 0.600 W/kg

Maximum value of SAR (interpolated) = 0.925 W/kg

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA800 with factor 1.03, WLAN2450 b-mode with factor 1.14 before combining in SEMCAD SW.



SAR Report

Appendix B.2 for FCC_RM-927_01

Applicant: Nokia Corporation

Type: RM-927

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Plot #101

Date/Time: 2013-08-05 9:11:56 AM

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.448$ S/m; $\epsilon_r = 52.299$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.91, 4.91, 4.91); Calibrated: 2013-03-15;

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

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: TF Phamptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013

Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-03 10:35:57 AM

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

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

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.467$ S/m; $\epsilon_r = 52.243$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;

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

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: TF Phamptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013

Measurement SW: DASY52, Version 52.8 (5)

DASY Configuration for WLAN2450 b-mode/Body - Channel 1 - DSSS 1 Mbps - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Date/Time: 2013-08-06 10:44:56 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001240/9

Communication System: WLAN2450 b-mode; Frequency: 2412 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL2450 Medium parameters used: $f = 2412$ MHz; $\sigma = 1.879$ S/m; $\epsilon_r = 50.815$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(7.13, 7.13, 7.13); Calibrated: 2013-01-23;

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

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

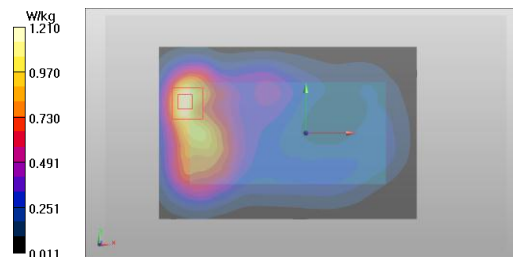
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.616 W/kg

Maximum value of SAR (interpolated) = 1.21 W/kg

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA1900 with factor 1.01, WLAN2450 b-mode with factor 1.11 before combining in SEMCAD SW.



SAR Report

Appendix B.2 for FCC_RM-927_01

Applicant: Nokia Corporation

Type: RM-927

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Plot #102

Date/Time: 2013-08-06 10:13:27 AM

DASY Configuration for LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1RB - 50% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL750 Medium parameters used: $f = 782 \text{ MHz}$; $\sigma = 0.975 \text{ S/m}$; $\epsilon_r = 54.713$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.16, 6.16, 6.16); Calibrated: 2013-01-22;

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

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-05 9:42:21 AM

DASY Configuration for CDMA800/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800; Frequency: 848.31 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL835 Medium parameters used (interpolated): $f = 848.31 \text{ MHz}$; $\sigma = 0.968 \text{ S/m}$; $\epsilon_r = 53.495$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;

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

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2

Measurement SW: DASY52, Version 52.8 (1)

DASY Configuration for WLAN5000 a-mode/Body - Channel 100 - OFDM 6 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Date/Time: 2013-08-09 8:12:01 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5500 \text{ MHz}$; $\sigma = 5.817 \text{ S/m}$; $\epsilon_r = 47.932$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(4.07, 4.07, 4.07); Calibrated: 2013-01-23;

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

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

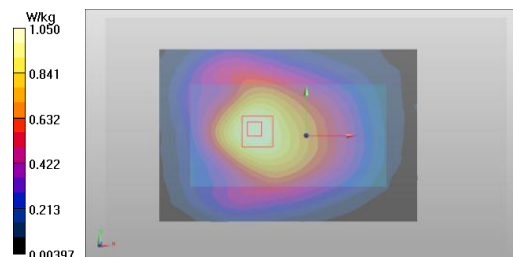
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.975 W/kg; SAR(10 g) = 0.687 W/kg

Maximum value of SAR (interpolated) = 1.05 W/kg

LTE750 (Band13) was scaled with factor 1.02, CDMA800 with factor 1.03, WLAN5000 a-mode with factor 1.15 before combining in SEMCAD SW.



SAR Report

Appendix B.2 for FCC_RM-927_01

Applicant: Nokia Corporation

Type: RM-927

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Plot #103

1.1.1 Date/Time: 2013-08-06 10:13:27 AM

DASY Configuration for LTE750 (Band 13)/Body - Middle - QPSK - 10MHz - 1RB - 50% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001238/3

Communication System: LTE750 (Band 13); Frequency: 782 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL750 Medium parameters used: $f = 782$ MHz; $\sigma = 0.975$ S/m; $\epsilon_r = 54.713$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.16, 6.16, 6.16); Calibrated: 2013-01-22;

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

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2

Measurement SW: DASY52, Version 52.8 (1)

Date/Time: 2013-08-03 11:36:35 AM

DASY Configuration for CDMA1900/Body - Low - Spacer 15mm - No Headset - Display Facing Phantom - Repeated/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

Communication System: CDMA1900; Frequency: 1851.25 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1900 Medium parameters used (interpolated): $f = 1851.25$ MHz; $\sigma = 1.437$ S/m; $\epsilon_r = 52.38$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;

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

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: TF Phamptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013

Measurement SW: DASY52, Version 52.8 (5)

DASY Configuration for WLAN5000 a-mode/Body - Channel 100 - OFDM 6 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Date/Time: 2013-08-09 8:12:01 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 5.817$ S/m; $\epsilon_r = 47.932$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(4.07, 4.07, 4.07); Calibrated: 2013-01-23;

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

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

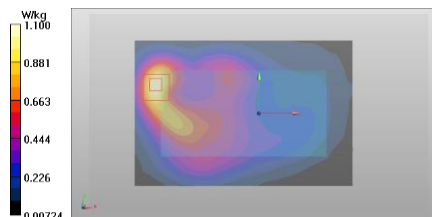
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.970 W/kg; SAR(10 g) = 0.539 W/kg

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

LTE750 (Band13) was scaled with factor 1.02, CDMA1900 with factor 1.01, WLAN5000 a-mode with factor 1.15 before combining in SEMCAD SW.



SAR Report

Appendix B.2 for FCC_RM-927_01

Applicant: Nokia Corporation

Type: RM-927

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Plot #104

Date/Time: 2013-08-05 8:53:39 AM

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.448$ S/m; $\epsilon_r = 52.299$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.91, 4.91, 4.91); Calibrated: 2013-03-15;

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

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: TF Phamptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013

Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-05 9:42:21 AM

DASY Configuration for CDMA800/Body - High - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001258/1

Communication System: CDMA800; Frequency: 848.31 MHz; Duty Cycle: 1:1; PMF: 1

Medium: BSL835 Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 53.495$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3275; ConvF(6.04, 6.04, 6.04); Calibrated: 2013-01-22;

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

Electronics: DAE4 Sn756; Calibrated: 2013-02-07

Phantom: Triple Flat Phantom 5.1C 06-28-2013; Type: QD 000 P51 CA; Serial: 1129/2

Measurement SW: DASY52, Version 52.8 (1)

DASY Configuration for WLAN5000 a-mode/Body - Channel 100 - OFDM 6 Mbps - Spacer 15mm - No Headset - Display Facing Phantom/Area Scan:

Date/Time: 2013-08-09 8:12:01 AM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5500 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5500$ MHz; $\sigma = 5.817$ S/m; $\epsilon_r = 47.932$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(4.07, 4.07, 4.07); Calibrated: 2013-01-23;

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

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

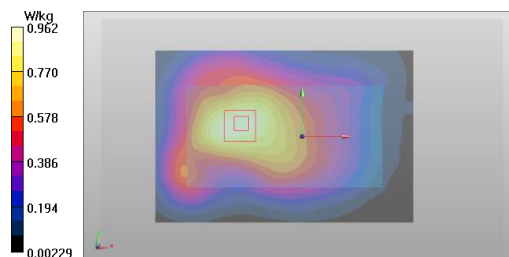
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 0.885 W/kg; SAR(10 g) = 0.606 W/kg

Maximum value of SAR (interpolated) = 0.962 W/kg

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA800 with factor 1.03, WLAN5000 a-mode with factor 1.15 before combining in SEMCAD SW.



SAR Report

Appendix B.2 for FCC_RM-927_01

Applicant: Nokia Corporation

Type: RM-927

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Plot #105

Date/Time: 2013-08-05 9:11:56 AM

DASY Configuration for LTE1700/2100 (Band 4)/Body - High - QPSK - 20MHz - 1 RB - 50% offset - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001243/3

Communication System: LTE1700/2100 (Band 4); Frequency: 1745 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL1750 Medium parameters used: $f = 1745$ MHz; $\sigma = 1.448$ S/m; $\epsilon_r = 52.299$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.91, 4.91, 4.91); Calibrated: 2013-03-15;

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

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013

Measurement SW: DASY52, Version 52.8 (6)

Date/Time: 2013-08-03 10:35:57 AM

DASY Configuration for CDMA1900/Body - Middle - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001261/5

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

Medium: MSL1900 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.467$ S/m; $\epsilon_r = 52.243$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: ES3DV3 - SN3276; ConvF(4.69, 4.69, 4.69); Calibrated: 2013-03-15;

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

Electronics: DAE4 Sn1332; Calibrated: 2013-03-08

Phantom: TF Phantptom 06_28_2013; Type: QD 000 P51 CA; Serial: 06/28/2013

Measurement SW: DASY52, Version 52.8 (5)

DASY Configuration for WLAN5000 a-mode/Body - Channel 60 - OFDM 6 Mbps - Spacer 15mm - WH-902 - Display Facing Phantom/Area Scan:

Date/Time: 2013-08-08 12:22:27 PM

Test Laboratory: TCC Nokia

Type: RM-927; Serial: 355906/05/001344/9

Communication System: WLAN5000 a-mode; Frequency: 5300 MHz; Duty Cycle: 1:1; PMF: 1

Medium: MSL5000 Medium parameters used: $f = 5300$ MHz; $\sigma = 5.519$ S/m; $\epsilon_r = 48.418$; $\rho = 1000$ kg/m³

Phantom section: Center Section

Probe: EX3DV4 - SN3817; ConvF(4.34, 4.34, 4.34); Calibrated: 2013-01-23;

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

Electronics: DAE4 Sn1301; Calibrated: 2013-02-06

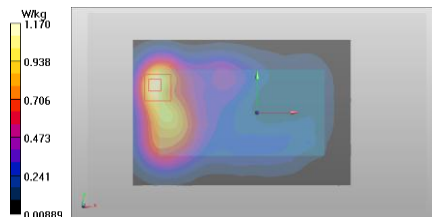
Phantom: Triple Flat Phantom 5.1C; Type: QD 000 P51 CA; Serial: 2013/06/28

Measurement SW: DASY52, Version 52.8 (1)

Fast SAR of Combined Scans: SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.606 W/kg

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

LTE1700/2100 (Band4) was scaled with factor 1.02, CDMA1900 with factor 1.01, WLAN5000 a-mode with factor 1.17 before combining in SEMCAD SW.



SAR Report

Appendix B.2 for FCC_RM-927_01

Applicant: Nokia Corporation

Type: RM-927

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