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FINAS
Finnish Accreditation Service
T117 (EN ISO/IEC 17025)

SAR Compliance Test Report

Test report no.:	FCC_RM-877_01	**Date of report:**	2013-05-13
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Tested device:	RM-877		
FCC ID:	PDNB	**IC:**	661R-B
Supplement reports:	SAR_Photo_RM-877_04		
Testing has been carried out in accordance with:	**47CFR §2.1093** Radiofrequency Radiation Exposure Evaluation: Portable Devices **FCC OET Bulletin 65 (Edition 97-01), Supplement C (Edition 01-01)** Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields **RSS-102** Evaluation Procedure for Mobile and Portable Radio Transmitters with Respect to Health Canada's Safety Code 6 for Exposure of Humans to Radio Frequency Fields **IEEE 1528 - 2003** IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Technique		
Documentation:	The documentation of the testing performed on the tested devices is archived for 15 years at TCC Nokia.		
Test results:	**The tested device complies with the requirements in respect of all parameters subject to the test.** The test results and statements relate only to the items tested. The test report shall not be reproduced except in full, without written approval of the laboratory.		

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1. SUMMARY OF SAR TEST REPORT

1.1 Test Details

Period of test	2013-02-28 to 2013-05-06
SN, HW and SW numbers of tested device	SN:004402/47/126350/3, HW:1000, SW:3012.0000.1304.10019, DUT:17277 SN:004402/47/126349/5, HW:1000, SW:3012.0000.1304.10019, DUT:17276 SN:004402/47/126302/4, HW:1000, SW:3012.0000.1304.10019, DUT:17275 SN:004402/47/126326/3, HW:1000, SW:3012.0000.1304.10019, DUT:17272 SN:004402/47/126317/2, HW:1000, SW:3012.0000.1304.10019, DUT:17273 SN:004402/47/126333/9, HW:1000, SW:3012.0000.1304.10019, DUT:17274 SN:004402/47/126346/1, HW:1000, SW:3012.0000.1304.10019, DUT:17283 SN:004402/47/126323/0, HW:1000, SW:3012.0000.1304.10019, DUT:17244 SN:004402/47/126329/7, HW:1000, SW:3012.0000.1304.10019, DUT:17245 SN:004402/47/126315/6, HW:1000, SW:3012.0000.1304.10019, DUT:17281
Batteries used in testing	-
Headsets used in testing	WH-208; DUT:17254, 17255, 17256, 17257
Other accessories used in testing	Camera Grip PD-95G, DUT 17309, 17310 CC-3066 Optional Wireless Charging back cover, DUT 17340, 17339
State of sample	Prototype unit
Notes	-

1.2 Maximum Results

The maximum measured SAR values for Head configuration, Body Worn configuration and Wireless Router configuration are given in sections 1.2.1, 1.2.2 and 1.2.3 respectively. The device conforms to the requirements of the standard(s) when the maximum measured SAR value is less than or equal to the limit.

1.2.1 Head Configuration

Mode	Ch / *f*(MHz)	Conducted power	Position	Measured SAR value (1g avg)	Reported* SAR value (1g avg)	SAR limit (1g avg)	Result	Plot #
LTE700	23790 / 710.0	23.65 dBm	Right, Cheek	0.539 W/kg	**0.63 W/kg**	1.6 W/kg	PASSED	1
3-slot GPRS850	251 / 848.8	29.83 dBm	Right, Cheek	0.571 W/kg	**0.67 W/kg**	1.6 W/kg	PASSED	2
WCDMA850	4132 / 826.4	23.67 dBm	Right, Cheek	0.499 W/kg	**0.58 W/kg**	1.6 W/kg	PASSED	3
LTE850	20525 / 836.5	22.95 dBm	Right, Cheek	0.420 W/kg	**0.52 W/kg**	1.6 W/kg	PASSED	4
WCDMA1700/2100	1312 / 1712.4	23.74 dBm	Right, Cheek	1.20 W/kg	**1.38 W/kg**	1.6 W/kg	PASSED	31
LTE1700/2100	23175 /1732.5	23.07 dBm	Right, Cheek	1.07 W/kg	**1.28 W/kg**	1.6 W/kg	PASSED	6
2-slot GPRS1900	661 / 1880.0	28.03 Bm	Left, Cheek	0.668 W/kg	**0.75 W/kg**	1.6 W/kg	PASSED	7
WCDMA1900	9262 / 1852.4	23.67 dBm	Right, Cheek	1.06 W/kg	**1.24 W/kg**	1.6 W/kg	PASSED	33
LTE1900	18700 / 1860.0	23.16 dBm	Left, Cheek	1.00 W/kg	**1.17 W/kg**	1.6 W/kg	PASSED	9
WLAN2450	10 / 2457.0	16.17 dBm	Right, Cheek	0.641 W/kg	**0.98 W/kg**	1.6 W/kg	PASSED	10
WLAN5000	136 / 5680.0	14.23 dBm	Right, Cheek	0.816 W/kg	**1.23 W/kg**	1.6 W/kg	PASSED	11

(Head Table continues)

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(Head Table continues)

Mode	Ch / *f*(MHz)	Conducted power	Position	Measured SAR value (1g avg)	Reported* SAR value (1g avg)	SAR limit (1g avg)	Result	Plot #
LTE700 + WLAN2450	-	-	Right, Cheek	0.837 W/kg	**1.19 W/kg**	1.6 W/kg	PASSED	12
3-slot GPRS850 + WLAN2450	-	-	Right, Cheek	0.815 W/kg	**1.17 W/kg**	1.6 W/kg	PASSED	13
WCDMA850 + WLAN2450	-	-	Right, Cheek	0.788 W/kg	**1.14 W/kg**	1.6 W/kg	PASSED	14
LTE850 + WLAN2450	-	-	Right, Cheek	0.752 W/kg	**1.10 W/kg**	1.6 W/kg	PASSED	15
WCDMA1700/2100 + WLAN2450	-	-	Right, Cheek	1.21 W/kg	**1.47 W/kg**	1.6 W/kg	PASSED	36
LTE1700/2100 + WLAN2450	-	-	Right, Cheek	1.09 W/kg	**1.31 W/kg**	1.6 W/kg	PASSED	17
2-slot GPRS1900 + WLAN2450	-	-	Right, Cheek	0.740 W/kg	**1.08 W/kg**	1.6 W/kg	PASSED	18
WCDMA1900 + WLAN2450	-	-	Right, Cheek	1.07 W/kg	**1.25W/kg**	1.6 W/kg	PASSED	38
LTE1900 + WLAN2450	-	-	Right, Cheek	1.00 W/kg	**1.17 W/kg**	1.6 W/kg	PASSED	9
LTE700 + WLAN5000	-	-	Right, Cheek	0.816 W/kg	**1.23 W/kg**	1.6 W/kg	PASSED	11
3-slot GPRS850 + WLAN5000	-	-	Right, Cheek	0.816 W/kg	**1.23 W/kg**	1.6 W/kg	PASSED	11
WCDMA850 + WLAN5000	-	-	Right, Cheek	0.816 W/kg	**1.23 W/kg**	1.6 W/kg	PASSED	11
LTE850 + WLAN5000	-	-	Right, Cheek	0.831 W/kg	**1.23 W/kg**	1.6 W/kg	PASSED	39
WCDMA1700/2100 + WLAN5000	-	-	Right, Cheek	1.20 W/kg	**1.38 W/kg**	1.6 W/kg	PASSED	40
LTE1700/2100 + WLAN5000	-	-	Right, Cheek	1.07 W/kg	**1.29 W/kg**	1.6 W/kg	PASSED	26
2-slot GPRS1900 + WLAN5000	-	-	Right, Cheek	0.816 W/kg	**1.23 W/kg**	1.6 W/kg	PASSED	11
WCDMA1900 + WLAN5000	-	-	Right, Cheek	1.06 W/kg	**1.24 W/kg**	1.6 W/kg	PASSED	42
LTE1900 + WLAN5000	-	-	Right, Cheek	0.816 W/kg	**1.23 W/kg**	1.6 W/kg	PASSED	9

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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 #
LTE700	23800 / 711.0	23.54 dBm	15.0 mm	0.521 W/kg	**0.63 W/kg**	1.6 W/kg	PASSED	43
3-slot GPRS850	251 / 848.8	29.83 dBm	15.0 mm	0.592 W/kg	**0.70 W/kg**	1.6 W/kg	PASSED	44
WCDMA850	4132 / 826.4	23.67 dBm	15.0 mm	0.483 W/kg	**0.57W/kg**	1.6 W/kg	PASSED	45
LTE850	20525 / 836.5	23.00 dBm	15.0 mm	0.407 W/kg	**0.50 W/kg**	1.6 W/kg	PASSED	46
WCDMA1700/2100	1312 / 1712.4	23.74 dBm	15.0 mm	0.967 W/kg	**1.11 W/kg**	1.6 W/kg	PASSED	47
LTE1700/2100	20050 /1720.0	23.07 dBm	15.0 mm	0.798 W/kg	**0.96 W/kg**	1.6 W/kg	PASSED	48
2-slot GPRS1900	661 / 1880.0	28.03 dBm	15.0 mm	0.548 W/kg	**0.62 W/kg**	1.6 W/kg	PASSED	49
WCDMA1900	9400 / 1880.0	23.55 dBm	15.0 mm	0.900 W/kg	**1.08 W/kg**	1.6 W/kg	PASSED	50
LTE1900	18700 / 1860.0	22.97 dBm	15.0 mm	0.747 W/kg	**0.92 W/kg**	1.6 W/kg	PASSED	51
WLAN2450	10 / 2457.0	16.17 dBm	15.0 mm	0.066 W/kg	**0.10 W/kg**	1.6 W/kg	PASSED	52
WLAN5000	136 / 5680.0	14.23 dBm	15.0 mm	0.216 W/kg	**0.33 W/kg**	1.6 W/kg	PASSED	53
LTE700 + WLAN2450	-	-	15.0 mm	0.529 W/kg	**0.64 W/kg**	1.6 W/kg	PASSED	54
3-slot GPRS850 + WLAN2450	-	-	15.0 mm	0.600 W/kg	**0.71 W/kg**	1.6 W/kg	PASSED	55
WCDMA850 + WLAN2450	-	-	15.0 mm	0.495 W/kg	**0.58 W/kg**	1.6 W/kg	PASSED	56
LTE850 + WLAN2450	-	-	15.0 mm	0.416 W/kg	**0.51 W/kg**	1.6 W/kg	PASSED	57
WCDMA1700/2100 + WLAN2450	-	-	15.0 mm	0.999 W/kg	**1.15 W/kg**	1.6 W/kg	PASSED	58
LTE1700/2100 + WLAN2450	-	-	15.0 mm	0.804 W/kg	**0.97 W/kg**	1.6 W/kg	PASSED	59
2-slot GPRS1900 + WLAN2450	-	-	15.0 mm	0.568 W/kg	**0.64 W/kg**	1.6 W/kg	PASSED	60
WCDMA1900 + WLAN2450	-	-	15.0 mm	0.900 W/kg	**1.08 W/kg**	1.6 W/kg	PASSED	50
LTE1900 + WLAN2450	-	-	15.0 mm	0.747 W/kg	**0.92 W/kg**	1.6 W/kg	PASSED	51

(Body Table continues)

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(Body Table continues)

Mode	Ch / *f*(MHz)	Conducted power	Separation distance	Measured SAR value (1g avg)	Reported* SAR value (1g avg)	SAR limit (1g avg)	Result	Plot #
LTE700 + WLAN5000	-	-	15.0 mm	0.521 W/kg	**0.63 W/kg**	1.6 W/kg	PASSED	43
3-slot GPRS850 + WLAN5000	-	-	15.0 mm	0.593 W/kg	**0.70 W/kg**	1.6 W/kg	PASSED	64
WCDMA850 + WLAN5000	-	-	15.0 mm	0.486 W/kg	**0.57 W/kg**	1.6 W/kg	PASSED	65
LTE850 + WLAN5000	-	-	15.0 mm	0.407 W/kg	**0.50 W/kg**	1.6 W/kg	PASSED	46
WCDMA1700/2100 + WLAN5000	-	-	15.0 mm	0.986 W/kg	**1.13 W/kg**	1.6 W/kg	PASSED	67
LTE1700/2100 + WLAN5000	-	-	15.0 mm	0.798 W/kg	**0.96 W/kg**	1.6 W/kg	PASSED	48
2-slot GPRS1900 + WLAN5000	-	-	15.0 mm	0.548 W/kg	**0.62 W/kg**	1.6 W/kg	PASSED	49
WCDMA1900 + WLAN5000	-	-	15.0 mm	0.900 W/kg	**1.08 W/kg**	1.6 W/kg	PASSED	50
LTE1900 + WLAN5000	-	-	15.0 mm	0.761 W/kg	**0.93 W/kg**	1.6 W/kg	PASSED	71

1.2.3 Wireless Router Configuration

Summary of Maximum Results for Wireless Router mode at 10.0mm

Mode	Ch / *f*(MHz)	Conducted power	Separation distance	Measured SAR value (1g avg)	Reported* SAR value (1g avg)	SAR limit (1g avg)	Result	Plot #
LTE700	23800 / 711.0	23.54 dBm	10.0 mm	0.651 W/kg	**0.78 W/kg**	1.6 W/kg	PASSED	72
3-slot GPRS850	251 / 848.8	29.83 dBm	10.0 mm	0.765 W/kg	**0.90 W/kg**	1.6 W/kg	PASSED	73
WCDMA850	4233 / 846.6	23.72 dBm	10.0 mm	0.639 W/kg	**0.74 W/kg**	1.6 W/kg	PASSED	74
LTE850	20600 /844.0	22.96 dBm	10.0 mm	0.549 W/kg	**0.67 W/kg**	1.6 W/kg	PASSED	75
WCDMA1700/2100	1312 / 1712.4	21.02 dBm	10.0 mm	0.909 W/kg	**1.10 W/kg**	1.6 W/kg	PASSED	76
LTE1700/2100	20050 / 1720.0	20.45 dBm	10.0 mm	0.817 W/kg	**1.01 W/kg**	1.6 W/kg	PASSED	77
2-slot GPRS1900	661 / 1880.0	28.03 dBm	10.0 mm	0.875 W/kg	**0.98 W/kg**	1.6 W/kg	PASSED	78
WCDMA1900	9538 / 1907.6	21.24 dBm	10.0 mm	0.883 W/kg	**1.02 W/kg**	1.6 W/kg	PASSED	79
LTE1900	19100 / 1900.0	21.05 dBm	10.0 mm	0.838 W/kg	**0.94 W/kg**	1.6 W/kg	PASSED	80
WLAN2450	10 / 2457.0	16.17dBm	10.0 mm	0.134 W/kg	**0.20 W/kg**	1.6 W/kg	PASSED	81

(Wireless Router Table continues)

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(Wireless Router Table continues)

Mode	Ch / *f*(MHz)	Conducted power	Separation distance	Measured SAR value (1g avg)	Reported* SAR value (1g avg)	SAR limit (1g avg)	Result	Plot #
LTE700 + WLAN2450	-	-	10.0 mm	0.659 W/kg	**0.80 W/kg**	1.6 W/kg	PASSED	82
3-slot GPRS850 + WLAN2450	-	-	10.0 mm	0.777 W/kg	**0.92 W/kg**	1.6 W/kg	PASSED	83
WCDMA850 + WLAN2450	-	-	10.0 mm	0.647 W/kg	**0.75 W/kg**	1.6 W/kg	PASSED	84
LTE850 + WLAN2450	-	-	10.0 mm	0.556 W/kg	**0.69 W/kg**	1.6 W/kg	PASSED	85
WCDMA1700/2100 + WLAN2450	-	-	10.0 mm	0.931 W/kg	**1.13 W/kg**	1.6 W/kg	PASSED	86
LTE1700/2100 + WLAN2450	-	-	10.0 mm	0.847 W/kg	**1.05 W/kg**	1.6 W/kg	PASSED	87
2-slot GPRS1900 + WLAN2450	-	-	10.0 mm	0.890 W/kg	**1.00 W/kg**	1.6 W/kg	PASSED	88
WCDMA1900 + WLAN2450	-	-	10.0 mm	0.883 W/kg	**1.02 W/kg**	1.6 W/kg	PASSED	89
LTE1900 + WLAN2450	-	-	10.0 mm	0.839 W/kg	**0.94 W/kg**	1.6 W/kg	PASSED	90

* Reported SAR values are scaled to, or measured at, upper limit of power tuning tolerance. In addition, SAR values are scaled up by 12% to cover measurement drift. As a consequence of this upward drift correction, the contribution of measurement drift to the overall measurement uncertainty (Section 6) is reduced to zero.

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1.2.4 Summary SAR data

	FCC-defined SAR values for the Grants of Equipment Authorization		
	PCE	DTS	NII
Maximum Head SAR values	1.38 W/kg	1.18 W/Kg	1.23 W/Kg
{Max + Max} Simultaneous Head SAR value	1.56 W/kg		
Maximum Body SAR values	1.11 W/kg	0.28 W/kg	0.33 W/Kg
{Max + Max} Simultaneous Body SAR value	1.28 W/kg		
Maximum Product Specific (Wireless Router) SAR values	1.10 W/kg	0.20 W/kg	n/a
{Max + Max} Simultaneous Product Specific SAR value	1.24 W/kg		
Maximum Simultaneous SAR value **Head SAR: WCDMA850 + WLAN2450**	1.56 W/kg		

Note:

PCE contains the highest results between all cellular modes (cellular, AWS and PCS bands)
DTS contains the highest results between WLAN 2.4GHz + RLAN 5725-5850MHz
NII contains the highest results between RLAN 5150-5250, 5250-5350 and 5470-5725

1.2.5 Maximum Drift

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

1.2.6 Measurement Uncertainty

Expanded Uncertainty (k=2) 95%	± 26.4%

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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	32.00	31.20	29.70	28.30	32.35	31.55	30.05	28.65
	1900			1850 – 1910	30.00	27.50	25.70	24.50	30.35	27.85	26.05	24.85
EGPRS	850	GMSK	1/8 to 4/8	824 – 849	26.00	26.00	25.00	23.50	26.35	26.35	25.35	23.85
	1900			1850 – 1910	26.00	25.30	24.40	23.30	26.35	25.65	24.75	23.65
WCDMA	850 (Band V)		1	826 – 847	23.50				23.85			
WCDMA	1700/2100 (Band IV)		1	1712 – 1753	23.50				23.85			
WCDMA	1900 (Band II)		1	1852 – 1908	23.50				23.85			
HSUPA	850 (Band V)		1	826 – 847	See Appendix D for details							
HSUPA	1700/2100 (Band IV)		1	1712 – 1753	See Appendix D for details							
HSUPA	1900 (Band II)		1	1852 – 1908	See Appendix D for details							
LTE	700	QPSK / 16QAM		704 – 716	23.50				23.85			
LTE	850	QPSK / 16QAM		824 – 849	23.00				23.35			
LTE	1700/2100	QPSK / 16QAM		1710 – 1755	23.00				23.35			
LTE	1900	QPSK / 16QAM		1850 – 1910	23.00				23.35			
BT	2450	GFSK	1	2402 – 2480	7.00				8.50			
					Ch 1-10		Ch 11		Ch 1-10		Ch 11	
WLAN b-mode*	2450	DSSS	1	2412 – 2472	16.00		14.00		17.50		15.50	
WLAN g-mode*	2450	OFDM	1	2412 – 2472	16.00		14.00		17.50		15.50	
WLAN n-mode* 20MHz	2450	OFDM	1	2412 – 2462	14.00		14.00		15.50		15.50	
					Ch 36-136	Ch 140	Ch 149-165		Ch 36-136	Ch 140	Ch 149-165	
WLAN a-mode*	5000	OFDM	1	5150 – 5825	14.00	11.00	14.00		15.50	12.50	15.50	
WLAN n-mode* 20MHz	5000	OFDM	1	5150 – 5825	13.00	11.00	13.00		14.50	12.50	14.50	

(Table continues)

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(Table continues)

					Ch 38-61 106-134 151-163	Ch 102	Ch 138	Ch 38-61 106-134 151-163	Ch 102	Ch 138
WLAN n-mode* 40MHz	5000	OFDM	1	5150 – 5825	13.00	12.00	9.00	14.50	13.50	10.50

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

Outside of USA and Canada, the transmitter of the device is capable of operating also in GSM/GPRS/EGPRS900, GSM/GPRS/EGPRS1800, WCDMA900 and WCDMA2100 bands which are not part of this filing.

This device has Voice-over-IP/Dual Transfer Mode capability for use at the ear. Therefore, SAR for multi slot GPRS mode was evaluated against the head profile of the phantom. Dual Transfer Mode is a feature that utilises the multi-slot GPRS capability in this device; it allows simultaneous transmission of voice and data during the same call, using the same transmitter and antenna.

This is a WCDMA HSUPA device, but SAR tests for HSUPA mode have not been performed as no HSUPA Sub-test mode has an average power > 0.25dB above the basic WCDMA 12.2kbps RMC mode. Appendix 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 3 device; it contains four LTE bands, namely LTE bands 700, 850, 1700/2100 and 1900. In LTE700(Band 17), the device possesses Channel Bandwidths of 10MHz and 5MHz; in LTE850(Band 5), the device possesses Channel Bandwidths of 10MHz, 5MHz, 3MHz and 1.4MHz; in LTE1700/2100 (Band 4) and in LTE1900(Band 2) Channel Bandwidths of 20MHz, 15MHz, 10MHz, 5MHz, 3MHz and 1.4MHz are available.

This is a BT Class 1 device; as its power tuning target is 7dBm (5mW), SAR testing was deemed unnecessary since (5.0mW/5mm)*√2.48GHz < 3.0 (KDB447498 D01 General RF Exposure Guidelines v05 Section 4.3.1 Standalone SAR test exclusion considerations).

This device has Wireless Router "Hotspot" mode capability.

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

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Simultaneous transmission capabilities in Head and Body-worn use		
	WLAN2450	WLAN5000
LTE700	✓	✓
GSM/GPRS/EGPRS850	✓	✓
WCDMA850	✓	✓
LTE850	✓	✓
WCDMA1700/2100	✓	✓
LTE1700/2100	✓	✓
GSM/GPRS/EGPRS1900	✓	✓
WCDMA1900	✓	✓
LTE1900	✓	✓

Simultaneous transmission capabilities in Wireless Router use		
	WLAN2450	WLAN5000
LTE700	✓	–
GSM/GPRS/EGPRS850	✓	–
WCDMA850	✓	–
LTE850	✓	–
WCDMA1700/2100	✓	–
LTE1700/2100	✓	–
GSM/GPRS/EGPRS1900	✓	–
WCDMA1900	✓	–
LTE1900	✓	–

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2.1 Power reductions in Wireless Router 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		
LTE700	0 dB	23.5 dBm		
GPRS/EGPRS850	0 dB	1-slot GPRS: 32.0 dBm	2-slot GPRS: 31.2dBm 3-slot GPRS: 29.7 dBm 4-slot GPRS: 28.3 dBm	
WCDMA850	0 dB	23.5 dBm		
LTE850	0 dB	23.0 dBm		
WCDMA1700/2100	2.5 dB	21.0 dBm		
LTE1700/2100	2.5 dB	20.5 dBm		
GPRS/EGPRS1900	0 dB	1-slot GPRS: 30.0 dBm	2-slot GPRS: 27.5 dBm 3-slot GPRS: 25.7 dBm 4-slot GPRS: 24.5 dBm	
WCDMA1900	2.5 dB	21.0 dBm		
LTE1900	2.5 dB	20.5 dBm		
WLAN2450 b-mode (DSSS 1 Mbps)	0 dB	Ch 1-10: 16.0 dBm		Ch 11: 14.0 dBm
WLAN2450 g-mode (OFDM 6 Mbps)	0 dB	Ch 1-10: 16.0 dBm		Ch 11: 14.0 dBm
WLAN2450 n-mode (MCS 0 – OFDM 6.5 Mbps)	0 dB	Ch 1-11: 14.0 dBm		
WLAN5000 a-mode (OFDM 6 Mbps)	0 dB	Ch 36-136: 14.0 dBm	Ch 140: 11.0 dBm	Ch 149-165: 14.0 dBm
WLAN5000 n-mode (MCS 0 – OFDM 6.5 Mbps)	0 dB	Ch 36-136: 13.0 dBm	Ch 140: 11.0 dBm	Ch 149-165: 13.0 dBm
WLAN5000 n-mode (MCS 0 – OFDM 13.5 Mbps)	0 dB	Ch 36-61, Ch 106-134, Ch 151-163: 13.0 dBm	Ch 102: 12.0 dBm	Ch 138: 9.0 dBm

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.

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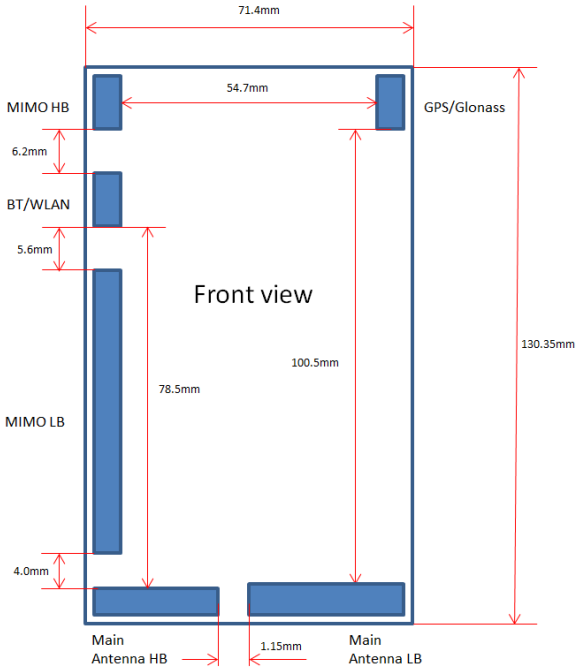

3. TEST CONDITIONS

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; 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.

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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.

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

The standard transmission mode of the device in all WLAN b-mode tests was DSSS QPSK 1Mbps; DSSS QPSK 11Mbps was additionally used for checking. The standard transmission mode of the device in all WLAN a-mode tests was OFDM 6 Mbps; OFDM 36 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 and n modulation modes in this device as illustrated by the tables in Appendix J. 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 v02. MPR values as stipulated in Table 6.2.3_1 of 3GPP TS 36.101 (presented below) have been incorporated into the device; these MPR values are dependent on the modulation, Channel Bandwidth and Resource Block allocations as shown:

Table 6.2.4-1: 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.

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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 SAR Handsets Multi Xmiter and Ant v01
KDB 941225 D06 v01 Hot Spot SAR
KDB 447498 D01 General RF Exposure Guidance v05
KDB 690783 D01 SAR Listings on Grants
KDB 865664 D01 SAR Measurements 100MHz to 6GHz v01
KDB 865664 D02 SAR Reporting v01

* In some of the LTE result tables in Section 7.1-7.3 there are extra test done which were not required by this KDB. Those tests have been conducted voluntarily.

3.3 Test Cases and Test Minimisation

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

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

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

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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.

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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.

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The following table lists calibration dates of SPEAG components:

Test Equipment	Serial Number	Calibration date	Calibration expiry
DAE4	793	2012-08	2013-08
DAE4	538	2012-08	2013-08
DAE4	1309	2013-01	2014-01
DAE4	728	2012-08	2013-08
DAE4	1355	2013-01	2014-01
E-field Probe ES3DV3	3194	2012-08	2013-08
E-field Probe ES3DV3	3131	2012-08	2013-08
E-field Probe ES3DV3	3165	2013-01	2014-01
E-field Probe EX3DV4	3573	2013-01	2014-01
E-field Probe EX3DV4	3892	2012-11	2013-11
Dipole Validation Kit, D750V2	1034	2011-07	2013-07
Dipole Validation Kit, D835V2	462	2011-09	2013-09
Dipole Validation Kit, D835V2	480	2012-12	2014-12
Dipole Validation Kit, D1750V2	1082	2012-12	2014-12
Dipole Validation Kit, D1900V2	5d030	2012-02	2014-02
Dipole Validation Kit, D2450V2	729	2011-09	2013-09
Dipole Validation Kit, D5GHzV2	1048	2012-12	2014-12
DASY4 software	Version 4.7	-	-
DASY5 software	Version 52.8	-	-

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Additional test equipment used in testing:

Test Equipment	Model	Serial Number	Calibration date	Calibration expiry
Signal Generator	E4438C	MY42080610	2012-08	2013-08
Signal Generator	SML03	101264	2012-08	2013-08
Signal Generator	SMB100A	105735	2012-08	2013-08
Signal Generator	E4436B	US39260114	2012-08	2013-08
Amplifier	5S1G4M3	302338	-	-
Amplifier	ZHL-42-SMA	N072095-5	-	-
Amplifier	5S4G11	312661	-	-
Amplifier	5S1G4	25583	-	-
Power Meter	NRVS	838624/032	2012-08	2013-08
Power Meter	NRVD	840023/028	2012-08	2013-08
Power Meter	NRP	100714	2012-08	2013-08
Power Meter	NRVZ	849305/029	2012-08	2013-08
Power Sensor	NRV-Z32	100067	2012-08	2013-08
Power Sensor	NRV-Z32	849745/018	2012-08	2013-08
Power Sensor	NRP-Z92	100085	2012-08	2013-08
Power Sensor	NRV-Z32	825600/002	2012-08	2013-08
Call Tester	CMU 200	103293	-	-
Call Tester	CMU 200	101111	-	-
Call Tester	CMU 200	104983	-	-
Call Tester	CMU 200	103294	-	-
Call Tester	MT8820C	6200883095	-	-
Call Tester	CMW 500	110565	-	-
Call Tester	CMW 500	110566	-	-
Network Analyzer	ENA E5071C	MY46213166	2012-08	2013-08
Dielectric Probe Kit	DAK-3.5	1042	-	-

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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 µW/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 Distance from probe tip to dipole centers: 2.0 mm
Application	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 µW/g to > 100 mW/g, Linearity: ± 0.2 dB
Dimensions	Overall length: 330 mm Tip length: 10 mm Body diameter: 12 mm Tip diameter: 2.5 mm Distance from probe tip to dipole centers: 1.0 mm
Application	General dosimetry up to 6 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms

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

The phantom used for all Body SAR tests i.e. for both system checks and device testing, was a “Triple Flat Phantom”, also manufactured by SPEAG; this phantom conform to the requirements of OET Bulletin 65, Supplement C.

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

4.3 Tissue Simulants

Recommended values for the dielectric parameters of the tissue simulants are given in IEEE 1528 - 2003 and FCC Supplement C to OET Bulletin 65. All tests were carried out using simulants whose dielectric parameters were within ± 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

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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.

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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	DAE unit Type / SN	Validation done	
						Head tissue simulant	Body tissue simulant
750	TCC Salo / SAR-4	V52.8	D750V2 / 1034	ES3DV4 / 3131	DAE4 / 728	2013-01	2013-01
835	TCC Salo / SAR-3	V4.7	D835V2 / 462	EX3DV4 / 3892	DAE4 / 793	2013-01	2013-01
835	TCC Salo / SAR-3	V52.8	D835V2 / 480	ES3DV4 / 3165	DAE4 / 1355	2013-05	2013-05
1750	TCC Salo / SAR-1	V4.7	D1750V2 / 1082	ES3DV3 / 3194	DAE4 / 538	2012-12	2012-12
1750	TCC Salo / SAR-1	V52.8	D1750V2 / 1082	ES3DV3 / 3194	DAE4 / 538	2013-05	2013-05
1900	TCC Salo / SAR-1	V4.7	D1900V2 / 5d030	ES3DV3 / 3194	DAE4 / 538	2012-11	2012-11
1900	TCC Salo / SAR-4	V52.8	D1900V2 / 5d030	ES3DV4 / 3131	DAE4 / 728	-	2013-03
2450	TCC Salo / SAR-4	V52.8	D2450V2 / 729	ES3DV4 / 3131	DAE4 / 728	2013-01	2013-01
5200	TCC Salo / SAR-2	V52.6	D5GHzV2 / 1048	EX3DV4 / 3573	DAE4 / 1309	2013-02	2013-02
5300	TCC Salo / SAR-2	V52.6	D5GHzV2 / 1048	EX3DV4 / 3573	DAE4 / 1309	2013-02	2013-02
5500	TCC Salo / SAR-2	V52.6	D5GHzV2 / 1048	EX3DV4 / 3573	DAE4 / 1309	2013-02	2013-02
5600	TCC Salo / SAR-2	V52.6	D5GHzV2 / 1048	EX3DV4 / 3573	DAE4 / 1309	2013-02	2013-02
5800	TCC Salo / SAR-2	V52.6	D5GHzV2 / 1048	EX3DV4 / 3573	DAE4 / 1309	2013-02	2013-02

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. The system checking results (dielectric parameters and SAR values) are given in the table below.

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System checking, head tissue simulant

f[MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters εr	Dielectric Parameters σ [S/m]	SAR 1g Deviation from target dSAR [%]	Dielectric Parameters Deviation from target dεr [%]	Dielectric Parameters Deviation from target dσ [%]	Temp [°C]	Plot #
	Tolerances				±10 %	±5 %	±5 %		
750	IEEE1528 / IEC62209		41.9	0.89					
	Reference result SN:1034	2.12	41.7	0.91	TCC Salo/SAR-4 ES3DV3 SN:3131 Head 750MHz				
	2013-02-28	2.13	40.8	0.92	0.47	-2.16	1.10	21.0	-
	2013-03-04	2.12	40.4	0.93	0.00	-3.12	2.20	21.0	-
	2013-03-05	2.13	40.6	0.93	0.47	-2.64	2.20	21.0	-
	2013-03-06	2.12	39.9	0.92	0.00	-4.32	1.10	21.0	-
	2013-03-27	2.10	40.5	0.90	-0.94	-2.88	-1.10	21.0	1
	2013-04-23	2.12	40.1	0.92	0.00	-3.84	1.10	21.0	-
835	IEEE1528 / IEC62209		41.5	0.90					
	Reference result SN:462	2.33	41.1	0.89	TCC Salo/SAR-3 EX3DV4 SN:3892 Head 835MHz				
	2013-02-28	2.33	40.3	0.92	0.00	-2.66	3.37	21.0	-
	2013-03-04	2.34	40.5	0.91	0.43	-2.17	2.25	21.0	-
	2013-03-05	2.34	40.6	0.92	0.43	-1.93	3.37	21.0	-
	2013-03-06	2.34	40.3	0.92	0.43	-2.66	3.37	21.0	-
	2013-03-27	2.26	40.5	0.91	-3.00	-1.46	2.25	21.0	2
	2013-04-10	2.31	40.4	0.90	-0.86	-1.70	1.12	21.0	-
	2013-04-22	2.33	40.6	0.92	0.00	-1.22	3.37	21.0	-
1750	IEEE1528 / IEC62209		40.1	1.36					
	Reference result SN:1082	8.99	39.3	1.34	TCC Salo/SAR-1 ES3DV3 SN:3194 Head 1750MHz				
	2013-02-28	9.50	38.9	1.35	5.67	-1.02	0.75	21.0	-
	2013-03-04	9.49	39.4	1.38	5.56	0.25	2.99	21.0	-
	2013-03-05	9.36	39.2	1.38	4.12	-0.25	2.99	21.0	-
	2013-03-06	9.63	39.4	1.38	7.12	0.25	2.99	21.0	3
	2013-03-12	9.34	39.0	1.34	3.89	-0.76	0.00	21.0	-
	2013-04-02	9.42	39.4	1.35	4.78	0.25	0.75	21.0	-
	2013-04-04	9.20	38.8	1.33	2.34	-1.27	-0.75	21.0	-
	2013-04-08	9.36	38.8	1.34	4.12	-1.27	0.00	21.0	-
	2013-04-30	9.19	38.9	1.34	2.22	-1.02	0.00	21.0	-
	2013-05-06	9.17	38.9	1.33	2.00	-1.02	-0.75	21.0	-

(System checking, head table continues)

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(System checking, head table continues)

f[MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters εr	Dielectric Parameters σ [S/m]	SAR 1g Deviation from target dSAR [%]	Dielectric Parameters Deviation from target dεr [%]	Dielectric Parameters Deviation from target dσ [%]	Temp [°C]	Plot #
1900	IEEE1528 / IEC62209		40.0	1.40					
	Reference result SN:5d030	9.79	40.4	1.4	TCC Salo/SAR-1 ES3DV3 SN:3194 Head 1900MHz				
	2013-02-28	10.30	39.3	1.39	5.21	-2.72	-0.71	21.0	-
	2013-03-01	10.30	39.0	1.40	5.21	-3.47	0.00	21.0	-
	2013-03-04	10.20	39.1	1.39	4.19	-3.22	-0.71	21.0	-
	2013-03-05	10.40	38.8	1.40	6.23	-3.96	0.00	21.0	-
	2013-03-06	10.30	39.3	1.40	5.21	-2.72	0.00	21.0	-
	2013-03-20	10.70	39.5	1.38	9.30	-2.23	-2.14	21.0	4
	2013-03-21	10.50	39.3	1.38	7.25	-2.72	-1.43	21.0	-
	2013-03-28	10.00	39.2	1.38	2.15	-2.97	-1.43	21.0	-
	2013-04-02	10.30	39.0	1.38	5.21	-3.47	-1.43	21.0	-
	2013-04-03	10.50	38.8	1.39	7.25	-3.96	-0.71	21.0	-
	2013-04-22	10.10	38.6	1.38	3.17	-4.46	-1.43	21.0	-
	2013-04-23	10.00	39.2	1.39	2.15	-2.97	-0.71	21.0	-
	2013-04-24	10.00	38.5	1.39	2.15	-4.70	-0.71	21.0	-
2450	IEEE1528 / IEC62209		39.2	1.80					
	Reference result SN:729	13.9	38.3	1.85	TCC Salo/SAR-4 ES3DV3 SN:3131 Head 2450MHz				
	2013-03-06	13.80	38.4	1.82	-0.72	0.26	-1.62	21.0	-
	2013-03-28	13.60	38.1	1.78	-2.16	-0.52	-3.78	21.0	-
	2013-04-18	13.80	37.7	1.80	-0.72	-1.57	-2.70	21.0	-
	2013-04-25	13.50	38.6	1.80	-2.88	0.78	-3.24	21.0	5
5200	IEEE1528 / IEC62209*		36.0	4.66					
	Reference result SN:1048	8.04	34.6	4.46	TCC Salo/SAR-2 EX3DV4 SN:3573 Head 5200MHz				
	2013-03-06	7.84	35.3	4.46	-2.49	2.02	0.00	21.0	-
	2013-03-07	7.76	35.8	4.49	-3.48	3.47	0.45	21.0	6
	2013-04-02	7.91	35.8	4.52	-1.62	3.47	1.35	21.0	-
	2013-04-29	7.79	35.6	4.50	-3.11	2.89	0.90	21.0	-

(System checking, head table continues)

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(System checking, head table continues)

f[MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters		SAR 1g Deviation from target	Dielectric Parameters Deviation from target		Temp	Plot #
			εr	σ [S/m]	dSAR [%]	dεr [%]	dσ [%]	[°C]	
5300	IEEE1528 / IEC62209*		35.9	4.76					
	Reference result SN:1048	8.34	34.4	4.55	TCC Salo/SAR-2 EX3DV4 SN:3573 Head 5300MHz				
	2013-03-06	8.50	35.2	4.56	1.92	2.33	0.22	21.0	-
	2013-03-07	8.18	35.6	4.58	-1.92	3.49	0.66	21.0	-
	2013-04-02	8.50	35.7	4.62	1.92	3.78	1.54	21.0	-
	2013-04-29	8.56	35.5	4.61	2.64	3.20	1.10	21.0	7
5500	IEEE1528 / IEC62209*		35.6	4.96					
	Reference result SN:1048	8.31	34.2	4.72	TCC Salo/SAR-2 EX3DV4 SN:3573 Head 5500MHz				
	2013-03-08	8.10	34.6	4.75	-2.53	1.17	0.64	21.0	8
5600	IEEE1528 / IEC62209*		35.5	5.07					
	Reference result SN:1048	8.41	34.0	4.81	TCC Salo/SAR-2 EX3DV4 SN:3573 Head 5600MHz				
	2013-03-08	8.23	34.4	4.86	-2.14	1.18	1.04	21.0	-
	2013-04-02	8.12	35.2	4.93	-3.45	3.53	2.49	21.0	9
	2013-04-03	8.62	35.1	4.92	2.50	3.24	2.29	21.0	-
	2013-04-29	8.18	35.0	4.90	-2.73	2.94	1.87	21.0	-
5800	IEEE1528 / IEC62209*		35.3	5.27					
	Reference result SN:1048	7.93	33.8	5.04	TCC Salo/SAR-2 EX3DV4 SN:3573 Head 5800MHz				
	2013-03-11	7.89	34.8	5.12	-0.50	2.96	1.59	21.0	-
	2013-04-02	7.56	34.9	5.15	-4.67	3.25	1.98	21.0	10
	2013-04-29	7.63	34.8	5.11	-3.78	2.96	1.39	21.0	-

* Dielectric parameter data taken from IEC62209-2.

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System checking, body tissue simulant

f[MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters εr	Dielectric Parameters σ [S/m]	SAR 1g Deviation from target dSAR [%]	Dielectric Parameters Deviation from target dεr [%]	Dielectric Parameters Deviation from target dσ [%]	Temp [°C]	Plot #
	Deviation of tolerances				±10 %	±5 %	±5 %		
750	IEEE1528 / IEC62209		55.5	0.96					
	Reference result SN:1034	2.20	55.2	0.96	TCC Salo/SAR-4 ES3DV3 SN:3131 Body 750MHz				
	2013-03-07	2.29	53.6	0.99	4.09	-2.90	3.13	21.0	-
	2013-03-08	2.28	53.4	0.98	3.64	-3.26	2.08	21.0	-
	2013-03-11	2.26	53.8	0.99	2.73	-2.54	3.13	21.0	-
	2013-03-12	2.29	53.6	0.99	4.09	-2.90	3.13	21.0	-
	2013-03-13	2.28	53.8	0.99	3.64	-2.54	3.13	21.0	-
	2013-03-14	2.29	53.3	0.99	4.09	-3.44	3.13	21.0	-
	2013-03-15	2.29	53.7	0.99	4.09	-2.72	3.13	21.0	-
	2013-03-27	2.34	53.7	0.99	6.36	-2.72	3.13	21.0	11
	2013-04-23	2.30	53.5	1.00	4.55	-3.08	4.17	21.0	-
835	IEEE1528 / IEC62209		55.2	0.97					
	Reference result SN:462	2.45	53.5	1.00	TCC Salo/SAR-3 EX3DV4 SN:3892 Body 835MHz				
	2013-03-07	2.35	53.0	0.99	-4.08	-0.93	-1.00	21.0	-
	2013-03-08	2.35	53.8	0.97	-4.08	0.56	-3.00	21.0	-
	2013-03-11	2.32	53.4	0.97	-5.31	-0.19	-3.00	21.0	-
	2013-03-12	2.33	53.5	0.97	-4.90	0.00	-3.00	21.0	-
	2013-03-13	2.31	53.1	0.97	-5.71	-0.75	-3.00	21.0	-
	2013-03-14	2.33	53.4	0.98	-4.90	-0.19	-2.00	21.0	-
	2013-03-26	2.30	53.2	0.97	-6.12	-0.56	-3.00	21.0	12
	2013-03-28	2.31	53.6	0.97	-5.71	0.19	-3.00	21.0	-
	2013-04-02	2.36	53.6	0.98	-3.67	0.19	-2.00	21.0	-
	Reference result SN:480	2.42	54.5	0.99	TCC Salo/SAR-3 ES3DV3 SN:3165 Body 835MHz				
	2013-05-06	2.29	53.0	0.98	-5.37	-2.75	-1.01	21.0	13

(System checking, body table continues)

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(System checking, body table continues)

f[MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters εr	Dielectric Parameters σ [S/m]	SAR 1g Deviation from target dSAR [%]	Dielectric Parameters Deviation from target dεr [%]	Dielectric Parameters Deviation from target dσ [%]	Temp [°C]	Plot #
1750	IEEE1528 / IEC62209		53.4	1.49					
	Reference result SN:1082	9.21	51.8	1.47	TCC Salo/SAR-1 ES3DV3 SN:3194 Body 1750MHz				
	2013-03-07	9.64	51.5	1.47	4.67	-0.58	0.00	21.0	-
	2013-03-08	9.23	52.2	1.44	0.22	0.77	-2.04	21.0	-
	2013-03-11	9.68	52.0	1.45	5.10	0.39	-1.36	21.0	-
	2013-03-12	9.30	52.1	1.44	0.98	0.58	-2.04	21.0	-
	2013-03-13	9.29	51.9	1.44	0.87	0.19	-2.04	21.0	-
	2013-03-22	9.42	51.6	1.44	2.28	-0.39	-2.04	21.0	-
	2013-03-24	9.40	52.2	1.44	2.06	0.77	-2.04	21.0	-
	2013-04-03	9.61	52.0	1.45	4.34	0.39	-1.36	21.0	-
	2013-04-19	9.47	51.7	1.45	2.82	-0.19	-1.36	21.0	-
	2013-04-26	9.74	52.1	1.46	5.75	0.58	-0.68	21.0	14
1900	IEEE1528 / IEC62209		53.3	1.52					
	Reference result SN:5d030	9.87	53.0	1.56	TCC Salo/SAR-1 ES3DV3 SN:3194 Body 1900MHz				
	2013-03-14	10.10	51.8	1.51	2.33	-2.26	-3.21	21.0	-
	2013-03-15	9.94	51.4	1.51	0.71	-3.02	-3.21	21.0	-
	2013-03-16	9.94	51.7	1.51	0.71	-2.45	-3.21	21.0	-
	2013-03-17	9.91	51.3	1.50	0.41	-3.21	-3.85	21.0	-
	2013-03-18	9.97	52.1	1.50	1.01	-1.70	-3.85	21.0	-
	2013-03-19	9.68	51.9	1.50	-1.93	-2.08	-3.85	21.0	-
	2013-03-20	10.2	51.5	1.51	3.34	-2.83	-3.21	21.0	15
	2013-03-21	10.1	51.8	1.51	2.33	-2.26	-3.21	21.0	-
	2013-03-27	9.98	51.6	1.51	1.11	-2.64	-3.21	21.0	-
	2013-04-18	9.72	51.5	1.52	-1.52	-2.83	-2.56	21.0	-
	2013-04-29	9.76	51.7	1.52	-1.11	-2.45	-2.56	21.0	-
2450	IEEE1528 / IEC62209		52.7	1.95					
	Reference result SN:729	13.3	51.7	2.04	TCC Salo/SAR-4 ES3DV3 SN:3131 Body 2450MHz				
	2013-03-13	13.4	51.4	1.95	0.75	-0.58	-4.41	21.0	-
	2013-03-14	13.4	51.1	1.95	0.75	-1.16	-4.41	21.0	-
	2013-04-02	13.5	51.0	1.96	1.50	-1.35	-3.92	21.0	16
	2013-04-22	13.4	51.2	1.94	0.75	-0.97	-4.90	21.0	-

(System checking, body table continues)

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(System checking, body table continues)

f[MHz]	Description	SAR [W/kg], 1g	Dielectric Parameters εr	Dielectric Parameters σ [S/m]	SAR 1g Deviation from target dSAR [%]	Dielectric Parameters Deviation from target dεr [%]	Dielectric Parameters Deviation from target dσ [%]	Temp [°C]	Plot #
5200	FCC OET65 Supplement C		49.0	5.30					
	Reference result SN:1048	7.2	47.1	5.40	TCC Salo/SAR-2 EX3DV4 SN:3573 Body 5200MHz				
	2013-03-12	7.84	48.2	5.45	8.89	2.34	0.74	21.0	17
	2013-04-03	7.39	48.2	5.41	2.64	2.34	0.19	21.0	-
	2013-04-29	7.57	48.3	5.47	5.14	2.55	1.30	21.0	-
5300	FCC OET65 Supplement C		48.9	5.42					
	Reference result SN:1048	7.45	46.9	5.51	TCC Salo/SAR-2 EX3DV4 SN:3573 Body 5300MHz				
	2013-03-12	7.54	48.0	5.57	1.21	2.35	1.09	21.0	-
	2013-04-03	8.05	48.0	5.53	8.05	2.35	0.36	21.0	-
	2013-04-29	8.12	48.1	5.60	8.99	2.56	1.63	21.0	18
5500	FCC OET65 Supplement C		48.6	5.65					
	Reference result SN:1048	7.62	46.6	5.76	TCC Salo/SAR-2 EX3DV4 SN:3573 Body 5500MHz				
	2013-03-13	7.49	47.4	5.83	-1.71	1.72	1.22	21.0	19
5600	FCC OET65 Supplement C		48.5	5.77					
	Reference result SN:1048	7.73	46.4	5.88	TCC Salo/SAR-2 EX3DV4 SN:3573 Body 5600MHz				
	2013-03-13	8.05	47.2	5.97	4.14	1.72	1.53	21.0	-
	2013-04-03	8.07	47.5	5.93	4.40	2.37	0.85	21.0	-
	2013-04-30	8.34	47.6	5.94	7.89	2.59	1.02	21.0	20
5800	FCC OET65 Supplement C		48.2	6.00					
	Reference result SN:1048	7.25	46.1	6.17	TCC Salo/SAR-2 EX3DV4 SN:3573 Body 5800MHz				
	2013-03-14	7.08	46.9	6.24	-2.34	1.74	1.13	21.0	-
	2013-04-03	7.11	47.2	6.21	-1.93	2.39	0.65	21.0	-
	2013-04-28	7.03	47.5	6.22	-3.03	3.04	0.81	21.0	21

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

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4.5 Tissue Simulants used in the Measurements

Head tissue simulant measurements

f [MHz]	Description	Dielectric Parameters		Dielectric Parameters Deviation from Standard target		Temp [°C]
		ε_r	σ [S/m]	$d\varepsilon_r$ [%]	dσ [%]	
	Tolerances			±5 %	±5 %	
710	Recommended value	42.1	0.89			
	2013-02-28	41.0	0.90	-2.61	1.12	21.0
	2013-03-04	40.7	0.90	-3.33	1.12	21.0
	2013-03-05	40.9	0.91	-2.85	2.25	21.0
	2013-03-06	40.2	0.90	-4.51	1.12	21.0
	2013-03-27	40.6	0.88	-3.56	-1.12	21.0
	2013-04-23	40.4	0.89	-4.04	0.00	21.0
835	Recommended value	41.5	0.90			
	2013-02-28	40.3	0.92	-2.89	2.22	21.0
	2013-03-27	40.5	0.91	-2.41	1.11	21.0
	2013-04-22	40.6	0.92	-2.17	2.22	21.0
836	Recommended value	41.5	0.90			
	2013-02-28	40.3	0.92	-2.89	2.22	21.0
	2013-03-04	40.5	0.91	-2.41	1.11	21.0
	2013-03-05	40.6	0.92	-2.17	2.22	21.0
	2013-03-06	40.3	0.92	-2.89	2.22	21.0
	2013-03-27	40.5	0.91	-2.41	1.11	21.0
	2013-04-10	40.4	0.90	-2.65	0.00	21.0
	2013-04-22	40.6	0.92	-2.17	2.22	21.0
1732	Recommended value	40.1	1.36			
	2013-02-28	38.9	1.34	-2.99	-1.47	21.0
	2013-03-04	39.5	1.36	-1.50	0.00	21.0
	2013-03-05	39.3	1.36	-2.00	0.00	21.0
	2013-03-06	39.4	1.37	-1.75	0.74	21.0
	2013-03-12	39.1	1.33	-2.49	-2.21	21.0
	2013-04-02	39.5	1.33	-1.50	-2.21	21.0
	2013-04-04	38.8	1.31	-3.24	-3.68	21.0
	2013-04-08	38.8	1.32	-3.24	-2.94	21.0
	2013-04-30	38.9	1.32	-2.99	-2.94	21.0
	2013-05-06	38.9	1.31	-2.99	-3.68	21.0

(Head tissue simulant table continues)

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(Head tissue simulant table continues)

f [MHz]	Description	Dielectric Parameters		Dielectric Parameters Deviation from Standard target		Temp [°C]
		ε_r	σ [S/m]	$d\varepsilon_r$ [%]	dσ [%]	
1880	Recommended value	40.0	1.40			
	2013-02-28	39.4	1.38	-1.50	-1.43	21.0
	2013-03-01	39.2	1.38	-2.00	-1.43	21.0
	2013-03-04	39.1	1.38	-2.25	-1.43	21.0
	2013-03-05	38.8	1.39	-3.00	-0.71	21.0
	2013-03-06	39.3	1.39	-1.75	-0.71	21.0
	2013-03-20	39.6	1.35	-1.00	-3.57	21.0
	2013-03-21	39.4	1.36	-1.50	-2.86	21.0
	2013-03-28	39.3	1.37	-1.75	-2.14	21.0
	2013-04-02	39.1	1.37	-2.25	-2.14	21.0
	2013-04-03	38.9	1.37	-2.75	-2.14	21.0
	2013-04-22	38.6	1.36	-3.50	-2.86	21.0
	2013-04-23	39.3	1.37	-1.75	-2.14	21.0
	2013-04-24	38.5	1.37	-3.75	-2.14	21.0
2437	Recommended value	39.2	1.79			
	2013-03-06	38.5	1.81	-1.79	1.12	21.0
	2013-03-28	38.2	1.77	-2.55	-1.12	21.0
	2013-04-18	37.8	1.78	-3.57	-0.56	21.0
	2013-04-25	38.6	1.78	-1.53	-0.56	21.0
5210	Recommended value	36.0	4.67			
	2013-03-06	35.3	4.47	-1.94	-4.28	21.0
	2013-03-07	35.8	4.49	-0.56	-3.85	21.0
	2013-04-02	35.8	4.53	-0.56	-3.00	21.0
	2013-04-29	35.6	4.51	-1.11	-3.43	21.0
5290	Recommended value	35.9	4.75			
	2013-03-06	35.2	4.55	-1.95	-4.21	21.0
	2013-03-07	35.7	4.57	-0.56	-3.79	21.0
	2013-04-02	35.7	4.61	-0.56	-2.95	21.0
	2013-04-29	35.5	4.59	-1.11	-3.37	21.0
5520	Recommended value	35.6	4.99			
	2013-03-08	34.5	4.77	-3.09	-4.41	21.0

(Head tissue simulant table continues)

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(Head tissue simulant table continues)

f [MHz]	Description	Dielectric Parameters		Dielectric Parameters Deviation from Standard target		Temp [°C]
		εr	σ [S/m]	dεr [%]	dσ [%]	
5620	Recommended value	35.5	5.09			
	2013-03-08	34.4	4.87	-3.10	-4.32	21.0
	2013-04-02	35.2	4.95	-0.85	-2.75	21.0
	2013-04-03	35.0	4.93	-1.41	-3.14	21.0
	2013-04-29	35.0	4.92	-1.41	-3.34	21.0
5760	Recommended value	35.3	5.23			
	2013-03-11	34.9	5.08	-1.13	-2.87	21.0
	2013-04-02	35.0	5.10	-0.85	-2.49	21.0
	2013-04-29	34.8	5.08	-1.42	-2.87	21.0

Body tissue simulant measurements

f [MHz]	Description	Dielectric Parameters		Dielectric Parameters Deviation from Standard target		Temp [°C]
		εr	σ [S/m]	dεr [%]	dσ [%]	
	Tolerances			±5 %	±5 %	
710	Recommended value	55.7	0.96			
	2013-03-07	53.8	0.96	-3.41	0.00	21.0
	2013-03-08	53.7	0.96	-3.59	0.00	21.0
	2013-03-11	54.0	0.97	-3.05	1.04	21.0
	2013-03-12	53.8	0.97	-3.41	1.04	21.0
	2013-03-13	53.9	0.97	-3.23	1.04	21.0
	2013-03-14	53.5	0.97	-3.95	1.04	21.0
	2013-03-15	53.9	0.97	-3.23	1.04	21.0
	2013-03-27	53.9	0.97	-3.23	1.04	21.0
	2013-04-23	53.7	0.97	-3.59	1.04	21.0
835	Recommended value	55.2	0.97			
	2013-03-07	53.0	0.99	-3.99	2.06	21.0
	2013-03-11	53.4	0.97	-3.26	0.00	21.0
	2013-03-26	53.2	0.97	-3.62	0.00	21.0
	2013-04-02	53.6	0.98	-2.90	1.03	21.0
	2013-05-06	53.0	0.98	-3.99	1.03	21.0

(Body tissue simulant table continues)

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(Body tissue simulant table continues)

f [MHz]	Description	Dielectric Parameters		Dielectric Parameters Deviation from Standard target		Temp [°C]
		ε_r	σ [S/m]	$d\varepsilon_r$ [%]	dσ [%]	
836	Recommended value	55.2	0.97			
	2013-03-07	53.0	0.99	-3.99	2.06	21.0
	2013-03-08	53.8	0.97	-2.54	0.00	21.0
	2013-03-11	53.4	0.97	-3.26	0.00	21.0
	2013-03-12	53.5	0.97	-3.08	0.00	21.0
	2013-03-13	53.1	0.97	-3.80	0.00	21.0
	2013-03-14	53.4	0.98	-3.26	1.03	21.0
	2013-03-26	53.2	0.97	-3.62	0.00	21.0
	2013-03-28	53.6	0.98	-2.90	1.03	21.0
	2013-04-02	53.6	0.98	-2.90	1.03	21.0
	2013-05-06	53.0	0.98	-3.99	1.03	21.0
1732	Recommended value	53.5	1.48			
	2013-03-07	51.6	1.46	-3.55	-1.35	21.0
	2013-03-08	52.3	1.42	-2.24	-4.05	21.0
	2013-03-11	52.1	1.43	-2.62	-3.38	21.0
	2013-03-12	52.1	1.42	-2.62	-4.05	21.0
	2013-03-13	51.9	1.43	-2.99	-3.38	21.0
	2013-03-22	51.7	1.42	-3.36	-4.05	21.0
	2013-03-24	52.2	1.42	-2.43	-4.05	21.0
	2013-04-03	52.0	1.43	-2.80	-3.38	21.0
	2013-04-19	51.7	1.44	-3.36	-2.70	21.0
	2013-04-26	52.1	1.45	-2.62	-2.03	21.0
1880	Recommended value	53.3	1.52			
	2013-03-14	51.8	1.49	-2.81	-1.97	21.0
	2013-03-15	51.4	1.49	-3.56	-1.97	21.0
	2013-03-16	51.8	1.49	-2.81	-1.97	21.0
	2013-03-17	51.4	1.48	-3.56	-2.63	21.0
	2013-03-18	52.1	1.48	-2.25	-2.63	21.0
	2013-03-19	52.0	1.48	-2.44	-2.63	21.0
	2013-03-20	51.5	1.49	-3.38	-1.97	21.0
	2013-03-21	51.9	1.49	-2.63	-1.97	21.0
	2013-03-27	51.6	1.49	-3.19	-1.97	21.0
	2013-04-18	51.5	1.50	-3.38	-1.32	21.0
	2013-04-29	51.8	1.50	-2.81	-1.32	21.0

(Body tissue simulant table continues)

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(Body tissue simulant table continues)

f [MHz]	Description	Dielectric Parameters		Dielectric Parameters Deviation from Standard target		Temp [°C]
		ε_r	σ [S/m]	$d\varepsilon_r$ [%]	dσ [%]	
2437	Recommended value	52.7	1.94			
	2013-03-13	51.4	1.93	-2.47	-0.52	21.0
	2013-03-14	51.2	1.93	-2.85	-0.52	21.0
	2013-04-02	51.1	1.94	-3.04	0.00	21.0
	2013-04-22	51.2	1.92	-2.85	-1.03	21.0
5210	Recommended value	49.0	5.31			
	2013-03-12	48.2	5.46	-1.63	2.82	21.0
	2013-04-03	48.2	5.42	-1.63	2.07	21.0
	2013-04-29	48.3	5.48	-1.43	3.20	21.0
5290	Recommended value	48.9	5.40			
	2013-03-12	48.0	5.56	-1.84	2.96	21.0
	2013-04-03	48.0	5.52	-1.84	2.22	21.0
	2013-04-29	48.2	5.58	-1.43	3.33	21.0
5520	Recommended value	48.6	5.67			
	2013-03-13	47.4	5.87	-2.47	3.53	21.0
5620	Recommended value	4.84	5.79			
	2013-03-13	47.2	6.00	-2.48	3.63	21.0
	2013-04-03	47.5	5.96	-1.86	2.94	21.0
	2013-04-30	47.6	5.97	-1.65	3.11	21.0
5760	Recommended value	48.3	5.95			
	2013-03-14	47.0	6.18	-2.69	3.87	21.0
	2013-04-03	47.2	6.15	-2.28	3.36	21.0
	2013-04-28	47.5	6.17	-1.66	3.70	21.0

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

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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".

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5.2.2 Body Worn Configuration

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

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

5.2.3 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

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

5.4 SAR Averaging Methods

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

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

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

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

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6. MEASUREMENT UNCERTAINTY

Table 6.1 – Measurement uncertainty evaluation

Uncertainty Component	Section in IEEE 1528	Tol. (%)	Prob Dist	Div	c_i	$c_i . u_i$ (%)	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	±0.0	R	√3	1	±0.0	∞
Phantom and Tissue Parameters							
Phantom Uncertainty (shape and thickness tolerances)	E3.1	±4.0	R	√3	1	±2.3	∞
Conductivity Target - tolerance	E3.2	±5.0	R	√3	0.64	±1.8	∞
Conductivity - measurement uncertainty	E3.3	±5.5	N	1	0.64	±3.5	5
Permittivity Target - tolerance	E3.2	±5.0	R	√3	0.6	±1.7	∞
Permittivity - measurement uncertainty	E3.3	±2.9	N	1	0.6	±1.7	5
Combined Standard Uncertainty			RSS			**±13.2**	116
Coverage Factor for 95%			**k=2**				
Expanded Uncertainty						**±26.4**	

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7. RESULTS

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

LTE700 (Band 17) Head SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	
10MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*			
	Conducted Power [dBm]		23.50	23.59	23.64	0.85	0.76	0.71	dB
	Time-averaged Power [dBm]		23.50	23.59	23.64	1.22	1.19	1.18	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
10MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*			
	Conducted Power [dBm]		23.57	23.60	23.56	0.78	0.75	0.79	dB
	Time-averaged Power [dBm]		23.57	23.60	23.56	1.20	1.19	1.20	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE700 (Band 17) Head SAR Table continues)

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(LTE700 (Band 17) Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*			
	Conducted Power [dBm]		23.47	23.65	23.54	0.88	0.70	0.81	dB
	Time-averaged Power [dBm]		23.47	23.65	23.54	1.22	1.17	1.21	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.441	-	-	0.518	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.281	-	-	0.330	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	1
		Full SAR	0.516	0.539	0.512	0.632	**0.633**	0.617	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.289	-	-	0.340	-	
	Right Cheek With PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.272	0.281	0.252	0.333	0.330	0.304	
	Right Cheek With CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.505	0.537	0.510	0.618	0.631	0.615	
10MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*			
	Conducted Power [dBm]		22.65	22.52	22.51	0.70	0.83	0.84	dB
	Time-averaged power [dBm]		22.65	22.52	22.51	1.17	1.21	1.21	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE700 (Band 17) Head SAR Table continues)

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(LTE700 (Band 17) Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	
10MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*			
	Conducted Power [dBm]		22.47	22.47	22.43	0.88	0.88	0.92	dB
	Time-averaged power [dBm]		22.47	22.47	22.43	1.22	1.22	1.24	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
10MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*			
	Conducted Power [dBm]		22.72	22.60	22.51	0.63	0.75	0.84	dB
	Time-averaged power [dBm]		22.72	22.60	22.51	1.16	1.19	1.21	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.319	-	-	0.369	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.203	-	-	0.235	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.399	-	-	0.461	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.204	-	-	0.236	-	-	

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850MHz Band Head SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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 Slot Average Power [dBm]		32.11	32.35	32.53	0.74	0.50	0.50	dB
	Time-averaged power [dBm]		23.08	23.32	23.50	1.19	1.12	1.12	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.226	-	-	0.254	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
2-slot GPRS	Tuning Target + Tolerance [dBm]		31.55			Scaling factor*			
	Conducted Slot Average Power [dBm]		31.41	31.61	31.74	0.64	0.50	0.50	dB
	Time-averaged power [dBm]		25.39	25.59	25.72	1.16	1.12	1.12	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.327	-	-	0.367	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(850MHz Head SAR Table continues)

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(850MHz Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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	
3-slot GPRS	Tuning Target + Tolerance [dBm]		30.05			Scaling factor*			
	Conducted Slot Average Power [dBm]		30.16	29.75	29.83	0.50	0.80	0.72	dB
	Time-averaged power [dBm]		25.90	25.49	25.57	1.12	1.20	1.18	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.331	-	-	0.398	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.275	-	-	0.331	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.473	0.441	0.438	0.531	0.530	0.517	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.303	-	-	0.364	-	
	Right Cheek with PD-95G	Estimated SAR	-	-	-	-	-	-	2
		Full SAR	0.528	0.535	0.571	0.592	0.643	**0.674**	
	Right Cheek with CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.473	0.486	0.487	0.531	0.584	0.575	
4-slot GPRS	Tuning Target + Tolerance [dBm]		28.65			Scaling factor*			
	Conducted Slot Average Power [dBm]		28.57	28.54	28.59	0.58	0.61	0.56	dB
	Time-averaged power [dBm]		25.56	25.53	25.58	1.14	1.15	1.14	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.290	-		0.334	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(850MHz Head SAR Table continues)

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(850MHz Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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	
3-slot 8PSK EGPRS	Tuning Target + Tolerance [dBm]		25.35			Scaling factor*			
	Conducted Slot Average Power [dBm]		25.41	25.28	25.38	0.50	0.57	0.50	dB
	Time-averaged power [dBm]		22.40	22.27	22.37	1.12	1.14	1.12	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.143	-	-	0.160	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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]		23.85			Scaling factor*			
	Conducted Power [dBm]		23.67	23.61	23.72	0.68	0.74	0.63	dB
	Time-averaged power [dBm]		23.67	23.61	23.72	1.17	1.19	1.16	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.345	-	-	0.409	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.209	-	-	0.248	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.416	0.435	0.426	0.487	0.516	0.493	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.249	-	-	0.295	-	
	Right Cheek with PD-95G	Estimated SAR							3
		Full SAR	0.499	0.483	0.443	**0.584**	0.573	0.512	
	Right Cheek with CC-3066	Estimated SAR							-
		Full SAR	0.436	0.440	0.411	0.510	0.522	0.475	

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LTE850 (Band 5) Head SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	
10MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		23.17	23.00	23.00	0.68	0.85	0.85	dB
	Time-averaged Power [dBm]		23.17	23.00	23.00	1.17	1.22	1.22	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
10MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		23.27	23.04	22.96	0.58	0.81	0.89	dB
	Time-averaged Power [dBm]		23.27	23.04	22.96	1.14	1.21	1.23	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.310	-	-	0.354	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.170	-	-	0.194	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.368	-	-	0.421	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.248	-	-	0.283	-	-	

(LTE850 (Band 5) Head SAR Table continues)

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(LTE850 (Band 5) Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		23.26	22.95	23.03	0.59	0.90	0.82	dB
	Time-averaged Power [dBm]		23.26	22.95	23.03	1.15	1.23	1.21	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.393	0.388	0.368	0.450	0.477	0.444	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek with PD-95G	Estimated SAR	-	-	-	-	-	-	4
		Full SAR	0.443	0.420	0.373	0.507	**0.517**	0.451	
	Right Cheek with CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.392	0.369	0.322	0.449	0.454	0.389	
10MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		22.35			Scaling factor*			
	Conducted Power [dBm]		22.08	22.08	22.05	0.77	0.77	0.80	dB
	Time-averaged power [dBm]		22.08	22.08	22.05	1.19	1.19	1.20	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE850 (Band 5) Head SAR Table continues)

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(LTE850 (Band 5) Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	
10MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		22.35			Scaling factor*			
	Conducted Power [dBm]		22.13	22.00	21.97	0.72	0.85	0.88	dB
	Time-averaged power [dBm]		22.13	22.00	21.97	1.18	1.22	1.22	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
10MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		22.35			Scaling factor*			
	Conducted Power [dBm]		22.15	21.96	22.02	0.70	0.89	0.83	dB
	Time-averaged power [dBm]		22.15	21.96	22.02	1.17	1.23	1.21	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.244	-	-	0.287	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.129	-	-	0.152	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.292	-	-	0.343	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.189	-	-	0.222	-	-	

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WCDMA1700/2100 Head SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 1312 1712.4 MHz	Ch 1412 1732.4 MHz	Ch 1513 1752.6 MHz	Ch 1312 1712.4 MHz	Ch 1412 1732.4 MHz	Ch 1513 1752.6 MHz	
WCDMA	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*			
	Conducted Power [dBm]		23.74	23.84	23.65	0.61	0.51	0.70	dB
	Time-averaged power [dBm]		23.74	23.84	23.65	1.15	1.12	1.17	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.874	0.837	0.802	1.01	0.941	0.942	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.462	-	-	0.520	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	5
		Full SAR	1.10	1.09	1.07	**1.27**	1.23	1.26	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.367	-	-	0.413	-	
	Right Cheek with PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.561	0.526	0.462	0.646	0.592	0.543	
	Right Cheek with CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	1.03	1.06	1.06	1.19	1.19	1.25	
	Repeated SAR: Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	1.08	-	-	1.24	-	-	

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LTE1700/2100 (Band 4) Head SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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]		23.35			Scaling factor*			
	Conducted Power [dBm]		23.07	23.03	23.01	0.78	0.82	0.84	dB
	Time-averaged Power [dBm]		23.07	23.03	23.01	1.20	1.21	1.21	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.972	-	0.978	1.16	-	1.19	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
20MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		22.85	23.05	23.01	1.00	0.80	0.84	dB
	Time-averaged Power [dBm]		22.85	23.05	23.01	1.26	1.20	1.21	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE1700/2100 (Band 4) Head SAR Table continues)

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(LTE1700/2100 (Band 4) Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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 100% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		22.96	23.07	22.95	0.89	0.78	0.90	dB
	Time-averaged Power [dBm]		22.96	23.07	22.95	1.23	1.20	1.23	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.633	-	-	0.758	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.380	-	-	0.455	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	6
		Full SAR	0.945	1.07	0.936	1.16	1.28	1.15	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.283	-	-	0.339	-	
	Right Cheek with PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.932	0.450	0.422	1.14	0.539	0.519	
	Right Cheek with CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.840	0.926	0.864	1.03	1.11	1.06	
	Repeated SAR: Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	1.00	-	-	1.20	-	
20MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		22.35			Scaling factor*			
	Conducted Power [dBm]		21.76	21.77	21.92	1.09	1.08	0.93	dB
	Time-averaged power [dBm]		21.76	21.77	21.92	1.29	1.28	1.24	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.496	-	-	0.614	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.285	-	-	0.353	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.767	-	0.828	0.986	-	1.03	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.227	-	-	0.281	

(LTE1700/2100 (Band 4) Head SAR Table continues)

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(LTE1700/2100 (Band 4) Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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]		22.35			Scaling factor*			
	Conducted Power [dBm]		21.76	21.88	21.86	1.09	0.97	0.99	dB
	Time-averaged power [dBm]		21.76	21.88	21.86	1.29	1.25	1.26	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.778	-	-	0.973	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
20MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		22.35			Scaling factor*			
	Conducted Power [dBm]		21.76	21.82	21.67	1.09	1.03	1.18	dB
	Time-averaged power [dBm]		21.76	21.82	21.67	1.29	1.27	1.31	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE1700/2100 (Band 4) Head SAR Table continues)

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(LTE1700/2100 (Band 4) Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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 100%RB	Tuning Target + Tolerance [dBm]		22.35			Scaling factor*			
	Conducted Power [dBm]		21.86	21.93	21.89	0.99	0.92	0.96	dB
	Time-averaged power [dBm]		21.86	21.93	21.89	1.26	1.24	1.25	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.774	-	-	0.957	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

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1900MHz Band Head SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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]		30.35			Scaling factor*			
	Conducted Slot Average Power [dBm]		30.10	30.04	30.19	0.75	0.81	0.66	dB
	Time-averaged power [dBm]		21.07	21.01	21.16	1.19	1.21	1.16	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.492	-	-	0.593	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
2-slot GPRS	Tuning Target + Tolerance [dBm]		27.85			Scaling factor*			
	Conducted Slot Average Power [dBm]		27.81	28.03	27.89	0.54	0.50	0.50	dB
	Time-averaged power [dBm]		21.79	22.01	21.87	1.13	1.12	1.12	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.479	0.553	0.471	0.542	0.620	0.528	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.189	-	-	0.212	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.468	-	-	0.525	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.147	-	-	0.165	-	
	Left Cheek with PD-95G	Estimated SAR	-	-	-	-	-	-	7
		Full SAR	0.607	0.668	0.667	0.687	**0.750**	0.748	
	Left Cheek with CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.576	0.581	0.582	0.652	0.652	0.653	

(1900MHz Head SAR Table continues)

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(1900MHz Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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	
3-slot GPRS	Tuning Target + Tolerance [dBm]		26.05			Scaling factor*			
	Conducted Slot Average Power [dBm]		25.90	26.06	26.05	0.65	0.50	0.50	dB
	Time-averaged power [dBm]		21.64	21.80	21.79	1.16	1.12	1.12	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.529	-	-	0.594	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
4-slot GPRS	Tuning Target + Tolerance [dBm]		24.85			Scaling factor*			
	Conducted Slot Average Power [dBm]		24.65	24.81	24.66	0.70	0.54	0.69	dB
	Time-averaged power [dBm]		21.64	21.80	21.65	1.17	1.13	1.17	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-		-
		Full SAR	-	0.502	-	-	0.568		
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
2-slot 8PSK EGPRS	Tuning Target + Tolerance [dBm]		23.65			Scaling factor*			
	Conducted Slot Average Power [dBm]		23.36	23.34	23.32	0.79	0.81	0.83	dB
	Time-averaged power [dBm]		20.35	20.33	20.31	1.20	1.21	1.21	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.295	-	-	0.347	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(1900MHz Head SAR Table continues)

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(1900MHz Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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]		23.85			Scaling factor*			
	Conducted Power [dBm]		23.67	23.55	23.73	0.68	0.80	0.62	dB
	Time-averaged power [dBm]		23.67	23.55	23.73	1.17	1.20	1.15	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.877	0.870	0.875	1.03	1.05	1.01	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.334	-	-	0.402	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	8
		Full SAR	0.942	0.854	0.843	**1.10**	1.03	0.972	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.242	-	-	0.291	-	
	Right Cheek with PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.504	0.582	0.670	0.589	0.700	0.773	
	Right Cheek with CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.734	0.667	0.647	0.858	0.802	0.746	
	Repeated SAR: Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.939	-	-	1.10	-	-	

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LTE1900 (Band 2) Head SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	
20MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		23.16	23.09	22.97	0.69	0.76	0.88	dB
	Time-averaged Power [dBm]		23.16	23.09	22.97	1.17	1.19	1.22	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.825	0.742	0.771	0.967	0.884	0.944	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.312	-	-	0.366	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.792	-	-	0.928	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.205	-	-	0.240	-	-	
	Left Cheek with PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.942	0.920	0.935	1.10	1.10	1.15	
	Left Cheek with CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.821	0.739	0.761	0.962	0.880	0.932	
	Repeated SAR: Left Cheek with PD-95G	Estimated SAR	-	-	-	-	-	-	9
		Full SAR	1.00	-	-	1.17	-	-	
20MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		23.06	23.10	23.12	0.79	0.75	0.73	dB
	Time-averaged Power [dBm]		23.06	23.10	23.12	1.20	1.19	1.18	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.760	0.796	-	0.903	0.942	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.743	0.663	-	0.883	0.784	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE1900 (Band 2) Head SAR Table continues)

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(LTE1900 (Band 2) Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	
20MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		22.97	23.04	23.12	0.88	0.81	0.73	dB
	Time-averaged Power [dBm]		22.97	23.04	23.12	1.22	1.21	1.18	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
20MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		22.35			Scaling factor*			
	Conducted Power [dBm]		21.87	21.86	21.86	0.98	0.99	0.99	dB
	Time-averaged power [dBm]		21.87	21.86	21.86	1.25	1.26	1.26	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE1900 (Band 2) Head SAR Table continues)

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(LTE1900 (Band 2) Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	
20MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		22.35			Scaling factor*			
	Conducted Power [dBm]		21.79	21.74	21.86	1.06	1.11	0.99	dB
	Time-averaged power [dBm]		21.79	21.74	21.86	1.28	1.29	1.26	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
20MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		22.35			Scaling factor*			
	Conducted Power [dBm]		21.88	21.88	22.00	0.97	0.97	0.85	dB
	Time-averaged power [dBm]		21.88	21.88	22.00	1.25	1.25	1.22	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.645	-	-	0.784	
	Left Tilt	Estimated SAR	-	-		-	-		-
		Full SAR	-	-	0.201	-	-	0.244	
	Right Cheek	Estimated SAR	-	-		-	-		-
		Full SAR	-	-	0.554	-	-	0.674	
	Right Tilt	Estimated SAR	-	-		-	-		-
		Full SAR	-	-	0.180	-	-	0.219	

(LTE1900 (Band 2) Head SAR Table continues)

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(LTE1900 (Band 2) Head SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	
20MHz Ch BW 100%RB	Tuning Target + Tolerance [dBm]		22.35			Scaling factor*			
	Conducted Power [dBm]		21.91	21.83	21.95	0.94	1.02	0.90	dB
	Time-averaged power [dBm]		21.91	21.83	21.95	1.24	1.26	1.23	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.628	-	-	0.773	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.568	-	-	0.699	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

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2450MHz Head SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 10 2457.0 MHz	Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 10 2457.0 MHz	
WLAN b-mode DSSS 1Mbps	Tuning Target + Tolerance [dBm]		17.50			Scaling factor*			
	Conducted Power [dBm]		16.63	16.53	16.17	1.37	1.47	1.83	dB
	Time-averaged power [dBm]		16.63	16.53	16.17	1.37	1.40	1.52	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.208	-	-	0.292	-	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.091	-	-	0.127	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.523	0.526	0.546	0.717	0.738	0.832	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.136	-	-	0.191	-	
	Right Cheek, with PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.595	0.604	0.491	0.816	0.847	0.748	
	Right Cheek, with CC-3066	Estimated SAR	-	-	-	-	-	-	10
		Full SAR	0.614	0.643	0.641	0.842	0.902	**0.977**	
WLAN b-mode DSSS 11Mbps	Tuning Target + Tolerance [dBm]		17.50			Scaling factor*			
	Conducted Power [dBm]		-	16.83	-	-	1.17	-	dB
	Time-averaged power [dBm]		-	16.83	-	-	1.31	-	Lin
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.544	-	-	0.712	-	

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

Mode	Test Configu-ration	SAR Measure-ment	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Plot #
			Ch 36 5180.0 MHz	Ch 44 5220.0 MHz	Ch 52 5260.0 MHz	Ch 64 5320.0 MHz	Ch 36 5180.0 MHz	Ch 44 5220.0 MHz	Ch 52 5260.0 MHz	Ch 64 5320.0 MHz	
-WLAN a-mode OFDM 6 Mbps	Tuning Target + Tolerance [dBm]		15.50				Scaling factor*				
	Conducted Power [dBm]		14.08	14.35	14.11	14.40	1.92	1.65	1.89	1.60	dB
	Time-averaged power [dBm]		14.08	14.35	14.11	14.40	1.56	1.46	1.55	1.45	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	-	-
		Full SAR	0.087	0.091	0.107	0.107	0.135	0.134	0.165	0.155	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-	-	-
		Full SAR	0.024	-	0.026	-	0.037	-	0.041	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-	-	-
		Full SAR	0.286	-	0.306	-	0.445	-	0.473	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-	-	-
		Full SAR	0.093	-	0.106	-	0.144	-	0.164	-	
	Right Cheek, with PD-95G	Estimated SAR	-	-	-	-	-	-	-	-	-
		Full SAR	0.277	-	0.303	-	0.431	-	0.468	-	
	Right Cheek, with CC-3066	Estimated SAR	-	-	-	-	-	-	-	-	-
		Full SAR	0.319	-	0.339	-	0.496	-	0.524	-	

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5000MHz Head SAR results
5470–5725 MHz

Mode	Test Configu-ration	SAR Measure-ment	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Plot #
			Ch 104 5520.0 MHz	Ch 116 5580.0 MHz	Ch 124 5620.0 MHz	Ch 136 5680.0 MHz	Ch 104 5520.0 MHz	Ch 116 5580.0 MHz	Ch 124 5620.0 MHz	Ch 136 5680.0 MHz	
WLAN a-mode OFDM 6 Mbps	Tuning Target + Tolerance [dBm]		15.50				Scaling factor*				
	Conducted Power [dBm]		14.51	14.33	14.32	14.23	1.49	1.67	1.68	1.77	dB
	Time-averaged power [dBm]		14.51	14.33	14.32	14.23	1.41	1.47	1.47	1.50	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-	-	-
		Full SAR	0.138	0.147	0.187	0.191	0.194	0.216	0.275	0.287	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-	-	-
		Full SAR	-	-	-	0.063	-	-	-	0.094	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-	-	11
		Full SAR	-	-	-	0.816	-	-	-	**1.23**	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-	-	-
		Full SAR	-	-	-	0.169	-	-	-	0.254	
	Right Cheek, with PD-95G	Estimated SAR	-	-	-	-	-	-	-	-	-
		Full SAR	-	-	-	0.712	-	-	-	1.07	
	Right Cheek, with CC-3066	Estimated SAR	-	-	-	-	-	-	-	-	-
		Full SAR	-	-	-	0.724	-	-	-	1.09	
	Repeated SAR: Right Cheek	Estimated SAR	-	-	-	-	-	-	-	-	-
		Full SAR	-	-	-	0.787	-	-	-	1.18	

Mode	Test Configu-ration	SAR Measure-ment	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Plot #
						Ch 132 5660.0 MHz	Ch 104 5520.0 MHz	Ch 116 5580.0 MHz	Ch 124 5620.0 MHz	Ch 136 5680.0 MHz	
WLAN a-mode OFDM 36 Mbps	Tuning Target + Tolerance [dBm]		15.50				Scaling factor*				
	Conducted Power [dBm]		-	-	-	14.60	-	-	-	1.40	dB
	Time-averaged power [dBm]		-	-	-	14.60	-	-	-	1.38	Lin
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-	-	-
		Full SAR	-	-	-	0.732	-	-	-	1.01	

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5000MHz Head SAR results
5725–5850 MHz

Mode	Test Configu-ration	SAR Measure-ment	Measured 1g SAR [W/kg]			Reported* 1g 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]		15.50			Scaling factor*			
	Conducted Power [dBm]		14.57	14.56	14.59	1.43	1.44	1.41	dB
	Time-averaged power [dBm]		14.57	14.56	14.59	1.39	1.39	1.38	Lin
	Left Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.217	0.200	0.206	0.302	0.279	0.285	
	Left Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.083	-	-	0.116	-	-	
	Right Cheek	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.818	-	-	1.14	-	-	
	Right Tilt	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.165	-	-	0.229	-	-	
	Right Cheek with PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.640	-	-	0.890	-	-	
	Right Cheek, with CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.730	-	-	1.02	-	-	
	Repeated SAR: Right Cheek,	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.852	-	-	1.18	-	-	

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

Test configuration	*Reported Max. 1g SAR results										
	WLAN 2450	WLAN 5000	LTE 700	3-slot GPRS 850	WCDMA 850	LTE 850	WCDMA 1700/ 2100	LTE 1700/ 2100	2-slot GPRS 1900	WCDMA 1900	LTE 1900
Head: Left, Cheek	0.292	0.302	0.518	0.398	0.409	0.354	1.01	0.758	0.750	1.05	1.17
Head: Left, Tilt	0.127	0.116	0.330	0.331	0.248	0.194	0.520	0.455	0.212	0.402	0.366
Head: Right, Cheek	0.977	1.23	0.633	0.674	0.584	0.517	1.27	1.28	0.525	1.10	0.928
Head: Right, Tilt	0.191	0.254	0.340	0.364	0.295	0.283	0.413	0.339	0.165	0.291	0.286

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

Test configuration	*Reported Max. 1g SAR results								
	LTE700 +WLAN 2450	3-slot GPRS850 +WLAN 2450	WCDMA 850 +WLAN 2450	LTE850 +WLAN 2450	WCDMA 1700/ 2100 +WLAN 2450	LTE 1700/ 2100 +WLAN 2450	2-slot GPRS1900 + WLAN 2450	WCDMA 1900 +WLAN 2450	LTE1900 +WLAN 2450
Head: Left, Cheek	0.810	0.690	0.701	0.646	1.30	1.05	1.04	1.34	1.46
Head: Left, Tilt	0.457	0.458	0.375	0.321	0.647	0.582	0.339	0.529	0.493
Head: Right, Cheek	**1.61**	**1.65**	**1.56**	**1.49**	**2.25**	**2.26**	**1.50**	**2.08**	**1.91**
Head: Right, Tilt	0.531	0.555	0.486	0.474	0.604	0.53	0.356	0.482	0.477
Test configuration	**LTE700 +WLAN 5000**	**3-slot GPRS850 +WLAN 5000**	**WCDMA 850 +WLAN 5000**	**LTE850 +WLAN 5000**	**WCDMA 1700/ 2100 +WLAN 5000**	**LTE 1700/ 2100 +WLAN 5000**	**2-slot GPRS1900 + WLAN 5000**	**WCDMA 1900 +WLAN 5000**	**LTE1900 +WLAN 5000**
Head: Left, Cheek	0.820	0.700	0.711	0.656	1.31	1.06	1.05	1.35	1.47
Head: Left, Tilt	0.446	0.447	0.364	0.310	0.636	0.571	0.328	0.518	0.482
Head: Right, Cheek	**1.86**	**1.90**	**1.81**	**1.75**	**2.50**	**2.51**	**1.76**	**2.33**	**2.16**
Head: Right, Tilt	0.594	0.618	0.549	0.537	0.667	0.593	0.419	0.545	0.540

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.

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

Test configuration	*Reported Max. 1g SAR results								
	LTE700 +WLAN 2450	3-slot GPRS850 +WLAN 2450	WCDMA 850 +WLAN 2450	LTE850 +WLAN 2450	WCDMA 1700/ 2100 +WLAN 2450	LTE 1700/ 2100 +WLAN 2450	2-slot GPRS1900 + WLAN 2450	WCDMA 1900 +WLAN 2450	LTE1900 +WLAN 2450
Head: Left, Cheek	-	-	-	-	-	-	-	-	-
-Head: Left, Tilt	-	-	-	-	-	-	-	-	-
Head: Right, Cheek	**1.19**	**1.17**	**1.14**	**1.10**	**1.30**	**1.31**	**1.08**	**1.15**	**1.15**
Head: Right, Tilt	-	-	-	-	-	-	-	-	-
Test configuration	**LTE700 +WLAN 5000**	**3-slot GPRS850 +WLAN 5000**	**WCDMA 850 +WLAN 5000**	**LTE850 +WLAN 5000**	**WCDMA 1700/ 2100 +WLAN 5000**	**LTE 1700/ 2100 +WLAN 5000**	**2-slot GPRS1900 + WLAN 5000**	**WCDMA 1900 +WLAN 5000**	**LTE1900 +WLAN 5000**
Head: Left, Cheek	-	-	-	-	-	-	-	-	-
Head: Left, Tilt	-	-	-	-	-	-	-	-	-
Head: Right, Cheek	**1.13**	**1.13**	**1.12**	**1.10**	**1.28**	**1.29**	**1.08**	**1.11**	**1.11**
Head: Right, Tilt	-	-	-	-	-	-	-	-	-

Note: Plots #12-29

7.1.1 Simultaneous Transmission SAR Test Exclusion Considerations for Head Measurements

Simultaneous transmission 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).

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Antenna Pair SAR to Peak Locatio Separation Ratio

Right Cheek	WLAN 2450	LTE 700	WLAN 2450	3-slot GPRS 850	WLAN 2450	WCDMA 1700/ 2100	WLAN 2450	LTE 1700/ 2100
X [mm]	56.58	68.22	56.58	61.42	56.58	62.7	56.58	63.4
Y [mm]	-317.0	-272.8	-317.0	-269.9	-317.0	-253.7	-317.0	-255.0
Z [mm]	-173.8	-172.8	-173.8	-172.8	-173.8	-173.4	-173.8	-173.3
DISTANCE [mm]	45.72		47.36		63.60		62.38	
MAX + MAX (Reported SAR)	1.61		1.65		2.25		2.26	
SAR to peak location separation ratio	0.04		0.04		**0.05**		**0.05**	

Right Cheek	WLAN 2450	WCDMA 1900	WLAN 2450	LTE 1900				
X [mm]	56.58	62.6	56.58	61.3	-	-	-	-
Y [mm]	-317.0	-253.8	-317.0	-254.5	-	-	-	-
Z [mm]	-173.8	-172.6	-173.8	-173.0	-	-	-	-
DISTANCE [mm]	63.50		62.68		-		-	
MAX + MAX (Reported SAR)	2.08		1.91		-		-	
SAR to peak location separation ratio	**0.05**		0.04		-		-	

Right Cheek	WLAN 5000	LTE 700	WLAN 5000	3-slot GPRS850	WLAN 5000	WCDMA 850	WLAN 5000	LTE850
X [mm]	61.5	68.2	61.5	63.9	61.5	62.41	61.5	63.36
Y [mm]	-329.5	-272.8	-329.5	-268.4	-329.5	-274.5	-329.5	-279.2
Z [mm]	-173.5	-172.8	-173.5	-172.9	-173.5	-172.7	-173.5	-172.8
DISTANCE [mm]	57.10		61.15		55.01		50.34	
MAX + MAX (Reported SAR)	1.86		1.90		1.81		1.75	
SAR to peak location separation ratio	0.04		0.04		0.04		**0.05**	

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Right Cheek	WLAN 5000	WCDMA 1700/ 2100	WLAN 5000	LTE 1700/ 2100	WLAN 5000	2-slot GPRS 1900	WLAN 5000	WCDMA 1900
X [mm]	61.5	62.7	61.5	63.4	61.5	60.6	61.5	62.6
Y [mm]	-329.5	-253.7	-329.5	-255.0	-329.5	-253.2	-329.5	-253.8
Z [mm]	-173.5	-173.4	-173.5	-173.3	-173.5	-172.8	-173.5	-172.6
DISTANCE [mm]	75.81		74.53		76.31		75.71	
MAX + MAX (Reported SAR)	2.50		2.51		1.76		2.33	
SAR to peak location separation ratio	**0.05**		**0.05**		0.03		**0.05**	
Right Cheek	**WLAN 5000**	**LTE 1900**	**-**	**-**	**-**	**-**	**-**	**-**
X [mm]	61.5	61.3	-	-	-	-	-	-
Y [mm]	-329.5	-254.5	-	-	-	-	-	-
Z [mm]	-173.5	-173.0	-	-	-	-	-	-
DISTANCE [mm]	75.00		-		-		-	
MAX + MAX (Reported SAR)	2.16		-		-		-	
SAR to peak location separation ratio	0.04		**-**		-		-	

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.

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LTE850 (Band 5) Head SAR Expanded Volume Scan results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		23.26	22.95	23.03	0.59	0.90	0.82	dB
	Time-averaged power [dBm]		23.26	22.95	23.03	1.15	1.23	1.21	Lin
	Left Cheek	Full SAR	-	-	-	-	-	-	-
	Left Tilt	Full SAR	-	-	-	-	-	-	-
	Right Cheek With camera grip	Full SAR	-	0.400	-	-	0.492	-	30
	Right Tilt	Full SAR	-	-	-	-	-	-	-

WCDMA1700/2100 Head SAR Expanded Volume Scan results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 1312 1712.4 MHz	Ch 1412 1732.4 MHz	Ch 1513 1752.6 MHz	Ch 1312 1712.4 MHz	Ch 1412 1732.4 MHz	Ch 1513 1752.6 MHz	
WCDMA	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*			
	Conducted Power [dBm]		23.74	23.84	23.65	0.61	0.51	0.70	dB
	Time-averaged power [dBm]		23.74	23.84	23.65	1.15	1.12	1.17	Lin
	Left Cheek	Full SAR	-	-	-	-	-	-	-
	Left Tilt	Full SAR	-	-	-	-	-	-	-
	Right Cheek	Full SAR	1.20	-	-	1.38	-	-	31
	Right Tilt	Full SAR	-	-	-	-	-	-	-

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

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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 100% offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		22.96	23.07	22.95	0.89	0.78	0.90	dB
	Time-averaged Power [dBm]		22.96	23.07	22.95	1.23	1.20	1.23	Lin
	Left Cheek	Full SAR	-	-	-	-	-	-	-
	Left Tilt	Full SAR	-	-	-	-	-	-	-
	Right Cheek	Full SAR	-	1.04	-	-	1.25	-	32
	Right Tilt	Full SAR	-	-	-	-	-	-	-

WCDMA1900 Head SAR Expanded Volume Scan results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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]		23.85			Scaling factor*			
	Conducted Power [dBm]		23.67	23.55	23.73	0.68	0.80	0.62	dB
	Time-averaged power [dBm]		23.67	23.55	23.73	1.17	1.20	1.15	Lin
	Left Cheek	Full SAR	-	-	-	-	-	-	-
	Left Tilt	Full SAR	-	-	-	-	-	-	-
	Right Cheek	Full SAR	1.06	-	-	1.24	-	-	33
	Right Tilt	Full SAR	-	-	-	-	-	-	-

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2450MHz Head SAR Expanded Volume Scan results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 10 2457.0 MHz	Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 10 2457.0 MHz	
WLAN b-mode DSSS 1Mbps	Tuning Target + Tolerance [dBm]		17.50			Scaling factor*			
	Conducted Power [dBm]		16.63	16.53	16.17	1.37	1.47	1.83	dB
	Time-averaged power [dBm]		16.63	16.53	16.17	1.37	1.40	1.52	Lin
	Left Cheek	Full SAR	-	-	-	-	-	-	-
	Left Tilt	Full SAR	-	-	-	-	-	-	-
	Right Cheek With CC-3066	Full SAR	-	-	0.511	-	-	0.779	34
	Right Tilt	Full SAR	-	-	-	-	-	-	-

5000MHz Head SAR Expanded Volume Scan results
5470–5725 MHz

Mode	Test Configu-ration	SAR Measure-ment	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Plot #
			Ch 104 5520.0 MHz	Ch 116 5580.0 MHz	Ch 124 5620.0 MHz	Ch 136 5680.0 MHz	Ch 104 5520.0 MHz	Ch 116 5580.0 MHz	Ch 124 5620.0 MHz	Ch 136 5680.0 MHz	
WLAN a-mode OFDM 6 Mbps	Tuning Target + Tolerance [dBm]		15.50				Scaling factor*				
	Conducted Power [dBm]		14.51	14.33	14.32	14.23	1.49	1.67	1.68	1.77	dB
	Time-averaged power [dBm]		14.51	14.33	14.32	14.23	1.41	1.47	1.47	1.50	Lin
	Left Cheek	Full SAR	-	-	-	-	-	-	-	-	-
	Left Tilt	Full SAR	-	-	-	-	-	-	-	-	-
	Right Cheek	Full SAR	-	-	-	0.809	-	-	-	1.22	35
	Right Tilt	Full SAR	-	-	-	-	-	-	-	-	-

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Simultaneous transmissions: Combined head SAR results – SPEAG Combined Expanded Volume scans results

Test configuration	Reported Max. 1g SAR results								
	LTE700 +WLAN 2450	3-slot GPRS850 +WLAN 2450	WCDMA 850 +WLAN 2450	LTE850 +WLAN 2450	WCDMA 1700/ 2100 +WLAN 2450	LTE 1700/ 2100 +WLAN 2450	2-slot GPRS1900 + WLAN 2450	WCDMA 1900 +WLAN 2450	LTE1900 +WLAN 2450
Head: Left, Cheek	-	-	-	-	-	-	-	-	-
Head: Left, Tilt	-	-	-	-	-	-	-	-	-
Head: Right, Cheek	-	-	-	-	- 1.47	- 1.28	-	- 1.25	-
Head: Right, Tilt	-	-	-	-	-	-	-	-	-
Test configuration	**LTE700 +WLAN 5000**	**3-slot GPRS850 +WLAN 5000**	**WCDMA 850 +WLAN 5000**	**LTE850 +WLAN 5000**	**WCDMA 1700/ 2100 +WLAN 5000**	**LTE 1700/ 2100 +WLAN 5000**	**2-slot GPRS1900 + WLAN 5000**	**WCDMA 1900 +WLAN 5000**	**LTE1900 +WLAN 5000**
Head: Left, Cheek	-	-	-	-	-	-	-	-	-
Head: Left, Tilt	-	-	-	-	-	-	-	-	-
Head: Right, Cheek	-	-	-	- 1.23	- 1.38	- 1.29	-	- 1.24	-
Head: Right, Tilt	-	-	-	-	-	-	-	-	-

Note: Plots #36-42

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

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

LTE700 (Band 17) Body SAR results

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
				Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	
10MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]			23.85			Scaling factor*			
	Conducted Power [dBm]			23.50	23.59	23.64	0.85	0.76	0.71	dB
	Time-averaged power [dBm]			23.50	23.59	23.64	1.22	1.19	1.18	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
10MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]			23.85			Scaling factor*			
	Conducted Power [dBm]			23.57	23.60	23.56	0.78	0.75	0.79	dB
	Time-averaged power [dBm]			23.57	23.60	23.56	1.20	1.19	1.20	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	

(LTE700 (Band 17) Body SAR Table continues)

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(LTE700 (Band 17) Body SAR Table continues)

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
				Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]			23.85			Scaling factor*			
	Conducted Power [dBm]			23.47	23.65	23.54	0.88	0.70	0.81	dB
	Time-averaged power [dBm]			23.47	23.65	23.54	1.22	1.17	1.21	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	43
			Full SAR	0.509	0.528	**0.521**	0.623	0.620	**0.628**	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.370	-	-	0.435	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.490	-	-	0.576	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.346	-	-	0.407	-	
	Back facing phantom Without headset With PD-95G		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.229	0.229	0.225	0.280	0.269	0.271	
	Back facing phantom Without headset With CC-3066		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.344	0.362	0.357	0.421	0.425	0.430	
10MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]			22.85			Scaling factor*			
	Conducted Power [dBm]			22.65	22.52	22.51	0.70	0.83	0.84	dB
	Time-averaged power [dBm]			22.65	22.52	22.51	1.17	1.21	1.21	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	

(LTE700 (Band 17) Body SAR Table continues)

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(LTE700 (Band 17) Body SAR Table continues)

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
				Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	
10MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]			22.85			Scaling factor*			
	Conducted Power [dBm]			22.47	22.47	22.43	0.88	0.88	0.92	dB
	Time-averaged power [dBm]			22.47	22.47	22.43	1.22	1.22	1.24	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
10MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]			22.85			Scaling factor*			
	Conducted Power [dBm]			22.72	22.60	22.51	0.63	0.75	0.84	dB
	Time-averaged power [dBm]			22.72	22.60	22.51	1.16	1.19	1.21	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.379	-	-	0.438	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.275	-	-	0.318	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.358	-	-	0.414	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.253	-	-	0.292	-	-	

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850MHz Band Body SAR results

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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	
3-slot GPRS	Tuning Target + Tolerance [dBm]			30.05			Scaling factor*			
	Conducted Slot Average Power [dBm]			30.16	29.75	29.83	0.50	0.80	0.72	dB
	Time-averaged power [dBm]			25.90	25.49	25.57	1.12	1.20	1.18	Lin
	Back facing phantom	Without headset	Estimated SAR							44
			Full SAR	0.549	0.555	0.592	0.616	0.667	**0.699**	
		Headset WH-208	Estimated SAR							
			Full SAR		0.329			0.396		
	Display facing phantom	Without headset	Estimated SAR							
			Full SAR		0.467			0.561		
		Headset WH-208	Estimated SAR							
			Full SAR		0.311			0.374		
	Back facing phantom Without headset With PD-95G		Estimated SAR							
			Full SAR	0.424	0.485	0.570	0.476	0.583	0.673	
	Back facing phantom Without headset With CC-3066		Estimated SAR							
			Full SAR	0.356	0.378	0.406	0.399	0.454	0.479	

(850MHz Body SAR Table continues)

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(850MHz Body SAR Table continues)

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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]			23.85			Scaling factor*			
	Conducted Power [dBm]			23.67	23.61	23.72	0.68	0.74	0.63	dB
	Time-averaged power [dBm]			23.67	23.61	23.72	1.17	1.19	1.16	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	45
			Full SAR	0.483	0.471	0.442	**0.565**	0.558	0.511	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.357	-	-	0.423	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.421	-	-	0.499	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.354	-	-	0.420	-	
	Back facing phantom Without headset With PD-95G		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.404	0.385	0.319	0.472	0.457	0.369	
	Back facing phantom Without headset With CC-3066		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.303	0.280	0.269	0.354	0.332	0.311	

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LTE850 (Band 5) Body SAR results

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
				Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	
10MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]			23.35			Scaling factor*			
	Conducted Power [dBm]			23.17	23.00	23.00	0.68	0.85	0.85	dB
	Time-averaged power [dBm]			23.17	23.00	23.00	1.17	1.22	1.22	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	46
			Full SAR	0.372	0.407	0.355	0.435	**0.495**	0.432	
		Headset WH-208	Estimated SAR	-	-	-		-	-	-
			Full SAR	0.311	-	-	0.364	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-		-	-	-
			Full SAR	0.360	-	-	0.421	-	-	
		Headset WH-208	Estimated SAR	-	-	-		-	-	-
			Full SAR	0.228	-	-	0.267	-	-	
	Back facing phantom With headset With PD-95G		Estimated SAR	-		-	-		-	-
			Full SAR	0.290	0.291	0.252	0.339	0.354	0.306	
	Back facing phantom With headset With CC-3066		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.253	0.249	0.227	0.296	0.303	0.276	
10MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]			23.35			Scaling factor*			
	Conducted Power [dBm]			23.27	23.04	22.96	0.58	0.81	0.89	dB
	Time-averaged power [dBm]			23.27	23.04	22.96	1.14	1.21	1.23	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.401	-	-	0.458	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.319	-	-	0.365	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.379	-	-	0.433	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.269	-	-	0.307	-	-	

(LTE850 (Band 5) Body SAR Table continues)

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(LTE850 (Band 5) Body SAR Table continues)

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
				Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]			23.35			Scaling factor*			
	Conducted Power [dBm]			23.26	22.95	23.03	0.59	0.90	0.82	dB
	Time-averaged power [dBm]			23.26	22.95	23.03	1.15	1.23	1.21	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
10MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]			22.35			Scaling factor*			
	Conducted Power [dBm]			22.08	22.08	22.05	0.77	0.77	0.80	dB
	Time-averaged power [dBm]			22.08	22.08	22.05	1.19	1.19	1.20	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
10MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]			22.35			Scaling factor*			
	Conducted Power [dBm]			22.13	22.00	21.97	0.72	0.85	0.88	dB
	Time-averaged power [dBm]			22.13	22.00	21.97	1.18	1.22	1.22	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	

(LTE850 (Band 5) Body SAR Table continues)

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(LTE850 (Band 5) Body SAR Table continues)

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
				Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	
10MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]			22.35			Scaling factor*			
	Conducted Power [dBm]			22.15	21.96	22.02	0.70	0.89	0.83	dB
	Time-averaged power [dBm]			22.15	21.96	22.02	1.17	1.23	1.21	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.305	-	-	0.358	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.247	-	-	0.290	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.284	-	-	0.334	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.216	-	-	0.254	-	-	

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WCDMA1700/2100 Body SAR results

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
				Ch 1312 1712.4 MHz	Ch 1412 1732.4 MHz	Ch 1513 1752.6 MHz	Ch 1312 1712.4 MHz	Ch 1412 1732.4 MHz	Ch 1513 1752.6 MHz	
WCDMA	Tuning Target + Tolerance [dBm]			23.85			Scaling factor*			
	Conducted Power [dBm]			23.74	23.84	23.65	0.61	0.51	0.70	dB
	Time-averaged power [dBm]			23.74	23.84	23.65	1.15	1.12	1.17	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.784	0.786	0.716	0.902	0.884	0.841	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.700	-	-	0.787	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.913	0.898	0.836	**1.05**	1.01	0.982	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.879	0.846	0.814	1.01	0.951	0.956	
	Display facing phantom Without headset, With PD-95G		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.586	0.621	0.621	0.674	0.698	0.730	
	Display facing phantom Without headset, With CC-3066		Estimated SAR	-	-	-	-	-	-	47
			Full SAR	0.967	**0.975**	0.893	**1.11**	1.10	1.05	
	Repeated SAR: Display facing phantom Without headset With CC-3066		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.969	-	-	1.09	-	

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LTE1700/2100 (Band 4) Body SAR results

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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]			23.35			Scaling factor*			
	Conducted Power [dBm]			23.07	23.03	23.01	0.78	0.82	0.84	dB
	Time-averaged power [dBm]			23.07	23.03	23.01	1.20	1.21	1.21	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.685	-	0.635	0.820	-	0.771	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.684	-	0.626	0.819	-	0.760	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	48
			Full SAR	**0.798**	0.764	0.774	**0.955**	0.923	0.939	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.785	-	0.775	0.939	-	0.940	
	Display facing phantom, without headset, with PD-95G		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.399	0.413	0.436	0.477	0.499	0.529	
	Display facing phantom, without headset, with CC-3066		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.752	0.742	0.785	0.900	0.896	0.953	
20MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]			23.35			Scaling factor*			
	Conducted Power [dBm]			22.85	23.05	23.01	1.00	0.80	0.84	dB
	Time-averaged power [dBm]			22.85	23.05	23.01	1.26	1.20	1.21	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	

(LTE1700/2100 (Band 4) Body SAR Table continues)

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(LTE1700/2100 (Band 4) Body SAR Table continues)

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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 100% offset	Tuning Target + Tolerance [dBm]			23.35			Scaling factor*			
	Conducted Power [dBm]			22.96	23.07	22.95	0.89	0.78	0.90	dB
	Time-averaged power [dBm]			22.96	23.07	22.95	1.23	1.20	1.23	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.643	-	-	0.770	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.649	-	-	0.777	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.782	-	-	0.936	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.746	-	-	0.893	-	
20MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]			22.35			Scaling factor*			
	Conducted Power [dBm]			21.76	21.77	21.92	1.09	1.08	0.93	dB
	Time-averaged power [dBm]			21.76	21.77	21.92	1.29	1.28	1.24	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.491	-	-	0.608	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.509	-	-	0.631	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.599	-	-	0.742	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.546	-	-	0.676	
20MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]			22.35			Scaling factor*			
	Conducted Power [dBm]			21.76	21.88	21.86	1.09	0.97	0.99	dB
	Time-averaged power [dBm]			21.76	21.88	21.86	1.29	1.25	1.26	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	

(LTE1700/2100 (Band 4) Body SAR Table continues)

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(LTE1700/2100 (Band 4) Body SAR Table continues)

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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 100% offset	Tuning Target + Tolerance [dBm]			22.35			Scaling factor*			
	Conducted Power [dBm]			21.76	21.82	21.67	1.09	1.03	1.18	dB
	Time-averaged power [dBm]			21.76	21.82	21.67	1.29	1.27	1.31	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
20MHz Ch BW 100%RB	Tuning Target + Tolerance [dBm]			22.35			Scaling factor*			
	Conducted Power [dBm]			21.86	21.93	21.89	0.99	0.92	0.96	dB
	Time-averaged power [dBm]			21.86	21.93	21.89	1.26	1.24	1.25	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.512	-	-	0.633	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.512	-	-	0.633	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.617	-	-	0.763	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.574	-	-	0.709	-	

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1900MHz Band Body SAR results

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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	
2-slot GPRS	Tuning Target + Tolerance [dBm]			27.85			Scaling factor*			
	Conducted Slot Average Power [dBm]			27.81	28.03	27.89	0.54	0.50	0.50	dB
	Time-averaged power [dBm]			21.79	22.01	21.87	1.13	1.12	1.12	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.457	-	-	0.513	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.445	-	-	0.499	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	49
			Full SAR	0.507	**0.548**	0.493	0.574	**0.615**	0.553	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.540	-	-	0.606	-	
	Display facing phantom, without headset, with PD-95G		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.382	0.423	0.372	0.433	0.475	0.417	
	Display facing phantom, without headset, with CC-3066		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.469	0.537	0.514	0.531	0.603	0.577	

(1900MHz Body SAR Table continues)

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(1900MHz Body SAR Table continues)

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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]			23.85			Scaling factor*			
	Conducted Power [dBm]			23.67	23.55	23.73	0.68	0.80	0.62	dB
	Time-averaged power [dBm]			23.67	23.55	23.73	1.17	1.20	1.15	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.694	0.755	0.753	0.812	0.908	0.869	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.685	0.726	0.723	0.801	0.873	0.834	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	50
			Full SAR	0.844	0.900	**0.905**	0.987	**1.08**	1.04	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.845	0.882	0.830	0.988	1.06	0.957	
	Display facing phantom, without headset, with PD-95G		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.600	0.473	0.494	0.702	0.569	0.570	
	Display facing phantom, without headset, with CC-3066		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.801	0.859	0.855	0.937	1.03	0.986	
	Repeated SAR: Display facing phantom, without headset		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.848	-	-	0.978	

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LTE1900 (Band 2) Body SAR results

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
				Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	
20MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]			23.35			Scaling factor*			
	Conducted Power [dBm]			23.16	23.09	22.97	0.69	0.76	0.88	dB
	Time-averaged power [dBm]			23.16	23.09	22.97	1.17	1.19	1.22	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.605	-	-	0.709	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.597	-	-	0.700	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.693	0.703	0.690	0.812	0.837	0.845	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.751	0.752	0.728	0.880	0.896	0.892	
20MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]			23.35			Scaling factor*			
	Conducted Power [dBm]			23.06	23.10	23.12	0.79	0.75	0.73	dB
	Time-averaged power [dBm]			23.06	23.10	23.12	1.20	1.19	1.18	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.756	0.751	0.697	0.907	0.893	0.825	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.736	0.745	0.722	0.883	0.885	0.854	

(LTE1900 (Band 2) Body SAR Table continues)

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(LTE1900 (Band 2) Body SAR Table continues)

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
				Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	
20MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]			23.35			Scaling factor*			
	Conducted Power [dBm]			22.97	23.04	23.12	0.88	0.81	0.73	dB
	Time-averaged power [dBm]			22.97	23.04	23.12	1.22	1.21	1.18	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.692	0.705	0.686	0.847	0.850	0.812	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	51
			Full SAR	0.747	0.721	0.697	**0.915**	0.869	0.825	
	Display facing phantom, WH-208, with PD-95G		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.548	0.553	0.530	0.671	0.666	0.627	
	Display facing phantom, WH-208, with CC-3066		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.689	0.706	0.684	0.844	0.851	0.809	
20MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]			22.35			Scaling factor*			
	Conducted Power [dBm]			21.87	21.86	21.86	0.98	0.99	0.99	dB
	Time-averaged power [dBm]			21.87	21.86	21.86	1.25	1.26	1.26	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	

(LTE1900 (Band 2) Body SAR Table continues)

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(LTE1900 (Band 2) Body SAR Table continues)

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
				Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	
20MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]			22.35			Scaling factor*			
	Conducted Power [dBm]			21.79	21.74	21.86	1.06	1.11	0.99	dB
	Time-averaged power [dBm]			21.79	21.74	21.86	1.28	1.29	1.26	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
20MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]			22.35			Scaling factor*			
	Conducted Power [dBm]			21.88	21.88	22.00	0.97	0.97	0.85	dB
	Time-averaged power [dBm]			21.88	21.88	22.00	1.25	1.25	1.22	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.433	-	-	0.527	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.455	-	-	0.553	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.540	-	-	0.657	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.542	-	-	0.659	
20MHz Ch BW 100%RB	Tuning Target + Tolerance [dBm]			22.35			Scaling factor*			
	Conducted Power [dBm]			21.91	21.83	21.95	0.94	1.02	0.90	dB
	Time-averaged power [dBm]			21.91	21.83	21.95	1.24	1.26	1.23	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	-	-	-	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.579	-	-	0.712	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.548	-	-	0.674	

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2450MHz Body SAR results

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
				Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 10 2457.0 MHz	Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 10 2457.0 MHz	
WLAN b-mode DSSS 1 Mbps	Tuning Target + Tolerance [dBm]			17.50			Scaling factor*			
	Conducted Power [dBm]			16.63	16.53	16.17	1.37	1.47	1.83	dB
	Time-averaged power [dBm]			16.63	16.53	16.17	1.37	1.40	1.52	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.038	-	-	0.053	-	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.035	-	-	0.049	-	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-		-	-
			Full SAR	0.038	0.051	0.050	0.053	0.071	**0.076**	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.049	-	-	0.069	-	
	Display facing phantom, without headset, with PD-95G		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.044	0.050	0.050	0.060	0.071	0.061	
	Display facing phantom, without headset, with CC-3066		Estimated SAR	-	-	-	-	-	-	52
			Full SAR	0.038	0.056	0.066	0.052	0.078	**0.101**	
Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
				Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 10 2457.0 MHz	Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 10 2457.0 MHz	
WLAN b-mode DSSS 11 Mbps	Tuning Target + Tolerance [dBm]			17.50			Scaling factor*			
	Conducted Power [dBm]			-	16.83	-	-	1.47	-	dB
	Time-averaged power [dBm]			-	16.83	-	-	1.40	-	Lin
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	0.055	-	-	0.072	-	

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

Mode	Test configurtion		SAR measurement	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Plot #
				Ch 36 5180.0 MHz	Ch 44 5220.0 MHz	Ch 52 5260.0 MHz	Ch 64 5320.0 MHz	Ch 36 5180.0 MHz	Ch 44 5220.0 MHz	Ch 52 5260.0 MHz	Ch 64 5320.0 MHz	
WLAN a-mode OFDM 6 Mbps	Tuning Target + Tolerance [dBm]			15.50				Scaling factor*				
	Conducted Power [dBm]			14.08	14.35	14.11	14.40	1.92	1.65	1.89	1.60	dB
	Time-averaged power [dBm]			14.08	14.35	14.11	14.40	1.56	1.46	1.55	1.45	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	-	-
			Full SAR	0.051	0.061	0.056	0.069	0.080	0.090	0.086	0.099	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-	-	-
			Full SAR	-	0.056	-	0.067	-	0.082	-	0.097	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	-	-
			Full SAR	-	0.048	-	0.072	-	0.070	-	0.104	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-	-	-
			Full SAR	-	0.037	-	0.053	-	0.055	-	0.077	
	Back facing phantom, Without headset, PD-95G		Estimated SAR	-	-	-	-	-	-	-	-	-
			Full SAR	-	0.071	-	-	-	0.103	-	-	
	Display facing phantom, Without headset, PD-95G		Estimated SAR	-	-	-	-	-	-	-	-	-
			Full SAR	-	-	-	0.061	-	-	-	0.088	
	Back facing phantom, Without headset, CC-3066		Estimated SAR	-	-	-	-	-	-	-	-	-
			Full SAR	-	0.083	-	-	-	0.122	-	-	
	Display facing phantom, Without headset, CC-3066		Estimated SAR	-	-	-	-	-	-	-	-	-
			Full SAR	-	-	-	0.103	-	-	-	0.149	

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5000MHz Body SAR results
5470–5725 MHz

Mode	Test configurtion		SAR measurement	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Plot #
				Ch 104 5520.0 MHz	Ch 116 5580.0 MHz	Ch 124 5620.0 MHz	Ch 136 5680.0 MHz	Ch 104 5520.0 MHz	Ch 116 5580.0 MHz	Ch 124 5620.0 MHz	Ch 136 5680.0 MHz	
WLAN a-mode OFDM 6 Mbps	Tuning Target + Tolerance [dBm]			15.50				Scaling factor*				
	Conducted Power [dBm]			14.51	14.33	14.32	14.23	1.49	1.67	1.68	1.77	dB
	Time-averaged power [dBm]			14.51	14.33	14.32	14.23	1.41	1.47	1.47	1.50	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	-	-
			Full SAR	0.105	0.122	0.154	0.174	0.148	0.179	0.227	0.262	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-	-	-
			Full SAR	-	-	-	0.184	-	-	-	0.277	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	-	-
			Full SAR	-	-	-	0.110	-	-	-	0.165	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-		-
			Full SAR	-	-	-	0.115	-	-	-	0.173	
	Back facing phantom, With WH-208, With PD-95G		Estimated SAR	-	-	-	-	-	-	-	-	53
			Full SAR	-	-	-	**0.216**	-	-	-	**0.325**	
	Back facing phantom, With WH-208, With CC-3066		Estimated SAR	-	-	-	-	-	-	-	-	-
			Full SAR	-	-	-	0.206	-	-	-	0.310	
Mode	Test configurtion		SAR measurement	Measured 1g SAR [W/kg]				Reported* 1g SAR [W/kg]				Plot #
							Ch 132 5660.0 MHz				Ch 132 5660.0 MHz	
WLAN a-mode OFDM 36 Mbps	Tuning Target + Tolerance [dBm]			15.50				Scaling factor*				
	Conducted Power [dBm]			-	-	-	14.60	-	-	-	1.40	dB
	Time-averaged power [dBm]			-	-	-	14.60	-	-	-	1.38	Lin
	Back facing phantom	Headset WH-208	Estimated SAR	-	-	-	-	-	-	-	-	-
			Full SAR	-	-	-	0.159	-	-	-	0.219	

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5000MHz Body SAR results
5725–5850 MHz

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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 b-mode DSSS 1 Mbps	Tuning Target + Tolerance [dBm]			15.50			Scaling factor*			
	Conducted Power [dBm]			14.57	14.56	14.59	1.43	1.44	1.41	dB
	Time-averaged power [dBm]			14.57	14.56	14.59	1.39	1.39	1.38	Lin
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	0.159	0.162	0.174	0.221	0.226	0.241	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.165	-	-	0.228	
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.085	-	-	0.118	
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.080	-	-	0.111	
	Back facing phantom, Without headset, With PD-95G		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.203	-	-	0.281	
	Back facing phantom, Without headset, With CC-3066		Estimated SAR	-	-	-	-	-	-	-
			Full SAR	-	-	0.182	-	-	0.252	

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

Test configuration	*Reported Max. 1g SAR results										
	WLAN 2450	WLAN 5000	LTE 700	3-slot GPRS 850	WCDMA 850	LTE 850	WCDMA 1700/ 2100	LTE 1700/ 2100	2-slot GPRS 1900	WCDMA 1900	LTE 1900
Body: Back facing phantom, Without Headset	0.053	0.281	0.628	0.699	0.565	0.495	0.902	0.820	0.513	0.908	0.709
Body: Back facing phantom, Headset WH-208	0.049	0.325	0.435	0.396	0.423	0.365	0.787	0.819	0.499	0.873	0.700
Body: Display facing phantom, Without Headset	0.101	0.165	0.576	0.561	0.499	0.433	1.11	0.955	0.615	1.08	0.907
Body: Display facing phantom, Headset WH-208	0.069	0.173	0.407	0.374	0.420	0.307	1.01	0.940	0.606	1.06	0.915

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

Test configuration	*Reported Max. 1g SAR results								
	LTE700 +WLAN 2450	3-slot GPRS850 +WLAN 2450	WCDMA 850 +WLAN 2450	LTE850 +WLAN 2450	WCDMA 1700/ 2100 +WLAN 2450	LTE 1700/ 2100 +WLAN 2450	2-slot GPRS1900 + WLAN 2450	WCDMA 1900 +WLAN 2450	LTE1900 +WLAN 2450
Body: Back facing phantom, Without Headset	**0.681**	**0.752**	**0.618**	**0.548**	0.955	0.873	0.566	0.961	0.762
Body: Back facing phantom, Headset WH-208	0.484	0.445	0.472	0.414	0.836	0.868	0.548	0.922	0.749
Body: Display facing phantom, Without Headset	0.677	0.662	0.600	0.534	**1.21**	**1.06**	**0.716**	**1.18**	**1.01**
Body: Display facing phantom, Headset WH-208	0.476	0.443	0.489	0.376	1.08	1.01	0.675	1.13	0.984
Test configuration	**LTE700 +WLAN 5000**	**3-slot GPRS850 +WLAN 5000**	**WCDMA 850 +WLAN 5000**	**LTE850 +WLAN 5000**	**WCDMA 1700/ 2100 +WLAN 5000**	**LTE 1700/ 2100 +WLAN 5000**	**2-slot GPRS1900 + WLAN 5000**	**WCDMA 1900 +WLAN 5000**	**LTE1900 +WLAN 5000**
Body: Back facing phantom, Without Headset	**0.909**	**0.980**	**0.846**	**0.776**	1.18	1.10	0.794	1.19	0.990
Body: Back facing phantom, Headset WH-208	0.760	0.721	0.748	0.690	1.11	**1.14**	**0.824**	1.20	1.03
Body: Display facing phantom, Without Headset	0.741	0.726	0.664	0.598	**1.28**	1.12	0.780	**1.25**	1.07
Body: Display facing phantom, Headset WH-208	0.580	0.547	0.593	0.480	1.18	1.11	0.779	1.23	**1.09**

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.

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

Test configuration	*Reported Max. 1g SAR results								
	LTE700 +WLAN 2450	3-slot GPRS850 +WLAN 2450	WCDMA 850 +WLAN 2450	LTE850 +WLAN 2450	WCDMA 1700/ 2100 +WLAN 2450	LTE 1700/ 2100 +WLAN 2450	2-slot GPRS1900 + WLAN 2450	WCDMA 1900 +WLAN 2450	LTE1900 +WLAN 2450
Body: Back facing phantom, Without Headset	0.642	0.711	0.582	0.509	-	-	-	-	-
Body: Back facing phantom, Headset WH-208	-	-	-	-	-	-	-	-	-
Body: Display facing phantom, Without Headset	-	-	-	-	1.15	0.970	0.644	1.08	0.894
Body: Display facing phantom, Headset WH-208	-	-	-	-	-	-	-	-	-
Test configuration	LTE700 +WLAN 5000	3-slot GPRS850 +WLAN 5000	WCDMA 850 +WLAN 5000	LTE850 +WLAN 5000	WCDMA 1700/ 2100 +WLAN 5000	LTE 1700/ 2100 +WLAN 5000	2-slot GPRS1900 + WLAN 5000	WCDMA 1900 +WLAN 5000	LTE1900 +WLAN 5000
Body: Back facing phantom, Without Headset	0.629	0.699	0.569	0.496	-	-	-	-	-
Body: Back facing phantom, Headset WH-208	-	-	-	-	-	0.841	0.491	-	-
Body: Display facing phantom, Without Headset	-	-	-	-	1.13	-	-	1.06	
Body: Display facing phantom, Headset WH-208	-	-	-	-	-	-	-	-	0.931

Note: Plots #54-71

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.

Note: Simultaneous Transmission Procedures as described in KDB648474 are not required for this product. The Combined SAR data given in the tables above has been voluntarily calculated.

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

LTE700 (Band 17) Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	
10MHz Ch BW 1RB 0 % offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*			
	Conducted Power [dBm]		23.50	23.59	23.64	0.85	0.76	0.71	dB
	Time-averaged power [dBm]		23.50	23.59	23.64	1.22	1.19	1.18	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
10MHz Ch BW 1RB 50 % offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*			
	Conducted Power [dBm]		23.57	23.60	23.56	0.78	0.75	0.79	dB
	Time-averaged power [dBm]		23.57	23.60	23.56	1.20	1.19	1.20	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE700 (Band 17) WR SAR Table continues)

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(LTE700 (Band 17) WR SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	
10MHz Ch BW 1RB 100 % offset	Tuning Target + Tolerance [dBm]		23.85			Scaling factor*			
	Conducted Power [dBm]		23.47	23.65	23.54	0.88	0.70	0.81	dB
	Time-averaged power [dBm]		23.47	23.65	23.54	1.22	1.17	1.21	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	72
		Full SAR	0.634	0.649	**0.651**	0.776	0.763	**0.784**	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.589	-	-	0.692	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.029	-	-	0.034	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.278	-	-	0.327	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.245	-	-	0.288	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.498	-	-	0.585	-	
	Back facing phantom, With PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.301	0.303	0.292	0.369	0.356	0.352	
	Back facing phantom, With CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.429	0.411	0.426	0.525	0.483	0.513	
10MHz Ch BW 50% RB 0 % offset	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*			
	Conducted Power [dBm]		22.65	22.52	22.51	0.70	0.83	0.84	dB
	Time-averaged power [dBm]		22.65	22.52	22.51	1.17	1.21	1.21	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE700 (Band 17) WR SAR Table continues)

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(LTE700 (Band 17) WR SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	Ch 23780 709.0 MHz	Ch 23790 710.0 MHz	Ch 23800 711.0 MHz	
10MHz Ch BW 50% RB 50 % offset	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*			
	Conducted Power [dBm]		22.47	22.47	22.43	0.88	0.88	0.92	dB
	Time-averaged power [dBm]		22.47	22.47	22.43	1.22	1.22	1.24	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
10MHz Ch BW 50% RB 100 % offset	Tuning Target + Tolerance [dBm]		22.85			Scaling factor*			
	Conducted Power [dBm]		22.72	22.60	22.51	0.63	0.75	0.84	dB
	Time-averaged power [dBm]		22.72	22.60	22.51	1.16	1.19	1.21	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.481	-	-	0.556	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.428	-	-	0.495	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.021	-	-	0.024	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.211	-	-	0.244	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.175	-	-	0.202	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.404	-	-	0.467	-	-	

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850MHz Band Wireless Router SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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	
3-slot GPRS	Tuning Target + Tolerance [dBm]		30.05			Scaling factor*			
	Conducted Slot Average Power [dBm]		30.16	29.75	29.83	0.50	0.80	0.72	dB
	Time-averaged power [dBm]		25.90	25.49	25.57	1.12	1.20	1.18	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.701	0.705	0.759	0.787	0.848	**0.896**	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.488	-	-	0.587	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.024	-	-	0.029	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.306	-	-	0.368	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.239	-	-	0.287	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.522	-	-	0.628	-	
	Back facing phantom With PD-95G	Estimated SAR	-	-	-	-	-	-	73
		Full SAR	0.594	0.651	**0.765**	0.666	0.783	**0.903**	
	Back facing phantom With CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.442	0.459	0.506	0.496	0.552	0.597	

(850MHz WR SAR Table continues)

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(850MHz WR SAR Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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]		23.85			Scaling factor*			
	Conducted Power [dBm]		23.67	23.61	23.72	0.68	0.74	0.63	dB
	Time-averaged power [dBm]		23.67	23.61	23.72	1.17	1.19	1.16	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	74
		Full SAR	0.528	0.611	**0.639**	0.617	0.725	**0.739**	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.448	-	-	0.531	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.020	-	-	0.023	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.296	-	-	0.351	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.142	-	-	0.168	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.380	-	-	0.451	-	
	Back facing phantom With PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.520	0.489	0.413	0.608	0.580	0.477	
	Back facing phantom With CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.358	0.393	0.447	0.419	0.466	0.517	

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LTE850 (Band 5) Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	
10MHz Ch BW 1RB 0 % offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		23.17	23.00	23.00	0.68	0.85	0.85	dB
	Time-averaged power [dBm]		23.17	23.00	23.00	1.17	1.22	1.22	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
10MHz Ch BW 1RB 50 % offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		23.27	23.04	22.96	0.58	0.81	0.89	dB
	Time-averaged power [dBm]		23.27	23.04	22.96	1.14	1.21	1.23	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	75
		Full SAR	0.512	0.519	**0.549**	0.585	0.625	**0.674**	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.410	-	-	0.469	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.020	-	-	0.022	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.261	-	-	0.298	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.146	-	-	0.167	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-		-	-	-
		Full SAR	0.418	-	-	0.478	-	-	
	Back facing phantom With PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.401	0.358	0.325	0.458	0.431	0.399	
	Back facing phantom With CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.344	0.364	0.392	0.393	0.439	0.481	

(LTE850 (Band 5) WR SAR Table continues)

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(LTE850 (Band 5) WR SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	
10MHz Ch BW 1RB 100 % offset	Tuning Target + Tolerance [dBm]		23.35			Scaling factor*			
	Conducted Power [dBm]		23.26	22.95	23.03	0.59	0.90	0.82	dB
	Time-averaged power [dBm]		23.26	22.95	23.03	1.15	1.23	1.21	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
10MHz Ch BW 50% RB 0 % offset	Tuning Target + Tolerance [dBm]		22.35			Scaling factor*			
	Conducted Power [dBm]		22.08	22.08	22.05	0.77	0.77	0.80	dB
	Time-averaged power [dBm]		22.08	22.08	22.05	1.19	1.19	1.20	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE850 (Band 5) WR SAR Table continues)

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(LTE850 (Band 5) WR SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	
10MHz Ch BW 50% RB 50 % offset	Tuning Target + Tolerance [dBm]		22.35			Scaling factor*			
	Conducted Power [dBm]		22.13	22.00	21.97	0.72	0.85	0.88	dB
	Time-averaged power [dBm]		22.13	22.00	21.97	1.18	1.22	1.22	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
10MHz Ch BW 50% RB 100 % offset	Tuning Target + Tolerance [dBm]		22.35			Scaling factor*			
	Conducted Power [dBm]		22.15	21.96	22.02	0.70	0.89	0.83	dB
	Time-averaged power [dBm]		22.15	21.96	22.02	1.17	1.23	1.21	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.375	-	-	0.441	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.312	-	-	0.367	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.014	-	-	0.017	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.202	-	-	0.237	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.105	-	-	0.123	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.263	-	-	0.309	-	-	

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WCDMA1700/2100 Wireless Router SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 1312 1712.4 MHz	Ch 1412 1732.4 MHz	Ch 1513 1752.6 MHz	Ch 1312 1712.4 MHz	Ch 1412 1732.4 MHz	Ch 1513 1752.6 MHz	
WCDMA	Tuning Target + Tolerance [dBm]		21.35			Scaling factor*			
	Conducted Power [dBm]		21.02	21.19	21.16	0.83	0.66	0.69	dB
	Time-averaged power [dBm]		21.02	21.19	21.16	1.21	1.16	1.17	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.841	0.790	0.728	1.02	0.920	0.853	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.852	0.831	0.776	**1.03**	0.967	0.910	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.049	-	-	0.056	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.416	-	-	0.484	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.308	-	-	0.359	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.185	-	-	0.215	-	
	Display facing phantom With PG-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.566	0.589	0.578	0.685	0.686	0.678	
	Display facing phantom With CC-3066	Estimated SAR	-	-	-	-	-	-	76
		Full SAR	**0.909**	0.875	0.806	**1.10**	1.02	0.945	
	Repeated SAR: Display facing phantom With CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.907	-	-	1.10	-	-	

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LTE1700/2100 (Band 4) Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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]		20.85			Scaling factor*			
	Conducted Power [dBm]		20.86	20.70	20.87	0.50	0.65	0.50	dB
	Time-averaged power [dBm]		20.86	20.70	20.87	1.12	1.16	1.12	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.773	0.757	0.743	0.867	0.879	0.834	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.813	0.788	0.767	0.912	0.915	0.861	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.051	-	0.054	0.057	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.391	-	0.430	0.439	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.288	-	0.309	0.323	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.161	-	0.218	0.181	
20MHz Ch BW 1RB 50 % offset	Tuning Target + Tolerance [dBm]		20.85			Scaling factor*			
	Conducted Power [dBm]		20.60	20.53	20.79	0.75	0.82	0.56	dB
	Time-averaged power [dBm]		20.60	20.53	20.79	1.19	1.21	1.14	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE1700/2100 (Band 4) WR SAR Table continues)

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(LTE1700/2100 (Band 4) WR SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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 100 % offset	Tuning Target + Tolerance [dBm]		20.85			Scaling factor*			
	Conducted Power [dBm]		20.45	20.61	20.48	0.90	0.74	0.87	dB
	Time-averaged power [dBm]		20.45	20.61	20.48	1.23	1.19	1.22	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.674	0.728	0.616	0.829	0.863	0.753	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.773	0.799	0.691	**0.951**	0.947	0.844	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom With PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.510	0.543	0.503	0.627	0.644	0.615	
	Display facing phantom With CC-3066	Estimated SAR	-	-	-	-	-	-	77
		Full SAR	**0.817**	0.799	0.724	**1.01**	0.947	0.885	
	Repeated SAR: Display facing phantom With CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.794	-	-	0.977	-	-	
20MHz Ch BW 50% RB 0 % offset	Tuning Target + Tolerance [dBm]		19.85			Scaling factor*			
	Conducted Power [dBm]		19.73	19.74	19.74	0.62	0.61	0.61	dB
	Time-averaged power [dBm]		19.73	19.74	19.74	1.15	1.15	1.15	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.525	-	-	0.604	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.614	-	-	0.707	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.037	-	-	0.042	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.291	-	-	0.335	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.205	-	-	0.236	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.137	-	-	0.158	-	

(LTE1700/2100 (Band 4) WR SAR Table continues)

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(LTE1700/2100 (Band 4) WR SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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]		19.85			Scaling factor*			
	Conducted Power [dBm]		19.38	19.43	19.51	0.97	0.92	0.84	dB
	Time-averaged power [dBm]		19.38	19.43	19.51	1.25	1.24	1.21	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
20MHz Ch BW 50% RB 100 % offset	Tuning Target + Tolerance [dBm]		19.85			Scaling factor*			
	Conducted Power [dBm]		19.69	19.64	19.64	0.66	0.71	0.71	dB
	Time-averaged power [dBm]		19.69	19.64	19.64	1.16	1.18	1.18	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE1700/2100 (Band 4) WR SAR Table continues)

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(LTE1700/2100 (Band 4) WR SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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 100% RB	Tuning Target + Tolerance [dBm]		19.85			Scaling factor*			
	Conducted Power [dBm]		19.38	19.46	19.61	0.97	0.89	0.74	dB
	Time-averaged power [dBm]		19.38	19.46	19.61	1.25	1.23	1.19	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.523	-	-	0.620	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.579	-	-	0.687	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

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1900MHz Band Wireless Router SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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	
2-slot GPRS	Tuning Target + Tolerance [dBm]		27.85			Scaling factor*			
	Conducted Slot Average Power [dBm]		27.81	28.03	27.89	0.54	0.50	0.50	dB
	Time-averaged power [dBm]		21.79	22.01	21.87	1.13	1.12	1.12	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.716	0.748	0.700	0.811	0.839	0.785	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.795	**0.852**	0.792	0.900	**0.956**	0.889	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.037	-	-	0.041	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.596	-	-	0.669	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.411	-	-	0.461	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.143	-	-	0.160	-	
	Display facing phantom With PD-95G	Estimated SAR							
		Full SAR	0.525	0.586	0.587	0.595	0.658	0.659	
	Display facing phantom With CC-3066	Estimated SAR							
		Full SAR	0.762	0.812	0.766	0.863	0.911	0.859	
	Repeated SAR: Display facing phantom	Estimated SAR	-	-	-	-	-	-	78
		Full SAR	-	**0.875**	-	-	**0.982**	-	

(1900MHz WR SAR Table continues)

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(1900MHz WR SAR Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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]		21.16	21.20	21.24	0.69	0.65	0.61	dB
	Time-averaged power [dBm]		21.16	21.20	21.24	1.17	1.16	1.15	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.734	0.689	0.698	0.860	0.800	0.803	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.807	0.831	**0.853**	0.946	0.965	**0.982**	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.023	-	-	0.027	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.535	-	-	0.621	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.410	-	-	0.476	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.145	-	-	0.168	-	
	Display facing phantom With PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.608	0.623	0.662	0.713	0.724	0.762	
	Display facing phantom With CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.799	0.806	0.818	0.937	0.936	0.941	
	Repeated SAR: Display facing phantom	Estimated SAR	-	-	-	-	-	-	79
		Full SAR	-	-	**0.883**	-	-	**1.02**	

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LTE1900 (Band 2) Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	
20MHz Ch BW 1RB 0 % offset	Tuning Target + Tolerance [dBm]		20.85			Scaling factor*			
	Conducted Power [dBm]		20.94	20.72	20.81	0.50	0.63	0.54	dB
	Time-averaged power [dBm]		20.94	20.72	20.81	1.12	1.16	1.13	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.723	-	-	0.811	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
20MHz Ch BW 1RB 50 % offset	Tuning Target + Tolerance [dBm]		20.85			Scaling factor*			
	Conducted Power [dBm]		20.87	20.74	20.94	0.50	0.61	0.50	dB
	Time-averaged power [dBm]		20.87	20.74	20.94	1.12	1.15	1.12	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE1900 (Band 2) WR SAR Table continues)

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(LTE1900 (Band 2) WR SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	
20MHz Ch BW 1RB 100 % offset	Tuning Target + Tolerance [dBm]		20.85			Scaling factor*			
	Conducted Power [dBm]		20.71	20.75	21.05	0.64	0.60	0.50	dB
	Time-averaged power [dBm]		20.71	20.75	21.05	1.16	1.15	1.12	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.659	-	-	0.739	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.751	0.747	0.767	0.870	0.858	**0.861**	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.060	-	-	0.067	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.527	-	-	0.591	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.370	-	-	0.415	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.146	-	-	0.164	
	Display facing phantom With PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.451	0.486	0.492	0.523	0.558	0.552	
	Display facing phantom With CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.782	0.778	0.828	0.906	0.893	**0.929**	
	Repeated SAR: Display facing phantom With CC-3066	Estimated SAR	-	-	-	-	-	-	80
		Full SAR	-	-	**0.838**	-	-	**0.940**	
20MHz Ch BW 50% RB 0 % offset	Tuning Target + Tolerance [dBm]		19.85			Scaling factor*			
	Conducted Power [dBm]		19.52	19.50	19.62	0.83	0.85	0.73	dB
	Time-averaged power [dBm]		19.52	19.50	19.62	1.21	1.22	1.18	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE1900 (Band 2) WR SAR Table continues)

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(LTE1900 (Band 2) WR SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	
20MHz Ch BW 50% RB 50 % offset	Tuning Target + Tolerance [dBm]		19.85			Scaling factor*			
	Conducted Power [dBm]		19.72	19.64	19.69	0.63	0.71	0.66	dB
	Time-averaged power [dBm]		19.72	19.64	19.69	1.16	1.18	1.16	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.485	-	-	0.561	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.578	-	-	0.668	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.019	-	-	0.022	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.392	-	-	0.453	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.291	-	-	0.336	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.111	-	-	0.128	-	-	
20MHz Ch BW 50% RB 100 % offset	Tuning Target + Tolerance [dBm]		19.85			Scaling factor*			
	Conducted Power [dBm]		19.40	19.51	19.65	0.95	0.84	0.70	dB
	Time-averaged power [dBm]		19.40	19.51	19.65	1.24	1.21	1.17	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

(LTE1900 (Band 2) WR SAR Table continues)

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(LTE1900 (Band 2) WR SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Plot #
			Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	Ch 18700 1860.0 MHz	Ch 18900 1880.0 MHz	Ch 19100 1900.0 MHz	
20MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]		19.85			Scaling factor*			
	Conducted Power [dBm]		19.74	19.65	19.75	0.61	0.70	0.60	dB
	Time-averaged power [dBm]		19.74	19.65	19.75	1.15	1.17	1.15	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	0.579	-	-	0.665	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-	

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2450MHz Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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 10 2457.0 MHz	
WLAN b-mode DSSS 1 Mbps	Tuning Target + Tolerance [dBm]		17.50			Scaling factor*			
	Conducted Power [dBm]		16.63	16.53	16.17	1.37	1.47	1.83	dB
	Time-averaged power [dBm]		16.63	16.53	16.17	1.37	1.40	1.52	Lin
	Back facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.080	-	-	0.113	-	
	Display facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.096	-	-	0.135	-	
	Top edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.030	-	-	0.042	-	
	Bottom edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.018	-	-	0.026	-	
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	81
		Full SAR	0.141	0.135	0.134	0.193	0.189	**0.204**	
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.009	-	-	0.012	-	
	Left edge facing phantom With PD-95G	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.091	0.094	0.091	0.125	0.132	0.138	
	Left edge facing phantom With CC-3066	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	0.119	0.119	0.122	0.163	0.167	0.186	

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g 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 11 Mbps	Tuning Target + Tolerance [dBm]		17.50			Scaling factor*			
	Conducted Power [dBm]		-	16.83	-	-	1.17	-	dB
	Time-averaged power [dBm]		-	16.83	-	-	1.31	-	Lin
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-
		Full SAR	-	0.151	-	-	0.198	-	

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Simultaneous transmissions: Combined SAR results – Individual band Max results

Test configuration	*Reported Max. 1g SAR results									
	WLAN 2450	LTE 700	3-slot GPRS 850	WCDMA 850	LTE 850	WCDMA 1700/ 2100	LTE 1700/ 2100	2-slot GPRS 1900	WCDMA 1900	LTE 1900
Back facing phantom	0.113	0.784	0.903	0.739	0.674	1.02	0.879	0.839	0.860	0.739
Display facing phantom	0.135	0.692	0.587	0.531	0.469	1.10	1.01	0.982	1.02	0.940
Top edge facing phantom	0.042	0.034	0.029	0.023	0.022	0.056	0.057	0.041	0.027	0.067
Bottom edge facing phantom	0.026	0.327	0.368	0.351	0.298	0.484	0.439	0.669	0.621	0.591
Left edge facing phantom	0.204	0.288	0.287	0.168	0.167	0.359	0.323	0.461	0.476	0.415
Right edge facing phantom	0.012	0.585	0.628	0.451	0.478	0.215	0.218	0.160	0.168	0.164

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

Test configuration	*Reported Max. 1g SAR results								
	LTE 700 + WLAN 2450	3-slot GPRS 850 + WLAN 2450	WCDMA 850 + WLAN 2450	LTE 850 + WLAN 2450	WCDMA 1700/ 2100 + WLAN 2450	LTE 1700/ 2100 + WLAN 2450	2-slot GPRS 1900 + WLAN 2450	WCDMA 1900 + WLAN 2450	LTE 1900 + WLAN 2450
Back facing phantom	**0.897**	**1.02**	**0.852**	**0.787**	1.13	0.992	0.952	0.973	0.852
Display facing phantom	0.827	0.722	0.666	0.604	**1.24**	**1.15**	**1.12**	**1.16**	**1.08**
Top edge facing phantom	0.076	0.071	0.065	0.064	0.098	0.099	0.083	0.069	0.109
Bottom edge facing phantom	0.353	0.394	0.377	0.324	0.510	0.465	0.695	0.647	0.617
Left edge facing phantom	0.492	0.491	0.372	0.371	0.563	0.527	0.665	0.680	0.619
Right edge facing phantom	0.597	0.640	0.463	0.490	0.227	0.230	0.172	0.180	0.176

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. It is these values that appear in the Summary table in Section 1.2.

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

Test configuration	*Reported Max. 1g SAR results								
	LTE 700 + WLAN 2450	3-slot GPRS 850 + WLAN 2450	WCDMA 850 + WLAN 2450	LTE 850 + WLAN 2450	WCDMA 1700/ 2100 + WLAN 2450	LTE 1700/ 2100 + WLAN 2450	2-slot GPRS 1900 + WLAN 2450	WCDMA 1900 + WLAN 2450	LTE 1900 + WLAN 2450
Back facing phantom	0.799	0.923	0.754	0.686	-	-	-	-	-
Display facing phantom	-	-	-	-	1.13	1.05	1.00	1.02	0.942
Top edge facing phantom	-	-	-	-	-	-	-	-	-
Bottom edge facing phantom	-	-	-	-	-	-	-	-	-
Left edge facing phantom	-	-	-	-	-	-	-	-	-
Right edge facing phantom	-	-	-	-	-	-	-	-	-

Note: Plots #82-90

Note: Simultaneous Transmission Procedures as described in KDB648474 are not required for this product. The Combined SAR data given in the tables above has been voluntarily calculated.

Plots of the Measurement scans are given in Appendix B.3.

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