SAR Compliance Test Report

Test report no.:	FCC_RM-985_02	**Date of report:**	2014-09-18
Template version:	19.7	**Number of pages:**	88
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Tested device:	RM-985		
FCC ID:	QMNRM-985	**IC:**	661X-RM985
Supplement reports:	FCC_RM-984_03		
Testing has been carried out in accordance with:	**47CFR §2.1093** Radiofrequency Radiation Exposure Evaluation: Portable Devices **FCC published RF exposure KDB procedures** **RSS-102, Issue 4** 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 - 2013** 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 Microsoft.		
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	2014-07-25 to 2014-09-17
SN, HW and SW numbers of tested device	SN: 004402/47/815349/1, HW: 0200, SW: 02030.00000.14271.24000, DUT: 18590 SN: 004402/47/815344/2, HW: 0200, SW: 02030.00000.14271.24000, DUT: 18591 SN: 004402/47/815308/7, HW: 0200, SW: 02030.00000.14271.24000, DUT: 18583 SN: 004402/47/815319/4, HW: 0200, SW: 02030.00000.14271.24000, DUT: 18584 SN: 004402/47/815356/6, HW: 0200, SW: 02030.00000.14271.24000, DUT: 18592 SN: 004402/47/815312/9, HW: 0200, SW: 02030.00000.14271.24000, DUT: 18594
Batteries used in testing	BV-L4A, DUT: 18409, 18410, 18411, 18412, 18413, 18417, 18418, 18419, 18420, 18421
Headsets used in testing	WH-208, DUT:18392, 18395, 18393, 18394,18391
Other accessories used in testing	-
State of sample	Prototype unit
Notes	-

1.2 Maximum Results

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

1.2.1 Head Configuration

Mode	Ch / *f*(MHz)	Conducted power	Position	Measured SAR value (1g avg)	Reported* SAR value (1g avg)	SAR limit (1g avg)	Result	Plot #
LTE700 (Band 17)	23800 / 711.0	23.5 dBm	Right, Cheek	0.219 W/kg	**0.24 W/kg**	1.6 W/kg	PASSED	1
2-slot GPRS850	189 / 836.4	30.0 dBm	Left, Cheek	0.407 W/kg	**0.50 W/kg**	1.6 W/kg	PASSED	2
WCDMA850 (Band 5)	4219 / 843.8	23.1 dBm	Left, Cheek	0.310 W/kg	**0.37 W/kg**	1.6 W/kg	PASSED	3
LTE850 (Band 5)	20450 / 829.0	23.3 dBm	Left, Cheek	0.303 W/kg	**0.35 W/kg**	1.6 W/kg	PASSED	4
LTE1700/2100 (Band 4)	20050 / 1720.0	23.8 dBm	Right, Cheek	0.410W/kg	**0.42 W/kg**	1.6 W/kg	PASSED	5
3-slot GPRS1900	512 / 1850.2	26.2 dBm	Right, Cheek	0.137 W/kg	**0.16 W/kg**	1.6 W/kg	PASSED	6
WCDMA1900 (Band 2)	9262 / 1852.4	23.2 dBm	Right, Cheek	0.235 W/kg	**0.28 W/kg**	1.6 W/kg	PASSED	7
LTE1900 (Band 2)	19100 / 1900.0	23.9 dBm	Right, Cheek	0.227 W/kg	**0.23 W/kg**	1.6 W/kg	PASSED	8
LTE2500 (Band 7)	20867 / 2511.7	23.5 dBm	Left, Cheek	0.294 W/kg	**0.32 W/kg**	1.6 W/kg	PASSED	9
WLAN2450	6 / 2437.0	17.8 dBm	Right, Tilt	0.538 W/kg	**0.80 W/kg**	1.6 W/kg	PASSED	13
WLAN5000	136 / 5680.0	15.7 dBm	Right, Cheek	0.174 W/kg	**0.26 W/kg**	1.6 W/kg	PASSED	14
LTE700 (Band 17) + WLAN2450	-	-	Right, Tilt	0.562 W/kg	**0.85 W/kg**	1.6 W/kg	PASSED	-
2-slot GPRS850 + WLAN2450	-	-	Right, Tilt	0.657 W/kg	**0.94 W/kg**	1.6 W/kg	PASSED	-
WCDMA850 (Band 5) + WLAN2450	-	-	Right, Tilt	0.630 W/kg	**0.91 W/kg**	1.6 W/kg	PASSED	-
LTE850 (Band 5) + WLAN2450	-	-	Right, Tilt	0.630 W/kg	**0.90 W/kg**	1.6 W/kg	PASSED	-
LTE1700/2100 (Band 4) + WLAN2450	-	-	Right, Tilt	0.538 W/kg	**0.80 W/kg**	1.6 W/kg	PASSED	13**
3-slot GPRS1900 + WLAN2450	-	-	Right, Tilt	0.570 W/kg	**0.84 W/kg**	1.6 W/kg	PASSED	-
WCDMA1900 (Band 2) + WLAN2450	-	-	Right, Tilt	0.538 W/kg	**0.80 W/kg**	1.6 W/kg	PASSED	13**
LTE1900 (Band 2) + WLAN2450	-	-	Right, Tilt	0.600 W/kg	**0.86 W/kg**	1.6 W/kg	PASSED	-
LTE2500 (Band 7) + WLAN2450	-	-	Right, Tilt	0.584 W/kg	**0.85 W/kg**	1.6 W/kg	PASSED	-
LTE700 (Band 17) + WLAN5000	-	-	Right, Cheek	0.218 W/kg	**0.26 W/kg**	1.6 W/kg	PASSED	-
2-slot GPRS850 + WLAN5000	-	-	Left, Cheek	0.407 W/kg	**0.50 W/kg**	1.6 W/kg	PASSED	2**
WCDMA850 (Band 5) + WLAN5000	-	-	Left, Cheek	0.310 W/kg	**0.37 W/kg**	1.6 W/kg	PASSED	3**
LTE850 (Band 5) + WLAN5000	-	-	Left, Cheek	0.303 W/kg	**0.35 W/kg**	1.6 W/kg	PASSED	4**
LTE1700/2100 (Band 4) + WLAN5000	-	-	Right, Cheek	0.410W/kg	**0.42 W/kg**	1.6 W/kg	PASSED	5**
3-slot GPRS1900 + WLAN5000	-	-	Right, Cheek	0.182 W/kg	**0.27 W/kg**	1.6 W/kg	PASSED	-

(Table continues)

(Table continues)

WCDMA1900 (Band 2) + WLAN5000	-	-	Right, Cheek	0.235 W/kg	**0.28 W/kg**	1.6 W/kg	PASSED	-
LTE1900 (Band 2) + WLAN5000	-	-	Right, Cheek	0.256 W/kg	**0.31 W/kg**	1.6 W/kg	PASSED	-
LTE2500 (Band 7) + WLAN5000	-	-	Left, Cheek	0.296 W/kg	**0.33 W/kg**	1.6 W/kg	PASSED	-

1.2.2 Body Worn Configuration

Mode	Ch / *f*(MHz)	Conducted power	Separation distance	Measured SAR value (1g avg)	Reported* SAR value (1g avg)	SAR limit (1g avg)	Result	Plot #
LTE700 (Band 17)	23800 / 711.0	23.5 dBm	1.5 cm	0.402 W/kg	**0.44 W/kg**	1.6 W/kg	PASSED	15
2-slot GPRS850	189 / 836.4	30.0 dBm	1.5 cm	0.442 W/kg	**0.54 W/kg**	1.6 W/kg	PASSED	16
WCDMA850 (Band 5)	4219 / 843.8	23.1 dBm	1.5 cm	0.338 W/kg	**0.41 W/kg**	1.6 W/kg	PASSED	17
LTE850 (Band 5)	20450 / 829.0	23.3 dBm	1.5 cm	0.325 W/kg	**0.37 W/kg**	1.6 W/kg	PASSED	18
LTE1700/2100 (Band 4)	20300 / 1745.0	23.7 dBm	1.5 cm	0.805 W/kg	**0.84 W/kg**	1.6 W/kg	PASSED	19
3-slot GPRS1900	810 / 1909.8	26.1 dBm	1.5 cm	0.488 W/kg	**0.59 W/kg**	1.6 W/kg	PASSED	20
WCDMA1900 (Band 2)	9262 / 1852.4	23.2 dBm	1.5 cm	0.883 W/kg	**1.04 W/kg**	1.6 W/kg	PASSED	21
LTE1900 (Band 2)	19100 / 1900.0	23.9 dBm	1.5 cm	0.766 W/kg	**0.77 W/kg**	1.6 W/kg	PASSED	22
LTE2500 (Band 7)	20867 / 2511.7	23.5 dBm	1.5 cm	0.642 W/kg	**0.70 W/kg**	1.6 W/kg	PASSED	25
WLAN2450	1 / 2412.0	17.7 dBm	1.5 cm	0.123 W/kg	**0.19 W/kg**	1.6 W/kg	PASSED	27
WLAN5000	165 / 5825.0	16.1 dBm	1.5 cm	0.154 W/kg	**0.21 W/kg**	1.6 W/kg	PASSED	28
LTE700 (Band 17) + WLAN2450	-	-	1.5 cm	0.402 W/kg	**0.44 W/kg**	1.6 W/kg	PASSED	15**
2-slot GPRS850 + WLAN2450	-	-	1.5 cm	0.442 W/kg	**0.54 W/kg**	1.6 W/kg	PASSED	16**
WCDMA850 (Band 5) + WLAN2450	-	-	1.5 cm	0.338 W/kg	**0.41 W/kg**	1.6 W/kg	PASSED	17**
LTE850 (Band 5) + WLAN2450	-	-	1.5 cm	0.325 W/kg	**0.37 W/kg**	1.6 W/kg	PASSED	18**
LTE1700/2100 (Band 4) + WLAN2450	-	-	1.5 cm	0.805 W/kg	**0.84 W/kg**	1.6 W/kg	PASSED	19**
3-slot GPRS1900 + WLAN2450	-	-	1.5 cm	0.488 W/kg	**0.59 W/kg**	1.6 W/kg	PASSED	20**
WCDMA1900 (Band 2) + WLAN2450	-	-	1.5 cm	0.883 W/kg	**1.04 W/kg**	1.6 W/kg	PASSED	21**
LTE1900 (Band 2) + WLAN2450	-	-	1.5 cm	0.766 W/kg	**0.77 W/kg**	1.6 W/kg	PASSED	22**
LTE2500 (Band 7) + WLAN2450	-	-	1.5 cm	0.644 W/kg	**0.71 W/kg**	1.6 W/kg	PASSED	-
LTE700 (Band 17) + WLAN5000	-	-	1.5 cm	0.402 W/kg	**0.44 W/kg**	1.6 W/kg	PASSED	15**

(Table continues)

(Table continues)

2-slot GPRS850 + WLAN5000	-	-	1.5 cm	0.442 W/kg	**0.54 W/kg**	1.6 W/kg	PASSED	16**
WCDMA850 (Band 5) + WLAN5000	-	-	1.5 cm	0.338 W/kg	**0.41 W/kg**	1.6 W/kg	PASSED	17**
LTE850 (Band 5) + WLAN5000	-	-	1.5 cm	0.325 W/kg	**0.37 W/kg**	1.6 W/kg	PASSED	18**
LTE1700/2100 (Band 4) + WLAN5000	-	-	1.5 cm	0.805 W/kg	**0.84 W/kg**	1.6 W/kg	PASSED	19**
3-slot GPRS1900 + WLAN5000	-	-	1.5 cm	0.488 W/kg	**0.59 W/kg**	1.6 W/kg	PASSED	20**
WCDMA1900 (Band 2) + WLAN5000	-	-	1.5 cm	0.883 W/kg	**1.04 W/kg**	1.6 W/kg	PASSED	21**
LTE1900 (Band 2) + WLAN5000	-	-	1.5 cm	0.766 W/kg	**0.77 W/kg**	1.6 W/kg	PASSED	22**
LTE2500 (Band 7) + WLAN5000	-	-	1.5 cm	0.642 W/kg	**0.70 W/kg**	1.6 W/kg	PASSED	25**

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 (Band 17)	23800 / 711.0	23.5 dBm	10.0 mm	0.546 W/kg	**0.60 W/kg**	1.6 W/kg	PASSED	29
2-slot GPRS850	189 / 836.4	30.0 dBm	10.0 mm	0.669 W/kg	**0.82 W/kg**	1.6 W/kg	PASSED	30
WCDMA850 (Band 5)	4183 / 836.6	23.0 dBm	10.0 mm	0.540 W/kg	**0.66 W/kg**	1.6 W/kg	PASSED	31
LTE850 (Band 5)	20450 / 829.0	23.3 dBm	10.0 mm	0.457 W/kg	**0.53 W/kg**	1.6 W/kg	PASSED	32
LTE1700/2100 (Band 4)	20300 / 1745.0	19.7 dBm	10.0 mm	1.02 W/kg	**1.07 W/kg**	1.6 W/kg	PASSED	33
1-slot GPRS1900	810 / 1909.8	28.0 dBm	10.0 mm	0.993 W/kg	**1.09 W/kg**	1.6 W/kg	PASSED	34
WCDMA1900 (Band 2)	9538 / 1907.6	18.1 dBm	10.0 mm	0.930 W/kg	**1.00 W/kg**	1.6 W/kg	PASSED	35
LTE1900 (Band 2)	19100 / 1900.0	18.3 dBm	10.0 mm	0.910 W/kg	**0.93 W/kg**	1.6 W/kg	PASSED	36
LTE2500 (Band 7)	20867 / 2511.7	18.6 dBm	10.0 mm	0.985 W/kg	**1.06 W/kg**	1.6 W/kg	PASSED	39
WLAN2450	2 / 2417.0	18.0 dBm	10.0 mm	0.317 W/kg	**0.448 W/kg**	1.6 W/kg	PASSED	42
LTE700 (Band 17) + WLAN2450	-	-	10.0 mm	0.546 W/kg	**0.60 W/kg**	1.6 W/kg	PASSED	29**
2-slot GPRS850 + WLAN2450	-	-	10.0 mm	0.669 W/kg	**0.82 W/kg**	1.6 W/kg	PASSED	30**
WCDMA850 (Band 5) + WLAN2450	-	-	10.0 mm	0.540 W/kg	**0.66 W/kg**	1.6 W/kg	PASSED	31**
LTE850 (Band 5) + WLAN2450	-	-	10.0 mm	0.457 W/kg	**0.53 W/kg**	1.6 W/kg	PASSED	32**

(Table continues)

(Table continues)

LTE1700/2100 (Band 4) + WLAN2450	-	-	10.0 mm	1.02 W/kg	**1.07 W/kg**	1.6 W/kg	PASSED	33**
1-slot GPRS1900 + WLAN2450	-	-	10.0 mm	0.993 W/kg	**1.09 W/kg**	1.6 W/kg	PASSED	34**
WCDMA1900 (Band 2) + WLAN2450	-	-	10.0 mm	0.930 W/kg	**1.00 W/kg**	1.6 W/kg	PASSED	35**
LTE1900 (Band 2) + WLAN2450	-	-	10.0 mm	0.910 W/kg	**0.93 W/kg**	1.6 W/kg	PASSED	36**
LTE2500 (Band 7) + WLAN2450	-	-	10.0 mm	0.985 W/kg	**1.06 W/kg**	1.6 W/kg	PASSED	39**

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

** This is due to fact that in some of the cases combined SAR values are less than the maximum SAR values for the contributing individual band and therefore plot numbers might be the same i.e. the ones providing highest SAR value. Some of the Combined SAR values in the above table are less than the maximum SAR values for the contributing cellular band. This is due to a) minimal overlap of the SAR distributions of the cellular band with WLAN2450 and b) uncertainties associated with the different methods of calculation. In these cases, the maximum SAR values given for the combined Modes in the Summary table in Section 1.2 are those for the individual cellular or WLAN band.

1.2.4 Summary SAR data

	FCC-defined SAR values for the Grants of Equipment Authorization		
	PCE	**DTS**	**NII**
Maximum Head SAR values	0.50 W/kg	0.80 W/kg	0.26 W/Kg
{Max + Max} Simultaneous Head SAR value	1.08 W/kg		
Maximum Body SAR values	1.04 W/kg	0.21 W/kg	0.01W/Kg
{Max + Max} Simultaneous Body SAR value	1.13 W/kg		
Maximum Product Specific (Wireless Router) SAR values	1.09 W/kg	0.448 W/kg	-
{Max + Max} Simultaneous Product Specific SAR value	1.13 W/kg		
Maximum Simultaneous SAR value **Wireless Router at 10.0mm: 2-slot GPRS850 + WLAN2450**	1.13 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 5% scaling up of the SAR values	Maximum drift during measurements
0.2dB	0.20dB

1.2.6 Measurement Uncertainty

Expanded Uncertainty (k=2) 95%	± 29.8%

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	32.5	30.5	28.0	27.0	32.9	30.9	28.4	27.4
	1900			1850 – 1910	30.0	27.5	26.5	25.0	30.4	27.9	26.9	25.4
EGPRS	850	GMSK	1/8 to 4/8	824 – 849	27.0	27.0	25.0	24.0	27.4	27.4	25.4	24.4
	1900			1850 – 1910	26.0	26.0	24.0	23.0	26.4	26.4	24.4	23.4
WCDMA	850 (Band 5)		1	826 – 847	23.5				23.9			
WCDMA	1900 (Band 2)		1	1852 – 1908	23.5				23.9			
HSUPA	850 (Band 5)		1	826 – 847	See Appendix D for details							
HSUPA	1900 (Band 2)		1	1852 – 1908	See Appendix D for details							
LTE	700 (Band 17)	QPSK / 16QAM	1	704 – 716	23.5				23.9			
LTE	850 (Band 5)	QPSK / 16QAM	1	824 – 849	23.5				23.9			
LTE	1700/2100 (Band 4)	QPSK / 16QAM	1	1710 – 1755	23.5				23.9			
LTE	1900 (Band 2)	QPSK / 16QAM	1	1850 – 1910	23.5				23.9			
LTE	2500 (Band 7)	QPSK / 16QAM	1	2510 - 2560	23.5				23.9			
BT	2450	GFSK	1	2402 – 2480	6.0				7.5			
					Ch 1 - 11				Ch 1 - 11			
WLAN b-mode*	2450	BPSK / QPSK	1	2412 – 2462	18.0				19.5			
WLAN g-mode*	2450	up to 64QAM	1	2412 – 2462	16.0				17.5			
WLAN n-mode 20MHz*	2450	up to 64QAM	1	2412 – 2462	14.0				15.5			
					Ch 38 - 163				Ch 38 - 163			
WLAN a-mode*	5000	OFDM	1	5150 – 5825	16.0				17.5			
WLAN n-mode 20MHz*	5000	OFDM	1	5150 – 5825	14.0				15.5			
					Ch 38 - 163				Ch 38 - 163			
WLAN n-mode 40MHz*	5000	OFDM	1	5150 – 5825	10.0				11.5			

* See Appendix J for details

Outside of USA and Canada, the transmitter of the device is capable of operating also in GSM/GPRS/EGPRS900, GSM/GPRS/EGPRS1800, WCDMA900 (Band 8), WCDMA2100 (Band 1) bands which are not part of this filing.

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

This 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 and details of the HSUPA MPRscheme. Additionally, Appendix I lists targets and measured conducted powers for WCDMA bands.

This is a BT Class 1 device and its power tuning target upper limit is 7.5dBm. WLAN2450 power tuning target upper limit is 19.5dBm. Since WLAN2450 and BT use same frequency and antenna, WLAN2450 power is 12.0dB higher, and they cannot transmit simultaneously, the WLAN2450 standalone SAR is conservative estimation of BT SAR. As WLAN2450 SAR result is below limit, also BT SAR can be deemed to comply without further analysis or standalone measurements. Also WLAN2450+cellular bands combined SAR results can be regarded as conservative estimation of BT+cellular combined SARs. As WLAN2450+cellular combined SAR result are below limit, also BT+cellular combined SAR can be deemed to comply without further analysis and estimations required in KDB 447498 for simultaneous transmission exclusion.

This is an LTE device LTE bands and Channel Bandwidths are given in the table below.

Band	Channel Bandwidth MHz					
	20	15	10	5	3	1.4
LTE700 (Band 17)			x	x		
LTE850 (Band 5)			x	x	x	x
LTE1700/2100 (Band 4)	x	x	x	x	x	x
LTE1900 (Band 2)	x	x	x	x	x	x
LTE2500 (Band 7)	x	x	x	x		

Simultaneous transmission of any singular cellular and PCS band is possible with WLAN in Head, Body-worn and Wireless router use according to the tables below.

Simultaneous transmission capabilities in Head and Body-worn use		
	WLAN2450	WLAN5000
LTE700 (Band 17)	✓	✓
GSM/GPRS/EGPRS850	✓	✓
WCDMA850 (Band 5)	✓	✓
LTE850 (Band 5)	✓	✓
LTE1700/2100 (Band 4)	✓	✓
GSM/GPRS/EGPRS1900	✓	✓
WCDMA1900 (Band 2)	✓	✓
LTE1900 (Band 2)	✓	✓
LTE2500 (Band 7)	✓	✓
Simultaneous transmission capabilities in Wireless Router use		
	WLAN2450	WLAN5000
LTE700 (Band 17)	✓	-
GSM/GPRS/EGPRS850	✓	-
WCDMA850 (Band 5)	✓	-
LTE850 (Band 5)	✓	-
LTE1700/2100 (Band 4)	✓	-
GSM/GPRS/EGPRS1900	✓	-
WCDMA1900 (Band 2)	✓	-
LTE1900 (Band 2)	✓	-
LTE2500 (Band 7)	✓	-

The hotspot mode (Wireless Router mode) may operate concurrently in DTM mode with voice calls. The reported SAR test results are conservative regarding that use case, since output power in hotspot mode is equal to or lower than in normal voice and data modes. See following chapter for hotspot mode power reductions. Also simultaneous transmissions with WLANs are already conservatively assessed for head and body-worn exposure conditions due to VoIP capability.

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 (Band 17)	0 dB	23.5 dBm
GPRS/EGPRS850	0 dB	1-slot GPRS: 32.5 dBm 2-slot GPRS: 30.5 dBm 3-slot GPRS: 28.0 dBm 4-slot GPRS: 27.0 dBm 1-slot EGPRS: 27.0 dBm 2-slot EGPRS: 27.0 dBm 3-slot EGPRS: 25.0 dBm 4-slot EGPRS: 24.0 dBm
WCDMA850 (Band 5)	0 dB	23.5 dBm
LTE850 (Band 5)	0 dB	23.5 dBm
LTE1700/2100 (Band 4)	4.0 dB	19.5 dB
GPRS/EGPRS1900	1-slot GPRS: 2.0 dB 2-slot GPRS: 3.0 dB 3-slot GPRS: 3.8 dB 4-slot GPRS: 3.5 dB 1-slot EGPRS: 0.0 dB 2-slot EGPRS: 1.5 dB 3-slot EGPRS: 1.3 dB 4-slot EGPRS: 1.5 dB	1-slot GPRS: 28.0 dBm 2-slot GPRS: 24.5 dBm 3-slot GPRS: 22.7 dBm 4-slot GPRS: 21.5 dBm 1-slot EGPRS: 26.0 dBm 2-slot EGPRS: 24.5 dBm 3-slot EGPRS: 22.7 dBm 4-slot EGPRS: 21.5 dBm
WCDMA1900 (Band 2)	5.5 dB	18.0 dBm
LTE1900 (Band 2)	5.5 dB	18.0 dBm
LTE2500 (Band 7)	5.0 dB	18.5 dBm
WLAN2450 b-mode (BPSK 1 Mbps)	0 dB	Ch 1 - 11: 18.0 dBm
WLAN2450 g-mode (BPSK 6 Mbps)	0 dB	Ch 1 - 11: 16.0 dBm
WLAN2450 n-mode 20MHz (BPSK 6.5/7.25 Mbps)	0 dB	Ch 1 - 11: 14.0 dBm
WLAN5000 a-mode (BPSK 6 Mbps)	N/A	N/A
WLAN5000 n-mode 20MHz (BPSK 6.5 Mbps)	N/A	N/A
WLAN5000 n-mode 40MHz (BPSK 13.5/15.0 Mbps)	N/A	N/A

2.2 Description of the Antenna

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

Picture of antenna dimensions and antenna interdistances can be found from Exhibit_QMNRM-985_Antenna_Description document

The device has an antenna tuner. See section 3.3 for more details.

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.

A CMW500 call tester was used to configure the test device for transmitting all the LTE bands; in each band, the Uplink Power Control was set to 'Max Power'. Additional Spectrum Emission was set to 'NS_01' to disable A-MPR.
A CMU200 call tester was used for all the GSM/GPRS/EGPRS and WCDMA bands; in the case of GSM/GPRS/EGPRS the MS signal was always set to maximum power, whereas for WCDMA the UE uplink signal was configured to 12.2kbps RMC with all TPC bit set to 1.

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

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

In all operating bands the measurements were performed on lowest, middle and highest channels, and/or on all required test channels as defined in Published FCC KDB Procedures.

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 Microsoft devices.

The number of Tx slots in all GSM/GPRS mode tests was based on tuning target/conducted power data, see Appendix H. The number of slots with highest or equal highest time-average power was tested.

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

The standard transmission mode of the device in all WLAN b-mode tests was BPSK QPSK 1Mbps. Additionally in WLAN b-mode, QPSK 5.5 Mbps was used for check measurements. The standard transmission mode of the device in all WLAN a-mode tests was BPSK 6 Mbps. 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, gand 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.

All WLAN2400 and WLAN5000 testing reported in this report has been optimised based on the earlier testing of FCC_RM-984_03 for RM-984. Whilst RM-985 possesses different cellular bands to RM-984, the WLAN2450 and WLAN5000 engines, power amplifiers, feed networks, antennas and radiated performances are identical in the two products.

LTE band has been tested according to the guidance given in KDB941225 D05 SAR for LTE Devices v02r02. MPR values as stipulated in Table 6.2.3_1 of 3GPP TS 36.101 (presented below) have been incorporated into the device; these MPR values are dependent on the modulation, Channel Bandwidth and Resource Block allocations as shown:

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

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

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

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

KDB 941225 D05 SAR for LTE Devices v02r02
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

3.3 Special consideration for antenna tuner

The device has an antenna tuner. The antenna is used for all bands and protocols supported by the device. The FCC regulated bands and protocols supported in the device are given in the table below. The number and naming of the sub-bands and tuning scenarios are also included in the table below.

Band	Technology	Sub-band	Scenario	Tune-word	C1 (state)	S1	C2 (state)	S2	S3
2	LTE	1	0	1F E8	F	open	28	open	open
4	LTE	1	0	1F 96	F	open	16	closed	open
5	LTE	1	0	1F 26	F	open	26	closed	closed
7	LTE	1	0	1F 40	F	open	0	open	closed
		1	1	1F 42	F	open	2	open	closed
		1	2	1F 44	F	open	4	open	closed
		2	0	1F C0	F	open	0	open	open
		2	1	1F C2	F	open	2	open	open
		2	2	1F C4	F	open	4	open	open
		3	0	1F C0	F	open	0	open	open
		3	1	1F C2	F	open	2	open	open
		3	2	1F C4	F	open	4	open	open
17	LTE	1	0	1F 80	F	open	0	closed	open
850	GSM	1	0	1F 20	F	open	20	closed	closed
		1	1	1F 23	F	open	23	closed	closed
		1	2	1F 25	F	open	25	closed	closed
		2	0	1F A0	F	open	20	closed	open
		2	1	1F A3	F	open	23	closed	open
		2	2	1F A7	F	open	27	closed	open
		3	0	1F A2	F	open	22	closed	open
		3	1	1F A5	F	open	25	closed	open
		3	2	1F A7	F	open	27	closed	open
900	GSM	1	0	1F E6	F	open	26	open	open
2	WCDMA	1	0	1F E4	F	open	24	open	open

(Table Continues)

(Table Continues)

5	WCDMA	1	0	1F 28	F	open	28	closed	closed
		1	1	1F 2A	F	open	2A	closed	closed
		1	2	1F 2E	F	open	2E	closed	closed
		2	0	1F 2A	F	open	2A	closed	closed
		2	1	1F 2C	F	open	2C	closed	closed
		2	2	1F 2E	F	open	2E	closed	closed
		3	0	1F A6	F	open	26	closed	open
		3	1	1F A8	F	open	28	closed	open
		3	2	1F AA	F	open	2A	closed	open

Tuning words used for each band, sub-band and scenario. Format used is Hex. The tune-word is also converted to show the individual state of each RF component. The details can be found from supporting documentation of this filing.

The details of the antenna tuner and the selected tuner states based on to pre-screening results between the different states are attached in Appendix K.

Following test conditions have been agreed via KDB Inquiry process.

Band/protocols with 3 sub-bands, either 1) the middle channel of the sub-band was tested or 2) the valid channel that is nearest to the middle channel of the sub-band was tested. The tables below show the channels that were tested for SAR and/or conducted power for GSM850, WCDMA850 (Band 5) and LTE2500 (Band 7).

GSM Band	-	Sub-band	GSM channels		Mid channel of valid GSM channels	Low-channel of valid GSM channels of TX part of sub-band	High-channel of valid GSM channels of TX part of sub-band	**Test channel**
850 MHz	-	1	128	168	148	128	168	**148**
850 MHz	-	2	169	209	189	169	209	**189**
850 MHz	-	3	210	251	231	210	251	**231**
WCDMA Band	-	Sub-band	WCDMA channels		Mid channel of valid WCDMA channels	Low-channel of valid WCDMA channels of TX part of sub-band	High-channel of valid WCDMA channels of TX part of sub-band	**Test channel**
5	-	1	4132	4161	4147	4132	4161	**4147**
5	-	2	4162	4203	4183	4162	4203	**4183**
5	-	3	4204	4233	4219	4204	4233	**4219**

(Table continues)

(Table continues)

LTE Band	Channel BW (MHz)	Sub-band	Range of LTE channels used for each sub-band		Mid channel of sub-band	Low-channel of valid LTE channels of TX part of sub-band	High-channel of valid LTE channels of TX part of sub-band	**Test channel**
7	20	1	20750	20983	20867	20850	20983	**20867**
7	20	2	20984	21216	21100	20984	21216	**21100**
7	20	3	21217	21449	21333	21217	21350	**21333**
7	15	1	20750	20983	20867	20825	20983	**20867**
7	15	2	20984	21216	21100	20984	21216	**21100**
7	15	3	21217	21449	21333	21217	21375	**21333**
7	10	1	20750	20983	20867	20800	20983	**20867**
7	10	2	20984	21216	21100	20984	21216	**21100**
7	10	3	21217	21449	21333	21217	21400	**21333**
7	5	1	20750	20983	20867	20775	20983	**20867**
7	5	2	20984	21216	21100	20984	21216	**21100**
7	5	3	21217	21449	21333	21217	21425	**21333**

GSM and WCDMA: Each sub-band should be considered separately and treat the three tuner states in each sub-band as the equivalent of the normally tested high, middle and low channels to apply existing SAR procedures and test reduction considerations. That is, perform full SAR testing on the highest fast SAR results in each sub-band and apply applicable test reduction procedures to the other two tuner states in the sub-band.

LTE: In section K.4, for purpose of applying the LTE test procedures for full SAR measurements, treat the highest SAR tuner state in each sub-band as the equivalent of a test channel normally required for SAR testing; that is, highest SAR tuner state in the high sub-band would be equivalent to the high channel for normal SAR testing and the highest SAR tuner state in the low sub-band would be equivalent to the low channel for normal SAR testing.
The highlighted SAR (highest among the 3 sub-bands) would be equivalent to the initial test configuration in section 4.2.1 of the Rel. 8 LTE SAR test procedures in KDB 941225. Apply the normally required Rel. 8 LTE SAR procedures accordingly to determine SAR test reduction for full SAR where the RB offsets would be equivalent to the antenna tuner states in each sub-band.

4. DESCRIPTION OF THE TEST EQUIPMENT

4.1 Measurement System and Components

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

The following table lists calibration dates of SPEAG components:

Test Equipment	Serial Number	Calibration date	Calibration expiry
DAE4	538	2013-11	2014-11
DAE4	728	2013-11	2014-11
DAE4	1355	2014-05	2015-05
DAE4	1302	2013-11	2014-11
E-field Probe ES3DV3	3194	2013-11	2014-11
E-field Probe EX3DV4	3834	2014-05	2015-05
E-field Probe EX3DV4	3892	2013-11	2014-11
E-field Probe EX3DV4	3960	2013-12	2014-12
Dipole Validation Kit, D750V3	1075	2012-11	2014-11
Dipole Validation Kit, D835V2	462	2014-05	2016-05
Dipole Validation Kit, D1750V2	1083	2014-05	2016-05
Dipole Validation Kit, D1900V2	5d030	2014-05	2016-05
Dipole Validation Kit, D2450V2	749	2012-12	2014-12
Dipole Validation Kit, D2600V2	1056	2012-11	2014-11
Dipole Validation Kit, D5GHzV2	1032	2014-03	2016-03
DASY5 software	Version 52.8	-	-

Additional test equipment used in testing:

Test Equipment	Model	Serial Number	Calibration date	Calibration expiry
Signal Generator	E4438C	MY42080610	2013-08	2014-08
Signal Generator	SML03	101264	2013-08	2014-08
Signal Generator	SMB100A	105735	2013-08	2014-08
Signal Generator	E4436B	US39260114	2013-08	2014-08
Amplifier	5S1G4M3	302338	-	-
Amplifier	ZHL-42-SMA	NO72095-5	-	-
Amplifier	5S4G11	312661	-	-
Amplifier	5S1G4	25583	-	-
Power Meter	NRVS	838624/032	2013-08	2014-08
Power Meter	NRVD	840023/028	2013-08	2014-08
Power Meter	NRP	100714	2013-08	2014-08
Power Meter	NRVZ	849305/029	2013-08	2014-08
Power Sensor	NRV-Z32	100067	2013-08	2014-08
Power Sensor	NRV-Z32	849745/018	2013-08	2014-08
Power Sensor	NRP-Z92	100085	2013-08	2014-08
Power Sensor	NRV-Z32	825600/002	2013-08	2014-08
Call Tester	CMU 200	103293	-	-
Call Tester	CMU 200	104983	-	-
Call Tester	CMU 200	103294	-	-
Call Tester	MT8820C	6200883095	-	-
Call Tester	CMW 500	145474	-	-
Call Tester	CMW 500	110565	-	-
Network Analyzer	ENA E5071C	MY46213166	2013-08	2014-08
Dielectric Probe Kit	DAK-3.5	1042	-	-

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

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.

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

The 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 and FCC published RF Exposure KDB Procedures. 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

1800MHz band

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

1900MHz band

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

2450MHz band

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

5000MHz band †

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

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

4.4 System validation and System checking

4.4.1 System validation status

Probe Calibration Point f / MHz	Test System	DASY SW	Dipole Type / SN	Probe Type / SN	Calibrated signal type(s)	DAE unit Type / SN	Validation done	
							Head tissue simulant	Body tissue simulant
750	TCC Salo / SAR-4	V52.8	D750V2 / 1075	EX3DV4 / 3960	CW	DAE4 / 1302	2014-02	2014-04
835	TCC Salo / SAR-2	V52.8	D835V2 / 462	ES3DV4 / 3194	CW	DAE4 / 538	2014-02	2013-12
1750	TCC Salo / SAR-1	V52.8	D1750V2 / 1083	EX3DV4 / 3834	CW	DAE4 / 1355	2014-06	2014-06
1900	TCC Salo / SAR-1	V52.8	D1900V2 / 5d030	EX3DV4 / 3834	CW	DAE4 / 1355	2014-06	2014-06
2450	TCC Salo / SAR-4	V52.8	D2450V2 / 749	EX3DV4 / 3960	CW	DAE4 / 1302	2014 -01	2014-01
2600	TCC Salo / SAR-4	V52.8	D2600V2 / 1056	EX3DV4 / 3960	CW	DAE4 / 1302	2014-02	2014-02
5200	TCC Salo / SAR-3	V52.8	D5GHzV2 / 1032	EX3DV4 / 3892	CW	DAE4 / 728	2014 -01	2014-01
5300	TCC Salo / SAR-3	V52.8	D5GHzV2 / 1032	EX3DV4 / 3892	CW	DAE4 / 728	2014 -01	2014 -01
5500	TCC Salo / SAR-3	V52.8	D5GHzV2 / 1032	EX3DV4 / 3892	CW	DAE4 / 728	2014 -01	2014 -01
5600	TCC Salo / SAR-3	V52.8	D5GHzV2 / 1032	EX3DV4 / 3892	CW	DAE4 / 728	2014 -01	2014 -01
5800	TCC Salo / SAR-3	V52.8	D5GHzV2 / 1032	EX3DV4 / 3892	CW	DAE4 / 728	2014 -01	2014 -01

4.4.2 System checking

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulants were measured every day using the dielectric probe kit and the network analyser. A system check measurement was made following the determination of the dielectric parameters of the simulant, using the dipole validation kit. A power level of 250 mW was supplied to the dipole antenna (except in the case of the 5000MHz dipole for which 100mW was supplied), which was placed under the flat section of the twin SAM phantom for head system checking, and under the flat phantom for body system checking. The system checking results (dielectric parameters and SAR values) are given in the table below.

System checking, head tissue simulant

f [MHz]	Description	SAR 1g [W/kg]	Estimated SAR 1g [W/kg]	Estimated SAR 1g Deviation dSAR [%]	Scaled 1W SAR 1g [W/kg]	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			±3%				±10 %	±5 %	±5 %		
	Target result SN:1075	-	-	-	8.30	41.9	0.89	TCC Salo/SAR-4 EX3DV4 SN:3960 Head 750MHz				
750	2014-08-06	1.99	2.03	2.01	7.96	40.6	0.89	-4.10	-3.10	0.00	21.0	1
	Target result SN:462	-	-	-	9.19	41.5	0.90	TCC Salo/SAR-2 ES3DV3 SN:3194 Head 835MHz				
835	2014-08-02	2.27	2.31	1.76	9.08	40.1	0.90	-1.20	-3.37	0.00	22.2	-
	2014-08-04	2.30	2.34	1.74	9.20	40.6	0.91	0.11	-2.17	1.11	22.7	-
	2014-08-06	2.33	2.36	1.29	9.32	40.3	0.91	1.41	-2.89	1.11	22.5	2
	Target result SN:1083	-	-	-	37.1	40.1	1.37	TCC Salo/SAR-1 EX3DV3 SN:3834 Head 1750MHz				
1750	2014-07-31	9.05	9.27	2.43	36.20	38.3	1.33	-2.43	-4.49	-2.92	20.7	3
	Target result SN:5d030	-	-	-	39.70	40.0	1.40	TCC Salo/SAR-1 EX3DV3 SN:3834 Head 1750MHz				
1900	2014-07-29	10.10	10.20	0.99	40.40	39.2	1.38	1.76	-2.00	-1.43	22.1	-
	2014-07-31	9.74	9.92	1.85	38.96	39.0	1.37	-1.86	-2.50	-2.14	21.7	4
	Target result SN:749	-	-	-	53.90	39.2	1.80	TCC Salo/SAR-4 EX3DV3 SN:3960 Head 2450MHz				
2450	2014-07-25	13.00	13.20	1.54	52.00	38.3	1.75	-3.53	-2.30	-2.78	21.0	5
	2014-07-28	13.10	13.40	2.29	52.40	38.9	1.79	-2.78	-0.77	-0.56	21.1	-
	Target result SN:1056	-	-	-	57.80	39.0	1.96	TCC Salo/SAR-4 EX3DV3 SN:3960 Head 2600MHz				
2600	2014-08-04	14.40	14.70	2.08	57.60	37.7	1.96	-0.35	-3.33	0.00	21.0	-
	2014-08-05	14.30	14.70	2.80	57.20	38.7	1.96	-1.04	-0.77	0.00	21.2	6
	Target result SN:1032	-	-	-	84.50	35.5	5.07	TCC Salo/SAR-3 EX3DV4 SN:3892 Head 5600MHz				
5600	2014-07-30	7.95	7.57	-4.78	79.50	35.6	4.94	-5.92	0.28	-2.56	22.2	7
	Target result SN:1032	-	-	-	81.10	35.3	5.27	TCC Salo/SAR-3 EX3DV4 SN:3892 Head 5800MHz				
5800	2014-07-31	7.52	6.93	-7.85	75.20	34.8	5.08	-7.27	-1.42	-3.61	22.2	8

* Dielectric parameter reference data taken from IEEE1528/IEC62209

System checking, body tissue simulant

f [MHz]	Description	SAR 1g [W/kg]	Estimated SAR 1g [W/kg]	Estimated SAR 1g Deviation	Scaled 1W SAR 1g [W/kg]	Dielectric Parameters*		SAR 1g Deviation from target	Dielectric Parameters Deviation from target		Temp	Plot #
				dSAR [%]		εr	σ [S/m]	dSAR [%]	dεr [%]	dσ [%]	[°C]	
	Tolerances			±3%				±10 %	±5 %	±5 %		
	Target result SN:1075	-	-	-	8.88	55.5	0.96	TCC Salo/SAR-4 EX3DV4 SN:3960 Body 750MHz				
750	2014-08-06	2.18	2.22	1.83	8.72	54.3	0.99	-1.80	-2.16	3.13	20.8	9
	Target result SN:462	-	-	-	9.41	55.2	0.97	TCC Salo/SAR-2 ES3DV3 SN:3194 Body 835MHz				
835	2014-07-30	2.39	2.42	1.26	9.56	53.4	0.98	1.59	-3.26	1.03	21.8	-
	2014-07-31	2.37	2.38	0.42	9.48	53.3	0.98	0.74	-3.44	1.03	21.8	-
	2014-08-03	2.32	2.35	1.29	9.28	53.1	0.98	-1.38	-3.80	1.03	22.2	-
	2014-08-04	2.33	2.38	2.15	9.32	53.7	0.97	-0.96	-2.72	0.00	22.3	-
	2014-08-05	2.41	2.44	1.24	9.64	53.6	0.97	2.44	-2.90	0.00	22.3	-
	2014-08-08	2.43	2.47	1.65	9.72	53.5	0.98	3.29	-3.08	1.03	22.4	10
	2014-09-17	2.39	2.44	2.09	9.56	54.2	0.97	1.59	-1.81	0.00	22.0	-
	Target result SN:1083	-	-	-	37.6	53.4	1.49	TCC Salo/SAR-1 EX3DV3 SN:3834 Body 1750MHz				
1750	2014-08-01	9.69	9.75	0.62	38.76	52.1	1.45	3.09	-2.43	-2.68	21.2	11
	2014-08-05	9.71	9.82	1.13	38.84	52.2	1.46	3.30	-2.25	-2.01	20.2	-
	Target result SN:5d030	-	-	-	40.30	53.3	1.52	TCC Salo/SAR-1 EX3DV3 SN:3834 Body 1750MHz				
1900	2014-07-28	10.00	9.95	-0.50	40.00	53.2	1.53	-0.74	-0.19	0.66	21.3	-
	2014-07-29	10.50	10.50	0.00	42.00	53.0	1.52	4.22	-0.56	0.00	21.2	12
	2014-08-02	10.20	10.10	-0.98	40.80	52.8	1.53	1.24	-0.94	0.66	21.0	-
	Target result SN:749	-	-	-	51.50	52.7	1.95	TCC Salo/SAR-4 EX3DV3 SN:3960 Body 2450MHz				
2450	2014-07-29	12.20	12.30	0.82	48.80	51.0	1.91	-5.24	-3.23	-2.05	21.0	13
	2014-08-07	12.20	12.20	0.00	48.80	51.5	1.94	-5.24	-2.28	-0.51	21.4	-
	Target result SN:1056	-	-	-	55.60	52.5	2.16	TCC Salo/SAR-4 EX3DV3 SN:3960 Body 2460MHz				
2600	2014-07-31	14.00	14.20	1.43	56.00	50.3	2.11	0.72	-4.19	-2.31	21.2	-
	2014-08-01	14.30	14.50	1.40	57.20	50.7	2.11	2.88	-3.43	-2.31	21.0	14
	2014-08-04	13.90	14.10	1.44	55.60	50.6	2.11	0.00	-3.62	-2.31	20.9	-

(Table continues)

(Table continues)

	Target result SN:1032	-	-	-	76.4	49.0	5.30	TCC Salo/SAR-3 EX3DV4 SN:3892 Body 5200MHz				
5200	2014-07-31	7.52	6.91	-8.11	75.20	47.7	5.32	-1.57	-2.65	0.38	22.8	15
	Target result SN:1032	-	-	-	81.70	48.5	5.77	TCC Salo/SAR-3 EX3DV4 SN:3892 Body 5600MHz				
5600	2014-08-01	8.01	7.26	-9.36	80.10	47.0	5.83	-1.96	-3.09	1.04	22.8	16
	Target result SN:1032	-	-	-	77.00	48.2	6.00	TCC Salo/SAR-3 EX3DV4 SN:3892 Body 5800MHz				
5800	2014-07-31	7.23	6.57	-9.13	72.30	46.7	6.11	-6.10	-3.11	1.83	22.8	17

* Dielectric parameter reference data taken from FCC Published RF Exposure KDB Procedures

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

4.5 Tissue Simulants used in the Measurements

Head tissue simulant measurements

f [MHz]	Description	Dielectric Parameters		Dielectric Parameters Deviation from recommended value		Temp [°C]
		ε_r	σ [S/m]	$d\varepsilon_r$ [%]	$d\sigma$ [%]	
	Tolerances			±5 %	±5 %	
710	Recommended value	42.1	0.89			
	2014-08-06	40.9	0.87	-2.85	-2.25	21.0
835	Recommended value	41.5	0.90			
	2014-08-02	40.1	0.90	-3.37	0.00	22.2
	2014-08-06	40.3	0.91	-2.89	1.11	22.5
836	Recommended value	41.5	0.90			
	2014-08-02	40.1	0.90	-3.37	0.00	22.2
	2014-08-04	40.6	0.91	-2.17	1.11	22.7
	2014-08-06	40.3	0.91	-2.89	1.11	22.5
1732	Recommended value	40.1	1.36			
	2014-07-31	38.3	1.31	-4.49	-3.68	20.7
1880	Recommended value	40.0	1.40			
	2014-07-29	39.3	1.36	-1.75	-2.86	22.1
	2014-07-31	39.1	1.35	-2.25	-3.57	21.7
2347	Recommended value	39.2	1.79			
	2014-07-25	38.3	1.73	-2.30	-3.35	21.0
	2014-07-28	38.9	1.78	-0.77	-0.56	21.1
2535	Recommended value	39.1	1.89			
	2014-08-04	38.0	1.89	-2.81	0.00	21.0
	2014-08-05	38.9	1.89	-0.51	0.00	21.2
5620	Recommended value	35.5	5.09			
	2014-07-30	35.5	4.96	0.00	-2.55	22.2
5760	Recommended value	35.3	5.23			
	2014-07-31	34.8	5.05	-1.42	-3.44	22.2

Body tissue simulant measurements

f [MHz]	Description	Dielectric Parameters		Dielectric Parameters Deviation from Recommended value		Temp [°C]
		ε_r	σ [S/m]	$d\varepsilon_r$ [%]	$d\sigma$ [%]	
	Tolerances			±5 %	±5 %	
710	Recommended value	55.7	0.96			
	2014-08-06	54.5	0.97	-2.15	1.04	20.8
835	Recommended value	55.2	0.97			
	2014-07-31	53.3	0.98	-3.44	1.03	21.8
	2014-08-03	53.1	0.98	-3.80	1.03	22.2
	2014-08-05	53.6	0.97	-2.90	0.00	22.3
836	Recommended value	55.2	0.97			
	2014-07-30	53.4	0.98	-3.26	1.03	21.8
	2014-07-31	53.3	0.98	-3.44	1.03	21.8
	2014-08-04	53.7	0.97	-2.72	0.00	22.3
	2014-08-05	53.6	0.98	-2.90	1.03	22.3
	2014-08-08	53.5	0.98	-3.08	1.03	22.4
	2014-09-17	54.2	0.98	-1.81	1.03	22.0
1732	Recommended value	53.5	1.48			
	2014-08-01	52.1	1.43	-2.62	-3.38	21.2
	2014-08-05	52.2	1.44	-2.43	-2.70	20.2
1880	Recommended value	53.3	1.52			
	2014-07-28	53.2	1.51	-0.19	-0.66	21.3
	2014-07-29	53.0	1.50	-0.56	-1.32	21.2
	2014-08-02	52.8	1.51	-0.94	-0.66	21.0
2437	Recommended value	52.6	2.07			
	2014-07-29	51.0	1.90	-3.23	-2.06	21.0
	2014-08-07	51.5	1.92	-2.28	-1.03	21.4
2535	Recommended value	52.7	1.94			
	2014-07-31	50.5	2.04	-3.99	-1.45	21.2
	2014-08-01	50.9	2.03	-3.23	-1.93	21.0
	2014-08-04	50.8	2.04	-3.42	-1.45	20.9
5210	Recommended value	49.0	5.31			
	2014-07-31	47.7	5.34	-2.65	0.56	22.8
5620	Recommended value	4.84	5.79			
	2014-08-01	46.9	5.86	-3.10	1.21	22.8
5760	Recommended value	48.3	5.95			
	2014-07-31	46.8	6.07	-3.11	2.02	22.8

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

5. DESCRIPTION OF THE TEST PROCEDURE

5.1 Device Holder

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

Device holder supplied by SPEAG

A 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.

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 "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques".

5.2.2 Body Worn Configuration

The device was placed in the SPEAG holder using the 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.

Microsoft 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. Fast SAR is measured according to the KDB 447498 D01 General RF Exposure Guidance v05r01.

5.4 SAR Averaging Methods

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

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

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

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

6. MEASUREMENT UNCERTAINTY

Table 6.1 – Measurement uncertainty evaluation for 1g Full SAR in 0.3-6GHz range

Uncertainty Component	Section in IEEE 1528	Tol. (%)	Prob Dist	Div	c_i	$c_i . u_i$ (%)	v_i
Measurement System							
Probe Calibration	E2.1	±6.6	N	1	1	±6.6	∞
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	±2.0	R	√3	1	±1.2	∞
Linearity	E2.4	±4.7	R	√3	1	±2.7	∞
System Detection Limits	E2.5	±1.0	R	√3	1	±0.6	∞
Modulation response	E2.5	±2.4	R	√3	1	±1.4	
Readout Electronics	E2.6	±0.3	N	1	1	±0.3	∞
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	±0.8	R	√3	1	±0.5	∞
Probe Positioning with respect to Phantom Shell	E6.3	±6.7	R	√3	1	±3.9	∞
Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	E5	±4.0	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	±3.6	N	1	1	±3.6	5
Output Power Variation - SAR drift measurement	E2.9	±5.0	R	√3	1	±2.9	∞
Phantom and Tissue Parameters							
Phantom Uncertainty (shape and thickness tolerances)	E3.1	±6.6	R	√3	1	±3.8	∞
SAR correction	E3.2	±1.9	R	√3	1	±1.1	∞
Conductivity Target - tolerance	E3.4	±5.0	R	√3	0.6	±1.8	∞
Conductivity - measurement uncertainty	E3.3	±5.5	N	1	0.6	±3.5	5
Permittivity Target - tolerance	E3.4	±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			**±14.0**	198
Coverage Factor for 95%			**k=2**				
Expanded Uncertainty						**±28.2**	

Table 6.2 – Measurement uncertainty evaluation for 1g Fast SAR in 0.3-6GHz range

Relative DASY5 Uncertainty Budget for Fast SAR Tests According to IEEE 1528/2011 and IEC 62209-1/2011 (0.3-6 GHz range)						
Uncertainty Component	**Tol. (%)**	**Prob Dist.**	**Div.**	c_i	$c_i \cdot u_i$ (%)	v_i
Measurement System						
Probe Calibration	±6.6	N	1	0		
Axial Isotropy	±4.7	R	√3	$(1\text{-}c_p)^{1/2}$	±1.9	∞
Hemispherical Isotropy	±9.6	R	√3	$(c_p)^{1/2}$	±3.9	∞
Boundary Effect	±2.0	R	√3	1	±1.2	∞
Linearity	±4.7	R	√3	1	±2.7	∞
System Detection Limits	±1.0	R	√3	1	±0.6	∞
Modulation Response	±2.4	R	√3	1	±1.4	∞
Readout Electronics	±0.3	N	1	0		
Response Time	±0.8	R	√3	0		
Integration Time	±2.6	R	√3	1	±1.5	∞
RF Ambient Conditions - Noise	±3.0	R	√3	1	±1.7	∞
RF Ambient Conditions - Reflections	±3.0	R	√3	0		
Probe Positioner Mechanical Tolerance	±0.8	R	√3	1	±0.5	∞
Probe Positioning with respect to Phantom Shell	±6.7	R	√3	1	±3.9	∞
Spatial x-y Resolution	±10.0	R	√3	1	±5.8	∞
Fast SAR z Approximation	±14.0	R	√3	1	±8.1	∞
Test sample Related						
Test Sample Positioning	±6.0	N	1	1	±6.0	12
Device Holder Uncertainty	±3.6	N	1	1	±3.6	5
Output Power Variation - SAR drift measurement	±5.0	R	√3	1	±2.9	∞
Power Scaling	±0	R	√3	0		
Phantom and Setup						
Phantom Uncertainty (shape and thickness tolerances)	±6.6	R	√3	1	±3.8	∞
SAR correction	±1.9	R	√3	0		
Conductivity Target - tolerance	±1.9	R	√3	0		
Conductivity - measurement uncertainty	±5.0	R	√3	0		
Permittivity Target - tolerance	±5.5	N	1	0		
Permittivity - measurement uncertainty	±5.0	R	√3	0		
Combined Standard Uncertainty		RSS			**±14.9**	748
Coverage Factor for 95%		**k=2**				
Expanded Uncertainty					**±29.8**	

7. RESULTS

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

LTE700 (Band 17) Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 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]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.4	23.4	23.2	0.5	0.5	0.7	dB	
	Time-averaged Power [dBm]		23.4	23.4	23.2	1.12	1.12	1.17	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.3	23.3	23.3	0.6	0.6	0.6	dB	
	Time-averaged Power [dBm]		23.3	23.3	23.3	1.15	1.15	1.15	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.3	23.4	23.5	0.6	0.5	0.4	dB	
	Time-averaged Power [dBm]		23.3	23.4	23.5	1.15	1.12	1.10	Lin	
	Left Cheek	Estimated SAR	-	-	0.201	-	-	0.220	-	-
		Full SAR	-	-	-	-	-	-		
	Left Tilt	Estimated SAR	-	-	0.152	-	-	0.167	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	-	-	0.218	-	-	0.239	0.00	1
		Full SAR	-	-	0.219	-	-	**0.240**		
	Right Tilt	Estimated SAR	-	-	0.128	-	-	0.140	-	-
		Full SAR	-	-	-	-	-	-		
10MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Power [dBm]		22.3	22.3	22.4	0.6	0.6	0.5	dB	
	Time-averaged Power [dBm]		22.3	22.3	22.4	1.15	1.15	1.12	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

(LTE700 (Band 17) Head SAR Table continues)

(LTE700 (Band 17) Head SAR Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 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]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.3	22.3	22.3	0.6	0.6	0.6	dB	
	Time-averaged Power [dBm]		22.3	22.3	22.3	1.15	1.15	1.15	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.4	22.3	22.4	0.5	0.6	0.5	dB	
	Time-averaged Power [dBm]		22.4	22.3	22.4	1.12	1.15	1.12	Lin	
	Left Cheek	Estimated SAR	0.150	-	-	0.168	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Left Tilt	Estimated SAR	0.113	-	-	0.127	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	0.175	-	-	0.196	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Tilt	Estimated SAR	0.099	-	-	0.140	-	-	-	-
		Full SAR	-	-	-	-	-	-		
10MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.4	22.4	22.4	0.5	0.5	0.5	dB	
	Time-averaged Power [dBm]		22.4	22.4	22.4	1.12	1.12	1.12	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

GSM/GPRS/EGPRS 850MHz Band Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 148 828.2 MHz	Ch 189 836.4 MHz	Ch 231 844.8 MHz	Ch 148 828.2 MHz	Ch 189 836.4 MHz	Ch 231 844.8 MHz		
1-slot GPRS	Tuning Target + Tolerance [dBm]		32.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		32.7	32.2	32.5	0.2	0.7	0.4	dB	
	Time-averaged power [dBm]		23.7	23.2	23.5	1.05	1.17	1.10	Lin	
			No testing required for this slot configuration.							
2-slot GPRS	Tuning Target + Tolerance [dBm]		30.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		30.5	30.0	30.2	0.4	0.9	0.7	dB	
	Time-averaged power [dBm]		24.5	24.0	24.2	1.10	1.23	1.17	Lin	
	Left Cheek	Scenario	2	2	2	-	-	-	0.03	2
		Estimated SAR	0.396	0.377	0.393	0.434	0.464	0.462		
		Full SAR	0.411	0.407	0.414	0.451	**0.501**	0.486		
	Left Tilt	Scenario	0	0	2	-	-	-	-	-
		Estimated SAR	0.221	0.208	0.196	0.242	0.256	0.230		
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Scenario	1	1	2	-	-	-	-	-
		Estimated SAR	0.297	0.280	0.284	0.326	0.344	0.334		
		Full SAR	-	-	-	-	-	-		
	Right Tilt	Scenario	0	1	2	-	-	-	-	-
		Estimated SAR	0.246	0.232	0.218	0.270	0.285	0.256		
		Full SAR	-	-	-	-	-	-		
3-slot GPRS	Tuning Target + Tolerance [dBm]		28.4			Scaling factor*				
	Conducted Slot Average Power [dBm]		28.3	27.7	27.8	0.1	0.8	0.6	dB	
	Time-averaged power [dBm]		24.1	23.4	23.6	1.02	1.19	1.14	Lin	
			No testing required for this slot configuration.							
4-slot GPRS	Tuning Target + Tolerance [dBm]		27.4			Scaling factor*				
	Conducted Slot Average Power [dBm]		27.3	26.7	27.1	0.1	0.7	0.3	dB	
	Time-averaged power [dBm]		24.3	23.7	24.0	1.03	1.18	1.08	Lin	
			No testing required for this slot configuration.							

(850MHz Head SAR Table continues)

(850MHz Head SAR Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 148 828.2 MHz	Ch 189 836.4 MHz	Ch 231 844.8 MHz	Ch 148 828.2 MHz	Ch 189 836.4 MHz	Ch 231 844.8 MHz		
1-slot 8PSK EGPRS	Tuning Target + Tolerance [dBm]		27.4			Scaling factor*				
	Conducted Slot Average Power [dBm]		27.5	26.9	27.2	0.0	0.5	0.2	dB	
	Time-averaged power [dBm]		18.5	17.9	18.2	1.00	1.12	1.04	Lin	
			No testing required for this slot configuration.							
2-slot 8PSK EGPRS	Tuning Target + Tolerance [dBm]		27.4			Scaling factor*				
	Conducted Slot Average Power [dBm]		27.5	26.8	27.3	0.0	0.6	0.1	dB	
	Time-averaged power [dBm]		21.5	20.7	21.2	1.00	1.16	1.04	Lin	
	Left Cheek	Scenario	-	2	-	-	-	-	-	-
		Estimated SAR	-	0.173	-	-	0.200	-		
		Full SAR	-	-	-	-	-	-		
3-slot 8PSK EGPRS	Tuning Target + Tolerance [dBm]		25.4			Scaling factor*				
	Conducted Slot Average Power [dBm]		25.3	24.7	25.1	0.1	0.7	0.3	dB	
	Time-averaged power [dBm]		21.0	20.4	20.8	1.03	1.17	1.07	Lin	
			No testing required for this slot configuration.							
4-slot 8PSK EGPRS	Tuning Target + Tolerance [dBm]		24.4			Scaling factor*				
	Conducted Slot Average Power [dBm]		24.4	23.7	24.2	0.0	0.7	0.2	dB	
	Time-averaged power [dBm]		21.4	20.7	21.2	1.00	1.16	1.05	Lin	
			No testing required for this slot configuration.							

WCDMA850 (Band 5) Band Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 4147 829.4 MHz	Ch 4183 836.6 MHz	Ch 4219 843.8 MHz	Ch 4147 829.4 MHz	Ch 4183 836.6 MHz	Ch 4219 843.8 MHz		
WCDMA	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		23.1	23.0	23.1	0.8	0.9	0.8	dB	
	Time-averaged power [dBm]		23.1	23.0	23.1	1.20	1.23	1.20	Lin	
	Left Cheek	Scenario	0	0	2	-	-	-		
		Estimated SAR	0.280	0.286	0.294	0.337	0.352	0.353	0.02	3
		Full SAR	0.293	0.291	0.310	0.352	0.358	**0.373**		
	Left Tilt	Scenario	0	0	1	-	-	-		
		Estimated SAR	0.114	0.168	0.155	0.137	0.207	0.186	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Scenario	0	0	2	-	-	-		
		Estimated SAR	0.148	0.199	0.211	0.178	0.245	0.254	-	-
		Full SAR	-	-	-	-	-	-		
	Right Tilt	Scenario	0	0	1	-	-	-		
		Estimated SAR	0.132	0.126	0.180	0.159	0.155	0.216	-	-
		Full SAR	-	-	-	-	-	-		

LTE850 (Band 5) Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg] Ch 20450 829.0 MHz	Measured 1g SAR [W/kg] Ch 20525 836.5 MHz	Measured 1g SAR [W/kg] Ch 20600 844.0 MHz	Reported* 1g SAR [W/kg] Ch 20450 829.0 MHz	Reported* 1g SAR [W/kg] Ch 20525 836.5 MHz	Reported* 1g SAR [W/kg] Ch 20600 844.0 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
10MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		23.3	23.2	23.0	0.6	0.7	0.9	dB	
	Time-averaged power [dBm]		23.3	23.2	23.0	1.15	1.17	1.23	Lin	
	Left Cheek	Estimated SAR	0.295	-	-	0.339	-	-	0.01	4
		Full SAR	0.303	-	-	**0.348**	-	-		
	Left Tilt	Estimated SAR	0.142	-	-	0.163	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	0.216	-	-	0.248	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Tilt	Estimated SAR	0.171	-	-	0.196	-	-	-	-
		Full SAR	-	-	-	-	-	-		
10MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		23.2	23.0	23.1	0.7	0.9	0.8	dB	
	Time-averaged power [dBm]		23.2	23.0	23.1	1.17	1.23	1.20	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		23.1	23.1	23.1	0.8	0.8	0.8	dB	
	Time-averaged power [dBm]		23.1	23.1	23.1	1.20	1.20	1.20	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

(LTE850 (Band 5) Head SAR Table continues)

(LTE850 (Band 5) Head SAR Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 20050 1720.0 MHz	Ch 23175 1732.5 MHz	Ch 20300 1745.0 MHz	Ch 20050 1720.0 MHz	Ch 23175 1732.5 MHz	Ch 20300 1745.0 MHz		
10MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.1	22.0	22.1	0.8	0.9	0.8	dB	
	Time-averaged power [dBm]		22.1	22.0	22.1	1.20	1.23	1.20	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 50%RB 50% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.2	22.0	22.1	0.7	0.9	0.8	dB	
	Time-averaged power [dBm]		22.2	22.0	22.1	1.17	1.23	1.20	Lin	
	Left Cheek	Estimated SAR	0.225	-	-	0.264	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Left Tilt	Estimated SAR	0.109	-	-	0.128	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	0.167	-	-	0.196	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Tilt	Estimated SAR	0.128	-	-	0.150	-	-	-	-
		Full SAR	-	-	-	-	-	-		
10MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.0	21.9	22.1	0.9	1.0	0.8	dB	
	Time-averaged power [dBm]		22.0	21.9	22.1	1.23	1.26	1.20	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.3	22.0	22.2	0.6	0.9	0.7	dB	
	Time-averaged power [dBm]		22.3	22.0	22.2	1.15	1.23	1.17	Lin	
	Left Cheek	Estimated SAR	0.247	-	-	0.284	-	-	-	-
		Full SAR	-	-	-	-	-	-		

LTE1700/2100 (Band 4) Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg] Ch 20050 1720.0 MHz	Measured 1g SAR [W/kg] Ch 23175 1732.5 MHz	Measured 1g SAR [W/kg] Ch 20300 1745.0 MHz	Reported* 1g SAR [W/kg] Ch 20050 1720.0 MHz	Reported* 1g SAR [W/kg] Ch 23175 1732.5 MHz	Reported* 1g SAR [W/kg] Ch 20300 1745.0 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
20MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.8	23.8	23.7	0.1	0.1	0.2	dB	
	Time-averaged Power [dBm]		23.8	23.8	23.7	1.02	1.02	1.05	Lin	
	Left Cheek	Estimated SAR	0.205	-	-	0.210	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Left Tilt	Estimated SAR	0.165	-	-	0.169	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	0.402	-	-	0.411	-	-	0.01	5
		Full SAR	0.410	-	-	**0.420**	-	-		
	Right Tilt	Estimated SAR	0.185	-	-	0.189	-	-	-	-
		Full SAR	-	-	-	-	-	-		
20MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.7	23.4	23.7	0.2	0.5	0.2	dB	
	Time-averaged Power [dBm]		23.7	23.4	23.7	1.05	1.12	1.05	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.5	23.6	23.7	0.4	0.3	0.2	dB	
	Time-averaged Power [dBm]		23.5	23.6	23.7	1.10	1.07	1.05	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.8	22.7	22.7	0.1	0.2	0.2	dB	
	Time-averaged power [dBm]		22.8	22.7	22.7	1.02	1.05	1.05	Lin	
	Left Cheek	Estimated SAR	0.162	-	-	0.166	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Left Tilt	Estimated SAR	0.129	-	-	0.132	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	0.319	-	-	0.326	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Tilt	Estimated SAR	0.186	-	-	0.190	-	-	-	-
		Full SAR	-	-	-	-	-	-		

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

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

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 20050 1720.0 MHz	Ch 23175 1732.5 MHz	Ch 20300 1745.0 MHz	Ch 20050 1720.0 MHz	Ch 23175 1732.5 MHz	Ch 20300 1745.0 MHz		
20MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.8	22.5	22.7	0.1	0.4	0.2	dB	
	Time-averaged power [dBm]		22.8	22.5	22.7	1.02	1.10	1.05	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.6	22.5	22.7	0.3	0.4	0.2	dB	
	Time-averaged power [dBm]		22.6	22.5	22.7	1.07	1.10	1.05	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 100%RB	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.8	22.6	22.7	0.1	0.3	0.2	dB	
	Time-averaged power [dBm]		22.8	22.6	22.7	1.02	1.07	1.05	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

GSM/GPRS/EGPRS 1900MHz Band Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 512 1850.2 MHz	Ch 661 1880.0 MHz	Ch 810 1909.8 MHz	Ch 512 1850.2 MHz	Ch 661 1880.0 MHz	Ch 810 1909.8 MHz		
1-slot GPRS	Tuning Target + Tolerance [dBm]		30.4			Scaling factor*				
	Conducted Slot Average Power [dBm]		29.9	30.1	30.0	0.5	0.3	0.4	dB	
	Time-averaged power [dBm]		20.9	21.1	21.0	1.12	1.07	1.10	Lin	
			No testing required for this slot configuration.							
2-slot GPRS	Tuning Target + Tolerance [dBm]		27.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		27.3	27.6	27.3	0.6	0.3	0.6	dB	
	Time-averaged power [dBm]		21.3	21.6	21.3	1.15	1.07	1.15	Lin	
			No testing required for this slot configuration.							
3-slot GPRS	Tuning Target + Tolerance [dBm]		26.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		26.2	26.4	26.1	0.7	0.5	0.8	dB	
	Time-averaged power [dBm]		21.9	22.1	21.8	1.17	1.12	1.20	Lin	
	Left Cheek	Estimated SAR	-	0.112	-	-	0.126	-	-	-
		Full SAR	-	-	-	-	-	-		
	Left Tilt	Estimated SAR	-	0.075	-	-	0.085	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	0.135	0.134	0.128	0.159	0.150	0.154	0.00	6
		Full SAR	0.137	-	-	**0.161**	-	-		
	Right Tilt	Estimated SAR	-	0.044	-	-	0.050	-	-	-
		Full SAR	-	-	-	-	-	-		
4-slot GPRS	Tuning Target + Tolerance [dBm]		25.4			Scaling factor*				
	Conducted Slot Average Power [dBm]		24.5	24.7	24.6	0.9	0.7	0.8	dB	
	Time-averaged power [dBm]		21.5	21.7	21.6	1.23	1.17	1.20	Lin	
			No testing required for this slot configuration.							

(1900MHz Head SAR Table continues)

(1900MHz Head SAR Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 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		
1-slot 8PSK EGPRS	Tuning Target + Tolerance [dBm]		26.4			Scaling factor*				
	Conducted Slot Average Power [dBm]		26.2	26.3	26.2	0.2	0.1	0.2	dB	
	Time-averaged power [dBm]		17.2	17.3	17.2	1.05	1.02	1.05	Lin	
			No testing required for this slot configuration.							
2-slot 8PSK EGPRS	Tuning Target + Tolerance [dBm]		26.4			Scaling factor*				
	Conducted Slot Average Power [dBm]		26.1	26.3	26.1	0.3	0.1	0.3	dB	
	Time-averaged power [dBm]		20.1	20.3	20.1	1.07	1.02	1.07	Lin	
	Right Cheek	Estimated SAR	0.088	-	-	0.095	-	-	-	-
		Full SAR	-	-	-	-	-	-		
3-slot 8PSK EGPRS	Tuning Target + Tolerance [dBm]		24.4			Scaling factor*				
	Conducted Slot Average Power [dBm]		23.8	24.1	24.0	0.6	0.3	0.4	dB	
	Time-averaged power [dBm]		19.5	19.8	19.7	1.15	1.07	1.10	Lin	
			No testing required for this slot configuration.							
4-slot 8PSK EGPRS	Tuning Target + Tolerance [dBm]		23.4			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.7	22.9	22.8	0.7	0.5	0.6	dB	
	Time-averaged power [dBm]		19.7	19.9	19.8	1.17	1.12	1.15	Lin	
			No testing required for this slot configuration.							

WCDMA1900 (Band 2) Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 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]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.2	23.3	23.4	0.7	0.6	0.5	dB	
	Time-averaged power [dBm]		23.2	23.3	23.4	1.17	1.15	1.12	Lin	
	Left Cheek	Estimated SAR	-	0.184	-	-	0.211	-	-	-
		Full SAR	-	-	-	-	-	-		
	Left Tilt	Estimated SAR	-	0.115	-	-	0.132	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	0.239	0.191	0.193	0.281	0.219	0.217	0.00	7
		Full SAR	0.235	-	-	**0.276**	-	-		
	Right Tilt	Estimated SAR	-	0.064	-	-	0.073	-	-	-
		Full SAR	-	-	-	-	-	-		

LTE1900 (Band 2) Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 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]		23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		23.6	23.8	23.2	0.3	0.1	0.7	dB	
	Time-averaged power [dBm]		23.6	23.8	23.2	1.07	1.02	1.17	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		23.5	23.5	23.3	0.4	0.4	0.6	dB	
	Time-averaged power [dBm]		23.5	23.5	23.3	1.10	1.10	1.15	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		23.4	23.2	23.9	0.5	0.7	0.0	dB	
	Time-averaged power [dBm]		23.4	23.2	23.9	1.12	1.17	1.00	Lin	
	Left Cheek	Estimated SAR	-	-	0.159	-	-	0.159	-	-
		Full SAR	-	-	-	-	-	-		
	Left Tilt	Estimated SAR	-	-	0.115	-	-	0.115	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	-	-	0.260	-	-	0.260	0.03	8
		Full SAR	-	-	0.227	-	-	**0.227**		
	Right Tilt	Estimated SAR	-	-	0.103	-	-	0.103	-	-
		Full SAR	-	-	-	-	-	-		

(LTE1900 (Band 2) Head SAR Table continues)

(LTE1900 (Band 2) Head SAR Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 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 0% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.6	22.8	22.3	0.3	0.1	0.6	dB	
	Time-averaged power [dBm]		22.6	22.8	22.3	1.07	1.02	1.15	Lin	
	Left Cheek	Estimated SAR	-	0.155	-	-	0.159	-	-	-
		Full SAR	-	-	-	-	-	-		
	Left Tilt	Estimated SAR	-	0.125	-	-	0.128	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	-	0.229	-	-	0.234	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Tilt	Estimated SAR	-	0.103	-	-	0.105	-	-	-
		Full SAR	-	-	-	-	-	-		
20MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.5	22.5	22.3	0.4	0.4	0.6	dB	
	Time-averaged power [dBm]		22.5	22.5	22.3	1.10	1.10	1.15	Lin	
	No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02									
20MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.3	22.4	22.5	0.6	0.5	0.4	dB	
	Time-averaged power [dBm]		22.3	22.4	22.5	1.15	1.12	1.10	Lin	
	No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02									
20MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.5	22.5	22.4	0.4	0.4	0.5	dB	
	Time-averaged power [dBm]		22.5	22.5	22.4	1.10	1.10	1.12	Lin	
	No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02									

LTE2500 (Band 7) Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg] Ch 20867 2511.7 MHz	Measured 1g SAR [W/kg] Ch 21100 2535 MHz	Measured 1g SAR [W/kg] Ch 21333 2558.3 MHz	Reported* 1g SAR [W/kg] Ch 20867 2511.7 MHz	Reported* 1g SAR [W/kg] Ch 21100 2535 MHz	Reported* 1g SAR [W/kg] Ch 21333 2558.3 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
20MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		23.5	23.5	23.6	0.4	0.4	0.3	dB	
	Time-averaged power [dBm]		23.5	23.5	23.6	1.10	1.10	1.07	Lin	
	Left Cheek	Scenario	1	-	-	-	-	-	0.00	9
		Estimated SAR	0.295	-	-	0.323	-	-		
		Full SAR	0.294	-	-	0.322	-	-		
	Left Tilt	Scenario	2	-	-	-	-	-	-	10
		Estimated SAR	0.093	-	-	0.102	-	-		
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Scenario	2	-	-	-	-	-	-	11
		Estimated SAR	0.137	-	-	0.150	-	-		
		Full SAR	-	-	-	-	-	-		
	Right Tilt	Scenario	1	-	-	-	-	-	-	12
		Estimated SAR	0.048	-	-	0.052	-	-		
		Full SAR	-	-	-	-	-	-		
20MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		23.5	23.4	23.4	0.4	0.5	0.5	dB	
	Time-averaged power [dBm]		23.5	23.4	23.4	1.10	1.12	1.12	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		23.6	23.4	23.3	0.3	0.5	0.6	dB	
	Time-averaged power [dBm]		23.6	23.4	23.3	1.07	1.12	1.15	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.6	22.5	22.6	0.3	0.4	0.3	dB	
	Time-averaged power [dBm]		22.6	22.5	22.6	1.07	1.10	1.07	Lin	
	Left Cheek	Scenario	1	-	-	-	-	-	-	-
		Estimated SAR	0.198	-	-	0.212	-	-		
		Full SAR	-	-	-	-	-	-		
	Left Tilt	Scenario	2	-	-	-	-	-	-	-
		Estimated SAR	0.071	-	-	0.076	-	-		
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Scenario	2	-	-	-	-	-	-	-
		Estimated SAR	0.108	-	-	0.116	-	-		
		Full SAR	-	-	-	-	-	-		
	Right Tilt	Scenario	1	-	-	-	-	-	-	-
		Estimated SAR	0.040	-	-	0.043	-	-		
		Full SAR	-	-	-	-	-	-		

(LTE2500 (Band 7) Head SAR Table continues)

(LTE2500 (Band 7) Head SAR Table continues)

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 20867 2511.7 MHz	Ch 21100 2535 MHz	Ch 21333 2558.3 MHz	Ch 20867 2511.7 MHz	Ch 21100 2535 MHz	Ch 21333 2558.3 MHz		
20MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.6	22.5	22.5	0.3	0.4	0.4	dB	
	Time-averaged power [dBm]		22.6	22.5	22.5	1.07	1.10	1.10	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.6	22.4	22.4	0.3	0.5	0.5	dB	
	Time-averaged power [dBm]		22.6	22.4	22.4	1.07	1.12	1.12	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 100%RB	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.6	22.4	22.5	0.3	0.5	0.4	dB	
	Time-averaged power [dBm]		22.6	22.4	22.5	1.07	1.12	1.10	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

2450MHz Head SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 1 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 1Mbps	Tuning Target + Tolerance [dBm]		19.5			Scaling factor*				
	Conducted Power [dBm]		17.7	17.8	17.7	1.8	1.7	1.8	dB	
	Time-averaged power [dBm]		17.7	17.8	17.7	1.51	1.48	1.51	Lin	
	Left Cheek	Estimated SAR	-	0.309	-	-	0.457	-	-	-
		Full SAR	-	-	-	-	-	-		
	Left Tilt	Estimated SAR	-	0.380	-	-	0.562	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Cheek	Estimated SAR	-	0.445	-	-	0.658	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right Tilt	Estimated SAR	-	0.457	-	-	0.676	-	0.02	-
		Full SAR	-	0.476	-	-	0.704	-		

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz	Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz		
WLAN b-mode QPSK 5.5Mbps	Tuning Target + Tolerance [dBm]		19.5			Scaling factor*				
	Conducted Power [dBm]		17.8	17.8	17.9	1.7	1.7	1.6	dB	
	Time-averaged power [dBm]		17.8	17.8	17.9	1.48	1.48	1.45	Lin	
	Right Tilt	Estimated SAR	-	0.545	-	-	0.806	-	0.01	13
		Full SAR	-	0.538	-	-	**0.796**	-		

5000MHz Head SAR results
5470–5725 MHz and 5725–5850 MHz

Mode	Device orientation	SAR measurement	Reported* 1g SAR [W/kg]				Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 136 5680.0 MHz	Ch 153 5765.0 MHz	Ch 136 5680.0 MHz	Ch 153 5765.0 MHz		
WLAN a-mode OFDM 6 Mbps	Tuning Target + Tolerance [dBm]		Scaling factor*					
	Conducted Power [dBm]		15.7	15.9	1.8	1.6	dB	
	Time-averaged power [dBm]		15.7	15.9	1.51	1.45	Lin	
	Left Cheek	Estimated SAR	-	-	-	-	-	-
		Full SAR	0.118	-	0.179	-		
	Left Tilt	Estimated SAR	-	-	-	-	-	-
		Full SAR	-	0.094	-	0.136		
	Right Cheek	Estimated SAR	-	-	-	-	-	14
		Full SAR	0.174	-	**0.263**	-		
	Right Tilt	Estimated SAR	-	-	-	-	-	-
		Full SAR	0.139	-	0.210	-		

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

Test configuration	Max. Reported* 1g SAR results										
	WLAN 2450	WLAN 5000	LTE 700	2-slot GPRS 850	WCDMA 850	LTE 850	LTE 1700/ 2100	3-slot GPRS 1900	WCDMA 1900	LTE 1900	LTE 2500
Head: Left, Cheek	0.457	0.179	0.220	0.501	0.373	0.348	0.210	0.126	0.211	0.159	0.322
Head: Left, Tilt	0.562	0.136	0.167	0.256	0.207	0.163	0.169	0.085	0.132	0.128	0.102
Head: Right, Cheek	0.658	0.263	0.240	0.344	0.254	0.248	0.420	0.161	0.276	0.227	0.150
Head: Right, Tilt	0.796	0.210	0.140	0.285	0.216	0.196	0.190	0.050	0.073	0.105	0.052

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

Test configuration	Max. Reported* 1g SAR results								
	LTE700 + WLAN 2450	2-slot GPRS850 + WLAN 2450	WCDMA 850 + WLAN 2450	LTE850 + WLAN 2450	LTE1700/ 2100 + WLAN 2450	3-slot GPRS1900 + WLAN 2450	WCDMA 1900 + WLAN 2450	LTE1900 + WLAN 2450	LTE2500 +WLAN 2450
Head: Left, Cheek	0.677	0.958	0.830	0.805	0.667	0.583	0.668	0.616	0.779
Head: Left, Tilt	0.729	0.818	0.769	0.725	0.731	0.647	0.694	0.690	0.664
Head: Right, Cheek	0.898	1.00	0.912	0.906	**1.08**	0.819	**0.934**	0.885	0.808
Head: Right, Tilt	**0.936**	**1.08**	**1.01**	**0.992**	0.986	**0.846**	0.869	**0.901**	**0.848**
Test configuration	**LTE700 + WLAN 5000**	**2-slot GPRS850 + WLAN 5000**	**WCDMA 850 + WLAN 5000**	**LTE850 + WLAN 5000**	**LTE1700/ 2100 + WLAN 5000**	**3-slot GPRS1900 + WLAN 5000**	**WCDMA 1900 + WLAN 5000**	**LTE1900 + WLAN 5000**	**LTE2500 + WLAN 5000**
Head: Left, Cheek	0.399	**0.680**	**0.552**	**0.527**	0.389	0.305	0.390	0.338	**0.501**
Head: Left, Tilt	0.303	0.392	0.343	0.299	0.305	0.221	0.268	0.264	0.238
Head: Right, Cheek	**0.503**	0.607	0.517	0.511	**0.683**	**0.424**	**0.539**	**0.490**	0.413
Head: Right, Tilt	0.350	0.495	0.426	0.406	0.400	0.260	0.283	0.315	0.262

Note: Simultaneous Transmission Procedures as described in KDB648474 are not required for this product.

7.1.1 Combined Head SAR data

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

The following table gives a more accurate assessment of the SAR values for simultaneous transmission. These values have been calculated using the SPEAG Combined Multiband algorithm, which is based on area scans. It a) converts the 2D area scans into 3D volume scans by assuming frequency-dependent decay characteristics for the E-field, b) sums the SAR values for WLAN2450 or WLAN5000 and the cellular bands point-by-point and c) calculates the combined average SAR values.

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

Test configuration	Max. Reported* 1g SAR results								
	LTE700 + WLAN 2450	2-slot GPRS850 + WLAN 2450	WCDMA 850 + WLAN 2450	LTE850 + WLAN 2450	LTE1700/ 2100 + WLAN 2450	3-slot GPRS1900 + WLAN 2450	WCDMA 1900 + WLAN 2450	LTE1900 + WLAN 2450	LTE2500 +WLAN 2450
Head: Left, Cheek	-	-	-	-	-	-	-	-	-
Head: Left, Tilt	-	-	-	-	-	-	-	-	-
Head: Right, Cheek	-	-	-	-	0.709	-	0.692	-	-
Head: Right, Tilt	0.854	0.944	0.909	0.904	-	0.835	-	0.863	0.849
Test configuration	**LTE700 + WLAN 5000**	**2-slot GPRS850 + WLAN 5000**	**WCDMA 850 + WLAN 5000**	**LTE850 + WLAN 5000**	**LTE1700/ 2100 + WLAN 5000**	**3-slot GPRS1900 + WLAN 5000**	**WCDMA 1900 + WLAN 5000**	**LTE1900 + WLAN 5000**	**LTE2500 + WLAN 5000**
Head: Left, Cheek	-	0.464	0.356	0.340	-	-	-	-	0.325
Head: Left, Tilt	-	-	-	-	-	-	-	-	-
Head: Right, Cheek	0.261	-	-	-	0.405	0.270	0.279	0.310	-
Head: Right, Tilt	-	-	-	-	-	-	-	-	-

Some of the Combined SAR values in the above table are less than the maximum SAR values for the contributing cellular band. This is due to a) minimal overlap of the SAR distributions of the cellular band with WLAN2450 or WLAN5000 and b) uncertainties associated with the different methods of calculation. In these cases, the maximum SAR values given for the combined Modes in the Summary table in Section 1.2 are those for the individual cellular band.

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

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.

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]			Max Deviation (Estimated SAR - Full 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]			23.9			Scaling factor*				
	Conducted Power [dBm]			23.4	23.4	23.2	0.5	0.5	0.7	dB	
	Time-averaged power [dBm]			23.4	23.4	23.2	1.12	1.12	1.17	Lin	
	No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02										
10MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Power [dBm]			23.3	23.3	23.3	0.6	0.6	0.6	dB	
	Time-averaged power [dBm]			23.3	23.3	23.3	1.15	1.15	1.15	Lin	
	No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02										
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Power [dBm]			23.3	23.4	23.5	0.6	0.5	0.4	dB	
	Time-averaged power [dBm]			23.3	23.4	23.5	1.15	1.12	1.10	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	-	0.349	-	-	0.383	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	-	-	0.294	-	-	0.322	-	-
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Estimated SAR	-	-	0.394	-	-	0.432	0.01	15
			Full SAR	-	-	0.402	-	-	**0.441**		
		Headset WH-208	Estimated SAR	-	-	0.337	-	-	0.370	-	-
			Full SAR	-	-	-	-	-	-		

(LTE700 (Band 17) Body SAR Table continues)

(LTE700 (Band 17) Body SAR Table continues)

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 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 0% offset	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Power [dBm]			22.3	22.3	22.4	0.6	0.6	0.5	dB	
	Time-averaged power [dBm]			22.3	22.3	22.4	1.15	1.15	1.12	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Power [dBm]			22.3	22.3	22.3	0.6	0.6	0.6	dB	
	Time-averaged power [dBm]			22.3	22.3	22.3	1.15	1.15	1.15	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Power [dBm]			22.4	22.3	22.4	0.5	0.6	0.5	dB	
	Time-averaged power [dBm]			22.4	22.3	22.4	1.12	1.15	1.12	Lin	
	Back facing phantom	Without headset	Estimated SAR	0.264	-	-	0.296	-	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	0.219	-	-	0.246	-	-	-	-
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Estimated SAR	0.304	-	-	0.341	-	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	0.254	-	-	0.285	-	-	-	-
			Full SAR	-	-	-	-	-	-		
10MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Power [dBm]			22.4	22.4	22.4	0.5	0.5	0.5	dB	
	Time-averaged power [dBm]			22.4	22.4	22.4	1.12	1.12	1.12	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

GSM/GPRS/EGPRS 850MHz Band Body SAR results

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg] Ch 148 828.2 MHz	Measured 1g SAR [W/kg] Ch 189 836.4 MHz	Measured 1g SAR [W/kg] Ch 231 844.8 MHz	Reported* 1g SAR [W/kg] Ch 148 828.2 MHz	Reported* 1g SAR [W/kg] Ch 189 836.4 MHz	Reported* 1g SAR [W/kg] Ch 231 844.8 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
2-slot GPRS	Tuning Target + Tolerance [dBm]			30.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			30.5	30.0	30.2	0.4	0.9	0.7	dB	
	Time-averaged power [dBm]			24.5	24.0	24.2	1.10	1.23	1.17	Lin	
	Back facing phantom	Without headset	Scenario	0	1	1	-	-	-	-	-
			Estimated SAR	0.406	0.390	0.407	0.445	0.480	0.478		
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Scenario	0	1	1	-	-	-	-	-
			Estimated SAR	0.382	0.387	0.372	0.419	0.476	0.437		
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Scenario	0	0	0	-	-	-	0.02	16
			Estimated SAR	0.425	0.420	0.437	0.466	0.517	0.513		
			Full SAR	0.433	0.442	0.447	0.475	**0.544**	0.525		
		Headset WH-208	Scenario	0	0	0	-	-	-	-	-
			Estimated SAR	0.379	0.417	0.386	0.416	0.513	0.454		
			Full SAR	-	-	-	-	-	-		

WCDMA850 (Band 5) Body SAR results

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 4147 829.4 MHz	Ch 4183 836.6 MHz	Ch 4219 843.8 MHz	Ch 4147 829.4 MHz	Ch 4183 836.6 MHz	Ch 4219 843.8 MHz		
WCDMA	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			23.1	23.0	23.1	0.8	0.9	0.8	dB	
	Time-averaged power [dBm]			23.1	23.0	23.1	1.20	1.23	1.20	Lin	
	Back facing phantom	Without headset	Scenario	0	0	0	-	-	-	-	-
			Estimated SAR	0.297	0.314	0.322	0.357	0.386	0.387		
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Scenario	0	0	0	-	-	-	-	-
			Estimated SAR	0.304	0.298	0.316	0.365	0.367	0.380		
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Scenario	0	0	0	-	-	-	0.01	17
			Estimated SAR	0.315	0.317	0.327	0.379	0.390	0.393		
			Full SAR	0.328	0.326	0.338	0.394	0.401	**0.406**		
		Headset WH-208	Scenario	0	0	0	-	-	-	-	-
			Estimated SAR	0.303	0.307	0.313	0.364	0.378	0.376		
			Full SAR	-	-	-	-	-	-		

LTE850 (Band 5) Body SAR results

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg] Ch 20450 829.0 MHz	Measured 1g SAR [W/kg] Ch 20525 836.5 MHz	Measured 1g SAR [W/kg] Ch 20600 844.0 MHz	Reported* 1g SAR [W/kg] Ch 20450 829.0 MHz	Reported* 1g SAR [W/kg] Ch 20525 836.5 MHz	Reported* 1g SAR [W/kg] Ch 20600 844.0 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
10MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			23.3	23.2	23.0	0.6	0.7	0.9	dB	
	Time-averaged power [dBm]			23.3	23.2	23.0	1.15	1.17	1.23	Lin	
	Back facing phantom	Without headset	Estimated SAR	0.305	-	-	0.350	-	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	0.272	-	-	0.312	-	-	-	-
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Estimated SAR	0.316	-	-	0.363	-	-	0.01	18
			Full SAR	0.325	-	-	**0.373**	-	-		
		Headset WH-208	Estimated SAR	0.280	-	-	0.321	-	-	-	-
			Full SAR	-	-	-	-	-	-		
10MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			23.2	23.0	23.1	0.7	0.9	0.8	dB	
	Time-averaged power [dBm]			23.2	23.0	23.1	1.17	1.23	1.20	Lin	
	No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02										
10MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			23.1	23.1	23.1	0.8	0.8	0.8	dB	
	Time-averaged power [dBm]			23.1	23.1	23.1	1.20	1.20	1.20	Lin	
	No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02										

(LTE850 (Band 5) Body SAR Table continues)

(LTE850 (Band 5) Body SAR Table continues)

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg] Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	Reported* 1g SAR [W/kg] Ch 20450 829.0 MHz	Ch 20525 836.5 MHz	Ch 20600 844.0 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
10MHz Ch BW 50%RB 0% offset	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			22.1	22.0	22.1	0.8	0.9	0.8	dB	
	Time-averaged power [dBm]			22.1	22.0	22.1	1.20	1.23	1.20	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 50%RB 50% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			22.2	22.0	22.1	0.7	0.9	0.8	dB	
	Time-averaged power [dBm]			22.2	22.0	22.1	1.17	1.23	1.20	Lin	
	Back facing phantom	Without headset	Estimated SAR	0.247	-	-	0.290	-	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	0.223	-	-	0.262	-	-	-	-
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Estimated SAR	0.255	-	-	0.300	-	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	0.231	-	-	0.271	-	-	-	-
			Full SAR	-	-	-	-	-	-		
10MHz Ch BW 50%RB 100% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			22.0	21.9	22.1	0.9	1.0	0.8	dB	
	Time-averaged power [dBm]			22.0	21.9	22.1	1.23	1.26	1.20	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			22.3	22.0	22.2	0.6	0.9	0.7	dB	
	Time-averaged power [dBm]			22.3	22.0	22.2	1.15	1.23	1.17	Lin	
	Display facing phantom	Without headset	Estimated SAR	0.277	-	-	0.318	-	-	-	-
			Full SAR	-	-	-	-	-	-		

LTE1700/2100 (Band 4) Body SAR results

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg] Ch 20050 1720.0 MHz	Measured 1g SAR [W/kg] Ch 23175 1732.5 MHz	Measured 1g SAR [W/kg] Ch 20300 1745.0 MHz	Reported* 1g SAR [W/kg] Ch 20050 1720.0 MHz	Reported* 1g SAR [W/kg] Ch 23175 1732.5 MHz	Reported* 1g SAR [W/kg] Ch 20300 1745.0 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
20MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Power [dBm]			23.8	23.8	23.7	0.1	0.1	0.2	dB	
	Time-averaged power [dBm]			23.8	23.8	23.7	1.02	1.02	1.05	Lin	
	Back facing phantom	Without headset	Estimated SAR	0.638	-	-	0.653	-	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	0.647	-	-	0.662	-	-	-	-
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Estimated SAR	0.742	-	-	0.759	-	-	-	-
			Full SAR	0.775	-	-	0.793	-	-		
		Headset WH-208	Estimated SAR	0.763	0.778	0.776	0.781	0.796	0.813	0.04	19
			Full SAR	0.800	-	0.805	0.819	-	**0.843**		
	Repeated SAR Display facing phantom, WH-208		Estimated SAR	-	-	0.773	-	-	0.809	-	-
			Full SAR	-	-	0.802	-	-	0.840		
20MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Power [dBm]			23.7	23.4	23.7	0.2	0.5	0.2	dB	
	Time-averaged power [dBm]			23.7	23.4	23.7	1.05	1.12	1.05	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Power [dBm]			23.5	23.6	23.7	0.4	0.3	0.2	dB	
	Time-averaged power [dBm]			23.5	23.6	23.7	1.10	1.07	1.05	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

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

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

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg] Ch 20050 1720.0 MHz	Measured 1g SAR [W/kg] Ch 23175 1732.5 MHz	Measured 1g SAR [W/kg] Ch 20300 1745.0 MHz	Reported* 1g SAR [W/kg] Ch 20050 1720.0 MHz	Reported* 1g SAR [W/kg] Ch 23175 1732.5 MHz	Reported* 1g SAR [W/kg] Ch 20300 1745.0 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
20MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Power [dBm]			22.8	22.7	22.7	0.1	0.2	0.2	dB	
	Time-averaged power [dBm]			22.8	22.7	22.7	1.02	1.05	1.05	Lin	
	Back facing phantom	Without headset	Estimated SAR	0.520	-	-	0.532	-	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	0.523	-	-	0.535	-	-	-	-
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Estimated SAR	0.606	-	-	0.620	-	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	0.617	-	-	0.631	-	-	-	-
			Full SAR	-	-	-	-	-	-		
20MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Power [dBm]			22.8	22.5	22.7	0.1	0.4	0.2	dB	
	Time-averaged power [dBm]			22.8	22.5	22.7	1.02	1.10	1.05	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Power [dBm]			22.6	22.5	22.7	0.3	0.4	0.2	dB	
	Time-averaged power [dBm]			22.6	22.5	22.7	1.07	1.10	1.05	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Power [dBm]			22.8	22.6	22.7	0.1	0.3	0.2	dB	
	Time-averaged power [dBm]			22.8	22.6	22.7	1.02	1.07	1.05	Lin	
	Display facing phantom	Headset WH-208	Estimated SAR	0.602	-	-	0.616	-	-	-	-
			Full SAR	-	-	-	-	-	-		

GSM/GPRS/EGPRS 1900MHz Band Body SAR results

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 512 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]			26.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			26.2	26.4	26.1	0.7	0.5	0.8	dB	
	Time-averaged power [dBm]			21.9	22.1	21.8	1.17	1.12	1.20	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	0.368	-	-	0.413	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	-	0.373	-	-	0.419	-	-	-
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Estimated SAR	-	0.457	-	-	0.513	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	0.472	0.466	0.473	0.555	0.523	0.569	0.02	20
			Full SAR	-	-	0.488	-	-	**0.587**		

WCDMA1900 (Band 2) Body SAR results

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 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]			23.9			Scaling factor*				
	Conducted Power [dBm]			23.2	23.3	23.4	0.7	0.6	0.5	dB	
	Time-averaged power [dBm]			23.2	23.3	23.4	1.17	1.15	1.12	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	0.612	-	-	0.703	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	-	0.633	-	-	0.727	-	-	-
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Estimated SAR	0.861	0.788	0.702	1.01	0.905	0.788	0.00	-
			Full SAR	0.864	-	-	1.02	-	-		
		Headset WH-208	Estimated SAR	-	0.693	-	-	0.796	-	0.03	-
			Full SAR	-	0.723	-	-	0.830	-		
	Repeated SAR		Estimated SAR	0.824	-	-	0.968	-	-	0.06	21
			Full SAR	0.883	-	-	**1.04**	-	-		

LTE1900 (Band 2) Body SAR results

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg] Ch 18700 1869.0 MHz	Measured 1g SAR [W/kg] Ch 18900 1880.0 MHz	Measured 1g SAR [W/kg] Ch 19100 1900.0 MHz	Reported* 1g SAR [W/kg] Ch 18700 1869.0 MHz	Reported* 1g SAR [W/kg] Ch 18900 1880.0 MHz	Reported* 1g SAR [W/kg] Ch 19100 1900.0 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
20MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Power [dBm]			23.6	23.8	23.2	0.3	0.1	0.7	dB	
	Time-averaged power [dBm]			23.6	23.8	23.2	1.07	1.02	1.17	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Power [dBm]			23.5	23.5	23.3	0.4	0.4	0.6	dB	
	Time-averaged power [dBm]			23.5	23.5	23.3	1.10	1.10	1.15	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Power [dBm]			23.4	23.2	23.9	0.5	0.7	0.0	dB	
	Time-averaged power [dBm]			23.4	23.2	23.9	1.12	1.17	1.00	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	-	0.575	-	-	0.575	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	-	-	0.578	-	-	0.578	-	-
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Estimated SAR	-	-	0.727	-	-	0.727	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	-	-	0.730	-	-	0.730	0.04	22
			Full SAR	-	-	0.766	-	-	**0.766**		

(LTE1900 (Band 2) Body SAR results Table continues)

(LTE1900 (Band 2) Body SAR results Table continues)

Mode	Test configuration		SAR measurement	Measured 1g SAR [W/kg] Ch 18700 1869.0 MHz	Measured 1g SAR [W/kg] Ch 18900 1880.0 MHz	Measured 1g SAR [W/kg] Ch 19100 1900.0 MHz	Reported* 1g SAR [W/kg] Ch 18700 1869.0 MHz	Reported* 1g SAR [W/kg] Ch 18900 1880.0 MHz	Reported* 1g SAR [W/kg] Ch 19100 1900.0 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
20MHz Ch BW 50%RB 0% offset	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Power [dBm]			22.6	22.8	22.3	0.3	0.1	0.6	dB	
	Time-averaged power [dBm]			22.6	22.8	22.3	1.07	1.02	1.15	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	0.526	-	-	0.538	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	-	0.524	-	-	0.536	-	-	-
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Estimated SAR	-	0.641	-	-	0.656	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	-	0.646	-	-	0.661	-	-	-
			Full SAR	-	-	-	-	-	-		
20MHz Ch BW 50%RB 50% offset	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Power [dBm]			22.5	22.5	22.3	0.4	0.4	0.6	dB	
	Time-averaged power [dBm]			22.5	22.5	22.3	1.10	1.10	1.15	Lin	
	No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02										
20MHz Ch BW 50%RB 100% offset	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Power [dBm]			22.3	22.4	22.5	0.6	0.5	0.4	dB	
	Time-averaged power [dBm]			22.3	22.4	22.5	1.15	1.12	1.10	Lin	
	No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02										
20MHz Ch BW 100%RB	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Power [dBm]			22.5	22.5	22.4	0.4	0.4	0.5	dB	
	Time-averaged power [dBm]			22.5	22.5	22.4	1.10	1.10	1.12	Lin	
	No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02										

LTE2500 (Band 7) Body SAR results

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg] Ch 20867 2511.7 MHz	Measured 1g SAR [W/kg] Ch 21100 2535 MHz	Measured 1g SAR [W/kg] Ch 21333 2558.3 MHz	Reported* 1g SAR [W/kg] Ch 20867 2511.7 MHz	Reported* 1g SAR [W/kg] Ch 21100 2535 MHz	Reported* 1g SAR [W/kg] Ch 21333 2558.3 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
20MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			23.5	23.5	23.6	0.4	0.4	0.3	dB	
	Time-averaged power [dBm]			23.5	23.5	23.6	1.10	1.10	1.07	Lin	
	Back facing phantom	Without headset	Scenario	1	-	-	-	-	-	-	23
			Estimated SAR	0.503	-	-	0.552	-	-		
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Scenario	1	-	-	-	-	-	-	24
			Estimated SAR	0.501	-	-	0.549	-	-		
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Scenario	1	-	-	-	-	-	0.00	25
			Estimated SAR	0.643	-	-	0.705	-	-		
			Full SAR	0.642	-	-	**0.704**	-	-		
		Headset WH-208	Scenario	1	-	-	-	-	-	-	26
			Estimated SAR	0.636	-	-	0.697	-	-		
			Full SAR	-	-	-	-	-	-		
20MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			23.5	23.4	23.4	0.4	0.5	0.5	dB	
	Time-averaged power [dBm]			23.5	23.4	23.4	1.10	1.12	1.12	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]			23.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			23.6	23.4	23.3	0.3	0.5	0.6	dB	
	Time-averaged power [dBm]			23.6	23.4	23.3	1.07	1.12	1.15	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

(LTE2500 (Band 7) Body SAR Table continues)

(LTE2500 (Band 7) Body SAR Table continues)

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 20867 2511.7 MHz	Ch 21100 2535 MHz	Ch 21333 2558.3 MHz	Ch 20867 2511.7 MHz	Ch 21100 2535 MHz	Ch 21333 2558.3 MHz		
20MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			22.6	22.5	22.6	1.3	1.4	1.3	dB	
	Time-averaged power [dBm]			22.6	22.5	22.6	1.35	1.38	1.35	Lin	
	Back facing phantom	Without headset	Scenario	1	-	-	-	-	-	-	-
			Estimated SAR	0.406	-	-	0.548	-	-		
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Scenario	1	-	-	-	-	-	-	-
			Estimated SAR	0.399	-	-	0.538	-	-		
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Scenario	1	-	-	-	-	-	-	-
			Estimated SAR	0.511	-	-	0.689	-	-		
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Scenario	1	-	-	-	-	-	-	-
			Estimated SAR	0.511	-	-	0.689	-	-		
			Full SAR	-	-	-	-	-	-		
20MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			22.6	22.5	22.5	0.3	0.4	0.4	dB	
	Time-averaged power [dBm]			22.6	22.5	22.5	1.07	1.10	1.10	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			22.6	22.4	22.4	0.3	0.5	0.5	dB	
	Time-averaged power [dBm]			22.6	22.4	22.4	1.07	1.12	1.12	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 100%RB	Tuning Target + Tolerance [dBm]			22.9			Scaling factor*				
	Conducted Slot Average Power [dBm]			22.6	22.4	22.5	0.3	0.5	0.4	dB	
	Time-averaged power [dBm]			22.6	22.4	22.5	1.07	1.12	1.10	Lin	
				No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

2450MHz Body SAR results

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz	Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz		
WLAN b-mode DSSS 1 Mbps	Tuning Target + Tolerance [dBm]			19.5			Scaling factor*				
	Conducted Power [dBm]			17.7	17.8	17.7	1.8	1.7	1.8	dB	
	Time-averaged power [dBm]			17.7	17.8	17.7	1.51	1.48	1.51	Lin	
	Back facing phantom	Without headset	Estimated SAR	0.139	-	-	0.210	-	-	0.02	27
			Full SAR	0.123	-	-	**0.186**	-	-		
		Headset WH-208	Estimated SAR	-	0.082	-	-	0.121	-	-	-
			Full SAR	-	-	-	-	-	-		
	Display facing phantom	Without headset	Estimated SAR	-	0.063	-	-	0.093	-	-	-
			Full SAR	-	-	-	-	-	-		
		Headset WH-208	Estimated SAR	-	0.019	-	-	0.028	-	-	-
			Full SAR	-	-	-	-	-	-		

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 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 QPSK 5.5Mbps	Tuning Target + Tolerance [dBm]			19.5			Scaling factor*				
	Conducted Power [dBm]			17.8	17.8	17.9	1.7	1.7	1.6	dB	
	Time-averaged power [dBm]			17.8	17.8	17.9	1.48	1.48	1.45	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	0.099	-	-	0.147	-	-	-
			Full SAR	-	0.107	-	-	0.158	-		

5000MHz Body SAR results
5150–5250 MHz, 5470–5725 MHz and 5725–5850 MHz

Mode	Device orientation		SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
				Ch 40 5200.0 MHz	Ch 136 5680.0 MHz	Ch 165 5825.0 MHz	Ch 40 5200.0 MHz	Ch 136 5680.0 MHz	Ch 165 5825.0 MHz		
WLAN a-mode OFDM 6 Mbps	Tuning Target + Tolerance [dBm]			17.5			Scaling factor*				
	Conducted Power [dBm]			15.8	15.7	16.1	1.7	1.8	1.4	dB	
	Time-averaged power [dBm]			15.8	15.7	16.1	1.48	1.51	1.38	Lin	
	Back facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	28
			Full SAR	-	-	0.154	-	-	0.213		
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-	-
			Full SAR	-	-	0.127	-	-	0.175		
	Display facing phantom	Without headset	Estimated SAR	-	-	-	-	-	-	-	-
			Full SAR	0.008	-	-	0.012	-	-		
		Headset WH-208	Estimated SAR	-	-	-	-	-	-	-	-
			Full SAR	-	0.000	-	-	0.000	-		

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

Test configuration	Max. Reported* 1g SAR results										
	WLAN 2450	WLAN 5000	LTE 750	2-slot GPRS 850	WCDMA 850	LTE 850	LTE 1700/ 2100	3-slot GPRS 1900	WCDMA 1900	LTE 1900	LTE 2500
Body: Back facing phantom, Without Headset	0.186	0.213	0.383	0.480	0.387	0.350	0.653	0.413	0.703	0.575	0.552
Body: Back facing phantom, Headset WH-208	0.121	0.175	0.322	0.476	0.380	0.312	0.662	0.419	0.727	0.578	0.549
Body: Display facing phantom, Without Headset	0.093	0.012	0.441	0.544	0.406	0.373	0.793	0.513	1.04	0.727	0.704
Body: Display facing phantom, Headset WH-208	0.028	0.000	0.370	0.513	0.378	0.321	0.843	0.587	0.830	0.766	0.697

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

Test configuration	Max. Reported* 1g SAR results								
	LTE700 + WLAN 2450	2-slot GPRS850 + WLAN 2450	WCDMA 850 + WLAN 2450	LTE850 + WLAN 2450	LTE1700 / 2100 + WLAN 2450	3-slot GPRS1900 + WLAN 2450	WCDMA 1900 + WLAN 2450	LTE 1900 + WLAN 2450	LTE 2500 +WLAN 2450
Body: Back facing phantom, Without Headset	**0.569**	**0.666**	**0.573**	**0.536**	0.839	0.599	0.889	0.761	0.738
Body: Back facing phantom, Headset WH-208	0.443	0.597	0.501	0.433	0.783	0.540	0.848	0.699	0.670
Body: Display facing phantom, Without Headset	0.534	0.637	0.499	0.466	**0.886**	0.606	**1.13**	**0.820**	**0.797**
Body: Display facing phantom, Headset WH-208	0.398	0.541	0.406	0.349	0.871	**0.615**	0.858	0.794	0.725
Test configuration	**LTE700 + WLAN 5000**	**2-slot GPRS850 + WLAN 5000**	**WCDMA 850 + WLAN 5000**	**LTE850 + WLAN 5000**	**LTE1700 / 2100 + WLAN 5000**	**3-slot GPRS1900 + WLAN 5000**	**WCDMA 1900 + WLAN 5000**	**LTE1900 + WLAN 5000**	**LTE2500 + WLAN 5000**
Body: Back facing phantom, Without Headset	**0.596**	**0.693**	**0.600**	**0.563**	**0.866**	**0.626**	0.916	**0.788**	**0.765**
Body: Back facing phantom, Headset WH-208	0.497	0.651	0.555	0.487	0.837	0.594	0.902	0.753	0.724
Body: Display facing phantom, Without Headset	0.453	0.556	0.418	0.385	0.805	0.525	**1.05**	0.739	0.716
Body: Display facing phantom, Headset WH-208	0.370	0.513	0.378	0.321	0.843	0.587	0.830	0.766	0.697

Note: Simultaneous Transmission Procedures as described in KDB648474 are not required for this product.

7.2.1 Combined Body SAR data

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

The following table gives a more accurate assessment of the SAR values for simultaneous transmission. These values have been calculated using the SPEAG Combined Multiband algorithm, which is based on area scans. It a) converts the 2D area scans into 3D volume scans by assuming frequency-dependent decay characteristics for the E-field, b) sums the SAR values for WLAN2450 or WLAN5000 and the cellular bands point-by-point and c) calculates the combined average SAR values.

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

Test configuration	Max. Reported* 1g SAR results								
	LTE700 + WLAN 2450	2-slot GPRS850 + WLAN 2450	WCDMA 850 + WLAN 2450	LTE850 + WLAN 2450	LTE1700 /2100 + WLAN 2450	3-slot GPRS 1900 + WLAN 2450	WCDMA 1900 + WLAN 2450	LTE 1900 +WLAN 2450	LTE 2500 +WLAN 2450
Body: Back facing phantom, Without Headset	0.387	0.485	0.393	0.358	-	-	-	-	-
Body: Back facing phantom, Headset WH-208	-	-	-	-	-	-	-	-	-
Body: Display facing phantom, Without Headset	-	-	-	-	0.760	-	1.01	0.729	0.708
Body: Display facing phantom, Headset WH-208	-	-	-	-	-	0.570	-	-	-
Test configuration	**LTE700 + WLAN 5000**	**2-slot GPRS 850 + WLAN 5000**	**WCDMA 850 + WLAN 5000**	**LTE850 + WLAN 5000**	**LTE1700 / 2100 + WLAN 5000**	**3-slot GPRS 1900 + WLAN 5000**	**WCDMA 1900 + WLAN 5000**	**LTE1900 + WLAN 5000**	**LTE2500 + WLAN 5000**
Body: Back facing phantom, Without Headset	0.384	0.479	0.388	0.351	0.649	0.413	-	0.576	0.554
Body: Back facing phantom, Headset WH-208	-	-	-	-	-	-	-	-	-
Body: Display facing phantom, Without Headset	-	-	-	-	-	-	1.01	-	-
Body: Display facing phantom, Headset WH-208	-	-	-	-	-	-	-	-	-

Some of the Combined SAR values in the above table are less than the maximum SAR values for the contributing cellular band. This is due to a) minimal overlap of the SAR distributions of the cellular band with WLAN2450 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:
* Reported SAR values are scaled to, or measured at, upper limit of power tuning tolerance.

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.

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]			Max Deviation (Estimated SAR - Full 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]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.4	23.4	23.2	0.5	0.5	0.7	dB	
	Time-averaged power [dBm]		23.4	23.4	23.2	1.12	1.12	1.17	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 1RB 50 % offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.3	23.3	23.3	0.6	0.6	0.6	dB	
	Time-averaged power [dBm]		23.3	23.3	23.3	1.15	1.15	1.15	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 1RB 100 % offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.3	23.4	23.5	0.6	0.5	0.4	dB	
	Time-averaged power [dBm]		23.3	23.4	23.5	1.15	1.12	1.10	Lin	
	Back facing phantom	Estimated SAR	-	-	0.462	-	-	0.507	-	-
		Full SAR	-	-	-	-	-	-		
	Display facing phantom	Estimated SAR	-	-	0.551	-	-	0.604	0.01	29
		Full SAR	-	-	0.546	-	-	**0.599**		
	Top edge facing phantom	Estimated SAR	Not tested for bottom antenna							
		Full SAR								
	Bottom edge facing phantom	Estimated SAR	-	-	0.145	-	-	0.159	-	-
		Full SAR	-	-	-	-	-	-		
	Left edge facing phantom	Estimated SAR	-	-	0.236	-	-	0.259	-	-
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Estimated SAR	-	-	0.258	-	-	0.283	-	-
		Full SAR	-	-	-	-	-	-		
10MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.3	22.3	22.4	0.6	0.6	0.5	dB	
	Time-averaged power [dBm]		22.3	22.3	22.4	1.15	1.15	1.12	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

(LTE700 (Band 17) WR SAR results Table continues)

(LTE700 (Band 17) WR SAR results Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 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]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.3	22.3	22.3	0.6	0.6	0.6	dB	
	Time-averaged power [dBm]		22.3	22.3	22.3	1.15	1.15	1.15	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 50% RB 100 % offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.4	22.3	22.4	0.5	0.6	0.5	dB	
	Time-averaged power [dBm]		22.4	22.3	22.4	1.12	1.15	1.12	Lin	
	Back facing phantom	Estimated SAR	0.347	-	-	0.389	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Display facing phantom	Estimated SAR	0.395	-	-	0.443	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Top edge facing phantom	Estimated SAR	Not tested for bottom antenna							
		Full SAR								
	Bottom edge facing phantom	Estimated SAR	0.110	-	-	0.123	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Left edge facing phantom	Estimated SAR	0.176	-	-	0.197	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Estimated SAR	0.195	-	-	0.219	-	-	-	-
		Full SAR	-	-	-	-	-	-		
10MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.4	22.4	22.4	0.5	0.5	0.5	dB	
	Time-averaged power [dBm]		22.4	22.4	22.4	1.12	1.12	1.12	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

GSM/GPRS/EGPRS 850MHz Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]					Reported* 1g SAR [W/kg]					Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 148 828.2 MHz	Ch 189 836.4 MHz			Ch 231 844.8 MHz	Ch 148 828.2 MHz	Ch 189 836.4 MHz			Ch 231 844.8 MHz		
2-slot GPRS	Tuning Target + Tolerance [dBm]		30.9					Scaling factor*						
	Conducted Power [dBm]		30.5	30.0			30.2	0.4	0.9			0.7	dB	
	Time-averaged power [dBm]		24.5	24.0			24.2	1.10	1.23			1.17	Lin	
	Back facing phantom	Scenario	0	1	-	-	1	-	-	-	-	-	-	-
		Estimated SAR	0.508	0.557	-	-	0.540	0.557	0.685	-	-	0.634		
		Full SAR	-	-	-	-	-	-	-	-	-	-		
	Display facing phantom	Scenario	0	0	1	2	0	-	-	-	-	-	0.03	30
		Estimated SAR	0.660	0.667	0.517	0.502	0.622	0.724	0.821	0.636	0.618	0.731		
		Full SAR	0.661	0.669	0.532	0.517	0.656	0.725	**0.823**	0.655	0.636	0.771		
	Top edge facing phantom	Scenario	Not tested for bottom antenna											
		Estimated SAR												
		Full SAR												
	Bottom edge facing phantom	Scenario	0	0	-	-	0	-	-	-	-	-	-	-
		Estimated SAR	0.369	0.427	-	-	0.353	0.405	0.525	-	-	0.415		
		Full SAR	-	-	-	-	-	-	-	-	-	-		
	Left edge facing phantom	Scenario	0	0	-	-	1	-	-	-	-	-	-	-
		Estimated SAR	0.465	0.504	-	-	0.498	0.510	0.620	-	-	0.585		
		Full SAR	-	-	-	-	-	-	-	-	-	-		
	Right edge facing phantom	Scenario	1	1	-	-	2	-	-	-	-	-	-	-
		Estimated SAR	0.238	0.216	-	-	0.215	0.261	0.266	-	-	0.253		
		Full SAR	-	-	-	-	-	-	-	-	-	-		

WCDMA850 (Band 5) Body SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR)	Plot #
			Ch 4147 829.4 MHz	Ch 4183 836.6 MHz	Ch 4219 843.8 MHz	Ch 4147 829.4 MHz	Ch 4183 836.6 MHz	Ch 4219 843.8 MHz	[W/kg]	
WCDMA	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.1	23.0	23.1	0.8	0.9	0.8	dB	
	Time-averaged power [dBm]		23.1	23.0	23.1	1.20	1.23	1.20	Lin	
	Back facing phantom	Scenario	0	0	1	-	-	-	-	-
		Estimated SAR	0.413	0.419	0.431	0.497	0.515	0.518		
		Full SAR	-	-	-	-	-	-		
	Display facing phantom	Scenario	0	0	0	-	-	-	0.02	31
		Estimated SAR	0.427	0.530	0.457	0.513	0.652	0.549		
		Full SAR	0.434	0.540	0.480	0.522	**0.664**	0.577		
	Top edge facing phantom	Scenario	Not tested for bottom antenna							
		Estimated SAR								
		Full SAR								
	Bottom edge facing phantom	Scenario	0	0	2	-	-	-	-	-
		Estimated SAR	0.297	0.368	0.333	0.357	0.453	0.400		
		Full SAR	-	-	-	-	-	-		
	Left edge facing phantom	Scenario	0	0	0	-	-	-	-	-
		Estimated SAR	0.341	0.373	0.425	0.410	0.459	0.511		
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Scenario	0	0	2	-	-	-	-	-
		Estimated SAR	0.147	0.153	0.140	0.177	0.188	0.168		
		Full SAR	-	-	-	-	-	-		

LTE850 (Band 5) Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR)	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	[W/kg]	
10MHz Ch BW 1 RB 0% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.3	23.2	23.0	0.6	0.7	0.9	dB	
	Time-averaged power [dBm]		23.3	23.2	23.0	1.15	1.17	1.23	Lin	
	Back facing phantom	Estimated SAR	0.419	-	-	0.481	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Display facing phantom	Estimated SAR	0.452	-	-	0.519	-	-	0.01	32
		Full SAR	0.457	-	-	**0.525**	-	-		
	Top edge facing phantom	Estimated SAR	Not tested for bottom antenna							
		Full SAR								
	Bottom edge facing phantom	Estimated SAR	0.332	-	-	0.381	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Left edge facing phantom	Estimated SAR	0.405	-	-	0.465	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Estimated SAR	0.154	-	-	0.177	-	-	-	-
		Full SAR	-	-	-	-	-	-		
10MHz Ch BW 1 RB 50% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.2	23.0	23.1	0.7	0.9	0.8	dB	
	Time-averaged power [dBm]		23.2	23.0	23.1	1.17	1.23	1.20	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 1% RB 100% offset	Tuning Target + Tolerance [dBm]		23.9			Scaling factor*				
	Conducted Power [dBm]		23.1	23.1	23.1	0.8	0.8	0.8	dB	
	Time-averaged power [dBm]		23.1	23.1	23.1	1.20	1.20	1.20	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

(LTE850 (Band 5) Body WR SAR Table continues)

(LTE850 (Band 5) Body WR SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR)	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	[W/kg]	
10MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.1	22.0	22.1	0.8	0.9	0.8	dB	
	Time-averaged power [dBm]		22.1	22.0	22.1	1.20	1.23	1.20	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.2	22.0	22.1	0.7	0.9	0.8	dB	
	Time-averaged power [dBm]		22.2	22.0	22.1	1.17	1.23	1.20	Lin	
	Back facing phantom	Estimated SAR	0.308	-	-	0.362	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Display facing phantom	Estimated SAR	0.418	-	-	0.491	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Top edge facing phantom	Estimated SAR	Not tested for bottom antenna							
		Full SAR								
	Bottom edge facing phantom	Estimated SAR	0.265	-	-	0.311	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Left edge facing phantom	Estimated SAR	0.334	-	-	0.392	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Estimated SAR	0.135	-	-	0.159	-	-	-	-
		Full SAR	-	-	-	-	-	-		

(LTE850 (Band 5) Body WR SAR Table continues)

(LTE850 (Band 5) Body WR SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 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]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.0	21.9	22.1	0.9	1.0	0.8	dB	
	Time-averaged power [dBm]		22.0	21.9	22.1	1.23	1.26	1.20	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
10MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]		22.9			Scaling factor*				
	Conducted Power [dBm]		22.3	22.0	22.2	0.6	0.9	0.7	dB	
	Time-averaged power [dBm]		22.3	22.0	22.2	1.15	1.23	1.17	Lin	
	Display facing phantom	Estimated SAR	0.379	-	-	0.435	-	-	-	-
		Full SAR	-	-	-	-	-	-		

LTE1700/2100 (Band 4) Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg] Ch 20050 1720.0 MHz	Measured 1g SAR [W/kg] Ch 20175 1732.5 MHz	Measured 1g SAR [W/kg] Ch 20300 1745.0 MHz	Reported* 1g SAR [W/kg] Ch 20050 1720.0 MHz	Reported* 1g SAR [W/kg] Ch 20175 1732.5 MHz	Reported* 1g SAR [W/kg] Ch 20300 1745.0 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
20MHz Ch BW 1RB 0 % offset	Tuning Target + Tolerance [dBm]		19.9			Scaling factor*				
	Conducted Power [dBm]		19.7	19.7	19.7	0.2	0.2	0.2	dB	
	Time-averaged power [dBm]		19.7	19.7	19.7	1.05	1.05	1.05	Lin	
	Back facing phantom	Estimated SAR	0.421	-	-	0.441	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Display facing phantom	Estimated SAR	0.577	-	-	0.604	-	-	0.02	-
		Full SAR	0.599	-	-	0.627	-	-		
	Top edge facing phantom	Estimated SAR	Not tested for bottom antenna							
		Full SAR								
	Bottom edge facing phantom	Estimated SAR	0.907	0.953	1.01	0.950	0.998	1.06	0.01	33
		Full SAR	-	-	1.02	-	-	**1.07**		
	Left edge facing phantom	Estimated SAR	0.055	-	-	0.057	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Estimated SAR	0.110	-	-	0.115	-	-	-	-
		Full SAR	-	-		-	-	-		
	Repeated SAR Bottom edge facing phantom	Estimated SAR	-	-	1.00	-	-	1.05	0.02	-
		Full SAR	-	-	1.02	-	-	1.07		
20MHz Ch BW 1% RB 50% offset	Tuning Target + Tolerance [dBm]		19.9			Scaling factor*				
	Conducted Power [dBm]		19.5	19.5	19.3	0.4	0.4	0.6	dB	
	Time-averaged power [dBm]		19.5	19.5	19.3	1.10	1.10	1.15	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 1% RB 100% offset	Tuning Target + Tolerance [dBm]		19.9			Scaling factor*				
	Conducted Power [dBm]		19.5	19.4	19.5	0.4	0.5	0.4	dB	
	Time-averaged power [dBm]		19.5	19.4	19.5	1.10	1.12	1.10	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							

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

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

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg] Ch 23780 709.0 MHz	Measured 1g SAR [W/kg] Ch 23790 710.0 MHz	Measured 1g SAR [W/kg] Ch 23800 711.0 MHz	Reported* 1g SAR [W/kg] Ch 23780 709.0 MHz	Reported* 1g SAR [W/kg] Ch 23790 710.0 MHz	Reported* 1g SAR [W/kg] Ch 23800 711.0 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
20MHz Ch BW 50% RB 0 % offset	Tuning Target + Tolerance [dBm]		18.9			Scaling factor*				
	Conducted Power [dBm]		18.6	18.8	18.7	0.3	0.1	0.2	dB	
	Time-averaged power [dBm]		18.6	18.8	18.7	1.07	1.02	1.05	Lin	
	Back facing phantom	Estimated SAR	-	0.364	-	-	0.372	-	-	-
		Full SAR	-	-	-	-	-	-		
	Display facing phantom	Estimated SAR	-	0.495	-	-	0.507	-	-	-
		Full SAR	-	-	-	-	-	-		
	Top edge facing phantom	Estimated SAR	Not tested for bottom antenna							
		Full SAR								
	Bottom edge facing phantom	Estimated SAR	0.717	0.805	0.788	0.768	0.824	0.825		-
		Full SAR	-	-	-	-	-	-		
	Left edge facing phantom	Estimated SAR	-	0.045	-	-	0.046	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Estimated SAR	-	0.095	-	-	0.097	-	-	-
		Full SAR	-	-	-	-	-	-		
20MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		18.9			Scaling factor*				
	Conducted Power [dBm]		18.6	18.5	18.3	0.3	0.4	0.6	dB	
	Time-averaged power [dBm]		18.6	18.5	18.3	1.07	1.10	1.15	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		18.9			Scaling factor*				
	Conducted Power [dBm]		18.6	18.6	18.4	0.3	0.3	0.5	dB	
	Time-averaged power [dBm]		18.6	18.6	18.4	1.07	1.07	1.12	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]		18.9			Scaling factor*				
	Conducted Power [dBm]		18.7	18.6	18.6	0.2	0.3	0.3	dB	
	Time-averaged power [dBm]		18.7	18.6	18.6	1.05	1.07	1.07	Lin	
	Bottom edge facing phantom	Estimated SAR	0.732	-	-	0.766	-	-	-	-
		Full SAR	-	-	-	-	-	-		

1900MHz Band Wireless Router SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 512 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		
1-slot GPRS	Tuning Target + Tolerance [dBm]		28.4			Scaling factor*				
	Conducted Slot Average Power [dBm]		28.0	28.1	28.0	0.4	0.3	0.4	dB	
	Time-averaged power [dBm]		19.0	19.1	19.0	1.10	1.07	1.10	Lin	
	Back facing phantom	Estimated SAR	-	0.330	-	-	0.354	-	-	-
		Full SAR	-	-	-	-	-	-		
	Display facing phantom	Estimated SAR	-	0.414	-	-	0.444	-	0.05	-
		Full SAR	-	0.460	-	-	0.493	-		
	Top edge facing phantom	Estimated SAR	Not tested for bottom antenna							
		Full SAR								
	Bottom edge facing phantom	Estimated SAR	0.835	0.906	0.904	0.916	0.971	0.991	0.01	-
		Full SAR	-	-	0.911	-	-	0.999		
	Left edge facing phantom	Estimated SAR	-	0.042	-	-	0.045	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Estimated SAR	-	0.090	-	-	0.096	-	-	-
		Full SAR	-	-	-	-	-	-		
	Repeated SAR Bottom edge facing phantom	Estimated SAR	-	-	0.988	-	-	1.08	0.01	34
		Full SAR	-	-	0.993	-	-	**1.09**		
2-slot GPRS	Tuning Target + Tolerance [dBm]		24.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		24.3	24.3	24.0	0.6	0.6	0.9	dB	
	Time-averaged power [dBm]		18.3	18.3	18.0	1.15	1.15	1.23	Lin	
			No testing required for this slot configuration.							
3-slot GPRS	Tuning Target + Tolerance [dBm]		23.1			Scaling factor*				
	Conducted Slot Average Power [dBm]		22.2	22.5	22.5	0.9	0.6	0.6	dB	
	Time-averaged power [dBm]		17.9	18.2	18.2	1.23	1.15	1.15	Lin	
			No testing required for this slot configuration.							
4-slot GPRS	Tuning Target + Tolerance [dBm]		21.9			Scaling factor*				
	Conducted Slot Average Power [dBm]		21.0	21.1	21.1	0.9	0.8	0.8	dB	
	Time-averaged power [dBm]		18.0	18.1	18.1	1.23	1.20	1.20	Lin	
			No testing required for this slot configuration.							

WCDMA1900 (Band 2) Wireless Router SAR results

Mode	Device orientation	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 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]		18.4			Scaling factor*				
	Conducted Power [dBm]		18.2	18.4	18.1	0.2	0.0	0.3	dB	
	Time-averaged power [dBm]		18.2	18.4	18.1	1.05	1.00	1.07	Lin	
	Back facing phantom	Estimated SAR	-	0.364	-	-	0.364	-	-	-
		Full SAR	-	-	-	-	-	-		
	Display facing phantom	Estimated SAR	-	0.399	-	-	0.399	-	0.05	-
		Full SAR	-	0.445	-	-	0.445	-		
	Top edge facing phantom	Estimated SAR	Not tested for bottom antenna							
		Full SAR								
	Bottom edge facing phantom	Estimated SAR	0.837	0.873	0.915	0.876	0.873	0.980	0.02	35
		Full SAR	-	0.886	0.930	-	0.886	**0.997**		
	Left edge facing phantom	Estimated SAR	-	0.047	-	-	0.047	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Estimated SAR	-	0.097	-	-	0.097	-	-	-
		Full SAR	-	-	-	-	-	-		
	Repeated SAR Bottom edge facing phantom	Estimated SAR	-	-	0.915	-	-	0.980	0.01	-
		Full SAR	-	-	0.928	-	-	0.994		

LTE1900 (Band 2) Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg] Ch 18700 1869.0 MHz	Measured 1g SAR [W/kg] Ch 18900 1880.0 MHz	Measured 1g SAR [W/kg] Ch 19100 1900.0 MHz	Reported* 1g SAR [W/kg] Ch 18700 1869.0 MHz	Reported* 1g SAR [W/kg] Ch 18900 1880.0 MHz	Reported* 1g SAR [W/kg] Ch 19100 1900.0 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
20MHz Ch BW 1RB 0 % offset	Tuning Target + Tolerance [dBm]		18.4			Scaling factor*				
	Conducted Power [dBm]		18.3	18.4	17.9	0.1	0.0	0.5	dB	
	Time-averaged power [dBm]		18.3	18.4	17.9	1.02	1.00	1.12	Lin	
	Back facing phantom	Estimated SAR	-	0.317	-	-	0.317	-	-	-
		Full SAR	-	-	-	-	-	-		
	Display facing phantom	Estimated SAR	-	0.409	-	-	0.409	-	-	-
		Full SAR	-	0.457	-	-	0.457	-		
	Top edge facing phantom	Estimated SAR	Not tested for bottom antenna							
		Full SAR								
	Bottom edge facing phantom	Estimated SAR	0.807	0.809	-	0.826	0.809	-	0.01	-
		Full SAR	-	-	-	-	-	-		
	Left edge facing phantom	Estimated SAR	-	0.088	-	-	0.088	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Estimated SAR	-	0.054	-	-	0.054	-	-	-
		Full SAR	-	-	-	-	-	-		
20MHz Ch BW 1% RB 50% offset	Tuning Target + Tolerance [dBm]		18.4			Scaling factor*				
	Conducted Power [dBm]		18.3	18.3	17.9	0.1	0.1	0.5	dB	
	Time-averaged power [dBm]		18.3	18.3	17.9	1.02	1.02	1.12	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 1RB 100 % offset	Tuning Target + Tolerance [dBm]		18.4			Scaling factor*				
	Conducted Power [dBm]		18.3	17.9	18.3	0.1	0.5	0.1	dB	
	Time-averaged power [dBm]		18.3	17.9	18.3	1.02	1.12	1.02	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	-	-	0.897	-	-	0.918	0.01	36
		Full SAR	-	-	0.910	-	-	**0.931**		
	Left edge facing phantom	Estimated SAR	-	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Estimated SAR	-	-	-	-	-	-	-	-
		Full SAR	-	-	-	-	-	-		
	Repeated SAR Bottom edge facing phantom	Estimated SAR	-	-	0.859	-	-	0.879	0.01	-
		Full SAR	-	-	0.870	-	-	0.890		

(LTE1900 (Band 2) WR SAR results Table continues)

(LTE1900 (Band 2) WR SAR results Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg] Ch 18700 1869.0 MHz	Measured 1g SAR [W/kg] Ch 18900 1880.0 MHz	Measured 1g SAR [W/kg] Ch 19100 1900.0 MHz	Reported* 1g SAR [W/kg] Ch 18700 1869.0 MHz	Reported* 1g SAR [W/kg] Ch 18900 1880.0 MHz	Reported* 1g SAR [W/kg] Ch 19100 1900.0 MHz	Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
20MHz Ch BW 50% RB 0 % offset	Tuning Target + Tolerance [dBm]		17.4			Scaling factor*				
	Conducted Power [dBm]		17.4	17.4	16.7	0.0	0.0	0.7	dB	
	Time-averaged power [dBm]		17.4	17.4	16.7	1.00	1.00	1.17	Lin	
	Back facing phantom	Estimated SAR	-	0.263	-	-	0.263	-	-	-
		Full SAR	-	-	-	-	-	-		
	Display facing phantom	Estimated SAR	-	0.346	-	-	0.346	-	-	-
		Full SAR	-	-	-	-	-	-		
	Top edge facing phantom	Estimated SAR	Not tested for bottom antenna							
		Full SAR								
	Bottom edge facing phantom	Estimated SAR	-	0.636	-	-	0.636	-	-	-
		Full SAR	-	-	-	-	-	-		
	Left edge facing phantom	Estimated SAR	-	0.033	-	-	0.033	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Estimated SAR	-	0.074	-	-	0.074	-	-	-
		Full SAR	-	-	-	-	-	-		
20MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		17.4			Scaling factor*				
	Conducted Power [dBm]		17.3	17.4	16.8	0.1	0.0	0.6	dB	
	Time-averaged power [dBm]		17.3	17.4	16.8	1.02	1.00	1.15	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		17.4			Scaling factor*				
	Conducted Power [dBm]		17.4	17.2	17.0	0.0	0.2	0.4	dB	
	Time-averaged power [dBm]		17.4	17.2	17.0	1.00	1.05	1.10	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]		17.4			Scaling factor*				
	Conducted Power [dBm]		17.4	17.3	16.9	0.0	0.1	0.5	dB	
	Time-averaged power [dBm]		17.4	17.3	16.9	1.00	1.02	1.12	Lin	
	Bottom edge facing phantom	Estimated SAR	0.674	-	-	0.674	-	-	-	-
		Full SAR	-	-	-	-	-	-		

LTE2500 (Band 7) Wireless Router SAR result

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 20867 2511.7 MHz	Ch 21100 2535 MHz	Ch 21333 2558.3 MHz	Ch 20867 2511.7 MHz	Ch 21100 2535 MHz	Ch 21333 2558.3 MHz		
20MHz Ch BW 1RB 0% offset	Tuning Target + Tolerance [dBm]		18.9			Scaling factor*				
	Conducted Power [dBm]		18.5	18.4	18.5	0.4	0.5	0.4	dB	
	Time-averaged power [dBm]		18.5	18.4	18.5	1.10	1.12	1.10	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 1RB 50% offset	Tuning Target + Tolerance [dBm]		18.9			Scaling factor*				
	Conducted Power [dBm]		18.5	18.3	18.5	0.4	0.6	0.4	dB	
	Time-averaged power [dBm]		18.5	18.3	18.5	1.10	1.15	1.10	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 1RB 100% offset	Tuning Target + Tolerance [dBm]		18.9			Scaling factor*				
	Conducted Power [dBm]		18.6	18.4	18.6	0.3	0.5	0.3	dB	
	Time-averaged power [dBm]		18.6	18.4	18.6	1.07	1.12	1.07	Lin	
	Back facing phantom	Scenario	1	-	-	-	-	-	-	37
		Estimated SAR	0.251	-	-	0.269	-	-		
		Full SAR	-	-	-	-	-	-		
	Display facing phantom	Scenario	2	-	-	-	-	-	0.01	38
		Estimated SAR	0.324	-	-	0.347	-	-		
		Full SAR	0.330	-	-	0.354	-	-		
	Top edge facing phantom	Scenario	Not tested for bottom antenna							
		Estimated SAR								
		Full SAR								
	Bottom edge facing phantom	Scenario	0	0	0	-	-	-	0.00	39
		Estimated SAR	0.987	0.796	0.770	1.06	0.893	0.825		
		Full SAR	0.985	-	-	1.06	-	-		
	Left edge facing phantom	Scenario	1	-	-	-	-	-	-	40
		Estimated SAR	0.057	-	-	0.061	-	-		
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Scenario	-	2	-	-	-	-	-	41
		Estimated SAR	-	0.122	-	-	0.137	-		
		Full SAR	-		-	-	-	-		
	Repeated SAR Bottom edge facing phantom	Scenario	0	-	-	-	-	-	0.01	-
		Estimated SAR	0.990	-	-	1.06	-	-		
		Full SAR	0.978	-	-	1.05	-	-		

(LTE2500 (Band 7) Body WR SAR Table continues)

(LTE2500 (Band 7) Body WR SAR Table continues)

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 20867 2511.7 MHz	Ch 21100 2535 MHz	Ch 21333 2558.3 MHz	Ch 20867 2511.7 MHz	Ch 21100 2535 MHz	Ch 21333 2558.3 MHz		
20MHz Ch BW 50% RB 0% offset	Tuning Target + Tolerance [dBm]		17.9			Scaling factor*				
	Conducted Power [dBm]		17.6	17.4	17.6	0.3	0.5	0.3	dB	
	Time-averaged power [dBm]		17.6	17.4	17.6	1.07	1.12	1.07	Lin	
	Back facing phantom	Scenario	1	-	-	-	-	-	-	-
		Estimated SAR	0.206	-	-	0.221	-	-		
		Full SAR	-	-	-	-	-	-		
	Display facing phantom	Scenario	2	-	-	-	-	-	-	-
		Estimated SAR	0.305	-	-	0.327	-	-		
		Full SAR	-	-	-	-	-	-		
	Top edge facing phantom	Scenario	Not tested for bottom antenna							
		Estimated SAR								
		Full SAR								
	Bottom edge facing phantom	Scenario	0	0	0	-	-	-	-	-
		Estimated SAR	0.815	0.650	0.667	0.873	0.729	0.715		
		Full SAR	-	-	-	-	-	-		
	Left edge facing phantom	Scenario	1	-	-	-	-	-	-	-
		Estimated SAR	0.052	-	-	0.055	-	-		
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Scenario	-	2		-	-	-	-	-
		Estimated SAR	-	0.092	-	-	0.103	-		
		Full SAR	-	-	-	-	-	-		
20MHz Ch BW 50% RB 50% offset	Tuning Target + Tolerance [dBm]		17.9			Scaling factor*				
	Conducted Power [dBm]		17.5	17.3	17.6	0.4	0.6	0.3	dB	
	Time-averaged power [dBm]		17.5	17.3	17.6	1.10	1.15	1.07	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 50% RB 100% offset	Tuning Target + Tolerance [dBm]		17.9			Scaling factor*				
	Conducted Power [dBm]		17.4	17.4	17.5	0.5	0.5	0.4	dB	
	Time-averaged power [dBm]		17.4	17.4	17.5	1.12	1.12	1.10	Lin	
			No testing required for this CBW/RB/RB offset configuration according to KDB 941225 D05 SAR for LTE Devices v02r02							
20MHz Ch BW 100% RB	Tuning Target + Tolerance [dBm]		17.9			Scaling factor*				
	Conducted Power [dBm]		17.6	17.4	17.6	0.3	0.5	0.3	dB	
	Time-averaged power [dBm]		17.6	17.4	17.6	1.07	1.12	1.07	Lin	
	Bottom edge facing phantom	Scenario	0	-	-	-	-	-	-	-
		Estimated SAR	0.785	-	-	0.841	-	-		
		Full SAR	-	-	-	-	-	-		

2450MHz Wireless Router SAR results

Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz	Ch 1 2412.0 MHz	Ch 6 2437.0 MHz	Ch 11 2462.0 MHz		
WLAN b-mode BPSK 1 Mbps	Tuning Target + Tolerance [dBm]		19.5			Scaling factor*				
	Conducted Power [dBm]		17.7	17.8	17.7	1.8	1.7	1.8	dB	
	Time-averaged power [dBm]		17.7	17.8	17.7	1.51	1.48	1.51	Lin	
	Back facing phantom	Estimated SAR	0.282	-	-	0.427	-	-	0.01	-
		Full SAR	0.291	-	-	0.440	-	-		
	Display facing phantom	Estimated SAR	-	0.126	-	-	0.186	-	-	-
		Full SAR	-	-	-	-	-	-		
	Top edge facing phantom	Estimated SAR	-	0.082	-	-	0.121	-	-	-
		Full SAR	-	-	-	-	-	-		
	Bottom edge facing phantom	Estimated SAR	-	0.003	-	-	0.005	-	-	-
		Full SAR	-	-	-	-	-	-		
	Left edge facing phantom	Estimated SAR	-	0.052	-	-	0.077	-	-	-
		Full SAR	-	-	-	-	-	-		
	Right edge facing phantom	Estimated SAR	-	0.041	-	-	0.060	-	-	-
		Full SAR	-	-	-	-	-	-		
Mode	Test configuration	SAR measurement	Measured 1g SAR [W/kg]			Reported* 1g SAR [W/kg]			Max Deviation (Estimated SAR - Full SAR) [W/kg]	Plot #
			Ch 2 2417 MHz	Ch 6 2437.0 MHz	Ch 10 2457.0 MHz	Ch 2 2417 MHz	Ch 6 2437.0 MHz	Ch 10 2457.0 MHz		
WLAN b-mode QPSK 5.5 Mbps	Tuning Target + Tolerance [dBm]		19.5			Scaling factor*				
	Conducted Power [dBm]		18.0	17.8	17.9	1.5	1.7	1.6	dB	
	Time-averaged power [dBm]		18.0	17.8	17.9	1.41	1.48	1.45	Lin	
	Back facing phantom	Estimated SAR	0.306	-	-	0.432	-	-	0.01	42
		Full SAR	0.317	-	-	**0.448**	-	-		

Simultaneous transmissions: Combined SAR results – Individual band Max results

Test configuration	Max. Reported* 1g SAR results									
	WLAN 2450	LTE 700	2-slot GPRS 850	WCDMA 850	LTE 850	LTE 1700/ 2100	1-slot GPRS 1900	WCDMA 1900	LTE 1900	LTE 2500
Back facing phantom	0.440	0.507	0.685	0.518	0.481	0.441	0.354	0.364	0.317	0.269
Display facing phantom	0.186	0.599	0.823	0.664	0.525	0.627	0.493	0.445	0.457	0.354
Top edge facing phantom	0.121	-	-	-	-	-	-	-	-	-
Bottom edge facing phantom	0.005	0.159	0.525	0.453	0.381	1.07	1.09	0.997	0.931	1.06
Left edge facing phantom	0.077	0.259	0.620	0.459	0.465	0.057	0.045	0.047	0.088	0.061
Right edge facing phantom	0.060	0.283	0.266	0.188	0.177	0.115	0.096	0.097	0.074	0.137

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

Test configuration	Max. Reported* 1g SAR results								
	LTE700 + WLAN 2450	2-slot GPRS850 + WLAN 2450	WCDMA 850 + WLAN 2450	LTE850 + WLAN 2450	LTE1700/ 2100 + WLAN 2450	1-slot GPRS1900 + WLAN 2450	WCDMA 1900 + WLAN 2450	LTE1900 + WLAN 2450	LTE2500 +WLAN 2450
Back facing phantom	**0.947**	**1.13**	**0.958**	**0.921**	0.881	0.794	0.804	0.757	0.709
Display facing phantom	0.785	1.01	0.850	0.711	0.813	0.679	0.631	0.643	0.540
Top edge facing phantom	-	-	-	-	-	-	-	-	-
Bottom edge facing phantom	0.164	0.530	0.458	0.386	**1.08**	**1.10**	**1.00**	**0.936**	**1.07**
Left edge facing phantom	0.336	0.697	0.536	0.542	0.134	0.122	0.124	0.165	0.138
Right edge facing phantom	0.343	0.326	0.248	0.237	0.175	0.156	0.157	0.134	0.197

Note: Simultaneous Transmission Procedures as described in KDB648474 are not required for this product.

7.3.1 Combined Body SAR data

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

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

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

Test configuration	Max. Reported* 1g SAR results								
	LTE700 + WLAN 2450	2-slot GPRS850 + WLAN 2450	WCDMA 850 + WLAN 2450	LTE850 + WLAN 2450	LTE1700/ 2100 + WLAN 2450	1-slot GPRS1900 + WLAN 2450	WCDMA 1900 + WLAN 2450	LTE1900 + WLAN 2450	LTE2500 +WLAN 2450
Back facing phantom	0.509	0.690	0.559	0.527	-	-	-	-	-
Display facing phantom	-	-	-	-	-	-	-	-	-
Top edge facing phantom	-	-	-	-	-	-	-	-	-
Bottom edge facing phantom	-	-	-	-	1.06	1.09	0.980	0.916	1.06
Left edge facing phantom	-	-	-	-	-	-	-	-	-
Right edge facing phantom	-	-	-	-	-	-	-	-	-

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

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

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.

Plots of the Measurement scans are given in Appendix B.