

**TEST REPORT  
FROM  
RFI GLOBAL SERVICES LTD**

**Test of: CDMA SO-I12**

**To: OET Bulletin 65 Supplement C: (2001-01)  
and RSS-102 Issue 4 March 2010**

**Test Report Serial No:  
RFI-SAR-RP85119JD02A V1.0**

**This Test Report Is Issued Under The Authority  
Of Chris Guy, Head of Global Approvals:**



(APPROVED SIGNATORY)

**Checked By: Richelieu Quoi**



(APPROVED SIGNATORY)

**Issue Date:**

**03 January 2012**

**Test Dates:**

**30 November to 20 December**

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## 1. Customer Information

<b>Company Name:</b>	Sony Ericsson Mobile Communications AB
<b>Address:</b>	Nya Vattentorget 22188 Lund Sweden

## 2. Equipment Under Test (EUT)

### 2.1. Identification of Equipment Under Test (EUT)

<b>Description:</b>	Mobile Handset
<b>Brand Name:</b>	Sony Ericsson
<b>Model Name or Number:</b>	SOI12
<b>Serial Number:</b>	CB511VD0D5
<b>IMEI Number:</b>	004402144562794
<b>Hardware Version Number:</b>	AP1
<b>Software Version Number:</b>	6.0.D.0.121
<b>Hardware Revision of GSM Module:</b>	Not Applicable
<b>Software Revision of GSM Module:</b>	Not Applicable
<b>FCC ID Number:</b>	PY7A5880016
<b>IC Certification Number:</b>	4170B-A5880016
<b>Country of Manufacture:</b>	China
<b>Date of Receipt:</b>	24 November 2011

#### Note(s):

This sample was used to perform 2G and 3G WWAN SAR evaluation only. The sample supports simultaneous transmission with the WWAN and WLAN antenna > 5 cm apart. Wireless Personal Hotspot is also supported and was evaluated as per KDB 941225 D06 "Hot Spot SAR v01"

<b>Description:</b>	Mobile Handset
<b>Brand Name:</b>	Sony Ericsson
<b>Model Name or Number:</b>	SOI12
<b>Serial Number:</b>	CB511VCZHE
<b>IMEI Number:</b>	004402144568403
<b>Hardware Version Number:</b>	AP1
<b>Software Version Number:</b>	ETS_0_0_49_0_d
<b>Hardware Revision of GSM Module:</b>	Not Applicable
<b>Software Revision of GSM Module:</b>	Not Applicable
<b>FCC ID Number:</b>	PY7A5880016
<b>IC Certification Number:</b>	4170B-A5880016
<b>Country of Manufacture:</b>	China
<b>Date of Receipt:</b>	24 November 2011

#### Note(s):

This sample was used to perform WLAN SAR evaluation only. The sample supports simultaneous transmission with the WWAN and WLAN antenna > 5 cm apart. Wireless Personal Hotspot is also supported and was evaluated as per KDB 941225 D06 "Hot Spot SAR v01"

**Identification of Equipment Under Test (EUT) (Continued)**

<b>Description:</b>	Mobile Handset
<b>Brand Name:</b>	Sony Ericsson
<b>Model Name or Number:</b>	SOI12
<b>Serial Number:</b>	CB511VCZYG
<b>IMEI Number:</b>	004402144572975
<b>Hardware Version Number:</b>	AP1
<b>Software Version Number:</b>	ETS_0_0_49_0_d
<b>Hardware Revision of GSM Module:</b>	Not Applicable
<b>Software Revision of GSM Module:</b>	Not Applicable
<b>FCC ID Number:</b>	PY7A5880016
<b>IC Certification Number:</b>	4170B-A5880016
<b>Country of Manufacture:</b>	China
<b>Date of Receipt:</b>	24 November 2011

**Note(s):**

This sample was used to perform 2G and 3G WWAN conducted power measurements evaluation only. The sample supports simultaneous transmission with the WWAN and WLAN antenna > 5 cm apart. Wireless Personal Hotspot is also supported and was evaluated as per KDB 941225 D06 "Hot Spot SAR v01"

<b>Description:</b>	Mobile Handset
<b>Brand Name:</b>	Sony Ericsson
<b>Model Name or Number:</b>	SOI12
<b>Serial Number:</b>	CB511VD0AS
<b>IMEI Number:</b>	004402144562620
<b>Hardware Version Number:</b>	AP1
<b>Software Version Number:</b>	ETS_0_0_49_0_d
<b>Hardware Revision of GSM Module:</b>	Not Applicable
<b>Software Revision of GSM Module:</b>	Not Applicable
<b>FCC ID Number:</b>	PY7A5880016
<b>IC Certification Number:</b>	4170B-A5880016
<b>Country of Manufacture:</b>	China
<b>Date of Receipt:</b>	24 November 2011

**Note(s):**

This sample was used to perform WLAN conducted power measurements evaluation only. The sample supports simultaneous transmission with the WWAN and WLAN antenna > 5 cm apart. Wireless Personal Hotspot is also supported and was evaluated as per KDB 941225 D06 "Hot Spot SAR v01"

## 2.2. Description of EUT

The Equipment Under Test is a Mobile Phone with 2G Quad Band, 3G Dual Band, CDMA2000 Dual Band JP BC0 / JP BC6 and Wi-Fi bands. The EUT has extendable and retractable TV antenna with GPRS / EDGE Class 12, CDMA2000, WLAN 802.11b/g/n and *Bluetooth* capabilities.

## 2.3. Modifications Incorporated in the EUT

EUT (IMEI: 004402144562794) was setup for WWAN SAR test only.

EUT (IMEI: 004402144568403) was setup for WLAN SAR test only.

EUT (IMEI: 004402144572975) was used for WWAN conducted power measurements only.

EUT (IMEI: 004402144562620) was used for WLAN conducted power measurements only.

## 2.4. Accessories

The following accessories were supplied with the EUT during testing:

<b>Description:</b>	Internal Battery
<b>Brand Name:</b>	Sony Ericsson
<b>Model Name or Number:</b>	None stated
<b>Serial Number:</b>	None Stated
<b>Cable Length and Type:</b>	Not Applicable
<b>Country of Manufacture:</b>	China
<b>Connected to Port</b>	3 pin Molex

<b>Description:</b>	PHF
<b>Brand Name:</b>	Sony Ericsson
<b>Model Name or Number:</b>	MH650c
<b>Serial Number:</b>	11300C903892E0
<b>Cable Length and Type:</b>	~1 m
<b>Country of Manufacture:</b>	China
<b>Connected to Port</b>	3.5mm Audio jack and custom type

<b>Description:</b>	Memory Card
<b>Brand Name:</b>	Generic
<b>Model Name or Number:</b>	None Stated
<b>Serial Number:</b>	None Stated
<b>Cable Length and Type:</b>	Not Applicable
<b>Country of Manufacture:</b>	Taiwan
<b>Connected to Port</b>	Dedicated Micro SD Slot

## 2.5. Support Equipment

The following support equipment was used to exercise the EUT during testing:

<b>Description:</b>	Wireless Communication Test Set
<b>Brand Name:</b>	Agilent
<b>Model Name or Number:</b>	8960 Series 10
<b>Serial Number:</b>	GB46311280
<b>Cable Length and Type:</b>	~4.0m Utiflex Cable
<b>Connected to Port:</b>	RF (Input / Output) Air Link

<b>Description:</b>	Wireless Communication Test Set
<b>Brand Name:</b>	Agilent
<b>Model Name or Number:</b>	8960 Series 10
<b>Serial Number:</b>	MY50264128
<b>Cable Length and Type:</b>	~4.0m Utiflex Cable
<b>Connected to Port:</b>	RF (Input / Output) Air Link



## 2.6. Additional Information Related to Testing

<b>Equipment Category</b>	GSM/GPRS/EDGE850, EGSM/GPRS900, DCS/GPRS/EDGE1800, PCS1900/GPRS1900, UMTS FDD I, FDD V, CDMA2000 JP BC0/ JP BC6, WiFi802.11b/g/n, <i>Bluetooth</i> .	
<b>Type of Unit</b>	Portable Transceiver	
<b>Intended Operating Environment:</b>	Within <i>Bluetooth</i> , GSM, UMTS, CDMA and Wi-Fi Coverage	
<b>Transmitter Maximum Output Power Characteristics:</b>	GSM850	Communication Test Set was configured to allow the EUT to transmit at a maximum power using Power Control Level (PCL) setting of 5.
	PCS1900	Communication Test Set was configured to allow the EUT to transmit at a maximum power using Power Control Level (PCL) setting of 0.
	UMTS Band V	Communication Test Set configured to allow to EUT to transmit at a maximum power as per KDB 941225 D01.
	WiFi802.11b/g/n	Communication Test S/W was configured to allow the EUT to transmit at a maximum power of up to 14.7 dBm.
	<i>Bluetooth</i>	< 2 dBm
<b>Transmitter Frequency Range:</b>	GSM850	824 to 849 MHz
	PCS 1900	1850 to 1910 MHz
	UMTS Band V	826 to 847 MHz
	WiFi802.11b/g/n	2412 to 2462 MHz

**Additional Information Related to Testing (Continued)**

Transmitter Frequency Allocation of EUT When Under Test:	Channel Number	Channel Description	Frequency (MHz)
	128	Low	824.2
	190	Middle	836.6
	251	High	848.8
	512	Low	1850.2
	661	Middle	1880
	810	High	1909.8
	4132	Low	826.4
	4183	Middle	836.6
	4233	High	846.6
	1	Low	2412
	6	Middle	2437
	11	High	2462
<b>Modulation(s):</b>	GMSK (GSM/ GPRS/EDGE): 217 HZ DBPSK, CCK (CDMA): 0 Hz QPSK (UMTS FDD/ HSDPA/ HSPA): 0Hz CCK (Wi-Fi): 0Hz,		
<b>Modulation Scheme (Crest Factor):</b>	GMSK (GSM): 8.3 GMSK (GPRS / EDGE): 2 DBPSK, CCK (CDMA): 1 QPSK (UMTS FDD/ HSPA): 1 CCK (Wi-Fi): 1		
<b>Antenna Type:</b>	Main: Internal integral, UHF: Extendable and retractable		
<b>Antenna Length:</b>	Main: Unknown UHF: ~87mm		
<b>Number of Antenna Positions:</b>	Main: 2 fixed (WWAN, WLAN / WPAN) UHF: Extendable and retractable TV antenna		
<b>Power Supply Requirement:</b>	3.7V		
<b>Battery Type(s):</b>	Li-ion		

### 3. Test Specification, Methods and Procedures

#### 3.1. Test Specification

<b>Reference:</b>	OET Bulletin 65 Supplement C: (2001-01)
<b>Title:</b>	Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
<b>Purpose of Test:</b>	To determine whether the equipment met the basic restrictions as defined in OET Bulletin 65 Supplement C: (2001-01) using the SAR averaging method as described in the test specification above.
<b>Reference:</b>	RSS-102 Issue 4 March 2010
<b>Title:</b>	Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)
<b>Purpose of Test:</b>	To determine whether the equipment met the basic restrictions as defined in RSS-102 Issue 4 March 2010 using the SAR averaging method as described in the test specification above.

### 3.2. Methods and Procedures Reference Documentation

The methods and procedures used were as detailed in:

Federal Communications Commission, "Evaluating compliance with FCC Guidelines for human exposure to radio frequency electromagnetic fields", OET Bulletin 65 Supplement C, FCC, Washington, D.C, 20554, 2001.

Thomas Schmid, Oliver Egger and Neils Kuster, "Automated E-field scanning system for dosimetric assessments", IEEE Transaction on microwave theory and techniques, Vol. 44, pp. 105-113, January 1996.

Neils Kuster, Ralph Kastle and Thomas Schmid, "Dosimetric evaluation of mobile communications equipment with know precision", IEICE Transactions of communications, Vol. E80-B, No.5, pp. 645-652, May 1997.

EN 62209-1: 2006

Title: Basic standard for the measurement of specific absorption rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz).

EN 62209-2:2010

Human exposure to radio frequency fields from handheld and body mounted wireless communication devices — Human models, instrumentation, and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz) (IEC 62209-2:2010)

KDB 248227 D01 "SAR measurements for 802.11a/b/g v01r02"

KDB 447498 D01 "Mobile Portable RF Exposure v04"

KDB 648474 D01 SAR Handsets Multi Xmitter and Ant v01r05"

KDB 941225 D01 "SAR test for 3G v02"

KDB 941225 D03 " SAR Test Reduction GSM/GPRS/EDGE v01"

KDB 941225 D06 "Hot Spot SAR v01"

The version of DASY system used by RFI for SAR measurements is v4.7.

The SAR probe for the DASY v4.4 and higher has a validity of +/- 100 MHz from the spot frequency at which the system is calibrated.

The system validation performed at 900 MHz is valid for 800 MHz to 1000 MHz which covers the 850 MHz band. The probe calibration for SN: 1528 was performed at the spot frequencies of 750 MHz and 900 MHz. The SAR software selects the conversion factor based on the following attributes; 1. The operating frequency 2. The measured permittivity imported to the software and 3. The measured conductivity imported to the software.

The 900 MHz validation is applicable for the 850 band as this is within 50 MHz of the of the 850 MHz spot frequency.

### 3.3. Definition of Measurement Equipment

The measurement equipment used complied with the requirements of the standards referenced in the methods & procedures section above. Appendix 1 contains a list of the test equipment used.

#### 4. Deviations from the Test Specification

Test was performed as per KDB 648474 D01 "SAR Handsets Multi Xmitter and Ant v01r05", KDB 941225 D01/D03 " SAR Test Reduction GSM/GPRS/EDGE v01", KDB 941225 D01 "SAR test for 3G v02", KDB 248227 D01 "SAR measurements for 802.11a/b/g v01r02" and KDB 941225 D06 "Hot Spot SAR v01" according to the handset procedures in IEEE Std 1528-2003 and OET Bulletin 65 Supplement C 01-01. The assessment for Personal Wireless Hotspot was also evaluated as per the FCC KDB 941225 D06 "Hot Spot SAR v01".

For technologies bands supporting personal hotspot mode, SAR was evaluated on all the sides and surfaces within 25mm of the transmitting antenna (WWAN or WLAN) as per FCC KDB 941225 D06 "Hot Spot SAR v01".

SAR test was performed in the middle channels for WWAN and WLAN. The worst case configuration for both Head and Body test was evaluated in the low and high channels.

Simultaneous transmission was not evaluated as the sum of the individual SAR for WWAN and WLAN was < 1.6 W/kg and the antenna-to-antenna distance was greater than 5 cm.

GPRS class 12 uplink setup of 1-uplink, 2-uplink, 3-uplink and 4-uplink were all evaluated to find the setting with the highest power reference measurements. 4-uplink was found to give the highest power reference measurement on the DASY4 system. All settings were performed with the device in a fixed position to ensure there were no positioning errors. The following values were measured relative to the uplink settings:

GPRS Mode	GPRS850 Band Power (v/m)	GPRS1900 Power (v/m)
1 uplink	20.21	10.11
2 uplink	22.68	11.55
3 uplink	22.66	12.75
<b>4 uplink</b>	<b>23.07</b>	<b>13.41</b>

## 5. Operation and Configuration of the EUT during Testing

### 5.1. Operating Modes

The EUT was tested in the following operating mode(s) unless otherwise stated:

- GSM850 – Voice allocated mode with Communication Test Set configured to allow the EUT to transmit at a maximum power using Power Control Level (PCL) setting of 5.
- GPRS/EDGE850 – Data allocated mode with Communication Test Set configured to allow the EUT to transmit at a maximum power using Power Control Level (PCL) setting of 5. Tested using 4 Uplink time slots with CS1 and MCS4 for GPRS and EDGE respectively.
- PCS1900 – Voice allocated mode with Communication Test Set configured to allow the EUT to transmit at a maximum power using Power Control Level (PCL) setting of 0.
- GPRS/EDGE1900 – Data allocated mode with Communication Test Set configured to allow the EUT to transmit at a maximum power using Power Control Level (PCL) setting of 0. Tested using 4 Uplink time slots with CS1 and MCS4 for GPRS and EDGE respectively.

GSM850 / EGSM900 – Power Table Settings used for Test Set	
Power Control Level PCL	Nominal Power (dBm)
0 ... 2	39
3	37
4	35
<b>5</b>	<b>33</b>
6	31
7	29
8	27
9	25
10	23
11	21
12	19
13	17
14	15
15	13
16	11
17	9
18	7
19 ... 31	5

DCS1800 / PCS1900 – Power Table Settings used for Test Set	
Power Control Level PCL	Nominal Power (dBm)
22 ... 29	Reserved
30	33
31	32
<b>0</b>	<b>30</b>
1	28
2	26
3	24
4	22
5	20
6	18
7	16
8	14
9	12
10	10
11	8
12	6
13	4
14	2
15	0
16 ... 21	Reserved

- UMTS FDD V - RMC 12.2kbps + HSUPA With Test loop mode 1 and TPC bits configured to all "1's", Sub-test 5, AG Index set to 21 and E-TFCI set to 81 with Communication Test Set configured to allow to EUT to transmit at a maximum power as per KDB 941225 D01.
- UMTS FDD V - RMC 12.2kbps + HSDPA With Test loop mode 1 and TPC bits configured to all "1's", Sub-test 1 with Communication Test Set configured to allow to EUT to transmit at a maximum power as per KDB 941225 D01.
- UMTS FDD V Call allocated mode with Communication Test Set configured to allow the EUT to transmit at a maximum as per KDB 941225 D01.
- WiFi802.11b/g/n Data allocated mode using 'HyperTerminal' software to excise mode 'b', 'g' and 'n', with maximum power of up to 14.6dBm for 'b' mode and 13.5dBm for 'g' and 11.1dBm for 'n' modes.

## 5.2. Configuration and Peripherals

The EUT was tested in the following configuration(s) unless otherwise stated:

- Standalone fully charged battery powered.
- Head and Body-worn configurations were evaluated.
- The applied FCC body-worn Personal Hotspot orientations where the corresponding edge(s) closest to the user with the most conservative exposure condition were all evaluated at 10 mm from the body. For configuration that did not overlap with Personal hotspot, SAR evaluation was performed at 15mm separation.
- GPRS/EDGE class 12 uplinks were setup from 1 to 4 uplinks and evaluated to find the setting with the highest power reference measurement; 4-uplink was found to give the highest power reference. All settings were performed with the device in a fixed position and were not removed until the evaluations were all performed to ensure positioning errors were minimised.

### Head Configuration

- a) The EUT was placed in a normal operating position with the centre of the ear-piece aligned with the ear canal on the phantom.
- b) With the ear-piece touching the phantom the centre line of the EUT was aligned with an imaginary plane (X and Y axis) consisting of three lines connecting both ears and the mouth.
- c) For the cheek position the EUT was gradually moved towards the cheek until any point of the mouth-piece or keypad touched the cheek.
- d) For the tilted position the EUT was positioned as for the cheek position, and then the horizontal angle was increased by fifteen degrees (the phone keypad was moved away from the cheek by fifteen degrees).
- e) SAR measurements were evaluated at maximum power and the unit was operated for an appropriate period prior to the evaluation in order to minimise the drift.
- f) The device was keyed to operate continuously in the transmit mode for the duration of the test.
- g) The location of the maximum spatial SAR distribution (hot spot) was determined relative to the EUT and its antenna.
- h) The EUT was transmitting at full power throughout the duration of the test powered by a fully charged battery.

### Body Configuration

- a) The EUT was placed in a normal operating position where the centre of EUT was aligned with the centre reference point on the flat section of the 'SAM' phantom.
- b) With the EUT touching the phantom at an imaginary centre line. The EUT was aligned with a marked plane (X and Y axis) consisting of two lines.
- c) For the touch-safe position the EUT was gradually moved towards the flat section of the 'SAM' phantom until any point of the EUT touched the phantom.
- d) For position(s) greater than 0mm separation the EUT was positioned as per the touch-safe position, and then the vertical height was decreased/adjusted as required.
- e) SAR measurements were evaluated at maximum power and the unit was operated for an appropriate period prior to the evaluation in order to minimise the drift.
- f) The device was keyed to operate continuously in the transmit mode for the duration of the test.
- g) The location of the maximum spatial SAR distribution (hot spot) was determined relative to the EUT and its antenna.
- h) The EUT was transmitting at full power throughout the duration of the test powered by a fully charged battery.

**6. Summary of Test Results**

Test Name	Specification Reference	Result
Specific Absorption Rate-GSM 850 Head Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-GPRS 850 Body Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-EDGE 850 Body Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-GSM 850 Body Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-PCS 1900 Head Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-GPRS 1900 Body Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-EDGE 1900 Body Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-PCS 1900 Body Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-UMTS-FDD V Head Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-UMTS-FDD V Body Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-UMTS-FDD V + HSPA Body Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-Wi-Fi 2450 Head Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied
Specific Absorption Rate-Wi-Fi 2450 Body Configuration 1g	OET Bulletin 65 Supplement C: (2001-01)	Complied

**SAR Individual Transmitter Evaluation**

device, mode	Frequency, (MHz)	Phantom Configuration	P <sub>x</sub> (mW)	P <sub>REF</sub> (mW)	single SAR, W/kg	Remarks
WWAN, GSM	850	Front of the EUT	2239	60/f	1.260	Routine Evaluation
WWAN, GSM	1900	Rear of the EUT	1122	60/f	1.180	Routine Evaluation
WWAN, UMTS	850	Touch Right	282	60/f	1.170	Routine Evaluation
WLAN, WiFi802.11b/g	2450	Touch Right	29	12	0.366	Routine Evaluation
BT, Bluetooth	2400	-	~ 2	12	: =0	{P <sub>BT</sub> ≤ 2P <sub>REF</sub> } {d <sub>WWAN, BT</sub> > 5cm}

**Note:**  
 Simultaneous transmission was not evaluated as the sum of the individual SAR for WWAN and WLAN was < 1.6 W/kg and the antenna-to-antenna distance was greater than 5 cm.

**SAR Simultaneous Transmitter Evaluation**

(x,y)	D(x,y) cm	L(x,y) cm	SPLSR <sub>xy</sub>	Sim-Tx SAR	Remarks
(WWAN <sub>GSM</sub> , BT)	>5	N/A	N/A	N/A	{no stand-alone SAR for BT}
(WWAN <sub>GSM</sub> , Wi-Fi)	>5	N/A	N/A	N/A	{D(x,y) > 5 } & {Σ <sub>WWAN, WLAN</sub> < 1.6 W/kg}



## 6.1. Location of Tests

All the measurements described in this report were performed at the premises of  
RFI Global Services Ltd, Pavilion A, Ashwood Park, Ashwood Way, Basingstoke, Hampshire, RG23  
8BG United Kingdom

## 7. Measurements, Examinations and Derived Results

### 7.1. General Comments

This section contains test results only.

Measurement uncertainties are evaluated in accordance with current best practice. Our reported expanded uncertainties are based on standard uncertainties, which are multiplied by an appropriate coverage factor to provide a statistical confidence level of approximately 95%. Please refer to section 8 for details of measurement uncertainties.

## 7.2. Test Results

### 7.2.1. Specific Absorption Rate - GSM 850 Head Configuration 1g

#### Test Summary:

Tissue Volume:	1g
Maximum Level (W/kg):	1.080

#### Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
Temperature Variation in Liquid (°C):	22.6 to 22.6

#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Touch	Left	190	0.925	1.600	0.675	-	Complied
Touch	Left	128	1.000	1.600	0.600	-	Complied
Touch	Left	251	0.879	1.600	0.721	-	Complied
Tilt	Left	190	0.573	1.600	1.027	-	Complied
Touch	Right	190	0.990	1.600	0.610	-	Complied
Touch	Right	128	1.080	1.600	0.520	-	Complied
Touch	Right	251	0.935	1.600	0.665	-	Complied
Tilt	Right	190	0.598	1.600	1.002	-	Complied

### 7.2.2. Specific Absorption Rate - GPRS 850 Body Configuration 1g Test Summary:

Tissue Volume:	1g
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Maximum Level (W/kg):	1.180
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#### Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
------------------------------------	--------------

Temperature Variation in Liquid (°C):	23.0 to 23.0
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#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Front of EUT Facing Phantom	Flat (SAM)	190	1.180	1.600	0.420	1, 2	Complied
Front of EUT Facing Phantom	Flat (SAM)	128	1.160	1.600	0.440	1, 2	Complied
Front of EUT Facing Phantom	Flat (SAM)	251	0.994	1.600	0.606	1, 2	Complied
Rear of EUT Facing Phantom	Flat (SAM)	190	1.140	1.600	0.460	1, 2	Complied
Rear of EUT Facing Phantom	Flat (SAM)	128	1.110	1.600	0.490	1, 2	Complied
Rear of EUT Facing Phantom	Flat (SAM)	251	1.010	1.600	0.590	1, 2	Complied
Left Hand Side of EUT Facing Phantom	Flat (SAM)	190	1.070	1.600	0.530	1, 2	Complied
Left Hand Side of EUT Facing Phantom	Flat (SAM)	128	1.030	1.600	0.570	1, 2	Complied
Left Hand Side of EUT Facing Phantom	Flat (SAM)	251	0.958	1.600	0.642	1, 2	Complied
Right Hand Side of EUT Facing Phantom	Flat (SAM)	190	1.070	1.600	0.530	1, 2	Complied
Right Hand Side of EUT Facing Phantom	Flat (SAM)	128	0.933	1.600	0.667	1, 2	Complied

**Specific Absorption Rate - GPRS 850 Body Configuration 1g (Continued)**

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Right Hand Side of EUT Facing Phantom	Flat (SAM)	251	0.938	1.600	0.662	1, 2	Complied
Bottom of EUT Facing Phantom	Flat (SAM)	190	0.128	1.600	1.472	1, 2	Complied

**Note(s):**

1. SAR measurements were performed with the EUT closest edge at a separation distance of 10mm from the 'SAM' phantom flat section as person hotspot mode is supported.
2. SAR measurements were performed using 4 uplink timeslots and MCS = 4 was used to allow GMSK modulation this was used to minimize SAR measurement error due to higher peak-to-average power (PAR) ratios inherent in 8-PSK.

### 7.2.3. Specific Absorption Rate - EDGE 850 Body Configuration 1g Test Summary:

Tissue Volume:	1g
Maximum Level (W/kg):	1.260

#### Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
Temperature Variation in Liquid (°C):	22.4 to 22.4

#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Front of EUT Facing Phantom	Flat (SAM)	190	1.260	1.600	0.340	1, 2, 3	Complied
Front of EUT Facing Phantom	Flat (SAM)	128	1.210	1.600	0.390	1, 2, 3	Complied
Front of EUT Facing Phantom	Flat (SAM)	251	1.130	1.600	0.470	1, 2, 3	Complied
Front of EUT Facing Phantom With PHF	Flat (SAM)	190	1.120	1.600	0.480	1, 2, 3	Complied
Front of EUT Facing Phantom With PHF	Flat (SAM)	128	1.140	1.600	0.460	1, 2, 3	Complied
Front of EUT Facing Phantom With PHF	Flat (SAM)	251	1.050	1.600	0.550	1, 2, 3	Complied

#### Note(s):

- SAR measurements were performed with the EUT closest edge at a separation distance of 10mm from the 'SAM' phantom flat section as person hotspot mode is supported.
- SAR measurements were performed using 4 uplink timeslots and MCS = 4 was used to allow GMSK modulation this was used to minimize SAR measurement error due to higher peak-to-average power (PAR) ratios inherent in 8-PSK.
- Worst case configuration from GPRS is used on EDGE body.

#### 7.2.4. Specific Absorption Rate - GSM 850 Body Configuration 1g Test Summary:

Tissue Volume:	1g
Maximum Level (W/kg):	0.787

#### Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
Temperature Variation in Liquid (°C):	22.4 to 22.4

#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Front of EUT Facing Phantom	Flat (SAM)	190	0.787	1.600	0.813	1, 2	Complied

#### Note(s):

1. SAR measurements were performed with the closest edge of the EUT at a separation distance of 15mm from the 'SAM' phantom flat section.
2. Worst case configuration from GPRS is used on GSM body.

### 7.2.5. Specific Absorption Rate - PCS 1900 Head Configuration 1g Test Summary:

Tissue Volume:	1g
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Maximum Level (W/kg):	0.720
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#### Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
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Temperature Variation in Liquid (°C):	23.1 to 23.1
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#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Touch	Left	661	0.681	1.600	0.919	-	Complied
Tilt	Left	661	0.299	1.600	1.301	-	Complied
Touch	Right	661	0.670	1.600	0.930	-	Complied
Tilt	Right	661	0.201	1.600	1.399	-	Complied
Touch	Left	512	0.683	1.600	0.917	-	Complied
Touch	Left	810	0.720	1.600	0.880	-	Complied



### 7.2.6. Specific Absorption Rate - GPRS 1900 Body Configuration 1g Test Summary:

Tissue Volume:	1g
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Maximum Level (W/kg):	1.180
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#### Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
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Temperature Variation in Liquid (°C):	24.1 to 24.1
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#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Front of EUT Facing Phantom	Flat (SAM)	661	0.843	1.600	0.757	1, 2	Complied
Front of EUT Facing Phantom	Flat (SAM)	512	0.979	1.600	0.621	1, 2	Complied
Front of EUT Facing Phantom	Flat (SAM)	810	0.799	1.600	0.801	1, 2	Complied
Rear of EUT Facing Phantom	Flat (SAM)	661	0.967	1.600	0.633	1, 2	Complied
Rear of EUT Facing Phantom	Flat (SAM)	512	1.180	1.600	0.420	1, 2	Complied
Rear of EUT Facing Phantom	Flat (SAM)	810	0.955	1.600	0.645	1, 2	Complied
Left Hand Side of EUT Facing Phantom	Flat (SAM)	661	0.556	1.600	1.044	1, 2	Complied
Right Hand Side of EUT Facing Phantom	Flat (SAM)	661	0.249	1.600	1.351	1, 2	Complied
Bottom of EUT Facing Phantom	Flat (SAM)	661	0.263	1.600	1.337	1, 2	Complied

**Specific Absorption Rate - GPRS 1900 Body Configuration 1g (Continued)**

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Rear of EUT Facing Phantom With PHF	Flat (SAM)	661	1.010	1.600	0.590	1, 2	Complied
Rear of EUT Facing Phantom With PHF	Flat (SAM)	512	1.140	1.600	0.460	1, 2	Complied
Rear of EUT Facing Phantom With PHF	Flat (SAM)	810	0.962	1.600	0.638	1, 2	Complied

**Note(s):**

1. SAR measurements were performed with the EUT closest edge at a separation distance of 10mm from the 'SAM' phantom flat section as person hotspot mode is supported.
2. SAR measurements were performed using 4 uplink timeslots and MCS = 4 was used to allow GMSK modulation this was used to minimize SAR measurement error due to higher peak-to-average power (PAR) ratios inherent in 8-PSK.

### 7.2.7. Specific Absorption Rate - EDGE 1900 Body Configuration 1g Test Summary:

Tissue Volume:	1g
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Maximum Level (W/kg):	1.050
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#### Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
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Temperature Variation in Liquid (°C):	23.5 to 23.5
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#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Rear of EUT Facing Phantom	Flat (SAM)	661	0.924	1.600	0.676	1, 2, 3	Complied
Rear of EUT Facing Phantom	Flat (SAM)	512	1.050	1.600	0.550	1, 2, 3	Complied
Rear of EUT Facing Phantom	Flat (SAM)	810	0.879	1.600	0.721	1, 2, 3	Complied

#### Note(s):

1. SAR measurements were performed with the EUT closest edge at a separation distance of 10mm from the 'SAM' phantom flat section as person hotspot mode was supported.
2. SAR measurements were performed using 4 uplink timeslots and MCS = 4 was used to allow GMSK modulation this was used to minimize SAR measurement error due to higher peak-to-average power (PAR) ratios inherent in 8-PSK.
3. Worst case configuration from GPRS is used on EDGE body.

### 7.2.8. Specific Absorption Rate - PCS 1900 Body Configuration 1g Test Summary:

Tissue Volume:	1g
Maximum Level (W/kg):	0.410

#### Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
Temperature Variation in Liquid (°C):	23.5 to 23.5

#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Rear of EUT Facing Phantom	Flat (SAM)	661	0.410	1.600	1.190	1, 2	Complied

#### Note(s):

1. SAR measurements were performed with the closest edge of the EUT at a separation distance of 15mm from the 'SAM' phantom flat section.
2. Worst case configuration from GPRS is used on PCS body.

### 7.2.9. Specific Absorption Rate - UMTS-FDD V Head Configuration 1g Test Summary:

Tissue Volume:	1g
Maximum Level (W/kg):	1.170

#### Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
Temperature Variation in Liquid (°C):	23.4 to 23.4

#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Touch	Left	4183	0.788	1.600	0.812	1	Complied
Tilt	Left	4183	0.521	1.600	1.079	1	Complied
Touch	Right	4183	0.844	1.600	0.756	1	Complied
Touch	Right	4132	1.080	1.600	0.520	1	Complied
Touch	Right	4233	1.170	1.600	0.430	1	Complied
Tilt	Right	4183	0.530	1.600	1.070	1	Complied

#### Note(s):

1. Circuit Switch (CS) - RMC 12.2kbps with Test loop mode 1 and TPC bits configured to All "1's"

### 7.2.10. Specific Absorption Rate - UMTS-FDD V Body Configuration 1g Personal Hotspot Mode Test Summary:

Tissue Volume:	1g
Maximum Level (W/kg):	1.160

#### Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
Temperature Variation in Liquid (°C):	22.1 to 22.1

#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Front of EUT Facing Phantom	Flat (SAM)	4183	0.945	1.600	0.655	1,2	Complied
Front of EUT Facing Phantom	Flat (SAM)	4132	1.160	1.600	0.440	1,2	Complied
Front of EUT Facing Phantom	Flat (SAM)	4233	1.150	1.600	0.450	1,2	Complied
Rear of EUT Facing Phantom	Flat (SAM)	4183	0.972	1.600	0.628	1,2	Complied
Rear of EUT Facing Phantom	Flat (SAM)	4132	1.090	1.600	0.510	1,2	Complied
Rear of EUT Facing Phantom	Flat (SAM)	4233	1.050	1.600	0.550	1,2	Complied
Left Hand Side of EUT Facing Phantom	Flat (SAM)	4183	0.790	1.600	0.810	1,2	Complied
Right Hand Side of EUT Facing Phantom	Flat (SAM)	4183	0.774	1.600	0.826	1,2	Complied
Bottom of EUT Facing Phantom	Flat (SAM)	4183	0.108	1.600	1.492	1,2	Complied

**Specific Absorption Rate - UMTS-FDD V Body Configuration 1g Personal Hotspot Mode (Continued)**

Front of EUT Facing Phantom With PHF	Flat (SAM)	4132	1.090	1.600	0.510	1,2	Complied
Front of EUT Facing Phantom With PHF	Flat (SAM)	4183	0.856	1.600	0.744	1,2	Complied
Front of EUT Facing Phantom With PHF	Flat (SAM)	4233	0.950	1.600	0.650	1,2	Complied

**Note(s):**

1. SAR measurements were performed with the closest edge of the EUT at a separation distance of 10mm from the 'SAM' phantom flat section as person hotspot mode is supported.
2. Packet Switch (PS) - RMC 12.2kbps with Test loop mode 1 and TPC bits configured to All "1's"

### 7.2.11. Specific Absorption Rate - UMTS-FDD V Body Configuration 1g Test Summary:

Tissue Volume:	1g
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Maximum Level (W/kg):	0.903
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#### Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
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Temperature Variation in Liquid (°C):	22.1 to 22.1
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#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Front of EUT Facing Phantom	Flat (SAM)	4183	0.804	1.600	0.796	1, 2, 3	Complied
Front of EUT Facing Phantom	Flat (SAM)	4132	0.893	1.600	0.707	1, 2, 3	Complied
Front of EUT Facing Phantom	Flat (SAM)	4233	0.903	1.600	0.697	1, 2, 3	Complied

#### Note(s):

1. SAR measurements were performed with the closest edge of the EUT at a separation distance of 15mm from the 'SAM' phantom flat section
2. Packet Switch (PS) - RMC 12.2kbps with Test loop mode 1 and TPC bits configured to All "1's".
3. The Worst case configuration of Personal Hotspot configuration was used for 15mm separation.



### 7.2.12. Specific Absorption Rate - UMTS-FDD V + HSPA Body Configuration 1g Test Summary:

Tissue Volume:	1g
Maximum Level (W/kg):	1.040

#### Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
Temperature Variation in Liquid (°C):	22.1 to 22.1

#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Front of EUT Facing Phantom	Flat (SAM)	4183	0.874	1.600	0.726	1, 2, 4	Complied
Front of EUT Facing Phantom	Flat (SAM)	4132	1.040	1.600	0.560	1, 2, 4	Complied
Front of EUT Facing Phantom	Flat (SAM)	4233	1.030	1.600	0.570	1, 2, 4	Complied
Front of EUT Facing Phantom	Flat (SAM)	4183	0.664	1.600	0.936	1, 3, 4	Complied

#### Note(s):

- SAR measurements were performed with the closest edge of the EUT at a separation distance of 10mm from the 'SAM' phantom flat section as person hotspot mode is supported.
- Packet Switch (PS) - RMC 12.2kbps with Test loop mode 1 and TPC bits configured to All "1's" with HSDPA enabled. Using Sub-test 1 with  $\beta_c=2$  /  $\beta_d=15$ , ACK/NACK/CQI=8, as per KDB 941225 D01.
- Packet Switch (PS) - FRC configured to HS-DPCCH Sub-test 5 and H-Set 1 and QPSK settings with HSUPA enabled. Using Sub-test 5 with  $\beta_c=15$  /  $\beta_d=15$ , ACK/NACK/CQI=8, AG = 21, as per KDB 941225 D01.
- The 'Worst case' configuration from RMC is used on HSPA (HSDPA/HSUPA) body configuration.

### 7.2.13. Specific Absorption Rate - Wi-Fi 2450 Head Configuration 1g Test Summary:

Tissue Volume:	1g
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Maximum Level (W/kg):	0.366
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#### Environmental Conditions:

Temperature Variation in Lab (°C):	24.0 to 24.0
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Temperature Variation in Liquid (°C):	22.3 to 22.3
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#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Touch	Left	6	0.149	1.600	1.451	1	Complied
Tilt	Left	6	0.101	1.600	1.499	1	Complied
Touch	Right	6	0.311	1.600	1.289	1	Complied
Tilt	Right	6	0.212	1.600	1.388	1	Complied
Touch	Right	6	0.173	1.600	1.427	2	Complied
Touch	Right	6	0.124	1.600	1.476	3	Complied
Touch	Right	1	0.254	1.600	1.346	1	Complied
Touch	Right	11	0.366	1.600	1.234	1	Complied

#### Note(s):

1. 802.11b 1Mbps
2. 802.11g 6Mbps
3. 802.11n 6.5Mbps

### 7.2.14. Specific Absorption Rate - Wi-Fi 2450 Body Configuration 1g Test Summary:

Tissue Volume: 1g

Maximum Level (W/kg): 0.085

#### Environmental Conditions:

Temperature Variation in Lab (°C): 24.0 to 24.0

Temperature Variation in Liquid (°C): 23.9 to 23.9

#### Results:

EUT Position	Phantom Configuration	Channel Number	Level (W/kg)	Limit (W/kg)	Margin (W/kg)	Note(s)	Result
Front of EUT Facing Phantom	Flat (SAM)	6	0.080	1.600	1.521	1, 4	Complied
Rear of EUT Facing Phantom	Flat (SAM)	6	0.058	1.600	1.542	1, 4	Complied
Left Hand Side of EUT Facing Phantom	Flat (SAM)	6	0.062	1.600	1.538	1, 4	Complied
Right Hand Side of EUT Facing Phantom	Flat (SAM)	6	0.009	1.600	1.591	1, 4	Complied
Top of EUT Facing Phantom	Flat (SAM)	6	0.041	1.600	1.559	1, 4	Complied
Front of EUT Facing Phantom	Flat (SAM)	6	0.047	1.600	1.554	2, 4	Complied
Front of EUT Facing Phantom	Flat (SAM)	6	0.029	1.600	1.571	3, 4	Complied
Front of EUT Facing Phantom	Flat (SAM)	1	0.063	1.600	1.537	1, 4	Complied
Front of EUT Facing Phantom	Flat (SAM)	11	0.085	1.600	1.515	1, 4	Complied
Front of EUT Facing Phantom With PHF	Flat (SAM)	11	0.085	1.600	1.516	1, 4	Complied

#### Note(s):

1. 802.11b 1Mbps
2. 802.11g 6Mbps
3. 802.11n 6.5Mbps
4. SAR measurements were performed with the EUT at a separation distance of 10mm from the 'SAM' phantom flat section as person hotspot mode is supported.

### 7.2.15. Conducted Average Power Measurement 2G GSM - Measured Average Power:

Channel Number	Frequency (MHZ)	GSM – TX Power before Test (dBm)	Note
128	824.2	33.5	Conducted
190	836.6	33.4	Conducted
251	848.8	33.4	Conducted
512	1850.2	30.2	Conducted
661	1880.0	30.3	Conducted
810	1909.8	30.5	Conducted

### GPRS - Measured Average Power Without consideration for Uplink time slots:

Channel Number	Frequency (MHZ)	GPRS Power before Test (dBm) 1Uplink	GPRS Power before Test (dBm) 2Uplink	GPRS Power before Test (dBm) 3Uplink	GPRS Power before Test (dBm) 4Uplink	Note
128	824.2	32.9	29.9	28.1	26.7	Conducted
190	836.6	33.0	30.4	27.8	27.4	Conducted
251	848.8	33.1	30.5	28.3	27.5	Conducted
512	1850.2	29.8	26.8	25.9	24.7	Conducted
661	1880.0	30.1	26.9	26.3	25.3	Conducted
810	1909.8	30.4	27.1	26.2	25.2	Conducted

### GPRS - Calculated Value With consideration for Uplink time slots:

Channel Number	Frequency (MHZ)	GPRS Power before Test (dBm) 1Uplink	GPRS Power before Test (dBm) 2Uplink	GPRS Power before Test (dBm) 3Uplink	GPRS Power before Test (dBm) 4Uplink	Note
128	824.2	23.9	23.9	23.8	23.7	Conducted
190	836.6	24.0	24.4	23.5	24.4	Conducted
251	848.8	24.1	24.5	24.0	24.5	Conducted
512	1850.2	20.8	20.8	21.6	21.6	Conducted
661	1880.0	21.1	20.9	22.0	22.3	Conducted
810	1909.8	21.4	21.0	22.0	22.1	Conducted

#### Note:

##### Scale factor for uplink time slot:

- 1 Uplink: time slot ratio = 8:1 =>  $10 \cdot \log(8/1) = 9.03 \text{ dB}$
- 2 Uplink: time slot ratio = 8:2 =>  $10 \cdot \log(8/2) = 6.02 \text{ dB}$
- 3 Uplink: time slot ratio = 8:3 =>  $10 \cdot \log(8/3) = 4.26 \text{ dB}$
- 4 Uplink: time slot ratio = 8:4 =>  $10 \cdot \log(8/4) = 3.01 \text{ dB}$

**EDGE - Measured Average Power Without consideration for Uplink time slots:**

Channel Number	Frequency (MHZ)	EDGE Power before Test (dBm) 1Uplink	EDGE Power before Test (dBm) 2Uplink	EDGE Power before Test (dBm) 3Uplink	EDGE Power before Test (dBm) 4Uplink	Note
128	824.2	32.9	29.8	28.1	26.7	Conducted
190	836.6	32.9	30.3	27.8	27.3	Conducted
251	848.8	33.0	30.4	28.2	27.4	Conducted
512	1850.2	29.6	26.7	25.7	24.5	Conducted
661	1880.0	30.0	26.8	26.1	25.2	Conducted
810	1909.8	30.3	26.9	26.1	25.0	Conducted

**EDGE - Calculated Value With consideration for Uplink time slots:**

Channel Number	Frequency (MHZ)	EDGE Power before Test (dBm) 1Uplink	EDGE Power before Test (dBm) 2Uplink	EDGE Power before Test (dBm) 3Uplink	EDGE Power before Test (dBm) 4Uplink	Note
128	824.2	23.9	23.8	23.8	23.7	Conducted
190	836.6	23.9	24.3	23.5	24.3	Conducted
251	848.8	24.0	24.4	23.9	24.4	Conducted
512	1850.2	20.5	20.6	21.5	21.5	Conducted
661	1880.0	20.9	20.7	21.9	22.1	Conducted
810	1909.8	21.2	20.9	21.8	22.0	Conducted

**Note:****Scale factor for uplink time slot:**

- 1 Uplink: time slot ratio = 8:1 =>  $10 \cdot \log(8/1) = 9.03 \text{ dB}$
- 2 Uplink: time slot ratio = 8:2 =>  $10 \cdot \log(8/2) = 6.02 \text{ dB}$
- 3 Uplink: time slot ratio = 8:3 =>  $10 \cdot \log(8/3) = 4.26 \text{ dB}$
- 4 Uplink: time slot ratio = 8:4 =>  $10 \cdot \log(8/4) = 3.01 \text{ dB}$

**7.2.16. Conducted Average Power Measurement 3G**

Modes		HSDPA				HSPA					WCDMA
Sets		1	2	3	4	1	2	3	4	5	Voice / RMC 12.2kbps
Band	Channel	Power [dBm]	Power [dBm]	Power [dBm]	Power [dBm]	Power [dBm]	Power [dBm]	Power [dBm]	Power [dBm]	Power [dBm]	Power [dBm]
850	4132 4357	23.5	23.6	23.2	23.2	24.4	23.9	24.2	23.7	24.1	24.3
	4183 4408	23.5	23.6	23.2	23.1	24.5	23.9	24.2	23.6	24.0	<b>24.4</b>
	4233 4458	23.6	23.7	23.2	23.2	24.5	24.0	24.3	23.7	24.1	24.5
<b>βc</b>		<b>2</b>	<b>12</b>	<b>15</b>	<b>15</b>	<b>11</b>	<b>6</b>	<b>15</b>	<b>2</b>	<b>15</b>	
<b>βd</b>		<b>15</b>	<b>15</b>	<b>8</b>	<b>4</b>	<b>15</b>	<b>15</b>	<b>9</b>	<b>15</b>	<b>15</b>	
<b>ΔACK, ΔNACK, ΔCQI</b>		<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	
<b>AGV</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20</b>	<b>12</b>	<b>15</b>	<b>17</b>	<b>21</b>	

\* Prior to commencement of SAR testing the module power levels were measured in both HSPA and 3G RMC 12.2kbps modes and compared to ensure the correct mode of operation had been established.

The following tables taken from FCC 3G SAR procedures (KDB 941225 D01 SAR test for 3G devices v02) below were applied using an Agilent 8960 series 10 wireless communications test set which supports 3G / HSDPA release 5 / HSPA release 6.

**Sub-test 1 Setup for Release 5 HSDPA**

Sub-test	$\beta_c$	$\beta_d$	$B_d$ (SF)	$\beta_c/\beta_d$	$\beta_{hs}^{(1)}$	SM (dB) <sup>(2)</sup>
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15 <sup>(3)</sup>	15/15 <sup>(3)</sup>	64	12/15 <sup>(3)</sup>	24/15	1.0
3	15/15	8/15	64	15/8	30/15	1.5
4	15/15	4/15	64	15/4	30/15	1.5

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$

Note 2: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $B_{hs}/\beta_c = 24/15$

Note 3: For subtest 2 the  $\beta_c/\beta_d$  ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 11/15$  and  $\beta_d = 15/15$

**Sub-test 5 Setup for Release 6 HSPA**

Sub-test	$\beta_c$	$\beta_d$	$B_d$ (SF)	$\beta_c/\beta_d$	$\beta_{hs}^{(1)}$	$B_{oc}$	$B_{od}$	$B_{od}$ (SF)	$B_{od}$ (codes)	CM <sup>(2)</sup> (dB)	MPR (dB)	AG <sup>(4)</sup> Index	E-TFCI
1	11/15 <sup>(3)</sup>	15/15 <sup>(3)</sup>	64	11/15 <sup>(3)</sup>	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	31/15	$B_{all}$ : 47/15 $B_{al2}$ : 47/15	4	1	2.0	1.0	15	92
4	2/15	15/15	64	2/15	2/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15 <sup>(4)</sup>	15/15 <sup>(4)</sup>	64	15/15 <sup>(4)</sup>	24/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$

Note 2: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $B_{hs}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH AND E-DPCCH for the MPR is based on the relative CM difference.

Note 3: For subtest 1 the  $\beta_c/\beta_d$  ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 10/15$  and  $\beta_d = 15/15$ .

Note 4: For subtest 5 the  $\beta_c/\beta_d$  ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 14/15$  and  $\beta_d = 15/15$ .

Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g.

Note 6:  $B_{od}$  can not be set directly; it is set by Absolute Grant Value.

**7.2.17. Conducted Power Measurements Wi-Fi 802.11b/g/n  
802.11b/g**

Channel Number	Frequency (MHZ)	TX Power before Test (dBm)	Note
1	2412	<b>14.5</b>	<b>2.4GHz 802.11b</b> (1Mbps)
6	2437	14.6	
11	2462	14.5	
1	2412	14.0	<b>2.4GHz 802.11b</b> (11Mbps)
6	2437	14.2	
11	2462	14.1	
1	2412	<b>13.4</b>	<b>2.4GHz 802.11g</b> (6Mbps)
6	2437	13.5	
11	2462	13.4	
1	2412	12.6	<b>2.4GHz 802.11g</b> (54Mbps)
6	2437	12.9	
11	2462	12.8	

**802.11n**

Channel Number	Frequency (MHZ)	TX Power before Test (dBm)	Note
1	2412	11.1	<b>2.4GHz 802.11n</b> (MCS0 6.5Mbps)
6	2437	11.1	
11	2462	11.1	
1	2412	10.4	<b>2.4GHz 802.11n</b> (MCS7 65Mbps)
6	2437	10.5	
11	2462	10.4	



## 8. Measurement Uncertainty

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently, the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement of the uncertainty of the approximation.

The expression of uncertainty of a measurement result allows realistic comparison of results with reference values and limits given in specifications and standards.

The uncertainty of the result may need to be taken into account when interpreting the measurement results.

The reported expanded uncertainties below are based on a standard uncertainty multiplied by an appropriate coverage factor, such that a confidence level of approximately 95% is maintained. For the purposes of this document “approximately” is interpreted as meaning “effectively” or “for most practical purposes”.

Test Name	Confidence Level	Calculated Uncertainty
Specific Absorption Rate-GSM 850 / UMTS FDD V Head Configuration 1g	95%	19.94
Specific Absorption Rate-GSM/GPRS/EDGE850/UMTS FDD V 850 Body Configuration 1g	95%	20.07
Specific Absorption Rate-PCS Head Configuration 1g	95%	20.72
Specific Absorption Rate-PCS / GPRS/EDGE1900 Body Configuration 1g	95%	20.00
Specific Absorption Rate-Wi-Fi 2450 Head Configuration 1g	95%	19.47
Specific Absorption Rate-Wi-Fi 2450 Body Configuration 1g	95%	19.90

The methods used to calculate the above uncertainties are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty, the published guidance of the appropriate accreditation body is followed.

**8.1. Specific Absorption Rate Uncertainty -GSM 850 / UMTS FDD V Head Configuration 1g**

Type	Source of uncertainty	+ Value	- Value	Probability Distribution	Divisor	C <sub>i</sub> (10g)	Standard Uncertainty		U <sub>i</sub> or U <sub>eff</sub>
							+ u (%)	- u (%)	
B	Probe calibration	6.000	6.000	normal (k=1)	1.0000	1.0000	6.000	6.000	∞
B	Axial Isotropy	0.250	0.250	normal (k=1)	1.0000	1.0000	0.250	0.250	∞
B	Hemispherical Isotropy	1.300	1.300	normal (k=1)	1.0000	1.0000	1.300	1.300	∞
B	Spatial Resolution	0.500	0.500	Rectangular	1.7321	1.0000	0.289	0.289	∞
B	Boundary Effect	0.769	0.769	Rectangular	1.7321	1.0000	0.444	0.444	∞
B	Linearity	0.600	0.600	Rectangular	1.7321	1.0000	0.346	0.346	∞
B	Detection Limits	0.200	0.200	Rectangular	1.7321	1.0000	0.115	0.115	∞
B	Readout Electronics	0.160	0.160	normal (k=1)	1.0000	1.0000	0.160	0.160	∞
B	Response Time	0.000	0.000	Rectangular	1.7321	1.0000	0.000	0.000	∞
B	Integration Time	1.730	1.730	Rectangular	1.7321	1.0000	0.999	0.999	∞
B	RF Ambient conditions	3.000	3.000	Rectangular	1.7321	1.0000	1.732	1.732	∞
B	Probe Positioner Mechanical Restrictions	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Probe Positioning with regard to Phantom Shell	2.850	2.850	Rectangular	1.7321	1.0000	1.645	1.645	∞
B	Extrapolation and integration / Maximum SAR evaluation	5.080	5.080	Rectangular	1.7321	1.0000	2.933	2.933	∞
A	Test Sample Positioning	2.400	2.400	normal (k=1)	1.0000	1.0000	2.400	2.400	10
A	Device Holder uncertainty	0.154	0.154	normal (k=1)	1.0000	1.0000	0.154	0.154	10
B	Phantom Uncertainty	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Drift of output power	5.000	5.000	Rectangular	1.7321	1.0000	2.887	2.887	∞
B	Liquid Conductivity (target value)	5.000	5.000	Rectangular	1.7321	0.6400	1.848	1.848	∞
A	Liquid Conductivity (measured value)	4.920	4.920	normal (k=1)	1.0000	0.6400	3.149	3.149	5
B	Liquid Permittivity (target value)	5.000	5.000	Rectangular	1.7321	0.6000	1.732	1.732	∞
A	Liquid Permittivity (measured value)	4.970	4.970	normal (k=1)	1.0000	0.6000	2.982	2.982	5
	Combined standard uncertainty			t-distribution			10.17	10.17	>250
	Expanded uncertainty			k = 1.96			19.94	19.94	>250

## 8.2. Specific Absorption Rate-GSM/GPRS/EDGE850/UMTS FDD V 850 Body Configuration 1g

Type	Source of uncertainty	+ Value	- Value	Probability Distribution	Divisor	C <sub>i</sub> (10g)	Standard Uncertainty		U <sub>i</sub> or U <sub>eff</sub>
							+ u (%)	- u (%)	
B	Probe calibration	6.000	6.000	normal (k=1)	1.0000	1.0000	6.000	6.000	∞
B	Axial Isotropy	0.250	0.250	normal (k=1)	1.0000	1.0000	0.250	0.250	∞
B	Hemispherical Isotropy	1.300	1.300	normal (k=1)	1.0000	1.0000	1.300	1.300	∞
B	Spatial Resolution	0.500	0.500	Rectangular	1.7321	1.0000	0.289	0.289	∞
B	Boundary Effect	0.769	0.769	Rectangular	1.7321	1.0000	0.444	0.444	∞
B	Linearity	0.600	0.600	Rectangular	1.7321	1.0000	0.346	0.346	∞
B	Detection Limits	0.200	0.200	Rectangular	1.7321	1.0000	0.115	0.115	∞
B	Readout Electronics	0.160	0.160	normal (k=1)	1.0000	1.0000	0.160	0.160	∞
B	Response Time	0.000	0.000	Rectangular	1.7321	1.0000	0.000	0.000	∞
B	Integration Time	1.730	1.730	Rectangular	1.7321	1.0000	0.999	0.999	∞
B	RF Ambient conditions	3.000	3.000	Rectangular	1.7321	1.0000	1.732	1.732	∞
B	Probe Positioner Mechanical Restrictions	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Probe Positioning with regard to Phantom Shell	2.850	2.850	Rectangular	1.7321	1.0000	1.645	1.645	∞
B	Extrapolation and integration /Maximum SAR evaluation	5.080	5.080	Rectangular	1.7321	1.0000	2.933	2.933	∞
A	Test Sample Positioning	2.900	2.900	normal (k=1)	1.0000	1.0000	2.900	2.900	10
A	Device Holder uncertainty	0.154	0.154	normal (k=1)	1.0000	1.0000	0.154	0.154	10
B	Phantom Uncertainty	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Drift of output power	5.000	5.000	Rectangular	1.7321	1.0000	2.887	2.887	∞
B	Liquid Conductivity (target value)	5.000	5.000	Rectangular	1.7321	0.6400	1.848	1.848	∞
A	Liquid Conductivity (measured value)	4.690	4.690	normal (k=1)	1.0000	0.6400	3.002	3.002	5
B	Liquid Permittivity (target value)	5.000	5.000	Rectangular	1.7321	0.6000	1.732	1.732	∞
A	Liquid Permittivity (measured value)	4.860	4.860	normal (k=1)	1.0000	0.6000	2.916	2.916	5
	Combined standard uncertainty			t-distribution			10.24	10.24	>250
	Expanded uncertainty			k = 1.96			20.07	20.07	>250

### 8.3. Specific Absorption Rate-PCS 1900 Head Configuration 1g

Type	Source of uncertainty	+ Value	- Value	Probability Distribution	Divisor	C <sub>i</sub> (10g)	Standard Uncertainty		U <sub>i</sub> or U <sub>eff</sub>
							+ u (%)	- u (%)	
B	Probe calibration	6.000	6.000	normal (k=1)	1.0000	1.0000	6.000	6.000	∞
B	Axial Isotropy	0.250	0.250	normal (k=1)	1.0000	1.0000	0.250	0.250	∞
B	Hemispherical Isotropy	1.300	1.300	normal (k=1)	1.0000	1.0000	1.300	1.300	∞
B	Spatial Resolution	0.500	0.500	Rectangular	1.7321	1.0000	0.289	0.289	∞
B	Boundary Effect	0.769	0.769	Rectangular	1.7321	1.0000	0.444	0.444	∞
B	Linearity	0.600	0.600	Rectangular	1.7321	1.0000	0.346	0.346	∞
B	Detection Limits	0.200	0.200	Rectangular	1.7321	1.0000	0.115	0.115	∞
B	Readout Electronics	0.160	0.160	normal (k=1)	1.0000	1.0000	0.160	0.160	∞
B	Response Time	0.000	0.000	Rectangular	1.7321	1.0000	0.000	0.000	∞
B	Integration Time	1.730	1.730	Rectangular	1.7321	1.0000	0.999	0.999	∞
B	RF Ambient conditions	3.000	3.000	Rectangular	1.7321	1.0000	1.732	1.732	∞
B	Probe Positioner Mechanical Restrictions	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Probe Positioning with Regard to Phantom Shell	2.850	2.850	Rectangular	1.7321	1.0000	1.645	1.645	∞
B	Extrapolation and integration / Maximum SAR evaluation	5.080	5.080	Rectangular	1.7321	1.0000	2.933	2.933	∞
A	Test Sample Positioning	3.800	3.800	normal (k=1)	1.0000	1.0000	3.800	3.800	10
A	Device Holder uncertainty	0.154	0.154	normal (k=1)	1.0000	1.0000	0.154	0.154	10
B	Phantom Uncertainty	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Drift of output power	5.000	5.000	Rectangular	1.7321	1.0000	2.887	2.887	∞
B	Liquid Conductivity (target value)	5.000	5.000	Rectangular	1.7321	0.6400	1.848	1.848	∞
A	Liquid Conductivity (measured value)	4.900	4.900	normal (k=1)	1.0000	0.6400	3.136	3.136	5
B	Liquid Permittivity (target value)	5.000	5.000	Rectangular	1.7321	0.6000	1.732	1.732	∞
A	Liquid Permittivity (measured value)	4.880	4.880	normal (k=1)	1.0000	0.6000	2.928	2.928	5
	Combined standard uncertainty			t-distribution			10.57	10.57	>200
	Expanded uncertainty			k = 1.96			20.72	20.72	>200

8.4. Specific Absorption Rate-PCS / GPRS/EDGE1900 Body Configuration 1g									
Type	Source of uncertainty	+ Value	- Value	Probability Distribution	Divisor	C <sub>i</sub> (10g)	Standard Uncertainty		U <sub>i</sub> or U <sub>eff</sub>
							+ u (%)	- u (%)	
B	Probe calibration	6.000	6.000	normal (k=1)	1.0000	1.0000	6.000	6.000	∞
B	Axial Isotropy	0.250	0.250	normal (k=1)	1.0000	1.0000	0.250	0.250	∞
B	Hemispherical Isotropy	1.300	1.300	normal (k=1)	1.0000	1.0000	1.300	1.300	∞
B	Spatial Resolution	0.500	0.500	Rectangular	1.7321	1.0000	0.289	0.289	∞
B	Boundary Effect	0.769	0.769	Rectangular	1.7321	1.0000	0.444	0.444	∞
B	Linearity	0.600	0.600	Rectangular	1.7321	1.0000	0.346	0.346	∞
B	Detection Limits	0.200	0.200	Rectangular	1.7321	1.0000	0.115	0.115	∞
B	Readout Electronics	0.160	0.160	normal (k=1)	1.0000	1.0000	0.160	0.160	∞
B	Response Time	0.000	0.000	Rectangular	1.7321	1.0000	0.000	0.000	∞
B	Integration Time	1.730	1.730	Rectangular	1.7321	1.0000	0.999	0.999	∞
B	RF Ambient conditions	3.000	3.000	Rectangular	1.7321	1.0000	1.732	1.732	∞
B	Probe Positioner Mechanical Restrictions	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Probe Positioning with regard to Phantom Shell	2.850	2.850	Rectangular	1.7321	1.0000	1.645	1.645	∞
B	Extrapolation and integration / Maximum SAR evaluation	5.080	5.080	Rectangular	1.7321	1.0000	2.933	2.933	∞
A	Test Sample Positioning	2.500	2.500	normal (k=1)	1.0000	1.0000	2.500	2.500	10
A	Device Holder uncertainty	0.154	0.154	normal (k=1)	1.0000	1.0000	0.154	0.154	10
B	Phantom Uncertainty	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Drift of output power	5.000	5.000	Rectangular	1.7321	1.0000	2.887	2.887	∞
B	Liquid Conductivity (target value)	5.000	5.000	Rectangular	1.7321	0.6400	1.848	1.848	∞
A	Liquid Conductivity (measured value)	4.940	4.940	normal (k=1)	1.0000	0.6400	3.162	3.162	5
B	Liquid Permittivity (target value)	5.000	5.000	Rectangular	1.7321	0.6000	1.732	1.732	∞
A	Liquid Permittivity (measured value)	4.980	4.980	normal (k=1)	1.0000	0.6000	2.988	2.988	5
	Combined standard uncertainty			t-distribution			10.20	10.20	>250
	Expanded uncertainty			k = 1.96			20.00	20.00	>250

**8.5. Specific Absorption Rate-Wi-Fi 2450 Head Configuration 1g**

Type	Source of uncertainty	+ Value	- Value	Probability Distribution	Divisor	C <sub>i</sub> (10g)	Standard Uncertainty		U <sub>i</sub> or U <sub>eff</sub>
							+ u (%)	- u (%)	
B	Probe calibration	6.000	6.000	normal (k=1)	1.0000	1.0000	6.000	6.000	∞
B	Axial Isotropy	0.250	0.250	normal (k=1)	1.0000	1.0000	0.250	0.250	∞
B	Hemispherical Isotropy	1.300	1.300	normal (k=1)	1.0000	1.0000	1.300	1.300	∞
B	Spatial Resolution	0.500	0.500	Rectangular	1.7321	1.0000	0.289	0.289	∞
B	Boundary Effect	0.769	0.769	Rectangular	1.7321	1.0000	0.444	0.444	∞
B	Linearity	0.600	0.600	Rectangular	1.7321	1.0000	0.346	0.346	∞
B	Detection Limits	0.200	0.200	Rectangular	1.7321	1.0000	0.115	0.115	∞
B	Readout Electronics	0.160	0.160	normal (k=1)	1.0000	1.0000	0.160	0.160	∞
B	Response Time	0.000	0.000	Rectangular	1.7321	1.0000	0.000	0.000	∞
B	Integration Time	0.000	0.000	Rectangular	1.7321	1.0000	0.000	0.000	∞
B	RF Ambient conditions	3.000	3.000	Rectangular	1.7321	1.0000	1.732	1.732	∞
B	Probe Positioner Mechanical Restrictions	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Probe Positioning with regard to Phantom Shell	2.850	2.850	Rectangular	1.7321	1.0000	1.645	1.645	∞
B	Extrapolation and integration / Maximum SAR evaluation	5.080	5.080	Rectangular	1.7321	1.0000	2.933	2.933	∞
A	Test Sample Positioning	2.000	2.000	normal (k=1)	1.0000	1.0000	2.000	2.000	10
A	Device Holder uncertainty	0.154	0.154	normal (k=1)	1.0000	1.0000	0.154	0.154	10
B	Phantom Uncertainty	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Drift of output power	5.000	5.000	Rectangular	1.7321	1.0000	2.887	2.887	∞
B	Liquid Conductivity (target value)	5.000	5.000	Rectangular	1.7321	0.6400	1.848	1.848	∞
A	Liquid Conductivity (measured value)	4.410	4.410	normal (k=1)	1.0000	0.6400	2.822	2.822	5
B	Liquid Permittivity (target value)	5.000	5.000	Rectangular	1.7321	0.6000	1.732	1.732	∞
A	Liquid Permittivity (measured value)	4.930	4.930	normal (k=1)	1.0000	0.6000	2.958	2.958	5
	Combined standard uncertainty			t-distribution			9.93	9.93	>300
	Expanded uncertainty			k = 1.96			19.47	19.47	>300

**8.6. Specific Absorption Rate-Wi-Fi 2450 Head Configuration 1g**

Type	Source of uncertainty	+ Value	- Value	Probability Distribution	Divisor	C <sub>i</sub> (10g)	Standard Uncertainty		U <sub>i</sub> or U <sub>eff</sub>
							+ u (%)	- u (%)	
B	Probe calibration	6.000	6.000	normal (k=1)	1.0000	1.0000	6.000	6.000	∞
B	Axial Isotropy	0.250	0.250	normal (k=1)	1.0000	1.0000	0.250	0.250	∞
B	Hemispherical Isotropy	1.300	1.300	normal (k=1)	1.0000	1.0000	1.300	1.300	∞
B	Spatial Resolution	0.500	0.500	Rectangular	1.7321	1.0000	0.289	0.289	∞
B	Boundary Effect	0.769	0.769	Rectangular	1.7321	1.0000	0.444	0.444	∞
B	Linearity	0.600	0.600	Rectangular	1.7321	1.0000	0.346	0.346	∞
B	Detection Limits	0.200	0.200	Rectangular	1.7321	1.0000	0.115	0.115	∞
B	Readout Electronics	0.160	0.160	normal (k=1)	1.0000	1.0000	0.160	0.160	∞
B	Response Time	0.000	0.000	Rectangular	1.7321	1.0000	0.000	0.000	∞
B	Integration Time	0.000	0.000	Rectangular	1.7321	1.0000	0.000	0.000	∞
B	RF Ambient conditions	3.000	3.000	Rectangular	1.7321	1.0000	1.732	1.732	∞
B	Probe Positioner Mechanical Restrictions	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Probe Positioning with regard to Phantom Shell	2.850	2.850	Rectangular	1.7321	1.0000	1.645	1.645	∞
B	Extrapolation and integration / Maximum SAR evaluation	5.080	5.080	Rectangular	1.7321	1.0000	2.933	2.933	∞
A	Test Sample Positioning	2.570	2.570	normal (k=1)	1.0000	1.0000	2.570	2.570	10
A	Device Holder uncertainty	0.154	0.154	normal (k=1)	1.0000	1.0000	0.154	0.154	10
B	Phantom Uncertainty	4.000	4.000	Rectangular	1.7321	1.0000	2.309	2.309	∞
B	Drift of output power	5.000	5.000	Rectangular	1.7321	1.0000	2.887	2.887	∞
B	Liquid Conductivity (target value)	5.000	5.000	Rectangular	1.7321	0.6400	1.848	1.848	∞
A	Liquid Conductivity (measured value)	4.900	4.900	normal (k=1)	1.0000	0.6400	3.136	3.136	5
B	Liquid Permittivity (target value)	5.000	5.000	Rectangular	1.7321	0.6000	1.732	1.732	∞
A	Liquid Permittivity (measured value)	4.920	4.920	normal (k=1)	1.0000	0.6000	2.952	2.952	5
	Combined standard uncertainty			t-distribution			10.15	10.15	>250
	Expanded uncertainty			k = 1.96			19.90	19.90	>250