TEST REPORT

No. 25T04N000894-009-SAR

For

Shanghai Sunmi Technology Co.,Ltd.

Wireless data POS System

Model Name: T5F1A

With

Hardware Version: SM03_MB_V1.1

Software Version: QSC625VPBCJ10R01A03_BA01BP01GLM03V01

FCC ID: 2AH25T5F1A

Issued Date: 2025-05-21

Designation Number: CN1210

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

Test Laboratory:

SAICT, Shenzhen Academy of Information and Communications Technology

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
25T04N000894-009-SAR	Rev.0	1st edition	2025-05-21

CONTENTS

1. Summary of Test Report

1.1. Test Items

Description:	Wireless data POS System
Model Name:	T5F1A
Applicant's Name:	Shanghai Sunmi Technology Co.,Ltd.
Manufacturer's Name:	Shanghai Sunmi Technology Co.,Ltd.

1.2. Test Standards

ANSI C95.1:1992, IEEE Std 1528:2013

1.3. Test Result

Pass. Please refer to "12. Summary of Test Results" and "ANNEX L: Spot Check Test"

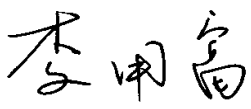
1.4. Testing Location

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China

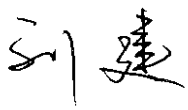
1.5. Project Data

Testing Start Date: 2024-11-10 Testing End Date: 2025-05-16

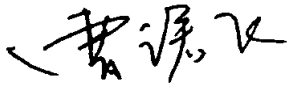
1.6. Signature



Li Yongfu
(Prepared this test report)



Liu Jian
(Reviewed this test report)



Cao Junfei
(Approved this test report)

2. Statement of Compliance

This EUT is a variant product and the report of original sample is No. 24T04N002645-001-SAR. According to "Product Equality Declaration" provided by applicant, we quote the test results of original sample and spot check the worst case in annex L.

The maximum results of Specific Absorption Rate (SAR) found during testing for Shanghai Sunmi Technology Co.,Ltd Wireless data POS System T5F1A are as follows:

Table 2.1: Highest Reported SAR

Equipment Class	Frequency Bands	1g SAR (W/kg)		10g SAR (W/kg)
		Hotspot (Separation 10mm)	Body-worn (Separation 15mm)	Extremity (Separation 0mm)
PCT	GSM 850	0.48	0.39[1]	1.15
	GSM 1900	0.99	0.35[1]	2.48
	WCDMA Band 2	**1.04**	0.60[1]	1.98
	WCDMA Band 4	0.74	0.24[1]	1.85
	WCDMA Band 5	0.41	0.19[1]	0.80
	LTE Band 7	0.97	**0.97[1]**	2.43
	LTE Band 12/17	0.33	0.21[1]	0.72
	LTE Band 13	0.37	0.24[1]	0.90
	LTE Band 14	0.36	0.24[1]	0.95
	LTE Band 25/2	0.79	0.59[1]	**2.65**
	LTE Band 26/5	0.34	0.14[1]	0.86
	LTE Band 30	0.83	0.39[1]	1.54
	LTE Band 41/38	0.82	0.45[1]	2.15
	LTE Band 66/4	0.79	0.24[1]	1.82
	LTE Band 71	0.20	0.16[1]	0.52
DSS	Bluetooth	<0.01	<0.01	0.02
DTS	WLAN 2.4GHz	0.28	0.08[1]	0.54
NII	WLAN 5GHz	0.69	0.30[1]	0.58
Maximum Simultaneous Transmission SAR		1.52	1.28	3.23
Note1: SAR result at 10mm is used for conservative evaluation.				

This device is in compliance with Specific Absorption Rate (SAR) for general population/ uncontrolled exposure limits (1.6 W/kg for Head/Body 1g SAR, 4.0 W/kg for Extremity 10g SAR) specified in ANSI C95.1:1992.

The measurement together with the test system set-up is described in annex C of this test report. A detailed description of the equipment under test can be found in chapter 4 of this test report.

The highest reported SAR value is obtained at the case of **(Table 2.1)**, Hotspot value is **1.04 W/kg (1g)**, Body-worn value is **0.97 W/kg (1g)** and Extremity SAR value is **2.65 W/kg (10g)**.

3. Client Information

3.1. Applicant Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address:	Room 505, NO.388 Song Hu Road, Yang Pu District, Shanghai 200433, China
Contact:	Emma Yang
Email:	chan.yang@sunmi.com
Telephone:	+86 13510126210

3.2. Manufacturer Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address:	Room 505, NO.388 Song Hu Road, Yang Pu District, Shanghai 200433, China
Contact:	Emma Yang
Email:	chan.yang@sunmi.com
Telephone:	+86 13510126210

4. Equipment under Test (EUT) and Ancillary Equipment (AE)

4.1. About EUT

Description:	Wireless data POS System
Model Name:	T5F1A
Condition of EUT as received:	No obvious damage in appearance
Frequency Bands:	GSM 850/1900, WCDMA Band 2/4/5, LTE Band 2/4/5/7/12/13/14/17/25/26/30/38/40/41/66/71, Bluetooth, WLAN 2.4GHz/5GHz, NFC
Tested Tx Frequency:	824 – 849MHz (GSM 850)
	1850 – 1910MHz (GSM 1900)
	1850 – 1910MHz (WCDMA Band 2)
	1710 – 1755MHz (WCDMA Band 4)
	824 – 849MHz (WCDMA Band 5)
	1850 – 1910MHz (LTE Band 2)
	1710 – 1755MHz (LTE Band 4)
	824 – 849MHz (LTE Band 5)
	2500 – 2570MHz (LTE Band 7)
	699 – 716MHz (LTE Band 12)
	777 – 787MHz (LTE Band 13)
	788 – 798MHz (LTE Band 14)
	704 – 716MHz (LTE Band 17)
	1850 – 1915MHz (LTE Band 25)
	814 – 849MHz (LTE Band 26)
	2305 – 2315MHz (LTE Band 30)
	2570 – 2620MHz (LTE Band 38)
	2496 – 2690MHz (LTE Band 41)
	1710 – 1780MHz (LTE Band 66)
	663 – 698MHz (LTE Band 71)
	2402 – 2480MHz (Bluetooth)
	2412 – 2462MHz (WLAN 2.4GHz)
	5150 – 5850MHz (WLAN 5GHz)
	13.56MHz (NFC)
GPRS/EDGE Multislot Class:	33
GPRS Capability Class:	B
Dual Transfer Mode (DTM)	Not support
Test device Production information:	Production unit
Device type:	Portable device
Antenna type:	Integrated antenna
Hotspot mode:	Support
Product Dimensions:	Long 238.0mm; Wide 81.8mm; Height 16.8mm;

	Overall Diagonal 246.95mm
Note: 1. LTE Band 40 be disabled by software. 2. This device WLAN 5GHz U-NII-2A and U-NII-2C don't support hotspot operation.	

*Since the information of samples in this report is provided by the client, the laboratory is not responsible for the authenticity of sample information.

4.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version	Receipt Date
UT03aa	864649070310478	SM03_MB_V1.1	QSC625VPBCJ10R01A03_BA01BP01GLM03V01	2025-04-25
UT04aa	864649070287080	SM03_MB_V1.1	QSC625VPBCJ10R01A03_BA01BP01GLM03V01	2025-04-25

*EUT ID: is used to identify the test sample in the lab internally.

Note: It is performed to test SAR with the UT03aa & UT04aa.

4.3. Internal Identification of AE used during the test

AE ID*	Description	Model	Manufacturer
AE1	Battery	FHPS	Guangdong Fenghua New Energy Co., Ltd.

*AE ID: is used to identify the test sample in the lab internally.

4.4. General Description

According to "Product Equality Declaration" provided by applicant, the table below shows the difference between Original and Variant:

Difference \ Model	Original	Variant 1	Variant 2
Front Camera	Support	Not Support	Not Support
NFC	Support	Support	Not Support
Scanner	Support	Support	Not Support
Fingerprint	Support	Support	Not Support
LCD	Original supplier & secondary source	Original supplier	Original supplier
CPU	6225	4325	4325

We'll perform variant product for spot check test. The results of spot check are presented in annex L.

5. Test Methodology

5.1. Applicable Limit Regulations

ANSI C95.1:1992 IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

It specifies the maximum exposure limit of **1.6 W/kg** as averaged over any 1 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.

5.2. Applicable Measurement Standards

IEEE Std 1528:2013 Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Experimental Techniques.

KDB 447498 D01 General RF Exposure Guidance v06 RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices

KDB 648474 D04 Handset SAR v01r03 SAR Evaluation Considerations for Wireless Handsets.

KDB 941225 D01 SAR test for 3G devices v03r01 SAR Measurement Procedures for 3G Devices

KDB 941225 D05 SAR for LTE Devices v02r05 SAR Evaluation Considerations for LTE Devices

KDB 941225 D06 Hot Spot SAR v02r01 SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities

KDB 941225 D07 UMPC Mini Tablet v01r02 SAR Evaluation Procedures for UMPC Mini-Tablet Devices

KDB 248227 D01 802.11 Wi-Fi SAR v02r02 SAR Guidance for IEEE 802.11 (Wi-Fi) Transmitters.

KDB 865664 D01SAR measurement 100 MHz to 6 GHz v01r04 SAR Measurement Requirements for 100 MHz to 6 GHz

KDB 865664 D02 RF Exposure Reporting v01r02 RF Exposure Compliance Reporting and Documentation Considerations

TCB workshop April 2019; RF Exposure Procedures (Tissue Simulating Liquids)

6. Specific Absorption Rate (SAR)

6.1. Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

6.2. SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ) . The equation description is as below:

$$SAR = \frac{d}{dt}(\frac{dW}{dm}) = \frac{d}{dt}(\frac{dW}{\rho dv})$$

SAR is expressed in units of Watts per kilogram (W/kg)
SAR measurement can be either related to the temperature elevation in tissue by

$$SAR = c(\frac{\delta T}{\delta t})$$

Where: C is the specific head capacity, δT is the temperature rise and δt is the exposure duration, or related to the electrical field in the tissue by

$$SAR = \frac{\sigma |E|^2}{\rho}$$

Where: σ is the conductivity of the tissue, ρ is the mass density of tissue and E is the RMS electrical field strength.

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

7. Tissue Simulating Liquids

7.1. Targets for tissue simulating liquid

Table 7.1: Targets for tissue simulating liquid

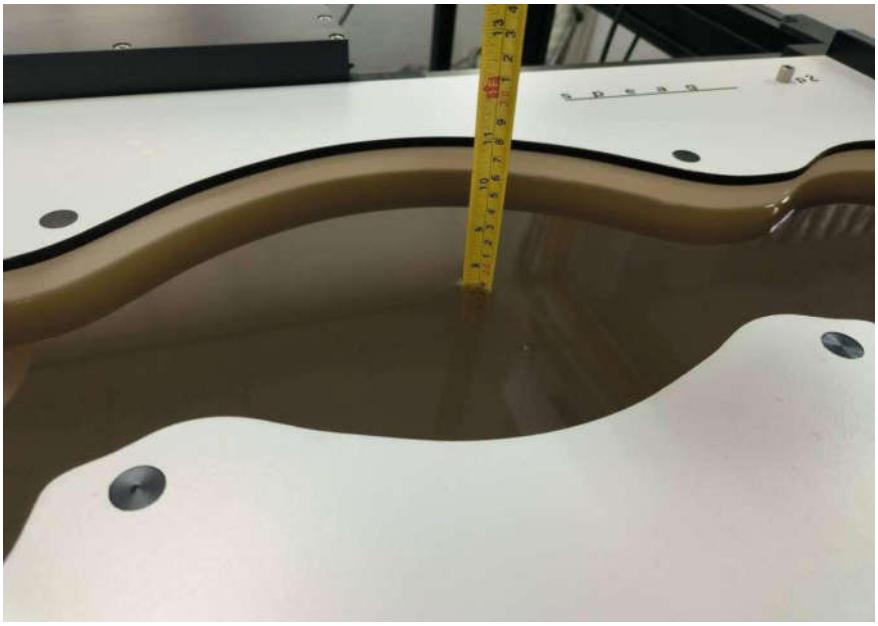
Frequency (MHz)	Liquid Type	Conductivity (σ)	± 5% Range	Permittivity (ε)	± 5% Range
13	Head	0.75	0.72～0.78	55.0	52.3～57.7
750	Head	0.89	0.85～0.93	42.0	39.9～44.1
835	Head	0.90	0.86～0.95	41.5	39.4～43.6
1750	Head	1.37	1.30～1.44	40.1	38.1～42.1
1900	Head	1.40	1.33～1.47	40.0	38.0～42.0
2300	Head	1.67	1.57～1.75	39.5	37.5～41.4
2450	Head	1.80	1.71～1.89	39.2	37.2～41.2
2550	Head	1.91	1.81～2.01	39.1	37.1～41.0
5250	Head	4.71	4.47～4.95	35.9	34.1～37.7
5600	Head	5.07	4.82～5.32	35.5	33.8～37.3
5750	Head	5.22	4.96～5.48	35.4	33.6～37.1

7.2. Dielectric Performance

Table 7.2: Dielectric Performance of Tissue Simulating Liquid

Measurement Date (yyyy-mm-dd)	Frequency (MHz)	Conductivity σ (S/m)	Drift (%)	Permittivity ε	Drift (%)
2024-12-06	13	0.761	1.47	53.89	-2.02
2024-11-10	750	0.884	-0.67	42.72	1.71
2024-11-16	835	0.913	1.44	40.55	-2.29
2024-12-04	1750	1.356	-1.02	40.68	1.45
2024-12-20	1750	1.389	1.39	39.23	-2.17
2024-12-10	1900	1.385	-1.07	40.91	2.27
2025-01-08	1900	1.414	1.00	39.30	-1.75
2024-12-19	2300	1.628	-2.51	39.86	0.91
2024-12-28	2450	1.823	1.28	38.54	-1.68
2024-11-29	2550	1.957	2.46	38.19	-2.33
2024-12-30	2550	1.922	0.63	37.76	-3.43
2024-12-27	5250	4.783	1.55	35.15	-2.09
2024-12-27	5600	4.968	-2.01	36.24	2.08
2024-12-27	5750	5.173	-0.90	36.39	2.80
2025-05-06	835	0.926	2.89	40.58	-2.22
2025-05-16	1900	1.393	-0.50	40.77	1.93
2025-05-06	2550	1.941	1.62	38.45	-1.66
2025-05-07	5250	4.656	-1.15	36.82	2.56

Note: The liquid temperature is 22.0°C.

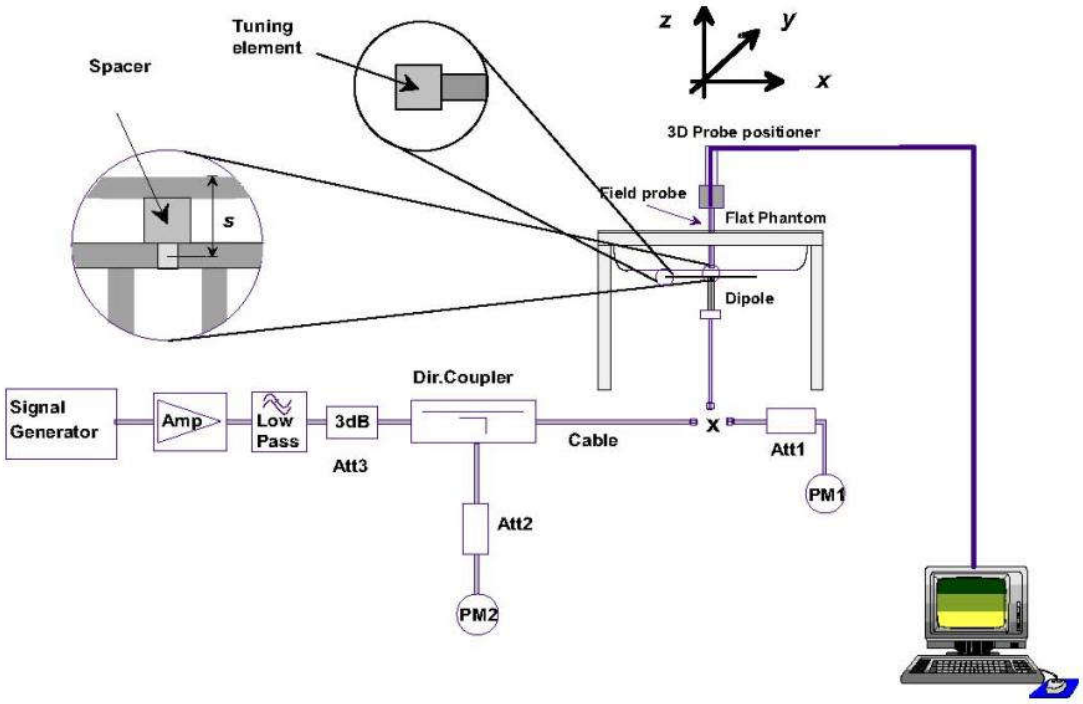


Picture 7.1 Liquid depth in the Flat Phantom (0.6GHz - 7.5GHz)

8. System Check

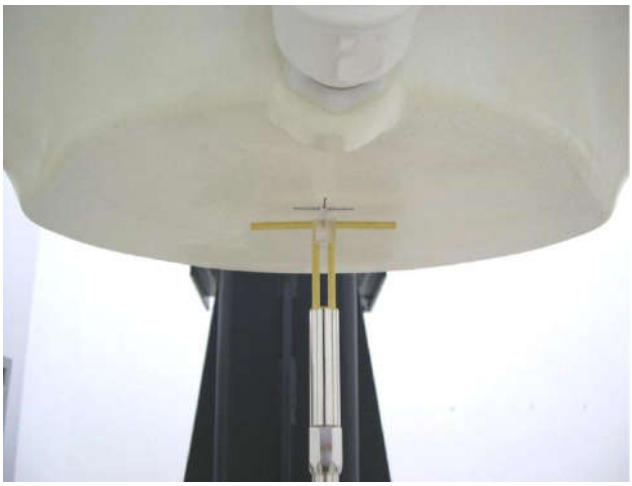
8.1. System Setup

In the simplified setup for system evaluation, the DUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



Picture 8.1 System Setup for System Evaluation

For the dipole below750MHz, the output power on dipole port must be calibrated to 30 dBm (1W) before dipole is connected.
For the dipole above 750MHz, the output power on dipole port must be calibrated to 17 dBm (50mW) before dipole is connected.



Picture 8.2 Photo of Dipole Setup

8.2. System check

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device.

Table 8.1: System Verification of Head

Measurement Date	Frequency (MHz)	Target value (W/kg)		Measured value (W/kg)				Deviation (%)	
				/		Normalize to 1W			
		1 g	10 g	1 g	10 g	1 g	10 g	1 g	10 g
2024-12-06	13	0.466	0.287	0.474	0.290	0.474	0.290	1.72	1.05
2024-11-10	750	8.48	5.62	0.439	0.287	8.78	5.74	3.54	2.14
2024-11-16	835	9.59	6.40	0.501	0.329	10.02	6.58	4.48	2.81
2024-12-04	1750	36.30	19.60	1.74	0.952	34.80	19.04	-4.13	-2.86
2024-12-20	1750	36.30	19.60	1.85	0.993	37.00	19.86	1.93	1.33
2024-12-10	1900	39.70	20.90	1.91	1.03	38.20	20.60	-3.78	-1.44
2025-01-08	1900	39.70	20.90	2.07	1.08	41.40	21.60	4.28	3.35
2024-12-19	2300	49.10	24.00	2.36	1.17	47.20	23.40	-3.87	-2.50
2024-12-28	2450	52.70	24.80	2.72	1.26	54.40	25.20	3.23	1.61
2024-11-29	2550	55.00	25.00	2.88	1.30	57.60	26.00	4.73	4.00
2024-12-30	2550	55.00	25.00	2.81	1.27	56.20	25.40	2.18	1.60
2024-12-27	5250	79.70	22.80	4.13	1.17	82.60	23.40	3.64	2.63
2024-12-27	5600	82.60	23.60	4.01	1.15	80.20	23.00	-2.91	-2.54
2024-12-27	5750	78.50	22.10	3.75	1.07	75.00	21.40	-4.46	-3.17
2025-05-06	835	9.59	6.40	0.496	0.330	9.92	6.60	3.44	3.13
2025-05-16	1900	39.70	20.90	1.90	1.01	38.00	20.20	-4.28	-3.35
2025-05-06	2550	55.00	25.00	2.82	1.26	56.40	25.20	2.55	0.80
2025-05-07	5250	79.70	22.80	3.85	1.12	77.00	22.40	-3.39	-1.75

9. Measurement Procedures

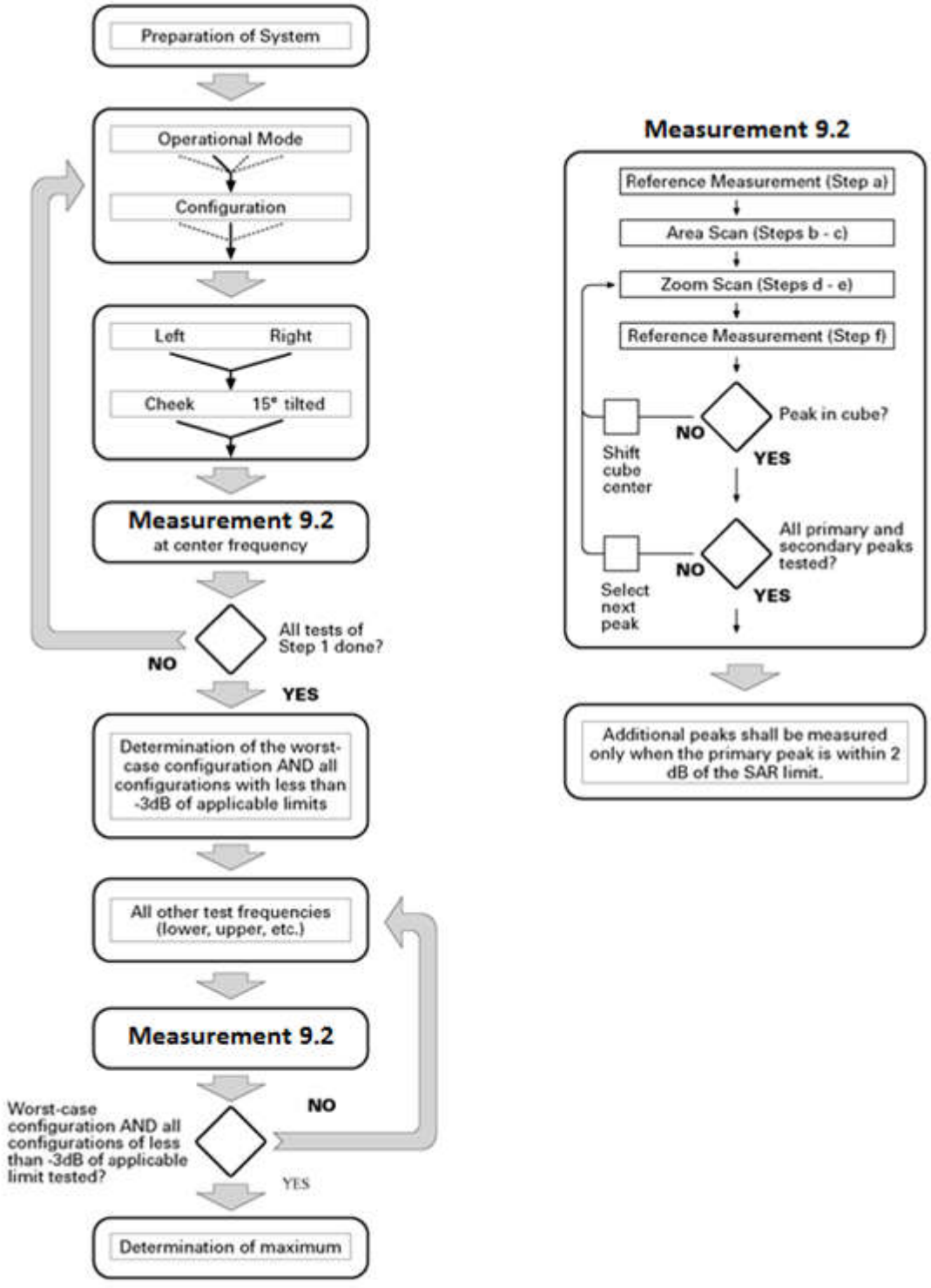
9.1. Tests to be performed

In order to determine the highest value of the peak spatial-average SAR of a handset, all device positions, configurations and operational modes shall be tested for each frequency band according to steps 1 to 3 below. A flowchart of the test process is shown in picture 9.1.

Step 1: The tests described in 9.2 shall be performed at the channel that is closest to the center of the transmit frequency band (f_c) for:
a) all device positions (cheek and tilt, for both left and right sides of the SAM phantom, as described in annex D),
b) all configurations for each device position in a), e.g., antenna extended and retracted, and
c) all operational modes, e.g., analogue and digital, for each device position in a) and configuration in b) in each frequency band.
If more than three frequencies need to be tested according to 11.1 (i.e., N_C> 3), then all frequencies, configurations and modes shall be tested for all of the above test conditions.

Step 2: For the condition providing highest peak spatial-average SAR determined in Step 1, perform all tests described in 9.2 at all other test frequencies, i.e., lowest and highest frequencies. In addition, for all other conditions (device position, configuration and operational mode) where the peak spatial-average SAR value determined in Step 1 is within 3 dB of the applicable SAR limit, it is recommended that all other test frequencies shall be tested as well.

Step 3: Examine all data to determine the highest value of the peak spatial-average SAR found in Steps 1 to 2.



Picture 9.1 Block diagram of the tests to be performed

9.2. General Measurement Procedure

The area and zoom scan resolutions specified in the table below must be applied to the SAR measurements and fully documented in SAR reports to qualify for TCB approval. Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1-g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2013. The results should be documented as part of the system validation records and may be requested to support test results when all the measurement parameters in the following table are not satisfied.

<table>
<tr><td colspan="3"></td><td>≤ 3 GHz</td><td>> 3 GHz</td></tr>
<tr><td colspan="3">Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface</td><td>5 ± 1 mm</td><td>½·δ·ln(2) ± 0.5 mm</td></tr>
<tr><td colspan="3">Maximum probe angle from probe axis to phantom surface normal at the measurement location</td><td>30° ± 1°</td><td>20° ± 1°</td></tr>
<tr><td colspan="3" rowspan="2">Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}</td><td>≤ 2 GHz: ≤ 15 mm
2 – 3 GHz: ≤ 12 mm</td><td>3 – 4 GHz: ≤ 12 mm
4 – 6 GHz: ≤ 10 mm</td></tr>
<tr><td colspan="2">When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.</td></tr>
<tr><td colspan="3">Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}</td><td>≤ 2 GHz: ≤ 8 mm
2 – 3 GHz: ≤ 5 mm*</td><td>3 – 4 GHz: ≤ 5 mm*
4 – 6 GHz: ≤ 4 mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan spatial resolution, normal to phantom surface</td><td colspan="2">uniform grid: $\Delta z_{Zoom}(n)$</td><td>≤ 5 mm</td><td>3 – 4 GHz: ≤ 4 mm
4 – 5 GHz: ≤ 3 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td rowspan="2">graded grid</td><td>$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface</td><td>≤ 4 mm</td><td>3 – 4 GHz: ≤ 3 mm
4 – 5 GHz: ≤ 2.5 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td>$\Delta z_{Zoom}(n>1)$: between subsequent points</td><td colspan="2">≤ 1.5·$\Delta z_{Zoom}(n-1)$</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">x, y, z</td><td>≥ 30 mm</td><td>3 – 4 GHz: ≥ 28 mm
4 – 5 GHz: ≥ 25 mm
5 – 6 GHz: ≥ 22 mm</td></tr>
<tr><td colspan="5">Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.
* When zoom scan is required and the <u>reported</u> SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.</td></tr>
</table>

9.3. WCDMA Measurement Procedures for SAR

The following procedures are applicable to WCDMA handsets operating under 3GPP Release99, Release 5 and Release 6. The default test configuration is to measure SAR with an established radio link between the DUT and a communication test set using a 12.2kbps RMC (reference measurement channel) configured in Test Loop Mode 1. SAR is selectively confirmed for other physical channel configurations (DPCCH & $DPDCH_n$), HSDPA and HSPA (HSUPA/HSDPA) modes according to output power, exposure conditions and device operating capabilities. Both uplink and downlink should be configured with the same RMC or AMR, when required. SAR for Release 5 HSDPA and Release 6 HSPA are measured using the applicable FRC (fixed reference channel) and E-DCH reference channel configurations. Maximum output power is verified according to applicable versions of 3GPP TS 34.121 and SAR must be measured according to these maximum output conditions. When Maximum Power Reduction (MPR) is not implemented according to Cubic Metric (CM) requirements for Release 6 HSPA, the following procedures do not apply.

For Release 5 HSDPA Data Devices:

Sub-test	β_c	β_d	β_d (SF)	β_c / β_d	β_{hs}	CM/dB
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15	15/15	64	12/15	24/25	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

For Release 6 HSPA Data Devices

Sub-test	β_c	β_d	β_d (SF)	β_c / β_d	β_{hs}	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM (dB)	MPR (dB)	AG Index	E-TFCI
1	11/15	15/15	64	11/15	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	12/15	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1}:47/15 β_{ed2}:47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	4/15	56/75	4	1	3.0	2.0	17	71
5	15/15	15/15	64	15/15	24/15	30/15	134/15	4	1	1.0	0.0	21	81

9.4. SAR Measurement for LTE

SAR tests for LTE are performed with a base station simulator, Anristu MT8820C. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. All powers were measured with the Anristu MT8820C.It is performed for conducted power and SAR based on the KDB941225 D05.

SAR is evaluated separately according to the following procedures for the different test positions in each exposure condition – head, body, body-worn accessories and other use conditions. The procedures in the following subsections are applied separately to test each LTE frequency band.

1) QPSK with 1 RB allocation

Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

2) QPSK with 50% RB allocation

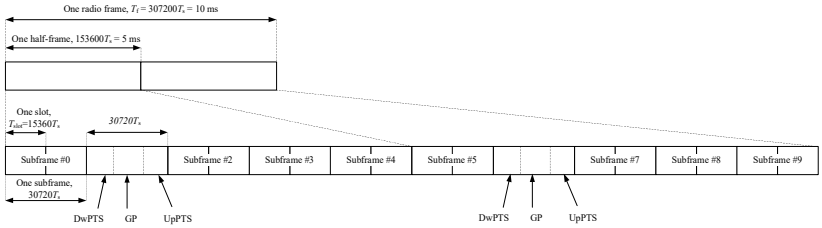
The procedures required for 1 RB allocation in 1) are applied to measure the SAR for QPSK with 50% RB allocation.

3) QPSK with 100% RB allocation

For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in 1) and 2) are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

9.5. LTE (TDD) Considerations

According to KDB 941225 D05 SAR for LTE Devices, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.
SAR was tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7.
LTE TDD Band supports 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.



Frame structure type 2

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-point Periodicity	Subframe Number										Calculated Duty Cycle (%)
		0	1	2	3	4	5	6	7	8	9	
0	5 ms	D	S	U	U	U	D	S	U	U	U	63.33
1	5 ms	D	S	U	U	D	D	S	U	U	D	43.33
2	5 ms	D	S	U	D	D	D	S	U	D	D	23.33
3	10 ms	D	S	U	U	U	D	D	D	D	D	31.67
4	10 ms	D	S	U	U	D	D	D	D	D	D	21.67
5	10 ms	D	S	U	D	D	D	D	D	D	D	11.67
6	5 ms	D	S	U	U	U	D	S	U	U	D	53.33

Calculated Duty Cycle

Calculated Duty Cycle = Extended cyclic prefix in uplink x (Ts) x # of S + # of U
Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:
Calculated Duty Cycle = 5120 x [1/(15000 x 2048)] x 2 + 6 ms = 63.33%
Where:
Ts = 1/(15000 x 2048) seconds

9.6. Bluetooth & WLAN Measurement Procedures for SAR

Normal network operating configurations are not suitable for measuring the SAR of 802.11 transmitters in general. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure that the results are consistent and reliable.
Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in a test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters. The test frequencies should correspond to actual channel frequencies defined for domestic use. SAR for devices with switched diversity should be measured with only one antenna transmitting at a time during each SAR measurement, according to a fixed modulation and data rate. The same data pattern should be used for all measurements.

9.7. Power Drift

To control the output power stability during the SAR test, DASY5 system calculates the power drift by measuring the E-field at the same location at the beginning and at the end of the measurement for each test position. These drift values can be found in Section 12 labeled as: (Power Drift [dB]). This ensures that the power drift during one measurement is within 5%.

9.8. Proximity Sensor Considerations

This device uses a proximity sensor that share the same metallic electrode as the transmitting antenna to facilitate triggering in typical user interactivity with the device. Due to the operating configurations and exposure conditions required by the device, the proximity sensor is used to indicate when the tablet is held close to a user's body exposure condition. It utilizes the proximity sensor to reduce the output power in specific wireless and operating modes to ensure SAR compliance for the following scenarios: To reduce the output power of main antennas during body operating configurations. . It is also set an output power leveled to the lowest one to make sure that in any case of SAR sensor hardware failure the SAR requirements can still be satisfied.

Sensor triggering distance summary data is included in Appendix K.

10. Conducted Output Power

For WWAN antenna, frequency bands WCDMA B2, LTE B2/4/7/25/66 support proximity sensor triggering power reduce function.

Summary of power level – WWAN antenna

Power Level	Sensor	Position
Power Level A1	OFF	Front/Rear/Top side for body SAR
		Right side for body SAR of sensor Trigger distance-1
Power Level B1	ON	Right side for body SAR

10.1. GSM Measurement result

Table 10.1: The conducted power measurement results for GSM/GPRS/EDGE

GSM 850 Power Level A1

GSM 850 Speech	Conducted Power (dBm)			Tune up (dBm)	/			
	Ch.251 (848.8MHz)	Ch.190 (836.6MHz)	Ch.128 (824.2MHz)					
	33.22	33.40	33.15	34.5				
GPRS/EDGE 850 (GMSK)	Measured timeslot-averaged output Power (dBm)			Tune up (dBm)	Calculation (dB)	Source-based time-Averaged output Power (dBm)		
	Ch.251 (848.8MHz)	Ch.190 (836.6MHz)	Ch.128 (824.2MHz)			Ch.251 (848.8MHz)	Ch.190 (836.6MHz)	Ch.128 (824.2MHz)
1 Txslot	33.25	33.43	33.18	34.5	-9.03	24.22	24.40	24.15
2 Txslots	32.23	32.43	**32.58**	33.5	-6.02	26.21	26.41	**26.56**
3 Txslots	29.94	30.23	30.05	31.0	-4.26	25.68	25.97	25.79
4 Txslots	28.93	29.34	29.01	30.0	-3.01	25.92	26.33	26.00
EDGE 850 (8PSK)	Measured timeslot-averaged output Power (dBm)			Tune up (dBm)	Calculation (dB)	Source-based time-Averaged output Power (dBm)		
	Ch.251 (848.8MHz)	Ch.190 (836.6MHz)	Ch.128 (824.2MHz)			Ch.251 (848.8MHz)	Ch.190 (836.6MHz)	Ch.128 (824.2MHz)
1 Txslot	26.91	27.15	27.32	28.0	-9.03	17.88	18.12	18.29
2 Txslots	26.42	26.56	26.51	27.5	-6.02	20.40	20.54	20.49
3 Txslots	24.72	24.79	24.74	25.5	-4.26	20.46	20.53	20.48
4 Txslots	23.45	23.55	23.72	24.5	-3.01	20.44	20.54	20.71

GSM 1900 Power Level A1

GSM 1900 Speech	Conducted Power (dBm)			Tune up (dBm)	/			
	Ch.810 (1909.8MHz)	Ch. 661 (1880MHz)	Ch.512 (1850.2MHz)					
	30.68	30.42	30.60	31.5				
GPRS/EDGE 1900 (GMSK)	Measured timeslot-averaged output Power (dBm)			Tune up (dBm)	Calculation (dB)	Source-based time-Averaged output Power (dBm)		
	Ch.810 (1909.8MHz)	Ch. 661 (1880MHz)	Ch.512 (1850.2MHz)			Ch.810 (1909.8MHz)	Ch. 661 (1880MHz)	Ch.512 (1850.2MHz)
1 Txslot	30.70	30.47	30.63	31.5	-9.03	21.67	21.44	21.60
2 Txslots	29.55	29.23	29.54	30.5	-6.02	23.53	23.21	23.52
3 Txslots	27.54	27.21	27.38	28.5	-4.26	23.28	22.95	23.12
4 Txslots	**26.58**	26.12	26.25	27.5	-3.01	23.57	23.11	23.24
EDGE 1900 (8PSK)	Measured timeslot-averaged output Power (dBm)			Tune up (dBm)	Calculation (dB)	Source-based time-Averaged output Power (dBm)		
	Ch.810 (1909.8MHz)	Ch. 661 (1880MHz)	Ch.512 (1850.2MHz)			Ch.810 (1909.8MHz)	Ch. 661 (1880MHz)	Ch.512 (1850.2MHz)
1 Txslot	26.56	25.95	26.18	27.0	-9.03	17.53	16.92	17.15
2 Txslots	25.57	25.07	25.35	26.5	-6.02	19.55	19.05	19.33
3 Txslots	23.56	22.98	23.34	24.5	-4.26	19.30	18.72	19.08
4 Txslots	22.41	21.97	22.21	23.5	-3.01	19.40	18.96	19.20

10.2. WCDMA Measurement result

Table 10.2: The conducted power measurement results WCDMA

WCDMA Band 2 Power Level A1

WCDMA Band 2		Conducted Power (dBm)			Tune up (dBm)
		Ch. 9538 (1907.6MHz)	Ch. 9400 (1880.0MHz)	Ch. 9262 (1852.4MHz)	
RMC	12.2kbps RMC	**23.42**	23.32	22.94	**24.0**
HSUPA	Sub - Test 1	20.70	20.57	20.29	**21.5**
	Sub - Test 2	20.80	20.72	20.32	**21.5**
	Sub - Test 3	20.61	20.51	20.18	**21.5**
	Sub - Test 4	19.57	19.52	19.18	**20.5**
	Sub - Test 5	21.70	21.60	21.23	**23.0**
HSDPA	Sub - Test 1	22.12	22.00	21.68	**23.0**
	Sub - Test 2	22.19	22.13	21.75	**23.0**
	Sub - Test 3	21.62	21.49	21.17	**22.5**
	Sub - Test 4	21.48	21.36	21.06	**22.5**
DC-HSDPA	Sub - Test 1	22.09	22.02	21.69	**23.0**
	Sub - Test 2	22.16	22.11	21.72	**23.0**
	Sub - Test 3	21.61	21.51	21.19	**22.5**
	Sub - Test 4	21.49	21.40	21.08	**22.5**
HSPA+	16QAM	22.84	22.77	22.53	**23.5**

WCDMA Band 2 Power Level B1

WCDMA Band 2		Conducted Power (dBm)			Tune up (dBm)
		Ch. 9538 (1907.6MHz)	Ch. 9400 (1880.0MHz)	Ch. 9262 (1852.4MHz)	
RMC	12.2kbps RMC	**20.18**	20.08	20.01	**21.0**
HSUPA	Sub - Test 1	18.17	18.07	17.98	**19.0**
	Sub - Test 2	18.29	18.19	18.04	**19.0**
	Sub - Test 3	18.21	18.11	17.95	**19.0**
	Sub - Test 4	17.10	17.00	16.86	**18.0**
	Sub - Test 5	19.22	19.12	18.92	**20.0**
HSDPA	Sub - Test 1	19.01	18.91	18.72	**20.0**
	Sub - Test 2	19.09	18.99	18.84	**20.0**
	Sub - Test 3	18.64	18.54	18.39	**19.5**
	Sub - Test 4	18.68	18.58	18.43	**19.5**
DC-HSDPA	Sub - Test 1	19.01	18.93	18.73	**20.0**
	Sub - Test 2	19.08	18.97	18.84	**20.0**
	Sub - Test 3	18.62	18.59	18.47	**19.5**
	Sub - Test 4	18.68	18.55	18.44	**19.5**
HSPA+	16QAM	19.45	19.32	19.19	**20.5**

WCDMA Band 4 Power Level A1

WCDMA Band 4		Conducted Power (dBm)			Tune up (dBm)
		Ch. 1513 (1752.6MHz)	Ch. 1413 (1732.6MHz)	Ch. 1312 (1712.4MHz)	
RMC	12.2kbps RMC	22.98	23.11	**23.14**	**24.0**
HSUPA	Sub - Test 1	20.48	20.62	20.68	**21.5**
	Sub - Test 2	20.55	20.67	20.76	**21.5**
	Sub - Test 3	20.53	20.70	20.74	**21.5**
	Sub - Test 4	19.47	19.56	19.69	**20.5**
	Sub - Test 5	21.54	21.71	21.77	**23.0**
HSDPA	Sub - Test 1	21.67	21.78	21.90	**23.0**
	Sub - Test 2	21.76	21.90	21.94	**23.0**
	Sub - Test 3	21.15	21.34	21.37	**22.5**
	Sub - Test 4	21.18	21.31	21.36	**22.5**
DC-HSDPA	Sub - Test 1	21.63	21.76	21.93	**23.0**
	Sub - Test 2	21.71	21.92	21.95	**23.0**
	Sub - Test 3	21.10	21.36	21.40	**22.5**
	Sub - Test 4	21.19	21.35	21.32	**22.5**
HSPA+	16QAM	22.30	22.45	22.52	**23.5**

WCDMA Band 5 Power Level A1

WCDMA Band 5		Conducted Power (dBm)			Tune up (dBm)
		Ch. 4233 (846.6MHz)	Ch .4183 (836.6MHz)	Ch. 4132 (826.4MHz)	
RMC	12.2kbps RMC	**22.99**	22.98	22.86	**24.0**
HSUPA	Sub - Test 1	20.52	20.45	20.37	**21.5**
	Sub - Test 2	20.13	20.09	20.01	**21.5**
	Sub - Test 3	20.48	20.46	20.38	**21.5**
	Sub - Test 4	19.09	19.06	18.98	**20.5**
	Sub - Test 5	21.28	21.25	21.17	**23.0**
HSDPA	Sub - Test 1	21.55	21.48	21.40	**23.0**
	Sub - Test 2	21.64	21.59	21.51	**23.0**
	Sub - Test 3	21.04	20.98	20.90	**22.5**
	Sub - Test 4	21.02	21.00	20.92	**22.5**
DC-HSDPA	Sub - Test 1	21.54	21.48	21.36	**23.0**
	Sub - Test 2	21.66	21.58	21.54	**23.0**
	Sub - Test 3	21.01	20.99	20.89	**22.5**
	Sub - Test 4	21.05	21.01	20.90	**22.5**
HSPA+	16QAM	22.19	22.24	22.37	**23.5**

10.3. LTE Measurement result

According to April 2015 TCB workshop, SAR Test exclusion can be applied for testing overlapping LTE Bands as follows:

a) The maximum out power, including tolerance, for the smaller band must be ≤ the larger band to qualify for SAR test exclusion.

b) The channel bandwidth and other operating parameters for the smaller band must be fully supported by the larger band.

LTE Band 2 (1850-1910MHz) is covered by LTE Band 25 (1850-1915MHz)

LTE Band 4 (1710-1755MHz) is covered by LTE Band 66 (1710-1780MHz)

LTE Band 5 (824-849MHz) is covered by LTE Band 26 (814-849MHz)

LTE Band 17 (704-716MHz) is covered by LTE Band 12 (699-716MHz)

LTE Band 38 (2570-2620MHz) is covered by LTE Band 41 (2496-2690MHz)

Table 10.3: The conducted Power for LTE

LTE Band 7 Power Level A1

Bandwidth	Number of RBs	Frequency	QPSK	16QAM	64QAM	QPSK Tune-up	16QAM Tune-up	64QAM Tune-up
5MHz	1RB-High (24)	2567.5	22.19	21.20	20.13	23.5	22.5	21.5
		2535.0	22.19	21.28	20.20			
		2502.5	22.28	21.26	20.26			
	1RB-Middle (12)	2567.5	22.02	21.28	20.66			
		2535.0	22.45	21.26	20.61			
		2502.5	22.31	21.25	20.72			
	1RB-Low (0)	2567.5	22.27	21.04	20.19			
		2535.0	22.08	20.88	20.14			
		2502.5	21.99	20.90	20.08			
	12RB-High (13)	2567.5	21.41	20.39	19.12	22.5	21.5	20.5
		2535.0	21.29	20.40	19.31			
		2502.5	21.28	20.31	18.92			
	12RB-Middle (6)	2567.5	21.46	20.23	19.17			
		2535.0	21.29	20.42	19.30			
		2502.5	21.36	20.29	18.97			
	12RB-Low (0)	2567.5	21.36	20.16	18.99			
		2535.0	21.21	20.42	19.32			
		2502.5	21.33	20.29	18.93			
	25RB (0)	2567.5	21.29	20.49	19.08			
		2535.0	21.22	20.42	19.28			
		2502.5	21.28	20.30	19.31			
10MHz	1RB-High (49)	2565.0	22.06	21.36	20.37	23.5	22.5	21.5
		2535.0	22.18	21.34	20.29			
		2505.0	22.13	21.24	20.02			
	1RB-Middle (24)	2565.0	22.26	21.29	20.48			
		2535.0	22.22	21.22	20.42			
		2505.0	22.32	21.31	20.56			
	1RB-Low (0)	2565.0	22.25	21.33	20.30			
		2535.0	22.14	20.98	20.29			
		2505.0	22.10	21.07	20.16			
	25RB-High (25)	2565.0	21.38	20.37	19.46	22.5	21.5	20.5
		2535.0	21.29	20.42	19.34			
		2505.0	21.41	20.51	19.32			
	25RB-Middle (12)	2565.0	21.34	20.36	19.51			
		2535.0	21.30	20.37	19.35			
		2505.0	21.39	20.44	19.31			
	25RB-Low (0)	2565.0	21.30	20.39	19.40			
		2535.0	21.21	20.36	19.11			
		2505.0	21.22	20.29	19.24			
	50RB (0)	2565.0	21.35	20.52	19.22			
		2535.0	21.29	20.35	19.23			
		2505.0	21.44	20.41	19.28			
15MHz	1RB-High (74)	2562.5	22.18	21.33	20.50	23.5	22.5	21.5
		2535.0	22.21	21.20	20.41			
		2507.5	22.35	21.17	20.34			
	1RB-Middle (37)	2562.5	22.13	21.26	20.74			
		2535.0	22.11	21.08	20.61			
		2507.5	22.25	21.23	20.61			
	1RB-Low (0)	2562.5	22.01	20.94	20.25			
		2535.0	22.00	21.18	20.31			
		2507.5	21.90	21.08	20.23			
	36RB-High (38)	2562.5	21.32	20.49	19.18	22.5	21.5	20.5
		2535.0	21.27	20.35	19.35			
		2507.5	21.34	20.33	19.21			
	36RB-Middle (19)	2562.5	21.24	20.41	19.35			
		2535.0	21.16	20.30	19.32			
		2507.5	21.29	20.41	19.40			
	36RB-Low (0)	2562.5	21.26	20.33	19.32			
		2535.0	21.20	20.24	19.27			
		2507.5	21.28	20.27	19.10			
	75RB (0)	2562.5	21.24	20.47	19.27			
		2535.0	21.26	20.24	19.10			
		2507.5	21.35	20.34	19.20			
20MHz	1RB-High (99)	2560.0	22.25	21.42	20.37	23.5	22.5	21.5
		2535.0	22.32	21.32	20.67			
		2510.0	22.33	20.99	20.66			
	1RB-Middle (50)	2560.0	22.26	20.81	20.32			
		2535.0	22.34	21.29	20.48			
		2510.0	**22.59**	21.27	20.54			
	1RB-Low (0)	2560.0	22.23	21.23	20.14			
		2535.0	21.74	21.24	20.24			
		2510.0	22.09	21.04	20.08			
	50RB-High (50)	2560.0	21.39	20.30	19.28	22.5	21.5	20.5
		2535.0	21.32	20.30	19.15			
		2510.0	**21.45**	20.45	19.21			
	50RB-Middle (25)	2560.0	21.38	20.52	19.39			
		2535.0	21.32	20.34	19.26			
		2510.0	21.38	20.49	19.14			
	50RB-Low (0)	2560.0	21.31	20.43	19.09			
		2535.0	21.29	20.29	19.08			
		2510.0	21.44	20.43	19.23			
	100RB (0)	2560.0	21.37	20.47	19.38			
		2535.0	21.34	20.26	19.29			
		2510.0	21.44	20.48	19.32			

LTE Band 7 Power Level B1

Bandwidth	Number of RBs	Frequency	QPSK	16QAM	64QAM	QPSK Tune-up	16QAM Tune-up	64QAM Tune-up
5MHz	1RB-High (24)	2567.5	20.08	21.10	20.86	21.5	21.5	21.5
		2535.0	21.02	20.91	20.40			
		2502.5	20.76	21.10	20.62			
	1RB-Middle (12)	2567.5	20.46	20.93	20.32			
		2535.0	21.00	21.13	21.03			
		2502.5	21.03	21.02	20.93			
	1RB-Low (0)	2567.5	20.06	21.04	20.49			
		2535.0	21.15	20.99	20.43			
		2502.5	20.93	20.82	20.45			
	12RB-High (13)	2567.5	20.10	20.67	19.30	21.5	21.5	20.5
		2535.0	21.09	20.70	19.33			
		2502.5	21.15	20.55	19.91			
	12RB-Middle (6)	2567.5	20.13	20.79	19.28			
		2535.0	21.11	20.59	19.31			
		2502.5	21.13	20.47	19.92			
	12RB-Low (0)	2567.5	20.09	20.65	19.26			
		2535.0	21.12	20.59	19.20			
		2502.5	21.12	20.48	19.89			
	25RB (0)	2567.5	20.38	20.65	19.60			
		2535.0	21.03	20.73	19.55			
		2502.5	21.15	20.79	19.68			
10MHz	1RB-High (49)	2565.0	20.29	21.19	20.51	21.5	21.5	21.5
		2535.0	21.11	21.18	20.89			
		2505.0	21.16	21.18	21.07			
	1RB-Middle (24)	2565.0	20.22	21.16	20.71			
		2535.0	21.15	21.12	21.15			
		2505.0	21.35	21.08	20.72			
	1RB-Low (0)	2565.0	20.24	21.04	20.50			
		2535.0	20.97	21.10	20.53			
		2505.0	20.99	20.92	20.58			
	25RB-High (25)	2565.0	20.20	20.80	19.49	21.5	21.5	20.5
		2535.0	21.11	20.79	19.71			
		2505.0	21.26	20.82	19.70			
	25RB-Middle (12)	2565.0	20.20	20.68	19.77			
		2535.0	21.09	20.78	19.64			
		2505.0	21.31	20.74	19.62			
	25RB-Low (0)	2565.0	20.49	20.70	19.78			
		2535.0	21.14	20.78	19.44			
		2505.0	21.25	20.68	19.61			
	50RB (0)	2565.0	20.19	20.62	19.59			
		2535.0	21.12	20.65	19.54			
		2505.0	21.29	20.81	19.65			
15MHz	1RB-High (74)	2562.5	19.99	21.05	20.59	21.5	21.5	21.5
		2535.0	20.97	21.28	21.03			
		2507.5	21.29	21.17	20.77			
	1RB-Middle (37)	2562.5	20.14	21.14	21.00			
		2535.0	21.15	21.02	20.75			
		2507.5	21.30	21.17	20.55			
	1RB-Low (0)	2562.5	19.99	20.92	20.43			
		2535.0	21.11	21.14	20.53			
		2507.5	21.11	20.89	20.67			
	36RB-High (38)	2562.5	20.21	20.76	19.64	21.5	21.5	20.5
		2535.0	21.20	20.62	19.44			
		2507.5	21.21	20.75	19.63			
	36RB-Middle (19)	2562.5	20.49	20.75	19.57			
		2535.0	21.12	20.75	19.51			
		2507.5	21.28	20.75	19.72			
	36RB-Low (0)	2562.5	20.44	20.72	19.55			
		2535.0	21.14	20.68	19.46			
		2507.5	21.23	20.57	19.63			
	75RB (0)	2562.5	19.51	20.70	19.72			
		2535.0	21.13	20.57	19.53			
		2507.5	21.30	20.75	19.55			
20MHz	1RB-High (99)	2560.0	20.92	20.84	20.61	21.5	21.5	21.5
		2535.0	21.02	21.12	20.81			
		2510.0	21.01	20.85	20.95			
	1RB-Middle (50)	2560.0	20.99	20.94	20.43			
		2535.0	21.07	21.21	20.46			
		2510.0	**21.18**	21.10	20.83			
	1RB-Low (0)	2560.0	20.47	20.62	20.38			
		2535.0	20.88	20.92	20.45			
		2510.0	20.87	20.65	20.78			
	50RB-High (50)	2560.0	21.02	20.63	19.59	21.5	21.5	20.5
		2535.0	20.93	20.56	19.44			
		2510.0	**21.14**	20.63	19.58			
	50RB-Middle (25)	2560.0	20.98	20.62	19.43			
		2535.0	20.93	20.52	19.44			
		2510.0	21.05	20.75	19.57			
	50RB-Low (0)	2560.0	20.88	20.52	19.25			
		2535.0	20.90	20.58	19.33			
		2510.0	21.13	20.73	19.54			
	100RB (0)	2560.0	20.97	20.50	19.54			
		2535.0	20.96	20.44	19.46			
		2510.0	21.11	20.68	19.41			

LTE Band 12 Power Level A1

Bandwidth	Number of RBs	Frequency	QPSK	16QAM	64QAM	QPSK Tune-up	16QAM Tune-up	64QAM Tune-up
1.4MHz	1RB-High (5)	715.3	22.34	21.38	20.57	23.5	22.5	21.5
		707.5	22.27	21.16	20.68			
		699.7	22.04	21.04	20.68			
	1RB-Middle (3)	715.3	22.40	21.56	20.44			
		707.5	22.47	21.45	20.14			
		699.7	22.13	21.16	20.05			
	1RB-Low (0)	715.3	22.31	21.45	20.61			
		707.5	22.39	21.39	19.90			
		699.7	22.20	21.21	19.91			
	3RB-High (3)	715.3	22.37	21.30	20.42			
		707.5	22.32	21.51	20.15			
		699.7	22.31	21.16	19.78			
	3RB-Middle (1)	715.3	22.40	21.43	20.19			
		707.5	22.39	21.78	20.26			
		699.7	22.31	21.11	19.82			
	3RB-Low (0)	715.3	22.34	21.33	20.26			
		707.5	22.43	21.49	20.16			
		699.7	22.42	21.17	19.91			
	6RB (0)	715.3	21.35	20.18	19.26	22.5	21.5	20.5
		707.5	21.39	20.30	19.33			
		699.7	21.17	20.13	19.09			
3MHz	1RB-High (14)	714.5	22.25	21.14	20.46	23.5	22.5	21.5
		707.5	22.27	20.79	20.60			
		700.5	22.17	21.36	20.23			
	1RB-Middle (7)	714.5	22.59	21.34	20.34			
		707.5	22.43	21.02	20.45			
		700.5	22.29	21.16	20.36			
	1RB-Low (0)	714.5	22.40	21.13	20.49			
		707.5	22.46	21.11	20.37			
		700.5	22.31	21.34	19.96			
	8RB-High (7)	714.5	21.44	20.58	19.20	22.5	21.5	20.5
		707.5	21.33	20.35	19.09			
		700.5	21.20	20.29	19.05			
	8RB-Middle (4)	714.5	21.34	20.47	19.19			
		707.5	21.39	20.50	19.17			
		700.5	21.21	20.29	19.03			
	8RB-Low (0)	714.5	21.37	20.21	19.21			
		707.5	21.37	20.37	19.27			
		700.5	21.26	20.27	19.05			
	15RB (0)	714.5	21.39	20.35	19.46			
		707.5	21.27	20.13	19.32			
		700.5	21.21	20.28	19.34			
5MHz	1RB-High (24)	713.5	22.26	21.27	20.29	23.5	22.5	21.5
		707.5	22.22	21.12	20.07			
		701.5	21.95	21.13	20.16			
	1RB-Middle (12)	713.5	22.39	21.28	20.05			
		707.5	22.67	21.34	20.81			
		701.5	22.49	21.09	20.71			
	1RB-Low (0)	713.5	22.21	21.25	20.30			
		707.5	22.29	21.28	20.21			
		701.5	22.24	21.19	20.33			
	12RB-High (13)	713.5	21.29	20.27	19.39	22.5	21.5	20.5
		707.5	21.21	20.27	19.24			
		701.5	21.05	20.18	18.83			
	12RB-Middle (6)	713.5	21.42	20.32	19.40			
		707.5	21.39	20.45	19.54			
		701.5	21.20	20.25	19.08			
	12RB-Low (0)	713.5	21.32	20.33	19.37			
		707.5	21.47	20.26	19.16			
		701.5	21.09	20.24	19.06			
	25RB (0)	713.5	21.36	20.27	19.40			
		707.5	21.34	20.21	19.45			
		701.5	21.16	20.09	19.04			
10MHz	1RB-High (49)	711.0	22.35	21.33	20.76	23.5	22.5	21.5
		707.5	22.35	21.30	20.74			
		704.0	22.18	21.10	20.21			
	1RB-Middle (24)	711.0	22.55	21.30	20.55			
		707.5	22.46	21.37	20.55			
		704.0	22.30	20.99	20.31			
	1RB-Low (0)	711.0	22.45	21.26	20.33			
		707.5	22.08	20.81	19.96			
		704.0	22.17	21.09	20.31			
	25RB-High (25)	711.0	21.47	20.47	19.53	22.5	21.5	20.5
		707.5	21.35	20.41	19.43			
		704.0	21.27	20.28	19.12			
	25RB-Middle (12)	711.0	21.40	20.44	19.46			
		707.5	21.35	20.46	19.45			
		704.0	21.14	20.14	19.33			
	25RB-Low (0)	711.0	21.37	20.40	19.20			
		707.5	21.31	20.43	19.22			
		704.0	21.11	20.19	19.34			
	50RB (0)	711.0	21.41	20.42	19.41			
		707.5	21.36	20.38	19.29			
		704.0	21.30	20.30	19.18			

LTE Band 13 Power Level A1

Bandwidth	Number of RBs	Frequency	QPSK	16QAM	64QAM	QPSK Tune-up	16QAM Tune-up	64QAM Tune-up
5MHz	1RB-High (24)	784.5	22.28	21.17	20.34	23.5	22.5	21.5
		782.0	22.33	21.27	20.37			
		779.5	22.28	21.13	20.47			
	1RB-Middle (12)	784.5	22.44	21.33	20.82			
		782.0	22.51	21.32	20.86			
		779.5	22.31	21.36	20.97			
	1RB-Low (0)	784.5	22.04	21.36	20.40			
		782.0	22.30	21.27	20.38			
		779.5	22.20	21.13	20.28			
	12RB-High (13)	784.5	21.41	20.27	19.49	22.5	21.5	20.5
		782.0	21.44	20.59	19.16			
		779.5	21.53	20.39	19.57			
	12RB-Middle (6)	784.5	21.42	20.30	19.59			
		782.0	21.47	20.60	19.27			
		779.5	21.40	20.45	19.34			
	12RB-Low (0)	784.5	21.45	20.25	19.23			
		782.0	21.45	20.59	19.25			
		779.5	21.33	20.38	19.27			
	25RB (0)	784.5	21.43	20.50	19.27			
		782.0	21.49	20.53	19.57			
		779.5	21.38	20.45	19.29			
10MHz	1RB-High (49)	782.0	22.35	21.29	20.42	23.5	22.5	21.5
	1RB-Middle (24)	782.0	22.57	21.35	20.61			
	1RB-Low (0)	782.0	22.31	21.16	20.31			
	25RB-High (25)	782.0	21.45	20.57	19.35	22.5	21.5	20.5
	25RB-Middle (12)	782.0	21.47	20.60	19.57			
	25RB-Low (0)	782.0	21.36	20.48	19.55			
	50RB (0)	782.0	21.50	20.43	19.49			

LTE Band 14 Power Level A1

Bandwidth	Number of RBs	Frequency	QPSK	16QAM	64QAM	QPSK Tune-up	16QAM Tune-up	64QAM Tune-up
5MHz	1RB-High (24)	795.5	22.32	21.30	20.29	23.5	22.5	21.5
		793.0	22.36	21.29	20.36			
		790.5	22.36	21.32	20.38			
	1RB-Middle (12)	795.5	22.59	21.32	20.79			
		793.0	22.31	21.30	20.83			
		790.5	22.59	21.22	20.78			
	1RB-Low (0)	795.5	22.35	20.58	20.36			
		793.0	22.25	21.28	20.45			
		790.5	22.25	21.17	20.24			
	12RB-High (13)	795.5	21.39	20.49	19.52	22.5	21.5	20.5
		793.0	21.37	20.44	19.37			
		790.5	21.46	20.48	19.58			
	12RB-Middle (6)	795.5	21.37	20.49	19.60			
		793.0	21.47	20.46	19.39			
		790.5	21.46	20.40	19.51			
	12RB-Low (0)	795.5	21.36	20.47	19.52			
		793.0	21.39	20.47	19.42			
		790.5	21.37	20.40	19.52			
	25RB (0)	795.5	21.41	20.53	19.42			
		793.0	21.43	20.49	19.49			
		790.5	21.39	20.40	19.29			
10MHz	1RB-High (49)	793.0	22.24	21.31	20.38	23.5	22.5	21.5
	1RB-Middle (24)	793.0	22.54	21.27	20.68			
	1RB-Low (0)	793.0	22.28	21.14	20.29			
	25RB-High (25)	793.0	21.46	20.33	19.34	22.5	21.5	20.5
	25RB-Middle (12)	793.0	21.47	20.41	19.49			
	25RB-Low (0)	793.0	21.35	20.34	19.55			
	50RB (0)	793.0	21.35	20.45	19.46			

LTE Band 25 Power Level A1

Bandwidth	Number of RBs	Frequency	QPSK	16QAM	64QAM	QPSK Tune-up	16QAM Tune-up	64QAM Tune-up
1.4MHz	1RB-High (5)	1914.3	21.95	20.79	20.37	23.5	22.5	21.5
		1882.5	21.73	20.74	19.69			
		1850.7	22.13	20.62	20.14			
	1RB-Middle (3)	1914.3	22.09	21.02	20.56			
		1882.5	21.83	21.11	20.07			
		1850.7	22.20	21.13	20.21			
	1RB-Low (0)	1914.3	22.08	20.84	20.37			
		1882.5	21.87	21.05	19.81			
		1850.7	22.22	21.16	20.18			
	3RB-High (3)	1914.3	22.02	21.15	20.12			
		1882.5	22.17	21.30	20.17			
		1850.7	22.24	21.22	20.12			
	3RB-Middle (1)	1914.3	22.11	21.13	20.13			
		1882.5	22.23	21.28	20.17			
		1850.7	22.38	21.22	19.80			
	3RB-Low (0)	1914.3	21.92	21.13	20.09			
		1882.5	22.05	21.22	20.10			
		1850.7	22.23	21.20	19.73			
	6RB (0)	1914.3	21.08	20.18	19.03	22.5	21.5	20.5
		1882.5	21.10	20.24	19.02			
		1850.7	21.16	20.34	19.07			
3MHz	1RB-High (14)	1913.5	22.14	20.89	20.14	23.5	22.5	21.5
		1882.5	22.06	20.98	20.12			
		1851.5	22.12	20.84	20.18			
	1RB-Middle (7)	1913.5	22.23	21.10	20.35			
		1882.5	21.95	20.98	20.15			
		1851.5	22.24	21.03	20.57			
	1RB-Low (0)	1913.5	21.84	21.03	20.13			
		1882.5	22.00	20.56	20.10			
		1851.5	22.09	20.87	20.29			
	8RB-High (7)	1913.5	21.21	20.35	19.25	22.5	21.5	20.5
		1882.5	21.15	20.04	19.10			
		1851.5	21.17	20.15	19.17			
	8RB-Middle (4)	1913.5	21.19	20.34	19.16			
		1882.5	21.00	20.05	19.11			
		1851.5	21.14	20.13	19.17			
	8RB-Low (0)	1913.5	21.13	20.36	19.38			
		1882.5	21.07	19.97	19.08			
		1851.5	21.25	20.17	19.19			
	15RB (0)	1913.5	21.20	20.41	19.35			
		1882.5	21.07	20.15	19.21			
		1851.5	21.17	20.23	19.24			
5MHz	1RB-High (24)	1912.5	22.00	21.01	20.02	23.5	22.5	21.5
		1882.5	21.85	20.92	19.98			
		1852.5	21.86	20.91	20.02			
	1RB-Middle (12)	1912.5	22.28	20.90	20.13			
		1882.5	21.75	20.93	20.44			
		1852.5	22.09	20.98	20.60			
	1RB-Low (0)	1912.5	21.97	21.00	20.02			
		1882.5	21.98	20.98	19.94			
		1852.5	21.98	20.79	20.09			
	12RB-High (13)	1912.5	21.13	20.14	19.36	22.5	21.5	20.5
		1882.5	21.04	20.09	19.19			
		1852.5	21.16	20.09	19.21			
	12RB-Middle (6)	1912.5	21.18	20.22	19.34			
		1882.5	21.04	20.12	19.17			
		1852.5	21.16	20.18	19.23			
	12RB-Low (0)	1912.5	21.04	20.11	19.21			
		1882.5	21.04	20.04	19.20			
		1852.5	21.10	20.12	19.24			
	25RB (0)	1912.5	21.24	20.29	19.37			
		1882.5	21.01	19.94	18.97			
		1852.5	21.10	20.38	19.11			
10MHz	1RB-High (49)	1910.0	21.95	21.18	20.62	23.5	22.5	21.5
		1882.5	22.08	20.84	20.07			
		1855.0	22.22	20.94	20.20			
	1RB-Middle (24)	1910.0	22.09	20.94	20.91			
		1882.5	21.78	20.95	20.17			
		1855.0	22.20	20.98	20.24			
	1RB-Low (0)	1910.0	21.88	21.18	20.13			
		1882.5	22.02	21.02	20.09			
		1855.0	22.24	21.04	20.28			
	25RB-High (25)	1910.0	21.13	20.36	19.26	22.5	21.5	20.5
		1882.5	21.04	20.13	19.22			
		1855.0	21.11	20.19	19.09			
	25RB-Middle (12)	1910.0	21.04	20.14	19.18			
		1882.5	21.00	20.20	19.25			
		1855.0	21.15	20.31	19.09			
	25RB-Low (0)	1910.0	21.18	20.15	19.32			
		1882.5	21.08	20.16	18.88			
		1855.0	21.16	20.27	19.06			
	50RB (0)	1910.0	21.13	20.23	19.21			
		1882.5	21.09	20.15	19.11			
		1855.0	21.08	20.27	19.11			
15MHz	1RB-High (74)	1907.5	22.01	21.08	20.22	23.5	22.5	21.5
		1882.5	21.96	20.77	20.46			
		1857.5	21.97	20.88	20.50			
	1RB-Middle (37)	1907.5	22.01	20.83	20.52			
		1882.5	21.70	20.85	20.09			
		1857.5	22.10	20.90	20.42			
	1RB-Low (0)	1907.5	21.94	20.69	20.36			
		1882.5	21.99	20.80	20.19			
		1857.5	22.07	21.07	20.36			
	36RB-High (38)	1907.5	21.09	20.08	19.12	22.5	21.5	20.5
		1882.5	20.95	20.11	19.09			
		1857.5	21.12	20.13	19.19			
	36RB-Middle (19)	1907.5	21.16	20.16	19.09			
		1882.5	21.08	20.05	19.21			
		1857.5	21.17	20.16	19.26			
	36RB-Low (0)	1907.5	21.14	20.14	19.16			
		1882.5	21.03	20.03	19.15			
		1857.5	21.14	20.13	19.29			
	75RB (0)	1907.5	21.16	20.08	19.18			
		1882.5	21.07	20.04	19.00			
		1857.5	21.08	20.15	19.14			
20MHz	1RB-High (99)	1905.0	22.06	20.99	20.41	23.5	22.5	21.5
		1882.5	21.85	20.78	20.40			
		1860.0	22.14	20.69	20.38			
	1RB-Middle (50)	1905.0	**22.23**	21.08	20.55			
		1882.5	22.07	21.09	20.56			
		1860.0	22.16	21.16	20.29			
	1RB-Low (0)	1905.0	21.75	20.63	20.17			
		1882.5	22.05	21.05	20.22			
		1860.0	22.12	21.04	20.22			
	50RB-High (50)	1905.0	21.12	20.01	19.17	22.5	21.5	20.5
		1882.5	21.01	20.15	19.04			
		1860.0	21.09	20.14	19.13			
	50RB-Middle (25)	1905.0	21.11	20.24	19.14			
		1882.5	21.04	20.11	19.07			
		1860.0	21.13	20.18	19.19			
	50RB-Low (0)	1905.0	**21.20**	20.25	19.16			
		1882.5	21.05	19.98	19.07			
		1860.0	21.19	20.16	19.15			
	100RB (0)	1905.0	21.14	20.16	19.26			
		1882.5	21.00	20.02	19.01			
		1860.0	21.11	20.15	19.23			

LTE Band 25 Power Level B1

Bandwidth	Number of RBs	Frequency	QPSK	16QAM	64QAM	QPSK Tune-up	16QAM Tune-up	64QAM Tune-up
1.4MHz	1RB-High (5)	1914.3	19.82	19.40	19.97	20.5	20.5	20.5
		1882.5	19.76	19.91	19.77			
		1850.7	19.59	19.68	20.39			
	1RB-Middle (3)	1914.3	19.84	19.77	20.45			
		1882.5	19.76	20.02	19.71			
		1850.7	19.68	19.86	20.39			
	1RB-Low (0)	1914.3	19.74	19.58	20.15			
		1882.5	19.68	19.36	20.05			
		1850.7	19.70	19.46	20.24			
	3RB-High (3)	1914.3	19.75	19.59	19.75			
		1882.5	19.78	19.93	19.75			
		1850.7	19.84	20.04	19.92			
	3RB-Middle (1)	1914.3	19.73	19.72	19.91			
		1882.5	19.80	19.86	19.88			
		1850.7	19.89	19.96	19.94			
	3RB-Low (0)	1914.3	19.73	19.60	19.82			
		1882.5	19.78	19.90	19.88			
		1850.7	19.92	19.91	19.94			
	6RB (0)	1914.3	19.69	19.78	19.17			
		1882.5	19.77	19.83	19.24			
		1850.7	19.84	19.82	19.35			
3MHz	1RB-High (14)	1913.5	19.73	19.85	20.30	20.5	20.5	20.5
		1882.5	19.64	19.68	19.77			
		1851.5	19.87	19.80	19.92			
	1RB-Middle (7)	1913.5	19.82	19.74	19.95			
		1882.5	19.80	19.64	19.50			
		1851.5	19.91	19.75	20.02			
	1RB-Low (0)	1913.5	19.77	19.43	19.81			
		1882.5	19.72	19.42	19.35			
		1851.5	19.86	19.60	19.93			
	8RB-High (7)	1913.5	19.85	19.84	19.39	20.5	20.5	20.5
		1882.5	19.78	19.82	19.17			
		1851.5	19.94	19.81	19.40			
	8RB-Middle (4)	1913.5	19.92	19.83	19.44			
		1882.5	19.74	19.86	19.26			
		1851.5	19.92	19.89	19.35			
	8RB-Low (0)	1913.5	19.92	19.63	19.40			
		1882.5	19.82	19.77	19.29			
		1851.5	19.94	19.82	19.29			
	15RB (0)	1913.5	19.84	19.89	19.37			
		1882.5	19.77	19.96	19.33			
		1851.5	19.84	19.87	19.68			
5MHz	1RB-High (24)	1912.5	19.48	19.55	20.35	20.5	20.5	20.5
		1882.5	19.63	19.48	19.87			
		1852.5	19.44	19.64	19.90			
	1RB-Middle (12)	1912.5	19.46	19.64	20.05			
		1882.5	19.88	19.60	20.36			
		1852.5	20.02	19.66	20.34			
	1RB-Low (0)	1912.5	19.55	19.49	19.22			
		1882.5	19.60	19.52	19.85			
		1852.5	19.56	19.45	19.93			
	12RB-High (13)	1912.5	19.87	19.90	19.67	20.5	20.5	20.5
		1882.5	19.70	19.74	19.49			
		1852.5	19.81	19.71	19.35			
	12RB-Middle (6)	1912.5	19.92	19.86	19.65			
		1882.5	19.77	19.78	19.55			
		1852.5	19.82	19.92	19.48			
	12RB-Low (0)	1912.5	19.69	19.80	19.51			
		1882.5	19.70	19.72	19.48			
		1852.5	19.86	19.84	19.41			
	25RB (0)	1912.5	19.83	19.74	19.67			
		1882.5	19.70	19.84	19.43			
		1852.5	19.84	19.74	19.66			
10MHz	1RB-High (49)	1910.0	19.93	19.53	20.14	20.5	20.5	20.5
		1882.5	19.78	19.57	20.39			
		1855.0	19.92	19.71	20.09			
	1RB-Middle (24)	1910.0	19.94	19.63	20.16			
		1882.5	19.95	19.60	20.08			
		1855.0	19.88	19.62	20.17			
	1RB-Low (0)	1910.0	19.95	19.74	20.20			
		1882.5	19.87	19.57	20.14			
		1855.0	19.82	19.85	20.09			
	25RB-High (25)	1910.0	19.84	20.05	19.56	20.5	20.5	20.5
		1882.5	19.72	19.68	19.75			
		1855.0	19.85	19.76	19.55			
	25RB-Middle (12)	1910.0	19.75	19.94	19.49			
		1882.5	19.81	19.74	19.72			
		1855.0	19.86	19.84	19.83			
	25RB-Low (0)	1910.0	19.83	20.02	19.60			
		1882.5	19.74	19.63	19.51			
		1855.0	19.94	19.82	19.76			
	50RB (0)	1910.0	19.89	19.89	19.74			
		1882.5	19.83	19.80	19.43			
		1855.0	19.87	19.90	19.57			
15MHz	1RB-High (74)	1907.5	19.88	19.33	20.26	20.5	20.5	20.5
		1882.5	19.79	19.44	19.52			
		1857.5	19.82	19.39	20.21			
	1RB-Middle (37)	1907.5	19.98	19.67	20.17			
		1882.5	19.71	19.15	19.57			
		1857.5	19.96	19.40	20.24			
	1RB-Low (0)	1907.5	19.75	19.68	19.95			
		1882.5	19.64	19.60	19.78			
		1857.5	19.68	19.78	19.92			
	36RB-High (38)	1907.5	19.90	19.85	19.34	20.5	20.5	20.5
		1882.5	19.84	19.76	19.17			
		1857.5	19.83	19.79	19.38			
	36RB-Middle (19)	1907.5	19.87	19.88	19.40			
		1882.5	19.74	19.72	19.25			
		1857.5	19.92	19.85	19.39			
	36RB-Low (0)	1907.5	19.93	19.90	19.52			
		1882.5	19.74	19.73	19.17			
		1857.5	19.86	19.91	19.28			
	75RB (0)	1907.5	19.89	19.92	19.37			
		1882.5	19.81	19.70	19.01			
		1857.5	19.85	19.80	19.47			
20MHz	1RB-High (99)	1905.0	19.92	19.55	20.16	20.5	20.5	20.5
		1882.5	19.70	19.58	20.13			
		1860.0	19.94	19.62	19.94			
	1RB-Middle (50)	1905.0	**20.02**	19.91	19.90			
		1882.5	19.92	19.79	20.20			
		1860.0	19.97	19.95	20.21			
	1RB-Low (0)	1905.0	19.85	19.57	19.91			
		1882.5	19.62	19.52	19.98			
		1860.0	19.93	19.42	19.90			
	50RB-High (50)	1905.0	19.89	19.81	19.28	20.5	20.5	20.5
		1882.5	19.71	19.69	19.28			
		1860.0	19.88	19.95	19.28			
	50RB-Middle (25)	1905.0	19.88	19.94	19.33			
		1882.5	19.77	19.73	19.31			
		1860.0	19.93	19.99	19.22			
	50RB-Low (0)	1905.0	**19.95**	19.95	19.44			
		1882.5	19.79	19.91	19.17			
		1860.0	19.93	20.02	19.35			
	100RB (0)	1905.0	19.92	19.96	19.46			
		1882.5	19.81	19.81	19.28			
		1860.0	19.90	19.78	19.31			

LTE Band 26 Power Level A1

Bandwidth	Number of RBs	Frequency	QPSK	16QAM	64QAM	QPSK Tune-up	16QAM Tune-up	64QAM Tune-up
1.4MHz	1RB-High (5)	848.3	22.37	21.34	20.74	23.5	22.5	21.5
		831.5	22.37	21.32	20.70			
		814.7	22.35	20.93	20.89			
	1RB-Middle (3)	848.3	22.45	21.51	20.94			
		831.5	22.45	21.44	20.94			
		814.7	22.34	21.03	20.83			
	1RB-Low (0)	848.3	22.39	21.45	20.68			
		831.5	22.24	21.28	20.66			
		814.7	22.23	20.80	20.63			
	3RB-High (3)	848.3	22.42	21.29	20.33			
		831.5	22.44	21.20	20.08			
		814.7	22.51	21.70	20.40			
	3RB-Middle (1)	848.3	22.48	21.35	20.38			
		831.5	22.31	21.32	19.95			
		814.7	22.38	21.54	20.50			
	3RB-Low (0)	848.3	22.30	21.49	20.03			
		831.5	22.29	21.19	19.93			
		814.7	22.38	21.57	20.40			
	6RB (0)	848.3	21.47	20.32	19.09	22.5	21.5	20.5
		831.5	21.35	20.43	19.17			
		814.7	21.45	20.25	19.34			
3MHz	1RB-High (14)	847.5	22.40	21.49	20.34	23.5	22.5	21.5
		831.5	22.36	21.38	20.32			
		815.5	22.60	21.80	20.57			
	1RB-Middle (7)	847.5	22.36	21.22	20.42			
		831.5	22.29	21.56	20.51			
		815.5	22.69	21.36	20.59			
	1RB-Low (0)	847.5	22.36	21.01	20.28			
		831.5	22.19	21.16	20.36			
		815.5	22.32	21.02	20.25			
	8RB-High (7)	847.5	21.54	20.45	19.20	22.5	21.5	20.5
		831.5	21.35	20.41	19.14			
		815.5	21.64	20.53	19.36			
	8RB-Middle (4)	847.5	21.41	20.41	19.40			
		831.5	21.42	20.39	19.11			
		815.5	21.62	20.41	19.23			
	8RB-Low (0)	847.5	21.41	20.32	19.40			
		831.5	21.37	20.34	19.20			
		815.5	21.56	20.37	19.23			
	15RB (0)	847.5	21.45	20.07	19.67			
		831.5	21.41	20.36	19.46			
		815.5	21.52	20.46	19.47			
5MHz	1RB-High (24)	846.5	22.24	21.34	20.26	23.5	22.5	21.5
		831.5	22.18	21.04	20.59			
		816.5	22.47	21.51	20.45			
	1RB-Middle (12)	846.5	22.41	21.25	20.40			
		831.5	22.39	21.31	20.78			
		816.5	22.74	21.51	20.95			
	1RB-Low (0)	846.5	22.20	21.22	20.29			
		831.5	22.17	21.28	20.31			
		816.5	22.28	21.09	20.24			
	12RB-High (13)	846.5	21.52	20.47	19.36	22.5	21.5	20.5
		831.5	21.22	20.31	19.56			
		816.5	21.55	20.58	19.65			
	12RB-Middle (6)	846.5	21.48	20.33	19.20			
		831.5	21.38	20.39	19.65			
		816.5	21.59	20.70	19.29			
	12RB-Low (0)	846.5	21.36	20.15	19.29			
		831.5	21.33	20.33	19.42			
		816.5	21.44	20.56	19.24			
	25RB (0)	846.5	21.35	20.30	19.46			
		831.5	21.37	20.48	19.51			
		816.5	21.46	20.48	19.42			
10MHz	1RB-High (49)	844.0	22.41	21.39	20.49	23.5	22.5	21.5
		831.5	22.54	21.27	20.40			
		819.0	22.56	21.70	20.49			
	1RB-Middle (24)	844.0	22.41	21.27	20.46			
		831.5	22.47	21.30	20.51			
		819.0	22.58	21.17	20.51			
	1RB-Low (0)	844.0	22.32	21.21	20.31			
		831.5	22.23	21.37	20.47			
		819.0	22.23	21.37	20.46			
	25RB-High (25)	844.0	21.40	20.32	19.45	22.5	21.5	20.5
		831.5	21.32	20.38	19.36			
		819.0	21.39	20.58	19.53			
	25RB-Middle (12)	844.0	21.39	20.65	19.43			
		831.5	21.41	20.49	19.56			
		819.0	21.46	20.45	19.55			
	25RB-Low (0)	844.0	21.40	20.34	19.45			
		831.5	21.42	20.43	19.28			
		819.0	21.61	20.53	19.65			
	50RB (0)	844.0	21.39	20.44	19.35			
		831.5	21.37	20.19	19.22			
		819.0	21.41	20.43	19.55			
15MHz	1RB-High (74)	841.5	22.42	21.75	20.46	23.5	22.5	21.5
		831.5	22.41	21.26	20.76			
		822.5	22.53	21.26	20.47			
	1RB-Middle (37)	841.5	22.50	21.27	20.80			
		831.5	22.44	21.28	20.75			
		822.5	22.54	21.34	20.88			
	1RB-Low (0)	841.5	22.18	21.08	20.64			
		831.5	22.33	21.03	20.40			
		822.5	22.53	21.35	20.56			
	36RB-High (38)	841.5	21.49	20.34	19.33	22.5	21.5	20.5
		831.5	21.39	20.31	19.32			
		822.5	21.56	20.47	19.53			
	36RB-Middle (19)	841.5	21.49	20.39	19.44			
		831.5	21.35	20.35	19.27			
		822.5	21.49	20.42	19.49			
	36RB-Low (0)	841.5	21.30	20.27	19.24			
		831.5	21.39	20.38	19.26			
		822.5	21.39	20.38	19.42			
	75RB (0)	841.5	21.47	20.34	19.29			
		831.5	21.32	20.22	19.34			
		822.5	21.43	20.44	19.33			

LTE Band 30 Power Level A1

Bandwidth	Number of RBs	Frequency	QPSK	16QAM	64QAM	QPSK Tune-up	16QAM Tune-up	64QAM Tune-up
5MHz	1RB-High (24)	2312.5	22.15	21.06	20.03	23.5	22.5	21.5
		2310.0	21.95	21.13	20.04			
		2307.5	21.96	21.22	19.98			
	1RB-Middle (12)	2312.5	22.35	21.02	20.55			
		2310.0	22.44	21.09	20.62			
		2307.5	22.27	20.90	20.43			
	1RB-Low (0)	2312.5	21.76	21.04	20.13			
		2310.0	21.77	20.92	19.89			
		2307.5	21.71	20.98	19.97			
	12RB-High (13)	2312.5	21.20	20.26	19.12	22.5	21.5	20.5
		2310.0	21.21	20.09	19.02			
		2307.5	21.02	20.01	19.10			
	12RB-Middle (6)	2312.5	21.14	20.23	19.14			
		2310.0	21.11	20.19	19.14			
		2307.5	21.11	20.11	19.15			
	12RB-Low (0)	2312.5	21.20	20.20	19.19			
		2310.0	20.96	20.05	19.08			
		2307.5	21.07	19.87	19.09			
	25RB (0)	2312.5	21.18	20.49	19.26			
		2310.0	21.10	20.07	18.97			
		2307.5	21.10	19.99	19.16			
10MHz	1RB-High (49)	2310.0	22.13	21.04	20.21	23.5	22.5	21.5
	1RB-Middle (24)	2310.0	22.30	21.03	20.82			
	1RB-Low (0)	2310.0	22.06	20.93	20.00			
	25RB-High (25)	2310.0	21.19	20.12	19.15	22.5	21.5	20.5
	25RB-Middle (12)	2310.0	21.16	20.18	19.22			
	25RB-Low (0)	2310.0	21.12	20.27	19.18			
	50RB (0)	2310.0	21.13	19.99	18.99			

LTE Band 41 Power Level A1

Bandwidth	Number of RBs	Frequency	QPSK	16QAM	64QAM	QPSK Tune-up	16QAM Tune-up	64QAM Tune-up
5MHz	1RB-High (24)	2687.5	22.23	20.86	20.05	23.5	22.5	21.5
		2640.3	22.25	21.33	20.02			
		2593.0	21.97	20.99	20.03			
		2545.8	22.06	21.02	19.87			
		2498.5	21.88	20.99	20.14			
	1RB-Middle (12)	2687.5	22.34	21.29	20.29			
		2640.3	22.36	21.01	19.98			
		2593.0	21.98	20.89	20.23			
		2545.8	22.30	20.78	20.08			
		2498.5	22.38	21.10	20.45			
	1RB-Low (0)	2687.5	22.17	20.90	20.05			
		2640.3	22.17	20.90	20.04			
		2593.0	21.83	20.51	20.06			
		2545.8	22.06	20.67	19.80			
		2498.5	21.89	21.06	20.25			
	12RB-High (13)	2687.5	21.46	20.53	19.44	22.5	21.5	20.5
		2640.3	21.41	20.41	19.57			
		2593.0	21.16	19.97	19.30			
		2545.8	21.28	19.96	19.77			
		2498.5	21.06	20.15	19.41			
	12RB-Middle (6)	2687.5	21.50	20.40	19.50			
		2640.3	21.36	20.36	19.59			
		2593.0	21.07	19.97	19.29			
		2545.8	21.30	20.12	19.77			
		2498.5	21.07	20.15	19.51			
	12RB-Low (0)	2687.5	21.42	20.44	19.41			
		2640.3	21.36	20.37	19.59			
		2593.0	21.01	19.95	19.27			
		2545.8	21.28	19.98	19.77			
		2498.5	21.03	20.14	19.49			
	25RB (0)	2687.5	21.40	20.35	19.61			
		2640.3	21.36	20.32	19.62			
		2593.0	21.02	19.89	19.29			
		2545.8	21.30	20.13	19.48			
		2498.5	21.06	20.09	19.66			
10MHz	1RB-High (49)	2685.0	22.36	21.37	20.10	23.5	22.5	21.5
		2639.0	22.24	21.38	20.16			
		2593.0	22.07	20.60	20.22			
		2547.0	22.24	21.20	19.84			
		2501.0	22.29	21.27	20.42			
	1RB-Middle (24)	2685.0	22.59	20.98	20.21			
		2639.0	22.32	21.42	20.27			
		2593.0	22.11	20.65	19.87			
		2547.0	22.50	21.12	20.10			
		2501.0	22.33	21.12	20.28			
	1RB-Low (0)	2685.0	22.41	20.88	19.96			
		2639.0	22.33	21.34	20.21			
		2593.0	22.06	20.60	19.73			
		2547.0	22.34	20.78	19.99			
		2501.0	22.24	21.08	20.24			
	25RB-High (25)	2685.0	21.38	20.32	19.68	22.5	21.5	20.5
		2639.0	21.33	20.65	19.88			
		2593.0	21.11	20.05	19.38			
		2547.0	21.25	20.18	19.76			
		2501.0	21.29	20.21	19.58			
	25RB-Middle (12)	2685.0	21.35	20.31	19.57			
		2639.0	21.37	20.72	19.84			
		2593.0	21.06	19.90	19.31			
		2547.0	21.29	20.21	19.77			
		2501.0	21.29	20.11	19.55			
	25RB-Low (0)	2685.0	21.38	20.32	19.58			
		2639.0	21.39	20.72	19.87			
		2593.0	21.07	19.91	19.28			
		2547.0	21.38	20.19	19.77			
		2501.0	21.25	20.18	19.52			
	50RB (0)	2685.0	21.33	20.38	19.50			
		2639.0	21.37	20.32	19.60			
		2593.0	21.01	19.95	19.20			
		2547.0	21.26	20.10	19.51			
		2501.0	21.26	20.21	19.39			
15MHz	1RB-High (74)	2682.5	22.13	21.17	20.07	23.5	22.5	21.5
		2637.8	22.31	21.35	19.85			
		2593.0	22.27	21.16	20.07			
		2548.3	22.20	21.26	20.04			
		2503.5	22.06	21.19	20.00			
	1RB-Middle (37)	2682.5	22.04	20.97	19.79			
		2637.8	22.23	20.86	20.19			
		2593.0	22.00	20.89	19.58			
		2548.3	22.10	21.08	19.85			
		2503.5	22.06	21.03	20.39			
	1RB-Low (0)	2682.5	22.09	20.80	19.71			
		2637.8	22.28	20.95	20.07			
		2593.0	22.03	20.61	19.84			
		2548.3	22.15	20.81	19.92			
		2503.5	22.05	20.98	19.78			
	36RB-High (38)	2682.5	21.22	20.14	19.46	22.5	21.5	20.5
		2637.8	21.38	20.45	19.59			
		2593.0	21.14	20.02	19.45			
		2548.3	21.20	20.08	19.25			
		2503.5	21.29	20.05	19.40			
	36RB-Middle (19)	2682.5	21.21	20.19	19.50			
		2637.8	21.32	20.47	19.61			
		2593.0	20.98	19.95	19.37			
		2548.3	21.31	20.07	19.13			
		2503.5	21.14	19.99	19.35			
	36RB-Low (0)	2682.5	21.31	20.23	19.52			
		2637.8	21.40	20.44	19.60			
		2593.0	21.03	19.89	19.43			
		2548.3	21.31	20.15	19.43			
		2503.5	21.11	19.94	19.30			
	75RB (0)	2682.5	21.34	20.34	19.59			
		2637.8	21.35	20.37	19.56			
		2593.0	20.96	19.98	19.16			
		2548.3	21.20	20.23	19.55			
		2503.5	21.15	20.17	19.48			
20MHz	1RB-High (99)	2680.0	22.18	21.10	19.71	23.5	22.5	21.5
		2636.5	22.17	21.28	20.03			
		2593.0	22.06	21.10	19.78			
		2549.5	22.10	21.00	19.94			
		2506.0	22.18	21.12	20.54			
	1RB-Middle (50)	2680.0	22.19	21.37	20.16			
		2636.5	22.34	21.45	20.21			
		2593.0	22.16	20.75	19.78			
		2549.5	22.48	20.99	19.96			
		2506.0	22.49	21.08	20.64			
	1RB-Low (0)	2680.0	21.85	21.04	19.68			
		2636.5	22.12	21.25	19.98			
		2593.0	22.08	20.63	19.75			
		2549.5	22.12	21.03	19.91			
		2506.0	22.00	20.50	19.75			
	50RB-High (50)	2680.0	21.17	20.34	19.58	22.5	21.5	20.5
		2636.5	21.37	20.44	19.64			
		2593.0	21.01	19.98	19.33			
		2549.5	21.22	20.39	19.62			
		2506.0	21.29	20.21	19.61			
	50RB-Middle (25)	2680.0	21.23	20.39	19.60			
		2636.5	21.41	20.40	19.69			
		2593.0	21.01	19.84	19.11			
		2549.5	21.33	20.17	19.50			
		2506.0	21.42	20.14	19.51			
	50RB-Low (0)	2680.0	21.22	20.40	19.60			
		2636.5	21.40	20.39	19.57			
		2593.0	20.99	19.87	19.12			
		2549.5	21.15	20.10	19.52			
		2506.0	21.18	20.09	19.43			
	100RB (0)	2680.0	21.25	20.33	19.72			
		2636.5	21.31	20.28	19.51			
		2593.0	20.97	20.03	19.32			
		2549.5	21.26	20.19	19.41			
		2506.0	21.12	20.27	19.47			

LTE Band 66 Power Level A1

Bandwidth	Number of RBs	Frequency	QPSK	16QAM	64QAM	QPSK Tune-up	16QAM Tune-up	64QAM Tune-up
1.4MHz	1RB-High (5)	1779.3	22.61	21.70	21.05	23.5	22.5	21.5
		1745.0	22.44	21.37	20.62			
		1710.7	22.49	21.40	20.73			
	1RB-Middle (3)	1779.3	22.73	21.84	21.09			
		1745.0	22.41	21.51	20.44			
		1710.7	22.53	21.45	21.09			
	1RB-Low (0)	1779.3	22.74	21.75	20.90			
		1745.0	22.31	21.44	20.66			
		1710.7	22.46	21.31	20.93			
	3RB-High (3)	1779.3	22.72	21.58	20.63			
		1745.0	22.44	21.72	20.49			
		1710.7	22.57	21.42	20.47			
	3RB-Middle (1)	1779.3	22.98	21.62	20.75			
		1745.0	22.48	21.59	20.54			
		1710.7	22.62	21.57	20.57			
	3RB-Low (0)	1779.3	22.82	21.56	20.71			
		1745.0	22.34	21.64	20.59			
		1710.7	22.39	21.42	20.54			
	6RB (0)	1779.3	21.69	20.72	19.64	22.5	21.5	20.5
		1745.0	21.51	20.56	19.30			
		1710.7	21.61	20.67	19.41			
3MHz	1RB-High (14)	1778.5	22.69	21.93	21.05	23.5	22.5	21.5
		1745.0	22.31	21.50	20.43			
		1711.5	22.72	21.65	20.27			
	1RB-Middle (7)	1778.5	22.88	22.30	20.96			
		1745.0	22.42	21.41	20.56			
		1711.5	22.29	21.44	20.49			
	1RB-Low (0)	1778.5	22.71	21.89	20.61			
		1745.0	22.36	21.43	20.49			
		1711.5	22.23	21.60	20.25			
	8RB-High (7)	1778.5	21.71	20.86	19.53	22.5	21.5	20.5
		1745.0	21.49	20.42	19.23			
		1711.5	21.68	20.58	19.64			
	8RB-Middle (4)	1778.5	21.64	20.82	19.53			
		1745.0	21.46	20.42	19.30			
		1711.5	21.56	20.54	19.52			
	8RB-Low (0)	1778.5	21.71	20.94	19.48			
		1745.0	21.38	20.43	19.20			
		1711.5	21.63	20.48	19.62			
	15RB (0)	1778.5	21.65	20.72	19.91			
		1745.0	21.49	20.37	19.35			
		1711.5	21.70	20.70	19.67			
5MHz	1RB-High (24)	1777.5	22.40	21.56	20.95	23.5	22.5	21.5
		1745.0	22.23	21.15	20.33			
		1712.5	22.54	21.54	20.50			
	1RB-Middle (12)	1777.5	22.52	21.57	20.97			
		1745.0	22.66	21.32	20.54			
		1712.5	22.76	21.56	20.79			
	1RB-Low (0)	1777.5	22.53	21.58	20.56			
		1745.0	22.25	21.44	20.48			
		1712.5	22.54	21.44	20.46			
	12RB-High (13)	1777.5	21.74	20.57	19.80	22.5	21.5	20.5
		1745.0	21.38	20.46	19.19			
		1712.5	21.68	20.59	19.45			
	12RB-Middle (6)	1777.5	21.77	20.63	19.81			
		1745.0	21.43	20.43	19.17			
		1712.5	21.75	20.75	19.40			
	12RB-Low (0)	1777.5	21.72	20.59	19.78			
		1745.0	21.46	20.46	19.16			
		1712.5	21.56	20.66	19.28			
	25RB (0)	1777.5	21.66	20.88	19.59			
		1745.0	21.48	20.25	19.14			
		1712.5	21.68	20.78	19.84			
10MHz	1RB-High (49)	1775.0	22.54	21.55	20.58	23.5	22.5	21.5
		1745.0	22.52	21.68	20.77			
		1715.0	22.42	21.43	20.33			
	1RB-Middle (24)	1775.0	22.70	21.60	21.32			
		1745.0	22.56	21.38	20.56			
		1715.0	22.80	21.57	20.72			
	1RB-Low (0)	1775.0	22.63	21.44	20.66			
		1745.0	22.60	21.56	20.65			
		1715.0	22.38	21.53	20.59			
	25RB-High (25)	1775.0	21.69	20.42	19.82	22.5	21.5	20.5
		1745.0	21.40	20.68	19.17			
		1715.0	21.73	20.64	19.84			
	25RB-Middle (12)	1775.0	21.72	20.46	19.83			
		1745.0	21.49	20.57	19.24			
		1715.0	21.73	20.96	19.87			
	25RB-Low (0)	1775.0	21.75	20.51	19.82			
		1745.0	21.64	20.62	19.47			
		1715.0	21.71	20.59	19.64			
	50RB (0)	1775.0	21.64	20.61	19.75			
		1745.0	21.46	20.45	19.43			
		1715.0	21.77	20.59	19.76			
15MHz	1RB-High (74)	1772.5	22.44	21.53	20.68	23.5	22.5	21.5
		1745.0	22.51	21.24	20.78			
		1717.5	22.55	21.35	20.61			
	1RB-Middle (37)	1772.5	22.72	21.48	20.97			
		1745.0	22.46	21.29	20.77			
		1717.5	22.63	21.42	20.66			
	1RB-Low (0)	1772.5	22.74	21.67	20.85			
		1745.0	22.52	21.62	20.74			
		1717.5	22.61	21.48	20.62			
	36RB-High (38)	1772.5	21.66	20.63	19.79	22.5	21.5	20.5
		1745.0	21.50	20.49	19.50			
		1717.5	21.66	20.59	19.56			
	36RB-Middle (19)	1772.5	21.74	20.59	19.81			
		1745.0	21.45	20.44	19.55			
		1717.5	21.73	20.68	19.72			
	36RB-Low (0)	1772.5	21.77	20.69	19.74			
		1745.0	21.57	20.55	19.64			
		1717.5	21.62	20.61	19.73			
	75RB (0)	1772.5	21.73	20.69	19.57			
		1745.0	21.41	20.53	19.39			
		1717.5	21.71	20.61	19.68			
20MHz	1RB-High (99)	1770.0	22.58	21.54	21.04	23.5	22.5	21.5
		1745.0	**22.68**	20.72	20.76			
		1720.0	22.51	21.39	20.88			
	1RB-Middle (50)	1770.0	22.29	21.82	20.76			
		1745.0	22.41	21.51	20.99			
		1720.0	22.50	21.68	20.84			
	1RB-Low (0)	1770.0	22.38	21.49	20.66			
		1745.0	22.67	21.62	20.76			
		1720.0	22.35	21.38	20.66			
	50RB-High (50)	1770.0	21.43	20.68	19.66	22.5	21.5	20.5
		1745.0	21.42	20.31	19.56			
		1720.0	21.70	20.58	19.64			
	50RB-Middle (25)	1770.0	21.36	20.66	19.64			
		1745.0	21.51	20.26	19.32			
		1720.0	21.65	20.59	19.58			
	50RB-Low (0)	1770.0	21.43	20.79	19.73			
		1745.0	21.66	20.42	19.56			
		1720.0	**21.80**	20.76	19.64			
	100RB (0)	1770.0	21.32	20.59	19.75			
		1745.0	21.49	20.38	19.57			
		1720.0	21.72	20.68	19.75			

LTE Band 66 Power Level B1

Bandwidth	Number of RBs	Frequency	QPSK	16QAM	64QAM	QPSK Tune-up	16QAM Tune-up	64QAM Tune-up
1.4MHz	1RB-High (5)	1779.3	21.22	20.96	21.08	21.5	21.5	21.5
		1745.0	20.86	20.74	20.49			
		1710.7	20.98	20.90	20.79			
	1RB-Middle (3)	1779.3	21.32	21.04	20.84			
		1745.0	20.86	20.95	20.65			
		1710.7	20.92	21.10	20.70			
	1RB-Low (0)	1779.3	21.26	20.96	20.97			
		1745.0	20.98	20.88	20.84			
		1710.7	20.88	21.01	20.86			
	3RB-High (3)	1779.3	21.27	21.30	20.75			
		1745.0	21.01	20.79	20.55			
		1710.7	20.91	21.12	20.28			
	3RB-Middle (1)	1779.3	21.25	21.40	20.83			
		1745.0	20.96	20.94	20.67			
		1710.7	21.00	21.07	20.53			
	3RB-Low (0)	1779.3	21.20	21.12	20.87			
		1745.0	20.90	20.78	20.71			
		1710.7	20.92	21.15	20.51			
	6RB (0)	1779.3	21.29	20.83	19.75			
		1745.0	20.97	20.39	19.47	21.5	21.5	20.5
		1710.7	21.09	20.50	19.55			
3MHz	1RB-High (14)	1778.5	21.31	21.46	20.73	21.5	21.5	21.5
		1745.0	20.97	20.69	20.55			
		1711.5	21.19	20.73	20.64			
	1RB-Middle (7)	1778.5	21.44	21.12	20.96			
		1745.0	20.87	20.90	20.27			
		1711.5	21.20	20.69	20.72			
	1RB-Low (0)	1778.5	21.27	21.06	20.72			
		1745.0	20.97	20.70	20.17			
		1711.5	21.10	20.67	20.71			
	8RB-High (7)	1778.5	21.30	21.00	19.60	21.5	21.5	20.5
		1745.0	20.98	20.67	19.51			
		1711.5	21.17	20.61	19.50			
	8RB-Middle (4)	1778.5	21.20	20.52	19.65			
		1745.0	21.04	20.53	19.57			
		1711.5	21.04	20.52	19.55			
	8RB-Low (0)	1778.5	21.25	20.74	19.61			
		1745.0	21.01	20.50	19.50			
		1711.5	21.13	20.59	19.48			
	15RB (0)	1778.5	21.20	20.67	19.82			
		1745.0	20.97	20.50	19.62			
		1711.5	21.19	20.71	19.71			
5MHz	1RB-High (24)	1777.5	21.06	21.24	20.72	21.5	21.5	21.5
		1745.0	20.63	20.79	20.51			
		1712.5	20.88	20.90	20.71			
	1RB-Middle (12)	1777.5	21.34	21.22	21.08			
		1745.0	21.27	20.84	21.00			
		1712.5	21.30	21.05	21.15			
	1RB-Low (0)	1777.5	20.97	21.17	20.62			
		1745.0	20.85	20.94	20.67			
		1712.5	21.02	20.91	20.56			
	12RB-High (13)	1777.5	21.19	20.74	19.62	21.5	21.5	20.5
		1745.0	20.94	20.47	19.48			
		1712.5	21.13	20.51	19.67			
	12RB-Middle (6)	1777.5	21.20	20.83	19.60			
		1745.0	20.99	20.51	19.53			
		1712.5	21.21	20.71	19.70			
	12RB-Low (0)	1777.5	21.30	20.64	19.63			
		1745.0	20.92	20.55	19.47			
		1712.5	21.02	20.61	19.62			
	25RB (0)	1777.5	21.26	20.91	19.90			
		1745.0	20.97	20.67	19.44			
		1712.5	21.23	20.60	19.68			
10MHz	1RB-High (49)	1775.0	21.33	21.18	21.16	21.5	21.5	21.5
		1745.0	20.83	20.91	20.66			
		1715.0	20.98	21.04	20.73			
	1RB-Middle (24)	1775.0	21.32	21.16	21.01			
		1745.0	21.14	20.86	20.83			
		1715.0	21.31	21.25	20.76			
	1RB-Low (0)	1775.0	21.37	21.20	20.83			
		1745.0	20.91	21.05	20.74			
		1715.0	21.08	20.87	20.63			
	25RB-High (25)	1775.0	21.27	20.80	19.95	21.5	21.5	20.5
		1745.0	21.01	20.74	19.79			
		1715.0	21.23	20.84	19.97			
	25RB-Middle (12)	1775.0	21.30	20.68	19.99			
		1745.0	21.04	20.82	19.73			
		1715.0	21.24	20.93	19.98			
	25RB-Low (0)	1775.0	21.30	20.87	19.80			
		1745.0	21.09	20.87	19.59			
		1715.0	21.31	20.91	19.90			
	50RB (0)	1775.0	21.30	20.75	19.79			
		1745.0	21.09	20.51	19.51			
		1715.0	21.26	20.85	19.79			
15MHz	1RB-High (74)	1772.5	21.30	21.15	20.73	21.5	21.5	21.5
		1745.0	21.06	20.76	20.93			
		1717.5	21.14	20.98	20.77			
	1RB-Middle (37)	1772.5	21.39	21.18	21.23			
		1745.0	21.04	20.58	20.92			
		1717.5	21.19	20.87	21.10			
	1RB-Low (0)	1772.5	21.25	21.34	21.03			
		1745.0	21.26	21.06	20.81			
		1717.5	21.01	20.83	20.71			
	36RB-High (38)	1772.5	21.29	20.77	19.78	21.5	21.5	20.5
		1745.0	21.09	20.64	19.47			
		1717.5	21.07	20.66	19.74			
	36RB-Middle (19)	1772.5	21.32	20.67	19.77			
		1745.0	21.08	20.66	19.65			
		1717.5	21.25	20.82	19.92			
	36RB-Low (0)	1772.5	21.37	20.67	19.82			
		1745.0	21.20	20.64	19.77			
		1717.5	21.29	20.71	19.87			
	75RB (0)	1772.5	21.36	20.79	19.81			
		1745.0	21.08	20.66	19.54			
		1717.5	21.28	20.73	19.71			
20MHz	1RB-High (99)	1770.0	21.37	21.10	21.13	21.5	21.5	21.5
		1745.0	**21.39**	20.84	21.03			
		1720.0	21.31	20.91	20.70			
	1RB-Middle (50)	1770.0	21.31	21.40	21.29			
		1745.0	20.92	21.13	20.90			
		1720.0	20.97	21.22	21.06			
	1RB-Low (0)	1770.0	21.24	21.01	21.05			
		1745.0	21.11	21.15	21.00			
		1720.0	21.12	20.83	20.77			
	50RB-High (50)	1770.0	21.37	20.71	19.86	21.5	21.5	20.5
		1745.0	21.08	20.68	19.51			
		1720.0	21.31	20.92	19.79			
	50RB-Middle (25)	1770.0	21.35	20.78	19.86			
		1745.0	21.04	20.65	19.63			
		1720.0	21.25	20.76	19.71			
	50RB-Low (0)	1770.0	21.36	20.88	19.87			
		1745.0	21.19	20.84	19.67			
		1720.0	**21.39**	20.67	19.75			
	100RB (0)	1770.0	21.38	20.75	19.78			
		1745.0	21.10	20.56	19.56			
		1720.0	21.29	20.68	19.77			

LTE Band 71 Power Level A1

Bandwidth	Number of RBs	Frequency	QPSK	16QAM	64QAM	QPSK Tune-up	16QAM Tune-up	64QAM Tune-up
5MHz	1RB-High (24)	695.5	21.98	21.08	20.23	23.5	22.5	21.5
		680.5	22.27	21.19	20.30			
		665.5	22.43	21.32	20.82			
	1RB-Middle (12)	695.5	22.13	21.14	20.41			
		680.5	22.41	21.24	20.84			
		665.5	22.50	21.42	20.85			
	1RB-Low (0)	695.5	22.03	21.29	20.12			
		680.5	21.98	21.21	20.29			
		665.5	22.31	21.16	20.50			
	12RB-High (13)	695.5	21.32	20.14	19.15	22.5	21.5	20.5
		680.5	21.41	20.39	19.44			
		665.5	21.49	20.47	19.48			
	12RB-Middle (6)	695.5	21.34	20.27	19.26			
		680.5	21.43	20.38	19.47			
		665.5	21.55	20.63	19.58			
	12RB-Low (0)	695.5	21.30	20.21	19.29			
		680.5	21.41	20.36	19.42			
		665.5	21.42	20.53	19.49			
	25RB (0)	695.5	21.28	20.29	19.24			
		680.5	21.37	20.31	19.17			
		665.5	21.48	20.33	19.55			
10MHz	1RB-High (49)	693.0	22.15	21.14	20.26	23.5	22.5	21.5
		680.5	22.35	21.35	20.40			
		668.0	22.58	21.45	20.82			
	1RB-Middle (24)	693.0	22.29	21.19	20.37			
		680.5	22.45	21.33	20.48			
		668.0	22.47	21.28	21.29			
	1RB-Low (0)	693.0	22.20	21.23	20.25			
		680.5	22.40	21.25	20.43			
		668.0	22.58	21.39	20.83			
	25RB-High (25)	693.0	21.23	20.23	19.09	22.5	21.5	20.5
		680.5	21.41	20.42	19.50			
		668.0	21.52	20.54	19.64			
	25RB-Middle (12)	693.0	21.32	20.23	19.09			
		680.5	21.40	20.51	19.55			
		668.0	21.52	20.46	19.69			
	25RB-Low (0)	693.0	21.35	20.25	19.11			
		680.5	21.43	20.43	19.20			
		668.0	21.56	20.48	19.25			
	50RB (0)	693.0	21.27	20.36	19.25			
		680.5	21.47	20.50	19.45			
		668.0	21.54	20.52	19.52			
15MHz	1RB-High (74)	690.5	22.22	21.06	20.26	23.5	22.5	21.5
		680.5	22.43	21.48	20.74			
		670.5	22.49	21.28	20.50			
	1RB-Middle (37)	690.5	22.31	21.09	20.31			
		680.5	22.40	21.30	20.83			
		670.5	22.44	21.35	20.44			
	1RB-Low (0)	690.5	22.25	21.25	20.54			
		680.5	22.43	21.11	20.48			
		670.5	22.52	21.16	20.51			
	36RB-High (38)	690.5	21.33	20.28	19.40	22.5	21.5	20.5
		680.5	21.46	20.43	19.41			
		670.5	21.46	20.49	19.56			
	36RB-Middle (19)	690.5	21.34	20.28	19.35			
		680.5	21.46	20.44	19.47			
		670.5	21.51	20.47	19.55			
	36RB-Low (0)	690.5	21.31	20.34	19.22			
		680.5	21.38	20.41	19.28			
		670.5	21.50	20.52	19.47			
	75RB (0)	690.5	21.33	20.42	19.21			
		680.5	21.48	20.41	19.31			
		670.5	21.56	20.56	19.40			
20MHz	1RB-High (99)	688.0	22.18	21.14	20.26	23.5	22.5	21.5
		683.0	22.24	21.11	20.66			
		673.0	22.17	21.21	20.48			
	1RB-Middle (50)	688.0	22.25	21.46	20.42			
		683.0	22.44	21.49	20.82			
		673.0	**22.58**	21.61	21.03			
	1RB-Low (0)	688.0	22.18	21.17	20.37			
		683.0	22.33	21.19	20.35			
		673.0	22.23	21.40	20.46			
	50RB-High (50)	688.0	21.32	20.32	19.28	22.5	21.5	20.5
		683.0	21.44	20.48	19.32			
		673.0	21.45	20.56	19.37			
	50RB-Middle (25)	688.0	21.37	20.40	19.36			
		683.0	21.44	20.51	19.51			
		673.0	21.52	20.51	19.39			
	50RB-Low (0)	688.0	21.37	20.29	19.23			
		683.0	21.47	20.45	19.29			
		673.0	**21.54**	20.44	19.37			
	100RB (0)	688.0	21.29	20.22	19.26			
		683.0	21.46	20.43	19.31			
		673.0	21.47	20.46	19.45			

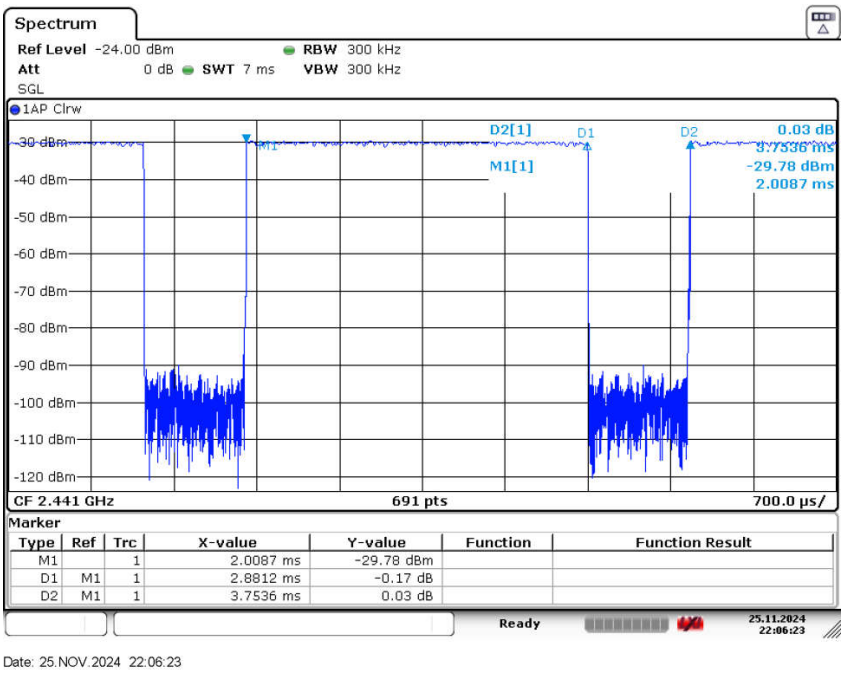
10.4. Bluetooth and WLAN Measurement result

Table 10.4: The conducted Power measurement results for Bluetooth

Bluetooth

Averaged Power (dBm)				Tune up (dBm)
Mode	Ch.0 (2402MHz)	Ch.39 (2441MHz)	Ch.78 (2480MHz)	
GFSK	7.05	6.69	6.87	**8.0**
EDR2M-4_DQPSK	8.73	8.70	8.54	**9.5**
EDR3M-8DPSK	**9.23**	9.15	8.93	**10.5**
/	Ch.0 (2402MHz)	Ch.19 (2440MHz)	Ch.39 (2480MHz)	/
BLE(1M)	5.09	5.05	5.19	**6.0**

Duty factor plot



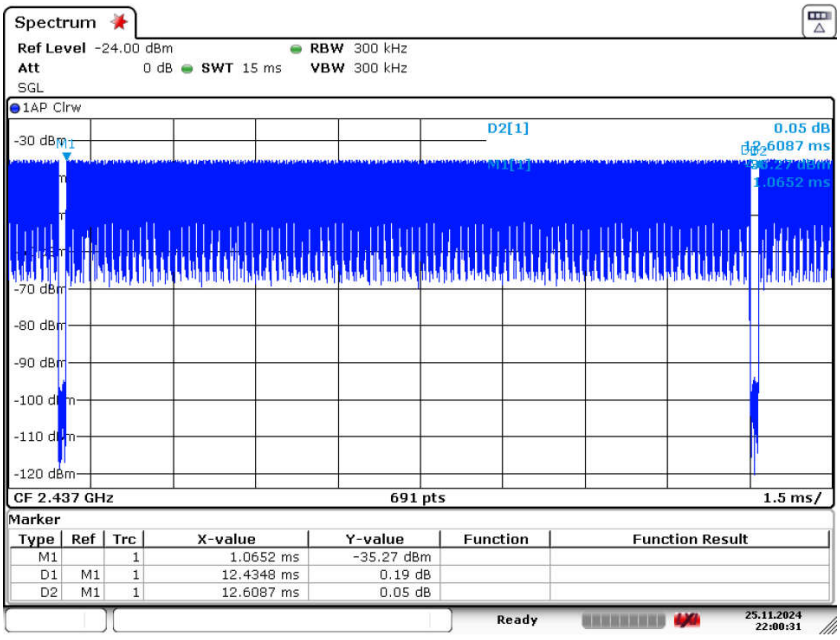
Duty cycle = on time / total time = (2.8812 / 3.7536) * 100% = 76.76%

Table 10.5: The conducted Power measurement results for WLAN 2.4GHz

WLAN 2.4GHz

Averaged Power (dBm)				Tune up (dBm)
Mode	Ch.1 (2412MHz)	Ch.6 (2437MHz)	Ch.11 (2462MHz)	
802.11b	**18.46**	18.29	18.40	**19.5**
802.11g	19.99	19.89	19.91	**20.5**
802.11n(20MHz)	18.78	18.65	18.70	**19.5**
/	Ch.3 (2422MHz)	Ch.6 (2437MHz)	Ch.9 (2452MHz)	/
802.11n(40MHz)	18.82	18.58	18.79	**19.5**

Duty factor plot



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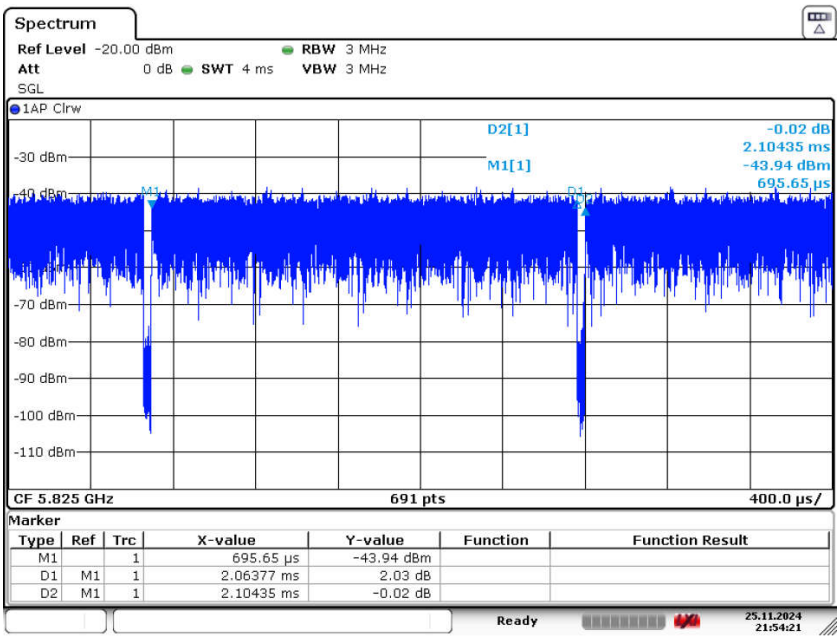
Duty cycle = on time / total time = (12.4348 / 12.6087) * 100% = 98.62%

Table 10.6: The conducted Power measurement results for WLAN 5GHz

WLAN 5GHz

Averaged Power (dBm)								
Mode	802.11a	802.11n-20MHz	802.11ac-20MHz	Mode	802.11n-40MHz	802.11ac-40MHz	Mode	802.11ac-80MHz
Channel	6Mbps	MCS0	MCS0	Channel	MCS0	MCS0	Channel	MCS0
<U-NII-1>								
Tune up	**18.6**	**18.5**	**18.5**	**/**	**18.5**	**18.5**	**/**	**18.5**
36(5180MHz)	**17.78**	17.74	17.76	38(5190MHz)	17.97	18.03	42(5210MHz)	17.39
40(5200MHz)	17.42	17.38	17.39	46(5230MHz)	17.50	17.52	/	/
44(5220MHz)	17.08	17.03	17.06	/	/	/	/	/
48(5240MHz)	17.08	17.00	17.04	/	/	/	/	/
<U-NII-2A>								
Tune up	**19.1**	**19.0**	**19.0**	**/**	**19.0**	**19.0**	**/**	**19.0**
52(5260MHz)	17.37	17.28	17.34	54(5270MHz)	17.80	18.18	58(5290MHz)	17.66
56(5280MHz)	17.68	17.57	17.59	62(5310MHz)	17.83	18.19	/	/
60(5300MHz)	**17.90**	17.78	17.82	/	/	/	/	/
64(5320MHz)	18.56	18.44	18.47	/	/	/	/	/
<U-NII-2C>								
Tune up	**19.6**	**19.5**	**19.5**	**/**	**19.5**	**19.5**	**/**	**19.5**
100(5500MHz)	17.99	17.86	17.87	102(5510MHz)	18.22	18.27	106(5530MHz)	17.89
116(5580MHz)	18.23	18.09	18.12	110(5550MHz)	18.28	18.30	122(5610MHz)	18.33
124(5620MHz)	18.44	18.30	18.31	126(5630MHz)	18.63	18.68	/	/
132(5660MHz)	**18.64**	18.47	18.52	134(5670MHz)	18.69	18.74	/	/
140(5700MHz)	18.58	18.39	18.46	/	/	/	/	/
<U-NII-3>								
Tune up	**19.6**	**19.5**	**19.5**	**/**	**19.5**	**19.5**	**/**	**19.5**
149(5745MHz)	18.58	18.44	18.49	151(5755MHz)	18.69	18.53	155(5775MHz)	18.05
157(5785MHz)	18.24	18.09	18.12	159(5795MHz)	18.72	18.56	/	/
165(5825MHz)	**18.75**	18.60	18.60	/	/	/	/	/

Duty factor plot



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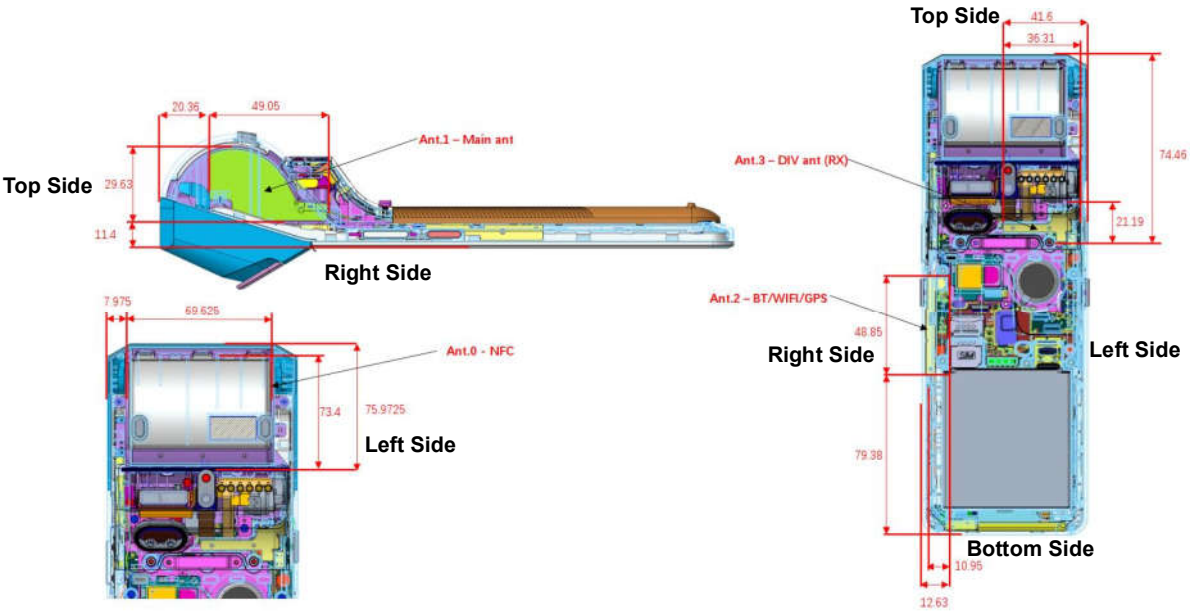
Duty cycle = on time / total time = (2.06377 / 2.10435) * 100% = 98.07%

11. Simultaneous TX SAR Considerations

11.1. Transmit Antenna Separation Distances



Picture 11.1 Antenna Locations (Back View)

11.2. SAR Measurement Positions

According to the KDB 941225 D06 Hot Spot SAR, the edges with less than 25mm distance to the antennas need to be tested for SAR.

SAR measurement positions						
Antenna	Front	Rear	Left Side	Right Side	Top Side	Bottom Side
0	Yes	Yes	Yes	Yes	Yes	Yes
1	Yes	Yes	No	Yes	Yes	No
2	Yes	Yes	No	Yes	No	No

11.3. Evaluation of Simultaneous

No.	RF Exposure Conditions	Simultaneous Transmission Configuration
1	Hotspot / Body-worn	WWAN + WLAN 2.4GHz
2		WWAN + WLAN 5GHz
3		WWAN + Bluetooth
4	Extremity	WWAN + WLAN 2.4GHz + NFC
5		WWAN + WLAN 5GHz + NFC
6		WWAN + Bluetooth + NFC

According to the KDB 447498 D01, when the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR to peak location separation ratio. The ratio is determined by $(SAR1 + SAR2)^{1.5}/Ri$, rounded to two decimal digits, and must be ≤ 0.04 for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion.

The sum of SAR values for Main Antenna and WLAN 5GHz					
Position	Main Antenna (W/kg)		WLAN 5GHz (W/kg)	Sum (W/kg)	SPLSR
Right (0mm)	GSM 1900	0.99	0.69	1.68	Yes
Right (0mm)	WCDMA Band 2	1.04	0.69	1.73	Yes

Band	Position	SAR (W/kg)	Gap	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
			(cm)	X	Y	Z				
GSM 1900	Right	0.99	0	-0.0320	-0.0695	-0.2060	78.2	1.68	0.028	Not required
WLAN 5GHz		0.69	0	-0.0100	0.0055	-0.2060				
WCDMA B2	Right	1.04	0	-0.0305	-0.0755	-0.2060	83.6	1.73	0.027	Not required
WLAN 5GHz		0.69	0	-0.0100	0.0055	-0.2060				

Table 11.1: Maximum Simultaneous Transmission SAR

/	Position	Sum (W/kg)
Highest reported SAR value for Hotspot	Right Side (LTE Band 30 + WLAN 5GHz)	**1.52**
	Right Side (WCDMA Band 2 + Bluetooth)	**1.04**
Highest reported SAR value for Body-worn	Rear Side (LTE Band 7 + WLAN 5GHz)	**1.28**
	Rear Side (LTE Band 7 + Bluetooth)	**0.97**
Highest reported SAR value for Extremity	Right Side (LTE Band 25 + WLAN 5GHz + NFC)	**3.23**
	Right Side (LTE Band 25 + Bluetooth + NFC)	**2.67**

Note: The test positions of above tables are for the worse case that has been evaluated.

Conclusion:

According to the above tables, the sum of reported SAR values is less than limit. So the simultaneous transmission SAR with volume scans is not required.

12. Summary of Test Results

According to the client's decision rule in the test registration form, which is "based on the measurement results as the basis of the conformity statement", the test conclusion of this report meets the limit requirements.

The calculated SAR is obtained by the following formula:

$$\text{Calculated SAR} = \text{Measured SAR} \times 10^{(P_{Target} - P_{Measured})/10}$$

Where P_{Target} is the power of manufacturing upper limit;

$P_{Measured}$ is the measured power in chapter 10.

Note:

1. L2: Configuration 1 LCD Secondary supplier
2. C2: Configuration 2
3. C3: Configuration 3

Duty Cycle

Mode	Duty Cycle
GPRS	1:2 / 1:4
WCDMA	1:1
FDD_LTE	1:1
TDD_LTE	1:1.58
Bluetooth	1:1.3
WLAN 2.4GHz	1:1.01
WLAN 5GHz	1:1.02

12.1. Testing Environment

Temperature:	18°C~25°C
Relative humidity:	30%~70%
Ambient noise & Reflection:	< 0.012 W/kg

12.2. Test Results

Table 12.1: GSM 850 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	GSM 850	128	824.2	GPRS(2TX)	Front	10mm	\	\	32.58	33.50	0.131	**0.16**	0.094	**0.12**	0.13
A1	Hotspot / Body-worn	GSM 850	128	824.2	GPRS(2TX)	Rear	10mm	\	\	32.58	33.50	0.205	**0.25**	0.133	**0.16**	-0.14
A1	Hotspot	GSM 850	128	824.2	GPRS(2TX)	Right	10mm	\	\	32.58	33.50	0.303	**0.37**	0.218	**0.27**	0.17
A1	Hotspot	GSM 850	128	824.2	GPRS(2TX)	Top	10mm	\	\	32.58	33.50	0.174	**0.22**	0.104	**0.13**	0.05
A1	Hotspot	GSM 850	128	824.2	GPRS(2TX)	Right	10mm	L2	**1**	32.58	33.50	**0.389**	0.48	0.249	**0.31**	-0.07
A1	Hotspot	GSM 850	128	824.2	GPRS(2TX)	Right	10mm	C2	\	32.58	33.50	0.196	**0.24**	0.128	**0.16**	-0.13
A1	Hotspot	GSM 850	128	824.2	GPRS(2TX)	Right	10mm	C3	\	32.58	33.50	0.201	**0.25**	0.128	**0.16**	-0.09
A1	Extremity	GSM 850	128	824.2	GPRS(2TX)	Front	0mm	\	\	32.58	33.50	0.226	**0.28**	0.161	**0.20**	0.14
A1	Extremity	GSM 850	128	824.2	GPRS(2TX)	Rear	0mm	\	\	32.58	33.50	0.703	**0.87**	0.487	**0.60**	-0.05
A1	Extremity	GSM 850	128	824.2	GPRS(2TX)	Right	0mm	\	\	32.58	33.50	1.020	**1.26**	0.649	**0.80**	-0.14
A1	Extremity	GSM 850	128	824.2	GPRS(2TX)	Top	0mm	\	\	32.58	33.50	0.482	**0.60**	0.274	**0.34**	0.19
A1	Extremity	GSM 850	128	824.2	GPRS(2TX)	Right	0mm	L2	**2**	32.58	33.50	1.520	**1.88**	**0.928**	1.15	-0.06
A1	Extremity	GSM 850	128	824.2	GPRS(2TX)	Right	0mm	C2	\	32.58	33.50	1.040	**1.29**	0.619	**0.77**	-0.15
A1	Extremity	GSM 850	128	824.2	GPRS(2TX)	Right	0mm	C3	\	32.58	33.50	0.880	**1.09**	0.505	**0.62**	-0.09

Table 12.2: GSM 1900 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	GSM 1900	810	1909.8	GPRS(4TX)	Front	10mm	\	\	26.58	27.50	0.063	**0.08**	0.037	**0.05**	0.10
A1	Hotspot / Body-worn	GSM 1900	810	1909.8	GPRS(4TX)	Rear	10mm	\	\	26.58	27.50	0.287	**0.35**	0.170	**0.21**	-0.03
A1	Hotspot	GSM 1900	810	1909.8	GPRS(4TX)	Right	10mm	\	\	26.58	27.50	0.688	**0.85**	0.402	**0.50**	0.02
A1	Hotspot	GSM 1900	810	1909.8	GPRS(4TX)	Top	10mm	\	\	26.58	27.50	0.134	**0.17**	0.092	**0.11**	-0.16
A1	Hotspot	GSM 1900	661	1880.0	GPRS(4TX)	Right	10mm	\	\	26.12	27.50	0.613	**0.84**	0.368	**0.51**	0.18
A1	Hotspot	GSM 1900	512	1850.2	GPRS(4TX)	Right	10mm	\	\	26.25	27.50	0.714	**0.95**	0.422	**0.56**	0.13
A1	Hotspot	GSM 1900	512	1850.2	GPRS(4TX)	Right	10mm	L2	**3**	26.25	27.50	**0.739**	0.99	0.418	**0.56**	0.01
A1	Extremity	GSM 1900	810	1909.8	GPRS(4TX)	Front	0mm	\	\	26.58	27.50	0.540	**0.67**	0.301	**0.37**	0.05
A1	Extremity	GSM 1900	810	1909.8	GPRS(4TX)	Rear	0mm	\	\	26.58	27.50	0.826	**1.02**	0.500	**0.62**	0.07
A1	Extremity	GSM 1900	810	1909.8	GPRS(4TX)	Right	0mm	\	\	26.58	27.50	3.460	**4.28**	1.840	**2.27**	0.03
A1	Extremity	GSM 1900	810	1909.8	GPRS(4TX)	Top	0mm	\	\	26.58	27.50	0.694	**0.86**	0.430	**0.53**	-0.18
A1	Extremity	GSM 1900	661	1880.0	GPRS(4TX)	Right	0mm	\	\	26.12	27.50	3.110	**4.27**	1.580	**2.17**	0.14
A1	Extremity	GSM 1900	512	1850.2	GPRS(4TX)	Right	0mm	\	**4**	26.25	27.50	3.520	**4.69**	**1.860**	2.48	0.14
A1	Extremity	GSM 1900	512	1850.2	GPRS(4TX)	Right	0mm	L2	\	26.25	27.50	3.500	**4.67**	1.780	**2.37**	-0.05

Table 12.3: WCDMA Band 2 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	WCDMA Band 2	9538	1907.6	RMC	Front	10mm	\	\	23.42	24.00	0.091	**0.10**	0.055	**0.06**	-0.05
A1	Hotspot / Body-worn	WCDMA Band 2	9538	1907.6	RMC	Rear	10mm	\	\	23.42	24.00	0.522	**0.60**	0.313	**0.36**	0.13
B1	Hotspot	WCDMA Band 2	9538	1907.6	RMC	Right	10mm	\	\	20.18	21.00	0.731	**0.88**	0.408	**0.49**	-0.11
A1	Hotspot	WCDMA Band 2	9538	1907.6	RMC	Top	10mm	\	\	23.42	24.00	0.215	**0.25**	0.140	**0.16**	0.10
B1	Hotspot	WCDMA Band 2	9400	1880.0	RMC	Right	10mm	\	\	20.08	21.00	0.821	**1.01**	0.474	**0.59**	0.09
B1	Hotspot	WCDMA Band 2	9262	1852.4	RMC	Right	10mm	\	**5**	20.01	21.00	**0.827**	1.04	0.476	**0.60**	0.01
B1	Hotspot	WCDMA Band 2	9262	1852.4	RMC	Right	10mm	L2	\	20.01	21.00	0.714	**0.90**	0.418	**0.53**	0.07
B1	Hotspot	WCDMA Band 2	9262	1852.4	RMC	Right	10mm	C2	\	20.01	21.00	0.767	**0.96**	0.453	**0.57**	0.07
B1	Hotspot	WCDMA Band 2	9262	1852.4	RMC	Right	10mm	C3	\	20.01	21.00	0.810	**1.02**	0.480	**0.60**	-0.11
A1	Hotspot	WCDMA Band 2	9538	1907.6	RMC	Right	16mm	\	\	23.42	24.00	0.601	**0.69**	0.346	**0.40**	0.16
A1	Extremity	WCDMA Band 2	9538	1907.6	RMC	Front	0mm	\	\	23.42	24.00	0.523	**0.60**	0.295	**0.34**	-0.06
A1	Extremity	WCDMA Band 2	9538	1907.6	RMC	Rear	0mm	\	\	23.42	24.00	0.753	**0.86**	0.437	**0.50**	0.03
B1	Extremity	WCDMA Band 2	9538	1907.6	RMC	Right	0mm	\	**6**	20.18	21.00	3.270	**3.95**	**1.640**	1.98	-0.09
A1	Extremity	WCDMA Band 2	9538	1907.6	RMC	Top	0mm	\	\	23.42	24.00	0.687	**0.79**	0.419	**0.48**	0.05
B1	Extremity	WCDMA Band 2	9538	1907.6	RMC	Right	0mm	L2	\	20.18	21.00	2.560	**3.09**	1.260	**1.52**	0.14
A1	Extremity	WCDMA Band 2	9538	1907.6	RMC	Right	16mm	\	\	23.42	24.00	0.601	**0.69**	0.346	**0.40**	0.16

Table 12.4: WCDMA Band 4 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	WCDMA Band 4	1312	1712.4	RMC	Front	10mm	\	\	23.14	24.00	0.050	**0.06**	0.033	**0.04**	-0.07
A1	Hotspot / Body-worn	WCDMA Band 4	1312	1712.4	RMC	Rear	10mm	\	\	23.14	24.00	0.199	**0.24**	0.120	**0.15**	0.01
A1	Hotspot	WCDMA Band 4	1312	1712.4	RMC	Right	10mm	\	**7**	23.14	24.00	**0.605**	0.74	0.363	**0.44**	0.03
A1	Hotspot	WCDMA Band 4	1312	1712.4	RMC	Top	10mm	\	\	23.14	24.00	0.147	**0.18**	0.089	**0.11**	0.13
A1	Hotspot	WCDMA Band 4	1312	1712.4	RMC	Right	10mm	L2	\	23.14	24.00	0.600	**0.73**	0.344	**0.42**	0.17
A1	Extremity	WCDMA Band 4	1312	1712.4	RMC	Front	0mm	\	\	23.14	24.00	0.250	**0.30**	0.152	**0.19**	0.01
A1	Extremity	WCDMA Band 4	1312	1712.4	RMC	Rear	0mm	\	\	23.14	24.00	0.555	**0.68**	0.322	**0.39**	0.06
A1	Extremity	WCDMA Band 4	1312	1712.4	RMC	Right	0mm	\	\	23.14	24.00	2.690	**3.28**	1.450	**1.77**	-0.03
A1	Extremity	WCDMA Band 4	1312	1712.4	RMC	Top	0mm	\	\	23.14	24.00	0.568	**0.69**	0.318	**0.39**	-0.11
A1	Extremity	WCDMA Band 4	1312	1712.4	RMC	Right	0mm	L2	**8**	23.14	24.00	3.050	**3.72**	**1.520**	1.85	-0.04

Table 12.5: WCDMA Band 5 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	WCDMA Band 5	4233	846.6	RMC	Front	10mm	\	\	22.99	24.00	0.097	**0.12**	0.069	**0.09**	0.04
A1	Hotspot / Body-worn	WCDMA Band 5	4233	846.6	RMC	Rear	10mm	\	\	22.99	24.00	0.150	**0.19**	0.099	**0.12**	-0.01
A1	Hotspot	WCDMA Band 5	4233	846.6	RMC	Right	10mm	\	\	22.99	24.00	0.285	**0.36**	0.193	**0.24**	0.15
A1	Hotspot	WCDMA Band 5	4233	846.6	RMC	Top	10mm	\	\	22.99	24.00	0.199	**0.25**	0.119	**0.15**	-0.14
A1	Hotspot	WCDMA Band 5	4233	846.6	RMC	Right	10mm	L2	**9**	22.99	24.00	**0.322**	0.41	0.206	**0.26**	0.09
A1	Extremity	WCDMA Band 5	4233	846.6	RMC	Front	0mm	\	\	22.99	24.00	0.239	**0.30**	0.169	**0.21**	0.02
A1	Extremity	WCDMA Band 5	4233	846.6	RMC	Rear	0mm	\	\	22.99	24.00	0.619	**0.78**	0.433	**0.55**	-0.01
A1	Extremity	WCDMA Band 5	4233	846.6	RMC	Right	0mm	\	**10**	22.99	24.00	1.000	**1.26**	**0.634**	0.80	-0.03
A1	Extremity	WCDMA Band 5	4233	846.6	RMC	Top	0mm	\	\	22.99	24.00	0.553	**0.70**	0.302	**0.38**	0.05
A1	Extremity	WCDMA Band 5	4233	846.6	RMC	Right	0mm	L2	\	22.99	24.00	0.969	**1.22**	0.594	**0.75**	-0.02

Table 12.6: LTE Band 7 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	LTE Band 7	20850	2510.0	1RB50	Front	10mm	\	\	22.59	23.50	0.062	**0.08**	0.036	**0.04**	0.17
A1	Hotspot / Body-worn	LTE Band 7	20850	2510.0	50RB50	Front	10mm	\	\	21.45	22.50	<0.01	**<0.01**	<0.01	**<0.01**	\
A1	Hotspot / Body-worn	LTE Band 7	20850	2510.0	1RB50	Rear	10mm	\	\	22.59	23.50	0.725	**0.89**	0.431	**0.53**	-0.06
A1	Hotspot / Body-worn	LTE Band 7	20850	2510.0	50RB50	Rear	10mm	\	\	21.45	22.50	0.593	**0.76**	0.366	**0.47**	-0.11
B1	Hotspot	LTE Band 7	20850	2510.0	1RB50	Right	10mm	\	\	21.18	21.50	0.614	**0.66**	0.342	**0.37**	0.11
B1	Hotspot	LTE Band 7	20850	2510.0	50RB50	Right	10mm	\	\	21.14	21.50	0.643	**0.70**	0.341	**0.37**	-0.07
A1	Hotspot	LTE Band 7	20850	2510.0	1RB50	Top	10mm	\	\	22.59	23.50	0.141	**0.17**	0.088	**0.11**	0.11
A1	Hotspot	LTE Band 7	20850	2510.0	50RB50	Top	10mm	\	\	21.45	22.50	0.103	**0.13**	0.061	**0.08**	0.17
A1	Hotspot / Body-worn	LTE Band 7	21350	2560.0	1RB50	Rear	10mm	\	\	22.26	23.50	0.485	**0.65**	0.301	**0.40**	-0.13
A1	Hotspot / Body-worn	LTE Band 7	21100	2535.0	1RB50	Rear	10mm	\	\	22.34	23.50	0.580	**0.76**	0.363	**0.47**	0.05
A1	Hotspot / Body-worn	LTE Band 7	20850	2510.0	100RB	Rear	10mm	\	\	21.44	22.50	0.547	**0.70**	0.345	**0.44**	-0.05
A1	Hotspot / Body-worn	LTE Band 7	20850	2510.0	1RB50	Rear	10mm	L2	\	22.59	23.50	0.683	**0.84**	0.368	**0.45**	-0.05
A1	Hotspot / Body-worn	LTE Band 7	20850	2510.0	1RB50	Rear	10mm	C2	\	22.59	23.50	0.657	**0.81**	0.346	**0.43**	0.04
A1	Hotspot / Body-worn	LTE Band 7	20850	2510.0	1RB50	Rear	10mm	C3	**11**	22.59	23.50	**0.787**	0.97	0.408	**0.50**	0.01
A1	Hotspot	LTE Band 7	20850	2510.0	1RB50	Right	16mm	\	\	22.59	23.50	0.537	**0.66**	0.290	**0.36**	0.17
A1	Hotspot	LTE Band 7	20850	2510.0	50RB50	Right	16mm	\	\	21.45	22.50	0.423	**0.54**	0.229	**0.29**	0.15
A1	Extremity	LTE Band 7	20850	2510.0	1RB50	Front	0mm	\	\	22.59	23.50	0.234	**0.29**	0.113	**0.14**	0.08
A1	Extremity	LTE Band 7	20850	2510.0	50RB50	Front	0mm	\	\	21.45	22.50	0.194	**0.25**	0.092	**0.12**	-0.12
A1	Extremity	LTE Band 7	20850	2510.0	1RB50	Rear	0mm	\	\	22.59	23.50	1.390	**1.71**	0.724	**0.89**	0.05
A1	Extremity	LTE Band 7	20850	2510.0	50RB50	Rear	0mm	\	\	21.45	22.50	1.130	**1.44**	0.590	**0.75**	-0.08
B1	Extremity	LTE Band 7	20850	2510.0	1RB50	Right	0mm	\	\	21.18	21.50	4.610	**4.96**	2.090	**2.25**	-0.01
B1	Extremity	LTE Band 7	20850	2510.0	50RB50	Right	0mm	\	\	21.14	21.50	3.350	**3.64**	1.520	**1.65**	-0.19
A1	Extremity	LTE Band 7	20850	2510.0	1RB50	Top	0mm	\	\	22.59	23.50	0.342	**0.42**	0.125	**0.15**	0.17
A1	Extremity	LTE Band 7	20850	2510.0	50RB50	Top	0mm	\	\	21.45	22.50	0.280	**0.36**	0.108	**0.14**	0.01
B1	Extremity	LTE Band 7	21350	2560.0	1RB50	Right	0mm	\	**12**	20.99	21.50	5.130	**5.77**	**2.160**	2.43	-0.15
B1	Extremity	LTE Band 7	21100	2535.0	1RB50	Right	0mm	\	\	21.07	21.50	4.690	**5.18**	2.090	**2.31**	0.05
B1	Extremity	LTE Band 7	20850	2510.0	100RB	Right	0mm	\	\	21.11	21.50	3.640	**3.98**	1.570	**1.72**	-0.14
B1	Extremity	LTE Band 7	21350	2560.0	1RB50	Right	0mm	L2	\	20.99	21.50	4.190	**4.71**	2.020	**2.27**	-0.06
B1	Extremity	LTE Band 7	21350	2560.0	1RB50	Right	0mm	C2	\	20.99	21.50	3.480	**3.91**	1.460	**1.64**	0.08
B1	Extremity	LTE Band 7	21350	2560.0	1RB50	Right	0mm	C3	\	20.99	21.50	4.060	**4.57**	1.670	**1.88**	0.01
A1	Extremity	LTE Band 7	20850	2510.0	1RB50	Right	16mm	\	\	22.59	23.50	0.537	**0.66**	0.290	**0.36**	0.17
A1	Extremity	LTE Band 7	20850	2510.0	50RB50	Right	16mm	\	\	21.45	22.50	0.423	**0.54**	0.229	**0.29**	0.15

Table 12.7: LTE Band 12 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	LTE Band 12	23130	711.0	1RB24	Front	10mm	\	\	22.55	23.50	0.166	**0.21**	0.120	**0.15**	0.13
A1	Hotspot / Body-worn	LTE Band 12	23130	711.0	25RB25	Front	10mm	\	\	21.47	22.50	0.130	**0.16**	0.093	**0.12**	-0.12
A1	Hotspot / Body-worn	LTE Band 12	23130	711.0	1RB24	Rear	10mm	\	\	22.55	23.50	0.152	**0.19**	0.110	**0.14**	0.17
A1	Hotspot / Body-worn	LTE Band 12	23130	711.0	25RB25	Rear	10mm	\	\	21.47	22.50	0.117	**0.15**	0.084	**0.11**	0.08
A1	Hotspot	LTE Band 12	23130	711.0	1RB24	Right	10mm	\	**13**	22.55	23.50	**0.266**	0.33	0.168	**0.21**	-0.03
A1	Hotspot	LTE Band 12	23130	711.0	25RB25	Right	10mm	\	\	21.47	22.50	0.141	**0.18**	0.097	**0.12**	-0.17
A1	Hotspot	LTE Band 12	23130	711.0	1RB24	Top	10mm	\	\	22.55	23.50	<0.01	**<0.01**	<0.01	**<0.01**	\
A1	Hotspot	LTE Band 12	23130	711.0	25RB25	Top	10mm	\	\	21.47	22.50	<0.01	**<0.01**	<0.01	**<0.01**	\
A1	Hotspot	LTE Band 12	23130	711.0	1RB24	Right	10mm	L2	\	22.55	23.50	0.155	**0.19**	0.110	**0.14**	0.04
A1	Extremity	LTE Band 12	23130	711.0	1RB24	Front	0mm	\	\	22.55	23.50	0.731	**0.91**	0.241	**0.30**	-0.15
A1	Extremity	LTE Band 12	23130	711.0	25RB25	Front	0mm	\	\	21.47	22.50	0.451	**0.57**	0.153	**0.19**	0.16
A1	Extremity	LTE Band 12	23130	711.0	1RB24	Rear	0mm	\	\	22.55	23.50	0.303	**0.38**	0.151	**0.19**	0.12
A1	Extremity	LTE Band 12	23130	711.0	25RB25	Rear	0mm	\	\	21.47	22.50	0.224	**0.28**	0.112	**0.14**	0.15
A1	Extremity	LTE Band 12	23130	711.0	1RB24	Right	0mm	\	**14**	22.55	23.50	1.020	**1.27**	**0.576**	0.72	-0.02
A1	Extremity	LTE Band 12	23130	711.0	25RB25	Right	0mm	\	\	21.47	22.50	0.826	**1.05**	0.456	**0.58**	0.13
A1	Extremity	LTE Band 12	23130	711.0	1RB24	Top	0mm	\	\	22.55	23.50	0.218	**0.27**	0.126	**0.16**	0.09
A1	Extremity	LTE Band 12	23130	711.0	25RB25	Top	0mm	\	\	21.47	22.50	0.180	**0.23**	0.100	**0.13**	-0.05
A1	Extremity	LTE Band 12	23130	711.0	1RB24	Right	0mm	L2	\	22.55	23.50	0.634	**0.79**	0.394	**0.49**	-0.04

Note: SAR for LTE Band 17 is covered by LTE Band 12 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

Table 12.8: LTE Band 13 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	LTE Band 13	23230	782.0	1RB24	Front	10mm	\	\	22.57	23.50	0.191	**0.24**	0.138	**0.17**	-0.08
A1	Hotspot / Body-worn	LTE Band 13	23230	782.0	25RB12	Front	10mm	\	\	21.47	22.50	0.156	**0.20**	0.112	**0.14**	-0.11
A1	Hotspot / Body-worn	LTE Band 13	23230	782.0	1RB24	Rear	10mm	\	\	22.57	23.50	0.174	**0.22**	0.125	**0.15**	0.19
A1	Hotspot / Body-worn	LTE Band 13	23230	782.0	25RB12	Rear	10mm	\	\	21.47	22.50	0.140	**0.18**	0.099	**0.13**	-0.10
A1	Hotspot	LTE Band 13	23230	782.0	1RB24	Right	10mm	\	**15**	22.57	23.50	**0.299**	0.37	0.202	**0.25**	-0.06
A1	Hotspot	LTE Band 13	23230	782.0	25RB12	Right	10mm	\	\	21.47	22.50	0.198	**0.25**	0.119	**0.15**	0.16
A1	Hotspot	LTE Band 13	23230	782.0	1RB24	Top	10mm	\	\	22.57	23.50	0.049	**0.06**	0.031	**0.04**	-0.02
A1	Hotspot	LTE Band 13	23230	782.0	25RB12	Top	10mm	\	\	21.47	22.50	0.042	**0.05**	0.025	**0.03**	-0.14
A1	Hotspot	LTE Band 13	23230	782.0	1RB24	Right	10mm	L2	\	22.57	23.50	0.227	**0.28**	0.146	**0.18**	0.03
A1	Extremity	LTE Band 13	23230	782.0	1RB24	Front	0mm	\	\	22.57	23.50	0.418	**0.52**	0.269	**0.33**	0.06
A1	Extremity	LTE Band 13	23230	782.0	25RB12	Front	0mm	\	\	21.47	22.50	0.309	**0.39**	0.201	**0.25**	0.16
A1	Extremity	LTE Band 13	23230	782.0	1RB24	Rear	0mm	\	\	22.57	23.50	0.492	**0.61**	0.322	**0.40**	0.01
A1	Extremity	LTE Band 13	23230	782.0	25RB12	Rear	0mm	\	\	21.47	22.50	0.382	**0.48**	0.250	**0.32**	-0.10
A1	Extremity	LTE Band 13	23230	782.0	1RB24	Right	0mm	\	**16**	22.57	23.50	1.200	**1.49**	**0.726**	0.90	-0.02
A1	Extremity	LTE Band 13	23230	782.0	25RB12	Right	0mm	\	\	21.47	22.50	0.882	**1.12**	0.557	**0.71**	-0.08
A1	Extremity	LTE Band 13	23230	782.0	1RB24	Top	0mm	\	\	22.57	23.50	0.183	**0.23**	0.099	**0.12**	-0.12
A1	Extremity	LTE Band 13	23230	782.0	25RB12	Top	0mm	\	\	21.47	22.50	0.131	**0.17**	0.071	**0.09**	0.05
A1	Extremity	LTE Band 13	23230	782.0	1RB24	Right	0mm	L2	\	22.57	23.50	1.060	**1.31**	0.661	**0.82**	0.09

Table 12.9: LTE Band 14 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	LTE Band 14	23330	793.0	1RB24	Front	10mm	\	\	22.54	23.50	0.195	**0.24**	0.139	**0.17**	-0.10
A1	Hotspot / Body-worn	LTE Band 14	23330	793.0	25RB12	Front	10mm	\	\	21.47	22.50	0.151	**0.19**	0.109	**0.14**	0.03
A1	Hotspot / Body-worn	LTE Band 14	23330	793.0	1RB24	Rear	10mm	\	\	22.54	23.50	0.168	**0.21**	0.118	**0.15**	-0.17
A1	Hotspot / Body-worn	LTE Band 14	23330	793.0	25RB12	Rear	10mm	\	\	21.47	22.50	0.135	**0.17**	0.094	**0.12**	-0.07
A1	Hotspot	LTE Band 14	23330	793.0	1RB24	Right	10mm	\	**17**	22.54	23.50	**0.288**	0.36	0.197	**0.25**	0.12
A1	Hotspot	LTE Band 14	23330	793.0	25RB12	Right	10mm	\	\	21.47	22.50	0.219	**0.28**	0.129	**0.16**	0.18
A1	Hotspot	LTE Band 14	23330	793.0	1RB24	Top	10mm	\	\	22.54	23.50	0.056	**0.07**	0.035	**0.04**	-0.11
A1	Hotspot	LTE Band 14	23330	793.0	25RB12	Top	10mm	\	\	21.47	22.50	0.047	**0.06**	0.029	**0.04**	-0.10
A1	Hotspot	LTE Band 14	23330	793.0	1RB24	Right	10mm	L2	\	22.54	23.50	0.258	**0.32**	0.166	**0.21**	0.06
A1	Extremity	LTE Band 14	23330	793.0	1RB24	Front	0mm	\	\	22.54	23.50	0.478	**0.60**	0.324	**0.40**	-0.10
A1	Extremity	LTE Band 14	23330	793.0	25RB12	Front	0mm	\	\	21.47	22.50	0.380	**0.48**	0.256	**0.32**	0.15
A1	Extremity	LTE Band 14	23330	793.0	1RB24	Rear	0mm	\	\	22.54	23.50	0.576	**0.72**	0.389	**0.49**	-0.09
A1	Extremity	LTE Band 14	23330	793.0	25RB12	Rear	0mm	\	\	21.47	22.50	0.462	**0.59**	0.316	**0.40**	0.13
A1	Extremity	LTE Band 14	23330	793.0	1RB24	Right	0mm	\	**18**	22.54	23.50	1.240	**1.55**	**0.759**	0.95	-0.15
A1	Extremity	LTE Band 14	23330	793.0	25RB12	Right	0mm	\	\	21.47	22.50	1.010	**1.28**	0.602	**0.76**	0.14
A1	Extremity	LTE Band 14	23330	793.0	1RB24	Top	0mm	\	\	22.54	23.50	0.178	**0.22**	0.094	**0.12**	0.02
A1	Extremity	LTE Band 14	23330	793.0	25RB12	Top	0mm	\	\	21.47	22.50	0.112	**0.14**	0.064	**0.08**	0.00
A1	Extremity	LTE Band 14	23330	793.0	1RB24	Right	0mm	L2	\	22.54	23.50	1.100	**1.37**	0.680	**0.85**	-0.13
A1	Extremity	LTE Band 14	23330	793.0	1RB24	Right	0mm	C2	\	22.54	23.50	1.300	**1.62**	0.757	**0.94**	0.07
A1	Extremity	LTE Band 14	23330	793.0	1RB24	Right	0mm	C3	\	22.54	23.50	1.050	**1.31**	0.592	**0.74**	0.15

Table 12.10: LTE Band 25 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	LTE Band 25	26590	1905.0	1RB50	Front	10mm	\	\	22.23	23.50	0.080	**0.11**	0.047	**0.06**	-0.03
A1	Hotspot / Body-worn	LTE Band 25	26590	1905.0	50RB0	Front	10mm	\	\	21.20	22.50	0.056	**0.08**	0.037	**0.05**	0.09
A1	Hotspot / Body-worn	LTE Band 25	26590	1905.0	1RB50	Rear	10mm	\	\	22.23	23.50	0.440	**0.59**	0.274	**0.37**	-0.11
A1	Hotspot / Body-worn	LTE Band 25	26590	1905.0	50RB0	Rear	10mm	\	\	21.20	22.50	0.363	**0.49**	0.227	**0.31**	0.18
B1	Hotspot	LTE Band 25	26590	1905.0	1RB50	Right	10mm	\	**19**	20.02	20.50	**0.667**	**0.74**	0.392	**0.44**	-0.16
B1	Hotspot	LTE Band 25	26590	1905.0	50RB0	Right	10mm	\	\	19.95	20.50	0.660	**0.75**	0.391	**0.44**	-0.17
A1	Hotspot	LTE Band 25	26590	1905.0	1RB50	Top	10mm	\	\	22.23	23.50	0.197	**0.26**	0.128	**0.17**	-0.15
A1	Hotspot	LTE Band 25	26590	1905.0	50RB0	Top	10mm	\	\	21.20	22.50	0.156	**0.21**	0.101	**0.14**	-0.10
A1	Hotspot	LTE Band 25	26590	1905.0	1RB50	Right	16mm	\	\	22.23	23.50	0.588	**0.79**	0.341	**0.46**	-0.08
A1	Hotspot	LTE Band 25	26590	1905.0	50RB0	Right	16mm	\	\	21.20	22.50	0.463	**0.62**	0.260	**0.35**	0.01
A1	Hotspot	LTE Band 25	26590	1905.0	1RB50	Right	16mm	L2	\	22.23	23.50	0.470	**0.63**	0.282	**0.38**	0.86
A1	Extremity	LTE Band 25	26590	1905.0	1RB50	Front	0mm	\	\	22.23	23.50	0.556	**0.74**	0.305	**0.41**	0.02
A1	Extremity	LTE Band 25	26590	1905.0	50RB0	Front	0mm	\	\	21.20	22.50	0.445	**0.60**	0.247	**0.33**	-0.11
A1	Extremity	LTE Band 25	26590	1905.0	1RB50	Rear	0mm	\	\	22.23	23.50	0.820	**1.10**	0.472	**0.63**	0.05
A1	Extremity	LTE Band 25	26590	1905.0	50RB0	Rear	0mm	\	\	21.20	22.50	0.655	**0.88**	0.376	**0.51**	0.06
B1	Extremity	LTE Band 25	26590	1905.0	1RB50	Right	0mm	\	\	20.02	20.50	3.460	**3.86**	1.780	**1.99**	0.03
B1	Extremity	LTE Band 25	26590	1905.0	50RB0	Right	0mm	\	\	19.95	20.50	3.170	**3.60**	1.620	**1.84**	-0.03
A1	Extremity	LTE Band 25	26590	1905.0	1RB50	Top	0mm	\	\	22.23	23.50	0.772	**1.03**	0.441	**0.59**	0.05
A1	Extremity	LTE Band 25	26590	1905.0	50RB0	Top	0mm	\	\	21.20	22.50	0.578	**0.78**	0.284	**0.38**	0.03
B1	Extremity	LTE Band 25	26590	1905.0	1RB50	Right	0mm	L2	**20**	20.02	20.50	4.590	**5.13**	**2.370**	**2.65**	0.03
B1	Extremity	LTE Band 25	26365	1882.5	1RB50	Right	0mm	L2	\	19.92	20.50	4.330	**4.95**	2.150	**2.46**	-0.07
B1	Extremity	LTE Band 25	26140	1860.0	1RB50	Right	0mm	L2	\	19.97	20.50	4.480	**5.06**	2.260	**2.55**	-0.10
B1	Extremity	LTE Band 25	26590	1905.0	100RB	Right	0mm	L2	\	19.92	20.50	4.370	**4.99**	2.190	**2.50**	0.05
B1	Extremity	LTE Band 25	26590	1905.0	1RB50	Right	0mm	C2	\	20.02	20.50	3.810	**4.26**	2.310	**2.58**	0.04
B1	Extremity	LTE Band 25	26590	1905.0	1RB50	Right	0mm	C3	\	20.02	20.50	3.260	**3.64**	1.970	**2.20**	0.12
A1	Extremity	LTE Band 25	26590	1905.0	1RB50	Right	16mm	\	\	22.23	23.50	0.588	**0.79**	0.341	**0.46**	-0.08
A1	Extremity	LTE Band 25	26590	1905.0	50RB0	Right	16mm	\	\	21.20	22.50	0.463	**0.62**	0.260	**0.35**	0.01

Note: SAR for LTE Band 2 is covered by LTE Band 25 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

Table 12.11: LTE Band 26 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	LTE Band 26	26775	822.5	1RB37	Front	10mm	\	\	22.54	23.50	0.097	**0.12**	0.069	**0.09**	-0.03
A1	Hotspot / Body-worn	LTE Band 26	26775	822.5	36RB38	Front	10mm	\	\	21.56	22.50	0.074	**0.09**	0.052	**0.06**	-0.17
A1	Hotspot / Body-worn	LTE Band 26	26775	822.5	1RB37	Rear	10mm	\	\	22.54	23.50	0.112	**0.14**	0.074	**0.09**	0.15
A1	Hotspot / Body-worn	LTE Band 26	26775	822.5	36RB38	Rear	10mm	\	\	21.56	22.50	0.093	**0.12**	0.061	**0.08**	0.08
A1	Hotspot	LTE Band 26	26775	822.5	1RB37	Right	10mm	\	\	22.54	23.50	0.256	**0.32**	0.177	**0.22**	0.07
A1	Hotspot	LTE Band 26	26775	822.5	36RB38	Right	10mm	\	\	21.56	22.50	0.211	**0.26**	0.130	**0.16**	0.12
A1	Hotspot	LTE Band 26	26775	822.5	1RB37	Top	10mm	\	\	22.54	23.50	0.070	**0.09**	0.042	**0.05**	0.14
A1	Hotspot	LTE Band 26	26775	822.5	36RB38	Top	10mm	\	\	21.56	22.50	0.076	**0.09**	0.045	**0.06**	0.06
A1	Hotspot	LTE Band 26	26775	822.5	1RB37	Right	10mm	L2	**21**	22.54	23.50	**0.275**	**0.34**	0.182	**0.23**	0.04
A1	Extremity	LTE Band 26	26775	822.5	1RB37	Front	0mm	\	\	22.54	23.50	0.199	**0.25**	0.133	**0.17**	-0.03
A1	Extremity	LTE Band 26	26775	822.5	36RB38	Front	0mm	\	\	21.56	22.50	0.156	**0.19**	0.103	**0.13**	0.14
A1	Extremity	LTE Band 26	26775	822.5	1RB37	Rear	0mm	\	\	22.54	23.50	0.427	**0.53**	0.284	**0.35**	0.05
A1	Extremity	LTE Band 26	26775	822.5	36RB38	Rear	0mm	\	\	21.56	22.50	0.346	**0.43**	0.224	**0.28**	0.02
A1	Extremity	LTE Band 26	26775	822.5	1RB37	Right	0mm	\	**22**	22.54	23.50	1.130	**1.41**	**0.687**	**0.86**	-0.04
A1	Extremity	LTE Band 26	26775	822.5	36RB38	Right	0mm	\	\	21.56	22.50	0.808	**1.00**	0.477	**0.59**	0.01
A1	Extremity	LTE Band 26	26775	822.5	1RB37	Top	0mm	\	\	22.54	23.50	0.089	**0.11**	0.045	**0.06**	0.03
A1	Extremity	LTE Band 26	26775	822.5	36RB38	Top	0mm	\	\	21.56	22.50	0.055	**0.07**	0.029	**0.04**	-0.01
A1	Extremity	LTE Band 26	26775	822.5	1RB37	Right	0mm	L2	\	22.54	23.50	1.110	**1.38**	0.680	**0.85**	-0.14

Note: SAR for LTE Band 5 is covered by LTE Band 26 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

Table 12.12: LTE Band 30 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	LTE Band 30	27710	2310.0	1RB24	Front	10mm	\	\	22.30	23.50	0.050	**0.07**	0.032	**0.04**	0.04
A1	Hotspot / Body-worn	LTE Band 30	27710	2310.0	25RB25	Front	10mm	\	\	21.19	22.50	0.045	**0.06**	0.029	**0.04**	0.01
A1	Hotspot / Body-worn	LTE Band 30	27710	2310.0	1RB24	Rear	10mm	\	\	22.30	23.50	0.299	**0.39**	0.179	**0.24**	-0.16
A1	Hotspot / Body-worn	LTE Band 30	27710	2310.0	25RB25	Rear	10mm	\	\	21.19	22.50	0.197	**0.27**	0.121	**0.16**	-0.08
A1	Hotspot	LTE Band 30	27710	2310.0	1RB24	Right	10mm	\	\	22.30	23.50	0.556	**0.73**	0.315	**0.42**	0.07
A1	Hotspot	LTE Band 30	27710	2310.0	25RB25	Right	10mm	\	\	21.19	22.50	0.421	**0.57**	0.242	**0.33**	-0.05
A1	Hotspot	LTE Band 30	27710	2310.0	1RB24	Top	10mm	\	\	22.30	23.50	0.093	**0.12**	0.054	**0.07**	0.10
A1	Hotspot	LTE Band 30	27710	2310.0	25RB25	Top	10mm	\	\	21.19	22.50	0.077	**0.10**	0.044	**0.06**	0.17
A1	Hotspot	LTE Band 30	27710	2310.0	1RB24	Right	10mm	L2	**23**	22.30	23.50	**0.631**	0.83	0.365	**0.48**	-0.18
A1	Hotspot	LTE Band 30	27710	2310.0	50RB	Right	10mm	L2	\	21.13	22.50	0.477	**0.65**	0.281	**0.39**	0.05
A1	Extremity	LTE Band 30	27710	2310.0	1RB24	Front	0mm	\	\	22.30	23.50	0.241	**0.32**	0.120	**0.16**	-0.03
A1	Extremity	LTE Band 30	27710	2310.0	25RB25	Front	0mm	\	\	21.19	22.50	0.179	**0.24**	0.088	**0.12**	0.02
A1	Extremity	LTE Band 30	27710	2310.0	1RB24	Rear	0mm	\	\	22.30	23.50	0.580	**0.76**	0.302	**0.40**	0.05
A1	Extremity	LTE Band 30	27710	2310.0	25RB25	Rear	0mm	\	\	21.19	22.50	0.467	**0.63**	0.239	**0.32**	-0.01
A1	Extremity	LTE Band 30	27710	2310.0	1RB24	Right	0mm	\	\	22.30	23.50	1.990	**2.62**	0.941	**1.24**	-0.08
A1	Extremity	LTE Band 30	27710	2310.0	25RB25	Right	0mm	\	\	21.19	22.50	1.730	**2.34**	0.830	**1.12**	0.03
A1	Extremity	LTE Band 30	27710	2310.0	1RB24	Top	0mm	\	\	22.30	23.50	0.513	**0.68**	0.231	**0.30**	0.06
A1	Extremity	LTE Band 30	27710	2310.0	25RB25	Top	0mm	\	\	21.19	22.50	0.376	**0.51**	0.171	**0.23**	0.08
A1	Extremity	LTE Band 30	27710	2310.0	1RB24	Right	0mm	L2	**24**	22.30	23.50	2.300	**3.03**	**1.170**	1.54	-0.06

Table 12.13: LTE Band 41 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	LTE Band 41	39750	2506.0	1RB50	Front	10mm	\	\	22.49	23.50	0.031	**0.04**	0.015	**0.02**	0.18
A1	Hotspot / Body-worn	LTE Band 41	39750	2506.0	50RB25	Front	10mm	\	\	21.42	22.50	<0.01	**<0.01**	<0.01	**<0.01**	\
A1	Hotspot / Body-worn	LTE Band 41	39750	2506.0	1RB50	Rear	10mm	\	\	22.49	23.50	0.356	**0.45**	0.201	**0.25**	-0.09
A1	Hotspot / Body-worn	LTE Band 41	39750	2506.0	50RB25	Rear	10mm	\	\	21.42	22.50	0.323	**0.41**	0.181	**0.23**	0.08
A1	Hotspot	LTE Band 41	39750	2506.0	1RB50	Right	10mm	\	\	22.49	23.50	0.563	**0.71**	0.324	**0.41**	-0.12
A1	Hotspot	LTE Band 41	39750	2506.0	50RB25	Right	10mm	\	\	21.42	22.50	0.445	**0.57**	0.241	**0.31**	0.13
A1	Hotspot	LTE Band 41	39750	2506.0	1RB50	Top	10mm	\	\	22.49	23.50	0.069	**0.09**	0.041	**0.05**	0.01
A1	Hotspot	LTE Band 41	39750	2506.0	50RB25	Top	10mm	\	\	21.42	22.50	0.060	**0.08**	0.034	**0.04**	-0.15
A1	Hotspot	LTE Band 41	41490	2680.0	1RB50	Right	10mm	\	\	22.19	23.50	0.504	**0.68**	0.288	**0.39**	0.05
A1	Hotspot	LTE Band 41	41055	2636.5	1RB50	Right	10mm	\	\	22.34	23.50	0.531	**0.69**	0.307	**0.40**	0.12
A1	Hotspot	LTE Band 41	40620	2593.0	1RB50	Right	10mm	\	\	22.16	23.50	0.485	**0.66**	0.269	**0.37**	0.07
A1	Hotspot	LTE Band 41	40185	2549.5	1RB50	Right	10mm	\	\	22.48	23.50	0.549	**0.69**	0.315	**0.40**	0.03
A1	Hotspot	LTE Band 41	41055	2636.5	100RB	Right	10mm	\	\	21.31	22.50	0.432	**0.57**	0.224	**0.29**	-0.06
A1	Hotspot	LTE Band 41	39750	2506.0	1RB50	Right	10mm	L2	**25**	22.49	23.50	**0.650**	0.82	0.366	**0.46**	0.17
A1	Extremity	LTE Band 41	39750	2506.0	1RB50	Front	0mm	\	\	22.49	23.50	0.172	**0.22**	0.089	**0.11**	0.11
A1	Extremity	LTE Band 41	39750	2506.0	50RB25	Front	0mm	\	\	21.42	22.50	0.143	**0.18**	0.072	**0.09**	0.16
A1	Extremity	LTE Band 41	39750	2506.0	1RB50	Rear	0mm	\	\	22.49	23.50	1.040	**1.31**	0.565	**0.71**	-0.16
A1	Extremity	LTE Band 41	39750	2506.0	50RB25	Rear	0mm	\	\	21.42	22.50	0.760	**0.97**	0.414	**0.53**	0.05
A1	Extremity	LTE Band 41	39750	2506.0	1RB50	Right	0mm	\	**26**	22.49	23.50	3.660	**4.62**	**1.700**	2.15	0.04
A1	Extremity	LTE Band 41	39750	2506.0	50RB25	Right	0mm	\	\	21.42	22.50	3.000	**3.85**	1.400	**1.80**	0.07
A1	Extremity	LTE Band 41	39750	2506.0	1RB50	Top	0mm	\	\	22.49	23.50	0.262	**0.33**	0.114	**0.14**	0.19
A1	Extremity	LTE Band 41	39750	2506.0	50RB25	Top	0mm	\	\	21.42	22.50	0.212	**0.27**	0.086	**0.11**	-0.19
A1	Extremity	LTE Band 41	41490	2680.0	1RB50	Right	0mm	\	\	22.19	23.50	1.890	**2.56**	0.795	**1.07**	0.17
A1	Extremity	LTE Band 41	41055	2636.5	1RB50	Right	0mm	\	\	22.34	23.50	2.140	**2.80**	0.914	**1.19**	0.00
A1	Extremity	LTE Band 41	40620	2593.0	1RB50	Right	0mm	\	\	22.16	23.50	2.380	**3.24**	1.030	**1.40**	0.07
A1	Extremity	LTE Band 41	40185	2549.5	1RB50	Right	0mm	\	\	22.48	23.50	3.250	**4.11**	1.430	**1.81**	0.00
A1	Extremity	LTE Band 41	41490	2680.0	50RB25	Right	0mm	\	\	21.23	22.50	1.640	**2.20**	0.758	**1.02**	0.08
A1	Extremity	LTE Band 41	41055	2636.5	50RB25	Right	0mm	\	\	21.41	22.50	1.850	**2.38**	0.873	**1.12**	0.02
A1	Extremity	LTE Band 41	40620	2593.0	50RB25	Right	0mm	\	\	21.01	22.50	1.920	**2.71**	0.980	**1.38**	-0.05
A1	Extremity	LTE Band 41	40185	2549.5	50RB25	Right	0mm	\	\	21.33	22.50	2.490	**3.26**	1.250	**1.64**	-0.11
A1	Extremity	LTE Band 41	41055	2636.5	100RB	Right	0mm	\	\	21.31	22.50	1.820	**2.39**	0.777	**1.02**	0.03
A1	Extremity	LTE Band 41	39750	2506.0	1RB50	Right	0mm	L2	\	22.49	23.50	2.910	**3.67**	1.450	**1.83**	0.09

Note: SAR for LTE Band 38 is covered by LTE Band 41 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

Table 12.14: LTE Band 66 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	LTE Band 66	132322	1745.0	1RB99	Front	10mm	\	\	22.68	23.50	0.042	**0.05**	0.026	**0.03**	0.01
A1	Hotspot / Body-worn	LTE Band 66	132072	1720.0	50RB0	Front	10mm	\	\	21.80	22.50	<0.01	**<0.01**	<0.01	**<0.01**	\
A1	Hotspot / Body-worn	LTE Band 66	132322	1745.0	1RB99	Rear	10mm	\	\	22.68	23.50	0.195	**0.24**	0.118	**0.14**	0.02
A1	Hotspot / Body-worn	LTE Band 66	132072	1720.0	50RB0	Rear	10mm	\	\	21.80	22.50	0.144	**0.17**	0.088	**0.10**	-0.05
B1	Hotspot	LTE Band 66	132322	1745.0	1RB99	Right	10mm	\	\	21.39	21.50	0.573	**0.59**	0.330	**0.34**	0.17
B1	Hotspot	LTE Band 66	132072	1720.0	50RB0	Right	10mm	\	\	21.39	21.50	0.434	**0.45**	0.254	**0.26**	-0.13
A1	Hotspot	LTE Band 66	132322	1745.0	1RB99	Top	10mm	\	\	22.68	23.50	0.151	**0.18**	0.086	**0.10**	0.10
A1	Hotspot	LTE Band 66	132072	1720.0	50RB0	Top	10mm	\	\	21.80	22.50	0.097	**0.11**	0.059	**0.07**	0.06
B1	Hotspot	LTE Band 66	132322	1745.0	1RB99	Right	10mm	L2	**27**	21.39	21.50	**0.766**	0.79	0.444	**0.46**	0.02
A1	Hotspot	LTE Band 66	132322	1745.0	1RB99	Right	16mm	\	\	22.68	23.50	0.376	**0.45**	0.209	**0.25**	0.07
A1	Hotspot	LTE Band 66	132072	1720.0	50RB0	Right	16mm	\	\	21.80	22.50	0.327	**0.38**	0.183	**0.22**	-0.12
A1	Extremity	LTE Band 66	132322	1745.0	1RB99	Front	0mm	\	\	22.68	23.50	0.458	**0.55**	0.244	**0.29**	0.03
A1	Extremity	LTE Band 66	132072	1720.0	50RB0	Front	0mm	\	\	21.80	22.50	0.252	**0.30**	0.138	**0.16**	-0.02
A1	Extremity	LTE Band 66	132322	1745.0	1RB99	Rear	0mm	\	\	22.68	23.50	0.608	**0.73**	0.322	**0.39**	0.01
A1	Extremity	LTE Band 66	132072	1720.0	50RB0	Rear	0mm	\	\	21.80	22.50	0.526	**0.62**	0.278	**0.33**	0.05
B1	Extremity	LTE Band 66	132322	1745.0	1RB99	Right	0mm	\	\	21.39	21.50	2.760	**2.83**	1.400	**1.44**	-0.11
B1	Extremity	LTE Band 66	132072	1720.0	50RB0	Right	0mm	\	\	21.39	21.50	2.390	**2.45**	1.210	**1.24**	-0.03
A1	Extremity	LTE Band 66	132322	1745.0	1RB99	Top	0mm	\	\	22.68	23.50	0.987	**1.19**	0.471	**0.57**	0.02
A1	Extremity	LTE Band 66	132072	1720.0	50RB0	Top	0mm	\	\	21.80	22.50	0.573	**0.67**	0.291	**0.34**	0.05
B1	Extremity	LTE Band 66	132322	1745.0	1RB99	Right	0mm	L2	**28**	21.39	21.50	3.450	**3.54**	**1.770**	1.82	-0.12
A1	Hotspot	LTE Band 66	132322	1745.0	1RB99	Right	16mm	\	\	22.68	23.50	0.376	**0.45**	0.209	**0.25**	0.07
A1	Hotspot	LTE Band 66	132072	1720.0	50RB0	Right	16mm	\	\	21.80	22.50	0.327	**0.38**	0.183	**0.22**	-0.12

Note: SAR for LTE Band 4 is covered by LTE Band 66 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

Table 12.15: LTE Band 71 SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
A1	Hotspot / Body-worn	LTE Band 71	133222	673.0	1RB50	Front	10mm	\	\	22.58	23.50	0.122	**0.15**	0.088	**0.11**	0.15
A1	Hotspot / Body-worn	LTE Band 71	133222	673.0	50RB0	Front	10mm	\	\	21.54	22.50	0.086	**0.11**	0.062	**0.08**	0.17
A1	Hotspot / Body-worn	LTE Band 71	133222	673.0	1RB50	Rear	10mm	\	\	22.58	23.50	0.132	**0.16**	0.095	**0.12**	0.15
A1	Hotspot / Body-worn	LTE Band 71	133222	673.0	50RB0	Rear	10mm	\	\	21.54	22.50	0.099	**0.12**	0.072	**0.09**	0.10
A1	Hotspot	LTE Band 71	133222	673.0	1RB50	Right	10mm	\	\	22.58	23.50	0.144	**0.18**	0.090	**0.11**	-0.03
A1	Hotspot	LTE Band 71	133222	673.0	50RB0	Right	10mm	\	\	21.54	22.50	0.120	**0.15**	0.082	**0.10**	-0.01
A1	Hotspot	LTE Band 71	133222	673.0	1RB50	Top	10mm	\	\	22.58	23.50	<0.01	**<0.01**	<0.01	**<0.01**	\
A1	Hotspot	LTE Band 71	133222	673.0	50RB0	Top	10mm	\	\	21.54	22.50	<0.01	**<0.01**	<0.01	**<0.01**	\
A1	Hotspot	LTE Band 71	133222	673.0	1RB50	Right	10mm	L2	**29**	22.58	23.50	**0.164**	0.20	0.108	**0.13**	0.14
A1	Extremity	LTE Band 71	133222	673.0	1RB50	Front	0mm	\	\	22.58	23.50	0.694	**0.86**	0.188	**0.23**	0.01
A1	Extremity	LTE Band 71	133222	673.0	50RB0	Front	0mm	\	\	21.54	22.50	0.542	**0.68**	0.175	**0.22**	0.03
A1	Extremity	LTE Band 71	133222	673.0	1RB50	Rear	0mm	\	\	22.58	23.50	0.246	**0.30**	0.113	**0.14**	-0.06
A1	Extremity	LTE Band 71	133222	673.0	50RB0	Rear	0mm	\	\	21.54	22.50	0.198	**0.25**	0.084	**0.10**	0.01
A1	Extremity	LTE Band 71	133222	673.0	1RB50	Right	0mm	\	**30**	22.58	23.50	0.775	**0.96**	**0.424**	0.52	-0.02
A1	Extremity	LTE Band 71	133222	673.0	50RB0	Right	0mm	\	\	21.54	22.50	0.726	**0.91**	0.411	**0.51**	0.12
A1	Extremity	LTE Band 71	133222	673.0	1RB50	Top	0mm	\	\	22.58	23.50	0.116	**0.14**	0.069	**0.09**	0.03
A1	Extremity	LTE Band 71	133222	673.0	50RB0	Top	0mm	\	\	21.54	22.50	0.086	**0.11**	0.049	**0.06**	-0.02
A1	Extremity	LTE Band 71	133222	673.0	1RB50	Right	0mm	L2	\	22.58	23.50	0.661	**0.00**	0.400	**0.49**	-0.13

Table 12.16: Bluetooth SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Duty Cycle %	Duty Cycle Scaling Factor	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
/	Hotspot / Body-worn	Bluetooth	0	2402.0	8DPSK	Front	10mm	\	\	9.23	10.50	76.76	1.30	<0.01	**<0.01**	<0.01	**<0.01**	\
/	Hotspot / Body-worn	Bluetooth	0	2402.0	8DPSK	Rear	10mm	\	\	9.23	10.50	76.76	1.30	<0.01	**<0.01**	<0.01	**<0.01**	\
/	Hotspot	Bluetooth	0	2402.0	8DPSK	Right	10mm	\	\	9.23	10.50	76.76	1.30	<0.01	**<0.01**	<0.01	**<0.01**	\
/	Extremity	Bluetooth	0	2402.0	8DPSK	Front	0mm	\	\	9.23	10.50	76.76	1.30	<0.01	**<0.01**	<0.01	**<0.01**	\
/	Extremity	Bluetooth	0	2402.0	8DPSK	Rear	0mm	\	\	9.23	10.50	76.76	1.30	<0.01	**<0.01**	<0.01	**<0.01**	\
/	Extremity	Bluetooth	0	2402.0	8DPSK	Right	0mm	\	**31**	9.23	10.50	76.76	1.30	0.021	**0.04**	**0.010**	0.02	0.09
/	Extremity	Bluetooth	0	2402.0	8DPSK	Right	0mm	L2	\	9.23	10.50	76.76	1.30	0.019	**0.03**	0.009	**0.02**	0.07

Table 12.17: WLAN 2.4GHz SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Duty Cycle %	Duty Cycle Scaling Factor	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
/	Hotspot / Body-worn	WLAN 2.4GHz	1	2412.0	802.11b	Front	10mm	\	\	18.46	19.50	98.62	1.01	0.059	**0.08**	0.028	**0.04**	0.13
/	Hotspot / Body-worn	WLAN 2.4GHz	1	2412.0	802.11b	Rear	10mm	\	\	18.46	19.50	98.62	1.01	0.056	**0.07**	0.032	**0.04**	0.01
/	Hotspot	WLAN 2.4GHz	1	2412.0	802.11b	Right	10mm	\	\	18.46	19.50	98.62	1.01	0.097	**0.12**	0.057	**0.07**	-0.07
/	Hotspot	WLAN 2.4GHz	1	2412.0	802.11b	Right	10mm	L2	\	18.46	19.50	98.62	1.01	0.093	**0.12**	0.049	**0.06**	0.02
/	Hotspot	WLAN 2.4GHz	1	2412.0	802.11b	Right	10mm	C2	\	18.46	19.50	98.62	1.01	0.185	**0.24**	0.104	**0.13**	0.01
/	Hotspot	WLAN 2.4GHz	1	2412.0	802.11b	Right	10mm	C3	**32**	18.46	19.50	98.62	1.01	**0.220**	0.28	0.122	**0.16**	0.05
/	Extremity	WLAN 2.4GHz	1	2412.0	802.11b	Front	0mm	\	\	18.46	19.50	98.62	1.01	0.103	**0.13**	0.056	**0.07**	0.04
/	Extremity	WLAN 2.4GHz	1	2412.0	802.11b	Rear	0mm	\	\	18.46	19.50	98.62	1.01	0.101	**0.13**	0.053	**0.07**	0.13
/	Extremity	WLAN 2.4GHz	1	2412.0	802.11b	Right	0mm	\	\	18.46	19.50	98.62	1.01	0.919	**1.18**	0.364	**0.47**	0.05
/	Extremity	WLAN 2.4GHz	1	2412.0	802.11b	Right	0mm	L2	\	18.46	19.50	98.62	1.01	0.583	**0.75**	0.241	**0.31**	0.11
/	Extremity	WLAN 2.4GHz	1	2412.0	802.11b	Right	0mm	C2	\	18.46	19.50	98.62	1.01	0.939	**1.20**	0.389	**0.50**	0.13
/	Extremity	WLAN 2.4GHz	1	2412.0	802.11b	Right	0mm	C3	**33**	18.46	19.50	98.62	1.01	0.853	**1.09**	**0.418**	0.54	-0.10

Note:

1. According to the KDB 248227 D01, SAR is measured for 2.4GHz 802.11b DSSS using the initial test position procedure.

2. For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

3. According to the KDB 248227 D01, the reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

4. SAR is not required for OFDM because the 802.11b adjusted SAR ≤ 1.2 W/kg.

Table 12.18: WLAN 5GHz SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Duty Cycle %	Duty Cycle Scaling Factor	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
/	Hotspot	U-NII-1	36	5180.0	802.11a	Front	10mm	\	\	17.78	18.60	98.07	1.02	0.056	**0.07**	0.020	**0.02**	0.14
/	Hotspot	U-NII-1	36	5180.0	802.11a	Rear	10mm	\	\	17.78	18.60	98.07	1.02	0.249	**0.31**	0.105	**0.13**	0.07
/	Hotspot	U-NII-1	36	5180.0	802.11a	Right	10mm	\	\	17.78	18.60	98.07	1.02	0.322	**0.40**	0.114	**0.14**	-0.04
/	Hotspot	U-NII-3	165	5825.0	802.11a	Front	10mm	\	\	18.75	19.60	98.07	1.02	0.056	**0.07**	0.020	**0.03**	-0.01
/	Hotspot	U-NII-3	165	5825.0	802.11a	Rear	10mm	\	\	18.75	19.60	98.07	1.02	0.166	**0.21**	0.073	**0.09**	0.05
/	Hotspot	U-NII-3	165	5825.0	802.11a	Right	10mm	\	\	18.75	19.60	98.07	1.02	0.227	**0.28**	0.074	**0.09**	0.19
/	Hotspot	U-NII-1	36	5180.0	802.11a	Right	10mm	L2	\	17.78	18.60	98.07	1.02	0.432	**0.53**	0.142	**0.17**	0.08
/	Hotspot	U-NII-1	36	5180.0	802.11a	Right	10mm	C2	**34**	17.78	18.60	98.07	1.02	**0.558**	0.69	0.189	**0.23**	0.17
/	Hotspot	U-NII-1	36	5180.0	802.11a	Right	10mm	C3	\	17.78	18.60	98.07	1.02	0.466	**0.57**	0.165	**0.20**	0.15
/	Body-worn	U-NII-2A	60	5300.0	802.11a	Front	10mm	\	\	17.90	19.10	98.07	1.02	0.048	**0.07**	0.016	**0.02**	0.05
/	Body-worn	U-NII-2A	60	5300.0	802.11a	Rear	10mm	\	\	17.90	19.10	98.07	1.02	0.220	0.30	0.097	**0.13**	0.18
/	Body-worn	U-NII-2C	132	5660.0	802.11a	Front	10mm	\	\	18.64	19.60	98.07	1.02	0.096	**0.12**	0.032	**0.04**	0.02
/	Body-worn	U-NII-2C	132	5660.0	802.11a	Rear	10mm	\	\	18.64	19.60	98.07	1.02	0.126	**0.16**	0.051	**0.07**	-0.05
/	Body-worn	U-NII-3	165	5825.0	802.11a	Front	10mm	\	\	18.75	19.60	98.07	1.02	0.056	**0.07**	0.020	**0.03**	-0.01
/	Body-worn	U-NII-3	165	5825.0	802.11a	Rear	10mm	\	\	18.75	19.60	98.07	1.02	0.166	**0.21**	0.073	**0.09**	0.05
/	Extremity	U-NII-2A	60	5300.0	802.11a	Front	0mm	\	\	17.90	19.10	98.07	1.02	0.090	**0.12**	0.039	**0.05**	0.06
/	Extremity	U-NII-2A	60	5300.0	802.11a	Rear	0mm	\	\	17.90	19.10	98.07	1.02	0.461	**0.62**	0.199	**0.27**	0.07
/	Extremity	U-NII-2A	60	5300.0	802.11a	Right	0mm	\	\	17.90	19.10	98.07	1.02	1.130	**1.52**	0.288	**0.39**	-0.01
/	Extremity	U-NII-2C	132	5660.0	802.11a	Front	0mm	\	\	18.64	19.60	98.07	1.02	0.088	**0.11**	0.025	**0.03**	-0.01
/	Extremity	U-NII-2C	132	5660.0	802.11a	Rear	0mm	\	\	18.64	19.60	98.07	1.02	0.234	**0.30**	0.100	**0.13**	0.09
/	Extremity	U-NII-2C	132	5660.0	802.11a	Right	0mm	\	\	18.64	19.60	98.07	1.02	0.866	**1.10**	0.228	**0.29**	0.12
/	Extremity	U-NII-3	165	5825.0	802.11a	Front	0mm	\	\	18.75	19.60	98.07	1.02	0.099	**0.12**	0.028	**0.03**	-0.07
/	Extremity	U-NII-3	165	5825.0	802.11a	Rear	0mm	\	\	18.75	19.60	98.07	1.02	0.261	**0.32**	0.107	**0.13**	0.09
/	Extremity	U-NII-3	165	5825.0	802.11a	Right	0mm	\	\	18.75	19.60	98.07	1.02	1.110	**1.38**	0.277	**0.34**	-0.07
/	Extremity	U-NII-2A	60	5300.0	802.11a	Right	0mm	L2	\	17.90	19.10	98.07	1.02	1.350	**1.82**	0.358	**0.48**	-0.09
/	Extremity	U-NII-2A	60	5300.0	802.11a	Right	0mm	C2	\	17.90	19.10	98.07	1.02	1.280	**1.72**	0.352	**0.47**	0.10
/	Extremity	U-NII-2A	60	5300.0	802.11a	Right	0mm	C3	**35**	17.90	19.10	98.07	1.02	1.560	**2.10**	**0.434**	0.58	0.07

Note:

1. The maximum output and tolerance of U-NII-2A band is greater than that of U-NII-1 band, SAR is measured for U-NII-2A band first. Adjusted SAR of U-NII-2A band is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.

2. For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

3. According to the KDB 248227 D01, the reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

Table 12.19: NFC SAR Values

Power Level	RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Note	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
/	Extremity	NFC	\	13.56	\	Front	0mm	\	\	\	\	<0.01	\	<0.01	\	\
/	Extremity	NFC	\	13.56	\	Rear	0mm	\	\	\	\	<0.01	\	<0.01	\	\
/	Extremity	NFC	\	13.56	\	Left	0mm	\	\	\	\	<0.01	\	<0.01	\	\
/	Extremity	NFC	\	13.56	\	Right	0mm	\	\	\	\	<0.01	\	<0.01	\	\
/	Extremity	NFC	\	13.56	\	Top	0mm	\	\	\	\	<0.01	\	<0.01	\	\

13. SAR Measurement Variability

SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium.

The following procedures are applied to determine if repeated measurements are required.

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.

2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.

3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).

4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Table 13.1: SAR Measurement Variability

Power Level	RF Exposure Conditions	Frequency Band	Frequency		Mode/RB	Test Position	Distance	Original	1st Repeated	Ratio	2nd Repeated
			Ch.	MHz				SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
B1	Hotspot	WCDMA Band 2	9262	1852.4	RMC	Right	10mm	0.827	0.814	1.02	/
B1	Extremity	LTE Band 7	21350	2560.0	1RB50	Right	0mm	2.160	2.100	1.03	/
B1	Extremity	LTE Band 25	26590	1905.0	1RB50	Right	0mm	2.370	2.260	1.05	/

14. Measurement Uncertainty

14.1. Measurement Uncertainty for Normal SAR Tests (300MHz~3GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	11.0	N	2	1	1	5.5	5.5	∞
2	Axial isotropy	B	4.7	R	$\sqrt{3}$	$\sqrt{0.5}$	$\sqrt{0.5}$	4.3	4.3	∞
3	Hemispherical isotropy	B	9.6	R	$\sqrt{3}$	1	1	4.8	4.8	∞
4	Boundary effect	B	1.1	R	$\sqrt{3}$	1	1	0.6	0.6	∞
5	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
6	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
7	Modulation response	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
8	Readout electronics	B	1.0	N	1	1	1	1.0	1.0	∞
9	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
10	Integration time	B	1.7	R	$\sqrt{3}$	1	1	1.0	1.0	∞
11	RF ambient conditions-noise	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
12	RF ambient conditions-reflection	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Probe positioned mech. restrictions	B	0.35	R	$\sqrt{3}$	1	1	0.2	0.2	∞
14	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
15	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Test sample related										
16	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	5
17	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
18	Power scaling	B	0	R	$\sqrt{3}$	1	1	0	0	∞
19	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
20	Phantom uncertainty	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
21	Algorithm for correcting SAR for deviations in permittivity and conductivity	B	1.9	N	1	1	0.84	1.9	1.6	∞
22	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
23	Liquid conductivity (meas.)	A	1.3	N	1	0.64	0.43	0.83	0.56	9
24	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
25	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	0.96	0.78	9
Combined standard uncertainty, $u_c' = \sqrt{\sum_{i=1}^{25} c_i^2 u_i^2}$								11.2	11.0	95.5
Expanded uncertainty (Confidence interval of 95 %), $u_e = 2u_c$								22.4	22.0	

14.2. Measurement Uncertainty for Normal SAR Tests (3GHz~6GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	13.1	N	2	1	1	6.55	6.55	∞
2	Axial isotropy	B	4.7	R	$\sqrt{3}$	$\sqrt{0.5}$	$\sqrt{0.5}$	4.3	4.3	∞
3	Hemispherical isotropy	B	9.6	R	$\sqrt{3}$	1	1	4.8	4.8	∞
4	Boundary effect	B	1.1	R	$\sqrt{3}$	1	1	0.6	0.6	∞
5	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
6	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
7	modulation response	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
8	Readout electronics	B	1.0	N	1	1	1	1.0	1.0	∞
9	Response time	B	0.0	R	$\sqrt{3}$	1	1	0.0	0.0	∞
10	Integration time	B	1.7	R	$\sqrt{3}$	1	1	1.0	1.0	∞
11	RF ambient conditions-noise	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
12	RF ambient conditions-reflection	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Probe positioned mech. Restrictions	B	0.35	R	$\sqrt{3}$	1	1	0.2	0.2	∞
14	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
15	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Test sample related										
16	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	5
17	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
18	Power scaling	B	0	R	$\sqrt{3}$	1	1	0	0	∞
19	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
20	Phantom uncertainty	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
21	Algorithm for correcting SAR for deviations in permittivity and conductivity	B	1.9	N	1	1	0.84	1.9	1.6	∞
22	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
23	Liquid conductivity (meas.)	A	1.3	N	1	0.64	0.43	0.83	0.56	9
24	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
25	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	0.96	0.78	9
Combined standard uncertainty, $u_c' = \sqrt{\sum_{i=1}^{25} c_i^2 u_i^2}$								11.7	11.6	95.5
Expanded uncertainty (Confidence interval of 95 %), $u_e = 2u_c$								23.4	23.2	

15. Main Test Instruments

Table 15.1: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	E5071C	MY46103759	2024-11-12	One year
02	Dielectric probe	85070E	MY44300317	/	/
03	Power meter	E4418B	MY50000366	2024-12-09	One year
04	Power sensor	E9304A	MY50000188	2024-12-09	One year
05	Power meter	NRP	102603	2024-12-17	One year
06	Power sensor	NRP-Z51	102211	2024-12-17	One year
07	Signal Generator	E8257D	MY47461211	2025-01-10	One year
08	Amplifier	VTL5400	0404	/	/
09	DAE	DAE4	1790	2024-06-06	One year
10	E-field Probe	EX3DV4	7683	2024-07-03	One year
11	Dipole Validation Kit	CLA13	1039	2023-08-18	Three years
12	Dipole Validation Kit	D750V3	1163	2022-08-22	Three years
13	Dipole Validation Kit	D835V2	4d057	2024-09-26	Three years
14	Dipole Validation Kit	D1750V2	1152	2022-08-22	Three years
15	Dipole Validation Kit	D1900V2	5d088	2024-09-26	Three years
16	Dipole Validation Kit	D2300V2	1059	2024-09-03	Three years
17	Dipole Validation Kit	D2450V2	873	2024-09-26	Three years
18	Dipole Validation Kit	D2550V2	1010	2024-04-23	Three years
19	Dipole Validation Kit	D5GHzV2	1238	2022-08-17	Three years
20	BTS	E5515C	GB46110722	2025-01-11	One year
21	BTS	MT8820C	6201341853	2025-03-21	One year
22	BTS	CMW500	152499	2024-07-12	One year
23	Thermometer	51II	99250045	2024-11-21	One year
24	Software	DASY5	/	/	/

ANNEX A: Graph Results

GSM 850 Body
Date: 2024-11-16
Electronics: DAE4 Sn1790
Medium: Head 835MHz
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.903 S/m; ε_r = 40.681; ρ = 1000 kg/m^3
Communication System: UID 0, 2 slot GPRS (0) Frequency: 824.2 MHz Duty Cycle: 1:4
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side Low/Area Scan (61x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.519 W/kg

Right Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.58 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.590 W/kg
SAR(1 g) = 0.389 W/kg; SAR(10 g) = 0.249 W/kg
Smallest distance from peaks to all points 3 dB below = 14.8 mm
Ratio of SAR at M2 to SAR at M1 = 66.3%
Maximum value of SAR (measured) = 0.492 W/kg

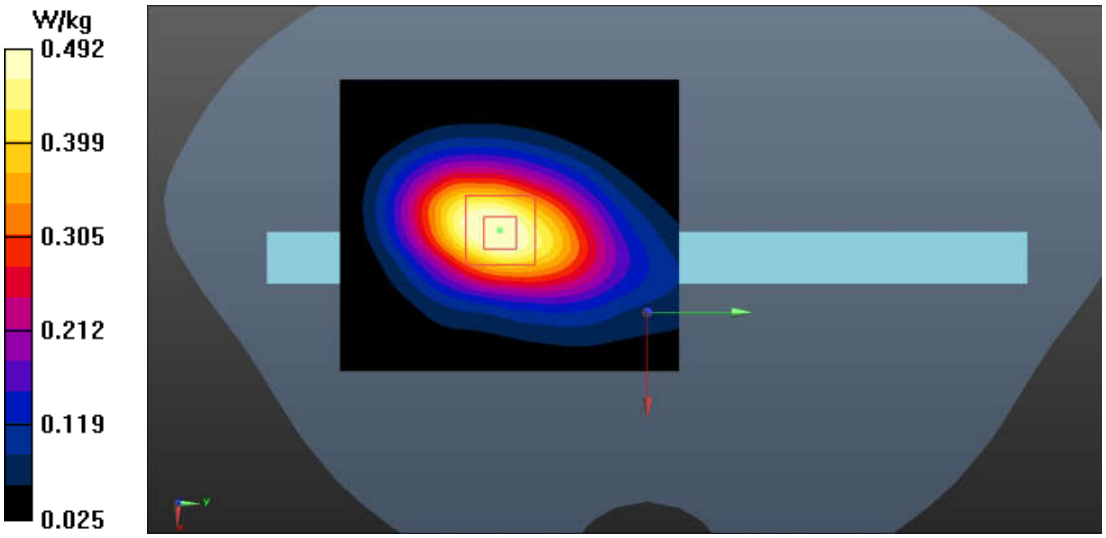


Fig.1 GSM 850 Body

GSM 850 Extremity
Date: 2024-11-16
Electronics: DAE4 Sn1790
Medium: Head 835MHz
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.903 S/m; ε_r = 40.681; ρ = 1000 kg/m^3
Communication System: UID 0, 2 slot GPRS (0) Frequency: 824.2 MHz Duty Cycle: 1:4
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side Low/Area Scan (61x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.95 W/kg

Right Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.05 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 2.52 W/kg
SAR(1 g) = 1.52 W/kg; SAR(10 g) = 0.928 W/kg
Smallest distance from peaks to all points 3 dB below = 12.2 mm
Ratio of SAR at M2 to SAR at M1 = 60.6%
Maximum value of SAR (measured) = 2.04 W/kg

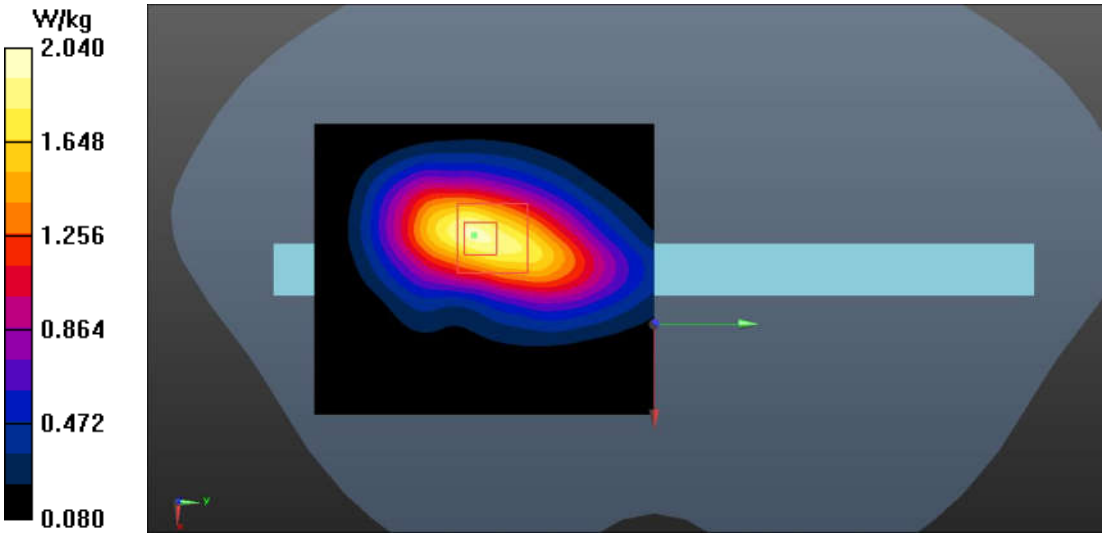


Fig.2 GSM 850 Extremity

GSM 1900 Body
Date: 2024-12-10
Electronics: DAE4 Sn1790
Medium: Head 1900MHz
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.341 S/m; ε_r = 41.107; ρ = 1000 kg/m^3
Communication System: UID 0, 4 slot GPRS (0) Frequency: 1850.2 MHz Duty Cycle: 1:2
Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

Right Side Low/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.03 W/kg

Right Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.290 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.20 W/kg
SAR(1 g) = 0.739 W/kg; SAR(10 g) = 0.418 W/kg
Smallest distance from peaks to all points 3 dB below = 13.6 mm
Ratio of SAR at M2 to SAR at M1 = 61.9%
Maximum value of SAR (measured) = 0.997 W/kg

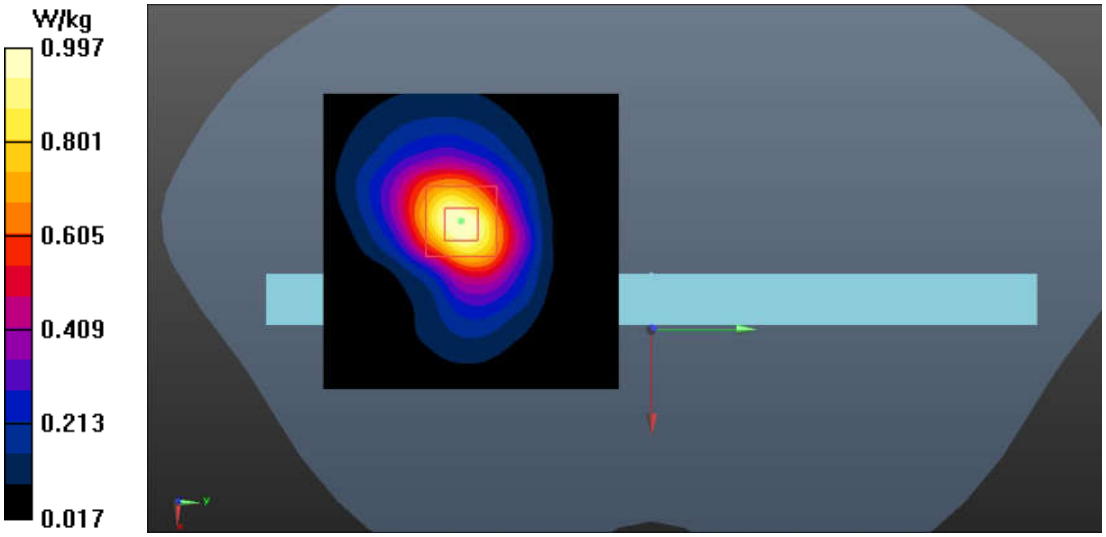


Fig.3 GSM 1900 Body

GSM 1900 Extremity
Date: 2024-12-10
Electronics: DAE4 Sn1790
Medium: Head 1900MHz
Medium parameters used (interpolated): f = 1850.2 MHz; σ = 1.341 S/m; ε_r = 41.107; ρ = 1000 kg/m^3
Communication System: UID 0, 4 slot GPRS (0) Frequency: 1850.2 MHz Duty Cycle: 1:2
Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

Right Side Low/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 4.99 W/kg

Right Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.82 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 6.32 W/kg
SAR(1 g) = 3.52 W/kg; SAR(10 g) = 1.86 W/kg
Smallest distance from peaks to all points 3 dB below = 10.1 mm
Ratio of SAR at M2 to SAR at M1 = 56.6%
Maximum value of SAR (measured) = 4.86 W/kg

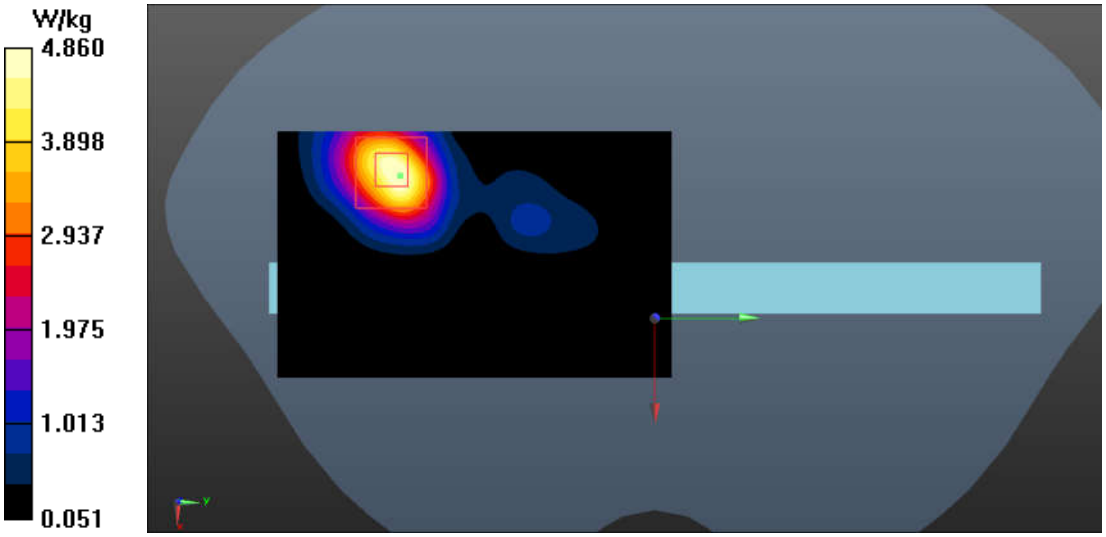


Fig.4 GSM 1900 Extremity

WCDMA Band 2 Body
Date: 2025-01-08
Electronics: DAE4 Sn1790
Medium: Head 1900MHz
Medium parameters used (interpolated): f = 1852.4 MHz; σ = 1.372 S/m; εr = 39.487; ρ = 1000 kg/m^3
Communication System: UID 0, WCDMA (0) Frequency: 1852.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

Right Side Low/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.975 W/kg

Right Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.751 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.32 W/kg
SAR(1 g) = 0.827 W/kg; SAR(10 g) = 0.476 W/kg
Smallest distance from peaks to all points 3 dB below = 12.9 mm
Ratio of SAR at M2 to SAR at M1 = 64%
Maximum value of SAR (measured) = 0.998 W/kg

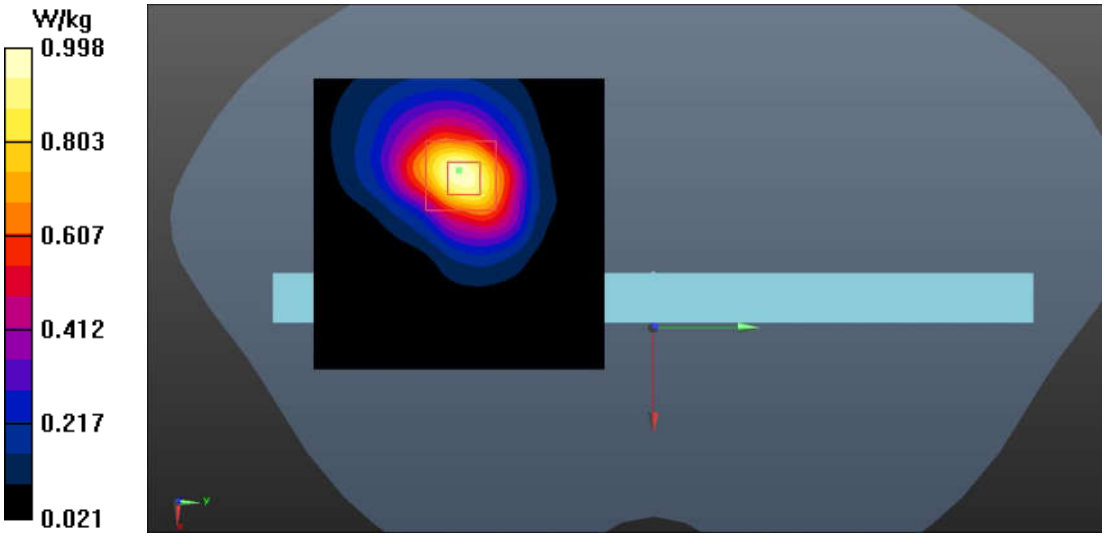


Fig.5 WCDMA Band 2 Body

WCDMA Band 2 Extremity
Date: 2025-01-08
Electronics: DAE4 Sn1790
Medium: Head 1900MHz
Medium parameters used: f = 1908 MHz; σ = 1.421 S/m; ε_r = 39.27; ρ = 1000 kg/m^3
Communication System: UID 0, WCDMA (0) Frequency: 1907.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

Right Side High/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 4.39 W/kg

Right Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.76 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 6.21 W/kg
SAR(1 g) = 3.27 W/kg; SAR(10 g) = 1.64 W/kg
Smallest distance from peaks to all points 3 dB below = 10.1 mm
Ratio of SAR at M2 to SAR at M1 = 56.5%
Maximum value of SAR (measured) = 4.35 W/kg

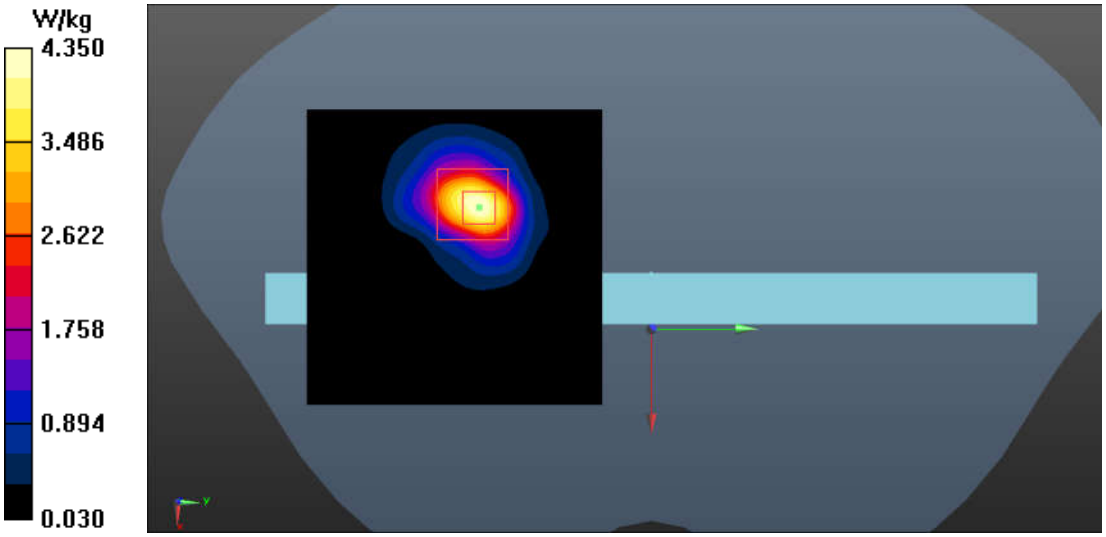


Fig.6 WCDMA Band 2 Extremity

WCDMA Band 4 Body
Date: 2024-12-04
Electronics: DAE4 Sn1790
Medium: Head 1750MHz
Medium parameters used (interpolated): f = 1712.4 MHz; σ = 1.321 S/m; ε_r = 40.837; ρ = 1000 kg/m^3
Communication System: UID 0, WCDMA (0) Frequency: 1712.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

Right Side Low/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.740 W/kg

Right Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.536 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.946 W/kg
SAR(1 g) = 0.605 W/kg; SAR(10 g) = 0.363 W/kg
Smallest distance from peaks to all points 3 dB below = 14.8 mm
Ratio of SAR at M2 to SAR at M1 = 63.9%
Maximum value of SAR (measured) = 0.719 W/kg

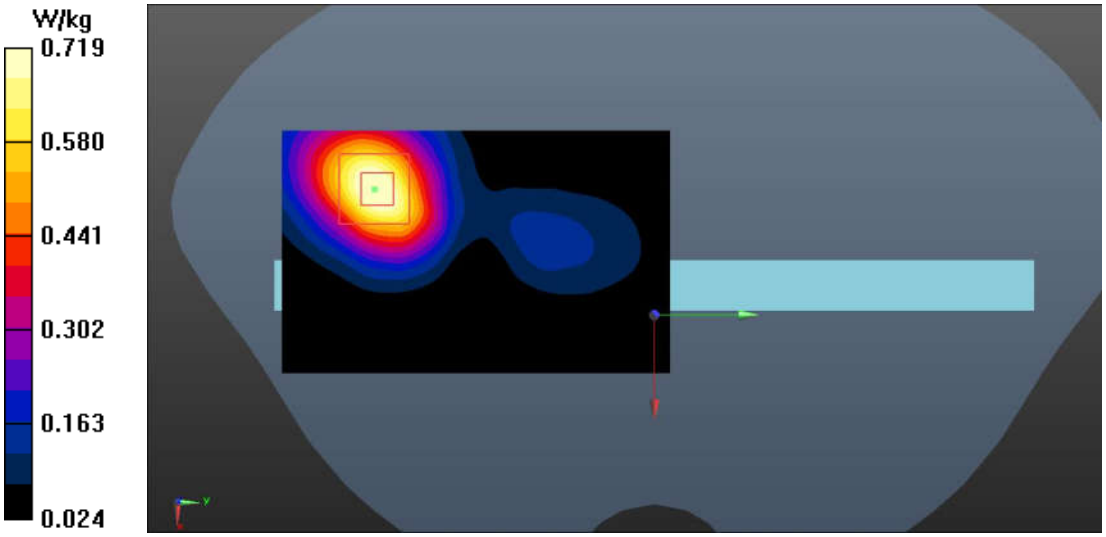


Fig.7 WCDMA Band 4 Body

WCDMA Band 4 Extremity
Date: 2024-12-04
Electronics: DAE4 Sn1790
Medium: Head 1750MHz
Medium parameters used (interpolated): f = 1712.4 MHz; σ = 1.321 S/m; ε_r = 40.837; ρ = 1000 kg/m^3
Communication System: UID 0, WCDMA (0) Frequency: 1712.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

Right Side Low/Area Scan (61x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 5.01 W/kg

Right Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.69 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 5.71 W/kg
SAR(1 g) = 3.05 W/kg; SAR(10 g) = 1.52 W/kg
Smallest distance from peaks to all points 3 dB below = 10.1 mm
Ratio of SAR at M2 to SAR at M1 = 53.1%
Maximum value of SAR (measured) = 4.48 W/kg

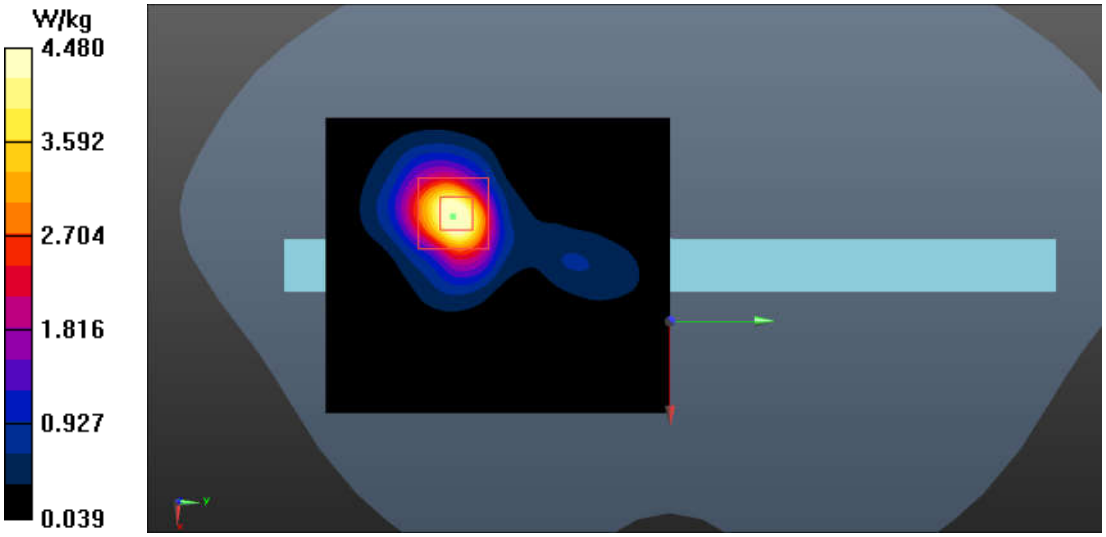


Fig.8 WCDMA Band 4 Extremity

WCDMA Band 5 Body
Date: 2024-11-16
Electronics: DAE4 Sn1790
Medium: Head 835MHz
Medium parameters used (interpolated): f = 846.6 MHz; σ = 0.924 S/m; ε_r = 40.412; ρ = 1000 kg/m^3
Communication System: UID 0, WCDMA (0) Frequency: 846.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side High/Area Scan (61x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.411 W/kg

Right Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.459 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.489 W/kg
SAR(1 g) = 0.322 W/kg; SAR(10 g) = 0.206 W/kg
Smallest distance from peaks to all points 3 dB below = 17.2 mm
Ratio of SAR at M2 to SAR at M1 = 66.6%
Maximum value of SAR (measured) = 0.410 W/kg

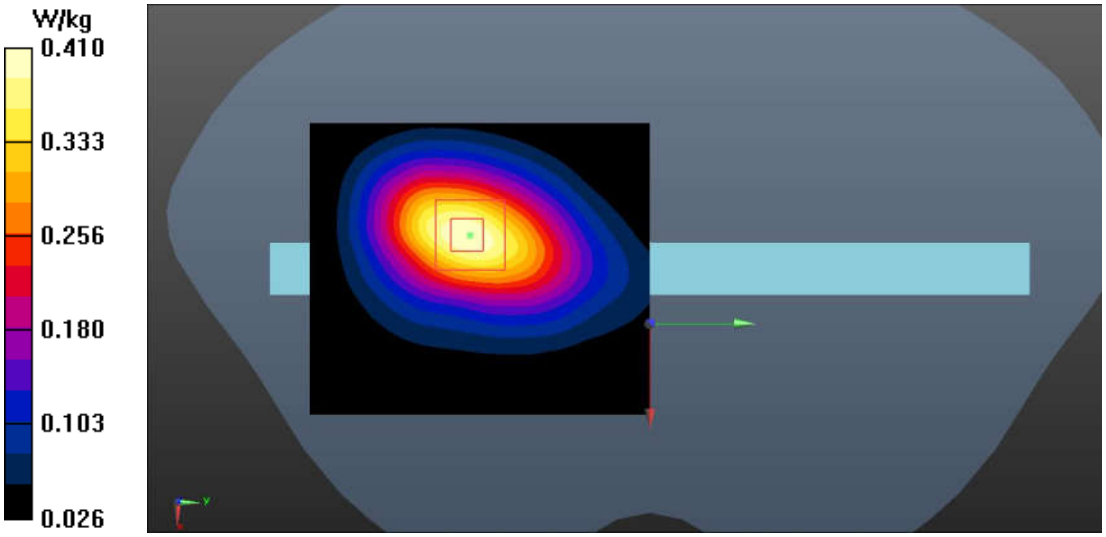


Fig.9 WCDMA Band 5 Body

WCDMA Band 5 Extremity
Date: 2024-11-16
Electronics: DAE4 Sn1790
Medium: Head 835MHz
Medium parameters used (interpolated): f = 846.6 MHz; σ = 0.924 S/m; ε_r = 40.412; ρ = 1000 kg/m^3
Communication System: UID 0, WCDMA (0) Frequency: 846.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side High/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.19 W/kg

Right Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.82 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.57 W/kg
SAR(1 g) = 1.00 W/kg; SAR(10 g) = 0.634 W/kg
Smallest distance from peaks to all points 3 dB below = 14.3 mm
Ratio of SAR at M2 to SAR at M1 = 66.2%
Maximum value of SAR (measured) = 1.19 W/kg

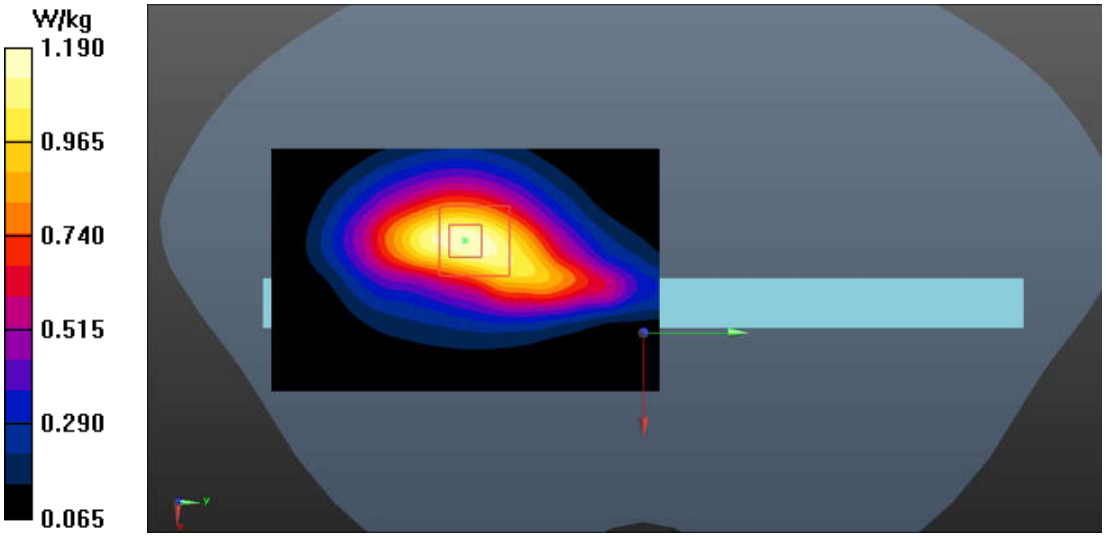


Fig.10 WCDMA Band 5 Extremity

LTE Band 7 Body
Date: 2024-12-30
Electronics: DAE4 Sn1790
Medium: Head 2550MHz
Medium parameters used: f = 2510 MHz; σ = 1.875 S/m; ε_r = 37.896; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 2510 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

Right Side Low 1RB50/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.07 W/kg

Right Side Low 1RB50/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.338 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.50 W/kg
SAR(1 g) = 0.787 W/kg; SAR(10 g) = 0.408 W/kg
Smallest distance from peaks to all points 3 dB below = 11.3 mm
Ratio of SAR at M2 to SAR at M1 = 53.3%
Maximum value of SAR (measured) = 1.13 W/kg

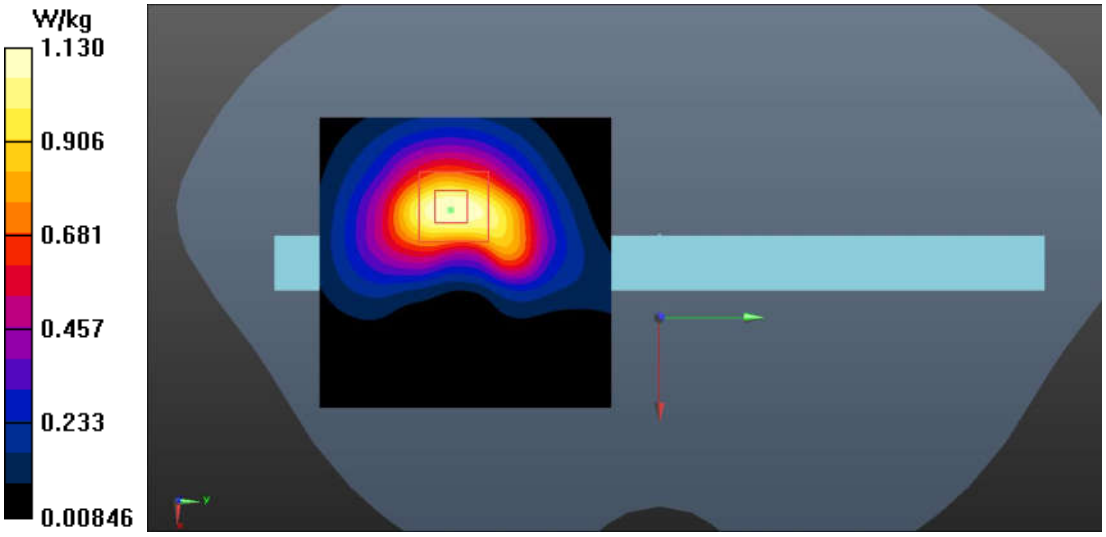


Fig.11 LTE Band 7 Body

LTE Band 7 Extremity
Date: 2024-12-30
Electronics: DAE4 Sn1790
Medium: Head 2550MHz
Medium parameters used: f = 2560 MHz; σ = 1.934 S/m; ε_r = 37.731; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 2560 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (7.93, 7.55, 7.39)

Right Side High 1RB50/Area Scan (71x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 7.39 W/kg

Right Side High 1RB50/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.43 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 11.8 W/kg
SAR(1 g) = 5.13 W/kg; SAR(10 g) = 2.16 W/kg
Smallest distance from peaks to all points 3 dB below = 6.8 mm
Ratio of SAR at M2 to SAR at M1 = 50.1%
Maximum value of SAR (measured) = 7.58 W/kg

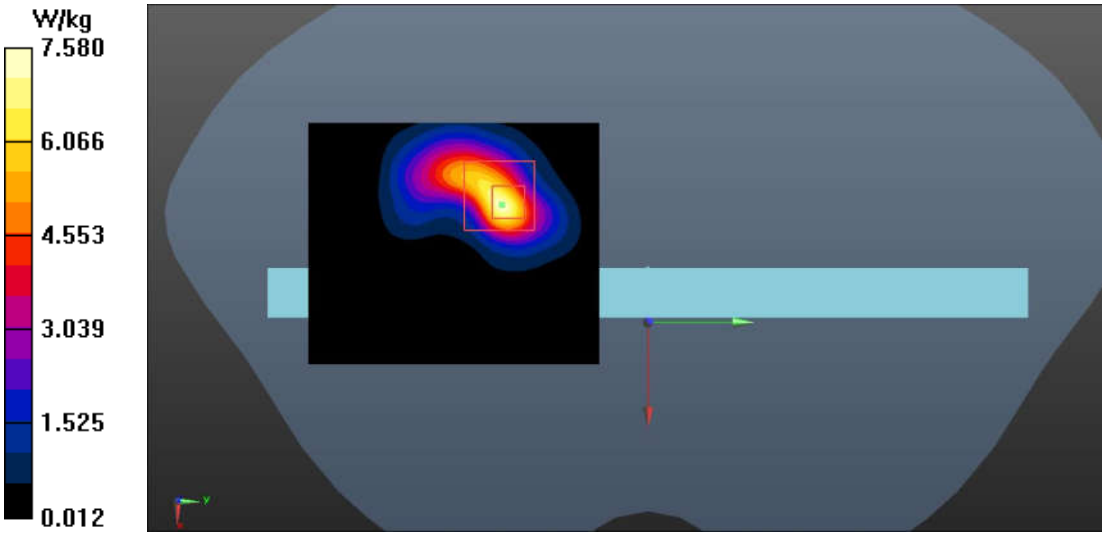


Fig.12 LTE Band 7 Extremity

LTE Band 12 Body
Date: 2024-11-10
Electronics: DAE4 Sn1790
Medium: Head 750MHz
Medium parameters used (interpolated): f = 711 MHz; σ = 0.895 S/m; ε_r = 43.191; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side High 1RB24/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.296 W/kg

Right Side High 1RB24/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.347 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.427 W/kg
SAR(1 g) = 0.266 W/kg; SAR(10 g) = 0.168 W/kg
Smallest distance from peaks to all points 3 dB below = 16 mm
Ratio of SAR at M2 to SAR at M1 = 65.9%
Maximum value of SAR (measured) = 0.311 W/kg

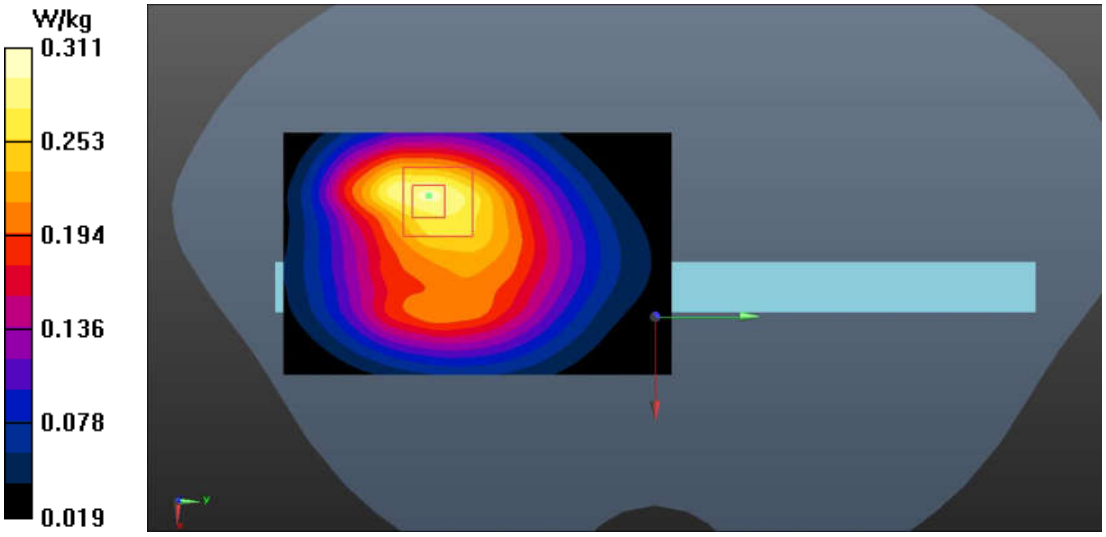


Fig.13 LTE Band 12 Body

LTE Band 12 Extremity
Date: 2024-11-10
Electronics: DAE4 Sn1790
Medium: Head 750MHz
Medium parameters used (interpolated): f = 711 MHz; σ = 0.895 S/m; ε_r = 43.191; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side High 1RB24/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.19 W/kg

Right Side High 1RB24/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.53 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.91 W/kg
SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.576 W/kg
Smallest distance from peaks to all points 3 dB below = 9.7 mm
Ratio of SAR at M2 to SAR at M1 = 57.6%
Maximum value of SAR (measured) = 1.24 W/kg

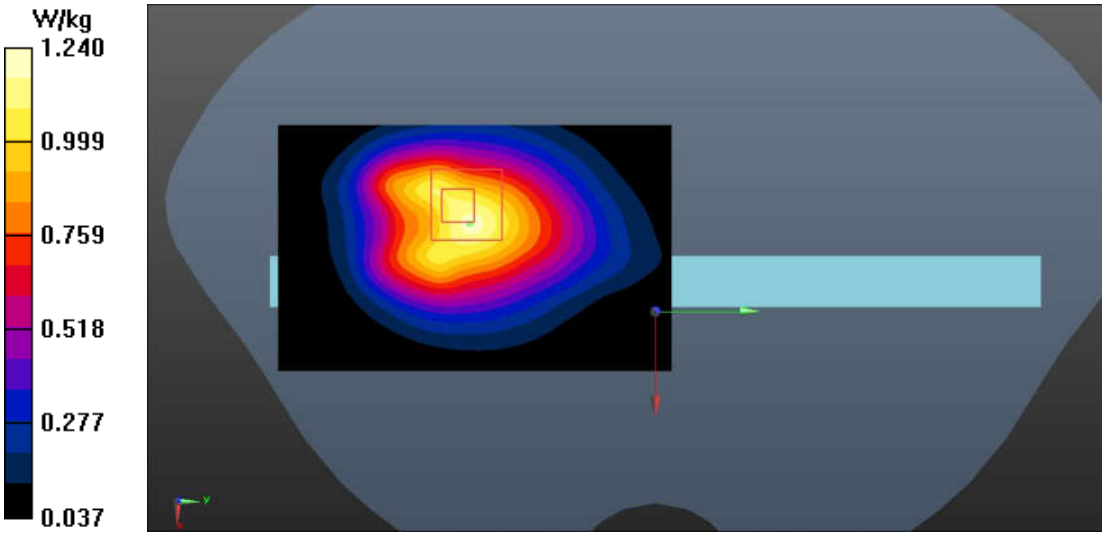


Fig.14 LTE Band 12 Extremity

LTE Band 13 Body
Date: 2024-11-10
Electronics: DAE4 Sn1790
Medium: Head 750MHz
Medium parameters used: f = 782 MHz; σ = 0.904 S/m; εr = 42.338; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 782 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side Middle 1RB24/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.334 W/kg

Right Side Middle 1RB24/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.688 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.429 W/kg
SAR(1 g) = 0.299 W/kg; SAR(10 g) = 0.202 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 69.2%
Maximum value of SAR (measured) = 0.336 W/kg

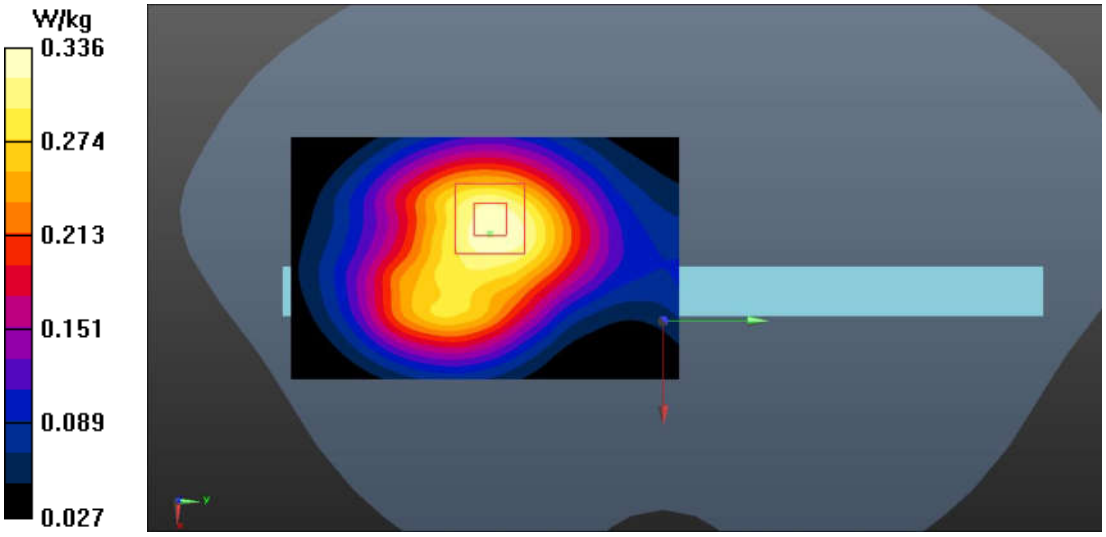


Fig.15 LTE Band 13 Body

LTE Band 13 Extremity
Date: 2024-11-10
Electronics: DAE4 Sn1790
Medium: Head 750MHz
Medium parameters used: f = 782 MHz; σ = 0.904 S/m; εr = 42.338; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 782 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side Middle 1RB24/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.46 W/kg

Right Side Middle 1RB24/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.66 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 2.01 W/kg
SAR(1 g) = 1.20 W/kg; SAR(10 g) = 0.726 W/kg
Smallest distance from peaks to all points 3 dB below = 15.8 mm
Ratio of SAR at M2 to SAR at M1 = 61.3%
Maximum value of SAR (measured) = 1.47 W/kg

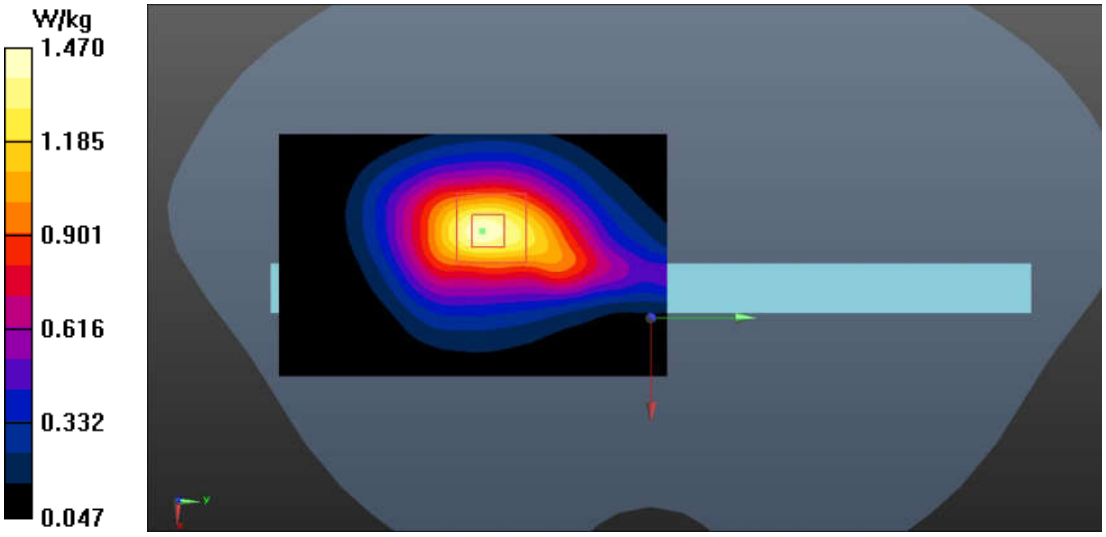


Fig.16 LTE Band 13 Extremity

LTE Band 14 Body
Date: 2024-11-10
Electronics: DAE4 Sn1790
Medium: Head 750MHz
Medium parameters used (interpolated): f = 793 MHz; σ = 0.911 S/m; ε_r = 42.206; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 793 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side Middle 1RB24/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.322 W/kg

Right Side Middle 1RB24/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.917 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.417 W/kg
SAR(1 g) = 0.288 W/kg; SAR(10 g) = 0.197 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 70%
Maximum value of SAR (measured) = 0.324 W/kg

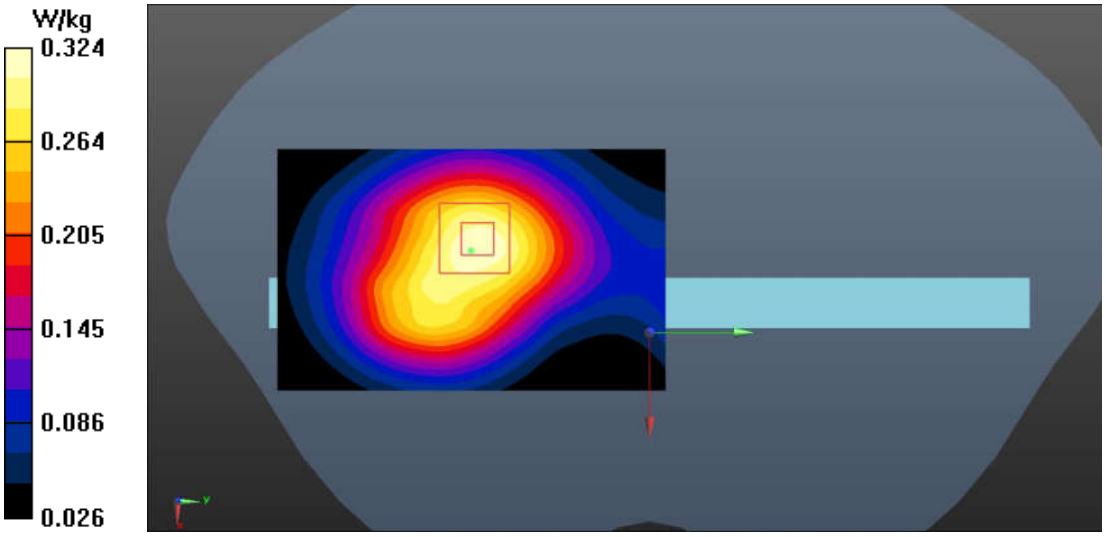


Fig.17 LTE Band 14 Body

LTE Band 14 Extremity
Date: 2024-11-10
Electronics: DAE4 Sn1790
Medium: Head 750MHz
Medium parameters used (interpolated): f = 793 MHz; σ = 0.911 S/m; ε_r = 42.206; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 793 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side Middle 1RB24/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.51 W/kg

Right Side Middle 1RB24/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.35 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 2.07 W/kg
SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.759 W/kg
Smallest distance from peaks to all points 3 dB below = 14.8 mm
Ratio of SAR at M2 to SAR at M1 = 62%
Maximum value of SAR (measured) = 1.51 W/kg

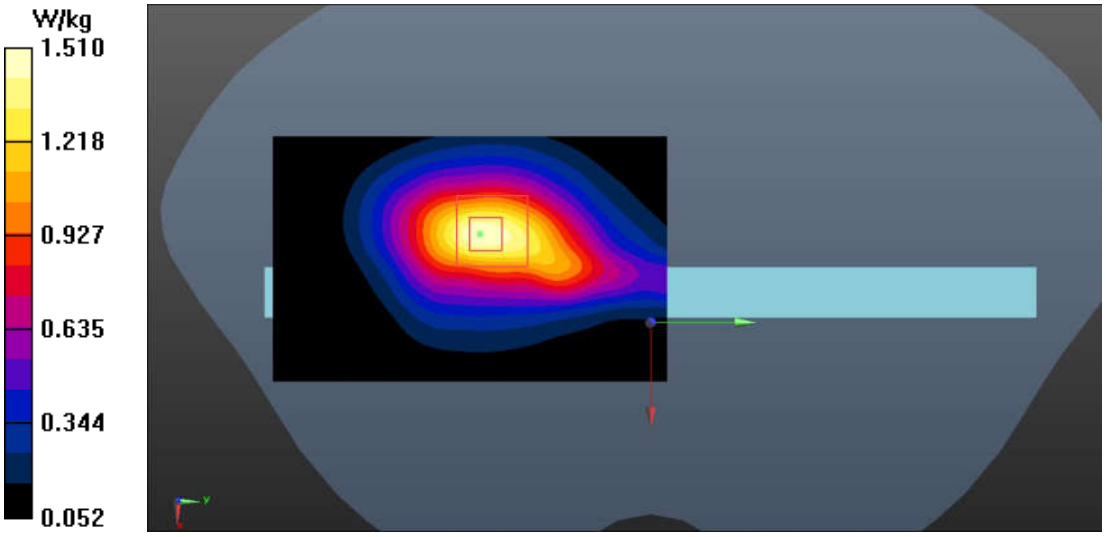


Fig.18 LTE Band 14 Extremity

LTE Band 25 Body
Date: 2025-01-08
Electronics: DAE4 Sn1790
Medium: Head 1900MHz
Medium parameters used (interpolated): f = 1905 MHz; σ = 1.418 S/m; εr = 39.281; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 1905 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

Right Side High 1RB50/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.844 W/kg

Right Side High 1RB50/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.829 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.667 W/kg; SAR(10 g) = 0.392 W/kg
Smallest distance from peaks to all points 3 dB below = 14.3 mm
Ratio of SAR at M2 to SAR at M1 = 63.5%
Maximum value of SAR (measured) = 0.877 W/kg

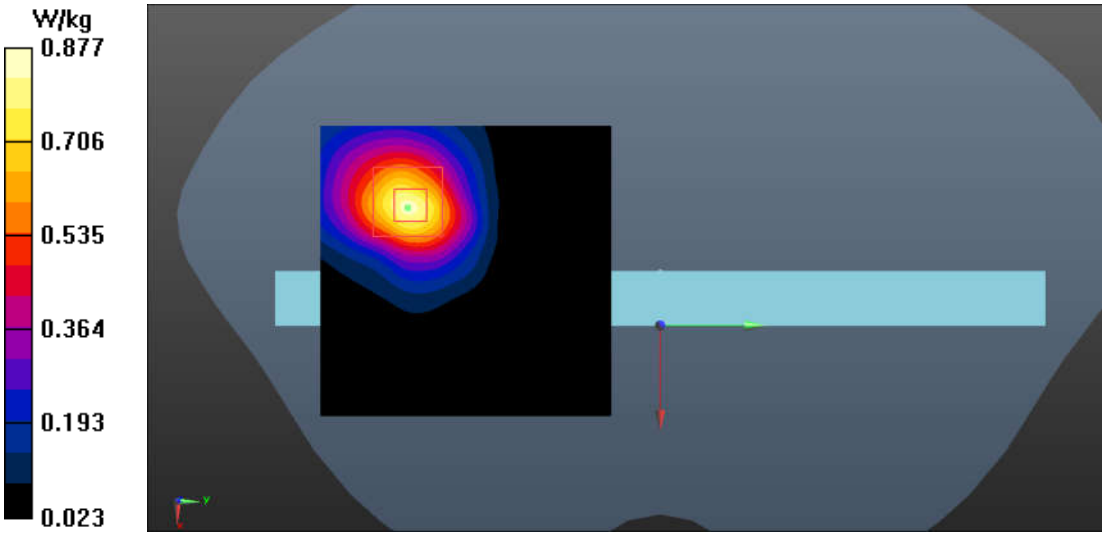


Fig.19 LTE Band 25 Body

LTE Band 25 Extremity
Date: 2025-01-08
Electronics: DAE4 Sn1790
Medium: Head 1900MHz
Medium parameters used (interpolated): f = 1905 MHz; σ = 1.418 S/m; εr = 39.281; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 1905 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

Right Side High 1RB50/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 6.83 W/kg

Right Side High 1RB50/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.086 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 8.19 W/kg
SAR(1 g) = 4.59 W/kg; SAR(10 g) = 2.37 W/kg
Smallest distance from peaks to all points 3 dB below = 10.2 mm
Ratio of SAR at M2 to SAR at M1 = 57.1%
Maximum value of SAR (measured) = 6.55 W/kg

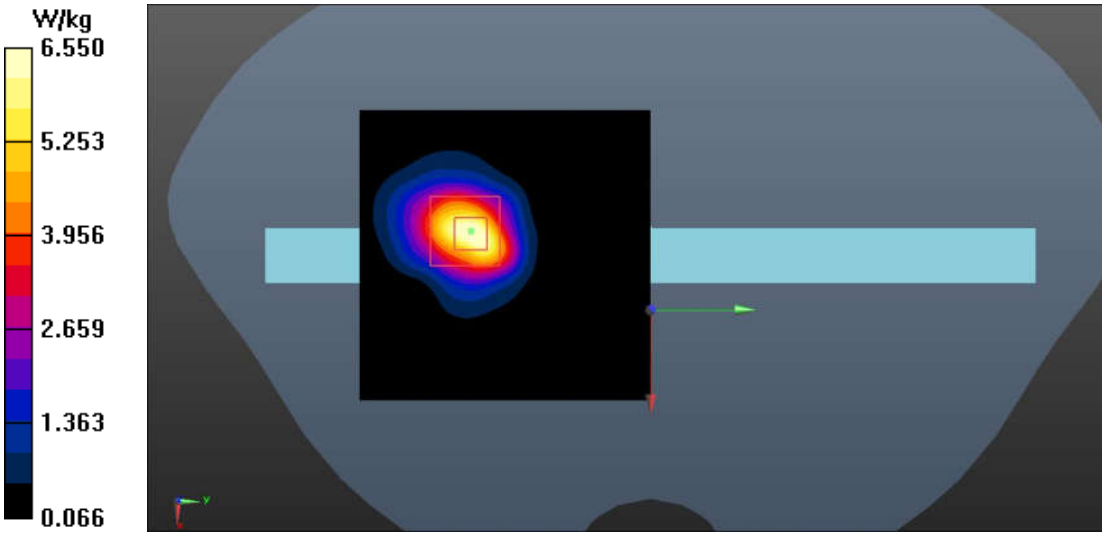


Fig.20 LTE Band 25 Extremity

LTE Band 26 Body
Date: 2024-11-16
Electronics: DAE4 Sn1790
Medium: Head 835MHz
Medium parameters used (interpolated): f = 822.5 MHz; σ = 0.902 S/m; ε_r = 40.701; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 822.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side Low 1RB37/Area Scan PIC (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.348 W/kg

Right Side Low 1RB37/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.214 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.410 W/kg
SAR(1 g) = 0.275 W/kg; SAR(10 g) = 0.182 W/kg
Smallest distance from peaks to all points 3 dB below = 16 mm
Ratio of SAR at M2 to SAR at M1 = 67.5%
Maximum value of SAR (measured) = 0.347 W/kg

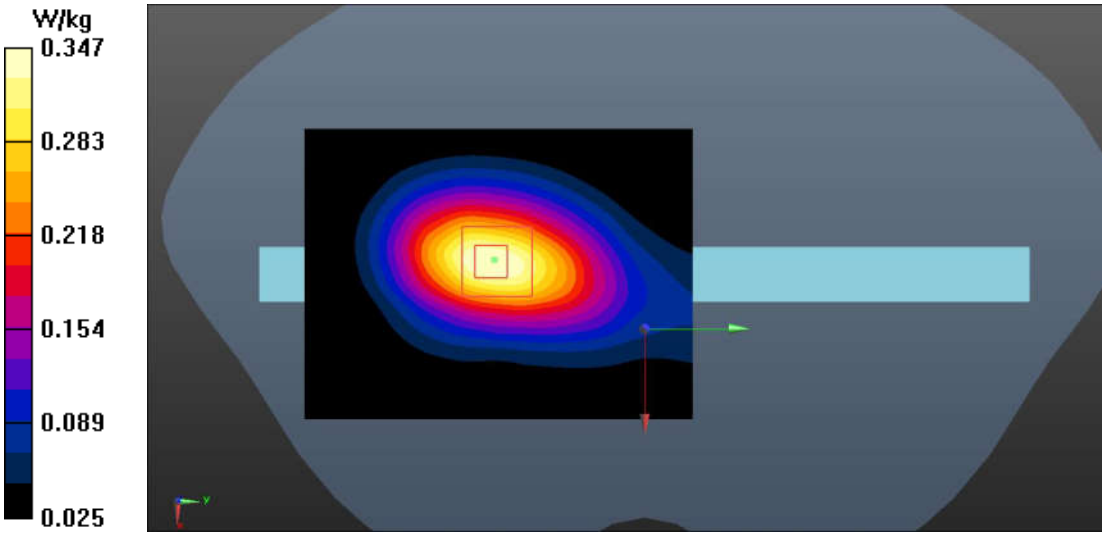


Fig.21 LTE Band 26 Body

LTE Band 26 Extremity
Date: 2024-11-16
Electronics: DAE4 Sn1790
Medium: Head 835MHz
Medium parameters used (interpolated): f = 822.5 MHz; σ = 0.902 S/m; ε_r = 40.701; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 822.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side Low 1RB37/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.41 W/kg

Right Side Low 1RB37/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.81 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.87 W/kg
SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.687 W/kg
Smallest distance from peaks to all points 3 dB below = 12.8 mm
Ratio of SAR at M2 to SAR at M1 = 63.7%
Maximum value of SAR (measured) = 1.36 W/kg

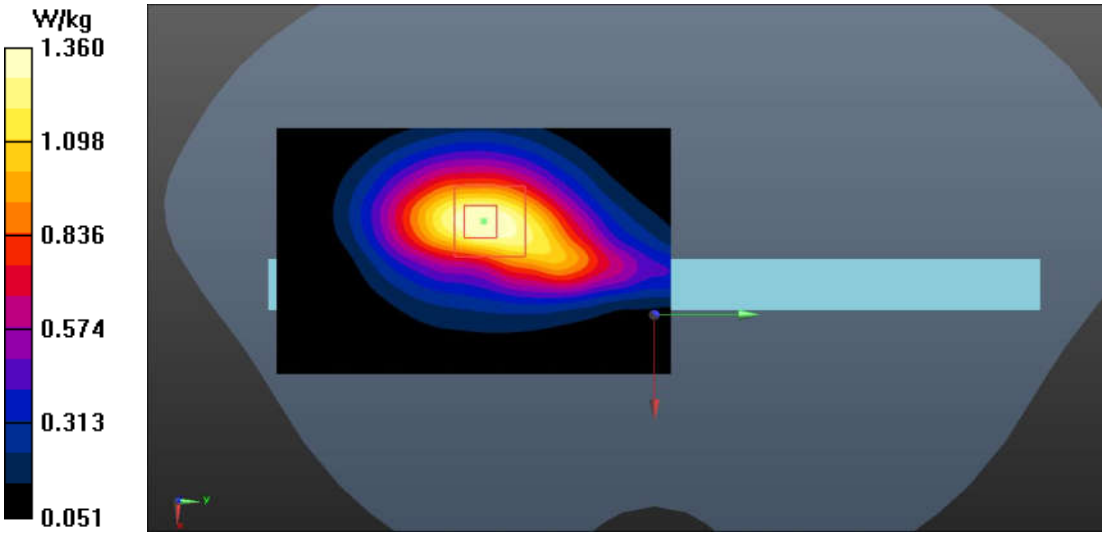


Fig.22 LTE Band 26 Extremity

LTE Band 30 Body
Date: 2024-12-19
Electronics: DAE4 Sn1790
Medium: Head 2300MHz
Medium parameters used: f = 2310 MHz; σ = 1.64 S/m; ε_r = 39.826; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 2310 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.14, 7.75, 7.59)

Right Side Middle 1RB24/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.865 W/kg

Right Side Middle 1RB24/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.913 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.631 W/kg; SAR(10 g) = 0.365 W/kg
Smallest distance from peaks to all points 3 dB below = 14.3 mm
Ratio of SAR at M2 to SAR at M1 = 59.5%
Maximum value of SAR (measured) = 0.850 W/kg

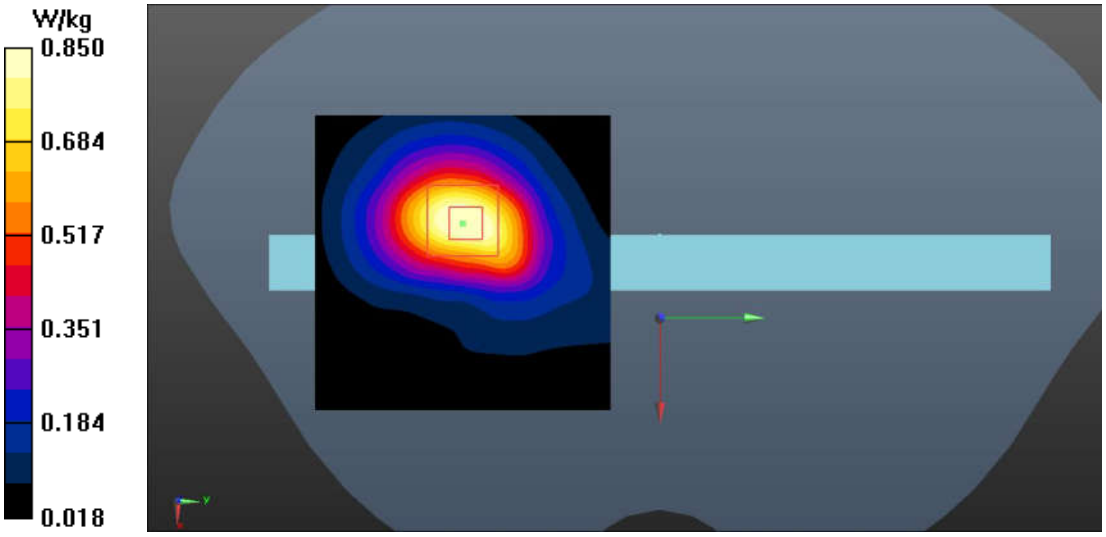


Fig.23 LTE Band 30 Body

LTE Band 30 Extremity
Date: 2024-12-19
Electronics: DAE4 Sn1790
Medium: Head 2300MHz
Medium parameters used: f = 2310 MHz; σ = 1.64 S/m; ε_r = 39.826; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 2310 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.14, 7.75, 7.59)

Right Side Middle 1RB24/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 3.40 W/kg

Right Side Middle 1RB24/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.910 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 4.36 W/kg
SAR(1 g) = 2.30 W/kg; SAR(10 g) = 1.17 W/kg
Smallest distance from peaks to all points 3 dB below = 8.6 mm
Ratio of SAR at M2 to SAR at M1 = 52.6%
Maximum value of SAR (measured) = 3.29 W/kg

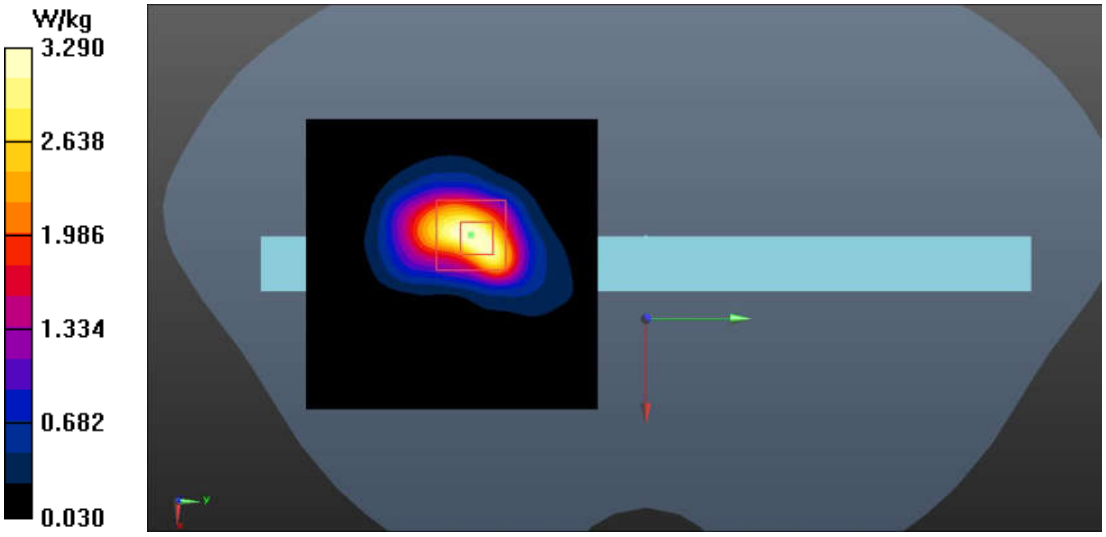


Fig.24 LTE Band 30 Extremity

LTE Band 41 Body
Date: 2024-11-29
Electronics: DAE4 Sn1790
Medium: Head 2550MHz
Medium parameters used: f = 2506 MHz; σ = 1.905 S/m; ε_r = 38.336; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_TDD (0) Frequency: 2506 MHz Duty Cycle: 1:1.58
Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

Right Side Low 1RB50/Area Scan (91x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.895 W/kg

Right Side Low 1RB50/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.545 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.650 W/kg; SAR(10 g) = 0.366 W/kg
Smallest distance from peaks to all points 3 dB below = 12.8 mm
Ratio of SAR at M2 to SAR at M1 = 57.1%
Maximum value of SAR (measured) = 0.891 W/kg

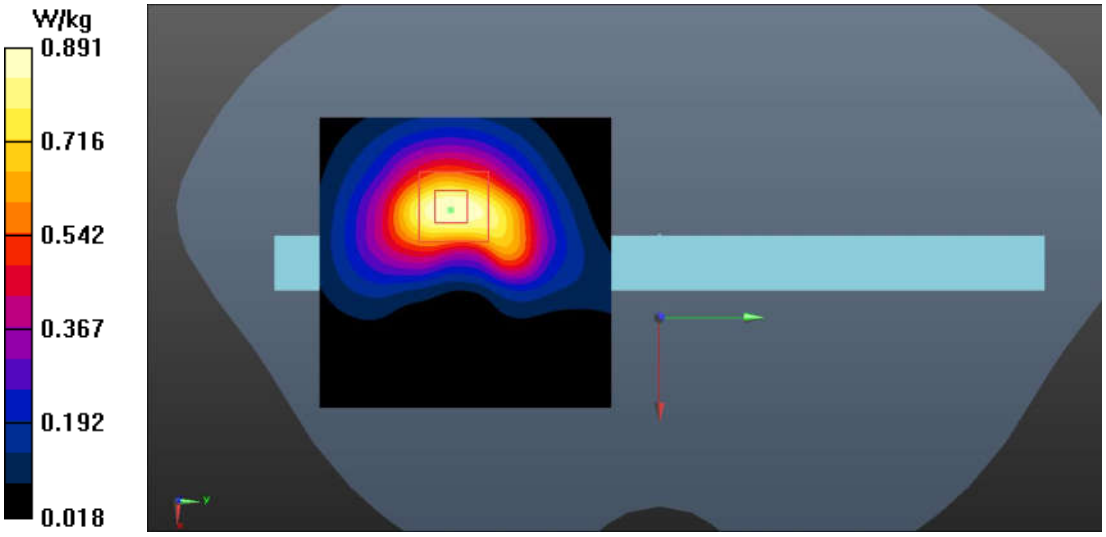


Fig.25 LTE Band 41 Body

LTE Band 41 Extremity
Date: 2024-11-29
Electronics: DAE4 Sn1790
Medium: Head 2550MHz
Medium parameters used: f = 2506 MHz; σ = 1.905 S/m; ε_r = 38.336; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_TDD (0) Frequency: 2506 MHz Duty Cycle: 1:1.58
Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

Right Side Low 1RB50/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 5.63 W/kg

Right Side Low 1RB50/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.58 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 7.53 W/kg
SAR(1 g) = 3.66 W/kg; SAR(10 g) = 1.70 W/kg
Smallest distance from peaks to all points 3 dB below = 8 mm
Ratio of SAR at M2 to SAR at M1 = 51.6%
Maximum value of SAR (measured) = 5.71 W/kg

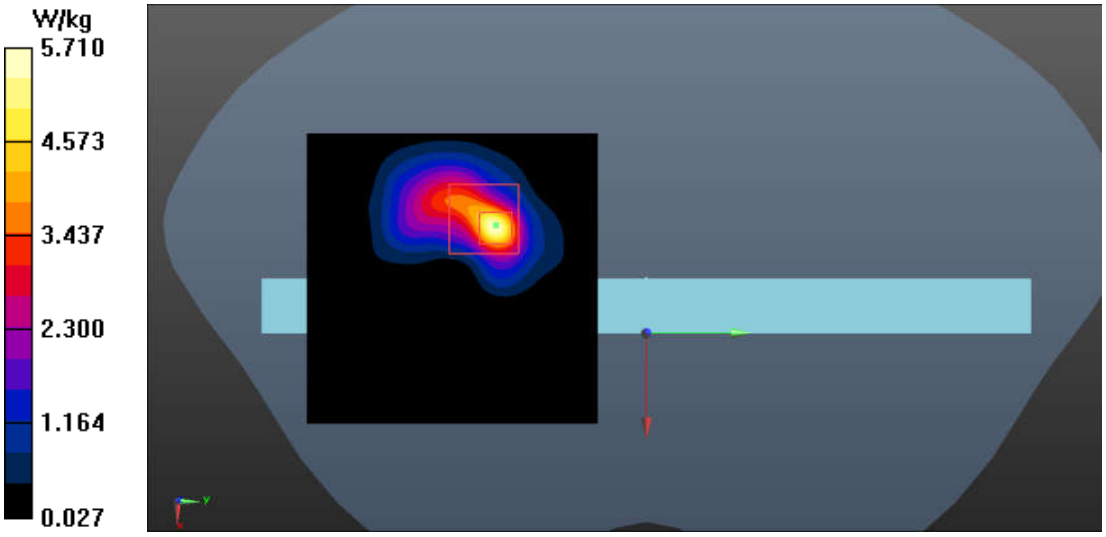


Fig.26 LTE Band 41 Extremity

LTE Band 66 Body
Date: 2024-12-20
Electronics: DAE4 Sn1790
Medium: Head 1750MHz
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.385 S/m; ε_r = 39.247; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

Right Side Middle 1RB99/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.02 W/kg

Right Side Middle 1RB99/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.556 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.766 W/kg; SAR(10 g) = 0.444 W/kg
Smallest distance from peaks to all points 3 dB below = 14.3 mm
Ratio of SAR at M2 to SAR at M1 = 66.6%
Maximum value of SAR (measured) = 0.993 W/kg

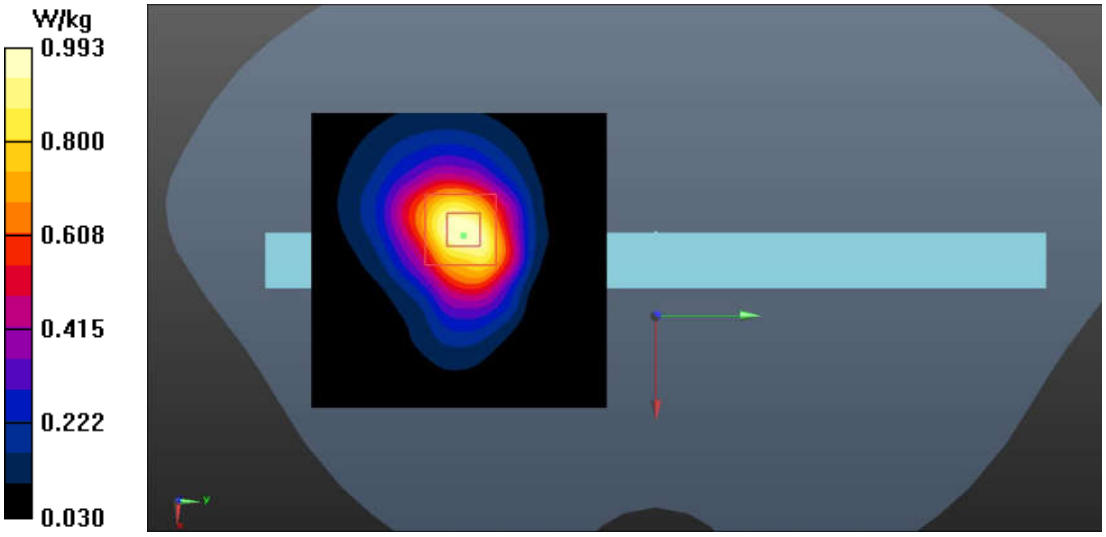


Fig.27 LTE Band 66 Body

LTE Band 66 Extremity
Date: 2024-12-20
Electronics: DAE4 Sn1790
Medium: Head 1750MHz
Medium parameters used (interpolated): f = 1745 MHz; σ = 1.385 S/m; ε_r = 39.247; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

Right Side Middle 1RB99/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 5.04 W/kg

Right Side Middle 1RB99/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.38 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 6.28 W/kg
SAR(1 g) = 3.45 W/kg; SAR(10 g) = 1.77 W/kg
Smallest distance from peaks to all points 3 dB below = 10.7 mm
Ratio of SAR at M2 to SAR at M1 = 55.5%
Maximum value of SAR (measured) = 5.01 W/kg

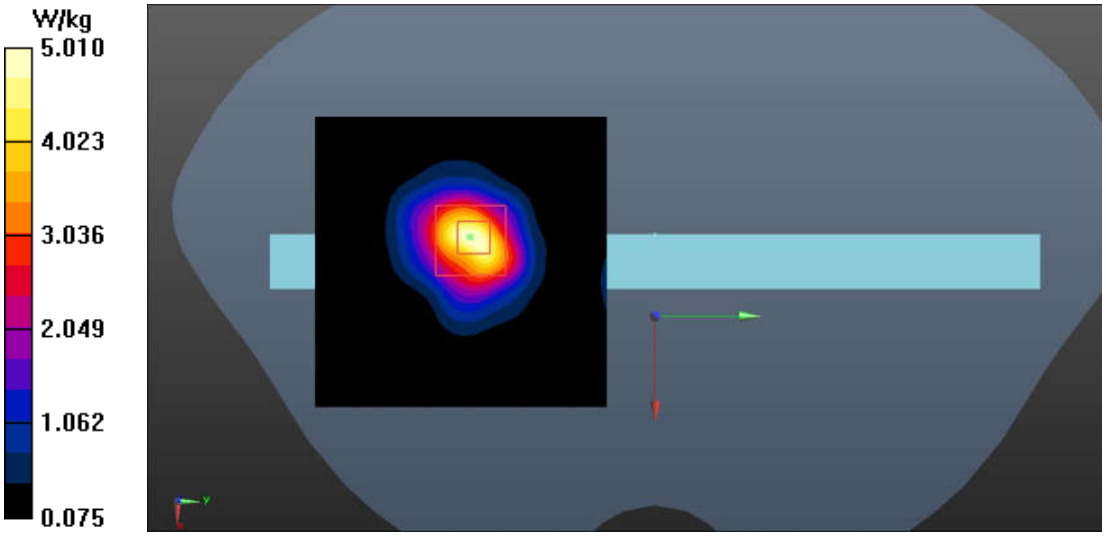


Fig.28 LTE Band 66 Extremity

LTE Band 71 Body
Date: 2024-11-10
Electronics: DAE4 Sn1790
Medium: Head 750MHz
Medium parameters used (extrapolated): f = 673 MHz; σ = 0.853 S/m; ε_r = 43.645; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 673 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side Low 1RB50/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.193 W/kg

Right Side Low 1RB50/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.60 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.249 W/kg
SAR(1 g) = 0.164 W/kg; SAR(10 g) = 0.108 W/kg
Smallest distance from peaks to all points 3 dB below = 16 mm
Ratio of SAR at M2 to SAR at M1 = 67.8%
Maximum value of SAR (measured) = 0.208 W/kg

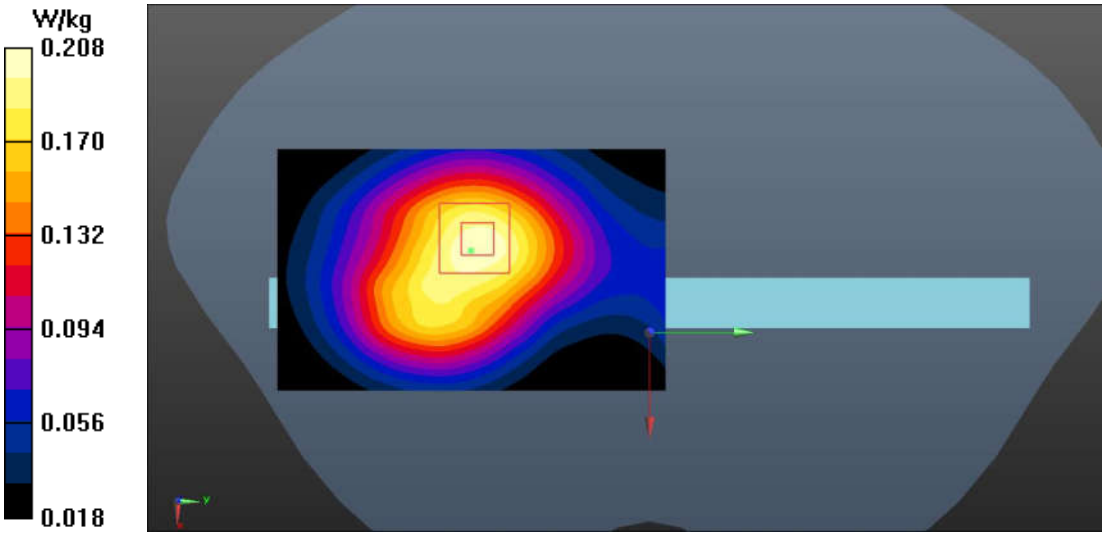


Fig.29 LTE Band 71 Body

LTE Band 71 Extremity
Date: 2024-11-10
Electronics: DAE4 Sn1790
Medium: Head 750MHz
Medium parameters used (extrapolated): f = 673 MHz; σ = 0.853 S/m; ε_r = 43.645; ρ = 1000 kg/m^3
Communication System: UID 0, LTE_FDD (0) Frequency: 673 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

Right Side Low 1RB50/Area Scan (51x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.15 W/kg

Right Side Low 1RB50/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.05 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.95 W/kg
SAR(1 g) = 0.775 W/kg; SAR(10 g) = 0.424 W/kg
Smallest distance from peaks to all points 3 dB below = 23.3 mm
Ratio of SAR at M2 to SAR at M1 = 53.2%
Maximum value of SAR (measured) = 1.09 W/kg

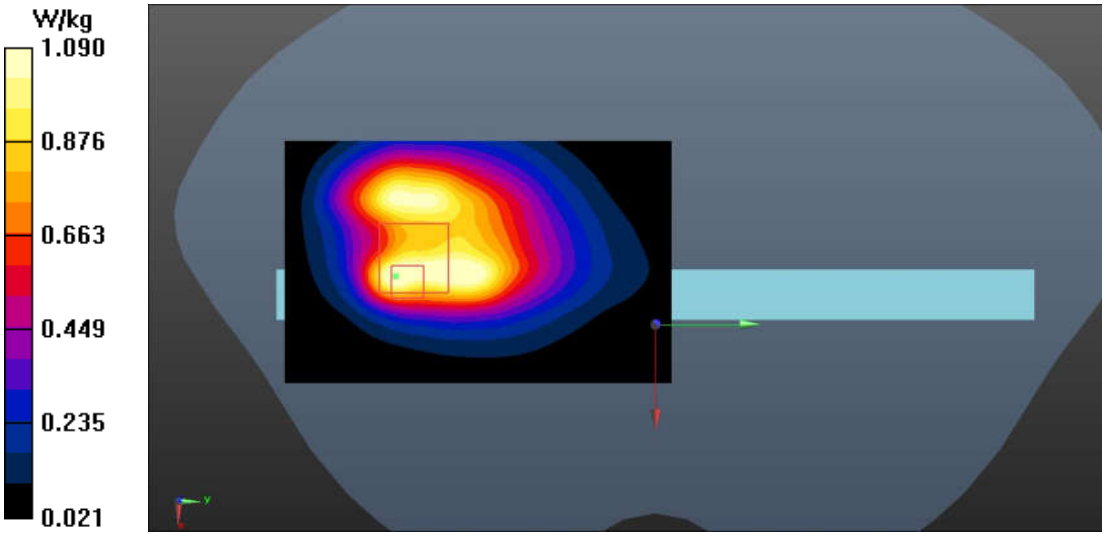


Fig.30 LTE Band 71 Extremity

Bluetooth Extremity
Date: 2024-12-28
Electronics: DAE4 Sn1790
Medium: Head 2450MHz
Medium parameters used: f = 2402 MHz; σ = 1.766 S/m; ε_r = 38.694; ρ = 1000 kg/m^3
Communication System: UID 0, BT (0) Frequency: 2402 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

Right Side Ch.0/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.0466 W/kg

Right Side Ch.0/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.609 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.0450 W/kg
SAR(1 g) = 0.021 W/kg; SAR(10 g) = 0.010 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 47.2%
Maximum value of SAR (measured) = 0.0318 W/kg

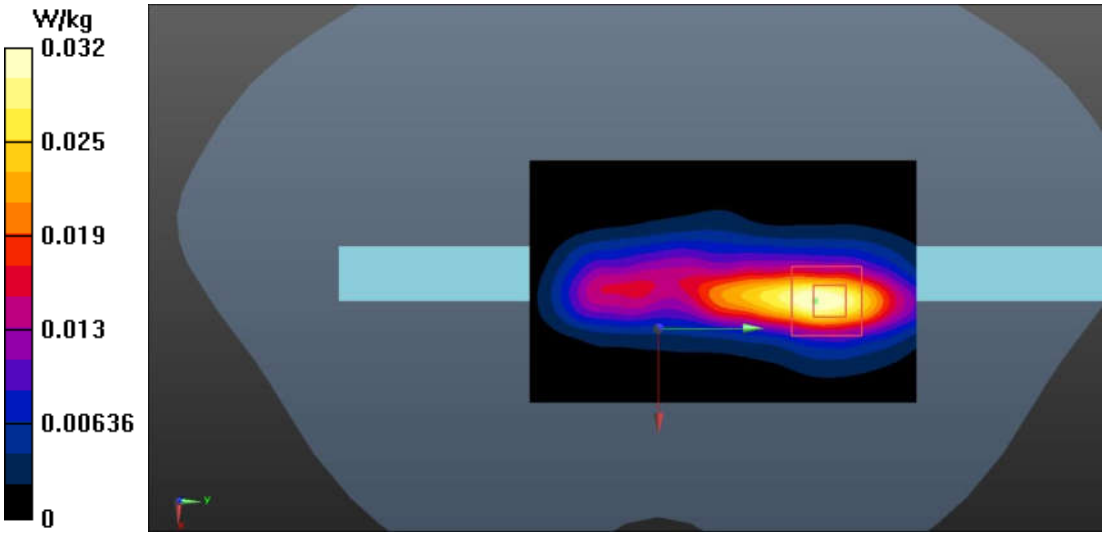


Fig.31 Bluetooth Extremity

WLAN 2.4GHz Body
Date: 2024-12-28
Electronics: DAE4 Sn1790
Medium: Head 2450MHz
Medium parameters used: f = 2412 MHz; σ = 1.778 S/m; ε_r = 38.661; ρ = 1000 kg/m^3
Communication System: UID 0, WLAN (0) Frequency: 2412 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

Right Side Ch.1/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.327 W/kg

Right Side Ch.1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.377 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.391 W/kg
SAR(1 g) = 0.220 W/kg; SAR(10 g) = 0.122 W/kg
Smallest distance from peaks to all points 3 dB below = 16.3 mm
Ratio of SAR at M2 to SAR at M1 = 55.6%
Maximum value of SAR (measured) = 0.305 W/kg

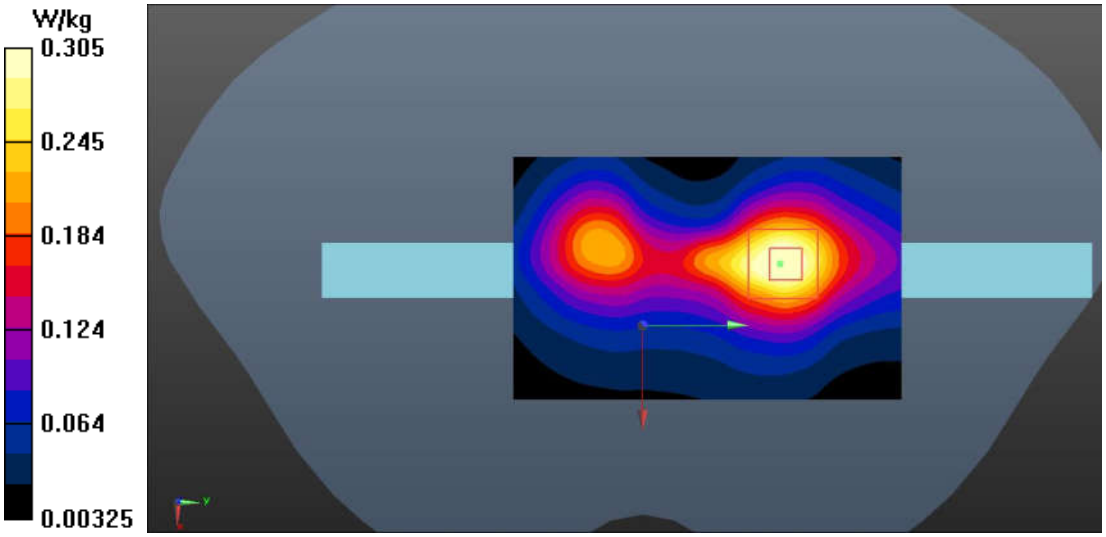


Fig.32 WLAN 2.4GHz Body

WLAN 2.4GHz Extremity
Date: 2024-12-28
Electronics: DAE4 Sn1790
Medium: Head 2450MHz
Medium parameters used: f = 2412 MHz; σ = 1.778 S/m; ε_r = 38.661; ρ = 1000 kg/m^3
Communication System: UID 0, WLAN (0) Frequency: 2412 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

Right Side Ch.1/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.27 W/kg

Right Side Ch.1/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.45 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.72 W/kg
SAR(1 g) = 0.853 W/kg; SAR(10 g) = 0.418 W/kg
Smallest distance from peaks to all points 3 dB below = 9.6 mm
Ratio of SAR at M2 to SAR at M1 = 51.7%
Maximum value of SAR (measured) = 1.25 W/kg

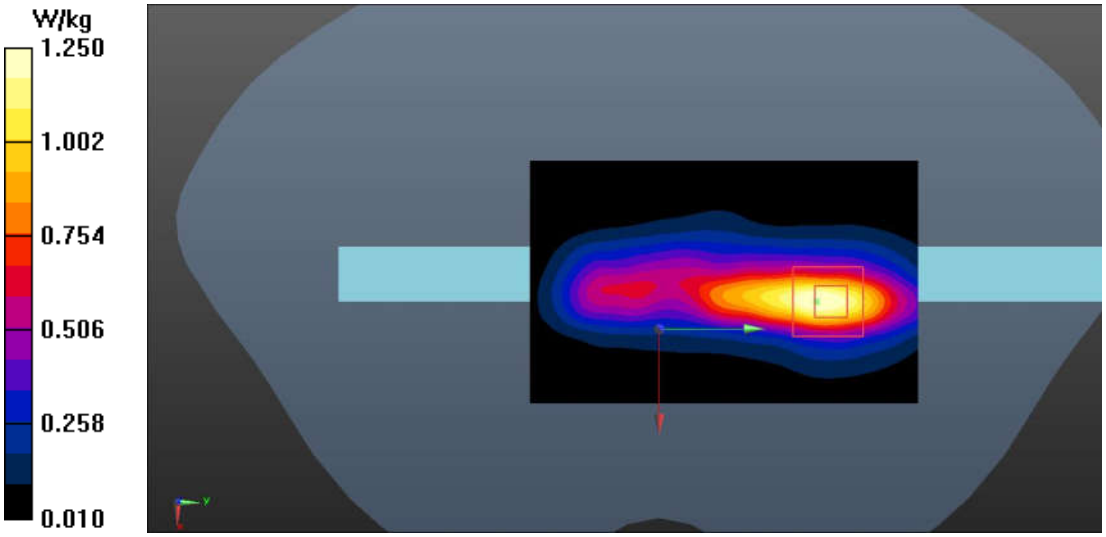


Fig.33 WLAN 2.4GHz Extremity

WLAN 5GHz Body
Date: 2024-12-27
Electronics: DAE4 Sn1790
Medium: Head 5250MHz
Medium parameters used: f = 5180 MHz; σ = 4.688 S/m; ε_r = 35.338; ρ = 1000 kg/m^3
Communication System: UID 0, WLAN 5G (0) Frequency: 5180 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (6.03, 5.73, 5.62)

Right Side Ch.36/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.981 W/kg

Right Side Ch.36/Zoom Scan (8x8x21)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 4.758 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 2.11 W/kg
SAR(1 g) = 0.558 W/kg; SAR(10 g) = 0.189 W/kg
Smallest distance from peaks to all points 3 dB below = 8 mm
Ratio of SAR at M2 to SAR at M1 = 24.2%
Maximum value of SAR (measured) = 1.04 W/kg

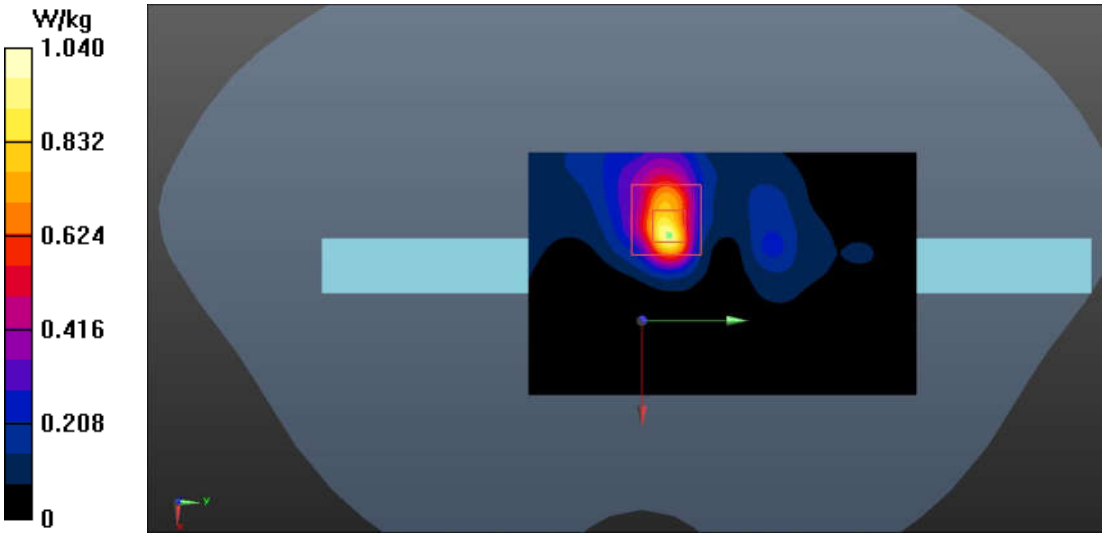


Fig.34 WLAN 5GHz Body

WLAN 5GHz Extremity
Date: 2024-12-27
Electronics: DAE4 Sn1790
Medium: Head 5250MHz
Medium parameters used: f = 5300 MHz; σ = 4.851 S/m; ε_r = 35.014; ρ = 1000 kg/m^3
Communication System: UID 0, WLAN 5G (0) Frequency: 5300 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (6.03, 5.73, 5.62)

Right Side Ch.60/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.74 W/kg

Right Side Ch.60/Zoom Scan (8x8x21)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 6.390 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 7.79 W/kg
SAR(1 g) = 1.56 W/kg; SAR(10 g) = 0.434 W/kg
Smallest distance from peaks to all points 3 dB below = 5.1 mm
Ratio of SAR at M2 to SAR at M1 = 21.1%
Maximum value of SAR (measured) = 3.63 W/kg

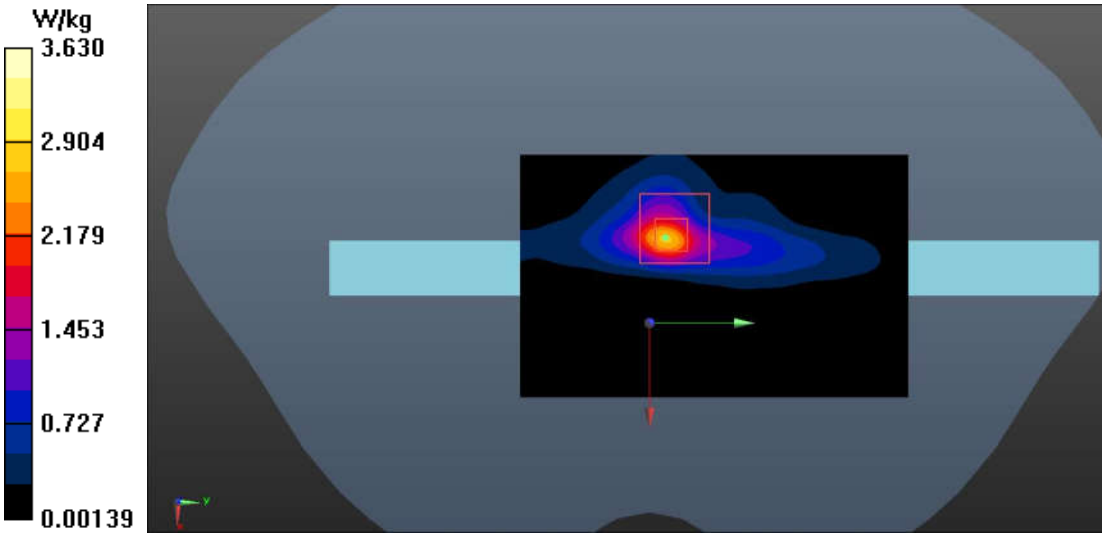


Fig.35 WLAN 5GHz Extremity

ANNEX B: System Check Results

13MHz

Date: 2024-12-06

Electronics: DAE4 Sn1790

Medium: Head 13MHz

Medium parameters used (interpolated): f = 13 MHz; σ = 0.761 S/m; ε_r = 53.887; ρ = 1000 kg/m^3

Communication System: CW Frequency: 13 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7683 ConvF (18.80, 15.39, 15.39)

System Check/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 24.84 V/m; Power Drift = 0.05 dB

SAR(1 g) = 0.469 W/kg; SAR(10 g) = 0.287 W/kg

Maximum value of SAR (interpolated) = 0.642 W/kg

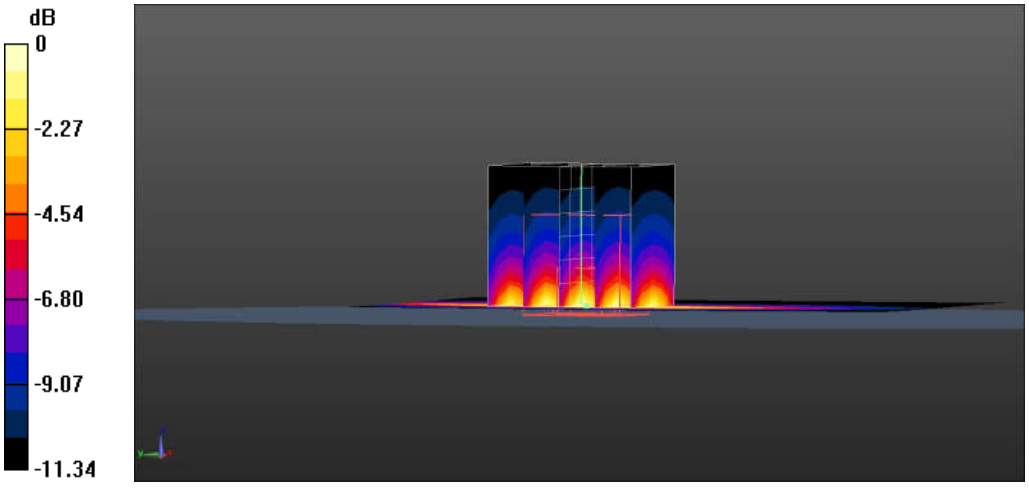
System Check/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.84 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.818 W/kg

SAR(1 g) = 0.474 W/kg; SAR(10 g) = 0.290 W/kg

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



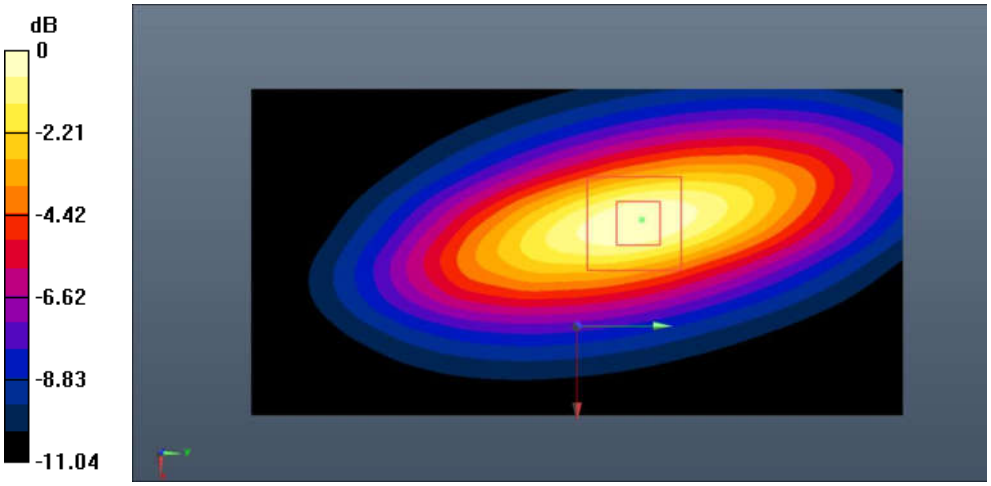
0 dB = 0.653 W/kg = -1.85 dB W/kg

Fig.B.1. Check 13MHz 1W

750MHz
Date: 2024-11-10
Electronics: DAE4 Sn1790
Medium: Head 750MHz
Medium parameters used: f = 750 MHz; σ = 0.884 S/m; ε_r = 42.722; ρ = 1000 kg/m^3
Communication System: CW Frequency: 750 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

System Check/Area Scan (81x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 22.56 V/m; Power Drift = 0.08 dB
SAR(1 g) = 0.428 W/kg; SAR(10 g) = 0.282 W/kg
Maximum value of SAR (interpolated) = 0.624 W/kg

System Check/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.56 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.775 W/kg
SAR(1 g) = 0.439 W/kg; SAR(10 g) = 0.287 W/kg
Maximum value of SAR (measured) = 0.628 W/kg



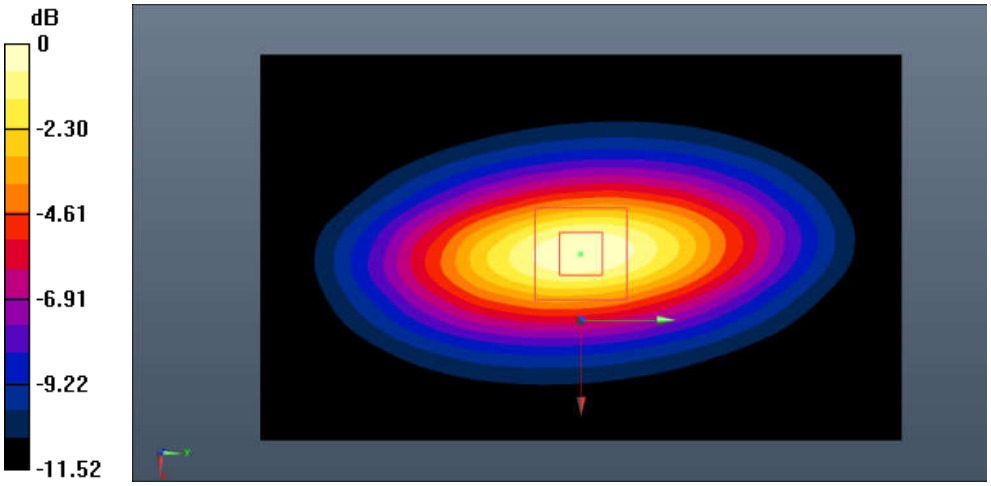
0 dB = 0.628 W/kg = -2.02 dB W/kg

Fig.B.2. Check 750MHz 50mW

835MHz
Date: 2024-11-16
Electronics: DAE4 Sn1790
Medium: Head 900MHz
Medium parameters used (interpolated): f = 835 MHz; σ = 0.913 S/m; εr = 40.551; ρ = 1000 kg/m^3
Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (10.40, 9.70, 9.40)

System Check/Area Scan (91x161x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 26.35 V/m; Power Drift = 0.16 dB
SAR(1 g) = 0.495 W/kg; SAR(10 g) = 0.323 W/kg
Maximum value of SAR (interpolated) = 0.742 W/kg

System Check/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 26.35 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.927 W/kg
SAR(1 g) = 0.501 W/kg; SAR(10 g) = 0.329 W/kg
Maximum value of SAR (measured) = 0.769 W/kg



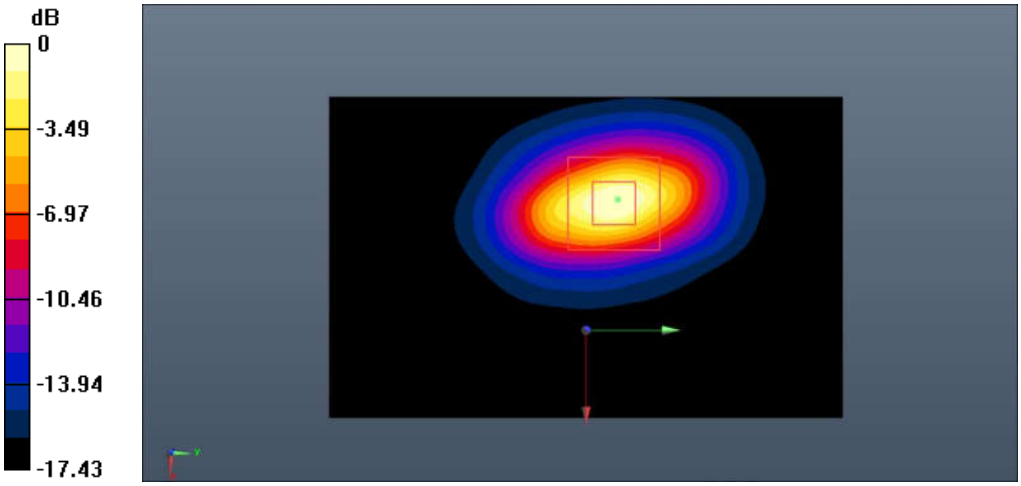
0 dB = 0.769 W/kg = -1.14 dB W/kg

Fig.B.3. Check 835MHz 50mW

1750MHz
Date: 2024-12-04
Electronics: DAE4 Sn1790
Medium: Head 1750MHz
Medium parameters used: f = 1750 MHz; σ = 1.356 S/m; ε_r = 40.682; ρ = 1000 kg/m^3
Communication System: CW Frequency: 1750 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

System Check/Area Scan (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 28.49 V/m; Power Drift = -0.11 dB
SAR(1 g) = 1.80 W/kg; SAR(10 g) = 0.964 W/kg
Maximum value of SAR (interpolated) = 2.22 W/kg

System Check/Zoom Scan (7x7x7)/Cube0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 28.49 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 3.73 W/kg
SAR(1 g) = 1.74 W/kg; SAR(10 g) = 0.952 W/kg
Maximum value of SAR (measured) = 2.19 W/kg

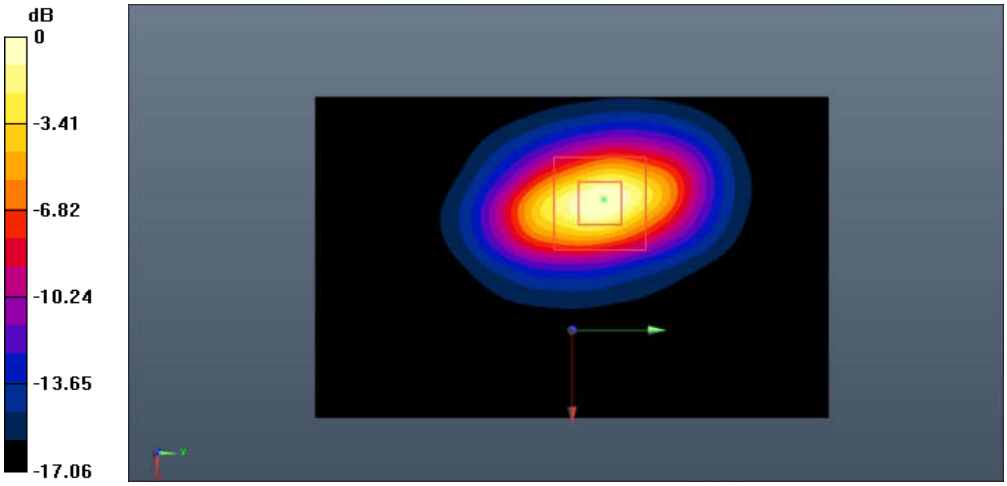


0 dB = 2.19 W/kg = 3.40 dB W/kg

Fig.B.4. Check 1750MHz 50mW

1750MHz
Date: 2024-12-20
Electronics: DAE4 Sn1790
Medium: Head 1750MHz
Medium parameters used: f = 1750 MHz; σ = 1.389 S/m; ε_r = 39.227; ρ = 1000 kg/m^3
Communication System: CW Frequency: 1750 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.60, 8.19, 8.02)

System Check/Area Scan (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 29.53 V/m; Power Drift = 0.05 dB
SAR(1 g) = 1.81 W/kg; SAR(10 g) = 0.985 W/kg
Maximum value of SAR (interpolated) = 2.30 W/kg
0
System Check/Zoom Scan (7x7x7)/Cube0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 29.53 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 4.14 W/kg
SAR(1 g) = 1.85 W/kg; SAR(10 g) = 0.993 W/kg
Maximum value of SAR (measured) = 2.35 W/kg



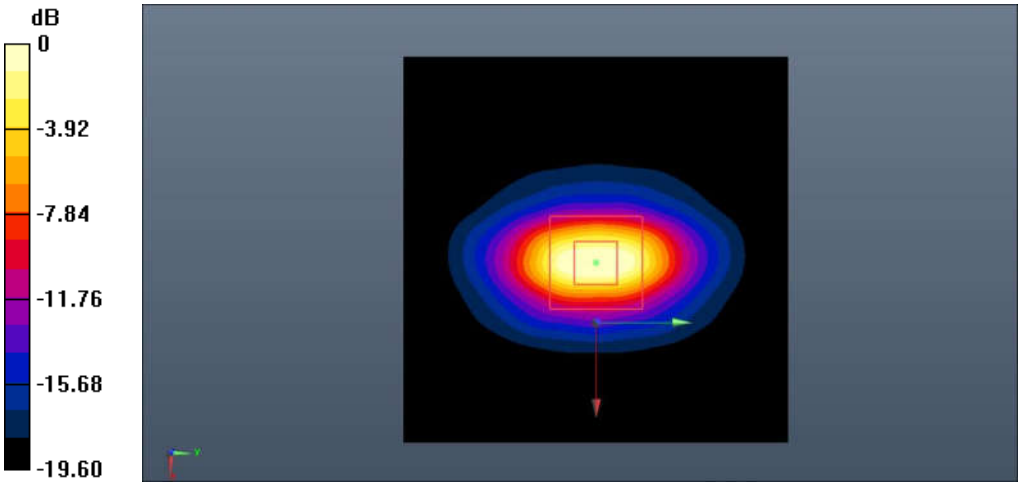
0 dB = 2.35 W/kg = 3.71 dB W/kg

Fig.B.5. Check 1750MHz 50mW

1900MHz
Date: 2024-12-10
Electronics: DAE4 Sn1790
Medium: Head 1900MHz
Medium parameters used: f = 1900 MHz; σ = 1.385 S/m; ε_r = 40.913; ρ = 1000 kg/m^3
Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

System Check/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 35.46 V/m; Power Drift = -0.13 dB
SAR(1 g) = 1.96 W/kg; SAR(10 g) = 1.06 W/kg
Maximum value of SAR (interpolated) = 2.70 W/kg

System Check/Zoom Scan (7x7x7)/Cube0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 35.46 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 4.49 W/kg
SAR(1 g) = 1.91 W/kg; SAR(10 g) = 1.03 W/kg
Maximum value of SAR (measured) = 2.66 W/kg



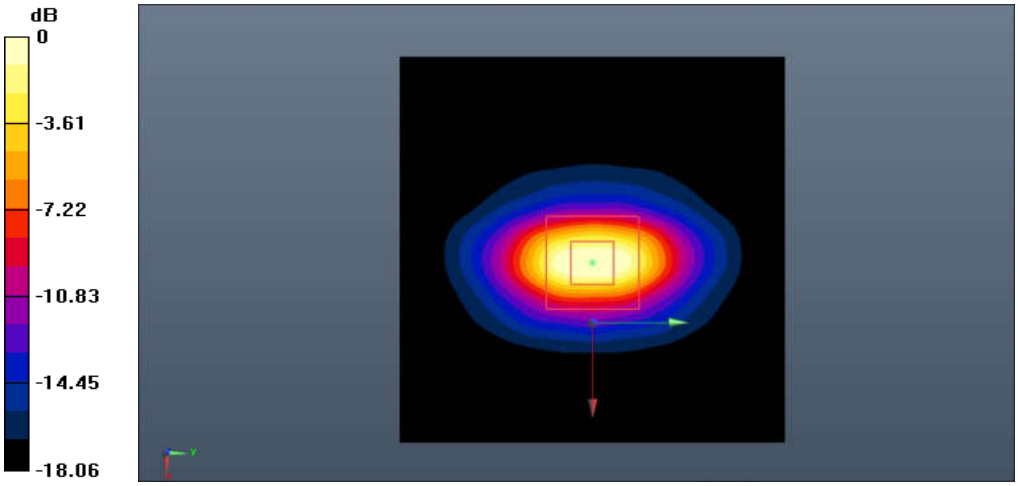
0 dB = 2.66 W/kg = 4.25 dB W/kg

Fig.B.6. Check 1900MHz 50mW

1900MHz
Date: 2025-01-08
Electronics: DAE4 Sn1790
Medium: Head 1900MHz
Medium parameters used: f = 1900 MHz; σ = 1.414 S/m; ε_r = 39.301; ρ = 1000 kg/m^3
Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.37, 7.96, 7.80)

System Check/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 37.39 V/m; Power Drift = 0.08 dB
SAR(1 g) = 2.03 W/kg; SAR(10 g) = 1.05 W/kg
Maximum value of SAR (interpolated) = 2.75 W/kg

System Check/Zoom Scan (7x7x7)/Cube0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 37.39 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 5.16 W/kg
SAR(1 g) = 2.07 W/kg; SAR(10 g) = 1.08 W/kg
Maximum value of SAR (measured) = 2.79 W/kg



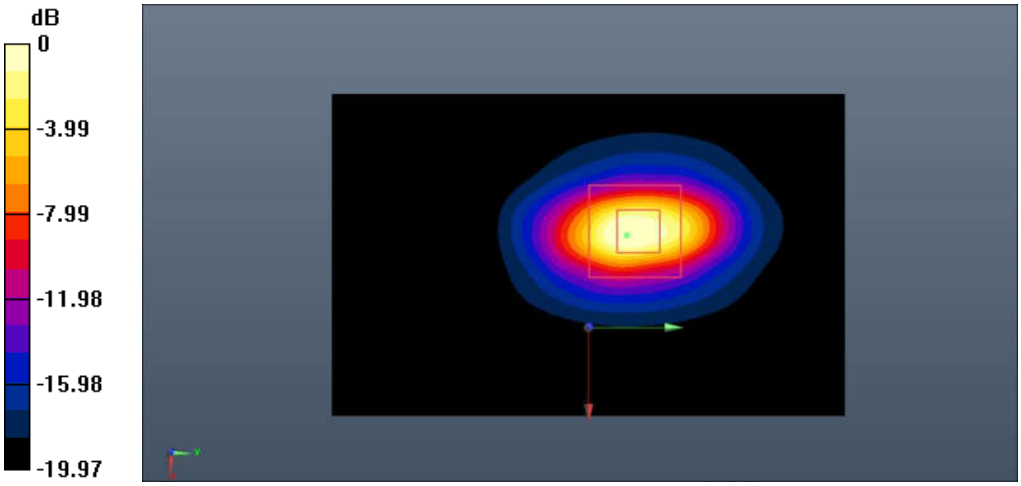
0 dB = 2.79 W/kg = 4.46 dB W/kg

Fig.B.7. Check 1900MHz 50mW

2300MHz
Date: 2024-12-19
Electronics: DAE4 Sn1790
Medium: Head 2300MHz
Medium parameters used: f = 2300 MHz; σ = 1.628 S/m; ε_r = 39.859; ρ = 1000 kg/m^3
Communication System: CW Frequency: 2300 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (8.14, 7.75, 7.59)

System Check/Area Scan (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 38.84 V/m; Power Drift = -0.07 dB
SAR(1 g) = 2.43 W/kg; SAR(10 g) = 1.21 W/kg
Maximum value of SAR (interpolated) = 4.75 W/kg

System Check/Zoom Scan (7x7x7)/Cube0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 38.84 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 6.18 W/kg
SAR(1 g) = 2.36 W/kg; SAR(10 g) = 1.17 W/kg
Maximum value of SAR (measured) = 4.70 W/kg



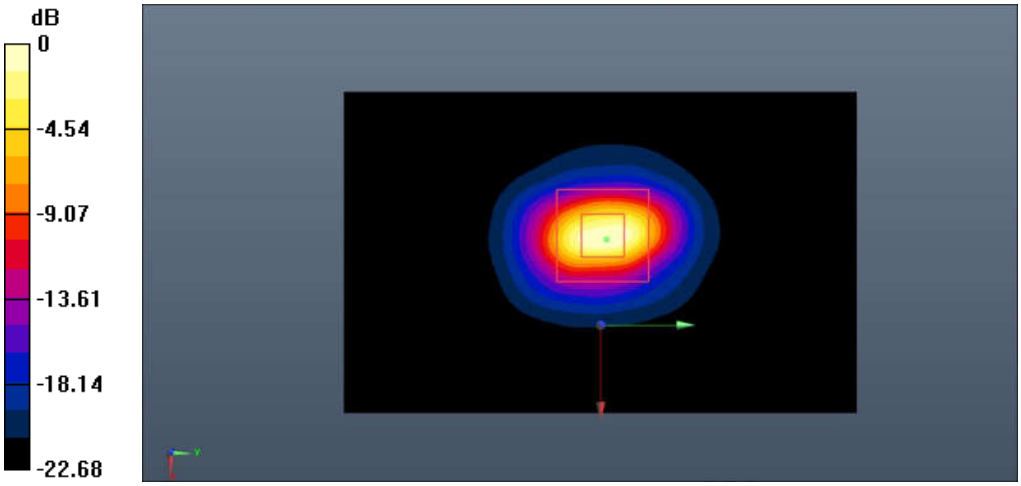
0 dB = 4.70 W/kg = 6.72 dB W/kg

Fig.B.8. Check 2300MHz 50mW

2450MHz
Date: 2024-12-28
Electronics: DAE4 Sn1790
Medium: Head 2450MHz
Medium parameters used: f = 2450 MHz; σ = 1.823 S/m; ε_r = 38.536; ρ = 1000 kg/m^3
Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

System Check/Area Scan (81x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 41.32 V/m; Power Drift = 0.04 dB
SAR(1 g) = 2.68 W/kg; SAR(10 g) = 1.22 W/kg
Maximum value of SAR (interpolated) = 5.01 W/kg

System Check/Zoom Scan (7x7x7)/Cube0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 41.32 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 6.70 W/kg
SAR(1 g) = 2.72 W/kg; SAR(10 g) = 1.26 W/kg
Maximum value of SAR (measured) = 5.05 W/kg



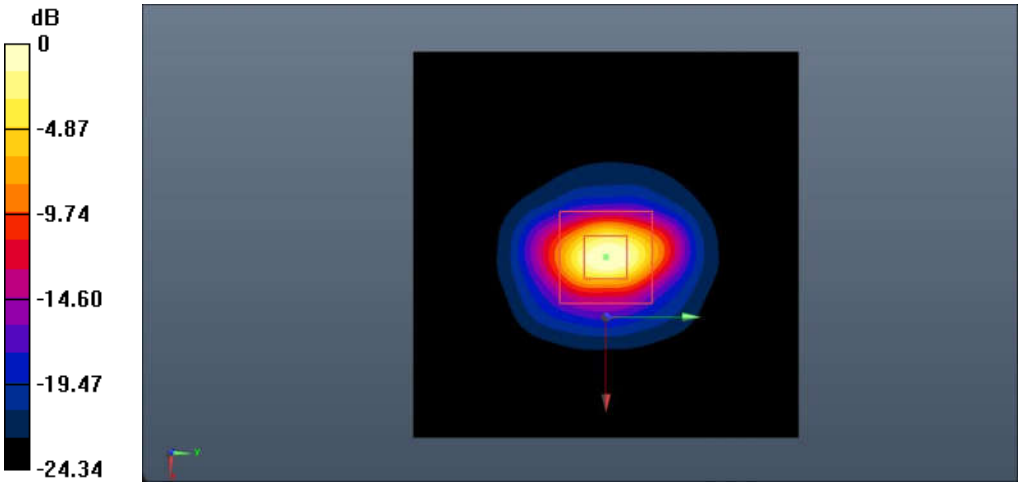
0 dB = 5.05 W/kg = 7.03 dB W/kg

Fig.B.9. Check 2450MHz 50mW

2550MHz
Date: 2024-11-29
Electronics: DAE4 Sn1790
Medium: Head 2550MHz
Medium parameters used: f = 2550 MHz; σ = 1.957 S/m; ε_r = 38.191; ρ = 1000 kg/m^3
Communication System: CW Frequency: 2550 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

System Check/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 45.69 V/m; Power Drift = 0.02 dB
SAR(1 g) = 2.83 W/kg; SAR(10 g) = 1.27 W/kg
Maximum value of SAR (interpolated) = 5.58 W/kg

System Check/Zoom Scan (7x7x7)/Cube0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 45.69 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 7.59 W/kg
SAR(1 g) = 2.88 W/kg; SAR(10 g) = 1.30 W/kg
Maximum value of SAR (measured) = 5.64 W/kg



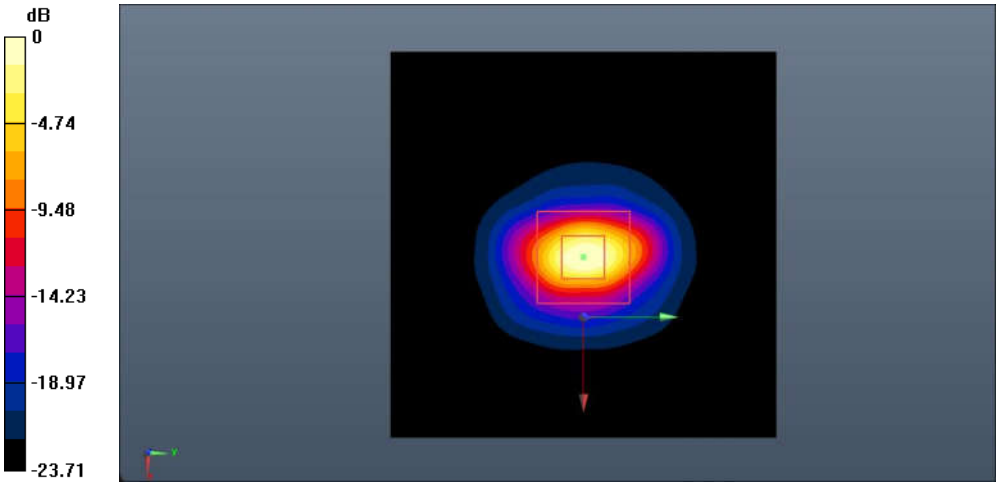
0 dB = 5.64 W/kg = 7.51 dB W/kg

Fig.B.10. Check 2550MHz 50mW

2550MHz
Date: 2024-12-30
Electronics: DAE4 Sn1790
Medium: Head 2550MHz
Medium parameters used: f = 2550 MHz; σ = 1.922 S/m; ε_r = 37.764; ρ = 1000 kg/m^3
Communication System: CW Frequency: 2550 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (7.87, 7.49, 7.34)

System Check/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 42.52 V/m; Power Drift = 0.12 dB
SAR(1 g) = 2.75 W/kg; SAR(10 g) = 1.23 W/kg
Maximum value of SAR (interpolated) = 5.36 W/kg

System Check/Zoom Scan (7x7x7)/Cube0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 42.52 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 7.24 W/kg
SAR(1 g) = 2.81 W/kg; SAR(10 g) = 1.27 W/kg
Maximum value of SAR (measured) = 5.42 W/kg



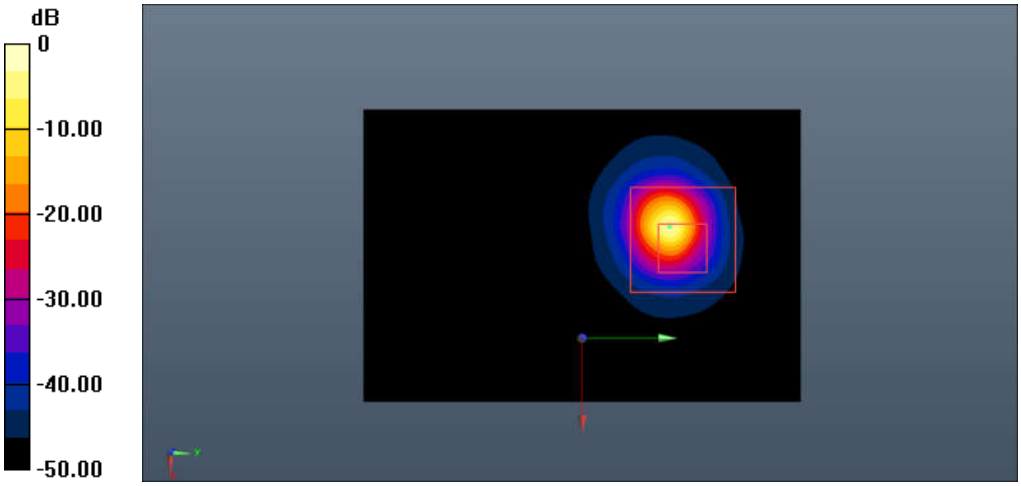
0 dB = 5.42 W/kg = 7.34 dB W/kg

Fig.B.11. Check 2550MHz 50mW

5250MHz
Date: 2024-12-27
Electronics: DAE4 Sn1790
Medium: Head 5250MHz
Medium parameters used: f = 5250 MHz; σ = 4.783 S/m; ε_r = 35.149; ρ = 1000 kg/m^3
Communication System: CW Frequency: 5250 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (6.03, 5.73, 5.62)

System Check/Area Scan (61x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 28.24 V/m; Power Drift = 0.09 dB
SAR(1 g) = 4.08 W/kg; SAR(10 g) = 1.14 W/kg
Maximum value of SAR (interpolated) = 8.47 W/kg

System Check/Zoom Scan (8x8x21)/Cube0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 28.24 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 18.9 W/kg
SAR(1 g) = 4.13 W/kg; SAR(10 g) = 1.17 W/kg
Maximum value of SAR (measured) = 8.55 W/kg



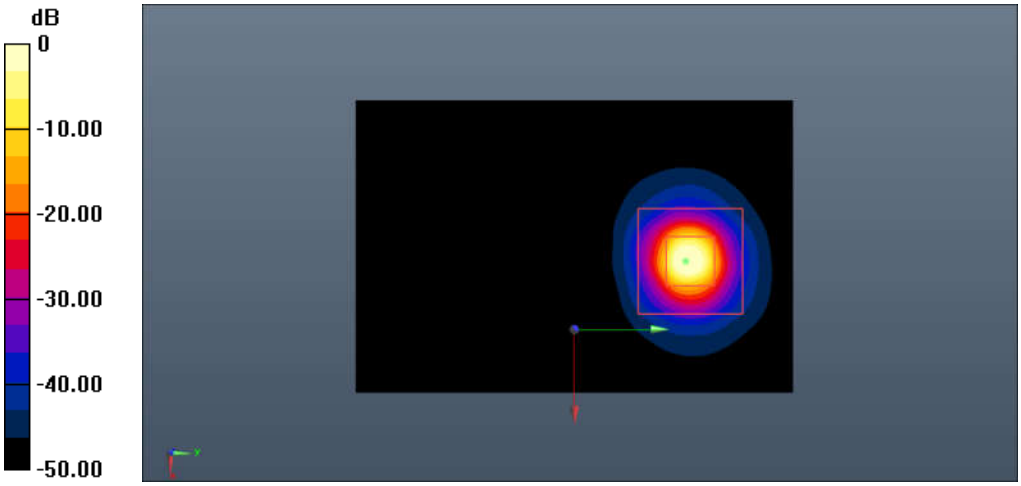
0 dB = 8.55 W/kg = 9.32 dB W/kg

Fig.B.12. Check 5250MHz 50mW

5600MHz
Date: 2024-12-27
Electronics: DAE4 Sn1790
Medium: Head 5600MHz
Medium parameters used: f = 5600 MHz; σ = 4.968 S/m; ε_r = 36.243; ρ = 1000 kg/m^3
Communication System: CW Frequency: 5600 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (5.46, 5.19, 5.09)

System Check/Area Scan (61x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 25.31 V/m; Power Drift = -0.14 dB
SAR(1 g) = 4.07 W/kg; SAR(10 g) = 1.19 W/kg
Maximum value of SAR (interpolated) = 8.38 W/kg

System Check/Zoom Scan (8x8x21)/Cube0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 25.31 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 18.1 W/kg
SAR(1 g) = 4.01 W/kg; SAR(10 g) = 1.15 W/kg
Maximum value of SAR (measured) = 8.33 W/kg



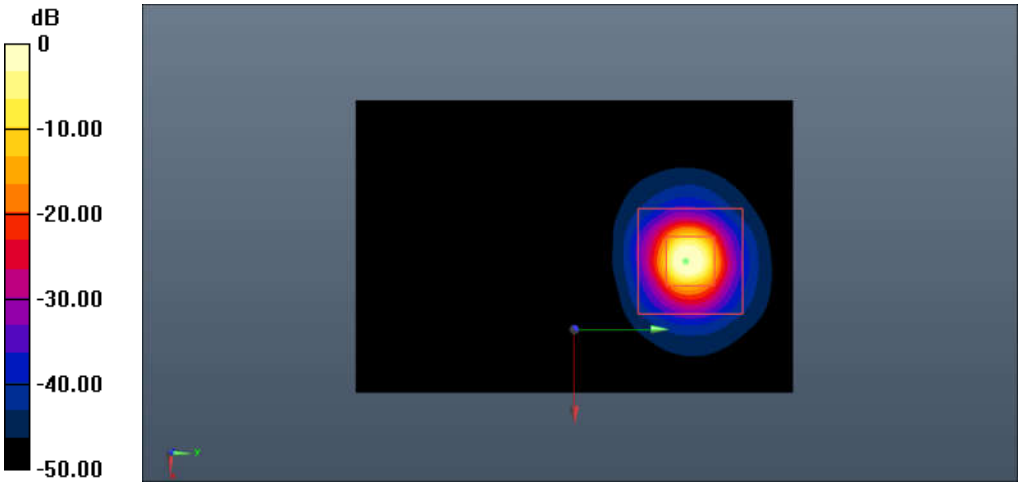
0 dB = 8.33 W/kg = 9.21 dB W/kg

Fig.B.13. Check 5600MHz 50mW

5750MHz
Date: 2024-12-27
Electronics: DAE4 Sn1790
Medium: Head 5750MHz
Medium parameters used: f = 5750 MHz; σ = 5.173 S/m; ε_r = 36.385; ρ = 1000 kg/m^3
Communication System: CW Frequency: 5750 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7683 ConvF (5.53, 5.26, 5.15)

System Check/Area Scan (61x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 22.24 V/m; Power Drift = -0.05 dB
SAR(1 g) = 3.82 W/kg; SAR(10 g) = 1.10 W/kg
Maximum value of SAR (interpolated) = 8.25 W/kg

System Check/Zoom Scan (8x8x21)/Cube0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 22.24 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 16.5 W/kg
SAR(1 g) = 3.75 W/kg; SAR(10 g) = 1.07 W/kg
Maximum value of SAR (measured) = 8.18 W/kg



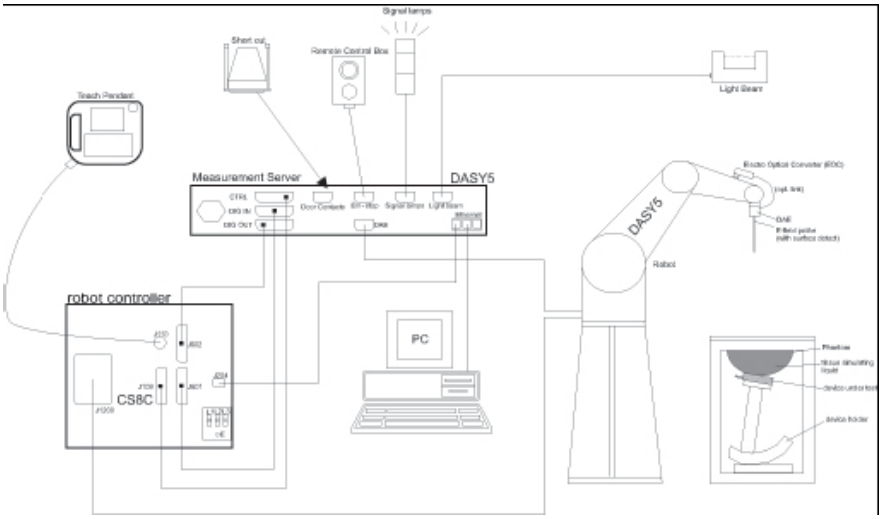
0 dB = 8.18 W/kg = 9.13 dB W/kg

Fig.B.14. Check 5750MHz 50mW

ANNEX C: SAR Measurement Setup

C.1. Measurement Set-up

DASY5 system for performing compliance tests is illustrated above graphically. This system consists of the following items:



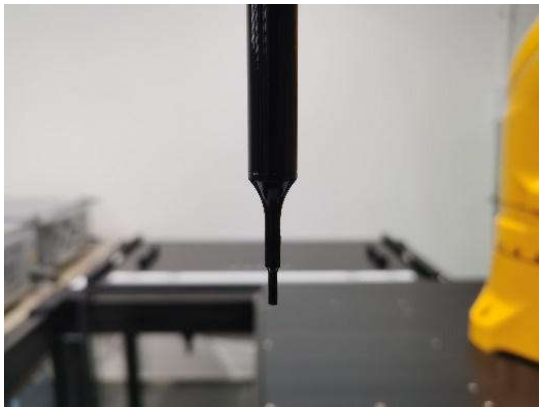
Picture C.1 SAR Lab Test Measurement Set-up

- A standard high precision 6-axis robot (Stäubli TX=RX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as
- warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

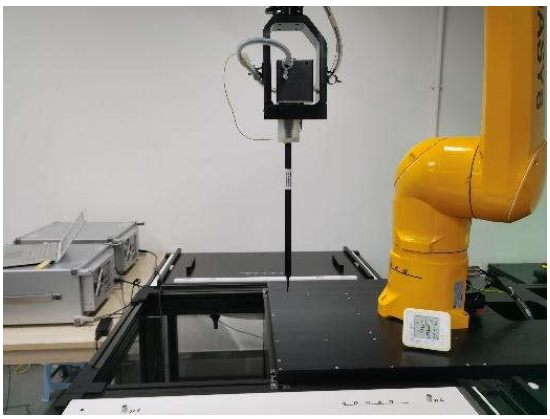
C.2. DASY E-field Probe System

The SAR measurements were conducted with the dosimetric probe designed in the classical triangular configuration and optimized for dosimetric evaluation. The probe is constructed using the thick film technique; with printed resistive lines on ceramic substrates. The probe is equipped with an optical multifiber line ending at the front of the probe tip. It is connected to the EOC box on the robot arm and provides an automatic detection of the phantom surface. Half of the fibers are connected to a pulsed infrared transmitter, the other half to a synchronized receiver. As the probe approaches the surface, the reflection from the surface produces a coupling from the transmitting to the receiving fibers. This reflection increases first during the approach, reaches maximum and then decreases. If the probe is flatly touching the surface, the coupling is zero. The distance of the coupling maximum to the surface is independent of the surface reflectivity and largely independent of the surface to probe angle. The DASY5 OR DASY8 software reads the reflection durning a software approach and looks for the maximum using 2ndord curve fitting. The approach is stopped at reaching the maximum.

Probe Specifications:	
Model:	EX3DV4
Frequency Range:	10 MHz - 6.0 GHz
Calibration:	In head simulating tissue at Frequencies from 750 up to 5750 MHz
Linearity:	± 0.2 dB (30 MHz to 6 GHz)
Dynamic Range:	10 mW/kg - 100 W/kg
Probe Length:	337 mm
Probe Tip Length:	20 mm
Body Diameter:	12 mm
Tip Diameter:	2.5 mm
Tip-Center:	1 mm
Application:	SAR Dosimetry Testing / Compliance tests of mobile phones / Dosimetry in strong gradient fields



Picture C.2: Near-field Probe



Picture C.3: E-field Probe

C.3. E-field Probe Calibration

Each E-Probe/Probe Amplifier combination has unique calibration parameters. A TEM cell calibration procedure is conducted to determine the proper amplifier settings to enter in the probe parameters. The amplifier settings are determined for a given frequency by subjecting the probe to a known E-field density (1 mW/cm^2) using an RF Signal generator, TEM cell, and RF Power Meter.

The free space E-field from amplified probe outputs is determined in a test chamber. This calibration can be performed in a TEM cell if the frequency is below 1 GHz and inn a waveguide or other methodologies above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees until the three channels show the maximum reading. The power density readings equates to 1 mW/ cm^2.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The E-field in the medium correlates with the temperature rise in the dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$SAR = C\frac{\Delta T}{\Delta t}$$

Where:

Δt = Exposure time (30 seconds),

C = Heat capacity of tissue (brain or muscle),

ΔT = Temperature increase due to RF exposure.

$$SAR = \frac{|E|^2 \cdot \sigma}{\rho}$$

Where:

σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m^3).

C.4. Other Test Equipment

C.4.1. Data Acquisition Electronics (DAE)

The data acquisition electronics consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.

The mechanical probe mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection.

The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Picture C.4: DAE

C.4.2. Robot

The SPEAG DASY system uses the high precision robots (DASY5: RX90L) type from Stäubli SA (France). For the 6-axis controller system, the robot controller version from Stäubli is used. The Stäubli robot series have many features that are important for our application:

- High precision (repeatability 0.02mm)
- High reliability (industrial design)
- Low maintenance costs (virtually maintenance free due to direct drive gears; no belt drives)
- Jerk-free straight movements (brushless synchron motors; no stepper motors)
- Low ELF interference (motor control fields shielded via the closed metallic construction shields)

Picture C.5: DASY 5

Picture C.6: DASY 8

C.4.3. Measurement Server

The Measurement server is based on a PC/104 CPU broad with CPU (DASY5: 400 MHz, Intel Celeron), chipdisk (DASY5:128MB), RAM (DASY5:128MB). The necessary circuits for communication with the DAE electronic box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY I/O broad, which is directly connected to the PC/104 bus of the CPU broad.

The measurement server performs all real-time data evaluation of field measurements and surface detection, controls robot movements and handles safety operation. The PC operating system cannot interfere with these time critical processes. All connections are supervised by a watchdog, and disconnection of any of the cables to the measurement server will automatically disarm the robot and disable all program-controlled robot movements. Furthermore, the measurement server is equipped with an expansion port which is reserved for future applications. Please note that this expansion port does not have a standardized pinout, and therefore only devices provided by SPEAG can be connected. Devices from any other supplier could seriously damage the measurement server.

Picture C.7: Server for DASY 5

Picture C.8: Server for DASY 8

C.4.4. Device Holder for Phantom

The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5mm distance, a positioning uncertainty of ±0.5mm would produce a SAR uncertainty of ±20%. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.

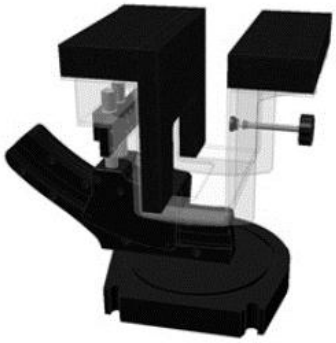
The DASY device holder is designed to cope with the different positions given in the standard. It has two scales for device rotation (with respect to the body axis) and device inclination (with respect to the line between the ear reference points). The rotation centers for both scales is the ear reference point (ERP). Thus the device needs no repositioning when changing the angles.

The DASY device holder is constructed of low-loss POM material having the following dielectric parameters: relative permittivity ε =3 and loss tangent δ =0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

<Laptop Extension Kit>

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the Mounting Device in place of the phone positioner. The extension is fully compatible with the Twin-SAM and ELI phantoms.

Picture C.9: Device Holder



Picture C.10: Laptop Extension Kit

The SAM Twin Phantom V4.0 is constructed of a fiberglass shell integrated in a table. The shape of the shell is based on data from an anatomical study designed to
Represent the 90th percentile of the population. The phantom enables the dissymmetric evaluation of SAR for both left and right handed handset usage, as well as body-worn usage using the flat phantom region. Reference markings on the Phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points in the robot. The shell phantom has a 2mm shell thickness (except the ear region where shell thickness increases to 6 mm).

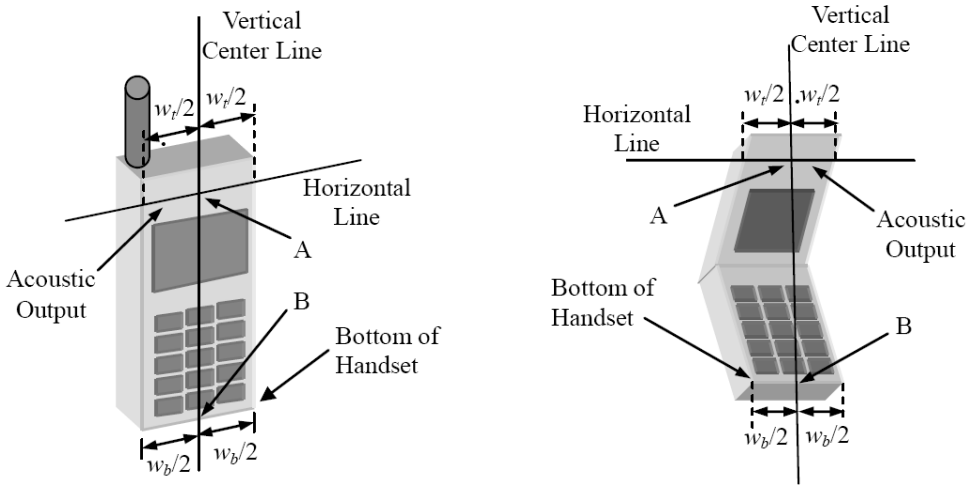
Shell Thickness:	2 ± 0. 2 mm
Filling Volume:	Approx. 25 liters
Dimensions:	810 x l000 x 500 mm (H x L x W)
Available:	Special

Picture C.11: SAM Twin Phantom

ANNEX D: Position of the wireless device in relation to the phantom

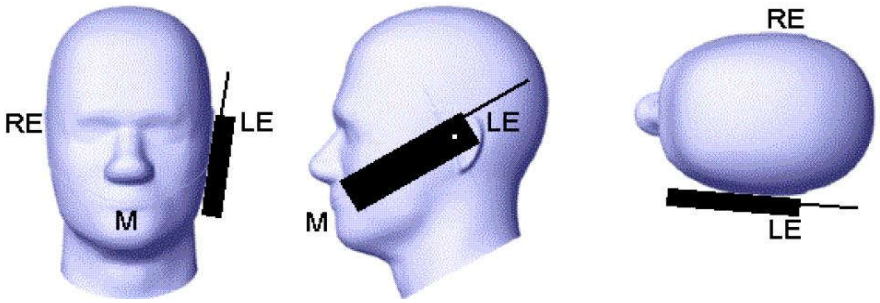
D.1. General considerations

This standard specifies two handset test positions against the head phantom – the “cheek” position and the “tilt” position.

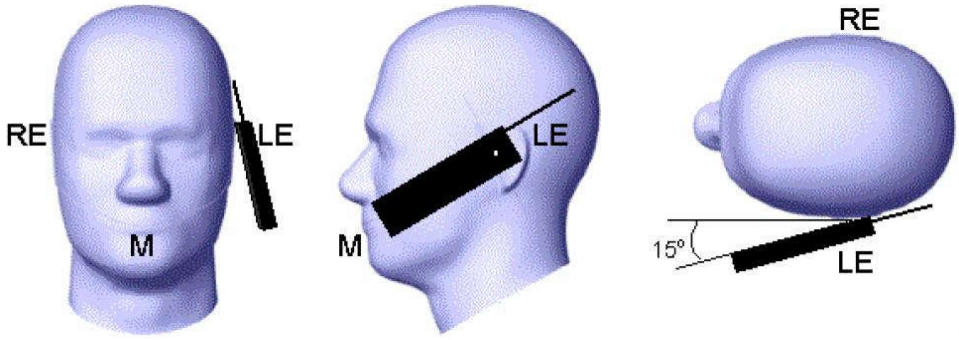


w_t	Width of the handset at the level of the acoustic
w_b	Width of the bottom of the handset
A	Midpoint of the width w_t of the handset at the level of the acoustic output
B	Midpoint of the width w_b of the bottom of the handset

Picture D.1-a Typical “fixed” case handset **Picture D.1-b Typical “clam-shell” case handset**



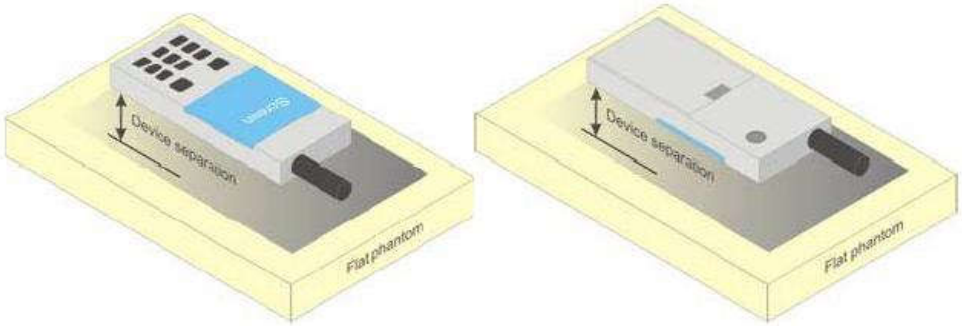
Picture D.2 Cheek position of the wireless device on the left side of SAM



Picture D.3 Tilt position of the wireless device on the left side of SAM

D.2. Body-worn device

A typical example of a body-worn device is a mobile phone, wireless enabled PDA or other battery operated wireless device with the ability to transmit while mounted on a person's body using a carry accessory approved by the wireless device manufacturer.

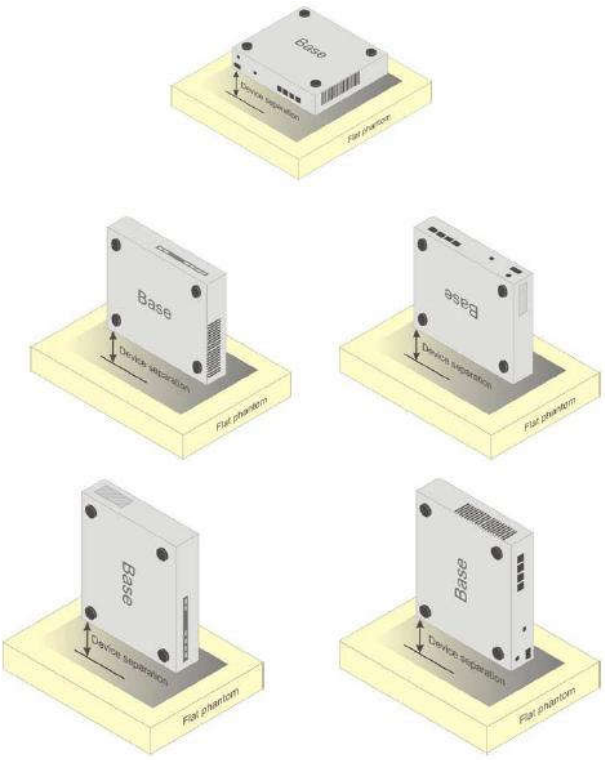


Picture D.4 Test positions for body-worn devices

D.3. Desktop device

A typical example of a desktop device is a wireless enabled desktop computer placed on a table or desk when used.

The DUT shall be positioned at the distance and in the orientation to the phantom that corresponds to the intended use as specified by the manufacturer in the user instructions. For devices that employ an external antenna with variable positions, tests shall be performed for all antenna positions specified. Picture 8.5 show positions for desktop device SAR tests. If the intended use is not specified, the device shall be tested directly against the flat phantom.



Picture D.5 Test positions for desktop devices

D.4. DUT Setup Photos

Picture D.6 Specific Absorption Rate Test Layout

ANNEX E: Equivalent Media Recipes

The liquid used for the frequency range of 700-6000 MHz consisted of water, sugar, salt, preventol, glycol monobutyl and Cellulose. The liquid has been previously proven to be suited for worst-case. The Table E.1 shows the detail solution. It's satisfying the latest tissue dielectric parameters requirements proposed by the IEEE 1528 and IEC 62209.

Table E.1: Composition of the Tissue Equivalent Matter

Frequency (MHz)	835	1750	1900	2450	2600	5200	5800
Water	41.45	55.242	55.242	58.79	58.79	65.53	66.10
Sugar	56.0	/	/	/	/	/	/
Salt	1.45	0.306	0.306	0.06	0.06		
Preventol	0.1	/	/	/	/	17.24	16.95
Cellulose	1.0	/	/	/	/	17.24	16.95
Glycol Monobutyl	/	44.452	44.452	41.15	41.15	/	/
Diethylenglycol monohexylether	/	/	/	/	/	/	/
Triton X-100	/	/	/	/	/	/	/
Dielectric Parameters Target Value	ε=41.5 σ=0.90	ε=40.08 σ=1.37	ε=40.0 σ=1.40	ε=39.20 σ=1.80	ε=39.01 σ=1.96	ε=35.99 σ=4.66	ε=35.30 σ=5.27

Note: There is a little adjustment respectively for 750, 5300 and 5600, based on the recipe of closest frequency in table E.1

ANNEX F: System Validation

The SAR system must be validated against its performance specifications before it is deployed. When SAR probes, system components or software are changed, upgraded or recalibrated, these must be validated with the SAR system(s) that operates with such components.

Table F.1: System Validation

Probe SN.	Liquid name (MHz)	Validation date	Frequency point	CW Validation	Modulation Signal Validation		
					Modulation Type	Duty Factor	PAR
7683	Head 750	2024-08-08	750MHz	Pass	N/A	N/A	N/A
7683	Head 835	2024-08-08	835MHz	Pass	GMSK	Pass	N/A
7683	Head 1750	2024-08-08	1750MHz	Pass	N/A	N/A	N/A
7683	Head 1900	2024-08-08	1900MHz	Pass	GMSK	Pass	N/A
7683	Head 1900	2024-08-08	2300MHz	Pass	GMSK	Pass	N/A
7683	Head 2450	2024-08-20	2450MHz	Pass	OFDM/TDD	Pass	Pass
7683	Head 2550	2024-08-20	2550MHz	Pass	TDD	Pass	N/A
7683	Head 3500	2024-08-19	3500MHz	Pass	TDD	Pass	N/A
7683	Head 3700	2024-08-19	3700MHz	Pass	TDD	Pass	N/A
7683	Head 3900	2024-08-19	3900MHz	Pass	TDD	Pass	N/A
7683	Head 5250	2024-08-21	5250MHz	Pass	OFDM	N/A	Pass
7683	Head 5600	2024-08-21	5600MHz	Pass	OFDM	N/A	Pass
7683	Head 5750	2024-08-21	5750MHz	Pass	OFDM	N/A	Pass

ANNEX G: DAE Calibration Certificate

DAE4 - SN:1790 (2024-06-06)

In Collaboration with
CALIBRATION LABORATORY
Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn http://www.caict.ac.cn

CALIBRATION
CNAS L0570

Client : SAICT Certificate No: 24J02Z000295

CALIBRATION CERTIFICATE

Object	DAE4 - SN: 1790
Calibration Procedure(s)	FF-Z11-002-01 Calibration Procedure for the Data Acquisition Electronics (DAEx)
Calibration date:	June 06, 2024

This calibration Certificate documents the traceability to national standards, which realize the physical units of measurements(SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature(22±3)℃ and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Process Calibrator 753	1971018	12-Jun-23 (CTTL, No.J23X05436)	Jun-24

	Name	Function	Signature
Calibrated by:	Yu Zongying	SAR Test Engineer	
Reviewed by:	Lin Jun	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: June 09, 2024

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: 24J02Z000295 Page 1 of 3

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CALIBRATION LABORATORY

CAICT

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn http://www.caict.ac.cn

Glossary:

DAE	data acquisition electronics
Connector angle	information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters:

- *DC Voltage Measurement*: Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle*: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The report provide only calibration results for DAE, it does not contain other performance test results.

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Tel: +86-10-62304633-2117
E-mail: emf@caict.ac.cn http://www.caict.ac.cn

DC Voltage Measurement

A/D - Converter Resolution nominal
High Range: 1LSB = 6.1μV , full range = -100...+300 mV
Low Range: 1LSB = 61nV , full range = -1.....+3mV
DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	404.649 ± 0.15% (k=2)	404.367 ± 0.15% (k=2)	404.501 ± 0.15% (k=2)
Low Range	4.00172 ± 0.7% (k=2)	3.99527 ± 0.7% (k=2)	3.98609 ± 0.7% (k=2)

Connector Angle

Connector Angle to be used in DASY system	305.5° ± 1 °

ANNEX H: Probe Calibration Certificate

EX3DV4 - SN:7683 (2024-07-03)

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client	SAICT Shenzhen	Certificate No.	EX-7683_Jul24

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:7683
Calibration procedure(s)	QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6, QA CAL-25.v8 Calibration procedure for dosimetric E-field probes
Calibration date	July 03, 2024

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	26-Mar-24 (No. 217-04036/04037)	Mar-25
Power sensor NRP-Z91	SN: 103244	26-Mar-24 (No. 217-04036)	Mar-25
OCP DAK-3.5 (weighted)	SN: 1249	05-Oct-23 (OCP-DAK3.5-1249_Oct23)	Oct-24
OCP DAK-12	SN: 1016	05-Oct-23 (OCP-DAK12-1016_Oct23)	Oct-24
Reference 20 dB Attenuator	SN: CC2552 (20x)	26-Mar-24 (No. 217-04046)	Mar-25
DAE4	SN: 660	23-Feb-24 (No. DAE4-660_Feb24)	Feb-25
Reference Probe EX3DV4	SN: 7349	03-Jun-24 (No. EX3-7349_Jun24)	Jun-25

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-24)	In house check: Jun-26
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-24)	In house check: Jun-26
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-24)	In house check: Jun-26
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-24)	In house check: Jun-26
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by	Joanna Lleshaj	Laboratory Technician	
Approved by	Sven Kühn	Technical Manager	

Issued: July 03, 2024

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: EX-7683_Jul24 Page 1 of 22

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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Accreditation No.: SCS 0108

Glossary

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

a) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices – Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z*: Assessed for E-field polarization $\vartheta = 0$ ($f \le 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- *DCPx,y,z*: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal. DCP does not depend on frequency nor media.
- *PAR*: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters*: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \le 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ±50 MHz to ±100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- *Connector Angle*: The angle is assessed using the information gained by determining the *NORMx* (no uncertainty required).

Parameters of Probe: EX3DV4 - SN:7683

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc ($k = 2$)
Norm ($\mu V/(V/m)^2$) [A]	0.62	0.63	0.63	±10.1%
DCP (mV) [B]	103.2	103.9	103.2	±4.7%

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B $dB\sqrt{\mu V}$	C	D dB	VR mV	Max dev.	Max Unc[E] $k = 2$
0	CW	X	0.00	0.00	1.00	0.00	120.4	±1.4%	±4.7%
		Y	0.00	0.00	1.00		140.6		
		Z	0.00	0.00	1.00		119.4		
10352	Pulse Waveform (200Hz, 10%)	X	1.52	60.67	6.55	10.00	60.0	±2.6%	±9.6%
		Y	1.53	60.79	6.54		60.0		
		Z	2.00	62.00	7.00		60.0		
10353	Pulse Waveform (200Hz, 20%)	X	0.80	60.00	5.10	6.99	80.0	±2.3%	±9.6%
		Y	10.00	72.00	9.00		80.0		
		Z	0.80	60.00	4.99		80.0		
10354	Pulse Waveform (200Hz, 40%)	X	0.26	143.64	0.03	3.98	95.0	±2.6%	±9.6%
		Y	52.00	78.00	9.00		95.0		
		Z	0.19	137.24	0.48		95.0		
10355	Pulse Waveform (200Hz, 60%)	X	10.14	157.74	16.87	2.22	120.0	±1.6%	±9.6%
		Y	12.08	151.82	9.48		120.0		
		Z	10.53	156.21	19.40		120.0		
10387	QPSK Waveform, 1 MHz	X	0.62	63.82	12.61	1.00	150.0	±4.5%	±9.6%
		Y	0.70	63.58	11.65		150.0		
		Z	0.58	62.17	11.23		150.0		
10388	QPSK Waveform, 10 MHz	X	1.39	65.66	14.01	0.00	150.0	±1.4%	±9.6%
		Y	1.40	64.71	13.34		150.0		
		Z	1.31	64.28	13.14		150.0		
10396	64-QAM Waveform, 100 kHz	X	1.61	63.63	15.52	3.01	150.0	±1.1%	±9.6%
		Y	1.73	64.50	15.77		150.0		
		Z	1.59	63.24	15.16		150.0		
10399	64-QAM Waveform, 40 MHz	X	2.86	66.09	15.03	0.00	150.0	±1.9%	±9.6%
		Y	2.90	65.80	14.74		150.0		
		Z	2.80	65.50	14.61		150.0		
10414	WLAN CCDF, 64-QAM, 40 MHz	X	3.85	65.69	15.17	0.00	150.0	±3.5%	±9.6%
		Y	4.00	65.56	15.06		150.0		
		Z	4.03	66.09	15.30		150.0		

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

[A] The uncertainties of Norm X,Y,Z do not affect the E^2-field uncertainty inside TSL (see Pages 5 and 6).
[B] Linearization parameter uncertainty for maximum specified field strength.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Parameters of Probe: EX3DV4 - SN:7683

Sensor Model Parameters

	C1 fF	C2 fF	α V^{-1}	T1 $ms\,V^{-2}$	T2 $ms\,V^{-1}$	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
x	10.8	77.56	33.12	2.58	0.00	4.90	0.27	0.00	1.00
y	13.0	94.75	33.73	3.67	0.00	4.92	0.51	0.00	1.00
z	11.7	84.47	33.28	2.66	0.00	4.90	0.28	0.00	1.00

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	70.6°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3–4 mm for an *Area Scan* job.

Parameters of Probe: EX3DV4 - SN:7683

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz)[C]	Relative Permittivity[F]	Conductivity[F] (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha[G]	Depth[G] (mm)	Unc[H] ($k = 2$)
13	55.0	0.75	18.80	15.39	15.39	0.00	1.25	±13.3%
750	41.9	0.89	10.40	9.90	9.70	0.34	1.27	±11.0%
900	41.5	0.97	9.93	9.45	9.26	0.34	1.27	±11.0%
1640	40.2	1.31	8.55	8.13	7.97	0.35	1.27	±11.0%
1750	40.1	1.37	8.60	8.19	8.02	0.35	1.27	±11.0%
1900	40.0	1.40	8.37	7.96	7.80	0.35	1.27	±11.0%
2100	39.8	1.49	8.41	8.01	7.84	0.36	1.27	±11.0%
2300	39.5	1.67	8.14	7.75	7.59	0.36	1.27	±11.0%
2450	39.2	1.80	7.87	7.49	7.34	0.36	1.27	±11.0%
2600	39.0	1.96	7.93	7.55	7.39	0.36	1.27	±11.0%
3300	38.2	2.71	7.14	6.80	6.66	0.37	1.27	±13.1%
3500	37.9	2.91	7.20	6.85	6.71	0.37	1.27	±13.1%
3700	37.7	3.12	7.08	6.74	6.60	0.37	1.27	±13.1%
3900	37.5	3.32	6.96	6.62	6.49	0.38	1.27	±13.1%
4100	37.2	3.53	6.87	6.54	6.40	0.38	1.27	±13.1%
4400	36.9	3.84	6.68	6.35	6.22	0.38	1.27	±13.1%
4600	36.7	4.04	6.74	6.41	6.28	0.38	1.27	±13.1%
4800	36.4	4.25	6.61	6.29	6.16	0.39	1.27	±13.1%
4950	36.3	4.40	6.59	6.27	6.14	0.37	1.27	±13.1%
5250	35.9	4.71	6.03	5.73	5.62	0.34	1.27	±13.1%
5600	35.5	5.07	5.46	5.19	5.09	0.30	1.27	±13.1%
5800	35.3	5.27	5.53	5.26	5.15	0.28	1.27	±13.1%

[C] Frequency validity above 300 MHz of ±100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ±50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ±10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4–9 MHz, and ConvF assessed at 13 MHz is 9–19 MHz. Above 5 GHz frequency validity can be extended to ±110 MHz.

[F] The probes are calibrated using tissue simulating liquids (TSL) that deviate for ε and σ by less than ±5% from the target values (typically better than ±3%) and are valid for TSL with deviations of up to ±10% if SAR correction is applied.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz and below ±2% for frequencies between 3–6 GHz at any distance larger than half the probe tip diameter from the boundary.

[H] The stated uncertainty is the total calibration uncertainty ($k = 2$) of Norm-ConvF. Therefore, the uncertainty stated is equivalent to the uncertainty component with the symbol CF in Table 9 of IEC/IEEE 62209-1528:2020.

Parameters of Probe: EX3DV4 - SN:7683

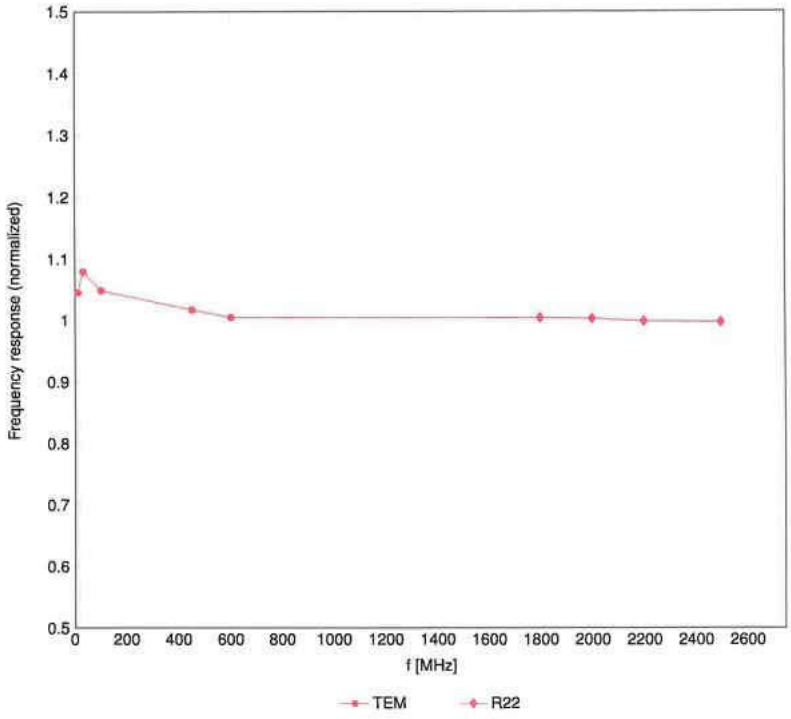
Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz)[C]	Relative Permittivity[F]	Conductivity[F] (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha[G]	Depth[G] (mm)	Unc[H] ($k = 2$)
6500	34.5	6.07	5.99	5.70	5.58	0.20	1.27	±18.6%

[C] Frequency validity at 6.5 GHz is −600/+700 MHz, and ±700 MHz at or above 7 GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
[F] The probes are calibrated using tissue simulating liquids (TSL) that deviate for ε and σ by less than ±10% from the target values (typically better than ±6%) and are valid for TSL with deviations of up to ±10%.
[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz; below ±2% for frequencies between 3–6 GHz; and below ±4% for frequencies between 6–10 GHz at any distance larger than half the probe tip diameter from the boundary.
[H] The stated uncertainty is the total calibration uncertainty ($k = 2$) of Norm-ConvF. Therefore, the uncertainty stated is equivalent to the uncertainty component with the symbol CF in Table 9 of IEC/IEEE 62209-1528:2020.

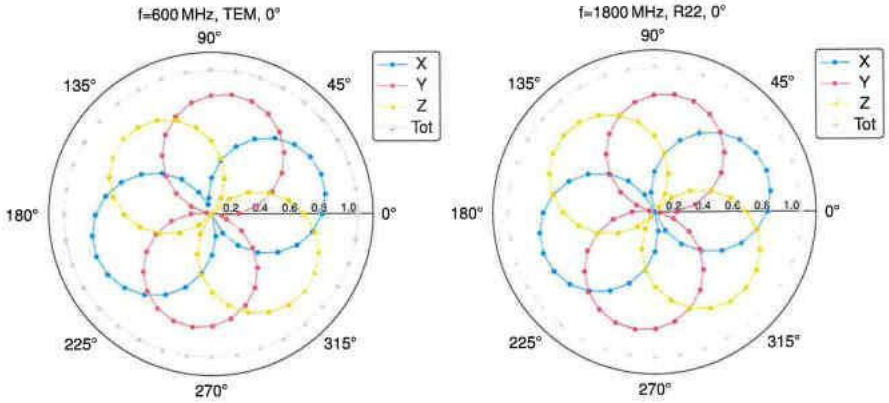
Frequency Response of E-Field

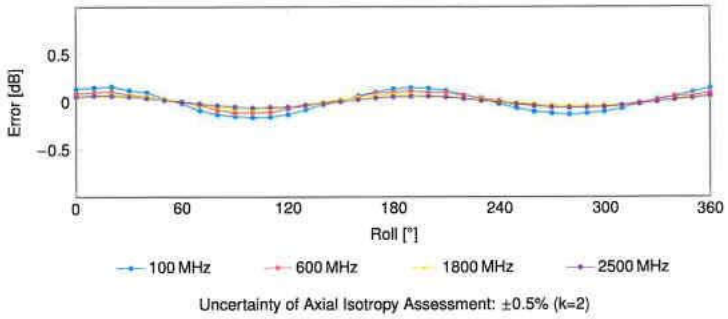
(TEM-Cell:ifi110 EXX, Waveguide:R22)



Uncertainty of Frequency Response of E-field: ±6.3% (k=2)

Receiving Pattern (ϕ), $\vartheta = 0°$

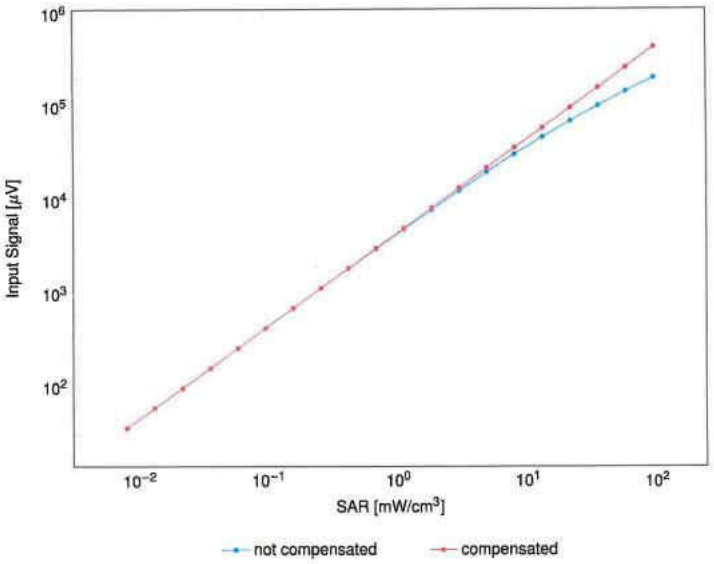


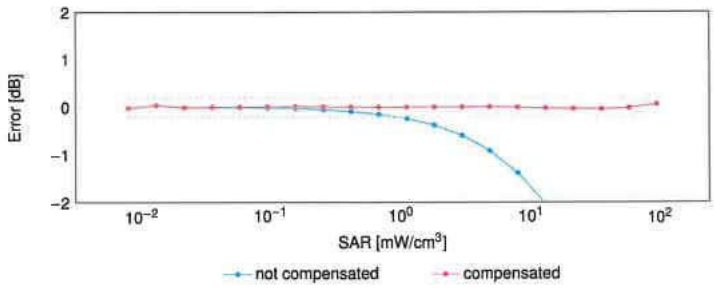


Uncertainty of Axial Isotropy Assessment: ±0.5% (k=2)

Dynamic Range f(SAR_{head})

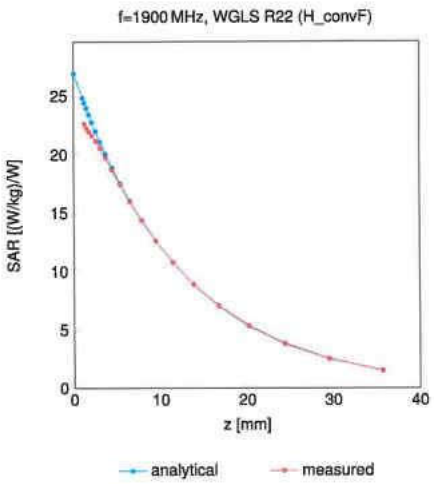
(TEM cell, f_{eval} = 1900 MHz)



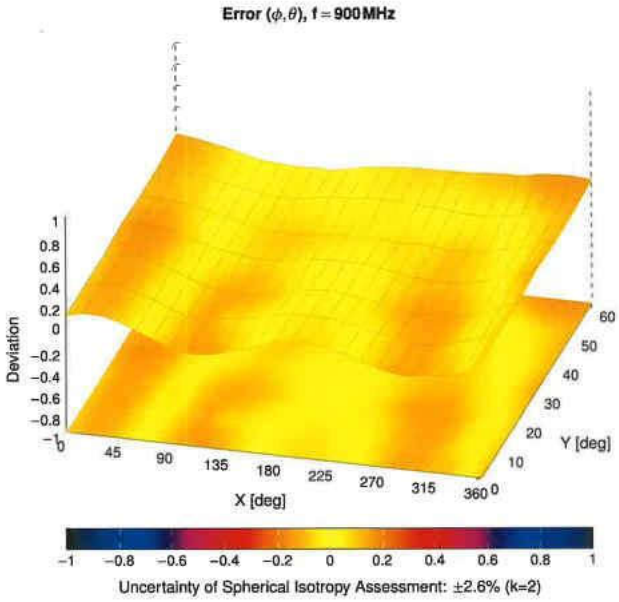


Uncertainty of Linearity Assessment: ±0.6% (k=2)

Conversion Factor Assessment



Deviation from Isotropy in Liquid



Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc^E $k=2$
0		CW	CW	0.00	±4.7
10010	CAB	SAR Validation (Square, 100 ms, 10 ms)	Test	10.00	±9.6
10011	CAC	UMTS-FDD (WCDMA)	WCDMA	2.91	±9.6
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	±9.6
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	±9.6
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	±9.6
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	±9.6
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	±9.6
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	±9.6
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	±9.6
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	±9.6
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	±9.6
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	±9.6
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	±9.6
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	±9.6
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	±9.6
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	±9.6
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	±9.6
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	±9.6
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	±9.6
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	±9.6
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	±9.6
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	±9.6
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	±9.6
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	±9.6
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	±9.6
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	±9.6
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	±9.6
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	±9.6
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	±9.6
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	±9.6
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	±9.6
10062	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	±9.6
10063	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	±9.6
10064	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	±9.6
10065	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	±9.6
10066	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	±9.6
10067	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	±9.6
10068	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	±9.6
10069	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	±9.6
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	±9.6
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	±9.6
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	±9.6
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	±9.6
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	±9.6
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	±9.6
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	±9.6
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	±9.6
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	±9.6
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	±9.6
10097	CAC	UMTS-FDD (HSDPA)	WCDMA	3.98	±9.6
10098	CAC	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	±9.6
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	±9.6
10100	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	±9.6
10101	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6
10102	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6
10103	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	±9.6
10104	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	±9.6
10105	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	±9.6
10108	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	±9.6
10109	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
10110	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	±9.6
10111	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc^E $k = 2$
10112	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	±9.6
10113	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	±9.6
10114	CAE	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	±9.6
10115	CAE	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	±9.6
10116	CAE	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	±9.6
10117	CAE	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	±9.6
10118	CAE	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	±9.6
10119	CAE	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	±9.6
10140	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	±9.6
10141	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	±9.6
10142	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6
10143	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	±9.6
10144	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	±9.6
10145	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	±9.6
10146	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	±9.6
10147	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	±9.6
10149	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6
10150	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6
10151	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	±9.6
10152	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	±9.6
10153	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	±9.6
10154	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	±9.6
10155	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
10156	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	±9.6
10157	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	±9.6
10158	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	±9.6
10159	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	±9.6
10160	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	±9.6
10161	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
10162	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	±9.6
10166	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	±9.6
10167	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	±9.6
10168	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	±9.6
10169	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	±9.6
10170	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10171	AAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	±9.6
10172	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	±9.6
10173	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10174	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10175	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	±9.6
10176	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10177	CAJ	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	±9.6
10178	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10179	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10180	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10181	CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	±9.6
10182	CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10183	AAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10184	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6
10185	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	±9.6
10186	AAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10187	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	±9.6
10188	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10189	AAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10193	CAE	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	±9.6
10194	CAE	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	±9.6
10195	CAE	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	±9.6
10196	CAE	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	±9.6
10197	CAE	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	±9.6
10198	CAE	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	±9.6
10219	CAE	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	±9.6
10220	CAE	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	±9.6
10221	CAE	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	±9.6
10222	CAE	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	±9.6
10223	CAE	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	±9.6
10224	CAE	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	±9.6

