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TEST REPORT

Report Reference No...... : **CTC20192260E**

FCC ID..... : **2AC88-GLMU19A02**

Applicant's name..... : **HONGKONG UCLOUDLINK NETWORK TECHNOLOGY LIMITED**

Address..... : Suite 603, 6/F, Laws Commercial Plaza, 788 Cheung Sha Wan Road, Kowloon, Hong Kong

Manufacturer..... : HONGKONG UCLOUDLINK NETWORK TECHNOLOGY LIMITED

Address..... : Suite 603, 6/F, Laws Commercial Plaza, 788 Cheung Sha Wan Road, Kowloon, Hong Kong

Test item description..... : **4G Wireless Data Terminal**

Trade Mark : GlocalMe

Model/Type reference..... : GLMU19A02

Listed Model(s) : -

Standard : **FCC 47 CFR Part2.1093**
IEEE 1528: 2013
ANSI/IEEE C95.1: 2005

Date of receipt of test sample..... : Nov.22, 2019

Date of testing..... : Nov.25, 2019 to Dec.19, 2019

Date of issue..... : Dec.20, 2019

Result..... : **PASS**

Compiled by
(position+printedname+signature).... : Charley Wu

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Approved by
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Testing Laboratory Name : **CTC Laboratories,Inc.**

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Any objections must be raised to CTC within 15 days since the date when the report is received.It will not be taken into consideration beyond this limit. The test report merely correspond to the test sample.

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1 . Test Standards and Report version

1.1. Test Standards

The tests were performed according to following standards:

- [FCC 47 Part 2.1093](#) Radiofrequency Radiation Exposure Evaluation:Portable Devices
 - [IEEE Std C95.1, 2005](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 KHz to 300 GHz.
 - [IEEE Std 1528™-2013](#): IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques.
 - [KDB 865664 D01 SAR 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
 - [KDB 447498 D01 General RF Exposure Guidance v06](#): Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
 - [KDB 248227 D01 802 11 Wi-Fi SAR v02r02](#): SAR Measurement Proceduresfor802.11 a/b/g Transmitters
 - [KDB 648474 D04 Handset SAR v01r03](#): SAR Evaluation Considerations for Wireless Handsets
 - [KDB 941225 D01 3G SAR Procedures v03r01](#): SAR Measurement Procedures for 3G Devices
 - [KDB 941225 D06 Hotspot Mode 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.
- Report version
- [KDB 941225 D05 SAR for LTE Devices v02r05](#): SAR Evaluation Considerations for LTE Devices

1.2. Report version

Revision No.	Date of issue	Description
N/A	2019-12-20	Original

2. Summary

2.1. Client Information

Applicant:	HONGKONG UCLOUDLINK NETWORK TECHNOLOGY LIMITED
Address:	Suite 603, 6/F, Laws Commercial Plaza, 788 Cheung Sha Wan Road, Kowloon, Hong Kong
Manufacturer:	HONGKONG UCLOUDLINK NETWORK TECHNOLOGY LIMITED
Address:	Suite 603, 6/F, Laws Commercial Plaza, 788 Cheung Sha Wan Road, Kowloon, Hong Kong

2.2. Product Description

Name of EUT:	4G Wireless Data Terminal			
Trade Mark:	GlocalMe			
Model No.:	GLMU19A02			
Listed Model(s):	-			
Power supply:	3.8Vdc 3000mAh,11.40Wh from Li-ion Battery			
Device Category:	Portable			
Product stage:	Production unit			
RF Exposure Environment:	General Population / Uncontrolled			
Hardware version:	U3_MAINBOARD_VA			
Software version:	U3Q19_TSV3.2.001.001.191204			
Maximum SAR Value				
Separation Distance:	Body: 10mm			
Max Report SAR Value (1g):	Test location:	PCE	DTS	Simultaneous TX
	Body:	1.353W/Kg	0.214W/Kg	1.567W/Kg
GSM				
Support Network:	GPRS,EGPRS			
Support Band:	GSM850,PCS1900			
Modulation Type:	GPRS:GMSK EGRPS:8PSK			
Antenna type:	PIFA Antenna			
WCDMA				
Operation Band:	WCDMA Band II,WCDMA Band IV, WCDMA Band V			
Power Class:	Power Class 3			
Modulation Type:	QPSK/16QAM/64QAM/HSUPA/HSDPA			
Antenna type:	PIFA Antenna			
CDMA				
Operation Band:	CDMA BC 0,CDMA BC 1			
Modulation Type:	1xRTT, 1xEVDO Rel. 0,1xEVDO Rev. A, 1xAdvanced			
Antenna type:	PIFA Antenna			

LTE	
Operation Band:	FDD Band 2, FDD Band 4, FDD Band 5, FDD Band 7 FDD Band 12,FDD Band 13,FDD Band 17,FDD Band 25 FDD Band 26,FDD Band 30,TDD Band 41,TDD Band 66 TDD Band 71
Modulation Type:	QPSK,16QAM
Antenna type:	PIFA Antenna
WIFI 2.4G	
Supported type:	802.11b/802.11g/802.11n(HT20)/802.11n(HT40)
Modulation Type:	DSSS for 802.11b OFDM for 802.11g/802.11n(HT20)/802.11n(HT40)
Operation frequency:	2412MHz~2462MHz
Channel number:	11
Channel separation:	5MHz
Antenna type:	PIFA Antenna
<i>Remark:</i>	
1. <i>The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power</i>	



3. Test Environment

3.1. Test laboratory

CTC Laboratories, Inc.

Add: 2/F., Building 1 and 1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Longhua District, Shenzhen, Guangdong, China

3.2. Test Facility

Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L5365

CTC Laboratories, Inc. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

A2LA-Lab Cert. No.: 4340.01

CTC Laboratories, Inc. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

ISED Registration No.: CN0029

The 3m alternate test site of CTC Laboratories, Inc. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: CN0029 on Dec, 2018.

FCC-Registration No.: CN1208

CTC Laboratories, Inc. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration CN1208, Sep 07, 2017.

4. Equipments Used during the Test

Test Equipment	Manufacturer	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
Data Acquisition Electronics DAEx	SPEAG	DAE4	1423	2019/05/24	2020/05/27
E-field Probe	SPEAG	EX3DV4	3974	2019/05/21	2020/06/20
System Validation Dipole	SPEAG	D750V3	1105	2018/08/27	2021/08/26
System Validation Dipole	SPEAG	D835V2	4d134	2018/10/10	2021/10/09
System Validation Dipole	SPEAG	D1750V2	1110	2018/06/07	2021/06/06
System Validation Dipole	SPEAG	D1900V2	5d115	2018/08/26	2021/08/25
System Validation Dipole	SPEAG	D2450V2	928	2018/10/12	2021/10/11
System Validation Dipole	SPEAG	D2600V2	1126	2018/08/29	2021/08/28
Network analyzer	Agilent	E5071C	MY46520333	2019/08/13	2020/08/12
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	117824	2018/12/29	2019/12/28
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMW500	102414	2018/12/29	2019/12/28
Signal Generator	Agilent	N5182A	MY47420864	2018/12/29	2019/12/28
Power sensor	Mini-Circuits	PWR-8GHS	11609010017	2019/08/13	2020/08/12
Power sensor	Mini-Circuits	PWR-8GHS	11607130056	2019/08/13	2020/08/12
Power Amplifier	Mini-Circuits	ZHL-42W+	051701624	2019/08/13	2020/08/12
BI-DIRECTIONAL COUPLER	Mini-Circuits	ZGBDC20-33HP+	996201615	2019/08/13	2020/08/12
BI-DIRECTIONAL COUPLER	Mini-Circuits	ZGBDC35-93HP+	415101623	2019/08/13	2020/08/12
Attenuator	MCL	BW-N20W5+	1552	2019/08/13	2020/08/12
Attenuator	MCL	BW-N3W5+	1608	2019/08/13	2020/08/12
Attenuator	MCL	/	/	2019/08/13	2020/08/12

Note:

1. The Probe, Dipole and DAE calibration reference to the Appendix A
2. Referring to KDB865664 D01, the dipole calibration interval can be extended to 3 years with justification. The dipole are also not physically damaged or repaired during the interval.

5. Measurement Uncertainty

Measurement Uncertainty										
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	6.0%	N	1	1	1	6.0%	6.0%	∞
2	Axial isotropy	B	4.70%	R	$\sqrt{3}$	0.7	0.7	1.90%	1.90%	∞
3	Hemispherical isotropy	B	9.60%	R	$\sqrt{3}$	0.7	0.7	3.90%	3.90%	∞
4	Boundary Effects	B	1.00%	R	$\sqrt{3}$	1	1	0.60%	0.60%	∞
5	Probe Linearity	B	4.70%	R	$\sqrt{3}$	1	1	2.70%	2.70%	∞
6	Detection limit	B	1.00%	R	$\sqrt{3}$	1	1	0.60%	0.60%	∞
7	RF ambient conditions-noise	B	0.00%	R	$\sqrt{3}$	1	1	0.00%	0.00%	∞
8	RF ambient conditions-reflection	B	0.00%	R	$\sqrt{3}$	1	1	0.00%	0.00%	∞
9	Response time	B	0.80%	R	$\sqrt{3}$	1	1	0.50%	0.50%	∞
10	Integration time	B	5.00%	R	$\sqrt{3}$	1	1	2.90%	2.90%	∞
11	RF ambient	B	3.00%	R	$\sqrt{3}$	1	1	1.70%	1.70%	∞
12	Probe positioned mech. restrictions	B	0.40%	R	$\sqrt{3}$	1	1	0.20%	0.20%	∞
13	Probe positioning with respect to phantom shell	B	2.90%	R	$\sqrt{3}$	1	1	1.70%	1.70%	∞
14	Max.SAR evaluation	B	3.90%	R	$\sqrt{3}$	1	1	2.30%	2.30%	∞
Test Sample Related										
15	Test sample positioning	A	1.86%	N	1	1	1	1.86%	1.86%	∞
16	Device holder uncertainty	A	1.70%	N	1	1	1	1.70%	1.70%	∞
17	Drift of output power	B	5.00%	R	$\sqrt{3}$	1	1	2.90%	2.90%	∞
Phantom and Set-up										
18	Phantom uncertainty	B	4.00%	R	$\sqrt{3}$	1	1	2.30%	2.30%	∞
19	Liquid conductivity (target)	B	5.00%	R	$\sqrt{3}$	0.64	0.43	1.80%	1.20%	∞
20	Liquid conductivity (meas.)	A	0.50%	N	1	0.64	0.43	0.32%	0.26%	∞
21	Liquid permittivity (target)	B	5.00%	R	$\sqrt{3}$	0.64	0.43	1.80%	1.20%	∞
22	Liquid permittivity (meas.)	A	0.16%	N	1	0.64	0.43	0.10%	0.07%	∞
Combined standard uncertainty		$u_c = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$		/	/	/	/	9.79%	9.67%	∞
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$		R	K=2	/	/	19.57%	19.34%	∞

System Check Uncertainty										
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	6.0%	N	1	1	1	6.0%	6.0%	∞
2	Axial isotropy	B	4.70%	R	$\sqrt{3}$	0.7	0.7	1.90%	1.90%	∞
3	Hemispherical isotropy	B	9.60%	R	$\sqrt{3}$	0.7	0.7	3.90%	3.90%	∞
4	Boundary Effects	B	1.00%	R	$\sqrt{3}$	1	1	0.60%	0.60%	∞
5	Probe Linearity	B	4.70%	R	$\sqrt{3}$	1	1	2.70%	2.70%	∞
6	Detection limit	B	1.00%	R	$\sqrt{3}$	1	1	0.60%	0.60%	∞
7	RF ambient conditions-noise	B	0.00%	R	$\sqrt{3}$	1	1	0.00%	0.00%	∞
8	RF ambient conditions-reflection	B	0.00%	R	$\sqrt{3}$	1	1	0.00%	0.00%	∞
9	Response time	B	0.80%	R	$\sqrt{3}$	1	1	0.50%	0.50%	∞
10	Integration time	B	5.00%	R	$\sqrt{3}$	1	1	2.90%	2.90%	∞
11	RF ambient	B	3.00%	R	$\sqrt{3}$	1	1	1.70%	1.70%	∞
12	Probe positioned mech. restrictions	B	0.40%	R	$\sqrt{3}$	1	1	0.20%	0.20%	∞
13	Probe positioning with respect to phantom shell	B	2.90%	R	$\sqrt{3}$	1	1	1.70%	1.70%	∞
14	Max.SAR evaluation	B	3.90%	R	$\sqrt{3}$	1	1	2.30%	2.30%	∞
System validation source-dipole										
15	Deviation of experimental dipole from numerical dipole	A	1.58%	N	1	1	1	1.58%	1.58%	∞
16	Dipole axis to liquid distance	A	1.35%	N	1	1	1	1.35%	1.35%	∞
17	Input power and SAR drift	B	4.00%	R	$\sqrt{3}$	1	1	2.30%	2.30%	∞
Phantom and Set-up										
18	Phantom uncertainty	B	4.00%	R	$\sqrt{3}$	1	1	2.30%	2.30%	∞
20	Liquid conductivity (meas.)	A	0.50%	N	1	0.64	0.43	0.32%	0.26%	∞
22	Liquid cpermittivity (meas.)	A	0.16%	N	1	0.64	0.43	0.10%	0.07%	∞
Combined standard uncertainty		$u_c = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$		/	/	/	/	8.80%	8.79%	∞
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$		R	K=2	/	/	17.59%	17.58%	∞

6.2. DASY5 E-field Probe System

The SAR measurements were conducted with the dosimetric probe EX3DV4 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

● Probe Specification

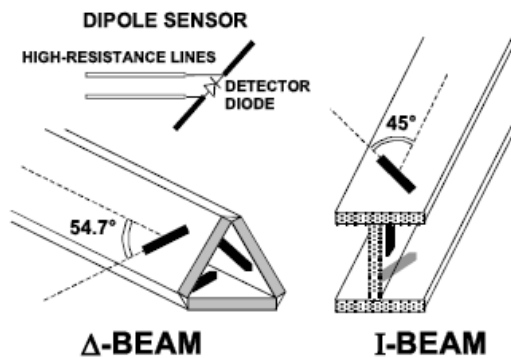
Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available.
Frequency	4 MHz to 10 GHz; Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 μ W/g to > 100 W/kg; Linearity: ± 0.2 dB
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Distance from probe tip to dipole centers: 1.0 mm
Application	General dosimetry up to 6 GHz Dosimetry in strong gradient fields Compliance tests of Mobile Phones
Compatibility	DASY3, DASY4, DASY52 SAR and higher, EASY4/MRI



● Isotropic E-Field Probe

The isotropic E-Field probe has been fully calibrated and assessed for isotropicity, and boundary effect within a controlled environment. Depending on the frequency for which the probe is calibrated the method utilized for calibration will change.

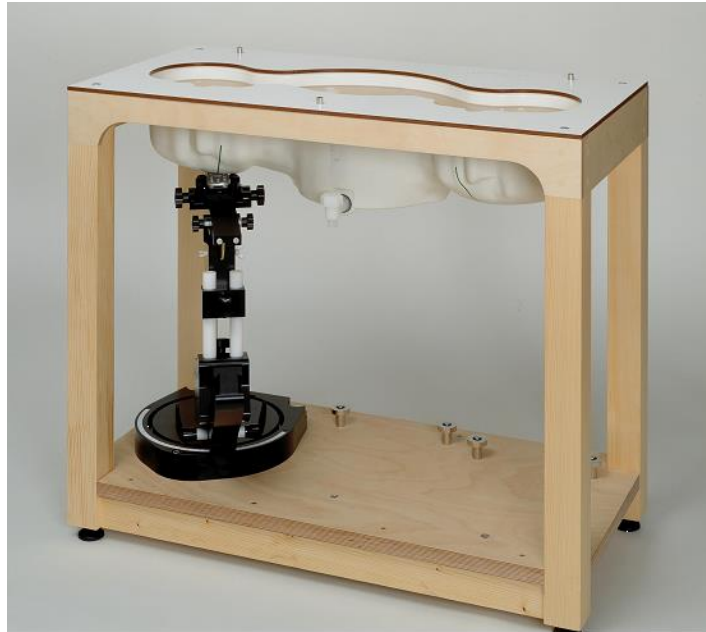
The E-Field probe utilizes a triangular sensor arrangement as detailed in the diagram below:



6.3. Phantoms

The phantom used for all tests i.e. for both system checks and device testing, was the twin-headed "SAM Phantom", manufactured by SPEAG. The SAM twin phantom is a fiberglass shell phantom with 2mm shell thickness (except the ear region, where shell thickness increases to 6mm).

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



SAM Twin Phantom

6.4. Device Holder

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

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.



Device holder supplied by SPEAG

7. SAR Test Procedure

7.1. Scanning Procedure

The DASY5 installation includes predefined files with recommended procedures for measurements and validation. They are read-only document files and destined as fully defined but unmeasured masks. All test positions (head or body-worn) are tested with the same configuration of test steps differing only in the grid definition for the different test positions.

The “reference” and “drift” measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the DUT’s output power and should vary max. $\pm 5\%$.

The “surface check” measurement tests the optical surface detection system of the DASY5 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above $\pm 0.1\text{mm}$). To prevent wrong results tests are only executed when the liquid is free of air bubbles. The difference between the optical surface detection and the actual surface depends on the probe and is specified with each probe (It does not depend on the surface reflectivity or the probe angle to the surface within $\pm 30^\circ$.)

Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values before running a detailed measurement around the hot spot. Before starting the area scan a grid spacing of 15 mm x 15 mm is set. During the scan the distance of the probe to the phantom remains unchanged. After finishing area scan, the field maxima within a range of 2 dB will be ascertained.

Zoom Scan

After the maximum interpolated values were calculated between the points in the cube, the SAR was averaged over the spatial volume (1g or 10g) using a 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the “Not a knot” condition (in x, y, and z directions). The volume was then integrated with the trapezoidal algorithm.

Spatial Peak Detection

The procedure for spatial peak SAR evaluation has been implemented and can determine values of masses of 1g and 10g, as well as for user-specific masses. The DASY5 system allows evaluations that combine measured data and robot positions, such as:

- maximum search
- extrapolation
- boundary correction
- peak search for averaged SAR

During a maximum search, global and local maxima searches are automatically performed in 2-D after each Area Scan measurement with at least 6 measurement points. It is based on the evaluation of the local SAR gradient calculated by the Quadratic Shepard’s method. The algorithm will find the global maximum and all local maxima within -2 dB of the global maxima for all SAR distributions.

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. Several measurements at different distances are necessary for the extrapolation.

Extrapolation routines require at least 10 measurement points in 3-D space.

They are used in the Zoom Scan to obtain SAR values between the lowest measurement points and the inner phantom surface. The routine uses the modified Quadratic Shepard’s method for extrapolation.

A Z-axis scan measures the total SAR value at the x-and y-position of the maximum SAR value found during the cube scan. The probe is moved away in z-direction from the bottom of the SAM phantom in 5mm steps.

Table 1: Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v04

		≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface		5 mm ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2)$ mm ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location		30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}		≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
		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.	
Maximum zoom scan spatial resolution: Δx_{Zoom} , Δy_{Zoom}		≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$	≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm 3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5 · $\Delta z_{Zoom}(n-1)$ mm
Minimum zoom scan volume	x, y, z	≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std 1528-2013 for details. * When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB Publication 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.			

7.2. Data Storage and Evaluation

Data Storage

The DASY5 software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors),s together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension “.DA4”. The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated.

The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [W/kg], [mW/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

Data Evaluation

The SEMCAD software automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software:

Probe parameters:	Sensitivity:	Normi, ai0, ai1, ai2
	Conversion factor:	ConvFi
	Diode compression point:	Dcpi
Device parameters:	Frequency:	f
	Crest factor:	cf
Media parameters:	Conductivity:	σ
	Density:	ρ

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY5 components. In the direct measuring mode of the multimeter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

$$V_i = U_i + U_i^2 \cdot \frac{cf}{dcp_i}$$

Vi:	compensated signal of channel (i = x, y, z)
Ui:	input signal of channel (i = x, y, z)
cf:	crest factor of exciting field (DASY parameter)
dcp _i :	diode compression point (DASY parameter)

From the compensated input signals the primary field data for each channel can be evaluated:

$$E - \text{fieldprobes} : \quad E_i = \sqrt{\frac{V_i}{Norm_i \cdot ConvF}}$$

$$H - \text{fieldprobes} : \quad H_i = \sqrt{V_i} \cdot \frac{a_{i0} + a_{i1}f + a_{i2}f^2}{f}$$

Vi:	compensated signal of channel (i = x, y, z)
Norm _i :	sensor sensitivity of channel (i = x, y, z), [mV/(V/m) ²] for E-field Probes
ConvF:	sensitivity enhancement in solution
a _{ij} :	sensor sensitivity factors for H-field probes
f:	carrier frequency [GHz]
E _i :	electric field strength of channel i in V/m
H _i :	magnetic field strength of channel i in A/m

The RSS value of the field components gives the total field strength (Hermitian magnitude):

$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$

The primary field data are used to calculate the derived field units.

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1'000}$$

SAR: local specific absorption rate in W/kg
Etot: total field strength in V/m
 σ : conductivity in [mho/m] or [Siemens/m]
 ρ : equivalent tissue density in g/cm³

Note that the density is normally set to 1 (or 1.06), to account for actual brain density rather than the density of the simulation liquid.

8. Position of the wireless device in relation to the phantom

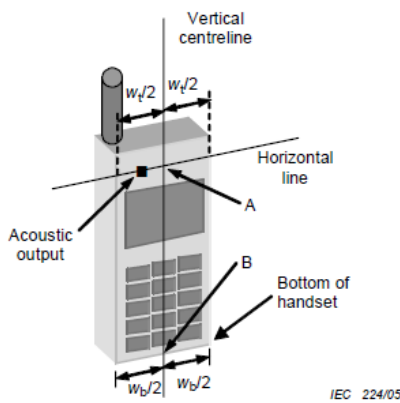
8.1. Head Position

The wireless device define two imaginary lines on the handset, the vertical centreline and the horizontal line, for the handset in vertical orientation as shown in Figures 5a and 5b.

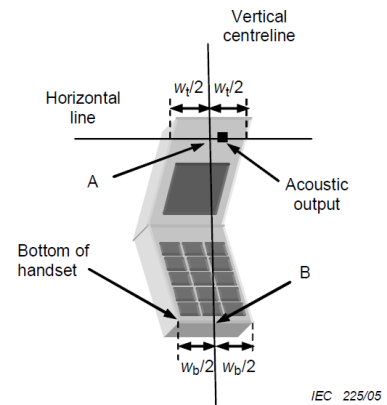
The vertical centreline passes through two points on the front side of the handset: the midpoint of the width W_t of the handset at the level of the acoustic output (point A in Figures 5a and 5b), and the midpoint of the width W_b of the bottom of the handset (point B).

The horizontal line is perpendicular to the vertical centreline and passes through the centre of the acoustic output (see Figures 5a and 5b). The two lines intersect at point A.

Note that for many handsets, point A coincides with the centre of the acoustic output. However, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centreline is not necessarily parallel to the front face of the handset (see Figure 5b), especially for clam-shell handsets, handsets with flip cover pieces, and other irregularly shaped handsets.



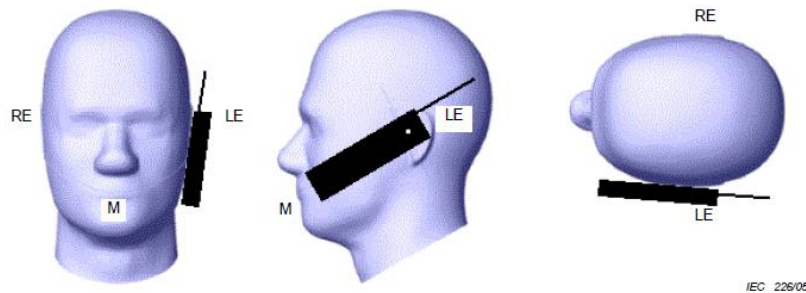
Figures 5a



Figures 5b

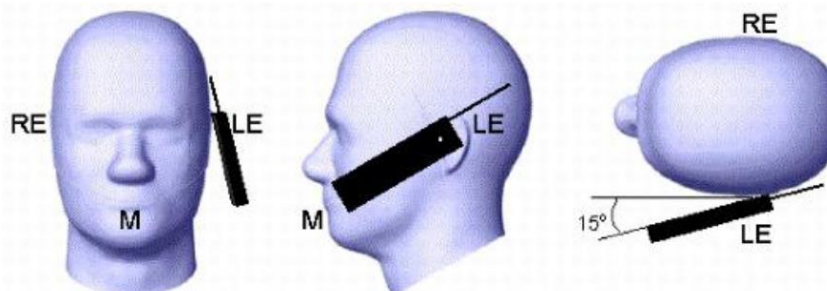
- W_t Width of the handset at the level of the acoustic
- W_b Width of the bottom of the handset
- A Midpoint of the width w_t of the handset at the level of the acoustic output
- B Midpoint of the width w_b of the bottom of the handset

Cheek position



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

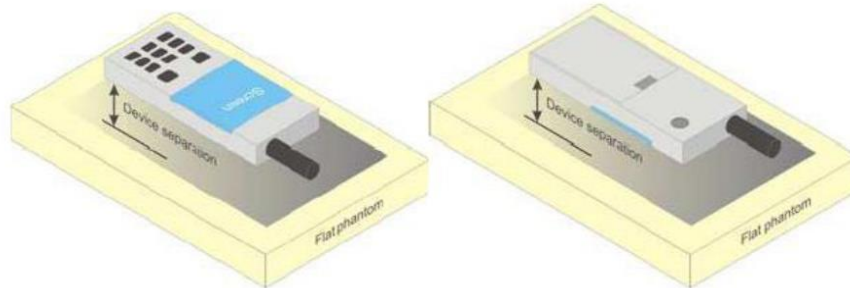
Tilt position



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

8.2. Body Position

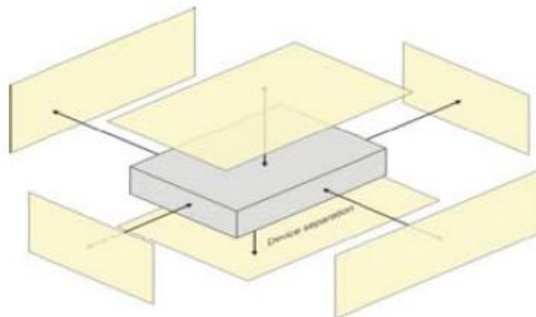
Devices that support transmission while used with body-worn accessories must be tested for body-worn accessory SAR compliance, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics. Devices that are designed to operate on the body of users using lanyards and straps or without requiring additional body-worn accessories must be tested for SAR compliance using a conservative minimum test separation distance ≤ 10 mm to support compliance.



Picture 4 Test positions for body-worn devices

8.3. Hotspot Mode Exposure conditions

The hotspot mode and body-worn accessory SAR test configurations may overlap for handsets. When the same wireless mode transmission configurations for voice and data are required for SAR measurements, the more conservative configuration with a smaller separation distance should be tested for the overlapping SAR configurations. This typically applies to the back and front surfaces of a handset when SAR is required for both hotspot mode and body-worn accessory exposure conditions. Depending on the form factor and dimensions of a device, the test separation distance used for hotspot mode SAR measurement is either 10 mm or that used in the body-worn accessory configuration, whichever is less for devices with dimension > 9 cm x 5 cm. For smaller devices with dimensions ≤ 9 cm x 5 cm because of a greater potential for next to body use a test separation of ≤ 5 mm must be used.



Picture 5 Test positions for Hotspot Mode

9. System Check

9.1. Tissue Dielectric Parameters

The liquid is consisted of water,salt,Glycol,Sugar,Preventol and Cellulose.The liquid has previously been proven to be suited for worst-case. It's satisfying the latest tissue dielectric parameters requirements proposed by the KDB865664.

Tissue dielectric parameters for body		
Target Frequency (MHz)	Body	
	ϵ_r	σ (s/m)
750	55.5	0.96
835	55.2	0.97
1750	53.4	1.49
1800-2000	53.3	1.52
2450	52.7	1.95
2600	52.5	2.16

**Check Result:**

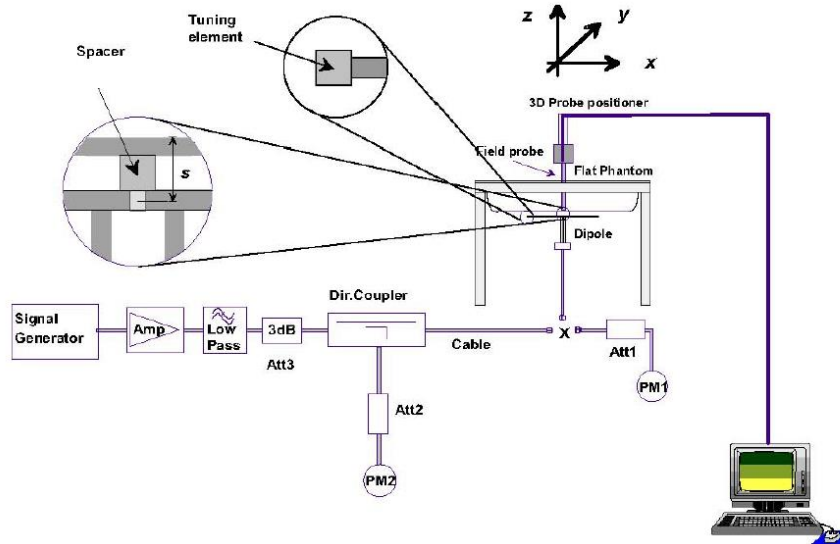
Dielectric performance of Body tissue simulating liquid									
Frequency (MHz)	ϵ_r		σ (s/m)		Delta (ϵ_r)	Delta (σ)	Limit	Temp (°C)	Date
	Target	Measured	Target	Measured					
750	55.50	55.65	0.96	0.93	0.27%	-3.12%	±5%	22	2019-12-06
750	55.50	55.63	0.96	0.92	0.23%	-4.17%	±5%	22	2019-12-09
835	55.20	55.40	0.97	0.97	0.36%	0.00%	±5%	22	2019-12-10
835	55.20	55.38	0.97	0.96	0.33%	-1.03%	±5%	22	2019-12-11
1750	53.40	53.91	1.49	1.44	0.96%	-3.36%	±5%	22	2019-12-12
1750	53.40	53.87	1.49	1.46	0.88%	-2.01%	±5%	22	2019-12-13
1900	53.30	53.72	1.52	1.55	0.79%	1.97%	±5%	22	2019-12-16
1900	53.30	53.66	1.52	1.52	0.68%	0.00%	±5%	22	2019-12-17
2450	52.70	53.03	1.95	2.00	0.63%	2.56%	±5%	22	2019-12-18
2600	52.51	52.78	2.16	2.15	0.51%	-0.46%	±5%	22	2019-12-19

9.2. SAR System Check

The purpose of the system check is to verify that the system operates within its specifications at the device test frequency. The system check is simple check of repeatability to make sure that the system works correctly at the time of the compliance test;

System check results have to be equal or near the values determined during dipole calibration with the relevant liquids and test system ($\pm 10\%$).

System check is performed regularly on all frequency bands where tests are performed with the DASY5 system.



System Performance Check Setup

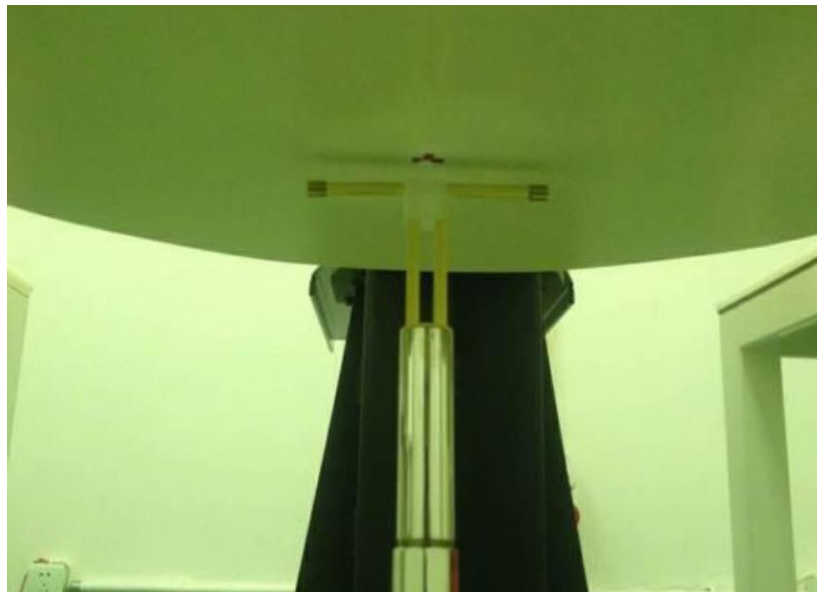


Photo of Dipole Setup

**Check Result:**

Body									
Frequency (MHz)	1g SAR		10g SAR		Delta (1g)	Delta (10g)	Limit	Temp (°C)	Date
	Target	Measured	Target	Measured					
750	2.16	2.10	1.45	1.40	-2.78%	-3.45%	±10%	22	2019-12-06
750	2.16	2.08	1.45	1.37	-3.70%	-5.52%	±10%	22	2019-12-09
835	2.36	2.52	1.57	1.66	6.78%	5.73%	±10%	22	2019-12-10
835	2.36	2.48	1.57	1.61	5.08%	2.55%	±10%	22	2019-12-11
1750	9.57	9.39	5.11	5.04	-1.88%	-1.37%	±10%	22	2019-12-12
1750	9.57	9.42	5.11	4.98	-1.57%	-2.54%	±10%	22	2019-12-13
1900	10.10	10.40	5.30	5.42	2.97%	2.26%	±10%	22	2019-12-16
1900	10.10	10.32	5.30	5.44	2.18%	2.64%	±10%	22	2019-12-17
2450	12.60	12.50	5.96	5.83	-0.79%	-2.18%	±10%	22	2019-12-18
2600	13.50	14.70	6.00	6.59	8.89%	9.83%	±10%	22	2019-12-19

Note:

1. the graph results see below.

System Performance Check at 750 MHz Body

DUT: D750V3; Type: D750V3; Serial: 1105

Date: 2019-12-06

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 750$ MHz; $\sigma = 0.931$ S/m; $\epsilon_r = 55.65$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(10.62, 10.62, 10.62); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/d=10mm,Pin=250mW/Area Scan (5x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.78 W/kg

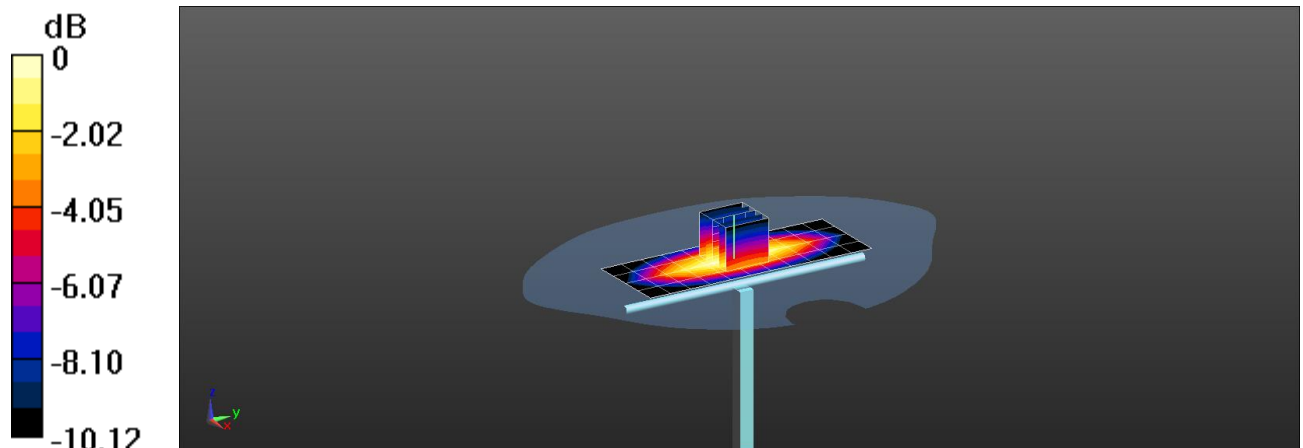
Body/d=10mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 57.056 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 3.18 W/kg

SAR(1 g) = 2.1 W/kg; SAR(10 g) = 1.4 W/kg

Maximum value of SAR (measured) = 2.81 W/kg



0 dB = 2.81 W/kg = 4.49 dBW/kg

System Performance Check at 750 MHz Body

DUT: D750V3; Type: D750V3; Serial: 1105

Date: 2019-12-09

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 750$ MHz; $\sigma = 0.922$ S/m; $\epsilon_r = 55.63$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(10.62, 10.62, 10.62); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/d=10mm,Pin=250mW/Area Scan (5x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.73 W/kg

Body/d=10mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

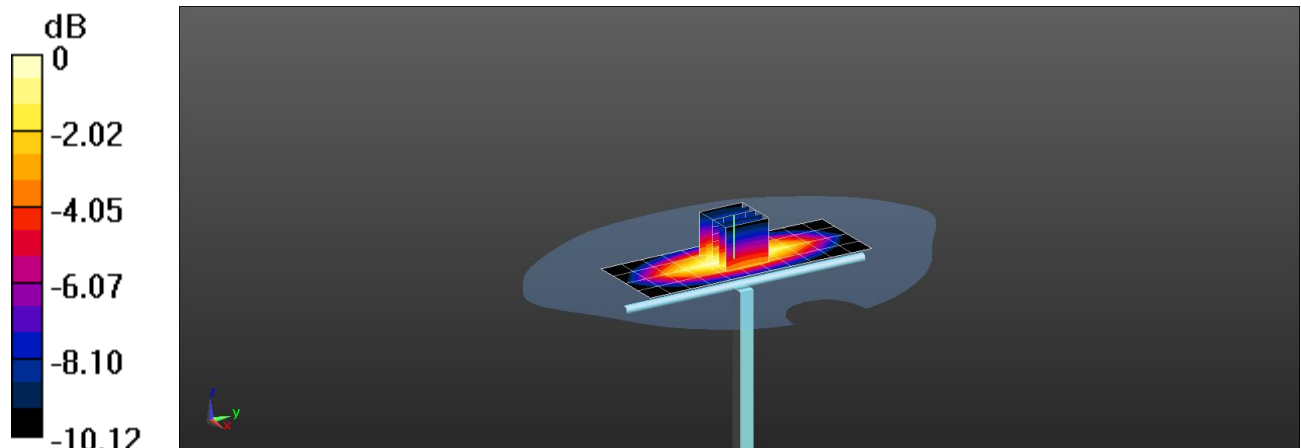
dy=8mm, dz=5mm

Reference Value = 56.213 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 3.04 W/kg

SAR(1 g) = 2.08 W/kg; SAR(10 g) = 1.37 W/kg

Maximum value of SAR (measured) = 2.72 W/kg



0 dB = 2.72 W/kg = 4.38 dBW/kg

System Performance Check at 835 MHz Body

DUT: D835V2; Type: D835V2; Serial: 4d134

Date: 2019-12-10

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835$ MHz; $\sigma = 0.966$ S/m; $\epsilon_r = 55.403$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(10.33, 10.33, 10.33); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/d=15mm, Pin=250mW/Area Scan (5x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 3.39 W/kg

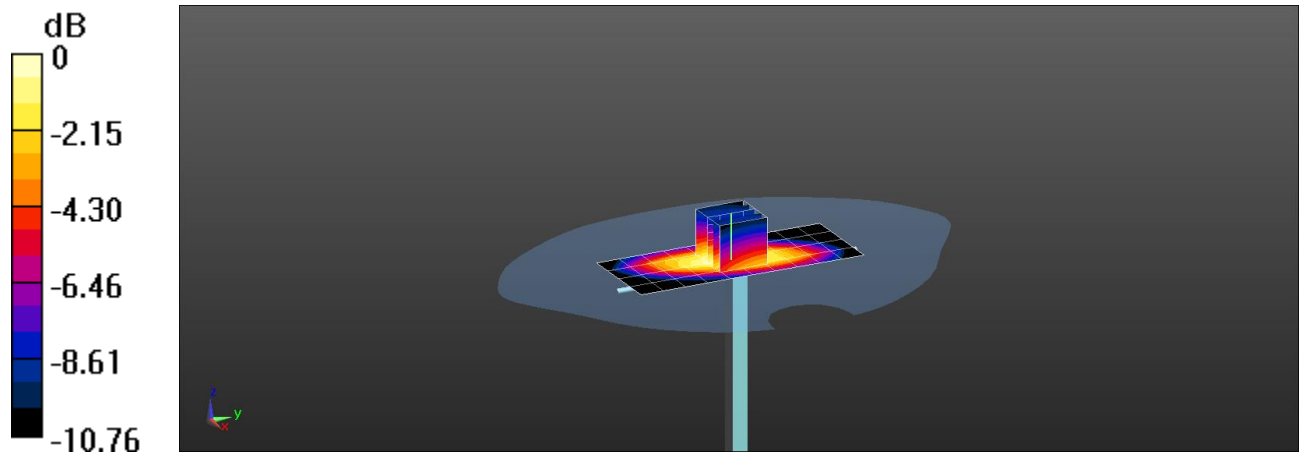
Body/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 61.674 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 3.97 W/kg

SAR(1 g) = 2.52 W/kg; SAR(10 g) = 1.66 W/kg

Maximum value of SAR (measured) = 3.44 W/kg



0 dB = 3.44 W/kg = 5.37 dBW/kg

System Performance Check at 835 MHz Body

DUT: D835V2; Type: D835V2; Serial: 4d134

Date: 2019-12-11

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835$ MHz; $\sigma = 0.961$ S/m; $\epsilon_r = 55.376$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(10.33, 10.33, 10.33); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/d=15mm,Pin=250mW/Area Scan (5x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 3.39 W/kg

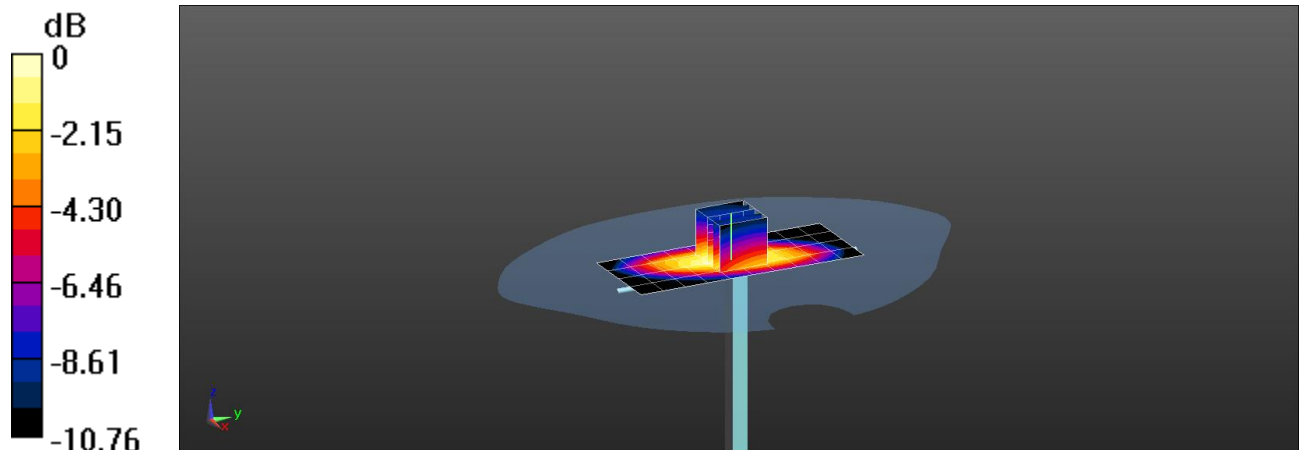
Body/d=15mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 61.542 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 3.65 W/kg

SAR(1 g) = 2.48 W/kg; SAR(10 g) = 1.61 W/kg

Maximum value of SAR (measured) = 3.31 W/kg



0 dB = 3.31 W/kg = 5.12 dBW/kg

System Performance Check at 1750 MHz Body

DUT: D1750V2; Type: D1750V2; Serial: 1110

Date: 2019-12-12

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.441$ S/m; $\epsilon_r = 53.908$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8.42, 8.42, 8.42); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/d=10mm,Pin=250mW/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 14.1 W/kg

Body/d=10mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

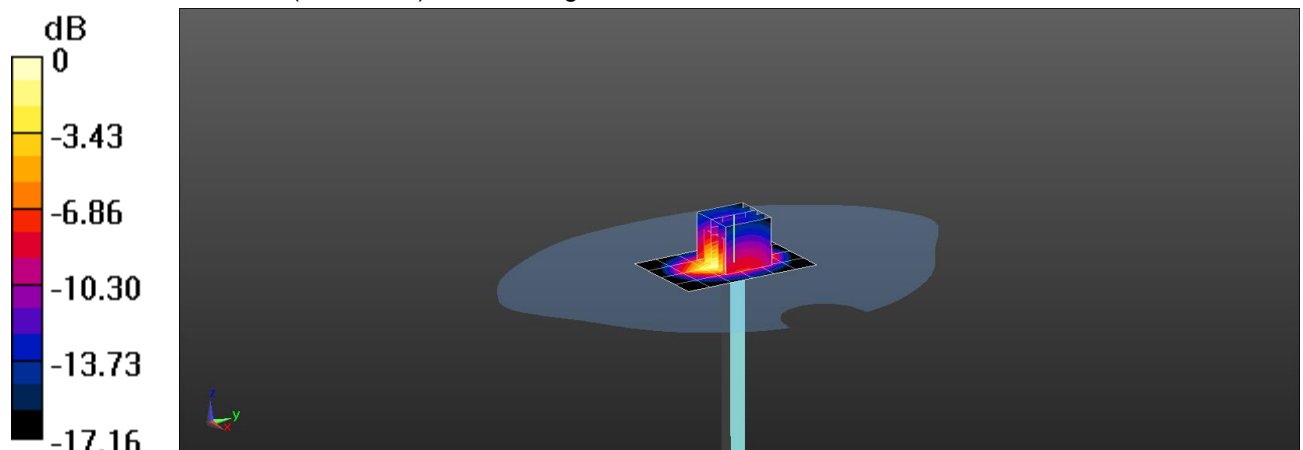
dy=8mm, dz=5mm

Reference Value = 102.2 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 16.8 W/kg

SAR(1 g) = 9.39 W/kg; SAR(10 g) = 5.04 W/kg

Maximum value of SAR (measured) = 14.1 W/kg



0 dB = 14.1 W/kg = 11.49 dBW/kg

System Performance Check at 1750 MHz Body

DUT: D1750V2; Type: D1750V2; Serial: 1110

Date: 2019-12-13

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.457$ S/m; $\epsilon_r = 53.868$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8.42, 8.42, 8.42); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/d=10mm,Pin=250mW/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 14.8 W/kg

Body/d=10mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

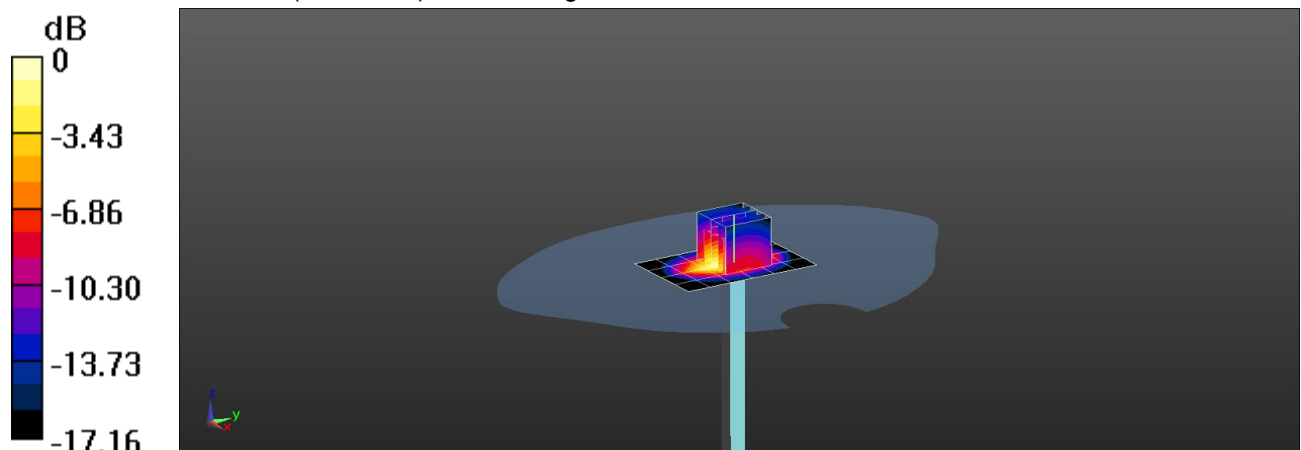
dy=8mm, dz=5mm

Reference Value = 103.4 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 16.721 W/kg

SAR(1 g) = 9.42 W/kg; SAR(10 g) = 5.98 W/kg

Maximum value of SAR (measured) = 3.31 W/kg



0 dB = 14.5 W/kg = 11.62 dBW/kg

System Performance Check at 1900 MHz Body

DUT: D1900V2; Type: D1900V2; Serial: 5d115

Date: 2019-12-16

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.553$ S/m; $\epsilon_r = 53.719$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8.09, 8.09, 8.09); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/d=10mm,Pin=250mW/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 16.3 W/kg

Body/d=10mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

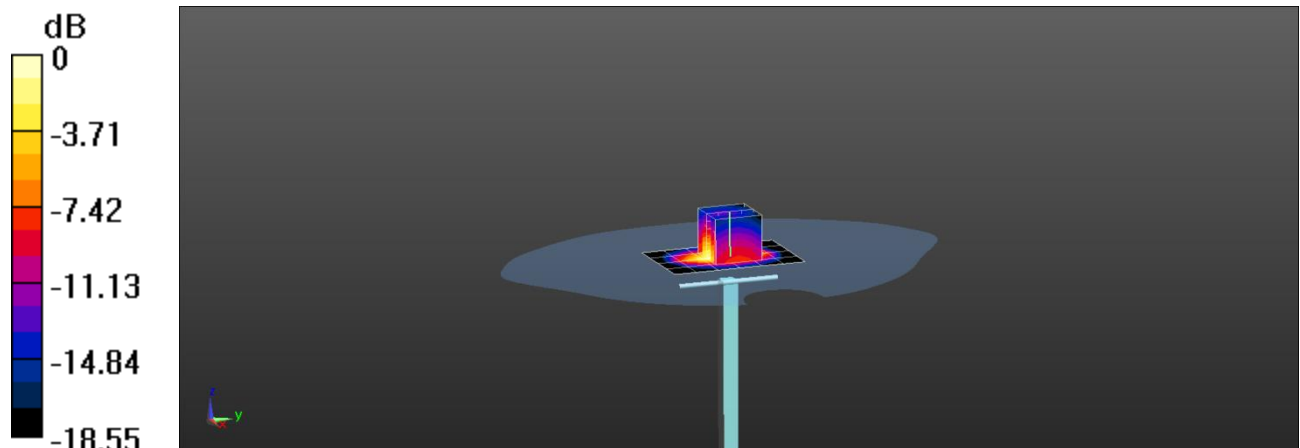
dy=8mm, dz=5mm

Reference Value = 105.9 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 18.9 W/kg

SAR(1 g) = 10.4 W/kg; SAR(10 g) = 5.42 W/kg

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



0 dB = 15.7 W/kg = 11.96 dBW/kg

System Performance Check at 1900 MHz Body

DUT: D1900V2; Type: D1900V2; Serial: 5d115

Date: 2019-12-17

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.522$ S/m; $\epsilon_r = 53.663$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8.09, 8.09, 8.09); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/d=10mm,Pin=250mW/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm

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

Body/d=10mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

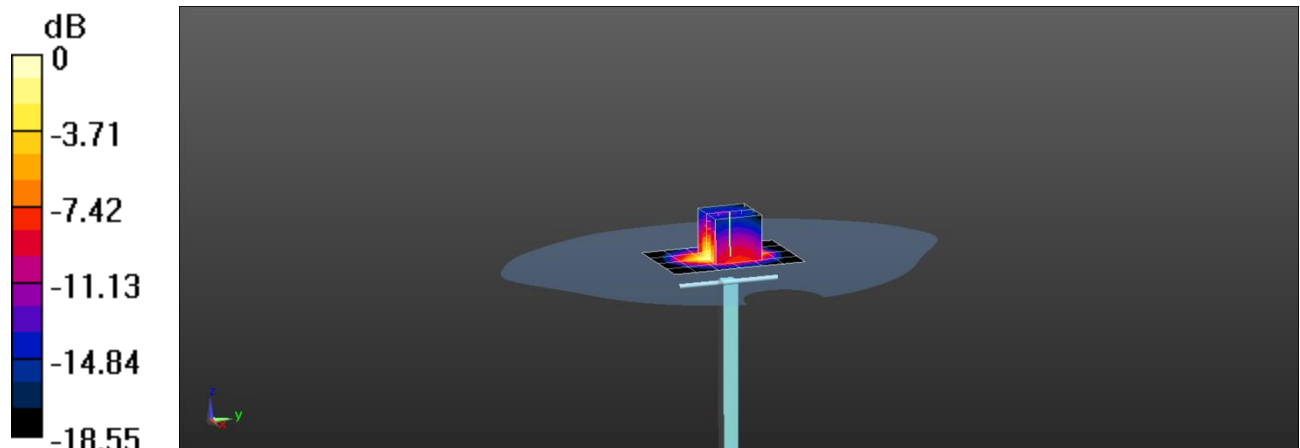
dy=8mm, dz=5mm

Reference Value = 104.3 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 18.2 W/kg

SAR(1 g) = 10.32 W/kg; SAR(10 g) = 5.44 W/kg

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



0 dB = 14.6 W/kg = 11.33 dBW/kg

System Performance Check at 2450 MHz Body

DUT: D2450V2; Type: D2450V2; Serial: 928

Date: 2019-12-18

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 2.001$ S/m; $\epsilon_r = 53.03$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8.00, 8.00, 8.00); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/d=10mm,Pin=250mW/Area Scan (5x7x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 21.1 W/kg

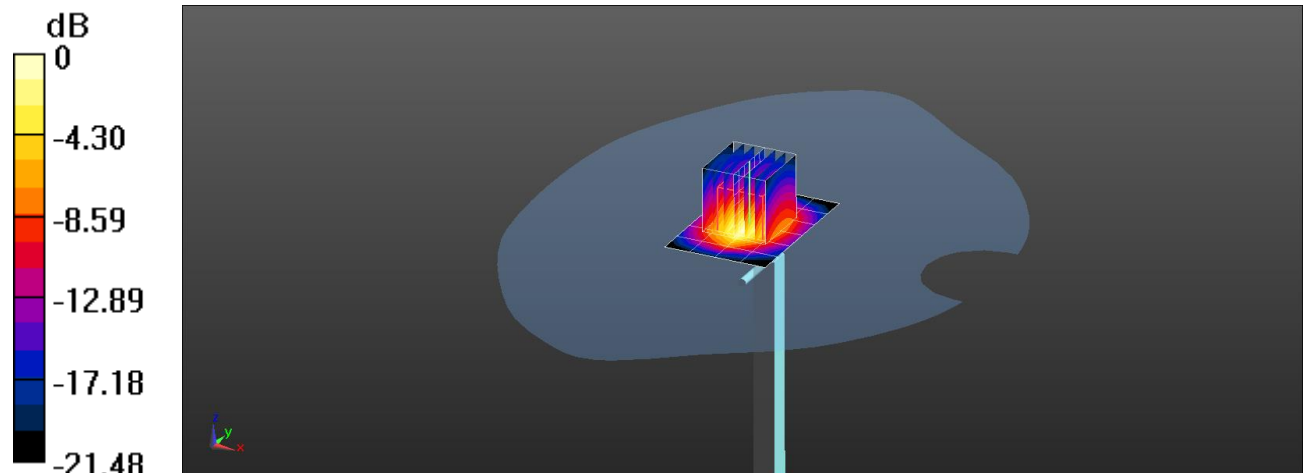
Body/d=10mm,Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 105.6 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 25.7 W/kg

SAR(1 g) = 12.5 W/kg; SAR(10 g) = 5.83 W/kg

Maximum value of SAR (measured) = 20.7 W/kg



0 dB = 20.7 W/kg = 13.16 dBW/kg

System Performance Check at 2600 MHz Body

DUT: D2600V2; Type: D2600V2; Serial: 1126

Date: 2019-12-19

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 2.15$ S/m; $\epsilon_r = 52.78$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(7.52, 7.52, 7.52); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

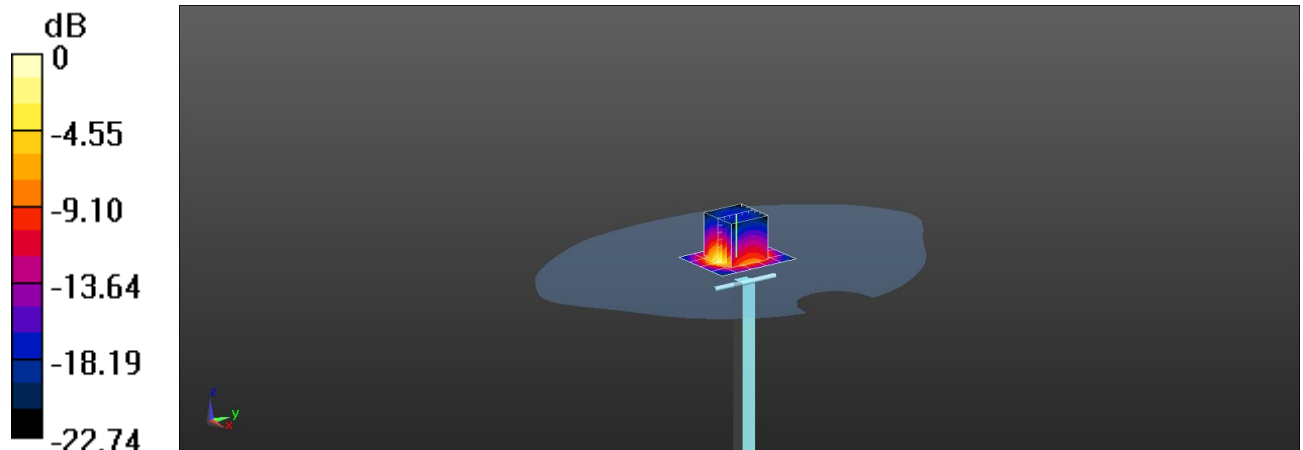
Body/d=10mm,Pin=250mW/Area Scan (5x6x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 22.6 W/kg**Body/d=10mm,Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 110.2 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 31.6 W/kg

SAR(1 g) = 14.7 W/kg; SAR(10 g) = 6.59 W/kg

Maximum value of SAR (measured) = 25.1 W/kg



0 dB = 25.1 W/kg = 14.00 dBW/kg

10. SAR Exposure Limits

SAR assessments have been made in line with the requirements of ANSI/IEEE C95.1-1992

Type Exposure	Limit (W/kg)	
	General Population / Uncontrolled Exposure Environment	Occupational / Controlled Exposure Environment
Spatial Average SAR (whole body)	0.08	0.4
Spatial Peak SAR (1g cube tissue for head and trunk)	1.6	8.0
Spatial Peak SAR (10g for limb)	4.0	20.0

Population/Uncontrolled Environments: are defined as locations where there is the exposure of individual who have no knowledge or control of their exposure.

Occupational/Controlled Environments: are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure (i.e. as a result of employment or occupation).

11. Conducted Power Measurement Results

GSM Conducted Power

1. Per KDB 447498 D01, the maximum output power channel is used for SAR testing and further SAR test reduction
2. Per KDB 941225 D01, considering the possibility of e.g. 3rd party VoIP operation for Head and Body-worn SAR test reduction for GSM and GPRS modes is determined by the source-base time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the EUT was set in GPRS (2Tx slots) for GSM850 and GPRS (2Tx slots) for PCS1900.
3. Per KDB941225 D01, for hotspot SAR test reduction for GPRS modes is determined by the source-based time-averaged output power including tune-up tolerance, For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the EUT was set in GPRS (2Tx slots) for GSM850 and GPRS (2Tx slots) for PCS1900.

Mode: GSM850		Conducted Power (dBm)			Division Factors	Averager Power (dBm)		
		CH128	CH190	CH251		CH128	CH190	CH251
		824.2MHz	836.6MHz	848.8MHz		824.2MHz	836.6MHz	848.8MHz
GPRS (GMSK)	1TXslot	30.86	30.89	30.99	-9.03	21.83	21.86	21.96
	2TXslots	29.80	29.83	29.65	-6.02	23.78	23.81	23.63
	3TXslots	27.92	27.91	28.01	-4.26	23.66	23.65	23.75
	4TXslots	26.07	26.87	26.68	-3.01	23.06	23.86	23.67
EGPRS (8PSK)	1TXslot	29.51	29.33	29.28	-9.03	20.48	20.30	20.25
	2TXslots	29.32	29.22	29.20	-6.02	23.30	23.20	23.18
	3TXslots	27.45	27.43	27.36	-4.26	23.19	23.17	23.10
	4TXslots	25.37	25.28	25.21	-3.01	22.36	22.27	22.20
Mode: PCS1900		Conducted Power (dBm)			Division Factors	Averager Power (dBm)		
		CH512	CH661	CH810		CH512	CH661	CH810
		1850.2MHz	1880.0MHz	1909.8MHz		1850.2MHz	1880.0MHz	1909.8MHz
GPRS (GMSK)	1TXslot	29.11	29.27	29.26	-9.03	20.08	20.24	20.23
	2TXslots	28.07	28.20	28.23	-6.02	22.05	22.18	22.21
	3TXslots	26.54	26.19	26.24	-4.26	22.28	21.93	21.98
	4TXslots	25.21	25.80	25.66	-3.01	22.20	22.79	22.65
EGPRS (8PSK)	1TXslot	29.04	28.80	28.82	-9.03	20.01	19.77	19.79
	2TXslots	27.56	27.24	27.34	-6.02	21.54	21.22	21.32
	3TXslots	25.69	25.39	25.43	-4.26	21.43	21.13	21.17
	4TXslots	23.75	23.50	23.39	-3.01	20.74	20.49	20.38

Note:

1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

WCDMA Conducted Power

1. The following tests were conducted according to the test requirements outlines in 3GPP TS34.121 specification.
2. The procedures in KDB 941225 D01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode to determine SAR test exclusion

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

- a) The EUT was connected to base station RS CMU200 referred to the setup configuration
- b) The RF path losses were compensated into the measurements
- c) A call was established between EUT and base station with following setting:
 - i. Set Gain Factors (β_c and β_d) and parameters were set according to each specific sub-test in the following table, C10.1.4, Quoted from the TS 34.121
 - ii. Set RMC 12.2Kbps + HSDPA mode
 - iii. Set Cell Power=-86dBm
 - iv. Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
 - v. Select HSDPA uplink parameters
 - vi. Set Delta ACK, Delta NACK and Delta CQI=8
 - vii. Set Ack-Nack repetition Factor to 3
 - viii. Set CQI Feedback Cycle (K) to 4ms
 - ix. Set CQI repetition factor to 2
 - x. Power ctrl mode= all up bits
- d) The transmitter maximum output power was recorded.

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note 1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: $\Delta_{ACK}, \Delta_{NACK}$ and $\Delta_{CQI} = 30/15$ with $\beta_{HS} = 30/15 * \beta_c$.

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, Δ_{ACK} and $\Delta_{NACK} = 30/15$ with $\beta_{HS} = 30/15 * \beta_c$, and $\Delta_{CQI} = 24/15$ with $\beta_{HS} = 24/15 * \beta_c$.

Note 3: CM = 1 for $\beta_c/\beta_d = 12/15, \beta_{HS}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$.

Setup Configuration

HSUPA Setup Configuration:

- a) The EUT was connected to base station RS CMU200 referred to the setup configuration
- b) The RF path losses were compensated into the measurements
- c) A call was established between EUT and base station with following setting:
 - i. Call configs = 5.2b, 5.9b, 5.10b, and 5.13.2B with QPSK
 - ii. Set Gain Factors (β_c and β_d) and parameters (AG index) were set according to each specific sub-test in the following table, C11.1.3, Quoted from the TS 34.121
 - iii. Set Cell Power=-86dBm
 - iv. Set channel type= 12.2Kbps + HSPA mode
 - v. Set UE Target power
 - vi. Set Ctrl mode=Alternating bits
 - vii. Set and observe the E-TFCI
 - viii. Confirm that E-TFCI is equal the target E-TFCI of 75 for Sub-test 1, and other subtest's E-TFCI
- d) The transmitter maximum output power was recorded.

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note 1)	β_{ec}	β_{ed} (Note 5) (Note 6)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 6)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/25	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	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	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15 (Note 4)	15/15 (Note 4)	64	15/15 (Note 4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: $\Delta_{ACK}, \Delta_{NACK}$ and $\Delta_{CQI} = 30/15$ with $\beta_{HS} = 30/15 * \beta_c$.

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

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

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

Note 5: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 6: β_{ed} can not be set directly, it is set by Absolute Grant Value.

Setup Configuration

General Note:

- Per KDB 941225 D01, SAR for Head / Hotspot / Body-worn Exposure is measured using a 12.2Kbps RMC with TPC bit configured to all 1s
- Per KDB 941225 D01 RMC 12.2Kbps setting is used to evaluate SAR. If the maximum output power and Tune-up tolerance specified for production units in HSDPA/HSUPA is $\leq 1/4$ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC 12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA to RMC 12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA.

Mode		WCDMA Band II			WCDMA Band IV			WCDMA Band V		
		Conducted Power (dBm)			Conducted Power (dBm)			Conducted Power (dBm)		
		CH9262	CH9400	CH9538	CH1312	CH1413	CH1513	CH4132	CH4183	CH4233
RMC 12.2K		1852.4	1880.0	1907.6	1712.40	1732.40	1752.60	826.40	836.60	846.60
HSDPA	Subtest-1	22.71	22.72	22.63	22.57	22.96	22.92	23.91	23.98	23.94
	Subtest-2	21.77	21.79	21.66	21.66	21.69	21.84	22.89	22.77	22.75
	Subtest-3	21.30	21.30	21.17	21.28	21.22	21.48	22.43	22.32	22.29
	Subtest-4	21.33	21.33	19.17	21.17	21.25	21.39	22.37	22.35	22.33
HSUPA	Subtest-1	21.27	21.34	19.34	21.16	21.27	21.42	22.37	22.37	22.33
	Subtest-2	21.71	21.87	21.79	21.35	20.82	20.85	22.74	22.29	22.56
	Subtest-3	20.54	20.73	20.41	20.02	20.31	20.37	21.95	21.87	21.71
	Subtest-4	20.64	20.83	20.01	19.44	19.84	20.46	21.54	21.49	21.35
	Subtest-5	21.39	21.37	21.25	20.72	20.91	21.01	22.39	22.30	22.11
	Subtest-5	21.89	21.80	21.29	21.17	21.36	21.32	23.01	22.92	22.85

**CDMA Conducted Power**

Band	Mode	Radio Configuration (RC)	Service Option (SO)	Ch No.	Freq. (MHz)	Conducted Power (dBm)
BC0 (850MHz)	1xRTT	RC1	2 (Loopback)	1013	824.70	23.65
				384	836.52	24.69
				777	848.31	23.19
			55 (Loopback)	1013	824.70	24.87
				384	836.52	23.58
				777	848.31	24.89
		RC2	9 (Loopback)	1013	824.70	23.11
				384	836.52	23.40
				777	848.31	24.43
			55 (Loopback)	1013	824.70	24.01
				384	836.52	24.88
				777	848.31	23.37
		RC3	2 (Loopback)	1013	824.70	24.09
				384	836.52	23.96
				777	848.31	24.40
			55 (Loopback)	1013	824.70	25.00
				384	836.52	24.45
				777	848.31	23.05
			32 (+ F-SCH)	1013	824.70	23.91
				384	836.52	24.79
				777	848.31	24.18
			32 (+ SCH)	1013	824.70	23.21
				384	836.52	24.24
				777	848.31	24.38



BC0 (850MHz)		RC4	2 (Loopback)	1013	824.70	24.84
				384	836.52	23.25
				777	848.31	24.11
			55 (Loopback)	1013	824.70	23.03
				384	836.52	24.10
				777	848.31	23.75
			32 (+ F-SCH)	1013	824.70	24.75
				384	836.52	24.72
				777	848.31	24.56
			32 (+ SCH)	1013	824.70	23.11
				384	836.52	23.47
				777	848.31	23.22
	RC5	9 (Loopback)	1013	824.70	24.46	
			384	836.52	23.17	
			777	848.31	23.81	
		55 (Loopback)	1013	824.70	23.49	
			384	836.52	23.57	
			777	848.31	23.86	
	1xAdvanced	RC11	2 (Loopback)	1013	824.70	24.63
				384	836.52	23.06
				777	848.31	24.90
			75 (Loopback)	1013	824.70	24.75
				384	836.52	23.09
				777	848.31	24.55
			32 (+ F-SCH)	1013	824.70	24.39
				384	836.52	24.55
				777	848.31	23.20
32 (+ SCH)			1013	824.70	24.29	
			384	836.52	23.18	
			777	848.31	23.35	
1xEVDO Rel. 0	FTAP Rate: 307.2 kbps(2 slot, QPSK)	RTAP Rate: 153.6 kbps	1013	824.70	24.85	
			384	836.52	24.31	
			777	848.31	23.36	
1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK	RETAP: 4096	1013	824.70	23.55	
			384	836.52	24.56	
			777	848.31	23.25	



	Mode	Radio Configuration (RC)	Service Option (SO)	Ch No.	Freq. (MHz)	Result(dBm)
BC1 (1900MHz)	1xRTT	RC1	2 (Loopback)	25	1851.25	24.84
				600	1880	24.90
				1175	1908.75	23.07
			55 (Loopback)	25	1851.25	24.35
				600	1880	24.47
				1175	1908.75	23.35
		RC2	9 (Loopback)	25	1851.25	23.77
				600	1880	23.41
				1175	1908.75	23.07
			55 (Loopback)	25	1851.25	24.63
				600	1880	23.73
				1175	1908.75	24.17
		RC3	2 (Loopback)	25	1851.25	23.88
				600	1880	24.15
				1175	1908.75	23.53
			55 (Loopback)	25	1851.25	23.37
				600	1880	24.70
				1175	1908.75	23.15
			32 (+ F-SCH)	25	1851.25	24.98
				600	1880	24.46
				1175	1908.75	23.48
			32 (+ SCH)	25	1851.25	24.47
				600	1880	24.66
				1175	1908.75	24.37



BC1 (1900MHz)	RC4	2 (Loopback)	25	1851.25	24.41		
			600	1880	23.31		
			1175	1908.75	23.19		
		55 (Loopback)	25	1851.25	23.06		
			600	1880	23.27		
			1175	1908.75	23.84		
		32 (+ F-SCH)	25	1851.25	24.88		
			600	1880	23.84		
			1175	1908.75	23.34		
		32 (+ SCH)	25	1851.25	24.53		
			600	1880	23.36		
			1175	1908.75	24.28		
		RC5	9 (Loopback)	25	1851.25	24.95	
				600	1880	24.57	
				1175	1908.75	24.93	
	55 (Loopback)		25	1851.25	24.49		
			600	1880	23.44		
			1175	1908.75	23.61		
	1xAdvanced	RC11	2 (Loopback)	25	1851.25	24.04	
				600	1880	23.26	
				1175	1908.75	24.34	
			75 (Loopback)	25	1851.25	23.92	
				600	1880	24.12	
				1175	1908.75	23.81	
		32 (+ F-SCH)	25	1851.25	23.97		
			600	1880	24.24		
			1175	1908.75	23.75		
		32 (+ SCH)	25	1851.25	23.67		
			600	1880	24.71		
			1175	1908.75	24.21		
		1xEVDO Rel. 0	FTAP Rate: 307.2kbps (2 slot,QPSK)	RTAP Rate: 153.6kbps	25	1851.25	23.19
					600	1880	23.23
					1175	1908.75	24.19
1xEVDO Rev. A	FETAP: 307.2k, QPSK/ ACK	RETAP: 4096	25	1851.25	23.40		
			600	1880	23.22		
			1175	1908.75	24.79		

LTE Conducted Power

General Note:

1. CMW500 base station simulator was used to setup the connection with EUT; the frequency band, channel, bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r03, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r03, 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 for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r03, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r03, 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 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.
6. Per KDB 941225 D05v02r03, 16QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r03, 16QAM SAR testing is not required.
7. Per KDB 941225 D05v02r03, smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r03, smaller bandwidth SAR testing is not required.

LTE-FDD Band 2				Actual output Power (dBm)			
Band-width	Modulation	RB allocation	RB offset	Low	Middle	High	
1.4	QPSK	1	Low	22.99	22.77	23.24	
			Middle	23.04	22.83	23.27	
			High	23.10	23.02	23.22	
		3	Low	23.05	22.81	23.01	
			Middle	22.82	22.82	22.93	
			High	22.88	23.06	23.01	
	6	/	21.94	21.93	22.15		
	16QAM	1	Low	22.13	21.92	22.16	
			Middle	22.13	22.10	22.44	
			High	22.22	21.96	22.38	
		3	Low	23.02	22.78	22.99	
			Middle	22.81	23.03	22.95	
			High	22.84	23.04	23.00	
		6	/	21.07	20.92	21.28	
		3	QPSK	1	Low	23.04	23.22
Middle					23.10	23.30	23.30
High	23.04				23.06	22.81	
8	Low			21.95	22.34	22.67	
	Middle			22.13	22.36	22.29	
	High			21.99	22.35	21.81	
15	/		22.22	22.29	22.52		
16QAM	1		Low	21.95	22.23	22.39	
			Middle	22.02	22.29	22.34	
			High	22.00	22.33	21.84	
	8		Low	22.16	22.35	22.68	
			Middle	22.02	22.36	22.28	
			High	21.69	22.36	21.80	
	15		/	21.30	21.19	21.20	

5	QPSK	1	Low	23.25	23.04	23.27	
			Middle	23.45	23.22	23.40	
			High	23.19	23.00	22.65	
		12	Low	22.15	22.38	22.59	
			Middle	22.26	22.37	22.51	
			High	22.26	22.38	22.47	
	25	/	22.34	22.31	22.43		
	16QAM	1	Low	21.98	22.29	22.63	
			Middle	22.11	22.31	22.52	
			High	22.04	22.18	21.77	
		12	Low	22.26	22.37	22.51	
			Middle	22.26	22.37	22.50	
High			22.27	22.37	22.35		
25		/	21.40	21.35	21.41		
10		QPSK	1	Low	23.24	23.05	23.46
				Middle	23.55	23.42	23.45
	High			23.27	23.32	22.03	
	25		Low	22.28	22.40	22.38	
			Middle	22.28	22.40	22.40	
			High	22.32	22.46	22.43	
	50	/	22.28	22.41	22.50		
	16QAM	1	Low	22.13	22.27	22.92	
			Middle	22.45	22.68	22.52	
			High	22.37	22.14	21.07	
		25	Low	22.28	22.40	22.40	
			Middle	22.28	22.40	22.40	
			High	22.31	22.45	22.32	
		50	/	21.18	21.23	21.31	

15	QPSK	1	Low	23.18	23.01	23.32	
			Middle	23.21	23.37	23.24	
			High	23.20	23.13	21.76	
		38	Low	22.04	22.28	22.50	
			Middle	22.21	22.29	22.37	
			High	21.99	21.49	20.80	
	75	/	22.16	22.27	22.20		
	16QAM	1	Low	22.09	22.31	22.52	
			Middle	22.23	22.21	22.89	
			High	21.82	22.25	20.79	
		38	Low	22.06	22.03	22.50	
			Middle	22.25	22.19	22.39	
High			21.98	21.48	20.78		
75		/	21.03	21.23	21.27		
20		QPSK	1	Low	22.76	23.22	22.72
				Middle	23.48	23.49	23.42
	High			22.78	22.70	21.30	
	50		Low	21.95	21.96	21.96	
			Middle	21.82	21.96	21.96	
			High	21.95	21.96	21.91	
	100	/	21.95	21.97	22.00		
	16QAM	1	Low	22.06	22.23	21.94	
			Middle	22.58	22.76	22.22	
			High	22.17	21.88	20.55	
		50	Low	21.83	21.96	21.96	
			Middle	21.81	21.97	21.96	
			High	21.94	21.95	22.06	
		100	/	20.95	20.93	20.94	

LTE-FDD Band 4				Actual output Power (dBm)			
Band-width	Modulation	RB allocation	RB offset	Low	Middle	High	
1.4	QPSK	1	Low	22.53	22.58	22.54	
			Middle	22.54	22.47	22.66	
			High	22.51	22.79	22.65	
		3	Low	22.34	22.75	22.81	
			Middle	22.39	22.62	22.79	
			High	22.38	22.84	22.85	
	6	/	21.51	21.58	21.95		
	16QAM	1	Low	21.64	21.70	21.66	
			Middle	21.95	21.90	22.36	
			High	21.72	21.73	21.79	
		3	Low	22.32	22.63	22.80	
			Middle	22.38	22.72	22.79	
			High	22.29	22.54	22.74	
		6	/	20.62	20.52	21.05	
		3	QPSK	1	Low	22.52	22.66
Middle					22.84	22.60	22.74
High	22.52				22.76	22.73	
8	Low			21.76	22.29	21.57	
	Middle			21.81	21.84	21.55	
	High			21.50	22.18	21.62	
15	/		21.83	21.85	21.70		
16QAM	1		Low	21.72	22.19	21.59	
			Middle	21.82	22.35	21.64	
			High	21.82	21.91	21.71	
	8		Low	21.76	21.79	21.58	
			Middle	21.80	22.22	21.65	
			High	21.82	21.92	21.79	
	15		/	20.70	20.70	20.82	

5	QPSK	1	Low	22.66	22.53	23.01	
			Middle	22.84	22.94	22.70	
			High	22.81	22.92	22.94	
		12	Low	21.67	21.95	21.89	
			Middle	21.77	21.94	21.90	
			High	21.82	21.99	21.91	
	25	/	21.84	21.85	21.92		
	16QAM	1	Low	21.84	21.99	21.68	
			Middle	21.91	22.26	21.88	
			High	21.57	22.05	21.84	
		12	Low	21.80	21.95	21.89	
			Middle	21.77	21.95	21.90	
High			21.82	21.99	21.90		
25		/	20.85	20.98	20.98		
10		QPSK	1	Low	22.03	22.03	22.26
				Middle	23.14	23.03	23.25
	High			22.33	22.07	22.10	
	25		Low	22.01	22.02	22.15	
			Middle	21.90	21.92	22.15	
			High	21.82	22.13	21.91	
	50	/	21.92	21.95	22.18		
	16QAM	1	Low	21.30	20.99	21.55	
			Middle	21.95	22.07	22.26	
			High	21.55	21.13	21.37	
		25	Low	21.88	21.92	22.15	
			Middle	21.89	21.91	22.15	
			High	21.82	22.02	21.91	
		50	/	20.75	20.90	21.17	

15	QPSK	1	Low	22.05	22.03	22.14	
			Middle	22.73	23.07	23.21	
			High	22.04	22.09	22.02	
		38	Low	21.36	21.00	21.41	
			Middle	21.65	22.11	22.50	
			High	21.37	21.11	21.33	
	75	/	21.86	21.92	22.12		
	16QAM	1	Low	21.36	21.00	21.41	
			Middle	21.74	22.10	22.06	
			High	21.36	21.11	21.31	
		38	Low	21.36	20.99	21.42	
			Middle	21.63	22.11	22.08	
High			21.36	21.12	21.33		
75		/	20.88	20.95	20.91		
20		QPSK	1	Low	22.19	21.78	21.91
				Middle	23.14	23.27	23.18
	High			21.85	21.99	21.96	
	50		Low	21.98	21.97	22.23	
			Middle	21.96	21.94	22.19	
			High	21.94	22.06	22.17	
	100	/	22.05	22.01	22.16		
	16QAM	1	Low	21.32	21.06	21.01	
			Middle	22.69	22.21	22.60	
			High	21.08	21.13	21.05	
		50	Low	21.93	21.96	22.20	
			Middle	21.93	21.95	22.23	
			High	21.94	22.17	22.12	
		100	/	21.03	21.02	21.16	

LTE-FDD Band 5				Actual output Power (dBm)			
Band-width	Modulation	RB allocation	RB offset	Low	Middle	High	
1.4	QPSK	1	Low	24.55	24.46	24.57	
			Middle	24.85	24.72	24.68	
			High	24.46	24.55	24.49	
		3	Low	24.54	24.67	24.63	
			Middle	24.55	24.49	24.42	
			High	24.55	24.65	24.29	
	6	/	23.64	23.58	23.56		
	16QAM	1	Low	23.65	23.87	23.87	
			Middle	23.87	24.03	23.91	
			High	23.59	23.96	23.69	
		3	Low	24.61	24.56	24.50	
			Middle	24.59	24.60	24.57	
			High	24.64	24.52	24.41	
		6	/	22.65	22.55	22.66	
		3	QPSK	1	Low	24.58	24.65
Middle					24.70	24.60	24.53
High	24.38				24.60	24.42	
8	Low			23.69	23.67	23.44	
	Middle			23.61	23.79	23.55	
	High			23.41	23.87	23.30	
15	/		23.72	23.66	23.55		
16QAM	1		Low	23.79	23.55	23.47	
			Middle	23.63	23.64	23.34	
			High	23.33	24.08	23.31	
	8		Low	23.69	23.66	23.48	
			Middle	23.64	23.68	23.32	
			High	23.40	24.04	23.32	
	15		/	22.60	22.50	22.62	

5	QPSK	1	Low	24.18	24.11	24.22	
			Middle	24.31	24.44	24.35	
			High	23.98	24.26	24.09	
		12	Low	23.26	23.40	23.39	
			Middle	23.30	23.37	23.37	
			High	23.29	23.28	23.35	
	25	/	23.28	23.37	23.33		
	16QAM	1	Low	22.89	23.25	23.42	
			Middle	22.92	23.31	23.53	
			High	22.87	23.35	23.30	
		12	Low	23.24	23.38	23.38	
			Middle	23.40	23.36	23.36	
High			23.25	23.28	23.35		
25		/	22.21	22.23	22.39		
10		QPSK	1	Low	24.34	24.43	24.35
				Middle	24.35	24.79	24.58
	High			24.37	24.48	24.23	
	25		Low	23.37	23.56	23.47	
			Middle	23.47	23.47	23.47	
			High	23.51	23.42	23.48	
	50		/	23.35	23.45	23.39	
	16QAM		1	Low	23.60	23.23	23.27
				Middle	23.76	23.68	23.57
		High		23.57	23.63	23.44	
		25	Low	23.48	23.47	23.47	
			Middle	23.47	23.47	23.47	
			High	23.51	23.43	23.48	
		50	/	22.52	22.56	22.38	

LTE-FDD Band 7				Actual output Power (dBm)			
Band-width	Modulation	RB allocation	RB offset	Low	Middle	High	
5	QPSK	1	Low	21.81	22.00	21.88	
			Middle	22.14	22.13	22.02	
			High	22.06	22.15	21.57	
		12	Low	21.10	21.35	21.11	
			Middle	21.08	21.27	21.11	
			High	21.17	21.31	21.09	
		25	/	21.21	21.19	21.14	
		16QAM	1	Low	21.03	21.09	20.52
				Middle	20.94	21.60	20.88
	High			21.10	21.18	20.33	
	12		Low	21.09	21.27	21.11	
			Middle	21.08	21.21	21.12	
			High	21.15	21.31	21.09	
	25	/	20.32	20.37	20.34		
	10	QPSK	1	Low	21.67	22.07	21.11
Middle				22.39	22.49	21.89	
High				21.99	22.35	20.78	
25			Low	21.27	21.30	21.67	
			Middle	21.25	21.29	21.25	
			High	21.29	21.44	21.15	
50			/	21.23	21.27	21.20	
16QAM			1	Low	20.91	21.00	20.37
				Middle	21.60	21.68	21.21
		High		21.35	21.54	20.37	
		25	Low	21.25	21.29	21.27	
			Middle	21.25	21.27	21.25	
			High	21.31	21.35	21.15	
50		/	20.45	20.33	20.36		

15	QPSK	1	Low	21.74	22.22	21.65
			Middle	21.89	22.32	21.91
			High	21.79	22.43	20.98
		38	Low	20.87	21.11	20.84
			Middle	21.11	21.52	21.21
			High	20.69	21.68	20.49
	75	/	21.14	21.36	21.44	
	16QAM	1	Low	20.92	21.18	20.89
			Middle	20.93	22.00	21.22
			High	20.93	21.73	20.31
		38	Low	20.74	21.12	20.84
			Middle	21.11	21.84	21.19
High			20.79	21.55	20.32	
75	/	20.31	20.42	20.31		
20	QPSK	1	Low	21.74	22.01	21.89
			Middle	22.36	22.53	22.25
			High	21.95	22.16	20.91
		50	Low	21.22	21.22	21.31
			Middle	21.23	21.21	21.23
			High	21.18	21.25	21.07
	100	/	21.22	21.26	21.15	
	16QAM	1	Low	20.96	21.18	21.12
			Middle	21.50	22.08	21.21
			High	21.15	21.44	20.46
		50	Low	21.11	21.21	21.31
			Middle	21.12	21.27	21.23
High			21.19	21.27	21.07	
100	/	20.42	20.30	20.50		

LTE-FDD Band 12				Actual output Power (dBm)			
Band-width	Modulation	RB allocation	RB offset	Low	Middle	High	
1.4	QPSK	1	Low	24.20	23.86	23.96	
			Middle	24.12	23.77	24.04	
			High	24.15	23.96	24.02	
		3	Low	23.90	23.99	24.24	
			Middle	24.08	23.95	24.28	
			High	23.98	23.97	24.10	
	6	/	22.94	23.07	23.17		
	16QAM	1	Low	23.24	23.11	23.55	
			Middle	23.48	23.28	23.83	
			High	23.39	23.09	23.76	
		3	Low	23.98	23.97	24.21	
			Middle	24.07	23.93	24.27	
			High	23.97	23.96	24.09	
		6	/	22.42	21.71	22.22	
		3	QPSK	1	Low	23.96	24.07
Middle					23.90	24.01	23.95
High	23.98				24.08	23.97	
8	Low			22.99	23.07	22.86	
	Middle			23.10	23.11	23.00	
	High			23.01	23.09	22.91	
15	/		23.10	23.22	23.11		
16QAM	1		Low	23.10	23.12	22.95	
			Middle	23.12	23.05	22.90	
			High	22.99	23.01	22.91	
	8		Low	23.23	23.12	22.87	
			Middle	23.05	23.10	22.99	
			High	23.02	23.09	22.70	
	15		/	21.91	21.95	22.08	



5	QPSK	1	Low	24.32	23.87	23.85	
			Middle	24.15	24.26	24.13	
			High	23.79	23.92	24.11	
		12	Low	23.13	23.06	23.15	
			Middle	23.05	23.10	23.07	
			High	22.97	23.10	23.03	
	25	/	23.05	23.13	23.16		
	16QAM	1	Low	23.09	23.28	22.69	
			Middle	22.84	23.20	22.61	
			High	23.03	23.17	22.68	
		12	Low	23.06	23.12	23.17	
			Middle	23.08	23.20	23.08	
High			22.94	23.12	23.09		
25		/	21.93	22.06	22.11		
10		QPSK	1	Low	23.95	23.77	23.90
				Middle	24.11	24.41	24.08
	High			23.91	23.88	23.85	
	25		Low	23.09	23.09	23.24	
			Middle	23.03	23.16	23.12	
			High	23.11	23.04	23.11	
	50	/	23.08	23.15	23.16		
	16QAM	1	Low	23.02	23.40	23.02	
			Middle	23.36	23.24	23.13	
			High	22.88	23.77	22.88	
		25	Low	23.01	23.17	23.27	
			Middle	23.03	23.15	23.13	
			High	23.11	23.06	23.16	
		50	/	21.97	22.07	22.02	

LTE-FDD Band 13				Actual output Power (dBm)			
Band-width	Modulation	RB allocation	RB offset	Low	Middle	High	
5	QPSK	1	Low	23.94	23.67	23.75	
			Middle	23.97	23.71	23.64	
			High	23.84	23.47	23.74	
		12	Low	23.05	22.85	22.60	
			Middle	22.97	22.81	22.64	
			High	22.80	22.70	22.70	
	25	/	22.94	22.80	22.63		
	16QAM	1	Low	23.11	22.88	22.47	
			Middle	22.76	22.51	22.28	
			High	22.78	22.56	22.21	
		12	Low	22.97	22.81	22.73	
			Middle	22.97	22.78	22.67	
			High	22.78	22.69	22.73	
		25	/	21.78	21.80	21.65	
		10	QPSK	1	Low	/	23.97
Middle					/	23.67	/
High	/				23.73	/	
25	Low			/	22.85	/	
	Middle			/	22.87	/	
	High			/	22.64	/	
50	/		/	22.82	/		
16QAM	1		Low	/	22.97	/	
			Middle	/	22.79	/	
			High	/	22.28	/	
	25		Low	/	22.86	/	
			Middle	/	22.87	/	
			High	/	22.66	/	
	50		/	/	21.57	/	



LTE-FDD Band 17				Actual output Power (dBm)			
Band-width	Modulation	RB allocation	RB offset	Low	Middle	High	
5	QPSK	1	Low	24.11	24.00	24.14	
			Middle	24.13	23.89	24.06	
			High	24.03	24.11	23.86	
		12	Low	23.03	22.97	23.14	
			Middle	22.90	22.96	23.09	
			High	23.02	22.99	23.07	
		25	/	23.01	23.01	23.17	
		16QAM	1	Low	22.92	23.00	22.57
				Middle	23.13	23.12	22.79
	High			22.90	23.02	22.43	
	12		Low	22.91	22.97	23.08	
			Middle	22.87	22.97	23.09	
			High	23.01	23.10	23.08	
	25	/	22.01	21.92	22.20		
	10	QPSK	1	Low	24.06	24.01	23.87
Middle				24.20	24.49	24.09	
High				24.10	24.05	23.79	
25			Low	23.16	23.04	23.21	
			Middle	23.23	23.17	23.15	
			High	23.31	23.19	23.16	
50			/	23.15	23.15	23.05	
16QAM			1	Low	23.26	23.24	22.87
				Middle	23.46	23.29	23.53
		High		23.25	23.35	22.97	
		25	Low	23.13	23.05	23.14	
			Middle	23.23	23.16	23.22	
			High	23.34	23.21	23.16	
50		/	22.25	22.05	22.10		

LTE-FDD Band 25				Actual output Power (dBm)			
Band-width	Modulation	RB allocation	RB offset	Low	Middle	High	
1.4	QPSK	1	Low	23.51	23.43	21.59	
			Middle	23.57	23.58	21.58	
			High	23.69	23.50	21.43	
		3	Low	23.59	23.69	21.53	
			Middle	23.58	23.47	21.50	
			High	23.65	23.61	21.41	
	6	/	22.70	22.56	21.45		
	16QAM	1	Low	22.80	22.98	20.67	
			Middle	22.99	22.65	20.79	
			High	22.71	22.79	20.58	
		3	Low	23.59	23.56	21.51	
			Middle	23.58	23.56	21.50	
			High	23.71	23.48	21.40	
		6	/	21.73	21.62	20.51	
		3	QPSK	1	Low	23.49	23.72
Middle					23.48	23.54	21.54
High	23.73				23.55	21.35	
8	Low			22.60	22.70	20.39	
	Middle			22.76	23.22	20.69	
	High			22.36	23.10	20.54	
15	/		22.65	22.59	21.40		
16QAM	1		Low	22.70	22.69	20.43	
			Middle	22.74	23.21	20.72	
			High	22.74	22.47	20.57	
	8		Low	22.61	22.69	20.37	
			Middle	22.76	22.56	20.70	
			High	22.36	22.47	20.54	
	15		/	21.56	21.51	20.39	

5	QPSK	1	Low	23.64	23.62	21.66	
			Middle	23.58	23.66	21.51	
			High	23.69	23.38	21.37	
		12	Low	22.62	22.67	21.31	
			Middle	22.63	22.77	21.26	
			High	22.64	22.55	21.37	
	25	/	22.64	22.53	21.26		
	16QAM	1	Low	22.68	22.60	20.64	
			Middle	22.57	23.08	20.49	
			High	22.67	22.85	20.45	
		12	Low	22.62	22.77	21.27	
			Middle	22.64	22.77	21.25	
High			22.64	22.55	21.37		
25		/	21.64	21.58	20.48		
10		QPSK	1	Low	23.62	23.64	22.84
				Middle	23.53	23.70	21.91
	High			23.42	23.48	20.64	
	25		Low	22.54	22.65	22.19	
			Middle	22.65	22.65	21.96	
			High	22.63	22.53	21.06	
	50		/	22.53	22.53	21.83	
	16QAM		1	Low	22.99	22.68	21.83
				Middle	22.91	22.63	21.10
		High		22.58	22.59	20.80	
		25	Low	22.66	22.65	21.97	
			Middle	22.65	22.64	21.95	
			High	22.62	22.43	21.05	
		50	/	21.65	21.61	20.85	



15	QPSK	1	Low	23.35	23.73	22.94	
			Middle	23.48	23.55	23.00	
			High	23.58	23.34	20.46	
		38	Low	22.15	22.88	22.38	
			Middle	22.59	23.17	21.86	
			High	22.29	22.48	20.61	
	75	/	22.64	22.53	22.03		
	16QAM	1	Low	22.53	23.16	22.11	
			Middle	22.60	22.81	21.77	
			High	22.54	22.43	20.61	
		38	Low	22.15	22.90	22.12	
			Middle	22.59	23.21	21.86	
High			22.60	22.48	20.60		
75		/	21.62	21.52	20.84		
20		QPSK	1	Low	23.50	23.70	22.87
				Middle	23.73	23.75	23.24
	High			23.39	23.03	20.49	
	50		Low	22.64	22.68	22.08	
			Middle	22.64	22.71	22.08	
			High	22.73	22.55	21.84	
	100	/	22.69	22.49	22.11		
	16QAM	1	Low	22.82	22.51	21.98	
			Middle	23.52	22.45	22.55	
			High	22.89	22.15	20.45	
		50	Low	22.63	22.70	22.15	
			Middle	22.63	22.72	22.07	
			High	22.73	22.55	21.85	
		100	/	21.64	21.58	21.05	



LTE-FDD Band 26				Actual output Power (dBm)							
				814~824MHz			824~849MHz				
Band-width	Modulation	RB allocation	RB offset	Low	Middle	High	Low	Middle	High		
1.4	QPSK	1	Low	24.52	24.40	24.48	23.83	24.45	24.94		
			Middle	24.55	24.58	24.70	23.81	24.50	24.93		
			High	24.75	24.64	24.74	23.84	24.43	24.95		
		3	Low	24.47	24.56	24.52	23.91	24.77	24.92		
			Middle	24.53	24.37	24.41	23.98	24.66	24.93		
			High	24.59	24.39	24.45	23.83	24.45	24.95		
		6	/	23.70	23.57	23.60	23.05	23.69	23.99		
		16QAM	1	Low	23.69	23.56	23.98	23.01	23.65	24.26	
				Middle	23.94	23.67	24.22	23.23	24.11	24.32	
	High			23.74	24.20	23.81	23.11	24.09	24.30		
	3		Low	24.45	24.56	24.42	23.99	24.66	24.94		
			Middle	24.69	24.37	24.40	23.88	24.58	24.93		
			High	24.59	24.40	24.53	24.02	24.45	24.90		
	6		/	22.42	22.51	22.68	21.84	22.64	23.21		
	3		QPSK	1	Low	24.54	24.57	24.57	23.91	24.43	24.83
					Middle	24.62	24.54	24.48	23.64	24.55	24.73
		High			24.72	24.58	24.47	24.03	24.49	24.94	
		8		Low	23.81	23.66	23.50	23.04	23.99	23.89	
Middle				23.80	23.61	23.38	23.03	23.60	23.63		
High				23.43	23.88	23.45	23.09	23.54	23.64		
15		/		23.68	23.64	23.62	23.04	23.62	23.96		
16QAM		1		Low	23.72	23.53	23.98	23.04	23.37	23.72	
				Middle	23.77	23.60	23.42	23.03	23.58	23.64	
			High	23.78	23.57	23.42	22.96	23.52	23.61		
		8	Low	23.81	23.55	23.51	23.05	23.40	23.80		
			Middle	23.81	24.12	23.41	23.07	23.60	23.72		
			High	23.44	23.89	23.61	23.18	23.92	23.70		
		15	/	22.72	22.51	22.68	21.91	22.66	22.84		

5	QPSK	1	Low	24.54	24.60	24.65	23.93	24.24	24.73	
			Middle	24.81	24.45	24.68	24.01	24.51	24.81	
			High	24.48	24.48	24.74	23.97	24.41	24.61	
		12	Low	23.72	23.61	23.73	22.92	23.50	23.87	
			Middle	23.72	23.64	23.64	22.90	23.41	23.85	
			High	23.53	23.74	23.59	23.16	23.56	23.90	
		25	/	23.69	23.66	23.65	23.07	23.57	23.88	
		16QAM	1	Low	23.62	23.62	23.32	22.77	23.42	23.43
				Middle	23.74	23.57	23.29	23.18	23.74	23.59
	High			23.42	23.68	23.28	23.16	23.58	23.24	
	12		Low	23.72	23.60	23.64	22.91	23.50	23.86	
			Middle	23.81	23.58	23.74	23.00	23.42	23.86	
			High	23.55	23.77	23.51	23.14	23.47	23.90	
	25		/	22.53	22.68	22.70	22.00	22.63	23.03	
	10		QPSK	1	Low	/	24.55	/	23.64	24.21
Middle					/	24.82	/	24.13	24.61	24.87
High		/			24.32	/	24.26	24.52	24.68	
25		Low		/	23.74	/	23.10	23.39	23.69	
		Middle		/	23.78	/	23.14	23.32	23.78	
		High		/	23.60	/	23.40	23.56	23.94	
50		/		/	23.70	/	23.19	23.55	23.77	
16QAM		1		Low	/	23.83	/	22.83	23.66	23.58
				Middle	/	23.83	/	23.52	24.24	23.96
			High	/	23.76	/	23.47	23.81	23.96	
		25	Low	/	23.78	/	23.09	23.31	23.78	
			Middle	/	23.73	/	23.12	23.33	23.78	
			High	/	23.62	/	23.40	23.56	23.96	
50		/	/	22.65	/	22.13	22.56	22.79		



15	QPSK	1	Low	/	/	/	23.71	24.14	24.25	
			Middle	/	/	/	24.25	24.52	24.56	
			High	/	/	/	24.48	24.96	24.96	
		38	Low	/	/	/	22.65	22.91	23.45	
			Middle	/	/	/	23.30	23.72	23.58	
			High	/	/	/	23.56	23.93	23.79	
		75	/	/	/	/	23.30	23.55	23.70	
		16QAM	1	Low	/	/	/	22.89	22.92	23.34
				Middle	/	/	/	23.25	24.23	23.40
	High			/	/	/	23.54	23.92	23.73	
	38		Low	/	/	/	22.48	22.89	23.40	
			Middle	/	/	/	23.28	24.22	23.63	
			High	/	/	/	23.58	23.90	23.78	
	75	/	/	/	/	22.40	22.54	22.67		



LTE-FDD Band 30				Actual output Power (dBm)			
Band-width	Modulation	RB allocation	RB offset	Low	Middle	High	
5	QPSK	1	Low	22.36	22.18	22.34	
			Middle	22.56	22.60	22.39	
			High	22.18	22.10	22.12	
		12	Low	21.63	21.62	21.60	
			Middle	21.61	21.64	21.58	
			High	21.50	21.62	21.47	
	25	/	21.64	21.62	21.48		
	16QAM	1	Low	21.52	21.61	21.28	
			Middle	21.61	21.70	21.22	
			High	21.42	21.49	21.04	
		12	Low	21.61	21.65	21.58	
			Middle	21.60	21.64	21.58	
			High	21.58	21.62	21.47	
		25	/	20.50	20.71	20.52	
		10	QPSK	1	Low	/	22.60
Middle					/	22.64	/
High	/				22.42	/	
25	Low			/	21.72	/	
	Middle			/	21.70	/	
	High			/	21.52	/	
50	/		/	21.61	/		
16QAM	1		Low	/	21.85	/	
			Middle	/	21.67	/	
			High	/	21.39	/	
	25		Low	/	21.71	/	
			Middle	/	21.70	/	
			High	/	21.52	/	
	50		/	/	20.51	/	



LTE Band 41				Actual output Power (dBm)			
Band-width	Modulation	RB allocation	RB offset	Low	Middle	High	
5	QPSK	1	Low	22.04	22.55	21.25	
			Middle	22.21	22.25	21.23	
			High	21.89	22.47	20.88	
		12	Low	21.06	21.70	20.74	
			Middle	21.13	21.83	20.83	
			High	21.10	21.75	20.49	
		25	/	21.10	21.57	20.31	
		16QAM	1	Low	20.95	21.71	20.33
				Middle	21.34	21.83	20.81
	High			20.90	21.75	20.47	
	12		Low	20.95	21.79	20.72	
			Middle	21.23	21.83	20.94	
			High	20.89	21.75	20.49	
	25	/	20.32	20.50	20.21		
	10	QPSK	1	Low	22.12	22.53	21.21
Middle				22.28	22.76	21.23	
High				22.09	22.42	20.83	
25			Low	21.28	21.63	20.34	
			Middle	21.27	21.55	20.35	
			High	21.30	21.59	20.39	
50			/	21.20	21.53	20.33	
16QAM			1	Low	21.14	21.43	20.39
				Middle	21.42	22.31	20.44
		High		21.13	21.44	20.94	
		25	Low	21.17	21.63	20.35	
			Middle	21.16	21.55	20.36	
			High	21.27	21.61	20.39	
50		/	20.34	20.45	20.44		

15	QPSK	1	Low	21.91	22.53	21.53	
			Middle	21.98	22.49	21.24	
			High	21.76	22.36	20.88	
		38	Low	21.09	21.75	20.61	
			Middle	21.10	22.16	20.35	
			High	21.18	21.34	20.59	
	75	/	21.21	21.56	20.54		
	16QAM	1	Low	21.10	21.37	20.41	
			Middle	21.09	21.64	20.35	
			High	21.09	21.72	20.89	
		38	Low	21.09	21.76	20.61	
			Middle	21.18	21.68	20.35	
High			21.18	21.63	20.45		
75		/	20.56	20.52	20.32		
20		QPSK	1	Low	22.28	22.33	21.90
				Middle	22.62	22.89	21.94
	High			22.27	22.27	21.06	
	50		Low	21.22	21.58	20.77	
			Middle	21.21	21.60	20.78	
			High	21.27	21.61	20.37	
	100	/	21.32	21.63	20.67		
	16QAM	1	Low	21.63	21.12	21.08	
			Middle	22.09	21.73	21.24	
			High	21.66	21.12	20.30	
		50	Low	20.34	20.55	20.76	
			Middle	20.45	20.64	20.79	
			High	20.33	20.56	20.40	
		100	/	20.43	20.47	20.58	

LTE Band 66				Actual output Power (dBm)			
Band-width	Modulation	RB allocation	RB offset	Low	Middle	High	
1.4	QPSK	1	Low	23.76	23.87	23.89	
			Middle	23.84	24.05	23.89	
			High	23.79	24.05	23.82	
		3	Low	23.80	23.81	23.87	
			Middle	23.89	23.86	23.83	
			High	23.85	23.82	23.77	
	6	/	22.75	22.88	22.94		
	16QAM	1	Low	22.74	22.89	22.51	
			Middle	22.84	22.95	23.34	
			High	22.74	22.82	23.22	
		3	Low	23.09	22.73	22.99	
			Middle	23.35	22.69	23.08	
			High	22.92	22.56	23.12	
		6	/	21.98	22.10	22.08	
		3	QPSK	1	Low	23.98	23.72
Middle					23.70	23.84	23.88
High	23.56				23.74	23.61	
8	Low			22.83	22.94	22.95	
	Middle			22.85	22.89	22.96	
	High			22.87	23.00	22.88	
15	/		22.80	22.95	22.92		
16QAM	1		Low	23.15	22.63	22.75	
			Middle	23.11	22.65	22.73	
			High	22.56	22.63	22.71	
	8		Low	21.70	21.95	22.08	
			Middle	21.62	21.97	22.08	
			High	21.59	22.10	22.01	
	15		/	21.77	22.02	21.85	

5	QPSK	1	Low	23.83	23.46	24.08	
			Middle	23.65	23.96	23.67	
			High	23.38	23.70	23.84	
		12	Low	22.69	23.01	22.93	
			Middle	22.86	22.93	23.01	
			High	22.76	23.07	22.88	
	25	/	22.72	23.00	22.91		
	16QAM	1	Low	22.28	22.56	22.57	
			Middle	22.21	22.68	22.60	
			High	22.19	22.35	22.45	
		12	Low	21.80	21.82	21.96	
			Middle	21.64	21.80	22.00	
High			21.56	21.89	21.81		
25		/	21.99	22.04	21.85		
10		QPSK	1	Low	24.10	24.04	24.12
				Middle	23.96	24.15	24.28
	High			23.94	23.91	23.76	
	25		Low	22.94	22.95	23.07	
			Middle	22.96	23.04	23.11	
			High	22.97	23.05	22.92	
	50	/	22.95	23.18	22.98		
	16QAM	1	Low	23.17	22.83	23.07	
			Middle	23.29	22.55	22.82	
			High	23.34	22.53	22.84	
		25	Low	21.90	22.29	22.13	
			Middle	21.93	22.22	22.28	
			High	21.94	22.06	22.11	
		50	/	22.09	22.30	21.98	

15	QPSK	1	Low	23.91	24.08	23.99	
			Middle	23.95	24.13	23.91	
			High	23.95	23.84	23.73	
		38	Low	22.90	23.15	23.03	
			Middle	23.04	23.05	23.12	
			High	22.96	23.12	23.15	
	75	/	22.92	23.13	23.31		
	16QAM	1	Low	23.47	23.29	23.72	
			Middle	23.11	23.44	23.85	
			High	23.02	23.58	23.77	
		38	Low	21.85	22.29	22.12	
			Middle	22.00	22.08	22.20	
High			21.93	22.13	22.30		
75		/	21.89	22.04	22.16		
20		QPSK	1	Low	23.90	24.26	23.87
				Middle	24.14	24.10	23.80
	High			24.17	24.43	23.89	
	50		Low	23.13	23.20	22.98	
			Middle	23.10	23.22	23.07	
			High	23.09	23.09	23.18	
	100	/	23.10	23.11	23.06		
	16QAM	1	Low	22.93	22.91	22.99	
			Middle	22.65	23.29	23.11	
			High	22.87	22.84	23.00	
		50	Low	22.21	22.22	21.93	
			Middle	22.16	22.28	22.02	
			High	22.20	22.19	22.14	
		100	/	22.11	22.18	22.25	

LTE Band 71				Actual output Power (dBm)			
Band-width	Modulation	RB allocation	RB offset	Low	Middle	High	
5	QPSK	1	Low	22.46	22.42	22.72	
			Middle	22.58	22.82	22.87	
			High	22.74	22.68	22.72	
		12	Low	21.71	21.96	21.90	
			Middle	21.76	21.99	22.00	
			High	21.77	21.97	21.81	
		25	/	21.83	21.89	21.89	
		16QAM	1	Low	21.33	21.17	21.58
				Middle	21.29	21.35	21.50
	High			21.29	21.15	21.55	
	12		Low	20.78	20.88	20.72	
			Middle	20.83	20.91	20.60	
			High	20.83	20.80	20.67	
	25	/	21.07	20.86	20.84		
	10	QPSK	1	Low	22.59	22.88	22.75
Middle				22.81	23.39	22.96	
High				22.60	22.74	22.87	
25			Low	21.95	21.95	21.94	
			Middle	21.93	22.07	22.01	
			High	21.85	21.95	22.01	
50			/	21.86	21.93	21.95	
16QAM			1	Low	21.45	21.59	22.06
				Middle	22.21	22.46	22.02
		High		21.92	22.27	21.86	
		25	Low	20.93	20.97	20.96	
			Middle	21.06	21.07	21.08	
			High	20.93	20.84	20.94	
		50	/	20.81	21.06	20.89	

15	QPSK	1	Low	22.62	22.66	22.81	
			Middle	22.90	22.98	22.85	
			High	22.72	22.72	22.79	
		38	Low	21.82	22.00	21.92	
			Middle	21.98	22.10	22.06	
			High	21.85	21.90	21.95	
	75	/	21.85	21.95	21.90		
	16QAM	1	Low	21.49	22.00	22.68	
			Middle	22.01	22.33	22.89	
			High	21.71	22.32	22.72	
		38	Low	20.87	20.99	20.84	
			Middle	20.94	21.02	20.89	
High			20.82	20.91	20.88		
75		/	20.82	20.96	20.87		
20		QPSK	1	Low	22.30	22.93	22.54
				Middle	22.83	23.39	23.33
	High			22.72	23.05	22.88	
	50		Low	21.87	21.99	21.97	
			Middle	22.01	22.09	22.04	
			High	21.92	22.04	22.02	
	100	/	21.90	22.07	22.00		
	16QAM	1	Low	21.72	21.66	21.47	
			Middle	21.82	22.00	22.49	
			High	21.46	21.47	21.27	
		50	Low	20.96	21.00	20.82	
			Middle	21.00	21.09	20.99	
			High	21.01	20.93	20.86	
		100	/	20.89	20.94	20.86	

WLAN Conducted Power

For 2.4GHz WLAN SAR testing, highest average RF output power channel for the lowest data rate for 802.11b were for SAR evaluation. 802.11g/n were not investigated since the average putput powers over all channels and data rates were not more than 0.25dB higher than the tested channel in the lowest data rate of 802.11b mode.

WIFI 2.4G			
Mode	Channel	Frequency (MHz)	Conducted Average Power (dBm)
802.11b	01	2412	14.28
	06	2437	14.41
	11	2462	13.09
802.11g	01	2412	7.92
	06	2437	4.14
	11	2462	6.18
802.11n(HT20)	01	2412	8.30
	06	2437	5.17
	11	2462	6.15
802.11n(HT40)	03	2422	2.75
	06	2437	0.77
	09	2452	1.49

Note:The output power was test all data rate and recorded worst case at recorded data rate.

12. Maximum Tune-up Limit

GSM		
Mode	Maximum Tune-up (dBm)	
	GSM850	PCS1900
GPRS (GMSK, 1Tx Slot)	31.00	29.50
GPRS (GMSK, 2Tx Slot)	30.00	28.50
GPRS (GMSK, 3Tx Slot)	28.00	27.00
GPRS (GMSK, 4Tx Slot)	27.00	26.00
EGPRS (8PSK, 1Tx Slot)	30.00	29.50
EGPRS (8PSK, 2Tx Slot)	29.50	27.50
EGPRS (8PSK, 3Tx Slot)	27.50	26.00
EGPRS (8PSK, 4Tx Slot)	25.50	24.00

WCDMA			
Mode	Maximum Tune-up (dBm)		
	WCDMA Band II	WCDMA Band IV	WCDMA Band V
RMC 12.2Kbps	23.00	23.00	24.00
HSDPA Subtest-1	22.00	22.00	23.00
HSDPA Subtest-2	21.50	21.50	22.50
HSDPA Subtest-3	21.50	21.50	22.50
HSDPA Subtest-4	21.50	21.50	22.50
HSUPA Subtest-1	22.00	21.50	23.00
HSUPA Subtest-2	21.00	20.50	22.00
HSUPA Subtest-3	21.00	20.50	22.00
HSUPA Subtest-4	21.50	21.50	22.50
HSUPA Subtest-5	22.00	21.50	23.50

CDMA		
Band	Mode	Maximum Tune-up (dBm)
CDMA BC0	1xRTT	25.00
	1xEVDO Rel. 0	25.00
	1xEVDO Rev. A	25.00
	1xAdvanced	25.00
CDMA BC1	1xRTT	25.00
	1xEVDO Rel. 0	25.00
	1xEVDO Rev. A	24.50
	1xAdvanced	25.00



LTE				
Frequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
LTE Band 2	1.4	QPSK	1	23.50
			3	23.50
			6	22.50
		16QAM	1	22.50
			3	23.50
			6	21.50
	3	QPSK	1	23.50
			8	23.00
			15	23.00
		16QAM	1	22.50
			8	23.00
			15	21.50
	5	QPSK	1	23.50
			12	23.00
			25	22.50
		16QAM	1	23.00
			12	23.00
			25	21.50
	10	QPSK	1	23.50
			25	22.50
			50	22.50
		16QAM	1	23.00
			25	22.50
			50	21.50
15	QPSK	1	23.50	
		38	22.50	
		75	22.50	
	16QAM	1	23.00	
		38	22.50	
		75	21.50	
20	QPSK	1	23.50	
		50	22.00	
		100	22.00	
	16QAM	1	23.00	
		50	22.00	
		100	21.00	



LTE				
Frequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
LTE Band 4	1.4	QPSK	1	23.00
			3	23.00
			6	22.00
		16QAM	1	22.50
			3	23.00
			6	21.50
	3	QPSK	1	23.00
			8	22.50
			15	22.00
		16QAM	1	22.50
			8	22.50
			15	21.00
	5	QPSK	1	23.00
			12	22.00
			25	22.00
		16QAM	1	22.50
			12	22.00
			25	21.00
	10	QPSK	1	23.50
			25	22.50
			50	22.00
		16QAM	1	22.50
			25	22.50
			50	21.50
15	QPSK	1	23.50	
		38	22.50	
		75	22.00	
	16QAM	1	22.50	
		38	22.50	
		75	21.00	
20	QPSK	1	23.50	
		50	22.50	
		100	22.50	
	16QAM	1	23.00	
		50	22.50	
		100	21.50	



LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
LTE Band 5	1.4	QPSK	1	25.00
			3	25.00
			6	24.00
		16QAM	1	24.50
			3	25.00
			6	23.00
	3	QPSK	1	25.00
			8	24.00
			15	24.00
		16QAM	1	24.00
			8	24.50
			15	23.00
	5	QPSK	1	24.50
			12	23.50
			25	23.50
		16QAM	1	23.50
			12	23.50
			25	22.50
	10	QPSK	1	25.00
			25	24.00
			50	23.50
16QAM		1	24.00	
		25	23.50	
		50	23.00	

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
LTE Band 7	5	QPSK	1	22.50
			12	21.50
			25	21.50
		16QAM	1	22.00
			12	21.50
			25	20.50
	10	QPSK	1	22.00
			25	22.00
			50	21.50
		16QAM	1	22.00
			25	21.50
			50	20.50
	15	QPSK	1	22.50
			38	22.00
			75	21.50
		16QAM	1	22.00
			38	22.00
			75	21.50
	20	QPSK	1	23.00
			50	21.50
			100	21.50
16QAM		1	22.50	
		50	21.50	
		100	20.50	



LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
LTE Band 12	1.4	QPSK	1	24.50
			3	24.50
			6	23.50
		16QAM	1	24.00
			3	24.00
			6	22.50
	3	QPSK	1	24.50
			8	23.50
			15	23.50
		16QAM	1	23.50
			8	23.50
			15	22.50
	5	QPSK	1	24.50
			12	23.50
			25	23.50
		16QAM	1	23.50
			12	23.50
			25	22.50
	10	QPSK	1	24.50
			25	23.50
			50	23.50
16QAM		1	23.50	
		25	23.50	
		50	22.50	

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
LTE Band 13	5	QPSK	1	24.00
			12	23.50
			25	23.00
		16QAM	1	23.50
			12	23.00
			25	22.00
	10	QPSK	1	24.00
			25	23.00
			50	23.00
		16QAM	1	23.00
			25	23.00
			50	22.00

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
LTE Band 17	5	QPSK	1	24.50
			12	23.50
			25	23.50
		16QAM	1	23.50
			12	23.50
			25	22.50
	10	QPSK	1	24.50
			25	23.50
			50	23.50
		16QAM	1	23.50
			25	23.50
			50	22.50

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
LTE Band 25	1.4	QPSK	1	24.00
			3	24.00
			6	23.00
		16QAM	1	23.00
			3	24.00
			6	22.00
	3	QPSK	1	24.00
			8	23.50
			15	23.00
		16QAM	1	23.50
			8	23.00
			15	22.00
	5	QPSK	1	24.00
			12	23.00
			25	23.00
		16QAM	1	23.00
			12	23.00
			25	22.00
	10	QPSK	1	24.00
			25	23.00
			50	23.00
		16QAM	1	23.00
			25	23.00
			50	22.00
15	QPSK	1	24.00	
		38	23.00	
		75	23.00	
	16QAM	1	23.50	
		38	23.00	
		75	22.00	
20	QPSK	1	24.00	
		50	23.00	
		100	23.00	
	16QAM	1	24.00	
		50	23.00	
		100	22.00	



LTE					
Frequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)	
				814~824MHz	824~849MHz
LTE Band 26	1.4	QPSK	1	25.00	25.00
			3	25.00	25.00
			6	24.00	24.00
		16QAM	1	24.00	24.50
			3	25.00	25.00
			6	23.00	23.50
	3	QPSK	1	25.00	25.00
			8	24.00	24.00
			15	24.00	24.00
		16QAM	1	24.00	24.00
			8	24.00	24.00
			15	23.00	23.00
	5	QPSK	1	25.00	25.00
			12	24.00	24.00
			25	24.00	24.00
		16QAM	1	24.00	24.00
			12	24.00	24.00
			25	23.00	23.50
	10	QPSK	1	25.00	25.00
			25	24.00	24.00
			50	24.00	24.00
		16QAM	1	24.00	24.00
			25	24.00	24.00
			50	23.00	23.00
	15	QPSK	1	/	25.00
			38	/	24.00
			75	/	24.00
16QAM		1	/	24.00	
		38	/	24.50	
		75	/	23.00	



LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
LTE Band 30	5	QPSK	1	23.00
			12	22.00
			25	22.00
		16QAM	1	22.00
			12	22.00
			25	21.00
	10	QPSK	1	23.00
			25	22.00
			50	22.00
		16QAM	1	22.00
			25	22.00
			50	21.00



LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
LTE Band 41	5	QPSK	1	23.00
			12	22.00
			25	22.00
		16QAM	1	22.00
			12	22.00
			25	20.50
	10	QPSK	1	23.00
			25	22.00
			50	22.00
		16QAM	1	22.50
			25	22.00
			50	20.50
	15	QPSK	1	22.50
			38	22.50
			75	22.00
		16QAM	1	22.00
			38	22.00
			75	21.00
	20	QPSK	1	23.00
			50	22.00
			100	22.00
16QAM		1	22.50	
		50	21.00	
		100	21.00	

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
LTE Band 66	1.4	QPSK	1	24.50
			3	24.00
			6	23.00
		16QAM	1	23.50
			3	23.50
			6	22.50
	3	QPSK	1	24.00
			8	23.00
			15	23.00
		16QAM	1	23.50
			8	22.50
			15	22.50
	5	QPSK	1	24.50
			12	23.50
			25	23.00
		16QAM	1	23.00
			12	22.00
			25	22.50
	10	QPSK	1	24.50
			25	23.50
			50	23.50
		16QAM	1	23.50
			25	22.50
			50	22.50
15	QPSK	1	24.50	
		38	23.50	
		75	23.50	
	16QAM	1	23.50	
		38	22.50	
		75	22.50	
20	QPSK	1	24.50	
		50	23.50	
		100	23.50	
	16QAM	1	23.50	
		50	22.50	
		100	22.50	

LTE				
Frequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
LTE Band 71	5	QPSK	1	23.00
			12	22.00
			25	22.00
		16QAM	1	22.00
			12	21.00
			25	21.50
	10	QPSK	1	23.50
			25	22.50
			50	22.00
		16QAM	1	22.50
			25	21.50
			50	21.50
	15	QPSK	1	23.00
			38	22.50
			75	22.00
		16QAM	1	23.00
			38	21.50
			75	21.00
	20	QPSK	1	23.50
			50	22.50
			100	22.50
16QAM		1	22.50	
		50	21.50	
		100	21.00	

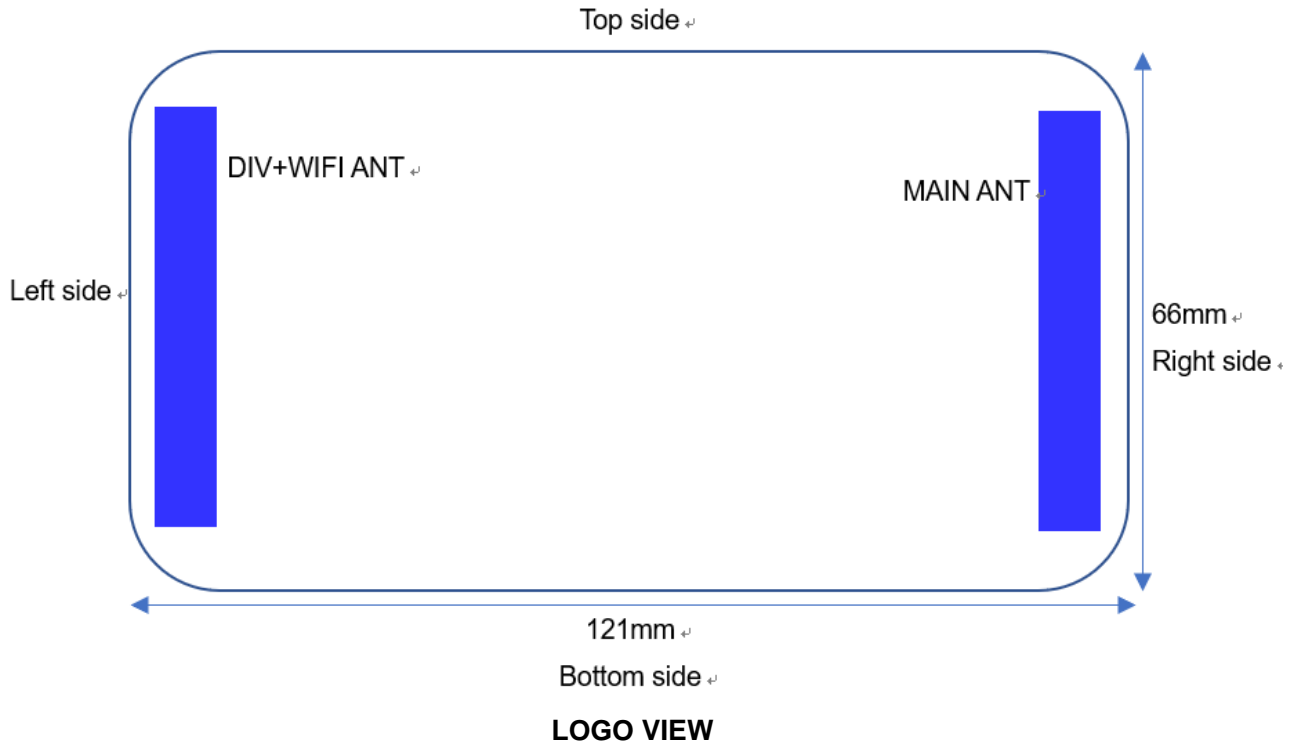
LTE MPR will followup 3GPP setting as below:

Modulation	Channel bandwidth / Transmission bandwidth (NRB)						MPR (dB)
	1.4MHz	3.0MHz	5MHz	10MHz	15MHz	20MHz	
QPSK	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	0
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	2



WIFI 2.4G	
Mode	Maximum Tune-up (dBm) Burst Average Power
802.11b	14.50
802.11g	8.00
802.11n(HT20)	8.50
802.11n(HT40)	3.00

13. Antenna Location



Distance of the Antenna to the EUT surface/edge(mm)						
Antenna	Front side	Back side	Top side	Bottom side	Left side	Right side
MAIN ANT	<25	<25	<25	<25	>25	<25
WIFI ANT	<25	<25	<25	<25	<25	>25
SAR Test for MAIN ANT	Yes	Yes	Yes	Yes	No	Yes
SAR Test for WIFI ANT	Yes	Yes	Yes	No	Yes	Yes

General note:

Referring to KDB941225 D06 , when the overall device length and width are >9cm*5cm, a test separation distance of 10 mm is required for hotspot mode SAR measurements; Hotspot mode SAR is measured for all edges and surfaces of the device with a transmitting antenna located within 25 mm from that surface or edge

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14. SAR Measurement Results

Body SAR

GSM850										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
GPRS (4Tx slot)	Front	128	824.2	26.07	27.00	1.24	-	-	-	-
		190	836.6	26.87	27.00	1.03	0.01	0.638	0.657	-
		251	848.8	26.68	27.00	1.08	-	-	-	-
	Back	128	824.2	26.07	27.00	1.24	-	-	-	-
		190	836.6	26.87	27.00	1.03	-0.03	0.735	0.757	B1
		251	848.8	26.68	27.00	1.08	-	-	-	-
	Right	190	836.6	26.87	27.00	1.03	-0.01	0.095	0.098	-
	Top	190	836.6	26.87	27.00	1.03	-0.11	0.142	0.146	-
	Bottom	190	836.6	26.87	27.00	1.03	-0.01	0.119	0.123	-

Note:

If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

GSM1900										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
GPRS (4Tx slot)	Front	512	1850.2	25.21	26.00	1.20	0.08	0.871	1.045	-
		661	1880.0	25.80	26.00	1.05	-0.01	1.040	1.092	B2
		810	1909.8	25.66	26.00	1.08	0.12	0.932	1.007	-
	Back	512	1850.2	25.21	26.00	1.20	0.11	0.892	1.070	-
		661	1880.0	25.80	26.00	1.05	-0.02	1.030	1.082	-
		810	1909.8	25.66	26.00	1.08	0.20	0.911	0.984	-
	Right	661	1880.0	25.80	26.00	1.05	-0.19	0.744	0.781	-
	Top	661	1880.0	25.80	26.00	1.05	0.09	0.511	0.537	-
	Bottom	661	1880.0	25.80	26.00	1.05	0,14	0.094	0.099	-

Note:

If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

WCDMA Band II										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
RMC 12.2Kbps	Front	9262	1852.4	22.71	23.00	1.07	-0.14	0.944	1.010	-
		9400	1880.0	22.72	23.00	1.07	0.06	1.000	1.070	B3
		9538	1907.6	22.63	23.00	1.09	-0.08	0.881	0.960	-
	Back	9262	1852.4	22.71	23.00	1.07	0.01	0.911	0.975	-
		9400	1880.0	22.72	23.00	1.07	0.06	0.923	0.988	-
		9538	1907.6	22.63	23.00	1.09	-0.12	0.872	0.950	-
	Right	9400	1880.0	22.72	23.00	1.07	-0.15	0.673	0.720	-
	Top	9400	1880.0	22.72	23.00	1.07	0.12	0.536	0.574	-
	Bottom	9400	1880.0	22.72	23.00	1.07	0.07	0.072	0.077	-

Note:

If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).



WCDMA Band IV										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
RMC 12.2Kbps	Front	1312	1712.4	22.57	23.00	1.10	-0.01	1.050	1.155	-
		1413	1732.4	22.96	23.00	1.01	0.00	1.340	1.353	B4
		1513	1752.6	22.92	23.00	1.02	0.03	1.210	1.234	-
	Back	1312	1712.4	22.57	23.00	1.10	0.13	1.010	1.111	-
		1413	1732.4	22.96	23.00	1.01	-0.06	1.310	1.323	-
		1513	1752.6	22.92	23.00	1.02	-0.09	1.170	1.193	-
	Right	1413	1732.4	22.96	23.00	1.01	0.18	0.675	0.682	-
	Top	1413	1732.4	22.96	23.00	1.01	0.04	0.640	0.646	-
Bottom	1413	1732.4	22.57	23.00	1.10	0.19	0.180	0.198	-	

Note:

If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

WCDMA Band V										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
RMC 12.2Kbps	Front	4132	826.4	23.91	24.00	1.02	-	-	-	-
		4183	836.6	23.98	24.00	1.00	0.01	0.726	0.726	-
		4233	846.6	23.94	24.00	1.01	-	-	-	-
	Back	4132	826.4	23.91	24.00	1.02	0.11	0.832	0.849	-
		4183	836.6	23.98	24.00	1.00	0.03	0.880	0.880	B5
		4233	846.6	23.94	24.00	1.01	0.06	0.846	0.854	-
	Right	4183	836.6	23.98	24.00	1.00	-0.15	0.125	0.125	-
	Top	4183	836.6	23.98	24.00	1.00	-0.13	0.257	0.257	-
	Bottom	4183	836.6	23.98	24.00	1.00	0.01	0.174	0.174	-

Note:

If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).



CDMA BC0										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
1xEVDO Rel. 0	Front	1013	824.70	24.85	25.00	1.04	0.15	0.677	0.792	-
		384	836.52	24.31	25.00	1.17	-	-	-	-
		777	848.31	23.36	25.00	1.46	-	-	-	-
	Back	1013	824.70	24.85	25.00	1.04	0.01	0.721	0.844	B6
		384	836.52	24.31	25.00	1.17	-	-	-	-
		777	848.31	23.36	25.00	1.46	-	-	-	-
	Right	384	824.70	24.85	25.00	1.04	0.06	0.331	0.344	-
	Top	384	824.70	24.85	25.00	1.04	0.17	0.124	0.129	-
Bottom	384	824.70	24.85	25.00	1.04	-0.05	0.028	0.029	-	

Note:

If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

CDMA BC1										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
1xRTT RC3	Front	25	1851.25	24.98	25.00	1.00	0.06	0.980	0.980	B7
		600	1880.00	24.46	25.00	1.13	0.11	0.811	0.916	-
		1175	1908.75	23.48	25.00	1.42	0.18	0.661	0.939	-
	Back	25	1851.25	24.98	25.00	1.00	-0.01	0.941	0.941	-
		600	1880.00	24.46	25.00	1.13	0.04	0.802	0.906	-
		1175	1908.75	23.48	25.00	1.42	-0.15	0.624	0.886	-
	Right	25	1851.25	24.98	25.00	1.00	0.07	0.413	0.413	-
	Top	25	1851.25	24.98	25.00	1.00	0.00	0.282	0.282	-
Bottom	25	1851.25	24.98	25.00	1.00	0.13	0.111	0.111	-	

Note:

If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

LTE Band 2										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
20M_1RB	Front	18700	1860.0	23.48	23.50	1.00	0.07	0.911	0.911	-
		18900	1880.0	23.49	23.50	1.00	-0.06	0.991	0.991	-
		19100	1900.0	23.42	23.50	1.02	0.13	0.895	0.913	-
	Back	18700	1860.0	23.48	23.50	1.00	0.15	1.100	1.100	-
		18900	1880.0	23.49	23.50	1.00	0.07	1.140	1.140	B8
		19100	1900.0	23.42	23.50	1.02	-0.18	0.977	0.997	-
	Right	18900	1880.0	23.49	23.50	1.00	0.11	0.613	0.613	-
	Top	18900	1880.0	23.49	23.50	1.00	0.15	0.374	0.374	-
Bottom	18900	1880.0	23.49	23.50	1.00	-0.02	0.085	0.085	-	
20M_50RB	Front	18700	1860.0	21.82	22.00	1.04	-	-	-	-
		18900	1880.0	21.96	22.00	1.01	0.09	0.656	0.663	-
		19100	1900.0	21.96	22.00	1.01	-	-	-	-
	Back	18700	1860.0	21.82	22.00	1.04	-	-	-	-
		18900	1880.0	21.96	22.00	1.01	0.12	0.711	0.718	-
		19100	1900.0	21.96	22.00	1.01	-	-	-	-
	Right	18900	1880.0	21.96	22.00	1.01	0.20	0.219	0.221	-
	Top	18900	1880.0	21.96	22.00	1.01	0.11	0.074	0.075	-
Bottom	18900	1880.0	21.96	22.00	1.01	0.06	0.005	0.005	-	

Note:

1. If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
2. Per KDB 941225 D05v02r03, 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 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.

LTE Band 4										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
20M_1RB	Front	20050	1720.0	23.14	23.50	1.09	0.11	0.971	1.058	-
		20175	1732.5	23.27	23.50	1.05	0.02	1.230	1.292	-
		20300	1745.0	23.18	23.50	1.08	0.04	0.983	1.062	-
	Back	20050	1720.0	23.14	23.50	1.09	0.14	1.000	1.090	-
		20175	1732.5	23.27	23.50	1.05	-0.07	1.250	1.313	B9
		20300	1745.0	23.18	23.50	1.08	0.01	1.020	1.102	--
	Right	20175	1732.5	23.27	23.50	1.05	0.08	0.692	0.727	
	Top	20175	1732.5	23.27	23.50	1.05	0.00	0.541	0.568	-
Bottom	20175	1732.5	23.27	23.50	1.05	-0.06	0.116	0.122	-	
20M_50RB	Front	20050	1720.0	21.98	22.50	1.13	-	-	-	-
		20175	1732.5	21.97	22.50	1.13	-	-	-	-
		20300	1745.0	22.23	22.50	1.06	-0.05	0.671	0.711	--
	Back	20050	1720.0	21.98	22.50	1.13	-	-	-	-
		20175	1732.5	21.97	22.50	1.13	-	-	-	-
		20300	1745.0	22.23	22.50	1.06	0.17	0.742	0.787	-
	Right	20300	1745.0	22.23	22.50	1.06	0.12	0.314	0.333	-
	Top	20300	1745.0	22.23	22.50	1.06	0.07	0.235	0.249	-
Bottom	20300	1745.0	22.23	22.50	1.06	-0.09	0.101	0.107	-	

Note:

1. If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
2. Per KDB 941225 D05v02r03, 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 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.

LTE Band 5										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
10M_1RB	Front	20450	829.0	24.35	25.00	1.16	0.09	0.914	1.060	B10
		20525	836.5	24.79	25.00	1.05	0.17	1.010	1.061	
		20600	844.0	24.58	25.00	1.10	0.10	0.946	1.041	
	Back	20450	829.0	24.35	25.00	1.16	0.02	0.822	0.954	
		20525	836.5	24.79	25.00	1.05	-0.08	0.970	1.019	
		20600	844.0	24.58	25.00	1.10	0.11	0.849	0.934	
	Right	20525	836.5	24.79	25.00	1.05	-0.02	0.108	0.113	
	Top	20525	836.5	24.79	25.00	1.05	0.14	0.323	0.339	
Bottom	20525	836.5	24.79	25.00	1.05	-0.15	0.173	0.182		
10M_25RB	Front	20450	829.0	23.37	24.00	1.16	-	-	-	
		20525	836.5	23.56	24.00	1.11	0.06	0.741	0.823	
		20600	844.0	23.47	24.00	1.13	-	-	-	
	Back	20450	829.0	23.37	24.00	1.16	-	-	-	
		20525	836.5	23.56	24.00	1.11	-0.05	0.680	0.755	
		20600	844.0	23.47	24.00	1.13	-	-	-	
	Right	20525	836.5	23.56	24.00	1.11	0.14	0.023	0.026	
	Top	20525	836.5	23.56	24.00	1.11	0.20	0.111	0.123	
Bottom	20525	836.5	23.56	24.00	1.11	0.17	0.092	0.102		

Note:

1. If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
2. Per KDB 941225 D05v02r03, 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 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.

LTE Band 7										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
20M_1RB	Front	20850	2510	22.36	23.00	1.16	0.14	0.987	1.145	-
		21100	2535	22.53	23.00	1.11	0.12	1.200	1.332	B11
		21350	2560	22.25	23.00	1.19	0.20	0.895	1.065	-
	Back	20850	2510	22.36	23.00	1.16	0.13	0.826	0.958	-
		21100	2535	22.53	23.00	1.11	-0.01	1.140	1.265	-
		21350	2560	22.25	23.00	1.19	0.09	0.877	1.044	-
	Right	21100	2535	22.53	23.00	1.11	0.03	0.755	0.838	-
	Top	21100	2535	22.53	23.00	1.11	0.11	0.337	0.374	-
Bottom	21100	2535	22.53	23.00	1.11	0.05	0.094	0.104	-	
20M_50RB	Front	20850	2510	21.18	21.50	1.08	0.07	0.802	0.866	-
		21100	2535	21.25	21.50	1.06	0.06	0.991	1.050	-
		21350	2560	21.07	21.50	1.10	0.11	0.727	0.800	-
	Back	20850	2510	21.18	21.50	1.08	0.07	0.671	0.725	-
		21100	2535	21.25	21.50	1.06	-0.01	0.926	0.982	-
		21350	2560	21.07	21.50	1.10	0.05	0.712	0.783	-
	Right	21100	2535	21.25	21.50	1.06	0.02	0.613	0.650	-
	Top	21100	2535	21.25	21.50	1.06	0.06	0.274	0.290	-
Bottom	21100	2535	21.25	21.50	1.06	0.03	0.076	0.081	-	

Note:

1. If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
2. Per KDB 941225 D05v02r03, 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 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.

LTE Band 12										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
10M_1RB	Front	20360	704.0	24.11	24.50	1.09	-	-	-	-
		23095	707.5	24.41	24.50	1.02	0.07	0.154	0.157	-
		23130	711.0	24.08	24.50	1.10	-	-	-	-
	Back	20360	704.0	24.11	24.50	1.09	-	-	-	-
		23095	707.5	24.41	24.50	1.02	-0.01	0.194	0.198	B12
		23130	711.0	24.08	24.50	1.10	-	-	-	-
	Right	23095	707.5	24.41	24.50	1.02	0.17	0.003	0.003	-
	Top	23095	707.5	24.41	24.50	1.02	0.00	0.076	0.078	-
Bottom	23095	707.5	24.41	24.50	1.02	0.09	0.072	0.073	-	
10M_25RB	Front	20360	704.0	23.09	23.50	1.10	-	-	-	-
		23095	707.5	23.09	23.50	1.10	-	-	-	-
		23130	711.0	23.24	23.50	1.06	0.04	0.125	0.133	-
	Back	20360	704.0	23.09	23.50	1.10	-	-	-	-
		23095	707.5	23.09	23.50	1.10	-	-	-	-
		23130	711.0	23.24	23.50	1.06	-0.08	0.158	0.167	-
	Right	23130	711.0	23.24	23.50	1.06	0.06	0.002	0.002	-
	Top	23130	711.0	23.24	23.50	1.06	0.12	0.062	0.066	-
Bottom	23130	711.0	23.24	23.50	1.06	0.05	0.058	0.061	-	

Note:

1. If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
2. Per KDB 941225 D05v02r03, 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 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.

LTE Band 13											
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot	
		CH	MHz								
10M_1RB	Front	-	-	-	-	-	-	-	-	-	
		23230	782	23.97	24.00	1.01	0.16	0.370	0.374	-	
		-	-	-	-	-	-	-	-	-	-
	Back	-	-	-	-	-	-	-	-	-	-
		23230	782	23.97	24.00	1.01	0.12	0.400	0.404	B13	
		-	-	-	-	-	-	-	-	-	-
	Right	23230	782	23.97	24.00	1.01	-0.04	0.011	0.011	-	
	Top	23230	782	23.97	24.00	1.01	0.13	0.137	0.138	-	
Bottom	23230	782	23.97	24.00	1.01	0.06	0.077	0.078	-		
10M_25RB	Front	-	-	-	-	-	-	-	-	-	
		23230	782	22.87	23.00	1.03	0.09	0.301	0.310	-	
		-	-	-	-	-	-	-	-	-	-
	Back	-	-	-	-	-	-	-	-	-	-
		23230	782	22.87	23.00	1.03	0.06	0.325	0.335	-	
		-	-	-	-	-	-	-	-	-	-
	Right	23230	782	22.87	23.00	1.03	-0.02	0.009	0.009	-	
	Top	23230	782	22.87	23.00	1.03	0.07	0.111	0.114	-	
Bottom	23230	782	22.87	23.00	1.03	0.03	0.063	0.065	-		

Note:

1. If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
2. Per KDB 941225 D05v02r03, 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 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.

LTE Band 17										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
10M_1RB	Front	23780	709.0	24.20	24.50	1.07	-	-	-	-
		23790	710.0	24.49	24.50	1.00	-0.04	0.134	0.134	
		23800	711.0	24.09	24.50	1.10	-	-	-	-
	Back	23780	709.0	24.20	24.50	1.07	-	-	-	-
		23790	710.0	24.49	24.50	1.00	0.13	0.150	0.150	B14
		23800	711.0	24.09	24.50	1.10	-	-	-	-
	Right	23790	710.0	24.49	24.50	1.00	-0.17	0.033	0.033	
	Top	23790	710.0	24.49	24.50	1.00	0.09	0.044	0.044	
Bottom	23790	710.0	24.49	24.50	1.00	0.15	0.032	0.032		
10M_25RB	Front	23780	709.0	23.31	23.50	1.04	-0.02	0.109	0.113	
		23790	710.0	23.19	23.50	1.07	-	-	-	-
		23800	711.0	23.16	23.50	1.08	-	-	-	-
	Back	23780	709.0	23.31	23.50	1.04	0.07	0.122	0.127	
		23790	710.0	23.19	23.50	1.07	-	-	-	-
		23800	711.0	23.16	23.50	1.08	-	-	-	-
	Right	23780	709.0	23.31	23.50	1.04	-0.09	0.027	0.028	
	Top	23780	709.0	23.31	23.50	1.04	0.05	0.036	0.037	
Bottom	23780	709.0	23.31	23.50	1.04	0.08	0.021	0.022		

Note:

1. If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
2. Per KDB 941225 D05v02r03, 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 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.

LTE Band 25										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
20M_1RB	Front	26140	1860.0	23.73	24.00	1.06	0.09	0.811	0.860	-
		26365	1882.5	23.75	24.00	1.06	0.02	0.864	0.916	-
		26590	1905.0	23.24	24.00	1.19	-0.06	0.794	0.945	-
	Back	26140	1860.0	23.73	24.00	1.06	0.16	0.899	0.953	-
		26365	1882.5	23.75	24.00	1.06	-0.16	0.927	0.983	B15
		26590	1905.0	23.24	24.00	1.19	0.07	0.813	0.967	-
	Right	26365	1882.5	23.75	24.00	1.06	0.12	0.756	0.801	-
	Top	26365	1882.5	23.75	24.00	1.06	0.13	0.283	0.300	-
Bottom	26365	1882.5	23.75	24.00	1.06	0.11	0.074	0.078	-	
20M_50RB	Front	26140	1860.0	22.73	23.00	1.06	0.05	0.659	0.699	-
		26365	1882.5	22.55	23.00	1.11	-	-	-	-
		26590	1905.0	21.84	23.00	1.31	-	-	-	-
	Back	26140	1860.0	22.73	23.00	1.06	0.09	0.730	0.774	-
		26365	1882.5	22.55	23.00	1.11	-	-	-	-
		26590	1905.0	21.84	23.00	1.31	-	-	-	-
	Right	26140	1860.0	22.73	23.00	1.06	0.06	0.614	0.651	-
	Top	26140	1860.0	22.73	23.00	1.06	0.07	0.230	0.244	-
Bottom	26140	1860.0	22.73	23.00	1.06	0.06	0.060	0.064	-	

Note:

1. If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
2. Per KDB 941225 D05v02r03, 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 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.



LTE Band 26										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
15M_1RB	Front	18700	1860.0	24.48	25.00	1.13	-	-	-	-
		18900	1880.0	24.96	25.00	1.01	0.19	0.784	0.792	B16
		19100	1900.0	24.96	25.00	1.01	-	-	-	-
	Back	18700	1860.0	24.48	25.00	1.13	-	-	-	-
		18900	1880.0	24.96	25.00	1.01	0.02	0.645	0.651	-
		19100	1900.0	24.96	25.00	1.01	-	-	-	-
	Right	18900	1880.0	24.96	25.00	1.01	-0.05	0.060	0.061	-
	Top	18900	1880.0	24.96	25.00	1.01	0.07	0.188	0.190	-
Bottom	18900	1880.0	24.96	25.00	1.01	0.10	0.140	0.141	-	
15M_38RB	Front	18700	1860.0	24.96	25.00	1.01	-	-	-	-
		18900	1880.0	23.56	24.00	1.11	0.16	0.678	0.753	-
		19100	1900.0	23.93	24.00	1.02	-	-	-	-
	Back	18700	1860.0	23.79	24.00	1.05	-	-	-	-
		18900	1880.0	23.56	24.00	1.11	0.02	0.558	0.619	-
		19100	1900.0	23.93	24.00	1.02	-	-	-	-
	Right	18900	1880.0	23.93	24.00	1.02	-0.04	0.052	0.053	-
	Top	18900	1880.0	23.93	24.00	1.02	0.06	0.163	0.166	-
Bottom	18900	1880.0	23.93	24.00	1.02	0.09	0.121	0.123	-	

Note:

1. If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
2. Per KDB 941225 D05v02r03, 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 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.

LTE Band 30										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
10M_1RB	Front	-	-	-	-	-	-	-	-	-
		27710	2310	22.64	23.00	1.09	-0.01	1.150	1.254	B17
		-	-	-	-	-	-	-	-	-
	Back	-	-	-	-	-	-	-	-	-
		27710	2310	22.64	23.00	1.09	-0.01	1.120	1.221	-
		-	-	-	-	-	-	-	-	-
	Right	27710	2310	22.64	23.00	1.09	0.20	1.040	1.134	
	Top	27710	2310	22.64	23.00	1.09	0.01	0.366	0.399	
Bottom	27710	2310	22.64	23.00	1.09	0.02	0.114	0.124		
10M_25RB	Front	-	-	-	-	-	-	-	-	-
		27710	2310	21.72	22.00	1.07	-0.01	0.934	0.999	
		-	-	-	-	-	-	-	-	-
	Back	-	-	-	-	-	-	-	-	-
		27710	2310	21.72	22.00	1.07	-0.01	0.910	0.974	
		-	-	-	-	-	-	-	-	-
	Right	27710	2310	21.72	22.00	1.07	0.11	0.845	0.904	-
	Top	27710	2310	21.72	22.00	1.07	0.06	0.297	0.318	-
Bottom	27710	2310	21.72	22.00	1.07	0.07	0.093	0.100	-	

Note:

1. If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
2. Per KDB 941225 D05v02r03, 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 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.

LTE Band 41										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
20M_1RB	Front	39750	2506.0	22.62	23.00	1.09	0.19	0.993	1.082	-
		40620	2593.0	22.89	23.00	1.03	0.03	1.140	1.174	-
		41490	2680.0	21.94	23.00	1.28	-0.07	0.787	1.007	-
	Back	39750	2506.0	22.62	23.00	1.09	0.09	1.010	1.101	-
		40620	2593.0	22.89	23.00	1.03	0.17	1.210	1.246	B18
		41490	2680.0	21.94	23.00	1.28	-0.20	0.841	1.076	-
	Right	40620	2593.0	22.89	23.00	1.03	0.10	0.974	1.003	-
	Top	40620	2593.0	22.89	23.00	1.03	0.09	0.283	0.291	-
Bottom	40620	2593.0	22.89	23.00	1.03	0.18	0.067	0.069	-	
20M_50RB	Front	39750	2506.0	21.27	22.00	1.18	0.10	0.807	0.952	-
		40620	2593.0	21.61	22.00	1.09	0.02	0.926	1.009	-
		41490	2680.0	20.37	22.00	1.46	-0.04	0.639	0.933	-
	Back	39750	2506.0	21.27	22.00	1.18	0.05	0.820	0.968	-
		40620	2593.0	21.61	22.00	1.09	0.09	0.983	1.071	-
		41490	2680.0	20.37	22.00	1.46	-0.11	0.683	0.997	-
	Right	40620	2593.0	21.61	22.00	1.09	0.05	0.791	0.862	-
	Top	40620	2593.0	21.61	22.00	1.09	0.05	0.230	0.251	-
Bottom	40620	2593.0	21.61	22.00	1.09	0.10	0.054	0.059	-	

Note:

1. If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
2. Per KDB 941225 D05v02r03, 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 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.



LTE Band 66										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
20M_1RB	Front	132072	1720.0	24.17	24.50	1.08	0.06	1.030	1.112	-
		132322	1745.0	24.43	24.50	1.02	-0.20	1.220	1.244	B19
		132572	1770.0	23.89	24.50	1.15	0.02	0.944	1.086	-
	Back	132072	1720.0	24.17	24.50	1.08	0.04	0.937	1.012	-
		132322	1745.0	24.43	24.50	1.02	0.10	1.100	1.122	-
		132572	1770.0	23.89	24.50	1.15	0.10	0.867	0.997	-
	Right	132322	1745.0	24.43	24.50	1.02	0.07	0.781	0.797	-
	Top	132322	1745.0	24.43	24.50	1.02	0.09	0.581	0.593	-
Bottom	132322	1745.0	24.43	24.50	1.02	-0.01	0.300	0.306	-	
20M_50RB	Front	132072	1720.0	23.10	23.50	1.10	0.03	0.837	0.921	-
		132322	1745.0	23.22	23.50	1.07	-0.11	0.991	1.060	-
		132572	1770.0	23.07	23.50	1.10	0.01	0.767	0.844	-
	Back	132072	1720.0	23.10	23.50	1.10	0.02	0.761	0.837	-
		132322	1745.0	23.22	23.50	1.07	0.05	0.894	0.957	-
		132572	1770.0	23.07	23.50	1.10	0.05	0.704	0.774	-
	Right	132322	1745.0	23.22	23.50	1.07	0.04	0.638	0.683	-
	Top	132322	1745.0	23.22	23.50	1.07	0.05	0.472	0.505	-
Bottom	132322	1745.0	23.22	23.50	1.07	-0.01	0.244	0.261	-	

Note:

1. If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
2. Per KDB 941225 D05v02r03, 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 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.

LTE Band 71										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
20M_1RB	Front	133222	673.0	22.83	23.50	1.17	-	-	-	-
		133297	680.5	23.39	23.50	1.03	-0.15	0.641	0.660	B20
		133297	688.0	23.33	23.50	1.04	-	-	-	-
	Back	133222	673.0	22.83	23.50	1.17	-	-	-	-
		133297	680.5	23.39	23.50	1.03	0.07	0.569	0.586	
		133297	688.0	23.33	23.50	1.04	-	-	-	-
	Right	133297	680.5	23.39	23.50	1.03	0.12	0.301	0.310	-
	Top	133297	680.5	23.39	23.50	1.03	-0.08	0.242	0.249	-
Bottom	133297	680.5	23.39	23.50	1.03	0.14	0.009	0.009	-	
20M_50RB	Front	133222	673.0	22.01	22.50	1.12	-	-	-	-
		133297	680.5	22.09	22.50	1.10	-0.13	0.555	0.611	-
		133297	688.0	22.04	22.50	1.11	-	-	-	-
	Back	133222	673.0	22.01	22.50	1.12	-	-	-	-
		133297	680.5	22.09	22.50	1.10	0.06	0.492	0.541	-
		133297	688.0	22.04	22.50	1.11	-	-	-	-
	Right	133297	680.5	22.09	22.50	1.10	0.10	0.260	0.286	-
	Top	133297	680.5	22.09	22.50	1.10	-0.07	0.209	0.230	-
Bottom	133297	680.5	22.09	22.50	1.10	0.12	0.008	0.009	-	

Note:

1. If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
2. Per KDB 941225 D05v02r03, 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 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.



WIFI 2.4G										
Mode	Test Position (side)	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Test Plot
		CH	MHz							
802.11b 1Mbps	Front	1	2412	14.28	14.50	1.05	-	-	-	-
		6	2437	14.41	14.50	1.02	0.07	0.210	0.214	B21
		11	2462	13.09	14.50	1.38	-	-	-	-
	Back	1	2412	14.28	14.50	1.05	-	-	-	-
		6	2437	14.41	14.50	1.02	0.08	0.167	0.170	-
		11	2462	13.09	14.50	1.38	-	-	-	-
	Left	6	2437	14.41	14.50	1.02	0.11	0.174	0.177	-
	Top	6	2437	14.41	14.50	1.02	-0.12	0.103	0.105	-
Bottom	6	2437	14.41	14.50	1.02	0.09	0.062	0.063	-	

Note:

If the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).

SAR Test Data Plots

Test band: GSM850

Test Position: Back side

Test Plot: B1

Date:2019-12-10

Communication System: UID 0, Generic GPRS 4TS (0); Frequency: 836.6 MHz;Duty Cycle: 1:2.26464

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.967$ S/m; $\epsilon_r = 55.399$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(10.33, 10.33, 10.33); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Back side/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.750 W/kg

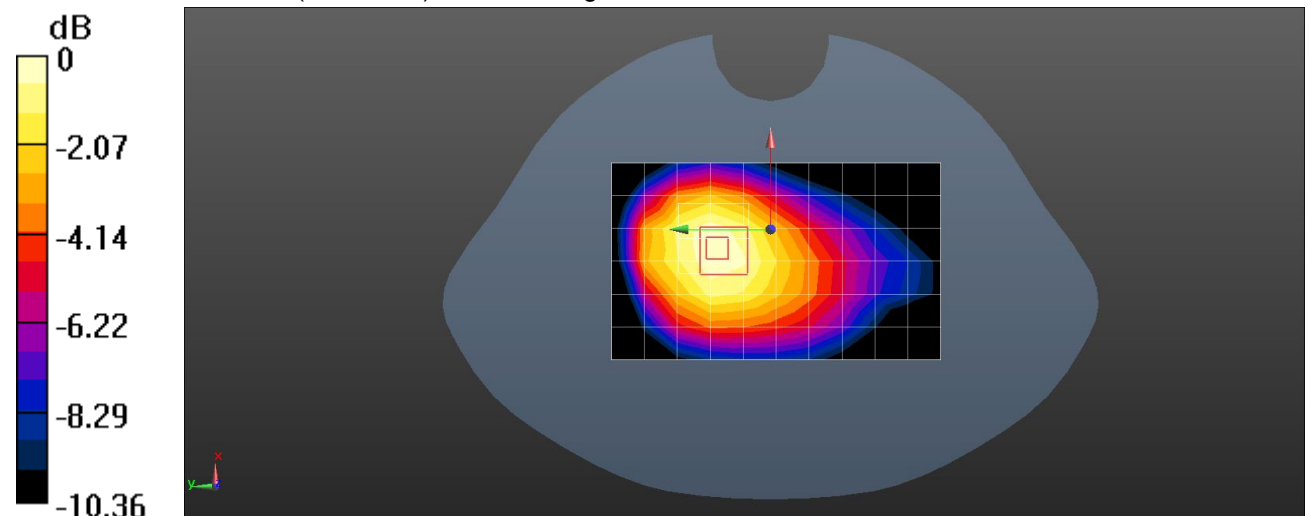
Body/Back side/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.177 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.987 W/kg

SAR(1 g) = 0.735 W/kg; SAR(10 g) = 0.541 W/kg[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.775 W/kg



0 dB = 0.775 W/kg = -1.11 dBW/kg

Test band: GSM1900

Test Position: Front side

Test Plot: B2

Date:2019-12-16

Communication System: UID 0, Generic GPRS 4TS (0); Frequency: 1880 MHz;Duty Cycle: 1:2.26464

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.539$ S/m; $\epsilon_r = 53.741$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8.09, 8.09, 8.09); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Front side/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.11 W/kg

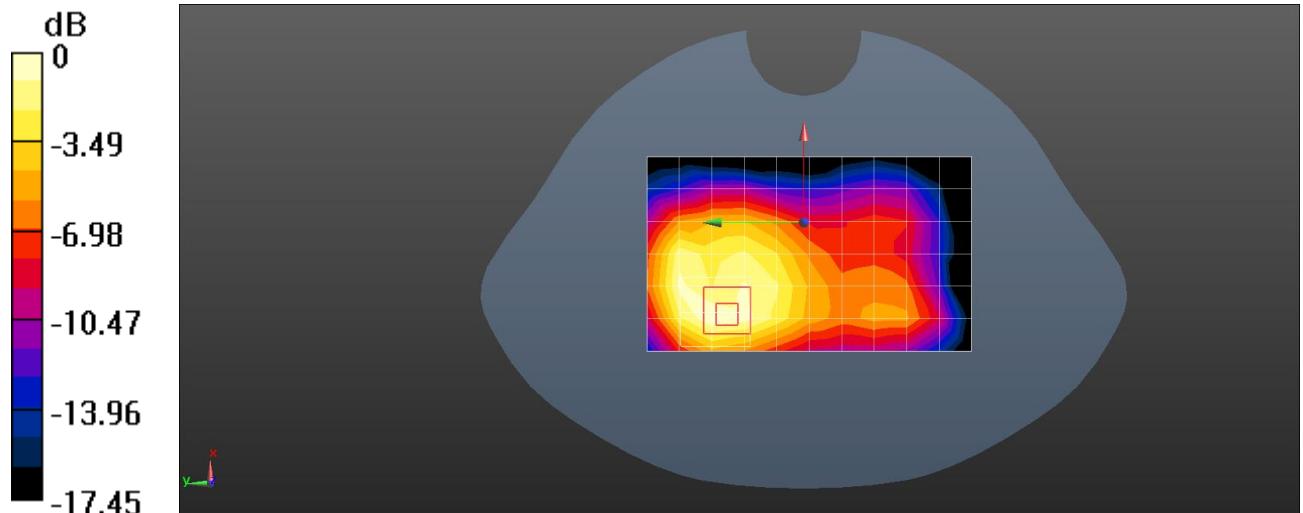
Body/Front side/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.023 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.81 W/kg

SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.598 W/kg

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



0 dB = 1.14 W/kg = 0.57 dBW/kg

Test band: WCDMA Band II

Test Position: Front side

Test Plot: B3

Date:2019-12-16

Communication System: UID 0, Generic UMTS (WCDMA) (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.539$ S/m; $\epsilon_r = 53.741$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8.09, 8.09, 8.09); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Front side/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.08 W/kg

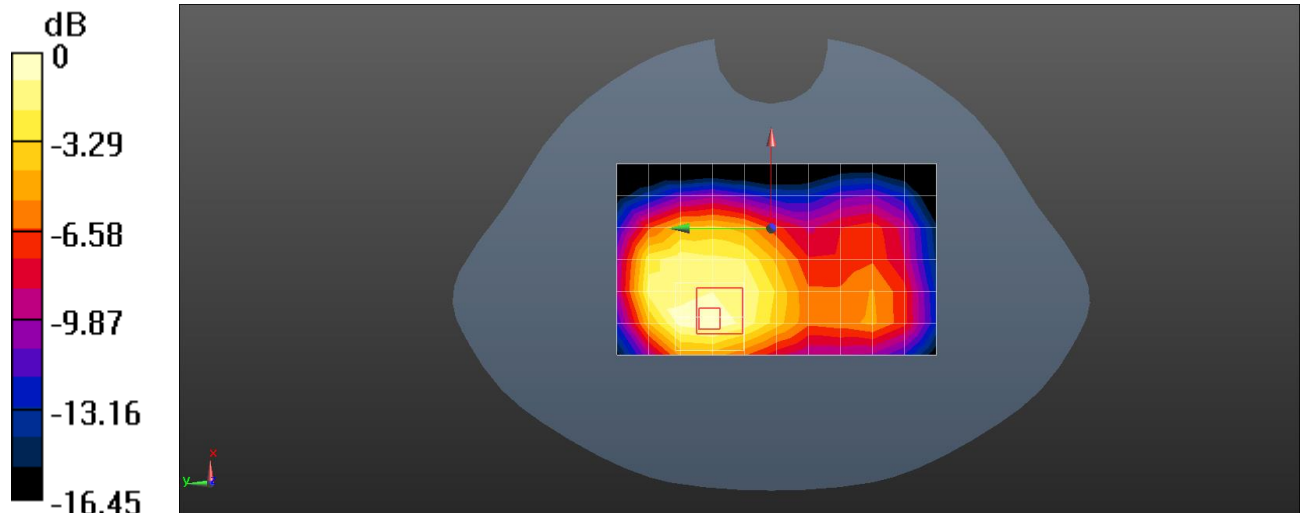
Body/Front side/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.184 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.71 W/kg

SAR(1 g) = 1 W/kg; SAR(10 g) = 0.602 W/kg

Maximum value of SAR (measured) = 1.10 W/kg



0 dB = 1.10 W/kg = 0.41 dBW/kg

Test band: WCDMA Band IV

Test Position: Front side

Test Plot: B4

Date:2019-12-12

Communication System: UID 0, Generic UMTS (WCDMA) (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.43$ S/m; $\epsilon_r = 53.891$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8.42, 8.42, 8.42); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Front side/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mmInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.44 W/kg

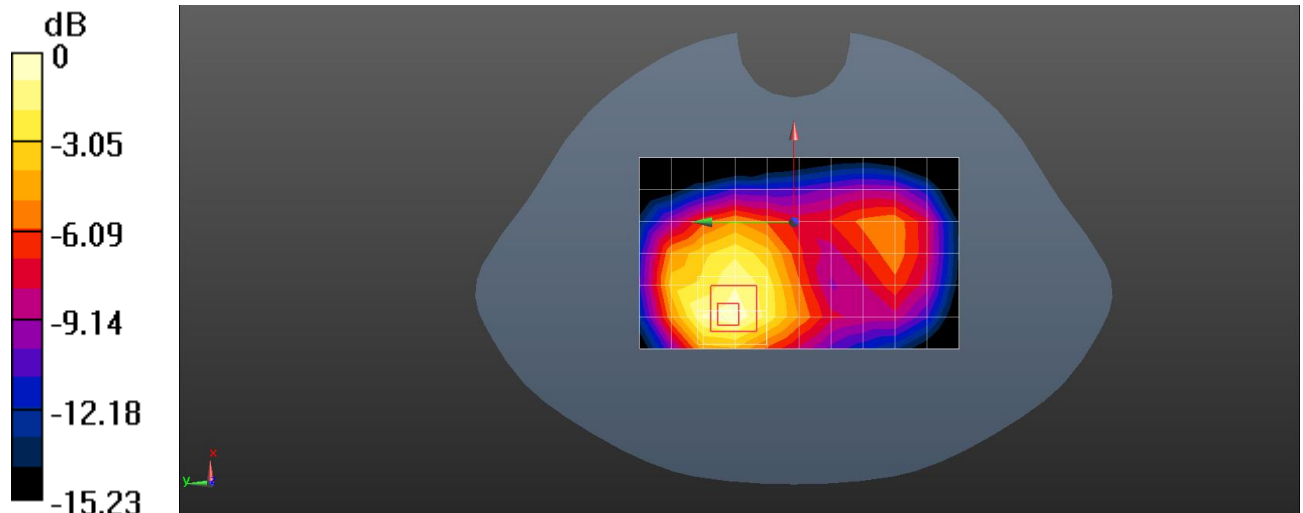
Body/Front side/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.873 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 2.28 W/kg

SAR(1 g) = 1.34 W/kg; SAR(10 g) = 0.803 W/kgInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.48 W/kg



0 dB = 1.48 W/kg = 1.70 dBW/kg

Test band: WCDMA Band V

Test Position: Back side

Test Plot: B5

Date:2019-12-10

Communication System: UID 0, Generic UMTS (WCDMA) (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.967$ S/m; $\epsilon_r = 55.399$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(10.33, 10.33, 10.33); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Back side/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mmInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.880 W/kg

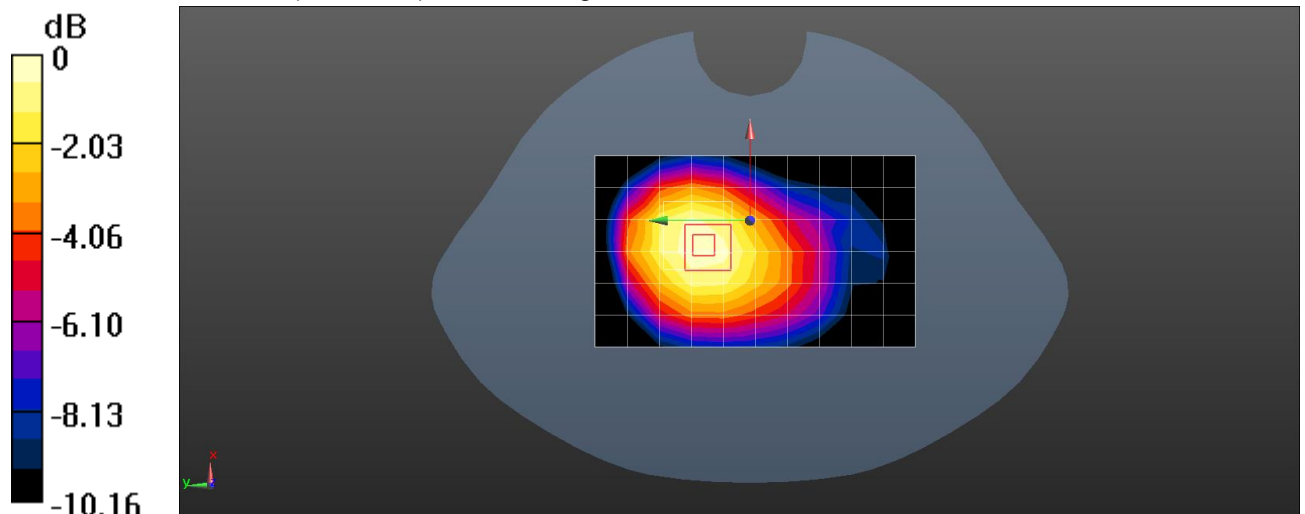
Body/Back side/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.627 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.17 W/kg

SAR(1 g) = 0.880 W/kg; SAR(10 g) = 0.646 W/kgInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.920 W/kg



Test band: CDMA BC0

Test Position: Back side

Test Plot: B6

Date:2019-12-10

Communication System: UID 0, Generic UMTS (CDMA) (0); Frequency: 824.7 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 825$ MHz; $\sigma = 0.964$ S/m; $\epsilon_r = 55.449$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(10.33, 10.33, 10.33); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Back side/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.746 W/kg

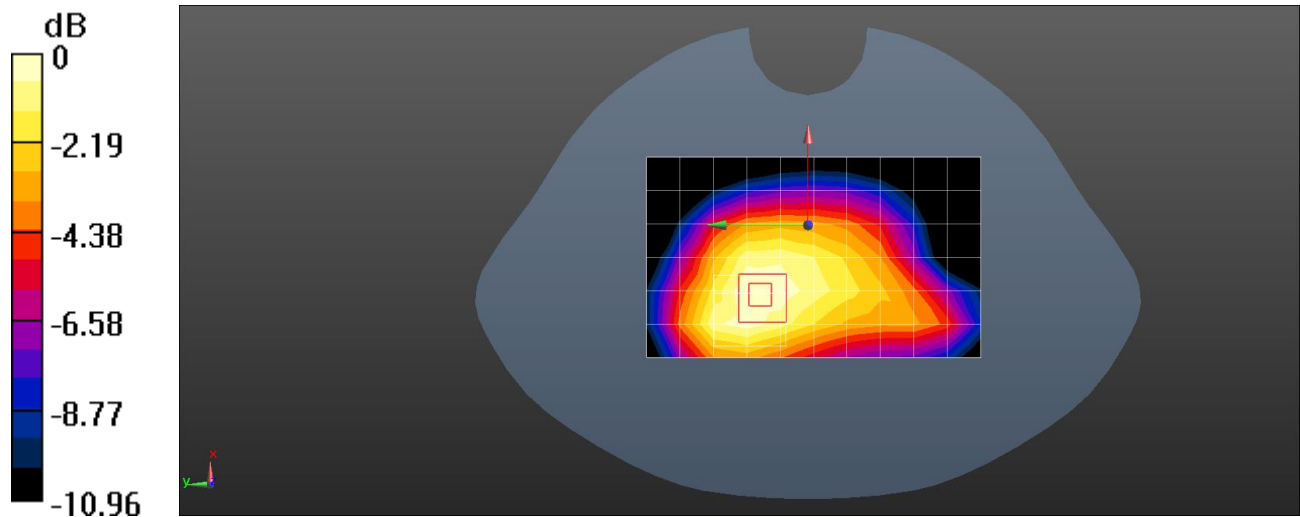
Body/Back side/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.441 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.964 W/kg

SAR(1 g) = 0.721 W/kg; SAR(10 g) = 0.536 W/kg

Maximum value of SAR (measured) = 0.753 W/kg



0 dB = 0.753 W/kg = -1.23 dBW/kg

Test band: CDMA BC1

Test Position: Front side

Test Plot: B7

Date:2019-12-16

Communication System: UID 0, Generic UMTS (CDMA) (0); Frequency: 1851.25 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1851.25$ MHz; $\sigma = 1.517$ S/m; $\epsilon_r = 53.772$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8.09, 8.09, 8.09); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Front side/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mmInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.05 W/kg

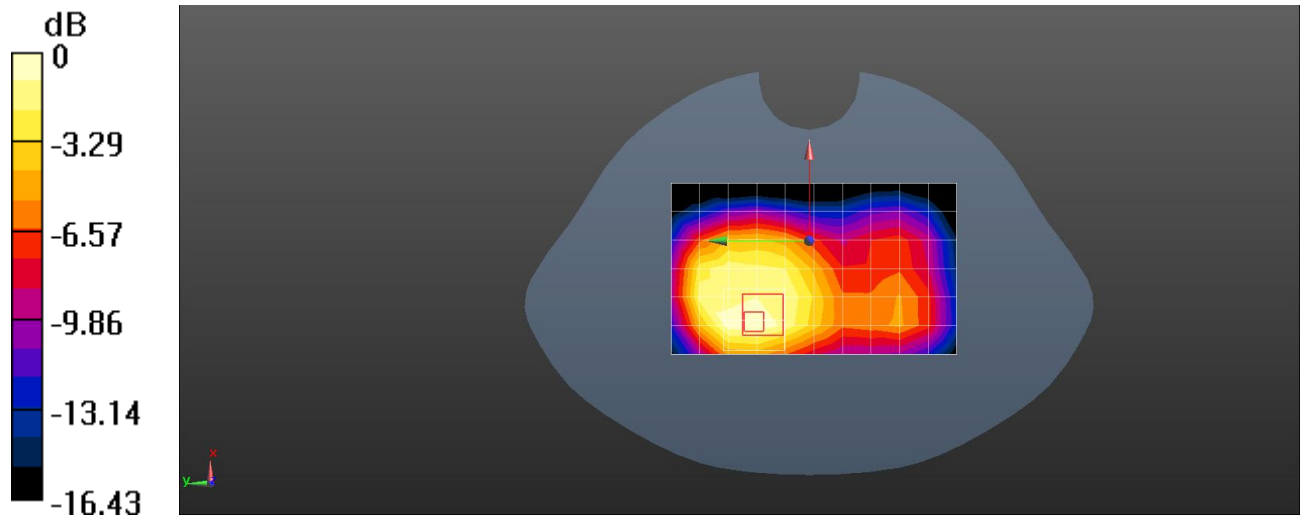
Body/Front side/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.103 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.67 W/kg

SAR(1 g) = 0.980 W/kg; SAR(10 g) = 0.588 W/kgInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.07 W/kg



0 dB = 1.07 W/kg = 0.29 dBW/kg

Test band: LTE Band 2

Test Position: Back side

Test Plot: B8

Date:2019-12-17

Communication System: UID 0, Generic LTE (0); Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.539$ S/m; $\epsilon_r = 53.741$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8.09, 8.09, 8.09); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Back side/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.13 W/kg

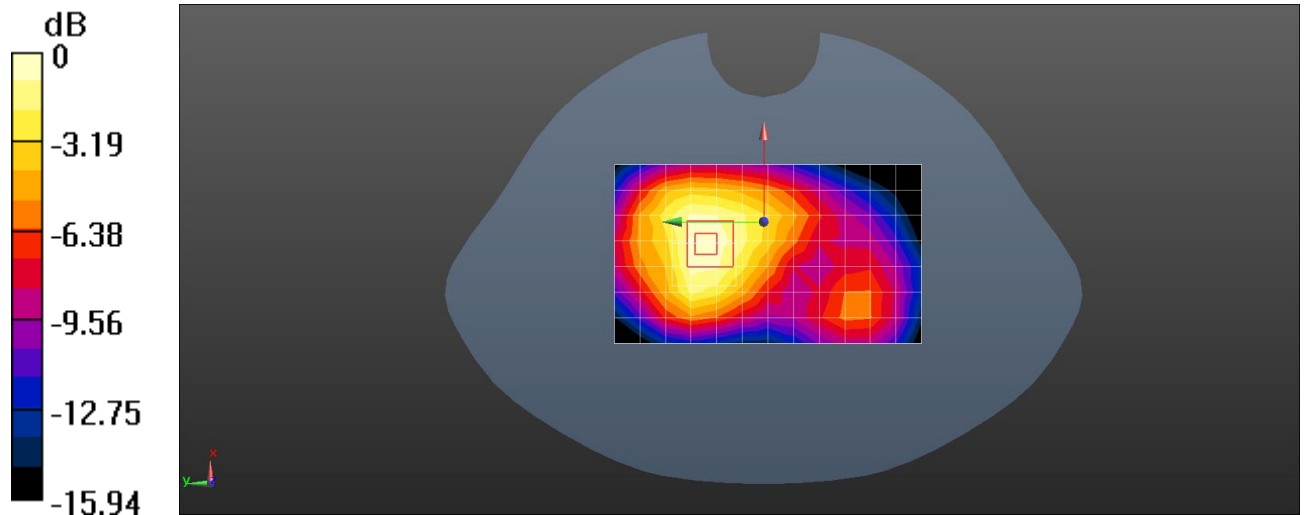
Body/Back side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.200 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.79 W/kg

SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.699 W/kg

Maximum value of SAR (measured) = 1.25 W/kg



0 dB = 1.25 W/kg = 0.97 dBW/kg

Test band: LTE Band 4

Test Position: Back side

Test Plot: B9

Date:2019-12-13

Communication System: UID 0, Generic LTE (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.43$ S/m; $\epsilon_r = 53.892$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8.42, 8.42, 8.42); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Back side/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mmInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.41 W/kg

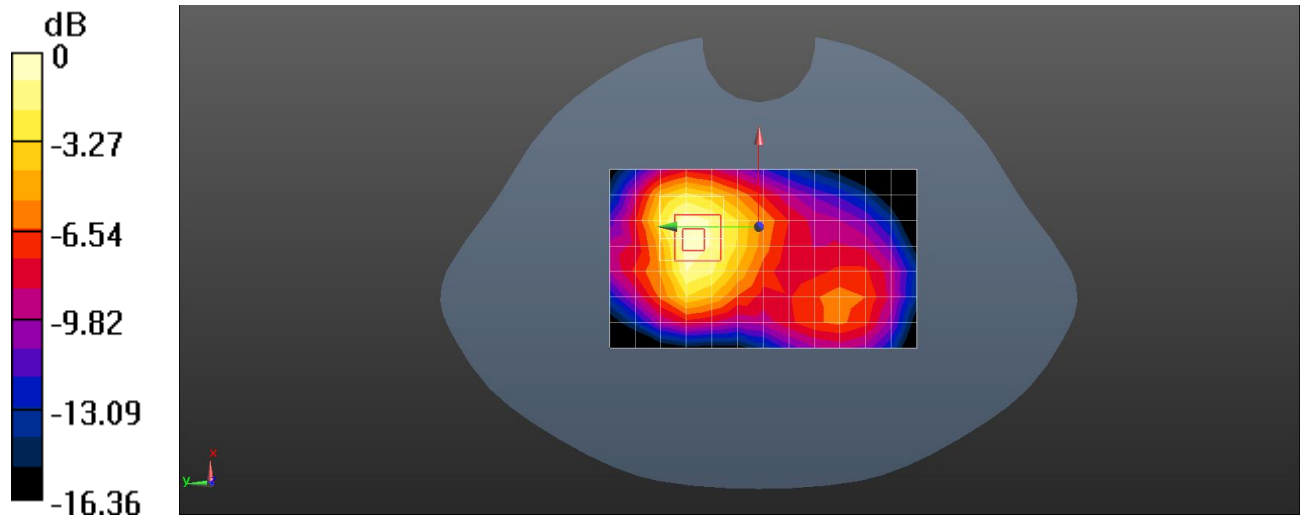
Body/Back side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.974 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 2.10 W/kg

SAR(1 g) = 1.25 W/kg; SAR(10 g) = 0.817 W/kgInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.48 W/kg



Test band: LTE Band 5

Test Position: Front side

Test Plot: B10

Date:2019-12-11

Communication System: UID 0, Generic LTE (0); Frequency: 836.5 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.967$ S/m; $\epsilon_r = 55.399$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(10.33, 10.33, 10.33); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Front side/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mmInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.02 W/kg

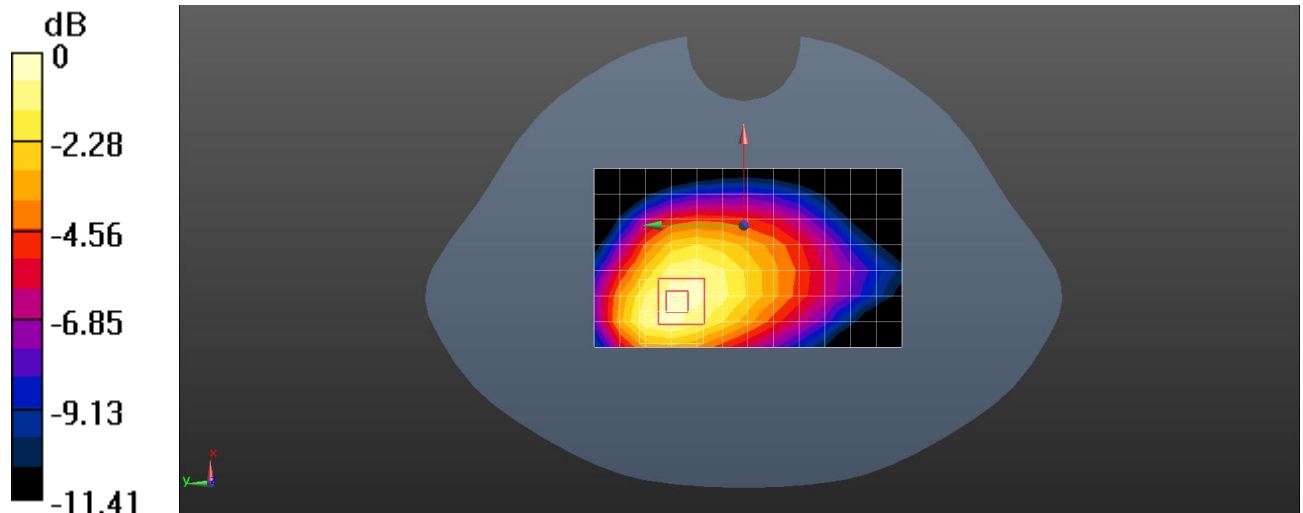
Body/Front side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.909 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 1.48 W/kg

SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.718 W/kgInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.08 W/kg



0 dB = 1.08 W/kg = 0.33 dBW/kg

Test band: LTE Band 7

Test Position: Front side

Test Plot: B11

Date:2019-12-19

Communication System: UID 0, Generic LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 2535$ MHz; $\sigma = 2.082$ S/m; $\epsilon_r = 52.884$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8, 8, 8); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Front side/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 2.81 W/kg

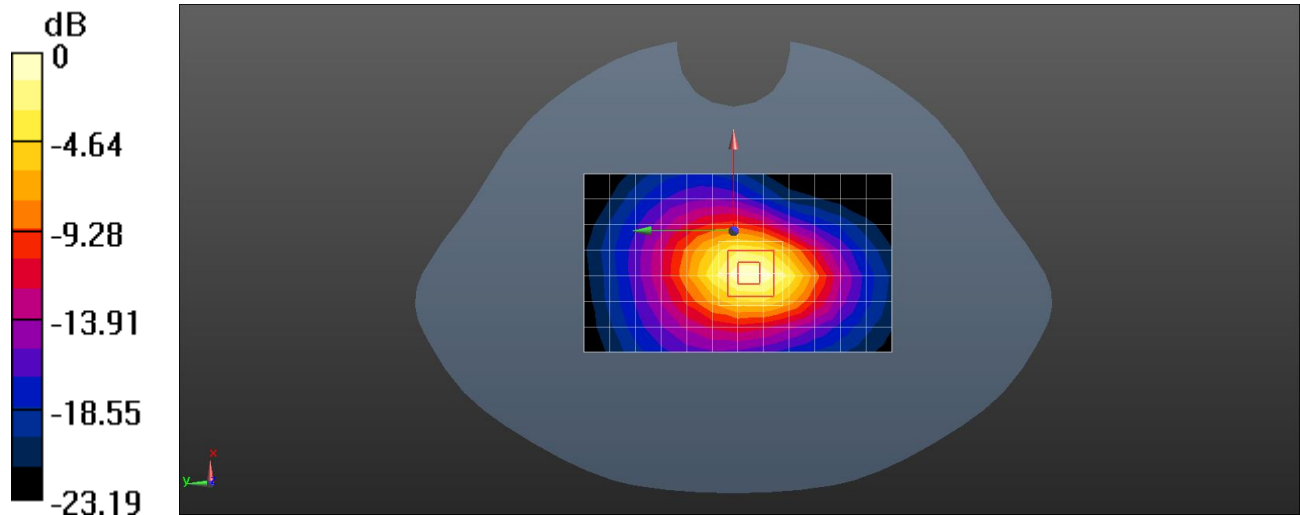
Body/Front side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 40.156 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 2.36 W/kg

SAR(1 g) = 1.2 W/kg; SAR(10 g) = 0.814 W/kg

Maximum value of SAR (measured) = 2.17 W/kg



0 dB = 2.17 W/kg = 6.20 dBW/kg

Test band: LTE Band 12

Test Position: Back side

Test Plot: B12

Date:2019-12-06

Communication System: UID 0, Generic LTE (0); Frequency: 707 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 707$ MHz; $\sigma = 0.918$ S/m; $\epsilon_r = 55.741$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(10.62, 10.62, 10.62); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Back side/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mmInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.189 W/kg

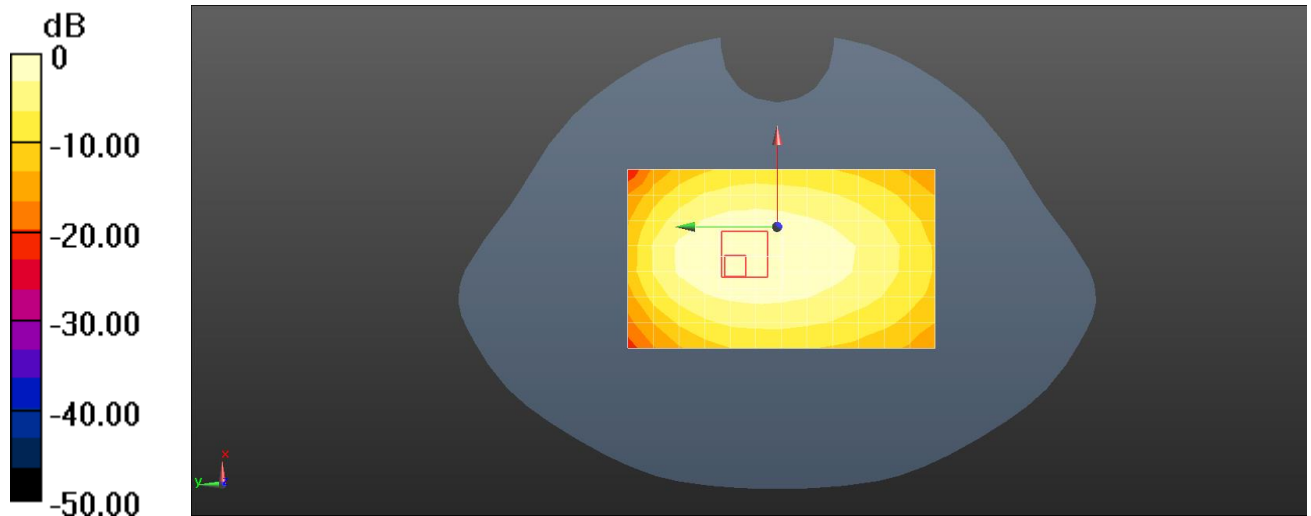
Body/Back side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.851 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.332 W/kg

SAR(1 g) = 0.194 W/kg; SAR(10 g) = 0.113 W/kgInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.193 W/kg



Test band: LTE Band 13

Test Position: Back side

Test Plot: B13

Date:2019-12-06

Communication System: UID 0, Generic LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 782 \text{ MHz}$; $\sigma = 0.946 \text{ S/m}$; $\epsilon_r = 55.542$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(10.62, 10.62, 10.62); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Back side/Area Scan (8x13x1): Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$ Info: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.396 W/kg

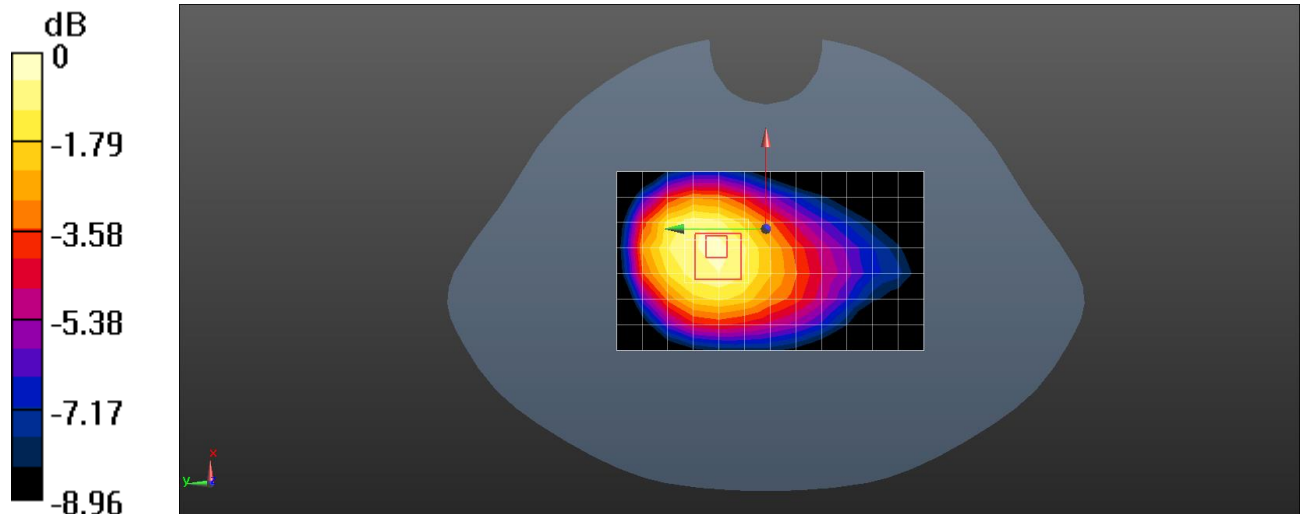
Body/Back side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.658 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.531 W/kg

SAR(1 g) = 0.400 W/kg; SAR(10 g) = 0.296 W/kgInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.425 W/kg



0 dB = 0.425 W/kg = -3.72 dBW/kg

Test band: LTE Band 17

Test Position: Back side

Test Plot: B14

Date:2019-12-09

Communication System: UID 0, Generic LTE (0); Frequency: 710 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 710$ MHz; $\sigma = 0.919$ S/m; $\epsilon_r = 55.736$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(10.62, 10.62, 10.62); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Back side/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.161 W/kg

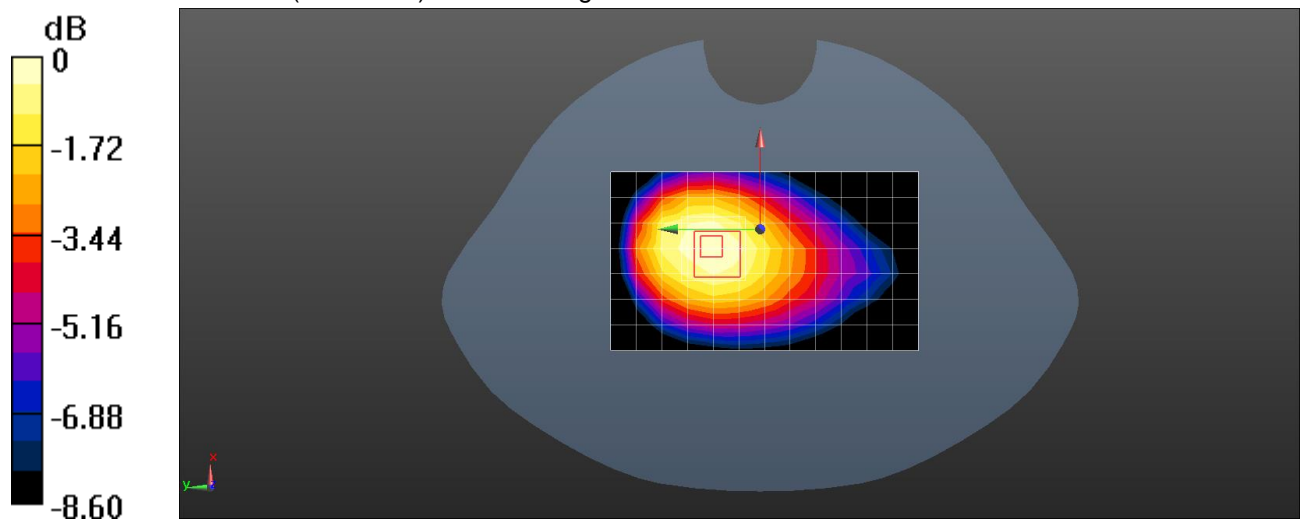
Body/Back side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.041 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.194 W/kg

SAR(1 g) = 0.150 W/kg; SAR(10 g) = 0.115 W/kg

Maximum value of SAR (measured) = 0.157 W/kg



0 dB = 0.157 W/kg = -8.04 dBW/kg

Test band: LTE Band 25

Test Position: Back side

Test Plot: B15

Date:2019-12-17

Communication System: UID 0, Generic LTE (0); Frequency: 1882.5 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 1882.5$ MHz; $\sigma = 1.541$ S/m; $\epsilon_r = 53.736$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8.09, 8.09, 8.09); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Back side/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mmInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.936 W/kg

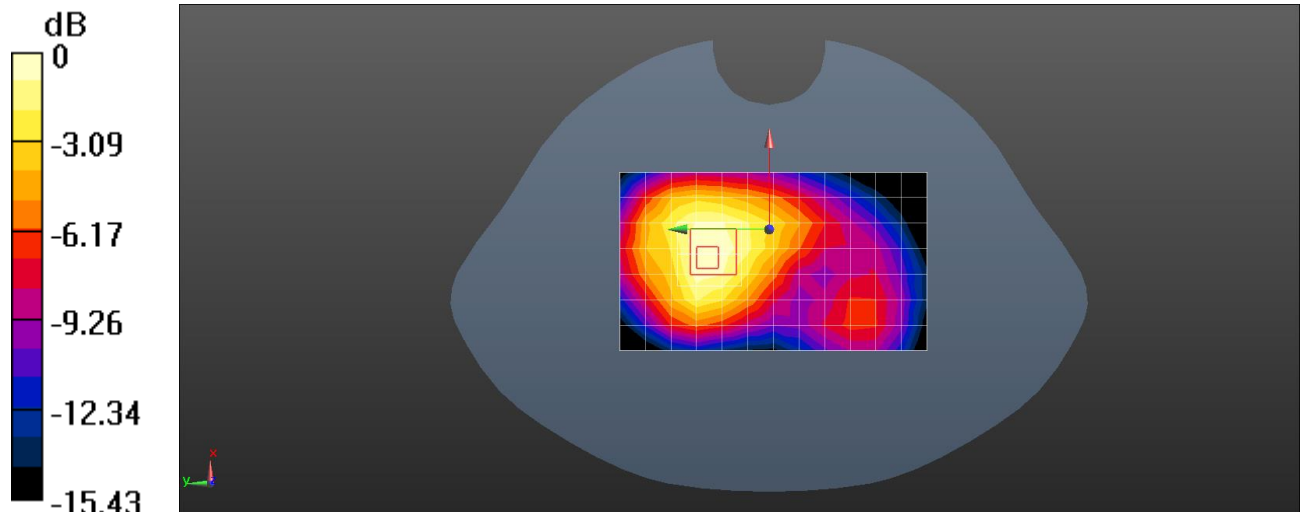
Body/Back side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.857 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 1.46 W/kg

SAR(1 g) = 0.927 W/kg; SAR(10 g) = 0.571 W/kgInfo: [Interpolated medium parameters used for SAR evaluation.](#)

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



0 dB = 1.01 W/kg = 0.04 dBW/kg

Test band: LTE Band 26

Test Position: Back side

Test Plot: B16

Date:2019-12-11

Communication System: UID 0, Generic LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 831.5$ MHz; $\sigma = 0.964$ S/m; $\epsilon_r = 55.411$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(10.33, 10.33, 10.33); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Front side/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mmInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.814 W/kg

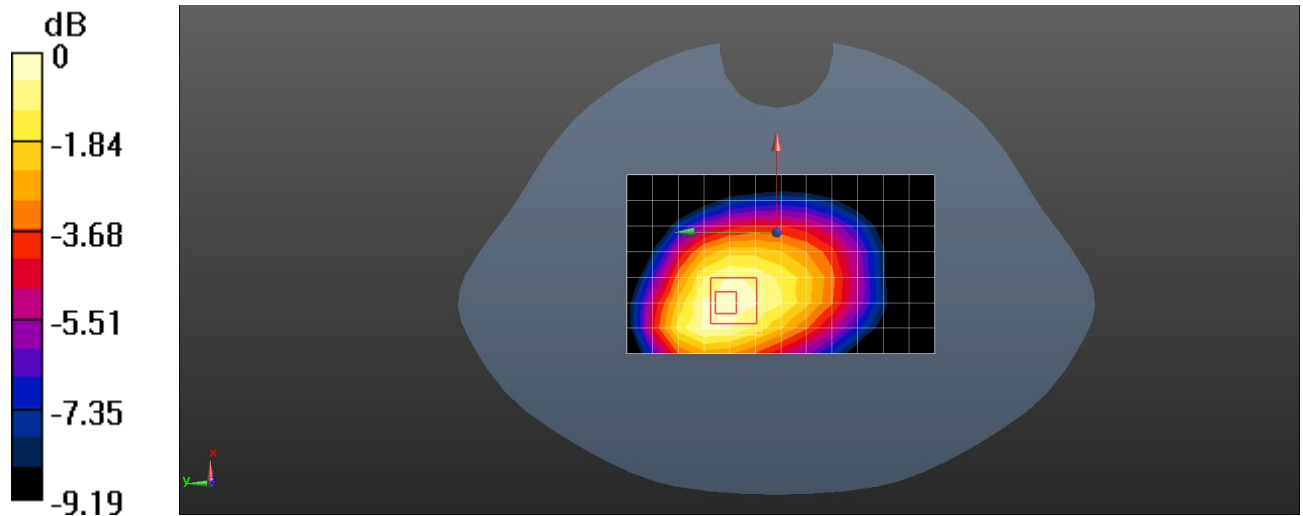
Body/Front side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 25.025 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.784 W/kg; SAR(10 g) = 0.594 W/kgInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.824 W/kg



0 dB = 0.824 W/kg = -0.84 dBW/kg

Test band: LTE Band 30

Test Position: Back side

Test Plot: B17

Date:2019-12-18

Communication System: UID 0, Generic LTE (0); Frequency: 2310 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 2310$ MHz; $\sigma = 1.873$ S/m; $\epsilon_r = 53.198$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8, 8, 8); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Back side/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.41 W/kg

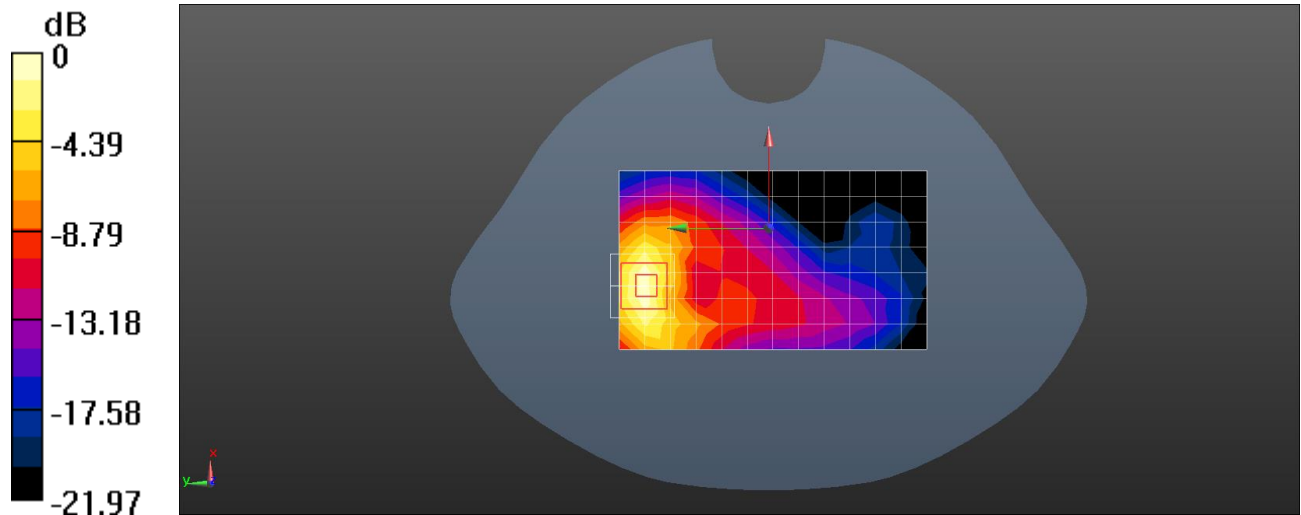
Body/Back side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.570 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 2.75 W/kg

SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.645 W/kg

Maximum value of SAR (measured) = 1.54 W/kg



0 dB = 1.54 W/kg = 1.88 dBW/kg

Test band: LTE Band 41

Test Position: Back side

Test Plot: B18

Date:2019-12-19

Communication System: UID 0, Generic LTE (0); Frequency: 2593 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2593$ MHz; $\sigma = 2.143$ S/m; $\epsilon_r = 52.791$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(7.52, 7.52, 7.52); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Back side/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mmInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 2.20 W/kg

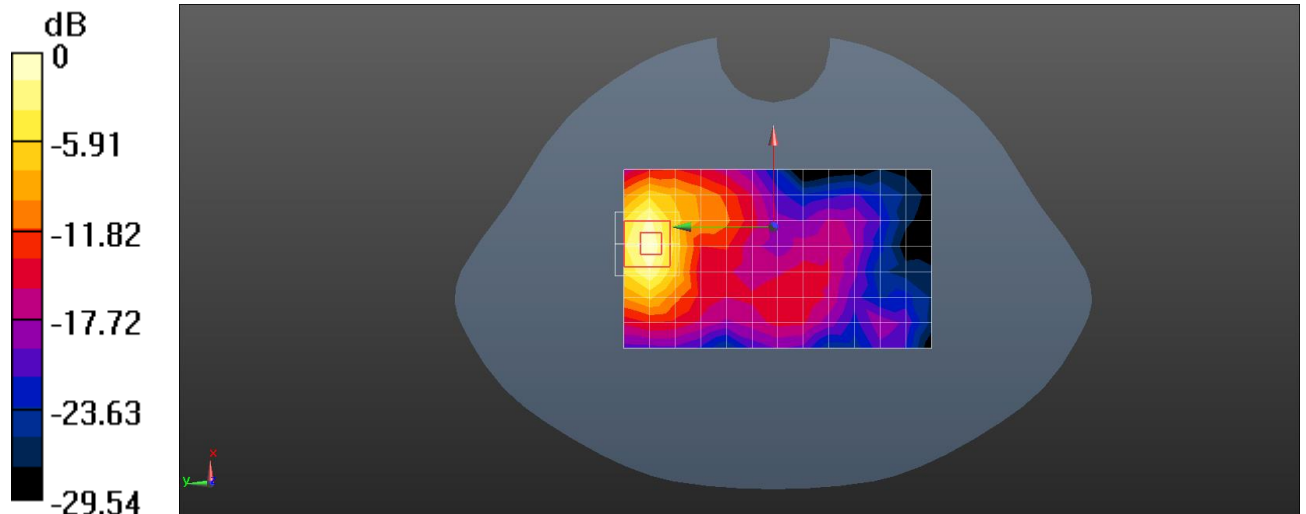
Body/Back side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.290 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 3.98 W/kg

SAR(1 g) = 1.21 W/kg; SAR(10 g) = 0.844 W/kgInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 2.15 W/kg



0 dB = 2.15 W/kg = 3.32 dBW/kg

Test band: LTE Band 66

Test Position: Back side

Test Plot: B19

Date:2019-12-13

Communication System: UID 0, Generic LTE (0); Frequency: 1745 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.434$ S/m; $\epsilon_r = 53.883$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8.42, 8.42, 8.42); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Front side/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.29 W/kg

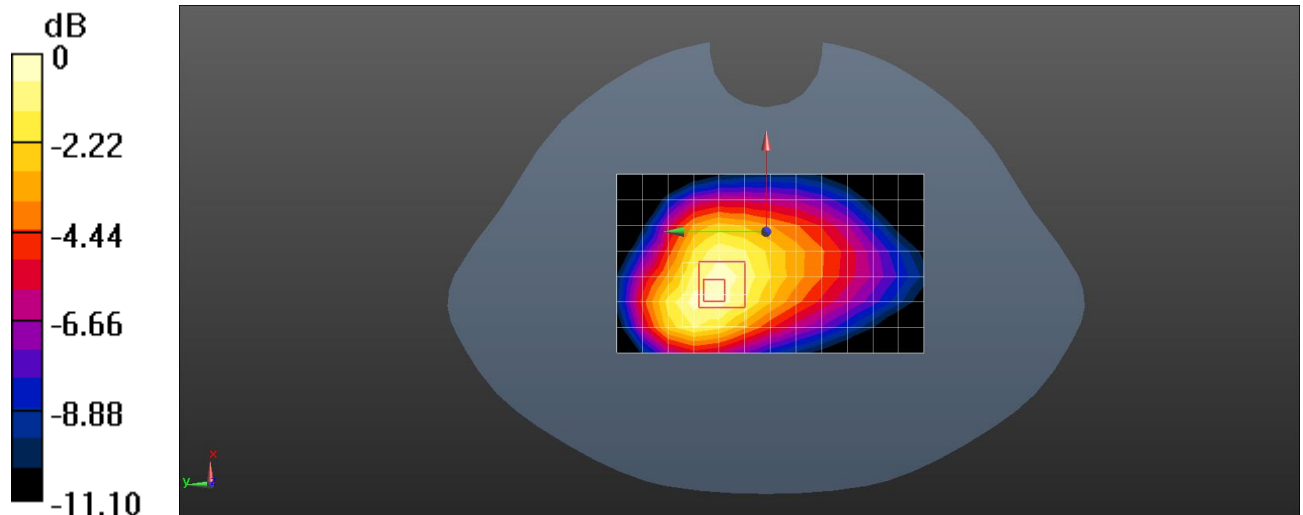
Body/Front side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 25.436 V/m; Power Drift = -0.20 dB

Peak SAR (extrapolated) = 1.82 W/kg

SAR(1 g) = 1.22 W/kg; SAR(10 g) = 0.898 W/kg

Maximum value of SAR (measured) = 1.35 W/kg



0 dB = 1.35 W/kg = 1.30 dBW/kg

Test band: LTE Band 71

Test Position: Front side

Test Plot: B20

Date:2019-12-09

Communication System: UID 0, Generic LTE (0); Frequency: 680.5 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 680.5$ MHz; $\sigma = 0.91$ S/m; $\epsilon_r = 55.812$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(10.62, 10.62, 10.62); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Front side/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mmInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.668 W/kg

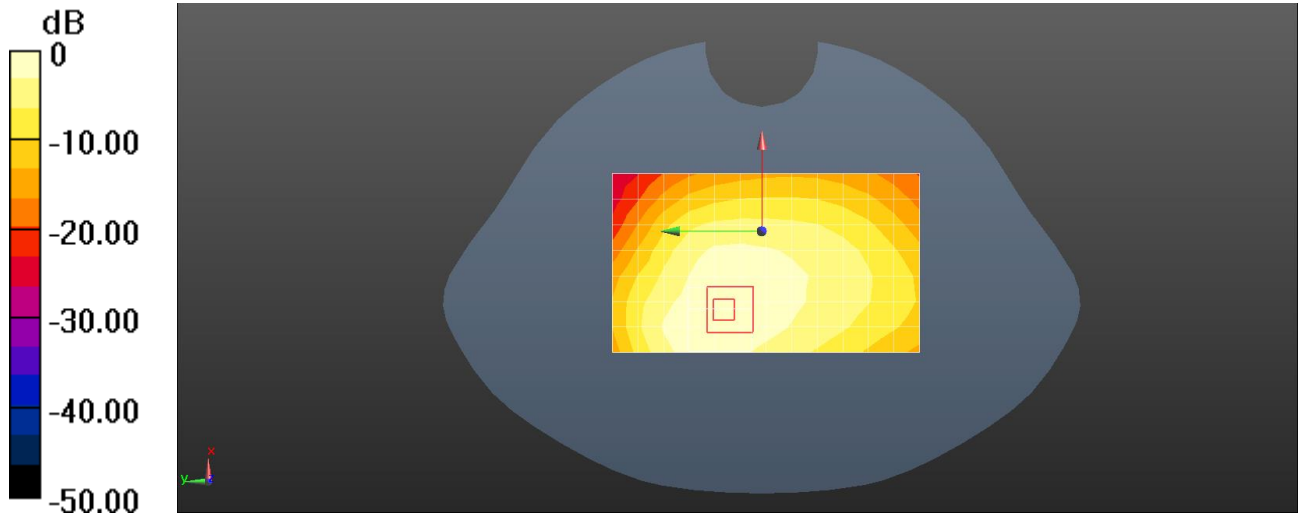
Body/Front side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.188 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.972 W/kg

SAR(1 g) = 0.641 W/kg; SAR(10 g) = 0.457 W/kgInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.680 W/kg



0 dB = 0.680 W/kg = -1.67 dBW/kg

Test band: WIFI 2.4G

Test Position: Back side

Test Plot: B21

Date:2019-12-18

Communication System: UID 0, WI-FI(2412-2462) (0); Frequency: 2437 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.991$ S/m; $\epsilon_r = 53.023$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: EX3DV4 - SN3974; ConvF(8, 8, 8); Calibrated: 2019/05/21;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1423; Calibrated: 2019/05/24
- Phantom: SAM1; Type: Twin SAM V5.0; Serial: 1812
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Body/Front side/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mmInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.209 W/kg

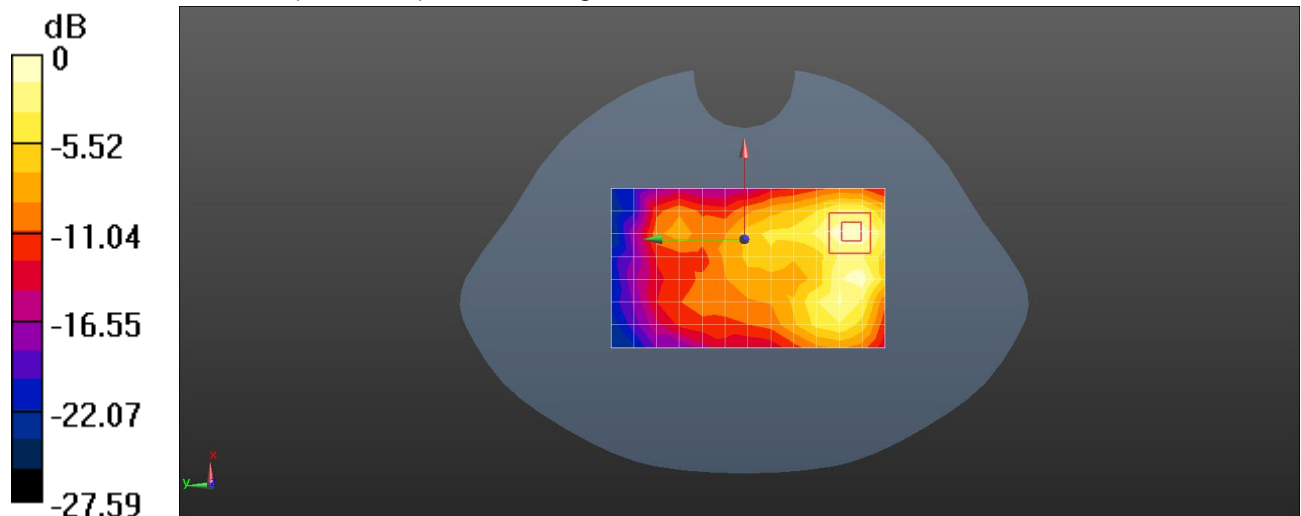
Body/Front side/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.541 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.467 W/kg

SAR(1 g) = 0.210 W/kg; SAR(10 g) = 0.096 W/kgInfo: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.236 W/kg



0 dB = 0.236 W/kg = -6.27 dBW/kg

15. Simultaneous Transmission analysis

No.	Simultaneous Transmission Configurations	Body-worn	Hotspot	Note
1	GPRS (data) + WIFI (data)	Yes	Yes	-
2	WCDMA (data) + WIFI (data)	Yes	Yes	-
3	LTE + WIFI (data)	Yes	Yes	-

General note:

1. EUT will choose either GPRS or WCDMA LTE according to the network signal condition; therefore, they will not operate simultaneously at any moment.
2. The reported SAR summation is calculated based on the same configuration and test position.

Maximum reported SAR value for Body

WWAN Band		Exposure Position	Max SAR (W/kg)		Summed SAR
			① WWAN	② 2.4G WIFI	①+②
GSM	GSM850	Front side	0.657	0.214	0.871
		Back side	0.757	0.170	0.927
		Left side	/	0.177	0.177
		Right side	0.098	/	0.098
		Top side	0.146	0.105	0.251
		Bottom side	0.123	0.063	0.186
	PCS1900	Front side	1.092	0.214	1.306
		Back side	1.082	0.170	1.252
		Left side	/	0.177	0.177
		Right side	0.781	/	0.781
		Top side	0.537	0.105	0.642
		Bottom side	0.099	0.063	0.162
WCDMA	Band II	Front side	1.070	0.214	1.284
		Back side	0.988	0.170	1.158
		Left side	/	0.177	0.177
		Right side	0.720	/	0.720
		Top side	0.574	0.105	0.679
		Bottom side	0.077	0.063	0.140
	Band IV	Front side	1.353	0.214	1.567
		Back side	1.323	0.170	1.493
		Left side	/	0.177	0.177
		Right side	0.682	/	0.682
		Top side	0.646	0.105	0.751
		Bottom side	0.198	0.063	0.261
	Band V	Front side	0.726	0.214	0.940
		Back side	0.880	0.170	1.050
		Left side	/	0.177	0.177
		Right side	0.125	/	0.125
		Top side	0.257	0.105	0.362
		Bottom side	0.174	0.063	0.237



CDMA	BC0	Front side	0.792	0.214	1.006
		Back side	0.844	0.170	1.014
		Left side	/	0.177	0.177
		Right side	0.344	/	0.344
		Top side	0.129	0.105	0.234
		Bottom side	0.029	0.063	0.092
	BC1	Front side	0.980	0.214	1.194
		Back side	0.941	0.170	1.111
		Left side	/	0.177	0.177
		Right side	0.413	/	0.413
		Top side	0.282	0.105	0.387
		Bottom side	0.111	0.063	0.174



LTE	B2 1RB	Front side	0.991	0.214	1.205
		Back side	1.140	0.170	1.310
		Left side	/	0.177	0.177
		Right side	0.613	/	0.613
		Top side	0.374	0.105	0.479
		Bottom side	0.085	0.063	0.148
	B2 50RB	Front side	0.663	0.214	0.877
		Back side	0.718	0.170	0.888
		Left side	/	0.177	0.177
		Right side	0.221	/	0.221
		Top side	0.075	0.105	0.180
		Bottom side	0.005	0.063	0.068
	B4 1RB	Front side	1.292	0.214	1.506
		Back side	1.313	0.170	1.483
		Left side	/	0.177	0.177
		Right side	0.727	/	0.727
		Top side	0.568	0.105	0.673
		Bottom side	0.122	0.063	0.185
	B4 50RB	Front side	0.711	0.214	0.925
		Back side	0.787	0.170	0.957
		Left side	/	0.177	0.177
		Right side	0.333	/	0.333
		Top side	0.249	0.105	0.354
		Bottom side	0.107	0.063	0.170
B5 1RB	Front side	1.061	0.214	1.275	
	Back side	1.019	0.170	1.189	
	Left side	/	0.177	0.177	
	Right side	0.113	/	0.113	
	Top side	0.339	0.105	0.444	
	Bottom side	0.182	0.063	0.245	
B5 25RB	Front side	0.823	0.214	1.037	
	Back side	0.755	0.170	0.925	
	Left side	/	0.177	0.177	
	Right side	0.026	/	0.026	
	Top side	0.123	0.105	0.228	
	Bottom side	0.102	0.063	0.165	



LTE	B7 1RB	Front side	1.332	0.214	1.546
		Back side	1.265	0.170	1.435
		Left side	/	0.177	0.177
		Right side	0.838	/	0.838
		Top side	0.374	0.105	0.479
		Bottom side	0.104	0.063	0.167
	B7 50RB	Front side	1.050	0.214	1.264
		Back side	0.982	0.170	1.152
		Left side	/	0.177	0.177
		Right side	0.650	/	0.650
		Top side	0.290	0.105	0.395
		Bottom side	0.081	0.063	0.144
	B12 1RB	Front side	0.157	0.214	0.371
		Back side	0.198	0.170	0.368
		Left side	/	0.177	0.177
		Right side	0.003	/	0.003
		Top side	0.078	0.105	0.183
		Bottom side	0.073	0.063	0.136
	B12 25RB	Front side	0.133	0.214	0.347
		Back side	0.167	0.170	0.337
		Left side	/	0.177	0.177
		Right side	0.002	/	0.002
		Top side	0.066	0.105	0.171
		Bottom side	0.061	0.063	0.124
B13 1RB	Front side	0.374	0.214	0.588	
	Back side	0.404	0.170	0.574	
	Left side	/	0.177	0.177	
	Right side	0.011	/	0.011	
	Top side	0.138	0.105	0.243	
	Bottom side	0.078	0.063	0.141	
B13 25RB	Front side	0.310	0.214	0.524	
	Back side	0.335	0.170	0.505	
	Left side	/	0.177	0.177	
	Right side	0.009	/	0.009	
	Top side	0.114	0.105	0.219	
	Bottom side	0.065	0.063	0.128	



LTE	B17 1RB	Front side	0.134	0.214	0.348
		Back side	0.150	0.170	0.320
		Left side	/	0.177	0.177
		Right side	0.033	/	0.033
		Top side	0.044	0.105	0.149
		Bottom side	0.032	0.063	0.095
	B17 25RB	Front side	0.113	0.214	0.327
		Back side	0.127	0.170	0.297
		Left side	/	0.177	0.177
		Right side	0.028	/	0.028
		Top side	0.037	0.105	0.142
		Bottom side	0.022	0.063	0.085
	B25 1RB	Front side	0.945	0.214	1.159
		Back side	0.983	0.170	1.153
		Left side	/	0.177	0.177
		Right side	0.801	/	0.801
		Top side	0.300	0.105	0.405
		Bottom side	0.078	0.063	0.141
	B25 50RB	Front side	0.699	0.214	0.913
		Back side	0.774	0.170	0.944
		Left side	/	0.177	0.177
		Right side	0.651	/	0.651
		Top side	0.244	0.105	0.349
		Bottom side	0.064	0.063	0.127
B26 1RB	Front side	0.792	0.214	1.006	
	Back side	0.651	0.170	0.821	
	Left side	/	0.177	0.177	
	Right side	0.061	/	0.061	
	Top side	0.190	0.105	0.295	
	Bottom side	0.141	0.063	0.204	
B26 38RB	Front side	0.753	0.214	0.967	
	Back side	0.619	0.170	0.789	
	Left side	/	0.177	0.177	
	Right side	0.053	/	0.053	
	Top side	0.166	0.105	0.271	
	Bottom side	0.123	0.063	0.186	

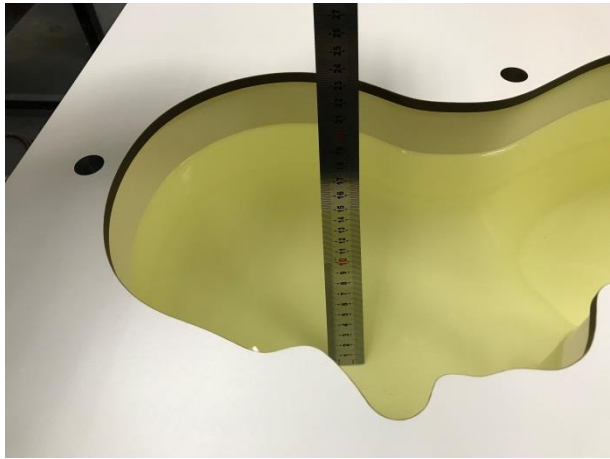


LTE	B30 1RB	Front side	1.254	0.214	1.468
		Back side	1.221	0.170	1.391
		Left side	/	0.177	0.177
		Right side	1.134	/	1.134
		Top side	0.399	0.105	0.504
		Bottom side	0.124	0.063	0.187
	B30 25RB	Front side	0.999	0.214	1.213
		Back side	0.974	0.170	1.144
		Left side	/	0.177	0.177
		Right side	0.904	/	0.904
		Top side	0.318	0.105	0.423
		Bottom side	0.100	0.063	0.163
	B41 1RB	Front side	1.174	0.214	1.388
		Back side	1.246	0.170	1.416
		Left side	/	0.177	0.177
		Right side	1.003	/	1.003
		Top side	0.291	0.105	0.396
		Bottom side	0.069	0.063	0.132
	B41 50RB	Front side	1.009	0.214	1.223
		Back side	1.071	0.170	1.241
		Left side	/	0.177	0.177
		Right side	0.862	/	0.862
		Top side	0.251	0.105	0.356
		Bottom side	0.059	0.063	0.122
B66 1RB	Front side	1.244	0.214	1.458	
	Back side	1.122	0.170	1.292	
	Left side	/	0.177	0.177	
	Right side	0.797	/	0.797	
	Top side	0.593	0.105	0.698	
	Bottom side	0.306	0.063	0.369	
B66 50RB	Front side	1.060	0.214	1.274	
	Back side	0.957	0.170	1.127	
	Left side	/	0.177	0.177	
	Right side	0.683	/	0.683	
	Top side	0.505	0.105	0.610	
	Bottom side	0.261	0.063	0.324	

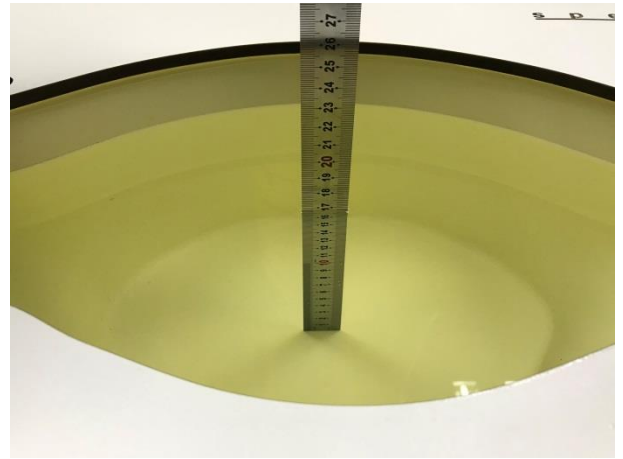


LTE	B71 1RB	Front side	0.660	0.214	0.874
		Back side	0.586	0.170	0.756
		Left side	/	0.177	0.177
		Right side	0.310	/	0.310
		Top side	0.249	0.105	0.354
		Bottom side	0.009	0.063	0.072
	B71 50RB	Front side	0.611	0.214	0.825
		Back side	0.541	0.170	0.711
		Left side	/	0.177	0.177
		Right side	0.286	/	0.286
		Top side	0.230	0.105	0.335
		Bottom side	0.009	0.063	0.072

16. TestSetup Photos



Liquid depth in the Head phantom



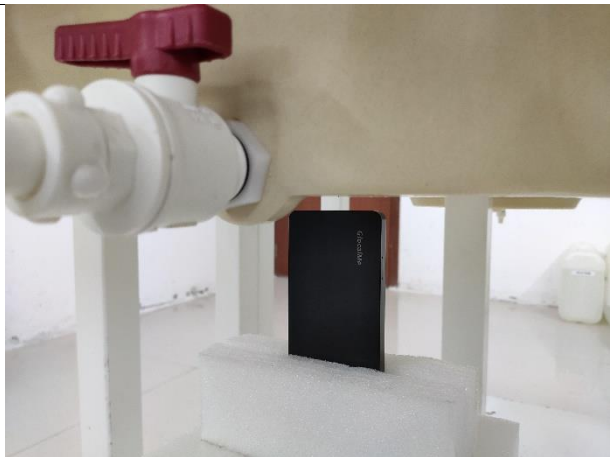
Liquid depth in the Body phantom



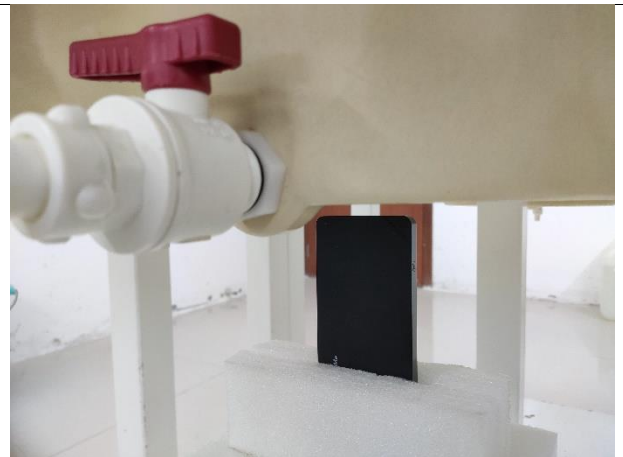
Front side (10mm)



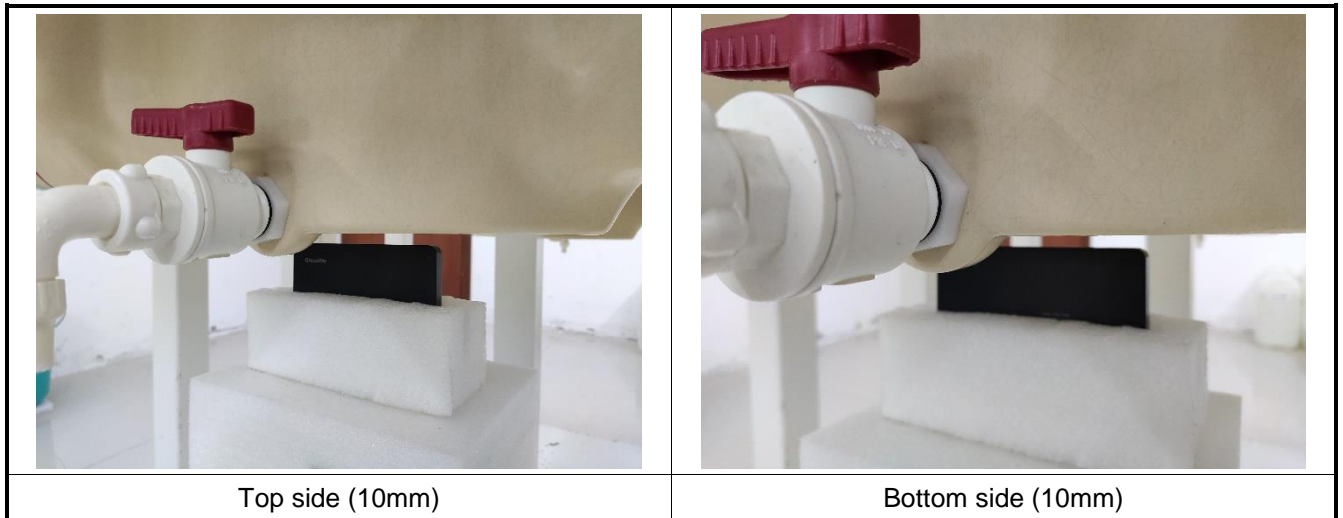
Back side (10mm)



Left side (10mm)



Right side (10mm)



17. External and Internal Photos of the EUT

Please reference to the report of Internal Photographs and External Photographs

-----End of Report-----