FCC SAR TEST REPORT

ISSUED BY
Shenzhen BALUN Technology Co., Ltd.

FOR

Rugged Tablet

ISSUED TO
Shenzhen UniStrong Science & Technology Co.,Ltd.

B,4-4Factory, Zhengcheng Road, FuyongBaoan District, Shenzhen, China

Tested by: Zong Liyao
Zong Liyao
(Engineer)
Date Jul. 10, 2018

Approved by:
Liao Jianming
(Technical Director)
Date Jul. 10, 2018

Report No.:	BL-EC1840167-701
EUT Name:	Rugged Tablet
Model Name:	UT30
Brand Name:	UniStrong
FCC ID:	2AOPD-UT30
Test Standard:	FCC 47 CFR Part 2.1093 ANSI C95.1: 1999, IEEE 1528: 2013
Maximum SAR:	Body (1 g): 1.047 W/kg
Test Conclusion:	Pass
Test Date:	Jun. 18, 2018 ~ Jun. 27, 2018
Date of Issue:	Jul. 10, 2018

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Revision History

Version	Issue Date	Revisions Content
Rev. 01	Jul. 10, 2018	Initial Issue

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1 GENERAL INFORMATION

1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co.,Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province,P. R. China
Phone Number	+86 755 6685 0100
Fax Number	+86 755 6182 4271

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co.,Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province,P. R. China
Accreditation Certificate	The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A-1. The laboratory is a testing organizatin accredited by FCC as a accredited testing laboratory. The designation number is CN1196. The laboratory is a testing organization accredited by American Association for Laboratory Accreditation (A2LA) according to ISO/IEC 17025.The accreditation certificate is 4344.01. The laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L6791.
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

1.3 Test Environment Condition

Ambient Temperature	21 to 23℃
Ambient Relative Humidity	40 to 50%
Ambient Pressure	100 to 102KPa

1.4 Announce

(1) The test report reference to the report template version v2.2.

(2) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.

(3) The test report is invalid if there is any evidence and/or falsification.

(4) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.

(5) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.

(6) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

2 PRODUCT INFORMATION

2.1 Applicant

Applicant	Shenzhen UniStrong Science & Technology Co.,Ltd.
Address	B,4-4Factory, Zhengcheng Road, FuyongBaoan District, Shenzhen, China

2.2 Manufacturer

Manufacturer	Shenzhen UniStrong Science & Technology Co.,Ltd.
Address	B,4-4Factory, Zhengcheng Road, FuyongBaoan District, Shenzhen, China

2.3 Factory Information

Factory	Shenzhen UniStrong Science & Technology Co.,Ltd.
Address	B,4-4Factory, Zhengcheng Road, FuyongBaoan District, Shenzhen, China

2.4 General Description for Equipment under Test (EUT)

EUT Type	Rugged Tablet
Model Name Under Test	UT30
Series Model Name	N/A
Description of Model Name Differentiation	N/A
Hardware Version	UT30_V103
Software Version	UT30_V1.0
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A
Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/900/1800/1900 GPRS/EDGE Class 12; 3G Network WCDMA/HSDPA/HSUPA Band 1/2/5/8 CDMA/EVDO BC0; 4G Network FDD LTE Band 1/2/3/4/5/7/8/12/13/17/20/25/28 TDD LTE Band 38/39/40/41 2.4G WLAN, 5.2G WLAN, 5.8G WLAN Bluetooth, Glonass

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	Sai Jiao Yang
	Model No.	BA820
	Serial No.	N/A
	Capacitance	8200 mAh
	Rated Voltage	3.8 V
	Extreme Voltage	High: 4.35 V
Ancillary Equipment 2	Charger 1	
	Brand Name	Aquilstar
	Model No.	ASUC71W
	Rated Input	100-240 V~, 50/60 Hz, 0.7 A
	Rated Output	5V ⎓, 3 A
Ancillary Equipment 3	Cable	
	Length	1.5 m

2.6 Technical Information

The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	GSM, WCDMA, FDD-LTE, TDD-LTE, 2.4G WLAN, 5G WLAN, Bluetooth		
Frequency Range	GSM 850	TX: 824 MHz ~ 849 MHz	RX: 869 MHz ~ 894 MHz
	GSM 1900	TX: 1850 MHz ~ 1910 MHz	RX: 1930 MHz ~ 1990 MHz
	WCDMA Band 2	TX: 1850 MHz ~ 1910 MHz	RX: 1930 MHz ~ 1990 MHz
	WCDMA Band 5	TX: 824 MHz ~ 849 MHz	RX: 869 MHz ~ 894 MHz
	CDMA BC0	TX: 824.025 - 848.985 MHz	RX: 869.025 - 893.985 MHz
	LTE Band 2	TX: 1850 MHz ~ 1910 MHz	RX: 1930 MHz ~ 1990 MHz
	LTE Band 4	TX: 1710 MHz ~ 1755 MHz	RX: 2110 MHz ~ 2155 MHz
	LTE Band 5	TX: 824 MHz ~ 849 MHz	RX: 869 MHz ~ 894 MHz
	LTE Band 7	TX: 2500 MHz ~ 2570 MHz	RX: 2620 MHz ~ 2690 MHz
	LTE Band 12	TX: 698 MHz ~ 716 MHz	RX: 728 MHz ~ 746 MHz
	LTE Band 13	TX: 777 MHz ~ 787 MHz	RX: 746 MHz ~ 756 MHz
	LTE Band 17	TX: 704 MHz ~ 716 MHz	RX: 734 MHz ~ 746 MHz
	LTE Band 25	TX: 1850 MHz ~ 1915 MHz	RX: 1930 MHz ~ 1995 MHz
	LTE Band 41	TX: 2555 ~ 2655 MHz	RX: 2555 ~ 2655 MHz
	802.11b/g /n(HT20)	2400 MHz ~ 2483.5 MHz	
	802.11a/ n(HT20) /ac(VHT20/VHT40/VHT80)	5150 MHz ~ 5250 MHz	
		5725 MHz ~ 5850 MHz	
	Bluetooth	2400 MHz ~ 2483.5 MHz	
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna		
DTM	N/A		
Hotspot Function	Support		
Power Reduction	Support (When device operating under hotspot mode, that the GSM 1900, WCDMA B2/B5, LTE B2/B4/B5/B7/B25 power reduction will applied for SAR compliance. The reduction power details please refer section 8.)		
Exposure Category	General Population/Uncontrolled exposure		
EUT Stage	Portable Device		
Product	Type		
	☒ Production unit	☐ Identical prototype	

3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	ANSI/IEEE Std. C95.1-1999	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	FCC KDB 447498 D01 v06	Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies
5	FCC KDB 941225 D01 v03r01	3G SAR MEAUREMENT PROCEDURES
6	FCC KDB 941225 D05 v02r05	SAR Evaluation Considerations for LTE Devices
7	FCC KDB 941225 D06 v02r01	SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities
8	FCC KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
9	FCC KDB 865664 D02 v01r02	RF Exposure Reporting
10	FCC KDB 648474 D04 v01r03	SAR Evaluation Considerations for Wireless Handsets
11	KDB 248227 D01 v02r02	SAR Guidance for IEEE 802.11 (Wi-Fi) Transmitters

3.2 Device Category and SAR Limit

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user.

Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

Table of Exposure Limits:

Body Position	SAR Value (W/Kg)	
	General Population/ Uncontrolled Exposure	Occupational/ ControlledExposure
Whole-Body SAR (averaged over the entire body)	0.08	0.4
Partial-Body SAR (averaged over any 1 gram of tissue)	1.60	8.0
SAR for hands, wrists, feet and ankles (averaged over any 10 grams of tissue)	4.0	20.0

NOTE:

General Population/Uncontrolled Exposure: Locations where there is the exposure of individuals who have no knowledge or control of their exposure. General population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

Occupational/Controlled Exposure: Locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

3.3 Test Result Summary

3.3.1 Highest SAR (1 g Value)

Band	Maximum Scaled SAR 1g (W/kg)			Maximum Report SAR 1g (W/kg)			Limit (W/kg)
	Body			Body			
	No Proximity Sensory	Proximity Sensory On	Proximity Sensory Off	No Proximity Sensory	Proximity Sensory On	Proximity Sensory Off	
GSM 850	1.009	N/A	N/A	1.047	0.480	0.428	1.6
GSM 1900	N/A	0.271	0.234				
WCDMA Band 2	N/A	0.480	0.353				
WCDMA Band 5	N/A	0.307	0.245				
CDMA BC0	1.047	N/A	N/A				
LTE Band 2	N/A	0.432	0.428				
LTE Band 4	N/A	0.396	0.242				
LTE Band 5	N/A	0.235	0.349				
LTE Band 7	N/A	0.477	0.184				
LTE Band 12	0.729	N/A	N/A				
LTE Band 13	0.574	N/A	N/A				
LTE Band 17	0.763	N/A	N/A				
LTE Band 25	N/A	0.383	0.362				
LTE Band 41	0.354	N/A	N/A				
2.4G WLAN	0.174	N/A	N/A				
5G WLAN	0.513	N/A	N/A				
Bluetooth	0.011	N/A	N/A				
Verdict	Pass						

Note: 1. Power reduction is not applicable for GSM850, CDMA BC0, LTE Band 12, LTE Band 13, LTE Band 17, LTE Band 41, WLAN and Bluetooth.
2. The proximity sensor is only used for power reduction to 2G/3G/4G antenna.

3.3.2 Highest Simultaneous SAR

Position	Simultaneous Configuration	Simultaneous SAR 1g (W/kg)	Limit (W/kg)	Verdict
Body (No Proximity Sensory)	CDMA + 5G WLAN	1.560	1.6	Pass

3.4 Test Uncertainty

According to KDB 865664 D01, when the highest measured 1 g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis is not required in SAR reports submitted for equipment approval.

The maximum 1 g SAR for the EUT in this report is 1.047 W/kg, which is lower than 1.5 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.

4 MEASUREMENT SYSTEM

4.1 Specific Absorption Rate (SAR) Definition

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

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

$$\mathbf{SAR} = \frac{d}{\mathbf{dt}}\left(\frac{\mathbf{dW}}{\mathbf{dm}}\right) = \frac{d}{\mathbf{dt}}\left(\frac{\mathbf{dW}}{\boldsymbol{\rho}\mathbf{dv}}\right)$$

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

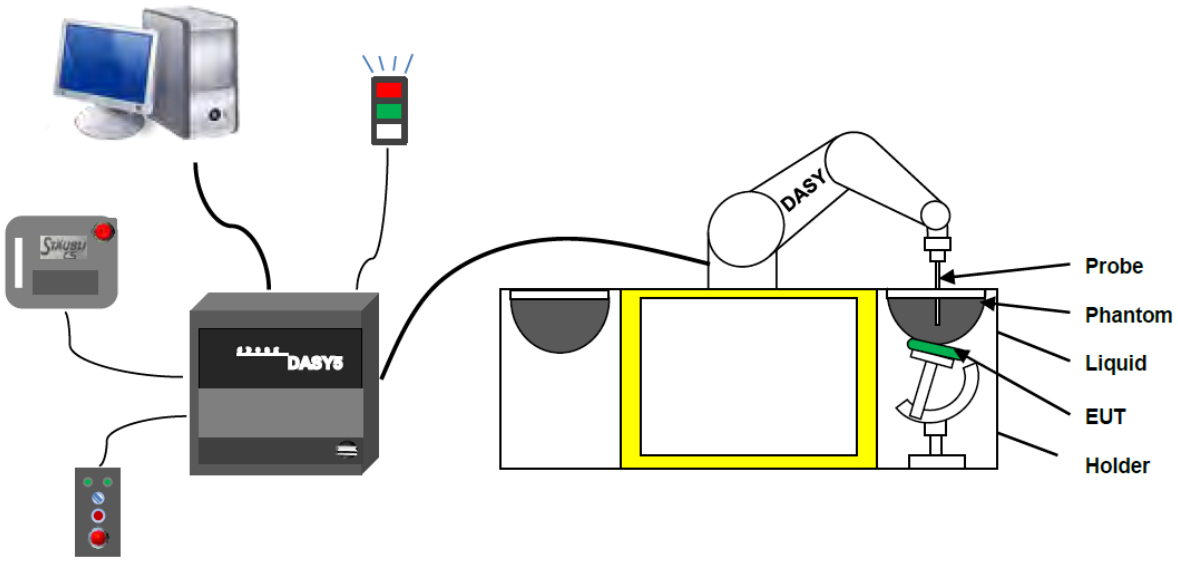
$$\mathbf{SAR} = \frac{\boldsymbol{\sigma}\mathbf{E}^2}{\boldsymbol{\rho}}$$

Where: σ is the conductivity of the tissue,

ρ is the mass density of the tissue and E is the RMS electrical field strength.

4.2 DASY SAR System

4.2.1 DASY SAR System Diagram



The DASY5 system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
3. A data acquisition electronic (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
4. A unit to operate the optical surface detector which is connected to the EOC.
5. The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.
6. The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.
7. DASY5 software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.

4.2.2 Robot

The Dasy SAR system uses the high precision robots. Symmetrical design with triangular core Built-in optical fiber for surface detection system For the 6-axis controller system, Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents). The robot series have many features that are important for our application:

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

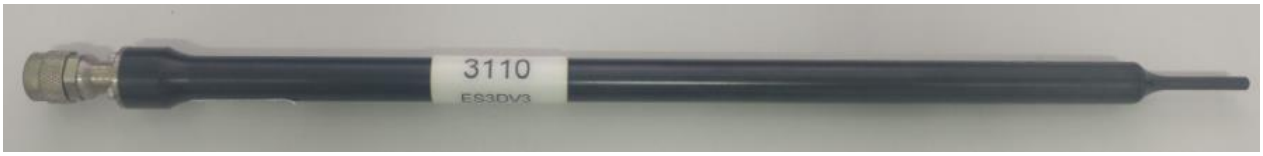
4.2.3 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4-SN:7340 with following specifications is used.

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection systemBuilt-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 6 GHz; Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.2 dB in HSL (rotation around probe axis) ; ± 0.4 dB in HSL (rotation normal to probe axis)
Dynamic range	5 µW/g to > 100 W/Kg; Linearity: ± 0.2 dB
Dimensions	Overall length: 337 mm (Tip: 9 mm) Tip diameter: 2.5 mm (Body: 10 mm) Distance from probe tip to dipole centers: 1.0 mm
Application	General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms (EX3DV4)

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe ES3DV3-SN:3110 with following specifications is used.

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 3 GHz; Linearity: ± 0.2 dB (30 MHz to 3 GHz)
Directivity	± 0.2 dB in HSL (rotation around probe axis) ; ± 0.4 dB in HSL (rotation normal to probe axis)
Dynamic range	5 µW/g to > 100 W/Kg; Linearity: ± 0.2 dB
Dimensions	Overall length: 337 mm (Tip: 10 mm) Tip diameter: 4 mm (Body: 10 mm) Distance from probe tip to dipole centers: 2.0 mm
Application	General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms (ES3DV3)

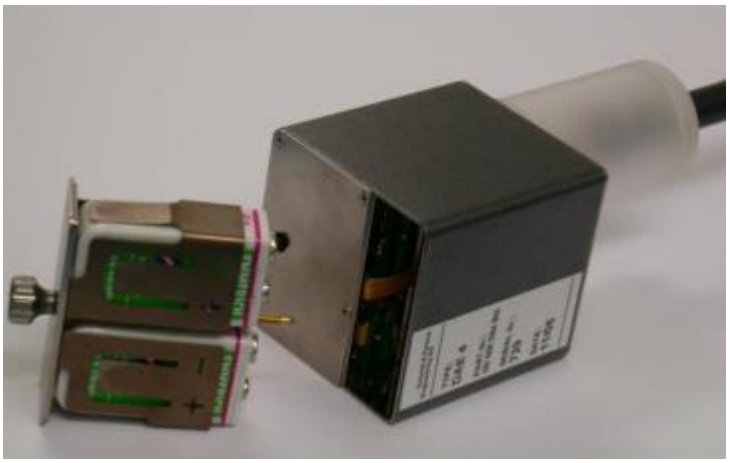


E-Field Probe Calibration Process

Probe calibration is realized, in compliance with CENELEC EN 62209-1/-2 and IEEE 1528 std, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the EN 62209-1/2 annexe technique using reference guide at the five frequencies.

4.2.4 Data Acquisition Electronics

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



- Input Impedance: 200MOhm
- The Inputs: Symmetrical and Floating
- Commom Mode Rejection: Above 80dB

4.2.5 Phantoms

For the measurements the Specific Anthropomorphic Mannequin (SAM) defined by the IEEE SCC-34/SC2 group is used. The phantom is a polyurethane shell integrated in a wooden table. The thickness of the phantom amounts to 2mm +/- 0.2mm. It enables the dosimetric evaluation of left and right phone usage and includes an additional flat phantom part for the simplified performance check. The phantom set-up includes a cover, which prevents the evaporation of the liquid.

- Left hand
- Right hand
- Flat phantom

Photo of Phantom SN1857

Photo of Phantom SN1859

Serial Number	Material	Length	Height
SN 1857 SAM1	Vinylester, glass fiber reinforced	1000	500
SN 1859 SAM2	Vinylester, glass fiber reinforced	1000	500

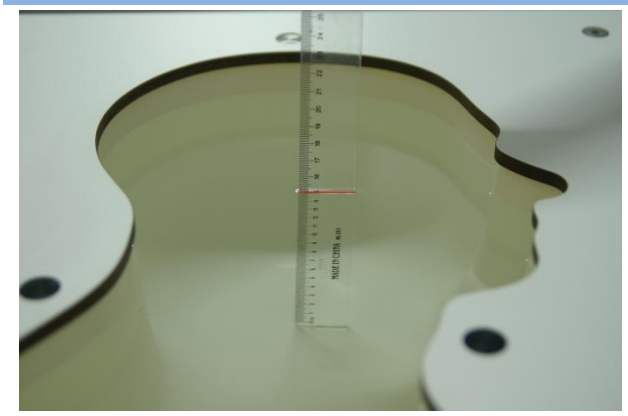
4.2.6 Device Holder

The DASY5 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65°. The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. This device holder is used for standard mobile phones or PDA‟s only. If necessary an additional support of polystyrene material is used. Larger DUT‟s (e.g. notebooks) cannot be tested using this device holder. Instead a support of bigger polystyrene cubes and thin polystyrene plates is used to position the DUT in all relevant positions to find and measure spots with maximum SAR values. Therefore those devices are normally only tested at the flat part of the SAM.

The positioning system allows obtaining cheek and tilting position with a very good accuracy. Incompliance with CENELEC, the tilt angle uncertainty is lower than 1°.

4.2.7 Simulating Liquid

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5%.

Head Liquid Depth	Body Liquid Depth
	

The following table gives the recipes for tissue simulating liquid and the theoretical Conductivity/Permittivity.

Head (Reference IEEE1528)								
Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity σ (S/m)	Permittivity ε
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
900	40.3	57.9	0.2	1.4	0.2	0	0.97	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.4	40.0
2450	55.0	0	0	0.1	0	44.9	1.80	39.2
2600	54.9	0	0	0.1	0	45.0	1.96	39.0
Frequency (MHz)	Water (%)	Hexyl Carbitol (%)			Triton X-100 (%)		Conductivity σ (S/m)	Permittivity ε
5200	62.52	17.24			17.24		4.66	36.0
5800	62.52	17.24			17.24		5.27	35.3
Body (From instrument manufacturer)								
Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity σ (S/m)	Permittivity ε
750	51.7	47.2	0	0.9	0.1	0	0.96	55.5
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
900	50.8	48.2	0	0.9	0.1	0	1.05	55.0
1800, 1900, 2000	70.2	0	0	0.4	0	29.4	1.52	53.3
2450	68.6	0	0	0.1	0	31.3	1.95	52.7
2600	68.2	0	0	0.1	0	31.7	2.16	52.5
Frequency(MHz)	Water	DGBE (%)			Salt (%)		Conductivity σ (S/m)	Permittivity ε
5200	78.60	21.40			/		5.54	47.86
5800	78.50	21.40			0.1		6.0	48.20

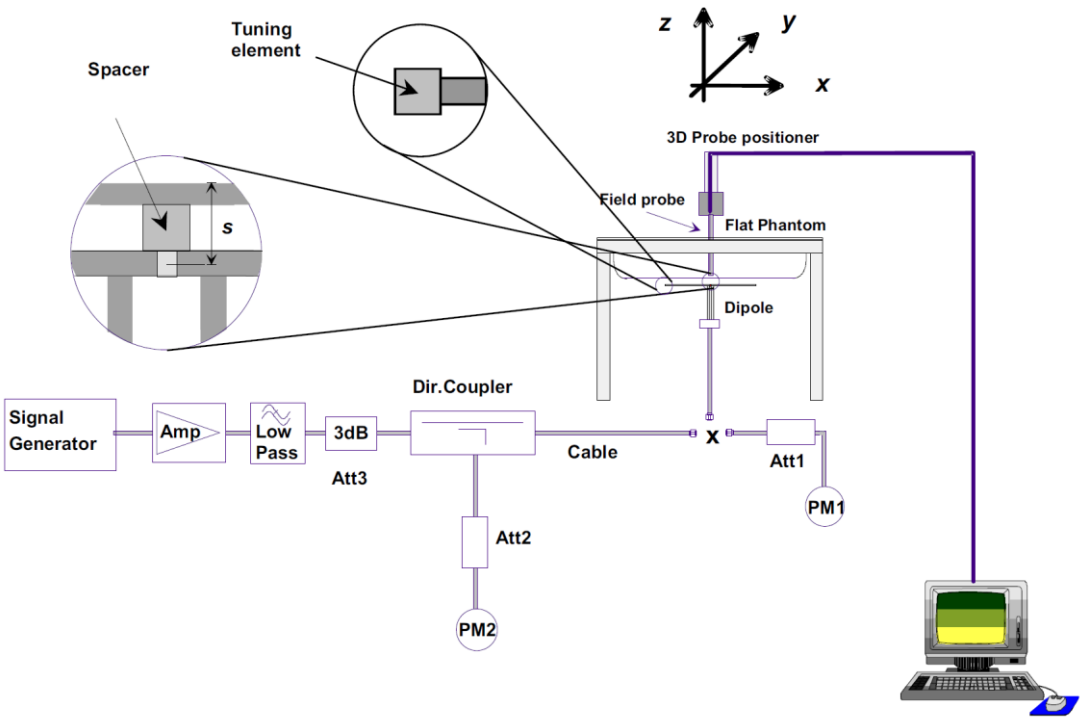
5 SYSTEM VERIFICATION

5.1 Purpose of System Check

The system performance check verifies that the system operates within its specifications. System and operator errors can be detected and corrected. It is recommended that the system performance check be performed prior to any usage of the system in order to guarantee reproducible results. The system performance check uses normal SAR measurements in a simplified setup with a well characterized source.This setup was selected to give a high sensitivity to all parameters that might fail or vary over time. The system check does not intend to replace the calibration of the components, but indicates situations where the system uncertainty is exceeded due to drift or failure.

5.2 System Check Setup

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



6 TEST POSITION CONFIGURATIONS

According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

6.1 Head Exposure Conditions

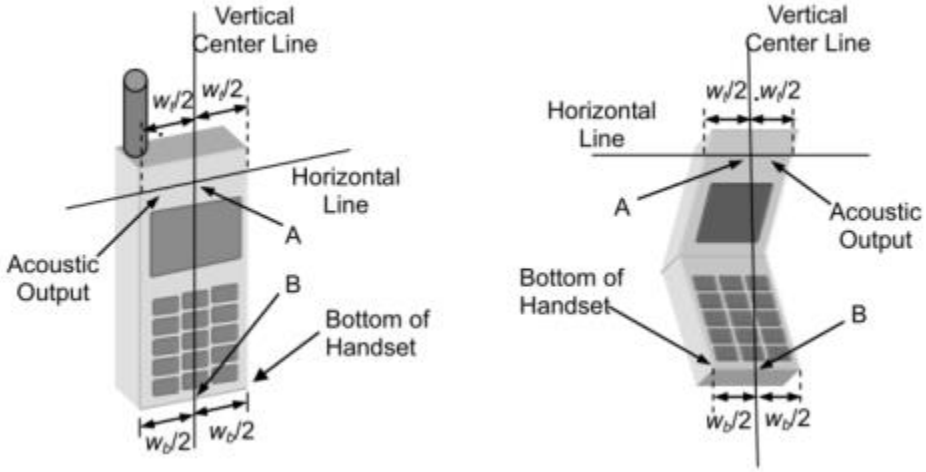
Head exposure is limited to next to the ear voice mode operations. Head SAR compliance is tested according to the test positions defined in IEEE Std 1528-2013 using the SAM phantom illustrated as below.

6.1.1 Two Imaginary Lines on the Handset

(a) The vertical center line 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, and the midpoint of the width w b of the bottom of the handset.

(b) The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.

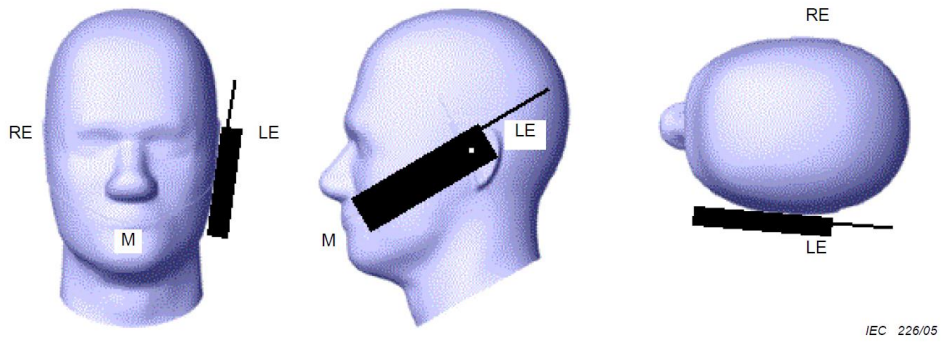
(c) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical center line is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.



6.1.2 Cheek Position

(a) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the three ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.

(b) To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost.



6.1.3 Tilted Position

(a) To position the device in the “cheek” position described above.

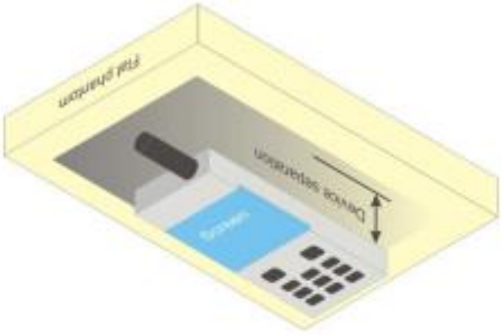
(b) While maintaining the device the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost.

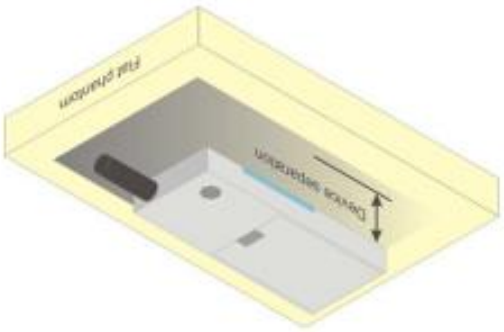
6.2 Body-worn Position Conditions

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB 447498 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory.

Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics. All body-worn accessories containing metallic components are tested in conjunction with the host device.

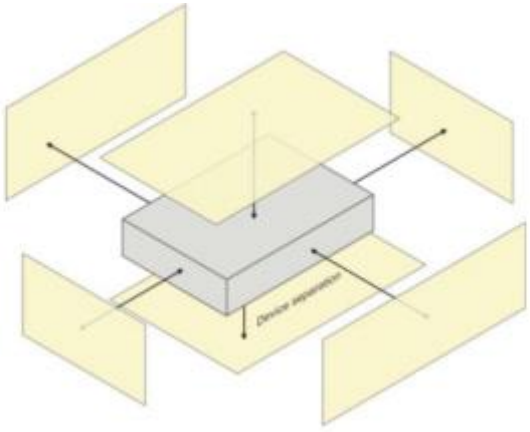
Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice only operations in its normal and expected use conditions, testing of data mode for body-worn compliance is not required. A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by users of consumer handsets is used to test for body-worn accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, will be tested using a conservative minimum test separation distance <= 5 mm to support compliance.





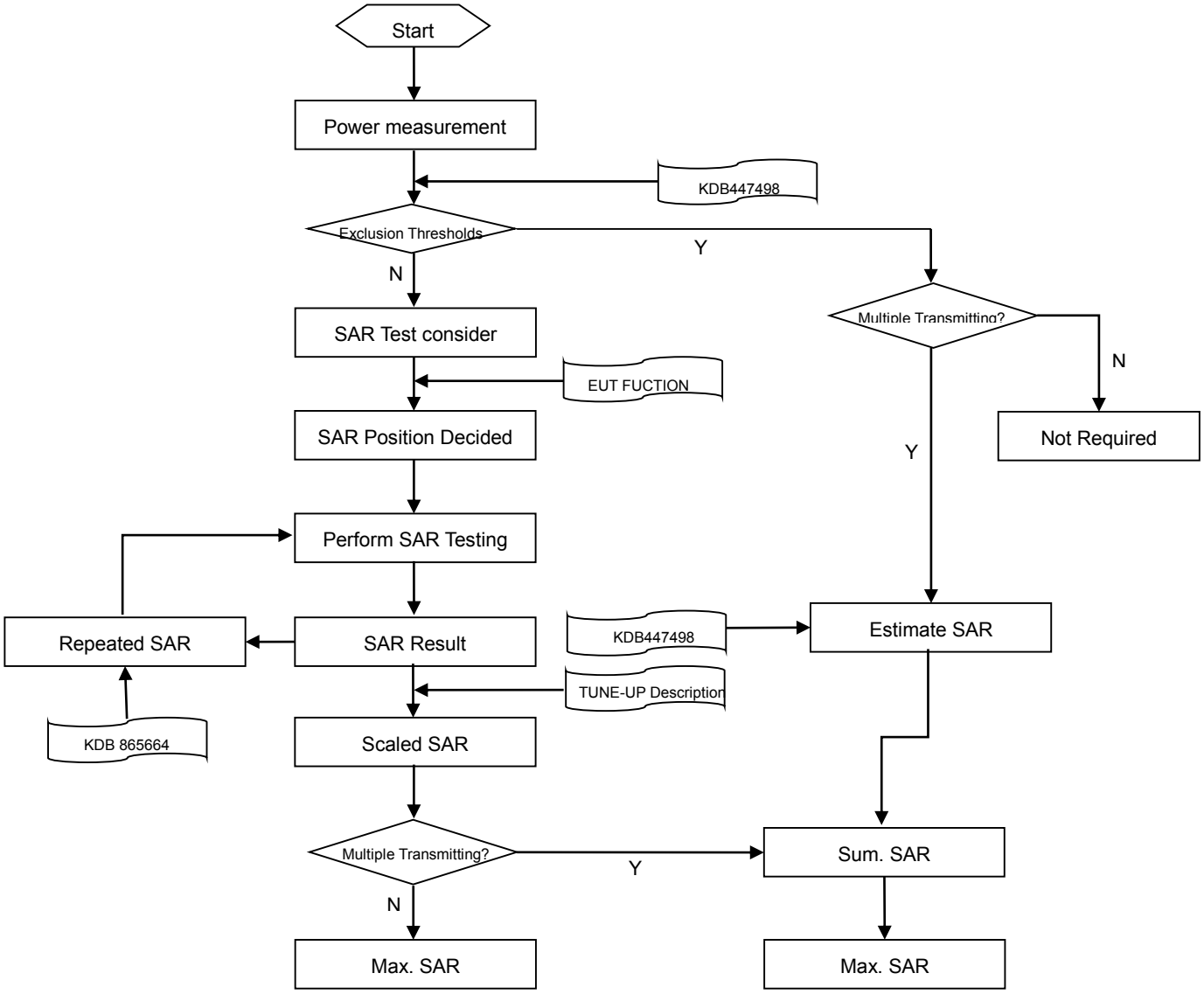
6.3 Hotspot Mode Exposure Position Conditions

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing functions, the relevant hand and body exposure conditions are tested according to the hotspot SAR procedures in KDB 941225. A test separation distance of 10 mm is required between the phantom and all surfaces and edges with a transmitting antenna located within 25 mm from that surface or edge. When the form factor of a handset is smaller than 9 cm x 5 cm, a test separation distance of 5 mm (instead of 10 mm) is required for testing hotspot mode. When the separation distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, in the same wireless mode and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface).



7 MEASUREMENT PROCEDURE

7.1 Measurement Process Diagram



7.2 SAR Scan General Requirement

Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1 g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2013.

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

7.3 Measurement Procedure

The following steps are used for each test position

a. Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface

b. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.

c. Measurement of the SAR distribution with a grid of 8 to 16mm * 8 to16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.

d. Around this point, a cube of 30 * 30 * 30 mm or 32 * 32 *32 mm is assessed by measuring 5 or 8 * 5 or 8*4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

7.4 Area & Zoom Scan Procedure

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. Area scan and zoom scan resolution setting follows KDB 865664 D01v01r04 quoted below.

When the 1 g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

8 CONDUCTED RF OUPUT POWER

8.1 GSM

GSM 850 Band	Burst Average Power(dBm)			Frame-averaged power(dBm)		
Channel	128	190	251	128	190	251
GSM (GMSK, 1-Slot)	**32.96**	32.74	32.79	/	/	/
GPRS (GMSK, 1-Slot)	32.67	32.71	32.82	23.67	23.71	23.82
GPRS (GMSK, 2-Slots)	32.07	32.14	31.77	26.07	26.14	25.77
GPRS (GMSK, 3-Slots)	30.67	30.62	30.64	26.41	26.36	26.38
GPRS (GMSK, 4-Slots)	29.48	29.58	29.49	26.48	**26.58**	26.49
EGPRS (8PSK, 1-Slot)	29.34	29.33	29.24	20.34	20.33	20.24
EGPRS (8PSK, 2-Slots)	28.05	28.05	28.06	22.05	22.05	22.06
EGPRS (8PSK, 3-Slots)	26.79	26.90	26.76	22.53	22.64	22.50
EGPRS (8PSK, 4-Slots)	25.61	25.67	25.70	22.61	22.67	**22.70**
GSM 1900 Band	Burst Average Power(dBm)			Frame-averaged power(dBm)		
Channel	512	661	810	512	661	810
GSM (GMSK, 1-Slot)	29.46	29.89	**29.90**	/	/	/
GPRS (GMSK, 1-Slot)	29.45	29.95	29.91	20.45	20.95	20.91
GPRS (GMSK, 2-Slots)	28.81	29.00	29.32	22.81	23.00	23.32
GPRS (GMSK, 3-Slots)	27.38	27.65	28.01	23.12	23.39	23.75
GPRS (GMSK, 4-Slots)	26.13	26.66	26.76	23.13	23.66	**23.76**
EGPRS (8PSK, 1-Slot)	27.53	27.84	27.85	18.53	18.84	18.85
EGPRS (8PSK, 2-Slots)	26.20	26.46	26.65	20.20	20.46	20.65
EGPRS (8PSK, 3-Slots)	24.90	25.23	25.50	20.64	20.97	21.24
EGPRS (8PSK, 4-Slots)	23.70	24.02	24.25	20.70	21.02	**21.25**

Note:

1. SAR testing was performed on the maximum frame-Peaked power mode.
2. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum burst-averaged power based on time slots. The calculated method is shown as below:

   Frame-averaged power = Burst averaged power (1 Tx Slot) - 9 dB

   Frame-averaged power = Burst averaged power (2 Tx Slots) - 6 dB

   Frame-averaged power = Burst averaged power (3 Tx Slots) - 4.26 dB

   Frame-averaged power = Burst averaged power (4 Tx Slots) - 3 dB

8.2 WCDMA

WCDMA Band	Band 2			Band 5		
Channel	9262	9400	9538	4132	4182	4233
RMC 12.2Kbps	23.47	**23.63**	23.22	23.06	23.10	**23.26**
HSDPA Subtest-1	22.31	22.53	22.17	22.07	22.15	22.20
HSDPA Subtest-2	22.41	22.51	22.19	22.25	22.24	22.29
HSDPA Subtest-3	21.94	22.04	21.72	21.87	21.78	21.83
HSDPA Subtest-4	22.00	22.04	21.72	21.75	21.66	21.82
HSUPA Subtest-1	22.20	22.34	22.27	22.23	21.91	22.06
HSUPA Subtest-2	22.29	20.66	20.28	20.27	20.06	20.36
HSUPA Subtest-3	21.83	21.66	21.29	21.19	21.06	21.26
HSUPA Subtest-4	21.82	20.71	20.30	20.26	20.16	20.34
HSUPA Subtest-5	22.20	22.42	22.00	21.92	21.88	22.09

8.3 CDMA

CDMA Band	Mode	Conducted Power (dBm)		
		Channel		
		Low	Mid	High
BC0	RC1 SO55 (Loopback)	23.93	23.84	23.80
	RC3 SO55 (Loopback)	23.85	23.82	23.80
	RC3 SO32 (FCH)	24.05	**24.11**	24.06
	RC3 SO32 (FCH+SCH)	23.96	24.10	24.08

CDMA Band	FTAP Rate	RTAP Rate	Conducted Power (dBm)		
			Channel		
			Low	Mid	High
CDMA 1x Ev-Do Rev. 0	307.2 kbps (2 slot, QPSK)	153.6 kbps	23.20	23.37	23.28
CDMA 1x Ev-Do Rev. A	307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	23.16	23.34	23.22

8.4 LTE

FDD LTE Band 2							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18700	18900	19100	18700	18900	19100
20MHz	1 (RB_Pos:0)	22.43	23.52	22.85	21.90	22.87	22.24
	1 (RB_Pos:49)	23.45	**24.33**	23.94	22.94	22.96	22.67
	1 (RB_Pos:99)	23.40	23.41	23.55	22.90	22.54	22.61
	50 (RB_Pos:0)	23.09	23.06	22.89	22.11	21.93	21.90
	50 (RB_Pos:24)	**23.13**	22.99	22.86	22.15	21.89	21.76
	50 (RB_Pos:49)	23.10	23.04	22.73	22.11	21.91	21.58
	100 (RB_Pos:0)	**23.17**	22.99	22.87	22.08	21.98	21.83
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18675	18900	19125	18675	18900	19125
15MHz	1 (RB_Pos:0)	22.63	24.01	22.65	21.50	23.00	22.03
	1 (RB_Pos:37)	23.30	23.89	23.62	22.19	22.83	23.29
	1 (RB_Pos:74)	22.64	23.67	23.52	21.55	22.34	22.84
	36 (RB_Pos:0)	23.06	22.99	22.83	22.07	22.02	21.81
	36 (RB_Pos:18)	23.26	22.97	22.81	22.31	21.96	21.64
	36 (RB_Pos:37)	23.11	22.99	22.69	22.13	21.86	21.60
	75 (RB_Pos:0)	23.07	23.01	22.75	22.10	21.87	21.65
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18650	18900	19150	18650	18900	19150
10MHz	1 (RB_Pos:0)	22.91	24.10	23.30	21.80	23.21	22.33
	1 (RB_Pos:24)	23.40	24.17	24.08	22.29	22.89	22.78
	1 (RB_Pos:49)	22.57	23.77	23.74	21.47	23.02	22.73
	25 (RB_Pos:0)	23.08	23.08	22.82	22.31	22.14	21.93
	25 (RB_Pos:12)	23.17	23.04	22.90	22.20	22.08	21.77
	25 (RB_Pos:24)	23.10	23.11	22.95	22.12	22.00	21.87
	50 (RB_Pos:0)	23.18	23.05	22.88	22.19	21.98	21.64
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18625	18900	19175	18625	18900	19175
5MHz	1 (RB_Pos:0)	23.21	23.79	23.58	22.69	22.81	22.39
	1 (RB_Pos:12)	23.50	24.02	23.65	23.02	22.78	22.38
	1 (RB_Pos:24)	22.97	23.97	23.55	22.47	22.66	22.19
	12 (RB_Pos:0)	23.15	23.08	22.87	22.00	21.96	21.87
	12 (RB_Pos:6)	23.17	23.05	22.93	22.03	21.89	21.66
	12 (RB_Pos:11)	23.20	23.08	22.83	22.18	21.92	21.66
	25 (RB_Pos:0)	23.07	22.99	22.77	21.93	22.09	22.02
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18615	18900	19185	18615	18900	19185

3MHz	1 (RB_Pos:0)	23.44	24.05	23.88	22.34	22.93	22.91
	1 (RB_Pos:7)	23.52	24.01	23.81	22.43	22.86	22.65
	1 (RB_Pos:14)	23.27	24.09	23.76	22.18	22.95	22.78
	8 (RB_Pos:0)	23.23	23.06	22.85	22.44	22.03	22.13
	8 (RB_Pos:4)	23.17	23.01	22.78	22.09	22.10	21.97
	8 (RB_Pos:7)	23.06	22.95	22.81	22.36	22.02	21.66
	15 (RB_Pos:0)	23.12	23.01	22.84	22.01	22.00	21.83
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18607	18900	19193	18607	18900	19193
1.4MHz	1 (RB_Pos:0)	23.54	23.79	23.99	22.59	22.89	22.98
	1 (RB_Pos: 2)	23.54	23.89	23.93	22.62	22.84	22.75
	1 (RB_Pos:5)	23.47	23.98	23.88	22.55	22.79	22.78
	3 (RB_Pos:0)	23.49	23.93	23.69	22.56	22.94	22.98
	3 (RB_Pos:1)	23.51	23.98	23.91	22.58	23.01	23.05
	3 (RB_Pos:2)	23.45	23.91	23.80	22.54	22.97	22.80
	6 (RB_Pos:0)	23.12	22.96	22.87	22.18	21.90	21.84

FDD LTE Band 4							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20050	20175	20300	20050	20175	20300
20MHz	1 (RB_Pos:0)	22.48	22.71	22.87	21.75	21.54	21.83
	1 (RB_Pos:49)	22.52	**23.15**	22.95	21.99	21.83	21.56
	1 (RB_Pos:99)	22.54	22.90	22.54	21.36	21.52	21.56
	50 (RB_Pos:0)	21.69	21.89	**21.94**	20.59	20.72	20.70
	50 (RB_Pos:24)	21.71	21.81	21.72	20.50	20.90	20.67
	50 (RB_Pos:49)	21.75	21.86	21.72	20.58	20.79	20.68
	100 (RB_Pos:0)	21.76	**21.86**	21.85	20.69	20.73	20.67
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20025	20175	20325	20025	20175	20325
15MHz	1 (RB_Pos:0)	22.73	22.95	22.94	21.93	22.47	21.94
	1 (RB_Pos:37)	22.70	22.78	22.63	21.64	22.27	22.27
	1 (RB_Pos:74)	22.78	22.51	22.71	21.14	21.76	22.01
	36 (RB_Pos:0)	21.67	21.87	21.75	20.62	20.74	20.63
	36 (RB_Pos:18)	21.68	21.85	21.59	20.64	20.69	20.56
	36 (RB_Pos:37)	21.73	21.79	21.65	20.69	20.68	20.65
	75 (RB_Pos:0)	21.70	21.79	21.62	20.67	20.75	20.61
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20000	20175	20350	20000	20175	20350
10MHz	1 (RB_Pos:0)	22.88	22.88	22.78	21.59	21.81	21.72
	1 (RB_Pos:24)	22.80	23.23	22.63	21.47	22.02	21.95
	1 (RB_Pos:49)	22.80	22.94	22.69	21.03	21.89	21.76
	25 (RB_Pos:0)	21.74	21.96	21.68	20.81	21.05	20.77

	25 (RB_Pos:12)	21.62	21.89	21.66	20.81	21.02	20.71
	25 (RB_Pos:24)	21.70	21.87	21.65	20.85	21.06	20.70
	50 (RB_Pos:0)	21.71	21.93	21.73	20.85	20.68	20.70
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	19975	20175	20375	19975	20175	20375
5MHz	1 (RB_Pos:0)	22.84	22.84	22.64	21.91	21.64	21.25
	1 (RB_Pos:12)	22.64	22.85	22.68	21.66	21.52	21.53
	1 (RB_Pos:24)	22.54	22.90	22.71	21.24	21.76	21.38
	12 (RB_Pos:0)	21.73	21.90	21.65	20.49	20.72	20.61
	12 (RB_Pos:6)	21.67	21.90	21.90	20.42	20.80	20.77
	12 (RB_Pos:11)	21.63	21.85	21.97	20.39	20.77	20.71
	25 (RB_Pos:0)	21.62	21.86	21.88	20.59	20.88	20.90
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	19965	20175	20385	19965	20175	20385
3.0MHz	1 (RB_Pos:0)	22.87	22.73	22.58	22.04	21.82	21.83
	1 (RB_Pos:7)	22.66	22.75	22.43	21.81	21.82	21.66
	1 (RB_Pos:14)	22.55	22.76	22.54	21.78	21.54	21.79
	8 (RB_Pos:0)	21.79	21.88	21.72	20.70	20.87	20.91
	8 (RB_Pos:4)	21.69	21.94	21.78	20.75	20.66	21.09
	8 (RB_Pos:7)	21.78	21.97	21.76	20.66	20.68	20.51
	15 (RB_Pos:0)	21.70	21.86	21.78	20.78	20.49	20.70
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	19957	20175	20393	19957	20175	20393
1.4MHz	1 (RB_Pos:0)	22.62	22.79	22.83	21.56	21.75	21.81
	1 (RB_Pos:2)	22.78	22.94	22.91	21.56	21.82	21.97
	1 (RB_Pos:5)	22.54	22.85	22.77	21.40	21.78	21.88
	3 (RB_Pos:0)	22.69	22.86	22.71	21.79	22.06	22.05
	3 (RB_Pos:1)	22.75	22.97	22.81	21.70	22.03	22.02
	3 (RB_Pos:2)	22.59	22.86	22.78	21.56	21.93	22.01
	6 (RB_Pos:0)	21.72	21.88	21.79	20.68	20.76	20.66

FDD LTE Band 5							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20450	20525	20600	20450	20525	20600
10 MHz	1 (RB_Pos:0)	22.81	22.86	22.89	21.63	21.65	21.94
	1 (RB_Pos:25)	23.06	22.98	22.94	21.89	21.68	22.00
	1 (RB_Pos:49)	22.83	**23.09**	22.96	21.67	22.17	22.04
	25 (RB_Pos:0)	21.93	22.07	21.99	21.02	21.15	21.01
	25 (RB_Pos:12)	22.04	22.05	22.07	21.03	21.13	21.08
	25 (RB_Pos:25)	22.04	22.04	**22.10**	21.03	21.02	21.09
	50 (RB_Pos:0)	22.06	22.00	**22.13**	20.95	20.94	21.12
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20425	20525	20625	20425	20525	20625
5MHz	1 (RB_Pos:0)	22.78	22.71	22.93	21.80	21.05	21.67
	1 (RB_Pos:13)	23.04	22.97	22.90	21.90	21.16	21.68
	1 (RB_Pos:24)	22.98	22.90	22.92	21.98	21.12	21.56
	12 (RB_Pos:0)	21.92	21.90	22.01	20.83	20.84	21.08
	12 (RB_Pos:6)	21.96	22.03	22.18	20.77	20.98	21.07
	12 (RB_Pos:13)	22.03	21.97	22.21	20.86	21.01	21.16
	25 (RB_Pos:0)	21.97	22.03	22.00	20.92	21.09	21.23
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20415	20525	20635	20415	20525	20635
3.0 MHz	1 (RB_Pos:0)	22.88	22.92	22.88	22.00	21.77	21.98
	1 (RB_Pos:8)	22.86	22.81	22.93	22.02	21.73	22.10
	1 (RB_Pos:14)	22.80	22.88	22.99	22.05	21.85	22.08
	8 (RB_Pos:0)	22.06	22.03	22.11	21.05	20.91	21.05
	8 (RB_Pos:3)	22.07	22.03	22.21	21.09	20.92	21.08
	8 (RB_Pos:7)	22.17	22.08	22.22	21.09	20.95	21.11
	15 (RB_Pos:0)	21.97	22.04	22.24	20.98	20.99	21.03
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20407	20525	20643	20407	20525	20643
1.4MHz	1 (RB_Pos:0)	22.87	22.85	23.07	22.19	21.89	21.94
	1 (RB_Pos:3)	22.88	22.85	23.18	22.31	21.84	21.99
	1 (RB_Pos:5)	22.90	22.86	23.27	21.79	21.42	22.16
	3 (RB_Pos:0)	22.95	22.90	23.20	21.88	21.82	22.46
	3 (RB_Pos:1)	22.92	22.97	23.42	21.88	21.96	22.41
	3 (RB_Pos:3)	22.87	22.92	23.07	21.94	21.82	22.31
	6 (RB_Pos:0)	22.03	21.92	22.13	20.88	20.72	21.26

FDD LTE Band 7							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20850	21100	21350	20850	21100	21350
20MHz	1 (RB_Pos:0)	22.88	23.05	22.86	22.23	22.44	21.79
	1 (RB_Pos:49)	**23.31**	23.16	23.27	22.31	22.55	21.88
	1 (RB_Pos:99)	23.07	23.07	22.79	22.22	21.62	21.67
	50 (RB_Pos:0)	22.23	22.15	22.09	21.05	21.15	20.94
	50 (RB_Pos:24)	**22.24**	22.07	22.03	21.32	20.87	20.89
	50 (RB_Pos:49)	22.18	22.08	22.03	21.25	21.04	20.93
	100 (RB_Pos:0)	**22.20**	22.09	22.06	21.09	21.11	21.08
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20825	21100	21375	20825	21100	21375
15MHz	1 (RB_Pos:0)	23.05	22.92	23.16	22.18	22.03	22.59
	1 (RB_Pos:37)	22.98	22.94	22.95	22.75	21.86	22.78
	1 (RB_Pos:74)	23.07	23.01	22.82	21.94	21.38	22.18
	36 (RB_Pos:0)	22.15	22.06	22.09	21.06	21.28	21.04
	36 (RB_Pos:18)	22.15	22.10	22.06	21.05	21.26	21.04
	36 (RB_Pos:37)	22.21	22.07	22.03	20.99	21.04	20.92
	75 (RB_Pos:0)	22.09	22.07	22.04	21.05	21.12	20.99
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20800	21100	21400	20800	21100	21400
10MHz	1 (RB_Pos:0)	23.25	23.15	23.02	21.95	21.74	21.89
	1 (RB_Pos:24)	23.09	23.19	23.31	22.59	21.76	21.88
	1 (RB_Pos:49)	22.92	22.95	22.84	21.92	21.73	21.89
	25 (RB_Pos:0)	22.21	22.07	22.05	21.04	21.31	21.23
	25 (RB_Pos:12)	22.10	22.02	22.10	21.22	21.35	21.29
	25 (RB_Pos:24)	22.11	22.02	22.05	21.11	21.06	21.04
	50 (RB_Pos:0)	22.20	22.09	22.05	21.09	21.03	21.00
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20775	21100	21425	20775	21100	21425
5MHz	1 (RB_Pos:0)	23.07	22.79	22.72	21.70	21.94	21.59
	1 (RB_Pos:12)	23.07	23.00	22.97	21.71	21.97	21.45
	1 (RB_Pos:24)	22.94	22.80	22.95	21.42	21.38	21.03
	12 (RB_Pos:0)	22.08	22.06	21.92	20.96	21.00	21.09
	12 (RB_Pos:6)	22.08	22.10	21.95	21.08	21.04	20.84
	12 (RB_Pos:11)	22.02	22.02	21.93	21.09	20.79	20.99
	25 (RB_Pos:0)	22.08	21.99	21.95	21.22	20.98	20.96

FDD LTE Band 12							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23060	23095	23130	23060	23095	23130
10MHz	1 (RB_Pos:0)	23.16	23.34	23.47	22.21	22.13	22.43
	1 (RB_Pos:24)	23.36	**24.04**	23.82	22.44	22.24	22.41
	1 (RB_Pos:49)	23.21	23.41	23.26	22.23	22.28	22.23
	25 (RB_Pos:0)	22.32	22.43	22.44	21.23	21.43	21.56
	25 (RB_Pos:12)	22.47	22.42	22.39	21.33	21.63	21.32
	25 (RB_Pos:24)	22.50	22.37	**22.51**	21.40	21.51	21.40
	50 (RB_Pos:0)	22.36	**22.44**	22.37	21.14	21.33	21.31
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23035	23095	23155	23035	23095	23155
5MHz	1 (RB_Pos:0)	23.33	23.42	23.57	22.05	22.54	22.31
	1 (RB_Pos:12)	23.15	23.69	23.35	21.90	22.52	22.17
	1 (RB_Pos:24)	23.21	23.21	23.27	21.44	21.91	22.14
	12 (RB_Pos:0)	22.36	22.49	22.41	21.25	21.17	21.41
	12 (RB_Pos:6)	22.37	22.53	22.40	21.30	21.38	21.39
	12 (RB_Pos:11)	22.33	22.27	22.36	21.20	21.20	21.31
	25 (RB_Pos:0)	22.30	22.40	22.53	21.36	21.27	21.28
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23025	23095	23165	23025	23095	23165
3.0MHz	1 (RB_Pos:0)	23.43	23.51	23.54	22.29	22.19	22.35
	1 (RB_Pos:7)	23.40	23.66	23.44	22.12	22.11	22.31
	1 (RB_Pos:14)	23.12	23.24	23.69	22.14	22.02	22.27
	8 (RB_Pos:0)	22.36	22.44	22.36	21.73	21.28	21.12
	8 (RB_Pos:4)	22.25	22.41	22.49	21.70	21.26	21.06
	8 (RB_Pos:7)	22.31	22.47	22.43	21.39	21.30	21.27
	15 (RB_Pos:0)	22.37	22.49	22.39	21.32	21.39	21.03
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23017	23095	23173	23017	23095	23173
1.4MHz	1 (RB_Pos:0)	23.62	23.27	23.26	22.38	22.34	22.24
	1 (RB_Pos:2)	23.51	23.52	23.62	22.14	22.27	22.44
	1 (RB_Pos:5)	23.32	23.25	23.77	22.22	22.18	22.46
	3 (RB_Pos:0)	23.52	23.34	23.36	22.20	21.99	22.21
	3 (RB_Pos:1)	23.29	23.45	23.66	22.32	21.89	22.43
	3 (RB_Pos:2)	23.26	23.46	23.60	22.30	21.90	22.33
	6 (RB_Pos:0)	22.32	22.46	22.41	21.48	21.04	21.33

FDD LTE Band 13							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	--	23230	--	--	23230	--
10MHz	1 (RB_Pos:0)	--	23.32	--	--	22.26	--
	1 (RB_Pos:24)	--	**23.68**	--	--	22.95	--
	1 (RB_Pos:49)	--	23.34	--	--	22.20	--
	25 (RB_Pos:0)	--	**22.48**	--	--	21.32	--
	25 (RB_Pos:12)	--	22.36	--	--	21.51	--
	25 (RB_Pos:24)	--	22.48	--	--	21.50	--
	50 (RB_Pos:0)	--	**22.36**	--	--	21.37	--
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23205	23230	23255	23205	23230	23255
5MHz	1 (RB_Pos:0)	23.14	23.10	23.41	21.94	22.25	22.28
	1 (RB_Pos:12)	23.19	23.41	23.52	21.94	22.42	22.42
	1 (RB_Pos:24)	23.22	23.37	23.36	21.71	22.13	21.67
	12 (RB_Pos:0)	22.45	22.36	22.50	21.30	21.25	21.21
	12 (RB_Pos:6)	22.43	22.45	22.47	21.21	21.37	21.31
	12 (RB_Pos:11)	22.44	22.47	22.31	21.18	21.20	21.36
	25 (RB_Pos:0)	22.38	22.53	22.47	21.56	21.41	21.22

FDD LTE Band 17							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23780	23790	23800	23780	23790	23800
10 MHz	1 (RB_Pos:0)	23.22	22.94	23.06	22.19	22.01	22.07
	1 (RB_Pos:25)	**23.96**	23.60	23.35	22.23	22.33	22.69
	1 (RB_Pos:49)	23.16	22.95	22.94	21.67	22.20	21.69
	25 (RB_Pos:0)	22.41	22.43	22.40	21.39	21.64	21.40
	25 (RB_Pos:12)	**22.44**	22.42	22.44	21.47	21.59	21.47
	25 (RB_Pos:25)	22.40	22.41	22.40	21.38	21.46	21.31
	50 (RB_Pos:0)	**22.57**	22.34	22.36	21.25	21.29	21.34
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23755	23790	23825	23755	23790	23825
5MHz	1 (RB_Pos:0)	23.30	23.07	23.24	22.39	22.17	21.79
	1 (RB_Pos:13)	23.45	23.42	23.26	22.34	21.95	21.86
	1 (RB_Pos:24)	23.02	23.33	23.02	22.26	21.55	21.69
	12 (RB_Pos:0)	22.32	22.34	22.39	21.18	21.11	21.11
	12 (RB_Pos:6)	22.34	22.36	22.35	21.31	21.42	21.15
	12 (RB_Pos:13)	22.33	22.37	22.23	21.20	21.33	21.24
	25 (RB_Pos:0)	22.35	22.38	22.35	21.24	21.26	21.38

FDD LTE Band 25							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26140	26365	26590	26140	26365	26590
20MHz	1 (RB_Pos:0)	23.60	23.71	23.36	22.86	23.23	22.11
	1 (RB_Pos:49)	23.75	**23.91**	23.35	22.63	23.29	21.99
	1 (RB_Pos:99)	23.61	23.83	22.88	22.78	22.33	22.35
	50 (RB_Pos:0)	**22.89**	22.84	22.67	21.88	21.69	21.63
	50 (RB_Pos:24)	22.77	22.80	22.55	21.85	21.63	21.42
	50 (RB_Pos:49)	22.69	22.66	22.47	21.78	21.59	21.41
	100 (RB_Pos:0)	**22.84**	22.80	22.64	21.99	21.78	21.43
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26115	26365	26615	26115	26365	26615
15MHz	1 (RB_Pos:0)	23.77	23.89	23.53	22.68	22.65	22.68
	1 (RB_Pos:37)	23.72	23.81	23.41	22.73	22.60	22.55
	1 (RB_Pos:74)	23.65	23.67	22.81	22.58	22.42	22.24
	36 (RB_Pos:0)	22.77	22.83	22.53	21.84	21.74	21.57
	36 (RB_Pos:18)	22.74	22.74	22.50	21.78	21.71	21.47
	36 (RB_Pos:37)	22.80	22.62	22.43	21.62	21.73	21.43
	75 (RB_Pos:0)	22.78	22.71	22.46	21.87	21.57	21.42
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26090	26365	26640	26090	26365	26640
10MHz	1 (RB_Pos:0)	23.84	23.80	23.52	22.82	22.60	22.34
	1 (RB_Pos:24)	24.11	23.76	23.49	22.97	22.65	22.22
	1 (RB_Pos:49)	23.88	23.75	23.09	22.75	22.63	22.06
	25 (RB_Pos:0)	22.85	22.81	22.56	21.87	21.61	21.44
	25 (RB_Pos:12)	22.81	22.80	22.50	21.81	21.72	21.52
	25 (RB_Pos:24)	22.76	22.79	22.52	21.85	21.74	21.46
	50 (RB_Pos:0)	22.87	22.76	22.63	21.82	21.86	21.47
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26065	26365	26665	26065	26365	26665
5MHz	1 (RB_Pos:0)	23.73	23.72	23.50	22.47	22.67	21.86
	1 (RB_Pos:12)	23.80	23.59	23.49	22.47	22.68	21.65
	1 (RB_Pos:24)	23.71	23.76	23.38	22.36	22.66	22.06
	12 (RB_Pos:0)	22.66	22.80	22.44	21.66	21.77	21.34
	12 (RB_Pos:6)	22.87	22.75	22.42	21.74	21.60	21.40
	12 (RB_Pos:11)	22.77	22.70	22.36	21.55	21.64	21.33
	25 (RB_Pos:0)	22.70	22.76	22.47	21.86	21.73	21.32
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26055	26365	26675	26055	26365	26675
3.0MHz	1 (RB_Pos:0)	23.89	23.75	23.65	23.07	22.57	22.36
	1 (RB_Pos:7)	23.58	23.56	23.21	22.93	22.51	22.25

	1 (RB_Pos:14)	23.81	23.47	23.39	23.16	22.60	22.06
	8 (RB_Pos:0)	22.78	22.80	22.40	21.77	21.68	21.21
	8 (RB_Pos:4)	22.86	22.77	22.46	21.76	21.64	21.15
	8 (RB_Pos:7)	22.75	22.73	22.28	21.86	21.87	21.15
	15 (RB_Pos:0)	22.82	22.73	22.35	21.77	21.70	21.15
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26047	26365	26683	26047	26365	26683
1.4MHz	1 (RB_Pos:0)	23.85	23.41	23.12	22.67	22.57	22.14
	1 (RB_Pos:2)	23.94	23.60	23.63	22.69	22.53	22.25
	1 (RB_Pos:5)	23.88	23.50	23.61	22.75	22.53	22.20
	3 (RB_Pos:0)	23.72	23.59	23.10	22.84	22.31	22.37
	3 (RB_Pos:1)	23.73	23.75	23.14	22.86	22.28	22.45
	3 (RB_Pos:2)	23.68	23.68	23.44	22.89	22.21	22.31
	6 (RB_Pos:0)	22.83	22.67	22.13	21.53	21.38	21.34

FDD LTE Band 41							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	40340	40740	41140	40340	40740	41140
20MHz	1 (RB_Pos:0)	23.48	**23.63**	23.15	21.39	22.58	22.04
	1 (RB_Pos:50)	23.61	23.37	23.13	21.04	22.97	22.02
	1 (RB_Pos:99)	22.91	23.34	22.83	21.28	22.34	21.67
	50 (RB_Pos:0)	22.44	22.22	**22.46**	21.38	21.18	21.45
	50 (RB_Pos:25)	22.31	22.22	22.37	21.23	21.20	21.30
	50 (RB_Pos:50)	22.27	22.19	22.31	21.25	21.18	21.26
	100 (RB_Pos:0)	22.32	22.25	**22.38**	21.11	21.19	21.29
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	40315	40740	41165	40315	40740	41165
15MHz	1 (RB_Pos:0)	23.62	23.33	23.34	22.88	21.50	22.60
	1 (RB_Pos:38)	23.29	23.32	23.06	22.53	21.44	22.33
	1 (RB_Pos:74)	23.35	23.35	23.26	22.55	21.51	22.17
	36 (RB_Pos:0)	22.44	22.31	22.33	21.37	21.13	21.10
	36 (RB_Pos:20)	22.47	22.23	22.35	21.31	21.13	21.12
	36 (RB_Pos:39)	22.35	22.16	22.39	21.17	21.11	21.14
	75 (RB_Pos:0)	22.41	22.24	22.35	21.37	21.19	21.32
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	40290	40740	41190	40290	40740	41190
10MHz	1 (RB_Pos:0)	23.56	23.12	23.35	21.68	23.07	22.53
	1 (RB_Pos:25)	23.52	23.01	23.29	21.70	23.27	22.84
	1 (RB_Pos:49)	23.48	23.01	23.14	21.51	23.09	22.78
	25 (RB_Pos:0)	22.47	22.21	22.41	21.20	21.16	21.36
	25 (RB_Pos:12)	22.43	22.25	22.35	21.26	21.12	21.49
	25 (RB_Pos:25)	22.45	22.24	22.36	21.17	21.09	21.42

	50 (RB_Pos:0)	22.38	22.31	22.42	21.37	21.19	21.10
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	40265	40740	41215	40265	40740	41215
5MHz	1 (RB_Pos:0)	23.12	23.03	23.19	21.78	21.93	21.55
	1 (RB_Pos:13)	23.38	23.20	23.24	21.99	21.90	21.66
	1 (RB_Pos:24)	23.08	23.15	23.12	21.76	21.88	21.68
	12 (RB_Pos:0)	22.38	22.20	22.33	21.50	21.11	21.11
	12 (RB_Pos:6)	22.41	22.19	22.35	21.53	21.17	21.07
	12 (RB_Pos:13)	22.33	22.19	22.25	21.19	21.09	21.03
	25 (RB_Pos:0)	22.44	22.20	22.34	21.34	20.98	21.31

8.5 WIFI

8.5.1 2.4G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Avg. Power (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	12.46	No
		6	2437	**12.66**	Yes
		11	2462	12.38	No
	802.11g	1	2412	12.52	No
		6	2437	12.96	No
		11	2462	12.62	No
	802.11n(HT20)	1	2412	11.64	No
		6	2437	12.20	No
		11	2462	11.81	No
Note：According KDB 248227 D01 SAR is not required for the following 2.4 GHz OFDM conditions. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg. adjusted SAR = Report SAR * (max power(OFDM)/ max power(DSSS))= 0.174 * 1.07=0.186, so the 2.4GHz OFDM SAR test is not required.					

8.5.2 5G WIFI

Band (GHz)	Mode	Channel	Freq. (MHz)	Avg. Power (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	12.20	No
		40	5200	12.59	No
		48	5240	12.57	No
	802.11n(HT20)	36	5180	12.24	No
		40	5200	12.66	No
		48	5240	12.58	No
	802.11ac(VHT20)	36	5180	12.20	No
		40	5200	12.61	No
		48	5240	12.58	No

	802.11ac(VHT40)	38	5190	12.70	No
		46	5230	**12.78**	Yes
	802.11ac(VHT80)	42	5210	11.65	No
5.8 (5.725~5.850)	802.11a	149	5745	12.77	No
		157	5785	11.75	No
		165	5825	11.40	No
	802.11n(HT20)	149	5745	12.74	No
		157	5785	11.63	No
		165	5825	11.35	No
	802.11ac(VHT20)	149	5745	**12.78**	Yes
		157	5785	12.21	No
		165	5825	11.83	No
	802.11ac(VHT40)	151	5755	12.50	No
		159	5790	12.05	No
	802.11ac(VHT80)	155	5775	11.44	No

8.6 Bluetooth

Mode	GFSK			π/4-DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Avg. Power (dBm)	10.43	10.84	8.02	10.32	10.92	8.10
Mode	8-DPSK			BLE		
Channel	0	39	78	0	19	39
Frequency (MHz)	2402	2441	2480	2402	2440	2480
Avg. Power (dBm)	10.57	**11.13**	8.33	0.46	0.84	-1.30
Note: Per KDB 447498 D01v06, when the test separation distance is 0 mm. The test exclusion threshold is 4.05 which is > 3.0, SAR testing is required.						

8.7 Power Reduction List

When device operating under hotspot mode, the GSM 1900, WCDMA B2/B5, LTE B2/B4/B5/B7/B25 power reduction will apply for SAR compliance.

GSM 1900 Band	Burst Average Power (dBm)			Frame-averaged power (dBm)		
Channel	512	661	810	512	661	810
GSM (GMSK, 1-Slot)	25.91	**25.99**	25.85	/	/	/
GPRS (GMSK, 1-Slot)	25.24	25.39	25.46	16.24	16.39	16.46
GPRS (GMSK, 2-Slots)	24.46	24.80	24.97	18.46	18.80	18.97
GPRS (GMSK, 3-Slots)	23.50	24.36	24.24	19.24	20.10	19.98
GPRS (GMSK, 4-Slots)	22.65	23.49	23.24	19.65	**20.49**	20.24
EGPRS (8PSK, 1-Slot)	23.53	24.32	24.59	14.53	15.32	15.59
EGPRS (8PSK, 2-Slots)	22.61	23.23	23.01	16.61	17.23	17.01
EGPRS (8PSK, 3-Slots)	21.18	21.32	21.15	16.92	17.06	16.89
EGPRS (8PSK, 4-Slots)	20.37	20.02	20.08	**17.37**	17.02	17.08

Note:

3. SAR testing was performed on the maximum frame-Peaked power mode.
4. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum burst-averaged power based on time slots. The calculated method is shown as below:

   Frame-averaged power = Burst averaged power (1 Tx Slot) - 9 dB

   Frame-averaged power = Burst averaged power (2 Tx Slots) - 6 dB

   Frame-averaged power = Burst averaged power (3 Tx Slots) - 4.26 dB

   Frame-averaged power = Burst averaged power (4 Tx Slots) - 3 dB

WCDMA						
Band	Band 2			Band 5		
Channel	9262	9400	9538	4132	4182	4233
RMC 12.2Kbps	18.22	**18.24**	18.13	19.21	19.24	**19.59**
HSDPA Subtest-1	17.16	17.23	17.03	18.18	18.20	18.49
HSDPA Subtest-2	17.25	17.25	17.14	18.19	18.23	18.50
HSDPA Subtest-3	16.64	16.76	16.56	17.67	17.73	18.00
HSDPA Subtest-4	16.64	16.76	16.54	17.67	17.73	18.00
HSUPA Subtest-1	17.11	17.18	17.00	18.19	18.19	18.47
HSUPA Subtest-2	15.00	15.21	15.05	16.16	16.19	16.49
HSUPA Subtest-3	16.12	16.20	16.03	17.15	17.14	17.50
HSUPA Subtest-4	15.08	15.21	15.05	16.26	16.28	16.51
HSUPA Subtest-5	16.94	17.21	17.04	18.16	18.25	18.45

FDD LTE Band 2							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18700	18900	19100	18700	18900	19100
20MHz	1 (RB_Pos:0)	18.24	**18.71**	18.44	18.51	18.35	18.22
	1 (RB_Pos:49)	18.58	18.46	18.38	18.83	17.96	18.07
	1 (RB_Pos:99)	18.25	18.37	18.15	18.07	17.66	17.93
	50 (RB_Pos:0)	**18.44**	18.33	18.30	18.39	18.26	18.18
	50 (RB_Pos:24)	18.41	18.24	18.14	18.30	18.36	18.20
	50 (RB_Pos:49)	18.40	18.27	18.08	18.28	18.26	18.09
	100 (RB_Pos:0)	18.48	18.31	18.31	18.44	18.19	18.21
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18675	18900	19125	18675	18900	19125
15MHz	1 (RB_Pos:0)	18.42	18.48	18.53	18.46	19.02	18.25
	1 (RB_Pos:37)	18.62	18.20	18.07	18.47	18.80	18.65
	1 (RB_Pos:74)	18.33	18.08	18.22	18.26	18.32	17.98
	36 (RB_Pos:0)	18.57	18.38	18.26	18.60	18.17	18.13
	36 (RB_Pos:18)	18.59	18.37	18.16	18.64	18.25	18.16
	36 (RB_Pos:37)	18.64	18.35	18.16	18.63	18.20	18.09
	75 (RB_Pos:0)	18.53	18.37	18.10	18.53	18.27	18.10
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18650	18900	19150	18650	18900	19150
10MHz	1 (RB_Pos:0)	18.59	18.23	18.18	18.65	18.02	17.99
	1 (RB_Pos:24)	18.40	18.53	18.30	18.74	17.93	17.86
	1 (RB_Pos:49)	18.41	18.37	18.03	18.33	18.08	18.07
	25 (RB_Pos:0)	18.44	18.21	18.13	18.43	18.29	18.36
	25 (RB_Pos:12)	18.37	18.17	18.04	18.39	18.32	18.23
	25 (RB_Pos:24)	18.40	18.17	18.09	18.38	18.31	18.26
	50 (RB_Pos:0)	18.40	18.19	18.12	18.48	18.23	18.00
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18625	18900	19175	18625	18900	19175
5MHz	1 (RB_Pos:0)	18.25	18.02	17.99	17.79	17.82	17.81
	1 (RB_Pos:12)	18.23	18.15	18.03	17.88	17.82	17.84
	1 (RB_Pos:24)	18.22	18.00	18.12	17.84	17.76	17.68
	12 (RB_Pos:0)	18.32	18.16	18.13	18.23	18.15	18.28
	12 (RB_Pos:6)	18.37	18.21	18.13	18.24	18.07	18.21
	12 (RB_Pos:11)	18.37	18.13	18.04	18.19	18.01	17.94
	25 (RB_Pos:0)	18.28	18.24	18.10	18.55	18.17	17.91
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18615	18900	19185	18615	18900	19185
3MHz	1 (RB_Pos:0)	18.21	18.27	18.17	18.45	17.96	17.76
	1 (RB_Pos:7)	18.16	18.30	18.00	18.08	17.90	17.50

	1 (RB_Pos:14)	18.21	18.26	17.99	18.23	17.93	17.79
	8 (RB_Pos:0)	18.36	18.15	18.14	18.54	18.06	18.20
	8 (RB_Pos:4)	18.46	18.07	18.09	18.53	17.92	17.96
	8 (RB_Pos:7)	18.32	18.11	18.22	18.53	17.95	18.18
	15 (RB_Pos:0)	18.30	18.14	18.12	18.49	18.13	18.16
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18607	18900	19193	18607	18900	19193
1.4MHz	1 (RB_Pos:0)	18.39	18.17	18.39	18.25	18.13	18.59
	1 (RB_Pos: 2)	18.57	18.23	18.42	18.23	18.30	17.97
	1 (RB_Pos:5)	18.26	18.07	18.23	18.28	18.15	17.96
	3 (RB_Pos:0)	18.32	18.31	18.23	18.24	18.07	18.33
	3 (RB_Pos:1)	18.34	18.37	18.21	18.23	18.04	18.45
	3 (RB_Pos:2)	18.36	18.33	18.15	18.24	17.98	18.51
	6 (RB_Pos:0)	18.41	18.39	18.20	18.23	18.21	18.47

FDD LTE Band 4							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
20 MHz	Channel	20050	20175	20300	20050	20175	20300
	1 (RB_Pos:0)	17.71	18.06	18.08	17.74	17.77	18.23
	1 (RB_Pos:50)	17.94	**18.40**	17.97	17.99	17.60	17.63
	1 (RB_Pos:99)	17.72	18.31	17.99	17.36	17.47	17.38
	50 (RB_Pos:0)	17.76	17.98	**18.01**	17.90	17.76	17.92
	50 (RB_Pos:25)	17.77	17.93	17.78	17.95	18.09	17.83
	50 (RB_Pos:50)	17.88	17.98	17.81	17.86	18.07	17.80
	100 (RB_Pos:0)	17.85	17.97	17.95	17.79	18.04	17.87
15 MHz	Channel	20025	20175	20325	20025	20175	20325
	1 (RB_Pos:0)	17.82	17.97	17.96	17.79	17.93	18.66
	1 (RB_Pos:38)	17.97	18.01	17.68	17.71	17.73	18.33
	1 (RB_Pos:74)	17.99	17.89	17.91	17.57	17.49	18.57
	36 (RB_Pos:0)	17.81	17.98	17.85	17.74	17.99	17.95
	36 (RB_Pos:20)	17.87	17.94	17.83	17.66	18.14	17.80
	36 (RB_Pos:39)	17.91	17.97	17.86	17.74	18.09	17.77
	75 (RB_Pos:0)	17.66	17.97	17.84	17.75	17.96	18.01
10 MHz	Channel	20000	20175	20350	20000	20175	20350
	1 (RB_Pos:0)	17.74	17.97	17.78	17.60	17.66	17.68
	1 (RB_Pos:25)	17.76	18.18	18.19	17.72	17.57	17.60
	1 (RB_Pos:49)	17.67	18.20	17.90	17.50	17.70	17.75
	25 (RB_Pos:0)	17.80	18.11	17.81	17.98	18.11	17.80
	25 (RB_Pos:12)	17.79	18.04	17.81	17.89	18.12	17.79
	25 (RB_Pos:25)	17.76	17.99	17.89	17.71	18.07	18.00
	50 (RB_Pos:0)	17.84	17.93	17.88	17.77	17.89	17.84
5 MHz	Channel	19975	20175	20375	19975	20175	20375
	1 (RB_Pos:0)	17.58	17.97	17.86	17.34	17.99	17.63

	1 (RB_Pos:13)	17.77	18.01	18.16	17.24	17.51	17.84
	1 (RB_Pos:24)	17.59	18.06	17.91	17.00	17.45	17.17
	12 (RB_Pos:0)	17.72	18.05	17.86	17.80	17.86	17.75
	12 (RB_Pos:6)	17.76	18.09	18.11	17.70	17.99	18.25
	12 (RB_Pos:13)	17.70	18.05	18.13	17.56	18.08	18.22
	25 (RB_Pos:0)	17.69	18.01	17.95	17.87	18.15	17.95
3 MHz	Channel	19965	20175	20385	19965	20175	20385
	1 (RB_Pos:0)	17.68	18.22	17.72	17.76	17.47	17.75
	1 (RB_Pos:8)	17.61	18.10	17.77	17.43	17.61	17.64
	1 (RB_Pos:14)	17.70	18.12	17.74	17.69	17.19	17.66
	8 (RB_Pos:0)	17.75	18.11	17.99	17.57	18.06	17.61
	8 (RB_Pos:3)	17.79	18.05	17.93	17.83	17.99	17.63
	8 (RB_Pos:7)	17.72	18.02	17.90	17.93	18.07	17.61
	15 (RB_Pos:0)	17.78	18.05	17.92	17.72	18.18	17.74
1.4 MHz	Channel	19957	20175	20393	19957	20175	20393
	1 (RB_Pos:0)	17.89	17.85	17.73	17.59	17.79	17.74
	1 (RB_Pos:3)	17.92	17.78	17.81	17.53	17.61	18.01
	1 (RB_Pos:5)	17.71	17.91	17.78	17.61	17.20	17.91
	3 (RB_Pos:0)	17.83	17.90	17.84	17.19	17.47	17.95
	3 (RB_Pos:1)	17.82	18.09	18.01	17.47	17.72	18.13
	3 (RB_Pos:3)	17.70	18.02	17.91	17.38	17.74	18.00
	6 (RB_Pos:0)	17.75	17.91	17.88	17.52	17.69	17.84

FDD LTE Band 5							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20450	20525	20600	20450	20525	20600
10 MHz	1 (RB_Pos:0)	18.86	18.91	18.99	18.70	18.75	18.81
	1 (RB_Pos:25)	18.97	19.07	**19.21**	18.79	18.87	18.93
	1 (RB_Pos:49)	18.71	18.86	19.05	18.73	18.86	19.05
	25 (RB_Pos:0)	18.85	18.87	18.98	18.72	18.93	19.05
	25 (RB_Pos:12)	18.87	18.93	19.16	18.72	18.94	19.16
	25 (RB_Pos:25)	18.88	18.97	**19.18**	18.74	18.98	19.19
	50 (RB_Pos:0)	18.96	18.87	19.08	18.90	19.10	18.94
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20425	20525	20625	20425	20525	20625
5MHz	1 (RB_Pos:0)	18.76	18.85	19.12	18.26	18.77	18.96
	1 (RB_Pos:13)	18.69	18.97	19.27	18.43	18.91	18.92
	1 (RB_Pos:24)	18.61	18.73	19.20	18.39	19.06	18.79
	12 (RB_Pos:0)	18.81	18.85	19.12	18.90	18.88	19.13
	12 (RB_Pos:6)	18.84	18.98	19.09	18.86	18.97	19.15
	12 (RB_Pos:13)	18.79	18.93	19.23	18.82	18.80	19.30
	25 (RB_Pos:0)	18.78	18.82	19.13	18.96	18.82	19.18
Bandwidth	RB Set	Power (dBm)					

(MHz)		QPSK			16QAM		
	Channel	20415	20525	20635	20415	20525	20635
3.0 MHz	1 (RB_Pos:0)	18.86	19.05	18.99	18.81	18.74	19.04
	1 (RB_Pos:8)	18.86	19.00	19.20	18.34	18.80	19.21
	1 (RB_Pos:14)	18.76	18.96	19.24	18.40	18.86	19.14
	8 (RB_Pos:0)	19.01	19.02	19.23	18.73	18.91	19.12
	8 (RB_Pos:3)	18.87	18.99	19.23	18.87	18.99	19.05
	8 (RB_Pos:7)	18.91	19.06	19.27	18.94	19.03	19.07
	15 (RB_Pos:0)	18.87	18.84	19.28	18.82	18.89	19.24
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20407	20525	20643	20407	20525	20643
1.4MHz	1 (RB_Pos:0)	18.78	18.86	19.22	18.76	18.86	19.13
	1 (RB_Pos:3)	18.69	19.04	19.13	18.67	18.75	19.16
	1 (RB_Pos:5)	18.76	18.98	19.24	18.57	18.83	19.17
	3 (RB_Pos:0)	18.78	19.05	19.22	18.71	18.82	19.01
	3 (RB_Pos:1)	18.89	18.97	19.31	18.86	18.89	19.10
	3 (RB_Pos:3)	18.94	18.97	19.08	18.77	18.84	19.14
	6 (RB_Pos:0)	18.77	18.97	19.33	18.58	18.94	19.49

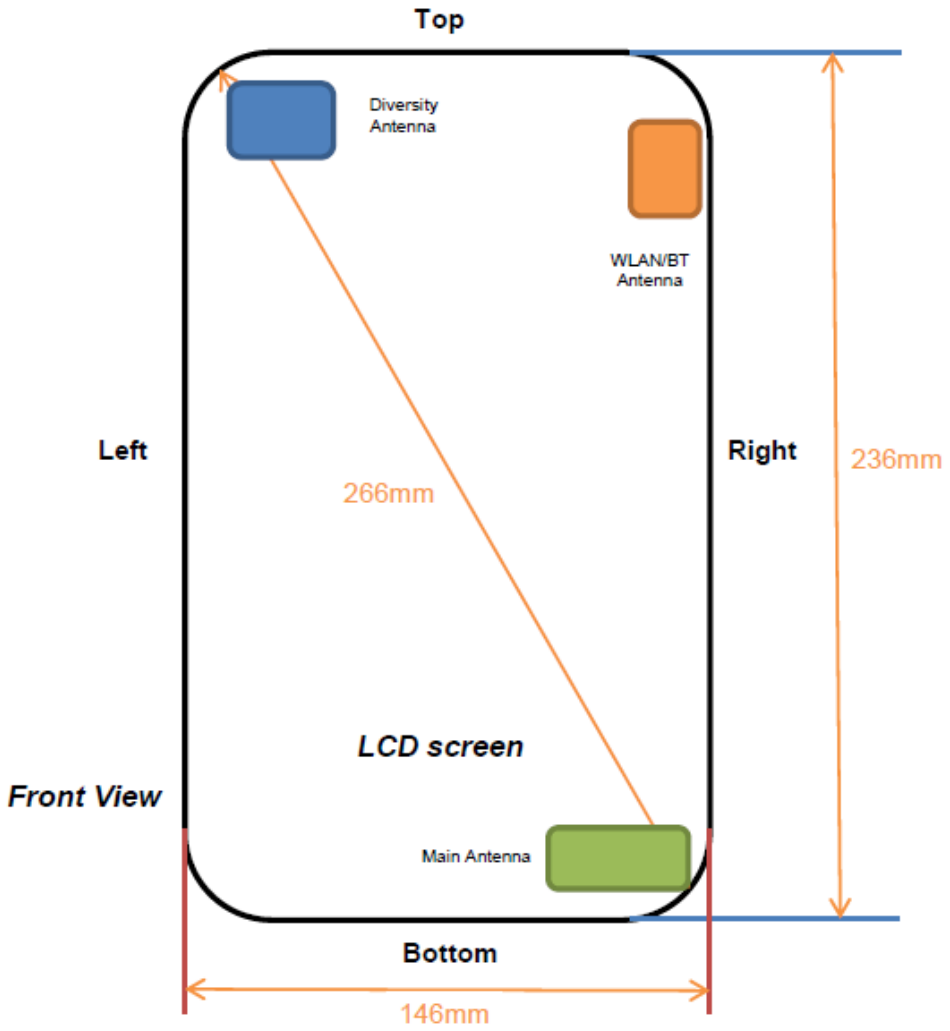
FDD LTE Band 7							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20850	21100	21350	20850	21100	21350
20MHz	1 (RB_Pos:0)	17.82	18.20	17.59	17.89	17.63	17.54
	1 (RB_Pos:49)	18.24	**18.26**	17.75	18.36	17.79	17.59
	1 (RB_Pos:99)	17.78	18.04	17.51	17.53	17.47	17.53
	50 (RB_Pos:0)	**18.09**	17.96	17.86	17.95	17.81	17.84
	50 (RB_Pos:24)	18.08	18.02	17.80	18.12	18.17	17.71
	50 (RB_Pos:49)	17.98	18.01	17.79	18.07	18.17	17.44
	100 (RB_Pos:0)	18.04	17.99	17.90	18.07	17.92	17.98
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20825	21100	21375	20825	21100	21375
15MHz	1 (RB_Pos:0)	18.03	17.97	17.75	18.06	17.90	18.48
	1 (RB_Pos:37)	17.97	18.08	17.58	18.51	17.81	18.32
	1 (RB_Pos:74)	17.95	17.95	17.65	17.89	17.67	17.87
	36 (RB_Pos:0)	18.00	17.97	17.87	18.12	17.96	17.89
	36 (RB_Pos:18)	18.05	18.03	17.81	17.94	18.21	17.80
	36 (RB_Pos:37)	17.98	17.97	17.78	17.90	17.94	17.67
	75 (RB_Pos:0)	17.97	18.03	17.78	18.03	17.79	17.82
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20800	21100	21400	20800	21100	21400
10MHz	1 (RB_Pos:0)	18.09	17.98	17.75	17.81	17.78	17.71
	1 (RB_Pos:24)	18.11	18.41	18.00	18.43	17.73	17.85

	1 (RB_Pos:49)	17.90	17.95	17.72	17.83	17.76	17.64
	25 (RB_Pos:0)	18.10	17.94	17.80	17.97	18.01	17.77
	25 (RB_Pos:12)	18.10	17.98	17.78	18.05	18.05	18.01
	25 (RB_Pos:24)	18.12	17.96	17.80	17.86	18.01	17.95
	50 (RB_Pos:0)	18.03	18.01	17.80	17.95	18.05	17.70
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20775	21100	21425	20775	21100	21425
5MHz	1 (RB_Pos:0)	17.88	17.82	17.67	17.68	17.94	17.45
	1 (RB_Pos:12)	17.95	17.84	17.81	17.65	17.99	17.18
	1 (RB_Pos:24)	17.81	17.74	17.67	17.35	17.46	17.07
	12 (RB_Pos:0)	18.00	17.98	17.69	17.95	17.77	17.63
	12 (RB_Pos:6)	18.05	17.94	17.74	18.08	17.93	17.62
	12 (RB_Pos:11)	17.92	17.91	17.67	17.90	17.80	17.70
	25 (RB_Pos:0)	18.02	17.96	17.72	18.10	17.96	17.67

FDD LTE Band 25							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26140	26365	26590	26140	26365	26590
20MHz	1 (RB_Pos:0)	17.87	18.14	17.72	18.27	17.68	17.35
	1 (RB_Pos:49)	**18.35**	18.24	17.84	18.53	17.78	18.33
	1 (RB_Pos:99)	18.02	18.14	17.69	18.23	17.58	17.33
	50 (RB_Pos:0)	**18.16**	18.05	17.85	18.10	17.80	17.74
	50 (RB_Pos:24)	18.07	17.96	17.84	18.05	17.95	17.73
	50 (RB_Pos:49)	18.00	18.00	17.82	17.94	17.92	17.73
	100 (RB_Pos:0)	18.03	17.98	17.82	18.11	17.87	17.76
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26115	26365	26615	26115	26365	26615
15MHz	1 (RB_Pos:0)	18.06	18.03	17.76	18.20	18.05	18.44
	1 (RB_Pos:37)	18.12	18.01	17.65	18.20	17.82	18.64
	1 (RB_Pos:74)	18.03	17.97	17.71	17.88	17.61	18.47
	36 (RB_Pos:0)	18.25	17.98	17.78	18.17	18.05	17.86
	36 (RB_Pos:18)	18.10	17.90	17.81	18.11	17.98	17.76
	36 (RB_Pos:37)	18.19	17.88	17.73	18.10	17.96	17.74
	75 (RB_Pos:0)	18.08	18.06	17.77	18.08	17.84	17.77
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26090	26365	26640	26090	26365	26640
10MHz	1 (RB_Pos:0)	18.12	18.07	17.87	18.09	17.84	17.82
	1 (RB_Pos:24)	18.19	18.07	17.83	18.20	17.88	17.57
	1 (RB_Pos:49)	18.10	17.96	17.91	17.95	17.80	17.28
	25 (RB_Pos:0)	18.15	18.09	17.85	18.22	18.05	17.97
	25 (RB_Pos:12)	18.19	18.04	17.93	18.08	18.20	17.90
	25 (RB_Pos:24)	18.26	18.09	17.91	18.09	18.20	17.78

	50 (RB_Pos:0)	18.12	18.01	17.79	18.10	17.96	17.73
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26065	26365	26665	26065	26365	26665
5MHz	1 (RB_Pos:0)	17.82	17.81	17.75	17.58	17.96	17.33
	1 (RB_Pos:12)	17.96	17.86	17.92	17.73	18.05	17.38
	1 (RB_Pos:24)	17.92	17.93	17.90	17.65	17.83	17.21
	12 (RB_Pos:0)	18.03	18.02	17.80	18.04	18.09	17.61
	12 (RB_Pos:6)	18.10	18.06	17.81	18.12	17.98	17.61
	12 (RB_Pos:11)	18.07	17.98	17.84	18.11	17.99	17.67
	25 (RB_Pos:0)	18.01	18.02	17.73	18.15	18.06	17.85
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26055	26365	26675	26055	26365	26675
3.0MHz	1 (RB_Pos:0)	18.22	18.01	17.72	18.10	17.80	17.59
	1 (RB_Pos:7)	18.20	17.96	17.82	18.10	17.71	17.60
	1 (RB_Pos:14)	18.28	17.99	18.03	18.14	17.76	17.60
	8 (RB_Pos:0)	18.06	18.01	17.85	18.10	17.94	17.52
	8 (RB_Pos:4)	18.03	18.07	17.80	18.08	17.91	17.55
	8 (RB_Pos:7)	18.08	18.04	17.89	18.04	17.87	17.57
	15 (RB_Pos:0)	18.06	18.03	17.88	17.97	18.02	17.65
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26047	26365	26683	26047	26365	26683
1.4MHz	1 (RB_Pos:0)	17.83	17.95	17.60	17.88	17.68	17.61
	1 (RB_Pos:2)	18.20	18.02	17.86	18.19	17.77	17.30
	1 (RB_Pos:5)	17.90	18.10	17.75	17.99	17.65	17.34
	3 (RB_Pos:0)	18.01	17.95	17.78	18.14	17.95	17.23
	3 (RB_Pos:1)	18.29	17.95	17.75	18.14	17.94	17.64
	3 (RB_Pos:2)	18.33	17.98	17.81	18.07	17.89	17.50
	6 (RB_Pos:0)	18.04	17.99	17.80	18.00	17.57	17.52

9 TEST EXCLUSION CONSIDERATION



Antenna Information	
Main Antenna	GSM/CDMA/WCDMA/LTE TX/RX
LTE Diversity antenna	Only RX
WLAN/BT Antenna	WLAN/BT TX/RX

10 SAR Test Exclusion Consideration Table

According with FCC KDB 447498 D01, Appendix A, <SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm> Table, this Device SAR test configurations consider as following:

Band	Mode	Max. Tune-up Power		Test Position Configurations					
		dBm	mW	Head	Back	Left Edge	Right Edge	Top Edge	Bottom Edge
GSM 850	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	Voice	33.00	1995.26	N/A	Yes	No	Yes	No	Yes
	Data	30.00	1000.00	N/A	Yes	No	Yes	No	Yes
GSM 1900	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	Voice	26.00	398.11	N/A	Yes	No	Yes	No	Yes
	Data	24.00	251.19	N/A	Yes	No	Yes	No	Yes
WCDMA Band 2	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	RMC	18.50	70.79	N/A	Yes	No	Yes	No	Yes
WCDMA Band 5	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	RMC	20.00	100.00	N/A	Yes	No	Yes	No	Yes
CDMA BC0	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	1xRTT (RC3 SO32)	24.50	281.84	N/A	Yes	No	Yes	No	Yes
	1xEVDO (Rel. 0)	23.50	223.87	N/A	Yes	No	Yes	No	Yes
LTE Band 2	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	QPSK	19.00	79.43	N/A	Yes	No	Yes	No	Yes
LTE Band 4	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	QPSK	18.50	70.79	N/A	Yes	No	Yes	No	Yes
LTE Band 5	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	QPSK	19.50	89.13	N/A	Yes	No	Yes	No	Yes
LTE Band 7	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	QPSK	18.50	70.79	N/A	Yes	No	Yes	No	Yes
LTE Band 12	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	QPSK	24.10	257.04	N/A	Yes	No	Yes	No	Yes
LTE Band 13	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	QPSK	24.00	251.19	N/A	Yes	No	Yes	No	Yes
LTE Band 17	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	QPSK	24.00	251.19	N/A	Yes	No	Yes	No	Yes
LTE Band 25	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	QPSK	18.50	70.79	N/A	Yes	No	Yes	No	Yes
LTE Band 41	Distance to User			N/A	2.5mm	92mm	9mm	188mm	8.4mm
	QPSK	24.00	251.19	N/A	Yes	No	Yes	No	Yes
WLAN 2.4 G	Distance to User			N/A	2.5mm	132mm	9mm	24mm	193mm
	802.11b	13.00	19.95	N/A	Yes	No	Yes	Yes	No
	802.11g	13.00	19.95	N/A	No	No	No	No	No
	802.11n(HT20)	12.50	17.78	N/A	No	No	No	No	No

WLAN 5.2 G	Distance to User			N/A	2.5mm	132mm	9mm	24mm	193mm
	802.11a	13.00	19.95	N/A	No	No	No	No	No
	802.11n(HT20)	13.00	19.95	N/A	No	No	No	No	No
	802.11ac(HT20)	13.00	19.95	N/A	No	No	No	No	No
	802.11ac(HT40)	13.00	19.95	N/A	Yes	No	Yes	Yes	No
	802.11ac(HT80)	12.00	15.85	N/A	No	No	No	No	No
WLAN 5.8 G	Distance to User			N/A	2.5mm	132mm	9mm	24mm	193mm
	802.11a	13.00	19.95	N/A	No	No	No	No	No
	802.11n(HT20)	13.00	19.95	N/A	No	No	No	No	No
	802.11ac(HT20)	13.00	19.95	N/A	Yes	No	Yes	Yes	No
	802.11ac(HT40)	13.00	19.95	N/A	No	No	No	No	No
	802.11ac(HT80)	12.00	15.85	N/A	No	No	No	No	No
Bluetooth	Distance to User			N/A	2.5mm	132mm	9mm	24mm	193mm
	BR/EDR	11.50	14.13	N/A	Yes	No	Yes	Yes	No
	BLE	1.00	1.26	N/A	No	No	No	No	No

Note:

1. Maximum power is the source-based time-average power and represents the maximum RF output power including tune-up tolerance among production units
2. Per KDB 447498 D01, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
3. Per KDB 447498 D01, standalone SAR test exclusion threshold is applied; If the distance of the antenna to the user is < 5mm, 5mm is used to determine SAR exclusion threshold
4. Per KDB 447498 D01, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
   [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] ·[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR
   a. f(GHz) is the RF channel transmit frequency in GHz
   b. Power and distance are rounded to the nearest mW and mm before calculation
   c. The result is rounded to one decimal place for comparison
   d. For < 50 mm distance, we just calculate mW of the exclusion threshold value (3.0) to do compare.
   This formula is [3.0] / [√f(GHz)] · [(min. test separation distance, mm)] = exclusion threshold of mW.
5. Per KDB 447498 D01, at 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following
   a. [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)·(f(MHz)/150)] mW, at 100 MHz to 1500 MHz
   b. [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)·10] mW at > 1500 MHz and ≤ 6 GHz
6. Per KDB 941225 D01, RMC 12.2kbps setting is used to evaluate SAR. If HSDPA /HSUPA /DC-HSDPA output power is < 0.25dB higher than RMC12.2Kbps, or reported SAR with RMC 12.2kbps setting is ≤ 1.2W/kg, HSDPA/HSUPA/DC-HSDPA SAR evaluation can be excluded.
7. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine further SAR exclusion.8. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is less than 1/4dB higher than those measured at the lowest data rate
8. Per KDB 248227 D01 SAR is not required for the following 2.4 GHz OFDM conditions.
   a. When KDB Publication 447498 D01 SAR test exclusion applies to the OFDM configuration.
   b. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output

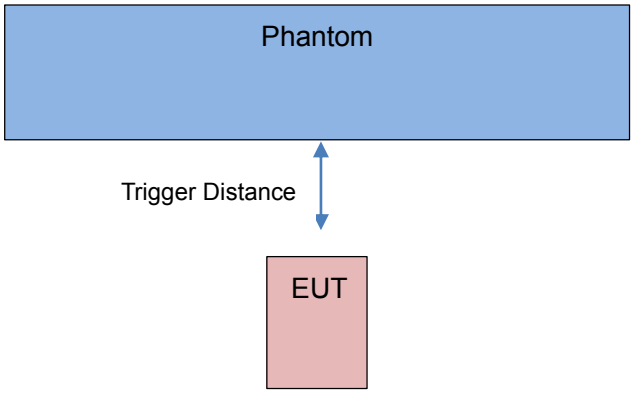
power and the adjusted SAR is ≤ 1.2 W/kg.

9. Per KDB 248227 D01 SAR is not required for the following U-NII-1 and U-NII-2A bands conditions.
   a. When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.
   b. When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration; otherwise, each band is tested independently for SAR.

10.1 Proximity Sensor Triggering Test

10.1.1 Procedures for determining antenna and proximity sensor coverage

Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the phantom and EUT moving toward the phantom were both assessed, and the shortest triggering distances were reported and used for SAR assessment.



Distance in mm	0-4	5	6	7	8	9	10	11	12
Back Side	On	On	On	On	On	On	On	Off	Off
Left Side	Off	Off	Off	Off	Off	Off	Off	Off	Off
Right Side	On	On	On	On	On	On	On	Off	Off
Top Side	Off	Off	Off	Off	Off	Off	Off	Off	Off
Bottom Side	On	On	Off	Off	Off	Off	Off	Off	Off
Note: Power reduction is only applicable for 2G/3G/4G.									

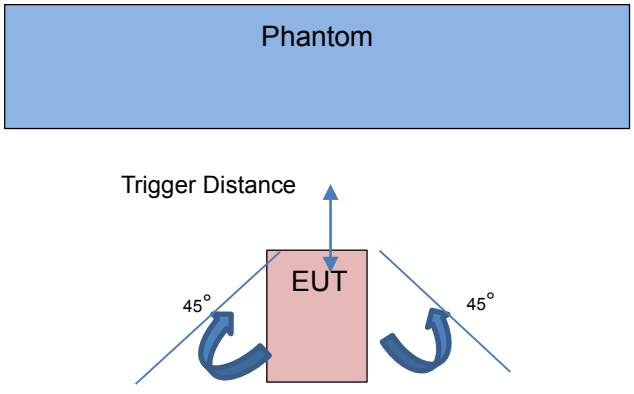
10.1.2 Procedures for determining antenna and proximity sensor coverage

Not apply

10.1.3 Procedures for determining tablet tilt angle influences to proximity sensor triggering

The influence of table tilt angles to proximity sensor triggering was determined by positioning each tablet edge that contains a transmitting antenna, perpendicular to the flat phantom, at 10 mm separation for the right edge and 15 mm separation for the top edge.

Rotating the tablet around the edge next to the phantom in $\leqslant$ 10° increments until the tablet is $\pm$ 45° from the vertical position at 0°, and the maximum output power remains in the reduced mode.



For verification of compliance of power reduction scheme, additional SAR test with EUT transmitting at full RF power at a separation of "the triggering distance – 1 mm"

EUT Sides	Additional SAR test Distance in mm
Back Side	9
Right Side	9
Bottom Side	4

11 TEST RESULT

11.1 GSM 850

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory												
Voice	N/A	Back Side	0	190	836.60	0.154	0.518	32.74	33.00	1.06	**0.550**	1#
Hotspot												
GPRS 4 slots	N/A	Back Side	0	128	824.20	0.151	0.877	29.48	30.00	1.13	0.989	/
				190	836.60	0.088	0.872	29.58	30.00	1.10	0.961	/
				251	848.80	-0.081	0.897	29.49	30.00	1.12	**1.009**	2#
		Right Edge	0	190	836.60	-0.061	0.241	29.58	30.00	1.10	0.265	/
		Bottom Edge	0	190	836.60	0.094	0.654	29.58	30.00	1.10	0.720	/

Note: For this band, the EUT does not support Power Reduction.

11.2 GSM 1900

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory												
Voice	on	Back Side	0	661	1880.00	-0.112	0.165	25.99	26.00	1.00	**0.165**	3#
	off	Back Side	9	661	1880.00	0.145	0.111	29.89	30.00	1.03	**0.114**	4#
Hotspot												
GPRS 4 slots	on	Back Side	0	661	1880.00	-0.001	0.241	23.49	24.00	1.12	**0.271**	5#
		Right Edge	0	661	1880.00	0.105	0.087	23.49	24.00	1.12	0.098	/
		Top Edge	0	661	1880.00	0.104	0.095	23.49	24.00	1.12	0.107	/
	off	Back Side	9	661	1880.00	-0.084	0.216	26.66	27.00	1.08	**0.234**	6#
		Right Edge	9	661	1880.00	0.034	0.090	26.66	27.00	1.08	0.098	/
		Bottom Edge	4	661	1880.00	-0.025	0.091	26.66	27.00	1.08	0.098	/

11.3WCDMA Band 2

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory & Hotspot												
RMC	on	Back Side	0	9400	1880.00	0.131	0.452	18.24	18.50	1.06	**0.480**	7#
		Right Edge	0	9400	1880.00	0.099	0.140	18.24	18.50	1.06	0.149	/
		Bottom Edge	0	9400	1880.00	-0.053	0.145	18.24	18.50	1.06	0.154	/
	off	Back Side	9	9400	1880.00	-0.089	0.324	23.63	24.00	1.09	**0.353**	8#
		Right Edge	9	9400	1880.00	0.161	0.144	23.63	24.00	1.09	0.157	/
		Bottom Edge	4	9400	1880.00	0.075	0.236	23.63	24.00	1.09	0.257	/

11.4WCDMA Band 5

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory & Hotspot												
RMC	on	Back Side	0	4182	836.40	0.086	0.256	19.24	20.00	1.19	0.305	/
		Right Edge	0	4182	836.40	0.020	0.078	19.24	20.00	1.19	0.092	/
		Bottom Edge	0	4182	836.40	-0.063	0.258	19.24	20.00	1.19	**0.307**	9#
	off	Back Side	9	4182	836.40	0.075	0.223	23.10	23.50	1.10	**0.245**	10#
		Right Edge	9	4182	836.40	0.124	0.052	23.10	23.50	1.10	0.057	/
		Bottom Edge	4	4182	836.40	-0.163	0.135	23.10	23.50	1.10	0.148	/

11.5CDMA BC0

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory & Hotspot												
1xRTT (RC3 SO32)	N/A	Back Side	0	1013	824.7	0.020	0.750	24.05	24.20	1.04	0.776	/
				384	836.52	0.031	0.760	24.11	24.20	1.02	0.776	/
				777	848.31	-0.181	0.774	24.06	24.20	1.03	0.799	/
		Right Edge	0	384	836.52	-0.076	0.186	24.11	24.20	1.02	0.190	/
		Bottom Edge	0	384	836.52	-0.026	0.529	24.11	24.20	1.02	0.540	/
EvDo Rel 0	N/A	Back Side	0	1013	824.7	0.113	0.977	23.20	23.50	1.07	**1.047**	11#
				384	836.52	-0.089	0.801	23.37	23.50	1.03	0.825	/
				777	848.31	-0.204	0.559	23.28	23.50	1.05	0.588	/
		Right Edge	0	384	836.52	0.109	0.201	23.37	23.50	1.03	0.207	/
		Bottom Edge	0	384	836.52	-0.153	0.560	23.37	23.50	1.03	0.577	/

Note: For this band, the EUT does not support Power Reduction.

11.6 LTE Band 2 (20MHz Bandwidth)

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Numb.	RB Start	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory & Hotspot														
QPSK	on	Back Side	0	18900	1880	1	Low	0.154	0.404	18.71	19.00	1.069	**0.432**	12#
				18700	1860	50	Low	0.088	0.398	18.44	18.50	1.014	0.404	/
		Right Edge	0	18900	1880	1	Low	0.054	0.153	18.71	19.00	1.069	0.164	/
				18700	1860	50	Low	0.079	0.156	18.44	18.50	1.014	0.158	/
		Bottom Edge	0	18900	1880	1	Low	-0.152	0.131	18.71	19.00	1.069	0.140	/
				18700	1860	50	Low	0.125	0.136	18.44	18.50	1.014	0.138	/
	off	Back Side	9	18900	1880	1	Mid	-0.076	0.412	24.33	24.50	1.040	**0.428**	13#
				18700	1860	50	Mid	-0.041	0.267	23.13	23.50	1.089	0.291	/
		Right Edge	9	18900	1880	1	Mid	0.083	0.160	24.33	24.50	1.040	0.166	/
				18700	1860	50	Mid	0.063	0.079	23.13	23.50	1.089	0.086	/
		Bottom Edge	4	18900	1880	1	Mid	0.164	0.263	24.33	24.50	1.040	0.273	/
				18700	1860	50	Mid	-0.015	0.137	23.13	23.50	1.089	0.149	/

11.7 LTE Band 4 (20MHz Bandwidth)

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Numb.	RB Start	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory & Hotspot														
QPSK	on	Back Side	0	20175	1732.5	1	Mid	0.021	0.387	18.40	18.50	1.023	**0.396**	14#
				20300	1745	50	Low	0.070	0.353	18.01	18.10	1.021	0.360	/
		Right Edge	0	20175	1732.5	1	Mid	-0.108	0.123	18.40	18.50	1.023	0.126	/
				20300	1745	50	Low	0.009	0.115	18.01	18.10	1.021	0.117	/
		Bottom Edge	0	20175	1732.5	1	Mid	-0.037	0.143	18.40	18.50	1.023	0.146	/
				20300	1745	50	Low	0.070	0.132	18.01	18.10	1.021	0.135	/
	off	Back Side	9	20175	1732.5	1	Mid	0.103	0.223	23.15	23.50	1.084	**0.242**	15#
				20300	1745	50	Low	-0.097	0.179	21.94	22.00	1.014	0.181	/
		Right Edge	9	20175	1732.5	1	Mid	0.059	0.107	23.15	23.50	1.084	0.116	/
				20300	1745	50	Low	0.023	0.078	21.94	22.00	1.014	0.079	/
		Bottom Edge	4	20175	1732.5	1	Mid	-0.118	0.033	23.15	23.50	1.084	0.035	/
				20300	1745	50	Low	0.054	0.021	21.94	22.00	1.014	0.022	/

11.8 LTE Band 5 (10MHz Bandwidth)

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Numb.	RB Start	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory & Hotspot														
QPSK	on	Back Side	0	20600	844	1	Mid	-0.062	0.220	19.21	19.50	1.069	**0.235**	16#
				20600	844	25	High	-0.050	0.214	19.18	19.50	1.076	0.230	/
		Right Edge	0	20600	844	1	Mid	-0.183	0.068	19.21	19.50	1.069	0.073	/
				20600	844	25	High	0.035	0.065	19.18	19.50	1.076	0.070	/
		Bottom Edge	0	20600	844	1	Mid	0.076	0.217	19.21	19.50	1.069	0.232	/
				20600	844	25	High	0.122	0.206	19.18	19.50	1.076	0.222	/
	off	Back Side	9	20525	836.5	1	High	-0.093	0.318	23.09	23.50	1.099	**0.349**	17#
				20600	844	25	High	0.046	0.236	22.10	22.50	1.096	0.259	/
		Right Edge	9	20525	836.5	1	High	-0.179	0.077	23.09	23.50	1.099	0.085	/
				20600	844	25	High	0.005	0.059	22.10	22.50	1.096	0.065	/
		Bottom Edge	4	20525	836.5	1	High	0.152	0.169	23.09	23.50	1.099	0.186	/
				20600	844	25	High	0.037	0.128	22.10	22.50	1.096	0.140	/

11.9 LTE Band 7 (20MHz Bandwidth)

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Numb.	RB Start	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory & Hotspot														
QPSK	on	Back Side	0	21100	2535	1	Mid	0.070	0.451	18.26	18.50	1.057	**0.477**	18#
				20850	2510	50	low	-0.186	0.448	18.09	18.20	1.026	0.459	/
		Right Edge	0	21100	2535	1	Mid	-0.134	0.018	18.26	18.50	1.057	0.019	/
				20850	2510	50	low	-0.005	0.023	18.09	18.20	1.026	0.024	/
		Bottom Edge	0	21100	2535	1	Mid	0.064	0.304	18.26	18.50	1.057	0.321	/
				20850	2510	50	low	0.168	0.291	18.09	18.20	1.026	0.298	/
	off	Back Side	9	20850	2510	1	Mid	0.119	0.176	23.31	23.50	1.045	**0.184**	19#
				20850	2510	50	Mid	0.130	0.143	22.24	22.50	1.062	0.152	/
		Right Edge	9	20850	2510	1	Mid	0.096	0.030	23.31	23.50	1.045	0.032	/
				20850	2510	50	Mid	0.037	0.023	22.24	22.50	1.062	0.024	/
		Bottom Edge	4	20850	2510	1	Mid	0.094	0.147	23.31	23.50	1.045	0.154	/
				20850	2510	50	Mid	-0.002	0.120	22.24	22.50	1.062	0.127	/

11.10 LTE Band 12 (10MHz Bandwidth)

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Numb.	RB Start	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory & Hotspot														
QPSK	N/A	Back Side	0	23095	707.5	1	Mid	0.029	0.719	24.04	24.10	1.014	**0.729**	20#
				23130	711	25	High	-0.082	0.544	22.51	23.00	1.119	0.609	/
		Right Edge	0	23095	707.5	1	Mid	0.080	0.140	24.04	24.10	1.014	0.142	/
				23130	711	25	High	0.161	0.108	22.51	23.00	1.119	0.121	/
		Bottom Edge	0	23095	707.5	1	Mid	0.032	0.133	24.04	24.10	1.014	0.135	/
				23130	711	25	High	-0.010	0.124	22.51	23.00	1.119	0.139	/

Note: For this band, the EUT does not support Power Reduction under Hotspot mode.

11.11 LTE Band 13 (10MHz Bandwidth)

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Numb.	RB Start	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory & Hotspot														
QPSK	N/A	Back Side	0	23230	782	1	Mid	-0.136	0.533	23.68	24.00	1.076	**0.574**	21#
				23230	782	25	Low	0.014	0.457	22.48	22.50	1.005	0.459	/
		Right Edge	0	23230	782	1	Mid	0.192	0.088	23.68	24.00	1.076	0.095	/
				23230	782	25	Low	-0.027	0.077	22.48	22.50	1.005	0.077	/
		Bottom Edge	0	23230	782	1	Mid	0.134	0.343	23.68	24.00	1.076	0.369	/
				23230	782	25	Low	0.131	0.283	22.48	22.50	1.005	0.284	/

Note: For this band, the EUT does not support Power Reduction

11.12 LTE Band 17 (10MHz Bandwidth)

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Numb.	RB Start	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory & Hotspot														
QPSK	N/A	Back Side	0	23780	709	1	Mid	0.026	0.756	23.96	24.00	1.009	**0.763**	22#
				23780	709	25	Mid	0.036	0.558	22.44	22.50	1.014	0.566	/
		Right Edge	0	23780	709	1	Mid	-0.009	0.136	23.96	24.00	1.009	0.137	/
				23780	709	25	Mid	-0.019	0.108	22.44	22.50	1.014	0.110	/
		Bottom Edge	0	23780	709	1	Mid	0.173	0.111	23.96	24.00	1.009	0.112	/
				23780	709	25	Mid	0.036	0.090	22.44	22.50	1.014	0.091	/

Note: For this band, the EUT does not support Power Reduction

11.13 LTE Band 25 (20MHz Bandwidth)

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Numb.	RB Start	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory & Hotspot														
QPSK	on	Back Side	0	26140	1860	1	Mid	0.099	0.325	18.35	18.50	1.035	0.336	/
				26140	1860	50	Low	0.168	0.354	18.16	18.50	1.081	**0.383**	23#
		Right Edge	0	26140	1860	1	Mid	-0.096	0.120	18.35	18.50	1.035	0.124	/
				26140	1860	50	Low	-0.117	0.129	18.16	18.50	1.081	0.140	/
		Bottom Edge	0	26140	1860	1	Mid	0.166	0.141	18.35	18.50	1.035	0.146	/
				26140	1860	50	Low	0.023	0.145	18.16	18.50	1.081	0.157	/
	off	Back Side	9	26365	1882.5	1	Mid	0.023	0.355	23.91	24.00	1.021	**0.362**	24#
				26140	1860	50	Low	0.019	0.269	22.89	23.00	1.026	0.276	/
		Right Edge	9	26365	1882.5	1	Mid	-0.031	0.139	23.91	24.00	1.021	0.142	/
				26140	1860	50	Low	-0.004	0.094	22.89	23.00	1.026	0.097	/
		Bottom Edge	4	26365	1882.5	1	Mid	-0.019	0.247	23.91	24.00	1.021	0.252	/
				26140	1860	50	Low	0.134	0.160	22.89	23.00	1.026	0.164	/

11.14 LTE Band 41 (20MHz Bandwidth)

Mode	SAR Power Back-off	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Numb.	RB Start	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Report SAR 1 g (W/Kg)	Plot No.[Note 1]
Body-worn Accessory & Hotspot														
QPSK	N/A	Back Side	0	40740	2605	1	Low	-0.143	0.325	23.63	24.00	1.089	0.354	25#
				41140	2645	50	Low	0.031	0.299	22.46	22.50	1.009	0.302	/
		Right Edge	0	40740	2605	1	Low	0.113	0.158	23.63	24.00	1.089	0.172	/
				41140	2645	50	Low	0.117	0.146	22.46	22.50	1.009	0.147	/
		Bottom Edge	0	40740	2605	1	Low	0.185	0.178	23.63	24.00	1.089	0.194	/
				41140	2645	50	Low	0.118	0.137	22.46	22.50	1.009	0.138	/

11.15 WIFI 2.4GHz

Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Duty Cycle (%)	Duty Cycle Factor	Report SAR 1 g (W/Kg)	Plot No.Note 1
Body-worn Accessory & Hotspot													
802.11b	Back Side	0	6	2437	0.046	0.157	12.66	13.00	1.08	97.7	1.024	0.174	26#
	Right Edge	0	6	2437	0.133	0.029	12.66	13.00	1.08	97.7	1.024	0.032	/
	Top Edge	0	6	2437	0.071	0.039	12.66	13.00	1.08	97.7	1.024	0.043	/

11.16 WIFI 5.2GHz

Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Duty Cycle (%)	Duty Cycle Factor	Report SAR 1 g (W/Kg)	Plot No.Note 1
Body-worn Accessory & Hotspot													
802.11ac (VHT40)	Back Side	0	46	5230	-0.053	0.346	12.78	13.00	1.05	71	1.408	0.513	27#
	Right Edge	0	46	5230	0.028	0.140	12.78	13.00	1.05	71	1.408	0.207	/
	Top Edge	0	46	5230	-0.076	0.104	12.78	13.00	1.05	71	1.408	0.154	/

11.17 WIFI 5.8GHz

Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Duty Cycle (%)	Duty Cycle Factor	Report SAR 1 g (W/Kg)	Plot No.Note 1
Body-worn Accessory & Hotspot													
802.11ac (VHT20)	Back Side	0	149	5745	0.014	0.371	12.78	13.00	1.05	82	1.220	0.476	28#
	Right Edge	0	149	5745	0.000	0.347	12.78	13.00	1.05	82	1.220	0.445	/
	Top Edge	0	149	5745	0.000	0.109	12.78	13.00	1.05	82	1.220	0.140	/

11.18 Bluetooth

Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	Meas. SAR 1 g (W/Kg)	Meas. Power (dBm)	Max. tune-up Power (dBm)	Scaling Factor	Duty Cycle (%)	Duty Cycle Factor	Report SAR 1 g (W/Kg)	Plot No.Note 1
Body-worn Accessory													
EDR	Back Side	0	39	2441	0.000	0.010	11.13	11.50	1.09	100	1.000	0.011	29#
	Right Edge	0	39	2441	-0.162	0.003	11.13	11.50	1.09	100	1.000	0.003	/
	Bottom Edge	0	39	2441	0.020	0.002	11.13	11.50	1.09	100	1.000	0.002	/

12 SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are ≤ 1.45 W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is ≤ 1.10, the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR repeated measurement procedure:

1. When the highest measured SAR is < 0.80 W/kg, repeated measurement is not required.
2. When the highest measured SAR is >= 0.80 W/kg, repeat that measurement once.
3. If the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20, or when the original or repeated measurement is >= 1.45 W/kg, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20, and the original, first or second repeated measurement is >= 1.5 W/kg, perform a third repeated measurement.

Frequency Band (MHz)	Wireless Band	RF Exposure Conditions	Test Position	Highest Measured SAR (W/kg)	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	Largest to Smallest SAR Radio
835	GSM 850	Body	Back Side	0.897	Yes	0.894	1.003
	CDMA BC0	Body	Back Side	0.977	Yes	0.975	1.002
Note: The ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20, the second repeated measurement is not required.							

13 SIMULTANEOUS TRANSMISSION

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR 1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR 1g 1.6 W/kg), SAR test exclusion is determined by the SAR to Peak Location Ratio (SPLSR).

13.1 Simultaneous Transmission Mode Consider

NO.	Mode	2.4G WLAN & 5G WLAN & 2.4G Bluetooth		
		Head	Body-worn	Hotspot
1	GSM (Voice)	--	+ 2.4G WLAN	--
		--	+ 5G WLAN	--
		--	+ Bluetooth	--
2	GSM (Data)	--	--	+ 2.4G WLAN
		--	--	+ 5G WLAN
3	CDMA/EV DO	--	+ 2.4G WLAN	+ 2.4G WLAN
		--	+ 5G WLAN	+ 5G WLAN
		--	+ Bluetooth	--
4	WCDMA RMC	--	+ 2.4G WLAN	+ 2.4G WLAN
		--	+ 5G WLAN	+ 5G WLAN
		--	+ Bluetooth	--
5	LTE	--	+ 2.4G WLAN	+ 2.4G WLAN
		--	+ 5G WLAN	+ 5G WLAN
		--	+ Bluetooth	--

Note:

1. 2G&3G&4G share the same antenna and can't transmit simultaneously.
2. The Bluetooth and 2.4G WLAN share the same antenna, can't transmitting together.
3. The 2.4G WLAN or 5G WLAN can transmit simultaneously with each WWAN.
4. Both 2.4G WLAN and 5G WLAN supports hotspot mode.

13.2 Sum SAR of Simultaneous Transmission

13.2.1 Sum Body-worn SAR of Simultaneous Transmission

Simultaneous Mode	Mode	Max. 1g SAR (W/kg)	1g Sum SAR (W/kg)	SPLSR (Yes/No)
GSM Voice +Bluetooth	GSM Voice	0.550	0.561	No
	Bluetooth	0.011		
GSM Voice + 2.4G WLAN	GSM Voice	0.550	0.724	No
	2.4G WLAN	0.174		
GSM Voice + 5G WLAN	GSM Voice	0.550	1.063	No
	5G WLAN	0.513		
WCDMA RMC + Bluetooth	WCDMA RMC	0.480	0.491	No
	Bluetooth	0.011		
WCDMA RMC + 2.4G WLAN	WCDMA RMC	0.480	0.654	No
	2.4G WLAN	0.174		
WCDMA RMC + 5G WLAN	WCDMA RMC	0.480	0.993	No
	5G WLAN	0.513		
CDMA + Bluetooth	CDMA	1.047	1.058	No
	Bluetooth	0.011		
CDMA + 2.4G WLAN	CDMA	1.047	1.221	No
	2.4G WLAN	0.174		
CDMA + 5G WLAN	CDMA	1.047	1.560	No
	5G WLAN	0.513		
LTE QPSK + Bluetooth	LTE QPSK	0.763	0.774	No
	Bluetooth	0.011		
LTE QPSK + 2.4G WLAN	LTE QPSK	0.763	0.937	No
	2.4G WLAN	0.174		
LTE QPSK + 5G WLAN	LTE QPSK	0.763	1.276	No
	5G WLAN	0.513		

13.2.2 Sum Hotspot mode SAR of Simultaneous Transmission

Simultaneous Mode	Mode	Max. 1g SAR (W/kg)	1g Sum SAR (W/kg)	SPLSR (Yes/No)
GSM DATA + 2.4G WLAN	GSM DATA	1.009	1.183	No
	2.4G WLAN	0.174		
GSM DATA + 5G WLAN	GSM DATA	1.009	1.522	No
	5G WLAN	0.513		
WCDMA RMC + 2.4G WLAN	WCDMA RMC	0.480	0.654	No
	2.4G WLAN	0.174		
WCDMA RMC + 5G WLAN	WCDMA RMC	0.480	0.993	No
	5G WLAN	0.513		
CDMA + 2.4G WLAN	CDMA	1.047	1.221	No
	2.4G WLAN	0.174		
CDMA + 5G WLAN	CDMA	1.047	1.560	No
	5G WLAN	0.513		
LTE QPSK + 2.4G WLAN	LTE QPSK	0.763	0.937	No
	2.4G WLAN	0.174		
LTE QPSK + 5G WLAN	LTE QPSK	0.763	1.276	No
	5G WLAN	0.513		

14 TEST EQUIPMENTS LIST

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
PC	Dell	N/A	N/A	N/A	N/A
750MHz Validation Dipole	Speag	D750V3	SN: 1055	2017/06/26	2020/06/25
835MHz Validation Dipole	Speag	D835V2	SN: 4d187	2017/06/26	2020/06/25
1750MHz Validation Dipole	Speag	D1750V2	SN: 1130	2017/07/01	2020/06/30
1900MHz Validation Dipole	Speag	D1900V2	SN: 5d193	2017/06/30	2020/06/29
2450MHz Validation Dipole	Speag	D2450V2	SN: 952	2017/03/21	2020/03/20
2600MHz Validation Dipole	Speag	D2600V2	SN: 1095	2017/07/10	2020/07/09
5GHz Validation Dipole	Speag	D5GHzV2	SN: 1200	2017/06/29	2020/06/28
E-Field Probe	Speag	EX3DV4	SN: 7340	2018/01/11	2019/01/10
E-Field Probe	Speag	ES3DV3	SN: 3110	2017/08/02	2018/08/01
Data Acquisition Electronics	Speag	DAE4	SN: 685	2017/08/02	2018/08/01
Signal Generator	R&S	SMBV100A	260592	2018/06/15	2019/06/15
Power Meter	Agilent	E4419B	GB40201833	2017/11/02	2018/11/01
Power Sensor	Agilent	E9300A	MY41498012	2017/11/02	2018/11/01
Power Sensor	Agilent	E9300A	MY41499891	2017/11/02	2018/11/01
Power Amplifier	SATIMO	6552B	22374	2018/06/15	2019/06/15
Wireless Communication Test Set	Agilent	8960-E5515C	MY50260493	2017/11/02	2018/11/01
Wireless Communication Test Set	R&S	CMW 500	151885	2018/06/15	2019/06/15
Network Analyzer	Agilent	5071B	MY42404001	2018/06/15	2019/06/15
Thermometer	Elitech	RC-4HC	N/A	2017/11/13	2018/11/12
Phantom1	Speag	SAM	SN: 1857	N/A	N/A
Phantom2	Speag	SAM	SN: 1859	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A
Power Amplifier	SATIMO	6552B	22374	N/A	N/A
Dielectric Probe Kit	SATIMO	SCLMP	SN 25/13 OCPG56	N/A	N/A

Note:

Per KDB 865664 D01, Dipole SAR Validation Verification, BALUN LAB has adopted 3 years calibration intervals. On annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:

1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss in within 20% of calibrated measurement.

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an SCLMP Dielectric Probe Kit.

Date	Liquid Type	Fre. (MHz)	Temp. (℃)	Meas. Permittivity (ε)	Meas. Conductivity (σ) (S/m)	Target Permittivity (ε)	Target Conductivity (σ) (S/m)	Permittivity Tolerance (%)	Conductivity Tolerance (%)
2018.06.27	Body	750	21.5	57.10	0.98	55.50	0.96	2.88	2.08
2018.06.20	Body	835	21.2	55.70	0.95	55.20	0.97	0.91	-2.06
2018.06.21	Body	835	21.2	55.80	0.96	55.20	0.97	1.09	-1.03
2018.06.22	Body	1750	21.4	51.70	1.44	53.40	1.49	-3.18	-3.36
2018.06.18	Body	1900	21.5	51.50	1.55	53.30	1.52	-3.38	1.97
2018.06.19	Body	1900	21.5	51.50	1.56	53.30	1.52	-3.38	2.63
2018.06.25	Body	2450	21.6	51.10	1.99	52.70	1.95	-3.04	2.05
2018.06.26	Body	2600	21.4	51.30	2.15	52.50	2.16	-2.29	-0.46
2018.06.25	Body	5250	21.6	47.60	5.33	48.90	5.36	-2.66	-0.56
2018.06.25	Body	5750	21.6	47.10	5.91	48.30	5.94	-2.48	-0.51
Note: The tolerance limit of Conductivity and Permittivity is± 5%.									

ANNEX B SYSTEM CHECK RESULT

Comparing to the original SAR value provided by SPEAG, the validation data should be within its specification of 10 %(for 1 g).

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)	Targeted SAR(W/kg)	Tolerance (%)
2018.06.27	Body	750	250	2.16	8.64	8.64	0.00	8.49	1.77
2018.06.20	Body	835	250	2.44	9.76	9.53	2.41	9.56	2.09
2018.06.21	Body	835	250	2.42	9.68	9.53	1.57	9.56	1.26
2018.06.22	Body	1750	250	9.65	38.60	36.7	5.18	36.4	6.04
2018.06.18	Body	1900	250	10.22	40.88	39.90	2.46	39.70	2.97
2018.06.19	Body	1900	250	10.19	40.76	39.90	2.16	39.70	2.67
2018.06.25	Body	2450	250	12.8	51.20	50.50	1.39	52.40	-2.29
2018.06.26	Body	2600	250	13.78	55.12	54.30	1.51	55.30	-0.33
2018.06.25	Body	5250	250	18.64	74.56	75.20	-0.85	76.50	-2.54
2018.06.25	Body	5750	250	18.86	75.44	75.00	0.59	78.00	-3.28
Note: The tolerance limit of System validation ±10%.									

System Performance Check Data (750MHz Body)

Date: 2018.06.27

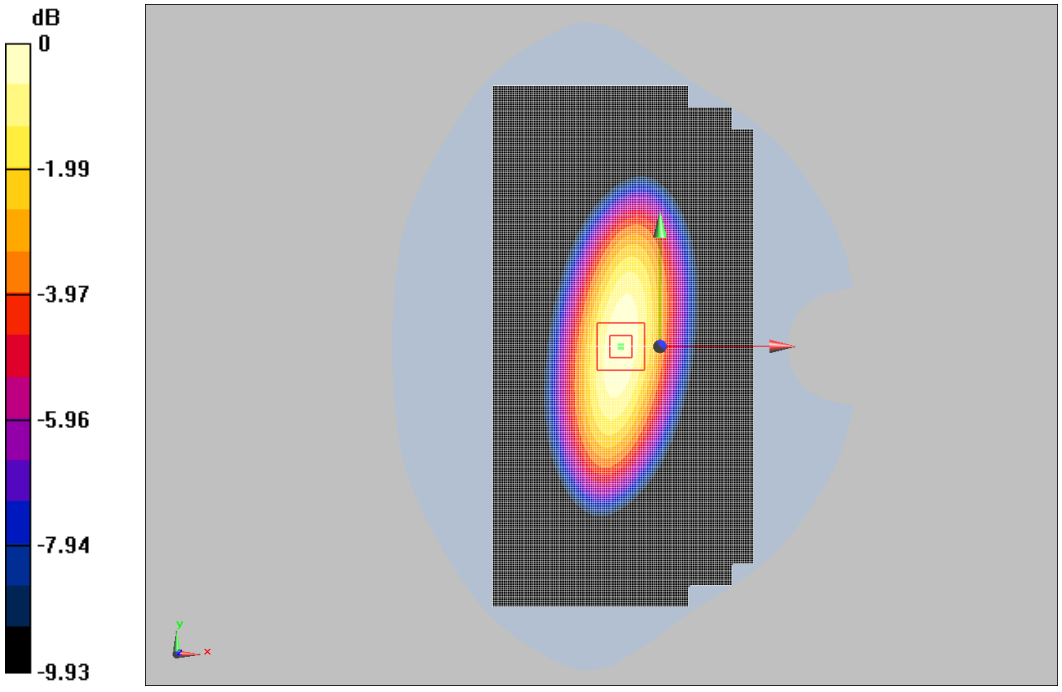
Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.98 S/m; ε_r = 57.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(6.15, 6.15, 6.15); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole 750MHz/Area Scan (121x241x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 2.35 W/Kg
Dipole 750MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 48.9 V/m; Power Drift = 0.0087 dB
Peak SAR (extrapolated) = 3.22 W/kg
SAR(1 g) = 2.16 W/Kg; SAR(10 g) = 1.46 W/Kg
Maximum value of SAR (measured) = 2.36 W/Kg



0 dB = 2.36W/kg

System Performance Check Data (835MHz Body)

Date: 2018.06.20

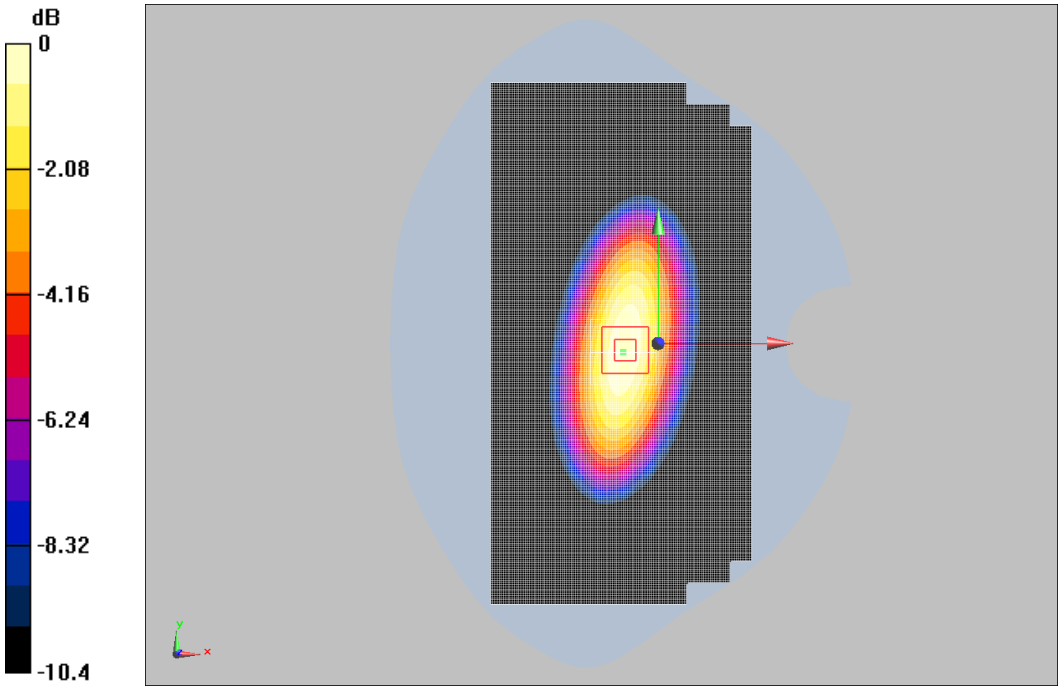
Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.95 S/m; ε_r = 55.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:22.7 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(6.01, 6.01, 6.01); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole 835MHz/Area Scan (121x241x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 2.64 W/Kg
Dipole 835MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 52.1 V/m; Power Drift = -0.0113 dB
Peak SAR (extrapolated) = 3.66 W/kg
SAR(1 g) = 2.44 W/Kg; SAR(10 g) = 1.60 W/Kg
Maximum value of SAR (measured) = 2.67 W/Kg



0 dB = 2.67W/kg

System Performance Check Data (835MHz Body)

Date: 2018.06.21

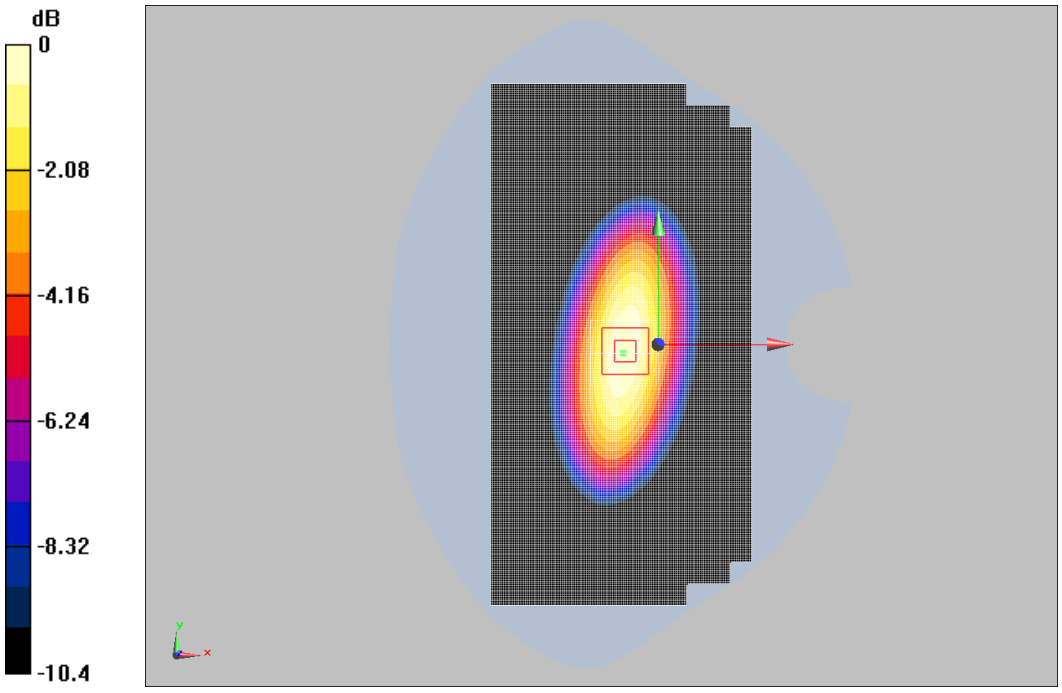
Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.96 S/m; ε_r = 55.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:22.7 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(6.01, 6.01, 6.01); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole 835MHz/Area Scan (121x241x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 2.62 W/Kg
Dipole 835MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 52 V/m; Power Drift = -0.032 dB
Peak SAR (extrapolated) = 3.65 W/kg
SAR(1 g) = 2.42 W/Kg; SAR(10 g) = 1.58 W/Kg
Maximum value of SAR (measured) = 2.65 W/Kg



0 dB = 2.65W/kg

System Performance Check Data (1750MHz Body)

Date: 2018.06.22

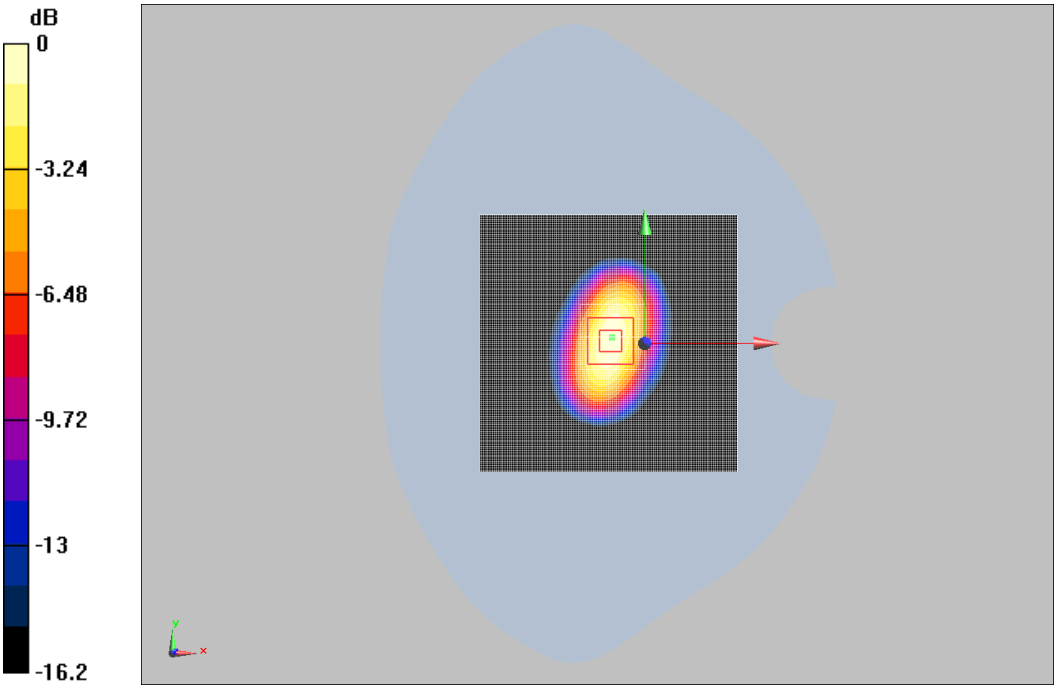
Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.44 S/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:22.0 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.87, 4.87, 4.87); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole 1750MHz/Area Scan (121x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 11 W/Kg
Dipole 1750MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 85.5 V/m; Power Drift = -0.0096 dB
Peak SAR (extrapolated) = 17 W/kg
SAR(1 g) = 9.65 W/Kg; SAR(10 g) = 5.17 W/Kg
Maximum value of SAR (measured) = 10.7 W/Kg



0 dB = 10.7W/Kg

System Performance Check Data (1900MHz Body)

Date: 2018.06.18

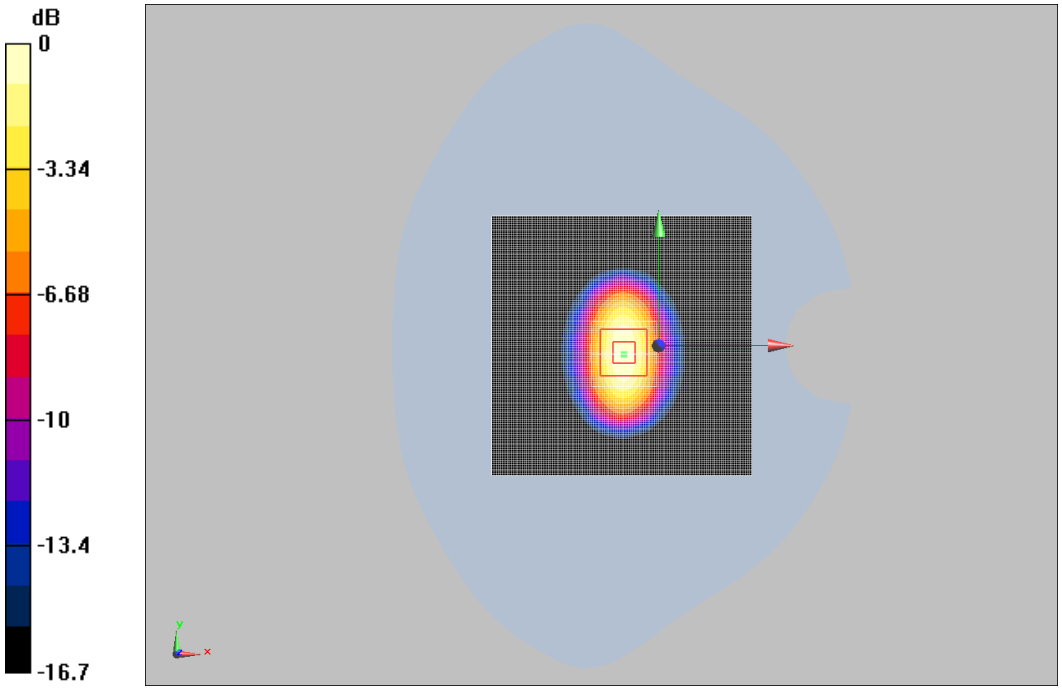
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.55 S/m; ε_r = 51.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.61, 4.61, 4.61); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole 1900MHz/Area Scan (121x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 11.7 W/Kg
Dipole 1900MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 84.9 V/m; Power Drift = 0.0535 dB
Peak SAR (extrapolated) = 18.3 W/kg
SAR(1 g) = 10.22 W/Kg; SAR(10 g) = 5.34 W/Kg
Maximum value of SAR (measured) = 11.5 W/Kg



0 dB = 11.5W/kg

System Performance Check Data (1900MHz Body)

Date: 2018.06.19

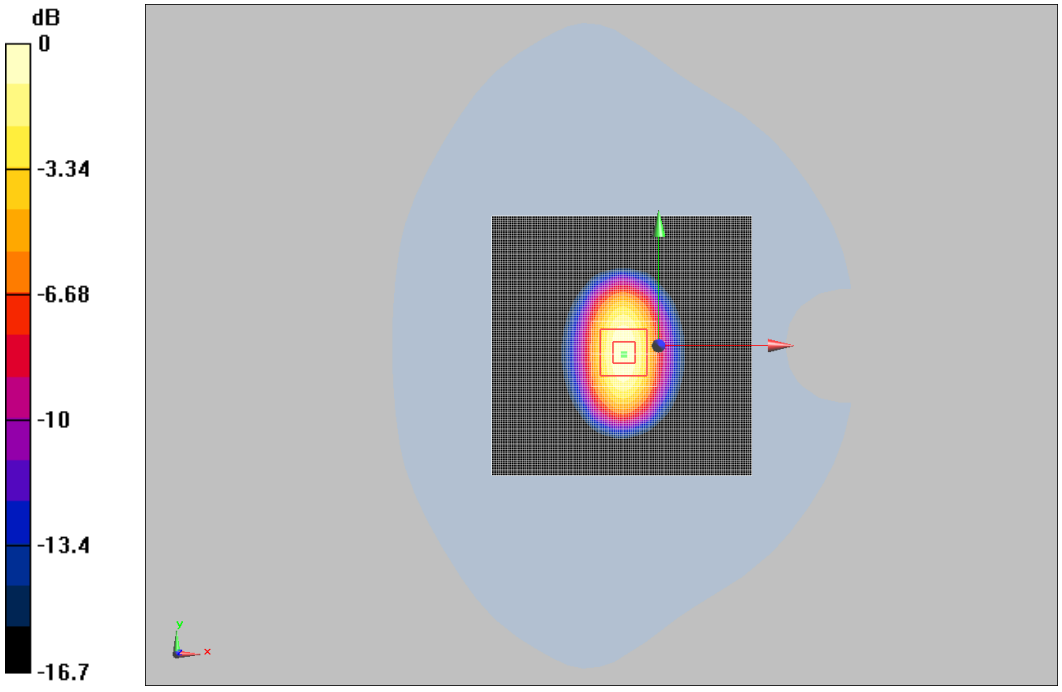
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.56 S/m; ε_r = 51.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.61, 4.61, 4.61); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole 1900MHz/Area Scan (121x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 11.7 W/Kg
Dipole 1900MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 84.7 V/m; Power Drift = -0.015 dB
Peak SAR (extrapolated) = 18.3 W/kg
SAR(1 g) = 10.19 W/Kg; SAR(10 g) = 5.32 W/Kg
Maximum value of SAR (measured) = 11.5 W/Kg



0 dB = 11.4W/kg

System Performance Check Data (2450MHz Body)

Date: 2018.06.25

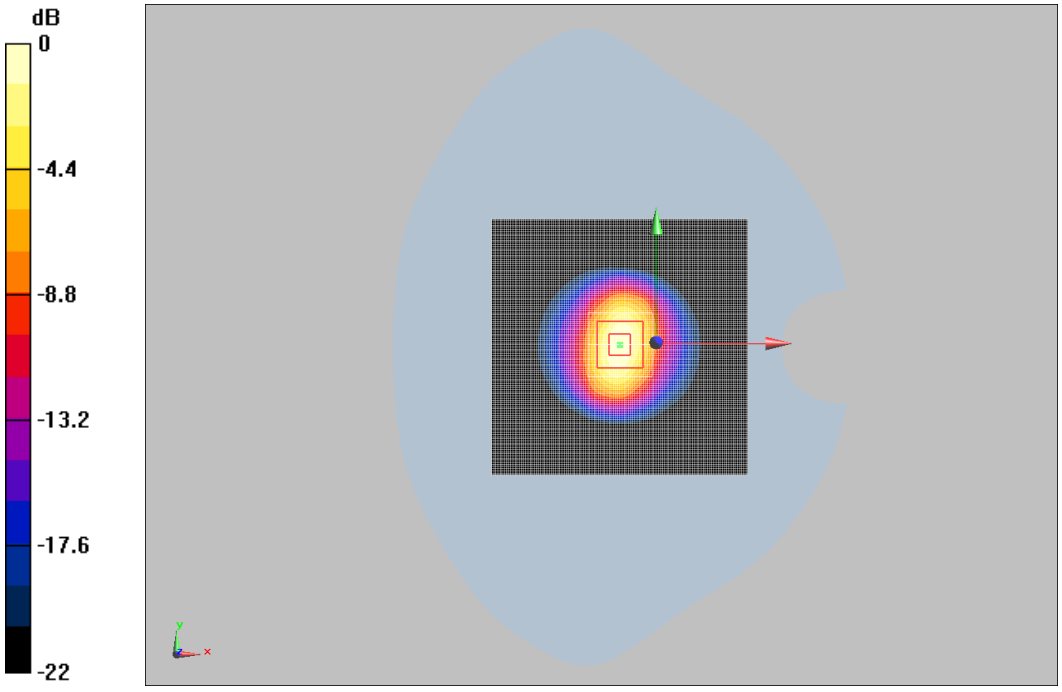
Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.99 S/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:21.8 Liquid Temperature:21.6

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.23, 4.23, 4.23); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole 2450MHz/Area Scan (121x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 14.4 W/Kg
Dipole 2450MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 84.5 V/m; Power Drift = -0.0032 dB
Peak SAR (extrapolated) = 25.3 W/kg
SAR(1 g) = 12.8 W/Kg; SAR(10 g) = 5.65 W/Kg
Maximum value of SAR (measured) = 14.8 W/Kg



0 dB = 14.4W/kg

System Performance Check Data (2600MHz Body)

Date: 2018.06.26

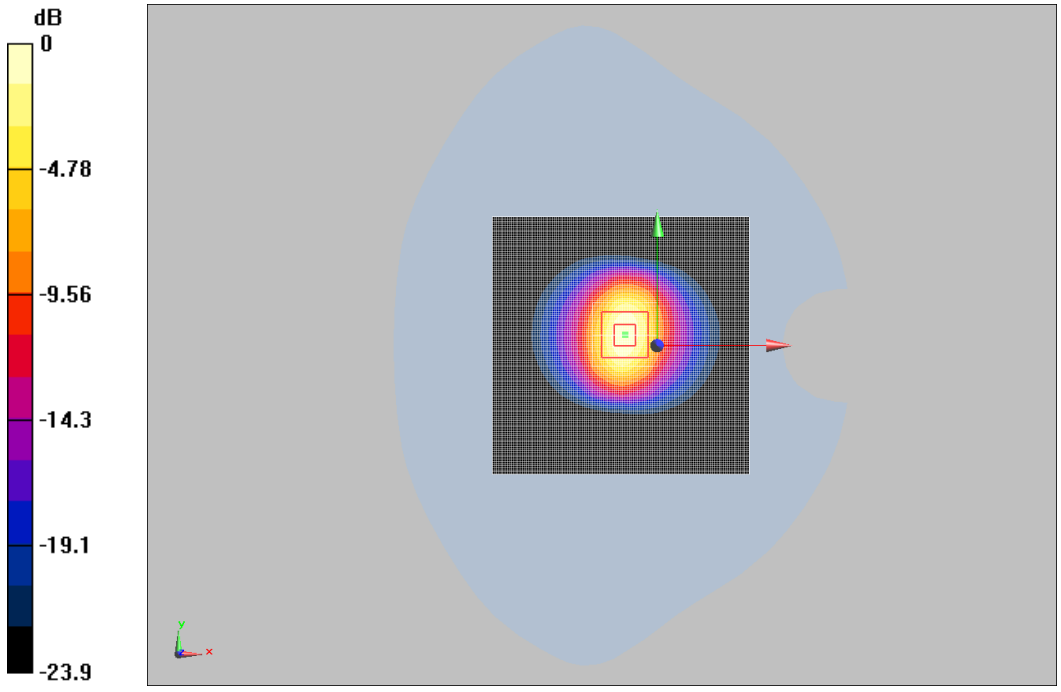
Communication System: CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 2.15 S/m; ε_r = 51.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:22.9 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.12, 4.12, 4.12); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole 2600MHz/Area Scan (121x121x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 16.1 W/Kg
Dipole 2600MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 79.5 V/m; Power Drift = -0.041 dB
Peak SAR (extrapolated) = 29.2 W/kg
SAR(1 g) = 13.78 W/Kg; SAR(10 g) = 5.89 W/Kg
Maximum value of SAR (measured) = 16 W/Kg



0 dB = 15.8W/kg

System Performance Check Data (5250MHz Body)

Date: 2018.06.25

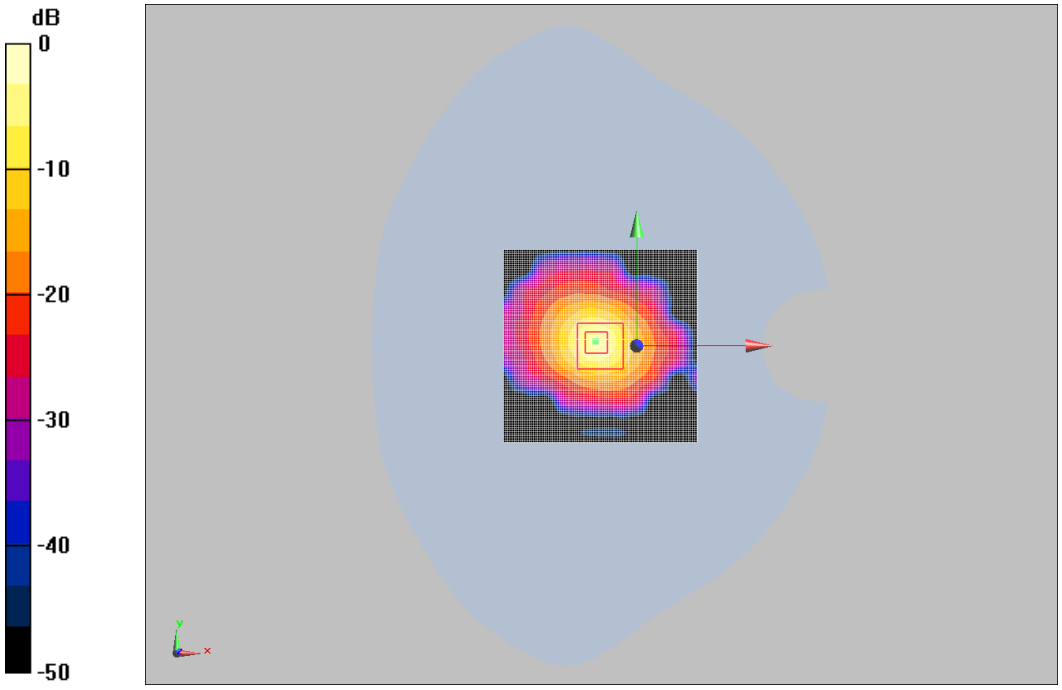
Communication System: CW; Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5250 MHz; σ = 5.33 S/m; ε_r = 47.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.6

DASY5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(5.16, 5.16, 5.16); Calibrated: 2018.01.11
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole 5250MHz/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 19.8 W/Kg
Dipole 5250MHz/Zoom Scan (7x7x13)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 61.5 V/m; Power Drift = 0.099 dB
Peak SAR (extrapolated) = 77.5 W/kg
SAR(1 g) = 18.64 W/Kg; SAR(10 g) = 5.05 W/Kg
Maximum value of SAR (measured) = 38.3 W/Kg



0 dB = 38.3W/kg

System Performance Check Data (5750MHz Body)

Date: 2018.06.25

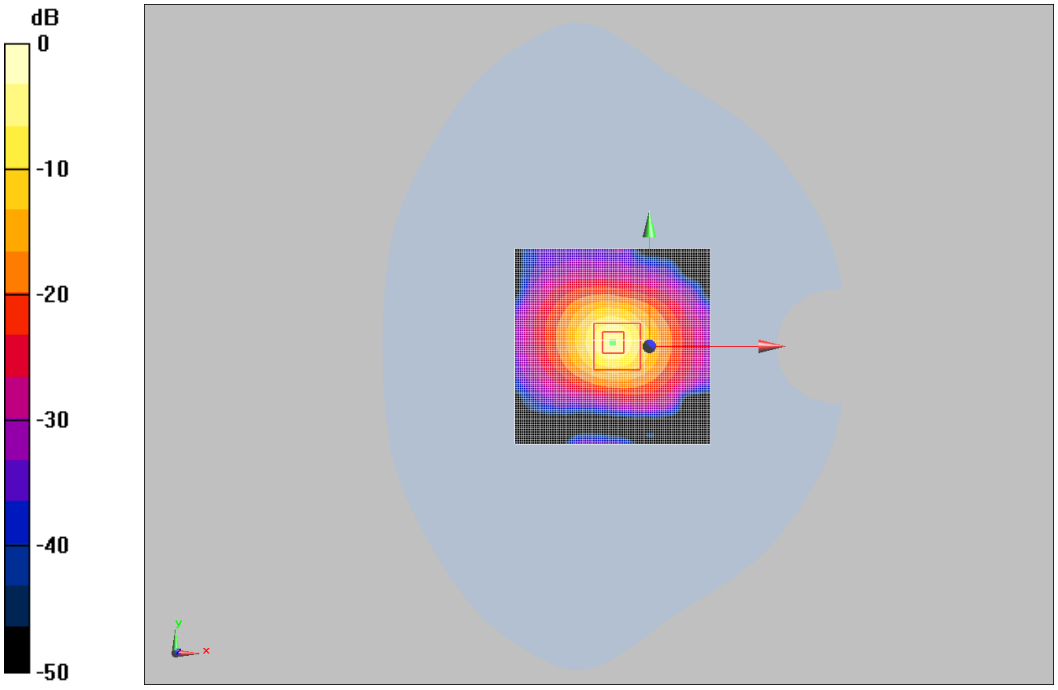
Communication System: CW; Frequency: 5750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5750 MHz; σ = 5.91 S/m; ε_r = 47.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:22.5 Liquid Temperature:21.6

DASY5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(4.58, 4.58, 4.58); Calibrated: 2018.01.11
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Dipole 5750MHz/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 19 W/Kg
Dipole 5750MHz/Zoom Scan (7x7x13)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 57.5 V/m; Power Drift = -0.0172 dB
Peak SAR (extrapolated) = 87.2 W/kg
SAR(1 g) = 18.86 W/Kg; SAR(10 g) = 5.04 W/Kg
Maximum value of SAR (measured) = 39.9 W/Kg



0 dB = 39.9W/kg

ANNEX C TEST DATA

MEAS. 1 Body Plan with Back Side on Middle Channel in GSM 850 mode
Date:2018.06.20

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.96 mho/m; ε_r = 55.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

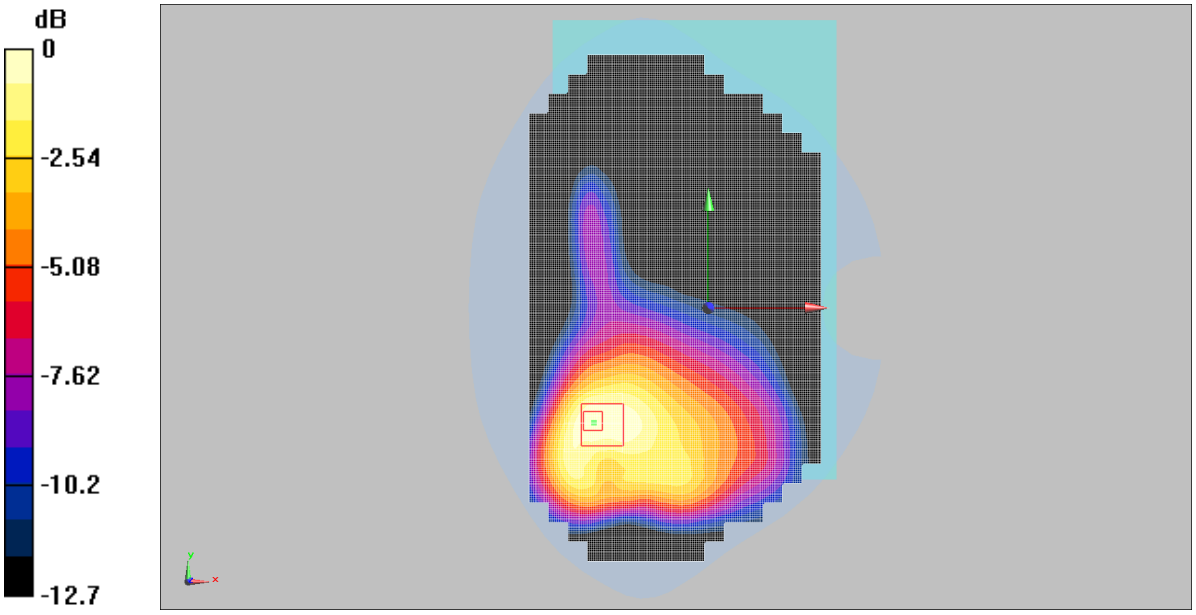
Ambient Temperature:22.7 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(6.01, 6.01, 6.01); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.571 W/Kg

Body Back Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.38 V/m; Power Drift = 0.154 dB
Peak SAR (extrapolated) = 0.911 W/kg
SAR(1 g) = 0.518 W/Kg; SAR(10 g) = 0.337 W/Kg
Maximum value of SAR (measured) = 0.556 W/Kg



0 dB = 0.556W/Kg

MEAS. 2 Body Plan with Back Side on High Channel in GPRS 850 mode
Date:2018.06.20

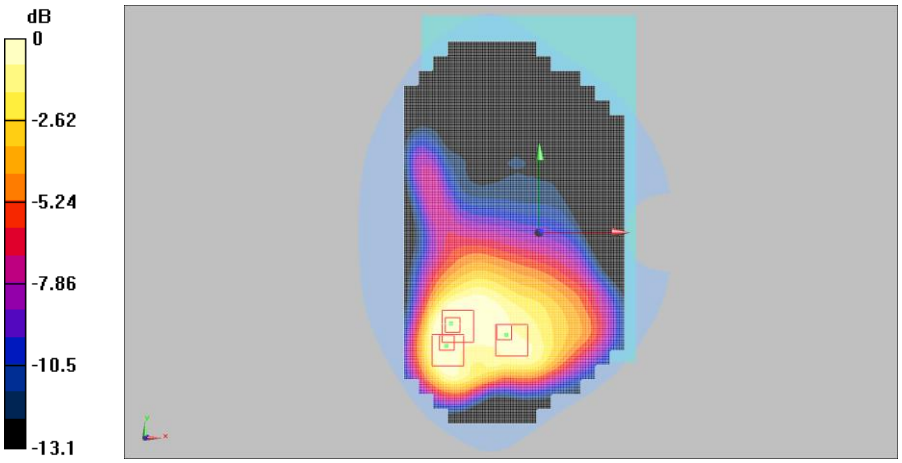
Communication System: GSM 850 class 12; Frequency: 848.8 MHz;Duty Cycle: 1:2
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.969 mho/m; ε_r = 55.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:22.7 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(6.01, 6.01, 6.01); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back High/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.02 W/Kg
Body Back High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.3 V/m; Power Drift = -0.081 dB
Peak SAR (extrapolated) = 1.59 W/kg
SAR(1 g) = 0.897 W/Kg; SAR(10 g) = 0.573 W/Kg
Maximum value of SAR (measured) = 0.995 W/Kg
Body Back High/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.3 V/m; Power Drift = -0.081 dB
Peak SAR (extrapolated) = 1.3 W/kg
SAR(1 g) = 0.805 W/Kg; SAR(10 g) = 0.495 W/Kg
Maximum value of SAR (measured) = 0.924 W/Kg
Body Back High/Zoom Scan (7x7x7)/Cube 2: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.3 V/m; Power Drift = -0.081 dB
Peak SAR (extrapolated) = 0.945 W/kg
SAR(1 g) = 0.604 W/Kg; SAR(10 g) = 0.434 W/Kg
Maximum value of SAR (measured) = 0.706 W/Kg



0 dB = 0.706W/Kg

MEAS. 3 Body Plan with Back Side on Middle Channel in GSM 1900 mode – Sensor On
Date:2018.06.18

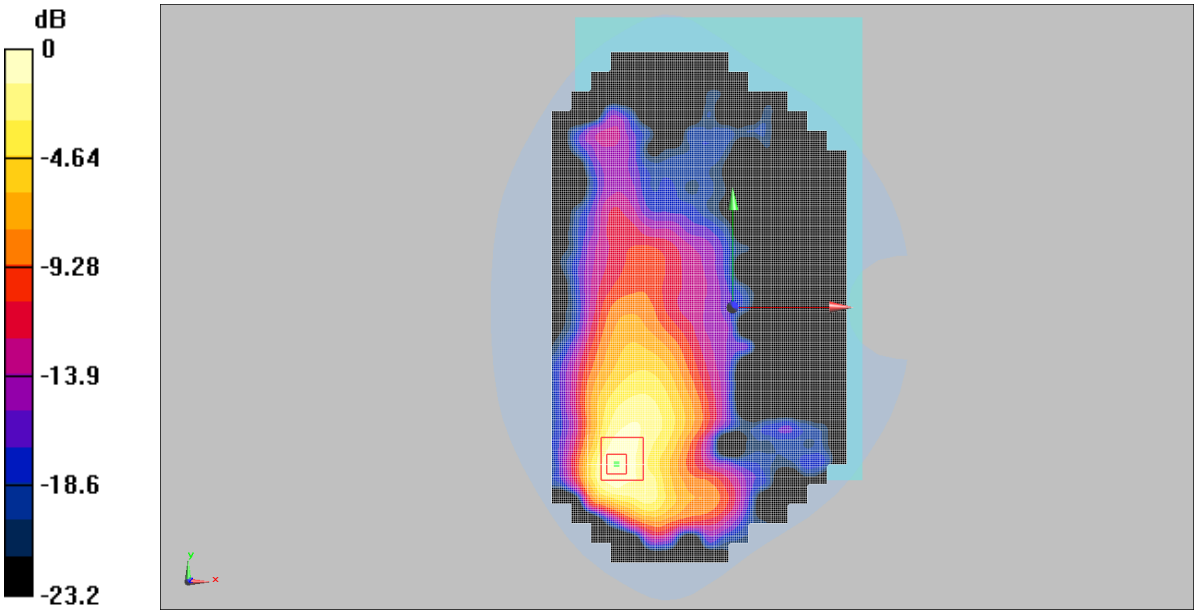
Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.57 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.61, 4.61, 4.61); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.198 W/Kg

Body Back Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.32 V/m; Power Drift = -0.112 dB
Peak SAR (extrapolated) = 0.292 W/kg
SAR(1 g) = 0.165 W/Kg; SAR(10 g) = 0.091 W/Kg
Maximum value of SAR (measured) = 0.186 W/Kg



0 dB = 0.186W/Kg

MEAS. 4 Body Plan with Back Side on Middle Channel in GSM 1900 mode – Sensor Off
Date:2018.06.18

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.57 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

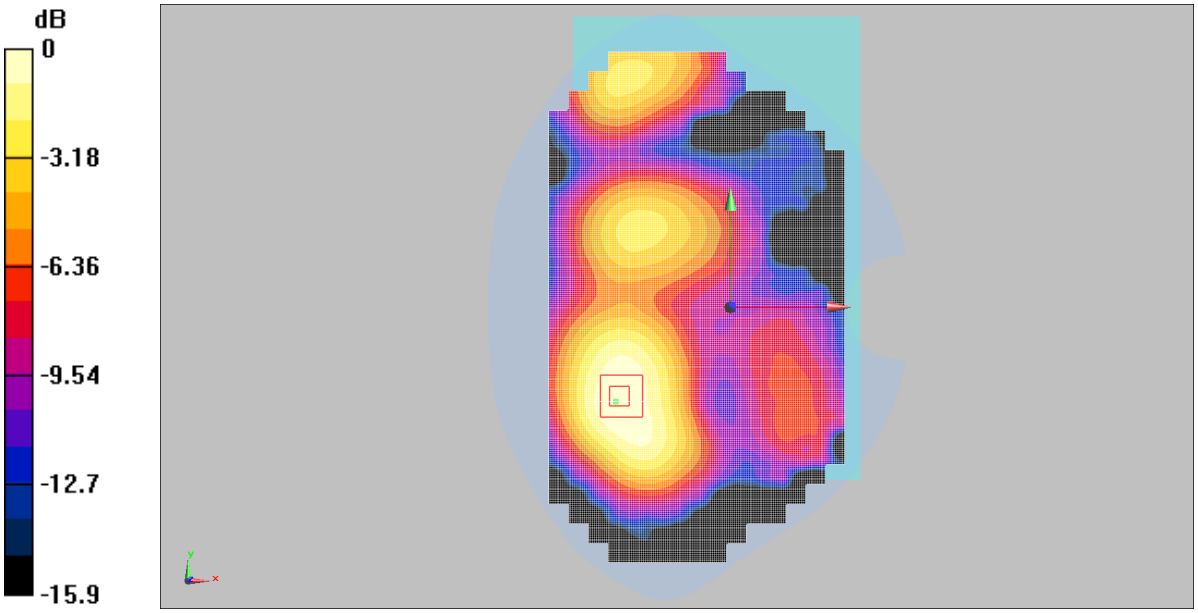
Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.61, 4.61, 4.61); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.117 W/Kg

Body Back Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.2 V/m; Power Drift = 0.145 dB
Peak SAR (extrapolated) = 0.170 W/kg
SAR(1 g) = 0.111 W/Kg; SAR(10 g) = 0.071 W/Kg
Maximum value of SAR (measured) = 0.118 W/Kg



0 dB = 0.118W/Kg

MEAS. 5 Body Plan with Back Side on Middle Channel in GPRS 1900 mode – Sensor On
Date:2018.06.18

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.57 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

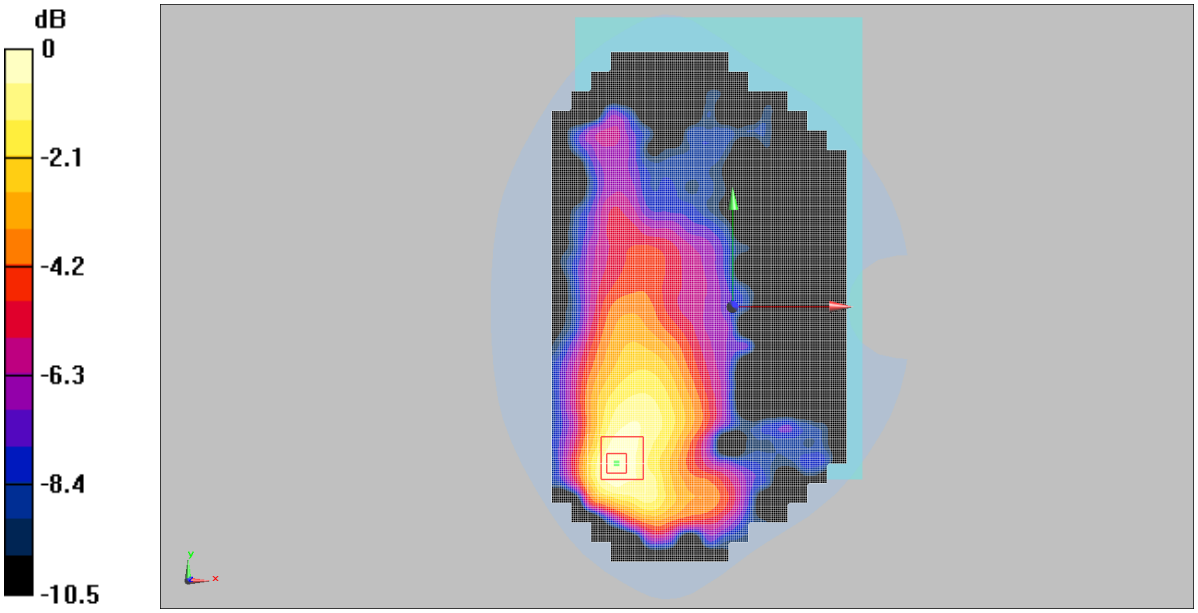
Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.61, 4.61, 4.61); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.217 W/Kg

Body Back Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.2 V/m; Power Drift = 0.145 dB
Peak SAR (extrapolated) = 0.270 W/kg
SAR(1 g) = 0.241 W/Kg; SAR(10 g) = 0.151 W/Kg
Maximum value of SAR (measured) = 0.268 W/Kg



0 dB = 0.268W/Kg

MEAS. 6 Body Plan with Back Side on Middle Channel in GPRS 1900 mode – Sensor Off
Date:2018.06.18

Communication System: GSM1900 class 12; Frequency: 1880 MHz;Duty Cycle: 1:2
Medium parameters used: f = 1880 MHz; σ = 1.57 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

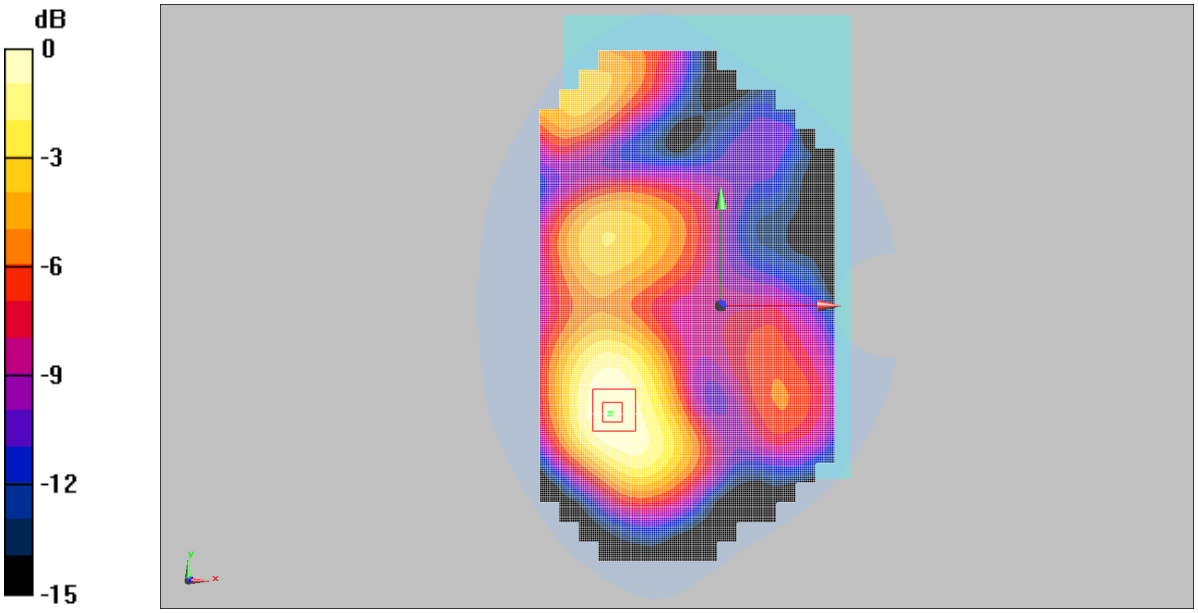
Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.61, 4.61, 4.61); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.233 W/Kg

Body Back Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.47 V/m; Power Drift = -0.084 dB
Peak SAR (extrapolated) = 0.324 W/kg
SAR(1 g) = 0.216 W/Kg; SAR(10 g) = 0.140 W/Kg
Maximum value of SAR (measured) = 0.230 W/Kg



0 dB = 0.230W/Kg

MEAS. 7 Body Plan with Back Side on Middle Channel in WCDMA Band 2 mode – Sensor On

Date:2018.06.19

Communication System: WCDMA Band II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.57 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

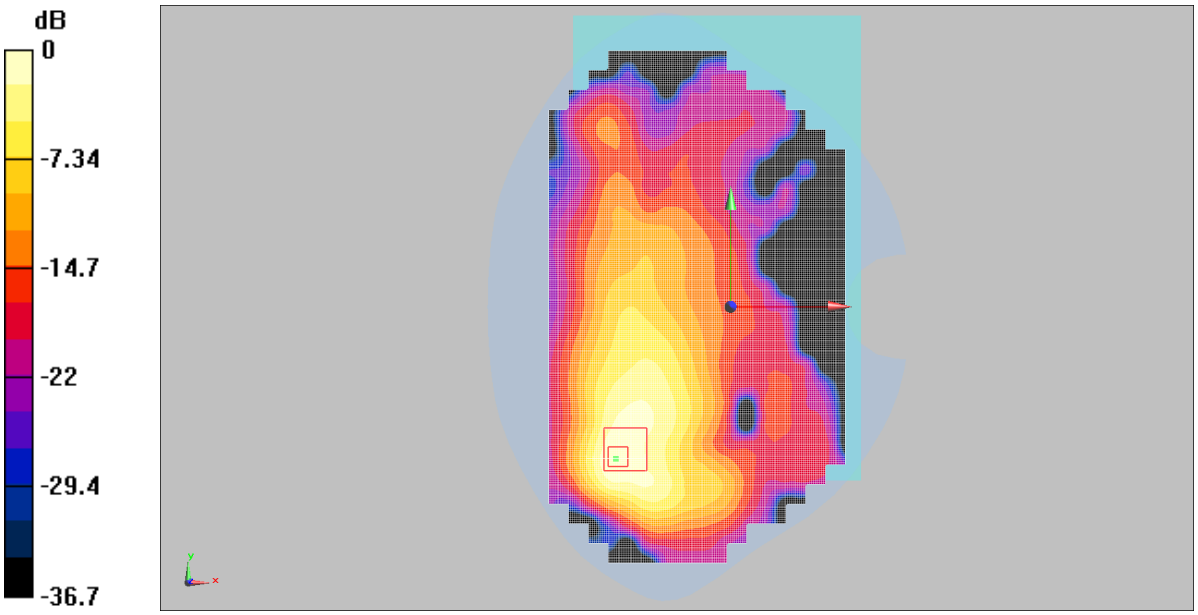
Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.61, 4.61, 4.61); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.527 W/Kg

Body Back Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.22 V/m; Power Drift = 0.131 dB
Peak SAR (extrapolated) = 0.784 W/kg
SAR(1 g) = 0.452 W/Kg; SAR(10 g) = 0.251 W/Kg
Maximum value of SAR (measured) = 0.513 W/Kg



0 dB = 0.513W/Kg

MEAS. 8 Body Plan with Back Side on Middle Channel in WCDMA Band 2 mode – Sensor Off

Date:2018.06.19

Communication System: WCDMA Band II; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.57 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

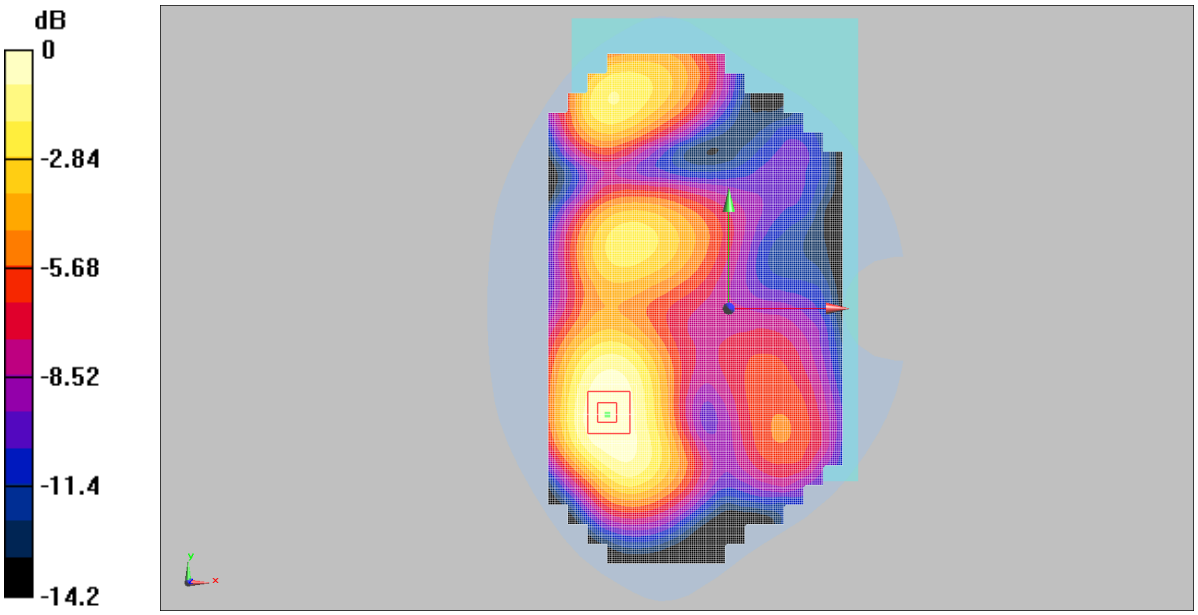
Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.61, 4.61, 4.61); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.348 W/Kg

Body Back Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.38 V/m; Power Drift = -0.089 dB
Peak SAR (extrapolated) = 0.492 W/kg
SAR(1 g) = 0.324 W/Kg; SAR(10 g) = 0.210 W/Kg
Maximum value of SAR (measured) = 0.347 W/Kg



0 dB = 0.347W/Kg

MEAS. 9 Body Plan with Bottom Side on Middle Channel in WCDMA Band 5 mode – Sensor On

Date:2018.06.20

Communication System: WCDMA Band V; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.41 MHz; σ = 0.96 mho/m; ε_r = 55.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

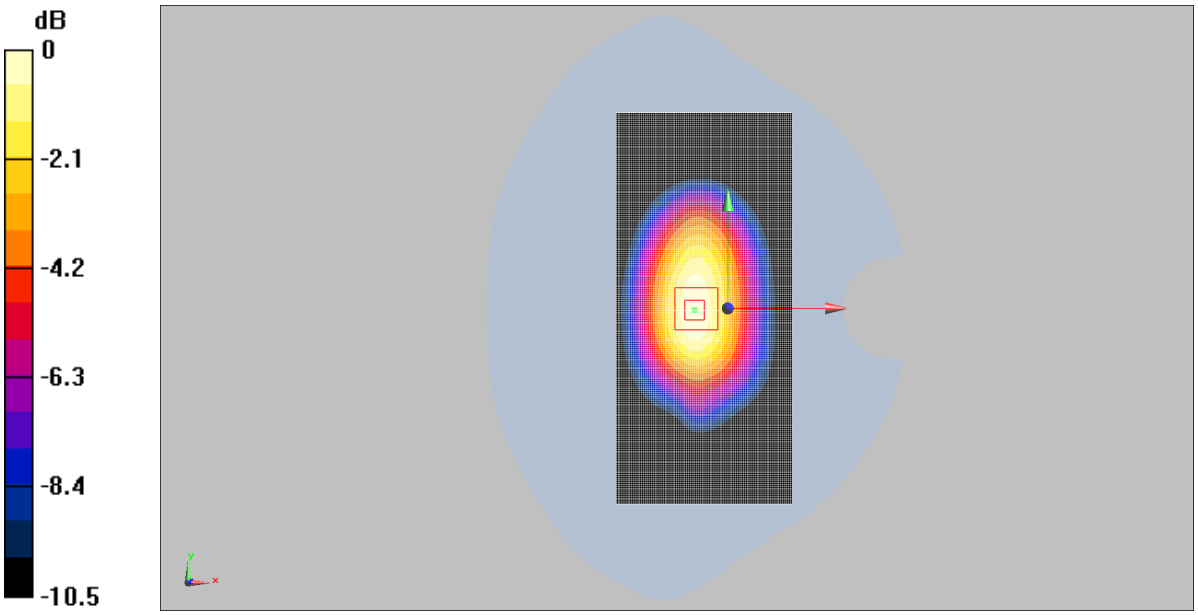
Ambient Temperature:22.7 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(6.01, 6.01, 6.01); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Bottom Middle/Area Scan (91x201x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.277 W/Kg

Body Bottom Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.1 V/m; Power Drift = -0.063 dB
Peak SAR (extrapolated) = 0.388 W/kg
SAR(1 g) = 0.258 W/Kg; SAR(10 g) = 0.171 W/Kg
Maximum value of SAR (measured) = 0.278 W/Kg



0 dB = 0.278W/Kg

MEAS. 10 Body Plan with Back Side on Middle Channel in WCDMA Band 5 mode – Sensor Off

Date:2018.06.20

Communication System: WCDMA Band V; Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.41 MHz; σ = 0.96 mho/m; ε_r = 55.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

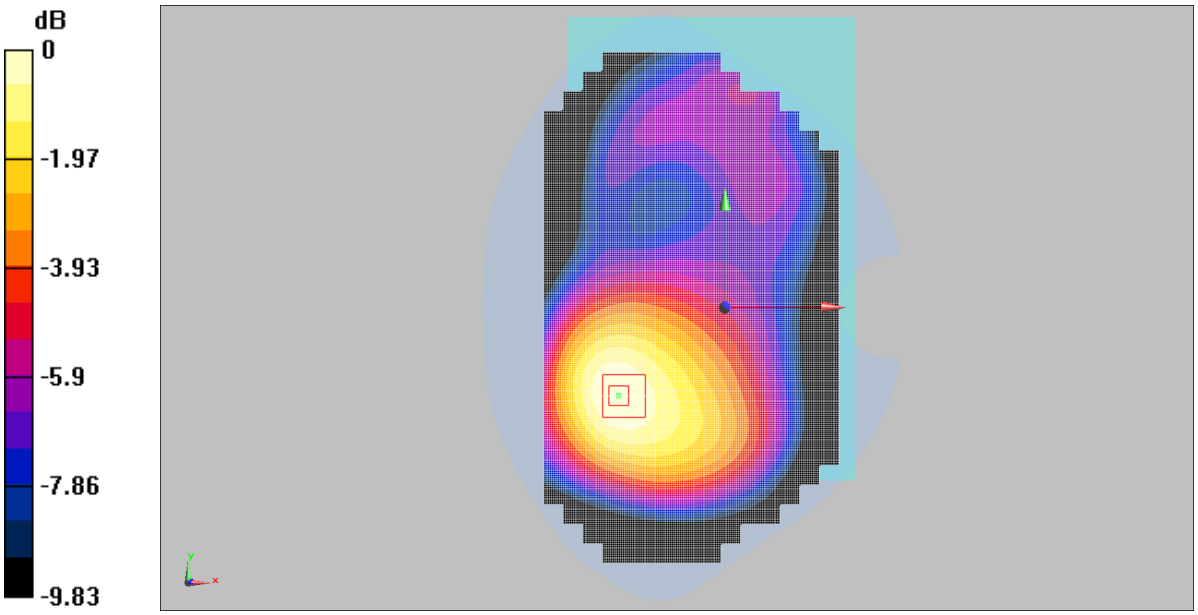
Ambient Temperature:22.7 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(6.01, 6.01, 6.01); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.235 W/Kg

Body Back Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.32 V/m; Power Drift = 0.00753 dB
Peak SAR (extrapolated) = 0.299 W/kg
SAR(1 g) = 0.223 W/Kg; SAR(10 g) = 0.162 W/Kg
Maximum value of SAR (measured) = 0.236 W/Kg



0 dB = 0.236W/Kg

MEAS. 11 Body Plan with Back Side on Low Channel in CDMA BC0 EvDo mode
Date:2018.06.20

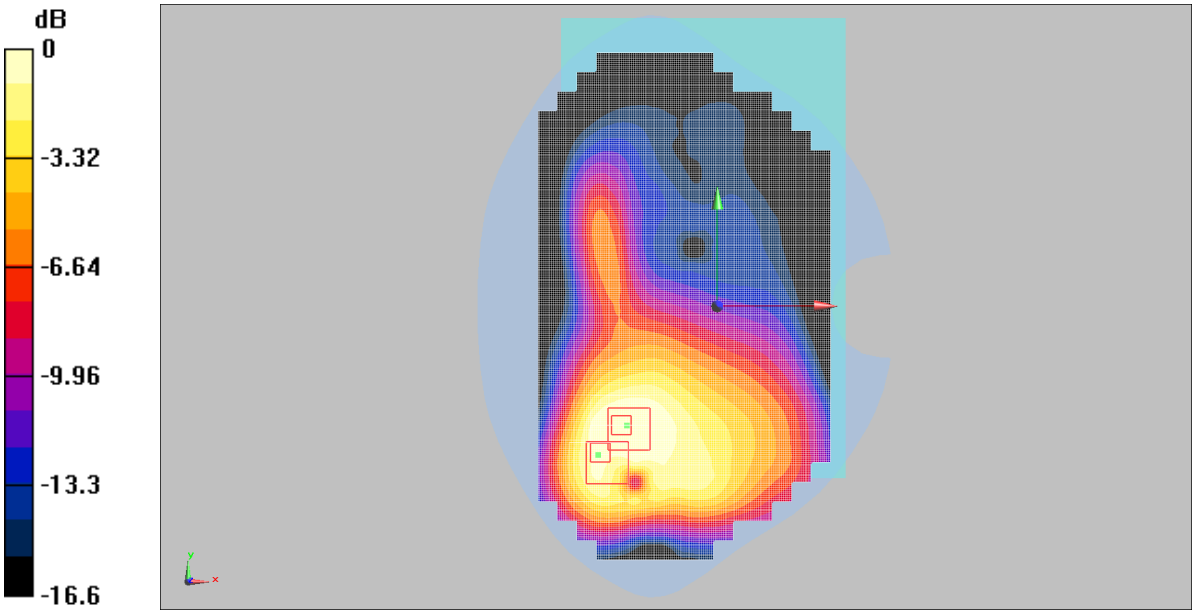
Communication System: CDMA Cellular; Frequency: 824.7 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 824.7 MHz; σ = 0.951 mho/m; ε_r = 56; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:22.7 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(6.01, 6.01, 6.01); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Low EvDo/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.07 W/Kg
Body Back Low EvDo/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.8 V/m; Power Drift = 0.113 dB
Peak SAR (extrapolated) = 1.75 W/kg
SAR(1 g) = 0.977 W/Kg; SAR(10 g) = 0.644 W/Kg
Maximum value of SAR (measured) = 1.07 W/Kg
Body Back Low EvDo/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.8 V/m; Power Drift = 0.113 dB
Peak SAR (extrapolated) = 1.29 W/kg
SAR(1 g) = 0.746 W/Kg; SAR(10 g) = 0.472 W/Kg
Maximum value of SAR (measured) = 0.921 W/Kg



0 dB = 0.921W/Kg

MEAS. 12 Body Plan with Back Side on Middle Channel in LTE Band 2 mode – Sensor On

Date:2018.06.18

Communication System: LTE Band 2; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.57 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

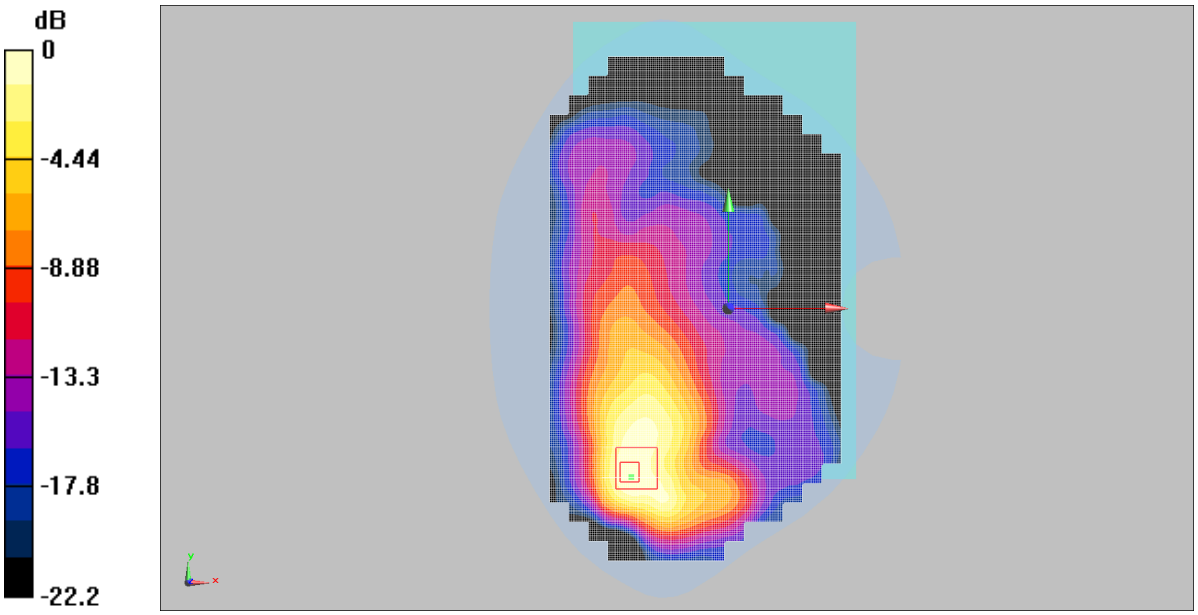
Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.61, 4.61, 4.61); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle 1RB/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.475 W/Kg

Body Back Middle 1RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.74 V/m; Power Drift = 0.154 dB
Peak SAR (extrapolated) = 0.688 W/kg
SAR(1 g) = 0.404 W/Kg; SAR(10 g) = 0.237 W/Kg
Maximum value of SAR (measured) = 0.452 W/Kg



0 dB = 0.452W/Kg

MEAS. 13 Body Plan with Back Side on Middle Channel in LTE Band 2 mode – Sensor Off

Date:2018.06.18

Communication System: LTE Band 2; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.57 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

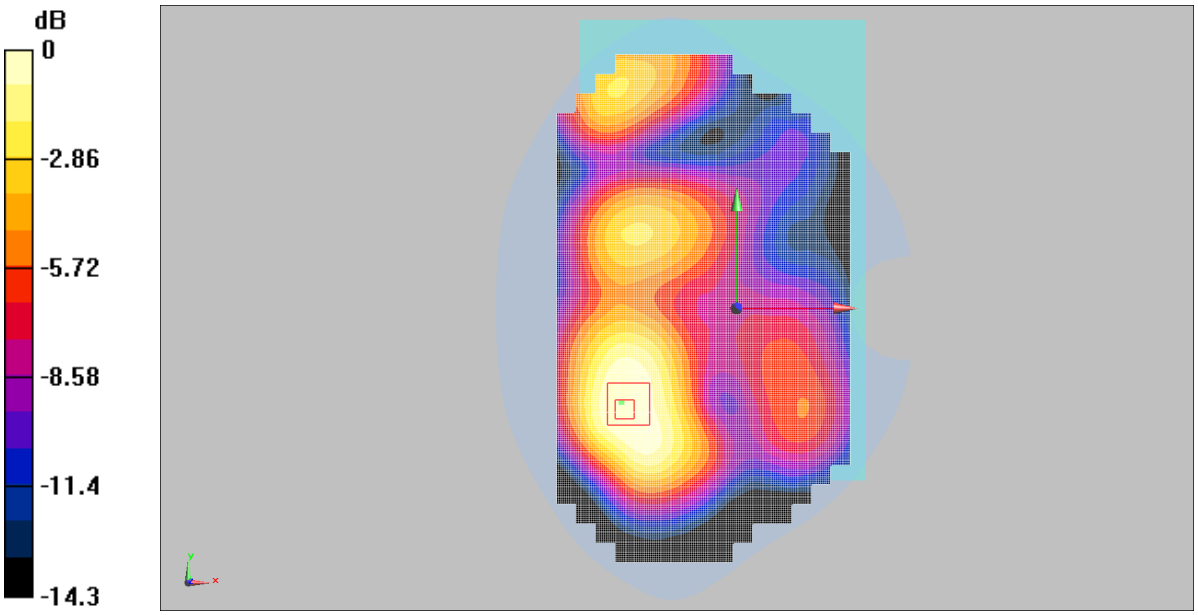
Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.61, 4.61, 4.61); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle 1RB/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.463 W/Kg

Body Back Middle 1RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.83 V/m; Power Drift = -0.076 dB
Peak SAR (extrapolated) = 0.631 W/kg
SAR(1 g) = 0.412 W/Kg; SAR(10 g) = 0.267 W/Kg
Maximum value of SAR (measured) = 0.445 W/Kg



0 dB = 0.445W/Kg

MEAS. 14 Body Plan with Back Side on Middle Channel in LTE Band 4 mode – Sensor On

Date:2018.06.22

Communication System: LTE Band 4; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.43 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

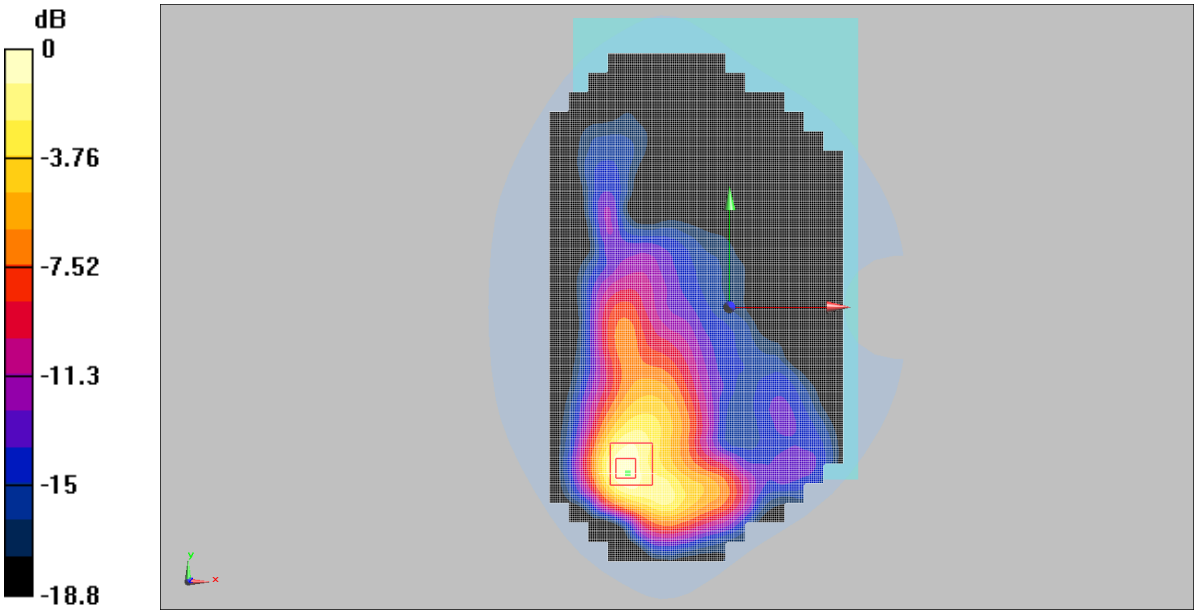
Ambient Temperature:22.0 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.87, 4.87, 4.87); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle 1RB/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.446 W/Kg

Body Back Middle 1RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.47 V/m; Power Drift = 0.021 dB
Peak SAR (extrapolated) = 0.636 W/kg
SAR(1 g) = 0.387 W/Kg; SAR(10 g) = 0.218 W/Kg
Maximum value of SAR (measured) = 0.433 W/Kg



0 dB = 0.433W/Kg

MEAS. 15 Body Plan with Back Side on Middle Channel in LTE Band 4 mode – Sensor Off

Date:2018.06.22

Communication System: LTE Band 4; Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.43 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom section: Flat Section

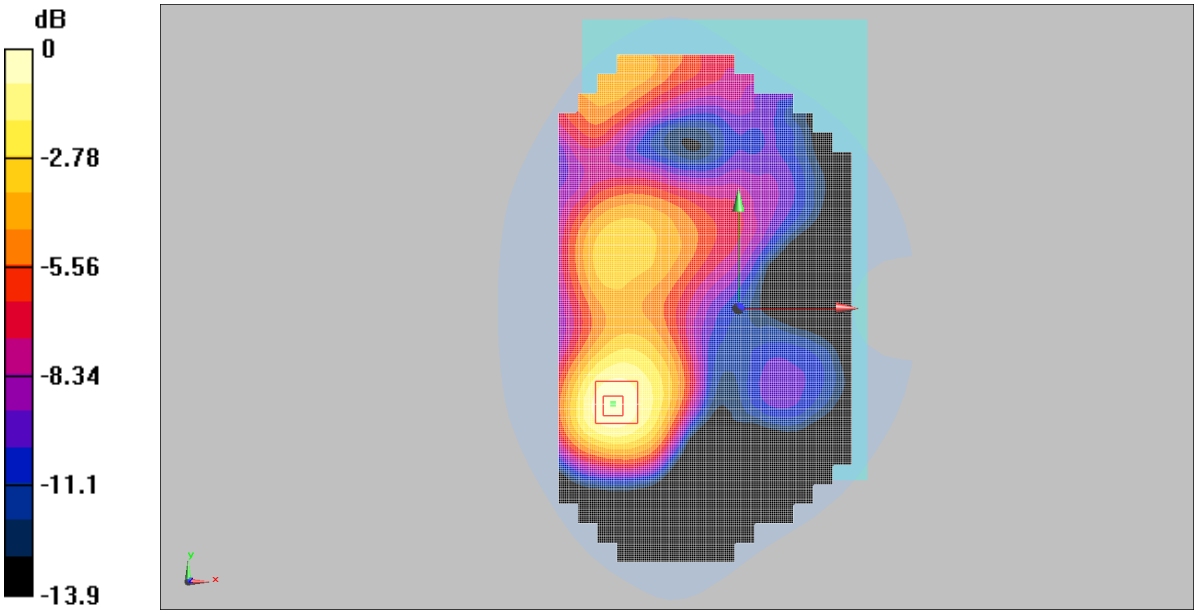
Ambient Temperature:22.0 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.87, 4.87, 4.87); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle 1RB/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.241 W/Kg

Body Back Middle 1RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.73 V/m; Power Drift = 0.103 dB
Peak SAR (extrapolated) = 0.333 W/kg
SAR(1 g) = 0.223 W/Kg; SAR(10 g) = 0.143 W/Kg
Maximum value of SAR (measured) = 0.241 W/Kg



0 dB = 0.241W/Kg

MEAS. 16 Body Plan with Back Side on High Channel in LTE Band 5 mode – Sensor On
Date:2018.06.21

Communication System: LTE Band 5; Frequency: 844 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 844 MHz; σ = 0.96 mho/m; ε_r = 55.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

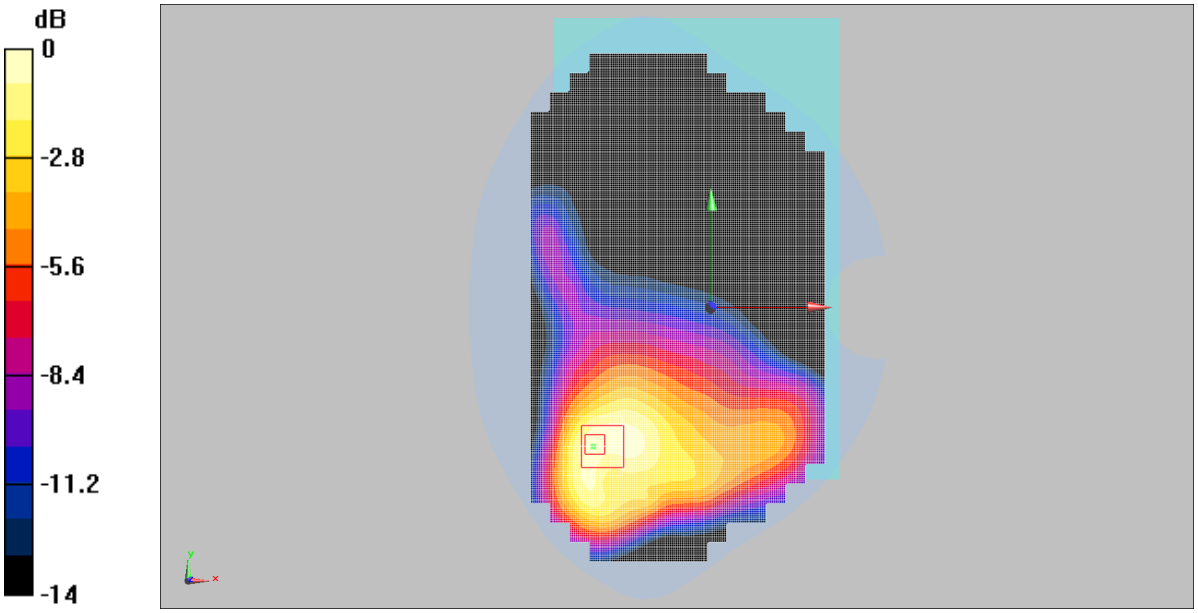
Ambient Temperature:22.7 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(6.01, 6.01, 6.01); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back High 1RB/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.251 W/Kg

Body Back High 1RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.41 V/m; Power Drift = -0.062 dB
Peak SAR (extrapolated) = 0.393 W/kg
SAR(1 g) = 0.220 W/Kg; SAR(10 g) = 0.141 W/Kg
Maximum value of SAR (measured) = 0.243 W/Kg



0 dB = 0.243W/Kg

MEAS. 17 Body Plan with Back Side on Middle Channel in LTE Band 5 mode – Sensor Off

Date:2018.06.21

Communication System: LTE Band 5; Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.96 mho/m; ε_r = 55.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

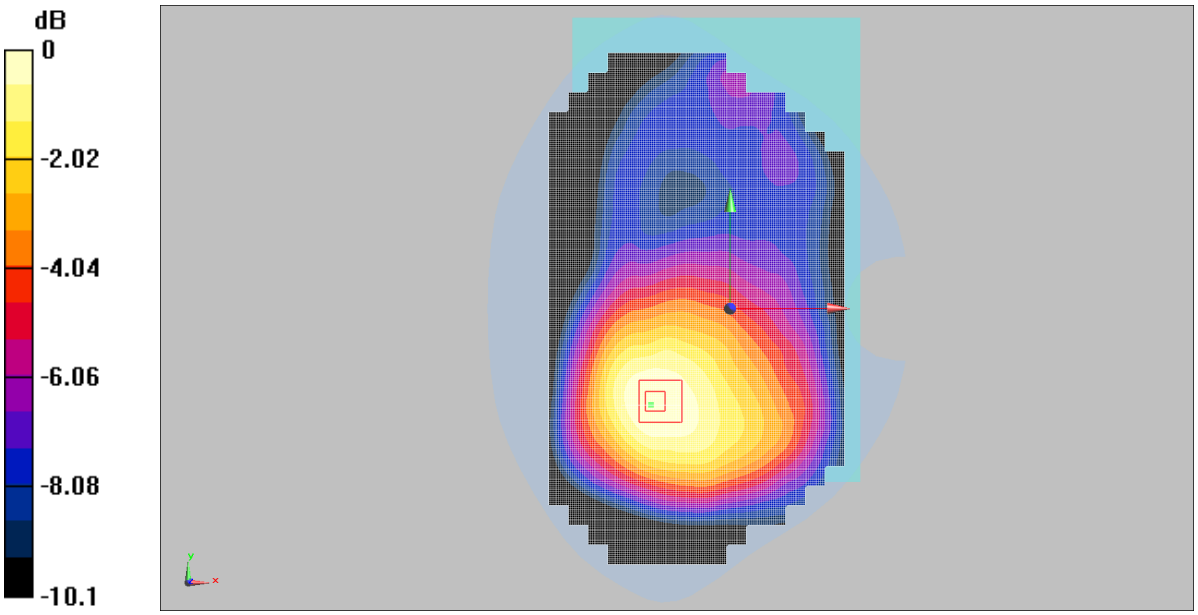
Ambient Temperature:22.7 Liquid Temperature:21.2

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(6.01, 6.01, 6.01); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle 1RB/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.337 W/Kg

Body Back Middle 1RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.3 V/m; Power Drift = -0.093 dB
Peak SAR (extrapolated) = 0.424 W/kg
SAR(1 g) = 0.318 W/Kg; SAR(10 g) = 0.232 W/Kg
Maximum value of SAR (measured) = 0.335 W/Kg



0 dB = 0.335W/Kg

MEAS. 18 Body Plan with Back Side on Middle Channel in LTE Band 7 mode – Sensor On

Date:2018.06.26

Communication System: LTE Band 7; Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2535 MHz; σ = 2.11 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Flat Section

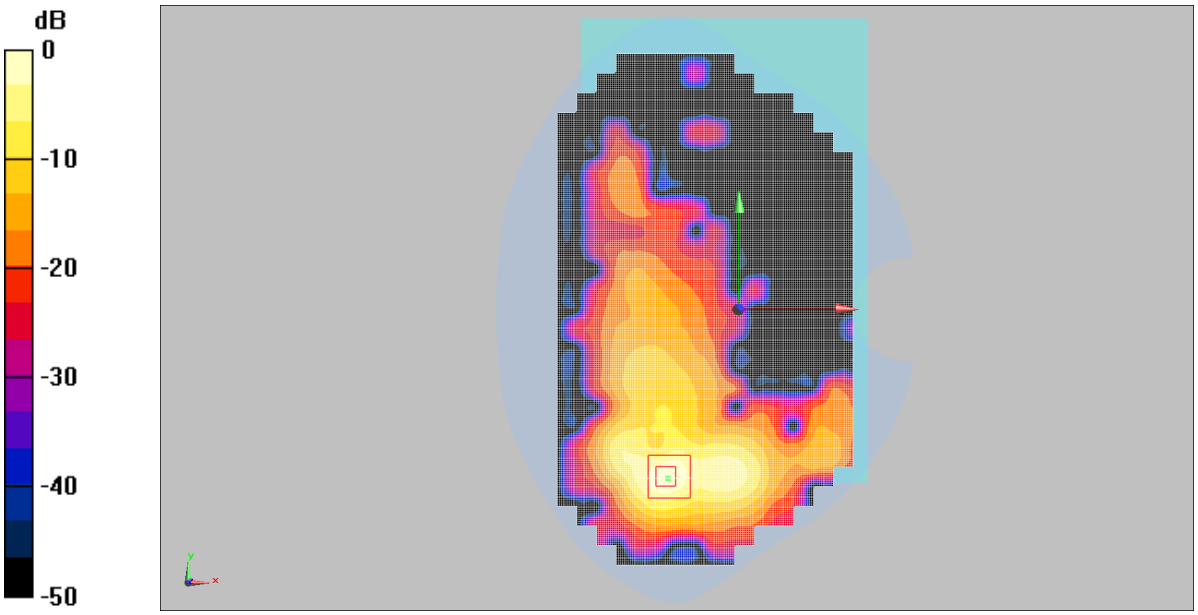
Ambient Temperature:22.9 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.12, 4.12, 4.12); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle 1RB/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.513 W/Kg

Body Back Middle 1RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.47 V/m; Power Drift = 0.070 dB
Peak SAR (extrapolated) = 1.09 W/kg
SAR(1 g) = 0.451 W/Kg; SAR(10 g) = 0.164 W/Kg
Maximum value of SAR (measured) = 0.550 W/Kg



0 dB = 0.550W/Kg

MEAS. 19 Body Plan with Back Side on Low Channel in LTE Band 7 mode – Sensor Off
Date:2018.06.26

Communication System: LTE Band 7; Frequency: 2510 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2510 MHz; σ = 2.11 mho/m; ε_r = 51.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

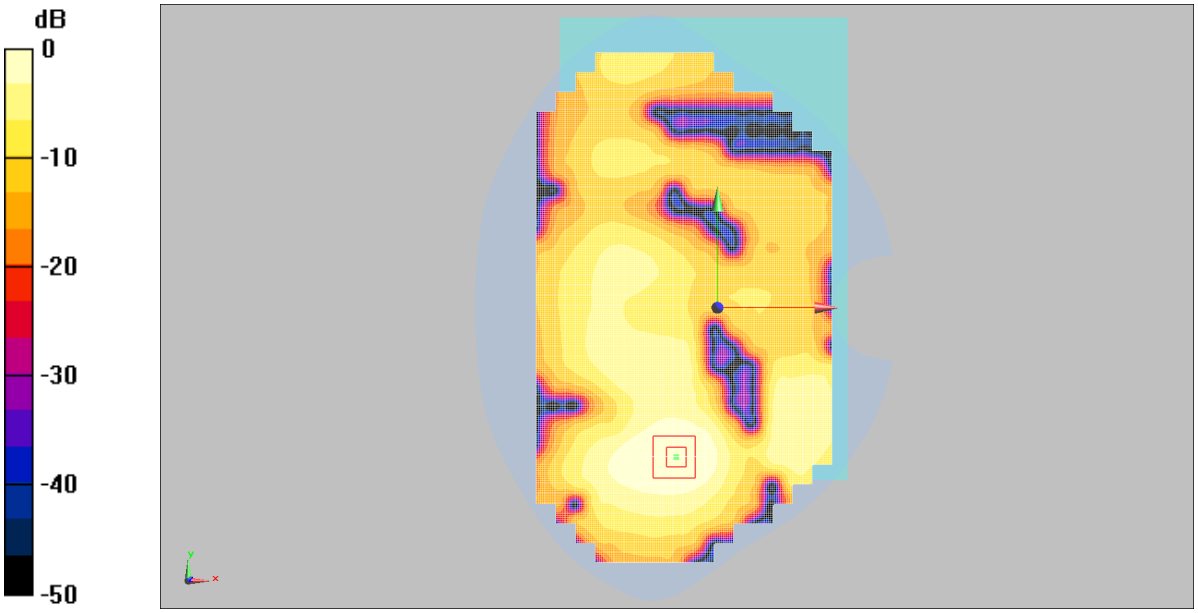
Ambient Temperature:22.9 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.12, 4.12, 4.12); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Low 1RB/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.189 W/Kg

Body Back Low 1RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.85 V/m; Power Drift = 0.119 dB
Peak SAR (extrapolated) = 0.317 W/kg
SAR(1 g) = 0.176 W/Kg; SAR(10 g) = 0.096 W/Kg
Maximum value of SAR (measured) = 0.193 W/Kg



0 dB = 0.193W/Kg

MEAS. 20 Body Plan with Back Side on Middle Channel in LTE Band 12 mode
Date:2018.06.27

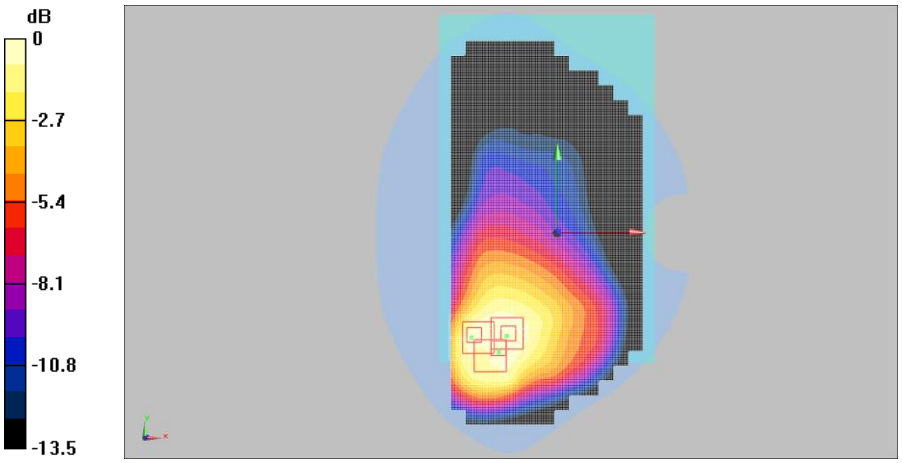
Communication System: LTE Band 12; Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.98 mho/m; ε_r = 57.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(6.15, 6.15, 6.15); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle 1RB/Area Scan (131x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.757 W/Kg
Body Back Middle 1RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.7 V/m; Power Drift = 0.029 dB
Peak SAR (extrapolated) = 1.02 W/kg
SAR(1 g) = 0.719 W/Kg; SAR(10 g) = 0.503 W/Kg
Maximum value of SAR (measured) = 0.766 W/Kg
Body Back Middle 1RB/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.7 V/m; Power Drift = 0.029 dB
Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.679 W/Kg; SAR(10 g) = 0.458 W/Kg
Maximum value of SAR (measured) = 0.738 W/Kg
Body Back Middle 1RB/Zoom Scan (7x7x7)/Cube 2: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.7 V/m; Power Drift = 0.029 dB
Peak SAR (extrapolated) = 1.04 W/kg
SAR(1 g) = 0.661 W/Kg; SAR(10 g) = 0.443 W/Kg
Maximum value of SAR (measured) = 0.756 W/Kg



0 dB = 0.756W/Kg

MEAS. 21 Body Plan with Back Side on Middle Channel in LTE Band 13 mode
Date:2018.06.27

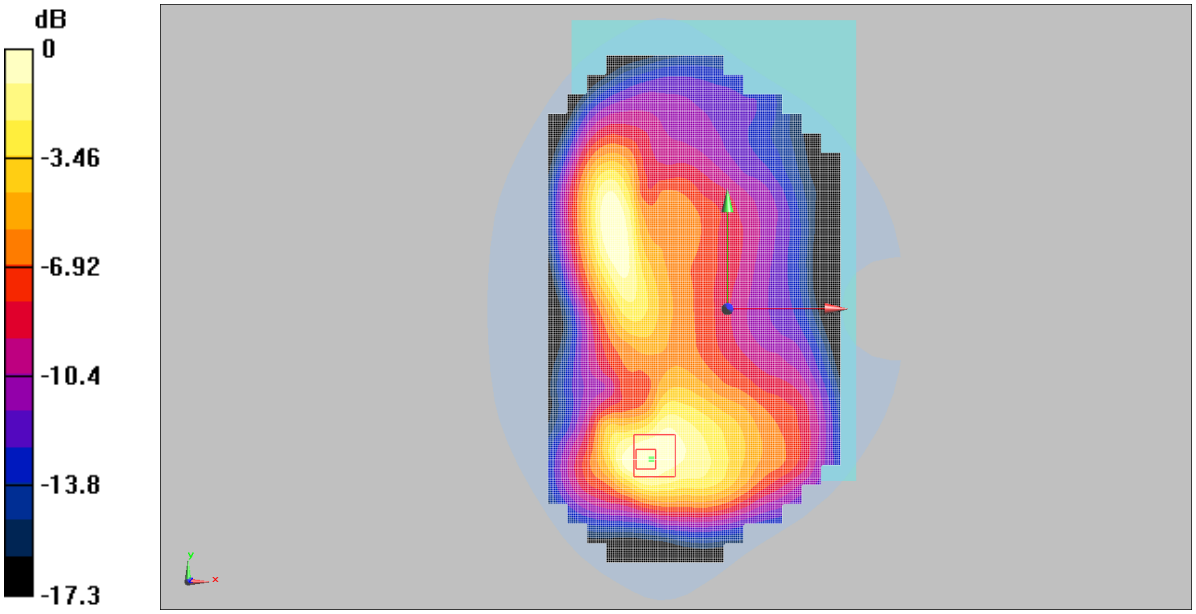
Communication System: LTE Band 13; Frequency: 782 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 782 MHz; σ = 0.986 mho/m; ε_r = 57.2; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(6.15, 6.15, 6.15); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle 1RB/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.617 W/Kg

Body Back Middle 1RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.9 V/m; Power Drift = -0.136 dB
Peak SAR (extrapolated) = 0.912 W/kg
SAR(1 g) = 0.533 W/Kg; SAR(10 g) = 0.321 W/Kg
Maximum value of SAR (measured) = 0.594 W/Kg



0 dB = 0.594W/Kg

MEAS. 22 Body Plan with Back Side on Low Channel in LTE Band 17 mode
Date:2018.06.27

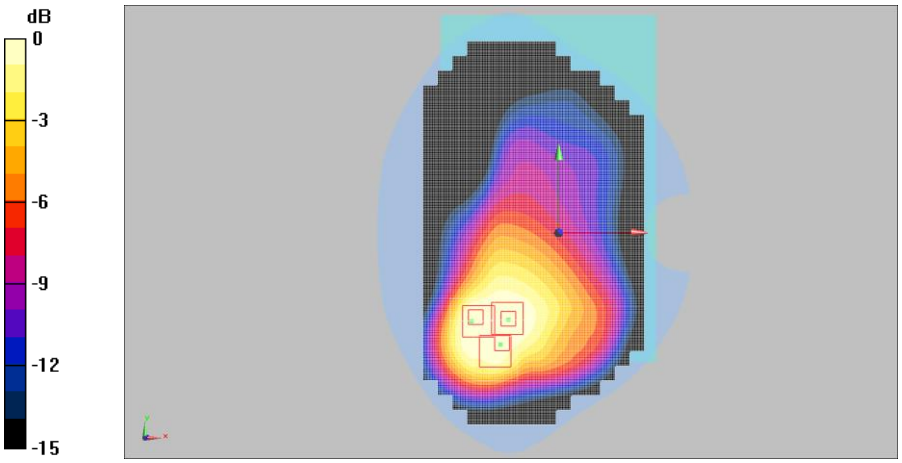
Communication System: LTE Band 17; Frequency: 709 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 709 MHz; σ = 0.98 mho/m; ε_r = 57.2; ρ = 1000 kg/m^3
Phantom section: Flat Section

Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(6.15, 6.15, 6.15); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Low 1RB/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.795 W/Kg
Body Back Low 1RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.7 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 1.08 W/kg
SAR(1 g) = 0.756 W/Kg; SAR(10 g) = 0.523 W/Kg
Maximum value of SAR (measured) = 0.807 W/Kg
Body Back Low 1RB/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.7 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.702 W/Kg; SAR(10 g) = 0.473 W/Kg
Maximum value of SAR (measured) = 0.761 W/Kg
Body Back Low 1RB/Zoom Scan (7x7x7)/Cube 2: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.7 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 1.01 W/kg
SAR(1 g) = 0.654 W/Kg; SAR(10 g) = 0.408 W/Kg
Maximum value of SAR (measured) = 0.735 W/Kg



0 dB = 0.735W/Kg

MEAS. 23 Body Plan with Back Side on Low Channel in LTE Band 25 mode – Sensor On
Date:2018.06.19

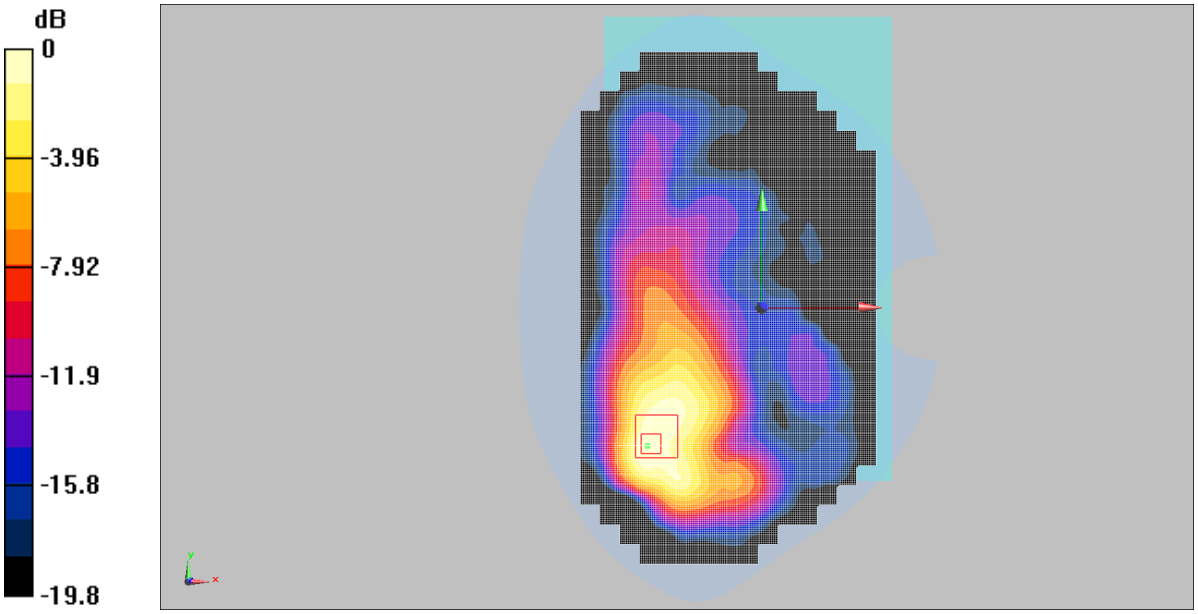
Communication System: LTE Band 25; Frequency: 1860 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1860 MHz; σ = 1.57 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.61, 4.61, 4.61); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Low 50RB/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.398 W/Kg

Body Back Low 50RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.43 V/m; Power Drift = 0.168 dB
Peak SAR (extrapolated) = 0.583 W/kg
SAR(1 g) = 0.354 W/Kg; SAR(10 g) = 0.212 W/Kg
Maximum value of SAR (measured) = 0.390 W/Kg



0 dB = 0.390W/Kg

MEAS. 24 Body Plan with Back Side on Middle Channel in LTE Band 25 mode – Sensor Off

Date:2018.06.19

Communication System: LTE Band 25; Frequency: 1882.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1882.5 MHz; σ = 1.57 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

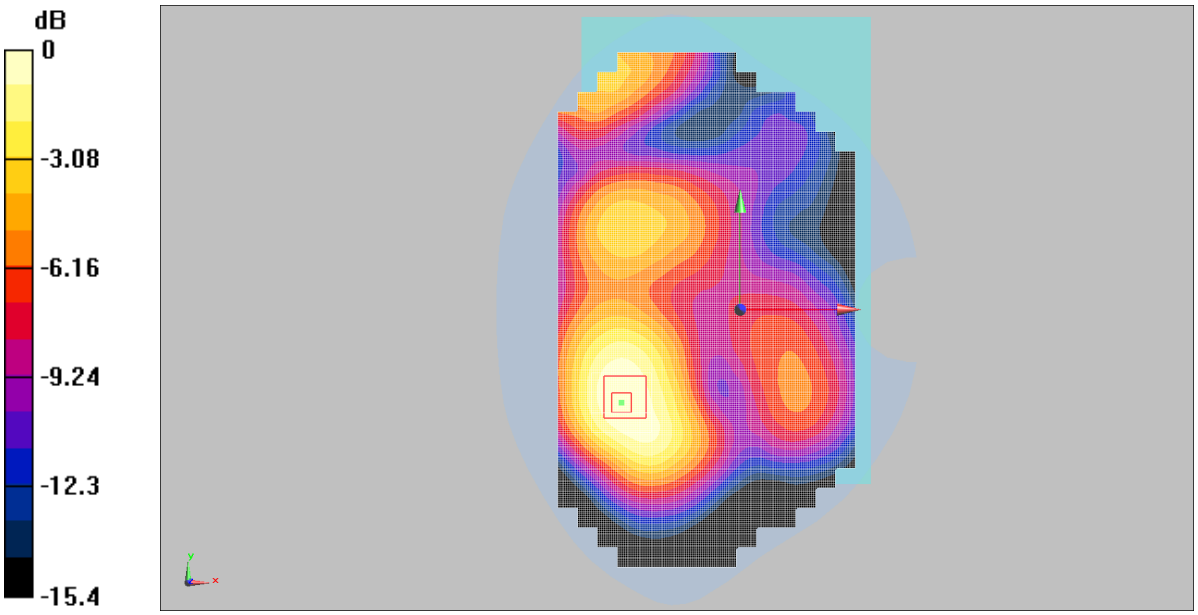
Ambient Temperature:22.3 Liquid Temperature:21.5

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.61, 4.61, 4.61); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle 1RB/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.382 W/Kg

Body Back Middle 1RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.94 V/m; Power Drift = 0.023 dB
Peak SAR (extrapolated) = 0.549 W/kg
SAR(1 g) = 0.355 W/Kg; SAR(10 g) = 0.230 W/Kg
Maximum value of SAR (measured) = 0.386 W/Kg



0 dB = 0.386W/Kg

MEAS. 25 Body Plan with Back Side on Middle Channel in LTE Band 41 mode
Date:2018.06.26

Communication System: LTE Band 41(2555MHz-2655MHz); Frequency: 2605 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2605 MHz; σ = 2.23 mho/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

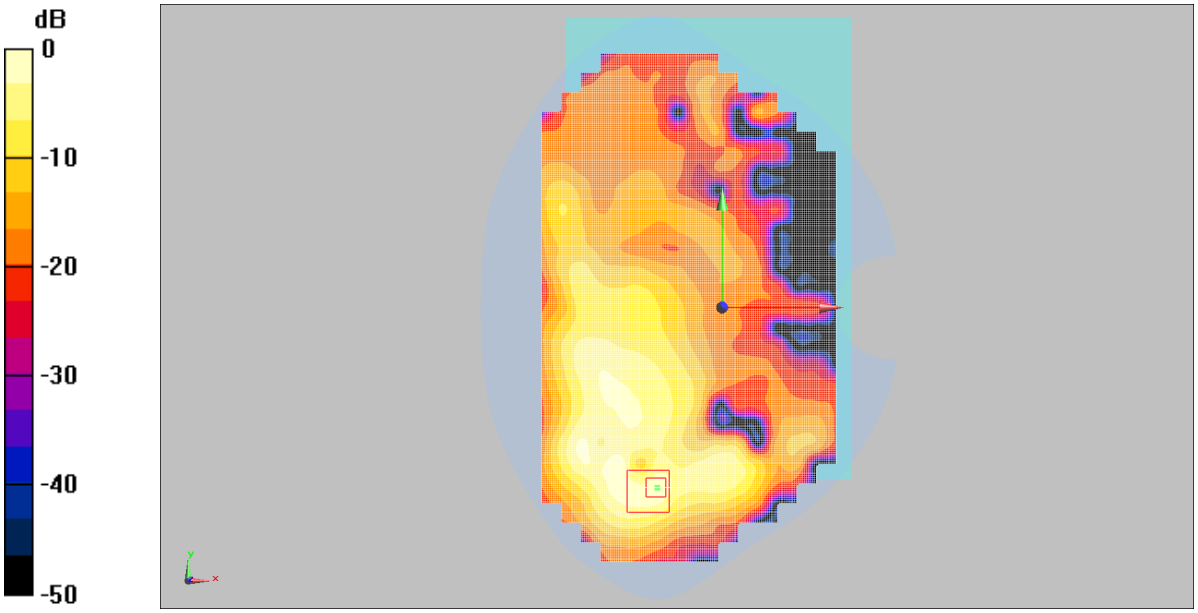
Ambient Temperature:22.9 Liquid Temperature:21.4

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.12, 4.12, 4.12); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle 1RB/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.389 W/Kg

Body Back Middle 1RB/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.73 V/m; Power Drift = -0.143 dB
Peak SAR (extrapolated) = 0.828 W/kg
SAR(1 g) = 0.325 W/Kg; SAR(10 g) = 0.121 W/Kg
Maximum value of SAR (measured) = 0.412 W/Kg



0 dB = 0.412W/Kg

MEAS. 26 Body Plan with Back Side on Middle Channel in WLAN 802.11b mode
Date:2018.06.25

Communication System: WLAN 802.11b; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 2437 MHz; σ = 2.01 mho/m; ε_r = 50.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

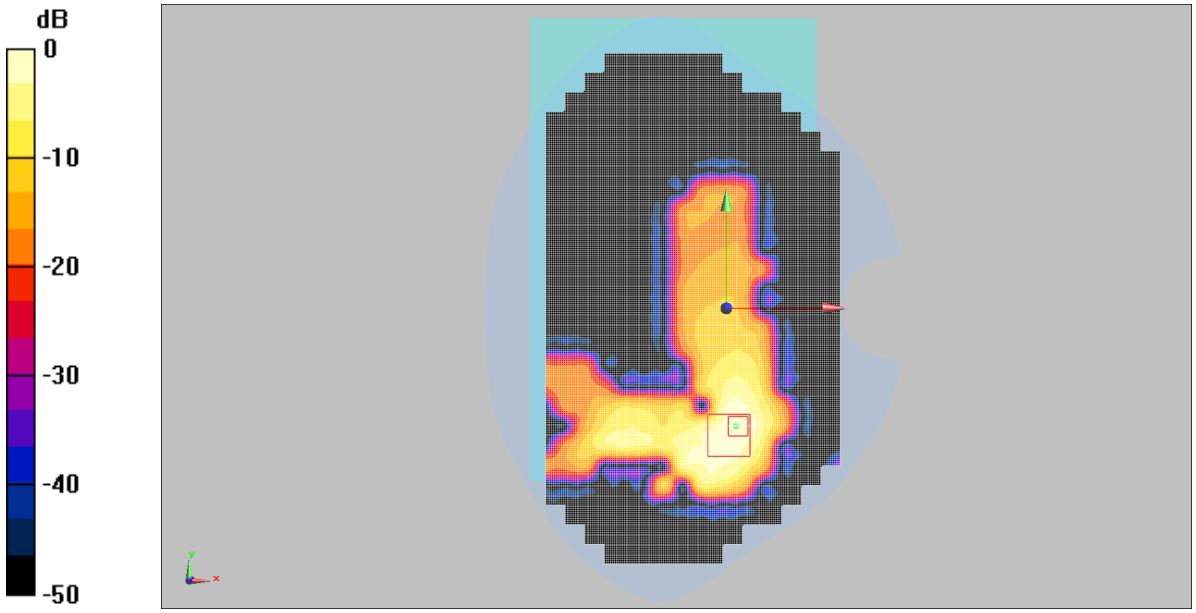
Ambient Temperature:21.8 Liquid Temperature:21.6

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.23, 4.23, 4.23); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.198 W/Kg

Body Back Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.75 V/m; Power Drift = 0.046 dB
Peak SAR (extrapolated) = 0.410 W/kg
SAR(1 g) = 0.157 W/Kg; SAR(10 g) = 0.065 W/Kg
Maximum value of SAR (measured) = 0.192 W/Kg



0 dB = 0.192W/Kg

MEAS. 27 Body Plan with Back Side on High Channel in WLAN 802.11ac VHT40 mode
Date:2018.06.25

Communication System: WLAN 802.11ac VHT40; Frequency: 5230 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5230 MHz; σ = 5.33 mho/m; ε_r = 47.63; ρ = 1000 kg/m^3
Phantom section: Flat Section

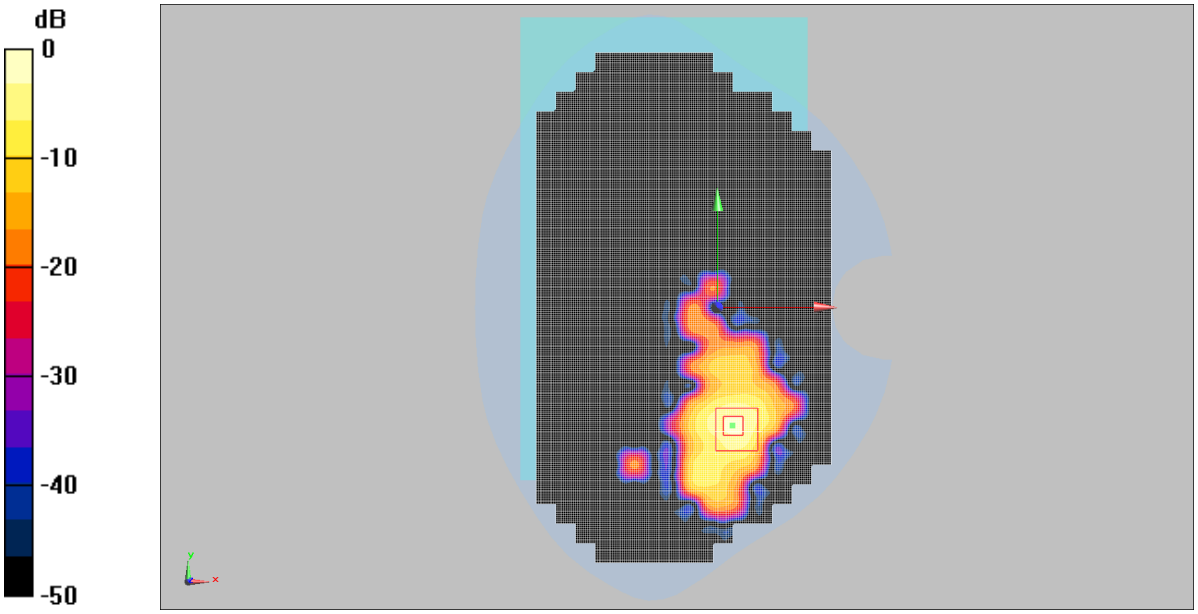
Ambient Temperature:22.5 Liquid Temperature:21.6

DASY5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(5.16, 5.16, 5.16); Calibrated: 2018.01.11
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back High/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.420 W/Kg

Body Back High/Zoom Scan (7x7x13)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.04 V/m; Power Drift = -0.053 dB
Peak SAR (extrapolated) = 1.59 W/kg
SAR(1 g) = 0.346 W/Kg; SAR(10 g) = 0.103 W/Kg
Maximum value of SAR (measured) = 0.707 W/Kg



0 dB = 0.707W/Kg

MEAS. 28 Body Plan with Back Side on Low Channel in WLAN 802.11ac VHT20 mode
Date:2018.06.25

Communication System: WLAN 802.11ac VHT20; Frequency: 5745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5745 MHz; σ = 6.06 mho/m; ε_r = 46.3; ρ = 1000 kg/m^3
Phantom section: Flat Section

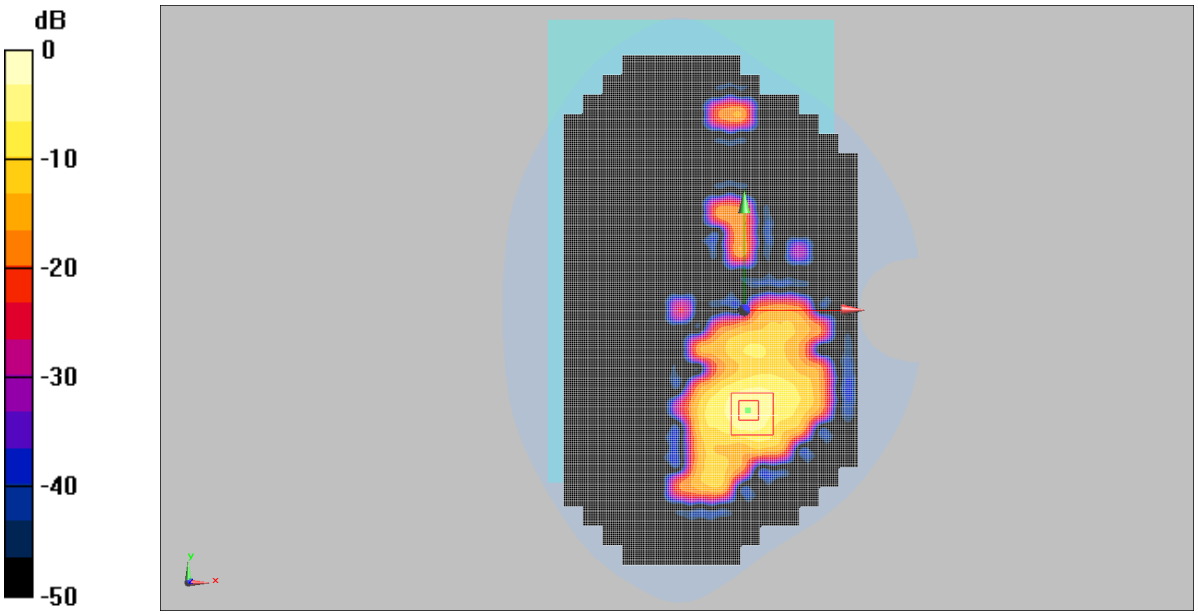
Ambient Temperature:22.5 Liquid Temperature:21.6

DASY5 Configuration:

- Probe: EX3DV4 - SN7340; ConvF(4.58, 4.58, 4.58); Calibrated: 2018.01.11
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: Phantom: SAM (30deg probe tilt) with CRP v5.0 on left 1859; Type: QD000P40CD; Serial: TP:1859
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Low/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.331 W/Kg

Body Back Low/Zoom Scan (7x7x13)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 0.633 V/m; Power Drift = 0.014 dB
Peak SAR (extrapolated) = 1.82 W/kg
SAR(1 g) = 0.371 W/Kg; SAR(10 g) = 0.122 W/Kg
Maximum value of SAR (measured) = 0.728 W/Kg



0 dB = 0.728W/Kg

MEAS. 29 Body Plan with Back Side on Middle Channel in Bluetooth EDR mode
Date:2018.06.25

Communication System: Bluetooth DR/EDR; Frequency: 2441 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2441 MHz; σ = 2.02 mho/m; ε_r = 50.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

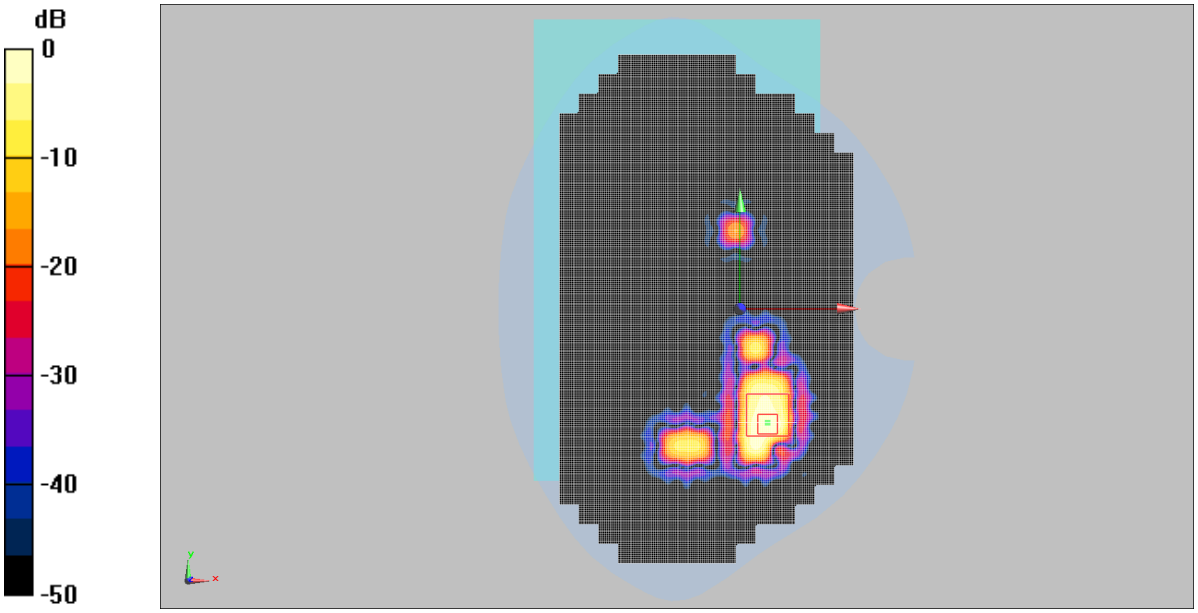
Ambient Temperature:21.8 Liquid Temperature:21.6

DASY5 Configuration:

- Probe: ES3DV3 - SN3110; ConvF(4.23, 4.23, 4.23); Calibrated: 2017.08.02
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn685; Calibrated: 2017.08.02
- Phantom: SAM (30deg probe tilt) with CRP v5.0 Right 1857; Type: QD000P40CD; Serial: TP1857
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Body Back Middle/Area Scan (151x261x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.011 W/Kg

Body Back Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0 V/m; Power Drift = 0 dB
Peak SAR (extrapolated) = 0.045 W/kg
SAR(1 g) = 0.010 W/Kg; SAR(10 g) = 0.00286 W/Kg
Maximum value of SAR (measured) = 0.012 W/Kg



0 dB = 0.012W/Kg

ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-EC1840167-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-EC1840167-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “CALIBRATION REPORT.pdf”.

--END OF REPORT--