SAR TEST REPORT

Applicant	Honor Device Co., Ltd.
FCC ID	2AYGCHJC-LX9
Product	Smart Phone
Model	HJC-LX9
Report No.	R2009H0243-S1V3
Issue Date	February 5, 2021

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **IEEE 1528- 2013, ANSI C95.1: 1992, IEEE C95.1: 1991.** The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	December 18, 2020
Rev.1	Update description in Page 28, 34 and ANNEX B. Update data in Page 152.	January 8, 2021
Rev.2	Update information in Page 1.	January 28, 2021
Rev.3	Update description in Page 26.	February 5, 2021
Note This revised report (Report No. R2009H0243-S1V3) supersedes and replaces the previously issued report (Report No. R2009H0243-S1V2). Please discard or destroy the previously issued report and dispose of it accordingly.		

1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein .Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2 Test facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

1.3 Testing Location

Company:	TA Technology (Shanghai) Co., Ltd.
Address:	No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China
City:	Shanghai
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1.4 Laboratory Environment

Temperature	Min. = 18°C, Max. = 25 °C
Relative humidity	Min. = 30%, Max. = 70%
Ground system resistance	< 0.5 Ω
Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

2 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for the EUT are as follows:

Table 1: Highest Reported SAR

Mode	Highest Reported SAR (W/kg)			
	1g SAR Head	1g SAR Body-worn (Separation 15mm)	1g SAR Hotspot (Separation 10mm)	Product Specific 10-g SAR (Separation 0mm)
GSM 850	0.44	0.20	0.42	NA
GSM 1900	0.76	0.22	0.34	NA
WCDMA Band II	**1.04**	**0.45**	0.64	NA
WCDMA Band IV	0.86	0.35	0.70	NA
WCDMA Band V	0.65	0.25	0.50	NA
LTE FDD 2	0.92	0.33	0.66	NA
LTE FDD 4	0.75	0.41	**0.85**	NA
LTE FDD 5	0.67	0.26	0.58	NA
LTE FDD 7	0.47	0.34	0.71	NA
LTE TDD 38	0.73	0.31	0.54	NA
LTE TDD 41	0.76	0.28	0.48	NA
Wi-Fi (2.4G)	0.16	0.13	0.47	NA
Wi-Fi (5G)	0.36	0.23	0.45	**1.01**
BT	0.13	＜0.1	＜0.1	NA
Date of Testing: September 4, 2020 ~November 9, 2020				
Date of Sample Received: September 3, 2020				
Note: Note: 1. The device is in compliance with SAR for Uncontrolled Environment /General Population exposure limits (1.6 W/kg and 4.0 W/kg) specified in ANSI C95.1: 1992/IEEE C95.1: 1991, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013. 2.All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.				

Note: 1) The highest Reported SAR for head, body-worn, hotspot, Product Specific 10-g SAR and simultaneous transmission exposure conditions are 1.04 W/kg, 0.45W/kg, 0.85W/kg, 1.01W/kg and 1.39W/kg.

2) Sand-alone SAR evaluation is not required for BT, more details information see section 10.2

3) For body worn operation, this device has been tested and meets FCC RF exposure guidelines when used with any accessory that contains no metal and that positions the handset a minimum of 15mm from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

The device is in compliance with Specific Absorption Rate (SAR) for general population/uncontraolled

exposure limits according to the FCC rule §2.1093, the ANSI C95.1: 1992/IEEE C95.1: 1991, and had been tested in accordance with the measurement methods and procedures specified in IEEE Std 1528-2013.

3 Description of Equipment under Test

Client Information

Applicant	Honor Device Co., Ltd.
Applicant address	Suite 3401, Unit A, Building 6, Shum Yip Sky Park, No. 8089, Hongli West Road, Xiangmihu Street, Futian District,Shenzhen, Guangdong 518040, People's Republic of China.
Manufacturer	Honor Device Co., Ltd.
Manufacturer address	Suite 3401, Unit A, Building 6, Shum Yip Sky Park, No. 8089, Hongli West Road, Xiangmihu Street, Futian District,Shenzhen, Guangdong 518040, People's Republic of China.

General Technologies

Application Purpose:	Original Grant
EUT Stage:	Identical Prototype
Model:	HJC-LX9
SN:	019BRD208E001414(Battery 1) NBC0120818000419(Battery 2)
Hardware Version:	HL3JSCM
Software Version:	10.1.1.111(C900E01R1P1)
Antenna Type:	Internal Antenna
Device Class:	B
Wi-Fi Hotspot:	Wi-Fi 2.4G Wi-Fi 5G U-NII-1& U-NII-3
Power Class:	GSM 850:4 GSM 1900:1 UMTS Band II/IV/V:3 LTE FDD 2/4/5/7:3 LTE TDD 38/41:3
Power Level:	GSM 850:level 5 GSM 1900:level 0 UMTS Band II/IV/V:all up bits LTE FDD 2/4/5/7:max power LTE TDD 38/41:max power
EUT Accessory	
Battery 1	Manufacturer: Honor Device Co., Ltd. (Sunwoda Electronic Co.,LTD) Model: HB426589EEW
Battery 2	Manufacturer: Honor Device Co., Ltd. (SCUD (Fujian) Electronics Co., LTD.)

	Model: HB426589EEW
Earphone 1	Manufacturer: BOLUO COUNTY QUANCHENG ELECTRONIC CO.,LTD Model: 1293-3283-3.5mm-339
Earphone 2	Manufacturer: Jiangxi Lianchuang Hongsheng Electronic Co.,LTD Model: MEND1532B528A11
Earphone 3	Manufacturer: FOXCONN INTERCONNECT TECHNOLOGY LIMITED Model: EPAB542-2WH05-DH
Note: The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.	

Wireless Technology and Frequency Range

Wireless Technology		Modulation	Operating mode	Tx (MHz)
GSM	850	Voice(GMSK) GPRS(GMSK) EGPRS(GMSK,8PSK)	☐Multi-slot Class:8-1UP ☐Multi-slot Class:10-2UP ☒Multi-slot Class:12-4UP ☐Multi-slot Class:33-4UP	824 ~ 849
	1900			1850 ~ 1910
	Does this device support DTM (Dual Transfer Mode)? ☐Yes ☒No			
UMTS	Band II	QPSK, 16QAM	HSDPA HSUPA DC-HSDPA HSPA+	1850 ~ 1910
	Band IV			1710 ~ 1755
	Band V			824 ~ 849
LTE	FDD 2	QPSK, 16QAM, 64QAM	Rel.10	1850 ~ 1910
	FDD 4			1710 ~ 1755
	FDD 5			824 ~ 849
	FDD 7			2500 ~ 2570
	TDD 38			2570 ~ 2620
	TDD 41			2496 ~ 2690
	Does this device support Carrier Aggregation (CA) ☒Yes ☐No			
	Does this device support SV-LTE (1xRTT-LTE)? ☐Yes ☒No			
BT	2.4G	Version 5.1 LE		2402 ~2480
Wi-Fi	2.4G	DSSS,OFDM	802.11b/g/n HT20	2412 ~ 2462
		OFDM	802.11n HT40	2422 ~ 2452
	5G	OFDM	802.11a/n HT20/ HT40/ ac VHT20/ VHT40/ VHT80	5150 ~ 5350 5470 ~ 5850
	Does this device support MIMO ☐Yes ☒No			
NFC	13.56MHz			

4 Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE 1528- 2013, ANSI C95.1: 1992,IEEE C95.1: 1991, the following FCC Published RF exposure KDB procedures:

IEC 62209-1

Reference Standards

KDB 248227 D01 802.11Wi-Fi SAR v02r02
KDB 447498 D01 General RF Exposure Guidance v06
KDB 648474 D04 Handset SAR v01r03
KDB 690783 D01 SAR Listings on Grants v01r03
KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
KDB 865664 D02 RF Exposure Reporting v01r02
KDB 941225 D01 3G SAR Procedures v03r01
KDB 941225 D05 SAR for LTE Devices v02r05
KDB 941225 D05A LTE Rel.10 KDB Inquiry Sheet v01r02
KDB 941225 D06 Hotspot Mode v02r01

5 Operational Conditions during Test

5.1 Test Positions

5.1.1 Against Phantom Head

Measurements were made in “cheek” and “tilt” positions on both the left hand and right hand sides of the phantom.

The positions used in the measurements were according to IEEE 1528 - 2013 "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate(SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques".

5.1.2 Body Worn Configuration

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations.

Per FCC KDB Publication 648474 D04, 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 FCC KDB Publication 447498 D01 should be 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 applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

Body-worn accessories may not always be supplied or available as options for some devices intended to be authorized for body-worn use. In this case, a test configuration with a separation distance between the back of the device and the flat phantom is used. Test position spacing was documented. Transmitters that are designed to operate in front of a person’s face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom in head fluid. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessories, including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.

5.1.3 Phablet SAR test considerations

For smart phones, with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, that can provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets and support voice calls next to the ear, unless it is confirmed otherwise through KDB inquiries, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance.

a) The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.

b) The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for product specific 10-g SAR according to the body-equivalent tissue dielectric parameters in KDB Publication 865664 D01 to address interactive hand use exposure conditions. The 1-g SAR at 5 mm for UMPC mini-tablets is not required. When hotspot mode applies, product specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg; however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold. The normal tablet procedures in KDB Publication 616217 are required when the overall diagonal dimension of the device is > 20.0 cm. Hotspot mode SAR is not required when normal tablet procedures are applied. Product specific 10-g SAR is also not required for the front (top) surface of larger form factor full size tablets. The more conservative normal tablet SAR results can be used to support phablet mode product specific 10-g SAR.

c) The simultaneous transmission operating configurations applicable to voice and data transmissions for both phone and mini-tablet modes must be taken into consideration separately for 1-g and 10-g SAR to determine the simultaneous transmission SAR test exclusion and measurement requirements for the relevant wireless modes and exposure conditions.

5.2 Measurement Variability

Per FCC KDB Publication 865664 D01, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:
1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.

5.3 Test Configuration

5.3.1 GSM Test Configuration

According to specification 3GPP TS 51.010, the maximum power of the GSM can do the power reduction for the multi-slot. The allowed power reduction in the multi-slot configuration is as following:

Output power of reductions:

Table 2: The allowed power reduction in the multi-slot configuration

Number of timeslots in uplink assignment	Permissible nominal reduction of maximum output power,(dB)
1	0
2	0 to 3,0
3	1,8 to 4,8
4	3,0 to 6,0

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. GSM voice and GPRS data use GMSK, which is a constant amplitude modulation with minimal peak to average power difference within the time-slot burst. For EDGE, GMSK is used for MCS 1 – MCS 4 and 8-PSK is used for MCS 5 – MCS 9; where 8-PSK has an inherently higher peak-to-average power ratio. The GMSK and 8-PSK EDGE configurations are considered separately for SAR compliance. The GMSK EDGE configurations are grouped with GPRS and considered with respect to time-averaged maximum output power to determine compliance. The 3G SAR test reduction procedure is applied to 8-PSK EDGE with GMSK GPRS/EDGE as the primary mode.

5.3.2 UMTS Test Configuration

5.3.2.1 3G SAR Test Reduction Procedure

The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement channel) configured in Test Loop Mode 1. SAR is selectively confirmed for other physical channel configurations modes according to output power, exposure conditions and device operating capabilities. Maximum output power is verified by applying the applicable versions of 3GPP TS 34.121.

5.3.2.2 Head SAR

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”. The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for 12.2 kbps AMR in 3.4 kbps SRB (signaling radio bearer) using the highest SAR configuration in 12.2 kbps RMC for head exposure.

5.3.2.3 Body-worn accessory SAR

SAR for body-worn accessory configurations is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”. The 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCHn configurations supported by the EUT with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using an applicable RMC configuration with the corresponding spreading code or DPDCHn, for the highest reported body-worn accessory exposure SAR configuration in 12.2 kbps RMC. When more than 2 DPDCHn are supported by the EUT, it may be necessary to configure additional DPDCHn using FTM (Factory Test Mode) or other chipset based test approaches with parameters similar to those used in 384 kbps and 768 kbps RMC

5.3.2.4 Release 5 HSDPA Test Configuration

The 3G SAR test reduction procedure is applied to HSDPA body-worn accessory configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSDPA using the HSDPA body SAR procedures in the “Release 5 HSDPA Data Devices” section of this document, for the highest SAR body-worn accessory exposure configuration in 12.2 kbps RMC. EUT with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

HSDPA should be configured according to the UE category of a test device.The number of HSDSCH/ HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission conditions, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms with a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors(βc, βd), and HS-DPCCH power offset parameters (ΔACK, ΔNACK, ΔCQI) should be set according to values indicated in the Table below. The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the H-set.

Table 3: Subtests for UMTS Release 5 HSDPA

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

Note1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI}= 8$\Leftrightarrow$$A_{hs}$ = β_{hs}/β_c=30/15$\Leftrightarrow$$\beta_{hs}$=30/15*$\beta_c$

Note2: CM=1 for β_c/β_d =12/15, β_{hs}/β_c=24/15.

Note3: For subtest 2 the $\beta_c\beta_d$ ratio of 12/15 for the TFC during the measurement period(TF1,TF0) is achieved by setting the signaled gain factors for the reference TFC (TFC1,TF1) to β_c=11/15 and β_d=15/15.

5.3.2.5 Release 6 HSUPA Test Configuration

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body-worn accessory configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures in the “Release 6 HSPA Data Devices” section of this document, for the highest body-worn accessory exposure SAR configuration in 12.2 kbps RMC. When VOIP is applicable for next to the ear head exposure in HSPA, the 3G SAR test reduction procedure is applied to HSPA with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body-worn accessory measurements is tested for next to the ear head exposure.

Due to inner loop power control requirements in HSPA, a communication test set is required for output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSPA are configured according to the β values indicated in Table 2 and other applicable procedures described in the ‘WCDMA EUT and ‘Release 5 HSDPA Data Devices’ sections of this document

Table 4: Sub-Test 5 Setup for Release 6 HSUPA

Sub-set	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs} (1)	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM (2) (dB)	MPR (dB)	AG (4) Index	E-TFCI
1	11/15 (3)	15/15 (3)	64	11/15 (3)	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1}:47/15 β_{ed2}:47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15 (4)	15/15 (4)	64	15/15 (4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: Δ_{ACK}, ΔNACK and Δ_{CQI} = 8 $\Leftrightarrow$ A_{hs} = β_{hs}/β_c = 30/15 $\Leftrightarrow\beta_{hs}$= 30/15 *$\beta_c$.

Note 2: CM = 1 for βc/βd =12/15, β_{hs}/β_c =24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

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

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

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

Note 6: βed can not be set directly; it is set by Absolute Grant Value.

Table 5: HSUPA UE category

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCH TTI (ms)	Minimum Spreading Factor	Maximum E-DCH Transport Block Bits	Max Rate (Mbps)
1	1	4	10	4	7110	0.7296
2	2	8	2	4	2798	1.4592
	2	4	10	4	14484	

3	2	4	10	4	14484	1.4592
4	2	8	2	2	5772	2.9185
	2	4	10	2	20000	2.00
5	2	4	10	2	20000	2.00
6 (No DPDCH)	4	8	2	2 SF2 & 2 SF4	11484	5.76
	4	4	10		20000	2.00
7 (No DPDCH)	4	8	2	2 SF2 & 2 SF4	22996	?
	4	4	10		20000	?
NOTE: When 4 codes are transmitted in parallel, two codes shall be transmitted with SF2 and two with SF4. UE Categories 1 to 6 supports QPSK only. UE Category 7 supports QPSK and 16QAM. (TS25.306-7.3.0)						

5.3.2.6 HSPA, HSPA+ and DC-HSDPA Test Configuration

SAR test exclusion may apply to 3GPP Rel. 6 HSPA and Rel. 8 DC-HSDPA. When SAR measurement is required for HSPA or DC-HSDPA, a KDB inquiry is required to confirm that the wireless mode configurations in the test setup have remained stable throughout the SAR measurements. Without prior KDB confirmation to determine the SAR results are acceptable, a PAG is required for equipment approval.

SAR test exclusion for HSPA, HSPA+ and DC-HSDPA is determined according to the following:

1) The HSPA procedures are applied to configure 3GPP Rel. 6 HSPA devices in the required sub-test mode(s) to determine SAR test exclusion.

2) SAR is required for Rel. 7 HSPA+ when SAR is required for Rel. 6 HSPA; otherwise, the 3G SAR test reduction procedure is applied to (uplink) HSPA+ with 12.2 kbps RMC as the primary mode.36 Power is measured for HSPA+ that supports uplink 16 QAM according to configurations in Table C.11.1.4 of 3GPP TS 34.121-1 to determine SAR test reduction.

3) SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

4) Regardless of whether a PBA is required, the following information must be verified and included in the SAR report for devices supporting HSPA, HSPA+ or DC-HSDPA: a) The output power measurement results and applicable release version(s) of 3GPP TS 34.121.

i) Power measurement difficulties due to test equipment setup or availability must be resolved between the grantee and its test lab.

b) The power measurement results are in agreement with the individual device implementation and specifications. When Enhanced MPR (E-MPR) applies, the normal MPR targets may be modified according to the Cubic Metric (CM) measured by the device, which must be taken into consideration.

c) The UE category, operating parameters, such as the β and Δ values used to configure the device for testing, power setback procedures described in 3GGPP TS 34.121 for the power measurements, and HSPA/HSPA+ channel conditions (active and stable) for the entire duration of the measurement according to the required E-TFCI and AG index values.

5) When SAR measurement is required, the test configurations, procedures and power measurement results must be clearly described to confirm that the required test parameters are used, including E-TFCI and AG index stability and output power conditions.

Table 6: HS-DSCH UE category

Table 5.1a: FDD HS-DSCH physical layer categories

HS-DSCH category	Maximum number of HS-DSCH codes received	Minimum inter-TTI interval	Maximum number of bits of an HS-DSCH transport block received within an HS-DSCH TTI NOTE 1	Total number of soft channel bits	Supported modulations without MIMO operation or dual cell operation	Supported modulations with MIMO operation and without dual cell operation	Supported modulations with dual cell operation
Category 1	5	3	7298	19200	QPSK, 16QAM	Not applicable (MIMO not supported)	Not applicable (dual cell operation not supported)
Category 2	5	3	7298	28800			
Category 3	5	2	7298	28800			
Category 4	5	2	7298	38400			
Category 5	5	1	7298	57600			
Category 6	5	1	7298	67200			
Category 7	10	1	14411	115200			
Category 8	10	1	14411	134400			
Category 9	15	1	20251	172800			
Category 10	15	1	27952	172800			
Category 11	5	2	3630	14400	QPSK		
Category 12	5	1	3630	28800			
Category 13	15	1	35280	259200	QPSK, 16QAM, 64QAM		
Category 14	15	1	42192	259200			
Category 15	15	1	23370	345600	QPSK, 16QAM		
Category 16	15	1	27952	345600			
Category 17 NOTE 2	15	1	35280	259200	QPSK, 16QAM, 64QAM	–	
			23370	345600	–	QPSK, 16QAM	
Category 18 NOTE 3	15	1	42192	259200	QPSK, 16QAM, 64QAM	–	
			27952	345600	–	QPSK, 16QAM	
Category 19	15	1	35280	518400	QPSK, 16QAM, 64QAM		
Category 20	15	1	42192	518400			
Category 21	15	1	23370	345600	-	-	QPSK, 16QAM
Category 22	15	1	27952	345600			
Category 23	15	1	35280	518400			QPSK, 16QAM, 64QAM
Category 24	15	1	42192	518400			

5.3.3 LTE Test Configuration

LTE modes were tested according to FCC KDB 941225 D05 publication. Please see notes after the tabulated SAR data for required test configurations. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. The R&S CMW500 was used for LTE output power measurements and SAR testing. Max power control was used so the UE transmits with maximum output power during SAR testing. SAR must be measured with the maximum TTI (transmit time interval) supported by the device in each LTE configuration.

A) Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

B) MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

C)A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

D) Largest channel bandwidth standalone SAR test requirements

1) QPSK with 1 RB allocation

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

2) QPSK with 50% RB allocation

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

3) QPSK with 100% RB allocation

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

4) Higher order modulations

For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in above sections to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is > ½ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

E) Other channel bandwidth standalone SAR test requirements

For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section A) to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is > ½ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the *reported* SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

5.3.4 Additional requirements for TDD LTE specification

For Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor

according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

TDD LTE Band supports 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table: Uplink-downlink configurations for uplink-downlink configurations and Table: Configuration of special subframe (lengths of DwPTS/GP/UpPTS) for Special subframe configurations.

Figure 1: Frame structure type 2

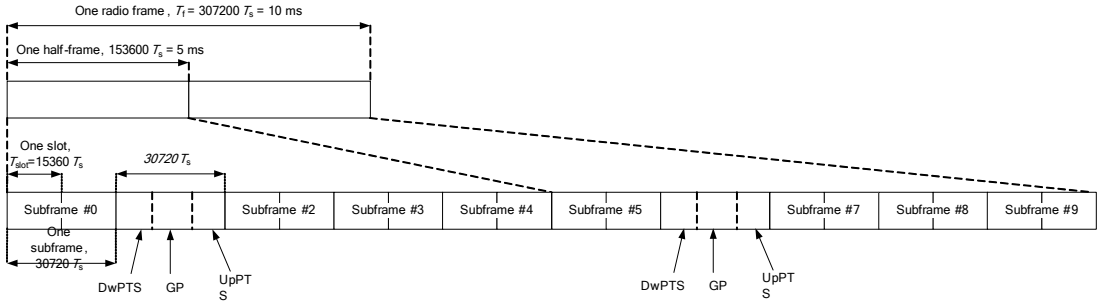


Table 7: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

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

Table 8: Uplink-downlink configurations

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

According to Figure 1, one radio frame is configured by 10 subframes, which consist of Uplink-subframe, Downlink-subframe and Special subframe. For TDD-LTE, the Duty Cycle should be

calculated on Uplink-subframes and Special subframes, due to Special subframe containing both Uplink transmissions. So for one radio frame, Duty Cycle can be calculated with formula as below. The count of Uplink subframes are according to Table: Uplink-downlink configurations:

Duty cycle =(30720Ts*Ups+Uplink Component*Specials)/(307200Ts)

About the uplink component of Special subframes, we can figure out by Table: Configuration of special subframe (lengths of DwPTS/GP/UpPTS):

Uplink Component=UpPTS

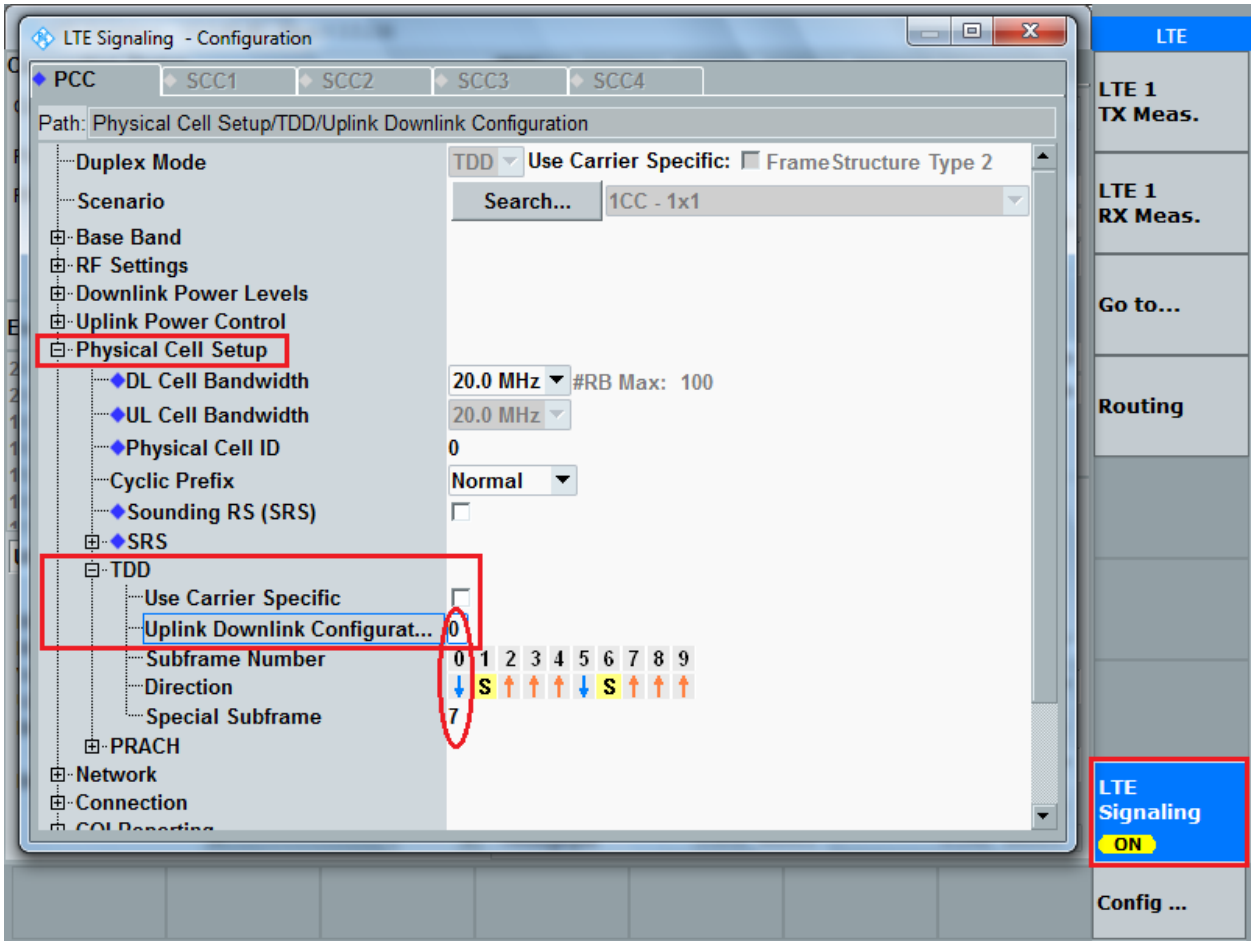
In conclusion, for the TDD LTE Band, Duty Cycle can be calculated with formula as below .all these sets are ok when we test, or we can set as below.

Duty cycle =[(30720Ts*Ups)+ UpPTS *Specials]/(307200Ts)

And we can get different Duty cycles under different configurations:

Uplink-downlink configuration	Subframe number			Configuration of special subframe							
				Normal cyclic prefix in downlink				Extended cyclic prefix in downlink			
				Normal cyclic prefix in uplink		Extended cyclic prefix in uplink		Normal cyclic prefix in uplink		Extended cyclic prefix in uplink	
	D	S	U	configuration 0~4	configuration 5~9	configuration 0~4	configuration 5~9	configuration 0~3	configuration 4~7	configuration 0~3	configuration 4~7
0	2	2	6	61.43%	62.85%	61.67%	63.33%	61.43%	62.85%	61.67%	63.33%
1	4	2	4	41.43%	42.85%	41.67%	43.33%	41.43%	42.85%	41.67%	43.33%
2	6	2	2	21.43%	22.85%	21.67%	23.33%	21.43%	22.85%	21.67%	23.33%
3	6	1	3	30.71%	31.43%	30.83%	31.67%	30.71%	31.43%	30.83%	31.67%
4	7	1	2	20.71%	21.43%	20.83%	21.67%	20.71%	21.43%	20.83%	21.67%
5	8	1	1	10.71%	11.43%	10.83%	11.67%	10.71%	11.43%	10.83%	11.67%
6	3	2	5	51.43%	52.85%	51.67%	53.33%	51.43%	52.85%	51.67%	53.33%

SAR test Plan: For TDD LTE, SAR should be tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7 for Frame structure type



5.3.5 Wi-Fi Test Configuration

SAR test reduction for 802.11 Wi-Fi transmission mode configurations are considered separately for DSSS and OFDM. An initial test position is determined to reduce the number of tests required for certain exposure configurations with multiple test positions. An initial test configuration is determined for each frequency band and aggregated band according to maximum output power, channel bandwidth, wireless mode configurations and other operating parameters to streamline the measurement requirements. For 2.4 GHz DSSS, either the initial test position or DSSS procedure is applied to reduce the number of SAR tests; these are mutually exclusive. For OFDM, an initial test position is only applicable to next to the ear, UMPC mini-tablet and hotspot mode configurations, which is tested using the initial test configuration to facilitate test reduction. For other exposure conditions with a fixed test position, SAR test reduction is determined using only the initial test configuration.

The multiple test positions require SAR measurements in head, hotspot mode or UMPC mini-tablet configurations may be reduced according to the highest reported SAR determined using the *initial test position(s)* by applying the DSSS or OFDM SAR measurement procedures in the required wireless mode test configuration(s). The *initial test position(s)* is measured using the highest measured maximum output power channel in the required wireless mode test configuration(s). When the *reported* SAR for the *initial test position* is:

- ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and wireless mode combination within the frequency band or aggregated band. DSSS and OFDM configurations are considered separately according to the required SAR procedures.
- 0.4 W/kg, SAR is repeated using the same wireless mode test configuration tested in the *initial test position* to measure the subsequent next closet/smallest test separation distance and maximum coupling test position, on the highest maximum output power channel, until the *reported* SAR is ≤ 0.8 W/kg or all required test positions are tested.
    - ✧ For subsequent test positions with equivalent test separation distance or when exposure is dominated by coupling conditions, the position for maximum coupling condition should be tested.
    - ✧ When it is unclear, all equivalent conditions must be tested.
- For all positions/configurations tested using the *initial test position* and subsequent test positions, when the *reported* SAR is > 0.8 W/kg, measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the *reported* SAR is ≤ 1.2 W/kg or all required test channels are considered.
    - ✧ The additional power measurements required for this step should be limited to those necessary for identifying subsequent highest output power channels to apply the test reduction.

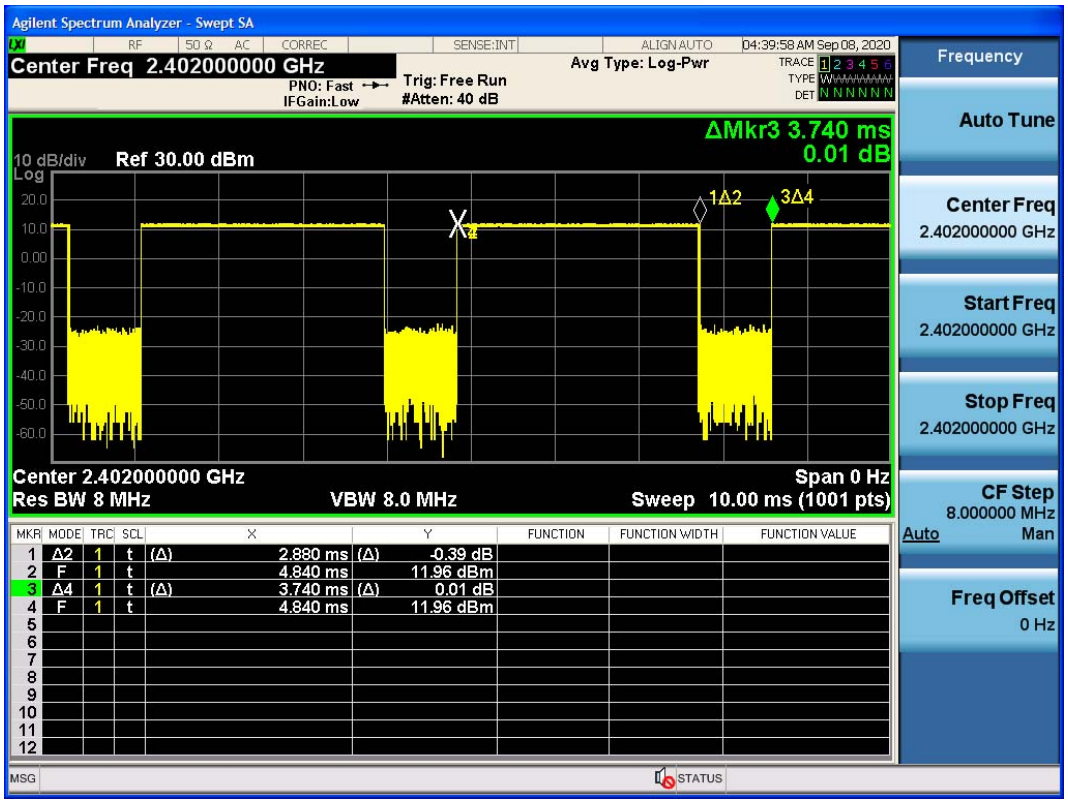
To determine the initial test position, Area Scans were performed to determine the position with the Maximum Value of SAR (measured). The position that produced the highest Maximum Value of SAR is considered the worst case position; thus used as the initial test position.

A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement.

5.3.6 BT Test Configuration

For BT SAR testing, BT engineering testing software installed on the EUT can provide continuous transmitting RF signal with maximum output power. And the CBT control the EUT operating with hoping off and data rate set for DH5.

The SAR measurement takes full account of the BT duty cycle and is reflected in the report, and the duty factor of the device is as follow:



Note: Duty factor= Ton (ms)/ T(on+off) (ms)=2.880/3.740=77%

5.3.7 Uplink LTE CA specification

The device supports LTE advanced Rel. 10, Carrier Aggregation (CA) on downlink for Intra band and inter-band. Uplink CA is supported for Intra band only, more details information is provided in tables below:

E-UTRA CA configuration / Bandwidth combination set						
E-UTRA CA configuration	Uplink CA configurations	Component carriers in order of increasing carrier frequency			Bandwidth combination set	
		Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
CA_38C	CA_38C	15	15		40	0
		20	20			
CA_41C	CA_40C	10	20		40	0
		15	15,20			
		20	10,15,20			
		5,10	20		40	1
		15	15,20			
		20	5,10,15,20			
		10	15,20		40	2
		15	10,15,20			
		20	10,15,20			
		10	20		40	3
		20	20			
NOTE 1: The CA configuration refers to an operating band and a CA bandwidth class specified in Table 5.6A-1 (the indexing letter). Absence of a CA bandwidth class for an operating band implies support of all classes.						

5.3.8 Dynamic antenna tuning description

The device supports the dynamic antenna switching function to optimize transmission efficiency for wide range frequency operations. It has two 2G/3G/4G Tx antennas(Main Antenna and Secondary Antenna). It can transmit from either Main Antenna(Ant1、2) or Secondary Antenna(Ant 3、4、10).
The device used a DPDT(Double Pole Double Throw) switch to achieve a dynamic antenna switching which is based on the antennas RSSI(Received Signal Strength Indication) comparison and Switch Algorithm. The antenna switching threshold is set to a fixed value(3 dB). The software will choose the Antenna with better RSSI as the main operating Tx antenna by comparing the RSSI between Ant1、2 and Ant 3、4. When the RSSI of Ant3/4 is 3 dB higher than Ant1/2, then the Ant2 will be chosen as the main operating Tx antenna. The switching will refer to all of the 2G/3G/4G operation bands.

Summary test plan:
For Dynamic antenna switching SAR test, we will set the Main Antenna / Secondary Antenna to the MAX transmit power level respectively and test the SAR respectively in all applicable RF exposure conditions. Some AT commands or test scripts are supplied to fix the DPDT operation state and choose the antenna, so that only one TX antenna (the Main Antenna or Secondary Antenna) is chosen at a time. All independent antennas and modems will be completely covered by the appropriate SAR measurements and all simultaneous transmission possibilities will be fully considered.

5.3.9 Receiver detection mechanism specification

This device uses the receiver to indicate whether the user is making a call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. It can determine proximity to head or body and set the relevant power level for 2G&3G&4G and Wi-Fi antennas accordingly.
More details information followings:

Main antenna	Power Reduction Level Amount (dBm)										
Power Reduction Scenario	GSM850	GSM1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B38	LTE B41
1)Receicer on	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2)Receicer off	0.00	0.00	0.50	1.25	0.00	0.75	1.00	0.00	1.00	0.00	0.00
3)WIFI and LTE In-Device Coexistence	0.00	0.00	0.50	1.25	0.00	0.75	1.00	0.00	1.00	0.00	0.00
5)hotspot	0.00	0.00	0.50	1.25	0.00	0.75	1.00	0.00	1.00	0.00	0.00

Second antenna	Power Reduction Level Amount (dBm)										
Power Reduction Scenario	GSM850	GSM1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B38	LTE B41
1)Receicer on	0.00	1.75	3.00	3.50	1.00	4.00	4.00	1.00	6.25	3.25	3.25
2)Receicer off	0.00	0.00	0.50	0.50	0.00	0.50	0.50	0.00	3.00	1.00	0.50
3)WIFI and LTE In-Device Coexistence	0.00	2.00	3.50	4.50	0.00	4.00	4.50	0.00	5.00	3.25	1.50
5)hotspot	0.00	2.00	3.50	4.50	1.00	4.00	4.50	1.00	6.25	3.25	3.25

Wi-Fi Antenna	Power Reduction Level Amount (dBm)									
Power Reduction Scenario	WiFi 2.4G 11b	WiFi 2.4G 11g	WiFi 2.4G 11n 20M	WiFi 2.4G 11n 40M	WiFi 5G 11a	WiFi 5G 11n 20M	WiFi 5G 11n 40M	WiFi 5G 11ac 20M	WiFi 5G 11ac 40M	WiFi 5G 11ac 80M
1)Receicer on	6.5	7.0	6.0	4.0	6.0	6.0	6.0	6.0	6.0	6.0
2)Receicer off	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table: Summary of Receiver detection mechanism

Antenna	Receiver on (head scenario)	Receiver off (Body/other scenario)
2G&3G&4G second ant	Power Level A1	Power Level B1
2G&3G&4G main ant	Power Level A2	Power Level B2
Wi-Fi Ant	Power Level A3	Power Level B3

Based on the Summary table of Receiver detection mechanism above,

For Head SAR test,

1) Standalone Head SAR of 2G&3G&4G second ant is evaluated at power level A1（Receiver on）;
2) Standalone Head SAR of 2G&3G&4G Main ant is evaluated at power level A2（Receiver on）;
3) Standalone Head SAR of Wi-Fi ant is evaluated at power level A3（Receiver on）;

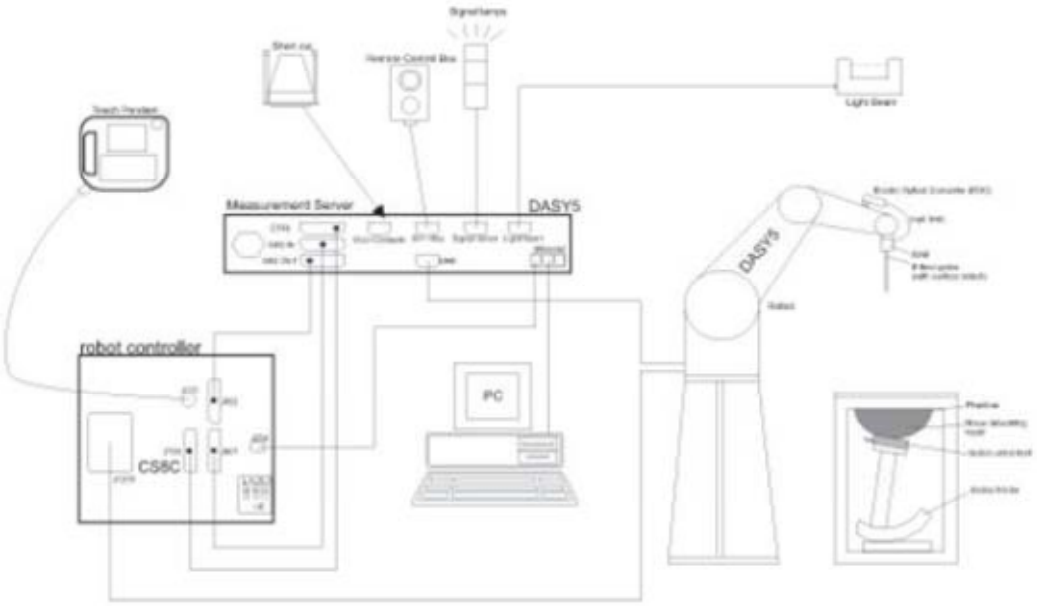
For Body SAR test,

1) Standalone Body SAR of 2G&3G&4G second ant is evaluated at power level B1（Receiver off）;
2) Standalone Body SAR of 2G&3G&4G Main ant is evaluated at power level B2（Receiver off）;
3) Standalone Body SAR of Wi-Fi ant is evaluated at power level B3（Receiver off）;

6 SAR Measurements System Configuration

6.1 SAR Measurement Set-up

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

6.2 DASY5 E-field Probe System

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

EX3DV4 Probe Specification

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 μW/g to > 100 mW/g Linearity: ± 0.2dB (noise: typically < 1 μW/g)
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
Application	High precision dosimetric measurements in any exposure Scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.

E-field Probe Calibration

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than ± 10%. The spherical isotropy was evaluated and found to be better than ± 0.25dB. The sensitivity parameters (NormX, NormY, NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies bellow 1 GHz, and in a wave guide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

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

SAR=C∆T/∆t

Where: ∆t = Exposure time (30 seconds),

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

∆T = Temperature increase due to RF exposure.

Or

SAR=|E|^{2}σ/ρ

Where: σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m^3).

6.3 SAR Measurement Procedure

Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.
Area scan parameters extracted from FCC KDB 865664 D01 SAR measurement 100 MHz to 6 GHz.

	≤3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: ΔxArea, ΔyArea	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Zoom Scan

Zoom scans are used assess the peak spatial SAR values within a cubic averaging volume containing 1 gram and 10 gram of simulated tissue. The zoom scan measures points (refer to table below) within a cube shoes base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the zoom scan evaluates the averaged SAR for 1 gram and 10 gram and displays these values next to the job's label.

Zoom scan parameters extracted from FCC KDB 865664 D01 SAR measurement 100 MHz to 6 GHz.

<table>
<tr><td colspan="3"></td><td>≤3GHz</td><td>> 3 GHz</td></tr>
<tr><td colspan="3">Maximum zoom scan spatial resolution: $\triangle x_{zoom} \triangle y_{zoom}$</td><td>≤2GHz: ≤8mm
2 – 3GHz: ≤5mm*</td><td>3 – 4GHz: ≤5mm*
4 – 6GHz: ≤4mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan spatial resolution, normal to phantom surface</td><td colspan="2">Uniform grid: $\triangle z_{zoom}(n)$</td><td>≤5mm</td><td>3 – 4GHz: ≤4mm
4 – 5GHz: ≤3mm
5 – 6GHz: ≤2mm</td></tr>
<tr><td rowspan="2">Graded grid</td><td>$\triangle z_{zoom}(1)$: between 1st two points closest to phantom surface</td><td>≤4mm</td><td>3 – 4GHz: ≤3mm
4 – 5GHz: ≤2.5mm
5 – 6GHz: ≤2mm</td></tr>
<tr><td>$\triangle z_{zoom}(n>1)$: between subsequent points</td><td colspan="2">≤1.5•$\triangle z_{zoom}(n-1)$</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">X, y, z</td><td>≥30mm</td><td>3 – 4GHz: ≥28mm
4 – 5GHz: ≥25mm
5 – 6GHz: ≥22mm</td></tr>
<tr><td colspan="5">Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.
* When zoom scan is required and the <u>reported</u> SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4W/kg, ≤8mm, ≤7mm and ≤5mm zoom scan resolution may be applied, respectively, for 2GHz to 3GHz, 3GHz to 4GHz and 4GHz to 6GHz.</td></tr>
</table>

Volume Scan Procedures

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASY measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.

7 Main Test Equipment

Name of Equipment	Manufacturer	Type/Model	Serial Number	Last Cal.	Cal. Due Date
Network analyzer	Agilent	E5071B	MY42404014	2020-05-17	2021-05-16
Dielectric Probe Kit	HP	85070E	US44020115	2020-05-17	2021-05-16
Power meter	Agilent	E4417A	GB41291714	2020-05-17	2021-05-16
Power sensor	Agilent	N8481H	MY50350004	2020-05-17	2021-05-16
Power sensor	Agilent	E9327A	US40441622	2020-05-17	2021-05-16
Dual directional coupler	Agilent	778D-012	50519	/	/
Dual directional coupler	Agilent	777D	50146	/	/
Dual directional coupler	UCL	UCL-DDC0 56G-S	20010600118	/	/
Amplifier	INDEXSAR	IXA-020	0401	2020-05-17	2021-05-16
Wireless communication tester	Anritsu	MT8820C	6201342015	2020-05-17	2021-05-16
Wideband radio communication tester	R&S	CMW 500	113645	2020-05-17	2021-05-16
Base Station Simulator	R&S	CMW270	100673	2020-05-17	2021-05-16
E-field Probe	SPEAG	EX3DV4	3677	2020-07-06	2021-07-05
DAE	SPEAG	DAE4	1291	2020-02-24	2021-02-23
Validation Kit 835MHz	SPEAG	D835V2	4d020	2020-08-28	2023-08-27
Validation Kit 1750MHz	SPEAG	D1750V2	1033	2020-02-25	2023-02-24
Validation Kit 1900MHz	SPEAG	D1900V2	5d060	2020-08-27	2023-08-26
Validation Kit 2450MHz	SPEAG	D2450V2	786	2020-08-27	2023-08-26
Validation Kit 2600MHz	SPEAG	D2600V2	1025	2018-05-02	2021-05-01
Validation Kit 5GHz	SPEAG	D5GHzV2	1151	2020-02-27	2023-02-26
Temperature Probe	Tianjin jinming	JM222	381	2020-05-25	2021-05-24
Hygrothermograph	Anymetr	HTC-1	TY2020A043	2020-05-19	2021-05-18
Twin SAM Phantom	SPEAG	SAM1	1534	/	/
Software for Test	SPEAG	DASY52	/	/	/
Softwarefor Tissue	Agilent	85070	/	/	/

8 Tissue Dielectric Parameter Measurements & System Verification

8.1 Tissue Verification

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within ± 2°C of the temperature when the tissue parameters are characterized. The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 24 hours of use; or earlier if the dielectric parameters can become out of tolerance.

Target values

Frequency (MHz)	Water (%)	Salt (%)	Sugar (%)	Glycol (%)	Preventol (%)	Cellulose (%)	ε_r	σ(s/m)
835	41.450	1.450	56.000	0	0.100	1.000	41.5	0.90
1750	55.240	0.310	0	44.450	0	0	40.1	1.37
1900	55.242	0.306	0	44.452	0	0	40.0	1.40
2450	62.700	0.500	0	36.800	0	0	39.2	1.80
2600	55.242	0.306	0	44.452	0	0	39.0	1.96
Frequency (MHz)	**Water (%)**	**Diethylenglycol monohexylether (%)**			**Triton X-100 (%)**		**ε_r**	**σ(s/m)**
5250	65.530	17.240			17.230		35.9	4.71
5600	65.530	17.240			17.230		35.5	5.07
5750	65.530	17.240			17.230		35.4	5.22

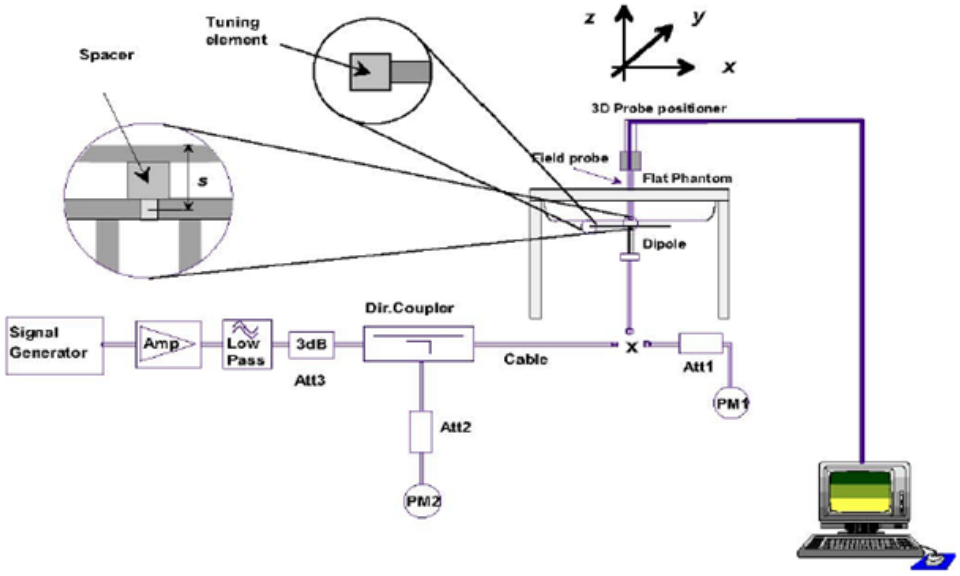
Measurements results

Frequency (MHz)	Test Date	Temp ℃	Measured Dielectric Parameters		Target Dielectric Parameters		Limit (Within ±5%)	
			ε_r	σ(s/m)	ε_r	σ(s/m)	Dev ε_r(%)	Dev σ(%)
835	9/25/2020	21.5	40.5	0.88	41.5	0.90	-2.41	-2.22
	9/26/2020	21.5	40.2	0.91	41.5	0.90	-3.13	1.11
	9/27/2020	21.5	40.3	0.89	41.5	0.90	-2.89	-1.11
1750	9/15/2020	21.5	39.5	1.38	40.1	1.37	-1.50	0.73
	9/16/2020	21.5	39.9	1.36	40.1	1.37	-0.50	-0.73
1900	10/23/2020	21.5	39.8	1.38	40.0	1.40	-0.50	-1.43
	10/24/2020	21.5	40.1	1.39	40.0	1.40	0.25	-0.71
	10/25/2020	21.5	40.3	1.35	40.0	1.40	0.75	-3.57
2450	9/6/2020	21.5	38.5	1.76	39.2	1.80	-1.79	-2.22
2600	11/3/2020	21.5	39.2	1.98	39.0	1.96	0.51	1.02
	11/4/2020	21.5	38.9	1.94	39.0	1.96	-0.26	-1.02
	11/8/2020	21.5	39.2	1.97	39.0	1.96	0.51	0.51
	11/9/2020	21.5	39.5	1.95	39.0	1.96	1.28	-0.51
5250	9/4/2020	21.5	36.0	4.75	35.9	4.71	0.28	0.85
5600	9/5/2020	21.5	35.2	5.01	35.5	5.07	-0.85	-1.18
5750	9/5/2020	21.5	35.6	5.19	35.4	5.22	0.56	-0.57
Note: The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm for SAR measurements ≤ 3 GHz and ≥ 10.0 cm for measurements > 3 GHz.								

8.2 System Performance Check

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulates were measured using the dielectric probe kit and the network analyzer. A system check measurement for every day was made following the determination of the dielectric parameters of the Tissue simulates, using the dipole validation kit. The dipole antenna was placed under the flat section of the twin SAM phantom.

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



Picture 1System Performance Check setup

Picture 2 Setup Photo

Justification for Extended SAR Dipole Calibrations

Usage of SAR dipoles calibrated less than 3 years ago but more than 1 year ago were confirmed in maintaining return loss (< - 20 dB, within 20% of prior calibration) and impedance (within 5 ohm from prior calibration) requirements per extended calibrations in KDB 865664 D01:

Dipole		Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	ΔΩ
Dipole D2600V2 SN: 1025	Head Liquid	5/2/2018	-22.0	/	48.1	/
		5/1/2019	-22.5	-2.2	48.7	-0.6

System Check results

Frequency (MHz)	Test Date	Temp ℃	250mW /100mW Measured SAR_{1g} (W/kg)	1W Normalized SAR_{1g} (W/kg)	1W Target SAR_{1g} (W/kg)	Δ % (Limit ±10%)	Plot No.
835	9/25/2020	21.5	2.45	9.80	9.65	1.55	1
	9/26/2020	21.5	2.48	9.92	9.65	2.80	2
	9/27/2020	21.5	2.41	9.64	9.65	-0.10	3
1750	9/15/2020	21.5	8.94	35.76	35.90	-0.39	4
	9/16/2020	21.5	9.20	36.80	35.90	2.51	5
1900	10/23/2020	21.5	9.88	39.52	39.50	0.05	6
	10/24/2020	21.5	9.91	39.64	39.50	0.35	7
	10/25/2020	21.5	10.49	41.96	39.50	6.23	8
2450	9/6/2020	21.5	13.72	54.88	52.30	4.93	9
2600	11/3/2020	21.5	13.89	55.56	54.10	2.70	10
	11/4/2020	21.5	13.91	55.64	54.10	2.85	11
	11/8/2020	21.5	13.95	55.80	54.10	3.14	12
	11/9/2020	21.5	13.93	55.72	54.10	2.99	13
5250	9/4/2020	21.5	7.85	78.50	78.00	0.64	14
5600	9/5/2020	21.5	7.68	76.80	80.50	-4.60	15
5750	9/5/2020	21.5	7.64	76.40	77.40	-1.29	16
Note：Target Values used derive from the calibration certificate Data Storage and Evaluation.							

8.3 SAR System Validation

Per FCC KDB 865664 D02v01, SAR system verification is required to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles are used with the required tissue-equivalent media for system validation, according to the procedures outlined in FCC KDB 865664 D01 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point must be validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.
a tabulated summary of the system validation status, measurement frequencies, SAR probes, calibrated signal type(s) and tissue dielectric parameters has been included.

Frequency [MHz]	Date	Probe SN	Probe Type	Probe Cal Point		PERM (Er)	COND (Σ)	CW Validation			Mod. Validation		
								Sensitivity	Probe Linearity	Probe Isotropy	Mod. Type	Duty Factor	PAR
750	7/06/2020	3677	EX3DV4	750	Head	42.81	0.85	PASS	PASS	PASS	FDD	PASS	N/A
835	7/06/2020	3677	EX3DV4	835	Head	42.22	0.90	PASS	PASS	PASS	GMSK	PASS	N/A
1750	7/06/2020	3677	EX3DV4	1750	Head	39.91	1.32	PASS	PASS	PASS	NA	N/A	N/A
1900	7/06/2020	3677	EX3DV4	1900	Head	39.43	1.42	PASS	PASS	PASS	GMSK	PASS	N/A
2450	7/06/2020	3677	EX3DV4	2450	Head	38.19	1.83	PASS	PASS	PASS	OFDM	PASS	PASS
2600	7/06/2020	3677	EX3DV4	2600	Head	37.60	1.99	PASS	PASS	PASS	TDD	PASS	N/A
5250	7/06/2020	3677	EX3DV4	5250	Head	35.36	4.83	PASS	PASS	PASS	OFDM	N/A	PASS
5600	7/06/2020	3677	EX3DV4	5600	Head	34.43	5.29	PASS	PASS	PASS	OFDM	N/A	PASS
5750	7/06/2020	3677	EX3DV4	5750	Head	34.07	5.47	PASS	PASS	PASS	OFDM	N/A	PASS

NOTE: While the probes have been calibrated for both CW and modulated signals, all measurements were performed using communication systems calibrated for CW signals only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664D01v01 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5dB), such as OFDM according to KDB 865664.

9 Normal and Maximum Output Power

KDB 447498 D01 at the maximum rated output power and within the tune-up tolerance range specified for the product, but not more than 2 dB lower than the maximum tune-up tolerance limit.

9.1 GSM Mode

Main- Antenna

GSM 850 receiver on / Receiver off-body SAR Simultaneous WiFi +body SAR / Hotspot		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	33.20	32.19	32.48	32.25	9.03	24.17	23.16	23.45	23.22
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.20	32.00	32.55	32.37	9.03	24.17	22.97	23.52	23.34
	2 Tx Slots	30.70	29.27	29.92	29.75	6.02	**24.68**	**23.25**	**23.90**	**23.73**
	3 Tx Slots	28.70	27.15	27.82	27.53	4.26	24.44	22.89	23.56	23.27
	4 Tx Slots	27.20	25.93	26.25	25.92	3.01	24.19	22.92	23.24	22.91
EGPRS (8PSK)	1 Tx Slot	28.70	27.47	27.75	23.62	9.03	19.67	18.44	18.72	14.59
	2 Tx Slots	25.70	24.54	24.77	24.90	6.02	19.68	18.52	18.75	18.88
	3 Tx Slots	24.70	23.40	23.55	23.53	4.26	20.44	19.14	19.29	19.27
	4 Tx Slots	24.20	23.02	23.18	23.25	3.01	21.19	20.01	20.17	20.24
GSM 1900 receiver on / Receiver off-body SAR Simultaneous WiFi +body SAR / Hotspot		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	30.20	29.55	29.56	29.55	9.03	21.17	20.52	20.53	20.52
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.20	29.44	29.63	29.48	9.03	21.17	20.41	20.60	20.45
	2 Tx Slots	27.70	26.11	26.39	26.30	6.02	**21.68**	**20.09**	**20.37**	**20.28**
	3 Tx Slots	25.70	24.06	24.26	24.32	4.26	21.44	19.80	20.00	20.06
	4 Tx Slots	24.20	22.54	22.70	22.68	3.01	21.19	19.53	19.69	19.67
EGPRS (8PSK)	1 Tx Slot	27.20	25.71	25.67	25.58	9.03	18.17	16.68	16.64	16.55
	2 Tx Slots	24.20	22.36	22.33	22.43	6.02	18.18	16.34	16.31	16.41
	3 Tx Slots	21.70	20.62	20.50	20.49	4.26	17.44	16.36	16.24	16.23
	4 Tx Slots	20.70	19.30	19.26	19.33	3.01	17.69	16.29	16.25	16.32
Notes: The worst-case configuration and mode for SAR testing is determined to be as follows: 1. Standalone: GSM 850 GMSK (GPRS) mode with 2 time slots for Max power, GSM 1900 GMSK (GPRS) mode with 2 time slots for Max power, based on the output power measurements above.										

Second – Antenna

GSM 850 receiver on / Receiver off-body SAR Simultaneous WiFi +body SAR /Hotspot		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	33.20	32.16	32.45	32.31	9.03	24.17	23.13	23.42	23.28
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.20	32.30	32.56	32.33	9.03	24.17	23.27	23.53	23.30
	2 Tx Slots	30.70	29.69	29.90	29.70	6.02	**24.68**	**23.67**	**23.88**	**23.68**
	3 Tx Slots	28.70	27.67	27.85	27.46	4.26	24.44	23.41	23.59	23.20
	4 Tx Slots	27.20	26.39	26.30	25.66	3.01	24.19	23.38	23.29	22.65
EGPRS (8PSK)	1 Tx Slot	28.70	27.32	27.18	27.26	9.03	19.67	18.29	18.15	18.23
	2 Tx Slots	25.70	24.55	24.68	24.53	6.02	19.68	18.53	18.66	18.51
	3 Tx Slots	24.70	23.08	23.04	23.10	4.26	20.44	18.82	18.78	18.84
	4 Tx Slots	24.20	22.96	22.73	22.83	3.01	21.19	19.95	19.72	19.82
1. Standalone: GSM 850 GMSK (GPRS) mode with 2 time slots for Max power, based on the output power measurements above.										

GSM 1900 Receiver off-body SAR		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	30.20	28.97	29.31	29.15	9.03	21.17	19.94	20.28	20.12
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.20	29.32	29.95	29.13	9.03	21.17	20.29	20.92	20.10
	2 Tx Slots	27.70	26.58	26.76	26.70	6.02	**21.68**	**20.56**	**20.74**	**20.68**
	3 Tx Slots	25.70	24.81	24.79	24.66	4.26	21.44	20.55	20.53	20.40
	4 Tx Slots	24.20	23.26	23.25	23.32	3.01	21.19	20.25	20.24	20.31
EGPRS (8PSK)	1 Tx Slot	27.20	26.18	26.20	26.13	9.03	18.17	17.15	17.17	17.10
	2 Tx Slots	24.20	23.07	23.19	23.10	6.02	18.18	17.05	17.17	17.08
	3 Tx Slots	21.70	20.85	20.81	20.67	4.26	17.44	16.59	16.55	16.41
	4 Tx Slots	20.70	19.83	19.97	19.90	3.01	17.69	16.82	16.96	16.89
GSM 1900 Receiver on		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	28.45	28.25	28.31	28.30	9.03	19.42	19.22	19.28	19.27
GPRS/ EGPRS (GMSK)	1 Tx Slot	28.45	28.27	28.29	28.37	9.03	19.42	19.24	19.26	19.34
	2 Tx Slots	25.95	25.21	25.34	25.55	6.02	**19.93**	**19.19**	**19.32**	**19.53**
	3 Tx Slots	23.95	23.27	23.27	23.44	4.26	19.69	19.01	19.01	19.18
	4 Tx Slots	22.45	21.95	21.83	21.82	3.01	19.44	18.94	18.82	18.81

EGPRS (8PSK)	1 Tx Slot	25.45	24.85	24.98	24.95	9.03	16.42	15.82	15.95	15.92
	2 Tx Slots	22.45	21.97	21.96	22.01	6.02	16.43	15.95	15.94	15.99
	3 Tx Slots	19.95	19.81	19.90	19.86	4.26	15.69	15.55	15.64	15.60
	4 Tx Slots	18.95	18.58	18.66	18.82	3.01	15.94	15.57	15.65	15.81
GSM 1900 SimultaneousWiFi+ body SAR / Hotspot		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	28.20	27.90	27.91	27.93	9.03	19.17	18.87	18.88	18.90
GPRS/ EGPRS (GMSK)	1 Tx Slot	28.20	27.86	27.98	27.80	9.03	19.17	18.83	18.95	18.77
	2 Tx Slots	25.70	24.98	25.15	25.27	6.02	**19.68**	**18.96**	**19.13**	**19.25**
	3 Tx Slots	23.70	23.06	23.12	23.15	4.26	19.44	18.80	18.86	18.89
	4 Tx Slots	22.20	21.80	21.74	21.66	3.01	19.19	18.79	18.73	18.65
EGPRS (8PSK)	1 Tx Slot	25.20	24.98	25.10	25.11	9.03	16.17	15.95	16.07	16.08
	2 Tx Slots	22.20	21.78	21.85	21.98	6.02	16.18	15.76	15.83	15.96
	3 Tx Slots	19.70	19.30	19.37	19.25	4.26	15.44	15.04	15.11	14.99
	4 Tx Slots	18.70	18.29	18.38	18.10	3.01	15.69	15.28	15.37	15.09

Notes: The worst-case configuration and mode for SAR testing is determined to be as follows:
1. Standalone: GSM 1900 GMSK (GPRS) mode with 2 time slots for Max power, based on the output power measurements above.

9.2 WCDMA Mode

The following tests were completed according to the test requirements outlined in the 3GPP TS34.121 specification.

Main- Antenna

WCDMA		Band II(dBm) Receiver on				Band IV(dBm) Receiver on				Band V(dBm) receiver on / Receiver off-body SAR Simultaneous Wi-Fi + body SAR / Hotspot			
Tx Channel		9262	9400	9538	Tune-up Limit	1312	1413	1513	Tune-up Limit	4132	4183	4233	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.6	846.6	
RMC	12.2kbps	23.24	23.28	23.30	24.60	23.77	23.80	23.87	24.70	23.44	23.62	23.24	25.00
AMR	12.2kbps	23.14	23.19	23.17	24.60	23.67	23.71	23.74	24.70	23.34	23.53	23.11	25.00
HSDPA	Sub 1	22.66	22.70	22.72	24.10	23.19	23.22	23.29	24.20	22.86	23.04	22.66	24.50
	Sub 2	22.15	22.19	22.21	23.60	22.68	22.71	22.78	23.70	22.35	22.53	22.15	24.00
	Sub 3	21.64	21.68	21.70	23.10	22.17	22.20	22.27	23.20	21.84	22.02	21.64	23.50
	Sub 4	21.63	21.67	21.69	23.10	22.16	22.19	22.26	23.20	21.83	22.01	21.63	23.50
HSUPA	Sub 1	21.32	21.36	21.38	22.80	21.85	21.88	21.95	22.90	21.52	21.70	21.32	23.20
	Sub 2	18.61	18.65	18.67	20.10	19.14	19.17	19.24	20.20	18.81	18.99	18.61	20.50
	Sub 3	20.09	20.14	20.16	21.60	20.62	20.66	20.73	21.70	20.29	20.48	20.10	22.00
	Sub 4	19.08	19.13	19.15	20.60	19.61	19.65	19.72	20.70	19.28	19.47	19.09	21.00
	Sub 5	22.07	22.12	22.14	23.60	22.60	22.64	22.71	23.70	22.27	22.46	22.08	24.00
DC-HSDPA	Sub 1	22.58	22.64	22.64	24.10	23.11	23.16	23.21	24.20	22.78	22.98	22.58	24.50
	Sub 2	22.07	22.13	22.13	23.60	22.60	22.65	22.70	23.70	22.27	22.47	22.07	24.00
	Sub 3	21.65	21.62	21.64	23.10	22.18	22.14	22.21	23.20	21.85	21.96	21.58	23.50
	Sub 4	21.64	21.61	21.63	23.10	22.17	22.13	22.20	23.20	21.84	21.95	21.57	23.50
HSPA+	16QAM	21.13	21.19	21.21	22.10	21.66	21.71	21.78	22.20	21.33	21.53	21.15	22.50
Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.													

WCDMA		Band II(dBm) Receiver off-body SAR Simultaneous Wi-Fi + body SAR / Hotspot				Band IV(dBm) Receiver off-body SAR Simultaneous Wi-Fi + body SAR / Hotspot			
Tx Channel		9262	9400	9538	Tune-up Limit	1312	1413	1513	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
RMC	12.2kbps	22.61	22.58	22.68	24.10	22.29	22.36	22.18	23.45
AMR	12.2kbps	22.51	22.49	22.55	24.10	22.19	22.27	22.05	23.45
HSDPA	Sub 1	22.03	22.00	22.10	23.60	21.71	21.78	21.60	22.95
	Sub 2	21.52	21.49	21.59	23.10	21.20	21.27	21.09	22.45
	Sub 3	21.01	20.98	21.08	22.60	20.69	20.76	20.58	21.95
	Sub 4	21.00	20.97	21.07	22.60	20.68	20.75	20.57	21.95
HSUPA	Sub 1	20.69	20.66	20.76	22.30	20.37	20.44	20.26	21.65
	Sub 2	17.98	17.95	18.05	19.60	17.66	17.73	17.55	18.95
	Sub 3	19.46	19.44	19.54	21.10	19.14	19.22	19.04	20.45
	Sub 4	18.45	18.43	18.53	20.10	18.13	18.21	18.03	19.45
	Sub 5	21.44	21.42	21.52	23.10	21.12	21.20	21.02	22.45
DC-HSDPA	Sub 1	21.95	21.94	22.02	23.60	21.63	21.72	21.52	22.95
	Sub 2	21.44	21.43	21.51	23.10	21.12	21.21	21.01	22.45
	Sub 3	21.02	20.92	21.02	22.60	20.70	20.70	20.52	21.95
	Sub 4	21.01	20.91	21.01	22.60	20.69	20.69	20.51	21.95
HSPA+	16QAM	20.50	20.49	20.59	21.60	20.18	20.27	20.09	20.95
Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.									

Second - Antenna

WCDMA		Band II(dBm) Receiver on				Band IV(dBm) Receiver off-body SAR				Band V(dBm) Receiver off-body SAR Simultaneous Wi-Fi + body SAR			
Tx Channel		9262	9400	9538	Tune-up Limit	1312	1413	1513	Tune-up Limit	4132	4183	4233	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
RMC	12.2kbps	20.54	20.80	20.49	21.60	23.41	23.43	23.29	24.20	23.67	23.74	23.68	25.00
AMR	12.2kbps	20.44	20.71	20.36	21.60	23.31	23.34	23.16	24.20	23.57	23.65	23.55	25.00
HSDPA	Sub 1	19.96	20.22	19.91	21.10	22.83	22.85	22.71	23.70	23.09	23.16	23.10	24.50
	Sub 2	19.45	19.71	19.40	20.60	22.32	22.34	22.20	23.20	22.58	22.65	22.59	24.00
	Sub 3	18.94	19.20	18.89	20.10	21.81	21.83	21.69	22.70	22.07	22.14	22.08	23.50
	Sub 4	18.93	19.19	18.88	20.10	21.80	21.82	21.68	22.70	22.06	22.13	22.07	23.50
HSUPA	Sub 1	18.62	18.88	18.57	19.80	21.49	21.51	21.37	22.40	21.75	21.82	21.76	23.20
	Sub 2	15.91	16.17	15.86	17.10	18.78	18.80	18.66	19.70	19.04	19.11	19.05	20.50
	Sub 3	17.39	17.66	17.35	18.60	20.26	20.29	20.15	21.20	20.52	20.60	20.54	22.00
	Sub 4	16.38	16.65	16.34	17.60	19.25	19.28	19.14	20.20	19.51	19.59	19.53	21.00
	Sub 5	19.37	19.64	19.33	20.60	22.24	22.27	22.13	23.20	22.50	22.58	22.52	24.00
DC-HSDPA	Sub 1	19.88	20.16	19.83	21.10	22.75	22.79	22.63	23.70	23.01	23.10	23.02	24.50
	Sub 2	19.37	19.65	19.32	20.60	22.24	22.28	22.12	23.20	22.50	22.59	22.51	24.00
	Sub 3	18.95	19.14	18.83	20.10	21.82	21.77	21.63	22.70	22.08	22.08	22.02	23.50
	Sub 4	18.94	19.13	18.82	20.10	21.81	21.76	21.62	22.70	22.07	22.07	22.01	23.50
HSPA+	16QAM	18.43	18.71	18.40	19.10	21.30	21.34	21.20	21.70	21.56	21.65	21.59	22.50
Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.													

WCDMA		Band II(dBm) Simultaneous Wi-Fi + body SAR / Hotspot				Band IV(dBm) Receiver on				Band V(dBm) Receiver on/Hotspot			
Tx Channel		9262	9400	9538	Tune-up Limit	1312	1413	1513	Tune-up Limit	4132	4183	4233	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
RMC	12.2kbps	19.72	19.79	19.66	21.10	20.16	20.18	20.26	21.20	23.59	23.71	23.60	24.00
AMR	12.2kbps	19.62	19.70	19.53	21.10	20.06	20.09	20.13	21.20	23.49	23.62	23.47	24.00
HSDPA	Sub 1	19.14	19.21	19.08	20.60	19.58	19.60	19.68	20.70	23.01	23.13	23.02	23.50
	Sub 2	18.63	18.70	18.57	20.10	19.07	19.09	19.17	20.20	22.50	22.62	22.51	23.00
	Sub 3	18.12	18.19	18.06	19.60	18.56	18.58	18.66	19.70	21.99	22.11	22.00	22.50
	Sub 4	18.11	18.18	18.05	19.60	18.55	18.57	18.65	19.70	21.98	22.10	21.99	22.50
HSUPA	Sub 1	17.80	17.87	17.74	19.30	18.24	18.26	18.34	19.40	21.67	21.79	21.68	22.20
	Sub 2	15.09	15.16	15.03	16.60	15.53	15.55	15.63	16.70	18.96	19.08	18.97	19.50
	Sub 3	16.57	16.65	16.52	18.10	17.01	17.04	17.12	18.20	20.44	20.57	20.46	21.00
	Sub 4	15.56	15.64	15.51	17.10	16.00	16.03	16.11	17.20	19.43	19.56	19.45	20.00

	Sub 5	18.55	18.63	18.50	20.10	18.99	19.02	19.10	20.20	22.42	22.55	22.44	23.00
DC-HSDPA	Sub 1	19.06	19.15	19.00	20.60	19.50	19.54	19.60	20.70	22.93	23.07	22.94	23.50
	Sub 2	18.55	18.64	18.49	20.10	18.99	19.03	19.09	20.20	22.42	22.56	22.43	23.00
	Sub 3	18.13	18.13	18.00	19.60	18.57	18.52	18.60	19.70	22.00	22.05	21.94	22.50
	Sub 4	18.12	18.12	17.99	19.60	18.56	18.51	18.59	19.70	21.99	22.04	21.93	22.50
HSPA+	16QAM	17.61	17.70	17.57	18.60	18.05	18.09	18.17	18.70	21.34	21.40	21.28	21.50
Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.													

WCDMA		Band II(dBm) Receiver off-body SAR				Band IV(dBm) Simultaneous WiFi+body SAR / Hotspot			
Tx Channel		9262	9400	9538	Tune-up Limit	1312	1413	1513	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
RMC	12.2kbps	22.61	22.76	22.65	24.10	19.39	19.37	19.29	20.20
AMR	12.2kbps	22.51	22.67	22.52	24.10	19.29	19.28	19.16	20.20
HSDPA	Sub 1	22.03	22.18	22.07	23.60	18.81	18.79	18.71	19.70
	Sub 2	21.52	21.67	21.56	23.10	18.30	18.28	18.20	19.20
	Sub 3	21.01	21.16	21.05	22.60	17.79	17.77	17.69	18.70
	Sub 4	21.00	21.15	21.04	22.60	17.78	17.76	17.68	18.70
HSUPA	Sub 1	20.69	20.84	20.73	22.30	17.47	17.45	17.37	18.40
	Sub 2	17.98	18.13	18.02	19.60	14.76	14.74	14.66	15.70
	Sub 3	19.46	19.62	19.51	21.10	16.24	16.23	16.15	17.20
	Sub 4	18.45	18.61	18.50	20.10	15.23	15.22	15.14	16.20
	Sub 5	21.44	21.60	21.49	23.10	18.22	18.21	18.13	19.20
DC-HSDPA	Sub 1	21.95	22.12	21.99	23.60	18.73	18.73	18.63	19.70
	Sub 2	21.44	21.61	21.48	23.10	18.22	18.22	18.12	19.20
	Sub 3	21.02	21.10	20.99	22.60	17.80	17.71	17.63	18.70
	Sub 4	21.01	21.09	20.98	22.60	17.79	17.70	17.62	18.70
HSPA+	16QAM	20.50	20.67	20.56	21.60	17.28	17.28	17.20	17.70
Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.									

9.3 LTE Mode

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

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

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3

Main- Antenna

LTE FDD Band 2 Receiver on				Maximum Output Power (dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	22.91	22.89	22.80	24.10
		1	2	23.03	23.05	23.00	24.10
		1	5	22.74	22.60	22.73	24.10
		3	0	22.96	23.00	22.96	24.10
		3	2	23.05	23.05	23.08	24.10
		3	3	22.92	22.87	22.85	24.10
		6	0	21.95	22.07	21.96	23.10
	16QAM	1	0	22.36	22.05	22.15	23.10
		1	2	22.34	22.24	22.27	23.10
		1	5	22.17	22.13	22.06	23.10
		3	0	21.79	21.78	21.83	23.10
		3	2	22.06	21.97	22.04	23.10
		3	3	21.92	21.82	21.94	23.10
		6	0	20.89	20.94	21.04	22.10
	64QAM	1	0	21.58	21.74	21.53	22.10
		1	2	21.74	21.64	21.63	22.10
		1	5	21.67	21.74	21.64	22.10
		3	0	21.64	21.68	21.60	22.10
		3	2	21.64	21.72	21.67	22.10
		3	3	21.64	21.65	21.49	22.10
		6	0	20.68	20.71	20.73	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	

3MHz	QPSK	1	0	22.91	22.88	22.80	24.10
		1	7	23.00	23.08	23.02	24.10
		1	14	22.73	22.59	22.72	24.10
		8	0	22.04	22.08	22.06	23.10
		8	4	22.15	22.11	22.15	23.10
		8	7	21.99	21.97	21.92	23.10
		15	0	21.97	22.08	21.96	23.10
	16QAM	1	0	22.33	22.04	22.15	23.10
		1	7	22.35	22.23	22.29	23.10
		1	14	22.16	22.13	22.05	23.10
		8	0	20.88	20.90	20.93	22.10
		8	4	21.13	21.04	21.11	22.10
		8	7	21.00	20.90	21.04	22.10
		15	0	20.90	20.94	21.02	22.10
	64QAM	1	0	21.55	21.73	21.53	22.10
		1	7	21.75	21.63	21.63	22.10
		1	14	21.70	21.72	21.67	22.10
		8	0	20.75	20.84	20.74	21.10
		8	4	20.72	20.81	20.77	21.10
		8	7	20.72	20.73	20.59	21.10
		15	0	20.69	20.71	20.71	21.10

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	22.92	22.92	22.82	24.10
		1	13	23.02	23.09	23.05	24.10
		1	24	22.76	22.64	22.76	24.10
		12	0	22.06	22.12	22.09	23.10
		12	6	22.18	22.16	22.19	23.10
		12	13	22.02	22.00	21.96	23.10
		25	0	21.99	22.12	22.01	23.10
	16QAM	1	0	22.38	22.06	22.17	23.10
		1	13	22.37	22.26	22.31	23.10
		1	24	22.19	22.17	22.08	23.10
		12	0	20.91	20.92	20.96	22.10
		12	6	21.16	21.09	21.15	22.10
		12	13	21.02	20.94	21.07	22.10
		25	0	20.93	20.99	21.06	22.10
	64QAM	1	0	21.60	21.75	21.55	22.10
		1	13	21.77	21.66	21.65	22.10
		1	24	21.69	21.73	21.66	22.10
		12	0	20.76	20.82	20.73	21.10
		12	6	20.74	20.84	20.78	21.10
		12	13	20.74	20.77	20.62	21.10

		25	0	20.72	20.76	20.75	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	22.90	22.91	22.79	24.10
		1	25	22.99	23.04	23.01	24.10
		1	49	22.74	22.60	22.73	24.10
		25	0	22.03	22.07	22.05	23.10
		25	13	22.15	22.11	22.15	23.10
		25	25	22.00	21.96	21.91	23.10
		50	0	21.95	22.10	21.97	23.10
	16QAM	1	0	22.36	22.03	22.15	23.10
		1	25	22.34	22.22	22.28	23.10
		1	49	22.16	22.15	22.05	23.10
		25	0	20.88	20.87	20.92	22.10
		25	13	21.14	21.05	21.12	22.10
		25	25	20.99	20.89	21.03	22.10
		50	0	20.90	20.94	21.02	22.10
	64QAM	1	0	21.58	21.76	21.53	22.10
		1	25	21.74	21.66	21.62	22.10
		1	49	21.70	21.71	21.63	22.10
		25	0	20.73	20.77	20.73	21.10
		25	13	20.72	20.80	20.75	21.10
		25	25	20.71	20.72	20.58	21.10
		50	0	20.69	20.71	20.71	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	22.93	22.93	22.83	24.10
		1	38	23.01	23.08	23.04	24.10
		1	74	22.77	22.65	22.77	24.10
		36	0	22.06	22.12	22.09	23.10
		36	18	22.17	22.15	22.20	23.10
		36	39	22.02	21.98	21.95	23.10
		75	0	21.95	22.11	21.99	23.10
	16QAM	1	0	22.39	22.07	22.18	23.10
		1	38	22.37	22.24	22.31	23.10
		1	74	22.19	22.17	22.09	23.10
		36	0	20.90	20.91	20.95	22.10
		36	18	21.17	21.10	21.16	22.10
		36	39	21.02	20.94	21.07	22.10
		75	0	20.92	20.98	21.07	22.10
	64QAM	1	0	21.61	21.76	21.56	22.10
		1	38	21.77	21.64	21.65	22.10
		1	74	21.69	21.73	21.67	22.10

		36	0	20.75	20.81	20.72	21.10
		36	18	20.75	20.85	20.79	21.10
		36	39	20.74	20.77	20.62	21.10
		75	0	20.71	20.75	20.76	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	22.88	22.84	22.77	24.10
		1	50	22.99	**23.04**	23.00	24.10
		1	99	22.71	22.58	22.69	24.10
		50	0	22.01	22.03	22.02	23.10
		50	25	**22.13**	22.07	22.12	23.10
		50	50	21.96	21.92	21.88	23.10
		100	0	21.94	22.03	21.92	23.10
	16QAM	1	0	22.06	22.00	22.10	23.10
		1	50	22.31	22.21	22.25	23.10
		1	99	22.14	22.10	22.03	23.10
		50	0	20.85	20.86	20.90	22.10
		50	25	21.10	21.02	21.08	22.10
		50	50	20.97	20.85	21.00	22.10
		100	0	20.88	20.90	20.99	22.10
	64QAM	1	0	21.53	21.69	21.48	22.10
		1	50	21.71	21.61	21.59	22.10
		1	99	21.64	21.66	21.61	22.10
		50	0	20.70	20.76	20.67	21.10
		50	25	20.68	20.77	20.71	21.10
		50	50	20.69	20.68	20.55	21.10
		100	0	20.67	20.67	20.68	21.10

LTE FDD Band 2 Receiver off-body SAR/ Simultaneous Wi-Fi +body SAR /Hotspot				**Maximum Output Power (dBm)**			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	22.20	22.17	22.12	23.30
		1	2	22.28	22.38	22.35	23.30
		1	5	22.05	21.98	22.13	23.30
		3	0	22.89	23.08	23.02	23.30
		3	2	22.97	23.13	23.09	23.30
		3	3	23.00	22.87	22.92	23.30
		6	0	21.97	22.00	22.07	23.10
	16QAM	1	0	22.16	22.30	22.35	23.10
		1	2	22.14	22.21	22.22	23.10
		1	5	22.18	22.14	22.26	23.10

		3	0	21.95	22.00	22.00	23.10
		3	2	21.98	22.08	22.08	23.10
		3	3	21.83	21.97	21.88	23.10
		6	0	21.03	21.09	21.02	22.10
	64QAM	1	0	21.54	21.61	21.49	22.10
		1	2	21.74	21.69	21.71	22.10
		1	5	21.66	21.72	21.64	22.10
		3	0	21.62	21.64	21.51	22.10
		3	2	21.73	21.66	21.62	22.10
		3	3	21.56	21.65	21.47	22.10
		6	0	20.74	20.75	20.65	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	22.19	22.19	22.11	23.35
		1	7	22.24	22.37	22.36	23.35
		1	14	22.05	21.98	22.13	23.35
		8	0	21.96	22.15	22.11	23.10
		8	4	22.07	22.19	22.16	23.10
		8	7	22.08	21.96	21.98	23.10
		15	0	21.97	22.03	22.08	23.10
	16QAM	1	0	22.16	22.28	22.35	23.10
		1	7	22.14	22.19	22.23	23.10
		1	14	22.17	22.16	22.25	23.10
		8	0	21.04	21.09	21.09	22.10
		8	4	21.06	21.16	21.16	22.10
		8	7	20.90	21.04	20.97	22.10
		15	0	21.04	21.09	21.00	22.10
	64QAM	1	0	21.54	21.63	21.49	22.10
		1	7	21.74	21.71	21.70	22.10
		1	14	21.69	21.69	21.63	22.10
		8	0	20.71	20.73	20.64	21.10
		8	4	20.81	20.74	20.70	21.10
		8	7	20.63	20.72	20.56	21.10
		15	0	20.75	20.75	20.63	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	22.22	22.21	22.15	23.35
		1	13	22.26	22.41	22.39	23.35
		1	24	22.08	22.03	22.17	23.35
		12	0	21.99	22.20	22.15	23.10
		12	6	22.09	22.23	22.21	23.10
		12	13	22.10	21.98	22.02	23.10
		25	0	21.97	22.04	22.10	23.10

	16QAM	1	0	22.19	22.32	22.38	23.10
		1	13	22.17	22.21	22.26	23.10
		1	24	22.20	22.18	22.29	23.10
		12	0	21.06	21.13	21.12	22.10
		12	6	21.09	21.21	21.20	22.10
		12	13	20.93	21.09	21.01	22.10
		25	0	21.06	21.13	21.05	22.10
	64QAM	1	0	21.57	21.63	21.52	22.10
		1	13	21.77	21.69	21.73	22.10
		1	24	21.68	21.71	21.67	22.10
		12	0	20.73	20.77	20.63	21.10
		12	6	20.84	20.79	20.74	21.10
		12	13	20.66	20.77	20.60	21.10
		25	0	20.77	20.79	20.68	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	22.20	22.16	22.12	23.35
		1	25	22.25	22.41	22.37	23.35
		1	49	22.04	21.97	22.12	23.35
		25	0	21.97	22.16	22.12	23.10
		25	13	22.07	22.19	22.16	23.10
		25	25	22.07	21.97	21.99	23.10
		50	0	21.99	22.01	22.07	23.10
	16QAM	1	0	22.13	22.29	22.35	23.10
		1	25	22.15	22.20	22.24	23.10
		1	49	22.17	22.14	22.25	23.10
		25	0	21.04	21.12	21.10	22.10
		25	13	21.05	21.15	21.15	22.10
		25	25	20.91	21.05	20.98	22.10
		50	0	21.04	21.09	21.00	22.10
	64QAM	1	0	21.51	21.60	21.49	22.10
		1	25	21.75	21.68	21.71	22.10
		1	49	21.69	21.70	21.67	22.10
		25	0	20.73	20.80	20.65	21.10
		25	13	20.81	20.75	20.72	21.10
		25	25	20.64	20.73	20.57	21.10
		50	0	20.75	20.75	20.63	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	22.21	22.20	22.14	23.35
		1	38	22.27	22.42	22.40	23.35
		1	74	22.07	22.02	22.16	23.35
		36	0	21.99	22.20	22.15	23.10

		36	18	22.10	22.24	22.20	23.10
		36	39	22.10	22.00	22.03	23.10
		75	0	22.01	22.05	22.12	23.10
	16QAM	1	0	22.18	22.31	22.37	23.10
		1	38	22.17	22.23	22.26	23.10
		1	74	22.20	22.18	22.28	23.10
		36	0	21.07	21.14	21.13	22.10
		36	18	21.08	21.20	21.19	22.10
		36	39	20.93	21.09	21.01	22.10
		75	0	21.07	21.14	21.04	22.10
	64QAM	1	0	21.56	21.62	21.51	22.10
		1	38	21.77	21.71	21.73	22.10
		1	74	21.68	21.71	21.66	22.10
		36	0	20.74	20.78	20.64	21.10
		36	18	20.83	20.78	20.73	21.10
		36	39	20.66	20.77	20.60	21.10
		75	0	20.78	20.80	20.67	21.10

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	22.17	22.12	22.09	23.35
		1	50	22.24	**22.37**	22.35	23.35
		1	99	22.02	21.96	22.09	23.35
		50	0	21.94	22.11	22.08	23.10
		50	25	22.05	**22.15**	22.13	23.10
		50	50	22.04	21.92	21.95	23.10
		100	0	21.96	21.96	22.03	23.10
	16QAM	1	0	22.21	22.25	22.30	23.10
		1	50	22.11	22.18	22.20	23.10
		1	99	22.15	22.11	22.23	23.10
		50	0	21.01	21.08	21.07	22.10
		50	25	21.02	21.13	21.12	22.10
		50	50	20.88	21.00	20.94	22.10
		100	0	21.02	21.05	20.97	22.10
	64QAM	1	0	21.49	21.56	21.44	22.10
		1	50	21.71	21.66	21.67	22.10
		1	99	21.63	21.64	21.61	22.10
		50	0	20.68	20.72	20.58	21.10
		50	25	20.77	20.71	20.66	21.10
		50	50	20.61	20.68	20.53	21.10
		100	0	20.73	20.71	20.60	21.10

LTE FDD Band 4 Receiver on				Maximum Output Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	23.49	23.53	23.49	24.50
		1	2	23.55	23.61	23.59	24.50
		1	5	23.34	23.22	23.34	24.50
		3	0	23.51	23.52	23.48	24.50
		3	2	23.60	23.57	23.58	24.50
		3	3	23.59	23.49	23.46	24.50
		6	0	22.57	22.61	22.55	23.50
	16QAM	1	0	22.66	22.77	22.55	23.50
		1	2	22.64	22.81	22.69	23.50
		1	5	22.38	22.65	22.63	23.50
		3	0	22.56	22.46	22.52	23.50
		3	2	22.56	22.52	22.44	23.50
		3	3	22.52	22.49	22.67	23.50
		6	0	21.47	21.57	21.57	22.50
	64QAM	1	0	21.87	21.91	21.82	22.50
		1	2	22.04	21.95	21.98	22.50
		1	5	21.94	21.72	21.68	22.50
		3	0	21.91	21.94	21.85	22.50
		3	2	22.03	21.90	22.02	22.50
		3	3	21.98	21.98	21.96	22.50
		6	0	21.01	20.99	21.01	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	23.51	23.57	23.52	24.50
		1	7	23.53	23.64	23.63	24.50
		1	14	23.37	23.27	23.38	24.50
		8	0	22.61	22.64	22.61	23.50
		8	4	22.72	22.67	22.70	23.50
		8	7	22.69	22.60	22.56	23.50
		15	0	22.57	22.65	22.58	23.50
	16QAM	1	0	22.69	22.79	22.58	23.50
		1	7	22.67	22.81	22.73	23.50
		1	14	22.40	22.69	22.66	23.50
		8	0	21.67	21.59	21.64	22.50
		8	4	21.67	21.65	21.56	22.50
		8	7	21.62	21.61	21.80	22.50
		15	0	21.50	21.61	21.60	22.50
	64QAM	1	0	21.90	21.93	21.85	22.50
		1	7	22.07	21.95	22.00	22.50

		1	14	21.96	21.71	21.71	22.50
		8	0	21.02	21.07	20.97	21.50
		8	4	21.14	21.03	21.14	21.50
		8	7	21.08	21.10	21.09	21.50
		15	0	21.04	21.03	21.04	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19975/1712.5	20175/1732.5	20375/1752.5	
5MHz	QPSK	1	0	23.48	23.55	23.48	24.50
		1	13	23.51	23.60	23.60	24.50
		1	24	23.34	23.22	23.34	24.50
		12	0	22.58	22.59	22.57	23.50
		12	6	22.70	22.63	22.65	23.50
		12	13	22.67	22.58	22.52	23.50
		25	0	22.57	22.64	22.56	23.50
	16QAM	1	0	22.66	22.75	22.55	23.50
		1	13	22.64	22.79	22.70	23.50
		1	24	22.37	22.67	22.62	23.50
		12	0	21.65	21.55	21.61	22.50
		12	6	21.64	21.60	21.52	22.50
		12	13	21.59	21.56	21.76	22.50
		25	0	21.48	21.57	21.55	22.50
	64QAM	1	0	21.87	21.93	21.82	22.50
		1	13	22.04	21.97	21.97	22.50
		1	24	21.97	21.69	21.67	22.50
		12	0	21.00	21.03	20.98	21.50
		12	6	21.11	20.98	21.10	21.50
		12	13	21.05	21.05	21.05	21.50
		25	0	21.02	20.99	20.99	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	23.50	23.56	23.51	24.50
		1	25	23.54	23.65	23.64	24.50
		1	49	23.36	23.26	23.37	24.50
		25	0	22.61	22.64	22.61	23.50
		25	13	22.73	22.68	22.69	23.50
		25	25	22.69	22.62	22.57	23.50
		50	0	22.61	22.66	22.60	23.50
	16QAM	1	0	22.68	22.78	22.57	23.50
		1	25	22.67	22.83	22.73	23.50
		1	49	22.40	22.69	22.65	23.50
		25	0	21.68	21.60	21.65	22.50
		25	13	21.66	21.64	21.55	22.50
		25	25	21.62	21.61	21.80	22.50

		50	0	21.51	21.62	21.59	22.50
	64QAM	1	0	21.89	21.92	21.84	22.50
		1	25	22.07	21.97	22.00	22.50
		1	49	21.96	21.71	21.70	22.50
		25	0	21.03	21.08	20.98	21.50
		25	13	21.13	21.02	21.13	21.50
		25	25	21.08	21.10	21.09	21.50
		50	0	21.05	21.04	21.03	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	23.49	23.52	23.49	24.50
		1	38	23.52	23.64	23.61	24.50
		1	74	23.33	23.21	23.33	24.50
		36	0	22.59	22.60	22.58	23.50
		36	18	22.70	22.63	22.65	23.50
		36	39	22.66	22.59	22.53	23.50
		75	0	22.59	22.62	22.55	23.50
	16QAM	1	0	22.63	22.76	22.55	23.50
		1	38	22.65	22.80	22.71	23.50
		1	74	22.37	22.65	22.62	23.50
		36	0	21.65	21.58	21.62	22.50
		36	18	21.63	21.59	21.51	22.50
		36	39	21.60	21.57	21.77	22.50
		75	0	21.48	21.57	21.55	22.50
	64QAM	1	0	21.84	21.90	21.82	22.50
		1	38	22.05	21.94	21.98	22.50
		1	74	21.97	21.70	21.71	22.50
		36	0	21.02	21.10	20.99	21.50
		36	18	21.11	20.99	21.12	21.50
		36	39	21.06	21.06	21.06	21.50
		75	0	21.02	20.99	20.99	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	23.46	23.48	23.46	24.50
		1	50	23.51	**23.60**	23.59	24.50
		1	99	23.31	23.20	23.30	24.50
		50	0	22.56	22.55	22.54	23.50
		50	25	**22.68**	22.59	22.62	23.50
		50	50	22.63	22.54	22.49	23.50
		100	0	22.56	22.57	22.51	23.50
	16QAM	1	0	22.49	22.72	22.50	23.50
		1	50	22.61	22.78	22.67	23.50
		1	99	22.35	22.62	22.60	23.50

		50	0	21.62	21.54	21.59	22.50
		50	25	21.60	21.57	21.48	22.50
		50	50	21.57	21.52	21.73	22.50
		100	0	21.46	21.53	21.52	22.50
	64QAM	1	0	21.82	21.86	21.77	22.50
		1	50	22.01	21.92	21.94	22.50
		1	99	21.91	21.64	21.65	22.50
		50	0	20.97	21.02	20.92	21.50
		50	25	21.07	20.95	21.06	21.50
		50	50	21.03	21.01	21.02	21.50
		100	0	21.00	20.95	20.96	21.50

LTE FDD Band 4 Receiver off-body SAR / Simultaneous Wi-Fi+ body SAR /Hotspot				Maximum Output Power(dBm)			Tune-up Limit
				Channel/Frequency (MHz)			
Bandwidth	Modulation	RB size	RB offset	19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	22.43	22.47	22.49	23.50
		1	2	22.47	22.46	22.50	23.50
		1	5	22.31	22.29	22.34	23.50
		3	0	22.53	22.47	22.54	23.50
		3	2	22.41	22.46	22.46	23.50
		3	3	22.42	22.38	22.41	23.50
		6	0	22.60	22.51	22.49	23.50
	16QAM	1	0	22.72	22.54	22.56	23.50
		1	2	22.70	22.69	22.48	23.50
		1	5	22.73	22.60	22.70	23.50
		3	0	22.42	22.51	22.41	23.50
		3	2	22.45	22.38	22.49	23.50
		3	3	22.41	22.46	22.40	23.50
		6	0	21.56	21.54	21.55	22.50
	64QAM	1	0	22.07	21.93	22.04	22.50
		1	2	22.11	22.09	22.10	22.50
		1	5	21.94	21.93	21.82	22.50
		3	0	21.89	21.90	21.92	22.50
		3	2	22.00	21.97	22.03	22.50
		3	3	21.96	22.03	21.81	22.50
		6	0	20.97	20.99	20.96	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	22.45	22.51	22.52	23.50
		1	7	22.45	22.49	22.54	23.50
		1	14	22.34	22.34	22.38	23.50

		8	0	22.63	22.59	22.67	23.50
		8	4	22.53	22.56	22.58	23.50
		8	7	22.52	22.49	22.51	23.50
		15	0	22.60	22.55	22.52	23.50
	16QAM	1	0	22.75	22.56	22.59	23.50
		1	7	22.73	22.69	22.52	23.50
		1	14	22.75	22.64	22.73	23.50
		8	0	21.53	21.64	21.53	22.50
		8	4	21.56	21.51	21.61	22.50
		8	7	21.51	21.58	21.53	22.50
		15	0	21.59	21.58	21.58	22.50
	64QAM	1	0	22.10	21.95	22.07	22.50
		1	7	22.14	22.09	22.12	22.50
		1	14	21.96	21.92	21.85	22.50
		8	0	21.00	21.03	21.04	21.50
		8	4	21.11	21.10	21.15	21.50
		8	7	21.06	21.15	20.94	21.50
		15	0	21.00	21.03	20.99	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19975/1712.5	20175/1732.5	20375/1752.5	
5MHz	QPSK	1	0	22.42	22.49	22.48	23.50
		1	13	22.43	22.45	22.51	23.50
		1	24	22.31	22.29	22.34	23.50
		12	0	22.60	22.54	22.63	23.50
		12	6	22.51	22.52	22.53	23.50
		12	13	22.50	22.47	22.47	23.50
		25	0	22.60	22.54	22.50	23.50
	16QAM	1	0	22.72	22.52	22.56	23.50
		1	13	22.70	22.67	22.49	23.50
		1	24	22.72	22.62	22.69	23.50
		12	0	21.51	21.60	21.50	22.50
		12	6	21.53	21.46	21.57	22.50
		12	13	21.48	21.53	21.49	22.50
		25	0	21.57	21.54	21.53	22.50
	64QAM	1	0	22.07	21.95	22.04	22.50
		1	13	22.11	22.11	22.09	22.50
		1	24	21.97	21.90	21.81	22.50
		12	0	20.98	20.99	21.05	21.50
		12	6	21.08	21.05	21.11	21.50
		12	13	21.03	21.10	20.90	21.50
		25	0	20.98	20.99	20.94	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	

10MHz	QPSK	1	0	22.44	22.50	22.51	23.50
		1	25	22.46	22.50	22.55	23.50
		1	49	22.33	22.33	22.37	23.50
		25	0	22.63	22.59	22.67	23.50
		25	13	22.54	22.57	22.57	23.50
		25	25	22.52	22.51	22.52	23.50
		50	0	22.64	22.56	22.54	23.50
	16QAM	1	0	22.74	22.55	22.58	23.50
		1	25	22.73	22.71	22.52	23.50
		1	49	22.75	22.64	22.72	23.50
		25	0	21.54	21.65	21.54	22.50
		25	13	21.55	21.50	21.60	22.50
		25	25	21.51	21.58	21.53	22.50
		50	0	21.60	21.59	21.57	22.50
	64QAM	1	0	22.09	21.94	22.06	22.50
		1	25	22.14	22.11	22.12	22.50
		1	49	21.96	21.92	21.84	22.50
		25	0	21.01	21.04	21.05	21.50
		25	13	21.10	21.09	21.14	21.50
		25	25	21.06	21.15	20.94	21.50
		50	0	21.01	21.04	20.98	21.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	22.43	22.46	22.49	23.50
		1	38	22.44	22.49	22.52	23.50
		1	74	22.30	22.28	22.33	23.50
		36	0	22.61	22.55	22.64	23.50
		36	18	22.51	22.52	22.53	23.50
		36	39	22.49	22.48	22.48	23.50
		75	0	22.62	22.52	22.49	23.50
	16QAM	1	0	22.69	22.53	22.56	23.50
		1	38	22.71	22.68	22.50	23.50
		1	74	22.72	22.60	22.69	23.50
		36	0	21.51	21.63	21.51	22.50
		36	18	21.52	21.45	21.56	22.50
		36	39	21.49	21.54	21.50	22.50
		75	0	21.57	21.54	21.53	22.50
	64QAM	1	0	22.04	21.92	22.04	22.50
		1	38	22.12	22.08	22.10	22.50
		1	74	21.97	21.91	21.85	22.50
		36	0	21.00	21.06	21.06	21.50
		36	18	21.08	21.06	21.13	21.50
		36	39	21.04	21.11	20.91	21.50

		75	0	20.98	20.99	20.94	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	22.40	22.42	22.46	23.50
		1	50	22.43	22.45	**22.50**	23.50
		1	99	22.28	22.27	22.30	23.50
		50	0	22.58	22.50	**22.60**	23.50
		50	25	22.49	22.48	22.50	23.50
		50	50	22.46	22.43	22.44	23.50
		100	0	22.59	22.47	22.45	23.50
	16QAM	1	0	22.45	22.49	22.51	23.50
		1	50	22.67	22.66	22.46	23.50
		1	99	22.70	22.57	22.67	23.50
		50	0	21.48	21.59	21.48	22.50
		50	25	21.49	21.43	21.53	22.50
		50	50	21.46	21.49	21.46	22.50
		100	0	21.55	21.50	21.50	22.50
	64QAM	1	0	22.02	21.88	21.99	22.50
		1	50	22.08	22.06	22.06	22.50
		1	99	21.91	21.85	21.79	22.50
		50	0	20.95	20.98	20.99	21.50
		50	25	21.04	21.02	21.07	21.50
		50	50	21.01	21.06	20.87	21.50
		100	0	20.96	20.95	20.91	21.50

LTE FDD Band 5 receiver on / Receiver off-body SAR Simultaneous Wi-Fi+ body SAR / Hotspot				**Maximum Output Power(dBm)**			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	23.59	23.62	23.55	25.00
		1	2	23.73	23.74	23.64	25.00
		1	5	23.57	23.63	23.57	25.00
		3	0	23.64	23.56	23.64	25.00
		3	2	23.63	23.63	23.60	25.00
		3	3	23.58	23.58	23.62	25.00
		6	0	22.67	22.68	22.71	24.00
	16QAM	1	0	23.06	23.04	23.03	24.00
		1	2	23.04	23.11	22.86	24.00
		1	5	23.01	23.03	22.98	24.00
		3	0	22.64	22.56	22.59	24.00
		3	2	22.52	22.55	22.54	24.00

		3	3	22.65	22.63	22.48	24.00
		6	0	21.73	21.74	21.83	23.00
	64QAM	1	0	22.58	22.59	22.69	23.00
		1	2	22.66	22.55	22.47	23.00
		1	5	22.47	22.58	22.41	23.00
		3	0	22.37	22.34	22.50	23.00
		3	2	22.48	22.50	22.54	23.00
		3	3	22.44	22.37	22.40	23.00
		6	0	21.56	21.47	21.56	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20415/825.5	20525/836.5	20635/847.5	
3MHz	QPSK	1	0	23.59	23.61	23.55	25.00
		1	7	23.70	23.77	23.66	25.00
		1	14	23.56	23.62	23.56	25.00
		8	0	22.72	22.64	22.74	24.00
		8	4	22.73	22.69	22.67	24.00
		8	7	22.65	22.68	22.69	24.00
		15	0	22.69	22.69	22.71	24.00
	16QAM	1	0	23.03	23.03	23.03	24.00
		1	7	23.05	23.10	22.88	24.00
		1	14	23.00	23.03	22.97	24.00
		8	0	21.73	21.68	21.69	23.00
		8	4	21.59	21.62	21.61	23.00
		8	7	21.73	21.71	21.58	23.00
		15	0	21.74	21.74	21.81	23.00
	64QAM	1	0	22.55	22.58	22.69	23.00
		1	7	22.67	22.54	22.47	23.00
		1	14	22.50	22.56	22.44	23.00
		8	0	21.48	21.50	21.64	22.00
		8	4	21.56	21.59	21.64	22.00
		8	7	21.52	21.45	21.50	22.00
		15	0	21.57	21.47	21.54	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20425/826.5	20525/836.5	20625/846.5	
5MHz	QPSK	1	0	23.61	23.66	23.58	25.00
		1	13	23.71	23.77	23.68	25.00
		1	24	23.60	23.68	23.61	25.00
		12	0	22.74	22.68	22.77	24.00
		12	6	22.75	22.73	22.72	24.00
		12	13	22.68	22.69	22.72	24.00
		25	0	22.67	22.72	22.74	24.00
	16QAM	1	0	23.09	23.06	23.06	24.00
		1	13	23.07	23.11	22.90	24.00

		1	24	23.03	23.07	23.01	24.00
		12	0	21.75	21.69	21.71	23.00
		12	6	21.63	21.68	21.66	23.00
		12	13	21.75	21.75	21.61	23.00
		25	0	21.76	21.78	21.86	23.00
	64QAM	1	0	22.61	22.61	22.72	23.00
		1	13	22.69	22.55	22.49	23.00
		1	24	22.49	22.57	22.44	23.00
		12	0	21.48	21.47	21.62	22.00
		12	6	21.59	21.63	21.66	22.00
		12	13	21.54	21.49	21.53	22.00
		25	0	21.59	21.51	21.59	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	23.56	23.57	23.52	25.00
		1	25	23.69	**23.73**	23.64	25.00
		1	49	23.54	23.61	23.53	25.00
		25	0	22.69	22.59	22.70	24.00
		25	13	**22.71**	22.65	22.64	24.00
		25	25	22.62	22.63	22.65	24.00
		50	0	22.66	22.64	22.67	24.00
	16QAM	1	0	22.89	22.99	22.98	24.00
		1	25	23.01	23.08	22.84	24.00
		1	49	22.98	23.00	22.95	24.00
		25	0	21.70	21.64	21.66	23.00
		25	13	21.56	21.60	21.58	23.00
		25	25	21.70	21.66	21.54	23.00
		50	0	21.72	21.70	21.78	23.00
	64QAM	1	0	22.53	22.54	22.64	23.00
		1	25	22.63	22.52	22.43	23.00
		1	49	22.44	22.50	22.38	23.00
		25	0	21.43	21.42	21.57	22.00
		25	13	21.52	21.55	21.58	22.00
		25	25	21.49	21.40	21.46	22.00
		50	0	21.55	21.43	21.51	22.00

LTE FDD Band 7 Receiver on				**Maximum Output Power(dBm)**			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	23.67	23.74	23.67	24.50
		1	13	23.94	23.91	24.06	24.50

		1	24	23.65	23.77	23.68	24.50
		12	0	22.75	22.94	22.95	23.50
		12	6	22.86	23.07	22.97	23.50
		12	13	22.95	22.96	22.94	23.50
		25	0	22.78	22.95	22.91	23.50
	16QAM	1	0	23.23	22.87	22.94	23.50
		1	13	23.21	23.15	23.21	23.50
		1	24	22.98	23.00	22.99	23.50
		12	0	21.94	21.87	21.91	22.50
		12	6	22.01	21.96	22.00	22.50
		12	13	21.99	21.96	21.99	22.50
		25	0	21.97	21.94	21.96	22.50
	64QAM	1	0	21.68	21.58	21.71	22.50
		1	13	21.78	21.86	21.88	22.50
		1	24	21.73	21.67	21.83	22.50
		12	0	20.57	20.66	20.78	21.50
		12	6	20.65	20.77	20.85	21.50
		12	13	20.73	20.76	20.78	21.50
		25	0	20.60	20.71	20.66	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up
				20800/2505	21100/2535	21400/2565	Limit
10MHz	QPSK	1	0	23.69	23.75	23.70	24.50
		1	25	23.97	23.96	24.10	24.50
		1	49	23.67	23.81	23.71	24.50
		25	0	22.78	22.99	22.99	23.50
		25	13	22.89	23.12	23.01	23.50
		25	25	22.97	23.00	22.99	23.50
		50	0	22.82	22.97	22.95	23.50
	16QAM	1	0	23.25	22.90	22.96	23.50
		1	25	23.24	23.19	23.24	23.50
		1	49	23.01	23.02	23.02	23.50
		25	0	21.97	21.92	21.95	22.50
		25	13	22.03	22.00	22.03	22.50
		25	25	22.02	22.01	22.03	22.50
		50	0	22.00	21.99	22.00	22.50
	64QAM	1	0	21.70	21.57	21.73	22.50
		1	25	21.81	21.86	21.91	22.50
		1	49	21.72	21.69	21.86	22.50
		25	0	20.60	20.71	20.78	21.50
		25	13	20.67	20.81	20.88	21.50
		25	25	20.76	20.81	20.82	21.50
		50	0	20.63	20.76	20.70	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up

				20825/2507.5	21100/2535	21375/2562.5	Limit
15MHz	QPSK	1	0	23.68	23.71	23.68	24.50
		1	38	23.95	23.95	24.07	24.50
		1	74	23.64	23.76	23.67	24.50
		36	0	22.76	22.95	22.96	23.50
		36	18	22.86	23.07	22.97	23.50
		36	39	22.94	22.97	22.95	23.50
		75	0	22.80	22.93	22.90	23.50
	16QAM	1	0	23.20	22.88	22.94	23.50
		1	38	23.22	23.16	23.22	23.50
		1	74	22.98	22.98	22.99	23.50
		36	0	21.94	21.90	21.92	22.50
		36	18	22.00	21.95	21.99	22.50
		36	39	22.00	21.97	22.00	22.50
		75	0	21.97	21.94	21.96	22.50
	64QAM	1	0	21.65	21.55	21.71	22.50
		1	38	21.79	21.83	21.89	22.50
		1	74	21.73	21.68	21.87	22.50
		36	0	20.59	20.73	20.79	21.50
		36	18	20.65	20.78	20.87	21.50
		36	39	20.74	20.77	20.79	21.50
		75	0	20.60	20.71	20.66	21.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	23.65	23.67	23.65	24.50
		1	50	23.90	**23.91**	23.85	24.50
		1	99	23.62	23.75	23.64	24.50
		50	0	22.73	22.90	22.92	23.50
		50	25	22.84	23.03	22.94	23.50
		50	50	22.91	**23.09**	22.91	23.50
		100	0	22.77	22.88	22.86	23.50
	16QAM	1	0	22.88	22.84	22.89	23.50
		1	50	23.18	23.14	23.18	23.50
		1	99	22.96	22.95	22.97	23.50
		50	0	21.91	21.86	21.89	22.50
		50	25	21.97	21.93	21.96	22.50
		50	50	21.97	21.92	21.96	22.50
		100	0	21.95	21.90	21.93	22.50
	64QAM	1	0	21.63	21.51	21.66	22.50
		1	50	21.75	21.81	21.85	22.50
		1	99	21.67	21.62	21.81	22.50
		50	0	20.54	20.65	20.72	21.50
		50	25	20.61	20.74	20.81	21.50

		50	50	20.71	20.72	20.75	21.50
		100	0	20.58	20.67	20.63	21.50

LTE FDD Band 7 Receiver off-body SAR / Simultaneous Wi-Fi+ body SAR /Hotspot				Maximum Output Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	22.67	22.82	22.74	23.50
		1	13	22.88	22.90	22.99	23.50
		1	24	22.67	22.81	22.77	23.50
		12	0	22.81	22.98	23.08	23.50
		12	6	22.84	23.10	22.91	23.50
		12	13	22.89	23.05	23.04	23.50
		25	0	22.77	23.01	22.97	23.50
	16QAM	1	0	22.93	22.69	22.76	23.50
		1	13	22.91	22.87	22.93	23.50
		1	24	22.90	22.90	22.89	23.50
		12	0	22.05	21.99	22.03	22.50
		12	6	22.01	21.98	22.02	22.50
		12	13	22.09	22.06	22.09	22.50
		25	0	22.05	22.03	22.05	22.50
	64QAM	1	0	21.70	21.63	21.69	22.50
		1	13	21.77	21.68	21.77	22.50
		1	24	21.87	21.79	21.77	22.50
		12	0	20.73	20.65	20.77	21.50
		12	6	20.62	20.74	20.65	21.50
		12	13	20.68	20.66	20.69	21.50
		25	0	20.63	20.77	20.71	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	22.69	22.83	22.77	23.50
		1	25	22.91	22.95	23.03	23.50
		1	49	22.69	22.85	22.80	23.50
		25	0	22.84	23.03	23.12	23.50
		25	13	22.87	23.15	22.95	23.50
		25	25	22.91	23.09	23.09	23.50
		50	0	22.81	23.03	23.01	23.50
	16QAM	1	0	22.95	22.72	22.78	23.50
		1	25	22.94	22.91	22.96	23.50
		1	49	22.93	22.92	22.92	23.50
		25	0	22.08	22.04	22.07	22.50
		25	13	22.03	22.02	22.05	22.50

		25	25	22.12	22.11	22.13	22.50
		50	0	22.08	22.08	22.09	22.50
		1	0	21.72	21.62	21.71	22.50
		1	25	21.80	21.68	21.80	22.50
		1	49	21.86	21.81	21.80	22.50
	64QAM	25	0	20.76	20.70	20.77	21.50
		25	13	20.64	20.78	20.68	21.50
		25	25	20.71	20.71	20.73	21.50
		50	0	20.66	20.82	20.75	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	22.68	22.79	22.75	23.50
		1	38	22.89	22.94	23.00	23.50
		1	74	22.66	22.80	22.76	23.50
		36	0	22.82	22.99	23.09	23.50
		36	18	22.84	23.10	22.91	23.50
		36	39	22.88	23.06	23.05	23.50
		75	0	22.79	22.99	22.96	23.50
	16QAM	1	0	22.90	22.70	22.76	23.50
		1	38	22.92	22.88	22.94	23.50
		1	74	22.90	22.88	22.89	23.50
		36	0	22.05	22.02	22.04	22.50
		36	18	22.00	21.97	22.01	22.50
		36	39	22.10	22.07	22.10	22.50
		75	0	22.05	22.03	22.05	22.50
	64QAM	1	0	21.67	21.60	21.69	22.50
		1	38	21.78	21.65	21.78	22.50
		1	74	21.87	21.80	21.81	22.50
		36	0	20.75	20.72	20.78	21.50
		36	18	20.62	20.75	20.67	21.50
		36	39	20.69	20.67	20.70	21.50
		75	0	20.63	20.77	20.71	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	22.65	22.75	22.72	23.50
		1	50	22.88	22.90	**22.98**	23.50
		1	99	22.64	22.79	22.73	23.50
		50	0	22.79	22.94	23.05	23.50
		50	25	22.82	**23.06**	22.88	23.50
		50	50	22.85	23.01	23.01	23.50
		100	0	22.76	22.94	22.92	23.50
	16QAM	1	0	22.70	22.66	22.71	23.50
		1	50	22.88	22.86	22.90	23.50

		1	99	22.88	22.85	22.87	23.50
		50	0	22.02	21.98	22.01	22.50
		50	25	21.97	21.95	21.98	22.50
		50	50	22.07	22.02	22.06	22.50
		100	0	22.03	21.99	22.02	22.50
	64QAM	1	0	21.65	21.56	21.64	22.50
		1	50	21.74	21.63	21.74	22.50
		1	99	21.81	21.74	21.75	22.50
		50	0	20.70	20.64	20.71	21.50
		50	25	20.58	20.71	20.61	21.50
		50	50	20.66	20.62	20.66	21.50
		100	0	20.61	20.73	20.68	21.50

LTE TDD Band 38 receiver on / Receiver off-body SAR Simultaneous Wi-Fi + body SAR / Hotspot				**Maximum Output Power(dBm)**			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	23.22	23.30	23.28	24.50
		1	13	23.44	23.51	23.42	24.50
		1	24	23.26	23.43	23.36	24.50
		12	0	22.43	22.41	22.38	23.50
		12	6	22.42	22.46	22.39	23.50
		12	13	22.50	22.43	22.46	23.50
		25	0	22.40	22.55	22.52	23.50
	16QAM	1	0	22.58	22.39	22.43	23.50
		1	13	22.56	22.52	22.56	23.50
		1	24	22.51	22.44	22.47	23.50
		12	0	21.39	21.32	22.34	22.50
		12	6	21.46	21.47	21.45	22.50
		12	13	21.48	21.47	21.42	22.50
		25	0	21.53	21.52	21.47	22.50
	64QAM	1	0	21.94	21.90	21.85	22.50
		1	13	22.18	22.22	22.14	22.50
		1	24	21.92	21.93	21.85	22.50
		12	0	21.00	20.99	20.93	21.50
		12	6	21.09	21.11	21.06	21.50
		12	13	21.02	21.06	20.98	21.50
		25	0	21.10	21.09	21.03	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	23.24	23.31	23.31	24.50

		1	25	23.47	23.56	23.46	24.50
		1	49	23.28	23.47	23.39	24.50
		25	0	22.46	22.46	22.42	23.50
		25	13	22.45	22.51	22.43	23.50
		25	25	22.52	22.47	22.51	23.50
		50	0	22.44	22.57	22.56	23.50
	16QAM	1	0	22.60	22.42	22.45	23.50
		1	25	22.59	22.56	22.59	23.50
		1	49	22.54	22.46	22.50	23.50
		25	0	21.42	21.37	22.38	22.50
		25	13	21.48	21.51	21.48	22.50
		25	25	21.51	21.52	21.46	22.50
		50	0	21.56	21.57	21.51	22.50
	64QAM	1	0	21.96	21.89	21.87	22.50
		1	25	22.21	22.22	22.17	22.50
		1	49	21.91	21.95	21.88	22.50
		25	0	21.03	21.04	20.93	21.50
		25	13	21.11	21.15	21.09	21.50
		25	25	21.05	21.11	21.02	21.50
		50	0	21.13	21.14	21.07	21.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	23.23	23.27	23.29	24.50
		1	38	23.45	23.55	23.43	24.50
		1	74	23.25	23.42	23.35	24.50
		36	0	22.44	22.42	22.39	23.50
		36	18	22.42	22.46	22.39	23.50
		36	39	22.49	22.44	22.47	23.50
		75	0	22.42	22.53	22.51	23.50
	16QAM	1	0	22.55	22.40	22.43	23.50
		1	38	22.57	22.53	22.57	23.50
		1	74	22.51	22.42	22.47	23.50
		36	0	21.39	21.35	22.35	22.50
		36	18	21.45	21.46	21.44	22.50
		36	39	21.49	21.48	21.43	22.50
		75	0	21.53	21.52	21.47	22.50
	64QAM	1	0	21.91	21.87	21.85	22.50
		1	38	22.19	22.19	22.15	22.50
		1	74	21.92	21.94	21.89	22.50
		36	0	21.02	21.06	20.94	21.50
		36	18	21.09	21.12	21.08	21.50
		36	39	21.03	21.07	20.99	21.50
		75	0	21.10	21.09	21.03	21.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	23.20	23.23	23.26	24.50
		1	50	23.44	**23.51**	23.41	24.50
		1	99	23.23	23.41	23.32	24.50
		50	0	22.41	22.37	22.35	23.50
		50	25	22.40	22.42	22.36	23.50
		50	50	**22.46**	22.39	22.43	23.50
		100	0	22.39	22.48	22.47	23.50
	16QAM	1	0	22.35	22.36	22.38	23.50
		1	50	22.53	22.51	22.53	23.50
		1	99	22.49	22.39	22.45	23.50
		50	0	21.36	21.31	22.32	22.50
		50	25	21.42	21.44	21.41	22.50
		50	50	21.46	21.43	21.39	22.50
		100	0	21.51	21.48	21.44	22.50
	64QAM	1	0	21.89	21.83	21.80	22.50
		1	50	22.15	22.17	22.11	22.50
		1	99	21.86	21.88	21.83	22.50
		50	0	20.97	20.98	20.87	21.50
		50	25	21.05	21.08	21.02	21.50
		50	50	21.00	21.02	20.95	21.50
		100	0	21.08	21.05	21.00	21.50

LTE TDD Band 41 receiver on / Receiver off-body SAR Simultaneous Wi-Fi + body SAR / Hotspot				Maximum Output Power(dBm)					Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				39675/ 2498.5	40148/ 2545.8	40620/ 2593	41093/ 2640.3	41565/ 2687.5	
5MHz	QPSK	1	0	23.46	23.30	23.24	23.33	23.06	24.50
		1	13	23.62	23.53	23.48	23.53	23.25	24.50
		1	24	23.41	23.38	23.27	23.25	22.99	24.50
		12	0	22.51	22.45	22.30	22.35	22.15	23.50
		12	6	22.51	22.47	22.44	22.45	22.13	23.50
		12	13	22.59	22.44	22.49	22.44	22.13	23.50
		25	0	22.55	22.51	22.47	22.43	22.16	23.50
	16QAM	1	0	22.72	22.37	22.35	22.57	22.16	23.50
		1	13	22.74	22.58	22.57	22.59	22.30	23.50
		1	24	22.50	22.47	22.37	22.34	22.04	23.50
		12	0	21.44	21.38	21.30	21.38	21.24	22.50
		12	6	21.51	21.54	21.33	21.44	21.33	22.50
		12	13	21.43	21.43	21.45	21.42	21.15	22.50

		25	0	21.46	21.52	21.45	21.40	21.29	22.50
	64QAM	1	0	22.18	22.13	22.43	22.17	21.66	22.50
		1	13	22.34	22.27	22.26	22.40	22.32	22.50
		1	24	22.20	22.16	21.13	22.25	22.14	22.50
		12	0	21.14	21.12	21.31	21.16	21.18	21.50
		12	6	21.29	21.20	21.35	21.29	21.23	21.50
		12	13	21.28	21.26	21.39	21.30	21.27	21.50
		25	0	21.33	21.33	21.35	21.36	21.40	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up Limit
				39700/ 2501	40160/ 2547	40620/ 2593	41080/ 2639	41540/ 2685	
10MHz	QPSK	1	0	23.47	23.34	23.26	23.32	23.09	24.50
		1	25	23.64	23.54	23.51	23.52	23.21	24.50
		1	49	23.44	23.43	23.31	23.26	23.00	24.50
		25	0	22.53	22.49	22.33	22.34	22.14	23.50
		25	13	22.54	22.52	22.48	22.45	22.13	23.50
		25	25	22.62	22.47	22.53	22.45	22.12	23.50
		50	0	22.57	22.55	22.52	22.41	22.18	23.50
	16QAM	1	0	22.77	22.39	22.37	22.60	22.15	23.50
		1	25	22.76	22.61	22.59	22.58	22.29	23.50
		1	49	22.53	22.51	22.40	22.34	22.06	23.50
		25	0	21.47	21.40	21.33	21.38	21.21	22.50
		25	13	21.54	21.59	21.37	21.45	21.34	22.50
		25	25	21.45	21.47	21.48	21.41	21.14	22.50
		50	0	21.49	21.57	21.49	21.40	21.29	22.50
	64QAM	1	0	22.23	22.15	22.45	22.20	21.69	22.50
		1	25	22.36	22.30	22.28	22.39	22.35	22.50
		1	49	22.19	22.17	21.12	22.25	22.13	22.50
		25	0	21.15	21.10	21.30	21.14	21.11	21.50
		25	13	21.31	21.23	21.36	21.29	21.22	21.50
		25	25	21.30	21.30	21.42	21.29	21.26	21.50
		50	0	21.36	21.38	21.39	21.36	21.40	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up Limit
				39725/ 2503.5	40173/ 2548.3	40620/ 2593	41068/ 2637.8	41515/ 2682.5	
15MHz	QPSK	1	0	23.45	23.33	23.23	23.35	23.11	24.50
		1	38	23.61	23.49	23.47	23.54	23.25	24.50
		1	74	23.42	23.39	23.28	23.29	23.05	24.50
		36	0	22.50	22.44	22.29	22.37	22.19	23.50
		36	18	22.51	22.47	22.44	22.47	22.17	23.50
		36	39	22.60	22.43	22.48	22.47	22.14	23.50
		75	0	22.53	22.53	22.48	22.41	22.19	23.50
	16QAM	1	0	22.75	22.36	22.35	22.63	22.19	23.50

		1	38	22.73	22.57	22.56	22.61	22.31	23.50
		1	74	22.50	22.49	22.37	22.37	22.08	23.50
		36	0	21.44	21.35	21.29	21.40	21.25	22.50
		36	18	21.52	21.55	21.34	21.48	21.39	22.50
		36	39	21.42	21.42	21.44	21.44	21.19	22.50
		75	0	21.46	21.52	21.45	21.42	21.33	22.50
	64QAM	1	0	22.21	22.16	22.43	22.23	21.69	22.50
		1	38	22.33	22.30	22.25	22.42	22.33	22.50
		1	74	22.20	22.15	21.09	22.24	22.15	22.50
		36	0	21.12	21.05	21.30	21.16	21.15	21.50
		36	18	21.29	21.19	21.33	21.32	21.27	21.50
		36	39	21.27	21.25	21.38	21.32	21.31	21.50
		75	0	21.33	21.33	21.35	21.38	21.44	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up Limit
				39750/ 2506	40185/ 2549.5	40620/ 2593	41055/ 2636.5	41490/ 2680	
	QPSK	1	0	23.43	23.26	23.21	23.30	23.02	24.50
		1	50	**23.61**	23.49	23.46	23.52	23.21	24.50
		1	99	23.39	23.37	23.24	23.23	22.98	24.50
		50	0	22.48	22.40	22.26	22.32	22.10	23.50
		50	25	22.49	22.43	22.41	22.43	22.09	23.50
		50	50	**22.56**	22.39	22.45	22.41	22.08	23.50
		100	0	22.52	22.46	22.43	22.40	22.11	23.50
	16QAM	1	0	22.42	22.33	22.30	22.35	22.12	23.50
		1	50	22.70	22.56	22.53	22.55	22.28	23.50
		1	99	22.48	22.44	22.35	22.32	22.01	23.50
		50	0	21.41	21.34	21.27	21.35	21.20	22.50
		50	25	21.48	21.52	21.30	21.41	21.31	22.50
		50	50	21.40	21.38	21.41	21.39	21.10	22.50
		100	0	21.44	21.48	21.42	21.38	21.25	22.50
	64QAM	1	0	22.16	22.09	22.38	22.15	21.62	22.50
		1	50	22.30	22.25	22.22	22.36	22.30	22.50
		1	99	22.14	22.10	21.07	22.19	22.08	22.50
		50	0	21.09	21.04	21.24	21.11	21.10	21.50
		50	25	21.25	21.16	21.29	21.25	21.19	21.50
		50	50	21.25	21.21	21.35	21.27	21.22	21.50
		100	0	21.31	21.29	21.32	21.34	21.36	21.50

Second - Antenna

LTE FDD Band 2 Receiver off-body SAR				Maximum Output Power (dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	22.65	22.64	22.59	23.60
		1	2	22.84	22.76	22.60	23.60
		1	5	22.37	22.46	22.61	23.60
		3	0	23.15	23.22	23.17	23.60
		3	2	23.22	23.18	23.16	23.60
		3	3	23.22	23.07	23.06	23.60
		6	0	22.20	22.17	22.24	23.10
	16QAM	1	0	22.42	22.42	22.35	23.10
		1	2	22.40	22.56	22.43	23.10
		1	5	22.44	22.40	22.36	23.10
		3	0	22.04	22.12	22.08	23.10
		3	2	22.06	22.19	22.16	23.10
		3	3	22.05	22.10	22.00	23.10
		6	0	21.10	21.23	21.20	22.10
	64QAM	1	0	21.49	21.58	21.44	22.10
		1	2	21.67	21.64	21.64	22.10
		1	5	21.62	21.67	21.56	22.10
		3	0	21.55	21.55	21.47	22.10
		3	2	21.67	21.59	21.56	22.10
		3	3	21.48	21.59	21.40	22.10
		6	0	20.66	20.69	20.58	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	22.66	22.67	22.61	23.60
		1	7	22.83	22.80	22.65	23.60
		1	14	22.39	22.50	22.64	23.60
		8	0	22.25	22.34	22.30	23.10
		8	4	22.35	22.29	22.27	23.10
		8	7	22.32	22.20	22.17	23.10
		15	0	22.24	22.22	22.29	23.10
	16QAM	1	0	22.44	22.43	22.37	23.10
		1	7	22.43	22.58	22.47	23.10
		1	14	22.46	22.44	22.38	23.10
		8	0	21.16	21.26	21.21	22.10
		8	4	21.16	21.31	21.27	22.10
		8	7	21.15	21.22	21.13	22.10
		15	0	21.14	21.28	21.22	22.10
	64QAM	1	0	21.51	21.59	21.46	22.10

		1	7	21.70	21.66	21.66	22.10
		1	14	21.64	21.66	21.58	22.10
		8	0	20.67	20.69	20.60	21.10
		8	4	20.77	20.71	20.67	21.10
		8	7	20.58	20.71	20.53	21.10
		15	0	20.70	20.74	20.60	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up
				18625/1852.5	18900/1880	19175/1907.5	Limit
5MHz	QPSK	1	0	22.65	22.63	22.59	23.60
		1	13	22.81	22.79	22.62	23.60
		1	24	22.36	22.45	22.60	23.60
		12	0	22.23	22.30	22.27	23.10
		12	6	22.32	22.24	22.23	23.10
		12	13	22.29	22.17	22.13	23.10
		25	0	22.22	22.18	22.24	23.10
	16QAM	1	0	22.39	22.41	22.35	23.10
		1	13	22.41	22.55	22.45	23.10
		1	24	22.43	22.40	22.35	23.10
		12	0	21.13	21.24	21.18	22.10
		12	6	21.13	21.26	21.23	22.10
		12	13	21.13	21.18	21.10	22.10
		25	0	21.11	21.23	21.18	22.10
	64QAM	1	0	21.46	21.57	21.44	22.10
		1	13	21.68	21.63	21.64	22.10
		1	24	21.65	21.65	21.59	22.10
		12	0	20.66	20.71	20.61	21.10
		12	6	20.75	20.68	20.66	21.10
		12	13	20.56	20.67	20.50	21.10
		25	0	20.67	20.69	20.56	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up
				18650/1855	18900/1880	19150/1905	Limit
10MHz	QPSK	1	0	22.67	22.68	22.62	23.60
		1	25	22.82	22.79	22.64	23.60
		1	49	22.40	22.51	22.65	23.60
		25	0	22.25	22.34	22.30	23.10
		25	13	22.34	22.28	22.28	23.10
		25	25	22.32	22.18	22.16	23.10
		50	0	22.20	22.21	22.27	23.10
	16QAM	1	0	22.45	22.44	22.38	23.10
		1	25	22.43	22.56	22.47	23.10
		1	49	22.46	22.44	22.39	23.10
		25	0	21.15	21.25	21.20	22.10
		25	13	21.17	21.32	21.28	22.10

		25	25	21.15	21.22	21.13	22.10
		50	0	21.13	21.27	21.23	22.10
		1	0	21.52	21.60	21.47	22.10
		1	25	21.70	21.64	21.66	22.10
		1	49	21.64	21.66	21.59	22.10
	64QAM	25	0	20.66	20.68	20.59	21.10
		25	13	20.78	20.72	20.68	21.10
		25	25	20.58	20.71	20.53	21.10
		50	0	20.69	20.73	20.61	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	22.64	22.66	22.58	23.60
		1	38	22.80	22.75	22.61	23.60
		1	74	22.37	22.46	22.61	23.60
		36	0	22.22	22.29	22.26	23.10
		36	18	22.32	22.24	22.23	23.10
		36	39	22.30	22.16	22.12	23.10
		75	0	22.20	22.20	22.25	23.10
	16QAM	1	0	22.42	22.40	22.35	23.10
		1	38	22.40	22.54	22.44	23.10
		1	74	22.43	22.42	22.35	23.10
		36	0	21.13	21.21	21.17	22.10
		36	18	21.14	21.27	21.24	22.10
		36	39	21.12	21.17	21.09	22.10
		75	0	21.11	21.23	21.18	22.10
	64QAM	1	0	21.49	21.60	21.44	22.10
		1	38	21.67	21.66	21.63	22.10
		1	74	21.65	21.64	21.55	22.10
		36	0	20.64	20.64	20.60	21.10
		36	18	20.75	20.67	20.64	21.10
		36	39	20.55	20.66	20.49	21.10
		75	0	20.67	20.69	20.56	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	22.62	22.59	22.56	23.60
		1	50	**22.80**	22.75	22.60	23.60
		1	99	22.34	22.44	22.57	23.60
		50	0	22.20	22.25	22.23	23.10
		50	25	**22.30**	22.20	22.20	23.10
		50	50	22.26	22.12	22.09	23.10
		100	0	22.19	22.13	22.20	23.10
	16QAM	1	0	22.28	22.37	22.30	23.10
		1	50	22.37	22.53	22.41	23.10

		1	99	22.41	22.37	22.33	23.10
		50	0	21.10	21.20	21.15	22.10
		50	25	21.10	21.24	21.20	22.10
		50	50	21.10	21.13	21.06	22.10
		100	0	21.09	21.19	21.15	22.10
	64QAM	1	0	21.44	21.53	21.39	22.10
		1	50	21.64	21.61	21.60	22.10
		1	99	21.59	21.59	21.53	22.10
		50	0	20.61	20.63	20.54	21.10
		50	25	20.71	20.64	20.60	21.10
		50	50	20.53	20.62	20.46	21.10
		100	0	20.65	20.65	20.53	21.10

LTE FDD Band 2 Receiver on / Simultaneous Wi-Fi + body SAR /Hotspot				**Maximum Output Power (dBm)**			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
1.4MHz	QPSK	1	0	19.32	19.18	19.25	20.10
		1	2	19.43	19.52	19.40	20.10
		1	5	19.20	19.16	19.18	20.10
		3	0	19.25	19.43	19.03	20.10
		3	2	19.35	19.36	19.38	20.10
		3	3	19.28	19.32	19.39	20.10
		6	0	19.33	19.38	19.19	20.10
	16QAM	1	0	19.10	19.15	19.18	20.10
		1	2	19.23	19.22	19.30	20.10
		1	5	19.03	19.15	19.09	20.10
		3	0	19.21	19.26	19.36	20.10
		3	2	19.20	19.16	19.27	20.10
		3	3	19.11	19.11	19.14	20.10
		6	0	19.16	19.24	19.26	20.10
	64QAM	1	0	19.24	19.32	19.30	20.10
		1	2	19.44	19.35	19.35	20.10
		1	5	19.41	19.27	19.33	20.10
		3	0	19.32	19.38	19.37	20.10
		3	2	19.38	19.39	19.31	20.10
		3	3	19.43	19.39	19.37	20.10
		6	0	19.41	19.35	19.42	20.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	19.31	19.20	19.24	20.10
		1	7	19.41	19.50	19.41	20.10

		1	14	19.20	19.16	19.18	20.10
		8	0	19.26	19.45	19.06	20.10
		8	4	19.36	19.40	19.39	20.10
		8	7	19.30	19.35	19.39	20.10
		15	0	19.33	19.41	19.20	20.10
	16QAM	1	0	19.10	19.13	19.18	20.10
		1	7	19.23	19.22	19.31	20.10
		1	14	19.02	19.17	19.08	20.10
		8	0	19.24	19.26	19.36	20.10
		8	4	19.22	19.18	19.29	20.10
		8	7	19.12	19.12	19.17	20.10
		15	0	19.17	19.24	19.24	20.10
	64QAM	1	0	19.24	19.30	19.30	20.10
		1	7	19.44	19.35	19.36	20.10
		1	14	19.40	19.29	19.32	20.10
		8	0	19.35	19.38	19.37	20.10
		8	4	19.40	19.41	19.33	20.10
		8	7	19.44	19.40	19.40	20.10
		15	0	19.41	19.37	19.42	20.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up
				18625/1852.5	18900/1880	19175/1907.5	Limit
5MHz	QPSK	1	0	19.34	19.22	19.28	20.10
		1	13	19.43	19.54	19.44	20.10
		1	24	19.23	19.21	19.22	20.10
		12	0	19.29	19.50	19.10	20.10
		12	6	19.38	19.44	19.44	20.10
		12	13	19.32	19.37	19.43	20.10
		25	0	19.35	19.42	19.22	20.10
	16QAM	1	0	19.13	19.17	19.21	20.10
		1	13	19.26	19.24	19.34	20.10
		1	24	19.05	19.19	19.12	20.10
		12	0	19.26	19.30	19.39	20.10
		12	6	19.25	19.23	19.33	20.10
		12	13	19.15	19.17	19.21	20.10
		25	0	19.19	19.28	19.29	20.10
	64QAM	1	0	19.27	19.34	19.33	20.10
		1	13	19.47	19.37	19.39	20.10
		1	24	19.43	19.31	19.36	20.10
		12	0	19.37	19.42	19.40	20.10
		12	6	19.43	19.46	19.37	20.10
		12	13	19.47	19.45	19.44	20.10
		25	0	19.43	19.41	19.47	20.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up

				18650/1855	18900/1880	19150/1905	Limit
10MHz	QPSK	1	0	19.32	19.19	19.26	20.10
		1	25	19.42	19.54	19.43	20.10
		1	49	19.21	19.18	19.20	20.10
		25	0	19.27	19.49	19.08	20.10
		25	13	19.38	19.43	19.42	20.10
		25	25	19.30	19.35	19.43	20.10
		50	0	19.33	19.42	19.21	20.10
	16QAM	1	0	19.09	19.11	19.18	20.10
		1	25	19.25	19.25	19.29	20.10
		1	49	19.03	19.15	19.10	20.10
		25	0	19.22	19.30	19.37	20.10
		25	13	19.21	19.17	19.30	20.10
		25	25	19.14	19.16	19.16	20.10
		50	0	19.16	19.26	19.24	20.10
	64QAM	1	0	19.24	19.29	19.31	20.10
		1	25	19.46	19.37	19.36	20.10
		1	49	19.40	19.26	19.33	20.10
		25	0	19.37	19.42	19.36	20.10
		25	13	19.38	19.42	19.32	20.10
		25	25	19.45	19.41	19.43	20.10
		50	0	19.43	19.40	19.43	20.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	19.32	19.17	19.25	20.10
		1	38	19.42	19.54	19.42	20.10
		1	74	19.19	19.15	19.17	20.10
		36	0	19.27	19.46	19.07	20.10
		36	18	19.36	19.40	19.39	20.10
		36	39	19.29	19.36	19.40	20.10
		75	0	19.36	19.39	19.19	20.10
	16QAM	1	0	19.07	19.14	19.18	20.10
		1	38	19.24	19.23	19.32	20.10
		1	74	19.02	19.15	19.08	20.10
		36	0	19.24	19.29	19.37	20.10
		36	18	19.21	19.17	19.28	20.10
		36	39	19.13	19.13	19.18	20.10
		75	0	19.17	19.24	19.24	20.10
	64QAM	1	0	19.21	19.31	19.30	20.10
		1	38	19.45	19.36	19.37	20.10
		1	74	19.40	19.27	19.32	20.10
		36	0	19.35	19.41	19.38	20.10
		36	18	19.39	19.40	19.32	20.10

		36	39	19.45	19.41	19.41	20.10
		75	0	19.41	19.37	19.42	20.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	19.29	19.13	19.22	20.10
		1	50	19.41	**19.60**	19.40	20.10
		1	99	19.17	19.14	19.14	20.10
		50	0	19.24	**19.41**	19.03	20.10
		50	25	19.34	19.36	19.36	20.10
		50	50	19.26	19.31	19.36	20.10
		100	0	19.33	19.34	19.15	20.10
	16QAM	1	0	19.05	19.10	19.13	20.10
		1	50	19.20	19.21	19.28	20.10
		1	99	19.00	19.12	19.06	20.10
		50	0	19.21	19.25	19.34	20.10
		50	25	19.18	19.15	19.25	20.10
		50	50	19.10	19.08	19.14	20.10
		100	0	19.15	19.20	19.21	20.10
	64QAM	1	0	19.19	19.27	19.25	20.10
		1	50	19.41	19.34	19.33	20.10
		1	99	19.38	19.24	19.30	20.10
		50	0	19.32	19.37	19.35	20.10
		50	25	19.36	19.38	19.29	20.10
		50	50	19.42	19.36	19.37	20.10
		100	0	19.39	19.33	19.39	20.10

LTE FDD Band 4 Receiver off-body SAR				**Maximum Output Power(dBm)**			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	23.23	23.31	23.24	24.00
		1	2	23.36	23.38	23.35	24.00
		1	5	23.14	23.12	23.17	24.00
		3	0	23.78	23.90	23.81	24.00
		3	2	23.84	23.94	23.91	24.00
		3	3	23.89	23.76	23.85	24.00
		6	0	22.85	22.92	22.97	23.50
	16QAM	1	0	23.05	23.00	22.96	23.50
		1	2	23.03	23.10	23.04	23.50
		1	5	22.93	22.87	22.89	23.50
		3	0	22.78	22.82	22.85	23.50
		3	2	22.86	22.93	22.90	23.50

		3	3	22.75	22.72	22.77	23.50
		6	0	21.86	21.87	21.93	22.50
	64QAM	1	0	22.00	22.05	21.95	22.50
		1	2	22.13	22.03	22.07	22.50
		1	5	22.05	21.84	21.76	22.50
		3	0	21.99	22.00	21.96	22.50
		3	2	22.14	22.01	22.14	22.50
		3	3	22.05	22.11	22.06	22.50
		6	0	21.07	21.11	21.12	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	23.23	23.30	23.24	24.00
		1	7	23.33	23.41	23.37	24.00
		1	14	23.13	23.11	23.16	24.00
		8	0	22.86	22.98	22.91	23.50
		8	4	22.94	23.00	22.98	23.50
		8	7	22.96	22.86	22.92	23.50
		15	0	22.87	22.93	22.97	23.50
	16QAM	1	0	23.02	22.99	22.96	23.50
		1	7	23.04	23.09	23.06	23.50
		1	14	22.92	22.87	22.88	23.50
		8	0	21.87	21.94	21.95	22.50
		8	4	21.93	22.00	21.97	22.50
		8	7	21.83	21.80	21.87	22.50
		15	0	21.87	21.87	21.91	22.50
	64QAM	1	0	21.97	22.04	21.95	22.50
		1	7	22.14	22.02	22.07	22.50
		1	14	22.08	21.82	21.79	22.50
		8	0	21.10	21.16	21.10	21.50
		8	4	21.22	21.10	21.24	21.50
		8	7	21.13	21.19	21.16	21.50
		15	0	21.08	21.11	21.10	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19975/1712.5	20175/1732.5	20375/1752.5	
5MHz	QPSK	1	0	23.24	23.34	23.26	24.00
		1	13	23.35	23.42	23.40	24.00
		1	24	23.16	23.16	23.20	24.00
		12	0	22.88	23.02	22.94	23.50
		12	6	22.97	23.05	23.02	23.50
		12	13	22.99	22.89	22.96	23.50
		25	0	22.89	22.97	23.02	23.50
	16QAM	1	0	23.07	23.01	22.98	23.50
		1	13	23.06	23.12	23.08	23.50

		1	24	22.95	22.91	22.91	23.50
		12	0	21.90	21.96	21.98	22.50
		12	6	21.96	22.05	22.01	22.50
		12	13	21.85	21.84	21.90	22.50
		25	0	21.90	21.92	21.95	22.50
	64QAM	1	0	22.02	22.06	21.97	22.50
		1	13	22.16	22.05	22.09	22.50
		1	24	22.07	21.83	21.78	22.50
		12	0	21.11	21.14	21.09	21.50
		12	6	21.24	21.13	21.25	21.50
		12	13	21.15	21.23	21.19	21.50
		25	0	21.11	21.16	21.14	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	23.22	23.33	23.23	24.00
		1	25	23.32	23.37	23.36	24.00
		1	49	23.14	23.12	23.17	24.00
		25	0	22.85	22.97	22.90	23.50
		25	13	22.94	23.00	22.98	23.50
		25	25	22.97	22.85	22.91	23.50
		50	0	22.85	22.95	22.98	23.50
	16QAM	1	0	23.05	22.98	22.96	23.50
		1	25	23.03	23.08	23.05	23.50
		1	49	22.92	22.89	22.88	23.50
		25	0	21.87	21.91	21.94	22.50
		25	13	21.94	22.01	21.98	22.50
		25	25	21.82	21.79	21.86	22.50
		50	0	21.87	21.87	21.91	22.50
	64QAM	1	0	22.00	22.07	21.95	22.50
		1	25	22.13	22.05	22.06	22.50
		1	49	22.08	21.81	21.75	22.50
		25	0	21.08	21.09	21.09	21.50
		25	13	21.22	21.09	21.22	21.50
		25	25	21.12	21.18	21.15	21.50
		50	0	21.08	21.11	21.10	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	23.25	23.35	23.27	24.00
		1	38	23.34	23.41	23.39	24.00
		1	74	23.17	23.17	23.21	24.00
		36	0	22.88	23.02	22.94	23.50
		36	18	22.96	23.04	23.03	23.50
		36	39	22.99	22.87	22.95	23.50

		75	0	22.85	22.96	23.00	23.50
	16QAM	1	0	23.08	23.02	22.99	23.50
		1	38	23.06	23.10	23.08	23.50
		1	74	22.95	22.91	22.92	23.50
		36	0	21.89	21.95	21.97	22.50
		36	18	21.97	22.06	22.02	22.50
		36	39	21.85	21.84	21.90	22.50
		75	0	21.89	21.91	21.96	22.50
	64QAM	1	0	22.03	22.07	21.98	22.50
		1	38	22.16	22.03	22.09	22.50
		1	74	22.07	21.83	21.79	22.50
		36	0	21.10	21.13	21.08	21.50
		36	18	21.25	21.14	21.26	21.50
		36	39	21.15	21.23	21.19	21.50
		75	0	21.10	21.15	21.15	21.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	23.20	23.26	23.21	24.00
		1	50	23.32	**23.37**	23.35	24.00
		1	99	23.11	23.10	23.13	24.00
		50	0	22.83	22.93	22.87	23.50
		50	25	22.92	**22.96**	22.95	23.50
		50	50	22.93	22.81	22.88	23.50
		100	0	22.84	22.88	22.93	23.50
	16QAM	1	0	22.98	22.95	22.91	23.50
		1	50	23.00	23.07	23.02	23.50
		1	99	22.90	22.84	22.86	23.50
		50	0	21.84	21.90	21.92	22.50
		50	25	21.90	21.98	21.94	22.50
		50	50	21.80	21.75	21.83	22.50
		100	0	21.85	21.83	21.88	22.50
	64QAM	1	0	21.95	22.00	21.90	22.50
		1	50	22.10	22.00	22.03	22.50
		1	99	22.02	21.76	21.73	22.50
		50	0	21.05	21.08	21.03	21.50
		50	25	21.18	21.06	21.18	21.50
		50	50	21.10	21.14	21.12	21.50
		100	0	21.06	21.07	21.07	21.50

LTE FDD Band 4 Receiver on				**Maximum Output Power(dBm)**			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	

1.4MHz	QPSK	1	0	19.88	19.99	19.97	20.50
		1	2	19.94	20.05	20.01	20.50
		1	5	19.73	19.69	19.62	20.50
		3	0	19.89	20.07	19.91	20.50
		3	2	19.56	19.93	20.00	20.50
		3	3	19.99	19.96	19.97	20.50
		6	0	19.90	20.00	20.01	20.50
	16QAM	1	0	20.06	20.10	20.07	20.50
		1	2	20.02	20.18	20.12	20.50
		1	5	19.85	19.90	19.85	20.50
		3	0	19.86	19.96	19.95	20.50
		3	2	19.99	19.95	20.03	20.50
		3	3	19.93	19.89	19.96	20.50
		6	0	19.95	19.95	20.02	20.50
	64QAM	1	0	20.09	20.12	20.10	20.50
		1	2	20.01	20.12	20.10	20.50
		1	5	19.83	19.90	19.84	20.50
		3	0	19.81	19.92	19.92	20.50
		3	2	19.98	19.94	20.03	20.50
		3	3	19.89	19.91	19.93	20.50
		6	0	19.92	19.93	20.01	20.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	19.90	20.03	20.00	20.50
		1	7	19.94	20.07	20.05	20.50
		1	14	19.76	19.74	19.66	20.50
		8	0	19.93	20.14	19.98	20.50
		8	4	19.59	20.01	20.06	20.50
		8	7	20.03	20.01	20.01	20.50
		15	0	19.92	20.04	20.04	20.50
	16QAM	1	0	20.09	20.12	20.10	20.50
		1	7	20.05	20.20	20.16	20.50
		1	14	19.87	19.94	19.88	20.50
		8	0	19.91	20.00	19.98	20.50
		8	4	20.04	20.02	20.09	20.50
		8	7	19.97	19.95	20.03	20.50
		15	0	19.98	19.99	20.05	20.50
	64QAM	1	0	20.12	20.14	20.13	20.50
		1	7	20.04	20.14	20.14	20.50
		1	14	19.85	19.94	19.87	20.50
		8	0	19.86	19.96	19.95	20.50
		8	4	20.03	20.01	20.09	20.50
		8	7	19.93	19.97	20.00	20.50

		15	0	19.94	19.99	20.06	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19975/1712.5	20175/1732.5	20375/1752.5	
5MHz	QPSK	1	0	19.87	20.01	19.96	20.50
		1	13	19.92	20.03	20.02	20.50
		1	24	19.73	19.69	19.62	20.50
		12	0	19.90	20.09	19.94	20.50
		12	6	19.57	19.97	20.01	20.50
		12	13	20.01	19.99	19.97	20.50
		25	0	19.90	20.03	20.02	20.50
	16QAM	1	0	20.06	20.08	20.07	20.50
		1	13	20.02	20.18	20.13	20.50
		1	24	19.84	19.92	19.84	20.50
		12	0	19.89	19.96	19.95	20.50
		12	6	20.01	19.97	20.05	20.50
		12	13	19.94	19.90	19.99	20.50
		25	0	19.96	19.95	20.00	20.50
	64QAM	1	0	20.09	20.10	20.10	20.50
		1	13	20.01	20.12	20.11	20.50
		1	24	19.82	19.92	19.83	20.50
		12	0	19.84	19.92	19.92	20.50
		12	6	20.00	19.96	20.05	20.50
		12	13	19.90	19.92	19.96	20.50
		25	0	19.92	19.95	20.01	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	19.88	20.00	19.98	20.50
		1	25	19.93	20.07	20.04	20.50
		1	49	19.74	19.71	19.64	20.50
		25	0	19.91	20.13	19.96	20.50
		25	13	19.59	20.00	20.04	20.50
		25	25	20.01	19.99	20.01	20.50
		50	0	19.90	20.04	20.03	20.50
	16QAM	1	0	20.05	20.06	20.07	20.50
		1	25	20.04	20.21	20.11	20.50
		1	49	19.85	19.90	19.86	20.50
		25	0	19.87	20.00	19.96	20.50
		25	13	20.00	19.96	20.06	20.50
		25	25	19.96	19.94	19.98	20.50
		50	0	19.95	19.97	20.00	20.50
	64QAM	1	0	20.09	20.09	20.11	20.50
		1	25	20.03	20.14	20.11	20.50
		1	49	19.82	19.89	19.84	20.50

		25	0	19.86	19.96	19.91	20.50
		25	13	19.98	19.97	20.04	20.50
		25	25	19.91	19.93	19.99	20.50
		50	0	19.94	19.98	20.02	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	19.88	19.98	19.97	20.50
		1	38	19.93	20.07	20.03	20.50
		1	74	19.72	19.68	19.61	20.50
		36	0	19.91	20.10	19.95	20.50
		36	18	19.57	19.97	20.01	20.50
		36	39	20.00	20.00	19.98	20.50
		75	0	19.93	20.01	20.01	20.50
	16QAM	1	0	20.03	20.09	20.07	20.50
		1	38	20.03	20.19	20.14	20.50
		1	74	19.84	19.90	19.84	20.50
		36	0	19.89	19.99	19.96	20.50
		36	18	20.00	19.96	20.04	20.50
		36	39	19.95	19.91	20.00	20.50
		75	0	19.96	19.95	20.00	20.50
	64QAM	1	0	20.06	20.11	20.10	20.50
		1	38	20.02	20.13	20.12	20.50
		1	74	19.82	19.90	19.83	20.50
		36	0	19.84	19.95	19.93	20.50
		36	18	19.99	19.95	20.04	20.50
		36	39	19.91	19.93	19.97	20.50
		75	0	19.92	19.95	20.01	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	19.85	19.94	19.94	20.50
		1	50	19.92	**20.03**	20.01	20.50
		1	99	19.70	19.67	19.58	20.50
		50	0	19.88	**20.05**	19.91	20.50
		50	25	19.55	19.93	19.98	20.50
		50	50	19.97	19.95	19.94	20.50
		100	0	19.90	19.96	19.97	20.50
	16QAM	1	0	20.01	20.05	20.02	20.50
		1	50	19.99	20.17	20.10	20.50
		1	99	19.82	19.87	19.82	20.50
		50	0	19.86	19.95	19.93	20.50
		50	25	19.97	19.94	20.01	20.50
		50	50	19.92	19.86	19.96	20.50
		100	0	19.94	19.91	19.97	20.50

	64QAM	1	0	20.04	20.07	20.05	20.50
		1	50	19.98	20.11	20.08	20.50
		1	99	19.80	19.87	19.81	20.50
		50	0	19.81	19.91	19.90	20.50
		50	25	19.96	19.93	20.01	20.50
		50	50	19.88	19.88	19.93	20.50
		100	0	19.90	19.91	19.98	20.50

LTE FDD Band 4 Simultaneous Wi-Fi+body SAR /Hotspot				Maximum Output Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
1.4MHz	QPSK	1	0	19.41	19.47	19.37	20.00
		1	2	19.43	19.45	19.50	20.00
		1	5	19.28	19.20	19.27	20.00
		3	0	19.47	19.53	19.43	20.00
		3	2	19.44	19.45	19.54	20.00
		3	3	19.42	19.36	19.40	20.00
		6	0	19.43	19.38	19.45	20.00
	16QAM	1	0	19.51	19.58	19.41	20.00
		1	2	19.47	19.43	19.48	20.00
		1	5	19.55	19.47	19.40	20.00
		3	0	19.50	19.53	19.43	20.00
		3	2	19.49	19.49	19.46	20.00
		3	3	19.53	19.58	19.36	20.00
		6	0	19.39	19.45	19.44	20.00
	64QAM	1	0	19.56	19.59	19.53	20.00
		1	2	19.49	19.47	19.57	20.00
		1	5	19.45	19.43	19.42	20.00
		3	0	19.46	19.36	19.45	20.00
		3	2	19.52	19.57	19.42	20.00
		3	3	19.47	19.49	19.49	20.00
		6	0	19.56	19.50	19.43	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	19.41	19.46	19.37	20.00
		1	7	19.42	19.47	19.52	20.00
		1	14	19.27	19.19	19.26	20.00
		8	0	19.49	19.56	19.47	20.00
		8	4	19.45	19.49	19.55	20.00
		8	7	19.43	19.40	19.41	20.00
		15	0	19.46	19.39	19.45	20.00
	16QAM	1	0	19.48	19.57	19.41	20.00

		1	7	19.48	19.44	19.50	20.00
		1	14	19.54	19.47	19.39	20.00
		8	0	19.53	19.56	19.44	20.00
		8	4	19.50	19.50	19.47	20.00
		8	7	19.55	19.60	19.40	20.00
		15	0	19.40	19.45	19.42	20.00
	64QAM	1	0	19.53	19.58	19.53	20.00
		1	7	19.50	19.48	19.59	20.00
		1	14	19.44	19.43	19.41	20.00
		8	0	19.49	19.39	19.46	20.00
		8	4	19.53	19.58	19.43	20.00
		8	7	19.49	19.51	19.53	20.00
		15	0	19.56	19.52	19.43	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19975/1712.5	20175/1732.5	20375/1752.5	
5MHz	QPSK	1	0	19.41	19.48	19.38	20.00
		1	13	19.42	19.47	19.53	20.00
		1	24	19.29	19.22	19.29	20.00
		12	0	19.49	19.59	19.48	20.00
		12	6	19.47	19.52	19.58	20.00
		12	13	19.44	19.39	19.44	20.00
		25	0	19.43	19.42	19.47	20.00
	16QAM	1	0	19.50	19.54	19.41	20.00
		1	13	19.49	19.46	19.47	20.00
		1	24	19.55	19.47	19.41	20.00
		12	0	19.51	19.57	19.44	20.00
		12	6	19.50	19.50	19.49	20.00
		12	13	19.56	19.63	19.38	20.00
		25	0	19.39	19.47	19.42	20.00
	64QAM	1	0	19.56	19.56	19.54	20.00
		1	13	19.51	19.49	19.58	20.00
		1	24	19.44	19.42	19.42	20.00
		12	0	19.51	19.40	19.44	20.00
		12	6	19.52	19.60	19.43	20.00
		12	13	19.49	19.51	19.55	20.00
		25	0	19.58	19.55	19.44	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	19.40	19.49	19.36	20.00
		1	25	19.41	19.43	19.51	20.00
		1	49	19.28	19.20	19.27	20.00
		25	0	19.48	19.55	19.46	20.00
		25	13	19.45	19.49	19.55	20.00

		25	25	19.44	19.39	19.40	20.00
		50	0	19.43	19.41	19.46	20.00
	16QAM	1	0	19.51	19.56	19.41	20.00
		1	25	19.47	19.43	19.49	20.00
		1	49	19.54	19.49	19.39	20.00
		25	0	19.53	19.53	19.43	20.00
		25	13	19.51	19.51	19.48	20.00
		25	25	19.54	19.59	19.39	20.00
		50	0	19.40	19.45	19.42	20.00
	64QAM	1	0	19.56	19.57	19.53	20.00
		1	25	19.49	19.47	19.58	20.00
		1	49	19.44	19.45	19.41	20.00
		25	0	19.49	19.36	19.45	20.00
		25	13	19.54	19.59	19.44	20.00
		25	25	19.48	19.50	19.52	20.00
		50	0	19.56	19.52	19.43	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	19.43	19.51	19.40	20.00
		1	38	19.43	19.47	19.54	20.00
		1	74	19.31	19.25	19.31	20.00
		36	0	19.51	19.60	19.50	20.00
		36	18	19.47	19.53	19.60	20.00
		36	39	19.46	19.41	19.44	20.00
		75	0	19.45	19.42	19.48	20.00
	16QAM	1	0	19.54	19.60	19.44	20.00
		1	38	19.50	19.45	19.52	20.00
		1	74	19.57	19.51	19.43	20.00
		36	0	19.55	19.57	19.46	20.00
		36	18	19.54	19.56	19.52	20.00
		36	39	19.57	19.64	19.43	20.00
		75	0	19.42	19.49	19.47	20.00
	64QAM	1	0	19.59	19.61	19.56	20.00
		1	38	19.52	19.49	19.61	20.00
		1	74	19.47	19.47	19.45	20.00
		36	0	19.51	19.40	19.48	20.00
		36	18	19.57	19.64	19.48	20.00
		36	39	19.51	19.55	19.56	20.00
		75	0	19.58	19.56	19.48	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	19.38	19.42	19.34	20.00
		1	50	19.41	19.43	**19.50**	20.00

		1	99	19.25	19.18	19.23	20.00
		50	0	19.46	19.51	19.43	20.00
		50	25	19.43	19.45	**19.52**	20.00
		50	50	19.40	19.35	19.37	20.00
		100	0	19.43	19.34	19.41	20.00
	16QAM	1	0	19.46	19.53	19.36	20.00
		1	50	19.44	19.42	19.46	20.00
		1	99	19.52	19.44	19.37	20.00
		50	0	19.50	19.52	19.41	20.00
		50	25	19.47	19.48	19.44	20.00
		50	50	19.52	19.55	19.36	20.00
		100	0	19.38	19.41	19.39	20.00
	64QAM	1	0	19.51	19.54	19.48	20.00
		1	50	19.46	19.46	19.55	20.00
		1	99	19.42	19.40	19.39	20.00
		50	0	19.46	19.35	19.43	20.00
		50	25	19.50	19.56	19.40	20.00
		50	50	19.46	19.46	19.49	20.00
		100	0	19.54	19.48	19.40	20.00

LTE FDD Band 5 Receiver off-body SAR Simultaneous Wi-Fi+body SAR				**Maximum Output Power(dBm)**			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	23.85	23.90	24.01	25.00
		1	2	23.97	24.06	24.07	25.00
		1	5	23.89	23.89	23.94	25.00
		3	0	23.89	23.91	23.92	25.00
		3	2	23.92	23.95	23.97	25.00
		3	3	23.93	23.90	23.95	25.00
		6	0	23.00	23.04	23.03	24.00
	16QAM	1	0	23.12	23.11	23.12	24.00
		1	2	23.10	23.06	23.07	24.00
		1	5	23.05	23.22	23.04	24.00
		3	0	22.79	22.89	22.89	24.00
		3	2	22.94	22.80	23.01	24.00
		3	3	22.92	22.88	22.92	24.00
		6	0	21.95	22.02	22.05	23.00
	64QAM	1	0	22.54	22.53	22.55	23.00
		1	2	22.43	22.40	22.43	23.00
		1	5	22.55	22.67	22.62	23.00
		3	0	22.52	22.39	22.43	23.00

		3	2	22.48	22.44	22.53	23.00
		3	3	22.40	22.38	22.43	23.00
		6	0	21.49	21.56	21.49	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20415/825.5	20525/836.5	20635/847.5	
3MHz	QPSK	1	0	23.86	23.93	24.03	25.00
		1	7	23.96	24.10	24.12	25.00
		1	14	23.91	23.93	23.97	25.00
		8	0	22.99	23.03	23.05	24.00
		8	4	23.05	23.06	23.08	24.00
		8	7	23.03	23.03	23.06	24.00
		15	0	23.04	23.09	23.08	24.00
	16QAM	1	0	23.14	23.12	23.14	24.00
		1	7	23.13	23.08	23.11	24.00
		1	14	23.07	23.26	23.06	24.00
		8	0	21.91	22.03	22.02	23.00
		8	4	22.04	21.92	22.12	23.00
		8	7	22.02	22.00	22.05	23.00
		15	0	21.99	22.07	22.07	23.00
	64QAM	1	0	22.56	22.54	22.57	23.00
		1	7	22.46	22.42	22.45	23.00
		1	14	22.57	22.66	22.64	23.00
		8	0	21.64	21.53	21.56	22.00
		8	4	21.58	21.56	21.64	22.00
		8	7	21.50	21.50	21.56	22.00
		15	0	21.53	21.61	21.51	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20425/826.5	20525/836.5	20625/846.5	
5MHz	QPSK	1	0	23.87	23.94	24.04	25.00
		1	13	23.95	24.09	24.11	25.00
		1	24	23.92	23.94	23.98	25.00
		12	0	22.99	23.03	23.05	24.00
		12	6	23.04	23.05	23.09	24.00
		12	13	23.03	23.01	23.05	24.00
		25	0	23.00	23.08	23.06	24.00
	16QAM	1	0	23.15	23.13	23.15	24.00
		1	13	23.13	23.06	23.11	24.00
		1	24	23.07	23.26	23.07	24.00
		12	0	21.90	22.02	22.01	23.00
		12	6	22.05	21.93	22.13	23.00
		12	13	22.02	22.00	22.05	23.00
		25	0	21.98	22.06	22.08	23.00
	64QAM	1	0	22.57	22.55	22.58	23.00

		1	13	22.46	22.40	22.45	23.00
		1	24	22.57	22.66	22.65	23.00
		12	0	21.63	21.52	21.55	22.00
		12	6	21.59	21.57	21.65	22.00
		12	13	21.50	21.50	21.56	22.00
		25	0	21.52	21.60	21.52	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	23.82	23.85	23.98	25.00
		1	25	23.93	24.05	**24.07**	25.00
		1	49	23.86	23.87	23.90	25.00
		25	0	22.94	22.94	22.98	24.00
		25	13	23.00	22.97	**23.01**	24.00
		25	25	22.97	22.95	22.98	24.00
		50	0	22.99	23.00	22.99	24.00
	16QAM	1	0	23.00	23.06	23.07	24.00
		1	25	23.07	23.03	23.05	24.00
		1	49	23.02	23.19	23.01	24.00
		25	0	21.85	21.97	21.96	23.00
		25	13	21.98	21.85	22.05	23.00
		25	25	21.97	21.91	21.98	23.00
		50	0	21.94	21.98	22.00	23.00
	64QAM	1	0	22.49	22.48	22.50	23.00
		1	25	22.40	22.37	22.39	23.00
		1	49	22.52	22.59	22.59	23.00
		25	0	21.58	21.47	21.50	22.00
		25	13	21.52	21.49	21.57	22.00
		25	25	21.45	21.41	21.49	22.00
		50	0	21.48	21.52	21.44	22.00

LTE FDD Band 5 Receiver on / Hotspot				**Maximum Output Power(dBm)**			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20407/824.7	20525/836.5	20643/848.3	
1.4MHz	QPSK	1	0	22.95	23.02	22.97	24.00
		1	2	23.19	23.19	22.98	24.00
		1	5	22.91	22.91	22.87	24.00
		3	0	23.92	23.95	23.90	24.00
		3	2	23.87	23.93	23.91	24.00
		3	3	23.98	23.85	23.84	24.00
		6	0	23.00	22.97	23.01	24.00
	16QAM	1	0	23.29	23.11	23.09	24.00
		1	2	23.27	23.21	23.18	24.00

		1	5	23.05	23.23	23.16	24.00
		3	0	22.98	22.86	22.95	24.00
		3	2	22.88	22.92	22.94	24.00
		3	3	22.91	22.90	22.84	24.00
		6	0	21.91	21.93	22.04	23.00
	64QAM	1	0	22.40	22.45	22.43	23.00
		1	2	22.54	22.56	22.50	23.00
		1	5	22.43	22.44	22.41	23.00
		3	0	22.42	22.42	22.49	23.00
		3	2	22.41	22.37	22.34	23.00
		3	3	22.47	22.45	22.39	23.00
		6	0	21.49	21.47	21.45	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20415/825.5	20525/836.5	20635/847.5	
3MHz	QPSK	1	0	22.94	23.04	22.96	24.00
		1	7	23.15	23.18	22.99	24.00
		1	14	22.91	22.91	22.87	24.00
		8	0	22.99	23.02	22.99	24.00
		8	4	22.97	22.99	22.98	24.00
		8	7	23.06	22.94	22.90	24.00
		15	0	23.00	23.00	23.02	24.00
	16QAM	1	0	23.29	23.09	23.09	24.00
		1	7	23.27	23.19	23.19	24.00
		1	14	23.04	23.25	23.15	24.00
		8	0	22.07	21.95	22.04	23.00
		8	4	21.96	22.00	22.02	23.00
		8	7	21.98	21.97	21.93	23.00
		15	0	21.92	21.93	22.02	23.00
	64QAM	1	0	22.40	22.47	22.43	23.00
		1	7	22.54	22.58	22.49	23.00
		1	14	22.46	22.41	22.40	23.00
		8	0	21.51	21.51	21.62	22.00
		8	4	21.49	21.45	21.42	22.00
		8	7	21.54	21.52	21.48	22.00
		15	0	21.50	21.47	21.43	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20425/826.5	20525/836.5	20625/846.5	
5MHz	QPSK	1	0	22.95	23.01	22.97	24.00
		1	13	23.16	23.22	23.00	24.00
		1	24	22.90	22.90	22.86	24.00
		12	0	23.00	23.03	23.00	24.00
		12	6	22.97	22.99	22.98	24.00
		12	13	23.05	22.95	22.91	24.00

		25	0	23.02	22.98	23.01	24.00
	16QAM	1	0	23.26	23.10	23.09	24.00
		1	13	23.28	23.20	23.20	24.00
		1	24	23.04	23.23	23.15	24.00
		12	0	22.07	21.98	22.05	23.00
		12	6	21.95	21.99	22.01	23.00
		12	13	21.99	21.98	21.94	23.00
		25	0	21.92	21.93	22.02	23.00
	64QAM	1	0	22.37	22.44	22.43	23.00
		1	13	22.55	22.55	22.50	23.00
		1	24	22.46	22.42	22.44	23.00
		12	0	21.53	21.58	21.63	22.00
		12	6	21.49	21.46	21.44	22.00
		12	13	21.55	21.53	21.49	22.00
		25	0	21.50	21.47	21.43	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	22.92	22.97	22.94	24.00
		1	25	23.15	**23.18**	22.98	24.00
		1	49	22.88	22.89	22.83	24.00
		25	0	22.97	22.98	22.96	24.00
		25	13	22.95	22.95	22.95	24.00
		25	25	**23.02**	22.90	22.87	24.00
		50	0	22.99	22.93	22.97	24.00
	16QAM	1	0	23.02	23.06	23.04	24.00
		1	25	23.24	23.18	23.16	24.00
		1	49	23.02	23.20	23.13	24.00
		25	0	22.04	21.94	22.02	23.00
		25	13	21.92	21.97	21.98	23.00
		25	25	21.96	21.93	21.90	23.00
		50	0	21.90	21.89	21.99	23.00
	64QAM	1	0	22.35	22.40	22.38	23.00
		1	25	22.51	22.53	22.46	23.00
		1	49	22.40	22.36	22.38	23.00
		25	0	21.48	21.50	21.56	22.00
		25	13	21.45	21.42	21.38	22.00
		25	25	21.52	21.48	21.45	22.00
		50	0	21.48	21.43	21.40	22.00

LTE FDD Band 7 Receiver off-body SAR				**Maximum Output Power(dBm)**			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20775/2502.5	21100/2535	21425/2567.5	

	QPSK	1	0	20.67	20.84	20.85	21.50
		1	13	21.07	20.89	20.93	21.50
		1	24	20.92	20.83	20.89	21.50
		12	0	20.80	20.91	20.94	21.50
		12	6	20.89	21.01	20.95	21.50
		12	13	20.96	20.94	20.98	21.50
		25	0	20.84	20.97	20.95	21.50
	16QAM	1	0	20.73	20.68	20.77	21.50
		1	13	20.71	20.93	20.79	21.50
		1	24	20.72	20.95	20.76	21.50
5MHz		12	0	21.03	20.89	20.74	21.50
		12	6	21.01	20.97	20.69	21.50
		12	13	20.83	20.91	20.77	21.50
		25	0	20.84	20.95	20.89	21.50
	64QAM	1	0	20.96	20.92	20.92	21.50
		1	13	20.80	20.96	20.67	21.50
		1	24	20.80	20.92	20.87	21.50
		12	0	20.80	20.89	20.99	21.50
		12	6	20.85	20.95	20.95	21.50
		12	13	20.89	20.89	20.81	21.50
		25	0	20.79	20.90	20.88	21.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
	QPSK	1	0	20.69	20.85	20.88	21.50
		1	25	21.10	20.94	20.97	21.50
		1	49	20.94	20.87	20.92	21.50
		25	0	20.83	20.96	20.98	21.50
		25	13	20.92	21.06	20.99	21.50
		25	25	20.98	20.98	21.03	21.50
		50	0	20.88	20.99	20.99	21.50
	16QAM	1	0	20.75	20.71	20.79	21.50
		1	25	20.74	20.97	20.82	21.50
		1	49	20.75	20.97	20.79	21.50
10MHz		25	0	21.06	20.94	20.78	21.50
		25	13	21.03	21.01	20.72	21.50
		25	25	20.86	20.96	20.81	21.50
		50	0	20.87	21.00	20.93	21.50
	64QAM	1	0	20.98	20.91	20.94	21.50
		1	25	20.83	20.96	20.70	21.50
		1	49	20.79	20.94	20.90	21.50
		25	0	20.83	20.94	20.99	21.50
		25	13	20.87	20.99	20.98	21.50
		25	25	20.92	20.94	20.85	21.50

		50	0	20.82	20.95	20.92	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	20.68	20.81	20.86	21.50
		1	38	21.08	20.93	20.94	21.50
		1	74	20.91	20.82	20.88	21.50
		36	0	20.81	20.92	20.95	21.50
		36	18	20.89	21.01	20.95	21.50
		36	39	20.95	20.95	20.99	21.50
		75	0	20.86	20.95	20.94	21.50
	16QAM	1	0	20.70	20.69	20.77	21.50
		1	38	20.72	20.94	20.80	21.50
		1	74	20.72	20.93	20.76	21.50
		36	0	21.03	20.92	20.75	21.50
		36	18	21.00	20.96	20.68	21.50
		36	39	20.84	20.92	20.78	21.50
		75	0	20.84	20.95	20.89	21.50
	64QAM	1	0	20.93	20.89	20.92	21.50
		1	38	20.81	20.93	20.68	21.50
		1	74	20.80	20.93	20.91	21.50
		36	0	20.82	20.96	21.00	21.50
		36	18	20.85	20.96	20.97	21.50
		36	39	20.90	20.90	20.82	21.50
		75	0	20.79	20.90	20.88	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	20.65	20.77	20.83	21.50
		1	50	**21.07**	20.89	20.92	21.50
		1	99	20.89	20.81	20.85	21.50
		50	0	20.78	20.87	20.91	21.50
		50	25	20.87	**20.97**	20.92	21.50
		50	50	20.92	20.90	20.95	21.50
		100	0	20.83	20.90	20.90	21.50
	16QAM	1	0	20.92	20.65	20.72	21.50
		1	50	20.68	20.92	20.76	21.50
		1	99	20.70	20.90	20.74	21.50
		50	0	21.00	20.88	20.72	21.50
		50	25	20.97	20.94	20.65	21.50
		50	50	20.81	20.87	20.74	21.50
		100	0	20.82	20.91	20.86	21.50
	64QAM	1	0	20.91	20.85	20.87	21.50
		1	50	20.77	20.91	20.64	21.50
		1	99	20.74	20.87	20.85	21.50

		50	0	20.77	20.88	20.93	21.50
		50	25	20.81	20.92	20.91	21.50
		50	50	20.87	20.85	20.78	21.50
		100	0	20.77	20.86	20.85	21.50

LTE FDD Band 7 Simultaneous Wi-Fi + body SAR				Maximum Output Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	18.81	18.85	18.91	19.50
		1	13	18.96	18.92	18.95	19.50
		1	24	18.92	18.89	18.95	19.50
		12	0	18.89	18.99	18.99	19.50
		12	6	18.97	18.98	18.97	19.50
		12	13	19.01	19.02	18.95	19.50
		25	0	18.89	19.06	18.98	19.50
	16QAM	1	0	18.89	18.88	19.08	19.50
		1	13	18.87	19.02	18.84	19.50
		1	24	18.86	19.03	18.84	19.50
		12	0	19.03	18.97	18.89	19.50
		12	6	19.12	18.95	18.87	19.50
		12	13	19.02	18.92	18.89	19.50
		25	0	18.84	19.05	18.96	19.50
	64QAM	1	0	18.94	18.90	19.02	19.50
		1	13	18.89	18.99	18.88	19.50
		1	24	18.91	18.83	18.84	19.50
		12	0	19.02	18.92	18.98	19.50
		12	6	18.86	18.92	18.78	19.50
		12	13	18.83	18.94	18.83	19.50
		25	0	18.96	18.97	18.69	19.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	18.83	18.86	18.94	19.50
		1	25	18.99	18.97	18.99	19.50
		1	49	18.94	18.93	18.98	19.50
		25	0	18.92	19.04	19.03	19.50
		25	13	19.00	19.03	19.01	19.50
		25	25	19.03	19.06	19.00	19.50
		50	0	18.93	19.08	19.02	19.50
	16QAM	1	0	18.91	18.91	19.10	19.50
		1	25	18.90	19.06	18.87	19.50
		1	49	18.89	19.05	18.87	19.50
		25	0	19.06	19.02	18.93	19.50

		25	13	19.14	18.99	18.90	19.50
		25	25	19.05	18.97	18.93	19.50
		50	0	18.87	19.10	19.00	19.50
	64QAM	1	0	18.96	18.89	19.04	19.50
		1	25	18.92	18.99	18.91	19.50
		1	49	18.90	18.85	18.87	19.50
		25	0	19.05	18.97	18.98	19.50
		25	13	18.88	18.96	18.81	19.50
		25	25	18.86	18.99	18.87	19.50
		50	0	18.99	19.02	18.73	19.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	18.82	18.82	18.92	19.50
		1	38	18.97	18.96	18.96	19.50
		1	74	18.91	18.88	18.94	19.50
		36	0	18.90	19.00	19.00	19.50
		36	18	18.97	18.98	18.97	19.50
		36	39	19.00	19.03	18.96	19.50
		75	0	18.91	19.04	18.97	19.50
	16QAM	1	0	18.86	18.89	19.08	19.50
		1	38	18.88	19.03	18.85	19.50
		1	74	18.86	19.01	18.84	19.50
		36	0	19.03	19.00	18.90	19.50
		36	18	19.11	18.94	18.86	19.50
		36	39	19.03	18.93	18.90	19.50
		75	0	18.84	19.05	18.96	19.50
	64QAM	1	0	18.91	18.87	19.02	19.50
		1	38	18.90	18.96	18.89	19.50
		1	74	18.91	18.84	18.88	19.50
		36	0	19.04	18.99	18.99	19.50
		36	18	18.86	18.93	18.80	19.50
		36	39	18.84	18.95	18.84	19.50
		75	0	18.96	18.97	18.69	19.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	18.79	18.78	18.89	19.50
		1	50	**18.96**	18.92	18.94	19.50
		1	99	18.89	18.87	18.91	19.50
		50	0	18.87	18.95	18.96	19.50
		50	25	18.95	18.94	18.94	19.50
		50	50	18.97	**18.98**	18.92	19.50
		100	0	18.88	18.99	18.93	19.50
	16QAM	1	0	19.04	18.85	19.03	19.50

		1	50	18.84	19.01	18.81	19.50
		1	99	18.84	18.98	18.82	19.50
		50	0	19.00	18.96	18.87	19.50
		50	25	19.08	18.92	18.83	19.50
		50	50	19.00	18.88	18.86	19.50
		100	0	18.82	19.01	18.93	19.50
	64QAM	1	0	18.89	18.83	18.97	19.50
		1	50	18.86	18.94	18.85	19.50
		1	99	18.85	18.78	18.82	19.50
		50	0	18.99	18.91	18.92	19.50
		50	25	18.82	18.89	18.74	19.50
		50	50	18.81	18.90	18.80	19.50
		100	0	18.94	18.93	18.66	19.50

LTE FDD Band 7 Receiver on / Hotspot				Maximum Output Power(dBm)			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				20775/2502.5	21100/2535	21425/2567.5	
5MHz	QPSK	1	0	17.50	17.56	17.53	18.25
		1	13	17.74	17.76	17.63	18.25
		1	24	17.72	17.60	17.64	18.25
		12	0	17.66	17.80	17.70	18.25
		12	6	17.63	17.82	17.75	18.25
		12	13	17.74	17.75	17.77	18.25
		25	0	17.67	17.83	17.78	18.25
	16QAM	1	0	17.43	17.74	17.66	18.25
		1	13	17.41	17.80	17.55	18.25
		1	24	17.47	17.74	17.52	18.25
		12	0	17.56	17.66	17.68	18.25
		12	6	17.73	17.76	17.72	18.25
		12	13	17.80	17.76	17.65	18.25
		25	0	17.61	17.81	17.77	18.25
	64QAM	1	0	17.44	17.74	17.46	18.25
		1	13	17.35	17.85	17.34	18.25
		1	24	17.59	17.80	17.56	18.25
		12	0	17.70	17.68	17.73	18.25
		12	6	17.68	17.74	17.60	18.25
		12	13	17.50	17.76	17.77	18.25
		25	0	17.73	17.72	17.74	18.25
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	17.52	17.57	17.56	18.25
		1	25	17.77	17.81	17.67	18.25

		1	49	17.74	17.64	17.67	18.25
		25	0	17.69	17.85	17.74	18.25
		25	13	17.66	17.87	17.79	18.25
		25	25	17.76	17.79	17.82	18.25
		50	0	17.71	17.85	17.82	18.25
	16QAM	1	0	17.45	17.77	17.68	18.25
		1	25	17.44	17.84	17.58	18.25
		1	49	17.50	17.76	17.55	18.25
		25	0	17.59	17.71	17.72	18.25
		25	13	17.75	17.80	17.75	18.25
		25	25	17.83	17.81	17.69	18.25
		50	0	17.64	17.86	17.81	18.25
	64QAM	1	0	17.46	17.73	17.48	18.25
		1	25	17.38	17.85	17.37	18.25
		1	49	17.58	17.82	17.59	18.25
		25	0	17.73	17.73	17.73	18.25
		25	13	17.70	17.78	17.63	18.25
		25	25	17.53	17.81	17.81	18.25
		50	0	17.76	17.77	17.78	18.25
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up
				20825/2507.5	21100/2535	21375/2562.5	Limit
15MHz	QPSK	1	0	17.51	17.53	17.54	18.25
		1	38	17.75	17.80	17.64	18.25
		1	74	17.71	17.59	17.63	18.25
		36	0	17.67	17.81	17.71	18.25
		36	18	17.63	17.82	17.75	18.25
		36	39	17.73	17.76	17.78	18.25
		75	0	17.69	17.81	17.77	18.25
	16QAM	1	0	17.40	17.75	17.66	18.25
		1	38	17.42	17.81	17.56	18.25
		1	74	17.47	17.72	17.52	18.25
		36	0	17.56	17.69	17.69	18.25
		36	18	17.72	17.75	17.71	18.25
		36	39	17.81	17.77	17.66	18.25
		75	0	17.61	17.81	17.77	18.25
	64QAM	1	0	17.41	17.71	17.46	18.25
		1	38	17.36	17.82	17.35	18.25
		1	74	17.59	17.81	17.60	18.25
		36	0	17.72	17.75	17.74	18.25
		36	18	17.68	17.75	17.62	18.25
		36	39	17.51	17.77	17.78	18.25
		75	0	17.73	17.72	17.74	18.25
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up

				20850/2510	21100/2535	21350/2560	Limit
20MHz	QPSK	1	0	17.48	17.49	17.51	18.25
		1	50	17.74	**17.76**	17.62	18.25
		1	99	17.69	17.58	17.60	18.25
		50	0	17.64	17.76	17.67	18.25
		50	25	17.61	**17.78**	17.72	18.25
		50	50	17.70	17.71	17.74	18.25
		100	0	17.66	17.76	17.73	18.25
	16QAM	1	0	17.67	17.71	17.61	18.25
		1	50	17.38	17.79	17.52	18.25
		1	99	17.45	17.69	17.50	18.25
		50	0	17.53	17.65	17.66	18.25
		50	25	17.69	17.73	17.68	18.25
		50	50	17.78	17.72	17.62	18.25
		100	0	17.59	17.77	17.74	18.25
	64QAM	1	0	17.39	17.67	17.41	18.25
		1	50	17.32	17.80	17.31	18.25
		1	99	17.53	17.75	17.54	18.25
		50	0	17.67	17.67	17.67	18.25
		50	25	17.64	17.71	17.56	18.25
		50	50	17.48	17.72	17.74	18.25
		100	0	17.71	17.68	17.71	18.25

LTE TDD Band 38 Receiver off-body SAR				**Maximum Output Power(dBm)**			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	20.83	20.89	20.83	22.25
		1	13	21.11	21.07	21.13	22.25
		1	24	20.91	20.90	20.88	22.25
		12	0	22.63	22.62	22.60	23.50
		12	6	22.69	22.75	22.69	23.50
		12	13	22.76	22.76	22.73	23.50
		25	0	22.68	22.83	22.78	23.50
	16QAM	1	0	20.82	20.60	20.57	22.00
		1	13	20.80	20.85	21.00	22.00
		1	24	20.67	20.75	20.63	22.00
		12	0	21.62	21.56	21.53	22.50
		12	6	21.63	21.72	21.55	22.50
		12	13	21.65	21.75	21.58	22.50
		25	0	21.72	21.76	21.59	22.50
	64QAM	1	0	20.27	20.44	20.21	21.00
		1	13	20.21	20.45	20.19	21.00

		1	24	20.33	20.47	20.19	21.00
		12	0	20.73	20.92	20.74	21.50
		12	6	20.86	21.04	20.80	21.50
		12	13	21.12	21.28	21.05	21.50
		25	0	21.16	21.34	21.09	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	20.85	20.90	20.86	22.25
		1	25	21.14	21.12	21.17	22.25
		1	49	20.93	20.94	20.91	22.25
		25	0	22.66	22.67	22.64	23.50
		25	13	22.72	22.80	22.73	23.50
		25	25	22.78	22.80	22.78	23.50
		50	0	22.72	22.85	22.82	23.50
	16QAM	1	0	20.84	20.63	20.59	22.00
		1	25	20.83	20.89	21.03	22.00
		1	49	20.70	20.77	20.66	22.00
		25	0	21.65	21.61	21.57	22.50
		25	13	21.65	21.76	21.58	22.50
		25	25	21.68	21.80	21.62	22.50
		50	0	21.75	21.81	21.63	22.50
	64QAM	1	0	20.29	20.43	20.23	21.00
		1	25	20.24	20.45	20.22	21.00
		1	49	20.32	20.49	20.22	21.00
		25	0	20.76	20.97	20.74	21.50
		25	13	20.88	21.08	20.83	21.50
		25	25	21.15	21.33	21.09	21.50
		50	0	21.19	21.39	21.13	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	20.84	20.86	20.84	22.25
		1	38	21.12	21.11	21.14	22.25
		1	74	20.90	20.89	20.87	22.25
		36	0	22.64	22.63	22.61	23.50
		36	18	22.69	22.75	22.69	23.50
		36	39	22.75	22.77	22.74	23.50
		75	0	22.70	22.81	22.77	23.50
	16QAM	1	0	20.79	20.61	20.57	22.00
		1	38	20.81	20.86	21.01	22.00
		1	74	20.67	20.73	20.63	22.00
		36	0	21.62	21.59	21.54	22.50
		36	18	21.62	21.71	21.54	22.50
		36	39	21.66	21.76	21.59	22.50

		75	0	21.72	21.76	21.59	22.50
	64QAM	1	0	20.24	20.41	20.21	21.00
		1	38	20.22	20.42	20.20	21.00
		1	74	20.33	20.48	20.23	21.00
		36	0	20.75	20.99	20.75	21.50
		36	18	20.86	21.05	20.82	21.50
		36	39	21.13	21.29	21.06	21.50
		75	0	21.16	21.34	21.09	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	20.81	20.82	20.81	22.25
		1	50	21.11	**21.17**	21.12	22.25
		1	99	20.88	20.88	20.84	22.25
		50	0	22.61	22.58	22.57	23.50
		50	25	22.67	22.71	22.66	23.50
		50	50	**22.72**	**22.72**	22.70	23.50
		100	0	22.67	22.76	22.73	23.50
	16QAM	1	0	20.66	20.57	20.52	22.00
		1	50	20.77	20.84	20.97	22.00
		1	99	20.65	20.70	20.61	22.00
		50	0	21.59	21.55	21.51	22.50
		50	25	21.59	21.69	21.51	22.50
		50	50	21.63	21.71	21.55	22.50
		100	0	21.70	21.72	21.56	22.50
	64QAM	1	0	20.22	20.37	20.16	21.00
		1	50	20.18	20.40	20.16	21.00
		1	99	20.27	20.42	20.17	21.00
		50	0	20.70	20.91	20.68	21.50
		50	25	20.82	21.01	20.76	21.50
		50	50	21.10	21.24	21.02	21.50
		100	0	21.14	21.30	21.06	21.50

LTE TDD Band 38 Receiver on/ Hotspot/ Simultaneous Wi-Fi +body SAR				**Maximum Output Power(dBm)**			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	18.38	18.47	18.33	19.75
		1	13	18.66	18.62	18.47	19.75
		1	24	18.51	18.43	18.37	19.75
		12	0	20.44	20.51	20.49	21.25
		12	6	20.52	20.55	20.56	21.25
		12	13	20.62	20.58	20.22	21.25

		25	0	20.58	20.66	20.62	21.25
	16QAM	1	0	18.84	18.22	18.38	19.75
		1	13	18.82	18.75	18.77	19.75
		1	24	18.60	18.53	18.54	19.75
		12	0	20.65	20.46	20.55	21.25
		12	6	20.69	20.51	20.60	21.25
		12	13	20.74	20.60	20.67	21.25
		25	0	20.85	20.64	20.77	21.25
	64QAM	1	0	18.37	18.27	18.31	19.75
		1	13	18.59	18.54	18.54	19.75
		1	24	18.61	18.43	18.50	19.75
		12	0	20.50	20.40	20.47	21.25
		12	6	20.66	20.52	20.59	21.25
		12	13	20.70	20.55	20.62	21.25
		25	0	20.71	20.56	20.63	21.25
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	18.40	18.48	18.36	19.75
		1	25	18.69	18.67	18.51	19.75
		1	49	18.53	18.47	18.40	19.75
		25	0	20.47	20.56	20.53	21.25
		25	13	20.55	20.60	20.60	21.25
		25	25	20.64	20.62	20.27	21.25
		50	0	20.62	20.68	20.66	21.25
	16QAM	1	0	18.86	18.25	18.40	19.75
		1	25	18.85	18.79	18.80	19.75
		1	49	18.63	18.55	18.57	19.75
		25	0	20.68	20.51	20.59	21.25
		25	13	20.71	20.55	20.63	21.25
		25	25	20.77	20.65	20.71	21.25
		50	0	20.88	20.69	20.81	21.25
	64QAM	1	0	18.39	18.26	18.33	19.75
		1	25	18.62	18.54	18.57	19.75
		1	49	18.60	18.45	18.53	19.75
		25	0	20.53	20.45	20.47	21.25
		25	13	20.68	20.56	20.62	21.25
		25	25	20.73	20.60	20.66	21.25
		50	0	20.74	20.61	20.67	21.25
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	18.39	18.44	18.34	19.75
		1	38	18.67	18.66	18.48	19.75
		1	74	18.50	18.42	18.36	19.75

		36	0	20.45	20.52	20.50	21.25
		36	18	20.52	20.55	20.56	21.25
		36	39	20.61	20.59	20.23	21.25
		75	0	20.60	20.64	20.61	21.25
	16QAM	1	0	18.81	18.23	18.38	19.75
		1	38	18.83	18.76	18.78	19.75
		1	74	18.60	18.51	18.54	19.75
		36	0	20.65	20.49	20.56	21.25
		36	18	20.68	20.50	20.59	21.25
		36	39	20.75	20.61	20.68	21.25
		75	0	20.85	20.64	20.77	21.25
	64QAM	1	0	18.34	18.24	18.31	19.75
		1	38	18.60	18.51	18.55	19.75
		1	74	18.61	18.44	18.54	19.75
		36	0	20.52	20.47	20.48	21.25
		36	18	20.66	20.53	20.61	21.25
		36	39	20.71	20.56	20.63	21.25
		75	0	20.71	20.56	20.63	21.25
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	18.36	18.40	18.31	19.75
		1	50	18.60	**18.62**	18.46	19.75
		1	99	18.48	18.41	18.33	19.75
		50	0	20.42	20.47	20.46	21.25
		50	25	20.50	20.51	20.53	21.25
		50	50	20.58	**20.59**	20.19	21.25
		100	0	20.57	20.59	20.57	21.25
	16QAM	1	0	18.41	18.19	18.33	19.75
		1	50	18.79	18.74	18.74	19.75
		1	99	18.58	18.48	18.52	19.75
		50	0	20.62	20.45	20.53	21.25
		50	25	20.65	20.48	20.56	21.25
		50	50	20.72	20.56	20.64	21.25
		100	0	20.83	20.60	20.74	21.25
	64QAM	1	0	18.32	18.20	18.26	19.75
		1	50	18.56	18.49	18.51	19.75
		1	99	18.55	18.38	18.48	19.75
		50	0	20.47	20.39	20.41	21.25
		50	25	20.62	20.49	20.55	21.25
		50	50	20.68	20.51	20.59	21.25
		100	0	20.69	20.52	20.60	21.25

LTE TDD Band 41 Receiver off-body SAR				Maximum Output Power(dBm)					Tune-up Limit
				Channel/Frequency(MHz)					
Bandwidth	Modulation	RB size	RB offset	39675/ 2498.5	40148/ 2545.8	40620/ 2593	41093/ 2640.3	41565/ 2687.5	
5MHz	QPSK	1	0	23.01	22.96	22.80	22.97	22.59	24.00
		1	13	23.17	23.12	23.13	23.12	22.78	24.00
		1	24	23.05	23.04	22.93	22.93	22.46	24.00
		12	0	22.62	22.59	22.47	22.52	22.18	23.50
		12	6	22.64	22.61	22.54	22.52	22.16	23.50
		12	13	22.67	22.63	22.59	22.49	21.99	23.50
		25	0	22.70	22.68	22.55	22.59	22.13	23.50
	16QAM	1	0	22.71	22.30	22.45	22.68	22.12	23.50
		1	13	22.70	22.41	22.57	22.66	22.28	23.50
		1	24	22.55	22.46	22.47	22.50	22.26	23.50
		12	0	21.57	21.55	21.54	21.46	21.16	22.50
		12	6	21.51	21.57	21.47	21.53	21.18	22.50
		12	13	21.53	21.61	21.53	21.50	21.07	22.50
		25	0	21.59	21.64	21.58	21.59	21.15	22.50
	64QAM	1	0	21.72	21.65	21.59	21.86	21.83	22.50
		1	13	21.87	21.78	21.78	21.71	21.54	22.50
		1	24	21.64	21.67	21.57	20.58	20.61	22.50
		12	0	20.64	20.59	20.55	20.74	20.67	21.50
		12	6	20.78	20.75	20.68	20.79	20.71	21.50
		12	13	20.73	20.79	20.69	20.83	20.84	21.50
		25	0	20.81	20.86	20.78	20.80	20.85	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up Limit
				39700/ 2501	40160/ 2547	40620/ 2593	41080/ 2639	41540/ 2685	
10MHz	QPSK	1	0	22.99	22.95	22.77	22.96	22.58	24.00
		1	25	23.14	23.07	23.09	23.13	22.79	24.00
		1	49	23.03	23.00	22.90	22.92	22.45	24.00
		25	0	22.59	22.54	22.43	22.52	22.18	23.50
		25	13	22.61	22.56	22.50	22.53	22.17	23.50
		25	25	22.65	22.59	22.54	22.49	22.01	23.50
		50	0	22.66	22.66	22.51	22.63	22.14	23.50
	16QAM	1	0	22.69	22.27	22.43	22.67	22.11	23.50
		1	25	22.67	22.37	22.54	22.66	22.30	23.50
		1	49	22.52	22.44	22.44	22.50	22.26	23.50
		25	0	21.54	21.50	21.50	21.47	21.17	22.50
		25	13	21.49	21.53	21.44	21.52	21.17	22.50
		25	25	21.50	21.56	21.49	21.50	21.07	22.50
		50	0	21.56	21.59	21.54	21.60	21.16	22.50

	64QAM	1	0	21.70	21.66	21.57	21.85	21.82	22.50
		1	25	21.84	21.78	21.75	21.71	21.56	22.50
		1	49	21.65	21.65	21.54	20.58	20.61	22.50
		25	0	20.61	20.54	20.55	20.75	20.68	21.50
		25	13	20.76	20.71	20.65	20.78	20.70	21.50
		25	25	20.70	20.74	20.65	20.83	20.84	21.50
		50	0	20.78	20.81	20.74	20.81	20.86	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up Limit
				39725/ 2503.5	40173/ 2548.3	40620/ 2593	41068/ 2637.8	41515/ 2682.5	
15MHz	QPSK	1	0	23.00	22.92	22.78	22.94	22.57	24.00
		1	38	23.15	23.11	23.10	23.10	22.74	24.00
		1	74	23.02	22.99	22.89	22.90	22.41	24.00
		36	0	22.60	22.55	22.44	22.49	22.13	23.50
		36	18	22.61	22.56	22.50	22.50	22.12	23.50
		36	39	22.64	22.60	22.55	22.47	21.97	23.50
		75	0	22.68	22.64	22.50	22.59	22.12	23.50
	16QAM	1	0	22.66	22.28	22.43	22.65	22.08	23.50
		1	38	22.68	22.38	22.55	22.63	22.26	23.50
		1	74	22.52	22.42	22.44	22.47	22.24	23.50
		36	0	21.54	21.53	21.51	21.44	21.12	22.50
		36	18	21.48	21.52	21.43	21.50	21.13	22.50
		36	39	21.51	21.57	21.50	21.47	21.02	22.50
		75	0	21.56	21.59	21.54	21.57	21.11	22.50
	64QAM	1	0	21.67	21.63	21.57	21.83	21.83	22.50
		1	38	21.85	21.75	21.76	21.68	21.56	22.50
		1	74	21.65	21.66	21.58	20.59	20.59	22.50
		36	0	20.63	20.61	20.56	20.72	20.63	21.50
		36	18	20.76	20.72	20.67	20.76	20.66	21.50
		36	39	20.71	20.75	20.66	20.80	20.79	21.50
		75	0	20.78	20.81	20.74	20.78	20.81	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up Limit
				39750/ 2506	40185/ 2549.5	40620/ 2593	41055/ 2636.5	41490/ 2680	
	QPSK	1	0	22.97	22.88	22.75	22.92	22.50	24.00
		1	50	**23.14**	23.07	23.08	23.10	22.74	24.00
		1	99	23.00	22.98	22.86	22.87	22.39	24.00
		50	0	22.57	22.50	22.40	22.47	22.09	23.50
		50	25	22.59	22.52	22.47	22.48	22.08	23.50
		50	50	**22.61**	22.55	22.51	22.43	21.93	23.50
		100	0	22.65	22.59	22.46	22.58	22.05	23.50
	16QAM	1	0	22.49	22.24	22.38	22.45	22.05	23.50
		1	50	22.64	22.36	22.51	22.60	22.25	23.50

		1	99	22.50	22.39	22.42	22.45	22.19	23.50
		50	0	21.51	21.49	21.48	21.41	21.11	22.50
		50	25	21.45	21.50	21.40	21.46	21.10	22.50
		50	50	21.48	21.52	21.46	21.45	20.98	22.50
		100	0	21.54	21.55	21.51	21.55	21.07	22.50
	64QAM	1	0	21.65	21.59	21.52	21.78	21.76	22.50
		1	50	21.81	21.73	21.72	21.65	21.51	22.50
		1	99	21.59	21.60	21.52	20.53	20.54	22.50
		50	0	20.58	20.53	20.49	20.69	20.62	21.50
		50	25	20.72	20.68	20.61	20.72	20.63	21.50
		50	50	20.68	20.70	20.62	20.78	20.75	21.50
		100	0	20.76	20.77	20.71	20.76	20.77	21.50

LTE TDD Band 41 Simultaneous Wi-Fi + body SAR				Maximum Output Power(dBm)					Tune-up Limit
				Channel/Frequency(MHz)					
Bandwidth	Modulation	RB size	RB offset	39675/ 2498.5	40148/ 2545.8	40620/ 2593	41093/ 2640.3	41565/ 2687.5	
5MHz	QPSK	1	0	21.96	22.07	21.98	22.00	21.94	23.00
		1	13	22.22	22.25	22.17	22.15	22.13	23.00
		1	24	22.03	22.03	22.22	22.15	21.91	23.00
		12	0	22.09	21.63	22.02	21.97	22.05	23.00
		12	6	22.03	22.17	22.17	22.06	22.08	23.00
		12	13	22.10	22.19	22.11	22.11	21.95	23.00
		25	0	22.17	22.21	22.09	22.12	22.13	23.00
	16QAM	1	0	22.32	22.06	21.98	22.31	22.06	23.00
		1	13	22.30	22.25	22.21	22.29	22.25	23.00
		1	24	22.22	22.21	22.14	22.28	22.21	23.00
		12	0	21.50	21.45	21.41	21.49	21.44	22.50
		12	6	21.69	21.64	21.57	21.71	21.64	22.50
		12	13	21.68	21.66	21.60	21.72	21.67	22.50
		25	0	21.72	21.69	21.63	21.75	21.70	22.50
	64QAM	1	0	21.57	21.56	21.44	21.60	21.56	22.50
		1	13	21.75	21.74	21.66	21.74	21.74	22.50
		1	24	21.58	21.53	21.46	21.64	21.53	22.50
		12	0	21.03	20.98	20.98	21.02	20.97	21.50
		12	6	21.15	21.10	21.03	21.17	21.10	21.50
		12	13	21.13	21.11	21.05	21.17	21.12	21.50
		25	0	21.22	21.19	21.13	21.25	21.20	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up Limit
				39700/ 2501	40160/ 2547	40620/ 2593	41080/ 2639	41540/ 2685	
10MHz	QPSK	1	0	21.98	22.08	22.01	22.02	21.95	23.00

		1	25	22.25	22.30	22.21	22.18	22.18	23.00
		1	49	22.05	22.07	22.25	22.17	21.95	23.00
		25	0	22.12	21.68	22.06	22.00	22.10	23.00
		25	13	22.06	22.22	22.21	22.09	22.13	23.00
		25	25	22.12	22.23	22.16	22.13	21.99	23.00
		50	0	22.21	22.23	22.13	22.16	22.15	23.00
	16QAM	1	0	22.34	22.09	22.00	22.33	22.09	23.00
		1	25	22.33	22.29	22.24	22.32	22.29	23.00
		1	49	22.25	22.23	22.17	22.31	22.23	23.00
		25	0	21.53	21.50	21.45	21.52	21.49	22.50
		25	13	21.71	21.68	21.60	21.73	21.68	22.50
		25	25	21.71	21.71	21.64	21.75	21.72	22.50
		50	0	21.75	21.74	21.67	21.78	21.75	22.50
	64QAM	1	0	21.59	21.55	21.46	21.62	21.55	22.50
		1	25	21.78	21.74	21.69	21.77	21.74	22.50
		1	49	21.57	21.55	21.49	21.63	21.55	22.50
		25	0	21.06	21.03	20.98	21.05	21.02	21.50
		25	13	21.17	21.14	21.06	21.19	21.14	21.50
		25	25	21.16	21.16	21.09	21.20	21.17	21.50
		50	0	21.25	21.24	21.17	21.28	21.25	21.50

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up Limit
				39725/ 2503.5	40173/ 2548.3	40620/ 2593	41068/ 2637.8	41515/ 2682.5	
15MHz	QPSK	1	0	21.97	22.04	21.99	22.01	21.91	23.00
		1	38	22.23	22.29	22.18	22.16	22.17	23.00
		1	74	22.02	22.02	22.21	22.14	21.90	23.00
		36	0	22.10	21.64	22.03	21.98	22.06	23.00
		36	18	22.03	22.17	22.17	22.06	22.08	23.00
		36	39	22.09	22.20	22.12	22.10	21.96	23.00
		75	0	22.19	22.19	22.08	22.14	22.11	23.00
	16QAM	1	0	22.29	22.07	21.98	22.28	22.07	23.00
		1	38	22.31	22.26	22.22	22.30	22.26	23.00
		1	74	22.22	22.19	22.14	22.28	22.19	23.00
		36	0	21.50	21.48	21.42	21.49	21.47	22.50
		36	18	21.68	21.63	21.56	21.70	21.63	22.50
		36	39	21.69	21.67	21.61	21.73	21.68	22.50
		75	0	21.72	21.69	21.63	21.75	21.70	22.50
	64QAM	1	0	21.54	21.53	21.44	21.57	21.53	22.50
		1	38	21.76	21.71	21.67	21.75	21.71	22.50
		1	74	21.58	21.54	21.50	21.64	21.54	22.50
		36	0	21.05	21.05	20.99	21.04	21.04	21.50
		36	18	21.15	21.11	21.05	21.17	21.11	21.50
		36	39	21.14	21.12	21.06	21.18	21.13	21.50

		75	0	21.22	21.19	21.13	21.25	21.20	21.50
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up Limit
				39750/ 2506	40185/ 2549.5	40620/ 2593	41055/ 2636.5	41490/ 2680	
	QPSK	1	0	21.99	22.05	22.05	22.08	21.99	23.00
		1	50	22.27	**22.33**	22.32	22.19	22.17	23.00
		1	99	22.12	22.21	22.11	22.05	22.03	23.00
		50	0	22.13	22.14	22.09	22.08	22.05	23.00
		50	25	22.18	**22.24**	22.15	22.13	22.06	23.00
		50	50	22.15	22.19	22.23	22.12	22.01	23.00
		100	0	22.21	22.25	22.24	22.19	22.09	23.00
	16QAM	1	0	22.09	22.13	22.14	22.05	22.04	23.00
		1	50	22.30	22.37	22.31	22.33	22.19	23.00
		1	99	22.11	22.26	22.17	22.12	22.06	23.00
		50	0	21.60	21.61	21.57	21.50	21.94	22.50
		50	25	21.65	21.70	21.63	21.58	21.74	22.50
		50	50	21.62	21.61	21.67	21.60	21.65	22.50
		100	0	21.67	21.80	21.83	21.73	21.76	22.50
	64QAM	1	0	21.81	21.72	21.90	21.81	21.63	22.50
		1	50	22.02	21.98	22.09	21.97	22.22	22.50
		1	99	21.87	21.27	21.08	21.13	22.17	22.50
		50	0	21.22	21.14	21.23	21.17	21.22	21.50
		50	25	21.23	21.12	21.18	21.24	21.31	21.50
		50	50	21.20	21.24	21.17	20.94	21.02	21.50
		100	0	21.37	21.18	21.13	21.14	21.13	21.50

LTE TDD Band 41 Receiver on/ Hotspot				**Maximum Output Power(dBm)**					Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				39675/ 2498.5	40148/ 2545.8	40620/ 2593	41093/ 2640.3	41565/ 2687.5	
5MHz	QPSK	1	0	20.79	20.79	20.70	20.73	20.44	21.25
		1	13	20.99	20.95	20.86	20.57	20.59	21.25
		1	24	20.86	20.83	20.76	20.66	20.48	21.25
		12	0	20.88	20.77	20.63	20.77	20.39	21.25
		12	6	20.81	20.81	20.67	20.75	20.42	21.25
		12	13	20.80	20.76	20.75	20.77	20.49	21.25
		25	0	20.92	20.94	20.76	20.77	20.53	21.25
	16QAM	1	0	20.85	20.78	20.59	20.52	20.27	21.25
		1	13	21.01	20.83	20.90	20.74	20.59	21.25
		1	24	20.89	20.82	20.79	20.73	20.50	21.25
		12	0	20.85	20.72	20.64	20.67	20.37	21.25
		12	6	20.84	20.79	20.75	20.62	20.44	21.25

		12	13	20.74	20.81	20.75	20.68	20.48	21.25
		25	0	20.92	20.84	20.73	20.59	20.44	21.25
	64QAM	1	0	20.98	20.97	20.81	20.55	20.32	21.25
		1	13	20.88	20.79	20.62	20.78	20.60	21.25
		1	24	21.03	20.88	20.92	20.74	20.52	21.25
		12	0	20.92	20.83	20.81	20.74	20.41	21.25
		12	6	20.87	20.76	20.69	20.64	20.48	21.25
		12	13	20.84	20.81	20.76	20.70	20.50	21.25
		25	0	20.74	20.83	20.76	20.64	20.49	21.25

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up Limit
				39700/ 2501	40160/ 2547	40620/ 2593	41080/ 2639	41540/ 2685	
10MHz	QPSK	1	0	20.76	20.77	20.66	20.72	20.45	21.25
		1	25	20.97	20.91	20.83	20.56	20.55	21.25
		1	49	20.83	20.78	20.72	20.65	20.46	21.25
		25	0	20.85	20.72	20.59	20.76	20.35	21.25
		25	13	20.79	20.77	20.62	20.73	20.39	21.25
		25	25	20.78	20.74	20.71	20.77	20.49	21.25
		50	0	20.90	20.93	20.74	20.77	20.52	21.25
	16QAM	1	0	20.82	20.74	20.56	20.53	20.29	21.25
		1	25	20.98	20.81	20.87	20.72	20.56	21.25
		1	49	20.86	20.80	20.75	20.72	20.52	21.25
		25	0	20.83	20.68	20.61	20.69	20.33	21.25
		25	13	20.81	20.74	20.71	20.63	20.45	21.25
		25	25	20.71	20.76	20.71	20.66	20.44	21.25
		50	0	20.90	20.80	20.68	20.60	20.42	21.25
	64QAM	1	0	20.95	20.93	20.78	20.55	20.33	21.25
		1	25	20.85	20.77	20.59	20.76	20.58	21.25
		1	49	21.00	20.86	20.88	20.74	20.55	21.25
		25	0	20.90	20.79	20.78	20.72	20.37	21.25
		25	13	20.84	20.71	20.65	20.66	20.47	21.25
		25	25	20.81	20.76	20.72	20.69	20.49	21.25
		50	0	20.72	20.79	20.71	20.62	20.46	21.25

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up Limit
				39725/ 2503.5	40173/ 2548.3	40620/ 2593	41068/ 2637.8	41515/ 2682.5	
15MHz	QPSK	1	0	20.77	20.74	20.67	20.73	20.42	21.25
		1	38	20.98	20.95	20.84	20.57	20.59	21.25
		1	74	20.82	20.77	20.71	20.64	20.45	21.25
		36	0	20.86	20.73	20.60	20.77	20.36	21.25
		36	18	20.79	20.77	20.62	20.73	20.39	21.25
		36	39	20.77	20.75	20.72	20.76	20.50	21.25
		75	0	20.93	20.91	20.73	20.80	20.50	21.25

	16QAM	1	0	20.79	20.75	20.56	20.50	20.30	21.25
		1	38	20.99	20.82	20.88	20.73	20.57	21.25
		1	74	20.86	20.78	20.75	20.72	20.50	21.25
		36	0	20.83	20.71	20.62	20.69	20.36	21.25
		36	18	20.80	20.73	20.70	20.62	20.44	21.25
		36	39	20.72	20.77	20.72	20.67	20.45	21.25
		75	0	20.90	20.80	20.68	20.60	20.42	21.25
	64QAM	1	0	20.92	20.94	20.78	20.52	20.34	21.25
		1	38	20.86	20.78	20.60	20.77	20.59	21.25
		1	74	21.00	20.84	20.88	20.74	20.53	21.25
		36	0	20.90	20.82	20.79	20.72	20.40	21.25
		36	18	20.83	20.70	20.64	20.65	20.46	21.25
		36	39	20.82	20.77	20.73	20.70	20.50	21.25
		75	0	20.72	20.79	20.71	20.62	20.46	21.25

Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)					Tune-up Limit
				39750/ 2506	40185/ 2549.5	40620/ 2593	41055/ 2636.5	41490/ 2680	
20MHz	QPSK	1	0	20.74	20.70	20.64	20.70	20.38	21.25
		1	50	**20.97**	20.91	20.82	20.56	20.55	21.25
		1	99	20.80	20.76	20.68	20.62	20.44	21.25
		50	0	**20.83**	20.68	20.56	20.74	20.31	21.25
		50	25	20.77	20.73	20.59	20.71	20.35	21.25
		50	50	20.74	20.70	20.68	20.73	20.45	21.25
		100	0	20.90	20.86	20.69	20.77	20.45	21.25
	16QAM	1	0	20.77	20.71	20.51	20.48	20.26	21.25
		1	50	20.95	20.80	20.84	20.69	20.55	21.25
		1	99	20.84	20.75	20.73	20.70	20.47	21.25
		50	0	20.80	20.67	20.59	20.66	20.32	21.25
		50	25	20.77	20.71	20.67	20.59	20.42	21.25
		50	50	20.69	20.72	20.68	20.64	20.40	21.25
		100	0	20.88	20.76	20.65	20.58	20.38	21.25
	64QAM	1	0	20.90	20.90	20.73	20.50	20.30	21.25
		1	50	20.82	20.76	20.56	20.73	20.57	21.25
		1	99	20.98	20.81	20.86	20.72	20.50	21.25
		50	0	20.87	20.78	20.76	20.69	20.36	21.25
		50	25	20.80	20.68	20.61	20.62	20.44	21.25
		50	50	20.79	20.72	20.69	20.67	20.45	21.25
		100	0	20.70	20.75	20.68	20.60	20.42	21.25

Antenna	CA Combanation	Test Scenario	Modulation	PCC (UL)						SCC1 (UL)					Conducted Power (dbm)	Tune up (dbm)
				PCC Band	PCC BW (MHz)	PCC UL RB size	PCC UL RB offset	PCC UL Channel	PCC DL Channel	SCC Band	SCC BW (MHz)	SCC UL Channel	SCC UL RB size	SCC UL RB offset		
Main Antenna	CA _38C	receiver on / Receiver off-body SAR / With earphone	QPSK	38	20	1	99	37850	37850	38	20	38048	1	0	23.28	24.50
			QPSK	38	20	1	99	38000	38000	38	20	38198	1	0	23.10	24.50
			QPSK	38	20	1	0	38150	38150	38	20	37952	1	99	23.13	24.50
Second Antenna	CA _38C	Receiver off-body SAR	QPSK	38	20	50	50	37850	37850	38	20	38048	50	0	22.59	23.75
			QPSK	38	20	50	50	38000	38000	38	20	38198	50	0	22.38	23.75
			QPSK	38	20	50	0	38150	38150	38	20	37952	50	50	22.46	23.75
	CA _38C	Receiver on/ Hotspot/ Simultaneous Wi-Fi + body SAR	QPSK	38	20	50	50	37850	37850	38	20	38048	50	0	20.13	21.25
			QPSK	38	20	50	50	38000	38000	38	20	38198	50	0	20.27	21.25
			QPSK	38	20	50	0	38150	38150	38	20	37952	50	50	20.22	21.25

Antenna	CA Combanation	Test Scenario	Modulation	PCC (UL)						SCC1 (UL)					Conducted Power (dbm)	Tune up (dbm)
				PCC Band	PCC BW (MHz)	PCC UL RB size	PCC UL RB offset	PCC UL Channel	PCC DL Channel	SCC Band	SCC BW (MHz)	SCC UL Channel	SCC UL RB size	SCC UL RB offset		
Main Antenna	CA_41C	receiver on / Receiver off-body SAR / Simultaneous Wi-Fi + body SAR / Hotspot	QPSK	41	20	1	99	39750	39750	41	20	39948	1	0	23.31	24.50
			QPSK	41	20	1	99	40185	40185	41	20	40383	1	0	23.38	24.50
			QPSK	41	20	1	0	40185	40185	41	20	39987	1	99	23.23	24.50
			QPSK	41	20	1	99	40620	40620	41	20	40818	1	0	23.27	24.50
			QPSK	41	20	1	0	40620	40620	41	20	40422	1	99	23.25	24.50
			QPSK	41	20	1	99	41055	41055	41	20	41253	1	0	23.21	24.50
			QPSK	41	20	1	0	41055	41055	41	20	40857	1	99	23.29	24.50
			QPSK	41	20	1	0	41490	41490	41	20	41292	1	99	23.20	24.50
Second Antenna	CA_41C	Receiver off-body SAR	QPSK	41	20	1	99	39750	39750	41	20	39948	1	0	22.89	24.00
			QPSK	41	20	1	99	40185	40185	41	20	40383	1	0	22.82	24.00
			QPSK	41	20	1	0	40185	40185	41	20	39987	1	99	22.76	24.00
			QPSK	41	20	1	99	40620	40620	41	20	40818	1	0	22.85	24.00
			QPSK	41	20	1	0	40620	40620	41	20	40422	1	99	22.69	24.00
			QPSK	41	20	1	99	41055	41055	41	20	41253	1	0	22.72	24.00
			QPSK	41	20	1	0	41055	41055	41	20	40857	1	99	22.80	24.00
			QPSK	41	20	1	0	41490	41490	41	20	41292	1	99	22.75	24.00
	CA_41C	Simultaneous Wi-Fi + body SAR	QPSK	41	20	1	99	39750	39750	41	20	39948	1	0	22.11	23.00
			QPSK	41	20	1	99	40185	40185	41	20	40383	1	0	22.03	23.00
			QPSK	41	20	1	0	40185	40185	41	20	39987	1	99	22.06	23.00
			QPSK	41	20	1	99	40620	40620	41	20	40818	1	0	22.14	23.00
			QPSK	41	20	1	0	40620	40620	41	20	40422	1	99	22.09	23.00
			QPSK	41	20	1	99	41055	41055	41	20	41253	1	0	22.12	23.00

			QPSK	41	20	1	0	41055	41055	41	20	40857	1	99	22.10	23.00
			QPSK	41	20	1	0	41490	41490	41	20	41292	1	99	22.03	23.00
	CA_41C	Receiver on/ Hotspot	QPSK	41	20	1	99	39750	39750	41	20	39948	1	0	20.69	21.25
			QPSK	41	20	1	99	40185	40185	41	20	40383	1	0	20.61	21.25
			QPSK	41	20	1	0	40185	40185	41	20	39987	1	99	20.58	21.25
			QPSK	41	20	1	99	40620	40620	41	20	40818	1	0	20.63	21.25
			QPSK	41	20	1	0	40620	40620	41	20	40422	1	99	20.55	21.25
			QPSK	41	20	1	99	41055	41055	41	20	41253	1	0	20.65	21.25
			QPSK	41	20	1	0	41055	41055	41	20	40857	1	99	20.54	21.25
			QPSK	41	20	1	0	41490	41490	41	20	41292	1	99	20.59	21.25

9.4 WLAN Mode

Wi-Fi 2.4G Receiver off	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11b (1M)	1/2412	19.50	**18.10**
	6/2437	19.50	18.01
	11/2462	19.50	18.08
802.11g (6M)	1/2412	15.00	13.33
	2/2417	17.50	16.02
	3/2422	19.00	17.43
	5/2432	20.00	18.09
	6/2437	20.00	18.08
	9/2452	20.00	18.03
	10/2457	17.00	15.33
	11/2462	15.00	13.36
802.11n-HT20 (MCS0)	1/2412	15.00	13.35
	2/2417	17.50	15.78
	6/2437	19.00	17.31
	9/2452	19.00	17.19
	10/2457	17.00	15.25
	11/2462	15.00	13.03
802.11n-HT40 (MCS0)	3/2422	14.00	12.31
	4/2427	15.00	13.44
	5/2432	17.00	15.01
	6/2437	17.00	15.48
	7/2442	13.00	11.80
	9/2452	14.00	12.26
Note: Initial test configuration is 802.11b mode.			

Wi-Fi 2.4G Receiver on	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11b (1M)	1/2412	13.00	11.65
	6/2437	13.00	11.67
	11/2462	13.00	**11.80**
802.11g (6M)	1/2412	13.00	11.43
	6/2437	13.00	11.42

	11/2462	13.00	11.31
802.11n-HT20 (MCS0)	1/2412	13.00	11.27
	6/2437	13.00	11.30
	11/2462	13.00	11.40
802.11n-HT40 (MCS0)	3/2422	13.00	11.45
	6/2437	13.00	11.60
	9/2452	13.00	11.25
Note: Initial test configuration is 802.11b mode.			

Wi-Fi 5G (U-NII-1) Receiver off	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	36/5180	14.00	12.70
	40/5200	16.00	14.83
	44/5220	16.00	14.44
	48/5240	16.00	14.53
802.11n-HT20 (MCS0)	36/5180	14.00	12.10
	40/5200	16.00	14.21
	44/5220	16.00	14.26
	48/5240	16.00	14.37
802.11n-HT40 (MCS0)	38/5190	11.00	9.03
	46/5230	17.00	15.01
802.11ac-VHT20 (MCS0)	36/5180	14.00	12.07
	40/5200	16.00	14.27
	44/5220	16.00	14.35
	48/5240	16.00	14.43
802.11ac-VHT40 (MCS0)	38/5190	11.00	9.31
	46/5230	17.00	**15.42**
802.11ac-VHT80 (MCS0)	42/5210	11.00	9.02
Note. Initial test configuration is 802.11ac-VHT40 mode, since the highest maximum output power.			

Wi-Fi 5G (U-NII-1) Receiver on	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	36/5180	11.00	9.37
	40/5200	11.00	9.41
	44/5220	11.00	9.67
	48/5240	11.00	**9.76**
802.11n-HT20	36/5180	11.00	9.15

(MCS0)	40/5200	11.00	9.08
	44/5220	11.00	9.12
	48/5240	11.00	9.05
802.11n-HT40 (MCS0)	38/5190	11.00	9.11
	46/5230	11.00	9.14
802.11ac-VHT20 (MCS0)	36/5180	11.00	9.50
	40/5200	11.00	9.45
	44/5220	11.00	9.56
	48/5240	11.00	9.62
802.11ac-VHT40 (MCS0)	38/5190	11.00	9.17
	46/5230	11.00	9.22
802.11ac-VHT80 (MCS0)	42/5210	11.00	9.05
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Wi-Fi 5G (U-NII-2A) Receiver off	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	52/5260	16.00	14.60
	56/5280	16.00	14.66
	60/5300	16.00	14.74
	64/5320	15.00	13.70
802.11n-HT20 (MCS0)	52/5260	16.00	14.51
	56/5280	16.00	14.54
	60/5300	16.00	14.63
	64/5320	15.00	13.58
802.11n-HT40 (MCS0)	54/5270	17.00	15.52
	62/5310	12.00	10.33
802.11ac-HT20 (MCS0)	52/5260	16.00	15.05
	56/5280	16.00	15.03
	60/5300	16.00	15.06
	64/5320	15.00	14.11
802.11ac-HT40 (MCS0)	54/5270	17.00	**15.53**
	62/5310	12.00	10.30
802.11ac-HT80 (MCS0)	58/5290	12.00	10.21
Note. Initial test configuration is 802.11ac-HT40 mode, since the highest maximum output power.			

Wi-Fi 5G (U-NII-2A) Receiver on	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	52/5260	11.00	9.46
	56/5280	11.00	9.35
	60/5300	11.00	9.49
	64/5320	11.00	**9.54**
802.11n-HT20 (MCS0)	52/5260	11.00	8.53
	56/5280	11.00	8.56
	60/5300	11.00	8.59
	64/5320	11.00	8.64
802.11n-HT40 (MCS0)	54/5270	11.00	8.80
	62/5310	11.00	8.84
802.11ac-HT20 (MCS0)	52/5260	11.00	8.67
	56/5280	11.00	8.67
	60/5300	11.00	8.72
	64/5320	11.00	8.60
802.11ac-HT40 (MCS0)	54/5270	11.00	8.83
	62/5310	11.00	8.94
802.11ac-HT80 (MCS0)	58/5290	11.00	8.62
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Wi-Fi 5G (U-NII-2C) Receiver off	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	14.00	12.51
	104/5520	17.00	15.70
	108/5540	17.00	15.85
	116/5580	17.00	15.82
	132/5660	17.00	15.80
	140/5700	12.00	10.56
802.11n-HT20 (MCS0)	100/5500	14.00	12.62
	104/5520	17.00	15.82
	108/5540	17.00	15.80
	116/5580	17.00	15.77
	132/5660	17.00	15.71
	140/5700	12.00	10.54
802.11n-HT40	102/5510	12.00	10.56

(MCS0)	110/5550	17.00	15.81
	118/5590	17.00	15.77
	134/5670	15.00	13.74
802.11ac-HT20 (MCS0)	100/5500	14.00	12.65
	104/5520	17.00	15.75
	108/5540	17.00	15.92
	116/5580	17.00	15.79
	132/5660	17.00	15.72
	140/5700	12.00	10.51
802.11ac-HT40 (MCS0)	102/5510	12.00	10.66
	110/5550	17.00	15.93
	118/5590	17.00	15.88
	134/5670	15.00	13.76
802.11ac-HT80 (MCS0)	106/5530	11.00	9.56
	122/5610	16.00	14.85
Note. Initial test configuration is 802.11ac-HT40 mode, since the highest maximum output power			

Wi-Fi 5G (U-NII-2C) Receiver on	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	11.00	9.12
	116/5580	11.00	9.05
	132/5660	11.00	9.13
	140/5700	11.00	9.27
802.11n-HT20 (MCS0)	100/5500	11.00	8.60
	116/5580	11.00	8.74
	132/5660	11.00	8.62
	140/5700	11.00	8.72
802.11n-HT40 (MCS0)	102/5510	11.00	8.75
	110/5550	11.00	8.67
	118/5590	11.00	8.78
	134/5670	11.00	8.73
802.11ac-HT20 (MCS0)	100/5500	11.00	8.65
	116/5580	11.00	8.75
	132/5660	11.00	8.70
	140/5700	11.00	8.73
802.11ac-HT40 (MCS0)	102/5510	11.00	8.80
	110/5550	11.00	8.77
	118/5590	11.00	8.92

	134/5670	11.00	8.74
802.11ac-HT80 (MCS0)	106/5530	11.00	8.63
	122/5610	11.00	8.68
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Wi-Fi 5G (U-NII-3) Receiver off	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	149/5745	17.00	16.33
	157/5785	17.00	16.32
	165/5825	17.00	16.21
802.11n-HT20 (MCS0)	149/5745	17.00	16.20
	157/5785	17.00	16.16
	165/5825	17.00	16.12
802.11n-HT40 (MCS0)	151/5755	17.00	16.22
	159/5795	17.00	16.15
802.11ac-HT20 (MCS0)	149/5745	17.00	16.30
	157/5785	17.00	16.20
	165/5825	17.00	16.13
802.11ac-HT40 (MCS0)	151/5755	17.00	16.25
	159/5795	17.00	16.16
802.11ac-HT80 (MCS0)	155/5775	17.00	15.81
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Wi-Fi 5G (U-NII-3) Receiver on	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	149/5745	11.00	9.77
	157/5785	11.00	9.34
	165/5825	11.00	9.33
802.11n-HT20 (MCS0)	149/5745	11.00	9.21
	157/5785	11.00	9.27
	165/5825	11.00	9.20
802.11n-HT40 (MCS0)	151/5755	11.00	9.44
	159/5795	11.00	9.33
802.11ac-HT20 (MCS0)	149/5745	11.00	9.24
	157/5785	11.00	9.37

	165/5825	11.00	9.30
802.11ac-HT40 (MCS0)	151/5755	11.00	9.37
	159/5795	11.00	9.27
802.11ac-HT80 (MCS0)	155/5775	11.00	9.16
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

9.5 Bluetooth Mode

BT	Maximum Output Power (dBm)			Tune-up Limit (dBm)
	Channel/Frequency(MHz)			
	Ch 0/2402 MHz	Ch 39/2441 MHz	Ch 78/2480 MHz	
GFSK	10.56	10.84	10.64	12.50
π/4DQPSK	10.36	10.43	10.31	12.50
8DPSK	10.04	10.51	10.36	12.50
BLE	**Ch 0/2402 MHz**	**Ch 19/2440 MHz**	**Ch 39/2480 MHz**	**Tune-up Limit (dBm)**
GFSK(1M)	5.81	7.22	6.49	8.50
GFSK(2M)	5.59	7.56	6.14	8.50

10 Measured and Reported (Scaled) SAR Results

10.1 EUT Antenna Locations

The Detailed Antenna Locations refer to *Antenna Locations.*

Overall (Length x Width): 161.46 mm x74.76 mm Overall Diagonal: 171.15 mm/Display Diagonal: 161mm						
Distance of the Antenna to the EUT surface/edge						
Antenna	Back Side	Front side	Left Edge	Right Edge	Top Edge	Bottom Edge
Main-Antenna (Ant1 and Ant2)	<25mm	<25mm	<25mm	<25mm	>25mm	<25mm
Second-Antenna (Ant3, Ant4 and Ant10)	<25mm	<25mm	<25mm	>25mm	<25mm	>25mm
BT/Wi-Fi 2.4G Antenna (Ant 7)	<25mm	<25mm	>25mm	<25mm	<25mm	>25mm
Wi-Fi 5G Antenna (Ant 6)	<25mm	<25mm	>25mm	<25mm	<25mm	>25mm
Hotspot mode, Positions for SAR tests						
Mode	Back Side	Front side	Left Edge	Right Edge	Top Edge	Bottom Edge
Main-Antenna(Ant1and Ant2)	Yes	Yes	Yes	Yes	N/A	Yes
Second-Antenna (Ant3,Ant4and Ant10)	Yes	Yes	Yes	N/A	Yes	N/A
BT/Wi-Fi 2.4G Antenna	Yes	Yes	N/A	Yes	Yes	N/A
Wi-Fi 5G Antenna	Yes	Yes	N/A	Yes	Yes	N/A

Note: 1. Per KDB 941225 D06, when the overall device length and width are ≥ 9cm*5cm, the test distance is 10mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge.

2.For smart phones with an overall diagonal dimension is 171.15mm.Per KDB 648474 D04, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension> 16.0 cm, product specific 10-g SAR must be tested as a phablet to determine SAR compliance. For Phablet, Since hotspot mode 1-g *reported* SAR < 1.2 W/kg, product specific 10-g SAR is no required.

3. Per FCC KDB 447498 D01,

for each exposure position, testing of other requised channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

a) ≤0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100MHz

b) ≤0.6 W/kg or 1.5 W/kg, for1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.

c) ≤ 0.4 W/kg or 1.0 Wkg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz.

4.When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.

5. Per FCC KDB Publication 648474 D04, SAR was evaluated without a headset connected to the device. Since the reported SAR was ≤ 1.2 W/kg, no additional SAR evaluations using a headset cable were required.

10.2 Measured SAR Results

Table 9: GSM 850 (Main-antenna)

Test Position	Cover Type	Time slot	Duty Cycle	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	GSM	1:8.3	190/836.6	33.20	32.48	0.170	0.140	1.18	0.201	17
Left Tilt	standard	GSM	1:8.3	190/836.6	33.20	32.48	0.089	0.030	1.18	0.105	/
Right Cheek	standard	GSM	1:8.3	190/836.6	33.20	32.48	0.166	0.190	1.18	0.196	/
Right Tilt	standard	GSM	1:8.3	190/836.6	33.20	32.48	0.100	0.060	1.18	0.118	/
Left Cheek	Battery2	GSM	1:8.3	190/836.6	33.20	32.48	0.161	-0.030	1.18	0.190	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	GSM	1:8.3	190/836.6	33.20	32.48	0.165	0.010	1.18	0.195	18
Front Side	standard	GSM	1:8.3	190/836.6	33.20	32.48	0.139	-0.035	1.18	0.164	/
Back Side	Battery2	GSM	1:8.3	190/836.6	33.20	32.48	0.125	0.023	1.18	0.148	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	2Txslots	1:4.15	190/836.6	30.70	29.92	0.349	0.040	1.20	0.418	19
Front Side	standard	2Txslots	1:4.15	190/836.6	30.70	29.92	0.201	0.030	1.20	0.241	/
Left Edge	standard	2Txslots	1:4.15	190/836.6	30.70	29.92	0.068	0.015	1.20	0.081	/
Right Edge	standard	2Txslots	1:4.15	190/836.6	30.70	29.92	0.253	-0.037	1.20	0.303	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	2Txslots	1:4.15	190/836.6	30.70	29.92	0.109	0.048	1.20	0.130	/
Back Side	Battery2	2Txslots	1:4.15	190/836.6	30.70	29.92	0.296	0.021	1.20	0.354	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.

Table 10: GSM 1900(Main-antenna)

Test Position	Cover Type	Time slot	Duty Cycle	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	GSM	1:8.3	661/1880	30.20	29.56	0.060	0.039	1.16	0.069	20
Left Tilt	standard	GSM	1:8.3	661/1880	30.20	29.56	0.037	0.024	1.16	0.043	/
Right Cheek	standard	GSM	1:8.3	661/1880	30.20	29.56	0.055	0.022	1.16	0.063	/
Right Tilt	standard	GSM	1:8.3	661/1880	30.20	29.56	0.033	0.040	1.16	0.038	/
Left Cheek	Battery2	GSM	1:8.3	661/1880	30.20	29.56	0.058	0.011	1.16	0.067	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	GSM	1:8.3	661/1880	30.20	29.56	0.093	-0.027	1.16	0.108	21
Front Side	standard	GSM	1:8.3	661/1880	30.20	29.56	0.076	0.038	1.16	0.088	/
Back Side	Battery2	GSM	1:8.3	661/1880	30.20	29.56	0.075	0.020	1.16	0.087	/
Hotspot SARSAR (Distance 10mm)											
Back Side	standard	2Txslots	1:4.15	661/1880	27.70	26.39	0.175	0.041	1.35	0.237	/
Front Side	standard	2Txslots	1:4.15	661/1880	27.70	26.39	0.149	0.025	1.35	0.201	/
Left Edge	standard	2Txslots	1:4.15	661/1880	27.70	26.39	0.050	-0.010	1.35	0.068	/
Right Edge	standard	2Txslots	1:4.15	661/1880	27.70	26.39	0.012	-0.036	1.35	0.016	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	2Txslots	1:4.15	661/1880	27.70	26.39	0.254	-0.017	1.35	0.343	22
Bottom Edge	Battery2	2Txslots	1:4.15	661/1880	27.70	26.39	0.229	-0.025	1.35	0.310	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.

Table 11: UMTS Band II (Main-antenna)

Test Position	Cover Type	Channel Type	Duty Cycle	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	RMC 12.2K	1:1	9400/1880	24.60	23.28	0.105	0.057	1.36	0.142	23
Left Tilt	standard	RMC 12.2K	1:1	9400/1880	24.60	23.28	0.055	0.030	1.36	0.074	/
Right Cheek	standard	RMC 12.2K	1:1	9400/1880	24.60	23.28	0.100	0.090	1.36	0.135	/
Right Tilt	standard	RMC 12.2K	1:1	9400/1880	24.60	23.28	0.050	0.130	1.36	0.068	/
Left Cheek	Battery2	RMC 12.2K	1:1	9400/1880	24.60	23.28	0.089	0.090	1.36	0.121	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	RMC 12.2K	1:1	9400/1880	24.10	22.58	0.213	-0.029	1.42	0.302	24
Front Side	standard	RMC 12.2K	1:1	9400/1880	24.10	22.58	0.165	0.035	1.42	0.234	/
Back Side	Battery2	RMC 12.2K	1:1	9400/1880	24.10	22.58	0.195	-0.052	1.42	0.277	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	RMC 12.2K	1:1	9400/1880	24.10	22.58	0.436	0.060	1.42	0.619	/
Front Side	standard	RMC 12.2K	1:1	9400/1880	24.10	22.58	0.312	-0.021	1.42	0.443	/
Left Edge	standard	RMC 12.2K	1:1	9400/1880	24.10	22.58	0.108	-0.039	1.42	0.153	/
Right Edge	standard	RMC 12.2K	1:1	9400/1880	24.10	22.58	0.042	0.071	1.42	0.060	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	RMC 12.2K	1:1	9400/1880	24.10	22.58	0.452	0.070	1.42	0.641	25
Bottom Edge	Battery2	RMC 12.2K	1:1	9400/1880	24.10	22.58	0.436	-0.015	1.42	0.619	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

Table 12: UMTS Band IV (Main-antenna)

Test Position	Cover Type	Channel Type	Duty Cycle	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	RMC 12.2K	1:1	1413/1732.6	24.70	23.80	0.140	0.042	1.23	0.172	/
Left Tilt	standard	RMC 12.2K	1:1	1413/1732.6	24.70	23.80	0.093	0.170	1.23	0.115	/
Right Cheek	standard	RMC 12.2K	1:1	1413/1732.6	24.70	23.80	0.145	-0.070	1.23	0.178	26
Right Tilt	standard	RMC 12.2K	1:1	1413/1732.6	24.70	23.80	0.083	0.030	1.23	0.102	/
Right Cheek	Battery2	RMC 12.2K	1:1	1413/1732.6	24.70	23.80	0.113	0.027	1.23	0.139	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	RMC 12.2K	1:1	1413/1732.6	23.45	22.36	0.250	-0.140	1.29	0.321	27
Front Side	standard	RMC 12.2K	1:1	1413/1732.6	23.45	22.36	0.187	0.056	1.29	0.240	/
Back Side	Battery2	RMC 12.2K	1:1	1413/1732.6	23.45	22.36	0.208	-0.027	1.29	0.267	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	RMC 12.2K	1:1	1413/1732.6	23.45	22.36	0.430	-0.039	1.29	0.553	/
Front Side	standard	RMC 12.2K	1:1	1413/1732.6	23.45	22.36	0.422	0.021	1.29	0.542	/
Left Edge	standard	RMC 12.2K	1:1	1413/1732.6	23.45	22.36	0.131	0.001	1.29	0.168	/
Right Edge	standard	RMC 12.2K	1:1	1413/1732.6	23.45	22.36	0.071	-0.074	1.29	0.091	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	RMC 12.2K	1:1	1413/1732.6	23.45	22.36	0.543	-0.030	1.29	0.698	28
Bottom Edge	Battery2	RMC 12.2K	1:1	1413/1732.6	23.45	22.36	0.475	0.039	1.29	0.611	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

Table 13: UMTS Band V (Main-antenna)

Test Position	Cover Type	Channel Type	Duty Cycle	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.033	0.085	1.37	0.045	/
Left Tilt	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.034	0.081	1.37	0.046	/
Right Cheek	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.068	0.020	1.37	0.093	/
Right Tilt	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.069	-0.020	1.37	0.095	29
Right Tilt	Battery2	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.062	0.010	1.37	0.085	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.185	0.050	1.37	0.254	30
Front Side	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.119	0.081	1.37	0.164	/
Back Side	Battery2	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.146	0.036	1.37	0.201	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.323	-0.031	1.37	0.444	31
Front Side	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.213	0.097	1.37	0.293	/
Left Edge	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.065	0.023	1.37	0.089	/
Right Edge	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.190	-0.167	1.37	0.261	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.107	0.131	1.37	0.147	/
Back Side	Battery2	RMC 12.2K	1:1	4183/836.6	25.00	23.62	0.318	-0.020	1.37	0.437	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

Table 14: LTE Band 2 (20MHz, Main-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	50	18900/1880	24.10	23.04	0.103	-0.032	1.28	0.131	32
Left Tilt	standard	1:1	1	50	18900/1880	24.10	23.04	0.064	0.060	1.28	0.082	/
Right Cheek	standard	1:1	1	50	18900/1880	24.10	23.04	0.094	0.046	1.28	0.120	/
Right Tilt	standard	1:1	1	50	18900/1880	24.10	23.04	0.043	0.016	1.28	0.055	/
Left Cheek	standard	1:1	50%	25	18700/1860	23.10	22.13	0.094	0.056	1.25	0.118	/
Left Tilt	standard	1:1	50%	25	18700/1860	23.10	22.13	0.052	0.028	1.25	0.065	/
Right Cheek	standard	1:1	50%	25	18700/1860	23.10	22.13	0.070	0.028	1.25	0.088	/
Right Tilt	standard	1:1	50%	25	18700/1860	23.10	22.13	0.043	0.023	1.25	0.054	/
Left Cheek	Battery2	1:1	1	50	18900/1880	24.10	23.04	0.087	-0.083	1.28	0.111	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	50	18900/1880	23.35	22.37	0.216	-0.040	1.25	0.271	33
Front Side	standard	1:1	1	50	18900/1880	23.35	22.37	0.153	-0.023	1.25	0.192	/
Back Side	standard	1:1	50%	25	18900/1880	23.10	22.15	0.183	0.013	1.24	0.228	/
Front Side	standard	1:1	50%	25	18900/1880	23.10	22.15	0.150	0.079	1.24	0.187	/
Back Side	Battery2	1:1	1	50	18900/1880	23.35	22.37	0.168	-0.014	1.25	0.211	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	50	18900/1880	23.35	22.37	0.403	-0.058	1.25	0.505	/
Front Side	standard	1:1	1	50	18900/1880	23.35	22.37	0.324	0.012	1.25	0.406	/
Left Edge	standard	1:1	1	50	18900/1880	23.35	22.37	0.124	-0.096	1.25	0.155	/
Right Edge	standard	1:1	1	50	18900/1880	23.35	22.37	0.060	0.052	1.25	0.075	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	1:1	1	50	18900/1880	23.35	22.37	0.521	0.000	1.25	0.653	/
Back Side	standard	1:1	50%	25	18900/1880	23.10	22.15	0.384	0.010	1.24	0.478	/
Front Side	standard	1:1	50%	25	18900/1880	23.10	22.15	0.292	0.032	1.24	0.363	/
Left Edge	standard	1:1	50%	25	18900/1880	23.10	22.15	0.122	0.059	1.24	0.152	/
Right Edge	standard	1:1	50%	25	18900/1880	23.10	22.15	0.029	0.011	1.24	0.036	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	1:1	50%	25	18900/1880	23.10	22.15	0.526	0.025	1.24	0.655	34
Bottom Edge	Battery2	1:1	50%	25	18900/1880	23.10	22.15	0.485	0.062	1.24	0.604	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are ⩾ 50% limit(1g).

Table 15: LTE Band 4 (20MHz, Main-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	50	20175/1732.5	24.50	23.60	0.140	0.042	1.23	0.172	35
Left Tilt	standard	1:1	1	50	20175/1732.5	24.50	23.60	0.093	0.170	1.23	0.115	/
Right Cheek	standard	1:1	1	50	20175/1732.5	24.50	23.60	0.138	0.130	1.23	0.170	/
Right Tilt	standard	1:1	1	50	20175/1732.5	24.50	23.60	0.080	0.060	1.23	0.099	/
Left Cheek	standard	1:1	50%	25	20050/1720	23.50	22.68	0.095	0.037	1.21	0.115	/
Left Tilt	standard	1:1	50%	25	20050/1720	23.50	22.68	0.055	0.090	1.21	0.066	/
Right Cheek	standard	1:1	50%	25	20050/1720	23.50	22.68	0.111	0.036	1.21	0.134	/
Right Tilt	standard	1:1	50%	25	20050/1720	23.50	22.68	0.058	0.180	1.21	0.070	/
Left Cheek	Battery2	1:1	1	50	20175/1732.5	24.50	23.60	0.119	-0.025	1.23	0.146	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	50	20300/1745	23.50	22.50	0.240	-0.100	1.26	0.302	36
Front Side	standard	1:1	1	50	20300/1745	23.50	22.50	0.190	0.139	1.26	0.239	/
Back Side	standard	1:1	50%	0	20300/1745	23.50	22.60	0.216	-0.102	1.23	0.266	/
Front Side	standard	1:1	50%	0	20300/1745	23.50	22.60	0.182	0.037	1.23	0.224	/
Back Side	Battery2	1:1	1	50	20300/1745	23.50	22.50	0.218	0.068	1.26	0.274	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	50	20300/1745	23.50	22.50	0.440	-0.021	1.26	0.554	/
Front Side	standard	1:1	1	50	20300/1745	23.50	22.50	0.380	0.073	1.26	0.478	/
Left Edge	standard	1:1	1	50	20300/1745	23.50	22.50	0.164	0.036	1.26	0.206	/
Right Edge	standard	1:1	1	50	20300/1745	23.50	22.50	0.085	0.091	1.26	0.107	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	1:1	1	50	20050/1720	23.50	22.43	0.638	-0.022	1.28	0.816	/
	standard	1:1	1	50	20175/1732.5	23.50	22.45	0.652	0.038	1.27	0.830	/
	standard	1:1	1	50	20300/1745	23.50	22.50	0.676	0.010	1.26	0.851	/
Back Side	standard	1:1	50%	0	20300/1745	23.50	22.60	0.446	-0.036	1.23	0.549	/
Front Side	standard	1:1	50%	0	20300/1745	23.50	22.60	0.365	-0.012	1.23	0.449	/
Left Edge	standard	1:1	50%	0	20300/1745	23.50	22.60	0.161	0.039	1.23	0.198	/
Right Edge	standard	1:1	50%	0	20300/1745	23.50	22.60	0.080	0.017	1.23	0.098	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	1:1	50%	0	20050/1720	23.50	22.58	0.685	0.026	1.24	0.847	37
	standard	1:1	50%	0	20175/1732.5	23.50	22.50	0.637	-0.018	1.26	0.802	/
	standard	1:1	50%	0	20300/1745	23.50	22.60	0.662	-0.143	1.23	0.814	/
Bottom Edge	standard	1:1	100%	0	20050/1720	23.50	22.59	0.625	-0.015	1.23	0.771	/
Bottom Edge	Battery2	1:1	1	50	20300/1745	23.50	22.50	0.628	0.080	1.26	0.791	/
Bottom Edge	SIM 2	1:1	1	50	20300/1745	23.50	22.50	0.635	0.021	1.26	0.799	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are≥ 50% limit(1g).

Table 16: LTE Band 5 (10MHz, Main-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	25	20525/836.5	25.00	23.73	0.174	0.150	1.34	0.233	/
Left Tilt	standard	1:1	1	25	20525/836.5	25.00	23.73	0.093	0.090	1.34	0.125	/
Right Cheek	standard	1:1	1	25	20525/836.5	25.00	23.73	0.190	0.055	1.34	0.255	38
Right Tilt	standard	1:1	1	25	20525/836.5	25.00	23.73	0.107	0.100	1.34	0.143	/
Left Cheek	standard	1:1	50%	13	20450/829	24.00	22.71	0.139	0.032	1.35	0.187	/
Left Tilt	standard	1:1	50%	13	20450/829	24.00	22.71	0.077	0.180	1.35	0.103	/
Right Cheek	standard	1:1	50%	13	20450/829	24.00	22.71	0.154	0.041	1.35	0.207	/
Right Tilt	standard	1:1	50%	13	20450/829	24.00	22.71	0.086	0.070	1.35	0.116	/
Right Cheek	Battery2	1:1	1	25	20525/836.5	25.00	23.73	0.163	0.013	1.34	0.218	/
Right Cheek	SIM 2	1:1	1	25	20525/836.5	25.00	23.73	0.185	0.030	1.34	0.248	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	25	20525/836.5	25.00	23.73	0.190	-0.023	1.34	0.255	39
Front Side	standard	1:1	1	25	20525/836.5	25.00	23.73	0.147	0.039	1.34	0.197	/
Back Side	standard	1:1	50%	13	20450/829	24.00	22.71	0.146	0.017	1.35	0.196	/
Front Side	standard	1:1	50%	13	20450/829	24.00	22.71	0.114	0.132	1.35	0.153	/
Back Side	Battery2	1:1	1	25	20525/836.5	25.00	23.73	0.142	-0.092	1.34	0.190	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	25	20525/836.5	25.00	23.73	0.329	-0.011	1.34	0.441	40
Front Side	standard	1:1	1	25	20525/836.5	25.00	23.73	0.259	0.072	1.34	0.347	/
Left Edge	standard	1:1	1	25	20525/836.5	25.00	23.73	0.111	-0.021	1.34	0.149	/
Right Edge	standard	1:1	1	25	20525/836.5	25.00	23.73	0.224	0.164	1.34	0.300	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	1:1	1	25	20525/836.5	25.00	23.73	0.138	0.060	1.34	0.185	/
Back Side	standard	1:1	50%	13	20450/829	24.00	22.71	0.253	-0.067	1.35	0.341	/
Front Side	standard	1:1	50%	13	20450/829	24.00	22.71	0.202	0.023	1.35	0.272	/
Left Edge	standard	1:1	50%	13	20450/829	24.00	22.71	0.042	0.091	1.35	0.057	/
Right Edge	standard	1:1	50%	13	20450/829	24.00	22.71	0.166	-0.072	1.35	0.223	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	1:1	50%	13	20450/829	24.00	22.71	0.101	0.039	1.35	0.136	/
Back Side	Battery2	1:1	1	13	20525/836.5	25.00	23.73	0.325	0.065	1.34	0.435	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are ≥ 50% limit(1g).

Table 17: LTE Band 7 (20MHz, Main-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	50	21100/2535	24.50	23.91	0.144	-0.145	1.15	0.165	41
Left Tilt	standard	1:1	1	50	21100/2535	24.50	23.91	0.040	0.063	1.15	0.045	/
Right Cheek	standard	1:1	1	50	21100/2535	24.50	23.91	0.087	0.075	1.15	0.100	/
Right Tilt	standard	1:1	1	50	21100/2535	24.50	23.91	0.053	0.198	1.15	0.061	/
Left Cheek	standard	1:1	50%	50	21100/2535	23.50	23.09	0.143	-0.042	1.10	0.157	/
Left Tilt	standard	1:1	50%	50	21100/2535	23.50	23.09	0.043	0.020	1.10	0.048	/
Right Cheek	standard	1:1	50%	50	21100/2535	23.50	23.09	0.056	0.031	1.10	0.062	/
Right Tilt	standard	1:1	50%	50	21100/2535	23.50	23.09	0.050	0.082	1.10	0.054	/
Left Cheek	Battery2	1:1	1	50	21100/2535	24.50	23.91	0.132	0.035	1.15	0.151	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	50	21350/2560	23.50	22.81	0.288	0.029	1.17	0.338	42
Front Side	standard	1:1	1	50	21350/2560	23.50	22.81	0.232	-0.134	1.17	0.272	/
Back Side	standard	1:1	50%	25	20850/2510	23.50	22.80	0.272	-0.179	1.17	0.320	/
Front Side	standard	1:1	50%	25	20850/2510	23.50	22.80	0.214	0.031	1.17	0.251	/
Back Side	Battery2	1:1	1	50	21350/2560	23.50	22.81	0.259	0.026	1.17	0.304	/
Back Side	SIM 2	1:1	1	50	21350/2560	23.50	22.81	0.263	0.080	1.17	0.308	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	50	21350/2560	23.50	22.81	0.540	0.082	1.17	0.633	/
Front Side	standard	1:1	1	50	21350/2560	23.50	22.81	0.422	0.176	1.17	0.495	/
Left Edge	standard	1:1	1	50	21350/2560	23.50	22.81	0.125	-0.079	1.17	0.147	/
Right Edge	standard	1:1	1	50	21350/2560	23.50	22.81	0.055	0.101	1.17	0.064	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	1:1	1	50	21350/2560	23.50	22.81	0.609	-0.117	1.17	0.714	43
Back Side	standard	1:1	50%	25	20850/2510	23.50	22.80	0.531	-0.129	1.17	0.624	/
Front Side	standard	1:1	50%	25	20850/2510	23.50	22.80	0.419	0.037	1.17	0.492	/
Left Edge	standard	1:1	50%	25	20850/2510	23.50	22.80	0.209	0.021	1.17	0.246	/
Right Edge	standard	1:1	50%	25	20850/2510	23.50	22.80	0.043	0.099	1.17	0.051	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	1:1	50%	25	20850/2510	23.50	22.80	0.555	0.177	1.17	0.652	/
Bottom Edge	Battery2	1:1	1	50	21350/2560	23.50	22.81	0.571	-0.050	1.17	0.669	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are≥ 50% limit(1g).

Table 18: LTE Band 38 (20MHz, Main-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1.58	1	50	38000/2595	24.50	23.51	0.109	0.152	1.26	0.137	44
Left Tilt	standard	1:1.58	1	50	38000/2595	24.50	23.51	0.028	0.080	1.26	0.035	/
Right Cheek	standard	1:1.58	1	50	38000/2595	24.50	23.51	0.050	0.068	1.26	0.063	/
Right Tilt	standard	1:1.58	1	50	38000/2595	24.50	23.51	0.051	0.060	1.26	0.064	/
Left Cheek	standard	1:1.58	50%	50	37850/2580	23.50	22.46	0.078	-0.030	1.27	0.099	/
Left Tilt	standard	1:1.58	50%	50	37850/2580	23.50	22.46	0.025	-0.140	1.27	0.031	/
Right Cheek	standard	1:1.58	50%	50	37850/2580	23.50	22.46	0.041	0.076	1.27	0.052	/
Right Tilt	standard	1:1.58	50%	50	37850/2580	23.50	22.46	0.032	0.023	1.27	0.041	/
Left Cheek	standard	1:1.58	1	99	37850/2580	24.50	23.28	0.068	-0.010	1.32	0.090	/
			1	0	38048/2599.8							
Left Cheek	Battery2	1:1.58	1	50	38000/2595	24.50	23.51	0.092	-0.064	1.26	0.116	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1.58	1	50	38000/2595	24.50	23.51	0.189	-0.022	1.26	0.237	45
Front Side	standard	1:1.58	1	50	38000/2595	24.50	23.51	0.110	0.039	1.26	0.138	/
Back Side	standard	1:1.58	50%	50	37850/2580	23.50	22.46	0.152	0.137	1.27	0.193	/
Front Side	standard	1:1.58	50%	50	37850/2580	23.50	22.46	0.087	-0.029	1.27	0.111	/
Back Side	standard	1:1.58	1	99	37850/2580	24.50	23.28	0.115	0.030	1.32	0.152	/
			1	0	38048/2599.8							
Back Side	Battery2	1:1.58	1	50	38000/2595	24.50	23.51	0.153	0.090	1.26	0.192	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1.58	1	50	38000/2595	24.50	23.51	0.384	0.069	1.26	0.482	/
Front Side	standard	1:1.58	1	50	38000/2595	24.50	23.51	0.285	0.022	1.26	0.358	/
Left Edge	standard	1:1.58	1	50	38000/2595	24.50	23.51	0.046	-0.097	1.26	0.058	/
Right Edge	standard	1:1.58	1	50	38000/2595	24.50	23.51	0.032	0.161	1.26	0.040	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	1:1.58	1	50	38000/2595	24.50	23.51	0.432	-0.060	1.26	0.543	46
Back Side	standard	1:1.58	50%	50	37850/2580	23.50	22.46	0.373	-0.196	1.27	0.474	/
Front Side	standard	1:1.58	50%	50	37850/2580	23.50	22.46	0.297	0.039	1.27	0.377	/
Left Edge	standard	1:1.58	50%	50	37850/2580	23.50	22.46	0.044	0.071	1.27	0.056	/
Right Edge	standard	1:1.58	50%	50	37850/2580	23.50	22.46	0.033	-0.067	1.27	0.042	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	1:1.58	50%	50	37850/2580	23.50	22.46	0.368	0.033	1.27	0.468	/
Bottom Edge	standard	1:1.58	1	99	37850/2580	24.50	23.28	0.296	0.015	1.32	0.392	/
			1	0	38048/2599.8							
Bottom Edge	Battery2	1:1.58	1	50	38000/2595	24.50	23.51	0.405	-0.046	1.26	0.509	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are≥ 50% limit(1g).

Table 19: LTE Band 41 (20MHz, Main-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1.58	1	50	39750/2506	24.50	23.61	0.120	0.053	1.23	0.147	47
Left Tilt	standard	1:1.58	1	50	39750/2506	24.50	23.61	0.043	0.036	1.23	0.053	/
Right Cheek	standard	1:1.58	1	50	39750/2506	24.50	23.61	0.068	0.051	1.23	0.084	/
Right Tilt	standard	1:1.58	1	50	39750/2506	24.50	23.61	0.061	0.043	1.23	0.075	/
Left Cheek	standard	1:1.58	50%	50	39750/2506	23.50	22.56	0.083	0.082	1.24	0.103	/
Left Tilt	standard	1:1.58	50%	50	39750/2506	23.50	22.56	0.035	0.041	1.24	0.043	/
Right Cheek	standard	1:1.58	50%	50	39750/2506	23.50	22.56	0.057	0.036	1.24	0.071	/
Right Tilt	standard	1:1.58	50%	50	39750/2506	23.50	22.56	0.044	0.029	1.24	0.055	/
Left Cheek	standard	1:1.58	1	99	40185/2549.5	24.40	23.38	0.075	-0.010	1.26	0.095	/
			1	0	40383/2569.3							
Left Cheek	Battery2	1:1.58	1	50	39750/2506	24.50	23.61	0.098	0.073	1.23	0.120	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1.58	1	50	39750/2506	24.50	23.61	0.140	0.110	1.23	0.172	48
Front Side	standard	1:1.58	1	50	39750/2506	24.50	23.61	0.104	0.021	1.23	0.128	/
Back Side	standard	1:1.58	50%	50	39750/2506	23.50	22.56	0.094	-0.033	1.24	0.117	/
Front Side	standard	1:1.58	50%	50	39750/2506	23.50	22.56	0.080	0.025	1.24	0.099	/
Back Side	standard	1:1.58	1	99	40185/2549.5	24.40	23.38	0.075	-0.010	1.26	0.095	/
			1	0	40383/2569.3							
Back Side	Battery2	1:1.58	1	50	39750/2506	24.50	23.61	0.132	0.028	1.23	0.162	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1.58	1	50	39750/2506	24.50	23.61	0.325	-0.026	1.23	0.399	/
Front Side	standard	1:1.58	1	50	39750/2506	24.50	23.61	0.272	0.000	1.23	0.333	/
Left Edge	standard	1:1.58	1	50	39750/2506	24.50	23.61	0.082	0.011	1.23	0.101	/
Right Edge	standard	1:1.58	1	50	39750/2506	24.50	23.61	0.031	0.039	1.23	0.038	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	1:1.58	1	50	39750/2506	24.50	23.61	0.300	0.048	1.23	0.368	/
Back Side	standard	1:1.58	50%	50	39750/2506	23.50	22.56	0.385	0.000	1.24	0.478	49
Front Side	standard	1:1.58	50%	50	39750/2506	23.50	22.56	0.215	0.059	1.24	0.266	/
Left Edge	standard	1:1.58	50%	50	39750/2506	23.50	22.56	0.049	-0.026	1.24	0.061	/
Right Edge	standard	1:1.58	50%	50	39750/2506	23.50	22.56	0.027	0.031	1.24	0.034	/
Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Edge	standard	1:1.58	50%	50	39750/2506	23.50	22.56	0.297	-0.056	1.24	0.369	/
Back Side	standard	1:1.58	1	99	40185/2549.5	24.40	23.38	0.237	0.090	1.26	0.300	/
			1	0	40383/2569.3							
Back Side	Battery2	1:1.58	50%	50	39750/2506	23.50	22.56	0.362	-0.080	1.24	0.449	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are≥ 50% limit(1g).

Table 20: GSM 850 (Second-antenna)

Test Position	Cover Type	Time slot	Duty Cycle	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	GSM	1:8.3	190/836.6	33.20	32.45	0.371	0.110	1.19	0.441	50
Left Tilt	standard	GSM	1:8.3	190/836.6	33.20	32.45	0.066	0.079	1.19	0.079	/
Right Cheek	standard	GSM	1:8.3	190/836.6	33.20	32.45	0.206	0.033	1.19	0.245	/
Right Tilt	standard	GSM	1:8.3	190/836.6	33.20	32.45	0.053	0.033	1.19	0.063	/
Left Cheek	Battery2	GSM	1:8.3	190/836.6	33.20	32.45	0.369	-0.060	1.19	0.439	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	GSM	1:8.3	190/836.6	33.20	32.45	0.106	-0.031	1.19	0.126	/
Front Side	standard	GSM	1:8.3	190/836.6	33.20	32.45	0.123	-0.010	1.19	0.146	51
Front Side	Battery2	GSM	1:8.3	190/836.6	33.20	32.45	0.092	0.033	1.19	0.109	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	2Txslots	1:4.15	190/836.6	30.70	29.90	0.189	0.034	1.20	0.227	/
Front Side	standard	2Txslots	1:4.15	190/836.6	30.70	29.90	0.197	-0.021	1.20	0.237	/
Left Edge	standard	2Txslots	1:4.15	190/836.6	30.70	29.90	0.303	0.010	1.20	0.364	52
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	2Txslots	1:4.15	190/836.6	30.70	29.90	0.021	0.028	1.20	0.025	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	Battery2	2Txslots	1:4.15	190/836.6	30.70	29.90	0.274	-0.015	1.20	0.329	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.

Table 21: GSM 1900(Second-antenna)

Test Position	Cover Type	Time slot	Duty Cycle	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	GSM	1:8.3	661/1880	28.45	28.31	0.578	0.033	1.03	0.597	/
Left Tilt	standard	GSM	1:8.3	512/1850.2	28.45	28.25	0.692	0.018	1.05	0.725	/
	standard	GSM	1:8.3	661/1880	28.45	28.31	0.731	0.070	1.03	0.755	53
	standard	GSM	1:8.3	810/1909.8	28.45	28.30	0.705	-0.032	1.04	0.730	/
Right Cheek	standard	GSM	1:8.3	661/1880	28.45	28.31	0.653	0.090	1.03	0.674	/
Right Tilt	standard	GSM	1:8.3	512/1850.2	28.45	28.25	0.685	0.018	1.05	0.717	/
	standard	GSM	1:8.3	661/1880	28.45	28.31	0.713	0.040	1.03	0.736	/
	standard	GSM	1:8.3	810/1909.8	28.45	28.30	0.662	0.090	1.04	0.685	/
Left Tilt	Battery2	GSM	1:8.3	661/1880	28.45	28.31	0.715	0.022	1.03	0.738	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	GSM	1:8.3	661/1880	28.45	28.31	0.213	0.120	1.03	0.220	54
Front Side	standard	GSM	1:8.3	661/1880	28.45	28.31	0.111	0.023	1.03	0.115	/
Back Side	Battery2	GSM	1:8.3	661/1880	28.45	28.31	0.138	-0.021	1.03	0.143	/
Hotspot SARSAR (Distance 10mm)											
Back Side	standard	2Txslots	1:4.15	661/1880	25.70	25.15	0.187	-0.016	1.14	0.212	/
Front Side	standard	2Txslots	1:4.15	661/1880	25.70	25.15	0.148	0.054	1.14	0.168	/
Left Edge	standard	2Txslots	1:4.15	661/1880	25.70	25.15	0.064	-0.039	1.14	0.073	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	2Txslots	1:4.15	661/1880	25.70	25.15	0.301	-0.051	1.14	0.342	55
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	2Txslots	1:4.15	661/1880	25.70	25.15	0.264	0.019	1.14	0.300	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power.

MAX Adjusted SAR								
Test Position	Cover Type	Channel/ Frequency (MHz)	Full power (dBm)	Tune-up (dBm)	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	661/1880	27.70	25.70	0.212	1.58	0.336	No
Front Side	standard	661/1880	27.70	25.70	0.168	1.58	0.266	No
Left Edge	standard	661/1880	27.70	25.70	0.073	1.58	0.115	No
Top Edge	standard	661/1880	27.70	25.70	0.342	1.58	0.541	No
Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-g reported SAR < 1.2 W/kg, Product Specific 10-g SAR is not required.								

Table 22: UMTS Band II (Second-antenna)

Test Position	Cover Type	Channel Type	Duty Cycle	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	RMC 12.2K	1:1	9400/1880	21.60	20.80	0.646	0.120	1.20	0.777	/
Left Tilt	standard	RMC 12.2K	1:1	9262/1852.4	21.60	20.54	0.795	0.021	1.28	1.015	/
	standard	RMC 12.2K	1:1	9400/1880	21.60	20.80	0.847	0.060	1.20	1.018	/
	standard	RMC 12.2K	1:1	9538/1907.6	21.60	20.49	0.784	-0.038	1.29	1.012	/
Right Cheek	standard	RMC 12.2K	1:1	9262/1852.4	21.60	20.54	0.746	0.019	1.28	0.952	/
	standard	RMC 12.2K	1:1	9400/1880	21.60	20.80	0.737	-0.037	1.20	0.886	/
	standard	RMC 12.2K	1:1	9538/1907.6	21.60	20.49	0.692	-0.140	1.29	0.894	/
Right Tilt	standard	RMC 12.2K	1:1	9262/1852.4	21.60	20.54	0.774	0.030	1.28	0.988	/
	standard	RMC 12.2K	1:1	9400/1880	21.60	20.80	0.816	-0.070	1.20	0.981	/
	standard	RMC 12.2K	1:1	9538/1907.6	21.60	20.49	0.783	-0.025	1.29	1.011	/
Left Tilt	Battery2	RMC 12.2K	1:1	9400/1880	21.60	20.80	0.862	0.010	1.20	1.036	56
Left Tilt	SIM 2	RMC 12.2K	1:1	9400/1880	21.60	20.80	0.839	0.028	1.20	1.009	/
Left Tilt	Repeated	RMC 12.2K	1:1	9400/1880	21.60	20.80	0.843	0.090	1.20	1.014	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	RMC 12.2K	1:1	9400/1880	24.10	22.76	0.333	-0.070	1.36	0.453	57
Front Side	standard	RMC 12.2K	1:1	9400/1880	24.10	22.76	0.192	-0.034	1.36	0.261	/
Back Side	Battery2	RMC 12.2K	1:1	9400/1880	24.10	22.76	0.304	0.012	1.36	0.414	/
Back Side	SIM 2	RMC 12.2K	1:1	9400/1880	24.10	22.76	0.309	0.039	1.36	0.421	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	RMC 12.2K	1:1	9400/1880	21.10	19.79	0.219	0.069	1.35	0.296	/
Front Side	standard	RMC 12.2K	1:1	9400/1880	21.10	19.79	0.173	0.010	1.35	0.234	/
Left Edge	standard	RMC 12.2K	1:1	9400/1880	21.10	19.79	0.085	-0.019	1.35	0.115	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	RMC 12.2K	1:1	9400/1880	21.10	19.79	0.425	0.117	1.35	0.575	58
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	RMC 12.2K	1:1	9400/1880	21.10	19.79	0.379	0.060	1.35	0.512	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

Measurement Variability				
Test Position	**Channel/ Frequency(MHz)**	**MAX Measured SAR_{1g} (W/kg)**	**1st Repeated SAR_{1g} (W/kg)**	**Ratio**
Left Tilt	9400/1880	0.862	0.843	1.02
Note: 1) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit). 2) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.				

MAX Adjusted SAR								
Test Position	**Cover Type**	**Channel/ Frequency (MHz)**	**Full power (dBm)**	**Tune-up (dBm)**	**Report SAR1g (mW/g)**	**Scaling Factor**	**Full power Report SAR1g (mW/g)**	**0mm SAR**
Back Side	standard	9400/1880	24.10	21.10	0.296	2.00	0.591	No
Front Side	standard	9400/1880	24.10	21.10	0.234	2.00	0.467	No
Left Edge	standard	9400/1880	24.10	21.10	0.115	2.00	0.229	No
Top Edge	standard	9400/1880	24.10	21.10	0.575	2.00	1.147	No
Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-g reported SAR < 1.2 W/kg, Product Specific 10-g SAR is not required.								

Table 23: UMTS Band IV (Second-antenna)

Test Position	Cover Type	Channel Type	Duty Cycle	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	RMC 12.2K	1:1	1413/1732.6	21.20	20.18	0.395	0.160	1.26	0.500	/
Left Tilt	standard	RMC 12.2K	1:1	1413/1732.6	21.20	20.18	0.597	-0.030	1.26	0.755	/
Right Cheek	standard	RMC 12.2K	1:1	1312/1712.4	21.20	20.16	0.635	0.014	1.27	0.807	/
	standard	RMC 12.2K	1:1	1413/1732.6	21.20	20.18	0.679	-0.020	1.26	0.859	/
	standard	RMC 12.2K	1:1	1513/1752.6	21.20	20.26	0.618	0.092	1.24	0.767	/
Right Tilt	standard	RMC 12.2K	1:1	1312/1712.4	21.20	20.16	0.639	-0.022	1.27	0.812	/
	standard	RMC 12.2K	1:1	1413/1732.6	21.20	20.18	0.680	0.000	1.26	0.860	59
	standard	RMC 12.2K	1:1	1513/1752.6	21.20	20.26	0.662	0.017	1.24	0.822	/
Right Tilt	Battery2	RMC 12.2K	1:1	1413/1732.6	21.20	20.18	0.639	-0.042	1.26	0.808	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	RMC 12.2K	1:1	1413/1732.6	24.20	23.43	0.291	0.070	1.19	0.347	60
Front Side	standard	RMC 12.2K	1:1	1413/1732.6	24.20	23.43	0.192	0.060	1.19	0.229	/
Back Side	Battery2	RMC 12.2K	1:1	1413/1732.6	24.20	23.43	0.256	-0.024	1.19	0.306	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	RMC 12.2K	1:1	1413/1732.6	20.20	19.37	0.183	0.073	1.21	0.222	/
Front Side	standard	RMC 12.2K	1:1	1413/1732.6	20.20	19.37	0.129	-0.029	1.21	0.156	/
Left Edge	standard	RMC 12.2K	1:1	1413/1732.6	20.20	19.37	0.071	0.012	1.21	0.086	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	RMC 12.2K	1:1	1413/1732.6	20.20	19.37	0.332	0.039	1.21	0.402	61
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	RMC 12.2K	1:1	1413/1732.6	20.20	19.37	0.295	-0.060	1.21	0.357	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

MAX Adjusted SAR								
Test Position	Cover Type	Channel/ Frequency (MHz)	Full power (dBm)	Tune-up (dBm)	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	1413/1732.6	24.20	20.20	0.222	2.51	0.556	No
Front Side	standard	1413/1732.6	24.20	20.20	0.156	2.51	0.392	No
Left Edge	standard	1413/1732.6	24.20	20.20	0.086	2.51	0.216	No
Top Edge	standard	1413/1732.6	24.20	20.20	0.402	2.51	1.010	No

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-g reported SAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

Table 24: UMTS Band V (Second-antenna)

Test Position	Cover Type	Channel Type	Duty Cycle	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR											
Left Cheek	standard	RMC 12.2K	1:1	4183/836.6	24.00	23.71	0.604	-0.130	1.07	0.646	62
Left Tilt	standard	RMC 12.2K	1:1	4183/836.6	24.00	23.71	0.075	0.021	1.07	0.080	/
Right Cheek	standard	RMC 12.2K	1:1	4183/836.6	24.00	23.71	0.332	0.066	1.07	0.355	/
Right Tilt	standard	RMC 12.2K	1:1	4183/836.6	24.00	23.71	0.066	0.030	1.07	0.070	/
Left Cheek	Battery2	RMC 12.2K	1:1	4183/836.6	24.00	23.71	0.528	-0.014	1.07	0.564	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.74	0.158	-0.060	1.34	0.211	63
Front Side	standard	RMC 12.2K	1:1	4183/836.6	25.00	23.74	0.147	0.021	1.34	0.196	/
Back Side	Battery2	RMC 12.2K	1:1	4183/836.6	25.00	23.74	0.125	-0.052	1.34	0.167	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	RMC 12.2K	1:1	4183/836.6	24.00	23.71	0.281	-0.073	1.07	0.300	/
Front Side	standard	RMC 12.2K	1:1	4183/836.6	24.00	23.71	0.271	-0.062	1.07	0.290	/
Left Edge	standard	RMC 12.2K	1:1	4183/836.6	24.00	23.71	0.464	0.028	1.07	0.496	64
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	RMC 12.2K	1:1	4183/836.6	24.00	23.71	0.015	0.157	1.07	0.016	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Left Edge	Battery2	RMC 12.2K	1:1	4183/836.6	24.00	23.71	0.453	-0.018	1.07	0.484	/
Left Edge	SIM 2	RMC 12.2K	1:1	4183/836.6	24.00	23.71	0.438	0.090	1.07	0.468	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

MAX Adjusted SAR								
Test Position	Cover Type	Channel/ Frequency (MHz)	Full power (dBm)	Tune-up (dBm)	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	4183/836.6	25.00	24.00	0.300	1.26	0.378	No
Front Side	standard	4183/836.6	25.00	24.00	0.290	1.26	0.365	No
Left Edge	standard	4183/836.6	25.00	24.00	0.496	1.26	0.624	No
Top Edge	standard	4183/836.6	25.00	24.00	0.016	1.26	0.020	No

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-g reported SAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

Table 25: LTE Band 2 (20MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	50	18900/1880	20.10	19.60	0.532	0.030	1.12	0.597	/
Left Tilt	standard	1:1	1	50	18900/1880	20.10	19.60	0.662	0.090	1.12	0.743	/
Right Cheek	standard	1:1	1	50	18900/1880	20.10	19.60	0.495	-0.060	1.12	0.555	/
Right Tilt	standard	1:1	1	50	18700/1860	20.10	19.41	0.737	0.020	1.17	0.864	/
	standard	1:1	1	50	18900/1880	20.10	19.60	0.706	0.010	1.12	0.792	/
	standard	1:1	1	50	19100/1900	20.10	19.40	0.727	0.000	1.17	0.854	/
Left Cheek	standard	1:1	50%	0	18900/1880	20.10	19.41	0.526	0.060	1.17	0.617	/
Left Tilt	standard	1:1	50%	25	18700/1860	20.10	19.34	0.648	0.025	1.19	0.772	/
	standard	1:1	50%	0	18900/1880	20.10	19.41	0.695	0.046	1.17	0.815	/
	standard	1:1	50%	25	19100/1900	20.10	19.36	0.669	-0.030	1.19	0.793	/
Right Cheek	standard	1:1	50%	0	18900/1880	20.10	19.41	0.497	0.060	1.17	0.583	/
Right Tilt	standard	1:1	50%	25	18700/1860	20.10	19.34	0.773	0.030	1.19	0.920	65
	standard	1:1	50%	0	18900/1880	20.10	19.41	0.706	0.020	1.17	0.828	/
	standard	1:1	50%	25	19100/1900	20.10	19.36	0.724	0.010	1.19	0.858	/
Right Tilt	standard	1:1	100%	0	18700/1860	20.10	19.33	0.652	-0.030	1.19	0.778	/
	standard	1:1	100%	0	18900/1880	20.10	19.34	0.677	0.160	1.19	0.806	/
	standard	1:1	100%	0	19100/1900	20.10	19.15	0.684	0.074	1.24	0.851	/
Right Tilt	Battery2	1:1	50%	25	18700/1860	20.10	19.34	0.682	-0.010	1.19	0.812	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	50	18700/1860	23.60	22.80	0.278	-0.010	1.20	0.334	66
Front Side	standard	1:1	1	50	18700/1860	23.60	22.80	0.208	0.036	1.20	0.250	/
Back Side	standard	1:1	50%	25	18700/1860	23.10	22.30	0.220	-0.001	1.20	0.264	/
Front Side	standard	1:1	50%	25	18700/1860	23.10	22.30	0.183	-0.054	1.20	0.220	/
Back Side	Battery2	1:1	1	50	18700/1860	23.60	22.80	0.245	0.022	1.20	0.295	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	50	18900/1880	20.10	19.60	0.203	0.069	1.12	0.228	/
Front Side	standard	1:1	1	50	18900/1880	20.10	19.60	0.164	0.073	1.12	0.184	/
Left Edge	standard	1:1	1	50	18900/1880	20.10	19.60	0.077	0.028	1.12	0.086	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	1	50	18900/1880	20.10	19.60	0.473	-0.030	1.12	0.531	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1	50%	0	18900/1880	20.10	19.41	0.193	0.013	1.17	0.226	/
Front Side	standard	1:1	50%	0	18900/1880	20.10	19.41	0.157	-0.029	1.17	0.184	/
Left Edge	standard	1:1	50%	0	18900/1880	20.10	19.41	0.081	0.047	1.17	0.095	/

Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	50%	0	18900/1880	20.10	19.61	0.481	0.066	1.12	0.538	67
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	1:1	50%	0	18900/1880	20.10	19.41	0.435	0.094	1.17	0.510	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are≥ 50% limit(1g).

MAX Adjusted SAR									
Test Position	Cover Type	RB allocation	Channel/ Frequency (MHz)	Full power (dBm)	Tune-up (dBm)	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	1	18900/1880	23.60	20.10	0.228	2.24	0.510	No
Front Side	standard	1	18900/1880	23.60	20.10	0.184	2.24	0.412	No
Left Edge	standard	1	18900/1880	23.60	20.10	0.086	2.24	0.193	No
Top Edge	standard	1	18900/1880	23.60	20.10	0.531	2.24	1.188	No
Back Side	standard	50%	18900/1880	23.10	20.10	0.226	2.00	0.451	No
Front Side	standard	50%	18900/1880	23.10	20.10	0.184	2.00	0.367	No
Left Edge	standard	50%	18900/1880	23.10	20.10	0.095	2.00	0.189	No
Top Edge	standard	50%	18900/1880	23.10	20.10	0.538	2.00	1.074	No

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-g reported SAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

Table 26: LTE Band 4 (20MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	50	20175/1732.5	20.50	20.03	0.395	0.030	1.11	0.440	/
Left Tilt	standard	1:1	1	50	20175/1732.5	20.50	20.03	0.550	0.030	1.11	0.613	/
Right Cheek	standard	1:1	1	50	20175/1732.5	20.50	20.03	0.484	0.050	1.11	0.539	/
Right Tilt	standard	1:1	1	50	20175/1732.5	20.50	20.03	0.672	0.050	1.11	0.749	68
Left Cheek	standard	1:1	50%	0	20175/1732.5	20.50	20.05	0.400	0.040	1.11	0.444	/
Left Tilt	standard	1:1	50%	0	20175/1732.5	20.50	20.05	0.545	0.050	1.11	0.605	/
Right Cheek	standard	1:1	50%	0	20175/1732.5	20.50	20.05	0.556	0.030	1.11	0.617	/
Right Tilt	standard	1:1	50%	0	20175/1732.5	20.50	20.05	0.672	0.030	1.11	0.745	/
Right Tilt	Battery2	1:1	1	50	20175/1732.5	20.50	20.03	0.658	-0.080	1.11	0.733	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	50	20175/1732.5	24.00	23.37	0.353	0.050	1.16	0.408	69
Front Side	standard	1:1	1	50	20175/1732.5	24.00	23.37	0.266	0.007	1.16	0.308	/
Back Side	standard	1:1	50%	25	20175/1732.5	23.50	22.96	0.301	-0.031	1.13	0.341	/
Front Side	standard	1:1	50%	25	20175/1732.5	23.50	22.96	0.224	0.027	1.13	0.254	/
Back Side	Battery2	1:1	1	50	20175/1732.5	24.00	23.37	0.308	0.024	1.16	0.356	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	50	20300/1745	20.00	19.50	0.167	-0.036	1.12	0.187	/
Front Side	standard	1:1	1	50	20300/1745	20.00	19.50	0.130	0.011	1.12	0.146	/
Left Edge	standard	1:1	1	50	20300/1745	20.00	19.50	0.060	-0.017	1.12	0.067	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	1	50	20300/1745	20.00	19.50	0.278	-0.023	1.12	0.312	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1	50%	25	20300/1745	20.00	19.52	0.165	0.171	1.12	0.184	/
Front Side	standard	1:1	50%	25	20300/1745	20.00	19.52	0.138	-0.129	1.12	0.154	/
Left Edge	standard	1:1	50%	25	20300/1745	20.00	19.52	0.059	0.061	1.12	0.066	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	50%	25	20300/1745	20.00	19.52	0.289	0.160	1.12	0.323	70
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	1:1	50%	25	20300/1745	20.00	19.52	0.235	-0.064	1.12	0.262	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are≥ 50% limit(1g).

MAX Adjusted SAR									
Test Position	Cover Type	RB allocation	Channel/ Frequency (MHz)	Full power (dBm)	Tune-up (dBm)	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	1	20300/1745	24.00	20.00	0.187	2.51	0.471	No
Front Side	standard	1	20300/1745	24.00	20.00	0.146	2.51	0.366	No
Left Edge	standard	1	20300/1745	24.00	20.00	0.067	2.51	0.169	No
Top Edge	standard	1	20300/1745	24.00	20.00	0.312	2.51	0.784	No
Back Side	standard	50%	20300/1745	23.50	20.00	0.184	2.24	0.413	No
Front Side	standard	50%	20300/1745	23.50	20.00	0.154	2.24	0.345	No
Left Edge	standard	50%	20300/1745	23.50	20.00	0.066	2.24	0.148	No
Top Edge	standard	50%	20300/1745	23.50	20.00	0.323	2.24	0.723	No
Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-g reported SAR < 1.2 W/kg, Product Specific 10-g SAR is not required.									

Table 27: LTE Band 5 (10MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	25	20525/836.5	24.00	23.18	0.533	0.037	1.21	0.644	/
Left Tilt	standard	1:1	1	25	20525/836.5	24.00	23.18	0.090	0.037	1.21	0.109	/
Right Cheek	standard	1:1	1	25	20525/836.5	24.00	23.18	0.336	0.055	1.21	0.406	/
Right Tilt	standard	1:1	1	25	20525/836.5	24.00	23.18	0.071	0.023	1.21	0.085	/
Left Cheek	standard	1:1	50%	25	20450/829	24.00	23.02	0.534	0.180	1.25	0.669	71
Left Tilt	standard	1:1	50%	25	20450/829	24.00	23.02	0.078	0.024	1.25	0.098	/
Right Cheek	standard	1:1	50%	25	20450/829	24.00	23.02	0.335	0.022	1.25	0.420	/
Right Tilt	standard	1:1	50%	25	20450/829	24.00	23.02	0.069	0.028	1.25	0.086	/
Left Cheek	Battery2	1:1	50%	25	20450/829	24.00	23.02	0.528	-0.040	1.25	0.662	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	25	20600/844	25.00	24.07	0.174	0.040	1.24	0.216	72
Front Side	standard	1:1	1	25	20600/844	25.00	24.07	0.156	0.059	1.24	0.193	/
Back Side	standard	1:1	50%	13	20600/844	24.00	23.01	0.158	-0.151	1.26	0.198	/
Front Side	standard	1:1	50%	13	20600/844	24.00	23.01	0.149	0.076	1.26	0.187	/
Back Side	Battery2	1:1	1	25	20600/844	25.00	24.07	0.139	0.025	1.24	0.172	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	25	20525/836.5	24.00	23.18	0.274	-0.095	1.21	0.331	/
Front Side	standard	1:1	1	25	20525/836.5	24.00	23.18	0.278	0.173	1.21	0.336	/
Left Edge	standard	1:1	1	25	20525/836.5	24.00	23.18	0.482	0.023	1.21	0.582	73
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	1	25	20525/836.5	24.00	23.18	0.019	-0.019	1.21	0.023	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1	50%	25	20450/829	24.00	23.02	0.265	0.133	1.25	0.332	/
Front Side	standard	1:1	50%	25	20450/829	24.00	23.02	0.268	-0.021	1.25	0.336	/
Left Edge	standard	1:1	50%	25	20450/829	24.00	23.02	0.448	0.017	1.25	0.561	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	50%	25	20450/829	24.00	23.02	0.026	0.093	1.25	0.033	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Left Edge	Battery2	1:1	1	25	20525/836.5	24.00	23.18	0.446	0.010	1.21	0.539	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are ≥ 50% limit(1g).

MAX Adjusted SAR									
Test Position	Cover Type	RB allocation	Channel/ Frequency (MHz)	Full power (dBm)	Tune-up (dBm)	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	1	20525/836.5	25.00	24.00	0.331	1.26	0.417	No
Front Side	standard	1	20525/836.5	25.00	24.00	0.336	1.26	0.423	No
Left Edge	standard	1	20525/836.5	25.00	24.00	0.582	1.26	0.733	No
Top Edge	standard	1	20525/836.5	25.00	24.00	0.023	1.26	0.029	No
Back Side	standard	50%	20450/829	24.00	24.00	0.332	1.00	0.332	No
Front Side	standard	50%	20450/829	24.00	24.00	0.336	1.00	0.336	No
Left Edge	standard	50%	20450/829	24.00	24.00	0.561	1.00	0.561	No
Top Edge	standard	50%	20450/829	24.00	24.00	0.033	1.00	0.033	No
Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-g reported SAR < 1.2 W/kg, Product Specific 10-g SAR is not required.									

Table 28: LTE Band 7 (20MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1	1	50	21100/2535	18.25	17.76	0.116	0.036	1.12	0.130	/
Left Tilt	standard	1:1	1	50	21100/2535	18.25	17.76	0.092	0.108	1.12	0.103	/
Right Cheek	standard	1:1	1	50	21100/2535	18.25	17.76	0.413	-0.032	1.12	0.462	/
Right Tilt	standard	1:1	1	50	21100/2535	18.25	17.76	0.213	0.029	1.12	0.238	/
Left Cheek	standard	1:1	50%	25	21100/2535	18.25	17.78	0.125	0.160	1.11	0.139	/
Left Tilt	standard	1:1	50%	25	21100/2535	18.25	17.78	0.085	0.120	1.11	0.094	/
Right Cheek	standard	1:1	50%	25	21100/2535	18.25	17.78	0.420	0.040	1.11	0.468	74
Right Tilt	standard	1:1	50%	25	21100/2535	18.25	17.78	0.213	0.084	1.11	0.237	/
Right Cheek	Battery2	1:1	50%	25	21100/2535	18.25	17.78	0.413	0.022	1.11	0.460	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1	1	50	20850/2510	21.50	21.07	0.201	0.062	1.10	0.222	75
Front Side	standard	1:1	1	50	20850/2510	21.50	21.07	0.136	0.023	1.10	0.150	/
Back Side	standard	1:1	50%	25	21100/2535	21.50	20.97	0.173	0.121	1.13	0.195	/
Front Side	standard	1:1	50%	25	21100/2535	21.50	20.97	0.127	-0.072	1.13	0.143	/
Back Side	Battery2	1:1	1	50	20850/2510	21.50	21.07	0.185	-0.050	1.10	0.204	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1	1	50	21100/2535	18.25	17.76	0.174	-0.061	1.12	0.195	/
Front Side	standard	1:1	1	50	21100/2535	18.25	17.76	0.136	0.166	1.12	0.152	/
Left Edge	standard	1:1	1	50	21100/2535	18.25	17.76	0.290	0.049	1.12	0.325	76
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	1	50	21100/2535	18.25	17.76	0.043	-0.131	1.12	0.048	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1	50%	25	21100/2535	18.25	17.78	0.176	-0.077	1.11	0.196	/
Front Side	standard	1:1	50%	25	21100/2535	18.25	17.78	0.129	0.028	1.11	0.144	/
Left Edge	standard	1:1	50%	25	21100/2535	18.25	17.78	0.272	0.194	1.11	0.303	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1	50%	25	21100/2535	18.25	17.78	0.049	-0.011	1.11	0.055	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Left Edge	Battery2	1:1	1	50	21100/2535	18.25	17.76	0.268	-0.056	1.12	0.300	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are≥ 50% limit(1g).

MAX Adjusted SAR									
Test Position	Cover Type	RB allocation	Channel/ Frequency (MHz)	Full power (dBm)	Tune-up (dBm)	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	1	21100/2535	21.50	18.25	0.195	2.11	0.412	No
Front Side	standard	1	21100/2535	21.50	18.25	0.152	2.11	0.322	No
Left Edge	standard	1	21100/2535	21.50	18.25	0.325	2.11	0.686	No
Top Edge	standard	1	21100/2535	21.50	18.25	0.048	2.11	0.102	No
Back Side	standard	50%	21100/2535	21.50	18.25	0.196	2.11	0.414	No
Front Side	standard	50%	21100/2535	21.50	18.25	0.144	2.11	0.304	No
Left Edge	standard	50%	21100/2535	21.50	18.25	0.303	2.11	0.641	No
Top Edge	standard	50%	21100/2535	21.50	18.25	0.055	2.11	0.115	No
Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-g reported SAR < 1.2 W/kg, Product Specific 10-g SAR is not required.									

Table 29: LTE Band 38 (20MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1.58	1	50	38000/2595	19.75	18.62	0.231	-0.130	1.30	0.300	/
Left Tilt	standard	1:1.58	1	50	38000/2595	19.75	18.62	0.119	0.080	1.30	0.154	/
Right Cheek	standard	1:1.58	1	50	38000/2595	19.75	18.62	0.559	0.029	1.30	0.725	77
Right Tilt	standard	1:1.58	1	50	38000/2595	19.75	18.62	0.256	0.180	1.30	0.332	/
Left Cheek	standard	1:1.58	50%	50	38000/2595	21.25	20.59	0.238	0.029	1.16	0.277	/
Left Tilt	standard	1:1.58	50%	50	38000/2595	21.25	20.59	0.113	-0.020	1.16	0.132	/
Right Cheek	standard	1:1.58	50%	50	38000/2595	21.25	20.59	0.554	0.029	1.16	0.645	/
Right Tilt	standard	1:1.58	50%	50	38000/2595	21.25	20.59	0.254	0.180	1.16	0.296	/
Right Cheek	standard	1:1.58	50%	50	38000/2595	21.15	20.27	0.412	0.012	1.22	0.505	/
			50%	0	38198/2614.8							
Right Cheek	Battery2	1:1.58	1	50	38000/2595	19.75	18.62	0.537	-0.080	1.30	0.697	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1.58	1	50	38000/2595	22.25	21.17	0.243	-0.051	1.28	0.312	78
Front Side	standard	1:1.58	1	50	38000/2595	22.25	21.17	0.177	0.007	1.28	0.227	/
Back Side	standard	1:1.58	50%	50	37850/2580	23.50	22.72	0.208	-0.055	1.20	0.249	/
Front Side	standard	1:1.58	50%	50	37850/2580	23.50	22.72	0.161	0.113	1.20	0.193	/
Back Side	standard	1:1.58	50%	50	37850/2580	24.40	22.59	0.159	-0.026	1.52	0.241	/
			50%	0	38048/2599.8							
Back Side	Battery2	1:1.58	1	50	38000/2595	22.25	21.17	0.232	-0.030	1.28	0.298	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1.58	1	50	38000/2595	19.75	18.62	0.203	-0.031	1.30	0.263	/
Front Side	standard	1:1.58	1	50	38000/2595	19.75	18.62	0.166	-0.143	1.30	0.215	/
Left Edge	standard	1:1.58	1	50	38000/2595	19.75	18.62	0.342	0.030	1.30	0.444	79
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1.58	1	50	38000/2595	19.75	18.62	0.038	0.041	1.30	0.049	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1.58	50%	50	38000/2595	21.25	20.59	0.186	0.058	1.16	0.217	/
Front Side	standard	1:1.58	50%	50	38000/2595	21.25	20.59	0.167	-0.173	1.16	0.194	/
Left Edge	standard	1:1.58	50%	50	38000/2595	21.25	20.59	0.321	-0.032	1.16	0.374	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1.58	50%	50	38000/2595	21.25	20.59	0.027	0.017	1.16	0.031	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Left Edge	standard	1:1.58	50%	50	38000/2595	21.15	20.27	0.227	0.026	1.22	0.278	/
			50%	0	38198/2614.8							
Left Edge	Battery2	1:1.58	1	50	38000/2595	19.75	18.62	0.286	0.030	1.30	0.371	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are≥ 50% limit(1g).

MAX Adjusted SAR									
Test Position	Cover Type	RB allocation	Channel/ Frequency (MHz)	Full power (dBm)	Tune-up (dBm)	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	1	38000/2595	22.25	19.75	0.263	1.78	0.468	No
Front Side	standard	1	38000/2595	22.25	19.75	0.215	1.78	0.383	No
Left Edge	standard	1	38000/2595	22.25	19.75	0.444	1.78	0.789	No
Top Edge	standard	1	38000/2595	22.25	19.75	0.049	1.78	0.088	No
Back Side	standard	50%	38000/2595	23.50	21.25	0.217	1.68	0.364	No
Front Side	standard	50%	38000/2595	23.50	21.25	0.194	1.68	0.326	No
Left Edge	standard	50%	38000/2595	23.50	21.25	0.374	1.68	0.627	No
Top Edge	standard	50%	38000/2595	23.50	21.25	0.031	1.68	0.053	No
Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-g reported SAR < 1.2 W/kg, Product Specific 10-g SAR is not required.									

Table 30: LTE Band 41 (20MHz, Second-antenna)

Test Position	Cover Type	Duty Cycle	RB allocation	RB offset	Channel/ Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
								Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	
Head SAR (QPSK)												
Left Cheek	standard	1:1.58	1	50	39750/2506	21.25	20.97	0.195	0.070	1.07	0.208	/
Left Tilt	standard	1:1.58	1	50	39750/2506	21.25	20.97	0.153	0.024	1.07	0.163	/
Right Cheek	standard	1:1.58	1	50	39750/2506	21.25	20.97	0.691	0.010	1.07	0.737	80
Right Tilt	standard	1:1.58	1	50	39750/2506	21.25	20.97	0.360	0.120	1.07	0.384	/
Left Cheek	standard	1:1.58	50%	0	39750/2506	21.25	20.83	0.189	0.100	1.10	0.208	/
Left Tilt	standard	1:1.58	50%	0	39750/2506	21.25	20.83	0.138	0.180	1.10	0.152	/
Right Cheek	standard	1:1.58	50%	0	39750/2506	21.25	20.83	0.688	0.140	1.10	0.758	/
Right Tilt	standard	1:1.58	50%	0	39750/2506	21.25	20.83	0.352	0.000	1.10	0.388	/
Right Cheek	standard	1:1.58	1	99	39750/2506	21.25	20.69	0.494	0.026	1.14	0.562	/
			1	0	39948/2525.8							
Right Cheek	Battery2	1:1.58	50%	0	39750/2506	21.25	20.83	0.635	-0.180	1.10	0.699	/
Body-worn SAR (QPSK, Distance 15mm)												
Back Side	standard	1:1.58	1	50	39750/2506	24.00	23.14	0.233	0.071	1.22	0.284	81
Front Side	standard	1:1.58	1	50	39750/2506	24.00	23.14	0.184	0.021	1.22	0.224	/
Back Side	standard	1:1.58	50%	50	39750/2506	23.50	22.61	0.198	-0.029	1.23	0.243	/
Front Side	standard	1:1.58	50%	50	39750/2506	23.50	22.61	0.140	0.035	1.23	0.172	/
Back Side	standard	1:1.58	1	99	39750/2506	24.00	22.89	0.142	0.021	1.29	0.183	/
			1	0	39948/2525.8							
Back Side	Battery2	1:1.58	1	50	39750/2506	24.00	23.14	0.215	0.022	1.22	0.262	/
Hotspot SAR(QPSK, Distance 10mm)												
Back Side	standard	1:1.58	1	50	39750/2506	21.25	20.97	0.176	-0.068	1.07	0.188	/
Front Side	standard	1:1.58	1	50	39750/2506	21.25	20.97	0.095	0.023	1.07	0.101	/
Left Edge	standard	1:1.58	1	50	39750/2506	21.25	20.97	0.269	0.021	1.07	0.287	82
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1.58	1	50	39750/2506	21.25	20.97	0.034	0.010	1.07	0.036	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Back Side	standard	1:1.58	50%	0	39750/2506	21.25	20.83	0.155	0.000	1.10	0.171	/
Front Side	standard	1:1.58	50%	0	39750/2506	21.25	20.83	0.095	0.021	1.10	0.105	/
Left Edge	standard	1:1.58	50%	0	39750/2506	21.25	20.83	0.260	0.030	1.10	0.286	/
Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	standard	1:1.58	50%	0	39750/2506	21.25	20.83	0.030	-0.010	1.10	0.033	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Left Edge	standard	1:1.58	1	99	39750/2506	21.25	20.69	0.138	0.060	1.14	0.157	/
			1	0	39948/2525.8							
Left Edge	Battery2	1:1.58	1	50	39750/2506	21.25	20.97	0.245	0.082	1.07	0.261	/

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are≥ 50% limit(1g).

MAX Adjusted SAR									
Test Position	Cover Type	RB allocation	Channel/ Frequency (MHz)	Full power (dBm)	Tune-up (dBm)	Report SAR1g (mW/g)	Scaling Factor	Full power Report SAR1g (mW/g)	0mm SAR
Back Side	standard	1	39750/2506	24.00	21.25	0.188	1.88	0.354	No
Front Side	standard	1	39750/2506	24.00	21.25	0.101	1.88	0.191	No
Left Edge	standard	1	39750/2506	24.00	21.25	0.287	1.88	0.540	No
Top Edge	standard	1	39750/2506	24.00	21.25	0.036	1.88	0.068	No
Back Side	standard	50%	39750/2506	23.50	21.25	0.171	1.68	0.287	No
Front Side	standard	50%	39750/2506	23.50	21.25	0.105	1.68	0.176	No
Left Edge	standard	50%	39750/2506	23.50	21.25	0.286	1.68	0.481	No
Top Edge	standard	50%	39750/2506	23.50	21.25	0.033	1.68	0.055	No
Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-g reported SAR < 1.2 W/kg, Product Specific 10-g SAR is not required.									

Table 31: Wi-Fi (2.4G)

Test Position	Cover Type	Mode	Duty Cycle	Channel/ Frequency (MHz)	Tune-up dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR											
Left Cheek	standard	802.11b	1:1	11/2462	13.00	11.80	0.123	-0.064	1.32	0.162	83
Left Tilt	standard	802.11b	1:1	11/2462	13.00	11.80	0.035	-0.020	1.32	0.046	/
Right Cheek	standard	802.11b	1:1	11/2462	13.00	11.80	0.029	-0.095	1.32	0.038	/
Right Tilt	standard	802.11b	1:1	11/2462	13.00	11.80	0.012	-0.022	1.32	0.016	/
Left Cheek	Battery2	802.11b	1:1	11/2462	13.00	11.80	0.105	0.026	1.32	0.138	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	802.11b	1:1	1/2412	19.50	18.10	0.069	0.020	1.38	0.095	/
Front Side	standard	802.11b	1:1	1/2412	19.50	18.10	0.094	-0.082	1.38	0.130	84
Front Side	Battery2	802.11b	1:1	1/2412	19.50	18.10	0.073	0.031	1.38	0.101	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	802.11b	1:1	1/2412	19.50	18.10	0.139	0.190	1.38	0.192	/
Front Side	standard	802.11b	1:1	1/2412	19.50	18.10	0.157	0.062	1.38	0.217	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	802.11b	1:1	1/2412	19.50	18.10	0.341	-0.035	1.38	0.471	85
Top Edge	standard	802.11b	1:1	1/2412	19.50	18.10	0.062	0.011	1.38	0.086	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	Battery2	802.11b	1:1	1/2412	19.50	18.10	0.335	-0.064	1.38	0.462	/
Note: 1. The value with blue color is the maximum SAR Value of each test band.											

MAX Adjusted SAR							
Mode	Test Position	Channel/ Frequency (MHz)	MAX Reported SAR_{1g} (W/kg)	802.11b Tune-up limit (dBm)	Tune-up limit (dBm)	Scaling Factor	Adjusted SAR_{1g} (W/kg)
802.11g	Right Edge	1/2412	0.471	19.5	20.0	1.12	0.528
802.11n HT20	Right Edge	1/2412	0.471	19.5	19.0	0.89	0.420
802.11n HT40	Right Edge	1/2412	0.471	19.5	17.0	0.56	0.265
Note: SAR is not required for OFDM 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.							

Table 32: Wi-Fi (5G,U-NII-1)

Test Position	Cover Type	Mode	Duty Cycle	Channel/ Frequency (MHz)	Tune-up dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR											
Left Cheek	standard	802.11a	1:1	48/5240	11.00	9.76	0.177	-0.059	1.33	0.235	/
Left Tilt	standard	802.11a	1:1	48/5240	11.00	9.76	0.181	-0.150	1.33	0.241	86
Right Cheek	standard	802.11a	1:1	48/5240	11.00	9.76	0.130	-0.077	1.33	0.173	/
Right Tilt	standard	802.11a	1:1	48/5240	11.00	9.76	0.133	-0.031	1.33	0.177	/
Left Tilt	Battery2	802.11a	1:1	48/5240	11.00	9.76	0.175	0.030	1.33	0.233	/
Body-worn SAR (Distance 15mm)											-
Back Side	standard	802.11ac-VHT40	1:1	46/5230	17.00	15.42	0.142	0.021	1.44	0.204	87
Front Side	standard	802.11ac-VHT40	1:1	46/5230	17.00	15.42	0.133	0.031	1.44	0.191	/
Back Side	Battery2	802.11ac-VHT40	1:1	46/5230	17.00	15.42	0.117	0.020	1.44	0.168	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	802.11ac-VHT40	1:1	46/5230	17.00	15.42	0.248	0.028	1.44	0.357	/
Front Side	standard	802.11ac-VHT40	1:1	46/5230	17.00	15.42	0.198	0.011	1.44	0.285	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	802.11ac-VHT40	1:1	46/5230	17.00	15.42	0.162	0.050	1.44	0.233	/
Top Edge	standard	802.11ac-VHT40	1:1	46/5230	17.00	15.42	0.294	0.013	1.44	0.423	88
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	802.11ac-VHT40		46/5230	17.00	15.42	0.268	-0.052	1.44	0.386	/

Note: 1. The value with blue color is the maximum SAR Value of each test band.

the highest reported SAR for a test configuration is > 1.2 W/kg, SAR is required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

Since the band U-NII-2A does not support hotspot function, hotspot SAR for U-NII-1 is required.

Table 33: Wi-Fi (5G,U-NII-2A)

Per 248227, for band U-NII-1 and U-NII-2A, 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.

Test Position	Cover Type	Mode	Duty Cycle	Channel/ Frequency (MHz)	Tune-up dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR											
Left Cheek	standard	802.11a	1:1	64/5320	11.00	9.54	0.205	-0.035	1.40	0.287	/
Left Tilt	standard	802.11a	1:1	64/5320	11.00	9.54	0.215	0.060	1.40	0.301	89
Right Cheek	standard	802.11a	1:1	64/5320	11.00	9.54	0.117	-0.067	1.40	0.164	/
Right Tilt	standard	802.11a	1:1	64/5320	11.00	9.54	0.139	-0.030	1.40	0.195	/
Left Tilt	Battery2	802.11a	1:1	64/5320	11.00	9.54	0.182	-0.025	1.40	0.255	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	802.11ac-VHT40	1:1	54/5270	17.00	15.53	0.141	-0.020	1.40	0.198	90
Front Side	standard	802.11ac-VHT40	1:1	54/5270	17.00	15.53	0.109	-0.056	1.40	0.153	/
Back Side	Battery2	802.11ac-VHT40	1:1	54/5270	17.00	15.53	0.139	-0.068	1.40	0.195	/
Test Position	**Cover Type**	**Mode**	**Duty Cycle**	**Channel/ Frequency (MHz)**	**Tune-up dBm)**	**Measured power (dBm)**	**Limit of SAR 4 W/kg (mW/g)**				**Plot No.**
							Measured SAR10g	**Power Drift (dB)**	**Scaling Factor**	**Report SAR 10g**	
Product Specific 10-g SAR (Distance 0mm)											
Back Side	standard	802.11ac-VHT40	1:1	54/5270	17.00	15.53	0.370	0.010	1.40	0.519	/
Front Side	standard	802.11ac-VHT40	1:1	54/5270	17.00	15.53	0.531	0.020	1.40	0.745	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	802.11ac-VHT40	1:1	54/5270	17.00	15.53	0.379	0.022	1.40	0.532	/
Top Edge	standard	802.11ac-VHT40	1:1	54/5270	17.00	15.53	0.721	0.038	1.40	1.011	91
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	802.11ac-VHT40	1:1	54/5270	17.00	15.53	0.582	0.025	1.40	0.816	/

Note: 1. The value with blue color is the maximum SAR Value of each test band.

Table 34: Wi-Fi (5G,U-NII-2C)

Test Position	Cover Type	Mode	Duty Cycle	Channel/ Frequency (MHz)	Tune-up dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR											
Left Cheek	standard	802.11a	1:1	140/5700	11.00	9.27	0.233	-0.082	1.49	0.347	/
Left Tilt	standard	802.11a	1:1	140/5700	11.00	9.27	0.240	-0.023	1.49	0.357	92
Right Cheek	standard	802.11a	1:1	140/5700	11.00	9.27	0.156	-0.064	1.49	0.232	/
Right Tilt	standard	802.11a	1:1	140/5700	11.00	9.27	0.173	-0.027	1.49	0.258	/
Left Tilt	Battery2	802.11a	1:1	140/5700	11.00	9.27	0.226	0.010	1.49	0.337	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	802.11ac-VHT40	1:1	110/5550	17.00	15.93	0.157	0.029	1.28	0.201	93
Front Side	standard	802.11ac-VHT40	1:1	110/5550	17.00	15.93	0.112	0.026	1.28	0.143	/
Back Side	Battery2	802.11ac-VHT40	1:1	110/5550	17.00	15.93	0.128	-0.028	1.28	0.164	/
Test Position	**Cover Type**	**Mode**	**Duty Cycle**	**Channel/ Frequency (MHz)**	**Tune-up dBm)**	**Measured power (dBm)**	**Limit of SAR 4 W/kg (mW/g)**				**Plot No.**
							Measured SAR10g	**Power Drift (dB)**	**Scaling Factor**	**Report SAR 10g**	
Product Specific 10-g SAR (Distance 0mm)											
Back Side	standard	802.11ac-VHT40	1:1	110/5550	17.00	15.93	0.566	0.025	1.28	0.724	/
Front Side	standard	802.11ac-VHT40	1:1	110/5550	17.00	15.93	0.686	0.039	1.28	0.878	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	802.11ac-VHT40	1:1	110/5550	17.00	15.93	0.479	0.011	1.28	0.613	/
Top Edge	standard	802.11ac-VHT40	1:1	110/5550	17.00	15.93	0.761	-0.190	1.28	0.974	94
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	802.11ac-VHT40	1:1	110/5550	17.00	15.93	0.613	0.090	1.28	0.784	/

Note: 1. The value with blue color is the maximum SAR Value of each test band.

Table 35: Wi-Fi (5G,U-NII-3)

Test Position	Cover Type	Mode	Duty Cycle	Channel/ Frequency (MHz)	Tune-up dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR											
Left Cheek	standard	802.11a	1:1	149/5745	11.00	9.77	0.259	-0.108	1.33	0.344	/
Left Tilt	standard	802.11a	1:1	149/5745	11.00	9.77	0.264	0.080	1.33	0.350	95
Right Cheek	standard	802.11a	1:1	149/5745	11.00	9.77	0.169	-0.150	1.33	0.224	/
Right Tilt	standard	802.11a	1:1	149/5745	11.00	9.77	0.195	0.120	1.33	0.259	/
Left Tilt	Battery2	802.11a	1:1	149/5745	11.00	9.77	0.235	0.030	1.33	0.312	/
Body-worn SAR (Distance 15mm)											
Back Side	standard	802.11a	1:1	149/5745	17.00	16.33	0.196	0.044	1.17	0.229	96
Front Side	standard	802.11a	1:1	149/5745	17.00	16.33	0.116	-0.021	1.17	0.135	/
Back Side	Battery2	802.11a	1:1	149/5745	17.00	16.33	0.148	0.038	1.17	0.173	/
Hotspot SAR(Distance 10mm)											
Back Side	standard	802.11a	1:1	149/5745	17.00	16.33	0.345	0.059	1.17	0.403	/
Front Side	standard	802.11a	1:1	149/5745	17.00	16.33	0.335	0.010	1.17	0.391	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	802.11a	1:1	149/5745	17.00	16.33	0.381	0.100	1.17	0.445	/
Top Edge	standard	802.11a	1:1	149/5745	17.00	16.33	0.384	0.000	1.17	0.448	97
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Top Edge	Battery2	802.11a	1:1	149/5745	17.00	16.33	0.305	-0.100	1.17	0.356	/
Note: 1. The value with blue color is the maximum SAR Value of each test band.											

Table 36: BT

Test Position	Cover Type	Mode	Duty Cycle	Channel/ Frequency (MHz)	Tune-up dBm)	Measured power (dBm)	Limit of SAR 1.6 W/kg (mW/g)				Plot No.
							Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR 1g	
Head SAR											
Left Cheek	standard	GFSK	76.0%	39/2441	12.50	10.84	0.068	-0.098	1.93	0.131	98
Left Tilt	standard	GFSK	76.0%	39/2441	12.50	10.84	0.018	-0.110	1.93	0.034	/
Right Cheek	standard	GFSK	76.0%	39/2441	12.50	10.84	0.024	-0.095	1.93	0.047	/
Right Tilt	standard	GFSK	76.0%	39/2441	12.50	10.84	0.008	-0.120	1.93	0.015	/
Left Cheek	standard	GFSK	76.0%	39/2441	12.50	10.84	0.043	0.022	1.93	0.083	/
Body SAR(Distance 10mm)											
Back Side	standard	GFSK	76.0%	39/2441	12.50	10.84	0.016	-0.092	1.93	0.032	/
Front Side	standard	GFSK	76.0%	39/2441	12.50	10.84	0.017	-0.056	1.93	0.033	/
Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	standard	GFSK	76.0%	39/2441	12.50	10.84	0.018	0.115	1.93	0.035	99
Top Edge	standard	GFSK	76.0%	39/2441	12.50	10.84	0.006	-0.036	1.93	0.011	/
Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Right Edge	Battery2	GFSK	76.0%	39/2441	12.50	10.84	0.015	0.030	1.93	0.029	/

Note: 1. The value with blue color is the maximum SAR Value of each test band.

10.3 Simultaneous Transmission Analysis

NO.	Simultaneous Tx Combination	Head	Body-worn	Hotspot
1	GSM Voice(Ant 1) + BT	N/A	Yes	N/A
2	GSM DATA(Ant 1) + BT	N/A	Yes	N/A
3	GSM Voice(Ant 3) + BT	N/A	Yes	N/A
4	GSM DATA (Ant 3)+ BT	N/A	Yes	N/A
5	GSM Voice(Ant 1) +WiFi2.4G (Ant 7)	Yes	Yes	N/A
6	GSM DATA(Ant 1) +WiFi 2.4G (Ant 7)	N/A	Yes	Yes
7	GSM Voice(Ant 3) + WiFi 2.4G (Ant 7)	Yes	Yes	N/A
8	GSM DATA(Ant 3) + WiFi 2.4G (Ant 7)	N/A	Yes	Yes
9	UMTS Voice(Ant 2) + BT	N/A	Yes	N/A
10	UMTS Data(Ant 2) + BT	N/A	Yes	N/A
11	UMTS Voice(Ant 4) + BT	N/A	Yes	N/A
12	UMTS Data(Ant 4) + BT	N/A	Yes	N/A
13	UMTS Voice(Ant 2) + WiFi 2.4G (Ant 7)	Yes	Yes	N/A
14	UMTS Data (Ant 2) + WiFi 2.4G (Ant 7)	N/A	Yes	Yes
15	UMTS Voice (Ant 4) + WiFi 2.4G (Ant 7)	Yes	Yes	N/A
16	UMTS Data (Ant 4)+ WiFi 2.4G (Ant 7)	N/A	Yes	Yes
17	LTE (Ant 2) + WiFi 2.4G (Ant 7)	Yes	Yes	Yes
18	LTE(Ant 2) + BT	N/A	Yes	N/A
19	LTE (Ant 4 or ANT10) + WiFi 2.4G (Ant 7)	Yes	Yes	Yes
20	LTE (Ant 4 or ANT10) + BT	N/A	Yes	N/A
21	GSM Voice(Ant 1) + WiFi5G	Yes	Yes	N/A
22	GSM DATA(Ant 1) +WiFi5G	N/A	Yes	Yes
23	GSM Voice(Ant 3) + WiFi5G	Yes	Yes	N/A
24	GSM DATA(Ant 3) + WiFi5G	N/A	Yes	Yes
25	UMTS Voice(Ant 2) + WiFi5G	Yes	Yes	N/A
26	UMTS Data (Ant 2) + WiFi5G	N/A	Yes	Yes
27	UMTS Voice (Ant 4) + WiFi5G	Yes	Yes	N/A
28	UMTS Data (Ant 4)+ WiFi5G	N/A	Yes	Yes
29	LTE (Ant 2) + WiFi5G	Yes	Yes	Yes
30	LTE (Ant 4 or ANT10) + WiFi5G	Yes	Yes	Yes

General Note:

1. The Scaled SAR summation is calculated based on the same configuration and test position.
2. Per KDB 447498 D01, simultaneous transmission SAR is compliant if,

i) Scalar SAR summation < 1.6W/kg, simultaneously transmission SAR measurement is not necessary.

ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.

iii) If SPLSR ≤ 0.04, simultaneously transmission SAR measurement is not necessary.

The maximum SAR_{1g} Value for Main-Antenna

SAR_{1g}(W/kg) / Test Position		GSM 850	GSM 1900	WCDMA Band II	WCDMA Band IV	WCDMA Band V	LTE FDD 2	LTE FDD 4	LTE FDD 5	LTE FDD 7	LTE TDD 38	LTE TDD 41	MAX. SAR_{1g}
Left Cheek		0.201	0.069	0.142	0.172	0.045	0.131	0.172	0.233	0.165	0.137	0.147	0.233
Left Tilt		0.105	0.043	0.074	0.115	0.046	0.082	0.115	0.125	0.048	0.035	0.053	0.125
Right Cheek		0.196	0.063	0.135	0.178	0.093	0.120	0.170	0.255	0.100	0.063	0.084	0.255
Right Tilt		0.118	0.038	0.068	0.102	0.095	0.055	0.099	0.143	0.061	0.064	0.075	0.143
Body worn	Back Side	0.195	0.108	0.302	0.321	0.254	0.271	0.302	0.255	0.338	0.237	0.172	0.338
	Front Side	0.164	0.088	0.234	0.240	0.164	0.192	0.239	0.197	0.272	0.138	0.128	0.272
Hotspot	Back Side	0.418	0.237	0.619	0.553	0.444	0.505	0.554	0.441	0.633	0.482	0.478	0.633
	Front Side	0.241	0.201	0.443	0.542	0.293	0.406	0.478	0.347	0.495	0.377	0.333	0.542
	Left Edge	0.081	0.068	0.153	0.168	0.089	0.155	0.206	0.149	0.246	0.058	0.101	0.246
	Right Edge	0.303	0.016	0.060	0.091	0.261	0.075	0.107	0.300	0.064	0.042	0.038	0.303
	Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bottom Edge	0.130	0.343	0.641	0.698	0.147	0.655	0.851	0.185	0.714	0.543	0.369	0.851

The maximum SAR_{1g} Value for Second-Antenna

SAR_{1g}(W/kg) / Test Position		GSM 850	GSM 1900	WCDMA Band II	WCDMA Band IV	WCDMA Band V	LTE FDD 2	LTE FDD 4	LTE FDD 5	LTE FDD 7	LTE TDD 38	LTE TDD 41	MAX. SAR_{1g}
Left Cheek		0.441	0.597	0.777	0.500	0.646	0.617	0.444	0.669	0.139	0.300	0.208	0.777
Left Tilt		0.079	0.755	1.036	0.755	0.080	0.815	0.613	0.109	0.103	0.154	0.163	1.036
Right Cheek		0.245	0.674	0.952	0.859	0.355	0.583	0.617	0.420	0.468	0.725	0.758	0.952
Right Tilt		0.063	0.736	1.011	0.860	0.070	0.920	0.749	0.086	0.238	0.332	0.388	1.011
Body worn	Back Side	0.126	0.220	0.453	0.347	0.211	0.334	0.408	0.216	0.222	0.312	0.284	0.453
	Front Side	0.146	0.115	0.261	0.229	0.196	0.250	0.308	0.193	0.150	0.227	0.224	0.308
Hotspot	Back Side	0.227	0.212	0.296	0.222	0.300	0.228	0.187	0.332	0.196	0.263	0.188	0.332
	Front Side	0.237	0.168	0.234	0.156	0.290	0.184	0.154	0.336	0.152	0.215	0.105	0.336
	Left Edge	0.364	0.073	0.115	0.086	0.496	0.095	0.067	0.582	0.325	0.444	0.287	0.582
	Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Top Edge	0.025	0.342	0.575	0.402	0.016	0.538	0.323	0.033	0.055	0.049	0.036	0.575
	Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

About BT and Main- Antenna

Test Position \ SAR_{1g}(W/kg)		Main-antenna	BT	MAX. ΣSAR_{1g}
Head	Left, Cheek	0.233	0.131	0.364
	Left, Tilt	0.125	0.034	0.159
	Right, Cheek	0.255	0.047	0.302
	Right, Tilt	0.143	0.015	0.158
Body worn	Back Side	0.338	0.032	0.370
	Front Side	0.272	0.033	0.305
Hotspot	Back Side	0.633	0.032	0.665
	Front Side	0.542	0.033	0.575
	Left Edge	0.246	NA	0.246
	Right Edge	0.303	0.035	0.338
	Top Edge	N/A	0.011	0.011
	Bottom Edge	0.851	NA	0.851
Note: 1.The value with blue color is the maximum ΣSAR_{1g} Value. 2.MAX. ΣSAR_{1g} =Unlicensed SAR_{MAX} +Licensed SAR_{MAX}				

MAX. ΣSAR_{1g} =0.851W/kg<1.6W/kg, so the Simultaneous transimition SAR with volum scan are not required for BT and Main-Antenna.

About BT and Second-Antenna

Test Position \ SAR_{1g}(W/kg)		Second-Antenna	BT	MAX. ΣSAR_{1g}
Head	Left, Cheek	0.777	0.131	0.908
	Left, Tilt	1.036	0.034	1.070
	Right, Cheek	0.952	0.047	0.999
	Right, Tilt	1.011	0.015	1.026
Body worn	Back Side	0.453	0.032	0.485
	Front Side	0.308	0.033	0.341
Hotspot	Back Side	0.332	0.032	0.364
	Front Side	0.336	0.033	0.369
	Left Edge	0.582	NA	0.582
	Right Edge	N/A	0.035	0.035
	Top Edge	0.575	0.011	0.586
	Bottom Edge	N/A	NA	NA
Note: 1.The value with blue color is the maximum ΣSAR_{1g} Value. 2.MAX. ΣSAR_{1g} =Unlicensed SAR_{MAX} +Licensed SAR_{MAX}				

MAX. ΣSAR_{1g} =1.070W/kg<1.6W/kg, so the Simultaneous transimition SAR with volum scan are not required for BT and Second-Antenna.

About Wi-Fi 2.4G and Main-Antenna

Test Position \ SAR_{1g}(W/kg)		Main-antenna	Wi-Fi 2.4G	MAX. ΣSAR_{1g}
Head	Left, Cheek	0.233	0.162	0.395
	Left, Tilt	0.125	0.046	0.171
	Right, Cheek	0.255	0.038	0.293
	Right, Tilt	0.143	0.016	0.159
Body worn	Back Side	0.338	0.095	0.433
	Front Side	0.272	0.130	0.402
Hotspot	Back Side	0.633	0.192	0.825
	Front Side	0.542	0.217	0.759
	Left Edge	0.246	N/A	0.246
	Right Edge	0.303	0.471	0.774
	Top Edge	N/A	0.086	0.086
	Bottom Edge	0.851	N/A	0.851

Note: 1.The value with blue color is the maximum ΣSAR_{1g} Value.
2.MAX. ΣSAR_{1g} =Unlicensed SAR_{MAX} +Licensed SAR_{MAX}

MAX. ΣSAR_{1g} = 0.851W/kg<1.6W/kg. so the Simultaneous transimition SAR with volum scan are not required for Wi-Fi 2.4G and Main-Antenna.

About Wi-Fi 2.4G and Second- Antenna

Test Position \ SAR_{1g}(W/kg)		Second- Antenna	Wi-Fi 2.4G	MAX. ΣSAR_{1g}
Head	Left, Cheek	0.777	0.162	0.939
	Left, Tilt	1.036	0.046	1.082
	Right, Cheek	0.952	0.038	0.990
	Right, Tilt	1.011	0.016	1.027
Body worn	Back Side	0.453	0.095	0.548
	Front Side	0.308	0.130	0.438
Hotspot	Back Side	0.332	0.192	0.524
	Front Side	0.336	0.217	0.553
	Left Edge	0.582	N/A	0.582
	Right Edge	N/A	0.471	0.471
	Top Edge	0.575	0.086	0.661
	Bottom Edge	N/A	N/A	N/A

Note: 1.The value with blue color is the maximum ΣSAR_{1g} Value.
2.MAX. ΣSAR_{1g} =Unlicensed SAR_{MAX} +Licensed SAR_{MAX}

MAX. ΣSAR_{1g} = 1.082W/kg<1.6W/kg, so the Simultaneous transimition SAR with volum scan are not required for Wi-Fi 2.4G and Second-Antenna.

About Wi-Fi 5G and Main-Antenna

Test Position		Main-antenna	Wi-Fi (U-NII-1)	Wi-Fi (U-NII-2A)	Wi-Fi (U-NII-2C)	Wi-Fi (U-NII-3)	MAX. $\Sigma SAR_{1g/10g}$
		$SAR_{1g/10g}$(W/kg)					
Head	Left, Cheek	0.233	0.235	0.287	**0.347**	0.344	0.580
	Left, Tilt	0.125	0.241	0.301	**0.357**	0.350	0.482
	Right, Cheek	0.255	0.173	0.164	**0.232**	0.224	0.487
	Right, Tilt	0.143	0.177	0.195	0.258	**0.259**	0.402
Body worn	Back Side	0.338	0.204	0.198	0.201	**0.229**	0.567
	Front Side	0.272	**0.191**	0.153	0.143	0.135	0.463
Hotspot	Back Side	0.633	0.357	N/A	N/A	**0.403**	1.036
	Front Side	0.542	0.285	N/A	N/A	**0.391**	0.933
	Left Edge	0.246	N/A	N/A	N/A	N/A	0.246
	Right Edge	0.303	0.233	N/A	N/A	**0.445**	0.748
	Top Edge	N/A	0.423	N/A	N/A	**0.448**	0.448
	Bottom Edge	0.851	N/A	N/A	N/A	N/A	0.851
Product Specific 10-g SAR	Back Side	N/A	N/A	0.519	**0.724**	N/A	0.724
	Front Side	N/A	N/A	0.745	**0.878**	N/A	0.878
	Left Edge	N/A	N/A	N/A	N/A	N/A	N/A
	Right Edge	N/A	N/A	0.532	**0.613**	N/A	0.613
	Top Edge	N/A	N/A	**1.011**	0.974	N/A	1.011
	Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A

Note: 1.The value with blue color is the maximum $\Sigma SAR_{1g/10g}$ Value.

2.MAX. $\Sigma SAR_{1g/10g}$ =Unlicensed SAR_{MAX} +Licensed SAR_{MAX}

MAX. ΣSAR_{1g} = 1.036W/kg<1.6W/kg and MAX. ΣSAR_{10g} = 1.011W/kg<4 W/kg, so the Simultaneous transimition SAR with volum scan are not required for Wi-Fi 5G and Main-Antenna.

About Wi-Fi 5G and Second- Antenna

$SAR_{1g/10g}$(W/kg) Test Position		Second-antenna	Wi-Fi (U-NII-1)	Wi-Fi (U-NII-2A)	Wi-Fi (U-NII-2C)	Wi-Fi (U-NII-3)	MAX. $\Sigma SAR_{1g/10g}$
Head	Left, Cheek	0.777	0.235	0.287	**0.347**	0.344	1.124
	Left, Tilt	1.036	0.241	0.301	**0.357**	0.350	1.393
	Right, Cheek	0.952	0.173	0.164	**0.232**	0.224	1.184
	Right, Tilt	1.011	0.177	0.195	0.258	**0.259**	1.270
Body worn	Back Side	0.453	0.204	0.198	0.201	**0.229**	0.682
	Front Side	0.308	**0.191**	0.153	0.143	0.135	0.499
Hotspot	Back Side	0.332	0.357	N/A	N/A	**0.403**	0.735
	Front Side	0.336	0.285	N/A	N/A	**0.391**	0.727
	Left Edge	0.582	N/A	N/A	N/A	N/A	0.582
	Right Edge	N/A	0.233	N/A	N/A	**0.445**	0.445
	Top Edge	0.575	0.423	N/A	N/A	**0.448**	1.023
	Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A
Product Specific 10-g SAR	Back Side	N/A	N/A	0.519	**0.724**	N/A	0.724
	Front Side	N/A	N/A	0.745	**0.878**	N/A	0.878
	Left Edge	N/A	N/A	N/A	N/A	N/A	N/A
	Right Edge	N/A	N/A	0.532	**0.613**	N/A	0.613
	Top Edge	N/A	N/A	**1.011**	0.974	N/A	1.011
	Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A

Note: 1.The value with blue color is the maximum $\Sigma SAR_{1g/10g}$ Value.

2.MAX. $\Sigma SAR_{1g/10g}$ =Unlicensed SAR_{MAX} +Licensed SAR_{MAX}

MAX. ΣSAR_{1g} = 1.393W/kg<1.6W/kg and MAX. ΣSAR_{10g} = 1.011W/kg<4 W/kg, so the Simultaneous transimition SAR with volum scan are not required for Wi-Fi 5G and Second-Antenna.

Conclusion:

According to the KDB 690783 D01 section 1) d) i), when the sum of 1-g SAR applies for simultaneous transmission SAR test exclusion, the highest sum of 1-g SAR according to the highest reported stand-alone SAR values is used, and the highest Reported SAR for simultaneous transmission exposure conditions is 1.393 W/kg

11 Measurement Uncertainty

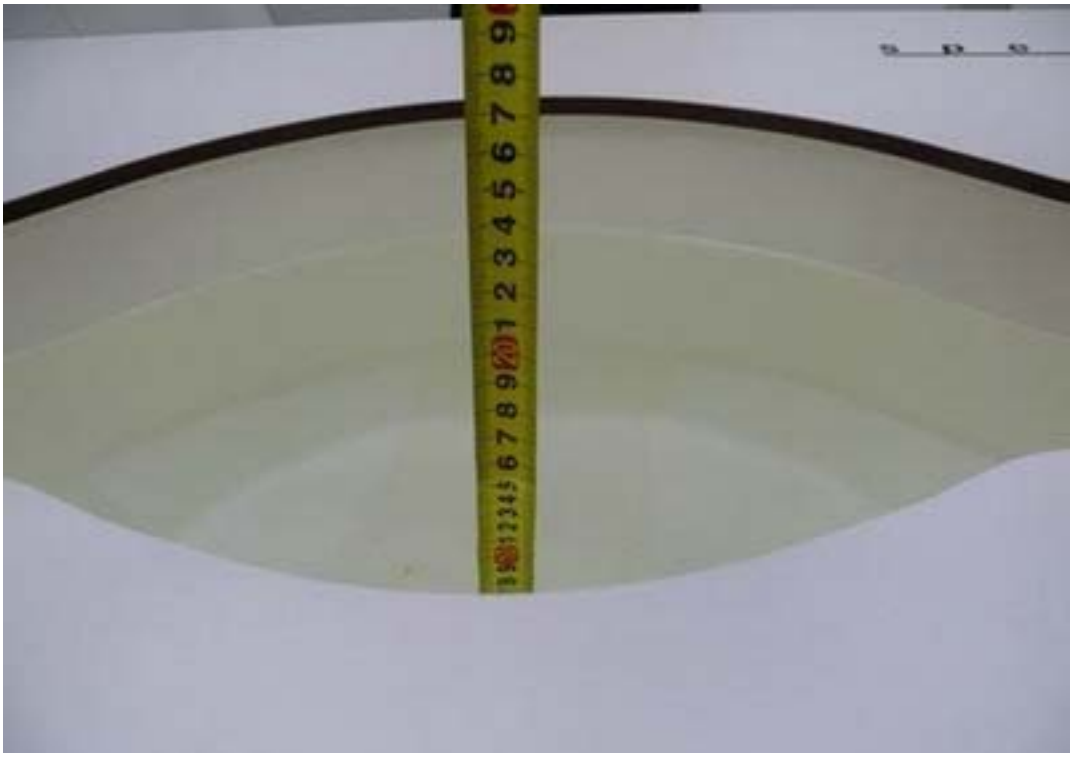
Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528- 2013 is not required in SAR reports submitted for equipment approval. This also applies to the 10-g SAR required for phablets in KDB Publication 648474.

ANNEX A: Test Layout

Tissue Simulating Liquids

For the measurement of the field distribution inside the flat phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For Head and Body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Picture 3 and Picture 4.

Picture 3: liquid depth in the head Phantom



Picture 4: Liquid depth in the flat Phantom

ANNEX B: System Check Results

Plot 1 System Performance Check at 835 MHz TSL

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d020

Date: 9/25/2020

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: f = 835 MHz; σ = 0.88 S/m; ε_r = 40.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=15mm, Pin=250mW/Area Scan (4x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.64 mW/g

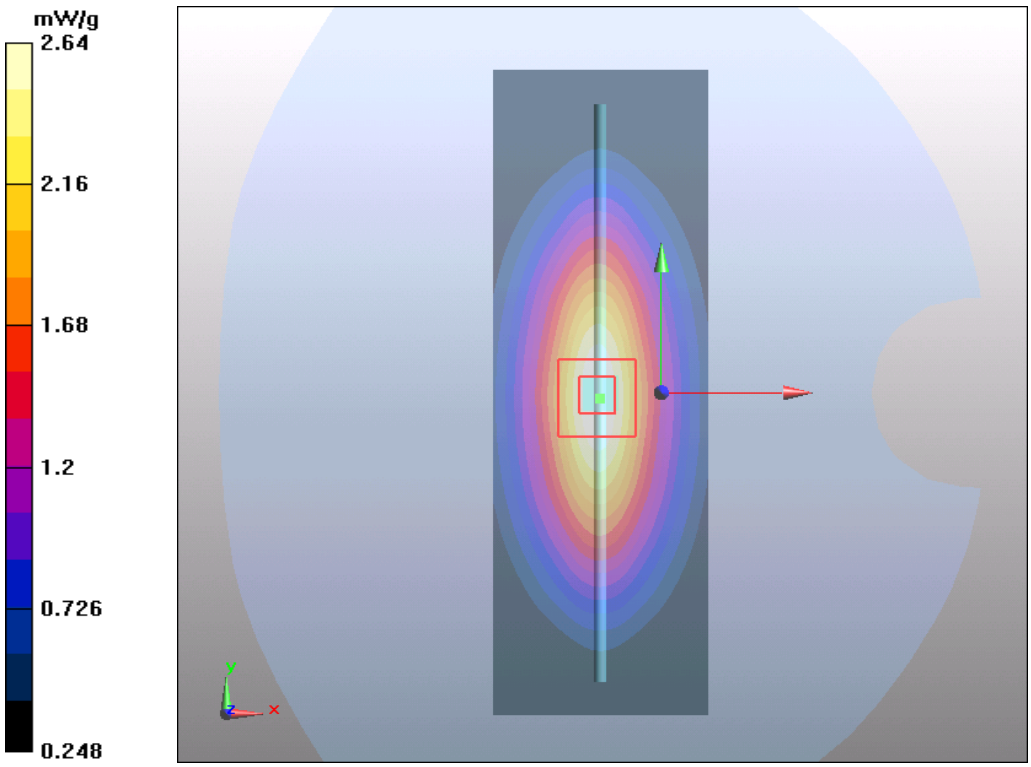
d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 54.4 V/m; Power Drift = -0.076 dB

Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.45 mW/g; SAR(10 g) = 1.6 mW/g

Maximum value of SAR (measured) = 2.64 mW/g



Plot 2 System Performance Check at 835 MHz TSL

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d020

Date: 9/26/2020

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: f = 835 MHz; σ =0.91 S/m; ε_r = 40.2; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=15mm, Pin=250mW/Area Scan (4x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.59 mW/g

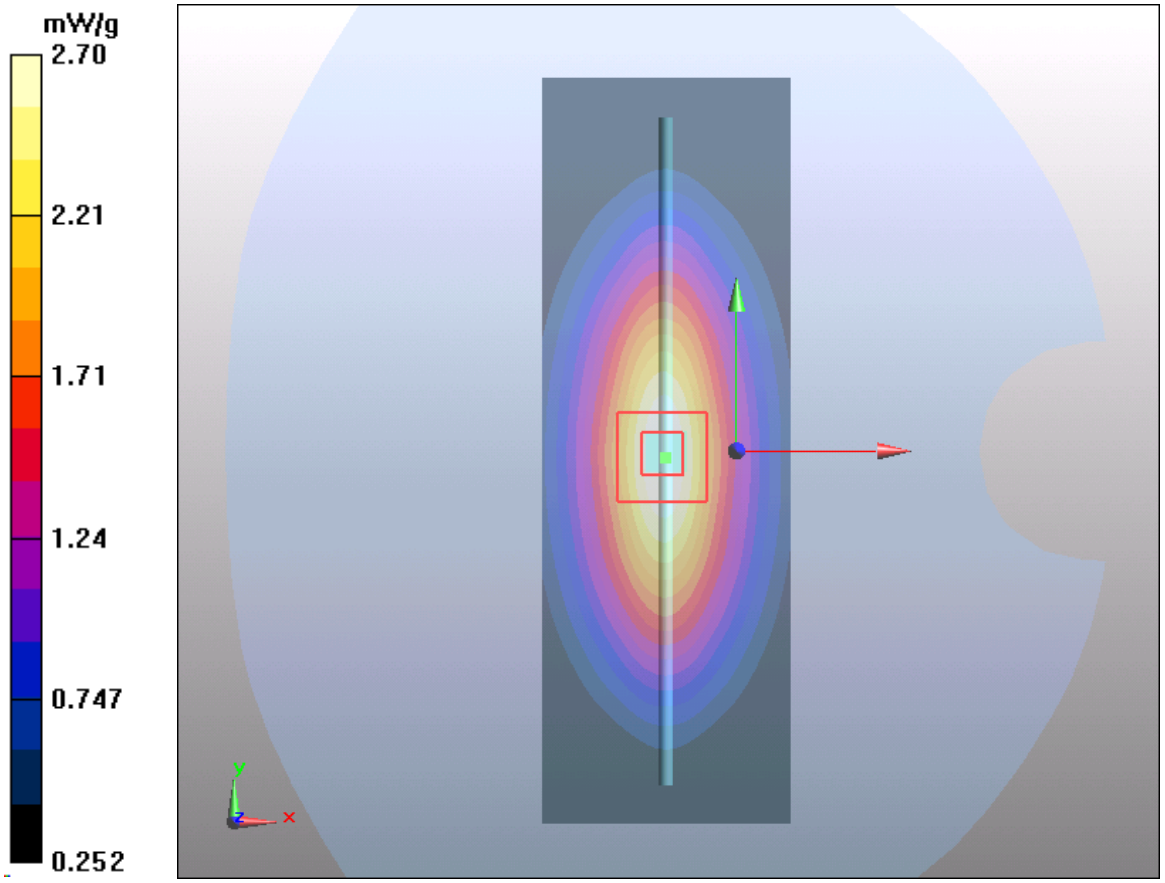
d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 54.3 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.48 mW/g; SAR(10 g) = 1.65 mW/g

Maximum value of SAR (measured) = 2.70 mW/g



Plot 3 System Performance Check at 835 MHz TSL

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d020

Date: 9/27/2020

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium parameters used: f = 835 MHz; σ = 0.89 S/m; ε_r = 40.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=15mm, Pin=250mW/Area Scan (4x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.64 mW/g

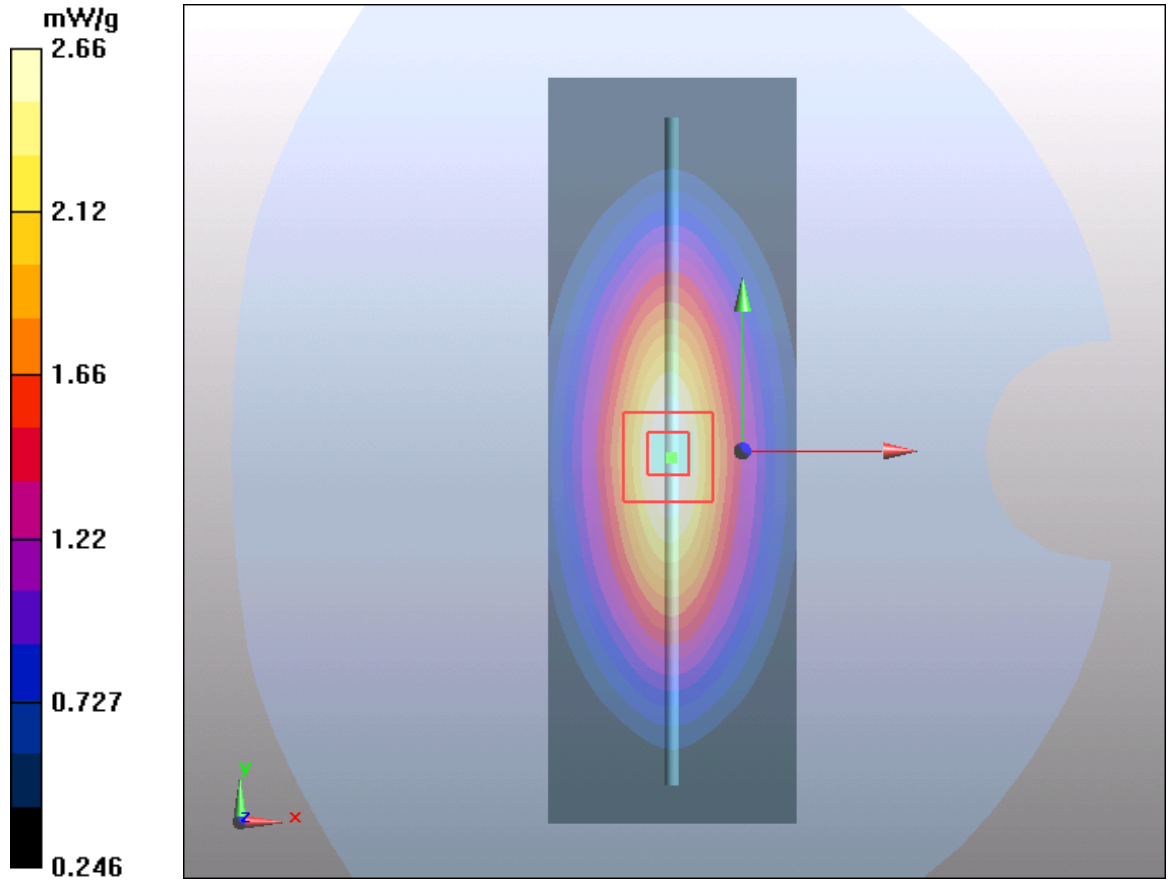
d=15mm, Pin=250mW/Zoom Scan(5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 54.4 V/m; Power Drift = -0.076 dB

Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.41 mW/g; SAR(10 g) = 1.61 mW/g

Maximum value of SAR (measured) = 2.66 mW/g



Plot 4 System Performance Check at 1750 MHz TSL

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1033

Date: 9/15/2020

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1750 MHz; σ = 1.38 S/m; ε_r = 39.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 9.78 mW/g

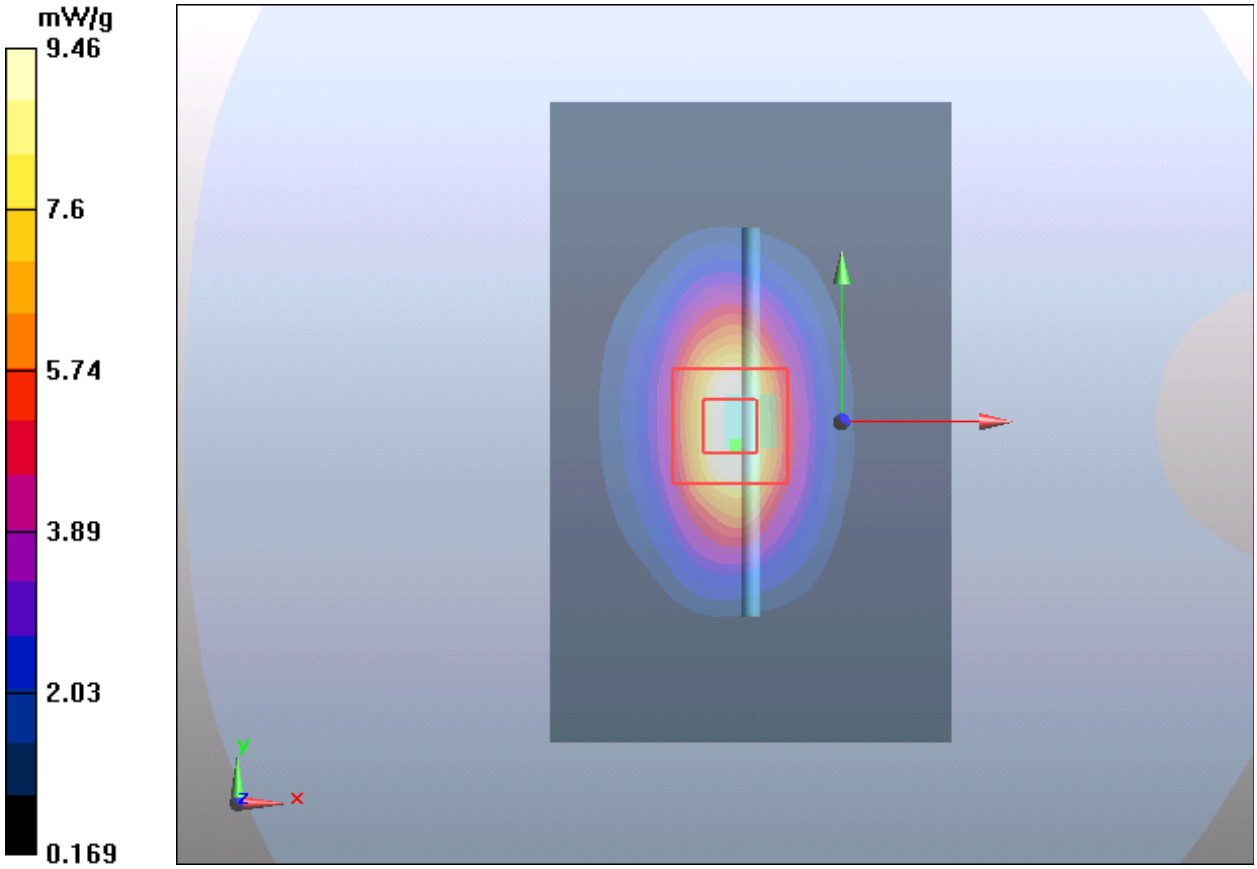
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 80 V/m; Power Drift = 0.075 dB

Peak SAR (extrapolated) = 15.5 W/kg

SAR(1 g) = 8.94 mW/g; SAR(10 g) = 4.5 mW/g

Maximum value of SAR (measured) = 9.46 mW/g



Plot 5 System Performance Check at 1750 MHz TSL

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1033

Date: 9/16/2020

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1750 MHz; σ = 1.36 S/m; ε_r = 39.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 9.77 mW/g

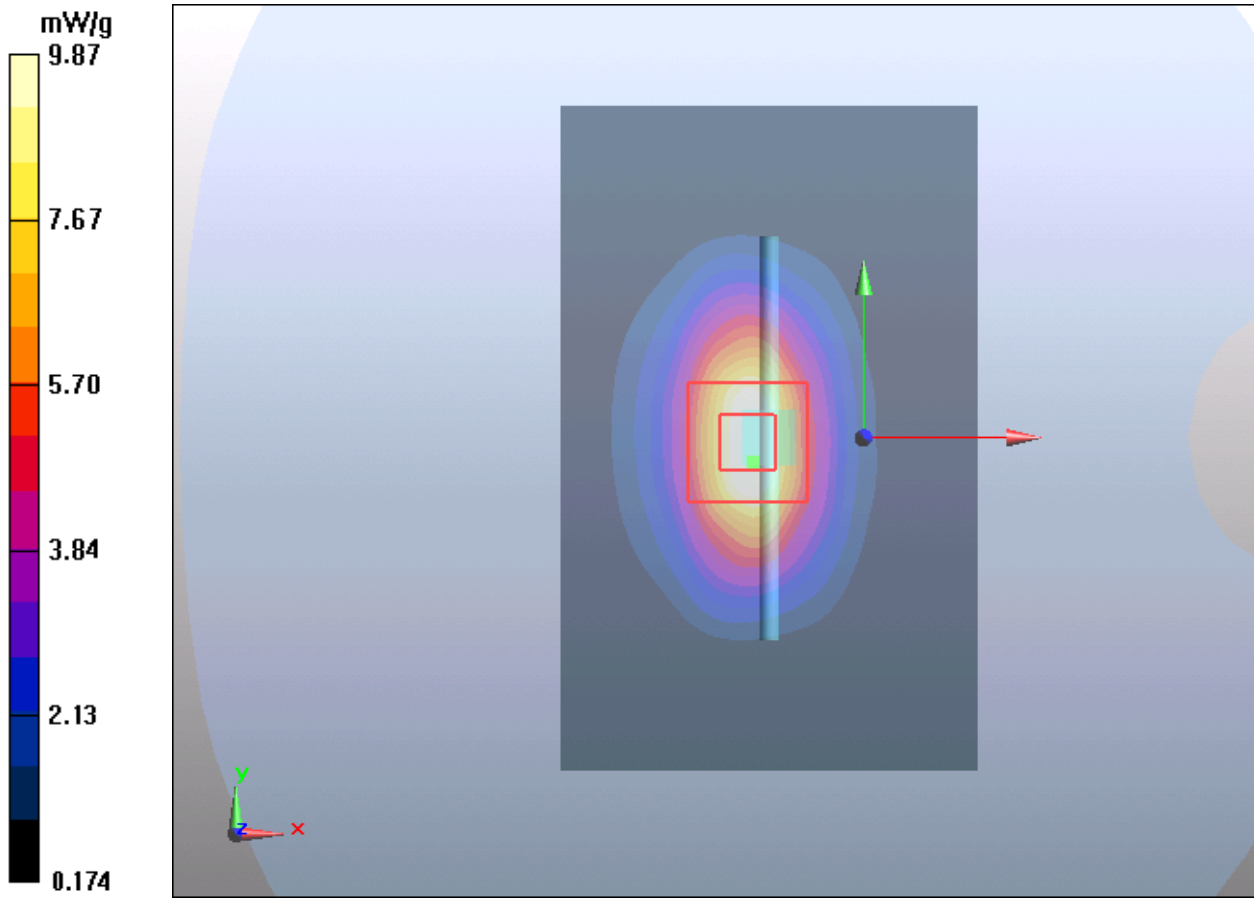
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 80 V/m; Power Drift = 0.055 dB

Peak SAR (extrapolated) = 15.51 W/kg

SAR(1 g) = 9.20 mW/g; SAR(10 g) = 4.77 mW/g

Maximum value of SAR (measured) = 9.87 mW/g



Plot 6 System Performance Check at 1900 MHz TSL

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d060

Date: 10/23/2020

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1900 MHz; σ = 1.38 S/m; ε_r = 39.8ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 11.3 mW/g

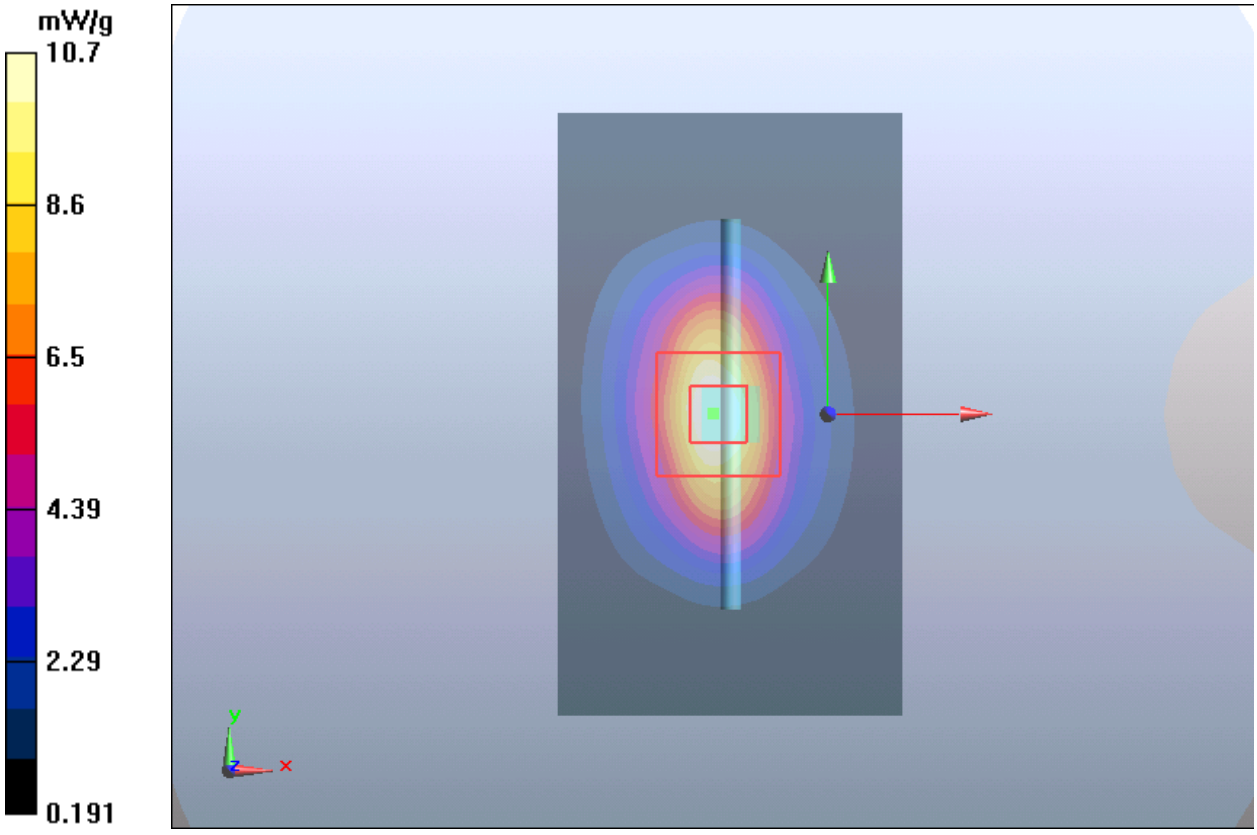
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 85.5 V/m; Power Drift = 0.028 dB

Peak SAR (extrapolated) = 17.8 W/kg

SAR(1 g) = 9.88 mW/g; SAR(10 g) = 4.9 mW/g

Maximum value of SAR (measured) = 10.7 mW/g



Plot 7 System Performance Check at 1900 MHz TSL

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d060

Date: 10/24/2020

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1900 MHz; σ = 1.39 S/m; ε_r = 40.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 11.23 mW/g

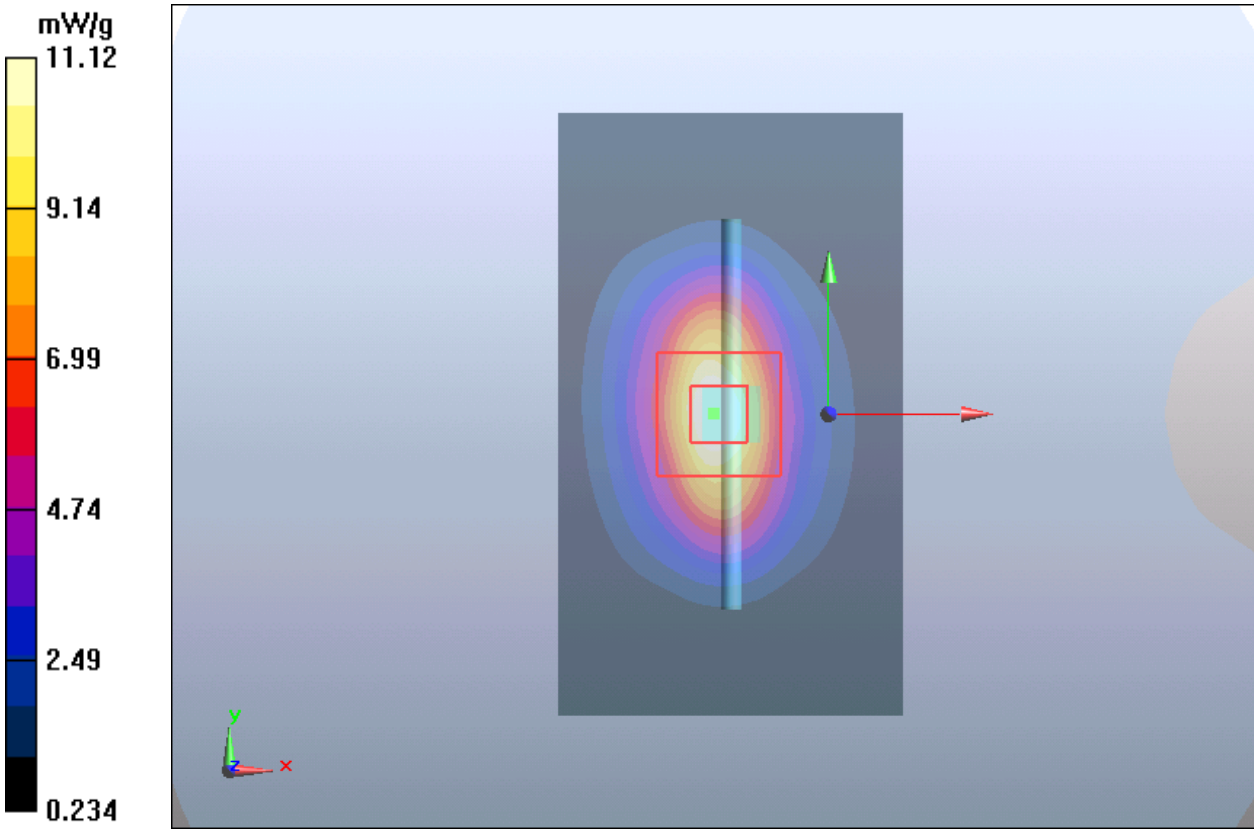
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 85.0 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 17.8 W/kg

SAR(1 g) = 9.91 mW/g; SAR(10 g) = 4.93 mW/g

Maximum value of SAR (measured) = 11.12 mW/g



Plot 8 System Performance Check at 1900 MHz

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d060

Date: 10/25/2020

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1900 MHz; σ = 1.35 mho/m; ε_r = 40.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 12.9 mW/g

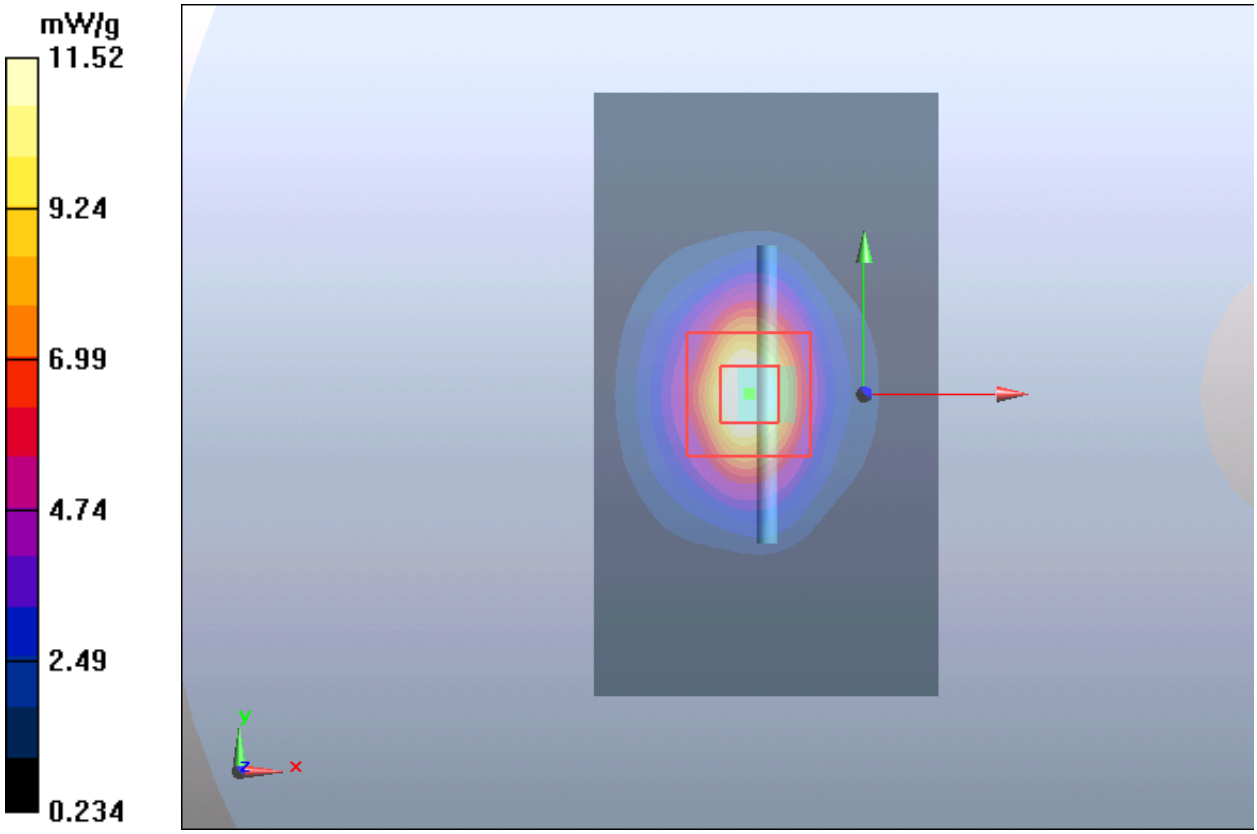
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 87.8 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 20.1 W/kg

SAR(1 g) = 10.49 mW/g; SAR(10 g) = 5.39 mW/g

Maximum value of SAR (measured) = 11.52 mW/g



Plot 9 System Performance Check at 2450 MHz TSL

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 786

Date: 9/6/2020

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2450 MHz; σ = 1.76 S/m; ε_r = 38.5; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.54, 7.54, 7.54); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 18.2 mW/g

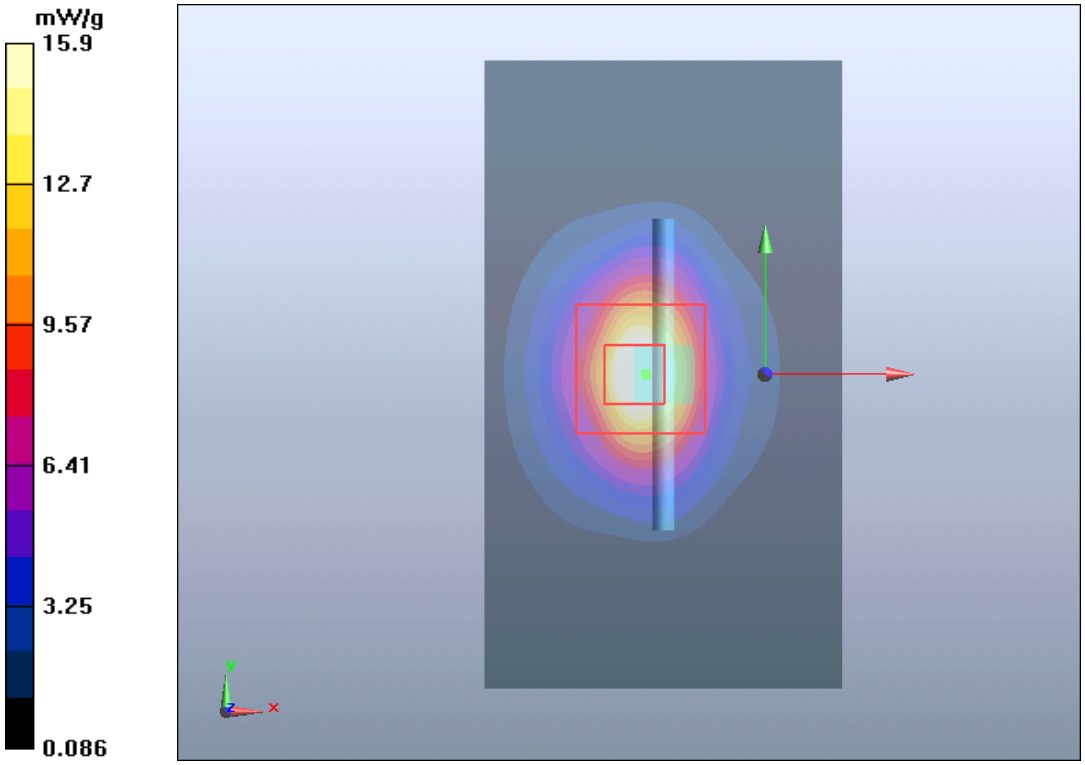
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 88.8 V/m; Power Drift = 0.075 dB

Peak SAR (extrapolated) = 30 W/kg

SAR(1 g) = 13.72 mW/g; SAR(10 g) = 6.22 mW/g

Maximum value of SAR (measured) = 15.9 mW/g



Plot 10 System Performance Check at 2600 MHz TSL

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1025

Date: 11/3/2020

Communication System: CW; Frequency: 2600 MHz

Medium parameters used: f = 2600 MHz; σ = 1.98 S/m; ε_r = 39.2; ρ = 1000 kg/m^3

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid:dx=12mm, dy=12mm

Maximum value of SAR (measured) = 17.439 mW/g

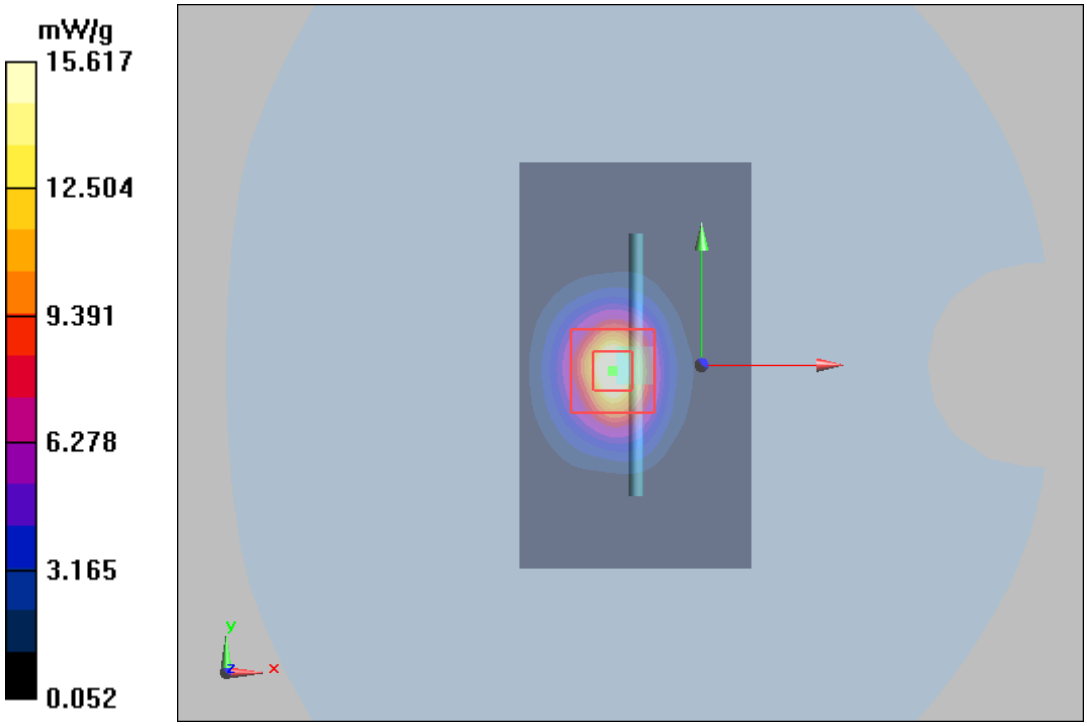
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.998 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 31.858 W/kg

SAR(1 g) = 13.89 mW/g; SAR(10 g) = 6.07 mW/g

Maximum value of SAR (measured) = 15.617 mW/g



Plot 11 System Performance Check at 2600 MHz TSL

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1025

Date: 11/4/2020

Communication System: CW; Frequency: 2600 MHz

Medium parameters used: f = 2600 MHz; σ =1.94S/m; ε_r = 38.9; ρ = 1000 kg/m^3

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid:dx=12mm, dy=12mm

Maximum value of SAR (measured) = 17.59 mW/g

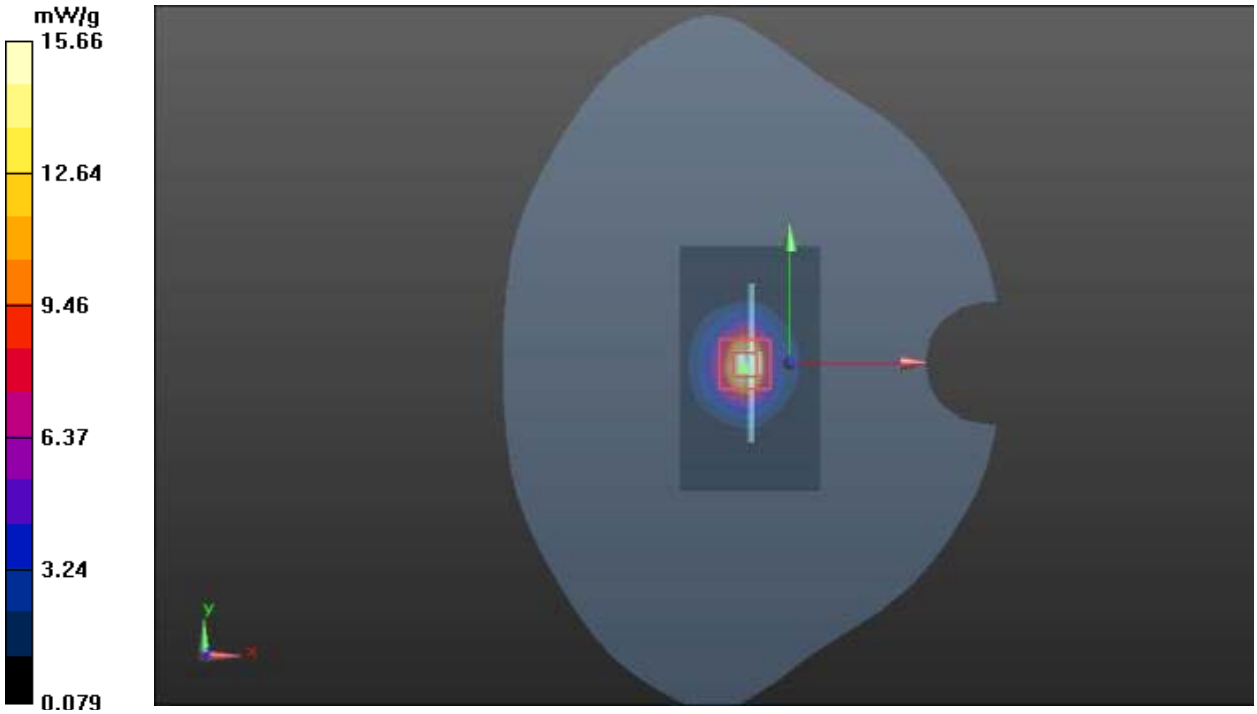
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.998 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 31.858 W/kg

SAR(1 g) = 13.91 mW/g; SAR(10 g) = 6.09 mW/g

Maximum value of SAR (measured) = 15.66 mW/g



Plot 12 System Performance Check at 2600 MHz TSL

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1025

Date: 11/8/2020

Communication System: CW; Frequency: 2600 MHz

Medium parameters used: f = 2600 MHz; σ = 1.97 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x7x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 17.32 mW/g

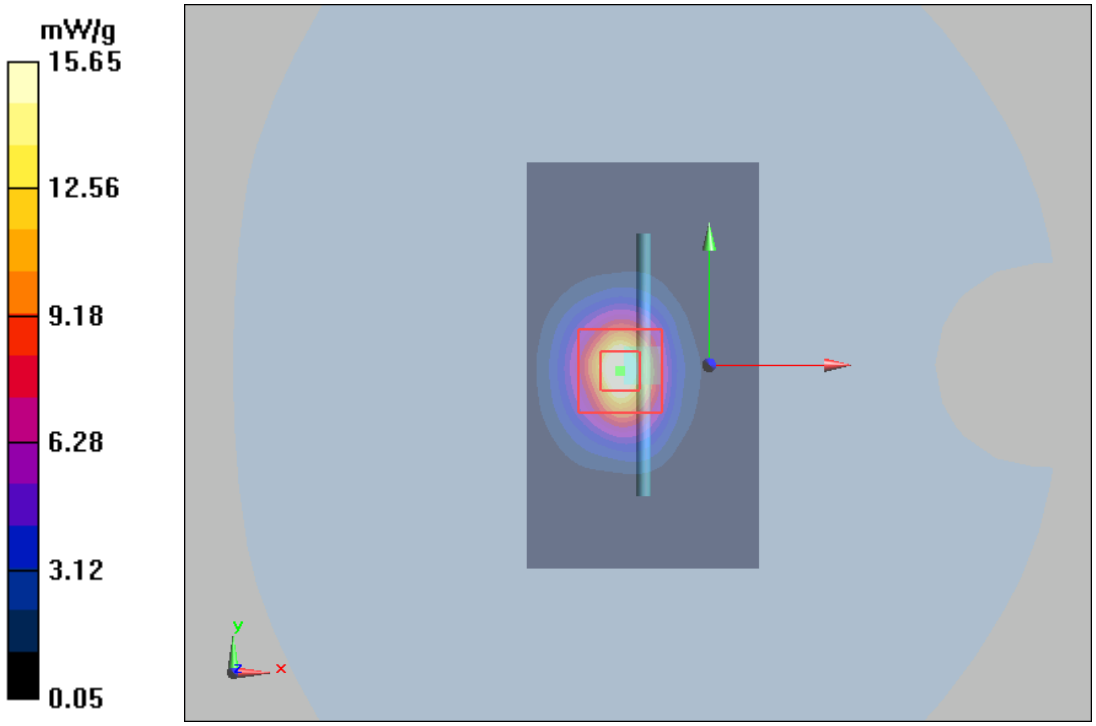
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.465 V/m; Power Drift = 0.146 dB

Peak SAR (extrapolated) = 31.85 W/kg

SAR(1 g) = 13.95 mW/g; SAR(10 g) = 6.11 mW/g

Maximum value of SAR (measured) = 15.65 mW/g



Plot 13 System Performance Check at 2600 MHz TSL

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1025

Date: 11/9/2020

Communication System: CW; Frequency: 2600 MHz

Medium parameters used: f = 2600 MHz; σ =1.95mho/m; ε_r = 39.5; ρ = 1000 kg/m^3

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (6x10x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 17.59 mW/g

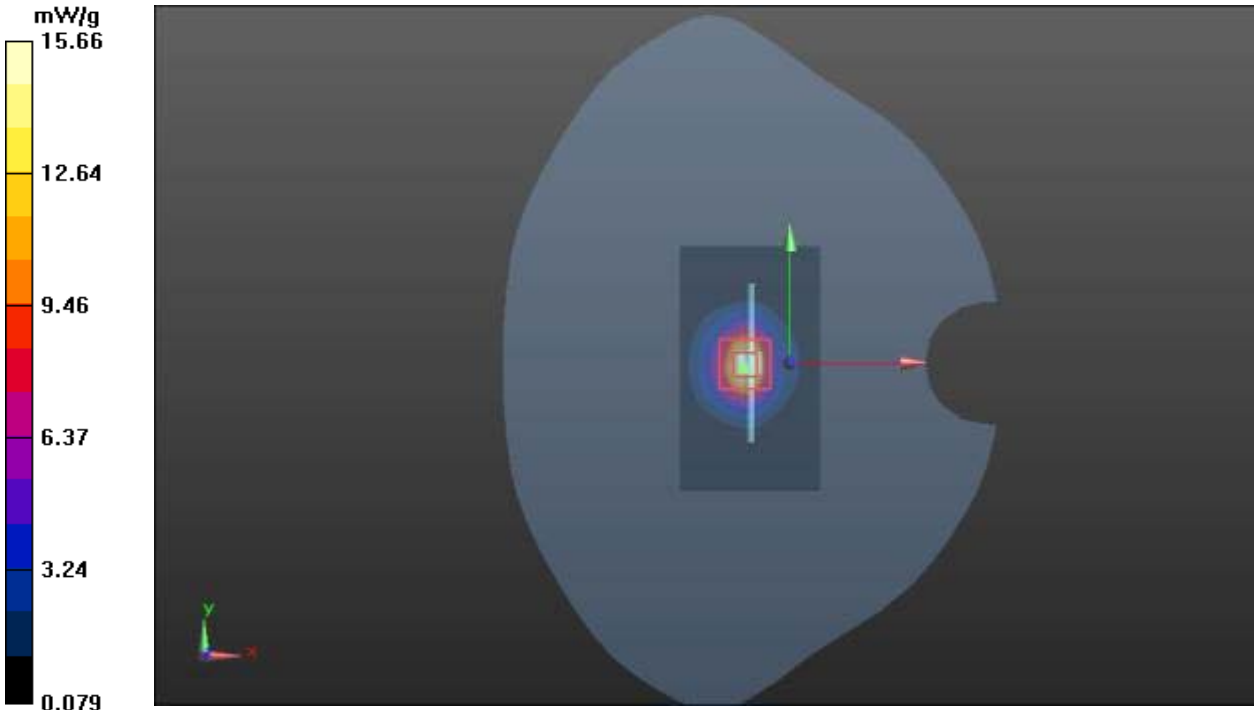
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 87.998 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 31.858 W/kg

SAR(1 g) = 13.93 mW/g; SAR(10 g) = 6.09 mW/g

Maximum value of SAR (measured) = 15.66 mW/g



Plot 14 System Performance Check at 5250 MHz TSL

DUT: Dipole 5250 MHz; Type: D5GHzV2; Serial: 1151

Date: 9/4/2020

Communication System: CW; Frequency: 5250 MHz;Duty Cycle: 1:1

Medium parameters used: f = 5250 MHz; σ = 4.75 S/m; ε_r = 36.0; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.55, 5.55, 5.55); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 9.14 mW/g

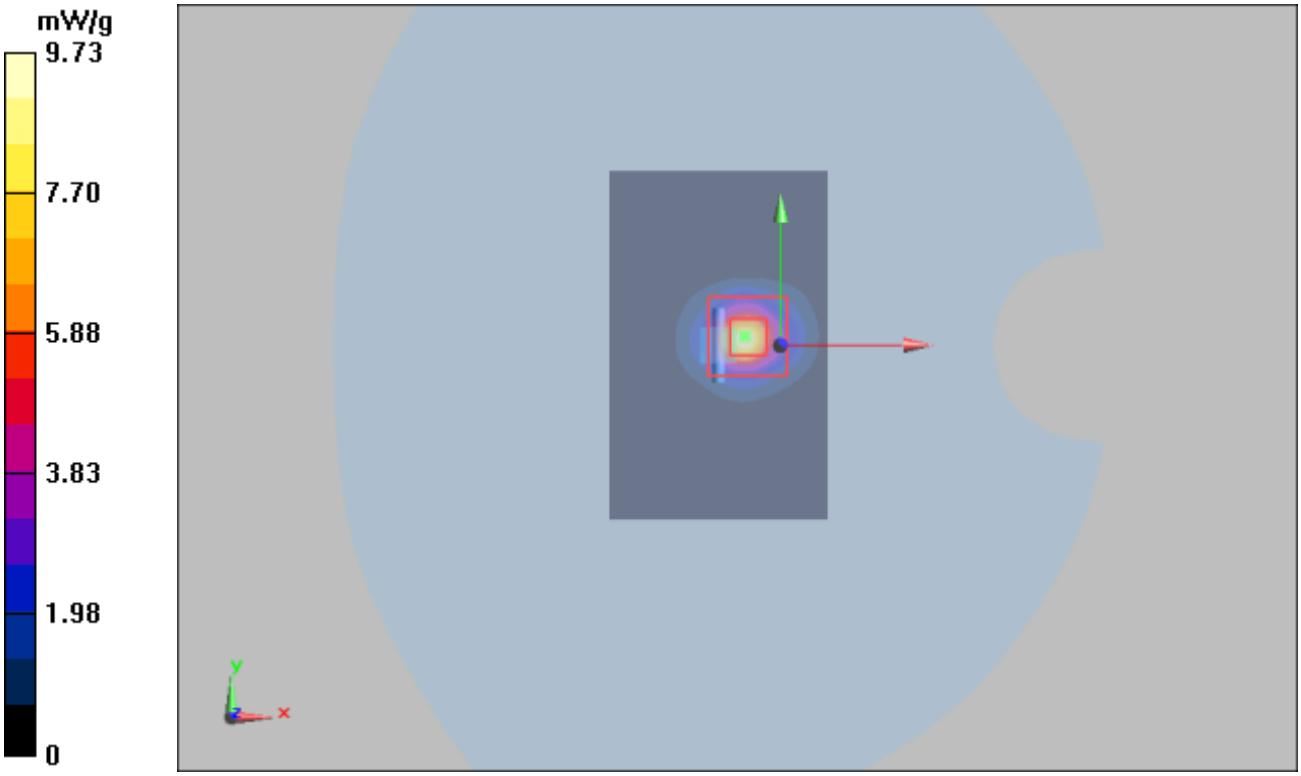
d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 33.6 V/m; Power Drift = -0.095 dB

Peak SAR (extrapolated) = 52.2 W/kg

SAR(1 g) = 7.85 mW/g; SAR(10 g) = 2.25 mW/g

Maximum value of SAR (measured) = 9.73 mW/g



Plot 15 System Performance Check at 5600 MHz TSL

DUT: Dipole 5600 MHz; Type: D5GHzV2; Serial: 1151

Date: 9/5/2020

Communication System: CW; Frequency: 5600 MHz;Duty Cycle: 1:1

Medium parameters used: f = 5600 MHz; σ = 5.01 S/m; ε_r = 35.2; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(4.97, 4.97, 4.97); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 8.25 mW/g

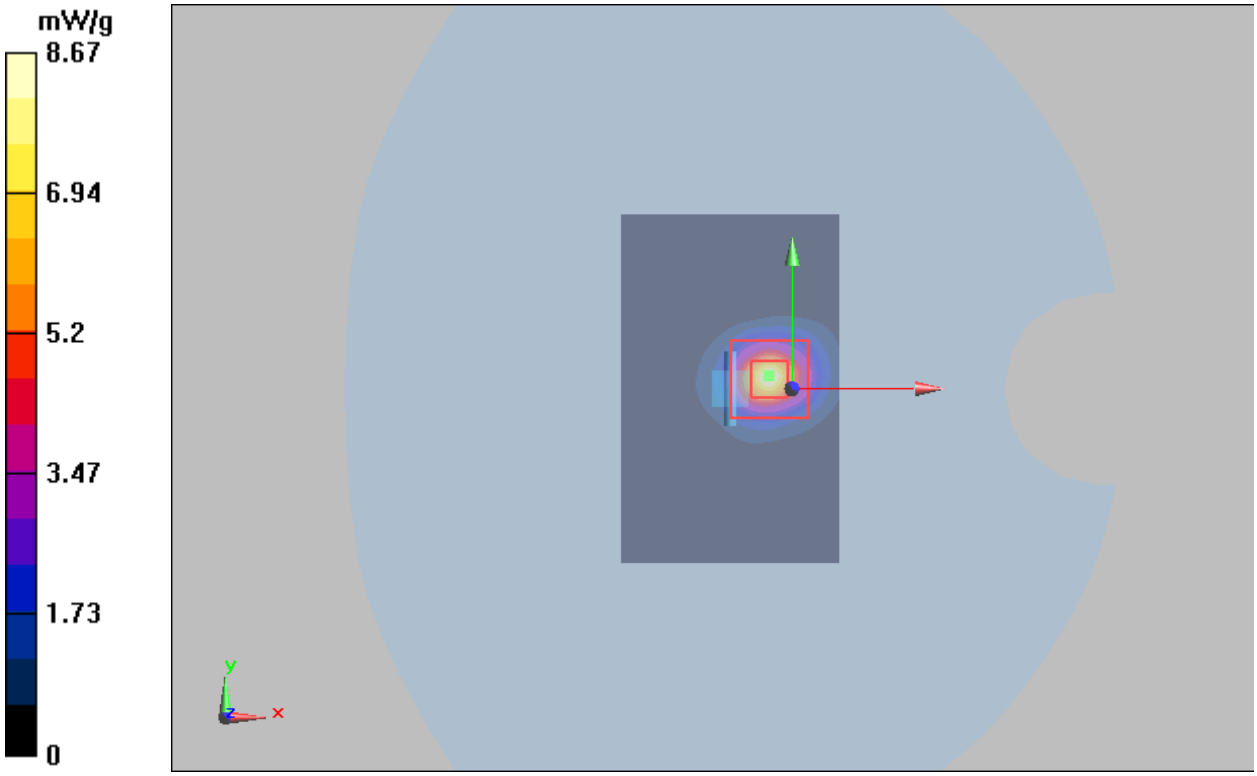
d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 23.1 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 22.9 W/kg

SAR(1 g) = 7.68 mW/g; SAR(10 g) = 2.27 mW/g

Maximum value of SAR (measured) = 8.67 mW/g



Plot 16 System Performance Check at 5750 MHz TSL

DUT: Dipole 5750 MHz; Type: D5GHzV2; Serial: 1151

Date: 9/5/2020

Communication System: CW; Frequency: 5750 MHz;Duty Cycle: 1:1

Medium parameters used: f = 5750 MHz; σ = 5.19 S/m; ε_r = 35.6; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.00, 5.00, 5.00); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=100mW/Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 8.31 mW/g

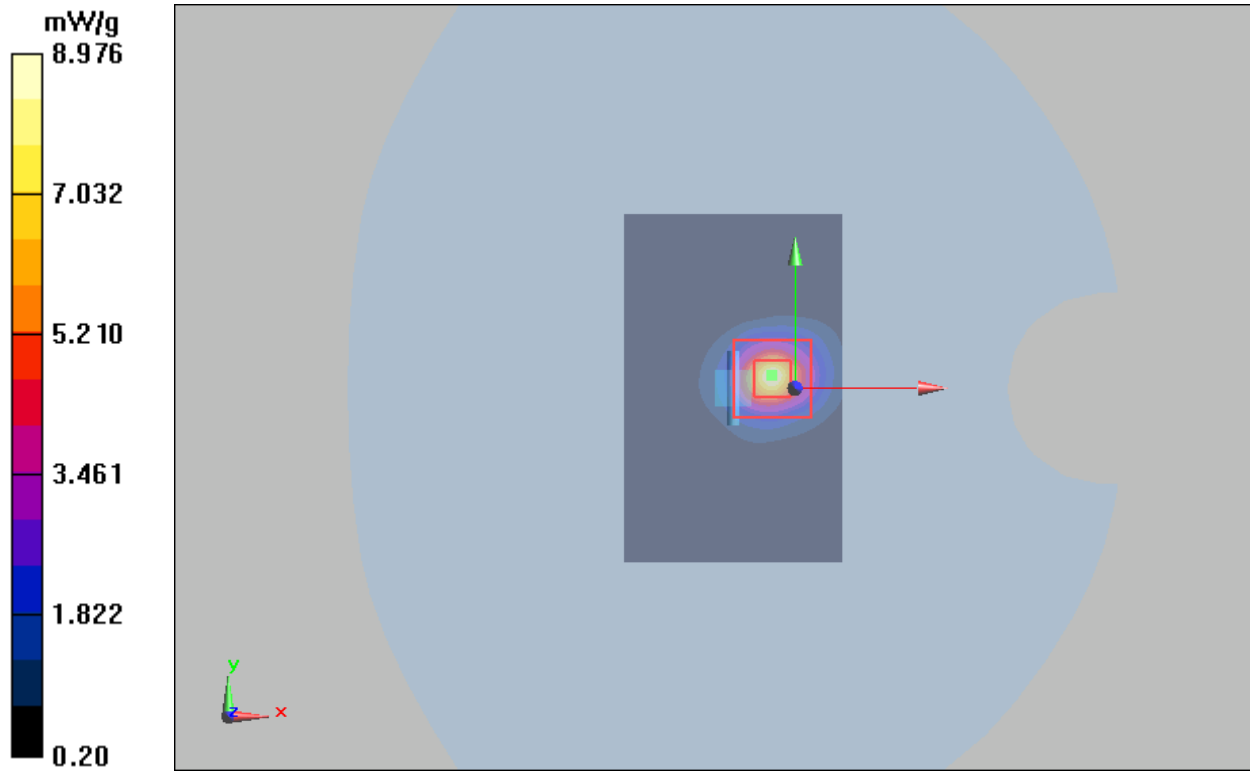
d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 23.1 V/m; Power Drift = 0.044 dB

Peak SAR (extrapolated) = 23.4 W/kg

SAR(1 g) = 7.64 mW/g; SAR(10 g) = 2.27 mW/g

Maximum value of SAR (measured) = 8.976 mW/g



ANNEX C: Highest Graph Results

Main-Antenna

Plot 17 GSM 850 Left Cheek Middle

Date: 9/25/2020

Communication System: UID 0, GSM 850 (class 12) (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.3

Medium parameters used: f = 837 MHz; σ = 0.923 S/m; ε_r = 42.201; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Cheek Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.174 W/kg

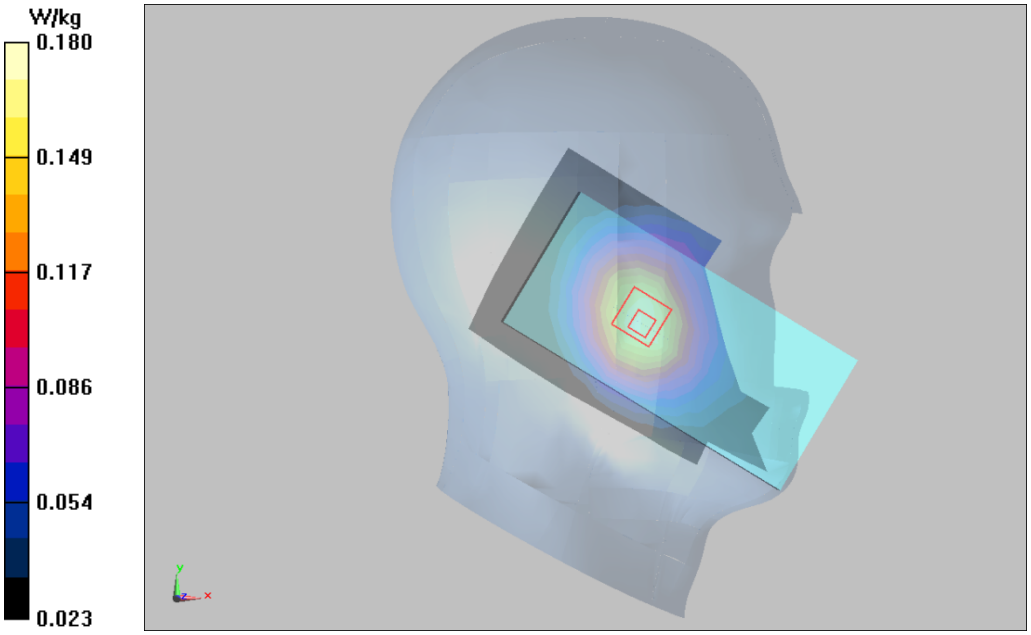
Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.549 V/m; Power Drift = 0.140 dB

Peak SAR (extrapolated) = 0.217 W/kg

SAR(1 g) = 0.170 W/kg; SAR(10 g) = 0.126 W/kg

Maximum value of SAR (measured) = 0.180 W/kg



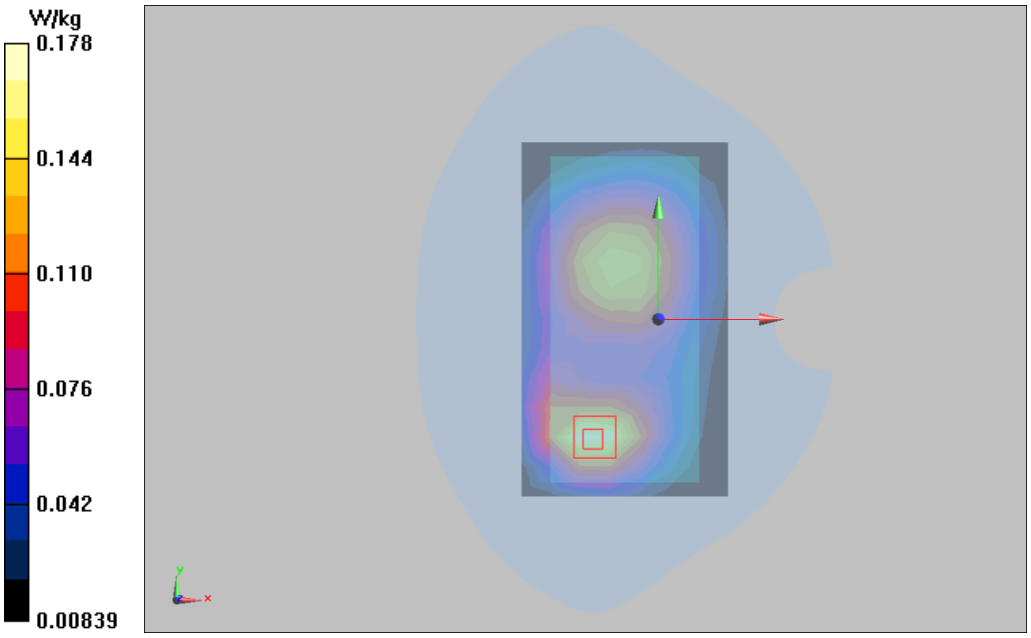
Plot 18 GSM 850 Back Side Middle (Distance 15mm)

Date: 9/25/2020
Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 837 MHz; σ = 0.923 S/m; ε_r = 42.201; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.173 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.69 V/m; Power Drift = 0.010 dB
Peak SAR (extrapolated) = 0.257 W/kg
SAR(1 g) = 0.165 W/kg; SAR(10 g) = 0.106 W/kg

Maximum value of SAR (measured) = 0.178 W/kg



Plot 19 GSM 850 GPRS (2Txslots) Back Side Middle (Distance 10mm)

Date: 9/25/2020

Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:4.15

Medium parameters used: f = 837 MHz; σ = 0.923 S/m; ε_r = 42.201; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.359 W/kg

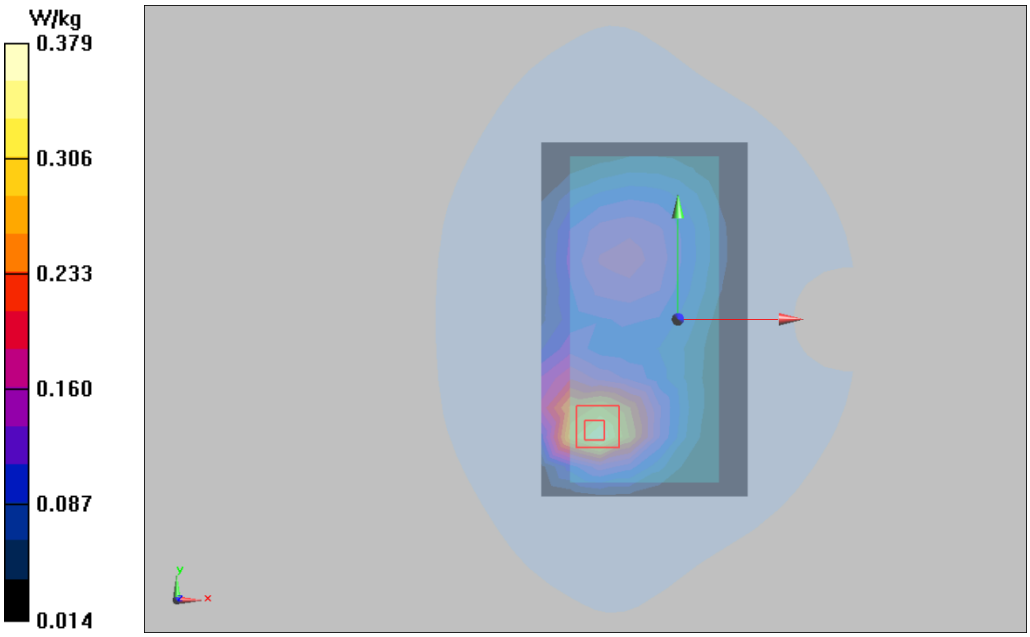
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.28 V/m; Power Drift = 0.040 dB

Peak SAR (extrapolated) = 0.576 W/kg

SAR(1 g) = 0.349 W/kg; SAR(10 g) = 0.213 W/kg

Maximum value of SAR (measured) = 0.379 W/kg

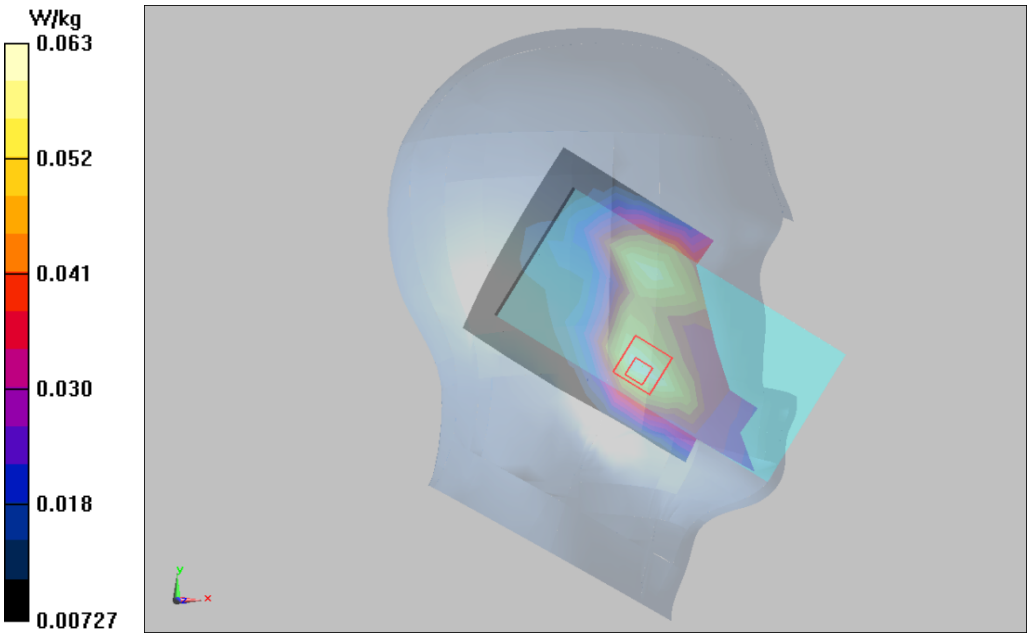


Plot 20 GSM 1900 Left Cheek Middle

Date: 10/23/2020
Communication System: UID 0, GSM1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Cheek Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.0633 W/kg

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.391 V/m; Power Drift = 0.039 dB
Peak SAR (extrapolated) = 0.0910 W/kg
SAR(1 g) = 0.060 W/kg; SAR(10 g) = 0.040 W/kg
Maximum value of SAR (measured) = 0.063 W/kg



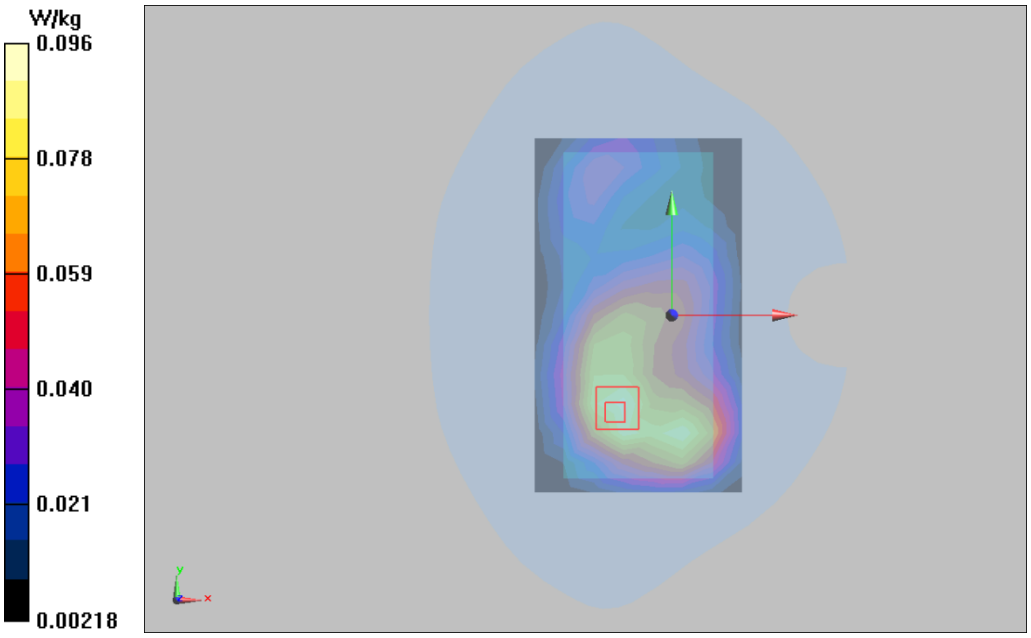
Plot 21 GSM 1900 Back Side Middle (Distance 15mm)

Date: 10/23/2020
Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.0936 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.859 V/m; Power Drift =-0.027 dB
Peak SAR (extrapolated) = 0.144 W/kg
SAR(1 g) = 0.093 W/kg; SAR(10 g) = 0.056 W/kg

Maximum value of SAR (measured) = 0.096 W/kg



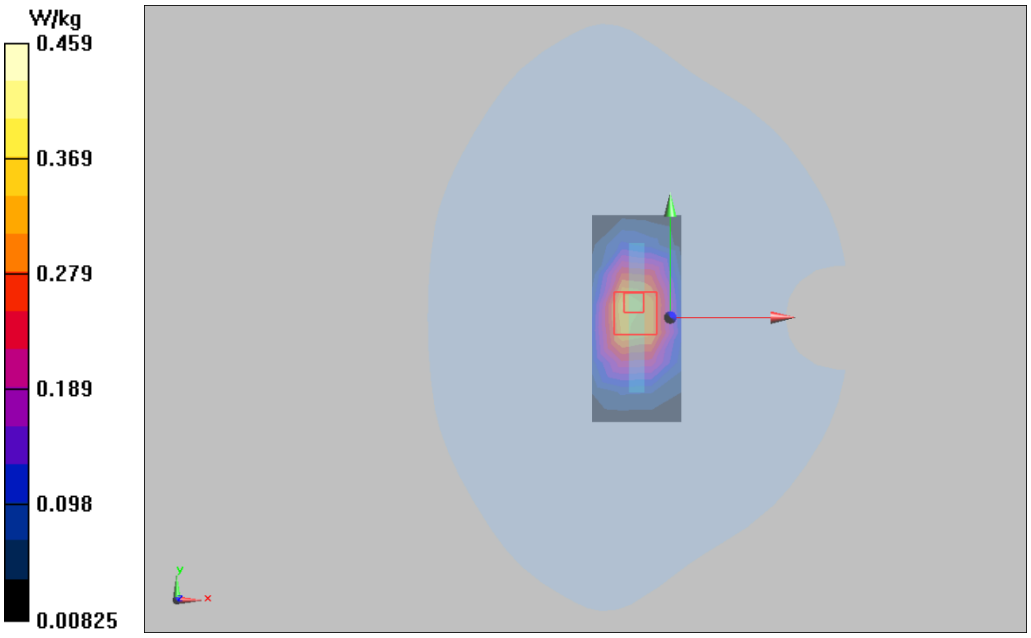
Plot 22 GSM 1900 GPRS (2Txslots) Bottom Edge Middle (Distance 10mm)

Date: 10/23/2020
Communication System: UID 0, GPRS 2TX (0); Frequency: 1880 MHz;Duty Cycle: 1:4.15
Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.376 W/kg

Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.55 V/m; Power Drift = -0.017 dB
Peak SAR (extrapolated) = 0.784 W/kg
SAR(1 g) = 0.254 W/kg; SAR(10 g) = 0.141 W/kg

Maximum value of SAR (measured) = 0.459 W/kg

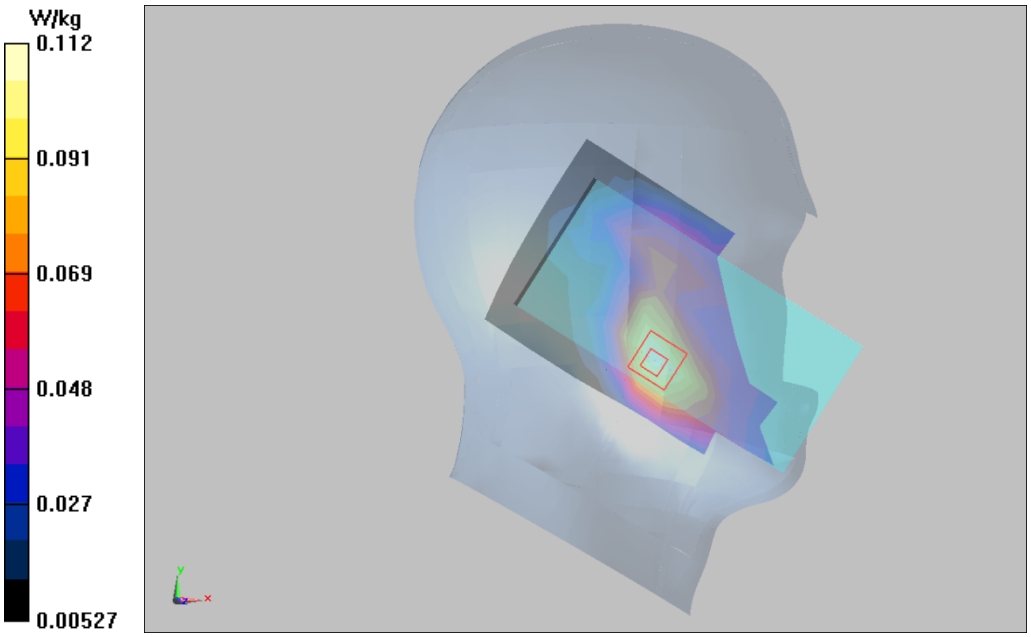


Plot 23 UMTS Band II Left Cheek Middle

Date: 10/24/2020
Communication System: UID 0, WCDMA 1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Cheek Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.113 W/kg

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.891 V/m; Power Drift = 0.057 dB
Peak SAR (extrapolated) = 0.162 W/kg
SAR(1 g) = 0.105 W/kg; SAR(10 g) = 0.067 W/kg
Maximum value of SAR (measured) = 0.112 W/kg

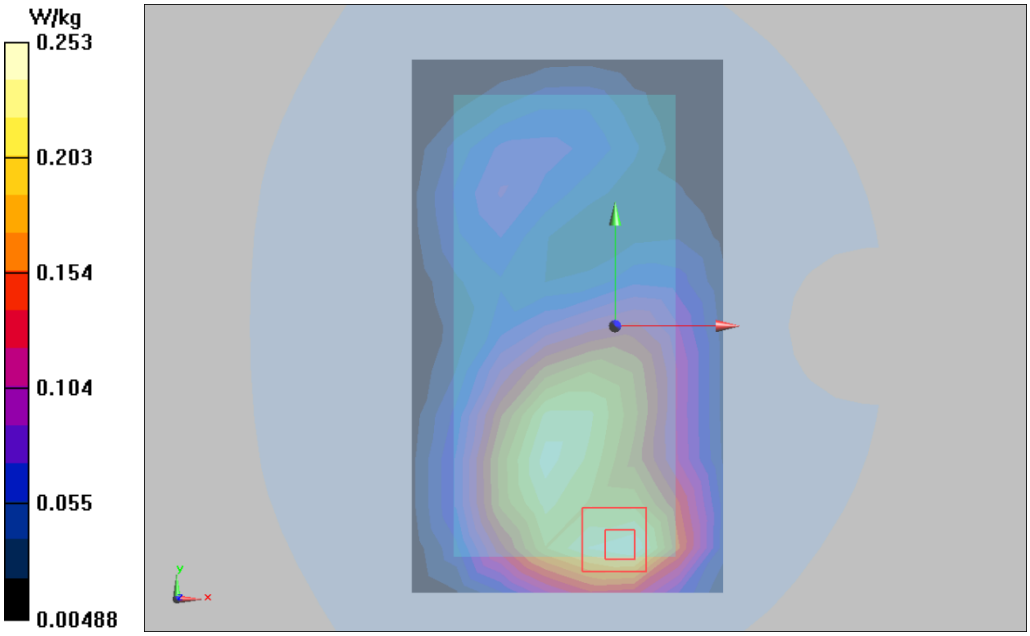


Plot 24 UMTS Band II Back Side Middle (Distance 15mm)

Date: 10/24/2020
Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.393 S/m; ε_r = 38.344; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.255 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.586 V/m; Power Drift = -0.029 dB
Peak SAR (extrapolated) = 0.378 W/kg
SAR(1 g) = 0.213 W/kg; SAR(10 g) = 0.131 W/kg
Maximum value of SAR (measured) = 0.253 W/kg



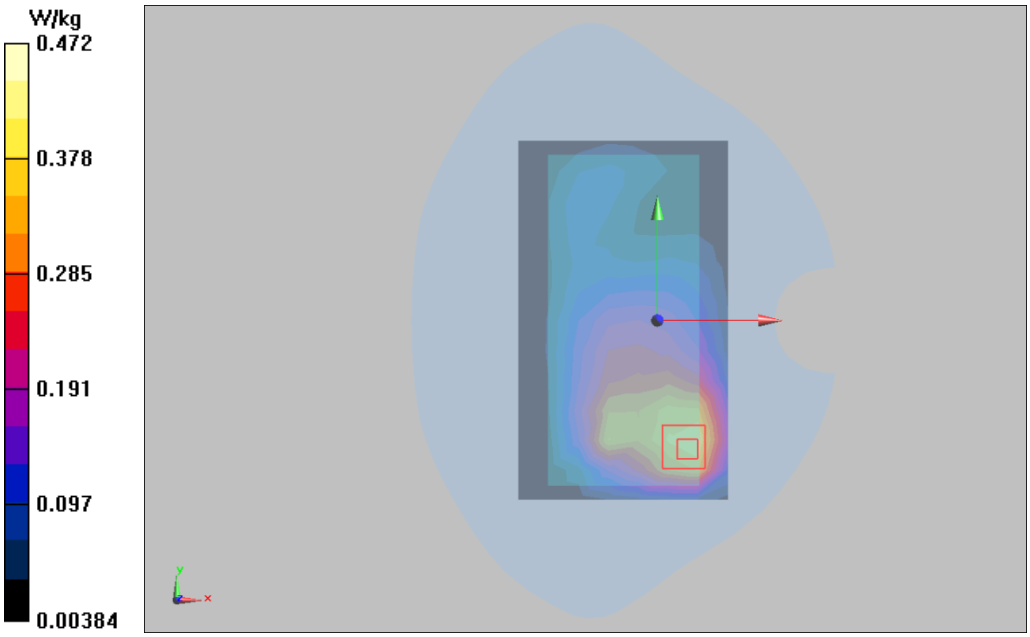
Plot 25 UMTS Band II Bottom Edge Middle (Distance 10mm)

Date: 10/24/2020
Communication System: UID 0, WCDMA (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.418 W/kg

Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.73 V/m; Power Drift = 0.070 dB
Peak SAR (extrapolated) = 0.749 W/kg
SAR(1 g) = 0.452 W/kg; SAR(10 g) = 0.255 W/kg

Maximum value of SAR (measured) = 0.472 W/kg

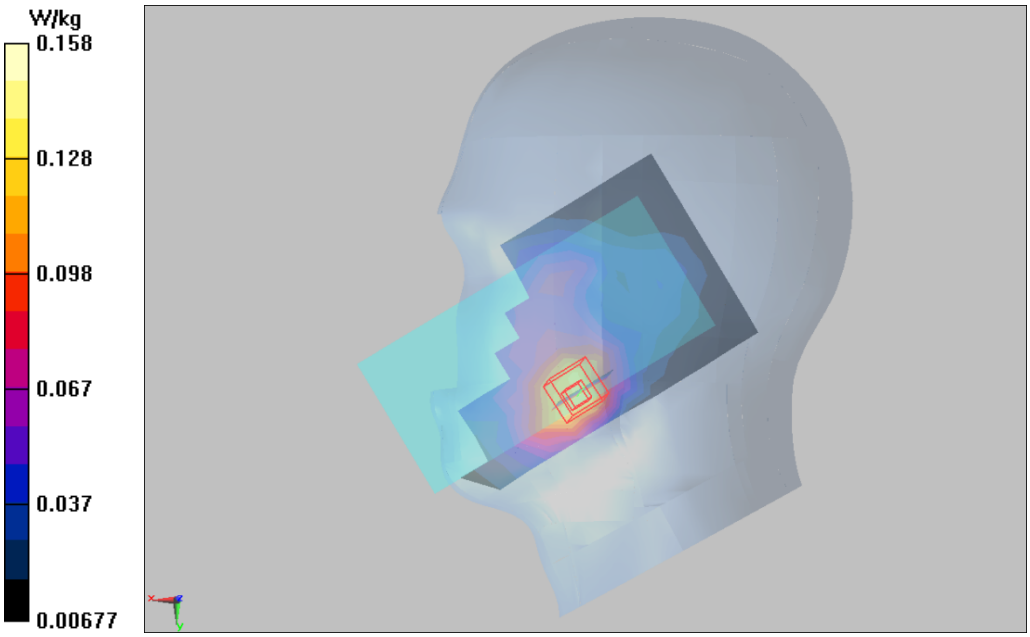


Plot 26 UMTS Band IV Right Cheek Middle

Date: 9/15/2020
Communication System: UID 0, WCDMA-1700 (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1733 MHz; σ = 1.312 S/m; ε_r = 39.365; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Right Cheek Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.137 W/kg

Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.364 V/m; Power Drift = -0.070 dB
Peak SAR (extrapolated) = 0.210 W/kg
SAR(1 g) = 0.145 W/kg; SAR(10 g) = 0.094 W/kg
Maximum value of SAR (measured) = 0.158 W/kg



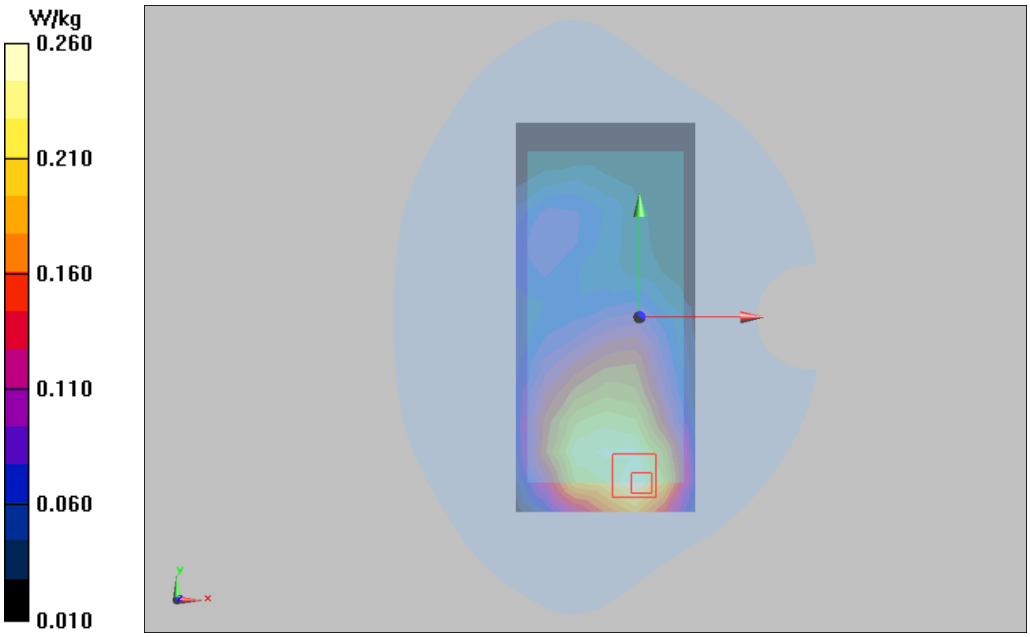
Plot 27 UMTS Band IV Back Side Middle(Distance 15mm)

Date: 9/15/2020
Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1733 MHz; σ = 1.293 S/m; ε_r = 38.782; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.266 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.407 V/m; Power Drift = -0.140 dB
Peak SAR (extrapolated) = 0.393 W/kg
SAR(1 g) = 0.250 W/kg; SAR(10 g) = 0.158 W/kg

Maximum value of SAR (measured) = 0.260 W/kg



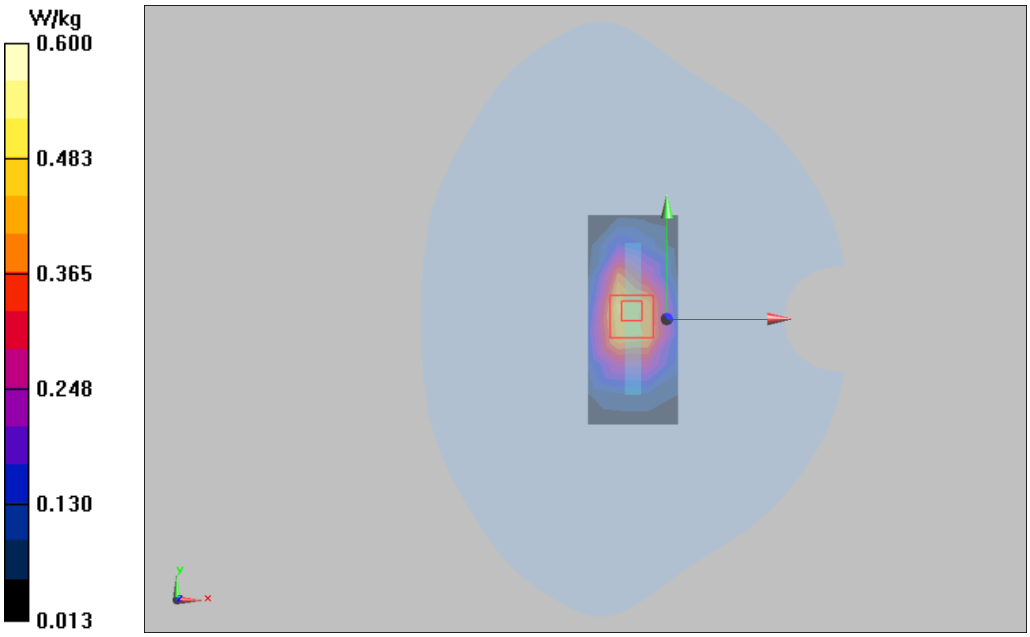
Plot 28 UMTS Band IV Bottom Edge Middle (Distance 10mm)

Date: 9/15/2020
Communication System: UID 0, WCDMA (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1733 MHz; σ = 1.312 S/m; ε_r = 39.365; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.496 W/kg

Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.55 V/m; Power Drift = -0.030 dB
Peak SAR (extrapolated) = 0.903 W/kg
SAR(1 g) = 0.543 W/kg; SAR(10 g) = 0.311 W/kg

Maximum value of SAR (measured) = 0.600 W/kg



Plot 29 UMTS Band V Right Tilt Middle

Date: 9/26/2020

Communication System: UID 0, WCDMA 850 (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.923 S/m; ε_r = 42.201; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Right Tilt Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.0727 W/kg

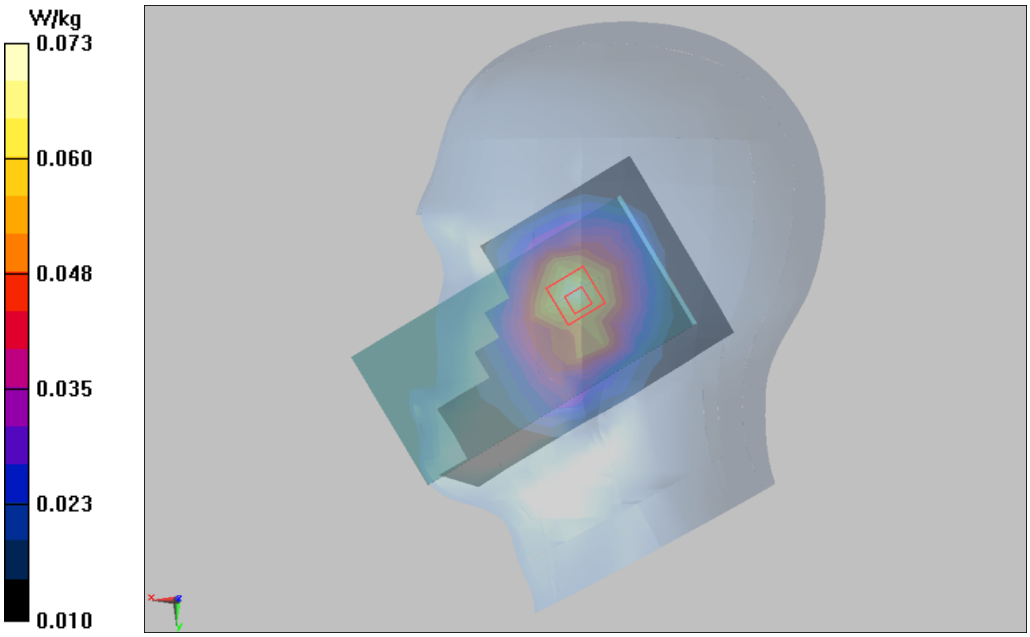
Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.589 V/m; Power Drift = -0.020 dB

Peak SAR (extrapolated) = 0.0860 W/kg

SAR(1 g) = 0.069 W/kg; SAR(10 g) = 0.052 W/kg

Maximum value of SAR (measured) = 0.073 W/kg



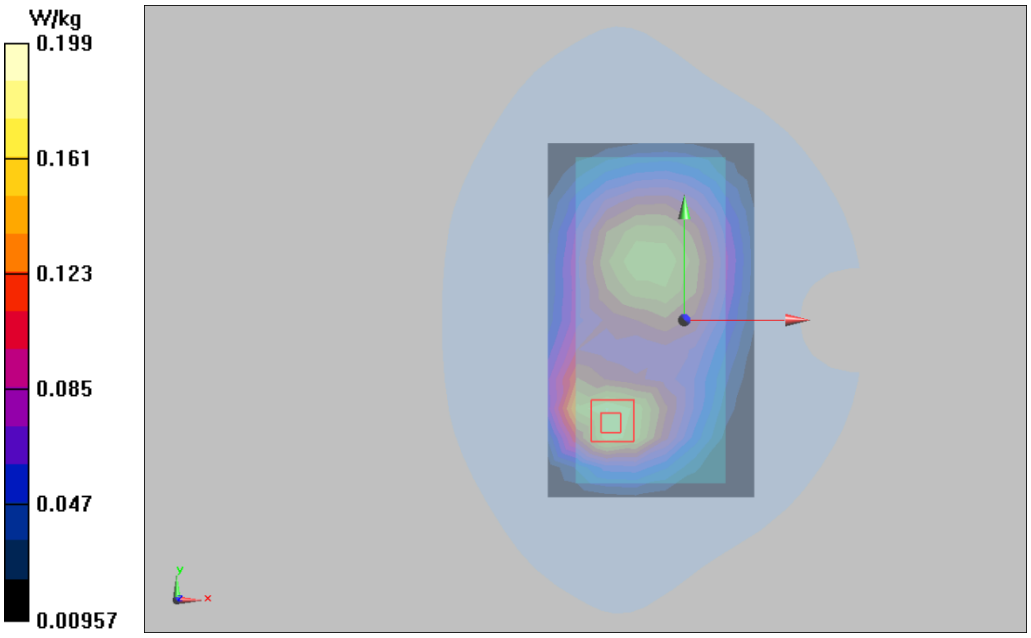
Plot 30 UMTS Band V Back Side Middle(Distance 15mm)

Date: 9/26/2020
Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.923 S/m; ε_r = 42.201; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.175 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.35 V/m; Power Drift = 0.050 dB
Peak SAR (extrapolated) = 0.286 W/kg
SAR(1 g) = 0.185 W/kg; SAR(10 g) = 0.118 W/kg

Maximum value of SAR (measured) = 0.199 W/kg



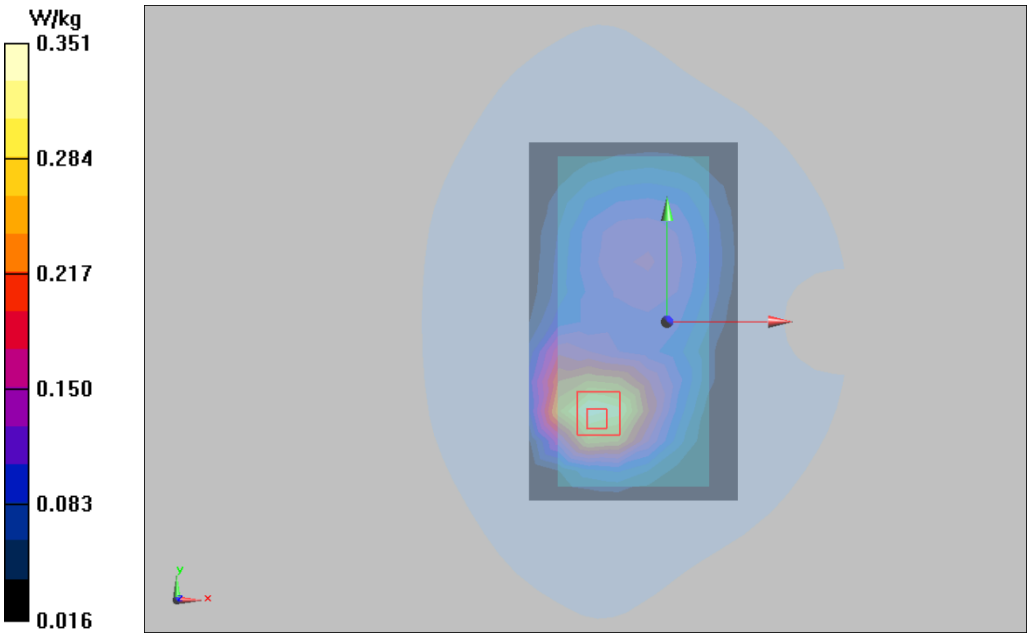
Plot 31 UMTS Band V Back Side Middle (Distance 10mm)

Date: 9/26/2020
Communication System: UID 0, WCDMA (0); Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 837 MHz; σ = 0.923 S/m; ε_r = 42.201; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.344 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.70 V/m; Power Drift = -0.031 dB
Peak SAR (extrapolated) = 0.505 W/kg
SAR(1 g) = 0.323 W/kg; SAR(10 g) = 0.206 W/kg

Maximum value of SAR (measured) = 0.351 W/kg



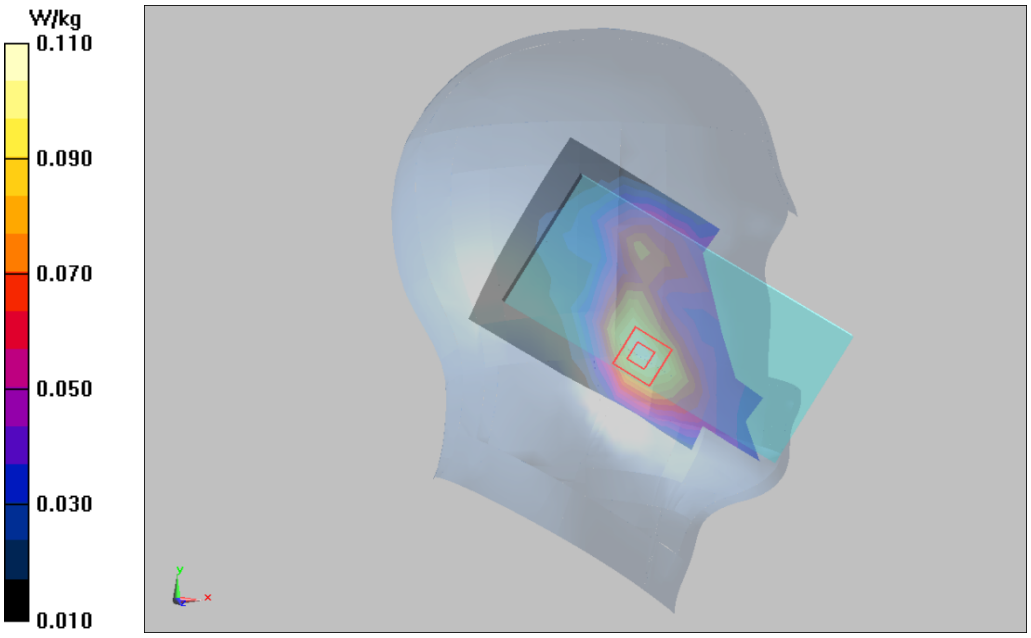
Plot 32 LTE Band 2 1RB Left Cheek Middle

Date: 10/25/2020
Communication System: UID 0, LTE-FDD (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Cheek Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.111 W/kg

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.450 V/m; Power Drift = -0.032 dB
Peak SAR (extrapolated) = 0.157 W/kg
SAR(1 g) = 0.103 W/kg; SAR(10 g) = 0.068 W/kg

Maximum value of SAR (measured) = 0.110 W/kg

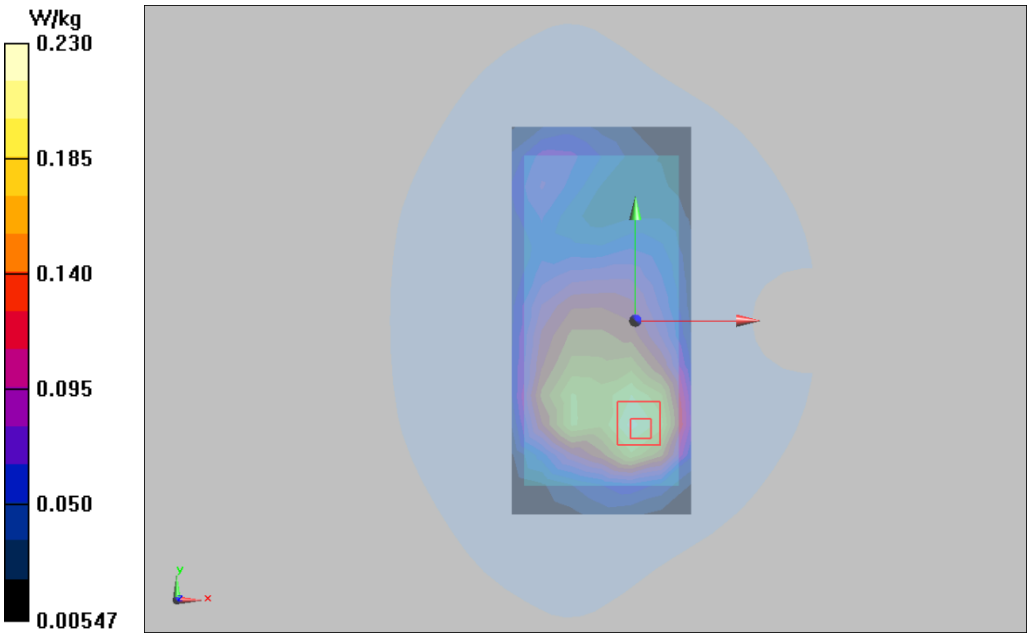


Plot 33 LTE Band 2 1RB Back Side Middle (Distance 15mm)

Date: 10/25/2020
Communication System: UID 0, LTE (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.222 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.823 V/m; Power Drift = -0.040 dB
Peak SAR (extrapolated) = 0.350 W/kg
SAR(1 g) = 0.216 W/kg; SAR(10 g) = 0.132 W/kg
Maximum value of SAR (measured) = 0.230 W/kg



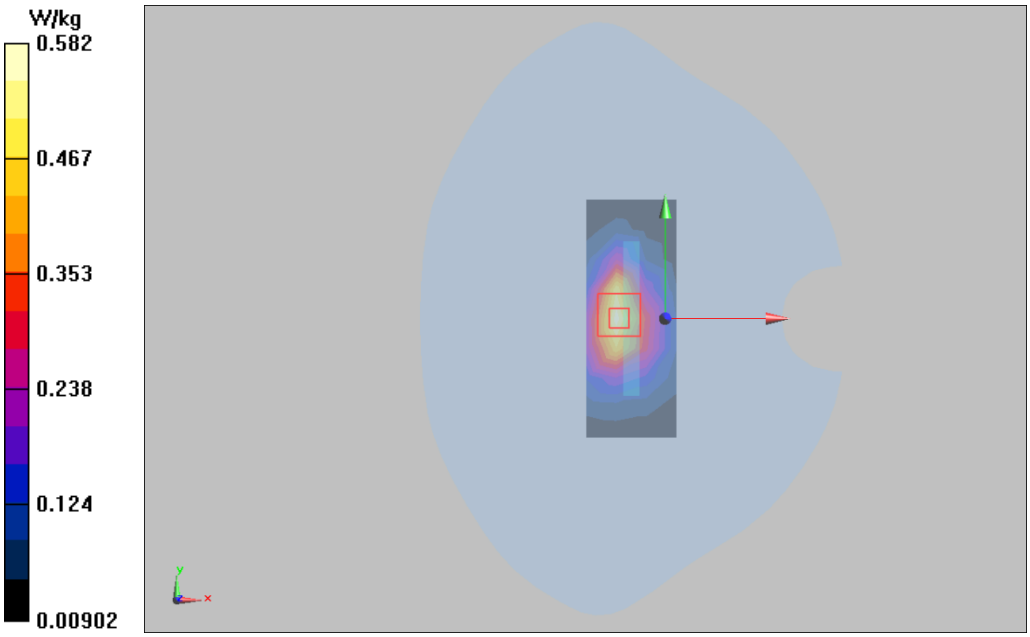
Plot 34 LTE Band 2 50%RB Bottom Edge Middle (Distance 10mm)

Date: 10/25/2020
Communication System: UID 0, LTE (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (4x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.571 W/kg

Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.88 V/m; Power Drift = 0.025 dB
Peak SAR (extrapolated) = 0.916 W/kg
SAR(1 g) = 0.526 W/kg; SAR(10 g) = 0.294 W/kg

Maximum value of SAR (measured) = 0.582 W/kg

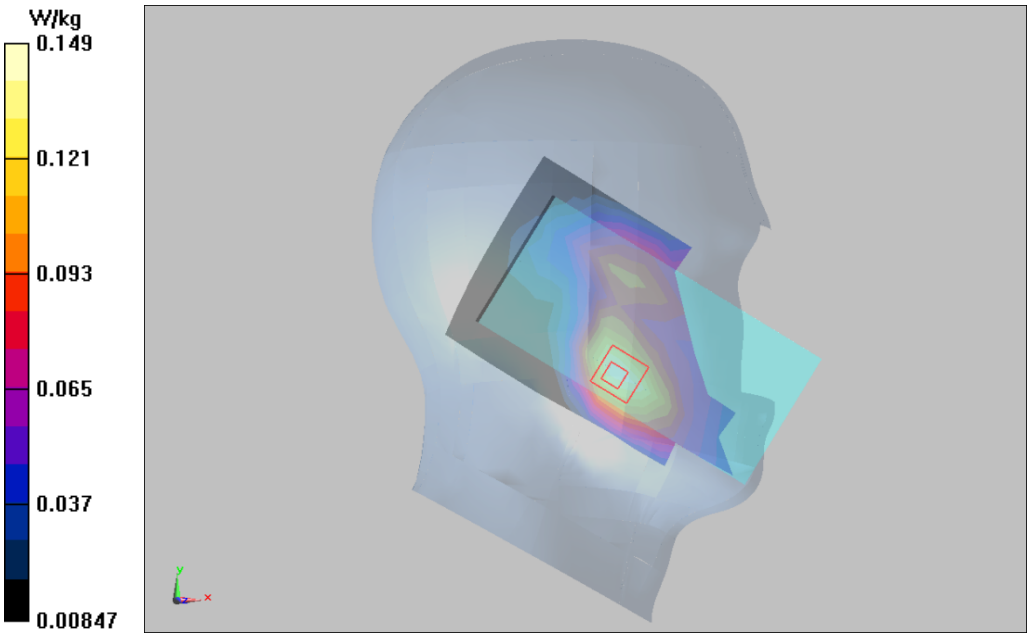


Plot 35 LTE Band 4 1RB Left Cheek Middle

Date: 9/16/2020
Communication System: UID 0, WCDMA-1700 (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1733 MHz; σ = 1.312 S/m; ε_r = 39.365; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Cheek Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.150 W/kg

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.913 V/m; Power Drift = 0.042 dB
Peak SAR (extrapolated) = 0.209 W/kg
SAR(1 g) = 0.140 W/kg; SAR(10 g) = 0.092 W/kg
Maximum value of SAR (measured) = 0.149 W/kg



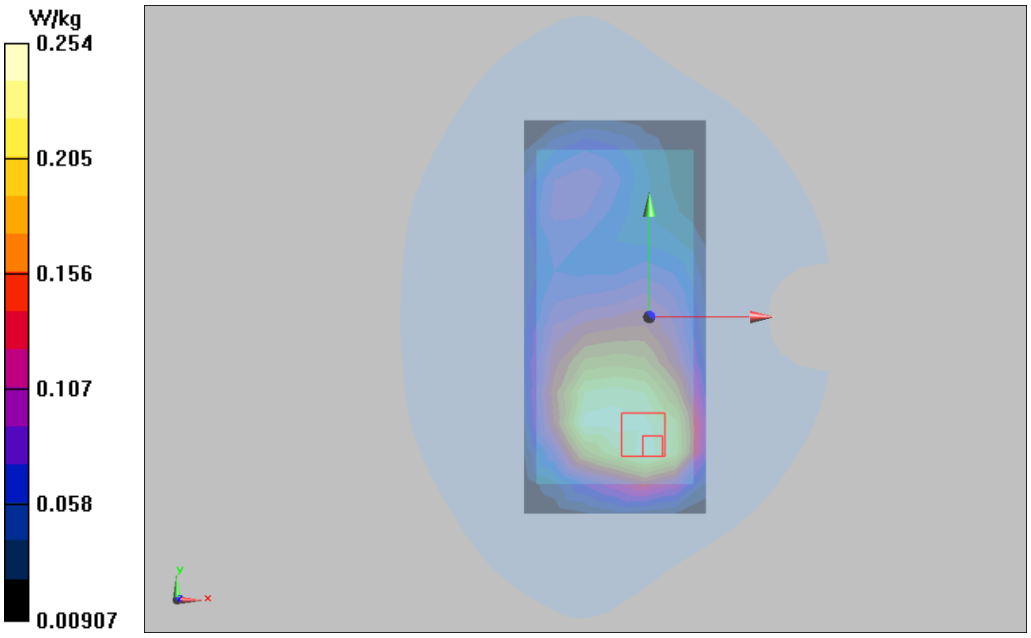
Plot 36 LTE Band 4 1RB Back Side High (Distance 15mm)

Date: 9/16/2020
Communication System: UID 0, LTE (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1745 MHz; σ = 1.323 S/m; ε_r = 39.378; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side High/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.249 W/kg

Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.681 V/m; Power Drift = -0.100 dB
Peak SAR (extrapolated) = 0.376 W/kg
SAR(1 g) = 0.240 W/kg; SAR(10 g) = 0.154 W/kg

Maximum value of SAR (measured) = 0.254 W/kg



Plot 37 LTE Band 4 1RB Bottom Edge Low (Distance 10mm)

Date: 9/16/2020

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

Medium parameters used: f = 1745 MHz; σ = 1.323 S/m; ε_r = 39.378; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Low /Area Scan (4x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.655 W/kg

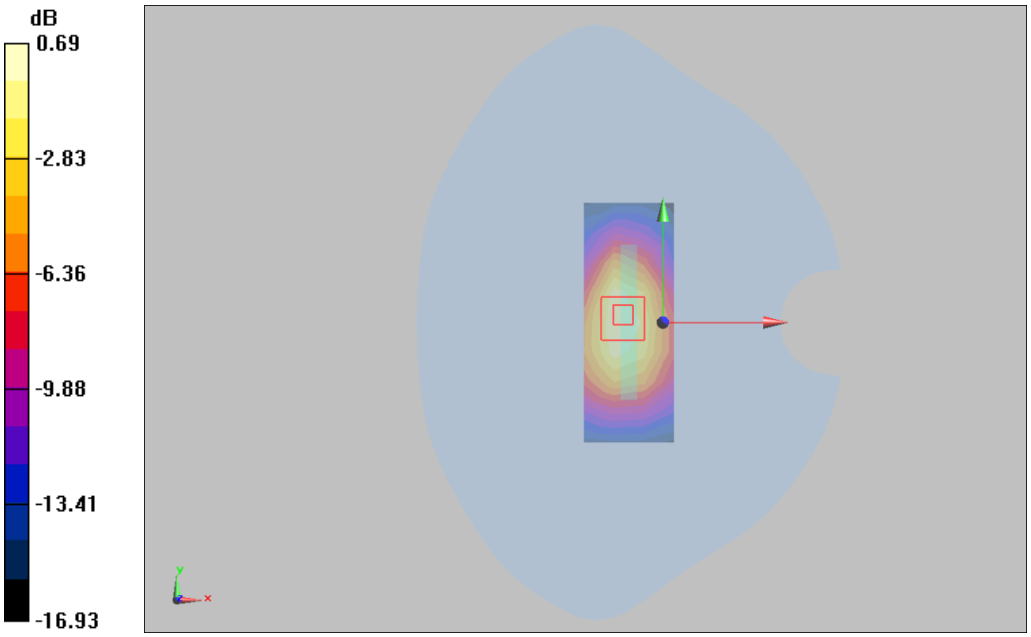
Bottom Edge Low /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.87 V/m; Power Drift = 0.026 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.685 W/kg; SAR(10 g) = 0.381 W/kg

Maximum value of SAR (measured) = 0.69 W/kg



Plot 38 LTE Band 5 1RB Right Cheek Middle

Date: 9/27/2020

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

Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.923 S/m; ε_r = 42.199; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Right Cheek Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.201 W/kg

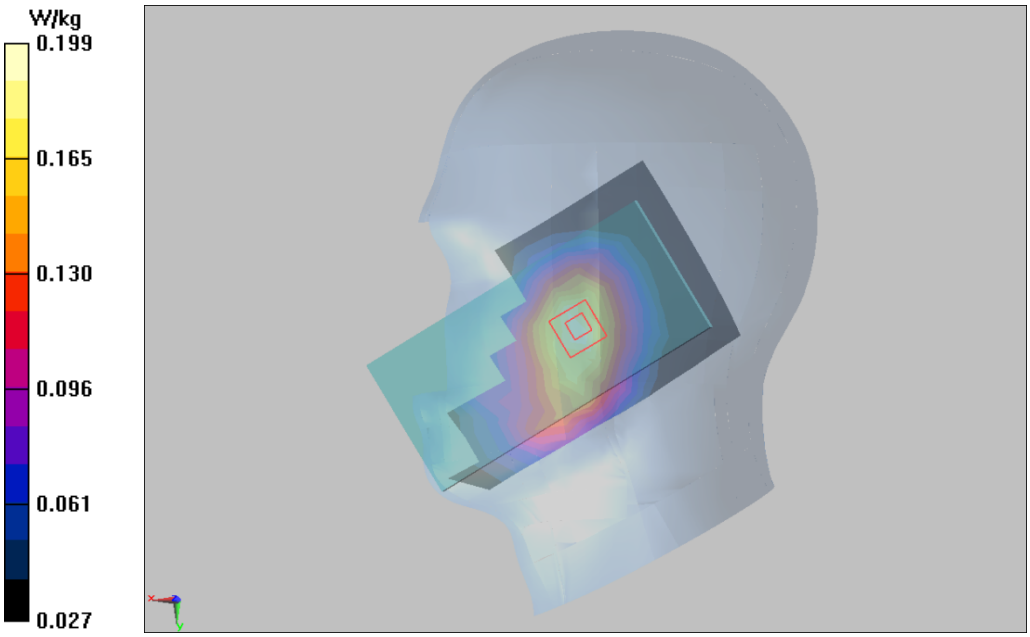
Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.422 V/m; Power Drift = 0.055 dB

Peak SAR (extrapolated) = 0.233 W/kg

SAR(1 g) = 0.190 W/kg; SAR(10 g) = 0.146 W/kg

Maximum value of SAR (measured) = 0.199 W/kg



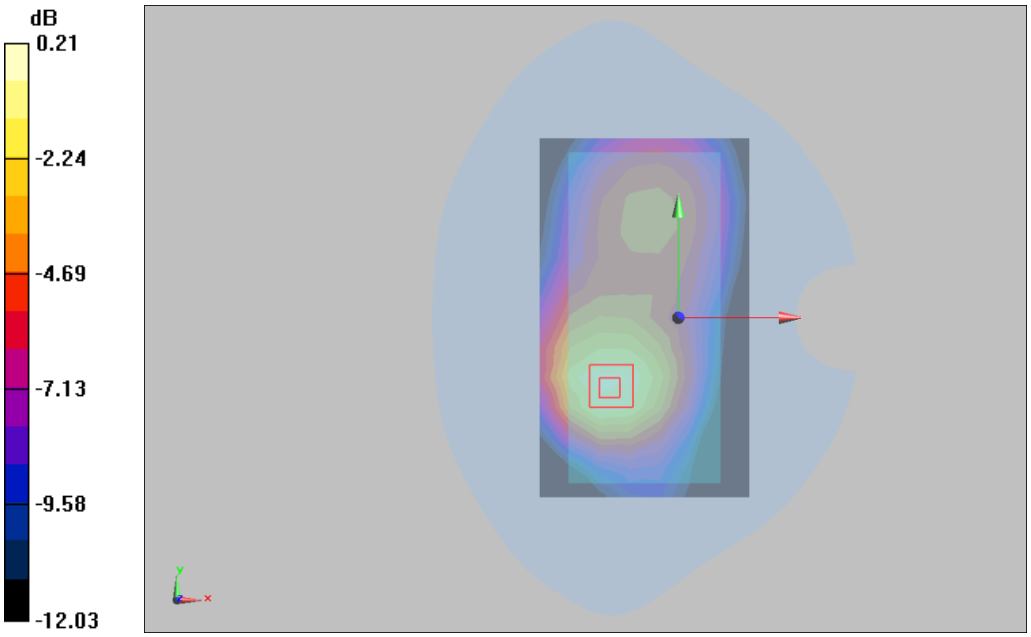
Plot 39 LTE Band 5 1RB Back Side Middle(Distance 15mm)

Date: 9/27/2020
Communication System: UID 0, LTE (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.923 S/m; ε_r = 42.199; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.151 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.988 V/m; Power Drift = -0.023 dB
Peak SAR (extrapolated) = 0.256 W/kg
SAR(1 g) = 0.190 W/kg; SAR(10 g) = 0.120 W/kg

Maximum value of SAR (measured) = 0.21 W/kg



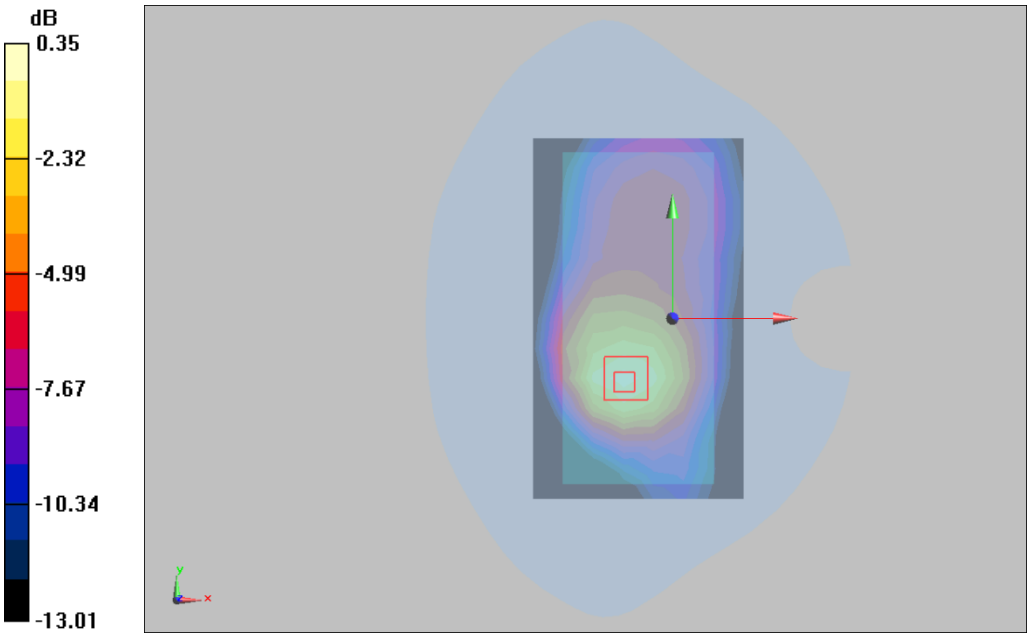
Plot 40 LTE Band 5 1RB Back Side Middle (Distance 10mm)

Date: 9/27/2020
Communication System: UID 0, LTE (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.923 S/m; ε_r = 42.199; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.302 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.71 V/m; Power Drift = -0.011 dB
Peak SAR (extrapolated) = 0.434 W/kg
SAR(1 g) = 0.329 W/kg; SAR(10 g) = 0.204 W/kg

Maximum value of SAR (measured) = 0.35 W/kg

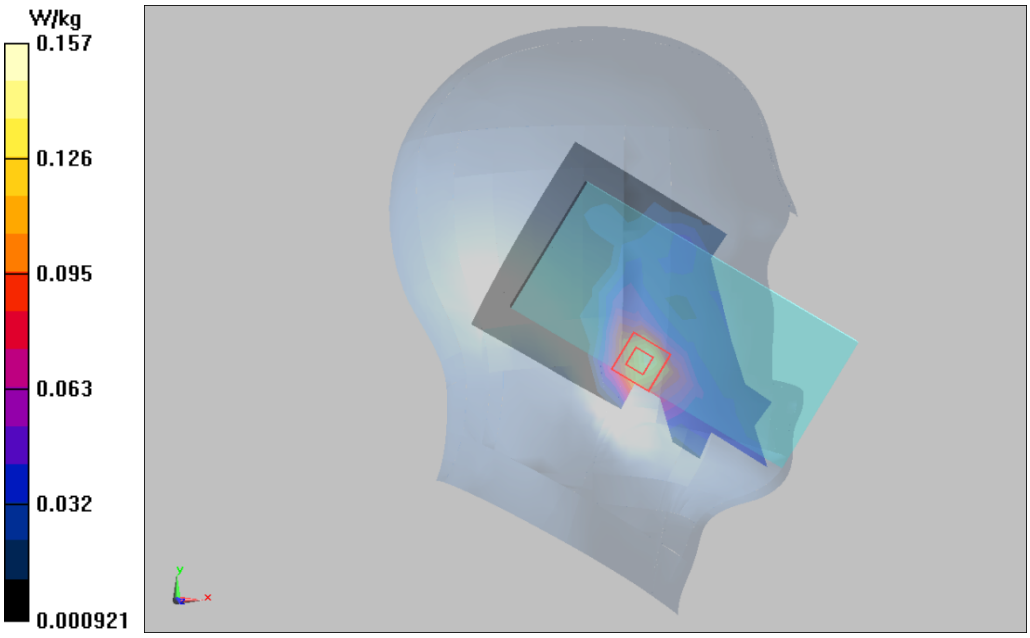


Plot 41 LTE Band 7 1RB Left Cheek Middle

Date: 11/3/2020
Communication System: UID 0, LTE (0); Frequency: 2535 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2535 MHz; σ = 1.905 S/m; ε_r = 38.267; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Cheek Middle/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.148 W/kg

Left Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.488 V/m; Power Drift = -0.145 dB
Peak SAR (extrapolated) = 0.269 W/kg
SAR(1 g) = 0.144 W/kg; SAR(10 g) = 0.075 W/kg
Maximum value of SAR (measured) = 0.157 W/kg



Plot 42 LTE Band 7 1RB Back Side High(Distance 15mm)

Date: 11/3/2020

Communication System: UID 0, LTE (0); Frequency: 2560 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2560 MHz; σ = 1.932 S/m; ε_r = 38.175; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side High/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.234 W/kg

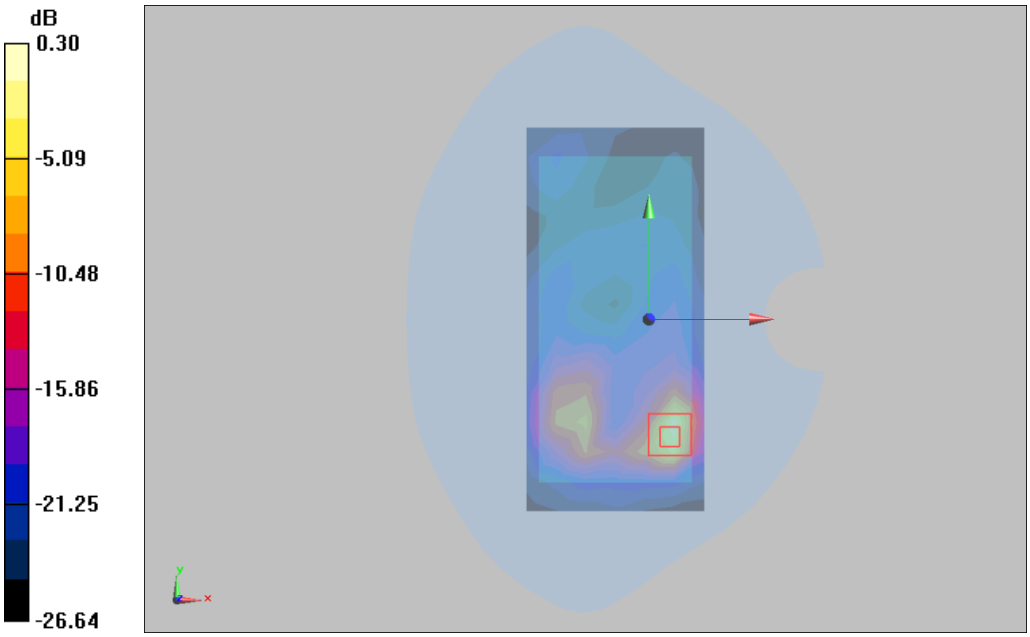
Back Side High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.669 V/m; Power Drift = 0.029 dB

Peak SAR (extrapolated) = 0.484 W/kg

SAR(1 g) = 0.288 W/kg; SAR(10 g) = 0.143 W/kg

Maximum value of SAR (measured) = 0.30 W/kg



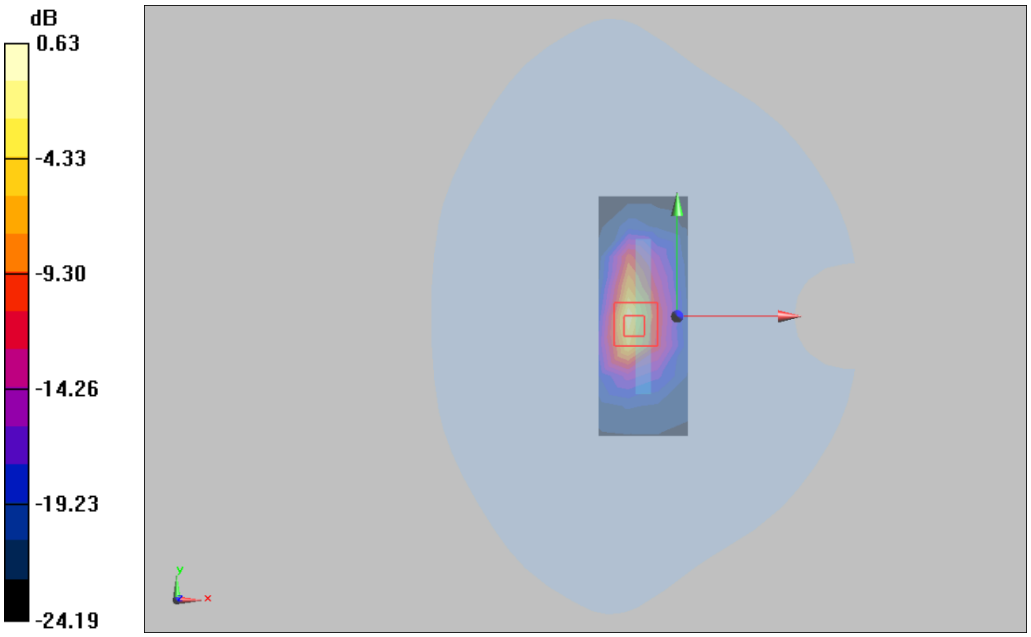
Plot 43 LTE Band 7 1RB Bottom Edge High (Distance 10mm)

Date: 11/3/2020
Communication System: UID 0, LTE (0); Frequency: 2560 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2560 MHz; σ = 1.932 S/m; ε_r = 38.175; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Bottom Edge High/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.522 W/kg

Bottom Edge High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.17 V/m; Power Drift = -0.117 dB
Peak SAR (extrapolated) = 1.05 W/kg
SAR(1 g) = 0.609 W/kg; SAR(10 g) = 0.310 W/kg

Maximum value of SAR (measured) = 0.63 W/kg

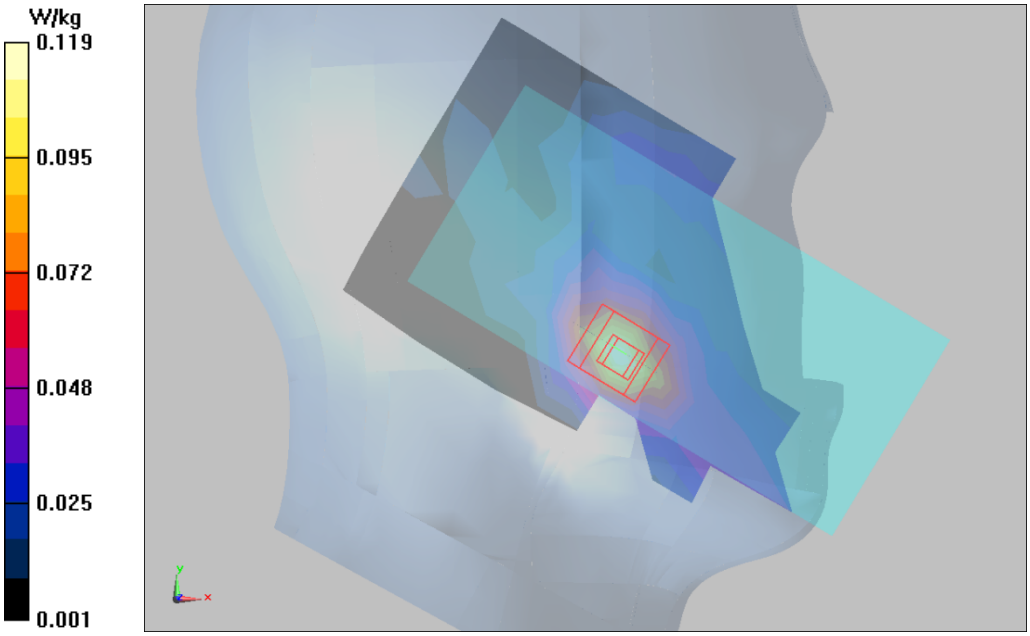


Plot 44 LTE Band 38 1RB Left Cheek Middle

Date: 11/4/2020
Communication System: UID 0, LTE (0); Frequency: 2595 MHz;Duty Cycle: 1:1.58
Medium parameters used: f = 2595 MHz; σ = 1.973 S/m; ε_r = 38.008; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Cheek Middle/Area Scan(10x18x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.124 W/kg

Left Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.518 V/m; Power Drift = 0.152 dB
Peak SAR (extrapolated) = 0.215 W/kg
SAR(1 g) = 0.109 W/kg; SAR(10 g) = 0.055 W/kg
Maximum value of SAR (measured) = 0.119 W/kg



Plot 45 LTE Band 38 1RB Back Side Middle (Distance 15mm)

Date: 11/4/2020

Communication System: UID 0, LTE (0); Frequency: 2595 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2595 MHz; σ = 1.973 S/m; ε_r = 38.008; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.199 W/kg

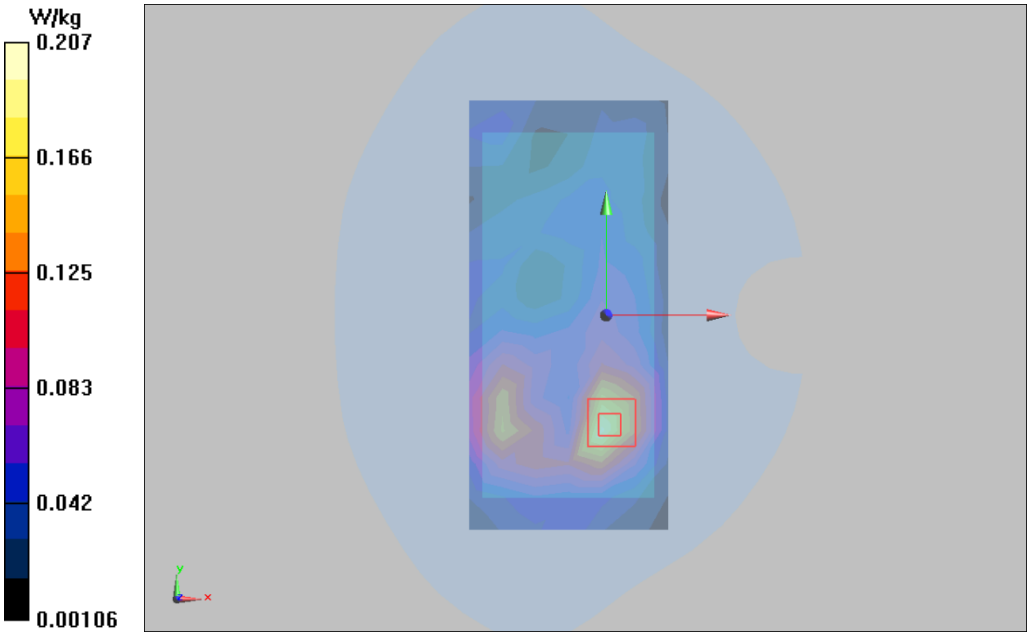
Back Side Middle/Zoom Scan(7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.816 V/m; Power Drift = -0.022 dB

Peak SAR (extrapolated) = 0.396 W/kg

SAR(1 g) = 0.189 W/kg; SAR(10 g) = 0.094 W/kg

Maximum value of SAR (measured) = 0.207 W/kg



Plot 46 LTE Band 38 1RB Bottom Edge Middle (Distance 10mm)

Date: 11/4/2020

Communication System: UID 0, LTE (0); Frequency: 2595 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2595 MHz; σ = 1.973 S/m; ε_r = 38.008; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (5x12x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.372 W/kg

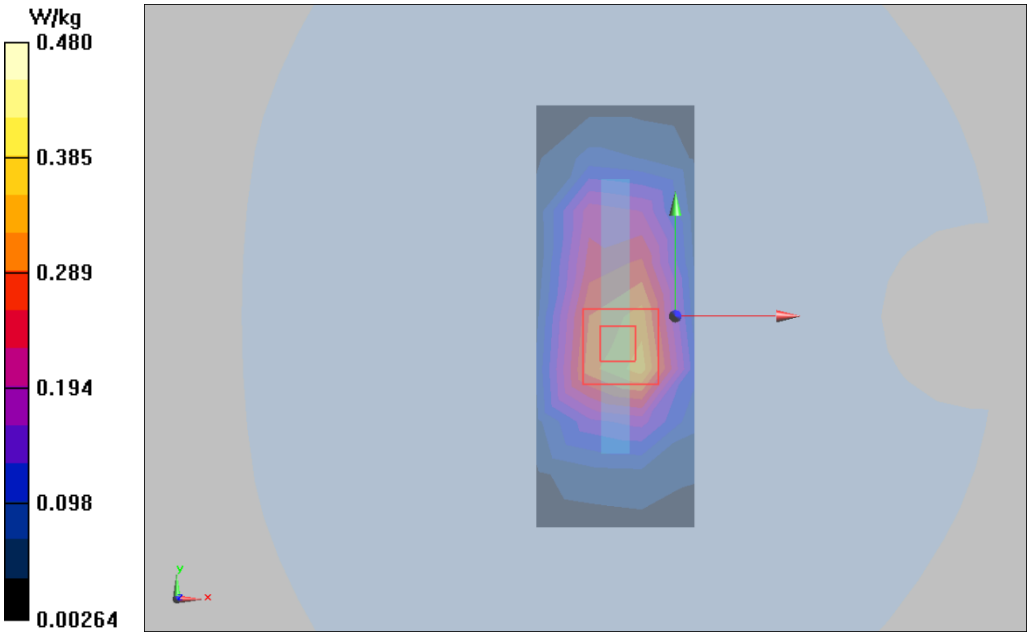
Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.68 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.873 W/kg

SAR(1 g) = 0.432 W/kg; SAR(10 g) = 0.212 W/kg

Maximum value of SAR (measured) = 0.480 W/kg



Plot 47 LTE Band 41 1RB Left Cheek Low

Date: 11/8/2020

Communication System: UID 0, LTE (0); Frequency: 2506 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2506 MHz; σ = 1.871 S/m; ε_r = 38.365; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Cheek Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.147 W/kg

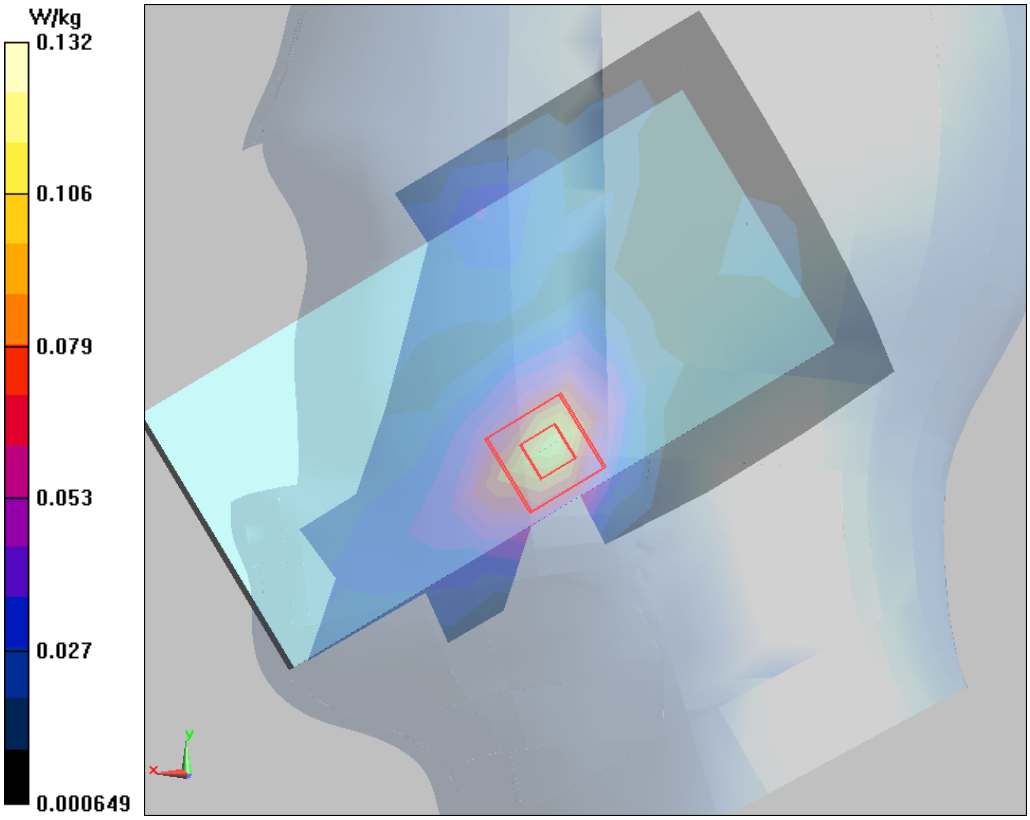
Left Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.587 V/m; Power Drift = 0.053 dB

Peak SAR (extrapolated) = 0.215 W/kg

SAR(1 g) = 0.120 W/kg; SAR(10 g) = 0.067 W/kg

Maximum value of SAR (measured) = 0.132 W/kg

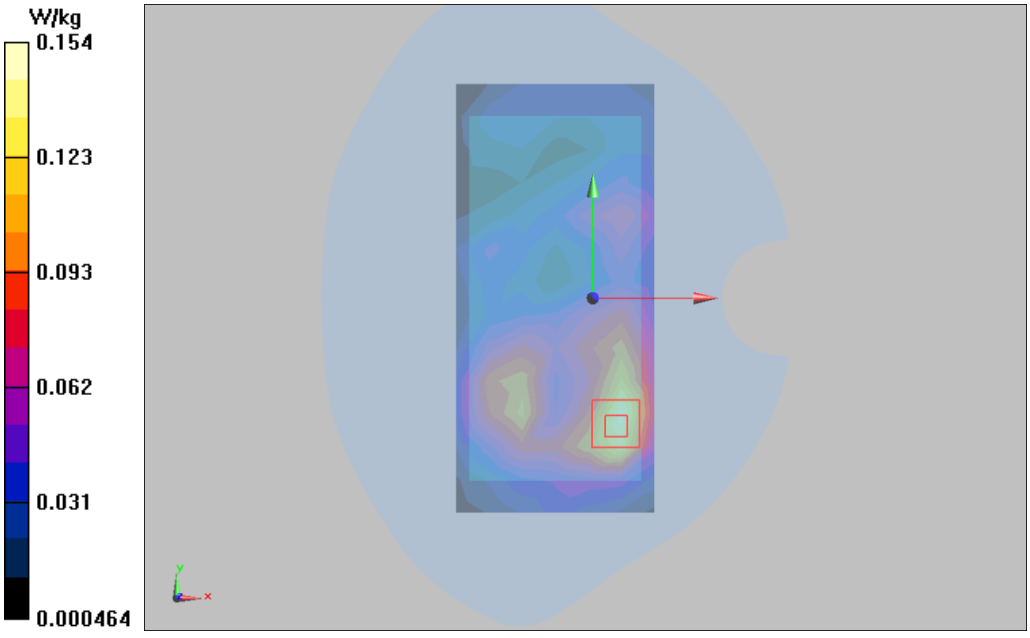


Plot 48 LTE Band 41 1RB Back Side Low (Distance 15mm)

Date: 11/8/2020
Communication System: UID 0, LTE (0); Frequency: 2506 MHz;Duty Cycle: 1:1.58
Medium parameters used: f = 2506 MHz; σ = 1.871 S/m; ε_r = 38.365; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.150 W/kg

Back Side Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.875 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.279 W/kg
SAR(1 g) = 0.140 W/kg; SAR(10 g) = 0.071 W/kg
Smallest distance from peaks to all points 3 dB below = 14.8 mm
Ratio of SAR at M2 to SAR at M1 = 49.7%
Maximum value of SAR (measured) = 0.154 W/kg



Plot 49 LTE Band 41 50%RB Back Side Low (Distance 10mm)

Date: 11/8/2020

Communication System: UID 0, LTE (0); Frequency: 2506 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2506 MHz; σ = 1.871 S/m; ε_r = 38.365; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Low/Area Scan (5x12x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.356 W/kg

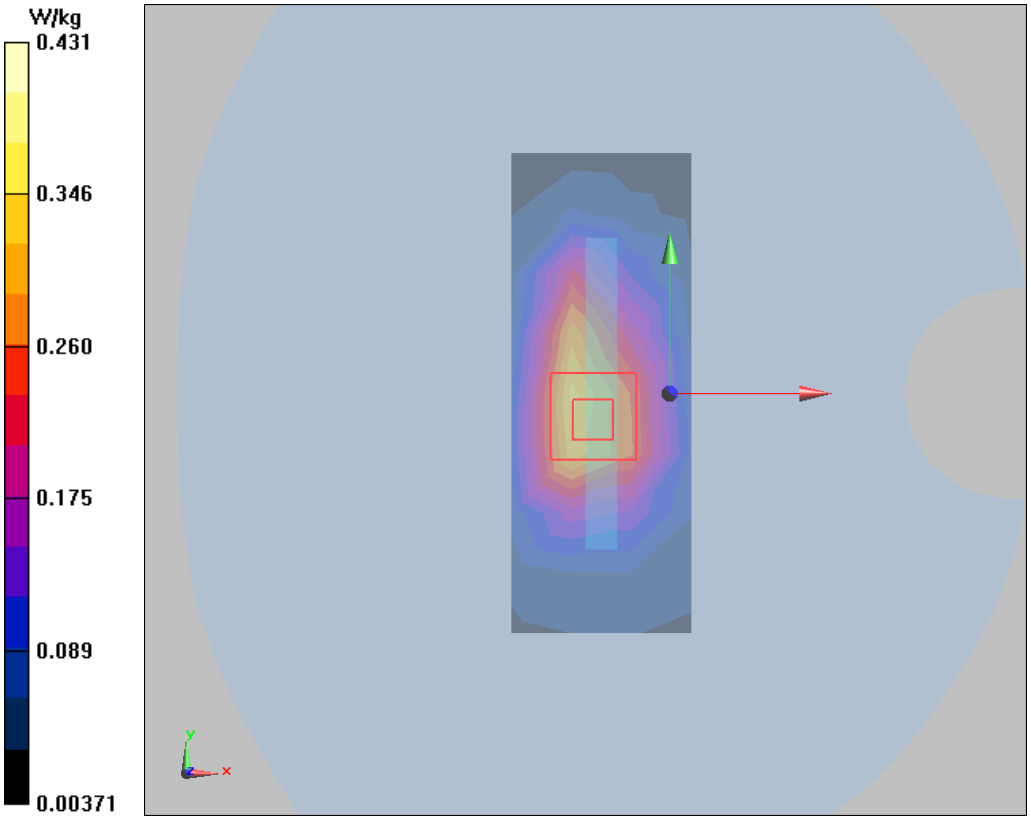
Back Side Low/Zoom Scan(7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.58 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.773 W/kg

SAR(1 g) = 0.385 W/kg; SAR(10 g) = 0.194 W/kg

Maximum value of SAR (measured) = 0.431 W/kg



Second-Antenna

Plot 50 GSM 850 Left Cheek Middle

Date: 9/25/2020

Communication System: UID 0, GSM 850 (class 12) (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.3

Medium parameters used: f = 837 MHz; σ = 0.923 S/m; ε_r = 42.201; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Cheek Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.372 W/kg

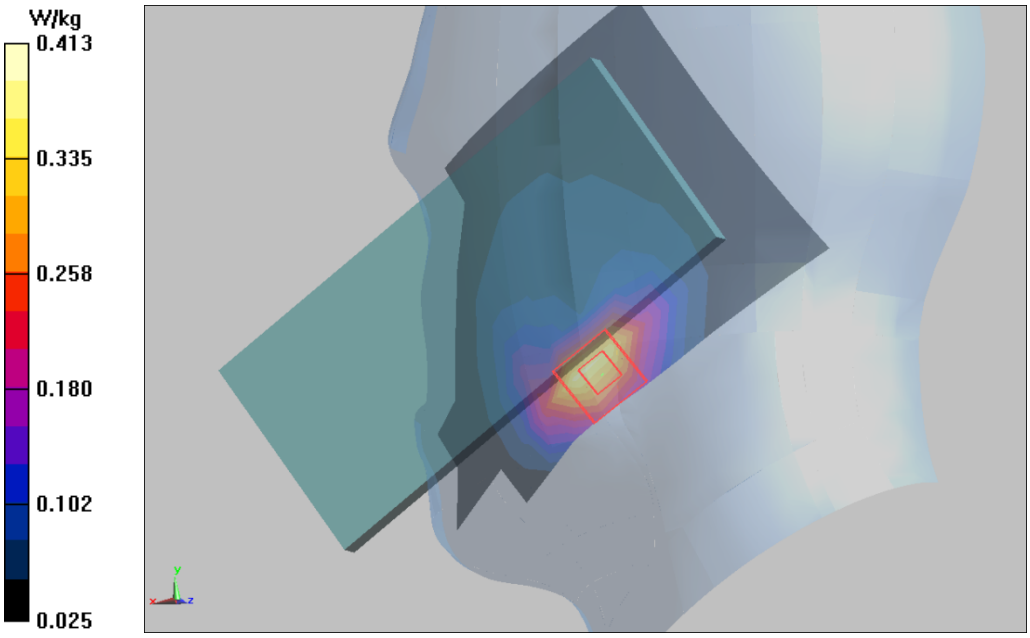
Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.719 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.666 W/kg

SAR(1 g) = 0.371 W/kg; SAR(10 g) = 0.208 W/kg

Maximum value of SAR (measured) = 0.413 W/kg

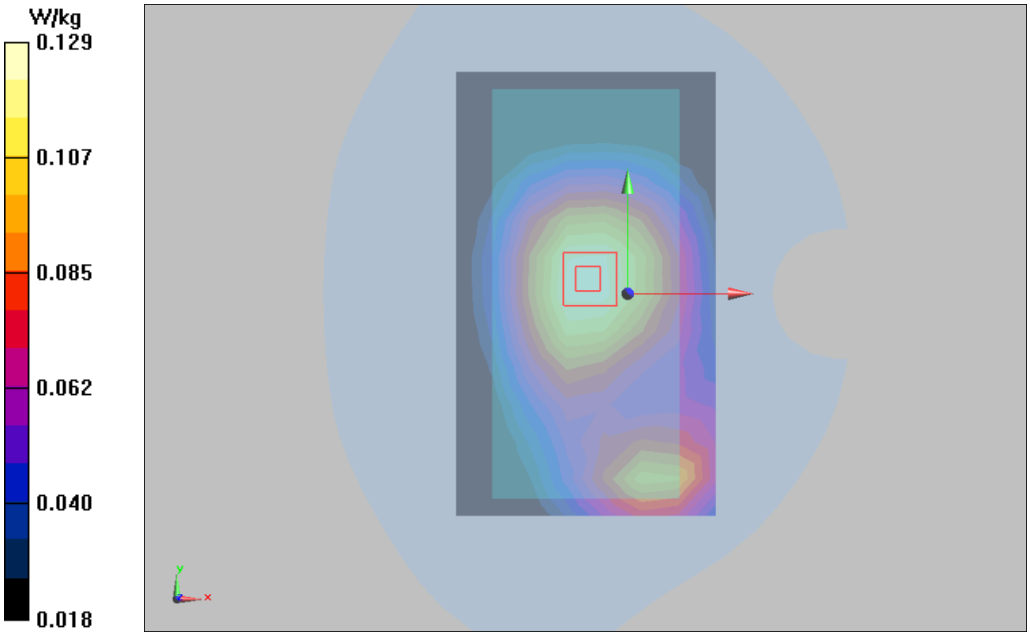


Plot 51 GSM 850 Front Side Middle (Distance 15mm)

Date: 9/25/2020
Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 837 MHz; σ = 0.923 S/m; ε_r = 42.201; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Front Side Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.125 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.91 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.156 W/kg
SAR(1 g) = 0.123 W/kg; SAR(10 g) = 0.092 W/kg
Maximum value of SAR (measured) = 0.129 W/kg



Plot 52 GSM 850 GPRS (2Txslots) Left Edge Middle (Distance 10mm)

Date: 9/25/2020

Communication System: UID 0, GPRS 2TX (0); Frequency: 836.6 MHz;Duty Cycle: 1:4.15

Medium parameters used: f = 837 MHz; σ = 0.923 S/m; ε_r = 42.201; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Edge Middle/Area Scan (4x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.362 W/kg

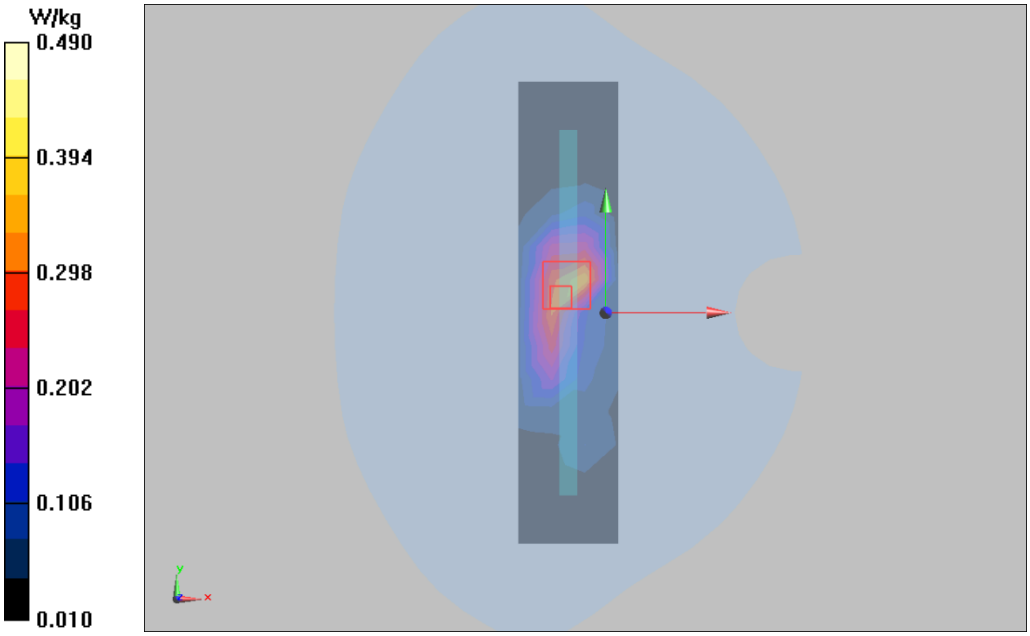
Left Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.69 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.876 W/kg

SAR(1 g) = 0.303 W/kg; SAR(10 g) = 0.129 W/kg

Maximum value of SAR (measured) = 0.490 W/kg

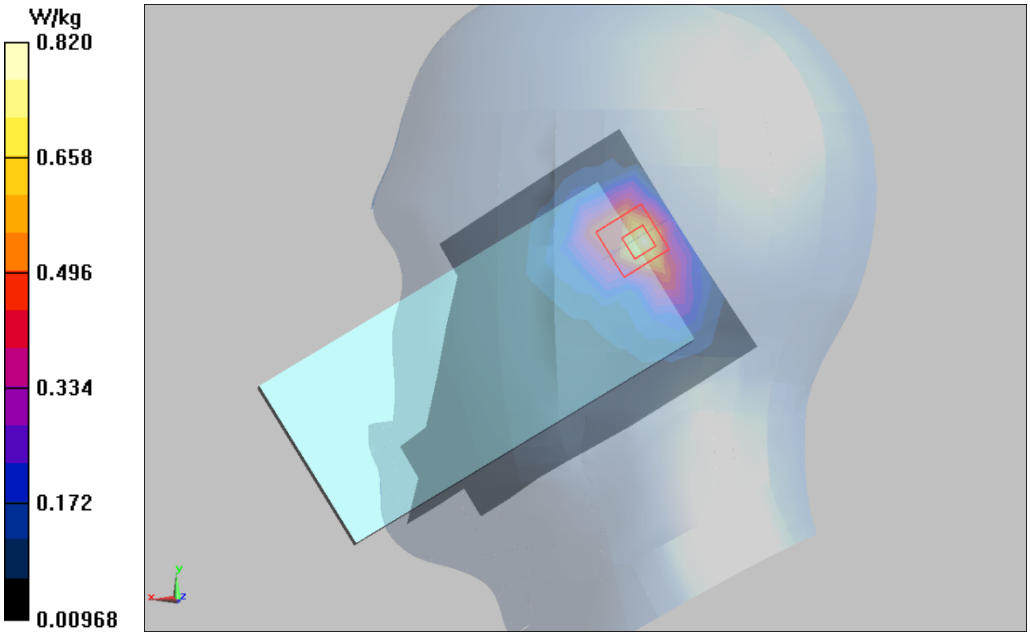


Plot 53 GSM 1900 Left Tilt Middle

Date: 10/23/2020
Communication System: UID 0, GSM1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Tilt Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.802 W/kg

Left Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.24 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.731 W/kg; SAR(10 g) = 0.398 W/kg
Maximum value of SAR (measured) = 0.820 W/kg

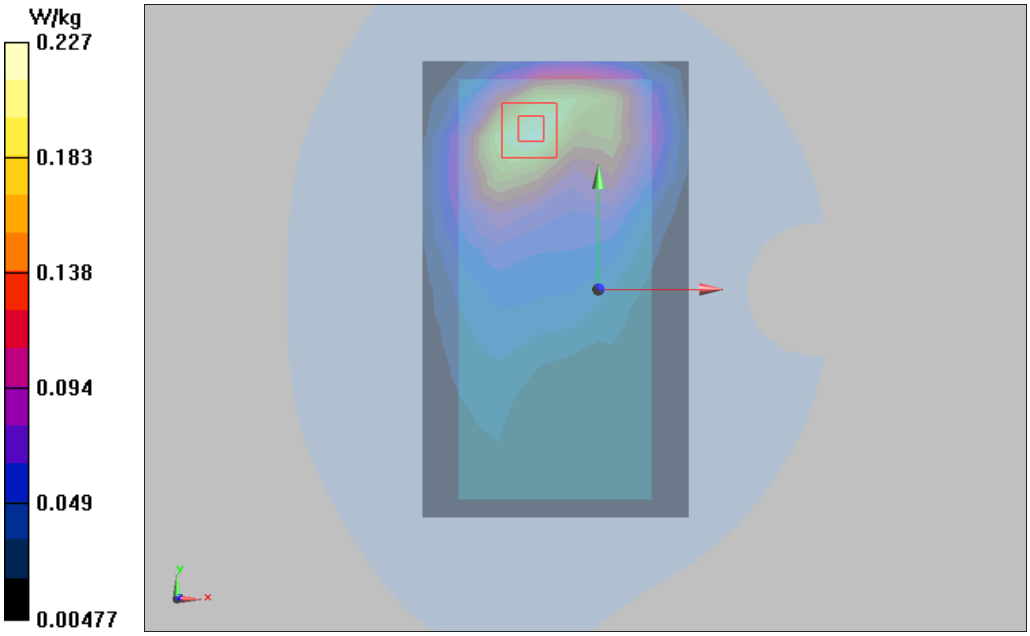


Plot 54 GSM 1900 Back Side Middle (Distance 15mm)

Date: 10/23/2020
Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Flat Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.221 W/kg

Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.197 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.339 W/kg
SAR(1 g) = 0.213 W/kg; SAR(10 g) = 0.129 W/kg
Maximum value of SAR (measured) = 0.227 W/kg



Plot 55 GSM 1900 GPRS (2Txslots) Top Edge Middle (Distance 10mm)

Date: 10/23/2020

Communication System: UID 0, GPRS 2TX (0); Frequency: 1880 MHz;Duty Cycle: 1:4.15

Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Top Edge Middle/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.315 W/kg

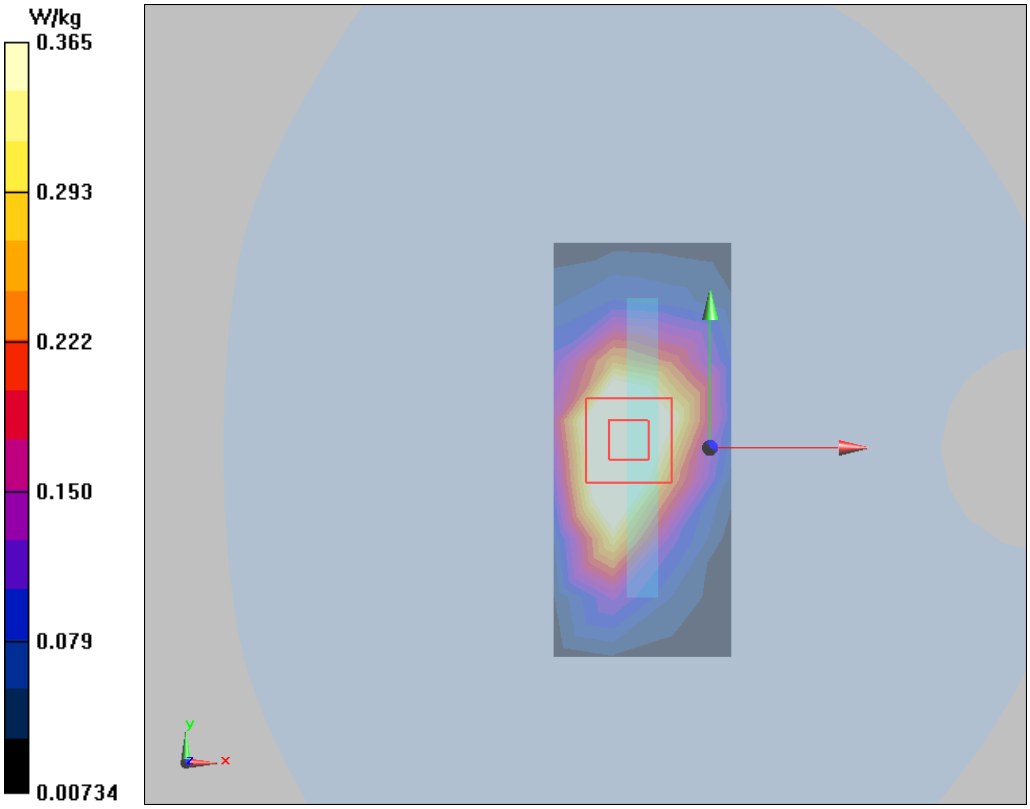
Top Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.22 V/m; Power Drift = -0.051 dB

Peak SAR (extrapolated) = 0.874 W/kg

SAR(1 g) = 0.301 W/kg; SAR(10 g) = 0.166 W/kg

Maximum value of SAR (measured) = 0.365 W/kg

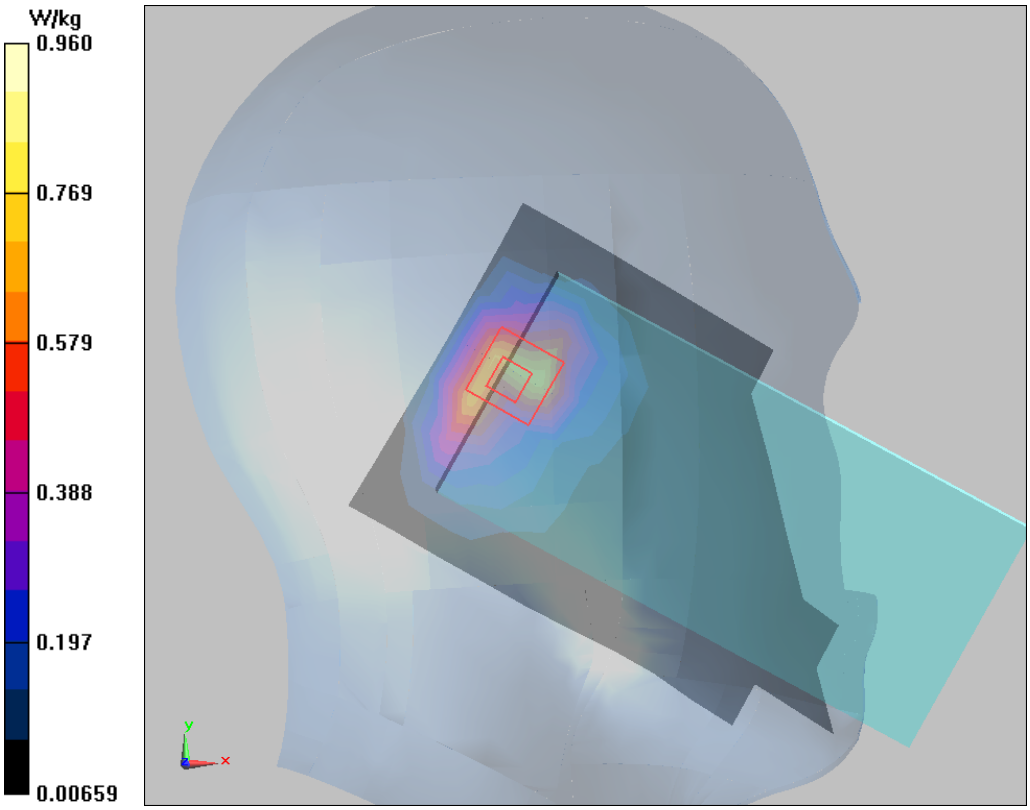


Plot 56 UMTS Band II Left Tilt Middle

Date: 10/24/2020
Communication System: UID 0, WCDMA 1900 (0); Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Tilt Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.773 W/kg

Left Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.46 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.59 W/kg
SAR(1 g) = 0.862 W/kg; SAR(10 g) = 0.455 W/kg
Maximum value of SAR (measured) = 0.960 W/kg



Plot 57 UMTS Band II Back Side Middle (Distance 15mm)

Date: 10/24/2020

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

Medium parameters used: f = 1880 MHz; σ = 1.393 S/m; ε_r = 38.344; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.349 W/kg

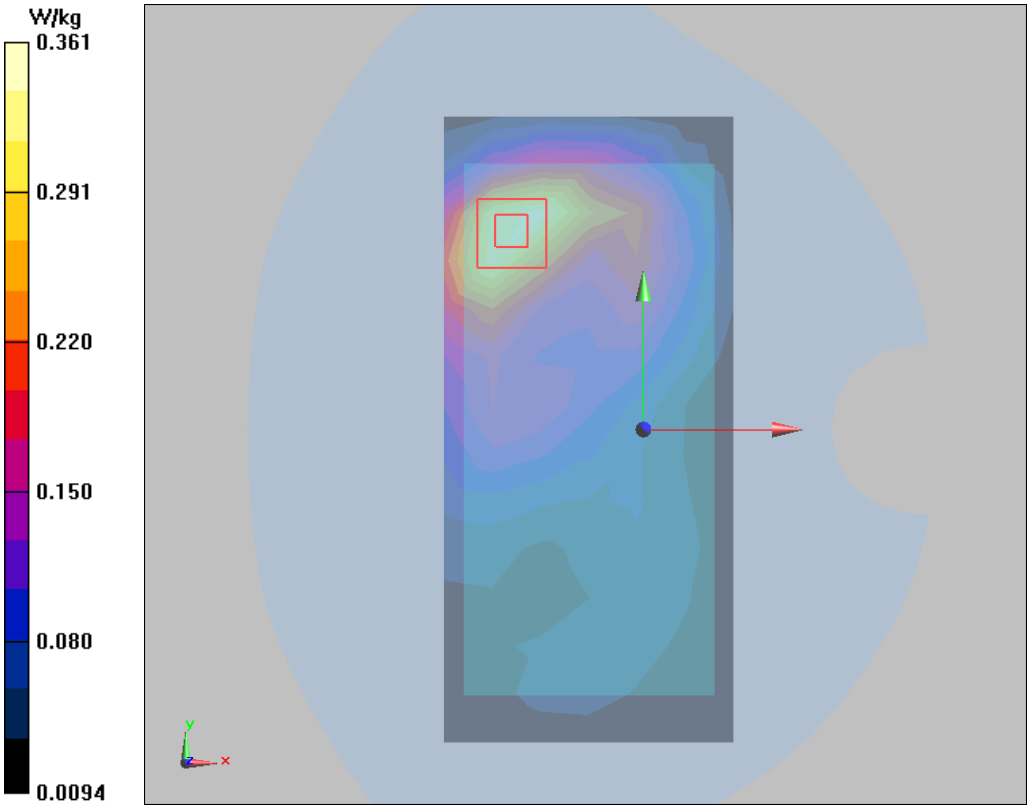
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.476 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.521 W/kg

SAR(1 g) = 0.333 W/kg; SAR(10 g) = 0.202 W/kg

Maximum value of SAR (measured) = 0.361 W/kg



Plot 58 UMTS Band II Top Edge Middle (Distance 10mm)

Date: 10/24/2020

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

Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Top Edge Middle/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.486 W/kg

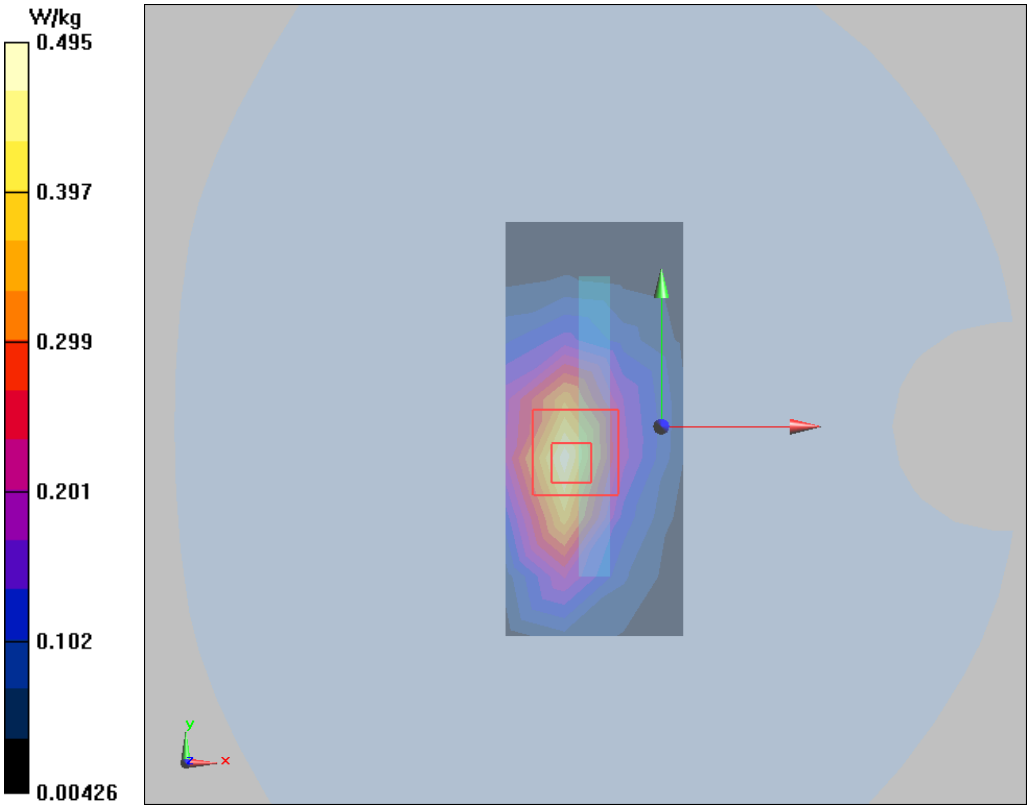
Top Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.56 V/m; Power Drift = 0.117 dB

Peak SAR (extrapolated) = 0.777 W/kg

SAR(1 g) = 0.425 W/kg; SAR(10 g) = 0.214 W/kg

Maximum value of SAR (measured) = 0.495 W/kg



Plot 59 UMTS Band IV Right Tilt Middle

Date: 9/15/2020

Communication System: UID 0, WCDMA-1700 (0); Frequency: 1732.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1733 MHz; σ = 1.312 S/m; ε_r = 39.365; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Right Tilt Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.675 W/kg

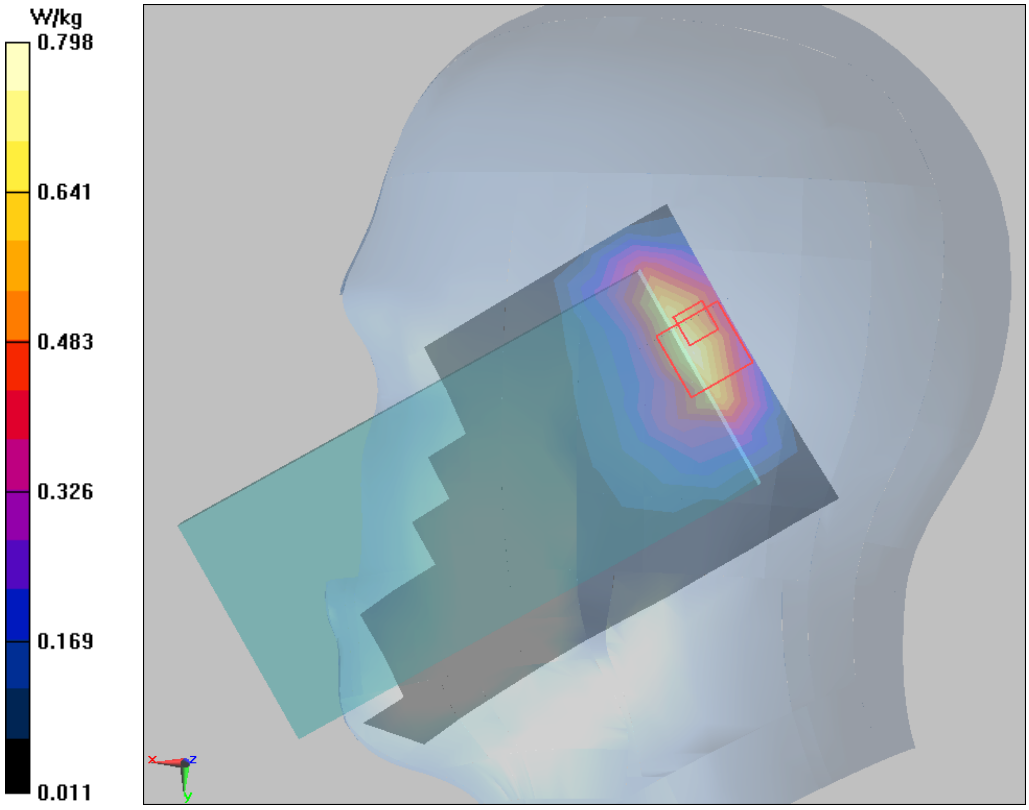
Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.32 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 0.680 W/kg; SAR(10 g) = 0.395 W/kg

Maximum value of SAR (measured) = 0.798 W/kg



Plot 60 UMTS Band IV Back Side Middle (Distance 15mm)

Date: 9/15/2020

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

Medium parameters used: f = 1733 MHz; σ = 1.293 S/m; ε_r = 38.782; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.297 W/kg

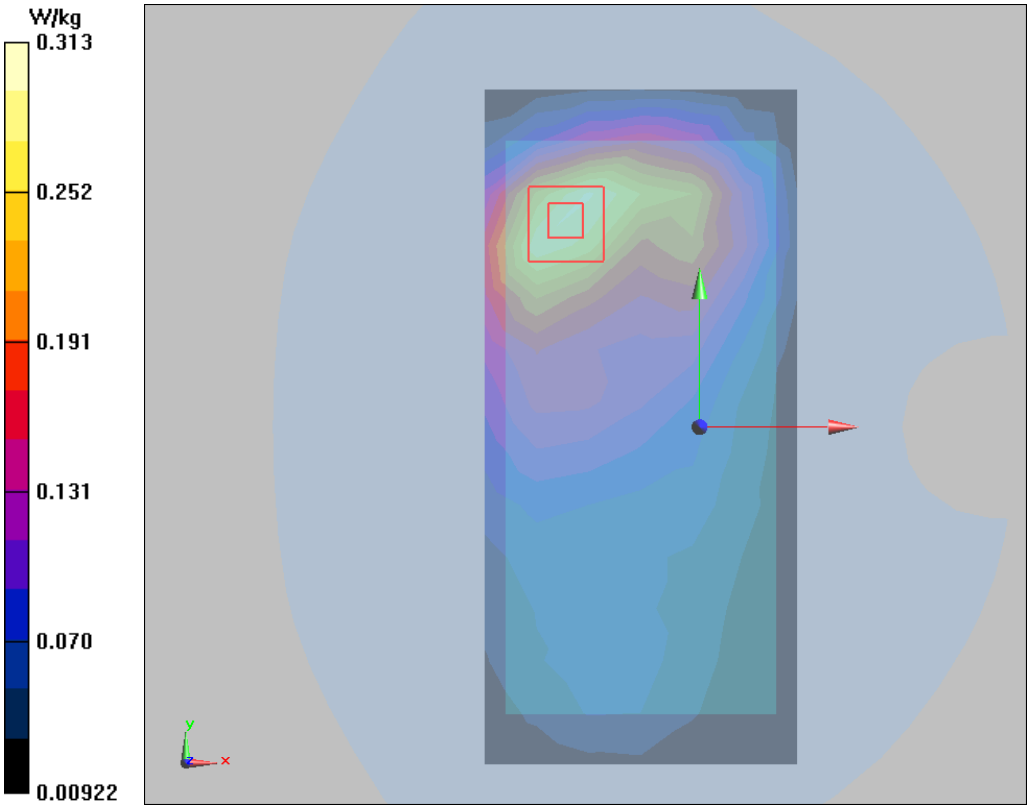
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.849 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.442 W/kg

SAR(1 g) = 0.291 W/kg; SAR(10 g) = 0.183 W/kg

Maximum value of SAR (measured) = 0.313 W/kg



Plot 61 UMTS Band IV Top Edge Middle (Distance 10mm)

Date: 9/15/2020

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

Medium parameters used: f = 1733 MHz; σ = 1.312 S/m; ε_r = 39.365; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Top Edge Middle/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.364 W/kg

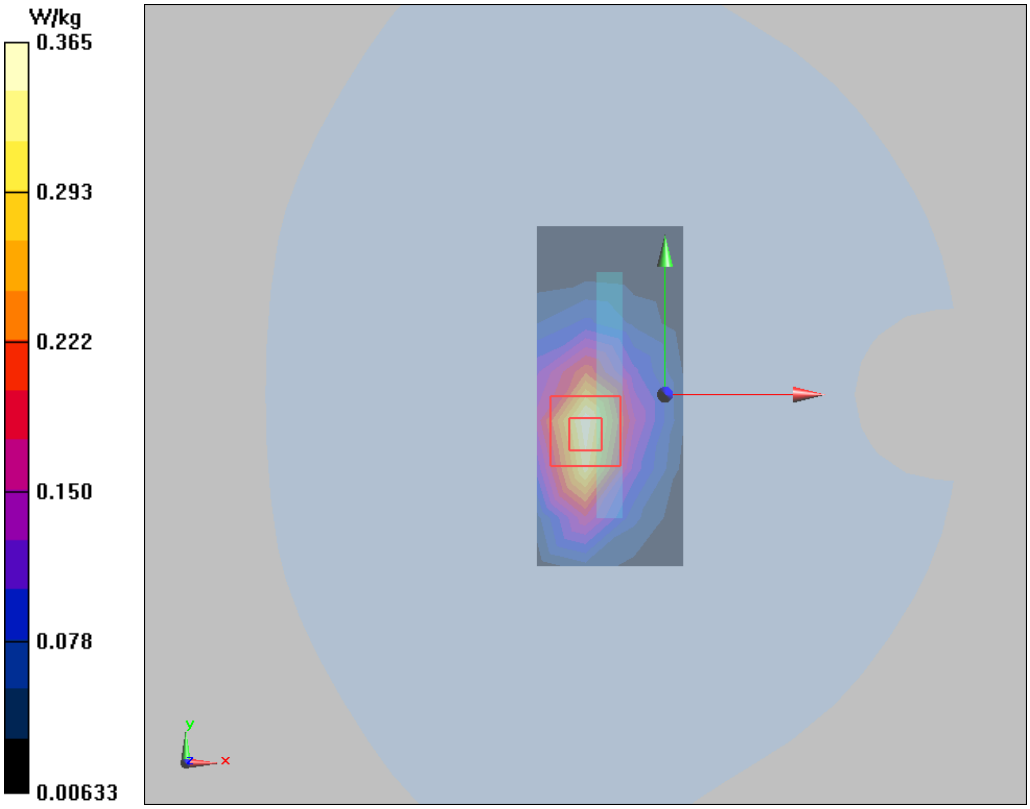
Top Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.35 V/m; Power Drift = 0.039 dB

Peak SAR (extrapolated) = 0.555 W/kg

SAR(1 g) = 0.332 W/kg; SAR(10 g) = 0.187 W/kg

Maximum value of SAR (measured) = 0.365 W/kg



Plot 62 UMTS Band V Left Cheek Middle

Date: 9/26/2020

Communication System: UID 0, WCDMA 850 (0); Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: f = 837 MHz; σ = 0.923 S/m; ε_r = 42.201; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Cheek Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.645 W/kg

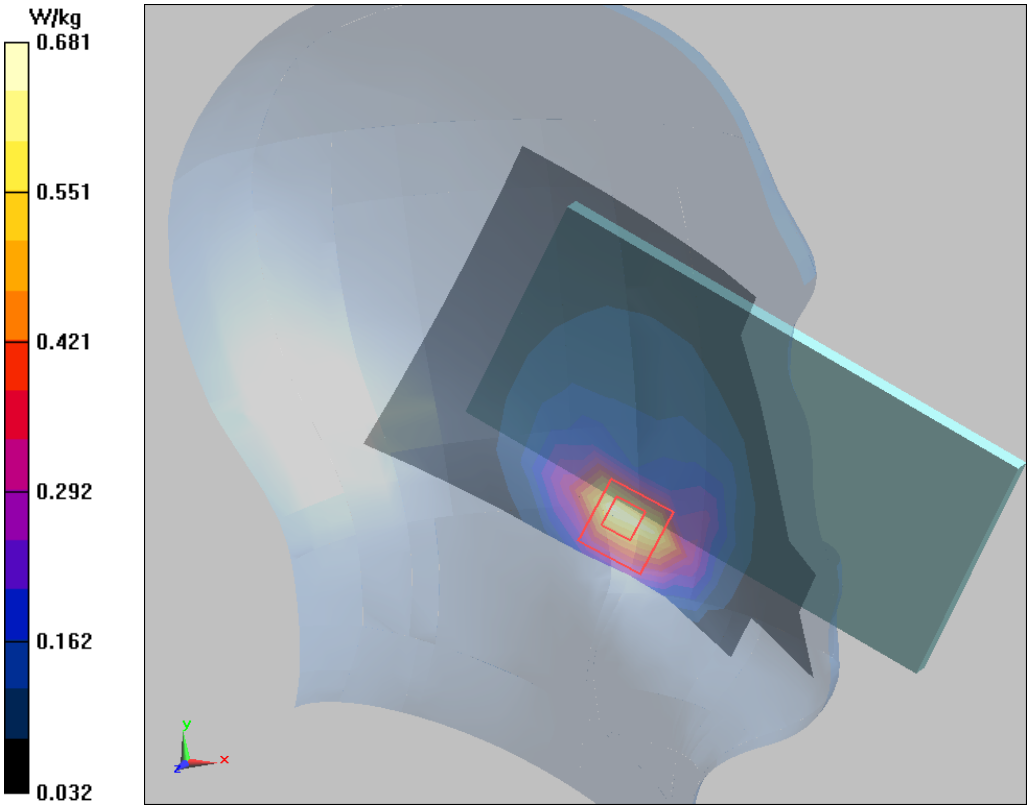
Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.527 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.15 W/kg

SAR(1 g) = 0.604 W/kg; SAR(10 g) = 0.325 W/kg

Maximum value of SAR (measured) = 0.681 W/kg



Plot 63 UMTS Band V Back Side Middle (Distance 15mm)

Date: 9/26/2020

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

Medium parameters used: f = 837 MHz; σ = 0.923 S/m; ε_r = 42.201; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.140 W/kg

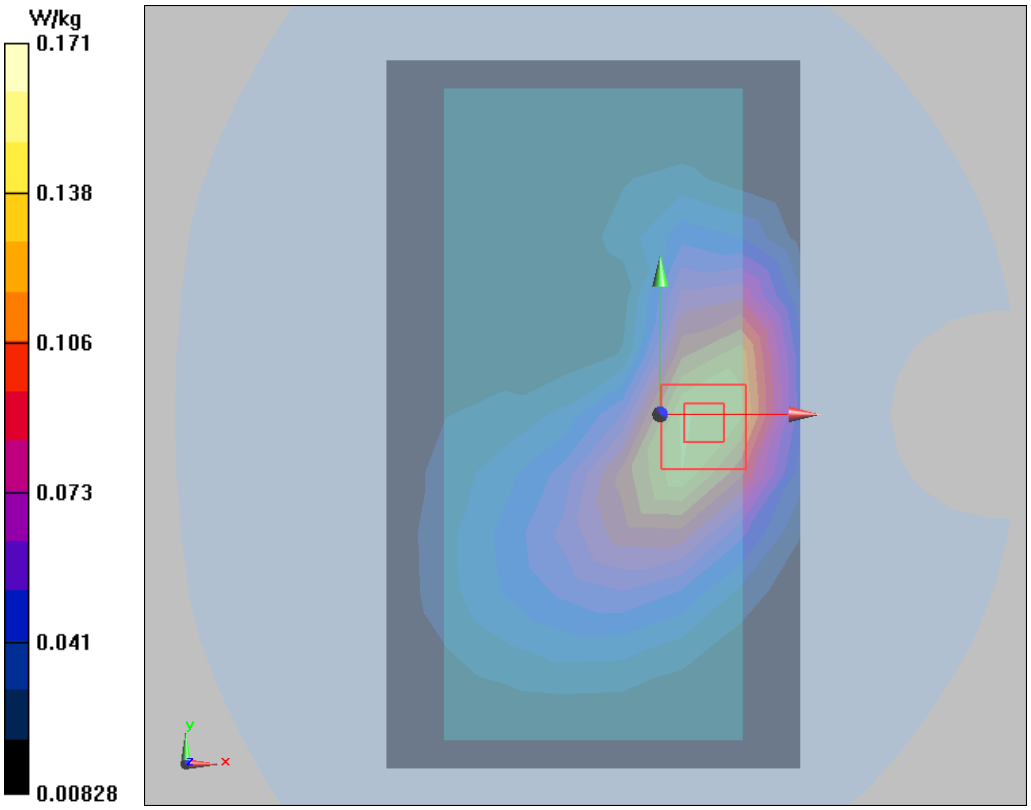
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.985 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.224 W/kg

SAR(1 g) = 0.158 W/kg; SAR(10 g) = 0.098 W/kg

Maximum value of SAR (measured) = 0.171 W/kg



Plot 64 UMTS Band V Left Edge Middle (Distance 10mm)

Date: 9/26/2020

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

Medium parameters used: f = 837 MHz; σ = 0.923 S/m; ε_r = 42.201; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Edge Middle/Area Scan (4x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.457 W/kg

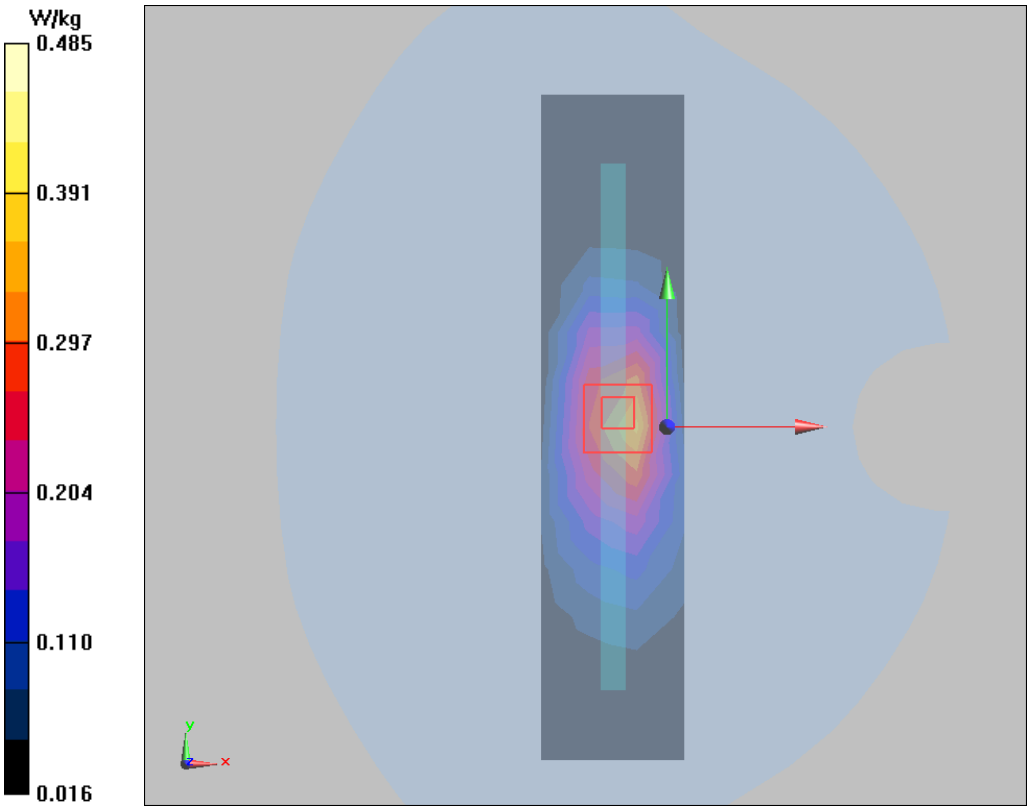
Left Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.84 V/m; Power Drift = 0.028 dB

Peak SAR (extrapolated) = 0.723 W/kg

SAR(1 g) = 0.464 W/kg; SAR(10 g) = 0.245 W/kg

Maximum value of SAR (measured) = 0.485 W/kg



Plot 65 LTE Band 2 50%RB Right Tilt Low

Date: 10/25/2020

Communication System: UID 0, LTE-FDD (0); Frequency: 1860 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1860 MHz; σ = 1.407 S/m; ε_r = 39.071; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Right Tilt Low/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.852 W/kg

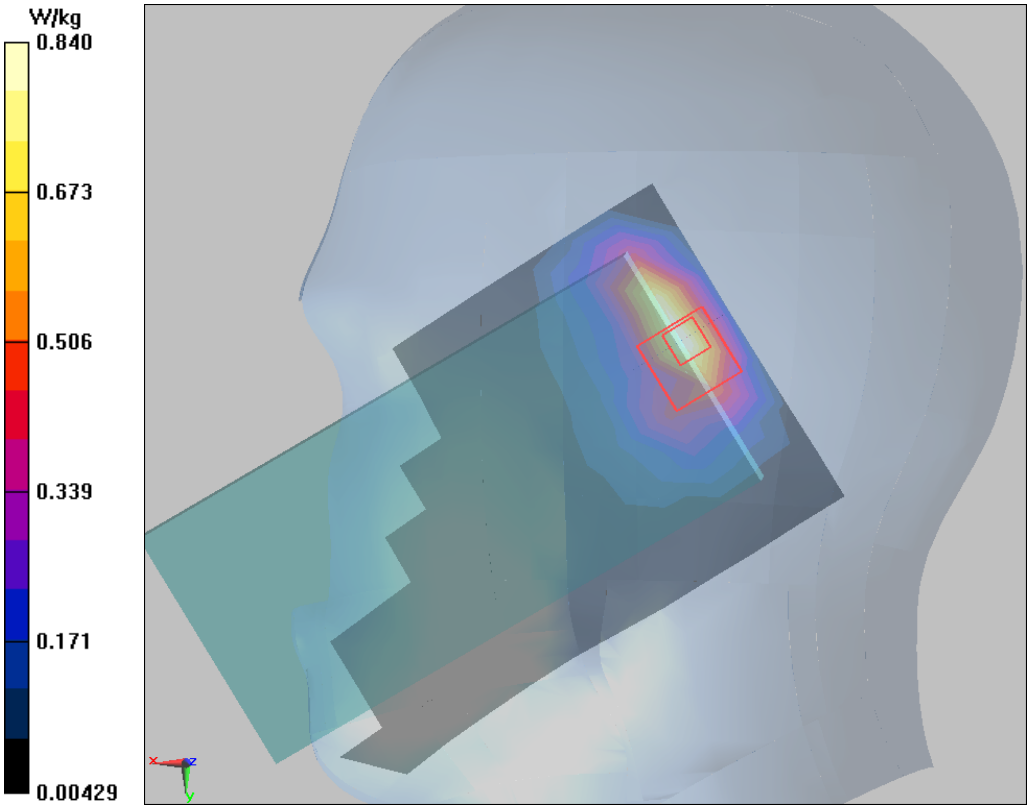
Right Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.18 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 0.773 W/kg; SAR(10 g) = 0.368 W/kg

Maximum value of SAR (measured) = 0.840 W/kg



Plot 66 LTE Band 2 1RB Back Side Low (Distance 15mm)

Date: 10/25/2020

Communication System: UID 0, LTE (0); Frequency: 1860 MHz;Duty Cycle: 1:1

Medium parameters used: f = 1860 MHz; σ = 1.407 S/m; ε_r = 39.071; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Low/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.294 W/kg

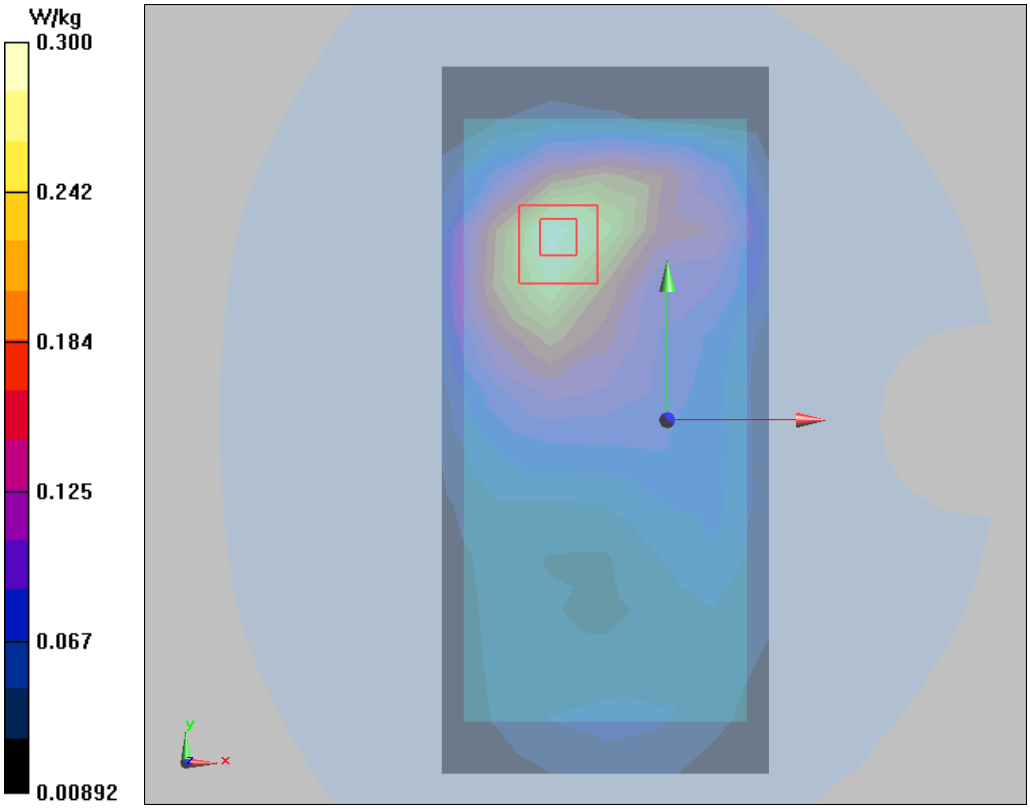
Back Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.673 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.430 W/kg

SAR(1 g) = 0.278 W/kg; SAR(10 g) = 0.172 W/kg

Maximum value of SAR (measured) = 0.300 W/kg



Plot 67 LTE Band 2 50%RB Top Edge Middle (Distance 10mm)

Date: 10/25/2020

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

Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.90, 7.90, 7.90); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Top Edge Middle/Area Scan (4x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.445 W/kg

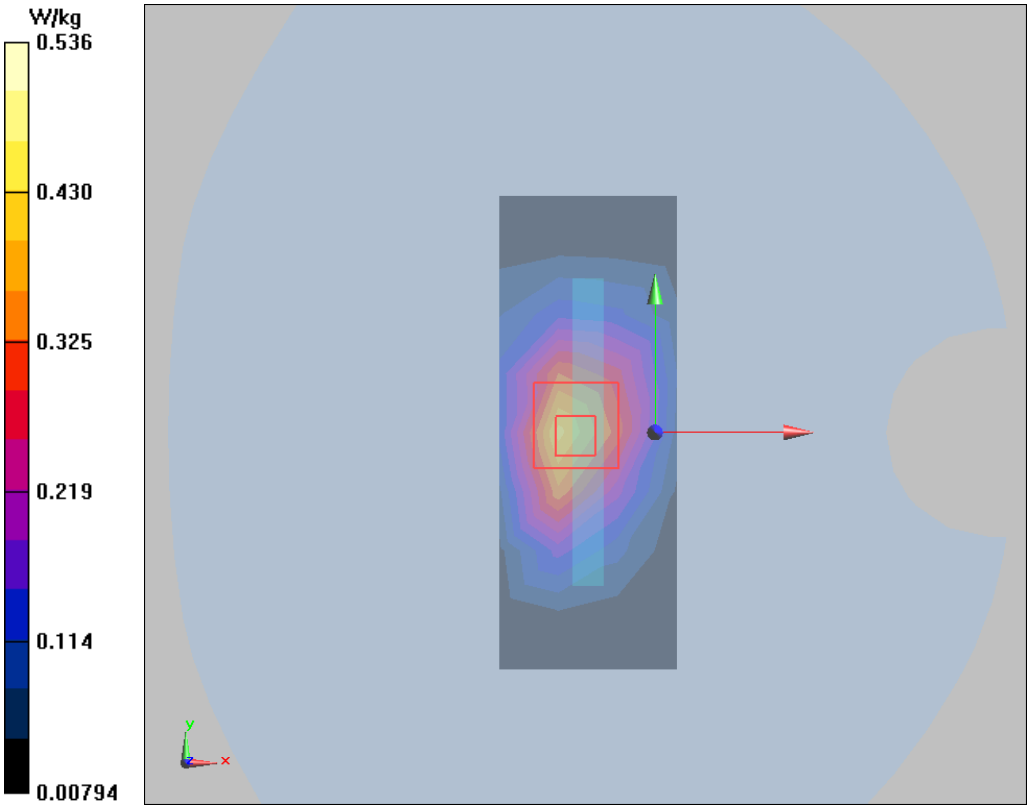
Top Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.95 V/m; Power Drift = 0.066 dB

Peak SAR (extrapolated) = 0.824 W/kg

SAR(1 g) = 0.481 W/kg; SAR(10 g) = 0.267 W/kg

Maximum value of SAR (measured) = 0.536 W/kg



Plot 68 LTE Band 4 1RB Right Tilt Middle

Date: 9/16/2020

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

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.313 S/m; ε_r = 39.384; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Right Tilt Middle/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.758 W/kg

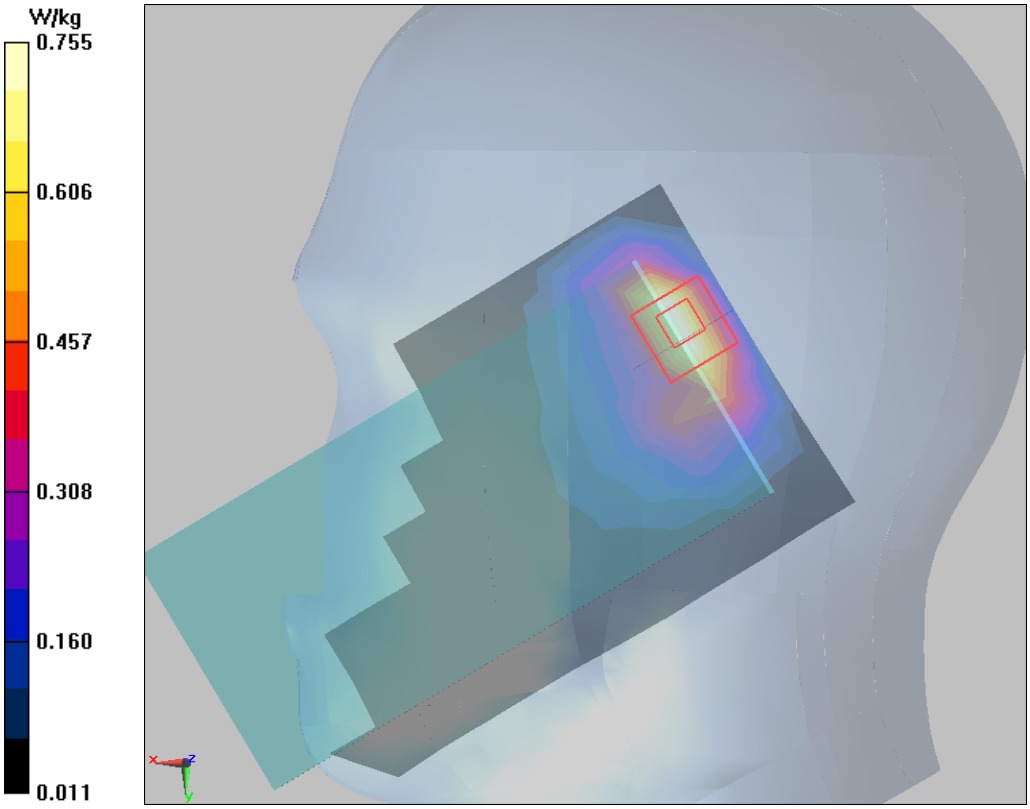
Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.82 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.43 W/kg

SAR(1 g) = 0.672 W/kg; SAR(10 g) = 0.335 W/kg

Maximum value of SAR (measured) = 0.755 W/kg



Plot 69 LTE Band 4 1RB Back Side Middle (Distance 15mm)

Date: 9/16/2020

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

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.313 S/m; ε_r = 39.384; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.368 W/kg

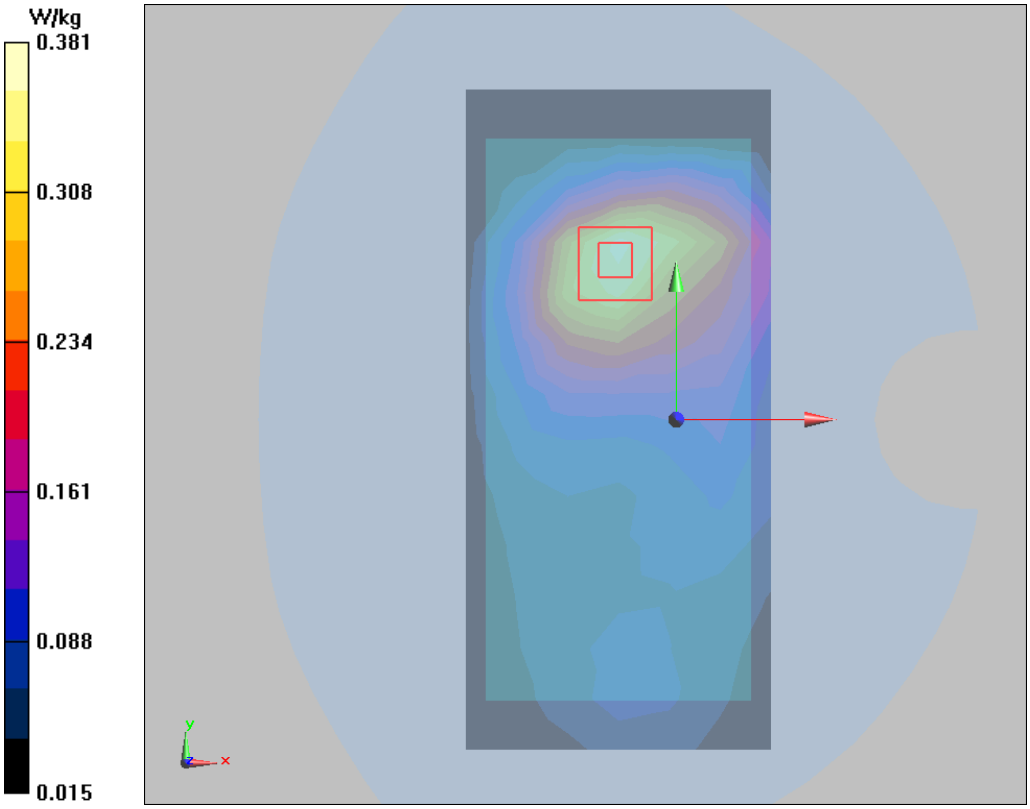
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.862 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.531 W/kg

SAR(1 g) = 0.353 W/kg; SAR(10 g) = 0.225 W/kg

Maximum value of SAR (measured) = 0.381 W/kg



Plot 70 LTE Band 4 50%RB Top Edge High (Distance 10mm)

Date: 9/16/2020

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

Medium parameters used: f = 1745 MHz; σ = 1.323 S/m; ε_r = 39.378; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(8.25, 8.25, 8.25); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Top Edge High/Area Scan (4x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.280 W/kg

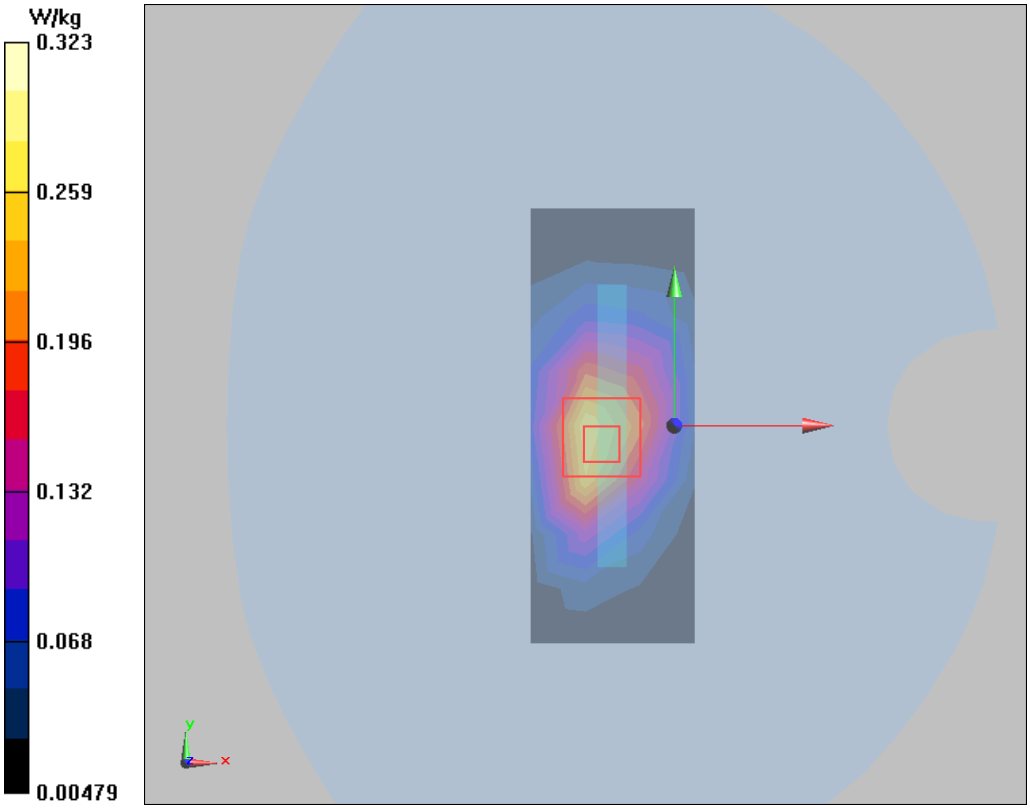
Top Edge High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.04 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.480 W/kg

SAR(1 g) = 0.289 W/kg; SAR(10 g) = 0.164 W/kg

Maximum value of SAR (measured) = 0.323 W/kg

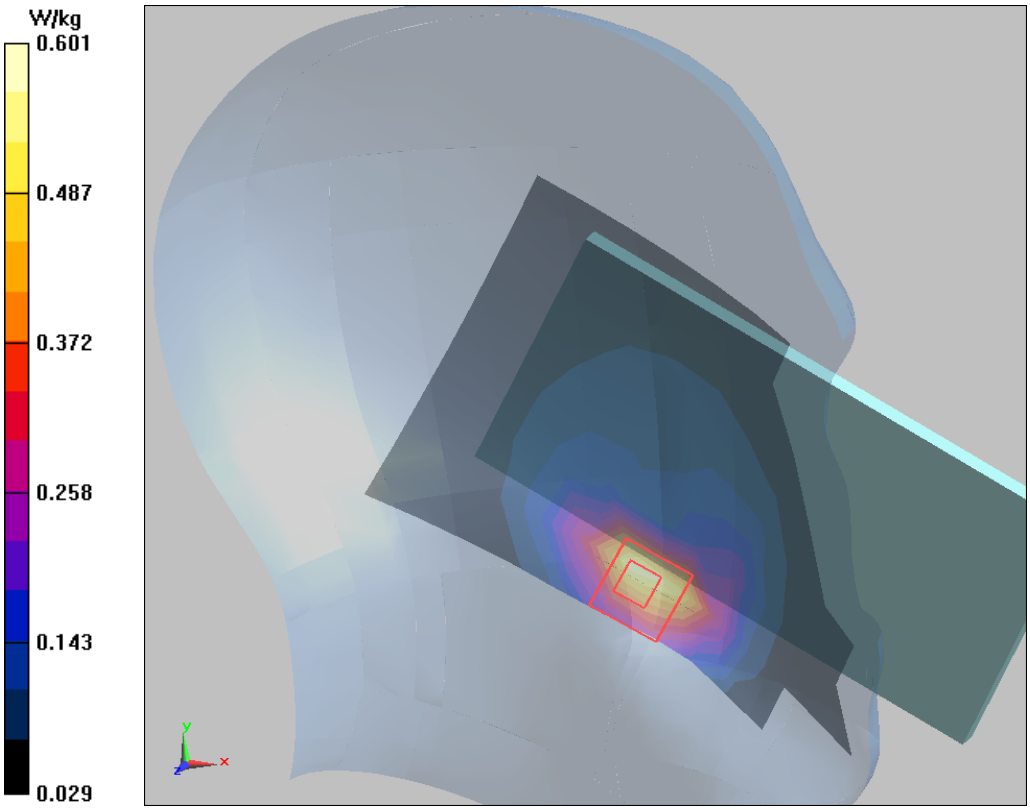


Plot 71 LTE Band 5 50%RB Left Cheek Low

Date: 9/27/2020
Communication System: UID 0, LTE-FDD (0); Frequency: 829 MHz;Duty Cycle: 1:1
Medium parameters used: f = 829 MHz; σ = 0.917 S/m; ε_r = 42.181; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Left Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Cheek Low/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.561 W/kg

Left Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.193 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 1.02 W/kg
SAR(1 g) = 0.534 W/kg; SAR(10 g) = 0.288 W/kg
Maximum value of SAR (measured) = 0.601 W/kg



Plot 72 LTE Band 5 1RB Back Side High (Distance 15mm)

Date: 9/27/2020

Communication System: UID 0, LTE (0); Frequency: 844 MHz;Duty Cycle: 1:1

Medium parameters used: f = 844 MHz; σ = 0.928 S/m; ε_r = 42.206; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side High/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.176 W/kg

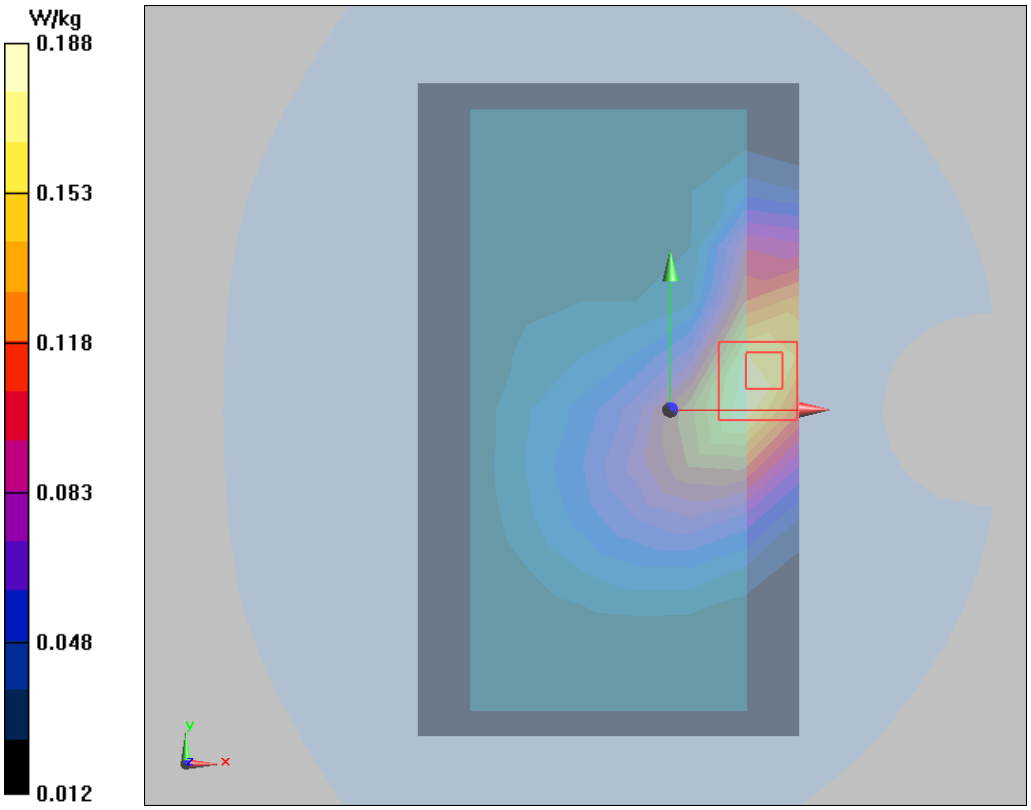
Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.307 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.261 W/kg

SAR(1 g) = 0.174 W/kg; SAR(10 g) = 0.112 W/kg

Maximum value of SAR (measured) = 0.188 W/kg



Plot 73 LTE Band 5 1RB Left Edge Middle (Distance 10mm)

Date: 9/27/2020

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

Medium parameters used: f = 836.5 MHz; σ = 0.928 S/m; ε_r = 42.206; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(9.38, 9.38, 9.38); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Edge Middle /Area Scan (4x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.422 W/kg

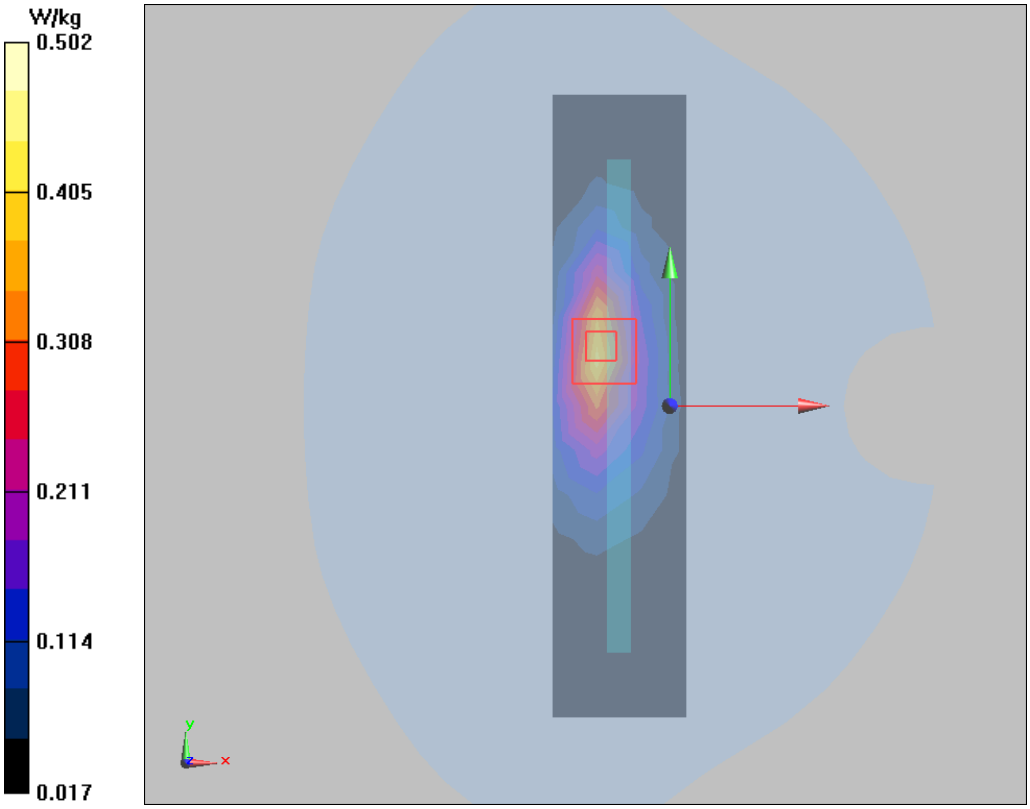
Left Edge Middle /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.29 V/m; Power Drift = 0.023 dB

Peak SAR (extrapolated) = 0.757 W/kg

SAR(1 g) = 0.482 W/kg; SAR(10 g) = 0.254 W/kg

Maximum value of SAR (measured) = 0.502 W/kg



Plot 74 LTE Band 7 50%RB Right Cheek Middle

Date: 11/3/2020

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

Medium parameters used: f = 2535 MHz; σ = 1.905 S/m; ε_r = 38.267; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Right Cheek Middle/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.466 W/kg

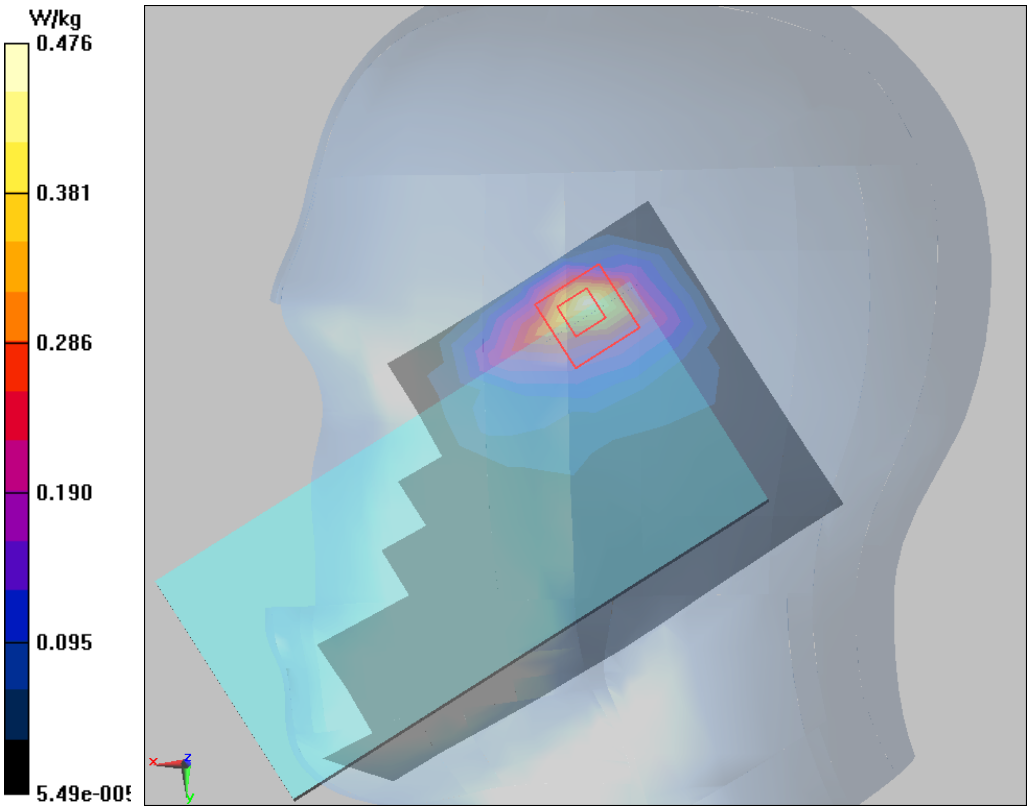
Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.214 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.420 W/kg; SAR(10 g) = 0.181 W/kg

Maximum value of SAR (measured) = 0.476 W/kg



Plot 75 LTE Band 7 1RB Back Side Low (Distance 15mm)

Date: 11/3/2020

Communication System: UID 0, LTE (0); Frequency: 2510 MHz;Duty Cycle: 1:1

Medium parameters used: f = 2510 MHz; σ = 1.876 S/m; ε_r = 38.352; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.101 W/kg

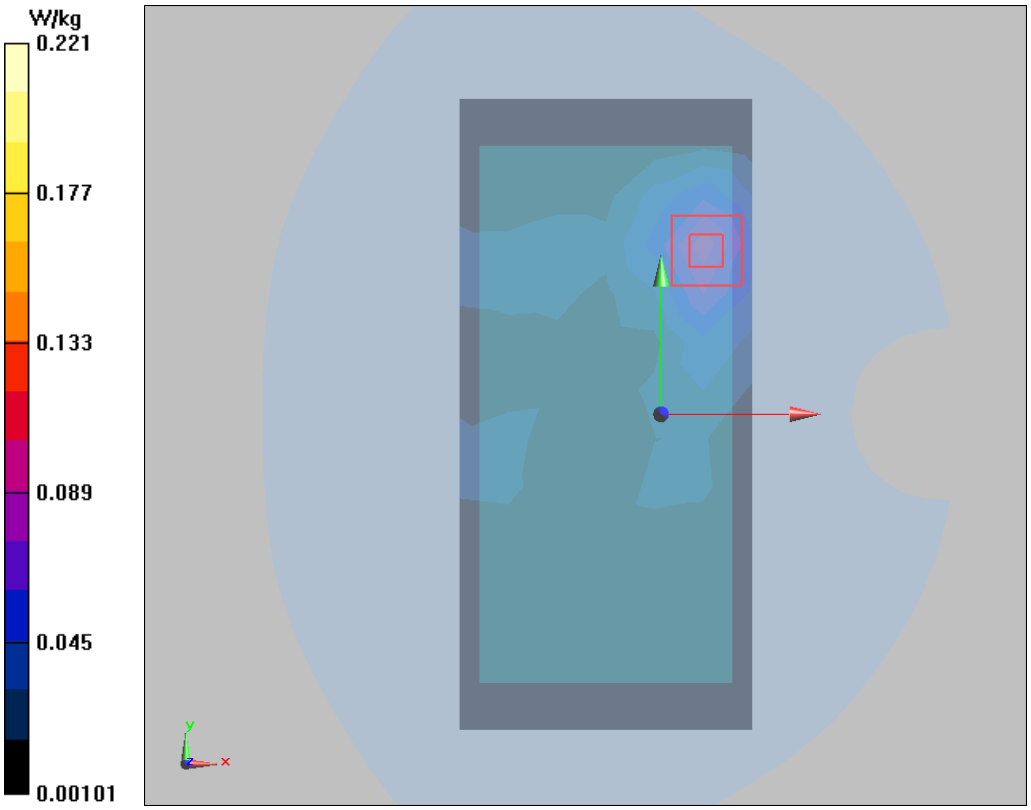
Back Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.601 V/m; Power Drift = 0.062 dB

Peak SAR (extrapolated) = 0.392 W/kg

SAR(1 g) = 0.201 W/kg; SAR(10 g) = 0.103 W/kg

Maximum value of SAR (measured) = 0.221 W/kg



Plot 76 LTE Band 7 1RB Left Edge Middle (Distance 10mm)

Date: 11/3/2020

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

Medium parameters used: f = 2535 MHz; σ = 1.905 S/m; ε_r = 38.267; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Edge Middle/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.284 W/kg

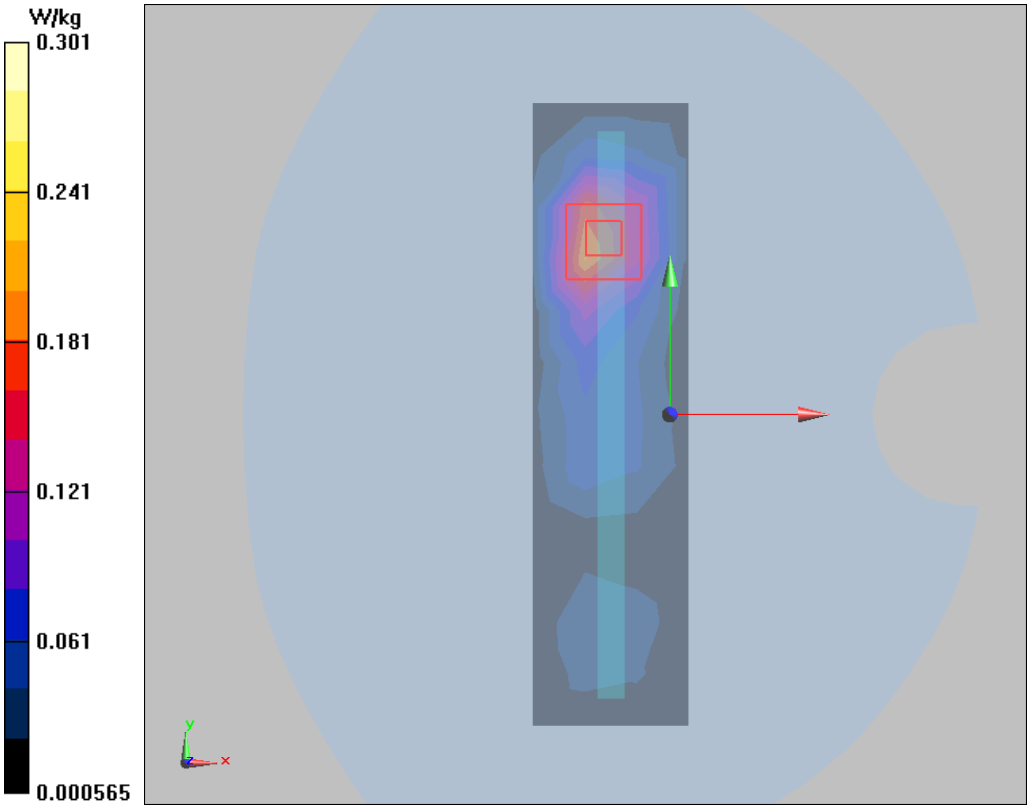
Left Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.717 V/m; Power Drift = 0.049 dB

Peak SAR (extrapolated) = 0.535 W/kg

SAR(1 g) = 0.290 W/kg; SAR(10 g) = 0.136 W/kg

Maximum value of SAR (measured) = 0.301 W/kg



Plot 77 LTE Band 38 1RB Right Cheek Middle

Date: 11/4/2020

Communication System: UID 0, LTE (0); Frequency: 2595 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2595 MHz; σ = 1.973 S/m; ε_r = 38.008; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Right Cheek Middle/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.539 W/kg

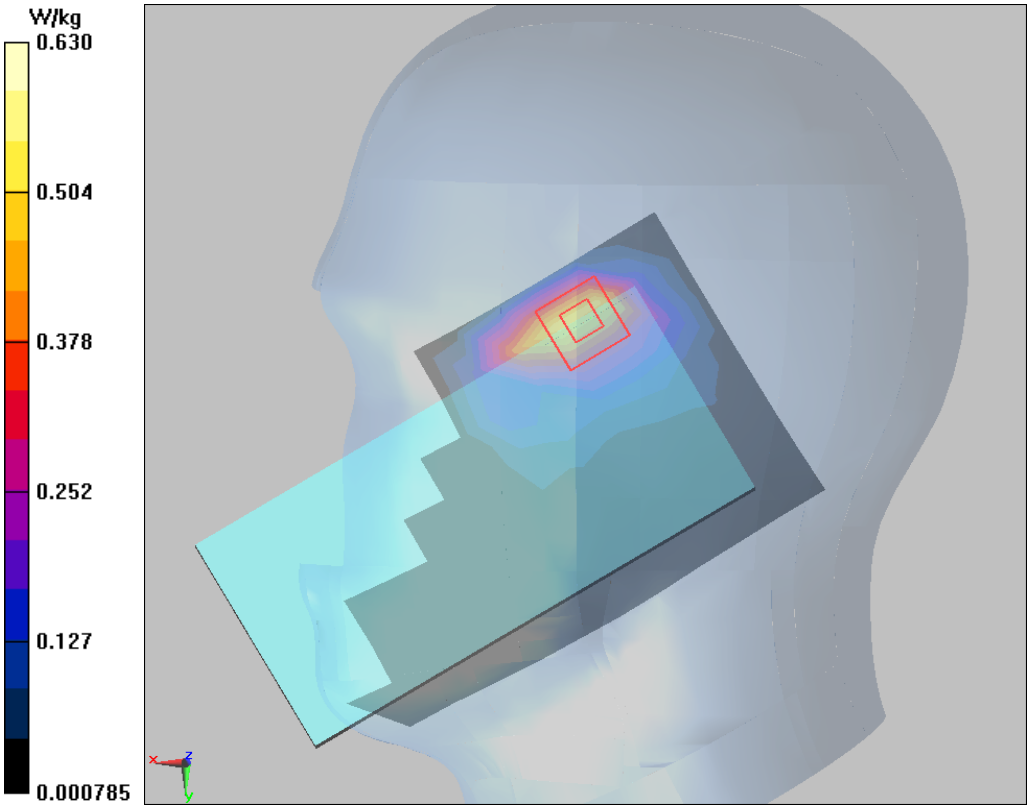
Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.261 V/m; Power Drift = 0.029 dB

Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.559 W/kg; SAR(10 g) = 0.246 W/kg

Maximum value of SAR (measured) = 0.630 W/kg



Plot 78 LTE Band 38 1RB Back Side Middle (Distance 15mm)

Date: 11/4/2020

Communication System: UID 0, LTE (0); Frequency: 2595 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2595 MHz; σ = 1.973 S/m; ε_r = 38.008; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.260 W/kg

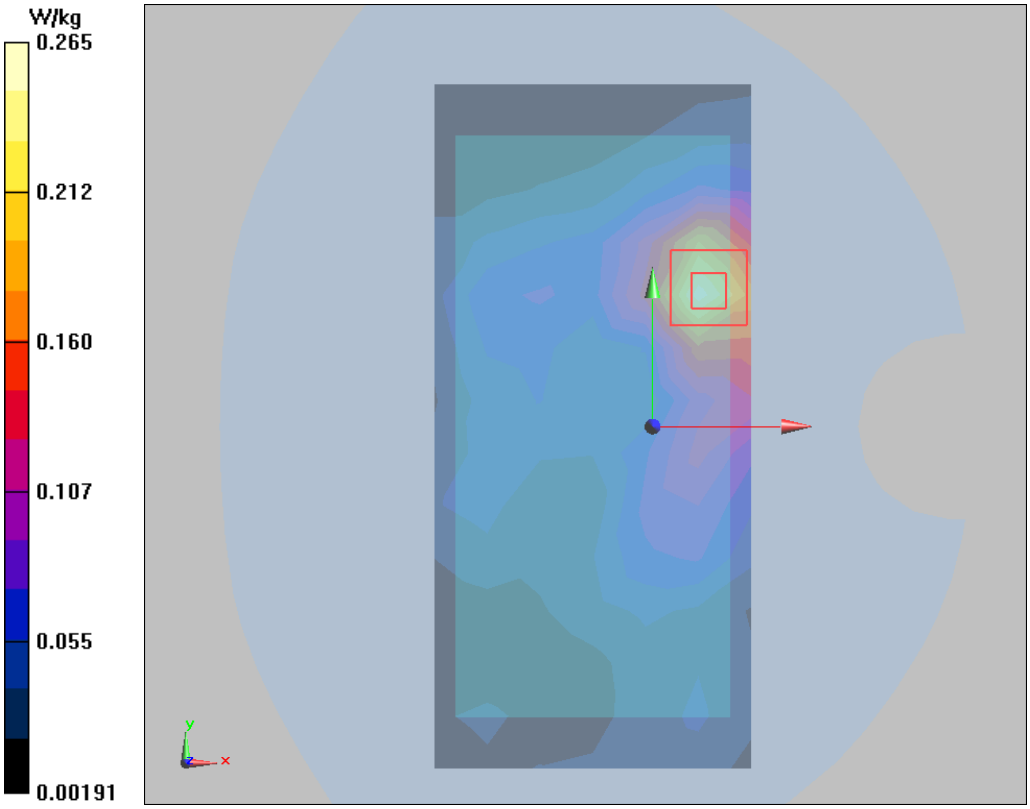
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.855 V/m; Power Drift = -0.051 dB

Peak SAR (extrapolated) = 0.478 W/kg

SAR(1 g) = 0.243 W/kg; SAR(10 g) = 0.127 W/kg

Maximum value of SAR (measured) = 0.265 W/kg



Plot 79 LTE Band 38 1RB Left Edge Middle (Distance 10mm)

Date: 11/4/2020

Communication System: UID 0, LTE (0); Frequency: 2595 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2595 MHz; σ = 1.973 S/m; ε_r = 38.008; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Edge Middle/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.329 W/kg

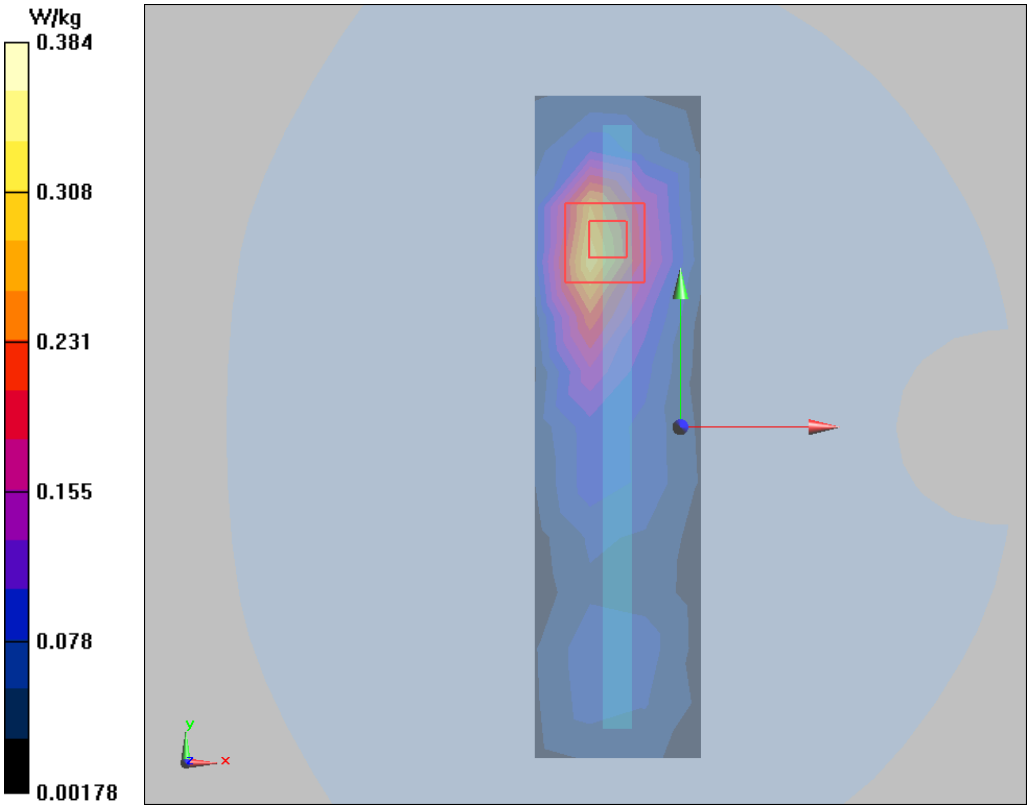
Left Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.135 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.733 W/kg

SAR(1 g) = 0.342 W/kg; SAR(10 g) = 0.160 W/kg

Maximum value of SAR (measured) = 0.384 W/kg

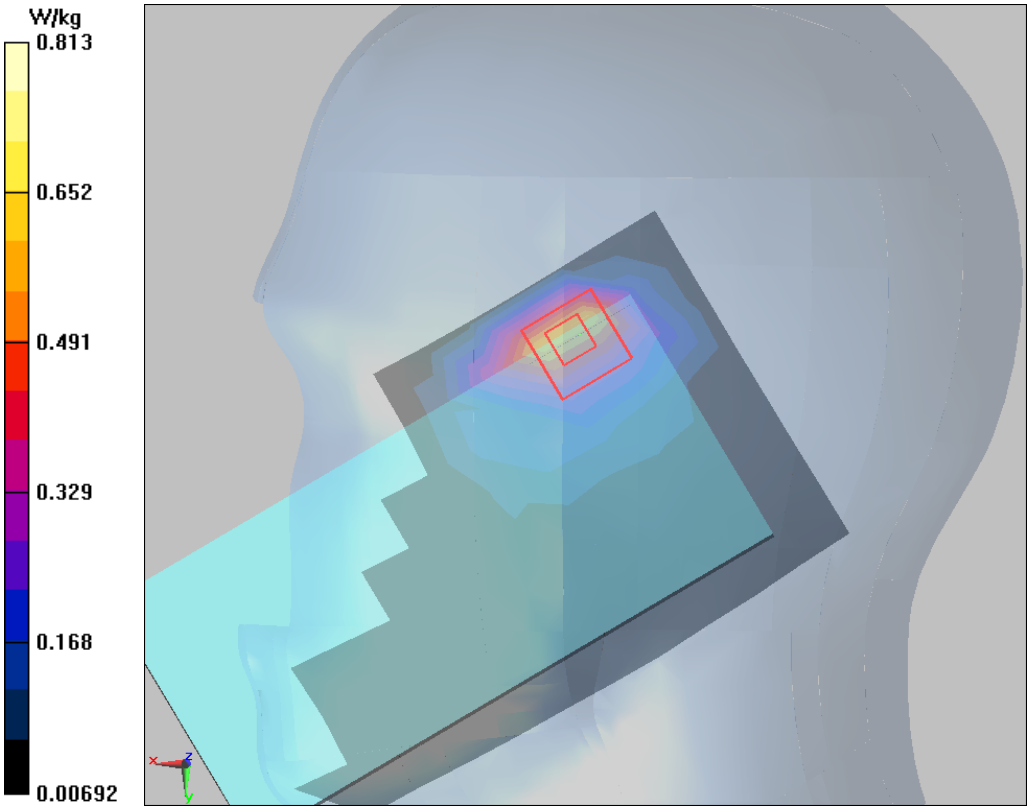


Plot 80 LTE Band 41 1RB Right Cheek Low

Date: 11/9/2020
Communication System: UID 0, LTE-TDD (0); Frequency: 2506 MHz;Duty Cycle: 1:1.58
Medium parameters used: f = 2506 MHz; σ = 1.862 S/m; ε_r = 40.389; ρ = 1000 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: Right Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;
Electronics: DAE4 SN1291; Calibrated: 2/24/2020
Phantom: SAM1; Type: SAM; Serial: TP-1534
Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Right Cheek Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm
Maximum value of SAR (measured) = 0.604 W/kg

Right Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.977 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.67 W/kg
SAR(1 g) = 0.691 W/kg; SAR(10 g) = 0.300 W/kg
Maximum value of SAR (measured) = 0.813 W/kg



Plot 81 LTE Band 41 1RB Back Side Low (Distance 15mm)

Date: 11/9/2020

Communication System: UID 0, LTE (0); Frequency: 2506 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2506 MHz; σ = 1.871 S/m; ε_r = 38.365; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Back Side Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.234 W/kg

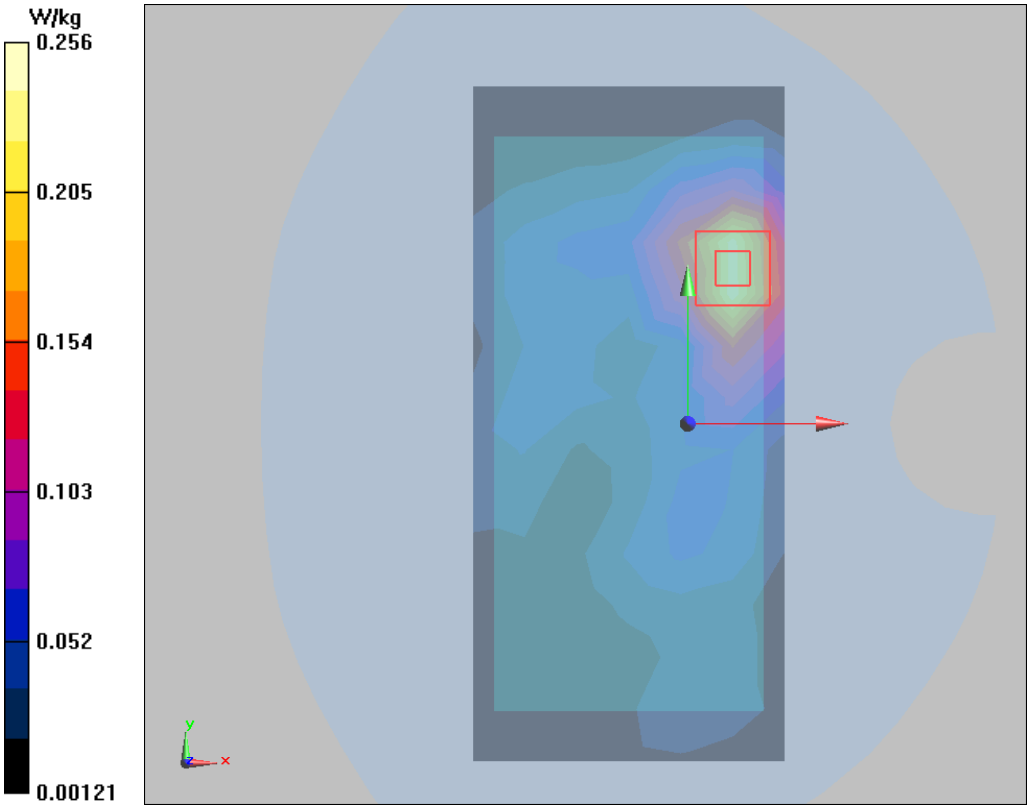
Back Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.838 V/m; Power Drift = 0.071 dB

Peak SAR (extrapolated) = 0.446 W/kg

SAR(1 g) = 0.233 W/kg; SAR(10 g) = 0.121 W/kg

Maximum value of SAR (measured) = 0.256 W/kg



Plot 82 LTE Band 41 1RB Left Edge Low (Distance 10mm)

Date: 11/9/2020

Communication System: UID 0, LTE (0); Frequency: 2506 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2506 MHz; σ = 1.871 S/m; ε_r = 38.365; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.26, 7.26, 7.26); Calibrated: 7/6/2020;

Electronics: DAE4 SN1291; Calibrated: 2/24/2020

Phantom: SAM1; Type: SAM; Serial: TP-1534

Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.14 (7483)

Left Edge Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.288 W/kg

Left Edge Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.491 V/m; Power Drift = 0.021 dB

Peak SAR (extrapolated) = 0.561 W/kg

SAR(1 g) = 0.269 W/kg; SAR(10 g) = 0.125 W/kg

Maximum value of SAR (measured) = 0.304 W/kg