



SAR TEST REPORT

Applicant Xiaomi Communications Co., Ltd.
FCC ID 2AFZZ117BPG
Product Mobile Phone
Brand POCO
Model 2207117BPG
Report No. R2206A0560-S1
Issue Date July 8, 2022

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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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 measurements.

A2LA (Certificate Number: 3857.01)

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

1.3 Testing Location

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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 10mm)	1g SAR Hotspot (Separation 10mm)	Product Specific 10-g SAR (Separation 0mm)
GSM 850	0.75	0.37	0.38	NA
GSM 1900	0.49	0.28	0.62	NA
WCDMA Band II	0.75	0.21	0.37	0.84
WCDMA Band IV	0.42	0.28	0.42	NA
WCDMA Band V	0.73	0.27	0.28	NA
LTE FDD 2	0.80	0.23	0.50	1.16
LTE FDD 4	0.65	0.24	0.39	1.14
LTE FDD 5	0.97	0.35	0.35	NA
LTE FDD 7	1.00	0.30	0.61	NA
LTE TDD 38	0.59	0.39	0.39	NA
LTE TDD 41	0.78	0.46	0.67	NA
Wi-Fi (2.4G)	0.57	0.39	0.39	NA
Wi-Fi (5G)	0.56	0.65	0.68	1.74
BT	0.16	0.01	0.02	NA
Date of Testing: (Original) February 7, 2021 ~ February 29, 2021 (Variant) June 28, 2022 ~ July 6, 2022 Date of Sample Received: (Original) February 7, 2021 (Variant) June 23, 2022				
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.				

Table 2: Highest Simultaneous Transmission SAR

Exposure Configuration	1g SAR Head	1g SAR Body-worn (Separation 10mm)	1g SAR Hotspot (Separation 10mm)	Product Specific 10-g SAR (Separation 0mm)
Highest Simultaneous Transmission SAR (W/kg)	1.476	1.042	1.307	2.770

Note: The detail for simultaneous transmission consideration is described in chapter 10.3.

2207117BPG (Report No.: R2206A0560-S1) is a variant model of M2101K7BNY (Report No.: R2104A0320-S1V1). Test values partial duplicated from Original for variant.

The difference between model 2207117BPG and M2101K7BNY are shown in the table below:

Item	Original	Variant
Brand	Redmi	POCO
Model	M2101K7BNY	2207117BPG
Hardware Version	P2	P1.1
Software Version	MIUI 12	MIUI 13
RAM	8G+128G; 6G+128G; 6G+64G	4+64G;4+128G; 6+128G
Accessory	USB cable L23220、H23220、B23220	USB cable L23230、H23230、B23230
Color	--	add blue version

The detailed product change description please refers to the *Difference Declaration Letter*.

Tested band refer to the following table.

Band	Original	Variant
GSM 850	Pass	Only tested with worst case of Original
GSM 1900	Pass	
WCDMA Band II	Pass	
WCDMA Band IV	Pass	
WCDMA Band V	Pass	
LTE FDD 2	Pass	
LTE FDD 4	Pass	
LTE FDD 5	Pass	
LTE FDD 7	Pass	
LTE TDD 38	Pass	
LTE TDD 41	Pass	
Wi-Fi (2.4G)	Pass	
Wi-Fi (5G)	Pass	
BT	Pass	

3 Description of Equipment under Test

Client Information

Applicant	Xiaomi Communications Co., Ltd.
Applicant address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Manufacturer	Xiaomi Communications Co., Ltd.
Manufacturer address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

General Technologies

Application Purpose	Class II Permissive Change	
EUT Stage	Identical Prototype	
Model	2207117BPG	
IMEI	Original	IMEI 1: 869421050027901 IMEI 2: 869421050027919
	Variant	4G+64G IMEI 1: 867701060029563 IMEI 2: 867701060029571
		4G+128G IMEI 1: 867701060031700 IMEI 2: 867701060031718
		6G+128G IMEI 1: 867701060031502 IMEI 2: 867701060031510
Hardware Version	P1.1	
Software Version	MIUI 13	
Antenna Type	Fixed Internal Antenna	
Memory	6G+128G; 4G+64G; 4G+128G	
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	

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)	<input type="checkbox"/> Multi-slot Class:8-1UP <input type="checkbox"/> Multi-slot Class:10-2UP <input checked="" type="checkbox"/> Multi-slot Class:12-4UP <input type="checkbox"/> Multi-slot Class:33-4UP	824 ~ 849
	1900			1850 ~ 1910
	Does this device support DTM (Dual Transfer Mode)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
UMTS	Band II	QPSK, 16QAM	HSDPA UE Category: 24 HSUPA UE Category: 7	1850 ~ 1910
	Band IV			1710 ~ 1755
	Band V			824 ~ 849
LTE	FDD 2	QPSK, 16QAM, 64QAM	Rel.12 /Category 7	1850 ~ 1910
	FDD 4			1710 ~ 1755
	FDD 5			824 ~ 849
	FDD 7			2500 ~ 2570
	TDD 38			2570 ~ 2620
	TDD 41			2535 ~ 2655
Does this device support Carrier Aggregation (CA) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Does this device support SV-LTE (1xRTT-LTE)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
BT	2.4G	Version 5.0 LE		2402 ~2480
Wi-Fi	2.4G	DSSS, OFDM	802.11b/g/n HT20	2412 ~ 2462
	5G	OFDM	802.11a/n HT20/ HT40/ ac VHT20/ VHT40/ VHT80	5150 ~ 5250
				5250 ~ 5725 5725 ~ 5850
Does this device support MIMO <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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:

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 performed 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 3: 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 (β_c , β_d), and HS-DPCCH power offset parameters (Δ_{ACK} , Δ_{NACK} , Δ_{CQI}) 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 4: 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

Note 1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$
 Note 2: CM=1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$.
 Note 3: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TFC1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$.

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 5: Sub-Test 5 Setup for Release 6 HSUPA

Sub-set	β_c	β_d	β_d (SF)	β_c/β_d	$\beta_{hs}^{(1)}$	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: $\Delta_{ACK}, \Delta_{NACK}$ and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$.

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

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

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

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

Note 6: β_{ed} cannot be set directly; it is set by Absolute Grant Value.

Table 6: HSUPA UE category

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCHTTI (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	11484	5.76
	4	4	10	SF4	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. 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. 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 3GPP 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 7: HS-DSCH UE category

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	Not applicable (dual cell operation not supported)	
Category 12	5	1	3630	28800	QPSK, 16QAM, 64QAM		
Category 13	15	1	35280	259200			
Category 14	15	1	42192	259200	QPSK, 16QAM		
Category 15	15	1	23370	345600			
Category 16	15	1	27952	345600	QPSK, 16QAM, 64QAM		-
Category 17 NOTE 2	15	1	35280	259200			
			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	QPSK, 16QAM, 64QAM		
Category 21	15	1	23370	345600	-	-	QPSK, 16QAM
Category 22	15	1	27952	345600			
Category 23	15	1	35280	518400			
Category 24	15	1	42192	518400	-	-	QPSK, 16QAM, 64QAM

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. 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 $> \frac{1}{2}$ 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 $> \frac{1}{2}$ 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.

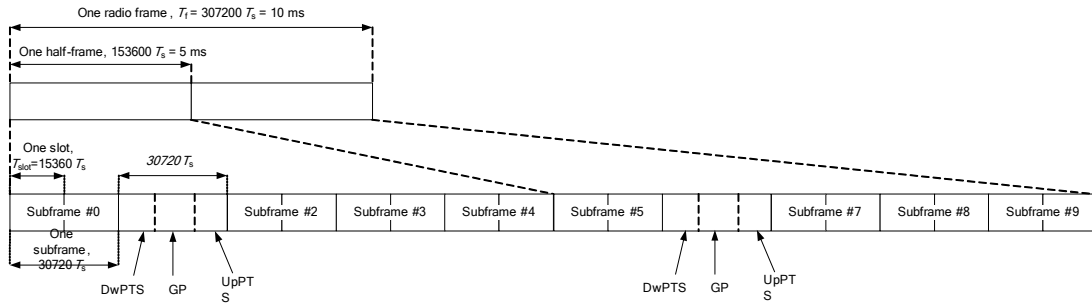


Figure 1: Frame structure type 2

Table 8: 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	$26336 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
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 9: 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:

$$\text{Duty cycle} = (30720\text{Ts} * \text{Ups} + \text{Uplink Component} * \text{Specials}) / (307200\text{Ts})$$

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

$$\text{Uplink Component} = \text{UpPTS}$$

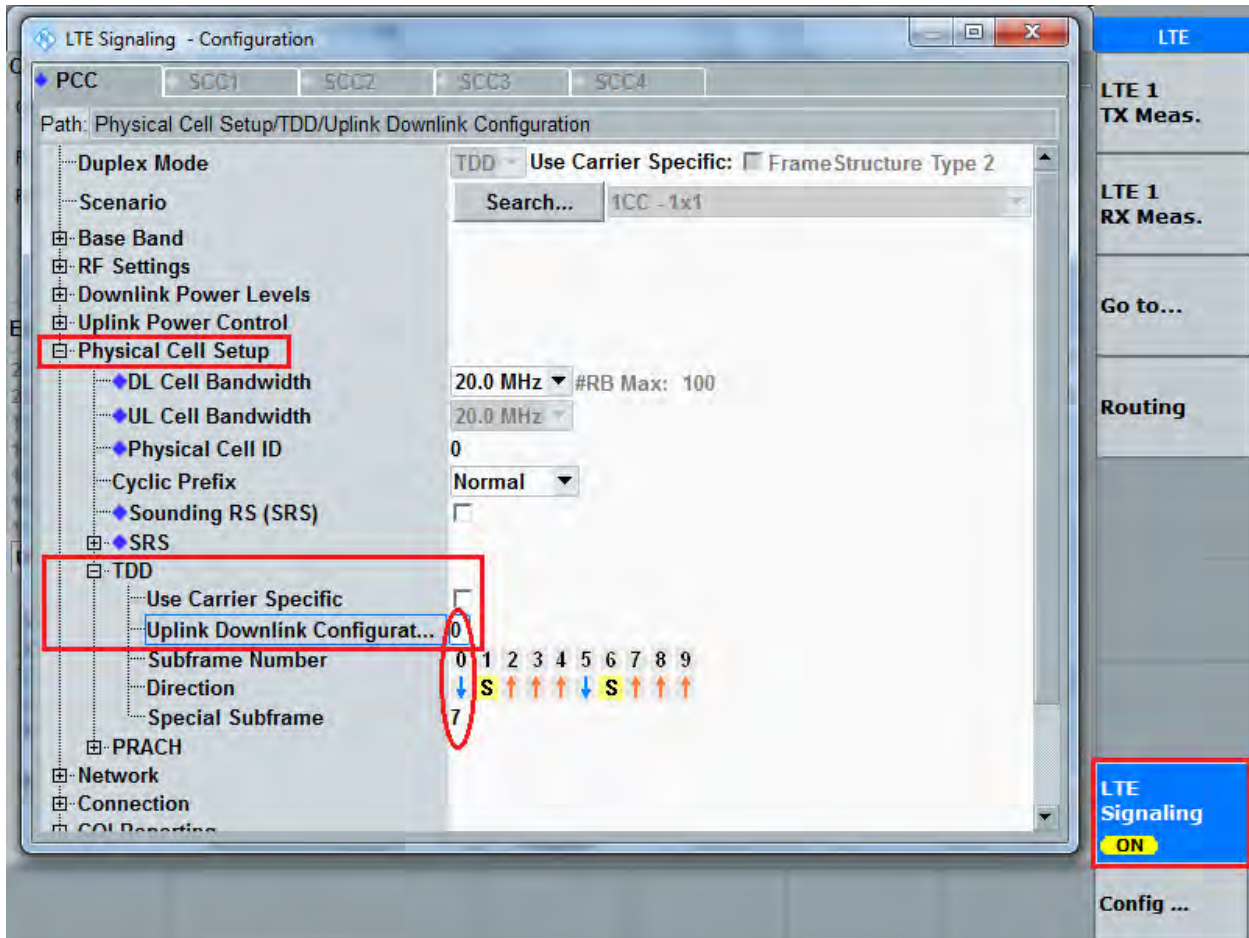
In conclusion, for the TDD LTE Band, Duty Cycle can be calculated with formula as below. All these sets are ok when we test, or we can set as below.

$$\text{Duty cycle} = [(30720\text{Ts} * \text{Ups}) + \text{UpPTS} * \text{Specials}] / (307200\text{Ts})$$

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			
	D	S	U	Normal cyclic prefix in uplink		Extended cyclic prefix in uplink		Normal cyclic prefix in uplink		Extended cyclic prefix in uplink	
				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.

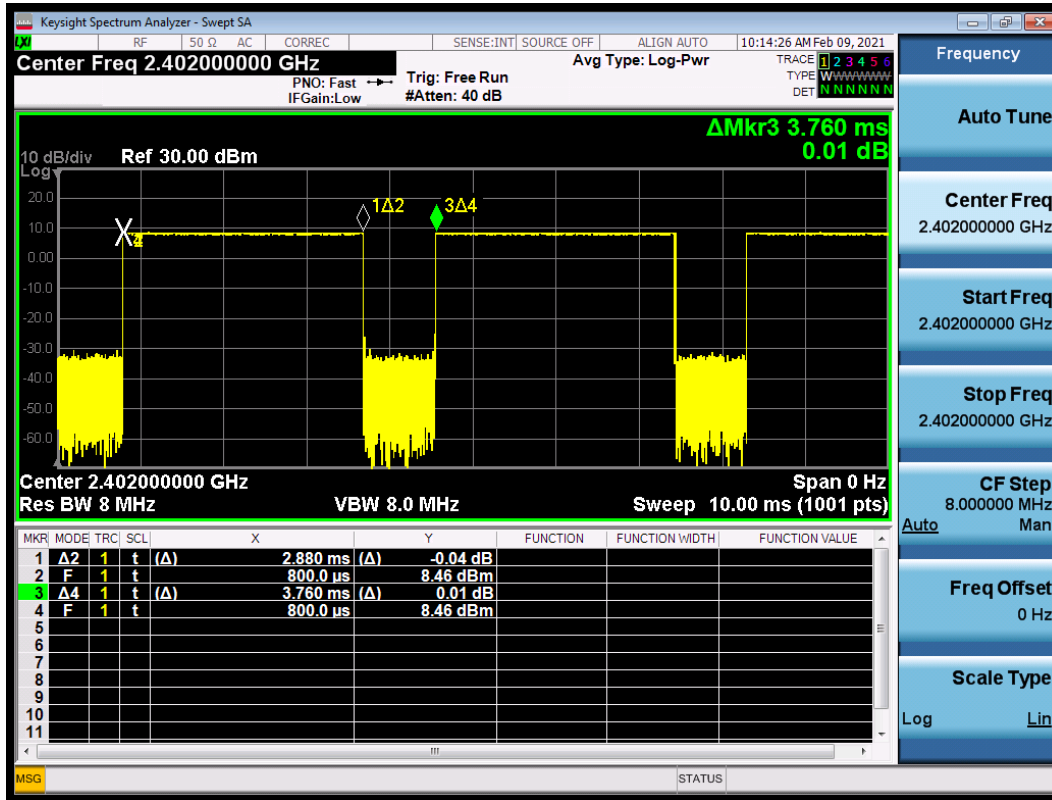
To determine the initial test position, Area Scans were performed to determine the position with the Maximum Value of SAR (measured). The position that produced the highest Maximum Value of SAR is considered the worst case position; thus used as the initial test position.

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 hopping 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)=2.880/3.760=76.6%

5.3.7 LTE CA specification

The device supports LTE advanced Rel. 12, 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:

1) CA Intra band contiguous

E-UTRA CA configuration / Bandwidth combination set								
E-UTRA CA configuration	Uplink CA configurations (NOTE 3)	Component carriers in order of increasing carrier frequency					Maximum aggregated bandwidth [MHz]	Bandwidth combination set
		Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
CA_7C	CA_7C	15	15				40	0
		20	20					
		10	20				40	1
		15	15, 20					
		20	10, 15, 20					
		15	10, 15				40	2
20	15, 20							
CA_38C	CA_38C	15	15				40	0
		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.

NOTE 2: For the supported CC bandwidth combinations, the CC downlink and uplink bandwidths are equal.

NOTE 3: Uplink CA configurations are the configurations supported by the present release of specifications.

NOTE 4: Restricted to E-UTRA operation when inter-band carrier aggregation is configured. The downlink operating band is paired with the uplink operating band (external) of the carrier aggregation configuration that is supporting the configured Pcell.

5.3.8 Proximity sensor& Receiver Power reduction information

The Methods For scenario detection are shown in the following figure.

- a. Audio receiver detection
- b. Capacitive proximity sensor
- c. Hotspot Mode detection

Sensor Bottom Distance definition

SAR Sensor	Near	Far
Back	<=20mm	>20mm
Front	<=16mm	>16mm
Bottom	<=20mm	>20mm
Top	<=20mm	>20mm
Right	Not Detect	Not Detect
Left	Not Detect	Not Detect

Maximum transmit power reduce process follow below strategy when mobile connect network.

position	Audio Receiver	SAR sensor (BOT)	SAR sensor (TOP)	TX Power reduce
Body	Off	Near/Far	Near	DSI 4
	Off	Near	Far	DSI 3
	Off	Far	Far	DSI 2
Head	On	/	/	DSI 1

Note:

1) Since the capacitive proximity sensor triggering distance for the front/back/top/ bottom side is N mm , a conservative distance of N-1 mm was required for additional SAR test at maximum power level with sensor off.

Receiver detection mechanism clarifications

The devices supports the Audio receiver detection mechanism. The audio receiver is used to determine head. When operating in a call at the head, the relevant power levels are set for 2G&3G&4G accordingly, in order to comply with SAR requirement. For WWAN transmitter When operating in a call at the head, the LAT Antenna simultaneous transmission with WLAN antenna or in standalone operations, the WWAN will be enter to the WWAN Power table1.



Proximity sensor configuration

The device uses one sensor chip and one proximity sensors (metallic electrode) to reduce the maximum output power in selected wireless mode and operating configurations to ensure SAR compliance. The proximity sensor shares the same metallic electrode with the 2G/3G/4G main antennas. The sensor implementation can identify and facilitate triggering different max power levels for different scenarios including different exposure test positions(front side/Back side/Bottom side/Top side) when the device is closed to a user's body. The main purpose for the implementation is to distinguish the scenarios of Body, minimize triggering associated with power reduction for different scenarios and provide enhanced user experience.

Based on the summary table of Receiver detection mechanism above,

Main antenna												
Power Reduction Scenario	Power Level	GSM850	GSM1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B38	LTE B41
Full Power		33.5	30.5	24.0	24.0	24.0	25.5	25.5	25.5	25.5	25.5	25.5
Receiver on (head)	D1(DSI1)	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Receiver off + Sensor off (body-worn SAR/hotspot SAR/Product-specific 10g SAR)	D2(DSI2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Receiver off + Sensor on (body-worn SAR/hotspot SAR/Product-specific 10g SAR)	D3(DSI3/4)	0.0	1.5	4.0	5.0	0.0	5.5	6.5	1.0	4.5	2.5	2.5

DIV antenna												
Power Reduction Scenario	Power Level	GSM850	GSM1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B38	LTE B41
Full Power		33.5	30.5	24.0	24.0	24.0	25.5	25.5	25.5	25.5	25.5	25.5
Receiver on (head)	D4(DSI1)	2.5	8.5	9.0	8.0	1.5	10.5	8.5	2.5	6.5	4.5	4.5
Receiver off + Sensor off (body-worn SAR/hotspot SAR/Product-specific 10g SAR)	D5(DSI2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Receiver off + Sensor on (body-worn SAR/hotspot SAR/Product-specific 10g SAR)	D6(DSI4)	0.0	4.5	9.0	8.0	0.0	9.5	8.5	1.0	5.0	3.5	3.5

WIFI antenna						
Power Reduction Scenario	Power Level	WiFi 2.4G 11b	WiFi 5G U-NII-1	WiFi 5G U-NII-2A	WiFi 5G U-NII-2C	WiFi 5G U-NII-3
Full Power	/	18.5	16.5	16.5	16.0	15.0
Receiver on (head)	/	2.0	6.0	6.0	5.5	4.5
Receiver off (body-worn SAR/hotspot SAR/Product-specific 10g SAR)	/	0.0	0.0	0.0	0.0	0.0

The proximity sensor triggering distance measurement method are as below:

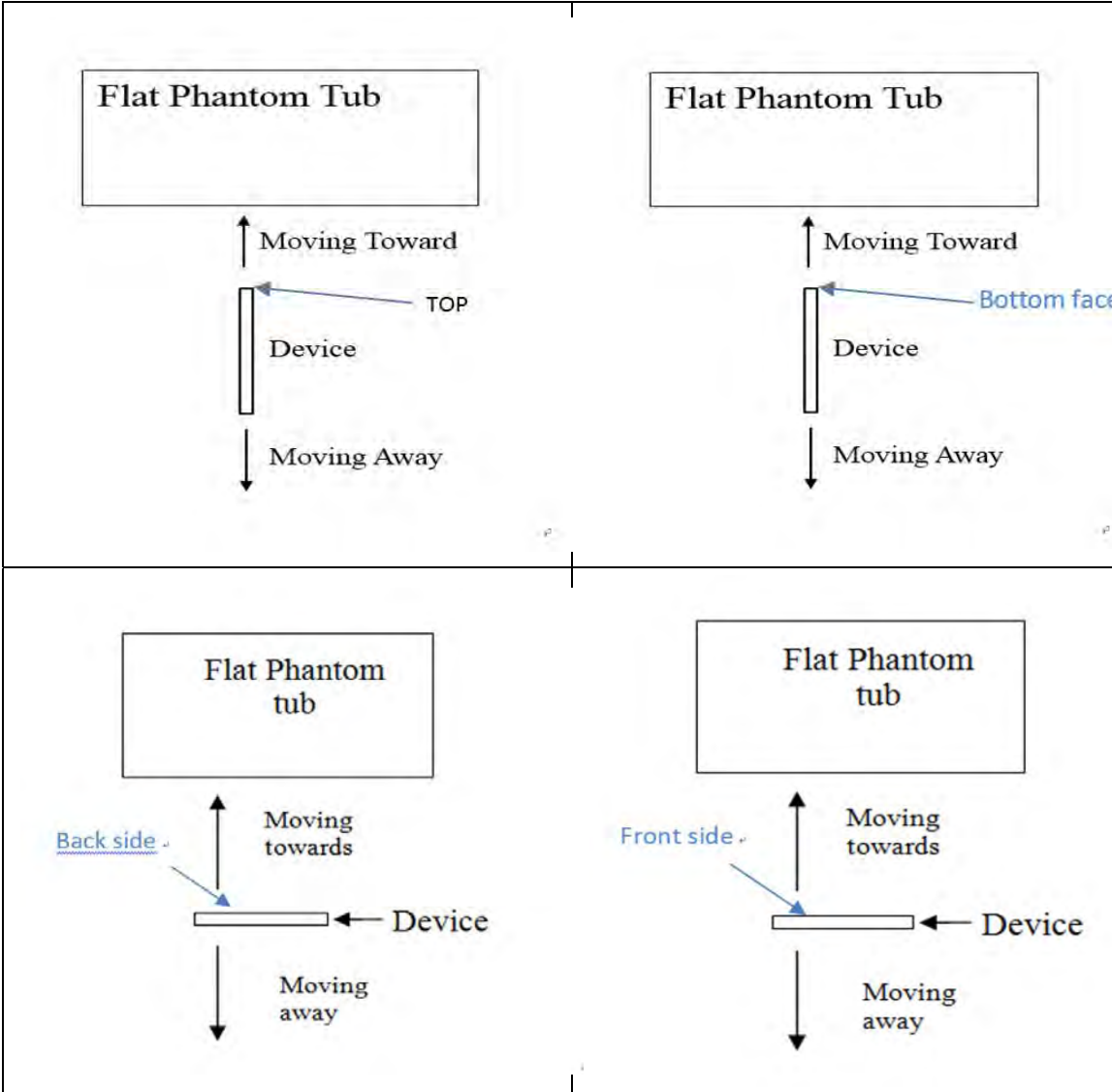


Table: Full power (Moving away from phantom)

Band	Position	Power Reduction Scenario																																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
QPW1902	Top Side	25.44	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	
	Bottom Side	25.44	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46	25.46
QPW1904	Top Side	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	
	Bottom Side	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87	18.87
QPW1905	Top Side	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	
	Bottom Side	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65	14.65
QPW1906	Top Side	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	
	Bottom Side	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51	11.51
QPW1907	Top Side	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	
	Bottom Side	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05
QPW1908	Top Side	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	
	Bottom Side	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84
QPW1909	Top Side	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84
	Bottom Side	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84	20.84

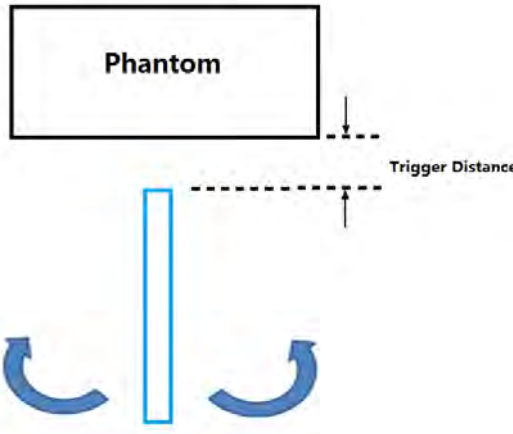
Table: Reduced power (Moving toward phantom)

Band	Position	Power Reduction Status (%)																							
		-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	
GSM1900	Top Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
	Bottom Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
UMTS Band 2	Top Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
	Bottom Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
UMTS Band 4	Top Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
	Bottom Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
LTE Band 2	Top Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
	Bottom Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
LTE Band 4	Top Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
	Bottom Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
LTE Band 5	Top Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
	Bottom Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
LTE Band 7	Top Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
	Bottom Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
LTE Band 38	Top Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
	Bottom Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
LTE Band 41	Top Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
	Bottom Edge	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance for each band.

If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated.

This procedure was repeated until the power remained reduced for all angles up to +/-45°



Picture: Proximity sensor tilt angle assessment

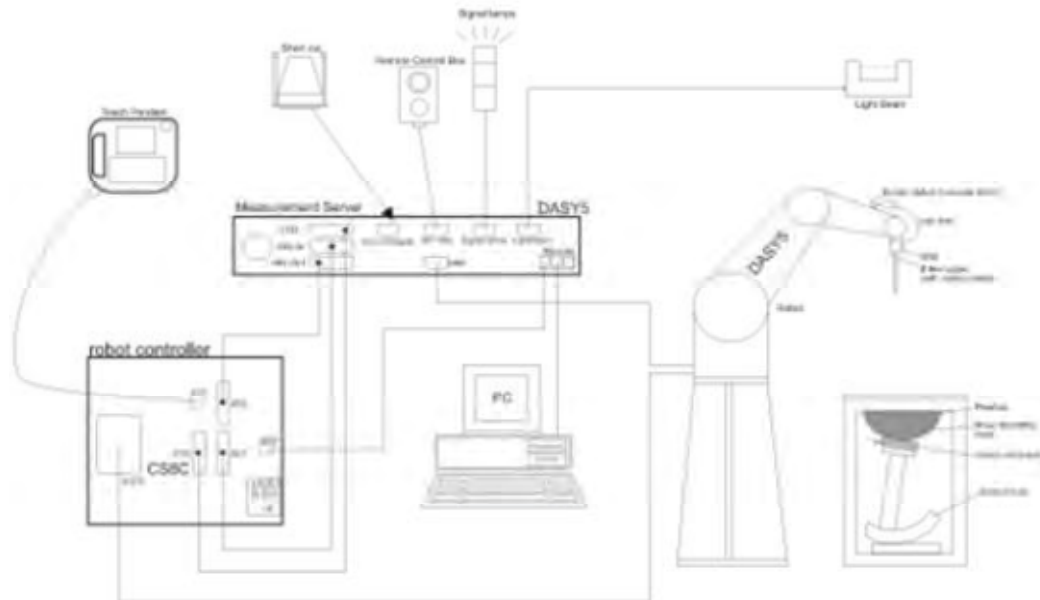
Summary of tablet Tilt angle Influence to Proximity Sensor Triggering (Top/Bottom Edge)

Band	Power reduction status											
	-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°	
GSM 1900	on	on	on	on	on	on	on	on	on	on	on	
UMTS Band 2	on	on	on	on	on	on	on	on	on	on	on	
UMTS Band 4	on	on	on	on	on	on	on	on	on	on	on	
LTE Band 2	on	on	on	on	on	on	on	on	on	on	on	
LTE Band 4	on	on	on	on	on	on	on	on	on	on	on	
LTE Band 5	on	on	on	on	on	on	on	on	on	on	on	
LTE Band 7	on	on	on	on	on	on	on	on	on	on	on	
LTE Band 38	on	on	on	on	on	on	on	on	on	on	on	
LTE Band 41	on	on	on	on	on	on	on	on	on	on	on	

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 μ W/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/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 $\pm 10\%$. The spherical isotropy was evaluated and found to be better than ± 0.25 dB. 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 below 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.



$$\text{SAR} = C \Delta T / \Delta t$$

Where: Δt = Exposure time (30 seconds),
 C = Heat capacity of tissue (brain or muscle),
 ΔT = Temperature increase due to RF exposure.

Or

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

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	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$	≤ 2 GHz: ≤ 15 mm $2 - 3$ GHz: ≤ 12 mm	$3 - 4$ GHz: ≤ 12 mm $4 - 6$ GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be \leq 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 to 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 whose 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.

			≤3GHz	> 3 GHz
Maximum zoom scan spatial resolution: $\Delta x_{zoom} \Delta y_{zoom}$			≤2GHz: ≤8mm 2 – 3GHz: ≤5mm*	3 – 4GHz: ≤5mm* 4 – 6GHz: ≤4mm*
Maximum zoom scan spatial resolution, normal to phantom surface	Uniform grid: $\Delta z_{zoom}(n)$		≤5mm	3 – 4GHz: ≤4mm 4 – 5GHz: ≤3mm 5 – 6GHz: ≤2mm
	Graded grid	$\Delta z_{zoom}(1)$: between 1 st two points closest to phantom surface	≤4mm	3 – 4GHz: ≤3mm 4 – 5GHz: ≤2.5mm 5 – 6GHz: ≤2mm
		$\Delta z_{zoom}(n > 1)$: between subsequent points	≤1.5 • $\Delta z_{zoom}(n-1)$	
Minimum zoom scan volume	X, y, z		≥30mm	3 – 4GHz: ≥28mm 4 – 5GHz: ≥25mm 5 – 6GHz: ≥22mm
<p>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.</p> <p>* When zoom scan is required and the <u>reported</u> SAR from the <i>area scan based 1-g SAR estimation</i> 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.</p>				

Volume Scan Procedures

The volume scan is used to 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

Date of Testing: February 7, 2021 ~ February 29, 2021

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	/	/
Amplifier	INDEXSAR	IXA-020	0401	2020-05-17	2021-05-16
Wireless communication tester	Anritsu	MT8820C	6201342015	2020-05-17	2021-05-16
Wireless communication tester	Key sight	E5515C	MY48360988	2020-12-13	2021-12-12
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	1648	2021-01-15	2022-01-14
Validation Kit 750MHz	SPEAG	D750V3	1045	2020-08-28	2023-08-27
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	TP-1534	/	/



Software for Test	Speag	DASY52	/	/	/
Software for Tissue	Agilent	85070	/	/	/

Date of Testing: June 28, 2022 ~ July 5, 2022

Name of Equipment	Manufacturer	Type/Model	Serial Number	Last Cal.	Cal. Due Date
Network analyzer	Agilent	E5071B	MY42404014	2022-05-14	2023-05-13
Dielectric Probe Kit	Agilent	85070E	US44020115	/	/
Power meter	Agilent	E4417A	GB41291714	2022-05-14	2023-05-13
Power sensor	Agilent	N8481H	MY50350004	2022-05-14	2023-05-13
Power sensor	Agilent	E9327A	US40441622	2022-05-14	2023-05-13
Power sensor	Agilent	NRP18S	101955	2022-05-14	2023-05-13
Signal Generator	Agilent	N5181A	MY50140143	2022-05-14	2023-05-13
Dual directional coupler	UCL	UCL-DDC0 56G-S	20010600118	/	/
Amplifier	INDEXSAR	TPA-005060 G01	13030502	2022-05-14	2023-05-13
Wireless communication tester	Anritsu	MT8820C	6201342015	2021-12-12	2022-12-11
Wireless communication tester	Key sight	E5515C	MY48360988	2021-12-12	2022-12-11
Wireless communication tester	R&S	CMW 500	146734	2022-05-14	2023-05-13
E-field Probe	SPEAG	EX3DV4	3677	2021-08-12	2022-08-11
DAE	SPEAG	DAE4	1692	2021-10-04	2022-10-03
Validation Kit 2600MHz	SPEAG	D2600V2	1025	2021-04-23	2024-04-22
Validation Kit 5GHz	SPEAG	D5GHzV2	1151	2020-02-27	2023-02-26
Software for Tissue	Agilent	85070	/	/	/
Temperature Probe	Tianjin jinming	JM222	381	2022-05-14	2023-05-13
Twin SAM Phantom	SPEAG	SAM2	1666	/	/
Hygrothermograph	Anymetr	HTC - 1	TY2020A003	2022-05-14	2023-05-13
TX90 XL	SPEAG	Staubli TX90 XL	/	/	/
Software for Test	SPEAG	DASY52	52.10.4.1527	/	/

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 $\pm 2^\circ\text{C}$ 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)	ϵ_r	$\sigma(\text{s/m})$
835	41.5	0.90
1750	40.1	1.37
1900	40.0	1.40
2450	39.2	1.80
2600	39.0	1.96
5250	35.9	4.71
5600	35.5	5.07
5750	35.4	5.22

Measurements results

Original

Frequency (MHz)	Test Date	Temp °C	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	2/18/2021	21.5	41.4	0.88	41.5	0.90	-0.24	-2.22
	2/19/2021	21.5	41.3	0.87	41.5	0.90	-0.48	-3.33
	2/20/2021	21.5	41.4	0.92	41.5	0.90	-0.24	2.22
1750	2/7/2021	21.5	40.2	1.34	40.1	1.37	0.25	-2.19
	2/8/2021	21.5	40.1	1.34	40.1	1.37	0.00	-2.19
	2/9/2021	21.5	40.2	1.36	40.1	1.37	0.25	-0.73
1900	2/21/2021	21.5	40.1	1.41	40.0	1.40	0.25	0.71
	2/22/2021	21.5	40.2	1.43	40.0	1.40	0.50	2.14
	2/23/2021	21.5	40.0	1.40	40.0	1.40	0.00	0.00
	2/24/2021	21.5	40.5	1.34	40.0	1.40	1.25	-4.29
2450	2/10/2021	21.5	38.6	1.81	39.2	1.80	-1.53	0.56
2600	2/25/2021	21.5	38.2	2.01	39.0	1.96	-2.05	2.55
	2/26/2021	21.5	37.4	1.94	39.0	1.96	-4.10	-1.02
	2/27/2021	21.5	38.3	1.99	39.0	1.96	-1.79	1.53
	2/28/2021	21.5	38.5	1.95	39.0	1.96	-1.28	-0.51
	2/29/2021	21.5	38.2	1.96	39.0	1.96	-2.05	0.00
5250	2/11/2021	21.5	35.5	4.80	35.9	4.71	-1.11	1.91
5600	2/12/2021	21.5	34.2	5.21	35.5	5.07	-3.66	2.76
5750	2/12/2021	21.5	34.9	5.22	35.4	5.22	-1.41	0.00

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.

Variant

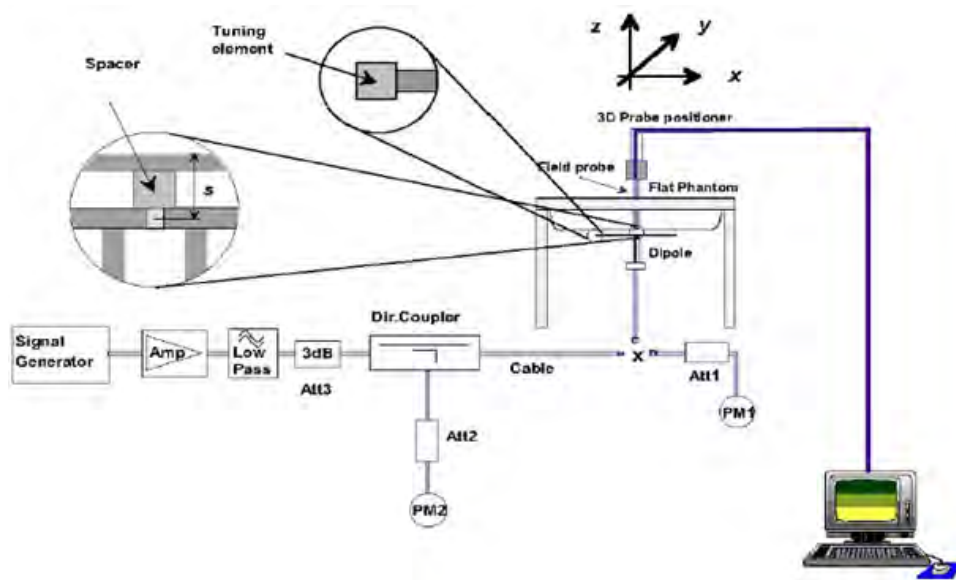
Frequency (MHz)	Test Date	Temp °C	Measured Dielectric Parameters		Target Dielectric Parameters		Limit (Within ±5%)	
			ϵ_r	σ (s/m)	ϵ_r	σ (s/m)	Dev ϵ_r (%)	Dev σ (%)
2600	6/28/2022	21.5	39.0	1.98	39.0	1.96	0.00	1.02
5250	7/6/2022	21.5	35.7	4.74	35.9	4.71	-0.56	0.64
5600	7/6/2022	21.5	35.4	5.17	35.5	5.07	-0.28	1.97

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 1 System 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:

Original

Dipole		Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	$\Delta\Omega$
Dipole D2600V2 SN: 1025	Head Liquid	5/2/2018	-22.0	/	48.1	/
		5/1/2019	-22.5	-2.2	48.7	-0.6
		4/30/2020				

Variant

Dipole		Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	$\Delta\Omega$
Dipole D5GHzV2 SN: 1151 (5250MHz)	Head Liquid	2/27/2020	-23.4	/	52.4	/
		2/26/2021	-23.8	1.7	50.0	-2.4
		2/25/2022	-23.9	0.4	49.3	-0.7
Dipole D5GHzV2 SN: 1151 (5600MHz)	Head Liquid	2/27/2020	-22.6	/	52.4	/
		2/26/2021	-21.5	-4.9	50.0	-2.4
		2/25/2022	-20.9	-2.8	49.3	-0.7
Dipole D5GHzV2 SN: 1151 (5750MHz)	Head Liquid	2/27/2020	-25.0	/	55.9	/
		2/26/2021	-26.8	-1.8	52.5	-3.4
		2/25/2022	-27.1	1.1	52.1	-0.4

System Check results**Original**

Frequency (MHz)	Test Date	Temp $^{\circ}\text{C}$	250mW /100mW Measured SAR _{1g} (W/kg)	1W Normalized SAR _{1g} (W/kg)	1W Target SAR _{1g} (W/kg)	Δ % (Limit $\pm 10\%$)	Plot No.
835	2/18/2021	21.5	2.44	9.76	9.65	1.14	1
	2/19/2021	21.5	2.46	9.84	9.65	1.97	2
	2/20/2021	21.5	2.43	9.72	9.65	0.73	3
1750	2/7/2021	21.5	8.95	35.80	35.90	-0.28	4
	2/8/2021	21.5	9.11	36.44	35.90	1.50	5
	2/9/2021	21.5	8.96	35.84	35.90	-0.17	6
1900	2/21/2021	21.5	9.88	39.52	39.50	0.05	7
	2/22/2021	21.5	9.85	39.40	39.50	-0.25	8
	2/23/2021	21.5	10.55	42.20	39.50	6.84	9
	2/24/2021	21.5	10.50	42.00	39.50	6.33	10
2450	2/10/2021	21.5	13.70	54.80	52.30	4.78	11
2600	2/25/2021	21.5	13.90	55.60	54.10	2.77	12
	2/26/2021	21.5	13.88	55.52	54.10	2.62	13



	2/27/2021	21.5	13.94	55.76	54.10	3.07	14
	2/28/2021	21.5	13.90	55.60	54.10	2.77	15
	2/29/2021	21.5	13.90	55.60	54.10	2.77	16
5250	2/11/2021	21.5	7.87	78.70	78.00	0.90	17
5600	2/12/2021	21.5	7.67	76.70	80.50	-4.72	18
5750	2/12/2021	21.5	7.66	76.60	77.40	-1.03	19
Note: Target Values used derive from the calibration certificate Data Storage and Evaluation.							

Variant

Frequency (MHz)	Test Date	Temp °C	250mW Measured SAR _{1g} (W/kg)	1W Normalized SAR _{1g} (W/kg)	1W Target SAR _{1g} (W/kg)	Δ % (Limit ±10%)	Plot No.
2600	6/28/2022	21.5	13.85	55.40	56.10	-1.25	20
Frequency (MHz)	Test Date	Temp °C	100mW Measured SAR _{1g} (W/kg)	1W Normalized SAR _{1g} (W/kg)	1W Target SAR _{1g} (W/kg)	Δ % (Limit ±10%)	Plot No.
5250	7/6/2022	21.5	7.54	75.40	78.00	-3.33	21
5600	7/6/2022	21.5	7.98	79.80	80.50	-0.87	22
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		
								Sensitivity	Probe Linearity	Probe Isotropy
750	7/6/2020	3677	EX3DV4	750	Head	42.81	0.85	PASS	PASS	PASS
835	7/6/2020	3677	EX3DV4	835	Head	42.22	0.90	PASS	PASS	PASS
1750	7/6/2020	3677	EX3DV4	1750	Head	39.91	1.32	PASS	PASS	PASS
1900	7/6/2020	3677	EX3DV4	1900	Head	39.43	1.42	PASS	PASS	PASS
2450	7/6/2020	3677	EX3DV4	2450	Head	38.19	1.83	PASS	PASS	PASS
2600	7/6/2020	3677	EX3DV4	2600	Head	37.60	1.99	PASS	PASS	PASS
5250	7/6/2020	3677	EX3DV4	5250	Head	35.36	4.83	PASS	PASS	PASS
5600	7/6/2020	3677	EX3DV4	5600	Head	34.43	5.29	PASS	PASS	PASS
5750	7/6/2020	3677	EX3DV4	5750	Head	34.07	5.47	PASS	PASS	PASS

Frequency [MHz]	Date	Probe SN	Probe Type	Probe Cal Point		PERM (Er)	COND (Σ)	CW Validation		
								Sensitivity	Probe Linearity	Probe Isotropy
2600	2021/8/12	3677	EX3DV4	2600	Head	39.0	1.96	PASS	PASS	PASS
5250	2021/8/12	3677	EX3DV4	5250	Head	35.9	4.71	PASS	PASS	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 Normal (Full Power)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128/824.2	190/836.6	251/848.8		MAX	128/824.2	190/836.6	251/848.8
GSM	CS	33.50	32.16	32.13	32.13	9.03	24.47	23.13	23.10	23.10
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.50	32.16	32.13	32.17	9.03	24.47	23.13	23.10	23.14
	2 Tx Slots	31.00	30.04	30.10	29.90	6.02	24.98	24.02	24.08	23.88
	3 Tx Slots	29.50	28.29	28.19	28.16	4.26	25.24	24.03	23.93	23.90
	4 Tx Slots	27.50	26.39	26.27	26.22	3.01	24.49	23.38	23.26	23.21
EGPRS (8PSK)	1 Tx Slot	28.00	26.99	27.28	27.32	9.03	18.97	17.96	18.25	18.29
	2 Tx Slots	25.50	24.34	24.83	24.88	6.02	19.48	18.32	18.81	18.86
	3 Tx Slots	24.00	23.10	23.25	23.35	4.26	19.74	18.84	18.99	19.09
	4 Tx Slots	22.50	21.85	21.92	21.91	3.01	19.49	18.84	18.91	18.90
GSM 850 DSI-1 (Head SAR)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128/824.2	190/836.6	251/848.8		MAX	128/824.2	190/836.6	251/848.8
GSM	CS	33.50	32.16	32.13	32.13	9.03	24.47	23.13	23.10	23.10
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.50	32.16	32.13	32.17	9.03	24.47	23.13	23.10	23.14
	2 Tx Slots	31.00	30.04	30.10	29.90	6.02	24.98	24.02	24.08	23.88
	3 Tx Slots	29.50	28.29	28.19	28.16	4.26	25.24	24.03	23.93	23.90
	4 Tx Slots	27.50	26.39	26.27	26.22	3.01	24.49	23.38	23.26	23.21
EGPRS (8PSK)	1 Tx Slot	28.00	26.99	27.28	27.32	9.03	18.97	17.96	18.25	18.29
	2 Tx Slots	25.50	24.34	24.83	24.88	6.02	19.48	18.32	18.81	18.86
	3 Tx Slots	24.00	23.10	23.25	23.35	4.26	19.74	18.84	18.99	19.09
	4 Tx Slots	22.50	21.85	21.92	21.91	3.01	19.49	18.84	18.91	18.90
GSM 850 DSI-2 (Body SAR)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128/824.2	190/836.6	251/848.8		MAX	128/824.2	190/836.6	251/848.8
GSM	CS	33.50	32.16	32.13	32.13	9.03	24.47	23.13	23.10	23.10
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.50	32.16	32.13	32.17	9.03	24.47	23.13	23.10	23.14
	2 Tx Slots	31.00	30.04	30.10	29.90	6.02	24.98	24.02	24.08	23.88
	3 Tx Slots	29.50	28.29	28.19	28.16	4.26	25.24	24.03	23.93	23.90
	4 Tx Slots	27.50	26.39	26.27	26.22	3.01	24.49	23.38	23.26	23.21



EGPRS (8PSK)	1 Tx Slot	28.00	26.99	27.28	27.32	9.03	18.97	17.96	18.25	18.29
	2 Tx Slots	25.50	24.34	24.83	24.88	6.02	19.48	18.32	18.81	18.86
	3 Tx Slots	24.00	23.10	23.25	23.35	4.26	19.74	18.84	18.99	19.09
	4 Tx Slots	22.50	21.85	21.92	21.91	3.01	19.49	18.84	18.91	18.90
GSM 850 DSI-4 (Body SAR)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128/824.2	190/836.6	251/848.8		MAX	128/824.2	190/836.6	251/848.8
GSM	CS	33.50	32.16	32.13	32.13	9.03	24.47	23.13	23.10	23.10
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.50	32.16	32.13	32.17	9.03	24.47	23.13	23.10	23.14
	2 Tx Slots	31.00	30.04	30.10	29.90	6.02	24.98	24.02	24.08	23.88
	3 Tx Slots	29.50	28.29	28.19	28.16	4.26	25.24	24.03	23.93	23.90
	4 Tx Slots	27.50	26.39	26.27	26.22	3.01	24.49	23.38	23.26	23.21
EGPRS (8PSK)	1 Tx Slot	28.00	26.99	27.28	27.32	9.03	18.97	17.96	18.25	18.29
	2 Tx Slots	25.50	24.34	24.83	24.88	6.02	19.48	18.32	18.81	18.86
	3 Tx Slots	24.00	23.10	23.25	23.35	4.26	19.74	18.84	18.99	19.09
	4 Tx Slots	22.50	21.85	21.92	21.91	3.01	19.49	18.84	18.91	18.90

Notes: The worst-case configuration and mode for SAR testing is determined to be as follows:

1. Standalone: GSM 850 GMSK (GPRS) mode with 3 time slots for Max power, based on the output power measurements above.

GSM 1900 Normal (Full Power)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512/1850.2	661/1880	810/1909.8		MAX	512/1850.2	661/1880	810/1909.8
GSM	CS	30.50	29.20	29.37	29.45	9.03	21.47	20.17	20.34	20.42
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.50	29.17	29.38	29.43	9.03	21.47	20.14	20.35	20.40
	2 Tx Slots	28.00	26.59	26.93	27.09	6.02	21.98	20.57	20.91	21.07
	3 Tx Slots	26.50	25.05	25.42	25.59	4.26	22.24	20.79	21.16	21.33
	4 Tx Slots	25.00	23.48	23.88	24.09	3.01	21.99	20.47	20.87	21.08
EGPRS (8PSK)	1 Tx Slot	27.00	26.17	26.34	26.40	9.03	17.97	17.14	17.31	17.37
	2 Tx Slots	24.50	23.66	23.88	23.97	6.02	18.48	17.64	17.86	17.95
	3 Tx Slots	23.00	21.91	22.17	22.29	4.26	18.74	17.65	17.91	18.03
	4 Tx Slots	21.50	20.68	20.81	20.93	3.01	18.49	17.67	17.80	17.92
GSM 1900 DSI-1 (Head SAR)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512/1850.2	661/1880	810/1909.8		MAX	512/1850.2	661/1880	810/1909.8
GSM	CS	28.00	27.18	27.30	27.41	9.03	18.97	18.15	18.27	18.38
GPRS/ EGPRS (GMSK)	1 Tx Slot	28.00	27.20	27.31	27.43	9.03	18.97	18.17	18.28	18.40
	2 Tx Slots	28.00	27.11	27.13	27.15	6.02	21.98	21.09	21.11	21.13
	3 Tx Slots	26.50	25.56	25.64	25.87	4.26	22.24	21.30	21.38	21.61
	4 Tx Slots	25.00	23.97	24.08	24.33	3.01	21.99	20.96	21.07	21.32



EGPRS (8PSK)	1 Tx Slot	27.00	26.01	26.10	26.21	9.03	17.97	16.98	17.07	17.18
	2 Tx Slots	24.50	23.34	23.47	23.63	6.02	18.48	17.32	17.45	17.61
	3 Tx Slots	23.00	21.70	21.78	22.05	4.26	18.74	17.44	17.52	17.79
	4 Tx Slots	21.50	20.24	20.18	20.38	3.01	18.49	17.23	17.17	17.37
GSM 1900 DSI-2 (Body SAR)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512/1850.2	661/1880	810/1909.8		MAX	512/1850.2	661/1880	810/1909.8
GSM	CS	30.50	29.20	29.37	29.45	9.03	21.47	20.17	20.34	20.42
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.50	29.17	29.38	29.43	9.03	21.47	20.14	20.35	20.40
	2 Tx Slots	28.00	26.59	26.93	27.09	6.02	21.98	20.57	20.91	21.07
	3 Tx Slots	26.50	25.05	25.42	25.59	4.26	22.24	20.79	21.16	21.33
	4 Tx Slots	25.00	23.48	23.88	24.09	3.01	21.99	20.47	20.87	21.08
EGPRS (8PSK)	1 Tx Slot	27.00	26.17	26.34	26.40	9.03	17.97	17.14	17.31	17.37
	2 Tx Slots	24.50	23.66	23.88	23.97	6.02	18.48	17.64	17.86	17.95
	3 Tx Slots	23.00	21.91	22.17	22.29	4.26	18.74	17.65	17.91	18.03
	4 Tx Slots	21.50	20.68	20.81	20.93	3.01	18.49	17.67	17.80	17.92
GSM 1900 DSI-4 (Body SAR)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512/1850.2	661/1880	810/1909.8		MAX	512/1850.2	661/1880	810/1909.8
GSM	CS	29.00	27.99	28.11	28.24	9.03	19.97	18.96	19.08	19.21
GPRS/ EGPRS (GMSK)	1 Tx Slot	29.00	28.01	28.13	28.25	9.03	19.97	18.98	19.10	19.22
	2 Tx Slots	25.00	24.06	24.14	24.33	6.02	18.98	18.04	18.12	18.31
	3 Tx Slots	23.50	22.55	22.76	22.98	4.26	19.24	18.29	18.50	18.72
	4 Tx Slots	22.50	21.53	21.76	21.96	3.01	19.49	18.52	18.75	18.95
EGPRS (8PSK)	1 Tx Slot	27.00	25.97	26.07	26.10	9.03	17.97	16.94	17.04	17.07
	2 Tx Slots	24.50	23.42	23.54	23.61	6.02	18.48	17.40	17.52	17.59
	3 Tx Slots	23.00	21.71	21.87	21.95	4.26	18.74	17.45	17.61	17.69
	4 Tx Slots	21.50	20.13	20.28	20.41	3.01	18.49	17.12	17.27	17.40

Notes: The worst-case configuration and mode for SAR testing is determined to be as follows:

1. Standalone: GSM 1900 GMSK (GPRS) mode with 3 time slots for Max power, based on the output power measurements above.



DIV- Antenna

GSM 850 Normal (Full Power)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128/824.2	190/836.6	251/848.8		MAX	128/824.2	190/836.6	251/848.8
GSM	CS	33.50	32.00	31.97	31.98	9.03	24.47	22.97	22.94	22.95
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.50	31.99	31.96	31.97	9.03	24.47	22.96	22.93	22.94
	2 Tx Slots	31.00	29.87	29.74	30.11	6.02	24.98	23.85	23.72	24.09
	3 Tx Slots	29.50	28.13	28.02	27.98	4.26	25.24	23.87	23.76	23.72
	4 Tx Slots	27.50	26.22	26.10	26.04	3.01	24.49	23.21	23.09	23.03
EGPRS (8PSK)	1 Tx Slot	28.00	26.87	27.20	27.20	9.03	18.97	17.84	18.17	18.17
	2 Tx Slots	25.50	24.23	24.65	24.73	6.02	19.48	18.21	18.63	18.71
	3 Tx Slots	24.00	22.70	23.09	23.21	4.26	19.74	18.44	18.83	18.95
	4 Tx Slots	22.50	21.37	21.87	21.88	3.01	19.49	18.36	18.86	18.87
GSM 850 DSI-1 (Head SAR)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128/824.2	190/836.6	251/848.8		MAX	128/824.2	190/836.6	251/848.8
GSM	CS	31.00	30.00	29.92	29.95	9.03	21.97	20.97	20.89	20.92
GPRS/ EGPRS (GMSK)	1 Tx Slot	31.00	30.01	29.91	29.95	9.03	21.97	20.98	20.88	20.92
	2 Tx Slots	27.50	26.43	26.36	26.37	6.02	21.48	20.41	20.34	20.35
	3 Tx Slots	26.00	24.94	24.92	24.91	4.26	21.74	20.68	20.66	20.65
	4 Tx Slots	24.00	22.96	22.95	22.89	3.01	20.99	19.95	19.94	19.88
EGPRS (8PSK)	1 Tx Slot	28.00	26.88	27.21	27.06	9.03	18.97	17.85	18.18	18.03
	2 Tx Slots	25.50	24.45	24.83	24.75	6.02	19.48	18.43	18.81	18.73
	3 Tx Slots	24.00	22.95	23.33	23.25	4.26	19.74	18.69	19.07	18.99
	4 Tx Slots	22.50	21.42	21.87	21.96	3.01	19.49	18.41	18.86	18.95
GSM 850 DSI-2 (Body SAR)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128/824.2	190/836.6	251/848.8		MAX	128/824.2	190/836.6	251/848.8
GSM	CS	33.50	32.00	31.97	31.98	9.03	24.47	22.97	22.94	22.95
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.50	31.99	31.96	31.97	9.03	24.47	22.96	22.93	22.94
	2 Tx Slots	31.00	29.87	29.74	30.11	6.02	24.98	23.85	23.72	24.09
	3 Tx Slots	29.50	28.13	28.02	27.98	4.26	25.24	23.87	23.76	23.72
	4 Tx Slots	27.50	26.22	26.10	26.04	3.01	24.49	23.21	23.09	23.03
EGPRS (8PSK)	1 Tx Slot	28.00	26.87	27.20	27.20	9.03	18.97	17.84	18.17	18.17
	2 Tx Slots	25.50	24.23	24.65	24.73	6.02	19.48	18.21	18.63	18.71
	3 Tx Slots	24.00	22.70	23.09	23.21	4.26	19.74	18.44	18.83	18.95
	4 Tx Slots	22.50	21.37	21.87	21.88	3.01	19.49	18.36	18.86	18.87



GSM 850 DSI-4 (Body SAR)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	128/824.2	190/836.6	251/848.8		MAX	128/824.2	190/836.6	251/848.8
GSM	CS	33.50	32.00	31.97	31.98	9.03	24.47	22.97	22.94	22.95
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.50	31.99	31.96	31.97	9.03	24.47	22.96	22.93	22.94
	2 Tx Slots	31.00	29.87	29.74	30.11	6.02	24.98	23.85	23.72	24.09
	3 Tx Slots	29.50	28.13	28.02	27.98	4.26	25.24	23.87	23.76	23.72
	4 Tx Slots	27.50	26.22	26.10	26.04	3.01	24.49	23.21	23.09	23.03
EGPRS (8PSK)	1 Tx Slot	28.00	26.87	27.20	27.20	9.03	18.97	17.84	18.17	18.17
	2 Tx Slots	25.50	24.23	24.65	24.73	6.02	19.48	18.21	18.63	18.71
	3 Tx Slots	24.00	22.70	23.09	23.21	4.26	19.74	18.44	18.83	18.95
	4 Tx Slots	22.50	21.37	21.87	21.88	3.01	19.49	18.36	18.86	18.87

Notes: The worst-case configuration and mode for SAR testing is determined to be as follows:

1. Standalone: GSM 850GMSK (GPRS) mode with 3 time slots for Max power, based on the output power measurements above.

GSM 1900 Normal (Full Power)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512/1850.2	661/1880	810/1909.8		MAX	512/1850.2	661/1880	810/1909.8
GSM	CS	30.50	29.18	29.23	29.41	9.03	21.47	20.15	20.20	20.38
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.50	29.16	29.23	29.41	9.03	21.47	20.13	20.20	20.38
	2 Tx Slots	28.00	26.64	26.92	27.26	6.02	21.98	20.62	20.90	21.24
	3 Tx Slots	26.50	25.10	25.41	25.79	4.26	22.24	20.84	21.15	21.53
	4 Tx Slots	25.00	23.54	23.87	24.31	3.01	21.99	20.53	20.86	21.30
EGPRS (8PSK)	1 Tx Slot	27.00	26.31	26.28	26.51	9.03	17.97	17.28	17.25	17.48
	2 Tx Slots	24.50	23.85	23.81	24.11	6.02	18.48	17.83	17.79	18.09
	3 Tx Slots	23.00	22.15	22.19	22.45	4.26	18.74	17.89	17.93	18.19
	4 Tx Slots	21.50	20.86	20.91	21.13	3.01	18.49	17.85	17.90	18.12
GSM 1900 DSI-1 (Head SAR)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512/1850.2	661/1880	810/1909.8		MAX	512/1850.2	661/1880	810/1909.8
GSM	CS	22.00	21.18	21.52	21.61	9.03	12.97	12.15	12.49	12.58
GPRS/ EGPRS (GMSK)	1 Tx Slot	22.00	21.16	21.51	21.61	9.03	12.97	12.13	12.48	12.58
	2 Tx Slots	21.00	19.44	19.93	20.14	6.02	14.98	13.42	13.91	14.12
	3 Tx Slots	19.50	18.02	18.44	18.71	4.26	15.24	13.76	14.18	14.45
	4 Tx Slots	16.50	15.10	15.67	16.03	3.01	13.49	12.09	12.66	13.02
EGPRS (8PSK)	1 Tx Slot	22.00	20.77	20.82	20.94	9.03	12.97	11.74	11.79	11.91
	2 Tx Slots	21.00	19.49	19.48	19.62	6.02	14.98	13.47	13.46	13.60
	3 Tx Slots	19.50	17.91	17.89	18.16	4.26	15.24	13.65	13.63	13.90
	4 Tx Slots	16.50	15.36	15.27	15.40	3.01	13.49	12.35	12.26	12.39



GSM 1900 DSI-2 (Body SAR)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512/1850.2	661/1880	810/1909.8		MAX	512/1850.2	661/1880	810/1909.8
GSM	CS	30.50	29.18	29.23	29.41	9.03	21.47	20.15	20.20	20.38
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.50	29.16	29.23	29.41	9.03	21.47	20.13	20.20	20.38
	2 Tx Slots	28.00	26.64	26.92	27.26	6.02	21.98	20.62	20.90	21.24
	3 Tx Slots	26.50	25.10	25.41	25.79	4.26	22.24	20.84	21.15	21.53
	4 Tx Slots	25.00	23.54	23.87	24.31	3.01	21.99	20.53	20.86	21.30
EGPRS (8PSK)	1 Tx Slot	27.00	26.31	26.28	26.51	9.03	17.97	17.28	17.25	17.48
	2 Tx Slots	24.50	23.85	23.81	24.11	6.02	18.48	17.83	17.79	18.09
	3 Tx Slots	23.00	22.15	22.19	22.45	4.26	18.74	17.89	17.93	18.19
	4 Tx Slots	21.50	20.86	20.91	21.13	3.01	18.49	17.85	17.90	18.12

Notes: The worst-case configuration and mode for SAR testing is determined to be as follows:

1. Standalone: GSM 1900 GMSK (GPRS) mode with 3 time slots for Max power, based on the output power measurements above.

GSM 1900 DSI-4 (Body SAR)		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frequency(MHz)				Tune-up	Channel/Frequency(MHz)		
		MAX	512/1850.2	661/1880	810/1909.8		MAX	512/1850.2	661/1880	810/1909.8
GSM	CS	26.00	25.23	25.46	25.50	9.03	16.97	16.20	16.43	16.47
GPRS/ EGPRS (GMSK)	1 Tx Slot	26.00	25.23	25.45	25.51	9.03	16.97	16.20	16.42	16.48
	2 Tx Slots	24.00	22.72	22.99	23.09	6.02	17.98	16.70	16.97	17.07
	3 Tx Slots	23.00	21.60	21.92	22.01	4.26	18.74	17.34	17.66	17.75
	4 Tx Slots	22.00	20.66	21.00	21.14	3.01	18.99	17.65	17.99	18.13
EGPRS (8PSK)	1 Tx Slot	27.00	26.11	26.01	26.07	9.03	17.97	17.08	16.98	17.04
	2 Tx Slots	24.50	23.58	23.46	23.55	6.02	18.48	17.56	17.44	17.53
	3 Tx Slots	23.00	21.78	21.72	21.98	4.26	18.74	17.52	17.46	17.72
	4 Tx Slots	21.50	20.42	20.32	20.56	3.01	18.49	17.41	17.31	17.55

Notes: The worst-case configuration and mode for SAR testing is determined to be as follows:

1. Standalone: GSM 1900 GMSK (GPRS) mode with 4 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) Normal (Full Power)				Band II(dBm) DSI-1 (Head SAR)			
Tx Channel		9262	9400	9538	Tune-up Limit	9262	9400	9538	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1852.4	1880	1907.6	
RMC	12.2kbps	23.01	23.12	23.10	24.00	23.01	23.12	23.10	24.00
HSDPA	Sub 1	21.63	21.54	21.48	22.50	21.63	21.54	21.48	22.50
	Sub 2	21.39	21.74	21.50	22.50	21.39	21.74	21.50	22.50
	Sub 3	21.67	21.56	21.66	22.50	21.67	21.56	21.66	22.50
	Sub 4	21.51	21.72	21.44	22.50	21.51	21.72	21.44	22.50
HSUPA	Sub 1	19.97	20.00	19.94	21.00	19.97	20.00	19.94	21.00
	Sub 2	20.11	20.16	20.10	21.00	20.11	20.16	20.10	21.00
	Sub 3	20.95	21.06	21.08	22.00	20.95	21.06	21.08	22.00
	Sub 4	19.57	19.54	19.60	20.50	19.57	19.54	19.60	20.50
	Sub 5	21.03	21.14	21.00	22.00	21.03	21.14	21.00	22.00
DC- HSDPA	Sub 1	21.67	21.46	21.64	22.50	21.67	21.46	21.64	22.50
	Sub 2	21.41	21.46	21.74	22.50	21.41	21.46	21.74	22.50
	Sub 3	21.51	21.64	21.52	22.50	21.51	21.64	21.52	22.50
	Sub 4	21.35	21.72	21.64	22.50	21.35	21.72	21.64	22.50
HSPA+	16QAM	20.73	20.89	20.65	21.50	20.73	20.89	20.65	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) DSI-2 (Body SAR)				Band II(dBm) DSI-4 (Body SAR)			
Tx Channel		9262	9400	9538	Tune-up Limit	9262	9400	9538	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1852.4	1880	1907.6	
RMC	12.2kbps	23.01	23.12	23.10	24.00	18.81	18.98	18.86	20.00
HSDPA	Sub 1	21.63	21.54	21.48	22.50	18.81	18.94	19.02	20.00
	Sub 2	21.39	21.74	21.50	22.50	18.71	18.84	18.88	20.00
	Sub 3	21.67	21.56	21.66	22.50	18.81	18.98	18.98	20.00
	Sub 4	21.51	21.72	21.44	22.50	18.75	18.90	18.88	20.00
HSUPA	Sub 1	19.97	20.00	19.94	21.00	18.75	18.98	18.94	20.00
	Sub 2	20.11	20.16	20.10	21.00	18.81	19.10	18.82	20.00
	Sub 3	20.95	21.06	21.08	22.00	18.97	18.86	18.90	20.00
	Sub 4	19.57	19.54	19.60	20.50	18.75	19.10	19.02	20.00
	Sub 5	21.03	21.14	21.00	22.00	18.81	18.86	18.98	20.00
DC-HSDPA	Sub 1	21.67	21.46	21.64	22.50	18.69	19.04	18.78	20.00
	Sub 2	21.41	21.46	21.74	22.50	18.67	18.98	18.82	20.00
	Sub 3	21.51	21.64	21.52	22.50	18.93	19.04	18.72	20.00
	Sub 4	21.35	21.72	21.64	22.50	18.91	18.90	19.00	20.00
HSPA+	16QAM	20.73	20.89	20.65	21.50	18.83	18.88	18.75	20.00

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 IV(dBm) Normal (Full Power)				Band IV(dBm) DSI-1 (Head SAR)			
Tx Channel		1312	1413	1513	Tune-up Limit	1312	1413	1513	Tune-up Limit
Frequency(MHz)		1712.4	1732.6	1752.6		1712.4	1732.6	1752.6	
RMC	12.2kbps	22.99	22.96	22.98	24.00	22.99	22.96	22.98	24.00
HSDPA	Sub 1	21.51	21.42	21.52	22.50	21.51	21.42	21.52	22.50
	Sub 2	21.47	21.54	21.48	22.50	21.47	21.54	21.48	22.50
	Sub 3	21.37	21.60	21.64	22.50	21.37	21.60	21.64	22.50
	Sub 4	21.65	21.30	21.36	22.50	21.65	21.30	21.36	22.50
HSUPA	Sub 1	20.61	20.58	20.34	21.50	20.61	20.58	20.34	21.50
	Sub 2	20.15	20.08	20.06	21.00	20.15	20.08	20.06	21.00
	Sub 3	20.45	20.50	20.58	21.50	20.45	20.50	20.58	21.50
	Sub 4	19.65	19.60	19.52	20.50	19.65	19.60	19.52	20.50
	Sub 5	21.05	21.06	20.86	22.00	21.05	21.06	20.86	22.00
DC-HSDPA	Sub 1	21.57	21.62	21.52	22.50	21.57	21.62	21.52	22.50
	Sub 2	21.55	21.32	21.62	22.50	21.55	21.32	21.62	22.50
	Sub 3	21.45	21.30	21.40	22.50	21.45	21.30	21.40	22.50



	Sub 4	21.59	21.62	21.44	22.50	21.59	21.62	21.44	22.50
HSPA+	16QAM	20.83	20.90	20.75	21.50	20.83	20.90	20.75	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 IV(dBm) DSI-2 (Body SAR)				Band IV(dBm) DSI-4 (Body SAR)			
Tx Channel		1312	1413	1513	Tune-up Limit	1312	1413	1513	Tune-up Limit
Frequency(MHz)		1712.4	1732.6	1752.6		1712.4	1732.6	1752.6	
RMC	12.2kbps	22.99	22.96	22.98	24.00	17.99	17.91	17.89	19.00
HSDPA	Sub 1	21.51	21.42	21.52	22.50	17.91	18.07	18.05	19.00
	Sub 2	21.47	21.54	21.48	22.50	17.89	17.87	17.93	19.00
	Sub 3	21.37	21.60	21.64	22.50	17.97	18.03	17.99	19.00
	Sub 4	21.65	21.30	21.36	22.50	18.15	17.81	18.03	19.00
HSUPA	Sub 1	20.61	20.58	20.34	21.50	18.07	17.85	17.83	19.00
	Sub 2	20.15	20.08	20.06	21.00	18.09	17.85	17.79	19.00
	Sub 3	20.45	20.50	20.58	21.50	17.85	17.95	18.05	19.00
	Sub 4	19.65	19.60	19.52	20.50	18.05	17.93	18.05	19.00
	Sub 5	21.05	21.06	20.86	22.00	18.13	17.85	17.81	19.00
DC- HSDPA	Sub 1	21.57	21.62	21.52	22.50	18.13	17.77	17.73	19.00
	Sub 2	21.55	21.32	21.62	22.50	17.99	17.79	18.03	19.00
	Sub 3	21.45	21.30	21.40	22.50	17.87	17.79	17.95	19.00
	Sub 4	21.59	21.62	21.44	22.50	17.99	17.93	17.87	19.00
HSPA+	16QAM	20.83	20.90	20.75	21.50	18.00	17.85	17.77	19.00

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 V(dBm) Normal (Full Power)				Band V(dBm) DSI-1 (Head SAR)			
Tx Channel		4132	4183	4233	Tune-up Limit	4132	4183	4233	Tune-up Limit
Frequency(MHz)		826.4	836.6	846.6		826.4	836.6	846.6	
RMC	12.2kbps	23.07	23.03	22.98	24.00	23.07	23.03	22.98	24.00
HSDPA	Sub 1	21.41	21.63	21.40	22.50	21.41	21.63	21.40	22.50
	Sub 2	21.59	21.63	21.36	22.50	21.59	21.63	21.36	22.50
	Sub 3	21.55	21.43	21.40	22.50	21.55	21.43	21.40	22.50
	Sub 4	21.41	21.63	21.48	22.50	21.41	21.63	21.48	22.50
HSUPA	Sub 1	20.53	20.55	20.46	21.50	20.53	20.55	20.46	21.50
	Sub 2	20.47	20.55	20.58	21.50	20.47	20.55	20.58	21.50
	Sub 3	21.73	21.67	21.60	22.50	21.73	21.67	21.60	22.50



	Sub 4	19.67	19.49	19.48	20.50	19.67	19.49	19.48	20.50
	Sub 5	20.97	20.89	20.96	22.00	20.97	20.89	20.96	22.00
DC-HSDPA	Sub 1	21.67	21.59	21.58	22.50	21.67	21.59	21.58	22.50
	Sub 2	21.63	21.49	21.40	22.50	21.63	21.49	21.40	22.50
	Sub 3	21.53	21.53	21.36	22.50	21.53	21.53	21.36	22.50
	Sub 4	21.61	21.69	21.60	22.50	21.61	21.69	21.60	22.50
HSPA+	16QAM	20.67	20.72	20.83	21.50	20.67	20.72	20.83	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 V(dBm) DSI-2 (Body SAR)				Band V(dBm) DSI-4 (Body SAR)			
Tx Channel		4132	4183	4233	Tune-up	4132	4183	4233	Tune-up
Frequency(MHz)		826.4	836.6	846.6	Limit	826.4	836.6	846.6	Limit
RMC	12.2kbps	23.07	23.03	22.98	24.00	23.07	23.03	22.98	24.00
HSDPA	Sub 1	21.41	21.63	21.40	22.50	21.41	21.63	21.40	22.50
	Sub 2	21.59	21.63	21.36	22.50	21.59	21.63	21.36	22.50
	Sub 3	21.55	21.43	21.40	22.50	21.55	21.43	21.40	22.50
	Sub 4	21.41	21.63	21.48	22.50	21.41	21.63	21.48	22.50
HSUPA	Sub 1	20.53	20.55	20.46	21.50	20.53	20.55	20.46	21.50
	Sub 2	20.47	20.55	20.58	21.50	20.47	20.55	20.58	21.50
	Sub 3	21.73	21.67	21.60	22.50	21.73	21.67	21.60	22.50
	Sub 4	19.67	19.49	19.48	20.50	19.67	19.49	19.48	20.50
	Sub 5	20.97	20.89	20.96	22.00	20.97	20.89	20.96	22.00
DC-HSDPA	Sub 1	21.67	21.59	21.58	22.50	21.67	21.59	21.58	22.50
	Sub 2	21.63	21.49	21.40	22.50	21.63	21.49	21.40	22.50
	Sub 3	21.53	21.53	21.36	22.50	21.53	21.53	21.36	22.50
	Sub 4	21.61	21.69	21.60	22.50	21.61	21.69	21.60	22.50
HSPA+	16QAM	20.67	20.72	20.83	21.50	20.67	20.72	20.83	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".									

**DIV-Antenna**

WCDMA		Band II(dBm) Normal (Full Power)				Band II(dBm) DSI-1 (Head SAR)			
Tx Channel		9262	9400	9538	Tune-up	9262	9400	9538	Tune-up
Frequency(MHz)		1852.4	1880	1907.6	Limit	1852.4	1880	1907.6	Limit
RMC	12.2kbps	22.86	22.91	22.92	24.00	13.78	13.87	13.74	15.00
HSDPA	Sub 1	21.24	21.33	21.32	22.50	13.72	13.89	13.78	15.00
	Sub 2	21.34	21.45	21.44	22.50	13.80	13.75	13.88	15.00
	Sub 3	21.36	21.31	21.42	22.50	13.62	13.73	13.84	15.00
	Sub 4	21.24	21.31	21.38	22.50	13.90	13.75	13.64	15.00
HSUPA	Sub 1	20.32	20.51	20.26	21.50	13.94	14.03	13.66	15.00
	Sub 2	20.48	20.25	20.36	21.50	13.74	13.75	13.70	15.00
	Sub 3	20.22	20.27	20.42	21.50	13.82	13.97	13.86	15.00
	Sub 4	20.24	20.31	20.58	21.50	13.74	13.99	13.90	15.00
	Sub 5	20.22	20.25	20.38	21.50	13.82	13.85	13.80	15.00
DC-HSDPA	Sub 1	21.50	21.47	21.38	22.50	13.68	13.89	13.88	15.00
	Sub 2	21.48	21.29	21.56	22.50	13.76	13.81	13.74	15.00
	Sub 3	21.24	21.47	21.34	22.50	13.74	13.81	13.88	15.00
	Sub 4	21.30	21.39	21.56	22.50	13.64	13.77	13.78	15.00
HSPA+	16QAM	20.53	20.50	20.63	21.50	13.73	13.80	13.77	15.00

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) DSI-2 (Body SAR)				Band II(dBm) DSI-4 (Body SAR)			
Tx Channel		9262	9400	9538	Tune-up Limit	9262	9400	9538	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1852.4	1880	1907.6	
RMC	12.2kbps	22.86	22.91	22.92	24.00	13.78	13.87	13.74	15.00
HSDPA	Sub 1	21.24	21.33	21.32	22.50	13.72	13.89	13.78	15.00
	Sub 2	21.34	21.45	21.44	22.50	13.80	13.75	13.88	15.00
	Sub 3	21.36	21.31	21.42	22.50	13.62	13.73	13.84	15.00
	Sub 4	21.24	21.31	21.38	22.50	13.90	13.75	13.64	15.00
HSUPA	Sub 1	20.32	20.51	20.26	21.50	13.94	14.03	13.66	15.00
	Sub 2	20.48	20.25	20.36	21.50	13.74	13.75	13.70	15.00
	Sub 3	20.22	20.27	20.42	21.50	13.82	13.97	13.86	15.00
	Sub 4	20.24	20.31	20.58	21.50	13.74	13.99	13.90	15.00
	Sub 5	20.22	20.25	20.38	21.50	13.82	13.85	13.80	15.00
DC-HSDPA	Sub 1	21.50	21.47	21.38	22.50	13.68	13.89	13.88	15.00
	Sub 2	21.48	21.29	21.56	22.50	13.76	13.81	13.74	15.00
	Sub 3	21.24	21.47	21.34	22.50	13.74	13.81	13.88	15.00
	Sub 4	21.30	21.39	21.56	22.50	13.64	13.77	13.78	15.00
HSPA+	16QAM	20.53	20.50	20.63	21.50	13.73	13.80	13.77	15.00

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 IV(dBm) Normal (Full Power)				Band IV(dBm) DSI-1 (Head SAR)			
Tx Channel		1312	1413	1513	Tune-up Limit	1312	1413	1513	Tune-up Limit
Frequency(MHz)		1712.4	1732.6	1752.6		1712.4	1732.6	1752.6	
RMC	12.2kbps	22.88	22.90	22.95	24.00	14.90	14.86	14.87	16.00
HSDPA	Sub 1	21.44	21.46	21.37	22.50	14.96	14.86	14.73	16.00
	Sub 2	21.22	21.56	21.31	22.50	14.92	14.80	14.91	16.00
	Sub 3	21.36	21.40	21.43	22.50	14.88	14.76	15.01	16.00
	Sub 4	21.24	21.48	21.45	22.50	14.96	14.88	14.85	16.00
HSUPA	Sub 1	20.42	20.40	20.53	21.50	14.84	14.88	14.89	16.00
	Sub 2	20.38	20.30	20.53	21.50	14.90	14.82	14.85	16.00
	Sub 3	20.40	20.34	20.57	21.50	14.94	14.94	15.01	16.00
	Sub 4	20.32	20.24	20.61	21.50	14.98	14.96	14.95	16.00
	Sub 5	20.46	20.24	20.33	21.50	14.90	14.74	14.91	16.00
DC-HSDPA	Sub 1	21.24	21.30	21.35	22.50	14.92	14.72	14.81	16.00
	Sub 2	21.54	21.34	21.33	22.50	14.96	14.86	14.89	16.00
	Sub 3	21.38	21.28	21.55	22.50	14.74	14.96	14.87	16.00



	Sub 4	21.50	21.34	21.53	22.50	15.02	14.72	15.01	16.00
HSPA+	16QAM	20.69	20.71	20.60	21.50	14.98	15.01	15.03	16.00

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 IV(dBm) DSI-2 (Body SAR)				Band IV(dBm) DSI-4 (Body SAR)			
Tx Channel		1312	1413	1513	Tune-up Limit	1312	1413	1513	Tune-up Limit
Frequency(MHz)		1712.4	1732.6	1752.6		1712.4	1732.6	1752.6	
RMC	12.2kbps	22.88	22.90	22.95	24.00	14.90	14.86	14.87	16.00
HSDPA	Sub 1	21.44	21.46	21.37	22.50	14.96	14.86	14.73	16.00
	Sub 2	21.22	21.56	21.31	22.50	14.92	14.80	14.91	16.00
	Sub 3	21.36	21.40	21.43	22.50	14.88	14.76	15.01	16.00
	Sub 4	21.24	21.48	21.45	22.50	14.96	14.88	14.85	16.00
HSUPA	Sub 1	20.42	20.40	20.53	21.50	14.84	14.88	14.89	16.00
	Sub 2	20.38	20.30	20.53	21.50	14.90	14.82	14.85	16.00
	Sub 3	20.40	20.34	20.57	21.50	14.94	14.94	15.01	16.00
	Sub 4	20.32	20.24	20.61	21.50	14.98	14.96	14.95	16.00
	Sub 5	20.46	20.24	20.33	21.50	14.90	14.74	14.91	16.00
DC- HSDPA	Sub 1	21.24	21.30	21.35	22.50	14.92	14.72	14.81	16.00
	Sub 2	21.54	21.34	21.33	22.50	14.96	14.86	14.89	16.00
	Sub 3	21.38	21.28	21.55	22.50	14.74	14.96	14.87	16.00
	Sub 4	21.50	21.34	21.53	22.50	15.02	14.72	15.01	16.00
HSPA+	16QAM	20.69	20.71	20.60	21.50	14.98	15.01	15.03	16.00

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 V(dBm) Normal (Full Power)				Band V(dBm) DSI-1 (Head SAR)			
Tx Channel		4132	4183	4233	Tune-up Limit	4132	4183	4233	Tune-up Limit
Frequency(MHz)		826.4	836.6	846.6		826.4	836.6	846.6	
RMC	12.2kbps	22.85	22.87	22.84	24.00	21.32	21.35	21.29	22.50
HSDPA	Sub 1	21.51	21.37	21.46	22.50	21.42	21.47	21.15	22.50
	Sub 2	21.25	21.33	21.20	22.50	21.40	21.19	21.33	22.50
	Sub 3	21.49	21.23	21.22	22.50	21.18	21.31	21.21	22.50
	Sub 4	21.23	21.37	21.46	22.50	21.32	21.31	21.37	22.50
HSUPA	Sub 1	20.45	20.37	20.28	21.50	20.16	20.23	20.19	21.50
	Sub 2	20.39	20.51	20.22	21.50	20.28	20.37	20.39	21.50
	Sub 3	20.41	20.43	20.36	21.50	20.30	20.25	20.31	21.50



	Sub 4	20.33	20.49	20.46	21.50	20.24	20.45	20.45	21.50
	Sub 5	20.27	20.27	20.42	21.50	20.36	20.23	20.35	21.50
DC-HSDPA	Sub 1	21.23	21.39	21.40	22.50	21.26	21.29	21.17	22.50
	Sub 2	21.35	21.49	21.34	22.50	21.38	21.43	21.33	22.50
	Sub 3	21.19	21.39	21.42	22.50	21.26	21.19	21.19	22.50
	Sub 4	21.25	21.49	21.28	22.50	21.18	21.19	21.43	22.50
HSPA+	16QAM	20.50	20.63	20.44	21.50	20.34	20.45	20.37	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 V(dBm) DSI-2 (Body SAR)				Band V(dBm) DSI-4 (Body SAR)			
Tx Channel		4132	4183	4233	Tune-up	4132	4183	4233	Tune-up
Frequency(MHz)		826.4	836.6	846.6	Limit	826.4	836.6	846.6	Limit
RMC	12.2kbps	22.85	22.87	22.84	24.00	22.85	22.87	22.84	24.00
HSDPA	Sub 1	21.51	21.37	21.46	22.50	21.51	21.37	21.46	22.50
	Sub 2	21.25	21.33	21.20	22.50	21.25	21.33	21.20	22.50
	Sub 3	21.49	21.23	21.22	22.50	21.49	21.23	21.22	22.50
	Sub 4	21.23	21.37	21.46	22.50	21.23	21.37	21.46	22.50
HSUPA	Sub 1	20.45	20.37	20.28	21.50	20.45	20.37	20.28	21.50
	Sub 2	20.39	20.51	20.22	21.50	20.39	20.51	20.22	21.50
	Sub 3	20.41	20.43	20.36	21.50	20.41	20.43	20.36	21.50
	Sub 4	20.33	20.49	20.46	21.50	20.33	20.49	20.46	21.50
	Sub 5	20.27	20.27	20.42	21.50	20.27	20.27	20.42	21.50
DC-HSDPA	Sub 1	21.23	21.39	21.40	22.50	21.23	21.39	21.40	22.50
	Sub 2	21.35	21.49	21.34	22.50	21.35	21.49	21.34	22.50
	Sub 3	21.19	21.39	21.42	22.50	21.19	21.39	21.42	22.50
	Sub 4	21.25	21.49	21.28	22.50	21.25	21.49	21.28	22.50
HSPA+	16QAM	20.50	20.63	20.44	21.50	20.50	20.63	20.44	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".									

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 Normal (Full Power)				Conducted 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	24.25	24.21	24.15	25.50
		1	2	24.40	24.33	24.35	25.50
		1	5	24.18	24.09	24.20	25.50
		3	0	24.06	24.44	24.29	25.50
		3	2	24.22	24.34	24.29	25.50
		3	3	24.21	24.30	24.31	25.50
		6	0	23.25	23.38	23.30	24.50
	16QAM	1	0	23.61	23.38	23.41	24.50
		1	2	23.59	23.80	22.71	24.50
		1	5	23.65	23.73	23.44	24.50
		3	0	23.40	23.29	23.29	24.50
		3	2	23.39	23.31	23.41	24.50
		3	3	23.36	23.41	23.40	24.50
		6	0	22.41	22.43	22.43	23.50
	64QAM	1	0	22.36	22.41	22.45	23.50
		1	2	22.54	22.61	22.52	23.50
		1	5	22.38	22.47	22.34	23.50
		3	0	22.45	22.49	22.38	23.50
		3	2	22.42	22.45	22.32	23.50
		3	3	22.44	22.50	22.34	23.50
		6	0	21.36	21.56	21.47	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
3MHz	QPSK	1	0	18615/1851.5	18900/1880	19185/1908.5	25.50
				24.27	24.25	24.18	



		1	7	24.38	24.36	24.39	25.50	
		1	14	24.21	24.14	24.24	25.50	
		8	0	23.16	23.56	23.42	24.50	
		8	4	23.34	23.44	23.41	24.50	
		8	7	23.31	23.41	23.41	24.50	
		15	0	23.25	23.42	23.33	24.50	
	16QAM	1	0	23.64	23.40	23.44	24.50	
		1	7	23.62	23.80	22.75	24.50	
		1	14	23.67	23.77	23.47	24.50	
		8	0	22.51	22.42	22.41	23.50	
		8	4	22.50	22.44	22.53	23.50	
		8	7	22.46	22.53	22.53	23.50	
	64QAM	15	0	22.44	22.47	22.46	23.50	
		1	0	22.39	22.43	22.48	23.50	
		1	7	22.57	22.61	22.54	23.50	
		1	14	22.40	22.46	22.37	23.50	
		8	0	21.56	21.62	21.50	22.50	
		8	4	21.53	21.58	21.44	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					18625/1852.5	18900/1880	19175/1907.5	
	5MHz	QPSK	8	7	21.54	21.62	21.47	22.50
15			0	21.39	21.60	21.50	22.50	
1			0	24.24	24.23	24.14	25.50	
1			13	24.36	24.32	24.36	25.50	
1			24	24.18	24.09	24.20	25.50	
12			0	23.13	23.51	23.38	24.50	
16QAM		12	6	23.32	23.40	23.36	24.50	
		12	13	23.29	23.39	23.37	24.50	
		25	0	23.25	23.41	23.31	24.50	
		1	0	23.61	23.36	23.41	24.50	
		1	13	23.59	23.78	22.72	24.50	
		1	24	23.64	23.75	23.43	24.50	
64QAM		12	0	22.49	22.38	22.38	23.50	
		12	6	22.47	22.39	22.49	23.50	
		12	13	22.43	22.48	22.49	23.50	
		25	0	22.42	22.43	22.41	23.50	
		1	0	22.36	22.43	22.45	23.50	
		1	13	22.54	22.63	22.51	23.50	
64QAM		1	24	22.41	22.44	22.33	23.50	
		12	0	21.54	21.58	21.51	22.50	
		12	6	21.50	21.53	21.40	22.50	
	12	13	21.51	21.57	21.43	22.50		
	25	0	21.37	21.56	21.45	22.50		



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	24.26	24.24	24.17	25.50
		1	25	24.39	24.37	24.40	25.50
		1	49	24.20	24.13	24.23	25.50
		25	0	23.16	23.56	23.42	24.50
		25	13	23.35	23.45	23.40	24.50
		25	25	23.31	23.43	23.42	24.50
		50	0	23.29	23.43	23.35	24.50
	16QAM	1	0	23.63	23.39	23.43	24.50
		1	25	23.62	23.82	22.75	24.50
		1	49	23.67	23.77	23.46	24.50
		25	0	22.52	22.43	22.42	23.50
		25	13	22.49	22.43	22.52	23.50
		25	25	22.46	22.53	22.53	23.50
		50	0	22.45	22.48	22.45	23.50
	64QAM	1	0	22.38	22.42	22.47	23.50
		1	25	22.57	22.63	22.54	23.50
		1	49	22.40	22.46	22.36	23.50
		25	0	21.57	21.63	21.51	22.50
		25	13	21.52	21.57	21.43	22.50
		25	25	21.54	21.62	21.47	22.50
		50	0	21.40	21.61	21.49	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	24.25	24.20	24.15	25.50
		1	38	24.37	24.36	24.37	25.50
		1	74	24.17	24.08	24.19	25.50
		36	0	23.14	23.52	23.39	24.50
		36	18	23.32	23.40	23.36	24.50
		36	39	23.28	23.40	23.38	24.50
		75	0	23.27	23.39	23.30	24.50
	16QAM	1	0	23.58	23.37	23.41	24.50
		1	38	23.60	23.79	22.73	24.50
		1	74	23.64	23.73	23.43	24.50
		36	0	22.49	22.41	22.39	23.50
		36	18	22.46	22.38	22.48	23.50
		36	39	22.44	22.49	22.50	23.50
		75	0	22.42	22.43	22.41	23.50
	64QAM	1	0	22.33	22.40	22.45	23.50
		1	38	22.55	22.60	22.52	23.50
		1	74	22.41	22.45	22.37	23.50
		36	0	21.56	21.65	21.52	22.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz		36	18	21.50	21.54	21.42	22.50
		36	39	21.52	21.58	21.44	22.50
		75	0	21.37	21.56	21.45	22.50
	QPSK	1	0	24.22	24.16	24.12	25.50
		1	50	24.36	24.32	24.35	25.50
		1	99	24.15	24.07	24.16	25.50
		50	0	23.11	23.47	23.35	24.50
		50	25	23.30	23.36	23.33	24.50
		50	50	23.25	23.35	23.34	24.50
		100	0	23.24	23.34	23.26	24.50
	16QAM	1	0	23.31	23.33	23.36	24.50
		1	50	23.56	23.77	22.69	24.50
		1	99	23.62	23.70	23.41	24.50
		50	0	22.46	22.37	22.36	23.50
		50	25	22.43	22.36	22.45	23.50
		50	50	22.41	22.44	22.46	23.50
		100	0	22.40	22.39	22.38	23.50
	64QAM	1	0	22.31	22.36	22.40	23.50
		1	50	22.51	22.58	22.48	23.50
		1	99	22.35	22.39	22.31	23.50
		50	0	21.51	21.57	21.45	22.50
		50	25	21.46	21.50	21.36	22.50
		50	50	21.49	21.53	21.40	22.50
		100	0	21.35	21.52	21.42	22.50

LTE FDD Band 2 DSI-1 (Head SAR)				Conducted 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	24.25	24.21	24.15	25.50
		1	2	24.40	24.33	24.35	25.50
		1	5	24.18	24.09	24.20	25.50
		3	0	24.06	24.44	24.29	25.50
		3	2	24.22	24.34	24.29	25.50
		3	3	24.21	24.30	24.31	25.50
		6	0	23.25	23.38	23.30	24.50
	16QAM	1	0	23.61	23.38	23.41	24.50
		1	2	23.59	23.80	22.71	24.50
		1	5	23.65	23.73	23.44	24.50
		3	0	23.40	23.29	23.29	24.50
		3	2	23.39	23.31	23.41	24.50



		3	3	23.36	23.41	23.40	24.50
		6	0	22.41	22.43	22.43	23.50
	64QAM	1	0	22.36	22.41	22.45	23.50
		1	2	22.54	22.61	22.52	23.50
		1	5	22.38	22.47	22.34	23.50
		3	0	22.45	22.49	22.38	23.50
		3	2	22.42	22.45	22.32	23.50
		3	3	22.44	22.50	22.34	23.50
		6	0	21.36	21.56	21.47	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	24.27	24.25	24.18	25.50
		1	7	24.38	24.36	24.39	25.50
		1	14	24.21	24.14	24.24	25.50
		8	0	23.16	23.56	23.42	24.50
		8	4	23.34	23.44	23.41	24.50
		8	7	23.31	23.41	23.41	24.50
		15	0	23.25	23.42	23.33	24.50
	16QAM	1	0	23.64	23.40	23.44	24.50
		1	7	23.62	23.80	22.75	24.50
		1	14	23.67	23.77	23.47	24.50
		8	0	22.51	22.42	22.41	23.50
		8	4	22.50	22.44	22.53	23.50
		8	7	22.46	22.53	22.53	23.50
		15	0	22.44	22.47	22.46	23.50
	64QAM	1	0	22.39	22.43	22.48	23.50
		1	7	22.57	22.61	22.54	23.50
		1	14	22.40	22.46	22.37	23.50
		8	0	21.56	21.62	21.50	22.50
		8	4	21.53	21.58	21.44	22.50
		8	7	21.54	21.62	21.47	22.50
		15	0	21.39	21.60	21.50	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	24.24	24.23	24.14	25.50
		1	13	24.36	24.32	24.36	25.50
		1	24	24.18	24.09	24.20	25.50
		12	0	23.13	23.51	23.38	24.50
		12	6	23.32	23.40	23.36	24.50
		12	13	23.29	23.39	23.37	24.50
		25	0	23.25	23.41	23.31	24.50
	16QAM	1	0	23.61	23.36	23.41	24.50
		1	13	23.59	23.78	22.72	24.50



		1	24	23.64	23.75	23.43	24.50
		12	0	22.49	22.38	22.38	23.50
		12	6	22.47	22.39	22.49	23.50
		12	13	22.43	22.48	22.49	23.50
		25	0	22.42	22.43	22.41	23.50
	64QAM	1	0	22.36	22.43	22.45	23.50
		1	13	22.54	22.63	22.51	23.50
		1	24	22.41	22.44	22.33	23.50
		12	0	21.54	21.58	21.51	22.50
		12	6	21.50	21.53	21.40	22.50
		12	13	21.51	21.57	21.43	22.50
		25	0	21.37	21.56	21.45	22.50
		Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)	
18650/1855	18900/1880					19150/1905	
10MHz	QPSK	1	0	24.26	24.24	24.17	25.50
		1	25	24.39	24.37	24.40	25.50
		1	49	24.20	24.13	24.23	25.50
		25	0	23.16	23.56	23.42	24.50
		25	13	23.35	23.45	23.40	24.50
		25	25	23.31	23.43	23.42	24.50
		50	0	23.29	23.43	23.35	24.50
	16QAM	1	0	23.63	23.39	23.43	24.50
		1	25	23.62	23.82	22.75	24.50
		1	49	23.67	23.77	23.46	24.50
		25	0	22.52	22.43	22.42	23.50
		25	13	22.49	22.43	22.52	23.50
		25	25	22.46	22.53	22.53	23.50
		50	0	22.45	22.48	22.45	23.50
	64QAM	1	0	22.38	22.42	22.47	23.50
		1	25	22.57	22.63	22.54	23.50
		1	49	22.40	22.46	22.36	23.50
		25	0	21.57	21.63	21.51	22.50
		25	13	21.52	21.57	21.43	22.50
		25	25	21.54	21.62	21.47	22.50
		50	0	21.40	21.61	21.49	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	24.25	24.20	24.15	25.50
		1	38	24.37	24.36	24.37	25.50
		1	74	24.17	24.08	24.19	25.50
		36	0	23.14	23.52	23.39	24.50
		36	18	23.32	23.40	23.36	24.50
		36	39	23.28	23.40	23.38	24.50



	16QAM	75	0	23.27	23.39	23.30	24.50
		1	0	23.58	23.37	23.41	24.50
		1	38	23.60	23.79	22.73	24.50
		1	74	23.64	23.73	23.43	24.50
		36	0	22.49	22.41	22.39	23.50
		36	18	22.46	22.38	22.48	23.50
		36	39	22.44	22.49	22.50	23.50
		75	0	22.42	22.43	22.41	23.50
	64QAM	1	0	22.33	22.40	22.45	23.50
		1	38	22.55	22.60	22.52	23.50
		1	74	22.41	22.45	22.37	23.50
		36	0	21.56	21.65	21.52	22.50
		36	18	21.50	21.54	21.42	22.50
		36	39	21.52	21.58	21.44	22.50
75		0	21.37	21.56	21.45	22.50	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	24.22	24.16	24.12	25.50
		1	50	24.36	24.32	24.35	25.50
		1	99	24.15	24.07	24.16	25.50
		50	0	23.11	23.47	23.35	24.50
		50	25	23.30	23.36	23.33	24.50
		50	50	23.25	23.35	23.34	24.50
		100	0	23.24	23.34	23.26	24.50
	16QAM	1	0	23.31	23.33	23.36	24.50
		1	50	23.56	23.77	22.69	24.50
		1	99	23.62	23.70	23.41	24.50
		50	0	22.46	22.37	22.36	23.50
		50	25	22.43	22.36	22.45	23.50
		50	50	22.41	22.44	22.46	23.50
		100	0	22.40	22.39	22.38	23.50
	64QAM	1	0	22.31	22.36	22.40	23.50
		1	50	22.51	22.58	22.48	23.50
		1	99	22.35	22.39	22.31	23.50
		50	0	21.51	21.57	21.45	22.50
		50	25	21.46	21.50	21.36	22.50
		50	50	21.49	21.53	21.40	22.50
		100	0	21.35	21.52	21.42	22.50



LTE FDD Band 2 DSI-2 (Body SAR)				Conducted 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	24.25	24.21	24.15	25.50
		1	2	24.40	24.33	24.35	25.50
		1	5	24.18	24.09	24.20	25.50
		3	0	24.06	24.44	24.29	25.50
		3	2	24.22	24.34	24.29	25.50
		3	3	24.21	24.30	24.31	25.50
		6	0	23.25	23.38	23.30	24.50
	16QAM	1	0	23.61	23.38	23.41	24.50
		1	2	23.59	23.80	22.71	24.50
		1	5	23.65	23.73	23.44	24.50
		3	0	23.40	23.29	23.29	24.50
		3	2	23.39	23.31	23.41	24.50
		3	3	23.36	23.41	23.40	24.50
		6	0	22.41	22.43	22.43	23.50
	64QAM	1	0	22.36	22.41	22.45	23.50
		1	2	22.54	22.61	22.52	23.50
		1	5	22.38	22.47	22.34	23.50
		3	0	22.45	22.49	22.38	23.50
		3	2	22.42	22.45	22.32	23.50
		3	3	22.44	22.50	22.34	23.50
		6	0	21.36	21.56	21.47	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	24.27	24.25	24.18	25.50
		1	7	24.38	24.36	24.39	25.50
		1	14	24.21	24.14	24.24	25.50
		8	0	23.16	23.56	23.42	24.50
		8	4	23.34	23.44	23.41	24.50
		8	7	23.31	23.41	23.41	24.50
		15	0	23.25	23.42	23.33	24.50
	16QAM	1	0	23.64	23.40	23.44	24.50
		1	7	23.62	23.80	22.75	24.50
		1	14	23.67	23.77	23.47	24.50
		8	0	22.51	22.42	22.41	23.50
		8	4	22.50	22.44	22.53	23.50
		8	7	22.46	22.53	22.53	23.50
		15	0	22.44	22.47	22.46	23.50
	64QAM	1	0	22.39	22.43	22.48	23.50
		1	7	22.57	22.61	22.54	23.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				18625/1852.5	18900/1880	19175/1907.5		
		1	14	22.40	22.46	22.37	23.50	
		8	0	21.56	21.62	21.50	22.50	
		8	4	21.53	21.58	21.44	22.50	
		8	7	21.54	21.62	21.47	22.50	
		15	0	21.39	21.60	21.50	22.50	
5MHz	QPSK	1	0	24.24	24.23	24.14	25.50	
		1	13	24.36	24.32	24.36	25.50	
5MHz	QPSK	1	24	24.18	24.09	24.20	25.50	
		12	0	23.13	23.51	23.38	24.50	
		12	6	23.32	23.40	23.36	24.50	
		12	13	23.29	23.39	23.37	24.50	
		25	0	23.25	23.41	23.31	24.50	
		16QAM	1	0	23.61	23.36	23.41	24.50
			1	13	23.59	23.78	22.72	24.50
	1		24	23.64	23.75	23.43	24.50	
	12		0	22.49	22.38	22.38	23.50	
	12		6	22.47	22.39	22.49	23.50	
	12		13	22.43	22.48	22.49	23.50	
	25		0	22.42	22.43	22.41	23.50	
	64QAM	1	0	22.36	22.43	22.45	23.50	
		1	13	22.54	22.63	22.51	23.50	
		1	24	22.41	22.44	22.33	23.50	
		12	0	21.54	21.58	21.51	22.50	
		12	6	21.50	21.53	21.40	22.50	
		12	13	21.51	21.57	21.43	22.50	
		25	0	21.37	21.56	21.45	22.50	
	10MHz	QPSK	1	0	24.26	24.24	24.17	25.50
			1	25	24.39	24.37	24.40	25.50
10MHz	QPSK	1	49	24.20	24.13	24.23	25.50	
		25	0	23.16	23.56	23.42	24.50	
		25	13	23.35	23.45	23.40	24.50	
		25	25	23.31	23.43	23.42	24.50	
		50	0	23.29	23.43	23.35	24.50	
		16QAM	1	0	23.63	23.39	23.43	24.50
	1		25	23.62	23.82	22.75	24.50	
	1		49	23.67	23.77	23.46	24.50	
	25		0	22.52	22.43	22.42	23.50	
	25		13	22.49	22.43	22.52	23.50	
	25		25	22.46	22.53	22.53	23.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
18650/1855					18900/1880	19150/1905		



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				18675/1857.5	18900/1880	19125/1902.5		
15MHz	64QAM	50	0	22.45	22.48	22.45	23.50	
		1	0	22.38	22.42	22.47	23.50	
		1	25	22.57	22.63	22.54	23.50	
		1	49	22.40	22.46	22.36	23.50	
		25	0	21.57	21.63	21.51	22.50	
		25	13	21.52	21.57	21.43	22.50	
		25	25	21.54	21.62	21.47	22.50	
		50	0	21.40	21.61	21.49	22.50	
15MHz	QPSK	1	0	24.25	24.20	24.15	25.50	
		1	38	24.37	24.36	24.37	25.50	
		1	74	24.17	24.08	24.19	25.50	
		36	0	23.14	23.52	23.39	24.50	
		36	18	23.32	23.40	23.36	24.50	
		36	39	23.28	23.40	23.38	24.50	
		75	0	23.27	23.39	23.30	24.50	
	16QAM	1	0	23.58	23.37	23.41	24.50	
		1	38	23.60	23.79	22.73	24.50	
		1	74	23.64	23.73	23.43	24.50	
		36	0	22.49	22.41	22.39	23.50	
		36	18	22.46	22.38	22.48	23.50	
		36	39	22.44	22.49	22.50	23.50	
		75	0	22.42	22.43	22.41	23.50	
	64QAM	1	0	22.33	22.40	22.45	23.50	
		1	38	22.55	22.60	22.52	23.50	
		1	74	22.41	22.45	22.37	23.50	
		36	0	21.56	21.65	21.52	22.50	
		36	18	21.50	21.54	21.42	22.50	
		36	39	21.52	21.58	21.44	22.50	
		75	0	21.37	21.56	21.45	22.50	
	20MHz	QPSK	1	0	24.22	24.16	24.12	25.50
			1	50	24.36	24.32	24.35	25.50
	1		99	24.15	24.07	24.16	25.50	
50	0		23.11	23.47	23.35	24.50		
50	25		23.30	23.36	23.33	24.50		
50	50		23.25	23.35	23.34	24.50		
100	0		23.24	23.34	23.26	24.50		
16QAM	1	0	23.31	23.33	23.36	24.50		
	1	50	23.56	23.77	22.69	24.50		
	1	99	23.62	23.70	23.41	24.50		



		50	0	22.46	22.37	22.36	23.50
		50	25	22.43	22.36	22.45	23.50
		50	50	22.41	22.44	22.46	23.50
		100	0	22.40	22.39	22.38	23.50
	64QAM	1	0	22.31	22.36	22.40	23.50
		1	50	22.51	22.58	22.48	23.50
		1	99	22.35	22.39	22.31	23.50
		50	0	21.51	21.57	21.45	22.50
		50	25	21.46	21.50	21.36	22.50
		50	50	21.49	21.53	21.40	22.50
		100	0	21.35	21.52	21.42	22.50

LTE FDD Band 2 DSI-4 (Body SAR)				Conducted 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	18.95	18.83	18.84	20.00
		1	2	18.95	18.87	18.91	20.00
		1	5	18.87	18.82	18.84	20.00
		3	0	18.96	18.93	18.94	20.00
		3	2	18.98	18.94	19.01	20.00
		3	3	18.90	18.92	18.96	20.00
		6	0	18.98	18.94	19.00	20.00
	16QAM	1	0	18.78	19.09	19.07	20.00
		1	2	18.83	19.15	19.11	20.00
		1	5	18.77	19.08	19.06	20.00
		3	0	19.11	19.17	19.21	20.00
		3	2	19.16	19.19	19.24	20.00
		3	3	19.13	19.17	19.20	20.00
		6	0	19.21	19.23	19.21	20.00
	64QAM	1	0	18.77	19.12	19.08	20.00
		1	2	18.84	19.14	19.10	20.00
		1	5	18.77	19.10	19.07	20.00
		3	0	19.11	19.17	19.20	20.00
		3	2	19.17	19.20	19.25	20.00
		3	3	19.13	19.15	19.22	20.00
		6	0	19.22	19.23	19.19	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	18.74	18.70	18.80	20.00
		1	7	18.83	18.83	18.96	20.00
		1	14	18.72	18.72	18.82	20.00
		8	0	18.88	18.89	18.97	20.00



	16QAM	8	4	18.96	19.00	19.04	20.00
		8	7	18.95	18.92	18.98	20.00
		15	0	18.92	18.96	18.97	20.00
		1	0	19.20	18.95	18.73	20.00
		1	7	19.27	19.05	18.82	20.00
		1	14	19.17	18.98	18.68	20.00
		8	0	18.98	18.96	18.96	20.00
		8	4	19.05	19.03	19.04	20.00
		8	7	18.99	18.96	19.01	20.00
	15	0	19.01	18.97	19.07	20.00	
	64QAM	1	0	19.19	18.96	18.71	20.00
		1	7	19.28	19.06	18.80	20.00
		1	14	19.20	18.97	18.67	20.00
		8	0	18.98	18.98	18.96	20.00
		8	4	19.04	19.02	19.04	20.00
8		7	18.96	18.96	18.99	20.00	
15	0	18.99	18.98	19.06	20.00		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	18.96	18.96	19.08	20.00
		1	13	19.05	19.09	19.18	20.00
		1	24	18.97	18.98	19.04	20.00
		12	0	18.99	19.02	19.10	20.00
		12	6	19.08	19.07	19.16	20.00
		12	13	19.06	19.06	19.06	20.00
		25	0	19.04	19.08	19.07	20.00
	16QAM	1	0	19.36	19.37	19.66	20.00
		1	13	19.46	19.45	19.73	20.00
		1	24	19.36	19.39	19.58	20.00
		12	0	18.96	19.07	19.14	20.00
		12	6	19.07	19.17	19.17	20.00
		12	13	19.03	19.12	19.07	20.00
		25	0	19.10	19.10	19.07	20.00
	64QAM	1	0	19.35	19.37	19.63	20.00
		1	13	19.44	19.48	19.71	20.00
		1	24	19.36	19.39	19.57	20.00
		12	0	18.99	19.06	19.14	20.00
		12	6	19.06	19.15	19.19	20.00
		12	13	19.05	19.10	19.08	20.00
		25	0	19.13	19.09	19.07	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	19.03	19.05	19.12	20.00



		1	25	19.11	19.10	19.28	20.00	
		1	49	19.09	19.07	19.14	20.00	
		25	0	18.96	19.06	19.15	20.00	
		25	13	19.09	19.10	19.17	20.00	
		25	25	19.14	19.08	19.08	20.00	
		50	0	19.10	19.13	19.14	20.00	
	16QAM	1	0	19.52	19.28	18.99	20.00	
		1	25	19.57	19.34	19.16	20.00	
		1	49	19.57	19.32	19.00	20.00	
		25	0	19.03	19.11	19.17	20.00	
		25	13	19.18	19.16	19.19	20.00	
		25	25	19.22	19.15	19.12	20.00	
	64QAM	50	0	19.12	19.20	19.13	20.00	
		1	0	19.51	19.29	19.01	20.00	
		1	25	19.60	19.34	19.14	20.00	
		1	49	19.55	19.32	19.00	20.00	
		25	0	19.04	19.14	19.17	20.00	
		25	13	19.16	19.14	19.19	20.00	
	15MHz	QPSK	25	25	19.22	19.16	19.10	20.00
			50	0	19.13	19.20	19.12	20.00
			1	0	18.98	19.03	19.04	20.00
1			38	19.14	19.16	19.19	20.00	
1			74	19.06	19.08	19.04	20.00	
36			0	18.94	19.04	19.08	20.00	
36			18	19.05	19.05	19.09	20.00	
16QAM		36	39	19.09	19.05	19.06	20.00	
		75	0	19.04	19.09	19.10	20.00	
		1	0	19.14	19.45	19.23	20.00	
		1	38	19.30	19.60	19.34	20.00	
		1	74	19.18	19.52	19.26	20.00	
		36	0	18.95	19.13	19.15	20.00	
		36	18	19.05	19.13	19.18	20.00	
64QAM		36	39	19.10	19.12	19.15	20.00	
		75	0	19.13	19.09	19.07	20.00	
		1	0	19.13	19.46	19.23	20.00	
		1	38	19.28	19.60	19.32	20.00	
		1	74	19.20	19.53	19.25	20.00	
		36	0	18.95	19.13	19.17	20.00	
		36	18	19.06	19.14	19.18	20.00	
		36	39	19.12	19.12	19.16	20.00	
		75	0	19.11	19.10	19.09	20.00	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				18675/1857.5	18900/1880	19125/1902.5		



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	18.88	18.92	18.94	20.00
		1	50	19.15	19.12	19.16	20.00
		1	99	18.93	18.96	18.98	20.00
		50	0	18.88	19.20	19.08	20.00
		50	25	19.12	19.15	19.13	20.00
		50	50	19.08	19.21	19.08	20.00
		100	0	19.03	19.22	19.06	20.00
	16QAM	1	0	19.23	19.23	19.28	20.00
		1	50	19.48	19.44	19.48	20.00
		1	99	19.24	19.26	19.30	20.00
		50	0	18.86	19.26	19.15	20.00
		50	25	19.14	19.25	19.19	20.00
		50	50	19.08	19.28	19.14	20.00
		100	0	19.06	19.26	19.05	20.00
	64QAM	1	0	19.24	19.22	19.28	20.00
		1	50	19.49	19.44	19.48	20.00
		1	99	19.24	19.28	19.30	20.00
		50	0	18.89	19.25	19.15	20.00
		50	25	19.15	19.24	19.16	20.00
		50	50	19.08	19.30	19.12	20.00
		100	0	19.02	19.26	19.08	20.00

LTE FDD Band 4 Normal (Full Power)				Conducted 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	24.23	24.26	24.19	25.50
		1	2	24.49	24.30	24.32	25.50
		1	5	24.18	24.09	24.14	25.50
		3	0	24.23	24.22	24.23	25.50
		3	2	24.37	24.30	24.27	25.50
		3	3	24.39	24.22	24.19	25.50
		6	0	23.41	23.34	23.23	24.50
	16QAM	1	0	23.78	23.72	23.75	24.50
		1	2	23.76	23.68	23.70	24.50
		1	5	23.51	23.44	23.46	24.50
		3	0	23.34	23.23	23.27	24.50
		3	2	23.41	23.30	23.35	24.50
		3	3	23.34	23.26	23.25	24.50
		6	0	22.34	22.28	22.31	23.50
	64QAM	1	0	22.72	22.58	22.63	23.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				19965/1711.5	20175/1732.5	20385/1753.5		
		1	2	22.62	22.54	22.58	23.50	
		1	5	22.62	22.53	22.54	23.50	
		3	0	22.46	22.27	22.31	23.50	
		3	2	22.52	22.39	22.44	23.50	
		3	3	22.47	22.39	22.38	23.50	
		6	0	21.43	21.37	21.40	22.50	
3MHz	QPSK	1	0	24.22	24.28	24.18	25.50	
		1	7	24.45	24.29	24.33	25.50	
		1	14	24.18	24.09	24.14	25.50	
		8	0	23.30	23.29	23.32	24.50	
		8	4	23.47	23.36	23.34	24.50	
		8	7	23.47	23.31	23.25	24.50	
		15	0	23.41	23.37	23.24	24.50	
	16QAM	1	0	23.78	23.70	23.75	24.50	
		1	7	23.76	23.66	23.71	24.50	
		1	14	23.50	23.46	23.45	24.50	
		8	0	22.43	22.32	22.36	23.50	
		8	4	22.49	22.38	22.43	23.50	
		8	7	22.41	22.33	22.34	23.50	
		15	0	22.35	22.28	22.29	23.50	
	64QAM	1	0	22.72	22.60	22.63	23.50	
		1	7	22.62	22.56	22.57	23.50	
		1	14	22.65	22.50	22.53	23.50	
		8	0	21.55	21.36	21.44	22.50	
		8	4	21.60	21.47	21.52	22.50	
		8	7	21.54	21.46	21.47	22.50	
		15	0	21.44	21.37	21.38	22.50	
	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	24.25	24.30	24.22	25.50
1			13	24.47	24.33	24.36	25.50	
1			24	24.21	24.14	24.18	25.50	
12			0	23.33	23.34	23.36	24.50	
12			6	23.49	23.40	23.39	24.50	
12			13	23.49	23.33	23.29	24.50	
25			0	23.41	23.38	23.26	24.50	
16QAM		1	0	23.81	23.74	23.78	24.50	
		1	13	23.79	23.68	23.74	24.50	
		1	24	23.53	23.48	23.49	24.50	
		12	0	22.45	22.36	22.39	23.50	
		12	6	22.52	22.43	22.47	23.50	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20000/1715	20175/1732.5	20350/1750		
	64QAM	12	13	22.44	22.38	22.38	23.50	
		25	0	22.37	22.32	22.34	23.50	
		1	0	22.75	22.60	22.66	23.50	
		1	13	22.65	22.54	22.60	23.50	
		1	24	22.64	22.52	22.57	23.50	
		12	0	21.57	21.40	21.43	22.50	
		12	6	21.63	21.52	21.56	22.50	
		12	13	21.57	21.51	21.51	22.50	
		25	0	21.46	21.41	21.43	22.50	
10MHz	QPSK	1	0	24.23	24.25	24.19	25.50	
		1	25	24.46	24.33	24.34	25.50	
		1	49	24.17	24.08	24.13	25.50	
		25	0	23.31	23.30	23.33	24.50	
		25	13	23.47	23.36	23.34	24.50	
		25	25	23.46	23.32	23.26	24.50	
		50	0	23.43	23.35	23.23	24.50	
	16QAM	1	0	23.75	23.71	23.75	24.50	
		1	25	23.77	23.67	23.72	24.50	
		1	49	23.50	23.44	23.45	24.50	
		25	0	22.43	22.35	22.37	23.50	
		25	13	22.48	22.37	22.42	23.50	
		25	25	22.42	22.34	22.35	23.50	
		50	0	22.35	22.28	22.29	23.50	
	64QAM	1	0	22.69	22.57	22.63	23.50	
		1	25	22.63	22.53	22.58	23.50	
		1	49	22.65	22.51	22.57	23.50	
		25	0	21.57	21.43	21.45	22.50	
		25	13	21.60	21.48	21.54	22.50	
		25	25	21.55	21.47	21.48	22.50	
		50	0	21.44	21.37	21.38	22.50	
	15MHz	QPSK	1	0	24.24	24.29	24.21	25.50
			1	38	24.48	24.34	24.37	25.50
	1		74	24.20	24.13	24.17	25.50	
36	0		23.33	23.34	23.36	24.50		
36	18		23.50	23.41	23.38	24.50		
36	39		23.49	23.35	23.30	24.50		
75	0		23.45	23.39	23.28	24.50		
16QAM	1	0	23.80	23.73	23.77	24.50		
	1	38	23.79	23.70	23.74	24.50		



		1	74	23.53	23.48	23.48	24.50
		36	0	22.46	22.37	22.40	23.50
		36	18	22.51	22.42	22.46	23.50
		36	39	22.44	22.38	22.38	23.50
		75	0	22.38	22.33	22.33	23.50
	64QAM	1	0	22.74	22.59	22.65	23.50
		1	38	22.65	22.56	22.60	23.50
		1	74	22.64	22.52	22.56	23.50
		36	0	21.58	21.41	21.44	22.50
		36	18	21.62	21.51	21.55	22.50
		36	39	21.57	21.51	21.51	22.50
		75	0	21.47	21.42	21.42	22.50
		Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)	
20050/1720	20175/1732.5					20300/1745	
20MHz	QPSK	1	0	24.20	24.21	24.16	25.50
		1	50	24.45	24.29	24.32	25.50
		1	99	24.15	24.07	24.10	25.50
		50	0	23.28	23.25	23.29	24.50
		50	25	23.45	23.32	23.31	24.50
		50	50	23.43	23.27	23.22	24.50
		100	0	23.40	23.30	23.19	24.50
	16QAM	1	0	23.79	23.67	23.70	24.50
		1	50	23.73	23.65	23.68	24.50
		1	99	23.48	23.41	23.43	24.50
		50	0	22.40	22.31	22.34	23.50
		50	25	22.45	22.35	22.39	23.50
		50	50	22.39	22.29	22.31	23.50
		100	0	22.33	22.24	22.26	23.50
	64QAM	1	0	22.67	22.53	22.58	23.50
		1	50	22.59	22.51	22.54	23.50
		1	99	22.59	22.45	22.51	23.50
		50	0	21.52	21.35	21.38	22.50
		50	25	21.56	21.44	21.48	22.50
		50	50	21.52	21.42	21.44	22.50
		100	0	21.42	21.33	21.35	22.50

LTE FDD Band 4 DSI-1 (Head SAR)				Conducted 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	24.23	24.26	24.19	25.50
		1	2	24.49	24.30	24.32	25.50
		1	5	24.18	24.09	24.14	25.50



		3	0	24.23	24.22	24.23	25.50	
		3	2	24.37	24.30	24.27	25.50	
		3	3	24.39	24.22	24.19	25.50	
		6	0	23.41	23.34	23.23	24.50	
	16QAM	1	0	23.78	23.72	23.75	24.50	
		1	2	23.76	23.68	23.70	24.50	
		1	5	23.51	23.44	23.46	24.50	
		3	0	23.34	23.23	23.27	24.50	
		3	2	23.41	23.30	23.35	24.50	
		3	3	23.34	23.26	23.25	24.50	
		6	0	22.34	22.28	22.31	23.50	
	64QAM	1	0	22.72	22.58	22.63	23.50	
		1	2	22.62	22.54	22.58	23.50	
		1	5	22.62	22.53	22.54	23.50	
		3	0	22.46	22.27	22.31	23.50	
		3	2	22.52	22.39	22.44	23.50	
		3	3	22.47	22.39	22.38	23.50	
		6	0	21.43	21.37	21.40	22.50	
	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	24.22	24.28	24.18	25.50
1			7	24.45	24.29	24.33	25.50	
1			14	24.18	24.09	24.14	25.50	
8			0	23.30	23.29	23.32	24.50	
8			4	23.47	23.36	23.34	24.50	
8			7	23.47	23.31	23.25	24.50	
15			0	23.41	23.37	23.24	24.50	
16QAM		1	0	23.78	23.70	23.75	24.50	
		1	7	23.76	23.66	23.71	24.50	
		1	14	23.50	23.46	23.45	24.50	
		8	0	22.43	22.32	22.36	23.50	
		8	4	22.49	22.38	22.43	23.50	
		8	7	22.41	22.33	22.34	23.50	
		15	0	22.35	22.28	22.29	23.50	
64QAM		1	0	22.72	22.60	22.63	23.50	
		1	7	22.62	22.56	22.57	23.50	
		1	14	22.65	22.50	22.53	23.50	
		8	0	21.55	21.36	21.44	22.50	
		8	4	21.60	21.47	21.52	22.50	
		8	7	21.54	21.46	21.47	22.50	
		15	0	21.44	21.37	21.38	22.50	



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	24.25	24.30	24.22	25.50
		1	13	24.47	24.33	24.36	25.50
		1	24	24.21	24.14	24.18	25.50
		12	0	23.33	23.34	23.36	24.50
		12	6	23.49	23.40	23.39	24.50
		12	13	23.49	23.33	23.29	24.50
		25	0	23.41	23.38	23.26	24.50
	16QAM	1	0	23.81	23.74	23.78	24.50
		1	13	23.79	23.68	23.74	24.50
		1	24	23.53	23.48	23.49	24.50
		12	0	22.45	22.36	22.39	23.50
		12	6	22.52	22.43	22.47	23.50
		12	13	22.44	22.38	22.38	23.50
		25	0	22.37	22.32	22.34	23.50
	64QAM	1	0	22.75	22.60	22.66	23.50
		1	13	22.65	22.54	22.60	23.50
		1	24	22.64	22.52	22.57	23.50
		12	0	21.57	21.40	21.43	22.50
		12	6	21.63	21.52	21.56	22.50
		12	13	21.57	21.51	21.51	22.50
		25	0	21.46	21.41	21.43	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	24.23	24.25	24.19	25.50
		1	25	24.46	24.33	24.34	25.50
		1	49	24.17	24.08	24.13	25.50
		25	0	23.31	23.30	23.33	24.50
		25	13	23.47	23.36	23.34	24.50
		25	25	23.46	23.32	23.26	24.50
		50	0	23.43	23.35	23.23	24.50
	16QAM	1	0	23.75	23.71	23.75	24.50
		1	25	23.77	23.67	23.72	24.50
		1	49	23.50	23.44	23.45	24.50
		25	0	22.43	22.35	22.37	23.50
		25	13	22.48	22.37	22.42	23.50
		25	25	22.42	22.34	22.35	23.50
		50	0	22.35	22.28	22.29	23.50
	64QAM	1	0	22.69	22.57	22.63	23.50
		1	25	22.63	22.53	22.58	23.50
		1	49	22.65	22.51	22.57	23.50
		25	0	21.57	21.43	21.45	22.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20025/1717.5	20175/1732.5	20325/1747.5		
15MHz	QPSK	25	13	21.60	21.48	21.54	22.50	
		25	25	21.55	21.47	21.48	22.50	
		50	0	21.44	21.37	21.38	22.50	
		1	0	24.24	24.29	24.21	25.50	
		1	38	24.48	24.34	24.37	25.50	
		1	74	24.20	24.13	24.17	25.50	
		36	0	23.33	23.34	23.36	24.50	
	36	18	23.50	23.41	23.38	24.50		
	36	39	23.49	23.35	23.30	24.50		
	75	0	23.45	23.39	23.28	24.50		
	16QAM	1	0	23.80	23.73	23.77	24.50	
		1	38	23.79	23.70	23.74	24.50	
		1	74	23.53	23.48	23.48	24.50	
		36	0	22.46	22.37	22.40	23.50	
		36	18	22.51	22.42	22.46	23.50	
		36	39	22.44	22.38	22.38	23.50	
		75	0	22.38	22.33	22.33	23.50	
	64QAM	1	0	22.74	22.59	22.65	23.50	
		1	38	22.65	22.56	22.60	23.50	
		1	74	22.64	22.52	22.56	23.50	
		36	0	21.58	21.41	21.44	22.50	
		36	18	21.62	21.51	21.55	22.50	
		36	39	21.57	21.51	21.51	22.50	
		75	0	21.47	21.42	21.42	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20050/1720	20175/1732.5	20300/1745	
	20MHz	QPSK	1	0	24.20	24.21	24.16	25.50
1			50	24.45	24.29	24.32	25.50	
1			99	24.15	24.07	24.10	25.50	
50			0	23.28	23.25	23.29	24.50	
50			25	23.45	23.32	23.31	24.50	
50			50	23.43	23.27	23.22	24.50	
100			0	23.40	23.30	23.19	24.50	
16QAM		1	0	23.79	23.67	23.70	24.50	
		1	50	23.73	23.65	23.68	24.50	
		1	99	23.48	23.41	23.43	24.50	
		50	0	22.40	22.31	22.34	23.50	
		50	25	22.45	22.35	22.39	23.50	
		50	50	22.39	22.29	22.31	23.50	
		100	0	22.33	22.24	22.26	23.50	
64QAM		1	0	22.67	22.53	22.58	23.50	



		1	50	22.59	22.51	22.54	23.50
		1	99	22.59	22.45	22.51	23.50
		50	0	21.52	21.35	21.38	22.50
		50	25	21.56	21.44	21.48	22.50
		50	50	21.52	21.42	21.44	22.50
		100	0	21.42	21.33	21.35	22.50

LTE FDD Band 4 DSI-2 (Body SAR)				Conducted 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	24.23	24.26	24.19	25.50
		1	2	24.49	24.30	24.32	25.50
		1	5	24.18	24.09	24.14	25.50
		3	0	24.23	24.22	24.23	25.50
		3	2	24.37	24.30	24.27	25.50
		3	3	24.39	24.22	24.19	25.50
		6	0	23.41	23.34	23.23	24.50
	16QAM	1	0	23.78	23.72	23.75	24.50
		1	2	23.76	23.68	23.70	24.50
		1	5	23.51	23.44	23.46	24.50
		3	0	23.34	23.23	23.27	24.50
		3	2	23.41	23.30	23.35	24.50
		3	3	23.34	23.26	23.25	24.50
		6	0	22.34	22.28	22.31	23.50
	64QAM	1	0	22.72	22.58	22.63	23.50
		1	2	22.62	22.54	22.58	23.50
		1	5	22.62	22.53	22.54	23.50
		3	0	22.46	22.27	22.31	23.50
		3	2	22.52	22.39	22.44	23.50
		3	3	22.47	22.39	22.38	23.50
		6	0	21.43	21.37	21.40	22.50
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	24.22	24.28	24.18	25.50
		1	7	24.45	24.29	24.33	25.50
		1	14	24.18	24.09	24.14	25.50
		8	0	23.30	23.29	23.32	24.50
		8	4	23.47	23.36	23.34	24.50
		8	7	23.47	23.31	23.25	24.50
		15	0	23.41	23.37	23.24	24.50
	16QAM	1	0	23.78	23.70	23.75	24.50
		1	7	23.76	23.66	23.71	24.50



		1	14	23.50	23.46	23.45	24.50	
		8	0	22.43	22.32	22.36	23.50	
		8	4	22.49	22.38	22.43	23.50	
		8	7	22.41	22.33	22.34	23.50	
		15	0	22.35	22.28	22.29	23.50	
	64QAM	1	0	22.72	22.60	22.63	23.50	
		1	7	22.62	22.56	22.57	23.50	
		1	14	22.65	22.50	22.53	23.50	
		8	0	21.55	21.36	21.44	22.50	
		8	4	21.60	21.47	21.52	22.50	
		8	7	21.54	21.46	21.47	22.50	
		15	0	21.44	21.37	21.38	22.50	
		Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
19975/1712.5	20175/1732.5					20375/1752.5		
5MHz	QPSK	1	0	24.25	24.30	24.22	25.50	
		1	13	24.47	24.33	24.36	25.50	
		1	24	24.21	24.14	24.18	25.50	
		12	0	23.33	23.34	23.36	24.50	
		12	6	23.49	23.40	23.39	24.50	
		12	13	23.49	23.33	23.29	24.50	
		25	0	23.41	23.38	23.26	24.50	
	16QAM	1	0	23.81	23.74	23.78	24.50	
		1	13	23.79	23.68	23.74	24.50	
		1	24	23.53	23.48	23.49	24.50	
		12	0	22.45	22.36	22.39	23.50	
		12	6	22.52	22.43	22.47	23.50	
		12	13	22.44	22.38	22.38	23.50	
		25	0	22.37	22.32	22.34	23.50	
	64QAM	1	0	22.75	22.60	22.66	23.50	
		1	13	22.65	22.54	22.60	23.50	
		1	24	22.64	22.52	22.57	23.50	
		12	0	21.57	21.40	21.43	22.50	
		12	6	21.63	21.52	21.56	22.50	
		12	13	21.57	21.51	21.51	22.50	
		25	0	21.46	21.41	21.43	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20000/1715	20175/1732.5	20350/1750	
	10MHz	QPSK	1	0	24.23	24.25	24.19	25.50
1			25	24.46	24.33	24.34	25.50	
1			49	24.17	24.08	24.13	25.50	
25			0	23.31	23.30	23.33	24.50	
25			13	23.47	23.36	23.34	24.50	
25			25	23.46	23.32	23.26	24.50	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20025/1717.5	20175/1732.5	20325/1747.5		
	16QAM	50	0	23.43	23.35	23.23	24.50	
		1	0	23.75	23.71	23.75	24.50	
		1	25	23.77	23.67	23.72	24.50	
		1	49	23.50	23.44	23.45	24.50	
		25	0	22.43	22.35	22.37	23.50	
		25	13	22.48	22.37	22.42	23.50	
		25	25	22.42	22.34	22.35	23.50	
		50	0	22.35	22.28	22.29	23.50	
	64QAM	1	0	22.69	22.57	22.63	23.50	
		1	25	22.63	22.53	22.58	23.50	
		1	49	22.65	22.51	22.57	23.50	
		25	0	21.57	21.43	21.45	22.50	
		25	13	21.60	21.48	21.54	22.50	
		25	25	21.55	21.47	21.48	22.50	
15MHz	QPSK	1	0	24.24	24.29	24.21	25.50	
		1	38	24.48	24.34	24.37	25.50	
		1	74	24.20	24.13	24.17	25.50	
		36	0	23.33	23.34	23.36	24.50	
		36	18	23.50	23.41	23.38	24.50	
		36	39	23.49	23.35	23.30	24.50	
		75	0	23.45	23.39	23.28	24.50	
	16QAM	1	0	23.80	23.73	23.77	24.50	
		1	38	23.79	23.70	23.74	24.50	
		1	74	23.53	23.48	23.48	24.50	
		36	0	22.46	22.37	22.40	23.50	
		36	18	22.51	22.42	22.46	23.50	
		36	39	22.44	22.38	22.38	23.50	
		75	0	22.38	22.33	22.33	23.50	
	64QAM	1	0	22.74	22.59	22.65	23.50	
		1	38	22.65	22.56	22.60	23.50	
		1	74	22.64	22.52	22.56	23.50	
		36	0	21.58	21.41	21.44	22.50	
		36	18	21.62	21.51	21.55	22.50	
		36	39	21.57	21.51	21.51	22.50	
		75	0	21.47	21.42	21.42	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20050/1720	20175/1732.5	20300/1745	
	20MHz	QPSK	1	0	24.20	24.21	24.16	25.50
1			50	24.45	24.29	24.32	25.50	
1			99	24.15	24.07	24.10	25.50	



		50	0	23.28	23.25	23.29	24.50
		50	25	23.45	23.32	23.31	24.50
		50	50	23.43	23.27	23.22	24.50
		100	0	23.40	23.30	23.19	24.50
	16QAM	1	0	23.79	23.67	23.70	24.50
		1	50	23.73	23.65	23.68	24.50
		1	99	23.48	23.41	23.43	24.50
		50	0	22.40	22.31	22.34	23.50
		50	25	22.45	22.35	22.39	23.50
		50	50	22.39	22.29	22.31	23.50
		100	0	22.33	22.24	22.26	23.50
	64QAM	1	0	22.67	22.53	22.58	23.50
		1	50	22.59	22.51	22.54	23.50
		1	99	22.59	22.45	22.51	23.50
		50	0	21.52	21.35	21.38	22.50
		50	25	21.56	21.44	21.48	22.50
		50	50	21.52	21.42	21.44	22.50
		100	0	21.42	21.33	21.35	22.50

LTE FDD Band 4 DSI-4 (Body SAR)				Conducted 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	18.00	17.94	17.87	19.00
		1	2	18.06	17.99	17.94	19.00
		1	5	18.01	17.90	17.84	19.00
		3	0	18.07	18.03	17.97	19.00
		3	2	18.07	18.06	18.03	19.00
		3	3	18.05	18.02	17.97	19.00
		6	0	18.16	18.05	18.03	19.00
	16QAM	1	0	17.84	18.11	18.07	19.00
		1	2	17.92	18.17	18.11	19.00
		1	5	17.86	18.11	18.09	19.00
		3	0	18.21	18.21	18.20	19.00
		3	2	18.26	18.21	18.26	19.00
		3	3	18.23	18.16	18.24	19.00
		6	0	18.31	18.26	18.21	19.00
	64QAM	1	0	17.83	18.08	18.07	19.00
		1	2	17.93	18.17	18.14	19.00
		1	5	17.85	18.11	18.10	19.00
		3	0	18.19	18.19	18.22	19.00
		3	2	18.25	18.21	18.27	19.00
		3	3	18.23	18.17	18.23	19.00



Bandwidth	Modulation	6	0	18.32	18.24	18.23	19.00
		RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	17.86	17.79	17.71	19.00
		1	7	17.96	17.89	17.86	19.00
		1	14	17.90	17.77	17.76	19.00
		8	0	18.02	17.94	17.88	19.00
		8	4	18.07	18.00	17.97	19.00
		8	7	18.00	17.96	17.94	19.00
		15	0	18.05	17.96	17.97	19.00
	16QAM	1	0	17.70	18.23	17.92	19.00
		1	7	17.82	18.27	18.05	19.00
		1	14	17.71	18.18	17.95	19.00
		8	0	17.96	17.98	17.97	19.00
		8	4	18.05	18.07	18.00	19.00
		8	7	18.03	17.98	17.91	19.00
		15	0	18.11	18.03	17.93	19.00
	64QAM	1	0	17.71	18.22	17.94	19.00
		1	7	17.82	18.28	18.07	19.00
		1	14	17.71	18.17	17.99	19.00
		8	0	18.00	18.01	17.96	19.00
		8	4	18.06	18.06	18.00	19.00
		8	7	18.03	17.98	17.91	19.00
		15	0	18.11	18.00	17.92	19.00
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	18.03	18.00
1	13			18.14	18.14	18.06	19.00
1	24			18.04	17.99	17.99	19.00
12	0			18.06	17.98	18.01	19.00
12	6			18.14	18.08	18.08	19.00
12	13			18.09	18.02	18.01	19.00
25	0			18.12	18.01	18.02	19.00
16QAM	1		0	18.35	18.53	18.26	19.00
	1		13	18.45	18.67	18.38	19.00
	1		24	18.34	18.52	18.33	19.00
	12		0	18.10	17.98	17.96	19.00
	12		6	18.17	18.12	18.01	19.00
	12		13	18.14	18.01	17.98	19.00
	25		0	18.08	18.03	18.05	19.00
64QAM	1		0	18.36	18.53	18.27	19.00
	1		13	18.45	18.66	18.39	19.00
	1		24	18.36	18.52	18.30	19.00



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20000/1715	20175/1732.5	20350/1750		
		12	0	18.11	17.99	17.95	19.00	
		12	6	18.19	18.10	18.02	19.00	
		12	13	18.14	18.03	17.97	19.00	
		25	0	18.10	18.01	18.06	19.00	
10MHz	QPSK	1	0	18.12	18.08	18.04	19.00	
		1	25	18.17	18.18	18.11	19.00	
		1	49	18.12	18.06	18.07	19.00	
		25	0	18.02	17.95	18.00	19.00	
		25	13	18.10	18.08	18.04	19.00	
		25	25	18.07	18.03	17.96	19.00	
		50	0	18.08	18.02	18.03	19.00	
	16QAM	1	0	18.29	18.00	18.37	19.00	
		1	25	18.37	18.05	18.48	19.00	
		1	49	18.35	17.93	18.50	19.00	
		25	0	18.04	18.00	18.02	19.00	
		25	13	18.13	18.08	18.08	19.00	
		25	25	18.11	18.04	18.03	19.00	
		50	0	18.12	17.99	18.00	19.00	
	64QAM	1	0	18.28	17.99	18.37	19.00	
		1	25	18.36	18.05	18.45	19.00	
		1	49	18.34	17.94	18.48	19.00	
		25	0	18.04	17.96	18.04	19.00	
		25	13	18.16	18.08	18.08	19.00	
		25	25	18.10	18.04	18.02	19.00	
		50	0	18.13	17.99	18.00	19.00	
	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	18.06	17.96	17.97	19.00
			1	38	18.16	18.07	18.11	19.00
			1	74	18.09	17.98	18.03	19.00
			36	0	18.04	17.97	18.00	19.00
			36	18	18.10	18.02	18.05	19.00
36			39	18.12	18.03	17.98	19.00	
75			0	18.10	18.05	18.02	19.00	
16QAM		1	0	18.26	18.12	18.35	19.00	
		1	38	18.34	18.21	18.47	19.00	
		1	74	18.30	18.11	18.46	19.00	
		36	0	18.14	17.95	18.02	19.00	
		36	18	18.17	18.03	18.08	19.00	
		36	39	18.19	18.00	18.00	19.00	
		75	0	18.12	18.06	18.01	19.00	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20050/1720	20175/1732.5	20300/1745		
20MHz	64QAM	1	0	18.23	18.12	18.36	19.00	
		1	38	18.35	18.21	18.46	19.00	
		1	74	18.31	18.11	18.44	19.00	
		36	0	18.12	17.95	18.03	19.00	
		36	18	18.19	18.02	18.07	19.00	
		36	39	18.19	18.01	18.00	19.00	
		75	0	18.11	18.06	18.01	19.00	
	20MHz	QPSK	1	0	17.96	17.97	17.88	19.00
			1	50	18.18	18.17	18.13	19.00
			1	99	17.95	17.95	17.93	19.00
			50	0	18.05	17.95	17.97	19.00
			50	25	18.12	18.08	18.04	19.00
			50	50	18.13	18.06	17.95	19.00
			100	0	18.09	18.02	17.97	19.00
		16QAM	1	0	18.28	18.25	18.12	19.00
			1	50	18.54	18.43	18.35	19.00
			1	99	18.30	18.18	18.21	19.00
			50	0	18.10	17.93	18.02	19.00
			50	25	18.21	18.08	18.07	19.00
			50	50	18.17	18.04	17.98	19.00
			100	0	18.11	18.02	17.98	19.00
64QAM		1	0	18.29	18.25	18.14	19.00	
		1	50	18.56	18.41	18.34	19.00	
		1	99	18.30	18.18	18.22	19.00	
		50	0	18.10	17.94	18.01	19.00	
		50	25	18.20	18.06	18.06	19.00	
		50	50	18.17	18.04	17.97	19.00	
		100	0	18.12	18.02	17.97	19.00	

LTE FDD Band 5 Normal (Full Power)				Conducted 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	23.99	23.92	24.02	25.50
		1	2	24.07	23.97	24.06	25.50
		1	5	23.96	23.91	24.07	25.50
		3	0	24.02	23.97	24.01	25.50
		3	2	24.07	24.02	24.06	25.50
		3	3	23.98	23.99	24.00	25.50
		6	0	23.13	23.14	23.27	24.50
	16QAM	1	0	23.06	23.06	22.80	24.50



		1	2	23.12	23.12	22.87	24.50
		1	5	23.06	23.09	22.82	24.50
		3	0	23.16	23.21	23.14	24.50
		3	2	23.15	23.24	23.20	24.50
		3	3	23.13	23.22	23.16	24.50
		6	0	22.27	22.25	22.35	23.50
	64QAM	1	0	22.36	22.30	22.34	23.50
		1	2	22.26	22.21	22.24	23.50
		1	5	22.36	22.34	22.35	23.50
		3	0	22.00	21.92	22.01	23.50
		3	2	22.11	22.03	22.08	23.50
		3	3	22.25	22.18	22.20	23.50
	6	0	21.07	21.01	21.06	22.50	
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	23.87	23.77	23.84	25.50
		1	7	23.87	23.87	23.97	25.50
		1	14	23.79	23.82	23.95	25.50
		8	0	23.09	23.05	23.09	24.50
		8	4	23.08	23.09	23.16	24.50
		8	7	23.02	23.06	23.10	24.50
		15	0	23.00	23.04	23.07	24.50
	16QAM	1	0	23.18	23.00	22.69	24.50
		1	7	23.22	23.00	22.77	24.50
		1	14	23.17	22.95	22.68	24.50
		8	0	21.99	22.02	21.96	23.50
		8	4	22.03	22.06	22.07	23.50
		8	7	21.99	21.97	22.01	23.50
		15	0	22.01	21.94	22.08	23.50
	64QAM	1	0	22.33	22.29	22.34	23.50
		1	7	22.27	22.20	22.24	23.50
		1	14	22.39	22.32	22.38	23.50
		8	0	21.11	21.08	21.15	22.50
		8	4	21.19	21.12	21.18	22.50
		8	7	21.33	21.26	21.30	22.50
		15	0	21.08	21.01	21.04	22.50
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	24.08	24.04	24.03	25.50
		1	13	24.11	24.11	24.12	25.50
		1	24	24.07	24.08	24.10	25.50
		12	0	23.06	23.09	23.11	24.50
		12	6	23.11	23.19	23.12	24.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20450/829	20525/836.5	20600/844		
10MHz	16QAM	12	13	23.08	23.12	23.04	24.50	
		25	0	23.06	23.09	23.09	24.50	
		1	0	23.52	23.35	23.26	24.50	
		1	13	23.55	23.36	23.35	24.50	
		1	24	23.56	23.29	23.31	24.50	
		12	0	22.03	21.99	22.12	23.50	
		12	6	22.08	22.07	22.14	23.50	
		12	13	22.04	22.03	22.04	23.50	
		25	0	22.03	22.12	22.03	23.50	
		64QAM	1	0	22.36	22.32	22.34	23.50
			1	13	22.26	22.23	22.23	23.50
			1	24	22.39	22.31	22.34	23.50
			12	0	21.09	21.01	21.14	22.50
			12	6	21.19	21.11	21.16	22.50
	12		13	21.32	21.25	21.29	22.50	
	25		0	21.08	21.01	21.04	22.50	
	QPSK		1	0	24.16	24.12	24.15	25.50
			1	25	24.22	24.15	24.19	25.50
			1	49	24.12	24.15	24.20	25.50
			25	0	23.05	23.06	23.10	24.50
			25	13	23.16	23.18	23.15	24.50
			25	25	23.07	23.16	23.02	24.50
			50	0	23.11	23.12	23.08	24.50
		16QAM	1	0	22.97	23.47	23.27	24.50
			1	25	23.02	23.49	23.27	24.50
			1	49	22.98	23.49	23.30	24.50
			25	0	22.07	22.13	22.05	23.50
			25	13	22.16	22.18	22.17	23.50
25			25	22.06	22.18	22.04	23.50	
50			0	22.09	22.10	22.08	23.50	
64QAM	1	0	22.31	22.25	22.29	23.50		
	1	25	22.23	22.18	22.20	23.50		
	1	49	22.33	22.26	22.32	23.50		
	25	0	21.06	21.00	21.08	22.50		
	25	13	21.15	21.08	21.12	22.50		
	25	25	21.30	21.21	21.26	22.50		
	50	0	21.06	20.97	21.01	22.50		



LTE FDD Band 5 DSI-1 (Head SAR)				Conducted 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	23.99	23.92	24.02	25.50
		1	2	24.07	23.97	24.06	25.50
		1	5	23.96	23.91	24.07	25.50
		3	0	24.02	23.97	24.01	25.50
		3	2	24.07	24.02	24.06	25.50
		3	3	23.98	23.99	24.00	25.50
		6	0	23.13	23.14	23.27	24.50
	16QAM	1	0	23.06	23.06	22.80	24.50
		1	2	23.12	23.12	22.87	24.50
		1	5	23.06	23.09	22.82	24.50
		3	0	23.16	23.21	23.14	24.50
		3	2	23.15	23.24	23.20	24.50
		3	3	23.13	23.22	23.16	24.50
		6	0	22.27	22.25	22.35	23.50
	64QAM	1	0	22.36	22.30	22.34	23.50
		1	2	22.26	22.21	22.24	23.50
		1	5	22.36	22.34	22.35	23.50
		3	0	22.00	21.92	22.01	23.50
		3	2	22.11	22.03	22.08	23.50
		3	3	22.25	22.18	22.20	23.50
		6	0	21.07	21.01	21.06	22.50
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	23.87	23.77	23.84	25.50
		1	7	23.87	23.87	23.97	25.50
		1	14	23.79	23.82	23.95	25.50
		8	0	23.09	23.05	23.09	24.50
		8	4	23.08	23.09	23.16	24.50
		8	7	23.02	23.06	23.10	24.50
		15	0	23.00	23.04	23.07	24.50
	16QAM	1	0	23.18	23.00	22.69	24.50
		1	7	23.22	23.00	22.77	24.50
		1	14	23.17	22.95	22.68	24.50
		8	0	21.99	22.02	21.96	23.50
		8	4	22.03	22.06	22.07	23.50
		8	7	21.99	21.97	22.01	23.50
		15	0	22.01	21.94	22.08	23.50
	64QAM	1	0	22.33	22.29	22.34	23.50
		1	7	22.27	22.20	22.24	23.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20425/826.5	20525/836.5	20625/846.5		
5MHz	QPSK	1	14	22.39	22.32	22.38	23.50	
		8	0	21.11	21.08	21.15	22.50	
		8	4	21.19	21.12	21.18	22.50	
		8	7	21.33	21.26	21.30	22.50	
		15	0	21.08	21.01	21.04	22.50	
		16QAM	1	0	24.08	24.04	24.03	25.50
			1	13	24.11	24.11	24.12	25.50
	1		24	24.07	24.08	24.10	25.50	
	12		0	23.06	23.09	23.11	24.50	
	12		6	23.11	23.19	23.12	24.50	
	12		13	23.08	23.12	23.04	24.50	
	25		0	23.06	23.09	23.09	24.50	
	64QAM	1	0	23.52	23.35	23.26	24.50	
		1	13	23.55	23.36	23.35	24.50	
		1	24	23.56	23.29	23.31	24.50	
		12	0	22.03	21.99	22.12	23.50	
		12	6	22.08	22.07	22.14	23.50	
		12	13	22.04	22.03	22.04	23.50	
		25	0	22.03	22.12	22.03	23.50	
	QPSK	1	0	22.36	22.32	22.34	23.50	
		1	13	22.26	22.23	22.23	23.50	
1		24	22.39	22.31	22.34	23.50		
12		0	21.09	21.01	21.14	22.50		
12		6	21.19	21.11	21.16	22.50		
12		13	21.32	21.25	21.29	22.50		
25		0	21.08	21.01	21.04	22.50		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20450/829	20525/836.5	20600/844		
10MHz	QPSK	1	0	24.16	24.12	24.15	25.50	
		1	25	24.22	24.15	24.19	25.50	
		1	49	24.12	24.15	24.20	25.50	
		25	0	23.05	23.06	23.10	24.50	
		25	13	23.16	23.18	23.15	24.50	
		25	25	23.07	23.16	23.02	24.50	
		50	0	23.11	23.12	23.08	24.50	
	16QAM	1	0	22.97	23.47	23.27	24.50	
		1	25	23.02	23.49	23.27	24.50	
		1	49	22.98	23.49	23.30	24.50	
		25	0	22.07	22.13	22.05	23.50	
		25	13	22.16	22.18	22.17	23.50	
		25	25	22.06	22.18	22.04	23.50	



	64QAM	50	0	22.09	22.10	22.08	23.50
		1	0	22.31	22.25	22.29	23.50
		1	25	22.23	22.18	22.20	23.50
		1	49	22.33	22.26	22.32	23.50
		25	0	21.06	21.00	21.08	22.50
		25	13	21.15	21.08	21.12	22.50
		25	25	21.30	21.21	21.26	22.50
		50	0	21.06	20.97	21.01	22.50

LTE FDD Band 5 DSI-2 (Body SAR)				Conducted 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	23.99	23.92	24.02	25.50	
		1	2	24.07	23.97	24.06	25.50	
		1	5	23.96	23.91	24.07	25.50	
		3	0	24.02	23.97	24.01	25.50	
		3	2	24.07	24.02	24.06	25.50	
		3	3	23.98	23.99	24.00	25.50	
		6	0	23.13	23.14	23.27	24.50	
	16QAM	1	0	23.06	23.06	22.80	24.50	
		1	2	23.12	23.12	22.87	24.50	
		1	5	23.06	23.09	22.82	24.50	
		3	0	23.16	23.21	23.14	24.50	
		3	2	23.15	23.24	23.20	24.50	
		3	3	23.13	23.22	23.16	24.50	
		6	0	22.27	22.25	22.35	23.50	
	64QAM	1	0	22.36	22.30	22.34	23.50	
		1	2	22.26	22.21	22.24	23.50	
		1	5	22.36	22.34	22.35	23.50	
		3	0	22.00	21.92	22.01	23.50	
		3	2	22.11	22.03	22.08	23.50	
		3	3	22.25	22.18	22.20	23.50	
		6	0	21.07	21.01	21.06	22.50	
	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	23.87	23.77	23.84	25.50
1			7	23.87	23.87	23.97	25.50	
1			14	23.79	23.82	23.95	25.50	
8			0	23.09	23.05	23.09	24.50	
8			4	23.08	23.09	23.16	24.50	
8			7	23.02	23.06	23.10	24.50	
15			0	23.00	23.04	23.07	24.50	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20425/826.5	20525/836.5	20625/846.5		
	16QAM	1	0	23.18	23.00	22.69	24.50	
		1	7	23.22	23.00	22.77	24.50	
		1	14	23.17	22.95	22.68	24.50	
		8	0	21.99	22.02	21.96	23.50	
		8	4	22.03	22.06	22.07	23.50	
		8	7	21.99	21.97	22.01	23.50	
		15	0	22.01	21.94	22.08	23.50	
	64QAM	1	0	22.33	22.29	22.34	23.50	
		1	7	22.27	22.20	22.24	23.50	
		1	14	22.39	22.32	22.38	23.50	
		8	0	21.11	21.08	21.15	22.50	
		8	4	21.19	21.12	21.18	22.50	
		8	7	21.33	21.26	21.30	22.50	
		15	0	21.08	21.01	21.04	22.50	
5MHz	QPSK	1	0	24.08	24.04	24.03	25.50	
		1	13	24.11	24.11	24.12	25.50	
		1	24	24.07	24.08	24.10	25.50	
		12	0	23.06	23.09	23.11	24.50	
		12	6	23.11	23.19	23.12	24.50	
		12	13	23.08	23.12	23.04	24.50	
		25	0	23.06	23.09	23.09	24.50	
	16QAM	1	0	23.52	23.35	23.26	24.50	
		1	13	23.55	23.36	23.35	24.50	
		1	24	23.56	23.29	23.31	24.50	
		12	0	22.03	21.99	22.12	23.50	
		12	6	22.08	22.07	22.14	23.50	
		12	13	22.04	22.03	22.04	23.50	
		25	0	22.03	22.12	22.03	23.50	
	64QAM	1	0	22.36	22.32	22.34	23.50	
		1	13	22.26	22.23	22.23	23.50	
		1	24	22.39	22.31	22.34	23.50	
		12	0	21.09	21.01	21.14	22.50	
		12	6	21.19	21.11	21.16	22.50	
		12	13	21.32	21.25	21.29	22.50	
		25	0	21.08	21.01	21.04	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20450/829	20525/836.5	20600/844	
	10MHz	QPSK	1	0	24.16	24.12	24.15	25.50
			1	25	24.22	24.15	24.19	25.50
			1	49	24.12	24.15	24.20	25.50
			25	0	23.05	23.06	23.10	24.50



		25	13	23.16	23.18	23.15	24.50
		25	25	23.07	23.16	23.02	24.50
		50	0	23.11	23.12	23.08	24.50
	16QAM	1	0	22.97	23.47	23.27	24.50
		1	25	23.02	23.49	23.27	24.50
		1	49	22.98	23.49	23.30	24.50
		25	0	22.07	22.13	22.05	23.50
		25	13	22.16	22.18	22.17	23.50
		25	25	22.06	22.18	22.04	23.50
		50	0	22.09	22.10	22.08	23.50
		64QAM	1	0	22.31	22.25	22.29
	1		25	22.23	22.18	22.20	23.50
	1		49	22.33	22.26	22.32	23.50
	25		0	21.06	21.00	21.08	22.50
	25		13	21.15	21.08	21.12	22.50
	25		25	21.30	21.21	21.26	22.50
	50		0	21.06	20.97	21.01	22.50

LTE FDD Band 5 DSI-4 (Body SAR)				Conducted 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	23.21	23.19	23.20	24.50
		1	2	23.28	23.26	23.25	24.50
		1	5	23.21	23.19	23.21	24.50
		3	0	23.31	23.28	23.30	24.50
		3	2	23.27	23.32	23.37	24.50
		3	3	23.24	23.27	23.34	24.50
		6	0	23.40	23.33	23.45	24.50
	16QAM	1	0	23.03	23.26	23.34	24.50
		1	2	23.12	23.31	23.36	24.50
		1	5	23.03	23.28	23.35	24.50
		3	0	23.39	23.36	23.43	24.50
		3	2	23.39	23.40	23.51	24.50
		3	3	23.37	23.37	23.46	24.50
		6	0	22.50	22.47	22.54	23.50
	64QAM	1	0	22.28	22.26	22.33	23.50
		1	2	22.25	22.21	22.30	23.50
		1	5	22.33	22.32	22.39	23.50
		3	0	22.06	21.99	22.12	23.50
		3	2	22.15	22.10	22.21	23.50
		3	3	22.13	22.12	22.16	23.50
		6	0	21.04	21.05	21.11	22.50



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	23.10	23.05	23.05	24.50
		1	7	23.18	23.09	23.18	24.50
		1	14	23.16	23.04	23.13	24.50
		8	0	23.29	23.25	23.28	24.50
		8	4	23.35	23.28	23.37	24.50
		8	7	23.30	23.27	23.32	24.50
		15	0	23.26	23.26	23.31	24.50
	16QAM	1	0	22.93	23.40	23.22	24.50
		1	7	22.97	23.42	23.28	24.50
		1	14	22.92	23.37	23.23	24.50
		8	0	22.18	22.24	22.22	23.50
		8	4	22.24	22.24	22.30	23.50
		8	7	22.23	22.24	22.23	23.50
		15	0	22.30	22.25	22.23	23.50
	64QAM	1	0	22.30	22.27	22.35	23.50
		1	7	22.28	22.23	22.32	23.50
		1	14	22.35	22.31	22.41	23.50
		8	0	21.18	21.13	21.25	22.50
		8	4	21.25	21.22	21.32	22.50
		8	7	21.23	21.24	21.29	22.50
		15	0	21.08	21.10	21.13	22.50
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	23.32	23.31	23.29	24.50
		1	13	23.38	23.35	23.39	24.50
		1	24	23.32	23.30	23.33	24.50
		12	0	23.27	23.32	23.38	24.50
		12	6	23.38	23.38	23.40	24.50
		12	13	23.34	23.33	23.29	24.50
		25	0	23.31	23.33	23.34	24.50
	16QAM	1	0	23.77	23.56	23.53	24.50
		1	13	23.81	23.58	23.61	24.50
		1	24	23.76	23.53	23.54	24.50
		12	0	22.25	22.23	22.33	23.50
		12	6	22.36	22.30	22.37	23.50
		12	13	22.33	22.21	22.29	23.50
		25	0	22.27	22.32	22.27	23.50
	64QAM	1	0	22.28	22.28	22.33	23.50
		1	13	22.25	22.23	22.29	23.50
		1	24	22.36	22.29	22.38	23.50
		12	0	21.15	21.08	21.25	22.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	12	6	21.23	21.18	21.29	22.50
		12	13	21.20	21.19	21.25	22.50
		25	0	21.05	21.05	21.09	22.50
		1	0	23.43	23.39	23.44	24.50
		1	25	23.47	23.41	23.49	24.50
		1	49	23.41	23.38	23.46	24.50
		25	0	23.34	23.30	23.35	24.50
	25	13	23.42	23.41	23.41	24.50	
	25	25	23.34	23.38	23.29	24.50	
	50	0	23.34	23.35	23.33	24.50	
	16QAM	1	0	23.75	23.51	23.22	24.50
		1	25	23.76	23.53	23.24	24.50
		1	49	23.73	23.49	23.25	24.50
		25	0	22.33	22.26	22.35	23.50
		25	13	22.41	22.37	22.38	23.50
		25	25	22.33	22.34	22.28	23.50
		50	0	22.32	22.35	22.28	23.50
	64QAM	1	0	22.25	22.25	22.33	23.50
		1	25	22.26	22.20	22.30	23.50
		1	49	22.36	22.30	22.42	23.50
		25	0	21.17	21.15	21.26	22.50
		25	13	21.23	21.19	21.31	22.50
		25	25	21.21	21.20	21.26	22.50
		50	0	21.05	21.05	21.09	22.50

LTE FDD Band 7 Normal (Full Power)				Conducted 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	24.26	24.26	24.41	25.50
		1	13	24.36	24.51	24.71	25.50
		1	24	24.21	24.36	24.62	25.50
		12	0	23.27	23.31	23.48	24.50
		12	6	23.36	23.48	23.60	24.50
		12	13	23.35	23.32	23.50	24.50
		25	0	23.31	23.31	23.48	24.50
	16QAM	1	0	23.66	23.43	23.58	24.50
		1	13	23.68	23.56	23.81	24.50
		1	24	23.51	23.49	23.63	24.50
		12	0	22.34	22.26	22.51	23.50
		12	6	22.41	22.39	22.61	23.50



		12	13	22.40	22.29	22.52	23.50
		25	0	22.32	22.29	22.44	23.50
	64QAM	1	0	22.28	22.26	22.38	23.50
		1	13	22.35	22.31	22.41	23.50
		1	24	22.20	22.14	22.25	23.50
		12	0	21.08	21.03	21.16	22.50
		12	6	21.15	21.11	21.23	22.50
		12	13	21.06	21.03	21.12	22.50
		25	0	20.99	20.97	21.05	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	24.27	24.30	24.43	25.50
		1	25	24.38	24.52	24.74	25.50
		1	49	24.24	24.41	24.66	25.50
		25	0	23.29	23.35	23.51	24.50
		25	13	23.39	23.53	23.64	24.50
		25	25	23.38	23.35	23.54	24.50
		50	0	23.33	23.35	23.53	24.50
	16QAM	1	0	23.71	23.45	23.60	24.50
		1	25	23.70	23.59	23.83	24.50
		1	49	23.54	23.53	23.66	24.50
		25	0	22.37	22.28	22.54	23.50
		25	13	22.44	22.44	22.65	23.50
		25	25	22.42	22.33	22.55	23.50
		50	0	22.35	22.34	22.48	23.50
	64QAM	1	0	22.33	22.28	22.40	23.50
		1	25	22.37	22.34	22.43	23.50
		1	49	22.19	22.15	22.24	23.50
		25	0	21.09	21.01	21.15	22.50
		25	13	21.17	21.14	21.24	22.50
		25	25	21.08	21.07	21.15	22.50
		50	0	21.02	21.02	21.09	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	24.28	24.31	24.44	25.50
		1	38	24.37	24.51	24.73	25.50
		1	74	24.25	24.42	24.67	25.50
		36	0	23.29	23.35	23.51	24.50
		36	18	23.38	23.52	23.65	24.50
		36	39	23.38	23.33	23.53	24.50
		75	0	23.29	23.34	23.51	24.50
	16QAM	1	0	23.72	23.46	23.61	24.50
		1	38	23.70	23.57	23.83	24.50



		1	74	23.54	23.53	23.67	24.50
		36	0	22.36	22.27	22.53	23.50
		36	18	22.45	22.45	22.66	23.50
		36	39	22.42	22.33	22.55	23.50
		75	0	22.34	22.33	22.49	23.50
	64QAM	1	0	22.34	22.29	22.41	23.50
		1	38	22.37	22.32	22.43	23.50
		1	74	22.19	22.15	22.25	23.50
		36	0	21.08	21.00	21.14	22.50
		36	18	21.18	21.15	21.25	22.50
		36	39	21.08	21.07	21.15	22.50
		75	0	21.01	21.01	21.10	22.50
		Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)	
20850/2510	21100/2535					21350/2560	
20MHz	QPSK	1	0	24.23	24.22	24.38	25.50
		1	50	24.35	24.47	24.69	25.50
		1	99	24.19	24.35	24.59	25.50
		50	0	23.24	23.26	23.44	24.50
		50	25	23.34	23.44	23.57	24.50
		50	50	23.32	23.27	23.46	24.50
		100	0	23.28	23.26	23.44	24.50
	16QAM	1	0	23.45	23.39	23.53	24.50
		1	50	23.64	23.54	23.77	24.50
		1	99	23.49	23.46	23.61	24.50
		50	0	22.31	22.22	22.48	23.50
		50	25	22.38	22.37	22.58	23.50
		50	50	22.37	22.24	22.48	23.50
		100	0	22.30	22.25	22.41	23.50
	64QAM	1	0	22.26	22.22	22.33	23.50
		1	50	22.31	22.29	22.37	23.50
		1	99	22.14	22.08	22.19	23.50
		50	0	21.03	20.95	21.09	22.50
		50	25	21.11	21.07	21.17	22.50
		50	50	21.03	20.98	21.08	22.50
		100	0	20.97	20.93	21.02	22.50

LTE FDD Band 7 DSI-1 (Head SAR)				Conducted 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	24.26	24.26	24.41	25.50
		1	13	24.36	24.51	24.71	25.50
		1	24	24.21	24.36	24.62	25.50



		12	0	23.27	23.31	23.48	24.50	
		12	6	23.36	23.48	23.60	24.50	
		12	13	23.35	23.32	23.50	24.50	
		25	0	23.31	23.31	23.48	24.50	
	16QAM	1	0	23.66	23.43	23.58	24.50	
		1	13	23.68	23.56	23.81	24.50	
		1	24	23.51	23.49	23.63	24.50	
		12	0	22.34	22.26	22.51	23.50	
		12	6	22.41	22.39	22.61	23.50	
		12	13	22.40	22.29	22.52	23.50	
		25	0	22.32	22.29	22.44	23.50	
	64QAM	1	0	22.28	22.26	22.38	23.50	
		1	13	22.35	22.31	22.41	23.50	
		1	24	22.20	22.14	22.25	23.50	
		12	0	21.08	21.03	21.16	22.50	
		12	6	21.15	21.11	21.23	22.50	
		12	13	21.06	21.03	21.12	22.50	
		25	0	20.99	20.97	21.05	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20800/2505	21100/2535	21400/2565	
	10MHz	QPSK	1	0	24.27	24.30	24.43	25.50
1			25	24.38	24.52	24.74	25.50	
1			49	24.24	24.41	24.66	25.50	
25			0	23.29	23.35	23.51	24.50	
25			13	23.39	23.53	23.64	24.50	
25			25	23.38	23.35	23.54	24.50	
50			0	23.33	23.35	23.53	24.50	
16QAM		1	0	23.71	23.45	23.60	24.50	
		1	25	23.70	23.59	23.83	24.50	
		1	49	23.54	23.53	23.66	24.50	
		25	0	22.37	22.28	22.54	23.50	
		25	13	22.44	22.44	22.65	23.50	
		25	25	22.42	22.33	22.55	23.50	
		50	0	22.35	22.34	22.48	23.50	
64QAM		1	0	22.33	22.28	22.40	23.50	
		1	25	22.37	22.34	22.43	23.50	
		1	49	22.19	22.15	22.24	23.50	
		25	0	21.09	21.01	21.15	22.50	
		25	13	21.17	21.14	21.24	22.50	
		25	25	21.08	21.07	21.15	22.50	
		50	0	21.02	21.02	21.09	22.50	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	24.28	24.31	24.44	25.50
		1	38	24.37	24.51	24.73	25.50
		1	74	24.25	24.42	24.67	25.50
		36	0	23.29	23.35	23.51	24.50
		36	18	23.38	23.52	23.65	24.50
		36	39	23.38	23.33	23.53	24.50
		75	0	23.29	23.34	23.51	24.50
	16QAM	1	0	23.72	23.46	23.61	24.50
		1	38	23.70	23.57	23.83	24.50
		1	74	23.54	23.53	23.67	24.50
		36	0	22.36	22.27	22.53	23.50
		36	18	22.45	22.45	22.66	23.50
		36	39	22.42	22.33	22.55	23.50
		75	0	22.34	22.33	22.49	23.50
	64QAM	1	0	22.34	22.29	22.41	23.50
		1	38	22.37	22.32	22.43	23.50
		1	74	22.19	22.15	22.25	23.50
		36	0	21.08	21.00	21.14	22.50
		36	18	21.18	21.15	21.25	22.50
		36	39	21.08	21.07	21.15	22.50
		75	0	21.01	21.01	21.10	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	24.23	24.22	24.38	25.50
		1	50	24.35	24.47	24.69	25.50
		1	99	24.19	24.35	24.59	25.50
		50	0	23.24	23.26	23.44	24.50
		50	25	23.34	23.44	23.57	24.50
		50	50	23.32	23.27	23.46	24.50
		100	0	23.28	23.26	23.44	24.50
	16QAM	1	0	23.45	23.39	23.53	24.50
		1	50	23.64	23.54	23.77	24.50
		1	99	23.49	23.46	23.61	24.50
		50	0	22.31	22.22	22.48	23.50
		50	25	22.38	22.37	22.58	23.50
		50	50	22.37	22.24	22.48	23.50
		100	0	22.30	22.25	22.41	23.50
	64QAM	1	0	22.26	22.22	22.33	23.50
		1	50	22.31	22.29	22.37	23.50
		1	99	22.14	22.08	22.19	23.50
		50	0	21.03	20.95	21.09	22.50



		50	25	21.11	21.07	21.17	22.50
		50	50	21.03	20.98	21.08	22.50
		100	0	20.97	20.93	21.02	22.50

LTE FDD Band 7 DSI-2 (Body SAR)				Conducted 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	24.26	24.26	24.41	25.50
		1	13	24.36	24.51	24.71	25.50
		1	24	24.21	24.36	24.62	25.50
		12	0	23.27	23.31	23.48	24.50
		12	6	23.36	23.48	23.60	24.50
		12	13	23.35	23.32	23.50	24.50
		25	0	23.31	23.31	23.48	24.50
	16QAM	1	0	23.66	23.43	23.58	24.50
		1	13	23.68	23.56	23.81	24.50
		1	24	23.51	23.49	23.63	24.50
		12	0	22.34	22.26	22.51	23.50
		12	6	22.41	22.39	22.61	23.50
		12	13	22.40	22.29	22.52	23.50
		25	0	22.32	22.29	22.44	23.50
	64QAM	1	0	22.28	22.26	22.38	23.50
		1	13	22.35	22.31	22.41	23.50
		1	24	22.20	22.14	22.25	23.50
		12	0	21.08	21.03	21.16	22.50
		12	6	21.15	21.11	21.23	22.50
		12	13	21.06	21.03	21.12	22.50
		25	0	20.99	20.97	21.05	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	24.27	24.30	24.43	25.50
		1	25	24.38	24.52	24.74	25.50
		1	49	24.24	24.41	24.66	25.50
		25	0	23.29	23.35	23.51	24.50
		25	13	23.39	23.53	23.64	24.50
		25	25	23.38	23.35	23.54	24.50
		50	0	23.33	23.35	23.53	24.50
	16QAM	1	0	23.71	23.45	23.60	24.50
		1	25	23.70	23.59	23.83	24.50
		1	49	23.54	23.53	23.66	24.50
		25	0	22.37	22.28	22.54	23.50
		25	13	22.44	22.44	22.65	23.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
	64QAM	25	25	22.42	22.33	22.55	23.50
		50	0	22.35	22.34	22.48	23.50
		1	0	22.33	22.28	22.40	23.50
		1	25	22.37	22.34	22.43	23.50
		1	49	22.19	22.15	22.24	23.50
		25	0	21.09	21.01	21.15	22.50
		25	13	21.17	21.14	21.24	22.50
		25	25	21.08	21.07	21.15	22.50
		50	0	21.02	21.02	21.09	22.50
15MHz	QPSK	1	0	24.28	24.31	24.44	25.50
		1	38	24.37	24.51	24.73	25.50
		1	74	24.25	24.42	24.67	25.50
		36	0	23.29	23.35	23.51	24.50
		36	18	23.38	23.52	23.65	24.50
		36	39	23.38	23.33	23.53	24.50
		75	0	23.29	23.34	23.51	24.50
	16QAM	1	0	23.72	23.46	23.61	24.50
		1	38	23.70	23.57	23.83	24.50
		1	74	23.54	23.53	23.67	24.50
		36	0	22.36	22.27	22.53	23.50
		36	18	22.45	22.45	22.66	23.50
		36	39	22.42	22.33	22.55	23.50
		75	0	22.34	22.33	22.49	23.50
	64QAM	1	0	22.34	22.29	22.41	23.50
		1	38	22.37	22.32	22.43	23.50
		1	74	22.19	22.15	22.25	23.50
		36	0	21.08	21.00	21.14	22.50
		36	18	21.18	21.15	21.25	22.50
		36	39	21.08	21.07	21.15	22.50
		75	0	21.01	21.01	21.10	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	24.23	24.22	24.38	25.50
		1	50	24.35	24.47	24.69	25.50
		1	99	24.19	24.35	24.59	25.50
		50	0	23.24	23.26	23.44	24.50
		50	25	23.34	23.44	23.57	24.50
		50	50	23.32	23.27	23.46	24.50
		100	0	23.28	23.26	23.44	24.50
	16QAM	1	0	23.45	23.39	23.53	24.50
		1	50	23.64	23.54	23.77	24.50



		1	99	23.49	23.46	23.61	24.50
		50	0	22.31	22.22	22.48	23.50
		50	25	22.38	22.37	22.58	23.50
		50	50	22.37	22.24	22.48	23.50
		100	0	22.30	22.25	22.41	23.50
	64QAM	1	0	22.26	22.22	22.33	23.50
		1	50	22.31	22.29	22.37	23.50
		1	99	22.14	22.08	22.19	23.50
		50	0	21.03	20.95	21.09	22.50
		50	25	21.11	21.07	21.17	22.50
		50	50	21.03	20.98	21.08	22.50
		100	0	20.97	20.93	21.02	22.50

LTE FDD Band 7 DSI-4 (Body SAR)				Conducted 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	19.73	19.76	19.89	21.00
		1	13	19.86	19.85	20.05	21.00
		1	24	19.72	19.77	19.94	21.00
		12	0	19.75	19.75	19.97	21.00
		12	6	19.82	19.82	20.03	21.00
		12	13	19.79	19.74	20.01	21.00
		25	0	19.77	19.74	19.98	21.00
	16QAM	1	0	20.05	20.24	20.19	21.00
		1	13	20.12	20.31	20.32	21.00
		1	24	20.03	20.25	20.22	21.00
		12	0	19.77	19.74	19.90	21.00
		12	6	19.85	19.79	19.94	21.00
		12	13	19.80	19.71	19.91	21.00
		25	0	19.75	19.73	19.99	21.00
	64QAM	1	0	20.05	20.24	20.20	21.00
		1	13	20.13	20.32	20.32	21.00
		1	24	20.04	20.24	20.22	21.00
		12	0	19.77	19.73	19.92	21.00
		12	6	19.84	19.79	19.94	21.00
		12	13	19.79	19.73	19.91	21.00
		25	0	19.73	19.72	19.97	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
10MHz	QPSK			20800/2505	21100/2535	21400/2565	
		1	0	19.84	19.84	20.00	21.00
		1	25	19.91	19.89	20.05	21.00
		1	49	19.80	19.84	20.02	21.00



		25	0	19.74	19.75	19.97	21.00	
		25	13	19.84	19.83	19.99	21.00	
		25	25	19.77	19.79	19.99	21.00	
		50	0	19.76	19.80	19.97	21.00	
	16QAM	1	0	19.72	20.22	20.15	21.00	
		1	25	19.77	20.25	20.21	21.00	
		1	49	19.70	20.23	20.17	21.00	
		25	0	19.76	19.79	19.97	21.00	
		25	13	19.81	19.85	20.02	21.00	
		25	25	19.78	19.80	19.99	21.00	
		50	0	19.74	19.77	19.97	21.00	
	64QAM	1	0	19.72	20.19	20.15	21.00	
		1	25	19.75	20.26	20.19	21.00	
		1	49	19.70	20.25	20.16	21.00	
		25	0	19.78	19.78	19.98	21.00	
		25	13	19.83	19.83	20.01	21.00	
		25	25	19.76	19.81	20.00	21.00	
		50	0	19.75	19.78	19.98	21.00	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20825/2507.5	21100/2535	21375/2562.5	
	15MHz	QPSK	1	0	19.71	19.78	19.87	21.00
1			38	19.80	19.87	20.05	21.00	
1			74	19.78	19.83	19.98	21.00	
36			0	19.75	19.76	19.94	21.00	
36			18	19.80	19.86	20.02	21.00	
36			39	19.79	19.80	19.97	21.00	
75			0	19.75	19.83	19.98	21.00	
16QAM		1	0	19.84	20.13	20.03	21.00	
		1	38	19.92	20.22	20.17	21.00	
		1	74	19.92	20.18	20.13	21.00	
		36	0	19.71	19.78	19.97	21.00	
		36	18	19.77	19.88	20.05	21.00	
		36	39	19.75	19.82	20.05	21.00	
		75	0	19.79	19.77	19.96	21.00	
64QAM		1	0	19.85	20.15	20.04	21.00	
		1	38	19.94	20.20	20.16	21.00	
		1	74	19.93	20.20	20.15	21.00	
		36	0	19.72	19.78	19.98	21.00	
		36	18	19.77	19.88	20.05	21.00	
		36	39	19.76	19.83	20.04	21.00	
		75	0	19.77	19.80	19.95	21.00	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	19.69	19.68	19.80	21.00
		1	50	19.83	19.90	20.06	21.00
		1	99	19.69	19.74	19.90	21.00
		50	0	19.70	19.70	19.92	21.00
		50	25	19.81	19.87	20.02	21.00
		50	50	19.81	19.76	19.94	21.00
		100	0	19.76	19.73	19.92	21.00
	16QAM	1	0	19.93	19.96	20.01	21.00
		1	50	20.11	20.16	20.28	21.00
		1	99	19.97	20.03	20.12	21.00
		50	0	19.72	19.73	19.85	21.00
		50	25	19.84	19.87	19.97	21.00
		50	50	19.84	19.78	19.90	21.00
		100	0	19.74	19.72	19.89	21.00
	64QAM	1	0	19.92	19.95	20.04	21.00
		1	50	20.10	20.17	20.28	21.00
		1	99	19.94	20.05	20.11	21.00
		50	0	19.71	19.71	19.87	21.00
		50	25	19.84	19.89	19.96	21.00
		50	50	19.85	19.78	19.89	21.00
		100	0	19.74	19.71	19.89	21.00

LTE TDD Band 38 Normal (Full Power)				Conducted 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	24.32	24.40	24.29	25.50
		1	13	24.52	24.62	24.59	25.50
		1	24	24.43	24.52	24.46	25.50
		12	0	23.34	23.45	23.54	24.50
		12	6	23.57	23.66	23.58	24.50
		12	13	23.53	23.59	23.53	24.50
		25	0	23.40	23.54	23.55	24.50
	16QAM	1	0	23.69	23.42	23.49	24.50
		1	13	23.67	23.62	23.70	24.50
		1	24	23.65	23.64	23.70	24.50
		12	0	22.59	22.55	22.61	23.50
		12	6	22.75	22.74	22.81	23.50
		12	13	22.69	22.68	22.75	23.50
	64QAM	25	0	22.51	22.51	22.60	23.50
		1	0	21.69	21.64	21.72	23.50



		1	13	21.89	21.84	21.90	23.50
		1	24	21.61	21.57	21.63	23.50
		12	0	21.24	21.16	21.21	22.50
		12	6	21.26	21.23	21.31	22.50
		12	13	21.23	21.22	21.29	22.50
		25	0	21.19	21.19	21.27	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	24.13	24.13	24.16	25.50
		1	25	24.24	24.38	24.34	25.50
		1	49	24.18	24.19	24.12	25.50
		25	0	23.33	23.41	23.31	24.50
		25	13	23.23	23.12	23.21	24.50
		25	25	23.27	23.26	23.29	24.50
		50	0	23.22	23.30	23.37	24.50
	16QAM	1	0	23.60	23.33	23.37	24.50
		1	25	23.62	23.41	23.46	24.50
		1	49	23.61	23.42	23.41	24.50
		25	0	22.16	22.32	22.22	23.50
		25	13	22.28	22.39	22.32	23.50
		25	25	22.33	22.35	22.30	23.50
		50	0	22.21	22.29	22.37	23.50
	64QAM	1	0	21.63	21.61	22.61	23.50
		1	25	21.87	21.83	22.72	23.50
		1	49	21.62	21.56	22.63	23.50
		25	0	21.24	21.19	21.47	22.50
		25	13	21.23	21.19	21.44	22.50
		25	25	21.21	21.18	21.37	22.50
		50	0	21.17	21.15	21.22	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	24.14	24.17	24.18	25.50
		1	38	24.26	24.39	24.37	25.50
		1	74	24.21	24.24	24.16	25.50
		36	0	23.35	23.45	23.34	24.50
		36	18	23.26	23.17	23.25	24.50
		36	39	23.30	23.29	23.33	24.50
		75	0	23.24	23.34	23.42	24.50
	16QAM	1	0	23.65	23.35	23.39	24.50
		1	38	23.64	23.44	23.48	24.50
		1	74	23.64	23.46	23.44	24.50
		36	0	22.19	22.34	22.25	23.50
		36	18	22.31	22.44	22.36	23.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
	64QAM	36	39	22.35	22.39	22.33	23.50
		75	0	22.24	22.34	22.41	23.50
		1	0	21.68	21.63	22.63	23.50
		1	38	21.89	21.86	22.74	23.50
		1	74	21.61	21.57	22.62	23.50
		36	0	21.25	21.17	21.46	22.50
		36	18	21.25	21.22	21.30	22.50
		36	39	21.23	21.22	21.40	22.50
		75	0	21.20	21.20	21.39	22.50
		20MHz	QPSK	1	0	24.27	24.31
1	50			24.50	24.58	24.55	25.50
1	99			24.37	24.45	24.38	25.50
50	0			23.29	23.36	23.47	24.50
50	25			23.53	23.58	23.50	24.50
50	50			23.47	23.53	23.46	24.50
100	0			23.39	23.46	23.48	24.50
16QAM	1		0	23.39	23.35	23.41	24.50
	1		50	23.61	23.59	23.64	24.50
	1		99	23.60	23.57	23.64	24.50
	50		0	22.54	22.50	22.56	23.50
	50		25	22.68	22.66	22.73	23.50
	50		50	22.64	22.59	22.68	23.50
	100		0	22.47	22.43	22.52	23.50
64QAM	1		0	21.61	21.57	21.64	23.50
	1		50	21.83	21.81	21.84	23.50
	1		99	21.56	21.78	21.57	23.50
	50		0	21.19	21.11	21.16	22.50
	50		25	21.19	21.15	21.23	22.50
	50		50	21.18	21.13	21.22	22.50
	100		0	21.15	21.11	21.19	22.50

LTE TDD Band 38 DSI-1 (Head SAR)				Conducted 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	24.32	24.40	24.29	25.50
		1	13	24.52	24.62	24.59	25.50
		1	24	24.43	24.52	24.46	25.50
		12	0	23.34	23.45	23.54	24.50
		12	6	23.57	23.66	23.58	24.50
		12	13	23.53	23.59	23.53	24.50



	16QAM	25	0	23.40	23.54	23.55	24.50
		1	0	23.69	23.42	23.49	24.50
		1	13	23.67	23.62	23.70	24.50
		1	24	23.65	23.64	23.70	24.50
		12	0	22.59	22.55	22.61	23.50
		12	6	22.75	22.74	22.81	23.50
		12	13	22.69	22.68	22.75	23.50
		25	0	22.51	22.51	22.60	23.50
	64QAM	1	0	21.69	21.64	21.72	23.50
		1	13	21.89	21.84	21.90	23.50
		1	24	21.61	21.57	21.63	23.50
		12	0	21.24	21.16	21.21	22.50
		12	6	21.26	21.23	21.31	22.50
		12	13	21.23	21.22	21.29	22.50
25	0	21.19	21.19	21.27	22.50		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	24.13	24.13	24.16	25.50
		1	25	24.24	24.38	24.34	25.50
		1	49	24.18	24.19	24.12	25.50
		25	0	23.33	23.41	23.31	24.50
		25	13	23.23	23.12	23.21	24.50
		25	25	23.27	23.26	23.29	24.50
		50	0	23.22	23.30	23.37	24.50
	16QAM	1	0	23.60	23.33	23.37	24.50
		1	25	23.62	23.41	23.46	24.50
		1	49	23.61	23.42	23.41	24.50
		25	0	22.16	22.32	22.22	23.50
		25	13	22.28	22.39	22.32	23.50
		25	25	22.33	22.35	22.30	23.50
		50	0	22.21	22.29	22.37	23.50
	64QAM	1	0	21.63	21.61	22.61	23.50
		1	25	21.87	21.83	22.72	23.50
		1	49	21.62	21.56	22.63	23.50
		25	0	21.24	21.19	21.47	22.50
		25	13	21.23	21.19	21.44	22.50
		25	25	21.21	21.18	21.37	22.50
		50	0	21.17	21.15	21.22	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	24.14	24.17	24.18	25.50
		1	38	24.26	24.39	24.37	25.50
		1	74	24.21	24.24	24.16	25.50



		36	0	23.35	23.45	23.34	24.50	
		36	18	23.26	23.17	23.25	24.50	
		36	39	23.30	23.29	23.33	24.50	
		75	0	23.24	23.34	23.42	24.50	
	16QAM	1	0	23.65	23.35	23.39	24.50	
		1	38	23.64	23.44	23.48	24.50	
		1	74	23.64	23.46	23.44	24.50	
		36	0	22.19	22.34	22.25	23.50	
		36	18	22.31	22.44	22.36	23.50	
		36	39	22.35	22.39	22.33	23.50	
		75	0	22.24	22.34	22.41	23.50	
	64QAM	1	0	21.68	21.63	22.63	23.50	
		1	38	21.89	21.86	22.74	23.50	
		1	74	21.61	21.57	22.62	23.50	
		36	0	21.25	21.17	21.46	22.50	
		36	18	21.25	21.22	21.30	22.50	
		36	39	21.23	21.22	21.40	22.50	
		75	0	21.20	21.20	21.39	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					37850/2580	38000/2595	38150/2610	
	20MHz	QPSK	1	0	24.27	24.31	24.23	25.50
1			50	24.50	24.58	24.55	25.50	
1			99	24.37	24.45	24.38	25.50	
50			0	23.29	23.36	23.47	24.50	
50			25	23.53	23.58	23.50	24.50	
50			50	23.47	23.53	23.46	24.50	
100			0	23.39	23.46	23.48	24.50	
16QAM		1	0	23.39	23.35	23.41	24.50	
		1	50	23.61	23.59	23.64	24.50	
		1	99	23.60	23.57	23.64	24.50	
		50	0	22.54	22.50	22.56	23.50	
		50	25	22.68	22.66	22.73	23.50	
		50	50	22.64	22.59	22.68	23.50	
		100	0	22.47	22.43	22.52	23.50	
64QAM		1	0	21.61	21.57	21.64	23.50	
		1	50	21.83	21.81	21.84	23.50	
		1	99	21.56	21.78	21.57	23.50	
		50	0	21.19	21.11	21.16	22.50	
		50	25	21.19	21.15	21.23	22.50	
		50	50	21.18	21.13	21.22	22.50	
		100	0	21.15	21.11	21.19	22.50	



LTE TDD Band 38 DSI-2 (Body SAR)				Conducted 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	24.32	24.40	24.29	25.50
		1	13	24.52	24.62	24.59	25.50
		1	24	24.43	24.52	24.46	25.50
		12	0	23.34	23.45	23.54	24.50
		12	6	23.57	23.66	23.58	24.50
		12	13	23.53	23.59	23.53	24.50
		25	0	23.40	23.54	23.55	24.50
	16QAM	1	0	23.69	23.42	23.49	24.50
		1	13	23.67	23.62	23.70	24.50
		1	24	23.65	23.64	23.70	24.50
		12	0	22.59	22.55	22.61	23.50
		12	6	22.75	22.74	22.81	23.50
		12	13	22.69	22.68	22.75	23.50
		25	0	22.51	22.51	22.60	23.50
	64QAM	1	0	21.69	21.64	21.72	23.50
		1	13	21.89	21.84	21.90	23.50
		1	24	21.61	21.57	21.63	23.50
		12	0	21.24	21.16	21.21	22.50
		12	6	21.26	21.23	21.31	22.50
		12	13	21.23	21.22	21.29	22.50
		25	0	21.19	21.19	21.27	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	24.13	24.13	24.16	25.50
		1	25	24.24	24.38	24.34	25.50
		1	49	24.18	24.19	24.12	25.50
		25	0	23.33	23.41	23.31	24.50
		25	13	23.23	23.12	23.21	24.50
		25	25	23.27	23.26	23.29	24.50
		50	0	23.22	23.30	23.37	24.50
	16QAM	1	0	23.60	23.33	23.37	24.50
		1	25	23.62	23.41	23.46	24.50
		1	49	23.61	23.42	23.41	24.50
		25	0	22.16	22.32	22.22	23.50
		25	13	22.28	22.39	22.32	23.50
		25	25	22.33	22.35	22.30	23.50
		50	0	22.21	22.29	22.37	23.50
	64QAM	1	0	21.63	21.61	22.61	23.50
1		25	21.87	21.83	22.72	23.50	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				37825/2577.5	38000/2595	38175/2612.5		
		1	49	21.62	21.56	22.63	23.50	
		25	0	21.24	21.19	21.47	22.50	
		25	13	21.23	21.19	21.44	22.50	
		25	25	21.21	21.18	21.37	22.50	
		50	0	21.17	21.15	21.22	22.50	
15MHz	QPSK	1	0	24.14	24.17	24.18	25.50	
		1	38	24.26	24.39	24.37	25.50	
		1	74	24.21	24.24	24.16	25.50	
		36	0	23.35	23.45	23.34	24.50	
		36	18	23.26	23.17	23.25	24.50	
		36	39	23.30	23.29	23.33	24.50	
		75	0	23.24	23.34	23.42	24.50	
	16QAM	1	0	23.65	23.35	23.39	24.50	
		1	38	23.64	23.44	23.48	24.50	
		1	74	23.64	23.46	23.44	24.50	
		36	0	22.19	22.34	22.25	23.50	
		36	18	22.31	22.44	22.36	23.50	
		36	39	22.35	22.39	22.33	23.50	
		75	0	22.24	22.34	22.41	23.50	
	64QAM	1	0	21.68	21.63	22.63	23.50	
		1	38	21.89	21.86	22.74	23.50	
		1	74	21.61	21.57	22.62	23.50	
		36	0	21.25	21.17	21.46	22.50	
		36	18	21.25	21.22	21.30	22.50	
		36	39	21.23	21.22	21.40	22.50	
		75	0	21.20	21.20	21.39	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					37850/2580	38000/2595	38150/2610	
	20MHz	QPSK	1	0	24.27	24.31	24.23	25.50
			1	50	24.50	24.58	24.55	25.50
			1	99	24.37	24.45	24.38	25.50
			50	0	23.29	23.36	23.47	24.50
			50	25	23.53	23.58	23.50	24.50
50			50	23.47	23.53	23.46	24.50	
100			0	23.39	23.46	23.48	24.50	
16QAM		1	0	23.39	23.35	23.41	24.50	
		1	50	23.61	23.59	23.64	24.50	
		1	99	23.60	23.57	23.64	24.50	
		50	0	22.54	22.50	22.56	23.50	
		50	25	22.68	22.66	22.73	23.50	
		50	50	22.64	22.59	22.68	23.50	



64QAM	100	0	22.47	22.43	22.52	23.50
	1	0	21.61	21.57	21.64	23.50
	1	50	21.83	21.81	21.84	23.50
	1	99	21.56	21.78	21.57	23.50
	50	0	21.19	21.11	21.16	22.50
	50	25	21.19	21.15	21.23	22.50
	50	50	21.18	21.13	21.22	22.50
	100	0	21.15	21.11	21.19	22.50

LTE TDD Band 38 DSI-4 (Body SAR)				Conducted 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	22.11	22.18	22.16	23.00	
		1	13	22.37	22.38	22.37	23.00	
		1	24	22.19	22.16	22.12	23.00	
		12	0	22.23	22.28	22.26	23.00	
		12	6	22.34	22.38	22.36	23.00	
		12	13	22.27	22.30	22.25	23.00	
		25	0	22.22	22.34	22.27	23.00	
	16QAM	1	0	22.68	22.37	22.47	23.00	
		1	13	22.66	22.60	22.70	23.00	
		1	24	22.40	22.45	22.44	23.00	
		12	0	22.22	22.28	22.31	23.00	
		12	6	22.32	22.45	22.42	23.00	
		12	13	22.24	22.36	22.32	23.00	
		25	0	22.24	22.31	22.28	23.00	
	64QAM	1	0	21.35	21.39	21.30	23.00	
		1	13	21.60	21.66	21.56	23.00	
		1	24	21.57	21.62	21.47	23.00	
		12	0	21.40	21.43	21.36	22.50	
		12	6	21.44	21.47	21.38	22.50	
		12	13	21.39	21.44	21.36	22.50	
		25	0	21.40	21.44	21.38	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					37800/2575	38000/2595	38200/2615	
	10MHz	QPSK	1	0	22.12	22.15	22.17	23.00
1			25	22.38	22.42	22.38	23.00	
1			49	22.18	22.15	22.11	23.00	
25			0	22.24	22.29	22.27	23.00	
25			13	22.34	22.38	22.36	23.00	
25			25	22.26	22.31	22.26	23.00	
50			0	22.24	22.32	22.26	23.00	



	16QAM	1	0	22.65	22.38	22.47	23.00
		1	25	22.67	22.61	22.71	23.00
		1	49	22.40	22.43	22.44	23.00
		25	0	22.22	22.31	22.32	23.00
		25	13	22.31	22.44	22.41	23.00
		25	25	22.25	22.37	22.33	23.00
		50	0	22.24	22.31	22.28	23.00
	64QAM	1	0	21.32	21.36	21.30	23.00
		1	25	21.61	21.63	21.57	23.00
		1	49	21.57	21.63	21.51	23.00
		25	0	21.42	21.50	21.37	22.50
		25	13	21.44	21.48	21.40	22.50
		25	25	21.40	21.45	21.37	22.50
		50	0	21.40	21.44	21.38	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	22.13	22.19	22.19	23.00
		1	38	22.40	22.43	22.41	23.00
		1	74	22.21	22.20	22.15	23.00
		36	0	22.26	22.33	22.30	23.00
		36	18	22.37	22.43	22.40	23.00
		36	39	22.29	22.34	22.30	23.00
		75	0	22.26	22.36	22.31	23.00
	16QAM	1	0	22.70	22.40	22.49	23.00
		1	38	22.69	22.64	22.73	23.00
		1	74	22.43	22.47	22.47	23.00
		36	0	22.25	22.33	22.35	23.00
		36	18	22.34	22.49	22.45	23.00
		36	39	22.27	22.41	22.36	23.00
		75	0	22.27	22.36	22.32	23.00
	64QAM	1	0	21.37	21.38	21.32	23.00
		1	38	21.63	21.66	21.59	23.00
		1	74	21.56	21.64	21.50	23.00
		36	0	21.43	21.48	21.36	22.50
		36	18	21.46	21.51	21.41	22.50
		36	39	21.42	21.49	21.40	22.50
		75	0	21.43	21.49	21.42	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	22.09	22.11	22.14	23.00
		1	50	22.37	22.38	22.36	23.00
		1	99	22.16	22.14	22.08	23.00
		50	0	22.21	22.24	22.23	23.00



		50	25	22.32	22.34	22.33	23.00	
		50	50	22.23	22.26	22.22	23.00	
		100	0	22.21	22.27	22.22	23.00	
	16QAM	1	0	22.33	22.34	22.42	23.00	
		1	50	22.63	22.59	22.67	23.00	
		1	99	22.38	22.40	22.42	23.00	
		50	0	22.19	22.27	22.29	23.00	
		50	25	22.28	22.42	22.38	23.00	
		50	50	22.22	22.32	22.29	23.00	
		100	0	22.22	22.27	22.25	23.00	
		64QAM	1	0	21.30	21.32	21.25	23.00
			1	50	21.57	21.61	21.53	23.00
	1		99	21.51	21.57	21.45	23.00	
	50		0	21.37	21.42	21.30	22.50	
	50		25	21.40	21.44	21.34	22.50	
	50		50	21.37	21.40	21.33	22.50	
	100		0	21.38	21.40	21.35	22.50	

LTE TDD Band 41 Normal (Full Power)				Conducted Power(dBm)				Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				40065/25 37.5	40385/25 69.5	40705/26 01.5	41215/26 52.5	
5MHz	QPSK	1	0	24.25	23.95	23.94	24.03	25.50
		1	13	24.43	24.17	24.14	24.17	25.50
		1	24	24.36	24.14	24.09	24.13	25.50
		12	0	23.49	22.96	23.07	23.20	24.50
		12	6	23.25	23.10	23.12	23.27	24.50
		12	13	23.43	23.13	23.29	23.07	24.50
		25	0	23.41	23.18	23.15	23.16	24.50
	16QAM	1	0	23.42	23.21	22.99	23.45	24.50
		1	13	23.44	23.20	23.20	23.48	24.50
		1	24	23.48	23.15	23.10	23.42	24.50
		12	0	22.52	22.19	22.16	22.49	23.50
		12	6	22.46	22.20	22.32	22.56	23.50
		12	13	22.43	22.19	22.25	22.44	23.50
		25	0	22.51	22.14	22.17	22.49	23.50
	64QAM	1	0	21.88	22.16	22.17	21.86	23.50
		1	13	22.09	22.19	22.35	22.06	23.50
		1	24	21.95	22.21	22.25	21.93	23.50
		12	0	21.34	21.32	21.45	21.30	22.50
		12	6	21.45	21.42	21.47	21.43	22.50
		12	13	21.44	21.44	21.44	21.42	22.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40090/25	40390/25	40690/26	41190/26	
				40	70	00	50	
10MHz	QPSK	25	0	21.36	21.36	21.48	21.34	22.50
		1	0	24.27	23.96	23.97	24.06	25.50
		1	25	24.44	24.22	24.18	24.19	25.50
		1	49	24.40	24.18	24.12	24.18	25.50
		25	0	23.51	23.01	23.11	23.23	24.50
		25	13	23.27	23.15	23.16	23.32	24.50
		25	25	23.46	23.17	23.34	23.10	24.50
	16QAM	50	0	23.39	23.20	23.19	23.19	24.50
		1	0	23.48	23.24	23.01	23.48	24.50
		1	25	23.46	23.24	23.23	23.50	24.50
		1	49	23.51	23.17	23.13	23.46	24.50
		25	0	22.54	22.24	22.20	22.51	23.50
		25	13	22.50	22.24	22.35	22.61	23.50
		25	25	22.45	22.24	22.29	22.47	23.50
	64QAM	50	0	22.53	22.19	22.21	22.54	23.50
		1	0	21.94	22.15	22.19	21.89	23.50
		1	25	22.11	22.19	22.38	22.08	23.50
		1	49	21.94	22.23	22.28	21.93	23.50
		25	0	21.34	21.37	21.45	21.28	22.50
		25	13	21.48	21.46	21.50	21.45	22.50
		25	25	21.46	21.49	21.48	21.45	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40115/25	40395/25	40685/25	41165/26	
				42.5	70.5	99.5	47.5	
15MHz	QPSK	1	0	24.24	23.92	23.95	24.02	25.50
		1	38	24.42	24.21	24.15	24.16	25.50
		1	74	24.37	24.13	24.08	24.14	25.50
		36	0	23.48	22.97	23.08	23.19	24.50
		36	18	23.25	23.10	23.12	23.27	24.50
		36	39	23.44	23.14	23.30	23.06	24.50
		75	0	23.39	23.16	23.14	23.17	24.50
	16QAM	1	0	23.45	23.22	22.99	23.45	24.50
		1	38	23.43	23.21	23.21	23.47	24.50
		1	74	23.48	23.13	23.10	23.42	24.50
		36	0	22.52	22.22	22.17	22.48	23.50
		36	18	22.47	22.19	22.31	22.57	23.50
		36	39	22.42	22.20	22.26	22.43	23.50
		75	0	22.51	22.14	22.17	22.49	23.50
	64QAM	1	0	21.91	22.13	22.17	21.86	23.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit (dBm)
				40140/25 45	40400/25 71	40670/25 98	41140/26 45	
		1	38	22.08	22.16	22.36	22.05	23.50
		1	74	21.95	22.22	22.29	21.89	23.50
		36	0	21.32	21.39	21.46	21.29	22.50
		36	18	21.45	21.43	21.49	21.41	22.50
		36	39	21.43	21.45	21.45	21.41	22.50
		75	0	21.36	21.36	21.48	21.34	22.50
20MHz	QPSK	1	0	24.22	23.88	23.92	24.00	25.50
		1	50	24.42	24.17	24.13	24.15	25.50
		1	99	24.34	24.12	24.05	24.10	25.50
		50	0	23.46	22.92	23.04	23.16	24.50
		50	25	23.23	23.06	23.09	23.24	24.50
		50	50	23.40	23.09	23.26	23.03	24.50
		100	0	23.38	23.11	23.10	23.12	24.50
	16QAM	1	0	23.26	23.18	22.94	23.40	24.50
		1	50	23.40	23.19	23.17	23.44	24.50
		1	99	23.46	23.10	23.08	23.40	24.50
		50	0	22.49	22.18	22.14	22.46	23.50
		50	25	22.43	22.17	22.28	22.53	23.50
		50	50	22.40	22.15	22.22	22.40	23.50
		100	0	22.49	22.10	22.14	22.46	23.50
	64QAM	1	0	21.86	22.09	22.12	21.81	23.50
		1	50	22.05	22.14	22.32	22.02	23.50
		1	99	21.89	22.16	22.23	21.87	23.50
		50	0	21.29	21.31	21.39	21.23	22.50
		50	25	21.41	21.39	21.43	21.37	22.50
		50	50	21.41	21.40	21.41	21.38	22.50
		100	0	21.34	21.32	21.45	21.31	22.50

LTE TDD Band 41 DSI-1 (Head SAR)				Conducted Power(dBm)				Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				40065/25 37.5	40385/25 69.5	40705/26 01.5	41215/26 52.5	
5MHz	QPSK	1	0	24.25	23.95	23.94	24.03	25.50
		1	13	24.43	24.17	24.14	24.17	25.50
		1	24	24.36	24.14	24.09	24.13	25.50
		12	0	23.49	22.96	23.07	23.20	24.50
		12	6	23.25	23.10	23.12	23.27	24.50
		12	13	23.43	23.13	23.29	23.07	24.50
		25	0	23.41	23.18	23.15	23.16	24.50



	16QAM	1	0	23.42	23.21	22.99	23.45	24.50
		1	13	23.44	23.20	23.20	23.48	24.50
		1	24	23.48	23.15	23.10	23.42	24.50
		12	0	22.52	22.19	22.16	22.49	23.50
		12	6	22.46	22.20	22.32	22.56	23.50
		12	13	22.43	22.19	22.25	22.44	23.50
		25	0	22.51	22.14	22.17	22.49	23.50
	64QAM	1	0	21.88	22.16	22.17	21.86	23.50
		1	13	22.09	22.19	22.35	22.06	23.50
		1	24	21.95	22.21	22.25	21.93	23.50
		12	0	21.34	21.32	21.45	21.30	22.50
		12	6	21.45	21.42	21.47	21.43	22.50
		12	13	21.44	21.44	21.44	21.42	22.50
		25	0	21.36	21.36	21.48	21.34	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40090/25 40	40390/25 70	40690/26 00	41190/26 50	
10MHz	QPSK	1	0	24.27	23.96	23.97	24.06	25.50
		1	25	24.44	24.22	24.18	24.19	25.50
		1	49	24.40	24.18	24.12	24.18	25.50
		25	0	23.51	23.01	23.11	23.23	24.50
		25	13	23.27	23.15	23.16	23.32	24.50
		25	25	23.46	23.17	23.34	23.10	24.50
		50	0	23.39	23.20	23.19	23.19	24.50
	16QAM	1	0	23.48	23.24	23.01	23.48	24.50
		1	25	23.46	23.24	23.23	23.50	24.50
		1	49	23.51	23.17	23.13	23.46	24.50
		25	0	22.54	22.24	22.20	22.51	23.50
		25	13	22.50	22.24	22.35	22.61	23.50
		25	25	22.45	22.24	22.29	22.47	23.50
		50	0	22.53	22.19	22.21	22.54	23.50
	64QAM	1	0	21.94	22.15	22.19	21.89	23.50
		1	25	22.11	22.19	22.38	22.08	23.50
		1	49	21.94	22.23	22.28	21.93	23.50
		25	0	21.34	21.37	21.45	21.28	22.50
		25	13	21.48	21.46	21.50	21.45	22.50
		25	25	21.46	21.49	21.48	21.45	22.50
		50	0	21.38	21.41	21.52	21.39	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40115/25 42.5	40395/25 70.5	40685/25 99.5	41165/26 47.5	
15MHz	QPSK	1	0	24.24	23.92	23.95	24.02	25.50
		1	38	24.42	24.21	24.15	24.16	25.50



		1	74	24.37	24.13	24.08	24.14	25.50	
		36	0	23.48	22.97	23.08	23.19	24.50	
		36	18	23.25	23.10	23.12	23.27	24.50	
		36	39	23.44	23.14	23.30	23.06	24.50	
		75	0	23.39	23.16	23.14	23.17	24.50	
	16QAM	1	0	23.45	23.22	22.99	23.45	24.50	
		1	38	23.43	23.21	23.21	23.47	24.50	
		1	74	23.48	23.13	23.10	23.42	24.50	
		36	0	22.52	22.22	22.17	22.48	23.50	
		36	18	22.47	22.19	22.31	22.57	23.50	
		36	39	22.42	22.20	22.26	22.43	23.50	
		75	0	22.51	22.14	22.17	22.49	23.50	
	64QAM	1	0	21.91	22.13	22.17	21.86	23.50	
		1	38	22.08	22.16	22.36	22.05	23.50	
		1	74	21.95	22.22	22.29	21.89	23.50	
		36	0	21.32	21.39	21.46	21.29	22.50	
		36	18	21.45	21.43	21.49	21.41	22.50	
		36	39	21.43	21.45	21.45	21.41	22.50	
		75	0	21.36	21.36	21.48	21.34	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit (dBm)
					40140/2545	40400/2571	40670/2598	41140/2645	
20MHz	QPSK	1	0	24.22	23.88	23.92	24.00	25.50	
		1	50	24.42	24.17	24.13	24.15	25.50	
		1	99	24.34	24.12	24.05	24.10	25.50	
		50	0	23.46	22.92	23.04	23.16	24.50	
		50	25	23.23	23.06	23.09	23.24	24.50	
		50	50	23.40	23.09	23.26	23.03	24.50	
		100	0	23.38	23.11	23.10	23.12	24.50	
	16QAM	1	0	23.26	23.18	22.94	23.40	24.50	
		1	50	23.40	23.19	23.17	23.44	24.50	
		1	99	23.46	23.10	23.08	23.40	24.50	
		50	0	22.49	22.18	22.14	22.46	23.50	
		50	25	22.43	22.17	22.28	22.53	23.50	
		50	50	22.40	22.15	22.22	22.40	23.50	
		100	0	22.49	22.10	22.14	22.46	23.50	
	64QAM	1	0	21.86	22.09	22.12	21.81	23.50	
		1	50	22.05	22.14	22.32	22.02	23.50	
		1	99	21.89	22.16	22.23	21.87	23.50	
		50	0	21.29	21.31	21.39	21.23	22.50	
		50	25	21.41	21.39	21.43	21.37	22.50	
		50	50	21.41	21.40	21.41	21.38	22.50	
		100	0	21.34	21.32	21.45	21.31	22.50	



LTE TDD Band 41 DSI-2 (Body SAR)				Conducted Power(dBm)				Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				40065/25 37.5	40385/25 69.5	40705/26 01.5	41215/26 52.5	
5MHz	QPSK	1	0	24.25	23.95	23.94	24.03	25.50
		1	13	24.43	24.17	24.14	24.17	25.50
		1	24	24.36	24.14	24.09	24.13	25.50
		12	0	23.49	22.96	23.07	23.20	24.50
		12	6	23.25	23.10	23.12	23.27	24.50
		12	13	23.43	23.13	23.29	23.07	24.50
		25	0	23.41	23.18	23.15	23.16	24.50
	16QAM	1	0	23.42	23.21	22.99	23.45	24.50
		1	13	23.44	23.20	23.20	23.48	24.50
		1	24	23.48	23.15	23.10	23.42	24.50
		12	0	22.52	22.19	22.16	22.49	23.50
		12	6	22.46	22.20	22.32	22.56	23.50
		12	13	22.43	22.19	22.25	22.44	23.50
		25	0	22.51	22.14	22.17	22.49	23.50
	64QAM	1	0	21.88	22.16	22.17	21.86	23.50
		1	13	22.09	22.19	22.35	22.06	23.50
		1	24	21.95	22.21	22.25	21.93	23.50
		12	0	21.34	21.32	21.45	21.30	22.50
		12	6	21.45	21.42	21.47	21.43	22.50
		12	13	21.44	21.44	21.44	21.42	22.50
		25	0	21.36	21.36	21.48	21.34	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40090/25 40	40390/25 70	40690/26 00	41190/26 50	
10MHz	QPSK	1	0	24.27	23.96	23.97	24.06	25.50
		1	25	24.44	24.22	24.18	24.19	25.50
		1	49	24.40	24.18	24.12	24.18	25.50
		25	0	23.51	23.01	23.11	23.23	24.50
		25	13	23.27	23.15	23.16	23.32	24.50
		25	25	23.46	23.17	23.34	23.10	24.50
		50	0	23.39	23.20	23.19	23.19	24.50
	16QAM	1	0	23.48	23.24	23.01	23.48	24.50
		1	25	23.46	23.24	23.23	23.50	24.50
		1	49	23.51	23.17	23.13	23.46	24.50
		25	0	22.54	22.24	22.20	22.51	23.50
		25	13	22.50	22.24	22.35	22.61	23.50
		25	25	22.45	22.24	22.29	22.47	23.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40115/25 42.5	40395/25 70.5	40685/25 99.5	41165/26 47.5	
15MHz	64QAM	50	0	22.53	22.19	22.21	22.54	23.50
		1	0	21.94	22.15	22.19	21.89	23.50
		1	25	22.11	22.19	22.38	22.08	23.50
		1	49	21.94	22.23	22.28	21.93	23.50
		25	0	21.34	21.37	21.45	21.28	22.50
		25	13	21.48	21.46	21.50	21.45	22.50
		25	25	21.46	21.49	21.48	21.45	22.50
	50	0	21.38	21.41	21.52	21.39	22.50	
15MHz	QPSK	1	0	24.24	23.92	23.95	24.02	25.50
		1	38	24.42	24.21	24.15	24.16	25.50
		1	74	24.37	24.13	24.08	24.14	25.50
		36	0	23.48	22.97	23.08	23.19	24.50
		36	18	23.25	23.10	23.12	23.27	24.50
		36	39	23.44	23.14	23.30	23.06	24.50
		75	0	23.39	23.16	23.14	23.17	24.50
	16QAM	1	0	23.45	23.22	22.99	23.45	24.50
		1	38	23.43	23.21	23.21	23.47	24.50
		1	74	23.48	23.13	23.10	23.42	24.50
		36	0	22.52	22.22	22.17	22.48	23.50
		36	18	22.47	22.19	22.31	22.57	23.50
		36	39	22.42	22.20	22.26	22.43	23.50
		75	0	22.51	22.14	22.17	22.49	23.50
	64QAM	1	0	21.91	22.13	22.17	21.86	23.50
		1	38	22.08	22.16	22.36	22.05	23.50
		1	74	21.95	22.22	22.29	21.89	23.50
		36	0	21.32	21.39	21.46	21.29	22.50
		36	18	21.45	21.43	21.49	21.41	22.50
		36	39	21.43	21.45	21.45	21.41	22.50
		75	0	21.36	21.36	21.48	21.34	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit (dBm)
				40140/25 45	40400/25 71	40670/25 98	41140/26 45	
20MHz	QPSK	1	0	24.22	23.88	23.92	24.00	25.50
		1	50	24.42	24.17	24.13	24.15	25.50
		1	99	24.34	24.12	24.05	24.10	25.50
		50	0	23.46	22.92	23.04	23.16	24.50
		50	25	23.23	23.06	23.09	23.24	24.50
		50	50	23.40	23.09	23.26	23.03	24.50
		100	0	23.38	23.11	23.10	23.12	24.50
	16QAM	1	0	23.26	23.18	22.94	23.40	24.50



		1	50	23.40	23.19	23.17	23.44	24.50
		1	99	23.46	23.10	23.08	23.40	24.50
		50	0	22.49	22.18	22.14	22.46	23.50
		50	25	22.43	22.17	22.28	22.53	23.50
		50	50	22.40	22.15	22.22	22.40	23.50
		100	0	22.49	22.10	22.14	22.46	23.50
	64QAM	1	0	21.86	22.09	22.12	21.81	23.50
		1	50	22.05	22.14	22.32	22.02	23.50
		1	99	21.89	22.16	22.23	21.87	23.50
		50	0	21.29	21.31	21.39	21.23	22.50
		50	25	21.41	21.39	21.43	21.37	22.50
		50	50	21.41	21.40	21.41	21.38	22.50
		100	0	21.34	21.32	21.45	21.31	22.50

LTE TDD Band 41 DSI-4 (Body SAR)				Conducted Power(dBm)				Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				40065/25 37.5	40385/25 69.5	40705/26 01.5	41215/26 52.5	
5MHz	QPSK	1	0	21.86	21.83	21.88	21.77	23.00
		1	13	22.04	22.04	22.09	21.95	23.00
		1	24	21.91	21.93	22.02	21.81	23.00
		12	0	21.89	21.89	21.94	21.95	23.00
		12	6	22.02	22.01	22.05	21.95	23.00
		12	13	22.01	21.93	22.09	21.83	23.00
		25	0	22.05	22.00	22.02	21.80	23.00
	16QAM	1	0	22.16	22.05	22.03	22.01	23.00
		1	13	22.18	22.19	22.20	22.21	23.00
		1	24	22.04	22.13	22.05	22.08	23.00
		12	0	22.02	21.99	21.96	22.04	23.00
		12	6	22.06	22.06	22.02	22.11	23.00
		12	13	22.12	22.24	22.20	22.17	23.00
		25	0	22.06	22.08	22.03	22.12	23.00
	64QAM	1	0	21.84	21.24	21.20	21.75	23.00
		1	13	22.03	21.47	21.42	21.95	23.00
		1	24	21.88	21.35	21.28	21.81	23.00
		12	0	21.35	21.32	21.35	21.30	22.50
		12	6	21.42	21.34	21.30	21.37	22.50
		12	13	21.39	21.36	21.31	21.33	22.50
		25	0	21.28	21.44	21.38	21.22	22.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40090/25 40	40390/25 70	40690/26 00	41190/26 50	
10MHz	QPSK	1	0	21.88	21.84	21.91	21.80	23.00
		1	25	22.05	22.09	22.13	21.97	23.00
		1	49	21.95	21.97	22.05	21.86	23.00
		25	0	21.91	21.94	21.98	21.98	23.00
		25	13	22.04	22.06	22.09	22.00	23.00
		25	25	22.04	21.97	22.14	21.86	23.00
		50	0	22.03	22.02	22.06	21.83	23.00
	16QAM	1	0	22.22	22.08	22.05	22.04	23.00
		1	25	22.20	22.23	22.23	22.23	23.00
		1	49	22.07	22.15	22.08	22.12	23.00
		25	0	22.04	22.04	22.00	22.06	23.00
		25	13	22.10	22.10	22.05	22.16	23.00
		25	25	22.14	22.29	22.24	22.20	23.00
		50	0	22.08	22.13	22.07	22.17	23.00
	64QAM	1	0	21.90	21.23	21.22	21.78	23.00
		1	25	22.05	21.47	21.45	21.97	23.00
		1	49	21.87	21.37	21.31	21.81	23.00
		25	0	21.35	21.37	21.35	21.28	22.50
		25	13	21.45	21.38	21.33	21.39	22.50
		25	25	21.41	21.41	21.35	21.36	22.50
		50	0	21.30	21.49	21.42	21.27	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40115/25 42.5	40395/25 70.5	40685/25 99.5	41165/26 47.5	
15MHz	QPSK	1	0	21.85	21.80	21.89	21.76	23.00
		1	38	22.03	22.08	22.10	21.94	23.00
		1	74	21.92	21.92	22.01	21.82	23.00
		36	0	21.88	21.90	21.95	21.94	23.00
		36	18	22.02	22.01	22.05	21.95	23.00
		36	39	22.02	21.94	22.10	21.82	23.00
		75	0	22.03	21.98	22.01	21.81	23.00
	16QAM	1	0	22.19	22.06	22.03	22.01	23.00
		1	38	22.17	22.20	22.21	22.20	23.00
		1	74	22.04	22.11	22.05	22.08	23.00
		36	0	22.02	22.02	21.97	22.03	23.00
		36	18	22.07	22.05	22.01	22.12	23.00
		36	39	22.11	22.25	22.21	22.16	23.00
		75	0	22.06	22.08	22.03	22.12	23.00
	64QAM	1	0	21.87	21.21	21.20	21.75	23.00
		1	38	22.02	21.44	21.43	21.94	23.00



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit (dBm)
				40140/2545	40400/2571	40670/2598	41140/2645	
		1	74	21.88	21.36	21.32	21.77	23.00
		36	0	21.33	21.39	21.36	21.29	22.50
		36	18	21.42	21.35	21.32	21.35	22.50
		36	39	21.38	21.37	21.32	21.32	22.50
		75	0	21.28	21.44	21.38	21.22	22.50
20MHz	QPSK	1	0	21.83	21.76	21.86	21.74	23.00
		1	50	22.03	22.04	22.08	21.93	23.00
		1	99	21.89	21.91	21.98	21.78	23.00
		50	0	21.86	21.85	21.91	21.91	23.00
		50	25	22.00	21.97	22.02	21.92	23.00
		50	50	21.98	21.89	22.06	21.79	23.00
		100	0	22.02	21.93	21.97	21.76	23.00
	16QAM	1	0	21.94	22.02	21.98	21.96	23.00
		1	50	22.14	22.18	22.17	22.17	23.00
		1	99	22.02	22.08	22.03	22.06	23.00
		50	0	21.99	21.98	21.94	22.01	23.00
		50	25	22.03	22.03	21.98	22.08	23.00
		50	50	22.09	22.20	22.17	22.13	23.00
		100	0	22.04	22.04	22.00	22.09	23.00
	64QAM	1	0	21.82	21.17	21.15	21.70	23.00
		1	50	21.99	21.42	21.39	21.91	23.00
		1	99	21.82	21.30	21.26	21.75	23.00
		50	0	21.30	21.31	21.29	21.23	22.50
		50	25	21.38	21.31	21.26	21.31	22.50
		50	50	21.36	21.32	21.28	21.29	22.50
		100	0	21.26	21.40	21.35	21.19	22.50



DIV-Antenna

LTE FDD Band 2 Normal (Full Power)				Conducted 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	24.20	24.26	24.13	25.50
		1	2	24.31	24.23	24.28	25.50
		1	5	24.04	23.96	24.13	25.50
		3	0	24.01	24.26	24.24	25.50
		3	2	24.22	24.28	24.25	25.50
		3	3	24.19	24.30	24.14	25.50
		6	0	23.14	23.30	23.29	24.50
	16QAM	1	0	23.42	23.71	23.23	24.50
		1	2	23.40	23.42	23.29	24.50
		1	5	23.27	23.24	23.23	24.50
		3	0	23.01	23.19	23.26	24.50
		3	2	23.24	23.14	23.23	24.50
		3	3	23.15	23.19	23.19	24.50
		6	0	22.20	22.32	22.34	23.50
	64QAM	1	0	22.45	22.48	22.57	23.50
		1	2	22.62	22.44	22.59	23.50
		1	5	22.44	22.45	22.35	23.50
		3	0	22.24	22.47	22.39	23.50
		3	2	22.40	22.43	22.39	23.50
		3	3	22.38	22.46	22.35	23.50
		6	0	21.37	21.61	21.47	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	24.22	24.30	24.16	25.50
		1	7	24.29	24.26	24.32	25.50
		1	14	24.07	24.01	24.17	25.50
		8	0	23.11	23.38	23.37	24.50
		8	4	23.34	23.38	23.37	24.50
		8	7	23.29	23.41	23.24	24.50
		15	0	23.14	23.34	23.32	24.50
	16QAM	1	0	23.45	23.73	23.26	24.50
		1	7	23.43	23.42	23.33	24.50
		1	14	23.29	23.28	23.26	24.50
		8	0	22.12	22.32	22.38	23.50
		8	4	22.35	22.27	22.35	23.50
		8	7	22.25	22.31	22.32	23.50
		15	0	22.23	22.36	22.37	23.50
	64QAM	1	0	22.48	22.50	22.60	23.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				18625/1852.5	18900/1880	19175/1907.5		
		1	7	22.61	22.44	22.61	23.50	
		1	14	22.46	22.44	22.38	23.50	
		8	0	21.35	21.60	21.51	22.50	
		8	4	21.51	21.56	21.51	22.50	
		8	7	21.48	21.58	21.48	22.50	
		15	0	21.40	21.65	21.50	22.50	
5MHz	QPSK	1	0	24.19	24.28	24.12	25.50	
		1	13	24.27	24.22	24.29	25.50	
		1	24	24.04	23.96	24.13	25.50	
		12	0	23.08	23.33	23.33	24.50	
		12	6	23.32	23.34	23.32	24.50	
		12	13	23.27	23.39	23.20	24.50	
	16QAM	25	0	23.14	23.33	23.30	24.50	
		1	0	23.42	23.69	23.23	24.50	
		1	13	23.40	23.40	23.30	24.50	
		1	24	23.26	23.26	23.22	24.50	
		12	0	22.10	22.28	22.35	23.50	
		12	6	22.32	22.22	22.31	23.50	
	64QAM	12	13	22.22	22.26	22.28	23.50	
		25	0	22.21	22.32	22.32	23.50	
		1	0	22.45	22.50	22.57	23.50	
		1	13	22.59	22.46	22.58	23.50	
		1	24	22.47	22.42	22.34	23.50	
		12	0	21.33	21.56	21.52	22.50	
	10MHz	QPSK	12	6	21.48	21.51	21.47	22.50
			12	13	21.45	21.53	21.44	22.50
			25	0	21.38	21.61	21.45	22.50
			1	0	24.21	24.29	24.15	25.50
			1	25	24.30	24.27	24.33	25.50
			1	49	24.06	24.00	24.16	25.50
16QAM		25	0	23.11	23.38	23.37	24.50	
		25	13	23.35	23.39	23.36	24.50	
		25	25	23.29	23.43	23.25	24.50	
		50	0	23.18	23.35	23.34	24.50	
		1	0	23.44	23.72	23.25	24.50	
		1	25	23.43	23.44	23.33	24.50	
		1	49	23.29	23.28	23.25	24.50	
		25	0	22.13	22.33	22.39	23.50	
		25	13	22.34	22.26	22.34	23.50	



		25	25	22.25	22.31	22.32	23.50
		50	0	22.24	22.37	22.36	23.50
	64QAM	1	0	22.47	22.49	22.59	23.50
		1	25	22.61	22.46	22.61	23.50
		1	49	22.46	22.44	22.37	23.50
		25	0	21.36	21.61	21.52	22.50
		25	13	21.50	21.55	21.50	22.50
		25	25	21.48	21.58	21.48	22.50
		50	0	21.41	21.66	21.49	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	24.20	24.25	24.13	25.50
		1	38	24.28	24.26	24.30	25.50
		1	74	24.03	23.95	24.12	25.50
		36	0	23.09	23.34	23.34	24.50
		36	18	23.32	23.34	23.32	24.50
		36	39	23.26	23.40	23.21	24.50
		75	0	23.16	23.31	23.29	24.50
	16QAM	1	0	23.39	23.70	23.23	24.50
		1	38	23.41	23.41	23.31	24.50
		1	74	23.26	23.24	23.22	24.50
		36	0	22.10	22.31	22.36	23.50
		36	18	22.31	22.21	22.30	23.50
		36	39	22.23	22.27	22.29	23.50
		75	0	22.21	22.32	22.32	23.50
	64QAM	1	0	22.42	22.47	22.57	23.50
		1	38	22.70	22.43	22.59	23.50
		1	74	22.47	22.43	22.38	23.50
		36	0	21.35	21.63	21.53	22.50
		36	18	21.48	21.52	21.49	22.50
		36	39	21.46	21.54	21.45	22.50
		75	0	21.38	21.61	21.45	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	24.17	24.21	24.10	25.50
		1	50	24.27	24.22	24.28	25.50
		1	99	24.01	23.94	24.09	25.50
		50	0	23.06	23.29	23.30	24.50
		50	25	23.30	23.30	23.29	24.50
		50	50	23.23	23.35	23.17	24.50
		100	0	23.13	23.26	23.25	24.50
	16QAM	1	0	23.31	23.66	23.18	24.50
		1	50	23.37	23.39	23.27	24.50



		1	99	23.24	23.21	23.20	24.50
		50	0	22.07	22.27	22.33	23.50
		50	25	22.28	22.19	22.27	23.50
		50	50	22.20	22.22	22.25	23.50
		100	0	22.19	22.28	22.29	23.50
	64QAM	1	0	22.40	22.43	22.52	23.50
		1	50	22.66	22.41	22.55	23.50
		1	99	22.41	22.37	22.32	23.50
		50	0	21.30	21.55	21.46	22.50
		50	25	21.44	21.48	21.43	22.50
		50	50	21.43	21.49	21.41	22.50
		100	0	21.36	21.57	21.42	22.50

LTE FDD Band 2 DSI-1 (Head SAR)				Conducted 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	13.74	13.65	13.64	15.00
		1	2	13.82	13.78	13.78	15.00
		1	5	13.69	13.63	13.60	15.00
		3	0	13.75	13.86	13.82	15.00
		3	2	13.94	13.87	13.81	15.00
		3	3	13.84	13.80	13.67	15.00
		6	0	13.74	13.87	13.71	15.00
	16QAM	1	0	13.75	13.71	13.78	15.00
		1	2	13.80	13.76	13.80	15.00
		1	5	13.58	13.55	13.62	15.00
		3	0	13.77	13.74	13.80	15.00
		3	2	13.81	13.78	13.87	15.00
		3	3	13.80	13.77	13.83	15.00
		6	0	13.76	13.75	13.84	15.00
	64QAM	1	0	13.88	13.84	13.91	15.00
		1	2	13.74	13.70	13.74	15.00
		1	5	13.74	13.71	13.78	15.00
		3	0	13.82	13.79	13.85	15.00
		3	2	13.81	13.78	13.87	15.00
		3	3	13.75	13.72	13.78	15.00
		6	0	13.80	13.76	13.85	15.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
3MHz	QPSK			18615/1851.5	18900/1880	19185/1908.5	
		1	0	13.76	13.69	13.67	15.00
		1	7	13.82	13.80	13.82	15.00
		1	14	13.72	13.68	13.64	15.00



		8	0	13.79	13.93	13.89	15.00	
		8	4	13.97	13.95	13.87	15.00	
		8	7	13.88	13.85	13.71	15.00	
		15	0	13.76	13.91	13.74	15.00	
	16QAM	1	0	13.78	13.73	13.81	15.00	
		1	7	13.83	13.78	13.84	15.00	
		1	14	13.60	13.59	13.65	15.00	
		8	0	13.82	13.78	13.83	15.00	
		8	4	13.86	13.85	13.93	15.00	
		8	7	13.84	13.83	13.90	15.00	
		15	0	13.79	13.79	13.87	15.00	
	64QAM	1	0	13.91	13.86	13.94	15.00	
		1	7	13.77	13.72	13.78	15.00	
		1	14	13.76	13.75	13.81	15.00	
		8	0	13.87	13.83	13.88	15.00	
		8	4	13.86	13.85	13.93	15.00	
		8	7	13.79	13.78	13.85	15.00	
		15	0	13.82	13.82	13.90	15.00	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					18625/1852.5	18900/1880	19175/1907.5	
	5MHz	QPSK	1	0	13.73	13.67	13.63	15.00
1			13	13.80	13.76	13.79	15.00	
1			24	13.69	13.63	13.60	15.00	
12			0	13.76	13.88	13.85	15.00	
12			6	13.95	13.91	13.82	15.00	
12			13	13.86	13.83	13.67	15.00	
25			0	13.74	13.90	13.72	15.00	
16QAM		1	0	13.75	13.69	13.78	15.00	
		1	13	13.80	13.76	13.81	15.00	
		1	24	13.57	13.57	13.61	15.00	
		12	0	13.80	13.74	13.80	15.00	
		12	6	13.83	13.80	13.89	15.00	
		12	13	13.81	13.78	13.86	15.00	
		25	0	13.77	13.75	13.82	15.00	
64QAM		1	0	13.88	13.82	13.91	15.00	
		1	13	13.74	13.70	13.75	15.00	
		1	24	13.73	13.73	13.77	15.00	
		12	0	13.85	13.79	13.85	15.00	
		12	6	13.83	13.80	13.89	15.00	
		12	13	13.76	13.73	13.81	15.00	
		25	0	13.80	13.78	13.85	15.00	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	13.74	13.66	13.65	15.00
		1	25	13.81	13.80	13.81	15.00
		1	49	13.70	13.65	13.62	15.00
		25	0	13.77	13.92	13.87	15.00
		25	13	13.97	13.94	13.85	15.00
		25	25	13.86	13.83	13.71	15.00
		50	0	13.74	13.91	13.73	15.00
	16QAM	1	0	13.74	13.67	13.78	15.00
		1	25	13.82	13.79	13.79	15.00
		1	49	13.58	13.55	13.63	15.00
		25	0	13.78	13.78	13.81	15.00
		25	13	13.82	13.79	13.90	15.00
		25	25	13.83	13.82	13.85	15.00
		50	0	13.76	13.77	13.82	15.00
	64QAM	1	0	13.88	13.81	13.92	15.00
		1	25	13.76	13.72	13.75	15.00
		1	49	13.73	13.70	13.78	15.00
		25	0	13.87	13.83	13.84	15.00
		25	13	13.81	13.81	13.88	15.00
		25	25	13.77	13.74	13.84	15.00
		50	0	13.82	13.81	13.86	15.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	13.74	13.64	13.64	15.00
		1	38	13.81	13.80	13.80	15.00
		1	74	13.68	13.62	13.59	15.00
		36	0	13.77	13.89	13.86	15.00
		36	18	13.95	13.91	13.82	15.00
		36	39	13.85	13.84	13.68	15.00
		75	0	13.77	13.88	13.71	15.00
	16QAM	1	0	13.72	13.70	13.78	15.00
		1	38	13.81	13.77	13.82	15.00
		1	74	13.57	13.55	13.61	15.00
		36	0	13.80	13.77	13.81	15.00
		36	18	13.82	13.79	13.88	15.00
		36	39	13.82	13.79	13.87	15.00
		75	0	13.77	13.75	13.82	15.00
	64QAM	1	0	13.85	13.83	13.91	15.00
		1	38	13.75	13.71	13.76	15.00
		1	74	13.73	13.71	13.77	15.00
		36	0	13.85	13.82	13.86	15.00



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	36	18	13.82	13.79	13.88	15.00
		36	39	13.77	13.74	13.82	15.00
		75	0	13.80	13.78	13.85	15.00
		1	0	13.71	13.60	13.61	15.00
		1	50	13.80	13.76	13.78	15.00
		1	99	13.66	13.61	13.56	15.00
		50	0	13.74	13.84	13.82	15.00
	50	25	13.93	13.87	13.79	15.00	
	50	50	13.82	13.79	13.64	15.00	
	100	0	13.74	13.83	13.67	15.00	
	16QAM	1	0	13.70	13.66	13.73	15.00
		1	50	13.77	13.75	13.78	15.00
		1	99	13.55	13.52	13.59	15.00
		50	0	13.77	13.73	13.78	15.00
		50	25	13.79	13.77	13.85	15.00
		50	50	13.79	13.74	13.83	15.00
		100	0	13.75	13.71	13.79	15.00
	64QAM	1	0	13.83	13.79	13.86	15.00
		1	50	13.71	13.69	13.72	15.00
		1	99	13.71	13.68	13.75	15.00
		50	0	13.82	13.78	13.83	15.00
50		25	13.79	13.77	13.85	15.00	
50		50	13.74	13.69	13.78	15.00	
100		0	13.78	13.74	13.82	15.00	

LTE FDD Band 2 DSI-2 (Body SAR)				Conducted 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	24.20	24.26	24.13	25.50
		1	2	24.31	24.23	24.28	25.50
		1	5	24.04	23.96	24.13	25.50
		3	0	24.01	24.26	24.24	25.50
		3	2	24.22	24.28	24.25	25.50
		3	3	24.19	24.30	24.14	25.50
		6	0	23.14	23.30	23.29	24.50
	16QAM	1	0	23.42	23.71	23.23	24.50
		1	2	23.40	23.42	23.29	24.50
		1	5	23.27	23.24	23.23	24.50
		3	0	23.01	23.19	23.26	24.50
		3	2	23.24	23.14	23.23	24.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				18615/1851.5	18900/1880	19185/1908.5		
	64QAM	3	3	23.15	23.19	23.19	24.50	
		6	0	22.20	22.32	22.34	23.50	
		1	0	22.45	22.48	22.57	23.50	
		1	2	22.62	22.44	22.59	23.50	
		1	5	22.44	22.45	22.35	23.50	
		3	0	22.24	22.47	22.39	23.50	
		3	2	22.40	22.43	22.39	23.50	
		3	3	22.38	22.46	22.35	23.50	
		6	0	21.37	21.61	21.47	22.50	
3MHz	QPSK	1	0	24.22	24.30	24.16	25.50	
		1	7	24.29	24.26	24.32	25.50	
		1	14	24.07	24.01	24.17	25.50	
		8	0	23.11	23.38	23.37	24.50	
		8	4	23.34	23.38	23.37	24.50	
		8	7	23.29	23.41	23.24	24.50	
		15	0	23.14	23.34	23.32	24.50	
	16QAM	1	0	23.45	23.73	23.26	24.50	
		1	7	23.43	23.42	23.33	24.50	
		1	14	23.29	23.28	23.26	24.50	
		8	0	22.12	22.32	22.38	23.50	
		8	4	22.35	22.27	22.35	23.50	
		8	7	22.25	22.31	22.32	23.50	
		15	0	22.23	22.36	22.37	23.50	
	64QAM	1	0	22.48	22.50	22.60	23.50	
		1	7	22.61	22.44	22.61	23.50	
		1	14	22.46	22.44	22.38	23.50	
		8	0	21.35	21.60	21.51	22.50	
		8	4	21.51	21.56	21.51	22.50	
		8	7	21.48	21.58	21.48	22.50	
		15	0	21.40	21.65	21.50	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					18625/1852.5	18900/1880	19175/1907.5	
	5MHz	QPSK	1	0	24.19	24.28	24.12	25.50
1			13	24.27	24.22	24.29	25.50	
1			24	24.04	23.96	24.13	25.50	
12			0	23.08	23.33	23.33	24.50	
12			6	23.32	23.34	23.32	24.50	
12			13	23.27	23.39	23.20	24.50	
25			0	23.14	23.33	23.30	24.50	
16QAM		1	0	23.42	23.69	23.23	24.50	
		1	13	23.40	23.40	23.30	24.50	



		1	24	23.26	23.26	23.22	24.50
		12	0	22.10	22.28	22.35	23.50
		12	6	22.32	22.22	22.31	23.50
		12	13	22.22	22.26	22.28	23.50
		25	0	22.21	22.32	22.32	23.50
	64QAM	1	0	22.45	22.50	22.57	23.50
		1	13	22.59	22.46	22.58	23.50
		1	24	22.47	22.42	22.34	23.50
		12	0	21.33	21.56	21.52	22.50
		12	6	21.48	21.51	21.47	22.50
		12	13	21.45	21.53	21.44	22.50
		25	0	21.38	21.61	21.45	22.50
		Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)	
18650/1855	18900/1880					19150/1905	
10MHz	QPSK	1	0	24.21	24.29	24.15	25.50
		1	25	24.30	24.27	24.33	25.50
		1	49	24.06	24.00	24.16	25.50
		25	0	23.11	23.38	23.37	24.50
		25	13	23.35	23.39	23.36	24.50
		25	25	23.29	23.43	23.25	24.50
		50	0	23.18	23.35	23.34	24.50
	16QAM	1	0	23.44	23.72	23.25	24.50
		1	25	23.43	23.44	23.33	24.50
		1	49	23.29	23.28	23.25	24.50
		25	0	22.13	22.33	22.39	23.50
		25	13	22.34	22.26	22.34	23.50
		25	25	22.25	22.31	22.32	23.50
		50	0	22.24	22.37	22.36	23.50
	64QAM	1	0	22.47	22.49	22.59	23.50
		1	25	22.61	22.46	22.61	23.50
		1	49	22.46	22.44	22.37	23.50
		25	0	21.36	21.61	21.52	22.50
		25	13	21.50	21.55	21.50	22.50
		25	25	21.48	21.58	21.48	22.50
		50	0	21.41	21.66	21.49	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	24.20	24.25	24.13	25.50
		1	38	24.28	24.26	24.30	25.50
		1	74	24.03	23.95	24.12	25.50
		36	0	23.09	23.34	23.34	24.50
		36	18	23.32	23.34	23.32	24.50
		36	39	23.26	23.40	23.21	24.50



	16QAM	75	0	23.16	23.31	23.29	24.50
		1	0	23.39	23.70	23.23	24.50
		1	38	23.41	23.41	23.31	24.50
		1	74	23.26	23.24	23.22	24.50
		36	0	22.10	22.31	22.36	23.50
		36	18	22.31	22.21	22.30	23.50
		36	39	22.23	22.27	22.29	23.50
		75	0	22.21	22.32	22.32	23.50
	64QAM	1	0	22.42	22.47	22.57	23.50
		1	38	22.70	22.43	22.59	23.50
		1	74	22.47	22.43	22.38	23.50
		36	0	21.35	21.63	21.53	22.50
		36	18	21.48	21.52	21.49	22.50
		36	39	21.46	21.54	21.45	22.50
75		0	21.38	21.61	21.45	22.50	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	24.17	24.21	24.10	25.50
		1	50	24.27	24.22	24.28	25.50
		1	99	24.01	23.94	24.09	25.50
		50	0	23.06	23.29	23.30	24.50
		50	25	23.30	23.30	23.29	24.50
		50	50	23.23	23.35	23.17	24.50
		100	0	23.13	23.26	23.25	24.50
	16QAM	1	0	23.31	23.66	23.18	24.50
		1	50	23.37	23.39	23.27	24.50
		1	99	23.24	23.21	23.20	24.50
		50	0	22.07	22.27	22.33	23.50
		50	25	22.28	22.19	22.27	23.50
		50	50	22.20	22.22	22.25	23.50
		100	0	22.19	22.28	22.29	23.50
	64QAM	1	0	22.40	22.43	22.52	23.50
		1	50	22.66	22.41	22.55	23.50
		1	99	22.41	22.37	22.32	23.50
		50	0	21.30	21.55	21.46	22.50
		50	25	21.44	21.48	21.43	22.50
		50	50	21.43	21.49	21.41	22.50
		100	0	21.36	21.57	21.42	22.50



LTE FDD Band 2 DSI-4 (Body SAR)				Conducted 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	14.72	14.56	14.59	16.00
		1	2	14.69	14.64	14.67	16.00
		1	5	14.61	14.58	14.57	16.00
		3	0	14.66	14.61	14.63	16.00
		3	2	14.68	14.63	14.68	16.00
		3	3	14.62	14.59	14.60	16.00
		6	0	14.72	14.66	14.70	16.00
	16QAM	1	0	14.78	14.43	14.72	16.00
		1	2	14.84	14.54	14.78	16.00
		1	5	14.81	14.47	14.73	16.00
		3	0	14.91	14.76	14.78	16.00
		3	2	14.95	14.79	14.79	16.00
		3	3	14.92	14.76	14.74	16.00
		6	0	14.90	14.89	14.86	16.00
	64QAM	1	0	14.80	14.45	14.72	16.00
		1	2	14.87	14.54	14.76	16.00
		1	5	14.83	14.47	14.72	16.00
		3	0	14.92	14.75	14.76	16.00
		3	2	14.94	14.81	14.79	16.00
		3	3	14.90	14.78	14.74	16.00
		6	0	14.90	14.85	14.86	16.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	14.50	14.39	14.50	16.00
		1	7	14.57	14.48	14.58	16.00
		1	14	14.47	14.44	14.51	16.00
		8	0	14.64	14.56	14.65	16.00
		8	4	14.72	14.67	14.67	16.00
		8	7	14.70	14.61	14.58	16.00
		15	0	14.67	14.60	14.62	16.00
	16QAM	1	0	14.93	14.60	14.36	16.00
		1	7	14.97	14.71	14.39	16.00
		1	14	14.90	14.61	14.30	16.00
		8	0	14.69	14.62	14.62	16.00
		8	4	14.76	14.69	14.62	16.00
		8	7	14.68	14.60	14.58	16.00
		15	0	14.69	14.55	14.65	16.00
	64QAM	1	0	14.89	14.62	14.36	16.00
1		7	14.98	14.72	14.40	16.00	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				18625/1852.5	18900/1880	19175/1907.5		
		1	14	14.91	14.63	14.29	16.00	
		8	0	14.67	14.60	14.59	16.00	
		8	4	14.74	14.69	14.62	16.00	
		8	7	14.69	14.60	14.58	16.00	
		15	0	14.68	14.55	14.65	16.00	
5MHz	QPSK	1	0	14.72	14.66	14.71	16.00	
		1	13	14.80	14.75	14.80	16.00	
		1	24	14.74	14.69	14.66	16.00	
		12	0	14.69	14.68	14.75	16.00	
		12	6	14.80	14.74	14.77	16.00	
		12	13	14.81	14.69	14.63	16.00	
		25	0	14.72	14.66	14.69	16.00	
	16QAM	1	0	15.26	14.98	15.00	16.00	
		1	13	15.36	15.07	15.05	16.00	
		1	24	15.29	14.98	14.93	16.00	
		12	0	14.68	14.62	14.74	16.00	
		12	6	14.79	14.70	14.78	16.00	
		12	13	14.80	14.69	14.62	16.00	
		25	0	14.72	14.69	14.66	16.00	
	64QAM	1	0	15.27	14.99	15.00	16.00	
		1	13	15.36	15.08	15.05	16.00	
		1	24	15.30	14.97	14.94	16.00	
		12	0	14.69	14.61	14.74	16.00	
		12	6	14.82	14.69	14.77	16.00	
		12	13	14.80	14.66	14.65	16.00	
		25	0	14.71	14.69	14.65	16.00	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					18650/1855	18900/1880	19150/1905	
	10MHz	QPSK	1	0	14.73	14.75	14.77	16.00
			1	25	14.87	14.81	14.92	16.00
			1	49	14.85	14.75	14.83	16.00
			25	0	14.63	14.67	14.73	16.00
			25	13	14.79	14.75	14.78	16.00
25			25	14.83	14.71	14.67	16.00	
50			0	14.75	14.68	14.67	16.00	
16QAM		1	0	15.22	14.93	14.63	16.00	
		1	25	15.27	15.00	14.74	16.00	
		1	49	15.22	14.93	14.66	16.00	
		25	0	14.69	14.69	14.72	16.00	
		25	13	14.86	14.78	14.77	16.00	
		25	25	14.87	14.75	14.67	16.00	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				18675/1857.5	18900/1880	19125/1902.5		
15MHz	64QAM	50	0	14.76	14.73	14.64	16.00	
		1	0	15.22	14.93	14.63	16.00	
		1	25	15.28	15.01	14.76	16.00	
		1	49	15.24	14.93	14.70	16.00	
		25	0	14.71	14.68	14.72	16.00	
		25	13	14.86	14.78	14.76	16.00	
		25	25	14.85	14.75	14.68	16.00	
		50	0	14.75	14.72	14.64	16.00	
15MHz	QPSK	1	0	14.69	14.72	14.66	16.00	
		1	38	14.84	14.81	14.77	16.00	
		1	74	14.79	14.75	14.71	16.00	
		36	0	14.67	14.72	14.70	16.00	
		36	18	14.78	14.73	14.75	16.00	
		36	39	14.79	14.73	14.72	16.00	
		75	0	14.71	14.72	14.70	16.00	
	16QAM	1	0	15.16	14.89	14.80	16.00	
		1	38	15.28	14.98	14.91	16.00	
		1	74	15.20	14.90	14.86	16.00	
		36	0	14.74	14.78	14.69	16.00	
		36	18	14.82	14.80	14.73	16.00	
		36	39	14.82	14.79	14.69	16.00	
		75	0	14.73	14.68	14.71	16.00	
	64QAM	1	0	15.17	14.88	14.80	16.00	
		1	38	15.27	14.96	14.89	16.00	
		1	74	15.18	14.91	14.87	16.00	
		36	0	14.69	14.78	14.68	16.00	
		36	18	14.82	14.81	14.72	16.00	
		36	39	14.84	14.79	14.69	16.00	
		75	0	14.73	14.71	14.71	16.00	
	20MHz	QPSK	1	0	14.67	14.65	14.59	16.00
			1	50	14.90	14.87	14.87	16.00
	1		99	14.74	14.71	14.72	16.00	
50	0		14.60	14.73	14.75	16.00		
50	25		14.88	14.80	14.77	16.00		
50	50		14.76	14.82	14.70	16.00		
100	0		14.66	14.74	14.70	16.00		
16QAM	1	0	15.00	14.91	14.82	16.00		
	1	50	15.22	15.13	15.08	16.00		
	1	99	15.04	14.96	14.93	16.00		



		50	0	14.66	14.71	14.76	16.00
		50	25	14.86	14.79	14.79	16.00
		50	50	14.75	14.81	14.73	16.00
		100	0	14.67	14.72	14.68	16.00
	64QAM	1	0	14.97	14.89	14.83	16.00
		1	50	15.22	15.13	15.09	16.00
		1	99	15.04	14.93	14.92	16.00
		50	0	14.63	14.71	14.78	16.00
		50	25	14.87	14.77	14.80	16.00
		50	50	14.76	14.81	14.73	16.00
		100	0	14.69	14.73	14.67	16.00

LTE FDD Band 4 Normal (Full Power)				Conducted 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	24.07	24.05	23.99	25.50	
		1	2	24.23	24.13	24.02	25.50	
		1	5	24.00	23.95	24.02	25.50	
		3	0	24.05	24.01	24.12	25.50	
		3	2	24.15	24.24	24.10	25.50	
		3	3	24.30	24.15	24.04	25.50	
	16QAM	6	0	23.29	23.15	23.13	24.50	
		1	0	23.27	23.23	23.16	24.50	
		1	2	23.25	23.28	23.24	24.50	
		1	5	23.19	23.39	23.29	24.50	
		3	0	23.07	22.93	23.09	24.50	
		3	2	23.24	23.21	23.11	24.50	
	64QAM	3	3	23.05	23.06	23.10	24.50	
		6	0	22.07	22.08	22.05	23.50	
		1	0	22.09	22.26	22.19	23.50	
		1	2	22.28	22.36	22.23	23.50	
		1	5	22.17	22.30	22.26	23.50	
		3	0	22.31	22.22	22.27	23.50	
	3MHz	QPSK	3	2	22.28	22.29	22.21	23.50
			3	3	22.21	22.34	22.18	23.50
			6	0	21.35	21.44	21.41	22.50
8			0	23.15	23.13	23.25	24.50	



		8	4	23.27	23.34	23.22	24.50
		8	7	23.40	23.26	23.14	24.50
		15	0	23.29	23.19	23.16	24.50
	16QAM	1	0	23.30	23.25	23.19	24.50
		1	7	23.28	23.28	23.28	24.50
		1	14	23.21	23.43	23.32	24.50
		8	0	22.18	22.06	22.21	23.50
		8	4	22.35	22.34	22.23	23.50
		8	7	22.15	22.18	22.23	23.50
	64QAM	15	0	22.10	22.12	22.08	23.50
		1	0	22.12	22.28	22.22	23.50
		1	7	22.31	22.36	22.25	23.50
		1	14	22.19	22.29	22.29	23.50
		8	0	21.42	21.35	21.39	22.50
		8	4	21.39	21.42	21.33	22.50
8		7	21.31	21.46	21.31	22.50	
15	0	21.38	21.48	21.44	22.50		
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	24.06	24.07	23.98	25.50
		1	13	24.19	24.12	24.03	25.50
		1	24	24.00	23.95	24.02	25.50
		12	0	23.12	23.08	23.21	24.50
		12	6	23.25	23.30	23.17	24.50
		12	13	23.38	23.24	23.10	24.50
		25	0	23.29	23.18	23.14	24.50
	16QAM	1	0	23.27	23.21	23.16	24.50
		1	13	23.25	23.26	23.25	24.50
		1	24	23.18	23.41	23.28	24.50
		12	0	22.16	22.02	22.18	23.50
		12	6	22.32	22.29	22.19	23.50
		12	13	22.12	22.13	22.19	23.50
		25	0	22.08	22.08	22.03	23.50
	64QAM	1	0	22.09	22.28	22.19	23.50
		1	13	22.28	22.38	22.22	23.50
		1	24	22.20	22.27	22.25	23.50
		12	0	21.40	21.31	21.40	22.50
		12	6	21.36	21.37	21.29	22.50
		12	13	21.28	21.41	21.27	22.50
		25	0	21.36	21.44	21.39	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	24.08	24.08	24.01	25.50



		1	25	24.22	24.17	24.07	25.50	
		1	49	24.02	23.99	24.05	25.50	
		25	0	23.15	23.13	23.25	24.50	
		25	13	23.28	23.35	23.21	24.50	
		25	25	23.40	23.28	23.15	24.50	
		50	0	23.33	23.20	23.18	24.50	
	16QAM	1	0	23.29	23.24	23.18	24.50	
		1	25	23.28	23.30	23.28	24.50	
		1	49	23.21	23.43	23.31	24.50	
		25	0	22.19	22.07	22.22	23.50	
		25	13	22.34	22.33	22.22	23.50	
		25	25	22.15	22.18	22.23	23.50	
	64QAM	50	0	22.11	22.13	22.07	23.50	
		1	0	22.11	22.27	22.21	23.50	
		1	25	22.31	22.38	22.25	23.50	
		1	49	22.19	22.29	22.28	23.50	
		25	0	21.43	21.36	21.40	22.50	
		25	13	21.38	21.41	21.32	22.50	
	15MHz	QPSK	25	25	21.31	21.46	21.31	22.50
			50	0	21.39	21.49	21.43	22.50
			1	0	24.07	24.04	23.99	25.50
1			38	24.20	24.16	24.04	25.50	
1			74	23.99	23.94	24.01	25.50	
36			0	23.13	23.09	23.22	24.50	
36			18	23.25	23.30	23.17	24.50	
16QAM	36	39	23.37	23.25	23.11	24.50		
	75	0	23.31	23.16	23.13	24.50		
	1	0	23.24	23.22	23.16	24.50		
	1	38	23.26	23.27	23.26	24.50		
	1	74	23.18	23.39	23.28	24.50		
	36	0	22.16	22.05	22.19	23.50		
	36	18	22.31	22.28	22.18	23.50		
64QAM	36	39	22.13	22.14	22.20	23.50		
	75	0	22.08	22.08	22.03	23.50		
	1	0	22.06	22.25	22.19	23.50		
	1	38	22.29	22.35	22.23	23.50		
	1	74	22.20	22.28	22.29	23.50		
	36	0	21.42	21.38	21.41	22.50		
	36	18	21.36	21.38	21.31	22.50		
		36	39	21.29	21.42	21.28	22.50	
		75	0	21.36	21.44	21.39	22.50	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20025/1717.5	20175/1732.5	20325/1747.5		



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	24.04	24.00	23.96	25.50
		1	50	24.19	24.12	24.02	25.50
		1	99	23.97	23.93	23.98	25.50
		50	0	23.10	23.04	23.18	24.50
		50	25	23.23	23.26	23.14	24.50
		50	50	23.34	23.20	23.07	24.50
		100	0	23.28	23.11	23.09	24.50
	16QAM	1	0	23.05	23.18	23.11	24.50
		1	50	23.22	23.25	23.22	24.50
		1	99	23.16	23.36	23.26	24.50
		50	0	22.13	22.01	22.16	23.50
		50	25	22.28	22.26	22.15	23.50
		50	50	22.10	22.09	22.16	23.50
		100	0	22.06	22.04	22.00	23.50
	64QAM	1	0	22.04	22.21	22.14	23.50
		1	50	22.25	22.33	22.19	23.50
		1	99	22.14	22.22	22.23	23.50
		50	0	21.37	21.30	21.34	22.50
		50	25	21.32	21.34	21.25	22.50
		50	50	21.26	21.37	21.24	22.50
		100	0	21.34	21.40	21.36	22.50

LTE FDD Band 4 DSI-1 (Head SAR)				Conducted 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	15.39	15.45	15.46	17.00
		1	2	15.45	15.51	15.53	17.00
		1	5	15.38	15.46	15.42	17.00
		3	0	15.47	15.47	15.48	17.00
		3	2	15.53	15.50	15.54	17.00
		3	3	15.48	15.43	15.48	17.00
		6	0	15.57	15.60	15.55	17.00
	16QAM	1	0	15.53	15.28	15.61	17.00
		1	2	15.61	15.38	15.66	17.00
		1	5	15.57	15.31	15.62	17.00
		3	0	15.67	15.61	15.66	17.00
		3	2	15.71	15.64	15.67	17.00
		3	3	15.67	15.61	15.63	17.00
		6	0	15.70	15.76	15.75	17.00
	64QAM	1	0	15.55	15.30	15.61	17.00



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				19965/1711.5	20175/1732.5	20385/1753.5		
		1	2	15.62	15.39	15.69	17.00	
		1	5	15.57	15.30	15.63	17.00	
		3	0	15.67	15.60	15.65	17.00	
		3	2	15.69	15.63	15.70	17.00	
		3	3	15.68	15.59	15.63	17.00	
		6	0	15.69	15.75	15.75	17.00	
3MHz	QPSK	1	0	15.29	15.29	15.36	17.00	
		1	7	15.37	15.40	15.47	17.00	
		1	14	15.28	15.31	15.39	17.00	
		8	0	15.44	15.44	15.50	17.00	
		8	4	15.53	15.52	15.56	17.00	
		8	7	15.46	15.47	15.50	17.00	
		15	0	15.49	15.48	15.49	17.00	
	16QAM	1	0	15.66	15.47	15.23	17.00	
		1	7	15.73	15.56	15.31	17.00	
		1	14	15.65	15.45	15.21	17.00	
		8	0	15.46	15.47	15.44	17.00	
		8	4	15.52	15.52	15.51	17.00	
		8	7	15.47	15.43	15.46	17.00	
		15	0	15.47	15.43	15.54	17.00	
	64QAM	1	0	15.67	15.47	15.22	17.00	
		1	7	15.76	15.54	15.31	17.00	
		1	14	15.64	15.47	15.24	17.00	
		8	0	15.47	15.47	15.47	17.00	
		8	4	15.53	15.52	15.54	17.00	
		8	7	15.45	15.44	15.50	17.00	
		15	0	15.46	15.41	15.56	17.00	
	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	15.54	15.55	15.56	17.00
1			13	15.62	15.63	15.65	17.00	
1			24	15.55	15.56	15.55	17.00	
12			0	15.51	15.57	15.58	17.00	
12			6	15.59	15.62	15.63	17.00	
12			13	15.53	15.56	15.60	17.00	
25			0	15.54	15.57	15.58	17.00	
16QAM		1	0	15.98	15.85	15.88	17.00	
		1	13	16.09	15.93	15.94	17.00	
		1	24	16.01	15.82	15.86	17.00	
		12	0	15.49	15.48	15.60	17.00	
		12	6	15.55	15.55	15.64	17.00	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
	64QAM	12	13	15.51	15.50	15.59	17.00
		25	0	15.50	15.57	15.57	17.00
		1	0	15.96	15.85	15.88	17.00
		1	13	16.08	15.92	15.95	17.00
		1	24	16.02	15.81	15.86	17.00
		12	0	15.48	15.48	15.59	17.00
		12	6	15.57	15.54	15.65	17.00
		12	13	15.53	15.50	15.60	17.00
		25	0	15.51	15.57	15.56	17.00
10MHz	QPSK	1	0	15.64	15.58	15.63	17.00
		1	25	15.69	15.66	15.71	17.00
		1	49	15.61	15.60	15.67	17.00
		25	0	15.54	15.48	15.53	17.00
		25	13	15.61	15.60	15.60	17.00
		25	25	15.61	15.54	15.55	17.00
		50	0	15.60	15.54	15.59	17.00
	16QAM	1	0	15.97	15.77	15.45	17.00
		1	25	16.06	15.82	15.53	17.00
		1	49	16.03	15.73	15.53	17.00
		25	0	15.56	15.52	15.52	17.00
		25	13	15.65	15.59	15.62	17.00
		25	25	15.65	15.52	15.55	17.00
		50	0	15.57	15.55	15.57	17.00
	64QAM	1	0	15.97	15.77	15.45	17.00
		1	25	16.06	15.82	15.53	17.00
		1	49	16.03	15.74	15.52	17.00
		25	0	15.57	15.51	15.52	17.00
		25	13	15.65	15.59	15.61	17.00
		25	25	15.63	15.53	15.55	17.00
		50	0	15.58	15.55	15.53	17.00
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	15.56	15.59	15.52	17.00
		1	38	15.69	15.67	15.60	17.00
		1	74	15.59	15.54	15.54	17.00
		36	0	15.58	15.54	15.55	17.00
		36	18	15.60	15.61	15.59	17.00
		36	39	15.62	15.60	15.57	17.00
		75	0	15.61	15.58	15.61	17.00
	16QAM	1	0	15.93	15.74	15.64	17.00
		1	38	16.05	15.80	15.76	17.00



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit		
				20050/1720	20175/1732.5	20300/1745			
20MHz	64QAM	1	74	15.99	15.71	15.69	17.00		
		36	0	15.61	15.60	15.52	17.00		
		36	18	15.66	15.67	15.56	17.00		
		36	39	15.67	15.63	15.57	17.00		
		75	0	15.60	15.55	15.62	17.00		
		1	0	15.90	15.76	15.62	17.00		
		1	38	16.06	15.81	15.75	17.00		
	64QAM	1	74	15.98	15.70	15.71	17.00		
		36	0	15.59	15.59	15.54	17.00		
		36	18	15.66	15.68	15.56	17.00		
		36	39	15.67	15.63	15.55	17.00		
		75	0	15.61	15.55	15.60	17.00		
		20MHz	QPSK	1	0	15.49	15.53	15.49	17.00
				1	50	15.69	15.73	15.70	17.00
1	99			15.48	15.48	15.52	17.00		
50	0			15.53	15.47	15.57	17.00		
50	25			15.66	15.64	15.60	17.00		
50	50			15.68	15.54	15.58	17.00		
100	0			15.65	15.50	15.57	17.00		
16QAM	1		0	15.75	15.76	15.68	17.00		
	1		50	16.02	15.94	15.88	17.00		
	1		99	15.80	15.70	15.78	17.00		
	50		0	15.57	15.44	15.58	17.00		
	50		25	15.68	15.60	15.62	17.00		
	50		50	15.76	15.50	15.61	17.00		
	100		0	15.63	15.49	15.55	17.00		
64QAM	1		0	15.75	15.77	15.69	17.00		
	1		50	16.02	15.95	15.91	17.00		
	1		99	15.78	15.70	15.77	17.00		
	50		0	15.55	15.45	15.59	17.00		
	50		25	15.71	15.59	15.63	17.00		
	50		50	15.74	15.48	15.63	17.00		
	100		0	15.62	15.48	15.57	17.00		

LTE FDD Band 4 DSI-2 (Body SAR)				Conducted 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	24.07	24.05	23.99	25.50
		1	2	24.23	24.13	24.02	25.50
		1	5	24.00	23.95	24.02	25.50



		3	0	24.05	24.01	24.12	25.50	
		3	2	24.15	24.24	24.10	25.50	
		3	3	24.30	24.15	24.04	25.50	
		6	0	23.29	23.15	23.13	24.50	
	16QAM	1	0	23.27	23.23	23.16	24.50	
		1	2	23.25	23.28	23.24	24.50	
		1	5	23.19	23.39	23.29	24.50	
		3	0	23.07	22.93	23.09	24.50	
		3	2	23.24	23.21	23.11	24.50	
		3	3	23.05	23.06	23.10	24.50	
		6	0	22.07	22.08	22.05	23.50	
	64QAM	1	0	22.09	22.26	22.19	23.50	
		1	2	22.28	22.36	22.23	23.50	
		1	5	22.17	22.30	22.26	23.50	
		3	0	22.31	22.22	22.27	23.50	
		3	2	22.28	22.29	22.21	23.50	
		3	3	22.21	22.34	22.18	23.50	
		6	0	21.35	21.44	21.41	22.50	
	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	24.09	24.09	24.02	25.50
1			7	24.21	24.16	24.06	25.50	
1			14	24.03	24.00	24.06	25.50	
8			0	23.15	23.13	23.25	24.50	
8			4	23.27	23.34	23.22	24.50	
8			7	23.40	23.26	23.14	24.50	
15			0	23.29	23.19	23.16	24.50	
16QAM		1	0	23.30	23.25	23.19	24.50	
		1	7	23.28	23.28	23.28	24.50	
		1	14	23.21	23.43	23.32	24.50	
		8	0	22.18	22.06	22.21	23.50	
		8	4	22.35	22.34	22.23	23.50	
		8	7	22.15	22.18	22.23	23.50	
		15	0	22.10	22.12	22.08	23.50	
64QAM		1	0	22.12	22.28	22.22	23.50	
		1	7	22.31	22.36	22.25	23.50	
		1	14	22.19	22.29	22.29	23.50	
		8	0	21.42	21.35	21.39	22.50	
		8	4	21.39	21.42	21.33	22.50	
		8	7	21.31	21.46	21.31	22.50	
		15	0	21.38	21.48	21.44	22.50	



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	24.06	24.07	23.98	25.50
		1	13	24.19	24.12	24.03	25.50
		1	24	24.00	23.95	24.02	25.50
		12	0	23.12	23.08	23.21	24.50
		12	6	23.25	23.30	23.17	24.50
		12	13	23.38	23.24	23.10	24.50
		25	0	23.29	23.18	23.14	24.50
	16QAM	1	0	23.27	23.21	23.16	24.50
		1	13	23.25	23.26	23.25	24.50
		1	24	23.18	23.41	23.28	24.50
		12	0	22.16	22.02	22.18	23.50
		12	6	22.32	22.29	22.19	23.50
		12	13	22.12	22.13	22.19	23.50
		25	0	22.08	22.08	22.03	23.50
	64QAM	1	0	22.09	22.28	22.19	23.50
		1	13	22.28	22.38	22.22	23.50
		1	24	22.20	22.27	22.25	23.50
		12	0	21.40	21.31	21.40	22.50
		12	6	21.36	21.37	21.29	22.50
		12	13	21.28	21.41	21.27	22.50
		25	0	21.36	21.44	21.39	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	24.08	24.08	24.01	25.50
		1	25	24.22	24.17	24.07	25.50
		1	49	24.02	23.99	24.05	25.50
		25	0	23.15	23.13	23.25	24.50
		25	13	23.28	23.35	23.21	24.50
		25	25	23.40	23.28	23.15	24.50
		50	0	23.33	23.20	23.18	24.50
	16QAM	1	0	23.29	23.24	23.18	24.50
		1	25	23.28	23.30	23.28	24.50
		1	49	23.21	23.43	23.31	24.50
		25	0	22.19	22.07	22.22	23.50
		25	13	22.34	22.33	22.22	23.50
		25	25	22.15	22.18	22.23	23.50
		50	0	22.11	22.13	22.07	23.50
	64QAM	1	0	22.11	22.27	22.21	23.50
		1	25	22.31	22.38	22.25	23.50
		1	49	22.19	22.29	22.28	23.50
		25	0	21.43	21.36	21.40	22.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20025/1717.5	20175/1732.5	20325/1747.5		
15MHz	QPSK	25	13	21.38	21.41	21.32	22.50	
		25	25	21.31	21.46	21.31	22.50	
		50	0	21.39	21.49	21.43	22.50	
		1	0	24.07	24.04	23.99	25.50	
		1	38	24.20	24.16	24.04	25.50	
		1	74	23.99	23.94	24.01	25.50	
		36	0	23.13	23.09	23.22	24.50	
	36	18	23.25	23.30	23.17	24.50		
	36	39	23.37	23.25	23.11	24.50		
	75	0	23.31	23.16	23.13	24.50		
	16QAM	1	0	23.24	23.22	23.16	24.50	
		1	38	23.26	23.27	23.26	24.50	
		1	74	23.18	23.39	23.28	24.50	
		36	0	22.16	22.05	22.19	23.50	
		36	18	22.31	22.28	22.18	23.50	
		36	39	22.13	22.14	22.20	23.50	
		75	0	22.08	22.08	22.03	23.50	
	64QAM	1	0	22.06	22.25	22.19	23.50	
		1	38	22.29	22.35	22.23	23.50	
		1	74	22.20	22.28	22.29	23.50	
		36	0	21.42	21.38	21.41	22.50	
		36	18	21.36	21.38	21.31	22.50	
		36	39	21.29	21.42	21.28	22.50	
		75	0	21.36	21.44	21.39	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20050/1720	20175/1732.5	20300/1745	
	20MHz	QPSK	1	0	24.04	24.00	23.96	25.50
1			50	24.19	24.12	24.02	25.50	
1			99	23.97	23.93	23.98	25.50	
50			0	23.10	23.04	23.18	24.50	
50			25	23.23	23.26	23.14	24.50	
50			50	23.34	23.20	23.07	24.50	
100			0	23.28	23.11	23.09	24.50	
16QAM		1	0	23.05	23.18	23.11	24.50	
		1	50	23.22	23.25	23.22	24.50	
		1	99	23.16	23.36	23.26	24.50	
		50	0	22.13	22.01	22.16	23.50	
		50	25	22.28	22.26	22.15	23.50	
		50	50	22.10	22.09	22.16	23.50	
		100	0	22.06	22.04	22.00	23.50	
64QAM		1	0	22.04	22.21	22.14	23.50	



		1	50	22.25	22.33	22.19	23.50
		1	99	22.14	22.22	22.23	23.50
		50	0	21.37	21.30	21.34	22.50
		50	25	21.32	21.34	21.25	22.50
		50	50	21.26	21.37	21.24	22.50
		100	0	21.34	21.40	21.36	22.50

LTE FDD Band 4 DSI-4 (Body SAR)				Conducted 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	15.39	15.42	15.47	17.00
		1	2	15.46	15.51	15.53	17.00
		1	5	15.39	15.48	15.45	17.00
		3	0	15.47	15.47	15.49	17.00
		3	2	15.53	15.50	15.53	17.00
		3	3	15.47	15.43	15.46	17.00
		6	0	15.56	15.61	15.56	17.00
	16QAM	1	0	15.55	15.28	15.62	17.00
		1	2	15.62	15.40	15.70	17.00
		1	5	15.57	15.31	15.62	17.00
		3	0	15.65	15.59	15.65	17.00
		3	2	15.71	15.64	15.69	17.00
		3	3	15.66	15.60	15.63	17.00
		6	0	15.72	15.75	15.77	17.00
	64QAM	1	0	15.56	15.28	15.63	17.00
		1	2	15.61	15.39	15.70	17.00
		1	5	15.58	15.30	15.64	17.00
		3	0	15.66	15.59	15.65	17.00
		3	2	15.70	15.64	15.69	17.00
		3	3	15.67	15.60	15.61	17.00
		6	0	15.72	15.75	15.77	17.00
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	15.31	15.30	15.37	17.00
		1	7	15.38	15.39	15.46	17.00
		1	14	15.28	15.32	15.40	17.00
		8	0	15.45	15.47	15.54	17.00
		8	4	15.52	15.54	15.59	17.00
		8	7	15.46	15.50	15.50	17.00
		15	0	15.49	15.49	15.51	17.00
	16QAM	1	0	15.66	15.47	15.24	17.00
		1	7	15.75	15.56	15.32	17.00



		1	14	15.65	15.48	15.24	17.00	
		8	0	15.47	15.46	15.45	17.00	
		8	4	15.53	15.54	15.50	17.00	
		8	7	15.46	15.45	15.48	17.00	
		15	0	15.48	15.42	15.57	17.00	
	64QAM	1	0	15.66	15.47	15.25	17.00	
		1	7	15.75	15.56	15.31	17.00	
		1	14	15.67	15.47	15.24	17.00	
		8	0	15.49	15.48	15.46	17.00	
		8	4	15.53	15.54	15.54	17.00	
		8	7	15.46	15.45	15.47	17.00	
		15	0	15.47	15.43	15.56	17.00	
	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	15.57	15.51	15.56	17.00	
		1	13	15.64	15.61	15.63	17.00	
		1	24	15.54	15.55	15.54	17.00	
		12	0	15.55	15.54	15.56	17.00	
		12	6	15.60	15.61	15.62	17.00	
		12	13	15.57	15.57	15.57	17.00	
		25	0	15.56	15.53	15.56	17.00	
	16QAM	1	0	15.95	15.82	15.85	17.00	
		1	13	16.07	15.89	15.94	17.00	
		1	24	16.04	15.79	15.84	17.00	
		12	0	15.49	15.47	15.57	17.00	
		12	6	15.56	15.54	15.64	17.00	
		12	13	15.53	15.48	15.62	17.00	
		25	0	15.52	15.55	15.55	17.00	
	64QAM	1	0	15.97	15.82	15.87	17.00	
		1	13	16.09	15.90	15.94	17.00	
		1	24	16.01	15.80	15.84	17.00	
		12	0	15.49	15.47	15.59	17.00	
		12	6	15.57	15.52	15.64	17.00	
		12	13	15.53	15.49	15.58	17.00	
		25	0	15.48	15.54	15.55	17.00	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20000/1715	20175/1732.5	20350/1750		
10MHz	QPSK	1	0	15.59	15.66	15.62	17.00	
		1	25	15.64	15.72	15.66	17.00	
		1	49	15.58	15.64	15.63	17.00	
		25	0	15.52	15.50	15.52	17.00	
		25	13	15.59	15.59	15.62	17.00	
		25	25	15.56	15.53	15.53	17.00	



	16QAM	50	0	15.58	15.55	15.58	17.00
		1	0	15.74	15.52	15.96	17.00
		1	25	15.82	15.55	16.04	17.00
		1	49	15.76	15.45	16.03	17.00
		25	0	15.52	15.47	15.54	17.00
		25	13	15.60	15.59	15.63	17.00
		25	25	15.57	15.52	15.59	17.00
		50	0	15.60	15.50	15.56	17.00
	64QAM	1	0	15.72	15.50	15.95	17.00
		1	25	15.82	15.54	16.04	17.00
		1	49	15.77	15.46	16.00	17.00
		25	0	15.52	15.50	15.53	17.00
		25	13	15.62	15.60	15.64	17.00
		25	25	15.60	15.55	15.59	17.00
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	15.56	15.59	15.52	17.00
		1	38	15.69	15.67	15.61	17.00
		1	74	15.58	15.54	15.56	17.00
		36	0	15.57	15.53	15.55	17.00
		36	18	15.61	15.63	15.58	17.00
		36	39	15.63	15.57	15.55	17.00
		75	0	15.62	15.58	15.60	17.00
	16QAM	1	0	15.91	15.76	15.62	17.00
		1	38	16.07	15.80	15.74	17.00
		1	74	15.98	15.69	15.70	17.00
		36	0	15.60	15.58	15.53	17.00
		36	18	15.65	15.68	15.58	17.00
		36	39	15.67	15.62	15.54	17.00
		75	0	15.62	15.57	15.59	17.00
	64QAM	1	0	15.89	15.75	15.63	17.00
		1	38	16.05	15.79	15.74	17.00
		1	74	15.96	15.69	15.67	17.00
		36	0	15.61	15.60	15.52	17.00
		36	18	15.64	15.67	15.55	17.00
		36	39	15.67	15.62	15.55	17.00
		75	0	15.62	15.56	15.58	17.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	15.50	15.52	15.59	17.00
		1	50	15.70	15.73	15.68	17.00
		1	99	15.49	15.48	15.51	17.00



		50	0	15.55	15.49	15.57	17.00
		50	25	15.72	15.62	15.58	17.00
		50	50	15.71	15.53	15.57	17.00
		100	0	15.62	15.52	15.58	17.00
	16QAM	1	0	15.74	15.77	15.69	17.00
		1	50	16.02	15.93	15.91	17.00
		1	99	15.79	15.71	15.77	17.00
		50	0	15.57	15.45	15.54	17.00
		50	25	15.68	15.61	15.55	17.00
		50	50	15.75	15.50	15.55	17.00
		100	0	15.63	15.50	15.56	17.00
	64QAM	1	0	15.75	15.76	15.68	17.00
		1	50	16.02	15.94	15.89	17.00
		1	99	15.79	15.69	15.78	17.00
		50	0	15.57	15.44	15.52	17.00
		50	25	15.71	15.59	15.55	17.00
		50	50	15.73	15.49	15.55	17.00
		100	0	15.64	15.50	15.55	17.00

LTE FDD Band 5 Normal (Full Power)				Conducted 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	23.90	23.88	23.95	25.50
		1	2	23.96	23.85	23.90	25.50
		1	5	24.05	23.93	24.05	25.50
		3	0	23.86	24.04	23.82	25.50
		3	2	23.99	24.11	23.90	25.50
		3	3	23.95	23.92	23.79	25.50
		6	0	22.97	23.05	23.03	24.50
	16QAM	1	0	23.02	23.05	22.94	24.50
		1	2	23.00	23.01	22.88	24.50
		1	5	22.93	22.99	23.03	24.50
		3	0	22.82	22.73	22.65	24.50
		3	2	22.76	22.81	22.85	24.50
		3	3	22.87	22.88	23.00	24.50
		6	0	22.07	22.07	22.13	23.50
	64QAM	1	0	21.77	22.92	21.75	23.50
		1	2	21.72	22.84	21.91	23.50
		1	5	22.83	22.92	21.79	23.50
		3	0	22.91	22.83	22.79	23.50
		3	2	22.91	22.88	22.90	23.50
		3	3	22.85	22.96	22.85	23.50



Bandwidth	Modulation	6	0	21.97	21.96	22.05	22.50
		RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20415/825.5	20525/836.5	20635/847.5	
3MHz	QPSK	1	0	23.91	23.91	23.97	25.50
		1	7	23.95	23.89	23.95	25.50
		1	14	24.07	23.97	24.08	25.50
		8	0	22.96	23.16	22.95	24.50
		8	4	23.12	23.22	23.01	24.50
		8	7	23.05	23.05	22.90	24.50
		15	0	23.01	23.10	23.08	24.50
	16QAM	1	0	23.04	23.06	22.96	24.50
		1	7	23.03	23.03	22.92	24.50
		1	14	22.95	23.03	23.05	24.50
		8	0	21.94	21.87	21.78	23.50
		8	4	21.86	21.93	21.96	23.50
		8	7	21.97	22.00	22.13	23.50
		15	0	22.11	22.12	22.15	23.50
	64QAM	1	0	21.79	22.93	21.77	23.50
		1	7	21.75	22.86	21.93	23.50
		1	14	22.85	22.91	21.81	23.50
		8	0	22.03	21.97	21.92	22.50
		8	4	22.01	22.00	22.01	22.50
		8	7	21.95	22.08	21.98	22.50
		15	0	22.01	22.01	22.07	22.50
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	23.90	23.87
1	13			23.93	23.88	23.92	25.50
1	24			24.04	23.92	24.04	25.50
12	0			22.94	23.12	22.92	24.50
12	6			23.09	23.17	22.97	24.50
12	13			23.02	23.02	22.86	24.50
25	0			22.99	23.06	23.03	24.50
16QAM	1		0	22.99	23.04	22.94	24.50
	1		13	23.01	23.00	22.90	24.50
	1		24	22.92	22.99	23.02	24.50
	12		0	21.91	21.85	21.75	23.50
	12		6	21.83	21.88	21.92	23.50
	12		13	21.95	21.96	22.10	23.50
	25		0	22.08	22.07	22.11	23.50
64QAM	1		0	21.74	22.91	21.75	23.50
	1		13	21.73	22.83	21.91	23.50
	1		24	22.86	22.90	21.82	23.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20450/829	20525/836.5	20600/844	
10MHz		12	0	22.02	21.99	21.93	22.50
		12	6	21.99	21.97	22.00	22.50
		12	13	21.93	22.04	21.95	22.50
		25	0	21.98	21.96	22.03	22.50
	QPSK	1	0	23.87	23.83	23.92	25.50
		1	25	23.92	23.84	23.90	25.50
		1	49	24.02	23.91	24.01	25.50
		25	0	22.91	23.07	22.88	24.50
		25	13	23.07	23.13	22.94	24.50
		25	25	22.99	22.97	22.82	24.50
		50	0	22.96	23.01	22.99	24.50
	16QAM	1	0	22.95	23.00	22.89	24.50
		1	25	22.97	22.98	22.86	24.50
		1	49	22.90	22.96	23.00	24.50
		25	0	21.88	21.81	21.72	23.50
		25	13	21.80	21.86	21.89	23.50
		25	25	21.92	21.91	22.06	23.50
		50	0	22.06	22.03	22.08	23.50
	64QAM	1	0	21.72	22.87	21.70	23.50
		1	25	21.69	22.81	21.87	23.50
		1	49	22.80	22.84	21.76	23.50
		25	0	21.97	21.91	21.86	22.50
		25	13	21.95	21.93	21.94	22.50
		25	25	21.90	21.99	21.91	22.50
		50	0	21.96	21.92	22.00	22.50

LTE FDD Band 5 DSI-1 (Head SAR)				Conducted 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	21.38	21.30	21.42	23.00
		1	2	21.44	21.37	21.47	23.00
		1	5	21.33	21.32	21.45	23.00
		3	0	21.47	21.41	21.47	23.00
		3	2	21.49	21.46	21.55	23.00
		3	3	21.44	21.42	21.47	23.00
		6	0	21.48	21.50	21.61	23.00
	16QAM	1	0	21.51	21.54	21.25	23.00
		1	2	21.60	21.57	21.34	23.00
		1	5	21.53	21.48	21.27	23.00
		3	0	21.62	21.65	21.57	23.00



		3	2	21.63	21.69	21.64	23.00
		3	3	21.57	21.63	21.58	23.00
		6	0	21.69	21.63	21.76	23.00
	64QAM	1	0	21.54	21.50	21.22	23.00
		1	2	21.59	21.57	21.30	23.00
		1	5	21.52	21.48	21.26	23.00
		3	0	21.62	21.61	21.57	23.00
		3	2	21.64	21.69	21.65	23.00
		3	3	21.57	21.66	21.61	23.00
6	0	21.70	21.64	21.76	22.50		
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	21.26	21.23	21.29	23.00
		1	7	21.30	21.28	21.38	23.00
		1	14	21.23	21.25	21.34	23.00
		8	0	21.40	21.42	21.42	23.00
		8	4	21.47	21.46	21.52	23.00
		8	7	21.44	21.43	21.44	23.00
		15	0	21.41	21.44	21.47	23.00
	16QAM	1	0	21.67	21.40	21.12	23.00
		1	7	21.69	21.47	21.22	23.00
		1	14	21.65	21.41	21.12	23.00
		8	0	21.45	21.43	21.39	23.00
		8	4	21.49	21.48	21.48	23.00
		8	7	21.42	21.40	21.43	23.00
		15	0	21.36	21.38	21.50	23.00
	64QAM	1	0	21.67	21.43	21.13	23.00
		1	7	21.68	21.47	21.20	23.00
		1	14	21.64	21.41	21.16	23.00
		8	0	21.45	21.44	21.39	22.50
		8	4	21.47	21.49	21.49	22.50
		8	7	21.44	21.41	21.42	22.50
		15	0	21.38	21.38	21.50	22.50
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	21.48	21.50	21.47	23.00
		1	13	21.59	21.53	21.56	23.00
		1	24	21.55	21.46	21.53	23.00
		12	0	21.45	21.50	21.50	23.00
		12	6	21.52	21.53	21.58	23.00
		12	13	21.50	21.52	21.48	23.00
		25	0	21.49	21.50	21.52	23.00
	16QAM	1	0	22.03	21.81	21.77	23.00



		1	13	22.06	21.83	21.84	23.00
		1	24	22.00	21.77	21.79	23.00
		12	0	21.43	21.46	21.52	23.00
		12	6	21.47	21.51	21.55	23.00
		12	13	21.50	21.43	21.48	23.00
		25	0	21.41	21.54	21.47	23.00
		25	0	21.41	21.54	21.47	23.00
	64QAM	1	0	22.02	21.83	21.77	23.00
		1	13	22.05	21.84	21.84	23.00
		1	24	22.00	21.77	21.80	23.00
		12	0	21.41	21.42	21.52	22.50
		12	6	21.50	21.52	21.56	22.50
		12	13	21.48	21.43	21.48	22.50
		25	0	21.42	21.55	21.47	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	21.61	21.53	21.58	23.00
		1	25	21.63	21.57	21.64	23.00
		1	49	21.59	21.58	21.65	23.00
		25	0	21.48	21.49	21.51	23.00
		25	13	21.60	21.54	21.57	23.00
		25	25	21.49	21.57	21.41	23.00
		50	0	21.52	21.53	21.49	23.00
	16QAM	1	0	21.98	21.71	21.42	23.00
		1	25	22.00	21.70	21.48	23.00
		1	49	21.95	21.73	21.48	23.00
		25	0	21.49	21.50	21.45	23.00
		25	13	21.59	21.60	21.55	23.00
		25	25	21.54	21.55	21.45	23.00
		50	0	21.50	21.54	21.47	23.00
	64QAM	1	0	21.97	21.72	21.44	23.00
		1	25	22.00	21.75	21.48	23.00
		1	49	21.94	21.73	21.47	23.00
		25	0	21.47	21.51	21.48	22.50
		25	13	21.60	21.58	21.55	22.50
		25	25	21.51	21.56	21.42	22.50
		50	0	21.48	21.51	21.44	22.50

LTE FDD Band 5 DSI-2 (Body SAR)				Conducted 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	23.90	23.88	23.95	25.50
		1	2	23.96	23.85	23.90	25.50



		1	5	24.05	23.93	24.05	25.50	
		3	0	23.86	24.04	23.82	25.50	
		3	2	23.99	24.11	23.90	25.50	
		3	3	23.95	23.92	23.79	25.50	
		6	0	22.97	23.05	23.03	24.50	
	16QAM	1	0	23.02	23.05	22.94	24.50	
		1	2	23.00	23.01	22.88	24.50	
		1	5	22.93	22.99	23.03	24.50	
		3	0	22.82	22.73	22.65	24.50	
		3	2	22.76	22.81	22.85	24.50	
		3	3	22.87	22.88	23.00	24.50	
		6	0	22.07	22.07	22.13	23.50	
	64QAM	1	0	21.77	22.92	21.75	23.50	
		1	2	21.72	22.84	21.91	23.50	
		1	5	22.83	22.92	21.79	23.50	
		3	0	22.91	22.83	22.79	23.50	
		3	2	22.91	22.88	22.90	23.50	
		3	3	22.85	22.96	22.85	23.50	
		6	0	21.97	21.96	22.05	22.50	
	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	23.91	23.91	23.97	25.50	
		1	7	23.95	23.89	23.95	25.50	
		1	14	24.07	23.97	24.08	25.50	
		8	0	22.96	23.16	22.95	24.50	
		8	4	23.12	23.22	23.01	24.50	
		8	7	23.05	23.05	22.90	24.50	
		15	0	23.01	23.10	23.08	24.50	
	16QAM	1	0	23.04	23.06	22.96	24.50	
		1	7	23.03	23.03	22.92	24.50	
		1	14	22.95	23.03	23.05	24.50	
		8	0	21.94	21.87	21.78	23.50	
		8	4	21.86	21.93	21.96	23.50	
		8	7	21.97	22.00	22.13	23.50	
		15	0	22.11	22.12	22.15	23.50	
	64QAM	1	0	21.79	22.93	21.77	23.50	
		1	7	21.75	22.86	21.93	23.50	
		1	14	22.85	22.91	21.81	23.50	
		8	0	22.03	21.97	21.92	22.50	
		8	4	22.01	22.00	22.01	22.50	
		8	7	21.95	22.08	21.98	22.50	
		15	0	22.01	22.01	22.07	22.50	



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	23.90	23.87	23.95	25.50
		1	13	23.93	23.88	23.92	25.50
		1	24	24.04	23.92	24.04	25.50
		12	0	22.94	23.12	22.92	24.50
		12	6	23.09	23.17	22.97	24.50
		12	13	23.02	23.02	22.86	24.50
		25	0	22.99	23.06	23.03	24.50
	16QAM	1	0	22.99	23.04	22.94	24.50
		1	13	23.01	23.00	22.90	24.50
		1	24	22.92	22.99	23.02	24.50
		12	0	21.91	21.85	21.75	23.50
		12	6	21.83	21.88	21.92	23.50
		12	13	21.95	21.96	22.10	23.50
		25	0	22.08	22.07	22.11	23.50
	64QAM	1	0	21.74	22.91	21.75	23.50
		1	13	21.73	22.83	21.91	23.50
		1	24	22.86	22.90	21.82	23.50
		12	0	22.02	21.99	21.93	22.50
		12	6	21.99	21.97	22.00	22.50
		12	13	21.93	22.04	21.95	22.50
		25	0	21.98	21.96	22.03	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	23.87	23.83	23.92	25.50
		1	25	23.92	23.84	23.90	25.50
		1	49	24.02	23.91	24.01	25.50
		25	0	22.91	23.07	22.88	24.50
		25	13	23.07	23.13	22.94	24.50
		25	25	22.99	22.97	22.82	24.50
		50	0	22.96	23.01	22.99	24.50
	16QAM	1	0	22.95	23.00	22.89	24.50
		1	25	22.97	22.98	22.86	24.50
		1	49	22.90	22.96	23.00	24.50
		25	0	21.88	21.81	21.72	23.50
		25	13	21.80	21.86	21.89	23.50
		25	25	21.92	21.91	22.06	23.50
		50	0	22.06	22.03	22.08	23.50
	64QAM	1	0	21.72	22.87	21.70	23.50
		1	25	21.69	22.81	21.87	23.50
		1	49	22.80	22.84	21.76	23.50
		25	0	21.97	21.91	21.86	22.50



		25	13	21.95	21.93	21.94	22.50
		25	25	21.90	21.99	21.91	22.50
		50	0	21.96	21.92	22.00	22.50

LTE FDD Band 5 DSI-4 (Body SAR)				Conducted 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	22.86	22.82	22.92	24.50
		1	2	22.95	22.87	22.96	24.50
		1	5	22.84	22.78	22.94	24.50
		3	0	22.96	22.92	22.96	24.50
		3	2	22.98	22.94	23.03	24.50
		3	3	22.91	22.90	22.95	24.50
		6	0	22.99	23.00	23.14	24.50
	16QAM	1	0	22.95	22.97	22.73	24.50
		1	2	23.03	23.01	22.76	24.50
		1	5	22.96	22.98	22.73	24.50
		3	0	23.06	23.10	23.03	24.50
		3	2	23.06	23.11	23.09	24.50
		3	3	23.03	23.09	23.05	24.50
		6	0	22.18	22.14	22.25	23.50
	64QAM	1	0	22.96	22.97	22.66	23.50
		1	2	23.03	23.01	22.75	23.50
		1	5	22.95	22.96	22.72	23.50
		3	0	23.06	23.09	23.02	23.50
		3	2	23.07	23.13	23.09	23.50
		3	3	23.02	23.10	23.06	23.50
		6	0	22.18	22.14	22.25	22.50
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	22.76	22.73	22.79	24.50
		1	7	22.80	22.79	22.88	24.50
		1	14	22.71	22.75	22.84	24.50
		8	0	22.90	22.94	22.98	24.50
		8	4	22.97	22.99	23.05	24.50
		8	7	22.95	22.98	22.97	24.50
		15	0	22.91	22.98	22.96	24.50
	16QAM	1	0	23.12	22.89	22.57	24.50
		1	7	23.13	22.93	22.66	24.50
		1	14	23.08	22.89	22.60	24.50
		8	0	21.93	21.92	21.89	23.50
		8	4	21.95	21.95	21.98	23.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20425/826.5	20525/836.5	20625/846.5		
	64QAM	8	7	21.91	21.93	21.91	23.50	
		15	0	21.93	21.88	21.97	23.50	
		1	0	23.09	22.89	22.57	23.50	
		1	7	23.14	22.94	22.66	23.50	
		1	14	23.06	22.88	22.60	23.50	
		8	0	21.91	21.95	21.89	22.50	
		8	4	21.99	21.95	21.97	22.50	
		8	7	21.91	21.90	21.91	22.50	
		15	0	21.93	21.89	21.99	22.50	
5MHz	QPSK	1	0	22.98	22.99	22.96	24.50	
		1	13	22.99	23.03	23.07	24.50	
		1	24	22.97	23.02	23.04	24.50	
		12	0	22.96	23.00	23.00	24.50	
		12	6	23.01	23.05	23.08	24.50	
		12	13	22.97	23.01	22.99	24.50	
		25	0	22.98	23.02	23.01	24.50	
	16QAM	1	0	23.24	23.28	23.23	24.50	
		1	13	23.26	23.28	23.31	24.50	
		1	24	23.23	23.22	23.24	24.50	
		12	0	21.94	22.02	21.93	23.50	
		12	6	22.01	21.99	21.96	23.50	
		12	13	21.97	21.94	21.89	23.50	
		25	0	21.92	21.97	21.98	23.50	
	64QAM	1	0	23.22	23.40	23.22	23.50	
		1	13	23.25	23.48	23.29	23.50	
		1	24	23.23	23.40	23.25	23.50	
		12	0	21.93	21.94	21.94	22.50	
		12	6	22.02	22.02	21.97	22.50	
		12	13	21.99	21.96	21.89	22.50	
		25	0	21.92	21.95	21.98	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20450/829	20525/836.5	20600/844	
	10MHz	QPSK	1	0	23.08	23.05	23.09	24.50
1			25	23.09	23.06	23.14	24.50	
1			49	23.04	23.05	23.16	24.50	
25			0	22.96	22.98	22.99	24.50	
25			13	23.05	23.08	23.06	24.50	
25			25	22.99	23.06	22.92	24.50	
50			0	23.01	23.04	22.99	24.50	
16QAM		1	0	23.40	23.18	22.88	24.50	
		1	25	23.44	23.18	22.90	24.50	



		1	49	23.37	23.19	22.92	24.50
		25	0	21.96	21.99	21.98	23.50
		25	13	22.10	22.08	22.03	23.50
		25	25	22.00	22.04	21.94	23.50
		50	0	21.97	22.03	21.92	23.50
	64QAM	1	0	23.39	23.17	22.87	23.50
		1	25	23.41	23.19	22.89	23.50
		1	49	23.39	23.17	22.92	23.50
		25	0	22.01	22.00	21.96	22.50
		25	13	22.06	22.08	22.06	22.50
		25	25	21.99	22.04	21.93	22.50
		50	0	21.95	22.03	21.93	22.50

LTE FDD Band 7 Normal (Full Power)				Conducted 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	24.26	24.27	24.28	25.50
		1	13	24.41	24.47	24.53	25.50
		1	24	24.26	24.30	24.35	25.50
		12	0	23.31	23.35	23.38	24.50
		12	6	23.38	23.43	23.46	24.50
		12	13	23.49	23.34	23.37	24.50
		25	0	23.34	23.36	23.40	24.50
	16QAM	1	0	23.73	23.37	23.54	24.50
		1	13	23.72	23.58	23.73	24.50
		1	24	23.48	23.53	23.55	24.50
		12	0	22.33	22.27	22.39	23.50
		12	6	22.42	22.41	22.49	23.50
		12	13	22.42	22.32	22.38	23.50
		25	0	22.36	22.35	22.35	23.50
	64QAM	1	0	22.39	22.29	22.32	23.50
		1	13	22.63	22.49	22.54	23.50
		1	24	22.42	22.38	22.35	23.50
		12	0	21.24	21.18	21.26	22.50
		12	6	21.32	21.28	21.36	22.50
		12	13	21.35	21.19	21.25	22.50
		25	0	21.21	21.25	21.27	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
10MHz	QPSK			20800/2505	21100/2535	21400/2565	
		1	0	24.24	24.26	24.25	25.50
		1	25	24.38	24.42	24.49	25.50
		1	49	24.24	24.26	24.32	25.50



		25	0	23.28	23.30	23.34	24.50	
		25	13	23.35	23.38	23.42	24.50	
		25	25	23.47	23.30	23.32	24.50	
		50	0	23.30	23.34	23.36	24.50	
	16QAM	1	0	23.71	23.34	23.52	24.50	
		1	25	23.69	23.54	23.70	24.50	
		1	49	23.45	23.51	23.52	24.50	
		25	0	22.30	22.22	22.35	23.50	
		25	13	22.40	22.37	22.46	23.50	
		25	25	22.39	22.27	22.34	23.50	
		50	0	22.33	22.30	22.31	23.50	
	64QAM	1	0	22.37	22.30	22.30	23.50	
		1	25	22.60	22.49	22.51	23.50	
		1	49	22.43	22.36	22.32	23.50	
		25	0	21.21	21.13	21.26	22.50	
		25	13	21.30	21.24	21.33	22.50	
		25	25	21.32	21.14	21.21	22.50	
		50	0	21.18	21.20	21.23	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20825/2507.5	21100/2535	21375/2562.5	
	15MHz	QPSK	1	0	24.27	24.28	24.29	25.50
1			38	24.40	24.46	24.52	25.50	
1			74	24.27	24.31	24.36	25.50	
36			0	23.31	23.35	23.38	24.50	
36			18	23.37	23.42	23.47	24.50	
36			39	23.49	23.32	23.36	24.50	
75			0	23.30	23.35	23.38	24.50	
16QAM		1	0	23.74	23.38	23.55	24.50	
		1	38	23.72	23.56	23.73	24.50	
		1	74	23.48	23.53	23.56	24.50	
		36	0	22.32	22.26	22.38	23.50	
		36	18	22.43	22.42	22.50	23.50	
		36	39	22.42	22.32	22.38	23.50	
		75	0	22.35	22.34	22.36	23.50	
64QAM		1	0	22.40	22.30	22.33	23.50	
		1	38	22.63	22.47	22.54	23.50	
		1	74	22.42	22.38	22.36	23.50	
		36	0	21.23	21.17	21.25	22.50	
		36	18	21.33	21.29	21.37	22.50	
		36	39	21.35	21.19	21.25	22.50	
		75	0	21.20	21.24	21.28	22.50	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	24.22	24.19	24.23	25.50
		1	50	24.38	24.42	24.48	25.50
		1	99	24.21	24.24	24.28	25.50
		50	0	23.26	23.26	23.31	24.50
		50	25	23.33	23.34	23.39	24.50
		50	50	23.43	23.26	23.29	24.50
		100	0	23.29	23.27	23.31	24.50
	16QAM	1	0	23.45	23.31	23.47	24.50
		1	50	23.66	23.53	23.67	24.50
		1	99	23.43	23.46	23.50	24.50
		50	0	22.27	22.21	22.33	23.50
		50	25	22.36	22.34	22.42	23.50
		50	50	22.37	22.23	22.31	23.50
		100	0	22.31	22.26	22.28	23.50
	64QAM	1	0	22.32	22.23	22.25	23.50
		1	50	22.57	22.44	22.48	23.50
		1	99	22.37	22.31	22.30	23.50
		50	0	21.18	21.12	21.20	22.50
		50	25	21.26	21.21	21.29	22.50
		50	50	21.30	21.10	21.18	22.50
		100	0	21.16	21.16	21.20	22.50

LTE FDD Band 7 DSI-1 (Head SAR)				Conducted 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	17.71	17.66	17.58	19.00
		1	13	17.74	17.78	17.91	19.00
		1	24	17.90	17.64	17.66	19.00
		12	0	17.74	17.74	17.72	19.00
		12	6	17.85	17.87	17.84	19.00
		12	13	17.93	17.72	17.59	19.00
		25	0	17.85	17.74	17.64	19.00
	16QAM	1	0	17.87	17.81	17.90	19.00
		1	13	17.84	17.80	17.85	19.00
		1	24	17.90	17.90	17.94	19.00
		12	0	17.79	17.73	17.79	19.00
		12	6	17.77	17.74	17.83	19.00
		12	13	17.81	17.78	17.86	19.00
		25	0	17.76	17.74	17.81	19.00
	64QAM	1	0	17.71	17.65	17.74	19.00



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				20800/2505	21100/2535	21400/2565		
		1	13	17.68	17.64	17.69	19.00	
		1	24	17.76	17.76	17.80	19.00	
		12	0	17.67	17.61	17.67	19.00	
		12	6	17.73	17.70	17.79	19.00	
		12	13	17.80	17.77	17.85	19.00	
		25	0	17.63	17.61	17.68	19.00	
10MHz	QPSK	1	0	17.72	17.65	17.60	19.00	
		1	25	17.75	17.82	17.93	19.00	
		1	49	17.91	17.66	17.68	19.00	
		25	0	17.75	17.78	17.74	19.00	
		25	13	17.87	17.90	17.87	19.00	
		25	25	17.93	17.72	17.63	19.00	
	16QAM	50	0	17.85	17.75	17.65	19.00	
		1	0	17.86	17.79	17.90	19.00	
		1	25	17.86	17.83	17.83	19.00	
		1	49	17.91	17.88	17.96	19.00	
		25	0	17.77	17.77	17.80	19.00	
		25	13	17.76	17.73	17.84	19.00	
	64QAM	25	25	17.83	17.82	17.85	19.00	
		50	0	17.75	17.76	17.81	19.00	
		1	0	17.71	17.64	17.75	19.00	
		1	25	17.70	17.66	17.69	19.00	
		1	49	17.76	17.73	17.81	19.00	
		25	0	17.69	17.65	17.66	19.00	
	15MHz	QPSK	25	13	17.71	17.71	17.78	19.00
			25	25	17.81	17.78	17.88	19.00
			50	0	17.65	17.64	17.69	19.00
			1	0	17.72	17.63	17.59	19.00
			1	38	17.75	17.82	17.92	19.00
			1	74	17.89	17.63	17.65	19.00
16QAM		36	0	17.75	17.75	17.73	19.00	
		36	18	17.85	17.87	17.84	19.00	
		36	39	17.92	17.73	17.60	19.00	
		75	0	17.88	17.72	17.63	19.00	
		1	0	17.84	17.82	17.90	19.00	
		1	38	17.85	17.81	17.86	19.00	
		1	74	17.90	17.88	17.94	19.00	
		36	0	17.79	17.76	17.80	19.00	
		36	18	17.76	17.73	17.82	19.00	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
		36	39	17.82	17.79	17.87	19.00
		75	0	17.76	17.74	17.81	19.00
	64QAM	1	0	17.68	17.66	17.74	19.00
		1	38	17.69	17.65	17.70	19.00
		1	74	17.76	17.74	17.80	19.00
		36	0	17.67	17.64	17.68	19.00
		36	18	17.72	17.69	17.78	19.00
		36	39	17.81	17.78	17.86	19.00
		75	0	17.63	17.61	17.68	19.00
		20MHz	QPSK	1	0	17.99	17.79
1	50			18.04	18.12	18.21	19.00
1	99			18.17	17.82	17.82	19.00
50	0			18.02	17.90	17.89	19.00
50	25			18.13	18.15	18.18	19.00
50	50			18.29	17.88	17.76	19.00
100	0			18.15	17.87	17.79	19.00
16QAM	1		0	18.12	17.98	18.05	19.00
	1		50	18.11	17.99	18.02	19.00
	1		99	18.18	18.05	18.12	19.00
	50		0	18.06	17.92	17.97	19.00
	50		25	18.03	17.91	17.99	19.00
	50		50	18.09	17.94	18.03	19.00
	100		0	18.04	17.90	17.98	19.00
64QAM	1		0	17.96	17.82	17.89	19.00
	1		50	17.95	17.83	17.86	19.00
	1		99	18.04	17.91	17.98	19.00
	50		0	17.94	17.80	17.85	19.00
	50		25	17.99	17.87	17.95	19.00
	50		50	18.08	17.93	18.02	19.00
	100	0	17.91	17.77	17.85	19.00	

LTE FDD Band 7 DSI-2 (Body SAR)				Conducted 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	24.26	24.27	24.28	25.50
		1	13	24.41	24.47	24.53	25.50
		1	24	24.26	24.30	24.35	25.50
		12	0	23.31	23.35	23.38	24.50
		12	6	23.38	23.43	23.46	24.50
		12	13	23.49	23.34	23.37	24.50



	16QAM	25	0	23.34	23.36	23.40	24.50
		1	0	23.73	23.37	23.54	24.50
		1	13	23.72	23.58	23.73	24.50
		1	24	23.48	23.53	23.55	24.50
		12	0	22.33	22.27	22.39	23.50
		12	6	22.42	22.41	22.49	23.50
		12	13	22.42	22.32	22.38	23.50
		25	0	22.36	22.35	22.35	23.50
	64QAM	1	0	22.39	22.29	22.32	23.50
		1	13	22.63	22.49	22.54	23.50
		1	24	22.42	22.38	22.35	23.50
		12	0	21.24	21.18	21.26	22.50
		12	6	21.32	21.28	21.36	22.50
		12	13	21.35	21.19	21.25	22.50
25		0	21.21	21.25	21.27	22.50	
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	24.24	24.26	24.25	25.50
		1	25	24.38	24.42	24.49	25.50
		1	49	24.24	24.26	24.32	25.50
		25	0	23.28	23.30	23.34	24.50
		25	13	23.35	23.38	23.42	24.50
		25	25	23.47	23.30	23.32	24.50
		50	0	23.30	23.34	23.36	24.50
	16QAM	1	0	23.71	23.34	23.52	24.50
		1	25	23.69	23.54	23.70	24.50
		1	49	23.45	23.51	23.52	24.50
		25	0	22.30	22.22	22.35	23.50
		25	13	22.40	22.37	22.46	23.50
		25	25	22.39	22.27	22.34	23.50
		50	0	22.33	22.30	22.31	23.50
	64QAM	1	0	22.37	22.30	22.30	23.50
		1	25	22.60	22.49	22.51	23.50
		1	49	22.43	22.36	22.32	23.50
		25	0	21.21	21.13	21.26	22.50
		25	13	21.30	21.24	21.33	22.50
		25	25	21.32	21.14	21.21	22.50
		50	0	21.18	21.20	21.23	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	24.27	24.28	24.29	25.50
		1	38	24.40	24.46	24.52	25.50
		1	74	24.27	24.31	24.36	25.50



		36	0	23.31	23.35	23.38	24.50	
		36	18	23.37	23.42	23.47	24.50	
		36	39	23.49	23.32	23.36	24.50	
		75	0	23.30	23.35	23.38	24.50	
	16QAM	1	0	23.74	23.38	23.55	24.50	
		1	38	23.72	23.56	23.73	24.50	
		1	74	23.48	23.53	23.56	24.50	
		36	0	22.32	22.26	22.38	23.50	
		36	18	22.43	22.42	22.50	23.50	
		36	39	22.42	22.32	22.38	23.50	
		75	0	22.35	22.34	22.36	23.50	
	64QAM	1	0	22.40	22.30	22.33	23.50	
		1	38	22.63	22.47	22.54	23.50	
		1	74	22.42	22.38	22.36	23.50	
		36	0	21.23	21.17	21.25	22.50	
		36	18	21.33	21.29	21.37	22.50	
		36	39	21.35	21.19	21.25	22.50	
		75	0	21.20	21.24	21.28	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					20850/2510	21100/2535	21350/2560	
	20MHz	QPSK	1	0	24.22	24.19	24.23	25.50
1			50	24.38	24.42	24.48	25.50	
1			99	24.21	24.24	24.28	25.50	
50			0	23.26	23.26	23.31	24.50	
50			25	23.33	23.34	23.39	24.50	
50			50	23.43	23.26	23.29	24.50	
100			0	23.29	23.27	23.31	24.50	
16QAM		1	0	23.45	23.31	23.47	24.50	
		1	50	23.66	23.53	23.67	24.50	
		1	99	23.43	23.46	23.50	24.50	
		50	0	22.27	22.21	22.33	23.50	
		50	25	22.36	22.34	22.42	23.50	
		50	50	22.37	22.23	22.31	23.50	
		100	0	22.31	22.26	22.28	23.50	
64QAM		1	0	22.32	22.23	22.25	23.50	
		1	50	22.57	22.44	22.48	23.50	
		1	99	22.37	22.31	22.30	23.50	
		50	0	21.18	21.12	21.20	22.50	
		50	25	21.26	21.21	21.29	22.50	
		50	50	21.30	21.10	21.18	22.50	
		100	0	21.16	21.16	21.20	22.50	



LTE FDD Band 7 DSI-4 (Body SAR)				Conducted 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	19.18	19.36	19.27	20.50
		1	13	19.34	19.45	19.47	20.50
		1	24	19.24	19.17	19.35	20.50
		12	0	19.21	19.25	19.34	20.50
		12	6	19.32	19.07	19.19	20.50
		12	13	19.40	19.20	19.28	20.50
		25	0	19.32	19.29	19.33	20.50
	16QAM	1	0	19.60	19.54	19.63	20.50
		1	13	19.51	19.47	19.52	20.50
		1	24	19.62	19.62	19.66	20.50
		12	0	19.28	19.22	19.28	20.50
		12	6	19.33	19.30	19.39	20.50
		12	13	19.29	19.26	19.34	20.50
		25	0	19.20	19.18	19.25	20.50
	64QAM	1	0	19.51	19.45	19.54	20.50
		1	13	19.37	19.33	19.38	20.50
		1	24	19.55	19.55	19.59	20.50
		12	0	19.27	19.21	19.27	20.50
		12	6	19.31	19.28	19.37	20.50
		12	13	19.23	19.20	19.28	20.50
		25	0	19.25	19.23	19.30	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	19.19	19.35	19.29	20.50
		1	25	19.35	19.49	19.49	20.50
		1	49	19.25	19.19	19.37	20.50
		25	0	19.22	19.29	19.36	20.50
		25	13	19.34	19.10	19.22	20.50
		25	25	19.40	19.20	19.32	20.50
		50	0	19.32	19.30	19.34	20.50
	16QAM	1	0	19.59	19.52	19.63	20.50
		1	25	19.53	19.50	19.50	20.50
		1	49	19.63	19.60	19.68	20.50
		25	0	19.26	19.26	19.29	20.50
		25	13	19.32	19.29	19.40	20.50
		25	25	19.31	19.30	19.33	20.50
		50	0	19.19	19.20	19.25	20.50
	64QAM	1	0	19.51	19.44	19.55	20.50



		1	25	19.39	19.35	19.38	20.50
		1	49	19.55	19.52	19.60	20.50
		25	0	19.29	19.25	19.26	20.50
		25	13	19.29	19.29	19.36	20.50
		25	25	19.24	19.21	19.31	20.50
		50	0	19.27	19.26	19.31	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	19.19	19.33	19.28	20.50
		1	38	19.35	19.49	19.48	20.50
		1	74	19.23	19.16	19.34	20.50
		36	0	19.22	19.26	19.35	20.50
		36	18	19.32	19.07	19.19	20.50
		36	39	19.39	19.21	19.29	20.50
		75	0	19.35	19.27	19.32	20.50
	16QAM	1	0	19.57	19.55	19.63	20.50
		1	38	19.52	19.48	19.53	20.50
		1	74	19.62	19.60	19.66	20.50
		36	0	19.28	19.25	19.29	20.50
		36	18	19.32	19.29	19.38	20.50
		36	39	19.30	19.27	19.35	20.50
		75	0	19.20	19.18	19.25	20.50
	64QAM	1	0	19.48	19.46	19.54	20.50
		1	38	19.38	19.34	19.39	20.50
		1	74	19.55	19.53	19.59	20.50
		36	0	19.27	19.24	19.28	20.50
		36	18	19.30	19.27	19.36	20.50
		36	39	19.24	19.21	19.29	20.50
		75	0	19.25	19.23	19.30	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	19.16	19.29	19.25	20.50
		1	50	19.34	19.45	19.46	20.50
		1	99	19.21	19.15	19.31	20.50
		50	0	19.19	19.21	19.31	20.50
		50	25	19.30	19.03	19.16	20.50
		50	50	19.36	19.16	19.25	20.50
		100	0	19.32	19.22	19.28	20.50
	16QAM	1	0	19.55	19.51	19.58	20.50
		1	50	19.48	19.46	19.49	20.50
		1	99	19.60	19.57	19.64	20.50
		50	0	19.25	19.21	19.26	20.50
		50	25	19.29	19.27	19.35	20.50



		50	50	19.27	19.22	19.31	20.50
		100	0	19.18	19.14	19.22	20.50
	64QAM	1	0	19.46	19.42	19.49	20.50
		1	50	19.34	19.32	19.35	20.50
		1	99	19.53	19.50	19.57	20.50
		50	0	19.24	19.20	19.25	20.50
		50	25	19.27	19.25	19.33	20.50
		50	50	19.21	19.16	19.25	20.50
		100	0	19.23	19.19	19.27	20.50

LTE TDD Band 38 Normal (Full Power)				Conducted 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	24.69	24.69	24.68	25.50
		1	13	24.81	24.84	24.83	25.50
		1	24	24.74	24.75	24.74	25.50
		12	0	23.71	23.71	23.73	24.50
		12	6	23.82	23.82	23.81	24.50
		12	13	23.72	23.75	23.72	24.50
		25	0	23.75	23.73	23.77	24.50
	16QAM	1	0	24.14	24.19	24.17	24.50
		1	13	24.28	24.31	24.31	24.50
		1	24	24.20	24.22	24.21	24.50
		12	0	22.66	22.71	22.73	23.50
		12	6	22.81	22.80	22.81	23.50
		12	13	22.69	22.71	22.73	23.50
		25	0	22.74	22.70	22.74	23.50
	64QAM	1	0	22.66	22.66	22.66	23.50
		1	13	22.79	22.79	22.69	23.50
		1	24	22.72	22.71	22.72	23.50
		12	0	21.41	21.41	21.40	22.50
		12	6	21.50	21.49	21.48	22.50
		12	13	21.41	21.43	21.43	22.50
		25	0	21.43	21.42	21.43	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
10MHz	QPSK			37800/2575	38000/2595	38200/2615	
		1	0	24.76	24.75	24.75	25.50
		1	25	24.81	24.82	24.81	25.50
		1	49	24.80	24.83	24.83	25.50
		25	0	23.73	23.73	23.74	24.50
		25	13	23.82	23.82	23.84	24.50
25	25	23.75	23.74	23.74	24.50		



	16QAM	50	0	23.76	23.78	23.80	24.50
		1	0	24.14	24.16	24.15	24.50
		1	25	24.19	24.21	24.19	24.50
		1	49	24.19	24.21	24.20	24.50
		25	0	22.76	22.77	22.76	23.50
		25	13	22.85	22.85	22.83	23.50
		25	25	22.76	22.73	22.74	23.50
		50	0	22.74	22.76	22.75	23.50
	64QAM	1	0	22.62	22.62	22.64	23.50
		1	25	22.68	22.70	22.69	23.50
		1	49	22.72	22.70	22.72	23.50
		25	0	21.46	21.47	21.45	22.50
		25	13	21.54	21.57	21.55	22.50
		25	25	21.47	21.45	21.46	22.50
		50	0	21.47	21.41	21.42	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	24.69	24.69	24.70	25.50
		1	38	24.83	24.83	24.84	25.50
		1	74	24.80	24.80	24.81	25.50
		36	0	23.79	23.78	23.79	24.50
		36	18	23.88	23.90	23.89	24.50
		36	39	23.86	23.84	23.85	24.50
		75	0	23.88	23.85	23.85	24.50
	16QAM	1	0	24.07	24.07	24.08	24.50
		1	38	24.20	24.22	24.20	24.50
		1	74	24.18	24.17	24.20	24.50
		36	0	22.79	22.81	22.81	23.50
		36	18	22.87	22.86	22.87	23.50
		36	39	22.81	22.82	22.80	23.50
		75	0	22.79	22.76	22.75	23.50
	64QAM	1	0	22.77	22.77	22.78	23.50
		1	38	22.72	22.69	22.70	23.50
		1	74	22.66	22.68	22.68	23.50
		36	0	21.48	21.43	21.47	22.50
		36	18	21.55	21.54	21.59	22.50
		36	39	21.54	21.54	21.54	22.50
		75	0	21.50	21.51	21.49	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	24.58	24.62	24.64	25.50
		1	50	24.81	24.86	24.88	25.50
		1	99	24.75	24.79	24.78	25.50



		50	0	23.73	23.74	23.75	24.50
		50	25	23.87	23.88	23.84	24.50
		50	50	23.70	23.75	23.76	24.50
		100	0	23.72	23.72	23.74	24.50
	16QAM	1	0	23.82	23.80	23.78	24.50
		1	50	24.03	24.07	24.06	24.50
		1	99	23.97	24.03	23.99	24.50
		50	0	22.74	22.72	22.74	23.50
		50	25	22.80	22.83	22.82	23.50
		50	50	22.68	22.69	22.70	23.50
		100	0	22.68	22.72	22.73	23.50
	64QAM	1	0	22.48	22.55	22.55	23.50
		1	50	22.75	22.78	22.73	23.50
		1	99	22.72	22.71	22.72	23.50
		50	0	21.39	21.45	21.42	22.50
		50	25	21.52	21.53	21.55	22.50
		50	50	21.39	21.41	21.40	22.50
		100	0	21.37	21.41	21.40	22.50

LTE TDD Band 38 DSI-1 (Head SAR)				Conducted 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	20.68	20.65	20.50	21.00
		1	13	20.81	20.84	20.82	21.00
		1	24	20.71	20.69	20.78	21.00
		12	0	20.67	20.64	20.72	21.00
		12	6	20.72	20.70	20.77	21.00
		12	13	20.72	20.67	20.72	21.00
		25	0	20.74	20.75	20.81	21.00
	16QAM	1	0	20.95	20.68	20.77	21.00
		1	13	20.93	20.89	20.94	21.00
		1	24	20.83	20.83	20.87	21.00
		12	0	20.73	20.67	20.73	21.00
		12	6	20.82	20.79	20.88	21.00
		12	13	20.75	20.72	20.80	21.00
		25	0	20.75	20.73	20.80	21.00
	64QAM	1	0	20.70	20.68	20.73	21.00
		1	13	20.82	20.82	20.83	21.00
		1	24	20.84	20.77	20.81	21.00
		12	0	20.67	20.57	20.67	21.00
		12	6	20.76	20.71	20.80	21.00
		12	13	20.74	20.71	20.79	21.00



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
				25	0	20.78	
10MHz	QPSK	1	0	20.70	20.66	20.53	21.00
		1	25	20.84	20.89	20.86	21.00
		1	49	20.73	20.73	20.81	21.00
		25	0	20.70	20.69	20.76	21.00
		25	13	20.75	20.75	20.81	21.00
		25	25	20.74	20.71	20.77	21.00
		50	0	20.78	20.77	20.85	21.00
	16QAM	1	0	20.97	20.71	20.79	21.00
		1	25	20.96	20.93	20.97	21.00
		1	49	20.86	20.85	20.90	21.00
		25	0	20.76	20.72	20.77	21.00
		25	13	20.84	20.83	20.91	21.00
		25	25	20.78	20.77	20.84	21.00
		50	0	20.78	20.78	20.84	21.00
	64QAM	1	0	20.72	20.67	20.75	21.00
		1	25	20.85	20.82	20.86	21.00
		1	49	20.83	20.79	20.84	21.00
		25	0	20.70	20.62	20.67	21.00
		25	13	20.78	20.75	20.83	21.00
		25	25	20.77	20.76	20.83	21.00
		50	0	20.81	20.81	20.87	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
				1	0	20.69	
15MHz	QPSK	1	38	20.82	20.88	20.83	21.00
		1	74	20.70	20.68	20.77	21.00
		36	0	20.68	20.65	20.73	21.00
		36	18	20.72	20.70	20.77	21.00
		36	39	20.71	20.68	20.73	21.00
		75	0	20.76	20.73	20.80	21.00
		16QAM	1	0	20.92	20.69	20.77
	1		38	20.94	20.90	20.95	21.00
	1		74	20.83	20.81	20.87	21.00
	36		0	20.73	20.70	20.74	21.00
	36		18	20.81	20.78	20.87	21.00
	36		39	20.76	20.73	20.81	21.00
	75		0	20.75	20.73	20.80	21.00
	64QAM	1	0	20.67	20.65	20.73	21.00
		1	38	20.83	20.79	20.84	21.00
		1	74	20.84	20.78	20.85	21.00



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz		36	0	20.69	20.64	20.68	21.00
		36	18	20.76	20.72	20.82	21.00
		36	39	20.75	20.72	20.80	21.00
		75	0	20.78	20.76	20.83	21.00
	QPSK	1	0	20.66	20.58	20.48	21.00
		1	50	20.81	20.84	20.81	21.00
		1	99	20.68	20.67	20.74	21.00
		50	0	20.65	20.60	20.69	21.00
		50	25	20.70	20.66	20.74	21.00
		50	50	20.68	20.63	20.69	21.00
		100	0	20.73	20.68	20.76	21.00
	16QAM	1	0	20.69	20.65	20.72	21.00
		1	50	20.90	20.88	20.91	21.00
		1	99	20.81	20.78	20.85	21.00
		50	0	20.70	20.66	20.71	21.00
		50	25	20.78	20.76	20.84	21.00
		50	50	20.73	20.68	20.77	21.00
		100	0	20.73	20.69	20.77	21.00
	64QAM	1	0	20.65	20.61	20.68	21.00
		1	50	20.79	20.77	20.80	21.00
		1	99	20.78	20.72	20.79	21.00
		50	0	20.64	20.56	20.61	21.00
		50	25	20.72	20.68	20.76	21.00
		50	50	20.72	20.67	20.76	21.00
		100	0	20.76	20.72	20.80	21.00

LTE TDD Band 38 DSI-2 (Body SAR)				Conducted 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	24.69	24.69	24.68	25.50
		1	13	24.81	24.84	24.83	25.50
		1	24	24.74	24.75	24.74	25.50
		12	0	23.71	23.71	23.73	24.50
		12	6	23.82	23.82	23.81	24.50
		12	13	23.72	23.75	23.72	24.50
		25	0	23.75	23.73	23.77	24.50
	16QAM	1	0	24.14	24.19	24.17	24.50
		1	13	24.28	24.31	24.31	24.50
		1	24	24.20	24.22	24.21	24.50
		12	0	22.66	22.71	22.73	23.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				37800/2575	38000/2595	38200/2615		
	64QAM	12	6	22.81	22.80	22.81	23.50	
		12	13	22.69	22.71	22.73	23.50	
		25	0	22.74	22.70	22.74	23.50	
		1	0	22.66	22.66	22.66	23.50	
		1	13	22.79	22.79	22.69	23.50	
		1	24	22.72	22.71	22.72	23.50	
		12	0	21.41	21.41	21.40	22.50	
		12	6	21.50	21.49	21.48	22.50	
		12	13	21.41	21.43	21.43	22.50	
		25	0	21.43	21.42	21.43	22.50	
10MHz	QPSK	1	0	24.76	24.75	24.75	25.50	
		1	25	24.81	24.82	24.81	25.50	
		1	49	24.80	24.83	24.83	25.50	
		25	0	23.73	23.73	23.74	24.50	
		25	13	23.82	23.82	23.84	24.50	
		25	25	23.75	23.74	23.74	24.50	
		50	0	23.76	23.78	23.80	24.50	
	16QAM	1	0	24.14	24.16	24.15	24.50	
		1	25	24.19	24.21	24.19	24.50	
		1	49	24.19	24.21	24.20	24.50	
		25	0	22.76	22.77	22.76	23.50	
		25	13	22.85	22.85	22.83	23.50	
		25	25	22.76	22.73	22.74	23.50	
		50	0	22.74	22.76	22.75	23.50	
	64QAM	1	0	22.62	22.62	22.64	23.50	
		1	25	22.68	22.70	22.69	23.50	
		1	49	22.72	22.70	22.72	23.50	
		25	0	21.46	21.47	21.45	22.50	
		25	13	21.54	21.57	21.55	22.50	
		25	25	21.47	21.45	21.46	22.50	
		50	0	21.47	21.41	21.42	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
					37825/2577.5	38000/2595	38175/2612.5	
	15MHz	QPSK	1	0	24.69	24.69	24.70	25.50
1			38	24.83	24.83	24.84	25.50	
1			74	24.80	24.80	24.81	25.50	
36			0	23.79	23.78	23.79	24.50	
36			18	23.88	23.90	23.89	24.50	
36			39	23.86	23.84	23.85	24.50	
75			0	23.88	23.85	23.85	24.50	
16QAM		1	0	24.07	24.07	24.08	24.50	



		1	38	24.20	24.22	24.20	24.50
		1	74	24.18	24.17	24.20	24.50
		36	0	22.79	22.81	22.81	23.50
		36	18	22.87	22.86	22.87	23.50
		36	39	22.81	22.82	22.80	23.50
		75	0	22.79	22.76	22.75	23.50
		75	0	22.79	22.76	22.75	23.50
	64QAM	1	0	22.77	22.77	22.78	23.50
		1	38	22.72	22.69	22.70	23.50
		1	74	22.66	22.68	22.68	23.50
		36	0	21.48	21.43	21.47	22.50
		36	18	21.55	21.54	21.59	22.50
		36	39	21.54	21.54	21.54	22.50
		75	0	21.50	21.51	21.49	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	24.58	24.62	24.64	25.50
		1	50	24.81	24.86	24.88	25.50
		1	99	24.75	24.79	24.78	25.50
		50	0	23.73	23.74	23.75	24.50
		50	25	23.87	23.88	23.84	24.50
		50	50	23.70	23.75	23.76	24.50
		100	0	23.72	23.72	23.74	24.50
	16QAM	1	0	23.82	23.80	23.78	24.50
		1	50	24.03	24.07	24.06	24.50
		1	99	23.97	24.03	23.99	24.50
		50	0	22.74	22.72	22.74	23.50
		50	25	22.80	22.83	22.82	23.50
		50	50	22.68	22.69	22.70	23.50
		100	0	22.68	22.72	22.73	23.50
	64QAM	1	0	22.48	22.55	22.55	23.50
		1	50	22.75	22.78	22.73	23.50
		1	99	22.72	22.71	22.72	23.50
		50	0	21.39	21.45	21.42	22.50
		50	25	21.52	21.53	21.55	22.50
		50	50	21.39	21.41	21.40	22.50
		100	0	21.37	21.41	21.40	22.50

LTE TDD Band 38 DSI-4 (Body SAR)				Conducted 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	20.98	21.01	20.95	22.00
		1	13	21.23	21.12	21.11	22.00



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit	
				37800/2575	38000/2595	38200/2615		
10MHz	16QAM	1	24	21.03	21.04	21.06	22.00	
		12	0	21.01	21.07	21.03	22.00	
		12	6	21.10	21.18	21.10	22.00	
		12	13	21.08	21.13	21.04	22.00	
		25	0	21.06	21.13	21.08	22.00	
		1	0	21.36	21.20	21.24	22.00	
		1	13	21.34	21.34	21.39	22.00	
		1	24	21.27	21.33	21.34	22.00	
		12	0	20.98	21.00	21.03	22.00	
		12	6	21.11	21.12	21.18	22.00	
		12	13	21.06	21.13	21.16	22.00	
		25	0	21.07	21.13	21.17	22.00	
		64QAM	1	0	21.02	21.08	21.08	22.00
			1	13	21.31	21.35	21.36	22.00
	1		24	21.19	21.24	21.22	22.00	
	12		0	20.99	21.05	21.08	22.00	
	12		6	21.19	21.22	21.26	22.00	
	12		13	21.11	21.18	21.21	22.00	
	25		0	21.14	21.20	21.24	22.00	
	10MHz	QPSK	1	0	21.00	21.02	20.98	22.00
			1	25	21.26	21.17	21.15	22.00
			1	49	21.05	21.08	21.09	22.00
			25	0	21.04	21.12	21.07	22.00
			25	13	21.13	21.23	21.14	22.00
			25	25	21.10	21.17	21.09	22.00
			50	0	21.10	21.15	21.12	22.00
		16QAM	1	0	21.38	21.23	21.26	22.00
			1	25	21.37	21.38	21.42	22.00
1			49	21.30	21.35	21.37	22.00	
25			0	21.01	21.05	21.07	22.00	
25			13	21.13	21.16	21.21	22.00	
25			25	21.09	21.18	21.20	22.00	
50			0	21.10	21.18	21.21	22.00	
64QAM		1	0	21.04	21.07	21.10	22.00	
		1	25	21.34	21.35	21.39	22.00	
		1	49	21.18	21.26	21.25	22.00	
		25	0	21.02	21.10	21.08	22.00	
		25	13	21.21	21.26	21.29	22.00	
		25	25	21.14	21.23	21.25	22.00	
		50	0	21.17	21.25	21.28	22.00	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	20.99	20.98	20.96	22.00
		1	38	21.24	21.16	21.12	22.00
		1	74	21.02	21.03	21.05	22.00
		36	0	21.02	21.08	21.04	22.00
		36	18	21.10	21.18	21.10	22.00
		36	39	21.07	21.14	21.05	22.00
		75	0	21.08	21.11	21.07	22.00
	16QAM	1	0	21.33	21.21	21.24	22.00
		1	38	21.35	21.35	21.40	22.00
		1	74	21.27	21.31	21.34	22.00
		36	0	20.98	21.03	21.04	22.00
		36	18	21.10	21.11	21.17	22.00
		36	39	21.07	21.14	21.17	22.00
		75	0	21.07	21.13	21.17	22.00
	64QAM	1	0	20.99	21.05	21.08	22.00
		1	38	21.32	21.32	21.37	22.00
		1	74	21.19	21.25	21.26	22.00
		36	0	21.01	21.12	21.09	22.00
		36	18	21.19	21.23	21.28	22.00
		36	39	21.12	21.19	21.22	22.00
		75	0	21.14	21.20	21.24	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	20.96	20.94	20.93	22.00
		1	50	21.23	21.12	21.10	22.00
		1	99	21.00	21.02	21.02	22.00
		50	0	20.99	21.03	21.00	22.00
		50	25	21.08	21.14	21.07	22.00
		50	50	21.04	21.09	21.01	22.00
		100	0	21.05	21.06	21.03	22.00
	16QAM	1	0	21.13	21.17	21.19	22.00
		1	50	21.31	21.33	21.36	22.00
		1	99	21.25	21.28	21.32	22.00
		50	0	20.95	20.99	21.01	22.00
		50	25	21.07	21.09	21.14	22.00
		50	50	21.04	21.09	21.13	22.00
		100	0	21.05	21.09	21.14	22.00
	64QAM	1	0	20.97	21.01	21.03	22.00
		1	50	21.28	21.30	21.33	22.00
		1	99	21.13	21.19	21.20	22.00
		50	0	20.96	21.04	21.02	22.00



		50	25	21.15	21.19	21.22	22.00
		50	50	21.09	21.14	21.18	22.00
		100	0	21.12	21.16	21.21	22.00

LTE TDD Band 41 Normal (Full Power)				Conducted Power(dBm)				Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				40065/25 37.5	40385/25 69.5	40705/26 01.5	41215/26 52.5	
5MHz	QPSK	1	0	24.42	24.39	24.33	24.46	25.50
		1	13	24.44	24.59	24.48	24.57	25.50
		1	24	24.53	24.59	24.39	24.70	25.50
		12	0	23.51	23.43	23.45	23.73	24.50
		12	6	23.63	23.56	23.42	23.80	24.50
		12	13	23.68	23.57	23.38	23.77	24.50
		25	0	23.59	23.62	23.52	23.88	24.50
	16QAM	1	0	24.00	23.31	23.27	23.78	24.50
		1	13	23.98	23.51	23.37	23.83	24.50
		1	24	23.90	23.50	23.30	23.73	24.50
		12	0	22.50	22.25	22.18	22.59	23.50
		12	6	22.67	22.63	22.67	22.70	23.50
		12	13	22.64	22.36	22.22	22.70	23.50
		25	0	22.50	22.18	22.20	22.72	23.50
	64QAM	1	0	22.68	22.29	22.34	22.60	23.50
		1	13	22.78	22.51	22.61	22.64	23.50
		1	24	22.91	22.61	22.57	22.66	23.50
		12	0	21.41	21.59	21.50	21.55	22.50
		12	6	21.47	21.67	21.66	21.61	22.50
		12	13	21.37	21.50	21.52	21.46	22.50
		25	0	21.33	21.54	21.59	21.54	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40090/25 40	40390/25 70	40690/26 00	41190/26 50	
10MHz	QPSK	1	0	24.44	24.40	24.36	24.49	25.50
		1	25	24.47	24.64	24.52	24.61	25.50
		1	49	24.55	24.63	24.42	24.73	25.50
		25	0	23.54	23.48	23.49	23.77	24.50
		25	13	23.66	23.61	23.46	23.84	24.50
		25	25	23.70	23.61	23.43	23.82	24.50
	16QAM	50	0	23.63	23.64	23.56	23.92	24.50
		1	0	24.02	23.34	23.29	23.80	24.50
		1	25	24.01	23.55	23.40	23.86	24.50
		1	49	23.93	23.52	23.33	23.76	24.50



		25	0	22.53	22.30	22.22	22.63	23.50
		25	13	22.69	22.67	22.70	22.73	23.50
		25	25	22.67	22.41	22.26	22.74	23.50
		50	0	22.53	22.23	22.24	22.76	23.50
	64QAM	1	0	22.70	22.28	22.36	22.62	23.50
		1	25	22.81	22.51	22.64	22.67	23.50
		1	49	22.90	22.63	22.60	22.69	23.50
		25	0	21.44	21.64	21.50	21.55	22.50
		25	13	21.49	21.71	21.69	21.64	22.50
		25	25	21.40	21.55	21.56	21.50	22.50
50	0	21.36	21.59	21.63	21.58	22.50		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40115/25 42.5	40395/25 70.5	40685/25 99.5	41165/26 47.5	
15MHz	QPSK	1	0	24.43	24.36	24.34	24.47	25.50
		1	38	24.45	24.63	24.49	24.58	25.50
		1	74	24.52	24.58	24.38	24.69	25.50
		36	0	23.52	23.44	23.46	23.74	24.50
		36	18	23.63	23.56	23.42	23.80	24.50
		36	39	23.67	23.58	23.39	23.78	24.50
		75	0	23.61	23.60	23.51	23.87	24.50
	16QAM	1	0	23.97	23.32	23.27	23.78	24.50
		1	38	23.99	23.52	23.38	23.84	24.50
		1	74	23.90	23.48	23.30	23.73	24.50
		36	0	22.50	22.28	22.19	22.60	23.50
		36	18	22.66	22.62	22.66	22.69	23.50
		36	39	22.65	22.37	22.23	22.71	23.50
		75	0	22.50	22.18	22.20	22.72	23.50
	64QAM	1	0	22.65	22.26	22.34	22.60	23.50
		1	38	22.79	22.48	22.62	22.65	23.50
		1	74	22.91	22.62	22.61	22.70	23.50
		36	0	21.43	21.66	21.51	21.56	22.50
		36	18	21.47	21.68	21.68	21.63	22.50
		36	39	21.38	21.51	21.53	21.47	22.50
		75	0	21.33	21.54	21.59	21.54	22.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit (dBm)
				40140/25 45	40400/25 71	40670/25 98	41140/26 45	
20MHz	QPSK	1	0	24.40	24.32	24.31	24.44	25.50
		1	50	24.44	24.50	24.47	24.56	25.50
		1	99	24.50	24.55	24.35	24.66	25.50
		50	0	23.49	23.39	23.42	23.70	24.50
		50	25	23.61	23.52	23.39	23.77	24.50



		50	50	23.64	23.53	23.35	23.74	24.50
		100	0	23.58	23.55	23.47	23.83	24.50
	16QAM	1	0	23.96	23.28	23.22	23.73	24.50
		1	50	23.95	23.50	23.34	23.80	24.50
		1	99	23.88	23.45	23.28	23.71	24.50
		50	0	22.47	22.24	22.16	22.57	23.50
		50	25	22.63	22.60	22.63	22.66	23.50
		50	50	22.62	22.32	22.19	22.67	23.50
		100	0	22.48	22.14	22.17	22.69	23.50
	64QAM	1	0	22.63	22.22	22.29	22.55	23.50
		1	50	22.75	22.46	22.58	22.61	23.50
		1	99	22.85	22.56	22.55	22.64	23.50
		50	0	21.38	21.58	21.44	21.49	22.50
		50	25	21.43	21.64	21.62	21.57	22.50
		50	50	21.35	21.46	21.49	21.43	22.50
		100	0	21.31	21.50	21.56	21.51	22.50

LTE TDD Band 41 DSI-1 (Head SAR)				Conducted Power(dBm)				Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				40065/25 37.5	40385/25 69.5	40705/26 01.5	41215/26 52.5	
5MHz	QPSK	1	0	20.39	20.47	20.44	20.39	21.00
		1	13	20.64	20.65	20.67	20.57	21.00
		1	24	20.58	20.59	20.65	20.51	21.00
		12	0	20.53	20.58	20.59	20.46	21.00
		12	6	20.64	20.68	20.69	20.57	21.00
		12	13	20.58	20.61	20.63	20.51	21.00
		25	0	20.51	20.60	20.56	20.44	21.00
	16QAM	1	0	20.69	20.69	20.77	20.62	21.00
		1	13	20.67	20.69	20.73	20.60	21.00
		1	24	20.52	20.57	20.57	20.45	21.00
		12	0	20.61	20.62	20.65	20.54	21.00
		12	6	20.72	20.74	20.79	20.65	21.00
		12	13	20.71	20.76	20.77	20.64	21.00
		25	0	20.58	20.62	20.63	20.51	21.00
	64QAM	1	0	20.44	20.48	20.52	20.37	21.00
		1	13	20.72	20.78	20.78	20.65	21.00
		1	24	20.65	20.70	20.66	20.58	21.00
		12	0	20.63	20.66	20.71	20.56	21.00
		12	6	20.67	20.70	20.74	20.60	21.00
		12	13	20.57	20.62	20.63	20.50	21.00
		25	0	20.53	20.57	20.58	20.46	21.00



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40090/25 40	40390/25 70	40690/26 00	41190/26 50	
10MHz	QPSK	1	0	20.41	20.48	20.47	20.41	21.00
		1	25	20.67	20.70	20.71	20.60	21.00
		1	49	20.60	20.63	20.68	20.53	21.00
		25	0	20.56	20.63	20.63	20.49	21.00
		25	13	20.67	20.73	20.73	20.60	21.00
		25	25	20.60	20.65	20.68	20.53	21.00
		50	0	20.55	20.62	20.60	20.48	21.00
	16QAM	1	0	20.71	20.72	20.79	20.64	21.00
		1	25	20.70	20.73	20.76	20.63	21.00
		1	49	20.55	20.59	20.60	20.48	21.00
		25	0	20.64	20.67	20.69	20.57	21.00
		25	13	20.74	20.78	20.82	20.67	21.00
		25	25	20.74	20.81	20.81	20.67	21.00
		50	0	20.61	20.67	20.67	20.54	21.00
	64QAM	1	0	20.46	20.47	20.54	20.39	21.00
		1	25	20.75	20.78	20.81	20.68	21.00
		1	49	20.64	20.72	20.69	20.57	21.00
		25	0	20.66	20.71	20.71	20.59	21.00
		25	13	20.69	20.74	20.77	20.62	21.00
		25	25	20.60	20.67	20.67	20.53	21.00
		50	0	20.56	20.62	20.62	20.49	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40115/25 42.5	40395/25 70.5	40685/25 99.5	41165/26 47.5	
15MHz	QPSK	1	0	20.40	20.44	20.45	20.40	21.00
		1	38	20.65	20.69	20.68	20.58	21.00
		1	74	20.57	20.58	20.64	20.50	21.00
		36	0	20.54	20.59	20.60	20.47	21.00
		36	18	20.64	20.68	20.69	20.57	21.00
		36	39	20.57	20.62	20.64	20.50	21.00
		75	0	20.53	20.58	20.55	20.46	21.00
	16QAM	1	0	20.66	20.70	20.77	20.59	21.00
		1	38	20.68	20.70	20.74	20.61	21.00
		1	74	20.52	20.55	20.57	20.45	21.00
		36	0	20.61	20.65	20.66	20.54	21.00
		36	18	20.71	20.73	20.78	20.64	21.00
		36	39	20.72	20.77	20.78	20.65	21.00
		75	0	20.58	20.62	20.63	20.51	21.00
	64QAM	1	0	20.41	20.45	20.52	20.34	21.00
1		38	20.73	20.75	20.79	20.66	21.00	



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit (dBm)
				40140/25 45	40400/25 71	40670/25 98	41140/26 45	
		1	74	20.65	20.71	20.70	20.58	21.00
		36	0	20.65	20.73	20.72	20.58	21.00
		36	18	20.67	20.71	20.76	20.60	21.00
		36	39	20.58	20.63	20.64	20.51	21.00
		75	0	20.53	20.57	20.58	20.46	21.00
20MHz	QPSK	1	0	20.56	20.40	20.42	20.41	21.00
		1	50	20.82	20.65	20.66	20.59	21.00
		1	99	20.62	20.57	20.61	20.44	21.00
		50	0	20.63	20.54	20.56	20.53	21.00
		50	25	20.72	20.64	20.66	20.54	21.00
		50	50	20.71	20.57	20.60	20.47	21.00
		100	0	20.49	20.53	20.51	20.49	21.00
	16QAM	1	0	20.74	20.66	20.72	20.69	21.00
		1	50	20.87	20.68	20.70	20.87	21.00
		1	99	20.81	20.52	20.55	20.75	21.00
		50	0	20.78	20.61	20.63	20.74	21.00
		50	25	20.83	20.71	20.75	20.79	21.00
		50	50	20.87	20.72	20.74	20.86	21.00
		100	0	20.79	20.58	20.60	20.76	21.00
	64QAM	1	0	20.59	20.41	20.47	20.56	21.00
		1	50	20.81	20.73	20.75	20.80	21.00
		1	99	20.75	20.65	20.64	20.71	21.00
		50	0	20.71	20.65	20.65	20.70	21.00
		50	25	20.87	20.67	20.70	20.81	21.00
		50	50	20.78	20.58	20.60	20.74	21.00
		100	0	20.83	20.53	20.55	20.79	21.00

LTE TDD Band 41 DSI-2 (Body SAR)				Conducted Power(dBm)				Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				40065/25 37.5	40385/25 69.5	40705/26 01.5	41215/26 52.5	
5MHz	QPSK	1	0	24.42	24.39	24.33	24.46	25.50
		1	13	24.44	24.59	24.48	24.57	25.50
		1	24	24.53	24.59	24.39	24.70	25.50
		12	0	23.51	23.43	23.45	23.73	24.50
		12	6	23.63	23.56	23.42	23.80	24.50
		12	13	23.68	23.57	23.38	23.77	24.50
		25	0	23.59	23.62	23.52	23.88	24.50
	16QAM	1	0	24.00	23.31	23.27	23.78	24.50



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit	
				40090/25 40	40390/25 70	40690/26 00	41190/26 50		
		1	13	23.98	23.51	23.37	23.83	24.50	
		1	24	23.90	23.50	23.30	23.73	24.50	
		12	0	22.50	22.25	22.18	22.59	23.50	
		12	6	22.67	22.63	22.67	22.70	23.50	
		12	13	22.64	22.36	22.22	22.70	23.50	
		25	0	22.50	22.18	22.20	22.72	23.50	
	64QAM	1	0	22.68	22.29	22.34	22.60	23.50	
		1	13	22.78	22.51	22.61	22.64	23.50	
		1	24	22.91	22.61	22.57	22.66	23.50	
		12	0	21.41	21.59	21.50	21.55	22.50	
		12	6	21.47	21.67	21.66	21.61	22.50	
		12	13	21.37	21.50	21.52	21.46	22.50	
			25	0	21.33	21.54	21.59	21.54	22.50
	10MHz	QPSK	1	0	24.44	24.40	24.36	24.49	25.50
1			25	24.47	24.64	24.52	24.61	25.50	
1			49	24.55	24.63	24.42	24.73	25.50	
25			0	23.54	23.48	23.49	23.77	24.50	
25			13	23.66	23.61	23.46	23.84	24.50	
25			25	23.70	23.61	23.43	23.82	24.50	
50			0	23.63	23.64	23.56	23.92	24.50	
16QAM		1	0	24.02	23.34	23.29	23.80	24.50	
		1	25	24.01	23.55	23.40	23.86	24.50	
		1	49	23.93	23.52	23.33	23.76	24.50	
		25	0	22.53	22.30	22.22	22.63	23.50	
		25	13	22.69	22.67	22.70	22.73	23.50	
		25	25	22.67	22.41	22.26	22.74	23.50	
		50	0	22.53	22.23	22.24	22.76	23.50	
64QAM		1	0	22.70	22.28	22.36	22.62	23.50	
		1	25	22.81	22.51	22.64	22.67	23.50	
		1	49	22.90	22.63	22.60	22.69	23.50	
		25	0	21.44	21.64	21.50	21.55	22.50	
		25	13	21.49	21.71	21.69	21.64	22.50	
		25	25	21.40	21.55	21.56	21.50	22.50	
		50	0	21.36	21.59	21.63	21.58	22.50	
Bandwidth		Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
					40115/25 42.5	40395/25 70.5	40685/25 99.5	41165/26 47.5	
15MHz		QPSK	1	0	24.43	24.36	24.34	24.47	25.50
	1		38	24.45	24.63	24.49	24.58	25.50	
	1		74	24.52	24.58	24.38	24.69	25.50	



		36	0	23.52	23.44	23.46	23.74	24.50	
		36	18	23.63	23.56	23.42	23.80	24.50	
		36	39	23.67	23.58	23.39	23.78	24.50	
		75	0	23.61	23.60	23.51	23.87	24.50	
	16QAM	1	0	23.97	23.32	23.27	23.78	24.50	
		1	38	23.99	23.52	23.38	23.84	24.50	
		1	74	23.90	23.48	23.30	23.73	24.50	
		36	0	22.50	22.28	22.19	22.60	23.50	
		36	18	22.66	22.62	22.66	22.69	23.50	
		36	39	22.65	22.37	22.23	22.71	23.50	
		75	0	22.50	22.18	22.20	22.72	23.50	
	64QAM	1	0	22.65	22.26	22.34	22.60	23.50	
		1	38	22.79	22.48	22.62	22.65	23.50	
		1	74	22.91	22.62	22.61	22.70	23.50	
		36	0	21.43	21.66	21.51	21.56	22.50	
		36	18	21.47	21.68	21.68	21.63	22.50	
		36	39	21.38	21.51	21.53	21.47	22.50	
		75	0	21.33	21.54	21.59	21.54	22.50	
	Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit (dBm)
					40140/25 45	40400/25 71	40670/25 98	41140/26 45	
	20MHz	QPSK	1	0	24.40	24.32	24.31	24.44	25.50
1			50	24.44	24.50	24.47	24.56	25.50	
1			99	24.50	24.55	24.35	24.66	25.50	
50			0	23.49	23.39	23.42	23.70	24.50	
50			25	23.61	23.52	23.39	23.77	24.50	
50			50	23.64	23.53	23.35	23.74	24.50	
100			0	23.58	23.55	23.47	23.83	24.50	
16QAM		1	0	23.96	23.28	23.22	23.73	24.50	
		1	50	23.95	23.50	23.34	23.80	24.50	
		1	99	23.88	23.45	23.28	23.71	24.50	
		50	0	22.47	22.24	22.16	22.57	23.50	
		50	25	22.63	22.60	22.63	22.66	23.50	
		50	50	22.62	22.32	22.19	22.67	23.50	
		100	0	22.48	22.14	22.17	22.69	23.50	
64QAM		1	0	22.63	22.22	22.29	22.55	23.50	
		1	50	22.75	22.46	22.58	22.61	23.50	
		1	99	22.85	22.56	22.55	22.64	23.50	
		50	0	21.38	21.58	21.44	21.49	22.50	
		50	25	21.43	21.64	21.62	21.57	22.50	
		50	50	21.35	21.46	21.49	21.43	22.50	
		100	0	21.31	21.50	21.56	21.51	22.50	



LTE TDD Band 41 DSI-4 (Body SAR)				Conducted Power(dBm)				Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				40065/25 37.5	40385/25 69.5	40705/26 01.5	41215/26 52.5	
5MHz	QPSK	1	0	20.97	20.91	20.93	20.76	22.00
		1	13	21.02	21.11	21.14	20.88	22.00
		1	24	20.99	21.07	21.02	20.73	22.00
		12	0	20.96	21.01	21.08	20.87	22.00
		12	6	21.00	21.13	21.20	21.00	22.00
		12	13	21.11	21.04	21.18	20.81	22.00
		25	0	20.95	21.03	21.08	20.84	22.00
	16QAM	1	0	21.02	20.97	21.04	20.82	22.00
		1	13	21.00	21.20	21.24	20.98	22.00
		1	24	20.81	21.13	21.16	20.78	22.00
		12	0	20.95	21.04	21.10	20.90	22.00
		12	6	20.99	21.14	21.19	20.96	22.00
		12	13	20.85	21.14	21.19	20.82	22.00
		25	0	20.84	21.10	21.10	20.81	22.00
	64QAM	1	0	20.83	20.93	21.31	20.78	22.00
		1	13	21.08	21.23	21.27	21.04	22.00
		1	24	20.77	21.09	21.11	20.71	22.00
		12	0	20.91	21.04	21.14	20.91	22.00
		12	6	20.94	21.13	21.21	20.91	22.00
		12	13	20.88	21.05	21.09	20.85	22.00
		25	0	20.90	21.02	21.05	20.88	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40090/25 40	40390/25 70	40690/26 00	41190/26 50	
10MHz	QPSK	1	0	20.99	20.92	20.96	20.79	22.00
		1	25	21.05	21.16	21.18	20.92	22.00
		1	49	21.01	21.11	21.05	20.76	22.00
		25	0	20.99	21.06	21.12	20.91	22.00
		25	13	21.03	21.18	21.24	21.04	22.00
		25	25	21.13	21.08	21.23	20.86	22.00
		50	0	20.99	21.05	21.12	20.88	22.00
	16QAM	1	0	21.04	21.00	21.06	20.84	22.00
		1	25	21.03	21.24	21.27	21.01	22.00
		1	49	20.84	21.15	21.19	20.81	22.00
		25	0	20.98	21.09	21.14	20.94	22.00
		25	13	21.01	21.18	21.22	20.99	22.00
		25	25	20.88	21.19	21.23	20.86	22.00
		50	0	20.87	21.15	21.14	20.85	22.00



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40115/25 42.5	40395/25 70.5	40685/25 99.5	41165/26 47.5	
15MHz	64QAM	1	0	20.85	20.92	21.33	20.80	22.00
		1	25	21.11	21.23	21.30	21.07	22.00
		1	49	20.76	21.11	21.14	20.74	22.00
		25	0	20.94	21.09	21.14	20.91	22.00
		25	13	20.96	21.17	21.24	20.94	22.00
		25	25	20.91	21.10	21.13	20.89	22.00
		50	0	20.93	21.07	21.09	20.92	22.00
15MHz	QPSK	1	0	20.98	20.88	20.94	20.77	22.00
		1	38	21.03	21.15	21.15	20.89	22.00
		1	74	20.98	21.06	21.01	20.72	22.00
		36	0	20.97	21.02	21.09	20.88	22.00
		36	18	21.00	21.13	21.20	21.00	22.00
		36	39	21.10	21.05	21.19	20.82	22.00
		75	0	20.97	21.01	21.07	20.83	22.00
	16QAM	1	0	20.99	20.98	21.04	20.82	22.00
		1	38	21.01	21.21	21.25	20.99	22.00
		1	74	20.81	21.11	21.16	20.78	22.00
		36	0	20.95	21.07	21.11	20.91	22.00
		36	18	20.98	21.13	21.18	20.95	22.00
		36	39	20.86	21.15	21.20	20.83	22.00
		75	0	20.84	21.10	21.10	20.81	22.00
	64QAM	1	0	20.80	20.90	21.31	20.78	22.00
		1	38	21.09	21.20	21.28	21.05	22.00
		1	74	20.77	21.10	21.15	20.75	22.00
		36	0	20.93	21.11	21.15	20.92	22.00
		36	18	20.94	21.14	21.23	20.93	22.00
		36	39	20.89	21.06	21.10	20.86	22.00
		75	0	20.90	21.02	21.05	20.88	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit (dBm)
				40140/25 45	40400/25 71	40670/25 98	41140/26 45	
20MHz	QPSK	1	0	20.97	20.84	20.91	20.71	22.00
		1	50	21.08	21.11	21.13	20.89	22.00
		1	99	21.04	21.05	20.98	20.69	22.00
		50	0	20.89	20.97	21.05	20.83	22.00
		50	25	21.17	21.09	21.16	20.85	22.00
		50	50	21.07	21.00	21.15	20.78	22.00
		100	0	21.01	20.96	21.03	20.80	22.00
	16QAM	1	0	20.97	20.94	20.99	20.92	22.00
		1	50	21.20	21.19	21.21	21.05	22.00



		1	99	21.10	21.08	21.14	21.11	22.00
		50	0	21.06	21.03	21.08	21.05	22.00
		50	25	21.13	21.11	21.15	21.13	22.00
		50	50	21.13	21.10	21.16	21.14	22.00
		100	0	21.09	21.06	21.07	21.07	22.00
	64QAM	1	0	21.20	20.86	21.26	21.23	22.00
		1	50	21.22	21.18	21.24	21.21	22.00
		1	99	21.06	21.04	21.09	21.06	22.00
		50	0	21.06	21.03	21.08	21.06	22.00
		50	25	21.13	21.10	21.17	21.14	22.00
		50	50	21.04	21.01	21.06	21.03	22.00
		100	0	21.00	20.98	21.02	21.00	22.00

Antenna	CA Combination	Test Scenario	PCC						SCC					Output power	
			PCC Band	PCC Bandwidth (MHz)	PCC UL RB size	PCC UL RB offset	PCC UL Channel	PCC DL Channel	SCC Band	SCC Bandwidth (MHz)	SCC UL Channel	SCC UL RB size	SCC UL RB offset	Conducted power (dBm)	Tune up (dBm)
Main Ant	CA_7C	Receiver on Receiver off+ Sensor off Normal	7	20	1	99	20850	2850	7	20	21048	1	0	24.53	25.50
	CA_7C	Receiver on Receiver off+ Sensor off Normal	7	20	1	0	21100	3100	7	20	21298	1	99	24.32	25.50
	CA_7C	Receiver on Receiver off+ Sensor off Normal	7	20	1	99	21100	3100	7	20	20902	1	0	24.16	25.50
	CA_7C	Receiver on/Normal/ Receiver off+ Sensor off	7	20	1	0	21350	3350	7	20	21152	1	99	24.36	25.50
	CA_7C	Receiver off+ Sensor on	7	20	1	99	20850	2850	7	20	21048	1	0	20.01	21.00
	CA_7C	Receiver off+ Sensor on	7	20	1	0	21100	3100	7	20	21298	1	99	19.97	21.00
	CA_7C	Receiver off+ Sensor on	7	20	1	99	21100	3100	7	20	20902	1	0	20.11	21.00
	CA_7C	Receiver off+ Sensor on	7	20	1	0	21350	3350	7	20	21152	1	99	20.02	21.00
Main Ant	CA_38C	Receiver on/ Normal/Receiver off+ Sensor off	38	20	1	99	37850	37850	38	20	38048	1	0	24.31	25.50
	CA_38C	Receiver on/Normal/ Receiver off+ Sensor off	38	20	1	0	38150	38150	38	20	37952	1	99	24.44	25.50
	CA_38C	Receiver off+ Sensor on	38	20	1	99	37850	37850	38	20	38048	1	0	22.35	23.00
	CA_38C	Receiver off+ Sensor on	38	20	1	0	38150	38150	38	20	37952	1	99	22.26	23.00
DIV Ant	CA_7C	Receiver on	7	20	1	99	20850	2850	7	20	21048	1	0	18.36	19.00
	CA_7C	Receiver on	7	20	1	0	21100	3100	7	20	21298	1	99	18.22	19.00
	CA_7C	Receiver on	7	20	1	99	21100	3100	7	20	20902	1	0	18.34	19.00



	CA_7C	Receiver on	7	20	1	0	21350	3350	7	20	21152	1	99	18.24	19.00
	CA_7C	Receiver off+ Sensor off	7	20	1	99	20850	2850	7	20	21048	1	0	24.63	25.50
	CA_7C	Receiver off+ Sensor off	7	20	1	0	21100	3100	7	20	21298	1	99	24.37	25.50
	CA_7C	Receiver off+ Sensor off	7	20	1	99	21100	3100	7	20	20902	1	0	24.54	25.50
	CA_7C	Receiver off+ Sensor off	7	20	1	0	21350	3350	7	20	21152	1	99	24.47	25.50
	CA_7C	Receiver off+ Sensor on	7	20	1	99	20850	2850	7	20	21048	1	0	19.26	20.50
	CA_7C	Receiver off+ Sensor on	7	20	1	0	21100	3100	7	20	21298	1	99	19.18	20.50
	CA_7C	Receiver off+ Sensor on	7	20	1	99	21100	3100	7	20	20902	1	0	19.20	20.50
	CA_7C	Receiver off+ Sensor on	7	20	1	0	21350	3350	7	20	21152	1	99	19.34	20.50
DIV Ant	CA_38C	Receiver on	38	20	1	99	37850	37850	38	20	38048	1	0	20.72	21.00
	CA_38C	Receiver on	38	20	1	0	38150	38150	38	20	37952	1	99	20.63	21.00
	CA_38C	Receiver off+ Sensor off	38	20	1	99	37850	37850	38	20	38048	1	0	24.71	25.50
	CA_38C	Receiver off+ Sensor off	38	20	1	0	38150	38150	38	20	37952	1	99	24.67	25.50
	CA_38C	Receiver off+ Sensor on	38	20	1	99	37850	37850	38	20	38048	1	0	21.32	22.00
	CA_38C	Receiver off+ Sensor on	38	20	1	0	38150	38150	38	20	37952	1	99	21.26	22.00

9.4 WLAN Mode

Wi-Fi 2.4G	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
Receiver off(Full Power)			
802.11b (1M)	1/2412	18.5	17.18
	6/2437	18.5	17.45
	11/2462	18.5	17.38
802.11g (6M)	1/2412	17.5	16.51
	6/2437	17.5	16.33
	11/2462	17.5	16.18
802.11n-HT20 (MCS0)	1/2412	17.5	16.42
	6/2437	17.5	16.17
	11/2462	17.5	16.04

Note: Initial test configuration is 802.11b mode.

Wi-Fi 2.4G	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
Receiver on			
802.11b (1M)	1/2412	16.5	15.86
	6/2437	16.5	16.07
	11/2462	16.5	15.79
802.11g (6M)	1/2412	16.5	15.64
	6/2437	16.5	15.73
	11/2462	16.5	15.51
802.11n-HT20 (MCS0)	1/2412	16.5	15.53
	6/2437	16.5	15.71
	11/2462	16.5	15.45

Note: Initial test configuration is 802.11b mode.



Wi-Fi 5G (U-NII-1)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
Rec. off (Full Power)			
802.11a (6M)	36/5180	16.50	15.26
	40/5200	16.50	15.37
	48/5240	16.50	15.46
802.11n-HT20 (MCS0)	36/5180	16.50	15.39
	40/5200	16.50	15.32
	48/5240	16.50	15.45
802.11n-HT40 (MCS0)	38/5190	16.50	15.16
	46/5230	16.50	15.21
802.11ac-VHT20 (MCS0)	36/5180	16.50	15.38
	40/5200	16.50	15.32
	48/5240	16.50	15.28
802.11ac-VHT40 (MCS0)	38/5190	16.50	15.22
	46/5230	16.50	15.14
802.11ac-VHT80 (MCS0)	42/5210	16.50	14.86

Note. Initial test configuration is 802.11a mode, since the highest maximum output power.

Wi-Fi 5G (U-NII-2A)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
Rec. off (Full Power)			
802.11a (6M)	52/5260	16.50	15.73
	60/5300	16.50	15.58
	64/5320	16.50	15.69
802.11n-HT20 (MCS0)	52/5260	16.50	15.26
	60/5300	16.50	15.51
	64/5320	16.50	15.62
802.11n-HT40 (MCS0)	54/5270	16.50	15.14
	62/5310	16.50	15.19
802.11ac-HT20 (MCS0)	52/5260	16.50	15.28
	60/5300	16.50	15.53
	64/5320	16.50	15.67
802.11ac-HT40 (MCS0)	54/5270	16.50	15.25
	62/5310	16.50	15.22
802.11ac-HT80 (MCS0)	58/5290	15.50	14.83

Note. Initial test configuration is 802.11a mode, since the highest maximum output power.



Wi-Fi 5G (U-NII-2C)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
Rec. off (Full Power)			
802.11a (6M)	100/5500	16.00	15.17
	116/5580	16.00	15.02
	132/5660	16.00	14.53
	116/5580	16.00	14.98
802.11n-HT20 (MCS0)	100/5500	15.50	14.04
	116/5580	16.00	14.98
	132/5660	16.00	14.47
	140/5700	16.00	14.53
802.11n-HT40 (MCS0)	102/5510	13.50	11.82
	110/5550	13.50	12.15
	118/5590	13.50	11.95
	134/5670	13.50	11.96
802.11ac-HT20 (MCS0)	100/5500	16.00	14.55
	116/5580	16.00	14.96
	132/5660	16.00	14.61
	140/5700	16.00	14.53
802.11ac-HT40 (MCS0)	102/5510	16.00	14.42
	110/5550	16.00	14.73
	118/5590	16.00	14.45
	134/5670	16.00	14.48
802.11ac-HT80 (MCS0)	106/5530	14.50	12.94
	122/5610	14.50	12.86

Note. Initial test configuration is 802.11a mode, since the highest maximum output power.



Wi-Fi 5G (U-NII-3)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
Rec. off (Full Power)			
802.11a (6M)	149/5745	15.00	13.95
	157/5785	15.00	13.88
	165/5825	15.00	13.52
802.11n-HT20 (MCS0)	149/5745	15.00	13.72
	157/5785	15.00	13.80
	165/5825	15.00	13.54
802.11n-HT40 (MCS0)	151/5755	15.00	13.51
	159/5795	15.00	13.56
802.11ac-HT20 (MCS0)	149/5745	15.00	13.81
	157/5785	15.00	13.93
	165/5825	15.00	13.61
802.11ac-HT40 (MCS0)	151/5755	15.00	13.64
	159/5795	15.00	13.58
802.11ac-HT80 (MCS0)	155/5775	15.00	13.58

Note. Initial test configuration is 802.11a mode, since the highest maximum output power.

Wi-Fi 5G (U-NII-1)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
Rec. on (head SAR)			
802.11a (6M)	36/5180	10.50	9.25
	40/5200	10.50	9.08
	48/5240	10.50	9.19
802.11n-HT20 (MCS0)	36/5180	10.50	9.00
	40/5200	10.50	8.93
	48/5240	10.50	8.93
802.11n-HT40 (MCS0)	38/5190	10.50	8.98
	46/5230	10.50	9.07
802.11ac-VHT20 (MCS0)	36/5180	10.50	8.97
	40/5200	10.50	8.95
	48/5240	10.50	9.03
802.11ac-VHT40 (MCS0)	38/5190	10.50	9.05
	46/5230	10.50	9.06
802.11ac-VHT80 (MCS0)	42/5210	10.50	8.71

Note. Initial test configuration is 802.11a mode, since the highest maximum output power.



Wi-Fi 5G (U-NII-2A)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
Rec. on (head SAR)			
802.11a (6M)	52/5260	10.50	9.24
	60/5300	10.50	9.30
	64/5320	10.50	9.39
802.11n-HT20 (MCS0)	52/5260	10.50	9.15
	60/5300	10.50	9.22
	64/5320	10.50	9.13
802.11n-HT40 (MCS0)	54/5270	10.50	8.91
	62/5310	10.50	9.09
802.11ac-HT20 (MCS0)	52/5260	10.50	8.99
	60/5300	10.50	9.07
	64/5320	10.50	9.15
802.11ac-HT40 (MCS0)	54/5270	10.50	8.92
	62/5310	10.50	9.02
802.11ac-HT80 (MCS0)	58/5290	10.50	8.84

Note. Initial test configuration is 802.11a mode, since the highest maximum output power.

Wi-Fi 5G (U-NII-2C)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
Rec. on (head SAR)			
802.11a (6M)	100/5500	10.50	9.59
	116/5580	10.50	9.41
	132/5660	10.50	9.28
	140/5700	10.50	9.32
802.11n-HT20 (MCS0)	100/5500	10.50	9.40
	116/5580	10.50	9.25
	132/5660	10.50	9.11
	140/5700	10.50	9.17
802.11n-HT40 (MCS0)	102/5510	10.50	9.34
	110/5550	10.50	9.39
	118/5590	10.50	9.16
	134/5670	10.50	9.01
802.11ac-HT20 (MCS0)	100/5500	10.50	9.38
	116/5580	10.50	9.18
	132/5660	10.50	9.12
	140/5700	10.50	9.14



802.11ac-HT40 (MCS0)	102/5510	10.50	9.55
	110/5550	10.50	9.39
	118/5590	10.50	9.14
	134/5670	10.50	9.01
802.11ac-HT80 (MCS0)	106/5530	10.50	9.23
	122/5610	10.50	8.92

Note. Initial test configuration is 802.11a mode, since the highest maximum output power.



Wi-Fi 5G (U-NII-3) Rec. off (Full Power)	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	149/5745	10.50	9.58
	157/5785	10.50	9.85
	165/5825	10.50	9.90
802.11n-HT20 (MCS0)	149/5745	10.50	9.36
	157/5785	10.50	9.55
	165/5825	10.50	9.70
802.11n-HT40 (MCS0)	151/5755	10.50	9.23
	159/5795	10.50	9.38
802.11ac-HT20 (MCS0)	149/5745	10.50	9.30
	157/5785	10.50	9.63
	165/5825	10.50	9.69
802.11ac-HT40 (MCS0)	151/5755	10.50	9.24
	159/5795	10.50	9.45
802.11ac-HT80 (MCS0)	155/5775	10.50	9.26

Note. Initial test configuration is 802.11a mode, since the highest maximum output power.

9.5 Bluetooth Mode

BT	Conducted Power(dBm)			Tune-up Limit (dBm)
	Channel/Frequency(MHz)			
	Ch 0/2402 MHz	Ch 39/2441 MHz	Ch 78/2480 MHz	
GFSK	9.11	9.24	9.13	10.50
$\pi/4$ DQPSK	8.22	8.75	8.55	9.00
8DPSK	8.21	8.56	8.44	9.00
BLE	Ch 0/2402 MHz	Ch 19/2440 MHz	Ch 39/2480 MHz	Tune-up Limit (dBm)
GFSK(1M)	-3.21	-2.50	-2.79	-1.50
GFSK(2M)	-4.97	-3.97	-4.59	-1.50

10 Measured and Reported (Scaled) SAR Results

10.1 EUT Antenna Locations

The Detailed Antenna Locations refer to *Antenna Locations*.

Overall (Length x Width): 160.46 mm x 74.53mm Overall Diagonal: 171 mm/Display Diagonal: 156mm						
Distance of the Antenna to the EUT surface/edge						
Antenna	Back Side	Front side	Left Edge	Right Edge	Top Edge	Bottom Edge
Main-Antenna	<25mm	<25mm	<25mm	<25mm	>25mm	<25mm
DIV-Antenna	<25mm	<25mm	<25mm	>25mm	<25mm	>25mm
BT/Wi-Fi Antenna	<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	Yes	Yes	Yes	Yes	N/A	Yes
DIV-Antenna	Yes	Yes	Yes	N/A	Yes	N/A
BT/Wi-Fi Antenna	Yes	Yes	N/A	Yes	Yes	N/A

Note: 1. Per KDB 941225 D06, when the overall device length and width are $\geq 9\text{cm} \times 5\text{cm}$, 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 171mm. Per KDB 648474 D04, for smart phones with a display diagonal dimension $> 15.0\text{ cm}$ or an overall diagonal dimension $> 16.0\text{ cm}$, product specific 10-g SAR must be tested as a phablet to determine SAR compliance. For Phablet, Since hotspot mode 1-g *reported SAR* $< 1.2\text{ W/kg}$, product specific 10-g SAR is no required.

3. Per FCC KDB 447498 D01, for each exposure position, testing of other required 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:

- $\leq 0.8\text{ W/kg}$ or 2.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\leq 100\text{MHz}$
- $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
- $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.

4. When the original highest measured SAR is $\geq 0.80\text{ W/kg}$, 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 $\leq 1.2\text{ W/kg}$, no additional SAR evaluations using a headset cable were required.



10.2 Measured SAR Results

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

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

3. For WCDMA, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ 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.

4. For LTE, QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(1g).

Head

Band	Antenna	Test Position	Power Reduction	RB	offset	Channel Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	Plots
GSM 850 (Original)	Main	Left cheek	Receiver on	--	--	190/836.6	33.50	32.13	0.187	0.180	1.37	0.256	/
		Left Tilt	Receiver on	--	--	190/836.6	33.50	32.13	0.096	0.170	1.37	0.132	/
		Right cheek	Receiver on	--	--	190/836.6	33.50	32.13	0.217	0.031	1.37	0.297	/
		Right Tilt	Receiver on	--	--	190/836.6	33.50	32.13	0.105	0.160	1.37	0.144	/
	DIV	Left cheek	Receiver on	--	--	190/836.6	31.00	29.92	0.561	0.110	1.28	0.719	/
		Left Tilt	Receiver on	--	--	190/836.6	31.00	29.92	0.456	0.040	1.28	0.585	/
		Right cheek	Receiver on	--	--	190/836.6	31.00	29.92	0.579	0.040	1.28	0.742	/
		Right Tilt	Receiver on	--	--	190/836.6	31.00	29.92	0.587	0.050	1.28	0.753	23
		Right Tilt SIM 2	Receiver on	--	--	190/836.6	31.00	29.92	0.565	0.023	1.28	0.725	/
		Right Tilt Battery2	Receiver on	--	--	190/836.6	31.00	29.92	0.559	0.120	1.28	0.717	/
GSM 1900 (Original)	Main	Left cheek	Receiver on	--	--	661/1880	28.00	27.30	0.044	0.025	1.17	0.052	/
		Left Tilt	Receiver on	--	--	661/1880	28.00	27.30	0.036	0.042	1.17	0.043	/
		Right cheek	Receiver on	--	--	661/1880	28.00	27.30	0.066	0.065	1.17	0.077	/
		Right Tilt	Receiver on	--	--	661/1880	28.00	27.30	0.041	0.040	1.17	0.048	/
	DIV	Left cheek	Receiver on	--	--	661/1880	22.00	21.52	0.135	-0.057	1.12	0.151	/
		Left Tilt	Receiver on	--	--	661/1880	22.00	21.52	0.232	-0.023	1.12	0.259	/
		Right cheek	Receiver on	--	--	661/1880	22.00	21.52	0.337	0.160	1.12	0.376	/
		Right Tilt	Receiver on	--	--	661/1880	22.00	21.52	0.442	0.020	1.12	0.494	24
		Right Tilt SIM 2	Receiver on	--	--	661/1880	22.00	21.52	0.362	0.100	1.12	0.404	/
		Right Tilt Battery2	Receiver on	--	--	661/1880	22.00	21.52	0.389	0.000	1.12	0.434	/
WCDMA II (Original)	Main	Left cheek	Receiver on	--	--	9400/1880	24.00	23.12	0.117	0.050	1.22	0.143	/
		Left Tilt	Receiver on	--	--	9400/1880	24.00	23.12	0.114	0.190	1.22	0.140	/
		Right cheek	Receiver on	--	--	9400/1880	24.00	23.12	0.140	-0.031	1.22	0.171	/



	DIV	Right Tilt	Receiver on	--	--	9400/1880	24.00	23.12	0.129	0.090	1.22	0.158	/
		Left cheek	Receiver on	--	--	9400/1880	15.00	13.87	0.233	-0.041	1.30	0.302	/
		Left Tilt	Receiver on	--	--	9400/1880	15.00	13.87	0.279	-0.080	1.30	0.362	/
		Right cheek	Receiver on	--	--	9400/1880	15.00	13.87	0.470	-0.010	1.30	0.610	/
		Right Tilt	Receiver on	--	--	9400/1880	15.00	13.87	0.575	0.120	1.30	0.746	25
		DIV	Right Tilt SIM 2	Receiver on	--	--	9400/1880	15.00	13.87	0.482	0.101	1.30	0.625
		Right Tilt Battery2	Receiver on	--	--	9400/1880	15.00	13.87	0.479	0.060	1.30	0.621	/
WCDMA IV (Original)	Main	Left cheek	Receiver on	--	--	1413/1732.6	24.00	22.96	0.060	0.120	1.27	0.076	/
		Left Tilt	Receiver on	--	--	1413/1732.6	24.00	22.96	0.056	0.070	1.27	0.071	/
		Right cheek	Receiver on	--	--	1413/1732.6	24.00	22.96	0.105	0.048	1.27	0.133	/
		Right Tilt	Receiver on	--	--	1413/1732.6	24.00	22.96	0.070	0.130	1.27	0.089	/
	DIV	Left cheek	Receiver on	--	--	1413/1732.6	16.00	14.86	0.127	0.070	1.30	0.165	/
		Left Tilt	Receiver on	--	--	1413/1732.6	16.00	14.86	0.159	-0.030	1.30	0.207	/
		Right cheek	Receiver on	--	--	1413/1732.6	16.00	14.86	0.242	0.090	1.30	0.315	/
		Right Tilt	Receiver on	--	--	1413/1732.6	16.00	14.86	0.319	0.065	1.30	0.415	26
	DIV	Right Tilt SIM 2	Receiver on	--	--	1413/1732.6	16.00	14.86	0.304	0.021	1.30	0.395	/
		Right Tilt Battery2	Receiver on	--	--	1413/1732.6	16.00	14.86	0.289	0.010	1.30	0.376	/
WCDMA V (Original)	Main	Left cheek	Receiver on	--	--	4183/836.6	24.00	23.03	0.151	0.068	1.25	0.189	/
		Left Tilt	Receiver on	--	--	4183/836.6	24.00	23.03	0.073	0.039	1.25	0.091	/
		Right cheek	Receiver on	--	--	4183/836.6	24.00	23.03	0.156	0.057	1.25	0.195	/
		Right Tilt	Receiver on	--	--	4183/836.6	24.00	23.03	0.076	0.080	1.25	0.095	/
	DIV	Left cheek	Receiver on	--	--	4183/836.6	22.50	21.35	0.511	-0.160	1.30	0.666	/
		Left Tilt	Receiver on	--	--	4183/836.6	22.50	21.35	0.271	0.050	1.30	0.353	/
		Right cheek	Receiver on	--	--	4183/836.6	22.50	21.35	0.562	0.020	1.30	0.732	27
		Right Tilt	Receiver on	--	--	4183/836.6	22.50	21.35	0.554	0.020	1.30	0.722	/
	DIV	Right cheek SIM 2	Receiver on	--	--	4183/836.6	22.50	21.35	0.551	0.024	1.30	0.718	/
		Right cheek Battery2	Receiver on	--	--	4183/836.6	22.50	21.35	0.522	0.140	1.30	0.680	/
LTE 2 (Original)	Main	Left cheek	Receiver on	1	50	18700/1860	25.50	24.36	0.137	0.141	1.30	0.178	/
			Receiver on	50%	0	18900/1880	24.50	23.47	0.108	0.100	1.27	0.137	/
		Left Tilt	Receiver on	1	50	18700/1860	25.50	24.36	0.136	0.190	1.30	0.177	/
			Receiver on	50%	0	18900/1880	24.50	23.47	0.104	0.040	1.27	0.132	/
		Right cheek	Receiver on	1	50	18700/1860	25.50	24.36	0.211	0.180	1.30	0.274	/
			Receiver on	50%	0	18900/1880	24.50	23.47	0.147	0.028	1.27	0.186	/
		Right Tilt	Receiver on	1	50	18700/1860	25.50	24.36	0.121	0.090	1.30	0.157	/
			Receiver on	50%	0	18900/1880	24.50	23.47	0.089	0.033	1.27	0.112	/
	DIV	Left cheek	Receiver on	1	50	18700/1860	15.00	13.80	0.305	-0.020	1.32	0.402	/
			Receiver on	50%	25	18700/1860	15.00	13.93	0.299	-0.160	1.28	0.383	/



		Left Tilt	Receiver on	1	50	18700/1860	15.00	13.80	0.394	-0.130	1.32	0.519	/
			Receiver on	50%	25	18700/1860	15.00	13.93	0.390	-0.100	1.28	0.499	/
		Right cheek	Receiver on	1	50	18700/1860	15.00	13.80	0.526	0.150	1.32	0.693	/
			Receiver on	50%	25	18700/1860	15.00	13.93	0.512	0.026	1.28	0.655	/
		Right Tilt	Receiver on	1	50	18700/1860	15.00	13.80	0.605	-0.010	1.32	0.798	28
			Receiver on	50%	25	18700/1860	15.00	13.93	0.601	-0.010	1.28	0.769	/
		Right Tilt SIM 2	Receiver on	1	50	18700/1860	15.00	13.80	0.589	0.020	1.32	0.776	/
Right Tilt Battery2	Receiver on	1	50	18700/1860	15.00	13.80	0.591	0.130	1.32	0.779	/		
LTE 4 (Original)	Main	Left cheek	Receiver on	1	50	20050/1720	25.50	24.45	0.075	-0.001	1.27	0.096	/
			Receiver on	50%	25	20050/1720	24.50	23.45	0.060	0.199	1.27	0.076	/
		Left Tilt	Receiver on	1	50	20050/1720	25.50	24.45	0.065	0.140	1.27	0.083	/
			Receiver on	50%	25	20050/1720	24.50	23.45	0.052	0.032	1.27	0.066	/
		Right cheek	Receiver on	1	50	20050/1720	25.50	24.45	0.108	0.056	1.27	0.138	/
			Receiver on	50%	25	20050/1720	24.50	23.45	0.084	0.050	1.27	0.107	/
	Right Tilt	Receiver on	1	50	20050/1720	25.50	24.45	0.073	0.130	1.27	0.093	/	
		Receiver on	50%	25	20050/1720	24.50	23.45	0.059	0.190	1.27	0.075	/	
	DIV	Left cheek	Receiver on	1	50	20175/1732.5	17.00	15.73	0.180	-0.050	1.34	0.241	/
			Receiver on	50%	50	20050/1720	17.00	15.68	0.212	0.091	1.36	0.287	/
		Left Tilt	Receiver on	1	50	20175/1732.5	17.00	15.73	0.261	-0.023	1.34	0.350	/
			Receiver on	50%	50	20050/1720	17.00	15.68	0.292	-0.060	1.36	0.396	/
		Right cheek	Receiver on	1	50	20175/1732.5	17.00	15.73	0.391	0.190	1.34	0.524	/
			Receiver on	50%	50	20050/1720	17.00	15.68	0.481	-0.022	1.36	0.652	29
Right Tilt	Receiver on	1	50	20175/1732.5	17.00	15.73	0.472	0.070	1.34	0.632	/		
	Receiver on	50%	50	20050/1720	17.00	15.68	0.474	0.080	1.36	0.642	/		
Right Tilt SIM 2	Receiver on	50%	50	20050/1720	17.00	15.68	0.469	0.102	1.36	0.636	/		
Right Tilt Battery2	Receiver on	50%	50	20050/1720	17.00	15.68	0.470	0.144	1.36	0.637	/		
LTE 5 (Original)	Main	Left cheek	Receiver on	1	25	20450/829	25.50	24.22	0.212	0.154	1.34	0.285	/
			Receiver on	50%	13	20525/836.5	24.50	23.18	0.123	0.035	1.36	0.167	/
		Left Tilt	Receiver on	1	25	20450/829	25.50	24.22	0.081	0.140	1.34	0.109	/
			Receiver on	50%	13	20525/836.5	24.50	23.18	0.079	0.028	1.36	0.107	/
		Right cheek	Receiver on	1	25	20450/829	25.50	24.22	0.150	0.041	1.34	0.201	/
			Receiver on	50%	13	20525/836.5	24.50	23.18	0.128	0.113	1.36	0.173	/
	Right Tilt	Receiver on	1	25	20450/829	25.50	24.22	0.069	0.037	1.34	0.093	/	
		Receiver on	50%	13	20525/836.5	24.50	23.18	0.054	0.057	1.36	0.073	/	
	DIV	Left cheek	Receiver on	1	49	20600/844	23.00	21.65	0.374	-0.110	1.36	0.510	/
			Receiver on	50%	13	20450/829	23.00	21.60	0.124	0.035	1.38	0.171	/
Left Tilt		Receiver on	1	49	20600/844	23.00	21.65	0.338	0.040	1.36	0.461	/	
		Receiver on	50%	13	20450/829	23.00	21.60	0.081	0.020	1.38	0.112	/	
Right cheek	Receiver on	1	49	20600/844	23.00	21.65	0.484	-0.040	1.36	0.660	/		



		Receiver on	50%	13	20450/829	23.00	21.60	0.478	0.050	1.38	0.660	/	
		Right Tilt	Receiver on	1	49	20600/844	23.00	21.65	0.571	0.020	1.36	0.779	/
			Receiver on	50%	13	20450/829	23.00	21.60	0.651	0.090	1.38	0.899	/
	DIV	Right Tilt	Receiver on	50%	25	20525/836.5	23.00	21.57	0.701	0.020	1.39	0.974	30
		Right Tilt	Receiver on	50%	13	20600/844	23.00	21.57	0.588	-0.050	1.39	0.817	/
		Right Tilt SIM 2	Receiver on	50%	25	20525/836.5	23.00	21.57	0.698	0.121	1.39	0.970	/
Right Tilt Battery2		Receiver on	50%	25	20525/836.5	23.00	21.57	0.684	0.034	1.39	0.951	/	
Right Tilt		Receiver on	100%	0	20525/836.5	23.00	21.53	0.568	-0.023	1.40	0.797	/	
LTE 7 (Original)	Main	Left cheek	Receiver on	1	50	21350/2560	25.50	24.69	0.327	0.190	1.21	0.394	/
			Receiver on	50%	25	21350/2560	24.50	23.57	0.275	0.052	1.24	0.341	/
		Left Tilt	Receiver on	1	50	21350/2560	25.50	24.69	0.172	0.056	1.21	0.207	/
			Receiver on	50%	25	21350/2560	24.50	23.57	0.122	0.084	1.24	0.151	/
		Right cheek	Receiver on	1	50	21350/2560	25.50	24.69	0.145	-0.130	1.21	0.175	/
			Receiver on	50%	25	21350/2560	24.50	23.57	0.104	0.020	1.24	0.129	/
	Right Tilt	Receiver on	1	50	21350/2560	25.50	24.69	0.214	0.026	1.21	0.258	/	
		Receiver on	50%	25	21350/2560	24.50	23.57	0.143	0.124	1.24	0.177	/	
	DIV	Left cheek	Receiver on	1	50	21350/2560	19.00	18.21	0.485	0.048	1.20	0.582	/
			Receiver on	50%	50	20850/2510	19.00	18.29	0.710	0.046	1.18	0.836	/
			Receiver on	50%	25	21100/2535	19.00	18.15	0.743	-0.019	1.22	0.904	/
			Receiver on	50%	25	21350/2560	19.00	18.18	0.728	0.028	1.21	0.879	/
		Left Tilt	Receiver on	1	50	21350/2560	19.00	18.21	0.575	-0.100	1.20	0.690	/
			Receiver on	50%	50	20850/2510	19.00	18.29	0.759	-0.040	1.18	0.894	/
			Receiver on	50%	25	21100/2535	19.00	18.15	0.726	-0.019	1.22	0.883	/
			Receiver on	50%	25	21350/2560	19.00	18.18	0.684	-0.022	1.21	0.826	/
		Right cheek	Receiver on	1	50	21350/2560	19.00	18.21	0.608	0.030	1.20	0.729	/
			Receiver on	50%	50	20850/2510	19.00	18.29	0.716	0.092	1.18	0.843	/
			Receiver on	50%	25	21100/2535	19.00	18.15	0.681	0.100	1.22	0.828	/
			Receiver on	50%	25	21350/2560	19.00	18.18	0.745	0.070	1.21	0.900	/
		Right Tilt	Receiver on	1	50	21350/2560	19.00	18.21	0.698	0.100	1.20	0.837	/
			Receiver on	1	99	20850/2510	19.00	18.17	0.735	-0.040	1.21	0.890	/
			Receiver on	1	50	21100/2535	19.00	18.12	0.712	-0.031	1.22	0.872	/
			Receiver on	50%	50	20850/2510	19.00	18.29	0.845	0.024	1.18	0.995	31
		Right Tilt	Receiver on	50%	25	21100/2535	19.00	18.15	0.780	0.027	1.22	0.949	/
			Receiver on	50%	25	21350/2560	19.00	18.18	0.684	0.029	1.21	0.826	/
		Right Tilt Repeated	Receiver on	50%	50	20850/2510	19.00	18.29	0.839	-0.016	1.18	0.988	/
		Right Tilt	Receiver on	50%	25	21100/2535	19.00	18.15	0.780	0.027	1.22	0.949	/
Right Tilt	Receiver on	50%	25	21350/2560	19.00	18.18	0.684	0.029	1.21	0.826	/		
Right Tilt SIM 2	Receiver on	50%	50	20850/2510	19.00	18.29	0.725	0.043	1.18	0.854	/		
Right Tilt	Receiver on	50%	50	20850/2510	19.00	18.29	0.761	0.022	1.18	0.896	/		



		Battery2											
		Right Tilt	Receiver on	1	99	20850/2510	19.00	18.36	0.816	0.043	1.16	0.946	/
				1	0	21048/2529.8							
		Right Tilt	Receiver on	100%	0	20850/2510	19.00	18.15	0.724	0.090	1.22	0.881	/
			Receiver on	100%	0	21100/2535	19.00	17.87	0.717	-0.028	1.30	0.930	/
Receiver on	100%		0	21350/2560	19.00	17.79	0.682	0.010	1.32	0.901	/		
LTE 7 (Variant)	DIV	Right Tilt 4G+64G	Receiver on	50%	50	20850/2510	19.00	18.29	0.805	0.027	1.18	0.948	/
		Right Tilt 4G+128G	Receiver on	50%	50	20850/2510	19.00	18.29	0.810	0.020	1.18	0.954	/
		Right Tilt 6G+128G	Receiver on	50%	50	20850/2510	19.00	18.29	0.664	0.050	1.18	0.782	/
LTE 38 (Original)	Main	Left cheek	Receiver on	1	50	38000/2595	25.50	24.58	0.209	-0.045	1.24	0.258	/
			Receiver on	50%	25	38000/2595	24.50	23.58	0.170	-0.037	1.24	0.210	/
		Left Tilt	Receiver on	1	50	38000/2595	25.50	24.58	0.096	0.045	1.24	0.119	/
			Receiver on	50%	25	38000/2595	24.50	23.58	0.078	0.056	1.24	0.096	/
		Right cheek	Receiver on	1	50	38000/2595	25.50	24.58	0.087	-0.121	1.24	0.107	/
			Receiver on	50%	25	38000/2595	24.50	23.58	0.067	0.027	1.24	0.083	/
	Right Tilt	Receiver on	1	50	38000/2595	25.50	24.58	0.084	0.024	1.24	0.104	/	
		Receiver on	50%	25	38000/2595	24.50	23.58	0.051	0.029	1.24	0.063	/	
	DIV	Left cheek	Receiver on	1	50	38000/2595	21.00	20.84	0.354	-0.110	1.04	0.367	/
			Receiver on	50%	25	38150/2610	21.00	20.74	0.376	0.117	1.06	0.399	/
		Left Tilt	Receiver on	1	50	38000/2595	21.00	20.84	0.427	0.160	1.04	0.443	/
			Receiver on	50%	25	38150/2610	21.00	20.74	0.445	0.040	1.06	0.472	/
		Right cheek	Receiver on	1	50	38000/2595	21.00	20.84	0.454	-0.040	1.04	0.471	/
			Receiver on	50%	25	38150/2610	21.00	20.74	0.450	0.048	1.06	0.478	/
	Right Tilt	Receiver on	1	50	38000/2595	21.00	20.84	0.571	-0.040	1.04	0.592	32	
		Receiver on	50%	25	38150/2610	21.00	20.74	0.476	-0.050	1.06	0.505	/	
	Right Tilt	Receiver on	1	99	37850/2580	21.00	20.72	0.442	0.046	1.07	0.471	/	
		Receiver on	1	0	38048/2599.8								
LTE 41 (Original)	Main	Left cheek	Receiver on	1	50	40140/2545	25.50	24.42	0.215	0.180	1.28	0.276	/
			Receiver on	50%	0	40140/2545	24.50	23.46	0.193	0.114	1.27	0.245	/
		Left Tilt	Receiver on	1	50	40140/2545	25.50	24.42	0.089	0.051	1.28	0.115	/
			Receiver on	50%	0	40140/2545	24.50	23.46	0.074	0.064	1.27	0.095	/
		Right cheek	Receiver on	1	50	40140/2545	25.50	24.42	0.076	-0.080	1.28	0.098	/
			Receiver on	50%	0	40140/2545	24.50	23.46	0.078	0.021	1.27	0.099	/
	Right Tilt	Receiver on	1	50	40140/2545	25.50	24.42	0.063	0.093	1.28	0.080	/	
		Receiver on	50%	0	40140/2545	24.50	23.46	0.050	0.027	1.27	0.064	/	
	DIV	Left cheek	Receiver on	1	50	40140/2545	21.00	20.82	0.230	0.119	1.04	0.240	/
			Receiver on	50%	25	40140/2545	21.00	20.72	0.607	0.082	1.07	0.647	/
		Left Tilt	Receiver on	1	50	40140/2545	21.00	20.82	0.278	0.010	1.04	0.290	/
			Receiver on	50%	25	40140/2545	21.00	20.72	0.689	0.060	1.07	0.735	/
		Right cheek	Receiver on	1	50	40140/2545	21.00	20.82	0.305	0.010	1.04	0.318	/



		Receiver on	50%	25	40140/2545	21.00	20.72	0.727	0.100	1.07	0.775	33
	Right Tilt	Receiver on	1	50	40140/2545	21.00	20.82	0.380	0.100	1.04	0.396	/
		Receiver on	50%	25	40140/2545	21.00	20.72	0.350	-0.080	1.07	0.373	/
	Right Tilt SIM 2	Receiver on	50%	25	40140/2545	21.00	20.72	0.651	0.052	1.07	0.694	/
	Right Tilt Battery2	Receiver on	50%	25	40140/2545	21.00	20.72	0.621	0.080	1.07	0.662	/

Band	Test Position	Mode	Duty Cycle	Power Reduction	Channel Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	Plots
WiFi-2.4G (Original)	Left cheek	802.11b	100.0%	Receiver on	6/2437	16.50	16.07	0.518	-0.150	1.10	0.572	34
	Left Tilt	802.11b	100.0%	Receiver on	6/2437	16.50	16.07	0.496	-0.020	1.10	0.548	/
	Right cheek	802.11b	100.0%	Receiver on	6/2437	16.50	16.07	0.249	0.040	1.10	0.275	/
	Right Tilt	802.11b	100.0%	Receiver on	6/2437	16.50	16.07	0.206	0.040	1.10	0.227	/
	Left cheek Battery2	802.11b	100.0%	Receiver on	6/2437	16.50	16.07	0.450	0.124	1.10	0.497	/
U-NII-1 (Original)	Left cheek	802.11a	97.0%	Receiver on	36/5180	10.50	9.25	0.289	0.032	1.37	0.397	/
	Left Tilt	802.11a	97.0%	Receiver on	36/5180	10.50	9.25	0.405	0.034	1.37	0.557	35
	Right cheek	802.11a	97.0%	Receiver on	36/5180	10.50	9.25	0.195	0.096	1.37	0.268	/
	Right Tilt	802.11a	97.0%	Receiver on	36/5180	10.50	9.25	0.245	0.053	1.37	0.337	/
	Left Tilt Battery2	802.11a	97.0%	Receiver on	36/5180	10.50	9.25	0.375	0.021	1.37	0.516	/
U-NII-2A (Original)	Left cheek	802.11a	97.0%	Receiver on	64/5320	10.50	9.39	0.369	0.060	1.33	0.491	/
	Left Tilt	802.11a	97.0%	Receiver on	64/5320	10.50	9.39	0.392	0.052	1.33	0.522	36
	Right cheek	802.11a	97.0%	Receiver on	64/5320	10.50	9.39	0.278	-0.070	1.33	0.370	/
	Right Tilt	802.11a	97.0%	Receiver on	64/5320	10.50	9.39	0.319	0.027	1.33	0.425	/
	Left Tilt Battery2	802.11a	97.0%	Receiver on	64/5320	10.50	9.39	0.387	0.021	1.33	0.515	/
U-NII-2C (Original)	Left cheek	802.11a	97.0%	Receiver on	100/5500	10.50	9.59	0.250	0.054	1.27	0.318	/
	Left Tilt	802.11a	97.0%	Receiver on	100/5500	10.50	9.59	0.382	0.021	1.27	0.486	37
	Right cheek	802.11a	97.0%	Receiver on	100/5500	10.50	9.59	0.226	0.010	1.27	0.287	/
	Right Tilt	802.11a	97.0%	Receiver on	100/5500	10.50	9.59	0.278	0.048	1.27	0.353	/
	Left Tilt Battery2	802.11a	97.0%	Receiver on	100/5500	10.50	9.59	0.219	-0.010	1.27	0.278	/
U-NII-3 (Original)	Left cheek	802.11a	97.0%	Receiver on	165/5825	10.50	9.90	0.344	0.051	1.18	0.407	/
	Left Tilt	802.11a	97.0%	Receiver on	165/5825	10.50	9.90	0.471	0.034	1.18	0.558	38
	Right cheek	802.11a	97.0%	Receiver on	165/5825	10.50	9.90	0.315	0.036	1.18	0.373	/
	Right Tilt	802.11a	97.0%	Receiver on	165/5825	10.50	9.90	0.389	0.053	1.18	0.460	/
	Left Tilt Battery2	802.11a	97.0%	Receiver on	165/5825	10.50	9.90	0.451	0.051	1.18	0.534	/
Bluetooth (Original)	Left cheek	DH5	76.0%	Receiver on	39/2441	10.50	9.61	0.097	0.087	1.62	0.157	39
	Left Tilt	DH5	76.0%	Receiver on	39/2441	10.50	9.61	0.069	0.080	1.62	0.111	/



SAR Test Report

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	Right cheek	DH5	76.0%	Receiver on	39/2441	10.50	9.61	0.040	0.055	1.62	0.065	/
	Right Tilt	DH5	76.0%	Receiver on	39/2441	10.50	9.61	0.040	0.025	1.62	0.065	/
	Left cheek Battery2	DH5	76.0%	Receiver on	39/2441	10.50	9.61	0.067	0.032	1.62	0.108	/



Body-worn (Separation 10mm)

Band	Antenna	Test Position	Power Reduction	RB	offset	Channel Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	Plot No.
GSM 850 (Original)	Main	Back Side	Receiver off	--	--	190/836.6	29.50	28.19	0.276	0.150	1.35	0.373	40
		Front Side	Receiver off	--	--	190/836.6	29.50	28.19	0.206	0.090	1.35	0.279	/
	DIV	Back Side	Receiver off	--	--	190/836.6	29.50	28.02	0.250	0.180	1.41	0.352	/
		Front Side	Receiver off	--	--	190/836.6	29.50	28.02	0.222	0.041	1.41	0.312	/
	Main	Back Side SIM2	Receiver off	--	--	190/836.6	29.50	28.19	0.222	-0.102	1.35	0.300	/
		Back Side Battery2	Receiver off	--	--	190/836.6	29.50	28.19	0.144	0.037	1.35	0.195	/
GSM 1900 (Original)	Main	Back Side	Receiver off	--	--	661/1880	29.00	28.13	0.228	0.132	1.22	0.279	41
		Front Side	Receiver off	--	--	661/1880	29.00	28.13	0.170	-0.092	1.22	0.208	/
	DIV	Back Side	Receiver off	--	--	661/1880	22.00	21.00	0.209	0.164	1.26	0.263	/
		Front Side	Receiver off	--	--	661/1880	22.00	21.00	0.174	0.060	1.26	0.219	/
	Main	Back Side SIM2	Receiver off	--	--	661/1880	29.00	28.13	0.128	-0.060	1.22	0.156	/
		Back Side Battery2	Receiver off	--	--	661/1880	29.00	28.13	0.111	0.021	1.22	0.136	/
WCDMA II (Original)	Main	Back Side	Receiver off	--	--	9400/1880	20.00	18.98	0.165	0.037	1.26	0.209	42
		Front Side	Receiver off	--	--	9400/1880	20.00	18.98	0.143	0.037	1.26	0.181	/
	DIV	Back Side	Receiver off	--	--	9400/1880	15.00	13.87	0.136	0.024	1.30	0.176	/
		Front Side	Receiver off	--	--	9400/1880	15.00	13.87	0.104	0.022	1.30	0.135	/
	Main	Back Side SIM2	Receiver off	--	--	9400/1880	20.00	18.98	0.139	-0.018	1.26	0.176	/
		Back Side Battery2	Receiver off	--	--	9400/1880	20.00	18.98	0.121	0.090	1.26	0.153	/
WCDMA IV (Original)	Main	Back Side	Receiver off	--	--	1413/1732.6	19.00	17.91	0.220	0.025	1.29	0.283	43
		Front Side	Receiver off	--	--	1413/1732.6	19.00	17.91	0.129	-0.095	1.29	0.166	/
	DIV	Back Side	Receiver off	--	--	1413/1732.6	16.00	14.86	0.215	-0.021	1.30	0.280	/
		Front Side	Receiver off	--	--	1413/1732.6	16.00	14.86	0.136	0.017	1.30	0.177	/
	Main	Back Side SIM2	Receiver off	--	--	1413/1732.6	19.00	17.91	0.208	0.110	1.29	0.267	/
		Back Side Battery2	Receiver off	--	--	1413/1732.6	19.00	17.91	0.210	0.023	1.29	0.270	/
WCDMA V (Original)	Main	Back Side	Receiver off	--	--	4183/836.6	24.00	23.03	0.218	0.038	1.25	0.273	44
		Front Side	Receiver off	--	--	4183/836.6	24.00	23.03	0.147	0.010	1.25	0.184	/
	DIV	Back Side	Receiver off	--	--	4183/836.6	24.00	22.87	0.163	0.017	1.30	0.211	/
		Front Side	Receiver off	--	--	4183/836.6	24.00	22.87	0.142	0.026	1.30	0.184	/
	Main	Back Side SIM2	Receiver off	--	--	4183/836.6	24.00	23.03	0.207	0.060	1.25	0.259	/
		Back Side Battery2	Receiver off	--	--	4183/836.6	24.00	23.03	0.200	0.035	1.25	0.250	/



LTE 2 (Original)	Main	Back Side	Receiver off	1	50	19100/1900	20.00	19.16	0.178	0.047	1.21	0.216	/
			Receiver off	50%	50	18900/1880	20.00	19.21	0.192	0.054	1.20	0.230	45
		Front Side	Receiver off	1	50	19100/1900	20.00	19.16	0.128	0.047	1.21	0.155	/
			Receiver off	50%	50	18900/1880	20.00	19.21	0.134	0.023	1.20	0.161	/
	DIV	Back Side	Receiver off	1	50	18700/1860	16.00	14.90	0.115	0.028	1.29	0.148	/
			Receiver off	50%	25	18700/1860	16.00	14.88	0.111	0.030	1.29	0.144	/
		Front Side	Receiver off	1	50	18700/1860	16.00	14.90	0.107	-0.100	1.29	0.138	/
			Receiver off	50%	25	18700/1860	16.00	14.88	0.100	0.040	1.29	0.129	/
	Main	Back Side SIM2	Receiver off	50%	50	18900/1880	20.00	19.21	0.179	0.023	1.20	0.215	/
		Back Side Battery2	Receiver off	50%	50	18900/1880	20.00	19.21	0.184	0.014	1.20	0.221	/
LTE 4 (Original)	Main	Back Side	Receiver off	1	0	20050/1720	19.00	18.18	0.190	0.100	1.21	0.229	/
			Receiver off	50%	50	20050/1720	19.00	18.13	0.195	0.030	1.22	0.238	46
		Front Side	Receiver off	1	0	20050/1720	19.00	18.18	0.113	0.010	1.21	0.136	/
			Receiver off	50%	50	20050/1720	19.00	18.13	0.118	0.070	1.22	0.144	/
	DIV	Back Side	Receiver off	1	50	20175/1732.5	17.00	15.73	0.061	0.031	1.34	0.082	/
			Receiver off	50%	25	20050/1720	17.00	15.72	0.067	0.161	1.34	0.090	/
		Front Side	Receiver off	1	50	20175/1732.5	17.00	15.73	0.068	0.030	1.34	0.091	/
			Receiver off	50%	25	20050/1720	17.00	15.72	0.076	0.040	1.34	0.102	/
	Main	Back Side SIM2	Receiver off	50%	50	20050/1720	19.00	18.13	0.146	0.103	1.22	0.178	/
		Back Side Battery2	Receiver off	50%	50	20050/1720	19.00	18.13	0.162	0.101	1.22	0.198	/
LTE 5 (Original)	Main	Back Side	Receiver off	1	25	20600/844	24.50	23.49	0.278	-0.050	1.26	0.351	47
			Receiver off	50%	13	20450/829	24.50	23.42	0.221	0.090	1.28	0.283	/
		Front Side	Receiver off	1	25	20600/844	24.50	23.49	0.184	-0.035	1.26	0.232	/
			Receiver off	50%	13	20450/829	24.50	23.42	0.152	0.130	1.28	0.195	/
	DIV	Back Side	Receiver off	1	49	20600/844	24.50	23.16	0.183	0.110	1.36	0.249	/
			Receiver off	50%	13	20525/836.5	24.50	23.08	0.154	0.030	1.39	0.214	/
		Front Side	Receiver off	1	49	20600/844	24.50	23.16	0.213	0.040	1.36	0.290	/
			Receiver off	50%	13	20525/836.5	24.50	23.08	0.166	-0.020	1.39	0.230	/
	Main	Back Side SIM2	Receiver off	1	25	20600/844	24.50	23.49	0.245	0.045	1.26	0.309	/
		Back Side Battery2	Receiver off	1	25	20600/844	24.50	23.49	0.257	0.068	1.26	0.324	/
LTE 7 (Original)	Main	Back Side	Receiver off	1	50	21350/2560	21.00	20.06	0.209	0.045	1.24	0.260	/
			Receiver off	50%	25	21350/2560	21.00	20.02	0.209	0.047	1.25	0.262	/
		Front Side	Receiver off	1	50	21350/2560	21.00	20.06	0.240	0.043	1.24	0.298	48
			Receiver off	50%	25	21350/2560	21.00	20.02	0.231	-0.045	1.25	0.289	/
	DIV	Back Side	Receiver off	1	50	21350/2560	20.50	19.46	0.126	0.027	1.27	0.160	/
			Receiver off	50%	50	20850/2510	20.50	19.36	0.156	0.080	1.30	0.203	/
		Front Side	Receiver off	1	50	21350/2560	20.50	19.46	0.151	-0.020	1.27	0.192	/



	Main	Receiver off	50%	50	20850/2510	20.50	19.36	0.194	0.010	1.30	0.252	/	
		Front Side SIM2	Receiver off	1	50	21350/2560	21.00	20.06	0.221	0.105	1.24	0.274	/
		Front Side Battery2	Receiver off	1	50	21350/2560	21.00	20.06	0.233	0.043	1.24	0.289	/
		Front Side	Receiver off	1	99	21100/2535	21.00	20.11	0.225	-0.014	1.23	0.276	/
Receiver off	1	0	20902/2515.2	/									
LTE 38 (Original)	Main	Back Side	Receiver off	1	50	38000/2595	23.00	22.38	0.222	-0.130	1.15	0.256	/
			Receiver off	50%	25	38000/2595	23.00	22.34	0.217	0.090	1.16	0.253	/
		Front Side	Receiver off	1	50	38000/2595	23.00	22.38	0.232	0.025	1.15	0.268	/
			Receiver off	50%	25	38000/2595	23.00	22.34	0.333	0.028	1.16	0.388	49
	DIV	Back Side	Receiver off	1	50	37850/2580	22.00	21.23	0.092	-0.070	1.19	0.110	/
			Receiver off	50%	25	38000/2595	22.00	21.14	0.095	0.090	1.22	0.116	/
		Front Side	Receiver off	1	50	37850/2580	22.00	21.23	0.090	-0.040	1.19	0.107	/
			Receiver off	50%	25	38000/2595	22.00	21.14	0.045	0.020	1.22	0.055	/
	Main	Front Side SIM2	Receiver off	50%	25	38000/2595	23.00	22.34	0.306	-0.100	1.16	0.356	/
		Front Side Battery2	Receiver off	50%	25	38000/2595	23.00	22.34	0.314	0.010	1.16	0.366	/
		Front Side	Receiver off	1	99	37850/2580	23.00	22.35	0.301	0.050	1.16	0.350	/
			Receiver off	1	0	38048/2599.8							/
LTE 41 (Original)	Main	Back Side	Receiver off	1	50	40670/2598	23.00	22.08	0.316	0.021	1.24	0.391	/
			Receiver off	50%	25	40670/2598	23.00	22.06	0.310	0.050	1.24	0.385	/
		Front Side	Receiver off	1	50	40670/2598	23.00	22.08	0.360	0.010	1.24	0.445	/
			Receiver off	50%	25	40670/2598	23.00	22.06	0.370	0.140	1.24	0.459	50
	DIV	Back Side	Receiver off	1	50	40670/2598	22.00	21.13	0.134	0.010	1.22	0.164	/
			Receiver off	50%	25	40140/2545	22.00	21.17	0.132	0.040	1.21	0.160	/
		Front Side	Receiver off	1	50	40670/2598	22.00	21.13	0.130	-0.150	1.22	0.159	/
			Receiver off	50%	25	40140/2545	22.00	21.17	0.132	0.110	1.21	0.160	/
	Main	Front Side SIM2	Receiver off	50%	25	40670/2598	23.00	22.06	0.361	0.150	1.24	0.448	/
		Front Side Battery2	Receiver off	50%	25	40670/2598	23.00	22.06	0.357	0.113	1.24	0.443	/

Band	Test Position	Mode	Duty Cycle	Power Reduction	Channel Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	Plot No.
Wi-Fi2.4G (Original)	Back Side	802.11b	100.0%	Receiver off	6/2437	18.50	17.45	0.308	0.034	1.27	0.392	51
	Front Side	802.11b	100.0%	Receiver off	6/2437	18.50	17.45	0.166	0.022	1.27	0.211	/
	Back Side Battery2	802.11b	100.0%	Receiver off	6/2437	18.50	17.45	0.285	0.151	1.27	0.363	/
U-NII-1	Back Side	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.497	0.033	1.31	0.651	52



(Original)	Front Side	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.372	0.050	1.31	0.487	/
	Back Side Battery2	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.458	0.042	1.31	0.600	/
U-NII-1 (Variant)	Back Side 4G+64G	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.274	0.010	1.31	0.359	/
	Back Side 4G+128G	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.337	-0.011	1.31	0.441	/
	Back Side 6G+128G	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.288	0.022	1.31	0.377	/
U-NII-2A (Original)	Back Side	802.11a	97.0%	Receiver off	52/5260	16.50	15.73	0.270	-0.032	1.23	0.332	53
	Front Side	802.11a	97.0%	Receiver off	52/5260	16.50	15.73	0.150	0.026	1.23	0.185	/
	Back Side Battery2	802.11a	97.0%	Receiver off	52/5260	16.50	15.73	0.253	-0.042	1.23	0.311	/
U-NII-2C (Original)	Back Side	802.11a	97.0%	Receiver off	100/5500	16.00	15.17	0.310	0.031	1.25	0.387	54
	Front Side	802.11a	97.0%	Receiver off	100/5500	16.00	15.17	0.149	0.020	1.25	0.186	/
	Back Side Battery2	802.11a	97.0%	Receiver off	100/5500	16.00	15.17	0.301	0.160	1.25	0.376	/
U-NII-3 (Original)	Back Side	802.11a	97.0%	Receiver off	149/5745	15.00	13.95	0.390	0.050	1.31	0.512	55
	Front Side	802.11a	97.0%	Receiver off	149/5745	15.00	13.95	0.238	0.110	1.31	0.312	/
	Back Side Battery2	802.11a	97.0%	Receiver off	149/5745	15.00	13.95	0.251	0.021	1.31	0.330	/
Bluetooth (Original)	Back Side	DH5	76.0%	--	39/2441	10.50	9.61	0.006	-0.040	1.62	0.010	56
	Front Side	DH5	76.0%	--	39/2441	10.50	9.61	0.003	0.080	1.62	0.005	/
	Back Side Battery2	DH5	76.0%	--	39/2441	10.50	9.61	0.006	-0.01	1.62	0.010	/



Hotspot (Separation 10mm)

Band	Antenna	Test Position	Power Reduction	RB	offset	Channel Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	Plot No.
GSM 850 (Original)	Main	Back Side	Receiver off	--	--	190/836.6	29.50	28.19	0.276	0.150	1.35	0.373	/
		Front Side	Receiver off	--	--	190/836.6	29.50	28.19	0.206	0.090	1.35	0.279	/
		Left Edge	Receiver off	--	--	190/836.6	29.50	28.19	0.000	0.055	1.35	0.000	/
		Right Edge	Receiver off	--	--	190/836.6	29.50	28.19	0.108	0.100	1.35	0.146	/
		Bottom Edge	Receiver off	--	--	190/836.6	29.50	28.19	0.283	0.032	1.35	0.383	57
	DIV	Back Side	Receiver off	--	--	190/836.6	29.50	28.02	0.250	0.180	1.41	0.352	/
		Front Side	Receiver off	--	--	190/836.6	29.50	28.02	0.222	0.041	1.41	0.312	/
		Left Edge	Receiver off	--	--	190/836.6	29.50	28.02	0.086	0.070	1.41	0.121	/
		Top Edge	Receiver off	--	--	190/836.6	29.50	28.02	0.166	0.013	1.41	0.233	/
	Main	Bottom Edge SIM2	Receiver off	--	--	190/836.6	29.50	28.19	0.275	0.039	1.35	0.372	/
		Bottom Edge Battery2	Receiver off	--	--	190/836.6	29.50	28.19	0.269	0.017	1.35	0.364	/
GSM 1900 (Original)	Main	Back Side	Receiver off	--	--	661/1880	29.00	28.13	0.228	0.132	1.22	0.279	/
		Front Side	Receiver off	--	--	661/1880	29.00	28.13	0.170	-0.092	1.22	0.208	/
		Left Edge	Receiver off	--	--	661/1880	26.50	25.42	0.180	-0.011	1.28	0.231	/
		Right Edge	Receiver off	--	--	661/1880	26.50	25.42	0.055	0.072	1.28	0.071	/
		Bottom Edge	Receiver off	--	--	661/1880	29.00	28.13	0.362	-0.021	1.22	0.442	/
	DIV	Back Side	Receiver off	--	--	661/1880	22.00	21.00	0.209	0.164	1.26	0.263	/
		Front Side	Receiver off	--	--	661/1880	22.00	21.00	0.174	0.060	1.26	0.219	/
		Left Edge	Receiver off	--	--	661/1880	26.50	25.41	0.055	-0.067	1.29	0.071	/
		Top Edge	Receiver off	--	--	661/1880	22.00	21.00	0.495	0.180	1.26	0.623	58
	DIV	Top Edge SIM2	Receiver off	--	--	661/1880	22.00	21.00	0.381	0.039	1.26	0.480	/
		Top Edge Battery2	Receiver off	--	--	661/1880	22.00	21.00	0.364	0.065	1.26	0.458	/
WCDMA II (Original)	Main	Back Side	Receiver off	--	--	9400/1880	20.00	18.98	0.165	0.037	1.26	0.209	/
		Front Side	Receiver off	--	--	9400/1880	20.00	18.98	0.143	0.037	1.26	0.181	/
		Left Edge	Receiver off	--	--	9400/1880	24.00	23.12	0.179	0.055	1.22	0.219	/
		Right Edge	Receiver off	--	--	9400/1880	24.00	23.12	0.000	0.023	1.22	0.000	/
		Bottom Edge	Receiver off	--	--	9400/1880	20.00	18.98	0.289	0.180	1.26	0.366	59
	DIV	Back Side	Receiver off	--	--	9400/1880	15.00	13.87	0.136	0.024	1.30	0.176	/
		Front Side	Receiver off	--	--	9400/1880	15.00	13.87	0.104	0.022	1.30	0.135	/
		Left Edge	Receiver off	--	--	9400/1880	24.00	22.91	0.113	0.028	1.29	0.145	/
		Top Edge	Receiver off	--	--	9400/1880	15.00	13.87	0.215	-0.040	1.30	0.279	/
	Main	Bottom Edge SIM2	Receiver off	--	--	9400/1880	20.00	18.98	0.266	-0.151	1.26	0.336	/
		Bottom Edge Battery2	Receiver off	--	--	9400/1880	20.00	18.98	0.271	0.076	1.26	0.343	/



WCDMA IV (Original)	Main	Back Side	Receiver off	--	--	1413/1732.6	19.00	17.91	0.220	0.025	1.29	0.283	/
		Front Side	Receiver off	--	--	1413/1732.6	19.00	17.91	0.129	-0.095	1.29	0.166	/
		Left Edge	Receiver off	--	--	1413/1732.6	24.00	22.96	0.135	0.173	1.27	0.172	/
		Right Edge	Receiver off	--	--	1413/1732.6	24.00	22.96	0.067	0.023	1.27	0.085	/
		Bottom Edge	Receiver off	--	--	1413/1732.6	19.00	17.91	0.327	0.133	1.29	0.420	60
	DIV	Back Side	Receiver off	--	--	1413/1732.6	16.00	14.86	0.215	-0.021	1.30	0.280	/
		Front Side	Receiver off	--	--	1413/1732.6	16.00	14.86	0.136	0.017	1.30	0.177	/
		Left Edge	Receiver off	--	--	1413/1732.6	24.00	22.90	0.059	0.093	1.29	0.076	/
		Top Edge	Receiver off	--	--	1413/1732.6	16.00	14.86	0.103	0.010	1.30	0.134	/
	Main	Bottom Edge SIM2	Receiver off	--	--	1413/1732.6	19.00	17.91	0.319	0.036	1.29	0.410	/
		Bottom Edge Battery2	Receiver off	--	--	1413/1732.6	19.00	17.91	0.285	-0.022	1.29	0.366	/
	WCDMA V (Original)	Main	Back Side	Receiver off	--	--	4183/836.6	24.00	23.03	0.218	0.038	1.25	0.273
Front Side			Receiver off	--	--	4183/836.6	24.00	23.03	0.147	0.010	1.25	0.184	/
Left Edge			Receiver off	--	--	4183/836.6	24.00	23.03	0.000	-0.036	1.25	0.000	/
Right Edge			Receiver off	--	--	4183/836.6	24.00	23.03	0.079	-0.012	1.25	0.099	/
Bottom Edge			Receiver off	--	--	4183/836.6	24.00	23.03	0.220	0.039	1.25	0.275	61
DIV		Back Side	Receiver off	--	--	4183/836.6	24.00	22.87	0.163	0.017	1.30	0.211	/
		Front Side	Receiver off	--	--	4183/836.6	24.00	22.87	0.142	0.026	1.30	0.184	/
		Left Edge	Receiver off	--	--	4183/836.6	24.00	22.87	0.064	-0.018	1.30	0.083	/
		Top Edge	Receiver off	--	--	4183/836.6	24.00	22.87	0.117	-0.143	1.30	0.152	/
Main		Bottom Edge SIM2	Receiver off	--	--	4183/836.6	24.00	23.03	0.201	0.080	1.25	0.251	/
		Bottom Edge Battery2	Receiver off	--	--	4183/836.6	24.00	23.03	0.187	0.021	1.25	0.234	/
LTE 2 (Original)		Main	Back Side	Receiver off	1	50	19100/1900	20.00	19.16	0.178	0.047	1.21	0.216
	Receiver off			50%	50	18900/1880	20.00	19.21	0.192	0.054	1.20	0.230	/
	Front Side		Receiver off	1	50	19100/1900	20.00	19.16	0.128	0.047	1.21	0.155	/
			Receiver off	50%	50	18900/1880	20.00	19.21	0.134	0.023	1.20	0.161	/
	Left Edge		Receiver off	1	50	18700/1860	25.50	24.36	0.221	0.080	1.30	0.287	/
			Receiver off	50%	0	18900/1880	24.50	23.47	0.228	0.037	1.27	0.289	/
	Right Edge		Receiver off	1	50	18700/1860	25.50	24.36	0.068	0.050	1.30	0.088	/
			Receiver off	50%	0	18900/1880	24.50	23.47	0.077	0.140	1.27	0.098	/
	Bottom Edge	Receiver off	1	50	19100/1900	20.00	19.16	0.408	0.060	1.21	0.495	62	
		Receiver off	50%	50	18900/1880	20.00	19.21	0.378	0.130	1.20	0.453	/	
	DIV	Back Side	Receiver off	1	50	18700/1860	16.00	14.90	0.115	0.028	1.29	0.148	/
			Receiver off	50%	25	18700/1860	16.00	14.88	0.111	0.030	1.29	0.144	/
		Front Side	Receiver off	1	50	18700/1860	16.00	14.90	0.107	-0.100	1.29	0.138	/
			Receiver off	50%	25	18700/1860	16.00	14.88	0.100	0.040	1.29	0.129	/
		Left Edge	Receiver off	1	50	19100/1900	25.50	24.28	0.151	0.070	1.32	0.200	/
			Receiver off	50%	50	18900/1880	24.50	23.35	0.148	-0.080	1.30	0.193	/
Top Edge		Receiver off	1	50	18700/1860	16.00	14.90	0.226	0.010	1.29	0.291	/	



			Receiver off	50%	25	18700/1860	16.00	14.88	0.262	-0.010	1.29	0.339	/
	Main	Bottom Edge SIM2	Receiver off	1	50	19100/1900	20.00	19.16	0.385	-0.010	1.21	0.467	/
		Bottom Edge Battery2	Receiver off	1	50	19100/1900	20.00	19.16	0.396	0.010	1.21	0.481	/
LTE 4 (Original)	Main	Back Side	Receiver off	1	0	20050/1720	19.00	18.18	0.190	0.100	1.21	0.229	/
			Receiver off	50%	50	20050/1720	19.00	18.13	0.195	0.030	1.22	0.238	/
		Front Side	Receiver off	1	0	20050/1720	19.00	18.18	0.113	0.010	1.21	0.136	/
			Receiver off	50%	50	20050/1720	19.00	18.13	0.118	0.070	1.22	0.144	/
		Left Edge	Receiver off	1	50	20050/1720	25.50	24.45	0.101	-0.030	1.27	0.129	/
			Receiver off	50%	25	20050/1720	24.50	23.45	0.076	0.020	1.27	0.097	/
		Right Edge	Receiver off	1	50	20050/1720	25.50	24.45	0.000	-0.020	1.27	0.000	/
			Receiver off	50%	25	20050/1720	24.50	23.45	0.000	-0.031	1.27	0.000	/
	Bottom Edge	Receiver off	1	0	20050/1720	19.00	18.18	0.322	0.026	1.21	0.389	63	
		Receiver off	50%	50	20050/1720	19.00	18.13	0.315	0.031	1.22	0.385	/	
	DIV	Back Side	Receiver off	1	50	20175/1732.5	17.00	15.73	0.061	0.031	1.34	0.082	/
			Receiver off	50%	25	20050/1720	17.00	15.72	0.067	0.161	1.34	0.090	/
		Front Side	Receiver off	1	50	20175/1732.5	17.00	15.73	0.068	0.030	1.34	0.091	/
			Receiver off	50%	25	20050/1720	17.00	15.72	0.076	0.040	1.34	0.102	/
		Left Edge	Receiver off	1	50	20050/1720	25.50	24.19	0.076	0.076	1.35	0.103	/
			Receiver off	50%	50	20050/1720	24.50	23.34	0.056	0.060	1.31	0.073	/
		Top Edge	Receiver off	1	50	20175/1732.5	17.00	15.73	0.115	-0.190	1.34	0.154	/
			Receiver off	50%	25	20050/1720	17.00	15.72	0.113	0.020	1.34	0.152	/
	Main	Bottom Edge SIM2	Receiver off	1	0	20050/1720	19.00	18.18	0.319	-0.020	1.21	0.385	/
		Bottom Edge Battery2	Receiver off	1	0	20050/1720	19.00	18.18	0.304	0.000	1.21	0.367	/
LTE 5 (Original)	Main	Back Side	Receiver off	1	25	20600/844	24.50	23.49	0.278	-0.050	1.26	0.351	64
			Receiver off	50%	13	20450/829	24.50	23.42	0.221	0.090	1.28	0.283	/
		Front Side	Receiver off	1	25	20600/844	24.50	23.49	0.184	-0.035	1.26	0.232	/
			Receiver off	50%	13	20450/829	24.50	23.42	0.152	0.130	1.28	0.195	/
		Left Edge	Receiver off	1	25	20450/829	25.50	24.22	0.048	-0.021	1.34	0.064	/
			Receiver off	50%	13	20525/836.5	24.50	23.18	0.000	-0.030	1.36	0.000	/
		Right Edge	Receiver off	1	25	20450/829	25.50	24.22	0.070	-0.020	1.34	0.094	/
			Receiver off	50%	13	20525/836.5	24.50	23.18	0.050	0.021	1.36	0.068	/
	Bottom Edge	Receiver off	1	25	20600/844	24.50	23.49	0.268	-0.025	1.26	0.338	/	
		Receiver off	50%	13	20450/829	24.50	23.42	0.249	0.040	1.28	0.319	/	
	DIV	Back Side	Receiver off	1	49	20600/844	24.50	23.16	0.183	0.110	1.36	0.249	/
			Receiver off	50%	13	20525/836.5	24.50	23.08	0.154	0.030	1.39	0.214	/
		Front Side	Receiver off	1	49	20600/844	24.50	23.16	0.213	0.040	1.36	0.290	/
			Receiver off	50%	13	20525/836.5	24.50	23.08	0.166	-0.020	1.39	0.230	/
Left Edge		Receiver off	1	49	20450/829	25.50	24.02	0.094	0.030	1.41	0.132	/	
		Receiver off	50%	13	20525/836.5	24.50	23.13	0.076	0.050	1.37	0.104	/	



		Top Edge	Receiver off	1	49	20600/844	24.50	23.16	0.251	0.100	1.36	0.342	/
			Receiver off	50%	13	20525/836.5	24.50	23.08	0.174	0.045	1.39	0.241	/
	Main	Back Side SIM2	Receiver off	1	25	20600/844	24.50	23.49	0.245	0.045	1.26	0.309	/
		Back Side Battery2	Receiver off	1	25	20600/844	24.50	23.49	0.257	0.068	1.26	0.324	/
LTE 7 (Original)	Main	Back Side	Receiver off	1	50	21350/2560	21.00	20.06	0.209	0.045	1.24	0.260	/
			Receiver off	50%	25	21350/2560	21.00	20.02	0.209	0.047	1.25	0.262	/
		Front Side	Receiver off	1	50	21350/2560	21.00	20.06	0.240	0.043	1.24	0.298	/
			Receiver off	50%	25	21350/2560	21.00	20.02	0.231	-0.045	1.25	0.289	/
		Left Edge	Receiver off	1	50	21350/2560	25.50	24.69	0.118	0.050	1.21	0.142	/
			Receiver off	50%	25	21350/2560	24.50	23.57	0.109	0.050	1.24	0.135	/
		Right Edge	Receiver off	1	50	21350/2560	25.50	24.69	0.000	0.050	1.21	0.000	/
			Receiver off	50%	25	21350/2560	24.50	23.57	0.000	0.160	1.24	0.000	/
	Bottom Edge	Receiver off	1	50	21350/2560	21.00	20.06	0.304	0.170	1.24	0.377	/	
		Receiver off	50%	25	21350/2560	21.00	20.02	0.219	0.120	1.25	0.274	/	
	DIV	Back Side	Receiver off	1	50	21350/2560	20.50	19.46	0.126	0.027	1.27	0.160	/
			Receiver off	50%	50	20850/2510	20.50	19.36	0.156	0.080	1.30	0.203	/
		Front Side	Receiver off	1	50	21350/2560	20.50	19.46	0.151	-0.020	1.27	0.192	/
			Receiver off	50%	50	20850/2510	20.50	19.36	0.194	0.010	1.30	0.252	/
		Left Edge	Receiver off	1	50	21350/2560	25.50	24.48	0.274	-0.040	1.26	0.347	/
			Receiver off	50%	50	20850/2510	23.50	23.43	0.182	-0.010	1.02	0.185	/
		Top Edge	Receiver off	1	50	21350/2560	20.50	19.46	0.268	0.020	1.27	0.341	/
			Receiver off	50%	50	20850/2510	20.50	19.36	0.465	0.108	1.30	0.605	65
	Top Edge SIM2	Receiver off	50%	50	20850/2510	20.50	19.36	0.436	0.050	1.30	0.567	/	
	Top Edge Battery2	Receiver off	50%	50	20850/2510	20.50	19.36	0.429	0.030	1.30	0.558	/	
Top Edge	Receiver off	1	0	21350/2560	20.50	19.34	0.298	-0.090	1.31	0.389	/		
		1	99	21152/2540.2									
LTE 38 (Original)	Main	Back Side	Receiver off	1	50	38000/2595	23.00	22.38	0.222	-0.130	1.15	0.256	/
			Receiver off	50%	25	38000/2595	23.00	22.34	0.217	0.090	1.16	0.253	/
		Front Side	Receiver off	1	50	38000/2595	23.00	22.38	0.232	0.025	1.15	0.268	/
			Receiver off	50%	25	38000/2595	23.00	22.34	0.333	0.028	1.16	0.388	66
		Left Edge	Receiver off	1	50	38000/2595	25.50	24.58	0.086	-0.030	1.24	0.106	/
			Receiver off	50%	25	38000/2595	24.50	23.58	0.093	-0.020	1.24	0.115	/
	Right Edge	Receiver off	1	50	38000/2595	25.50	24.58	0.000	0.140	1.24	0.000	/	
		Receiver off	50%	25	38000/2595	24.50	23.58	0.000	0.080	1.24	0.000	/	
	Bottom Edge	Receiver off	1	50	38000/2595	23.00	22.38	0.240	0.050	1.15	0.277	/	
		Receiver off	50%	25	38000/2595	23.00	22.34	0.232	0.030	1.16	0.270	/	
	DIV	Back Side	Receiver off	1	50	37850/2580	22.00	21.23	0.092	-0.070	1.19	0.110	/
			Receiver off	50%	25	38000/2595	22.00	21.14	0.095	0.090	1.22	0.116	/
Front Side	Receiver off	1	50	37850/2580	22.00	21.23	0.090	-0.040	1.19	0.107	/		



		Receiver off	50%	25	38000/2595	22.00	21.14	0.045	0.020	1.22	0.055	/	
		Left Edge	Receiver off	1	50	38150/2610	25.50	24.88	0.046	0.080	1.15	0.053	/
			Receiver off	50%	25	38000/2595	24.50	23.88	0.067	0.140	1.15	0.077	/
		Top Edge	Receiver off	1	50	37850/2580	22.00	21.23	0.176	0.160	1.19	0.210	/
			Receiver off	50%	25	38000/2595	22.00	21.14	0.155	0.090	1.22	0.189	/
		Main	Front Side SIM2	Receiver off	50%	25	38000/2595	23.00	22.34	0.306	-0.100	1.16	0.356
	Front Side Battery2		Receiver off	50%	25	38000/2595	23.00	22.34	0.314	0.010	1.16	0.366	/
	Front Side		Receiver off	1	99	37850/2580	23.00	22.35	0.301	0.050	1.16	0.350	/
			Receiver off	1	0	38048/2599.8							

LTE 41 (Original)	Main	Back Side	Receiver off	1	50	40670/2598	23.00	22.08	0.316	0.021	1.24	0.391	/	
			Receiver off	50%	25	40670/2598	23.00	22.06	0.310	0.050	1.24	0.385	/	
		Front Side	Receiver off	1	50	40670/2598	23.00	22.08	0.360	0.010	1.24	0.445	/	
			Receiver off	50%	25	40670/2598	23.00	22.06	0.370	0.140	1.24	0.459	/	
		Left Edge	Receiver off	1	50	40140/2545	25.50	24.42	0.164	0.030	1.28	0.210	/	
			Receiver off	50%	0	40140/2545	24.50	23.46	0.164	-0.012	1.27	0.208	/	
		Right Edge	Receiver off	1	50	40140/2545	25.50	24.42	0.000	-0.010	1.28	0.000	/	
			Receiver off	50%	0	40140/2545	24.50	23.46	0.000	0.026	1.27	0.000	/	
		Bottom Edge	Receiver off	1	50	40670/2598	23.00	22.08	0.374	-0.082	1.24	0.462	/	
			Receiver off	50%	25	40670/2598	23.00	22.06	0.539	0.039	1.24	0.669	67	
		DIV	Back Side	Receiver off	1	50	40670/2598	22.00	21.13	0.134	0.010	1.22	0.164	/
				Receiver off	50%	25	40140/2545	22.00	21.17	0.132	0.040	1.21	0.160	/
	Front Side		Receiver off	1	50	40670/2598	22.00	21.13	0.130	-0.150	1.22	0.159	/	
			Receiver off	50%	25	40140/2545	22.00	21.17	0.132	0.110	1.21	0.160	/	
	Left Edge		Receiver off	1	50	41140/2645	25.50	24.66	0.294	0.120	1.21	0.357	/	
			Receiver off	50%	25	41140/2645	24.50	23.77	0.242	-0.080	1.18	0.286	/	
	Top Edge		Receiver off	1	50	40670/2598	22.00	21.13	0.234	0.020	1.22	0.286	/	
			Receiver off	50%	25	40140/2545	22.00	21.17	0.332	-0.023	1.21	0.402	/	
	Main	Bottom Edge SIM2	Receiver off	50%	25	40670/2598	23.00	22.06	0.489	0.082	1.24	0.607	/	
		Bottom Edge Battery2	Receiver off	50%	25	40670/2598	23.00	22.06	0.461	0.082	1.24	0.572	/	

Band	Test Position	Mode	Duty Cycle	Power Reduction	Channel Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g	Plot No.
Wi-Fi 2.4G (Original)	Back Side	802.11b	100.0%	Receiver off	6/2437	18.50	17.45	0.308	0.034	1.27	0.392	68
	Front Side	802.11b	100.0%	Receiver off	6/2437	18.50	17.45	0.166	0.022	1.27	0.211	/
	Right Edge	802.11b	100.0%	Receiver off	6/2437	18.50	17.45	0.103	-0.036	1.27	0.131	/
	Top Edge	802.11b	100.0%	Receiver off	6/2437	18.50	17.45	0.132	0.099	1.27	0.168	/
	Back Side Battery2	802.11b	100.0%	Receiver off	6/2437	18.50	17.45	0.297	0.100	1.27	0.378	/



U-NII-1 (Original)	Back Side	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.497	0.033	1.31	0.651	/
	Front Side	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.372	0.050	1.31	0.487	/
	Right Edge	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.266	0.113	1.31	0.348	/
	Top Edge	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.522	0.044	1.31	0.684	69
	Top Edge Battery2	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.457	0.053	1.31	0.599	/
U-NII-1 (Variant)	Top Edge 4G+64G	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.502	0.016	1.31	0.658	/
	Top Edge 4G+128G	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.401	0.052	1.31	0.525	/
	Top Edge 6G+128G	802.11a	97.0%	Receiver off	48/5240	16.50	15.46	0.518	0.054	1.31	0.679	/
U-NII-3 (Original)	Back Side	802.11a	97.0%	Receiver off	149/5745	15.00	13.95	0.390	0.050	1.31	0.512	/
	Front Side	802.11a	97.0%	Receiver off	149/5745	15.00	13.95	0.238	0.110	1.31	0.312	/
	Right Edge	802.11a	97.0%	Receiver off	149/5745	15.00	13.95	0.147	0.150	1.31	0.193	/
	Top Edge	802.11a	97.0%	Receiver off	149/5745	15.00	13.95	0.439	0.070	1.31	0.576	70
	Top Edge Battery2	802.11a	97.0%	Receiver off	149/5745	15.00	13.95	0.417	0.100	1.31	0.547	/
U-NII-3 (Variant)	Top Edge 4G+64G	802.11a	97.0%	Receiver off	100/5500	16.00	15.17	1.010	0.011	1.25	1.261	/
	Top Edge 4G+128G	802.11a	97.0%	Receiver off	100/5500	16.00	15.17	1.100	0.021	1.25	1.373	/
	Top Edge 6G+128G	802.11a	97.0%	Receiver off	100/5500	16.00	15.17	1.060	0.011	1.25	1.323	/
BT (Original)	Back Side	DH5	76.0%	--	39/2441	10.50	9.61	0.012	0.178	1.62	0.019	/
	Front Side	DH5	76.0%	--	39/2441	10.50	9.61	0.005	0.010	1.62	0.008	/
	Right Edge	DH5	76.0%	--	39/2441	10.50	9.61	0.000	0.100	1.62	0.001	/
	Top Edge	DH5	76.0%	--	39/2441	10.50	9.61	0.013	0.028	1.62	0.021	71
	Top Edge Battery2	DH5	76.0%	--	39/2441	10.50	9.61	0.012	0.090	1.62	0.020	/



Product-specific 10g (Separation 0mm)

Band	Antenna	Test Position	Power Reduction	Channel Frequency (MHz)	Tune-up (dBm)	Reduction Tune-up (dBm)	Report SAR1g	Scaling Factor	0mm Report SAR1g	0mm SAR
GSM 1900 (Original)	Main	Back Side	Receiver off	661/1880	30.50	29.00	0.279	1.41	0.393	No
		Front Side	Receiver off	661/1880	30.50	29.00	0.208	1.41	0.293	No
		Bottom Edge	Receiver off	661/1880	30.50	29.00	0.442	1.41	0.625	No
	DIV	Back Side	Receiver off	661/1880	24.00	22.00	0.263	1.58	0.417	No
		Front Side	Receiver off	661/1880	24.00	22.00	0.219	1.58	0.347	No
		Top Edge	Receiver off	661/1880	24.00	22.00	0.623	1.58	0.988	No
WCDMA II (Original)	Main	Back Side	Receiver off	9400/1880	24.00	20.00	0.209	2.51	0.524	No
		Front Side	Receiver off	9400/1880	24.00	20.00	0.181	2.51	0.454	No
		Bottom Edge	Receiver off	9400/1880	24.00	20.00	0.366	2.51	0.918	No
	DIV	Back Side	Receiver off	9400/1880	24.00	15.00	0.176	7.94	1.401	Yes
		Front Side	Receiver off	9400/1880	24.00	15.00	0.135	7.94	1.072	No
		Top Edge	Receiver off	9400/1880	24.00	15.00	0.279	7.94	2.215	Yes
WCDMA IV (Original)	Main	Back Side	Receiver off	1413/1732.6	24.00	19.00	0.283	3.16	0.894	No
		Front Side	Receiver off	1413/1732.6	24.00	19.00	0.166	3.16	0.524	No
		Bottom Edge	Receiver off	1413/1732.6	24.00	19.00	0.420	3.16	1.329	Yes
	DIV	Back Side	Receiver off	1413/1732.6	24.00	16.00	0.280	6.31	1.764	Yes
		Front Side	Receiver off	1413/1732.6	24.00	16.00	0.177	6.31	1.116	No
		Top Edge	Receiver off	1413/1732.6	24.00	16.00	0.134	6.31	0.845	No

Band	Antenna	Test Position	Power Reduction	RB	offset	Channel Frequency (MHz)	Tune-up (dBm)	Reduction Tune-up (dBm)	Report SAR1g	Scaling Factor	0mm Report SAR1g	0mm SAR
LTE 2 (Original)	Main	Back Side	Receiver off	1	50	19100/1900	25.50	20.00	0.216	3.55	0.766	No
			Receiver off	50%	50	18900/1880	24.50	20.00	0.230	2.82	0.649	No
		Front Side	Receiver off	1	50	19100/1900	25.50	20.00	0.155	3.55	0.551	No
			Receiver off	50%	50	18900/1880	24.50	20.00	0.161	2.82	0.453	No
		Bottom Edge	Receiver off	1	50	19100/1900	25.50	20.00	0.495	3.55	1.757	Yes
			Receiver off	50%	50	18900/1880	24.50	20.00	0.453	2.82	1.278	Yes
	DIV	Back Side	Receiver off	1	50	18700/1860	25.50	16.00	0.148	8.91	1.320	Yes
			Receiver off	50%	25	18700/1860	24.50	16.00	0.144	7.08	1.017	No
		Front Side	Receiver off	1	50	18700/1860	25.50	16.00	0.138	8.91	1.229	Yes
			Receiver off	50%	25	18700/1860	24.50	16.00	0.129	7.08	0.916	No
		Top Edge	Receiver off	1	50	18700/1860	25.50	16.00	0.291	8.91	2.595	Yes
			Receiver off	50%	25	18700/1860	24.50	16.00	0.339	7.08	2.400	Yes
LTE 4 (Original)	Main	Back Side	Receiver off	1	0	20050/1720	25.50	19.00	0.229	4.47	1.025	No
			Receiver off	50%	50	20050/1720	24.50	19.00	0.238	3.55	0.845	No
		Front Side	Receiver off	1	0	20050/1720	25.50	19.00	0.136	4.47	0.610	No
			Receiver off	50%	50	20050/1720	24.50	19.00	0.144	3.55	0.512	No



	Bottom Edge	Receiver off	1	0	20050/1720	25.50	19.00	0.389	4.47	1.737	Yes	
		Receiver off	50%	50	20050/1720	24.50	19.00	0.385	3.55	1.366	Yes	
	DIV	Back Side	Receiver off	1	50	20175/1732.5	25.50	17.00	0.082	7.08	0.579	No
			Receiver off	50%	25	20050/1720	24.50	17.00	0.090	5.62	0.506	No
		Front Side	Receiver off	1	50	20175/1732.5	25.50	17.00	0.091	7.08	0.645	No
			Receiver off	50%	25	20050/1720	24.50	17.00	0.102	5.62	0.574	No
Top Edge	Receiver off	1	50	20175/1732.5	25.50	17.00	0.154	7.08	1.091	No		
	Receiver off	50%	25	20050/1720	24.50	17.00	0.152	5.62	0.853	No		
LTE 5 (Original)	Main	Back Side	Receiver off	1	25	20600/844	25.50	24.50	0.351	1.26	0.442	No
			Receiver off	50%	13	20450/829	24.50	24.50	0.283	1.00	0.283	No
		Front Side	Receiver off	1	25	20600/844	25.50	24.50	0.232	1.26	0.292	No
			Receiver off	50%	13	20450/829	24.50	24.50	0.195	1.00	0.195	No
	Bottom Edge	Receiver off	1	25	20600/844	25.50	24.50	0.338	1.26	0.426	No	
		Receiver off	50%	13	20450/829	24.50	24.50	0.319	1.00	0.319	No	
	DIV	Back Side	Receiver off	1	49	20600/844	25.50	24.50	0.249	1.26	0.314	No
			Receiver off	50%	13	20525/836.5	24.50	24.50	0.214	1.00	0.214	No
		Front Side	Receiver off	1	49	20600/844	25.50	24.50	0.290	1.26	0.365	No
			Receiver off	50%	13	20525/836.5	24.50	24.50	0.230	1.00	0.230	No
		Top Edge	Receiver off	1	49	20600/844	25.50	24.50	0.342	1.26	0.430	No
			Receiver off	50%	13	20525/836.5	24.50	24.50	0.241	1.00	0.241	No
LTE 7 (Original)	Main	Back Side	Receiver off	1	50	21350/2560	25.50	21.00	0.260	2.82	0.731	No
			Receiver off	50%	25	21350/2560	24.50	21.00	0.262	2.24	0.586	No
		Front Side	Receiver off	1	50	21350/2560	25.50	21.00	0.298	2.82	0.840	No
			Receiver off	50%	25	21350/2560	24.50	21.00	0.289	2.24	0.648	No
	Bottom Edge	Receiver off	1	50	21350/2560	25.50	21.00	0.377	2.82	1.064	No	
		Receiver off	50%	25	21350/2560	24.50	21.00	0.274	2.24	0.614	No	
	DIV	Back Side	Receiver off	1	50	21350/2560	25.50	21.00	0.160	2.82	0.451	No
			Receiver off	50%	50	20850/2510	23.50	21.00	0.203	1.78	0.361	No
		Front Side	Receiver off	1	50	21350/2560	25.50	21.00	0.192	2.82	0.541	No
			Receiver off	50%	50	20850/2510	23.50	21.00	0.252	1.78	0.449	No
Top Edge		Receiver off	1	50	21350/2560	25.50	21.00	0.389	2.82	1.096	No	
		Receiver off	50%	50	20850/2510	23.50	21.00	0.605	1.78	1.075	No	
LTE 38 (Original)	Main	Back Side	Receiver off	1	50	38000/2595	25.50	23.00	0.256	1.78	0.455	No
			Receiver off	50%	25	38000/2595	24.50	23.00	0.253	1.41	0.357	No
		Front Side	Receiver off	1	50	38000/2595	25.50	23.00	0.268	1.78	0.476	No
			Receiver off	50%	25	38000/2595	24.50	23.00	0.388	1.41	0.548	No
	Bottom Edge	Receiver off	1	50	38000/2595	25.50	23.00	0.277	1.78	0.492	No	
		Receiver off	50%	25	38000/2595	24.50	23.00	0.270	1.41	0.381	No	
	DIV	Back Side	Receiver off	1	50	37850/2580	25.50	22.00	0.110	2.24	0.246	No
			Receiver off	50%	25	38000/2595	24.50	22.00	0.116	1.78	0.206	No
Front Side		Receiver off	1	50	37850/2580	25.50	22.00	0.107	2.24	0.241	No	



LTE 41 (Original)	Main	Top Edge	Receiver off	50%	25	38000/2595	24.50	22.00	0.055	1.78	0.098	No
			Receiver off	1	50	37850/2580	25.50	22.00	0.210	2.24	0.470	No
	Main	Back Side	Receiver off	50%	25	38000/2595	24.50	22.00	0.189	1.78	0.336	No
			Receiver off	1	50	40670/2598	25.50	23.00	0.391	1.78	0.695	No
	Main	Front Side	Receiver off	50%	25	40670/2598	24.50	23.00	0.385	1.41	0.544	No
			Receiver off	1	50	40670/2598	25.50	23.00	0.445	1.78	0.791	No
	Main	Bottom Edge	Receiver off	1	50	40670/2598	25.50	23.00	0.462	1.78	0.822	No
			Receiver off	50%	25	40670/2598	24.50	23.00	0.669	1.41	0.945	No
	DIV	Back Side	Receiver off	1	50	40670/2598	25.50	22.00	0.164	2.24	0.367	No
			Receiver off	50%	25	40670/2598	24.50	22.00	0.160	1.78	0.284	No
		Front Side	Receiver off	1	50	40670/2598	25.50	22.00	0.159	2.24	0.356	No
			Receiver off	50%	25	40670/2598	24.50	22.00	0.160	1.78	0.284	No
		Top Edge	Receiver off	1	50	40670/2598	25.50	22.00	0.286	2.24	0.640	No
			Receiver off	50%	25	40670/2598	24.50	22.00	0.402	1.78	0.715	No

Band	Antenna	Test Position	Mode	Duty Cycle	Power Reduction	RB	offset	Channel Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR10g	Power Drift (dB)	Scaling Factor	Report SAR10g	Plot No.
WCDMA II (Original)	DIV	Back Side	RMC	--	Receiver off	--	--	9400/1880	15.00	13.87	0.339	-0.029	1.30	0.440	/
	DIV	Top Edge	RMC	--	Receiver off	--	--	9400/1880	15.00	13.87	0.649	0.059	1.30	0.842	72
WCDMA IV (Original)	Main	Bottom Edge	RMC	--	Receiver off	--	--	1413/1732.6	19.00	17.91	0.996	0.090	1.29	1.280	73
	DIV	Back Side	RMC	--	Receiver off	--	--	1413/1732.6	16.00	14.86	0.140	0.028	1.30	0.182	/
LTE 2 (Original)	Main	Bottom Edge	QPSK	--	Receiver off	1	50	19100/1900	20.00	19.16	0.956	0.040	1.21	1.160	74
		Bottom Edge	QPSK	--	Receiver off	50%	50	18900/1880	20.00	19.21	0.947	-0.050	1.20	1.136	/
	DIV	Back Side	QPSK	--	Receiver off	1	50	18700/1860	16.00	14.90	0.240	0.056	1.29	0.309	/
		Front Side	QPSK	--	Receiver off	1	50	18700/1860	16.00	14.90	0.346	0.100	1.29	0.446	/
		Top Edge	QPSK	--	Receiver off	1	50	18700/1860	16.00	14.90	0.791	0.050	1.29	1.019	/
QPSK	--		Receiver off	50%	25	18700/1860	16.00	14.88	0.800	0.010	1.29	1.035	/		
LTE 4 (Original)	Main	Bottom Edge	QPSK	--	Receiver off	1	0	20050/1720	19.00	18.18	0.945	-0.060	1.21	1.141	75
		Bottom Edge	QPSK	--	Receiver off	50%	50	20050/1720	19.00	18.13	0.921	0.130	1.22	1.125	/
U-NII-2A (Original)	Wi-Fi	Back Side	802.11a	97.0%	Receiver off	--	--	52/5260	16.50	15.73	1.160	-0.094	1.23	1.428	/
		Front Side	802.11a	97.0%	Receiver off	--	--	52/5260	16.50	15.73	1.080	-0.085	1.23	1.329	/
		Right Edge	802.11a	97.0%	Receiver off	--	--	52/5260	16.50	15.73	1.060	0.033	1.23	1.305	/
		Top Edge	802.11a	97.0%	Receiver off	--	--	52/5260	16.50	15.73	1.200	0.046	1.23	1.477	76
U-NII-2C (Original)	Wi-Fi	Back Side	802.11a	97.0%	Receiver off	--	--	100/5500	16.00	15.17	1.220	0.023	1.25	1.523	/
		Front Side	802.11a	97.0%	Receiver off	--	--	100/5500	16.00	15.17	1.130	-0.019	1.25	1.410	/
		Right Edge	802.11a	97.0%	Receiver off	--	--	100/5500	16.00	15.17	1.090	0.036	1.25	1.360	/
		Top Edge	802.11a	97.0%	Receiver off	--	--	100/5500	16.00	15.17	1.390	-0.102	1.25	1.735	77

**Additional SAR test at a conservative distance (triggering distance minus 1mm)**

Band	Antenna	Dist. (mm)	Test Position	Power Reduction	RB	offset	Channel Frequency (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g	Power Drift (dB)	Scaling Factor	Report SAR1g
GSM 1900 (Original)	Main	19	Back Side	Receiver off	--	--	661/1880	26.50	25.42	0.136	0.110	1.28	0.174
		15	Front Side	Receiver off	--	--	661/1880	26.50	25.42	0.156	0.140	1.28	0.200
		19	Bottom Edge	Receiver off	--	--	661/1880	26.50	25.42	0.368	0.120	1.28	0.472
	DIV	19	Back Side	Receiver off	--	--	661/1880	26.50	25.41	0.123	0.030	1.29	0.158
		15	Front Side	Receiver off	--	--	661/1880	26.50	25.41	0.167	0.050	1.29	0.215
		19	Top Edge	Receiver off	--	--	661/1880	26.50	25.41	0.220	0.023	1.29	0.283
WCDMA II (Original)	Main	19	Back Side	Receiver off	--	--	9400/1880	24.00	23.12	0.174	-0.044	1.22	0.213
		15	Front Side	Receiver off	--	--	9400/1880	24.00	23.12	0.173	0.030	1.22	0.212
		19	Bottom Edge	Receiver off	--	--	9400/1880	24.00	23.12	0.295	0.026	1.22	0.361
	DIV	19	Back Side	Receiver off	--	--	9400/1880	24.00	22.91	0.247	0.022	1.29	0.317
		15	Front Side	Receiver off	--	--	9400/1880	24.00	22.91	0.334	0.027	1.29	0.429
		19	Top Edge	Receiver off	--	--	9400/1880	24.00	22.91	0.563	-0.020	1.29	0.724
WCDMA IV (Original)	Main	19	Back Side	Receiver off	--	--	1413/1732.6	24.00	22.96	0.257	-0.020	1.27	0.327
		15	Front Side	Receiver off	--	--	1413/1732.6	24.00	22.96	0.239	0.000	1.27	0.304
		19	Bottom Edge	Receiver off	--	--	1413/1732.6	24.00	22.96	0.418	0.070	1.27	0.531
	DIV	19	Back Side	Receiver off	--	--	1413/1732.6	24.00	22.90	0.103	0.070	1.29	0.133
		15	Front Side	Receiver off	--	--	1413/1732.6	24.00	22.90	0.164	0.120	1.29	0.211
		19	Top Edge	Receiver off	--	--	1413/1732.6	24.00	22.90	0.171	-0.030	1.29	0.220
LTE 2 (Original)	Main	19	Back Side	Receiver off	1	50	18700/1860	25.50	24.36	0.253	0.140	1.30	0.329
		15	Front Side	Receiver off	1	50	18700/1860	25.50	24.36	0.268	0.170	1.30	0.348
		19	Bottom Edge	Receiver off	1	50	18700/1860	25.50	24.36	0.568	0.043	1.30	0.738
	DIV	19	Back Side	Receiver off	1	50	19100/1900	25.50	24.28	0.323	0.120	1.32	0.428
		15	Front Side	Receiver off	1	50	19100/1900	25.50	24.28	0.432	0.134	1.32	0.572
		19	Top Edge	Receiver off	1	50	19100/1900	25.50	24.28	0.542	0.032	1.32	0.718
LTE 4 (Original)	Main	19	Back Side	Receiver off	1	50	20050/1720	25.50	24.45	0.355	0.038	1.27	0.452
		15	Front Side	Receiver off	1	50	20050/1720	25.50	24.45	0.311	-0.030	1.27	0.396
		19	Bottom Edge	Receiver off	1	50	20050/1720	25.50	24.45	0.586	0.120	1.27	0.746
	DIV	19	Back Side	Receiver off	1	50	20050/1720	25.50	24.19	0.120	0.090	1.35	0.162
		15	Front Side	Receiver off	1	50	20050/1720	25.50	24.19	0.202	-0.100	1.35	0.273
		19	Top Edge	Receiver off	1	50	20050/1720	25.50	24.19	0.202	0.050	1.35	0.273
LTE 5 (Original)	Main	19	Back Side	Receiver off	1	25	20450/829	25.50	24.22	0.193	0.026	1.34	0.259
		15	Front Side	Receiver off	1	25	20450/829	25.50	24.22	0.186	0.020	1.34	0.250
		19	Bottom Edge	Receiver off	1	25	20450/829	25.50	24.22	0.047	0.110	1.34	0.063
	DIV	19	Back Side	Receiver off	1	49	20450/829	25.50	24.02	0.109	0.080	1.41	0.153
		15	Front Side	Receiver off	1	49	20450/829	25.50	24.02	0.105	0.010	1.41	0.148
		19	Top Edge	Receiver off	1	49	20450/829	25.50	24.02	0.000	-0.023	1.41	0.000
LTE 7 (Original)	Main	19	Back Side	Receiver off	1	50	21350/2560	25.50	24.69	0.164	0.049	1.21	0.198
		15	Front Side	Receiver off	1	50	21350/2560	25.50	24.69	0.333	0.091	1.21	0.401
		19	Bottom Edge	Receiver off	1	50	21350/2560	25.50	24.69	0.305	0.056	1.21	0.368



	DIV	19	Back Side	Receiver off	1	50	21350/2560	25.50	24.48	0.112	0.030	1.26	0.142
		15	Front Side	Receiver off	1	50	21350/2560	25.50	24.48	0.208	-0.031	1.26	0.263
		19	Top Edge	Receiver off	1	50	21350/2560	25.50	24.48	0.278	0.163	1.26	0.352
LTE 38 (Original)	Main	19	Back Side	Receiver off	1	50	38000/2595	25.50	24.58	0.118	-0.170	1.24	0.146
		15	Front Side	Receiver off	1	50	38000/2595	25.50	24.58	0.234	0.096	1.24	0.289
		19	Bottom Edge	Receiver off	1	50	38000/2595	25.50	24.58	0.234	0.046	1.24	0.289
	DIV	19	Back Side	Receiver off	1	50	38150/2610	25.50	24.88	0.069	0.060	1.15	0.080
		15	Front Side	Receiver off	1	50	38150/2610	25.50	24.88	0.108	0.073	1.15	0.125
		19	Top Edge	Receiver off	1	50	38150/2610	25.50	24.88	0.162	0.021	1.15	0.187
LTE 41 (Original)	Main	19	Back Side	Receiver off	1	50	40140/2545	25.50	24.42	0.095	0.047	1.28	0.122
		15	Front Side	Receiver off	1	50	40140/2545	25.50	24.42	0.184	0.058	1.28	0.236
		19	Bottom Edge	Receiver off	1	50	40140/2545	25.50	24.42	0.188	0.042	1.28	0.241
	DIV	19	Back Side	Receiver off	1	99	40140/2545	25.50	24.66	0.081	0.120	1.21	0.098
		15	Front Side	Receiver off	1	99	40140/2545	25.50	24.66	0.107	-0.120	1.21	0.130
		19	Top Edge	Receiver off	1	99	40140/2545	25.50	24.66	0.145	0.025	1.21	0.176

10.3 Simultaneous Transmission Analysis

Simultaneous Transmission Configurations	Head	Body-worn	Hotspot	Product Specific 10-g SAR
WWAN + WLAN2.4GHz	Yes	Yes	Yes	Yes
WWAN+ WLAN5GHz	Yes	Yes	Yes	Yes
WWAN+ BT	Yes	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 $< 1.6\text{W/kg}$, simultaneously transmission SAR measurement is not necessary.
 - ii) $\text{SPLSR} = (\text{SAR1} + \text{SAR2})^{1.5} / (\text{min. separation distance, mm})$, 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 $\text{SPLSR} \leq 0.04$, simultaneously transmission SAR measurement is not necessary.



The maximum SAR_{1g/10g} Value for GSM/WCDMA/LTE.

SAR _{1g/10g} (W/kg) Test Position		GSM	GSM	WCDM	WCDM	WCDM	LTE	LTE	LTE	LTE	LTE	LTE	MAX.
		850	1900	A Band II	A Band IV	A Band V	FDD 2	FDD 4	FDD 5	FDD 7	TDD 38	TDD 41	SAR _{1g/10g}
Head	Left Cheek	0.719	0.151	0.302	0.165	0.666	0.402	0.287	0.510	0.904	0.399	0.647	0.904
	Left Tilt	0.585	0.259	0.362	0.207	0.353	0.519	0.396	0.461	0.894	0.472	0.735	0.894
	Right Cheek	0.742	0.376	0.610	0.315	0.732	0.693	0.652	0.660	0.900	0.478	0.775	0.900
	Right Tilt	0.753	0.494	0.746	0.415	0.722	0.798	0.642	0.974	0.995	0.592	0.396	0.995
Body worn	Back Side	0.373	0.279	0.209	0.283	0.273	0.230	0.238	0.351	0.262	0.256	0.391	0.391
	Front Side	0.312	0.219	0.181	0.177	0.184	0.161	0.144	0.290	0.298	0.388	0.459	0.459
Hotspot	Back Side	0.373	0.279	0.209	0.283	0.273	0.230	0.238	0.351	0.262	0.256	0.391	0.391
	Front Side	0.312	0.219	0.181	0.177	0.184	0.161	0.144	0.290	0.298	0.388	0.459	0.459
	Left Edge	0.121	0.231	0.219	0.172	0.083	0.289	0.129	0.132	0.347	0.115	0.357	0.357
	Right Edge	0.146	0.071	0.000	0.085	0.099	0.098	0.000	0.094	0.000	0.000	0.000	0.146
	Top Edge	0.233	0.623	0.279	0.134	0.152	0.339	0.154	0.342	0.605	0.210	0.402	0.623
	Bottom Edge	0.383	0.442	0.366	0.420	0.275	0.495	0.389	0.338	0.377	0.277	0.669	0.669
Product Specific 10-g SAR	Back Side	N/A	N/A	0.440	N/A	N/A	0.309	N/A	N/A	N/A	N/A	N/A	0.440
	Front Side	N/A	N/A	N/A	N/A	N/A	0.446	N/A	N/A	N/A	N/A	N/A	0.446
	Left 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
	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	N/A	N/A	0.842	N/A	N/A	1.035	N/A	N/A	N/A	N/A	N/A	1.035
	Bottom Edge	N/A	N/A	1.280	N/A	N/A	1.160	1.141	N/A	N/A	N/A	N/A	1.280



About BT and GSM/WCDMA/LTE

SAR _{1g/10g} (W/kg)		GSM/WCDMA/LTE	BT	MAX. Σ SAR _{1g/10g}
Test Position				
Head	Left, Cheek	0.904	0.157	1.061
	Left, Tilt	0.894	0.111	1.005
	Right, Cheek	0.900	0.065	0.965
	Right, Tilt	0.995	0.065	1.060
Body worn	Back Side	0.391	0.010	0.401
	Front Side	0.459	0.005	0.464
Hotspot	Back Side	0.391	0.019	0.410
	Front Side	0.459	0.008	0.467
	Left Edge	0.357	N/A	0.357
	Right Edge	0.146	0.001	0.147
	Top Edge	0.623	0.021	0.644
	Bottom Edge	0.669	N/A	0.669
Product Specific 10-g SAR	Back Side	0.440	N/A	0.440
	Front Side	0.446	N/A	0.446
	Left Edge	N/A	N/A	N/A
	Right Edge	N/A	N/A	N/A
	Top Edge	1.035	N/A	1.035
	Bottom Edge	1.280	N/A	1.280
Note: 1.The value with blue color is the maximum Σ SAR _{1g/10g} Value.				
2.MAX. Σ SAR _{1g/10g} =Unlicensed SAR _{MAX} +Licensed SAR _{MAX}				

MAX. Σ SAR_{1g} =1.061W/kg<1.6W/kg and MAX. Σ SAR_{10g} =1.280W/kg<4 W/kg, so the Simultaneous transimition SAR with volum scan are not required for BT and GSM/WCDMA/LTE.



About Wi-Fi2.4G and GSM/WCDMA/LTE

SAR _{1g/10g} (W/kg)		GSM/WCDMA/LTE	Wi-Fi 2.4G	MAX. Σ SAR _{1g}
Test Position				
Head	Left, Cheek	0.904	0.572	1.476
	Left, Tilt	0.894	0.548	1.442
	Right, Cheek	0.900	0.275	1.175
	Right, Tilt	0.995	0.227	1.222
Body worn	Back Side	0.391	0.392	0.783
	Front Side	0.459	0.211	0.670
Hotspot	Back Side	0.391	0.392	0.783
	Front Side	0.459	0.211	0.670
	Left Edge	0.357	N/A	0.357
	Right Edge	0.146	0.131	0.277
	Top Edge	0.623	0.168	0.791
	Bottom Edge	0.669	N/A	0.669
Product Specific 10-g SAR	Back Side	0.440	N/A	0.440
	Front Side	0.446	N/A	0.446
	Left Edge	N/A	N/A	N/A
	Right Edge	N/A	N/A	N/A
	Top Edge	1.035	N/A	1.035
	Bottom Edge	1.280	N/A	1.280

Note: 1.The value with blue color is the maximum Σ SAR_{1g/10g} Value.
2.MAX. Σ SAR_{1g/10g} =Unlicensed SAR_{MAX} +Licensed SAR_{MAX}

MAX. Σ SAR_{1g} = 1.476<1.6W/kg and MAX. Σ SAR_{10g} = 1.280W/kg<4 W/kg, so the Simultaneous transimition SAR with volum scan are not required for Wi-Fi2.4G and GSM/WCDMA/LTE



About Wi-Fi 5G and GSM/WCDMA/LTE

SAR _{1g/10g} (W/kg)		GSM/WCDMA/LTE	Wi-Fi (U-NII-1)	Wi-Fi (U-NII-2A)	Wi-Fi (U-NII-2C)	Wi-Fi (U-NII-3)	MAX. Σ SAR _{1g/10g}
Test Position							
Head	Left, Cheek	0.904	0.397	0.491	0.318	0.407	1.395
	Left, Tilt	0.894	0.557	0.522	0.486	0.558	1.452
	Right, Cheek	0.900	0.268	0.370	0.287	0.373	1.273
	Right, Tilt	0.995	0.337	0.425	0.353	0.460	1.455
Body worn	Back Side	0.391	0.651	0.332	0.387	0.512	1.042
	Front Side	0.459	0.487	0.185	0.186	0.312	0.946
Hotspot	Back Side	0.391	0.651	N/A	N/A	0.512	1.042
	Front Side	0.459	0.487	N/A	N/A	0.312	0.946
	Left Edge	0.357	N/A	N/A	N/A	N/A	0.357
	Right Edge	0.146	0.348	N/A	N/A	0.193	0.494
	Top Edge	0.623	0.684	N/A	N/A	0.576	1.307
	Bottom Edge	0.669	N/A	N/A	N/A	N/A	0.669
Product Specific 10-g SAR	Back Side	0.440	N/A	1.428	1.523	N/A	1.963
	Front Side	0.446	N/A	1.329	1.410	N/A	1.856
	Left Edge	N/A	N/A	N/A	N/A	N/A	N/A
	Right Edge	N/A	N/A	1.305	1.360	N/A	1.360
	Top Edge	1.035	N/A	1.477	1.735	N/A	2.770
	Bottom Edge	1.280	N/A	N/A	N/A	N/A	1.280

Note: 1. The value with blue color is the maximum Σ SAR_{1g/10g} Value.
2. MAX. Σ SAR_{1g/10g} = Unlicensed SAR_{MAX} + Licensed SAR_{MAX}

MAX. Σ SAR_{1g} = 1.455 < 1.6W/kg and MAX. Σ SAR_{10g} = 2.770W/kg < 4 W/kg, so the Simultaneous transimition SAR with volum scan are not required for Wi-Fi 5G and GSM/WCDMA/LTE



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.

ANNEX A: Test Layout

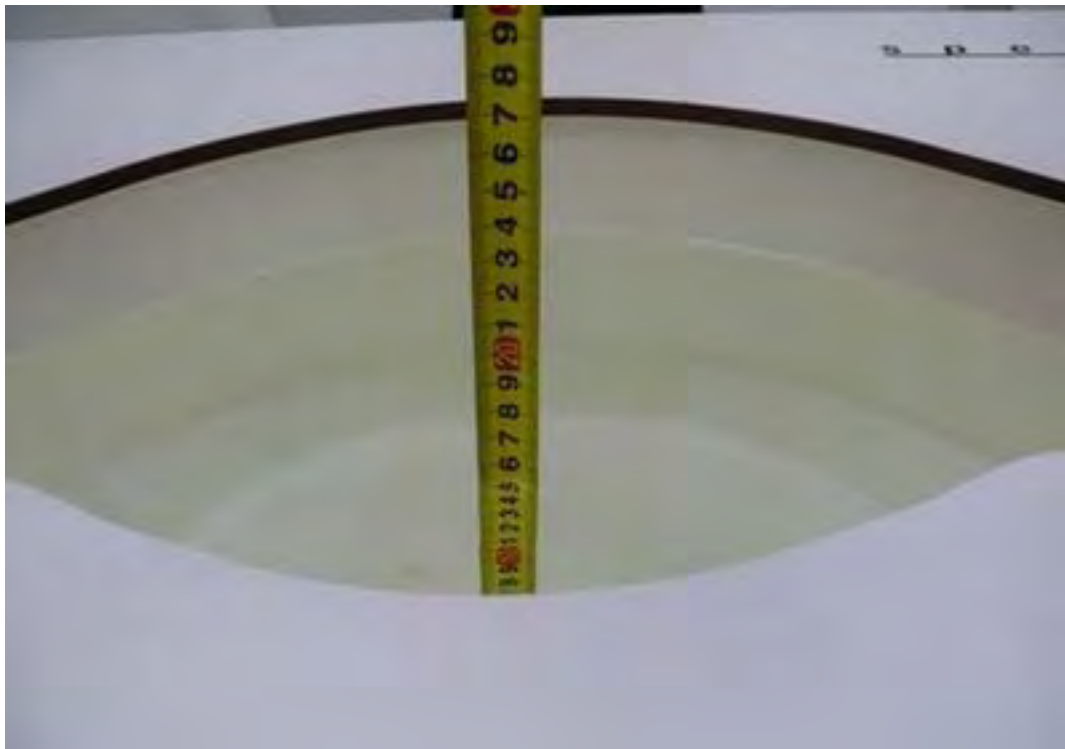


Tissue Simulating Liquids

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

Original

Plot 1 System Performance Check at 835 MHz TSL

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

Date: 2/18/2021

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.88 \text{ S/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x12x1): Measurement grid: dx=15mm, dy=15mm

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

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

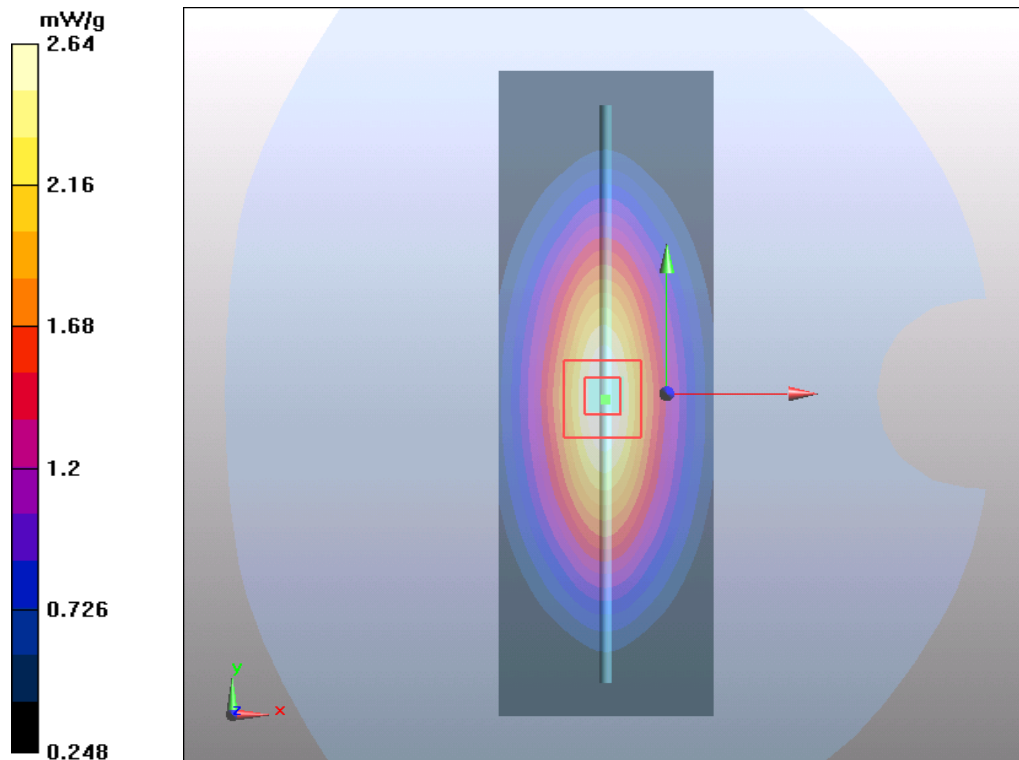
dz=5mm

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

Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.44 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: D835V2

Date: 2/19/2021

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.87 \text{ S/m}$; $\epsilon_r = 41.3$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

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 SN1648; Calibrated: 1/15/2021

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x12x1): Measurement grid: dx=15mm, dy=15mm

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

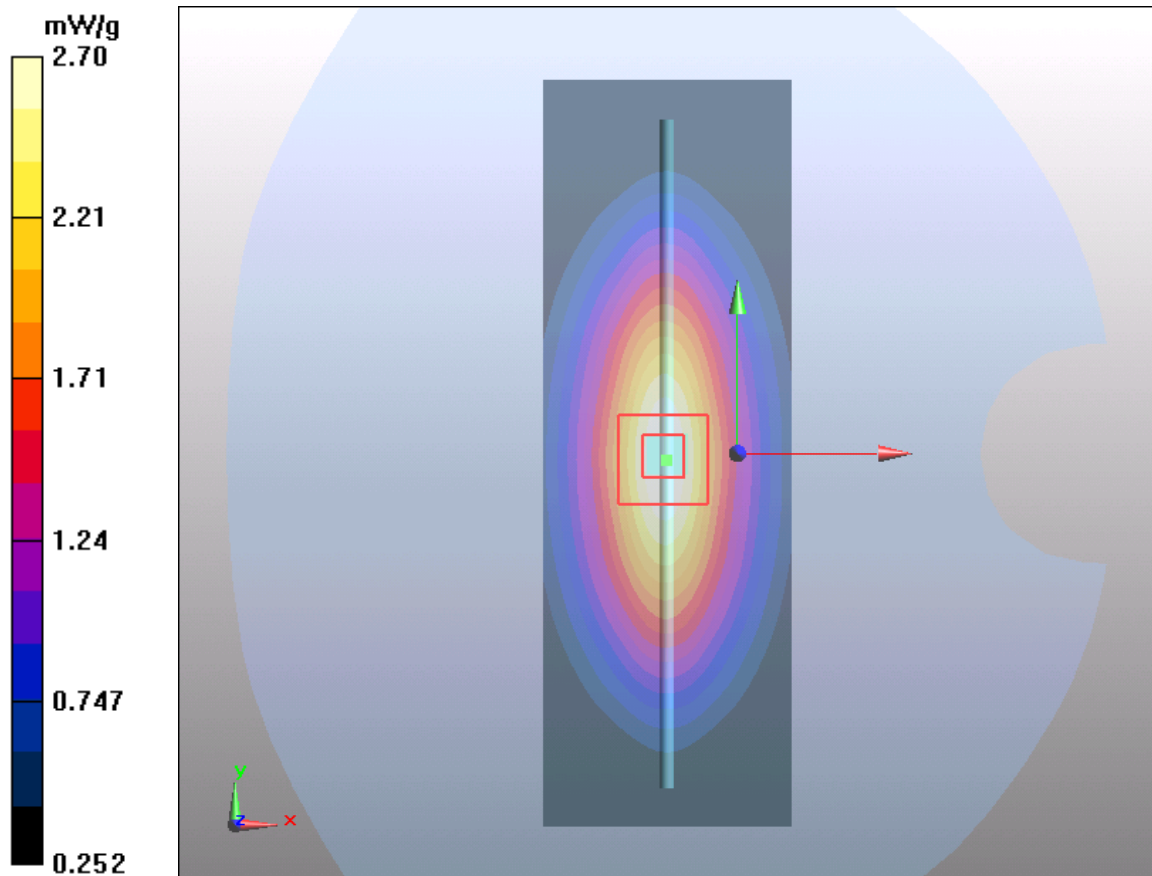
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.46 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: D835V2

Date: 2/20/2021

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.92 \text{ S/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

d=10mm, Pin=250mW/Area Scan (4x12x1): Measurement grid: dx=15mm, dy=15mm

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

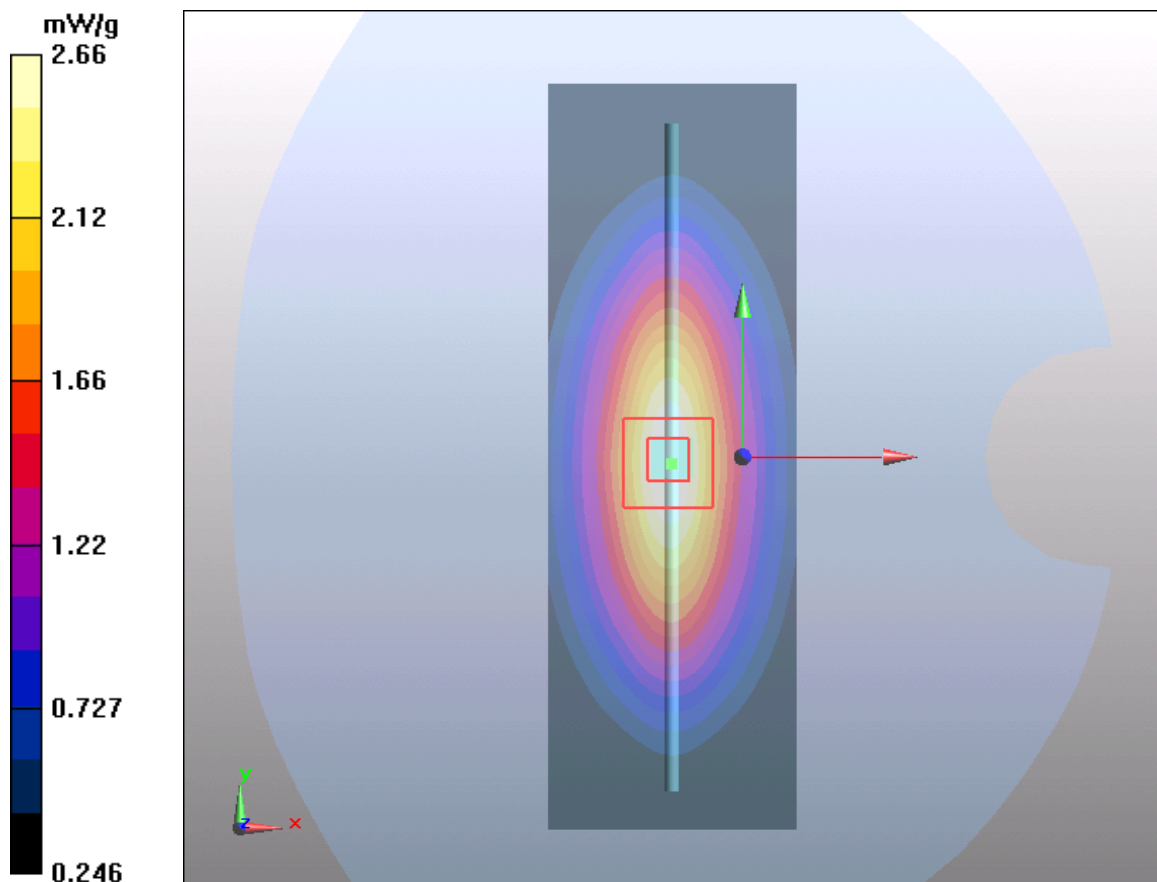
d=10mm, Pin=250mW/Zoom Scan(5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.43 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: D1750V2

Date: 2/7/2021

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

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.34$ S/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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,

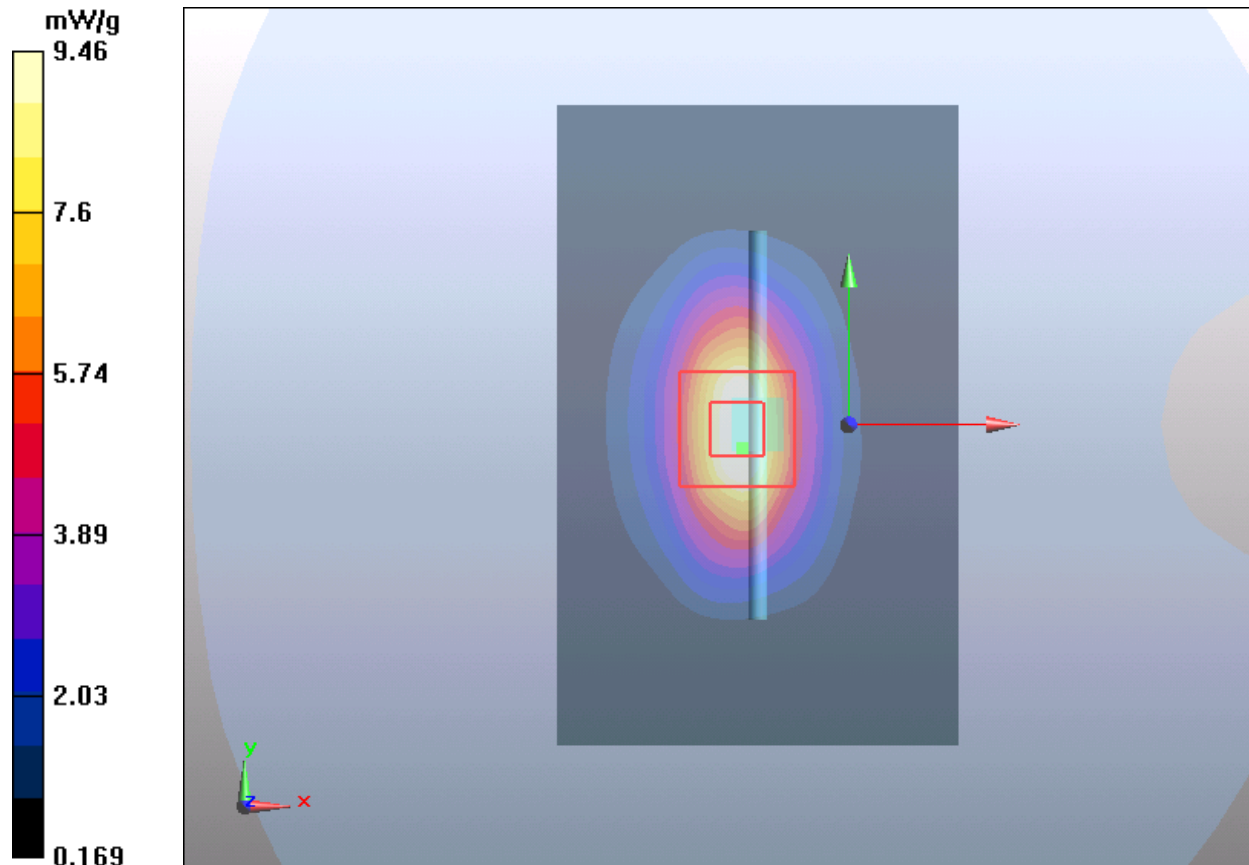
dz=5mm

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

Peak SAR (extrapolated) = 15.5 W/kg

SAR(1 g) = 8.95 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: D1750V2

Date: 2/8/2021

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

Medium parameters used: $f = 1750$ MHz; $\sigma = 1.34$ S/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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

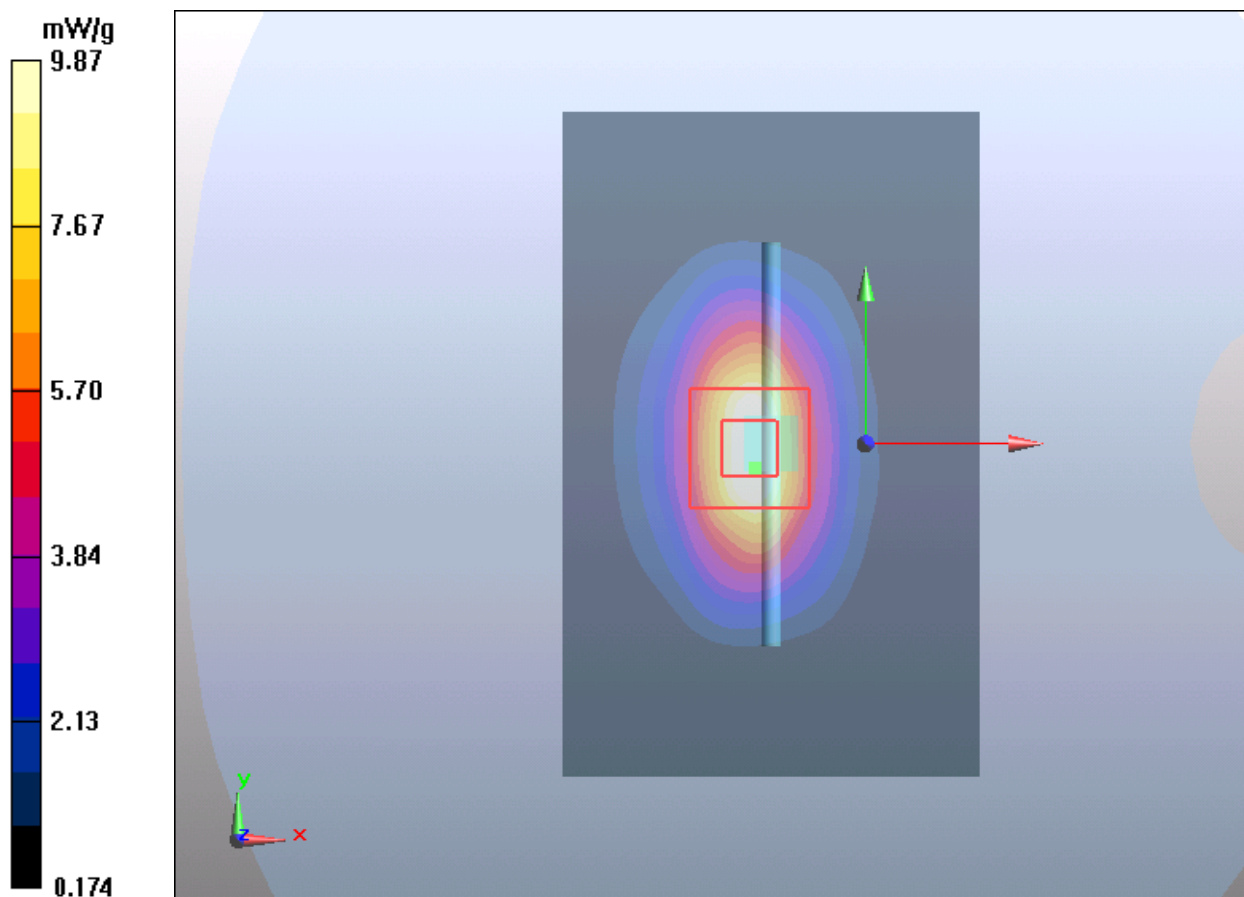
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 15.51 W/kg

SAR(1 g) = 9.11 mW/g; SAR(10 g) = 4.77 mW/g

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



Plot 6 System Performance Check at 1750 MHz TSL

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

Date: 2/9/2021

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

Medium parameters used: $f = 1750 \text{ MHz}$; $\sigma = 1.36 \text{ mho/m}$; $\epsilon_r = 40.2$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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) = 9.11 mW/g

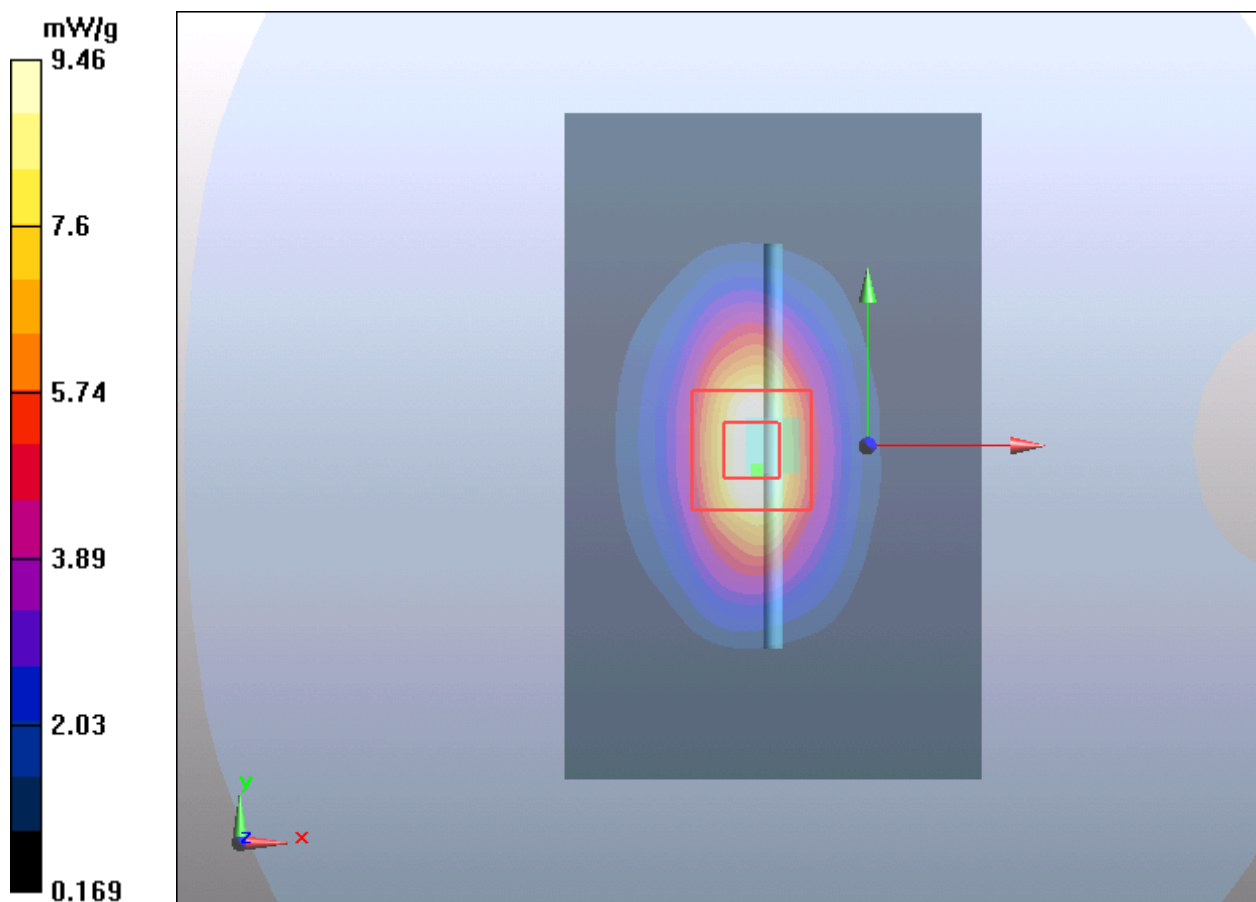
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 15.47 W/kg

SAR(1 g) = 8.96 mW/g; SAR(10 g) = 4.75 mW/g

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



Plot 7 System Performance Check at 1900 MHz TSL

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

Date: 2/21/2021

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.41$ S/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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

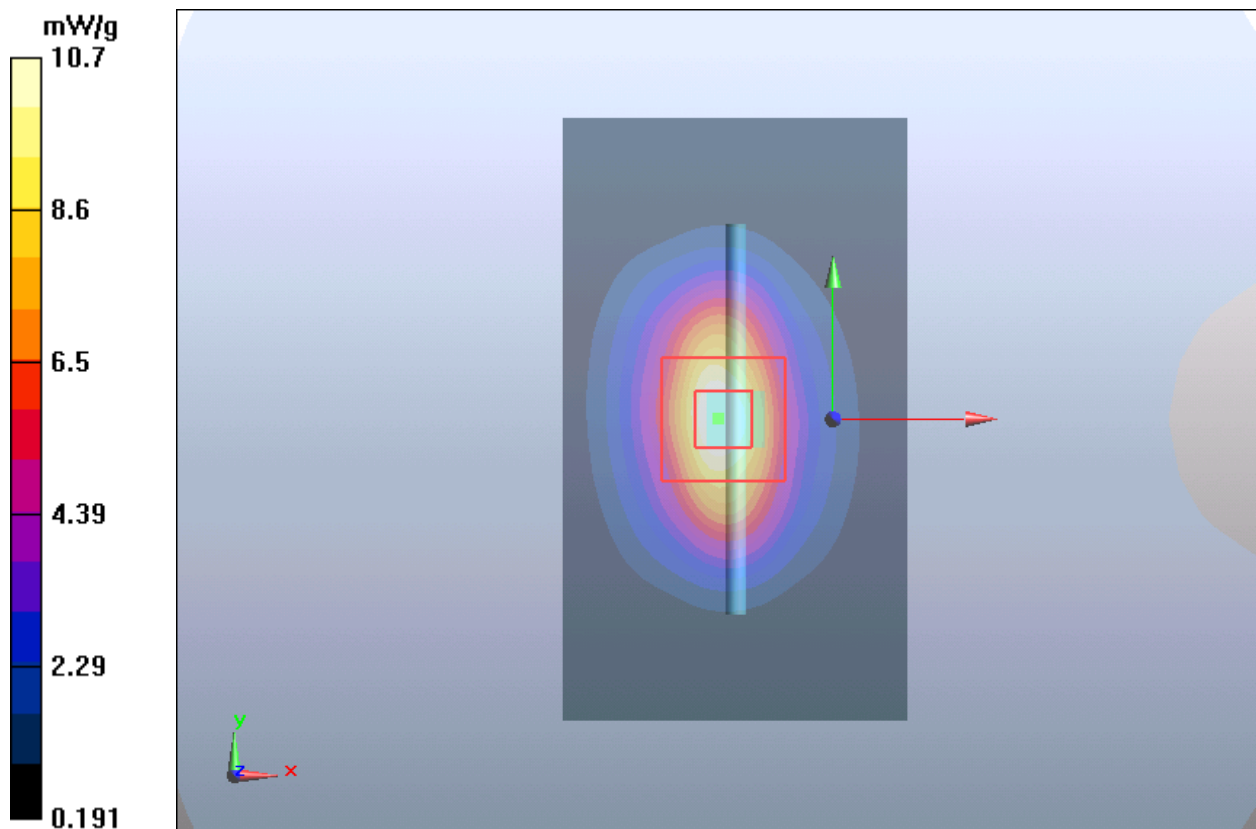
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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 8 System Performance Check at 1900 MHz TSL

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

Date: 2/22/2021

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.43$ S/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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

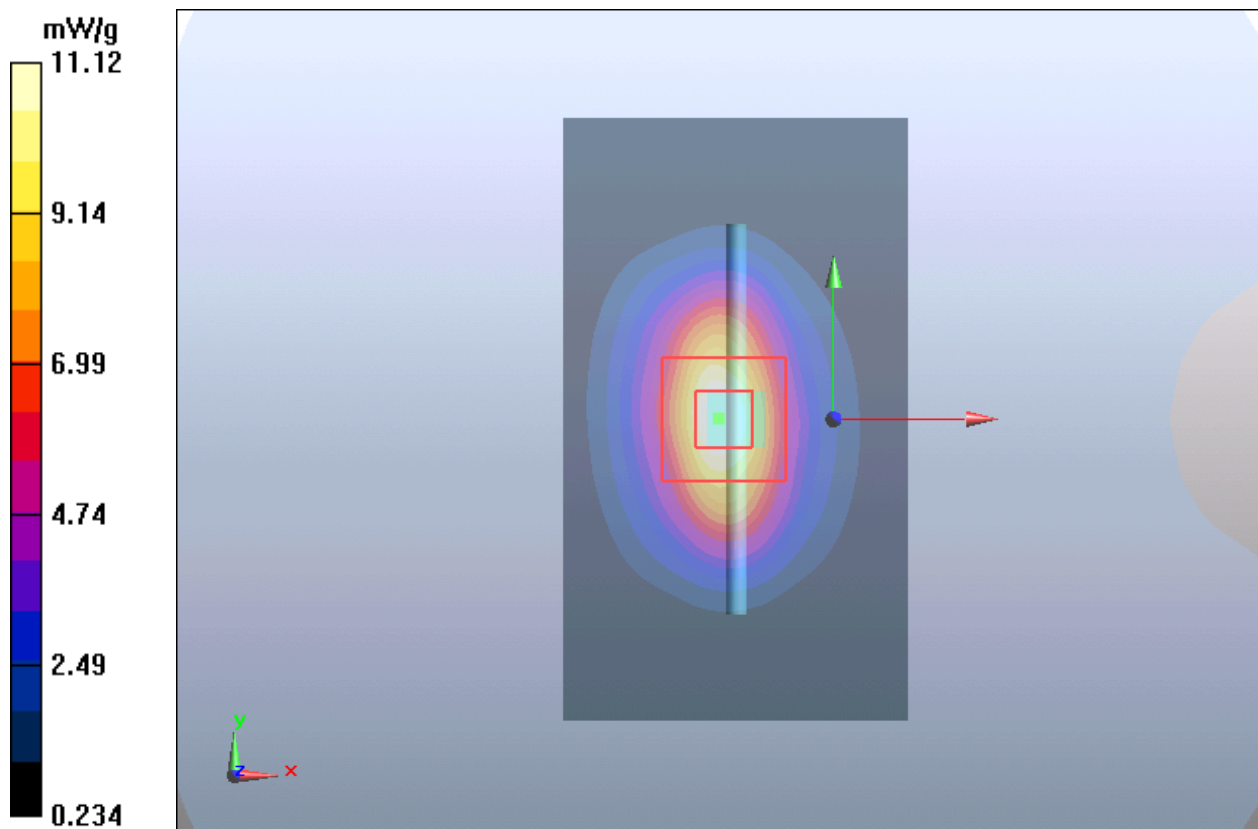
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 17.8 W/kg

SAR(1 g) = 9.85 mW/g; SAR(10 g) = 4.93 mW/g

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



Plot 9 System Performance Check at 1900 MHz

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

Date: 2/23/2021

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.40$ mho/m; $\epsilon_r = 40.0$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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,

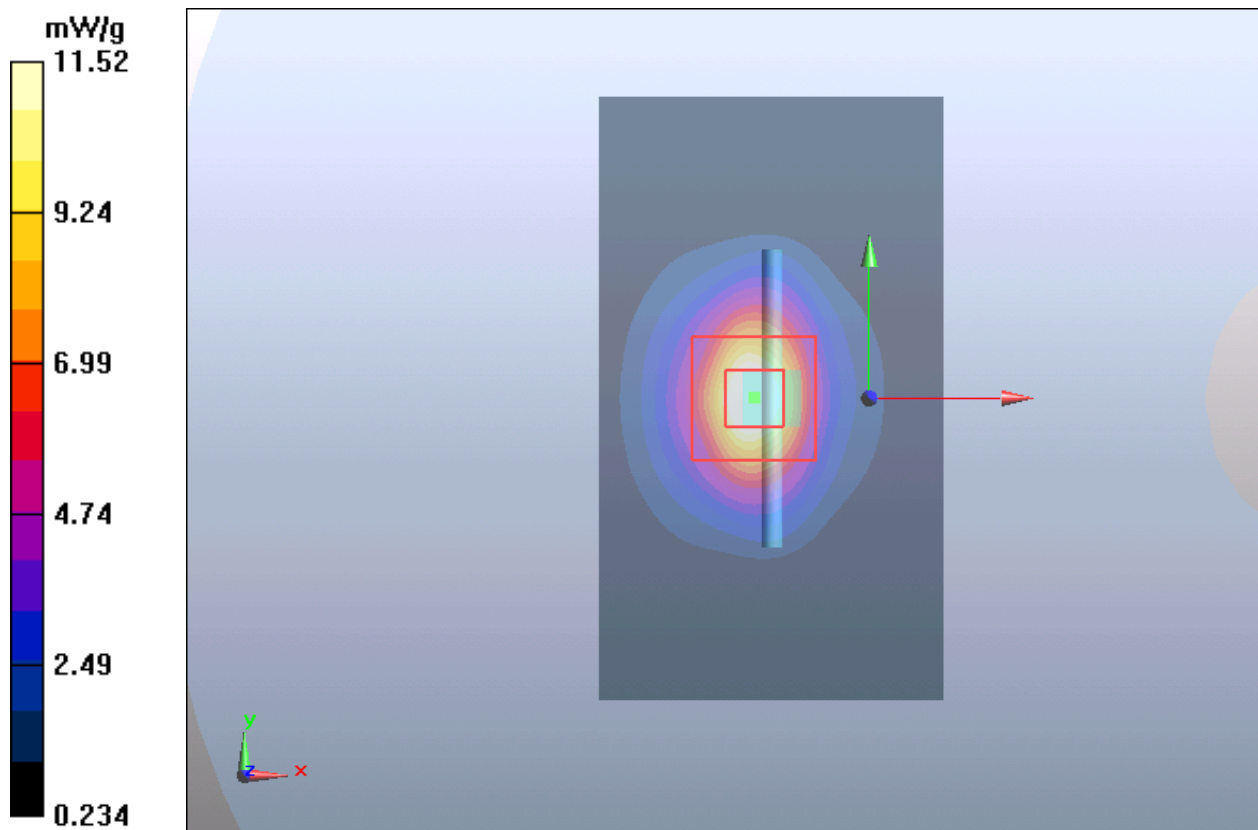
dz=5mm

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

Peak SAR (extrapolated) = 20.1 W/kg

SAR(1 g) = 10.55 mW/g; SAR(10 g) = 5.39 mW/g

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



Plot 10 System Performance Check at 1900 MHz

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

Date: 2/24/2021

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.34$ mho/m; $\epsilon_r = 40.5$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (interpolated) = 12.74 mW/g

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

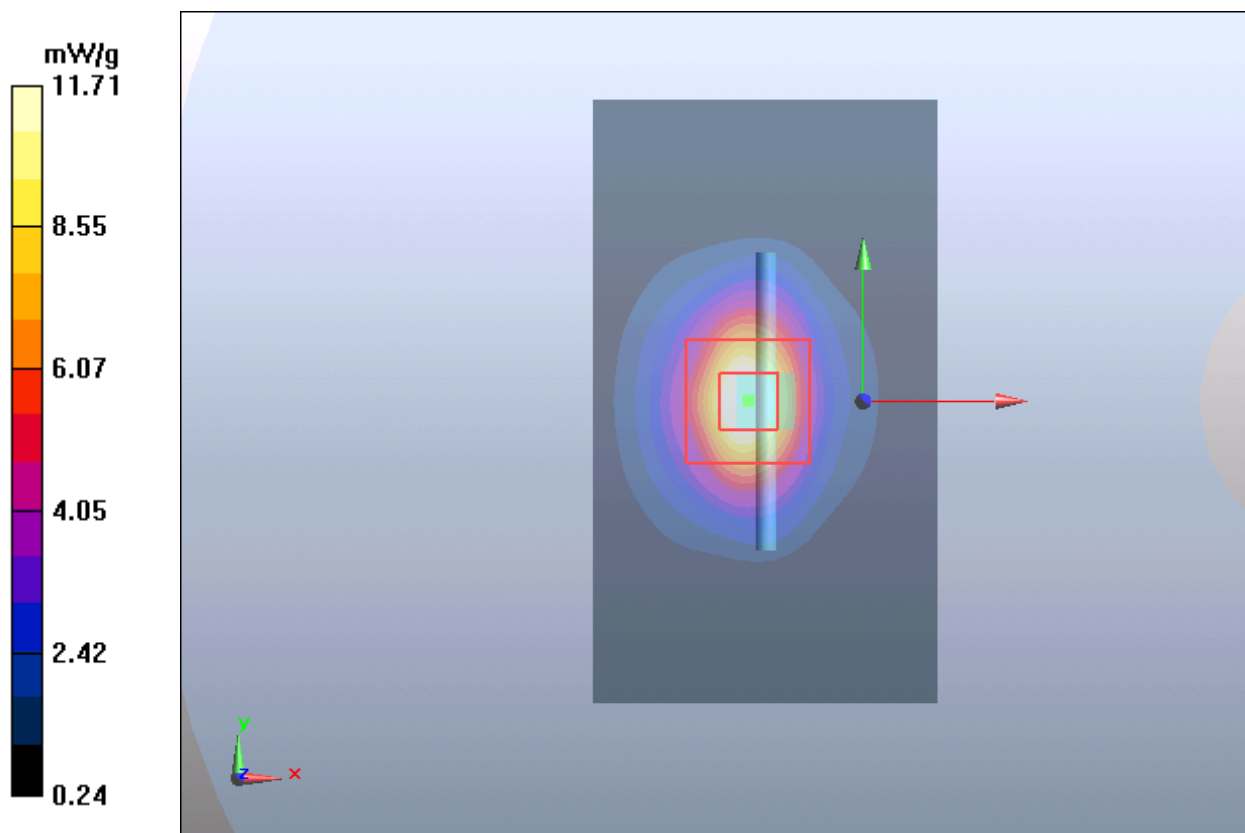
dz=5mm

Reference Value = 87.5 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 20.0 W/kg

SAR(1 g) = 10.50 mW/g; SAR(10 g) = 5.38 mW/g

Maximum value of SAR (measured) = 11.71 mW/g



Plot 11 System Performance Check at 2450 MHz TSL

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

Date: 2/10/2021

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

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.81$ S/m; $\epsilon_r = 38.6$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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,

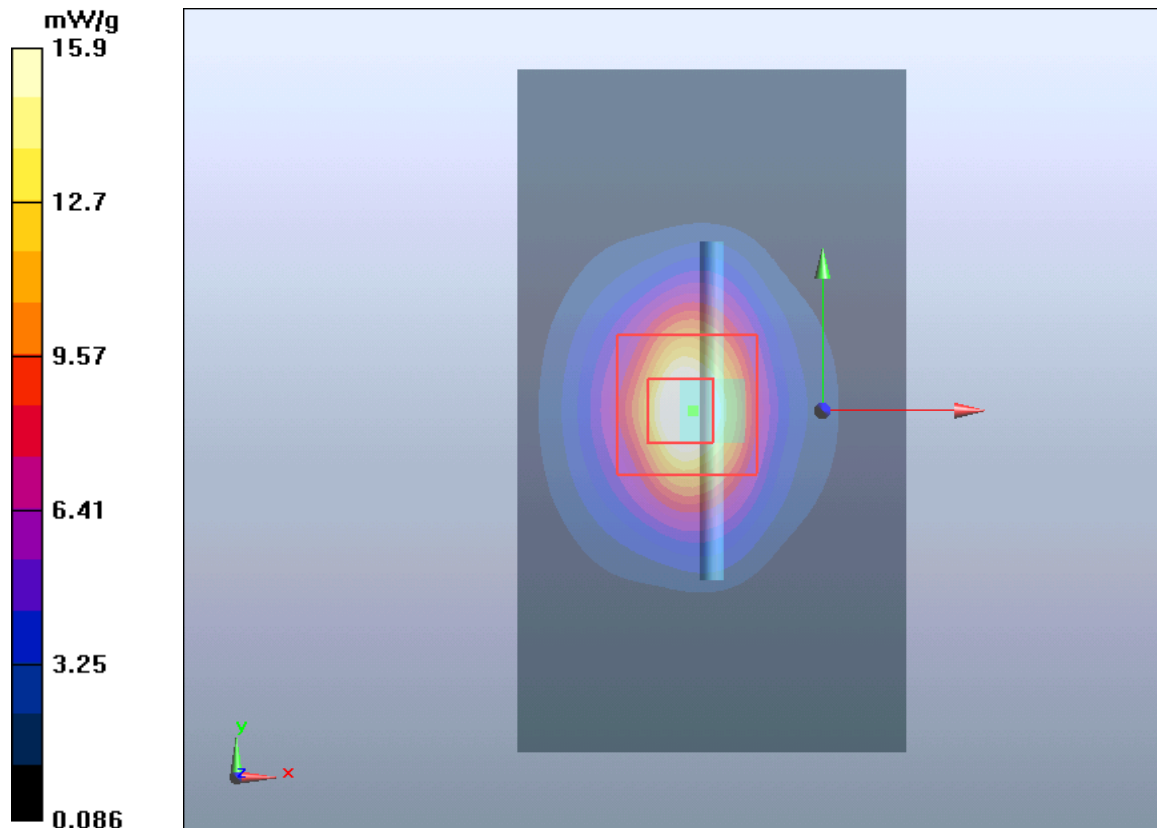
dz=5mm

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

Peak SAR (extrapolated) = 30 W/kg

SAR(1 g) = 13.7 mW/g; SAR(10 g) = 6.22 mW/g

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



Plot 12 System Performance Check at 2600 MHz TSL

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

Date: 2/25/2021

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 2.01$ S/m; $\epsilon_r = 38.2$; $\rho = 1000$ kg/m³

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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

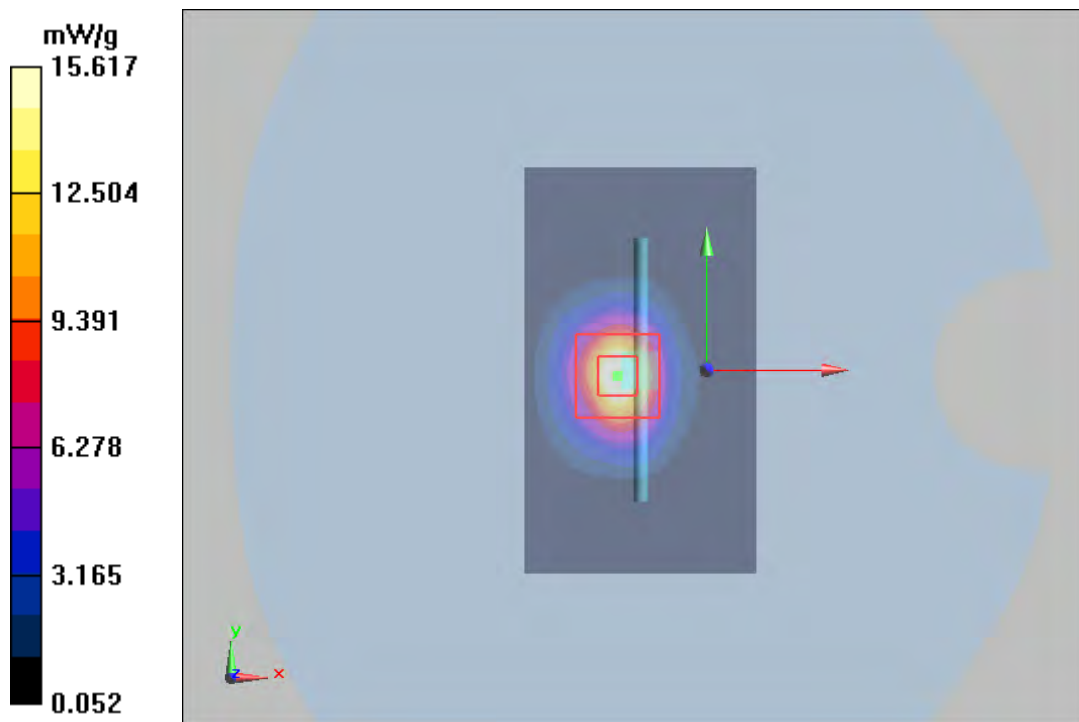
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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

Peak SAR (extrapolated) = 31.858 W/kg

SAR(1 g) = 13.9 mW/g; SAR(10 g) = 6.07 mW/g

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



Plot 13 System Performance Check at 2600 MHz TSL

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

Date: 2/26/2021

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.94$ S/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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

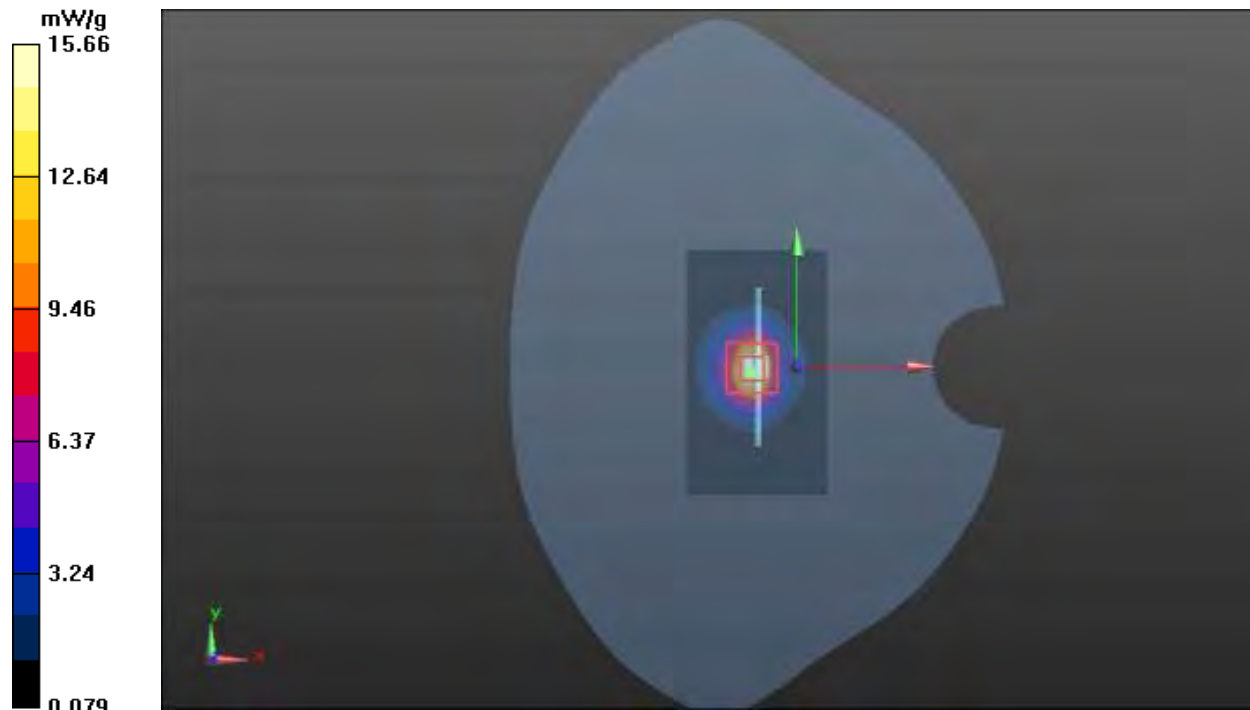
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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

Peak SAR (extrapolated) = 31.858 W/kg

SAR(1 g) = 13.88 mW/g; SAR(10 g) = 6.09 mW/g

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



Plot 14 System Performance Check at 2600 MHz TSL

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

Date: 2/27/2021

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.99$ mho/m; $\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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

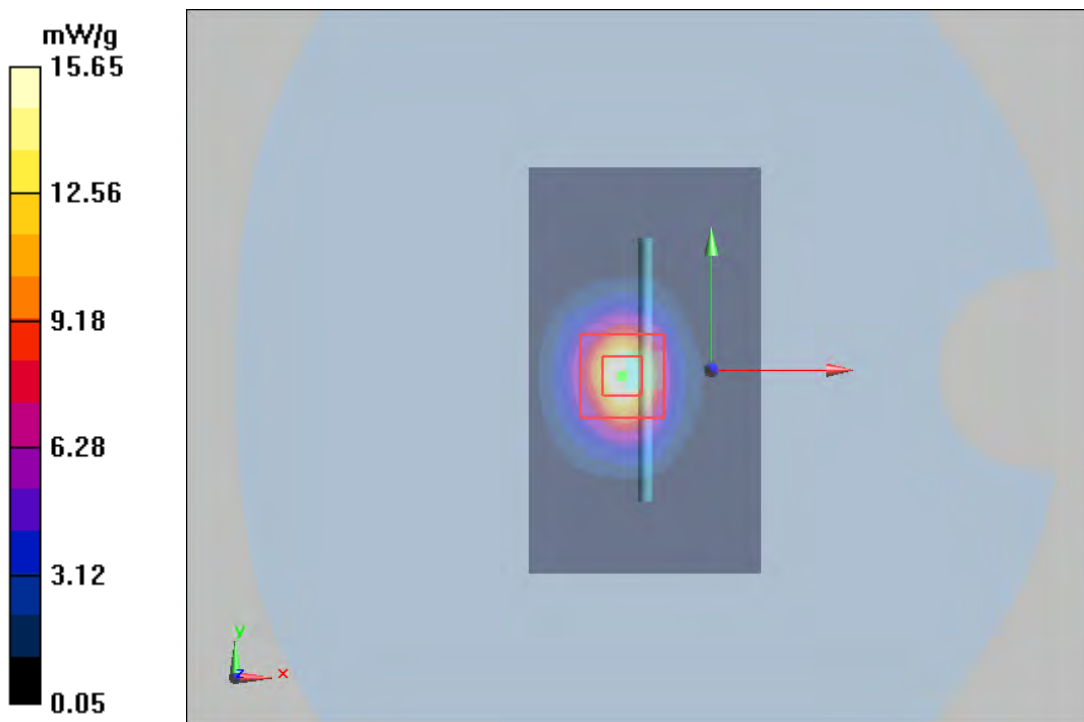
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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

Peak SAR (extrapolated) = 31.85 W/kg

SAR(1 g) = 13.94 mW/g; SAR(10 g) = 6.11 mW/g

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



Plot 15 System Performance Check at 2600 MHz TSL**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2**

Date: 2/28/2021

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.95$ mho/m; $\epsilon_r = 38.5$; $\rho = 1000$ kg/m³

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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

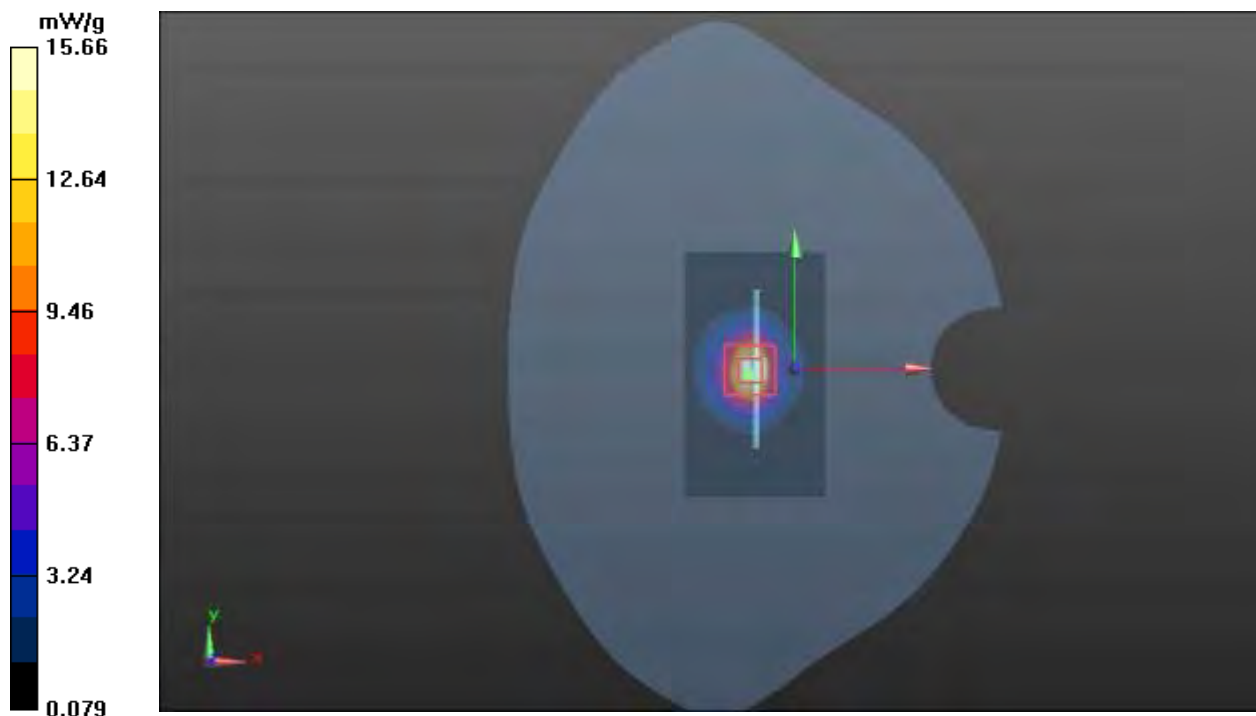
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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

Peak SAR (extrapolated) = 31.858 W/kg

SAR(1 g) = 13.9 mW/g; SAR(10 g) = 6.09 mW/g

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



Plot 16 System Performance Check at 2600 MHz TSL

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

Date: 2/29/2021

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.96$ mho/m; $\epsilon_r = 38.2$; $\rho = 1000$ kg/m³

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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) = 17.439 mW/g

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

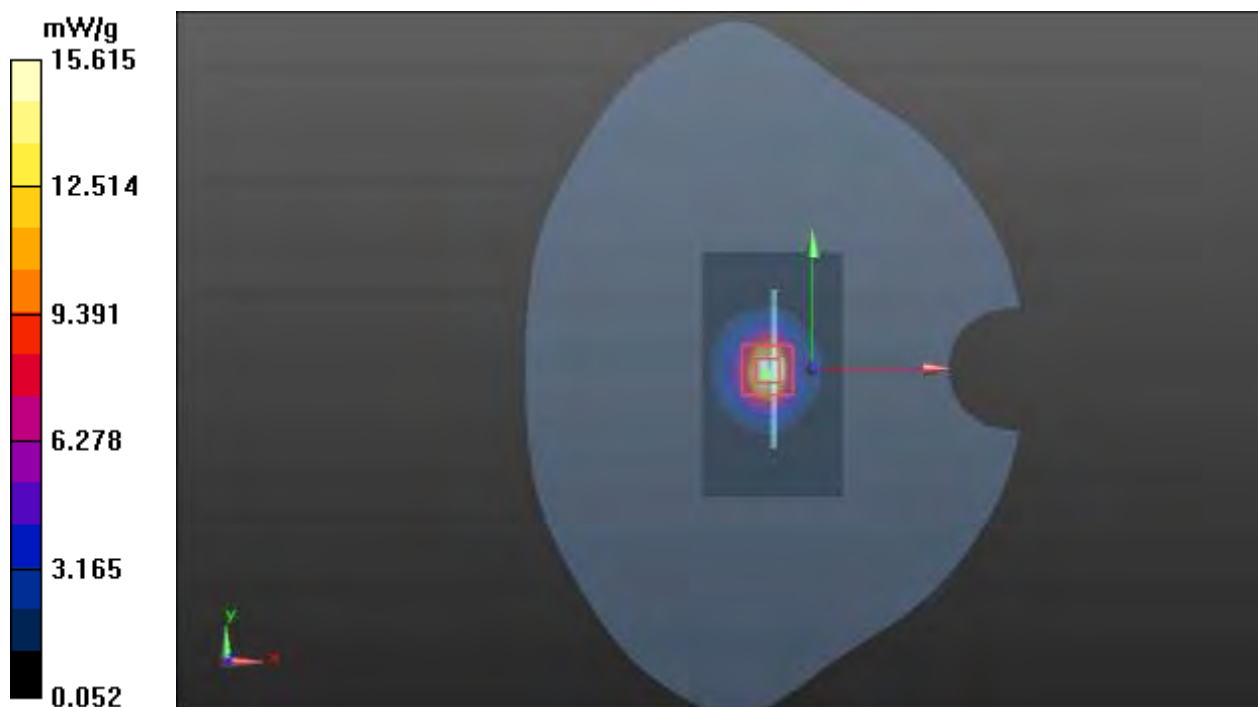
dz=5mm

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

Peak SAR (extrapolated) = 31.858 W/kg

SAR(1 g) = 13.9 mW/g; SAR(10 g) = 6.08 mW/g

Maximum value of SAR (measured) = 15.615 mW/g



Plot 17 System Performance Check at 5250 MHz TSL**DUT: Dipole 5250 MHz; Type: D5GHzV2; Serial: D5GHzV2**

Date: 2/11/2021

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

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.80$ S/m; $\epsilon_r = 35.5$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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

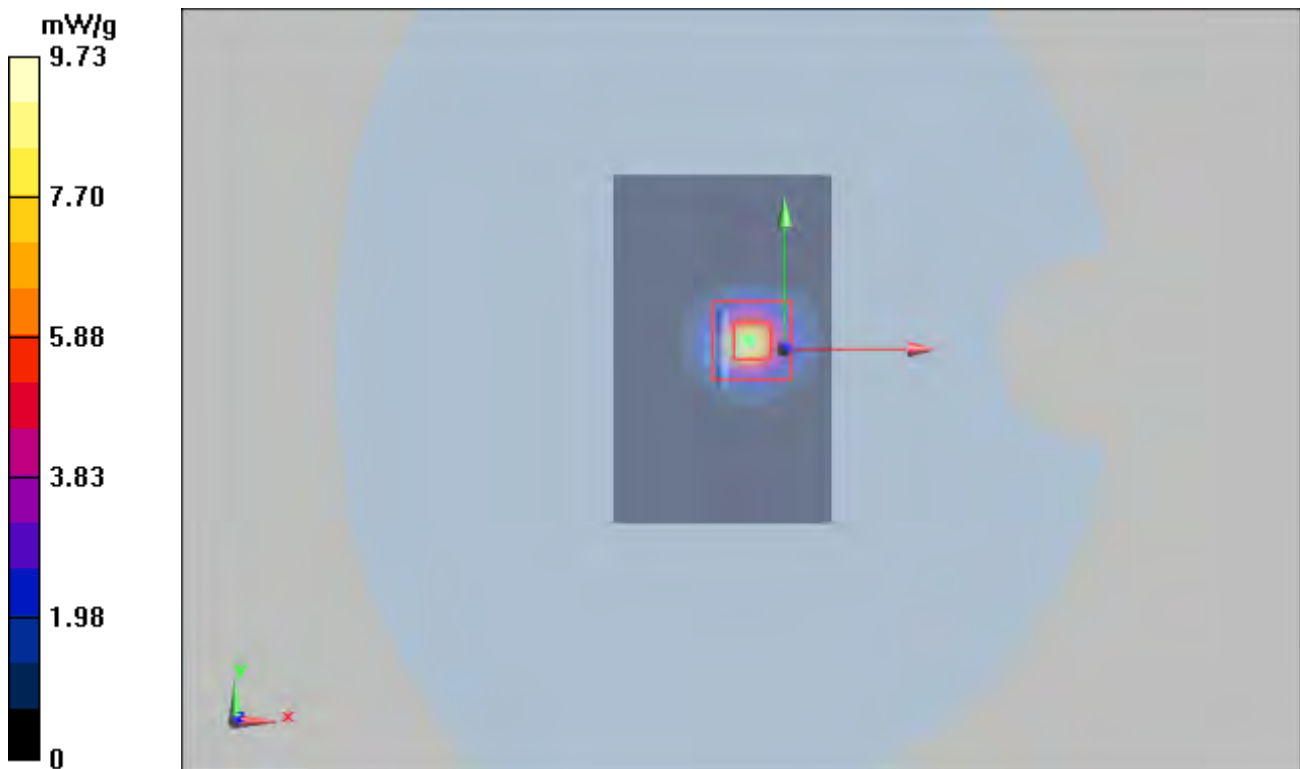
d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

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

Peak SAR (extrapolated) = 52.2 W/kg

SAR(1 g) = 7.87 mW/g; SAR(10 g) = 2.25 mW/g

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



Plot 18 System Performance Check at 5600 MHz TSL

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

Date: 2/12/2021

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

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.21$ S/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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

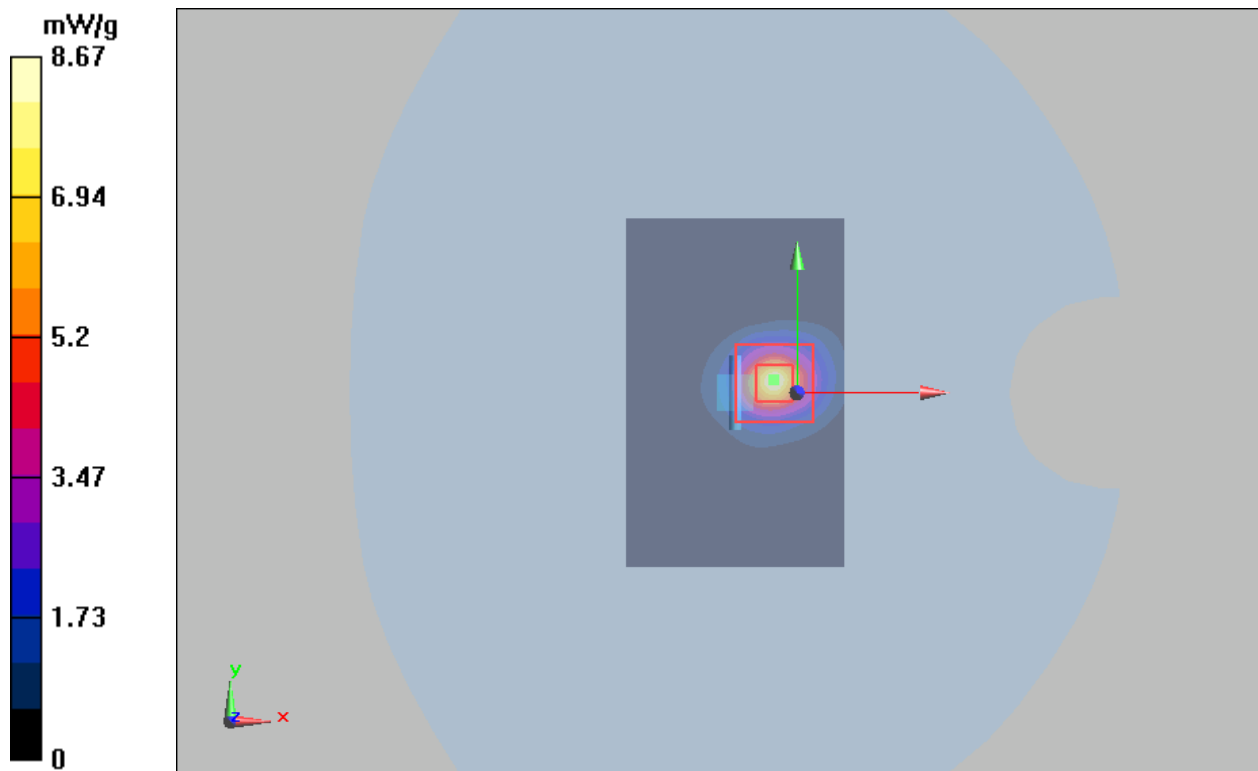
d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

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

Peak SAR (extrapolated) = 22.9 W/kg

SAR(1 g) = 7.67 mW/g; SAR(10 g) = 2.27 mW/g

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



Plot 19 System Performance Check at 5750 MHz TSL

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

Date: 2/12/2021

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

Medium parameters used: $f = 5750$ MHz; $\sigma = 5.22$ S/m; $\epsilon_r = 34.9$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); 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

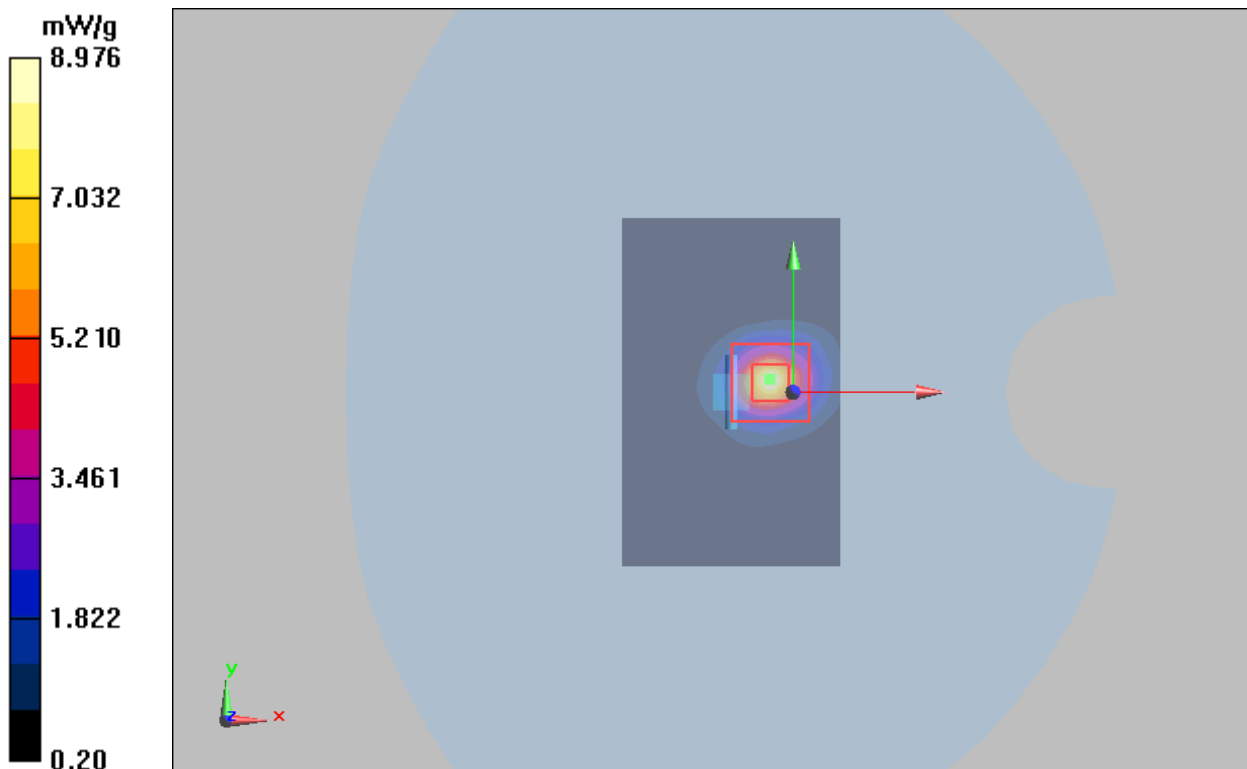
d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

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

Peak SAR (extrapolated) = 23.4 W/kg

SAR(1 g) = 7.66 mW/g; SAR(10 g) = 2.27 mW/g

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



Variant

Plot 20 System Performance Check at 2600 MHz TSL

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

Date: 2022/6/28

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.98$ S/m; $\epsilon_r = 39.0$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(7.25, 7.25, 7.25); Calibrated: 2021/8/12

Electronics: DAE4 SN1692; Calibrated: 2021/10/4

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1666

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (interpolated) = 17.7 mW/g

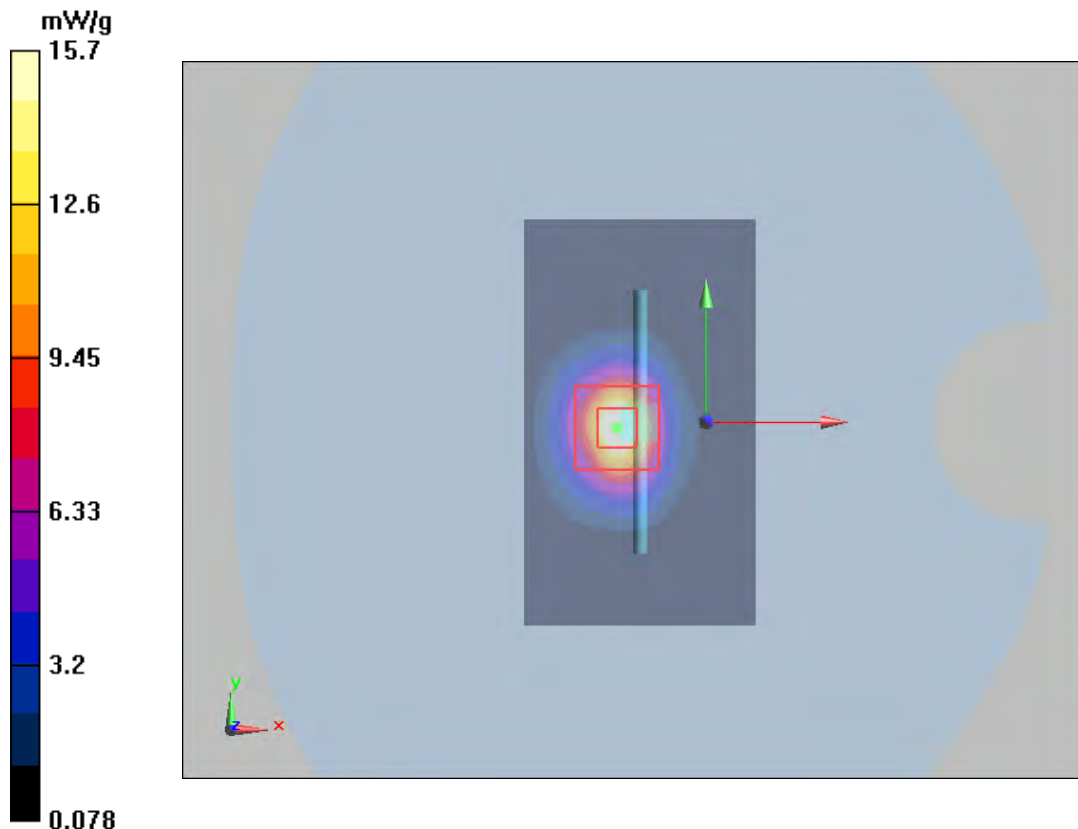
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 74 V/m; Power Drift = -0.0027 dB

Peak SAR (extrapolated) = 28.5 W/kg

SAR(1 g) = 13.85 mW/g; SAR(10 g) = 5.99 mW/g

Maximum value of SAR (measured) = 15.7 mW/g



Plot 21 System Performance Check at 5250 MHz TSL

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

Date: 2022/7/6

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

Medium parameters used: $f = 5200$ MHz; $\sigma = 4.74$ S/m; $\epsilon_r = 35.7$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.45, 5.45, 5.45); Calibrated: 2021/8/12

Electronics: DAE4 SN1692; Calibrated: 2021/10/4

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1524

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (interpolated) = 9.4 mW/g

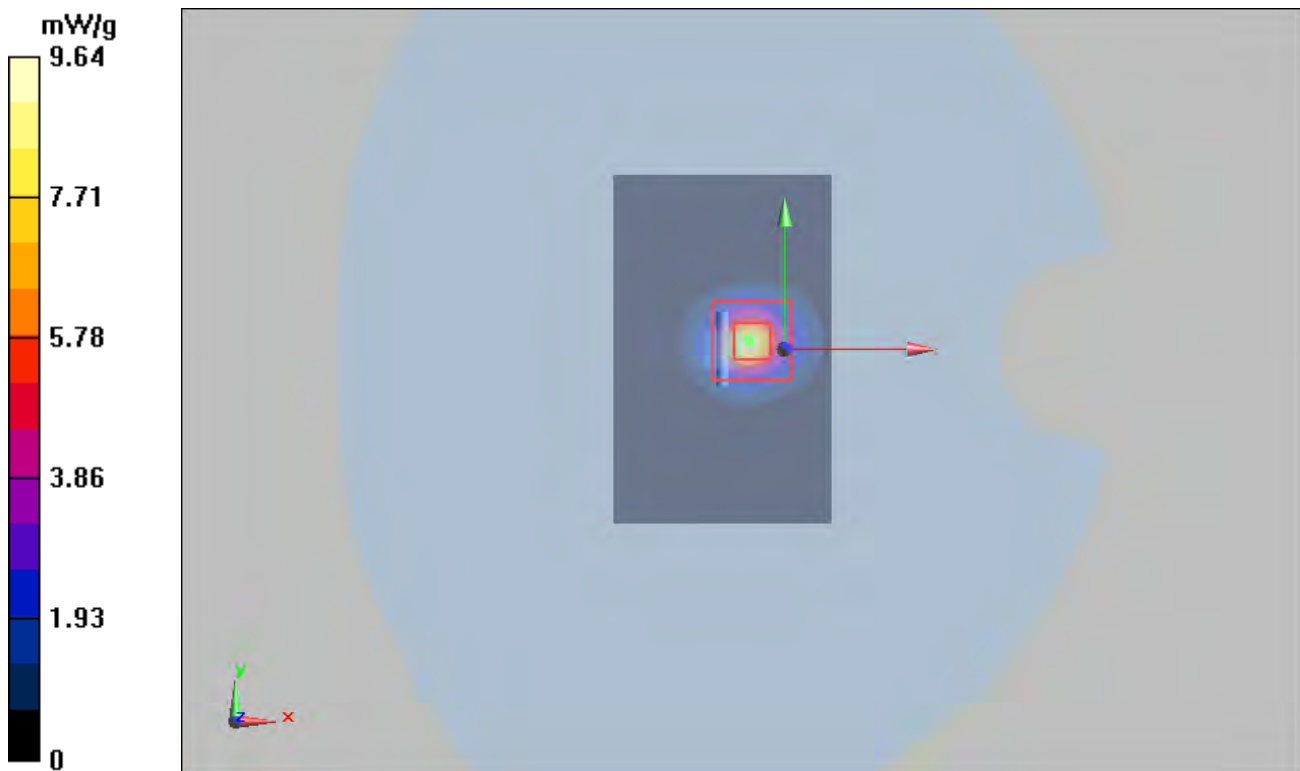
d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 33.6 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 52.2 W/kg

SAR(1 g) = 7.54 mW/g; SAR(10 g) = 2.27 mW/g

Maximum value of SAR (measured) = 9.64 mW/g



Plot 22 System Performance Check at 5600 MHz TSL

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

Date: 2022/7/6

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

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.17$ S/m; $\epsilon_r = 35.4$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN3677; ConvF(5.00, 5.00, 5.00); Calibrated: 2021/8/12

Electronics: DAE4 SN1692; Calibrated: 2021/10/4

Phantom: SAM 2; Type: QD000P40CD; Serial: TP:1524

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (interpolated) = 8.30 mW/g

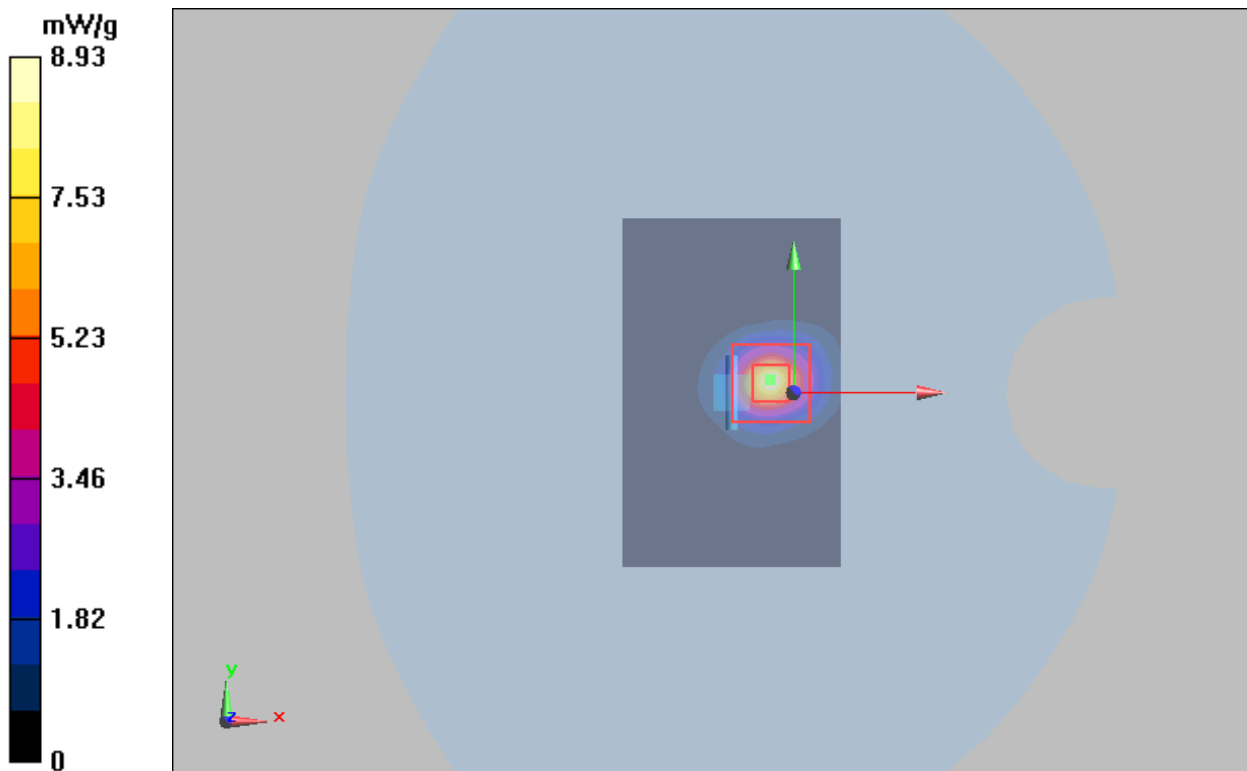
d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 23.13 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 23.0 W/kg

SAR(1 g) = 7.98 mW/g; SAR(10 g) = 2.27 mW/g

Maximum value of SAR (measured) = 8.93 mW/g



ANNEX C: Highest Graph Results

Plot 23 GSM 850 Right Tilt Middle

Date: 2/18/2021

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

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.923 \text{ S/m}$; $\epsilon_r = 42.201$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.612 W/kg

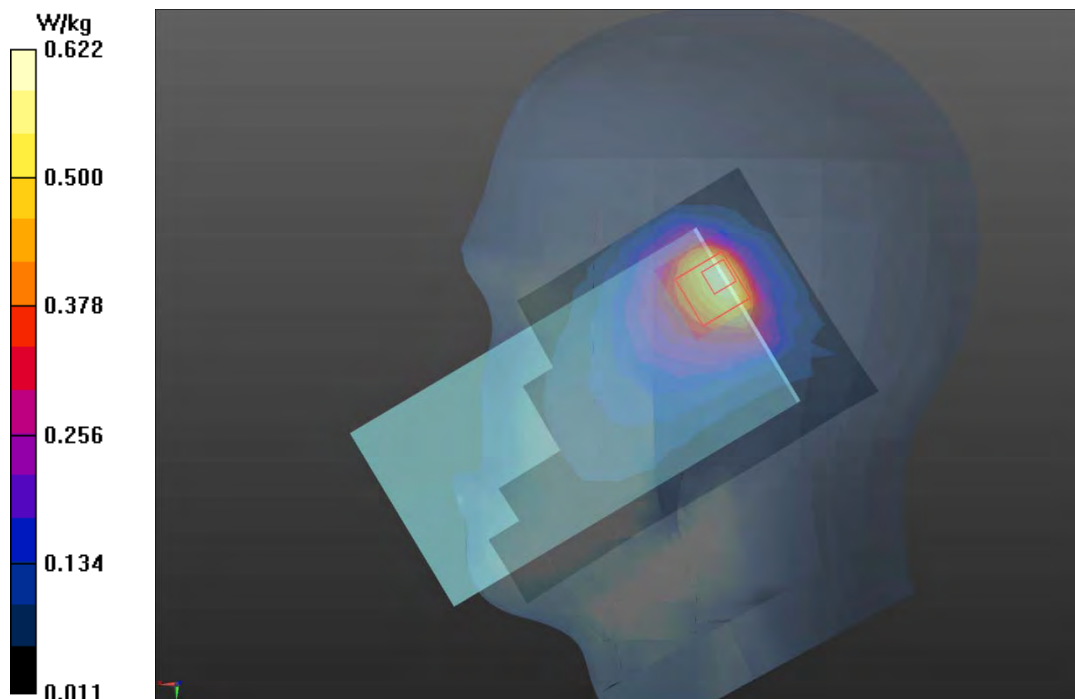
Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.55 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.587 W/kg; SAR(10 g) = 0.319 W/kg

Maximum value of SAR (measured) = 0.622 W/kg



Plot 24 GSM 1900 Right Tilt Middle

Date: 2/21/2021

Communication System: UID 0, GSM (0); Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.42$ S/m; $\epsilon_r = 38.948$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.458 W/kg

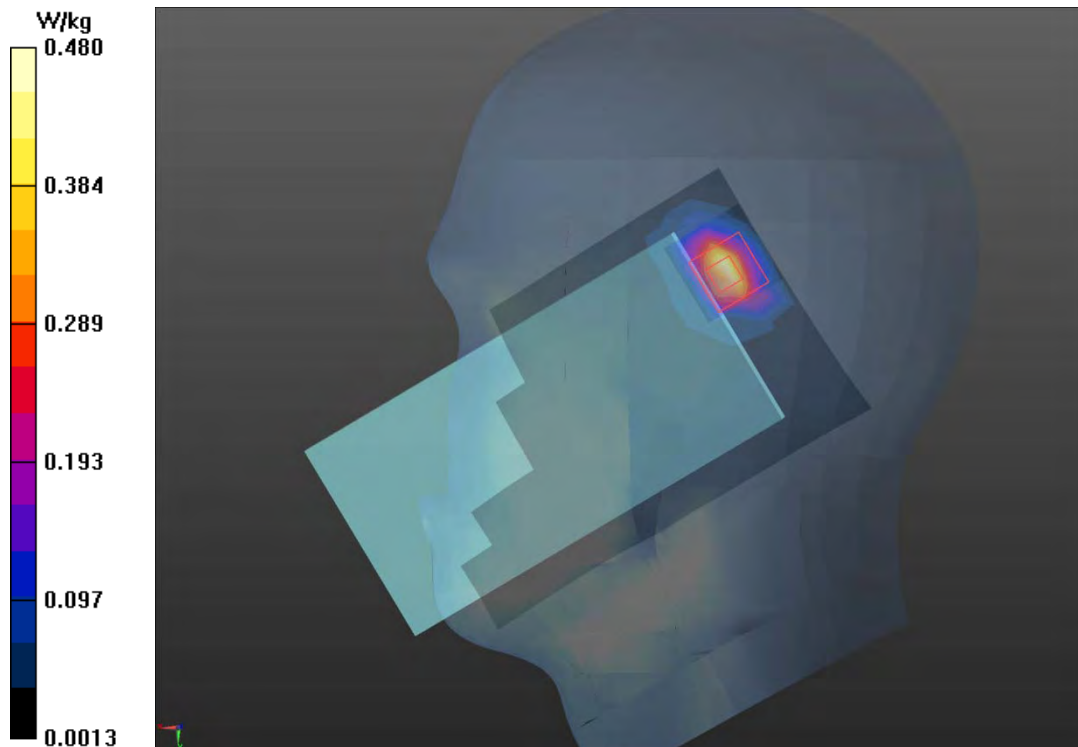
Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.701 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.442 W/kg; SAR(10 g) = 0.178 W/kg

Maximum value of SAR (measured) = 0.480 W/kg



Plot 25 UMTS Band II Right Tilt Middle

Date: 2/21/2021

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.42$ S/m; $\epsilon_r = 38.948$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.646 W/kg

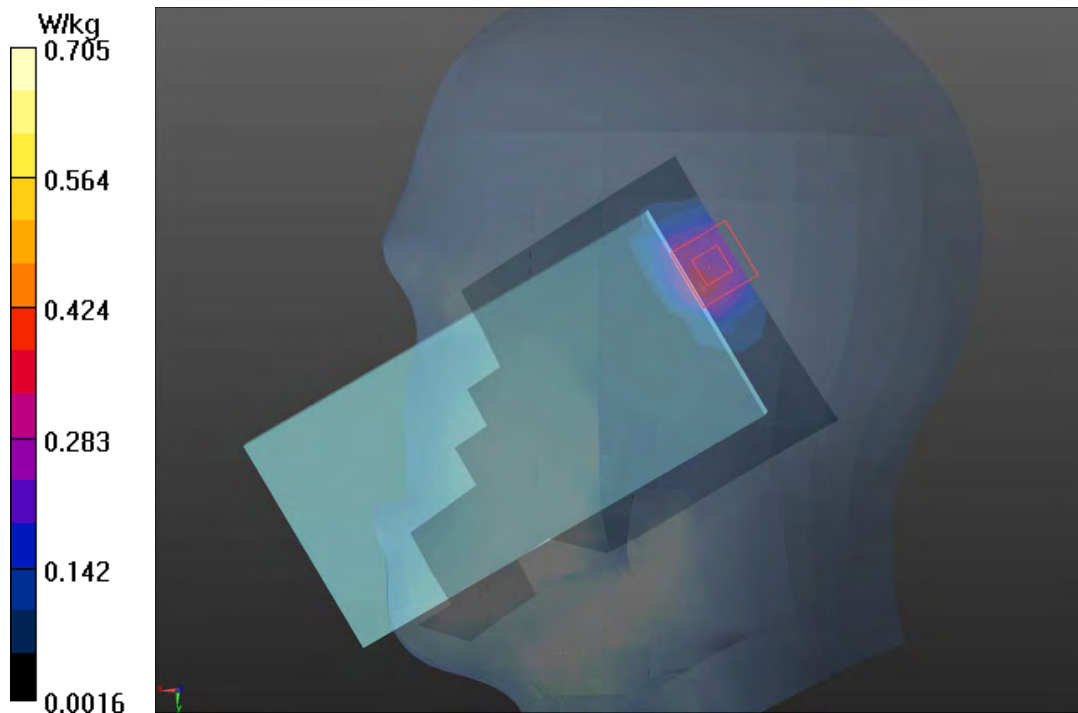
Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.658 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.575 W/kg; SAR(10 g) = 0.234 W/kg

Maximum value of SAR (measured) = 0.705 W/kg



Plot 26 UMTS Band IV Right Tilt Middle

Date: 2/9/2021

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

Medium parameters used: $f = 1733$ MHz; $\sigma = 1.312$ S/m; $\epsilon_r = 39.365$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.320 W/kg

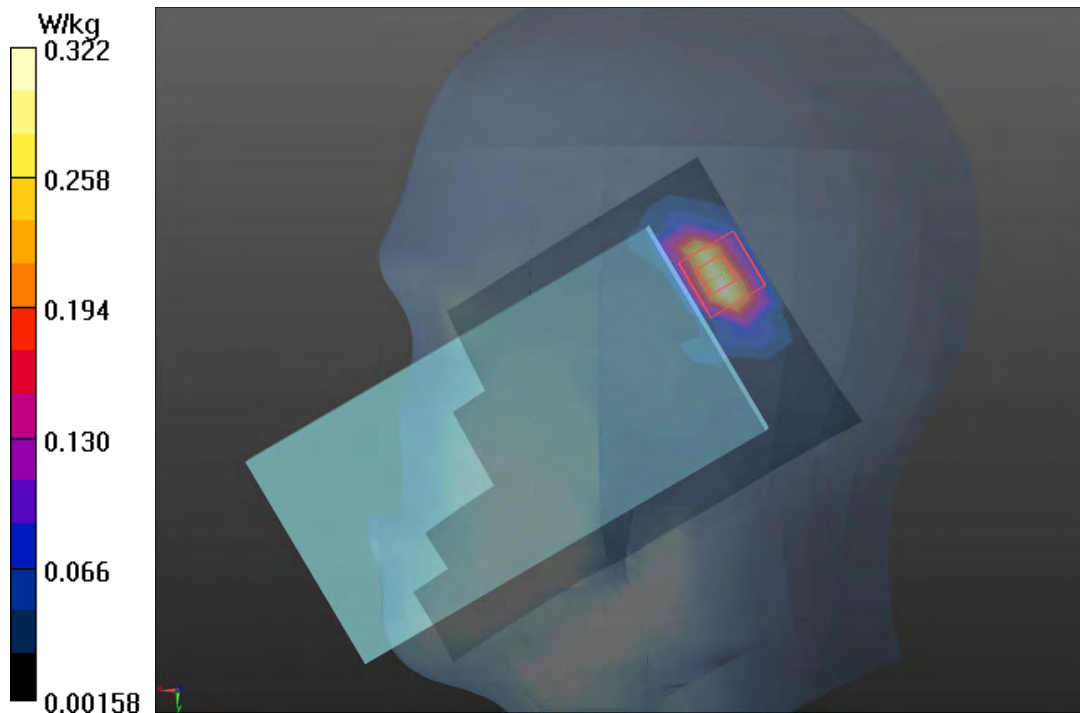
Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.897 V/m; Power Drift = 0.065 dB

Peak SAR (extrapolated) = 0.775 W/kg

SAR(1 g) = 0.319 W/kg; SAR(10 g) = 0.131 W/kg

Maximum value of SAR (measured) = 0.322 W/kg



Plot 27 UMTS Band V Right Cheek Middle

Date: 2/20/2021

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

Medium parameters used: $f = 837 \text{ MHz}$; $\sigma = 0.923 \text{ S/m}$; $\epsilon_r = 42.201$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Cheek Middle/Area Scan (8x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.572 W/kg

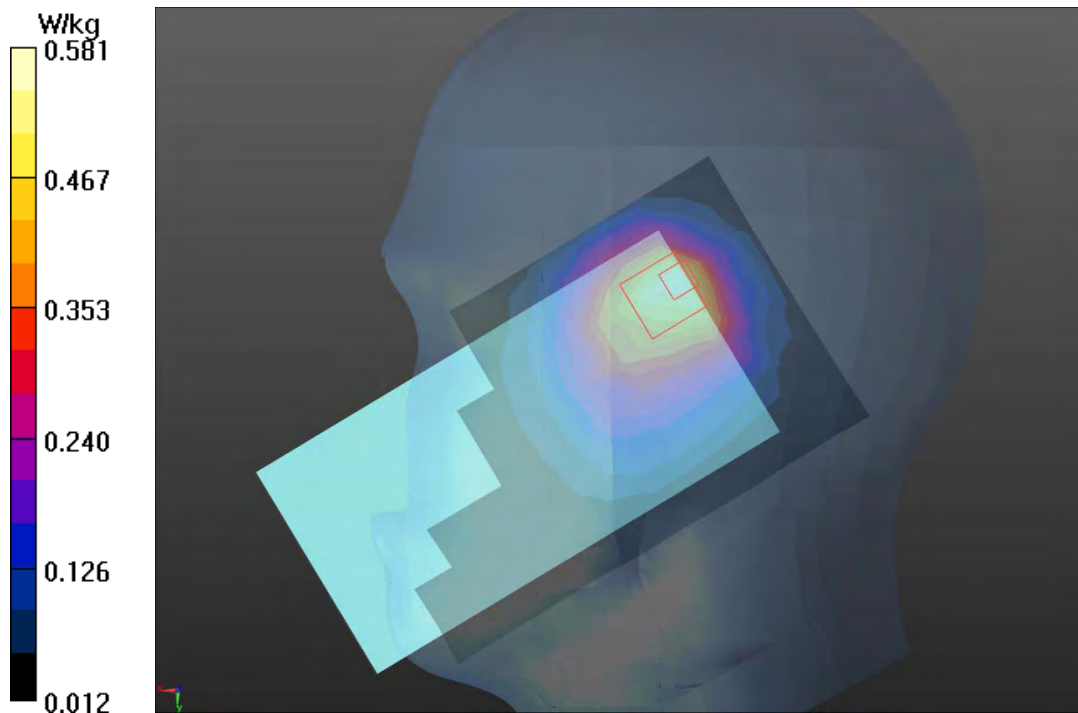
Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 20.61 V/m ; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.16 W/kg

SAR(1 g) = 0.562 W/kg ; SAR(10 g) = 0.335 W/kg

Maximum value of SAR (measured) = 0.581 W/kg



Plot 28 LTE Band 2 1RB Right Tilt Low

Date: 2/21/2021

Communication System: UID 0, LTE (0); Frequency: 1860 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1860 \text{ MHz}$; $\sigma = 1.379 \text{ S/m}$; $\epsilon_r = 38.4$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Tilt Low/Area Scan (8x14x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.647 W/kg

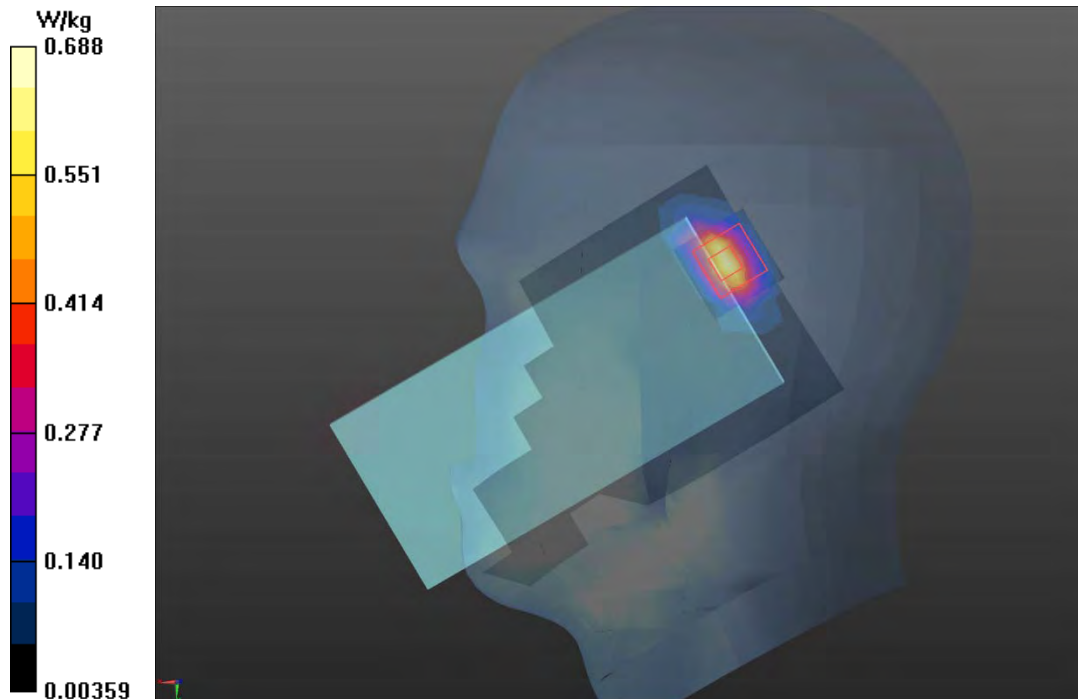
Right Tilt Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.02 V/m ; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 0.605 W/kg ; SAR(10 g) = 0.251 W/kg

Maximum value of SAR (measured) = 0.688 W/kg



Plot 29 LTE Band 4 50%RB Right Cheek Low

Date: 2/9/2021

Communication System: UID 0, LTE (0); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.303$ S/m; $\epsilon_r = 39.467$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.524 W/kg

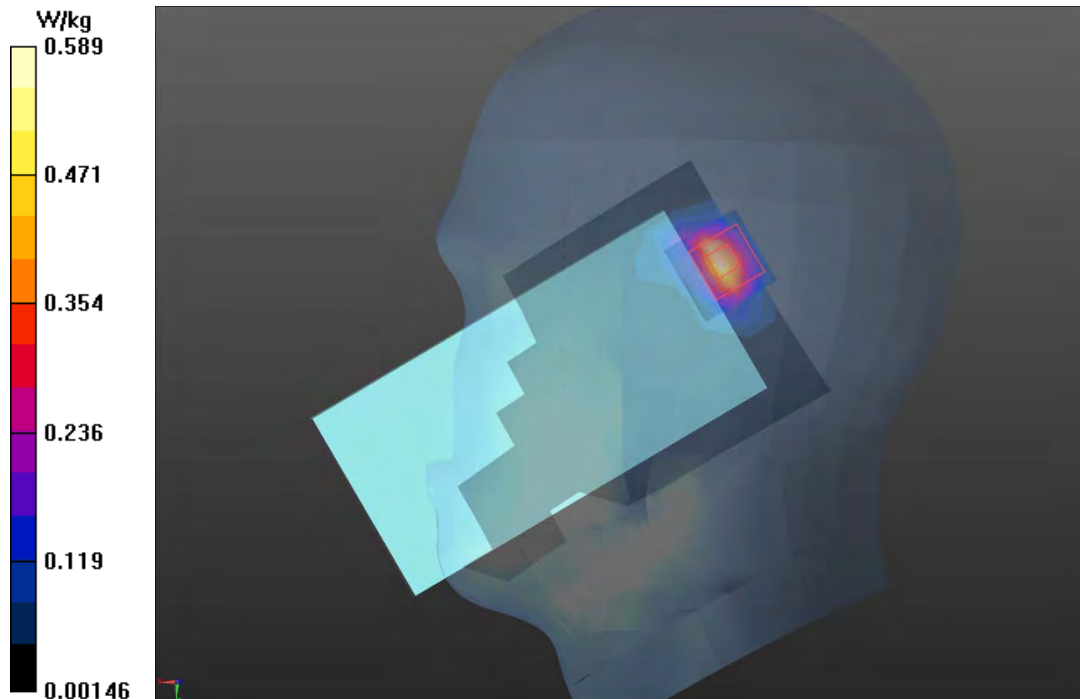
Right Cheek Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.56 V/m; Power Drift = -0.022 dB

Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.481 W/kg; SAR(10 g) = 0.202 W/kg

Maximum value of SAR (measured) = 0.589 W/kg



Plot 30 LTE Band 5 50%RB Right Tilt Middle

Date: 2/20/2021

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

Medium parameters used: $f = 836.5$ MHz; $\sigma = 0.923$ S/m; $\epsilon_r = 42.199$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.707 W/kg

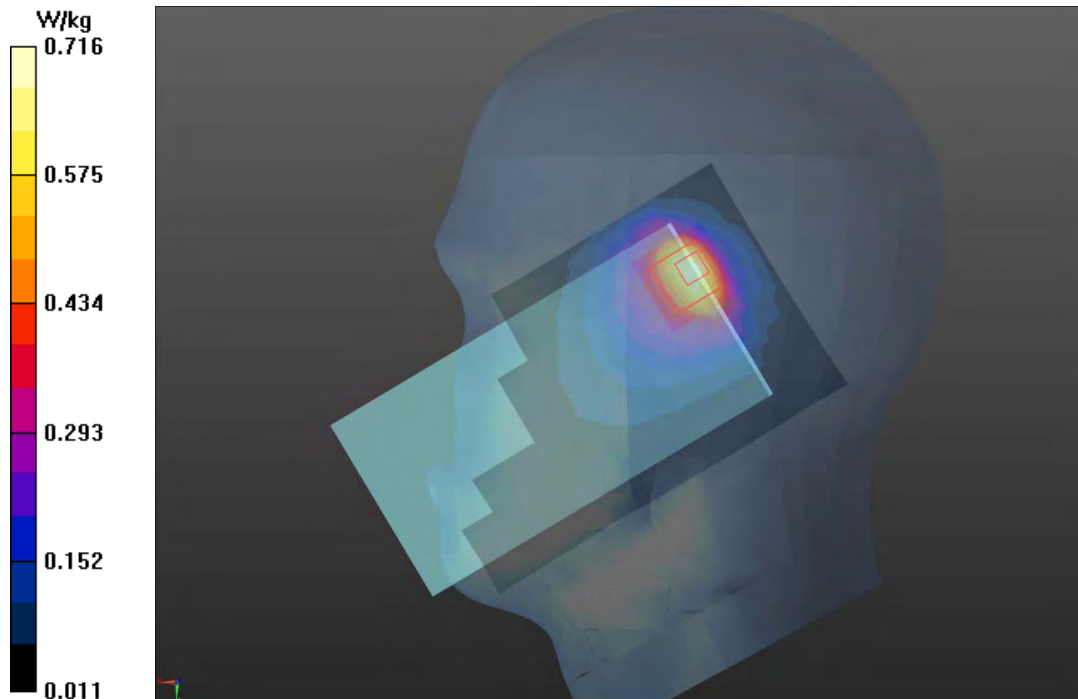
Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.48 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.82 W/kg

SAR(1 g) = 0.701 W/kg; SAR(10 g) = 0.351 W/kg

Maximum value of SAR (measured) = 0.716 W/kg



Plot 31 LTE Band 7 50%RB Right Tilt Low

Date: 2/25/2021

Communication System: UID 0, LTE (0); Frequency: 2510 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2510$ MHz; $\sigma = 1.872$ S/m; $\epsilon_r = 39.139$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Tilt Low/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.762 W/kg

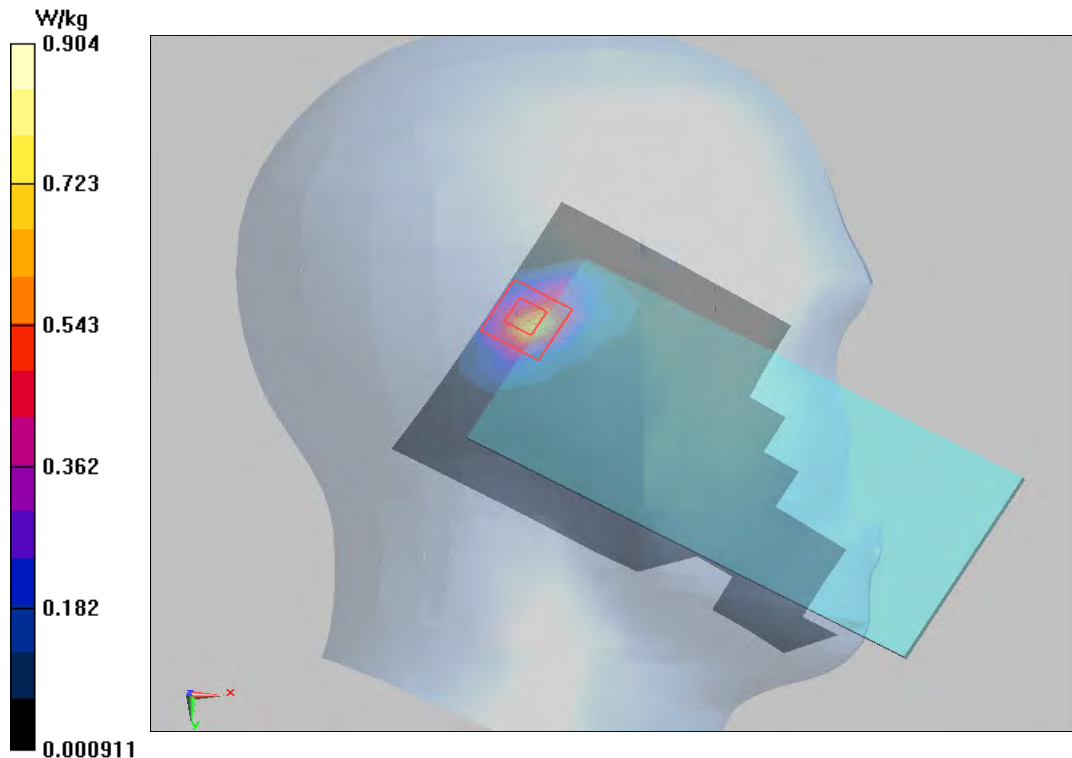
Right Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.400 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 2.35 W/kg

SAR(1 g) = 0.845 W/kg; SAR(10 g) = 0.314 W/kg

Maximum value of SAR (measured) = 0.904 W/kg



Plot 32 LTE Band 38 1RB Right Tilt Middle

Date: 2/25/2021

Communication System: UID 0, LTE (0); Frequency: 2595 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 2595$ MHz; $\sigma = 1.967$ S/m; $\epsilon_r = 38.845$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Tilt Middle/Area Scan (10x18x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.594 W/kg

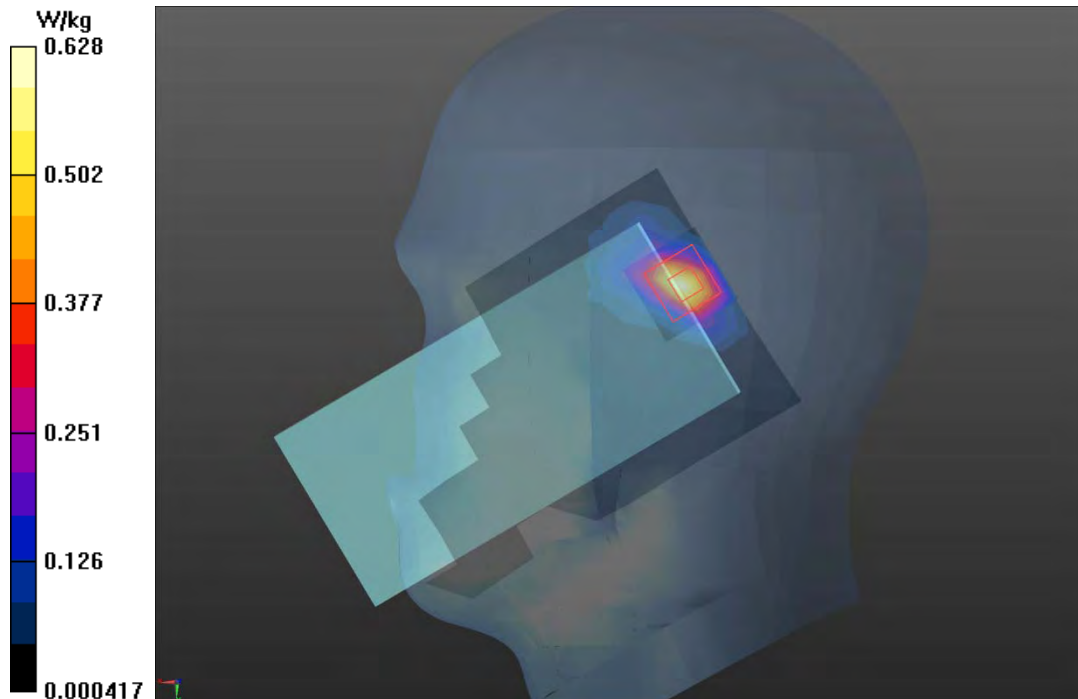
Right Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.30 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 1.60 W/kg

SAR(1 g) = 0.571 W/kg; SAR(10 g) = 0.219 W/kg

Maximum value of SAR (measured) = 0.628 W/kg



Plot 33 LTE Band 41 50%RB Right Cheek Low

Date: 2/25/2021

Communication System: UID 0, LTE (0); Frequency: 2545 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 2545 \text{ MHz}$; $\sigma = 1.908 \text{ S/m}$; $\epsilon_r = 38.956$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Right Cheek Low/Area Scan (10x18x1): Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$

Maximum value of SAR (measured) = 0.762 W/kg

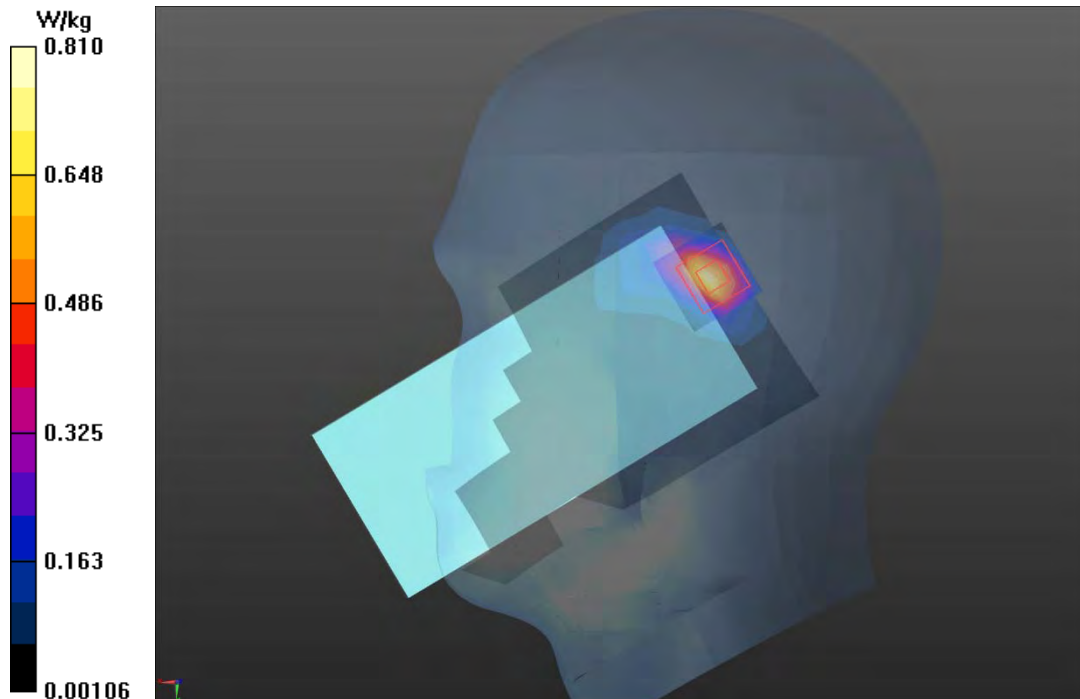
Right Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.366 V/m ; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 2.12 W/kg

SAR(1 g) = 0.727 W/kg ; SAR(10 g) = 0.275 W/kg

Maximum value of SAR (measured) = 0.810 W/kg



Plot 34 Wi-Fi 2.4G Left Cheek Middle

Date: 2/10/2021

Communication System: UID 0, 802.11g (0); Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.791 \text{ S/m}$; $\epsilon_r = 39.401$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

Phantom section: Left 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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left Cheek Middle/Area Scan (10x17x1): Measurement grid: $dx=12\text{mm}$, $dy=12\text{mm}$

Maximum value of SAR (measured) = 0.608 W/kg

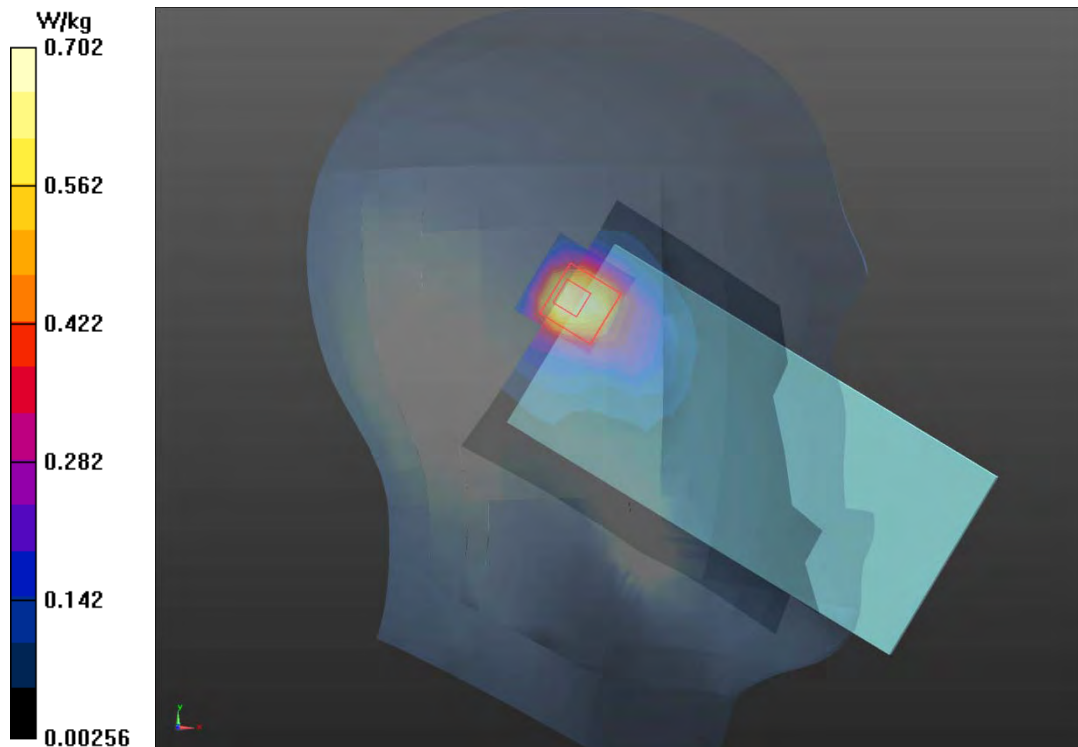
Left Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.26 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 1.85 W/kg

SAR(1 g) = 0.518 W/kg; SAR(10 g) = 0.241 W/kg

Maximum value of SAR (measured) = 0.702 W/kg



Plot 35 802.11a U-NII-1 Left Tilt Low

Date: 2/11/2021

Communication System: UID 0, 802.11a (0); Frequency: 5180 MHz; Duty Cycle: 1:1.03

Medium parameters used: $f = 5180$ MHz; $\sigma = 4.75$ S/m; $\epsilon_r = 36.766$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left 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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left Tilt Low/Area Scan (12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.427 W/kg

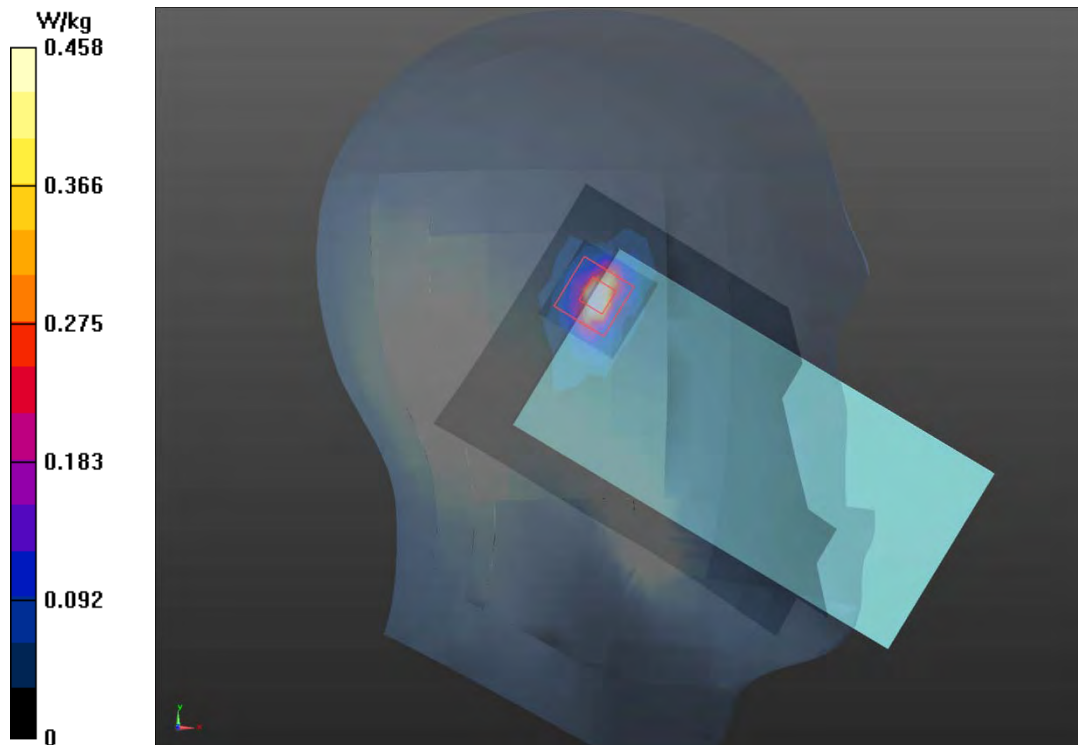
Left Tilt Low/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 4.405 V/m; Power Drift = 0.034 dB

Peak SAR (extrapolated) = 1.22 W/kg

SAR(1 g) = 0.405 W/kg; SAR(10 g) = 0.114 W/kg

Maximum value of SAR (measured) = 0.458 W/kg



Plot 36 802.11a U-NII-2A Left Tilt High

Date: 2/11/2021

Communication System: UID 0, 802.11a (0); Frequency: 5320 MHz; Duty Cycle: 1:1.03

Medium parameters used: $f = 5320$ MHz; $\sigma = 4.95$ S/m; $\epsilon_r = 36.328$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left 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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left Tilt High/Area Scan (12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.411 W/kg

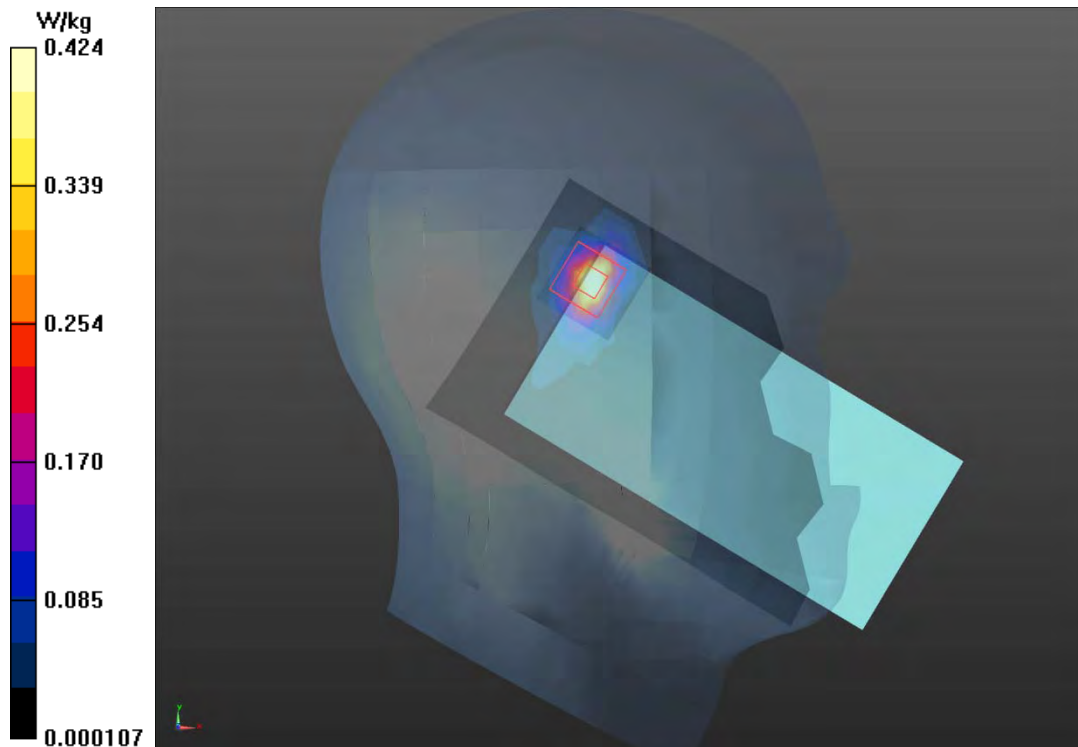
Left Tilt High/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 3.826 V/m; Power Drift = 0.052 dB

Peak SAR (extrapolated) = 1.23 W/kg

SAR(1 g) = 0.392 W/kg; SAR(10 g) = 0.118 W/kg

Maximum value of SAR (measured) = 0.424 W/kg



Plot 37 802.11a U-NII-2C Left Tilt Low

Date: 2/12/2021

Communication System: UID 0, 802.11a (0); Frequency: 5500 MHz; Duty Cycle: 1:1.03

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.183$ S/m; $\epsilon_r = 36.131$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left 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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left Tilt Low/Area Scan (12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.407 W/kg

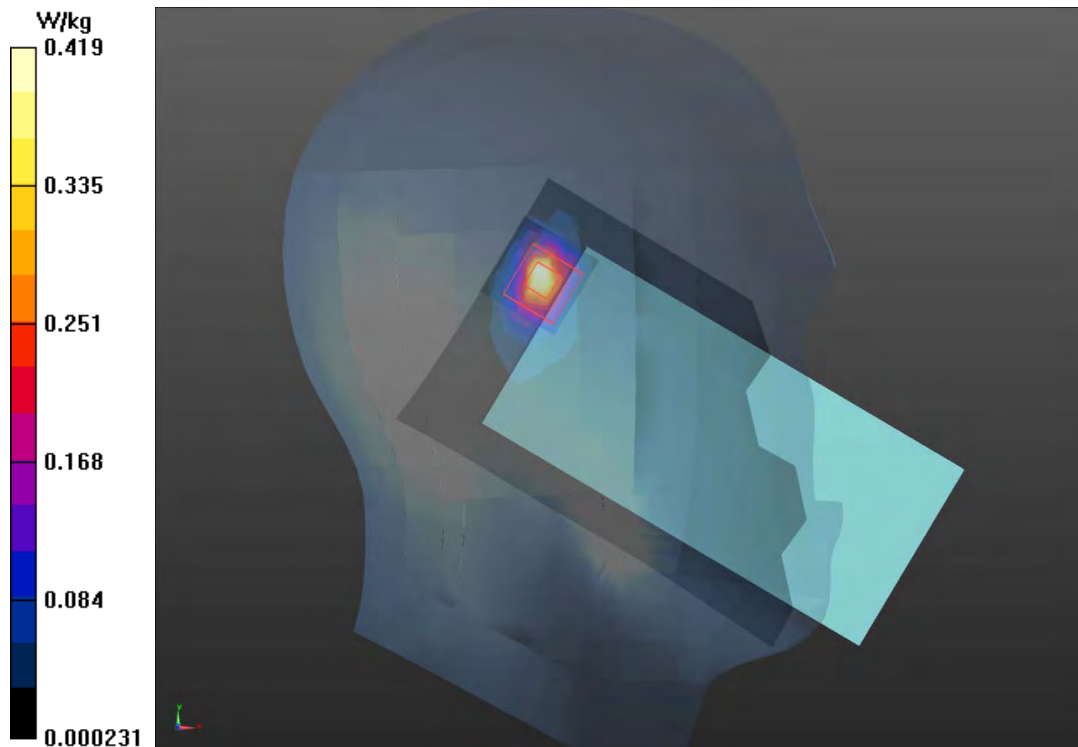
Left Tilt Low/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 4.089 V/m; Power Drift = 0.021 dB

Peak SAR (extrapolated) = 1.28 W/kg

SAR(1 g) = 0.382 W/kg; SAR(10 g) = 0.113 W/kg

Maximum value of SAR (measured) = 0.419 W/kg



Plot 38 802.11a U-NII-3 Left Tilt High

Date: 2/12/2021

Communication System: UID 0, 802.11a (0); Frequency: 5825 MHz; Duty Cycle: 1:1.03

Medium parameters used: $f = 5825$ MHz; $\sigma = 5.48$ S/m; $\epsilon_r = 35.186$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left 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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left Tilt High/Area Scan(12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.496 W/kg

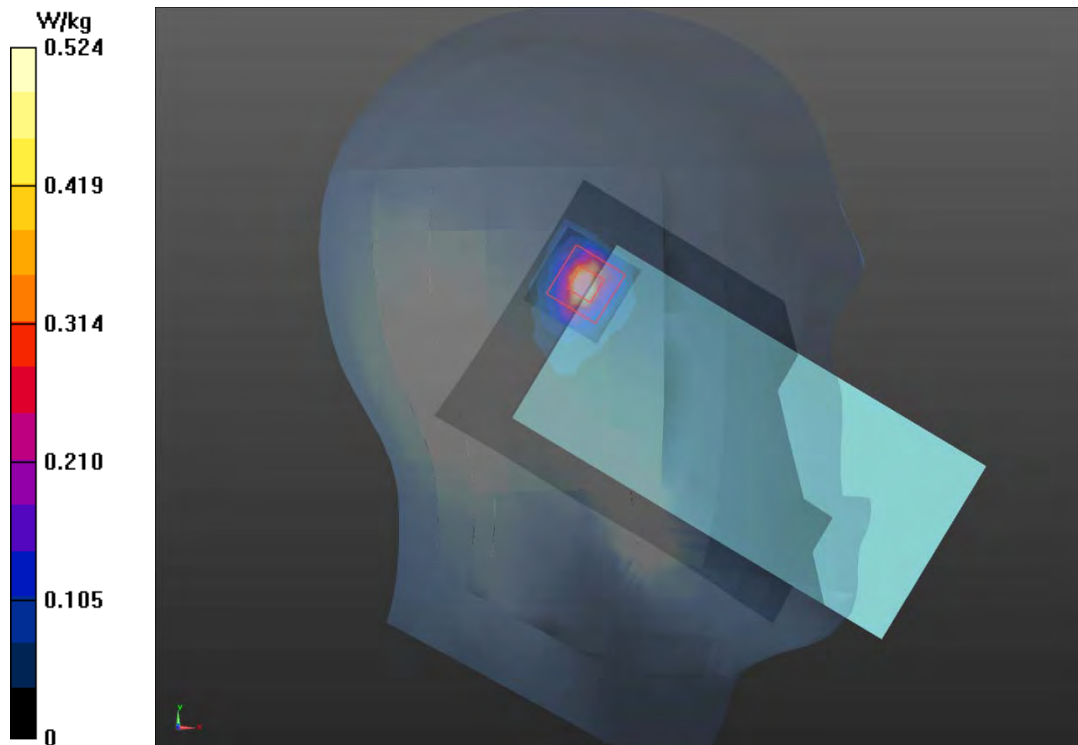
Left Tilt High/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 4.332 V/m; Power Drift = 0.034 dB

Peak SAR (extrapolated) = 1.53 W/kg

SAR(1 g) = 0.471 W/kg; SAR(10 g) = 0.136 W/kg

Maximum value of SAR (measured) = 0.524 W/kg



Plot 39 BT Left Cheek Middle

Date: 2/10/2021

Communication System: UID 0, BT (0); Frequency: 2441 MHz; Duty Cycle: 1:1.32

Medium parameters used: $f = 2441$ MHz; $\sigma = 1.796$ S/m; $\epsilon_r = 39.386$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

Phantom section: Left 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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Left Cheek Middle/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.101 W/kg

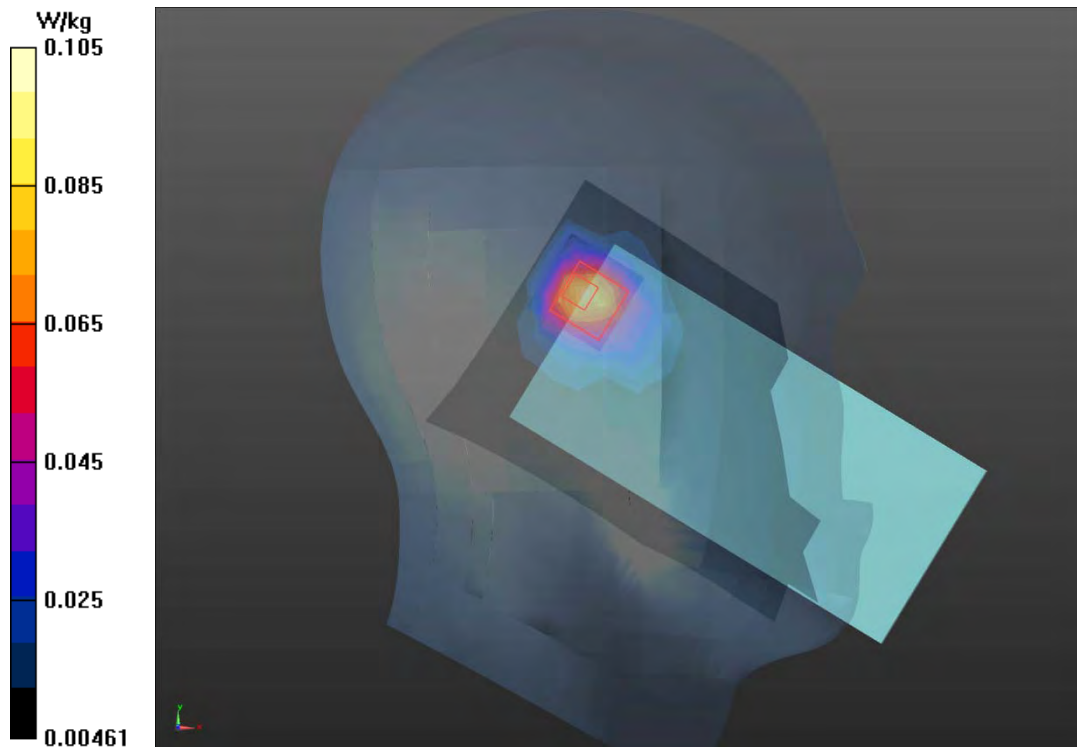
Left Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.571 V/m; Power Drift = 0.087 dB

Peak SAR (extrapolated) = 0.337 W/kg

SAR(1 g) = 0.097 W/kg; SAR(10 g) = 0.043 W/kg

Maximum value of SAR (measured) = 0.105 W/kg



Plot 40 GSM 850 Back Side Middle (Distance 10mm)

Date: 2/19/2021

Communication System: UID 0, LTE (0); Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.922 \text{ S/m}$; $\epsilon_r = 42.197$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.281 W/kg

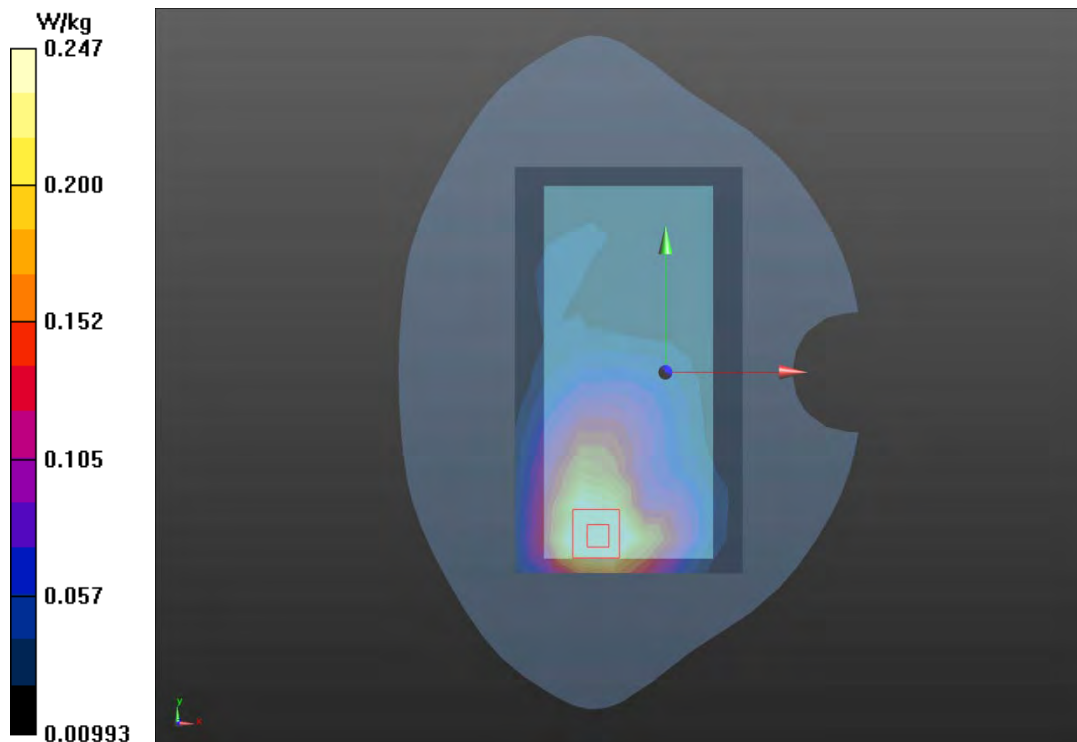
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.42 V/m ; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.477 W/kg

SAR(1 g) = 0.276 W/kg ; SAR(10 g) = 0.199 W/kg

Maximum value of SAR (measured) = 0.288 W/kg



Plot 41 GSM 1900 Back Side Middle (Distance 10mm)

Date: 2/22/2021

Communication System: UID 0, LTE (0); Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.42$ S/m; $\epsilon_r = 38.948$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

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

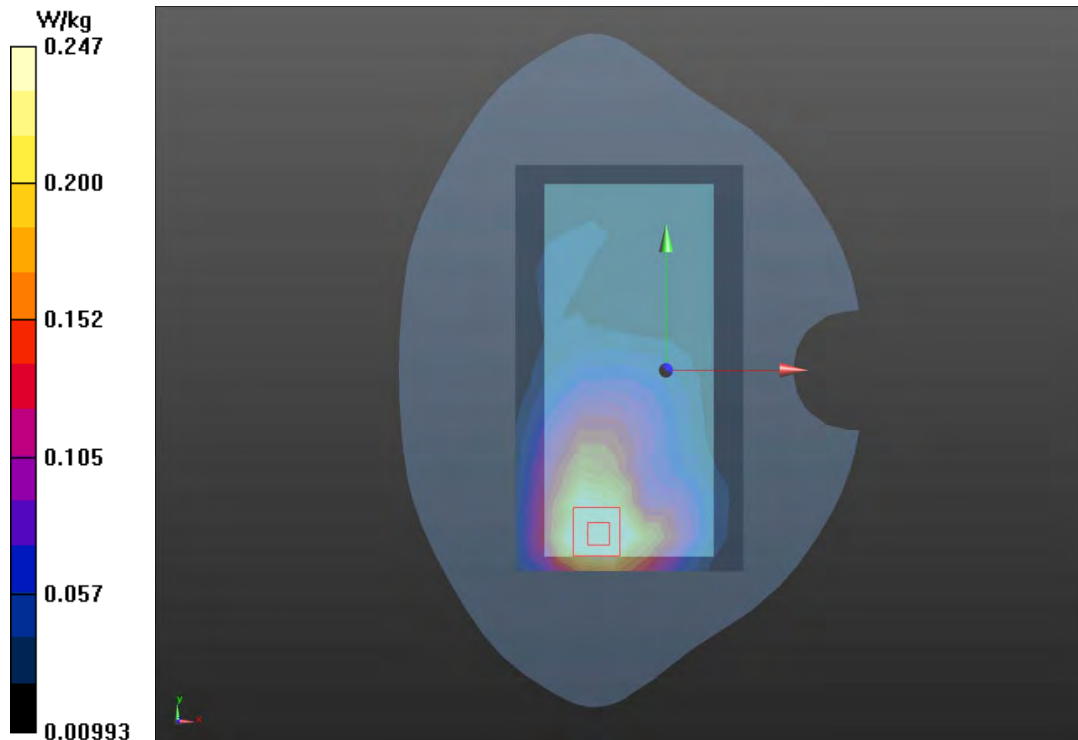
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.12 V/m; Power Drift = 0.132 dB

Peak SAR (extrapolated) = 0.481 W/kg

SAR(1 g) = 0.228 W/kg; SAR(10 g) = 0.136 W/kg

Maximum value of SAR (measured) = 0.247 W/kg



Plot 42 UMTS Band II Back Side Middle (Distance 10mm)

Date: 2/22/2021

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.42$ S/m; $\epsilon_r = 38.948$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.182 W/kg

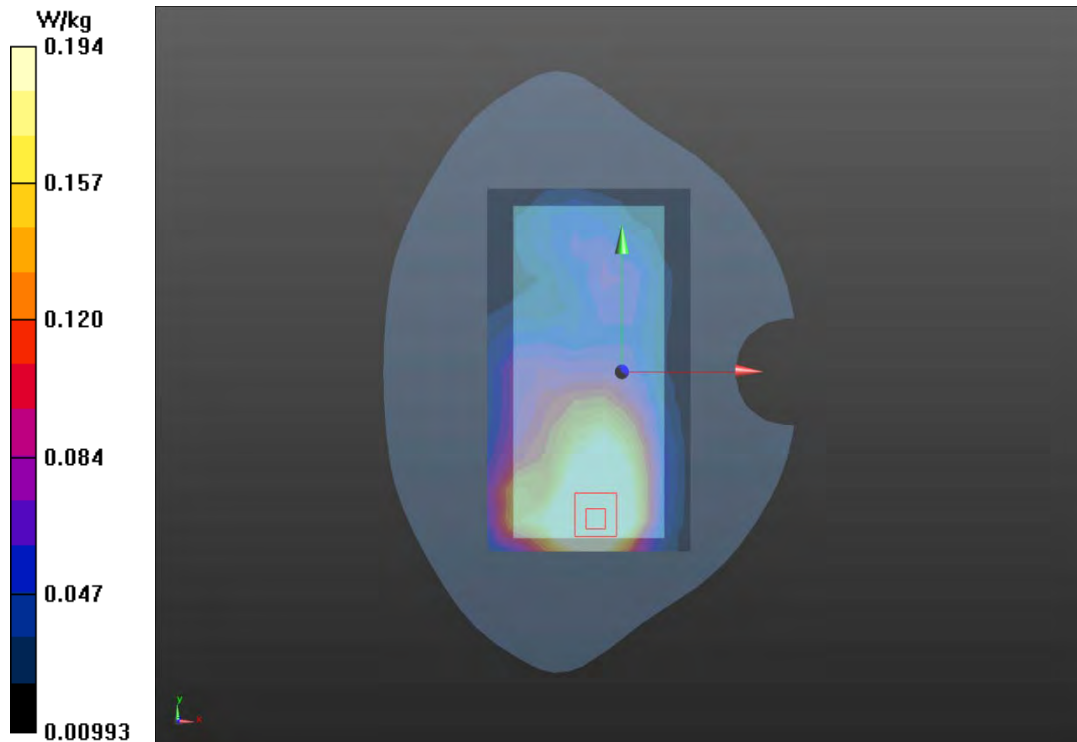
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.42 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 0.427 W/kg

SAR(1 g) = 0.165 W/kg; SAR(10 g) = 0.100 W/kg

Maximum value of SAR (measured) = 0.194 W/kg



Plot 43 UMTS Band IV Back Side Middle (Distance 10mm)

Date: 2/8/2021

Communication System: UID 0, LTE (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1732.6$ MHz; $\sigma = 1.313$ S/m; $\epsilon_r = 39.403$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.232 W/kg

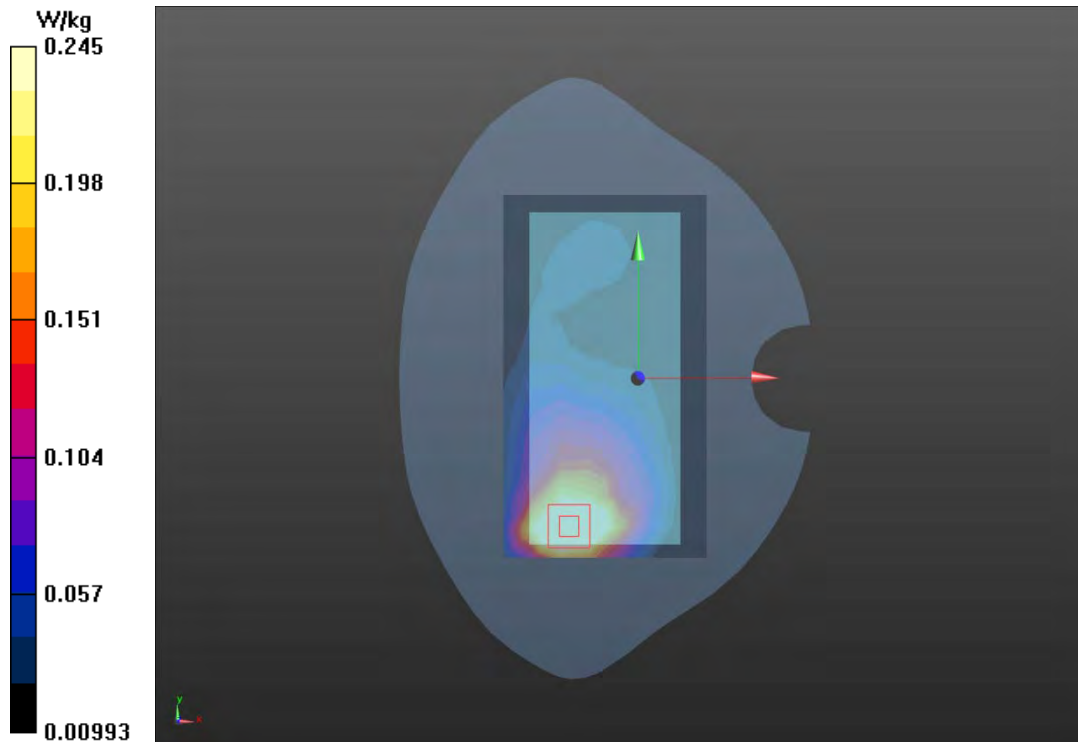
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.12 V/m; Power Drift = 0.025 dB

Peak SAR (extrapolated) = 0.426 W/kg

SAR(1 g) = 0.220 W/kg; SAR(10 g) = 0.121 W/kg

Maximum value of SAR (measured) = 0.245 W/kg



Plot 44 UMTS Band V Back Side Middle (Distance 10mm)

Date: 2/19/2021

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

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.922 \text{ S/m}$; $\epsilon_r = 42.197$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.224 W/kg

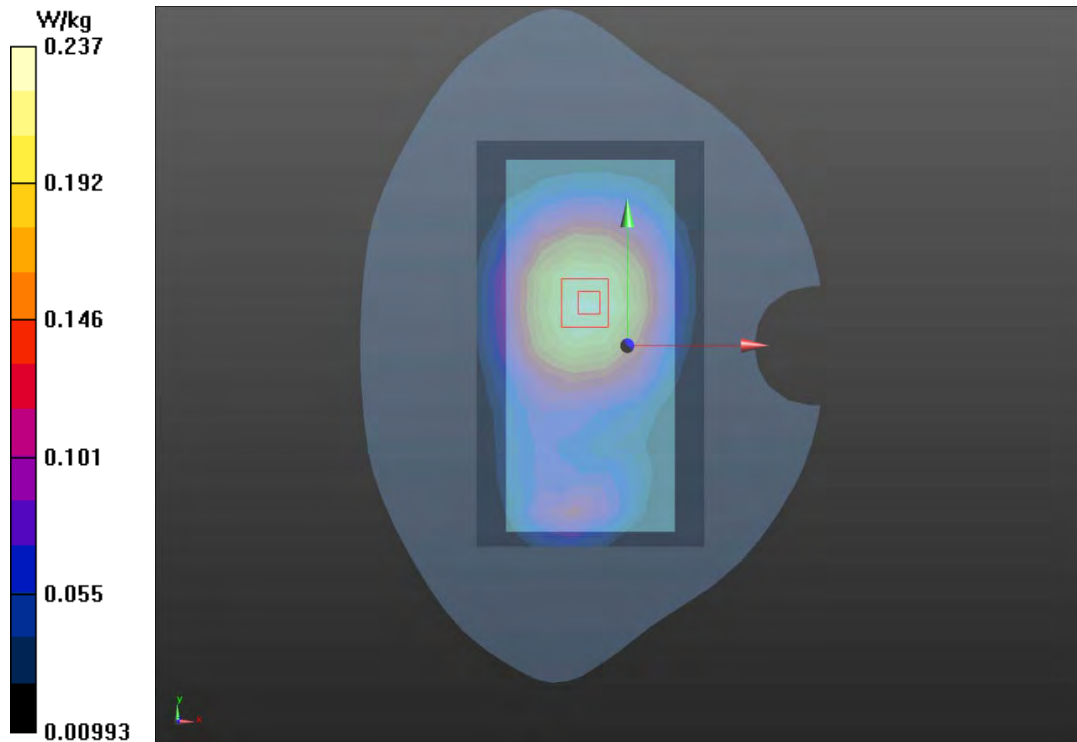
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.32 V/m ; Power Drift = 0.038 dB

Peak SAR (extrapolated) = 0.493 W/kg

SAR(1 g) = 0.218 W/kg ; SAR(10 g) = 0.132 W/kg

Maximum value of SAR (measured) = 0.237 W/kg



Plot 45 LTE Band 2 50%RB Back Side Low(Distance 10mm)

Date: 2/22/2021

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

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.42 \text{ S/m}$; $\epsilon_r = 38.948$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.203 W/kg

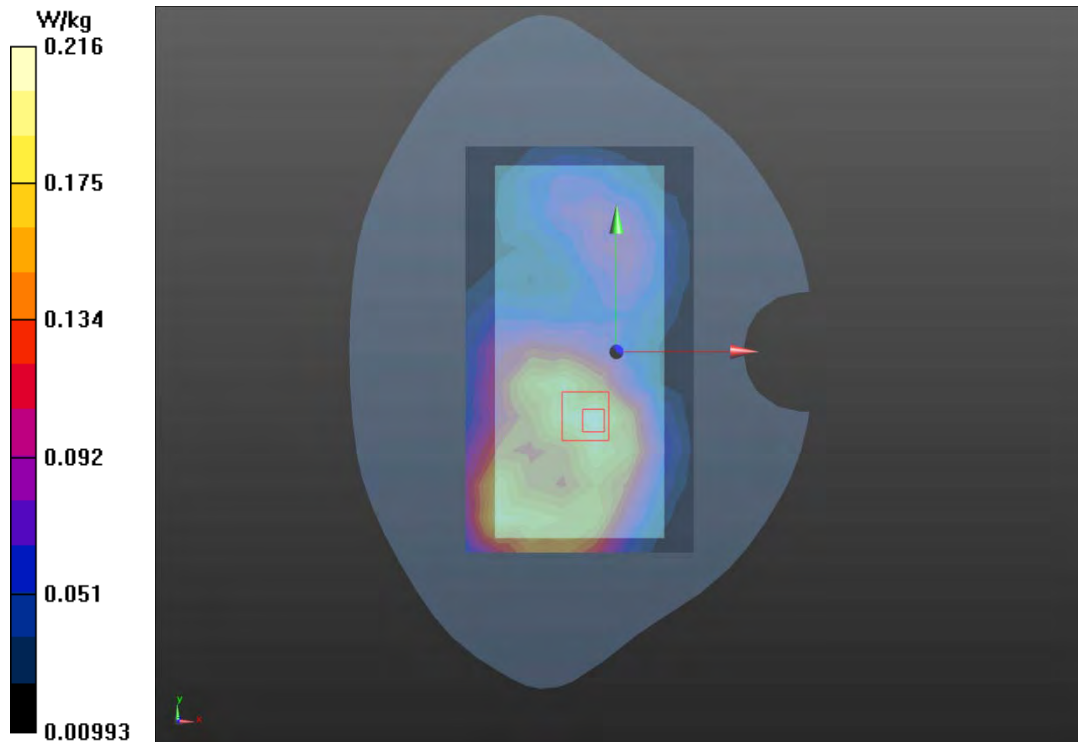
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.22 V/m; Power Drift = 0.054 dB

Peak SAR (extrapolated) = 0.448 W/kg

SAR(1 g) = 0.192 W/kg; SAR(10 g) = 0.115 W/kg

Maximum value of SAR (measured) = 0.216 W/kg



Plot 46 LTE Band 4 50%RB Back Side Low(Distance 10mm)

Date: 2/8/2021

Communication System: UID 0, LTE (0); Frequency: 1720 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.303$ S/m; $\epsilon_r = 39.467$; $\rho = 1000$ kg/m³

Ambient Temperature:22.3 °C Liquid Temperature: 21.5°C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.206 W/kg

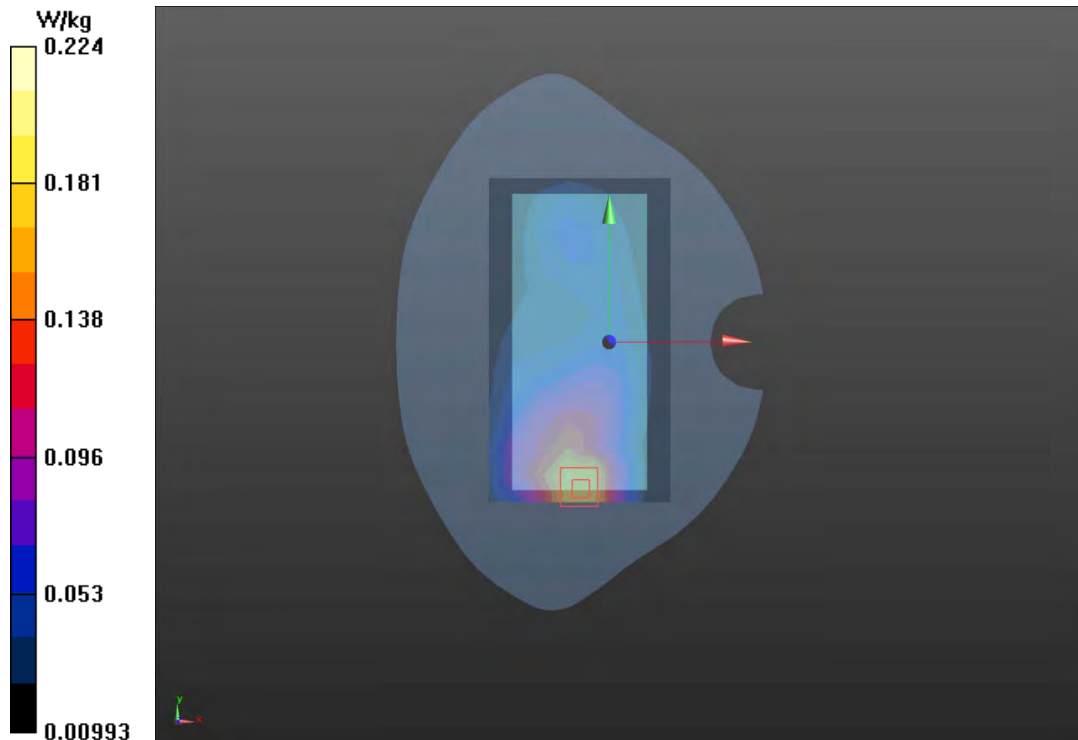
Back Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.22 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.466 W/kg

SAR(1 g) = 0.195 W/kg; SAR(10 g) = 0.105 W/kg

Maximum value of SAR (measured) = 0.224 W/kg



Plot 47 LTE Band 5 1RB Back Side High (Distance 10mm)

Date: 2/19/2021

Communication System: UID 0, LTE (0); Frequency: 844 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 844$ MHz; $\sigma = 0.928$ S/m; $\epsilon_r = 42.206$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.297 W/kg

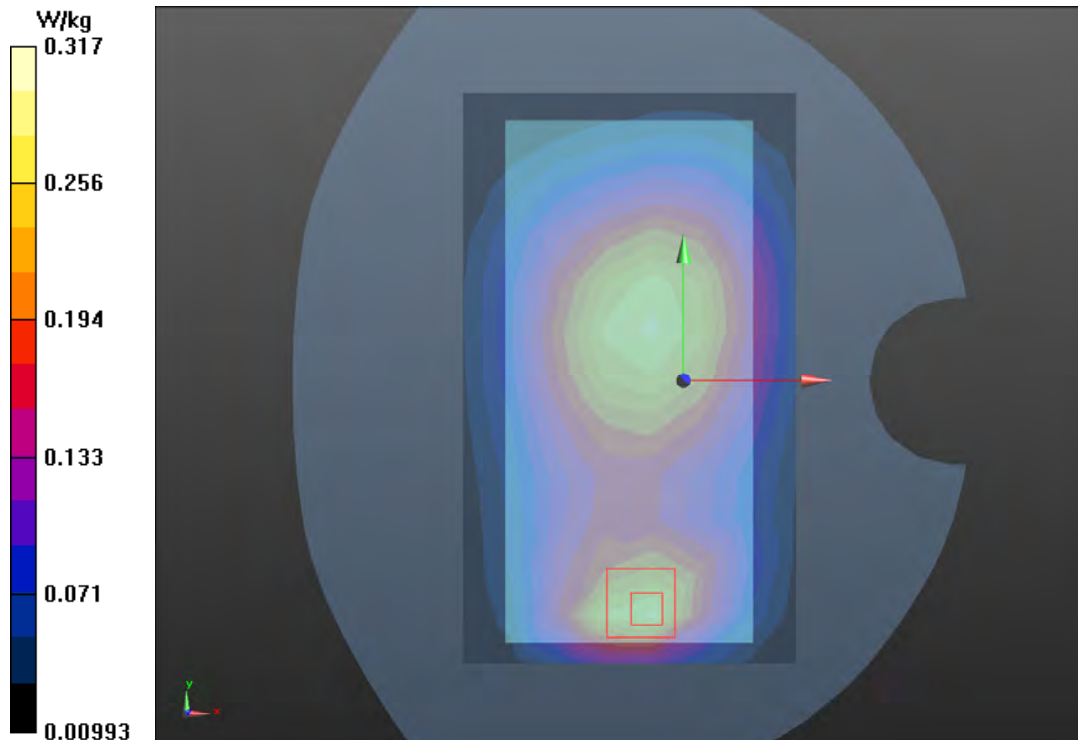
Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.12 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.682 W/kg

SAR(1 g) = 0.278 W/kg; SAR(10 g) = 0.164 W/kg

Maximum value of SAR (measured) = 0.317 W/kg



Plot 48 LTE Band 7 1RB Back Side High (Distance 10mm)

Date: 2/26/2021

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

Medium parameters used: $f = 2560$ MHz; $\sigma = 1.997$ S/m; $\epsilon_r = 40.391$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.252 W/kg

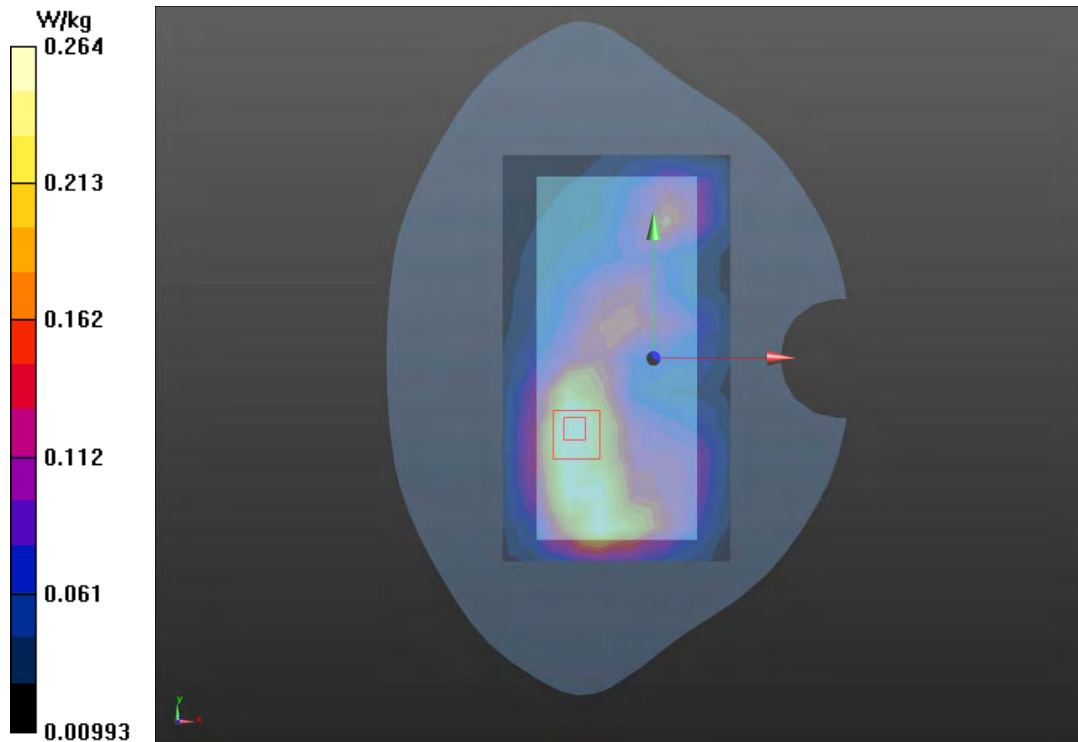
Back Side High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.22 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 0.394 W/kg

SAR(1 g) = 0.240 W/kg; SAR(10 g) = 0.124 W/kg

Maximum value of SAR (measured) = 0.264 W/kg



Plot 49 LTE Band 38 50%RB Front Side Middle (Distance 10mm)

Date: 2/26/2021

Communication System: UID 0, LTE (0); Frequency: 2595 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 2595$ MHz; $\sigma = 2.048$ S/m; $\epsilon_r = 40.249$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.342 W/kg

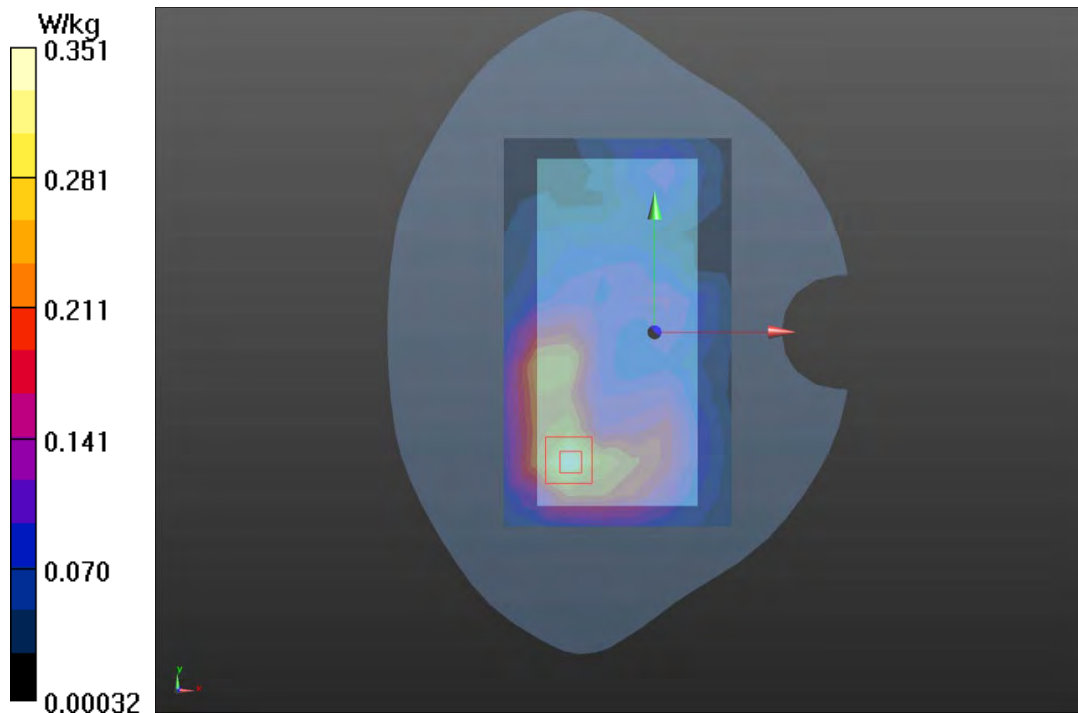
Front Side Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.483 V/m; Power Drift = 0.028 dB

Peak SAR (extrapolated) = 0.698 W/kg

SAR(1 g) = 0.333 W/kg; SAR(10 g) = 0.153 W/kg

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



Plot 50 LTE Band 41 50%RB Front Side Low (Distance 10mm)

Date: 2/26/2021

Communication System: UID 0, LTE (0); Frequency: 2598 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 2598$ MHz; $\sigma = 2.054$ S/m; $\epsilon_r = 40.218$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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

Maximum value of SAR (measured) = 0.388 W/kg

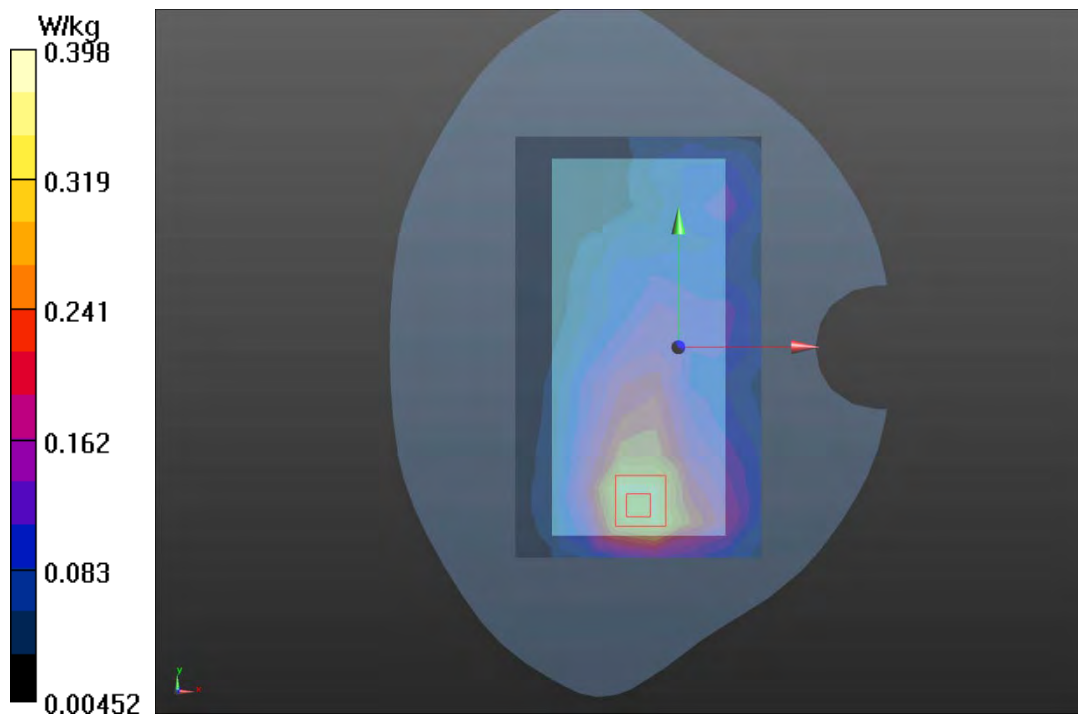
Front Side Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.948 V/m; Power Drift = 0.140 dB

Peak SAR (extrapolated) = 0.605 W/kg

SAR(1 g) = 0.370 W/kg; SAR(10 g) = 0.188 W/kg

Maximum value of SAR (measured) = 0.398 W/kg



Plot 51 Wi-Fi 2.4G Back Side Middle (Distance 10mm)

Date: 2/10/2021

Communication System: UID 0, 802.11b (0); Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.791$ S/m; $\epsilon_r = 39.401$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.312 W/kg

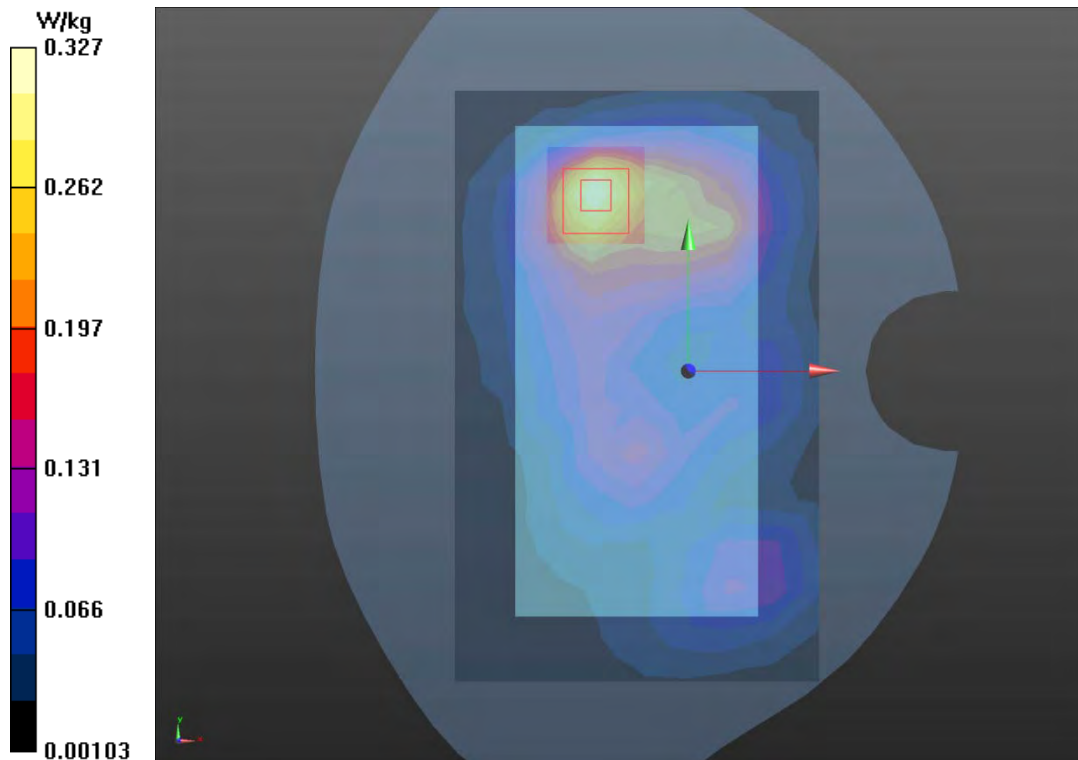
Back Side Middle/Zoom Scan(7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.682 V/m; Power Drift = 0.034 dB

Peak SAR (extrapolated) = 0.620 W/kg

SAR(1 g) = 0.308 W/kg; SAR(10 g) = 0.144 W/kg

Maximum value of SAR (measured) = 0.327 W/kg



Plot 52 802.11a U-NII-1 Back Side High (Distance 10mm)

Date: 2/11/2021

Communication System: UID 0, 802.11a (0); Frequency: 5240 MHz; Duty Cycle: 1:1.03

Medium parameters used: $f = 5240$ MHz; $\sigma = 4.847$ S/m; $\epsilon_r = 36.872$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side High/Area Scan(12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.503 W/kg

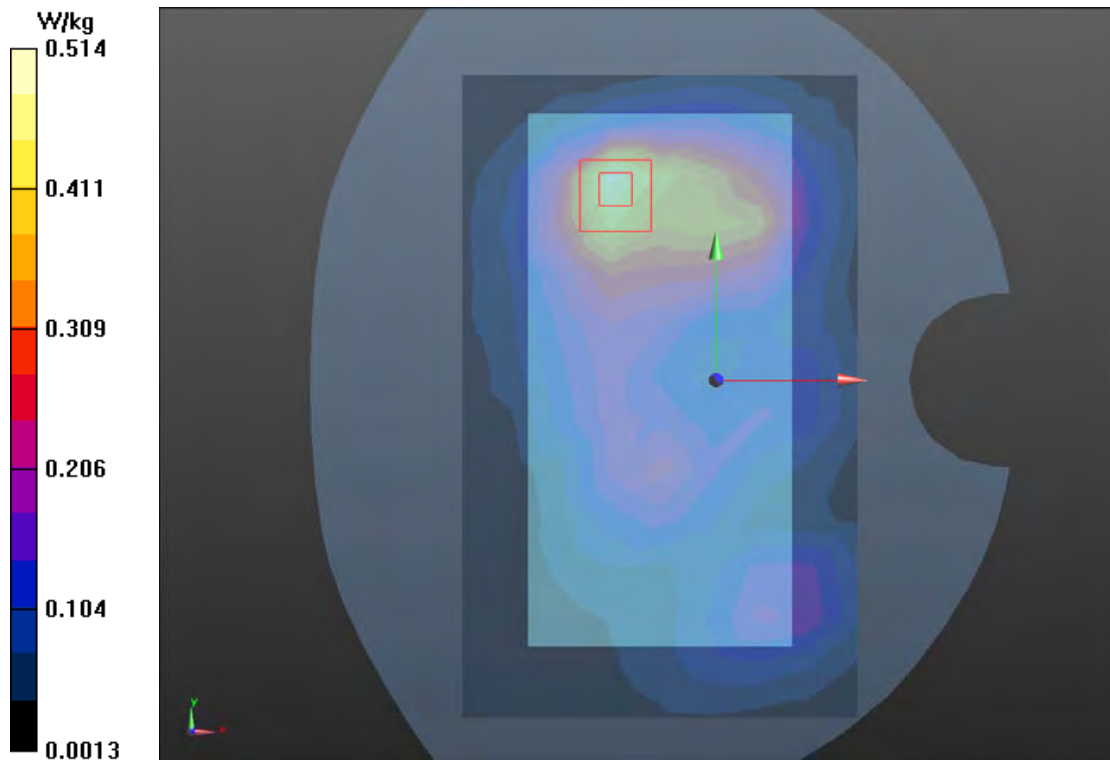
Back Side High/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 3.428 V/m; Power Drift = 0.033 dB

Peak SAR (extrapolated) = 1.12 W/kg

SAR(1 g) = 0.497 W/kg; SAR(10 g) = 0.182 W/kg

Maximum value of SAR (measured) = 0.514 W/kg



Plot 53 802.11a U-NII-2A Back Side Low (Distance 10mm)

Date: 2/11/2021

Communication System: UID 0, 802.11a (0); Frequency: 5260 MHz; Duty Cycle: 1:1.03

Medium parameters used: $f = 5260$ MHz; $\sigma = 4.808$ S/m; $\epsilon_r = 36.877$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Low/Area Scan (12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.277 W/kg

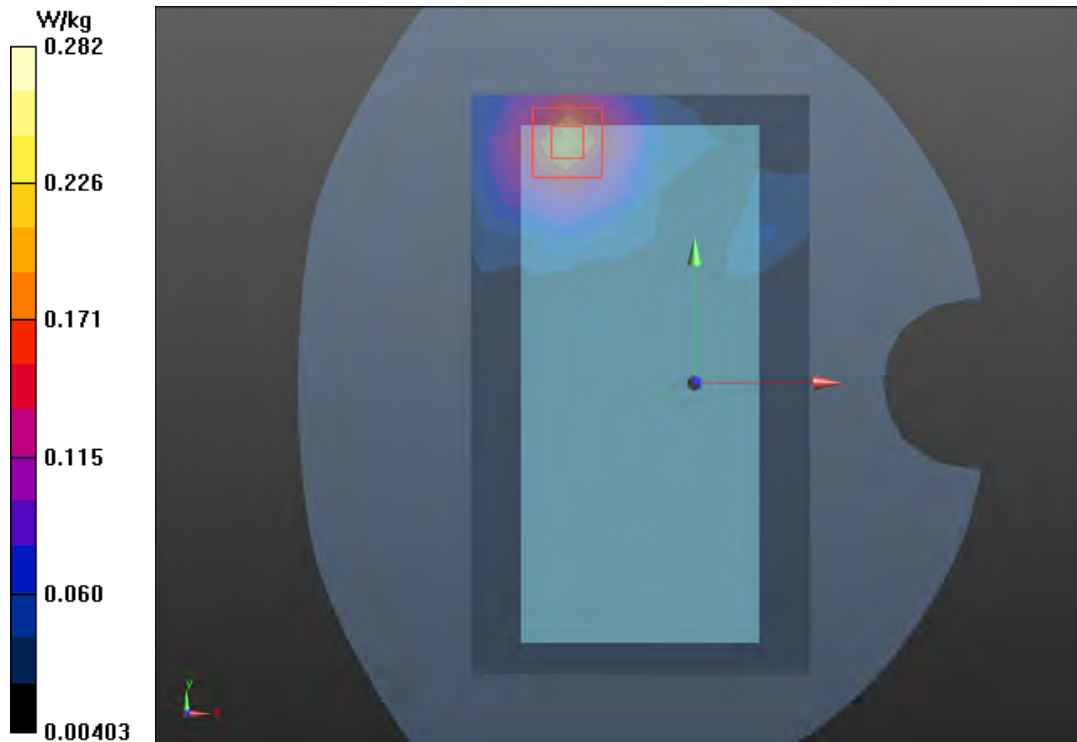
Back Side Low/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 1.723 V/m; Power Drift = -0.032 dB

Peak SAR (extrapolated) = 0.566 W/kg

SAR(1 g) = 0.270 W/kg; SAR(10 g) = 0.114 W/kg

Maximum value of SAR (measured) = 0.282 W/kg



Plot 54 802.11a U-NII-2C Back Side Low (Distance 10mm)

Date: 2/12/2021

Communication System: UID 0, 802.11a (0); Frequency: 5500 MHz; Duty Cycle: 1:1.03

Medium parameters used: $f = 5500 \text{ MHz}$; $\sigma = 5.137 \text{ S/m}$; $\epsilon_r = 35.886$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Low/Area Scan(12x20x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 0.317 W/kg

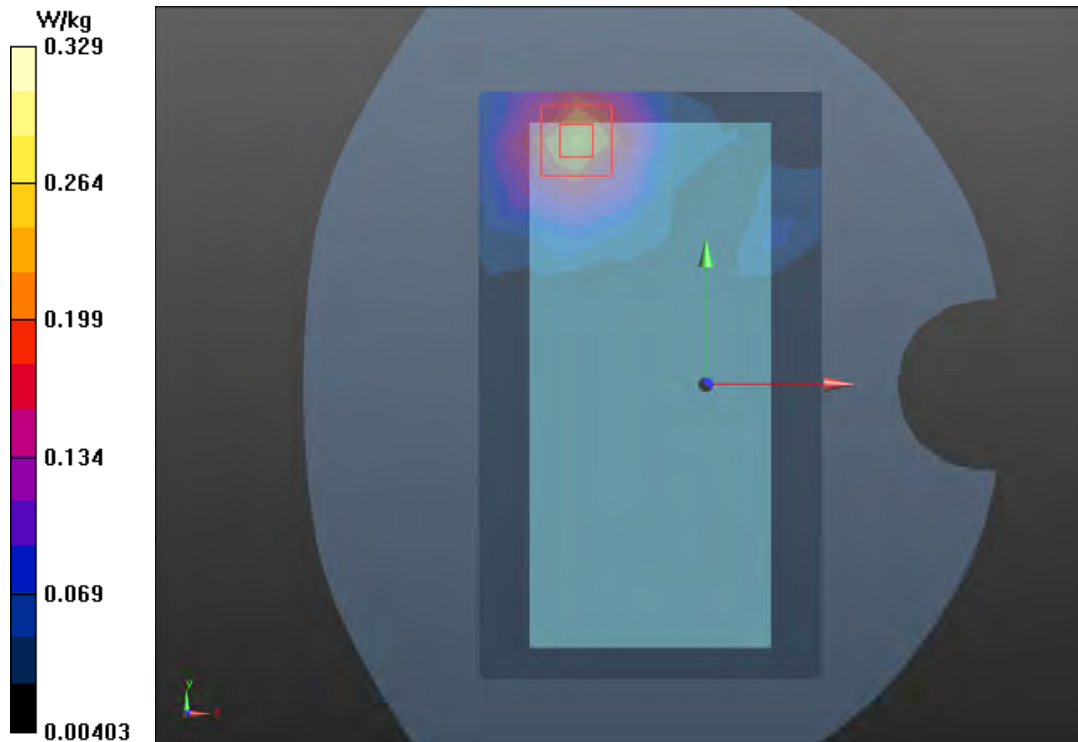
Back Side Low/Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$

Reference Value = 2.124 V/m ; Power Drift = 0.031 dB

Peak SAR (extrapolated) = 0.662 W/kg

SAR(1 g) = 0.310 W/kg ; SAR(10 g) = 0.130 W/kg

Maximum value of SAR (measured) = 0.329 W/kg



Plot 55 802.11a U-NII-3 Back Side Low (Distance 10mm)

Date: 2/12/2021

Communication System: UID 0, 802.11a (0); Frequency: 5745 MHz; Duty Cycle: 1:1.03

Medium parameters used: $f = 5745$ MHz; $\sigma = 5.517$ S/m; $\epsilon_r = 35.27$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Low/Area Scan (12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.402 W/kg

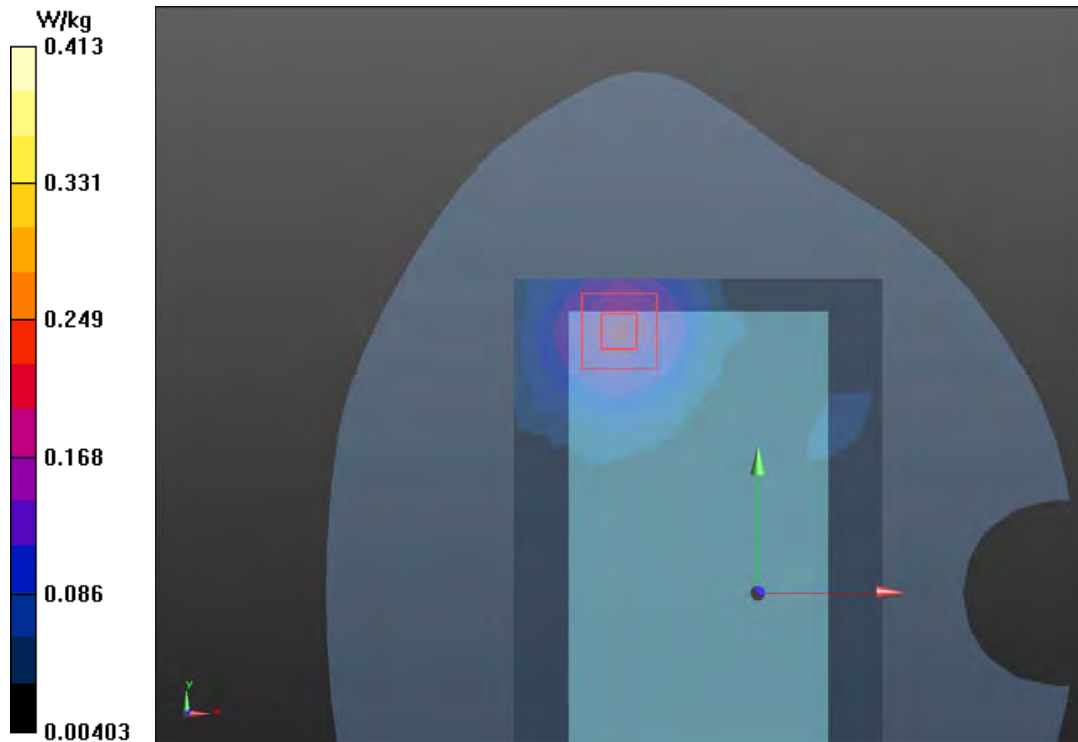
Back Side Low/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 3.252 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.844 W/kg

SAR(1 g) = 0.390 W/kg; SAR(10 g) = 0.147 W/kg

Maximum value of SAR (measured) = 0.413 W/kg



Plot 56 BT Back Side Middle (Distance 10mm)

Date: 2/10/2021

Communication System: UID 0, BT (0); Frequency: 2441 MHz; Duty Cycle: 1:1.32

Medium parameters used: $f = 2441$ MHz; $\sigma = 1.796$ S/m; $\epsilon_r = 39.386$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan(10x17x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.0064 W/kg

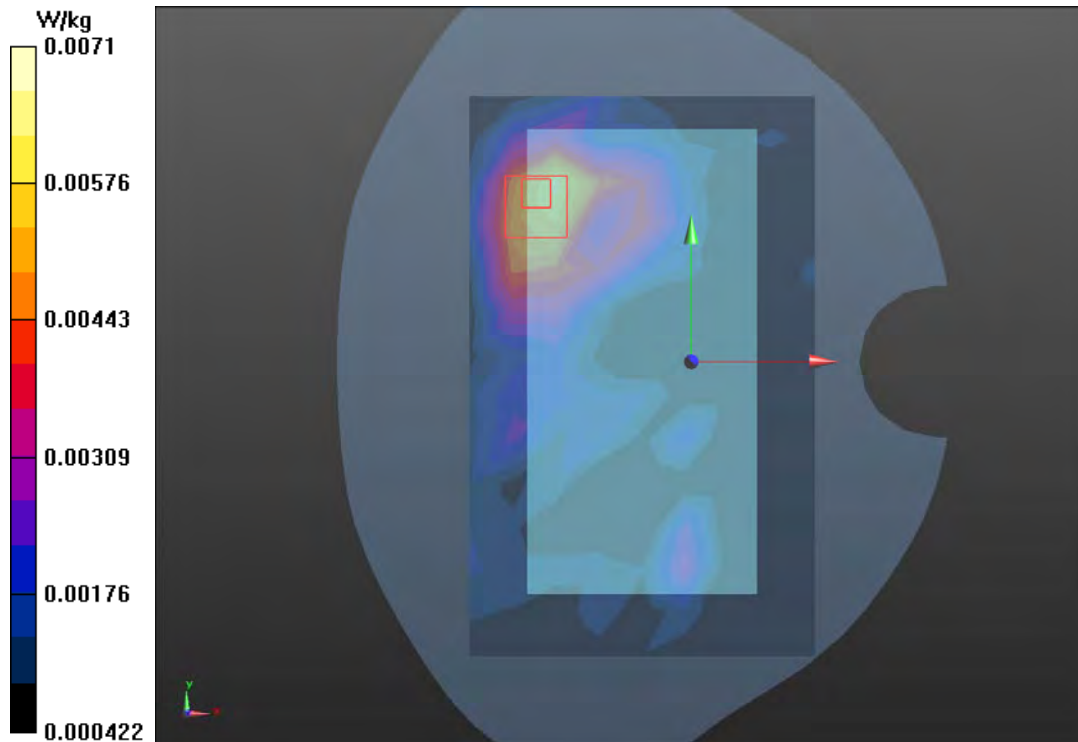
Back Side Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0.9570 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.023 W/kg

SAR(1 g) = 0.006 W/kg; SAR(10 g) = 0.003 W/kg

Maximum value of SAR (measured) = 0.0071 W/kg



Plot 57 GSM 850 Bottom Edge Middle (Distance 10mm)

Date: 2/20/2021

Communication System: UID 0, GPRS 3TX (0); Frequency: 836.6 MHz; Duty Cycle: 1:2.77

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.923$ S/m; $\epsilon_r = 42.201$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.301 W/kg

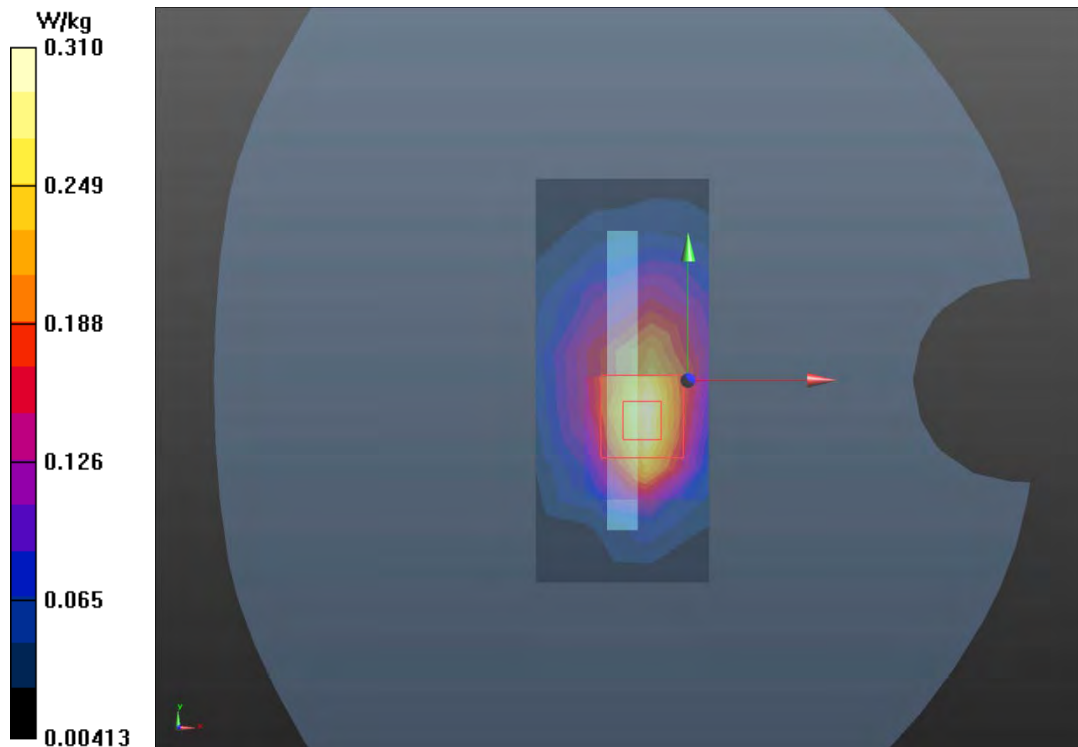
Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.97 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 0.664 W/kg

SAR(1 g) = 0.283 W/kg; SAR(10 g) = 0.149 W/kg

Maximum value of SAR (measured) = 0.310 W/kg



Plot 58 GSM 1900 Top Edge Middle (Distance 10mm)

Date: 2/23/2021

Communication System: UID 0, GPRS 4TX (0); Frequency: 1880 MHz; Duty Cycle: 1:2.07

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.42$ S/m; $\epsilon_r = 38.948$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Middle/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.516 W/kg

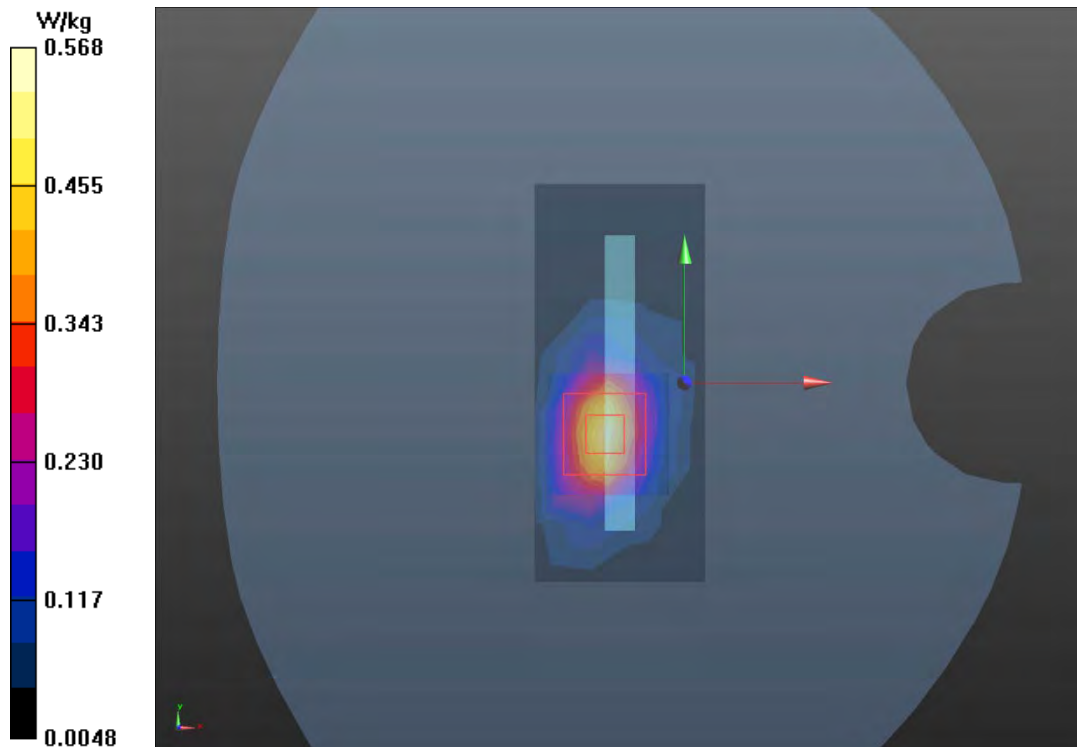
Top Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.22 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.960 W/kg

SAR(1 g) = 0.495 W/kg; SAR(10 g) = 0.235 W/kg

Maximum value of SAR (measured) = 0.568 W/kg



Plot 59 UMTS Band II Bottom Edge Middle (Distance 10mm)

Date: 2/24/2021

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.42$ S/m; $\epsilon_r = 38.948$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.294 W/kg

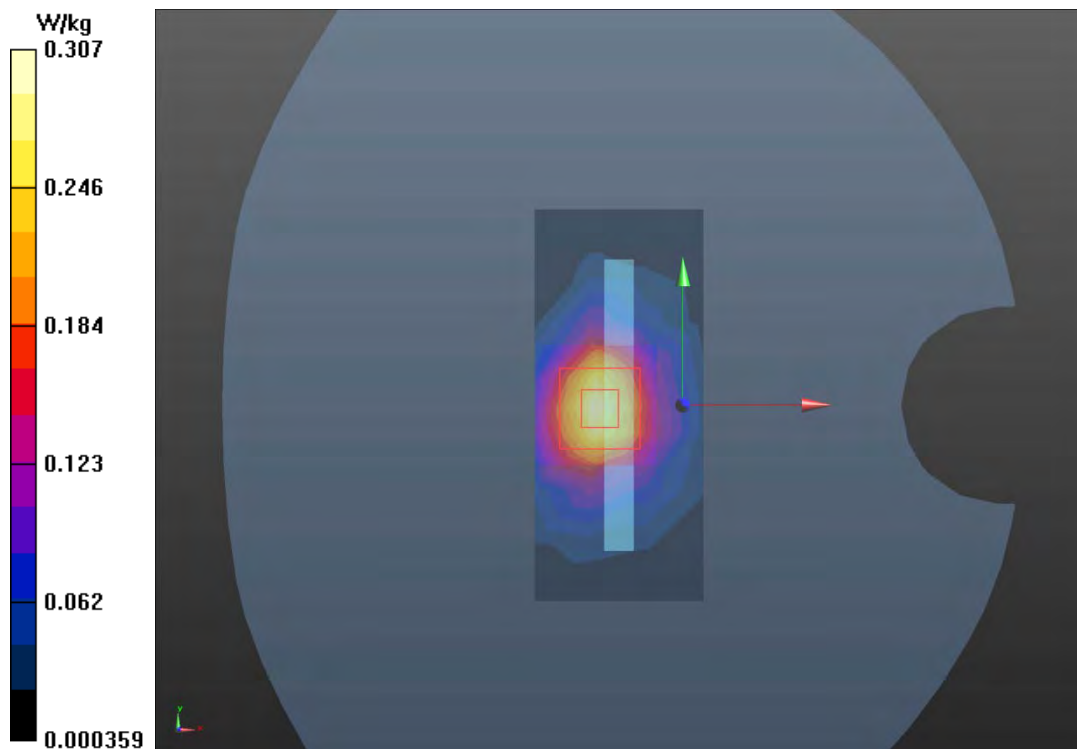
Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.539 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.628 W/kg

SAR(1 g) = 0.289 W/kg; SAR(10 g) = 0.154 W/kg

Maximum value of SAR (measured) = 0.307 W/kg



Plot 60 UMTS Band IV Bottom Edge Middle (Distance 10mm)

Date: 2/7/2021

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

Medium parameters used: $f = 1732.6$ MHz; $\sigma = 1.312$ S/m; $\epsilon_r = 39.365$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.346 W/kg

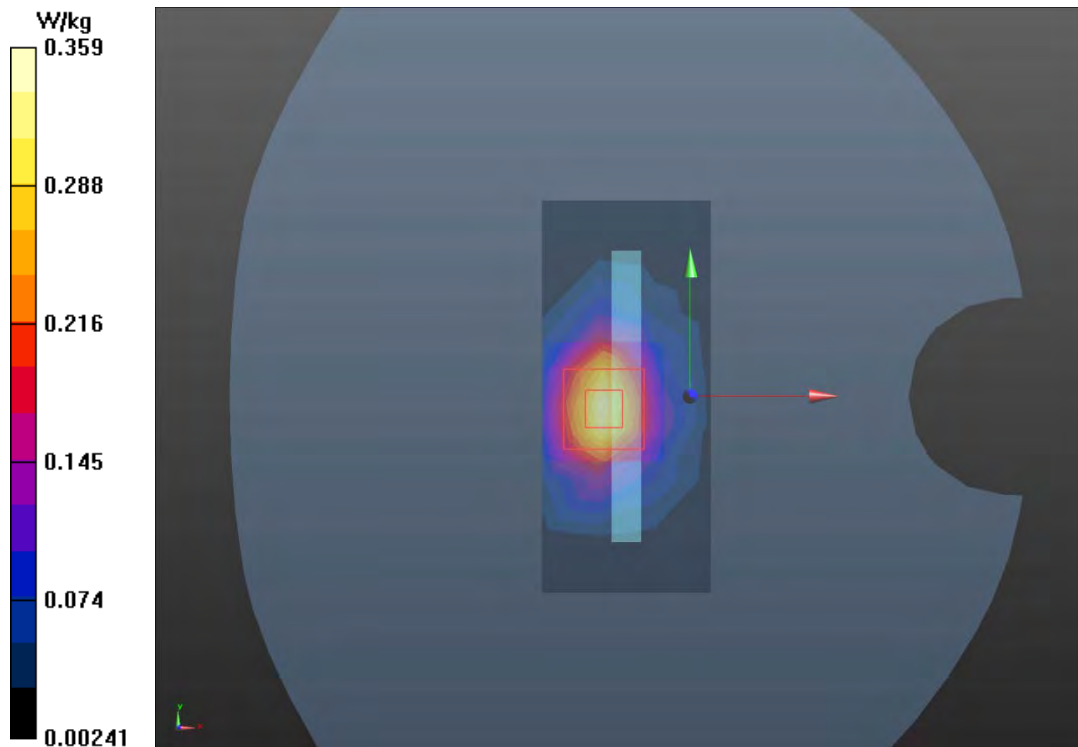
Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.70 V/m; Power Drift = 0.133 dB

Peak SAR (extrapolated) = 0.741 W/kg

SAR(1 g) = 0.327 W/kg; SAR(10 g) = 0.164 W/kg

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



Plot 61 UMTS Band V Bottom Edge Middle (Distance 10mm)

Date: 2/20/2021

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.923$ S/m; $\epsilon_r = 42.201$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.235 W/kg

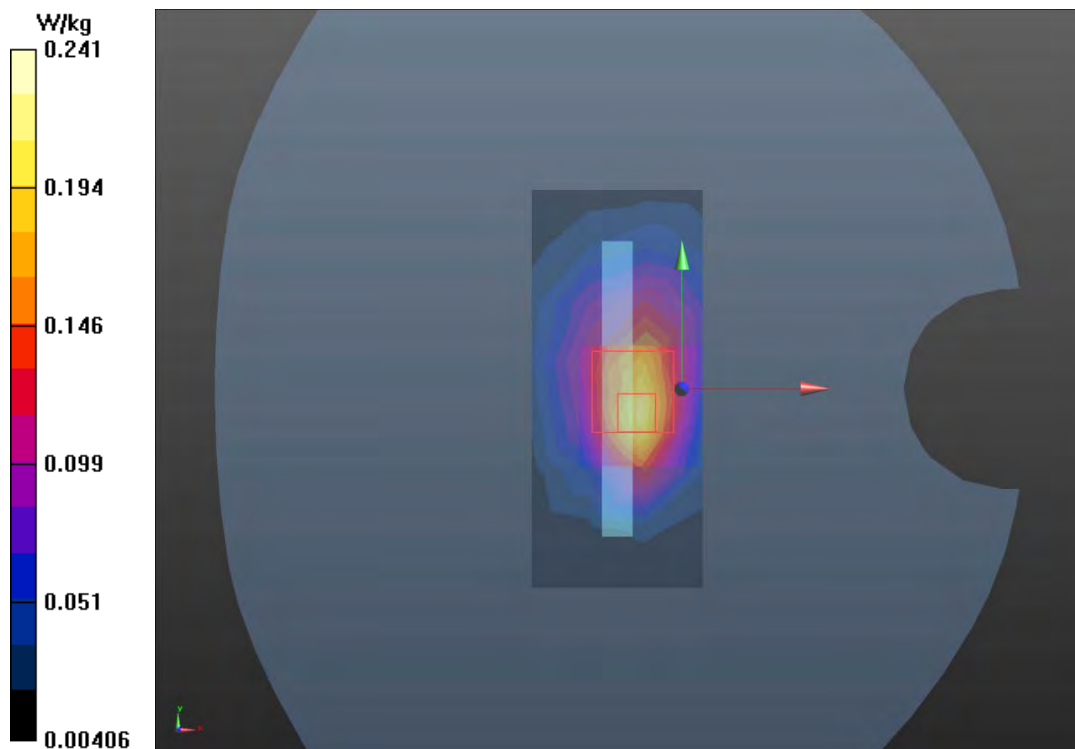
Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.27 V/m; Power Drift = 0.039 dB

Peak SAR (extrapolated) = 0.494 W/kg

SAR(1 g) = 0.220 W/kg; SAR(10 g) = 0.124 W/kg

Maximum value of SAR (measured) = 0.241 W/kg



Plot 62 LTE Band 2 1RB Bottom Edge High (Distance 10mm)

Date: 2/24/2021

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.434$ S/m; $\epsilon_r = 38.861$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge High/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.411 W/kg

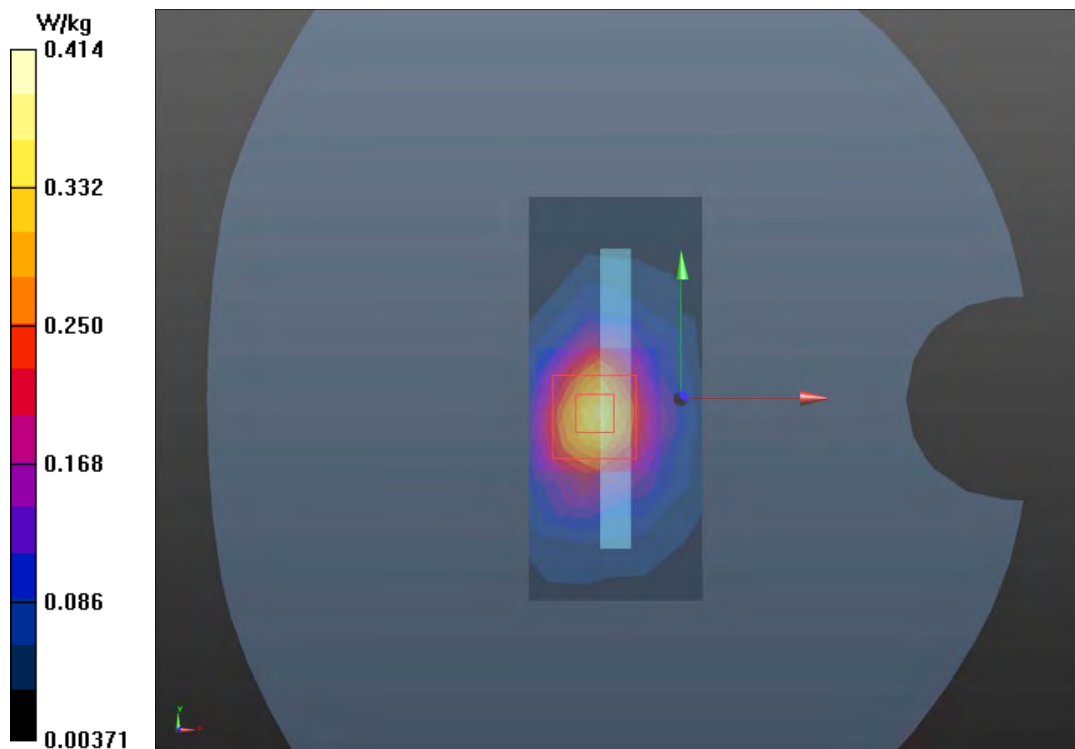
Bottom Edge High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.06 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.890 W/kg

SAR(1 g) = 0.408 W/kg; SAR(10 g) = 0.216 W/kg

Maximum value of SAR (measured) = 0.414 W/kg



Plot 63 LTE Band 4 1RB Bottom Edge Low (Distance 10mm)

Date: 2/7/2021

Communication System: UID 0, LTE (0); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.303$ S/m; $\epsilon_r = 39.467$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Low/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.362 W/kg

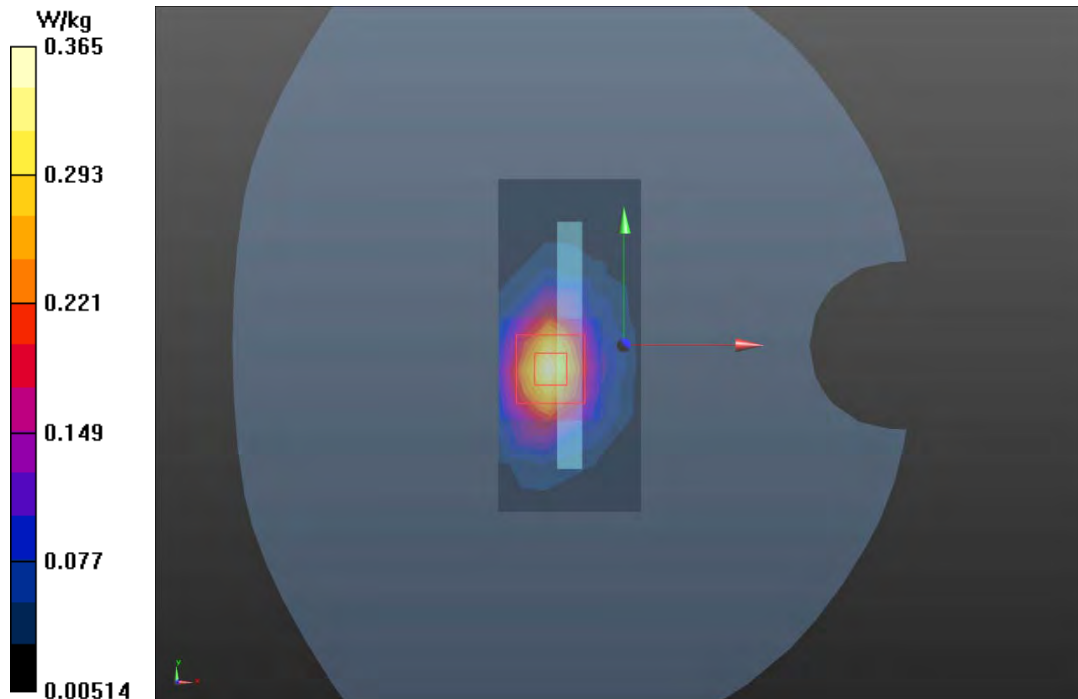
Bottom Edge Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.04 V/m; Power Drift = 0.026 dB

Peak SAR (extrapolated) = 0.551 W/kg

SAR(1 g) = 0.322 W/kg; SAR(10 g) = 0.172 W/kg

Maximum value of SAR (measured) = 0.365 W/kg



Plot 64 LTE Band 5 1RB Back Side High (Distance 10mm)

Date: 2/20/2021

Communication System: UID 0, LTE (0); Frequency: 844 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 844 \text{ MHz}$; $\sigma = 0.928 \text{ S/m}$; $\epsilon_r = 42.206$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: $22.3 \text{ }^\circ\text{C}$ Liquid Temperature: $21.5 \text{ }^\circ\text{C}$

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side High/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.283 W/kg

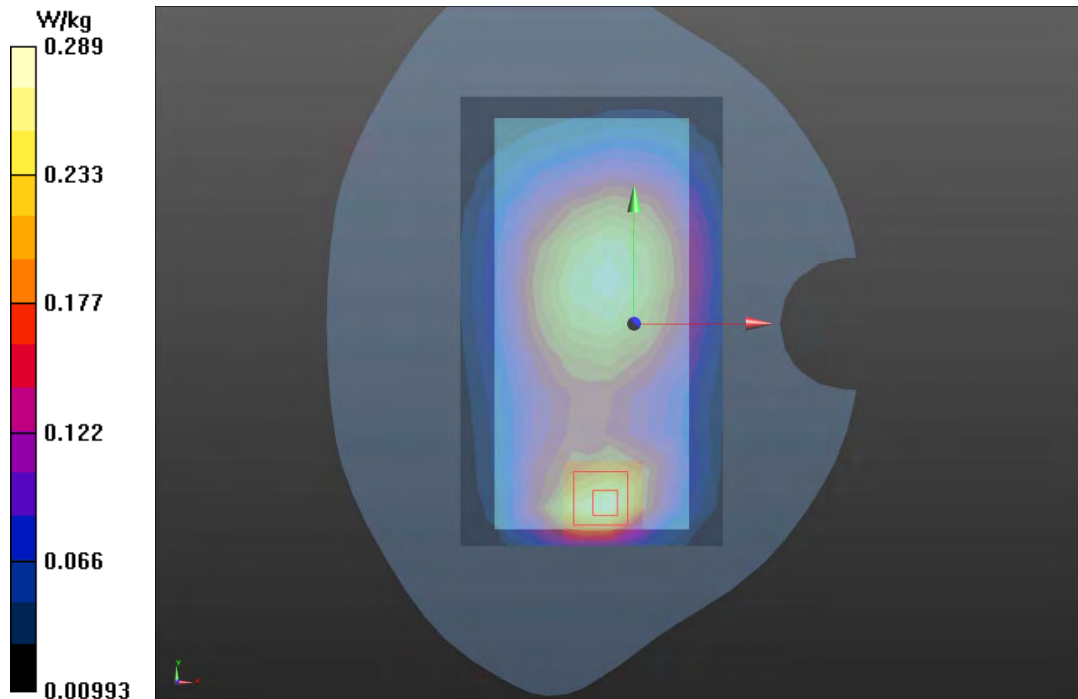
Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.42 V/m ; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.477 W/kg

SAR(1 g) = 0.278 W/kg ; SAR(10 g) = 0.164 W/kg

Maximum value of SAR (measured) = 0.289 W/kg



Plot 65 LTE Band 7 50%RB Top Edge Low/ (Distance 10mm)

Date: 2/27/2021

Communication System: UID 0, LTE (0); Frequency: 2510 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2510$ MHz; $\sigma = 1.876$ S/m; $\epsilon_r = 38.352$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Low/Area Scan (5x10x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.520 W/kg

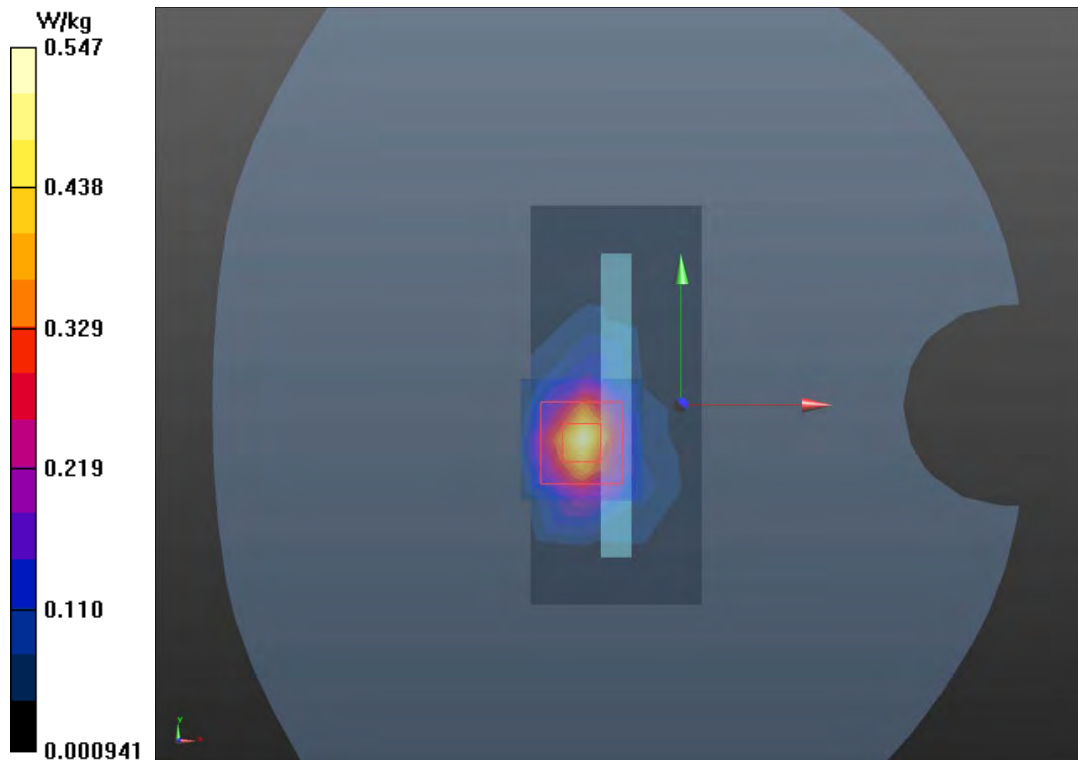
Top Edge Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.664 V/m; Power Drift = 0.108 dB

Peak SAR (extrapolated) = 1.14 W/kg

SAR(1 g) = 0.465 W/kg; SAR(10 g) = 0.186 W/kg

Maximum value of SAR (measured) = 0.547 W/kg



Plot 66 LTE Band 38 50%RB Front Side Middle (Distance 10mm)

Date: 2/28/2021

Communication System: UID 0, LTE (0); Frequency: 2595 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 2595$ MHz; $\sigma = 1.967$ S/m; $\epsilon_r = 38.845$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Front Side Middle/Area Scan (5x10x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.337 W/kg

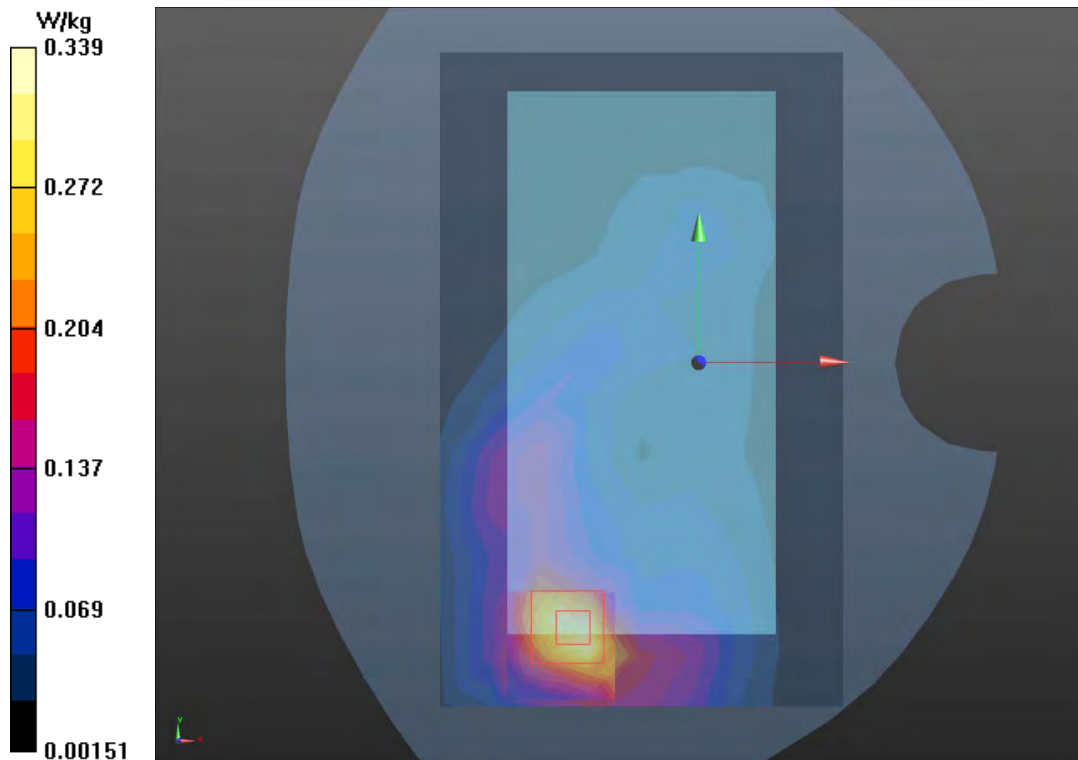
Front Side Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.501 V/m; Power Drift = 0.028 dB

Peak SAR (extrapolated) = 0.813 W/kg

SAR(1 g) = 0.333 W/kg; SAR(10 g) = 0.153 W/kg

Maximum value of SAR (measured) = 0.339 W/kg



Plot 67 LTE Band 41 50%RB Bottom Edge Middle (Distance 10mm)

Date: 2/29/2021

Communication System: UID 0, LTE (0); Frequency: 2598 MHz; Duty Cycle: 1:1.58

Medium parameters used: $f = 2598$ MHz; $\sigma = 1.971$ S/m; $\epsilon_r = 38.838$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Middle/Area Scan (5x10x1): Measurement grid: dx=12mm, dy=15mm

Maximum value of SAR (measured) = 0.562 W/kg

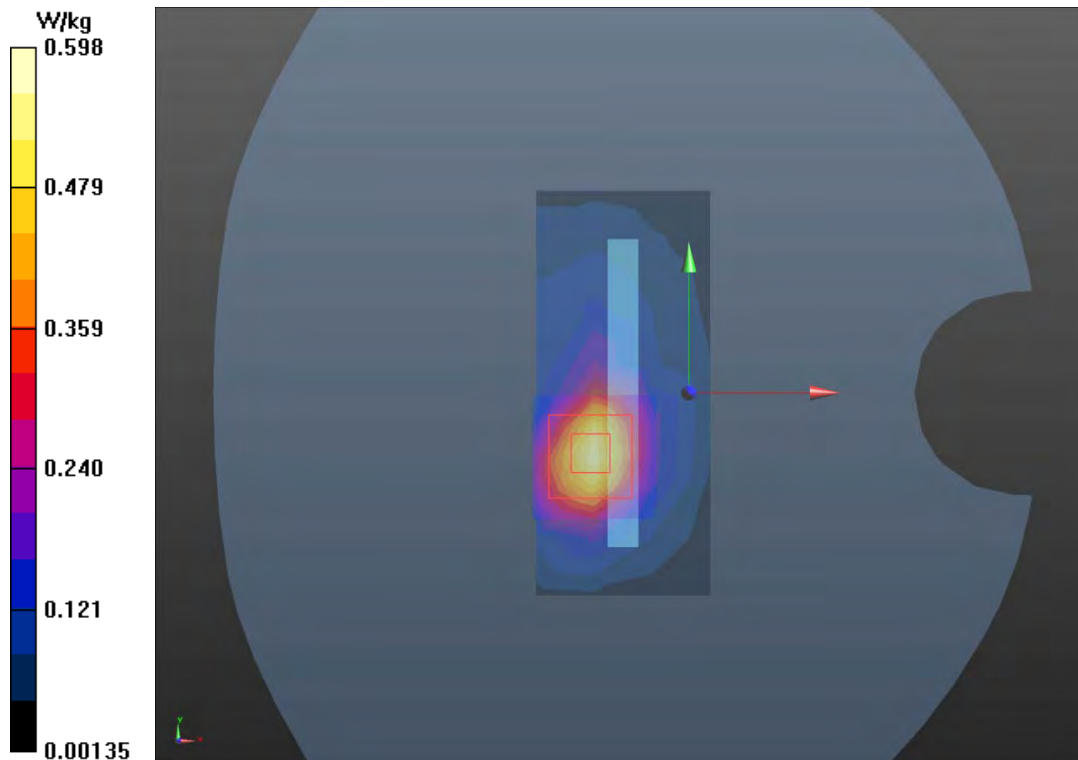
Bottom Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.11 V/m; Power Drift = 0.039 dB

Peak SAR (extrapolated) = 1.28 W/kg

SAR(1 g) = 0.539 W/kg; SAR(10 g) = 0.240 W/kg

Maximum value of SAR (measured) = 0.598 W/kg



Plot 68 Wi-Fi 2.4G Back Side Middle (Distance 10mm)

Date: 2/10/2021

Communication System: UID 0, 802.11b (0); Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.791$ S/m; $\epsilon_r = 39.401$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Back Side Middle/Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.317 W/kg

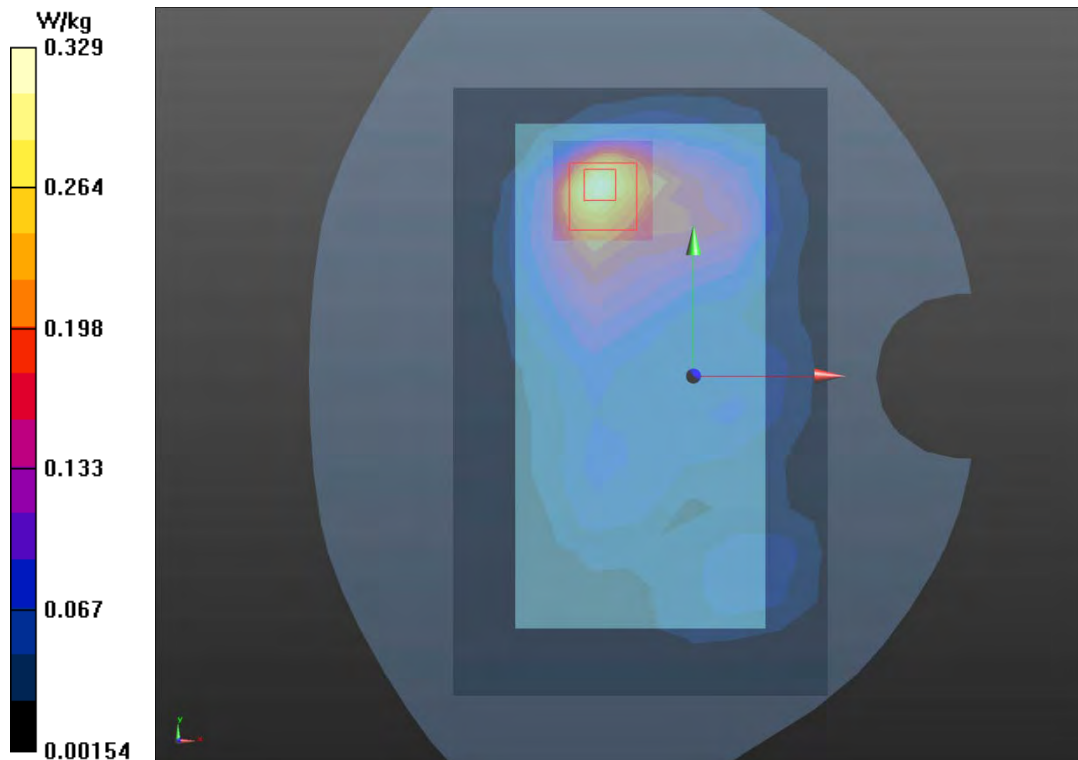
Back Side Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.666 V/m; Power Drift = 0.034 dB

Peak SAR (extrapolated) = 0.757 W/kg

SAR(1 g) = 0.308 W/kg; SAR(10 g) = 0.144 W/kg

Maximum value of SAR (measured) = 0.329 W/kg



Plot 69 802.11a U-NII-1 Top Edge High (Distance 10mm)

Date: 2/11/2021

Communication System: UID 0, 802.11a (0); Frequency: 5240 MHz; Duty Cycle: 1:1.03

Medium parameters used: $f = 5240$ MHz; $\sigma = 4.847$ S/m; $\epsilon_r = 36.872$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge High/Area Scan (12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.568 W/kg

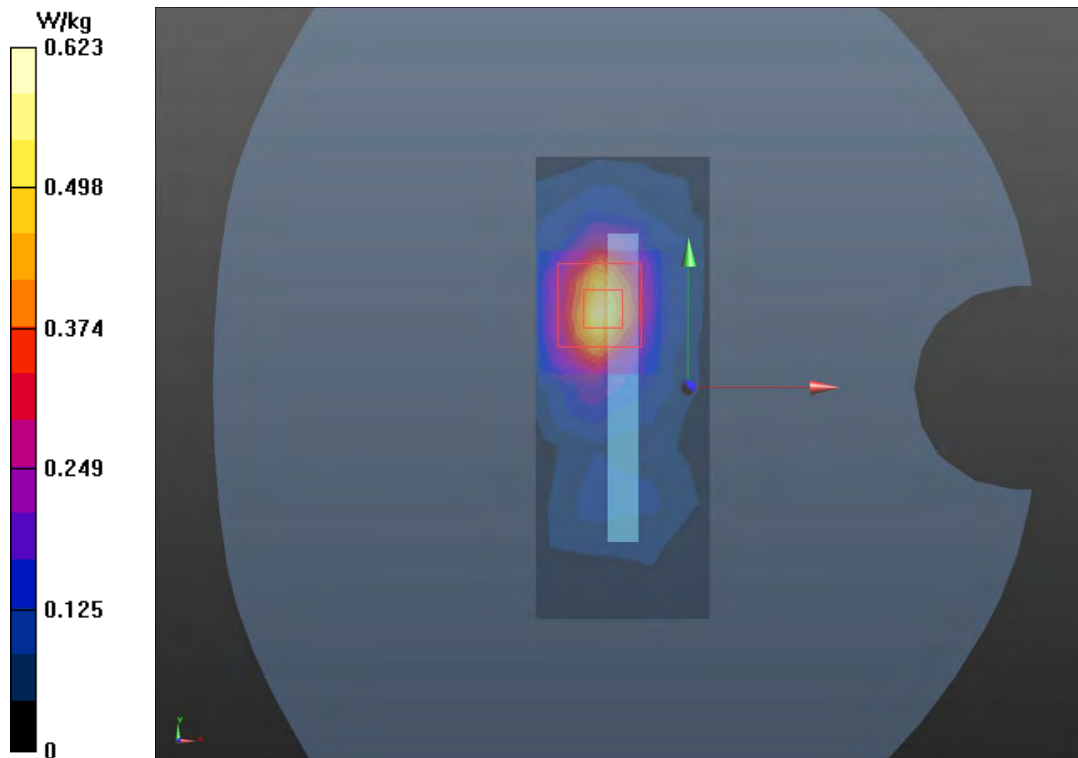
Top Edge High/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 6.626 V/m; Power Drift = 0.044 dB

Peak SAR (extrapolated) = 1.52 W/kg

SAR(1 g) = 0.522 W/kg; SAR(10 g) = 0.196 W/kg

Maximum value of SAR (measured) = 0.623 W/kg



Plot 70 802.11a U-NII-3 Top Edge Low (Distance 10mm)

Date: 2/12/2021

Communication System: UID 0, 802.11a (0); Frequency: 5745 MHz; Duty Cycle: 1:1.03

Medium parameters used: $f = 5745$ MHz; $\sigma = 5.22$ S/m; $\epsilon_r = 35.27$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Low/Area Scan (12x20x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.473 W/kg

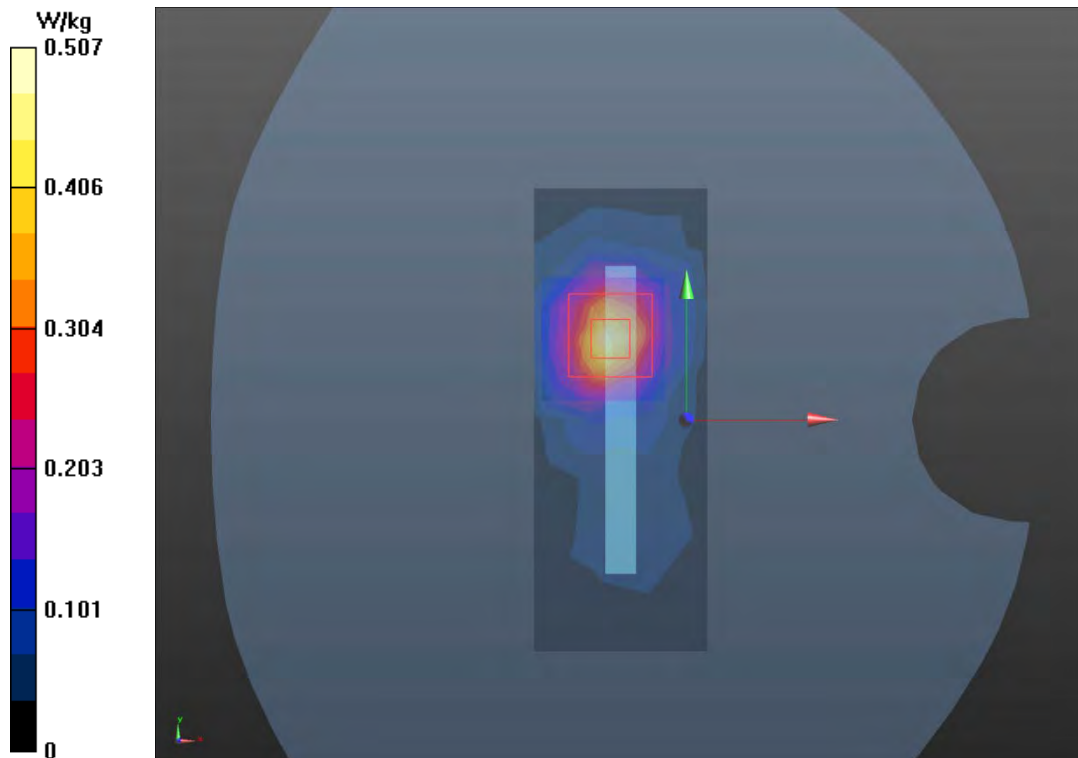
Top Edge Low/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 5.266 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.39 W/kg

SAR(1 g) = 0.439 W/kg; SAR(10 g) = 0.159 W/kg

Maximum value of SAR (measured) = 0.507 W/kg



Plot 71 BT Top Edge Middle (Distance 10mm)

Date: 2/10/2021

Communication System: UID 0, BT (0); Frequency: 2441 MHz; Duty Cycle: 1:1.32

Medium parameters used: $f = 2441$ MHz; $\sigma = 1.796$ S/m; $\epsilon_r = 39.386$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Middle/Area Scan (5x10x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.0134 W/kg

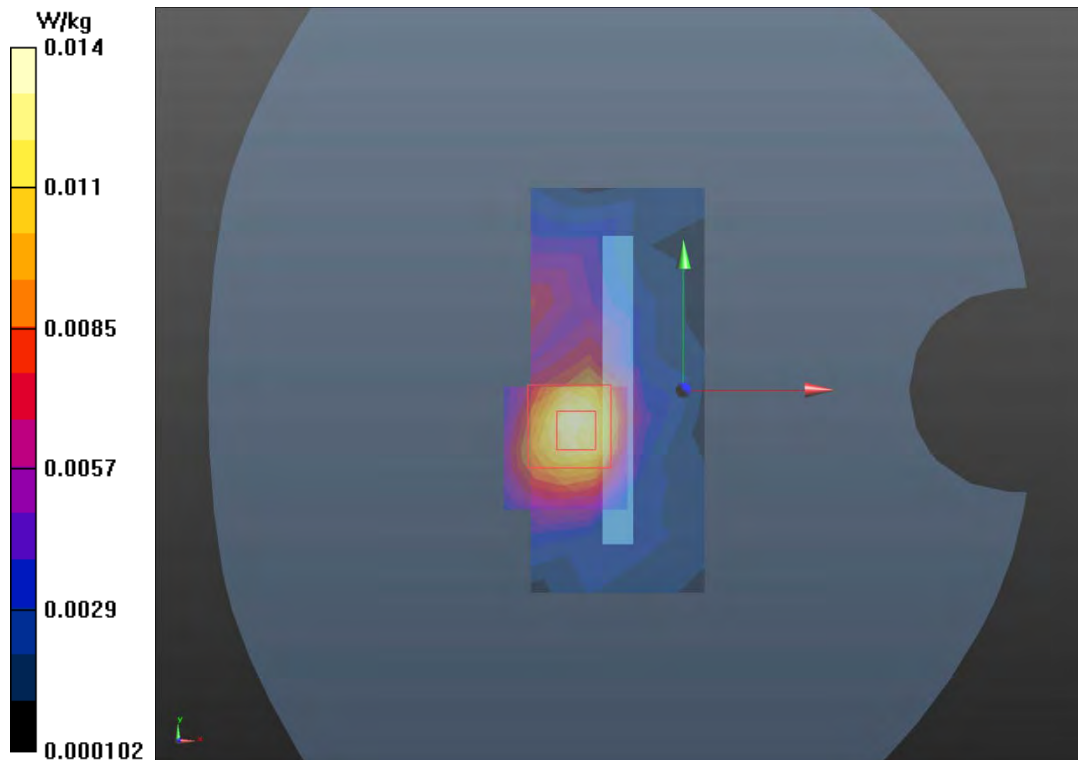
Top Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.592 V/m; Power Drift = 0.028 dB

Peak SAR (extrapolated) = 0.023 W/kg

SAR(1 g) = 0.013 W/kg; SAR(10 g) = 0.007 W/kg

Maximum value of SAR (measured) = 0.014 W/kg



Plot 72 UMTS Band II Top Edge Middle (Distance 0mm)

Date: 2/22/2021

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.42$ S/m; $\epsilon_r = 38.948$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Middle/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.71 W/kg

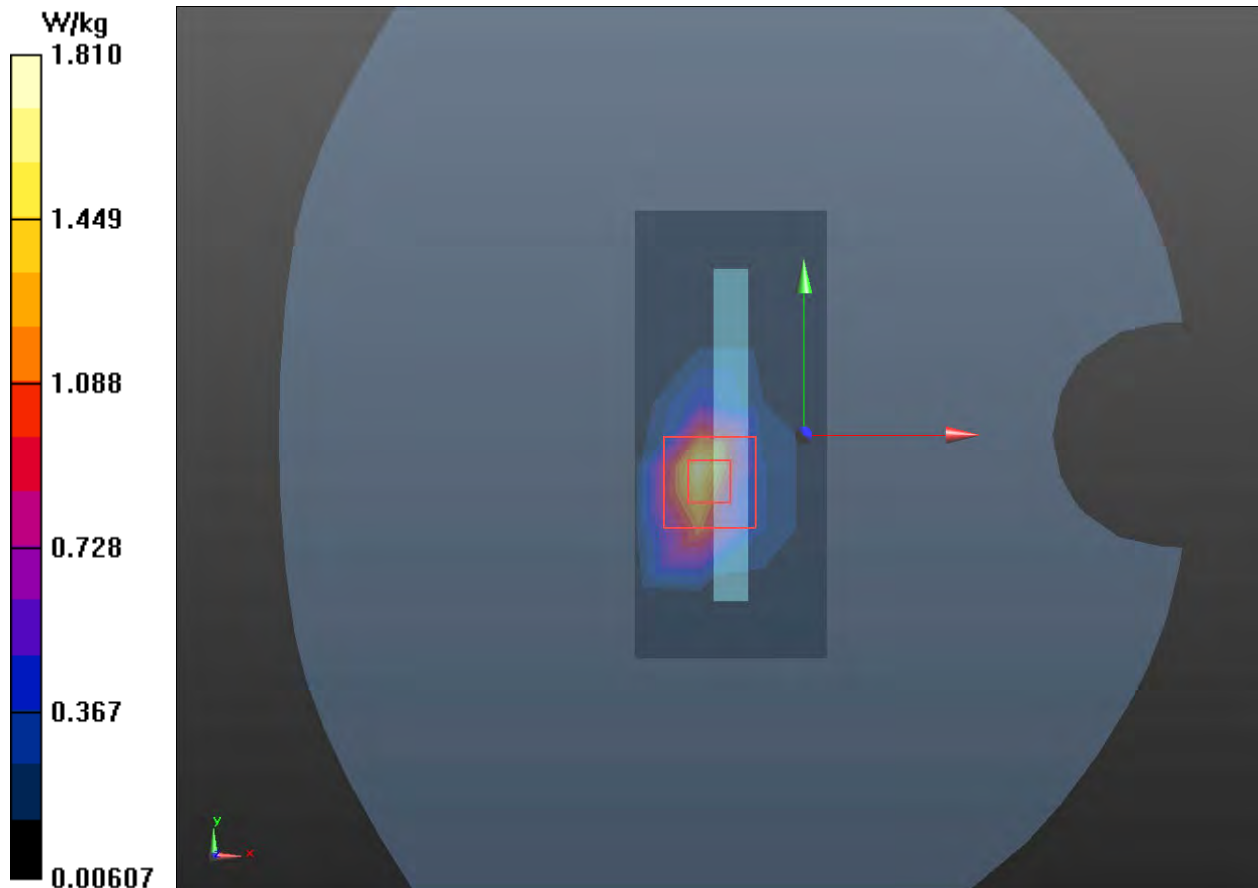
Top Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.01 V/m; Power Drift = 0.059 dB

Peak SAR (extrapolated) = 3.56 W/kg

SAR(1 g) = 1.65 W/kg; SAR(10 g) = 0.649 W/kg

Maximum value of SAR (measured) = 1.81 W/kg



Plot 73 UMTS Band IV Bottom Edge High (Distance 0mm)

Date: 2/22/2021

Communication System: UID 0, LTE (0); Frequency: 1732.6 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1732.6$ MHz; $\sigma = 1.434$ S/m; $\epsilon_r = 38.861$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge High/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.24 W/kg

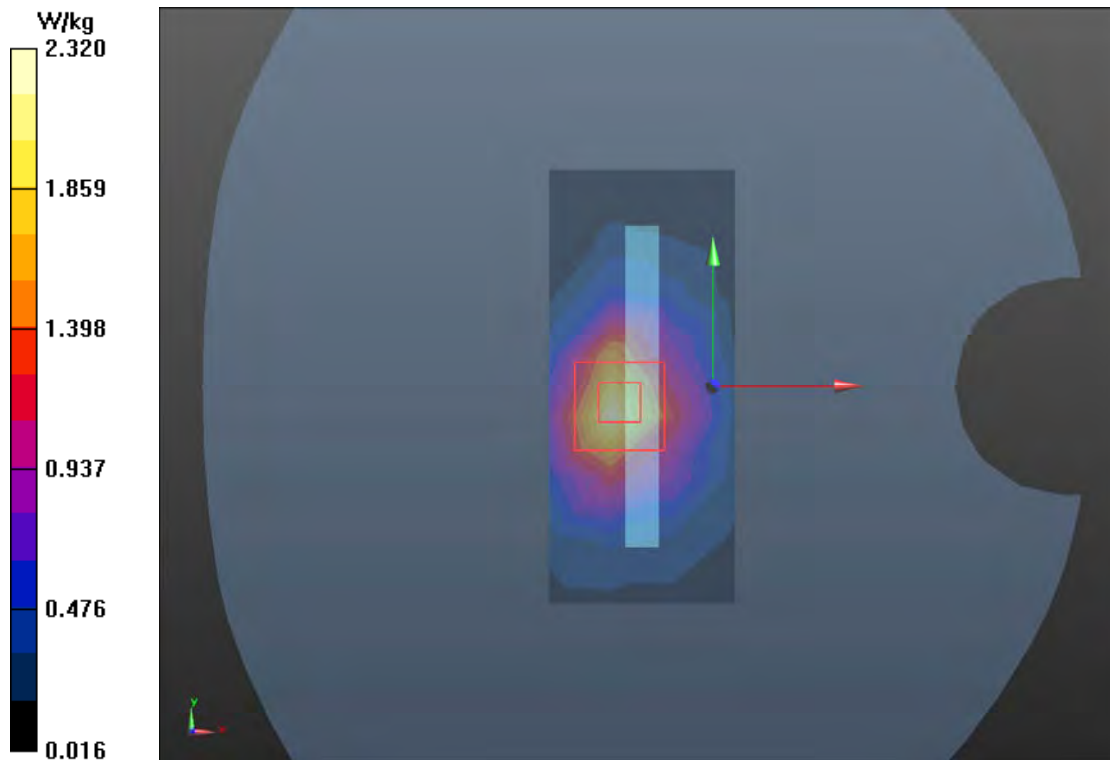
Bottom Edge High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 39.86 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 4.40 W/kg

SAR(1 g) = 2.17 W/kg; SAR(10 g) = 0.996 W/kg

Maximum value of SAR (measured) = 2.32 W/kg



Plot 74 LTE Band 2 Bottom Edge High (Distance 0mm)

Date: 2/9/2021

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.303$ S/m; $\epsilon_r = 39.467$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge High/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

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

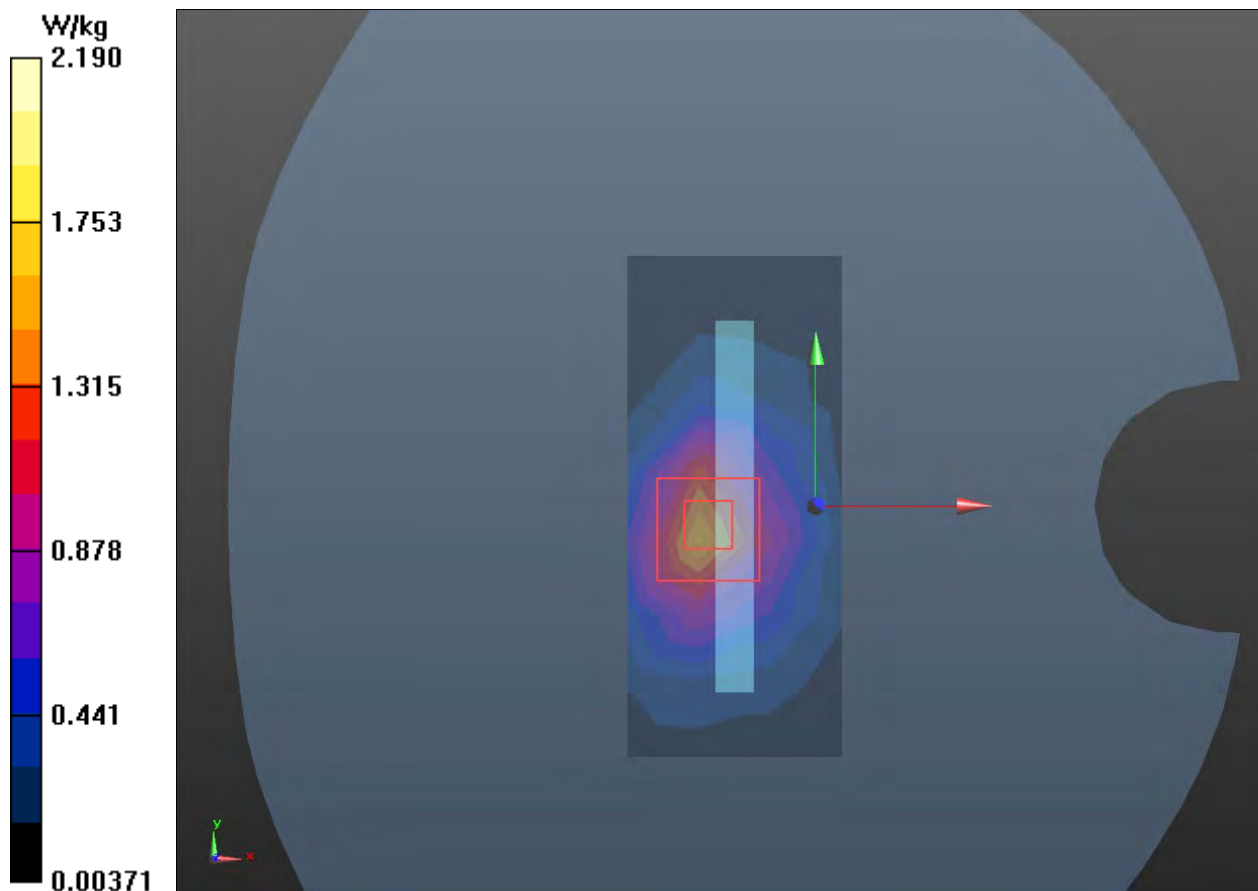
Bottom Edge High /Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.06 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 4.52 W/kg

SAR(1 g) = 2.04 W/kg; SAR(10 g) = 0.956 W/kg

Maximum value of SAR (measured) = 2.21 W/kg



Plot 75 LTE Band 4 Bottom Edge Low (Distance 0mm)

Communication System: UID 0, LTE (0); Frequency: 1720 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1720$ MHz; $\sigma = 1.303$ S/m; $\epsilon_r = 39.467$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Bottom Edge Low/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.11 W/kg

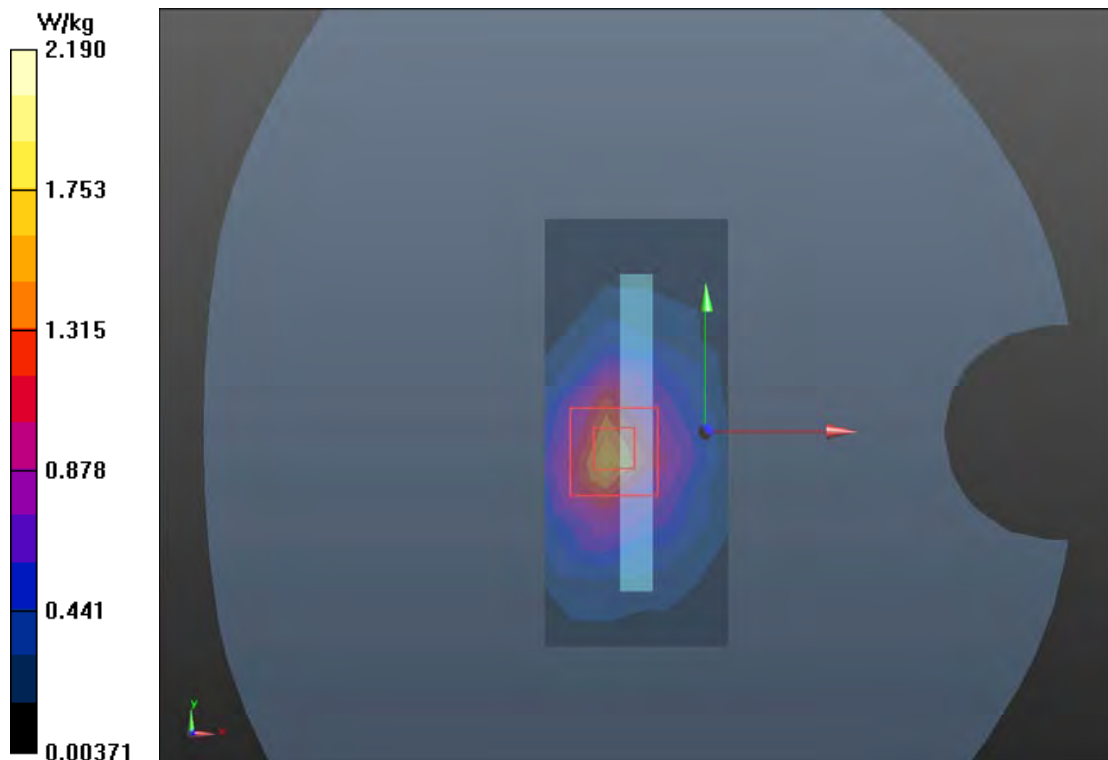
Bottom Edge Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.06 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 4.97 W/kg

SAR(1 g) = 2.06 W/kg; SAR(10 g) = 0.945 W/kg

Maximum value of SAR (measured) = 2.19 W/kg



Plot 76 802.11a U-NII-2A Top Edge Low (Distance 0mm)

Date: 2/11/2021

Communication System: UID 0, 802.11a (0); Frequency: 5260 MHz; Duty Cycle: 1:1.03

Medium parameters used: $f = 5260$ MHz; $\sigma = 4.808$ S/m; $\epsilon_r = 36.877$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Low/Area Scan (6x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 5.27 W/kg

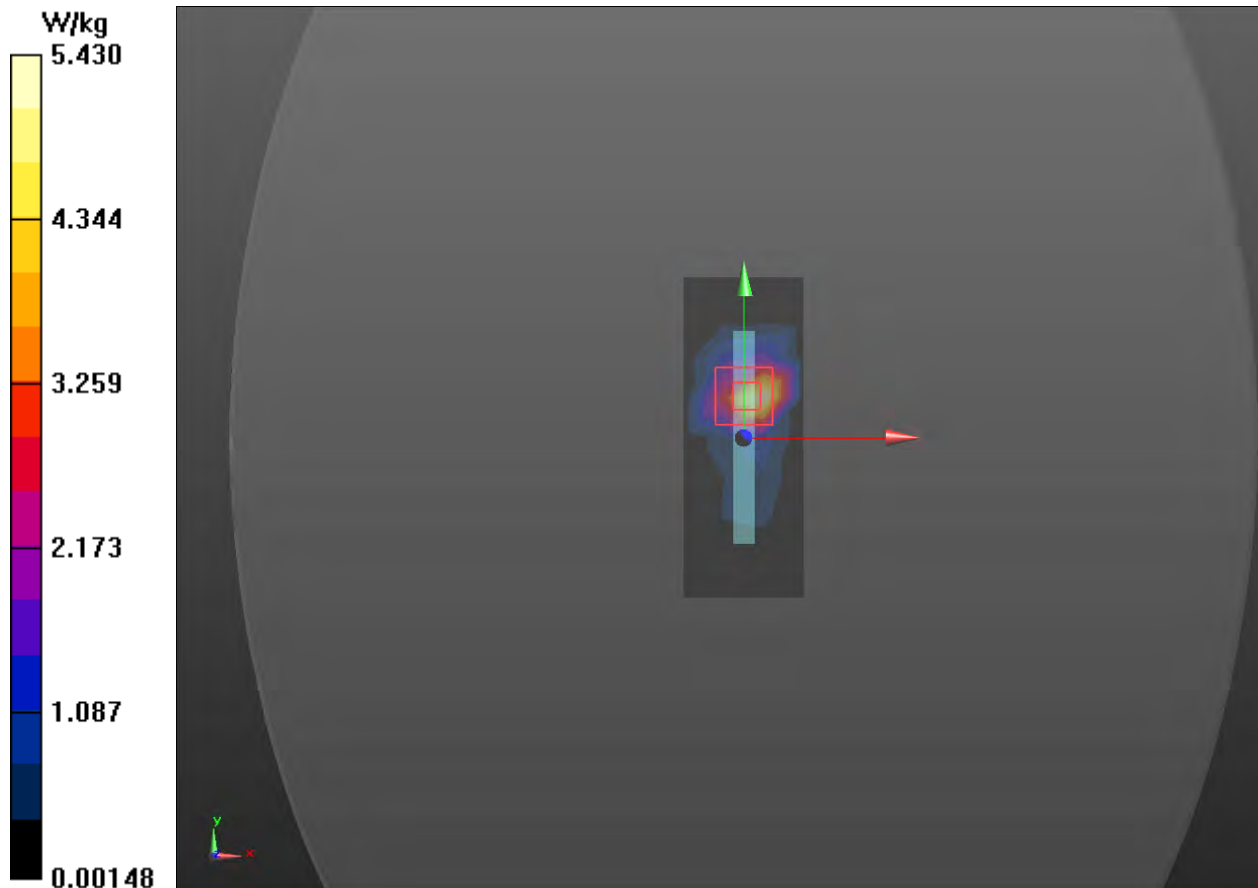
Top Edge Low/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 14.85 V/m; Power Drift = 0.046 dB

Peak SAR (extrapolated) = 10.7 W/kg

SAR(1 g) = 5.19 W/kg; SAR(10 g) = 1.20 W/kg

Maximum value of SAR (measured) = 5.43 W/kg



Plot 77 802.11a U-NII-2C Top Edge Low (Distance 0mm)

Date: 2/12/2021

Communication System: UID 0, 802.11a (0); Frequency: 5500 MHz; Duty Cycle: 1:1.03

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.183$ S/m; $\epsilon_r = 36.131$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.3 °C Liquid Temperature: 21.5 °C

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 SN1648; Calibrated: 1/15/2021

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

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Top Edge Low/Area Scan (6x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 5.95 W/kg

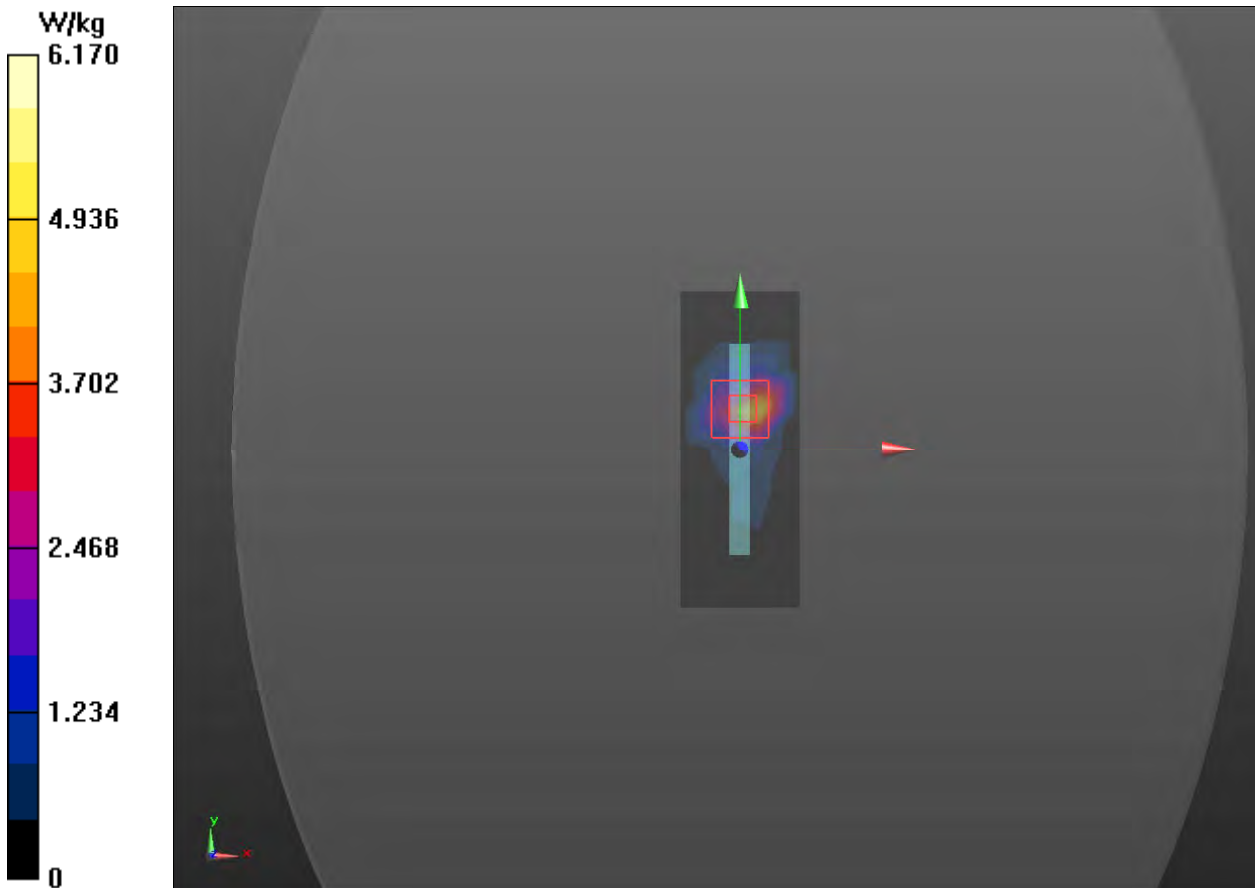
Top Edge Low/Zoom Scan(7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 10.25 V/m; Power Drift = -0.102 dB

Peak SAR (extrapolated) = 13.8 W/kg

SAR(1 g) = 5.84 W/kg; SAR(10 g) = 1.390 W/kg

Maximum value of SAR (measured) = 6.17 W/kg





ANNEX D: Probe Calibration Certificate (Original)



In Collaboration with
s p e a g
CALIBRATION LABORATORY



中国认可
国际互认
校准
CALIBRATION
CNAS L0570

Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China
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E-mail: cttl@chinattl.com Http://www.chinattl.cn

Client **TA(Shanghai)**Certificate No: **Z20-60218****CALIBRATION CERTIFICATE**Object **EX3DV4 - SN : 3677**Calibration Procedure(s)
FF-Z11-004-01
Calibration Procedures for Dosimetric E-field ProbesCalibration date: **July 06, 2020**

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	101919	16-Jun-20(CTTL, No.J20X04344)	Jun-21
Power sensor NRP-Z91	101547	16-Jun-20(CTTL, No.J20X04344)	Jun-21
Power sensor NRP-Z91	101548	16-Jun-20(CTTL, No.J20X04344)	Jun-21
Reference 10dBAttenuator	18N50W-10dB	10-Feb-20(CTTL, No.J20X00525)	Feb-22
Reference 20dBAttenuator	18N50W-20dB	10-Feb-20(CTTL, No.J20X00526)	Feb-22
Reference Probe EX3DV4	SN 3617	30-Jan-20(SPEAG, No.EX3-3617_Jan20/2)	Jan-21
DAE4	SN 1556	4-Feb-20(SPEAG, No.DAE4-1556_Feb20)	Feb-21
Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
SignalGenerator MG3700A	6201052605	23-Jun-20(CTTL, No.J20X04343)	Jun-21
Network Analyzer E5071C	MY46110673	10-Feb-20(CTTL, No.J20X00515)	Feb-21

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

Issued: July 08, 2020

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



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Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A,B,C,D	modulation dependent linearization parameters
Polarization Φ	Φ rotation around probe axis
Polarization θ	θ rotation around an axis that is in the plane normal to probe axis (at measurement center), i $\theta=0$ is normal to probe axis

Connector Angle information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

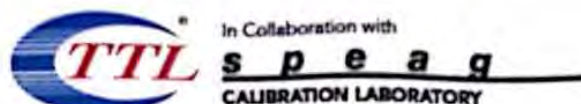
- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

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

Certificate No:Z20-60218

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DASY/EASY – Parameters of Probe: EX3DV4 – SN:3677

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm($\mu V/(V/m)^2$) ^A	0.41	0.46	0.40	±10.0%
DCP(mV) ^B	100.7	102.6	102.1	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB· μV	C	D dB	VR mV	Unc ^E (k=2)
0	CW	X	0.0	0.0	1.0	0.00	174.8	±2.0%
		Y	0.0	0.0	1.0		186.9	
		Z	0.0	0.0	1.0		173.5	

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

^A The uncertainties of Norm X, Y, Z do not affect the E²-field uncertainty inside TSL (see Page 4).

^B Numerical linearization parameter: uncertainty not required.

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.