SAR TEST REPORT

Applicant	Xiaomi Communications Co., Ltd.
FCC ID	2AFZZ3QAG
Product	Mobile Phone
Brand	Redmi
Model	220333QAG
Report No.	R2111A1052-S1V2
Issue Date	January 14, 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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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	January 7, 2022
Rev.1	Update description.	January 13, 2022
Rev.2	Update description.	January 14, 2022
Note: This revised report (Report No. R2111A1052-S1V2) supersedes and replaces the previously issued report (Report No. R2111A1052-S1V1). Please discard or destroy the previously issued report and dispose of it accordingly.		

1 Test Laboratory

1.1 Notes of the Test Report

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

1.2 Test facility

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

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

Company:	TA Technology (Shanghai) Co., Ltd.
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City:	Shanghai
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1.4 Laboratory Environment

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

2 Statement of Compliance

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

Table 1: Highest Reported SAR

Mode	Highest Reported SAR (W/kg)		
	1g SAR Head	1g SAR Body	Product Specific 10-g SAR
GSM 850	0.80	0.52	NA
GSM 1900	0.59	0.69	NA
WCDMA Band II	0.66	0.69	1.91
WCDMA Band IV	0.65	**1.02**	2.00
WCDMA Band V	0.69	0.43	NA
LTE FDD 2	0.72	0.88	1.65
LTE FDD 4	0.80	0.83	**2.20**
LTE FDD 5	**0.96**	0.42	NA
LTE FDD 7	0.91	0.84	1.48
LTE TDD 38	0.67	0.59	NA
LTE TDD 41	0.62	0.52	NA
Wi-Fi (2.4G)	0.45	0.44	NA
Wi-Fi (5G)	0.70	0.78	1.65
BT	0.14	0.19	NA
Date of Testing: December 13, 2021 ~December 27, 2021 Date of Sample Received: December 9, 2021			
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	Product Specific 10-g SAR
Highest Simultaneous Transmission SAR (W/kg)	1.52	1.59	3.79
Note: The detail for simultaneous transmission consideration is described in chapter 10.4.			

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	Original Grant
EUT Stage	Identical Prototype
Model	220333QAG
IMEI	IMEI 1: 860223060023469 IMEI 2: 860223060023477
Hardware Version	P1.1
Software Version	MIUI13
Antenna Type	PIFA Antenna for WWAN Fixed Internal Antenna for Bluetooth/ Wi-Fi
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 2/4/5/7/12: 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)	☐Multi-slot Class:8-1UP ☐Multi-slot Class:10-2UP ☒Multi-slot Class:12-4UP ☐Multi-slot Class:33-4UP	824 ~ 849
	1900			1850 ~ 1910
	Does this device support DTM (Dual Transfer Mode)? ☐Yes ☒No			
UMTS	Band II	QPSK, 16QAM	HSDPA UE Category:24 HSUPA UE Category:6	1850 ~ 1910
	Band IV			1710 ~ 1755
	Band V			824 ~ 849
LTE	FDD 2	QPSK, 16QAM, 64QAM	Category 5	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 SV-LTE (1xRTT-LTE)? ☐Yes ☒No			
BT	2.4G	Version 5.0 BR/EDR + 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 ~ 5350 5470 ~ 5850
	Does this device support MIMO ☐Yes☒No			

4 Test Specification, Methods and Procedures

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

IEC 62209-1

Reference Standards

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

5 Operational Conditions during Test

5.1 Test Positions

5.1.1 Against Phantom Head

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

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

5.1.2 Body Worn Configuration

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

Per FCC KDB Publication 648474 D04, Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB Publication 447498 D01 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

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

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

5.1.3 Phablet SAR test considerations

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

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

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

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

5.2 Measurement Variability

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

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

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

5.3 Test Configuration

5.3.1 GSM Test Configuration

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

Output power of reductions:

Table 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 (βc, βd), and HS-DPCCH power offset parameters (ΔACK, ΔNACK, ΔCQI) should be set according to values indicated in the Table below. The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the H-set.

Table 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 Δ_{CQI}= 8⇔A_{hs} = β_{hs}/β_c=30/15⇔β_{hs}=30/15*β_c

Note 2: CM=1 for β_c/β_d =12/15, β_{hs}/β_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 β_c=11/15 and β_d=15/15.

5.3.2.5 Release 6 HSUPA Test Configuration

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body-worn accessory configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures in the “Release 6 HSPA Data Devices” section of this document, for the highest body-worn accessory exposure SAR configuration in 12.2 kbps RMC.
When VOIP is applicable for next to the ear head exposure in HSPA, the 3G SAR test reduction procedure is applied to HSPA with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body-worn accessory measurements is tested for next to the ear head exposure.
Due to inner loop power control requirements in HSPA, a communication test set is required for output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSPA are configured according to the β values indicated in Table 2 and other applicable procedures described in the ‘WCDMA EUT’ and ‘Release 5 HSDPA Data Devices’ sections of this document

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

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

Note 1: Δ_{ACK}, ΔNACK and Δ_{CQI} = 8 $\Leftrightarrow$ A_{hs} = β_{hs}/β_c = 30/15 $\Leftrightarrow\beta_{hs}$= 30/15 *$\beta_c$.
Note 2: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c =24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.
Note 3: For subtest 1 the 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 β_c = 10/15 and β_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 β_c = 14/15 and β_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 SF4	11484	5.76
	4	4	10		20000	2.00
7 (No DPDCH)	4	8	2	2 SF2 & 2 SF4	22996	?
	4	4	10		20000	?
NOTE: When 4 codes are transmitted in parallel, two codes shall be transmitted with SF2 and two with SF4. UE Categories 1 to 6 supports QPSK only. UE Category 7 supports QPSK and 16QAM. (TS25.306-7.3.0)						

5.3.2.6 HSPA 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 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. 6 HSPA; otherwise, the 3G SAR test reduction procedure is applied to (uplink) HSPA+ with 12.2 kbps RMC as the primary mode.

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 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		
Category 12	5	1	3630	28800			
Category 13	15	1	35280	259200	QPSK, 16QAM, 64QAM		
Category 14	15	1	42192	259200			
Category 15	15	1	23370	345600	QPSK, 16QAM		
Category 16	15	1	27952	345600			
Category 17 NOTE 2	15	1	35280	259200	QPSK, 16QAM, 64QAM	–	
			23370	345600	–	QPSK, 16QAM	
Category 18 NOTE 3	15	1	42192	259200	QPSK, 16QAM, 64QAM	–	
			27952	345600	–	QPSK, 16QAM	
Category 19	15	1	35280	518400	QPSK, 16QAM, 64QAM		
Category 20	15	1	42192	518400			
Category 21	15	1	23370	345600	-	-	QPSK, 16QAM
Category 22	15	1	27952	345600			
Category 23	15	1	35280	518400			QPSK, 16QAM, 64QAM
Category 24	15	1	42192	518400			

5.3.3 LTE Test Configuration

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

A) Spectrum Plots for RB Configurations

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

B) MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to

3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

C) A-MPR

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

D) Largest channel bandwidth standalone SAR test requirements

1) QPSK with 1 RB allocation

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

2) QPSK with 50% RB allocation

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

3) QPSK with 100% RB allocation

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

4) Higher order modulations

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

E) Other channel bandwidth standalone SAR test requirements

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

5.3.4 Additional requirements for TDD LTE specification

For Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

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

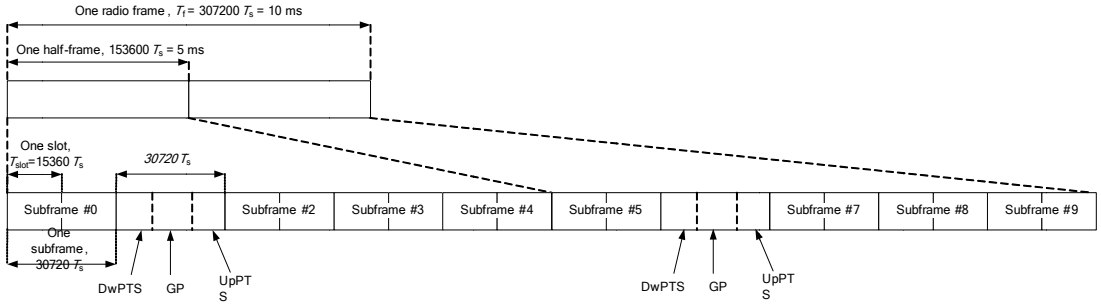


Figure 1: Frame structure type 2

Table 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	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Table 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:

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

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

Uplink Component = UpPTS

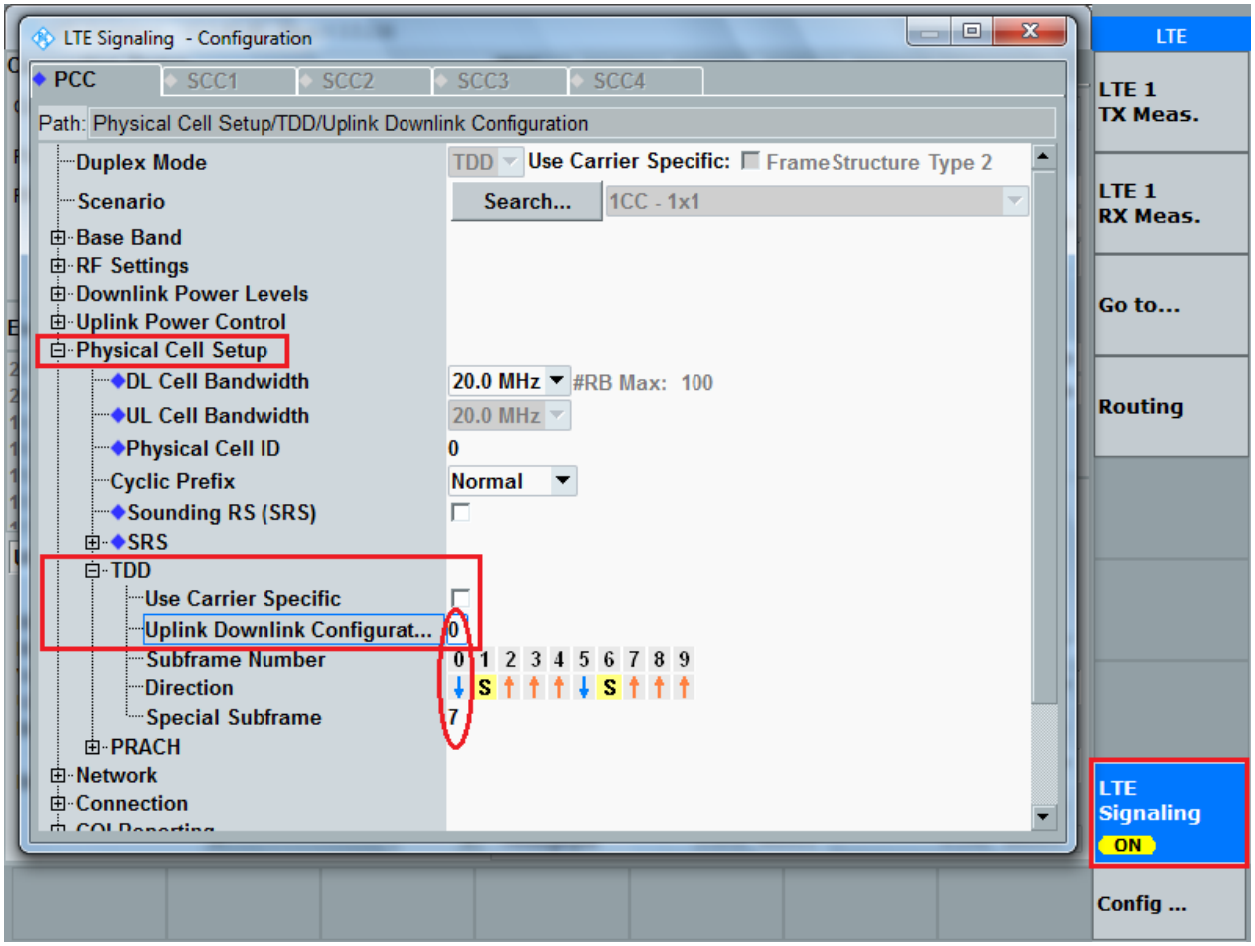
In conclusion, for the TDD LTE Band, Duty Cycle can be calculated with formula as below. All these sets are ok when we test, or we can set as below.

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

And we can get different Duty cycles under different configurations:

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

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



5.3.5 Wi-Fi Test Configuration

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

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

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

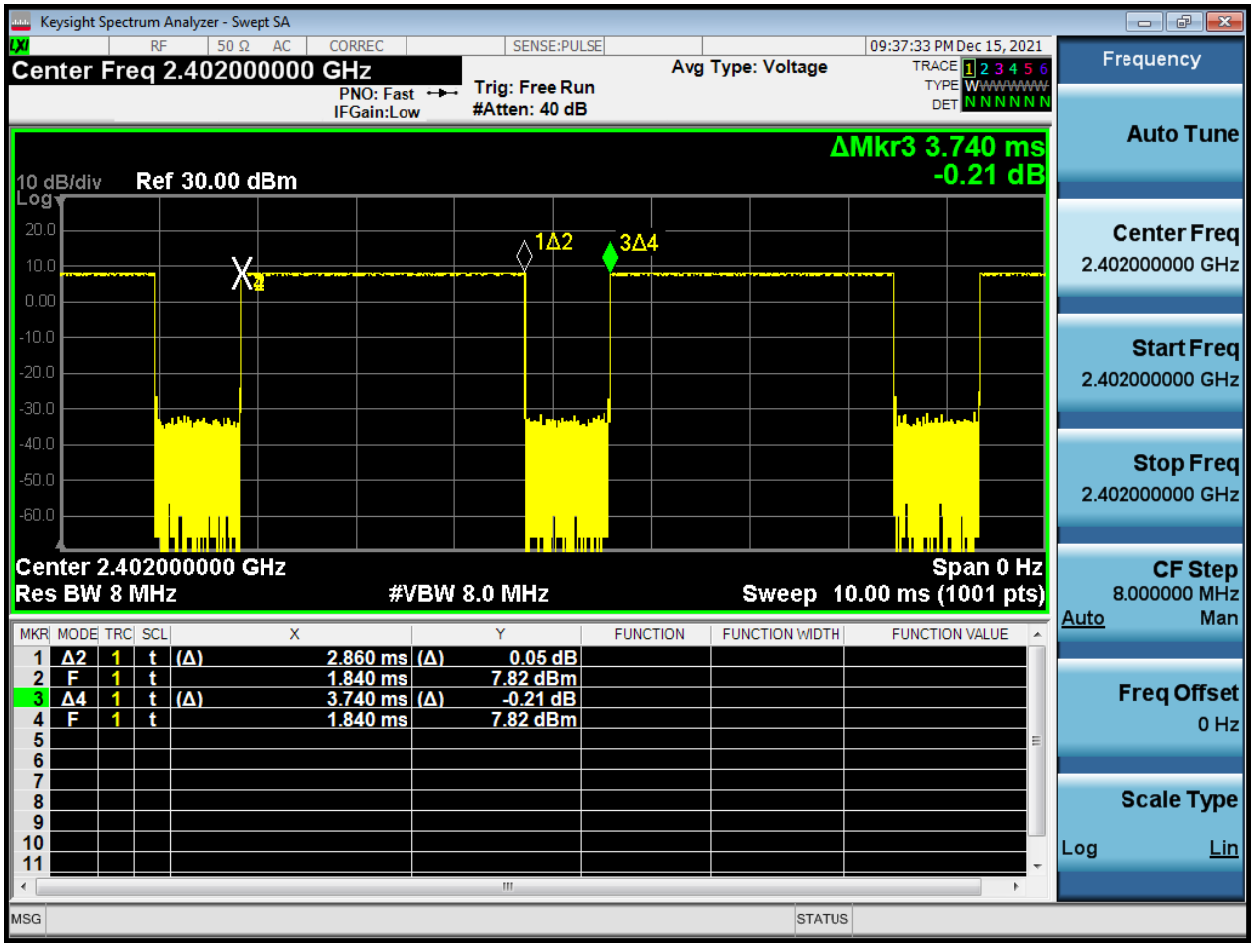
To determine the initial test position, Area Scans were performed to determine the position with the Maximum Value of SAR (measured). The position that produced the highest Maximum Value of SAR is considered the worst case position; thus used as the initial test position.

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

5.3.6 BT Test Configuration

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

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



Note: Duty factor= Ton (ms)/ T(on+off) (ms)=2.860/3.740=76.5%

5.3.7 Proximity sensor Configuration

Due to the operating configurations and exposure conditions required by the device, the proximity sensor is used to indicate when the device is held close to a user's body exposure condition. It utilizes the proximity sensor to reduce the output power in specific wireless and operating modes of Low Antenna and Upper Antenna to ensure SAR compliance. It is also set an output power leveled to the lowest one to make sure that in any case of SAR sensor hardware failure, the SAR requirements can still be satisfied.

The following tables summarize the key power reduction information for proximity sensor. The test procedures be applied to determine proximity sensor triggering distances, and sensor coverage for normal and tilt positions. To ensure all production units are compliant, it is generally necessary to reduce the triggering distance determined from the triggering tests by 1 mm, or more if it is necessary, and use the smallest distance for movements to and from the phantom, minus 1 mm, as the sensor triggering distance for determining the SAR measurement distance.

Low Antenna				
Band	Test position	Sensor Trigger Distance range (DUT to Phantom)	Power reduction amount (dB)	Power level
UMTS B2	Back side	0mm≤distance≤22mm	4.5	DSI-4
		22mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	4.5	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	/	0	DSI-2
	Bottom Edge	0mm≤distance≤24mm	4.5	DSI-4
		24mm<distance	0	DSI-2
UMTS B4	Back side	0mm≤distance≤22mm	4	DSI-4
		22mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	4	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	/	0	DSI-2
	Bottom Edge	0mm≤distance≤24mm	4	DSI-4
		24mm<distance	0	DSI-2
UMTS B5	Back side	0mm≤distance≤22mm	1	DSI-4
		22mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	1	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	/	0	DSI-2

	Bottom Edge	0mm≤distance≤24mm	1	DSI-4
		24mm<distance	0	DSI-2
LTE B2	Back side	0mm≤distance≤22mm	4.5	DSI-4
		22mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	4.5	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	/	0	DSI-2
	Bottom Edge	0mm≤distance≤24mm	4.5	DSI-4
		24mm<distance	0	DSI-2
LTE B4	Back side	0mm≤distance≤22mm	4	DSI-4
		22mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	4	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	/	0	DSI-2
	Bottom Edge	0mm≤distance≤24mm	4	DSI-4
		24mm<distance	0	DSI-2
LTE B5	Back side	0mm≤distance≤22mm	0.5	DSI-4
		22mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	0.5	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	/	0	DSI-2
	Bottom Edge	0mm≤distance≤24mm	0.5	DSI-4
		24mm<distance	0	DSI-2
LTE B7	Back side	0mm≤distance≤22mm	6	DSI-4
		22mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	6	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	/	0	DSI-2
	Bottom Edge	0mm≤distance≤24mm	6	DSI-4
		24mm<distance	0	DSI-2
LTE B38	Back side	0mm≤distance≤22mm	2.5	DSI-4
		22mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	2.5	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2

	Right edge	/	0	DSI-2
	Top edge	/	0	DSI-2
	Bottom Edge	0mm≤distance≤24mm	2.5	DSI-4
		24mm<distance	0	DSI-2
LTE B41	Back side	0mm≤distance≤22mm	1	DSI-4
		22mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	1	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	/	0	DSI-2
	Bottom Edge	0mm≤distance≤24mm	1	DSI-4
		24mm<distance	0	DSI-2
Upper Antenna				
Band	Test position	Sensor Trigger Distance range (DUT to Phantom)	Power reduction amount(dB)	Power level
GSM 1900	Back side	0mm≤distance≤18mm	3.5	DSI-4
		18mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	3.5	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	0mm≤distance≤18mm	3.5	DSI-4
		18mm<distance	0	DSI-2
	Bottom edge	/	0	DSI-2
WCDMA B2	Back side	0mm≤distance≤18mm	6.5	DSI-4
		18mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	6.5	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	0mm≤distance≤18mm	6.5	DSI-4
		18mm<distance	0	DSI-2
	Bottom edge	/	0	DSI-2
WCDMA B4	Back side	0mm≤distance≤18mm	6	DSI-4
		18mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	6	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	0mm≤distance≤18mm	6	DSI-4
		18mm<distance	0	DSI-2
	Bottom edge	/	0	DSI-2

WCDMA B5	Back side	0mm≤distance≤18mm	1	DSI-4
		18mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	1	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	0mm≤distance≤18mm	1	DSI-4
		18mm<distance	0	DSI-2
	Bottom edge	/	0	DSI-2
LTE B2	Back side	0mm≤distance≤18mm	5.5	DSI-4
		18mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	5.5	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	0mm≤distance≤18mm	5.5	DSI-4
		18mm<distance	0	DSI-2
	Bottom edge	/	0	DSI-2
LTE B4	Back side	0mm≤distance≤18mm	5.5	DSI-4
		18mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	5.5	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	0mm≤distance≤18mm	5.5	DSI-4
		18mm<distance	0	DSI-2
	Bottom edge	/	0	DSI-2
LTE B5	Back side	0mm≤distance≤18mm	0.5	DSI-4
		18mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	0.5	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	0mm≤distance≤18mm	0.5	DSI-4
		18mm<distance	0	DSI-2
	Bottom edge	/	0	DSI-2
LTE B7	Back side	0mm≤distance≤18mm	3.5	DSI-4
		18mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	3.5	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	0mm≤distance≤18mm	3.5	DSI-4

		18mm<distance	0	DSI-2
	Bottom edge	/	0	DSI-2
LTE B38	Back side	0mm≤distance≤18mm	1	DSI-4
		18mm<distance	0	DSI-2
	Front side	0mm≤distance≤11mm	1	DSI-4
		11mm<distance	0	DSI-2
	Left edge	/	0	DSI-2
	Right edge	/	0	DSI-2
	Top edge	0mm≤distance≤18mm	1	DSI-4
		18mm<distance	0	DSI-2
	Bottom edge	/	0	DSI-2

Note:

To ensure all production units are compliant, the smallest separation distance determined by the sensor triggering and sensor coverage for normal and tit positions for all usage conditions and applicable sides, minus 1 mm, must be used as the test separation distance for additional SAR testing of each higher power stage.

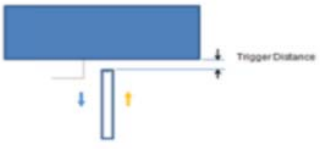
For the other sides or other frequency bands of the device, SAR is still tested at the maximum full power level with sensor off.

Procedures for determining proximity sensor triggering distances

The device was tested by the test lab to determine the proximity sensor triggering distances for the backside, top side and bottom edgeof the device. To ensure all production units are compliant, the smallest separation distance determined by the sensor triggering minus 1 mm, must be used as the test separation distance for SAR testing.

TheProximity sensor triggering distance measurement method are as below:

Picture : Proximity sensor triggering distances assessmect(Back/front side)



Picture : Proximity sensor triggering distances assessmect(Top/Bottom edge)

Table: Summary of Trigger Distances for Low Antenna ：

Band	Trigger distance-Back Side		Trigger distance-Front Side		Trigger distance-Bottom Edge	
	Moving toward Phantom	Moving away from Phantom	Moving toward Phantom	Moving away from Phantom	Moving toward Phantom	Moving away from Phantom
WCDMA B2	22	22	11	11	24	24
WCDMA B4	22	22	11	11	24	24
WCDMA B5	22	22	11	11	24	24
LTE B2	22	22	11	11	24	24
LTE B4	22	22	11	11	24	24
LTE B5	22	22	11	11	24	24
LTE B7	22	22	11	11	24	24
LTE B38	22	22	11	11	24	24
LTE B41	22	22	11	11	24	24

Table: Summary of Trigger Distances for Upper Antenna ：

Band	Trigger distance-Back Side		Trigger distance-Front Side		Trigger distance-Top Edge	
	Moving toward Phantom	Moving away from Phantom	Moving toward Phantom	Moving away from Phantom	Moving toward Phantom	Moving away from Phantom
GSM 1900	18	18	11	11	18	18
WCDMA B2	18	18	11	11	18	18
WCDMA B4	18	18	11	11	18	18
WCDMA B5	18	18	11	11	18	18
LTE B2	18	18	11	11	18	18
LTE B4	18	18	11	11	18	18
LTE B5	18	18	11	11	18	18
LTE B7	18	18	11	11	18	18
LTE B38	18	18	11	11	18	18

Conclusion: It can be ensured that the proximity sensor can be valid triggered for the body exposure condition (UMTS Band 2/4/5, LTE Band 2/4/5/7/38/41 with Low Antenna; GSM 1800, UMTS Band 2/4/5, LTE Band 2/4/5/7/38 with Upper Antenna)

The detailed conducted power measurement data to determine the triggering distances is as below:

Table: Full Power and Reduced power (Moving toward phantom)

Position	Ant	Band	Power Reduction Status(dBm)																																
			1	4	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37		
Back Side	Low Antenna	WCDMA B2	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04		
Back Side	Low Antenna	WCDMA B4	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50		
Back Side	Low Antenna	WCDMA B5	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59		
Back Side	Low Antenna	LTE B2	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81		
Back Side	Low Antenna	LTE B4	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94		
Back Side	Low Antenna	LTE B5	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79		
Back Side	Low Antenna	LTE B7	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59		
Back Side	Low Antenna	LTE B38	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61		
Back Side	Low Antenna	LTE B41	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17		

Position	Ant	Band	Power Reduction Status(dBm)																																
			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		
Front Side	Low Antenna	WCDMA B2	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04		
Front Side	Low Antenna	WCDMA B4	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50		
Front Side	Low Antenna	WCDMA B5	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59		
Front Side	Low Antenna	LTE B2	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81		
Front Side	Low Antenna	LTE B4	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94		
Front Side	Low Antenna	LTE B5	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79		
Front Side	Low Antenna	LTE B7	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59		
Front Side	Low Antenna	LTE B38	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61		
Front Side	Low Antenna	LTE B41	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17		

Position	Ant	Band	Power Reduction Status(dBm)																																
			1	5	9	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39		
Bottom Edge	Low Antenna	WCDMA B2	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04		
Bottom Edge	Low Antenna	WCDMA B4	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50		
Bottom Edge	Low Antenna	WCDMA B5	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59		
Bottom Edge	Low Antenna	LTE B2	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81		
Bottom Edge	Low Antenna	LTE B4	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94		
Bottom Edge	Low Antenna	LTE B5	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79		
Bottom Edge	Low Antenna	LTE B7	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59		
Bottom Edge	Low Antenna	LTE B38	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61		
Bottom Edge	Low Antenna	LTE B41	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17		

Position	Ant	Band	Power Reduction Status(dBm)																																
			1	3	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	33		
Back Side	Upper Antenna	GSM 1900	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40		
Back Side	Upper Antenna	WCDMA B2	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08		
Back Side	Upper Antenna	WCDMA B4	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28		
Back Side	Upper Antenna	WCDMA B5	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73		
Back Side	Upper Antenna	LTE B2	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59		
Back Side	Upper Antenna	LTE B4	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84		
Back Side	Upper Antenna	LTE B5	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94		
Back Side	Upper Antenna	LTE B7	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61		
Back Side	Upper Antenna	LTE B38	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76		

Position	Ant	Band	Power Reduction Status(dBm)																																
			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		
Front Side	Upper Antenna	GSM 1900	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40		
Front Side	Upper Antenna	WCDMA B2	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08		
Front Side	Upper Antenna	WCDMA B4	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28		
Front Side	Upper Antenna	WCDMA B5	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73		
Front Side	Upper Antenna	LTE B2	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59		
Front Side	Upper Antenna	LTE B4	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84		
Front Side	Upper Antenna	LTE B5	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94		
Front Side	Upper Antenna	LTE B7	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61		
Front Side	Upper Antenna	LTE B38	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76		

Position	Ant	Band	Power Reduction Status(dBm)																																
			1	3	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	33		
Bottom Edge	Upper Antenna	GSM 1900	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40		
Bottom Edge	Upper Antenna	WCDMA B2	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08		
Bottom Edge	Upper Antenna	WCDMA B4	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28		
Bottom Edge	Upper Antenna	WCDMA B5	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73		
Bottom Edge	Upper Antenna	LTE B2	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59		
Bottom Edge	Upper Antenna	LTE B4	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84		
Bottom Edge	Upper Antenna	LTE B5	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94		
Bottom Edge	Upper Antenna	LTE B7	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61		
Bottom Edge	Upper Antenna	LTE B38	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76		

Table: Full Power and Reduced power (Moving away from phantom)

Position	Ant	Band	Power Reduction Status(dBm)																												
			37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	6	4	1
Back Side	Low Antenna	WCDMA B2	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51
Back Side	Low Antenna	WCDMA B4	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38
Back Side	Low Antenna	WCDMA B5	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48
Back Side	Low Antenna	LTE B2	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63
Back Side	Low Antenna	LTE B4	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92
Back Side	Low Antenna	LTE B5	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37
Back Side	Low Antenna	LTE B7	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98
Back Side	Low Antenna	LTE B38	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05
Back Side	Low Antenna	LTE B41	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52

Position	Ant	Band	Power Reduction Status(dBm)																												
			31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Front Side	Low Antenna	WCDMA B2	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51
Front Side	Low Antenna	WCDMA B4	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38
Front Side	Low Antenna	WCDMA B5	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48
Front Side	Low Antenna	LTE B2	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63
Front Side	Low Antenna	LTE B4	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92
Front Side	Low Antenna	LTE B5	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37
Front Side	Low Antenna	LTE B7	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98
Front Side	Low Antenna	LTE B38	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05
Front Side	Low Antenna	LTE B41	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52

Position	Ant	Band	Power Reduction Status(dBm)																												
			39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	9	5	1
Bottom Edge	Low Antenna	WCDMA B2	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51	19.51
Bottom Edge	Low Antenna	WCDMA B4	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38	20.38
Bottom Edge	Low Antenna	WCDMA B5	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	24.59	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48	23.48
Bottom Edge	Low Antenna	LTE B2	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63
Bottom Edge	Low Antenna	LTE B4	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92	19.92
Bottom Edge	Low Antenna	LTE B5	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37
Bottom Edge	Low Antenna	LTE B7	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	22.59	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98	16.98
Bottom Edge	Low Antenna	LTE B38	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	24.61	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05	22.05
Bottom Edge	Low Antenna	LTE B41	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	23.17	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52	22.52

Position	Ant	Band	Power Reduction Status(dBm)																												
			33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	3	1
Back Side	Upper Antenna	GSM 1900	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28
Back Side	Upper Antenna	WCDMA B2	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46
Back Side	Upper Antenna	WCDMA B4	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25
Back Side	Upper Antenna	WCDMA B5	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38
Back Side	Upper Antenna	LTE B2	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45
Back Side	Upper Antenna	LTE B4	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45
Back Side	Upper Antenna	LTE B5	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16
Back Side	Upper Antenna	LTE B7	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02
Back Side	Upper Antenna	LTE B38	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53

Position	Ant	Band	Power Reduction Status(dBm)																												
			31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Front Side	Upper Antenna	GSM 1900	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28
Front Side	Upper Antenna	WCDMA B2	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46
Front Side	Upper Antenna	WCDMA B4	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25
Front Side	Upper Antenna	WCDMA B5	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38
Front Side	Upper Antenna	LTE B2	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45
Front Side	Upper Antenna	LTE B4	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45
Front Side	Upper Antenna	LTE B5	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16
Front Side	Upper Antenna	LTE B7	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02
Front Side	Upper Antenna	LTE B38	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53

Position	Ant	Band	Power Reduction Status(dBm)																												
			33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	3	1
Bottom Edge	Upper Antenna	GSM 1900	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28	21.28
Bottom Edge	Upper Antenna	WCDMA B2	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	24.08	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46	17.46
Bottom Edge	Upper Antenna	WCDMA B4	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	23.28	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25	18.25
Bottom Edge	Upper Antenna	WCDMA B5	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38
Bottom Edge	Upper Antenna	LTE B2	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	23.59	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45
Bottom Edge	Upper Antenna	LTE B4	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	21.84	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45
Bottom Edge	Upper Antenna	LTE B5	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.94	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16	23.16
Bottom Edge	Upper Antenna	LTE B7	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	22.61	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02	20.02
Bottom Edge	Upper Antenna	LTE B38	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.76	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53

Procedures for determining device tilt angle influences to proximity sensor triggering

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Bottom Edge and Top Edge parallel to the base of the flat phantom for each band. The EUT was rotated about Bottom Edge and Top Edge for angles up to +/- 45°. 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°.

The proximity sensor triggering tilt angle measurement method are as below:

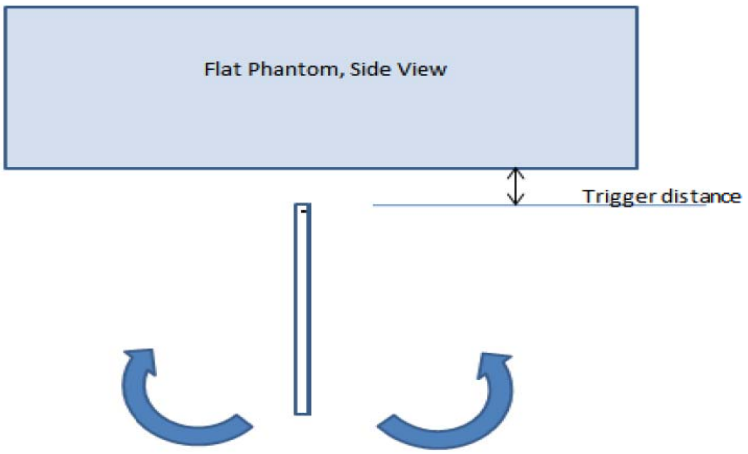


Table: Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering (Bottom/Top edge)

Band(MHz)	Position	Minimum trigger distance at which power reduction was maintained over ±45°	Power Reduction Status										
			-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
WCDMA B2	Bottom edge	24mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B4	Bottom edge	24mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B5	Bottom edge	24mm	on	on	on	on	on	on	on	on	on	on	on
LTE B2	Bottom edge	24mm	on	on	on	on	on	on	on	on	on	on	on
LTE B4	Bottom edge	24mm	on	on	on	on	on	on	on	on	on	on	on
LTE B5	Bottom edge	24mm	on	on	on	on	on	on	on	on	on	on	on
LTE B7	Bottom edge	24mm	on	on	on	on	on	on	on	on	on	on	on
LTE B38	Bottom edge	24mm	on	on	on	on	on	on	on	on	on	on	on
LTE B41	Bottom edge	24mm	on	on	on	on	on	on	on	on	on	on	on
GSM 1900	Top edge	18mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B2	Top edge	18mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B4	Top edge	18mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B5	Top edge	18mm	on	on	on	on	on	on	on	on	on	on	on
LTE B2	Top edge	18mm	on	on	on	on	on	on	on	on	on	on	on
LTE B4	Top edge	18mm	on	on	on	on	on	on	on	on	on	on	on
LTE B5	Top edge	18mm	on	on	on	on	on	on	on	on	on	on	on
LTE B7	Top edge	18mm	on	on	on	on	on	on	on	on	on	on	on
LTE B38	Top edge	18mm	on	on	on	on	on	on	on	on	on	on	on

Conclusion: It can be ensured that the proximity sensor can be valid triggered for the DUT tilt coverage exposure condition.

Summary additional SAR test Plan for Proximity sensor power reduction

For Body SAR compliance, the device uses proximity sensor power reduction for some frequency bands of Low Antenna and test positions. To ensure all production units are compliant, the smallest separation distance determined by the sensor triggering and sensor coverage for normal and tilt positions for each applicable side and top triggering conditions, minus 1 mm, is used as the test separation distance for SAR testing. These SAR tests are included in addition to the SAR tests for the device touching the SAR phantom with reduced power.

Low Antenna				Power Reduction Level Amount (dBm)										
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				33.00	30.50	25.00	25.00	25.00	25.00	25.00	25.00	24.00	25.00	24.00
Standalone		DSI1	Receiver on	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.50	0.00	0.00	0.00
		DSI2	Receiver off+Sensor off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		DSI4	Receiver off+Sensor on	0.00	0.00	4.50	4.00	1.00	4.50	4.00	0.50	6.00	2.50	1.00
Simultaneous	Wi-Fi on	DSI1	Receiver on	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.50	0.00	0.00	0.00
		DSI2	Receiver off+Sensor off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		DSI4	Receiver off+Sensor on	0.00	0.00	4.50	4.00	1.00	4.50	4.00	0.50	6.00	2.50	1.00

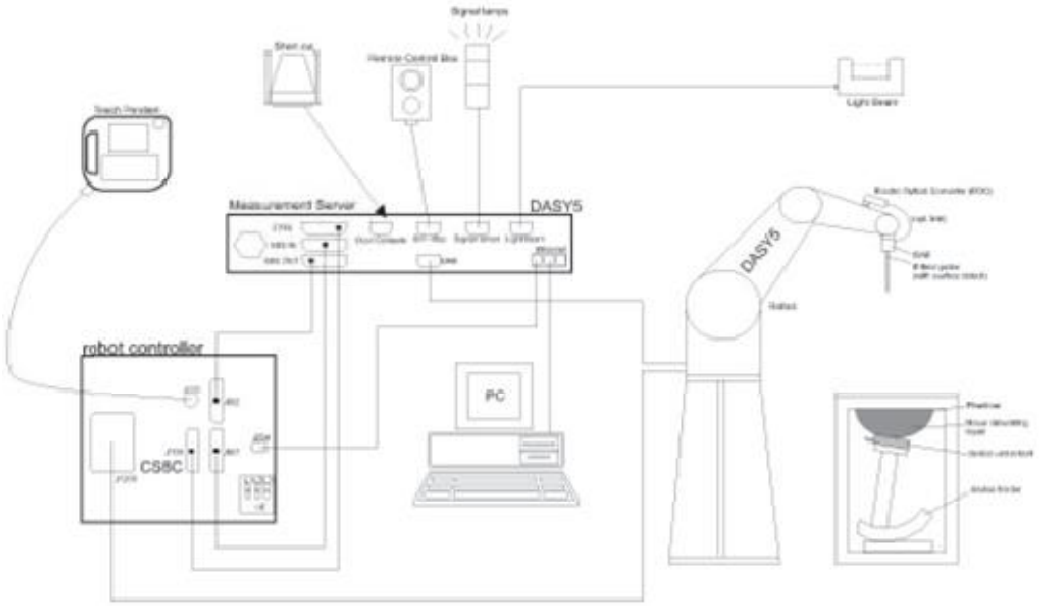
Upper Antenna				Power Reduction Level Amount (dBm)										
Power Reduction Scenario		Power Level		GSM850	GSM1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B38	LTE B41
Full power				33.50	30.50	25.00	25.00	25.00	25.00	25.00	25.00	24.00	25.00	24.00
Standalone		DSI1	Receiver on	0.00	4.00	5.50	8.00	1.00	7.00	8.50	0.50	6.00	5.00	4.00
		DSI2	Receiver off+Sensor off	0.00	0.00	0.00	1.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
		DSI4	Receiver off+Sensor on	0.00	3.50	6.50	6.00	1.00	5.50	5.50	0.50	3.50	1.00	0.00
Simultaneous	Wi-Fi on	DSI1	Receiver on	0.00	4.00	5.50	8.00	1.00	7.00	8.50	0.50	6.00	5.00	4.00
		DSI2	Receiver off+Sensor off	0.00	0.00	0.00	1.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
		DSI4	Receiver off+Sensor on	0.00	3.50	6.50	6.00	1.00	5.50	5.50	0.50	3.50	1.00	0.00

Wi-Fi Antenna		Power Reduction Level Amount (dBm)								
Power Reduction Scenario	Receiver	WiFi 2.4G 11b	WiFi 2.4G 11g	WiFi 2.4G 11n HT20	WiFi 5G 11a	WiFi 5G 11n HT20	WiFi 5G 11n HT40	WiFi 5G 802.11ac-VHT20	WiFi 5G 802.11ac-VHT40	WiFi 5G 802.11ac-VHT80
Full power		18.50	17.50	16.50	18.50	17.50	13.50	17.50	13.50	12.50
Standalone	on	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	off	0.00	0.00	0.00	2.00	1.00	0.00	1.00	0.00	0.00
Simultaneous with 2G&3G&4G	on	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	off	0.00	0.00	0.00	2.00	1.00	0.00	1.00	0.00	0.00

6 SAR Measurements System Configuration

6.1 SAR Measurement Set-up

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



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

6.2 DASY5 E-field Probe System

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

EX3DV4 Probe Specification

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

E-field Probe Calibration

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

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

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

SAR=C∆T/∆t

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

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

∆T = Temperature increase due to RF exposure.

Or

SAR=|E|^{2}σ/ρ

Where: σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m^3).

6.3 SAR Measurement Procedure

Power Reference Measurement

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

Area Scan

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

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

Zoom Scan

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

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

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

Volume Scan Procedures

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

Power Drift Monitoring

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

7 Main Test Equipment

Name of Equipment	Manufacturer	Type/Model	Serial Number	Last Cal.	Cal. Due Date
Network analyzer	Agilent	E5071B	MY42404014	2021-05-15	2022-05-14
Dielectric Probe Kit	Agilent	85070E	US44020115	/	/
Power meter	Agilent	E4417A	GB41291714	2021-05-15	2022-05-14
Power sensor	Agilent	N8481H	MY50350004	2021-05-15	2022-05-14
Power sensor	Agilent	E9327A	US40441622	2021-05-15	2022-05-14
Dual directional coupler	Agilent	778D-012	50519	/	/
Dual directional coupler	Agilent	777D	50146	/	/
Dual directional coupler	UCL	UCL-DDC0 56G-S	20010600118	/	/
Amplifier	INDEXSAR	TPA-005060 G01	13030502	2021-05-15	2022-05-14
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
Wideband radio communication tester	R&S	CMW 500	113645	2021-05-15	2022-05-14
Base Station Simulator	R&S	CMW270	100673	2021-05-15	2022-05-14
E-field Probe	SPEAG	EX3DV4	7628	2021-02-16	2022-02-15
DAE	SPEAG	DAE4	1648	2021-05-17	2022-05-16
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	2021-04-23	2024-04-22
Validation Kit 5GHz	SPEAG	D5GHzV2	1151	2020-02-27	2023-02-26
Temperature Probe	Tianjin jinming	JM222	381	2021-05-15	2022-05-14
Softwarefor Tissue	Agilent	85070	/	/	/
SAR Lab 1					
Twin SAM Phantom	SPEAG	SAM1	1667	/	/
Twin SAM Phantom	SPEAG	SAM2	1666	/	/
Hygrothermograph	Anymetr	HTC - 1	TY2020A003	2021-05-15	2022-05-14
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 ± 2°C of the temperature when the tissue parameters are characterized. The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 24 hours of use; or earlier if the dielectric parameters can become out of tolerance.

Target values

Frequency (MHz)	Water (%)	Salt (%)	Sugar (%)	Glycol (%)	Preventol (%)	Cellulose (%)	ε_r	σ(s/m)
835	41.45	1.45	56	0	0.1	1.0	41.5	0.90
1750	55.24	0.31	0	44.45	0	0	40.1	1.37
1900	55.242	0.306	0	44.452	0	0	40.0	1.40
2450	62.7	0.5	0	36.8	0	0	39.2	1.80
2600	55.242	0.306	0	44.452	0	0	39.0	1.96

Frequency (MHz)	Water (%)	Diethylenglycol monohexylether	Triton X-100	ε_r	σ(s/m)
5250	65.53	17.24	17.23	35.9	4.71
5600	65.53	17.24	17.23	35.5	5.07
5750	65.53	17.24	17.23	35.4	5.22

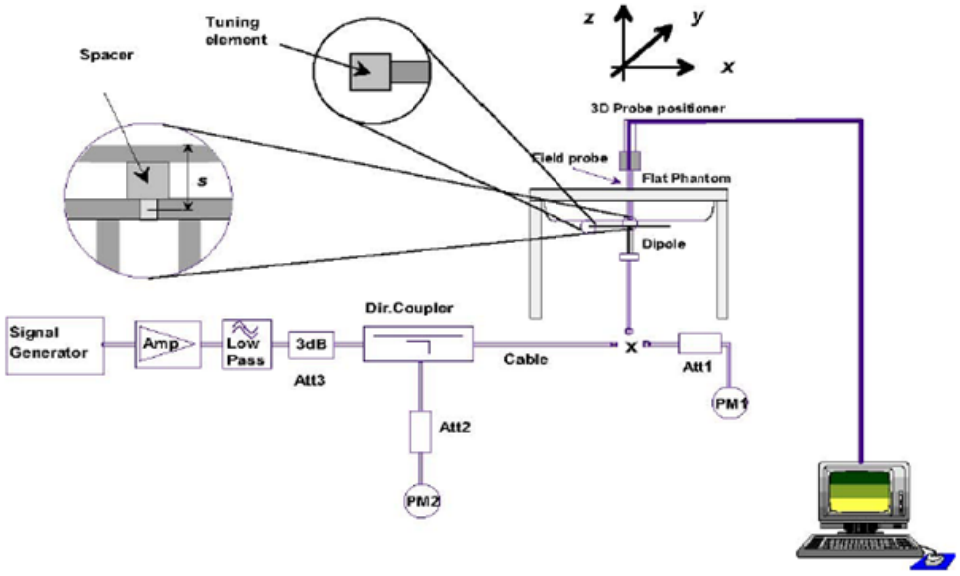
Measurements results

Frequency (MHz)	Test Date	Temp ℃	Measured Dielectric Parameters		Target Dielectric Parameters		Limit (Within ±5%)	
			ε_r	σ(s/m)	ε_r	σ(s/m)	Dev ε_r(%)	Dev σ(%)
835	2021/12/13	21.5	41.3	0.87	41.5	0.90	-0.48	-3.33
	2021/12/14	21.5	41.3	0.89	41.5	0.90	-0.48	-1.11
1750	2021/12/22	21.5	40.6	1.36	40.1	1.37	1.25	-0.73
	2021/12/23	21.5	40.3	1.32	40.1	1.37	0.50	-3.65
1900	2021/12/25	21.5	40.2	1.42	40.0	1.40	0.50	1.43
	2021/12/26	21.5	40.4	1.41	40.0	1.40	1.00	0.71
2450	2021/12/27	21.5	38.8	1.81	39.2	1.80	-1.02	0.56
2600	2021/12/15	21.5	38.2	2.03	39.0	1.96	-2.05	3.57
	2021/12/16	21.5	38.5	1.95	39.0	1.96	-1.28	-0.51
	2021/12/17	21.5	38.2	1.99	39.0	1.96	-2.05	1.53
	2021/12/18	21.5	38.3	1.96	39.0	1.96	-1.79	0.00
5250	2021/12/19	21.5	35.6	4.81	35.9	4.71	-0.84	2.12
5600	2021/12/20	21.5	34.1	5.20	35.5	5.07	-3.94	2.56
5750	2021/12/24	21.5	34.9	5.20	35.4	5.22	-1.41	-0.38
Note: The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm for SAR measurements ≤ 3 GHz and ≥ 10.0 cm for measurements > 3 GHz.								

8.2 System Performance Check

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

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



Picture 1System Performance Check setup

Picture 2 Setup Photo

Justification for Extended SAR Dipole Calibrations

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

Dipole		Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	ΔΩ
Dipole D835V2 SN: 4d020	Head Liquid	8/28/2020	-26.2	/	54.8	/
		8/27/2021	-26.5	-1.1	55.2	-0.4
Dipole D1750V2 SN: 1033	Head Liquid	2/25/2020	-38.3	/	48.8	/
		2/26/2021	-40.0	-1.7	49.9	1.1
Dipole D1900V2 SN: 5d060	Head Liquid	8/27/2020	-23.3	/	52.5	/
		8/26/2021	-23.0	1.3	51.9	0.6
Dipole D2450V2 SN: 786	Head Liquid	8/27/2020	-26.9	/	54.5	/
		8/26/2021	-27.1	-0.7	53.8	0.7
Dipole D5GHzV2 SN: 1151 (5250MHz)	Head Liquid	2/27/2020	-23.4	/	52.4	/
		2/26/2021	-23.8	-0.4	50.0	-2.4
Dipole D5GHzV2 SN: 1151 (5600MHz)	Head Liquid	2/27/2020	-22.6	/	57.0	/
		2/26/2021	-21.5	1.1	55.6	-1.4
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

System Check results

Frequency (MHz)	Test Date	Temp ℃	250mW Measured SAR_{1g} (W/kg)	1W Normalized SAR_{1g} (W/kg)	1W Target SAR_{1g} (W/kg)	Δ % (Limit ±10%)	Plot No.
835	2021/12/13	21.5	2.44	9.76	9.65	1.14	1
	2021/12/14	21.5	2.46	9.84	9.65	1.97	2
1750	2021/12/22	21.5	8.95	35.80	35.90	-0.28	3
	2021/12/23	21.5	9.11	36.44	35.90	1.50	4
1900	2021/12/25	21.5	9.88	39.52	39.50	0.05	5
	2021/12/26	21.5	9.85	39.40	39.50	-0.25	6
2450	2021/12/27	21.5	13.70	54.80	52.30	4.78	7
2600	2021/12/15	21.5	13.90	55.60	56.10	-0.89	8
	2021/12/16	21.5	13.88	55.52	56.10	-1.03	9
	2021/12/17	21.5	13.94	55.76	56.10	-0.61	10
	2021/12/18	21.5	13.90	55.60	56.10	-0.89	11
Frequency (MHz)	**Test Date**	**Temp ℃**	**100mW Measured SAR_{1g} (W/kg)**	**1W Normalized SAR_{1g} (W/kg)**	**1W Target SAR_{1g} (W/kg)**	**Δ % (Limit ±10%)**	**Plot No.**
5250	2021/12/19	21.5	7.87	78.70	78.00	0.90	12
5600	2021/12/20	21.5	7.67	76.70	80.50	-4.72	13
5750	2021/12/24	21.5	7.66	76.60	77.40	-1.03	14
Note: Target Values used derive from the calibration certificate Data Storage and Evaluation.							

8.3 SAR System Validation

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

A tabulated summary of the system validation status, measurement frequencies, SAR probes, calibrated signal type(s) and tissue dielectric parameters has been included.

Frequency [MHz]	Date	Probe SN	Probe Type	Probe Cal Point		PERM (Er)	COND (Σ)	CW Validation			Mod. Validation		
								Sensitivity	Probe Linearity	Probe Isotropy	Mod. Type	Duty Factor	PAR
835	8/12/2021	3677	EX3DV4	835	Head	42.22	0.90	PASS	PASS	PASS	GMSK	PASS	N/A
1750	8/12/2021	3677	EX3DV4	1750	Head	39.91	1.32	PASS	PASS	PASS	NA	N/A	N/A
1900	8/12/2021	3677	EX3DV4	1900	Head	39.43	1.42	PASS	PASS	PASS	GMSK	PASS	N/A
2450	8/12/2021	3677	EX3DV4	2450	Head	38.19	1.83	PASS	PASS	PASS	OFDM	PASS	PASS
2600	8/12/2021	3677	EX3DV4	2600	Head	37.60	1.99	PASS	PASS	PASS	TDD	PASS	N/A
5250	8/12/2021	3677	EX3DV4	5250	Head	35.36	4.83	PASS	PASS	PASS	OFDM	N/A	PASS
5600	8/12/2021	3677	EX3DV4	5600	Head	34.43	5.29	PASS	PASS	PASS	OFDM	N/A	PASS
5750	8/12/2021	3677	EX3DV4	5750	Head	34.07	5.47	PASS	PASS	PASS	OFDM	N/A	PASS

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

9 Normal and Maximum Output Power

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

9.1 GSM Mode

Low Antenna

GSM 850 Full power& DSI 1& DSI 2& DSI 4		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	33.50	31.78	32.01	32.16	9.03	24.47	22.75	22.98	23.13
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.50	31.64	32.07	32.11	9.03	24.47	22.61	23.04	23.08
	2 Tx Slots	32.00	30.27	30.64	30.83	6.02	**25.98**	24.25	24.62	24.81
	3 Tx Slots	29.00	27.86	28.14	28.27	4.26	24.74	23.60	23.88	24.01
	4 Tx Slots	28.00	26.54	26.81	26.85	3.01	24.99	23.53	23.80	23.84
EGPRS (8PSK)	1 Tx Slot	28.00	25.91	26.42	26.21	9.03	18.97	16.88	17.39	17.18
	2 Tx Slots	26.50	24.97	24.92	24.84	6.02	20.48	18.95	18.90	18.82
	3 Tx Slots	24.50	22.62	22.97	22.72	4.26	20.24	18.36	18.71	18.46
	4 Tx Slots	23.50	21.77	21.69	21.82	3.01	20.49	18.76	18.68	18.81
GSM 1900 Full power& DSI 1& DSI 2& DSI 4		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	30.50	29.30	29.09	28.75	9.03	21.47	20.27	20.06	19.72
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.50	29.20	29.11	28.69	9.03	21.47	20.17	20.08	19.66
	2 Tx Slots	29.00	27.66	27.74	27.33	6.02	22.98	21.64	21.72	21.31
	3 Tx Slots	27.00	25.56	25.51	25.07	4.26	22.74	21.30	21.25	20.81
	4 Tx Slots	26.00	24.41	24.34	24.35	3.01	**22.99**	21.40	21.33	21.34
EGPRS (8PSK)	1 Tx Slot	27.00	25.17	25.13	25.02	9.03	17.97	16.14	16.10	15.99
	2 Tx Slots	25.50	24.13	24.05	23.82	6.02	19.48	18.11	18.03	17.80
	3 Tx Slots	23.50	22.11	21.95	21.97	4.26	19.24	17.85	17.69	17.71
	4 Tx Slots	22.50	21.06	20.67	20.64	3.01	19.49	18.05	17.66	17.63

Notes: The worst-case configuration and mode for SAR testing is determined to be as follows:
1. Standalone: GSM 850 GMSK (GPRS) mode with 4 time slots for Max power, GSM 1900 GMSK (GPRS) mode with 4 time slots for Max power, based on the output power measurements above.

Upper Antenna

GSM 850 Full power& DSI 1& DSI 2& DSI 4		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	128 /824.2	190 /836.6	251 /848.8		MAX	128 /824.2	190 /836.6	251 /848.8
GSM	CS	33.50	31.70	32.05	31.92	9.03	24.47	22.67	23.02	22.89
GPRS/ EGPRS (GMSK)	1 Tx Slot	33.50	31.54	31.80	31.83	9.03	24.47	22.51	22.77	22.80
	2 Tx Slots	32.00	30.05	30.08	30.48	6.02	**25.98**	24.03	24.06	24.46
	3 Tx Slots	29.00	27.67	28.00	27.96	4.26	24.74	23.41	23.74	23.70
	4 Tx Slots	28.00	26.55	26.70	26.54	3.01	24.99	23.54	23.69	23.53
EGPRS (8PSK)	1 Tx Slot	28.00	26.15	26.23	26.23	9.03	18.97	17.12	17.20	17.20
	2 Tx Slots	26.50	24.94	24.82	24.87	6.02	20.48	18.92	18.80	18.85
	3 Tx Slots	24.50	22.78	22.77	22.63	4.26	20.24	18.52	18.51	18.37
	4 Tx Slots	23.50	21.55	21.67	21.72	3.01	20.49	18.54	18.66	18.71

GSM 1900 DSI 1		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	26.50	25.18	25.42	25.20	9.03	17.47	16.15	16.39	16.17
GPRS/ EGPRS (GMSK)	1 Tx Slot	26.50	25.04	25.25	25.08	9.03	17.47	16.01	16.22	16.05
	2 Tx Slots	25.00	23.59	23.74	23.61	6.02	18.98	17.57	17.72	17.59
	3 Tx Slots	23.00	21.52	21.66	21.53	4.26	18.74	17.26	17.40	17.27
	4 Tx Slots	22.00	20.53	20.64	20.53	3.01	**18.99**	17.52	17.63	17.52
EGPRS (8PSK)	1 Tx Slot	26.50	24.92	25.42	24.96	9.03	17.47	15.89	16.39	15.93
	2 Tx Slots	25.00	23.15	24.17	23.15	6.02	18.98	17.13	18.15	17.13
	3 Tx Slots	23.00	21.38	21.72	21.12	4.26	18.74	17.12	17.46	16.86
	4 Tx Slots	22.00	20.22	20.58	20.01	3.01	18.99	17.21	17.57	17.00

GSM 1900 Full Power&DSI2		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	30.50	29.15	29.26	29.05	9.03	21.47	20.12	20.23	20.02
GPRS/ EGPRS (GMSK)	1 Tx Slot	30.50	29.02	29.07	29.01	9.03	21.47	19.99	20.04	19.98
	2 Tx Slots	29.00	27.56	27.68	27.69	6.02	22.98	21.54	21.66	21.67
	3 Tx Slots	27.00	25.44	25.48	25.42	4.26	22.74	21.18	21.22	21.16
	4 Tx Slots	26.00	24.21	24.40	24.28	3.01	**22.99**	21.20	21.39	21.27
EGPRS (8PSK)	1 Tx Slot	27.00	25.16	25.21	25.05	9.03	17.97	16.13	16.18	16.02
	2 Tx Slots	25.50	23.84	24.07	23.95	6.02	19.48	17.82	18.05	17.93
	3 Tx Slots	23.50	22.01	21.97	22.07	4.26	19.24	17.75	17.71	17.81
	4 Tx Slots	22.50	20.87	20.72	20.87	3.01	19.49	17.86	17.71	17.86

GSM 1900 DSI 4		Burst-Averaged output power(dBm)				Division Factors	Frame-Averaged output power(dBm)			
		Tune-up	Channel/Frenqucy(MHz)				Tune-up	Channel/Frenqucy(MHz)		
		MAX	512 /1850.2	661 /1880	810 /1909.8		MAX	512 /1850.2	661 /1880	810 /1909.8
GSM	CS	27.00	25.70	25.82	25.60	9.03	17.97	16.67	16.79	16.57
GPRS/ EGPRS (GMSK)	1 Tx Slot	27.00	25.58	25.84	25.53	9.03	17.97	16.55	16.81	16.50
	2 Tx Slots	25.50	23.55	24.32	24.02	6.02	19.48	17.53	18.30	18.00
	3 Tx Slots	23.50	21.94	22.26	22.10	4.26	19.24	17.68	18.00	17.84
	4 Tx Slots	22.50	21.02	21.28	21.03	3.01	**19.49**	18.01	18.27	18.02
EGPRS (8PSK)	1 Tx Slot	27.00	25.04	25.02	25.11	9.03	17.97	16.01	15.99	16.08
	2 Tx Slots	25.50	23.90	23.96	23.92	6.02	19.48	17.88	17.94	17.90
	3 Tx Slots	23.50	21.62	21.72	21.66	4.26	19.24	17.36	17.46	17.40
	4 Tx Slots	22.50	20.64	20.55	20.53	3.01	19.49	17.63	17.54	17.52

Notes: The worst-case configuration and mode for SAR testing is determined to be as follows:
1. Standalone: GSM 850 GMSK (GPRS) mode with 2 time slots for Max power, GSM 1900 GMSK (GPRS) mode with 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.

WCDMA		Band II(dBm) DSI 1				Band IV(dBm) DSI 1				Band V(dBm) DSI 1			
Tx Channel		9262	9400	9538	Tune-up Limit	1312	1413	1513	Tune-up Limit	4132	4183	4233	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.6	846.6	
RMC	12.2kbps	**23.13**	22.89	23.06	24.00	23.20	**23.27**	23.14	24.00	23.36	23.39	**23.48**	24.00
AMR	12.2kbps	23.13	22.85	23.02	24.00	23.12	23.27	23.28	24.00	23.32	23.39	23.36	24.00
HSDPA	Sub 1	22.19	21.73	21.92	22.50	22.08	22.32	22.10	22.50	22.22	22.35	22.40	22.70
	Sub 2	22.29	21.91	21.96	22.50	22.34	22.33	22.04	22.50	22.28	22.31	22.58	22.80
	Sub 3	21.27	21.25	21.22	22.50	21.44	21.53	21.44	22.50	21.70	21.73	21.88	22.70
	Sub 4	21.41	21.17	21.22	22.50	21.60	21.43	21.52	22.50	21.58	21.59	21.66	22.70
HSUPA	Sub 1	22.13	21.79	22.02	22.50	22.34	22.33	22.10	22.50	22.48	22.45	22.42	22.70
	Sub 2	21.73	21.51	21.68	22.50	21.72	21.93	21.58	22.50	21.88	22.03	22.08	22.70
	Sub 3	21.15	21.01	21.18	22.00	21.10	21.41	21.08	22.00	21.26	21.27	21.34	21.70
	Sub 4	20.65	20.47	20.56	21.00	20.64	20.73	20.50	21.00	20.80	20.85	20.98	21.70
	Sub 5	22.11	21.81	21.90	23.50	22.04	22.37	22.08	23.50	22.22	22.53	22.60	22.70
DC-HSDPA	Sub 1	22.19	22.01	21.98	22.50	22.32	22.21	22.28	22.50	22.38	22.39	22.46	23.20
	Sub 2	21.99	21.97	21.92	22.50	22.14	22.37	22.26	22.50	22.48	22.55	22.38	23.20
	Sub 3	21.33	21.17	21.40	22.50	21.64	21.71	21.38	22.50	21.62	21.71	21.76	22.50
	Sub 4	21.47	21.25	21.24	22.50	21.38	21.69	21.52	22.50	21.74	21.67	21.62	22.50
Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.													

WCDMA		Band II(dBm) Full power& DSI 2				Band IV(dBm) Full power& DSI 2				Band V(dBm) Full power& DSI 2			
Tx Channel		9262	9400	9538	Tune-up Limit	1312	1413	1513	Tune-up Limit	4132	4183	4233	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.6	846.6	
RMC	12.2kbps	24.10	24.04	**24.13**	25.00	24.34	**24.50**	24.18	25.00	24.49	24.47	**24.59**	25.00
AMR	12.2kbps	24.08	23.92	24.09	25.00	24.36	24.46	24.04	25.00	24.41	24.57	24.69	25.00
HSDPA	Sub 1	23.02	23.14	23.03	23.50	23.38	23.42	23.10	23.70	23.57	23.49	23.53	23.70
	Sub 2	22.98	23.18	23.09	23.50	23.32	23.54	23.18	23.70	23.65	23.37	23.71	23.80
	Sub 3	22.36	22.38	22.47	23.50	22.76	22.84	22.58	23.70	22.81	22.63	22.73	23.70
	Sub 4	22.48	22.32	22.49	23.50	22.48	22.76	22.36	23.70	22.63	22.93	22.79	23.70
HSUPA	Sub 1	23.26	22.96	23.25	23.50	23.44	23.38	23.32	23.70	23.51	23.48	23.47	23.70
	Sub 2	22.66	22.52	22.53	23.50	22.94	23.14	22.72	23.70	23.15	22.97	23.21	23.70
	Sub 3	22.10	21.88	22.07	23.00	22.36	22.34	22.08	23.20	22.49	22.35	22.63	22.70
	Sub 4	21.76	21.54	21.69	22.00	21.74	22.04	21.76	22.20	22.13	21.93	22.19	22.70
	Sub 5	23.00	23.14	23.13	24.50	23.48	23.40	23.34	24.70	23.39	23.47	23.53	23.70
DC-HSDPA	Sub 1	22.98	23.02	22.99	23.50	23.48	23.48	23.34	23.70	23.45	23.47	23.45	24.20
	Sub 2	23.10	23.00	22.97	23.50	23.20	23.58	23.08	23.70	23.65	23.31	23.51	24.20
	Sub 3	22.40	22.50	22.55	23.50	22.74	22.88	22.52	23.70	22.85	22.69	22.87	23.50
	Sub 4	22.52	22.38	22.47	23.50	22.66	22.86	22.54	23.70	22.81	22.81	23.01	23.50

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 4				Band IV(dBm) DSI 4			
Tx Channel		9262	9400	9538	Tune-up Limit	1312	1413	1513	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
RMC	12.2kbps	19.55	19.51	**19.58**	20.50	20.18	**20.38**	20.00	21.00
AMR	12.2kbps	19.69	19.59	19.72	20.50	20.04	20.32	20.06	21.00
HSDPA	Sub 1	18.47	18.41	18.64	19.00	19.28	19.38	19.02	19.70
	Sub 2	18.59	18.41	18.42	19.00	19.12	19.50	19.00	19.70
	Sub 3	17.83	17.81	17.90	19.00	18.40	18.84	18.22	19.70
	Sub 4	17.87	17.93	17.72	19.00	18.46	18.78	18.32	19.70
HSUPA	Sub 1	18.67	18.41	18.66	19.00	19.22	19.38	19.14	19.70
	Sub 2	18.05	17.85	18.18	19.00	18.66	18.76	18.46	19.70
	Sub 3	17.69	17.63	17.44	18.50	18.30	18.52	18.02	19.20
	Sub 4	17.17	16.95	17.16	17.50	17.72	17.98	17.60	18.20
	Sub 5	18.49	18.53	18.66	20.00	19.02	19.30	18.92	20.70
DC-HSDPA	Sub 1	18.59	18.45	18.58	19.00	19.16	19.44	18.98	19.70
	Sub 2	18.47	18.45	18.68	19.00	19.14	19.50	18.88	19.70
	Sub 3	17.77	17.65	17.88	19.00	18.58	18.72	18.26	19.70
	Sub 4	17.95	17.91	17.78	19.00	18.40	18.78	18.22	19.70
Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.									

Upper Antenna

WCDMA		Band II(dBm) DSI 1				Band IV(dBm) DSI 1				Band V(dBm) DSI 1			
Tx Channel		9262	9400	9538	Tune-up Limit	1312	1413	1513	Tune-up Limit	4132	4183	4233	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.6	846.6	
RMC	12.2kbps	18.56	18.55	**18.60**	19.50	16.21	**16.33**	16.12	17.00	23.38	23.30	**23.53**	24.00
AMR	12.2kbps	18.40	18.45	18.50	19.50	16.23	16.37	16.08	17.00	23.24	23.46	23.65	24.00
HSDPA	Sub 1	17.62	17.43	17.46	18.00	15.13	15.41	15.26	15.70	22.50	22.34	22.55	22.70
	Sub 2	17.42	17.65	17.72	18.00	15.37	15.35	15.04	15.70	22.38	22.26	22.47	22.80
	Sub 3	16.76	16.89	16.98	18.00	14.59	14.77	14.58	15.70	21.64	21.70	21.87	22.70
	Sub 4	16.82	16.93	17.06	18.00	14.39	14.57	14.30	15.70	21.74	21.66	21.93	22.70
HSUPA	Sub 1	17.44	17.55	17.60	18.00	15.07	15.19	15.04	15.70	22.24	22.34	22.43	22.70
	Sub 2	16.94	17.19	17.26	18.00	14.67	14.97	14.76	15.70	21.82	21.90	22.11	22.70
	Sub 3	16.68	16.69	16.58	17.50	14.33	14.27	14.04	15.20	21.50	21.20	21.65	21.70
	Sub 4	16.14	16.01	16.14	16.50	13.57	13.75	13.60	14.20	20.84	20.66	21.01	21.70
	Sub 5	17.62	17.57	17.46	19.00	15.11	15.41	15.02	16.70	22.44	22.26	22.63	22.70
DC-HSDPA	Sub 1	17.66	17.63	17.66	18.00	15.19	15.37	15.00	15.70	22.36	22.42	22.57	23.20
	Sub 2	17.48	17.67	17.66	18.00	15.29	15.21	15.02	15.70	22.34	22.34	22.65	23.20
	Sub 3	16.84	16.75	16.80	18.00	14.37	14.61	14.52	15.70	21.52	21.74	21.83	22.50
	Sub 4	17.02	16.73	17.02	18.00	14.61	14.49	14.26	15.70	21.52	21.60	21.75	22.50

Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.

WCDMA		Band II(dBm) Full power& DSI 2				Band IV(dBm) Full power				Band V(dBm) Full power& DSI 2			
Tx Channel		9262	9400	9538	Tune-up Limit	1312	1413	1513	Tune-up Limit	4132	4183	4233	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.6	846.6	
RMC	12.2kbps	24.09	24.08	**24.10**	25.00	**24.02**	23.98	23.85	25.00	**23.73**	23.55	23.60	25.00
AMR	12.2kbps	23.95	24.06	23.98	25.00	24.06	23.98	23.75	25.00	23.89	23.63	23.66	25.00
HSDPA	Sub 1	23.17	23.22	23.16	23.50	23.10	22.94	22.87	23.50	22.61	22.51	22.62	23.70
	Sub 2	23.05	22.94	23.02	23.50	23.16	23.08	22.69	23.50	22.59	22.63	22.52	23.80
	Sub 3	22.49	22.42	22.32	23.50	22.24	22.28	21.99	23.50	21.93	21.71	22.06	23.70
	Sub 4	22.27	22.32	22.24	23.50	22.48	22.20	22.01	23.50	22.07	21.97	22.04	23.70
HSUPA	Sub 1	23.13	23.20	23.00	23.50	23.06	23.08	22.93	23.50	22.59	22.39	22.66	23.70
	Sub 2	22.55	22.68	22.74	23.50	22.64	22.40	22.49	23.50	22.23	22.21	22.14	23.70
	Sub 3	22.19	22.20	22.12	23.00	22.10	22.14	21.85	23.00	21.87	21.57	21.68	22.70
	Sub 4	21.47	21.58	21.46	22.00	21.38	21.56	21.39	22.00	21.27	21.21	21.00	22.70
	Sub 5	22.99	22.94	23.04	24.50	23.04	23.14	22.97	24.50	22.73	22.41	22.46	23.70
DC-HSDPA	Sub 1	22.97	23.14	23.06	23.50	23.12	22.98	22.75	23.50	22.57	22.45	22.46	24.20
	Sub 2	23.15	22.92	23.06	23.50	23.18	23.08	22.79	23.50	22.57	22.43	22.50	24.20
	Sub 3	22.35	22.24	22.24	23.50	22.20	22.42	22.27	23.50	22.09	21.77	22.06	23.50
	Sub 4	22.35	22.22	22.56	23.50	22.40	22.14	22.11	23.50	21.89	21.87	21.80	23.50
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 4				Band IV(dBm) DSI 4				Band IV (dBm) DSI 2			
Tx Channel		9262	9400	9538	Tune-up Limit	1312	1413	1513	Tune-up Limit	4132	4183	4233	Tune-up Limit
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.6	846.6	
RMC	12.2kbps	17.54	17.46	**17.56**	18.50	18.11	**18.25**	18.01	19.00	23.22	**23.28**	23.09	24.00
AMR	12.2kbps	17.46	17.58	17.46	18.50	18.07	18.21	18.11	19.00	23.36	23.28	23.09	24.00
HSDPA	Sub 1	16.62	16.52	16.70	17.00	17.07	17.31	16.85	17.70	22.08	22.18	22.23	22.70
	Sub 2	16.50	16.42	16.42	17.00	17.11	17.33	17.07	17.70	22.20	22.36	21.97	22.70
	Sub 3	15.76	15.74	15.98	17.00	16.27	16.59	16.35	17.70	21.62	21.44	21.53	22.70
	Sub 4	15.86	15.70	15.72	17.00	16.31	16.55	16.25	17.70	21.44	21.74	21.39	22.70
HSUPA	Sub 1	16.70	16.52	16.56	17.00	17.15	17.35	17.03	17.70	22.36	22.30	21.97	22.70
	Sub 2	16.04	15.88	16.10	17.00	16.59	16.85	16.51	17.70	21.66	21.90	21.47	22.70
	Sub 3	15.70	15.52	15.70	16.50	16.03	16.21	15.93	17.20	21.34	21.40	21.09	22.20
	Sub 4	14.88	14.84	15.06	15.50	15.47	15.77	15.43	16.20	20.84	20.94	20.49	21.20
	Sub 5	16.64	16.54	16.62	18.00	17.17	17.29	17.09	18.70	22.26	22.18	22.25	23.70
DC-HSDPA	Sub 1	16.64	16.50	16.50	17.00	17.23	17.09	16.99	17.70	22.06	22.38	22.23	22.70
	Sub 2	16.50	16.58	16.60	17.00	17.11	17.27	16.95	17.70	22.16	22.30	22.15	22.70
	Sub 3	15.70	15.86	15.86	17.00	16.29	16.49	16.41	17.70	21.62	21.64	21.53	22.70
	Sub 4	15.82	15.66	15.96	17.00	16.25	16.55	16.31	17.70	21.48	21.72	21.27	22.70
Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.													

9.3 LTE Mode

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

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

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

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

Low Antenna

LTE FDD Band 2 Full power&DSI 1&DSI 2				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	23.80	23.68	23.74	25.00
		1	2	23.85	23.92	23.85	25.00
		1	5	23.33	23.46	23.40	25.00
		3	0	23.16	23.32	23.20	25.00
		3	2	23.17	23.23	23.12	25.00
		3	3	23.08	23.06	23.07	25.00
		6	0	22.17	22.19	22.26	24.00
	16QAM	1	0	22.59	22.39	22.40	24.00
		1	2	22.57	22.43	22.56	24.00
		1	5	22.40	22.21	22.26	24.00
		3	0	22.34	22.39	22.49	24.00
		3	2	22.49	22.35	22.50	24.00
		3	3	22.38	22.10	22.24	24.00
		6	0	21.45	21.37	21.41	23.00
	64QAM	1	0	21.28	21.17	21.13	23.00
		1	2	21.67	21.58	21.79	23.00

		1	5	21.22	21.28	21.31	23.00
		3	0	21.17	21.24	21.17	23.00
		3	2	21.39	21.22	21.32	23.00
		3	3	21.73	21.44	21.39	23.00
		6	0	20.25	20.31	20.36	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	23.82	23.72	23.77	25.00
		1	7	23.83	23.95	23.89	25.00
		1	14	23.36	23.51	23.44	25.00
		8	0	22.26	22.44	22.33	24.00
		8	4	22.29	22.33	22.24	24.00
		8	7	22.18	22.17	22.17	24.00
		15	0	22.17	22.23	22.29	24.00
	16QAM	1	0	22.62	22.41	22.43	24.00
		1	7	22.60	22.43	22.60	24.00
		1	14	22.42	22.25	22.29	24.00
		8	0	21.45	21.52	21.61	23.00
		8	4	21.60	21.48	21.62	23.00
		8	7	21.48	21.22	21.37	23.00
		15	0	21.48	21.41	21.44	23.00
	64QAM	1	0	21.31	21.19	21.16	23.00
		1	7	21.70	21.58	21.81	23.00
		1	14	21.24	21.27	21.34	23.00
		8	0	20.28	20.37	20.29	22.00
		8	4	20.50	20.35	20.44	22.00
		8	7	20.83	20.56	20.52	22.00
		15	0	20.28	20.35	20.39	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	23.79	23.70	23.73	25.00
		1	13	23.81	23.91	23.86	25.00
		1	24	23.33	23.46	23.40	25.00
		12	0	22.23	22.39	22.29	24.00
		12	6	22.27	22.29	22.19	24.00
		12	13	22.16	22.15	22.13	24.00
		25	0	22.17	22.22	22.27	24.00
	16QAM	1	0	22.59	22.37	22.40	24.00
		1	13	22.57	22.41	22.57	24.00
		1	24	22.39	22.23	22.25	24.00
		12	0	21.43	21.48	21.58	23.00
		12	6	21.57	21.43	21.58	23.00
		12	13	21.45	21.17	21.33	23.00

		25	0	21.46	21.37	21.39	23.00
	64QAM	1	0	21.28	21.19	21.13	23.00
		1	13	21.67	21.60	21.78	23.00
		1	24	21.25	21.25	21.30	23.00
		12	0	20.26	20.33	20.30	22.00
		12	6	20.47	20.30	20.40	22.00
		12	13	20.80	20.51	20.48	22.00
		25	0	20.26	20.31	20.34	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	23.81	23.71	23.76	25.00
		1	25	23.84	23.96	23.90	25.00
		1	49	23.35	23.50	23.43	25.00
		25	0	22.26	22.44	22.33	24.00
		25	13	22.30	22.34	22.23	24.00
		25	25	22.18	22.19	22.18	24.00
		50	0	22.21	22.24	22.31	24.00
	16QAM	1	0	22.61	22.40	22.42	24.00
		1	25	22.60	22.45	22.60	24.00
		1	49	22.42	22.25	22.28	24.00
		25	0	21.46	21.53	21.62	23.00
		25	13	21.59	21.47	21.61	23.00
		25	25	21.48	21.22	21.37	23.00
		50	0	21.49	21.42	21.43	23.00
	64QAM	1	0	21.30	21.18	21.15	23.00
		1	25	21.70	21.60	21.81	23.00
		1	49	21.24	21.27	21.33	23.00
		25	0	20.29	20.38	20.30	22.00
		25	13	20.49	20.34	20.43	22.00
		25	25	20.83	20.56	20.52	22.00
		50	0	20.29	20.36	20.38	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	23.80	23.67	23.74	25.00
		1	38	23.82	23.95	23.87	25.00
		1	74	23.32	23.45	23.39	25.00
		36	0	22.24	22.40	22.30	24.00
		36	18	22.27	22.29	22.19	24.00
		36	39	22.15	22.16	22.14	24.00
		75	0	22.19	22.20	22.26	24.00
	16QAM	1	0	22.56	22.38	22.40	24.00
		1	38	22.58	22.42	22.58	24.00
		1	74	22.39	22.21	22.25	24.00

		36	0	21.43	21.51	21.59	23.00
		36	18	21.56	21.42	21.57	23.00
		36	39	21.46	21.18	21.34	23.00
		75	0	21.46	21.37	21.39	23.00
		1	0	21.25	21.16	21.13	23.00
		1	38	21.68	21.57	21.79	23.00
		1	74	21.25	21.26	21.34	23.00
	64QAM	36	0	20.28	20.40	20.31	22.00
		36	18	20.47	20.31	20.42	22.00
		36	39	20.81	20.52	20.49	22.00
		75	0	20.26	20.31	20.34	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	23.77	23.63	23.71	25.00
		1	50	**23.81**	**23.91**	**23.85**	25.00
		1	99	23.30	23.44	23.36	25.00
		50	0	22.21	**22.35**	**22.26**	24.00
		50	25	**22.25**	22.25	22.16	24.00
		50	50	22.12	22.11	22.10	24.00
		100	0	22.16	22.15	**22.22**	24.00
	16QAM	1	0	22.39	22.34	22.35	24.00
		1	50	22.54	22.40	22.54	24.00
		1	99	22.37	22.18	22.23	24.00
		50	0	21.40	21.47	21.56	23.00
		50	25	21.53	21.40	21.54	23.00
		50	50	21.43	21.13	21.30	23.00
		100	0	21.44	21.33	21.36	23.00
	64QAM	1	0	21.23	21.12	21.08	23.00
		1	50	21.64	21.55	21.75	23.00
		1	99	21.19	21.20	21.28	23.00
		50	0	20.23	20.32	20.24	22.00
		50	25	20.43	20.27	20.36	22.00
		50	50	20.78	20.47	20.45	22.00
		100	0	20.24	20.27	20.31	22.00

LTE FDD Band 2 DSI 4				**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	19.50	19.33	19.29	20.50
		1	2	**19.66**	**19.55**	**19.64**	20.50
		1	5	19.39	19.20	18.92	20.50
		3	0	**19.15**	**19.31**	**19.37**	20.50

		3	2	19.06	18.94	18.78	20.50
		3	3	18.69	18.94	18.87	20.50
		6	0	18.71	**18.91**	18.68	20.50
	16QAM	1	0	19.31	18.83	18.88	20.50
		1	2	19.33	19.01	18.88	20.50
		1	5	18.85	18.89	18.76	20.50
		3	0	18.97	19.28	19.32	20.50
		3	2	19.16	18.90	19.14	20.50
		3	3	19.00	18.67	18.70	20.50
		6	0	18.91	18.88	18.77	20.50
	64QAM	1	0	19.14	18.77	18.68	20.50
		1	2	19.22	19.11	19.00	20.50
		1	5	18.72	18.83	18.64	20.50
		3	0	19.15	19.31	19.19	20.50
		3	2	19.57	19.41	19.19	20.50
		3	3	19.24	18.99	19.00	20.50
		6	0	19.10	19.26	19.16	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	19.47	19.29	19.26	20.50
		1	7	19.65	19.51	19.62	20.50
		1	14	19.37	19.19	18.89	20.50
		8	0	19.12	19.26	19.33	20.50
		8	4	19.04	18.90	18.75	20.50
		8	7	18.66	18.89	18.83	20.50
		15	0	18.68	18.86	18.64	20.50
	16QAM	1	0	19.31	18.79	18.83	20.50
		1	7	19.29	18.99	18.84	20.50
		1	14	18.83	18.86	18.74	20.50
		8	0	18.94	19.24	19.29	20.50
		8	4	19.13	18.88	19.11	20.50
		8	7	18.97	18.62	18.66	20.50
		15	0	18.89	18.84	18.74	20.50
	64QAM	1	0	19.12	18.73	18.63	20.50
		1	7	19.18	19.09	18.96	20.50
		1	14	18.66	18.77	18.58	20.50
		8	0	19.10	19.23	19.12	20.50
		8	4	19.53	19.37	19.13	20.50
		8	7	19.21	18.94	18.96	20.50
		15	0	19.08	19.22	19.13	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	19.44	19.27	19.22	20.50

		1	13	19.63	19.47	19.59	20.50
		1	24	19.34	19.14	18.85	20.50
		12	0	19.09	19.21	19.29	20.50
		12	6	19.02	18.86	18.70	20.50
		12	13	18.64	18.87	18.79	20.50
		25	0	18.68	18.85	18.62	20.50
	16QAM	1	0	19.28	18.75	18.80	20.50
		1	13	19.26	18.97	18.81	20.50
		1	24	18.80	18.84	18.70	20.50
		12	0	18.92	19.20	19.26	20.50
		12	6	19.10	18.83	19.07	20.50
		12	13	18.94	18.57	18.62	20.50
		25	0	18.87	18.80	18.69	20.50
	64QAM	1	0	19.09	18.73	18.60	20.50
		1	13	19.15	19.11	18.93	20.50
		1	24	18.67	18.75	18.54	20.50
		12	0	19.08	19.19	19.13	20.50
		12	6	19.50	19.32	19.09	20.50
		12	13	19.18	18.89	18.92	20.50
		25	0	19.06	19.18	19.08	20.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	19.46	19.28	19.25	20.50
		1	25	19.66	19.52	19.63	20.50
		1	49	19.36	19.18	18.88	20.50
		25	0	19.12	19.26	19.33	20.50
		25	13	19.05	18.91	18.74	20.50
		25	25	18.66	18.91	18.84	20.50
		50	0	18.72	18.87	18.66	20.50
	16QAM	1	0	19.30	18.78	18.82	20.50
		1	25	19.29	19.01	18.84	20.50
		1	49	18.83	18.86	18.73	20.50
		25	0	18.95	19.25	19.30	20.50
		25	13	19.12	18.87	19.10	20.50
		25	25	18.97	18.62	18.66	20.50
		50	0	18.90	18.85	18.73	20.50
	64QAM	1	0	19.11	18.72	18.62	20.50
		1	25	19.18	19.11	18.96	20.50
		1	49	18.66	18.77	18.57	20.50
		25	0	19.11	19.24	19.13	20.50
		25	13	19.52	19.36	19.12	20.50
		25	25	19.21	18.94	18.96	20.50
		50	0	19.09	19.23	19.12	20.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	19.45	19.24	19.23	20.50
		1	38	19.64	19.51	19.60	20.50
		1	74	19.33	19.13	18.84	20.50
		36	0	19.10	19.22	19.30	20.50
		36	18	19.02	18.86	18.70	20.50
		36	39	18.63	18.88	18.80	20.50
		75	0	18.70	18.83	18.61	20.50
	16QAM	1	0	19.25	18.76	18.80	20.50
		1	38	19.27	18.98	18.82	20.50
		1	74	18.80	18.82	18.70	20.50
		36	0	18.92	19.23	19.27	20.50
		36	18	19.09	18.82	19.06	20.50
		36	39	18.95	18.58	18.63	20.50
		75	0	18.87	18.80	18.69	20.50
	64QAM	1	0	19.06	18.70	18.60	20.50
		1	38	19.16	19.08	18.94	20.50
		1	74	18.67	18.76	18.58	20.50
		36	0	19.10	19.26	19.14	20.50
		36	18	19.50	19.33	19.11	20.50
		36	39	19.19	18.90	18.93	20.50
		75	0	19.06	19.18	19.08	20.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	19.42	19.20	19.20	20.50
		1	50	**19.63**	**19.47**	**19.58**	20.50
		1	99	19.31	19.12	18.81	20.50
		50	0	**19.07**	**19.17**	**19.26**	20.50
		50	25	19.00	18.82	18.67	20.50
		50	50	18.60	18.83	18.76	20.50
		100	0	18.67	**18.78**	18.57	20.50
	16QAM	1	0	18.76	18.72	18.75	20.50
		1	50	19.23	18.96	18.78	20.50
		1	99	18.78	18.79	18.68	20.50
		50	0	18.89	19.19	19.24	20.50
		50	25	19.06	18.80	19.03	20.50
		50	50	18.92	18.53	18.59	20.50
		100	0	18.85	18.76	18.66	20.50
	64QAM	1	0	19.04	18.66	18.55	20.50
		1	50	19.12	19.06	18.90	20.50
		1	99	18.61	18.70	18.52	20.50
		50	0	19.05	19.18	19.07	20.50

		50	25	19.46	19.29	19.05	20.50
		50	50	19.16	18.85	18.89	20.50
		100	0	19.04	19.14	19.05	20.50

LTE FDD Band 4 Full power&DSI 1&DSI 2				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	23.63	23.69	23.93	25.00
		1	2	23.69	23.85	23.94	25.00
		1	5	23.30	23.36	23.29	25.00
		3	0	23.22	23.33	23.39	25.00
		3	2	23.12	23.29	23.24	25.00
		3	3	23.11	23.18	23.05	25.00
		6	0	22.07	22.24	22.23	24.00
	16QAM	1	0	22.58	22.23	22.48	24.00
		1	2	22.56	22.52	22.63	24.00
		1	5	22.25	22.38	22.35	24.00
		3	0	22.36	22.29	22.39	24.00
		3	2	22.42	22.45	22.46	24.00
		3	3	22.36	22.36	22.26	24.00
		6	0	21.31	21.39	21.46	23.00
	64QAM	1	0	21.26	21.39	21.55	23.00
		1	2	21.98	22.14	21.77	23.00
		1	5	21.33	21.38	21.14	23.00
		3	0	21.31	21.31	21.48	23.00
		3	2	21.47	21.40	21.37	23.00
		3	3	21.33	21.36	21.19	23.00
		6	0	20.24	20.43	20.33	22.00
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	23.65	23.73	23.96	25.00
		1	7	23.67	23.88	23.98	25.00
		1	14	23.33	23.41	23.33	25.00
		8	0	22.32	22.45	22.52	24.00
		8	4	22.24	22.39	22.36	24.00
		8	7	22.21	22.29	22.15	24.00
		15	0	22.07	22.28	22.26	24.00
	16QAM	1	0	22.61	22.25	22.51	24.00
		1	7	22.59	22.52	22.67	24.00
		1	14	22.27	22.42	22.38	24.00
		8	0	21.47	21.42	21.51	23.00
		8	4	21.53	21.58	21.58	23.00

		8	7	21.46	21.48	21.39	23.00
		15	0	21.34	21.43	21.49	23.00
		1	0	21.29	21.41	21.58	23.00
		1	7	22.01	22.14	21.79	23.00
		1	14	21.35	21.37	21.17	23.00
	64QAM	8	0	20.42	20.44	20.60	22.00
		8	4	20.58	20.53	20.49	22.00
		8	7	20.43	20.48	20.32	22.00
		15	0	20.27	20.47	20.36	22.00
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	23.62	23.71	23.92	25.00
		1	13	23.65	23.84	23.95	25.00
		1	24	23.30	23.36	23.29	25.00
		12	0	22.29	22.40	22.48	24.00
		12	6	22.22	22.35	22.31	24.00
		12	13	22.19	22.27	22.11	24.00
		25	0	22.07	22.27	22.24	24.00
	16QAM	1	0	22.58	22.21	22.48	24.00
		1	13	22.56	22.50	22.64	24.00
		1	24	22.24	22.40	22.34	24.00
		12	0	21.45	21.38	21.48	23.00
		12	6	21.50	21.53	21.54	23.00
		12	13	21.43	21.43	21.35	23.00
		25	0	21.32	21.39	21.44	23.00
	64QAM	1	0	21.26	21.41	21.55	23.00
		1	13	21.98	22.16	21.76	23.00
		1	24	21.36	21.35	21.13	23.00
		12	0	20.40	20.40	20.61	22.00
		12	6	20.55	20.48	20.45	22.00
		12	13	20.40	20.43	20.28	22.00
		25	0	20.25	20.43	20.31	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	23.64	23.72	23.95	25.00
		1	25	23.68	23.89	23.99	25.00
		1	49	23.32	23.40	23.32	25.00
		25	0	22.32	22.45	22.52	24.00
		25	13	22.25	22.40	22.35	24.00
		25	25	22.21	22.31	22.16	24.00
		50	0	22.11	22.29	22.28	24.00
	16QAM	1	0	22.60	22.24	22.50	24.00
		1	25	22.59	22.54	22.67	24.00

		1	49	22.27	22.42	22.37	24.00
		25	0	21.48	21.43	21.52	23.00
		25	13	21.52	21.57	21.57	23.00
		25	25	21.46	21.48	21.39	23.00
		50	0	21.35	21.44	21.48	23.00
	64QAM	1	0	21.28	21.40	21.57	23.00
		1	25	22.01	22.16	21.79	23.00
		1	49	21.35	21.37	21.16	23.00
		25	0	20.43	20.45	20.61	22.00
		25	13	20.57	20.52	20.48	22.00
		25	25	20.43	20.48	20.32	22.00
		50	0	20.28	20.48	20.35	22.00
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	23.63	23.68	23.93	25.00
		1	38	23.66	23.88	23.96	25.00
		1	74	23.29	23.35	23.28	25.00
		36	0	22.30	22.41	22.49	24.00
		36	18	22.22	22.35	22.31	24.00
		36	39	22.18	22.28	22.12	24.00
		75	0	22.09	22.25	22.23	24.00
	16QAM	1	0	22.55	22.22	22.48	24.00
		1	38	22.57	22.51	22.65	24.00
		1	74	22.24	22.38	22.34	24.00
		36	0	21.45	21.41	21.49	23.00
		36	18	21.49	21.52	21.53	23.00
		36	39	21.44	21.44	21.36	23.00
		75	0	21.32	21.39	21.44	23.00
	64QAM	1	0	21.23	21.38	21.55	23.00
		1	38	21.99	22.13	21.77	23.00
		1	74	21.36	21.36	21.17	23.00
		36	0	20.42	20.47	20.62	22.00
		36	18	20.55	20.49	20.47	22.00
		36	39	20.41	20.44	20.29	22.00
		75	0	20.25	20.43	20.31	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	23.60	23.64	23.90	25.00
		1	50	**23.65**	**23.84**	**23.94**	25.00
		1	99	23.27	23.34	23.25	25.00
		50	0	**22.27**	**22.36**	**22.45**	24.00
		50	25	22.20	22.31	22.28	24.00
		50	50	22.15	22.23	22.08	24.00

		100	0	22.06	**22.20**	22.19	24.00
	16QAM	1	0	22.17	22.18	22.43	24.00
		1	50	22.53	22.49	22.61	24.00
		1	99	22.22	22.35	22.32	24.00
		50	0	21.42	21.37	21.46	23.00
		50	25	21.46	21.50	21.50	23.00
		50	50	21.41	21.39	21.32	23.00
		100	0	21.30	21.35	21.41	23.00
	64QAM	1	0	21.21	21.34	21.50	23.00
		1	50	21.95	22.11	21.73	23.00
		1	99	21.30	21.30	21.11	23.00
		50	0	20.37	20.39	20.55	22.00
		50	25	20.51	20.45	20.41	22.00
		50	50	20.38	20.39	20.25	22.00
		100	0	20.23	20.39	20.28	22.00

LTE FDD Band 4 DSI 4				**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	19.40	19.60	19.48	21.00
		1	2	19.83	20.04	19.99	21.00
		1	5	19.40	19.37	19.42	21.00
		3	0	19.62	19.91	19.98	21.00
		3	2	19.53	19.74	19.70	21.00
		3	3	19.29	19.44	19.38	21.00
		6	0	19.31	19.42	19.44	21.00
	16QAM	1	0	19.61	19.30	19.63	21.00
		1	2	19.60	20.12	19.78	21.00
		1	5	19.25	19.30	19.17	21.00
		3	0	19.32	19.53	19.53	21.00
		3	2	19.66	19.75	19.77	21.00
		3	3	19.33	19.48	19.40	21.00
		6	0	19.35	19.42	19.35	21.00
	64QAM	1	0	19.25	19.23	19.45	21.00
		1	2	20.09	20.35	20.35	21.00
		1	5	19.24	19.39	19.28	21.00
		3	0	19.43	19.51	19.72	21.00
		3	2	19.44	19.60	19.53	21.00
		3	3	19.23	19.32	19.16	21.00
		6	0	19.22	19.26	19.22	21.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19965/1711.5	20175/1732.5	20385/1753.5	
3MHz	QPSK	1	0	19.39	19.56	19.46	21.00
		1	7	19.81	20.03	19.96	21.00
		1	14	19.37	19.32	19.38	21.00
		8	0	19.60	19.87	19.95	21.00
		8	4	19.50	19.69	19.66	21.00
		8	7	19.26	19.41	19.34	21.00
		15	0	19.29	19.38	19.39	21.00
	16QAM	1	0	19.56	19.28	19.61	21.00
		1	7	19.58	20.09	19.76	21.00
		1	14	19.22	19.26	19.14	21.00
		8	0	19.29	19.51	19.50	21.00
		8	4	19.63	19.70	19.73	21.00
		8	7	19.31	19.44	19.37	21.00
		15	0	19.32	19.37	19.31	21.00
	64QAM	1	0	19.20	19.21	19.43	21.00
		1	7	20.07	20.32	20.33	21.00
		1	14	19.25	19.38	19.29	21.00
		8	0	19.42	19.53	19.73	21.00
		8	4	19.42	19.57	19.52	21.00
		8	7	19.21	19.28	19.13	21.00
		15	0	19.19	19.21	19.18	21.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19975/1712.5	20175/1732.5	20375/1752.5	
5MHz	QPSK	1	0	19.36	19.52	19.43	21.00
		1	13	19.80	19.99	19.94	21.00
		1	24	19.35	19.31	19.35	21.00
		12	0	19.57	19.82	19.91	21.00
		12	6	19.48	19.65	19.63	21.00
		12	13	19.23	19.36	19.30	21.00
		25	0	19.26	19.33	19.35	21.00
	16QAM	1	0	19.56	19.24	19.56	21.00
		1	13	19.54	20.07	19.72	21.00
		1	24	19.20	19.23	19.12	21.00
		12	0	19.26	19.47	19.47	21.00
		12	6	19.60	19.68	19.70	21.00
		12	13	19.28	19.39	19.33	21.00
		25	0	19.30	19.33	19.28	21.00
	64QAM	1	0	19.18	19.17	19.38	21.00
		1	13	20.03	20.30	20.29	21.00
		1	24	19.19	19.32	19.23	21.00
		12	0	19.37	19.45	19.66	21.00

		12	6	19.38	19.53	19.46	21.00
		12	13	19.18	19.23	19.09	21.00
		25	0	19.17	19.17	19.15	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	19.33	19.50	19.39	21.00
		1	25	19.78	19.95	19.91	21.00
		1	49	19.32	19.26	19.31	21.00
		25	0	19.54	19.77	19.87	21.00
		25	13	19.46	19.61	19.58	21.00
		25	25	19.21	19.34	19.26	21.00
		50	0	19.26	19.32	19.33	21.00
	16QAM	1	0	19.53	19.20	19.53	21.00
		1	25	19.51	20.05	19.69	21.00
		1	49	19.17	19.21	19.08	21.00
		25	0	19.24	19.43	19.44	21.00
		25	13	19.57	19.63	19.66	21.00
		25	25	19.25	19.34	19.29	21.00
		50	0	19.28	19.29	19.23	21.00
	64QAM	1	0	19.15	19.17	19.35	21.00
		1	25	20.00	20.32	20.26	21.00
		1	49	19.20	19.30	19.19	21.00
		25	0	19.35	19.41	19.67	21.00
		25	13	19.35	19.48	19.42	21.00
		25	25	19.15	19.18	19.05	21.00
		50	0	19.15	19.13	19.10	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	19.35	19.51	19.42	21.00
		1	38	19.81	20.00	19.95	21.00
		1	74	19.34	19.30	19.34	21.00
		36	0	19.57	19.82	19.91	21.00
		36	18	19.49	19.66	19.62	21.00
		36	39	19.23	19.38	19.31	21.00
		75	0	19.30	19.34	19.37	21.00
	16QAM	1	0	19.55	19.23	19.55	21.00
		1	38	19.54	20.09	19.72	21.00
		1	74	19.20	19.23	19.11	21.00
		36	0	19.27	19.48	19.48	21.00
		36	18	19.59	19.67	19.69	21.00
		36	39	19.28	19.39	19.33	21.00
		75	0	19.31	19.34	19.27	21.00
	64QAM	1	0	19.17	19.16	19.37	21.00

		1	38	20.03	20.32	20.29	21.00
		1	74	19.19	19.32	19.22	21.00
		36	0	19.38	19.46	19.67	21.00
		36	18	19.37	19.52	19.45	21.00
		36	39	19.18	19.23	19.09	21.00
		75	0	19.18	19.18	19.14	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	19.34	19.47	19.40	21.00
		1	50	**19.79**	**19.99**	**19.92**	21.00
		1	99	19.31	19.25	19.30	21.00
		50	0	**19.55**	**19.78**	**19.88**	21.00
		50	25	19.46	19.61	19.58	21.00
		50	50	19.20	19.35	19.27	21.00
		100	0	19.28	19.30	**19.32**	21.00
	16QAM	1	0	19.50	19.21	19.53	21.00
		1	50	19.52	20.06	19.70	21.00
		1	99	19.17	19.19	19.08	21.00
		50	0	19.24	19.46	19.45	21.00
		50	25	19.56	19.62	19.65	21.00
		50	50	19.26	19.35	19.30	21.00
		100	0	19.28	19.29	19.23	21.00
	64QAM	1	0	19.12	19.14	19.35	21.00
		1	50	20.01	20.29	20.27	21.00
		1	99	19.20	19.31	19.23	21.00
		50	0	19.37	19.48	19.68	21.00
		50	25	19.35	19.49	19.44	21.00
		50	50	19.16	19.19	19.06	21.00
		100	0	19.15	19.13	19.10	21.00

LTE FDD Band 5 DSI 1&DSI 4				**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	23.12	22.88	23.06	24.50
		1	2	23.41	23.57	23.61	24.50
		1	5	22.76	23.02	22.67	24.50
		3	0	23.41	23.41	23.56	24.50
		3	2	23.08	23.27	23.30	24.50
		3	3	23.11	23.29	23.11	24.50
		6	0	22.39	22.29	22.30	23.50
	16QAM	1	0	22.65	22.61	22.44	23.50
		1	2	22.63	22.95	23.20	23.50

		1	5	21.80	21.82	22.13	23.50
		3	0	22.31	22.32	22.46	23.50
		3	2	22.24	22.75	22.50	23.50
		3	3	22.12	22.71	22.20	23.50
		6	0	21.62	21.40	21.57	22.50
	64QAM	1	0	21.33	21.33	20.98	22.50
		1	2	22.04	22.06	21.85	22.50
		1	5	21.17	21.85	21.35	22.50
		3	0	21.30	21.38	21.50	22.50
		3	2	21.10	21.52	21.48	22.50
		3	3	20.93	21.49	21.25	22.50
		6	0	20.35	20.36	20.39	21.50
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	23.13	22.91	23.08	24.50
		1	7	23.40	23.61	23.66	24.50
		1	14	22.78	23.06	22.70	24.50
		8	0	22.51	22.53	22.69	23.50
		8	4	22.21	22.38	22.41	23.50
		8	7	22.21	22.42	22.22	23.50
		15	0	22.43	22.34	22.35	23.50
	16QAM	1	0	22.67	22.62	22.46	23.50
		1	7	22.66	22.97	23.24	23.50
		1	14	21.82	21.86	22.15	23.50
		8	0	21.43	21.46	21.59	22.50
		8	4	21.34	21.87	21.61	22.50
		8	7	21.22	21.83	21.33	22.50
		15	0	21.66	21.45	21.59	22.50
	64QAM	1	0	21.35	21.34	21.00	22.50
		1	7	22.07	22.08	21.87	22.50
		1	14	21.19	21.84	21.37	22.50
		8	0	20.42	20.52	20.63	21.50
		8	4	20.20	20.64	20.59	21.50
		8	7	20.03	20.61	20.38	21.50
		15	0	20.39	20.41	20.41	21.50
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	23.12	22.87	23.06	24.50
		1	13	23.38	23.60	23.63	24.50
		1	24	22.75	23.01	22.66	24.50
		12	0	22.49	22.49	22.66	23.50
		12	6	22.18	22.33	22.37	23.50
		12	13	22.18	22.39	22.18	23.50

		25	0	22.41	22.30	22.30	23.50
	16QAM	1	0	22.62	22.60	22.44	23.50
		1	13	22.64	22.94	23.22	23.50
		1	24	21.79	21.82	22.12	23.50
		12	0	21.40	21.44	21.56	22.50
		12	6	21.31	21.82	21.57	22.50
		12	13	21.20	21.79	21.30	22.50
		25	0	21.63	21.40	21.55	22.50
	64QAM	1	0	21.30	21.32	20.98	22.50
		1	13	22.05	22.05	21.85	22.50
		1	24	21.20	21.83	21.38	22.50
		12	0	20.41	20.54	20.64	21.50
		12	6	20.18	20.61	20.58	21.50
		12	13	20.01	20.57	20.35	21.50
		25	0	20.36	20.36	20.37	21.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	23.09	22.83	23.03	24.50
		1	25	**23.37**	**23.61**	**23.58**	24.50
		1	49	22.73	23.00	22.63	24.50
		25	0	**22.46**	**22.48**	**22.62**	23.50
		25	13	22.16	22.29	22.34	23.50
		25	25	22.15	22.34	22.14	23.50
		50	0	**22.38**	22.25	22.26	23.50
	16QAM	1	0	22.56	22.56	22.39	23.50
		1	25	22.60	22.92	23.18	23.50
		1	49	21.77	21.79	22.10	23.50
		25	0	21.37	21.40	21.53	22.50
		25	13	21.28	21.80	21.54	22.50
		25	25	21.17	21.74	21.26	22.50
		50	0	21.61	21.36	21.52	22.50
	64QAM	1	0	21.28	21.28	20.93	22.50
		1	25	22.01	22.03	21.81	22.50
		1	49	21.14	21.77	21.32	22.50
		25	0	20.36	20.46	20.57	21.50
		25	13	20.14	20.57	20.52	21.50
		25	25	19.98	20.52	20.31	21.50
		50	0	20.34	20.32	20.34	21.50

LTE FDD Band 5 Full power&DSI 2				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	23.51	23.38	23.49	25.00
		1	2	23.83	23.94	23.89	25.00
		1	5	23.40	23.62	23.53	25.00
		3	0	23.22	23.29	23.30	25.00
		3	2	23.15	23.33	23.20	25.00
		3	3	23.07	23.19	23.06	25.00
		6	0	22.14	22.16	22.30	23.50
	16QAM	1	0	22.41	22.20	22.46	23.50
		1	2	22.39	22.58	22.70	23.50
		1	5	22.10	22.25	22.20	23.50
		3	0	22.23	22.34	22.42	23.50
		3	2	22.41	22.39	22.45	23.50
		3	3	22.34	22.36	22.34	23.50
		6	0	21.49	21.41	21.63	22.50
	64QAM	1	0	21.53	21.15	21.46	22.50
		1	2	21.92	21.63	22.03	22.50
		1	5	21.29	21.38	21.32	22.50
		3	0	21.43	21.54	21.59	22.50
		3	2	21.57	21.62	21.62	22.50
		3	3	21.43	21.60	21.38	22.50
		6	0	20.54	20.48	20.59	21.50
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	23.52	23.41	23.51	25.00
		1	7	23.82	23.98	23.94	25.00
		1	14	23.42	23.66	23.56	25.00
		8	0	22.32	22.41	22.43	23.50
		8	4	22.28	22.44	22.31	23.50
		8	7	22.17	22.32	22.17	23.50
		15	0	22.18	22.21	22.35	23.50
	16QAM	1	0	22.43	22.21	22.48	23.50
		1	7	22.42	22.60	22.74	23.50
		1	14	22.12	22.29	22.22	23.50
		8	0	21.35	21.48	21.55	22.50
		8	4	21.51	21.51	21.56	22.50
		8	7	21.44	21.48	21.47	22.50
		15	0	21.53	21.46	21.65	22.50
	64QAM	1	0	21.55	21.16	21.48	22.50
		1	7	21.95	21.65	22.05	22.50

		1	14	21.31	21.37	21.34	22.50
		8	0	20.55	20.68	20.72	21.50
		8	4	20.67	20.74	20.73	21.50
		8	7	20.53	20.72	20.51	21.50
		15	0	20.58	20.53	20.61	21.50
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	23.51	23.37	23.49	25.00
		1	13	23.80	23.97	23.91	25.00
		1	24	23.39	23.61	23.52	25.00
		12	0	22.30	22.37	22.40	23.50
		12	6	22.25	22.39	22.27	23.50
		12	13	22.14	22.29	22.13	23.50
		25	0	22.16	22.17	22.30	23.50
	16QAM	1	0	22.38	22.19	22.46	23.50
		1	13	22.40	22.57	22.72	23.50
		1	24	22.09	22.25	22.19	23.50
		12	0	21.32	21.46	21.52	22.50
		12	6	21.48	21.46	21.52	22.50
		12	13	21.42	21.44	21.44	22.50
		25	0	21.50	21.41	21.61	22.50
	64QAM	1	0	21.50	21.14	21.46	22.50
		1	13	21.93	21.62	22.03	22.50
		1	24	21.32	21.36	21.35	22.50
		12	0	20.54	20.70	20.73	21.50
		12	6	20.65	20.71	20.72	21.50
		12	13	20.51	20.68	20.48	21.50
		25	0	20.55	20.48	20.57	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	23.48	23.33	23.46	25.00
		1	25	**23.79**	**23.93**	**23.89**	25.00
		1	49	23.37	23.60	23.49	25.00
		25	0	**22.27**	22.32	**22.36**	23.50
		25	13	22.23	**22.35**	22.24	23.50
		25	25	22.11	22.24	22.09	23.50
		50	0	22.13	22.12	**22.26**	23.50
	16QAM	1	0	22.36	22.15	22.41	23.50
		1	25	22.36	22.55	22.68	23.50
		1	49	22.07	22.22	22.17	23.50
		25	0	21.29	21.42	21.49	22.50
		25	13	21.45	21.44	21.49	22.50
		25	25	21.39	21.39	21.40	22.50

		50	0	21.48	21.37	21.58	22.50
	64QAM	1	0	21.48	21.10	21.41	22.50
		1	25	21.89	21.60	21.99	22.50
		1	49	21.26	21.30	21.29	22.50
		25	0	20.49	20.62	20.66	21.50
		25	13	20.61	20.67	20.66	21.50
		25	25	20.48	20.63	20.44	21.50
		50	0	20.53	20.44	20.54	21.50

LTE FDD Band 7 Full power& DSI 1& DSI 2				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	22.42	22.49	22.28	24.00
		1	13	22.59	22.54	22.39	24.00
		1	24	22.30	22.35	22.31	24.00
		12	0	21.43	21.26	21.13	23.00
		12	6	21.11	21.20	21.10	23.00
		12	13	21.05	21.14	21.09	23.00
		25	0	21.03	21.21	21.18	23.00
	16QAM	1	0	21.37	21.04	22.01	22.50
		1	13	21.35	21.40	21.23	22.50
		1	24	22.09	21.08	22.18	22.50
		12	0	20.37	20.27	20.16	21.50
		12	6	20.32	20.32	20.18	21.50
		12	13	20.05	20.27	20.22	21.50
		25	0	20.04	20.14	20.10	21.50
	64QAM	1	0	20.12	20.30	20.17	21.50
		1	13	20.53	20.76	20.56	21.50
		1	24	20.07	20.35	20.05	21.50
		12	0	19.35	19.34	19.22	20.50
		12	6	19.23	19.39	19.22	20.50
		12	13	19.05	19.54	19.24	20.50
		25	0	19.15	19.34	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	22.44	22.50	22.31	24.00
		1	25	22.62	22.59	22.43	24.00
		1	49	22.32	22.39	22.34	24.00
		25	0	21.46	21.31	21.17	23.00
		25	13	21.14	21.25	21.14	23.00
		25	25	21.07	21.18	21.14	23.00
		50	0	21.07	21.23	21.22	23.00

	16QAM	1	0	21.39	21.07	22.03	22.50
		1	25	21.38	21.44	21.26	22.50
		1	49	22.12	21.10	22.21	22.50
		25	0	20.40	20.32	20.20	21.50
		25	13	20.34	20.36	20.21	21.50
		25	25	20.08	20.32	20.26	21.50
		50	0	20.07	20.19	20.14	21.50
	64QAM	1	0	20.14	20.29	20.19	21.50
		1	25	20.56	20.76	20.59	21.50
		1	49	20.06	20.37	20.08	21.50
		25	0	19.38	19.39	19.22	20.50
		25	13	19.25	19.43	19.25	20.50
		25	25	19.08	19.59	19.28	20.50
		50	0	19.18	19.39	19.34	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	22.43	22.46	22.29	24.00
		1	38	22.60	22.58	22.40	24.00
		1	74	22.29	22.34	22.30	24.00
		36	0	21.44	21.27	21.14	23.00
		36	18	21.11	21.20	21.10	23.00
		36	39	21.04	21.15	21.10	23.00
		75	0	21.05	21.19	21.17	23.00
	16QAM	1	0	21.34	21.05	22.01	22.50
		1	38	21.36	21.41	21.24	22.50
		1	74	22.09	21.06	22.18	22.50
		36	0	20.37	20.30	20.17	21.50
		36	18	20.31	20.31	20.17	21.50
		36	39	20.06	20.28	20.23	21.50
		75	0	20.04	20.14	20.10	21.50
	64QAM	1	0	20.09	20.27	20.17	21.50
		1	38	20.54	20.73	20.57	21.50
		1	74	20.07	20.36	20.09	21.50
		36	0	19.37	19.41	19.23	20.50
		36	18	19.23	19.40	19.24	20.50
		36	39	19.06	19.55	19.25	20.50
		75	0	19.15	19.34	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	22.40	22.42	22.26	24.00
		1	50	**22.59**	**22.54**	**22.38**	24.00
		1	99	22.27	22.33	22.27	24.00
		50	0	**21.41**	**21.22**	**21.10**	23.00

		50	25	21.09	21.16	21.07	23.00
		50	50	21.01	21.10	21.06	23.00
		100	0	21.02	**21.14**	21.13	23.00
	16QAM	1	0	22.03	21.01	21.96	22.50
		1	50	21.32	21.39	21.20	22.50
		1	99	22.07	21.03	22.16	22.50
		50	0	20.34	20.26	20.14	21.50
		50	25	20.28	20.29	20.14	21.50
		50	50	20.03	20.23	20.19	21.50
		100	0	20.02	20.10	20.07	21.50
	64QAM	1	0	20.07	20.23	20.12	21.50
		1	50	20.50	20.71	20.53	21.50
		1	99	20.01	20.30	20.03	21.50
		50	0	19.32	19.33	19.16	20.50
		50	25	19.19	19.36	19.18	20.50
		50	50	19.03	19.50	19.21	20.50
		100	0	19.13	19.30	19.27	20.50

LTE FDD Band 7 DSI 4				**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	16.49	16.72	16.51	18.00
		1	13	16.98	16.80	16.77	18.00
		1	24	16.57	16.33	16.42	18.00
		12	0	16.45	16.62	16.62	18.00
		12	6	16.52	16.57	16.45	18.00
		12	13	16.45	16.45	16.33	18.00
		25	0	16.43	16.53	16.46	18.00
	16QAM	1	0	16.48	16.59	16.51	17.50
		1	13	16.46	16.40	16.48	17.50
		1	24	16.47	16.48	16.50	17.50
		12	0	16.64	16.59	16.66	17.50
		12	6	16.57	16.53	16.60	17.50
		12	13	16.60	16.59	16.63	17.50
		25	0	16.33	16.33	16.37	17.50
	64QAM	1	0	16.38	16.38	16.43	17.50
		1	13	16.50	16.48	16.52	17.50
		1	24	16.63	16.56	16.58	17.50
		12	0	16.46	16.39	16.50	17.50
		12	6	16.48	16.43	16.50	17.50
		12	13	16.30	16.29	16.33	17.50
		25	0	16.35	16.35	16.39	17.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	16.51	16.73	16.54	18.00
		1	25	17.01	16.85	16.81	18.00
		1	49	16.59	16.37	16.45	18.00
		25	0	16.48	16.67	16.66	18.00
		25	13	16.55	16.62	16.49	18.00
		25	25	16.47	16.49	16.38	18.00
		50	0	16.47	16.55	16.50	18.00
	16QAM	1	0	16.50	16.62	16.53	17.50
		1	25	16.49	16.44	16.51	17.50
		1	49	16.50	16.50	16.53	17.50
		25	0	16.67	16.64	16.70	17.50
		25	13	16.59	16.57	16.63	17.50
		25	25	16.63	16.64	16.67	17.50
		50	0	16.36	16.38	16.41	17.50
	64QAM	1	0	16.40	16.37	16.45	17.50
		1	25	16.53	16.48	16.55	17.50
		1	49	16.62	16.58	16.61	17.50
		25	0	16.49	16.44	16.50	17.50
		25	13	16.50	16.47	16.53	17.50
		25	25	16.33	16.34	16.37	17.50
		50	0	16.38	16.40	16.43	17.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	16.50	16.69	16.52	18.00
		1	38	16.47	16.65	16.49	18.00
		1	74	16.98	16.80	16.76	18.00
		36	0	16.54	16.31	16.38	18.00
		36	18	16.43	16.58	16.59	18.00
		36	39	16.50	16.53	16.42	18.00
		75	0	16.41	16.41	16.30	18.00
	16QAM	1	0	16.42	16.46	16.41	17.50
		1	38	16.41	16.56	16.46	17.50
		1	74	16.43	16.39	16.45	17.50
		36	0	16.45	16.43	16.48	17.50
		36	18	16.61	16.58	16.64	17.50
		36	39	16.53	16.50	16.56	17.50
		75	0	16.58	16.55	16.60	17.50
	64QAM	1	0	16.31	16.29	16.34	17.50
		1	38	16.33	16.31	16.38	17.50
		1	74	16.47	16.43	16.49	17.50
		36	0	16.57	16.51	16.56	17.50

		36	18	16.43	16.38	16.44	17.50
		36	39	16.44	16.40	16.46	17.50
		75	0	16.28	16.25	16.30	17.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	16.47	16.65	16.49	18.00
		1	50	**16.98**	**16.80**	**16.76**	18.00
		1	99	16.54	16.31	16.38	18.00
		50	0	16.43	**16.58**	**16.59**	18.00
		50	25	**16.50**	16.53	16.42	18.00
		50	50	16.41	16.41	16.30	18.00
		100	0	16.42	**16.46**	16.41	18.00
	16QAM	1	0	16.41	16.56	16.46	17.50
		1	50	16.43	16.39	16.45	17.50
		1	99	16.45	16.43	16.48	17.50
		50	0	16.61	16.58	16.64	17.50
		50	25	16.53	16.50	16.56	17.50
		50	50	16.58	16.55	16.60	17.50
		100	0	16.31	16.29	16.34	17.50
	64QAM	1	0	16.33	16.31	16.38	17.50
		1	50	16.47	16.43	16.49	17.50
		1	99	16.57	16.51	16.56	17.50
		50	0	16.43	16.38	16.44	17.50
		50	25	16.44	16.40	16.46	17.50
		50	50	16.28	16.25	16.30	17.50
		100	0	16.33	16.31	16.36	17.50

LTE TDD Band 38 Full power& DSI 1& DSI 2				**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	24.39	24.11	24.14	25.00
		1	13	24.38	24.42	24.62	25.00
		1	24	24.22	24.36	24.29	25.00
		12	0	23.27	23.22	23.18	24.00
		12	6	22.84	23.02	22.95	24.00
		12	13	22.75	22.84	22.84	24.00
		25	0	22.76	22.82	22.87	24.00
	16QAM	1	0	23.30	22.62	22.55	24.00
		1	13	23.28	23.31	23.40	24.00
		1	24	22.38	22.49	22.40	24.00
		12	0	22.20	22.18	22.05	23.00
		12	6	21.99	22.18	22.10	23.00

		12	13	21.88	22.12	21.95	23.00
		25	0	21.99	22.01	21.98	23.00
		1	0	21.32	21.45	21.41	23.00
		1	13	22.32	22.21	22.34	23.00
		1	24	21.42	21.56	21.47	23.00
	64QAM	12	0	21.29	21.12	21.19	22.00
		12	6	20.99	21.09	21.10	22.00
		12	13	20.92	20.99	21.03	22.00
		25	0	20.90	20.92	21.10	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	24.41	24.12	24.17	25.00
		1	25	24.41	24.47	24.66	25.00
		1	49	24.24	24.40	24.32	25.00
		25	0	23.30	23.27	23.22	24.00
		25	13	22.87	23.07	22.99	24.00
		25	25	22.77	22.88	22.89	24.00
		50	0	22.80	22.84	22.91	24.00
	16QAM	1	0	23.32	22.65	22.57	24.00
		1	25	23.31	23.35	23.43	24.00
		1	49	22.41	22.51	22.43	24.00
		25	0	22.23	22.23	22.09	23.00
		25	13	22.01	22.22	22.13	23.00
		25	25	21.91	22.17	21.99	23.00
		50	0	22.02	22.06	22.02	23.00
	64QAM	1	0	21.34	21.44	21.43	23.00
		1	25	22.35	22.21	22.37	23.00
		1	49	21.41	21.58	21.50	23.00
		25	0	21.32	21.17	21.19	22.00
		25	13	21.01	21.13	21.13	22.00
		25	25	20.95	21.04	21.07	22.00
		50	0	20.93	20.97	21.14	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	24.40	24.08	24.15	25.00
		1	38	24.39	24.46	24.63	25.00
		1	74	24.21	24.35	24.28	25.00
		36	0	23.28	23.23	23.19	24.00
		36	18	22.84	23.02	22.95	24.00
		36	39	22.74	22.85	22.85	24.00
		75	0	22.78	22.80	22.86	24.00
	16QAM	1	0	23.27	22.63	22.55	24.00
		1	38	23.29	23.32	23.41	24.00

		1	74	22.38	22.47	22.40	24.00
		36	0	22.20	22.21	22.06	23.00
		36	18	21.98	22.17	22.09	23.00
		36	39	21.89	22.13	21.96	23.00
		75	0	21.99	22.01	21.98	23.00
	64QAM	1	0	21.29	21.42	21.41	23.00
		1	38	22.33	22.18	22.35	23.00
		1	74	21.42	21.57	21.51	23.00
		36	0	21.31	21.19	21.20	22.00
		36	18	20.99	21.10	21.12	22.00
		36	39	20.93	21.00	21.04	22.00
		75	0	20.90	20.92	21.10	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	24.37	24.04	24.12	25.00
		1	50	**24.38**	**24.42**	**24.61**	25.00
		1	99	24.19	24.34	24.25	25.00
		50	0	**23.25**	**23.18**	**23.15**	24.00
		50	25	22.82	22.98	22.92	24.00
		50	50	22.71	22.80	22.81	24.00
		100	0	22.75	22.75	**22.82**	24.00
	16QAM	1	0	22.36	22.59	22.50	24.00
		1	50	23.25	23.30	23.37	24.00
		1	99	22.36	22.44	22.38	24.00
		50	0	22.17	22.17	22.03	23.00
		50	25	21.95	22.15	22.06	23.00
		50	50	21.86	22.08	21.92	23.00
		100	0	21.97	21.97	21.95	23.00
	64QAM	1	0	21.27	21.38	21.36	23.00
		1	50	22.29	22.16	22.31	23.00
		1	99	21.36	21.51	21.45	23.00
		50	0	21.26	21.11	21.13	22.00
		50	25	20.95	21.06	21.06	22.00
		50	50	20.90	20.95	21.00	22.00
		100	0	20.88	20.88	21.07	22.00

LTE TDD Band 38 DSI 4				**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	21.92	21.95	21.82	22.50
		1	13	21.91	21.95	22.06	22.50
		1	24	21.91	21.92	22.04	22.50

		12	0	21.90	21.90	21.87	22.50
		12	6	21.84	21.88	21.83	22.50
		12	13	21.91	21.86	21.85	22.50
		25	0	21.67	21.85	21.94	22.50
	16QAM	1	0	21.44	21.56	21.67	22.50
		1	13	21.42	21.31	21.43	22.50
		1	24	21.46	21.38	21.46	22.50
		12	0	21.75	21.64	21.76	22.50
		12	6	21.86	21.75	21.86	22.50
		12	13	21.73	21.68	21.75	22.50
		25	0	21.64	21.59	21.65	22.50
	64QAM	1	0	21.73	21.63	21.63	22.50
		1	13	21.45	21.36	21.38	22.50
		1	24	21.49	21.37	21.40	22.50
		12	0	21.77	21.65	21.75	22.00
		12	6	21.89	21.76	21.81	22.00
		12	13	21.76	21.67	21.69	22.00
		25	0	21.66	21.58	21.59	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	21.94	21.96	21.85	22.50
		1	25	21.94	22.00	22.10	22.50
		1	49	21.93	21.96	22.07	22.50
		25	0	21.93	21.95	21.91	22.50
		25	13	21.87	21.93	21.87	22.50
		25	25	21.93	21.90	21.90	22.50
		50	0	21.71	21.87	21.98	22.50
	16QAM	1	0	21.46	21.59	21.69	22.50
		1	25	21.45	21.35	21.46	22.50
		1	49	21.49	21.40	21.49	22.50
		25	0	21.78	21.69	21.80	22.50
		25	13	21.88	21.79	21.89	22.50
		25	25	21.76	21.73	21.79	22.50
		50	0	21.67	21.64	21.69	22.50
	64QAM	1	0	21.75	21.62	21.65	22.50
		1	25	21.48	21.36	21.41	22.50
		1	49	21.48	21.39	21.43	22.50
		25	0	21.80	21.70	21.75	22.00
		25	13	21.91	21.80	21.84	22.00
		25	25	21.79	21.72	21.73	22.00
		50	0	21.69	21.63	21.63	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	21.93	21.92	21.83	22.50
		1	38	21.92	21.99	22.07	22.50
		1	74	21.90	21.91	22.03	22.50
		36	0	21.91	21.91	21.88	22.50
		36	18	21.84	21.88	21.83	22.50
		36	39	21.90	21.87	21.86	22.50
		75	0	21.69	21.83	21.93	22.50
	16QAM	1	0	21.41	21.57	21.67	22.50
		1	38	21.43	21.32	21.44	22.50
		1	74	21.46	21.36	21.46	22.50
		36	0	21.75	21.67	21.77	22.50
		36	18	21.85	21.74	21.85	22.50
		36	39	21.74	21.69	21.76	22.50
		75	0	21.64	21.59	21.65	22.50
	64QAM	1	0	21.70	21.60	21.63	22.50
		1	38	21.46	21.33	21.39	22.50
		1	74	21.49	21.38	21.44	22.50
		36	0	21.79	21.72	21.76	22.00
		36	18	21.89	21.77	21.83	22.00
		36	39	21.77	21.68	21.70	22.00
		75	0	21.66	21.58	21.59	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	21.90	21.88	21.80	22.50
		1	50	**21.91**	**21.95**	**22.05**	22.50
		1	99	21.88	21.90	22.00	22.50
		50	0	**21.88**	**21.86**	**21.84**	22.50
		50	25	21.82	21.84	21.80	22.50
		50	50	21.87	21.82	21.82	22.50
		100	0	21.66	21.78	**21.89**	22.50
	16QAM	1	0	21.65	21.53	21.62	22.50
		1	50	21.39	21.30	21.40	22.50
		1	99	21.44	21.33	21.44	22.50
		50	0	21.72	21.63	21.74	22.50
		50	25	21.82	21.72	21.82	22.50
		50	50	21.71	21.64	21.72	22.50
		100	0	21.62	21.55	21.62	22.50
	64QAM	1	0	21.68	21.56	21.58	22.50
		1	50	21.42	21.31	21.35	22.50
		1	99	21.43	21.32	21.38	22.50
		50	0	21.74	21.64	21.69	22.00

		50	25	21.85	21.73	21.77	22.00
		50	50	21.74	21.63	21.66	22.00
		100	0	21.64	21.54	21.56	22.00

LTE TDD Band 41 Full power& DSI 1& DSI 2				Conducted Power(dBm)				Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				40065/2537.5	40385/2569.5	40705/2601.5	41215/2652.5	
5MHz	QPSK	1	0	23.33	23.14	23.30	23.36	24.00
		1	13	23.17	23.05	23.50	23.37	24.00
		1	24	22.37	23.15	23.29	23.14	24.00
		12	0	22.35	22.06	22.05	22.41	23.00
		12	6	22.20	22.01	22.09	22.41	23.00
		12	13	22.30	21.83	22.00	22.14	23.00
		25	0	21.75	21.99	21.94	22.25	23.00
	16QAM	1	0	21.50	21.57	21.66	21.90	23.00
		1	13	21.48	22.09	22.06	21.88	23.00
		1	24	21.29	21.30	21.49	21.28	23.00
		12	0	21.39	20.84	20.92	21.30	22.00
		12	6	21.40	21.05	21.02	21.50	22.00
		12	13	21.33	20.87	20.90	21.28	22.00
		25	0	20.67	20.92	20.91	21.39	22.00
	64QAM	1	0	20.94	20.42	20.51	20.68	22.00
		1	13	20.50	20.67	20.79	20.89	22.00
		1	24	20.56	20.29	20.10	20.50	22.00
		12	0	20.62	20.11	20.15	20.65	21.00
		12	6	20.54	20.26	20.33	20.76	21.00
		12	13	20.61	20.06	20.28	20.41	21.00
		25	0	19.36	20.06	20.32	20.54	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40090/2540	40390/2570	40690/2600	41190/2650	
10MHz	QPSK	1	0	23.35	23.15	23.33	23.38	24.00
		1	25	23.20	23.10	23.54	23.40	24.00
		1	49	22.39	23.19	23.32	23.16	24.00
		25	0	22.38	22.11	22.09	22.44	23.00
		25	13	22.23	22.06	22.13	22.44	23.00
		25	25	22.32	21.87	22.05	22.16	23.00
		50	0	21.79	22.01	21.98	22.29	23.00
	16QAM	1	0	21.52	21.60	21.68	21.92	23.00
		1	25	21.51	22.13	22.09	21.91	23.00
		1	49	21.32	21.32	21.52	21.31	23.00
		25	0	21.42	20.89	20.96	21.33	22.00
		25	13	21.42	21.09	21.05	21.52	22.00

		25	25	21.36	20.92	20.94	21.31	22.00
		50	0	20.70	20.97	20.95	21.42	22.00
	64QAM	1	0	20.96	20.41	20.53	20.70	22.00
		1	25	20.53	20.67	20.82	20.92	22.00
		1	49	20.55	20.31	20.13	20.49	22.00
		25	0	20.65	20.16	20.15	20.68	21.00
		25	13	20.56	20.30	20.36	20.78	21.00
		25	25	20.64	20.11	20.32	20.44	21.00
		50	0	19.39	20.11	20.36	20.57	21.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40115/2542.5	40395/2570.5	40685/2599.5	2647.5/41140	
15MHz	QPSK	1	0	23.34	23.11	23.31	23.37	24.00
		1	38	23.18	23.09	23.51	23.38	24.00
		1	74	22.36	23.14	23.28	23.13	24.00
		36	0	22.36	22.07	22.06	22.42	23.00
		36	18	22.20	22.01	22.09	22.41	23.00
		36	39	22.29	21.84	22.01	22.13	23.00
		75	0	21.77	21.97	21.93	22.27	23.00
	16QAM	1	0	21.47	21.58	21.66	21.87	23.00
		1	38	21.49	22.10	22.07	21.89	23.00
		1	74	21.29	21.28	21.49	21.28	23.00
		36	0	21.39	20.87	20.93	21.30	22.00
		36	18	21.39	21.04	21.01	21.49	22.00
		36	39	21.34	20.88	20.91	21.29	22.00
		75	0	20.67	20.92	20.91	21.39	22.00
	64QAM	1	0	20.91	20.39	20.51	20.65	22.00
		1	38	20.51	20.64	20.80	20.90	22.00
		1	74	20.56	20.30	20.14	20.50	22.00
		36	0	20.64	20.18	20.16	20.67	21.00
		36	18	20.54	20.27	20.35	20.76	21.00
		36	39	20.62	20.07	20.29	20.42	21.00
		75	0	19.36	20.06	20.32	20.54	21.00

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	**23.31**	23.07	23.28	23.34	24.00
		1	50	23.17	23.05	**23.49**	**23.37**	24.00
		1	99	22.34	**23.13**	23.25	23.11	24.00
		50	0	**22.33**	**22.02**	22.02	**22.39**	23.00
		50	25	22.18	21.97	**22.06**	**22.39**	23.00
		50	50	22.26	21.79	21.97	22.10	23.00
		100	0	21.74	**21.92**	21.89	**22.24**	23.00
	16QAM	1	0	22.00	21.54	21.61	21.81	23.00

		1	50	21.45	22.08	22.03	21.85	23.00
		1	99	21.27	21.25	21.47	21.26	23.00
		50	0	21.36	20.83	20.90	21.27	22.00
		50	25	21.36	21.02	20.98	21.46	22.00
		50	50	21.31	20.83	20.87	21.26	22.00
		100	0	20.65	20.88	20.88	21.37	22.00
	64QAM	1	0	20.89	20.35	20.46	20.63	22.00
		1	50	20.47	20.62	20.76	20.86	22.00
		1	99	20.50	20.24	20.08	20.44	22.00
		50	0	20.59	20.10	20.09	20.62	21.00
		50	25	20.50	20.23	20.29	20.72	21.00
		50	50	20.59	20.02	20.25	20.39	21.00
		100	0	19.34	20.02	20.29	20.52	21.00

LTE TDD Band 41 DSI 4				Conducted Power(dBm)				Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				40065/2537.5	40385/2569.5	40705/2601.5	41215/2652.5	
5MHz	QPSK	1	0	22.40	22.16	22.24	22.16	23.00
		1	13	22.52	22.21	22.36	22.63	23.00
		1	24	22.24	22.13	22.42	22.30	23.00
		12	0	22.39	22.13	22.22	22.40	23.00
		12	6	22.30	22.03	22.18	22.45	23.00
		12	13	22.15	21.78	22.14	22.02	23.00
		25	0	22.22	21.96	22.09	22.36	23.00
	16QAM	1	0	21.95	21.62	21.70	22.07	23.00
		1	13	21.93	22.24	22.54	21.79	23.00
		1	24	21.29	21.44	21.73	21.44	23.00
		12	0	21.26	20.71	20.93	21.34	22.00
		12	6	21.34	20.89	21.05	21.55	22.00
		12	13	21.25	20.77	21.14	21.25	22.00
		25	0	21.34	20.85	20.96	21.39	22.00
	64QAM	1	0	20.84	20.25	20.23	20.97	22.00
		1	13	20.76	20.35	20.52	20.81	22.00
		1	24	20.53	20.38	20.60	20.44	22.00
		12	0	20.25	20.12	20.25	20.28	21.00
		12	6	20.31	20.30	20.35	20.49	21.00
		12	13	20.19	20.05	20.33	20.11	21.00
		25	0	20.14	20.08	20.16	20.49	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40090/2540	40390/2570	40690/2600	41190/2650	
10MHz	QPSK	1	0	22.42	22.17	22.27	22.19	23.00
		1	25	22.55	22.26	22.40	22.67	23.00

		1	49	22.26	22.17	22.45	22.33	23.00
		25	0	22.42	22.18	22.26	22.44	23.00
		25	13	22.33	22.08	22.22	22.49	23.00
		25	25	22.17	21.82	22.19	22.07	23.00
		50	0	22.26	21.98	22.13	22.40	23.00
	16QAM	1	0	21.97	21.65	21.72	22.09	23.00
		1	25	21.96	22.28	22.57	21.82	23.00
		1	49	21.32	21.46	21.76	21.47	23.00
		25	0	21.29	20.76	20.97	21.38	22.00
		25	13	21.36	20.93	21.08	21.58	22.00
		25	25	21.28	20.82	21.18	21.29	22.00
		50	0	21.37	20.90	21.00	21.43	22.00
	64QAM	1	0	20.86	20.24	20.25	20.99	22.00
		1	25	20.79	20.35	20.55	20.84	22.00
		1	49	20.52	20.40	20.63	20.47	22.00
		25	0	20.28	20.17	20.25	20.28	21.00
		25	13	20.33	20.34	20.38	20.52	21.00
		25	25	20.22	20.10	20.37	20.15	21.00
		50	0	20.17	20.13	20.20	20.53	21.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40115/2542.5	40395/2570.5	40685/2599.5	2647.5/41140	
15MHz	QPSK	1	0	22.41	22.13	22.25	22.17	23.00
		1	38	22.53	22.25	22.37	22.64	23.00
		1	74	22.23	22.12	22.41	22.29	23.00
		36	0	22.40	22.14	22.23	22.41	23.00
		36	18	22.30	22.03	22.18	22.45	23.00
		36	39	22.14	21.79	22.15	22.03	23.00
		75	0	22.24	21.94	22.08	22.35	23.00
	16QAM	1	0	21.92	21.63	21.70	22.07	23.00
		1	38	21.94	22.25	22.55	21.80	23.00
		1	74	21.29	21.42	21.73	21.44	23.00
		36	0	21.26	20.74	20.94	21.35	22.00
		36	18	21.33	20.88	21.04	21.54	22.00
		36	39	21.26	20.78	21.15	21.26	22.00
		75	0	21.34	20.85	20.96	21.39	22.00
	64QAM	1	0	20.81	20.22	20.23	20.97	22.00
		1	38	20.77	20.32	20.53	20.82	22.00
		1	74	20.53	20.39	20.64	20.48	22.00
		36	0	20.27	20.19	20.26	20.29	21.00
		36	18	20.31	20.31	20.37	20.51	21.00
		36	39	20.20	20.06	20.34	20.12	21.00
		75	0	20.14	20.08	20.16	20.49	21.00

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	22.38	22.09	22.22	22.14	23.00
		1	50	**22.52**	**22.21**	22.35	**22.62**	23.00
		1	99	22.21	22.11	**22.38**	22.26	23.00
		50	0	**22.37**	**22.09**	**22.19**	22.37	23.00
		50	25	22.28	21.99	22.15	**22.42**	23.00
		50	50	22.11	21.74	22.11	21.99	23.00
		100	0	**22.21**	21.89	22.04	**22.31**	23.00
	16QAM	1	0	21.84	21.59	21.65	22.02	23.00
		1	50	21.90	22.23	22.51	21.76	23.00
		1	99	21.27	21.39	21.71	21.42	23.00
		50	0	21.23	20.70	20.91	21.32	22.00
		50	25	21.30	20.86	21.01	21.51	22.00
		50	50	21.23	20.73	21.11	21.22	22.00
		100	0	21.32	20.81	20.93	21.36	22.00
	64QAM	1	0	20.79	20.18	20.18	20.92	22.00
		1	50	20.73	20.30	20.49	20.78	22.00
		1	99	20.47	20.33	20.58	20.42	22.00
		50	0	20.22	20.11	20.19	20.22	21.00
		50	25	20.27	20.27	20.31	20.45	21.00
		50	50	20.17	20.01	20.30	20.08	21.00
		100	0	20.12	20.04	20.13	20.46	21.00

Upper Antenna

LTE FDD Band 2 DSI 1				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	17.26	17.04	17.08	18.00
		1	2	16.89	16.97	16.63	18.00
		1	5	16.86	16.94	17.23	18.00
		3	0	16.98	17.00	16.82	18.00
		3	2	16.72	16.93	16.68	18.00
		3	3	16.80	16.96	16.73	18.00
		6	0	16.44	16.46	16.71	18.00
	16QAM	1	0	16.54	16.56	16.53	18.00
		1	2	16.52	16.70	16.57	18.00
		1	5	16.52	16.91	16.67	18.00
		3	0	16.69	16.64	16.60	18.00
		3	2	16.64	16.77	16.71	18.00
		3	3	16.65	16.84	16.43	18.00
		6	0	16.37	16.78	16.49	18.00
	64QAM	1	0	16.46	16.56	16.61	18.00
		1	2	16.56	16.47	16.65	18.00
		1	5	16.68	16.60	16.47	18.00
		3	0	16.51	16.76	16.54	18.00
		3	2	16.55	16.71	16.41	18.00
		3	3	16.35	16.51	16.45	18.00
		6	0	16.34	16.43	16.47	18.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	17.24	16.99	17.05	18.00
		1	7	16.47	16.65	16.49	18.00
		1	14	16.98	16.80	16.76	18.00
		8	0	16.54	16.31	16.38	18.00
		8	4	16.43	16.58	16.59	18.00
		8	7	16.50	16.53	16.42	18.00
		15	0	16.41	16.41	16.30	18.00
	16QAM	1	0	16.42	16.46	16.41	18.00
		1	7	16.41	16.56	16.46	18.00
		1	14	16.43	16.39	16.45	18.00
		8	0	16.45	16.43	16.48	18.00
		8	4	16.61	16.58	16.64	18.00
		8	7	16.53	16.50	16.56	18.00
		15	0	16.58	16.55	16.60	18.00

	64QAM	1	0	16.31	16.29	16.34	18.00
		1	7	16.33	16.31	16.38	18.00
		1	14	16.47	16.43	16.49	18.00
		8	0	16.57	16.51	16.56	18.00
		8	4	16.43	16.38	16.44	18.00
		8	7	16.44	16.40	16.46	18.00
		15	0	16.28	16.25	16.30	18.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	17.21	16.95	17.02	18.00
		1	13	16.87	16.93	16.59	18.00
		1	24	16.80	16.87	17.15	18.00
		12	0	16.93	16.91	16.75	18.00
		12	6	16.68	16.85	16.60	18.00
		12	13	16.74	16.90	16.66	18.00
		25	0	16.43	16.38	16.64	18.00
	16QAM	1	0	16.48	16.49	16.45	18.00
		1	13	16.46	16.67	16.51	18.00
		1	24	16.47	16.84	16.61	18.00
		12	0	16.64	16.59	16.55	18.00
		12	6	16.57	16.69	16.63	18.00
		12	13	16.60	16.75	16.36	18.00
		25	0	16.33	16.70	16.41	18.00
	64QAM	1	0	16.38	16.49	16.53	18.00
		1	13	16.50	16.44	16.59	18.00
		1	24	16.63	16.53	16.41	18.00
		12	0	16.46	16.71	16.49	18.00
		12	6	16.48	16.63	16.33	18.00
		12	13	16.30	16.42	16.38	18.00
		25	0	16.30	16.35	16.39	18.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	17.28	17.05	17.11	18.00
		1	25	17.24	16.97	17.06	18.00
		1	49	16.89	16.97	16.62	18.00
		25	0	16.83	16.92	17.19	18.00
		25	13	16.96	16.96	16.79	18.00
		25	25	16.70	16.89	16.65	18.00
		50	0	16.76	16.92	16.70	18.00
	16QAM	1	0	16.43	16.39	16.66	18.00
		1	25	16.51	16.53	16.48	18.00
		1	49	16.49	16.69	16.54	18.00
		25	0	16.50	16.86	16.65	18.00

		25	13	16.66	16.63	16.58	18.00
		25	25	16.60	16.74	16.67	18.00
		50	0	16.63	16.80	16.40	18.00
	64QAM	1	0	16.35	16.74	16.46	18.00
		1	25	16.41	16.49	16.56	18.00
		1	49	16.53	16.42	16.62	18.00
		25	0	16.62	16.55	16.45	18.00
		25	13	16.48	16.75	16.48	18.00
		25	25	16.51	16.68	16.37	18.00
		50	0	16.33	16.47	16.42	18.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	17.23	16.96	17.05	18.00
		1	38	16.90	16.98	16.63	18.00
		1	74	16.82	16.91	17.18	18.00
		36	0	16.96	16.96	16.79	18.00
		36	18	16.71	16.90	16.64	18.00
		36	39	16.76	16.94	16.71	18.00
		75	0	16.47	16.40	16.68	18.00
	16QAM	1	0	16.50	16.52	16.47	18.00
		1	38	16.49	16.71	16.54	18.00
		1	74	16.50	16.86	16.64	18.00
		36	0	16.67	16.64	16.59	18.00
		36	18	16.59	16.73	16.66	18.00
		36	39	16.63	16.80	16.40	18.00
		75	0	16.36	16.75	16.45	18.00
	64QAM	1	0	16.40	16.48	16.55	18.00
		1	38	16.53	16.44	16.62	18.00
		1	74	16.62	16.55	16.44	18.00
		36	0	16.49	16.76	16.49	18.00
		36	18	16.50	16.67	16.36	18.00
		36	39	16.33	16.47	16.42	18.00
		75	0	16.33	16.40	16.43	18.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	16.79	**17.22**	16.80	18.00
		1	50	**17.19**	16.88	**17.00**	18.00
		1	99	16.87	16.93	16.58	18.00
		50	0	16.77	16.85	**17.11**	18.00
		50	25	**16.91**	**16.87**	16.72	18.00
		50	50	16.66	16.81	16.57	18.00
		100	0	16.70	**16.86**	16.63	18.00
	16QAM	1	0	16.42	16.31	16.59	18.00

		1	50	16.41	16.46	16.40	18.00
		1	99	16.43	16.66	16.48	18.00
		50	0	16.45	16.79	16.59	18.00
		50	25	16.61	16.58	16.53	18.00
		50	50	16.53	16.66	16.59	18.00
		100	0	16.58	16.71	16.33	18.00
	64QAM	1	0	16.31	16.66	16.38	18.00
		1	50	16.33	16.42	16.48	18.00
		1	99	16.47	16.39	16.56	18.00
		50	0	16.57	16.48	16.39	18.00
		50	25	16.43	16.70	16.43	18.00
		50	50	16.44	16.60	16.29	18.00
		100	0	16.28	16.38	16.35	18.00

LTE FDD Band 2 DSI 4				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	18.43	18.18	18.01	19.50
		1	2	18.49	18.15	18.11	19.50
		1	5	18.08	18.06	18.09	19.50
		3	0	19.08	19.01	18.94	19.50
		3	2	19.03	18.90	18.85	19.50
		3	3	18.87	18.81	18.79	19.50
		6	0	17.99	17.99	17.92	19.50
	16QAM	1	0	18.00	17.75	17.61	19.50
		1	2	17.98	18.03	17.93	19.50
		1	5	17.58	17.63	17.65	19.50
		3	0	19.13	19.10	19.16	19.50
		3	2	19.28	19.18	19.15	19.50
		3	3	19.17	18.99	18.92	19.50
		6	0	18.26	18.13	18.07	19.50
	64QAM	1	0	18.24	18.09	18.01	19.50
		1	2	17.90	17.90	17.72	19.50
		1	5	18.04	18.12	17.90	19.50
		3	0	18.76	18.99	18.77	19.50
		3	2	18.98	18.98	18.85	19.50
		3	3	18.84	18.78	18.65	19.50
		6	0	18.14	18.08	17.98	19.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	18.45	18.22	18.04	19.50
		1	7	18.47	18.18	18.15	19.50

		1	14	18.11	18.11	18.13	19.50
		8	0	18.18	18.13	18.07	19.50
		8	4	18.15	18.00	17.97	19.50
		8	7	17.97	17.92	17.89	19.50
		15	0	17.99	18.03	17.95	19.50
	16QAM	1	0	18.03	17.77	17.64	19.50
		1	7	18.01	18.03	17.97	19.50
		1	14	17.60	17.67	17.68	19.50
		8	0	18.24	18.23	18.28	19.50
		8	4	18.39	18.31	18.27	19.50
		8	7	18.27	18.11	18.05	19.50
		15	0	18.29	18.17	18.10	19.50
	64QAM	1	0	18.27	18.11	18.04	19.50
		1	7	17.93	17.90	17.74	19.50
		1	14	18.06	18.11	17.93	19.50
		8	0	17.87	18.12	17.89	19.50
		8	4	18.09	18.11	17.97	19.50
		8	7	17.94	17.90	17.78	19.50
		15	0	18.17	18.12	18.01	19.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	18.42	18.20	18.00	19.50
		1	13	18.45	18.14	18.12	19.50
		1	24	18.08	18.06	18.09	19.50
		12	0	18.15	18.08	18.03	19.50
		12	6	18.13	17.96	17.92	19.50
		12	13	17.95	17.90	17.85	19.50
		25	0	17.99	18.02	17.93	19.50
	16QAM	1	0	18.00	17.73	17.61	19.50
		1	13	17.98	18.01	17.94	19.50
		1	24	17.57	17.65	17.64	19.50
		12	0	18.22	18.19	18.25	19.50
		12	6	18.36	18.26	18.23	19.50
		12	13	18.24	18.06	18.01	19.50
		25	0	18.27	18.13	18.05	19.50
	64QAM	1	0	18.24	18.11	18.01	19.50
		1	13	17.90	17.92	17.71	19.50
		1	24	18.07	18.09	17.89	19.50
		12	0	17.85	18.08	17.90	19.50
		12	6	18.06	18.06	17.93	19.50
		12	13	17.91	17.85	17.74	19.50
		25	0	18.15	18.08	17.96	19.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	18.44	18.21	18.03	19.50
		1	25	18.48	18.19	18.16	19.50
		1	49	18.10	18.10	18.12	19.50
		25	0	18.18	18.13	18.07	19.50
		25	13	18.16	18.01	17.96	19.50
		25	25	17.97	17.94	17.90	19.50
		50	0	18.03	18.04	17.97	19.50
	16QAM	1	0	18.02	17.76	17.63	19.50
		1	25	18.01	18.05	17.97	19.50
		1	49	17.60	17.67	17.67	19.50
		25	0	18.25	18.24	18.29	19.50
		25	13	18.38	18.30	18.26	19.50
		25	25	18.27	18.11	18.05	19.50
		50	0	18.30	18.18	18.09	19.50
	64QAM	1	0	18.26	18.10	18.03	19.50
		1	25	17.93	17.92	17.74	19.50
		1	49	18.06	18.11	17.92	19.50
		25	0	17.88	18.13	17.90	19.50
		25	13	18.08	18.10	17.96	19.50
		25	25	17.94	17.90	17.78	19.50
		50	0	18.18	18.13	18.00	19.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	18.43	18.17	18.01	19.50
		1	38	18.46	18.18	18.13	19.50
		1	74	18.07	18.05	18.08	19.50
		36	0	18.16	18.09	18.04	19.50
		36	18	18.13	17.96	17.92	19.50
		36	39	17.94	17.91	17.86	19.50
		75	0	18.01	18.00	17.92	19.50
	16QAM	1	0	17.97	17.74	17.61	19.50
		1	38	17.99	18.02	17.95	19.50
		1	74	17.57	17.63	17.64	19.50
		36	0	18.22	18.22	18.26	19.50
		36	18	18.35	18.25	18.22	19.50
		36	39	18.25	18.07	18.02	19.50
		75	0	18.27	18.13	18.05	19.50
	64QAM	1	0	18.21	18.08	18.01	19.50
		1	38	17.91	17.89	17.72	19.50
		1	74	18.07	18.10	17.93	19.50
		36	0	17.87	18.15	17.91	19.50

		36	18	18.06	18.07	17.95	19.50
		36	39	17.92	17.86	17.75	19.50
		75	0	18.15	18.08	17.96	19.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	18.40	18.13	17.98	19.50
		1	50	**18.45**	**18.14**	**18.11**	19.50
		1	99	18.05	18.04	18.05	19.50
		50	0	**18.13**	**18.04**	**18.00**	19.50
		50	25	18.11	17.92	17.89	19.50
		50	50	17.91	17.86	17.82	19.50
		100	0	**17.98**	17.95	17.88	19.50
	16QAM	1	0	17.72	17.70	17.56	19.50
		1	50	17.95	18.00	17.91	19.50
		1	99	17.55	17.60	17.62	19.50
		50	0	18.19	18.18	18.23	19.50
		50	25	18.32	18.23	18.19	19.50
		50	50	18.22	18.02	17.98	19.50
		100	0	18.25	18.09	18.02	19.50
	64QAM	1	0	18.19	18.04	17.96	19.50
		1	50	17.87	17.87	17.68	19.50
		1	99	18.01	18.04	17.87	19.50
		50	0	17.82	18.07	17.84	19.50
		50	25	18.02	18.03	17.89	19.50
		50	50	17.89	17.81	17.71	19.50
		100	0	18.13	18.04	17.93	19.50

LTE FDD Band 2 Full power& DSI 2				**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	23.83	23.83	23.71	25.00
		1	2	23.63	23.57	23.70	25.00
		1	5	23.73	23.71	23.74	25.00
		3	0	23.46	23.50	23.52	25.00
		3	2	23.18	23.34	23.46	25.00
		3	3	23.06	23.11	23.26	25.00
		6	0	22.23	22.44	22.36	24.00
	16QAM	1	0	22.08	22.17	22.15	24.00
		1	2	22.06	22.31	22.39	24.00
		1	5	22.19	22.13	22.11	24.00
		3	0	22.55	22.59	22.65	24.00
		3	2	22.53	22.58	22.66	24.00

		3	3	22.37	22.39	22.54	24.00
		6	0	21.52	21.56	21.57	23.00
	64QAM	1	0	21.55	21.56	21.53	23.00
		1	2	21.57	21.85	21.82	23.00
		1	5	21.25	21.38	21.45	23.00
		3	0	21.37	21.47	21.54	23.00
		3	2	21.60	21.53	21.66	23.00
		3	3	21.43	21.42	21.44	23.00
		6	0	20.46	20.54	20.51	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18615/1851.5	18900/1880	19185/1908.5	
3MHz	QPSK	1	0	23.85	23.87	23.74	25.00
		1	7	23.61	23.60	23.74	25.00
		1	14	23.76	23.76	23.78	25.00
		8	0	22.56	22.62	22.65	24.00
		8	4	22.30	22.44	22.58	24.00
		8	7	22.16	22.22	22.36	24.00
		15	0	22.23	22.48	22.39	24.00
	16QAM	1	0	22.11	22.19	22.18	24.00
		1	7	22.09	22.31	22.43	24.00
		1	14	22.21	22.17	22.14	24.00
		8	0	21.66	21.72	21.77	23.00
		8	4	21.64	21.71	21.78	23.00
		8	7	21.47	21.51	21.67	23.00
		15	0	21.55	21.60	21.60	23.00
	64QAM	1	0	21.58	21.58	21.56	23.00
		1	7	21.60	21.85	21.84	23.00
		1	14	21.27	21.37	21.48	23.00
		8	0	20.48	20.60	20.66	22.00
		8	4	20.71	20.66	20.78	22.00
		8	7	20.53	20.54	20.57	22.00
		15	0	20.49	20.58	20.54	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18625/1852.5	18900/1880	19175/1907.5	
5MHz	QPSK	1	0	23.82	23.85	23.70	25.00
		1	13	23.59	23.56	23.71	25.00
		1	24	23.73	23.71	23.74	25.00
		12	0	22.53	22.57	22.61	24.00
		12	6	22.28	22.40	22.53	24.00
		12	13	22.14	22.20	22.32	24.00
		25	0	22.23	22.47	22.37	24.00
	16QAM	1	0	22.08	22.15	22.15	24.00
		1	13	22.06	22.29	22.40	24.00

		1	24	22.18	22.15	22.10	24.00
		12	0	21.64	21.68	21.74	23.00
		12	6	21.61	21.66	21.74	23.00
		12	13	21.44	21.46	21.63	23.00
		25	0	21.53	21.56	21.55	23.00
	64QAM	1	0	21.55	21.58	21.53	23.00
		1	13	21.57	21.87	21.81	23.00
		1	24	21.28	21.35	21.44	23.00
		12	0	20.46	20.56	20.67	22.00
		12	6	20.68	20.61	20.74	22.00
		12	13	20.50	20.49	20.53	22.00
		25	0	20.47	20.54	20.49	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18650/1855	18900/1880	19150/1905	
10MHz	QPSK	1	0	23.84	23.86	23.73	25.00
		1	25	23.62	23.61	23.75	25.00
		1	49	23.75	23.75	23.77	25.00
		25	0	22.56	22.62	22.65	24.00
		25	13	22.31	22.45	22.57	24.00
		25	25	22.16	22.24	22.37	24.00
		50	0	22.27	22.49	22.41	24.00
	16QAM	1	0	22.10	22.18	22.17	24.00
		1	25	22.09	22.33	22.43	24.00
		1	49	22.21	22.17	22.13	24.00
		25	0	21.67	21.73	21.78	23.00
		25	13	21.63	21.70	21.77	23.00
		25	25	21.47	21.51	21.67	23.00
		50	0	21.56	21.61	21.59	23.00
	64QAM	1	0	21.57	21.57	21.55	23.00
		1	25	21.60	21.87	21.84	23.00
		1	49	21.27	21.37	21.47	23.00
		25	0	20.49	20.61	20.67	22.00
		25	13	20.70	20.65	20.77	22.00
		25	25	20.53	20.54	20.57	22.00
		50	0	20.50	20.59	20.53	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18675/1857.5	18900/1880	19125/1902.5	
15MHz	QPSK	1	0	23.83	23.82	23.71	25.00
		1	38	23.60	23.60	23.72	25.00
		1	74	23.72	23.70	23.73	25.00
		36	0	22.54	22.58	22.62	24.00
		36	18	22.28	22.40	22.53	24.00
		36	39	22.13	22.21	22.33	24.00

		75	0	22.25	22.45	22.36	24.00
	16QAM	1	0	22.05	22.16	22.15	24.00
		1	38	22.07	22.30	22.41	24.00
		1	74	22.18	22.13	22.10	24.00
		36	0	21.64	21.71	21.75	23.00
		36	18	21.60	21.65	21.73	23.00
		36	39	21.45	21.47	21.64	23.00
		75	0	21.53	21.56	21.55	23.00
	64QAM	1	0	21.52	21.55	21.53	23.00
		1	38	21.58	21.84	21.82	23.00
		1	74	21.28	21.36	21.48	23.00
		36	0	20.48	20.63	20.68	22.00
		36	18	20.68	20.62	20.76	22.00
		36	39	20.51	20.50	20.54	22.00
		75	0	20.47	20.54	20.49	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				18700/1860	18900/1880	19100/1900	
20MHz	QPSK	1	0	**23.80**	**23.78**	23.68	25.00
		1	50	23.59	23.56	23.70	25.00
		1	99	23.70	23.69	**23.70**	25.00
		50	0	**22.51**	**22.53**	**22.58**	24.00
		50	25	22.26	22.36	22.50	24.00
		50	50	22.10	22.16	22.29	24.00
		100	0	22.22	**22.40**	22.32	24.00
	16QAM	1	0	22.20	22.12	22.10	24.00
		1	50	22.03	22.28	22.37	24.00
		1	99	22.16	22.10	22.08	24.00
		50	0	21.61	21.67	21.72	23.00
		50	25	21.57	21.63	21.70	23.00
		50	50	21.42	21.42	21.60	23.00
		100	0	21.51	21.52	21.52	23.00
	64QAM	1	0	21.50	21.51	21.48	23.00
		1	50	21.54	21.82	21.78	23.00
		1	99	21.22	21.30	21.42	23.00
		50	0	20.43	20.55	20.61	22.00
		50	25	20.64	20.58	20.70	22.00
		50	50	20.48	20.45	20.50	22.00
		100	0	20.45	20.50	20.46	22.00

LTE FDD Band 4 DSI 1				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	15.04	15.05	15.08	16.50
		1	2	15.22	15.34	15.36	16.50
		1	5	15.30	15.24	15.31	16.50
		3	0	15.03	15.28	15.33	16.50
		3	2	14.98	15.14	15.15	16.50
		3	3	14.93	14.94	14.94	16.50
		6	0	14.84	14.98	15.05	16.50
	16QAM	1	0	15.67	15.37	15.53	16.50
		1	2	15.69	15.74	15.77	16.50
		1	5	15.20	14.90	15.01	16.50
		3	0	14.80	15.20	15.12	16.50
		3	2	15.03	15.13	15.16	16.50
		3	3	14.98	14.89	14.95	16.50
		6	0	15.15	15.15	15.28	16.50
	64QAM	1	0	15.13	15.07	15.42	16.50
		1	2	15.57	15.93	15.82	16.50
		1	5	15.06	15.05	15.15	16.50
		3	0	15.00	15.11	15.25	16.50
		3	2	15.05	15.11	15.22	16.50
		3	3	14.99	14.93	14.90	16.50
		6	0	15.01	14.87	15.04	16.50
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	15.01	15.01	15.05	16.50
		1	7	15.21	15.30	15.34	16.50
		1	14	15.28	15.23	15.28	16.50
		8	0	15.00	15.23	15.29	16.50
		8	4	14.96	15.10	15.12	16.50
		8	7	14.90	14.89	14.90	16.50
		15	0	14.81	14.93	15.01	16.50
	16QAM	1	0	15.67	15.33	15.48	16.50
		1	7	15.65	15.72	15.73	16.50
		1	14	15.18	14.87	14.99	16.50
		8	0	14.77	15.16	15.09	16.50
		8	4	15.00	15.11	15.13	16.50
		8	7	14.95	14.84	14.91	16.50
		15	0	15.13	15.11	15.25	16.50
	64QAM	1	0	15.11	15.03	15.37	16.50
		1	7	15.53	15.91	15.78	16.50

		1	14	15.00	14.99	15.09	16.50
		8	0	14.95	15.03	15.18	16.50
		8	4	15.01	15.07	15.16	16.50
		8	7	14.96	14.88	14.86	16.50
		15	0	14.99	14.83	15.01	16.50
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	14.98	14.99	15.01	16.50
		1	13	15.19	15.26	15.31	16.50
		1	24	15.25	15.18	15.24	16.50
		12	0	14.97	15.18	15.25	16.50
		12	6	14.94	15.06	15.07	16.50
		12	13	14.88	14.87	14.86	16.50
		25	0	14.81	14.92	14.99	16.50
	16QAM	1	0	15.64	15.29	15.45	16.50
		1	13	15.62	15.70	15.70	16.50
		1	24	15.15	14.85	14.95	16.50
		12	0	14.75	15.12	15.06	16.50
		12	6	14.97	15.06	15.09	16.50
		12	13	14.92	14.79	14.87	16.50
		25	0	15.11	15.07	15.20	16.50
	64QAM	1	0	15.08	15.03	15.34	16.50
		1	13	15.50	15.93	15.75	16.50
		1	24	15.01	14.97	15.05	16.50
		12	0	14.93	14.99	15.19	16.50
		12	6	14.98	15.02	15.12	16.50
		12	13	14.93	14.83	14.82	16.50
		25	0	14.97	14.79	14.96	16.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	15.00	15.00	15.04	16.50
		1	25	15.22	15.31	15.35	16.50
		1	49	15.27	15.22	15.27	16.50
		25	0	15.00	15.23	15.29	16.50
		25	13	14.97	15.11	15.11	16.50
		25	25	14.90	14.91	14.91	16.50
		50	0	14.85	14.94	15.03	16.50
	16QAM	1	0	15.66	15.32	15.47	16.50
		1	25	15.65	15.74	15.73	16.50
		1	49	15.18	14.87	14.98	16.50
		25	0	14.78	15.17	15.10	16.50
		25	13	14.99	15.10	15.12	16.50
		25	25	14.95	14.84	14.91	16.50

		50	0	15.14	15.12	15.24	16.50
	64QAM	1	0	15.10	15.02	15.36	16.50
		1	25	15.53	15.93	15.78	16.50
		1	49	15.00	14.99	15.08	16.50
		25	0	14.96	15.04	15.19	16.50
		25	13	15.00	15.06	15.15	16.50
		25	25	14.96	14.88	14.86	16.50
		50	0	15.00	14.84	15.00	16.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	14.99	14.96	15.02	16.50
		1	38	15.20	15.30	15.32	16.50
		1	74	15.24	15.17	15.23	16.50
		36	0	14.98	15.19	15.26	16.50
		36	18	14.94	15.06	15.07	16.50
		36	39	14.87	14.88	14.87	16.50
		75	0	14.83	14.90	14.98	16.50
	16QAM	1	0	15.61	15.30	15.45	16.50
		1	38	15.63	15.71	15.71	16.50
		1	74	15.15	14.83	14.95	16.50
		36	0	14.75	15.15	15.07	16.50
		36	18	14.96	15.05	15.08	16.50
		36	39	14.93	14.80	14.88	16.50
		75	0	15.11	15.07	15.20	16.50
	64QAM	1	0	15.05	15.00	15.34	16.50
		1	38	15.51	15.90	15.76	16.50
		1	74	15.01	14.98	15.09	16.50
		36	0	14.95	15.06	15.20	16.50
		36	18	14.98	15.03	15.14	16.50
		36	39	14.94	14.84	14.83	16.50
		75	0	14.97	14.79	14.96	16.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	14.96	14.92	14.99	16.50
		1	50	15.19	**15.26**	**15.30**	16.50
		1	99	**15.22**	15.16	15.20	16.50
		50	0	**14.95**	**15.14**	**15.22**	16.50
		50	25	14.92	15.02	15.04	16.50
		50	50	14.84	14.83	14.83	16.50
		100	0	14.80	14.85	**14.94**	16.50
	16QAM	1	0	15.36	15.26	15.40	16.50
		1	50	15.59	15.69	15.67	16.50
		1	99	15.13	14.80	14.93	16.50

		50	0	14.72	15.11	15.04	16.50
		50	25	14.93	15.03	15.05	16.50
		50	50	14.90	14.75	14.84	16.50
		100	0	15.09	15.03	15.17	16.50
	64QAM	1	0	15.03	14.96	15.29	16.50
		1	50	15.47	15.88	15.72	16.50
		1	99	14.95	14.92	15.03	16.50
		50	0	14.90	14.98	15.13	16.50
		50	25	14.94	14.99	15.08	16.50
		50	50	14.91	14.79	14.79	16.50
		100	0	14.95	14.75	14.93	16.50

LTE FDD Band 4 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	23.82	23.83	24.06	25.00
		1	2	23.98	24.08	24.18	25.00
		1	5	23.61	23.43	23.59	25.00
		3	0	23.16	23.39	23.47	25.00
		3	2	23.40	23.59	23.51	25.00
		3	3	23.38	23.40	23.33	25.00
		6	0	22.31	22.47	22.51	24.00
	16QAM	1	0	22.75	22.34	22.57	24.00
		1	2	22.73	22.70	22.56	24.00
		1	5	22.41	22.29	22.41	24.00
		3	0	22.43	22.43	22.63	24.00
		3	2	22.57	22.56	22.57	24.00
		3	3	22.50	22.44	22.26	24.00
		6	0	21.41	21.43	21.63	23.00
	64QAM	1	0	21.80	21.69	22.01	23.00
		1	2	22.42	22.54	22.18	23.00
		1	5	21.87	21.82	21.64	23.00
		3	0	21.50	21.34	21.66	23.00
		3	2	21.47	21.40	21.55	23.00
		3	3	21.33	21.42	21.29	23.00
		6	0	20.35	20.55	20.50	22.00
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	23.83	23.86	24.08	25.00
		1	7	23.97	24.12	24.23	25.00
		1	14	23.63	23.47	23.62	25.00
		8	0	22.26	22.51	22.60	24.00

		8	4	22.53	22.70	22.62	24.00
		8	7	22.48	22.53	22.44	24.00
		15	0	22.35	22.52	22.56	24.00
	16QAM	1	0	22.77	22.35	22.59	24.00
		1	7	22.76	22.72	22.60	24.00
		1	14	22.43	22.33	22.43	24.00
		8	0	21.55	21.57	21.76	23.00
		8	4	21.67	21.68	21.68	23.00
		8	7	21.60	21.56	21.39	23.00
		15	0	21.45	21.48	21.65	23.00
	64QAM	1	0	21.82	21.70	22.03	23.00
		1	7	22.45	22.56	22.20	23.00
		1	14	21.89	21.81	21.66	23.00
		8	0	20.62	20.48	20.79	22.00
		8	4	20.57	20.52	20.66	22.00
		8	7	20.43	20.54	20.42	22.00
		15	0	20.39	20.60	20.52	22.00

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	23.79	23.78	24.03	25.00
		1	13	23.94	24.07	24.18	25.00
		1	24	23.58	23.41	23.55	25.00
		12	0	22.21	22.42	22.53	24.00
		12	6	22.48	22.61	22.55	24.00
		12	13	22.42	22.45	22.36	24.00
		25	0	22.30	22.43	22.47	24.00
	16QAM	1	0	22.72	22.29	22.52	24.00
		1	13	22.70	22.67	22.54	24.00
		1	24	22.38	22.26	22.38	24.00
		12	0	21.49	21.51	21.70	23.00
		12	6	21.61	21.61	21.61	23.00
		12	13	21.55	21.47	21.32	23.00
		25	0	21.40	21.39	21.58	23.00
	64QAM	1	0	21.75	21.64	21.96	23.00
		1	13	22.39	22.51	22.14	23.00
		1	24	21.84	21.74	21.61	23.00
		12	0	20.56	20.42	20.73	22.00
		12	6	20.51	20.45	20.59	22.00
		12	13	20.38	20.45	20.35	22.00
		25	0	20.34	20.51	20.45	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	23.76	23.76	23.99	25.00
		1	25	23.92	24.03	24.15	25.00
		1	49	23.55	23.36	23.51	25.00
		25	0	22.18	22.37	22.49	24.00
		25	13	22.46	22.57	22.50	24.00
		25	25	22.40	22.43	22.32	24.00
		50	0	22.30	22.42	22.45	24.00
	16QAM	1	0	22.69	22.25	22.49	24.00
		1	25	22.67	22.65	22.51	24.00
		1	49	22.35	22.24	22.34	24.00
		25	0	21.47	21.47	21.67	23.00
		25	13	21.58	21.56	21.57	23.00
		25	25	21.52	21.42	21.28	23.00
		50	0	21.38	21.35	21.53	23.00
	64QAM	1	0	21.72	21.64	21.93	23.00
		1	25	22.36	22.53	22.11	23.00
		1	49	21.85	21.72	21.57	23.00
		25	0	20.54	20.38	20.74	22.00
		25	13	20.48	20.40	20.55	22.00
		25	25	20.35	20.40	20.31	22.00
		50	0	20.32	20.47	20.40	22.00

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	23.78	23.77	24.02	25.00
		1	38	23.95	24.08	24.19	25.00
		1	74	23.57	23.40	23.54	25.00
		36	0	22.21	22.42	22.53	24.00
		36	18	22.49	22.62	22.54	24.00
		36	39	22.42	22.47	22.37	24.00
		75	0	22.34	22.44	22.49	24.00
	16QAM	1	0	22.71	22.28	22.51	24.00
		1	38	22.70	22.69	22.54	24.00
		1	74	22.38	22.26	22.37	24.00
		36	0	21.50	21.52	21.71	23.00
		36	18	21.60	21.60	21.60	23.00
		36	39	21.55	21.47	21.32	23.00
		75	0	21.41	21.40	21.57	23.00
	64QAM	1	0	21.74	21.63	21.95	23.00
		1	38	22.39	22.53	22.14	23.00
		1	74	21.84	21.74	21.60	23.00
		36	0	20.57	20.43	20.74	22.00

		36	18	20.50	20.44	20.58	22.00
		36	39	20.38	20.45	20.35	22.00
		75	0	20.35	20.52	20.44	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	23.74	23.69	23.97	25.00
		1	50	**23.92**	**24.03**	**24.14**	25.00
		1	99	23.52	23.34	23.47	25.00
		50	0	22.16	22.33	22.46	24.00
		50	25	**22.44**	**22.53**	**22.47**	24.00
		50	50	22.36	22.39	22.29	24.00
		100	0	22.29	22.35	**22.40**	24.00
	16QAM	1	0	22.16	22.22	22.44	24.00
		1	50	22.64	22.64	22.48	24.00
		1	99	22.33	22.19	22.32	24.00
		50	0	21.44	21.46	21.65	23.00
		50	25	21.54	21.53	21.53	23.00
		50	50	21.50	21.38	21.25	23.00
		100	0	21.36	21.31	21.50	23.00
	64QAM	1	0	21.67	21.57	21.88	23.00
		1	50	22.33	22.48	22.08	23.00
		1	99	21.79	21.67	21.55	23.00
		50	0	20.51	20.37	20.68	22.00
		50	25	20.44	20.37	20.51	22.00
		50	50	20.33	20.36	20.28	22.00
		100	0	20.30	20.43	20.37	22.00

LTE FDD Band 4 DSI 2				**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	21.58	21.81	21.74	23.00
		1	2	21.99	22.04	21.89	23.00
		1	5	21.57	21.68	21.68	23.00
		3	0	21.64	21.63	21.73	23.00
		3	2	21.78	21.76	21.53	23.00
		3	3	21.64	21.61	21.52	23.00
		6	0	21.60	21.71	21.75	23.00
	16QAM	1	0	21.97	21.79	22.02	23.00
		1	2	21.96	21.85	21.96	23.00
		1	5	21.69	21.72	21.69	23.00
		3	0	21.88	21.79	21.87	23.00
		3	2	22.02	21.94	22.02	23.00

		3	3	21.78	21.81	21.82	23.00
		6	0	21.72	21.76	21.77	23.00
		1	0	21.68	21.59	21.67	23.00
		1	2	21.84	21.77	21.84	23.00
		1	5	21.67	21.66	21.63	23.00
	64QAM	3	0	21.89	21.80	21.92	23.00
		3	2	21.53	21.45	21.53	23.00
		3	3	21.43	21.46	21.47	23.00
		6	0	21.48	21.52	21.53	23.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19965/1711.5	20175/1732.5	20385/1753.5	
		1	0	21.54	21.73	21.69	23.00
		1	7	21.85	21.88	21.73	23.00
		1	14	21.41	21.51	21.50	23.00
	QPSK	8	0	21.70	21.65	21.77	23.00
		8	4	21.84	21.78	21.57	23.00
		8	7	21.69	21.64	21.55	23.00
		15	0	21.55	21.62	21.66	23.00
		1	0	21.94	21.73	21.95	23.00
		1	7	21.90	21.80	21.90	23.00
		1	14	21.64	21.65	21.64	23.00
3MHz	16QAM	8	0	21.82	21.73	21.81	23.00
		8	4	21.96	21.87	21.95	23.00
		8	7	21.73	21.72	21.75	23.00
		15	0	21.67	21.67	21.70	23.00
		1	0	21.61	21.53	21.60	23.00
		1	7	21.78	21.72	21.78	23.00
		1	14	21.62	21.59	21.58	23.00
	64QAM	8	0	21.83	21.74	21.86	23.00
		8	4	21.47	21.38	21.46	23.00
		8	7	21.38	21.37	21.40	23.00
		15	0	21.43	21.43	21.46	23.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				19975/1712.5	20175/1732.5	20375/1752.5	
		1	0	21.66	21.81	21.81	23.00
		1	13	21.97	22.03	21.85	23.00
		1	24	21.51	21.61	21.60	23.00
	QPSK	12	0	21.71	21.66	21.78	23.00
5MHz		12	6	21.84	21.78	21.57	23.00
		12	13	21.68	21.65	21.56	23.00
		25	0	21.58	21.60	21.65	23.00
	16QAM	1	0	21.91	21.74	21.95	23.00
		1	13	21.91	21.81	21.91	23.00

		1	24	21.64	21.63	21.64	23.00
		12	0	21.82	21.76	21.82	23.00
		12	6	21.95	21.86	21.94	23.00
		12	13	21.74	21.73	21.76	23.00
		25	0	21.67	21.67	21.70	23.00
	64QAM	1	0	21.58	21.54	21.60	23.00
		1	13	21.79	21.73	21.79	23.00
		1	24	21.62	21.57	21.58	23.00
		12	0	21.83	21.77	21.87	23.00
		12	6	21.46	21.37	21.45	23.00
		12	13	21.39	21.38	21.41	23.00
		25	0	21.43	21.43	21.46	23.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	21.63	21.77	21.78	23.00
		1	25	21.96	21.99	21.83	23.00
		1	49	21.49	21.60	21.57	23.00
		25	0	21.68	21.61	21.74	23.00
		25	13	21.82	21.74	21.54	23.00
		25	25	21.65	21.60	21.52	23.00
		50	0	21.55	21.55	21.61	23.00
	16QAM	1	0	21.89	21.70	21.90	23.00
		1	25	21.87	21.79	21.87	23.00
		1	49	21.62	21.60	21.62	23.00
		25	0	21.79	21.72	21.79	23.00
		25	13	21.92	21.84	21.91	23.00
		25	25	21.71	21.68	21.72	23.00
		50	0	21.65	21.63	21.67	23.00
	64QAM	1	0	21.56	21.50	21.55	23.00
		1	25	21.75	21.71	21.75	23.00
		1	49	21.60	21.54	21.56	23.00
		25	0	21.80	21.73	21.84	23.00
		25	13	21.43	21.35	21.42	23.00
		25	25	21.36	21.33	21.37	23.00
		50	0	21.41	21.39	21.43	23.00
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	21.54	21.67	21.70	23.00
		1	38	21.88	21.93	21.76	23.00
		1	74	21.40	21.53	21.49	23.00
		36	0	21.71	21.66	21.78	23.00
		36	18	21.85	21.79	21.58	23.00
		36	39	21.67	21.64	21.57	23.00

		75	0	21.59	21.57	21.65	23.00
	16QAM	1	0	21.91	21.73	21.92	23.00
		1	38	21.90	21.83	21.90	23.00
		1	74	21.65	21.62	21.65	23.00
		36	0	21.82	21.77	21.83	23.00
		36	18	21.94	21.88	21.94	23.00
		36	39	21.74	21.73	21.76	23.00
		75	0	21.68	21.68	21.71	23.00
	64QAM	1	0	21.58	21.49	21.57	23.00
		1	38	21.78	21.71	21.78	23.00
		1	74	21.59	21.56	21.59	23.00
		36	0	21.83	21.78	21.84	23.00
		36	18	21.45	21.39	21.45	23.00
		36	39	21.39	21.38	21.41	23.00
		75	0	21.44	21.44	21.47	23.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	21.72	21.81	21.77	23.00
		1	50	**21.81**	**21.84**	**21.80**	23.00
		1	99	21.57	21.69	21.64	23.00
		50	0	21.66	21.57	**21.71**	23.00
		50	25	**21.80**	**21.70**	21.51	23.00
		50	50	21.61	21.56	21.49	23.00
		100	0	21.54	21.48	**21.56**	23.00
	16QAM	1	0	21.86	21.67	21.85	23.00
		1	50	21.84	21.78	21.84	23.00
		1	99	21.60	21.55	21.60	23.00
		50	0	21.76	21.71	21.77	23.00
		50	25	21.88	21.81	21.87	23.00
		50	50	21.69	21.64	21.69	23.00
		100	0	21.63	21.59	21.64	23.00
	64QAM	1	0	21.51	21.43	21.50	23.00
		1	50	21.72	21.66	21.72	23.00
		1	99	21.54	21.49	21.54	23.00
		50	0	21.77	21.72	21.78	23.00
		50	25	21.39	21.32	21.38	23.00
		50	50	21.34	21.29	21.34	23.00
		100	0	21.39	21.35	21.40	23.00

LTE FDD Band 4 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	17.95	17.98	18.09	19.50
		1	2	18.33	18.46	18.54	19.50
		1	5	17.92	17.84	17.98	19.50
		3	0	18.48	18.75	18.74	19.50
		3	2	18.75	18.94	18.86	19.50
		3	3	18.67	18.63	18.67	19.50
		6	0	17.75	17.82	17.89	19.50
	16QAM	1	0	17.95	17.65	17.76	19.50
		1	2	17.93	18.08	17.85	19.50
		1	5	17.67	17.54	17.56	19.50
		3	0	18.50	18.51	18.54	19.50
		3	2	18.58	18.73	18.70	19.50
		3	3	18.53	18.50	18.47	19.50
		6	0	17.78	17.79	17.77	19.50
	64QAM	1	0	17.77	17.82	17.92	19.50
		1	2	18.34	18.52	18.63	19.50
		1	5	17.64	17.78	17.65	19.50
		3	0	18.74	18.84	18.92	19.50
		3	2	18.78	18.90	18.88	19.50
		3	3	18.63	18.76	18.57	19.50
		6	0	17.71	17.90	17.80	19.50
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	17.97	18.02	18.12	19.50
		1	7	18.31	18.49	18.58	19.50
		1	14	17.95	17.89	18.02	19.50
		8	0	17.58	17.87	17.87	19.50
		8	4	17.87	18.04	17.98	19.50
		8	7	17.77	17.74	17.77	19.50
		15	0	17.75	17.86	17.92	19.50
	16QAM	1	0	17.98	17.67	17.79	19.50
		1	7	17.96	18.08	17.89	19.50
		1	14	17.69	17.58	17.59	19.50
		8	0	17.61	17.64	17.66	19.50
		8	4	17.69	17.86	17.82	19.50
		8	7	17.63	17.62	17.60	19.50
		15	0	17.81	17.83	17.80	19.50
	64QAM	1	0	17.80	17.84	17.95	19.50

		1	7	18.37	18.52	18.65	19.50
		1	14	17.66	17.77	17.68	19.50
		8	0	17.85	17.97	18.04	19.50
		8	4	17.89	18.03	18.00	19.50
		8	7	17.73	17.88	17.70	19.50
		15	0	17.74	17.94	17.83	19.50
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	17.94	18.00	18.08	19.50
		1	13	18.29	18.45	18.55	19.50
		1	24	17.92	17.84	17.98	19.50
		12	0	17.55	17.82	17.83	19.50
		12	6	17.85	18.00	17.93	19.50
		12	13	17.75	17.72	17.73	19.50
		25	0	17.75	17.85	17.90	19.50
	16QAM	1	0	17.95	17.63	17.76	19.50
		1	13	17.93	18.06	17.86	19.50
		1	24	17.66	17.56	17.55	19.50
		12	0	17.59	17.60	17.63	19.50
		12	6	17.66	17.81	17.78	19.50
		12	13	17.60	17.57	17.56	19.50
		25	0	17.79	17.79	17.75	19.50
	64QAM	1	0	17.77	17.84	17.92	19.50
		1	13	18.34	18.54	18.62	19.50
		1	24	17.67	17.75	17.64	19.50
		12	0	17.83	17.93	18.05	19.50
		12	6	17.86	17.98	17.96	19.50
		12	13	17.70	17.83	17.66	19.50
		25	0	17.72	17.90	17.78	19.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20000/1715	20175/1732.5	20350/1750	
10MHz	QPSK	1	0	17.96	18.01	18.11	19.50
		1	25	18.32	18.50	18.59	19.50
		1	49	17.94	17.88	18.01	19.50
		25	0	17.58	17.87	17.87	19.50
		25	13	17.88	18.05	17.97	19.50
		25	25	17.77	17.76	17.78	19.50
		50	0	17.79	17.87	17.94	19.50
	16QAM	1	0	17.97	17.66	17.78	19.50
		1	25	17.96	18.10	17.89	19.50
		1	49	17.69	17.58	17.58	19.50
		25	0	17.62	17.65	17.67	19.50
		25	13	17.68	17.85	17.81	19.50

		25	25	17.63	17.62	17.60	19.50
		50	0	17.82	17.84	17.79	19.50
	64QAM	1	0	17.79	17.83	17.94	19.50
		1	25	18.37	18.54	18.65	19.50
		1	49	17.66	17.77	17.67	19.50
		25	0	17.86	17.98	18.05	19.50
		25	13	17.88	18.02	17.99	19.50
		25	25	17.73	17.88	17.70	19.50
		50	0	17.75	17.95	17.82	19.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20025/1717.5	20175/1732.5	20325/1747.5	
15MHz	QPSK	1	0	17.95	17.97	18.09	19.50
		1	38	18.30	18.49	18.56	19.50
		1	74	17.91	17.83	17.97	19.50
		36	0	17.56	17.83	17.84	19.50
		36	18	17.85	18.00	17.93	19.50
		36	39	17.74	17.73	17.74	19.50
		75	0	17.77	17.83	17.89	19.50
	16QAM	1	0	17.92	17.64	17.76	19.50
		1	38	17.94	18.07	17.87	19.50
		1	74	17.66	17.54	17.55	19.50
		36	0	17.59	17.63	17.64	19.50
		36	18	17.65	17.80	17.77	19.50
		36	39	17.61	17.58	17.57	19.50
		75	0	17.79	17.79	17.75	19.50
	64QAM	1	0	17.74	17.81	17.92	19.50
		1	38	18.35	18.51	18.63	19.50
		1	74	17.67	17.76	17.68	19.50
		36	0	17.85	18.00	18.06	19.50
		36	18	17.86	17.99	17.98	19.50
		36	39	17.71	17.84	17.67	19.50
		75	0	17.72	17.90	17.78	19.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20050/1720	20175/1732.5	20300/1745	
20MHz	QPSK	1	0	17.92	17.93	18.06	19.50
		1	50	**18.29**	**18.45**	**18.54**	19.50
		1	99	17.89	17.82	17.94	19.50
		50	0	17.53	17.78	17.80	19.50
		50	25	**17.83**	**17.96**	**17.90**	19.50
		50	50	17.71	17.68	17.70	19.50
		100	0	17.74	17.78	**17.85**	19.50
	16QAM	1	0	17.55	17.60	17.71	19.50
		1	50	17.90	18.05	17.83	19.50

		1	99	17.64	17.51	17.53	19.50
		50	0	17.56	17.59	17.61	19.50
		50	25	17.62	17.78	17.74	19.50
		50	50	17.58	17.53	17.53	19.50
		100	0	17.77	17.75	17.72	19.50
	64QAM	1	0	17.72	17.77	17.87	19.50
		1	50	18.31	18.49	18.59	19.50
		1	99	17.61	17.70	17.62	19.50
		50	0	17.80	17.92	17.99	19.50
		50	25	17.82	17.95	17.92	19.50
		50	50	17.68	17.79	17.63	19.50
		100	0	17.70	17.86	17.75	19.50

LTE FDD Band 5 DSI 1&DSI 4				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	22.98	22.90	22.84	24.50
		1	2	23.15	23.17	23.32	24.50
		1	5	22.86	22.99	22.99	24.50
		3	0	23.56	23.41	23.36	24.50
		3	2	23.33	23.40	23.41	24.50
		3	3	23.22	23.26	23.36	24.50
		6	0	22.41	22.33	22.40	23.50
	16QAM	1	0	22.54	22.20	22.19	23.50
		1	2	22.52	22.64	22.62	23.50
		1	5	22.10	22.19	22.13	23.50
		3	0	22.48	22.24	22.21	23.50
		3	2	22.28	22.36	22.39	23.50
		3	3	22.27	22.31	22.28	23.50
		6	0	21.51	21.35	21.49	22.50
	64QAM	1	0	21.44	21.46	21.26	22.50
		1	2	21.67	21.60	21.58	22.50
		1	5	21.15	21.42	21.26	22.50
		3	0	21.60	21.24	21.41	22.50
		3	2	21.50	21.36	21.47	22.50
		3	3	21.17	21.47	21.42	22.50
		6	0	20.40	20.36	20.37	21.50
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	22.99	22.93	22.86	24.50
		1	7	23.14	23.21	23.37	24.50
		1	14	22.88	23.03	23.02	24.50

		8	0	22.66	22.53	22.49	23.50
		8	4	22.46	22.51	22.52	23.50
		8	7	22.32	22.39	22.47	23.50
		15	0	22.45	22.38	22.45	23.50
	16QAM	1	0	22.56	22.21	22.21	23.50
		1	7	22.55	22.66	22.66	23.50
		1	14	22.12	22.23	22.15	23.50
		8	0	21.60	21.38	21.34	22.50
		8	4	21.38	21.48	21.50	22.50
		8	7	21.37	21.43	21.41	22.50
		15	0	21.55	21.40	21.51	22.50
	64QAM	1	0	21.46	21.47	21.28	22.50
		1	7	21.70	21.62	21.60	22.50
		1	14	21.17	21.41	21.28	22.50
		8	0	20.72	20.38	20.54	21.50
		8	4	20.60	20.48	20.58	21.50
		8	7	20.27	20.59	20.55	21.50
		15	0	20.44	20.41	20.39	21.50

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	22.98	22.89	22.84	24.50
		1	13	23.12	23.20	23.34	24.50
		1	24	22.85	22.98	22.98	24.50
		12	0	22.64	22.49	22.46	23.50
		12	6	22.43	22.46	22.48	23.50
		12	13	22.29	22.36	22.43	23.50
		25	0	22.43	22.34	22.40	23.50
	16QAM	1	0	22.51	22.19	22.19	23.50
		1	13	22.53	22.63	22.64	23.50
		1	24	22.09	22.19	22.12	23.50
		12	0	21.57	21.36	21.31	22.50
		12	6	21.35	21.43	21.46	22.50
		12	13	21.35	21.39	21.38	22.50
		25	0	21.52	21.35	21.47	22.50
	64QAM	1	0	21.41	21.45	21.26	22.50
		1	13	21.68	21.59	21.58	22.50
		1	24	21.18	21.40	21.29	22.50
		12	0	20.71	20.40	20.55	21.50
		12	6	20.58	20.45	20.57	21.50
		12	13	20.25	20.55	20.52	21.50
		25	0	20.41	20.36	20.35	21.50

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	22.95	22.85	22.81	24.50
		1	25	**23.11**	**23.16**	**23.52**	24.50
		1	49	22.83	22.97	22.95	24.50
		25	0	**22.61**	**22.44**	22.42	23.50
		25	13	22.41	22.42	**22.45**	23.50
		25	25	22.26	22.31	22.39	23.50
		50	0	**22.40**	22.29	22.36	23.50
	16QAM	1	0	22.58	22.15	22.14	23.50
		1	25	22.49	22.61	22.60	23.50
		1	49	22.07	22.16	22.10	23.50
		25	0	21.54	21.32	21.28	22.50
		25	13	21.32	21.41	21.43	22.50
		25	25	21.32	21.34	21.34	22.50
		50	0	21.50	21.31	21.44	22.50
	64QAM	1	0	21.39	21.41	21.21	22.50
		1	25	21.64	21.57	21.54	22.50
		1	49	21.12	21.34	21.23	22.50
		25	0	20.66	20.32	20.48	21.50
		25	13	20.54	20.41	20.51	21.50
		25	25	20.22	20.50	20.48	21.50
		50	0	20.39	20.32	20.32	21.50

LTE FDD Band 5 Full Power&DSI 2				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	23.66	23.47	23.65	25.00
		1	2	23.74	23.95	23.89	25.00
		1	5	23.23	23.60	23.43	25.00
		3	0	23.38	23.39	23.38	25.00
		3	2	23.24	23.42	23.40	25.00
		3	3	23.18	23.26	23.24	25.00
		6	0	22.49	22.42	22.50	23.50
	16QAM	1	0	22.32	22.07	22.24	23.50
		1	2	22.30	22.46	22.45	23.50
		1	5	22.26	22.13	22.23	23.50
		3	0	22.30	22.28	22.33	23.50
		3	2	22.45	22.55	22.62	23.50
		3	3	22.31	22.52	22.26	23.50
		6	0	21.35	21.49	21.46	22.50
	64QAM	1	0	21.35	21.32	21.41	22.50

		1	2	21.87	22.09	21.81	22.50
		1	5	21.14	21.51	21.20	22.50
		3	0	21.37	21.40	21.43	22.50
		3	2	21.54	21.56	21.53	22.50
		3	3	21.28	21.56	21.23	22.50
		6	0	20.44	20.38	20.47	21.50
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	23.68	23.51	23.68	25.00
		1	7	23.72	23.98	23.93	25.00
		1	14	23.26	23.65	23.47	25.00
		8	0	22.48	22.51	22.51	23.50
		8	4	22.36	22.52	22.52	23.50
		8	7	22.28	22.37	22.34	23.50
		15	0	22.49	22.46	22.53	23.50
	16QAM	1	0	22.35	22.09	22.27	23.50
		1	7	22.33	22.46	22.49	23.50
		1	14	22.28	22.17	22.26	23.50
		8	0	21.41	21.41	21.45	22.50
		8	4	21.56	21.68	21.74	22.50
		8	7	21.41	21.64	21.39	22.50
		15	0	21.38	21.53	21.49	22.50
	64QAM	1	0	21.38	21.34	21.44	22.50
		1	7	21.90	22.09	21.83	22.50
		1	14	21.16	21.50	21.23	22.50
		8	0	20.48	20.53	20.55	21.50
		8	4	20.65	20.69	20.65	21.50
		8	7	20.38	20.68	20.36	21.50
		15	0	20.47	20.42	20.50	21.50
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	23.66	23.46	23.65	25.00
		1	13	23.71	23.98	23.91	25.00
		1	24	23.22	23.59	23.42	25.00
		12	0	22.46	22.47	22.48	23.50
		12	6	22.34	22.48	22.47	23.50
		12	13	22.25	22.36	22.31	23.50
		25	0	22.51	22.43	22.50	23.50
	16QAM	1	0	22.29	22.06	22.24	23.50
		1	13	22.31	22.45	22.47	23.50
		1	24	22.25	22.13	22.22	23.50
		12	0	21.39	21.40	21.43	22.50
		12	6	21.52	21.62	21.69	22.50

		12	13	21.39	21.60	21.36	22.50
		25	0	21.36	21.49	21.44	22.50
	64QAM	1	0	21.32	21.31	21.41	22.50
		1	13	21.88	22.08	21.81	22.50
		1	24	21.17	21.49	21.23	22.50
		12	0	20.48	20.56	20.57	21.50
		12	6	20.62	20.65	20.63	21.50
		12	13	20.36	20.64	20.33	21.50
		25	0	20.45	20.38	20.45	21.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20450/829	20525/836.5	20600/844	
10MHz	QPSK	1	0	23.63	23.42	23.62	25.00
		1	25	**23.70**	**23.94**	**23.89**	25.00
		1	49	23.20	23.58	23.39	25.00
		25	0	**22.43**	22.42	**22.44**	23.50
		25	13	22.32	**22.44**	**22.44**	23.50
		25	25	22.22	22.31	22.27	23.50
		50	0	**22.48**	22.38	22.46	23.50
	16QAM	1	0	22.19	22.02	22.19	23.50
		1	25	22.27	22.43	22.43	23.50
		1	49	22.23	22.10	22.20	23.50
		25	0	21.36	21.36	21.40	22.50
		25	13	21.49	21.60	21.66	22.50
		25	25	21.36	21.55	21.32	22.50
		50	0	21.34	21.45	21.41	22.50
	64QAM	1	0	21.30	21.27	21.36	22.50
		1	25	21.84	22.06	21.77	22.50
		1	49	21.11	21.43	21.17	22.50
		25	0	20.43	20.48	20.50	21.50
		25	13	20.58	20.61	20.57	21.50
		25	25	20.33	20.59	20.29	21.50
		50	0	20.43	20.34	20.42	21.50

LTE FDD Band 7 DSI 1				**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	16.56	16.36	16.19	18.00
		1	13	16.57	16.77	16.64	18.00
		1	24	16.46	16.41	16.32	18.00
		12	0	16.41	16.31	16.59	18.00
		12	6	16.19	16.30	16.09	18.00
		12	13	16.19	16.27	16.07	18.00

		25	0	16.12	16.27	16.26	18.00
	16QAM	1	0	16.10	16.04	16.08	17.50
		1	13	16.08	16.02	16.11	17.50
		1	24	16.08	16.08	16.11	17.50
		12	0	16.36	16.35	16.54	17.50
		12	6	16.31	16.34	16.24	17.50
		12	13	16.15	16.22	16.11	17.50
		25	0	16.22	16.20	16.26	17.50
	64QAM	1	0	16.19	16.47	16.15	17.50
		1	13	16.58	16.61	16.24	17.50
		1	24	16.20	16.06	16.12	17.50
		12	0	16.25	16.36	16.34	17.50
		12	6	16.12	16.20	16.08	17.50
		12	13	16.17	16.21	16.12	17.50
		25	0	16.39	16.40	16.51	17.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	16.58	16.37	16.22	18.00
		1	25	16.60	16.82	16.68	18.00
		1	49	16.48	16.45	16.35	18.00
		25	0	16.44	16.36	16.63	18.00
		25	13	16.22	16.35	16.13	18.00
		25	25	16.21	16.31	16.12	18.00
		50	0	16.16	16.29	16.30	18.00
	16QAM	1	0	16.12	16.07	16.10	17.50
		1	25	16.11	16.06	16.14	17.50
		1	49	16.11	16.10	16.14	17.50
		25	0	16.39	16.40	16.58	17.50
		25	13	16.33	16.38	16.27	17.50
		25	25	16.18	16.27	16.15	17.50
		50	0	16.25	16.25	16.30	17.50
	64QAM	1	0	16.21	16.46	16.17	17.50
		1	25	16.61	16.61	16.27	17.50
		1	49	16.19	16.08	16.15	17.50
		25	0	16.28	16.41	16.34	17.50
		25	13	16.14	16.24	16.11	17.50
		25	25	16.20	16.26	16.16	17.50
		50	0	16.42	16.45	16.55	17.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	16.57	16.33	16.20	18.00
		1	38	16.58	16.81	16.65	18.00
		1	74	16.45	16.40	16.31	18.00

		36	0	16.42	16.32	16.60	18.00
		36	18	16.19	16.30	16.09	18.00
		36	39	16.18	16.28	16.08	18.00
		75	0	16.14	16.25	16.25	18.00
	16QAM	1	0	16.07	16.05	16.08	17.50
		1	38	16.09	16.03	16.12	17.50
		1	74	16.08	16.06	16.11	17.50
		36	0	16.36	16.38	16.55	17.50
		36	18	16.30	16.33	16.23	17.50
		36	39	16.16	16.23	16.12	17.50
		75	0	16.22	16.20	16.26	17.50
	64QAM	1	0	16.16	16.44	16.15	17.50
		1	38	16.59	16.58	16.25	17.50
		1	74	16.20	16.07	16.16	17.50
		36	0	16.27	16.43	16.35	17.50
		36	18	16.12	16.21	16.10	17.50
		36	39	16.18	16.22	16.13	17.50
		75	0	16.39	16.40	16.51	17.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	16.54	16.29	16.17	18.00
		1	50	**16.57**	**16.77**	**16.63**	18.00
		1	99	16.43	16.39	16.28	18.00
		50	0	**16.39**	**16.27**	**16.56**	18.00
		50	25	16.17	16.26	16.06	18.00
		50	50	16.15	16.23	16.04	18.00
		100	0	16.11	16.20	**16.21**	18.00
	16QAM	1	0	16.11	16.01	16.03	17.50
		1	50	16.05	16.01	16.08	17.50
		1	99	16.06	16.03	16.09	17.50
		50	0	16.33	16.34	16.52	17.50
		50	25	16.27	16.31	16.20	17.50
		50	50	16.13	16.18	16.08	17.50
		100	0	16.20	16.16	16.23	17.50
	64QAM	1	0	16.14	16.40	16.10	17.50
		1	50	16.55	16.56	16.21	17.50
		1	99	16.14	16.01	16.10	17.50
		50	0	16.22	16.35	16.28	17.50
		50	25	16.08	16.17	16.04	17.50
		50	50	16.15	16.17	16.09	17.50
		100	0	16.37	16.36	16.48	17.50

LTE FDD Band 7 Full Power&DSI 2				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	22.35	22.46	22.17	24.00
		1	13	22.74	22.61	22.77	24.00
		1	24	22.35	22.35	22.38	24.00
		12	0	21.51	21.35	21.24	23.00
		12	6	21.37	21.35	21.11	23.00
		12	13	21.21	21.32	21.09	23.00
		25	0	21.29	21.26	21.19	23.00
	16QAM	1	0	21.34	21.16	21.08	22.50
		1	13	21.32	21.27	21.17	22.50
		1	24	21.07	21.15	21.12	22.50
		12	0	20.27	20.26	20.27	21.50
		12	6	20.27	20.35	20.14	21.50
		12	13	20.14	20.30	20.16	21.50
		25	0	20.08	20.19	20.19	21.50
	64QAM	1	0	20.52	20.79	20.36	21.50
		1	13	20.82	20.97	20.63	21.50
		1	24	20.26	20.70	20.29	21.50
		12	0	19.57	19.59	19.58	20.50
		12	6	19.58	19.69	19.37	20.50
		12	13	19.40	19.58	19.32	20.50
		25	0	19.52	19.44	19.34	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	22.37	22.47	22.20	24.00
		1	25	22.77	22.66	22.81	24.00
		1	49	22.37	22.39	22.41	24.00
		25	0	21.54	21.40	21.28	23.00
		25	13	21.40	21.40	21.15	23.00
		25	25	21.23	21.36	21.14	23.00
		50	0	21.33	21.28	21.23	23.00
	16QAM	1	0	21.36	21.19	21.10	22.50
		1	25	21.35	21.31	21.20	22.50
		1	49	21.10	21.17	21.15	22.50
		25	0	20.30	20.31	20.31	21.50
		25	13	20.29	20.39	20.17	21.50
		25	25	20.17	20.35	20.20	21.50
		50	0	20.11	20.24	20.23	21.50
	64QAM	1	0	20.54	20.78	20.38	21.50
		1	25	20.85	20.97	20.66	21.50

		1	49	20.25	20.72	20.32	21.50
		25	0	19.60	19.64	19.58	20.50
		25	13	19.60	19.73	19.40	20.50
		25	25	19.43	19.63	19.36	20.50
		50	0	19.55	19.49	19.38	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	22.36	22.43	22.18	24.00
		1	38	22.75	22.65	22.78	24.00
		1	74	22.34	22.34	22.37	24.00
		36	0	21.52	21.36	21.25	23.00
		36	18	21.37	21.35	21.11	23.00
		36	39	21.20	21.33	21.10	23.00
		75	0	21.31	21.24	21.18	23.00
	16QAM	1	0	21.31	21.17	21.08	22.50
		1	38	21.33	21.28	21.18	22.50
		1	74	21.07	21.13	21.12	22.50
		36	0	20.27	20.29	20.28	21.50
		36	18	20.26	20.34	20.13	21.50
		36	39	20.15	20.31	20.17	21.50
		75	0	20.08	20.19	20.19	21.50
	64QAM	1	0	20.49	20.76	20.36	21.50
		1	38	20.83	20.94	20.64	21.50
		1	74	20.26	20.71	20.33	21.50
		36	0	19.59	19.66	19.59	20.50
		36	18	19.58	19.70	19.39	20.50
		36	39	19.41	19.59	19.33	20.50
		75	0	19.52	19.44	19.34	20.50
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	22.33	22.39	22.15	24.00
		1	50	**22.74**	**22.61**	**22.76**	24.00
		1	99	22.32	22.33	22.34	24.00
		50	0	**21.49**	**21.31**	**21.21**	23.00
		50	25	21.35	**21.31**	21.08	23.00
		50	50	21.17	21.28	21.06	23.00
		100	0	**21.28**	21.19	21.14	23.00
	16QAM	1	0	21.04	21.13	21.03	22.50
		1	50	21.29	21.26	21.14	22.50
		1	99	21.05	21.10	21.10	22.50
		50	0	20.24	20.25	20.25	21.50
		50	25	20.23	20.32	20.10	21.50
		50	50	20.12	20.26	20.13	21.50

		100	0	20.06	20.15	20.16	21.50
	64QAM	1	0	20.47	20.72	20.31	21.50
		1	50	20.79	20.92	20.60	21.50
		1	99	20.20	20.65	20.27	21.50
		50	0	19.54	19.58	19.52	20.50
		50	25	19.54	19.66	19.33	20.50
		50	50	19.38	19.54	19.29	20.50
		100	0	19.50	19.40	19.31	20.50

LTE FDD Band 7 DSI 4				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	19.86	19.70	19.54	20.50
		1	13	20.14	20.07	19.92	20.50
		1	24	19.45	19.61	19.26	20.50
		12	0	19.65	19.60	19.64	20.50
		12	6	19.40	19.50	19.31	20.50
		12	13	19.34	19.40	19.34	20.50
		25	0	19.37	19.40	19.44	20.50
	16QAM	1	0	19.42	19.13	18.74	20.00
		1	13	19.41	19.61	19.20	20.00
		1	24	18.81	19.08	18.68	20.00
		12	0	19.53	19.47	19.41	20.00
		12	6	19.48	19.47	19.21	20.00
		12	13	19.27	19.37	19.35	20.00
		25	0	19.54	19.62	19.72	20.00
	64QAM	1	0	19.26	19.50	19.58	20.00
		1	13	19.74	19.85	19.84	20.00
		1	24	19.49	19.58	19.91	20.00
		12	0	19.20	19.29	19.19	20.00
		12	6	19.12	19.32	19.01	20.00
		12	13	18.98	19.16	19.01	20.00
		25	0	18.99	19.18	19.00	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20800/2505	21100/2535	21400/2565	
10MHz	QPSK	1	0	19.86	19.70	19.54	20.50
		1	25	20.14	20.07	19.92	20.50
		1	49	19.45	19.61	19.26	20.50
		25	0	19.65	19.60	19.64	20.50
		25	13	19.40	19.50	19.31	20.50
		25	25	19.34	19.40	19.34	20.50
		50	0	19.37	19.40	19.44	20.50

	16QAM	1	0	19.42	19.13	18.74	20.00
		1	25	19.41	19.61	19.20	20.00
		1	49	18.81	19.08	18.68	20.00
		25	0	19.53	19.47	19.41	20.00
		25	13	19.48	19.47	19.21	20.00
		25	25	19.27	19.37	19.35	20.00
		50	0	19.54	19.62	19.72	20.00
	64QAM	1	0	19.26	19.50	19.58	20.00
		1	25	19.74	19.85	19.84	20.00
		1	49	19.49	19.58	19.91	20.00
		25	0	19.20	19.29	19.19	20.00
		25	13	19.12	19.32	19.01	20.00
		25	25	18.98	19.16	19.01	20.00
		50	0	18.99	19.18	19.00	20.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20825/2507.5	21100/2535	21375/2562.5	
15MHz	QPSK	1	0	19.85	19.66	19.52	20.50
		1	38	20.12	20.06	19.89	20.50
		1	74	19.42	19.56	19.22	20.50
		36	0	19.63	19.56	19.61	20.50
		36	18	19.37	19.45	19.27	20.50
		36	39	19.31	19.37	19.30	20.50
		75	0	19.35	19.36	19.39	20.50
	16QAM	1	0	19.37	19.11	18.72	20.00
		1	38	19.39	19.58	19.18	20.00
		1	74	18.78	19.04	18.65	20.00
		36	0	19.50	19.45	19.38	20.00
		36	18	19.45	19.42	19.17	20.00
		36	39	19.25	19.33	19.32	20.00
		75	0	19.51	19.57	19.68	20.00
	64QAM	1	0	19.21	19.48	19.56	20.00
		1	38	19.72	19.82	19.82	20.00
		1	74	19.50	19.57	19.92	20.00
		36	0	19.19	19.31	19.20	20.00
		36	18	19.10	19.29	19.00	20.00
		36	39	18.96	19.12	18.98	20.00
		75	0	18.96	19.13	18.96	20.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				20850/2510	21100/2535	21350/2560	
20MHz	QPSK	1	0	19.82	19.62	19.49	20.50
		1	50	**20.11**	**20.02**	**19.87**	20.50
		1	99	19.40	19.55	19.19	20.50
		50	0	**19.60**	**19.51**	**19.57**	20.50

		50	25	19.35	19.41	19.24	20.50
		50	50	19.28	19.32	19.26	20.50
		100	0	19.32	19.31	**19.35**	20.50
	16QAM	1	0	19.01	19.07	18.67	20.00
		1	50	19.35	19.56	19.14	20.00
		1	99	18.76	19.01	18.63	20.00
		50	0	19.47	19.41	19.35	20.00
		50	25	19.42	19.40	19.14	20.00
		50	50	19.22	19.28	19.28	20.00
		100	0	19.49	19.53	19.65	20.00
	64QAM	1	0	19.19	19.44	19.51	20.00
		1	50	19.68	19.80	19.78	20.00
		1	99	19.44	19.51	19.86	20.00
		50	0	19.14	19.23	19.13	20.00
		50	25	19.06	19.25	18.94	20.00
		50	50	18.93	19.07	18.94	20.00
		100	0	18.94	19.09	18.93	20.00

LTE TDD Band 38 DSI 1				**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	19.63	19.38	19.59	20.00
		1	13	19.81	19.56	19.68	20.00
		1	24	19.33	19.52	19.59	20.00
		12	0	19.39	19.28	19.39	20.00
		12	6	19.32	19.27	19.36	20.00
		12	13	19.20	19.26	19.24	20.00
		25	0	19.24	19.28	19.31	20.00
	16QAM	1	0	18.96	19.15	19.36	20.00
		1	13	18.94	18.93	18.85	20.00
		1	24	18.63	18.86	18.82	20.00
		12	0	19.58	19.47	19.52	20.00
		12	6	19.44	19.48	19.56	20.00
		12	13	19.41	19.52	19.37	20.00
		25	0	19.65	19.63	19.73	20.00
	64QAM	1	0	19.31	19.31	19.44	20.00
		1	13	19.57	19.35	19.55	20.00
		1	24	19.47	19.57	19.66	20.00
		12	0	19.40	19.20	19.26	20.00
		12	6	19.03	19.02	19.16	20.00
		12	13	18.89	19.04	18.98	20.00
		25	0	19.31	19.27	19.38	20.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	19.65	19.39	19.62	20.00
		1	25	19.84	19.61	19.72	20.00
		1	49	19.35	19.56	19.62	20.00
		25	0	19.42	19.33	19.43	20.00
		25	13	19.35	19.32	19.40	20.00
		25	25	19.22	19.30	19.29	20.00
		50	0	19.28	19.30	19.35	20.00
	16QAM	1	0	18.98	19.18	19.38	20.00
		1	25	18.97	18.97	18.88	20.00
		1	49	18.66	18.88	18.85	20.00
		25	0	19.61	19.52	19.56	20.00
		25	13	19.46	19.52	19.59	20.00
		25	25	19.44	19.57	19.41	20.00
		50	0	19.68	19.68	19.77	20.00
	64QAM	1	0	19.33	19.30	19.46	20.00
		1	25	19.60	19.35	19.58	20.00
		1	49	19.46	19.59	19.69	20.00
		25	0	19.43	19.25	19.26	20.00
		25	13	19.05	19.06	19.19	20.00
		25	25	18.92	19.09	19.02	20.00
		50	0	19.34	19.32	19.42	20.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz	QPSK	1	0	19.64	19.35	19.60	20.00
		1	38	19.82	19.60	19.69	20.00
		1	74	19.32	19.51	19.58	20.00
		36	0	19.40	19.29	19.40	20.00
		36	18	19.32	19.27	19.36	20.00
		36	39	19.19	19.27	19.25	20.00
		75	0	19.26	19.26	19.30	20.00
	16QAM	1	0	18.93	19.16	19.36	20.00
		1	38	18.95	18.94	18.86	20.00
		1	74	18.63	18.84	18.82	20.00
		36	0	19.58	19.50	19.53	20.00
		36	18	19.43	19.47	19.55	20.00
		36	39	19.42	19.53	19.38	20.00
		75	0	19.65	19.63	19.73	20.00
	64QAM	1	0	19.28	19.28	19.44	20.00
		1	38	19.58	19.32	19.56	20.00
		1	74	19.47	19.58	19.70	20.00
		36	0	19.42	19.27	19.27	20.00

		36	18	19.03	19.03	19.18	20.00
		36	39	18.90	19.05	18.99	20.00
		75	0	19.31	19.27	19.38	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	19.61	19.31	19.57	20.00
		1	50	**19.81**	**19.56**	**19.67**	20.00
		1	99	19.30	19.50	19.55	20.00
		50	0	**19.37**	**19.24**	**19.36**	20.00
		50	25	19.30	19.23	19.33	20.00
		50	50	19.16	19.22	19.21	20.00
		100	0	19.23	19.21	**19.26**	20.00
	16QAM	1	0	19.31	19.12	19.31	20.00
		1	50	18.91	18.92	18.82	20.00
		1	99	18.61	18.81	18.80	20.00
		50	0	19.55	19.46	19.50	20.00
		50	25	19.40	19.45	19.52	20.00
		50	50	19.39	19.48	19.34	20.00
		100	0	19.63	19.59	19.70	20.00
	64QAM	1	0	19.26	19.24	19.39	20.00
		1	50	19.54	19.30	19.52	20.00
		1	99	19.41	19.52	19.64	20.00
		50	0	19.37	19.19	19.20	20.00
		50	25	18.99	18.99	19.12	20.00
		50	50	18.87	19.00	18.95	20.00
		100	0	19.29	19.23	19.35	20.00

LTE TDD Band 38 Full Powe&DSI 2				**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	23.59	23.38	23.34	25.00
		1	13	23.78	23.76	23.73	25.00
		1	24	23.35	23.14	23.22	25.00
		12	0	22.40	22.40	22.37	24.00
		12	6	22.34	22.44	22.37	24.00
		12	13	22.25	22.30	22.35	24.00
		25	0	22.31	22.36	22.34	24.00
	16QAM	1	0	22.20	22.18	22.17	24.00
		1	13	22.18	22.02	22.15	24.00
		1	24	22.21	22.31	22.35	24.00
		12	0	21.37	21.20	21.17	23.00
		12	6	21.75	21.65	21.75	23.00

		12	13	21.53	21.53	21.60	23.00
		25	0	21.38	21.32	21.34	23.00
		1	0	21.06	21.15	21.15	23.00
		1	13	21.26	21.21	21.23	23.00
		1	24	21.09	21.23	21.15	23.00
	64QAM	12	0	20.51	20.15	20.16	22.00
		12	6	20.29	20.28	20.29	22.00
		12	13	20.16	20.22	20.21	22.00
		25	0	20.26	20.25	20.30	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
		1	0	23.61	23.39	23.37	25.00
		1	25	23.81	23.81	23.77	25.00
		1	49	23.37	23.18	23.25	25.00
	QPSK	25	0	22.43	22.45	22.41	24.00
		25	13	22.37	22.49	22.41	24.00
		25	25	22.27	22.34	22.40	24.00
		50	0	22.35	22.38	22.38	24.00
		1	0	22.22	22.21	22.19	24.00
		1	25	22.21	22.06	22.18	24.00
		1	49	22.24	22.33	22.38	24.00
10MHz	16QAM	25	0	21.40	21.25	21.21	23.00
		25	13	21.77	21.69	21.78	23.00
		25	25	21.56	21.58	21.64	23.00
		50	0	21.41	21.37	21.38	23.00
		1	0	21.08	21.14	21.17	23.00
		1	25	21.29	21.21	21.26	23.00
		1	49	21.08	21.25	21.18	23.00
	64QAM	25	0	20.54	20.20	20.16	22.00
		25	13	20.31	20.32	20.32	22.00
		25	25	20.19	20.27	20.25	22.00
		50	0	20.29	20.30	20.34	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
		1	0	23.60	23.35	23.35	25.00
		1	38	23.79	23.80	23.74	25.00
		1	74	23.34	23.13	23.21	25.00
	QPSK	36	0	22.41	22.41	22.38	24.00
15MHz		36	18	22.34	22.44	22.37	24.00
		36	39	22.24	22.31	22.36	24.00
		75	0	22.33	22.34	22.33	24.00
	16QAM	1	0	22.17	22.19	22.17	24.00
		1	38	22.19	22.03	22.16	24.00

		1	74	22.21	22.29	22.35	24.00
		36	0	21.37	21.23	21.18	23.00
		36	18	21.74	21.64	21.74	23.00
		36	39	21.54	21.54	21.61	23.00
		75	0	21.38	21.32	21.34	23.00
	64QAM	1	0	21.03	21.12	21.15	23.00
		1	38	21.27	21.18	21.24	23.00
		1	74	21.09	21.24	21.19	23.00
		36	0	20.53	20.22	20.17	22.00
		36	18	20.29	20.29	20.31	22.00
		36	39	20.17	20.23	20.22	22.00
		75	0	20.26	20.25	20.30	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	23.57	23.31	23.32	25.00
		1	50	**23.78**	**23.76**	**23.72**	25.00
		1	99	23.32	23.12	23.18	25.00
		50	0	**22.38**	22.36	22.34	24.00
		50	25	22.32	**22.40**	**22.34**	24.00
		50	50	22.21	22.26	22.32	24.00
		100	0	**22.30**	22.29	22.29	24.00
	16QAM	1	0	22.19	22.15	22.12	24.00
		1	50	22.15	22.01	22.12	24.00
		1	99	22.19	22.26	22.33	24.00
		50	0	21.34	21.19	21.15	23.00
		50	25	21.71	21.62	21.71	23.00
		50	50	21.51	21.49	21.57	23.00
		100	0	21.36	21.28	21.31	23.00
	64QAM	1	0	21.01	21.08	21.10	23.00
		1	50	21.23	21.16	21.20	23.00
		1	99	21.03	21.18	21.13	23.00
		50	0	20.48	20.14	20.10	22.00
		50	25	20.25	20.25	20.25	22.00
		50	50	20.14	20.18	20.18	22.00
		100	0	20.24	20.21	20.27	22.00

LTE TDD Band 38 DSI 4				**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	23.39	23.46	23.64	24.00
		1	13	23.53	23.53	23.66	24.00
		1	24	23.36	23.45	23.45	24.00

		12	0	22.47	22.25	22.47	24.00
		12	6	22.22	22.28	22.38	24.00
		12	13	22.08	22.24	22.13	24.00
		25	0	22.10	22.18	22.22	24.00
	16QAM	1	0	22.11	22.18	22.47	24.00
		1	13	22.09	22.14	22.27	24.00
		1	24	22.21	22.24	22.14	24.00
		12	0	21.65	21.43	21.48	23.00
		12	6	21.57	21.49	21.57	23.00
		12	13	21.39	21.41	21.35	23.00
		25	0	21.39	21.43	21.47	23.00
	64QAM	1	0	21.49	21.09	21.47	23.00
		1	13	21.72	21.79	21.81	23.00
		1	24	21.39	21.46	21.41	23.00
		12	0	20.30	20.11	20.23	22.00
		12	6	20.10	20.04	20.22	22.00
		12	13	20.37	20.39	20.37	22.00
		25	0	20.43	20.29	20.36	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz	QPSK	1	0	23.41	23.47	23.67	24.00
		1	25	23.56	23.58	23.70	24.00
		1	49	23.38	23.49	23.48	24.00
		25	0	22.50	22.30	22.51	24.00
		25	13	22.25	22.33	22.42	24.00
		25	25	22.10	22.28	22.18	24.00
		50	0	22.14	22.20	22.26	24.00
	16QAM	1	0	22.13	22.21	22.49	24.00
		1	25	22.12	22.18	22.30	24.00
		1	49	22.24	22.26	22.17	24.00
		25	0	21.68	21.48	21.52	23.00
		25	13	21.59	21.53	21.60	23.00
		25	25	21.42	21.46	21.39	23.00
		50	0	21.42	21.48	21.51	23.00
	64QAM	1	0	21.51	21.08	21.49	23.00
		1	25	21.75	21.79	21.84	23.00
		1	49	21.38	21.48	21.44	23.00
		25	0	20.33	20.16	20.23	22.00
		25	13	20.12	20.08	20.25	22.00
		25	25	20.40	20.44	20.41	22.00
		50	0	20.46	20.34	20.40	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	23.40	23.43	23.65	24.00
		1	38	23.54	23.57	23.67	24.00
		1	74	23.35	23.44	23.44	24.00
		36	0	22.48	22.26	22.48	24.00
		36	18	22.22	22.28	22.38	24.00
		36	39	22.07	22.25	22.14	24.00
		75	0	22.12	22.16	22.21	24.00
	16QAM	1	0	22.08	22.19	22.47	24.00
		1	38	22.10	22.15	22.28	24.00
		1	74	22.21	22.22	22.14	24.00
		36	0	21.65	21.46	21.49	23.00
		36	18	21.56	21.48	21.56	23.00
		36	39	21.40	21.42	21.36	23.00
		75	0	21.39	21.43	21.47	23.00
	64QAM	1	0	21.46	21.06	21.47	23.00
		1	38	21.73	21.76	21.82	23.00
		1	74	21.39	21.47	21.45	23.00
		36	0	20.32	20.18	20.24	22.00
		36	18	20.10	20.05	20.24	22.00
		36	39	20.38	20.40	20.38	22.00
		75	0	20.43	20.29	20.36	22.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	
20MHz	QPSK	1	0	23.37	23.39	23.62	24.00
		1	50	**23.53**	**23.53**	**23.65**	24.00
		1	99	23.33	23.43	23.41	24.00
		50	0	**22.45**	22.21	**22.44**	24.00
		50	25	22.20	**22.24**	22.35	24.00
		50	50	22.04	22.20	22.10	24.00
		100	0	22.09	22.11	**22.17**	24.00
	16QAM	1	0	22.37	22.15	22.42	24.00
		1	50	22.06	22.13	22.24	24.00
		1	99	22.19	22.19	22.12	24.00
		50	0	21.62	21.42	21.46	23.00
		50	25	21.53	21.46	21.53	23.00
		50	50	21.37	21.37	21.32	23.00
		100	0	21.37	21.39	21.44	23.00
	64QAM	1	s	21.44	21.02	21.42	23.00
		1	50	21.69	21.74	21.78	23.00
		1	99	21.33	21.41	21.39	23.00
		50	0	20.27	20.10	20.17	22.00

		50	25	20.06	20.01	20.18	22.00
		50	50	20.35	20.35	20.34	22.00
		100	0	20.41	20.25	20.33	22.00

LTE TDD Band 41 DSI 1				Conducted Power(dBm)				Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				40065/2537.5	40385/2569.5	40705/2601.5	41215/2652.5	
5MHz	QPSK	1	0	19.51	19.48	19.50	19.46	20.00
		1	13	19.59	19.46	19.56	19.61	20.00
		1	24	19.60	19.41	19.54	19.50	20.00
		12	0	19.33	19.33	19.36	19.31	20.00
		12	6	19.33	19.33	19.32	19.36	20.00
		12	13	19.24	19.17	19.29	19.11	20.00
		25	0	19.25	19.29	19.25	19.26	20.00
	16QAM	1	0	19.36	19.08	19.05	19.33	20.00
		1	13	19.34	19.36	19.39	19.31	20.00
		1	24	18.96	19.11	19.12	18.84	20.00
		12	0	19.31	19.19	19.40	19.38	20.00
		12	6	19.64	19.19	19.17	19.53	20.00
		12	13	19.58	19.01	19.21	19.27	20.00
		25	0	19.24	19.15	19.18	19.18	20.00
	64QAM	1	0	19.15	19.27	19.31	19.23	20.00
		1	13	19.31	19.52	19.45	19.16	20.00
		1	24	19.08	19.03	19.27	19.21	20.00
		12	0	19.28	19.13	19.19	19.39	20.00
		12	6	19.40	19.29	19.30	19.44	20.00
		12	13	19.38	19.16	19.37	19.32	20.00
		25	0	19.33	19.29	19.31	19.51	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40090/2540	40390/2570	40690/2600	41190/2650	
10MHz	QPSK	1	0	19.53	19.49	19.53	19.48	20.00
		1	25	19.62	19.51	19.60	19.64	20.00
		1	49	19.62	19.45	19.57	19.52	20.00
		25	0	19.36	19.38	19.40	19.34	20.00
		25	13	19.36	19.38	19.36	19.39	20.00
		25	25	19.26	19.21	19.34	19.13	20.00
		50	0	19.29	19.31	19.29	19.30	20.00
	16QAM	1	0	19.38	19.11	19.07	19.35	20.00
		1	25	19.37	19.40	19.42	19.34	20.00
		1	49	18.99	19.13	19.15	18.87	20.00
		25	0	19.34	19.24	19.44	19.41	20.00
		25	13	19.66	19.23	19.20	19.55	20.00

		25	25	19.61	19.06	19.25	19.30	20.00
		50	0	19.27	19.20	19.22	19.21	20.00
	64QAM	1	0	19.17	19.26	19.33	19.25	20.00
		1	25	19.34	19.52	19.48	19.19	20.00
		1	49	19.07	19.05	19.30	19.20	20.00
		25	0	19.31	19.18	19.19	19.42	20.00
		25	13	19.42	19.33	19.33	19.46	20.00
		25	25	19.41	19.21	19.41	19.35	20.00
		50	0	19.36	19.34	19.35	19.54	20.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40115/2542.5	40395/2570.5	40685/2599.5	2647.5/41140	
15MHz	QPSK	1	0	19.52	19.45	19.51	19.47	20.00
		1	38	19.60	19.50	19.57	19.62	20.00
		1	74	19.59	19.40	19.53	19.49	20.00
		36	0	19.34	19.34	19.37	19.32	20.00
		36	18	19.33	19.33	19.32	19.36	20.00
		36	39	19.23	19.18	19.30	19.10	20.00
		75	0	19.27	19.27	19.24	19.28	20.00
	16QAM	1	0	19.33	19.09	19.05	19.30	20.00
		1	38	19.35	19.37	19.40	19.32	20.00
		1	74	18.96	19.09	19.12	18.84	20.00
		36	0	19.31	19.22	19.41	19.38	20.00
		36	18	19.63	19.18	19.16	19.52	20.00
		36	39	19.59	19.02	19.22	19.28	20.00
		75	0	19.24	19.15	19.18	19.18	20.00
	64QAM	1	0	19.12	19.24	19.31	19.20	20.00
		1	38	19.32	19.49	19.46	19.17	20.00
		1	74	19.08	19.04	19.31	19.21	20.00
		36	0	19.30	19.20	19.20	19.41	20.00
		36	18	19.40	19.30	19.32	19.44	20.00
		36	39	19.39	19.17	19.38	19.33	20.00
		75	0	19.33	19.29	19.31	19.51	20.00
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	19.49	19.41	19.48	19.44	20.00
		1	50	**19.59**	**19.46**	**19.60**	**19.51**	20.00
		1	99	19.57	19.39	19.50	19.47	20.00
		50	0	**19.31**	**19.29**	**19.35**	19.29	20.00
		50	25	**19.31**	**19.29**	19.29	**19.34**	20.00
		50	50	19.20	19.13	19.26	19.07	20.00
		100	0	**19.24**	19.22	19.20	**19.25**	20.00
	16QAM	1	0	18.98	19.05	19.00	18.94	20.00

		1	50	19.31	19.35	19.36	19.28	20.00
		1	99	18.94	19.06	19.10	18.82	20.00
		50	0	19.28	19.18	19.38	19.35	20.00
		50	25	19.60	19.16	19.13	19.49	20.00
		50	50	19.56	18.97	19.18	19.25	20.00
		100	0	19.22	19.11	19.15	19.16	20.00
	64QAM	1	0	19.10	19.20	19.26	19.18	20.00
		1	50	19.28	19.47	19.42	19.13	20.00
		1	99	19.02	18.98	19.25	19.15	20.00
		50	0	19.25	19.12	19.13	19.36	20.00
		50	25	19.36	19.26	19.26	19.40	20.00
		50	50	19.36	19.12	19.34	19.30	20.00
		100	0	19.31	19.25	19.28	19.49	20.00

LTE TDD Band 41 Full power& DSI 2& DSI 4				Conducted Power(dBm)				Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				
				40065/2537.5	40385/2569.5	40705/2601.5	41215/2652.5	
5MHz	QPSK	1	0	23.62	23.43	23.49	23.50	24.00
		1	13	23.46	23.40	23.66	23.28	24.00
		1	24	23.29	23.46	23.60	23.22	24.00
		12	0	22.30	22.40	22.40	22.04	23.00
		12	6	22.16	22.35	22.31	22.07	23.00
		12	13	22.23	22.30	22.37	21.97	23.00
		25	0	22.24	22.42	22.38	22.12	23.00
	16QAM	1	0	22.05	21.87	21.84	21.77	23.00
		1	13	22.03	22.04	22.16	21.75	23.00
		1	24	21.89	21.94	22.03	21.67	23.00
		12	0	21.28	21.28	21.19	21.01	22.00
		12	6	21.38	21.46	21.50	21.15	22.00
		12	13	21.25	21.27	21.40	20.86	22.00
		25	0	21.24	21.31	21.30	21.08	22.00
	64QAM	1	0	20.62	20.82	20.84	20.62	22.00
		1	13	20.95	21.05	21.03	20.76	22.00
		1	24	20.85	20.73	20.73	20.68	22.00
		12	0	20.19	20.38	20.40	20.01	21.00
		12	6	20.27	20.53	20.49	20.15	21.00
		12	13	20.07	20.31	20.41	20.01	21.00
		25	0	20.13	20.49	20.44	20.09	21.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40090/2540	40390/2570	40690/2600	41190/2650	
10MHz	QPSK	1	0	23.64	23.44	23.52	23.52	24.00
		1	25	23.49	23.45	23.70	23.31	24.00

		1	49	23.31	23.50	23.63	23.24	24.00
		25	0	22.33	22.45	22.44	22.07	23.00
		25	13	22.19	22.40	22.35	22.10	23.00
		25	25	22.25	22.34	22.42	21.99	23.00
		50	0	22.28	22.44	22.42	22.16	23.00
	16QAM	1	0	22.07	21.90	21.86	21.79	23.00
		1	25	22.06	22.08	22.19	21.78	23.00
		1	49	21.92	21.96	22.06	21.70	23.00
		25	0	21.31	21.33	21.23	21.04	22.00
		25	13	21.40	21.50	21.53	21.17	22.00
		25	25	21.28	21.32	21.44	20.89	22.00
		50	0	21.27	21.36	21.34	21.11	22.00
	64QAM	1	0	20.64	20.81	20.86	20.64	22.00
		1	25	20.98	21.05	21.06	20.79	22.00
		1	49	20.84	20.75	20.76	20.67	22.00
		25	0	20.22	20.43	20.40	20.04	21.00
		25	13	20.29	20.57	20.52	20.17	21.00
		25	25	20.10	20.36	20.45	20.04	21.00
		50	0	20.16	20.54	20.48	20.12	21.00

Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)				Tune-up Limit
				40115/2542.5	40395/2570.5	40685/2599.5	2647.5/41140	
15MHz	QPSK	1	0	23.63	23.40	23.50	23.51	24.00
		1	38	23.47	23.44	23.67	23.29	24.00
		1	74	23.28	23.45	23.59	23.21	24.00
		36	0	22.31	22.41	22.41	22.05	23.00
		36	18	22.16	22.35	22.31	22.07	23.00
		36	39	22.22	22.31	22.38	21.96	23.00
		75	0	22.26	22.40	22.37	22.14	23.00
	16QAM	1	0	22.02	21.88	21.84	21.74	23.00
		1	38	22.04	22.05	22.17	21.76	23.00
		1	74	21.89	21.92	22.03	21.67	23.00
		36	0	21.28	21.31	21.20	21.01	22.00
		36	18	21.37	21.45	21.49	21.14	22.00
		36	39	21.26	21.28	21.41	20.87	22.00
		75	0	21.24	21.31	21.30	21.08	22.00
	64QAM	1	0	20.59	20.79	20.84	20.59	22.00
		1	38	20.96	21.02	21.04	20.77	22.00
		1	74	20.85	20.74	20.77	20.68	22.00
		36	0	20.21	20.45	20.41	20.03	21.00
		36	18	20.27	20.54	20.51	20.15	21.00
		36	39	20.08	20.32	20.42	20.02	21.00
		75	0	20.13	20.49	20.44	20.09	21.00

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	**23.56**	23.36	23.47	**23.58**	24.00
		1	50	23.46	23.40	23.55	23.28	24.00
		1	99	23.26	**23.44**	**23.56**	23.19	24.00
		50	0	**22.28**	**22.32**	22.30	22.02	23.00
		50	25	22.14	22.31	22.28	**22.35**	23.00
		50	50	22.19	22.26	**22.34**	21.93	23.00
		100	0	22.23	**22.35**	22.33	**22.11**	23.00
	16QAM	1	0	21.81	21.84	21.79	21.86	23.00
		1	50	22.00	22.03	22.13	21.72	23.00
		1	99	21.87	21.89	22.01	21.65	23.00
		50	0	21.25	21.27	21.17	20.98	22.00
		50	25	21.34	21.43	21.46	21.11	22.00
		50	50	21.23	21.23	21.37	20.84	22.00
		100	0	21.22	21.27	21.27	21.06	22.00
	64QAM	1	0	20.57	20.75	20.79	20.57	22.00
		1	50	20.92	21.00	21.00	20.73	22.00
		1	99	20.79	20.68	20.71	20.62	22.00
		50	0	20.16	20.37	20.34	19.98	21.00
		50	25	20.23	20.50	20.45	20.11	21.00
		50	50	20.05	20.27	20.38	19.99	21.00
		100	0	20.11	20.45	20.41	20.07	21.00

9.4 WLAN Mode

Wi-Fi 2.4G receiver on / Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11b (1M)	1/2412	16.50	**15.48**
	6/2437	16.50	15.13
	11/2462	16.50	15.17
802.11g (6M)	1/2412	16.50	15.47
	6/2437	16.50	15.30
	11/2462	16.50	15.39
802.11n-HT20 (MCS0)	1/2412	15.50	14.27
	6/2437	15.50	14.32
	11/2462	15.50	14.12
Note: Initial test configuration is 802.11b mode.			

Wi-Fi 2.4G receiver off / Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11b (1M)	1/2412	18.50	**17.30**
	6/2437	18.50	17.08
	11/2462	18.50	17.29
802.11g (6M)	1/2412	17.50	16.30
	6/2437	17.50	16.35
	11/2462	17.50	16.37
802.11n-HT20 (MCS0)	1/2412	15.50	14.22
	6/2437	15.50	14.12
	11/2462	15.50	14.19
Note: Initial test configuration is 802.11b mode.			

Wi-Fi 5G (U-NII-1) receiver on / Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	36/5180	18.50	16.62
	40/5200	18.50	**16.68**
	48/5240	18.50	16.52
802.11n-HT20	36/5180	17.50	15.43

(MCS0)	40/5200	17.50	15.23
	48/5240	17.50	14.53
802.11n-HT40 (MCS0)	38/5190	13.50	13.25
	46/5230	13.50	12.96
802.11ac-VHT20 (MCS0)	36/5180	17.50	15.70
	40/5200	17.50	15.50
	48/5240	17.50	14.77
802.11ac-VHT40 (MCS0)	38/5190	13.50	13.41
	46/5230	13.50	13.07
802.11ac-VHT80 (MCS0)	42/5210	12.50	12.22
Note. Initial test configuration is 802.11a mode, since the highest maximum output power			

Wi-Fi 5G (U-NII-2A) receiver on Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	52/5260	18.50	16.54
	60/5300	18.50	16.51
	64/5320	18.50	**16.63**
802.11n-HT20 (MCS0)	52/5260	17.50	14.33
	60/5300	17.50	14.11
	64/5320	17.50	14.42
802.11n-HT40 (MCS0)	54/5270	13.50	12.62
	62/5310	13.50	13.07
802.11ac-HT20 (MCS0)	52/5260	17.50	14.60
	60/5300	17.50	14.34
	64/5320	17.50	14.75
802.11ac-HT40 (MCS0)	54/5270	13.50	12.69
	62/5310	13.50	13.04
802.11ac-HT80 (MCS0)	58/5290	12.50	11.66
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Wi-Fi 5G (U-NII-2C) Reciver on Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	18.50	15.65
	120/5600	18.50	15.97
	132/5660	18.50	**16.61**

	140/5700	18.50	16.58
	144/5720	18.50	16.60
802.11n-HT20 (MCS0)	100/5500	17.50	15.51
	120/5600	17.50	15.22
	132/5660	17.50	15.79
	140/5700	17.50	16.02
	144/5720	17.50	15.85
802.11n-HT40 (MCS0)	102/5510	13.50	11.98
	118/5590	13.50	12.26
	134/5670	13.50	12.80
	142/5710	13.50	12.71
802.11ac-HT20 (MCS0)	100/5500	17.50	15.78
	120/5600	17.50	15.39
	132/5660	17.50	15.88
	140/5700	17.50	15.92
	144/5720	17.50	15.82
802.11ac-HT40 (MCS0)	102/5510	13.50	11.85
	118/5590	13.50	12.12
	134/5670	13.50	12.97
	142/5710	13.50	12.62
802.11ac-HT80 (MCS0)	122/5610	12.50	11.67
	138/5690	12.50	11.66
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Wi-Fi 5G (U-NII-3) Reciver on Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	149/5745	13.50	12.33
	157/5785	13.50	12.19
	165/5825	14.50	**12.95**
802.11n-HT20 (MCS0)	149/5745	13.50	11.72
	157/5785	13.50	11.32
	165/5825	14.50	11.94
802.11n-HT40 (MCS0)	151/5755	13.50	11.66
	159/5795	13.50	12.12
802.11ac-HT20 (MCS0)	149/5745	13.50	11.40
	157/5785	13.50	11.89
	165/5825	14.50	12.75
802.11ac-HT40	151/5755	13.50	12.54

(MCS0)	159/5795	13.50	12.87
802.11ac-HT80 (MCS0)	155/5775	14.50	12.66
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Wi-Fi 5G (U-NII-1) receiver off	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Mode		Tune-up	Meas.
802.11a (6M)	36/5180	16.50	14.89
	40/5200	16.50	**15.06**
	48/5240	16.50	14.55
802.11n-HT20 (MCS0)	36/5180	16.50	14.73
	40/5200	16.50	14.58
	48/5240	16.50	14.03
802.11n-HT40 (MCS0)	38/5190	13.50	13.25
	46/5230	13.50	12.96
802.11ac-VHT20 (MCS0)	36/5180	16.50	14.80
	40/5200	16.50	14.84
	48/5240	16.50	14.51
802.11ac-VHT40 (MCS0)	38/5190	13.50	13.41
	46/5230	13.50	13.07
802.11ac-VHT80 (MCS0)	42/5210	12.50	12.22
Note. Initial test configuration is 802.11a mode, since the highest maximum output power			

Wi-Fi 5G (U-NII-2A) receiver off	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
Mode		Tune-up	Meas.
802.11a (6M)	52/5260	16.50	14.60
	60/5300	16.50	14.61
	64/5320	16.50	**14.75**
802.11n-HT20 (MCS0)	52/5260	16.50	13.62
	60/5300	16.50	13.39
	64/5320	16.50	13.50
802.11n-HT40 (MCS0)	54/5270	13.50	12.62
	62/5310	13.50	13.07
802.11ac-HT20 (MCS0)	52/5260	16.50	13.69
	60/5300	16.50	13.52

	64/5320	16.50	13.77
802.11ac-HT40 (MCS0)	54/5270	13.50	12.69
	62/5310	13.50	13.04
802.11ac-HT80 (MCS0)	58/5290	12.50	11.66
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Wi-Fi 5G (U-NII-2C) receiver off Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	100/5500	16.50	14.03
	120/5600	16.50	14.53
	132/5660	16.50	**15.18**
	140/5700	16.50	15.12
	144/5720	16.50	15.05
802.11n-HT20 (MCS0)	100/5500	16.50	14.45
	120/5600	16.50	14.40
	132/5660	16.50	15.09
	140/5700	16.50	14.88
	144/5720	16.50	15.10
802.11n-HT40 (MCS0)	102/5510	13.50	11.80
	118/5590	13.50	12.26
	134/5670	13.50	12.80
	142/5710	13.50	12.71
802.11ac-HT20 (MCS0)	100/5500	16.50	14.41
	120/5600	16.50	14.65
	132/5660	16.50	15.10
	140/5700	16.50	14.90
	144/5720	16.50	15.03
802.11ac-HT40 (MCS0)	102/5510	13.50	11.85
	118/5590	13.50	12.12
	134/5670	13.50	12.97
	142/5710	13.50	12.62
802.11ac-HT80 (MCS0)	122/5610	12.50	11.67
	138/5690	12.50	11.66
Note. Initial test configuration is 802.11a mode, since the highest maximum output power.			

Wi-Fi 5G (U-NII-3) receiver off Mode	Channel /Frequency(MHz)	Maximum Output Power (dBm)	
		Tune-up	Meas.
802.11a (6M)	149/5745	13.50	12.33
	157/5785	13.50	12.19
	165/5825	14.50	**12.95**
802.11n-HT20 (MCS0)	149/5745	13.50	11.72
	157/5785	13.50	11.32
	165/5825	14.50	11.94
802.11n-HT40 (MCS0)	151/5755	13.50	11.66
	159/5795	13.50	12.12
802.11ac-HT20 (MCS0)	149/5745	13.50	11.40
	157/5785	13.50	11.89
	165/5825	14.50	12.75
802.11ac-HT40 (MCS0)	151/5755	13.50	12.54
	159/5795	13.50	12.87
802.11ac-HT80 (MCS0)	155/5775	14.50	12.66
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	7.51	7.56	7.53	9.50
π/4DQPSK	4.60	4.52	5.02	7.50
8DPSK	3.23	3.15	3.71	7.50
BLE	Ch 0/2402 MHz	Ch 19/2440 MHz	Ch 39/2480 MHz	Tune-up Limit (dBm)
GFSK	-0.73	-1.21	-0.88	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): 167.18 mm x 76.87 mm Overall Diagonal: 178 mm/Display Diagonal: 167mm						
Distance of the Antenna to the EUT surface/edge						
Antenna	Back Side	Front side	Left Edge	Right Edge	Top Edge	Bottom Edge
Low Antenna	<25mm	<25mm	<25mm	<25mm	>25mm	<25mm
Upper 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
Low Antenna	Yes	Yes	Yes	Yes	NA	Yes
Upper Antenna	Yes	Yes	Yes	NA	Yes	NA
BT/Wi-Fi Antenna	Yes	Yes	NA	Yes	Yes	NA

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

2.For smart phones with an overall diagonal dimension is 178mm. Per KDB 648474 D04, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, product specific 10-g SAR must be tested as a phablet to determine SAR compliance. For Phablet, Since hotspot mode 1-g *reported* SAR < 1.2 W/kg, product specific 10-g SAR is no required.

3. Per FCC KDB 447498 D01, for each exposure position, testing of other requised channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

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

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

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

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

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

10.2 Standalone SAR test exclusion considerations

Per KDB 447498 D01, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] ·[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for product specific 10-g SAR

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

Per KDB 447498 D01, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Bluetooth	Distance (mm)	MAX Power (dBm)	Frequency (MHz)	Ratio	Evaluation
Head	5	9.50	2480	2.81	No
Body-Worn	10	9.50	2480	1.41	No
Hotspot SAR	10	9.50	2480	1.41	No
Product Specific 10-g SAR	5	9.50	2480	2.81	No

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

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≥ 50% limit (1g).

5. Hotspot（10mm） power level is same as body worn, the 10mm SAR value are more stringent than 15mm，so 10mm SAR value can cover body worn 15mm . In addition, for the 10mm front side of the upper antenna, we use the full power 10mm SAR value to participate in the simultaneous calculation (because it is more stringent than the SAR of the upper antenna front side DAS4 scene), so this product can meet SAR limit under strict conditions

Head SAR

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/Kg)	Plot No.
GSM 850	Low Antenna	Left cheek	0	GSM	DSI1	-	-	190/836.6	33.50	32.01	0.174	0.021	1.41	0.245	\
		Left Tilt	0	GSM	DSI1	-	-	190/836.6	33.50	32.01	0.088	0.024	1.41	0.124	\
		Right cheek	0	GSM	DSI1	-	-	190/836.6	33.50	32.01	0.139	0.035	1.41	0.196	\
		Right Tilt	0	GSM	DSI1	-	-	190/836.6	33.50	32.01	0.064	0.024	1.41	0.089	\
	Upper Antenna	Left cheek	0	GSM	DSI1	-	-	190/836.6	33.50	32.05	0.571	-0.090	1.40	0.797	15
		Left Tilt	0	GSM	DSI1	-	-	190/836.6	33.50	32.05	0.490	0.000	1.40	0.684	\
		Right cheek	0	GSM	DSI1	-	-	190/836.6	33.50	32.05	0.488	0.070	1.40	0.681	\
		Right Tilt	0	GSM	DSI1	-	-	190/836.6	33.50	32.05	0.542	-0.030	1.40	0.757	\
		Left cheek Battery2	0	GSM	DSI1	-	-	190/836.6	33.50	32.05	0.526	0.000	1.40	0.734	\
GSM 1900	Low Antenna	Left cheek	0	GSM	DSI1	-	-	661/1880	30.50	29.09	0.062	0.036	1.38	0.085	\
		Left Tilt	0	GSM	DSI1	-	-	661/1880	30.50	29.09	0.040	0.021	1.38	0.056	\
		Right cheek	0	GSM	DSI1	-	-	661/1880	30.50	29.09	0.037	0.147	1.38	0.051	\
		Right Tilt	0	GSM	DSI1	-	-	661/1880	30.50	29.09	0.026	-0.030	1.38	0.035	\
	Upper Antenna	Left cheek	0	GSM	DSI1	-	-	661/1880	26.50	25.42	0.253	0.000	1.28	0.324	\
		Left Tilt	0	GSM	DSI1	-	-	661/1880	26.50	25.42	0.288	-0.060	1.28	0.369	\
		Right cheek	0	GSM	DSI1	-	-	661/1880	26.50	25.42	0.339	-0.031	1.28	0.435	\
		Right Tilt	0	GSM	DSI1	-	-	661/1880	26.50	25.42	0.405	-0.010	1.28	0.519	\
		Right Tilt Battery2	0	GSM	DSI1	-	-	661/1880	26.50	25.42	0.462	0.021	1.28	0.592	16
WCDMA II	Low Antenna	Left cheek	0	RMC 12.2K	DSI1	-	-	9400/1880	24.00	22.89	0.060	0.025	1.29	0.077	\
		Left Tilt	0	RMC 12.2K	DSI1	-	-	9400/1880	24.00	22.89	0.050	0.061	1.29	0.065	\
		Right cheek	0	RMC 12.2K	DSI1	-	-	9400/1880	24.00	22.89	0.057	0.020	1.29	0.074	\

		Right Tilt	0	RMC 12.2K	DSI1	-	-	9400/1880	24.00	22.89	0.030	0.018	1.29	0.039	\
	Upper Antenna	Left cheek	0	RMC 12.2K	DSI1	-	-	9400/1880	19.50	18.55	0.334	-0.070	1.24	0.416	\
		Left Tilt	0	RMC 12.2K	DSI1	-	-	9400/1880	19.50	18.55	0.399	-0.030	1.24	0.497	\
		Right cheek	0	RMC 12.2K	DSI1	-	-	9400/1880	19.50	18.55	0.444	0.020	1.24	0.553	\
		Right Tilt	0	RMC 12.2K	DSI1	-	-	9400/1880	19.50	18.55	0.530	0.020	1.24	0.660	17
		Right Tilt Battery2	0	RMC 12.2K	DSI1	-	-	9400/1880	19.50	18.55	0.482	-0.061	1.24	0.600	\
WCDMA IV	Low Antenna	Left cheek	0	RMC 12.2K	DSI1	-	-	1413/1732.6	24.00	23.27	0.040	0.090	1.18	0.047	\
		Left Tilt	0	RMC 12.2K	DSI1	-	-	1413/1732.6	24.00	23.27	0.030	0.033	1.18	0.035	\
		Right cheek	0	RMC 12.2K	DSI1	-	-	1413/1732.6	24.00	23.27	0.060	0.067	1.18	0.071	\
		Right Tilt	0	RMC 12.2K	DSI1	-	-	1413/1732.6	24.00	23.27	0.050	0.010	1.18	0.059	\
	Upper Antenna	Left cheek	0	RMC 12.2K	DSI1	-	-	1413/1732.6	17.00	16.33	0.303	-0.080	1.17	0.354	\
		Left Tilt	0	RMC 12.2K	DSI1	-	-	1413/1732.6	17.00	16.33	0.365	0.020	1.17	0.426	\
		Right cheek	0	RMC 12.2K	DSI1	-	-	1413/1732.6	17.00	16.33	0.492	0.110	1.17	0.574	\
		Right Tilt	0	RMC 12.2K	DSI1	-	-	1413/1732.6	17.00	16.33	0.560	0.042	1.17	0.653	18
		Right Tilt Battery2	0	RMC 12.2K	DSI1	-	-	1413/1732.6	17.00	16.33	0.511	0.070	1.17	0.596	\
WCDMA V	Low Antenna	Left cheek	0	RMC 12.2K	DSI1	-	-	4183/836.6	24.00	23.39	0.145	0.040	1.15	0.167	\
		Left Tilt	0	RMC 12.2K	DSI1	-	-	4183/836.6	24.00	23.39	0.090	0.162	1.15	0.104	\
		Right cheek	0	RMC 12.2K	DSI1	-	-	4183/836.6	24.00	23.39	0.130	0.080	1.15	0.150	\
		Right Tilt	0	RMC 12.2K	DSI1	-	-	4183/836.6	24.00	23.39	0.090	0.032	1.15	0.104	\
	Upper Antenna	Left cheek	0	RMC 12.2K	DSI1	-	-	4183/836.6	24.00	23.30	0.410	0.050	1.17	0.482	\
		Left Tilt	0	RMC 12.2K	DSI1	-	-	4183/836.6	24.00	23.30	0.371	-0.050	1.17	0.436	\
		Right cheek	0	RMC 12.2K	DSI1	-	-	4183/836.6	24.00	23.30	0.500	0.055	1.17	0.587	\
		Right Tilt	0	RMC 12.2K	DSI1	-	-	4183/836.6	24.00	23.30	0.591	0.080	1.17	0.694	19
		Right Tilt Battery2	0	RMC 12.2K	DSI1	-	-	4183/836.6	24.00	23.30	0.546	0.010	1.17	0.641	\
LTE 2	Low Antenna	Left cheek	0	QPSK	DSI1	1	50	18900/1880	25.00	23.91	0.081	-0.018	1.29	0.104	\
			0	QPSK	DSI1	50%	0	18900/1880	24.00	22.35	0.060	0.042	1.46	0.088	\
		Left Tilt	0	QPSK	DSI1	1	50	18900/1880	25.00	23.91	0.050	0.099	1.29	0.064	\
			0	QPSK	DSI1	50%	0	18900/1880	24.00	22.35	0.040	0.031	1.46	0.058	\
		Right cheek	0	QPSK	DSI1	1	50	18900/1880	25.00	23.91	0.056	0.025	1.29	0.072	\
			0	QPSK	DSI1	50%	0	18900/1880	24.00	22.35	0.040	-0.070	1.46	0.058	\
		Right Tilt	0	QPSK	DSI1	1	50	18900/1880	25.00	23.91	0.040	0.044	1.29	0.051	\
			0	QPSK	DSI1	50%	0	18900/1880	24.00	22.35	0.040	0.020	1.46	0.058	\
	Upper Antenna	Left cheek	0	QPSK	DSI1	1	0	18900/1880	18.00	17.22	0.405	0.032	1.20	0.485	\
			0	QPSK	DSI1	50%	0	19100/1900	18.00	17.11	0.382	0.015	1.23	0.469	\
		Left Tilt	0	QPSK	DSI1	1	0	18900/1880	18.00	17.22	0.512	-0.089	1.20	0.613	\
			0	QPSK	DSI1	50%	0	19100/1900	18.00	17.11	0.495	0.024	1.23	0.608	\
		Right cheek	0	QPSK	DSI1	1	0	18900/1880	18.00	17.22	0.447	0.031	1.20	0.535	\
			0	QPSK	DSI1	50%	0	19100/1900	18.00	17.11	0.412	-0.048	1.23	0.506	\
		Right Tilt	0	QPSK	DSI1	1	0	18900/1880	18.00	17.22	0.537	0.020	1.20	0.643	\
			0	QPSK	DSI1	50%	0	19100/1900	18.00	17.11	0.421	0.011	1.23	0.517	\

		Right Tilt Battery2	0	QPSK	DSI1	1	0	18900/1880	18.00	17.22	0.602	0.019	1.20	0.720	20
LTE 4	Low Antenna	Left cheek	0	QPSK	DSI1	1	50	20300/1745	25.00	23.94	0.048	0.050	1.28	0.061	\
			0	QPSK	DSI1	50%	0	20300/1745	24.00	22.45	0.049	0.000	1.43	0.070	\
		Left Tilt	0	QPSK	DSI1	1	50	20300/1745	25.00	23.94	0.042	0.180	1.28	0.054	\
			0	QPSK	DSI1	50%	0	20300/1745	24.00	22.45	0.040	0.030	1.43	0.057	\
		Right cheek	0	QPSK	DSI1	1	50	20300/1745	25.00	23.94	0.075	-0.050	1.28	0.096	\
			0	QPSK	DSI1	50%	0	20300/1745	24.00	22.45	0.075	0.020	1.43	0.107	\
		Right Tilt	0	QPSK	DSI1	1	50	20300/1745	25.00	23.94	0.033	0.036	1.28	0.042	\
			0	QPSK	DSI1	50%	0	20300/1745	24.00	22.45	0.034	0.050	1.43	0.049	\
	Upper Antenna	Left cheek	0	QPSK	DSI1	1	50	20300/1745	16.50	15.30	0.367	0.016	1.32	0.484	\
			0	QPSK	DSI1	50%	0	20300/1745	16.50	15.22	0.271	0.030	1.34	0.364	\
		Left Tilt	0	QPSK	DSI1	1	50	20300/1745	16.50	15.30	0.364	-0.089	1.32	0.480	\
			0	QPSK	DSI1	50%	0	20300/1745	16.50	15.22	0.317	0.010	1.34	0.426	\
		Right cheek	0	QPSK	DSI1	1	50	20300/1745	16.50	15.30	0.454	0.022	1.32	0.598	\
			0	QPSK	DSI1	50%	0	20300/1745	16.50	15.22	0.481	0.037	1.34	0.646	\
		Right Tilt	0	QPSK	DSI1	1	50	20300/1745	16.50	15.30	0.605	0.080	1.32	0.798	21
			0	QPSK	DSI1	50%	0	20300/1745	16.50	15.22	0.562	-0.049	1.34	0.755	\
		Right Tilt Battery2	0	QPSK	DSI1	1	50	20300/1745	16.50	15.30	0.518	0.017	1.32	0.683	\
LTE 5	Low Antenna	Left cheek	0	QPSK	DSI1	1	25	20525/836.5	24.50	23.61	0.192	0.030	1.23	0.236	\
			0	QPSK	DSI1	50%	0	20600/844	23.50	22.62	0.141	0.011	1.22	0.173	\
		Left Tilt	0	QPSK	DSI1	1	25	20525/836.5	24.50	23.61	0.088	-0.090	1.23	0.108	\
			0	QPSK	DSI1	50%	0	20600/844	23.50	22.62	0.076	0.012	1.22	0.093	\
		Right cheek	0	QPSK	DSI1	1	25	20525/836.5	24.50	23.61	0.127	0.041	1.23	0.156	\
			0	QPSK	DSI1	50%	0	20600/844	23.50	22.62	0.127	0.022	1.22	0.156	\
		Right Tilt	0	QPSK	DSI1	1	25	20525/836.5	24.50	23.61	0.047	0.080	1.23	0.058	\
			0	QPSK	DSI1	50%	0	20600/844	23.50	22.62	0.040	0.120	1.22	0.049	\
	Upper Antenna	Left cheek	0	QPSK	DSI1	1	25	20600/844	24.50	23.52	0.545	-0.130	1.25	0.683	\
			0	QPSK	DSI1	50%	0	20450/829	23.50	22.61	0.528	0.040	1.23	0.648	\
		Left Tilt	0	QPSK	DSI1	1	25	20600/844	24.50	23.52	0.466	-0.031	1.25	0.584	\
			0	QPSK	DSI1	50%	0	20450/829	23.50	22.61	0.461	0.010	1.23	0.566	\
		Right cheek	0	QPSK	DSI1	1	25	20600/844	24.50	23.52	0.768	0.030	1.25	0.962	22
			0	QPSK	DSI1	1	25	20450/829	24.50	23.11	0.694	0.080	1.38	0.956	\
			0	QPSK	DSI1	1	25	20525/836.5	24.50	23.16	0.702	0.026	1.36	0.956	\
			0	QPSK	DSI1	50%	0	20450/829	23.50	22.61	0.607	0.000	1.23	0.745	\
			0	QPSK	DSI1	100%	0	20450/829	23.50	22.40	0.619	0.017	1.29	0.797	\
		Right Tilt	0	QPSK	DSI1	1	25	20600/844	24.50	23.52	0.629	0.110	1.25	0.788	\
			0	QPSK	DSI1	50%	0	20450/829	23.50	22.61	0.493	-0.010	1.23	0.605	\
		Right cheek SIM2	0	QPSK	DSI1	1	25	20600/844	24.50	23.52	0.685	-0.042	1.25	0.858	\
		Right cheek Battery2	0	QPSK	DSI1	1	25	20600/844	24.50	23.52	0.742	0.031	1.25	0.930	\

LTE 7	Low Antenna	Left cheek	0	QPSK	DSI1	1	50	20850/2510	24.00	22.59	0.072	0.038	1.38	0.099	\
			0	QPSK	DSI1	50%	0	20850/2510	23.00	21.41	0.055	0.020	1.44	0.080	\
		Left Tilt	0	QPSK	DSI1	1	50	20850/2510	24.00	22.59	0.140	0.062	1.38	0.194	\
			0	QPSK	DSI1	50%	0	20850/2510	23.00	21.41	0.102	0.114	1.44	0.147	\
		Right cheek	0	QPSK	DSI1	1	50	20850/2510	24.00	22.59	0.038	0.190	1.38	0.053	\
			0	QPSK	DSI1	50%	0	20850/2510	23.00	21.41	0.062	0.076	1.44	0.089	\
		Right Tilt	0	QPSK	DSI1	1	50	20850/2510	24.00	22.59	0.037	0.152	1.38	0.051	\
			0	QPSK	DSI1	50%	0	20850/2510	23.00	21.41	0.054	0.067	1.44	0.078	\
	Upper Antenna	Left cheek	0	QPSK	DSI1	1	50	21100/2535	18.00	16.77	0.319	0.034	1.33	0.423	\
			0	QPSK	DSI1	50%	0	21350/2560	18.00	16.56	0.246	-0.090	1.39	0.343	\
		Left Tilt	0	QPSK	DSI1	1	50	21100/2535	18.00	16.77	0.358	0.070	1.33	0.475	\
			0	QPSK	DSI1	50%	0	21350/2560	18.00	16.56	0.271	0.020	1.39	0.378	\
		Right cheek	0	QPSK	DSI1	1	50	21100/2535	18.00	16.77	0.549	0.160	1.33	0.729	\
			0	QPSK	DSI1	50%	0	21350/2560	18.00	16.56	0.473	0.000	1.39	0.659	\
		Right Tilt	0	QPSK	DSI1	1	50	21100/2535	18.00	16.77	0.467	0.080	1.33	0.620	\
			0	QPSK	DSI1	50%	0	21350/2560	18.00	16.56	0.471	0.160	1.39	0.656	\
		Right cheek Battery2	0	QPSK	DSI1	1	50	21100/2535	18.00	16.77	0.684	0.080	1.33	0.908	23
LTE 38	Low Antenna	Left cheek	0	QPSK	DSI1	1	50	38150/2610	25.00	24.61	0.182	0.022	1.09	0.199	\
			0	QPSK	DSI1	50%	0	37850/2580	24.00	23.25	0.176	0.038	1.19	0.209	\
		Left Tilt	0	QPSK	DSI1	1	50	38150/2610	25.00	24.61	0.153	0.041	1.09	0.167	\
			0	QPSK	DSI1	50%	0	37850/2580	24.00	23.25	0.146	0.062	1.19	0.174	\
		Right cheek	0	QPSK	DSI1	1	50	38150/2610	25.00	24.61	0.138	0.155	1.09	0.151	\
			0	QPSK	DSI1	50%	0	37850/2580	24.00	23.25	0.125	0.104	1.19	0.149	\
		Right Tilt	0	QPSK	DSI1	1	50	38150/2610	25.00	24.61	0.142	0.050	1.09	0.155	\
			0	QPSK	DSI1	50%	0	37850/2580	24.00	23.25	0.163	0.056	1.19	0.194	\
	Upper Antenna	Left cheek	0	QPSK	DSI1	1	50	37850/2580	20.00	19.81	0.315	0.090	1.04	0.329	\
			0	QPSK	DSI1	50%	0	37850/2580	20.00	19.37	0.395	-0.034	1.16	0.457	\
		Left Tilt	0	QPSK	DSI1	1	50	37850/2580	20.00	19.81	0.374	0.026	1.04	0.391	\
			0	QPSK	DSI1	50%	0	37850/2580	20.00	19.37	0.471	0.050	1.16	0.545	\
		Right cheek	0	QPSK	DSI1	1	50	37850/2580	20.00	19.81	0.533	0.160	1.04	0.557	\
			0	QPSK	DSI1	50%	0	37850/2580	20.00	19.37	0.537	0.020	1.16	0.621	\
		Right Tilt	0	QPSK	DSI1	1	50	37850/2580	20.00	19.81	0.516	0.160	1.04	0.539	\
			0	QPSK	DSI1	50%	0	37850/2580	20.00	19.37	0.576	-0.010	1.16	0.666	24
		Right Tilt Battery2	0	QPSK	DSI1	50%	0	37850/2580	20.00	19.37	0.512	0.042	1.16	0.592	\
LTE 41	Low Antenna	Left cheek	0	QPSK	DSI1	1	50	40670/2598	24.00	23.49	0.108	0.032	1.12	0.121	\
			0	QPSK	DSI1	50%	0	40140/2545	23.00	22.39	0.085	0.023	1.15	0.098	\
		Left Tilt	0	QPSK	DSI1	1	50	40670/2598	24.00	23.49	0.091	0.093	1.12	0.102	\
			0	QPSK	DSI1	50%	0	40140/2545	23.00	22.39	0.076	0.012	1.15	0.087	\
		Right cheek	0	QPSK	DSI1	1	50	40670/2598	24.00	23.49	0.103	0.155	1.12	0.116	\
			0	QPSK	DSI1	50%	0	40140/2545	23.00	22.39	0.068	0.091	1.15	0.078	\
		Right Tilt	0	QPSK	DSI1	1	50	40670/2598	24.00	23.49	0.125	0.000	1.12	0.141	\

			0	QPSK	DSI1	50%	0	40140/2545	23.00	22.39	0.093	0.170	1.15	0.107	\
	Upper Antenna	Left cheek	0	QPSK	DSI1	1	50	40670/2598	20.00	19.60	0.361	0.034	1.10	0.396	\
			0	QPSK	DSI1	50%	0	40670/2598	20.00	19.35	0.364	0.100	1.16	0.423	\
		Left Tilt	0	QPSK	DSI1	1	50	40670/2598	20.00	19.60	0.382	0.130	1.10	0.419	\
			0	QPSK	DSI1	50%	0	40670/2598	20.00	19.35	0.394	0.160	1.16	0.458	\
		Right cheek	0	QPSK	DSI1	1	50	40670/2598	20.00	19.60	0.556	-0.032	1.10	0.610	\
			0	QPSK	DSI1	50%	0	40670/2598	20.00	19.35	0.531	0.180	1.16	0.617	\
		Right Tilt	0	QPSK	DSI1	1	50	40670/2598	20.00	19.60	0.569	-0.050	1.10	0.624	25
			0	QPSK	DSI1	50%	0	40670/2598	20.00	19.35	0.528	0.150	1.16	0.613	\
		Right Tilt Battery2	0	QPSK	DSI1	1	50	40670/2598	20.00	19.60	0.551	-0.060	1.10	0.604	\

Band	Antenna	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/Kg)	Plot No.
Wi-Fi 2.4G	Wi-Fi	Left cheek	0	802.11b	98.0%	Receiver on	1/2412	16.50	15.48	0.349	0.010	1.29	0.450	26
		Left Tilt	0	802.11b	98.0%	Receiver on	1/2412	16.50	15.48	0.305	0.023	1.29	0.394	\
		Right cheek	0	802.11b	98.0%	Receiver on	1/2412	16.50	15.48	0.136	0.160	1.29	0.176	\
		Right Tilt	0	802.11b	98.0%	Receiver on	1/2412	16.50	15.48	0.140	0.022	1.29	0.181	\
		Left cheek Battery2	0	802.11b	98.0%	Receiver on	1/2412	16.50	15.48	0.285	-0.020	1.29	0.368	\
U-NII-1	Wi-Fi	Left cheek	0	802.11a	97.0%	Receiver on	40/5200	18.50	16.68	0.360	0.044	1.57	0.564	\
		Left Tilt	0	802.11a	97.0%	Receiver on	40/5200	18.50	16.68	0.421	0.153	1.57	0.660	\
		Right cheek	0	802.11a	97.0%	Receiver on	40/5200	18.50	16.68	0.260	0.064	1.57	0.408	\
		Right Tilt	0	802.11a	97.0%	Receiver on	40/5200	18.50	16.68	0.294	0.116	1.57	0.461	\
		Left Tilt Battery2	0	802.11a	97.0%	Receiver on	40/5200	18.50	16.68	0.358	0.036	1.57	0.561	\
U-NII-2A	Wi-Fi	Left cheek	0	802.11a	97.0%	Receiver on	64/5320	18.50	16.63	0.193	0.085	1.59	0.306	\
		Left Tilt	0	802.11a	97.0%	Receiver on	64/5320	18.50	16.63	0.266	0.121	1.59	0.422	\
		Right cheek	0	802.11a	97.0%	Receiver on	64/5320	18.50	16.63	0.173	0.175	1.59	0.274	\
		Right Tilt	0	802.11a	97.0%	Receiver on	64/5320	18.50	16.63	0.194	0.024	1.59	0.308	\
		Left Tilt Battery2	0	802.11a	97.0%	Receiver on	64/5320	18.50	16.63	0.249	0.019	1.59	0.395	\
U-NII-2C	Wi-Fi	Left cheek	0	802.11a	97.0%	Receiver on	132/5660	18.50	16.61	0.255	0.033	1.59	0.406	\
		Left Tilt	0	802.11a	97.0%	Receiver on	132/5660	18.50	16.61	0.411	0.099	1.59	0.655	\
		Right cheek	0	802.11a	97.0%	Receiver on	132/5660	18.50	16.61	0.204	0.131	1.59	0.325	\
		Right Tilt	0	802.11a	97.0%	Receiver on	132/5660	18.50	16.61	0.276	0.038	1.59	0.440	\
		Left Tilt Battery2	0	802.11a	97.0%	Receiver on	132/5660	18.50	16.61	0.438	0.000	1.59	0.698	27
U-NII-3	Wi-Fi	Left cheek	0	802.11a	97.0%	Receiver on	165/5825	14.50	12.95	0.168	0.067	1.47	0.247	\
		Left Tilt	0	802.11a	97.0%	Receiver on	165/5825	14.50	12.95	0.289	0.099	1.47	0.426	\
		Right cheek	0	802.11a	97.0%	Receiver on	165/5825	14.50	12.95	0.145	0.031	1.47	0.214	\
		Right Tilt	0	802.11a	97.0%	Receiver on	165/5825	14.50	12.95	0.183	0.099	1.47	0.270	\

		Left Tilt Battery2	0	802.11a	97.0%	Receiver on	165/5825	14.50	12.95	0.115	0.120	1.47	0.169	\
Bluetooth	BT	Left cheek	0	DH5	77.0%	-	39/2441	9.50	7.56	0.070	0.040	2.03	0.141	28
		Left Tilt	0	DH5	77.0%	-	39/2441	9.50	7.56	0.068	0.030	2.03	0.138	\
		Right cheek	0	DH5	77.0%	-	39/2441	9.50	7.56	0.022	-0.052	2.03	0.045	\
		Right Tilt	0	DH5	77.0%	-	39/2441	9.50	7.56	0.022	0.140	2.03	0.045	\
		Left cheek Battery2	0	DH5	77.0%	-	39/2441	9.50	7.56	0.065	-0.170	2.03	0.133	\

Body SAR

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/Kg)	Plot No.
GSM850	Low Antenna	Back Side	10	2TX Slots	DSI4	-	-	190/836.6	32.00	30.64	0.378	-0.080	1.37	0.517	29
		Back Side	10	GSM	DSI4			190/836.6	33.50	32.01	0.232	-0.080	1.41	0.327	\
		Front Side	10	2TX Slots	DSI4	-	-	190/836.6	32.00	30.64	0.201	0.012	1.37	0.275	\
		Left Edge	10	2TX Slots	DSI2	-	-	190/836.6	32.00	30.64	0.000	0.000	1.37	0.000	\
		Right Edge	10	2TX Slots	DSI2	-	-	190/836.6	32.00	30.64	0.100	0.033	1.37	0.137	\
		Top Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Bottom Edge	10	2TX Slots	DSI4	-	-	190/836.6	32.00	30.64	0.324	0.026	1.37	0.443	\
	Upper Antenna	Back Side	10	2TX Slots	DSI4	-	-	190/836.6	32.00	30.08	0.097	-0.048	1.56	0.151	\
		Front Side	10	2TX Slots	DSI4	-	-	190/836.6	32.00	30.08	0.053	0.022	1.56	0.082	\
		Left Edge	10	2TX Slots	DSI2	-	-	190/836.6	32.00	30.08	0.039	0.060	1.56	0.061	\
		Right Edge	10	2TX Slots	DSI2	-	-	190/836.6	32.00	30.08	0.027	0.012	1.56	0.042	\
		Top Edge	10	2TX Slots	DSI4	-	-	190/836.6	32.00	30.08	0.071	0.020	1.56	0.110	\
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
	Low Antenna	Back Side Battery2	10	2TX Slots	DSI4	-	-	190/836.6	32.00	30.64	0.352	0.047	1.37	0.481	\
GSM1900	Low Antenna	Back Side	10	4TX Slots	DSI4	-	-	661/1880	26.00	24.34	0.353	0.041	1.47	0.517	\
		Back Side	10	GSM	DSI4			661/1880	30.50	29.09	0.453	0.041	1.38	0.627	\
		Front Side	10	4TX Slots	DSI4	-	-	661/1880	26.00	24.34	0.160	0.019	1.47	0.234	\
		Left Edge	10	4TX Slots	DSI2	-	-	661/1880	26.00	24.34	0.092	-0.020	1.47	0.135	\
		Right Edge	10	4TX Slots	DSI2	-	-	661/1880	26.00	24.34	0.000	0.000	1.47	0.000	\
		Top Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Bottom Edge	10	4TX Slots	DSI4	-	-	661/1880	26.00	24.34	0.421	0.190	1.47	0.617	\
	Upper Antenna	Back Side	10	4TX Slots	DSI4	-	-	661/1880	22.50	21.28	0.263	0.048	1.32	0.348	\
		Front Side	10	4TX Slots	DSI4	-	-	661/1880	22.50	21.28	0.281	-0.090	1.32	0.372	\
		Left Edge	10	4TX Slots	DSI2	-	-	661/1880	26.00	24.40	0.059	0.023	1.45	0.085	\
		Right Edge	10	4TX Slots	DSI2	-	-	661/1880	26.00	24.40	0.037	0.030	1.45	0.053	\
		Top Edge	10	4TX Slots	DSI4	-	-	661/1880	22.50	21.28	0.238	0.012	1.32	0.315	\
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
	Low Antenna	Bottom Edge Battery2	10	4TX Slots	DSI4	-	-	661/1880	26.00	24.34	0.468	0.011	1.47	0.686	30

WCDMA II	Low Antenna	Back Side	10	RMC	DSI4	-	-	9400/1880	20.50	19.51	0.399	0.011	1.26	0.501	\
		Front Side	10	RMC	DSI4	-	-	9400/1880	20.50	19.51	0.179	0.069	1.26	0.225	\
		Left Edge	10	RMC	DSI2	-	-	9400/1880	25.00	24.04	0.259	0.025	1.25	0.323	\
		Right Edge	10	RMC	DSI2	-	-	9400/1880	25.00	24.04	0.000	0.000	1.25	0.000	\
		Top Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Bottom Edge	10	RMC	DSI4	-	-	9400/1880	20.50	19.51	0.479	0.032	1.26	0.602	\
	Upper Antenna	Back Side	10	RMC	DSI4	-	-	9400/1880	18.50	17.46	0.206	0.020	1.27	0.262	\
		Front Side	10	RMC	DSI4	-	-	9400/1880	18.50	17.46	0.435	0.043	1.27	0.553	\
		Left Edge	10	RMC	DSI2	-	-	9400/1880	25.00	24.08	0.121	0.010	1.24	0.150	\
		Right Edge	10	RMC	DSI2	-	-	9400/1880	25.00	24.08	0.093	0.019	1.24	0.115	\
		Top Edge	10	RMC	DSI4	-	-	9400/1880	18.50	17.46	0.321	-0.080	1.27	0.408	\
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
	Low Antenna	Bottom Edge Battery2	10	RMC	DSI4	-	-	9400/1880	20.50	19.51	0.549	0.130	1.26	0.690	31
WCDMA IV	Low Antenna	Back Side	10	RMC	DSI4	-	-	1413/1732.6	21.00	20.38	0.452	0.038	1.15	0.521	\
		Front Side	10	RMC	DSI4	-	-	1413/1732.6	21.00	20.38	0.181	-0.047	1.15	0.209	\
		Left Edge	10	RMC	DSI2	-	-	1413/1732.6	25.00	24.50	0.118	0.022	1.12	0.132	\
		Right Edge	10	RMC	DSI2	-	-	1413/1732.6	25.00	24.50	0.000	0.070	1.12	0.000	\
		Top Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Bottom Edge	10	RMC	DSI4	-	-	1413/1732.6	21.00	20.38	0.539	0.089	1.15	0.622	\
	Upper Antenna	Back Side	10	RMC	DSI4	-	-	1413/1732.6	19.00	18.25	0.428	0.100	1.19	0.509	\
		Front Side	10	RMC	DSI4	-	-	1413/1732.6	19.00	18.25	0.268	0.000	1.19	0.319	\
		Left Edge	10	RMC	DSI2	-	-	1413/1732.6	24.00	23.28	0.140	0.019	1.18	0.165	\
		Right Edge	10	RMC	DSI2	-	-	1413/1732.6	24.00	23.28	0.090	0.080	1.18	0.106	\
		Top Edge	10	RMC	DSI4	-	-	1413/1732.6	19.00	18.25	0.616	0.044	1.19	0.732	32
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Top Edge SIM2	10	RMC	DSI4	-	-	1413/1732.6	19.00	18.25	0.605	-0.026	1.19	0.719	\
		Top Edge Battery2	10	RMC	DSI4	-	-	1413/1732.6	19.00	18.25	0.588	0.012	1.19	0.699	\
WCDMA V	Low Antenna	Back Side	10	RMC	DSI4	-	-	4183/836.6	24.00	23.39	0.265	-0.070	1.15	0.305	\
		Front Side	10	RMC	DSI4	-	-	4183/836.6	24.00	23.39	0.165	-0.045	1.15	0.190	\
		Left Edge	10	RMC	DSI2	-	-	4183/836.6	25.00	24.47	0.000	0.099	1.13	0.000	\
		Right Edge	10	RMC	DSI2	-	-	4183/836.6	25.00	24.47	0.086	0.030	1.13	0.097	\
		Top Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Bottom Edge	10	RMC	DSI4	-	-	4183/836.6	24.00	23.39	0.169	0.036	1.15	0.194	\
	Upper Antenna	Back Side	10	RMC	DSI4	-	-	4183/836.6	24.00	23.30	0.293	-0.010	1.17	0.344	\
		Front Side	10	RMC	DSI4	-	-	4183/836.6	24.00	23.30	0.191	-0.015	1.17	0.224	\
		Left Edge	10	RMC	DSI2	-	-	4183/836.6	25.00	23.55	0.094	0.011	1.40	0.131	\
		Right Edge	10	RMC	DSI2	-	-	4183/836.6	25.00	23.55	0.091	0.132	1.40	0.127	\
		Top Edge	10	RMC	DSI4	-	-	4183/836.6	24.00	23.30	0.201	0.082	1.17	0.236	\
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Back Side	10	RMC	DSI4	-	-	4183/836.6	24.00	23.30	0.364	-0.028	1.17	0.428	33

		Battery2													
LTE 2	Low Antenna	Back Side	10	QPSK	DSI4	1	50	18700/1860	20.50	19.63	0.454	0.032	1.22	0.555	\
			10	QPSK	DSI4	50%	0	19100/1900	20.50	19.26	0.405	0.090	1.33	0.539	\
		Front Side	10	QPSK	DSI4	1	50	18700/1860	20.50	19.63	0.166	-0.014	1.22	0.203	\
			10	QPSK	DSI4	50%	0	19100/1900	20.50	19.26	0.175	0.032	1.33	0.233	\
		Left Edge	10	QPSK	DSI2	1	50	18900/1880	25.00	23.91	0.250	-0.030	1.29	0.321	\
			10	QPSK	DSI2	50%	0	18900/1880	24.00	22.35	0.187	0.060	1.46	0.273	\
		Right Edge	10	QPSK	DSI2	1	50	18900/1880	25.00	23.91	0.073	0.018	1.29	0.094	\
			10	QPSK	DSI2	50%	0	18900/1880	24.00	22.35	0.058	-0.024	1.46	0.085	\
		Top Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
			10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Bottom Edge	10	QPSK	DSI4	1	50	18700/1860	20.50	19.63	0.502	0.000	1.22	0.613	\
			10	QPSK	DSI4	50%	0	19100/1900	20.50	19.26	0.424	0.031	1.33	0.564	\
	Upper Antenna	Back Side	10	QPSK	DSI4	1	50	18700/1860	19.50	18.45	0.192	0.049	1.27	0.245	\
			10	QPSK	DSI4	50%	0	18700/1860	19.50	18.13	0.193	-0.071	1.37	0.265	\
		Front Side	10	QPSK	DSI4	1	50	18700/1860	19.50	18.45	0.168	0.012	1.27	0.214	\
			10	QPSK	DSI4	50%	0	18700/1860	19.50	18.13	0.172	0.060	1.37	0.236	\
		Left Edge	10	QPSK	DSI2	1	0	18700/1860	25.00	23.80	0.105	0.021	1.32	0.138	\
			10	QPSK	DSI2	50%	0	19100/1900	24.00	22.58	0.077	0.048	1.39	0.107	\
		Right Edge	10	QPSK	DSI2	1	0	18700/1860	25.00	23.80	0.064	-0.134	1.32	0.084	\
			10	QPSK	DSI2	50%	0	19100/1900	24.00	22.58	0.048	0.025	1.39	0.067	\
		Top Edge	10	QPSK	DSI4	1	50	18700/1860	19.50	18.45	0.337	0.080	1.27	0.429	\
			10	QPSK	DSI4	50%	0	18700/1860	19.50	18.13	0.328	0.047	1.37	0.450	\
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
			10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
	Low Antenna	Bottom Edge Battery2	10	QPSK	DSI4	1	50	18700/1860	20.50	19.63	0.627	0.023	1.22	0.766	34
LTE 4	Low Antenna	Back Side	10	QPSK	DSI4	1	50	20175/1732.5	21.00	19.99	0.482	0.020	1.26	0.608	\
			10	QPSK	DSI4	50%	0	20300/1745	21.00	19.88	0.448	-0.060	1.29	0.580	\
		Front Side	10	QPSK	DSI4	1	50	20175/1732.5	21.00	19.99	0.188	0.040	1.26	0.237	\
			10	QPSK	DSI4	50%	0	20300/1745	21.00	19.88	0.181	0.015	1.29	0.234	\
		Left Edge	10	QPSK	DSI2	1	50	20300/1745	25.00	23.94	0.124	0.100	1.28	0.158	\
			10	QPSK	DSI2	50%	0	20300/1745	24.00	22.45	0.093	-0.030	1.43	0.133	\
		Right Edge	10	QPSK	DSI2	1	50	20300/1745	25.00	23.94	0.120	0.048	1.28	0.153	\
			10	QPSK	DSI2	50%	0	20300/1745	24.00	22.45	0.039	0.022	1.43	0.056	\
		Top Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
			10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Bottom Edge	10	QPSK	DSI4	1	50	20175/1732.5	21.00	19.99	0.528	0.041	1.26	0.666	\
			10	QPSK	DSI4	50%	0	20300/1745	21.00	19.88	0.510	-0.036	1.29	0.660	\
	Upper Antenna	Back Side	10	QPSK	DSI4	1	50	20300/1745	19.50	18.54	0.408	0.080	1.25	0.509	\
			10	QPSK	DSI4	50%	25	20175/1732.5	19.50	17.96	0.385	0.011	1.43	0.549	\
		Front Side	10	QPSK	DSI4	1	50	20300/1745	19.50	18.54	0.311	-0.032	1.25	0.388	\
			10	QPSK	DSI4	50%	25	20175/1732.5	19.50	17.96	0.276	0.080	1.43	0.393	\

		Left Edge	10	QPSK	DSI2	1	50	20175/1732.5	23.00	22.10	0.161	0.023	1.23	0.198	\
			10	QPSK	DSI2	50%	25	20050/1720	23.00	21.80	0.131	0.046	1.32	0.173	\
		Right Edge	10	QPSK	DSI2	1	50	20175/1732.5	23.00	22.10	0.061	0.100	1.23	0.075	\
			10	QPSK	DSI2	50%	25	20050/1720	23.00	21.80	0.049	0.038	1.32	0.065	\
		Top Edge	10	QPSK	DSI4	1	50	20300/1745	19.50	18.54	0.580	-0.019	1.25	0.723	35
			10	QPSK	DSI4	50%	25	20175/1732.5	19.50	17.96	0.505	-0.040	1.43	0.720	\
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
			10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Top Edge Battery2	10	QPSK	DSI4	1	50	20300/1745	19.50	18.54	0.569	0.020	1.25	0.710	\
LTE 5	Low Antenna	Back Side	10	QPSK	DSI4	1	25	20525/836.5	24.50	23.61	0.345	0.025	1.23	0.423	36
			10	QPSK	DSI4	50%	0	20600/844	23.50	22.62	0.243	0.110	1.22	0.298	\
		Front Side	10	QPSK	DSI4	1	25	20525/836.5	24.50	23.61	0.200	0.038	1.23	0.245	\
			10	QPSK	DSI4	50%	0	20600/844	23.50	22.62	0.146	-0.060	1.22	0.179	\
		Left Edge	10	QPSK	DSI2	1	25	20525/836.5	25.00	23.93	0.101	0.072	1.28	0.129	\
			10	QPSK	DSI2	50%	0	20600/844	23.50	22.36	0.076	-0.031	1.30	0.099	\
		Right Edge	10	QPSK	DSI2	1	25	20525/836.5	25.00	23.93	0.243	0.050	1.28	0.311	\
			10	QPSK	DSI2	50%	0	20600/844	23.50	22.36	0.198	0.000	1.30	0.257	\
		Top Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
			10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Bottom Edge	10	QPSK	DSI4	1	25	20525/836.5	24.50	23.61	0.220	0.043	1.23	0.270	\
			10	QPSK	DSI4	50%	0	20600/844	23.50	22.62	0.170	-0.022	1.22	0.208	\
	Upper Antenna	Back Side	10	QPSK	DSI4	1	25	20600/844	24.50	23.52	0.260	0.038	1.25	0.326	\
			10	QPSK	DSI4	50%	0	20450/829	23.50	22.61	0.260	-0.071	1.23	0.319	\
		Front Side	10	QPSK	DSI4	1	25	20600/844	24.50	23.52	0.219	0.032	1.25	0.274	\
			10	QPSK	DSI4	50%	0	20450/829	23.50	22.61	0.174	-0.090	1.23	0.214	\
		Left Edge	10	QPSK	DSI2	1	25	20525/836.5	25.00	23.94	0.176	0.023	1.28	0.225	\
			10	QPSK	DSI2	50%	13	20600/844	23.50	22.44	0.136	0.018	1.28	0.174	\
		Right Edge	10	QPSK	DSI2	1	25	20525/836.5	25.00	23.94	0.135	-0.120	1.28	0.172	\
			10	QPSK	DSI2	50%	13	20600/844	23.50	22.44	0.121	0.039	1.28	0.154	\
		Top Edge	10	QPSK	DSI4	1	25	20600/844	24.50	23.52	0.204	0.020	1.25	0.256	\
			10	QPSK	DSI4	50%	0	20450/829	23.50	22.61	0.175	-0.058	1.23	0.215	\
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
			10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
	Low Antenna	Back Side Battery2	10	QPSK	DSI4	1	25	20525/836.5	24.50	23.61	0.309	-0.030	1.23	0.379	\
LTE 7	Low Antenna	Back Side	10	QPSK	DSI4	1	50	20850/2510	18.00	16.98	0.394	0.022	1.26	0.498	\
			10	QPSK	DSI4	50%	0	21350/2560	18.00	16.59	0.238	0.060	1.38	0.329	\
		Front Side	10	QPSK	DSI4	1	50	20850/2510	18.00	16.98	0.393	0.021	1.26	0.497	\
			10	QPSK	DSI4	50%	0	21350/2560	18.00	16.59	0.307	-0.050	1.38	0.425	\
		Left Edge	10	QPSK	DSI2	1	50	20850/2510	24.00	22.59	0.196	0.190	1.38	0.271	\
			10	QPSK	DSI2	50%	0	20850/2510	23.00	21.41	0.146	0.130	1.44	0.211	\
		Right Edge	10	QPSK	DSI2	1	50	20850/2510	24.00	22.59	0.376	0.120	1.38	0.520	\

			10	QPSK	DSI2	50%	0	20850/2510	23.00	21.41	0.267	0.020	1.44	0.385	\
		Top Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
			10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Bottom Edge	10	QPSK	DSI4	1	50	20850/2510	18.00	16.98	0.615	0.154	1.26	0.778	\
			10	QPSK	DSI4	50%	0	21350/2560	18.00	16.59	0.498	0.024	1.38	0.689	\
	Upper Antenna	Back Side	10	QPSK	DSI4	1	50	20850/2510	20.50	20.11	0.347	0.022	1.09	0.380	\
			10	QPSK	DSI4	50%	0	20850/2510	20.50	19.60	0.356	0.043	1.23	0.438	\
		Front Side	10	QPSK	DSI4	1	50	20850/2510	20.50	20.11	0.434	0.090	1.09	0.475	\
			10	QPSK	DSI4	50%	0	20850/2510	20.50	19.60	0.353	-0.015	1.23	0.434	\
		Left Edge	10	QPSK	DSI2	1	50	21350/2560	24.00	22.76	0.409	0.032	1.33	0.544	\
			10	QPSK	DSI2	50%	0	20850/2510	23.00	21.49	0.308	-0.047	1.42	0.436	\
		Right Edge	10	QPSK	DSI2	1	50	21350/2560	24.00	22.76	0.080	0.000	1.33	0.106	\
			10	QPSK	DSI2	50%	0	20850/2510	23.00	21.49	0.052	0.010	1.42	0.074	\
		Top Edge	10	QPSK	DSI4	1	50	20850/2510	20.50	20.11	0.320	0.028	1.09	0.350	\
			10	QPSK	DSI4	50%	0	20850/2510	20.50	19.60	0.362	-0.021	1.23	0.445	\
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
			10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
	Low Antenna	Bottom Edge Battery2	10	QPSK	DSI4	1	50	20850/2510	18.00	16.98	0.662	0.060	1.26	0.837	37
LTE 38 TDD	Low Antenna	Back Side	10	QPSK	DSI4	1	50	38150/2610	22.50	22.05	0.497	-0.026	1.11	0.551	\
			10	QPSK	DSI4	50%	0	37850/2580	22.50	21.88	0.463	0.018	1.15	0.534	\
		Front Side	10	QPSK	DSI4	1	50	38150/2610	22.50	22.05	0.324	0.030	1.11	0.359	\
			10	QPSK	DSI4	50%	0	37850/2580	22.50	21.88	0.289	0.080	1.15	0.333	\
		Left Edge	10	QPSK	DSI2	1	50	38150/2610	25.00	24.61	0.175	0.049	1.09	0.191	\
			10	QPSK	DSI2	50%	0	37850/2580	24.00	23.25	0.168	0.023	1.19	0.200	\
		Right Edge	10	QPSK	DSI2	1	50	38150/2610	25.00	24.61	0.104	-0.044	1.09	0.114	\
			10	QPSK	DSI2	50%	0	37850/2580	24.00	23.25	0.095	0.010	1.19	0.113	\
		Top Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
			10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Bottom Edge	10	QPSK	DSI4	1	50	38150/2610	22.50	22.05	0.533	0.034	1.11	0.591	38
			10	QPSK	DSI4	50%	0	37850/2580	22.50	21.88	0.507	0.060	1.15	0.585	\
	Upper Antenna	Back Side	10	QPSK	DSI4	1	50	38150/2610	24.00	23.65	0.408	0.020	1.08	0.442	\
			10	QPSK	DSI4	50%	0	37850/2580	24.00	22.45	0.397	0.061	1.43	0.567	\
		Front Side	10	QPSK	DSI4	1	50	38150/2610	24.00	23.65	0.275	-0.025	1.08	0.298	\
			10	QPSK	DSI4	50%	0	37850/2580	23.00	22.45	0.255	0.047	1.14	0.289	\
		Left Edge	10	QPSK	DSI2	1	50	37850/2580	25.00	23.78	0.247	0.030	1.32	0.327	\
			10	QPSK	DSI2	50%	25	38000/2595	24.00	22.40	0.227	0.011	1.45	0.328	\
		Right Edge	10	QPSK	DSI2	1	50	37850/2580	25.00	23.78	0.094	0.078	1.32	0.124	\
			10	QPSK	DSI2	50%	25	38000/2595	24.00	22.40	0.068	-0.091	1.45	0.098	\
		Top Edge	10	QPSK	DSI4	1	50	38150/2610	24.00	23.65	0.396	0.023	1.08	0.429	\
			10	QPSK	DSI4	50%	0	37850/2580	24.00	22.45	0.358	0.100	1.43	0.512	\
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
			10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\

	Low Antenna	Bottom Edge Battery2	10	QPSK	DSI4	1	50	38150/2610	22.50	22.05	0.516	0.040	1.11	0.572	\
LTE 41 TDD	Low Antenna	Back Side	10	QPSK	DSI4	1	50	41140/2645	23.00	22.62	0.479	0.100	1.09	0.523	39
			10	QPSK	DSI4	50%	25	41140/2645	23.00	22.42	0.457	0.021	1.14	0.522	\
		Front Side	10	QPSK	DSI4	1	50	41140/2645	23.00	22.62	0.235	-0.060	1.09	0.256	\
			10	QPSK	DSI4	50%	25	41140/2645	23.00	22.42	0.195	0.028	1.14	0.223	\
		Left Edge	10	QPSK	DSI2	1	50	40670/2598	24.00	23.49	0.179	0.014	1.12	0.201	\
			10	QPSK	DSI2	50%	0	40140/2545	23.00	22.39	0.185	0.020	1.15	0.213	\
		Right Edge	10	QPSK	DSI2	1	50	40670/2598	24.00	23.49	0.141	0.019	1.12	0.159	\
			10	QPSK	DSI2	50%	0	40140/2545	23.00	22.39	0.112	-0.048	1.15	0.129	\
		Top Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
			10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Bottom Edge	10	QPSK	DSI4	1	50	41140/2645	23.00	22.62	0.376	0.023	1.09	0.410	\
			10	QPSK	DSI4	50%	25	41140/2645	23.00	22.42	0.388	0.060	1.14	0.443	\
	Upper Antenna	Back Side	10	QPSK	DSI4	1	0	41140/2645	24.00	23.58	0.326	0.047	1.10	0.359	\
			10	QPSK	DSI4	50%	25	41140/2645	23.00	22.35	0.277	0.026	1.16	0.322	\
		Front Side	10	QPSK	DSI4	1	0	41140/2645	24.00	23.58	0.265	0.000	1.10	0.292	\
			10	QPSK	DSI4	50%	25	41140/2645	23.00	22.35	0.235	0.130	1.16	0.273	\
		Left Edge	10	QPSK	DSI2	1	0	41140/2645	24.00	23.58	0.137	-0.068	1.10	0.151	\
			10	QPSK	DSI2	50%	25	41140/2645	23.00	22.35	0.128	-0.030	1.16	0.149	\
		Right Edge	10	QPSK	DSI2	1	0	41140/2645	24.00	23.58	0.099	0.025	1.10	0.109	\
			10	QPSK	DSI2	50%	25	41140/2645	23.00	22.35	0.085	0.047	1.16	0.099	\
		Top Edge	10	QPSK	DSI4	1	0	41140/2645	24.00	23.58	0.315	0.021	1.10	0.347	\
			10	QPSK	DSI4	50%	25	41140/2645	23.00	22.35	0.283	0.038	1.16	0.329	\
		Bottom Edge	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
			10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
	Low Antenna	Bottom Edge Battery2	10	QPSK	DSI4	1	50	41140/2645	23.00	22.62	0.375	0.130	1.09	0.409	\

Band	Antenna	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/Kg)	Plot No.
Wi-Fi 2.4G	Wi-Fi	Back Side	10	802.11b	98.0%	Receiver off	1/2412	18.50	17.30	0.277	0.160	1.35	0.373	\
		Front Side	10	802.11b	98.0%	Receiver off	1/2412	18.50	17.30	0.214	0.021	1.35	0.288	\
		Left Edge	10	802.11b	98.0%	Receiver off	1/2412	18.50	17.30	0.202	0.096	1.35	0.272	\
		Right Edge	10	802.11b	98.0%	Receiver off	1/2412	18.50	17.30	0.000	0.000	1.35	0.000	\
		Top Edge	10	802.11b	98.0%	Receiver off	1/2412	18.50	17.30	0.142	-0.026	1.35	0.191	\
		Bottom Edge	10	N/A	98.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Back Side Battery2	10	802.11b	98.0%	Receiver off	1/2412	18.50	17.30	0.326	0.090	1.35	0.439	40
U-NII-1	Wi-Fi	Back Side	10	802.11a	97.0%	Receiver off	40/5200	16.50	15.06	0.542	-0.080	1.44	0.778	41
		Front Side	10	802.11a	97.0%	Receiver off	40/5200	16.50	15.06	0.163	0.100	1.44	0.234	\
		Left Edge	10	802.11a	97.0%	Receiver off	40/5200	16.50	15.06	0.351	-0.025	1.44	0.504	\

		Right Edge	10	802.11a	97.0%	Receiver off	40/5200	16.50	15.06	0.074	0.050	1.44	0.106	\
		Top Edge	10	802.11a	97.0%	Receiver off	40/5200	16.50	15.06	0.468	0.021	1.44	0.672	\
		Bottom Edge	10	N/A	97.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Back Side Battery2	10	802.11a	97.0%	Receiver off	40/5200	16.50	15.06	0.516	0.018	1.44	0.741	\
U-NII-3	Wi-Fi	Back Side	10	802.11a	97.0%	Receiver off	165/5825	14.50	12.95	0.335	0.031	1.47	0.493	\
		Front Side	10	802.11a	97.0%	Receiver off	165/5825	14.50	12.95	0.101	0.000	1.47	0.149	\
		Left Edge	10	802.11a	97.0%	Receiver off	165/5825	14.50	12.95	0.219	0.032	1.47	0.323	\
		Right Edge	10	802.11a	97.0%	Receiver off	165/5825	14.50	12.95	0.049	-0.010	1.47	0.072	\
		Top Edge	10	802.11a	97.0%	Receiver off	165/5825	14.50	12.95	0.239	0.014	1.47	0.352	\
		Bottom Edge	10	N/A	97.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Back Side Battery2	10	802.11a	97.0%	Receiver off	165/5825	14.50	12.95	0.356	0.020	1.47	0.524	\
Bluetooth	BT	Top Edge	10	DH5	77.0%	-	39/2441	9.50	7.56	0.093	0.025	2.03	0.189	42
		Top Edge Battery2	10	DH5	77.0%	-	39/2441	9.50	7.56	0.085	-0.048	2.03	0.173	\

Product-specific 10 g SAR Evaluation

Band	Antenna	Test Position	Mode	Power Reduction	RB	offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Scaling Factor	Report SAR1g (W/Kg)	0mm SAR
GSM 1900	Upper Antenna	Back Side	GPRS 4TX Slots	DSI4	-	-	661/1880	26.00	22.50	0.348	2.24	0.780	NO
		Front Side	GPRS 4TX Slots	DSI4	-	-	661/1880	26.00	22.50	0.372	2.24	0.833	NO
		Top Edge	GPRS 4TX Slots	DSI4	-	-	661/1880	26.00	22.50	0.315	2.24	0.706	NO
WCDMA II	Low Antenna	Back Side	RMC	DSI4	-	-	9400/1880	25.00	20.50	0.501	2.82	1.412	Yes
		Front Side	RMC	DSI4	-	-	9400/1880	25.00	20.50	0.225	2.82	0.634	NO
		Bottom Edge	RMC	DSI4	-	-	9400/1880	25.00	20.50	0.602	2.82	1.696	Yes
	Upper Antenna	Back Side	RMC	DSI4	-	-	9400/1880	25.00	18.50	0.262	4.47	1.169	NO
		Front Side	RMC	DSI4	-	-	9400/1880	25.00	18.50	0.553	4.47	2.469	Yes
		Top Edge	RMC	DSI4	-	-	9400/1880	25.00	18.50	0.408	4.47	1.822	Yes
WCDMA IV	Low Antenna	Back Side	RMC	DSI4	-	-	1413/1732.6	25.00	21.00	0.521	2.51	1.310	Yes
		Front Side	RMC	DSI4	-	-	1413/1732.6	25.00	21.00	0.209	2.51	0.524	NO
		Bottom Edge	RMC	DSI4	-	-	1413/1732.6	25.00	21.00	0.622	2.51	1.562	Yes
	Upper Antenna	Back Side	RMC	DSI4	-	-	1413/1732.6	24.00	19.00	0.509	3.16	1.609	Yes
		Front Side	RMC	DSI4	-	-	1413/1732.6	24.00	19.00	0.319	3.16	1.007	NO
		Top Edge	RMC	DSI4	-	-	1413/1732.6	24.00	19.00	0.732	3.16	2.315	Yes
WCDMA V	Low Antenna	Back Side	RMC	DSI4	-	-	4183/836.6	25.00	24.00	0.305	1.26	0.384	NO
		Front Side	RMC	DSI4	-	-	4183/836.6	25.00	24.00	0.190	1.26	0.239	NO
		Bottom Edge	RMC	DSI4	-	-	4183/836.6	25.00	24.00	0.194	1.26	0.245	NO
	Upper Antenna	Back Side	RMC	DSI4	-	-	4183/836.6	25.00	24.00	0.344	1.26	0.433	NO
		Front Side	RMC	DSI4	-	-	4183/836.6	25.00	24.00	0.224	1.26	0.283	NO
		Top Edge	RMC	DSI4	-	-	4183/836.6	25.00	24.00	0.236	1.26	0.297	NO
LTE 2	Low	Back Side	QPSK	DSI4	1	50	18700/1860	25.00	20.50	0.555	2.82	1.563	Yes

	Antenna		QPSK	DSI4	50%	0	19100/1900	24.00	20.50	0.539	2.24	1.206	Yes
		Front Side	QPSK	DSI4	1	50	18700/1860	25.00	20.50	0.203	2.82	0.572	NO
			QPSK	DSI4	50%	0	19100/1900	24.00	20.50	0.233	2.24	0.521	NO
		Bottom Edge	QPSK	DSI4	1	50	18700/1860	25.00	20.50	0.613	2.82	1.729	Yes
			QPSK	DSI4	50%	0	19100/1900	24.00	20.50	0.564	2.24	1.263	Yes
	Upper Antenna	Back Side	QPSK	DSI4	1	50	18700/1860	25.00	19.50	0.245	3.55	0.868	NO
			QPSK	DSI4	50%	0	18700/1860	24.00	19.50	0.265	2.82	0.746	NO
		Front Side	QPSK	DSI4	1	50	18700/1860	25.00	19.50	0.214	3.55	0.759	NO
			QPSK	DSI4	50%	0	18700/1860	24.00	19.50	0.236	2.82	0.665	NO
		Top Edge	QPSK	DSI4	1	50	18700/1860	25.00	19.50	0.429	3.55	1.523	Yes
			QPSK	DSI4	50%	0	18700/1860	24.00	19.50	0.450	2.82	1.267	Yes
LTE 4	Low Antenna	Back Side	QPSK	DSI4	1	50	20175/1732.5	25.00	21.00	0.631	2.51	1.585	Yes
			QPSK	DSI4	50%	0	20300/1745	24.00	21.00	0.580	2.00	1.157	NO
		Front Side	QPSK	DSI4	1	50	20175/1732.5	25.00	21.00	0.237	2.51	0.596	NO
			QPSK	DSI4	50%	0	20300/1745	24.00	21.00	0.234	2.00	0.467	NO
		Bottom Edge	QPSK	DSI4	1	50	20175/1732.5	25.00	21.00	0.666	2.51	1.674	Yes
			QPSK	DSI4	50%	0	20300/1745	24.00	21.00	0.660	2.00	1.317	Yes
	Upper Antenna	Back Side	QPSK	DSI4	1	50	20300/1745	23.00	19.50	0.509	2.24	1.139	NO
			QPSK	DSI4	50%	25	20175/1732.5	23.00	19.50	0.549	2.24	1.229	Yes
		Front Side	QPSK	DSI4	1	50	20300/1745	23.00	19.50	0.388	2.24	0.868	NO
			QPSK	DSI4	50%	25	20175/1732.5	23.00	19.50	0.393	2.24	0.881	NO
		Top Edge	QPSK	DSI4	1	50	20300/1745	23.00	19.50	0.723	2.24	1.620	Yes
			QPSK	DSI4	50%	25	20175/1732.5	23.00	19.50	0.720	2.24	1.612	Yes
LTE 5	Low Antenna	Back Side	QPSK	DSI4	1	25	20525/836.5	25.00	24.50	0.423	1.12	0.475	NO
			QPSK	DSI4	50%	0	20600/844	23.50	23.50	0.298	1.00	0.298	NO
		Front Side	QPSK	DSI4	1	25	20525/836.5	25.00	24.50	0.245	1.12	0.275	NO
			QPSK	DSI4	50%	0	20600/844	23.50	23.50	0.179	1.00	0.179	NO
		Bottom Edge	QPSK	DSI4	1	25	20525/836.5	25.00	24.50	0.270	1.12	0.303	NO
			QPSK	DSI4	50%	0	20600/844	23.50	23.50	0.208	1.00	0.208	NO
	Upper Antenna	Back Side	QPSK	DSI4	1	25	20600/844	25.00	24.50	0.326	1.12	0.366	NO
			QPSK	DSI4	50%	0	20450/829	23.50	23.50	0.319	1.00	0.319	NO
		Front Side	QPSK	DSI4	1	25	20600/844	25.00	24.50	0.274	1.12	0.308	NO
			QPSK	DSI4	50%	0	20450/829	23.50	23.50	0.214	1.00	0.214	NO
		Top Edge	QPSK	DSI4	1	25	20600/844	25.00	24.50	0.256	1.12	0.287	NO
			QPSK	DSI4	50%	0	20450/829	23.50	23.50	0.215	1.00	0.215	NO
LTE 7	Low Antenna	Back Side	QPSK	DSI4	1	50	20850/2510	24.00	18.00	0.498	3.98	1.984	Yes
			QPSK	DSI4	50%	0	21350/2560	23.00	18.00	0.329	3.16	1.041	NO
		Front Side	QPSK	DSI4	1	50	20850/2510	24.00	18.00	0.497	3.98	1.979	Yes
			QPSK	DSI4	50%	0	21350/2560	23.00	18.00	0.425	3.16	1.343	Yes
		Bottom Edge	QPSK	DSI4	1	50	20850/2510	24.00	18.00	0.778	3.98	3.097	Yes
			QPSK	DSI4	50%	0	21350/2560	23.00	18.00	0.689	3.16	2.179	Yes
	Upper Antenna	Back Side	QPSK	DSI4	1	50	20850/2510	24.00	20.50	0.380	2.24	0.850	NO
			QPSK	DSI4	50%	0	20850/2510	23.00	20.50	0.438	1.78	0.779	NO

		Front Side	QPSK	DSI4	1	50	20850/2510	24.00	20.50	0.475	2.24	1.063	NO
			QPSK	DSI4	50%	0	20850/2510	23.00	20.50	0.434	1.78	0.772	NO
		Top Edge	QPSK	DSI4	1	50	20850/2510	24.00	20.50	0.350	2.24	0.784	NO
			QPSK	DSI4	50%	0	20850/2510	23.00	20.50	0.445	1.78	0.792	NO
LTE 38 TDD	Low Antenna	Back Side	QPSK	DSI4	1	50	38150/2610	25.00	22.50	0.551	1.78	0.980	NO
			QPSK	DSI4	50%	0	37850/2580	24.00	22.50	0.534	1.41	0.754	NO
		Front Side	QPSK	DSI4	1	50	38150/2610	25.00	22.50	0.359	1.78	0.639	NO
			QPSK	DSI4	50%	0	37850/2580	24.00	22.50	0.333	1.41	0.471	NO
		Bottom Edge	QPSK	DSI4	1	50	38150/2610	25.00	22.50	0.591	1.78	1.051	NO
			QPSK	DSI4	50%	0	37850/2580	24.00	22.50	0.585	1.41	0.826	NO
	Upper Antenna	Back Side	QPSK	DSI4	1	50	38150/2610	25.00	24.00	0.442	1.26	0.557	NO
			QPSK	DSI4	50%	0	37850/2580	24.00	24.00	0.567	1.00	0.567	NO
		Front Side	QPSK	DSI4	1	50	38150/2610	25.00	24.00	0.298	1.26	0.375	NO
			QPSK	DSI4	50%	0	37850/2580	24.00	23.00	0.289	1.26	0.364	NO
		Top Edge	QPSK	DSI4	1	50	38150/2610	25.00	24.00	0.429	1.26	0.540	NO
			QPSK	DSI4	50%	0	37850/2580	24.00	24.00	0.512	1.00	0.512	NO
LTE 41 TDD	Low Antenna	Back Side	QPSK	DSI4	1	50	41140/2645	24.00	23.00	0.523	1.26	0.658	NO
			QPSK	DSI4	50%	25	41140/2645	23.00	23.00	0.522	1.00	0.522	NO
		Front Side	QPSK	DSI4	1	50	41140/2645	24.00	23.00	0.256	1.26	0.323	NO
			QPSK	DSI4	50%	25	41140/2645	23.00	23.00	0.223	1.00	0.223	NO
		Bottom Edge	QPSK	DSI4	1	50	41140/2645	24.00	23.00	0.410	1.26	0.517	NO
			QPSK	DSI4	50%	25	41140/2645	23.00	23.00	0.443	1.00	0.443	NO

Product Specific 10-g SAR

Band	Antenna	Test Position	Dist. (mm)	Mode	Power Reduction	RB	offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR10g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR10g (W/Kg)	Plot No.
WCDMA II	Low Antenna	Back Side	0	RMC	DSI4	-	-	9400/1880	20.50	19.51	1.330	0.044	1.26	1.671	\
		Back Side Battery2	0	RMC	DSI4	-	-	9400/1880	20.50	19.51	1.520	0.020	1.26	1.909	43
		Bottom Edge	0	RMC	DSI4	-	-	9400/1880	20.50	19.51	0.893	0.120	1.26	1.122	\
	Upper Antenna	Front Side	0	RMC	DSI4	-	-	9400/1880	18.50	17.46	0.685	0.000	1.27	0.870	\
		Top Edge	0	RMC	DSI4	-	-	9400/1880	18.50	17.46	0.932	0.042	1.27	1.184	\
WCDMA IV	Low Antenna	Back Side	0	RMC	DSI4	-	-	1413/1732.6	21.00	20.38	1.600	0.070	1.15	1.846	\
		Back Side Battery2	0	RMC	DSI4	-	-	1413/1732.6	21.00	20.38	1.730	-0.015	1.15	1.995	44
		Bottom Edge	0	RMC	DSI4	-	-	1413/1732.6	21.00	20.38	1.200	0.023	1.15	1.384	\
	Upper Antenna	Back Side	0	RMC	DSI4	-	-	1413/1732.6	19.00	18.25	0.942	-0.027	1.19	1.120	\
		Top Edge	0	RMC	DSI4	-	-	1413/1732.6	19.00	18.25	1.140	0.000	1.19	1.355	\
LTE 2	Low	Back Side	0	QPSK	DSI4	1	50	18700/1860	20.50	19.63	1.110	0.020	1.22	1.356	\
	Antenna	Back Side	0	QPSK	DSI4	50%	0	19100/1900	20.50	19.26	1.240	0.045	1.33	1.650	45
		Back Side Battery2	0	QPSK	DSI4	50%	0	19100/1900	20.50	19.26	1.190	0.012	1.33	1.583	\

		Bottom Edge	0	QPSK	DSI4	1	50	18700/1860	20.50	19.63	0.823	0.031	1.22	1.006	\
			0	QPSK	DSI4	50%	0	19100/1900	20.50	19.26	0.816	-0.081	1.33	1.086	\
	Upper Antenna	Top Edge	0	QPSK	DSI4	1	50	18700/1860	19.50	18.45	0.961	0.022	1.27	1.224	\
			0	QPSK	DSI4	50%	0	18700/1860	19.50	18.13	0.969	0.019	1.37	1.328	\
LTE 4	Low Antenna	Back Side	0	QPSK	DSI4	1	50	20175/1732.5	21.00	19.99	1.560	0.043	1.26	1.968	46
		Bottom Edge	0	QPSK	DSI4	1	50	20175/1732.5	21.00	19.99	1.510	0.030	1.26	1.905	\
			0	QPSK	DSI4	50%	0	20300/1745	21.00	19.88	1.320	0.048	1.29	1.708	\
	Upper Antenna	Back Side	0	QPSK	DSI4	1	50	20300/1745	19.50	18.54	1.050	0.022	1.25	1.310	\
			0	QPSK	DSI4	50%	25	20175/1732.5	19.50	17.96	1.190	0.039	1.43	1.696	\
		Top Edge	0	QPSK	DSI4	1	50	20300/1745	19.50	18.54	1.510	0.080	1.25	1.884	\
		Top Edge	0	QPSK	DSI4	50%	25	20175/1732.5	19.50	17.96	1.540	-0.027	1.43	2.195	\
		Top Edge SIM2	0	QPSK	DSI4	50%	25	20175/1732.5	19.50	17.96	1.420	0.090	1.43	2.024	\
		Top Edge Battery2	0	QPSK	DSI4	50%	25	20175/1732.5	19.50	17.96	1.390	0.049	1.43	1.982	\
		Top Edge	0	QPSK	DSI4	50%	25	20050/1720	19.50	17.83	1.260	0.035	1.47	1.851	\
		Top Edge	0	QPSK	DSI4	50%	25	20300/1745	19.50	17.90	1.490	0.080	1.45	2.154	\
		Top Edge	0	QPSK	DSI4	100%	0	20300/1745	19.50	17.85	1.280	0.017	1.46	1.872	\
LTE 7	Low Antenna	Back Side	0	QPSK	DSI4	1	50	20850/2510	18.00	16.98	1.010	0.013	1.26	1.277	\
		Back Side	0	QPSK	DSI4	50%	0	21350/2560	18.00	16.59	1.070	0.018	1.38	1.480	47
		Back Side Battery2	0	QPSK	DSI4	50%	0	21350/2560	18.00	16.59	0.710	0.100	1.38	0.982	\
		Front Side	0	QPSK	DSI4	1	50	20850/2510	18.00	16.98	0.945	0.040	1.26	1.195	\
			0	QPSK	DSI4	50%	0	21350/2560	18.00	16.59	0.823	-0.030	1.38	1.139	\
		Bottom Edge	0	QPSK	DSI4	1	50	20850/2510	18.00	16.98	0.585	0.026	1.26	0.740	\
			0	QPSK	DSI4	50%	0	21350/2560	18.00	16.59	0.503	0.010	1.38	0.696	\

Band	Antenna	Test Position	Dist. (mm)	Mode	Duty Cycle	Power Reduction	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR10g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR10g (W/Kg)	Plot No.
U-NII-2A	Wi-Fi	Back Side	0	802.11a	97.0%	Receiver off	64/5320	16.50	14.75	1.000	0.033	1.54	1.543	\
		Front Side	0	802.11a	97.0%	Receiver off	64/5320	16.50	14.75	0.158	0.018	1.54	0.244	\
		Left Edge	0	802.11a	97.0%	Receiver off	64/5320	16.50	14.75	0.017	-0.094	1.54	0.026	\
		Right Edge	0	802.11a	97.0%	Receiver off	64/5320	16.50	14.75	0.211	0.020	1.54	0.325	\
		Top Edge	0	802.11a	97.0%	Receiver off	64/5320	16.50	14.75	0.063	0.100	1.54	0.097	\
		Bottom Edge	0	N/A	97.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Back Side Battery2	0	802.11a	97.0%	Receiver off	64/5320	17.50	15.62	0.798	0.018	1.59	1.268	\
U-NII-2C	Wi-Fi	Back Side	0	802.11a	97.0%	Receiver off	132/5660	16.50	15.18	1.180	0.013	1.40	1.649	48
		Front Side	0	802.11a	97.0%	Receiver off	132/5660	16.50	15.18	0.138	0.025	1.40	0.193	\
		Left Edge	0	802.11a	97.0%	Receiver off	132/5660	16.50	15.18	0.022	-0.013	1.40	0.031	\
		Right Edge	0	802.11a	97.0%	Receiver off	132/5660	16.50	15.18	0.246	0.060	1.40	0.344	\
		Top Edge	0	802.11a	97.0%	Receiver off	132/5660	16.50	15.18	1.030	0.024	1.40	1.439	\

		Bottom Edge	0	N/A	97.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\
		Back Side Battery2	0	802.11a	97.0%	Receiver off	132/5660	16.50	15.18	1.060	0.180	1.40	1.481	\

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

Band	Antenna	Dist. (mm)	Test Position	Mode	Power Reduction	RB	offset	Ch./Freq. (MHz)	Tune-up (dBm)	Measured power (dBm)	Measured SAR1g (W/Kg)	Power Drift (dB)	Scaling Factor	Report SAR1g (W/Kg)	Plot No.
GSM 1900	Upper Antenna	17	Back Side	4TX Slots	DSI2	-	-	661/1880	26.00	24.40	0.132	0.043	1.45	0.191	\
		10	Front Side	4TX Slots	DSI2	-	-	661/1880	26.00	24.40	0.281	-0.090	1.45	0.406	\
		17	Top Edge	4TX Slots	DSI2	-	-	661/1880	26.00	24.40	0.301	-0.100	1.45	0.435	49
WCDMA II	Low Antenna	21	Back Side	RMC 12.2K	DSI2	-	-	9400/1880	25.00	24.04	0.210	0.026	1.25	0.262	\
		16	Front Side	RMC 12.2K	DSI2	-	-	9400/1880	25.00	24.04	0.269	0.099	1.25	0.336	\
		23	Bottom Edge	RMC 12.2K	DSI2	-	-	9400/1880	25.00	24.04	0.112	0.018	1.25	0.140	\
	Upper Antenna	17	Back Side	RMC 12.2K	DSI2	-	-	9400/1880	25.00	24.08	0.267	0.030	1.24	0.330	\
		10	Front Side	RMC 12.2K	DSI2	-	-	9400/1880	25.00	24.08	0.517	0.043	1.24	0.639	50
		17	Top Edge	RMC 12.2K	DSI2	-	-	9400/1880	25.00	24.08	0.453	0.110	1.24	0.560	\
WCDMA IV	Low Antenna	21	Back Side	RMC 12.2K	DSI2	-	-	1413/1732.6	25.00	24.50	0.335	0.023	1.12	0.376	\
		16	Front Side	RMC 12.2K	DSI2	-	-	1413/1732.6	25.00	24.50	0.273	0.069	1.12	0.306	\
		23	Bottom Edge	RMC 12.2K	DSI2	-	-	1413/1732.6	25.00	24.50	0.339	0.000	1.12	0.380	\
	Upper Antenna	17	Back Side	RMC 12.2K	DSI2	-	-	1413/1732.6	24.00	23.28	0.489	0.080	1.18	0.577	\
		10	Front Side	RMC 12.2K	DSI2	-	-	1413/1732.6	24.00	23.28	0.866	0.110	1.18	1.022	51
		17	Top Edge	RMC 12.2K	DSI2	-	-	1413/1732.6	24.00	23.28	0.681	-0.047	1.18	0.804	\
WCDMA V	Low Antenna	21	Back Side	RMC 12.2K	DSI2	-	-	4183/836.6	25.00	24.47	0.149	0.048	1.13	0.168	\
		16	Front Side	RMC 12.2K	DSI2	-	-	4183/836.6	25.00	24.47	0.190	0.020	1.13	0.215	\
		23	Bottom Edge	RMC 12.2K	DSI2	-	-	4183/836.6	25.00	24.47	0.061	0.099	1.13	0.069	\
	Upper Antenna	17	Back Side	RMC 12.2K	DSI2	-	-	4183/836.6	25.00	23.55	0.137	-0.100	1.40	0.191	\
		10	Front Side	RMC 12.2K	DSI2	-	-	4183/836.6	25.00	23.55	0.191	-0.015	1.40	0.267	52
		17	Top Edge	RMC 12.2K	DSI2	-	-	4183/836.6	25.00	23.55	0.096	0.040	1.40	0.134	\
LTE 2	Low Antenna	21	Back Side	QPSK	DSI2	1	50	18900/1880	25.00	23.91	0.322	0.020	1.29	0.414	\
		16	Front Side	QPSK	DSI2	1	50	18900/1880	25.00	23.91	0.204	0.061	1.29	0.262	\
		23	Bottom Edge	QPSK	DSI2	1	50	18900/1880	25.00	23.91	0.323	0.019	1.29	0.415	\
	Upper Antenna	17	Back Side	QPSK	DSI2	1	0	18700/1860	25.00	23.80	0.487	-0.030	1.32	0.642	\
		10	Front Side	QPSK	DSI2	1	0	18700/1860	25.00	23.80	0.533	0.140	1.32	0.703	\
		17	Top Edge	QPSK	DSI2	1	0	18700/1860	25.00	23.80	0.670	0.025	1.32	0.883	53
LTE 4	Low Antenna	21	Back Side	QPSK	DSI2	1	50	20300/1745	25.00	23.94	0.301	0.012	1.28	0.384	\
		16	Front Side	QPSK	DSI2	1	50	20300/1745	25.00	23.94	0.233	0.048	1.28	0.297	\
		23	Bottom Edge	QPSK	DSI2	1	50	20300/1745	25.00	23.94	0.382	0.032	1.28	0.488	\
	Upper Antenna	17	Back Side	QPSK	DSI2	1	50	20175/1732.5	23.00	21.85	0.639	-0.026	1.30	0.833	54
		10	Front Side	QPSK	DSI2	1	50	20175/1732.5	23.00	21.85	0.620	0.062	1.30	0.808	\
		17	Top Edge	QPSK	DSI2	1	50	20175/1732.5	23.00	21.85	0.634	-0.070	1.30	0.826	\
LTE 5	Low Antenna	21	Back Side	QPSK	DSI2	1	25	20525/836.5	25.00	23.93	0.192	0.092	1.28	0.246	\
		16	Front Side	QPSK	DSI2	1	25	20525/836.5	25.00	23.93	0.091	0.011	1.28	0.116	\

		23	Bottom Edge	QPSK	DSI2	1	25	20525/836.5	25.00	23.93	0.027	-0.047	1.28	0.035	\
	Upper Antenna	17	Back Side	QPSK	DSI2	1	25	20525/836.5	25.00	23.94	0.171	0.023	1.28	0.218	\
		10	Front Side	QPSK	DSI2	1	25	20525/836.5	25.00	23.94	0.219	0.032	1.28	0.280	55
		17	Top Edge	QPSK	DSI2	1	25	20525/836.5	25.00	23.94	0.102	0.080	1.28	0.130	\
LTE 7	Low Antenna	21	Back Side	QPSK	DSI2	1	50	20850/2510	24.00	22.59	0.290	0.000	1.38	0.401	\
		16	Front Side	QPSK	DSI2	1	50	20850/2510	24.00	22.59	0.194	0.023	1.38	0.268	\
		23	Bottom Edge	QPSK	DSI2	1	50	20850/2510	24.00	22.59	0.367	0.016	1.38	0.508	\
	Upper Antenna	17	Back Side	QPSK	DSI2	1	50	21350/2560	24.00	22.76	0.309	-0.024	1.33	0.411	\
		10	Front Side	QPSK	DSI2	1	50	21350/2560	24.00	22.76	0.434	0.090	1.33	0.577	56
		17	Top Edge	QPSK	DSI2	1	50	21350/2560	24.00	22.76	0.363	0.030	1.33	0.483	\
LTE 38	Low Antenna	21	Back Side	QPSK	DSI2	1	50	38150/2610	25.00	24.61	0.130	0.028	1.09	0.142	\
		16	Front Side	QPSK	DSI2	1	50	38150/2610	25.00	24.61	0.142	-0.016	1.09	0.155	\
		23	Bottom Edge	QPSK	DSI2	1	50	38150/2610	25.00	24.61	0.117	0.070	1.09	0.128	\
	Upper Antenna	17	Back Side	QPSK	DSI2	1	50	37850/2580	25.00	23.78	0.308	0.031	1.32	0.408	\
		10	Front Side	QPSK	DSI2	1	50	37850/2580	25.00	23.78	0.275	-0.025	1.32	0.364	\
		17	Top Edge	QPSK	DSI2	1	50	37850/2580	25.00	23.78	0.345	0.100	1.32	0.457	57
LTE 41	Low Antenna	21	Back Side	QPSK	DSI2	1	50	40640/2595	24.00	23.39	0.111	0.049	1.15	0.128	\
		16	Front Side	QPSK	DSI2	1	50	40640/2595	24.00	23.39	0.111	0.027	1.15	0.128	\
		23	Bottom Edge	QPSK	DSI2	1	50	40640/2595	24.00	23.39	0.136	0.012	1.15	0.157	\
	Upper Antenna	17	Back Side	QPSK	DSI2	1	0	40140/2545	24.00	23.58	0.244	-0.100	1.10	0.269	\
		10	Front Side	QPSK	DSI2	1	0	41140/2645	24.00	23.58	0.265	0.000	1.10	0.292	\
		17	Top Edge	QPSK	DSI2	1	0	40140/2545	24.00	23.58	0.274	0.000	1.10	0.302	58

BT

Band	Configuration	Frequency (MHz)	Maximum Power (dBm)	Separation Distance (mm)	Estimated SAR (W/kg)
Bluetooth	Head	2480	9.50	5	0.374
	10mm Body SAR	2480	9.50	10	0.187
	Product Specific 10-g SAR	2480	9.50	5	0.150
For simultaneous transmission analysis, Bluetooth SAR is estimated per KDB 447498 D01 based on the formula below. (max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[√f(GHz)/x] W/kg for test separation distances ≤ 50 mm; where x = 7.5 for 1-g SAR, and x = 18.75 for 10-g SAR.					

10.4 Simultaneous Transmission Analysis

Simultaneous Transmission Configurations	Head	Body-Worn	Product Specific 10-g SAR
WWAN + Bluetooth	Yes	Yes	Yes
WWAN + WLAN	Yes	Yes	Yes
WLAN + Bluetooth	Yes	Yes	Yes
WWAN + WLAN + Bluetooth	Yes	Yes	Yes

General Note:

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

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

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

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

The maximum $SAR_{1g/10g}$ Value for Low Antenna

$SAR_{1g/10g}$ (W/kg) / Test Position		GSM 850	GSM 1900	WCDMA Band 2	WCDMA Band 4	WCDMA Band 5	LTE 2	LTE 4	LTE 5	LTE 7	LTE 38	LTE 41	MAX. $SAR_{1g/10g}$
Head	Left Cheek	0.245	0.085	0.077	0.047	0.167	0.104	0.070	0.236	0.099	0.209	0.121	0.245
	Left Tilt	0.124	0.056	0.065	0.035	0.104	0.064	0.057	0.108	0.194	0.174	0.102	0.194
	Right Cheek	0.196	0.051	0.074	0.071	0.150	0.072	0.107	0.156	0.089	0.151	0.116	0.196
	Right Tilt	0.089	0.035	0.039	0.059	0.104	0.058	0.049	0.058	0.078	0.194	0.141	0.194
10mm Body SAR	Back Side	0.517	0.627	0.501	0.521	0.305	0.555	0.608	0.423	0.498	0.551	0.523	0.627
	Front Side	0.275	0.234	0.225	0.209	0.190	0.233	0.237	0.245	0.497	0.359	0.256	0.497
	Left Edge	0.000	0.135	0.323	0.132	0.000	0.321	0.158	0.129	0.271	0.200	0.213	0.323
	Right Edge	0.137	0.000	0.000	0.000	0.097	0.094	0.153	0.311	0.520	0.114	0.159	0.520
	Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000
	Bottom Edge	0.443	0.686	0.690	0.622	0.194	0.766	0.666	0.270	0.837	0.591	0.443	0.837
Product Specific 10-g SAR	Back Side	N/A	N/A	1.909	1.995	N/A	1.650	1.968	N/A	1.480	N/A	N/A	1.995
	Front Side	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.195	N/A	N/A	1.195
	Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000
	Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000
	Top Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000
	Bottom Edge	N/A	N/A	1.122	1.384	N/A	1.086	1.905	N/A	0.740	N/A	N/A	1.905

The maximum $SAR_{1g/10g}$ Value for Upper Antenna

$SAR_{1g/10g}$ (W/kg) / Test Position		GSM 850	GSM 1900	WCDMA Band 2	WCDMA Band 4	WCDMA Band 5	LTE 2	LTE 4	LTE 5	LTE 7	LTE 38	LTE 41	MAX. $SAR_{1g/10g}$
Head	Left Cheek	0.797	0.592	0.416	0.354	0.482	0.485	0.484	0.683	0.423	0.457	0.423	0.797
	Left Tilt	0.684	0.369	0.497	0.426	0.436	0.613	0.480	0.584	0.475	0.545	0.458	0.684
	Right Cheek	0.681	0.435	0.553	0.574	0.587	0.535	0.646	0.962	0.908	0.621	0.617	0.962
	Right Tilt	0.757	0.519	0.660	0.653	0.694	0.720	0.798	0.788	0.656	0.666	0.624	0.798
10mm Body SAR	Back Side	0.151	0.348	0.262	0.509	0.428	0.265	0.549	0.326	0.438	0.567	0.359	0.567
	Front Side	0.082	0.406	0.639	1.022	0.267	0.703	0.808	0.280	0.577	0.364	0.292	1.022
	Left Edge	0.061	0.085	0.150	0.165	0.131	0.138	0.198	0.225	0.544	0.328	0.151	0.544
	Right Edge	0.042	0.053	0.115	0.106	0.127	0.084	0.075	0.172	0.106	0.124	0.109	0.172
	Top Edge	0.110	0.315	0.408	0.732	0.236	0.450	0.723	0.256	0.445	0.512	0.347	0.732
	Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000
Product Specific 10-g SAR	Back Side	N/A	N/A	N/A	1.120	N/A	N/A	1.696	N/A	N/A	N/A	N/A	1.696
	Front Side	N/A	N/A	0.870	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.870
	Left Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000
	Right Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000
	Top Edge	N/A	N/A	1.184	1.355	N/A	1.328	2.195	N/A	N/A	N/A	N/A	2.195
	Bottom Edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000

About Wi-Fi and BT and Low Antenna

Test Position \ $SAR_{1g/10g}$(W/kg)		Low antenna	BT	Wi-Fi 2.4G	Wi-Fi (U-NII-1)	Wi-Fi (U-NII-2A)	Wi-Fi (U-NII-2C)	Wi-Fi (U-NII-3)	MAX. $\Sigma SAR_{1g/10g}$
Head	Left, Cheek	0.245	0.141	0.450	**0.564**	0.306	0.406	0.247	0.950
	Left, Tilt	0.194	0.138	0.394	0.660	0.422	**0.698**	0.426	1.030
	Right, Cheek	0.196	0.045	0.176	**0.408**	0.274	0.325	0.214	0.649
	Right, Tilt	0.194	0.045	0.181	**0.461**	0.308	0.440	0.270	0.700
10mm Body SAR	Back Side	0.627	0.187	0.439	**0.778**	N/A	N/A	0.524	1.589
	Front Side	0.497	0.187	**0.288**	0.234	N/A	N/A	0.149	0.972
	Left Edge	0.323	0.187	0.272	**0.504**	N/A	N/A	0.323	1.014
	Right Edge	0.520	0.187	0.000	**0.106**	N/A	N/A	0.072	0.813
	Top Edge	0.000	0.189	0.191	**0.672**	N/A	N/A	0.352	0.861
	Bottom Edge	0.837	0.187	N/A	N/A	N/A	N/A	N/A	1.024
Product Specific 10-g SAR	Back Side	1.995	0.150	N/A	N/A	1.543	**1.649**	N/A	3.794
	Front Side	1.195	0.150	N/A	N/A	**0.244**	0.193	N/A	1.589
	Left Edge	0.000	0.150	N/A	N/A	0.026	**0.031**	N/A	0.181
	Right Edge	0.000	0.150	N/A	N/A	0.325	**0.344**	N/A	0.494
	Top Edge	0.000	0.150	N/A	N/A	0.097	**1.439**	N/A	1.589
	Bottom Edge	1.905	0.150	N/A	N/A	N/A	N/A	N/A	2.055

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

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

MAX. ΣSAR_{1g} =1.589 W/kg<1.6W/kg and MAX. ΣSAR_{10g} =3.794W/kg<4 W/kg, so the Simultaneous transimition SAR with volum scan are not required for Wi-Fi and BT and Low Antenna.

About Wi-Fi and BT and Upper Antenna

Test Position \ $SAR_{1g/10g}$(W/kg)		Upper Antenna	BT	Wi-Fi 2.4G	Wi-Fi (U-NII-1)	Wi-Fi (U-NII-2A)	Wi-Fi (U-NII-2C)	Wi-Fi (U-NII-3)	MAX. $\Sigma SAR_{1g/10g}$
Head	Left, Cheek	0.797	0.141	0.450	**0.564**	0.306	0.406	0.247	1.502
	Left, Tilt	0.684	0.138	0.394	0.660	0.422	**0.698**	0.426	1.520
	Right, Cheek	0.962	0.045	0.176	**0.408**	0.274	0.325	0.214	1.415
	Right, Tilt	0.798	0.045	0.181	**0.461**	0.308	0.440	0.270	1.304
10mm Body SAR	Back Side	0.567	0.187	0.439	**0.778**	N/A	N/A	0.524	1.532
	Front Side	1.022	0.187	**0.288**	0.234	N/A	N/A	0.149	1.310
	Left Edge	0.544	0.187	0.272	**0.504**	N/A	N/A	0.323	1.235
	Right Edge	0.172	0.187	0.000	**0.106**	N/A	N/A	0.072	0.465
	Top Edge	0.732	0.189	0.191	**0.672**	N/A	N/A	0.352	1.593
	Bottom Edge	0.000	0.187	N/A	N/A	N/A	N/A	N/A	0.187
Product Specific 10-g SAR	Back Side	1.696	0.150	N/A	N/A	1.543	**1.649**	N/A	3.495
	Front Side	0.870	0.150	N/A	N/A	**0.244**	0.193	N/A	1.264
	Left Edge	0.000	0.150	N/A	N/A	0.026	**0.031**	N/A	0.181
	Right Edge	0.000	0.150	N/A	N/A	0.325	**0.344**	N/A	0.494
	Top Edge	2.195	0.150	N/A	N/A	0.097	**1.439**	N/A	3.784
	Bottom Edge	0.000	0.150	N/A	N/A	N/A	N/A	N/A	0.150

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

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

MAX. ΣSAR_{1g} = 1.593W/kg<1.6W/kg and MAX. ΣSAR_{10g} =3.784W/kg<4 W/kg, so the Simultaneous transimition SAR with volum scan are not required for Wi-Fi and BT and Upper Antenna.

11 Measurement Uncertainty

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

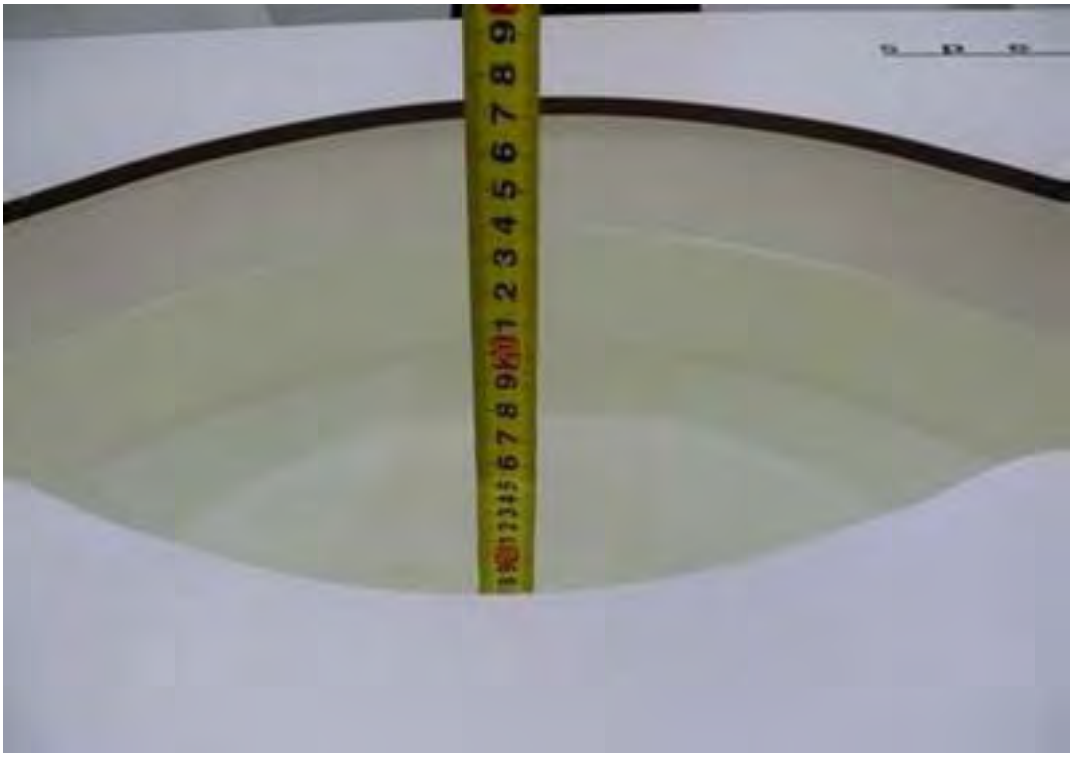
********END OF REPORT ********

ANNEX A: Test Layout

Tissue Simulating Liquids

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

Picture 3: liquid depth in the head Phantom



Picture 4: Liquid depth in the flat Phantom

ANNEX B: System Check Results

Plot 1 System Performance Check at 835 MHz TSL

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

Date: 2021/12/13

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

Medium parameters used: f = 835 MHz; σ = 0.87 S/m; ε_r = 41.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(10.15, 10.15, 10.15); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

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

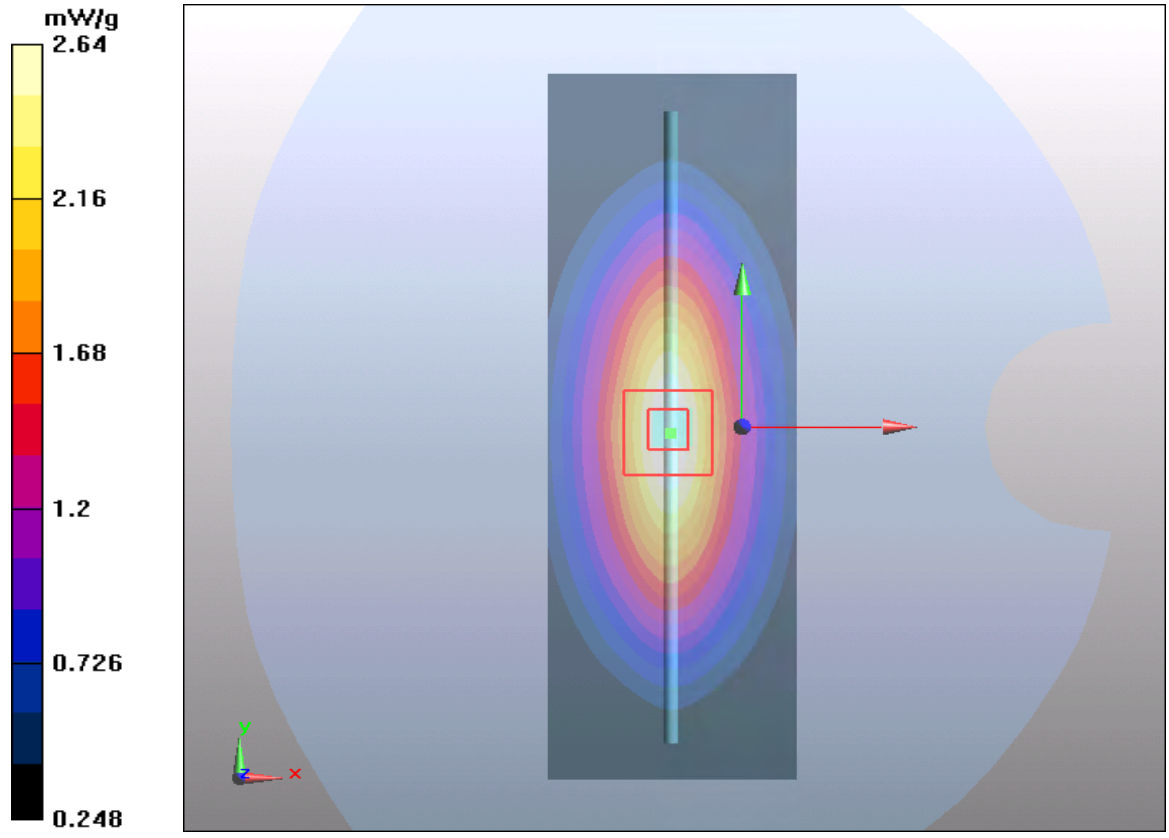
d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.44 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: 2021/12/14

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

Medium parameters used: f = 835 MHz; σ =0.89 S/m; ε_r = 41.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(10.15, 10.15, 10.15); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

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

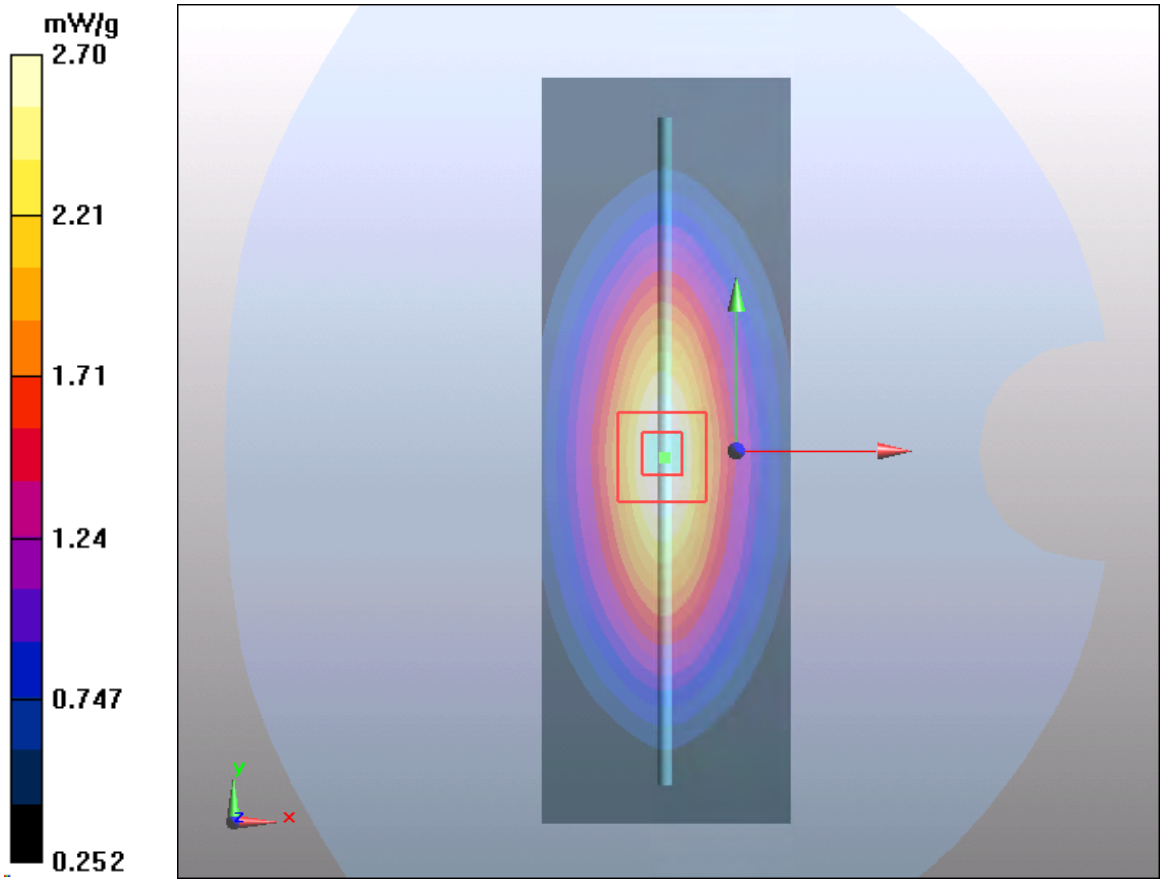
d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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

Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.46 mW/g; SAR(10 g) = 1.65 mW/g

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



Plot 3 System Performance Check at 1750 MHz TSL

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

Date: 2021/12/22

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

Medium parameters used: f = 1750 MHz; σ = 1.36 S/m; ε_r = 40.6; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.76, 8.76, 8.76); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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 (5x8x1): Measurement grid: dx=15mm, dy=15mm

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

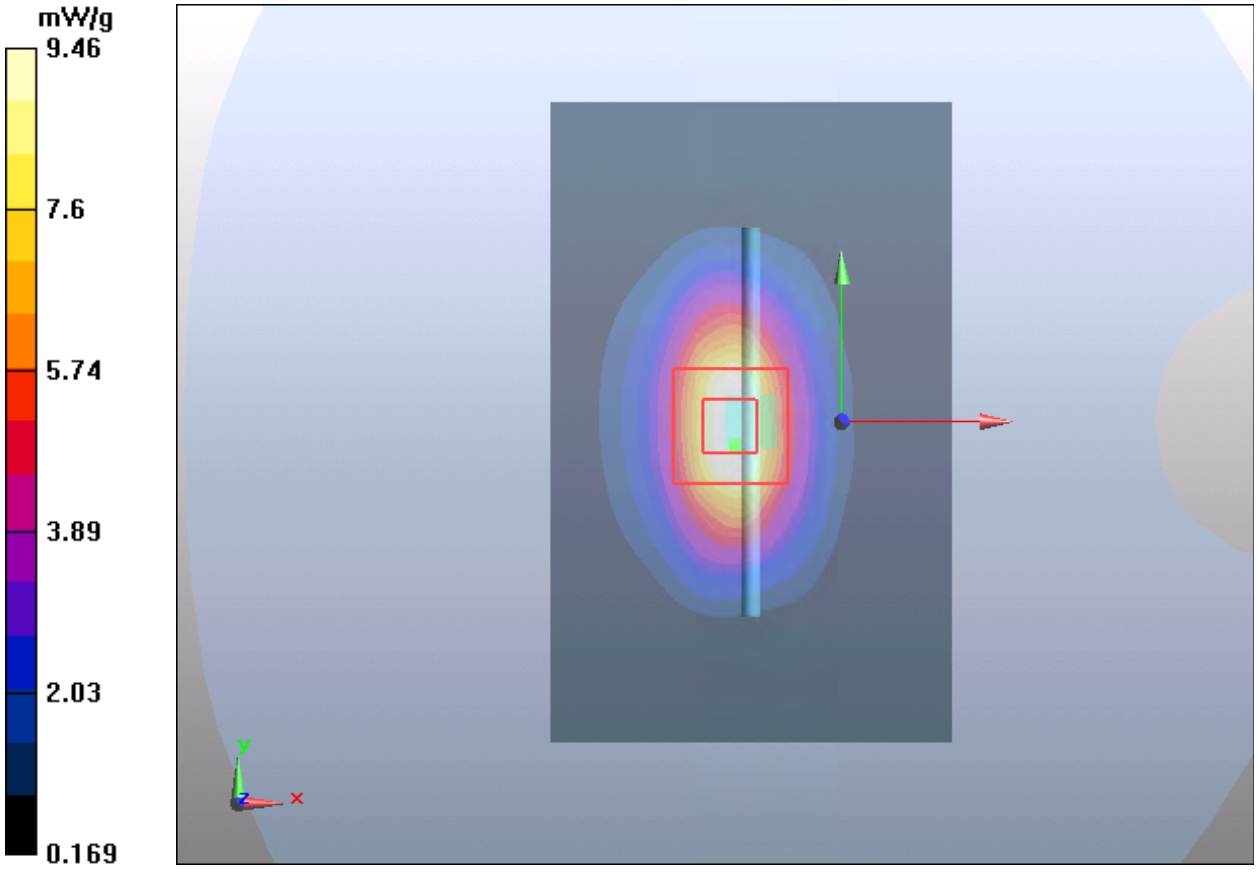
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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 4 System Performance Check at 1750 MHz TSL

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

Date: 2021/12/23

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

Medium parameters used: f = 1750 MHz; σ = 1.32 S/m; ε_r = 40.3; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.76, 8.76, 8.76); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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 (5x8x1): Measurement grid: dx=15mm, dy=15mm

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

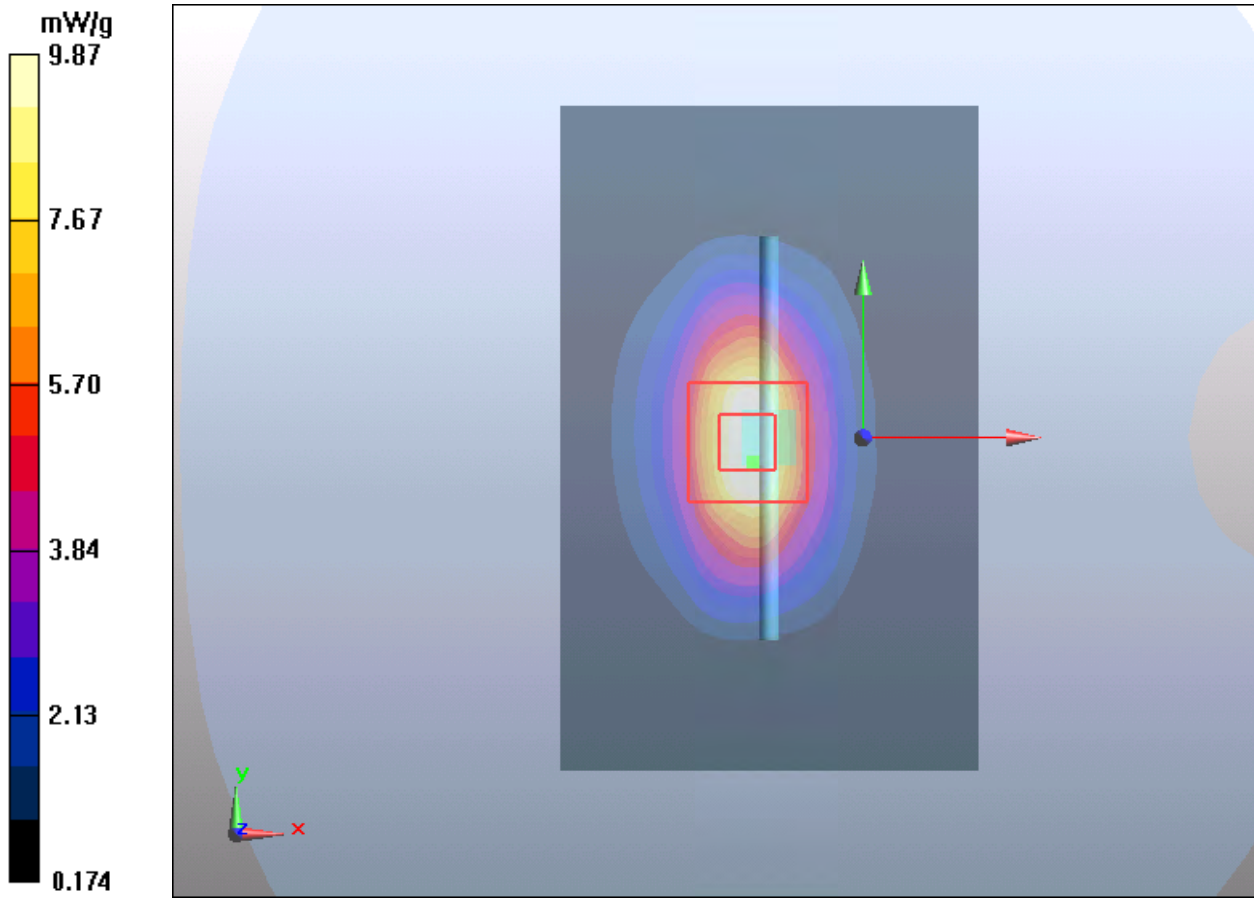
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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 5 System Performance Check at 1900 MHz TSL

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

Date: 2021/12/25

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

Medium parameters used: f = 1900 MHz; σ = 1.42 S/m; ε_r = 40.2; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.38, 8.38, 8.38); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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=15mm, dy=15mm

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

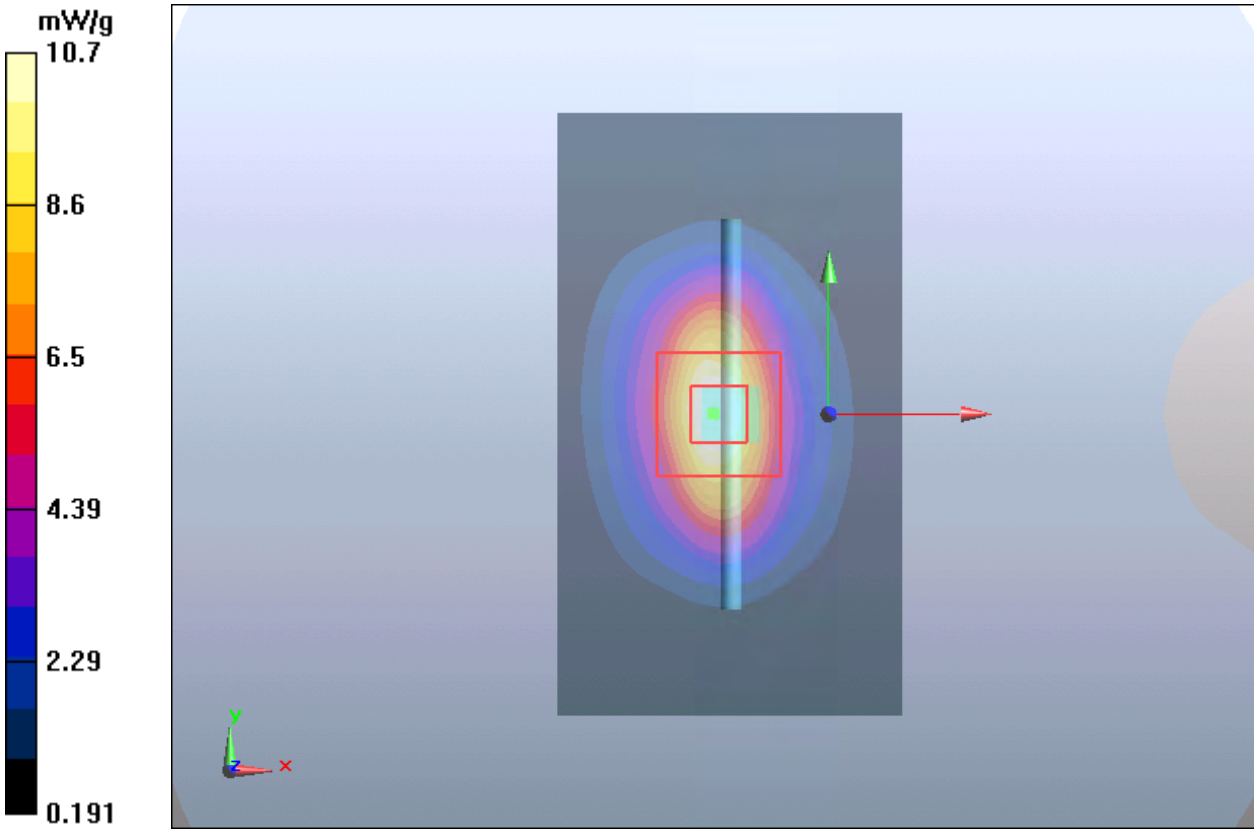
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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 6 System Performance Check at 1900 MHz TSL

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

Date: 2021/12/26

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

Medium parameters used: f = 1900 MHz; σ = 1.41 S/m; ε_r = 40.4; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.38, 8.38, 8.38); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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=15mm, dy=15mm

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

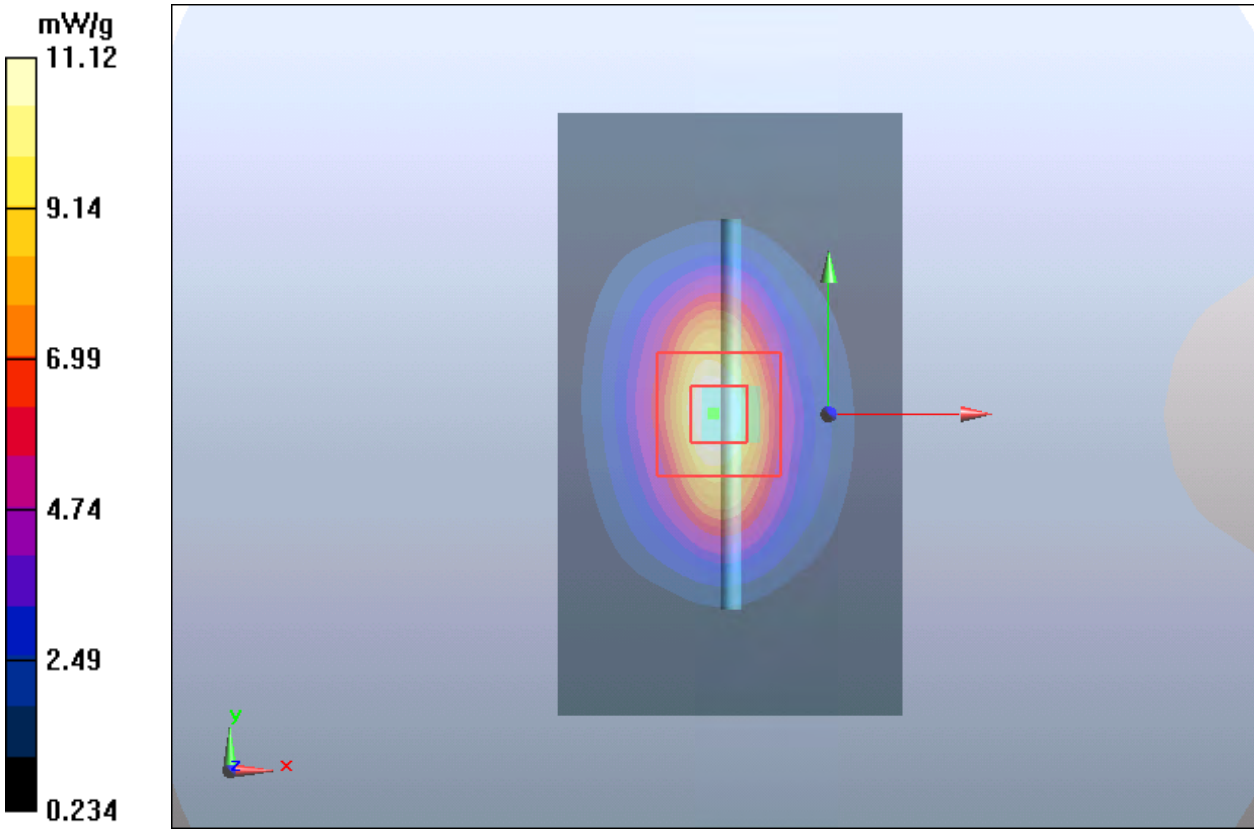
d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

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 7 System Performance Check at 2450 MHz TSL

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

Date: 2021/12/27

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

Medium parameters used: f = 2450 MHz; σ = 1.81 S/m; ε_r = 38.8; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.01, 8.01, 8.01); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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 (measured) = 18.2 mW/g

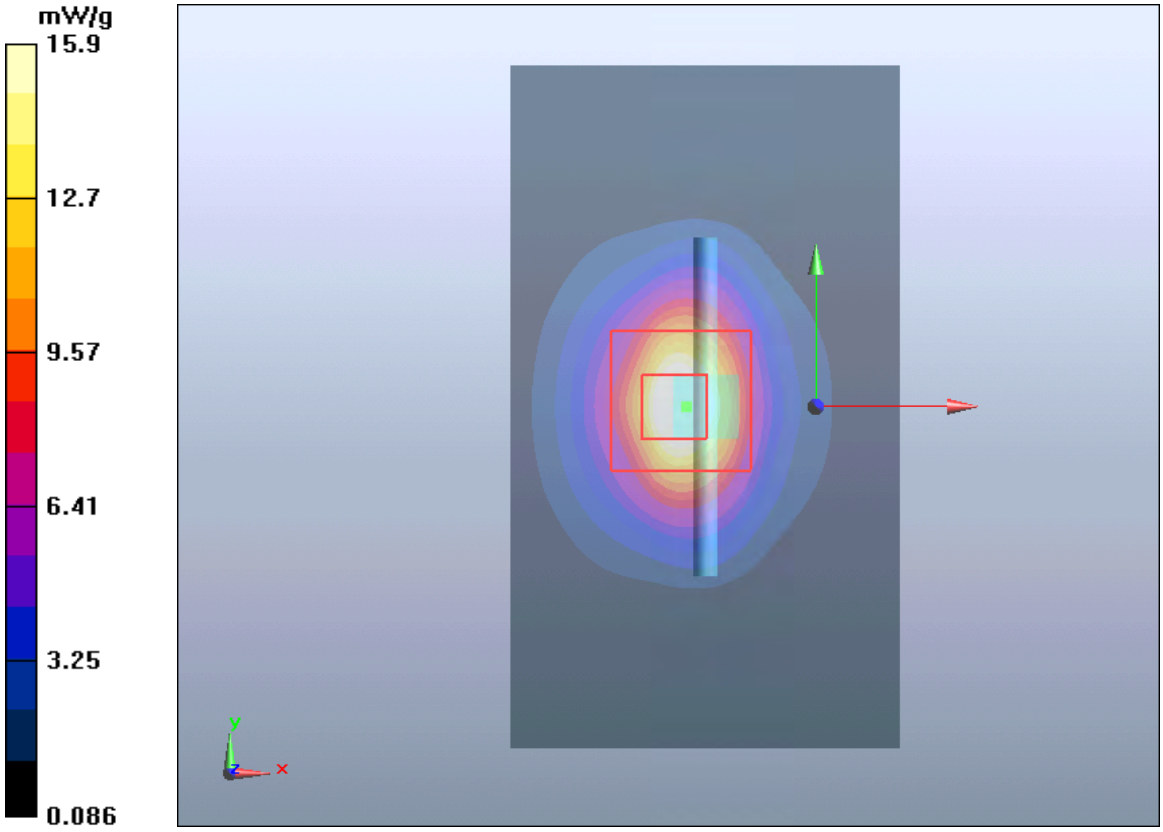
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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 8 System Performance Check at 2600 MHz TSL

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

Date: 2021/12/15

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

Medium parameters used: f = 2600 MHz; σ = 2.03 S/m; ε_r = 38.2; ρ = 1000 kg/m^3

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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 (measured) = 17.439 mW/g

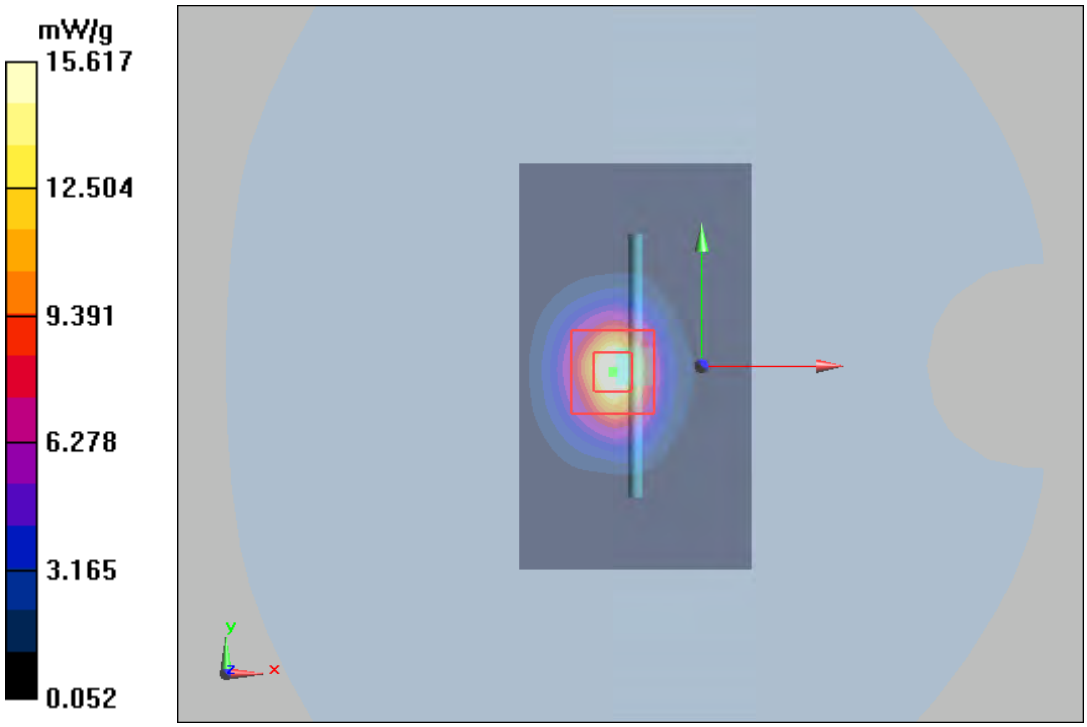
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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 9 System Performance Check at 2600 MHz TSL

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

Date: 2021/12/16

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

Medium parameters used: f = 2600 MHz; σ =1.95S/m; ε_r = 38.5; ρ = 1000 kg/m^3

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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 (measured) = 17.59 mW/g

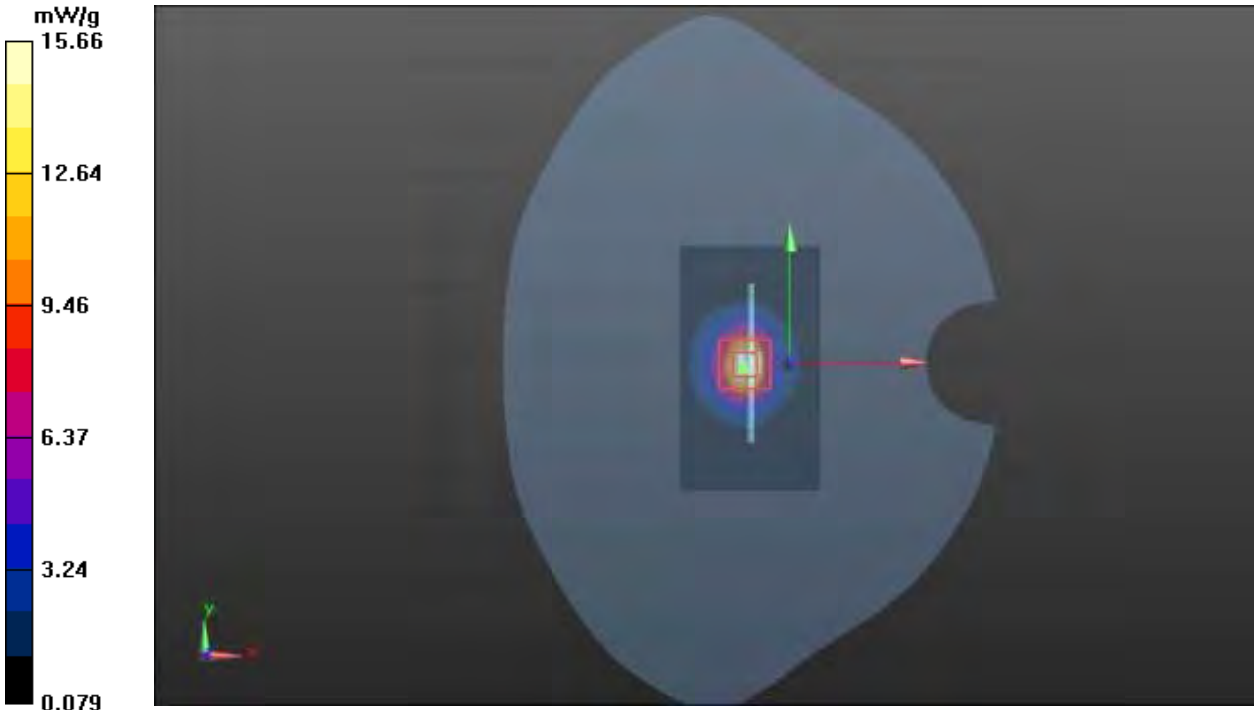
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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 10 System Performance Check at 2600 MHz TSL

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

Date: 2021/12/17

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

Medium parameters used: f = 2600 MHz; σ = 1.99 mho/m; ε_r = 38.2; ρ = 1000 kg/m^3

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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 (measured) = 17.32 mW/g

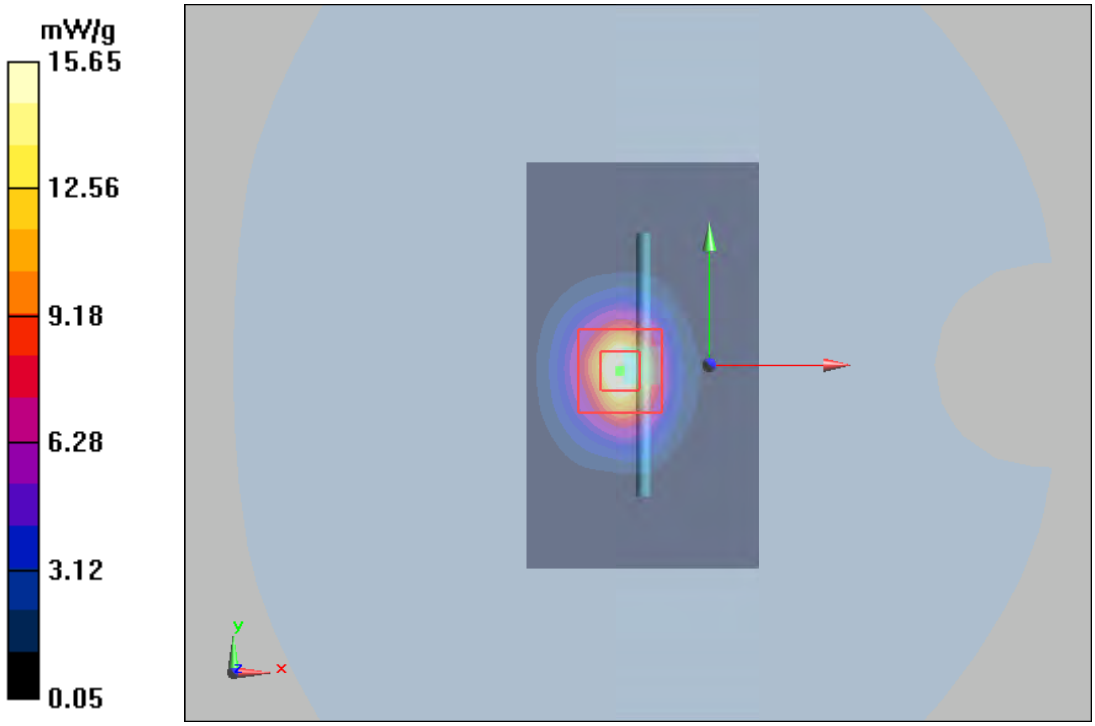
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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 11 System Performance Check at 2600 MHz TSL

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

Date: 2021/12/18

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

Medium parameters used: f = 2600 MHz; σ =1.96mho/m; ε_r = 38.3; ρ = 1000 kg/m^3

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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 (6x10x1): Measurement grid: dx=12mm, dy=12mm

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

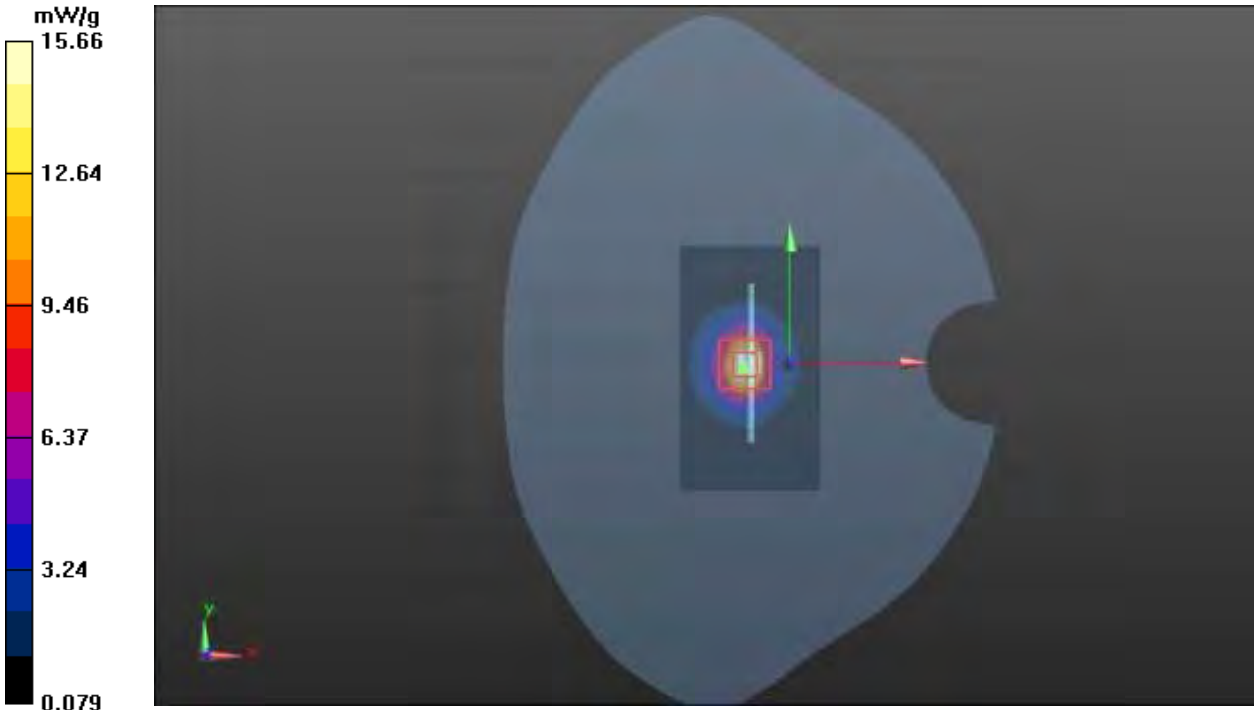
d=10mm, Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

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 12 System Performance Check at 5250 MHz TSL

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

Date: 2021/12/19

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

Medium parameters used: f = 5250 MHz; σ = 4.81 S/m; ε_r = 35.6; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(5.51, 5.51, 5.51); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

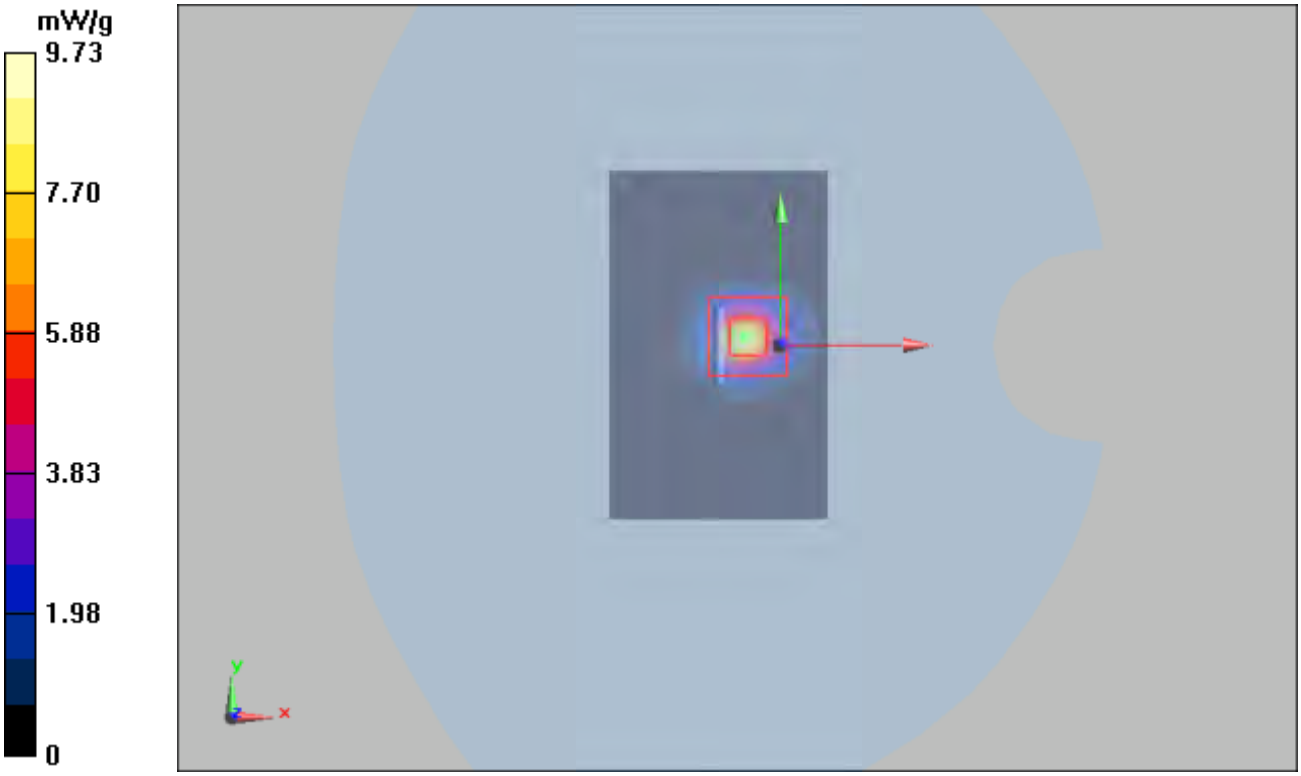
d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

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 13 System Performance Check at 5600 MHz TSL

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

Date: 2021/12/20

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

Medium parameters used: f = 5600 MHz; σ = 5.20 S/m; ε_r = 34.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(5.00, 5.00, 5.00); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

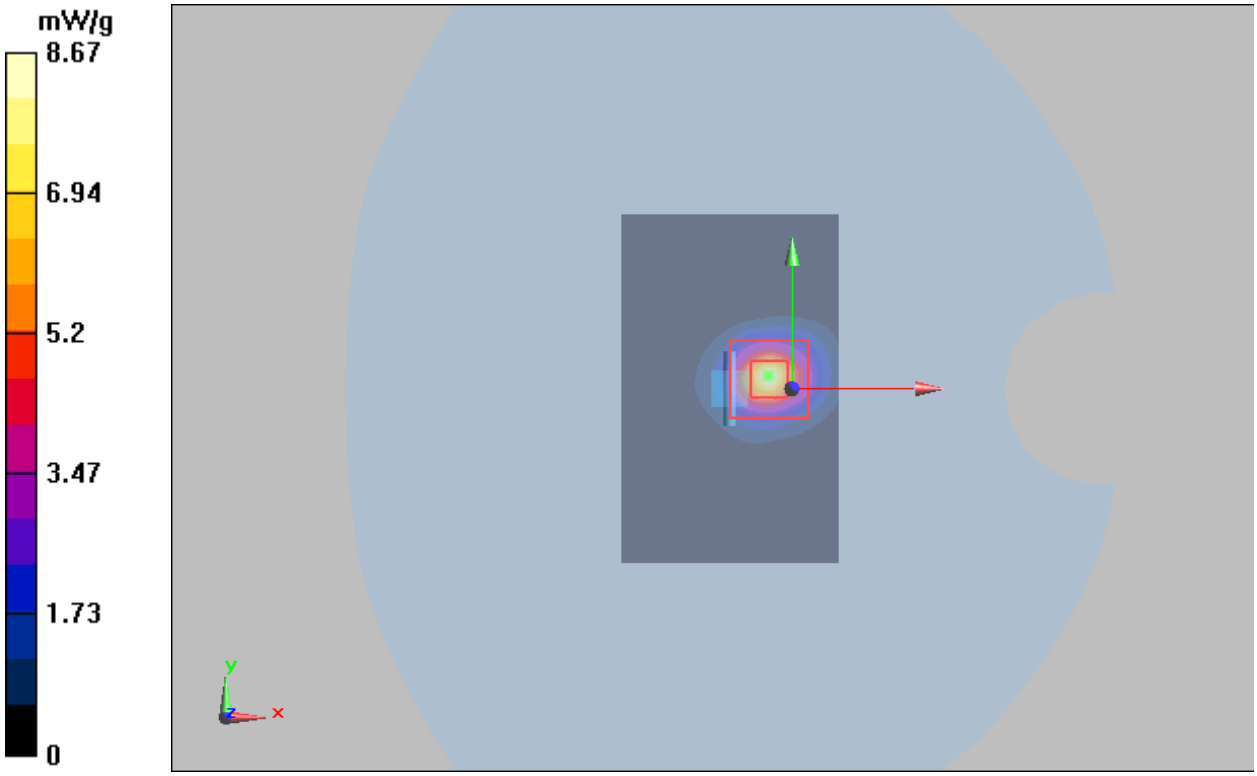
d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

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 14 System Performance Check at 5750 MHz TSL

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

Date: 2021/12/24

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

Medium parameters used: f = 5750 MHz; σ = 5.20 S/m; ε_r = 34.9; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(4.95, 4.95, 4.95); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

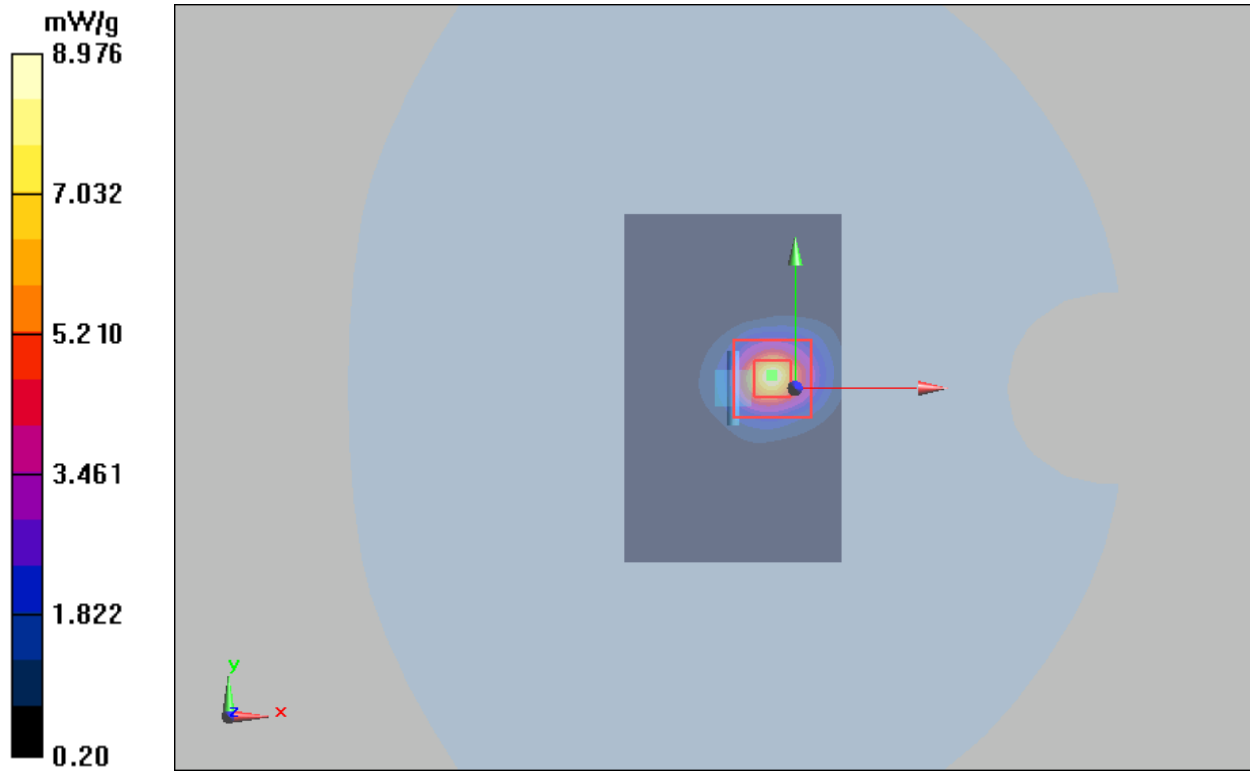
d=10mm, Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

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



ANNEX C: Highest Graph Results

Plot 15 GSM 850 Left Cheek Middle

Date: 2021/12/13

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

Medium parameters used: f = 836.6 MHz; σ = 0.923 S/m; ε_r = 42.201; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(10.15, 10.15, 10.15); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 0.583 W/kg

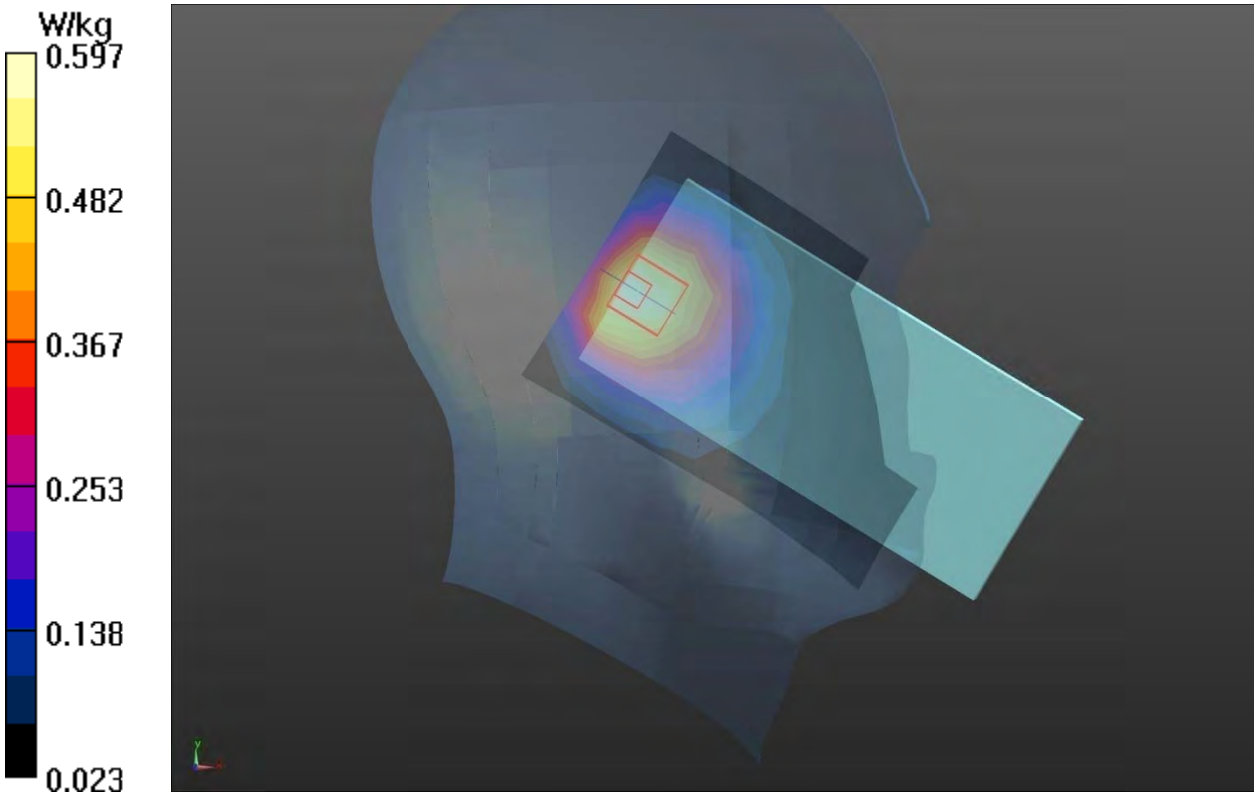
Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.73 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.962 W/kg

SAR(1 g) = 0.571 W/kg; SAR(10 g) = 0.380 W/kg

Maximum value of SAR (measured) = 0.597 W/kg



Plot 16 GSM 1900 Right Tilt Middle (Battery2)

Date: 2021/12/25

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

Medium parameters used: f = 1880 MHz; σ = 1.393 S/m; ε_r = 38.344; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.38, 8.38, 8.38); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 0.465 W/kg

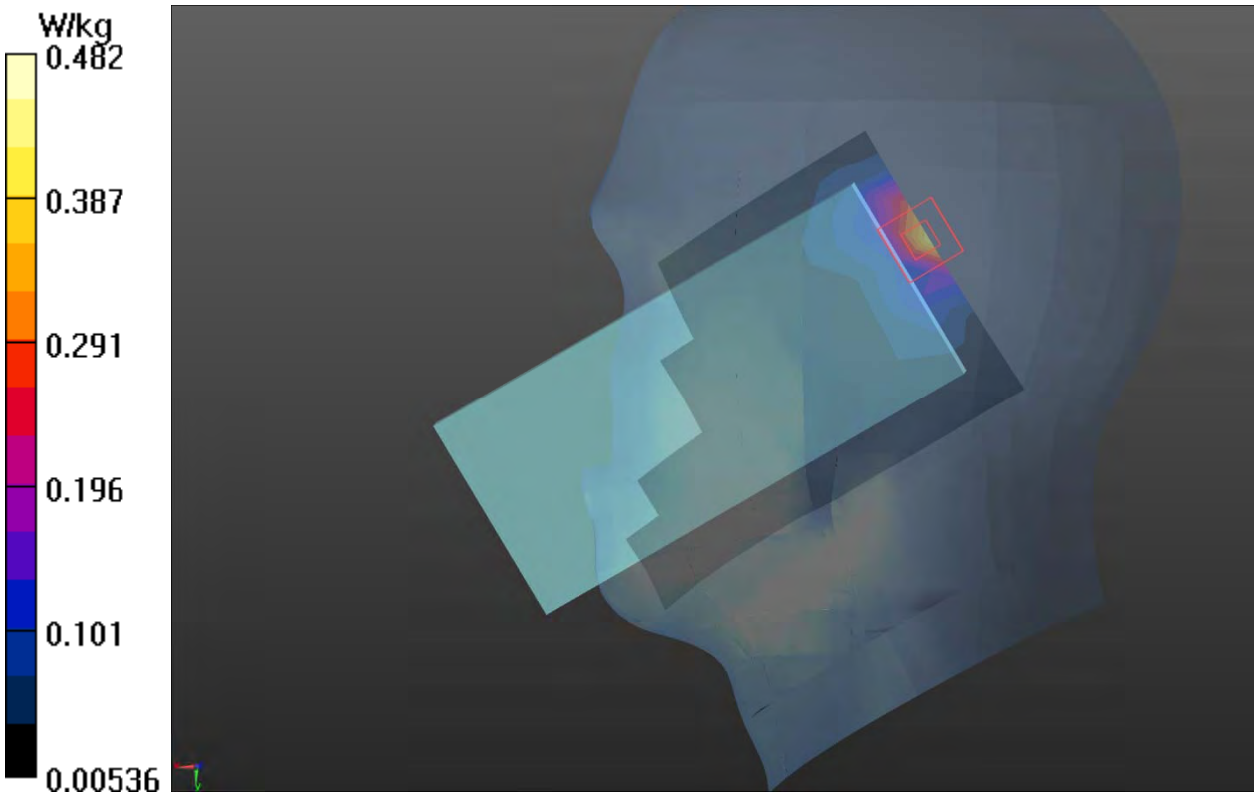
Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.355 V/m; Power Drift = 0.021 dB

Peak SAR (extrapolated) = 0.827 W/kg

SAR(1 g) = 0.462 W/kg; SAR(10 g) = 0.208 W/kg

Maximum value of SAR (measured) = 0.482 W/kg



Plot 17 UMTS Band II Right Tilt Middle

Date: 2021/12/25

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

Medium parameters used: f = 1880 MHz; σ = 1.393 S/m; ε_r = 38.344; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.38, 8.38, 8.38); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 0.550 W/kg

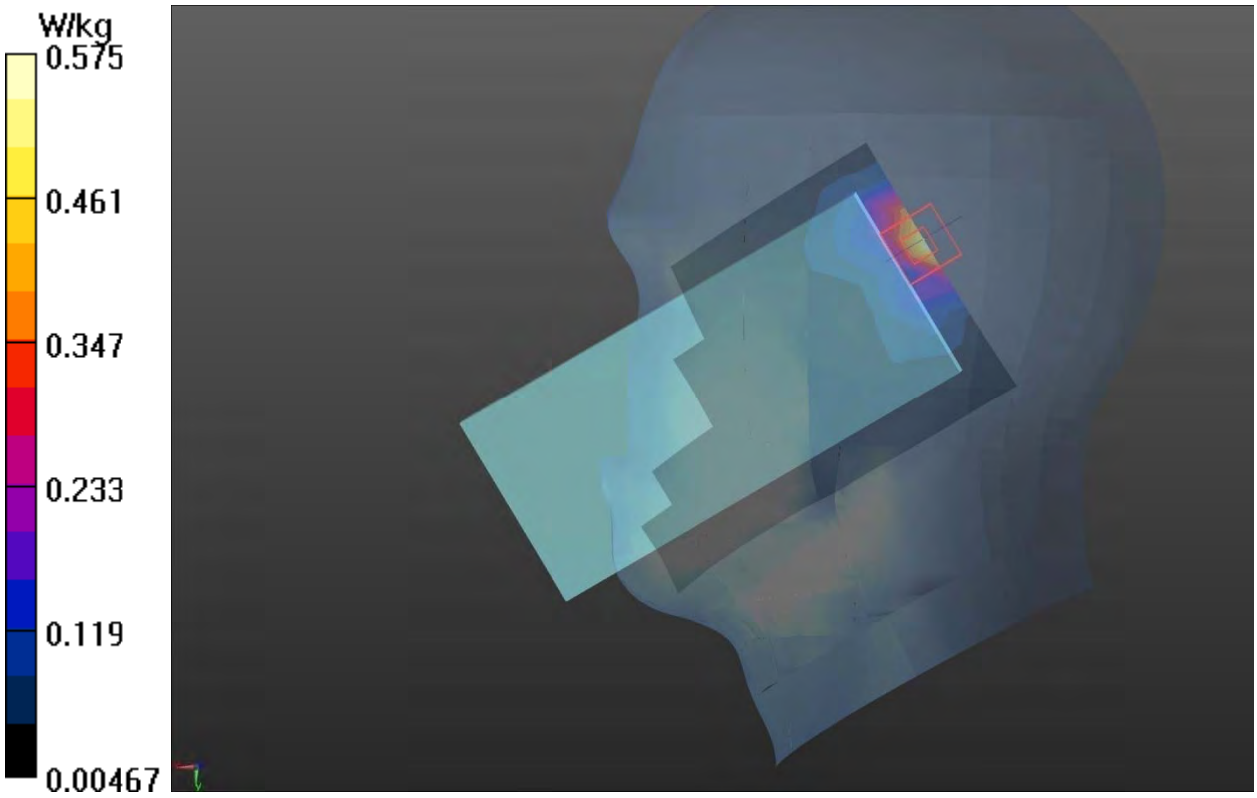
Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.20 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.530 W/kg; SAR(10 g) = 0.241 W/kg

Maximum value of SAR (measured) = 0.575 W/kg



Plot 18 UMTS Band IV Right Tilt Middle

Date: 2021/12/22

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

Medium parameters used: f = 1732.6 MHz; σ = 1.293 S/m; ε_r = 38.782; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.76, 8.76, 8.76); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 0.584 W/kg

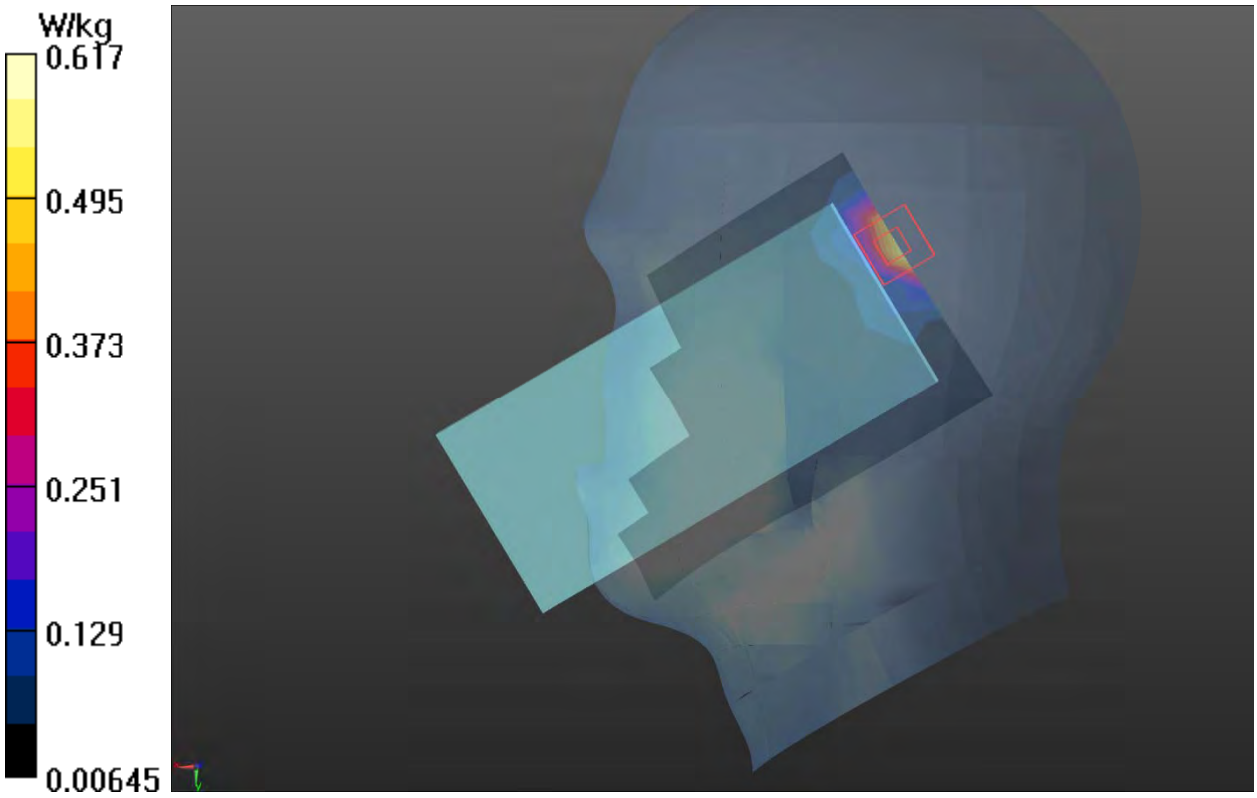
Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.614 V/m; Power Drift = 0.042 dB

Peak SAR (extrapolated) = 1.14 W/kg

SAR(1 g) = 0.560 W/kg; SAR(10 g) = 0.254 W/kg

Maximum value of SAR (measured) = 0.617 W/kg



Plot 19 UMTS Band V Right Tilt Middle

Date: 2021/12/13

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

Medium parameters used: f = 836.6 MHz; σ = 0.953 S/m; ε_r = 39.762; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(10.15, 10.15, 10.15); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 0.596 W/kg

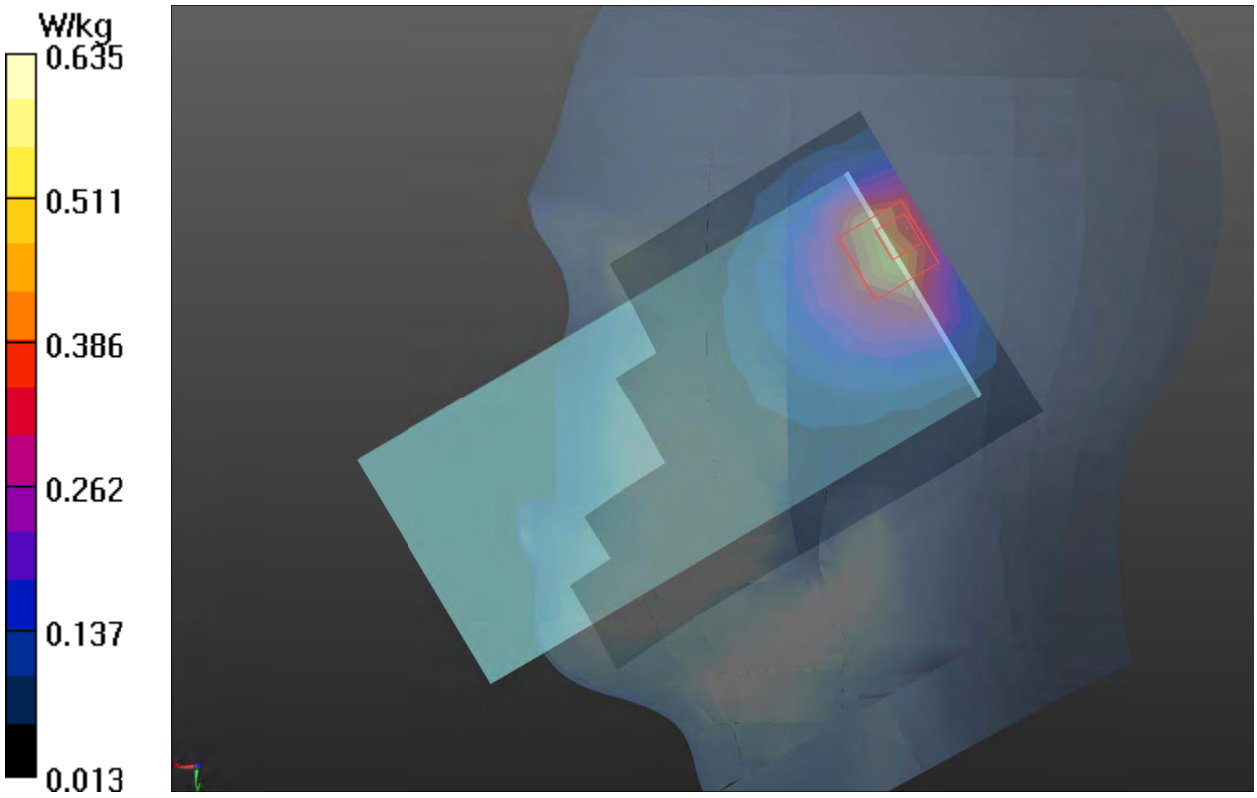
Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.64 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.591 W/kg; SAR(10 g) = 0.310 W/kg

Maximum value of SAR (measured) = 0.635 W/kg



Plot 20 LTE Band 2 1RB Right Tilt Middle (Battery2)

Date: 2021/12/25

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

Medium parameters used: f = 1880 MHz; σ = 1.407 S/m; ε_r = 39.071; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.38, 8.38, 8.38); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 0.656 W/kg

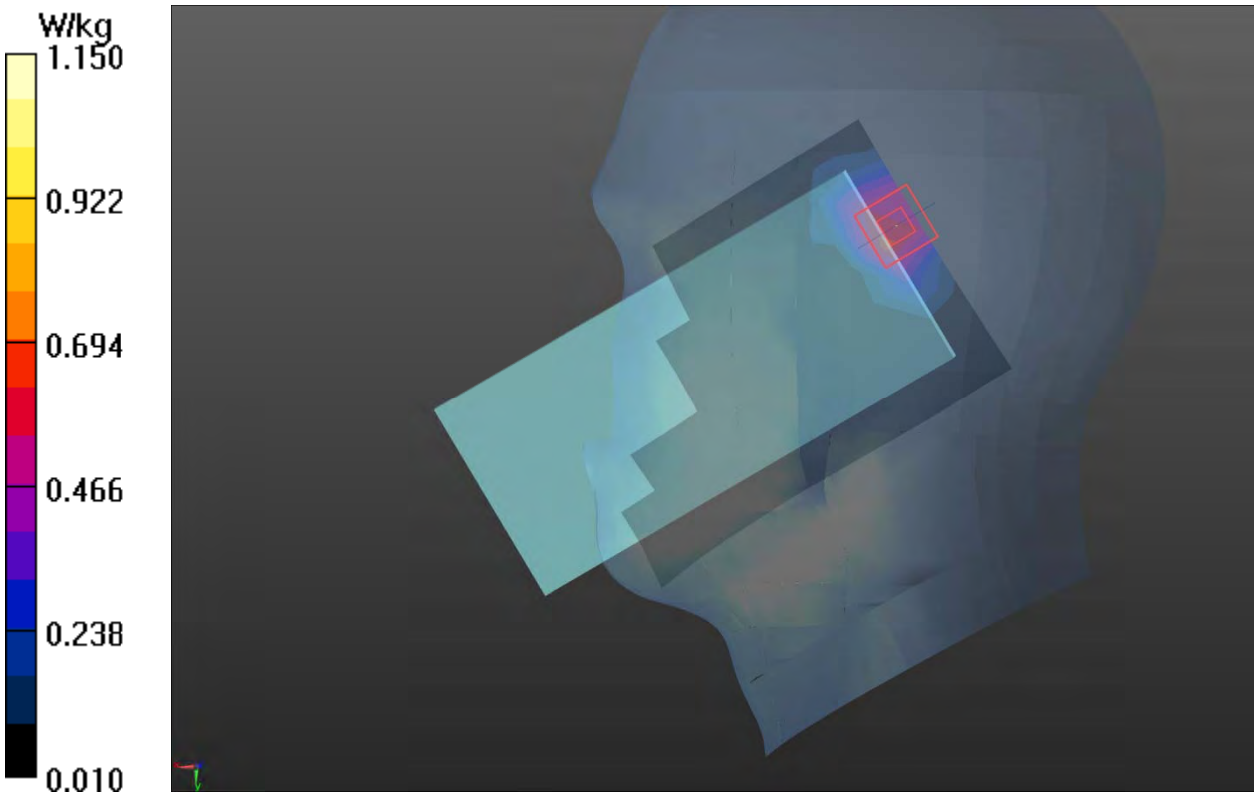
Right Tilt Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.05 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 2.04 W/kg

SAR(1 g) = 0.602 W/kg; SAR(10 g) = 0.268 W/kg

Maximum value of SAR (measured) = 1.15 W/kg



Plot 21 LTE Band 4 1RB Right Tilt High

Date: 2021/12/23

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

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.76, 8.76, 8.76); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 0.67 W/kg

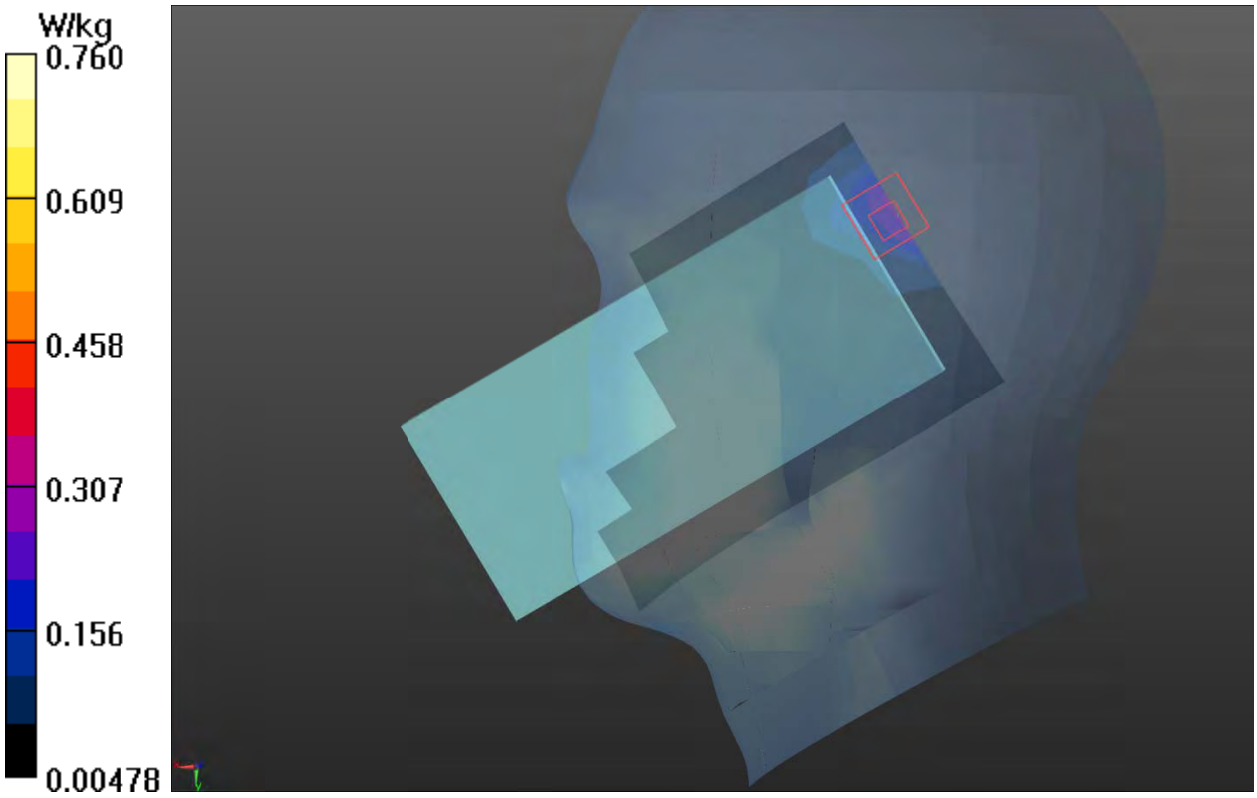
Right Tilt High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.166 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.611 W/kg

SAR(1 g) = 0.605 W/kg; SAR(10 g) = 0.268 W/kg

Maximum value of SAR (measured) = 0.76 W/kg



Plot 22 LTE Band 5 1RB Right Cheek High

Date: 2021/12/13

Communication System: UID 0, LTE (0); Frequency: 844 MHz;Duty Cycle: 1:1

Medium parameters used: f = 844 MHz; σ = 0.958 S/m; ε_r = 39.728; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(10.15, 10.15, 10.15); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 0.785 W/kg

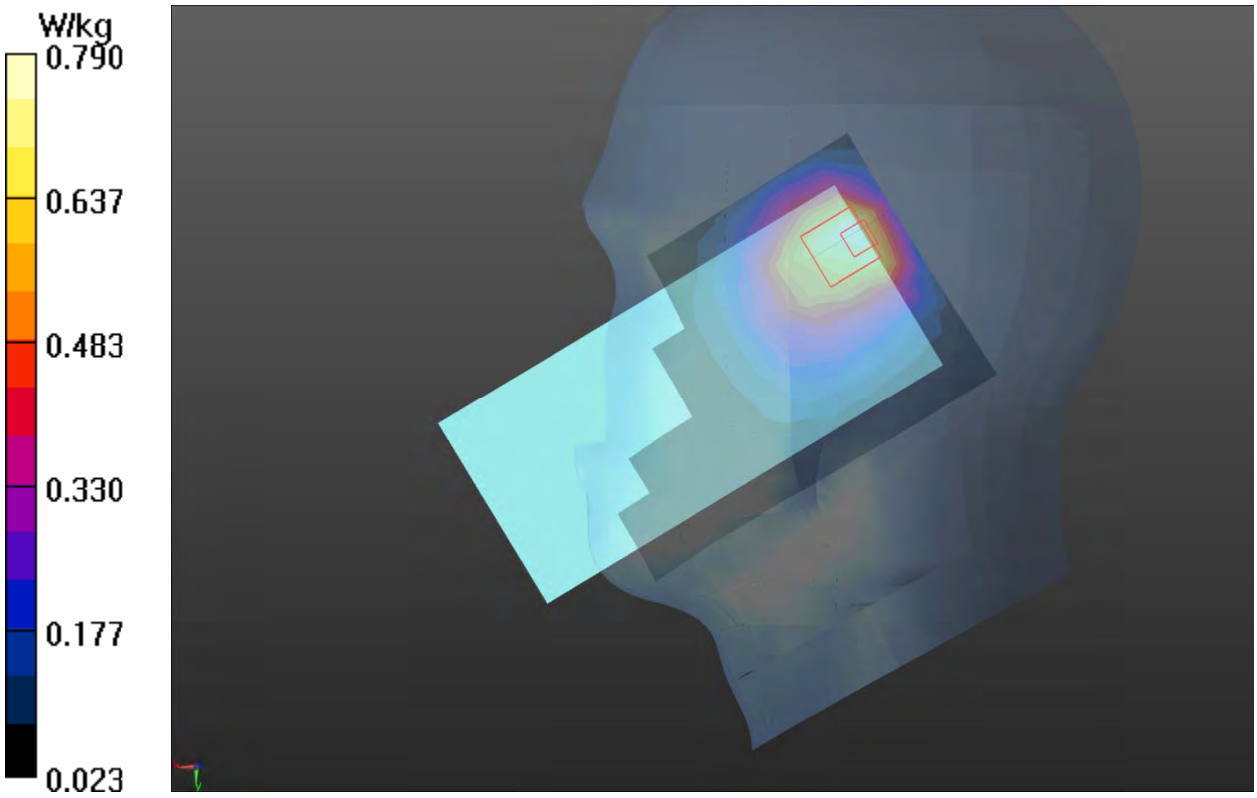
Right Cheek High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.74 V/m; Power Drift = 0.030 dB

Peak SAR (extrapolated) = 1.47 W/kg

SAR(1 g) = 0.768 W/kg; SAR(10 g) = 0.485 W/kg

Maximum value of SAR (measured) = 0.790 W/kg



Plot 23 LTE Band 7 1RB Right Cheek Middle (Battery2)

Date: 2021/12/15

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

Medium parameters used: f = 2535 MHz; σ = 1.94 S/m; ε_r = 37.31; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 0.756 W/kg

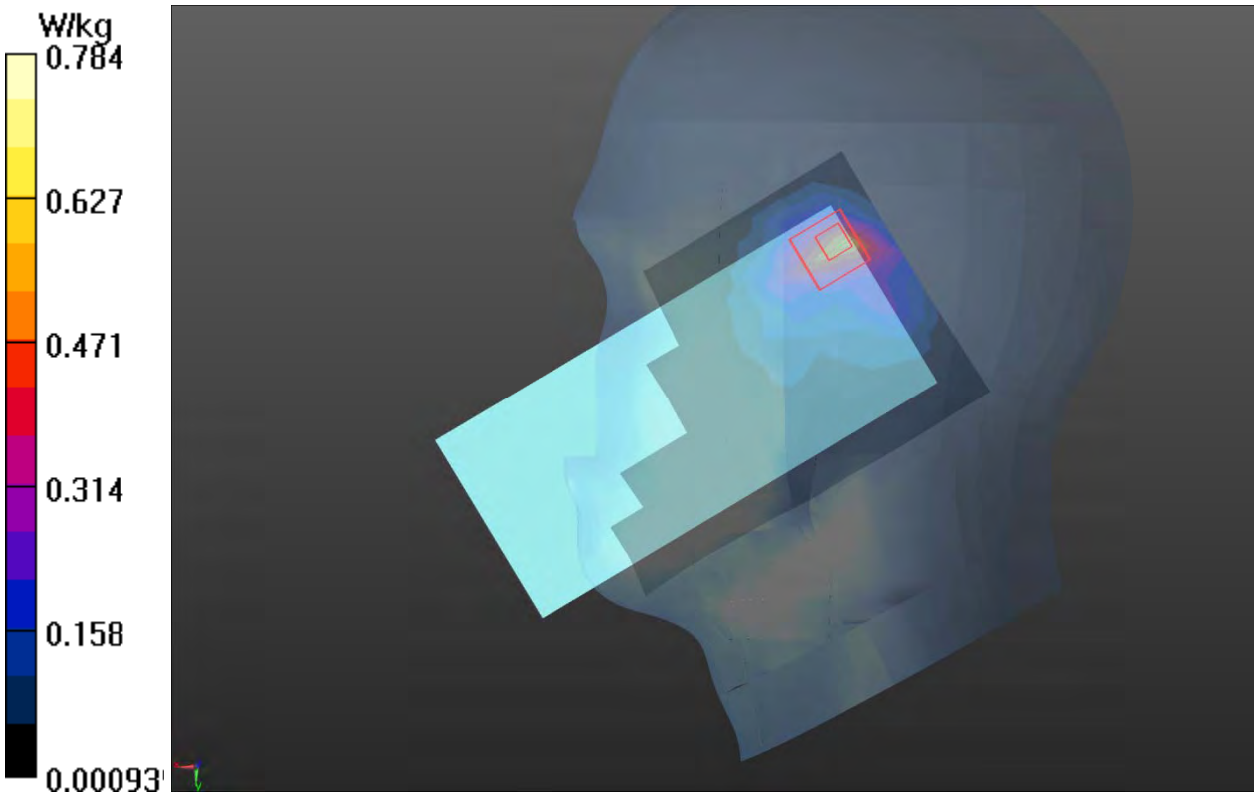
Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 11.30 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.25 W/kg

SAR(1 g) = 0.684 W/kg; SAR(10 g) = 0.315 W/kg

Maximum value of SAR (measured) = 0.784 W/kg



Plot 24 LTE Band 38 50%RB Right Tilt Low

Date: 2021/12/15

Communication System: UID 0, LTE (0); Frequency: 2580 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2580 MHz; σ = 1.995 S/m; ε_r = 37.164; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 0.586 W/kg

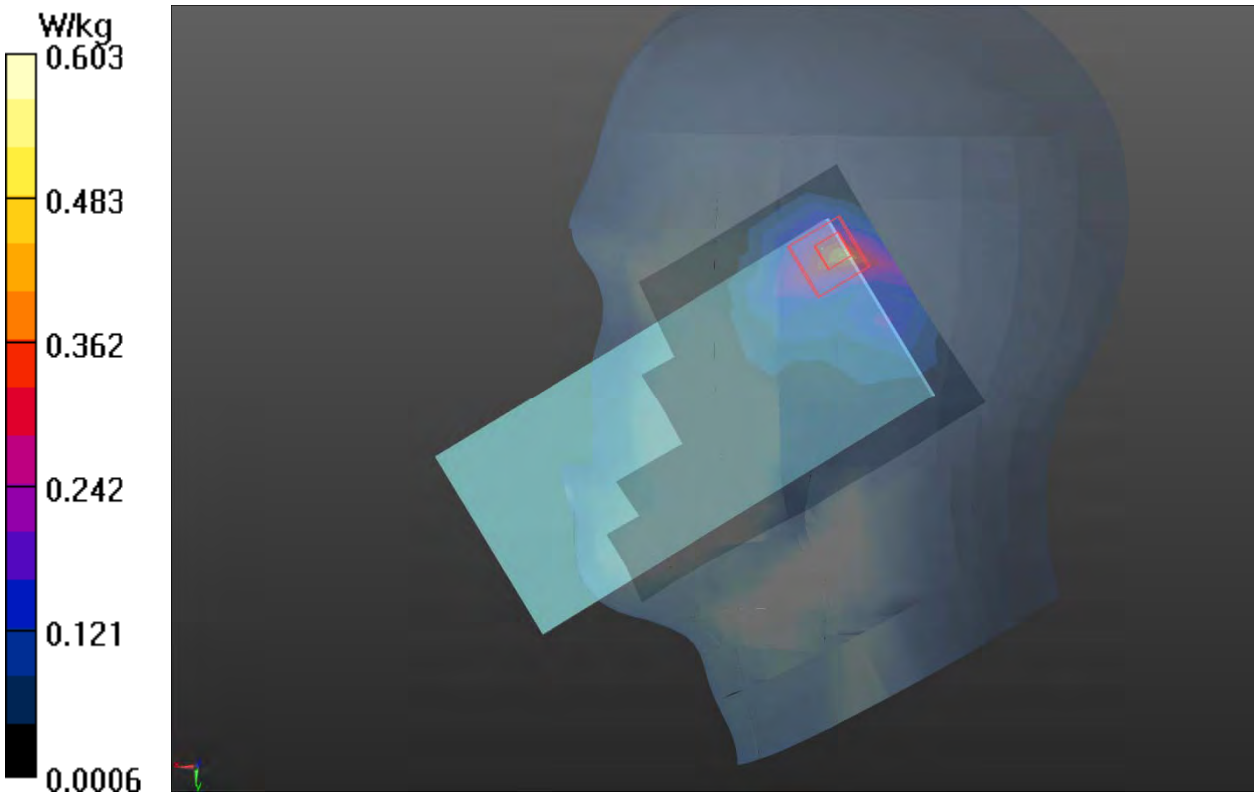
Right Tilt Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.420 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.899 W/kg

SAR(1 g) = 0.576 W/kg; SAR(10 g) = 0.244 W/kg

Maximum value of SAR (measured) = 0.603 W/kg



Plot 25 LTE Band 41 1RB Right Tilt Middle

Date: 2021/12/15

Communication System: UID 0, LTE (0); Frequency: 2598 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2598 MHz; σ = 2.014 S/m; ε_r = 37.1; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Right Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 0.684 W/kg

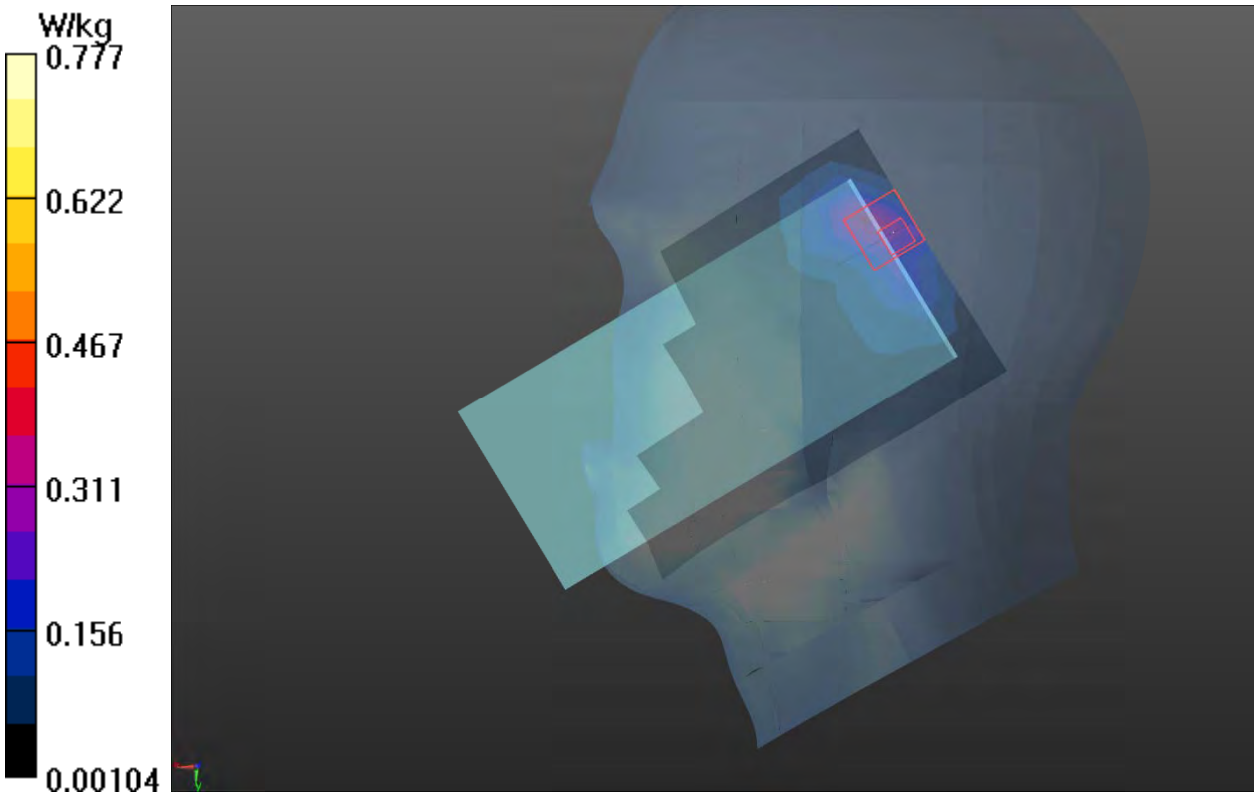
Right Tilt Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.71 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.972 W/kg

SAR(1 g) = 0.569 W/kg; SAR(10 g) = 0.237 W/kg

Maximum value of SAR (measured) = 0.777 W/kg



Plot 26 802.11b Left Cheek Low

Date: 2021/12/27

Communication System: UID 0, 802.11b (0); Frequency: 2412 MHz;Duty Cycle: 1:1.02

Medium parameters used: f = 2412 MHz; σ = 1.801 S/m; ε_r = 37.737; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.01, 8.01, 8.01); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 0.617 W/kg

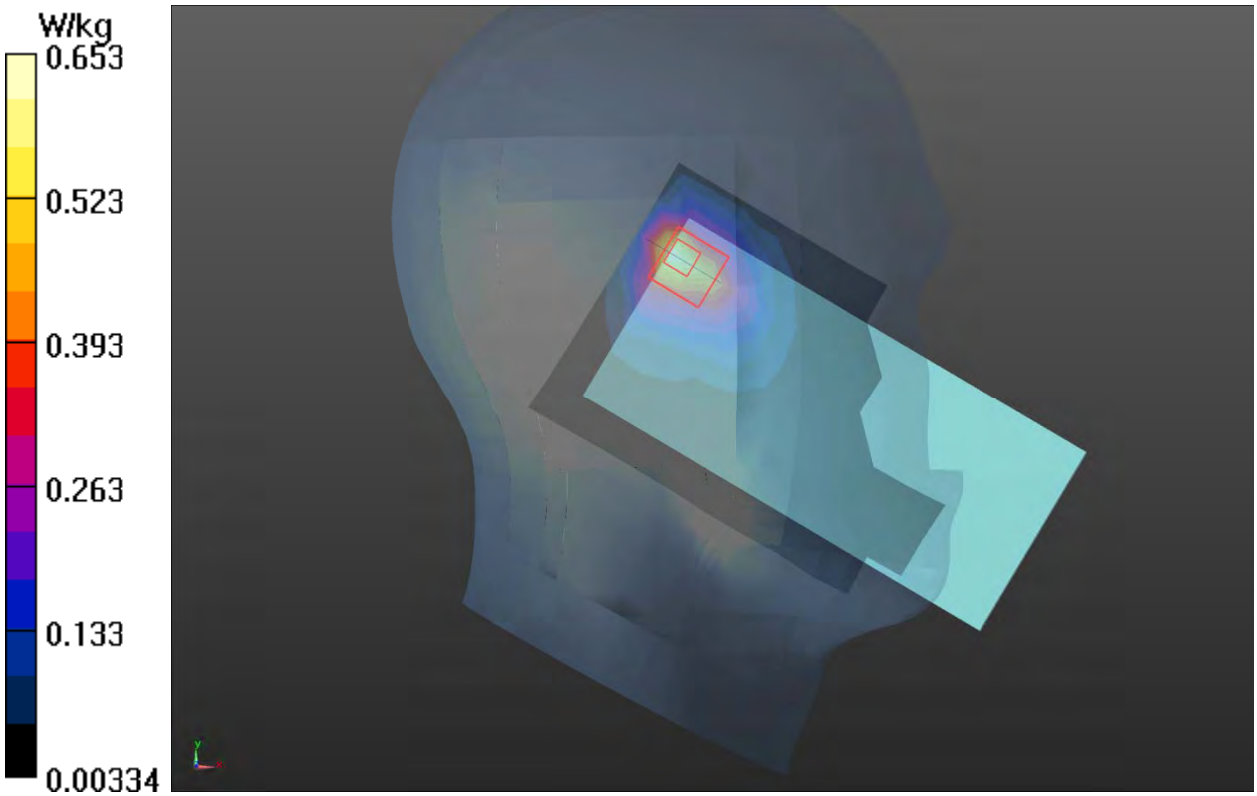
Left Cheek Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.670 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.931 W/kg

SAR(1 g) = 0.349 W/kg; SAR(10 g) = 0.17 W/kg

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



Plot 27 802.11a U-NII-2C Left Tilt Middle (Battery2)

Date: 2021/12/20

Communication System: UID 0, 802.11a (0); Frequency: 5660 MHz;Duty Cycle: 1:1.03

Medium parameters used: f = 5660 MHz; σ = 5.32 S/m; ε_r = 35.834; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(5.00, 5.00, 5.00); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

Left Tilt Middle/Area Scan (12x21x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.603 W/kg

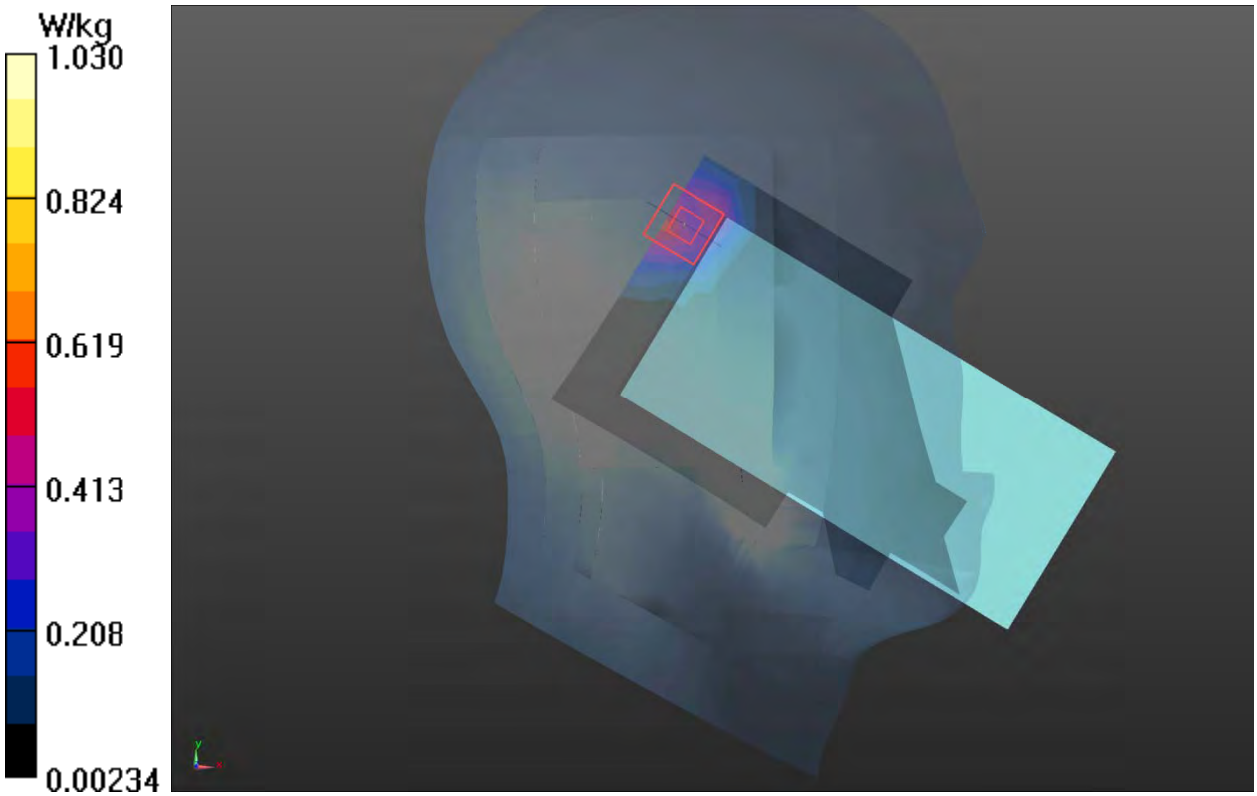
Left/Tilt Middle/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 0 V/m; Power Drift = 0 dB

Peak SAR (extrapolated) = 1.92 W/kg

SAR(1 g) = 0.438 W/kg; SAR(10 g) = 0.146 W/kg

Maximum value of SAR (measured) = 1.03 W/kg



Plot 28 Bluetooth Left Cheek Middle

Date: 2021/12/27

Communication System: UID 0, BT (0); Frequency: 2441 MHz;Duty Cycle: 1:1.30

Medium parameters used: f = 2441 MHz; σ = 1.834 S/m; ε_r = 37.585; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Left Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.01, 8.01, 8.01); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

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

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

Maximum value of SAR (measured) = 0.113 W/kg

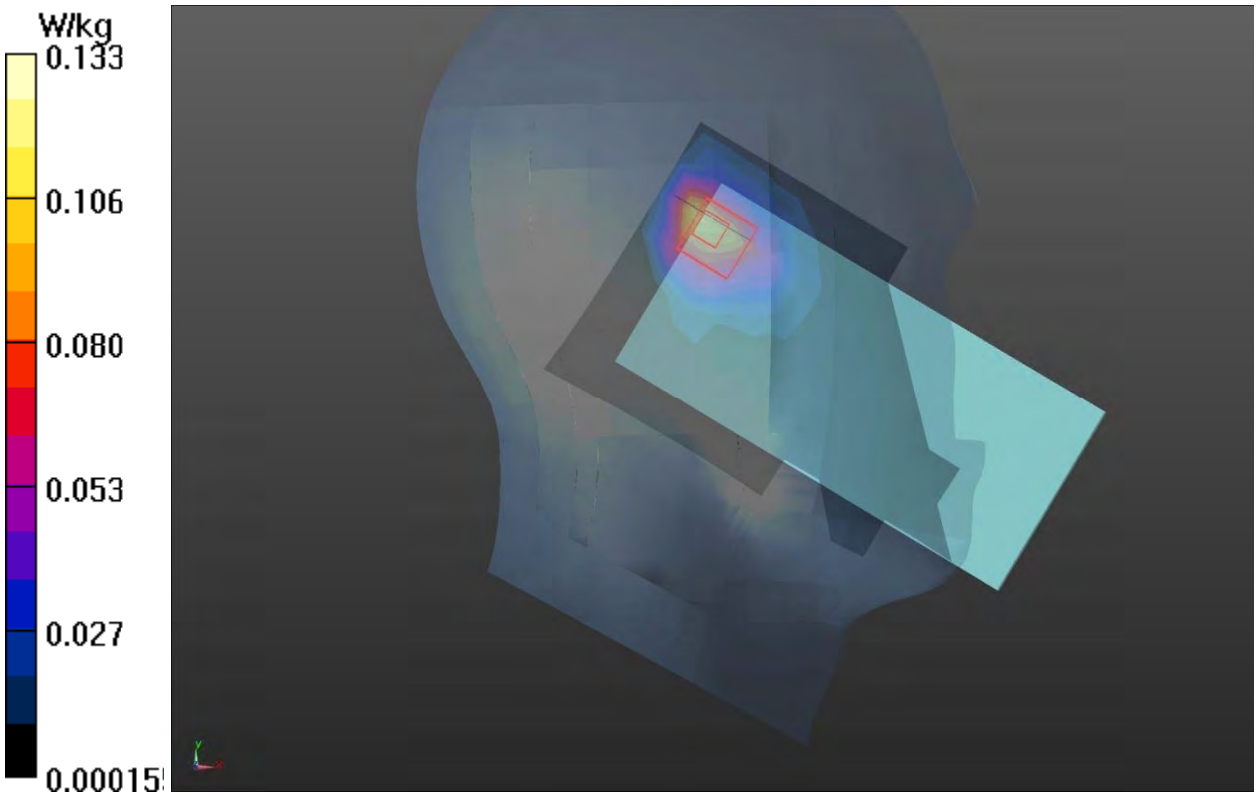
Left Cheek Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.341 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.178 W/kg

SAR(1 g) = 0.07 W/kg; SAR(10 g) = 0.035 W/kg

Maximum value of SAR (measured) = 0.133 W/kg



Plot 29 GSM 850 GPRS (4Txslots) Back Side Middle (Distance 10mm)

Date: 2021/12/14

Communication System: UID 0, GPRS 4TX (0); Frequency: 836.6 MHz;Duty Cycle: 1:2.07

Medium parameters used: f = 836.6 MHz; σ = 0.953 S/m; ε_r = 39.762; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(10.15, 10.15, 10.15); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 0.389 W/kg

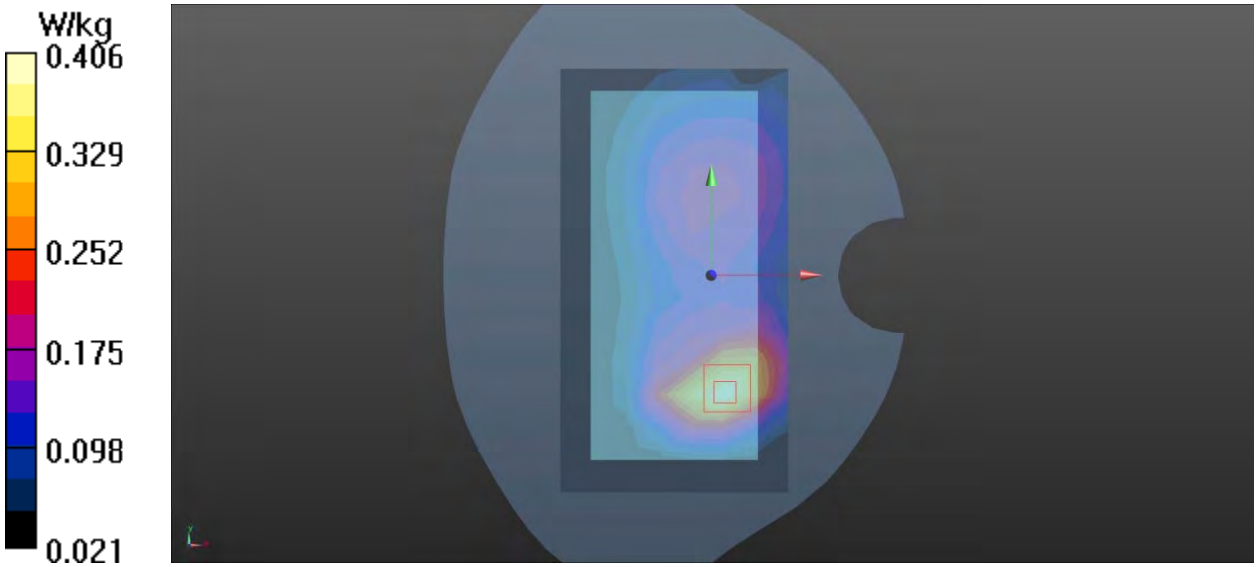
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.63 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 0.638 W/kg

SAR(1 g) = 0.378 W/kg; SAR(10 g) = 0.229 W/kg

Maximum value of SAR (measured) = 0.406 W/kg



Plot 30 GSM 1900 GPRS (4Txslots) Bottom Edge Middle (Distance 10mm, Battery2)

Date: 2021/12/26

Communication System: UID 0, GPRS 4TX (0); Frequency: 1880 MHz;Duty Cycle: 1:2.07

Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.38, 8.38, 8.38); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 0.544 W/kg

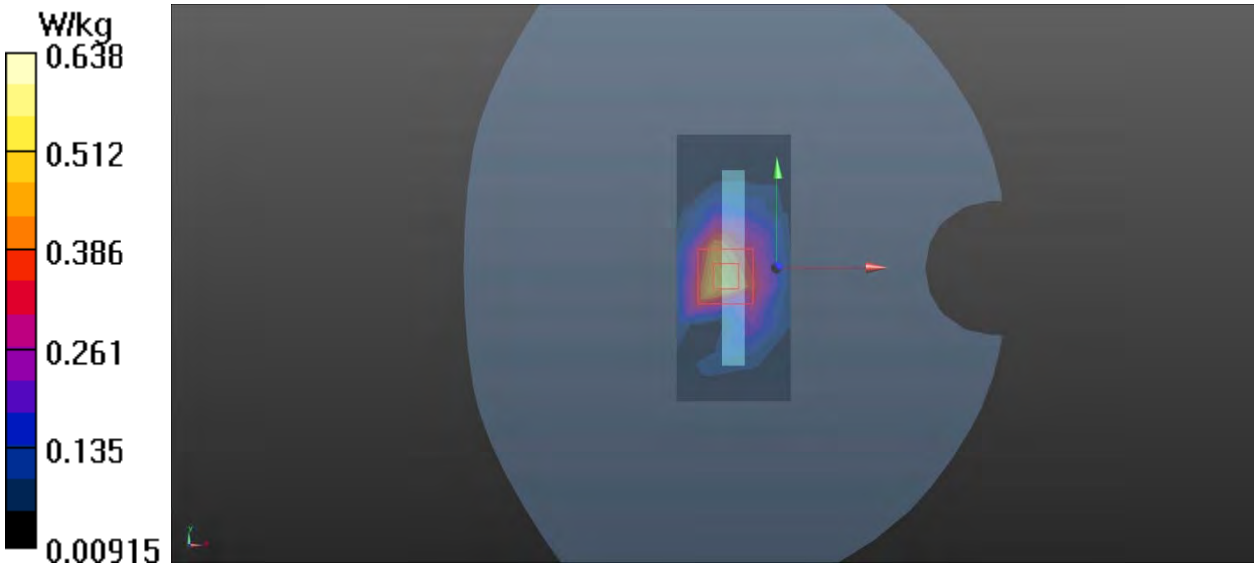
Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.44 V/m; Power Drift = 0.011 dB

Peak SAR (extrapolated) = 0.767 W/kg

SAR(1 g) = 0.468 W/kg; SAR(10 g) = 0.235 W/kg

Maximum value of SAR (measured) = 0.638 W/kg



Plot 31 UMTS Band II Bottom Edge Middle (Distance 10mm Battery2)

Date: 2021/12/26

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

Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.38, 8.38, 8.38); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 0.747 W/kg

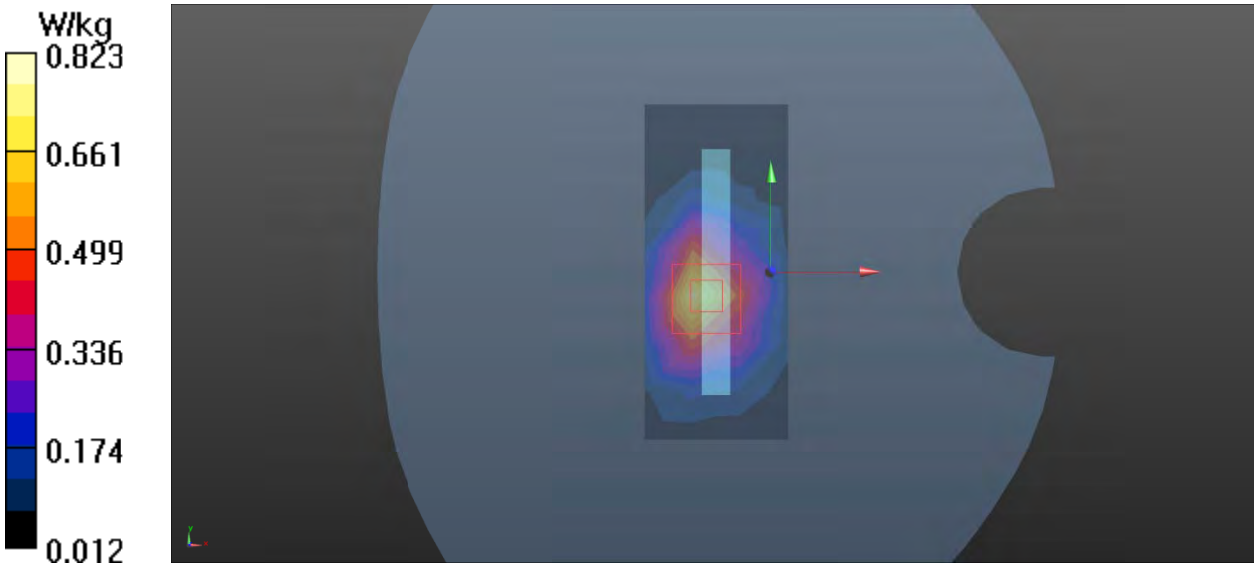
Bottom Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.03 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.970 W/kg

SAR(1 g) = 0.549 W/kg; SAR(10 g) = 0.296 W/kg

Maximum value of SAR (measured) = 0.823 W/kg



Plot 32 UMTS Band IV Top Edge Middle (Distance 10mm)

Date: 2021/12/22

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

Medium parameters used: f = 1732.6 MHz; σ = 1.312 S/m; ε_r = 39.365; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.76, 8.76, 8.76); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 0.834 W/kg

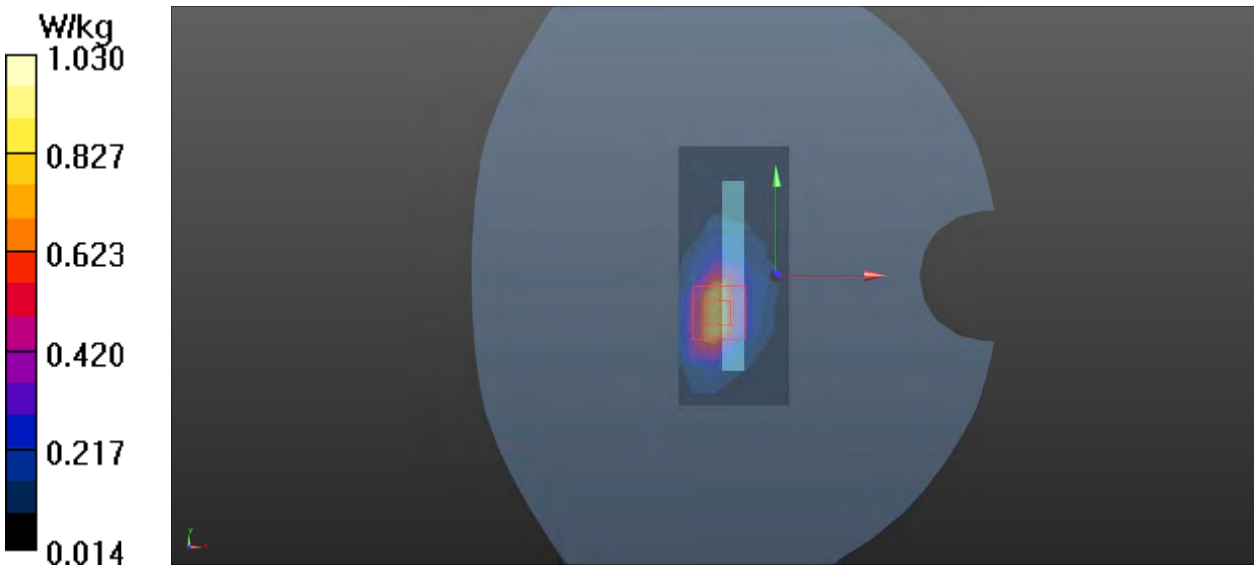
Top Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.30 V/m; Power Drift = 0.044 dB

Peak SAR (extrapolated) = 1.23 W/kg

SAR(1 g) = 0.616 W/kg; SAR(10 g) = 0.289 W/kg

Maximum value of SAR (measured) = 1.03 W/kg



Plot 33 UMTS Band V Back Side Middle (Distance 10mm Battery2)

Date: 2021/12/14

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

Medium parameters used: f = 836.6 MHz; σ = 0.953 S/m; ε_r = 39.762; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

S Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(10.15, 10.15, 10.15); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 0.382 W/kg

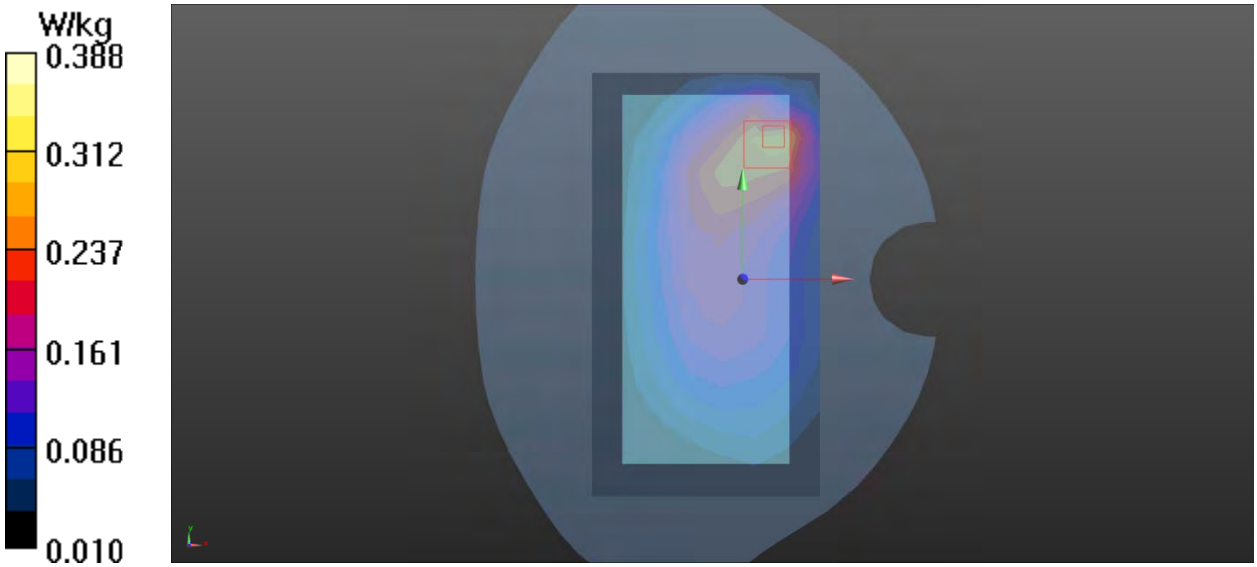
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.40 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 0.419 W/kg

SAR(1 g) = 0.364 W/kg; SAR(10 g) = 0.204 W/kg

Maximum value of SAR (measured) = 0.388 W/kg



Plot 34 LTE Band 2 1RB Bottom Edge Low (Distance 10mm Battery2)

Date: 2021/12/26

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

Medium parameters used: f = 1860 MHz; σ = 1.407 S/m; ε_r = 39.071; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.38, 8.38, 8.38); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 0.790 W/kg

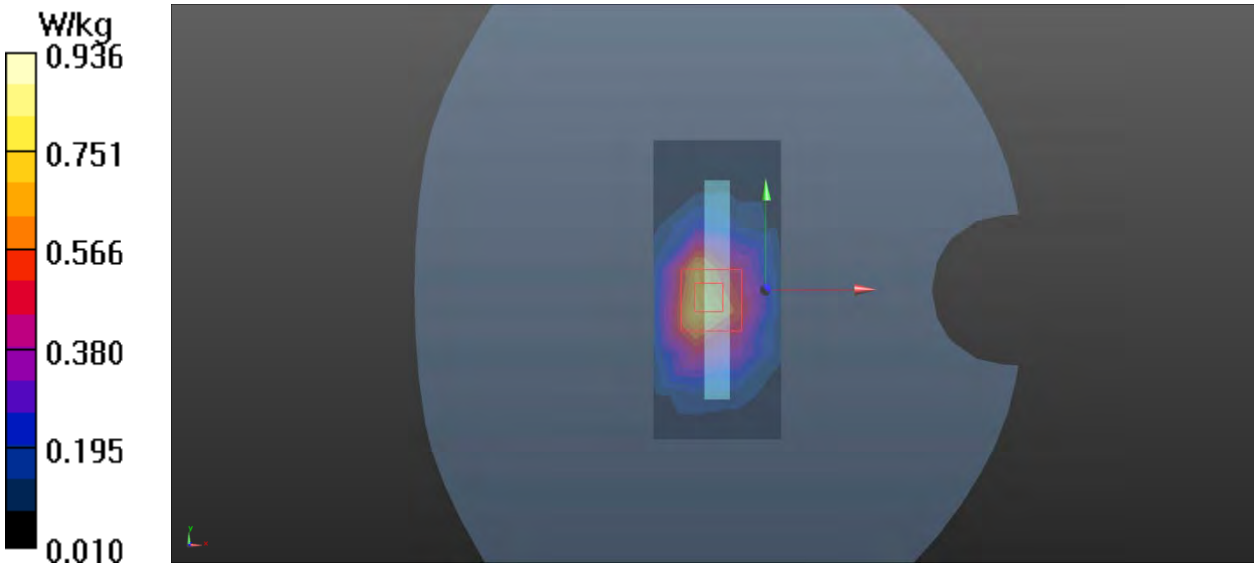
Bottom Edge Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.48 V/m; Power Drift = 0.023 dB

Peak SAR (extrapolated) = 1.12 W/kg

SAR(1 g) = 0.627 W/kg; SAR(10 g) = 0.342 W/kg

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



Plot 35 LTE Band 4 1RB Top Edge High (Distance 10mm)

Date: 2021/12/23

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

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.76, 8.76, 8.76); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

Top Edge High/Area Scan (4x10x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.13 W/kg

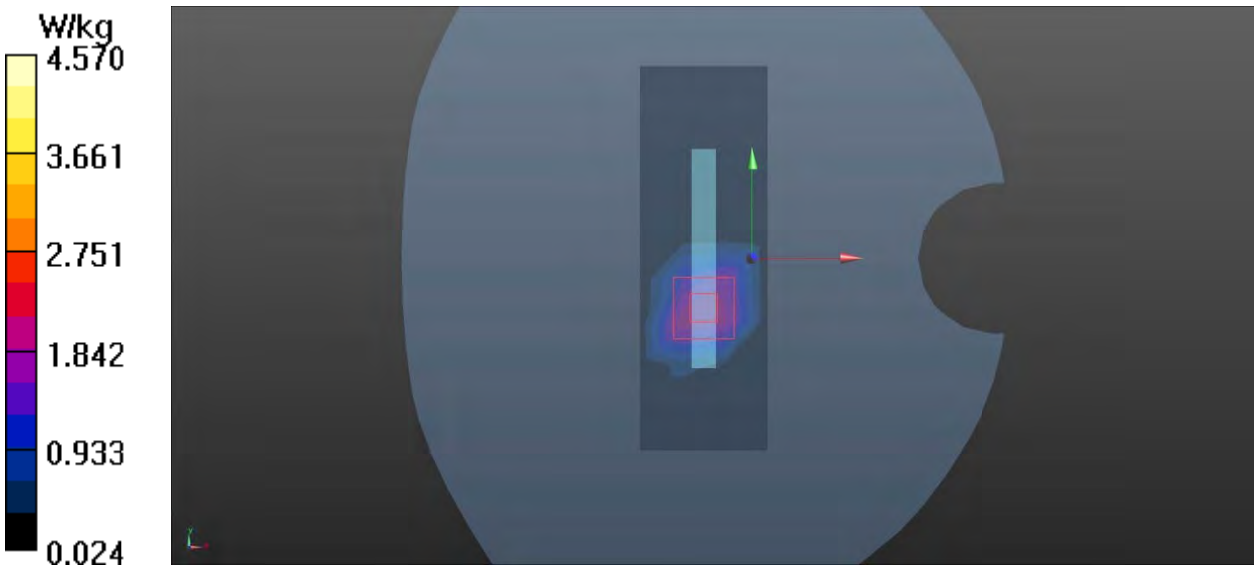
Top Edge High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 38.12 V/m; Power Drift = -0.019 dB

Peak SAR (extrapolated) = 9.06 W/kg

SAR(1 g) = 0.58 W/kg; SAR(10 g) = 0.283 W/kg

Maximum value of SAR (measured) = 4.57 W/kg



Plot 36 LTE Band 5 1RB Back Side Middle (Distance 10mm)

Date: 2021/12/14

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

Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.953 S/m; ε_r = 39.767; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(10.15, 10.15, 10.15); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 0.347 W/kg

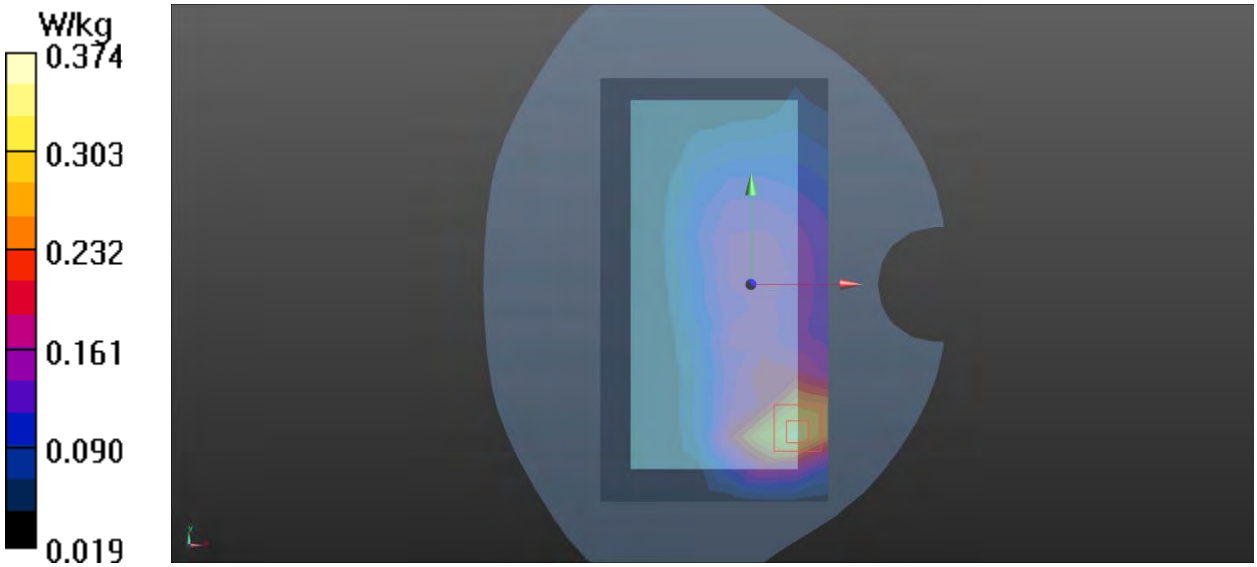
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.95 V/m; Power Drift = 0.025 dB

Peak SAR (extrapolated) = 0.567 W/kg

SAR(1 g) = 0.345 W/kg; SAR(10 g) = 0.210 W/kg

Maximum value of SAR (measured) = 0.374 W/kg



Plot 37 LTE Band 7 50%RB Bottom Edge Low (Distance 10mm Battery2)

Date: 2021/12/17

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

Medium parameters used: f = 2510 MHz; σ = 1.866 S/m; ε_r = 40.379; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

Bottom Edge Low/Area Scan (5x10x1): Measurement grid: dx=12mm, dy=12mm

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

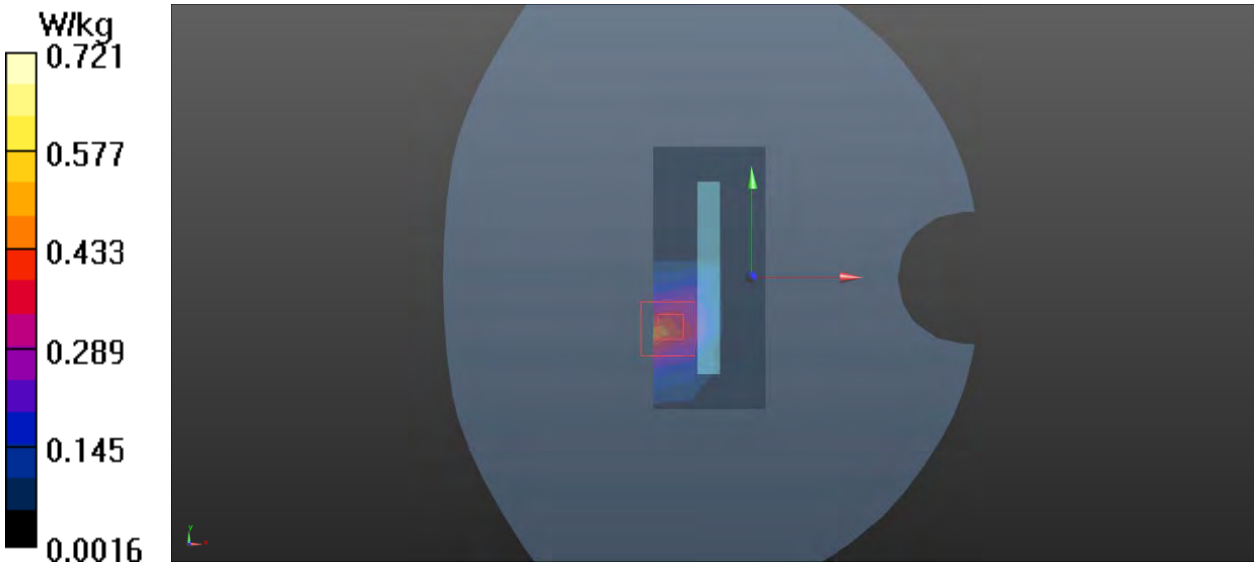
Bottom Edge Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm dz=5mm

Reference Value = 5.380 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.52 W/kg

SAR(1 g) = 0.662 W/kg; SAR(10 g) = 0.275 W/kg

Maximum value of SAR (measured) = 0.721 W/kg



Plot 38 LTE Band 38 1RB Bottom Edge High (Distance 10mm)

Date: 2021/12/17

Communication System: UID 0, LTE (0); Frequency: 2610 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2610 MHz; σ = 2.027 S/m; ε_r = 37.056; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

Bottom Edge High/Area Scan (5x10x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 0.690 W/kg

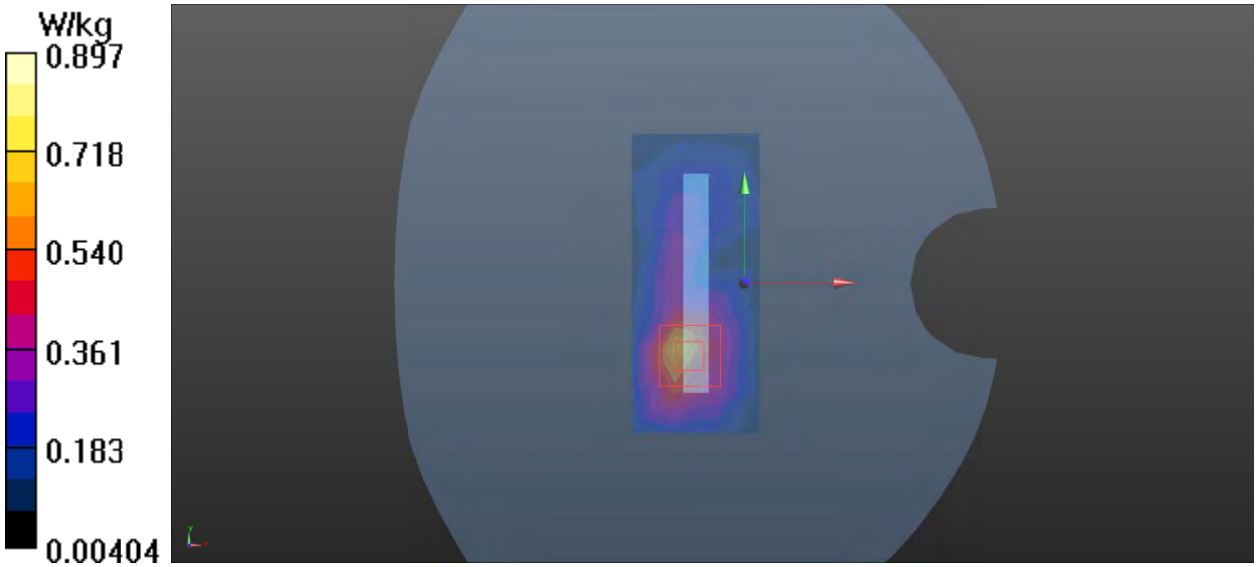
Bottom Edge High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.655 V/m; Power Drift = 0.034 dB

Peak SAR (extrapolated) = 1.11 W/kg

SAR(1 g) = 0.533 W/kg; SAR(10 g) = 0.247 W/kg

Maximum value of SAR (measured) = 0.897 W/kg



Plot 39 LTE Band 41 1RB Back Side High (Distance 10mm)

Date: 2021/12/17

Communication System: UID 0, LTE (0); Frequency: 2645 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2645 MHz; σ = 2.063 S/m; ε_r = 36.918; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 0.666 W/kg

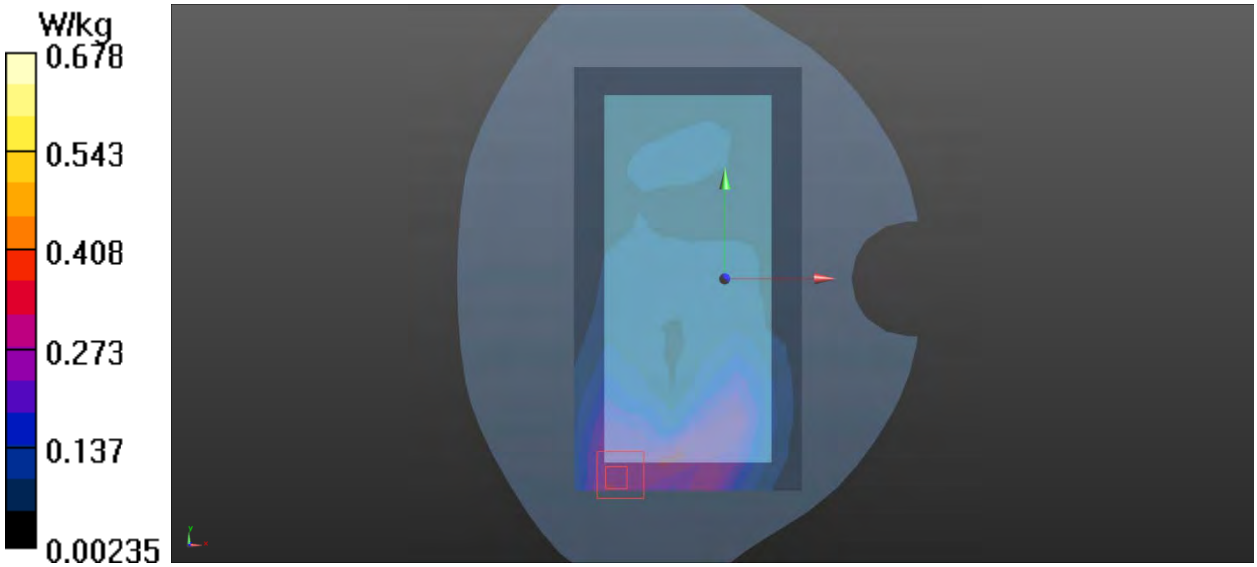
Back Side High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.119 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 0.761 W/kg

SAR(1 g) = 0.479 W/kg; SAR(10 g) = 0.227 W/kg

Maximum value of SAR (measured) = 0.678 W/kg



Plot 40 802.11b Back Side Low (Distance 10mm Battery2)

Date: 2021/12/27

Communication System: UID 0, 802.11b (0); Frequency: 2412 MHz;Duty Cycle: 1:1.02

Medium parameters used: f = 2412 MHz; σ = 1.801 S/m; ε_r = 37.737; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.01, 8.01, 8.01); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 1.12 W/kg

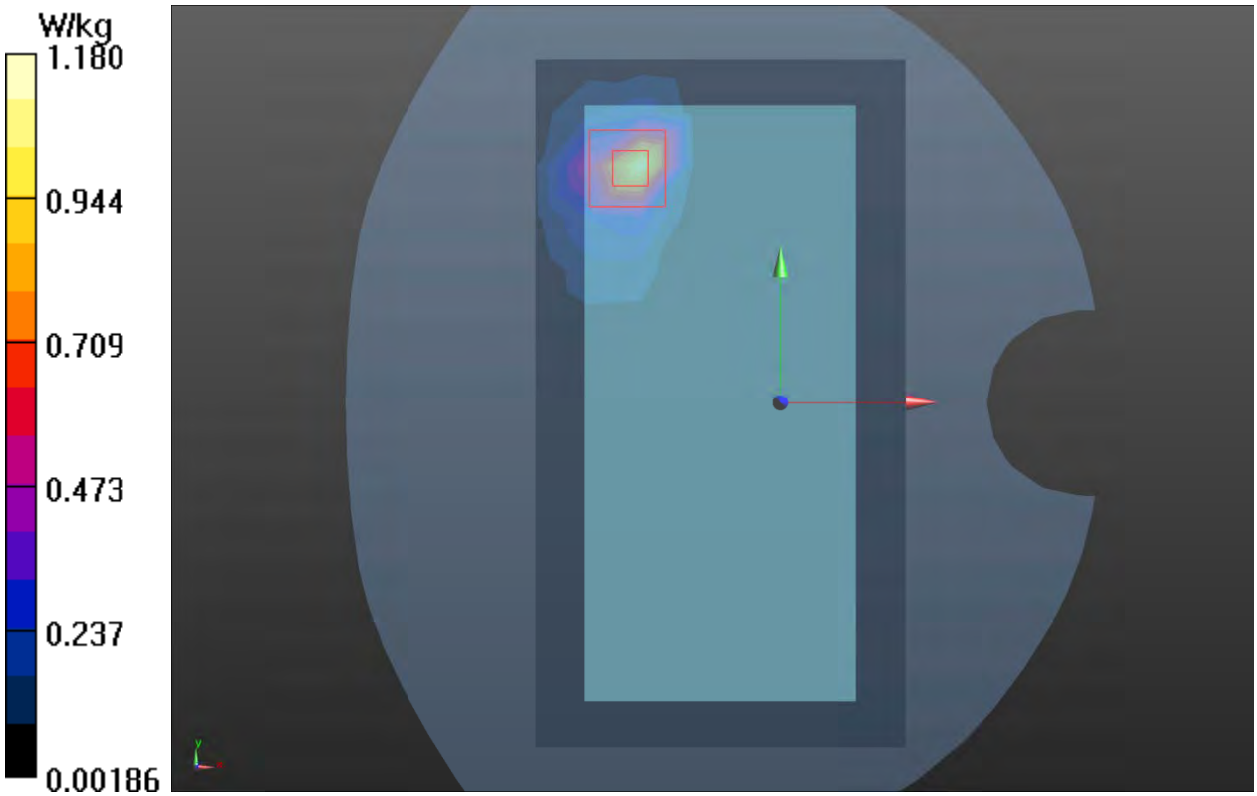
Back Side Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.007 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 2.63 W/kg

SAR(1 g) = 0.326 W/kg; SAR(10 g) = 0.152 W/kg

Maximum value of SAR (measured) = 1.18 W/kg



Plot 41 802.11a U-NII-1 Back Side Middle (Distance 10mm)

Date: 2021/12/19

Communication System: UID 0, 802.11a (0); Frequency: 5200 MHz;Duty Cycle: 1:1.02

Medium parameters used: f = 5200 MHz; σ = 4.713 S/m; ε_r = 37.042; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(5.51, 5.51, 5.51); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

Back Side Middle/Area Scan (12x21x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.12 W/kg

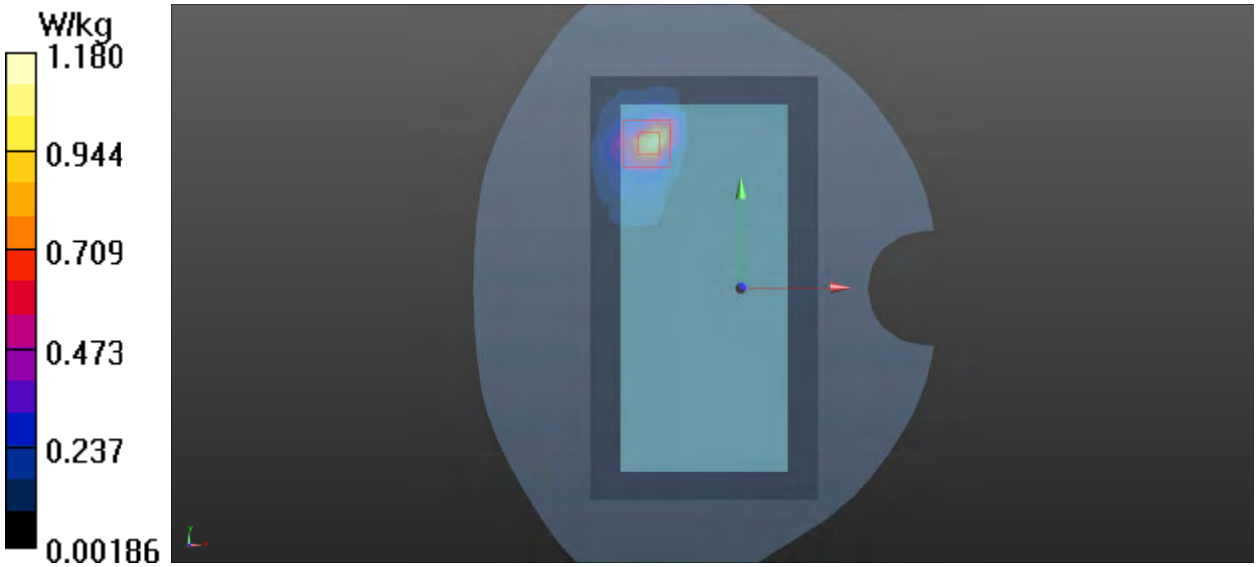
Back Side Middle/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 1.007 V/m; Power Drift = -0.080 dB

Peak SAR (extrapolated) = 2.63 W/kg

SAR(1 g) = 0.542 W/kg; SAR(10 g) = 0.183 W/kg

Maximum value of SAR (measured) = 1.18 W/kg



Plot 42 Bluetooth Top Edge Middle (Distance 10mm)

Date: 2021/12/27

Communication System: UID 0, BT (0); Frequency: 2441 MHz;Duty Cycle: 1:1.30

Medium parameters used: f = 2441 MHz; σ = 1.861 S/m; ε_r = 40.871; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.01, 8.01, 8.01); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

Phantom: SAM 1; Type: QD000P40CD; Serial: TP:1666

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) = 0.123 W/kg

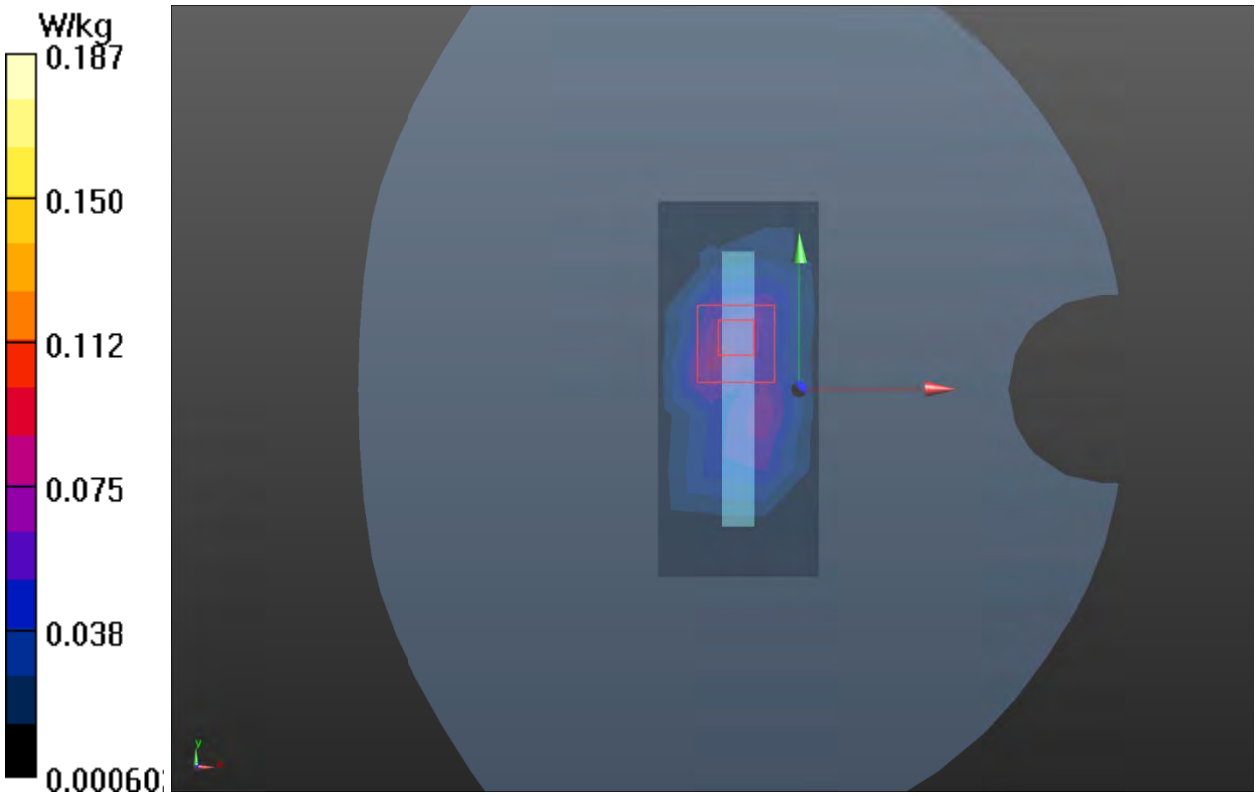
Top Edge Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.573 V/m; Power Drift = 0.025 dB

Peak SAR (extrapolated) = 0.448 W/kg

SAR(1 g) = 0.093 W/kg; SAR(10 g) = 0.045 W/kg

Maximum value of SAR (measured) = 0.187 W/kg



Plot 43 UMTS Band II Back Side Middle (Distance 0mm Battery2)

Date: 2021/12/26

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

Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.38, 8.38, 8.38); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 3.59 W/kg

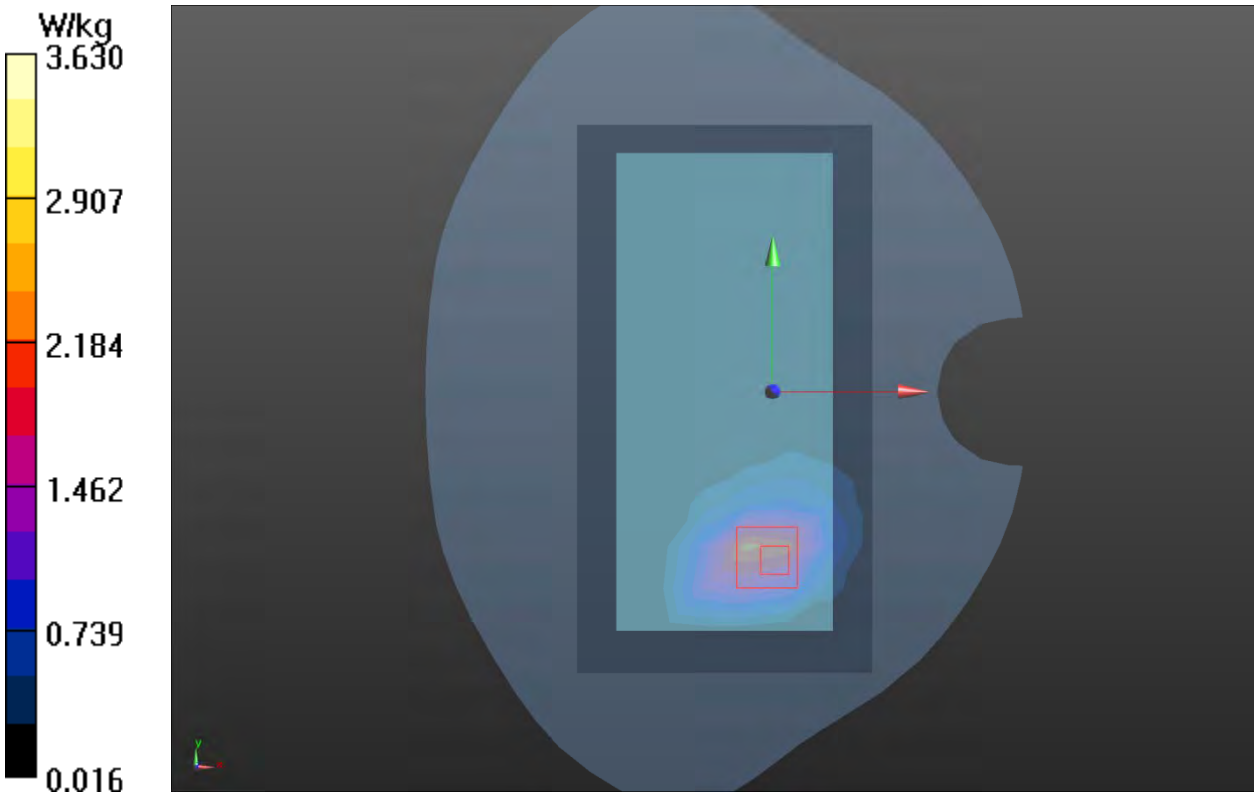
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.756 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 7.50 W/kg

SAR(1 g) = 3.58 W/kg; SAR(10 g) = 1.52 W/kg

Maximum value of SAR (measured) = 3.63 W/kg



Plot 44 UMTS Band IV Back Side Middle (Distance 0mm Battery2)

Date: 2021/12/22

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

Medium parameters used: f = 1732.6 MHz; σ = 1.312 S/m; ε_r = 39.365; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.76, 8.76, 8.76); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 4.22 W/kg

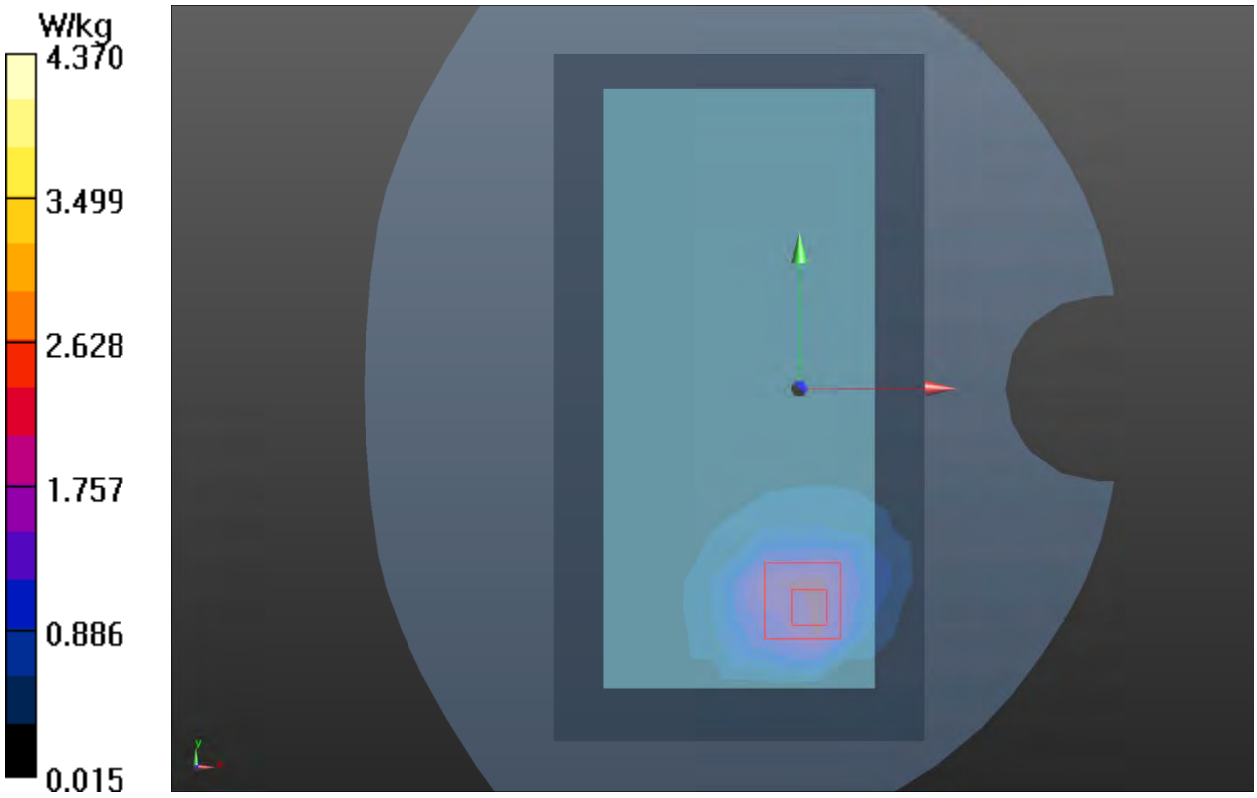
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.188 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 9.41 W/kg

SAR(1 g) =4.02 W/kg; SAR(10 g) = 1.73 W/kg

Maximum value of SAR (measured) = 4.37 W/kg



Plot 45 LTE Band 2 50%RB Back Side High (Distance 0mm Battery2)

Date: 2021/12/26

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

Medium parameters used: f = 1900 MHz; σ = 1.434 S/m; ε_r = 38.861; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.38, 8.38, 8.38); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

Back Side High/Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.95 W/kg

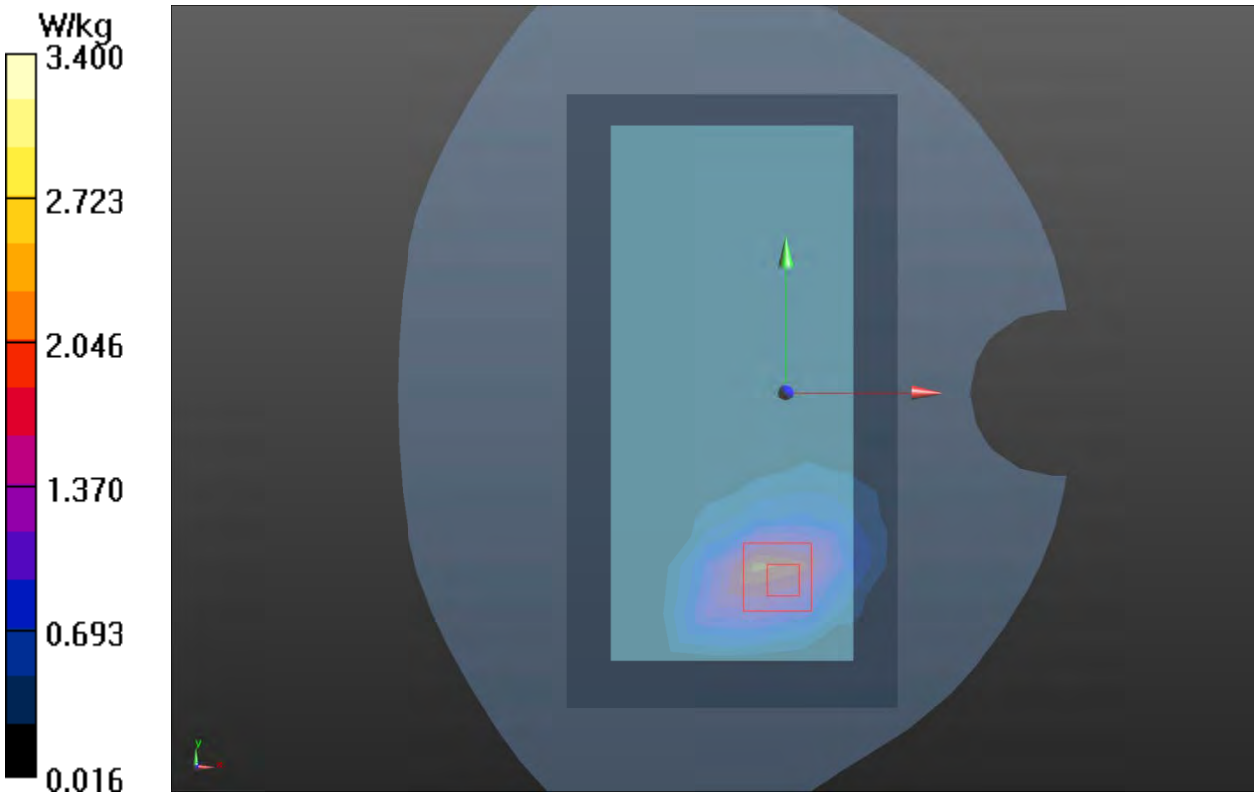
Back Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.350 V/m; Power Drift = 0.045 dB

Peak SAR (extrapolated) = 6.64 W/kg

SAR(1 g) = 2.81 W/kg; SAR(10 g) = 1.24 W/kg

Maximum value of SAR (measured) = 3.40 W/kg



Plot 46 LTE Band 4 1RB Back Side Middle (Distance 0mm)

Date: 2021/12/23

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

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.313 S/m; ε_r = 39.384; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.76, 8.76, 8.76); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 4.34 W/kg

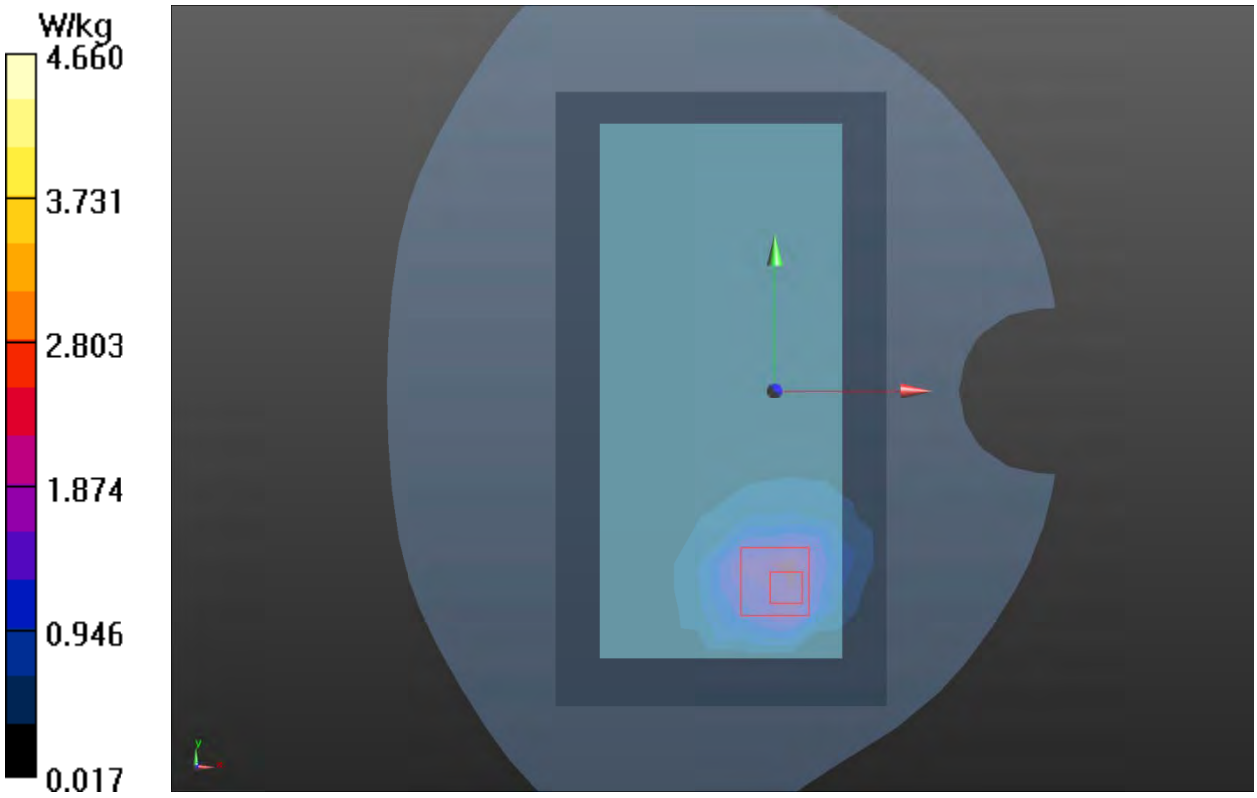
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.090 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 9.60 W/kg

SAR(1 g) = 3.83 W/kg; SAR(10 g) = 1.56 W/kg

Maximum value of SAR (measured) = 4.66 W/kg



Plot 47 LTE Band 7 1RB Back Side High (Distance 0mm Battery2)

Date: 2021/12/18

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

Medium parameters used: f = 2560 MHz; σ = 1.971 S/m; ε_r = 37.231; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 3.2 W/kg

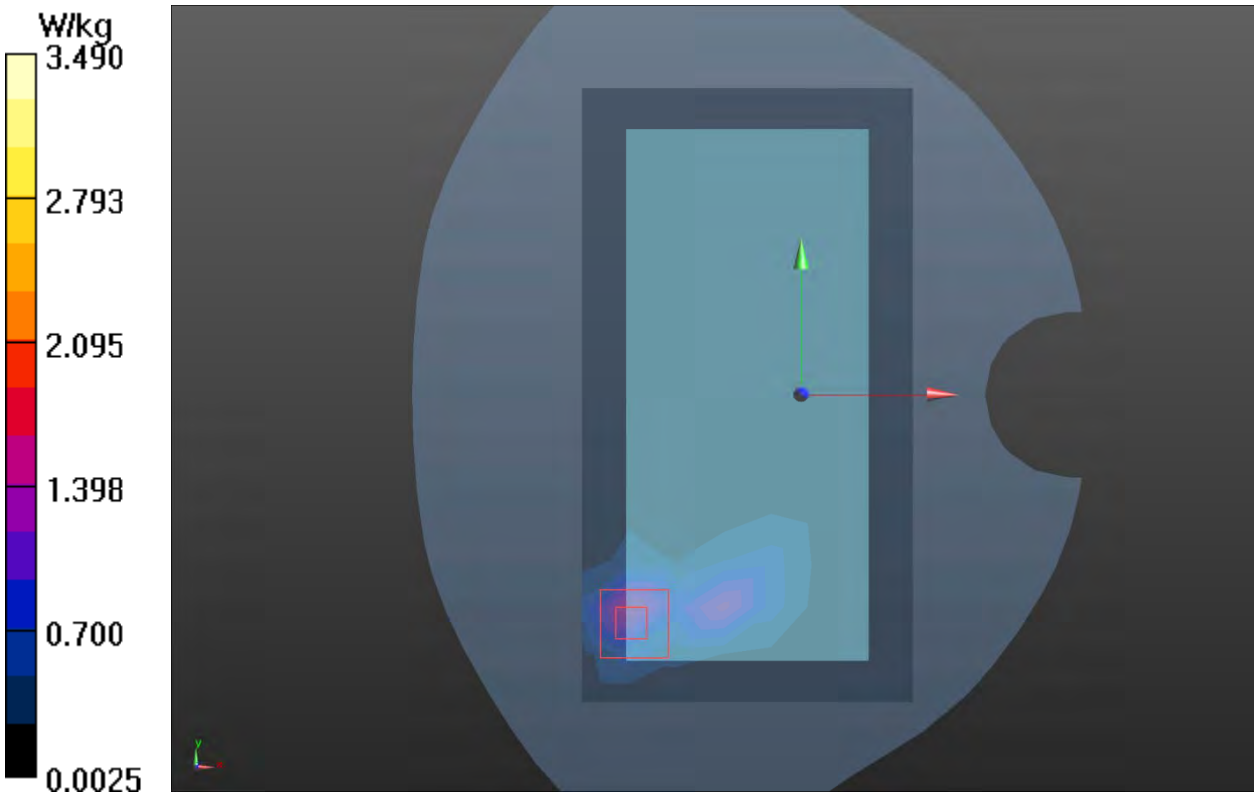
Back Side High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.457 V/m; Power Drift = 0.018 dB

Peak SAR (extrapolated) = 5.62 W/kg

SAR(1 g) = 3.15 W/kg; SAR(10 g) = 1.07 W/kg

Maximum value of SAR (measured) = 3.49 W/kg



Plot 48 802.11a U-NII-2C Back Side Low (Distance 0mm)

Date: 2021/12/20

Communication System: UID 0, 802.11a (0); Frequency: 5660 MHz;Duty Cycle: 1:1.03

Medium parameters used: f = 5660 MHz; σ = 5.32 S/m; ε_r = 35.834; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(5.00, 5.00, 5.00); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

Back Side Low/Area Scan (12x21x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 9.67 W/kg

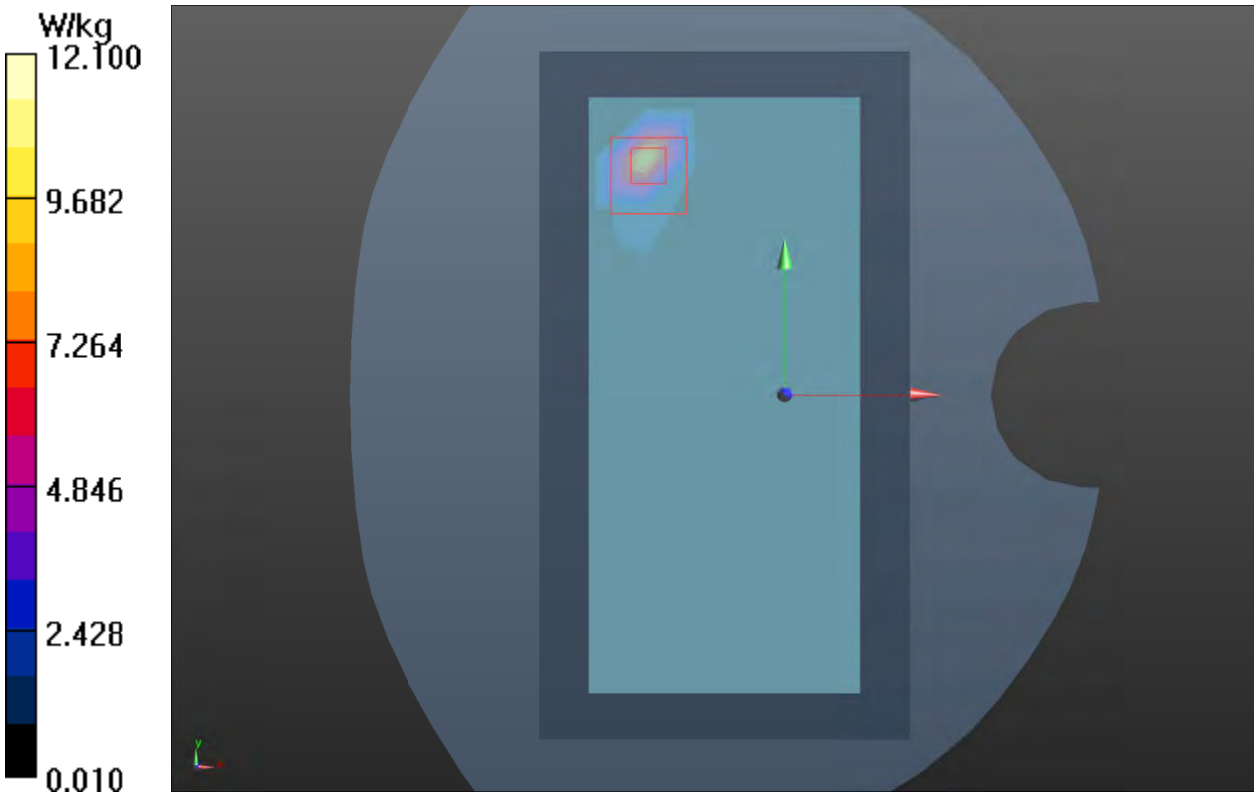
Back Side Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.970 V/m; Power Drift = 0.013 dB

Peak SAR (extrapolated) = 20.2 W/kg

SAR(1 g) = 5.26 W/kg; SAR(10 g) = 1.18 W/kg

Maximum value of SAR (measured) = 12.1 W/kg



Plot 49 GSM 1900 GPRS (4Txslots) Top Edge Middle (Distance 17mm)

Date: 2021/12/25

Communication System: UID 0, GPRS 4TX (0); Frequency: 1880 MHz;Duty Cycle: 1:2.07

Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.38, 8.38, 8.38); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

Top Edge Middle/Area Scan (4x10x1): Measurement grid: dx=15mm, dy=15mm

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

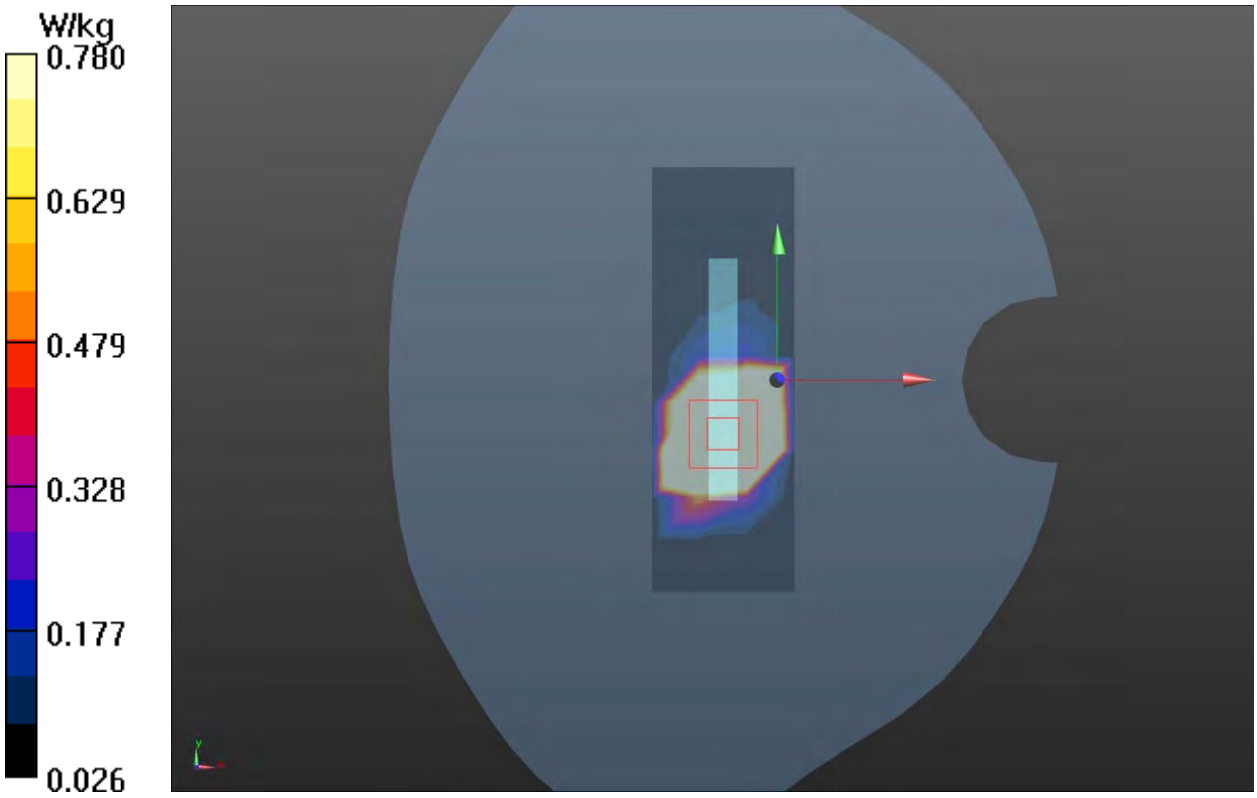
Top Edge Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 42.40 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 1.2 W/kg

SAR(1 g) = 0.301 W/kg; SAR(10 g) = 0.164 W/kg

Maximum value of SAR (measured) = 0.780 W/kg



Plot 50 UMTS Band II Front Side Middle (Distance 10mm)

Date: 2021/12/25

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

Medium parameters used: f = 1880 MHz; σ = 1.42 S/m; ε_r = 38.948; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.38, 8.38, 8.38); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 0.536 W/kg

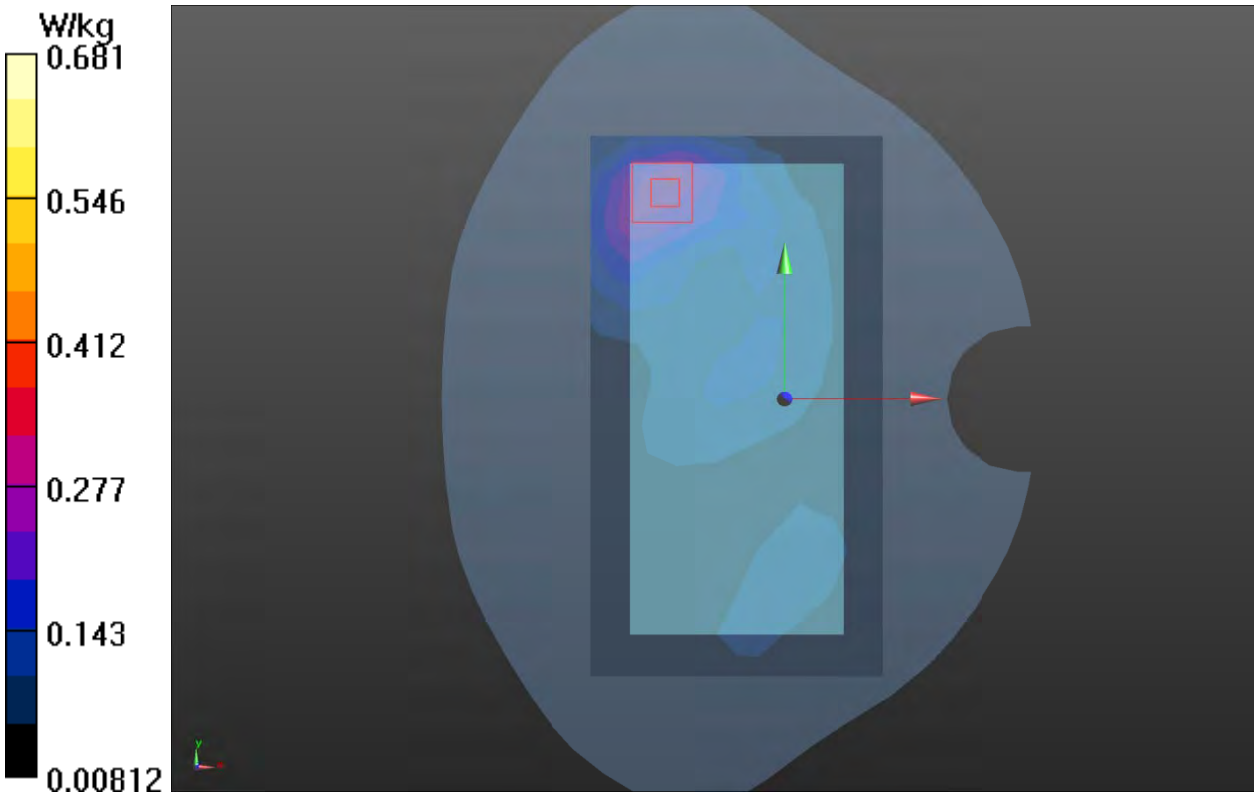
Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.988 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 0.790 W/kg

SAR(1 g) = 0.517 W/kg; SAR(10 g) = 0.249 W/kg

Maximum value of SAR (measured) = 0.681 W/kg



Plot 51 UMTS Band IV Front Side Middle (Distance 10mm)

Date: 2021/12/22

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

Medium parameters used: f = 1732.6 MHz; σ = 1.312 S/m; ε_r = 39.365; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.76, 8.76, 8.76); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 1.00 W/kg

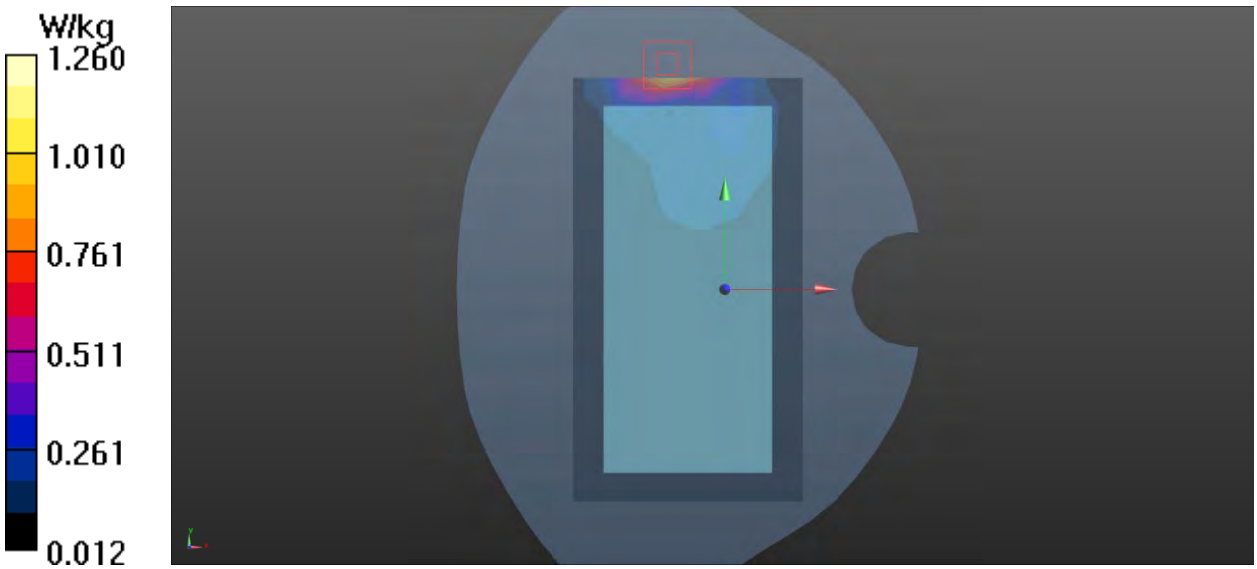
Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.590 V/m; Power Drift = 0.110 dB

Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 0.866 W/kg; SAR(10 g) = 0.445 W/kg

Maximum value of SAR (measured) = 1.26 W/kg



Plot 52 UMTS Band V Front Side Middle (Distance 10mm)

Date: 2021/12/13

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

Medium parameters used: f = 836.6 MHz; σ = 0.953 S/m; ε_r = 39.762; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(10.15, 10.15, 10.15); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 0.284 W/kg

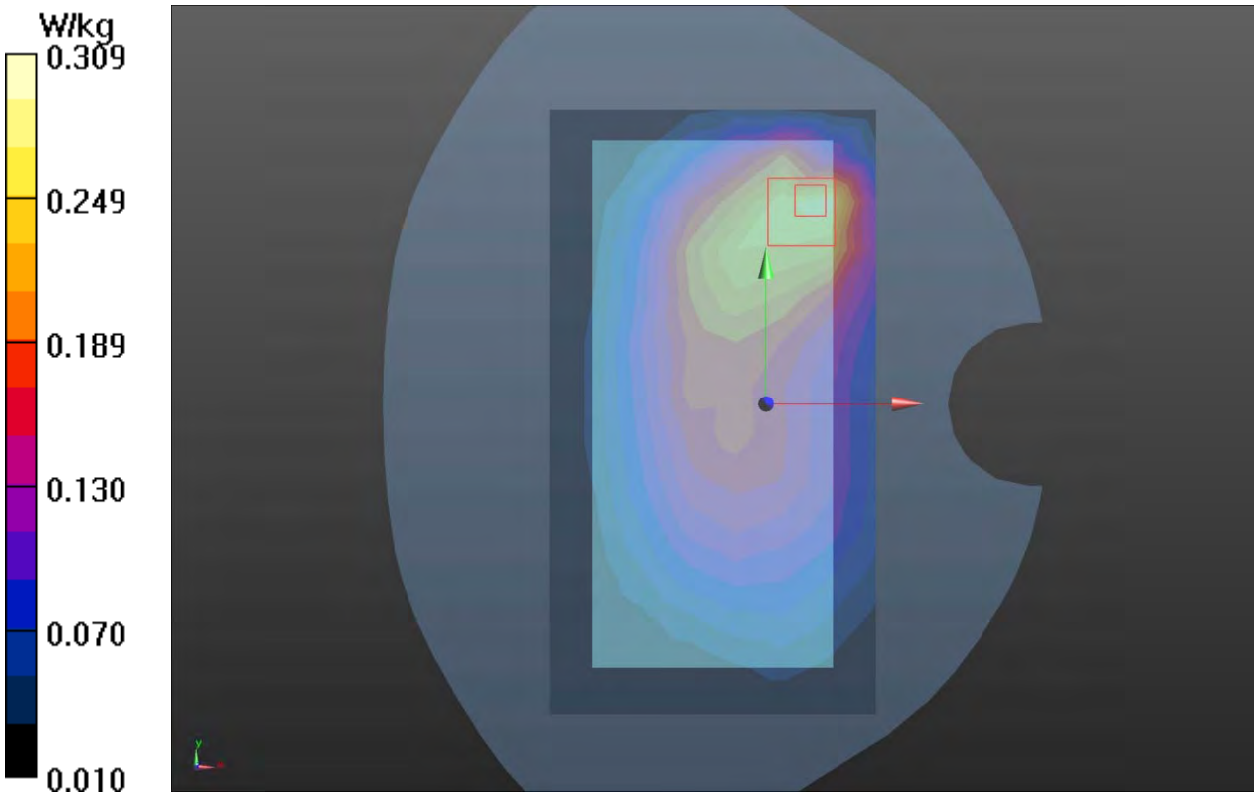
Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.40 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 0.519 W/kg

SAR(1 g) = 0.191 W/kg; SAR(10 g) = 0.121 W/kg

Maximum value of SAR (measured) = 0.309 W/kg



Plot 53 LTE Band 2 1RB Top Edge Low (Distance 17mm)

Date: 2021/12/25

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

Medium parameters used: f = 1860 MHz; σ = 1.407 S/m; ε_r = 39.071; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.38, 8.38, 8.38); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

Top Edge Low/Area Scan (4x8x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.681 W/kg

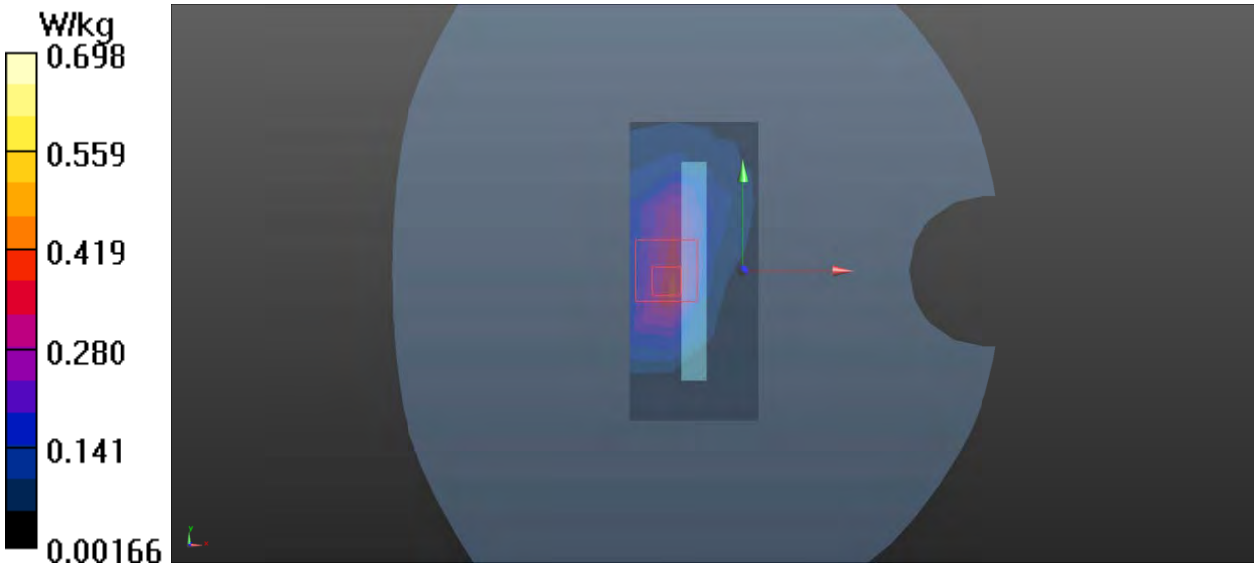
Top Edge Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.28 V/m; Power Drift = 0.025 dB

Peak SAR (extrapolated) = 1.528 W/kg

SAR(1 g) = 0.670 W/kg; SAR(10 g) = 0.363 W/kg

Maximum value of SAR (measured) = 0.698 W/kg



Plot 54 LTE Band 4 1RB Back Side Middle (Distance 17mm)

Date: 2021/12/23

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

Medium parameters used (interpolated): f = 1732.5 MHz; σ = 1.313 S/m; ε_r = 39.384; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(8.76, 8.76, 8.76); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 0.87 W/kg

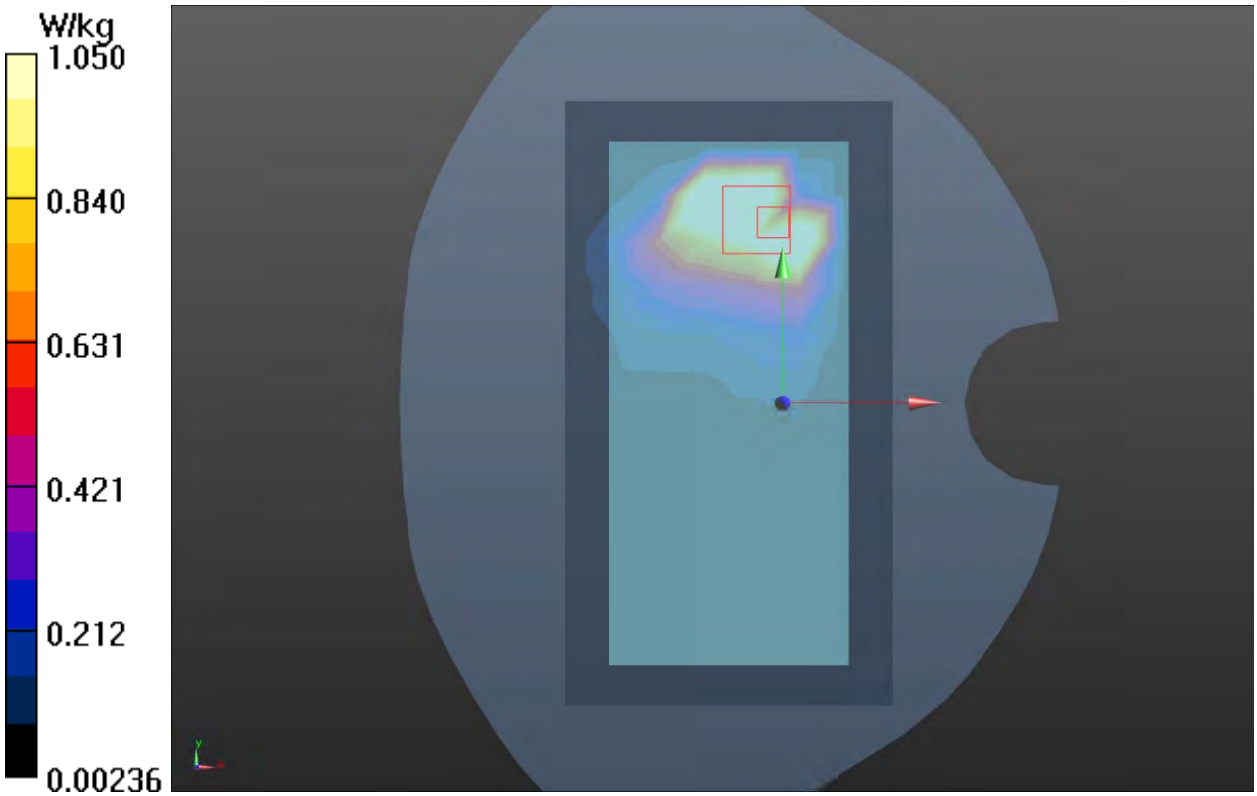
Back Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.757 V/m; Power Drift = -0.026 dB

Peak SAR (extrapolated) = 2.45 W/kg

SAR(1 g) = 0.639 W/kg; SAR(10 g) = 0.343 W/kg

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



Plot 55 LTE Band 5 1RB Front Side Middle (Distance 10mm)

Date: 2021/12/14

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

Medium parameters used: f = 836.5 MHz; σ = 0.958 S/m; ε_r = 39.728; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(10.15, 10.15, 10.15); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

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

Maximum value of SAR (measured) = 0.220 W/kg

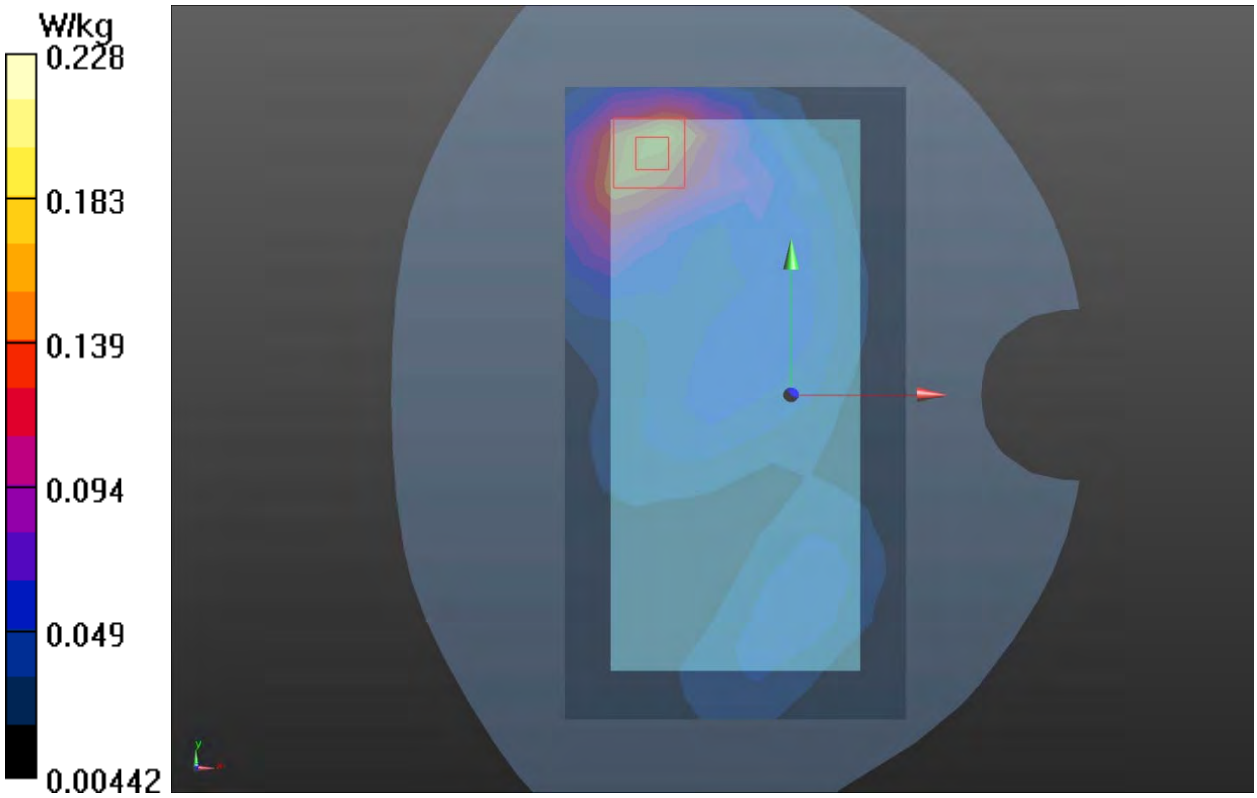
Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.096 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 0.323 W/kg

SAR(1 g) = 0.219 W/kg; SAR(10 g) = 0.140 W/kg

Maximum value of SAR (measured) = 0.228 W/kg



Plot 56 LTE Band 7 1RB Front Side Middle (Distance 10mm)

Date: 2021/12/16

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

Medium parameters used: f = 2535 MHz; σ = 1.94 S/m; ε_r = 37.31; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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) = 0.752 W/kg

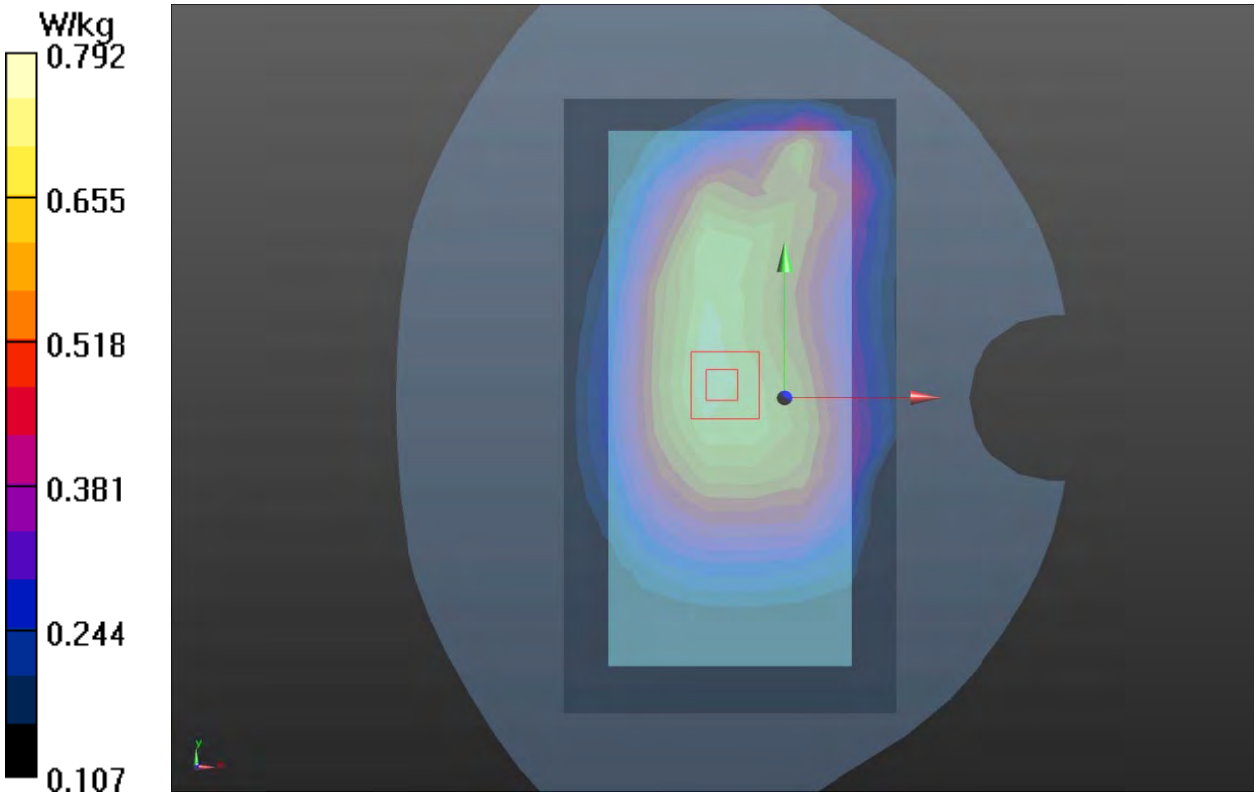
Front Side Middle/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 0 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.01 W/kg

SAR(1 g) = 0.434 W/kg; SAR(10 g) = 0.225 W/kg

Maximum value of SAR (measured) = 0.792 W/kg



Plot 57 LTE Band 38 1RB Top Edge Low (Distance 17mm)

Date: 2021/12/16

Communication System: UID 0, LTE (0); Frequency: 2580 MHz;Duty Cycle: 1:1.58

Medium parameters used: f = 2580 MHz; σ = 1.995 S/m; ε_r = 37.164; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

Top Edge Low/Area Scan (5x13x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 1.73 W/kg

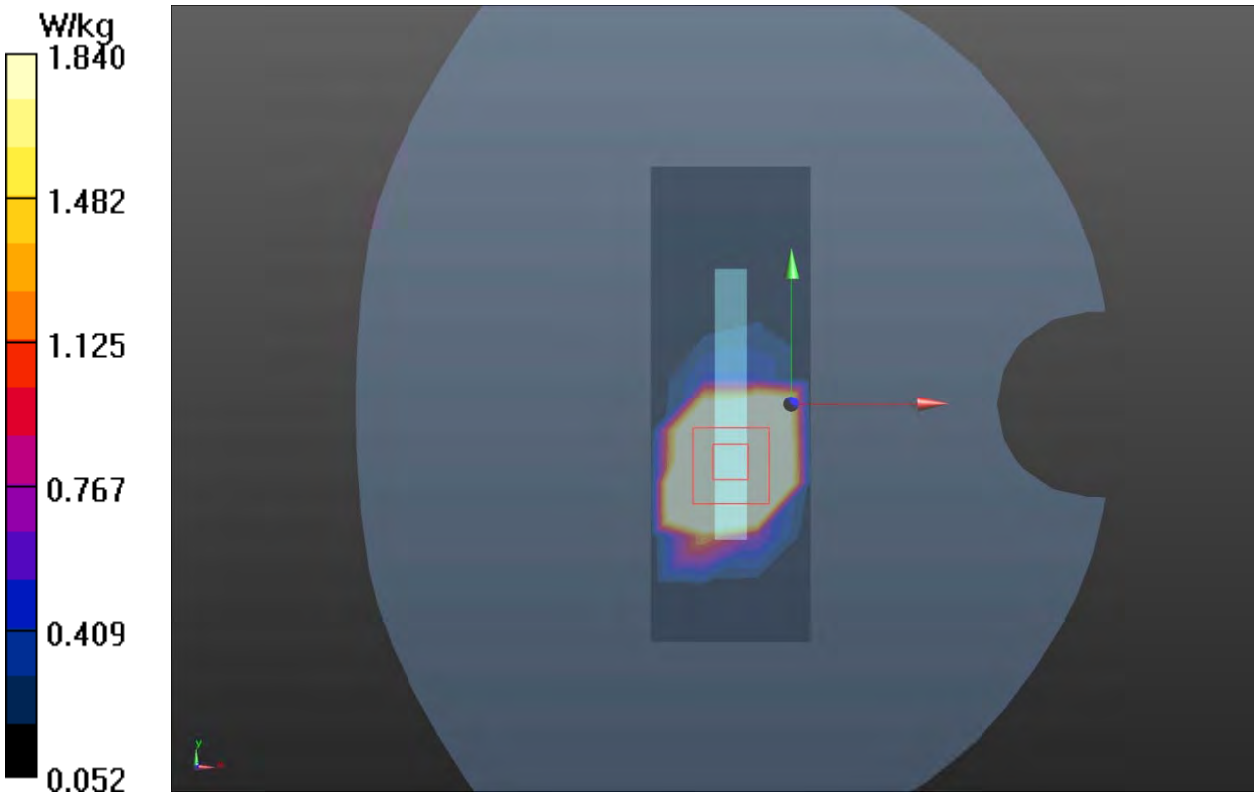
Top Edge Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 49.51 V/m; Power Drift = 0.1 dB

Peak SAR (extrapolated) = 2.4 W/kg

SAR(1 g) = 0.345 W/kg; SAR(10 g) = 0.178 W/kg

Maximum value of SAR (measured) = 1.84 W/kg



Plot 58 LTE Band 41 1RB Top Edge Low (Distance 17mm)

Date: 2021/12/16

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

Medium parameters used: f = 2545 MHz; σ = 1.952 S/m; ε_r = 37.279; ρ = 1000 kg/m^3

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: Flat Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: EX3DV4 - SN7628; ConvF(7.71, 7.71, 7.71); Calibrated: 2021/2/16

Electronics: DAE4 SN1648; Calibrated: 2021/5/17

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

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

Top Edge Low/Area Scan (8x13x1): Measurement grid: dx=12mm, dy=12mm

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

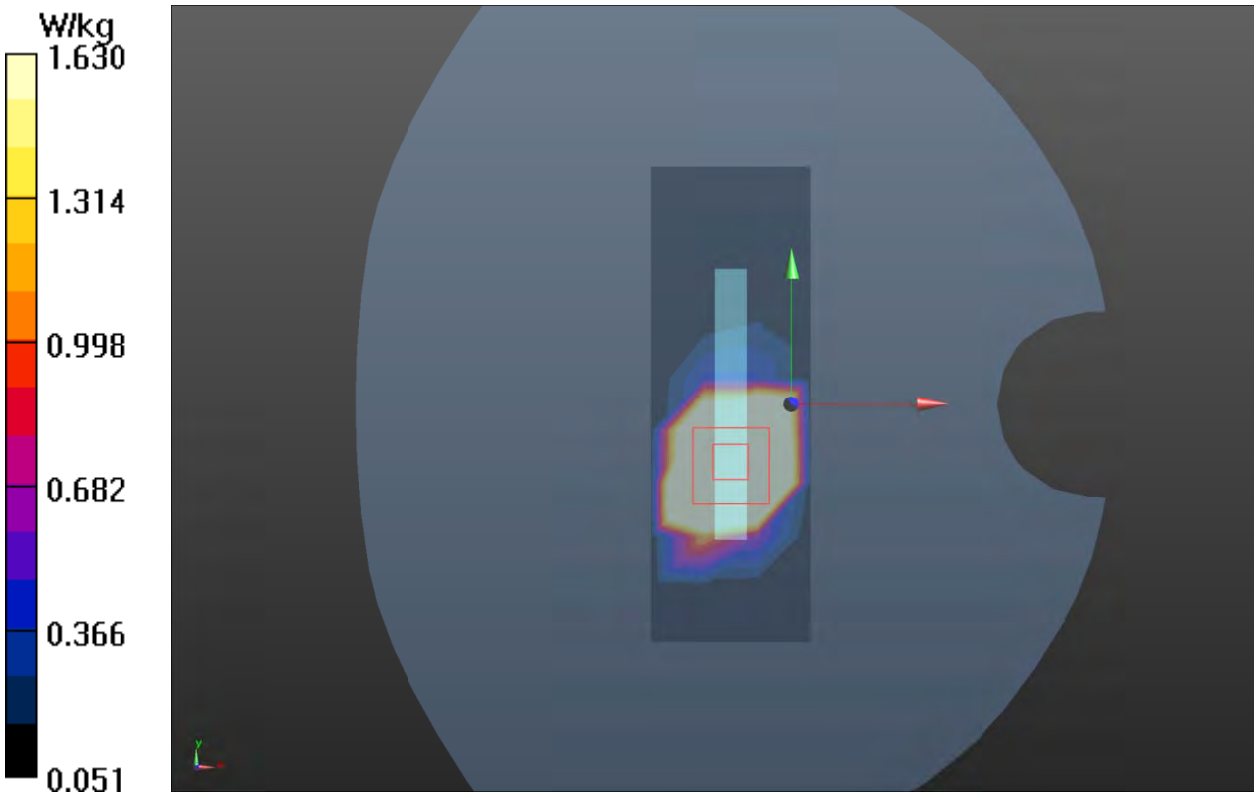
Top Edge Low/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 49.53 V/m; Power Drift = 0 dB

Peak SAR (extrapolated) = 2.9 W/kg

SAR(1 g) = 0.274 W/kg; SAR(10 g) = 0.14 W/kg

Maximum value of SAR (measured) = 1.63 W/kg



ANNEX D: Probe Calibration Certificate

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

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

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

Accreditation No.: SCS 0108

Client Auden

Certificate No: EX3-7628_Feb21

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:7628
Calibration procedure(s)	QA CAL-01.v9, QA CAL-14.v6, QA CAL-23.v5, QA CAL-25.v7 Calibration procedure for dosimetric E-field probes
Calibration date:	February 16, 2021

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	01-Apr-20 (No. 217-03100/03101)	Apr-21
Power sensor NRP-Z91	SN: 103244	01-Apr-20 (No. 217-03100)	Apr-21
Power sensor NRP-Z91	SN: 103245	01-Apr-20 (No. 217-03101)	Apr-21
Reference 20 dB Attenuator	SN: CC2552 (20x)	31-Mar-20 (No. 217-03106)	Apr-21
DAE4	SN: 660	23-Dec-20 (No. DAE4-660_Dec20)	Dec-21
Reference Probe ES3DV2	SN: 3013	30-Dec-20 (No. ES3-3013_Dec20)	Dec-21
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-20)	In house check: Jun-22
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-20)	In house check: Oct-21

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: February 16, 2021

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

Certificate No: EX3-7628_Feb21 Page 1 of 23

Calibration Laboratory of
Schmid & Partner
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Accredited by the Swiss Accreditation Service (SAS) Accreditation No.: **SCS 0108**
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Glossary:

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

Calibration is Performed According to the Following Standards:

a) 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
b) 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
c) 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
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

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

EX3DV4 – SN:7628 February 16, 2021

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7628

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	0.61	0.56	0.61	± 10.1 %
DCP (mV)[B]	109.2	108.2	109.0	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Max dev.	Max Unc[E] (k=2)
0	CW	X	0.00	0.00	1.00	0.00	149.4	± 2.7 %	± 4.7 %
		Y	0.00	0.00	1.00		155.2		
		Z	0.00	0.00	1.00		166.3		
10352-AAA	Pulse Waveform (200Hz, 10%)	X	1.78	61.75	7.06	10.00	60.0	± 2.9 %	± 9.6 %
		Y	1.55	60.76	6.50		60.0		
		Z	1.58	60.81	6.57		60.0		
10353-AAA	Pulse Waveform (200Hz, 20%)	X	0.85	60.00	5.15	6.99	80.0	± 2.3 %	± 9.6 %
		Y	0.85	60.00	5.03		80.0		
		Z	0.79	60.00	4.98		80.0		
10354-AAA	Pulse Waveform (200Hz, 40%)	X	0.44	60.00	4.18	3.98	95.0	± 2.5 %	± 9.6 %
		Y	8.00	70.00	7.00		95.0		
		Z	0.10	132.92	0.43		95.0		
10355-AAA	Pulse Waveform (200Hz, 60%)	X	0.26	60.00	3.63	2.22	120.0	± 1.6 %	± 9.6 %
		Y	10.15	157.55	9.99		120.0		
		Z	7.49	159.80	25.97		120.0		
10387-AAA	QPSK Waveform, 1 MHz	X	0.71	69.02	16.11	1.00	150.0	± 3.3 %	± 9.6 %
		Y	0.53	63.89	12.42		150.0		
		Z	0.53	63.57	12.67		150.0		
10388-AAA	QPSK Waveform, 10 MHz	X	1.60	69.56	15.90	0.00	150.0	± 1.1 %	± 9.6 %
		Y	1.33	66.14	13.93		150.0		
		Z	1.33	66.05	14.03		150.0		
10396-AAA	64-QAM Waveform, 100 kHz	X	1.78	65.59	16.29	3.01	150.0	± 1.0 %	± 9.6 %
		Y	1.71	64.82	15.85		150.0		
		Z	1.57	63.48	15.49		150.0		
10399-AAA	64-QAM Waveform, 40 MHz	X	2.93	67.49	15.80	0.00	150.0	± 1.4 %	± 9.6 %
		Y	2.81	66.48	15.12		150.0		
		Z	2.80	66.27	15.10		150.0		
10414-AAA	WLAN CCDF, 64-QAM, 40MHz	X	3.83	66.82	15.68	0.00	150.0	± 2.5 %	± 9.6 %
		Y	3.77	66.09	15.24		150.0		
		Z	3.92	66.64	15.56		150.0		

Note: For details on UID parameters see Appendix

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

[A] The uncertainties of Norm X,Y,Z do not affect the E^2-field uncertainty inside TSL (see Pages 5 and 6).
[B] 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.

EX3DV4– SN:7628 February 16, 2021

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7628

Sensor Model Parameters

	C1 fF	C2 fF	α V^{-1}	T1 $ms.V^{-2}$	T2 $ms.V^{-1}$	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
X	8.5	59.16	31.40	4.05	0.00	4.90	0.60	0.00	1.00
Y	9.3	65.93	32.35	4.45	0.00	4.92	0.54	0.00	1.00
Z	9.2	65.89	32.86	1.60	0.00	4.90	0.18	0.00	1.00

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	-144.2
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

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

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